
ADVANTEST®

ADVANTEST CORPORATION

T6577/T6567
VLSI Test System
Tester Section
Maintenance Manual

MANUAL NUMBER 8700354-07

Applicable Systems

T6577
T6567

NOTE: Prior to performing any maintenance tasks described in this manual, thoroughly read the information related to the safety of the system provided in the “IC Test System Safe Handling Guide”.

Preface

Fluorinert™ is a registered trademark of 3M.

FC-3283 is one of 3M Fluorinert™ model names.

For details on signal names and signal allocations on the performance board, refer to “VLSI TEST SYSTEM PERFORMANCE BOARD ASSEMBLY PROCEDURE” for each HI-FIX.

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1. Overview

Please read the "IC TEST SYSTEM SAFE HANDLING GUIDE" before reading this manual.

1.1 General Precautions

1.1.1 Environmental Conditions

- (1) Use your test system within the scope of environmental conditions that are specified in the "T6577/T6567 VLSI Test System Product Description (8700363)." Note that using the test system in areas with temperatures exceeding the recommended range can shorten the operating life of the system.
- (2) If the ambient humidity exceeds the operating humidity range when the system is idle, wait until the humidity falls within the operating range before turning on the power. When installing an air conditioning system, make sure it has a humidifier.
- (3) Since the magnetic disk drive is susceptible to vibration, be careful not to apply vibration to it, even when it is not operating. If the magnetic disk drive needs to be moved and exposure to vibration is unavoidable, please contact Advantest.
- (4) The test system generates a large amount of heat and as a result uses a fan cooling system to prevent overheating. Dust and dirt may collect in the test system over time, causing the degrading the effectiveness of the cooling system, and this may eventually shorten the equipment life. To help prevent this, keep the room where the test system is installed as clean as possible, and prohibit smoking.

1.1 General Precautions

1.1.2 Handling Precautions

- (1) When using the test system software, follow instructions in the "Viewpoint System Startup Guide (8335054)."
- (2) To change the TC host name, refer to the "Viewpoint System Startup Guide (8335054)." Also, if the test system has a HRS, change its settings referring to the "HRS Software User's Manual (8269048)."
- (3) When not using the magnetic tape drive or line printer, turn off the power to these pieces of equipment. Remove the tape from the drive and keep it in a safe place.
- (4) When using the test system, always make sure its doors, panels, and station covers are attached properly.
- (5) The performance board has device power supply outputs and driver outputs terminals. Do not short these together or to the ground unless absolutely necessary. Do not use external power supplies for the performance board. The performance board contains utility power supplies VCC, VEE, +15 V, and -15 V. If additional power supplies are required, use a DC-DC converter with VCC or VEE, etc. Furthermore, RLVCC is provided for relays control.
- (6) Minimize the number of times the test system is turned on and off.
- (7) Make sure the fans are stopped before you insert or remove a connector or board to and from the test system.
- (8) If you are going to move the test system, always contact ADVANTEST beforehand.
- (9) For details on the HSCLK option, refer to "VLSI TEST SYSTEM High speed clock option REFERENCE MANUAL (8700067)."
- (10) Lithium batteries are used in the TC7. When disposing of the test system, follow the industrial waste disposal laws and regulations in your company.



WARNING



When working with more than two person, make sure safety of others.

1.1.3 Test Precautions

- (1) Most devices, not only MOS but bipolar devices as well, may be damaged by static induction during handling. When handling devices, always be sure to wear the included grounding wristband.
- (2) When using an oscilloscope or similar unit to observe the input/output waveforms of a device during testing, connect the ground terminal to the tester's ground before connecting the probe. Detach ground connections after you have finished disconnecting the probe and all other units.
- (3) After starting the tester, wait for at least 30 minutes before using the system.

1.1.4 Board Replacement Precautions

- (1) Before inserting or removing a board, always make sure the power supply to the test system is turned off. Insert or remove the board gently and never place a charged material on the board.
- (2) The boards used in the test system are interchangeable and can easily be replaced as long as they have been manufactured to the same standard. When replacing boards, execute the initialize/calibration sequence to update the system board information files. (Refer to Section 2.4, "System Maintenance," and Section 5.7, "Precautions to Be Taken when Carrying Boards.")

1.1.5 Precautions for Abnormal Test System Shut Down

If the power supply is shut down by external factors (e.g., lightning), the files may be damaged. When the system is restarted, the command fsck (file system check) automatically repairs as much damage as possible. However, if the system is severely damaged, you will be asked by fsck for instructions. For details, refer to the explanation for fsck in the "Command Reference Manual" from Sun Microsystems, Inc.

1.1.6 Initial Settings of DMM (R6581T)

- (1) Setting GPIB addresses

Press the [MENU] key.

Choose GPIB using the  and  keys, then press the [ENTER] key.

Choose ADDRESS using the  and  keys, then press the [ENTER] key.

Set ADDRESS to 24 using the  and  keys, then press the [ENTER] key.

Choose LANGUAGE using the  and  keys, then press the [ENTER] key.

Choose ADVANTEST using the  and  keys, then press the [ENTER] key.

Press the [HOME] key.

2. System Operation

2.1 Operation on Performance Board (PB) Switch Panel

- (1) Locking/unlocking the performance board (See Figure 2-1.)

During manual testing, use the switches at the front of the test head. The switches located here are MB LOCK and MB FREE, the appropriate light turns on depending on whether the performance board is locked or free.

- (2) The utility power supply (See Figure 2-1.)

During manual testing, use the UTILITY PS switch located at the front of the test head. This switch allows you to turn the utility power supplies fed to the performance board (± 15 V, VCC, VEE, RLVCC) on or off. However, this switch can only be used if the performance board is locked.

The UTILITY PS switch automatically goes on when the performance board is locked and goes off when the performance board is unlocked.

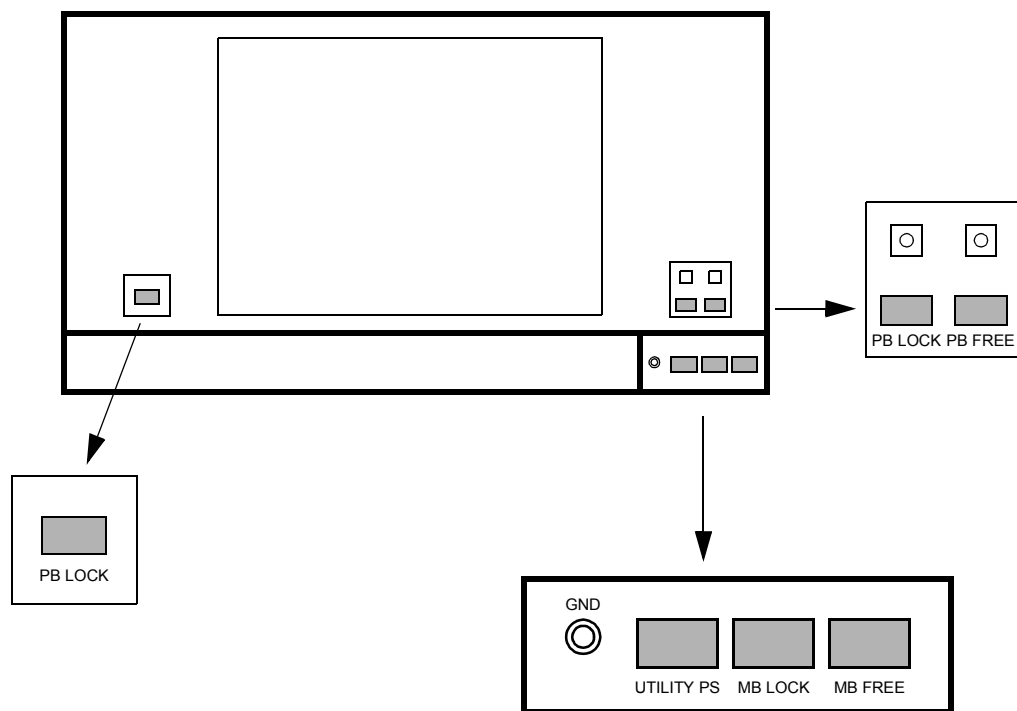


Figure 2-1 Performance Board Switch Panel

2.2 Starting the Test System (Normal Mode)

2.2 Starting the Test System (Normal Mode)

All test system startup operations are managed by the system monitor. Sensors and power supply faults are checked by the system monitor and monitor interface. If no faults are found, the test system starts up normally. If a fault is found when starting the system, the power supply goes off automatically.

System monitor documentation rules

- mark: Denotes information that needs to be verified.
- △ mark: Denotes the method of operation.
- ▲ mark: Denotes possible work around or solution.
- LED: Denotes the STATUS message display by LED on the AC CONT panel unless otherwise noted.
- Monitor I/F: Denotes the monitor interface unless otherwise noted.
- 0xXX: Denotes hexadecimal representation of numbers.

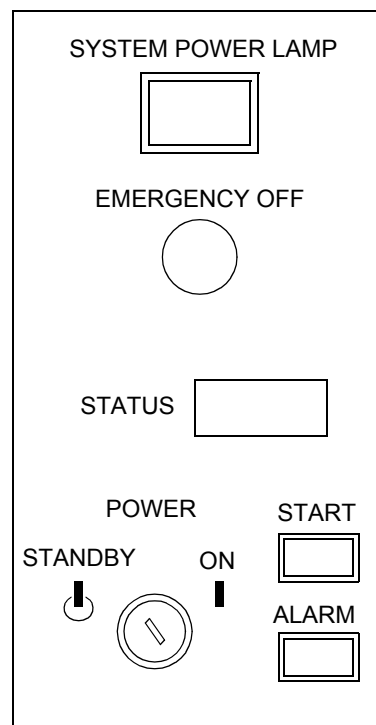


Figure 2-2 AC CONT Panel

(1) Power On Procedure

- ☐ Check 1: Make sure that the EMERGENCY OFF (EMO) switch has been reset.
- ☐ Check 2: Make sure that the key switch on the AC CONT panel is in the off position.
- △ Operation 1: Hold down the START switch on the AC CONT panel while you perform check 4.
- ☐ Check 4: Make sure that the LED and ALARM lamps on the AC CONT panel are lit.
- ☐ Check 5: Make sure the LED lamp reads 0x100. (If a fault caused the power to turn off, the error code for the cause is displayed after 0x100.)
- △ Operation 2: Turn the key switch on. The TC and MF are powered on in that order.
- ☐ Check 6: Make sure that the LED lamp on the AC CONT panel reads 0 x 108.

This completes the procedure for turning the power on.

- 0x000: Waiting status for the key switch to be turned on.
- 0x100: Waiting status for the key switch to be turned on.
- 0x101: The power supply to the TC is turned on.
- 0x102: When the ALARM lamp on the AC CONT panel is lit, only the TC is turned on, with the system waiting for a ready signal from the ENGINE. When the ALARM lamp on the AC CONT panel is off, both TC and MF are turned on, with the system waiting for a ready signal from ENGINE.
- 0x103: When the ALARM lamp on the AC CONT panel is lit, only the TC is turned on, with the system waiting for a ready signal from TC. (ready from the ENGINE passed the diagnosis.)
When the ALARM lamp on the AC CONT panel is off, both TC and MF are turned on, with the system waiting for a ready signal from TC. (ready from the ENGINE passed the diagnosis.)
- 0x104: When the ALARM lamp on the AC CONT panel is lit, only the TC is turned on, and a ready signal from both TC and the ENGINE both passed the diagnosis. When the ALARM lamp on the AC CONT panel is off, both TC and MF are turned on, and ready from TC and ready from the ENGINE both passed the diagnosis.
- 0x106: The AC CONT panel may be faulty.
- 0x107: Only the TC is turned on.
- 0x108: Both TC and MF are powered on.

2.2 Starting the Test System (Normal Mode)

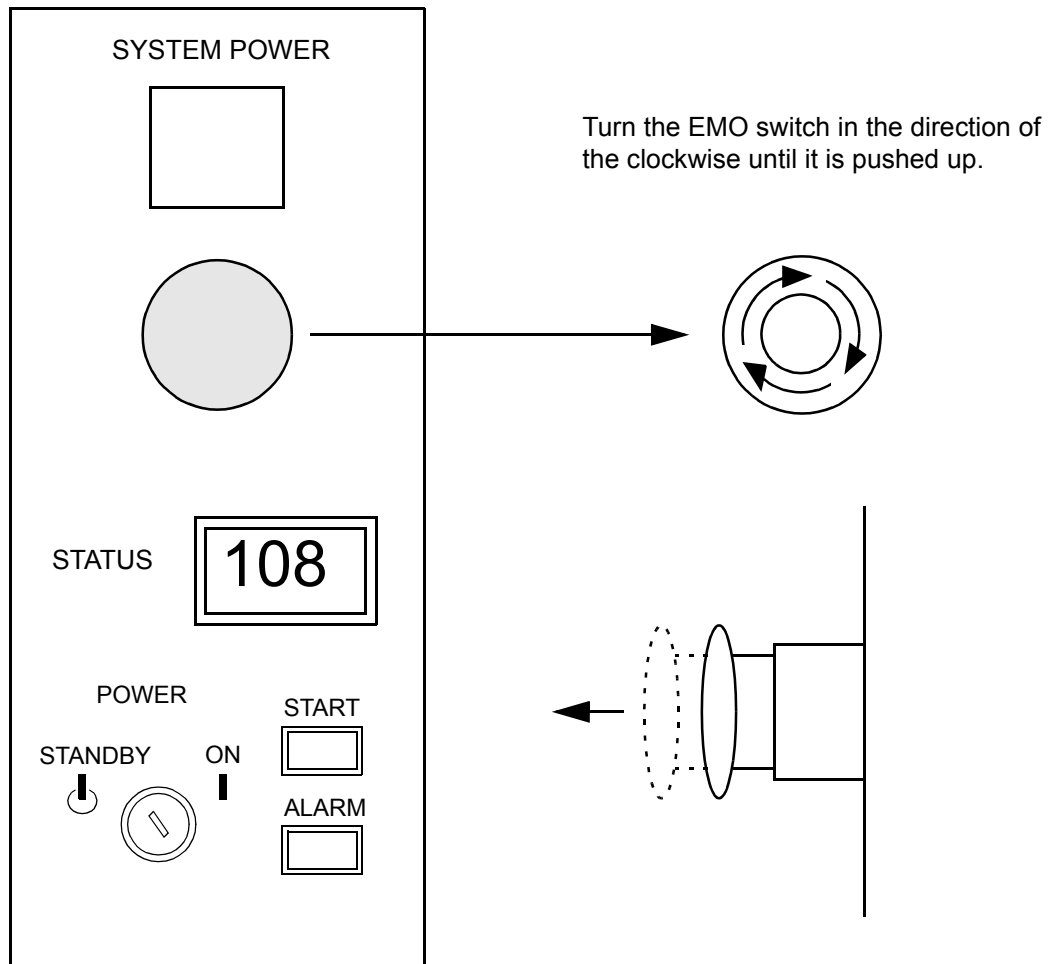
(2) Power Off Procedure

- △ Operation 1: Shut down the TC.
 - Check 1: Make sure that the shutdown operation is completed.
 - △ Operation 2: Turn the key switch off. The MF and TC are turned off in that order.
 - Check 2: Make sure that the STATUS display changes to 0x100 and that the fans stops (30 seconds later).
 - △ Operation 3: Press the EMO switch to turn the main power supply off.
- This completes the procedure for turning the power off.

CAUTION!

Do not turn on the key switch immediately after turning it off. Otherwise, the CPU unit power does not turn on, an error (code 704) occurs, and the system power may turn off.

2.3 Resetting the EMO Switch



2.4 System Maintenance

2.4 System Maintenance

To perform a system diagnosis, follow the procedure below.

1. Diagnosis (initialization)
2. Calibration

2.4.1 Diagnosis

Perform diagnosis as described below.

- (1) Periodic inspection

The test system should be checked periodically to make sure its performance has not degraded.

- (2) Board Replacement

Check the new board to see that it operates normally.

For details on how to perform this check, refer to each diagnose manual.

2.4.2 Initialization

In diagnose sessions, the initialization data required for tester operation is generated. You can perform an initialization only. Since this data is not retained after tester startup, always be sure to perform diagnosis, initialization, or initialization recovery. The initialization data is specific to each board, so there is no need to save it during periodic inspection.

For details on how to perform the above, refer to the "Initialization/calibration Operating Procedure (8350438)."

2.4.3 Calibration

Perform calibration as described below.

- (1) Long-term periodic inspection

To prevent the tester's performance degradation due to changes with the passage of time, perform calibration along with diagnosis. Be sure to save the calibration data during this calibration.

- (2) Calibration at board replacement

When PE1 to PE16, FP1 to FP16, the HIFIX, and the DUT IF board have been replaced, the tester needs to be calibrated.

For details on how to perform the above, refer to the "Initialization/calibration Operating Procedure (8350438)."

* HSCLK option

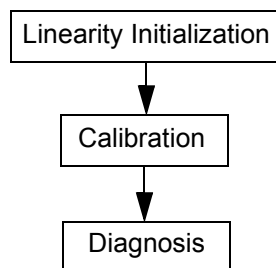
If the HSCLK_CONTACT board has been replaced, the HSCLK needs to be calibrated.

For details on the calibration method, refer to "High speed clock option TIMING CALIBRATION OPERATING PROCEDURE (8700070)".

2.5 Using the Tester after Installation, Inspection, and Board Replacements

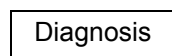
2.5.1 After Installation/System Calibrations

Follow the procedure shown below.



2.5.2 After Periodic Inspections

Execute the diagnostic program.



2.5 Using the Tester after Installation, Inspection, and Board Replacements

2.5.3 After Replacing Boards

Use appropriate procedure from (1) to (5), depending on the board type replaced.

- (1) When any board listed in Table 2-1 and/or any power supply are replaced, perform the following procedure.

Make sure to perform procedure (1) before performing one of (2) to (5).

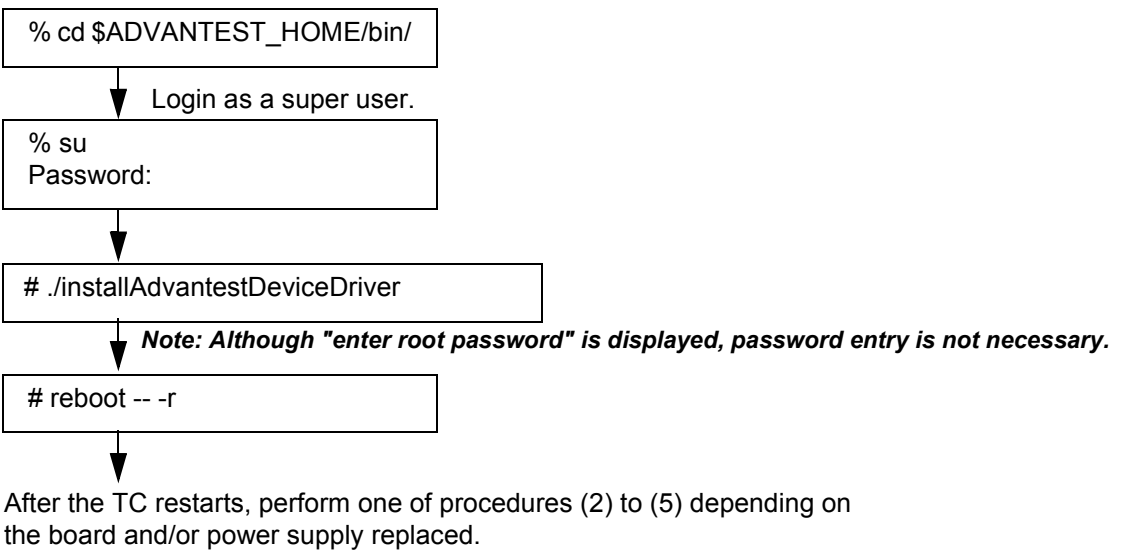


Table 2-1 Boards for the Procedure (1)

Unit Name	Slot No.	Board No.	Circuit Name
MIXEDU	3	BGR-027118	DCAP
MIXEDU	4	BPR-031755	PCIF
TH	22	BPS-031659	VREF/MTX
TH	23,25	BGS-030319X02	VAFGD1, VAFGD2
TH	24	BPS-033474	BBWGD OPTION
		BPS-033474X02	SG/JMM OPTION

2.5 Using the Tester after Installation, Inspection, and Board Replacements

- (2) When any board and/or power supply listed in Table 2-2 are replaced, perform the following procedure.

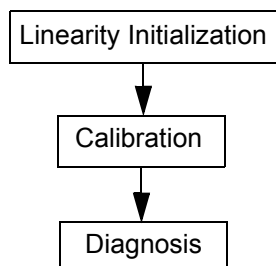
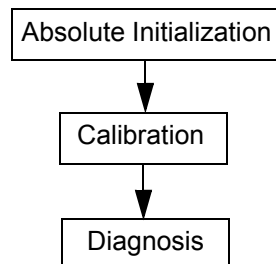


Table 2-2 Boards for the Procedure (2)

Unit Name	Slot No.	Board No.	Circuit Name
FTU1	1,3	WBS-A005000019X02	BPS1,BPS3
FTU1	2	WUN-5V2R5V3B5V	BPS2
FTU1	5	BGR-029484	EVENT
FTU1	6,7,8,9, 10,11,12,13	BPR-031605	FP1-8
FTU1	14	BIR-027910	SNC/TRIG
FTU2	11	WBS-A005000019X02	BPS1
FTU2	12	WUN-2R5V2B5V2R5V2B	BPS2
FTU2	2,3,4,5, 6,7,8,9	BPR-031605	FP9-16

2.5 Using the Tester after Installation, Inspection, and Board Replacements

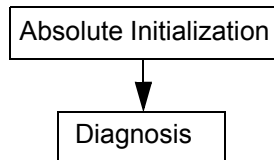
- (3) When any board and/or power supply listed in Table 2-3 are replaced, perform the following procedure.

**Table 2-3 Boards for the Procedure (3)**

Unit Name	Slot No.	Board No.	Circuit Name
THPSU	1,4	WUN-15V2B5V3V2B	BPS1,BPS4
THPSU	2,3,5	WUN-11V2B5V3B	BPS2,BPS3,BPS5
TH	1	BPS-031579	DUT IF
TH	5,6,7,8,9,10,11,12 14,15,16,17,18,19,20,21	BPS-031639	PE
TH	2	BPS-033250	DDR2 OPTION
TH	26	BPS-033250X02	DDR2 OPTION
MF PS	UPS301	DPS-004502	TH(slot23) -5 V
MF PS	UPS302	DPS-003502	TH(slot23) +5 V
MF PS	UPS303	DPS-002735	TH(slot23) -15 V
MF PS	UPS304	DPS-002735	TH(slot23) +15 V
MF PS	UPS305	DPS-005319	TH(slot24) +5 V
MF PS	UPS306	DPS-005319	TH(slot24) +5 V
MF PS	UPS307	DPS-005316	TH(slot24) -5 V
MF PS	UPS308	DPS-005316	TH(slot24) +5 V
MF PS	UPS309	DPS-004502	TH(slot25) -5 V
MF PS	UPS310	DPS-003502	TH(slot25) +5 V
MF PS	UPS311	DPS-002735	TH(slot25) -15 V
MF PS	UPS312	DPS-002735	TH(slot25) +15 V
HIFIX		H7-110011	1024_SQUARE
HIFIX		H7-110027	1024_SQUARE_AP
HIFIX		H7-110014	1024_ZIF
HIFIX		H7-110012	512_POGO
HIFIX		H7-110013	512_AV2
HIFIX		H7-110130	1024_SQUARE_HCDPS

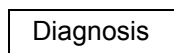
2.5 Using the Tester after Installation, Inspection, and Board Replacements

- (4) When any board and/or power supply listed in Table 2-4 are replaced, perform the following procedure.

**Table 2-4 Boards for the Procedure (4)**

Unit Name	Slot No.	Board No.	Circuit Name
DPU	11	BGR-026245	IFL
DPU	12,14	BGR-023712	UDC CONT
DPU	13,15	BGR-023713X02	UDC
TH	3	WUN-T6500IDDQX02	IDDQ
TH	23,25	BGS-030319X02	VAFGD1,VAFGD2
TH	24	BPS-033474	BBWGD OPTION
		BPS-033474X02	SG/JMM OPTION
MF PS	UPS101	WBL-PS15V50A	DPU +15 V
MF PS	UPS102	WBL-PS15V50A	DPU -15 V
MF PS	UPS117	WBL-PS65V65V	DPU +65 V/-65 V
MF PS	UPS118	WBL-PS5V5V	DPU +5 V/-5.2 V
MF PS	UPS223	DPS-001742	TH -8 V

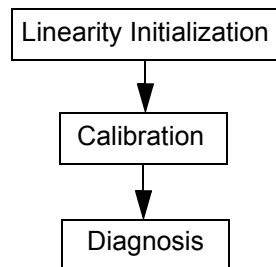
- (5) When any board and/or power supply not listed in Table 2-2, Table 2-3, and Table 2-4 are replaced, perform the following procedure.



2.5 Using the Tester after Installation, Inspection, and Board Replacements

2.5.4 After Board Installation or Removal

After a board has been installed or removed from the DPU, FTU1, FTU2, THPSU, MZXEDU, or TH unit, follow the procedure shown below.



Make sure that the above procedure has been performed. While any boards you have installed or removed may not affect system's measurement accuracy, they may still affect temperatures of other boards in the rack.

3. Maintenance Operation



CAUTION



The fault repairs described in this and following chapters can only be performed by those who have taken lectures in the ADVANTEST maintenance courses, and should not be attempted by anyone else.

When performing maintenance on the test system, put up a warning tag on the AC control panel indicating that the tester should not be operated to prevent the power from being inadvertently turned on.

Be sure to lock the breaker using a padlock.

The procedure for putting up a warning tag and locking out the system are detailed in paragraph (4) of Chapter 3, "BASIC PRECAUTIONS," in the "IC TEST SYSTEM SAFE HANDLING GUIDE."

Board replacement Precautions

Always turn the power supply off and make sure that the fan has stopped before attempting to replace boards (Before actually replacing the board, read Section 3.7, "When System Does Not Start Properly")

If the board has a cable attached at the top, detach the cable, remove the board from the tester and then insert the new board.

Before replacing the IO/IF, monitor interface, AC CONT IF, or TC unit, turn off the key switch, press the EMERGENCY OFF switch, and switch the AC CONT breaker to OFF to turn off the main power.

3.1 Hot Work

3.1 Hot Work

Hot work refers to performing system calibration or maintenance while the power to the test system is turned on. The following categories are used to describe the situation such work is performed under. Hot work classification is indicated in each maintenance or calibration procedure. For categories 3 to 5, there is a danger of receiving an electric shock during work, so please use caution under these circumstances.

- Type 1: No power is being applied to the unit at all.
- Type 2: Although the power to the unit is turned on, there is no possibility of touching current-conducting parts.
- Type 3: The power to the unit is on and there is a possibility of touching current-conducting parts. The voltage present at these locations is 30 rmsV, 42.2 peakV, 240 VA or less.
- Type 4: The power to the unit is on and there is a possibility of touching current-conducting parts. The voltage present at these locations is 30 rmsV, 42.2 peakV, 240 VA or more or RF energy exists.

3.2 Periodic Inspection Items

- (1) Periodic inspections are necessary to maintain the performance of the test system. Periodic inspection items are listed in Table 3-1.
- (2) In the test station, the following air source is required to remove or mount the performance board by using the air.

Air source: 0.49 MPa to 0.69 MPa Dry air

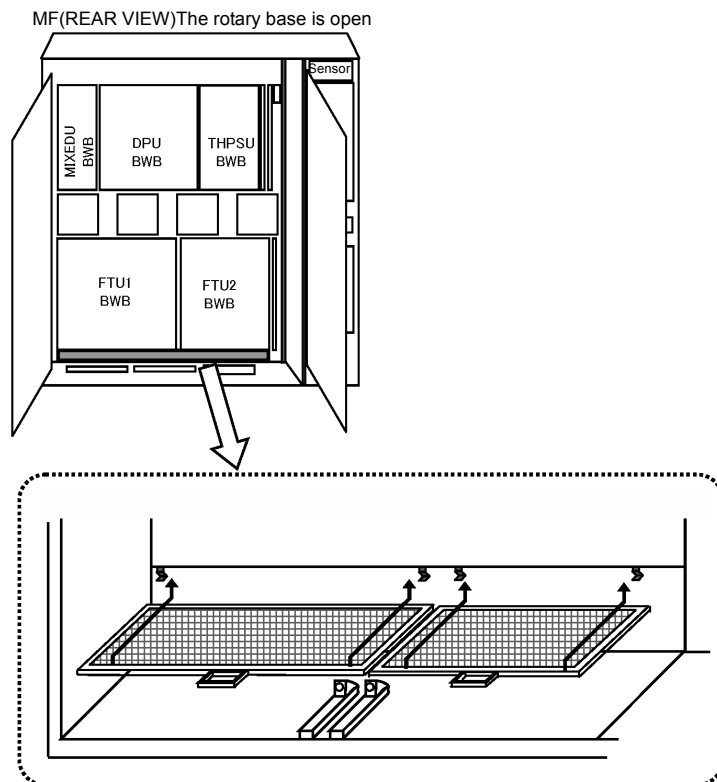
Air consumption: 5 NI/min to 10 NI/min

If the drain pipe is filled with the moisture and oil which were contained in the air, place a cloth around the drain outlet to prevent the moisture and oil from adhering to the electrical components (boards and cables) at the bottom of the test station, then drain the moisture and oil.

Table 3-1 Periodic Inspection Items

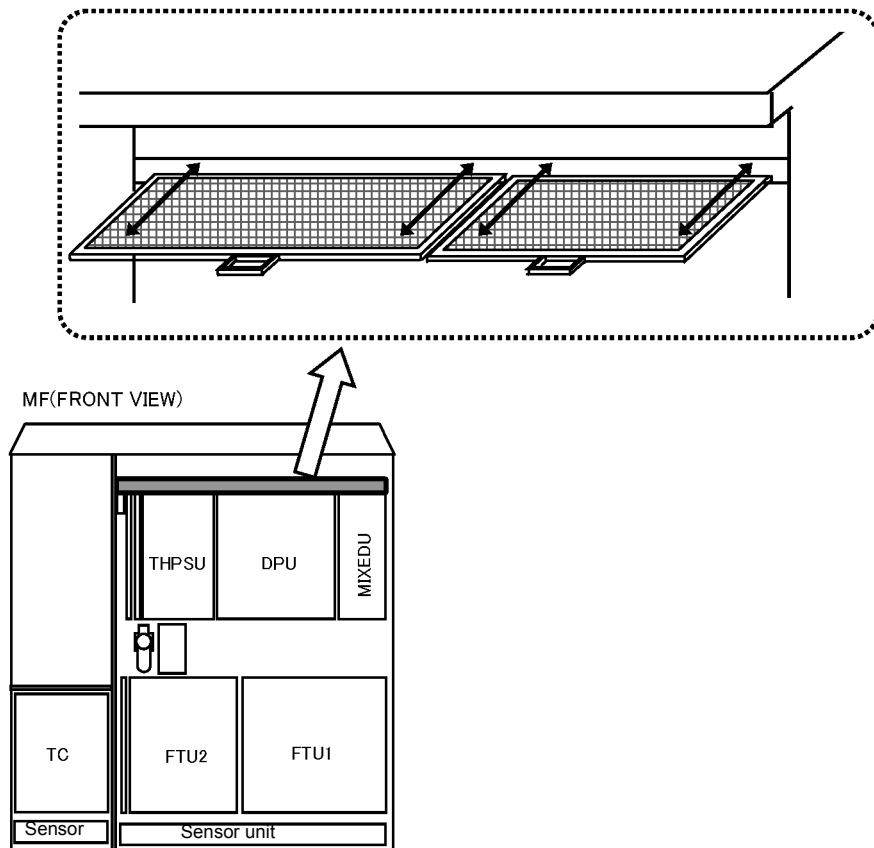
Weekly inspection	Check operation using the diagnostic program
Monthly inspection	Check the operation of the test system's internal cooling fan.
Semi-annual inspection	- Clean the air filter mounted in the main frame. - Clean the test head air filter

① MF board unit air filter (For UP FLOW)

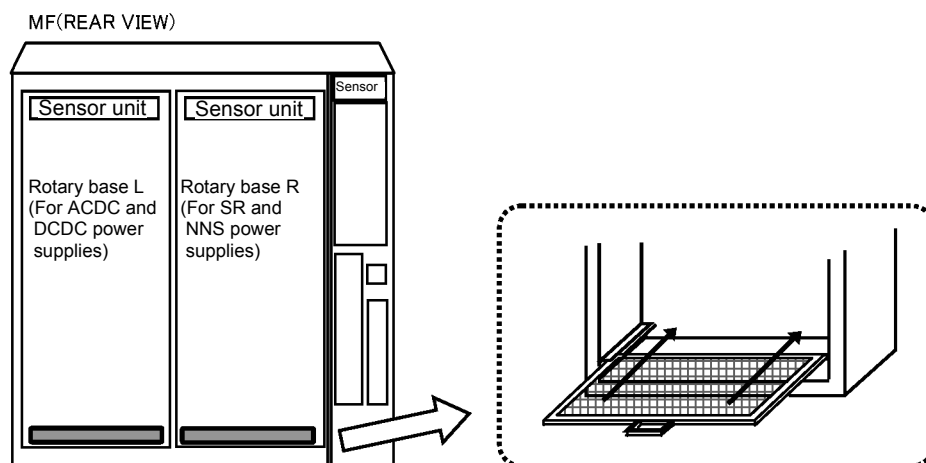


3.2 Periodic Inspection Items

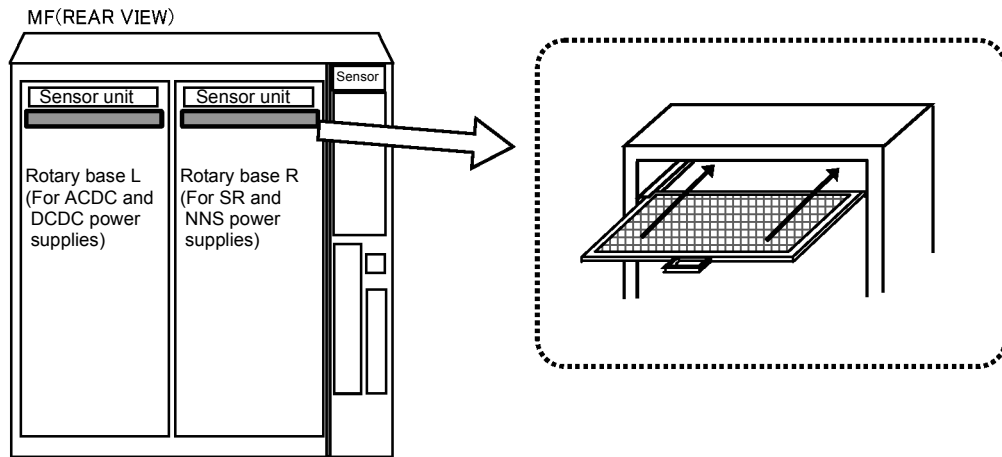
② MF board unit air filter (For DOWN FLOW)



③ MF power supply unit air filter (For UP FLOW)

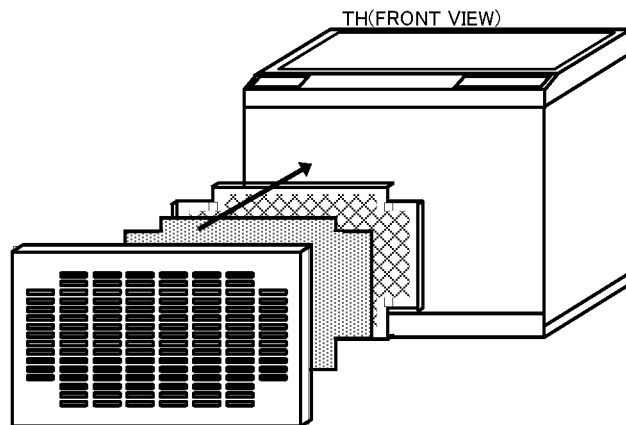


④ MF power supply unit air filter (For DOWN FLOW)



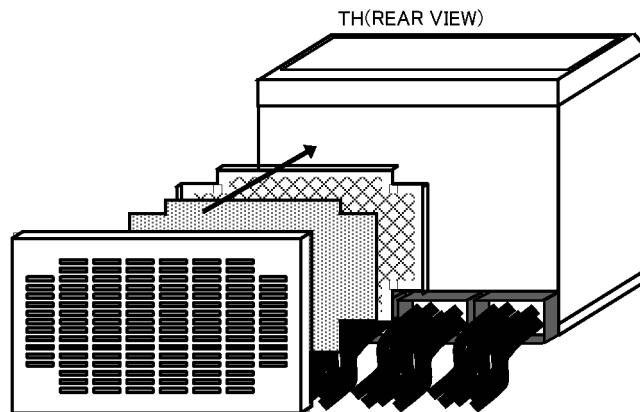
⑤ TH unit air filter (blowing to the TH rear side)

Remove the air filter and clean it. (Ex. by using a vacuum cleaner.)



3.2 Periodic Inspection Items

- ⑥ TH unit air filter (blowing to the TH front side)
Remove the air filter and clean it. (Ex. by using a vacuum cleaner.)



3.3 Replacing the Fan Block (Hot Work Type 1)

**CAUTION**

Turn off the AC control panel breaker from which power is fed and make sure that the fans have completely stopped. Before you start work, lock out the breaker and put a warning tag. For details about lock-out and tag-out procedures, refer to paragraph (4) of Chapter 3, "BASIC PRECAUTIONS," in the "IC TEST SYSTEM SAFE HANDLING GUIDE."

If you used the power-on key switch to shut off the system's power supply, note that the fan will continue to run for about 30 seconds after the switch has been turned off.

3.3.1 Replacing the Fan Block for the Unit Power Supply

- (1) Remove all cables connecting to the fan block.
- (2) Unfasten four screws on the front of the fan block (① in Figure 3-1).
- (3) Pull the fan block toward you to remove it.

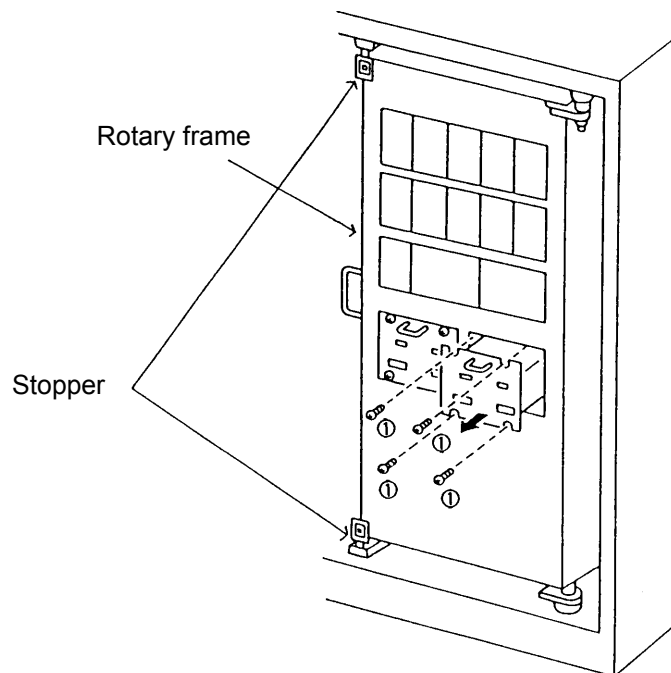


Figure 3-1 Removing the Fan Block for the Unit Power Supply

3.3 Replacing the Fan Block (Hot Work Type 1)

3.3.2 Replacing the Fan Block for the Unit

- (1) Unlock the stoppers, which are located on the top and bottom of the rotary frame, and keep the rotary frame open as shown in Figure 3-2.
- (2) Remove all cables connected to the fan block.
- (3) Remove two screws from the front of the fan block (Figure 3-2, ①).
- (4) Pull the fan block out.

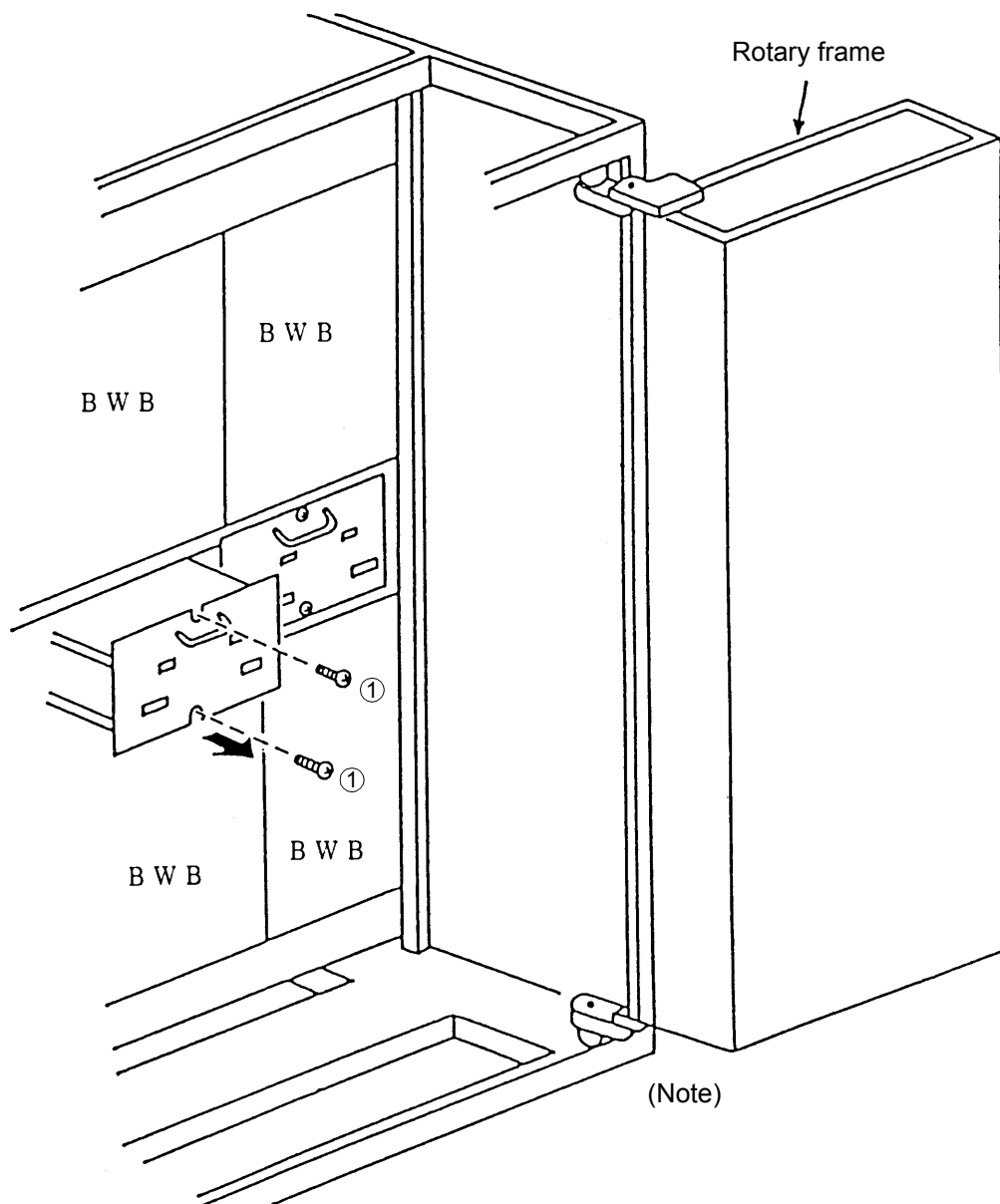
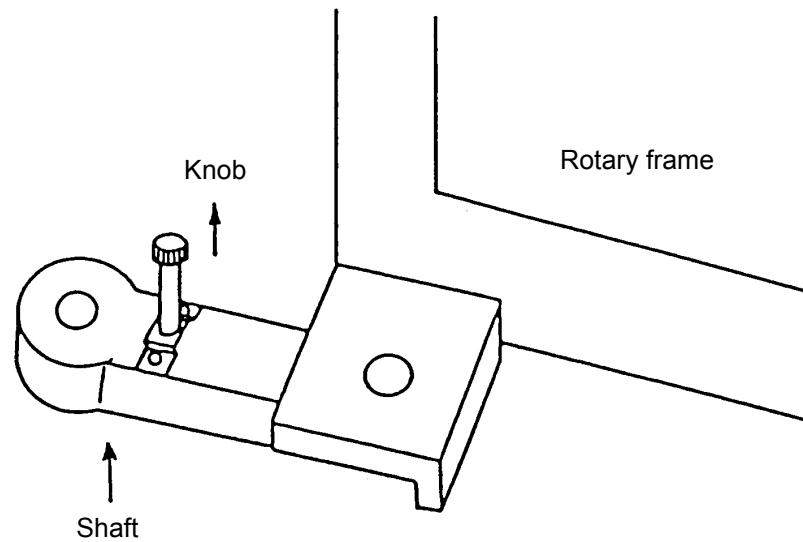


Figure 3-2 Removing the Fan Block for the DPU Unit

3.3 Replacing the Fan Block (Hot Work Type 1)

Note: *When the rotary frame closes, it stops perpendicular to the mainframe.
Close the rotary frame by pulling up the knob on the shaft located in the bottom of the rotary frame.*



3.3 Replacing the Fan Block (Hot Work Type 1)

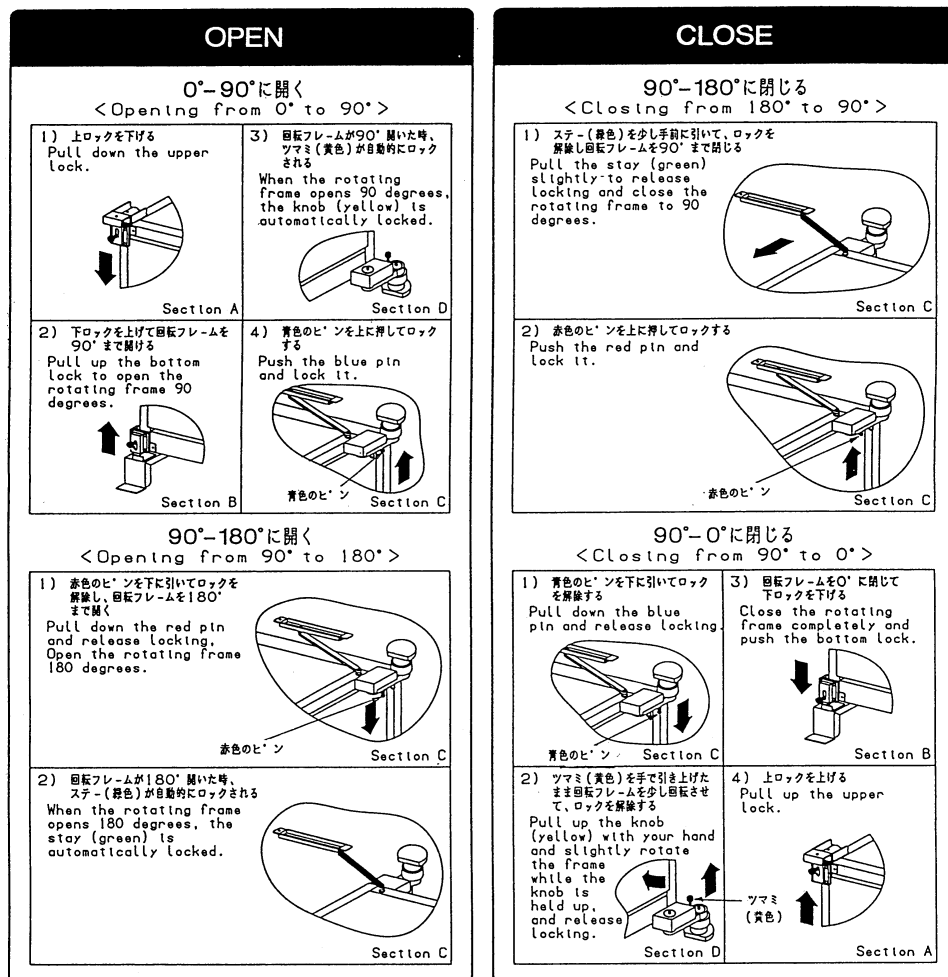
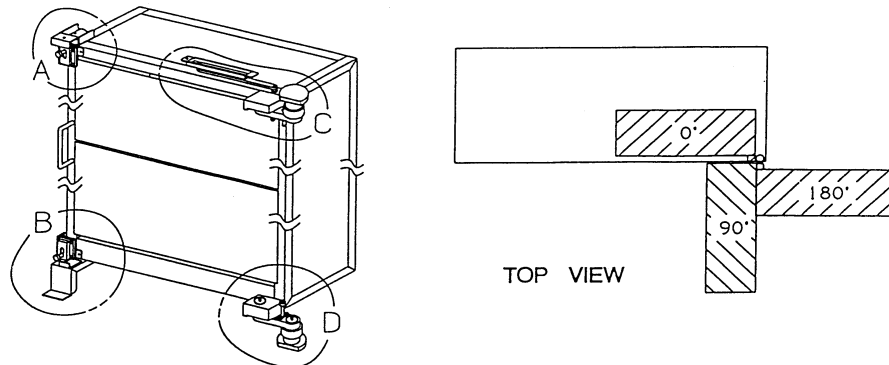


Figure 3-3 Rotary Frame Opening Method

To open and close the rotary frame, follow the instructions on the above stickers which are on the inside of the door of the mainframe.

3.4 Replacing the Unit Power Supply

**CAUTION**

Turn off the AC control panel breaker from which power is fed and make sure that no current is flowing on the AC input side of the unit power supply. Before you start work, lock out the breaker and put up a warning tag. For details about lock-out and tag-out procedures, refer to paragraph (4) of Chapter 3, "BASIC PRECAUTIONS," in the "IC TEST SYSTEM SAFE HANDLING GUIDE."

For power supply layout and power supply standards, refer to Chapter 6, "Unit, Power Supply Layout, and Voltage Specification."

3.4.1 Procedure for Removing the Unit Power Supply (Hot Work Type 1)

- (1) Remove all cables connected to the unit power supply.
- (2) Remove the four screws on the front of the unit power supply (① in Figure 3-4).
- (3) Pull the unit power supply toward you to remove it.

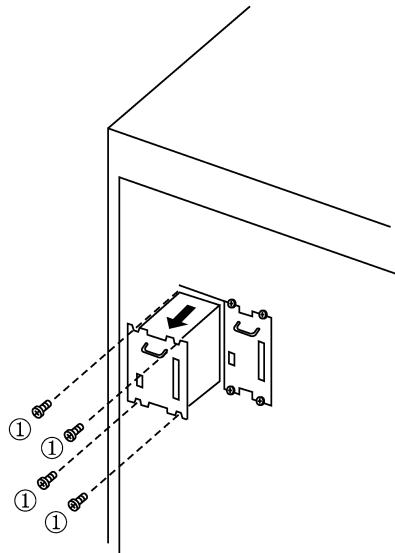


Figure 3-4 Removing the Unit Power Supply

3.4 Replacing the Unit Power Supply

3.4.2 Precautions to Be Taken when Installing the Unit Power Supply

Each cable has a cable marker which has the location number.

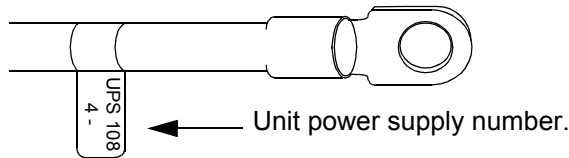


Figure 3-5 Marker on a Cable

Connect the cable with its terminal number marked with “+” to the “+” output terminal of the unit power supply and one marked with “-” to the “-” output terminal of the unit power supply. For power supply terminal numbers, see Figure 3-6 through Figure 3-12.

- (1) AC-DC Power supply

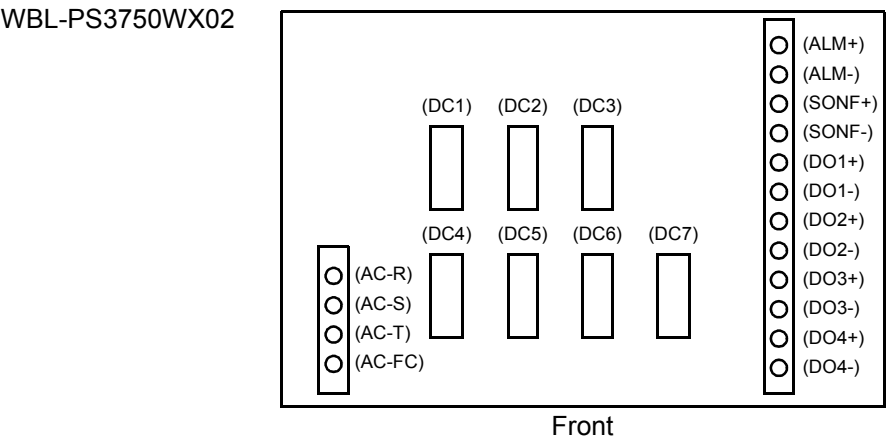


Figure 3-6 Terminal Numbers on Unit Power Supply (1)

- (2) DC Power supply

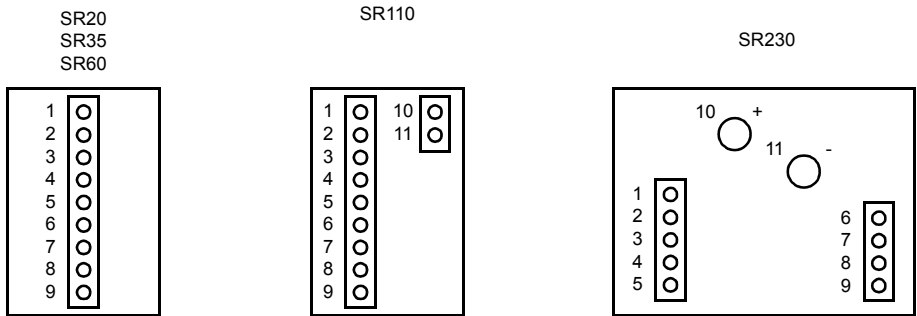


Figure 3-7 Terminal Numbers on Unit Power Supply (2)

3.4 Replacing the Unit Power Supply

WBL-PS ○ V △ A

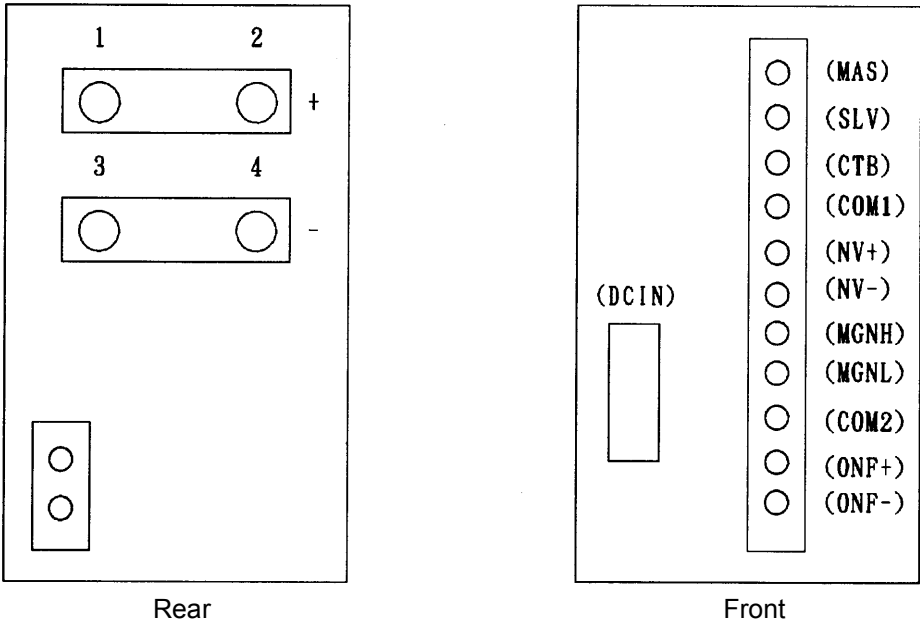


Figure 3-8 Terminal Numbers on Unit Power Supply (3)

NNS50

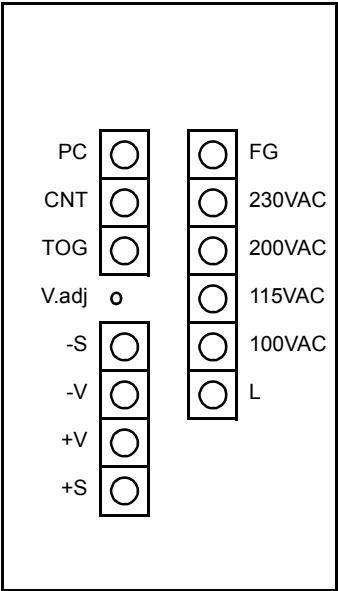


Figure 3-9 Terminal Numbers on Unit Power Supply (4)

NNS15
NNS30

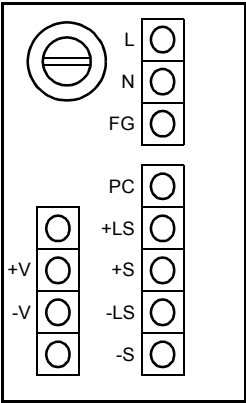


Figure 3-10 Terminal Numbers on Unit Power Supply (5)

3.4 Replacing the Unit Power Supply

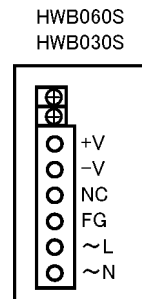
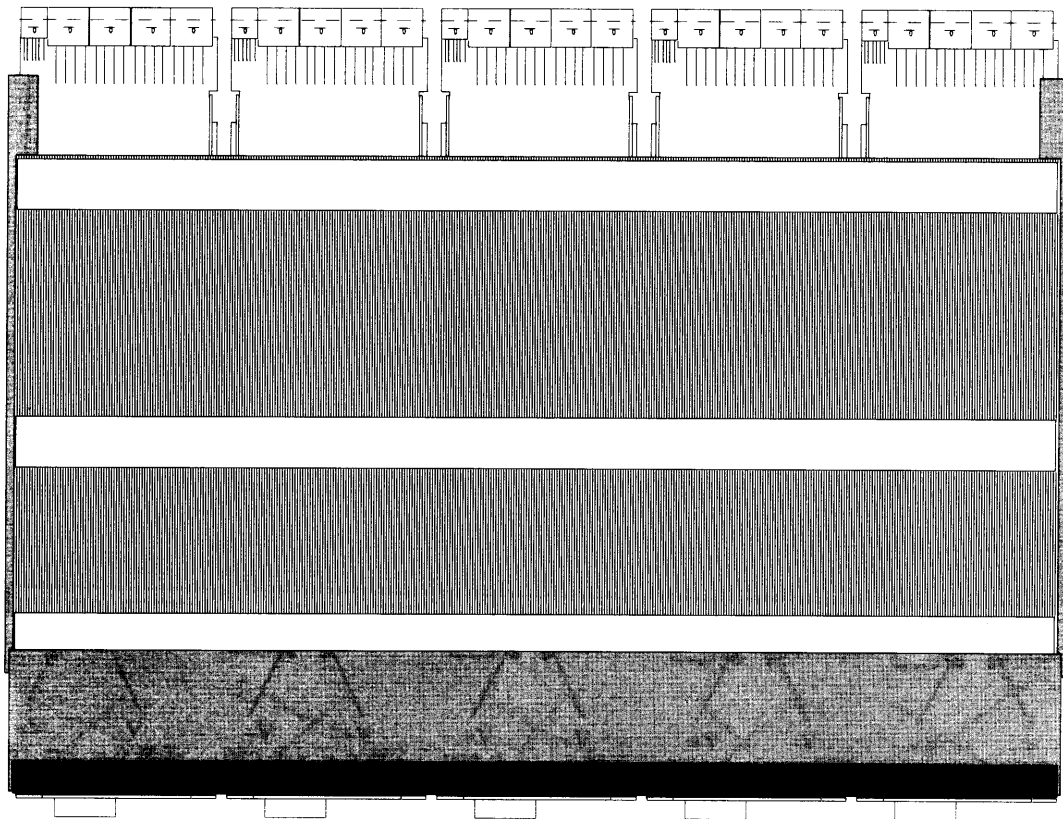


Figure 3-11 Terminal Numbers on Unit Power Supply (6)

(3) Power Supply for boards

WBL-PSXXXX

BWB SIDE



BOARD TOP SIDE

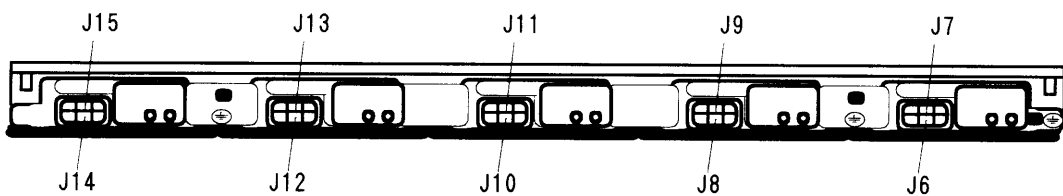


Figure 3-12 Terminal Numbers on Unit Power Supply (7)

3.5 Precautions to Be Taken when Replacing AC Power Supply (AC CONT)

3.5 Precautions to Be Taken when Replacing AC Power Supply (AC CONT)

When removing or attaching the AC power supply (AC CONT) for fault or other reasons, make sure it is handled by at least two people.

3.6 Opening/Closing the Frame Panel

- (1) Make sure that there are hexagonal wrench keys at the top and bottom of the frame panel.
- (2) Insert a 6 mm hexagonal wrench into the panel key and turn it counterclockwise to open the panel to the front.
- (3) Push the panel's hinge lever downward. The hinge shaft lowers and comes off from the hinge holder.
- (4) Lift the panel to remove the hinge shaft from the hinge holder. In this way, the panel can be completely removed from the frame.

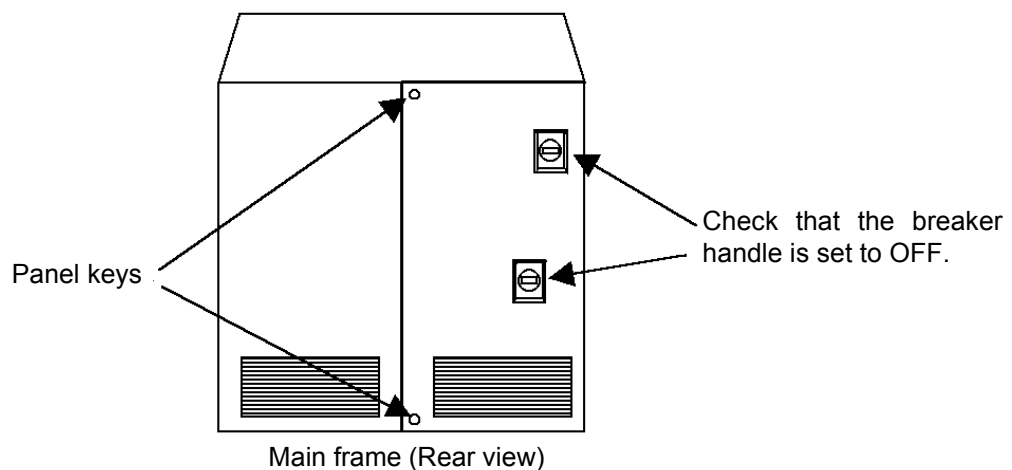
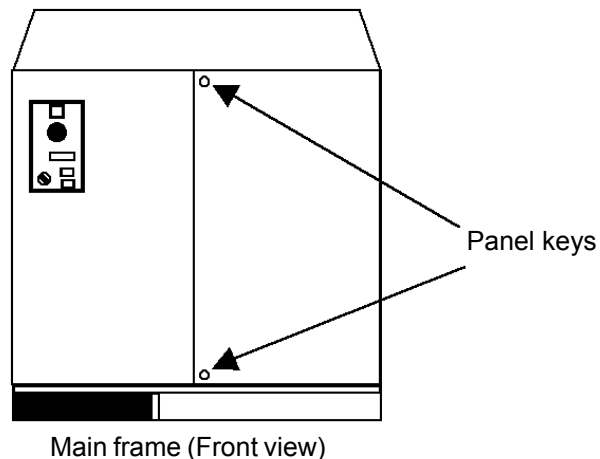
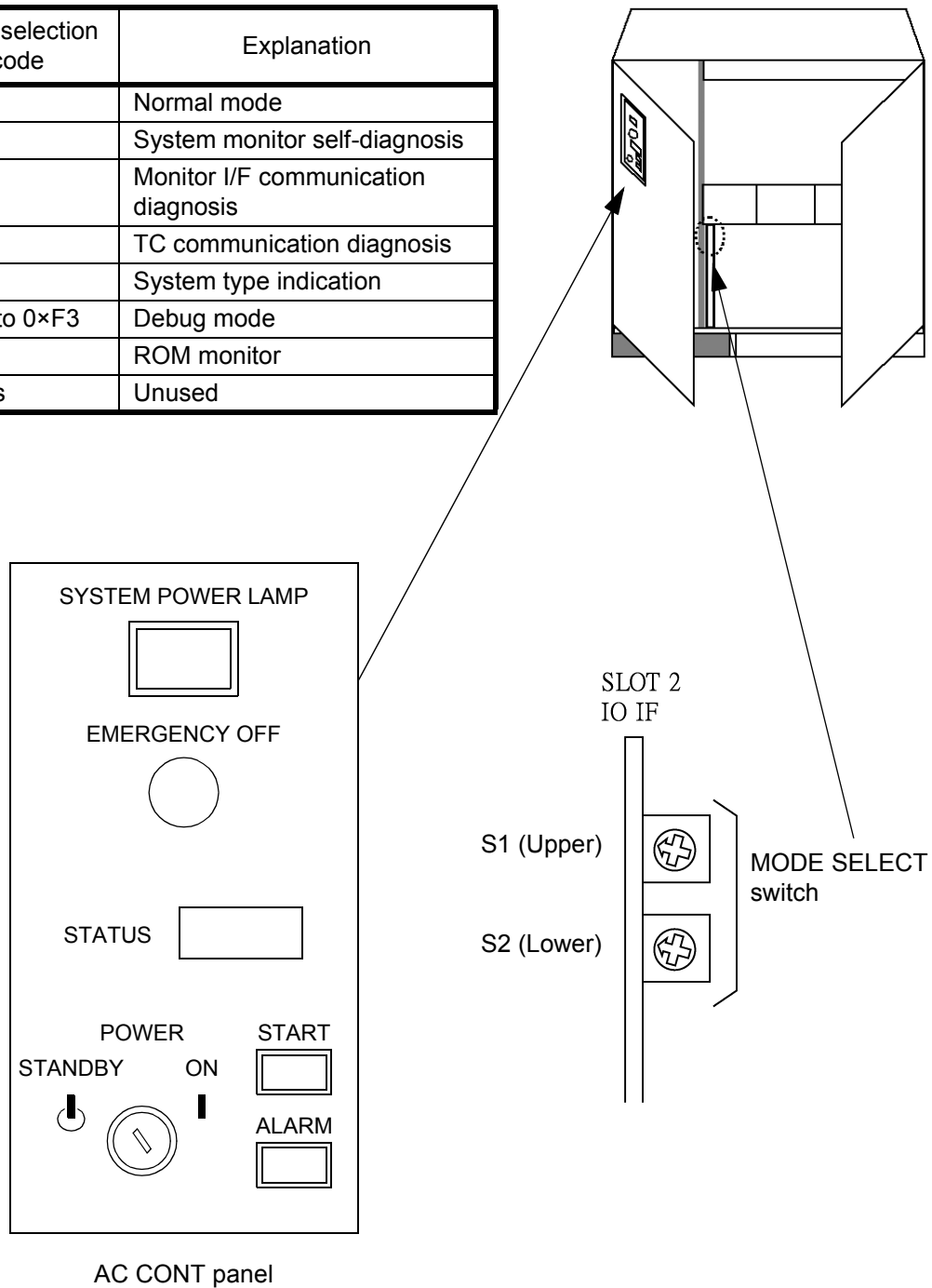


Table 3-2 MODE SELECT SW Code

Mode selection code	Explanation
0×00	Normal mode
0×D0	System monitor self-diagnosis
0×D1	Monitor I/F communication diagnosis
0×D2	TC communication diagnosis
0×D3	System type indication
0×F0 to 0×F3	Debug mode
0×FE	ROM monitor
Others	Unused

**Figure 3-13 AC CONT Panel and MODE SELECT Switch Panel**

3.6 Opening/Closing the Frame Panel

TC7 CPU UNIT switch

The SW1 switch on the front of the TC7 CPU UNIT controls the CPU power supply in the CPU unit and is used to recover the system if the system is shut down by the init 5 command.



CAUTION

If the switch is pressed while the system is on, the CPU power supply is turned off and the EWS IF fatal voltage error (error code: 0x704) occurs.

To recover the system, follow the procedure described in “3.7.3 Recovering the System from the Shutdown by the init5 Command.”

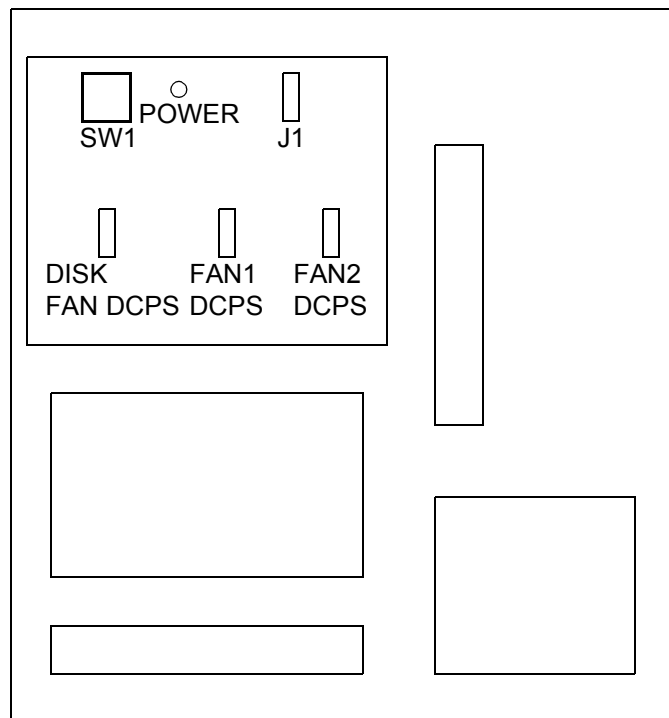
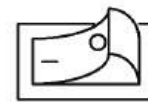
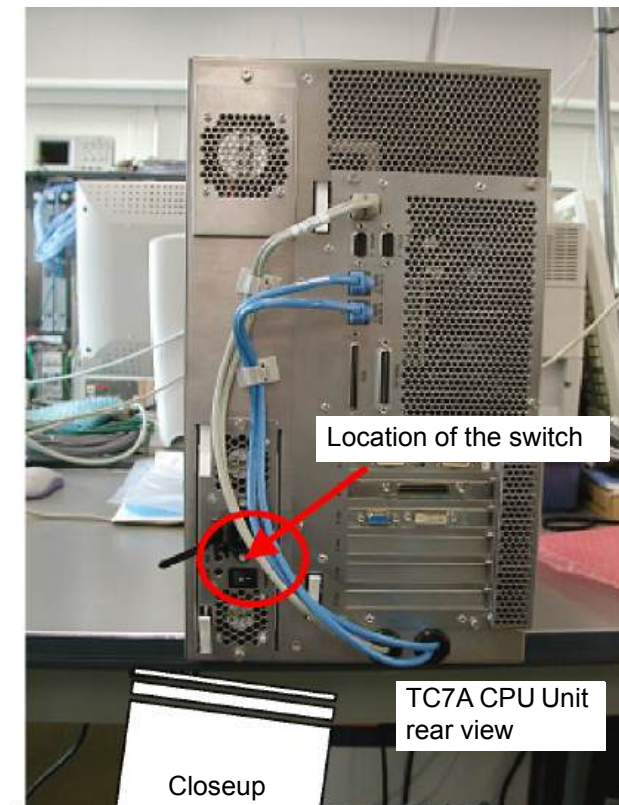


Figure 3-14 TC7 CPU UNIT

TC7A CPU Unit switches

The TC7A CPU Unit has switches at two positions.

- (1) Rear side switch

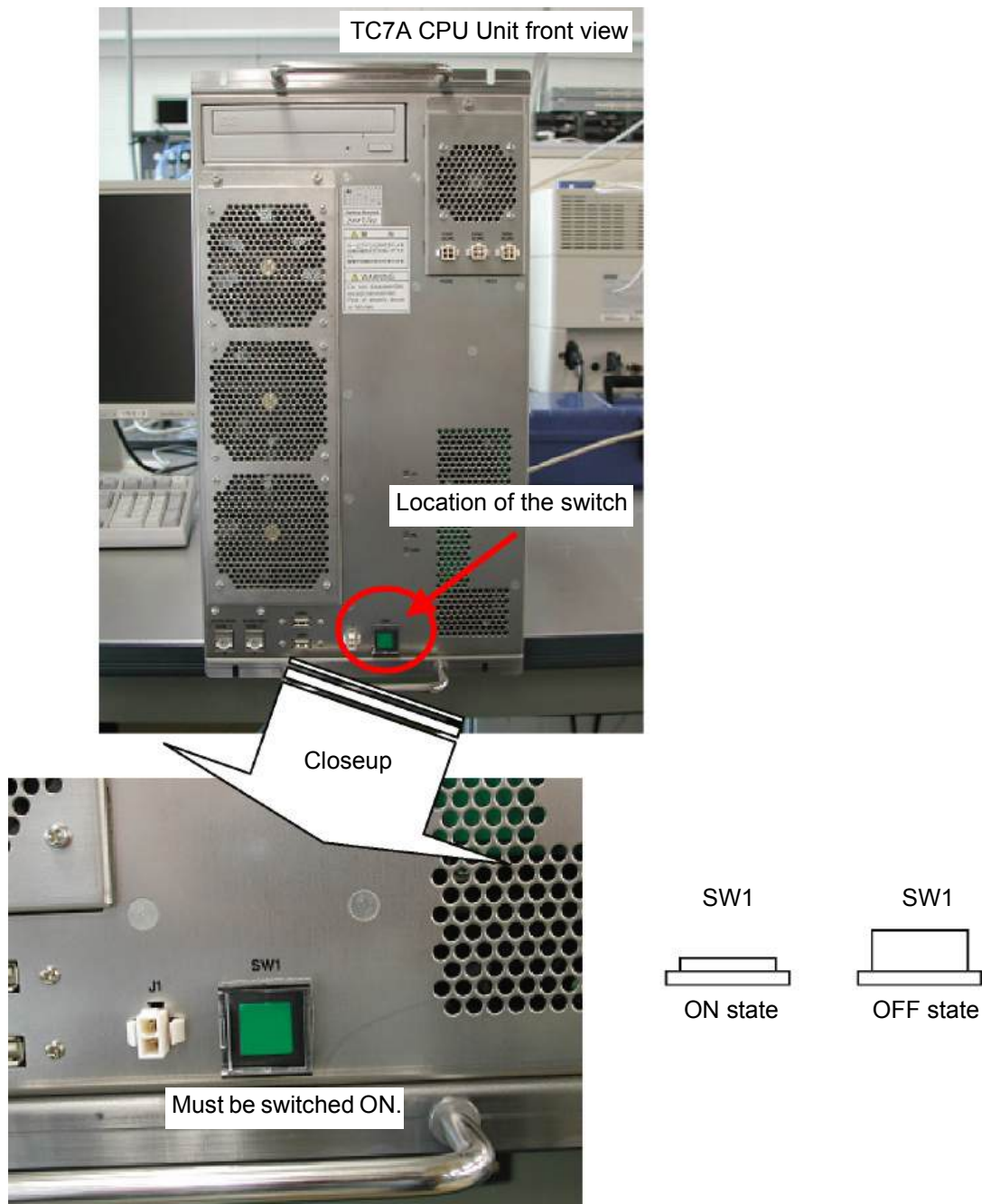


ON state

- * The "I" position of the switch must be down and the "O" position must be up.

3.6 Opening/Closing the Frame Panel

(2) Front side switch



Because SW1 has a cover, make sure to open the cover when verifying the switch state.

3.7 When System Does Not Start Properly

Follow Table 3-3, "Relationship between the STATUS Codes and Suggested Actions."

- Normal mode: Monitoring the system operation. When a fault is found, the power supply is turned off.
- Debug mode: Monitoring the system operation, except for system monitor.

However, in the following cases, error codes cannot be displayed because the system power is immediately shut down.

If the system power is immediately shut down, check the operation processed immediately before and remove the cause.

- Board insertion error (BIE)
- Smoke sensor failure
- Temperature sensor failure

3.7.1 When the System Monitor Does Not Start

- (1) When the power to the system monitor does not turn on
 - ☐ Check 1: The power supply is turned off after you release the START switch.
 - ▲ Action 1: Check the pilot lamps to see that all breakers are turned on.
- (2) When the power to the system monitor turns on
 - ☐ Check 1: Check the STATUS code on the AC CONT panel that was displayed last time. (See Table 3-3)
- (3) When the power turns off before checking STATUS code
 - ☐ Check 1: Make sure that the power to the system monitor is off. If not, press the EMO (EMERGENCY OFF) switch to turn the power to the system monitor off.
 - △ Operation 1: Turn the key switch on the AC CONT panel off.
 - △ Operation 2: Set MODE SELECT to 0xF0. (Debug mode)
 - △ Operation 3: Press the START switch on the AC CONT panel.
 - ☐ Check 2: Check the STATUS code on the AC CONT panel. (See Table 3-3.) Leave the key switch on the AC CONT panel turned off. If the key switch is turned on, a system error may occur.
- (4) Reset Method
 - △ Operation 1: Press the EMO (EMERGENCY OFF) switch to turn the power to the system monitor off.
 - △ Operation 2: Set MODE SELECT to 0x00. (Normal mode)
 - △ Operation 3: Press the START switch on the AC CONT panel.

Thus, the power to the system monitor is turned on.

3.7 When System Does Not Start Properly

3.7.2 Checking FATAL ERROR

- (1) When the LED lamp is on
 - △ Operation 1: Turn the key switch on the AC CONT panel off.
 - Check 1: Check the LED code on the AC CONT panel. (See Table 3-4.)
- (2) When the LED lamp is off
 - △ Operation 1: Turn the key switch on the AC CONT panel off.
 - △ Operation 2: Press the START switch on the AC CONT panel.
 - Check 1: Make sure that the ALARM lamp on the AC CONT panel is on. If the power immediately turns off even when the lamp is lit, refer to Section 3.7.1, "When the System Monitor Does Not Start."
 - Check 2: Check the STATUS code on the AC CONT panel. (Table 3-4)

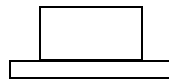
3.7.3 Recovering the System from the Shutdown by the init5 Command

If the test system is shut down by (a) executing the init5 remote command (which turns off the CPU power supply after shutdown) or (b) executing "Suspend System..." in the pull-down menu, a power supply in the CPU unit turns off and a fatal error (voltage abnormality, error code: 0x704) occurs in the TC7 or TC7A CPU unit.

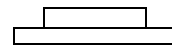
If this fatal error occurs, follow the procedure described below to recover the test system.

- (1) Recovering the test system from the TC7 (by using the CPU UNIT SW1)
 - △ Operation 1: Turn off the key switch on the AC CONT panel.
 - △ Operation 2: Press the EMO (EMERGENCY OFF) switch.
 - △ Operation 3: Set MODE SELECT to 0xF0. (Debug mode)
 - △ Operation 4: Press the START switch on the AC CONT panel.
 - △ Operation 5: Set MODE SELECT to 0xF3. (Debug mode)
 - △ Operation 6: Turn on the key switch.
 - △ Operation 7: Press and hold the CPU UNIT SW1 switch for approximately one second.
 - △ Operation 8: When the green POWER indicator on the front of the CPU unit is illuminated and a banner is displayed on the monitor, press the A key while holding down the Stop key to display the ok prompt.
If the OS startup has stopped by pressing the A key while holding down the Stop key, operation 9 is not necessary.
Skip to Operation 10 and continue.
 - △ Operation 9: If the OS has started without pressing the A key while holding down the Stop key, shut down the OS by using any command other than init5 (for example, use init0).
 - △ Operation 10: Turn off the key switch.
 - △ Operation 11: Press the EMO (EMERGENCY OFF) switch.
 - △ Operation 12: Set MODE SELECT to 0x00. (Normal mode)
 - △ Operation 13: Press the START switch on the AC CONT panel.

- (2) Recovering the test system from the TC7A (by using the CPU UNIT SW1)
- △ Operation 1: Turn off the key switch on the AC CONT panel.
 - △ Operation 2: Press the EMO (EMERGENCY OFF) switch.
For more information on recovering the EMO switch, refer to Section 2.3, "Resetting the EMO Switch."
 - △ Operation 3: Set the MODE SELECT switch to 0xF0. (Debug mode)
For more information on the location and the setting of the MODE SELECT switch, refer to Section 3.6, "Opening/Closing the Frame Panel."
 - △ Operation 4: Press the START switch on the AC CONT panel.
 - △ Operation 5: Set the MODE SELECT switch to 0xF3. (Debug mode)
 - △ Operation 6: Turn on the key switch.
 - △ Operation 7: Press CPU UNIT SW1 one time to set it to the OFF status. Press CPU UNIT SW1 one more time to set it to the ON status. For more information on CPU UNIT SW1 status, see the following figure:



TC7A CPU Unit SW1
OFF status



TC7A CPU Unit SW1
ON status

- △ Operation 8: When the POWER indicator on the front of the CPU unit lights green and a banner is displayed on the monitor, press the A key while holding down the Stop key then display the ok prompt. If this operation is executed, Operation 9 is not necessary. Move on to Operation 10.
- △ Operation 9: If the OS starts running without pressing the A key while holding down the Stop key, shut it down by using any command other than init5 (such as init0).
- △ Operation 10: Turn off the key switch.
- △ Operation 11: Press the EMO (EMERGENCY OFF) switch.
- △ Operation 12: Set the MODE SELECT switch to 0x00. (Normal mode)
- △ Operation 13: Press the START switch on the AC CONT panel.

3.8 System Monitor Error Codes

3.8 System Monitor Error Codes

Table 3-3 Relationship between the STATUS Codes and Suggested Actions

0x000 - 0x00F	System monitor hard initialize	▲ Action 1
0x070 - 0x07F	Start diagnosis	▲ Action 2
0x080	Monitor I/F ONLINE check	▲ Action 3
0x08E	MODE SELECT switch failed	▲ Action 4
0x08F	Waiting for turning off the key switch	▲ Action 5
0x0B0 - 0x0BF	System monitor self-diagnosis	▲ Action 6
0x0E0 - 0x0EF	Type of error processing sequence	▲ Action 9
0x0F0	ROM monitor system monitor mode	▲ Action 10
0x100 - 0x108	Normal mode ON sequence	▲ Action 11
0x600 - 0x6FF	Error code	▲ Action 12
0x700 - 0x7FF	Error code	▲ Action 13
0x800 - 0x8FF	Error code	▲ Action 14
0x900 - 0x9FF	Error code	▲ Action 15
0xA00 - 0xAFF	Error code	▲ Action 16
0xB00 - 0xBFF	Error code	▲ Action 17
0xC00 - 0xCFF	Error code	▲ Action 18
0xD00 - 0xDFF	Error code	▲ Action 19

Corrective action procedure

- ▲ Action 1 Hard initializing the system monitor. If the STATUS code does not change after waiting for 10 seconds or more, some board in the system monitor may be faulty.
- ▲ Action 2 Performing Start diagnosis. If an error is encountered, the diagnosis item in error (Table 3-3) is displayed on the STATUS (Note 1) and start diagnosis is executed repeatedly.

Table 3-4 Relationship between LEDs code and START DIAG

Refer to the codes listed below when checking the status

0x070	Initialization check on the system boards
0x071	Read/Write check of SMONI_SYS register
0x072	Read/Write check of SEMO_SEM3 register
0x073	Read/Write check of SMONI_INIT_LVL register
0x074	Increment check of SMONI_SYS register
0x075	Interrupt (MCOM0) check from TC, the ENGINE
0x076	Status check of AC OFF(MF, TC)
0x077	Status check of FATAL ERROR Mask
0x078	Read/Write check of LEDs
0x079	Read/Write check of NVRAM
0x07A	Read/Write check of the memory
0x07F	Code when the START DIAG passed

- ▲ Action 3 Performing Monitor I/F ONLINE check. If the STATUS code does not change after waiting for 30 seconds or more, some board in the system monitor may be faulty.
- ▲ Action 4 The MODE SELECT switch is set to any value other than 0x00. After setting the MODE SELECT switch to 0x00, temporarily turn the key switch off. Then turn it back on again.
- ▲ Action 5 The key switch had already been turned on before you turned the power to the system on. Temporarily turn the key switch off and turn it back on again.
- ▲ Action 6 Performing System monitor self-diagnosis. When the diagnosis is completed, PASS or FAIL is displayed on the STATUS (Note 2) before returning to normal operation.
- ▲ Action 9 Performing the Error processing sequence. If the STATUS code does not change after waiting for 10 seconds or more, some board in the system monitor may be faulty.
- ▲ Action 10 Placed in ROM monitor mode. The MODE SELECT switch is set to any value other than 0x00. Press the EMO (EMERGENCY OFF) switch to temporarily turn OFF the system monitor power supply. Then set the MODE SELECT switch to 0x00.
- ▲ Action 11 Refer to the codes listed below when checking the status.
 - 0x000: Waiting for the key switch to be turned on.
 - 0x100: Waiting for the key switch to be turned on.
 - 0x101: The power to the TC is turned on.
 - 0x108: Both TC and MF are powered on.

3.8 System Monitor Error Codes

- ▲ Action 12-19 Refer to the codes listed below when checking the status.

For the TC6/TC7

0x601:	AC CONT status error when the MF was turned off
0x602:	AC CONT status error when the MF was turned on
0x610:	AC CONT status error when the TC was turned off
0x620:	AC CONT status error when the TC was turned on
0x680:	AC cycle-omitted occurred
0x702/0x000/0x000:	TC6 Option IF voltage error
0x704/0x000/0x000:	TC6 EWS IF voltage error (includes a CPU AC error and interface cable problem)
0x708/0x000/0x000:	TC6 IOIF voltage error
0x710/0x001/0x000:	+12 V SENSE Error
0x710/0x002/0x000:	-12 V SENSE Error
0x710/0x004/0x000:	FAN SENSE Error
0x710/0x008/0x000:	TC6 IO Option SENSE Error
0x720:	TC fan error
0x801:	Monitor I/F communication error
0x802:	System monitor's MASK ENABLE/DISABLE error
0x804:	System name error
0x810:	TC7 -12 V DC error
0x820:	TC7 +12 V DC error
0x840:	TC7 -5.2 V DC error
0x880:	TC7 +5 V DC error
0x9XX:	XX denotes the unit ID when error occurred
0xA01:	MF fan error
0xA02:	MF temperature error
0xA04:	MF smoke error
0xA80:	Monitor I/F self-diagnosis error
0xB01:	Monitor I/F DC power supply error
0xB02:	Monitor I/F DC REFERENCE error
0xCXX:	XX denotes the location in MF where DC error occurred
0DXX:	XX denotes the location in MF where DC error occurred

See
Section
3.9.

Table 3-5 Relationship between STATUS Codes and System Monitor Self-diagnosis

Refer to the codes listed below when checking the status

0x0B1	Read/write check of SMONI_SYS register
0x0B2	Read/write check of SEMO_SEM3 register
0x0B3	Read/write check of SMONI_INT_LVL register
0x0B4	Increment check of SMONI_SYS register
0x0B5	Interrupt (MCOM0) check from TC, the ENGINE
0x0B6	(Undefined)
0x0B7	(Undefined)
0x0B8	Read/write check of LED
0x0B9	Read/write check of NVRAM
0x0BA	Read/write check of memory
0x0B0	Code when system monitor self-diagnosis passed

Table 3-6 Relationship between STATUS Codes and Monitor I/F Communication Diagnosis

Refer to the codes listed below when checking the status

0x0C1	Read check of NVRAM checksum
0x0C2	Online check of monitor I/F
0x0C0	When monitor I/F communication check is passed

Table 3-7 Relationship between STATUS Codes and TC Communication Diagnosis

Refer to the codes listed below when checking the status

0x0D1	Write of SMONI_TO_TC register and read of SMONI_TO_TC register READ
0x0D2	Write of SMONI_TO_TC register and read of SMONI_TO_TC register READ (inc data)
0x0D3	Read/write of SMONI_STS
0x0D4	Read/write of SMONI_STS (inc data)
0x0D5	Interrupt check
0x0D6	Interrupt check
0x0D7	Interrupt check
0x0D8	Interrupt check
0x0D0	When TC communication diagnosis passed

3.8 System Monitor Error Codes

Table 3-8 Relationship between STATUS Codes and Error Processing Sequence

Refer to the codes listed below when checking the status

0x0E1	System monitor error
0x0E2	When Fail_B error is notified from monitor I/F Smoke or temperature error, DIAG, +5 V (monitor I/F power supply)
0x0E3	When Fail_A error is notified from monitor I/F DC power supply, fan, or exhaust air temperature
0x0E4	TC ALARM1 Fuse, temperature, TC main unit fan
0x0E5	TC ALARM2 TC main unit fan power supply error
0x0E6	TC power fail The +5 V, -5.2 V, or -12 V power supply used in TC is faulty
0x0E7	TINT0 error
0x0E8	Error MASK error
0x0E9	AC_CONT error
0x0EA	SYSTEM name error

3.9 Monitor Interface Error Codes

3.9 Monitor Interface Error Codes

Table 3-9 Monitor Interface Error Code

UNIT	ERROR CODE	A01	A02	A04	A20	A80	C01	C02	C04	C08	C10	C20	C40	C80	D01	D02	D04	D08	D10	D20	D40	D80
UPS DCAP	910	-	-	-	-	DIAG MONI I/F-5 V	(J1-L) -5.2 V	(J1-L) 1.8 V	(J1-L) 2.5 V	(J1-L) 3.3 V	(J1-L) 5 V	(J1-L)	(J1-L)	(J1-L)	-	-	-	-	-	-	-	-
20VPPS	911	(J35)	(J35)	(J35)	(J35)	DIAG MONI I/F-5 V	(J1-U) -28.5 V	(J1-U) -8.5 V	(J1-U) 8.5 V	(J1-U) 28.5 V	(J1-U)	(J1-U)	(J1-U)	(J1-U)	-	-	-	-	-	-	-	-
MF	912	(J34) MF FAN	(J34) MF TEMP	(J34) SMOKE	(J34) FTU BIE	DIAG MONI I/F-5 V	(J2-L) -60 V	(J2-L) -15 V	(J2-L) -10 V	(J2-L) -5.2 V	(J2-L) +5 V	(J2-L) +5 V	(J2-L) +10 V	(J2-L) +15 V	(J2-L) +60 V	(J2-L) +60 V	(J2-L) -60 V	(J2-L) +60 V	(J2-L)	(J2-L)	(J2-L)	(J2-L)
DPU	913	(J28)	-	-	-	DIAG MONI I/F-5 V	(J2-U) -60 V	(J2-U) -15 V	(J2-U) -12 V	(J2-U) -5.2 V	(J2-U) 3.3 V	(J2-U) 5 V	(J2-U) 12 V	(J2-U) 15 V	(J2-U) 60 V	(J2-U)	(J2-U)	(J2-U)	(J2-U)	(J29) HEAT	(J2-U)	(J40) AIR 24V
FTU1	914	(J27)	-	-	-	DIAG MONI I/F-5 V	(J3-L) -5.2 V	(J3-L) -2.5 V	(J3-L) -2.5 V	(J3-L) -2.5 V	(J3-L) 3.3 V	(J3-L) 5 V	(J3-L) 2.5 V	(J3-L) 1.8 V	-	-	-	-	-	-	-	-
FTU2	915	(J26)	-	-	-	DIAG MONI I/F-5 V	(J3-U) -5.2 V	(J3-U) -2.5 V	(J3-U) -2.5 V	(J3-U) -2.5 V	(J3-U) 3.3 V	(J3-U)	(J3-U)	(J3-U)	-	-	-	-	-	-	-	-
MIXEDU	916	(J25)	-	-	-	DIAG MONI I/F-5 V	(J4-L) -15 V	(J4-L) -5.2 V	(J4-L) 3.3 V	(J4-L) 5 V	(J4-L) 15 V	(J4-L)	(J4-L)	(J4-L)	-	-	-	-	-	-	-	-
MIXEDU cPCI	917	(J24)	-	-	-	DIAG MONI I/F-5 V	(J4-U) -15 V	(J4-U) -5.2 V	(J4-U) 3.3 V	(J4-U) 5 V	(J4-U) 15 V	(J4-U)	(J4-U)	(J4-U)	-	-	-	-	-	-	-	-
VREF/MTX	918	(J23)	-	-	-	DIAG MONI I/F-5 V	(J5-L) -15 V	(J5-L) -5.2 V	(J5-L) 3.3 V	(J5-L) 5 V	(J5-L) 15 V	(J5-L)	(J5-L)	(J5-L)	-	-	-	-	-	-	-	-
VAFGD1	919	(J22)	-	-	-	DIAG MONI I/F-5 V	(J5-U) -15 V	(J5-U) -5.2 V	(J5-U) 5 V	(J5-U) 15 V	(J5-U)	(J5-U)	(J5-U)	(J5-U)	-	-	-	-	-	-	-	-
BBWGD SG/JMM	91A	(J21) HEAT	(J21) TEMP	(J21) SMOKE	(J21) TH	DIAG MONI I/F-5 V	(J6-L) -15 V	(J6-L) -5.2 V	(J6-L) 5 V	(J6-L) 15 V	(J6-L)	(J6-L)	(J6-L)	(J6-L)	-	-	-	-	-	-	-	-
VAFGD2	91B	-	-	-	-	DIAG MONI I/F-5 V	(J6-U) -15 V	(J6-U) -5.2 V	(J6-U) 5 V	(J6-U) 15 V	(J6-U)	(J6-U)	(J6-U)	(J6-U)	-	-	-	-	-	-	-	-
NC	91C	(J30)	-	-	-	DIAG MONI I/F-5 V	(J7-L) -15 V	(J7-L) -5.2 V	(J7-L) 5 V	(J7-L) 15 V	(J7-L)	(J7-L)	(J7-L)	(J7-L)	-	-	-	-	-	-	-	-
RF OPTION	91D	(J31)	-	-	-	DIAG MONI I/F-5 V	(J7-U) -15 V	(J7-U) -5.2 V	(J7-U) 5 V	(J7-U) 15 V	(J7-U)	(J7-U)	(J7-U)	(J7-U)	-	-	-	-	-	-	-	-
NC	91E	(J32) TH FAN (PUSH)	(J32)	-	(J32)	DIAG MONI I/F-5 V	(J8-L) -60 V	(J8-L) +15 V	(J8-L) +10 V	(J8-L) +5 V	(J8-L) +5 V	(J8-L) -5.2 V	(J8-L) -5.2 V	(J8-L) -5.2 V	(J8-L) -10 V	(J8-L) -15 V	(J8-L) -60 V	(J8-L) +5 V	(J8-L)	(J32)	(J8-L)	(J40) CPAN 24 V
TH	91F	(J33) TH FAN (PULL)	(J33)	-	(J33)	DIAG MONI I/F-5 V	(J8-U) -15 V	(J8-U) -8 V	(J8-U) -5.5 V	(J8-U) -5.2 V	(J8-U) 3.3 V	(J8-U) 3.3 V	(J8-U) 5 V	(J8-U) 11.5 V	(J8-U)	(J8-U)	(J8-U)	(J8-U)	(J8-U)	(J33)	(J8-U)	(J40) CPAN 24 V
SHUTDOWN		E	E	E	E	E	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P

When the shutdown result is "P": Turn the KEY switch off.

3.9 Monitor Interface Error Codes

Other codes

100 to 108	Power-on sequence	000 or 100	Waiting for key switch to be turned on
700 to 706	Power-off sequence	101	TC powered on
010 to 07F	System monitor start diagnosis	102	MF powered on (normal mode) and wait time for ready flag from the Engine
08E	Digital switch setup error	103	Wait time for ready flag from TC
08F	Waiting for Key switch to turn off	104 to 108	Powered on
0EX	Fail detection	106 to 108	Maintenance mode power-on sequence (SW1, SW2) MF: Power on/off

As to the error displays during power supply shutoff with the EMO switch or a power failure, if either of the following conditions is satisfied while the test system is used, the error code (0x680) for the missing AC cycle is not displayed but an error code for fans or other items is sometimes displayed after the test system restarts.

- The EMO switch is pressed while the test system is used and the system power is turned off.
- A power failure occurs while the test system is used and the system power is turned off.

3.10 Replacing IO IF

When replacing the IO IF, press the EMO (EMERGENCY OFF) switch to turn the main power off.

The monitor I/F ID, date and time, and system type settings are not required when replacing the IO IF since they are already set at the factory setting.

The setting procedures are provided as shown below as references. (Refer to Section 3.10.1 "Using ROM Monitor Board" through Section 3.10.4 "Setting the System Type.")

3.10.1 Using ROM Monitor Board

(1) ROM monitor startup procedure

- ☐ Check 1: Make sure that the power to the system monitor is turned off. If not, press the EMO (EMERGENCY OFF) switch to turn the power off.
 - ☐ Check 2: Make sure that the VKT is connected to the serial port J9 on the TC6 IO IF board.
 - ☐ Check 3: Make sure that the console is turned on.
 - ☐ Check 4: Make sure that the console is set as shown below.
SPEED: 9600
Parity: None
XON/OFF: None
RTS/CTS: Disabled
 - ☐ Check 5: Make sure that the STATUS code on the AC CONT panel reads 0x0F0.
- △ Operation 1: Turn the key switch on the AC CONT panel off.
- △ Operation 2: Set MODE SELECT to 0xFE.
- △ Operation 3: Press the START switch on the AC CONT panel.

The ROM monitor startup procedure is now complete.

(2) Reset Method

- △ Operation 1: Press the EMO (EMERGENCY OFF) switch to turn the power to the system monitor off.
- △ Operation 2: Set MODE SELECT to 0x00.
- △ Operation 3: Press the START switch on the AC CONT panel.

The system monitor is now turned on.

3.10 Replacing IO IF

(3) Method for using commands

Note 1: *Only uppercase letters can be used.*

Note 2: *Use the Del key to delete characters.*

☐ Check 1: Make sure that the console displays the message the one shown below.

ROM Monitor Mode rev xx.xx

xx/xx/xx xx:xx:xx ← Date and time at startup

Advantest ATE development section.

Hit any key to continue. ← Blinking

△ Operation 1: Press any key.

☐ Check 2: Make sure that the prompt #>> appears on the VKT screen.

The system is now ready to accept commands.

3.10.2 Setting the Monitor I/F ID

(1) Setting the monitor I/F ID to NVRAM

△ Operation 1: Start the ROM monitor. (Refer to Section 3.10.1 “Using ROM Monitor Board.”)

△ Operation 2: Enter the command “SETMIFID.”

□ Check 1: Make sure that the VKT screen looks like the one shown below.

#>>SETMIFID (1: Available, 0: N/A, E: Forcible exit)

mid id set (1/0 or E) AA: Monitor I/F ID

id_AA (1/0) [B] B: Whether the monitor I/F is installed (information written in NVRAM)

Note1: When you enter only the return key, the value in [] is set.

Note2: Always set all items including the monitor I/F ID.

Note3: When you finished making this setting, the **ONLINE** check starts automatically.

(Example)

```
#>>SETMIFID
mif id set (1/0 or E)
id_01 (1/0) [1] 1
id_02 (1/0) [0] 0
id_03 (1/0) [1] 0
:
:
:
:
id_1D (1/0) [1] 0
id_1E (1/0) [1] 0
```

□ Check 2: Make sure that the VKT screen looks like the screen shown in ① below.

① When the input information and the information from the currently connected monitor I/F match.

“mif on line check pass”

② When the input information and the information from the currently connected monitor I/F do not match.

“mif on line check fail”

③ Data was set to 0 (MIN: 1 unit).

“mif id set error (mif is all 0)”

3.10 Replacing IO IF

(2) Displaying the information set in NVRAM

- △ Operation 1: Start the ROM monitor. (Refer to Section 3.10.1, "Using ROM Monitor Board.")
- △ Operation 2: Enter the command "READMIFID."

```
#>>READMIFID
mif id read
```

```
[NVRAM] id read (Mi/f)
```

```
id_ 01 = 01   id_ 02 = 00   id_ 03 = 00   id_ 04 = 00   id_ 05 = 00   ← (01: Available; 00: N/A)
id_ 06 = 00   id_ 07 = 00   id_ 08 = 00   id_ 09 = 00   id_ 0A = 00
id_ 0B = 00   id_ 0C = 00   id_ 0D = 00   id_ 0E = 00   id_ 0F = 00
id_ 10 = 00   id_ 11 = 00   id_ 12 = 00   id_ 13 = 00   id_ 14 = 00
id_ 15 = 00   id_ 16 = 00   id_ 17 = 00   id_ 18 = 00   id_ 19 = 00
id_ 1A = 00   id_ 1B = 00   id_ 1C = 00   id_ 1D = 00   id_ 1E = 00
```

(3) Displaying the information on the currently connected monitor I/F

- △ Operation 1: Start the ROM monitor. (Refer to Section 3.10.1, "Using ROM Monitor Board.")
- △ Operation 2: Enter the command "READMIFID1."

```
#>>READMIFID1
```

```
[ONLINE] id read (Mi/f)
```

```
mif_id = 01 ←————— Displays the ID of the currently connected monitor I/F only.
```

3.10.3 Setting Date and Time

(1) Method for setting a date

△ Operation 1: Start the ROM monitor. (Refer to Section 3.10.1, "Using ROM Monitor Board.")

△ Operation 2: Enter the command "DATE."

date of now: (94/12/17) ← Displays the current date.

input date -> YY/MM/DD ← Enter the new value you want to set.

YY: Calendar year (2 low-order digits)

MM: Month

DD: Day

Note: *When you enter only press the return, the changes you've set are not executed.*

(2) Method for setting time

△ Operation 1: Start the ROM monitor. (Refer to Section 3.10.1, "Using ROM Monitor Board.")

△ Operation 2: Enter the command "TIME."

time of now: (13:29:13) ← Displays the current time.

input date -> HH/MM/SS ← Enter the new value you want to set.

HH: Hours (24-hour system)

MM: Minutes

SD: Seconds

Note: *When you enter only press the return, the changes you've set are not executed.*

3.10 Replacing IO IF

3.10.4 Setting the System Type

(1) Method for setting the system type in NVRAM

△ Operation 1: Start the ROM monitor. (Refer to Section 3.10.1, "Using ROM Monitor Board.")

△ Operation 2: Enter the command "SETSYSTEM."

□ Check 1: Check to see that the console looks like the one shown below.

```
# >> SETSYSTEM
      1: T6681
      2: OTHER
Select NO:
```

△ Operation 3: Enter "2" for Select No and choose "OTHER" for the system type.

□ Check 2: Check to see that the console looks like the one shown below.

```
      Select No. 2
      THIS SYSTEM IS OTHER
# >>
```

(2) Method for verifying the system type

△ Operation 1: Press the EMO (EMERGENCY OFF) switch to turn the power to the system monitor off.

△ Operation 2: Set MODE SELECT to 0x00.

△ Operation 3: Turn the key switch off.

△ Operation 4: Press the START switch on the AC CONT panel.

△ Operation 5: Set MODE SELECT to 0xD3 and press the DIAG switch.

□ Check 1: Check to see if the LED indicator on the AC CONT displays "0x999." If the status is not "0x999," a TC power supply error results when you turn the key switch on. If this happens, set the system type again.

(3) Method of resetting

△ Operation 1: Set MODE SELECT to 0x00.

Thus, the system is ready to accept your instruction to turn the key switch on.

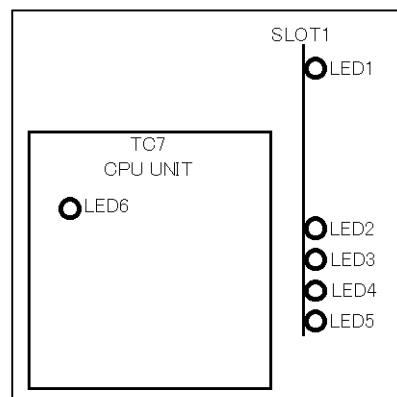
4. LED Specifications

The diagram below shows specifications of each LED on the LED-fitted board.

4.1 Specifications of TC Unit LEDs

4.1.1 Specifications of TC7 CPU Unit LEDs

Table 4-1 TC7 Unit LEDs

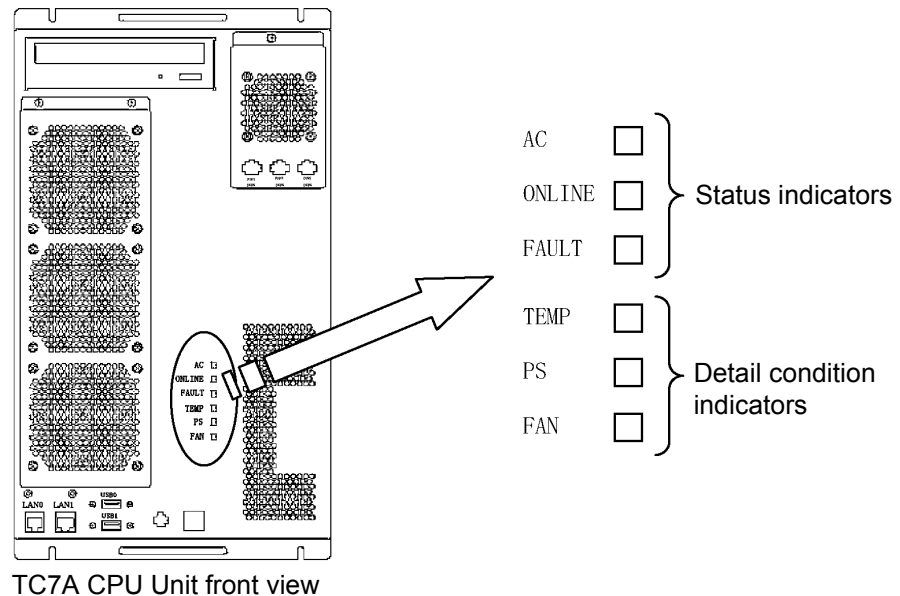


SLOT No.	Circuit Name	LED No.	Color	Display Description
1	TC6 IO IF board	1	Green	Lit when SYSMON is turned ON.
		2	Green	Lit when the FiFo READ cycle is active.
		3	Green	[D13, D14, and D15] indicate the DATA row number accumulated on the FiFo.
		4	Green	
		5	Green	
	TC7 CPU UNIT	6	Green	Lit after the CPU is started.

4.1 Specifications of TC Unit LEDs

4.1.2 Specifications of TC7A CPU Unit LEDs

Table 4-2 Specifications of TC7A CPU Unit LEDs

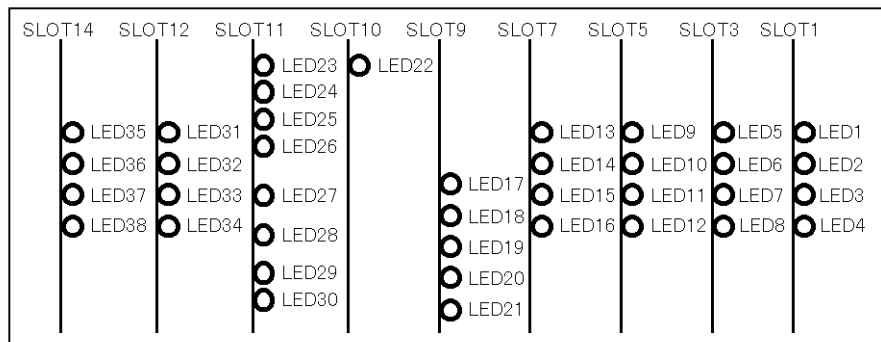


Status indicators	AC ON (Green)	Lit: The AC switch on the rear panel is ON and the AC power is supplied. Off: The AC power is not supplied.
	ONLINE (Green)	Lit: The DC power is supplied, but the additional RAS function support software is not operating. Off: The DC power is not supplied, or the operating system is shut down. Blink: Lit on and off for 0.5 seconds repeatedly. The power is supplied, and the additional RAS function support software is operating.
	FAULT (Red)	Lit: The RAS function on the TC7A CPU Unit detected an abnormality. Off: Operates correctly.
Detail condition indicators	TEMP (Red)	Lit: The RAS function on the TC7A CPU Unit detected a temperature abnormality. If a temperature abnormality is detected in the power supply unit, the PS indicator is also lit. If a temperature abnormality reaches the warning temperature, the operating system shuts down. If a temperature abnormality reaches the danger-level, the power shuts down forcibly. Off: A temperature abnormality is not detected.
	PS (Red)	Lit: The RAS function on the TC7A CPU Unit detected a power supply abnormality. If the RAS function detected an AC or DC abnormality, the power shuts down forcibly. Off: A power supply abnormality is not detected.
	FAN (Red)	Lit: The RAS function on the TC7A CPU Unit detected a fan abnormality. Off: A fan abnormality is not detected.

Note: The SLOT2 board applies the same specifications with those described in Section 4.1.1, "Specifications of TC7 CPU Unit LEDs."

4.2 Specifications of the DP Unit LEDs

Table 4-3 DP Unit LEDs

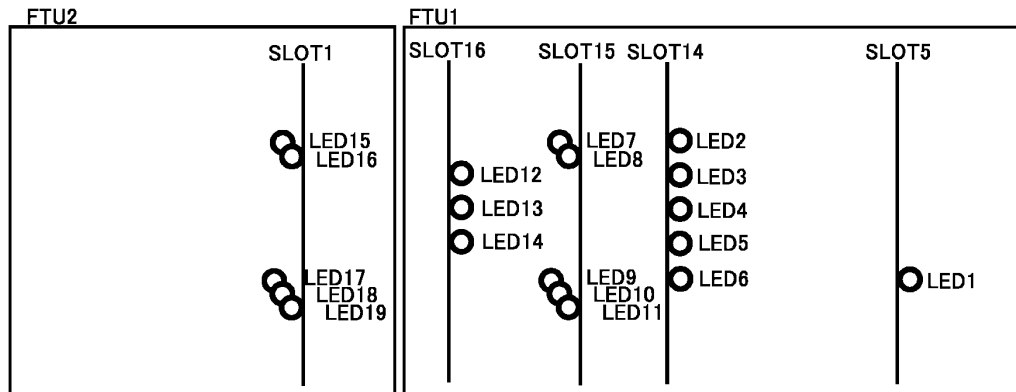


SLOT No.	Circuit Name	LED No.	Color	Display Description
1,3,5,7	DPS CONT	1,5,9,13	Green	Lit when the oscillation, guard or Kelvin alarm occurs.
		2,6,10,14	Green	Lit when the clamp alarm occurs.
		3,7,11,15	Green	Lit when the DSP is in RON.
		4,8,12,16	Green	Lit when the DSP is under A/D conversion.
9	40VPPS	17	Red	Lit when the head sink alarm occurs.
		18	Yellow	Lit when the clamp alarm occurs.
		19	Green	Lit while the FPGA is being configured.
		20	Yellow	Lit when the total alarm occurs.
		21	Green	Lit while the FPGA is busy.
10	DPS MUX	22	Green	Lit when the +5 V Power is turned ON.
11	IFL	23	Orange	Turns OFF when the configuration has been completed.
		24	Green	Not applicable.
		25	Green	Not applicable.
		26	Green	Not applicable.
		27	Orange	Lit when the DSP clamp alarm occurs.
		28	Red	Lit when the heat sink alarm occurs.
		29	Green	Lit when -5.2 V power supply is turned on.
		30	Green	Lit when +5 V power supply is turned on.
12,14	UDC CONT	31,35	Green	Lit when the clamp alarm occurs.
		32,36	Green	Lit when the guard alarm occurs.
		33,37	Green	Lit when the DC is under A/D conversion.
		34,38	Green	Lit when the DC is in RON.

4.3 Specifications of the FT UNIT LEDs

4.3 Specifications of the FT UNIT LEDs

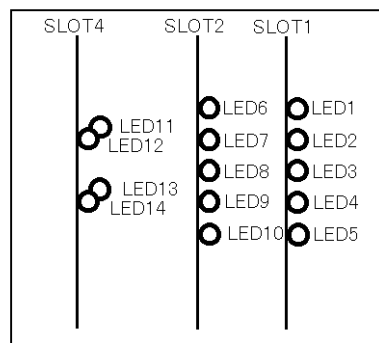
Table 4-4 FT UNIT LEDs



SLOT No.	Circuit Name	LED No.	Color	Display Description
5 (FTU1)	EVENT	1	Orange	Lights when the configuration is incomplete.
14 (FTU1)	SNC/TRIG	2	Orange	Lights during FREE RUN
		3	Orange	Lights during RATE RUN
		4	Orange	Lights during PG RUN
		5	Orange	Lights when the configuration is incomplete.
		6	Orange	Lights when PLL operates incorrectly.
15 (FTU1)	FTU-THIF	7	Green	Lights when the configuration is incomplete.
		8	Green	Lights when the configuration is incomplete.
		9	Green	Lights when a bus error occurs.
		10	Green	Lights when a bus error occurs.
		11	Green	Lights when a bus error occurs.
16 (FTU1)	SQPG	12	Green	Lights when the configuration is incomplete.
		13	Green	Lights during RATE RUN
		14	Green	Lights during PG RUN
1 (FTU2)	FTU-THIF	15	Green	Lights when the configuration is incomplete.
		16	Green	Lights when the configuration is incomplete.
		17	Green	Lights when a bus error occurs.
		18	Green	Lights when a bus error occurs.
		19	Green	Lights when a bus error occurs.

4.4 Specifications of the MIXED UNIT LEDs

Table 4-5 MIXED UNIT LEDs

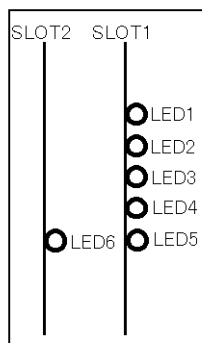


SLOT No.	Circuit Name	LED No.	Color	Display Description
1	TBUS CAL	1	Green	Lit when +5 V power supply is turned on.
		2	Green	Lit when +3.3 V power supply is turned on.
		3	Green	Lit when -5.2 V power supply is turned on.
		4	Green	Lit when +15 V power supply is turned on.
		5	Green	Lit when -15 V power supply is turned on.
2	EM3	6	Green	Lit when +3.3 V power supply is turned on.
		7	Green	Lit when +2.5 V power supply is turned on.
		8	Green	Lit when +5 V power supply is turned on.
		9	Green	Lit when -5.2 V power supply is turned on.
		10	Green	Always OFF
4	PCIF	11,13	Green	Lights during BUSY.
		12,14	Green	Always lights after the power turns on.

4.5 Specifications of the MONITOR I/F, AC CONT IF LEDs

4.5 Specifications of the MONITOR I/F, AC CONT IF LEDs

Table 4-6 MONITOR I/F, AC CONT IF LEDs



SLOT No.	Circuit Name	LED No.	Color	Display Description
1	MONI IF	1	Green	Lit when +5 V(SYS) power supply is turned on.
		2	Green	Lit when -5.2 V(SYS) power supply is turned on.
		3	Green	Lit when +5 V(TC) power supply is turned on.
		4	Green	Lit when +5 V power supply is turned on.
		5	Green	Lit when +5 V power supply is turned on.
2	AC CONT IF	6	Green	Lit when +24 V power supply is turned on.

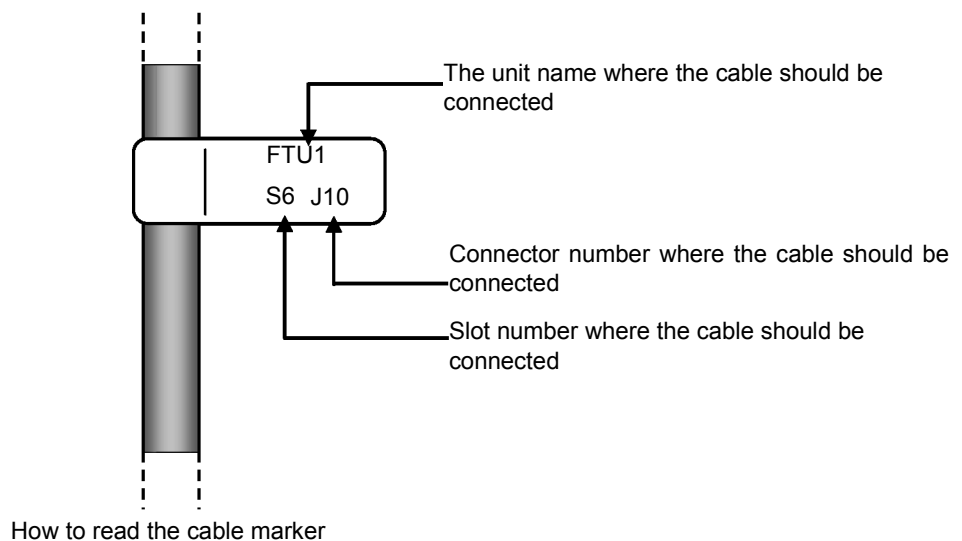
5. Board Replacement

5.1 How to Read the Cable Marker

All cables in the tester unit of this test system have cable markers attached. The cable marker has a tag indicating where each cable should be connected.

In the example below, the cable marker reads “FTU1 S6 J10.” This means that the cable should be connected to connector No. 10 in slot 6 of the FTU1 unit.

For details about unit names, slots, and connector numbers, refer to each cable connection diagram.



5.2 How to Connect/Disconnect Cables

5.2 How to Connect/Disconnect Cables

Various connectors are installed on each board. Figure 5-1 through Figure 5-5 explain how to disconnect and connect these cables.

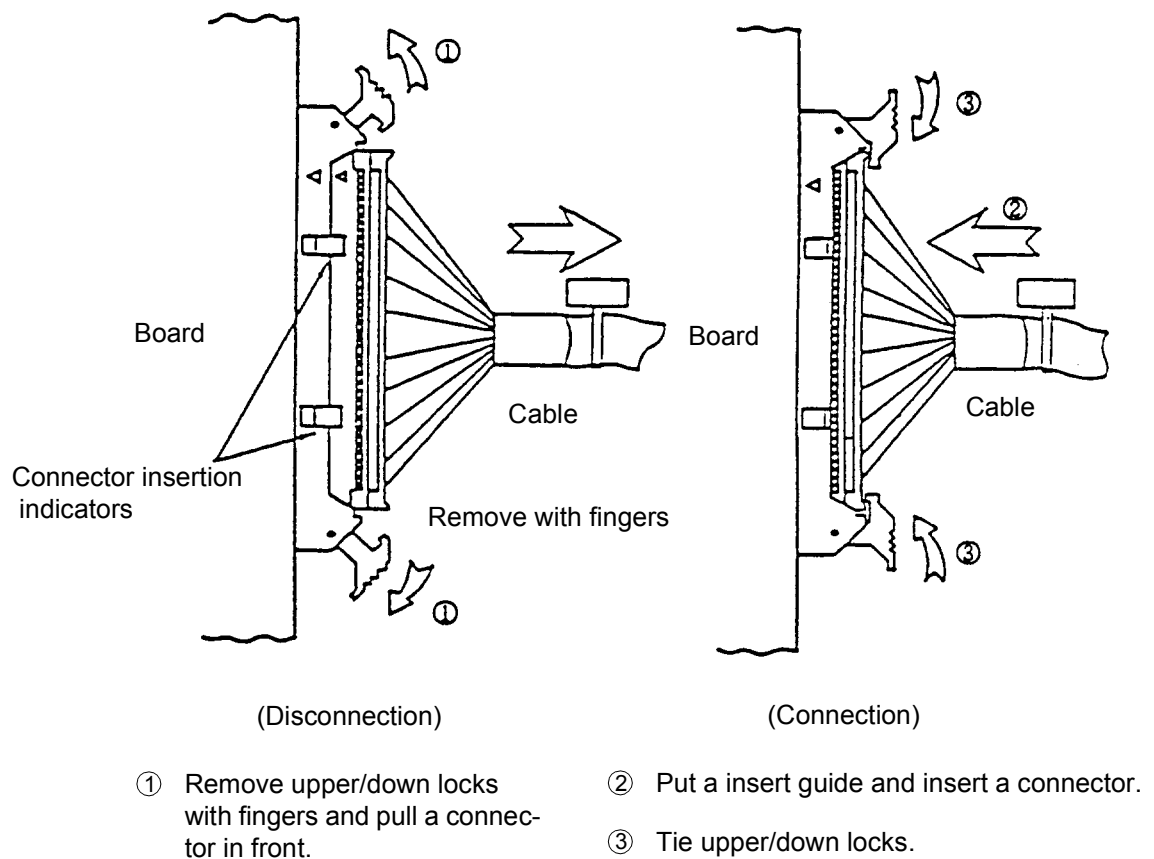
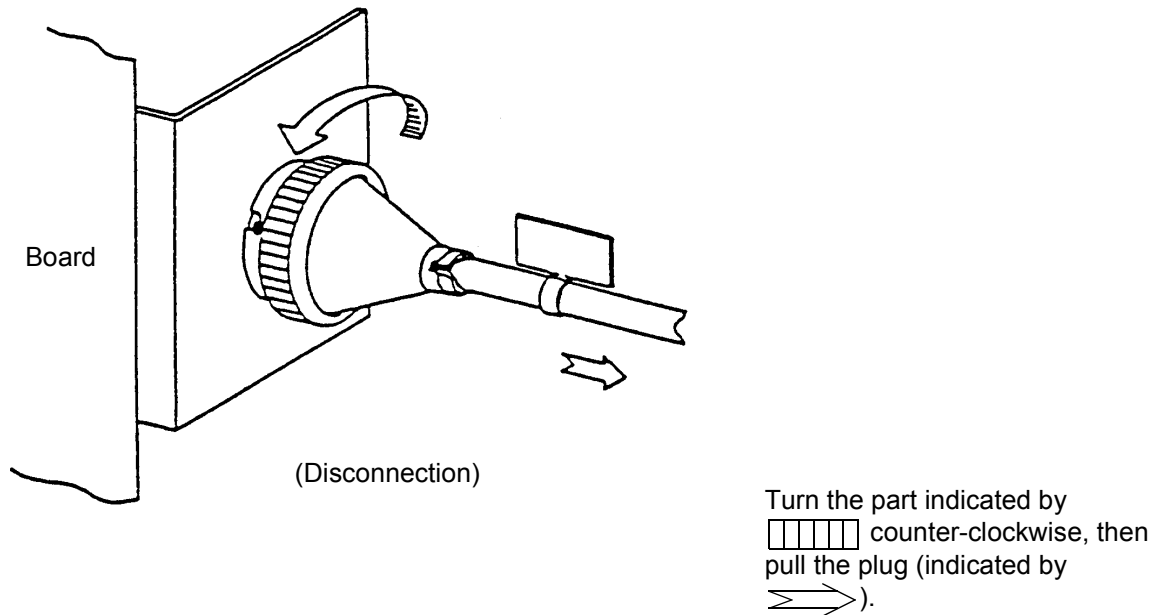
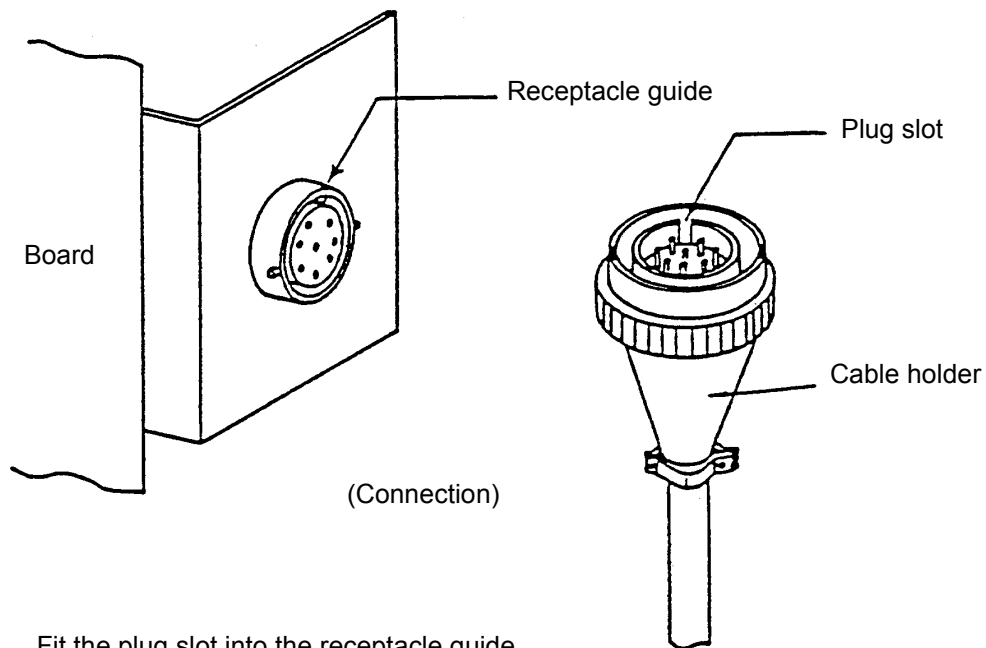


Figure 5-1 Connecting/Disconnecting Top Board Connector (1)

**Figure 5-2 Connecting/Disconnecting Top Board Connector (2)**

Fit the plug slot into the receptacle guide, then press the plug holding the cable holder.

Figure 5-3 Connecting/Disconnecting Top Board Connector (3)

5.2 How to Connect/Disconnect Cables

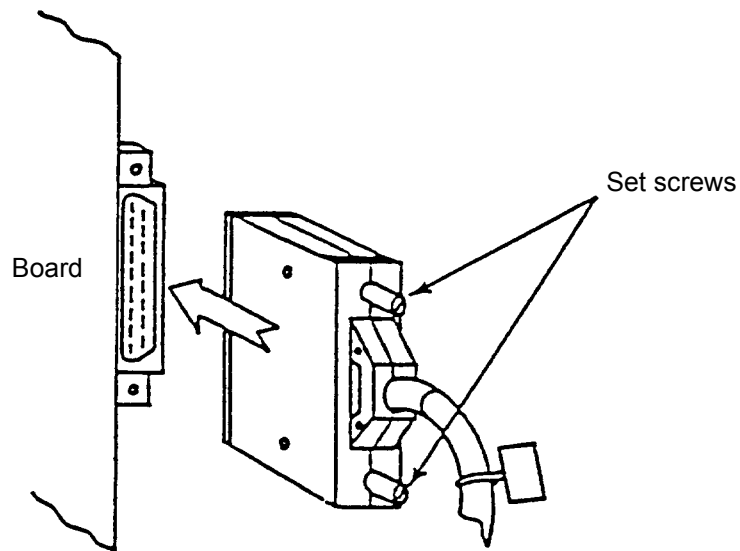
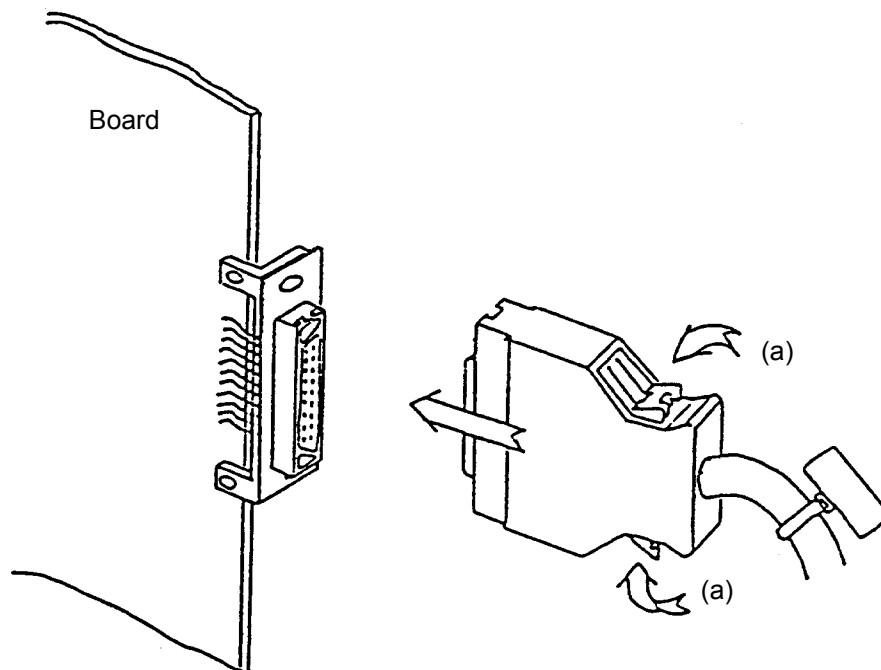


Figure 5-4 Connecting/Disconnecting Top Board Connector (4)



To disconnect, depress (a) and pull the connector in front.
For installation, inset the connector fastenly. (until making click sound)

Figure 5-5 Connecting/Disconnecting Top Board Connector (5)

5.3 Detaching/Attaching Boards Mounted Inside the Frame

Detachable handles, shown in Figure 5-6 are located at the top and bottom of the frame. To detach or attach a board, position the board handles so that the small slot fit over the knobs on the outside of the board frame.

When inserting the board, push the board in with your hand until the connector guide of the back board and the board are engaged.

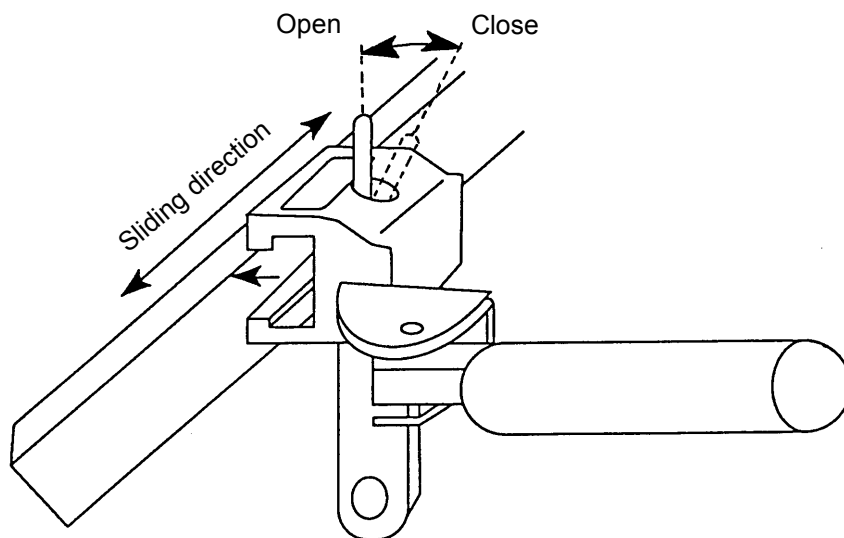


Figure 5-6 Board Handle (KH9-90287)

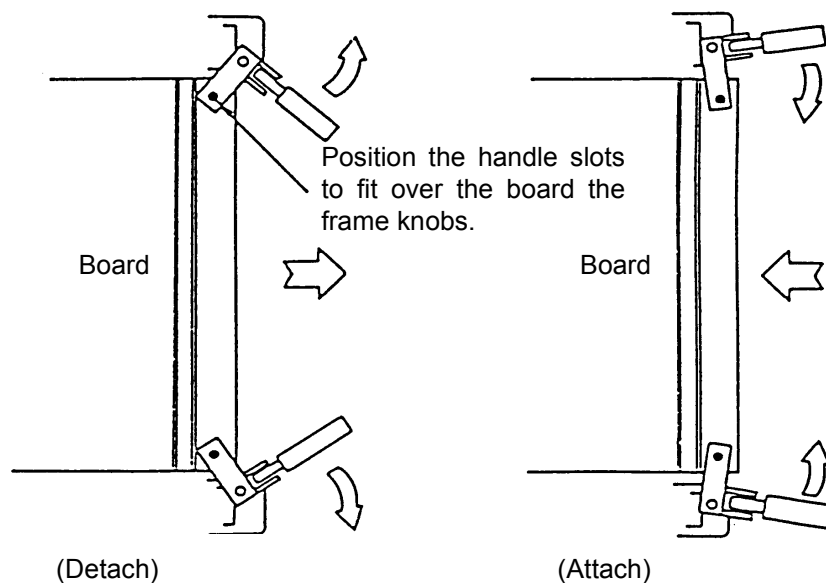


Figure 5-7 Detaching and Attaching the Board

5.4 Inserting or Removing the IO IF, MONITOR IF, and AC CONT IF Boards

5.4 Inserting or Removing the IO IF, MONITOR IF, and AC CONT IF Boards

The brackets are secured to the IO IF, MONI IF, and AC CONT IF boards as shown in Figure 5-8.

Remove the bracket to insert or remove the IO IF board. Secure the bracket after inserting the board.

For the MONI IF and AC CONT IF boards, loosen the brackets and slide them in the direction shown in Figure 5-8 to insert or remove the boards. After inserting the board, slide the bracket, set it in the concave of the support bar, and secure it with screws.

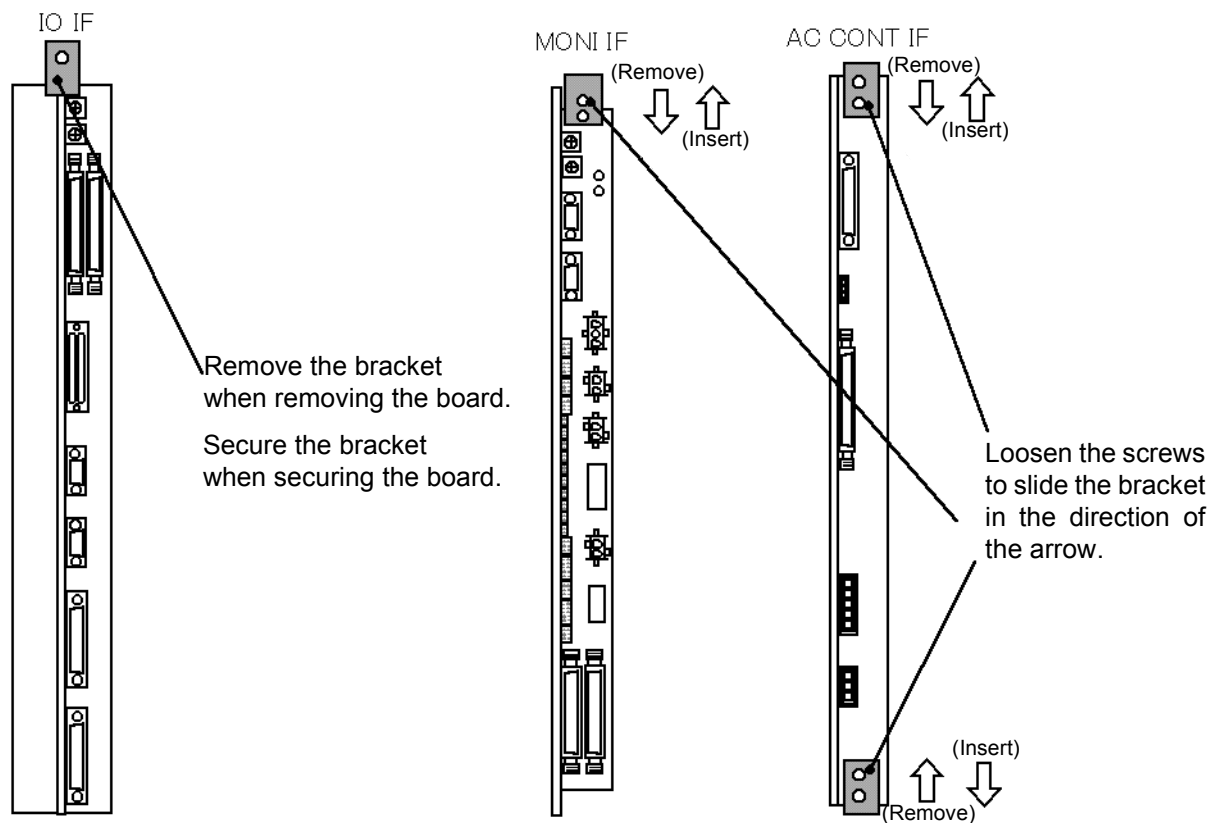


Figure 5-8 How to Insert or Remove the IO IF, MONI IF, and AC CONT IF Boards

5.5 Detaching/Attaching the Boards Mounted in the Test Head

5.5.1 Detaching/Attaching the Mounted Board

To detach or attach a board from the test head, use the jig provided (shown in Figure 5-9).

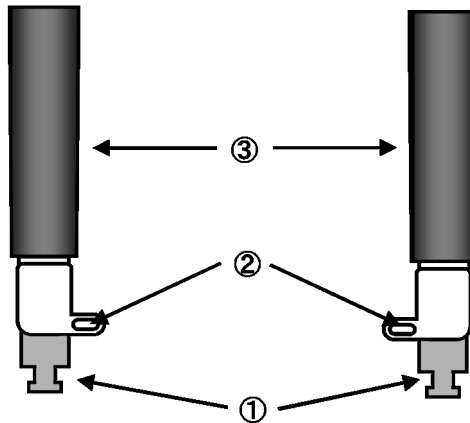


Figure 5-9 Test Head Board Handle

To remove the pin electronics card, insert ① the pulling jig into the rail, place ② on the pin at the top of the pin electronics card, then grasp ③ and push outward.

To insert the pin electronics card, grasp ③ and pull inward.

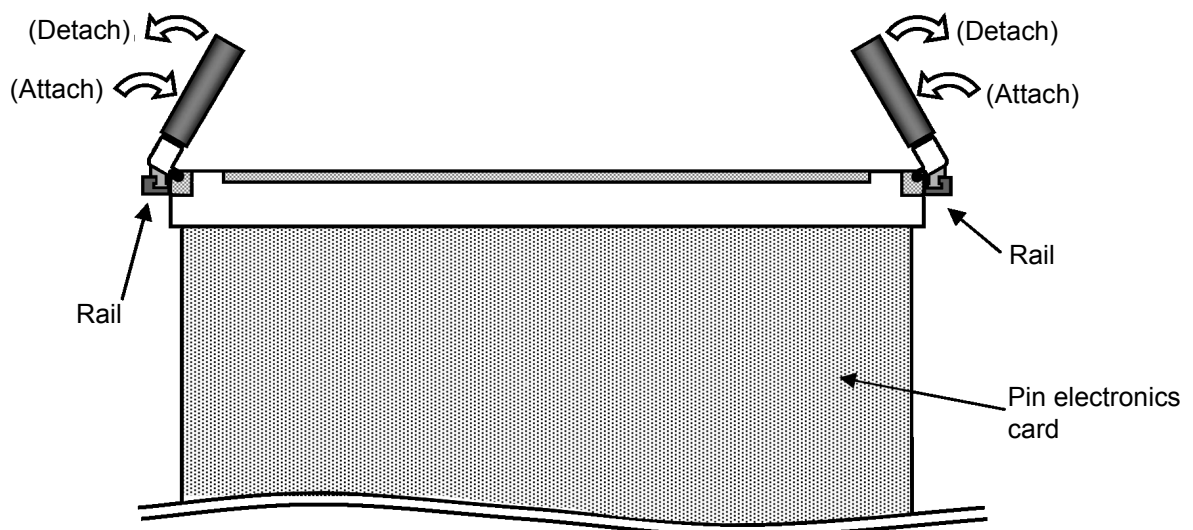


Figure 5-10 Detaching/Attaching Test Head Board

5.6 Procedure for Replacing the Pin Electronics Card (PE)

5.6 Procedure for Replacing the Pin Electronics Card (PE)

Use the following procedure to replace pin electronics cards. Be extremely careful with pin electronics cards which are precision products.

- (1) Press the PB FREE button (① in Figure 5-11) to free the performance board and remove it.
- (2) Press the MB FREE button (② in Figure 5-11) to free the HIFIX.
- (3) Remove air connector A, which is connected to ③, as shown in Figure 5-11.

Note 1: Use the appropriate procedure to prevent damage when removing the air connectors.

Note 2: Two types of air connectors are used. The tube colors are black and blue. Secure connectors to the color of tubes which were connected to air connectors A and B.

- (4) Lift the HIFIX handles (④ in Figure 5-11) while pressing the button ⑤ to release the lock, and remove the HIFIX.

Note 3: The HIFIX is heavy. Four people are required to remove the HIFIX. The HIFIX is positioned precisely by using guide pins. Keep the HIFIX in a horizontal position when removing or mounting.

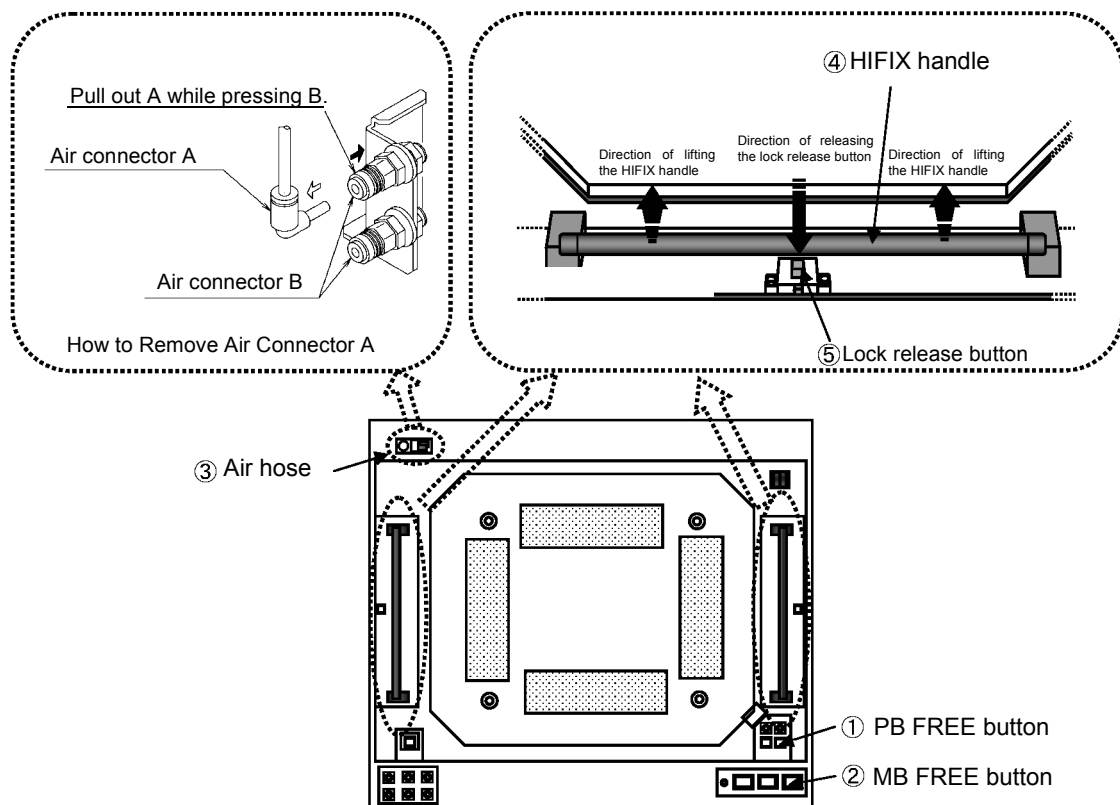


Figure 5-11 Top View of the Test Head (HIFIX Mounted)

5.6 Procedure for Replacing the Pin Electronics Card (PE)

- (5) Remove the TH outer panel fixing screws ⑥ shown in Figure 5-12, and remove the TH outer panel.
- (6) Remove the screws ⑦ shown in Figure 5-12, and remove the TH board fixing brackets.
- (7) Pull out a PE card by using the dedicated jig shown in Figure 5-9.

Note 4: *Wear an anti-static wristband when replacing a PE card.*

- (8) To insert a PE card, reverse procedure (1) to (7). Check that the PE card is correctly inserted.

Note 5: *When inserting a PE card, hold it securely until it is completely inserted to prevent the PE card from falling and being damaged.
Be careful not to catch your fingers between the board and the board support bar when inserting a PE card.*

Note 6: *Two types of air connectors are used. Secure connectors according to the color of tubes which were connected to air connectors A and B. The tube colors are black and blue.*

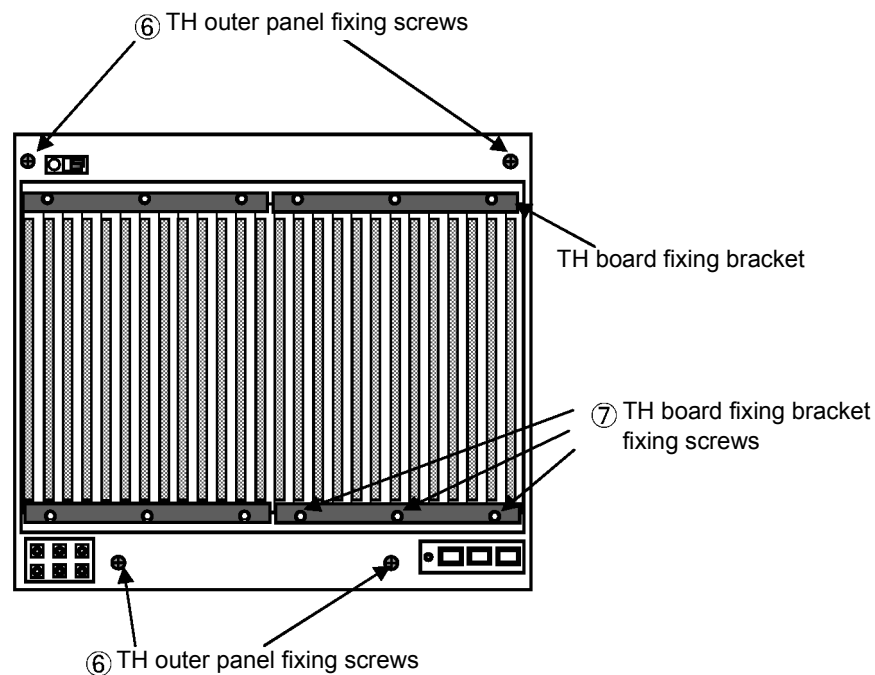


Figure 5-12 Top View of the Test Head (HIFIX Removed)

5.7 Precautions to Be Taken when Carrying Boards

5.7 Precautions to Be Taken when Carrying Boards

Always be sure to use the rack provided when transporting the circuit boards listed below.

Name	Trunk Case Type
Board power supply	KH9-91258
FP	KH3-90861
PE	KH9-91624
VAFGD	KH9-910324
BBWGD	KH9-910324
SG/JMM	KH9-910324

5.8 Operation when Replacing Boards

- (1) Before replacing the monitor I/F board, press the EMO (EMERGENCY OFF) switch and set the breaker to OFF to turn off the main power supply.
- (2) Make sure the fan has stopped before you remove or insert a connector or board.
- (3) After replacing the board, change the board's revision setting.

The following shows how to change the configuration data.

The underlined part denotes a string to be entered from the keyboard.

- ① Log in to Engine as a general user.
- ② Move the directory to \$ADVANTEST_HOME/data/host/<host>/sys_data.

```
% cd $ADVANTEST_HOME/data/host/<host>/sys_data
```

- ③ Copy the revision number setup file of the board before creating a backup. This helps to prevent the data from an operational mistake, power outage, or unexpected damage.

```
% cp atd boarddatn.db atd boarddatn.db.BAK
```

- ④ Start the boardrev program.

When the board name and board revision data are changed because the OS revision is upgraded or an additional board is installed, the board information file to be changed may not be updated.

(For example, when the boardrev program is executed because the DIAG revision is updated to R1.05 or later, the slot corresponding to DDR2_OPTIN of TH is not described.)

Because the board information cannot be corrected in such a case, execute the following A and B steps to update the board information file.

A. Execute menu item "5" to copy the latest atd_boarddatn.db in the hw.

When the latest atd_boarddatn.db is copied, the slot corresponding to DDR2_OPTION of the TH is added so that the board information file can be edited.

B. Execute menu item "2" and copy the current revision information to atd_boarddatn.db. The current revision information is incorporated by this procedure.

Then choose menu "3."

Note: *Note that if menu item "3" is executed after menu item "5" is executed in sequence, board revision data that has been edited up to that time is cleared. Make sure to execute the menu items in the order of menu item "5" → menu item "2" → menu item "3."*

5.8 Operation when Replacing Boards

```
% boardrev.↓
-----

          T6577 Board Revision Program Rev1.00

          Database File                      Working File
+-----+ --- 1---> +-----+
| atd_boarddatn.db | | at_boardch.dat |
+-----+ <---2 --- +-----+

1. extract working file from database file
2. recreate database file from working file
3. 1 + 2 (using editor)
4. 1 + 2 (interactive operation)
5. copy data base file from hw dir to sys_data dir
q. quit from menu

Please input a number that selected from the menu: 3
```

- ⑤ The vi editor starts and when the board REVISION data (before any corrections) appears, make the necessary changes.

<UNIT>	<SLOT>	<BOARD>	<FUNCTION>	<REV>	<SER>
[TOP] -----					
DPU1	1	BGR-027534	DPS_CONT	-	-
DPU1	2	BGR-023715×03	DPS1	-	-
DPU1	3	BGR-027534	DPS_CONT	-	-
DPU1	4	BGR-023715×03	DPS2	-	-
DPU1	5	BGR-027534	DPS_CONT	-	-
DPU1	6	BGR-023715×03	DPS3	-	-
DPU1	7	BGR-027534	DPS_CONT	-	-
DPU1	8	BGR-023715×03	DPS4	-	-
DPU1	11	BGR-026245	IFL	-	-
...					
...					
[EOF] -----					

In the following explanation, the word “row” refers to a horizontal list and the word “column” refers to a vertical list. <UNIT>, <SLOT>, etc. in the first row are not displayed. Rows [TOP]--- and [EOF]--- are not displayed either.

The <REV> column lists the previous revision numbers. The <SER> column lists the previous serial Nos. Change the data in the <REV> and <SER> columns only, and no other data. Rows that contain data you do not change can be deleted. For details on how to use the vi editor, refer to the manual included with your vi editor.

Here, it is assumed that you have corrected the data as follows.

```
[TOP] -----
DPU1      7      BGR-027534    DPS_CONT    ABC      3150
DPU1     11      BGR-026245    IFL        ABD      3420
[EOF] -----
```

Save the contents you've corrected and exit the editor.

- ⑥ When you are back at the boardrev menu, choose "y" to have the corrections to board revision numbers reflected in the file. When you are back at the menu again after the corrections are reflected, choose "q" to quit the menu.

```
creat new board.db? [y or n]:y↵

DPU1      7      BGR-027534    DPS_CONT    ABC      3150
DPU1     11      BGR-026245    IFL        ABD      3420
-----

      T6577 Board Revision Program Rev1.00

      Database File                      Working File
+-----+ --- 1---> +-----+
| atd_boarddatn.db |          | at_boardch.dat |
+-----+ <---2 --- +-----+

1. extract working file from database file
2. recreate database file from working file
3. 1 + 2 (using editor)
4. 1 + 2 (interactive operation)
5. copy data base file from hw dir to sys_data dir
q. quit from menu

Please input a number that selected from the menu:q↵

%
```

- ⑦ Delete the previous file.

```
% rm atd_boarddatn.db.BAK↵
%
```

When replacing the board, back up the configuration data by using the following procedures.

5.8 Operation when Replacing Boards

(a) Saving the backup copy on a CD-RW (TC7-equipped system)

- ① Move the directory to \$ADVANTEST_HOME/data/host/<host>/sys_data.

```
% cd $ADVANTEST_HOME/data/host/<host>/sys_data
```

- ② Change to the root directory. The following procedure must be performed as the root user.

```
% su
Password: _____
#
```

- ③ Check that hwconfig.dat, atd_boarddatn.db exists in the file.

```
# ls hwconfig.dat atd_boarddatn.db
```

- ④ Insert the CD-RW in the drive.

- ⑤ Enter the following command to delete the data on the CD-RW.
If the cdrom file manager starts, quit the file manager.

```
# cdrw -b session
```

- ⑥ If the data on the CD-RW is deleted and the CD-RW is ejected from the drive, re-insert the CD-RW.

- ⑦ Change the directory to the home directory.

```
# cd
```

- ⑧ To save the backup copy, enter the following command.

```
# $ADVANTEST_HOME/bin/sys_data back
```

- ⑨ If the process complete, the CD-RW is ejected from the drive. Remove the CD-RW and press the eject button on the drive to close the disk tray.

Information

- Configuration of the file to be edited using boardrev
Configuration of the file to be edited using boardrev is as follows:
The file actually edited using boardrev.

Note: *Board revision data can be updated using boardrev when the system is delivered and maintenance is performed.*

```
$ADVANTEST_HOME/data/host/<host>/sys_data
atd_boarddatn.db ..... (a)
at_boardch.dat ..... (b)
```

The file based on which editing is made by using boardrev.

Note: *This file cannot be updated using boardrev, but if an option is added, this file is updated when software such as Diag is installed.*

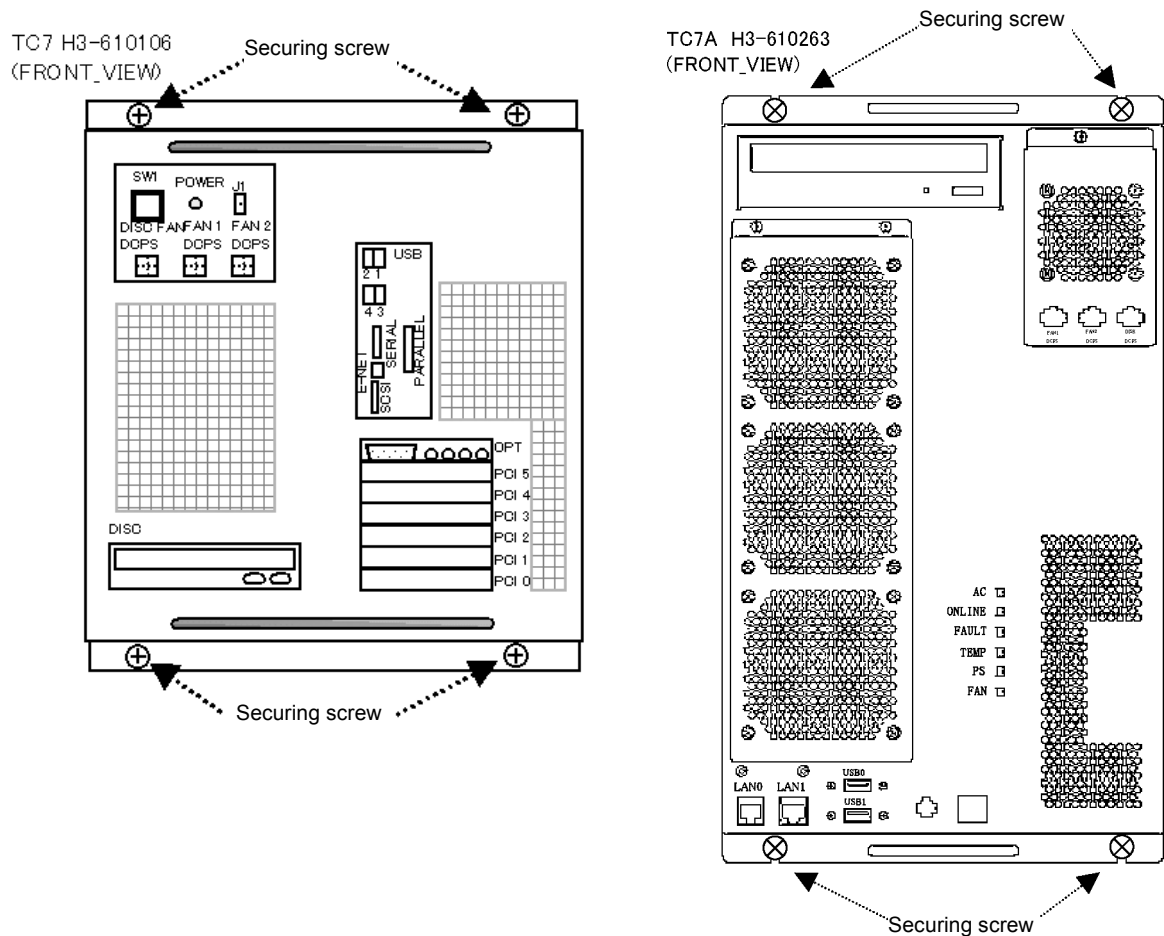
```
$ADVANTEST_HOME/data/machine/<SYSTEM>/hw/
atd_boarddatn.db ..... (c)
```

- boardrev command details
 - (1) extract at_boardch.dat from atd_boarddatn.db
Creates at_boardch.dat ((b) above) from the current board data atd_boarddatn.db ((a) above).
 - (2) recreate database file from working file
Corrects the content of atd_boarddatn.db ((a) above) based on at_boardch.dat ((b) above).
 - (3) 1 + 2 (using editor)
Use this command to execute command 1 and 2 in sequence. The editor remains set to vi.
 - (4) 1 + 2 (interactive operation)
Use this command to correct the board revision for each board interactively. Only data that can be registered and corrected by using this command is the board revision.
 - (5) 5. copy data base file from hw dir to sys_data dir
Copies atd_boarddatn.db ((c) above), updated by software such as installation of Diag, to atd_boarddatn.db ((a) above).

5.9 Removing the TC7 or TC7A CPU UNIT

5.9 Removing the TC7 or TC7A CPU UNIT

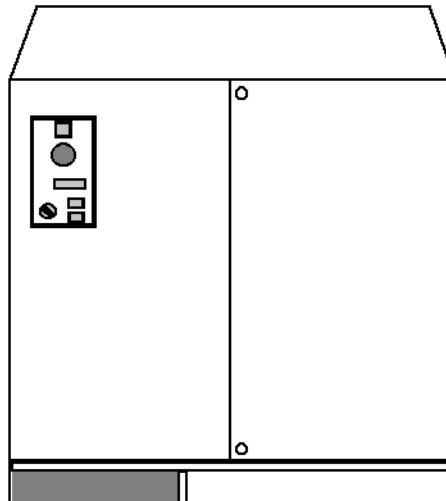
- ① Turn OFF the system power switch. (Also, turn OFF the main breaker.)
- ② Remove all cables connected to the front and rear sides of the TC7 or TC7A CPU UNIT.
- ③ Remove the four screws, which secure the TC7 or TC7A CPU UNIT.



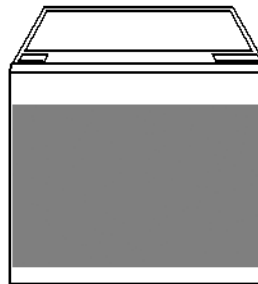
- ④ Pull out the TC7 or TC7A UNIT from the front side of the mainframe. Because the TC7 and TC7A UNITS are heavy, at least two people are required for this step.

6. Unit, Power Supply Layout, and Voltage Specification

6.1 System Layout



Main frame



TH

Figure 6-1 System Layout

6.2 Main Frame Inside Layout

6.2 Main Frame Inside Layout

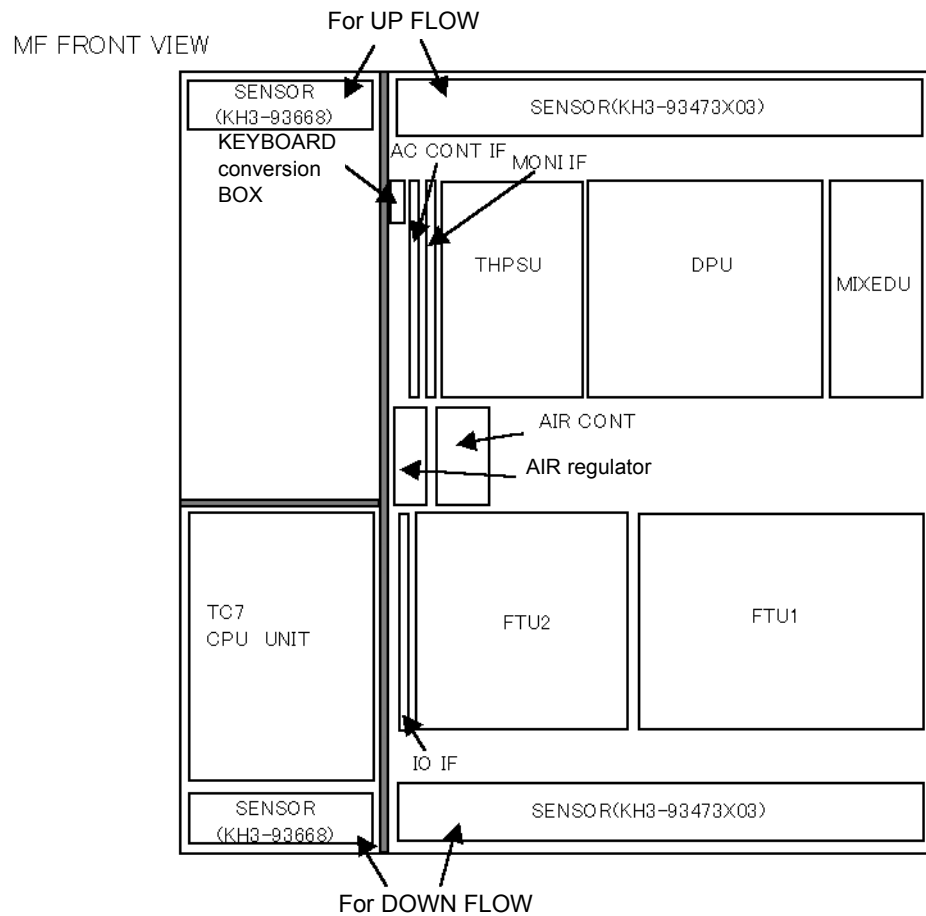
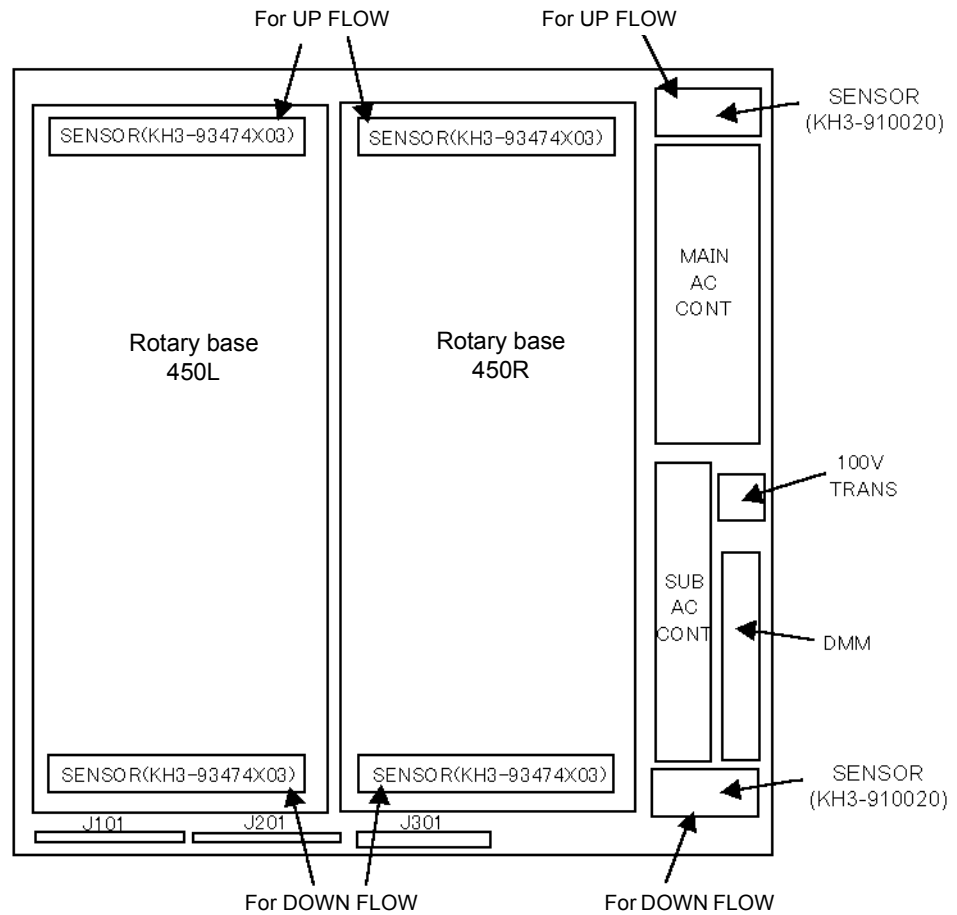


Figure 6-2 Main Frame Layout (Front View)

MF REAR VIEW

**Figure 6-3 Main Frame Layout (Rear View)**

6.2 Main Frame Inside Layout

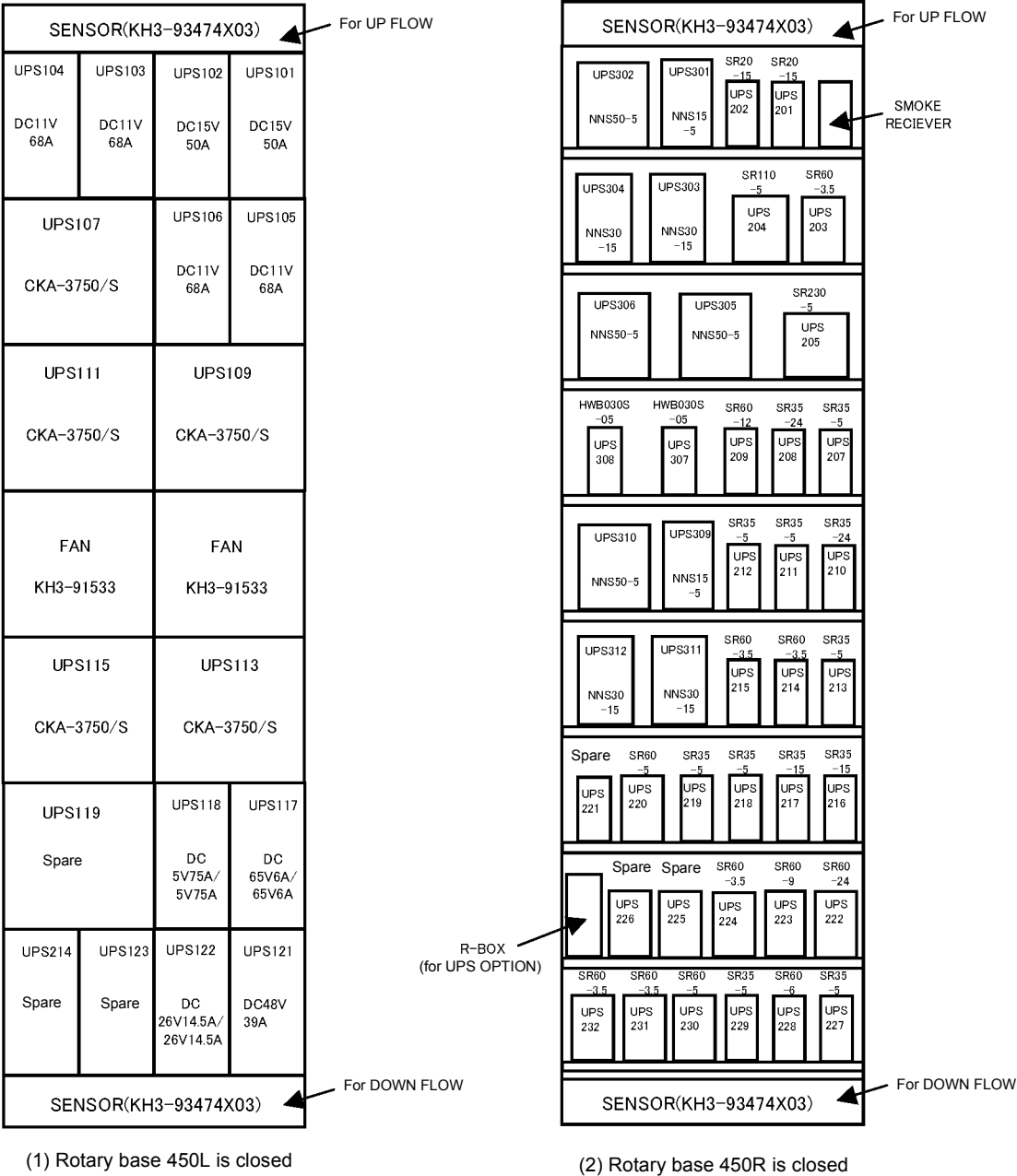


Figure 6-4 Main Frame Power Supply Layout

6.3 Safety Device Mounting Position

MF FRONT VIEW

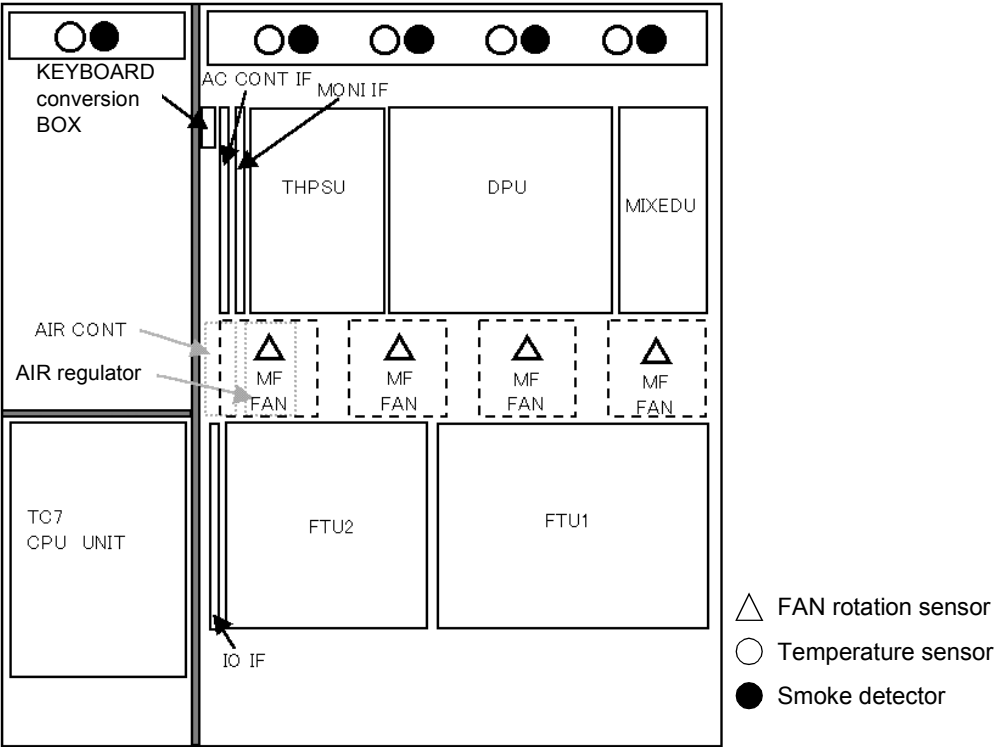


Figure 6-5 MF Safety Device Mounting Position (Front View when Setting UP FLOW)

6.3 Safety Device Mounting Position

MF REAR VIEW

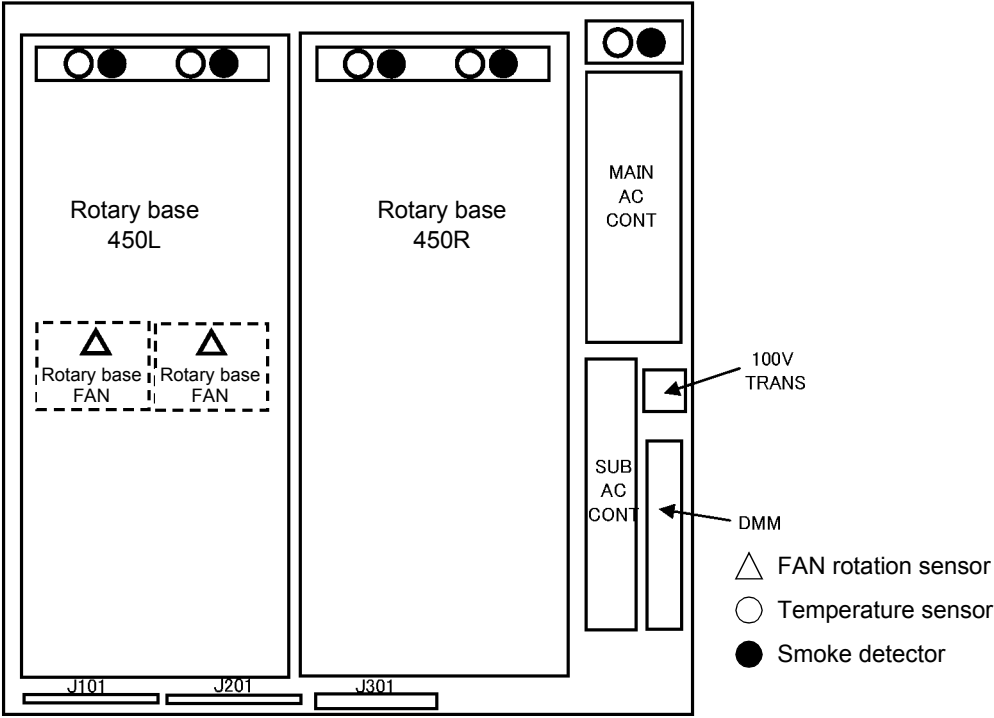
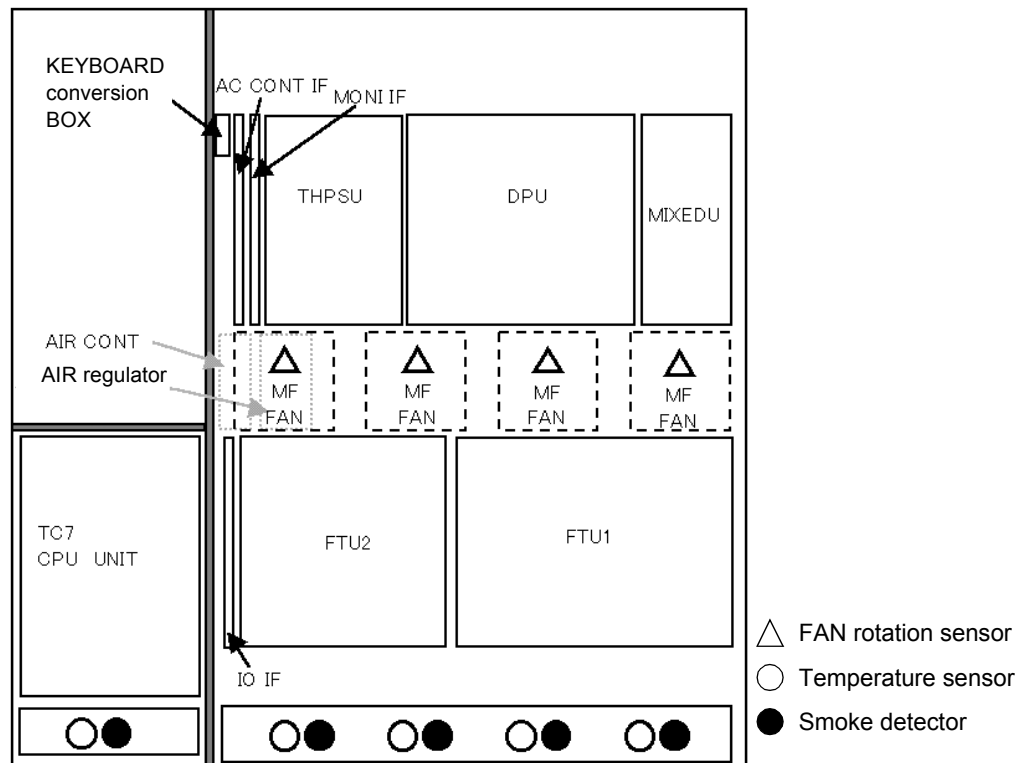


Figure 6-6 MF Safety Device Mounting Position (Rear View when Setting UP FLOW)

MF FRONT VIEW

**Figure 6-7 MF Safety Device Mounting Position (Front View when Setting DOWN FLOW)**

6.3 Safety Device Mounting Position

MF REAR VIEW

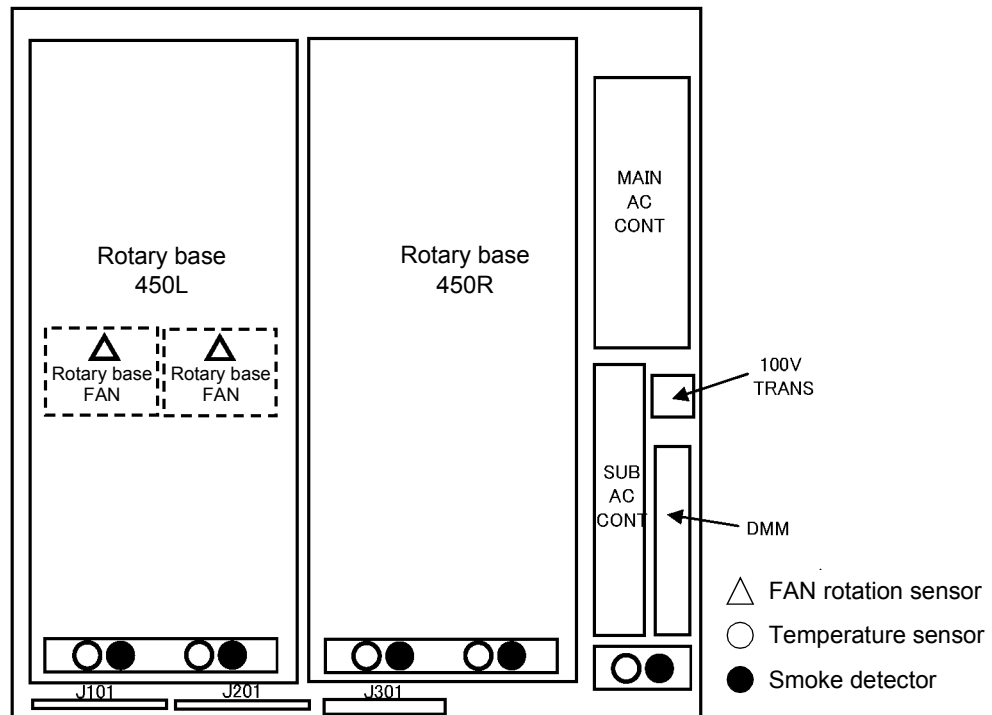
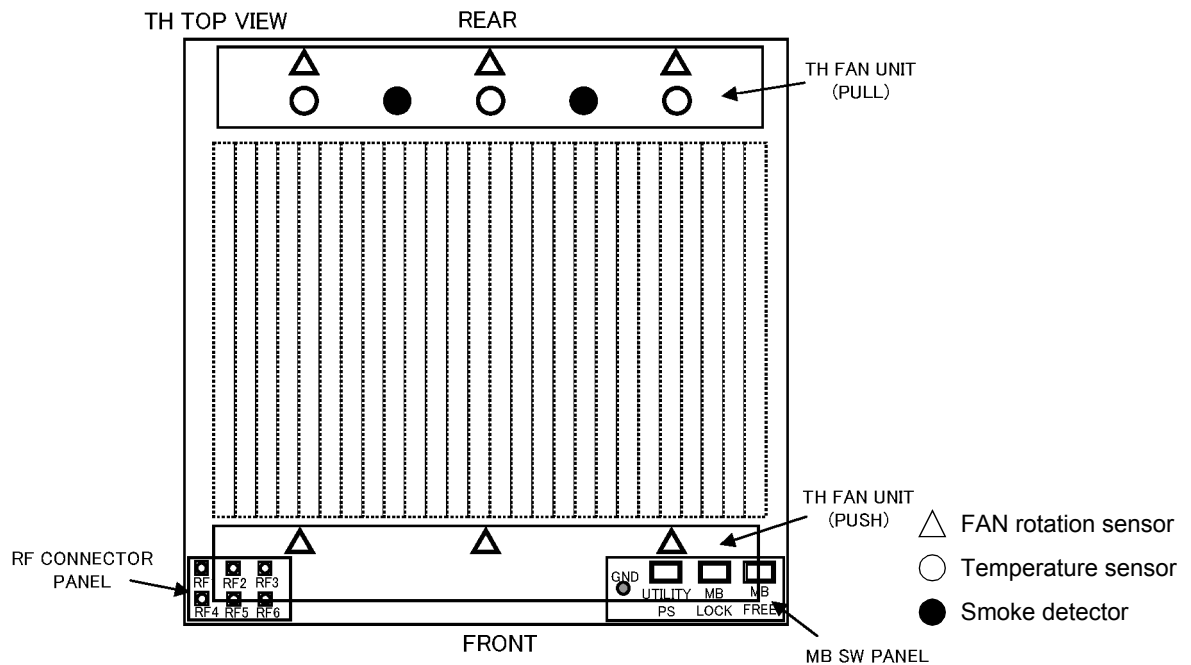
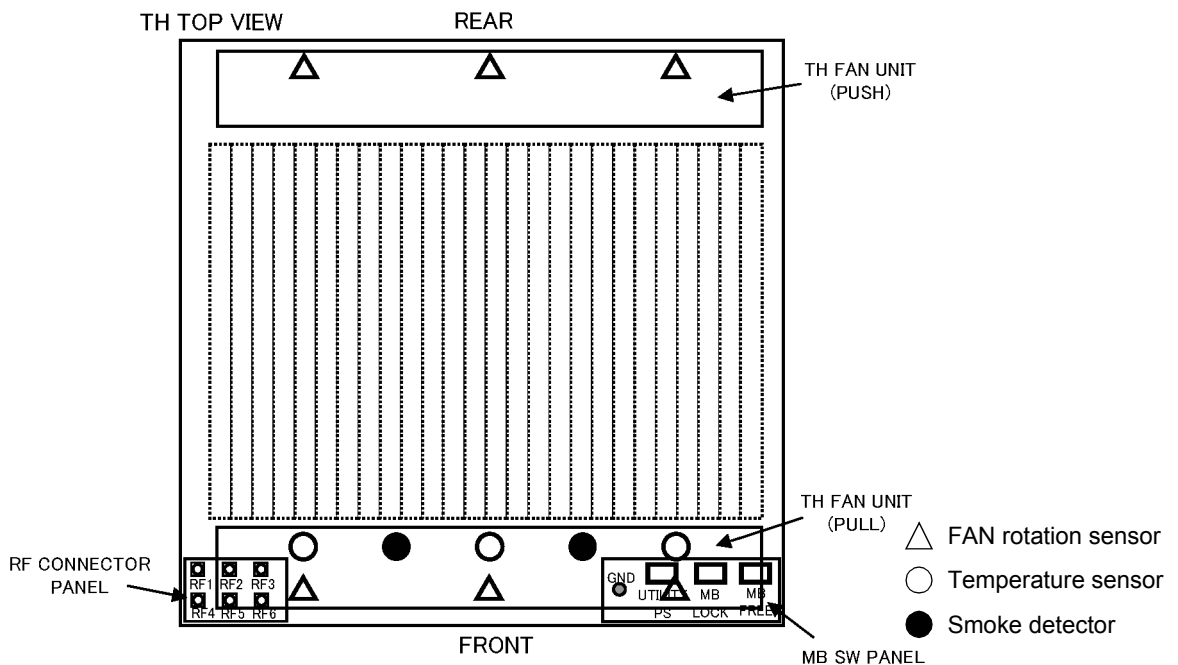


Figure 6-8 MF Safety Device Mounting Position (Rear View when Setting DOWN FLOW)

6.3 Safety Device Mounting Position



(1) Blowing to the REAR direction



(2) Blowing to the FRONT direction

Figure 6-9 TH Safety Device Mounting Position

6.3 Safety Device Mounting Position

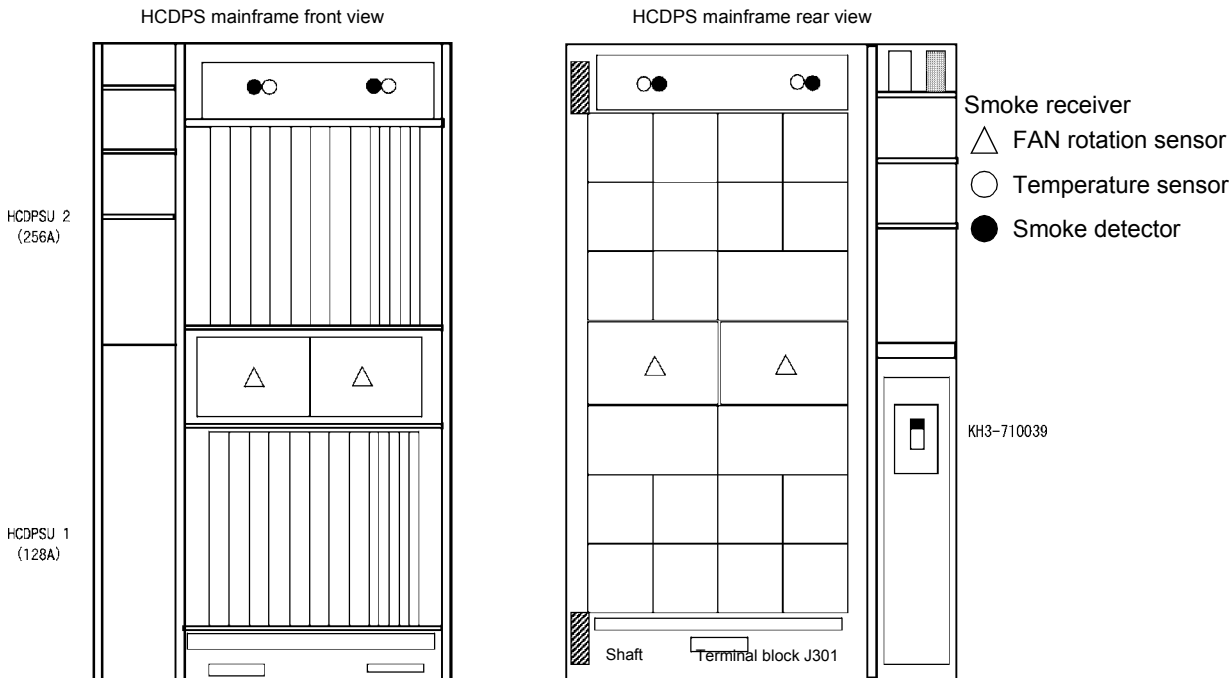


Figure 6-10 HCDPS Safety Device Mounting Position

6.4 Center of Gravity, Frame Structure

Main Frame Center of Gravity Diagrams

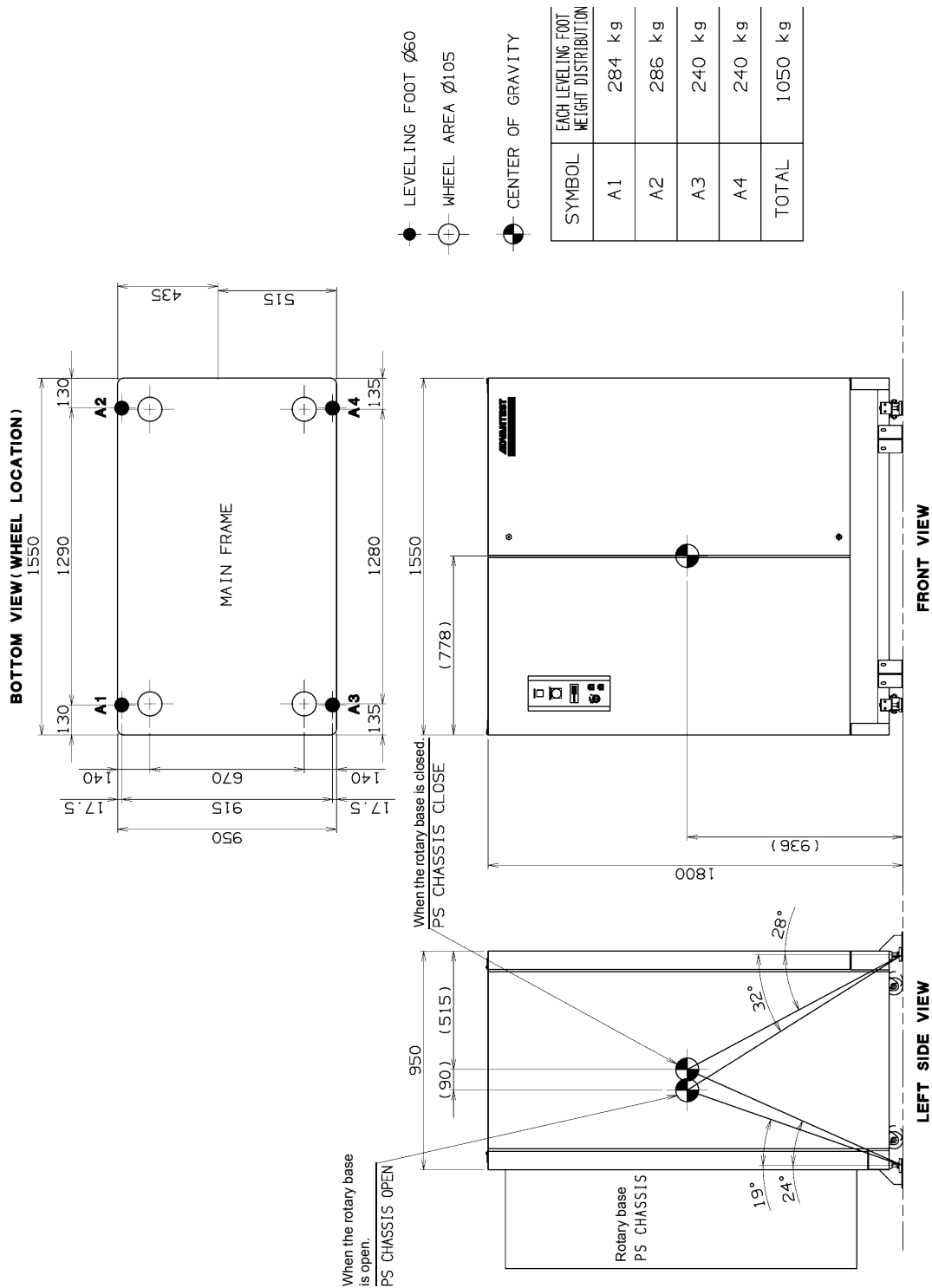
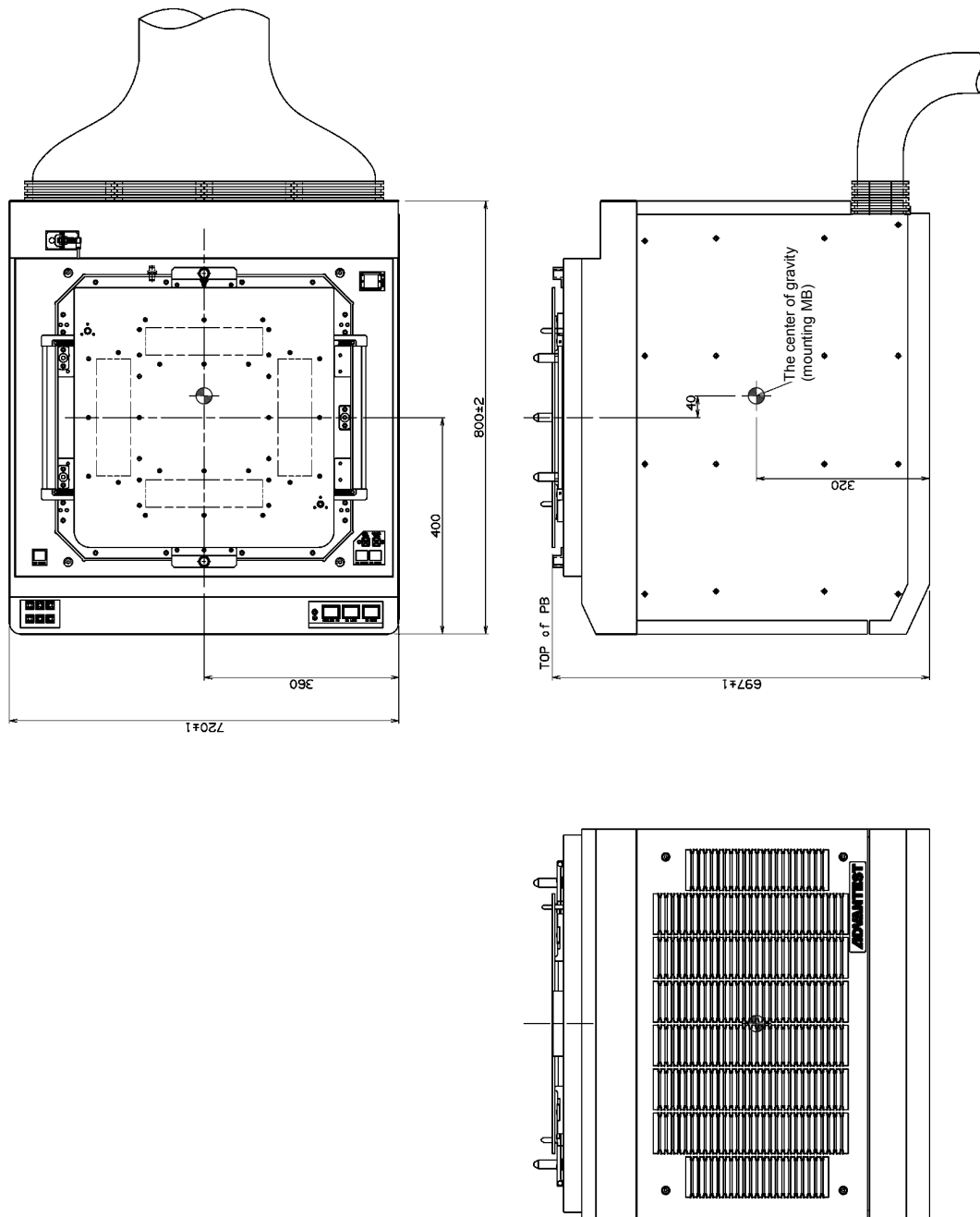


Figure 6-11 Main Frame Center of Gravity Diagrams

6.4 Center of Gravity, Frame Structure



Note: The position of the center of gravity of the test head indicates when the TH is set in a horizontal position.
The position of the center of gravity varies depending on how the cables are supported.

Figure 6-12 TH Center of Gravity Diagrams

Main Frame Structure Diagram

No.	TITLE	MATERIAL	MEASURE
1	BASE FRAME F	STKR	1"×2"×1449, t3.05
2	BASE FRAME R	STKR	1"×2"×1449, t3.05
3	BASE FRAME R&L	SECC-P	50.8×180×518.5, t2.6
4	BASE FRAME M	SECC-P	48.5×220×1128, t2.6
5	BASE FRAME F	SECC-P	44.5×78×414, t2
6	BASE FRAME R	SECC-P	44.5×78×244, t2
7	END PLATE L	SECC-P	1"×890×1715.6, t2.6
8	END PLATE R	SECC-P	28×890×1715.6, t2.6
9	CENTER R FRAME	SECC-P	1"×430×1639.4, t2.6
10	CENTER F FRAME	SECC-P	28×880×1639.4, t2.6
11	TOP FRAME RA	STKR	1"×1"×1399, t3.05
12	TOP FRAME FA	STKR	1"×1"×1399, t3.05
13	TOP FRAME FB	STKR	1"×2"×1399, t3.05
14	TOP FRAME RB	STKR	1"×2"×1399, t3.05
15	TOP FRAME M	STKR	1"×1"×1448, t3.05
16	TOP FRAME F	STKR	1"×1"×530.5, t3.05
17	TOP FRAME R	STKR	1"×1"×230.5, t3.05
18	FAN RAIL SUPPORT	A6063S-T5	20×40×1039
19	VENT FRAME F	SPCC-SD	30×40×1447, t2.6
20	BASE JOINT F-L	ADC-12	65.8×180×200
21	BASE JOINT F-R	ADC-12	65.8×180×200
22	BASE JOINT R-L	ADC-12	65.8×180×225
23	BASE JOINT R-R	ADC-12	65.8×180×225
24	CORNER JOINT L	ADC-12	51×120×150
25	CORNER JOINT R	ADC-12	51×120×150

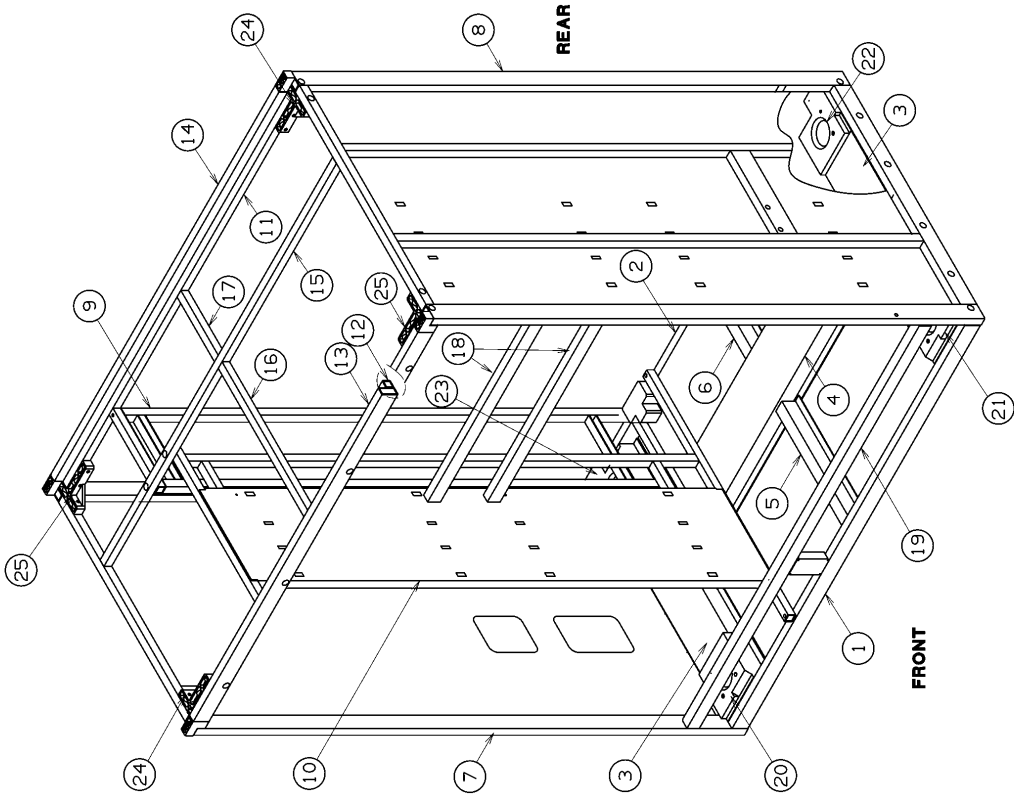


Figure 6-13 Main Frame Structure Diagrams

6.4 Center of Gravity, Frame Structure

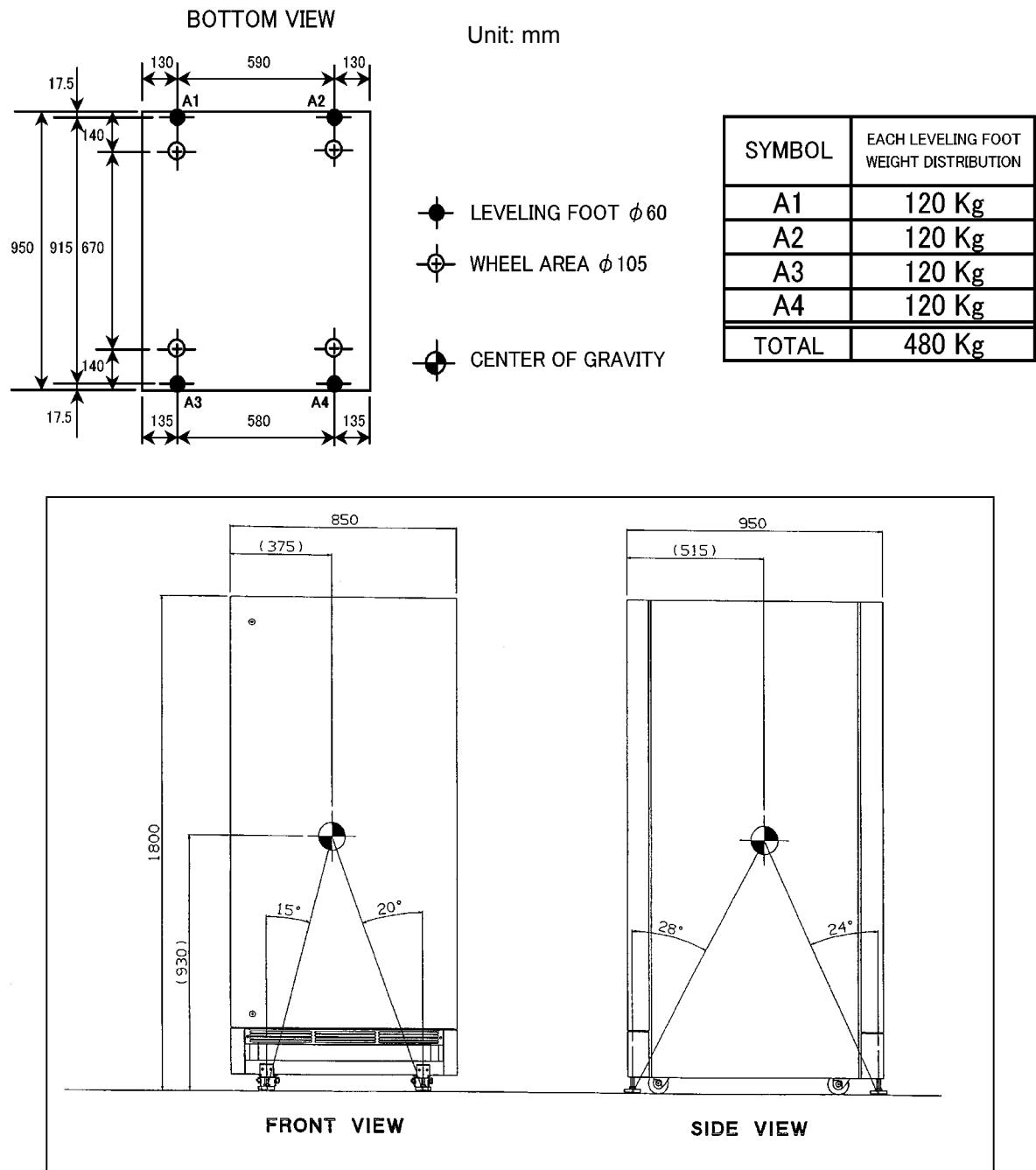


Figure 6-14 HCDPS Center of Gravity Diagram

6.5 Unit Power Supply Specification List

The unit power supply specifications are listed below.

Table 6-1 Main Frame Unit Power Supply Specification Table (For rotary base 450L)

UPS No.	Power Supply Specification	Power Supply Name	Voltage	Installation Condition	Destination
UPS101	WBL-PS15V50A	DCDC15V50A	+15 V	Standard	DPU
UPS102	WBL-PS15V50A	DCDC15V50A	-15 V	Standard	DPU
UPS103	WBL-PS11V68A	DCDC11V68A	+12 V	Standard	DPU
UPS104	WBL-PS11V68A	DCDC11V68A	+12 V	Standard	DPU
UPS105	WBL-PS11V68A	DCDC11V68A	-12 V	Standard	DPU
UPS106	WBL-PS11V68A	DCDC11V68A	-12 V	Standard	DPU
UPS107	WBL-PS3750WX02	ACDC		Standard	MF UNIT
UPS109	WBL-PS3750WX02	ACDC		Standard	MF UNIT
UPS111	WBL-PS3750WX02	ACDC		Standard	MF UNIT
UPS113	WBL-PS3750WX02	ACDC		Standard	MF UNIT
UPS115	WBL-PS3750WX02	ACDC		Standard	MF UNIT
UPS117	WBL-PS65V65V	DCDC65V/65V	+65 V/-65 V	Standard	DPU
UPS118	WBL-PS5V5V	DCDC5V/5V	+5 V/-5.2 V	Standard	DPU
UPS119	Spare Power Supply	-	-	Reserved	-
UPS121	WBL-PS48V39A	DCDC48V39A	+48 V	Standard	TH
UPS122	WBL-PS26V26V	DCDC26V/26V	-24 V/-24 V	Standard	TH FAN(PUSH/PULL)
UPS123	Spare Power Supply	-	-	Reserved	-
UPS124	Spare Power Supply	-	-	Reserved	-

Table 6-2 Main Frame Unit Power Supply Specification Table (For rotary base R) (1 of 3)

UPS No.	Power Supply Specification	Power Supply Name	Voltage	Installation Condition	Destination
UPS201	DPS-001896	SR20-15	+15 V	Standard	MIXEDU
UPS202	DPS-001896	SR20-15	-15 V	Standard	MIXEDU
UPS203	DPS-004727	SR60-3.5	+3.3 V	Standard	MIXEDU
UPS204	DPS-001618	SR110-5	-5.2 V	Standard	MIXEDU
UPS205	DPS-001647	SR230-5	+5 V	Standard	MIXEDU
UPS206	-	-	-	-	-
UPS207	DPS-001895	SR35-5	-5.2 V	Standard	IO-IF/MONI-IF
UPS208	DPS-002504	SR35-24	+24 V	Standard	AIR CONT
UPS209	DPS-001615	SR60-12	-12 V	Standard	TC FAN
UPS210	DPS-002504	SR35-24	+24 V	Standard	CBOX
UPS211	DPS-001895	SR35-5	+5 V	Standard	IO-IF/MONI-IF
UPS212	DPS-001895	SR35-5	-5.2 V	Standard	IO-IF

6.5 Unit Power Supply Specification List

Table 6-2 Main Frame Unit Power Supply Specification Table (For rotary base R) (2 of 3)

UPS No.	Power Supply Specification	Power Supply Name	Voltage	Installation Condition	Destination
UPS213	DPS-001895	SR35-5	+5 V	DCAP OPTION	MIXEDU(cPCI)
UPS214	DPS-004727	SR60-3.5	+3.3 V	DCAP OPTION	MIXEDU(cPCI)
UPS215	DPS-004727	SR60-3.5	+3.3 V	Standard	TH MIXED(cPCI)
UPS216	DPS-001904	SR35-15	+15 V	Standard	UTILITY PS(PBP15V)
UPS217	DPS-001904	SR35-15	-15 V	Standard	UTILITY PS(PBM15V)
UPS218	DPS-001895	SR35-5	+5 V	Standard	UTILITY PS(PBVCC)
UPS219	DPS-001895	SR35-5	-5.2 V	Standard	UTILITY PS(PBVEE)
UPS220	DPS-001614	SR60-5	+5 V	Standard	UTILITY PS(PBRLVCC)
UPS221	Spare Power Supply	-	-	Reserved	-
UPS222	DPS-001617	SR60-24	+24 V	Standard	TH
UPS223	DPS-001742	SR60-9	-8 V	Standard	TH
UPS224	DPS-004727	SR60-3.5	+3.3 V	Standard	DPU
UPS225	Spare Power Supply	-	-	Reserved	-
UPS226	Spare Power Supply	-	-	Reserved	-
UPS227	DPS-001895	SR35-5	+5 v	DCAP/UPS OPTION	MIXEDU (UPS)
UPS228	DPS-001741	SR60-6	+2.5 V	DCAP/UPS OPTION	MIXEDU (UPS)
UPS229	DPS-001895	SR35-5	+1.8 V	DCAP/UPS OPTION	MIXEDU (UPS)
UPS230	DPS-001614	SR60-5	-5.2 V	DCAP/UPS OPTION	MIXEDU (UPS)
UPS231	DPS-004727	SR60-3.5	+3.3 V	DCAP/UPS OPTION	MIXEDU (UPS)
UPS232	DPS-004727	SR60-3.5	-3.3 V	DCAP/UPS OPTION	MIXEDU (UPS)
UPS301	DPS-004502	NNS15-5	-5 V	VAFG/VAFD 1-4ch	TH (slot23)
UPS302	DPS-002735	NNS50-15	+5 V	VAFG/VAFD 1-4ch	TH (slot23)
UPS303	DPS-002735	NNS30-15	-15 V	VAFG/VAFD 1-4ch	TH (slot23)
UPS304	DPS-002735	NNS30-51	+15 V	VAFG/VAFD 1-4ch	TH (slot23)
UPS305	DPS-004502	NNS50-5	+5 V	BBWGD, SG/JMM OPTION	TH (slot24)
UPS306	DPS-004502	NNS50-5	+5 V	BBWGD, SG/JMM OPTION	TH (slot24)
UPS307	DPS-005316	HWB060S-5	-5 V	BBWGD, SG/JMM OPTION	TH (slot24)

Table 6-2 Main Frame Unit Power Supply Specification Table (For rotary base R) (3 of 3)

UPS No.	Power Supply Specification	Power Supply Name	Voltage	Installation Condition	Destination
UPS308	DPS-005316	HWB060S-5	+5 V	BBWGD, SG/ JMM OPTION	TH (slot24)
UPS309	DPS-003502	NNS15-5	-5 V	VAFG/VAFD 5-8ch	TH (slot25)
UPS310	DPS-004502	NNS50-5	+5 V	VAFG/VAFD 5-8ch	TH (slot25)
UPS311	DPS-002735	NNS30-15	-15 V	VAFG/VAFD 5-8ch	TH (slot25)
UPS312	DPS-002735	NNS30-15	+15 V	VAFG/VAFD 5-8ch	TH (slot25)

Table 6-3 Main Frame Unit Power Supply Specification Table (For THPSU)

UPS No.	Power Supply Specification	Power Supply Name	Voltage	Installation Condition	Destination
THPSU S1	WUN-15V2B5V3V2B	Board power supply	+15 V,-15 V, +5 V,+3.3 V	Standard	TH
THPSU S2	WUN-11V2B5V3B	Board power supply	+11.5 V,-5.2 V, RL+5 V,-5.5 V	Standard	TH
THPSU S3	WUN-11V2B5V3B	Board power supply	+11.5 V,-5.2 V, -5.5 V	Standard	TH
THPSU S4	WUN-15V2B5V3V2B	Board power supply	+15 V,-15 V, +5 V,+3.3 V	Standard	TH
THPSU S5	WUN-11V2B5V3B	Board power supply	+11.5 V,-5.2 V, -5.5 V	Standard	TH

Table 6-4 Main Frame Unit Power Supply Specification Table (For FTU1)

UPS No.	Power Supply Specification	Power Supply Name	Voltage	Installation Condition	Destination
BPS1	WBS-A005000019X02	Board power supply	-2.5 VH,+0.8 V, -2.5 V,-2.5 VFP, -5.2 V	Standard	FTU1
BPS2	WUN-5V2R5V3B5V	Board power supply	+5 V,-2.5 V, -5.2 V	Standard	FTU1
BPS3	WBS-A005000019X02	Board power supply	-2.5 VFP, +0.8 V,-2.5 V, -5.2 V	Standard	FTU1

6.5 Unit Power Supply Specification List

Table 6-5 Main Frame Unit Power Supply Specification Table (For FTU2)

UPS No.	Power Supply Specification	Power Supply Name	Voltage	Installation Condition	Destination
BPS1	WBS-A005000019X02	Board power supply	-2.5 VH,+0.8 V, -2.5 V,-2.5 VFP, -5.2 V	Standard	FTU2
BPS2	WUN-2R5V2B5V2R5V2B	Board power supply	-2.5 V,-5.2 V, -2.5 VFP	Standard	FTU2

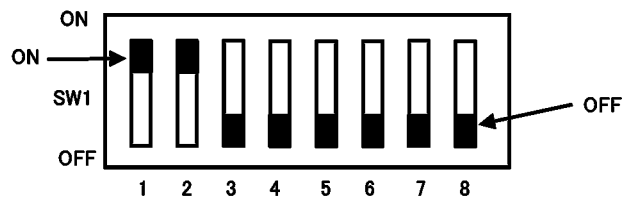
7. Board Location

TC7 mounting board

Table 7-1 TC7 Mounting Board Location

Slot No.	Board No.	Circuit Name	Dummy board	Remarks
	BGC-027896	EWS IF	-	
	WUN-H3610061	PCI-IF	-	

Note: *DIP SW1 setting of WUN-H3610061 (Print board silk: SW1)
Set "1" of DIP SW1 and "2" of DIP SW1 to ON.
Set "3", "4", "5", "6", "7", and "8" of DIP SW1 to OFF.*



MONI IF, AC CONT IF mounting board

Table 7-2 MONI IF, AC CONT IF Mounting Board Location

Slot No.	Board No.	Circuit Name	Dummy board	Remarks
1	BGR-024885X13	MONI IF	-	
2	WBL-H3910357BLK	AC CONT IF	-	

IO IF mounting board

Table 7-3 IO IF Mounting Board Location

Slot No.	Board No.	Circuit Name	Dummy board	Remarks
1	BGR-027897	IO IF	-	

7. Board Location

DPU mounting board

Table 7-4 DPU Mounting Board Location

Slot No.	Board No.	Circuit Name	Dummy board	Remarks
1	BGR-027534	DPSCONT	-	
2	BGR-023715X03	DPS(1-8)	-	
3	BGR-027534	DPSCONT	KH9-90608	
4	BGR-023715X03	DPS(9-16)	KH9-90610	
5	BGR-027534	DPSCONT	KH9-90608	
6	BGR-023715X03	DPS(17-24)	KH9-90610	
7	BGR-027534	DPSCONT	KH9-90608	If the boards are mounted in slot 9 and slot 10, slot 7 and slot 8 cannot be used.
8	BGR-023715X03	DPS(25-32)	KH9-90610	
9	BGR-026706	40VPPS	KH9-90608	
10	BGR-029220	DPS MUX	KH9-90610	
11	BGR-026245	IFL	-	
12	BGR-023712	UDCCONT	-	1-512ch TH
13	BGR-023713X02	UDC(1-4)	-	1-512ch TH
14	BGR-023712	UDCCONT	KH9-90608	513-1024ch TH
15	BGR-023713X02	UDC(5-8)	KH9-90610	513-1024ch TH

Note: Make sure that the version number of the DPSCONT(BGR-027534) board is "xxB" or later.
 (xxB: The last character must be B or greater. Ignore the xx part.)
 When replacing the DPS (BGR-023715X03) board, make sure that the version number of the board is "C xx" or later.
 (Cxx: The first character must be C or greater. Ignore the xx part.)

THPSU mounting board

Table 7-5 THPSU Mounting Board Location

Slot No.	Board No.	Circuit Name	Dummy board	Remarks
1	WUN-15V2B5V3V2B	BPS1	-	
2	WUN-11V2B5V3B	BPS2	-	
3	WUN-11V2B5V3B	BPS3	-	
4	WUN-15V2B5V3V2B	BPS4	-	
5	WUN-11V2B5V3B	BPS5	-	

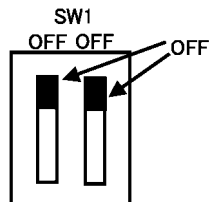
MIXEDU mounting board

Table 7-6 MIXEDU Mounting Board Location

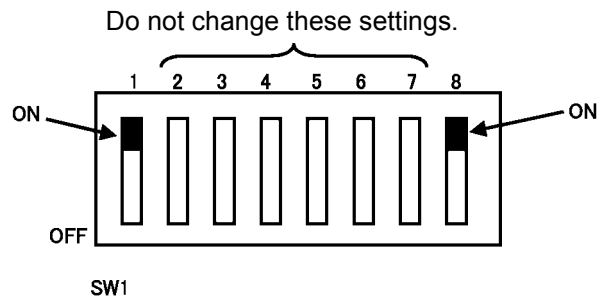
Slot No.	Board No.	Circuit Name	Dummy board	Remarks
1	BGR-026798	TBUS CAL	-	
2	BGR-026836	EM3	KH9-910492	OPTION(MIXED)
3	BGR-027118	DCAP	KH9-910493	OPTION(DCAP)
4	BPR-031755	PCIF		OPTION(DCAP)

Note 1: Make sure that the version number of the DCAP(BGR-027118) board is "AHC" or later.
Make sure that the version number of the EM3(BGR-026836) board is "BED" or later.

Note 2: DIP SW setting of DCAP(BGR-027118) ("SW1" is printed on the circuit board.)
Set SW1 as shown in the following figure.



Note 3: DIP SW1 setting of EM3(BGR-026836) ("SW1" is printed on the circuit board.)
Set "1" and "8" of DIP SW1 to ON.
Do not change the settings from "2" to "7" of DIP SW1. DIP SW1 on the board to be replaced is shown in the following figure.



7. Board Location

FTU1 mounting board

Table 7-7 FTU1 Mounting Board Location

Slot No.	Board No.	Circuit Name	Dummy board	Remarks
1	WBS-A005000019X02	BPS1	-	
2	WUN-5V2R5V3B5V	BPS2	-	
3	WBS-A005000019X02	BPS3	-	
4	BIR-029054	AFM	BGP-029259	OPTION (AFM)
5	BGR-029484	EVENT	BGP-029259	OPTION (MIXED)
6	BPR-031605	FP1	-	1-32,65-96ch
7	BPR-031605	FP2	-	33-64,97-128ch
8	BPR-031605	FP3	-	129-160,193-224ch
9	BPR-031605	FP4	-	161-192,225-256ch
10	BPR-031605	FP5	256 channel configuration KH9-910643	257-288,321-352ch
11	BPR-031605	FP6		289-320,353-384ch
12	BPR-031605	FP7		385-416,449-480ch
13	BPR-031605	FP8		417-448,481-512ch
14	BIR-027910	SNC/TRIG	-	
15	BPR-031657	FTU-THIF	-	
16	BPR-033976X02	SQPG	-	
17	BIR-027902X03	OPPG	BGR-029053	OPTION(ALPG+SCPG4GW)
	BIR-027902X04	OPPG	BGR-029053	OPTION(ALPG+SCPG16GW)

Note: For 256-channel configuration, attach one KH9-910643 to slots 10 through 13.

FTU2 mounting board

Table 7-8 FTU2 Mounting Board Location

Slot No.	Board No.	Circuit Name	Dummy board	Remarks
1	BPR-031657	FTU-THIF	512 channel configuration KH9-910643	When configured with 513 pins or above.
2	BPR-031605	FP9		513-544,577-608ch
3	BPR-031605	FP10		545-576,609-640ch
4	BPR-031605	FP11		641-672,705-736ch
5	BPR-031605	FP12		673-704,737-768ch
6	BPR-031605	FP13	768 channel configuration KH9-910644	769-800,833-864ch
7	BPR-031605	FP14		801-832,865-896ch
8	BPR-031605	FP15		897-928,961-992ch
9	BPR-031605	FP16		929-960,993-1024ch
10	BGP-029259	TERM	512 channel configuration KH9-910643	When configured with 513 pins or above
11	WBS-A005000019X02	BPS1		
12	WUN-2R5V2B5V2R5V2B	BPS2		

Note: For 512 channel configuration, attach one KH9-910644 to slot1 through 12.
For 768 channel configuration, attach one KH9-910643 to slot6 through 9.

7. Board Location

TH mounting board

Table 7-9 TH Mounting Board Location

Slot No.	Board No.	Circuit Name	Dummy board	Remarks
1	BPS-031579	DUT IF	-	
2	BPS-033250	DDR OPTION	KH9-910539	OPTION (DDR2-IF)
	BPS-032787	HCDPS CONNECT		OPTION (HCDPS)
3	WUN-T6500IDDQX02	IDDQ	KH9-910548	OPTION (IDDQ)
4	BGS-026241X02	CONTACT	-	
	BIS-029624X02	HSCLK	-	OPTION (HSCLK)
5	BPS-031639	PE16	KH9-910537	929-960,993-1024ch
6	BPS-031639	PE14	KH9-910537	801-832,865-896ch
7	BPS-031639	PE12	KH9-910537	673-704,737-768ch
8	BPS-031639	PE10	KH9-910537	545-576,609-640ch
9	BPS-031639	PE8	KH9-910537	417-448,481-512ch
10	BPS-031639	PE6	KH9-910537	289-320,353-384ch
11	BPS-031639	PE4	KH9-910537	161-192,225-256ch
12	BPS-031639	PE2	-	33-64,97-128ch
13	BPS-031658	TH IF	-	
14	BPS-031639	PE1	-	1-32,65-96ch
15	BPS-031639	PE3	KH9-910537	129-160,193-224ch
16	BPS-031639	PE5	KH9-910537	257-288,321-352ch
17	BPS-031639	PE7	KH9-910537	385-416,449-480ch
18	BPS-031639	PE9	KH9-910537	513-544,577-608ch
19	BPS-031639	PE11	KH9-910537	641-672,705-736ch
20	BPS-031639	PE13	KH9-910537	769-800,833-864ch
21	BPS-031639	PE15	KH9-910537	897-928,961-992ch
22	BPS-031659X02	TERM	-	
	BPS-031659	VREF/MTX	-	OPTION(MIXED)
23	BGS-030319X02	VAFGD1	KH9-910538	VAFGD1-4ch
24	BPS-033474	BBWGD	KH9-910538	BBWGD OPTION
	BPS-033474X02	SG/JMM		SG/JMM OPTION
25	BGS-030319X02	VAFGD2	KH9-910538	VAFGD5-8ch
26	BPS-033250X02	DDR2 OPTION2	KH9-910539	OPTION (DDR2-IF)
	BPS-032787X02	HCDPS CONNECT		OPTION (HCDPS)

8. Wiring Diagram

8.1 Signal Wiring

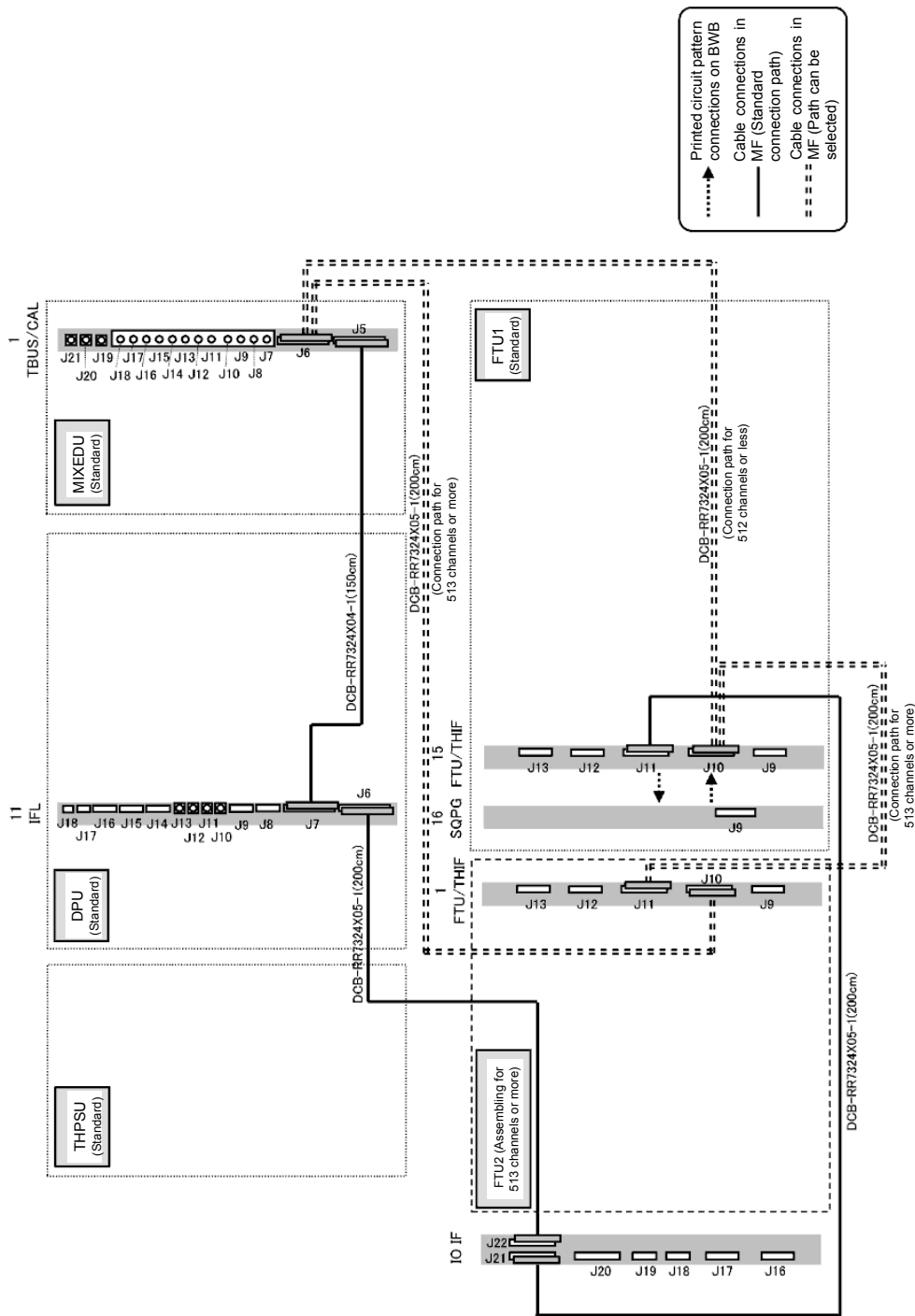


Figure 8-1 Tester Bus Wiring Diagram

8.1 Signal Wiring

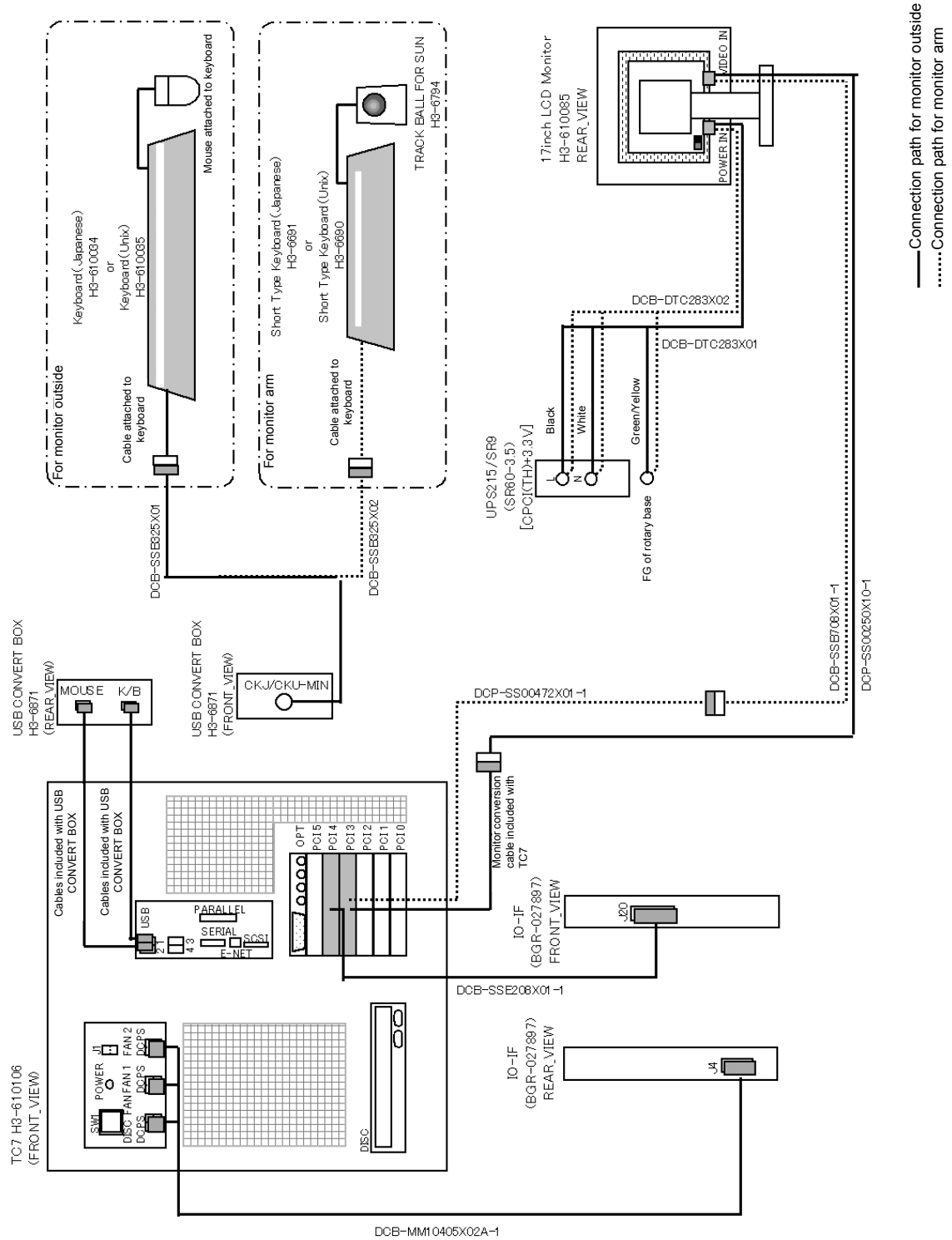


Figure 8-2 TC7 Wiring Diagram (1) [TC7 Specifications]



8.1 Signal Wiring

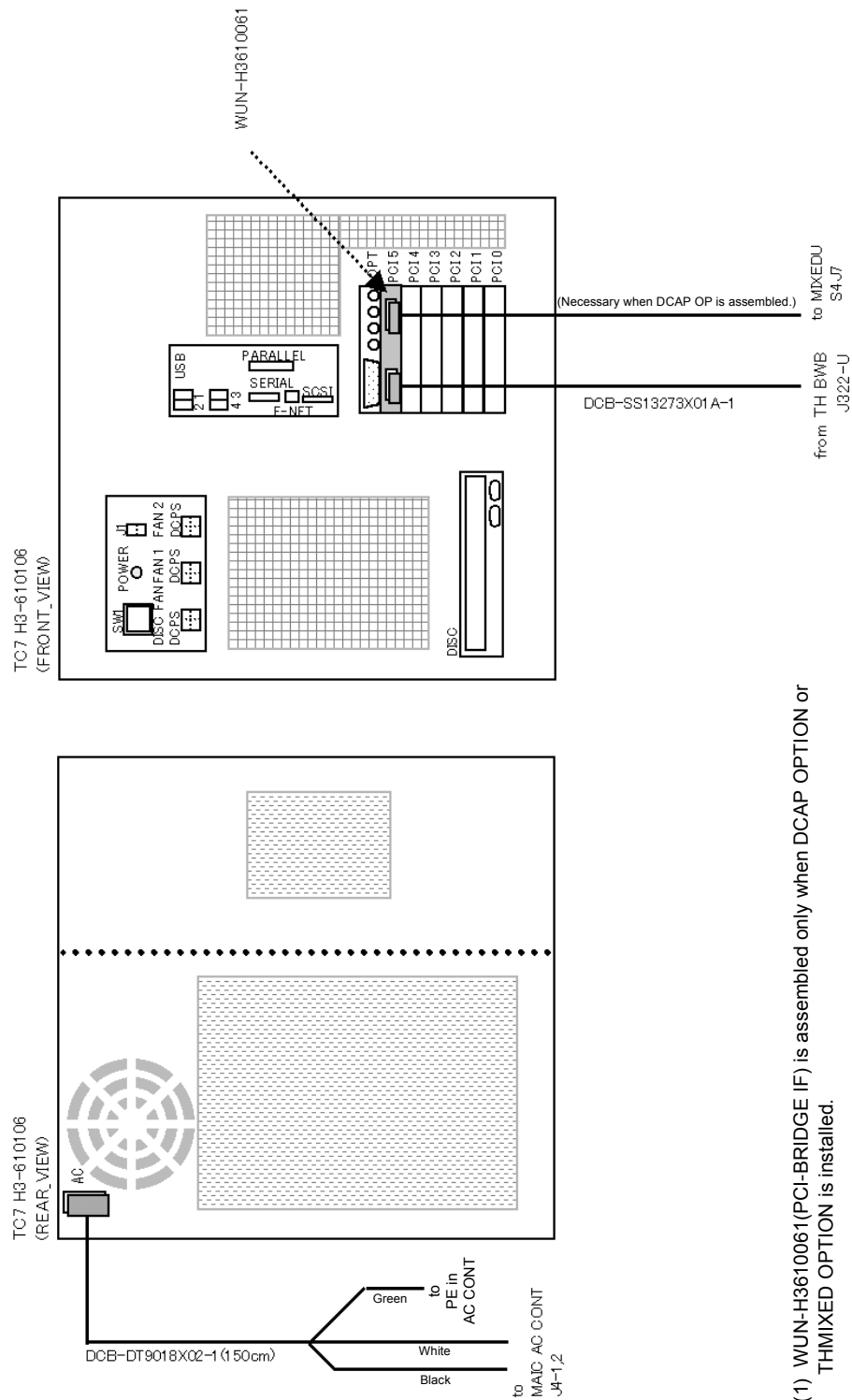


Figure 8-4 TC7 Wiring Diagram (2) [TC7 Specifications]

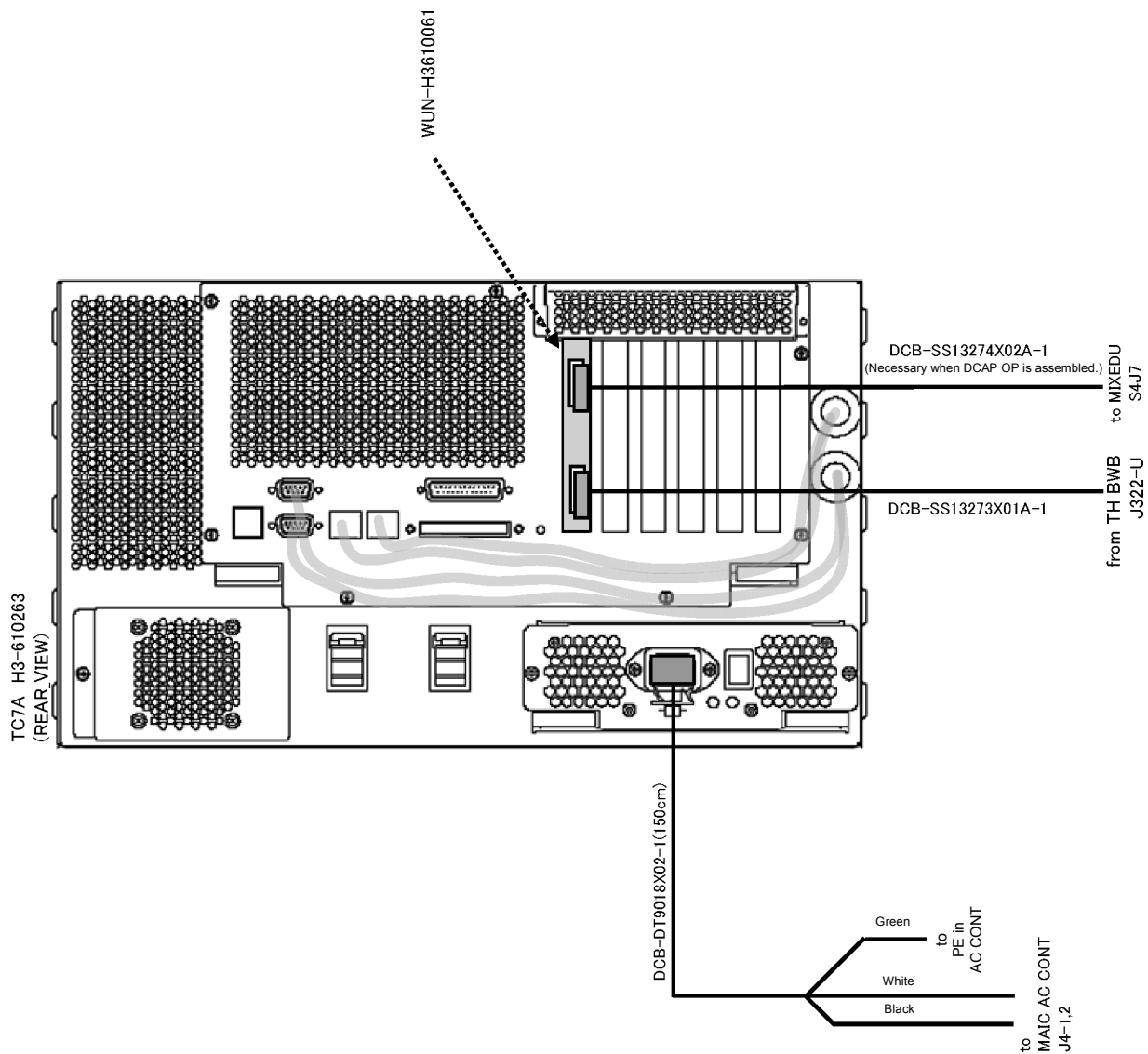
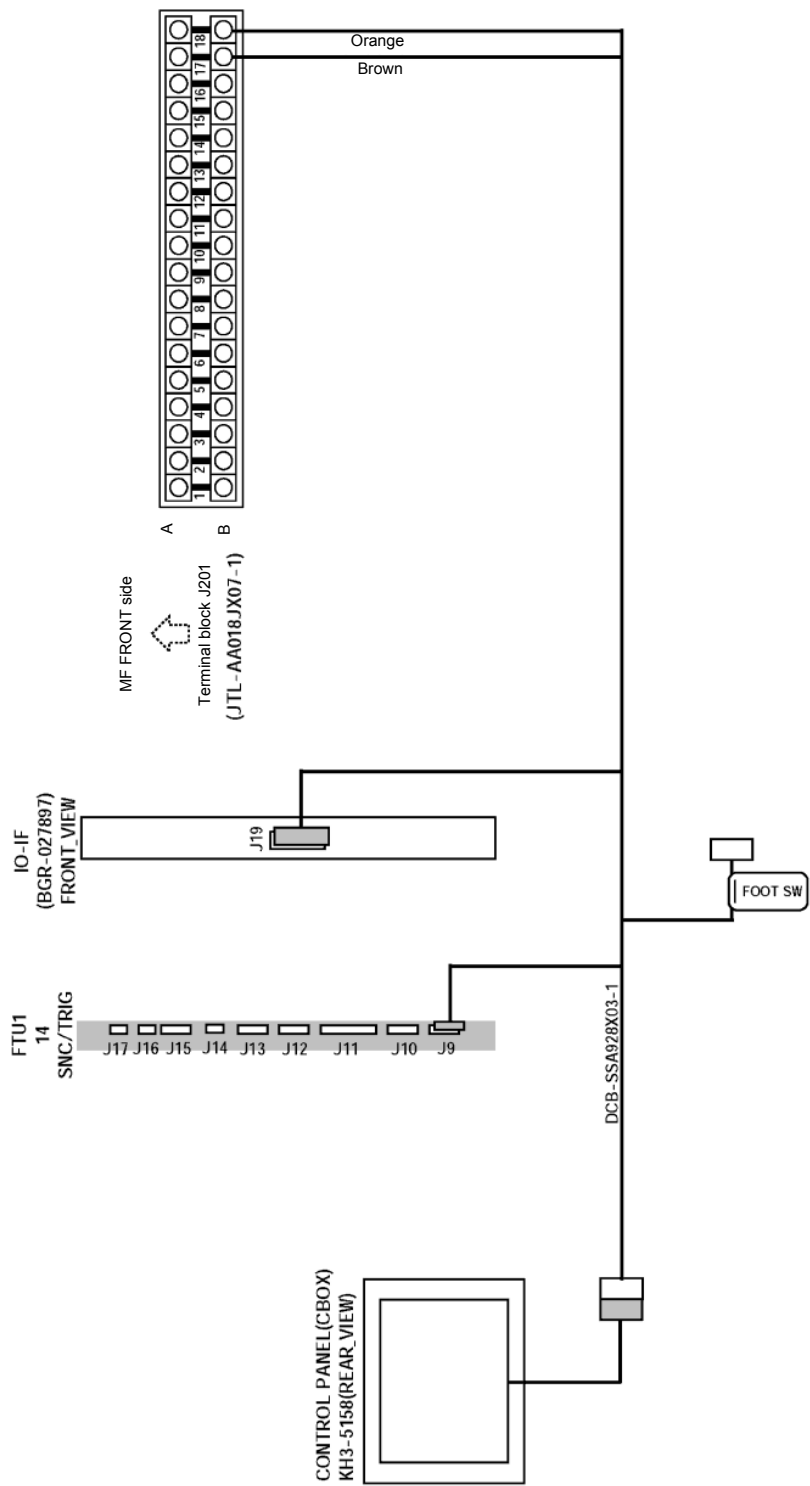


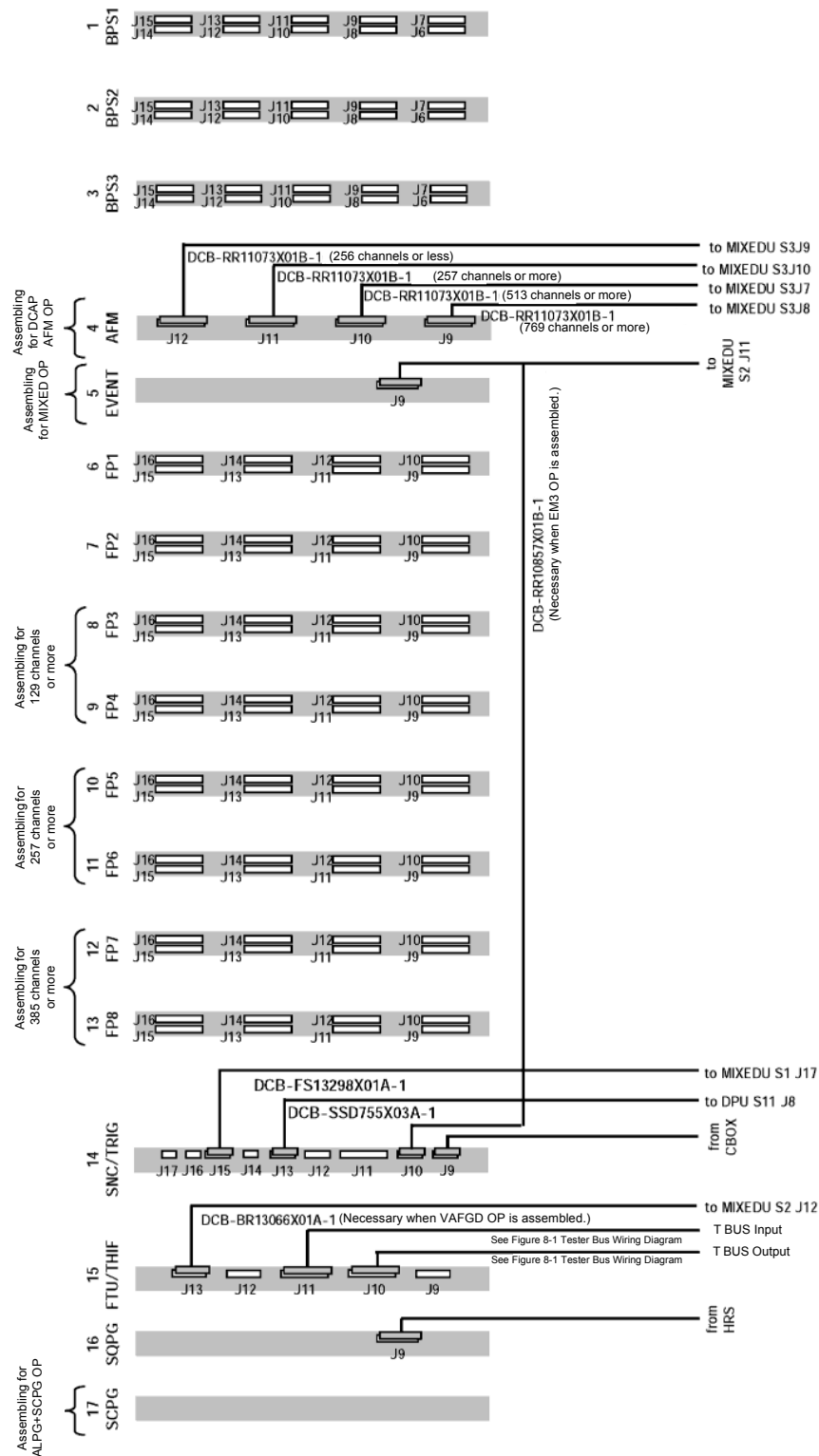
Figure 8-5 TC7A Wiring Diagram (2) [TC7A Specifications]

8.1 Signal Wiring



(1) Note that the positions of J14 and J15 are reversed on the SNC TRIG printed circuit board side.

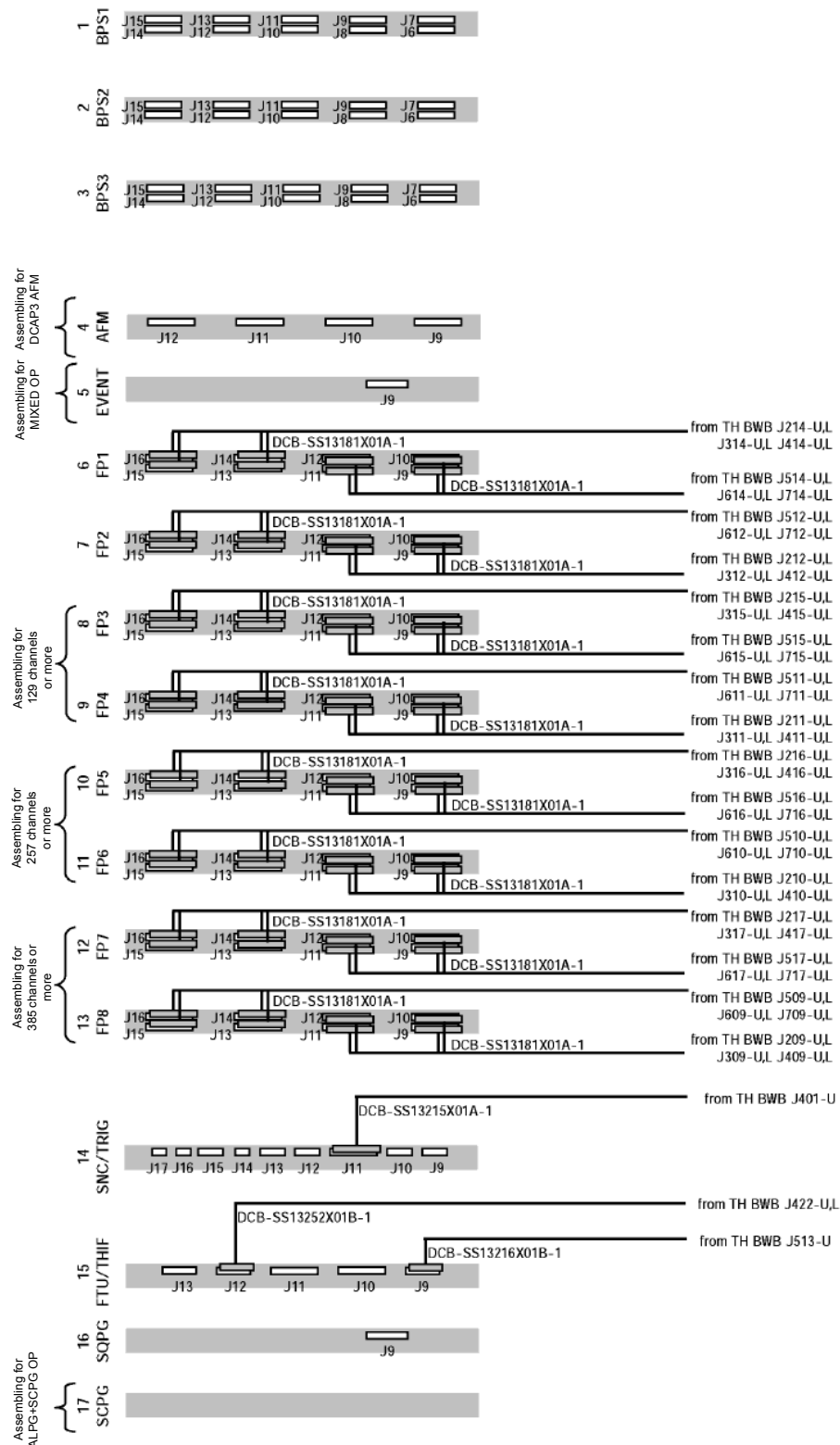
Figure 8-6 CBOX Wiring Diagram



(1) Note that the positions of J14 and J15 are reversed on the SNC TRIG printed circuit board side.

Figure 8-7 FTU1 Wiring Diagram (1)

8.1 Signal Wiring

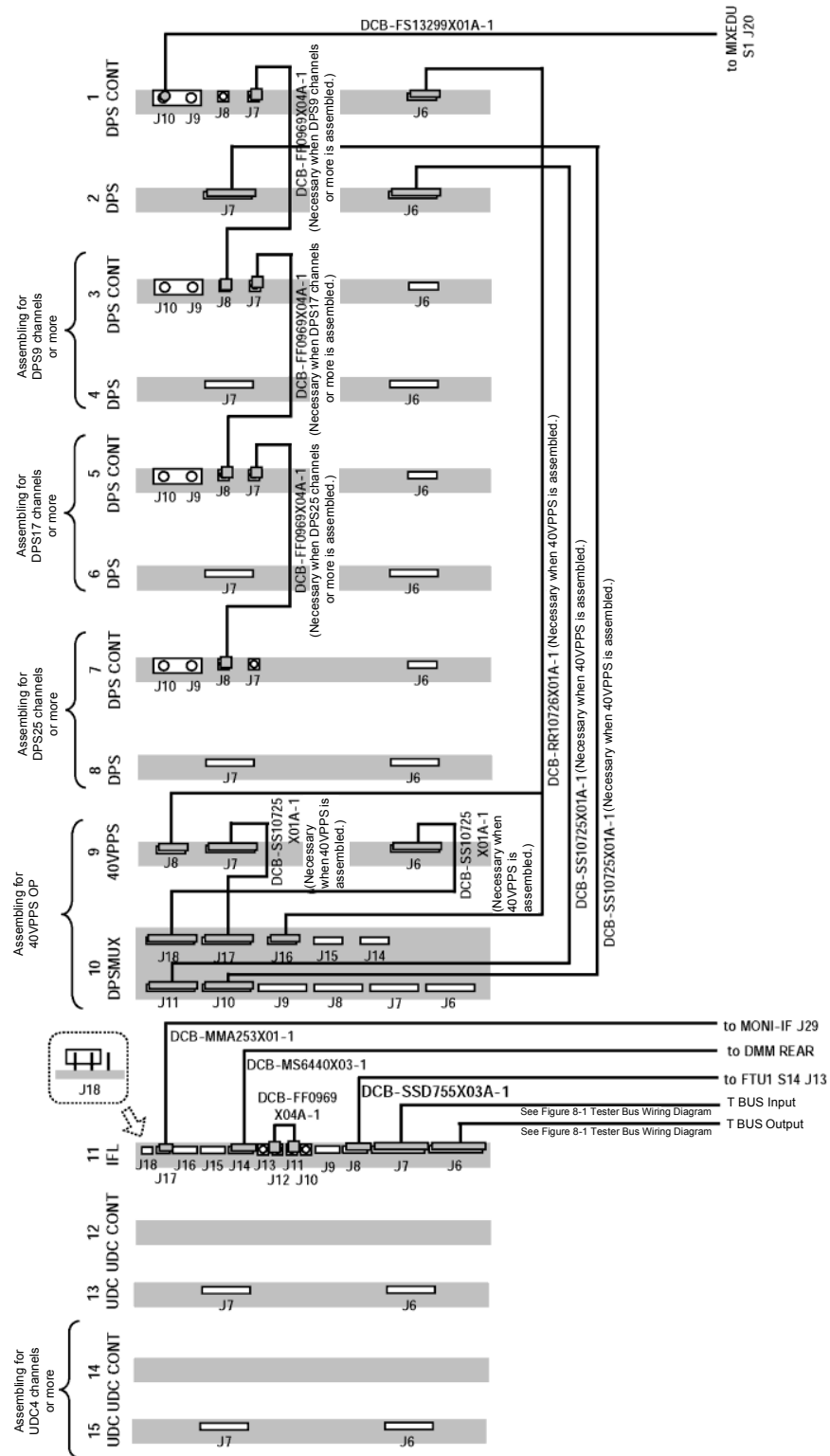


(1) Note that the positions of J14 and J15 are reversed on the SNC TRIG printed circuit board side.

Figure 8-8 FTU1 Wiring Diagram (2)

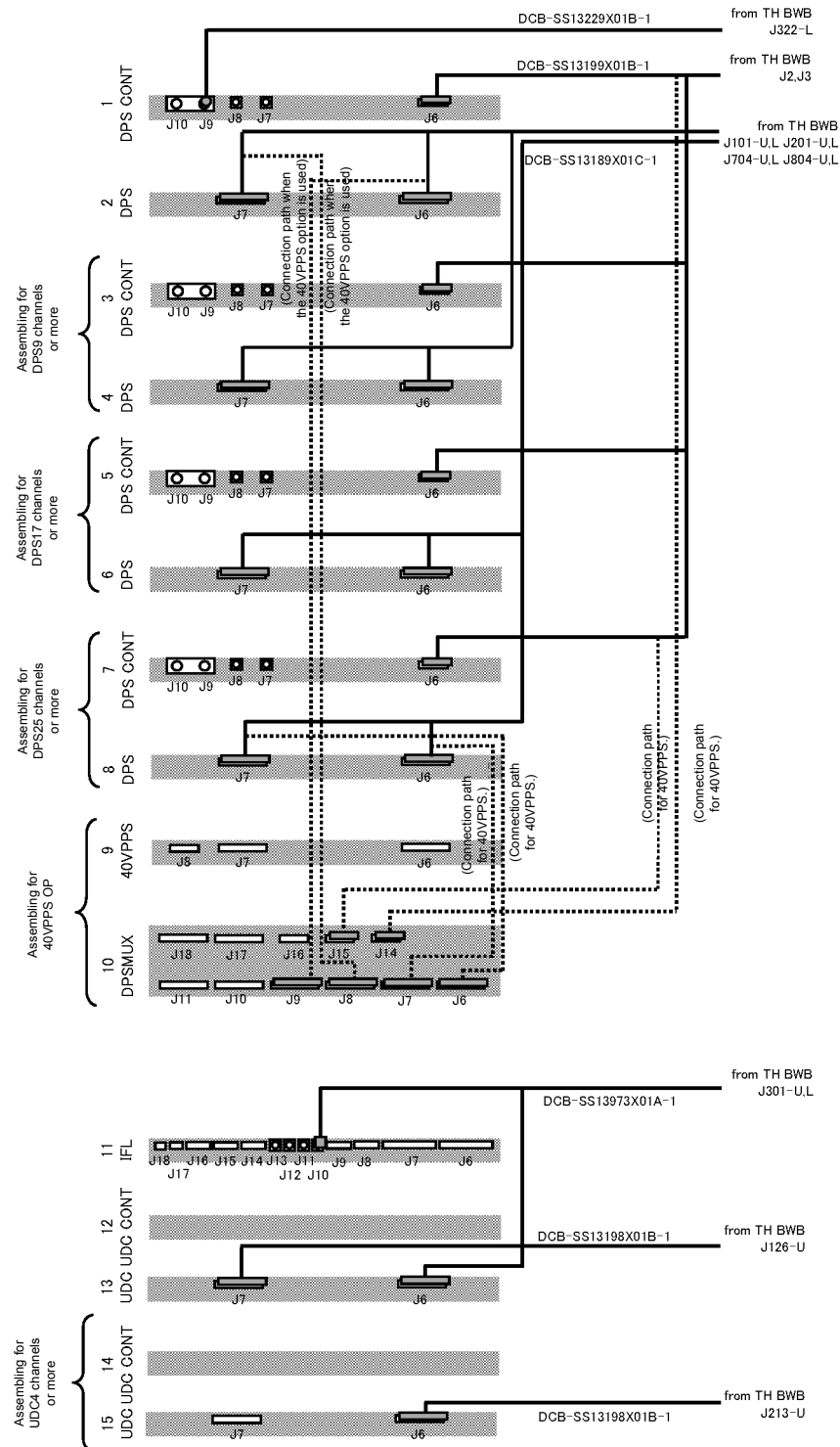


8.1 Signal Wiring



(1) Connect the shoring connector at J18 on S11 IFL as shown in the figure above.

Figure 8-10 DPU Wiring Diagram (1)



8.1 Signal Wiring

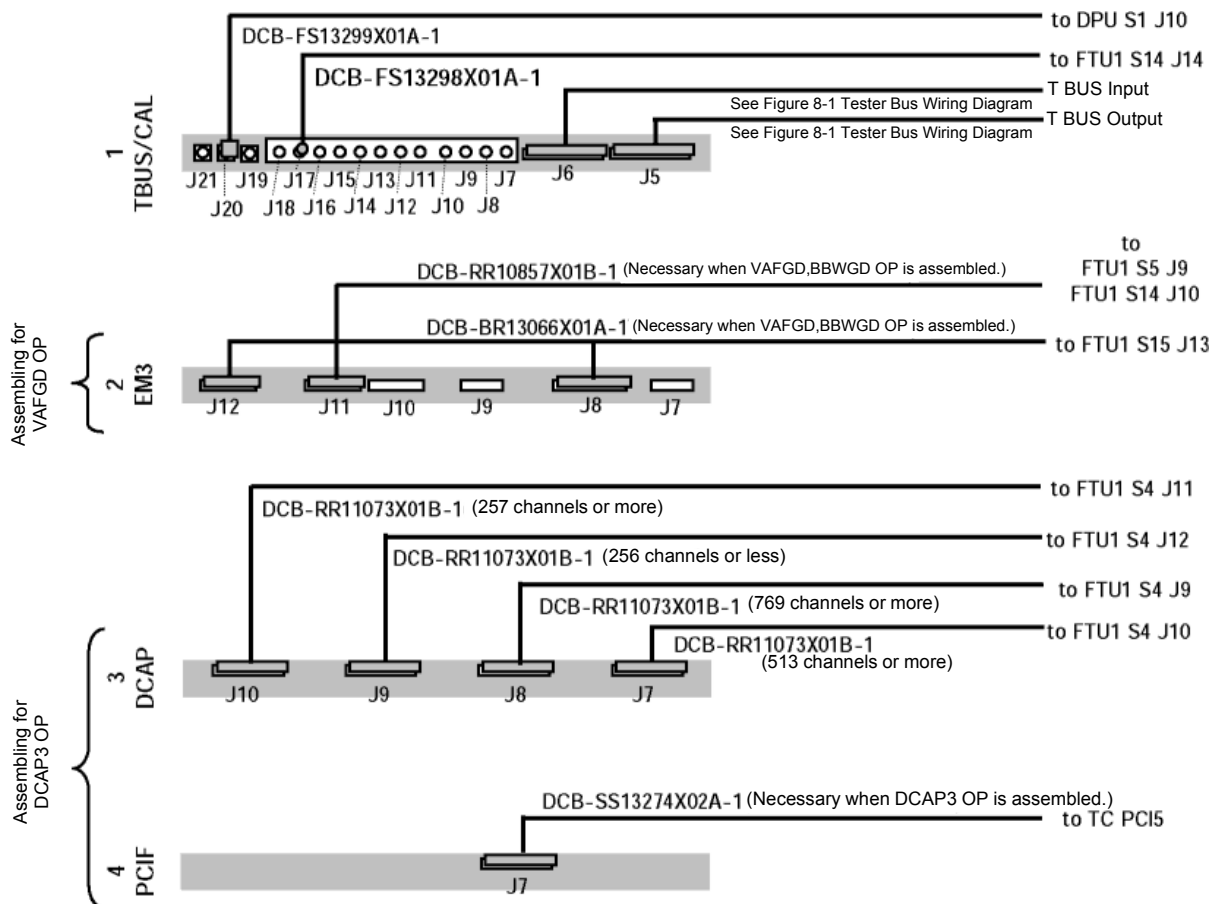


Figure 8-12 MIXEDU Wiring Diagram (1)

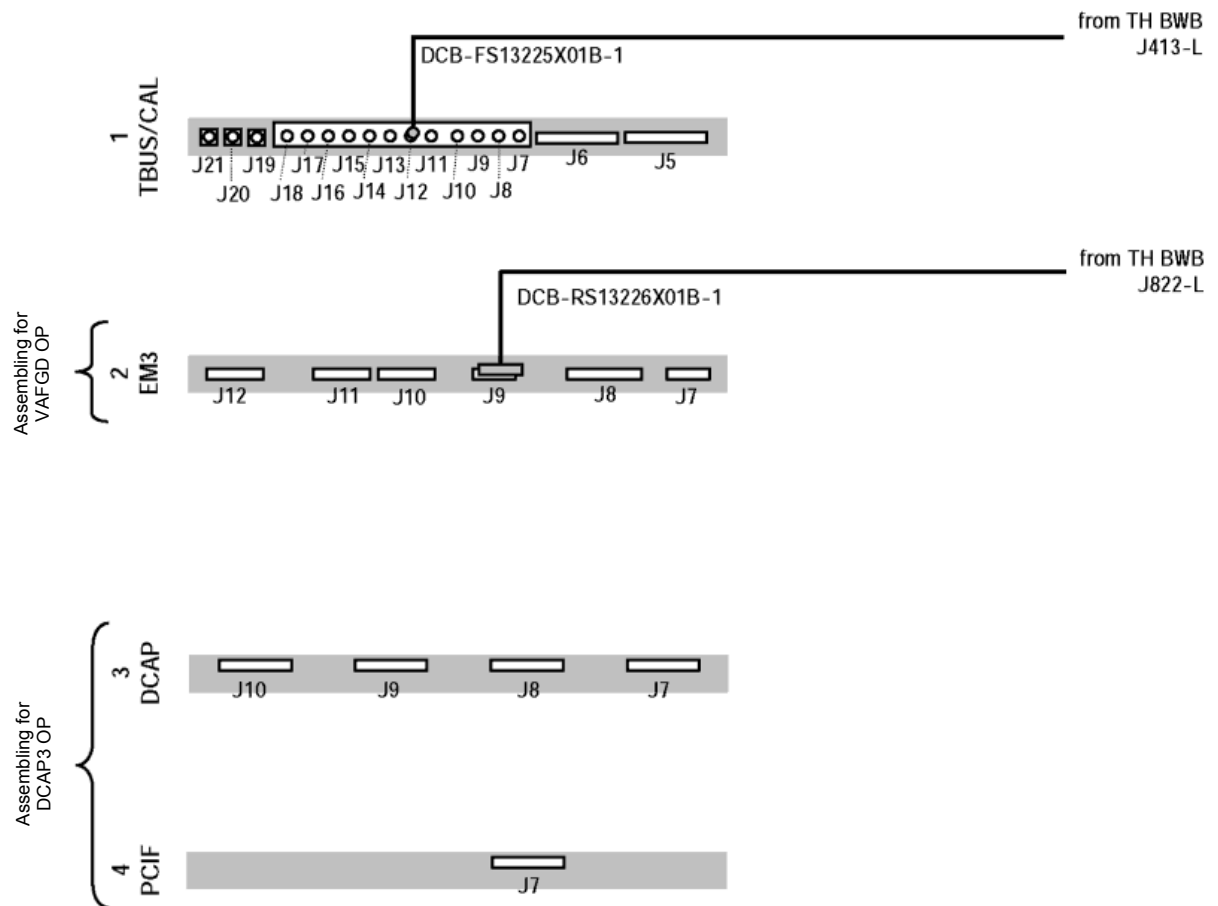


Figure 8-13 MIXEDU Wiring Diagram (2)

8.1 Signal Wiring

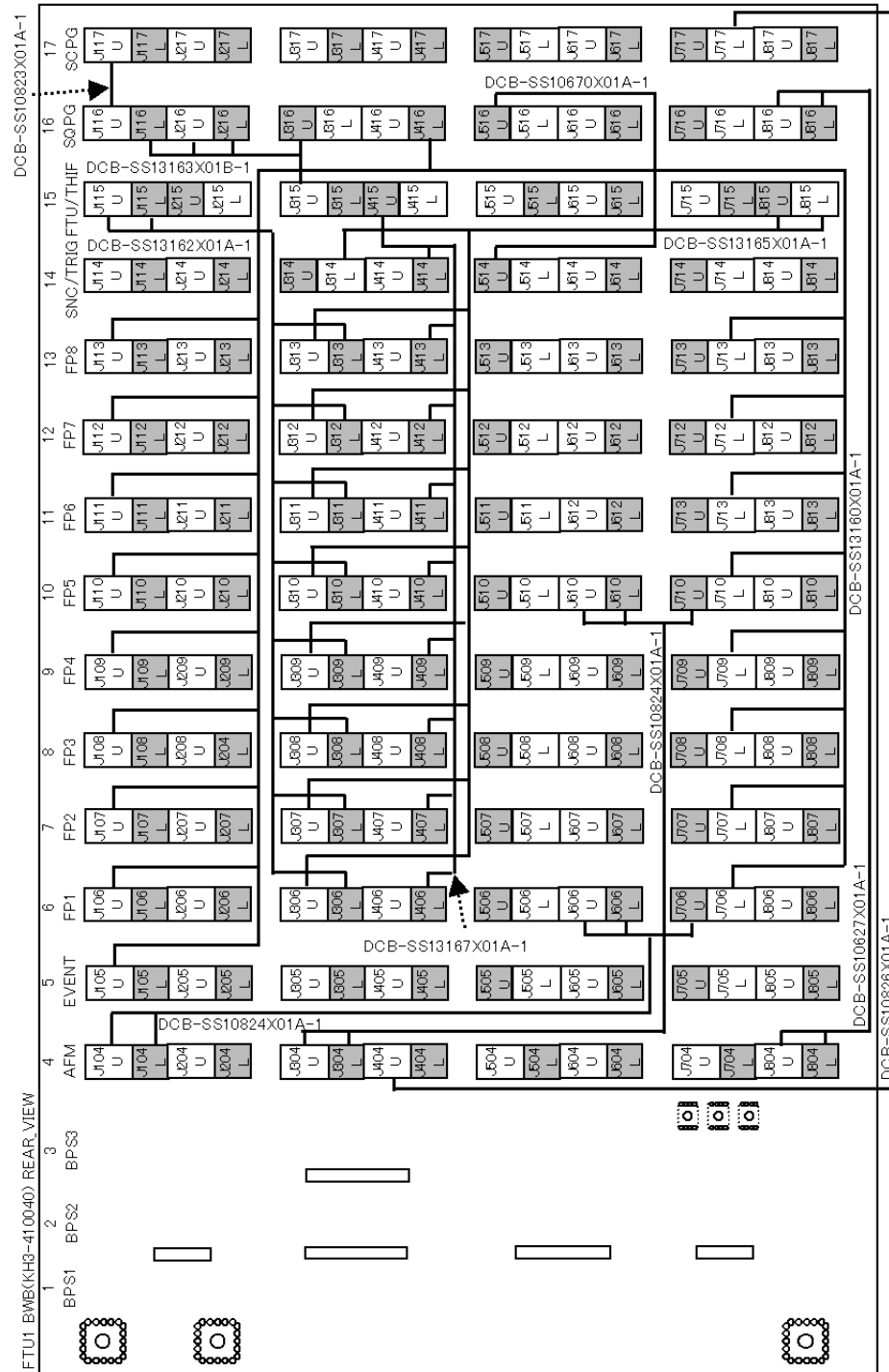


Figure 8-14 FTU1 BWB Wiring Diagram (1)



8.1 Signal Wiring

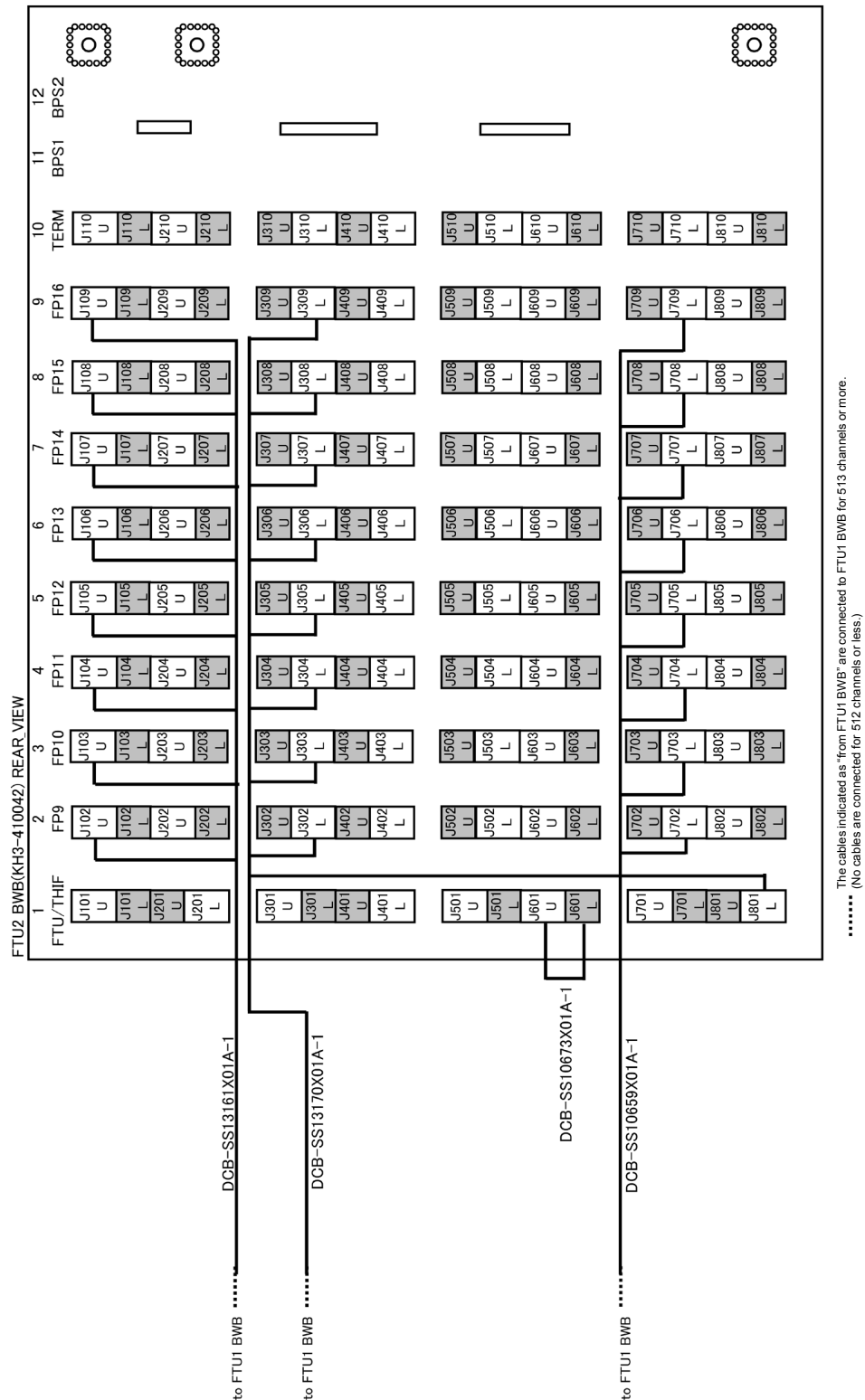


Figure 8-16 FTU2 BWB Wiring Diagram (1)



8.1 Signal Wiring

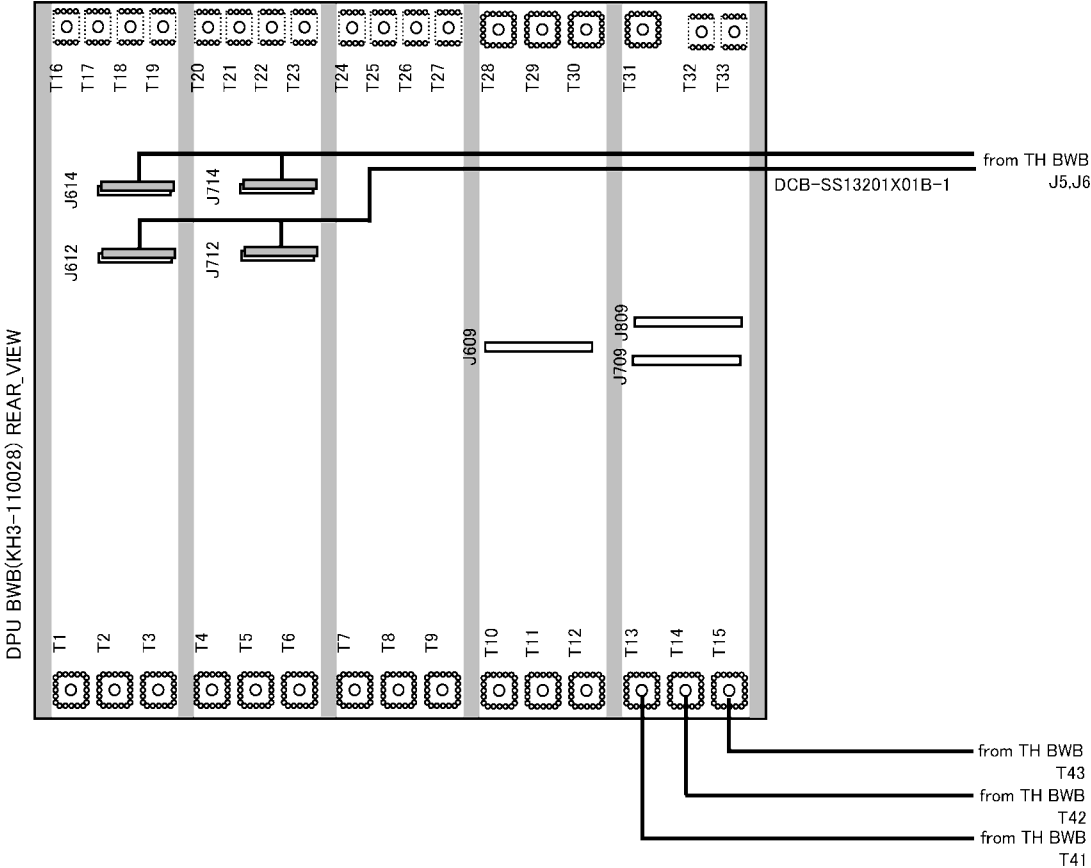


Figure 8-18 DPU BWB Wiring Diagram

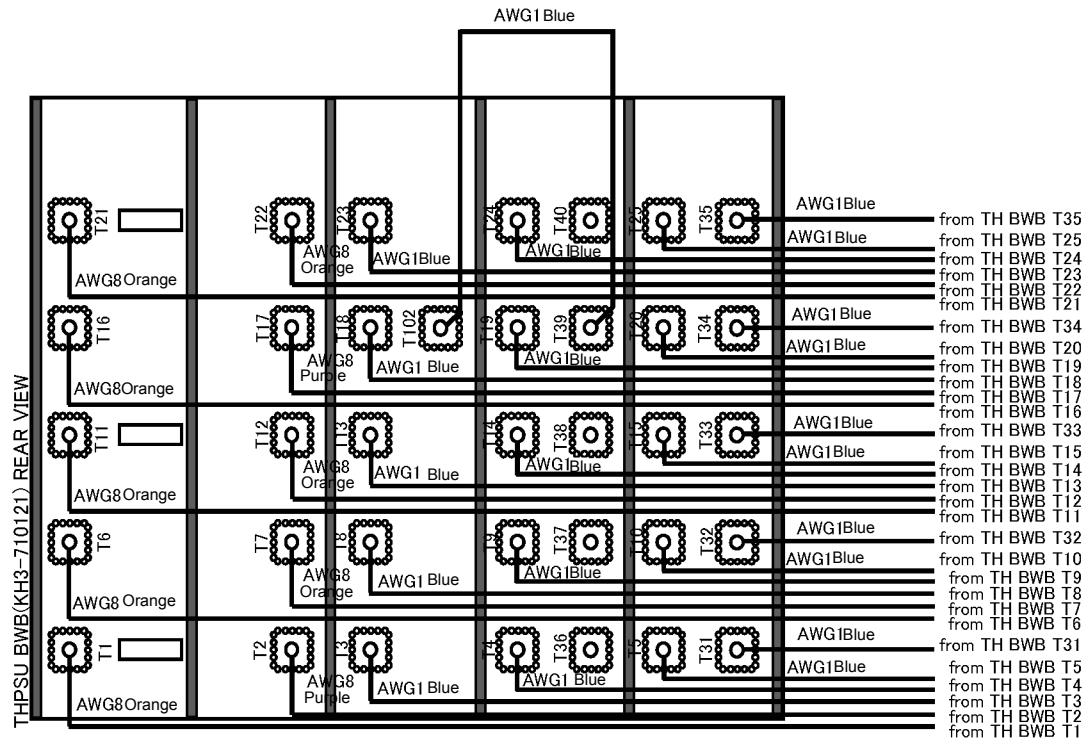


Figure 8-19 THPSU BWB Wiring Diagram

8.1 Signal Wiring

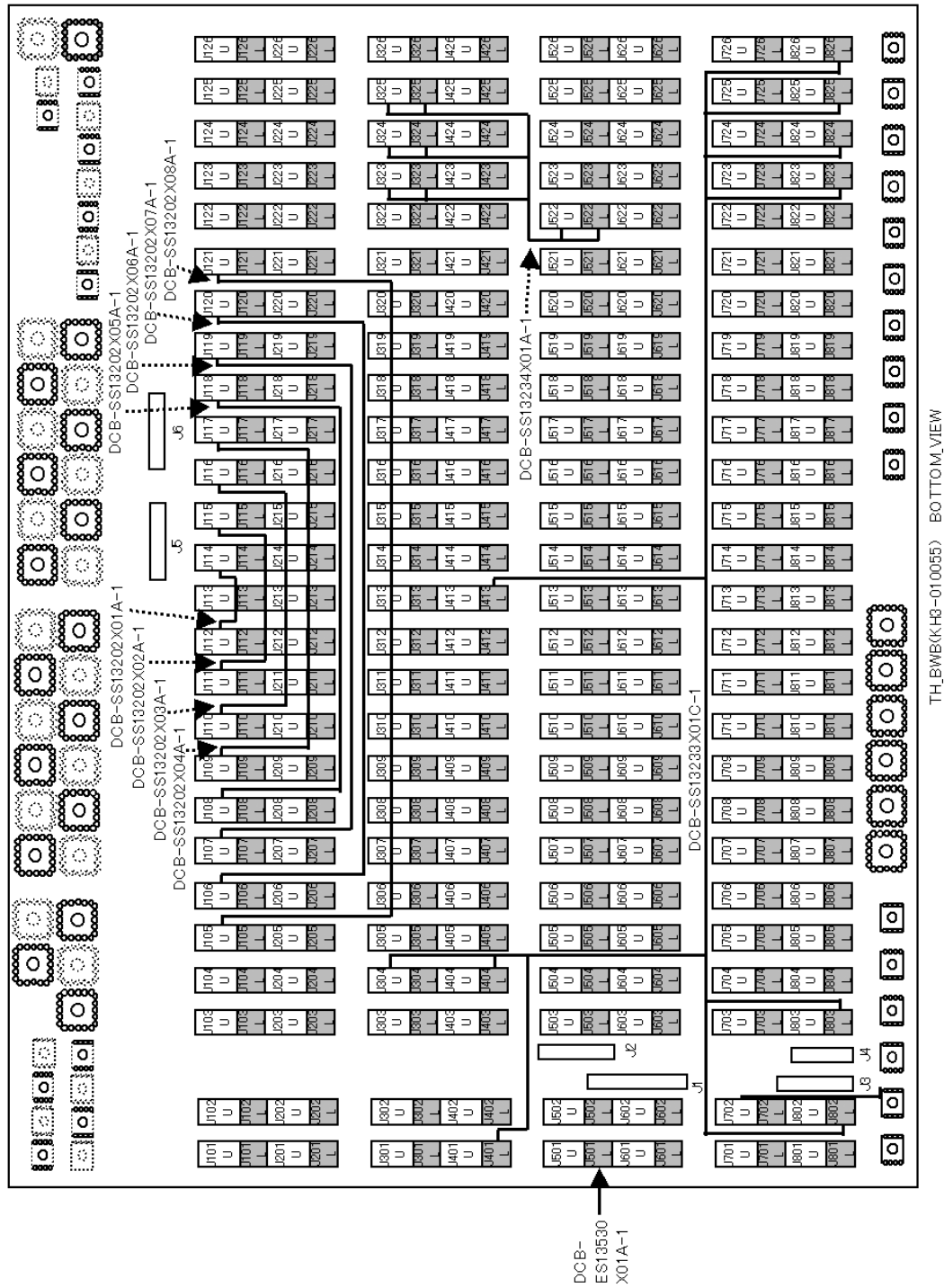


Figure 8-20 TH BWB Wiring Diagram (1)

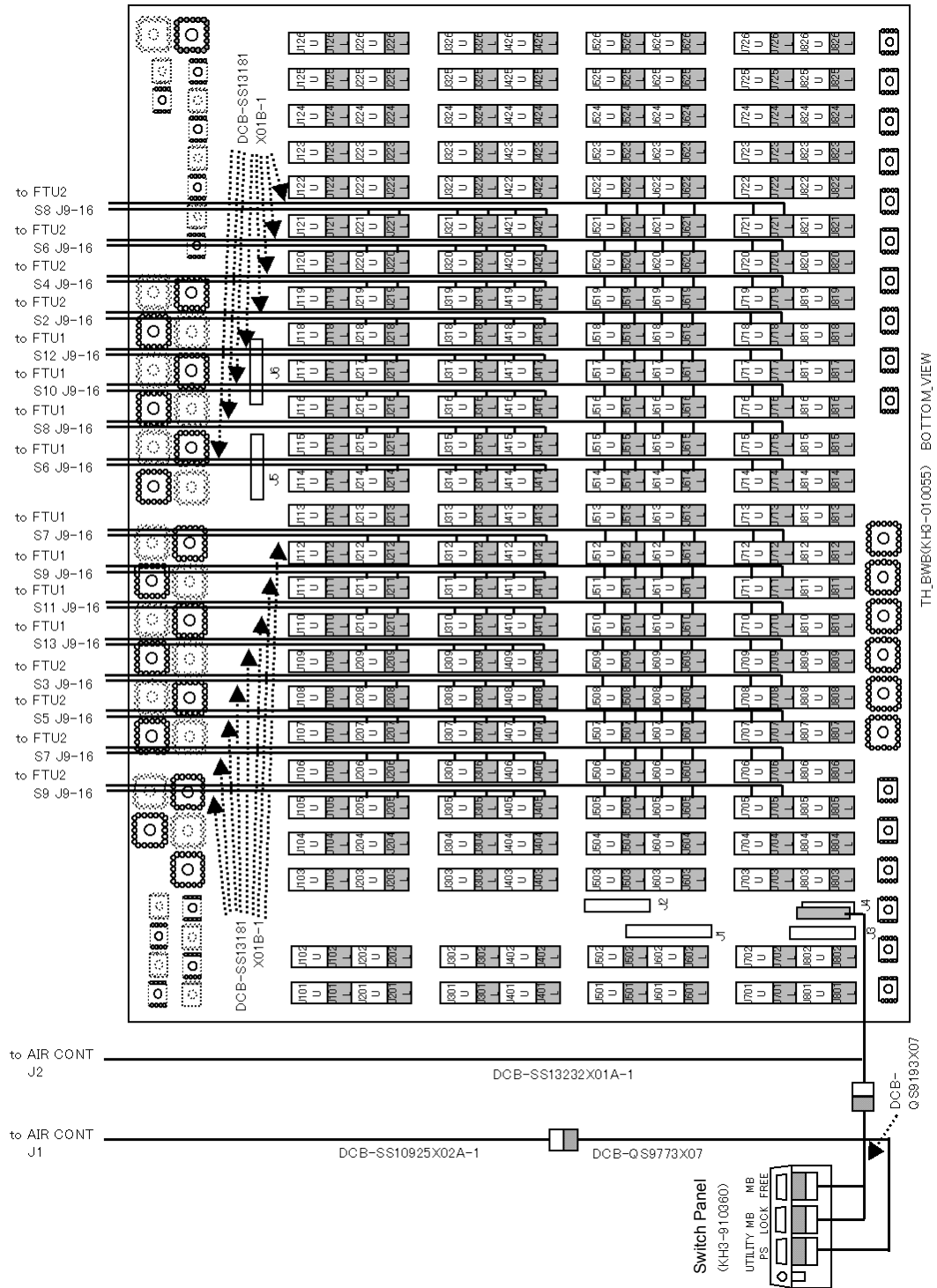


Figure 8-21 TH BWB Wiring Diagram (2)

8.1 Signal Wiring

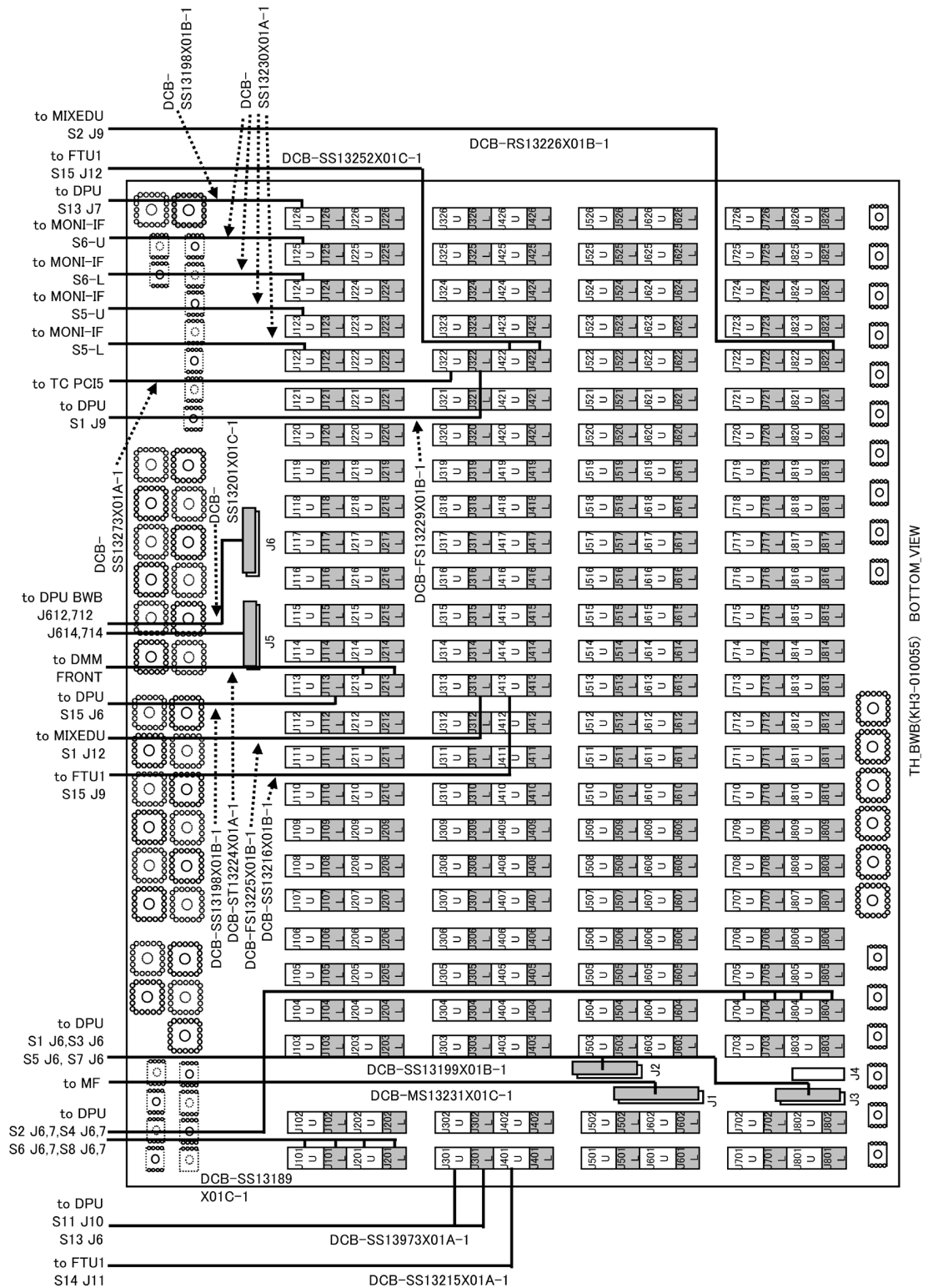
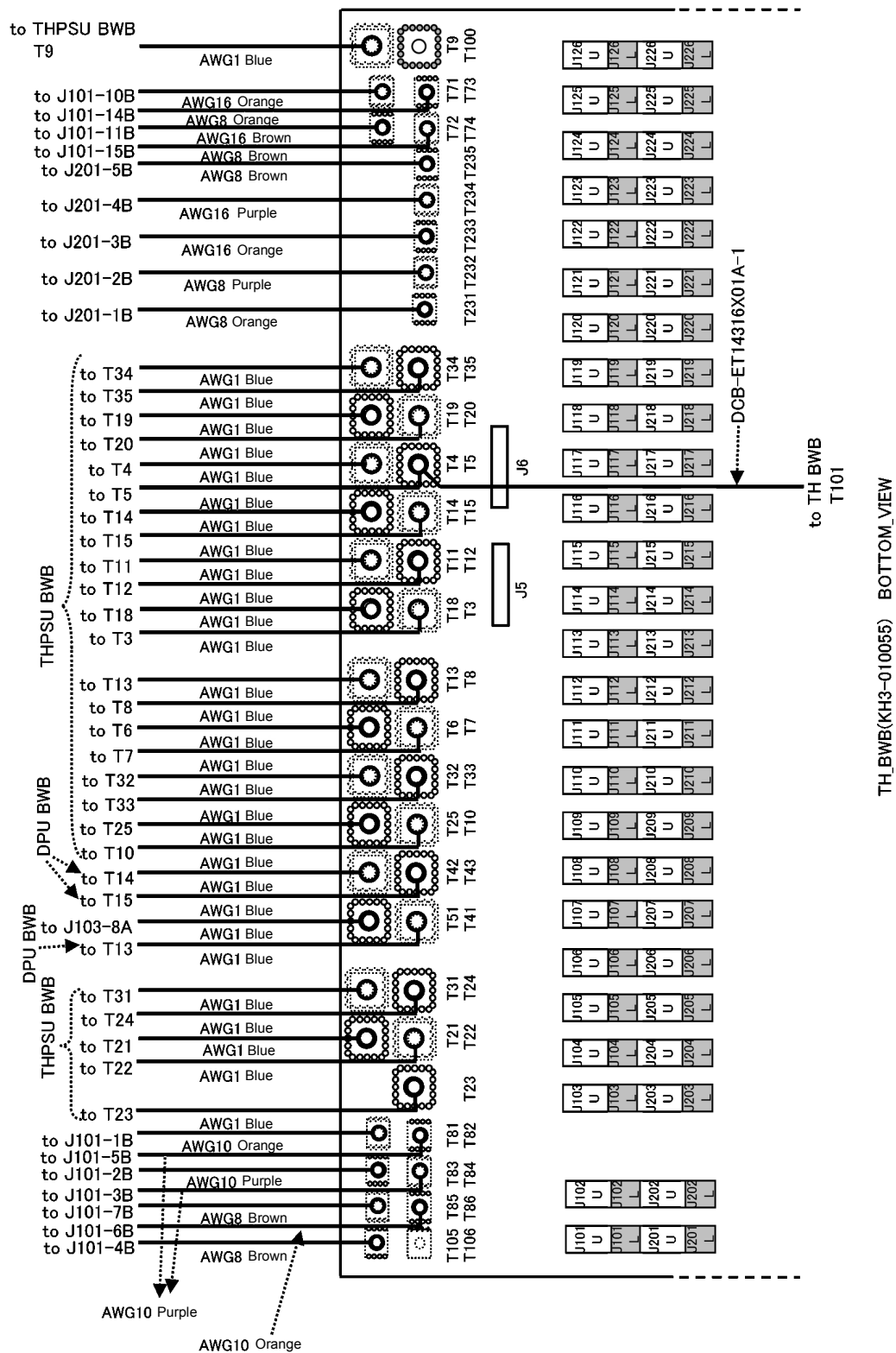


Figure 8-22 TH BWB Wiring Diagram (3)



8.1 Signal Wiring

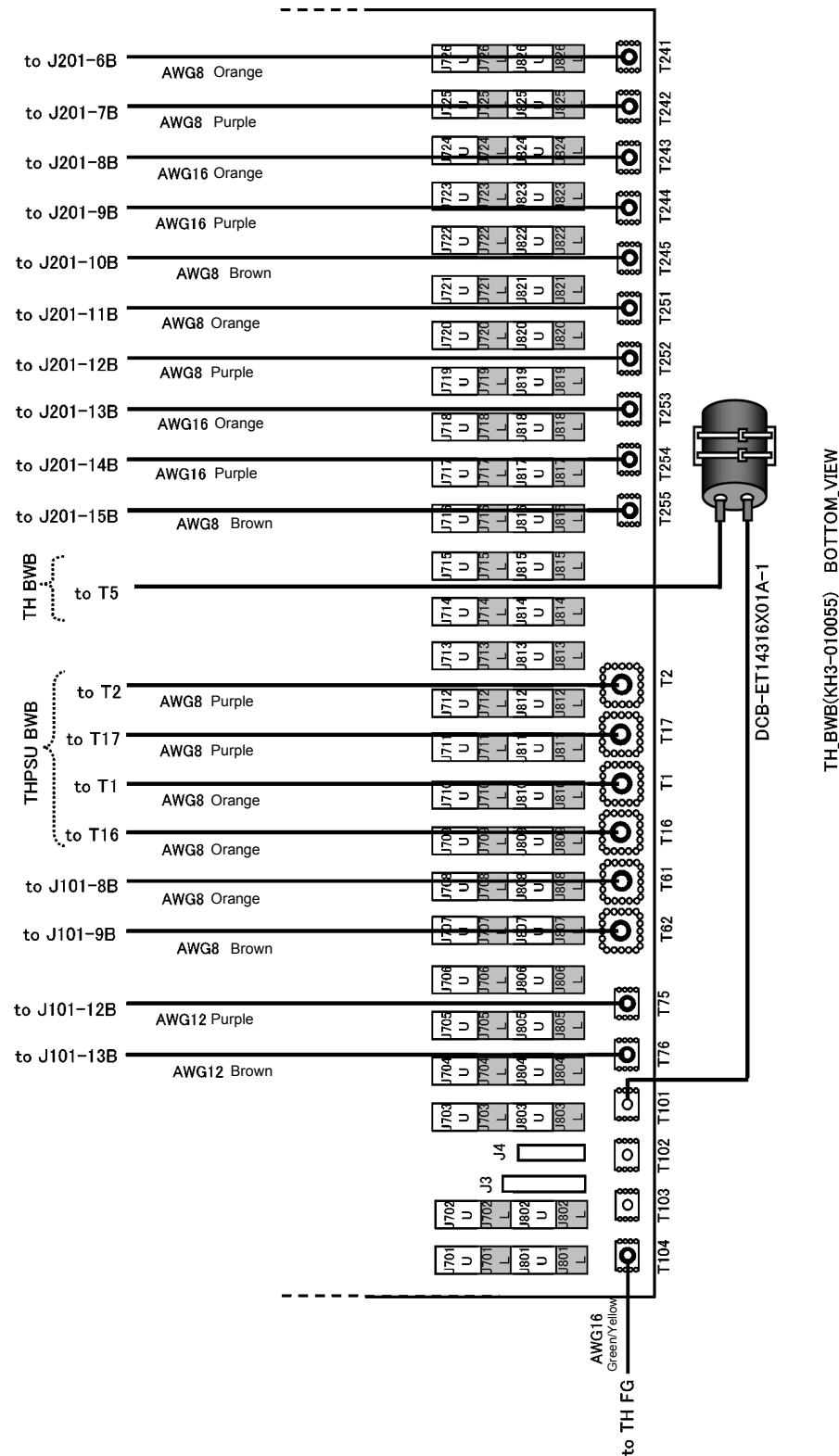


Figure 8-24 TH BWB Wiring Diagram (5)

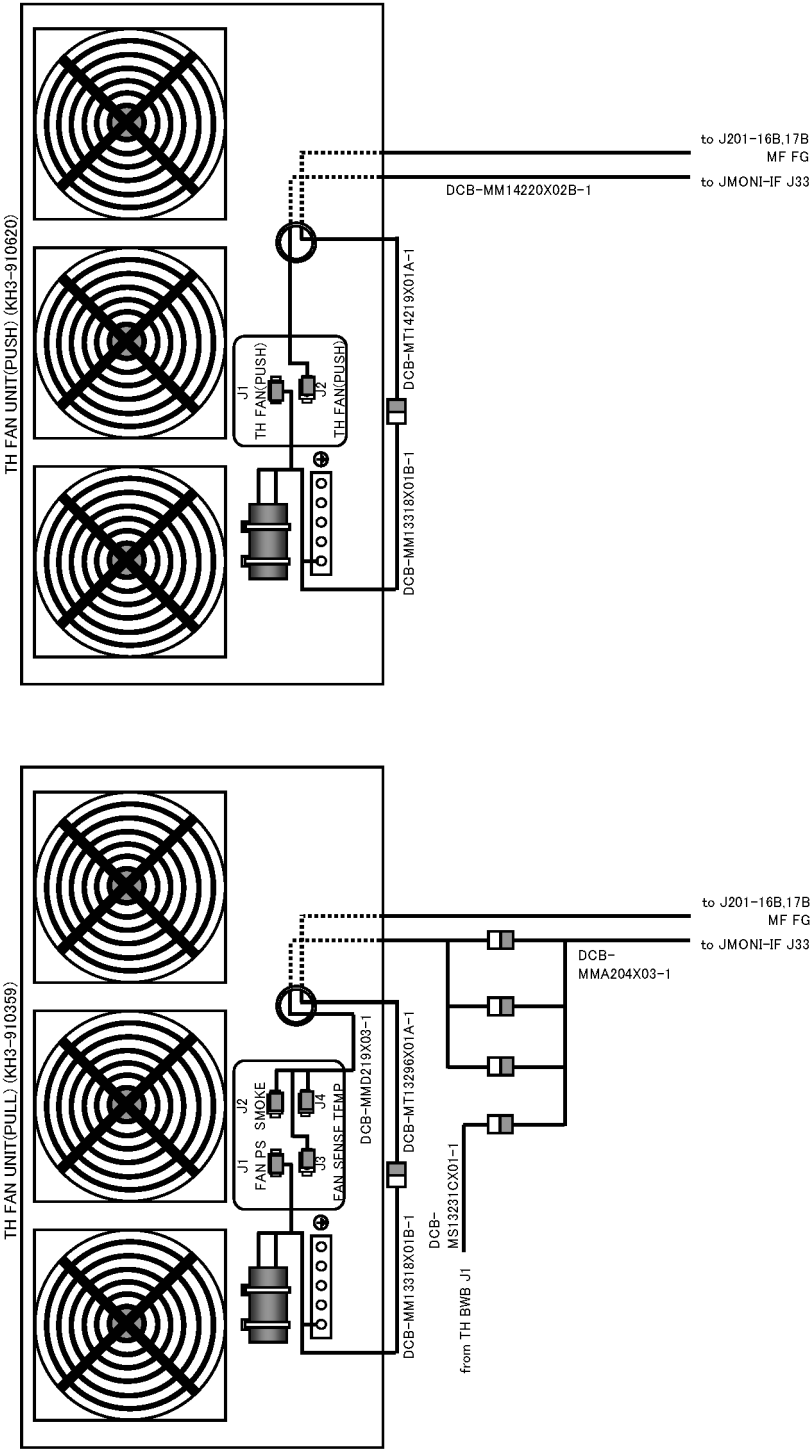


Figure 8-25 TH FAN Wiring Diagram

8.2 Power Supply Wiring

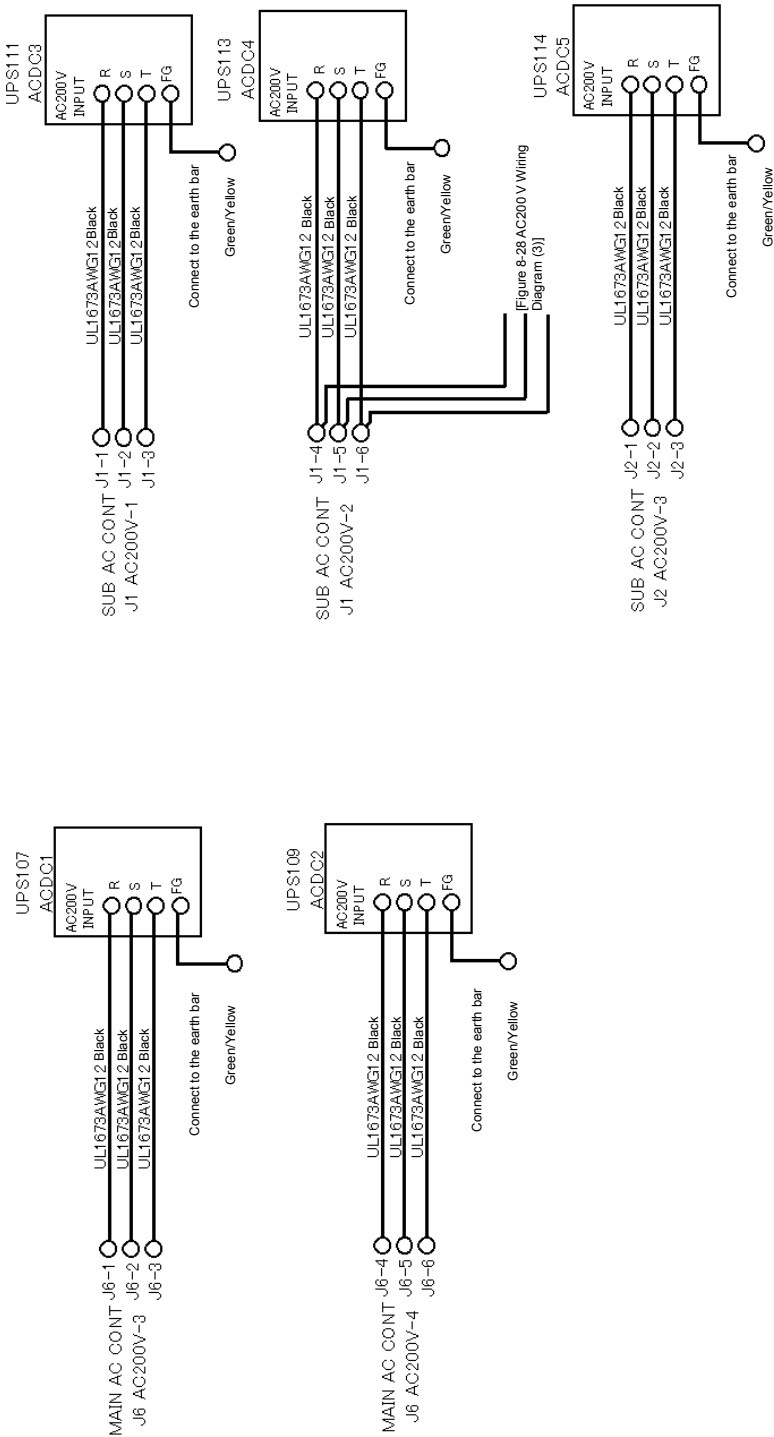
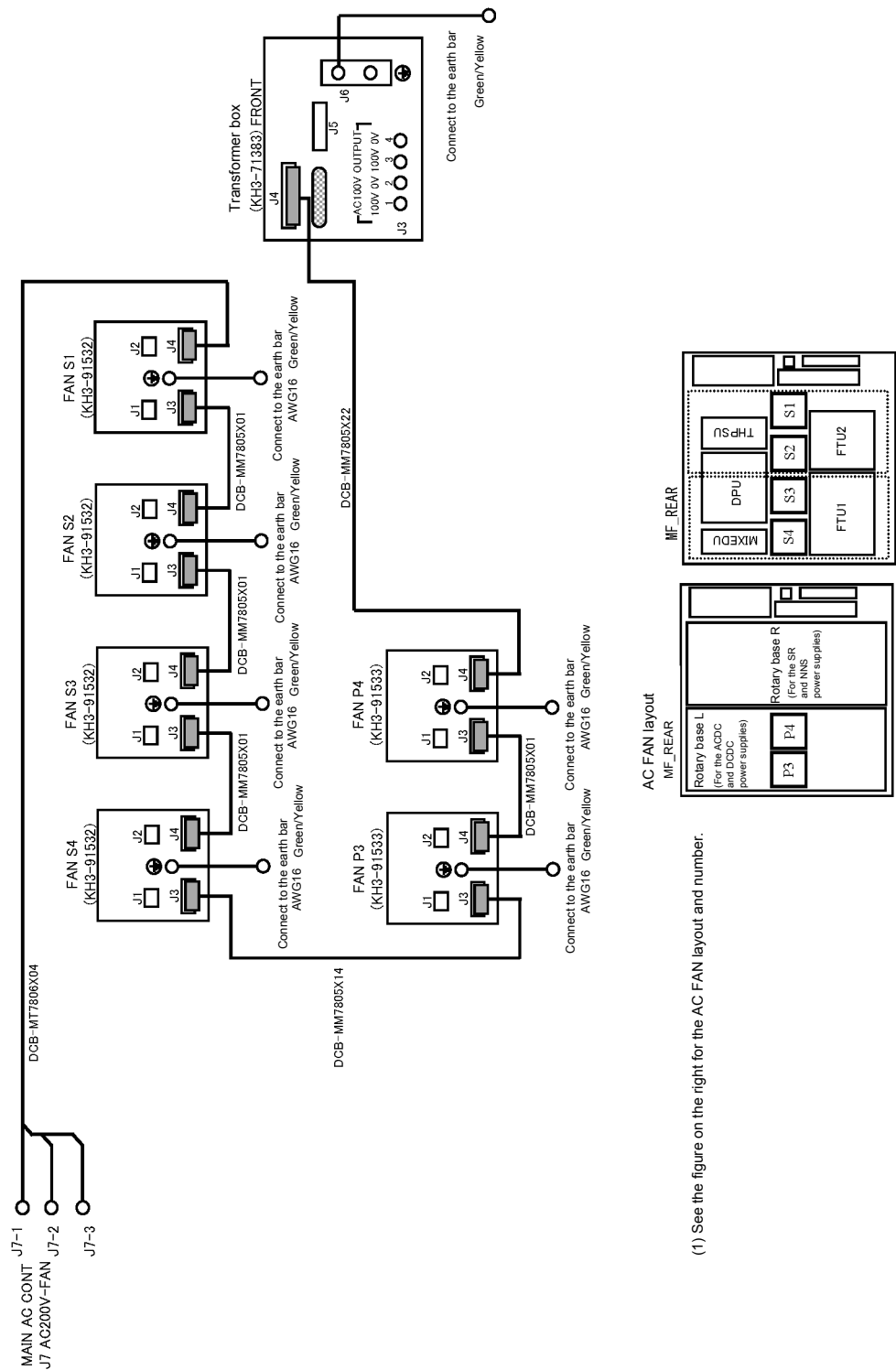


Figure 8-27 AC200 V Wiring Diagram (2)

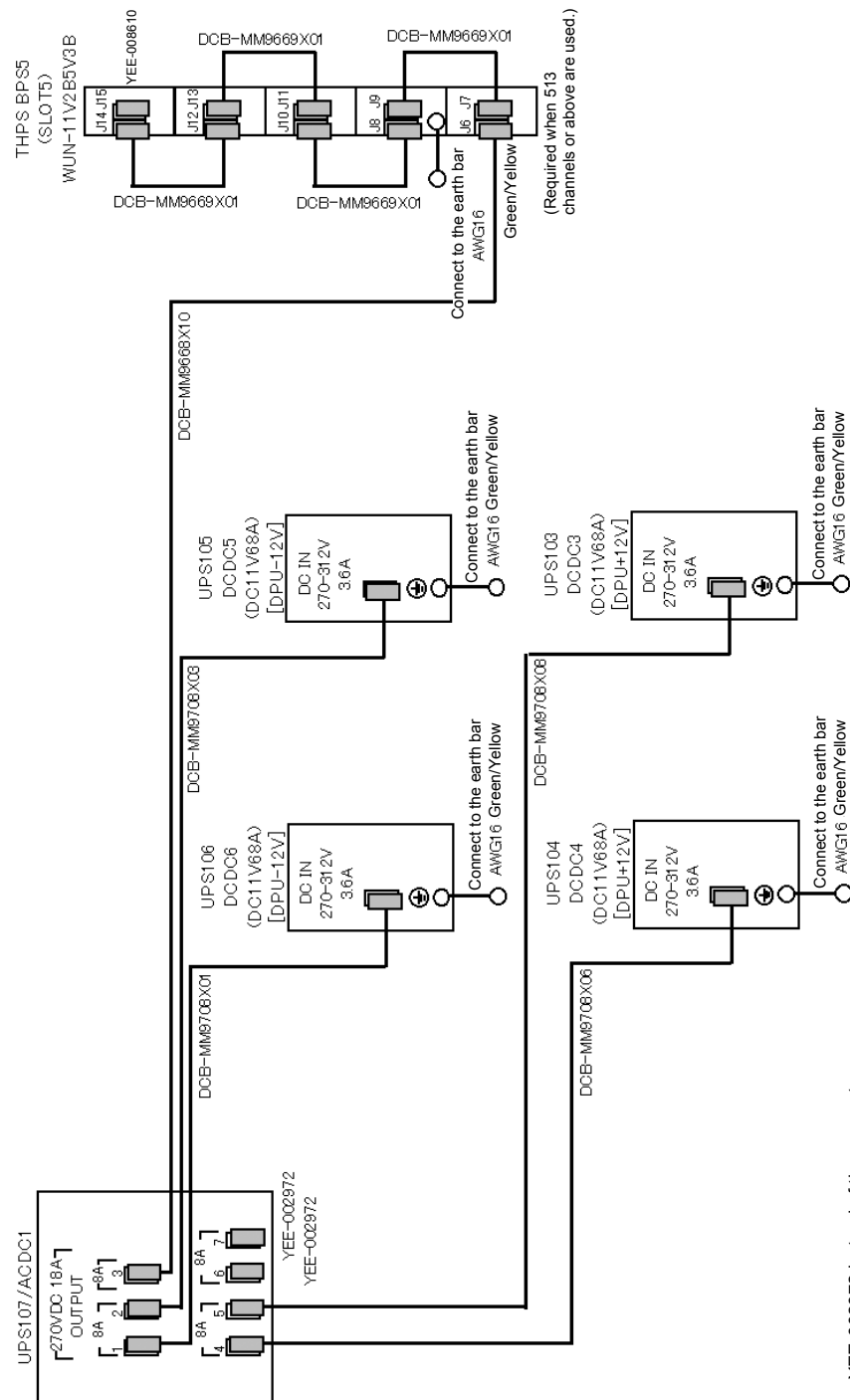




(1) See the figure on the right for the AC FAN layout and number.

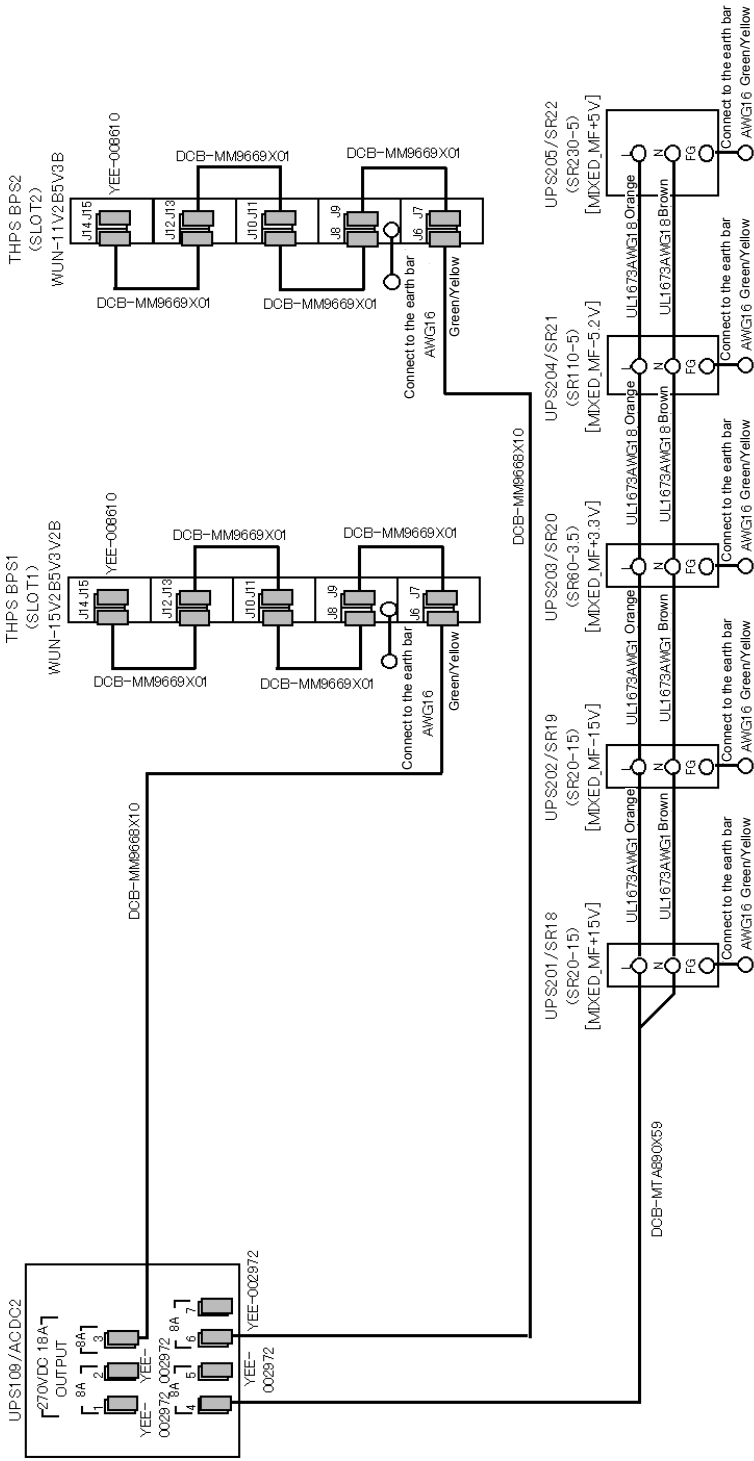
Figure 8-29 AC200 V Wiring Diagram (4)

8.2 Power Supply Wiring



- (1) Secure YEE-002972 instead of the connector, which is not secured, in UPS107.
- (2) Secure YEE-008610 at the position of the connector, which is not secured, in the power supply on the board.
- (3) THPS BPS5 is assembled for 513 channels or more.

Figure 8-30 DC270 V Wiring Diagram (1)



- (1) Secure YEE-002972 instead of the connector, which is not secured, in UPS109.
- (2) Secure YEE-008610 at the position of the connector, which is not assembled, in the power supply on the board.

Figure 8-31 DC270 V Wiring Diagram (2)

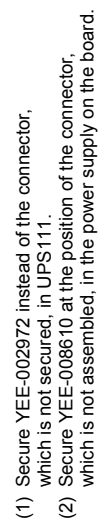


Figure 8-32 DC270 V Wiring Diagram (3)

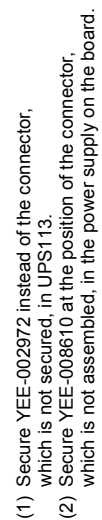


Figure 8-33 DC270 V Wiring Diagram (4)

8.2 Power Supply Wiring

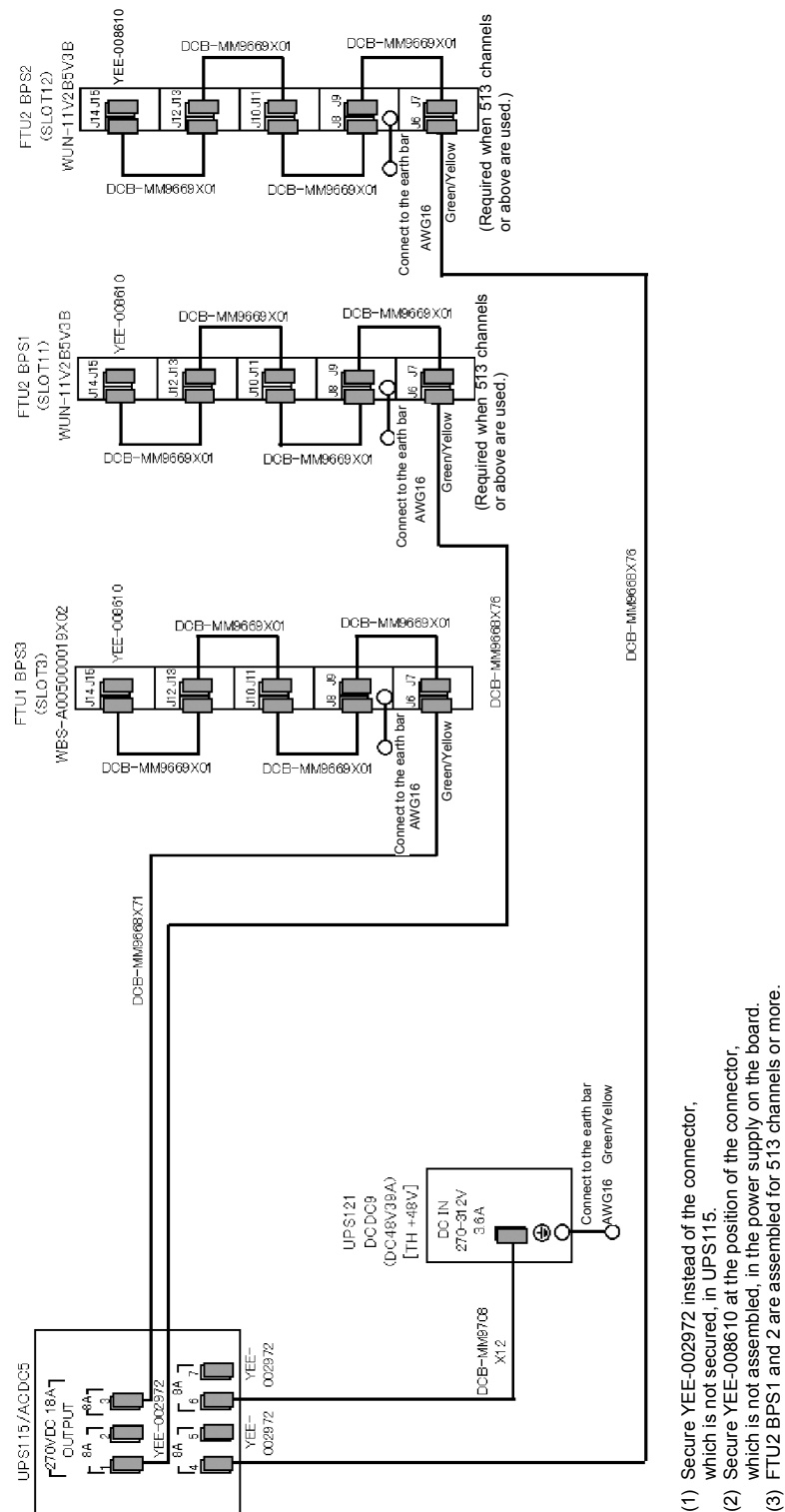
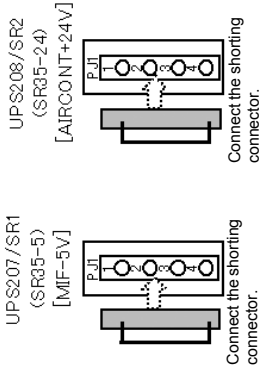


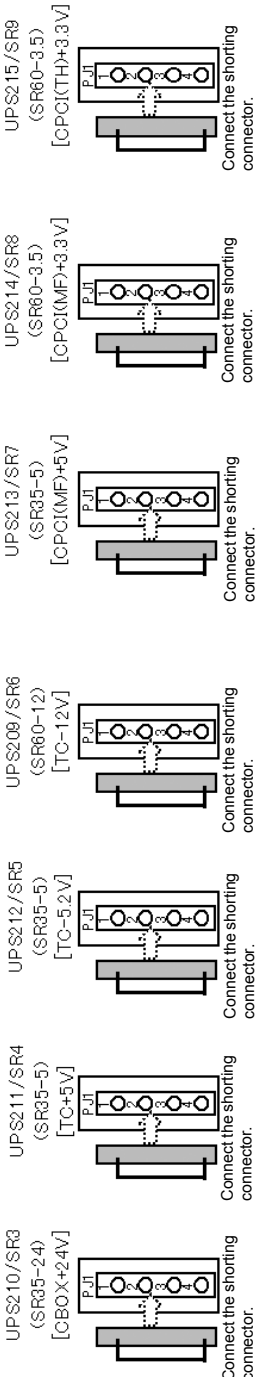
Figure 8-34 DC270 V Wiring Diagram (5)

Power supply which is not necessary for controlling the sequence

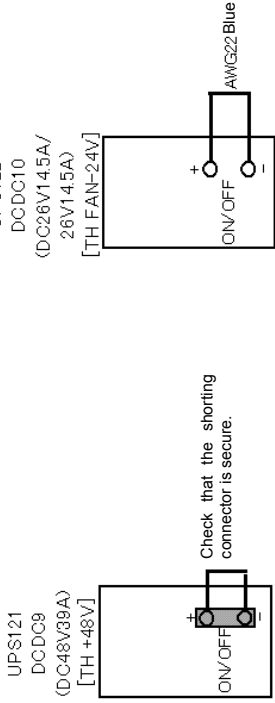
SYS_M synchronized SR power supply



TC synchronized SR power supply



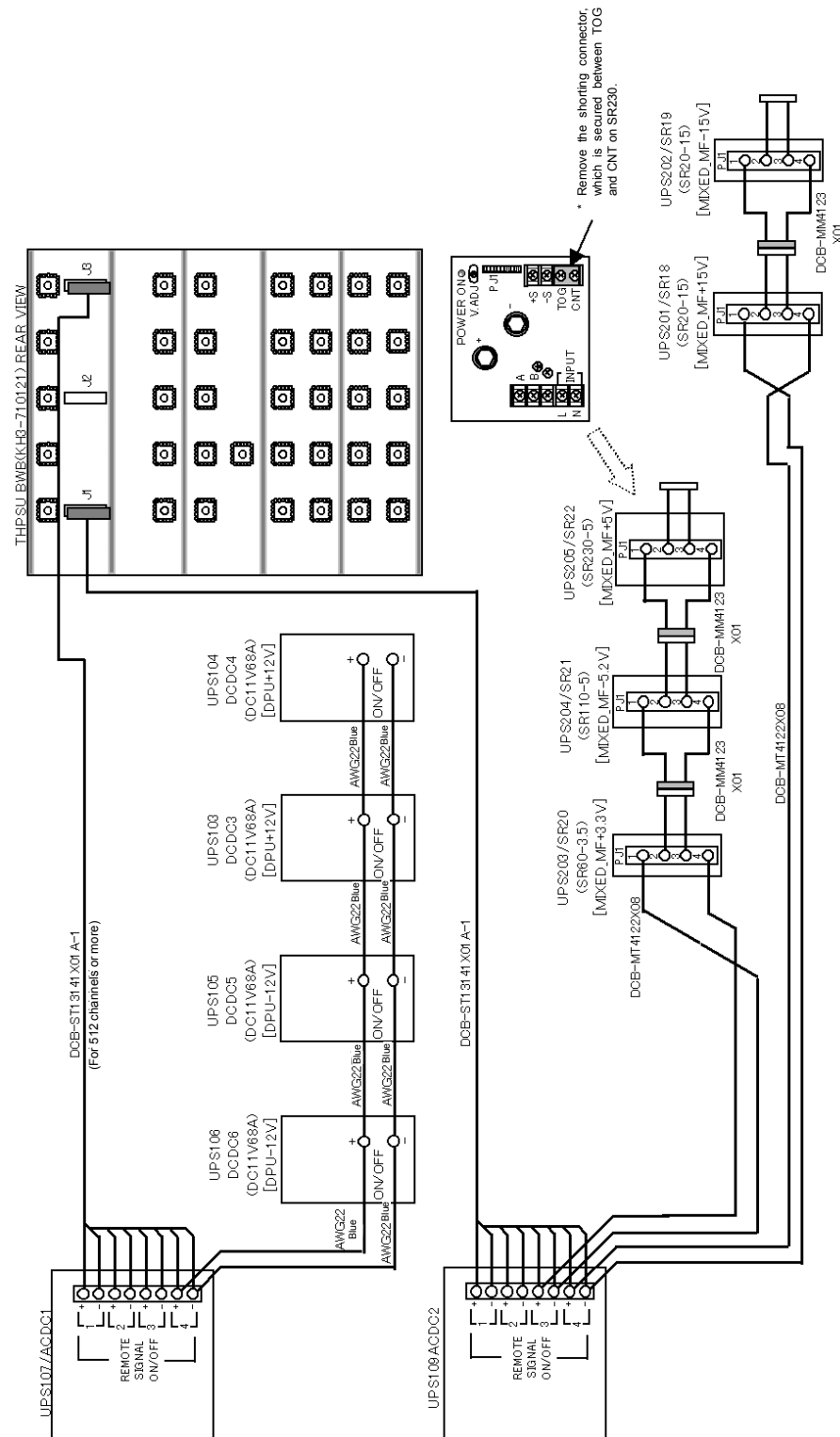
MF synchronized DCDC power supply



- (1) Secure the shorting connector included in the SR power supply.
- (2) Short the ON/OFF terminals in the DCDC power supply (UPS122).
- (3) Check that the shorting connector is secured at ON/OFF terminals in the DCDC power supply (UPS121).

Figure 8-35 SYSTEM ON/OFF Cable Connection (1)

8.2 Power Supply Wiring



- (1) Clamp the loop of the sequence cable DCB-MM4123X01 for the SR power supply.
- (2) DCB-ST13141X01A-1 is connected to THPSU BWB J3 for 513 channels or more.
- (3) Remove the shorting connector between TOG and CNT in SR230.

Figure 8-36 SYSTEM ON/OFF Cable Connection (2)

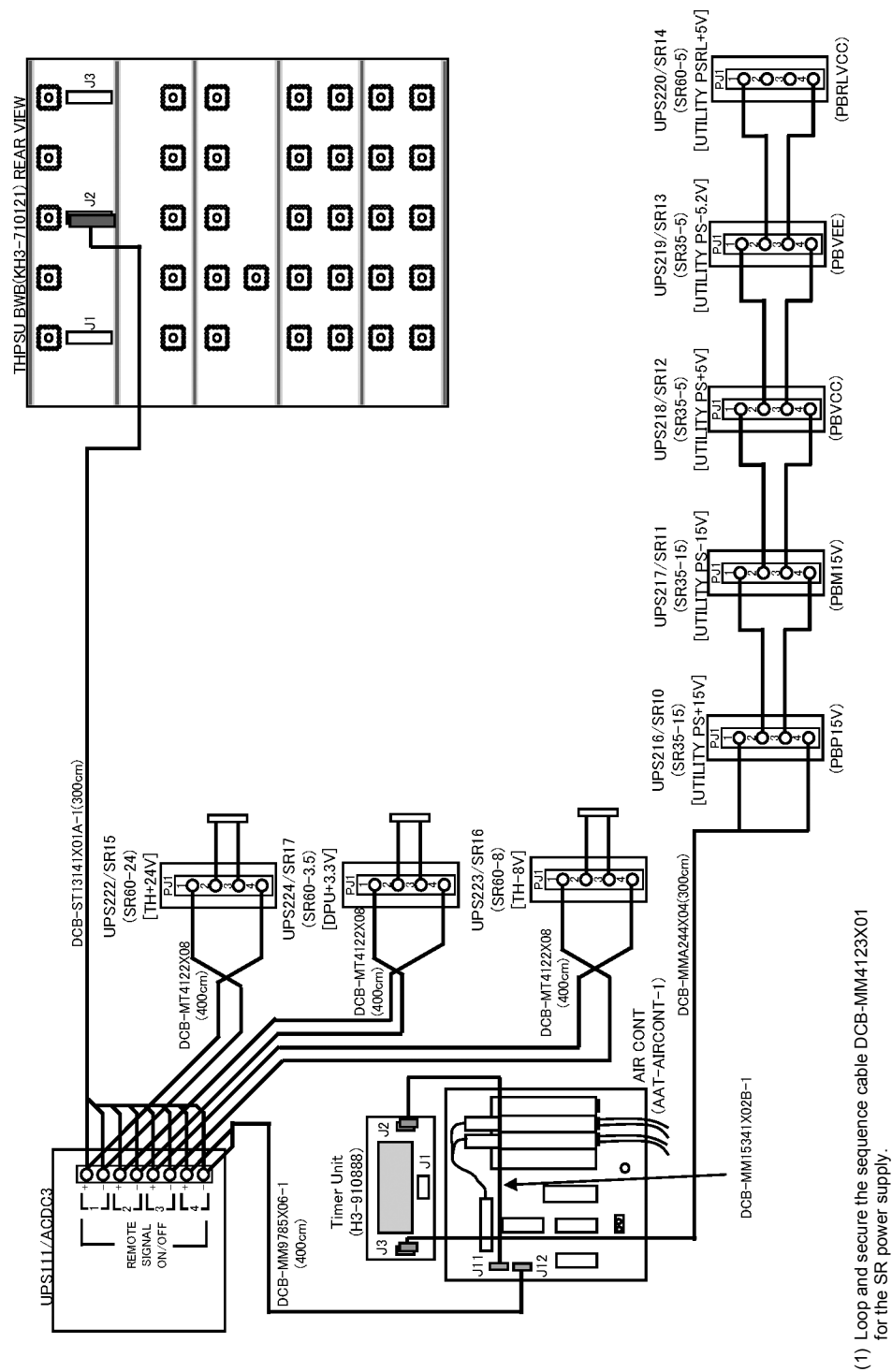


Figure 8-37 SYSTEM ON/OFF Cable Connection (3)

8.2 Power Supply Wiring

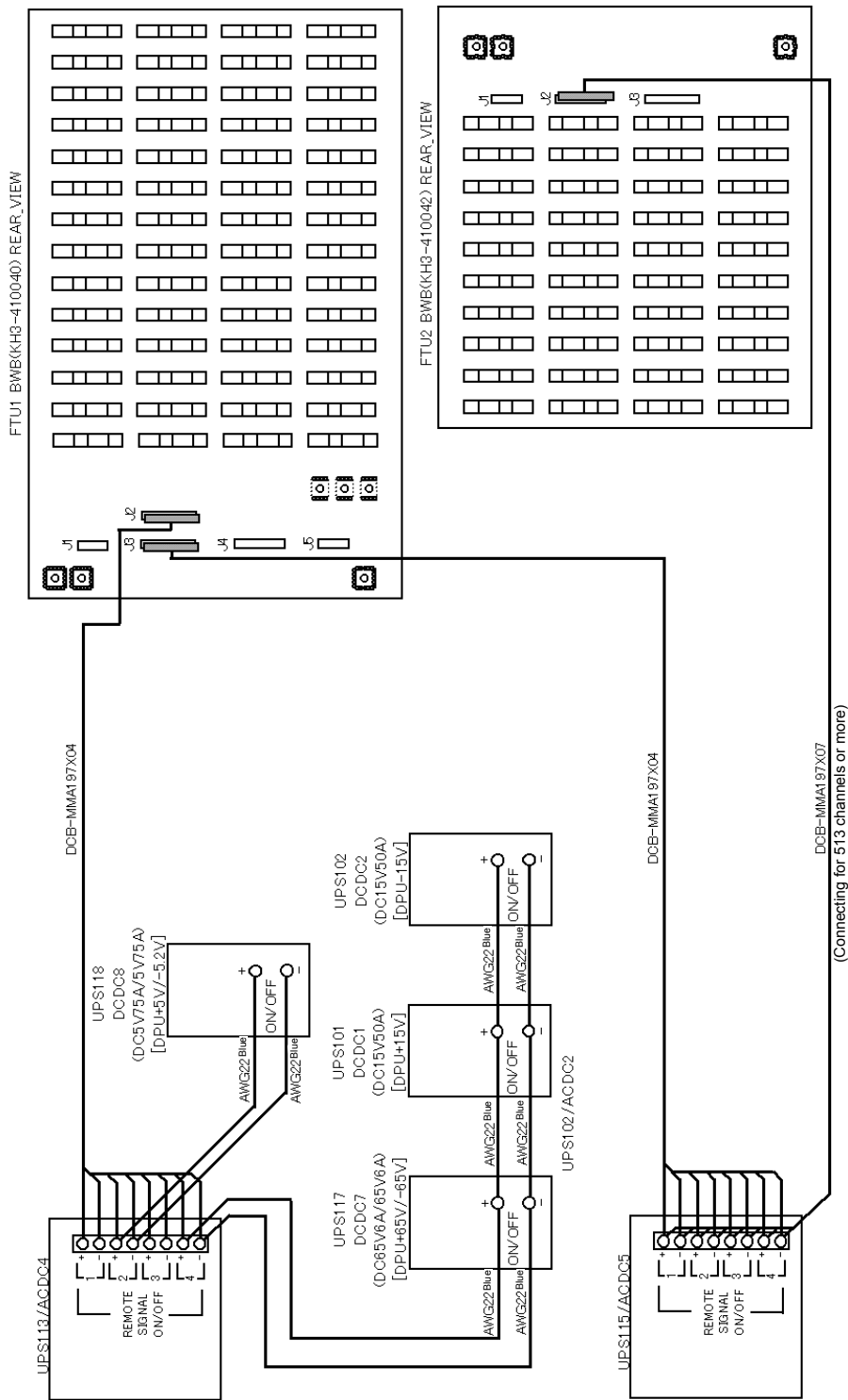


Figure 8-38 SYSTEM ON/OFF Cable Connection (4)

- (1) Clamp the loop of the sequence cable DCB-MMA123X01 for the SR power supply.
- (2) DCB-MMA297X07 is connected to FTU2_BWB.J2 for 513 channels or more.

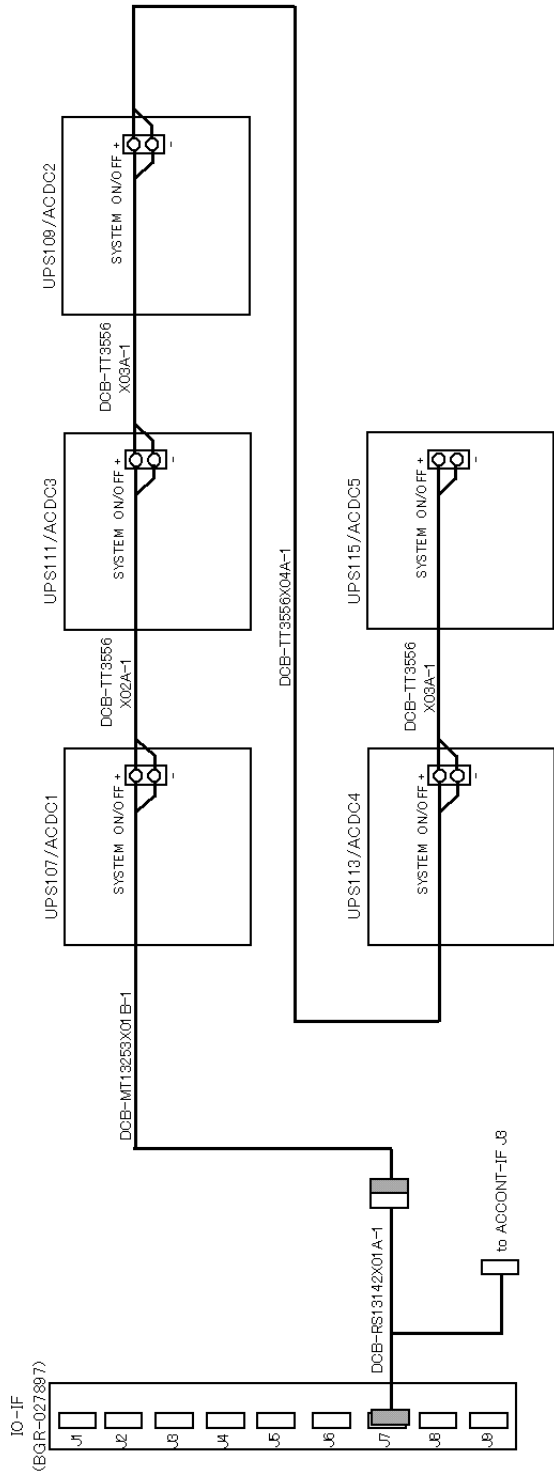


Figure 8-39 SYSTEM ON/OFF Cable Connection (5)

8.2 Power Supply Wiring

Power supply required for the connection between MAS and SLV.

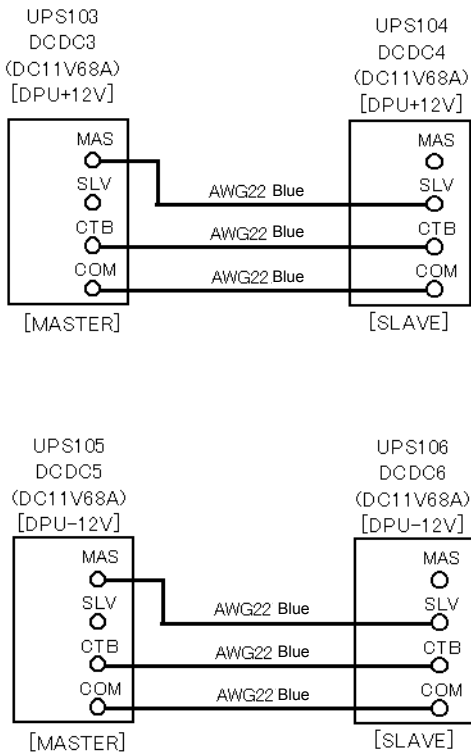
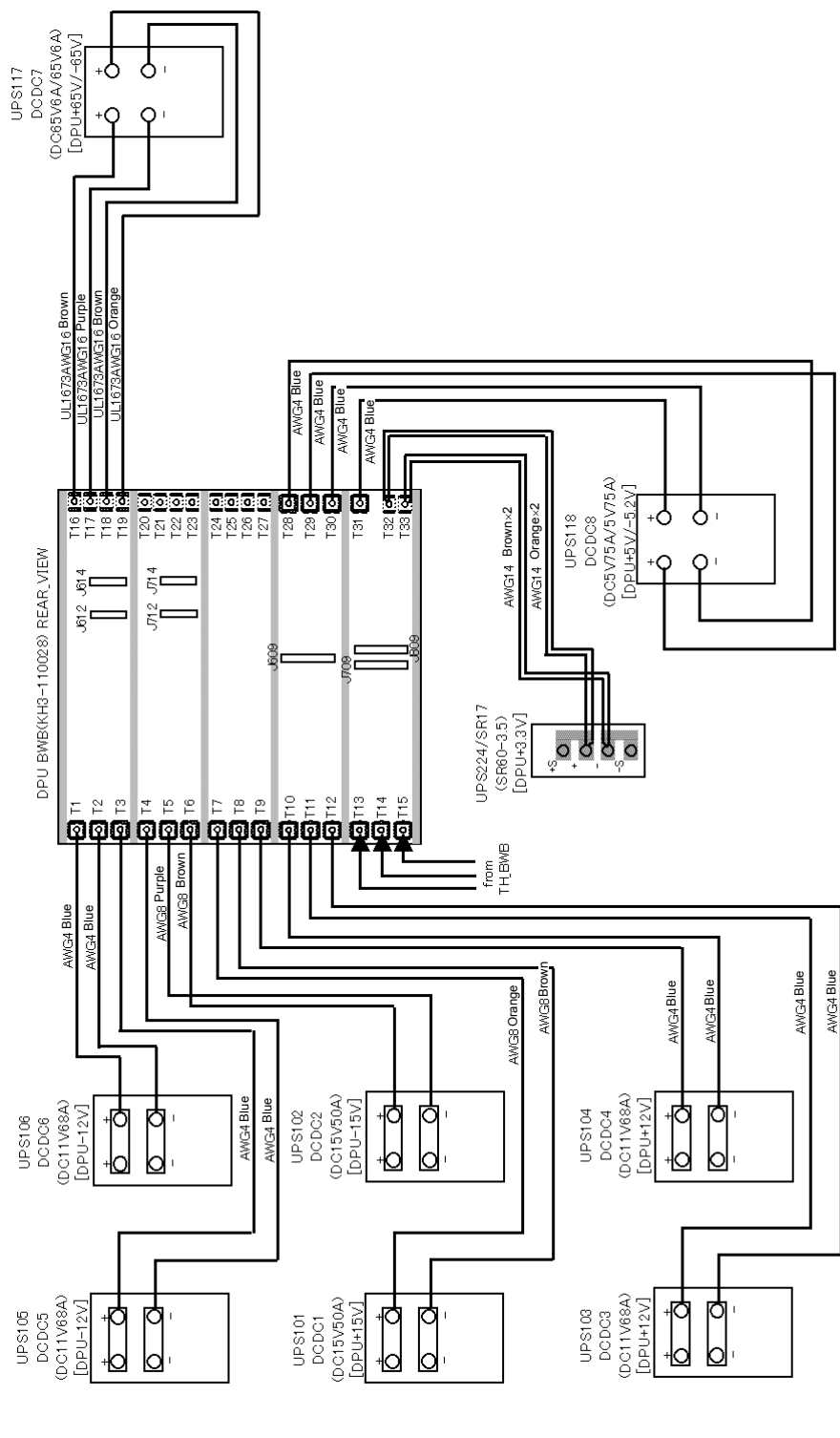


Figure 8-40 MASTER/SLAVE Cable Connection

8.2 Power Supply Wiring



8.2 Power Supply Wiring

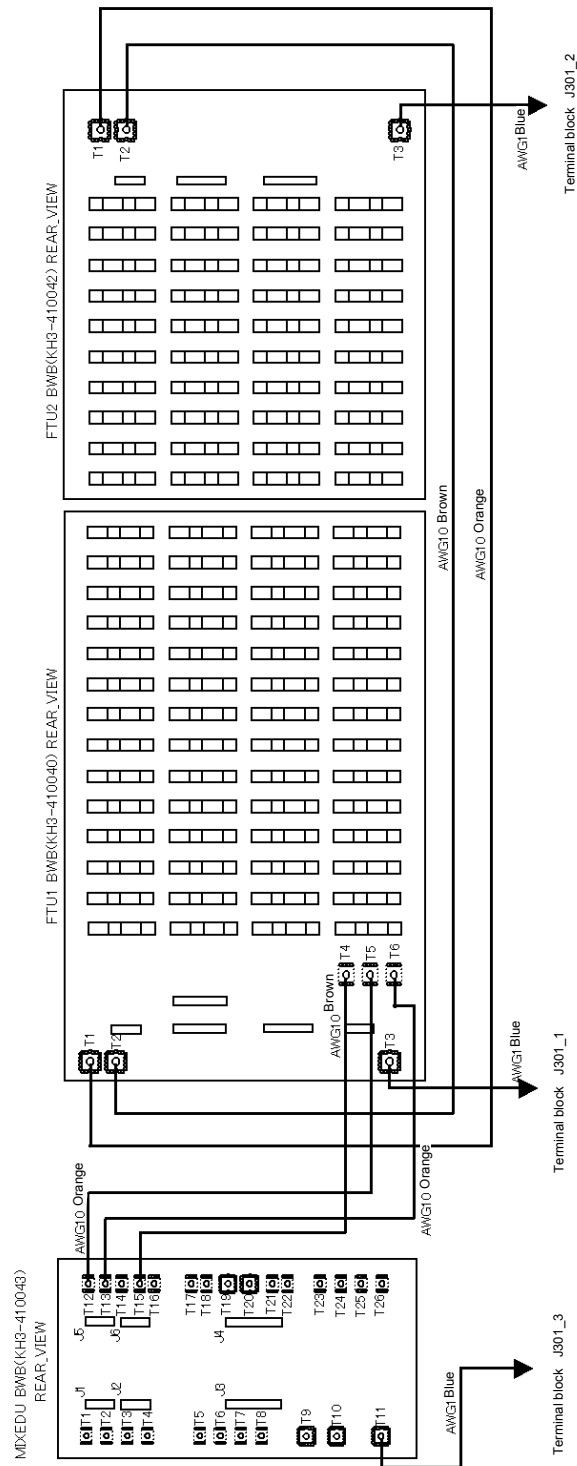


Figure 8-42 DC Power Supply Wiring Diagram (2)

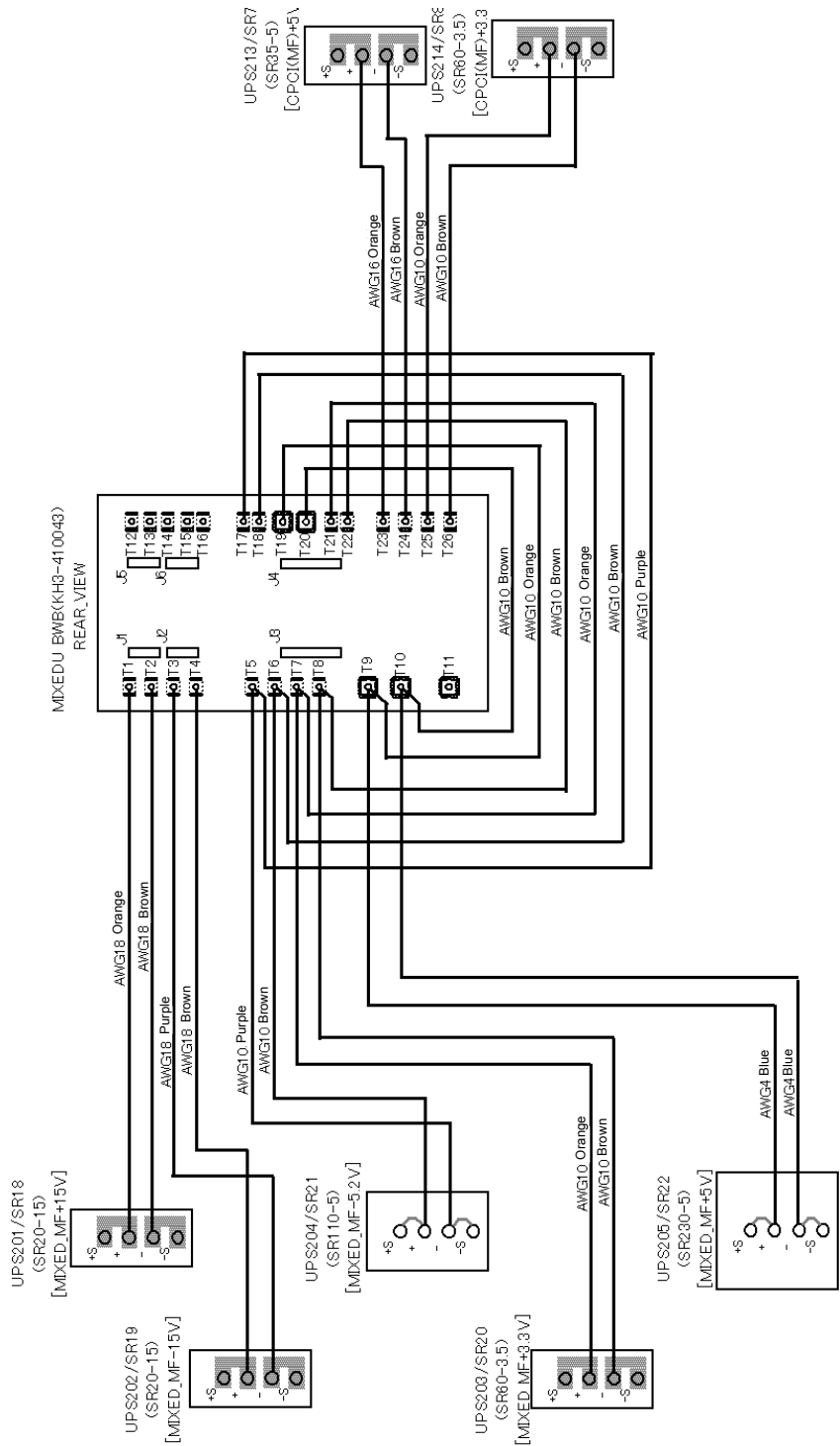
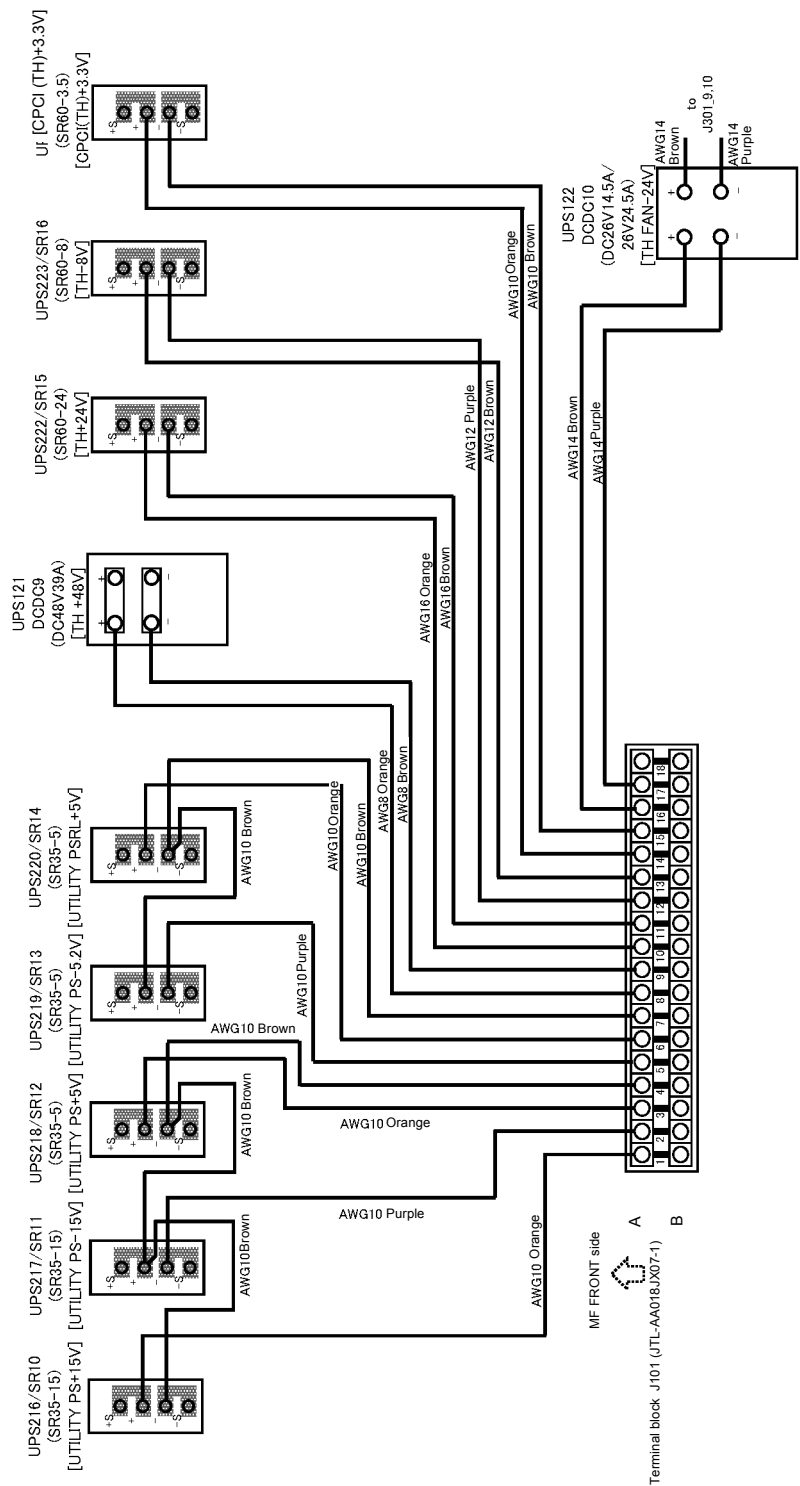


Figure 8-43 DC Power Supply Wiring Diagram (3)

(1) Secure the shorting pieces (shorting cables) between the +S and + terminals, and the -S and - terminals on the SR power supply.

8.2 Power Supply Wiring



- (1) Secure the shorting jumpers between the +S and + terminals, and the -S and - terminals on the SR power supply.
- (2) Use two cables for each terminal between J302_6 and UPS312 and 314.

Figure 8-44 DC Power Supply Wiring Diagram (4)

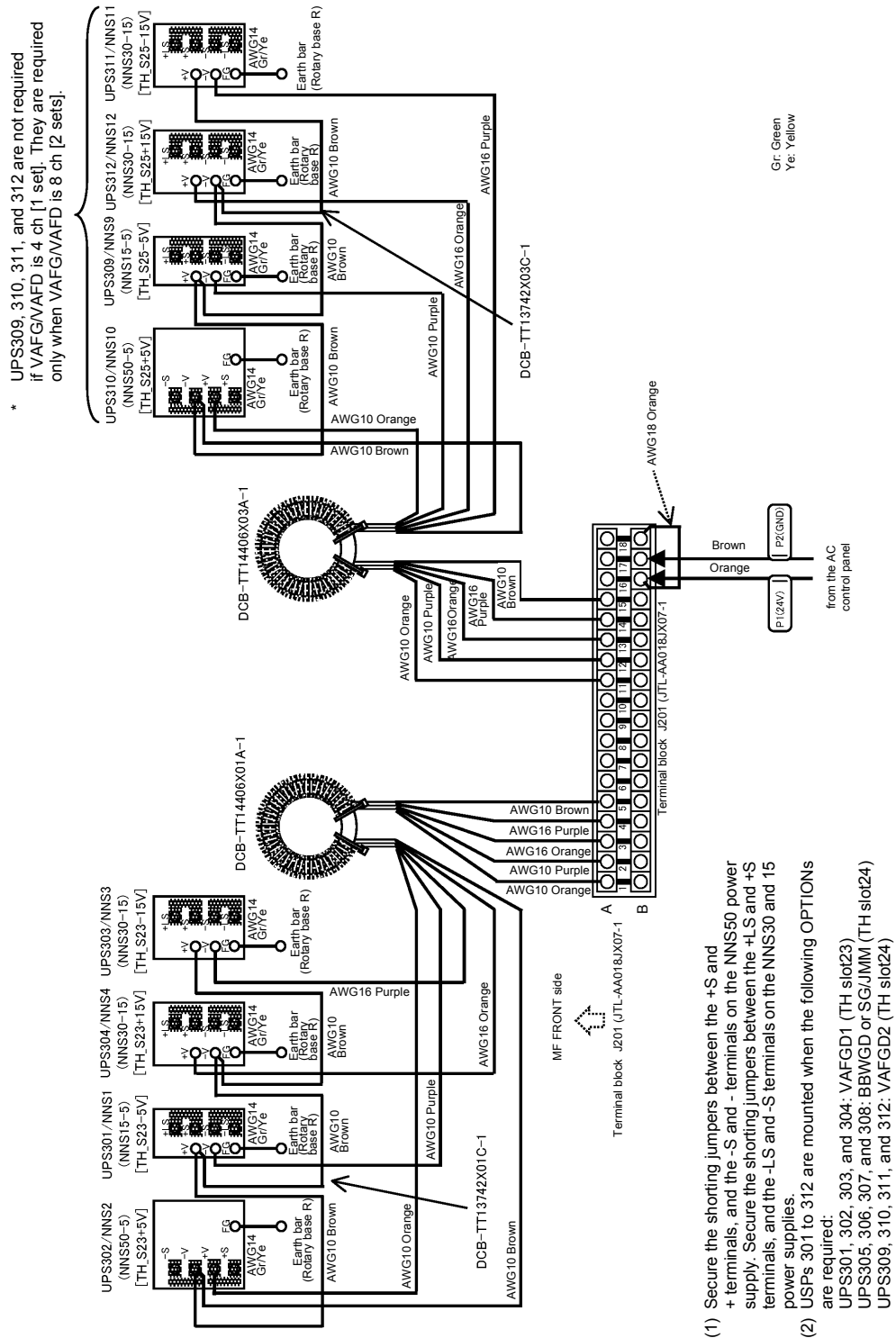


Figure 8-45 DC Power Supply Wiring Diagram (5)

8.2 Power Supply Wiring

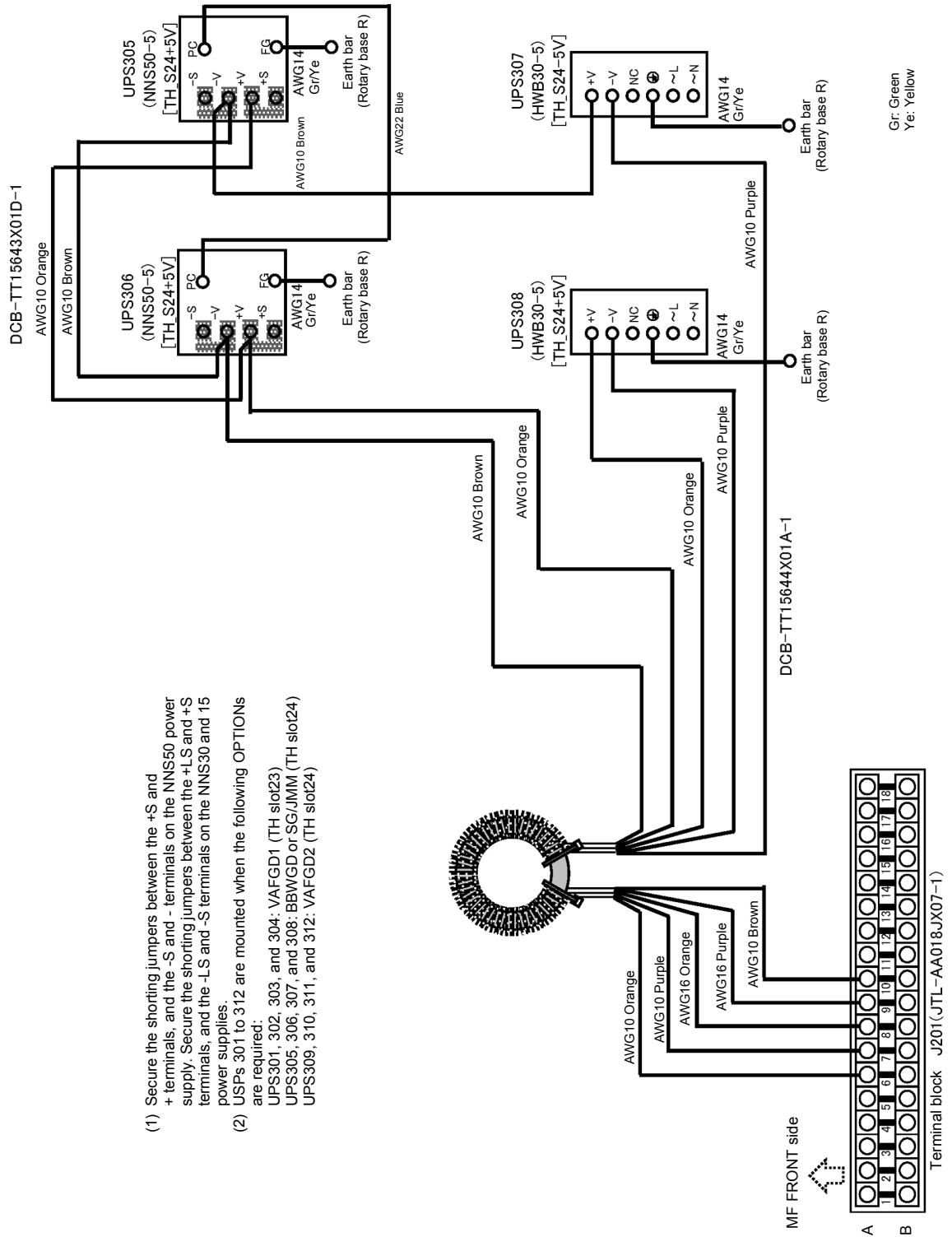
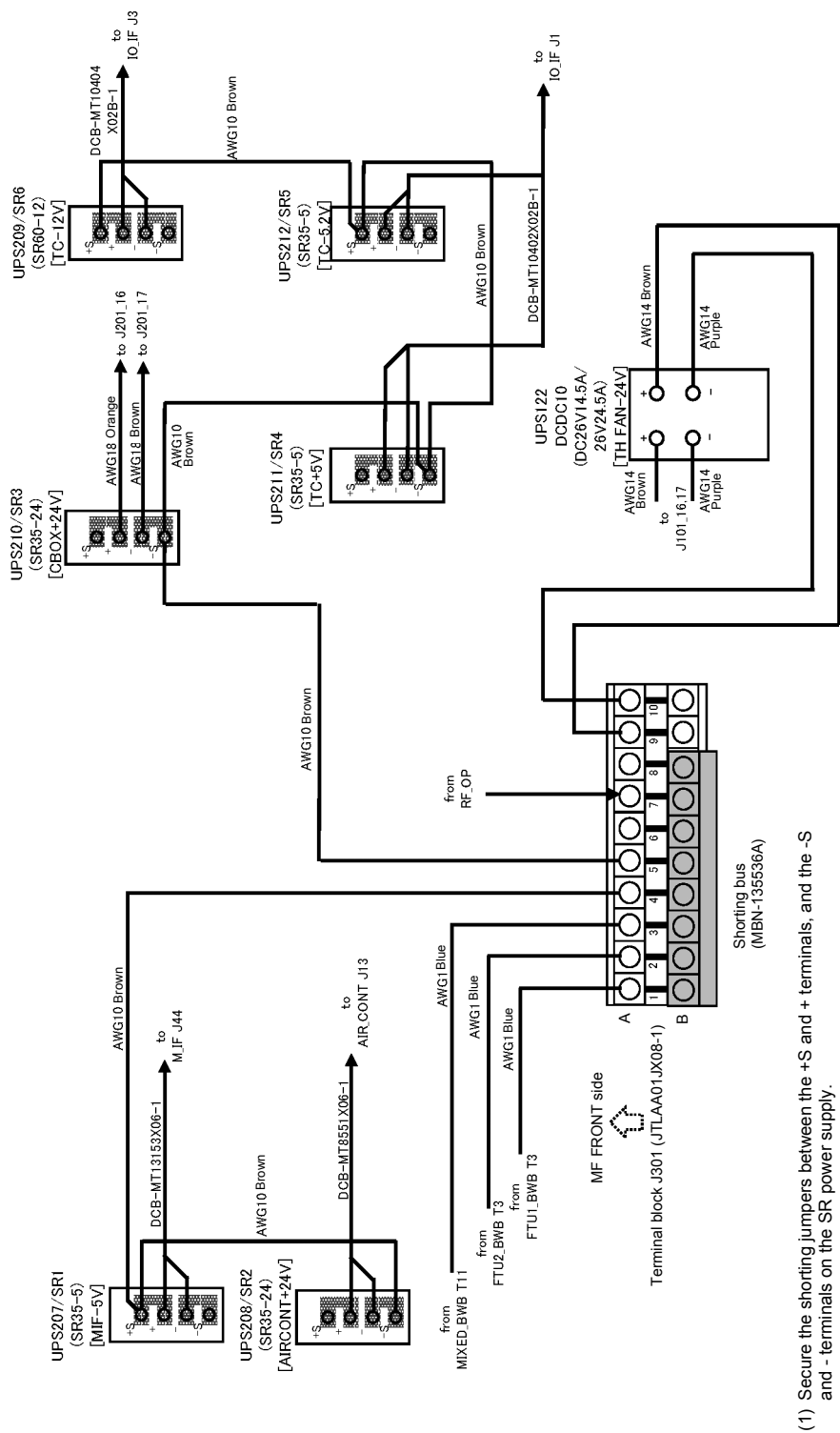


Figure 8-46 DC Power Supply Wiring Diagram (6)



(1) Secure the shorting jumpers between the +S and + terminals, and the -S and - terminals on the SR power supply.

Figure 8-47 DC Power Supply Wiring Diagram (7)

8.2 Power Supply Wiring

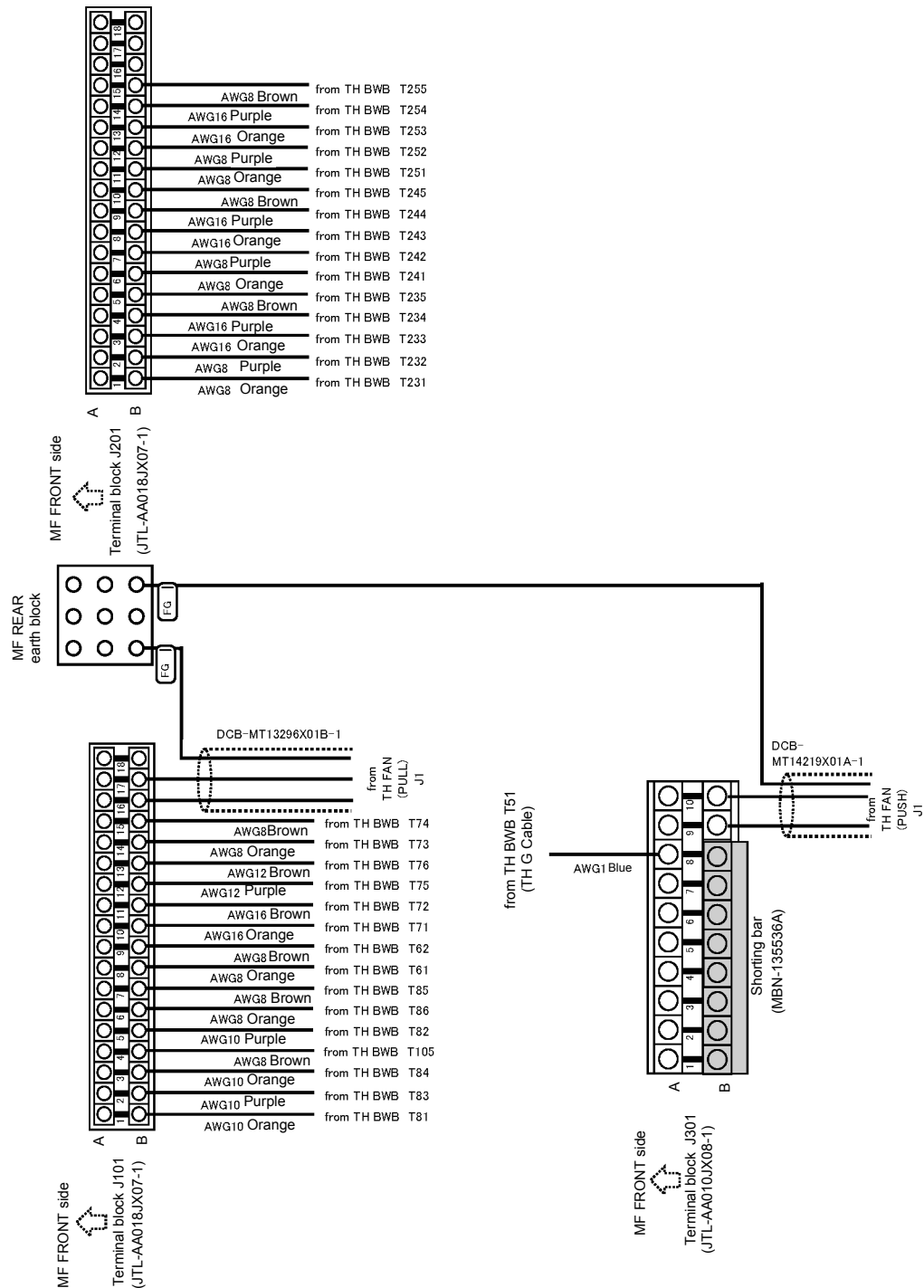


Figure 8-48 DC Power Supply Wiring Diagram (8)



8.2 Power Supply Wiring

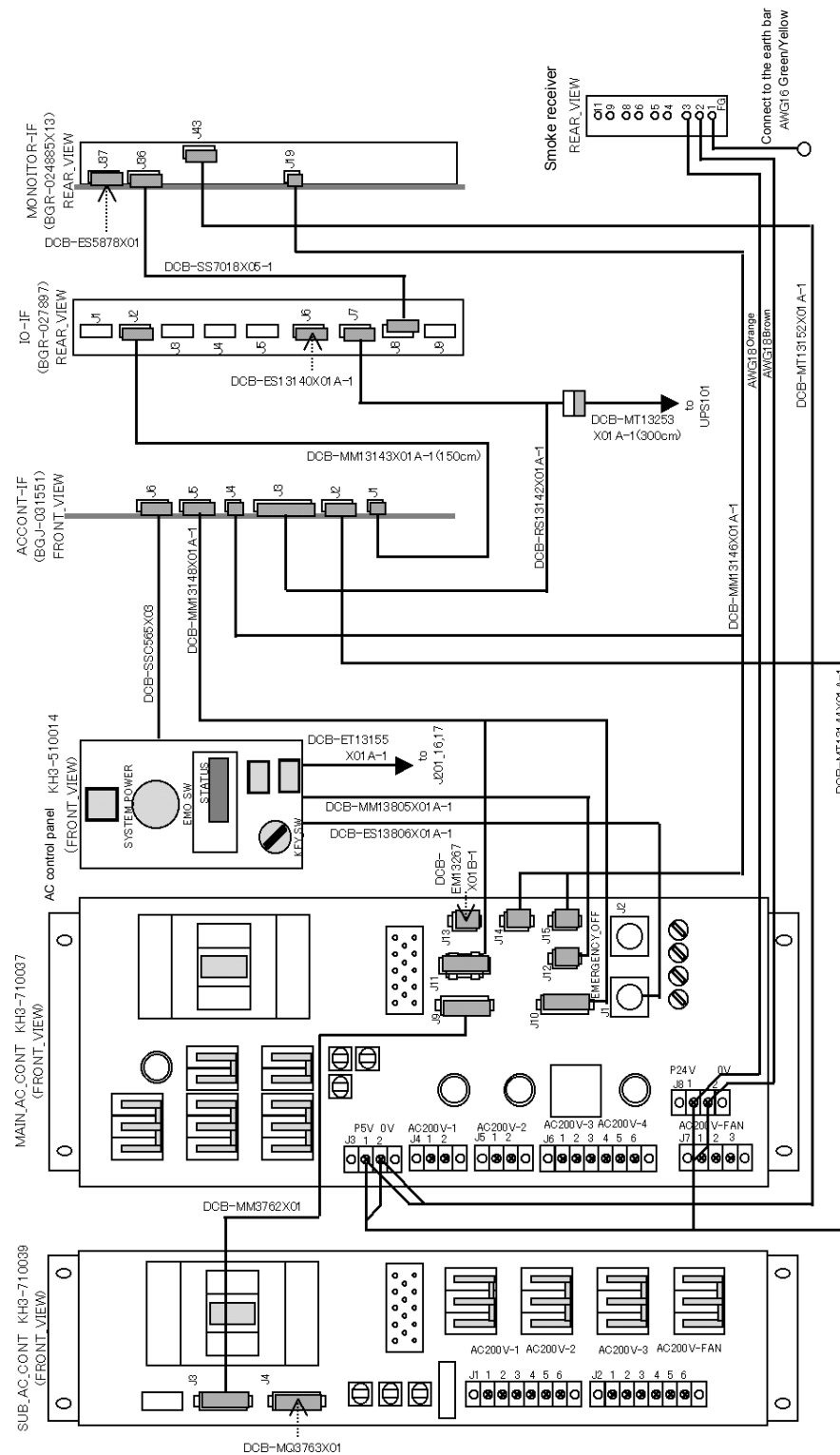


Figure 8-50 AC CONT Wiring Diagram



8.2 Power Supply Wiring

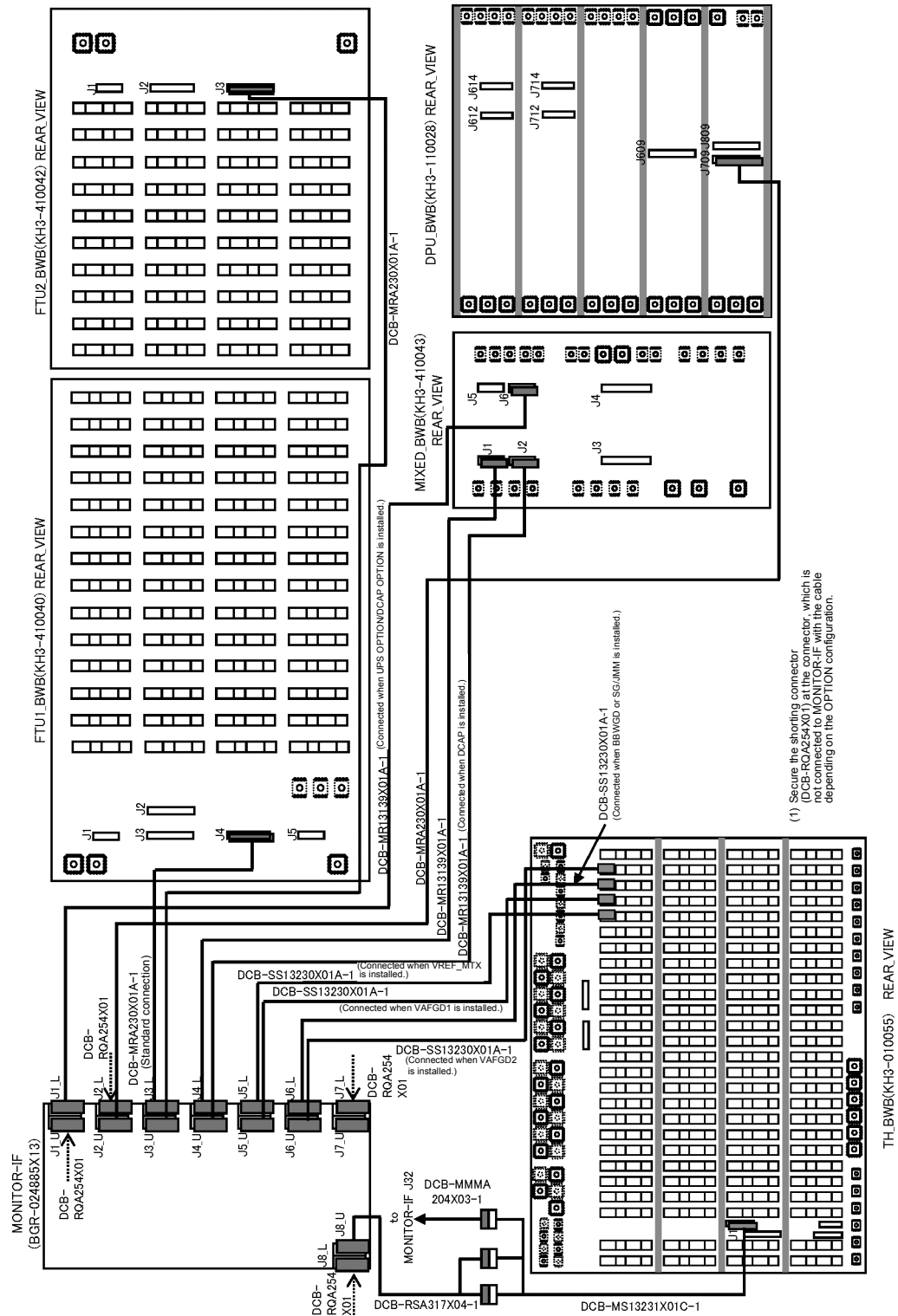


Figure 8-52 Sensor Cable Wiring Diagram (2)

8.2 Power Supply Wiring

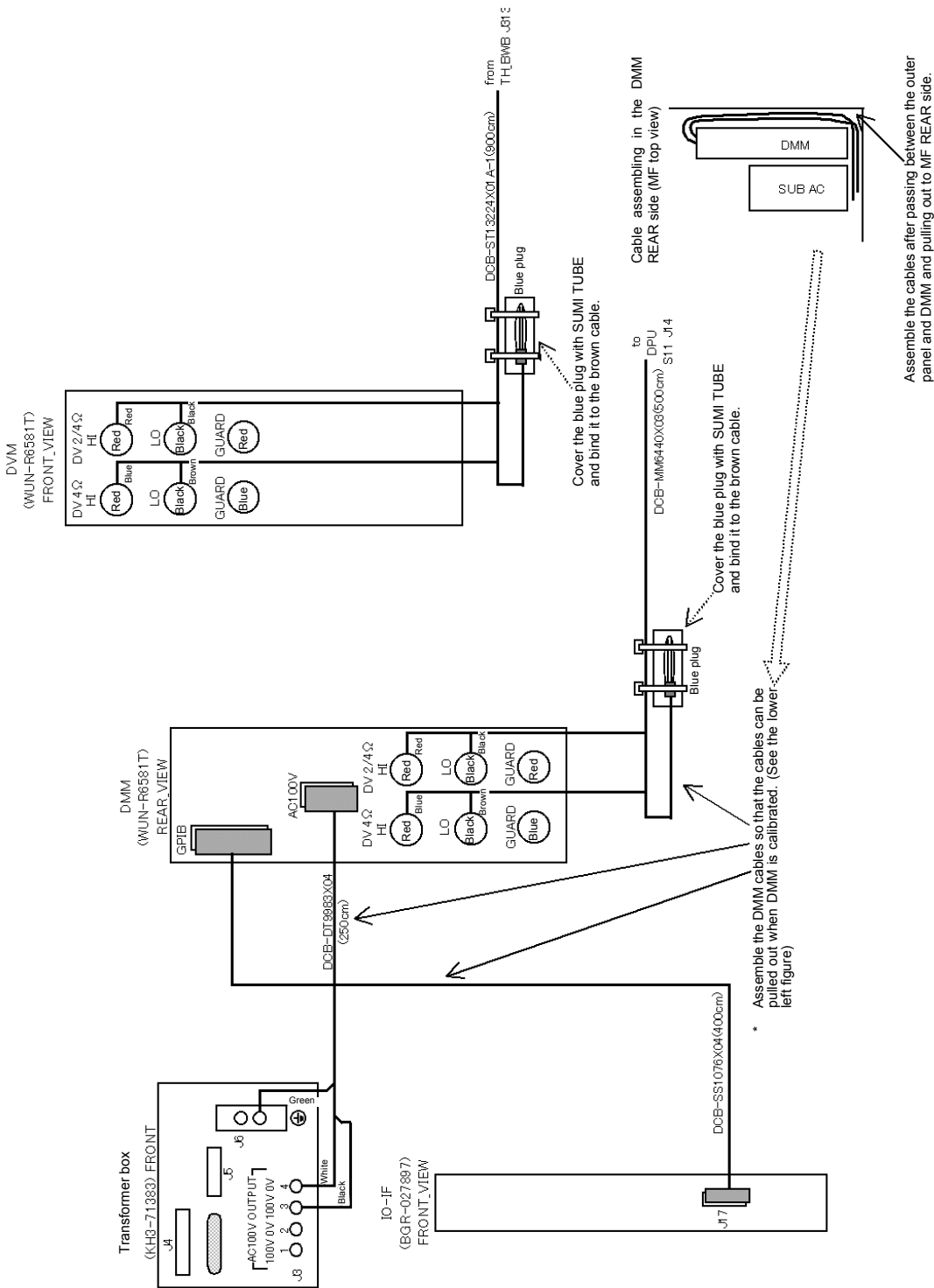


Figure 8-53 DMM Wiring Diagram

8.2 Power Supply Wiring

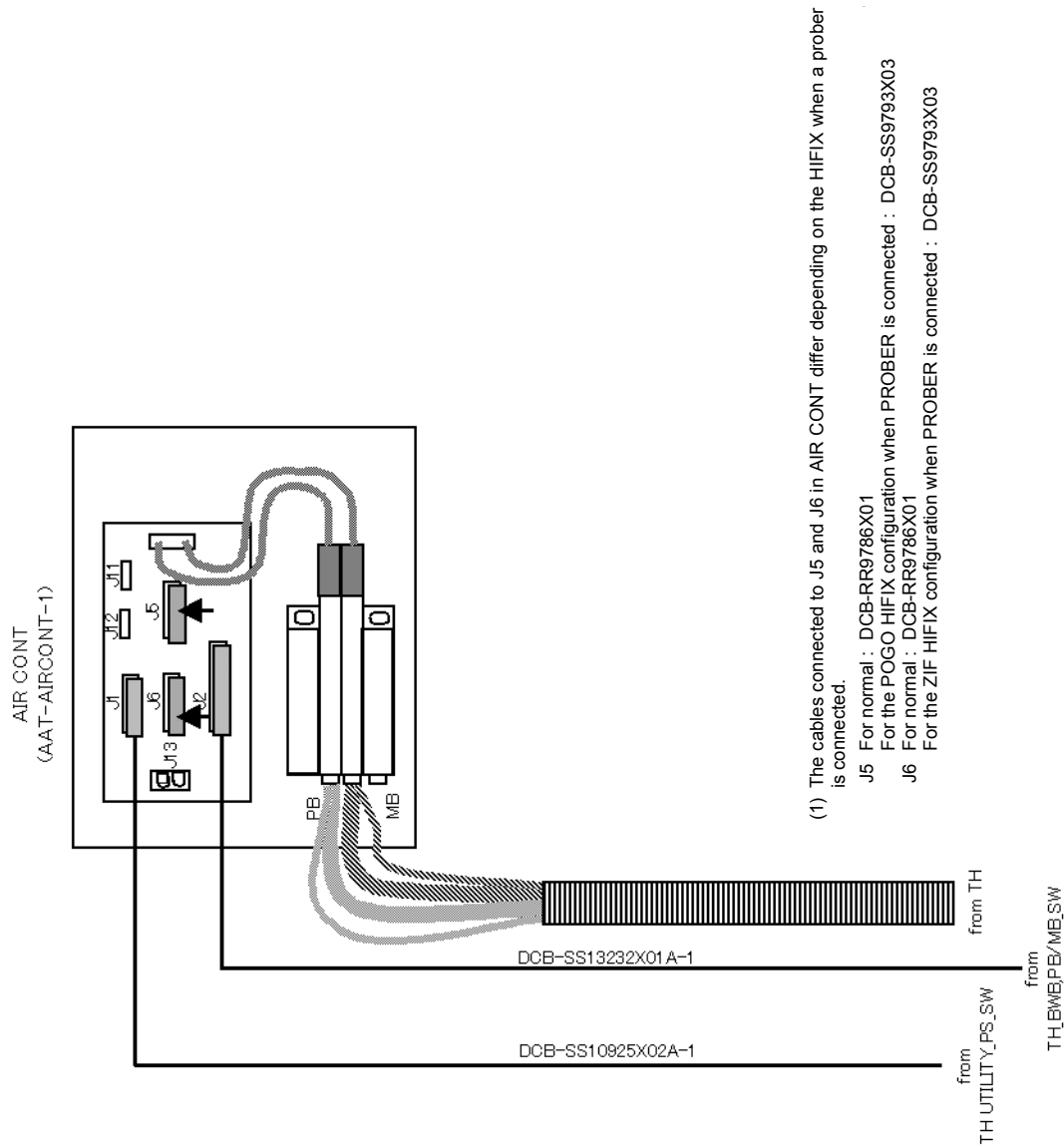


Figure 8-54 AIR CONT Wiring Diagram

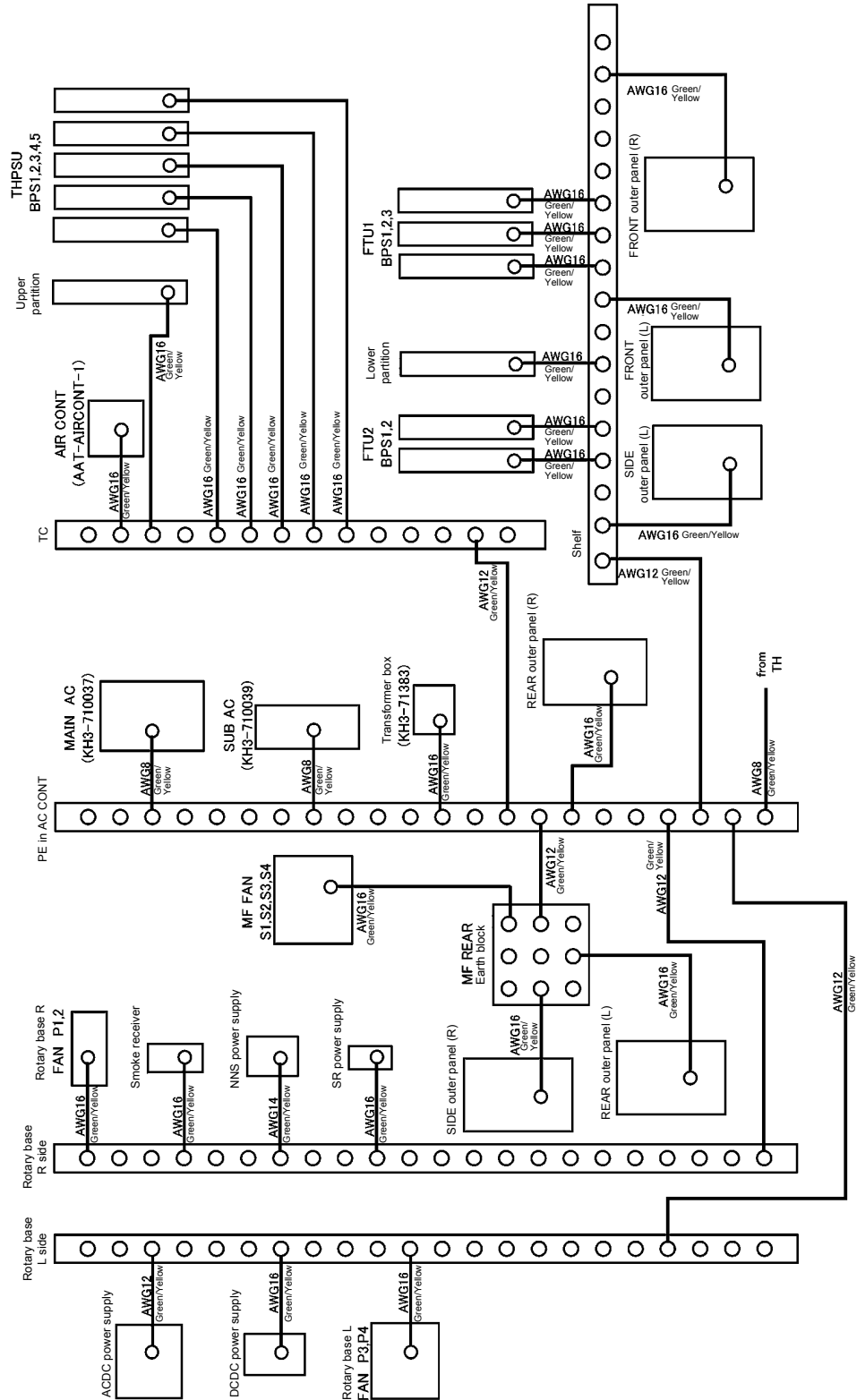


Figure 8-55 FG Wiring Diagram

8.2 Power Supply Wiring

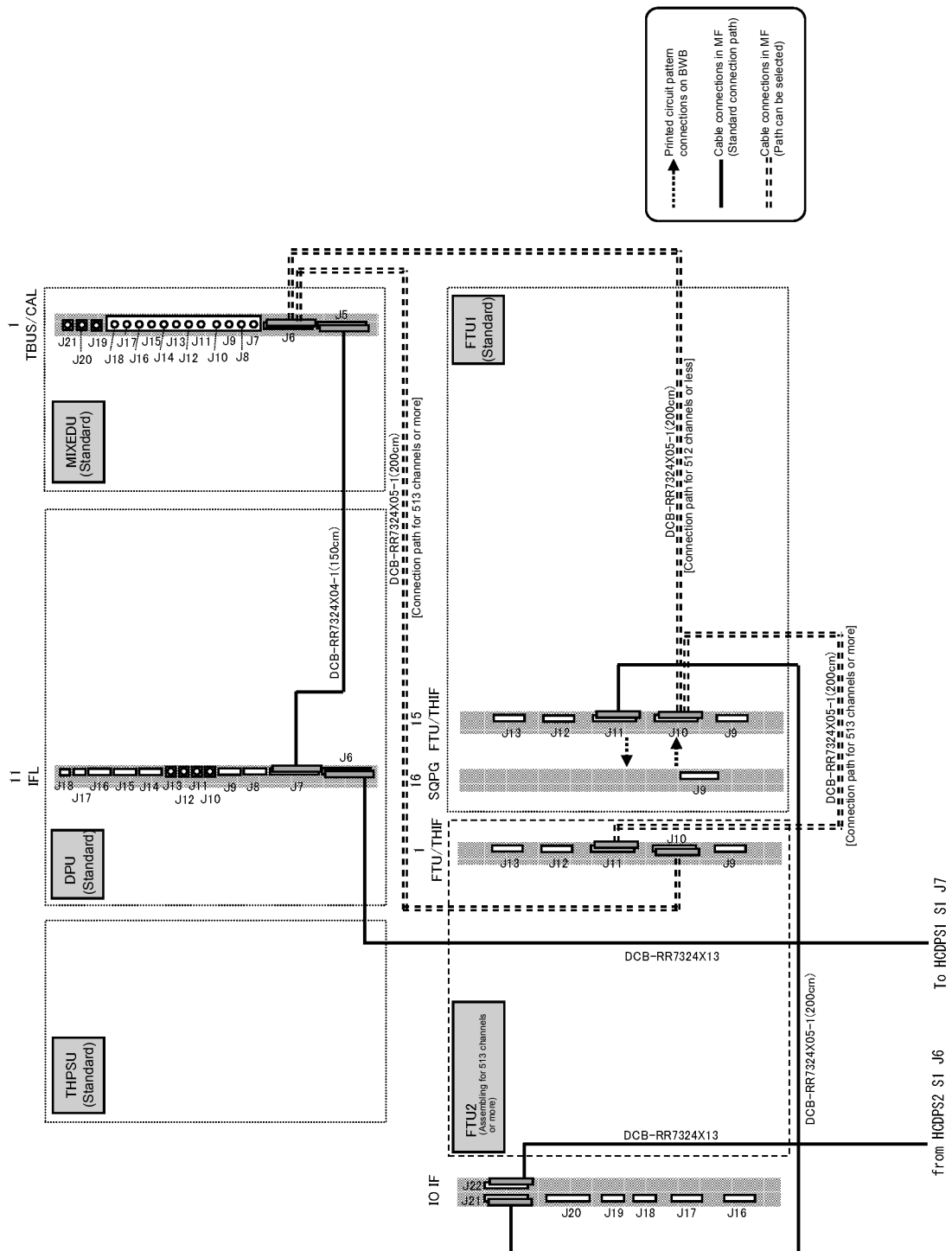


Figure 8-56 Tester Bus Wiring Diagram (HCDPS OPTION)

8.2 Power Supply Wiring

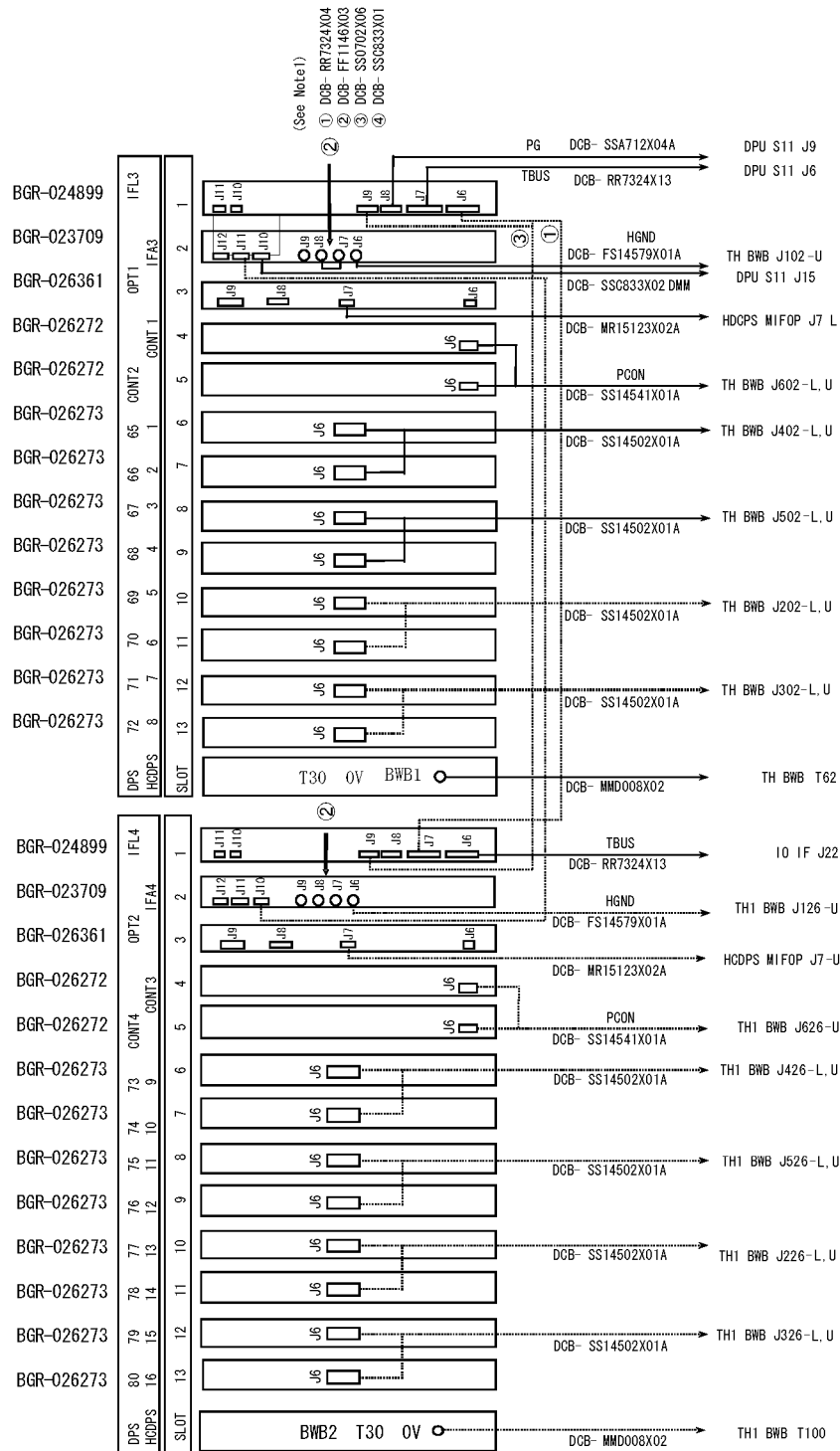
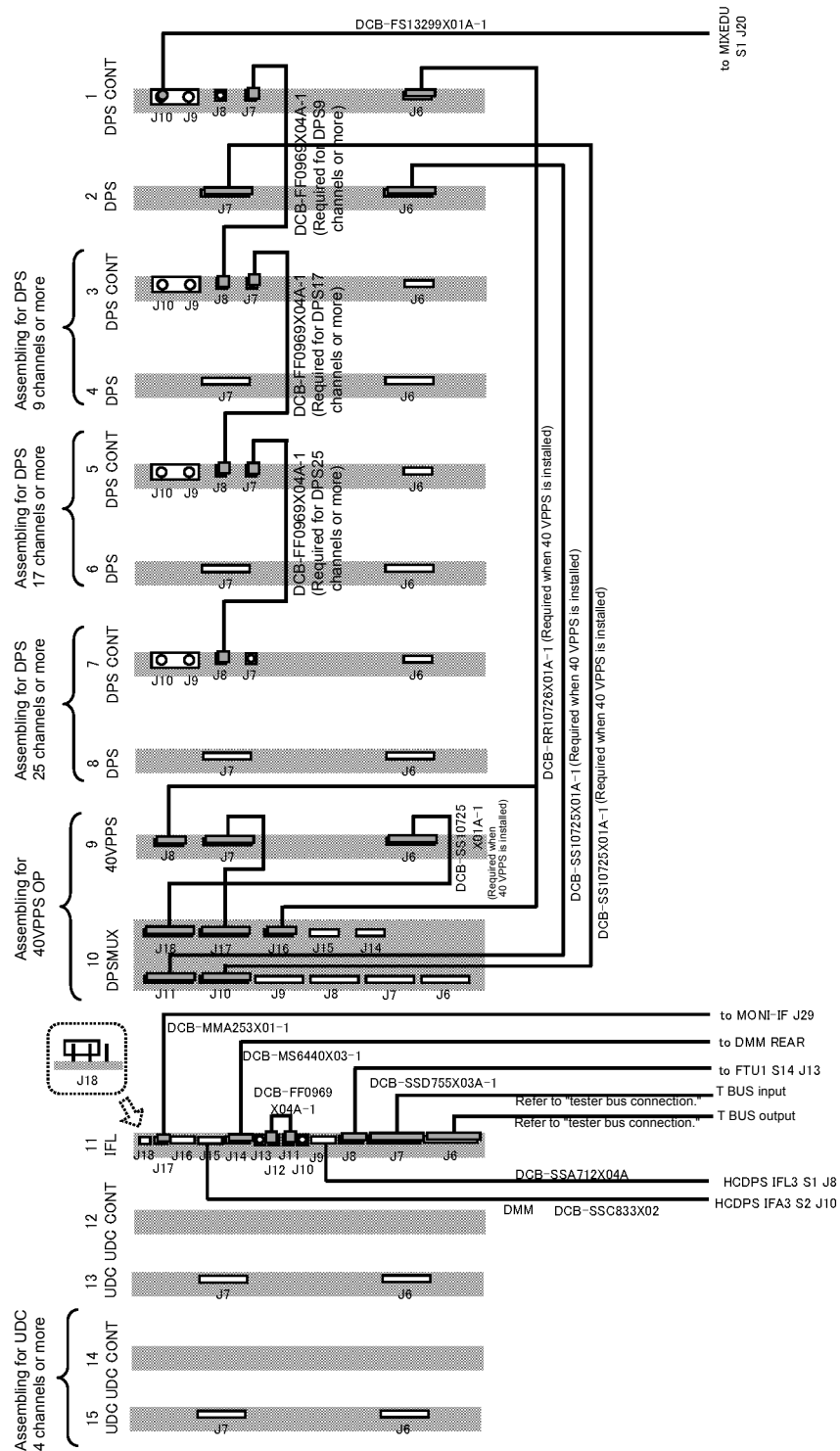


Figure 8-57 HCDPS Wiring Diagram (HCDPS OPTION)



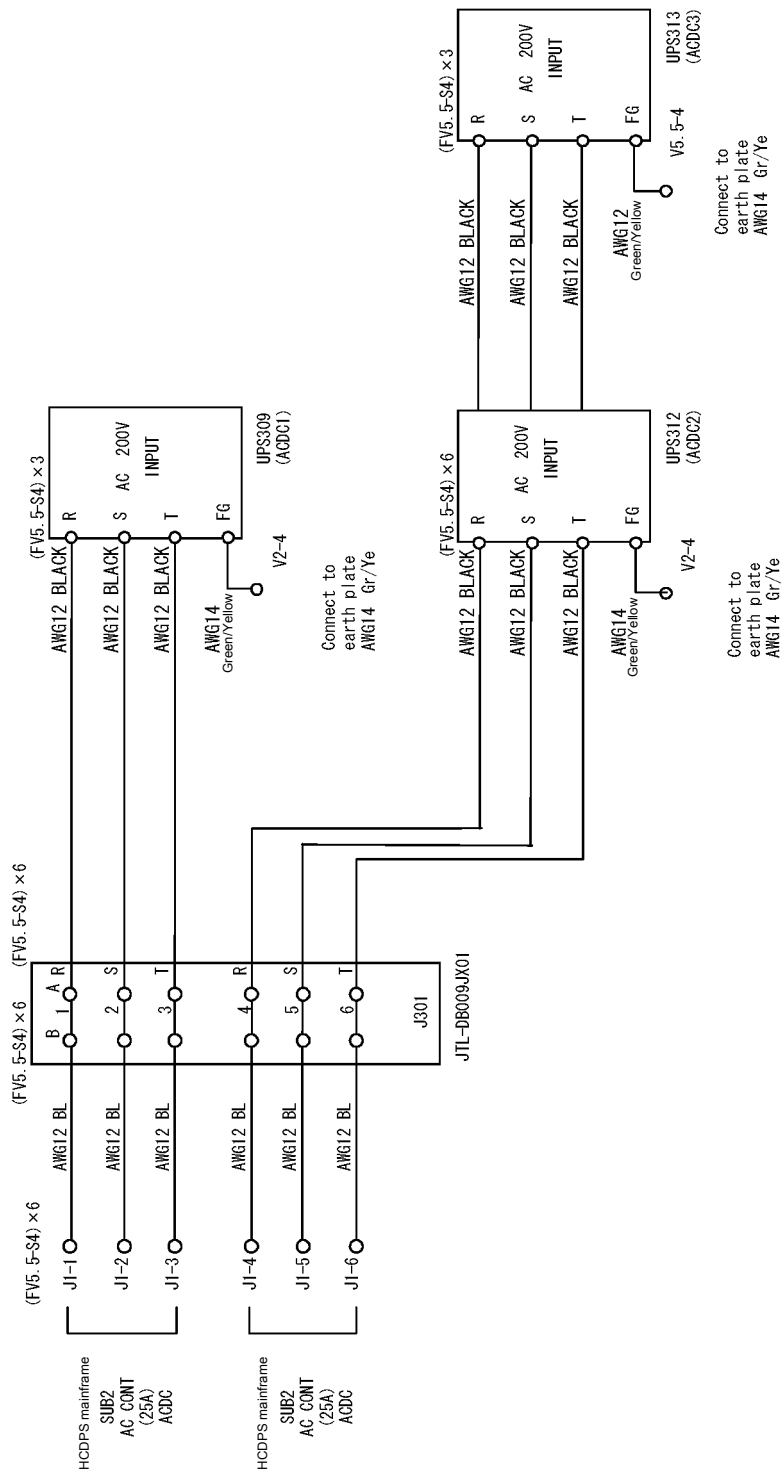


Figure 8-59 200 V AC Wiring Diagram (HCDPS OPTION) (1)

8.2 Power Supply Wiring

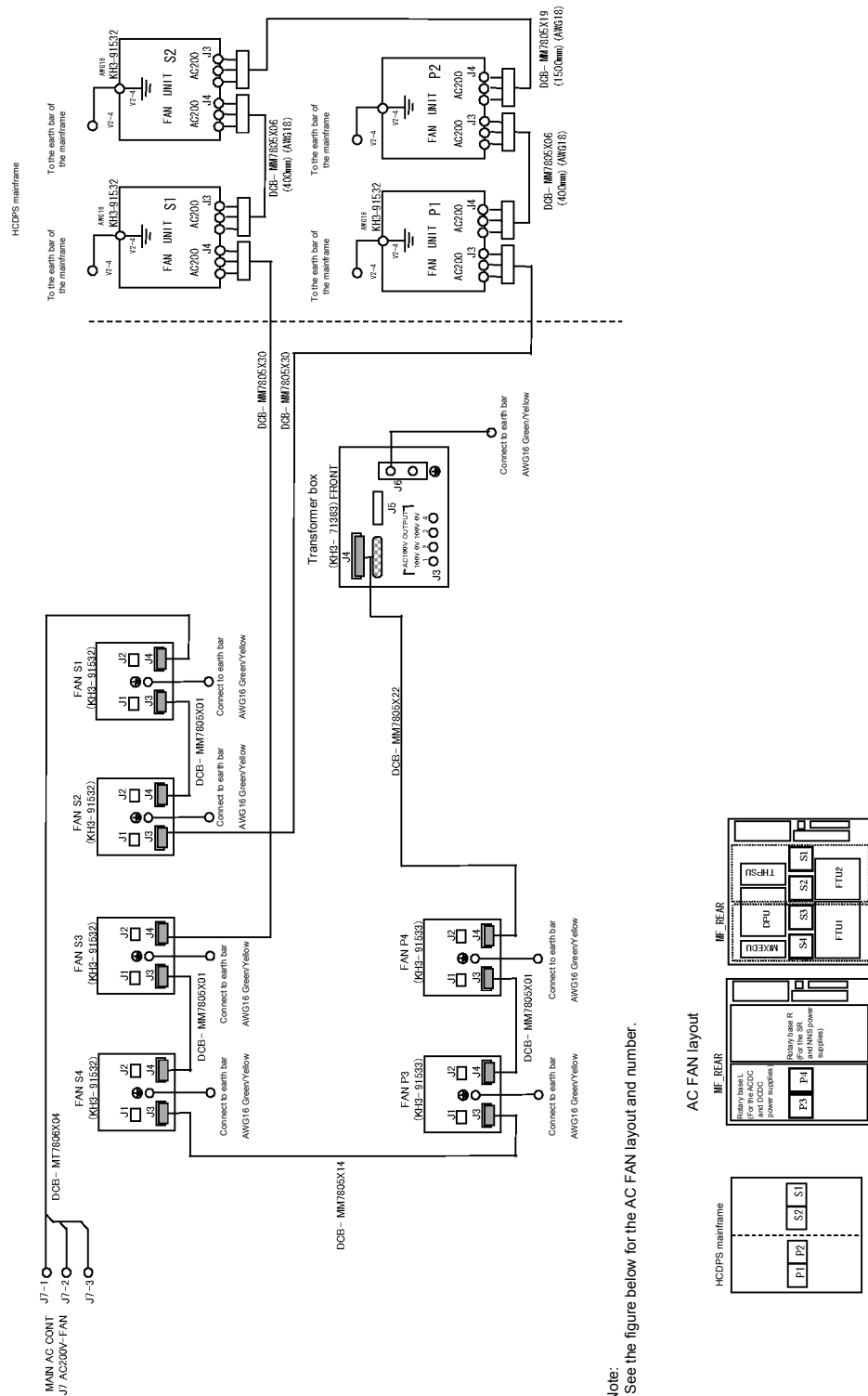


Figure 8-60 200 V AC Wiring Diagram (HCDPS OPTION) (2)



8.2 Power Supply Wiring

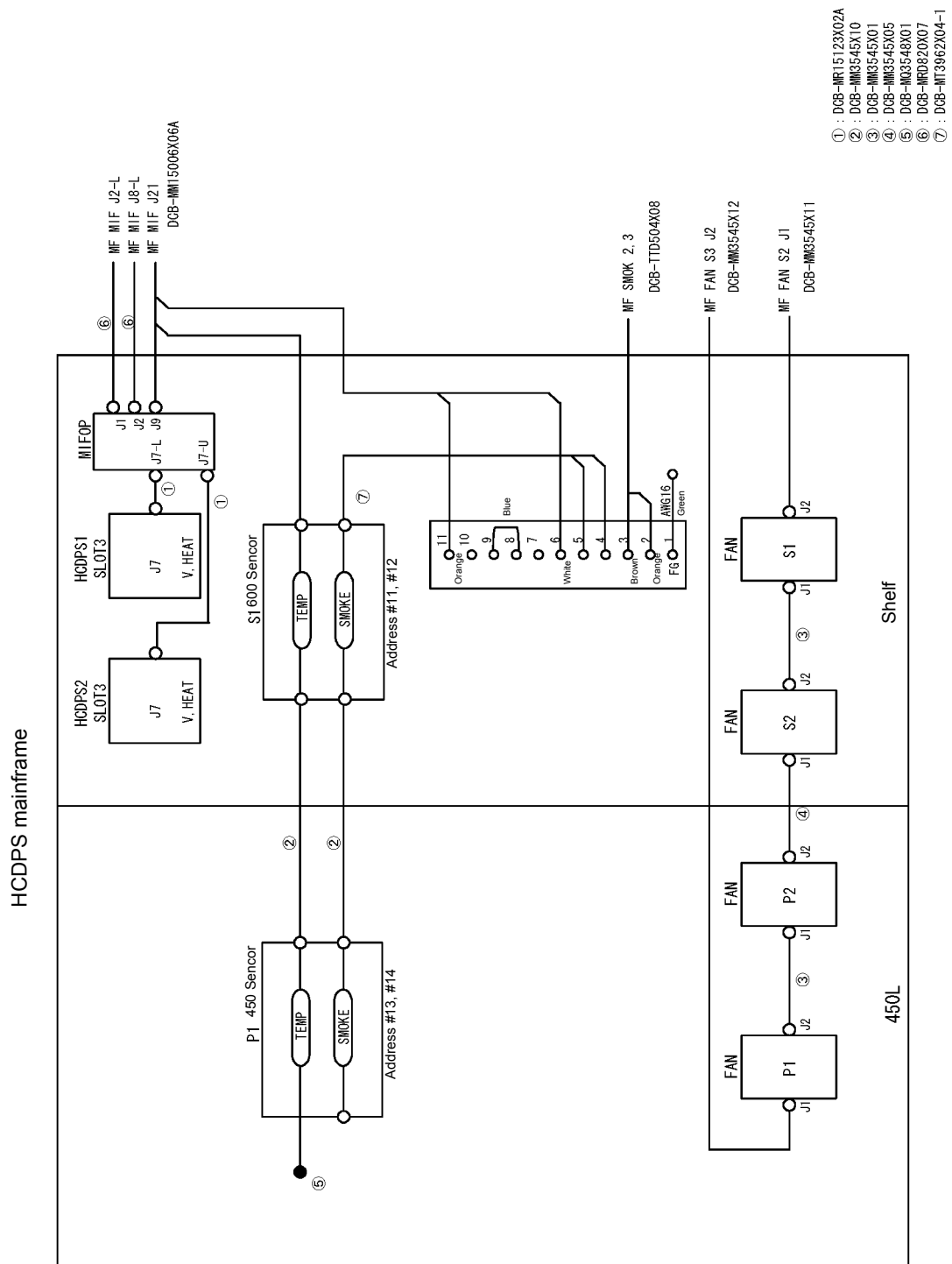


Figure 8-62 Sensor Cable Wiring Diagram (HCDPS OPTION) (2)



Figure 8-63 Sensor Cable Wiring Diagram (HCDPS OPTION) (3)

8.2 Power Supply Wiring

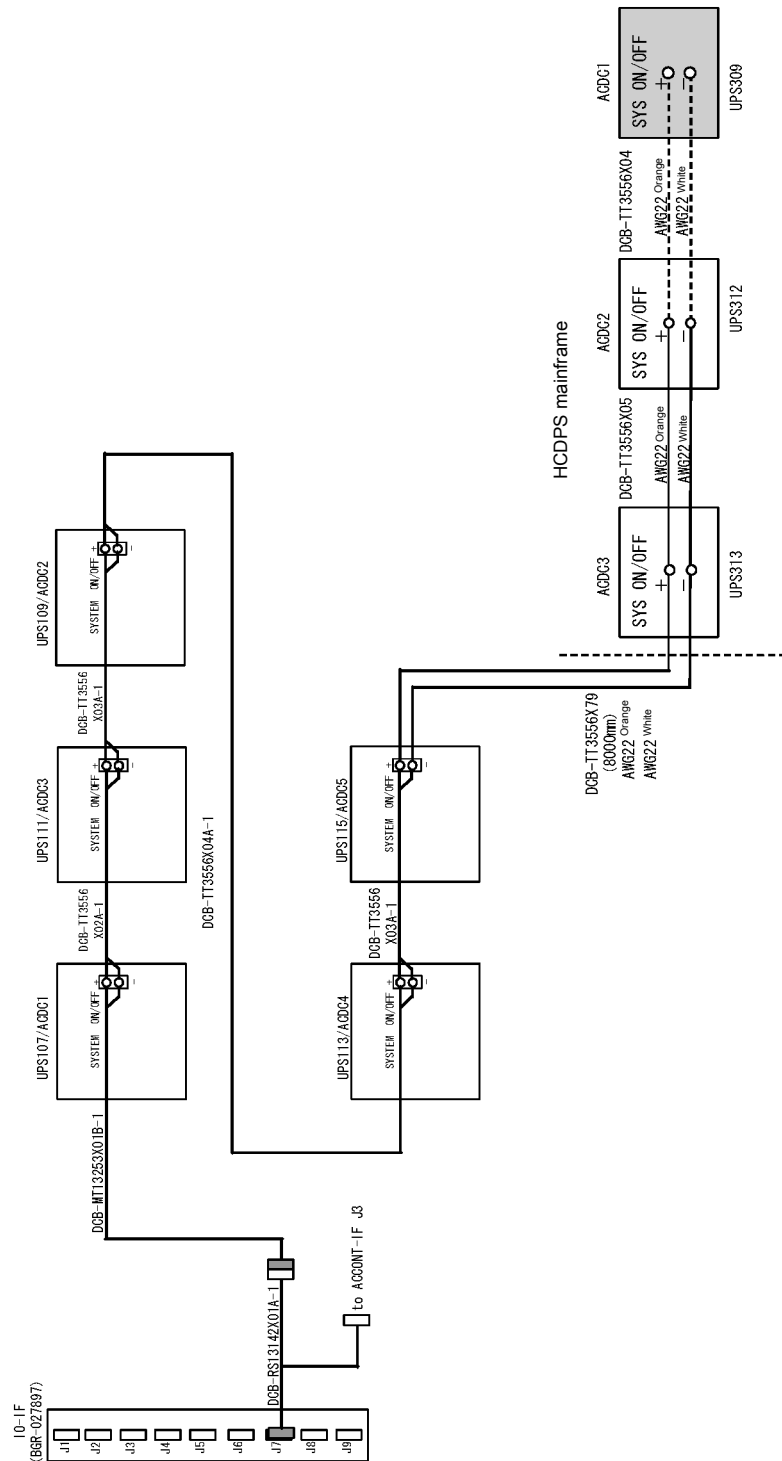


Figure 8-64 SYSTEM ON/OFF Wiring Diagram (HCDPS OPTION) (1)



8.2 Power Supply Wiring

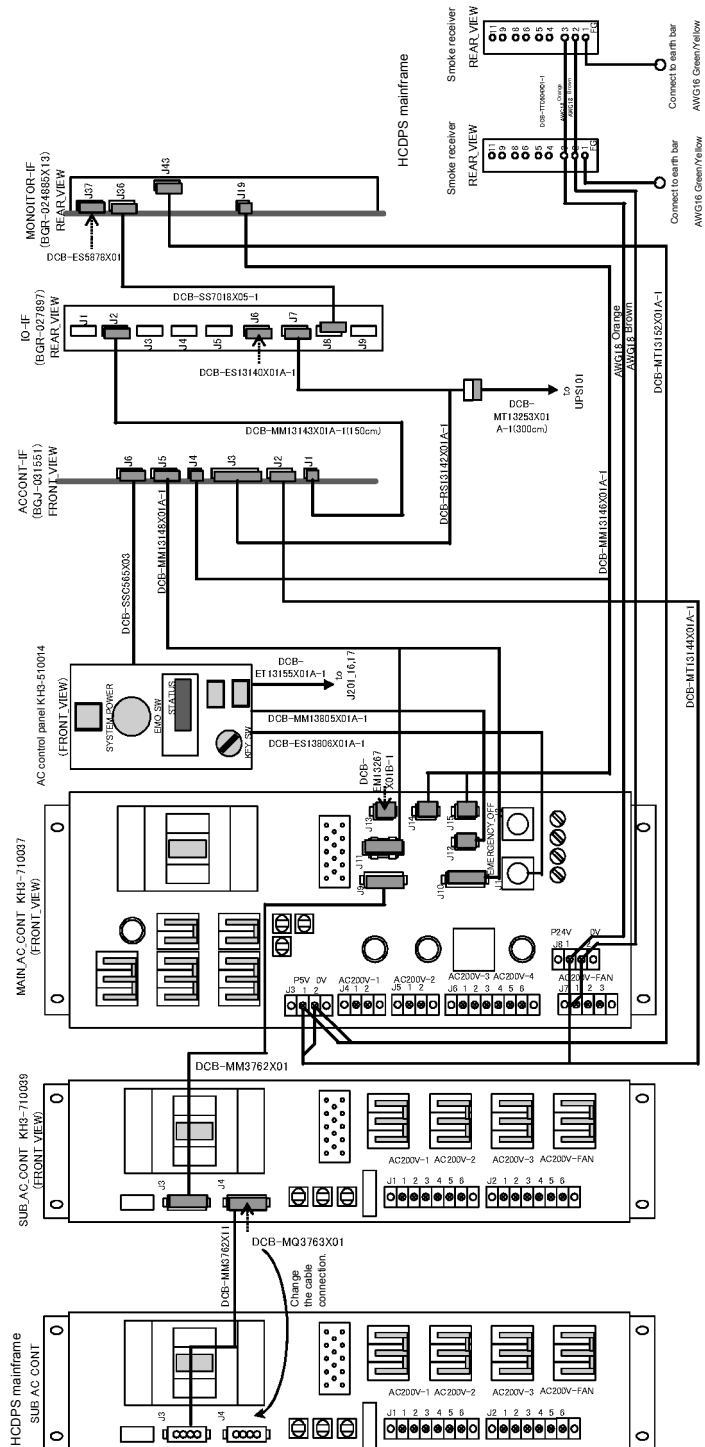


Figure 8-66 AC CONT Wiring Diagram (HCDPS OPTION)

9. Handling of HIFIX

This chapter describes the necessary precautions to take when handling the HIFIX in order to prevent the LIF connectors from being broken and to prevent incorrect contact.



WARNING



Always make sure the HIFIX is handled by four people.

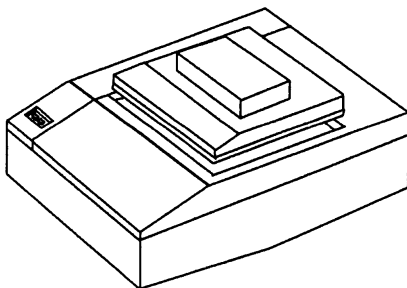
(1) Installing the HIFIX

- ① Look at the LOCK/FREE switch on the test head to see that the FREE indicator is lit.
- ② Lift the HIFIX. Make sure this is done by four people.
- ③ Adjust the direction of the HIFIX. Do this by adjusting the positioning mark (▲).
- ④ Adjust the HIFIX to the installation position at the top of the test head, then make it horizontal.
- ⑤ Place the HIFIX gently on the test head while holding it horizontally.
- ⑥ Press the LOCK switch to insert the LIF connector.
- ⑦ Check to see that the LOCK indicator is lit.

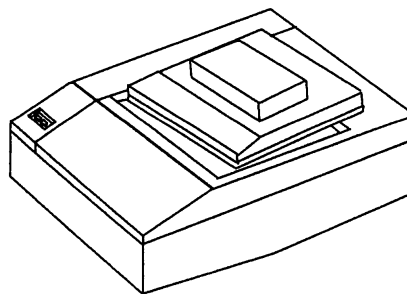
Precautions to be taken when installing the HIFIX

- Place the HIFIX gently.
- Place the HIFIX horizontally.
- Make sure the HIFIX has correct contact. A force may be applied to part of the connector, causing the connector to break.
- Reset the test head to its horizontal position before installing the HIFIX.

○ Correct installation position



× Wrong installation position

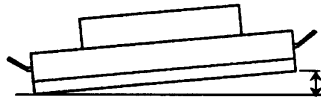


If placed at an incorrect position, the connector may break.

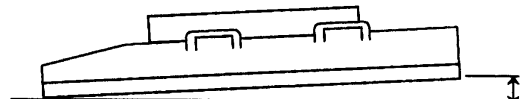
9. Handling of HIFIX

(2) Method for detaching the HIFIX

- ① Press the FREE switch to remove the LIF connector.
- ② Check the FREE indicator is lit.
- ③ Refer to Steps (3) thru (5) in Section 5.6 "Procedure for Replacing the Pin Electronics Card (PE)" before lifting the HIFIX.
- ④ Lift the HIFIX gently, keeping it level. Tilting the HIFIX front-to-back or left-to-right while lifting it may damage the contactor. Use the guidelines below.



Left-to-right: 8 cm or less



Front-to-back: 2 cm or less

(3) Precautions to be taken when storing the HIFIX

Dust and foreign matter may cause the HIFIX connector miss-contact.

- ① Prevent dust to the HIFIX connector for storage.
- ② When storing the HIFIX, place it on a flat surface so that the HIFIX connector is not damaged.
- ③ If the connector has dust or foreign matter, clean it with a brush (a tooth brush can be sufficient). If the foreign matter cannot be removed by a brush, use isopropyl alcohol and a brush to clean the contractor. At this time, be sure to rub only the stained part with the brush.
When cleaning the contact, never use a cotton swab, cloth, or paper that produces lint.

(4) Preventing dust on the test head

Dust collected on the pin card connectors also causes contact failure.

- ① Do not place articles (especially paper) on the test head to ensure that no foreign matter get into the connector. Inclusion of foreign matter also can cause the connector to break.

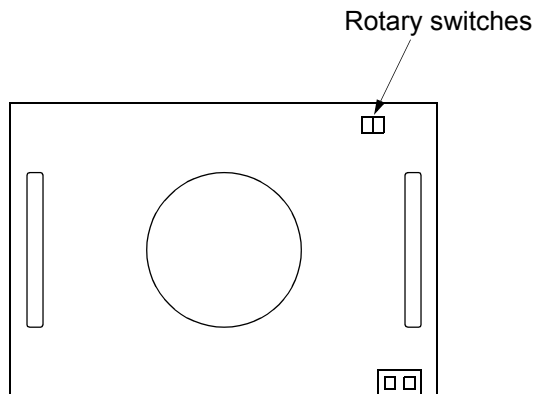
(5) Other caution

**CAUTION**

The HIFIX and Test Head that have been used to perform the timing calibration must always be used together. In addition, when you use the set of calibration data, the HIFIX and the Test Head that have been used to create the set data must be used.

For the T6500 series, there are two rotary switches which are used to set a HIFIX serial number. The calibration file name consists of an identification code that includes the HIFIX serial number.

For more information on the calibration file name, refer to “T6500 Series Calibration Reference Manual.”



10. Spare Parts Kit

Spare Parts Kit A1

Name	Type Description	Quantity
T6577FTU-THIF	BPR-031657	1

Spare Parts Kit A2

Name	Type Description	Quantity
T6567FTU-THIF	BPR-031657X02	1

Spare Parts Kit B1

Name	Type Description	Quantity
FP	BPR-031605	1
Carrying case	KH3-90861	1

Spare Parts Kit B2

Name	Type Description	Quantity
SQPG	BPR-033976X02	1

Spare Parts Kit B3

Name	Type Description	Quantity
SNC/TRIG	BIR-027910	1

Spare Parts Kit B4

Name	Type Description	Quantity
ALPG+SCPG4GW	BIR-027902X03	1

Spare Parts Kit B5

Name	Type Description	Quantity
ALPG+SCPG16GW	BIR-027902X04	1

Spare Parts Kit B6

Name	Type Description	Quantity
AFM	BIR-029054	1

10. Spare Parts Kit

Spare Parts Kit B7

Name	Type Description	Quantity
EVENT	BGR-029484	1

Spare Parts Kit B8

Name	Type Description	Quantity
TERM X01 Board	BGP-029259	1
TERM X02 Board	BGP-029259X02	1

Spare Parts Kit B9

Name	Type Description	Quantity
BPS1	WBS-A005000019X02	1
Carrying case	KH9-91258	1

Spare Parts Kit B10

Name	Type Description	Quantity
BPS2	WUN-5V2R5V3B5V	1
Carrying case	KH9-91258	1

Spare Parts Kit C1

Name	Type Description	Quantity
DPS3	BGR-023715X03	1
DPS CONT(PSRR)	BGR-027534	1

Spare Parts Kit C2

Name	Type Description	Quantity
IF-L	BGR-026245	1

Spare Parts Kit C3

Name	Type Description	Quantity
UDC	BGR-023713X02	1
UDC CONT	BGR-023712	1

Spare Parts Kit D1

Name	Type Description	Quantity
BPS	WUN-15V2B5V3V2B	1
Carrying case	KH9-91258	1

Spare Parts Kit D2

Name	Type Description	Quantity
BPS	WUN-11V2B5V3B	1
Carrying case	KH9-91258	1

Spare Parts Kit E1

Name	Type Description	Quantity
TBUS CAL	BGR-026798	1

Spare Parts Kit E2

Name	Type Description	Quantity
EM3	BGR-026836	1

Spare Parts Kit E3

Name	Type Description	Quantity
DCAP	BGR-027118	1
PCIF	BPR-031755	1

Spare Parts Kit F1

Name	Type Description	Quantity
PE	BPS-031639	1
Carrying case	KH9-91624	1

Spare Parts Kit F2

Name	Type Description	Quantity
TH-IF	BPS-031658	1
DUT-IF	BPS-031579	1

Spare Parts Kit F3

Name	Type Description	Quantity
IDDQ	WUN-T6500IDDQX02	1

Spare Parts Kit F4

Name	Type Description	Quantity
HSCLK	BIS-029624X02	1

10. Spare Parts Kit

Spare Parts Kit F5

Name	Type Description	Quantity
VREF/MTX	BPS-031659	1

Spare Parts Kit F6

Name	Type Description	Quantity
VAFGD	BGS-030319X02	1
Carrying case	KH9-910324	1

Spare Parts Kit F7

Name	Type Description	Quantity
CONTACT	BGS-026241X02	1
TERM	BPS-031659X02	1

Spare Parts Kit F8

Name	Type Description	Quantity
DDR2 OPTION (TH slot2)	BPS-033250	1

Spare Parts Kit F9

Name	Type Description	Quantity
DDR2 OPTION (TH slot26)	BPS-033250X02	1

Spare Parts Kit F10

Name	Type Description	Quantity
BBWGD	BPS-033474	1
Carrying case	KH9-910324	1

Spare Parts Kit F11

Name	Type Description	Quantity
SG/JMM	BPS-033474X02	1
Carrying case	KH9-910324	1

Spare Parts Kit G1

Name	Type Description	Quantity
Monitor-IF	BGR-024885X13	1

Spare Parts Kit G2

Name	Type Description	Quantity
EWS-IF	BGC-027896	1
IO IF	BGR-027897	1

Spare Parts Kit G3

Name	Type Description	Quantity
AC CONT IF	WBL-H3910357BLK	1

Spare Parts Kit G4

Name	Type Description	Quantity
PCI-IF	WUN-H3610061	1

11. Maintenance Parts

Item Name	Advantest Standard
Air filter for the main rack	KH9-9777
Air filter for the main rack	KH9-9779
Rotary base air filter	KH9-9783
Fan block for MF unit	KH3-91532
Fan block for ACDC power supply	KH3-91533
Fan block for SR and NNS power supply	KH3-93813
Fan block for the test head (for PULL)	KH3-910359
Fan block for the test head (for PUSH)	KH3-910620
Board handle for the main unit frame	KH9-90287
Board handle for the test head (Left)	MAE-J2209A-1
Board handle for the test head (Right)	MAE-J2207A-1
Accessories (TC7)	KH3-910277

12. Replacing Parts

12.1 Test Head Air Coupler Replacement Procedure

- (1) Turn off the system power. Turn off the main air supply for the system.
- (2) Remove the air connector A as shown in Figure 12-1.

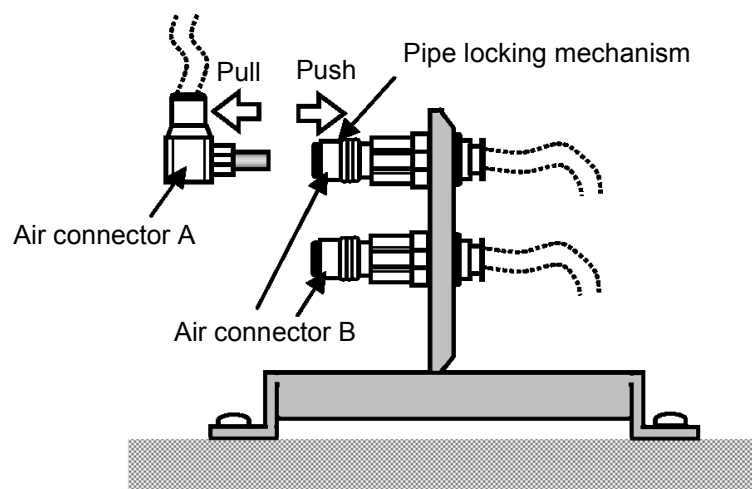


Figure 12-1 Air Connector A Removal



CAUTION

Forcibly removing the connector without releasing the locking mechanism will result in damage to the connector.

- (3) Remove the air hoses connected to air connectors B as shown in Figure 12-2.
- (4) Remove the resin nuts, and then remove air connectors B from the coupler holder. If the resin nuts cannot be removed easily, remove the securing screws of the coupler holder first.

12.1 Test Head Air Coupler Replacement Procedure

- (5) Attach the new couplers to the coupler holder. Perform procedure (4) in reverse order to secure the couplers to the coupler holder and attach the air hoses. (Firmly push the hose into the coupler to secure it.)

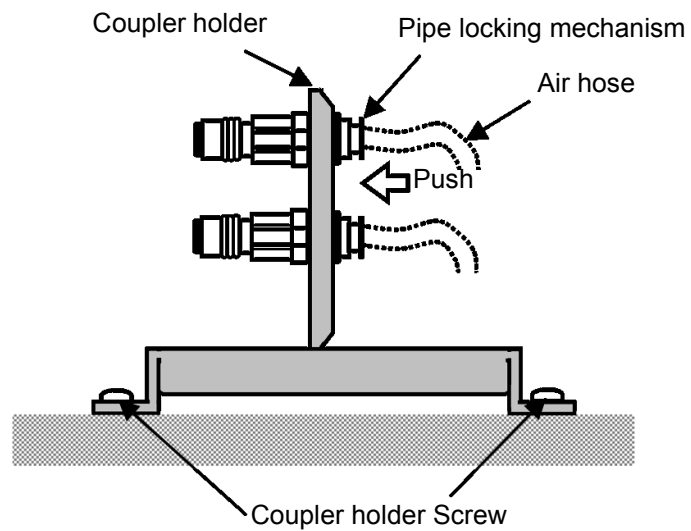


Figure 12-2 Air Connector B Removal

13. Limited Life Parts

Part Name	Limited life (Remarks)
Unit power supply	5 years (Including capacitors)
Fan motor	5 years
Electrolytic capacitor	5 years
LCD	6 years
LCD backlight	2.5 years
Rotary encoder	100,000 times
Pogo pin	200,000 times
Reed relay	100,000,000 times (For operating in dry. The life becomes shorter in wet.)
LIF connector	10,000 times
Air Coupler	3 years
DVD-ROM/CD-RW drive	Approximately 5 years
Battery	Approximately 5 years
CPU power supply	Approximately 5 years (Including capacitors)
Hard disk drive	Approximately 3.5 years
CPU FAN	Approximately 4 years

14. Product Disposal and Recycle

When disposing of this product, dispose of it by following all applicable laws and regulations for industrial waste disposal.

Before disposing of this product, separately collect the parts listed below for recycling, which protects the global environment and prevents substances which may harm humans from being spread.

Name of part or material	Used or not used	Relevant unit/part	Unit	Part	Number of parts (full configuration)
Capacitor containing polychlorinated biphenyl	Not used	-	-	-	-
Parts containing mercury	Used	Controller	LCD monitor	Fluorescent tube	2
Battery	Used	Mainframe	WUN-H3610106	Lithium battery	1
Printed circuit board	Used	Mainframe	Board	Printed circuit board	48
			Power supply	Printed circuit board	105
		Test head	Board	Printed circuit board	26
		HIFIX	Mother board	Printed circuit board	1
		Performance board	DIAG PB	Printed circuit board	2
			CAL PB		
Toner cartridge	Not used	-	-	-	-

14. Product Disposal and Recycle

Name of part or material	Used or not used	Relevant unit/part	Unit	Part	Number of parts (full configuration)
Plastic containing brominated flame retardants	Used	Mainframe	BGC-027896	Tantalum capacitor, diode, transistor, and IC (ECL and CMOS) package	
			BGJ-031551		
			BGR-027897		
			BGR-024885X13		
			BGR-026245		
			BGR-023712		
			BGR-023713X02		
			BGR-027534		
			BGR-023715X03		
			BGR-026706		
			BGR-029220		
			BPR-031657		
			BIR-027910		
			BIR-027900X02		
			BGR-026798		
			BGR-026836		
			BGR-027118		
			BPR-031755		
			BGR-023709		
			BGR-024899		
			BGR-026272		
			BGR-026273		
			BGR-026361		
			Back board		
			Power supply		
		Test head	BPS-031579	Tantalum capacitor, diode, PMOS, IC (ECL and CMOS) package	
			BPS-031658		
			BGS-030319X02		
			BPS-033250		
			BPS-033250X02		
			BPS-033474		
			BPS-033474X02		
			Back board		
			Panels		
		Performance board	DIAG PB	Tantalum capacitor and diode package	
Asbestos and parts containing asbestos	Not used	-	-	-	
Cathode-ray tube	Not used	-	-	-	
Chlorofluorocarbon, hydrochlorofluorocarbon, hydrofluorocarbon, or hydrocarbon	Not used	-	-	-	
Discharge lamp	Used	Controller	LCD monitor	Fluorescent tube	1
		Mainframe and power distribution parts	Power indicator	Neon tube	4
Liquid crystal display of 100 cm ² or larger	Used	Controller	LCD monitor	Liquid crystal display	1

14. Product Disposal and Recycle

Name of part or material	Used or not used	Relevant unit/part	Unit	Part	Number of parts (full configuration)
External electric cables	Used	In the mainframe		Power or signal cable	
		Between mainframe and test head		Power or signal cable	
		Between mainframe and controller		Power or signal cable	
Parts containing refractory ceramic fiber	Not used	-	-	-	-
Parts containing radioactive materials	Not used	-	-	-	-
Electrolytic capacitor containing hazardous substances (Height > 25 mm, diameter > 25 mm, or the same volume)	Not used	-	-	-	-
Arsenic and arsenic compound	Used	Test head	Electronic parts	GaAs IC	

14. Product Disposal and Recycle

Name of part or material	Used or not used	Relevant unit/part	Unit	Part	Number of parts (full configuration)	
Lead and lead compound	Used	Mainframe	BGC-027896	Electronic parts on the printed circuit board and solder, and parts and solder that are used for producing cables		
			BGJ-031551			
			BGR-027897			
			BGR-024885X13			
			BGR-023712			
			BGR-023713X02			
			BGR-023715X03			
			BGR-026245			
			BGR-026706			
			BGR-027534			
			BGR-029220			
			BPR-031657			
			BIR-027900X02			
			BIR-027910			
			BGR-026798			
			BGR-026836			
			BGR-027118			
			BPR-031755			
			BGR-023709			
			BGR-024899			
			BGR-026272			
			BGR-026273			
			BGR-026361			
			Back board			Cables and wires connected to electrical contacts
			Fan			
			Sensor			
			Panels			
			Power supply			
		Test head	BPS-031579			
			BPS-031658			
			BGS-030319X02			
			BPS-032787			
			BPS-032787X02			
			BPS-033250			
			BPS-033250X02			
			BPS-033474			
BPS-033474X02						
Back board						
Fan						
Panels						
HIFIX	Mother board					
Performance board	DIAG PB					
	CAL PB					
Rust-preventive agent	Not used	-	-	-	-	
Coolant	Not used	-	-	-	-	
Polyvinylchloride (PVC)	Used	Mainframe		PVC-material resin parts		
		Test head				

14. Product Disposal and Recycle

Name of part or material	Used or not used	Relevant unit/part	Unit	Part	Number of parts (full configuration)
Antimony and antimony compound	Used	Mainframe	Power supply and board	Electronic parts	Semiconductor parts
Arsenic and arsenic compound	Used	Mainframe	Power supply and board	Electronic parts	Semiconductor parts
Beryllium and beryllium compound	Used	Mainframe	Power supply and board	Electronic parts	Semiconductor parts
Bismuth and bismuth compound	Used	Mainframe	Power supply and board	Electronic parts	Semiconductor parts
Selenium and selenium compound	Used	Mainframe	Power supply and board	Electronic parts	Semiconductor parts
Phthalate ester	Used	Mainframe	Power supply and board	Electronic parts	Semiconductor parts

Appendix1. Maintenance of Air Compressor Panel Unit

Standard name: AAT-AIRCONT

A1.1 Air Pressure Setting

- (1) Connect the air source to the hi-coupler (YEE-001065) and introduce air at a pressure of approximately 49×10^4 Pa.
- (2) Adjust the regulator meter to approximately 49×10^4 Pa using the valve.

A1.2 Air Compressor Panel Cable Connection

A1.2 Air Compressor Panel Cable Connection

- (1) During maintenance

Connect the short contact connector (DCB-RR9786X01) into J5 (TH1) and J6 (TH1).

Remark: The AAT-AIRCONT has a maintenance switch.


WARNING

If there is no short contact connector to connect to J5 and J6, turn switch 1 of maintenance switch (S1) on. This places the unit in maintenance mode. Since the air compressor panel board has its safety circuit disabled, be sure to turn the maintenance switch (S1) off after you finished maintenance work.

- (2) Connecting peripheral equipment with cable

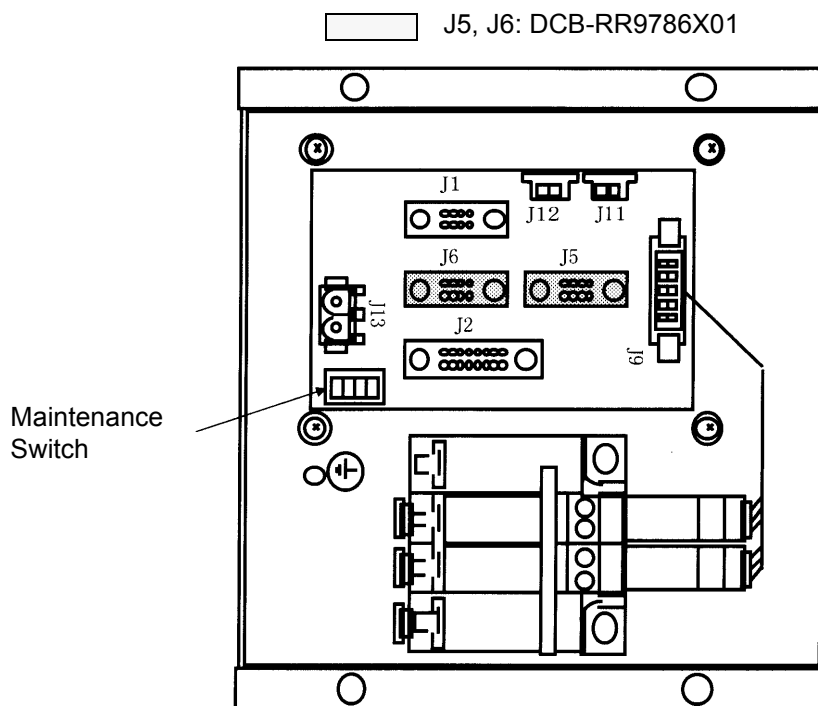


Figure A1-1 Air Control Unit

The short contact connectors (DCB-RR9786X01) are connected to J5 and J6 as standard. When connecting to a turnover-type prober, connect the prober control cable (DCB-SS9793X03) according to the following:

- When using a POGP-type HIFIX, connect the prober control cable to J5.
- When using a ZIF-type HIFIX, connect the prober control cable to J6.

When connecting cables to a shaftlock-method prober, refer to "REMOTE BOX OPERATION MANUAL." In such case, connect the prober control cable to J6.

Appendix2. PC Channel Assignment Table

Odd side

PE1	Side B	I/O pin ch	1	-	8	9	-	16	17	-	24	25	-	32
		MDC ch	1				2							
	Side A	I/O pin ch	65	-	72	73	-	80	81	-	88	89	-	96
		MDC ch	5				6							
(slot14)		UDC ch	1											
PE3	Side B	I/O pin ch	129	-	136	137	-	144	145	-	152	153	-	160
		MDC ch	9				10							
	Side A	I/O pin ch	193	-	200	201	-	208	209	-	216	217	-	224
		MDC ch	13				14							
(slot15)		UDC ch	2											
PE5	Side B	I/O pin ch	257	-	264	265	-	272	273	-	280	281	-	288
		MDC ch	17				18							
	Side A	I/O pin ch	321	-	328	329	-	336	337	-	344	345	-	352
		MDC ch	21				22							
(slot16)		UDC ch	3											
PE7	Side B	I/O pin ch	385	-	392	393	-	400	401	-	408	409	-	416
		MDC ch	25				26							
	Side A	I/O pin ch	449	-	456	457	-	464	465	-	472	473	-	480
		MDC ch	29				30							
(slot17)		UDC ch	4											
PE9	Side B	I/O pin ch	513	-	520	521	-	528	529	-	536	537	-	544
		MDC ch	33				34							
	Side A	I/O pin ch	577	-	584	585	-	592	593	-	600	601	-	608
		MDC ch	37				38							
(slot18)		UDC ch	5											
PE11	Side B	I/O pin ch	641	-	648	649	-	656	657	-	664	665	-	672
		MDC ch	41				42							
	Side A	I/O pin ch	705	-	712	713	-	720	721	-	728	729	-	736
		MDC ch	45				46							
(slot19)		UDC ch	6											
PE13	Side B	I/O pin ch	769	-	776	777	-	784	785	-	792	793	-	800
		MDC ch	49				50							
	Side A	I/O pin ch	833	-	840	841	-	848	849	-	856	857	-	864
		MDC ch	53				54							
(slot20)		UDC ch	7											
PE15	Side B	I/O pin ch	897	-	904	905	-	912	913	-	920	921	-	928
		MDC ch	57				58							
	Side A	I/O pin ch	961	-	968	969	-	976	977	-	984	985	-	992
		MDC ch	61				62							
(slot21)		UDC ch	8											

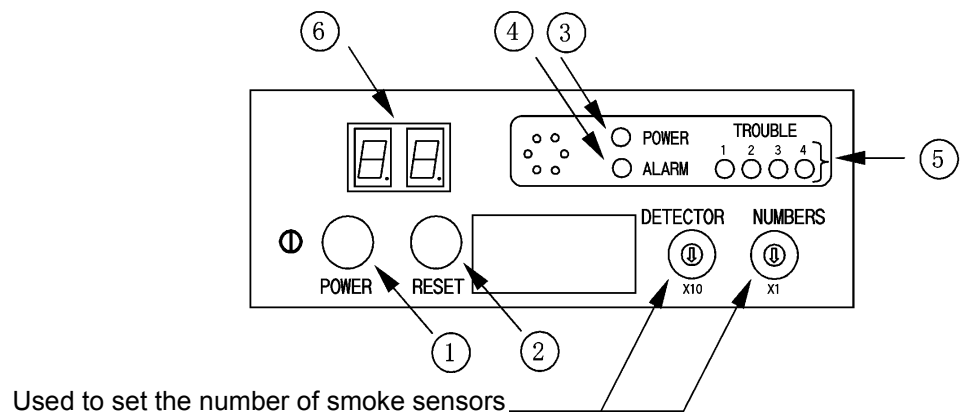
Even side

PE16	Side B	I/O pin ch	953	-	960	945	-	952	937	-	944	929	-	936
		MDC ch	60				59							
	Side A	I/O pin ch	1017	-	1024	1009	-	1016	1001	-	1008	993	-	1000
		MDC ch	64				63							
(slot5)		UDC ch	8											
PE14	Side B	I/O pin ch	825	-	832	817	-	824	809	-	816	801	-	808
		MDC ch	52				51							
	Side A	I/O pin ch	889	-	896	881	-	888	873	-	880	865	-	872
		MDC ch	56				55							
(slot6)		UDC ch	7											
PE12	Side B	I/O pin ch	697	-	704	689	-	696	681	-	688	673	-	680
		MDC ch	44				43							
	Side A	I/O pin ch	761	-	768	753	-	760	745	-	752	737	-	744
		MDC ch	48				47							
(slot7)		UDC ch	6											
PE10	Side B	I/O pin ch	569	-	576	561	-	568	553	-	560	545	-	552
		MDC ch	36				35							
	Side A	I/O pin ch	633	-	640	625	-	632	617	-	624	609	-	616
		MDC ch	40				39							
(slot8)		UDC ch	5											
PE8	Side B	I/O pin ch	441	-	448	433	-	440	425	-	432	417	-	424
		MDC ch	28				27							
	Side A	I/O pin ch	505	-	512	497	-	504	489	-	496	481	-	488
		MDC ch	32				31							
(slot9)		UDC ch	4											
PE6	Side B	I/O pin ch	313	-	320	305	-	312	297	-	304	289	-	296
		MDC ch	20				19							
	Side A	I/O pin ch	377	-	384	369	-	376	361	-	368	353	-	360
		MDC ch	24				23							
(slot10)		UDC ch	3											
PE4	Side B	I/O pin ch	185	-	192	177	-	184	169	-	176	161	-	168
		MDC ch	12				11							
	Side A	I/O pin ch	249	-	256	241	-	248	233	-	240	225	-	232
		MDC ch	16				15							
(slot11)		UDC ch	2											
PE2	Side B	I/O pin ch	57	-	64	49	-	56	41	-	48	33	-	40
		MDC ch	4				3							
	Side A	I/O pin ch	121	-	128	113	-	120	105	-	112	97	-	104
		MDC ch	8				7							
(slot12)		UDC ch	1											

Appendix3. Photoelectric Smoke Detection System

A3.1 Maintenance for Environmental Processor

- Turn the receiver off and set the number of smoke sensors connected to the receiver using the DETECTOR NUMBERS knobs.



- ① POWER SW: Turns the detector system on or off.
 - ② RESET SW: Resets smoke sensors which have caused alarms.
 - ③ POWER Light: Turns on when the power is turned on.
 - ④ ALARM Light: Turns on when smoke is detected.
 - ⑤ TROUBLE Light: Turns on when a problem such as a wiring break occurs. (Refer to the Section A3.4, "Workaround List.")
 - ⑥ 7-segment LED indicator:
The address of a smoke sensor with which an alarm or problem has been detected.
- When the POWER switch is turned on, the ALARM and TROUBLE lights turn on in the order and the receiver is initialized for approximately one minute.
 - After that, check that the ALARM and TROUBLE lights turn off.
 - Be sure to turn the POWER switch off more than one minute after the switch was turned on. When the ALARM light turns on, an alarm sounds continuously. When TROUBLE lights are on, a beeping sound is activated.
 - The sensor where the same address is assigned cannot be connected to the same receiver. (You can randomly assign the address number to sensors without duplicating an address.)
 - Do not connect a terminator to the end of every smoke sensor.

A3.2 Smoke Sensor Specifications

A3.2 Smoke Sensor Specifications

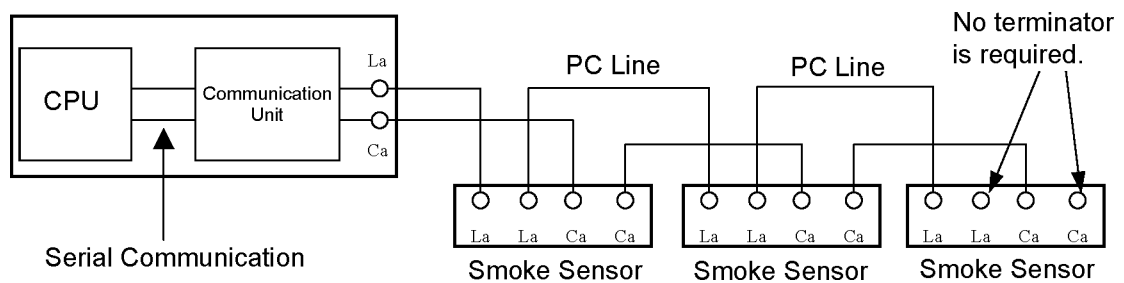
Normal Operation: The sensor LED turns on every ten seconds.

Alarm Condition: The sensor LED turns on every two seconds.

Abnormal Condition: The sensor LED does not turn on.

Note: *Alarms occur when smoke is detected.*

A3.3 Smoke Detection System Block Diagram



A3.4 Workaround List

A3.4.1 What to Do When a Problem Occurs

Receiver power indicator	TROUBLE indicator positions	Smoke sensor LED	Problem description	Suggested Courses of Action
ON	Position 1 is lit.	OFF	- The power may be abnormal on a PC line. - The smoke sensor voltage may drop to less than 9 V. - The smoke sensor test failure - A write error may have occurred in the smoke sensor EEPROM. - The smoke sensor sensitivity may be inferior to its specification.	Replace the sensor if it is defective.
	Position 2 is lit.	ON	If the number of sensors recognized by the receiver exceeds the number of sensors specified by the detector number switch assembled in the receiver.	Change the setting to the current number of smoke sensors.
	Position 3 is lit.		- The number of smoke sensors the receiver identifies is smaller than the setting in DETECTOR NUMBERS. - PC lines may be broken. - The smoke sensor is disconnected.	- Change the setting to the current number of smoke sensors. - Make sure that the PC lines are connected to the terminals of the receiver correctly. - Make sure that the PC lines are connected to the terminal of each smoke sensor correctly. - Check to see if any PC lines are broken. - Make sure that the smoke sensors are properly attached to each base correctly.
	Positions 2 and 3 are lit.	OFF	PC lines short-circuited.	Wire PC lines correctly.

A3.4 Workaround List

Receiver power indicator	TROUBLE indicator positions	Smoke sensor LED	Problem description	Suggested Courses of Action
ON	Position 4 is lit.	ON	- The value set in the detector number switch (in the receiver) is 0. - The value set in the detector number switch (in the receiver) is 32 or more. - Alarm error - Write error at the receiver EEPROM	- Confirm the value set in the detector number switch. - Replace the receiver if it is defective.
	Positions 1 thru 4 are blinking.	OFF	- The receiver accepted alarm signal from more than four sensors. However, the amount of smoke detected was not high enough to activate an alarm. If this occurred, TROUBLE lights 1, 2 and 3 blink. - Though the receiver accepted an alarm signal from a sensor, the beeper did not sound and the internal TROUBLE relay does not open because the amount of smoke detected was not high enough to activate an alarm.	If this occurs, please contact Advantest.
Blinking	OFF		Receiver CPU error	Replace the receiver if it is defective.



CAUTION

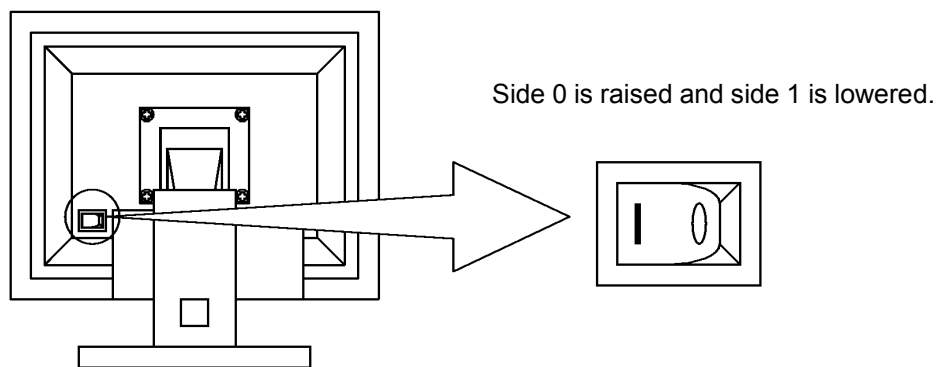
- 1. Contact an Advantest service representative if the above actions do not fix the problem.**
- 2. Make sure that the power switch has been turned off when reconnecting a receiver or sensor, or replacing a sensor.**

Appendix4. Setting the Monitor

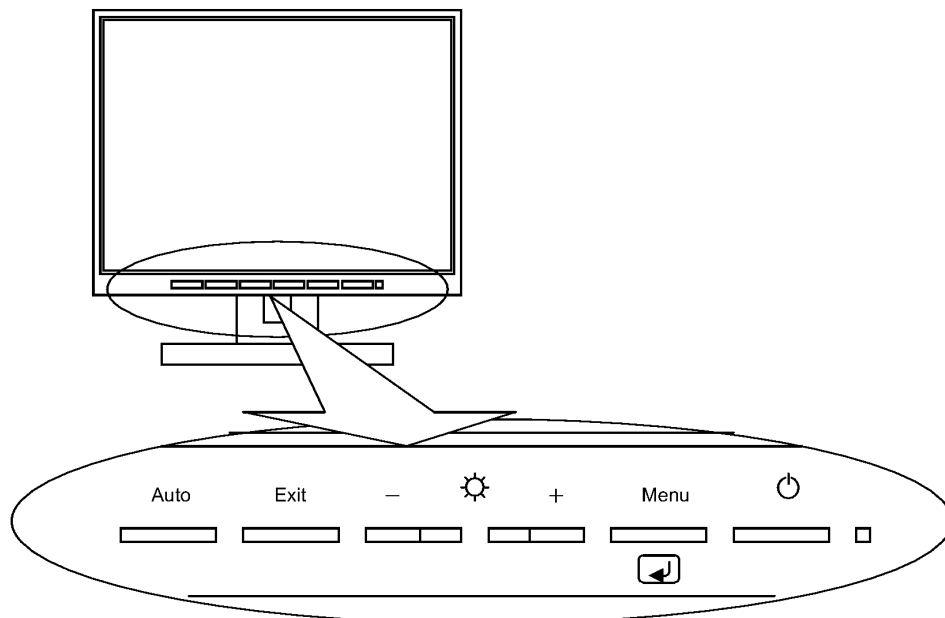
A4.1 Turning on the Power

A4.1.1 AHN-SYNC171N and AHN-SYNC192NP

- (1) Press side 1 of the power switch on the rear of the monitor.



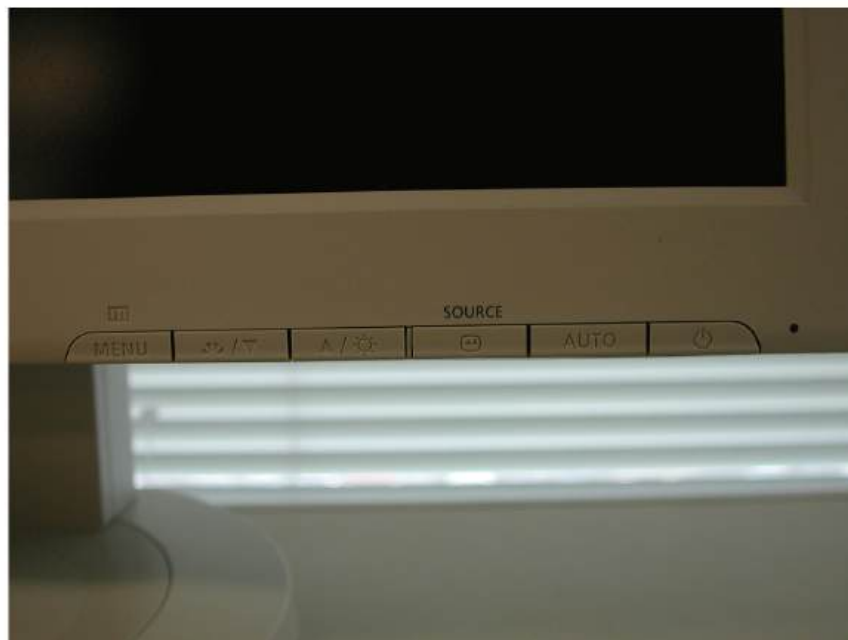
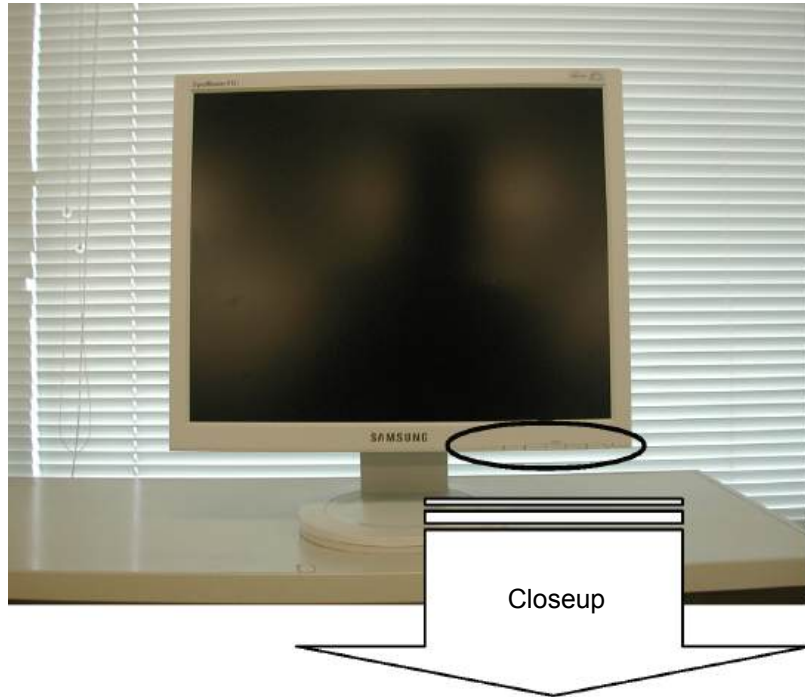
- (2) Press the  button on the front.



A4.1 Turning on the Power

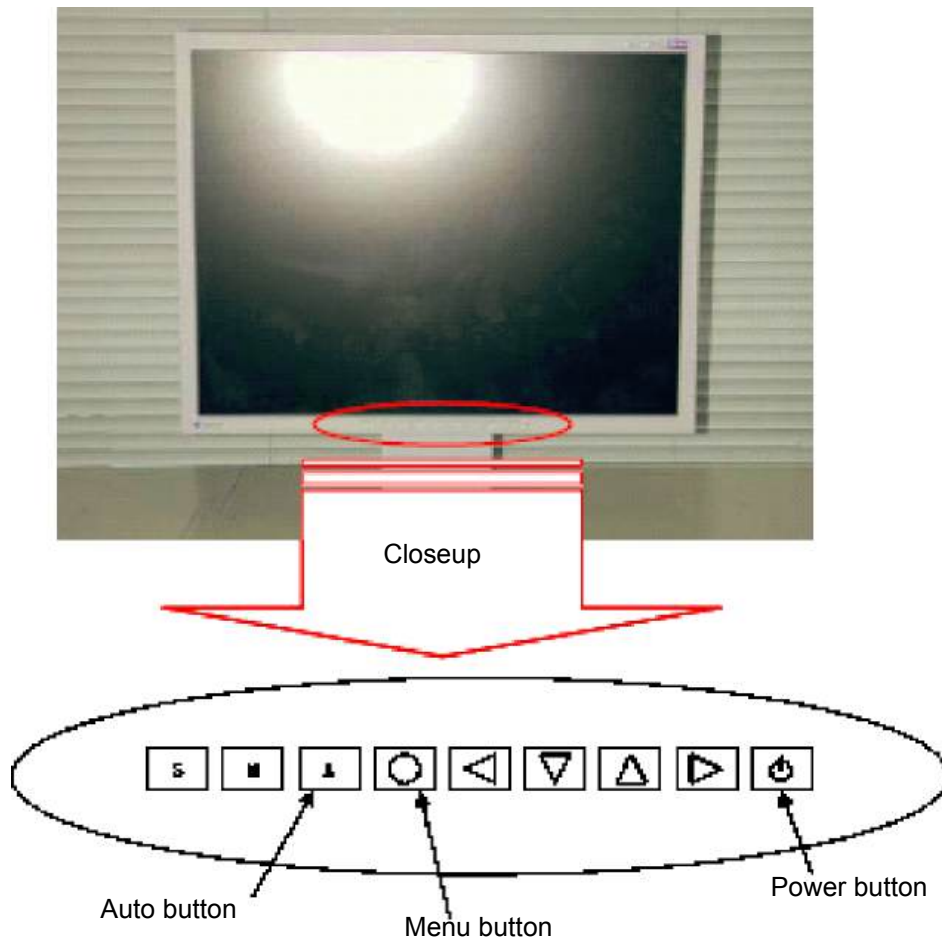
A4.1.2 AHN-SYNC912T

- (1) Press the  button on the front.



A4.1.3 AHN-LCD*19

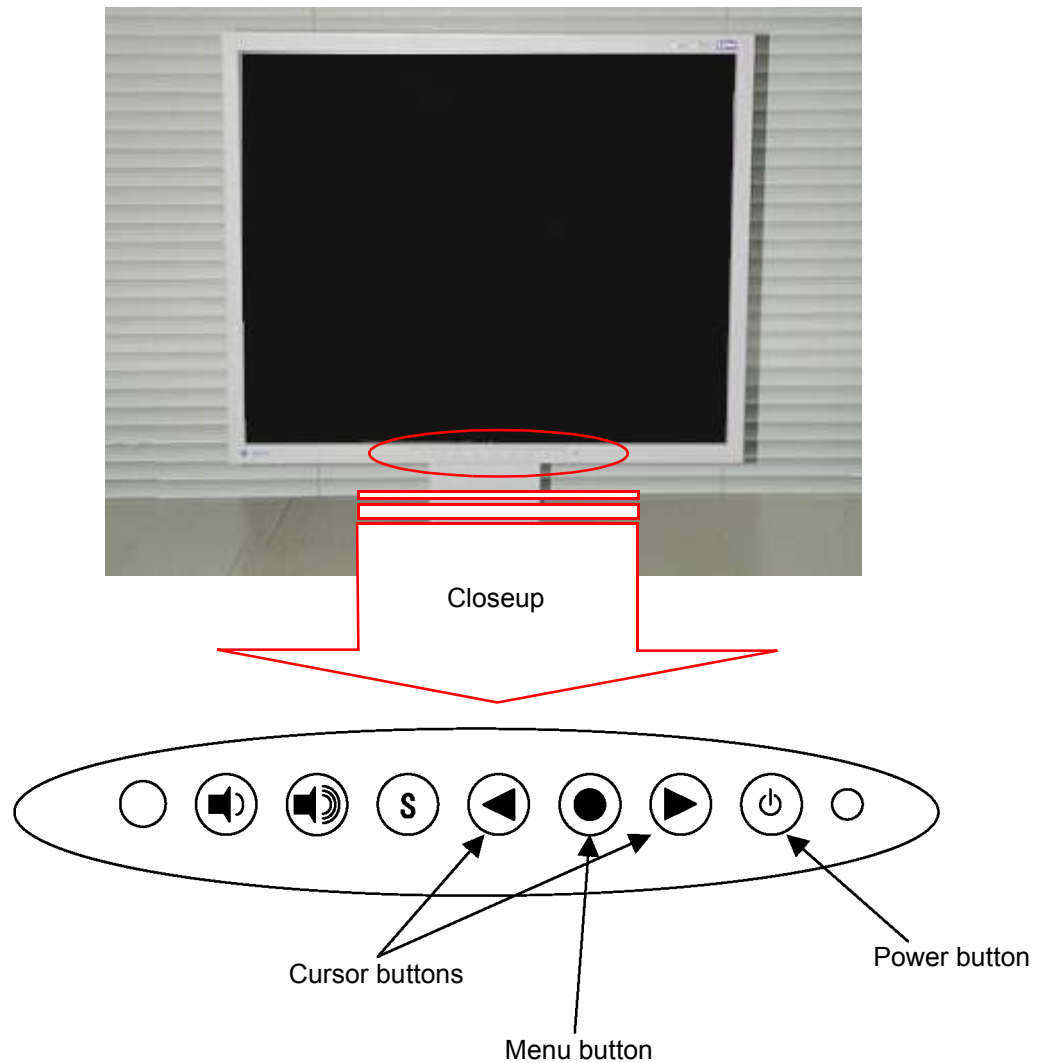
- (1) Press the  button on the front.



A4.1 Turning on the Power

A4.1.4 Turning on the AHN-LCD*S1921 Power

- (1) Press the  button on the front.



A4.2 Setting the Monitor Display (Resolution)

This section describes the monitor display setting by using the TC7 CPU UNIT as an example, because operations for the TC7 and TC7A CPU UNITS are the same.

- (1) The ok prompt should be displayed on the monitor.
- (2) Ensure that "screen" is specified as the output-device of the OBP by using the printenv command.

```
ok printenv output-device␣  
output-device = screen
```

If "screen" is not specified as the output-device, enter the following command to specify "screen".

If "screen" is specified, skip (3) and (4), and execute (5).

```
ok setenv output-device screen␣
```

- (3) Enter the following command to enable the setting:

```
ok reset-all␣
```

- (4) The ok prompt is displayed again.
- (5) Press the Auto button on the monitor.

Appendix5. Disk Storage Jumper Setting

A5.1 AHN-DK32EJ*36

DK32EJ is printed on the HDA (top).

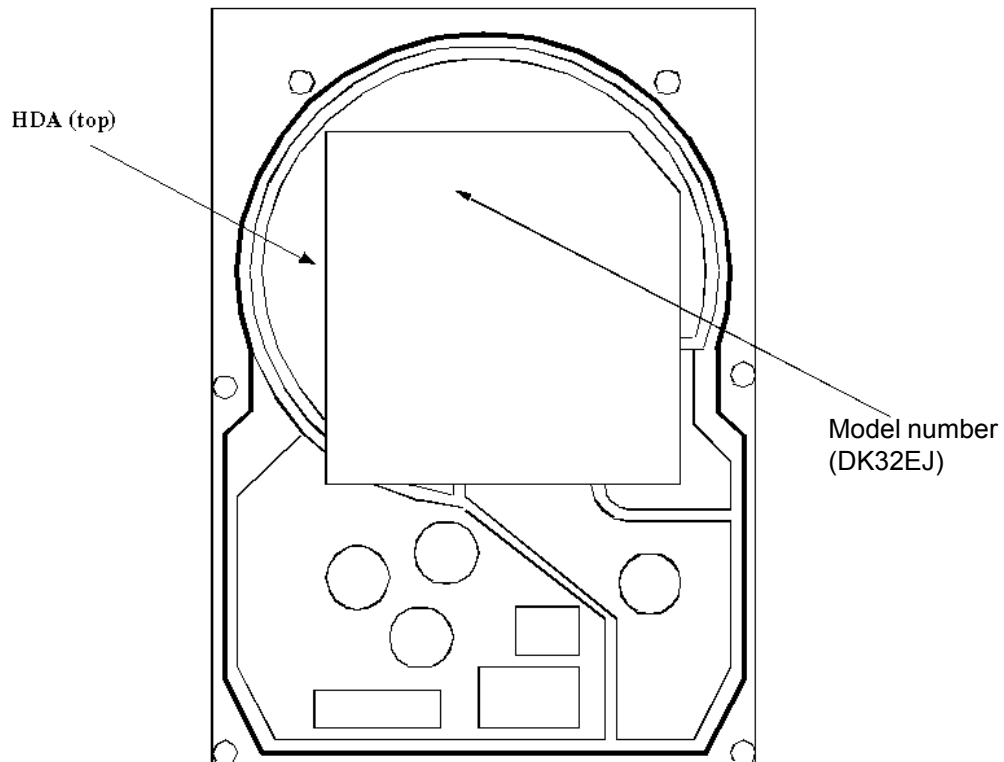


Figure A5-1 Hard Disk Top View

A5.1 AHN-DK32EJ*36

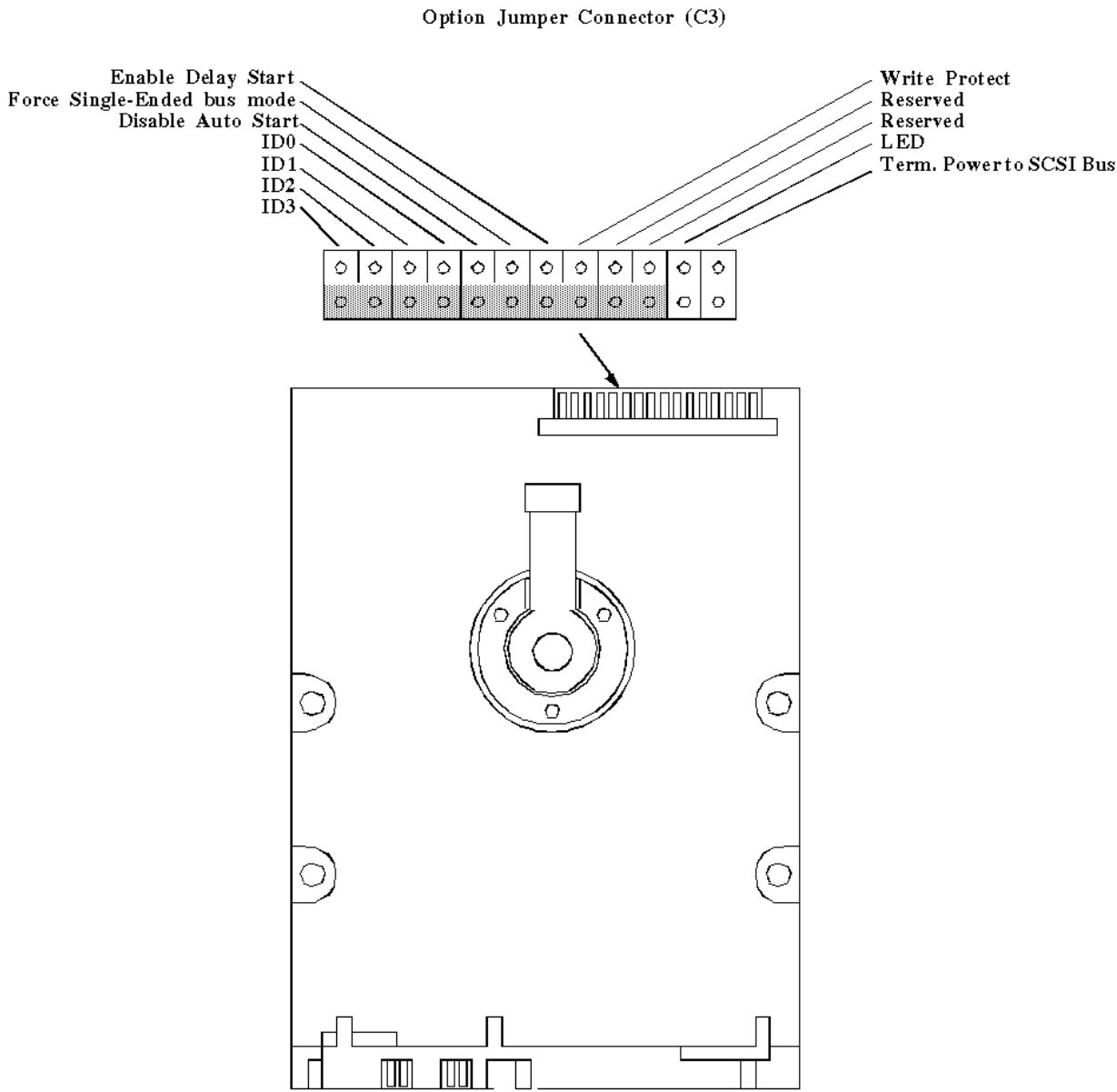


Figure A5-2 Hard Disk Bottom View

HD1	1		23
	2		24
HD2	1		23
	2		24

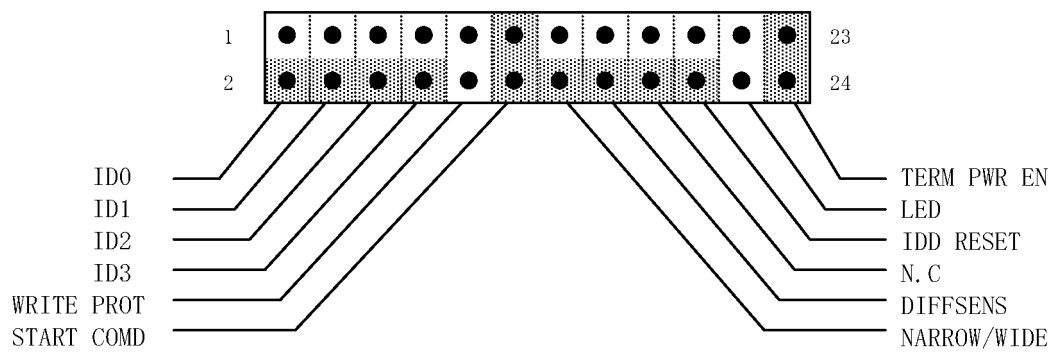
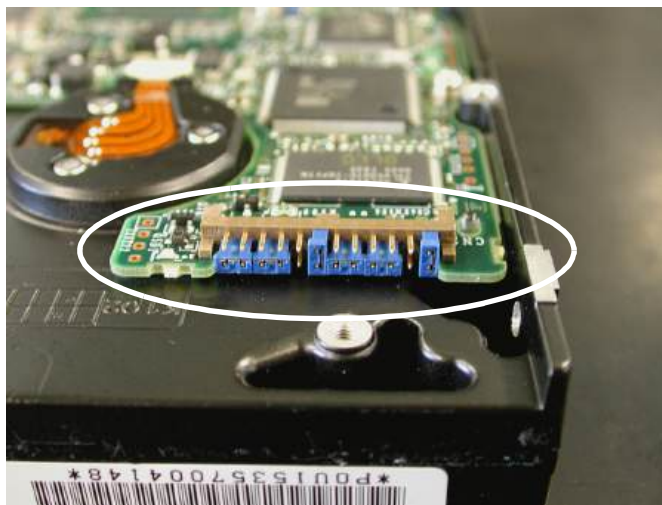
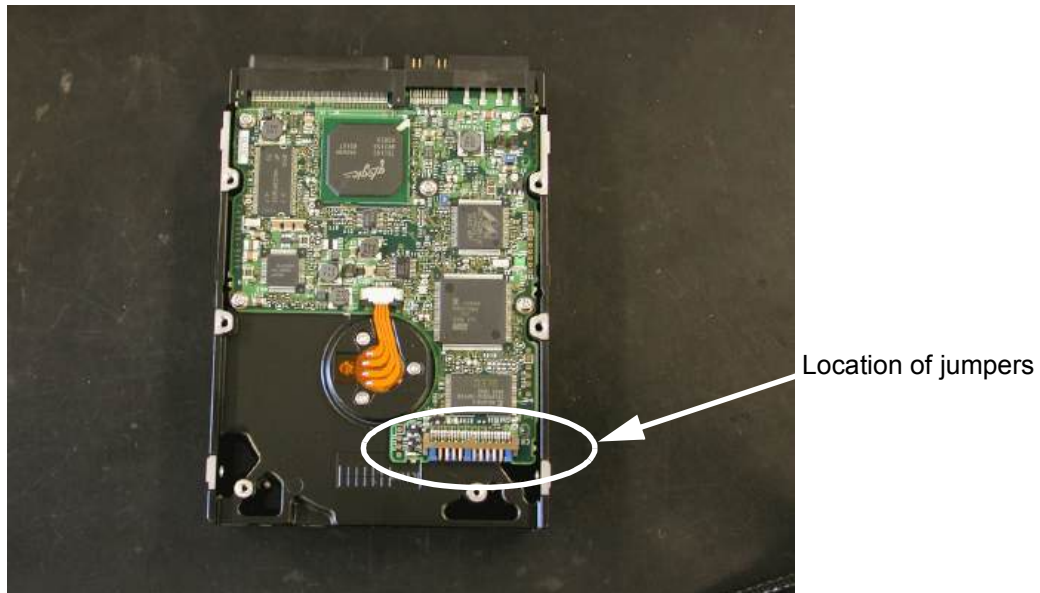
Figure A5-3 Mini Jumper Setting

A5.2 WBL-H3610190BLK

A5.2 WBL-H3610190BLK

"MAT3073NP" or "MAW3073NP" is printed on the HDA (top).





Jumper Pin Locations and Default Values

Mini Jumper Setting Values

Disk Storage Mini Jumper Setting Table									
HD1	1	●	●	●	●	●	●	●	23
	2	●	●	●	●	●	●	●	24
HD2	1	●	●	●	●	●	●	●	23
	2	●	●	●	●	●	●	●	24

Appendix6. How to Use TC7 CD-RW

A6.1 Notes on Using CD-RW

- (1) Write to the CD-RW as a root user (super user). A non-root user cannot write to the CD-RW package which is included in the TC7.
- (1) Use an ISO-formatted CD-RW. DirectCD-formatted CD-RW cannot be used.
- (2) When using non-blank media, delete the session that was written most recently. To delete the session, use the following command.

Only a root user (super user) can delete the session.

```
% cdrw -b session.
```

The time taken to delete the session varies depending on the size of the data deleted. (It takes approximately several minutes to delete 1 MB of data.)

A6.2 How to Use a CD-RW

A6.2 How to Use a CD-RW

Note: The user is described as *vpoint* and the directory is described as *backup* in this section.

- (1) Creating a directory

Log in as the *vpoint* user to create a backup directory.

```
% mkdir backup_
```

- (2) Back up the file to the backup directory.

- (3) Enter the appropriate command shown below and write data to the media. Note that different commands are used according to the size of the back up media.

- (a) Use the following command to back up onto a 650-MB CD-RW:

```
% mkisofs -r /home/vpoint/backup 2>/dev/null | cdrw -i_
```

- (b) Use the following command to back up onto a 700-MB CD-RW:

```
% mkisofs -r /home/vpoint/backup 2>/dev/null | cdrw -i -C_
```

Appendix7. Notes when a Faulty TC7 Is Replaced and Solutions to Errors

A7.1 Startup Errors

TC7 may display error messages shown below depending on its version and installed graphic card. This Appendix describes details of errors and their solutions.

A7.1.1 Panic Error that Occurs when the Operating System Starts

When a TC7 malfunctions and is replaced with another TC7, if a TC7 of version ACC or earlier is replaced with another TC7 of version BAD or later, the following panic error message may be displayed when the operating system starts.

```

Boot device: disk? File and args:
SunOS Release 5.8 Version Generic_108528-20 64-bit
Copyright 1983-2003 Sun Microsystems, Inc.? All rights reserved.
Cannot assemble drivers for root /pci@1d,700000/scsi@4/disk@0,0:a
Cannot mount root on /pci@1d,700000/scsi@4/disk@0,0:a fstype ufs

panic[cpu0]/thread=10408000: vfs_mountroot: cannot mount root

0000000010407970 genunix:vfs_mountroot+70 (10436000, 0, 0, 10438f78, 10, 14)
%l0-3: 0000000010436000 00000000104398d8 000000033e000000 0000000010436428
%l4-7: 0000000000000000 0000000010413878 00000000000bc27c 00000000000027c
0000000010407a20 genunix:main+8c (104101d0, 2000, 10407ec0, 10408030, fff2,
10051178)
%l0-3: 0000000000000001 0000000000000001 0000000000000015 000000000000f01
%l4-7: 0000000010429190 0000000010465808 00000000000d44d0 0000000000004d0

skipping system dump - no dump device configured
rebooting...
```

This is because the SCSI controller installed on CPU boards of the old TC7 and new TC7 are different. Refer to A7.2.1, "Method for Installing the SCSI Driver."

A7.1 Startup Errors

A7.1.2 Error that Occurs when the GUI Environment Starts

When a TC7 malfunctions and is replaced with another TC7, if the test system power is turned on without reusing the original graphic card, the following error message is sometimes displayed instead of the DT log-in screen when Solaris starts:

```
*****
*
* Starting Desktop Login on display :0...
*
* Wait for the Desktop Login screen before logging in.
*
*****

*****
*
* The X-sever can not be started on display :0...
*
*****
```

If this problem occurs, the CDE does not start but logging-in as a normal user or root user is possible.

The following is assumed to be the cause of the problem above.

- (1) The Solaris device tree has not been updated because no boot -r command was executed when Solaris started after the TC7 was replaced.
Refer to <Method 1> in A7.2.2.2, "Method for Installing the Driver." However, if Viewpoint R8.00 or R8.01 is used, refer to <Method 2> or <Method 3> in A7.2.2.2 "Method for Installing the Driver."
- (2) The device driver for the graphic card that is mounted in the replaced TC7 has not been installed.
Refer to <Method 2> or <Method 3> in A7.2.2.2, "Method for Installing the Driver."

A7.2 Solutions

A7.2.1 Method for Installing the SCSI Driver

<Prepare the following>

SOLARIS 8 SOFTWARE HW5/03 1 of 2 (+mtp) media

(1) Insert the SOLARIS 8 SOFTWARE HW5/03 1of2 (+mtp) into the TC7 CD-ROM drive.

(2) Start in the single user mode.

Display the ok prompt by pressing the A key while holding the Stop key. Enter the following command to start in the single user mode, from the CD-ROM.

```
ok boot cdrom -s ↵  
  
:  
:  
:  
INIT: SINGLE USER MODE  
#
```

(3) Enter the following commands to install each partition:

```
# mount /dev/dsk/c0t0d0s0 /mnt ↵  
#  
# mount /dev/dsk/c0t0d0s3 /mnt/var ↵  
#  
# mount /dev/dsk/c0t0d0s5 /mnt/opt ↵  
#  
# mount /dev/dsk/c0t0d0s6 /mnt/usr ↵
```

(4) Enter the following command to move to the directory where patches are stored:

```
# cd /cdrom/Solaris 8/Patches ↵  
#
```

A7.2 Solutions

- (5) Enter the following command to install patches:

```
# patchadd -R /mnt 115275-06 ↵

Checking installed patches...
Verifying sufficient filesystem capacity (dry run method)...
Installing patch packages...
:
(Omitted)
:
Patch number 115275-06 has been successfully installed.
See /mnt/var/sadm/patch/115275-06/log for details

Patch packages installed:
SUNWcsr
SUNWcsxu
SUNWhea
SUNWpd
SUNWpdu
SUNWpdx

#
```

- (6) Enter the following commands and check that patches are installed:

```
# cd /mnt/var/sadm/patch ↵
# ls | grep 115275-06 ↵
115275-06
#
```

- (7) Shut down the operating system and quit the single user mode.
- (8) Remove the SOLARIS 8 SOFTWARE HW5/03 1of2 (+mtp) media from the CD-ROM drive.
- (9) Start the operating system from the disk.

```
{0} ok boot -r ↵
```

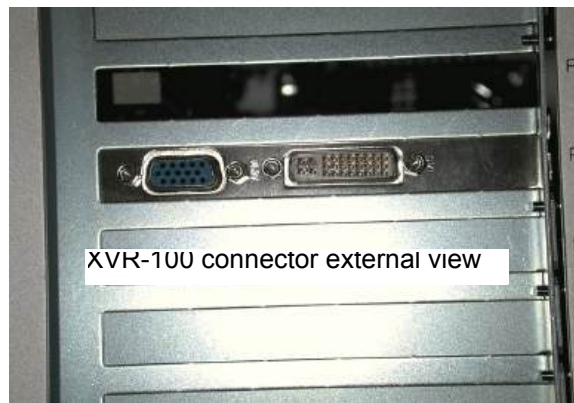
A7.2.2 Solution to the Error that Occurs when the GUI Environment Starts

A7.2.2.1 Differences of Graphic Cards

To verify whether graphic cards mounted on the TC7s are different, check the version label on the front of the TC7 upper-left corner or compare the graphic card external connector. The following shows the different versions and connectors between the TC7s.

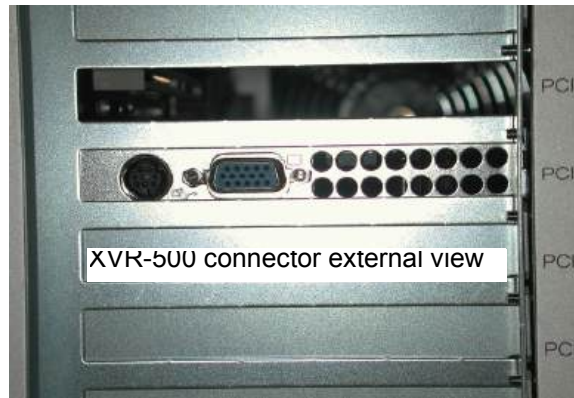
- (a) If the version is AAB or ABB:

Graphic card: XVR-100



- (b) If the version is neither AAB nor ABB:

Graphic card: XVR-500



A7.2 Solutions

A7.2.2.2 Method for Installing the Driver

In the following description, underlined parts indicate commands to be entered and ↵ indicates the return key.

<Method 1> Updating the device tree

If the Viewpoint revision is either R8.00 or R8.01, refer to method 2 or 3, because these revisions are incompatible with two types of graphic cards.

(1) Press the return key. The console input screen is output.

```
*****
*
* Starting Desktop Login on display :0...
*
* Wait for the Desktop Login screen before logging in.
*
*****

*****
*
* The X-sever can not be started on display :0...
*
*****
                                ←Press the return key at this point.

console login:
```

(2) Log in as a root user and enter the following command: The password is described as "*****" herein.

```
console login : root ↵
passwd : ***** ↵
:
:

# reboot -- -r ↵
```

<Method 2> Replacing graphic card

Replace the graphic card in the faulty TC7 with the graphic card in the replaced TC7.

If the TC7 is replaced because the graphic card is faulty, refer to <Method 3>.

<Method 3> Installing the device driver for the graphic card

- (1) Prepare the CD media (Solaris8 HW 5/03 1 of 2) for Solaris OS.
- (2) Log in as a root user and insert the CD into the CD drive. To log in as a root user, refer to <Method 1>.
- (3) Enter the following commands and install the device driver.

If the TC7 version is AAB or ABB:

```
# pkgadd -d /cdrom/cdrom0/s0/Solaris 8/Product SUNWpfbcf SUNWpfbm SUNWpfbw
SUNWpfbx.u <Enter>
:
:
In response to all questions that are displayed hereafter, enter "y.<Enter>."
```

If the TC7 version is neither AAB nor ABB:

```
# pkgadd -d /cdrom/cdrom0/s0/Solaris 8/Product SUNWifb.u SUNWifbcf
SUNWifbr SUNWifbw SUNWifbx.u <Enter>
:
:
In response to all questions that are displayed hereafter, enter "y.<Enter>."
```

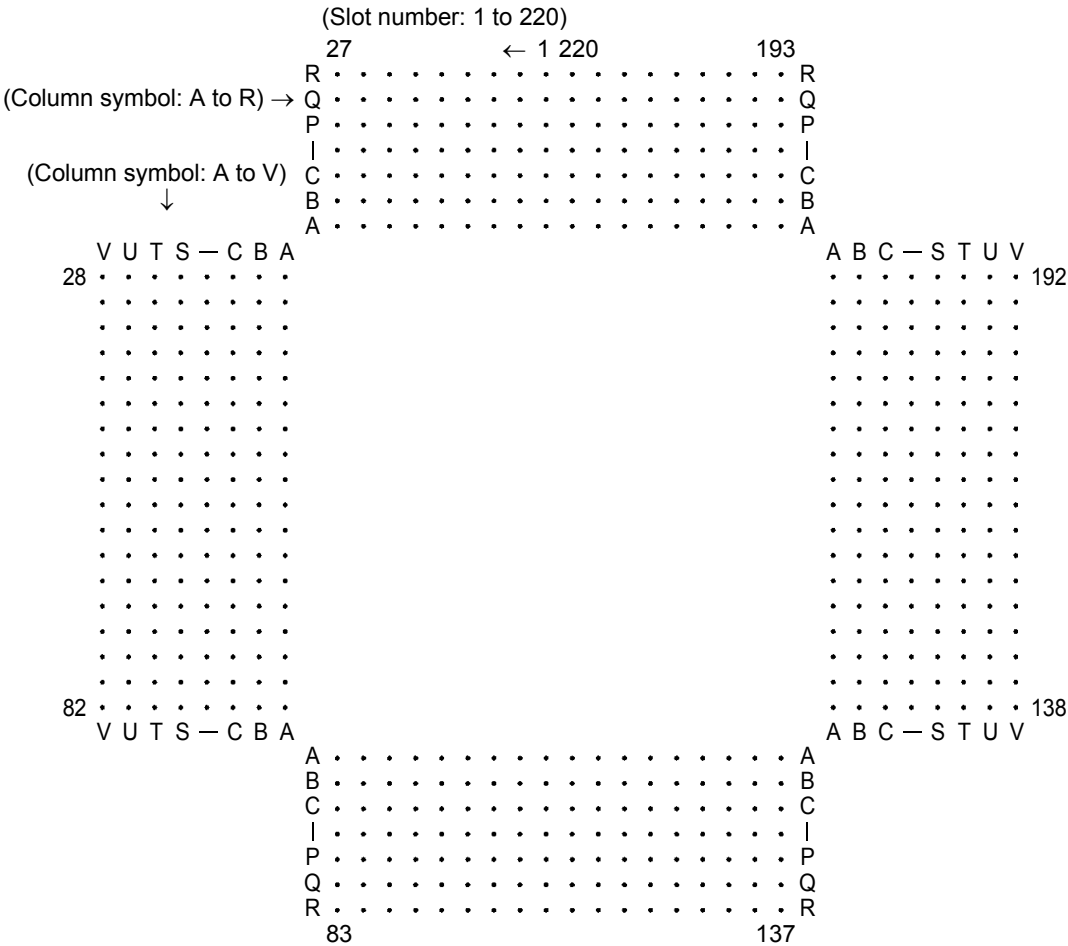
- (4) Remove the CD from the CD drive.
- (5) To apply the installed driver, enter the following command and re-start the TC.

```
# reboot -- -r <Enter>
```


Appendix8. Square Type Performance Board Signal Layout

Upper and lower: 18 columns × 55 slots
Right and left: 22 columns × 55 slots
Total: 4,400 signals

Slot spacing: 4 mm
Column and row spacing (A to B):3 mm
Gold pad: $\phi 2.5$



Test Head Front View

A8.1 Square Type Performance Board Signal Name Table

A8.1 Square Type Performance Board Signal Name Table

Slot Column	1	2	3	4	5	6	7	8	9	10	11	12	13	14
A	OP210A	UCM1		io1	io5	io9	io13	io17	io21	io25	io29	io33	io37	io41
B	OP210AG	UCM2		io1G	io5G	io9G	io13G	io17G	io21G	io25G	io29G	io33G	io37G	io41G
C	OP240A	L1	L17	io2	io6	io10	io14	io18	io22	io26	io30	io34	io38	io42
D	OP240AG	L2	L18	io2G	io6G	io10G	io14G	io18G	io22G	io26G	io30G	io34G	io38G	io42G
E	OP210B	L3	L19	io3	io7	io11	io15	io19	io23	io27	io31	io35	io39	io43
F	OP210BG	L4	L20	io3G	io7G	io11G	io15G	io19G	io23G	io27G	io31G	io35G	io39G	io43G
G	OP240B	L5	L21	io4	io8	io12	io16	io20	io24	io28	io32	io36	io40	io44
H	OP240BG	L6	L22	io4G	io8G	io12G	io16G	io20G	io24G	io28G	io32G	io36G	io40G	io44G
I	-	L7	L23	io513	io517	io521	io525	io529	io533	io537	io541	io545	io549	io553
J	-	L8	L24	io513G	io517G	io521G	io525G	io529G	io533G	io537G	io541G	io545G	io549G	io553G
K		L9	L25	io514	io518	io522	io526	io530	io534	io538	io542	io546	io550	io554
L		L10	L26	io514G	io518G	io522G	io526G	io530G	io534G	io538G	io542G	io546G	io550G	io554G
M	DPS29G	L11	L27	io515	io519	io523	io527	io531	io535	io539	io543	io547	io551	io555
N	DPS29GU	L12	L28	io515G	io519G	io523G	io527G	io531G	io535G	io539G	io543G	io547G	io551G	io555G
O	DPS29S	L13	L29	io516	io520	io524	io528	io532	io536	io540	io544	io548	io552	io556
P	DPS29F	L14	L30	io516G	io520G	io524G	io528G	io532G	io536G	io540G	io544G	io548G	io552G	io556G
Q	DPS29F	L15	L31	CW0	-	CW1	CPS29	CW2	-	CW3	CPS25	CW4	-	CW5
R	DPS29G	L16	L32	0V	-	0V	UC0	0V	-	0V	UC1	0V	-	0V

Slot Column	15	16	17	18	19	20	21	22	23	24	25	26	27
A	io45	io49	io53	io57	io61		-	OP1101	BBWG1AP	BBWG1CP	-	BBWD1CP	BBWD1AP
B	io45G	io49G	io53G	io57G	io61G		-	OP1101G	BBWG1APG	BBWG1CPG	-	BBWD1CPG	BBWD1APG
C	io46	io50	io54	io58	io62	L33	L49	OP1102	BBWG1AN	BBWG1CN	HLFD1CP	BBWD1CN	BBWD1AN
D	io46G	io50G	io54G	io58G	io62G	L34	L50	OP1102G	BBWG1ANG	BBWG1CNG	HLFD1CPG	BBWD1CNG	BBWD1ANG
E	io47	io51	io55	io59	io63	L35	L51	HLFG1CP	BBWG1BP	BBWG1XP	HLFD1CN	BBWD1DP	BBWD1BP
F	io47G	io51G	io55G	io59G	io63G	L36	L52	HLFG1CPG	BBWG1BPG	BBWG1XPG	HLFD1CNG	BBWD1DPG	BBWD1BPG
G	io48	io52	io56	io60	io64	L37	L53	HLFG1XP	BBWG1BN	BBWG1XN	HLFD1XP	BBWD1DN	BBWD1BN
H	io48G	io52G	io56G	io60G	io64G	L38	L54	HLFG1XPG	BBWG1BNG	BBWG1XNG	HLFD1XPG	BBWD1DNG	BBWD1BNG
I	io557	io561	io565	io569	io573	L39	L55	HLFG1CN	HLFG1XN		HLFD1XN	BBWD1XP	
J	io557G	io561G	io565G	io569G	io573G	L40	L56	HLFG1CNG	HLFG1XNG		HLFD1XNG	BBWD1XPG	
K	io558	io562	io566	io570	io574	L41	L57		VIM1			BBWD1XN	OP1103
L	io558G	io562G	io566G	io570G	io574G	L42	L58		VIM1G			BBWD1XNG	OP1103G
M	io559	io563	io567	io571	io575	L43	L59	DPS25G	VI1	DPS21G	DPS17G		OP1104
N	io559G	io563G	io567G	io571G	io575G	L44	L60	DPS25GU	VI1G	DPS21GU	DPS17GU		OP1104G
O	io560	io564	io568	io572	io576	L45	L61	DPS25S	VSB1	DPS21S	DPS17S	IP1A	OP1105
P	io560G	io564G	io568G	io572G	io576G	L46	L62	DPS25F	VSB1G	DPS21F	DPS17F	IP1AG	OP1105G
Q	CPS21	CW6	-	CW7	CPS17	L47	L63	DPS25F	VSB1	DPS21F	DPS17F	IP1B	OP1106
R	UC2	0V	-	0V	UC3	L48	L64	DPS25G	VSB1G	DPS21G	DPS17G	IP1BG	OP1106G

A8.1 Square Type Performance Board Signal Name Table

Slot Column	28	29	30	31	32	33	34	35	36	37	38	39	40	41
A	OP2101	OP1107	OP2105	OP2110	AFE2N	AFE1N	AFE2P	AFE1P	HSO9	io65	io69	io73	io77	io81
B	OP2101G	OP1107G	OP2105G	OP2110G	AFE2NG	AFE1NG	AFE2PG	AFE1PG	HSO9G	io65G	io69G	io73G	io77G	io81G
C	OP2102	OP1108	OP2106	OP2111	HLFD1BP	HLFD1BN	HLFD5CP	HLFD5AP	HSO10	io66	io70	io74	io78	io82
D	OP2102G	OP1108G	OP2106G	OP2111G	HLFD1BPG	HLFD1BNG	HLFD5CPG	HLFD5APG	HSO10G	io66G	io70G	io74G	io78G	io82G
E	HLFG1AP	HLFD1AP	OP2107	OP2112	HLFG5CP	HLFG5AP	HLFD5CN	HLFD5AN	HSI9	io67	io71	io75	io79	io83
F	HLFG1APG	HLFD1APG	OP2107G	OP2112G	HLFG5CPG	HLFG5APG	HLFD5CNG	HLFD5ANG	HSI9G	io67G	io71G	io75G	io79G	io83G
G	HLFG1AN	HLFD1AN	OP2108	OP2113	HLFG5CN	HLFG5AN	HLFD5XP	HLFD5BP	HSI10	io68	io72	io76	io80	io84
H	HLFG1ANG	HLFD1ANG	OP2108G	OP2113G	HLFG5CNG	HLFG5ANG	HLFD5XPG	HLFD5BPG	HSI10G	io68G	io72G	io76G	io80G	io84G
I	OP2103	OP1109	OP2109	OP2114	HLFG5XP	HLFG5BP	HLFD5XN	HLFD5BN	MTX1	io577	io581	io585	io589	io593
J	OP2103G	OP1109G	OP2109G	OP2114G	HLFG5XPG	HLFG5BPG	HLFD5XNG	HLFD5BNG	MTX1G	io577G	io581G	io585G	io589G	io593G
K	OP2104	OP1110	VOFF5	OP2115	HLFG5XN	HLFG5BN	-	-	MTX2	io578	io582	io586	io590	io594
L	OP2104G	OP1110G	VOFF5G	OP2115G	HLFG5XNG	HLFG5BNG	-	-	MTX2G	io578G	io582G	io586G	io590G	io594G
M	-	-	VRH1F	VRL1F	-	PSRRIP	-	HLFG1BP	MTX3	io579	io583	io587	io591	io595
N	-	-	VRH1FG	VRL1FG	-	PSRRIPG	-	HLFG1BPG	MTX3G	io579G	io583G	io587G	io591G	io595G
O	VL1A	IN1A	VRH1S	VRL1S	-	PSRRIN	EXCK1	HLFG1BN	MTX4	io580	io584	io588	io592	io596
P	VL1AG	IN1AG	VRH1SG	VRL1SG	-	PSRRING	EXCK1G	HLFG1BNG	MTX4G	io580G	io584G	io588G	io592G	io596G
Q	VL1B	IN1B	VOFF1	OP1113	DPS13G	-	UDC1G	UDC2G	DPS9G	CW8	-	CW9	CPS13	CW10
R	VL1BG	IN1BG	VOFF1G	OP1113G	DPS13GU	-	UDC1GU	UDC2GU	DPS9GU	0V	-	0V	UC4	0V
S	-	VH1A	OP1111	OP1114	DPS13S	-	UDC1S	UDC2S	DPS9S	L65	L69	L73	L77	L81
T	-	VH1AG	OP1111G	OP1114G	DPS13F	-	UDC1F	UDC2F	DPS9F	L66	L70	L74	L78	L82
U	PBVCC	VH1B	OP1112	OP1115	DPS13F	-	UDC1F	UDC2F	DPS9F	L67	L71	L75	L79	L83
V	PBVCC	VH1BG	OP1112G	OP1115G	DPS13G	-	UDC1G	UDC2G	DPS9G	L68	L72	L76	L80	L84

Slot Column	42	43	44	45	46	47	48	49	50	51	52	53	54	55
A	io85	io89	io93	io97	io101	io105	io109	io113	io117	io121	io125	HSO1	VOS1S	
B	io85G	io89G	io93G	io97G	io101G	io105G	io109G	io113G	io117G	io121G	io125G	HSO1G	VOS1SG	
C	io86	io90	io94	io98	io102	io106	io110	io114	io118	io122	io126	HSO2	VOS1F	
D	io86G	io90G	io94G	io98G	io102G	io106G	io110G	io114G	io118G	io122G	io126G	HSO2G	VOS1FG	
E	io87	io91	io95	io99	io103	io107	io111	io115	io119	io123	io127	HSI1	VIMA1	-
F	io87G	io91G	io95G	io99G	io103G	io107G	io111G	io115G	io119G	io123G	io127G	HSI1G	VIMA1G	-
G	io88	io92	io96	io100	io104	io108	io112	io116	io120	io124	io128	HSI2	VIMB1	
H	io88G	io92G	io96G	io100G	io104G	io108G	io112G	io116G	io120G	io124G	io128G	HSI2G	VIMB1G	
I	io597	io601	io605	io609	io613	io617	io621	io625	io629	io633	io637			PFB0
J	io597G	io601G	io605G	io609G	io613G	io617G	io621G	io625G	io629G	io633G	io637G			PFB1
K	io598	io602	io606	io610	io614	io618	io622	io626	io630	io634	io638			PFB2
L	io598G	io602G	io606G	io610G	io614G	io618G	io622G	io626G	io630G	io634G	io638G			PFB3
M	io599	io603	io607	io611	io615	io619	io623	io627	io631	io635	io639			PFB4
N	io599G	io603G	io607G	io611G	io615G	io619G	io623G	io627G	io631G	io635G	io639G			PFB5
O	io600	io604	io608	io612	io616	io620	io624	io628	io632	io636	io640			PFB6
P	io600G	io604G	io608G	io612G	io616G	io620G	io624G	io628G	io632G	io636G	io640G			PFB7
Q	-	CW11	CPS9	CW12	-	CW13	CPS5	CW14	-	CW15	CPS1	DPS5G	DPS1G	
R	-	0V	UC5	0V	-	0V	UC6	0V	-	0V	UC7	DPS5GU	DPS1GU	
S	L85	L89	L93	L97	L101	L105	L109	L113	L117	L121	L125	DPS5S	DPS1S	-
T	L86	L90	L94	L98	L102	L106	L110	L114	L118	L122	L126	DPS5F	DPS1F	-
U	L87	L91	L95	L99	L103	L107	L111	L115	L119	L123	L127	DPS5F	DPS1F	PBP15V
V	L88	L92	L96	L100	L104	L108	L112	L116	L120	L124	L128	DPS5G	DPS1G	PBP15V

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A8.1 Square Type Performance Board Signal Name Table

Slot Column	56	57	58	59	60	61	62	63	64	65	66	67	68	69
A	VOS2S	HSO3	io129	io133	io137	io141	io145	io149	io153	io157	io161	io165	io169	io173
B	VOS2SG	HSO3G	io129G	io133G	io137G	io141G	io145G	io149G	io153G	io157G	io161G	io165G	io169G	io173G
C	VOS2F	HSO4	io130	io134	io138	io142	io146	io150	io154	io158	io162	io166	io170	io174
D	VOS2FG	HSO4G	io130G	io134G	io138G	io142G	io146G	io150G	io154G	io158G	io162G	io166G	io170G	io174G
E	VIMA2	HSI3	io131	io135	io139	io143	io147	io151	io155	io159	io163	io167	io171	io175
F	VIMA2G	HSI3G	io131G	io135G	io139G	io143G	io147G	io151G	io155G	io159G	io163G	io167G	io171G	io175G
G	VIMB2	HSI4	io132	io136	io140	io144	io148	io152	io156	io160	io164	io168	io172	io176
H	VIMB2G	HSI4G	io132G	io136G	io140G	io144G	io148G	io152G	io156G	io160G	io164G	io168G	io172G	io176G
I	PFB8		io641	io645	io649	io653	io657	io661	io665	io669	io673	io677	io681	io685
J	PFB9		io641G	io645G	io649G	io653G	io657G	io661G	io665G	io669G	io673G	io677G	io681G	io685G
K	PFB10		io642	io646	io650	io654	io658	io662	io666	io670	io674	io678	io682	io686
L	PFB11		io642G	io646G	io650G	io654G	io658G	io662G	io666G	io670G	io674G	io678G	io682G	io686G
M	PFB12		io643	io647	io651	io655	io659	io663	io667	io671	io675	io679	io683	io687
N	PFB13		io643G	io647G	io651G	io655G	io659G	io663G	io667G	io671G	io675G	io679G	io683G	io687G
O	PFB14		io644	io648	io652	io656	io660	io664	io668	io672	io676	io680	io684	io688
P	PFB15		io644G	io648G	io652G	io656G	io660G	io664G	io668G	io672G	io676G	io680G	io684G	io688G
Q	DPS3G	DPS7G	CW16	-	CW17	CPS3	CW18	-	CW19	CPS7	CW20	-	CW21	CPS11
R	DPS3GU	DPS7GU	0V	-	0V	UC8	0V	-	0V	UC9	0V	-	0V	UC10
S	DPS3S	DPS7S	L129	L133	L137	L141	L145	L149	L153	L157	L161	L165	L169	L173
T	DPS3F	DPS7F	L130	L134	L138	L142	L146	L150	L154	L158	L162	L166	L170	L174
U	DPS3F	DPS7F	L131	L135	L139	L143	L147	L151	L155	L159	L163	L167	L171	L175
V	DPS3G	DPS7G	L132	L136	L140	L144	L148	L152	L156	L160	L164	L168	L172	L176

Slot Column	70	71	72	73	74	75	76	77	78	79	80	81	82
A	io177	io181	io185	io189	HSO11	AFE3P	AFE4P	AFE3N	AFE4N	OP2210	OP2205	OP1207	OP2201
B	io177G	io181G	io185G	io189G	HSO11G	AFE3PG	AFE4PG	AFE3NG	AFE4NG	OP2210G	OP2205G	OP1207G	OP2201G
C	io178	io182	io186	io190	HSO12	HLFD7AP	HLFD7CP	HLFD3BP	HLFD3BN	OP2211	OP2206	OP1208	OP2202
D	io178G	io182G	io186G	io190G	HSO12G	HLFD7APG	HLFD7CPG	HLFD3BPG	HLFD3BNG	OP2211G	OP2206G	OP1208G	OP2202G
E	io179	io183	io187	io191	HSI11	HLFD7AN	HLFD7CN	HLFG7AP	HLFG7CP	OP2212	OP2207	HLFD3AP	HLFG3AP
F	io179G	io183G	io187G	io191G	HSI11G	HLFD7ANG	HLFD7CNG	HLFG7APG	HLFG7CPG	OP2212G	OP2207G	HLFD3APG	HLFG3APG
G	io180	io184	io188	io192	HSI12	HLFD7BP	HLFD7XP	HLFG7AN	HLFG7CN	OP2213	OP2208	HLFD3AN	HLFG3AN
H	io180G	io184G	io188G	io192G	HSI12G	HLFD7BPG	HLFD7XPG	HLFG7ANG	HLFG7CNG	OP2213G	OP2208G	HLFD3ANG	HLFG3ANG
I	io689	io693	io697	io701	MTX5	HLFD7BN	HLFD7XN	HLFG7BP	HLFG7XP	OP2214	OP2209	OP1209	OP2203
J	io689G	io693G	io697G	io701G	MTX5G	HLFD7BNG	HLFD7XNG	HLFG7BPG	HLFG7XPG	OP2214G	OP2209G	OP1209G	OP2203G
K	io690	io694	io698	io702	MTX6	-		HLFG7BN	HLFG7XN	OP2215	VOFF7	OP1210	OP2204
L	io690G	io694G	io698G	io702G	MTX6G	-		HLFG7BNG	HLFG7XNG	OP2215G	VOFF7G	OP1210G	OP2204G
M	io691	io695	io699	io703	MTX7	HLFG3BP		-	HLFDCKP	VRL3F	VRH3F	-	-
N	io691G	io695G	io699G	io703G	MTX7G	HLFG3BPG		-	HLFDCKPG	VRL3FG	VRH3FG	-	-
O	io692	io696	io700	io704	MTX8	HLFG3BN	EXCK3	-	HLFDCKN	VRL3S	VRH3S	IN2A	VL2A
P	io692G	io696G	io700G	io704G	MTX8G	HLFG3BNG	EXCK3G	-	HLFDCKNG	VRL3SG	VRH3SG	IN2AG	VL2AG
Q	CW22	-	CW23	CPS15	DPS11G	UDC3G	UDC4G		DPS15G	OP1213	VOFF3	IN2B	VL2B
R	0V	-	0V	UC11	DPS11GU	UDC3GU	UDC4GU		DPS15GU	OP1213G	VOFF3G	IN2BG	VL2BG
S	L177	L181	L185	L189	DPS11S	UDC3S	UDC4S		DPS15S	OP1214	OP1211	VH2A	-
T	L178	L182	L186	L190	DPS11F	UDC3F	UDC4F		DPS15F	OP1214G	OP1211G	VH2AG	-
U	L179	L183	L187	L191	DPS11F	UDC3F	UDC4F		DPS15F	OP1215	OP1212	VH2B	PBVEE
V	L180	L184	L188	L192	DPS11G	UDC3G	UDC4G		DPS15G	OP1215G	OP1212G	VH2BG	PBVEE

A8.1 Square Type Performance Board Signal Name Table

Slot Column	83	84	85	86	87	88	89	90	91	92	93	94	95	96
A	BBWD2AP	BBWD2CP	-	BBWG2CP	BBWG2AP	OP1201	-		io193	io197	io201	io205	io209	io213
B	BBWD2APG	BBWD2CPG	-	BBWG2CPG	BBWG2APG	OP1201G	-		io193G	io197G	io201G	io205G	io209G	io213G
C	BBWD2AN	BBWD2CN	HLFD3CP	BBWG2CN	BBWG2AN	OP1202	L193	L209	io194	io198	io202	io206	io210	io214
D	BBWD2ANG	BBWD2CNG	HLFD3CPG	BBWG2CNG	BBWG2ANG	OP1202G	L194	L210	io194G	io198G	io202G	io206G	io210G	io214G
E	BBWD2BP	BBWD2DP	HLFD3CN	BBWG2XP	BBWG2BP	HLFG3CP	L195	L211	io195	io199	io203	io207	io211	io215
F	BBWD2BPG	BBWD2DPG	HLFD3CNG	BBWG2XPG	BBWG2BPG	HLFG3CPG	L196	L212	io195G	io199G	io203G	io207G	io211G	io215G
G	BBWD2BN	BBWD2DN	HLFD3XP	BBWG2XN	BBWG2BN	HLFG3XP	L197	L213	io196	io200	io204	io208	io212	io216
H	BBWD2BNG	BBWD2DNG	HLFD3XPG	BBWG2XNG	BBWG2BNG	HLFG3XPG	L198	L214	io196G	io200G	io204G	io208G	io212G	io216G
I		BBWD2XP	HLFD3XN		HLFG3XN	HLFG3CN	L199	L215	io705	io709	io713	io717	io721	io725
J		BBWD2XPG	HLFD3XNG		HLFG3XNG	HLFG3CNG	L200	L216	io705G	io709G	io713G	io717G	io721G	io725G
K	OP1203	BBWD2XN			VIM2		L201	L217	io706	io710	io714	io718	io722	io726
L	OP1203G	BBWD2XNG			VIM2G		L202	L218	io706G	io710G	io714G	io718G	io722G	io726G
M	OP1204		DPS19G	DPS23G	VI2	DPS27G	L203	L219	io707	io711	io715	io719	io723	io727
N	OP1204G		DPS19GU	DPS23GU	VI2G	DPS27GU	L204	L220	io707G	io711G	io715G	io719G	io723G	io727G
O	OP1205	IP2A	DPS19S	DPS23S	VS2	DPS27S	L205	L221	io708	io712	io716	io720	io724	io728
P	OP1205G	IP2AG	DPS19F	DPS23F	VS2G	DPS27F	L206	L222	io708G	io712G	io716G	io720G	io724G	io728G
Q	OP1206	IP2B	DPS19F	DPS23F	VS2	DPS27F	L207	L223	CW24	-	CW25	CPS19	CW26	-
R	OP1206G	IP2BG	DPS19G	DPS23G	VS2G	DPS27G	L208	L224	0V	-	0V	UC12	0V	-

Slot Column	97	98	99	100	101	102	103	104	105	106	107	108	109	110
A	io217	io221	io225	io229	io233	io237	io241	io245	io249	io253		PBS	OP220A	HGND
B	io217G	io221G	io225G	io229G	io233G	io237G	io241G	io245G	io249G	io253G		AIRG4	OP220AG	0V
C	io218	io222	io226	io230	io234	io238	io242	io246	io250	io254	L225	L241	OP230A	
D	io218G	io222G	io226G	io230G	io234G	io238G	io242G	io246G	io250G	io254G	L226	L242	OP230AG	
E	io219	io223	io227	io231	io235	io239	io243	io247	io251	io255	L227	L243	OP220B	MASK
F	io219G	io223G	io227G	io231G	io235G	io239G	io243G	io247G	io251G	io255G	L228	L244	OP220BG	MASKG
G	io220	io224	io228	io232	io236	io240	io244	io248	io252	io256	L229	L245	OP230B	PBTYP0
H	io220G	io224G	io228G	io232G	io236G	io240G	io244G	io248G	io252G	io256G	L230	L246	OP230BG	PBTYP1
I	io729	io733	io737	io741	io745	io749	io753	io757	io761	io765	L231	L247	-	PBTYP2
J	io729G	io733G	io737G	io741G	io745G	io749G	io753G	io757G	io761G	io765G	L232	L248	-	PBTYP3
K	io730	io734	io738	io742	io746	io750	io754	io758	io762	io766	L233	L249		PBTYP4
L	io730G	io734G	io738G	io742G	io746G	io750G	io754G	io758G	io762G	io766G	L234	L250		PBTYP5
M	io731	io735	io739	io743	io747	io751	io755	io759	io763	io767	L235	L251	DPS31G	-
N	io731G	io735G	io739G	io743G	io747G	io751G	io755G	io759G	io763G	io767G	L236	L252	DPS31GU	-
O	io732	io736	io740	io744	io748	io752	io756	io760	io764	io768	L237	L253	DPS31S	PBRLVCC
P	io732G	io736G	io740G	io744G	io748G	io752G	io756G	io760G	io764G	io768G	L238	L254	DPS31F	PBRLVCC
Q	CW27	CPS23	CW28	-	CW29	CPS27	CW30	-	CW31	CPS31	L239	L255	DPS31F	PBRLVCC
R	0V	UC13	0V	-	0V	UC14	0V	-	0V	UC15	L240	L256	DPS31G	PBRLVCC

A8.1 Square Type Performance Board Signal Name Table

Slot Column	111	112	113	114	115	116	117	118	119	120	121	122	123	124
A	OP120A	UCM3		io257	io261	io265	io269	io273	io277	io281	io285	io289	io293	io297
B	OP120AG	UCM4		io257G	io261G	io265G	io269G	io273G	io277G	io281G	io285G	io289G	io293G	io297G
C	OP130A	L257	L273	io258	io262	io266	io270	io274	io278	io282	io286	io290	io294	io298
D	OP130AG	L258	L274	io258G	io262G	io266G	io270G	io274G	io278G	io282G	io286G	io290G	io294G	io298G
E	OP120B	L259	L275	io259	io263	io267	io271	io275	io279	io283	io287	io291	io295	io299
F	OP120BG	L260	L276	io259G	io263G	io267G	io271G	io275G	io279G	io283G	io287G	io291G	io295G	io299G
G	OP130B	L261	L277	io260	io264	io268	io272	io276	io280	io284	io288	io292	io296	io300
H	OP130BG	L262	L278	io260G	io264G	io268G	io272G	io276G	io280G	io284G	io288G	io292G	io296G	io300G
I	-	L263	L279	io769	io773	io777	io781	io785	io789	io793	io797	io801	io805	io809
J	-	L264	L280	io769G	io773G	io777G	io781G	io785G	io789G	io793G	io797G	io801G	io805G	io809G
K		L265	L281	io770	io774	io778	io782	io786	io790	io794	io798	io802	io806	io810
L		L266	L282	io770G	io774G	io778G	io782G	io786G	io790G	io794G	io798G	io802G	io806G	io810G
M	DPS32G	L267	L283	io771	io775	io779	io783	io787	io791	io795	io799	io803	io807	io811
N	DPS32GU	L268	L284	io771G	io775G	io779G	io783G	io787G	io791G	io795G	io799G	io803G	io807G	io811G
O	DPS32S	L269	L285	io772	io776	io780	io784	io788	io792	io796	io800	io804	io808	io812
P	DPS32F	L270	L286	io772G	io776G	io780G	io784G	io788G	io792G	io796G	io800G	io804G	io808G	io812G
Q	DPS32F	L271	L287	CW32	-	CW33	CPS32	CW34	-	CW35	CPS28	CW36	-	CW37
R	DPS32G	L272	L288	0V	-	0V	UC16	0V	-	0V	UC17	0V	-	0V

Slot Column	125	126	127	128	129	130	131	132	133	134	135	136	137
A	io301	io305	io309	io313	io317		-	OP1301	BBWG3AP	BBWG3CP	-	BBWD3CP	BBWD3AP
B	io301G	io305G	io309G	io313G	io317G		-	OP1301G	BBWG3APG	BBWG3CPG	-	BBWD3CPG	BBWD3APG
C	io302	io306	io310	io314	io318	L289	L305	OP1302	BBWG3AN	BBWG3CN	HLFD2CP	BBWD3CN	BBWD3AN
D	io302G	io306G	io310G	io314G	io318G	L290	L306	OP1302G	BBWG3ANG	BBWG3CNG	HLFD2CPG	BBWD3CNG	BBWD3ANG
E	io303	io307	io311	io315	io319	L291	L307	HLFG2CP	BBWG3BP	BBWG3XP	HLFD2CN	BBWD3DP	BBWD3BP
F	io303G	io307G	io311G	io315G	io319G	L292	L308	HLFG2CPG	BBWG3BPG	BBWG3XPG	HLFD2CNG	BBWD3DPG	BBWD3BPG
G	io304	io308	io312	io316	io320	L293	L309	HLFG2XP	BBWG3BN	BBWG3XN	HLFD2XP	BBWD3DN	BBWD3BN
H	io304G	io308G	io312G	io316G	io320G	L294	L310	HLFG2XPG	BBWG3BNG	BBWG3XNG	HLFD2XPG	BBWD3DNG	BBWD3BNG
I	io813	io817	io821	io825	io829	L295	L311	HLFG2CN	HLFG2XN		HLFD2XN	BBWD3XP	
J	io813G	io817G	io821G	io825G	io829G	L296	L312	HLFG2CNG	HLFG2XNG		HLFD2XNG	BBWD3XPG	
K	io814	io818	io822	io826	io830	L297	L313		VIM3			BBWD3XN	OP1303
L	io814G	io818G	io822G	io826G	io830G	L298	L314		VIM3G			BBWD3XNG	OP1303G
M	io815	io819	io823	io827	io831	L299	L315	DPS28G	VI3	DPS24G	DPS20G		OP1304
N	io815G	io819G	io823G	io827G	io831G	L300	L316	DPS28GU	VI3G	DPS24GU	DPS20GU		OP1304G
O	io816	io820	io824	io828	io832	L301	L317	DPS28S	VS3B	DPS24S	DPS20S	IP3A	OP1305
P	io816G	io820G	io824G	io828G	io832G	L302	L318	DPS28F	VS3BG	DPS24F	DPS20F	IP3AG	OP1305G
Q	CPS24	CW38	-	CW39	CPS20	L303	L319	DPS28F	VS3B	DPS24F	DPS20F	IP3B	OP1306
R	UC18	0V	-	0V	UC19	L304	L320	DPS28G	VS3BG	DPS24G	DPS20G	IP3BG	OP1306G

A8.1 Square Type Performance Board Signal Name Table

Slot Column	138	139	140	141	142	143	144	145	146	147	148	149	150	151
A	OP2301	OP1307	OP2305	OP2310	AFE6N	AFE5N	AFE6P	AFE5P	HSO5	io321	io325	io329	io333	io337
B	OP2301G	OP1307G	OP2305G	OP2310G	AFE6NG	AFE5NG	AFE6PG	AFE5PG	HSO5G	io321G	io325G	io329G	io333G	io337G
C	OP2302	OP1308	OP2306	OP2311	HLFD2BP	HLFD2BN	HLFD6CP	HLFD6AP	HSO6	io322	io326	io330	io334	io338
D	OP2302G	OP1308G	OP2306G	OP2311G	HLFD2BPG	HLFD2BNG	HLFD6CPG	HLFD6APG	HSO6G	io322G	io326G	io330G	io334G	io338G
E	HLFG2AP	HLFD2AP	OP2307	OP2312	HLFG6CP	HLFG6AP	HLFD6CN	HLFD6AN	HSI5	io323	io327	io331	io335	io339
F	HLFG2APG	HLFD2APG	OP2307G	OP2312G	HLFG6CPG	HLFG6APG	HLFD6CNG	HLFD6ANG	HSI5G	io323G	io327G	io331G	io335G	io339G
G	HLFG2AN	HLFD2AN	OP2308	OP2313	HLFG6CN	HLFG6AN	HLFD6XP	HLFD6BP	HSI6	io324	io328	io332	io336	io340
H	HLFG2ANG	HLFD2ANG	OP2308G	OP2313G	HLFG6CNG	HLFG6ANG	HLFD6XPG	HLFD6BPG	HSI6G	io324G	io328G	io332G	io336G	io340G
I	OP2303	OP1309	OP2309	OP2314	HLFG6XP	HLFG6BP	HLFD6XN	HLFD6BN	MTX9	io833	io837	io841	io845	io849
J	OP2303G	OP1309G	OP2309G	OP2314G	HLFG6XPG	HLFG6BPG	HLFD6XNG	HLFD6BNG	MTX9G	io833G	io837G	io841G	io845G	io849G
K	OP2304	OP1310	VOFF6	OP2315	HLFG6XN	HLFG6BN		-	MTX10	io834	io838	io842	io846	io850
L	OP2304G	OP1310G	VOFF6G	OP2315G	HLFG6XNG	HLFG6BNG		-	MTX10G	io834G	io838G	io842G	io846G	io850G
M	-	-	VRH2F	VRL2F	HLFGCKP			HLFG2BP	MTX11	io835	io839	io843	io847	io851
N	-	-	VRH2FG	VRL2FG	HLFGCKPG			HLFG2BPG	MTX11G	io835G	io839G	io843G	io847G	io851G
O	VL3A	IN3A	VRH2S	VRL2S	HLFGCKN		EXCK2	HLFG2BN	MTX12	io836	io840	io844	io848	io852
P	VL3AG	IN3AG	VRH2SG	VRL2SG	HLFGCKNG		EXCK2G	HLFG2BNG	MTX12G	io836G	io840G	io844G	io848G	io852G
Q	VL3B	IN3B	VOFF2	OP1313	DPS16G		UDC5G	UDC6G	DPS12G	CW40	-	CW41	CPS16	CW42
R	VL3BG	IN3BG	VOFF2G	OP1313G	DPS16GU		UDC5GU	UDC6GU	DPS12GU	0V	-	0V	UC20	0V
S	-	VH3A	OP1311	OP1314	DPS16S		UDC5S	UDC6S	DPS12S	L321	L325	L329	L333	L337
T	-	VH3AG	OP1311G	OP1314G	DPS16F		UDC5F	UDC6F	DPS12F	L322	L326	L330	L334	L338
U	PBVCC	VH3B	OP1312	OP1315	DPS16F		UDC5F	UDC6F	DPS12F	L323	L327	L331	L335	L339
V	PBVCC	VH3BG	OP1312G	OP1315G	DPS16G		UDC5G	UDC6G	DPS12G	L324	L328	L332	L336	L340

Slot Column	152	153	154	155	156	157	158	159	160	161	162	163	164	165
A	io341	io345	io349	io353	io357	io361	io365	io369	io373	io377	io381	HSO13	VOS3S	-
B	io341G	io345G	io349G	io353G	io357G	io361G	io365G	io369G	io373G	io377G	io381G	HSO13G	VOS3SG	-
C	io342	io346	io350	io354	io358	io362	io366	io370	io374	io378	io382	HSO14	VOS3F	-
D	io342G	io346G	io350G	io354G	io358G	io362G	io366G	io370G	io374G	io378G	io382G	HSO14G	VOS3FG	-
E	io343	io347	io351	io355	io359	io363	io367	io371	io375	io379	io383	HSI13	VIMA3	-
F	io343G	io347G	io351G	io355G	io359G	io363G	io367G	io371G	io375G	io379G	io383G	HSI13G	VIMA3G	-
G	io344	io348	io352	io356	io360	io364	io368	io372	io376	io380	io384	HSI14	VIMB3	-
H	io344G	io348G	io352G	io356G	io360G	io364G	io368G	io372G	io376G	io380G	io384G	HSI14G	VIMB3G	-
I	io853	io857	io861	io865	io869	io873	io877	io881	io885	io889	io893			
J	io853G	io857G	io861G	io865G	io869G	io873G	io877G	io881G	io885G	io889G	io893G			
K	io854	io858	io862	io866	io870	io874	io878	io882	io886	io890	io894			DCT1
L	io854G	io858G	io862G	io866G	io870G	io874G	io878G	io882G	io886G	io890G	io894G			DCT2
M	io855	io859	io863	io867	io871	io875	io879	io883	io887	io891	io895			DCT3
N	io855G	io859G	io863G	io867G	io871G	io875G	io879G	io883G	io887G	io891G	io895G			DCT4
O	io856	io860	io864	io868	io872	io876	io880	io884	io888	io892	io896			DCT5
P	io856G	io860G	io864G	io868G	io872G	io876G	io880G	io884G	io888G	io892G	io896G			DCT6
Q	-	CW43	CPS12	CW44	-	CW45	CPS8	CW46	-	CW47	CPS4	DPS8G	DPS4G	DCT7
R	-	0V	UC21	0V	-	0V	UC22	0V	-	0V	UC23	DPS8GU	DPS4GU	DCT8
S	L341	L345	L349	L353	L357	L361	L365	L369	L373	L377	L381	DPS8S	DPS4S	-
T	L342	L346	L350	L354	L358	L362	L366	L370	L374	L378	L382	DPS8F	DPS4F	-
U	L343	L347	L351	L355	L359	L363	L367	L371	L375	L379	L383	DPS8F	DPS4F	PBM15V
V	L344	L348	L352	L356	L360	L364	L368	L372	L376	L380	L384	DPS8G	DPS4G	PBM15V

A8.1 Square Type Performance Board Signal Name Table

Slot Column	166	167	168	169	170	171	172	173	174	175	176	177	178	179
A	VOS4S	HSO15	io385	io389	io393	io397	io401	io405	io409	io413	io417	io421	io425	io429
B	VOS4SG	HSO15G	io385G	io389G	io393G	io397G	io401G	io405G	io409G	io413G	io417G	io421G	io425G	io429G
C	VOS4F	HSO16	io386	io390	io394	io398	io402	io406	io410	io414	io418	io422	io426	io430
D	VOS4FG	HSO16G	io386G	io390G	io394G	io398G	io402G	io406G	io410G	io414G	io418G	io422G	io426G	io430G
E	VIMA4	HSI15	io387	io391	io395	io399	io403	io407	io411	io415	io419	io423	io427	io431
F	VIMA4G	HSI15G	io387G	io391G	io395G	io399G	io403G	io407G	io411G	io415G	io419G	io423G	io427G	io431G
G	VIMB4	HSI16	io388	io392	io396	io400	io404	io408	io412	io416	io420	io424	io428	io432
H	VIMB4G	HSI16G	io388G	io392G	io396G	io400G	io404G	io408G	io412G	io416G	io420G	io424G	io428G	io432G
I			io897	io901	io905	io909	io913	io917	io921	io925	io929	io933	io937	io941
J			io897G	io901G	io905G	io909G	io913G	io917G	io921G	io925G	io929G	io933G	io937G	io941G
K			io898	io902	io906	io910	io914	io918	io922	io926	io930	io934	io938	io942
L			io898G	io902G	io906G	io910G	io914G	io918G	io922G	io926G	io930G	io934G	io938G	io942G
M			io899	io903	io907	io911	io915	io919	io923	io927	io931	io935	io939	io943
N			io899G	io903G	io907G	io911G	io915G	io919G	io923G	io927G	io931G	io935G	io939G	io943G
O			io900	io904	io908	io912	io916	io920	io924	io928	io932	io936	io940	io944
P			io900G	io904G	io908G	io912G	io916G	io920G	io924G	io928G	io932G	io936G	io940G	io944G
Q	DPS2G	DPS6G	CW48	-	CW49	CPS2	CW50	-	CW51	CPS6	CW52	-	CW53	CPS10
R	DPS2GU	DPS6GU	0V	-	0V	UC24	0V	-	0V	UC25	0V	-	0V	UC26
S	DPS2S	DPS6S	L385	L389	L393	L397	L401	L405	L409	L413	L417	L421	L425	L429
T	DPS2F	DPS6F	L386	L390	L394	L398	L402	L406	L410	L414	L418	L422	L426	L430
U	DPS2F	DPS6F	L387	L391	L395	L399	L403	L407	L411	L415	L419	L423	L427	L431
V	DPS2G	DPS6G	L388	L392	L396	L400	L404	L408	L412	L416	L420	L424	L428	L432

Slot Column	180	181	182	183	184	185	186	187	188	189	190	191	192
A	io433	io437	io441	io445	HSO7	AFE7P	AFE8P	AFE7N	AFE8N	OP2410	OP2405	OP1407	OP2401
B	io433G	io437G	io441G	io445G	HSO7G	AFE7PG	AFE8PG	AFE7NG	AFE8NG	OP2410G	OP2405G	OP1407G	OP2401G
C	io434	io438	io442	io446	HSO8	HLFD8AP	HLFD8CP	HLFD4BP	HLFD4BN	OP2411	OP2406	OP1408	OP2402
D	io434G	io438G	io442G	io446G	HSO8G	HLFD8APG	HLFD8CPG	HLFD4BPG	HLFD4BNG	OP2411G	OP2406G	OP1408G	OP2402G
E	io435	io439	io443	io447	HSI7	HLFD8AN	HLFD8CN	HLFG8AP	HLFG8CP	OP2412	OP2407	HLFD4AP	HLFG4AP
F	io435G	io439G	io443G	io447G	HSI7G	HLFD8ANG	HLFD8CNG	HLFG8APG	HLFG8CPG	OP2412G	OP2407G	HLFD4APG	HLFG4APG
G	io436	io440	io444	io448	HSI8	HLFD8BP	HLFD8XP	HLFG8AN	HLFG8CN	OP2413	OP2408	HLFD4AN	HLFG4AN
H	io436G	io440G	io444G	io448G	HSI8G	HLFD8BPG	HLFD8XPG	HLFG8ANG	HLFG8CNG	OP2413G	OP2408G	HLFD4ANG	HLFG4ANG
I	io945	io949	io953	io957	MTX13	HLFD8BN	HLFD8XN	HLFG8BP	HLFG8XP	OP2414	OP2409	OP1409	OP2403
J	io945G	io949G	io953G	io957G	MTX13G	HLFD8BNG	HLFD8XNG	HLFG8BPG	HLFG8XPG	OP2414G	OP2409G	OP1409G	OP2403G
K	io946	io950	io954	io958	MTX14	-		HLFG8BN	HLFG8XN	OP2415	VOFF8	OP1410	OP2404
L	io946G	io950G	io954G	io958G	MTX14G	-		HLFG8BNG	HLFG8XNG	OP2415G	VOFF8G	OP1410G	OP2404G
M	io947	io951	io955	io959	MTX15	HLFG4BP	-		-	VRL4F	VRH4F	-	-
N	io947G	io951G	io955G	io959G	MTX15G	HLFG4BPG	-		-	VRL4FG	VRH4FG	-	-
O	io948	io952	io956	io960	MTX16	HLFG4BN	EXCK4	-	-	VRL4S	VRH4S	IN4A	VL4A
P	io948G	io952G	io956G	io960G	MTX16G	HLFG4BNG	EXCK4G	-	-	VRL4SG	VRH4SG	IN4AG	VL4AG
Q	CW54	-	CW55	CPS14	DPS10G	UDC7G	UDC8G	-	DPS14G	OP1413	VOFF4	IN4B	VL4B
R	0V	-	0V	UC27	DPS10GU	UDC7GU	UDC8GU	-	DPS14GU	OP1413G	VOFF4G	IN4BG	VL4BG
S	L433	L437	L441	L445	DPS10S	UDC7S	UDC8S	-	DPS14S	OP1414	OP1411	VH4A	-
T	L434	L438	L442	L446	DPS10F	UDC7F	UDC8F	-	DPS14F	OP1414G	OP1411G	VH4AG	-
U	L435	L439	L443	L447	DPS10F	UDC7F	UDC8F	-	DPS14F	OP1415	OP1412	VH4B	PBVEE
V	L436	L440	L444	L448	DPS10G	UDC7G	UDC8G	-	DPS14G	OP1415G	OP1412G	VH4BG	PBVEE

A8.1 Square Type Performance Board Signal Name Table

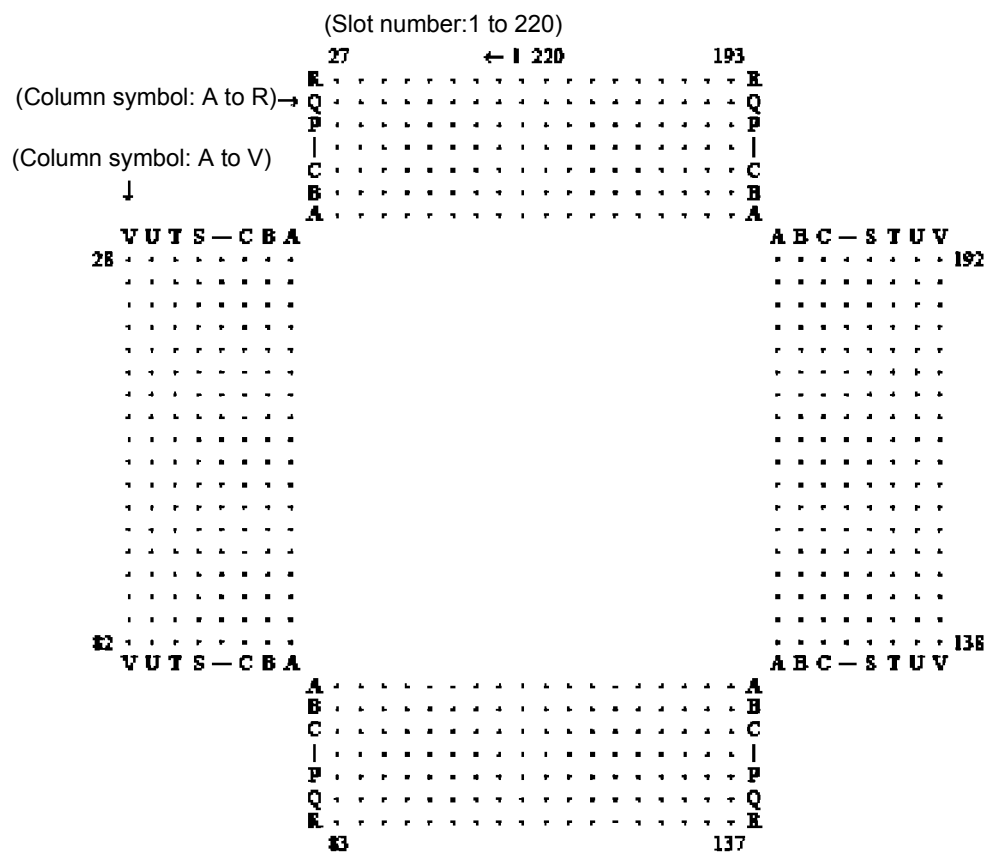
Slot Column	193	194	195	196	197	198	199	200	201	202	203	204	205	206
A	BBWD4AP	BBWD4CP	-	BBWG4CP	BBWG4AP	OP1401	-		io449	io453	io457	io461	io465	io469
B	BBWD4APG	BBWD4CPG	-	BBWG4CPG	BBWG4APG	OP1401G	-		io449G	io453G	io457G	io461G	io465G	io469G
C	BBWD4AN	BBWD4CN	HLFD4CP	BBWG4CN	BBWG4AN	OP1402	L449	L465	io450	io454	io458	io462	io466	io470
D	BBWD4ANG	BBWD4CNG	HLFD4CPG	BBWG4CNG	BBWG4ANG	OP1402G	L450	L466	io450G	io454G	io458G	io462G	io466G	io470G
E	BBWD4BP	BBWD4DP	HLFD4CN	BBWG4XP	BBWG4BP	HLFG4CP	L451	L467	io451	io455	io459	io463	io467	io471
F	BBWD4BPG	BBWD4DPG	HLFD4CNG	BBWG4XPG	BBWG4BPG	HLFG4CPG	L452	L468	io451G	io455G	io459G	io463G	io467G	io471G
G	BBWD4BN	BBWD4DN	HLFD4XP	BBWG4XN	BBWG4BN	HLFG4XP	L453	L469	io452	io456	io460	io464	io468	io472
H	BBWD4BNG	BBWD4DNG	HLFD4XPG	BBWG4XNG	BBWG4BNG	HLFG4XPG	L454	L470	io452G	io456G	io460G	io464G	io468G	io472G
I		BBWD4XP	HLFD4XN		HLFG4XN	HLFG4CN	L455	L471	io961	io965	io969	io973	io977	io981
J		BBWD4XPG	HLFD4XNG		HLFG4XNG	HLFG4CNG	L456	L472	io961G	io965G	io969G	io973G	io977G	io981G
K	OP1403	BBWD4XN			VIM4		L457	L473	io962	io966	io970	io974	io978	io982
L	OP1403G	BBWD4XNG			VIM4G		L458	L474	io962G	io966G	io970G	io974G	io978G	io982G
M	OP1404		DPS18G	DPS22G	VI4	DPS26G	L459	L475	io963	io967	io971	io975	io979	io983
N	OP1404G		DPS18GU	DPS22GU	VI4G	DPS26GU	L460	L476	io963G	io967G	io971G	io975G	io979G	io983G
O	OP1405	IP4A	DPS18S	DPS22S	VS4	DPS26S	L461	L477	io964	io968	io972	io976	io980	io984
P	OP1405G	IP4AG	DPS18F	DPS22F	VS4G	DPS26F	L462	L478	io964G	io968G	io972G	io976G	io980G	io984G
Q	OP1406	IP4B	DPS18F	DPS22F	VS4	DPS26F	L463	L479	CW56	-	CW57	CPS18	CW58	-
R	OP1406G	IP4BG	DPS18G	DPS22G	VS4G	DPS26G	L464	L480	0V	-	0V	UC28	0V	-

Slot Column	207	208	209	210	211	212	213	214	215	216	217	218	219	220
A	io473	io477	io481	io485	io489	io493	io497	io501	io505	io509			OP110A	-
B	io473G	io477G	io481G	io485G	io489G	io493G	io497G	io501G	io505G	io509G			OP110AG	-
C	io474	io478	io482	io486	io490	io494	io498	io502	io506	io510	L481	L497	OP140A	-
D	io474G	io478G	io482G	io486G	io490G	io494G	io498G	io502G	io506G	io510G	L482	L498	OP140AG	-
E	io475	io479	io483	io487	io491	io495	io499	io503	io507	io511	L483	L499	OP110B	-
F	io475G	io479G	io483G	io487G	io491G	io495G	io499G	io503G	io507G	io511G	L484	L500	OP110BG	-
G	io476	io480	io484	io488	io492	io496	io500	io504	io508	io512	L485	L501	OP140B	-
H	io476G	io480G	io484G	io488G	io492G	io496G	io500G	io504G	io508G	io512G	L486	L502	OP140BG	-
I	io985	io989	io993	io997	io1001	io1005	io1009	io1013	io1017	io1021	L487	L503	-	CLD1
J	io985G	io989G	io993G	io997G	io1001G	io1005G	io1009G	io1013G	io1017G	io1021G	L488	L504	-	CLD2
K	io986	io990	io994	io998	io1002	io1006	io1010	io1014	io1018	io1022	L489	L505		CLD3
L	io986G	io990G	io994G	io998G	io1002G	io1006G	io1010G	io1014G	io1018G	io1022G	L490	L506		
M	io987	io991	io995	io999	io1003	io1007	io1011	io1015	io1019	io1023	L491	L507	DPS30G	-
N	io987G	io991G	io995G	io999G	io1003G	io1007G	io1011G	io1015G	io1019G	io1023G	L492	L508	DPS30GU	-
O	io988	io992	io996	io1000	io1004	io1008	io1012	io1016	io1020	io1024	L493	L509	DPS30S	PBRLVCC
P	io988G	io992G	io996G	io1000G	io1004G	io1008G	io1012G	io1016G	io1020G	io1024G	L494	L510	DPS30F	PBRLVCC
Q	CW59	CPS22	CW60	-	CW61	CPS26	CW62	-	CW63	CPS30	L495	L511	DPS30F	PBRLVCC
R	0V	UC29	0V	-	0V	UC30	0V	-	0V	UC31	L496	L512	DPS30G	PBRLVCC

Appendix9. Square AP Type Performance Board Signal Layout

Upper and lower: 18 columns × 55 slots
 Right and left: 22 columns × 55 slots
 Total: 4,400 signals

Slot spacing: 4 mm
 Column and row spacing (A to B): 3 mm
 Gold pad: $\phi 2.5$



A9.1 Square AP Type Performance Board Signal Name Table

A9.1 Square AP Type Performance Board Signal Name Table

Slot Column	1	2	3	4	5	6	7	8	9	10	11	12	13	14
A	OP210A	UCM1		io1	io5	io65	io69	io129	io133	io193	io197	io257	io261	io321
B	OP210AG	UCM2		io1G	io5G	io65G	io69G	io129G	io133G	io193G	io197G	io257G	io261G	io321G
C	OP240A	L1	L129	io2	io6	io66	io70	io130	io134	io194	io198	io258	io262	io322
D	OP240AG	L2	L130	io2G	io6G	io66G	io70G	io130G	io134G	io194G	io198G	io258G	io262G	io322G
E	OP210B	L3	L131	io3	io7	io67	io71	io131	io135	io195	io199	io259	io263	io323
F	OP210BG	L4	L132	io3G	io7G	io67G	io71G	io131G	io135G	io195G	io199G	io259G	io263G	io323G
G	OP240B	L5	L133	io4	io8	io68	io72	io132	io136	io196	io200	io260	io264	io324
H	OP240BG	L6	L134	io4G	io8G	io68G	io72G	io132G	io136G	io196G	io200G	io260G	io264G	io324G
I	-	L7	L135	io513	io517	io577	io581	io641	io645	io705	io709	io769	io773	io833
J	-	L8	L136	io513G	io517G	io577G	io581G	io641G	io645G	io705G	io709G	io769G	io773G	io833G
K		L65	L193	io514	io518	io578	io582	io642	io646	io706	io710	io770	io774	io834
L		L66	L194	io514G	io518G	io578G	io582G	io642G	io646G	io706G	io710G	io770G	io774G	io834G
M	DPS29G	L67	L195	io515	io519	io579	io583	io643	io647	io707	io711	io771	io775	io835
N	DPS29GU	L68	L196	io515G	io519G	io579G	io583G	io643G	io647G	io707G	io711G	io771G	io775G	io835G
O	DPS29S	L69	L197	io516	io520	io580	io584	io644	io648	io708	io712	io772	io776	io836
P	DPS29F	L70	L198	io516G	io520G	io580G	io584G	io644G	io648G	io708G	io712G	io772G	io776G	io836G
Q	DPS29F	L71	L199	CW0	-	CW1	CPS29	CW2	-	CW3	CPS25	CW4	-	CW5
R	DPS29G	L72	L200	0V	-	0V	UC0	0V	-	0V	UC1	0V	-	0V

Slot Column	15	16	17	18	19	20	21	22	23	24	25	26	27
A	io325	io385	io389	io449	io453		-	OP1101	BBWG1AP	BBWG1CP	-	BBWD1CP	BBWD1AP
B	io325G	io385G	io389G	io449G	io453G		-	OP1101G	BBWG1APG	BBWG1CPG	-	BBWD1CPG	BBWD1APG
C	io326	io386	io390	io450	io454	L257	L385	OP1102	BBWG1AN	BBWG1CN	HLFD1CP	BBWD1CN	BBWD1AN
D	io326G	io386G	io390G	io450G	io454G	L258	L386	OP1102G	BBWG1ANG	BBWG1CNG	HLFD1CPG	BBWD1CNG	BBWD1ANG
E	io327	io387	io391	io451	io455	L259	L387	HLFG1CP	BBWG1BP	BBWG1XP	HLFD1CN	BBWD1DP	BBWD1BP
F	io327G	io387G	io391G	io451G	io455G	L260	L388	HLFG1CPG	BBWG1BPG	BBWG1XPG	HLFD1CNG	BBWD1DPG	BBWD1BPG
G	io328	io388	io392	io452	io456	L261	L389	HLFG1XP	BBWG1BN	BBWG1XN	HLFD1XP	BBWD1DN	BBWD1BN
H	io328G	io388G	io392G	io452G	io456G	L262	L390	HLFG1XPG	BBWG1BNG	BBWG1XNG	HLFD1XPG	BBWD1DNG	BBWD1BNG
I	io837	io897	io901	io961	io965	L263	L391	HLFG1CN	HLFG1XN		HLFD1XN	BBWD1XP	
J	io837G	io897G	io901G	io961G	io965G	L264	L392	HLFG1CNG	HLFG1XNG		HLFD1XNG	BBWD1XPG	
K	io838	io898	io902	io962	io966	L321	L449		VIM1			BBWD1XN	OP1103
L	io838G	io898G	io902G	io962G	io966G	L322	L450		VIM1G			BBWD1XNG	OP1103G
M	io839	io899	io903	io963	io967	L323	L451	DPS25G	VI1	DPS21G	DPS17G		OP1104
N	io839G	io899G	io903G	io963G	io967G	L324	L452	DPS25GU	VI1G	DPS21GU	DPS17GU		OP1104G
O	io840	io900	io904	io964	io968	L325	L453	DPS25S	VSB1	DPS21S	DPS17S	IP1A	OP1105
P	io840G	io900G	io904G	io964G	io968G	L326	L454	DPS25F	VSB1G	DPS21F	DPS17F	IP1AG	OP1105G
Q	CPS21	CW6	-	CW7	CPS17	L327	L455	DPS25F	VSB1	DPS21F	DPS17F	IP1B	OP1106
R	UC2	0V	-	0V	UC3	L328	L456	DPS25G	VSB1G	DPS21G	DPS17G	IP1BG	OP1106G

A9.1 Square AP Type Performance Board Signal Name Table

Slot Column	28	29	30	31	32	33	34	35	36	37	38	39	40	41
A	OP2101	OP1107	OP2105	OP2110	AFE2N	AFE1N	AFE2P	AFE1P	HSO9	io9	io73	io10	io74	io11
B	OP2101G	OP1107G	OP2105G	OP2110G	AFE2NG	AFE1NG	AFE2PG	AFE1PG	HSO9G	io9G	io73G	io10G	io74G	io11G
C	OP2102	OP1108	OP2106	OP2111	HLFD1BP	HLFD1BN	HLFD5CP	HLFD5AP	HSO10	io137	io201	io138	io202	io139
D	OP2102G	OP1108G	OP2106G	OP2111G	HLFD1BPG	HLFD1BNG	HLFD5CPG	HLFD5APG	HSO10G	io137G	io201G	io138G	io202G	io139G
E	HLFG1AP	HLFD1AP	OP2107	OP2112	HLFG5CP	HLFG5AP	HLFD5CN	HLFD5AN	HSI9	io265	io329	io266	io330	io267
F	HLFG1APG	HLFD1APG	OP2107G	OP2112G	HLFG5CPG	HLFG5APG	HLFD5CNG	HLFD5ANG	HSI9G	io265G	io329G	io266G	io330G	io267G
G	HLFG1AN	HLFD1AN	OP2108	OP2113	HLFG5CN	HLFG5AN	HLFD5XP	HLFD5BP	HSI10	io393	io457	io394	io458	io395
H	HLFG1ANG	HLFD1ANG	OP2108G	OP2113G	HLFG5CNG	HLFG5ANG	HLFD5XPG	HLFD5BPG	HSI10G	io393G	io457G	io394G	io458G	io395G
I	OP2103	OP1109	OP2109	OP2114	HLFG5XP	HLFG5BP	HLFD5XN	HLFD5BN	MTX1	io521	io585	io522	io586	io523
J	OP2103G	OP1109G	OP2109G	OP2114G	HLFG5XPG	HLFG5BPG	HLFD5XNG	HLFD5BNG	MTX1G	io521G	io585G	io522G	io586G	io523G
K	OP2104	OP1110	VOFF5	OP2115	HLFG5XN	HLFG5BN	-	-	MTX2	io649	io713	io650	io714	io651
L	OP2104G	OP1110G	VOFF5G	OP2115G	HLFG5XNG	HLFG5BNG	-	-	MTX2G	io649G	io713G	io650G	io714G	io651G
M	-	-	VRH1F	VRL1F	-	PSRRIP	-	HLFG1BP	MTX3	io777	io841	io778	io842	io779
N	-	-	VRH1FG	VRL1FG	-	PSRRIPG	-	HLFG1BPG	MTX3G	io777G	io841G	io778G	io842G	io779G
O	VL1A	IN1A	VRH1S	VRL1S	-	PSRRIN	EXCK1	HLFG1BN	MTX4	io905	io969	io906	io970	io907
P	VL1AG	IN1AG	VRH1SG	VRL1SG	-	PSRRING	EXCK1G	HLFG1BNG	MTX4G	io905G	io969G	io906G	io970G	io907G
Q	VL1B	IN1B	VOFF1	OP1113	DPS13G	-	UDC1G	UDC2G	DPS9G	CW8	-	CW9	CPS13	CW10
R	VL1BG	IN1BG	VOFF1G	OP1113G	DPS13GU	-	UDC1GU	UDC2GU	DPS9GU	0V	-	0V	UC4	0V
S	-	VH1A	OP1111	OP1114	DPS13S	-	UDC1S	UDC2S	DPS9S	L9	L73	L10	L74	L11
T	-	VH1AG	OP1111G	OP1114G	DPS13F	-	UDC1F	UDC2F	DPS9F	L137	L201	L138	L202	L139
U	PBVCC	VH1B	OP1112	OP1115	DPS13F	-	UDC1F	UDC2F	DPS9F	L265	L329	L266	L330	L267
V	PBVCC	VH1BG	OP1112G	OP1115G	DPS13G	-	UDC1G	UDC2G	DPS9G	L393	L457	L394	L458	L395

Slot Column	42	43	44	45	46	47	48	49	50	51	52	53	54	55
A	io75	io12	io76	io13	io77	io14	io78	io15	io79	io16	io80	HSO1	VOS1S	
B	io75G	io12G	io76G	io13G	io77G	io14G	io78G	io15G	io79G	io16G	io80G	HSO1G	VOS1SG	
C	io203	io140	io204	io141	io205	io142	io206	io143	io207	io144	io208	HSO2	VOS1F	
D	io203G	io140G	io204G	io141G	io205G	io142G	io206G	io143G	io207G	io144G	io208G	HSO2G	VOS1FG	
E	io331	io268	io332	io269	io333	io270	io334	io271	io335	io272	io336	HSI1	VIMA1	-
F	io331G	io268G	io332G	io269G	io333G	io270G	io334G	io271G	io335G	io272G	io336G	HSI1G	VIMA1G	-
G	io459	io396	io460	io397	io461	io398	io462	io399	io463	io400	io464	HSI2	VIMB1	
H	io459G	io396G	io460G	io397G	io461G	io398G	io462G	io399G	io463G	io400G	io464G	HSI2G	VIMB1G	
I	io587	io524	io588	io525	io589	io526	io590	io527	io591	io528	io592			PFB0
J	io587G	io524G	io588G	io525G	io589G	io526G	io590G	io527G	io591G	io528G	io592G			PFB1
K	io715	io652	io716	io653	io717	io654	io718	io655	io719	io656	io720			PFB2
L	io715G	io652G	io716G	io653G	io717G	io654G	io718G	io655G	io719G	io656G	io720G			PFB3
M	io843	io780	io844	io781	io845	io782	io846	io783	io847	io784	io848			PFB4
N	io843G	io780G	io844G	io781G	io845G	io782G	io846G	io783G	io847G	io784G	io848G			PFB5
O	io971	io908	io972	io909	io973	io910	io974	io911	io975	io912	io976			PFB6
P	io971G	io908G	io972G	io909G	io973G	io910G	io974G	io911G	io975G	io912G	io976G			PFB7
Q	-	CW11	CPS9	CW12	-	CW13	CPS5	CW14	-	CW15	CPS1	DPS5G	DPS1G	
R	-	0V	UC5	0V	-	0V	UC6	0V	-	0V	UC7	DPS5GU	DPS1GU	
S	L75	L12	L76	L13	L77	L14	L78	L15	L79	L16	L80	DPS5S	DPS1S	-
T	L203	L140	L204	L141	L205	L142	L206	L143	L207	L144	L208	DPS5F	DPS1F	-
U	L331	L268	L332	L269	L333	L270	L334	L271	L335	L272	L336	DPS5F	DPS1F	PBP15V
V	L459	L396	L460	L397	L461	L398	L462	L399	L463	L400	L464	DPS5G	DPS1G	PBP15V

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A9.1 Square AP Type Performance Board Signal Name Table

Slot Column	56	57	58	59	60	61	62	63	64	65	66	67	68	69
A	VOS2S	HSO3	io17	io81	io18	io82	io19	io83	io20	io84	io21	io85	io22	io86
B	VOS2SG	HSO3G	io17G	io81G	io18G	io82G	io19G	io83G	io20G	io84G	io21G	io85G	io22G	io86G
C	VOS2F	HSO4	io145	io209	io146	io210	io147	io211	io148	io212	io149	io213	io150	io214
D	VOS2FG	HSO4G	io145G	io209G	io146G	io210G	io147G	io211G	io148G	io212G	io149G	io213G	io150G	io214G
E	VIMA2	HSI3	io273	io337	io274	io338	io275	io339	io276	io340	io277	io341	io278	io342
F	VIMA2G	HSI3G	io273G	io337G	io274G	io338G	io275G	io339G	io276G	io340G	io277G	io341G	io278G	io342G
G	VIMB2	HSI4	io401	io465	io402	io466	io403	io467	io404	io468	io405	io469	io406	io470
H	VIMB2G	HSI4G	io401G	io465G	io402G	io466G	io403G	io467G	io404G	io468G	io405G	io469G	io406G	io470G
I	PFB8		io529	io593	io530	io594	io531	io595	io532	io596	io533	io597	io534	io598
J	PFB9		io529G	io593G	io530G	io594G	io531G	io595G	io532G	io596G	io533G	io597G	io534G	io598G
K	PFB10		io657	io721	io658	io722	io659	io723	io660	io724	io661	io725	io662	io726
L	PFB11		io657G	io721G	io658G	io722G	io659G	io723G	io660G	io724G	io661G	io725G	io662G	io726G
M	PFB12		io785	io849	io786	io850	io787	io851	io788	io852	io789	io853	io790	io854
N	PFB13		io785G	io849G	io786G	io850G	io787G	io851G	io788G	io852G	io789G	io853G	io790G	io854G
O	PFB14		io913	io977	io914	io978	io915	io979	io916	io980	io917	io981	io918	io982
P	PFB15		io913G	io977G	io914G	io978G	io915G	io979G	io916G	io980G	io917G	io981G	io918G	io982G
Q	DPS3G	DPS7G	CW16	-	CW17	CPS3	CW18	-	CW19	CPS7	CW20	-	CW21	CPS11
R	DPS3GU	DPS7GU	0V	-	0V	UC8	0V	-	0V	UC9	0V	-	0V	UC10
S	DPS3S	DPS7S	L17	L81	L18	L82	L19	L83	L20	L84	L21	L85	L22	L86
T	DPS3F	DPS7F	L145	L209	L146	L210	L147	L211	L148	L212	L149	L213	L150	L214
U	DPS3F	DPS7F	L273	L337	L274	L338	L275	L339	L276	L340	L277	L341	L278	L342
V	DPS3G	DPS7G	L401	L465	L402	L466	L403	L467	L404	L468	L405	L469	L406	L470

Slot Column	70	71	72	73	74	75	76	77	78	79	80	81	82
A	io23	io87	io24	io88	HSO11	AFE3P	AFE4P	AFE3N	AFE4N	OP2210	OP2205	OP1207	OP2201
B	io23G	io87G	io24G	io88G	HSO11G	AFE3PG	AFE4PG	AFE3NG	AFE4NG	OP2210G	OP2205G	OP1207G	OP2201G
C	io151	io215	io152	io216	HSO12	HLFD7AP	HLFD7CP	HLFD3BP	HLFD3BN	OP2211	OP2206	OP1208	OP2202
D	io151G	io215G	io152G	io216G	HSO12G	HLFD7APG	HLFD7CPG	HLFD3BPG	HLFD3BNG	OP2211G	OP2206G	OP1208G	OP2202G
E	io279	io343	io280	io344	HSI11	HLFD7AN	HLFD7CN	HLFG7AP	HLFG7CP	OP2212	OP2207	HLFD3AP	HLFG3AP
F	io279G	io343G	io280G	io344G	HSI11G	HLFD7ANG	HLFD7CNG	HLFG7APG	HLFG7CPG	OP2212G	OP2207G	HLFD3APG	HLFG3APG
G	io407	io471	io408	io472	HSI12	HLFD7BP	HLFD7XP	HLFG7AN	HLFG7CN	OP2213	OP2208	HLFD3AN	HLFG3AN
H	io407G	io471G	io408G	io472G	HSI12G	HLFD7BPG	HLFD7XPG	HLFG7ANG	HLFG7CNG	OP2213G	OP2208G	HLFD3ANG	HLFG3ANG
I	io535	io599	io536	io600	MTX5	HLFD7BN	HLFD7XN	HLFG7BP	HLFG7XP	OP2214	OP2209	OP1209	OP2203
J	io535G	io599G	io536G	io600G	MTX5G	HLFD7BNG	HLFD7XNG	HLFG7BPG	HLFG7XPG	OP2214G	OP2209G	OP1209G	OP2203G
K	io663	io727	io664	io728	MTX6	-		HLFG7BN	HLFG7XN	OP2215	VOFF7	OP1210	OP2204
L	io663G	io727G	io664G	io728G	MTX6G	-		HLFG7BNG	HLFG7XNG	OP2215G	VOFF7G	OP1210G	OP2204G
M	io791	io855	io792	io856	MTX7	HLFG3BP		-	HLFDCKP	VRL3F	VRH3F	-	-
N	io791G	io855G	io792G	io856G	MTX7G	HLFG3BPG		-	HLFDCKPG	VRL3FG	VRH3FG	-	-
O	io919	io983	io920	io984	MTX8	HLFG3BN	EXCK3	-	HLFDCKN	VRL3S	VRH3S	IN2A	VL2A
P	io919G	io983G	io920G	io984G	MTX8G	HLFG3BNG	EXCK3G	-	HLFDCKNG	VRL3SG	VRH3SG	IN2AG	VL2AG
Q	CW22	-	CW23	CPS15	DPS11G	UDC3G	UDC4G		DPS15G	OP1213	VOFF3	IN2B	VL2B
R	0V	-	0V	UC11	DPS11GU	UDC3GU	UDC4GU		DPS15GU	OP1213G	VOFF3G	IN2BG	VL2BG
S	L23	L87	L24	L88	DPS11S	UDC3S	UDC4S		DPS15S	OP1214	OP1211	VH2A	-
T	L151	L215	L152	L216	DPS11F	UDC3F	UDC4F		DPS15F	OP1214G	OP1211G	VH2AG	-
U	L279	L343	L280	L344	DPS11F	UDC3F	UDC4F		DPS15F	OP1215	OP1212	VH2B	PBVEE
V	L407	L471	L408	L472	DPS11G	UDC3G	UDC4G		DPS15G	OP1215G	OP1212G	VH2BG	PBVEE

A9.1 Square AP Type Performance Board Signal Name Table

Slot Column	83	84	85	86	87	88	89	90	91	92	93	94	95	96
A	BBWD2AP	BBWD2CP	-	BBWG2CP	BBWG2AP	OP1201	-		io477	io473	io413	io409	io349	io345
B	BBWD2APG	BBWD2CPG	-	BBWG2CPG	BBWG2APG	OP1201G	-		io477G	io473G	io413G	io409G	io349G	io345G
C	BBWD2AN	BBWD2CN	HLFD3CP	BBWG2CN	BBWG2AN	OP1202	L477	L349	io478	io474	io414	io410	io350	io346
D	BBWD2ANG	BBWD2CNG	HLFD3CPG	BBWG2CNG	BBWG2ANG	OP1202G	L478	L350	io478G	io474G	io414G	io410G	io350G	io346G
E	BBWD2BP	BBWD2DP	HLFD3CN	BBWG2XP	BBWG2BP	HLFG3CP	L479	L351	io479	io475	io415	io411	io351	io347
F	BBWD2BPG	BBWD2DPG	HLFD3CNG	BBWG2XPG	BBWG2BPG	HLFG3CPG	L480	L352	io479G	io475G	io415G	io411G	io351G	io347G
G	BBWD2BN	BBWD2DN	HLFD3XP	BBWG2XN	BBWG2BN	HLFG3XP	L473	L345	io480	io476	io416	io412	io352	io348
H	BBWD2BNG	BBWD2DNG	HLFD3XPG	BBWG2XNG	BBWG2BNG	HLFG3XPG	L474	L346	io480G	io476G	io416G	io412G	io352G	io348G
I		BBWD2XP	HLFD3XN		HLFG3XN	HLFG3CN	L475	L347	io989	io985	io925	io921	io861	io857
J		BBWD2XPG	HLFD3XNG		HLFG3XNG	HLFG3CNG	L476	L348	io989G	io985G	io925G	io921G	io861G	io857G
K	OP1203	BBWD2XN			VIM2		L413	L285	io990	io986	io926	io922	io862	io858
L	OP1203G	BBWD2XNG			VIM2G		L414	L286	io990G	io986G	io926G	io922G	io862G	io858G
M	OP1204		DPS19G	DPS23G	VI2	DPS27G	L415	L287	io991	io987	io927	io923	io863	io859
N	OP1204G		DPS19GU	DPS23GU	VI2G	DPS27GU	L416	L288	io991G	io987G	io927G	io923G	io863G	io859G
O	OP1205	IP2A	DPS19S	DPS23S	VS2	DPS27S	L409	L281	io992	io988	io928	io924	io864	io860
P	OP1205G	IP2AG	DPS19F	DPS23F	VS2G	DPS27F	L410	L282	io992G	io988G	io928G	io924G	io864G	io860G
Q	OP1206	IP2B	DPS19F	DPS23F	VS2	DPS27F	L411	L283	CW24	-	CW25	CPS19	CW26	-
R	OP1206G	IP2BG	DPS19G	DPS23G	VS2G	DPS27G	L412	L284	0V	-	0V	UC12	0V	-

Slot Column	97	98	99	100	101	102	103	104	105	106	107	108	109	110
A	io285	io281	io221	io217	io157	io153	io93	io89	io29	io25		PBS	OP220A	HGND
B	io285G	io281G	io221G	io217G	io157G	io153G	io93G	io89G	io29G	io25G		AIRG4	OP220AG	0V
C	io286	io282	io222	io218	io158	io154	io94	io90	io30	io26	L221	L93	OP230A	
D	io286G	io282G	io222G	io218G	io158G	io154G	io94G	io90G	io30G	io26G	L222	L94	OP230AG	
E	io287	io283	io223	io219	io159	io155	io95	io91	io31	io27	L223	L95	OP220B	MASK
F	io287G	io283G	io223G	io219G	io159G	io155G	io95G	io91G	io31G	io27G	L224	L96	OP220BG	MASKG
G	io288	io284	io224	io220	io160	io156	io96	io92	io32	io28	L217	L89	OP230B	PBTYP0
H	io288G	io284G	io224G	io220G	io160G	io156G	io96G	io92G	io32G	io28G	L218	L90	OP230BG	PBTYP1
I	io797	io793	io733	io729	io669	io665	io605	io601	io541	io537	L219	L91	-	PBTYP2
J	io797G	io793G	io733G	io729G	io669G	io665G	io605G	io601G	io541G	io537G	L220	L92	-	PBTYP3
K	io798	io794	io734	io730	io670	io666	io606	io602	io542	io538	L157	L29		PBTYP4
L	io798G	io794G	io734G	io730G	io670G	io666G	io606G	io602G	io542G	io538G	L158	L30		PBTYP5
M	io799	io795	io735	io731	io671	io667	io607	io603	io543	io539	L159	L31	DPS31G	-
N	io799G	io795G	io735G	io731G	io671G	io667G	io607G	io603G	io543G	io539G	L160	L32	DPS31GU	-
O	io800	io796	io736	io732	io672	io668	io608	io604	io544	io540	L153	L25	DPS31S	PBRVCC
P	io800G	io796G	io736G	io732G	io672G	io668G	io608G	io604G	io544G	io540G	L154	L26	DPS31F	PBRVCC
Q	CW27	CPS23	CW28	-	CW29	CPS27	CW30	-	CW31	CPS31	L155	L27	DPS31F	PBRVCC
R	0V	UC13	0V	-	0V	UC14	0V	-	0V	UC15	L156	L28	DPS31G	PBRVCC

A9.1 Square AP Type Performance Board Signal Name Table

Slot Column	111	112	113	114	115	116	117	118	119	120	121	122	123	124
A	OP120A	UCM3		io33	io37	io97	io101	io161	io165	io225	io229	io289	io293	io353
B	OP120AG	UCM4		io33G	io37G	io97G	io101G	io161G	io165G	io225G	io229G	io289G	io293G	io353G
C	OP130A	L33	L161	io34	io38	io98	io102	io162	io166	io226	io230	io290	io294	io354
D	OP130AG	L34	L162	io34G	io38G	io98G	io102G	io162G	io166G	io226G	io230G	io290G	io294G	io354G
E	OP120B	L35	L163	io35	io39	io99	io103	io163	io167	io227	io231	io291	io295	io355
F	OP120BG	L36	L164	io35G	io39G	io99G	io103G	io163G	io167G	io227G	io231G	io291G	io295G	io355G
G	OP130B	L37	L165	io36	io40	io100	io104	io164	io168	io228	io232	io292	io296	io356
H	OP130BG	L38	L166	io36G	io40G	io100G	io104G	io164G	io168G	io228G	io232G	io292G	io296G	io356G
I	-	L39	L167	io545	io549	io609	io613	io673	io677	io737	io741	io801	io805	io865
J	-	L40	L168	io545G	io549G	io609G	io613G	io673G	io677G	io737G	io741G	io801G	io805G	io865G
K		L97	L225	io546	io550	io610	io614	io674	io678	io738	io742	io802	io806	io866
L		L98	L226	io546G	io550G	io610G	io614G	io674G	io678G	io738G	io742G	io802G	io806G	io866G
M	DPS32G	L99	L227	io547	io551	io611	io615	io675	io679	io739	io743	io803	io807	io867
N	DPS32GU	L100	L228	io547G	io551G	io611G	io615G	io675G	io679G	io739G	io743G	io803G	io807G	io867G
O	DPS32S	L101	L229	io548	io552	io612	io616	io676	io680	io740	io744	io804	io808	io868
P	DPS32F	L102	L230	io548G	io552G	io612G	io616G	io676G	io680G	io740G	io744G	io804G	io808G	io868G
Q	DPS32F	L103	L231	CW32	-	CW33	CPS32	CW34	-	CW35	CPS28	CW36	-	CW37
R	DPS32G	L104	L232	0V	-	0V	UC16	0V	-	0V	UC17	0V	-	0V

Slot Column	125	126	127	128	129	130	131	132	133	134	135	136	137
A	io357	io417	io421	io481	io485		-	OP1301	BBWG3AP	BBWG3CP	-	BBWD3CP	BBWD3AP
B	io357G	io417G	io421G	io481G	io485G		-	OP1301G	BBWG3APG	BBWG3CPG	-	BBWD3CPG	BBWD3APG
C	io358	io418	io422	io482	io486	L289	L417	OP1302	BBWG3AN	BBWG3CN	HLFD2CP	BBWD3CN	BBWD3AN
D	io358G	io418G	io422G	io482G	io486G	L290	L418	OP1302G	BBWG3ANG	BBWG3CNG	HLFD2CPG	BBWD3CNG	BBWD3ANG
E	io359	io419	io423	io483	io487	L291	L419	HLFG2CP	BBWG3BP	BBWG3XP	HLFD2CN	BBWD3DP	BBWD3BP
F	io359G	io419G	io423G	io483G	io487G	L292	L420	HLFG2CPG	BBWG3BPG	BBWG3XPG	HLFD2CNG	BBWD3DPG	BBWD3BPG
G	io360	io420	io424	io484	io488	L293	L421	HLFG2XP	BBWG3BN	BBWG3XN	HLFD2XP	BBWD3DN	BBWD3BN
H	io360G	io420G	io424G	io484G	io488G	L294	L422	HLFG2XPG	BBWG3BNG	BBWG3XNG	HLFD2XPG	BBWD3DNG	BBWD3BNG
I	io869	io929	io933	io993	io997	L295	L423	HLFG2CN	HLFG2XN		HLFD2XN	BBWD3XP	
J	io869G	io929G	io933G	io993G	io997G	L296	L424	HLFG2CNG	HLFG2XNG		HLFD2XNG	BBWD3XPG	
K	io870	io930	io934	io994	io998	L353	L481		VIM3			BBWD3XN	OP1303
L	io870G	io930G	io934G	io994G	io998G	L354	L482		VIM3G			BBWD3XNG	OP1303G
M	io871	io931	io935	io995	io999	L355	L483	DPS28G	VI3	DPS24G	DPS20G		OP1304
N	io871G	io931G	io935G	io995G	io999G	L356	L484	DPS28GU	VI3G	DPS24GU	DPS20GU		OP1304G
O	io872	io932	io936	io996	io1000	L357	L485	DPS28S	VS3B	DPS24S	DPS20S	IP3A	OP1305
P	io872G	io932G	io936G	io996G	io1000G	L358	L486	DPS28F	VS3BG	DPS24F	DPS20F	IP3AG	OP1305G
Q	CPS24	CW38	-	CW39	CPS20	L359	L487	DPS28F	VS3B	DPS24F	DPS20F	IP3B	OP1306
R	UC18	0V	-	0V	UC19	L360	L488	DPS28G	VS3BG	DPS24G	DPS20G	IP3BG	OP1306G

A9.1 Square AP Type Performance Board Signal Name Table

Slot Column	138	139	140	141	142	143	144	145	146	147	148	149	150	151
A	OP2301	OP1307	OP2305	OP2310	AFE6N	AFE5N	AFE6P	AFE5P	HSO5	io112	io48	io111	io47	io110
B	OP2301G	OP1307G	OP2305G	OP2310G	AFE6NG	AFE5NG	AFE6PG	AFE5PG	HSO5G	io112G	io48G	io111G	io47G	io110G
C	OP2302	OP1308	OP2306	OP2311	HLFD2BP	HLFD2BN	HLFD6CP	HLFD6AP	HSO6	io240	io176	io239	io175	io238
D	OP2302G	OP1308G	OP2306G	OP2311G	HLFD2BPG	HLFD2BNG	HLFD6CPG	HLFD6APG	HSO6G	io240G	io176G	io239G	io175G	io238G
E	HLFG2AP	HLFD2AP	OP2307	OP2312	HLFG6CP	HLFG6AP	HLFD6CN	HLFD6AN	HSI5	io368	io304	io367	io303	io366
F	HLFG2APG	HLFD2APG	OP2307G	OP2312G	HLFG6CPG	HLFG6APG	HLFD6CNG	HLFD6ANG	HSI5G	io368G	io304G	io367G	io303G	io366G
G	HLFG2AN	HLFD2AN	OP2308	OP2313	HLFG6CN	HLFG6AN	HLFD6XP	HLFD6BP	HSI6	io496	io432	io495	io431	io494
H	HLFG2ANG	HLFD2ANG	OP2308G	OP2313G	HLFG6CNG	HLFG6ANG	HLFD6XPG	HLFD6BPG	HSI6G	io496G	io432G	io495G	io431G	io494G
I	OP2303	OP1309	OP2309	OP2314	HLFG6XP	HLFG6BP	HLFD6XN	HLFD6BN	MTX9	io624	io560	io623	io559	io622
J	OP2303G	OP1309G	OP2309G	OP2314G	HLFG6XPG	HLFG6BPG	HLFD6XNG	HLFD6BNG	MTX9G	io624G	io560G	io623G	io559G	io622G
K	OP2304	OP1310	VOFF6	OP2315	HLFG6XN	HLFG6BN		-	MTX10	io752	io688	io751	io687	io750
L	OP2304G	OP1310G	VOFF6G	OP2315G	HLFG6XNG	HLFG6BNG		-	MTX10G	io752G	io688G	io751G	io687G	io750G
M	-	-	VRH2F	VRL2F	HLFGCKP			HLFG2BP	MTX11	io880	io816	io879	io815	io878
N	-	-	VRH2FG	VRL2FG	HLFGCKPG			HLFG2BPG	MTX11G	io880G	io816G	io879G	io815G	io878G
O	VL3A	IN3A	VRH2S	VRL2S	HLFGCKN		EXCK2	HLFG2BN	MTX12	io1008	io944	io1007	io943	io1006
P	VL3AG	IN3AG	VRH2SG	VRL2SG	HLFGCKNG		EXCK2G	HLFG2BNG	MTX12G	io1008G	io944G	io1007G	io943G	io1006G
Q	VL3B	IN3B	VOFF2	OP1313	DPS16G		UDC5G	UDC6G	DPS12G	CW40	-	CW41	CPS16	CW42
R	VL3BG	IN3BG	VOFF2G	OP1313G	DPS16GU		UDC5GU	UDC6GU	DPS12GU	0V	-	0V	UC20	0V
S	-	VH3A	OP1311	OP1314	DPS16S		UDC5S	UDC6S	DPS12S	L112	L48	L111	L47	L110
T	-	VH3AG	OP1311G	OP1314G	DPS16F		UDC5F	UDC6F	DPS12F	L240	L176	L239	L175	L238
U	PBVCC	VH3B	OP1312	OP1315	DPS16F		UDC5F	UDC6F	DPS12F	L368	L304	L367	L303	L366
V	PBVCC	VH3BG	OP1312G	OP1315G	DPS16G		UDC5G	UDC6G	DPS12G	L496	L432	L495	L431	L494

Slot Column	152	153	154	155	156	157	158	159	160	161	162	163	164	165
A	io46	io109	io45	io108	io44	io107	io43	io106	io42	io105	io41	HSO13	VOS3S	-
B	io46G	io109G	io45G	io108G	io44G	io107G	io43G	io106G	io42G	io105G	io41G	HSO13G	VOS3SG	-
C	io174	io237	io173	io236	io172	io235	io171	io234	io170	io233	io169	HSO14	VOS3F	-
D	io174G	io237G	io173G	io236G	io172G	io235G	io171G	io234G	io170G	io233G	io169G	HSO14G	VOS3FG	-
E	io302	io365	io301	io364	io300	io363	io299	io362	io298	io361	io297	HSI13	VIMA3	-
F	io302G	io365G	io301G	io364G	io300G	io363G	io299G	io362G	io298G	io361G	io297G	HSI13G	VIMA3G	-
G	io430	io493	io429	io492	io428	io491	io427	io490	io426	io489	io425	HSI14	VIMB3	-
H	io430G	io493G	io429G	io492G	io428G	io491G	io427G	io490G	io426G	io489G	io425G	HSI14G	VIMB3G	-
I	io558	io621	io557	io620	io556	io619	io555	io618	io554	io617	io553			
J	io558G	io621G	io557G	io620G	io556G	io619G	io555G	io618G	io554G	io617G	io553G			
K	io686	io749	io685	io748	io684	io747	io683	io746	io682	io745	io681			DCT1
L	io686G	io749G	io685G	io748G	io684G	io747G	io683G	io746G	io682G	io745G	io681G			DCT2
M	io814	io877	io813	io876	io812	io875	io811	io874	io810	io873	io809			DCT3
N	io814G	io877G	io813G	io876G	io812G	io875G	io811G	io874G	io810G	io873G	io809G			DCT4
O	io942	io1005	io941	io1004	io940	io1003	io939	io1002	io938	io1001	io937			DCT5
P	io942G	io1005G	io941G	io1004G	io940G	io1003G	io939G	io1002G	io938G	io1001G	io937G			DCT6
Q	-	CW43	CPS12	CW44	-	CW45	CPS8	CW46	-	CW47	CPS4	DPS8G	DPS4G	DCT7
R	-	0V	UC21	0V	-	0V	UC22	0V	-	0V	UC23	DPS8GU	DPS4GU	DCT8
S	L46	L109	L45	L108	L44	L107	L43	L106	L42	L105	L41	DPS8S	DPS4S	-
T	L174	L237	L173	L236	L172	L235	L171	L234	L170	L233	L169	DPS8F	DPS4F	-
U	L302	L365	L301	L364	L300	L363	L299	L362	L298	L361	L297	DPS8F	DPS4F	PBM15V
V	L430	L493	L429	L492	L428	L491	L427	L490	L426	L489	L425	DPS8G	DPS4G	PBM15V

A9.1 Square AP Type Performance Board Signal Name Table

Slot Column	166	167	168	169	170	171	172	173	174	175	176	177	178	179
A	VOS4S	HSO15	io120	io56	io119	io55	io118	io54	io117	io53	io116	io52	io115	io51
B	VOS4SG	HSO15G	io120G	io56G	io119G	io55G	io118G	io54G	io117G	io53G	io116G	io52G	io115G	io51G
C	VOS4F	HSO16	io248	io184	io247	io183	io246	io182	io245	io181	io244	io180	io243	io179
D	VOS4FG	HSO16G	io248G	io184G	io247G	io183G	io246G	io182G	io245G	io181G	io244G	io180G	io243G	io179G
E	VIMA4	HSI15	io376	io312	io375	io311	io374	io310	io373	io309	io372	io308	io371	io307
F	VIMA4G	HSI15G	io376G	io312G	io375G	io311G	io374G	io310G	io373G	io309G	io372G	io308G	io371G	io307G
G	VIMB4	HSI16	io504	io440	io503	io439	io502	io438	io501	io437	io500	io436	io499	io435
H	VIMB4G	HSI16G	io504G	io440G	io503G	io439G	io502G	io438G	io501G	io437G	io500G	io436G	io499G	io435G
I			io632	io568	io631	io567	io630	io566	io629	io565	io628	io564	io627	io563
J			io632G	io568G	io631G	io567G	io630G	io566G	io629G	io565G	io628G	io564G	io627G	io563G
K			io760	io696	io759	io695	io758	io694	io757	io693	io756	io692	io755	io691
L			io760G	io696G	io759G	io695G	io758G	io694G	io757G	io693G	io756G	io692G	io755G	io691G
M			io888	io824	io887	io823	io886	io822	io885	io821	io884	io820	io883	io819
N			io888G	io824G	io887G	io823G	io886G	io822G	io885G	io821G	io884G	io820G	io883G	io819G
O			io1016	io952	io1015	io951	io1014	io950	io1013	io949	io1012	io948	io1011	io947
P			io1016G	io952G	io1015G	io951G	io1014G	io950G	io1013G	io949G	io1012G	io948G	io1011G	io947G
Q	DPS2G	DPS6G	CW48	-	CW49	CPS2	CW50	-	CW51	CPS6	CW52	-	CW53	CPS10
R	DPS2GU	DPS6GU	0V	-	0V	UC24	0V	-	0V	UC25	0V	-	0V	UC26
S	DPS2S	DPS6S	L120	L56	L119	L55	L118	L54	L117	L53	L116	L52	L115	L51
T	DPS2F	DPS6F	L248	L184	L247	L183	L246	L182	L245	L181	L244	L180	L243	L179
U	DPS2F	DPS6F	L376	L312	L375	L311	L374	L310	L373	L309	L372	L308	L371	L307
V	DPS2G	DPS6G	L504	L440	L503	L439	L502	L438	L501	L437	L500	L436	L499	L435

Slot Column	180	181	182	183	184	185	186	187	188	189	190	191	192
A	io114	io50	io113	io49	HSO7	AFE7P	AFE8P	AFE7N	AFE8N	OP2410	OP2405	OP1407	OP2401
B	io114G	io50G	io113G	io49G	HSO7G	AFE7PG	AFE8PG	AFE7NG	AFE8NG	OP2410G	OP2405G	OP1407G	OP2401G
C	io242	io178	io241	io177	HSO8	HLFD8AP	HLFD8CP	HLFD4BP	HLFD4BN	OP2411	OP2406	OP1408	OP2402
D	io242G	io178G	io241G	io177G	HSO8G	HLFD8APG	HLFD8CPG	HLFD4BPG	HLFD4BNG	OP2411G	OP2406G	OP1408G	OP2402G
E	io370	io306	io369	io305	HSI7	HLFD8AN	HLFD8CN	HLFG8AP	HLFG8CP	OP2412	OP2407	HLFD4AP	HLFG4AP
F	io370G	io306G	io369G	io305G	HSI7G	HLFD8ANG	HLFD8CNG	HLFG8APG	HLFG8CPG	OP2412G	OP2407G	HLFD4APG	HLFG4APG
G	io498	io434	io497	io433	HSI8	HLFD8BP	HLFD8XP	HLFG8AN	HLFG8CN	OP2413	OP2408	HLFD4AN	HLFG4AN
H	io498G	io434G	io497G	io433G	HSI8G	HLFD8BPG	HLFD8XPG	HLFG8ANG	HLFG8CNG	OP2413G	OP2408G	HLFD4ANG	HLFG4ANG
I	io626	io562	io625	io561	MTX13	HLFD8BN	HLFD8XN	HLFG8BP	HLFG8XP	OP2414	OP2409	OP1409	OP2403
J	io626G	io562G	io625G	io561G	MTX13G	HLFD8BNG	HLFD8XNG	HLFG8BPG	HLFG8XPG	OP2414G	OP2409G	OP1409G	OP2403G
K	io754	io690	io753	io689	MTX14	-		HLFG8BN	HLFG8XN	OP2415	VOFF8	OP1410	OP2404
L	io754G	io690G	io753G	io689G	MTX14G	-		HLFG8BNG	HLFG8XNG	OP2415G	VOFF8G	OP1410G	OP2404G
M	io882	io818	io881	io817	MTX15	HLFG4BP	-		-	VRL4F	VRH4F	-	-
N	io882G	io818G	io881G	io817G	MTX15G	HLFG4BPG	-		-	VRL4FG	VRH4FG	-	-
O	io1010	io946	io1009	io945	MTX16	HLFG4BN	EXCK4	-	-	VRL4S	VRH4S	IN4A	VL4A
P	io1010G	io946G	io1009G	io945G	MTX16G	HLFG4BNG	EXCK4G	-	-	VRL4SG	VRH4SG	IN4AG	VL4AG
Q	CW54	-	CW55	CPS14	DPS10G	UDC7G	UDC8G	-	DPS14G	OP1413	VOFF4	IN4B	VL4B
R	0V	-	0V	UC27	DPS10GU	UDC7GU	UDC8GU	-	DPS14GU	OP1413G	VOFF4G	IN4BG	VL4BG
S	L114	L50	L113	L49	DPS10S	UDC7S	UDC8S	-	DPS14S	OP1414	OP1411	VH4A	-
T	L242	L178	L241	L177	DPS10F	UDC7F	UDC8F	-	DPS14F	OP1414G	OP1411G	VH4AG	-
U	L370	L306	L369	L305	DPS10F	UDC7F	UDC8F	-	DPS14F	OP1415	OP1412	VH4B	PBVEE
V	L498	L434	L497	L433	DPS10G	UDC7G	UDC8G	-	DPS14G	OP1415G	OP1412G	VH4BG	PBVEE

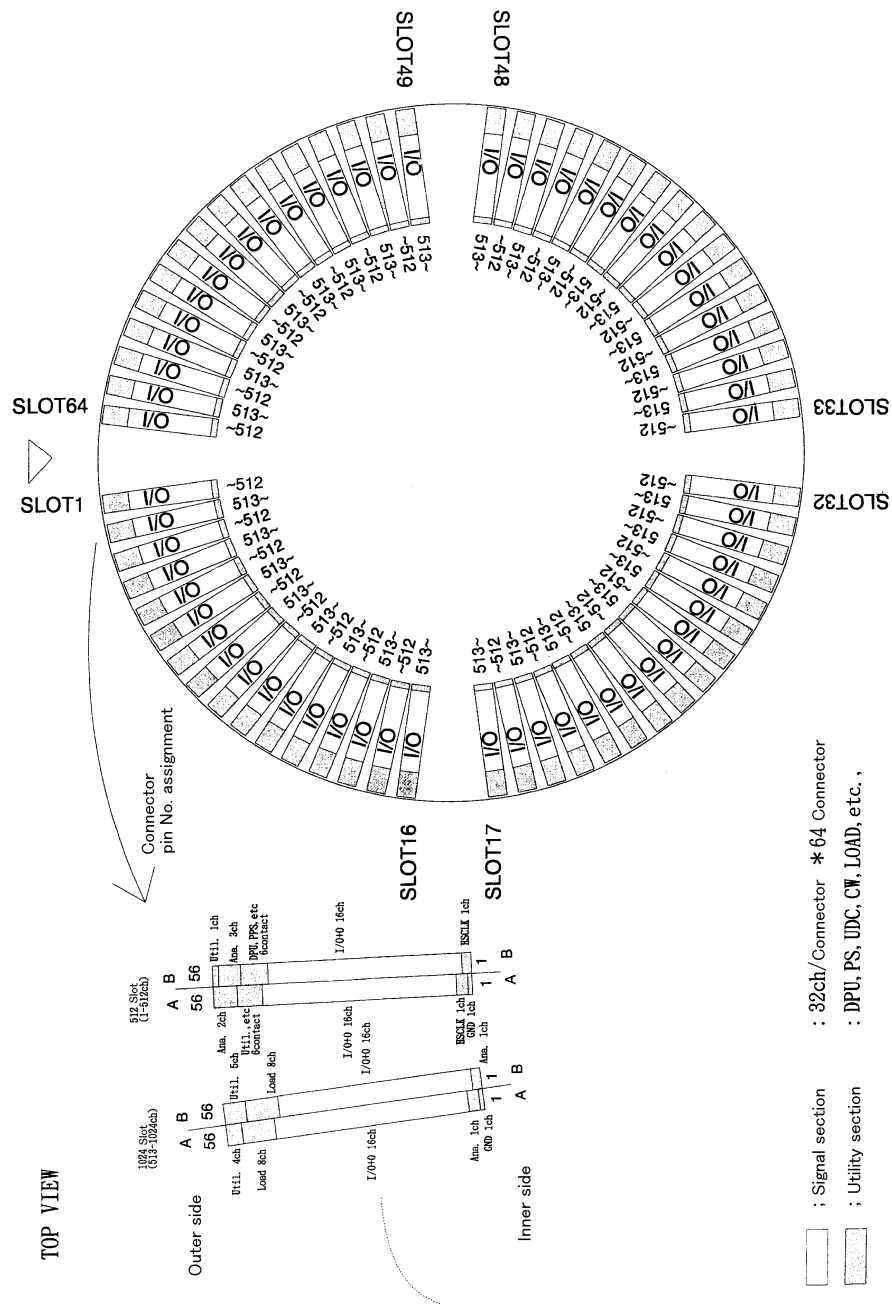
A9.1 Square AP Type Performance Board Signal Name Table

Slot Column	193	194	195	196	197	198	199	200	201	202	203	204	205	206
A	BBWD4AP	BBWD4CP	-	BBWG4CP	BBWG4AP	OP1401	-		io509	io505	io445	io441	io381	io377
B	BBWD4APG	BBWD4CPG	-	BBWG4CPG	BBWG4APG	OP1401G	-		io509G	io505G	io445G	io441G	io381G	io377G
C	BBWD4AN	BBWD4CN	HLFD4CP	BBWG4CN	BBWG4AN	OP1402	L509	L381	io510	io506	io446	io442	io382	io378
D	BBWD4ANG	BBWD4CNG	HLFD4CPG	BBWG4CNG	BBWG4ANG	OP1402G	L510	L382	io510G	io506G	io446G	io442G	io382G	io378G
E	BBWD4BP	BBWD4DP	HLFD4CN	BBWG4XP	BBWG4BP	HLFG4CP	L511	L383	io511	io507	io447	io443	io383	io379
F	BBWD4BPG	BBWD4DPG	HLFD4CNG	BBWG4XPG	BBWG4BPG	HLFG4CPG	L512	L384	io511G	io507G	io447G	io443G	io383G	io379G
G	BBWD4BN	BBWD4DN	HLFD4XP	BBWG4XN	BBWG4BN	HLFG4XP	L505	L377	io512	io508	io448	io444	io384	io380
H	BBWD4BNG	BBWD4DNG	HLFD4XPG	BBWG4XNG	BBWG4BNG	HLFG4XPG	L506	L378	io512G	io508G	io448G	io444G	io384G	io380G
I		BBWD4XP	HLFD4XN		HLFG4XN	HLFG4CN	L507	L379	io1021	io1017	io957	io953	io893	io889
J		BBWD4XPG	HLFD4XNG		HLFG4XNG	HLFG4CNG	L508	L380	io1021G	io1017G	io957G	io953G	io893G	io889G
K	OP1403	BBWD4XN			VIM4		L445	L317	io1022	io1018	io958	io954	io894	io890
L	OP1403G	BBWD4XNG			VIM4G		L446	L318	io1022G	io1018G	io958G	io954G	io894G	io890G
M	OP1404		DPS18G	DPS22G	VI4	DPS26G	L447	L319	io1023	io1019	io959	io955	io895	io891
N	OP1404G		DPS18GU	DPS22GU	VI4G	DPS26GU	L448	L320	io1023G	io1019G	io959G	io955G	io895G	io891G
O	OP1405	IP4A	DPS18S	DPS22S	VS84	DPS26S	L441	L313	io1024	io1020	io960	io956	io896	io892
P	OP1405G	IP4AG	DPS18F	DPS22F	VS84G	DPS26F	L442	L314	io1024G	io1020G	io960G	io956G	io896G	io892G
Q	OP1406	IP4B	DPS18F	DPS22F	VS84	DPS26F	L443	L315	CW56	-	CW57	CPS18	CW58	-
R	OP1406G	IP4BG	DPS18G	DPS22G	VS84G	DPS26G	L444	L316	0V	-	0V	UC28	0V	-

Slot Column	207	208	209	210	211	212	213	214	215	216	217	218	219	220
A	io317	io313	io253	io249	io189	io185	io125	io121	io61	io57			OP110A	-
B	io317G	io313G	io253G	io249G	io189G	io185G	io125G	io121G	io61G	io57G			OP110AG	-
C	io318	io314	io254	io250	io190	io186	io126	io122	io62	io58	L253	L125	OP140A	-
D	io318G	io314G	io254G	io250G	io190G	io186G	io126G	io122G	io62G	io58G	L254	L126	OP140AG	-
E	io319	io315	io255	io251	io191	io187	io127	io123	io63	io59	L255	L127	OP110B	-
F	io319G	io315G	io255G	io251G	io191G	io187G	io127G	io123G	io63G	io59G	L256	L128	OP110BG	-
G	io320	io316	io256	io252	io192	io188	io128	io124	io64	io60	L249	L121	OP140B	-
H	io320G	io316G	io256G	io252G	io192G	io188G	io128G	io124G	io64G	io60G	L250	L122	OP140BG	-
I	io829	io825	io765	io761	io701	io697	io637	io633	io573	io569	L251	L123	-	CLD1
J	io829G	io825G	io765G	io761G	io701G	io697G	io637G	io633G	io573G	io569G	L252	L124	-	CLD2
K	io830	io826	io766	io762	io702	io698	io638	io634	io574	io570	L189	L61		CLD3
L	io830G	io826G	io766G	io762G	io702G	io698G	io638G	io634G	io574G	io570G	L190	L62		
M	io831	io827	io767	io763	io703	io699	io639	io635	io575	io571	L191	L63	DPS30G	-
N	io831G	io827G	io767G	io763G	io703G	io699G	io639G	io635G	io575G	io571G	L192	L64	DPS30GU	-
O	io832	io828	io768	io764	io704	io700	io640	io636	io576	io572	L185	L57	DPS30S	PBRLVCC
P	io832G	io828G	io768G	io764G	io704G	io700G	io640G	io636G	io576G	io572G	L186	L58	DPS30F	PBRLVCC
Q	CW59	CPS22	CW60	-	CW61	CPS26	CW62	-	CW63	CPS30	L187	L59	DPS30F	PBRLVCC
R	0V	UC29	0V	-	0V	UC30	0V	-	0V	UC31	L188	L60	DPS30G	PBRLVCC

Appendix10. 1024ch ZIF HIFIX Compatible Performance Board Signal Layout

Pin Assignment 1024 ch Performance Board



A10.1 1024ch ZIF HIFIX Compatible Performance Board Signal Name Table

A10.1 1024ch ZIF HIFIX Compatible Performance Board Signal Name Table

J1			J2			J3			J4			J5			J6			J7			J8		
Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B
1	0V	HSOG15	1	0V	IP1AG	1	0V	MTX1G	1	0V	IN1AG	1	0V	HSIG15	1	0V	VH1AG	1	0V	MTX3G	1	0V	VL1AG
2	HSOG16	HSOS15	2	IP1BG	IP1A	2	MTX2G	MTX1	2	IN1BG	IN1A	2	HSIG16	HSIS15	2	VH1BG	VH1A	2	MTX4G	MTX3	2	VL1BG	VL1A
3	HSOG16	HSOG15	3	IP1B	IP1AG	3	MTX2	MTX1G	3	IN1B	IN1AG	3	HSIS16	HSIG15	3	VH1B	VH1AG	3	MTX4	MTX3G	3	VL1B	VL1AG
4	HSOG16	8GND	4	IP1BG	520GND	4	MTX2G	264GND	4	IN1BG	776GND	4	HSIG16	136GND	4	VH1BG	648GND	4	MTX4G	392GND	4	VL1BG	904GND
5	73GND	-	5	585GND	-	5	329GND	-	5	841GND	-	5	201GND	-	5	713GND	-	5	457GND	-	5	969GND	-
6	io73	8GND	6	io585	520GND	6	io329	264GND	6	io841	776GND	6	io201	136GND	6	io713	648GND	6	io457	392GND	6	io969	904GND
7	73GND	io8	7	585GND	io520	7	329GND	io264	7	841GND	io776	7	201GND	io136	7	713GND	io648	7	457GND	io392	7	969GND	io904
8	-	8GND	8	-	520GND	8	-	264GND	8	-	776GND	8	-	136GND	8	-	648GND	8	-	392GND	8	-	904GND
9	73GND	7GND	9	585GND	519GND	9	329GND	263GND	9	841GND	775GND	9	201GND	135GND	9	713GND	647GND	9	457GND	391GND	9	969GND	903GND
10	74GND	-	10	586GND	-	10	330GND	-	10	842GND	-	10	202GND	-	10	714GND	-	10	458GND	-	10	970GND	-
11	io74	7GND	11	io586	519GND	11	io330	263GND	11	io842	775GND	11	io202	135GND	11	io714	647GND	11	io458	391GND	11	io970	903GND
12	74GND	io7	12	586GND	io519	12	330GND	io263	12	842GND	io775	12	202GND	io135	12	714GND	io647	12	458GND	io391	12	970GND	io903
13	-	7GND	13	-	519GND	13	-	263GND	13	-	775GND	13	-	135GND	13	-	647GND	13	-	391GND	13	-	903GND
14	74GND	6GND	14	586GND	518GND	14	330GND	262GND	14	842GND	774GND	14	202GND	134GND	14	714GND	646GND	14	458GND	390GND	14	970GND	902GND
15	75GND	-	15	587GND	-	15	331GND	-	15	843GND	-	15	203GND	-	15	715GND	-	15	459GND	-	15	971GND	-
16	io75	6GND	16	io587	518GND	16	io331	262GND	16	io843	774GND	16	io203	134GND	16	io715	646GND	16	io459	390GND	16	io971	902GND
17	75GND	io6	17	587GND	io518	17	331GND	io262	17	843GND	io774	17	203GND	io134	17	715GND	io646	17	459GND	io390	17	971GND	io902
18	-	6GND	18	-	518GND	18	-	262GND	18	-	774GND	18	-	134GND	18	-	646GND	18	-	390GND	18	-	902GND
19	75GND	5GND	19	587GND	517GND	19	331GND	261GND	19	843GND	773GND	19	203GND	133GND	19	715GND	645GND	19	459GND	389GND	19	971GND	901GND
20	76GND	-	20	588GND	-	20	332GND	-	20	844GND	-	20	204GND	-	20	716GND	-	20	460GND	-	20	972GND	-
21	io76	5GND	21	io588	517GND	21	io332	261GND	21	io844	773GND	21	io204	133GND	21	io716	645GND	21	io460	389GND	21	io972	901GND
22	76GND	io5	22	588GND	io517	22	332GND	io261	22	844GND	io773	22	204GND	io133	22	716GND	io645	22	460GND	io389	22	972GND	io901
23	-	5GND	23	-	517GND	23	-	261GND	23	-	773GND	23	-	133GND	23	-	645GND	23	-	389GND	23	-	901GND
24	76GND	4GND	24	588GND	516GND	24	332GND	260GND	24	844GND	772GND	24	204GND	132GND	24	716GND	644GND	24	460GND	388GND	24	972GND	900GND
25	77GND	-	25	589GND	-	25	333GND	-	25	845GND	-	25	205GND	-	25	717GND	-	25	461GND	-	25	973GND	-
26	io77	4GND	26	io589	516GND	26	io333	260GND	26	io845	772GND	26	io205	132GND	26	io717	644GND	26	io461	388GND	26	io973	900GND
27	77GND	io4	27	589GND	io516	27	333GND	io260	27	845GND	io772	27	205GND	io132	27	717GND	io644	27	461GND	io388	27	973GND	io900
28	-	4GND	28	-	516GND	28	-	260GND	28	-	772GND	28	-	132GND	28	-	644GND	28	-	388GND	28	-	900GND
29	77GND	3GND	29	589GND	515GND	29	333GND	259GND	29	845GND	771GND	29	205GND	131GND	29	717GND	643GND	29	461GND	387GND	29	973GND	899GND
30	78GND	-	30	590GND	-	30	334GND	-	30	846GND	-	30	206GND	-	30	718GND	-	30	462GND	-	30	974GND	-
31	io78	3GND	31	io590	515GND	31	io334	259GND	31	io846	771GND	31	io206	131GND	31	io718	643GND	31	io462	387GND	31	io974	899GND
32	78GND	io3	32	590GND	io515	32	334GND	io259	32	846GND	io771	32	206GND	io131	32	718GND	io643	32	462GND	io387	32	974GND	io899
33	-	3GND	33	-	515GND	33	-	259GND	33	-	771GND	33	-	131GND	33	-	643GND	33	-	387GND	33	-	899GND
34	78GND	2GND	34	590GND	514GND	34	334GND	258GND	34	846GND	770GND	34	206GND	130GND	34	718GND	642GND	34	462GND	386GND	34	974GND	898GND
35	79GND	-	35	591GND	-	35	335GND	-	35	847GND	-	35	207GND	-	35	719GND	-	35	463GND	-	35	975GND	-
36	io79	2GND	36	io591	514GND	36	io335	258GND	36	io847	770GND	36	io207	130GND	36	io719	642GND	36	io463	386GND	36	io975	898GND
37	79GND	io2	37	591GND	io514	37	335GND	io258	37	847GND	io770	37	207GND	io130	37	719GND	io642	37	463GND	io386	37	975GND	io898
38	-	2GND	38	-	514GND	38	-	258GND	38	-	770GND	38	-	130GND	38	-	642GND	38	-	386GND	38	-	898GND
39	79GND	1GND	39	591GND	513GND	39	335GND	257GND	39	847GND	769GND	39	207GND	129GND	39	719GND	641GND	39	463GND	385GND	39	975GND	897GND
40	80GND	-	40	592GND	-	40	336GND	-	40	848GND	-	40	208GND	-	40	720GND	-	40	464GND	-	40	976GND	-
41	io80	1GND	41	io592	513GND	41	io336	257GND	41	io848	769GND	41	io208	129GND	41	io720	641GND	41	io464	385GND	41	io976	897GND
42	80GND	io1	42	592GND	io513	42	336GND	io257	42	848GND	io769	42	208GND	io129	42	720GND	io641	42	464GND	io385	42	976GND	io897
43	-	1GND	43	-	513GND	43	-	257GND	43	-	769GND	43	-	129GND	43	-	641GND	43	-	385GND	43	-	897GND
44	80GND	DP2G	44	592GND	L8	44	336GND	-	44	848GND	L264	44	208GND	DP10G	44	720GND	L136	44	464GND	-	44	976GND	L392
45	DP6G	DP2GU	45	L73	L7	45	CW16	PBP15V	45	L329	L263	45	DP14G	DP10GU	45	L201	L135	45	CW20	PBVCC	45	L457	L391
46	DP6GU	DP2S	46	L74	L6	46	CW17	PBP15V	46	L330	L262	46	DP14GU	DP10S	46	L202	L134	46	CW21	PBVCC	46	L458	L390
47	DP6S	DP2F	47	L75	L5	47	CW18	PBP15V	47	L331	L261	47	DP14S	DP10F	47	L203	L133	47	CW22	PBVCC	47	L459	L389
48	DP6F	DP2F	48	L76	L4	48	CW19	PBP15V	48	L332	L260	48	DP14F	DP10F	48	L204	L132	48	CW23	PBVCC	48	L460	L388
49	DP6F	DP2G	49	L77	L3	49	UC0	-	49	L333	L259	49	DP14F	DP10G	49	L205	L131	49	UC2	-	49	L461	L387
50	DP6G	-	50	L78	L2	50	UC1	OP2109G	50	L334	L258	50	DP14G	-	50	L206	L130	50	UC3	-	50	L462	L386
51	VOFF1G	-	51	L79	L1	51	-	OP2109	51	L335	L257	51	-	-	51	L207	L129	51	-	-	51	L463	L385
52	VOFF1	-	52	L80	-	52	-	OP2109G	52	L336	-	52	-	-	52	L208	UDC8GU	52	-	-	52	L464	-
53	VOFF1G	HLFD1APG	53	-	-	53	-	AFE1PG	53	-	-	53	-	OP2110G	53	-	UDC8S	53	-	-	53	-	-
54	HLFD1ANG	HLFD1AP	54	-	-	54	AFE1NG	AFE1P	54	-	-	54	-	OP2110	54	UDC8G	UDC8GU	54	-	-	54	-	-
55	HLFD1AN	HLFD1APG	55	-	-	55	AFE1N	AFE1PG	55	-	-	55	-	OP2110G	55	UDC8F	-	55	-	-	55	-	-
56	HLFD1ANG	CPS2	56	-	-	56	AFE1NG	CPS6	56	-	-	56	-	CPS10	56	UDC8G	-	56	-	-	56	-	-

 : Reserved pin

A10.1 1024ch ZIF HIFIX Compatible Performance Board Signal Name Table

J9			J10			J11			J12			J13			J14			J15			J16		
Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B
1	0V	HSOG7	1	0V	VOS1SG	1	0V	VRH1FG	1	0V	VIMA1G	1	0V	HSIG7	1	0V	VSBI1G	1	0V	VRL1FG	1	0V	V11G
2	HSOG8	HSOG7	2	VOS1FG	VOS1S	2	VRH1SG	VRH1F	2	VIMB1G	VIMA1	2	HSIG8	HSIS7	2	VM1G	VSBI1	2	VRL1SG	VRL1F	2		V11
3	HSOG8	HSOG7	3	VOS1F	VOS1SG	3	VRH1S	VRH1FG	3	VIMB1	VIMA1G	3	HSIS8	HSIG7	3	VM1	VSBI1G	3	VRL1SG	VRL1FG	3		V11G
4	HSOG8	16GND	4	VOS1FG	528GND	4	VRH1SG	272GND	4	VIMB1G	784GND	4	HSIG8	144GND	4	VM1G	656GND	4	VRL1SG	400GND	4		912GND
5	65GND	-	5	577GND	-	5	321GND	-	5	833GND	-	5	193GND	-	5	705GND	-	5	449GND	-	5	961GND	-
6	io65	16GND	6	io577	528GND	6	io321	272GND	6	io833	784GND	6	io193	144GND	6	io705	656GND	6	io449	400GND	6	io961	912GND
7	65GND	io16	7	577GND	io528	7	321GND	io272	7	833GND	io784	7	193GND	io144	7	705GND	io656	7	449GND	io400	7	961GND	io912
8	-	16GND	8	-	528GND	8	-	272GND	8	-	784GND	8	-	144GND	8	-	656GND	8	-	400GND	8	-	912GND
9	65GND	15GND	9	577GND	527GND	9	321GND	271GND	9	833GND	783GND	9	193GND	143GND	9	705GND	655GND	9	449GND	399GND	9	961GND	911GND
10	66GND	-	10	578GND	-	10	322GND	-	10	834GND	-	10	194GND	-	10	706GND	-	10	450GND	-	10	962GND	-
11	io66	15GND	11	io578	527GND	11	io322	271GND	11	io834	783GND	11	io194	143GND	11	io706	655GND	11	io450	399GND	11	io962	911GND
12	66GND	io15	12	578GND	io527	12	322GND	io271	12	834GND	io783	12	194GND	io143	12	706GND	io655	12	450GND	io399	12	962GND	io911
13	-	15GND	13	-	527GND	13	-	271GND	13	-	783GND	13	-	143GND	13	-	655GND	13	-	399GND	13	-	911GND
14	66GND	14GND	14	578GND	526GND	14	322GND	270GND	14	834GND	782GND	14	194GND	142GND	14	706GND	654GND	14	450GND	398GND	14	962GND	910GND
15	67GND	-	15	579GND	-	15	323GND	-	15	835GND	-	15	195GND	-	15	707GND	-	15	451GND	-	15	963GND	-
16	io67	14GND	16	io579	526GND	16	io323	270GND	16	io835	782GND	16	io195	142GND	16	io707	654GND	16	io451	398GND	16	io963	910GND
17	67GND	io14	17	579GND	io526	17	323GND	io270	17	835GND	io782	17	195GND	io142	17	707GND	io654	17	451GND	io398	17	963GND	io910
18	-	14GND	18	-	526GND	18	-	270GND	18	-	782GND	18	-	142GND	18	-	654GND	18	-	398GND	18	-	910GND
19	67GND	13GND	19	579GND	525GND	19	323GND	269GND	19	835GND	781GND	19	195GND	141GND	19	707GND	653GND	19	451GND	397GND	19	963GND	909GND
20	68GND	-	20	580GND	-	20	324GND	-	20	836GND	-	20	196GND	-	20	708GND	-	20	452GND	-	20	964GND	-
21	io68	13GND	21	io580	525GND	21	io324	269GND	21	io836	781GND	21	io196	141GND	21	io708	653GND	21	io452	397GND	21	io964	909GND
22	68GND	io13	22	580GND	io525	22	324GND	io269	22	836GND	io781	22	196GND	io141	22	708GND	io653	22	452GND	io397	22	964GND	io909
23	-	13GND	23	-	525GND	23	-	269GND	23	-	781GND	23	-	141GND	23	-	653GND	23	-	397GND	23	-	909GND
24	68GND	12GND	24	580GND	524GND	24	324GND	268GND	24	836GND	780GND	24	196GND	140GND	24	708GND	652GND	24	452GND	396GND	24	964GND	908GND
25	69GND	-	25	581GND	-	25	325GND	-	25	837GND	-	25	197GND	-	25	709GND	-	25	453GND	-	25	965GND	-
26	io69	12GND	26	io581	524GND	26	io325	268GND	26	io837	780GND	26	io197	140GND	26	io709	652GND	26	io453	396GND	26	io965	908GND
27	69GND	io12	27	581GND	io524	27	325GND	io268	27	837GND	io780	27	197GND	io140	27	709GND	io652	27	453GND	io396	27	965GND	io908
28	-	12GND	28	-	524GND	28	-	268GND	28	-	780GND	28	-	140GND	28	-	652GND	28	-	396GND	28	-	908GND
29	69GND	11GND	29	581GND	523GND	29	325GND	267GND	29	837GND	779GND	29	197GND	139GND	29	709GND	651GND	29	453GND	395GND	29	965GND	907GND
30	70GND	-	30	582GND	-	30	326GND	-	30	838GND	-	30	198GND	-	30	710GND	-	30	454GND	-	30	966GND	-
31	io70	11GND	31	io582	523GND	31	io326	267GND	31	io838	779GND	31	io198	139GND	31	io710	651GND	31	io454	395GND	31	io966	907GND
32	70GND	io11	32	582GND	io523	32	326GND	io267	32	838GND	io779	32	198GND	io139	32	710GND	io651	32	454GND	io395	32	966GND	io907
33	-	11GND	33	-	523GND	33	-	267GND	33	-	779GND	33	-	139GND	33	-	651GND	33	-	395GND	33	-	907GND
34	70GND	10GND	34	582GND	522GND	34	326GND	266GND	34	838GND	778GND	34	198GND	138GND	34	710GND	650GND	34	454GND	394GND	34	966GND	906GND
35	71GND	-	35	583GND	-	35	327GND	-	35	839GND	-	35	199GND	-	35	711GND	-	35	455GND	-	35	967GND	-
36	io71	10GND	36	io583	522GND	36	io327	266GND	36	io839	778GND	36	io199	138GND	36	io711	650GND	36	io455	394GND	36	io967	906GND
37	71GND	io10	37	583GND	io522	37	327GND	io266	37	839GND	io778	37	199GND	io138	37	711GND	io650	37	455GND	io394	37	967GND	io906
38	-	10GND	38	-	522GND	38	-	266GND	38	-	778GND	38	-	138GND	38	-	650GND	38	-	394GND	38	-	906GND
39	71GND	9GND	39	583GND	521GND	39	327GND	265GND	39	839GND	777GND	39	199GND	137GND	39	711GND	649GND	39	455GND	393GND	39	967GND	905GND
40	72GND	-	40	584GND	-	40	328GND	-	40	840GND	-	40	200GND	-	40	712GND	-	40	456GND	-	40	968GND	-
41	io72	9GND	41	io584	521GND	41	io328	265GND	41	io840	777GND	41	io200	137GND	41	io712	649GND	41	io456	393GND	41	io968	905GND
42	72GND	io9	42	584GND	io521	42	328GND	io265	42	840GND	io777	42	200GND	io137	42	712GND	io649	42	456GND	io393	42	968GND	io905
43	-	9GND	43	-	521GND	43	-	265GND	43	-	777GND	43	-	137GND	43	-	649GND	43	-	393GND	43	-	905GND
44	72GND	DP18G	44	584GND	L16	44	328GND	-	44	840GND	L272	44	200GND	DP26G	44	712GND	L144	44	456GND	-	44	968GND	L400
45	DP22G	DP18GU	45	L65	L15	45	CW24	PBVCC	45	L321	L271	45	DP30G	DP26GU	45	L193	L143	45	CW28	PBRLVCC	45	L449	L399
46	DP22GU	DP18S	46	L66	L14	46	CW25	PBVCC	46	L322	L270	46	DP30GU	DP26S	46	L194	L142	46	CW29	PBRLVCC	46	L450	L398
47	DP22S	DP18F	47	L67	L13	47	CW26	PBVCC	47	L323	L269	47	DP30S	DP26F	47	L195	L141	47	CW30	PBRLVCC	47	L451	L397
48	DP22F	DP18F	48	L68	L12	48	CW27	PBVCC	48	L324	L268	48	DP30F	DP26F	48	L196	L140	48	CW31	PBRLVCC	48	L452	L396
49	DP22F	DP18G	49	L69	L11	49	UC4	-	49	L325	L267	49	DP30F	DP26G	49	L197	L139	49	UC6	-	49	L453	L395
50	DP22G	-	50	L70	L10	50	UC5	-	50	L326	L266	50	DP30G	UDC4GU	50	L198	L138	50	UC7	OP2215G	50	L454	L394
51	-	-	51	L71	L9	51	OP1102G	-	51	L327	L265	51	UDC4G	UDC4S	51	L199	L137	51	-	OP2215	51	L455	L393
52	-	-	52	L72	-	52	OP1102	-	52	L328	-	52	UDC4F	UDC4GU	52	L200	-	52	-	OP2215G	52	L456	-
53	-	-	53	-	-	53	OP1102G	OP1101G	53	-	-	53	UDC4G	HLFG1APG	53	-	-	53	-	OP2115G	53	-	-
54	-	-	54	-	-	54	OP1201G	OP1101	54	OP1202G	-	54	HLFG1ANG	HLFG1AP	54	-	-	54	-	OP2115	54	-	-
55	-	-	55	-	-	55	OP1201	OP1101G	55	OP1202	-	55	HLFG1AN	HLFG1APG	55	-	-	55	-	OP2115G	55	-	-
56	-	CP518	56	-	-	56	OP1201G	CP522	56	OP1202G	-	56	HLFG1ANG	CP526	56	-	-	56	-	CP530	56	-	-



: Reserved pin

T6577/T6567 VLSI Test System Tester Section Maintenance Manual

A10.1 1024ch ZIF HIFIX Compatible Performance Board Signal Name Table

J17			J18			J19			J20			J21			J22			J23			J24		
Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B
1	0V	IP2AG	1	0V	HSOG9	1	0V	IN2AG	1	0V	MTX5G	1	0V	VH2AG	1	0V	HSIG9	1	0V	VL2AG	1	0V	MTX7G
2	IP2BG	IP2A	2	HSOG10	HSOS9	2	IN2BG	IN2A	2	MTX6G	MTX5	2	VH2BG	VH2A	2	HSIG10	HSIS9	2	VL2BG	VL2A	2	MTX8G	MTX7
3	IP2B	IP2AG	3	HSOS10	HSOG9	3	IN2B	IN2AG	3	MTX8	MTX5G	3	VH2B	VH2AG	3	HSIS10	HSIG9	3	VL2B	VL2AG	3	MTX8	MTX7G
4	IP2BG	992GND	4	HSOG10	480GND	4	IN2BG	736GND	4	MTX6G	224GND	4	VH2BG	864GND	4	HSIG10	352GND	4	VL2BG	608GND	4	MTX8G	96GND
5	913GND	-	5	401GND	-	5	657GND	-	5	145GND	-	5	785GND	-	5	273GND	-	5	529GND	-	5	17GND	-
6	io913	992GND	6	io401	480GND	6	io657	736GND	6	io145	224GND	6	io785	864GND	6	io273	352GND	6	io529	608GND	6	io17	96GND
7	913GND	io992	7	401GND	io480	7	657GND	io736	7	145GND	io224	7	785GND	io864	7	273GND	io352	7	529GND	io608	7	17GND	io96
8	-	992GND	8	-	480GND	8	-	736GND	8	-	224GND	8	-	864GND	8	-	352GND	8	-	608GND	8	-	96GND
9	913GND	991GND	9	401GND	479GND	9	657GND	735GND	9	145GND	223GND	9	785GND	863GND	9	273GND	351GND	9	529GND	607GND	9	17GND	95GND
10	914GND	-	10	402GND	-	10	658GND	-	10	146GND	-	10	786GND	-	10	274GND	-	10	530GND	-	10	18GND	-
11	io914	991GND	11	io402	479GND	11	io658	735GND	11	io146	223GND	11	io786	863GND	11	io274	351GND	11	io530	607GND	11	io18	95GND
12	914GND	io991	12	402GND	io479	12	658GND	io735	12	146GND	io223	12	786GND	io863	12	274GND	io351	12	530GND	io607	12	18GND	io95
13	-	991GND	13	-	479GND	13	-	735GND	13	-	223GND	13	-	863GND	13	-	351GND	13	-	607GND	13	-	95GND
14	914GND	990GND	14	402GND	478GND	14	658GND	734GND	14	146GND	222GND	14	786GND	862GND	14	274GND	350GND	14	530GND	606GND	14	18GND	94GND
15	915GND	-	15	403GND	-	15	659GND	-	15	147GND	-	15	787GND	-	15	275GND	-	15	531GND	-	15	19GND	-
16	io915	990GND	16	io403	478GND	16	io659	734GND	16	io147	222GND	16	io787	862GND	16	io275	350GND	16	io531	606GND	16	io19	94GND
17	915GND	io990	17	403GND	io478	17	659GND	io734	17	147GND	io222	17	787GND	io862	17	275GND	io350	17	531GND	io606	17	19GND	io94
18	-	990GND	18	-	478GND	18	-	734GND	18	-	222GND	18	-	862GND	18	-	350GND	18	-	606GND	18	-	94GND
19	915GND	989GND	19	403GND	477GND	19	659GND	733GND	19	147GND	221GND	19	787GND	861GND	19	275GND	349GND	19	531GND	605GND	19	19GND	93GND
20	916GND	-	20	404GND	-	20	660GND	-	20	148GND	-	20	788GND	-	20	276GND	-	20	532GND	-	20	20GND	-
21	io916	989GND	21	io404	477GND	21	io660	733GND	21	io148	221GND	21	io788	861GND	21	io276	349GND	21	io532	605GND	21	io20	93GND
22	916GND	io989	22	404GND	io477	22	660GND	io733	22	148GND	io221	22	788GND	io861	22	276GND	io349	22	532GND	io605	22	20GND	io93
23	-	989GND	23	-	477GND	23	-	733GND	23	-	221GND	23	-	861GND	23	-	349GND	23	-	605GND	23	-	93GND
24	916GND	988GND	24	404GND	476GND	24	660GND	732GND	24	148GND	220GND	24	788GND	860GND	24	276GND	348GND	24	532GND	604GND	24	20GND	92GND
25	917GND	-	25	405GND	-	25	661GND	-	25	149GND	-	25	789GND	-	25	277GND	-	25	533GND	-	25	21GND	-
26	io917	988GND	26	io405	476GND	26	io661	732GND	26	io149	220GND	26	io789	860GND	26	io277	348GND	26	io533	604GND	26	io21	92GND
27	917GND	io988	27	405GND	io476	27	661GND	io732	27	149GND	io220	27	789GND	io860	27	277GND	io348	27	533GND	io604	27	21GND	io92
28	-	988GND	28	-	476GND	28	-	732GND	28	-	220GND	28	-	860GND	28	-	348GND	28	-	604GND	28	-	92GND
29	917GND	987GND	29	405GND	475GND	29	661GND	731GND	29	149GND	219GND	29	789GND	859GND	29	277GND	347GND	29	533GND	603GND	29	21GND	91GND
30	918GND	-	30	406GND	-	30	662GND	-	30	150GND	-	30	790GND	-	30	278GND	-	30	534GND	-	30	22GND	-
31	io918	987GND	31	io406	475GND	31	io662	731GND	31	io150	219GND	31	io790	859GND	31	io278	347GND	31	io534	603GND	31	io22	91GND
32	918GND	io987	32	406GND	io475	32	662GND	io731	32	150GND	io219	32	790GND	io859	32	278GND	io347	32	534GND	io603	32	22GND	io91
33	-	987GND	33	-	475GND	33	-	731GND	33	-	219GND	33	-	859GND	33	-	347GND	33	-	603GND	33	-	91GND
34	918GND	986GND	34	406GND	474GND	34	662GND	730GND	34	150GND	218GND	34	790GND	858GND	34	278GND	346GND	34	534GND	602GND	34	22GND	90GND
35	919GND	-	35	407GND	-	35	663GND	-	35	151GND	-	35	791GND	-	35	279GND	-	35	535GND	-	35	23GND	-
36	io919	986GND	36	io407	474GND	36	io663	730GND	36	io151	218GND	36	io791	858GND	36	io279	346GND	36	io535	602GND	36	io23	90GND
37	919GND	io986	37	407GND	io474	37	663GND	io730	37	151GND	io218	37	791GND	io858	37	279GND	io346	37	535GND	io602	37	23GND	io90
38	-	986GND	38	-	474GND	38	-	730GND	38	-	218GND	38	-	858GND	38	-	346GND	38	-	602GND	38	-	90GND
39	919GND	985GND	39	407GND	473GND	39	663GND	729GND	39	151GND	217GND	39	791GND	857GND	39	279GND	345GND	39	535GND	601GND	39	23GND	89GND
40	920GND	-	40	408GND	-	40	664GND	-	40	152GND	-	40	792GND	-	40	280GND	-	40	536GND	-	40	24GND	-
41	io920	985GND	41	io408	473GND	41	io664	729GND	41	io152	217GND	41	io792	857GND	41	io280	345GND	41	io536	601GND	41	io24	89GND
42	920GND	io985	42	408GND	io473	42	664GND	io729	42	152GND	io217	42	792GND	io857	42	280GND	io345	42	536GND	io601	42	24GND	io89
43	-	985GND	43	-	473GND	43	-	729GND	43	-	217GND	43	-	857GND	43	-	345GND	43	-	601GND	43	-	89GND
44	920GND	L480	44	408GND	DP3G	44	664GND	L224	44	152GND	-	44	792GND	L352	44	280GND	DP11G	44	536GND	L96	44	24GND	-
45	L401	L479	45	DP7G	DP3GU	45	L145	L223	45	CW32	PBR1VCC	45	L273	L351	45	DP15G	DP11GU	45	L17	L95	45	CW36	PBR1VCC
46	L402	L478	46	DP7GU	DP3S	46	L146	L222	46	CW33	PBR1VCC	46	L274	L350	46	DP15GU	DP11S	46	L18	L94	46	CW37	PBR1VCC
47	L403	L477	47	DP7S	DP3F	47	L147	L221	47	CW34	PBR1VCC	47	L275	L349	47	DP15S	DP11F	47	L19	L93	47	CW38	PBR1VCC
48	L404	L476	48	DP7F	DP3F	48	L148	L220	48	CW35	PBR1VCC	48	L276	L348	48	DP15F	DP11F	48	L20	L92	48	CW39	PBR1VCC
49	L405	L475	49	DP7F	DP3G	49	L149	L219	49	UC8	-	49	L277	L347	49	DP15F	DP11G	49	L21	L91	49	UC10	-
50	L406	L474	50	DP7G	-	50	L150	L218	50	UC9	OP2209G	50	L278	L346	50	DP15G	-	50	L22	L90	50	UC11	-
51	L407	L473	51	VOFF2G	-	51	L151	L217	51	-	OP2209	51	L279	L345	51	-	-	51	L23	L89	51	-	-
52	L408	-	52	VOFF2	-	52	L152	-	52	-	OP2209G	52	L280	-	52	-	-	52	L24	UDC5GU	52	-	-
53	-	-	53	VOFF2G	HLFD2APG	53	-	-	53	-	AFE2PG	53	-	-	53	-	OP2210G	53	-	UDC5S	53	-	-
54	-	-	54	HLFD2ANG	HLFD2AP	54	-	-	54	AFE2NG	AFE2P	54	-	-	54	-	OP2210	54	UDC5G	UDC5GU	54	-	-
55	-	-	55	HLFD2AN	HLFD2APG	55	-	-	55	AFE2N	AFE2PG	55	-	-	55	-	OP2210G	55	UDC5F	-	55	-	-
56	-	-	56	HLFD2ANG	CPS3	56	-	-	56	AFE2NG	CPS7	56	-	-	56	-	CPS11	56	UDC5G	-	56	-	CPS15

 : Reserved pin

A10.1 1024ch ZIF HIFIX Compatible Performance Board Signal Name Table

J25			J26			J27			J28			J29			J30			J31			J32		
Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B
1	0V	VOS2SG	1	0V	HSOG1	1	0V	VIMA2G	1	0V	VRH2FG	1	0V	VS2G	1	0V	HSIG1	1	0V	VI2G	1	0V	VRL2FG
2	VOS2FG	VOS2S	2	HSOG2	HSOS1	2	VIMB2G	VIMA2G	2	VRH2SG	VRH2F	2	VIM2G	VS2G	2	HSIG2	HSIS1	2	MASKG	VI2	2	VRL2SG	VRL2F
3	VOS2F	VOS2SG	3	HSOG2	HSOG1	3	VIMB2	VIMA2G	3	VRH2S	VRH2FG	3	VIM2	VS2G	3	HSIS2	HSIG1	3	MASK	VI2G	3	VRL2S	VRL2FG
4	VOS2FG	984GND	4	HSOG2	472GND	4	VIMB2G	728GND	4	VRH2SG	216GND	4	VIM2G	856GND	4	HSIG2	344GND	4	MASKG	600GND	4	VRL2SG	88GND
5	921GND	-	5	409GND	-	5	665GND	-	5	153GND	-	5	793GND	-	5	281GND	-	5	537GND	-	5	25GND	-
6	io921	984GND	6	io409	472GND	6	io665	728GND	6	io153	216GND	6	io793	856GND	6	io281	344GND	6	io537	600GND	6	io25	88GND
7	921GND	io984	7	409GND	io472	7	665GND	io728	7	153GND	io216	7	793GND	io856	7	281GND	io344	7	537GND	io600	7	25GND	io88
8	-	984GND	8	-	472GND	8	-	728GND	8	-	216GND	8	-	856GND	8	-	344GND	8	-	600GND	8	-	88GND
9	921GND	983GND	9	409GND	471GND	9	665GND	727GND	9	153GND	215GND	9	793GND	855GND	9	281GND	343GND	9	537GND	599GND	9	25GND	87GND
10	922GND	-	10	410GND	-	10	666GND	-	10	154GND	-	10	794GND	-	10	282GND	-	10	538GND	-	10	26GND	-
11	io922	983GND	11	io410	471GND	11	io666	727GND	11	io154	215GND	11	io794	855GND	11	io282	343GND	11	io538	599GND	11	io26	87GND
12	922GND	io983	12	410GND	io471	12	666GND	io727	12	154GND	io215	12	794GND	io855	12	282GND	io343	12	538GND	io599	12	26GND	io87
13	-	983GND	13	-	471GND	13	-	727GND	13	-	215GND	13	-	855GND	13	-	343GND	13	-	599GND	13	-	87GND
14	922GND	982GND	14	410GND	470GND	14	666GND	726GND	14	154GND	214GND	14	794GND	854GND	14	282GND	342GND	14	538GND	598GND	14	26GND	86GND
15	923GND	-	15	411GND	-	15	667GND	-	15	155GND	-	15	795GND	-	15	283GND	-	15	539GND	-	15	27GND	-
16	io923	982GND	16	io411	470GND	16	io667	726GND	16	io155	214GND	16	io795	854GND	16	io283	342GND	16	io539	598GND	16	io27	86GND
17	923GND	io982	17	411GND	io470	17	667GND	io726	17	155GND	io214	17	795GND	io854	17	283GND	io342	17	539GND	io598	17	27GND	io86
18	-	982GND	18	-	470GND	18	-	726GND	18	-	214GND	18	-	854GND	18	-	342GND	18	-	598GND	18	-	86GND
19	923GND	981GND	19	411GND	469GND	19	667GND	725GND	19	155GND	213GND	19	795GND	853GND	19	283GND	341GND	19	539GND	597GND	19	27GND	85GND
20	924GND	-	20	412GND	-	20	668GND	-	20	156GND	-	20	796GND	-	20	284GND	-	20	540GND	-	20	28GND	-
21	io924	981GND	21	io412	469GND	21	io668	725GND	21	io156	213GND	21	io796	853GND	21	io284	341GND	21	io540	597GND	21	io28	85GND
22	924GND	io981	22	412GND	io469	22	668GND	io725	22	156GND	io213	22	796GND	io853	22	284GND	io341	22	540GND	io597	22	28GND	io85
23	-	981GND	23	-	469GND	23	-	725GND	23	-	213GND	23	-	853GND	23	-	341GND	23	-	597GND	23	-	85GND
24	924GND	980GND	24	412GND	468GND	24	668GND	724GND	24	156GND	212GND	24	796GND	852GND	24	284GND	340GND	24	540GND	596GND	24	28GND	84GND
25	925GND	-	25	413GND	-	25	669GND	-	25	157GND	-	25	797GND	-	25	285GND	-	25	541GND	-	25	29GND	-
26	io925	980GND	26	io413	468GND	26	io669	724GND	26	io157	212GND	26	io797	852GND	26	io285	340GND	26	io541	596GND	26	io29	84GND
27	925GND	io980	27	413GND	io468	27	669GND	io724	27	157GND	io212	27	797GND	io852	27	285GND	io340	27	541GND	io596	27	29GND	io84
28	-	980GND	28	-	468GND	28	-	724GND	28	-	212GND	28	-	852GND	28	-	340GND	28	-	596GND	28	-	84GND
29	925GND	979GND	29	413GND	467GND	29	669GND	723GND	29	157GND	211GND	29	797GND	851GND	29	285GND	339GND	29	541GND	595GND	29	29GND	83GND
30	926GND	-	30	414GND	-	30	670GND	-	30	158GND	-	30	798GND	-	30	286GND	-	30	542GND	-	30	30GND	-
31	io926	979GND	31	io414	467GND	31	io670	723GND	31	io158	211GND	31	io798	851GND	31	io286	339GND	31	io542	595GND	31	io30	83GND
32	926GND	io979	32	414GND	io467	32	670GND	io723	32	158GND	io211	32	798GND	io851	32	286GND	io339	32	542GND	io595	32	30GND	io83
33	-	979GND	33	-	467GND	33	-	723GND	33	-	211GND	33	-	851GND	33	-	339GND	33	-	595GND	33	-	83GND
34	926GND	978GND	34	414GND	466GND	34	670GND	722GND	34	158GND	210GND	34	798GND	850GND	34	286GND	338GND	34	542GND	594GND	34	30GND	82GND
35	927GND	-	35	415GND	-	35	671GND	-	35	159GND	-	35	799GND	-	35	287GND	-	35	543GND	-	35	31GND	-
36	io927	978GND	36	io415	466GND	36	io671	722GND	36	io159	210GND	36	io799	850GND	36	io287	338GND	36	io543	594GND	36	io31	82GND
37	927GND	io978	37	415GND	io466	37	671GND	io722	37	159GND	io210	37	799GND	io850	37	287GND	io338	37	543GND	io594	37	31GND	io82
38	-	978GND	38	-	466GND	38	-	722GND	38	-	210GND	38	-	850GND	38	-	338GND	38	-	594GND	38	-	82GND
39	927GND	977GND	39	415GND	465GND	39	671GND	721GND	39	159GND	209GND	39	799GND	849GND	39	287GND	337GND	39	543GND	593GND	39	31GND	81GND
40	928GND	-	40	416GND	-	40	672GND	-	40	160GND	-	40	800GND	-	40	288GND	-	40	544GND	-	40	32GND	-
41	io928	977GND	41	io416	465GND	41	io672	721GND	41	io160	209GND	41	io800	849GND	41	io288	337GND	41	io544	593GND	41	io32	81GND
42	928GND	io977	42	416GND	io465	42	672GND	io721	42	160GND	io209	42	800GND	io849	42	288GND	io337	42	544GND	io593	42	32GND	io81
43	-	977GND	43	-	465GND	43	-	721GND	43	-	209GND	43	-	849GND	43	-	337GND	43	-	593GND	43	-	81GND
44	928GND	L472	44	416GND	DP19G	44	672GND	L216	44	160GND	-	44	800GND	L344	44	288GND	DP27G	44	544GND	L88	44	32GND	-
45	L409	L471	45	DP23G	DP19GU	45	L153	L215	45	CW40	PBRLVCC	45	L281	L343	45	DP31G	DP27GU	45	L25	L87	45	CW44	PBVEE
46	L410	L470	46	DP23GU	DP19S	46	L154	L214	46	CW41	PBRLVCC	46	L282	L342	46	DP31GU	DP27S	46	L26	L86	46	CW45	PBVEE
47	L411	L469	47	DP23S	DP19F	47	L155	L213	47	CW42	PBRLVCC	47	L283	L341	47	DP31S	DP27F	47	L27	L85	47	CW46	PBVEE
48	L412	L468	48	DP23F	DP19F	48	L156	L212	48	CW43	PBRLVCC	48	L284	L340	48	DP31F	DP27F	48	L28	L84	48	CW47	PBVEE
49	L413	L467	49	DP23F	DP19G	49	L157	L211	49	UC12	-	49	L285	L339	49	DP31F	DP27G	49	L29	L83	49	UC14	-
50	L414	L466	50	DP23G	-	50	L158	L210	50	UC13	-	50	L286	L338	50	DP31G	UDC1GU	50	L30	L82	50	UC15	-
51	L415	L465	51	-	-	51	L159	L209	51	OP1302G	-	51	L287	L337	51	UDC1G	UDC1S	51	L31	L81	51	-	-
52	L416	-	52	-	-	52	L160	-	52	OP1302	-	52	L288	-	52	UDC1F	UDC1GU	52	L32	-	52	-	-
53	-	-	53	-	-	53	-	-	53	OP1302G	OP1301G	53	-	-	53	UDC1G	HLFG2APG	53	-	-	53	-	-
54	-	-	54	-	-	54	-	-	54	OP1401G	OP1301	54	OP1402G	-	54	HLFG2ANG	HLFG2AP	54	-	-	54	-	-
55	-	-	55	-	-	55	-	-	55	OP1401	OP1301G	55	OP1402	-	55	HLFG2ANG	HLFG2APG	55	-	-	55	-	-
56	-	-	56	-	-	56	-	-	56	OP1401G	CPS23	56	OP1402G	-	56	HLFG2ANG	CPS27	56	-	-	56	-	CPS31

 : Reserved pin

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A10.1 1024ch ZIF HIFIX Compatible Performance Board Signal Name Table

J33			J34			J35			J36			J37			J38			J39			J40		
Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B
1	0V	HSOG11	1	0V	IP3AG	1	0V	MTX9G	1	0V	IN3AG	1	0V	HSIG11	1	0V	VH3AG	1	0V	MTX11G	1	0V	VL3AG
2	HSOG12	HSOG11	2	IP3BG	IP3A	2	MTX10G	MTX9	2	IN3BG	IN3A	2	HSIG12	HSIG11	2	VH3BG	VH3A	2	MTX12G	MTX11	2	VL3BG	VL3A
3	HSOG12	HSOG11	3	IP3B	IP3AG	3	MTX10	MTX9G	3	IN3B	IN3AG	3	HSIG12	HSIG11	3	VH3B	VH3AG	3	MTX12	MTX11G	3	VL3B	VL3AG
4	HSOG12	40GND	4	IP3BG	552GND	4	MTX10G	296GND	4	IN3BG	808GND	4	HSIG12	168GND	4	VH3BG	680GND	4	MTX12G	424GND	4	VL3BG	936GND
5	105GND	-	5	617GND	-	5	361GND	-	5	873GND	-	5	233GND	-	5	745GND	-	5	489GND	-	5	1001GND	-
6	io105	40GND	6	io617	552GND	6	io361	296GND	6	io873	808GND	6	io233	168GND	6	io745	680GND	6	io489	424GND	6	io1001	936GND
7	105GND	io40	7	617GND	io552	7	361GND	io296	7	873GND	io808	7	233GND	io168	7	745GND	io680	7	489GND	io424	7	1001GND	io936
8	-	40GND	8	-	552GND	8	-	296GND	8	-	808GND	8	-	168GND	8	-	680GND	8	-	424GND	8	-	936GND
9	105GND	39GND	9	617GND	551GND	9	361GND	295GND	9	873GND	807GND	9	233GND	167GND	9	745GND	679GND	9	489GND	423GND	9	1001GND	935GND
10	106GND	-	10	618GND	-	10	362GND	-	10	874GND	-	10	234GND	-	10	746GND	-	10	490GND	-	10	1002GND	-
11	io106	39GND	11	io618	551GND	11	io362	295GND	11	io874	807GND	11	io234	167GND	11	io746	679GND	11	io490	423GND	11	io1002	935GND
12	106GND	io39	12	618GND	io551	12	362GND	io295	12	874GND	io807	12	234GND	io167	12	746GND	io679	12	490GND	io423	12	1002GND	io935
13	-	39GND	13	-	551GND	13	-	295GND	13	-	807GND	13	-	167GND	13	-	679GND	13	-	423GND	13	-	935GND
14	106GND	38GND	14	618GND	550GND	14	362GND	294GND	14	874GND	806GND	14	234GND	166GND	14	746GND	678GND	14	490GND	422GND	14	1002GND	934GND
15	107GND	-	15	619GND	-	15	363GND	-	15	875GND	-	15	235GND	-	15	747GND	-	15	491GND	-	15	1003GND	-
16	io107	38GND	16	io619	550GND	16	io363	294GND	16	io875	806GND	16	io235	166GND	16	io747	678GND	16	io491	422GND	16	io1003	934GND
17	107GND	io38	17	619GND	io550	17	363GND	io294	17	875GND	io806	17	235GND	io166	17	747GND	io678	17	491GND	io422	17	1003GND	io934
18	-	38GND	18	-	550GND	18	-	294GND	18	-	806GND	18	-	166GND	18	-	678GND	18	-	422GND	18	-	934GND
19	107GND	37GND	19	619GND	549GND	19	363GND	293GND	19	875GND	805GND	19	235GND	165GND	19	747GND	677GND	19	491GND	421GND	19	1003GND	933GND
20	108GND	-	20	620GND	-	20	364GND	-	20	876GND	-	20	236GND	-	20	748GND	-	20	492GND	-	20	1004GND	-
21	io108	37GND	21	io620	549GND	21	io364	293GND	21	io876	805GND	21	io236	165GND	21	io748	677GND	21	io492	421GND	21	io1004	933GND
22	108GND	io37	22	620GND	io549	22	364GND	io293	22	876GND	io805	22	236GND	io165	22	748GND	io677	22	492GND	io421	22	1004GND	io933
23	-	37GND	23	-	549GND	23	-	293GND	23	-	805GND	23	-	165GND	23	-	677GND	23	-	421GND	23	-	933GND
24	108GND	36GND	24	620GND	548GND	24	364GND	292GND	24	876GND	804GND	24	236GND	164GND	24	748GND	676GND	24	492GND	420GND	24	1004GND	932GND
25	109GND	-	25	621GND	-	25	365GND	-	25	877GND	-	25	237GND	-	25	749GND	-	25	493GND	-	25	1005GND	-
26	io109	36GND	26	io621	548GND	26	io365	292GND	26	io877	804GND	26	io237	164GND	26	io749	676GND	26	io493	420GND	26	io1005	932GND
27	109GND	io36	27	621GND	io548	27	365GND	io292	27	877GND	io804	27	237GND	io164	27	749GND	io676	27	493GND	io420	27	1005GND	io932
28	-	36GND	28	-	548GND	28	-	292GND	28	-	804GND	28	-	164GND	28	-	676GND	28	-	420GND	28	-	932GND
29	109GND	35GND	29	621GND	547GND	29	365GND	291GND	29	877GND	803GND	29	237GND	163GND	29	749GND	675GND	29	493GND	419GND	29	1005GND	931GND
30	110GND	-	30	622GND	-	30	366GND	-	30	878GND	-	30	238GND	-	30	750GND	-	30	494GND	-	30	1006GND	-
31	io110	35GND	31	io622	547GND	31	io366	291GND	31	io878	803GND	31	io238	163GND	31	io750	675GND	31	io494	419GND	31	io1006	931GND
32	110GND	io35	32	622GND	io547	32	366GND	io291	32	878GND	io803	32	238GND	io163	32	750GND	io675	32	494GND	io419	32	1006GND	io931
33	-	35GND	33	-	547GND	33	-	291GND	33	-	803GND	33	-	163GND	33	-	675GND	33	-	419GND	33	-	931GND
34	110GND	34GND	34	622GND	546GND	34	366GND	290GND	34	878GND	802GND	34	238GND	162GND	34	750GND	674GND	34	494GND	418GND	34	1006GND	930GND
35	111GND	-	35	623GND	-	35	367GND	-	35	879GND	-	35	239GND	-	35	751GND	-	35	495GND	-	35	1007GND	-
36	io111	34GND	36	io623	546GND	36	io367	290GND	36	io879	802GND	36	io239	162GND	36	io751	674GND	36	io495	418GND	36	io1007	930GND
37	111GND	io34	37	623GND	io546	37	367GND	io290	37	879GND	io802	37	239GND	io162	37	751GND	io674	37	495GND	io418	37	1007GND	io930
38	-	34GND	38	-	546GND	38	-	290GND	38	-	802GND	38	-	162GND	38	-	674GND	38	-	418GND	38	-	930GND
39	111GND	33GND	39	623GND	545GND	39	367GND	289GND	39	879GND	801GND	39	239GND	161GND	39	751GND	673GND	39	495GND	417GND	39	1007GND	929GND
40	112GND	-	40	624GND	-	40	368GND	-	40	880GND	-	40	240GND	-	40	752GND	-	40	496GND	-	40	1008GND	-
41	io112	33GND	41	io624	545GND	41	io368	289GND	41	io880	801GND	41	io240	161GND	41	io752	673GND	41	io496	417GND	41	io1008	929GND
42	112GND	io33	42	624GND	io545	42	368GND	io289	42	880GND	io801	42	240GND	io161	42	752GND	io673	42	496GND	io417	42	1008GND	io929
43	-	33GND	43	-	545GND	43	-	289GND	43	-	801GND	43	-	161GND	43	-	673GND	43	-	417GND	43	-	929GND
44	112GND	DP4G	44	624GND	L40	44	368GND	-	44	880GND	L296	44	240GND	DP12G	44	752GND	L168	44	496GND	-	44	1008GND	L424
45	DP8G	DP4GU	45	L105	L39	45	CW48	PBVEE	45	L361	L295	45	DP16G	DP12GU	45	L233	L167	45	CW52	PBM15V	45	L489	L423
46	DP8GU	DP4S	46	L106	L38	46	CW49	PBVEE	46	L362	L294	46	DP16GU	DP12S	46	L234	L166	46	CW53	PBM15V	46	L490	L422
47	DP8S	DP4F	47	L107	L37	47	CW50	PBVEE	47	L363	L293	47	DP16S	DP12F	47	L235	L165	47	CW54	PBM15V	47	L491	L421
48	DP8F	DP4F	48	L108	L36	48	CW51	PBVEE	48	L364	L292	48	DP16F	DP12F	48	L236	L164	48	CW55	PBM15V	48	L492	L420
49	DP8F	DP4G	49	L109	L35	49	UC16	-	49	L365	L291	49	DP16F	DP12G	49	L237	L163	49	UC18	-	49	L493	L419
50	DP8G	-	50	L110	L34	50	UC17	OP2309G	50	L366	L290	50	DP16G	-	50	L238	L162	50	UC19	HLFD3XPG	50	L494	L418
51	VOFF3G	-	51	L111	L33	51	-	OP2309	51	L367	L289	51	-	-	51	L239	L161	51	HLFD1XPG	HLFD3XP	51	L495	L417
52	VOFF3	-	52	L112	-	52	-	OP2309G	52	L368	-	52	-	-	52	L240	UDC6GU	52	HLFD1XP	HLFD3XPG	52	L496	-
53	VOFF3G	HLFD3APG	53	-	-	53	-	AFE3PG	53	-	-	53	-	OP2310G	53	-	UDC6S	53	HLFD1XPG	HLFD1CPG	53	-	-
54	HLFD3ANG	HLFD3AP	54	-	-	54	AFE3NG	AFE3P	54	-	-	54	-	OP2310	54	UDC6G	UDC6GU	54	HLFD1CNG	HLFD1CP	54	-	-
55	HLFD3AN	HLFD3APG	55	-	-	55	AFE3N	AFE3PG	55	-	-	55	-	OP2310G	55	UDC6F	-	55	HLFD1CN	HLFD1CPG	55	-	-
56	HLFD3ANG	CPS4	56	-	-	56	AFE3NG	CPS8	56	-	-	56	-	CPS12	56	UDC6G	-	56	HLFD1CNG	CPS16	56	-	-

 : Reserved pin

A10.1 1024ch ZIF HIFIX Compatible Performance Board Signal Name Table

J41			J42			J43			J44			J45			J46			J47			J48		
Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B
1	0V	HSOG3	1	0V	VOS3SG	1	0V	VRH3FG	1	0V	VIMA3G	1	0V	HSIG3	1	0V	VS3G	1	0V	-	1	0V	V13G
2	HSOG4	HSO3	2	VOS3FG	VOS3S	2	VRH3SG	VRH3F	2	VIMB3G	VIMA3	2	HSIG4	HSIS3	2	VIM3G	VS3	2	-	-	2	-	V13
3	HSOG4	HSOG3	3	VOS3F	VOS3SG	3	VRH3S	VRH3FG	3	VIMB3	VIMA3G	3	HSIG4	HSIG3	3	VIM3	VS3G	3	-	-	3	-	V13G
4	HSOG4	48GND	4	VOS3FG	560GND	4	VRH3SG	304GND	4	VIMB3G	816GND	4	HSIG4	176GND	4	VIM3G	688GND	4	-	-	4	-	944GND
5	97GND	-	5	609GND	-	5	353GND	-	5	865GND	-	5	225GND	-	5	737GND	-	5	481GND	-	5	993GND	-
6	io97	48GND	6	io609	560GND	6	io353	304GND	6	io865	816GND	6	io225	176GND	6	io737	688GND	6	io481	432GND	6	io993	944GND
7	97GND	io48	7	609GND	io560	7	353GND	io304	7	865GND	io816	7	225GND	io176	7	737GND	io688	7	481GND	io432	7	993GND	io944
8	-	48GND	8	-	560GND	8	-	304GND	8	-	816GND	8	-	176GND	8	-	688GND	8	-	432GND	8	-	944GND
9	97GND	47GND	9	609GND	559GND	9	353GND	303GND	9	865GND	815GND	9	225GND	175GND	9	737GND	687GND	9	481GND	431GND	9	993GND	943GND
10	98GND	-	10	610GND	-	10	354GND	-	10	866GND	-	10	226GND	-	10	738GND	-	10	482GND	-	10	994GND	-
11	io98	47GND	11	io610	559GND	11	io354	303GND	11	io866	815GND	11	io226	175GND	11	io738	687GND	11	io482	431GND	11	io994	943GND
12	98GND	io47	12	610GND	io559	12	354GND	io303	12	866GND	io815	12	226GND	io175	12	738GND	io687	12	482GND	io431	12	994GND	io943
13	-	47GND	13	-	559GND	13	-	303GND	13	-	815GND	13	-	175GND	13	-	687GND	13	-	431GND	13	-	943GND
14	98GND	46GND	14	610GND	558GND	14	354GND	302GND	14	866GND	814GND	14	226GND	174GND	14	738GND	686GND	14	482GND	430GND	14	994GND	942GND
15	99GND	-	15	611GND	-	15	355GND	-	15	867GND	-	15	227GND	-	15	739GND	-	15	483GND	-	15	995GND	-
16	io99	46GND	16	io611	558GND	16	io355	302GND	16	io867	814GND	16	io227	174GND	16	io739	686GND	16	io483	430GND	16	io995	942GND
17	99GND	io46	17	611GND	io558	17	355GND	io302	17	867GND	io814	17	227GND	io174	17	739GND	io686	17	483GND	io430	17	995GND	io942
18	-	46GND	18	-	558GND	18	-	302GND	18	-	814GND	18	-	174GND	18	-	686GND	18	-	430GND	18	-	942GND
19	99GND	45GND	19	611GND	557GND	19	355GND	301GND	19	867GND	813GND	19	227GND	173GND	19	739GND	685GND	19	483GND	429GND	19	995GND	941GND
20	100GND	-	20	612GND	-	20	356GND	-	20	868GND	-	20	228GND	-	20	740GND	-	20	484GND	-	20	996GND	-
21	io100	45GND	21	io612	557GND	21	io356	301GND	21	io868	813GND	21	io228	173GND	21	io740	685GND	21	io484	429GND	21	io996	941GND
22	100GND	io45	22	612GND	io557	22	356GND	io301	22	868GND	io813	22	228GND	io173	22	740GND	io685	22	484GND	io429	22	996GND	io941
23	-	45GND	23	-	557GND	23	-	301GND	23	-	813GND	23	-	173GND	23	-	685GND	23	-	429GND	23	-	941GND
24	100GND	44GND	24	612GND	556GND	24	356GND	300GND	24	868GND	812GND	24	228GND	172GND	24	740GND	684GND	24	484GND	428GND	24	996GND	940GND
25	101GND	-	25	613GND	-	25	357GND	-	25	869GND	-	25	229GND	-	25	741GND	-	25	485GND	-	25	997GND	-
26	io101	44GND	26	io613	556GND	26	io357	300GND	26	io869	812GND	26	io229	172GND	26	io741	684GND	26	io485	428GND	26	io997	940GND
27	101GND	io44	27	613GND	io556	27	357GND	io300	27	869GND	io812	27	229GND	io172	27	741GND	io684	27	485GND	io428	27	997GND	io940
28	-	44GND	28	-	556GND	28	-	300GND	28	-	812GND	28	-	172GND	28	-	684GND	28	-	428GND	28	-	940GND
29	101GND	43GND	29	613GND	555GND	29	357GND	299GND	29	869GND	811GND	29	229GND	171GND	29	741GND	683GND	29	485GND	427GND	29	997GND	939GND
30	102GND	-	30	614GND	-	30	358GND	-	30	870GND	-	30	230GND	-	30	742GND	-	30	486GND	-	30	998GND	-
31	io102	43GND	31	io614	555GND	31	io358	299GND	31	io870	811GND	31	io230	171GND	31	io742	683GND	31	io486	427GND	31	io998	939GND
32	102GND	io43	32	614GND	io555	32	358GND	io299	32	870GND	io811	32	230GND	io171	32	742GND	io683	32	486GND	io427	32	998GND	io939
33	-	43GND	33	-	555GND	33	-	299GND	33	-	811GND	33	-	171GND	33	-	683GND	33	-	427GND	33	-	939GND
34	102GND	42GND	34	614GND	554GND	34	358GND	298GND	34	870GND	810GND	34	230GND	170GND	34	742GND	682GND	34	486GND	426GND	34	998GND	938GND
35	103GND	-	35	615GND	-	35	359GND	-	35	871GND	-	35	231GND	-	35	743GND	-	35	487GND	-	35	999GND	-
36	io103	42GND	36	io615	554GND	36	io359	298GND	36	io871	810GND	36	io231	170GND	36	io743	682GND	36	io487	426GND	36	io999	938GND
37	103GND	io42	37	615GND	io554	37	359GND	io298	37	871GND	io810	37	231GND	io170	37	743GND	io682	37	487GND	io426	37	999GND	io938
38	-	42GND	38	-	554GND	38	-	298GND	38	-	810GND	38	-	170GND	38	-	682GND	38	-	426GND	38	-	938GND
39	103GND	41GND	39	615GND	553GND	39	359GND	297GND	39	871GND	809GND	39	231GND	169GND	39	743GND	681GND	39	487GND	425GND	39	999GND	937GND
40	104GND	-	40	616GND	-	40	360GND	-	40	872GND	-	40	232GND	-	40	744GND	-	40	488GND	-	40	1000GND	-
41	io104	41GND	41	io616	553GND	41	io360	297GND	41	io872	809GND	41	io232	169GND	41	io744	681GND	41	io488	425GND	41	io1000	937GND
42	104GND	io41	42	616GND	io553	42	360GND	io297	42	872GND	io809	42	232GND	io169	42	744GND	io681	42	488GND	io425	42	1000GND	io937
43	-	41GND	43	-	553GND	43	-	297GND	43	-	809GND	43	-	169GND	43	-	681GND	43	-	425GND	43	-	937GND
44	104GND	DP20G	44	616GND	L48	44	360GND	PBTYP0	44	872GND	L304	44	232GND	DP28G	44	744GND	L176	44	488GND	-	44	1000GND	L432
45	DP24G	DP20GU	45	L97	L47	45	CW56	PBTYP1	45	L353	L303	45	DP32G	DP28GU	45	L225	L175	45	CW60	-	45	L481	L431
46	DP24GU	DP20S	46	L98	L46	46	CW57	PBTYP2	46	L354	L302	46	DP32GU	DP28S	46	L226	L174	46	CW61	-	46	L482	L430
47	DP24S	DP20F	47	L99	L45	47	CW58	PBTYP3	47	L355	L301	47	DP32S	DP28F	47	L227	L173	47	CW62	CLD1	47	L483	L429
48	DP24F	DP20F	48	L100	L44	48	CW59	PBTYP4	48	L356	L300	48	DP32F	DP28F	48	L228	L172	48	CW63	CLD2	48	L484	L428
49	DP24F	DP20G	49	L101	L43	49	UC20	PBTYP5	49	L357	L299	49	DP32F	DP28G	49	L229	L171	49	UC22	CLD3	49	L485	L427
50	DP24G	-	50	L102	L42	50	UC21	HGNDG	50	L358	L298	50	DP32G	UDC2GU	50	L230	L170	50	UC23	-	50	L486	L426
51	-	-	51	L103	L41	51	HLFG1XPG	HGND	51	L359	L297	51	UDC2G	UDC2S	51	L231	L169	51	-	-	51	L487	L425
52	-	-	52	L104	-	52	HLFG1XP	HGNDG	52	L360	-	52	UDC2F	UDC2GU	52	L232	-	52	-	-	52	L488	-
53	-	HLFD3CPG	53	-	-	53	HLFG1XPG	HLFG1CPG	53	-	-	53	UDC2G	HLFG3APG	53	-	-	53	-	-	53	-	-
54	HLFD3CNG	HLFD3CP	54	-	-	54	HLFG3CPG	HLFG1CP	54	HLFG3XPG	-	54	HLFG3ANG	HLFG3AP	54	-	-	54	-	-	54	-	-
55	HLFD3CN	HLFD3CPG	55	-	-	55	HLFG3CP	HLFG1CPG	55	HLFG3XP	-	55	HLFG3AN	HLFG3APG	55	-	-	55	-	-	55	-	-
56	HLFD3CNG	CPS20	56	-	-	56	HLFG3CPG	CPS24	56	HLFG3XPG	-	56	HLFG3ANG	CPS28	56	-	-	56	-	-	56	-	-

 : Reserved pin

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A10.1 1024ch ZIF HIFIX Compatible Performance Board Signal Name Table

J49			J50			J51			J52			J53			J54			J55			J56		
Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B
1	0V	IP4AG	1	0V	HSOG13	1	0V	IN4AG	1	0V	MTX13G	1	0V	VH4AG	1	0V	HSIG13	1	0V	VL4AG	1	0V	MTX15G
2	IP4BG	IP4A	2	HSOG14	HSOG13	2	IN4BG	IN4A	2	MTX14G	MTX13	2	VH4BG	VH4A	2	HSIG14	HSIS13	2	VL4BG	VL4A	2	MTX16G	MTX15
3	IP4B	IP4AG	3	HSOS14	HSOG13	3	IN4B	IN4AG	3	MTX14	MTX13G	3	VH4B	VH4AG	3	HSIS14	HSIG13	3	VL4B	VL4AG	3	MTX16	MTX15G
4	IP4BG	1024GND	4	HSOG14	512GND	4	IN4BG	768GND	4	MTX14G	256GND	4	VH4BG	896GND	4	HSIG14	384GND	4	VL4BG	640GND	4	MTX16G	128GND
5	945GND	-	5	433GND	-	5	889GND	-	5	177GND	-	5	817GND	-	5	305GND	-	5	561GND	-	5	49GND	-
6	io945	1024GND	6	io433	512GND	6	io889	768GND	6	io177	256GND	6	io817	896GND	6	io305	384GND	6	io561	640GND	6	io49	128GND
7	945GND	io1024	7	433GND	io512	7	889GND	io768	7	177GND	io256	7	817GND	io896	7	305GND	io384	7	561GND	io640	7	49GND	io128
8	-	1024GND	8	-	512GND	8	-	768GND	8	-	256GND	8	-	896GND	8	-	384GND	8	-	640GND	8	-	128GND
9	945GND	1023GND	9	433GND	511GND	9	889GND	767GND	9	177GND	255GND	9	817GND	895GND	9	305GND	383GND	9	561GND	639GND	9	49GND	127GND
10	946GND	-	10	434GND	-	10	890GND	-	10	178GND	-	10	818GND	-	10	306GND	-	10	562GND	-	10	50GND	-
11	io946	1023GND	11	io434	511GND	11	io890	767GND	11	io178	255GND	11	io818	895GND	11	io306	383GND	11	io562	639GND	11	io50	127GND
12	946GND	io1023	12	434GND	io511	12	890GND	io767	12	178GND	io255	12	818GND	io895	12	306GND	io383	12	562GND	io639	12	50GND	io127
13	-	1023GND	13	-	511GND	13	-	767GND	13	-	255GND	13	-	895GND	13	-	383GND	13	-	639GND	13	-	127GND
14	946GND	1022GND	14	434GND	510GND	14	890GND	766GND	14	178GND	254GND	14	818GND	894GND	14	306GND	382GND	14	562GND	638GND	14	50GND	126GND
15	947GND	-	15	435GND	-	15	891GND	-	15	179GND	-	15	819GND	-	15	307GND	-	15	563GND	-	15	51GND	-
16	io947	1022GND	16	io435	510GND	16	io891	766GND	16	io179	254GND	16	io819	894GND	16	io307	382GND	16	io563	638GND	16	io51	126GND
17	947GND	io1022	17	435GND	io510	17	891GND	io766	17	179GND	io254	17	819GND	io894	17	307GND	io382	17	563GND	io638	17	51GND	io126
18	-	1022GND	18	-	510GND	18	-	766GND	18	-	254GND	18	-	894GND	18	-	382GND	18	-	638GND	18	-	126GND
19	947GND	1021GND	19	435GND	509GND	19	891GND	765GND	19	179GND	253GND	19	819GND	893GND	19	307GND	381GND	19	563GND	637GND	19	51GND	125GND
20	948GND	-	20	436GND	-	20	892GND	-	20	180GND	-	20	820GND	-	20	308GND	-	20	564GND	-	20	52GND	-
21	io948	1021GND	21	io436	509GND	21	io892	765GND	21	io180	253GND	21	io820	893GND	21	io308	381GND	21	io564	637GND	21	io52	125GND
22	948GND	io1021	22	436GND	io509	22	892GND	io765	22	180GND	io253	22	820GND	io893	22	308GND	io381	22	564GND	io637	22	52GND	io125
23	-	1021GND	23	-	509GND	23	-	765GND	23	-	253GND	23	-	893GND	23	-	381GND	23	-	637GND	23	-	125GND
24	948GND	1020GND	24	436GND	508GND	24	892GND	764GND	24	180GND	252GND	24	820GND	892GND	24	308GND	380GND	24	564GND	636GND	24	52GND	124GND
25	949GND	-	25	437GND	-	25	893GND	-	25	181GND	-	25	821GND	-	25	309GND	-	25	565GND	-	25	53GND	-
26	io949	1020GND	26	io437	508GND	26	io893	764GND	26	io181	252GND	26	io821	892GND	26	io309	380GND	26	io565	636GND	26	io53	124GND
27	949GND	io1020	27	437GND	io508	27	893GND	io764	27	181GND	io252	27	821GND	io892	27	309GND	io380	27	565GND	io636	27	53GND	io124
28	-	1020GND	28	-	508GND	28	-	764GND	28	-	252GND	28	-	892GND	28	-	380GND	28	-	636GND	28	-	124GND
29	949GND	1019GND	29	437GND	507GND	29	893GND	763GND	29	181GND	251GND	29	821GND	891GND	29	309GND	379GND	29	565GND	635GND	29	53GND	123GND
30	950GND	-	30	438GND	-	30	894GND	-	30	182GND	-	30	822GND	-	30	310GND	-	30	566GND	-	30	54GND	-
31	io950	1019GND	31	io438	507GND	31	io894	763GND	31	io182	251GND	31	io822	891GND	31	io310	379GND	31	io566	635GND	31	io54	123GND
32	950GND	io1019	32	438GND	io507	32	894GND	io763	32	182GND	io251	32	822GND	io891	32	310GND	io379	32	566GND	io635	32	54GND	io123
33	-	1019GND	33	-	507GND	33	-	763GND	33	-	251GND	33	-	891GND	33	-	379GND	33	-	635GND	33	-	123GND
34	950GND	1018GND	34	438GND	506GND	34	894GND	762GND	34	182GND	250GND	34	822GND	890GND	34	310GND	378GND	34	566GND	634GND	34	54GND	122GND
35	951GND	-	35	439GND	-	35	895GND	-	35	183GND	-	35	823GND	-	35	311GND	-	35	567GND	-	35	55GND	-
36	io951	1018GND	36	io439	506GND	36	io895	762GND	36	io183	250GND	36	io823	890GND	36	io311	378GND	36	io567	634GND	36	io55	122GND
37	951GND	io1018	37	439GND	io506	37	895GND	io762	37	183GND	io250	37	823GND	io890	37	311GND	io378	37	567GND	io634	37	55GND	io122
38	-	1018GND	38	-	506GND	38	-	762GND	38	-	250GND	38	-	890GND	38	-	378GND	38	-	634GND	38	-	122GND
39	951GND	1017GND	39	439GND	505GND	39	895GND	761GND	39	183GND	249GND	39	823GND	889GND	39	311GND	377GND	39	567GND	633GND	39	55GND	121GND
40	952GND	-	40	440GND	-	40	896GND	-	40	184GND	-	40	824GND	-	40	312GND	-	40	568GND	-	40	56GND	-
41	io952	1017GND	41	io440	505GND	41	io896	761GND	41	io184	249GND	41	io824	889GND	41	io312	377GND	41	io568	633GND	41	io56	121GND
42	952GND	io1017	42	440GND	io505	42	896GND	io761	42	184GND	io249	42	824GND	io889	42	312GND	io377	42	568GND	io633	42	56GND	io121
43	-	1017GND	43	-	505GND	43	-	761GND	43	-	249GND	43	-	889GND	43	-	377GND	43	-	633GND	43	-	121GND
44	952GND	L512	44	440GND	DP1G	44	896GND	L256	44	184GND	PFB0	44	824GND	L384	44	312GND	DP9G	44	568GND	L128	44	56GND	PFB4
45	L433	L511	45	DP5G	DP1GU	45	L177	L255	45	CW0	PFB1	45	L305	L383	45	DP13G	DP9GU	45	L49	L127	45	CW4	PFB5
46	L434	L510	46	DP5GU	DP1S	46	L178	L254	46	CW1	PFB2	46	L306	L382	46	DP13GU	DP9S	46	L50	L126	46	CW5	PFB6
47	L435	L509	47	DP5S	DP1F	47	L179	L253	47	CW2	PFB3	47	L307	L381	47	DP13S	DP9F	47	L51	L125	47	CW6	PFB7
48	L436	L508	48	DP5F	DP1F	48	L180	L252	48	CW3	UCM1	48	L308	L380	48	DP13F	DP9F	48	L52	L124	48	CW7	UCM3
49	L437	L507	49	DP5F	DP1G	49	L181	L251	49	UC24	UCM2	49	L309	L379	49	DP13F	DP9G	49	L53	L123	49	UC26	UCM4
50	L438	L506	50	DP5G		50	L182	L250	50	UC25	OP2409G	50	L310	L378	50	DP13G		50	L54	L122	50	UC27	HLFD4XPG
51	L439	L505	51	VOFF4G		51	L183	L249	51	-	OP2409	51	L311	L377	51			51	L55	L121	51	HLFD2XPG	HLFD4XP
52	L440		52	VOFF4		52	L184		52	-	OP2409G	52	L312		52			52	L56	UDC7GU	52	HLFD2XPG	HLFD4XPG
53			53	VOFF4G	HLFD4APG	53			53	-	AFE4PG	53			53		OP2410G	53		UDC7S	53	HLFD2XPG	HLFD2CPG
54	-		54	HLFD4ANG	HLFD4AP	54	-		54	AFE4NG	AFE4P	54	-		54	-	OP2410	54	UDC7G	UDC7GU	54	HLFD2CNG	HLFD2CP
55	-	-	55	HLFD4AN	HLFD4APG	55	-	-	55	AFE4N	AFE4PG	55	-	-	55	-	OP2410G	55	UDC7F	-	55	HLFD2CN	HLFD2CPG
56	-	-	56	HLFD4ANG	CPS1	56	-	-	56	AFE4NG	CPS5	56	-	-	56	-	CPS9	56	UDC7G	-	56	HLFD2CNG	CPS13

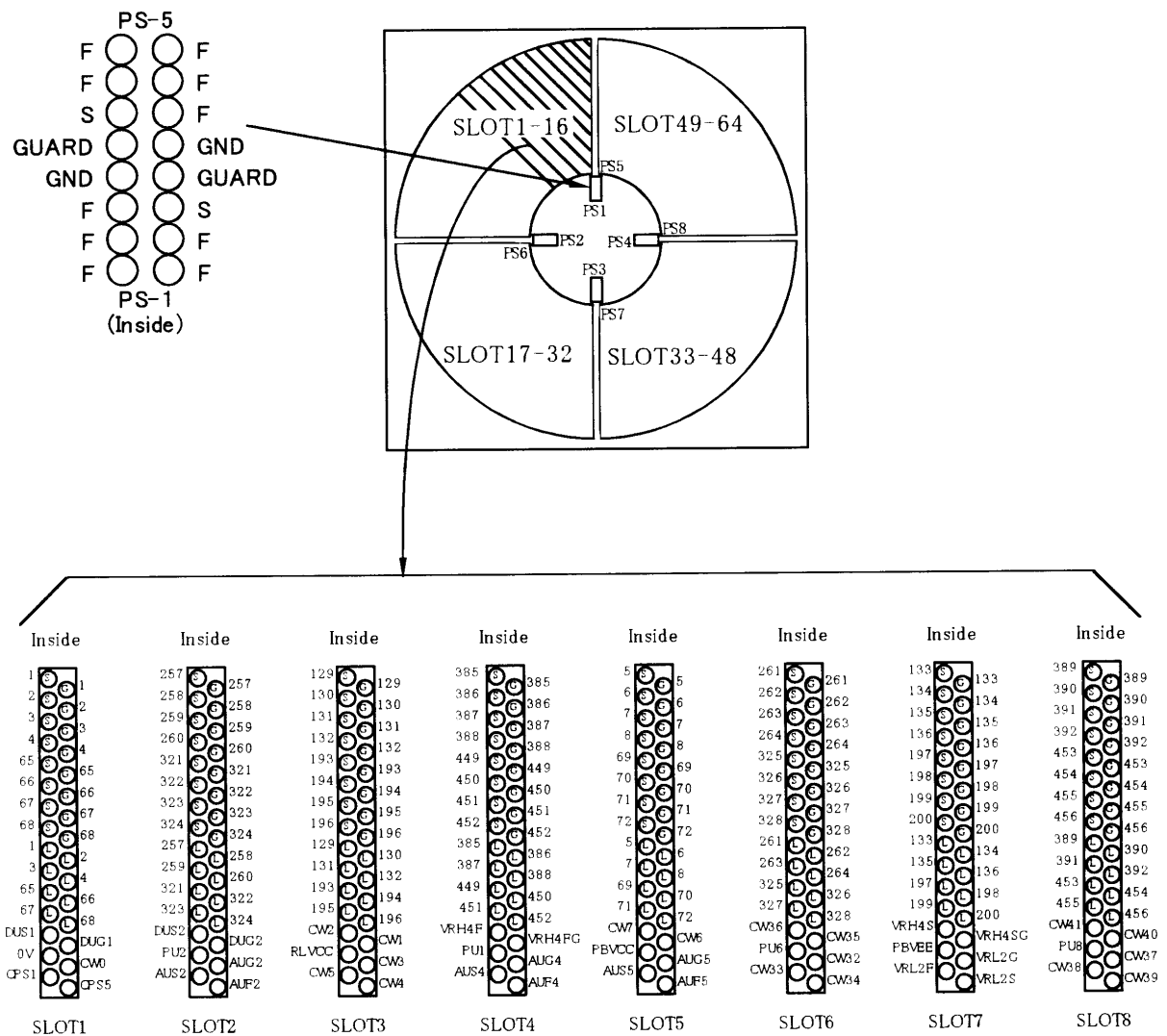
 : Reserved pin

A10.1 1024ch ZIF HIFIX Compatible Performance Board Signal Name Table

J57			J58			J59			J60			J61			J62			J63			J64		
Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B	Pin	A	B
1	0V	VOS4SG	1	0V	HSOG5	1	0V	VIMA4G	1	0V	VRH4FG	1	0V	VS84G	1	0V	HSIG5	1	0V	VH4G	1	0V	EXCK1G
2	VOS4FG	VOS4S	2	HSOG6	HSOS5	2	VIMB4G	VIMA4	2	VRH4SG	VRH4F	2	VIM4G	VS84	2	HSIG6	HSIS5	2		VH4	2	-	EXCK1
3	VOS4F	VOS4SG	3	HSOG6	HSOG5	3	VIMB4	VIMA4G	3	VRH4S	VRH4FG	3	VIM4	VS84G	3	HSIS6	HSIG5	3		VH4G	3	-	EXCK1G
4	VOS4FG	1016GND	4	HSOG6	504GND	4	VIMB4G	760GND	4	VRH4SG	248GND	4	VIM4G	888GND	4	HSIG6	376GND	4			4	-	120GND
5	953GND	-	5	441GND	-	5	697GND	-	5	185GND	-	5	825GND	-	5	313GND	-	5	899GND	-	5	57GND	-
6	io953	1016GND	6	io441	504GND	6	io697	760GND	6	io185	248GND	6	io825	888GND	6	io313	376GND	6	io569	632GND	6	io57	120GND
7	953GND	io1016	7	441GND	io504	7	697GND	io760	7	185GND	io248	7	825GND	io888	7	313GND	io376	7	899GND	io632	7	57GND	io120
8	-	1016GND	8	-	504GND	8	-	760GND	8	-	248GND	8	-	888GND	8	-	376GND	8	-	632GND	8	-	120GND
9	953GND	1015GND	9	441GND	503GND	9	697GND	759GND	9	185GND	247GND	9	825GND	887GND	9	313GND	375GND	9	899GND	631GND	9	57GND	119GND
10	954GND	-	10	442GND	-	10	698GND	-	10	186GND	-	10	826GND	-	10	314GND	-	10	870GND	-	10	58GND	-
11	io954	1015GND	11	io442	503GND	11	io698	759GND	11	io186	247GND	11	io826	887GND	11	io314	375GND	11	io570	631GND	11	io58	119GND
12	954GND	io1015	12	442GND	io503	12	698GND	io759	12	186GND	io247	12	826GND	io887	12	314GND	io375	12	870GND	io631	12	58GND	io119
13	-	1015GND	13	-	503GND	13	-	759GND	13	-	247GND	13	-	887GND	13	-	375GND	13	-	631GND	13	-	119GND
14	954GND	1014GND	14	442GND	502GND	14	698GND	758GND	14	186GND	246GND	14	826GND	886GND	14	314GND	374GND	14	870GND	630GND	14	58GND	118GND
15	955GND	-	15	443GND	-	15	699GND	-	15	187GND	-	15	827GND	-	15	315GND	-	15	871GND	-	15	59GND	-
16	io955	1014GND	16	io443	502GND	16	io699	758GND	16	io187	246GND	16	io827	886GND	16	io315	374GND	16	io571	630GND	16	io59	118GND
17	955GND	io1014	17	443GND	io502	17	699GND	io758	17	187GND	io246	17	827GND	io886	17	315GND	io374	17	871GND	io630	17	59GND	io118
18	-	1014GND	18	-	502GND	18	-	758GND	18	-	246GND	18	-	886GND	18	-	374GND	18	-	630GND	18	-	118GND
19	955GND	1013GND	19	443GND	501GND	19	699GND	757GND	19	187GND	245GND	19	827GND	885GND	19	315GND	373GND	19	871GND	629GND	19	59GND	117GND
20	956GND	-	20	444GND	-	20	700GND	-	20	188GND	-	20	828GND	-	20	316GND	-	20	872GND	-	20	60GND	-
21	io956	1013GND	21	io444	501GND	21	io700	757GND	21	io188	245GND	21	io828	885GND	21	io316	373GND	21	io572	629GND	21	io60	117GND
22	956GND	io1013	22	444GND	io501	22	700GND	io757	22	188GND	io245	22	828GND	io885	22	316GND	io373	22	872GND	io629	22	60GND	io117
23	-	1013GND	23	-	501GND	23	-	757GND	23	-	245GND	23	-	885GND	23	-	373GND	23	-	629GND	23	-	117GND
24	956GND	io1012GND	24	444GND	500GND	24	700GND	756GND	24	188GND	244GND	24	828GND	884GND	24	316GND	372GND	24	872GND	628GND	24	60GND	116GND
25	957GND	-	25	445GND	-	25	701GND	-	25	189GND	-	25	829GND	-	25	317GND	-	25	873GND	-	25	61GND	-
26	io957	1012GND	26	io445	500GND	26	io701	756GND	26	io189	244GND	26	io829	884GND	26	io317	372GND	26	io573	628GND	26	io61	116GND
27	957GND	io1012	27	445GND	io500	27	701GND	io756	27	189GND	io244	27	829GND	io884	27	317GND	io372	27	873GND	io628	27	61GND	io116
28	-	1012GND	28	-	500GND	28	-	756GND	28	-	244GND	28	-	884GND	28	-	372GND	28	-	628GND	28	-	116GND
29	957GND	io111GND	29	445GND	499GND	29	701GND	755GND	29	189GND	243GND	29	829GND	883GND	29	317GND	371GND	29	873GND	627GND	29	61GND	115GND
30	958GND	-	30	446GND	-	30	702GND	-	30	190GND	-	30	830GND	-	30	318GND	-	30	874GND	-	30	62GND	-
31	io958	io111GND	31	io446	499GND	31	io702	755GND	31	io190	243GND	31	io830	883GND	31	io318	371GND	31	io574	627GND	31	io62	115GND
32	958GND	io1011	32	446GND	io499	32	702GND	io755	32	190GND	io243	32	830GND	io883	32	318GND	io371	32	874GND	io627	32	62GND	io115
33	-	io111GND	33	-	499GND	33	-	755GND	33	-	243GND	33	-	883GND	33	-	371GND	33	-	627GND	33	-	115GND
34	959GND	io100GND	34	446GND	498GND	34	702GND	754GND	34	190GND	242GND	34	830GND	882GND	34	318GND	370GND	34	874GND	626GND	34	62GND	114GND
35	959GND	-	35	447GND	-	35	703GND	-	35	191GND	-	35	831GND	-	35	319GND	-	35	875GND	-	35	63GND	-
36	io959	io100GND	36	io447	498GND	36	io703	754GND	36	io191	242GND	36	io831	882GND	36	io319	370GND	36	io575	626GND	36	io63	114GND
37	959GND	io1010	37	447GND	io498	37	703GND	io754	37	191GND	io242	37	831GND	io882	37	319GND	io370	37	875GND	io626	37	63GND	io114
38	-	io1010GND	38	-	498GND	38	-	754GND	38	-	242GND	38	-	882GND	38	-	370GND	38	-	626GND	38	-	114GND
39	959GND	1009GND	39	447GND	497GND	39	703GND	753GND	39	191GND	241GND	39	831GND	881GND	39	319GND	369GND	39	875GND	625GND	39	63GND	113GND
40	960GND	-	40	448GND	-	40	704GND	-	40	192GND	-	40	832GND	-	40	320GND	-	40	876GND	-	40	64GND	-
41	io960	1009GND	41	io448	497GND	41	io704	753GND	41	io192	241GND	41	io832	881GND	41	io320	369GND	41	io576	625GND	41	io64	113GND
42	960GND	io1009	42	448GND	io497	42	704GND	io753	42	192GND	io241	42	832GND	io881	42	320GND	io369	42	876GND	io625	42	64GND	io113
43	-	1009GND	43	-	497GND	43	-	753GND	43	-	241GND	43	-	881GND	43	-	369GND	43	-	625GND	43	-	113GND
44	960GND	L504	44	448GND	DP17G	44	704GND	L248	44	192GND	PFB8	44	832GND	L376	44	320GND	DP25G	44	876GND	L120	44	64GND	PFB12
45	L441	L503	45	DP21G	DP17GU	45	L185	L247	45	CW8	PFB9	45	L313	L375	45	DP29G	DP25GU	45	L57	L119	45	CW12	PFB13
46	L442	L502	46	DP21GU	DP17S	46	L186	L246	46	CW9	PFB10	46	L314	L374	46	DP29GU	DP25S	46	L58	L118	46	CW13	PFB14
47	L443	L501	47	DP21S	DP17F	47	L187	L245	47	CW10	PFB11	47	L315	L373	47	DP29S	DP25F	47	L59	L117	47	CW14	PFB15
48	L444	L500	48	DP21F	DP17G	48	L188	L244	48	CW11	-	48	L316	L372	48	DP29F	DP25G	48	L60	L116	48	CW15	PFB16
49	L445	L499	49	DP21G	DP17G	49	L189	L243	49	UC28	-	49	L317	L371	49	DP29G	DP25G	49	L61	L115	49	UC30	AIRG4
50	L446	L498	50	DP21G	-	50	L190	L242	50	UC29	-	50	L318	L370	50	DP29G	UDC3GU	50	L62	L114	50	UC31	-
51	L447	L497	51	-	-	51	L191	L241	51	HLFG2XPG	-	51	L319	L369	51	UDC3G	UDC3S	51	L63	L113	51	-	-
52	L448	-	52	-	-	52	L192	-	52	HLFG2XPG	-	52	L320	-	52	UDC3F	UDC3GU	52	L64	-	52	-	-
53	-	-	53	-	HLFD4CPG	53	-	-	53	HLFG2XPG	HLFG2CPG	53	-	-	53	UDC3G	HLFG4APG	53	-	-	53	-	OP241SG
54	-	-	54	HLFD4CNG	HLFD4CP	54	-	-	54	HLFG4CPG	HLFG2CP	54	HLFG4XPG	-	54	HLFG4ANG	HLFG4AP	54	-	-	54	HLFG1BPG	OP241S
55	-	-	55	HLFD4CM	HLFD4CPG	55	-	-	55	HLFG4CP	HLFG2CPG	55	HLFG4XPG	-	55	HLFG4ANG	HLFG4APG	55	-	-	55	HLFG1BPG	OP241SG
56	-	-	56	HLFD4CNG	CPS17	56	-	-	56	HLFG4CPG	CPS21	56	HLFG4XPG	-	56	HLFG4ANG	CPS25	56	-	-	56	HLFG1BPG	CPS25

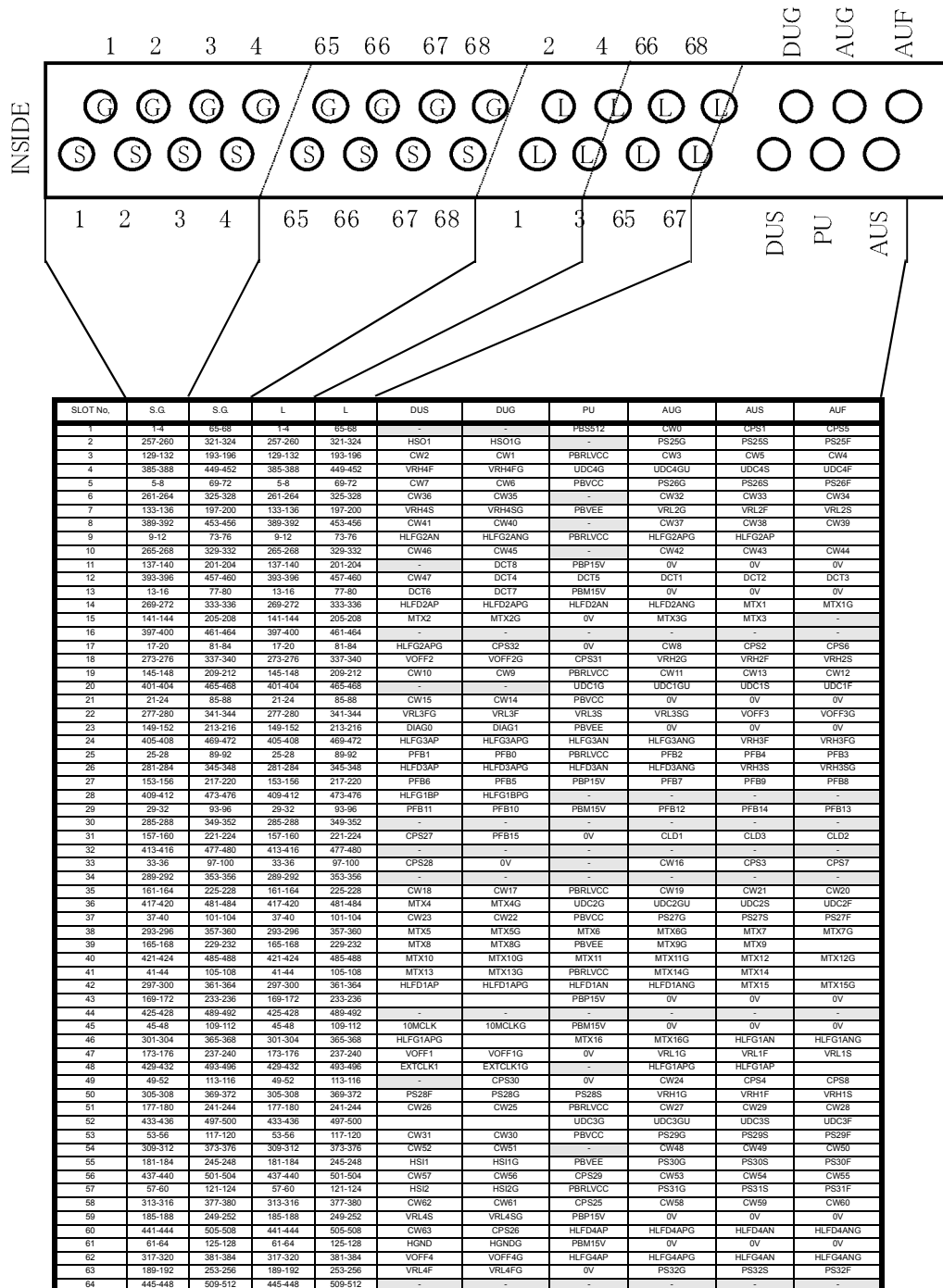
 : Reserved pin

Appendix11. 512ch POGO Compatible Performance Board Signal Layout

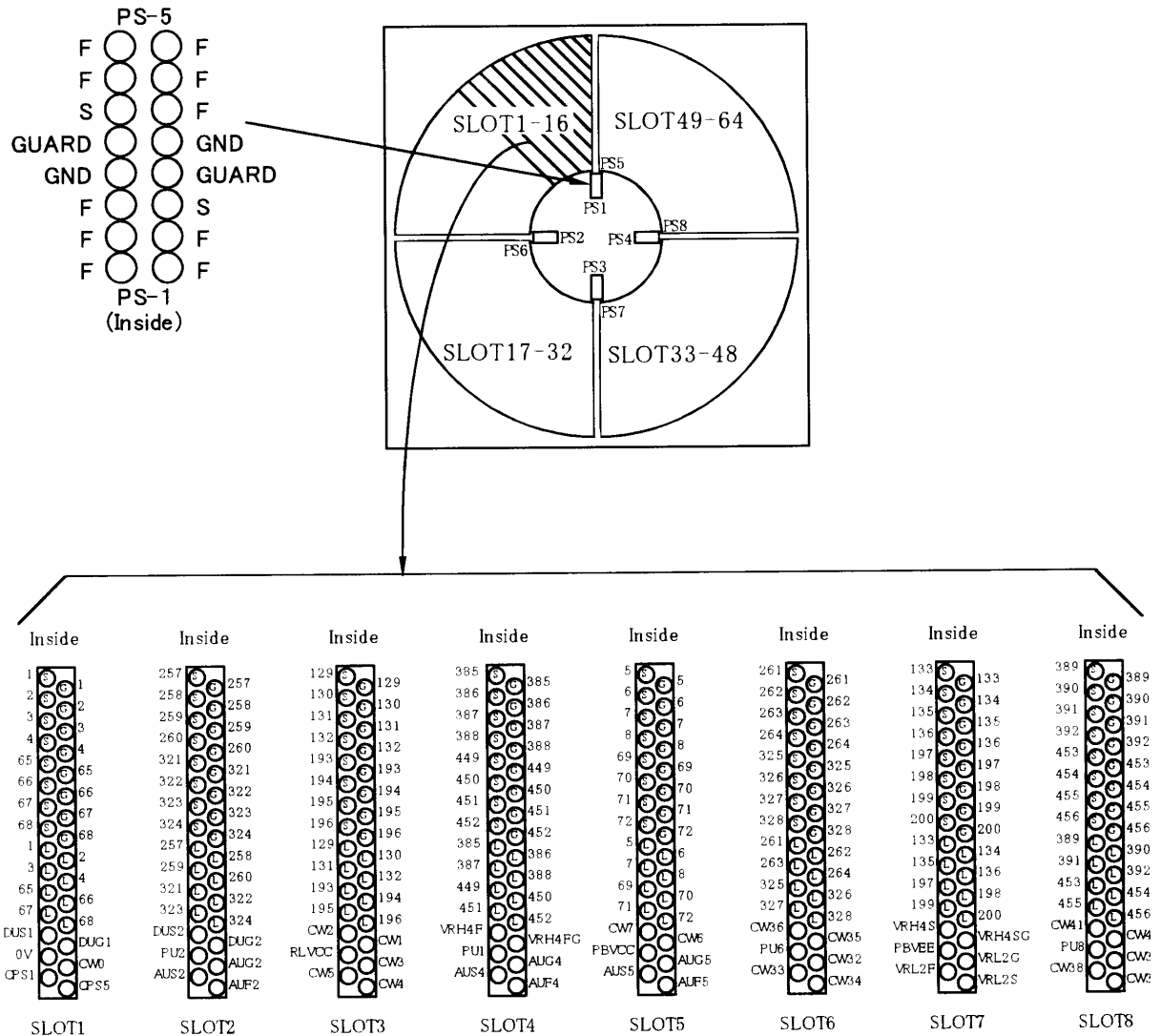


A11.1 512ch POGO Compatible Performance Board Signal Layout

A11.1 512ch POGO Compatible Performance Board Signal Layout

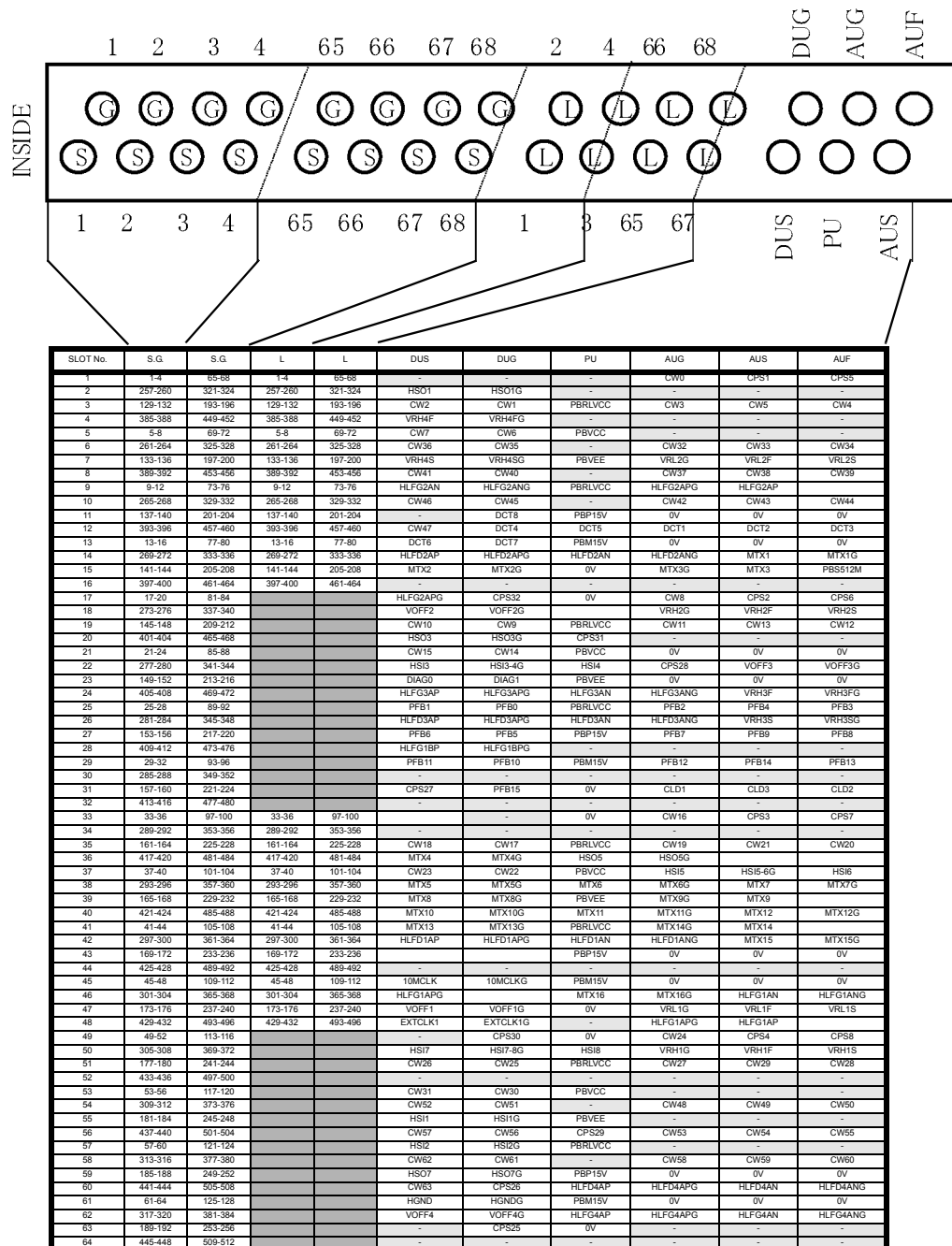

 : Reserved pin

Appendix12. 512ch AV2 Compatible Performance Board Signal Layout



A12.1 512ch AV2 Compatible Performance Board Signal Layout (1)

A12.1 512ch AV2 Compatible Performance Board Signal Layout (1)

 : Reserved pin

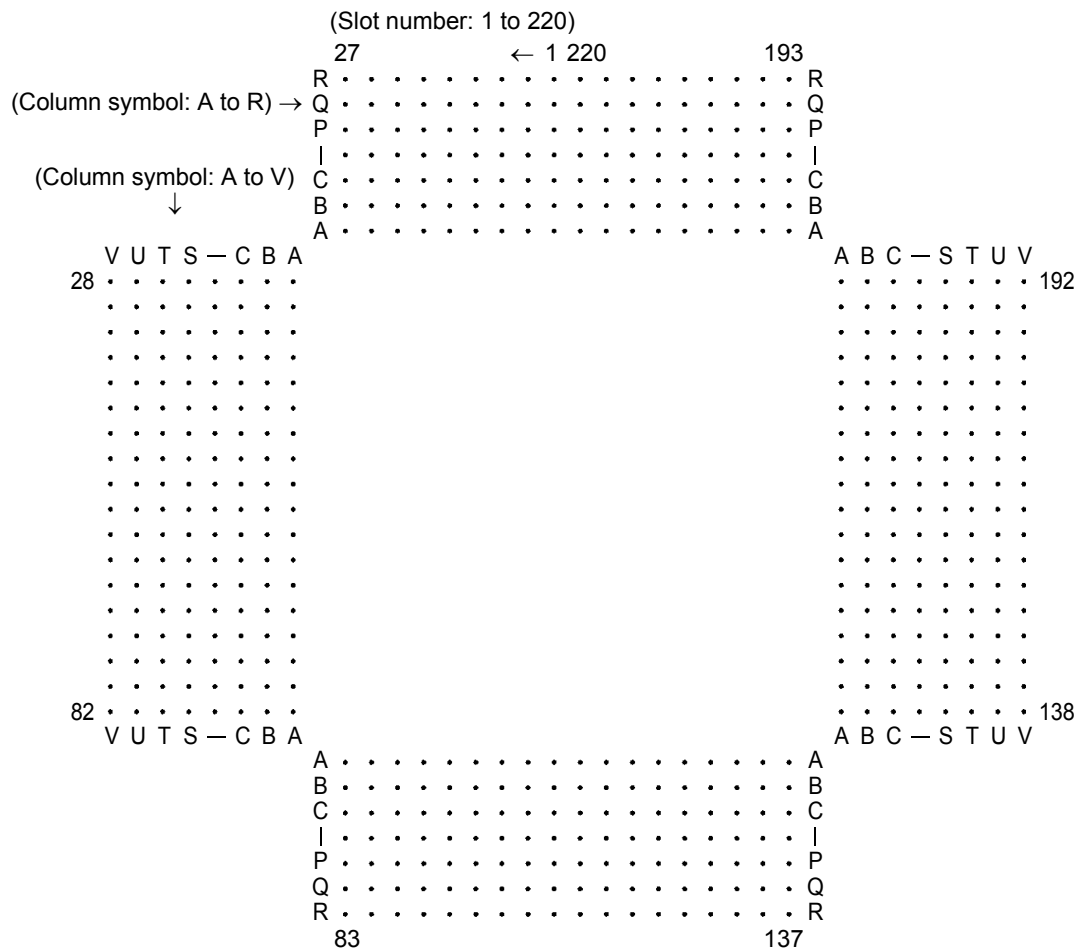
The diagram shows the interior of a cell with various organelles labeled. The labels are arranged in two rows, with the top row labels rotated 90 degrees clockwise. The bottom row labels are: 1, 2, 3, 4, 65, 66, 67, 68, A1G, A2G, A3G, A4G, DUG, AUG, AUF. The top row labels are: 1, 2, 3, 4, 65, 66, 67, 68, A1S, A2S, A3S, A4S, DUS, U, AUS. The organelles are represented by circles containing letters: 'G' for Golgi apparatus, 'S' for smooth endoplasmic reticulum, 'A' for mitochondria, 'D' for nucleus, and 'U' for vacuole. The labels are placed around the organelles, with some labels (A1G, A2G, A3G, A4G) rotated 90 degrees clockwise.

Oct 31/06

Appendix13. Square AP Type HCDPS Compatible Performance Board Signal Layout

Upper and lower: 18 columns × 55 slots
 Right and left: 22 columns × 55 slots
 Total: 4,400 signals

Slot spacing: 4 mm
 Columns and row spacing (A to B): 3 mm
 Gold pad: $\phi 2.5$



Test Head Front View

A13.1 Square AP Type HCDPS Compatible Performance Board Signal Layout

A13.1 Square AP Type HCDPS Compatible Performance Board Signal Layout

Slot Column	1	2	3	4	5	6	7	8	9	10	11	12	13	14
A	-	UCM1		io1	io5	io65	io69	io129	io133	io193	io197	io257	io261	io321
B	-	UCM2		io1G	io5G	io65G	io69G	io129G	io133G	io193G	io197G	io257G	io261G	io321G
C	-	L1	L129	io2	io6	io66	io70	io130	io134	io194	io198	io258	io262	io322
D	-	L2	L130	io2G	io6G	io66G	io70G	io130G	io134G	io194G	io198G	io258G	io262G	io322G
E	-	L3	L131	io3	io7	io67	io71	io131	io135	io195	io199	io259	io263	io323
F	-	L4	L132	io3G	io7G	io67G	io71G	io131G	io135G	io195G	io199G	io259G	io263G	io323G
G	-	L5	L133	io4	io8	io68	io72	io132	io136	io196	io200	io260	io264	io324
H	-	L6	L134	io4G	io8G	io68G	io72G	io132G	io136G	io196G	io200G	io260G	io264G	io324G
I	-	L7	L135	io513	io517	io577	io581	io641	io645	io705	io709	io769	io773	io833
J	-	L8	L136	io513G	io517G	io577G	io581G	io641G	io645G	io705G	io709G	io769G	io773G	io833G
K		L65	L193	io514	io518	io578	io582	io642	io646	io706	io710	io770	io774	io834
L		L66	L194	io514G	io518G	io578G	io582G	io642G	io646G	io706G	io710G	io770G	io774G	io834G
M	DPS29G	L67	L195	io515	io519	io579	io583	io643	io647	io707	io711	io771	io775	io835
N	DPS29GU	L68	L196	io515G	io519G	io579G	io583G	io643G	io647G	io707G	io711G	io771G	io775G	io835G
O	DPS29S	L69	L197	io516	io520	io580	io584	io644	io648	io708	io712	io772	io776	io836
P	DPS29F	L70	L198	io516G	io520G	io580G	io584G	io644G	io648G	io708G	io712G	io772G	io776G	io836G
Q	DPS29F	L71	L199	CW0	-	CW1	CPS29	CW2	-	CW3	CPS25	CW4	-	CW5
R	DPS29G	L72	L200	0V	-	0V	UC0	0V	-	0V	UC1	0V	-	0V

Slot Column	15	16	17	18	19	20	21	22	23	24	25	26	27
A	io325	io385	io389	io449	io453		PBS2	DP77F01	DP77S1	DP77F11	DP78F01	DP78S1	DP78F11
B	io325G	io385G	io389G	io449G	io453G		PBS2G	DP77G01	DP77S2	DP77G11	DP78G01	DP78S2	DP78G11
C	io326	io386	io390	io450	io454	L257	L385	DP77F02	DP77F07	DP77F12	DP78F02	DP78F07	DP78F12
D	io326G	io386G	io390G	io450G	io454G	L258	L386	DP77G02	DP77G07	DP77G12	DP78G02	DP78G07	DP78G12
E	io327	io387	io391	io451	io455	L259	L387	DP77F03	DP77F08	DP77F13	DP78F03	DP78F08	DP78F13
F	io327G	io387G	io391G	io451G	io455G	L260	L388	DP77G03	DP77G08	DP77G13	DP78G03	DP78G08	DP78G13
G	io328	io388	io392	io452	io456	L261	L389	DP77F04	DP77F09	DP77F14	DP78F04	DP78F09	DP78F14
H	io328G	io388G	io392G	io452G	io456G	L262	L390	DP77G04	DP77G09	DP77G14	DP78G04	DP78G09	DP78G14
I	io837	io897	io901	io961	io965	L263	L391	DP77F05	DP77F10	DP77F15	DP78F05	DP78F10	DP78F15
J	io837G	io897G	io901G	io961G	io965G	L264	L392	DP77G05	DP77G10	DP77G15	DP78G05	DP78G10	DP78G15
K	io838	io898	io902	io962	io966	L321	L449	DP77F06	VIM1	DP77F16	DP78F06	-	DP78F16
L	io838G	io898G	io902G	io962G	io966G	L322	L450	DP77G06	VIM1G	DP77G16	DP78G06	-	DP78G16
M	io839	io899	io903	io963	io967	L323	L451	DPS25G	VI1	DPS21G	DPS17G		-
N	io839G	io899G	io903G	io963G	io967G	L324	L452	DPS25GU	VI1G	DPS21GU	DPS17GU		-
O	io840	io900	io904	io964	io968	L325	L453	DPS25S	VSB1	DPS21S	DPS17S	IP1A	-
P	io840G	io900G	io904G	io964G	io968G	L326	L454	DPS25F	VSB1G	DPS21F	DPS17F	IP1AG	-
Q	CPS21	CW6	-	CW7	CPS17	L327	L455	DPS25F	VSB1	DPS21F	DPS17F	IP1B	-
R	UC2	0V	-	0V	UC3	L328	L456	DPS25G	VSB1G	DPS21G	DPS17G	IP1BG	-

A13.1 Square AP Type HCDPS Compatible Performance Board Signal Layout

Slot Column	28	29	30	31	32	33	34	35	36	37	38	39	40	41
A	CPS77	DP79F11	DP79S1	DP79F01	DP80F11	DP80S1	DP80F01	HGND2	HSO9	io9	io73	io10	io74	io11
B	CPS78	DP79G11	DP79S2	DP79G01	DP80G11	DP80S2	DP80G01	HGND2G	HSO9G	io9G	io73G	io10G	io74G	io11G
C	CPS79	DP79F12	DP79F07	DP79F02	DP80F12	DP80F07	DP80F02	-	HSO10	io137	io201	io138	io202	io139
D	CPS80	DP79G12	DP79G07	DP79G02	DP80G12	DP80G07	DP80G02	-	HSO10G	io137G	io201G	io138G	io202G	io139G
E		DP79F13	DP79F08	DP79F03	DP80F13	DP80F08	DP80F03	-	HSI9	io265	io329	io266	io330	io267
F		DP79G13	DP79G08	DP79G03	DP80G13	DP80G08	DP80G03	-	HSI9G	io265G	io329G	io266G	io330G	io267G
G		DP79F14	DP79F09	DP79F04	DP80F14	DP80F09	DP80F04	-	HSI10	io393	io457	io394	io458	io395
H		DP79G14	DP79G09	DP79G04	DP80G14	DP80G09	DP80G04	-	HSI10G	io393G	io457G	io394G	io458G	io395G
I	-	DP79F15	DP79F10	DP79F05	DP80F15	DP80F10	DP80F05	-	-	io521	io585	io522	io586	io523
J	-	DP79G15	DP79G10	DP79G05	DP80G15	DP80G10	DP80G05	-	-	io521G	io585G	io522G	io586G	io523G
K	-	DP79F16	-	DP79F06	DP80F16	-	DP80F06	-	-	io649	io713	io650	io714	io651
L	-	DP79G16	-	DP79G06	DP80G16	-	DP80G06	-	-	io649G	io713G	io650G	io714G	io651G
M	-	-	-	-	-	-	-	-	-	io777	io841	io778	io842	io779
N	-	-	-	-	-	-	-	-	-	io777G	io841G	io778G	io842G	io779G
O	VL1A	IN1A	-	-	-	-	-	-	-	io905	io969	io906	io970	io907
P	VL1AG	IN1AG	-	-	-	-	-	-	-	io905G	io969G	io906G	io970G	io907G
Q	VL1B	IN1B	-	-	DPS13G	-	UDC1G	UDC2G	DPS9G	CW8	-	CW9	CPS13	CW10
R	VL1BG	IN1BG	-	-	DPS13GU	-	UDC1GU	UDC2GU	DPS9GU	0V	-	0V	UC4	0V
S	-	VH1A	-	-	DPS13S	-	UDC1S	UDC2S	DPS9S	L9	L73	L10	L74	L11
T	-	VH1AG	-	-	DPS13F	-	UDC1F	UDC2F	DPS9F	L137	L201	L138	L202	L139
U	PBVCC	VH1B	-	-	DPS13F	-	UDC1F	UDC2F	DPS9F	L265	L329	L266	L330	L267
V	PBVCC	VH1BG	-	-	DPS13G	-	UDC1G	UDC2G	DPS9G	L393	L457	L394	L458	L395

Slot Column	42	43	44	45	46	47	48	49	50	51	52	53	54	55
A	io75	io12	io76	io13	io77	io14	io78	io15	io79	io16	io80	HSO1	VOS1S	
B	io75G	io12G	io76G	io13G	io77G	io14G	io78G	io15G	io79G	io16G	io80G	HSO1G	VOS1S G	
C	io203	io140	io204	io141	io205	io142	io206	io143	io207	io144	io208	HSO2	VOS1F	
D	io203G	io140G	io204G	io141G	io205G	io142G	io206G	io143G	io207G	io144G	io208G	HSO2G	VOS1F G	
E	io331	io268	io332	io269	io333	io270	io334	io271	io335	io272	io336	HSI1	VIMA1	-
F	io331G	io268G	io332G	io269G	io333G	io270G	io334G	io271G	io335G	io272G	io336G	HSI1G	VIMA1G	-
G	io459	io396	io460	io397	io461	io398	io462	io399	io463	io400	io464	HSI2	VIMB1	
H	io459G	io396G	io460G	io397G	io461G	io398G	io462G	io399G	io463G	io400G	io464G	HSI2G	VIMB1G	
I	io587	io524	io588	io525	io589	io526	io590	io527	io591	io528	io592			PFB0
J	io587G	io524G	io588G	io525G	io589G	io526G	io590G	io527G	io591G	io528G	io592G			PFB1
K	io715	io652	io716	io653	io717	io654	io718	io655	io719	io656	io720			PFB2
L	io715G	io652G	io716G	io653G	io717G	io654G	io718G	io655G	io719G	io656G	io720G			PFB3
M	io843	io780	io844	io781	io845	io782	io846	io783	io847	io784	io848			PFB4
N	io843G	io780G	io844G	io781G	io845G	io782G	io846G	io783G	io847G	io784G	io848G			PFB5
O	io971	io908	io972	io909	io973	io910	io974	io911	io975	io912	io976			PFB6
P	io971G	io908G	io972G	io909G	io973G	io910G	io974G	io911G	io975G	io912G	io976G			PFB7
Q	-	CW11	CPS9	CW12	-	CW13	CPS5	CW14	-	CW15	CPS1	DPS5G	DPS1G	
R	-	0V	UC5	0V	-	0V	UC6	0V	-	0V	UC7	DPS5GU	DPS1GU	
S	L75	L12	L76	L13	L77	L14	L78	L15	L79	L16	L80	DPS5S	DPS1S	-
T	L203	L140	L204	L141	L205	L142	L206	L143	L207	L144	L208	DPS5F	DPS1F	-
U	L331	L268	L332	L269	L333	L270	L334	L271	L335	L272	L336	DPS5F	DPS1F	PBP15V
V	L459	L396	L460	L397	L461	L398	L462	L399	L463	L400	L464	DPS5G	DPS1G	PBP15V

A13.1 Square AP Type HCDPS Compatible Performance Board Signal Layout

Slot Column	56	57	58	59	60	61	62	63	64	65	66	67	68	69
A	VOS2S	HSO3	io17	io81	io18	io82	io19	io83	io20	io84	io21	io85	io22	io86
B	VOS2SG	HSO3G	io17G	io81G	io18G	io82G	io19G	io83G	io20G	io84G	io21G	io85G	io22G	io86G
C	VOS2F	HSO4	io145	io209	io146	io210	io147	io211	io148	io212	io149	io213	io150	io214
D	VOS2FG	HSO4G	io145G	io209G	io146G	io210G	io147G	io211G	io148G	io212G	io149G	io213G	io150G	io214G
E	VIMA2	HSI3	io273	io337	io274	io338	io275	io339	io276	io340	io277	io341	io278	io342
F	VIMA2G	HSI3G	io273G	io337G	io274G	io338G	io275G	io339G	io276G	io340G	io277G	io341G	io278G	io342G
G	VIMB2	HSI4	io401	io465	io402	io466	io403	io467	io404	io468	io405	io469	io406	io470
H	VIMB2G	HSI4G	io401G	io465G	io402G	io466G	io403G	io467G	io404G	io468G	io405G	io469G	io406G	io470G
I	PFB8		io529	io593	io530	io594	io531	io595	io532	io596	io533	io597	io534	io598
J	PFB9		io529G	io593G	io530G	io594G	io531G	io595G	io532G	io596G	io533G	io597G	io534G	io598G
K	PFB10		io657	io721	io658	io722	io659	io723	io660	io724	io661	io725	io662	io726
L	PFB11		io657G	io721G	io658G	io722G	io659G	io723G	io660G	io724G	io661G	io725G	io662G	io726G
M	PFB12		io785	io849	io786	io850	io787	io851	io788	io852	io789	io853	io790	io854
N	PFB13		io785G	io849G	io786G	io850G	io787G	io851G	io788G	io852G	io789G	io853G	io790G	io854G
O	PFB14		io913	io977	io914	io978	io915	io979	io916	io980	io917	io981	io918	io982
P	PFB15		io913G	io977G	io914G	io978G	io915G	io979G	io916G	io980G	io917G	io981G	io918G	io982G
Q	DPS3G	DPS7G	CW16	-	CW17	CPS3	CW18	-	CW19	CPS7	CW20	-	CW21	CPS11
R	DPS3GU	DPS7GU	0V	-	0V	UC8	0V	-	0V	UC9	0V	-	0V	UC10
S	DPS3S	DPS7S	L17	L81	L18	L82	L19	L83	L20	L84	L21	L85	L22	L86
T	DPS3F	DPS7F	L145	L209	L146	L210	L147	L211	L148	L212	L149	L213	L150	L214
U	DPS3F	DPS7F	L273	L337	L274	L338	L275	L339	L276	L340	L277	L341	L278	L342
V	DPS3G	DPS7G	L401	L465	L402	L466	L403	L467	L404	L468	L405	L469	L406	L470

Slot Column	70	71	72	73	74	75	76	77	78	79	80	81	82
A	io23	io87	io24	io88	HSO11	-	DP73F01	DP73S1	DP73F11	DP74F01	DP74S1	DP74F11	CPS73
B	io23G	io87G	io24G	io88G	HSO11G	-	DP73G01	DP73S2	DP73G11	DP74G01	DP74S2	DP74G11	CPS74
C	io151	io215	io152	io216	HSO12	-	DP73F02	DP73F07	DP73F12	DP74F02	DP74F07	DP74F12	CPS75
D	io151G	io215G	io152G	io216G	HSO12G	-	DP73G02	DP73G07	DP73G12	DP74G02	DP74G07	DP74G12	CPS76
E	io279	io343	io280	io344	HSI11	-	DP73F03	DP73F08	DP73F13	DP74F03	DP74F08	DP74F13	
F	io279G	io343G	io280G	io344G	HSI11G	-	DP73G03	DP73G08	DP73G13	DP74G03	DP74G08	DP74G13	
G	io407	io471	io408	io472	HSI12	-	DP73F04	DP73F09	DP73F14	DP74F04	DP74F09	DP74F14	
H	io407G	io471G	io408G	io472G	HSI12G	-	DP73G04	DP73G09	DP73G14	DP74G04	DP74G09	DP74G14	
I	io535	io599	io536	io600	-	-	DP73F05	DP73F10	DP73F15	DP74F05	DP74F10	DP74F15	-
J	io535G	io599G	io536G	io600G	-	-	DP73G05	DP73G10	DP73G15	DP74G05	DP74G10	DP74G15	-
K	io663	io727	io664	io728	-	-	DP73F06		DP73F16	DP74F06	-	DP74F16	-
L	io663G	io727G	io664G	io728G	-	-	DP73G06		DP73G16	DP74G06	-	DP74G16	-
M	io791	io855	io792	io856	-	-		-	-			-	-
N	io791G	io855G	io792G	io856G	-	-		-	-			-	-
O	io919	io983	io920	io984	-	-	-	-	-			IN2A	VL2A
P	io919G	io983G	io920G	io984G	-	-	-	-	-			IN2AG	VL2AG
Q	CW22	-	CW23	CPS15	DPS11G	UDC3G	UDC4G		DPS15G	-		IN2B	VL2B
R	0V	-	0V	UC11	DPS11GU	UDC3GU	UDC4GU		DPS15GU	-		IN2BG	VL2BG
S	L23	L87	L24	L88	DPS11S	UDC3S	UDC4S		DPS15S	-	-	VH2A	-
T	L151	L215	L152	L216	DPS11F	UDC3F	UDC4F		DPS15F	-	-	VH2AG	-
U	L279	L343	L280	L344	DPS11F	UDC3F	UDC4F		DPS15F	-	-	VH2B	PBVEE
V	L407	L471	L408	L472	DPS11G	UDC3G	UDC4G		DPS15G	-	-	VH2BG	PBVEE

A13.1 Square AP Type HCDPS Compatible Performance Board Signal Layout

Slot Column	83	84	85	86	87	88	89	90	91	92	93	94	95	96
A	DP75F11	DP75S1	DP75F01	DP76F11	DP76S1	DP76F01	PBS3		io477	io473	io413	io409	io349	io345
B	DP75G11	DP75S2	DP75G01	DP76G11	DP76S2	DP76G01	PBS3G		io477G	io473G	io413G	io409G	io349G	io345G
C	DP75F12	DP75F07	DP75F02	DP76F12	DP76F07	DP76F02	L477	L349	io478	io474	io414	io410	io350	io346
D	DP75G12	DP75G07	DP75G02	DP76G12	DP76G07	DP76G02	L478	L350	io478G	io474G	io414G	io410G	io350G	io346G
E	DP75F13	DP75F08	DP75F03	DP76F13	DP76F08	DP76F03	L479	L351	io479	io475	io415	io411	io351	io347
F	DP75G13	DP75G08	DP75G03	DP76G13	DP76G08	DP76G03	L480	L352	io479G	io475G	io415G	io411G	io351G	io347G
G	DP75F14	DP75F09	DP75F04	DP76F14	DP76F09	DP76F04	L473	L345	io480	io476	io416	io412	io352	io348
H	DP75G14	DP75G09	DP75G04	DP76G14	DP76G09	DP76G04	L474	L346	io480G	io476G	io416G	io412G	io352G	io348G
I	DP75F15	DP75F10	DP75F05	DP76F15	DP76F10	DP76F05	L475	L347	io989	io985	io925	io921	io861	io857
J	DP75G15	DP75G10	DP75G05	DP76G15	DP76G10	DP76G05	L476	L348	io989G	io985G	io925G	io921G	io861G	io857G
K	DP75F16	-	DP75F06	DP76F16	VIM2	DP76F06	L413	L285	io990	io986	io926	io922	io862	io858
L	DP75G16	-	DP75G06	DP76G16	VIM2G	DP76G06	L414	L286	io990G	io986G	io926G	io922G	io862G	io858G
M	-		DPS19G	DPS23G	VI2	DPS27G	L415	L287	io991	io987	io927	io923	io863	io859
N	-		DPS19GU	DPS23GU	VI2G	DPS27GU	L416	L288	io991G	io987G	io927G	io923G	io863G	io859G
O	-	IP2A	DPS19S	DPS23S	VS2	DPS27S	L409	L281	io992	io988	io928	io924	io864	io860
P	-	IP2AG	DPS19F	DPS23F	VS2G	DPS27F	L410	L282	io992G	io988G	io928G	io924G	io864G	io860G
Q	-	IP2B	DPS19F	DPS23F	VS2	DPS27F	L411	L283	CW24	-	CW25	CPS19	CW26	-
R	-	IP2BG	DPS19G	DPS23G	VS2G	DPS27G	L412	L284	0V	-	0V	UC12	0V	-

Slot Column	97	98	99	100	101	102	103	104	105	106	107	108	109	110
A	io285	io281	io221	io217	io157	io153	io93	io89	io29	io25		-	-	HGND
B	io285G	io281G	io221G	io217G	io157G	io153G	io93G	io89G	io29G	io25G		-	-	0V
C	io286	io282	io222	io218	io158	io154	io94	io90	io30	io26	L221	L93	-	
D	io286G	io282G	io222G	io218G	io158G	io154G	io94G	io90G	io30G	io26G	L222	L94	-	
E	io287	io283	io223	io219	io159	io155	io95	io91	io31	io27	L223	L95	-	MASK
F	io287G	io283G	io223G	io219G	io159G	io155G	io95G	io91G	io31G	io27G	L224	L96	-	MASKG
G	io288	io284	io224	io220	io160	io156	io96	io92	io32	io28	L217	L89	-	PBTYP0
H	io288G	io284G	io224G	io220G	io160G	io156G	io96G	io92G	io32G	io28G	L218	L90	-	PBTYP1
I	io797	io793	io733	io729	io669	io665	io605	io601	io541	io537	L219	L91	-	PBTYP2
J	io797G	io793G	io733G	io729G	io669G	io665G	io605G	io601G	io541G	io537G	L220	L92	-	PBTYP3
K	io798	io794	io734	io730	io670	io666	io606	io602	io542	io538	L157	L29		PBTYP4
L	io798G	io794G	io734G	io730G	io670G	io666G	io606G	io602G	io542G	io538G	L158	L30		PBTYP5
M	io799	io795	io735	io731	io671	io667	io607	io603	io543	io539	L159	L31	DPS31G	-
N	io799G	io795G	io735G	io731G	io671G	io667G	io607G	io603G	io543G	io539G	L160	L32	DPS31GU	-
O	io800	io796	io736	io732	io672	io668	io608	io604	io544	io540	L153	L25	DPS31S	PBRLVCC
P	io800G	io796G	io736G	io732G	io672G	io668G	io608G	io604G	io544G	io540G	L154	L26	DPS31F	PBRLVCC
Q	CW27	CPS23	CW28	-	CW29	CPS27	CW30	-	CW31	CPS31	L155	L27	DPS31F	PBRLVCC
R	0V	UC13	0V	-	0V	UC14	0V	-	0V	UC15	L156	L28	DPS31G	PBRLVCC

A13.1 Square AP Type HCDPS Compatible Performance Board Signal Layout

Slot Column	111	112	113	114	115	116	117	118	119	120	121	122	123	124
A	-	UCM3		io33	io37	io97	io101	io161	io165	io225	io229	io289	io293	io353
B	-	UCM4		io33G	io37G	io97G	io101G	io161G	io165G	io225G	io229G	io289G	io293G	io353G
C	-	L33	L161	io34	io38	io98	io102	io162	io166	io226	io230	io290	io294	io354
D	-	L34	L162	io34G	io38G	io98G	io102G	io162G	io166G	io226G	io230G	io290G	io294G	io354G
E	-	L35	L163	io35	io39	io99	io103	io163	io167	io227	io231	io291	io295	io355
F	-	L36	L164	io35G	io39G	io99G	io103G	io163G	io167G	io227G	io231G	io291G	io295G	io355G
G	-	L37	L165	io36	io40	io100	io104	io164	io168	io228	io232	io292	io296	io356
H	-	L38	L166	io36G	io40G	io100G	io104G	io164G	io168G	io228G	io232G	io292G	io296G	io356G
I	-	L39	L167	io545	io549	io609	io613	io673	io677	io737	io741	io801	io805	io865
J	-	L40	L168	io545G	io549G	io609G	io613G	io673G	io677G	io737G	io741G	io801G	io805G	io865G
K		L97	L225	io546	io550	io610	io614	io674	io678	io738	io742	io802	io806	io866
L		L98	L226	io546G	io550G	io610G	io614G	io674G	io678G	io738G	io742G	io802G	io806G	io866G
M	DPS32G	L99	L227	io547	io551	io611	io615	io675	io679	io739	io743	io803	io807	io867
N	DPS32GU	L100	L228	io547G	io551G	io611G	io615G	io675G	io679G	io739G	io743G	io803G	io807G	io867G
O	DPS32S	L101	L229	io548	io552	io612	io616	io676	io680	io740	io744	io804	io808	io868
P	DPS32F	L102	L230	io548G	io552G	io612G	io616G	io676G	io680G	io740G	io744G	io804G	io808G	io868G
Q	DPS32F	L103	L231	CW32	-	CW33	CPS32	CW34	-	CW35	CPS28	CW36	-	CW37
R	DPS32G	L104	L232	0V	-	0V	UC16	0V	-	0V	UC17	0V	-	0V

Slot Column	125	126	127	128	129	130	131	132	133	134	135	136	137
A	io357	io417	io421	io481	io485		-	DP68F01	DP68S1	DP68F11	DP67F01	DP67S1	DP67F11
B	io357G	io417G	io421G	io481G	io485G		-	DP68G01	DP68S2	DP68G11	DP67G01	DP67S2	DP67G11
C	io358	io418	io422	io482	io486	L289	L417	DP68F02	DP68F07	DP68F12	DP67F02	DP67F07	DP67F12
D	io358G	io418G	io422G	io482G	io486G	L290	L418	DP68G02	DP68G07	DP68G12	DP67G02	DP67G07	DP67G12
E	io359	io419	io423	io483	io487	L291	L419	DP68F03	DP68F08	DP68F13	DP67F03	DP67F08	DP67F13
F	io359G	io419G	io423G	io483G	io487G	L292	L420	DP68G03	DP68G08	DP68G13	DP67G03	DP67G08	DP67G13
G	io360	io420	io424	io484	io488	L293	L421	DP68F04	DP68F09	DP68F14	DP67F04	DP67F09	DP67F14
H	io360G	io420G	io424G	io484G	io488G	L294	L422	DP68G04	DP68G09	DP68G14	DP67G04	DP67G09	DP67G14
I	io869	io929	io933	io993	io997	L295	L423	DP68F05	DP68F10	DP68F15	DP67F05	DP67F10	DP67F15
J	io869G	io929G	io933G	io993G	io997G	L296	L424	DP68G05	DP68G10	DP68G15	DP67G05	DP67G10	DP67G15
K	io870	io930	io934	io994	io998	L353	L481	DP68F06	VIM3	DP68F16	DP67F06	-	DP67F16
L	io870G	io930G	io934G	io994G	io998G	L354	L482	DP68G06	VIM3G	DP68G16	DP67G06	-	DP67G16
M	io871	io931	io935	io995	io999	L355	L483	DPS28G	VI3	DPS24G	DPS20G		-
N	io871G	io931G	io935G	io995G	io999G	L356	L484	DPS28GU	VI3G	DPS24GU	DPS20GU		-
O	io872	io932	io936	io996	io1000	L357	L485	DPS28S	VS83	DPS24S	DPS20S	IP3A	-
P	io872G	io932G	io936G	io996G	io1000G	L358	L486	DPS28F	VS83G	DPS24F	DPS20F	IP3AG	-
Q	CPS24	CW38	-	CW39	CPS20	L359	L487	DPS28F	VS83	DPS24F	DPS20F	IP3B	-
R	UC18	0V	-	0V	UC19	L360	L488	DPS28G	VS83G	DPS24G	DPS20G	IP3BG	-

A13.1 Square AP Type HCDPS Compatible Performance Board Signal Layout

Slot Column	138	139	140	141	142	143	144	145	146	147	148	149	150	151
A	CPS65	DP66F11	DP66S1	DP66F01	DP65F11	DP65S1	DP65F01		HSO5	io112	io48	io111	io47	io110
B	CPS66	DP66G11	DP66S2	DP66G01	DP65G11	DP65S2	DP65G01		HSO5G	io112G	io48G	io111G	io47G	io110G
C	CPS67	DP66F12	DP66F07	DP66F02	DP65F12	DP65F07	DP65F02		HSO6	io240	io176	io239	io175	io238
D	CPS68	DP66G12	DP66G07	DP66G02	DP65G12	DP65G07	DP65G02		HSO6G	io240G	io176G	io239G	io175G	io238G
E	-	DP66F13	DP66F08	DP66F03	DP65F13	DP65F08	DP65F03		HSI5	io368	io304	io367	io303	io366
F	-	DP66G13	DP66G08	DP66G03	DP65G13	DP65G08	DP65G03		HSI5G	io368G	io304G	io367G	io303G	io366G
G	-	DP66F14	DP66F09	DP66F04	DP65F14	DP65F09	DP65F04		HSI6	io496	io432	io495	io431	io494
H	-	DP66G14	DP66G09	DP66G04	DP65G14	DP65G09	DP65G04		HSI6G	io496G	io432G	io495G	io431G	io494G
I	-	DP66F15	DP66F10	DP66F05	DP65F15	DP65F10	DP65F05		-	io624	io560	io623	io559	io622
J	-	DP66G15	DP66G10	DP66G05	DP65G15	DP65G10	DP65G05		-	io624G	io560G	io623G	io559G	io622G
K	-	DP66F16	-	DP66F06	DP65F16		DP65F06	-	-	io752	io688	io751	io687	io750
L	-	DP66G16	-	DP66G06	DP65G16		DP65G06	-	-	io752G	io688G	io751G	io687G	io750G
M	-	-	-	-	-			-	-	io880	io816	io879	io815	io878
N	-	-	-	-	-			-	-	io880G	io816G	io879G	io815G	io878G
O	VL3A	IN3A	-	-	-		-	-	-	io1008	io944	io1007	io943	io1006
P	VL3AG	IN3AG	-	-	-		-	-	-	io1008G	io944G	io1007G	io943G	io1006G
Q	VL3B	IN3B	-	-	DPS16G		UDC5G	UDC6G	DPS12G	CW40	-	CW41	CPS16	CW42
R	VL3BG	IN3BG	-	-	DPS16G U		UDC5GU	UDC6GU	DPS12G U	0V	-	0V	UC20	0V
S	-	VH3A	-	-	DPS16S		UDC5S	UDC6S	DPS12S	L112	L48	L111	L47	L110
T	-	VH3AG	-	-	DPS16F		UDC5F	UDC6F	DPS12F	L240	L176	L239	L175	L238
U	PBVCC	VH3B	-	-	DPS16F		UDC5F	UDC6F	DPS12F	L368	L304	L367	L303	L366
V	PBVCC	VH3BG	-	-	DPS16G		UDC5G	UDC6G	DPS12G	L496	L432	L495	L431	L494

Slot Column	152	153	154	155	156	157	158	159	160	161	162	163	164	165
A	io46	io109	io45	io108	io44	io107	io43	io106	io42	io105	io41	HSO13	VOS3S	-
B	io46G	io109G	io45G	io108G	io44G	io107G	io43G	io106G	io42G	io105G	io41G	HSO13G	VOS3SG	-
C	io174	io237	io173	io236	io172	io235	io171	io234	io170	io233	io169	HSO14	VOS3F	-
D	io174G	io237G	io173G	io236G	io172G	io235G	io171G	io234G	io170G	io233G	io169G	HSO14G	VOS3FG	-
E	io302	io365	io301	io364	io300	io363	io299	io362	io298	io361	io297	HSI13	VIMA3	-
F	io302G	io365G	io301G	io364G	io300G	io363G	io299G	io362G	io298G	io361G	io297G	HSI13G	VIMA3G	-
G	io430	io493	io429	io492	io428	io491	io427	io490	io426	io489	io425	HSI14	VIMB3	-
H	io430G	io493G	io429G	io492G	io428G	io491G	io427G	io490G	io426G	io489G	io425G	HSI14G	VIMB3G	-
I	io558	io621	io557	io620	io556	io619	io555	io618	io554	io617	io553			
J	io558G	io621G	io557G	io620G	io556G	io619G	io555G	io618G	io554G	io617G	io553G			
K	io686	io749	io685	io748	io684	io747	io683	io746	io682	io745	io681			DCT1
L	io686G	io749G	io685G	io748G	io684G	io747G	io683G	io746G	io682G	io745G	io681G			DCT2
M	io814	io877	io813	io876	io812	io875	io811	io874	io810	io873	io809			DCT3
N	io814G	io877G	io813G	io876G	io812G	io875G	io811G	io874G	io810G	io873G	io809G			DCT4
O	io942	io1005	io941	io1004	io940	io1003	io939	io1002	io938	io1001	io937			DCT5
P	io942G	io1005G	io941G	io1004G	io940G	io1003G	io939G	io1002G	io938G	io1001G	io937G			DCT6
Q	-	CW43	CPS12	CW44	-	CW45	CPS8	CW46	-	CW47	CPS4	DPS8G	DPS4G	DCT7
R	-	0V	UC21	0V	-	0V	UC22	0V	-	0V	UC23	DPS8GU	DPS4GU	DCT8
S	L46	L109	L45	L108	L44	L107	L43	L106	L42	L105	L41	DPS8S	DPS4S	-
T	L174	L237	L173	L236	L172	L235	L171	L234	L170	L233	L169	DPS8F	DPS4F	-
U	L302	L365	L301	L364	L300	L363	L299	L362	L298	L361	L297	DPS8F	DPS4F	PBM15V
V	L430	L493	L429	L492	L428	L491	L427	L490	L426	L489	L425	DPS8G	DPS4G	PBM15V

A13.1 Square AP Type HCDPS Compatible Performance Board Signal Layout

Slot Column	166	167	168	169	170	171	172	173	174	175	176	177	178	179
A	VOS4S	HSO15	io120	io56	io119	io55	io118	io54	io117	io53	io116	io52	io115	io51
B	VOS4SG	HSO15G	io120G	io56G	io119G	io55G	io118G	io54G	io117G	io53G	io116G	io52G	io115G	io51G
C	VOS4F	HSO16	io248	io184	io247	io183	io246	io182	io245	io181	io244	io180	io243	io179
D	VOS4FG	HSO16G	io248G	io184G	io247G	io183G	io246G	io182G	io245G	io181G	io244G	io180G	io243G	io179G
E	VIMA4	HSI15	io376	io312	io375	io311	io374	io310	io373	io309	io372	io308	io371	io307
F	VIMA4G	HSI15G	io376G	io312G	io375G	io311G	io374G	io310G	io373G	io309G	io372G	io308G	io371G	io307G
G	VIMB4	HSI16	io504	io440	io503	io439	io502	io438	io501	io437	io500	io436	io499	io435
H	VIMB4G	HSI16G	io504G	io440G	io503G	io439G	io502G	io438G	io501G	io437G	io500G	io436G	io499G	io435G
I			io632	io568	io631	io567	io630	io566	io629	io565	io628	io564	io627	io563
J			io632G	io568G	io631G	io567G	io630G	io566G	io629G	io565G	io628G	io564G	io627G	io563G
K			io760	io696	io759	io695	io758	io694	io757	io693	io756	io692	io755	io691
L			io760G	io696G	io759G	io695G	io758G	io694G	io757G	io693G	io756G	io692G	io755G	io691G
M			io888	io824	io887	io823	io886	io822	io885	io821	io884	io820	io883	io819
N			io888G	io824G	io887G	io823G	io886G	io822G	io885G	io821G	io884G	io820G	io883G	io819G
O			io1016	io952	io1015	io951	io1014	io950	io1013	io949	io1012	io948	io1011	io947
P			io1016G	io952G	io1015G	io951G	io1014G	io950G	io1013G	io949G	io1012G	io948G	io1011G	io947G
Q	DPS2G	DPS6G	CW48	-	CW49	CPS2	CW50	-	CW51	CPS6	CW52	-	CW53	CPS10
R	DPS2GU	DPS6GU	0V	-	0V	UC24	0V	-	0V	UC25	0V	-	0V	UC26
S	DPS2S	DPS6S	L120	L56	L119	L55	L118	L54	L117	L53	L116	L52	L115	L51
T	DPS2F	DPS6F	L248	L184	L247	L183	L246	L182	L245	L181	L244	L180	L243	L179
U	DPS2F	DPS6F	L376	L312	L375	L311	L374	L310	L373	L309	L372	L308	L371	L307
V	DPS2G	DPS6G	L504	L440	L503	L439	L502	L438	L501	L437	L500	L436	L499	L435

Slot Column	180	181	182	183	184	185	186	187	188	189	190	191	192
A	io114	io50	io113	io49	HSO7	HGND1	DP72F01	DP72S1	DP72F11	DP71F01	DP71S1	DP71F11	CPS69
B	io114G	io50G	io113G	io49G	HSO7G	HGND1G	DP72G01	DP72S2	DP72G11	DP71G01	DP71S2	DP71G11	CPS70
C	io242	io178	io241	io177	HSO8		DP72F02	DP72F07	DP72F12	DP71F02	DP71F07	DP71F12	CPS71
D	io242G	io178G	io241G	io177G	HSO8G		DP72G02	DP72G07	DP72G12	DP71G02	DP71G07	DP71G12	CPS72
E	io370	io306	io369	io305	HSI7		DP72F03	DP72F08	DP72F13	DP71F03	DP71F08	DP71F13	
F	io370G	io306G	io369G	io305G	HSI7G		DP72G03	DP72G08	DP72G13	DP71G03	DP71G08	DP71G13	
G	io498	io434	io497	io433	HSI8		DP72F04	DP72F09	DP72F14	DP71F04	DP71F09	DP71F14	
H	io498G	io434G	io497G	io433G	HSI8G		DP72G04	DP72G09	DP72G14	DP71G04	DP71G09	DP71G14	
I	io626	io562	io625	io561	-		DP72F05	DP72F10	DP72F15	DP71F05	DP71F10	DP71F15	-
J	io626G	io562G	io625G	io561G	-		DP72G05	DP72G10	DP72G15	DP71G05	DP71G10	DP71G15	-
K	io754	io690	io753	io689	-	-	DP72F06	-	DP72F16	DP71F06	-	DP71F16	-
L	io754G	io690G	io753G	io689G	-	-	DP72G06	-	DP72G16	DP71G06	-	DP71G16	-
M	io882	io818	io881	io817	-	-	-	-	-	-	-	-	-
N	io882G	io818G	io881G	io817G	-	-	-	-	-	-	-	-	-
O	io1010	io946	io1009	io945	-	-	-	-	-	-	-	IN4A	VL4A
P	io1010G	io946G	io1009G	io945G	-	-	-	-	-	-	-	IN4AG	VL4AG
Q	CW54	-	CW55	CPS14	DPS10G	UDC7G	UDC8G	-	DPS14G	-	-	IN4B	VL4B
R	0V	-	0V	UC27	DPS10GU	UDC7GU	UDC8GU	-	DPS14GU	-	-	IN4BG	VL4BG
S	L114	L50	L113	L49	DPS10S	UDC7S	UDC8S	-	DPS14S	-	-	VH4A	-
T	L242	L178	L241	L177	DPS10F	UDC7F	UDC8F	-	DPS14F	-	-	VH4AG	-
U	L370	L306	L369	L305	DPS10F	UDC7F	UDC8F	-	DPS14F	-	-	VH4B	PBVEE
V	L498	L434	L497	L433	DPS10G	UDC7G	UDC8G	-	DPS14G	-	-	VH4BG	PBVEE

A13.1 Square AP Type HCDPS Compatible Performance Board Signal Layout

Slot Column	193	194	195	196	197	198	199	200	201	202	203	204	205	206
A	DP70F11	DP70S1	DP70F01	DP69F11	DP69S1	DP69F01	-		io509	io505	io445	io441	io381	io377
B	DP70G11	DP70S2	DP70G01	DP69G11	DP69S2	DP69G01	-		io509G	io505G	io445G	io441G	io381G	io377G
C	DP70F12	DP70F07	DP70F02	DP69F12	DP69F07	DP69F02	L509	L381	io510	io506	io446	io442	io382	io378
D	DP70G12	DP70G07	DP70G02	DP69G12	DP69G07	DP69G02	L510	L382	io510G	io506G	io446G	io442G	io382G	io378G
E	DP70F13	DP70F08	DP70F03	DP69F13	DP69F08	DP69F03	L511	L383	io511	io507	io447	io443	io383	io379
F	DP70G13	DP70G08	DP70G03	DP69G13	DP69G08	DP69G03	L512	L384	io511G	io507G	io447G	io443G	io383G	io379G
G	DP70F14	DP70F09	DP70F04	DP69F14	DP69F09	DP69F04	L505	L377	io512	io508	io448	io444	io384	io380
H	DP70G14	DP70G09	DP70G04	DP69G14	DP69G09	DP69G04	L506	L378	io512G	io508G	io448G	io444G	io384G	io380G
I	DP70F15	DP70F10	DP70F05	DP69F15	DP69F10	DP69F05	L507	L379	io1021	io1017	io957	io953	io893	io889
J	DP70G15	DP70G10	DP70G05	DP69G15	DP69G10	DP69G05	L508	L380	io1021G	io1017G	io957G	io953G	io893G	io889G
K	DP70F16	-	DP70F06	DP69F16	VIM4	DP69F06	L445	L317	io1022	io1018	io958	io954	io894	io890
L	DP70G16	-	DP70G06	DP69G16	VIM4G	DP69G06	L446	L318	io1022G	io1018G	io958G	io954G	io894G	io890G
M	-	-	DPS18G	DPS22G	VI4	DPS26G	L447	L319	io1023	io1019	io959	io955	io895	io891
N	-	-	DPS18GU	DPS22GU	VI4G	DPS26GU	L448	L320	io1023G	io1019G	io959G	io955G	io895G	io891G
O		IP4A	DPS18S	DPS22S	VS84	DPS26S	L441	L313	io1024	io1020	io960	io956	io896	io892
P	RONM	IP4AG	DPS18F	DPS22F	VS84G	DPS26F	L442	L314	io1024G	io1020G	io960G	io956G	io896G	io892G
Q	COSN	IP4B	DPS18F	DPS22F	VS84	DPS26F	L443	L315	CW56	-	CW57	CPS18	CW58	-
R	COSNG	IP4BG	DPS18G	DPS22G	VS84G	DPS26G	L444	L316	0V	-	0V	UC28	0V	-

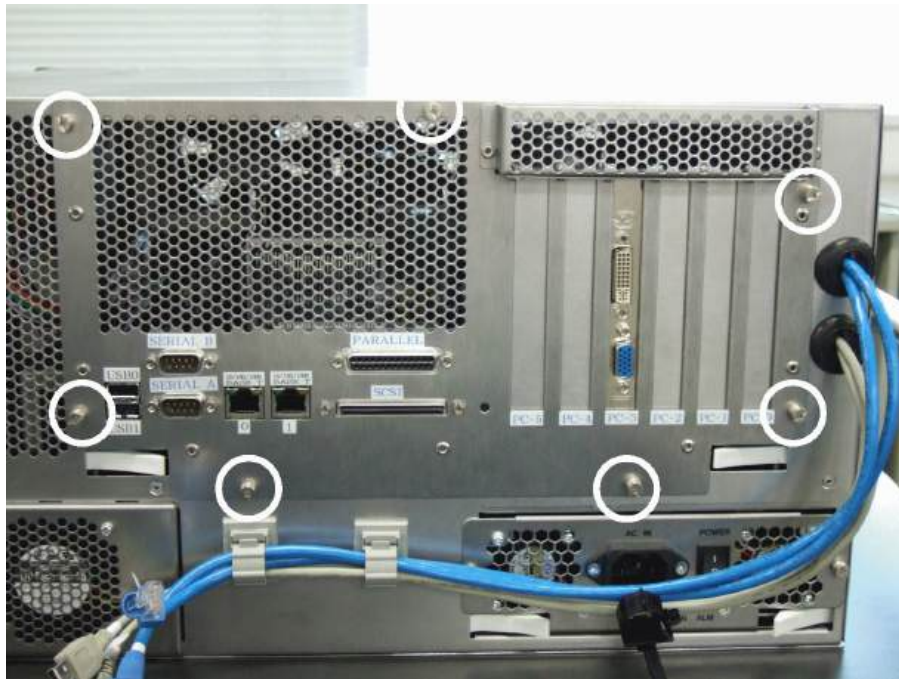
Slot Column	207	208	209	210	211	212	213	214	215	216	217	218	219	220
A	io317	io313	io253	io249	io189	io185	io125	io121	io61	io57			-	-
B	io317G	io313G	io253G	io249G	io189G	io185G	io125G	io121G	io61G	io57G			-	-
C	io318	io314	io254	io250	io190	io186	io126	io122	io62	io58	L253	L125	-	-
D	io318G	io314G	io254G	io250G	io190G	io186G	io126G	io122G	io62G	io58G	L254	L126	-	-
E	io319	io315	io255	io251	io191	io187	io127	io123	io63	io59	L255	L127	-	-
F	io319G	io315G	io255G	io251G	io191G	io187G	io127G	io123G	io63G	io59G	L256	L128	-	-
G	io320	io316	io256	io252	io192	io188	io128	io124	io64	io60	L249	L121	-	-
H	io320G	io316G	io256G	io252G	io192G	io188G	io128G	io124G	io64G	io60G	L250	L122	-	-
I	io829	io825	io765	io761	io701	io697	io637	io633	io573	io569	L251	L123	-	CLD1
J	io829G	io825G	io765G	io761G	io701G	io697G	io637G	io633G	io573G	io569G	L252	L124	-	CLD2
K	io830	io826	io766	io762	io702	io698	io638	io634	io574	io570	L189	L61		CLD3
L	io830G	io826G	io766G	io762G	io702G	io698G	io638G	io634G	io574G	io570G	L190	L62		
M	io831	io827	io767	io763	io703	io699	io639	io635	io575	io571	L191	L63	DPS30G	-
N	io831G	io827G	io767G	io763G	io703G	io699G	io639G	io635G	io575G	io571G	L192	L64	DPS30GU	-
O	io832	io828	io768	io764	io704	io700	io640	io636	io576	io572	L185	L57	DPS30S	PBRLVCC
P	io832G	io828G	io768G	io764G	io704G	io700G	io640G	io636G	io576G	io572G	L186	L58	DPS30F	PBRLVCC
Q	CW59	CPS22	CW60	-	CW61	CPS26	CW62	-	CW63	CPS30	L187	L59	DPS30F	PBRLVCC
R	0V	UC29	0V	-	0V	UC30	0V	-	0V	UC31	L188	L60	DPS30G	PBRLVCC

Appendix14. TC7A Board and DISK Storage Installation Procedure

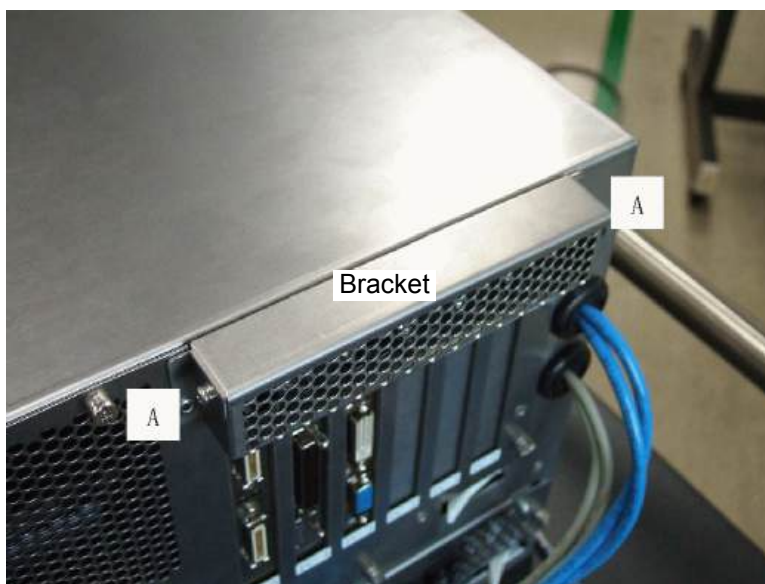
A14.1 Board Installation Procedure

(1) Removing the mother board (MB)

- ① Remove the screws whose locations are circled in the figure below.



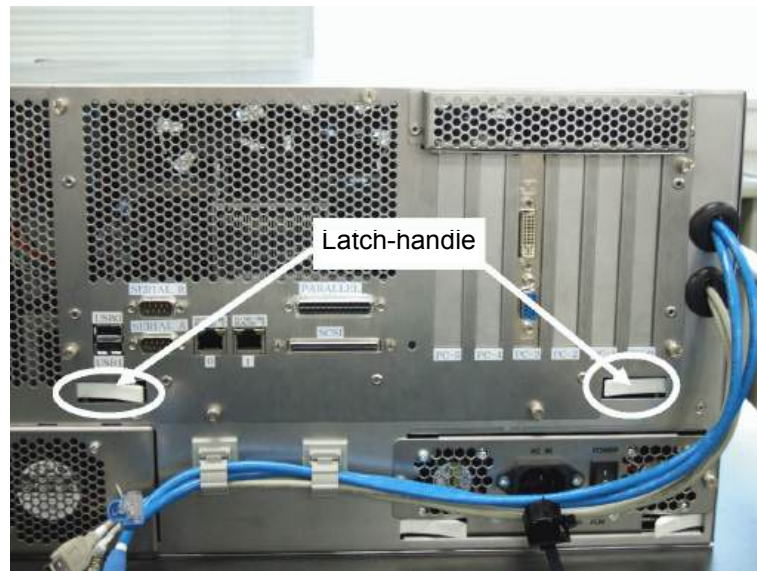
TC7A CPU Unit rear side



Remove the screws whose locations are indicated by "A" to remove the bracket.

A14.1 Board Installation Procedure

- ② Remove the MB using the latch-handles whose locations are circled in the figure below.



The right and left latch-handles are used at the same time.
This procedure describes the left latch-handle.
For the right latch-handle, perform the same procedure as the left latch-handle.



Pull the latch-handle out.



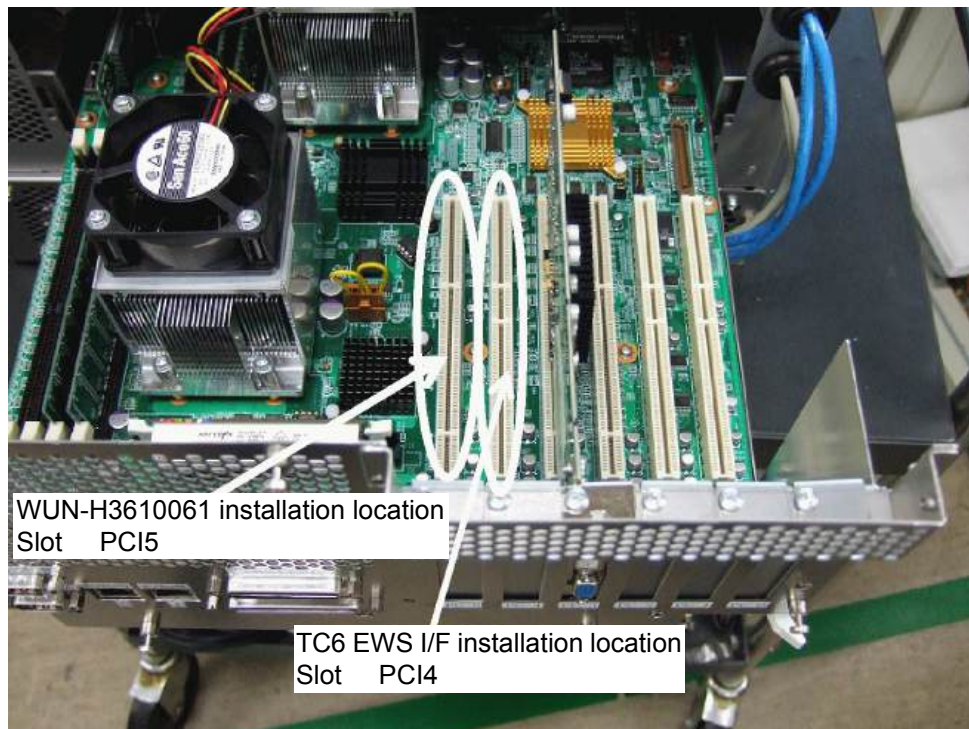
The board is removed when the latch-handle is positioned as shown in the left figure.

(2) TC6 EWS I/F (BGC-027896) and WUN-H3610061 installation locations

① Installation location



TC7A CPU Unit rear view



TC7A CPU Unit PCI Slot photograph taken from the top

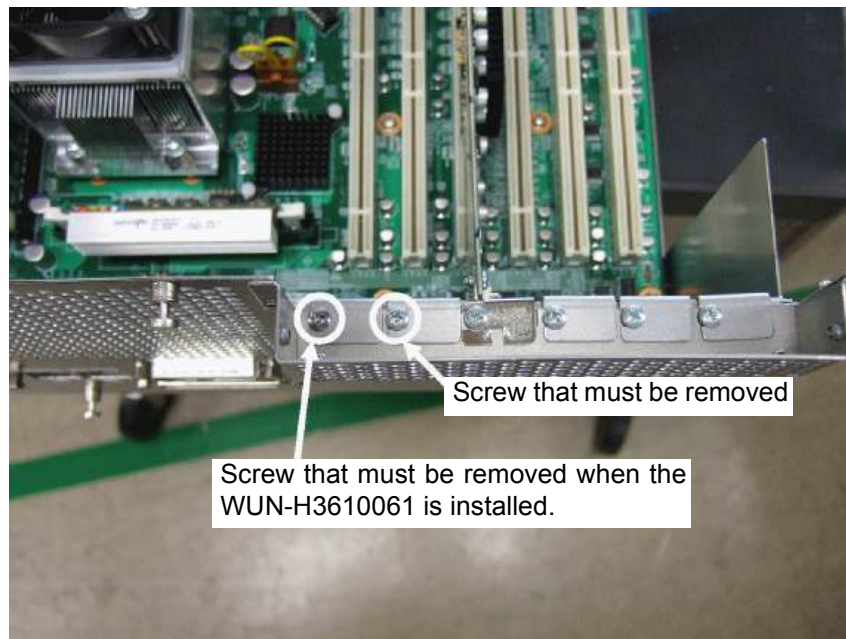
A14.1 Board Installation Procedure

② Removing the PCI blank panel

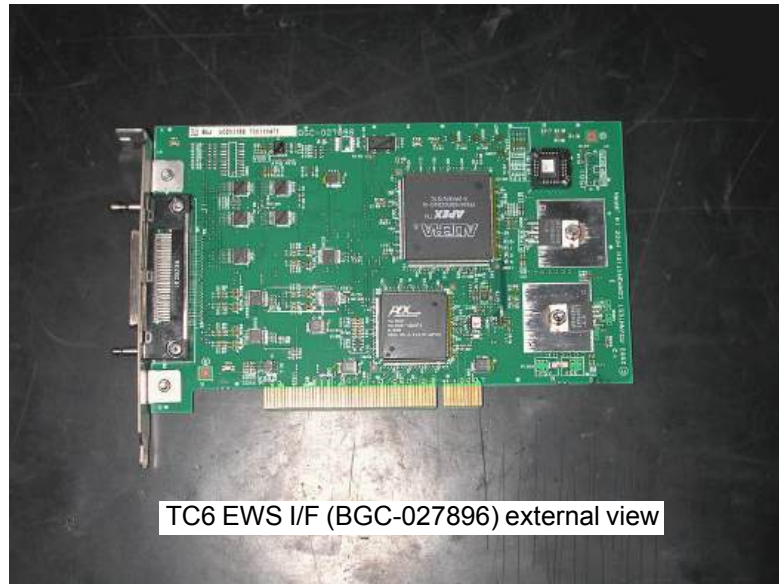
To remove the PCI blank panel, remove the screw which secures it.

CAUTION!

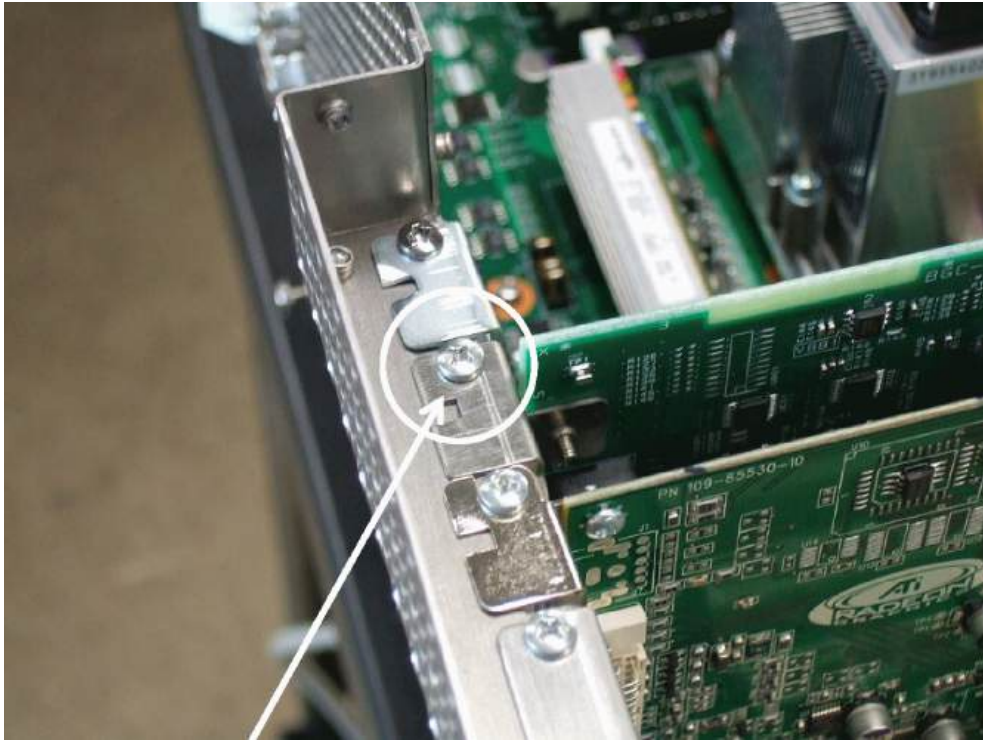
As the screw will be reused, do not throw it away.



- (3) Installing the TC6 EWS I/F (BGC-027896) and WUN-H3610061
 - (a) TC6 EWS I/F (BGC-027896) installation



A14.1 Board Installation Procedure

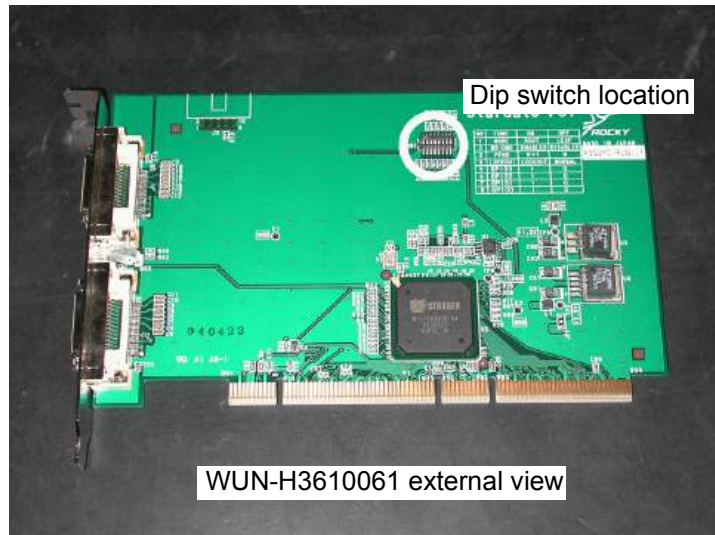


Secure the TC6 EWS I/F with the M3X8 pan-head screw so that it does not overlap with a neighboring PCI panel (including a blank panel).

(b) WUN-H3610061 installation

① Dip Switch setting

- Dip Switch location

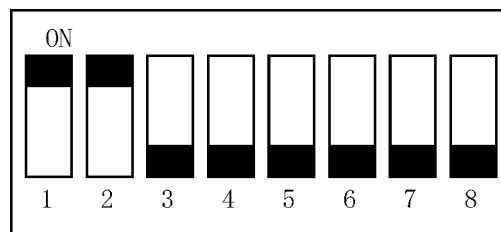


- Description of switch setting

ON
 A switch is set to ON.

ON
 A switch is set to OFF.

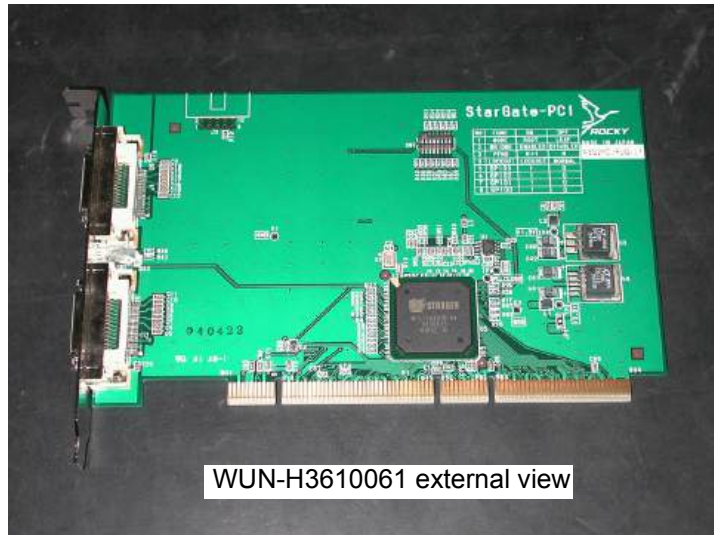
- Dip switch setting



Dip switch setting values

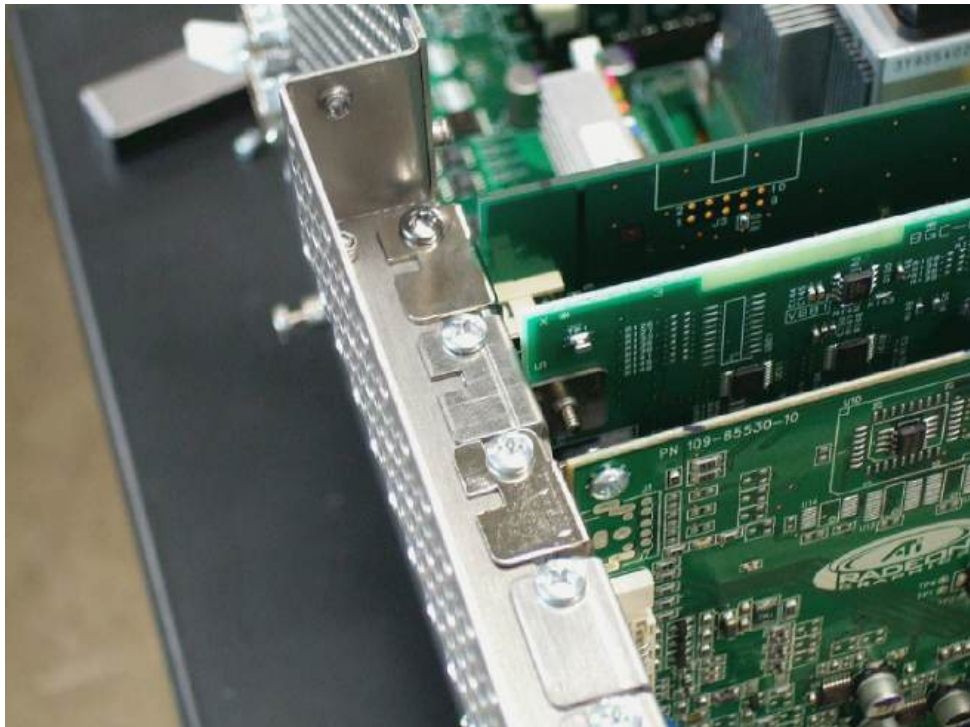
A14.1 Board Installation Procedure

② H3-610061 installation



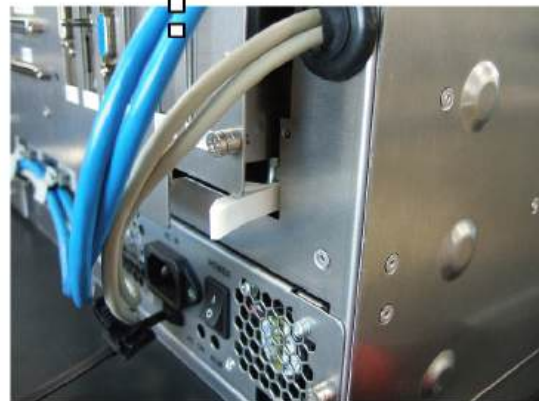
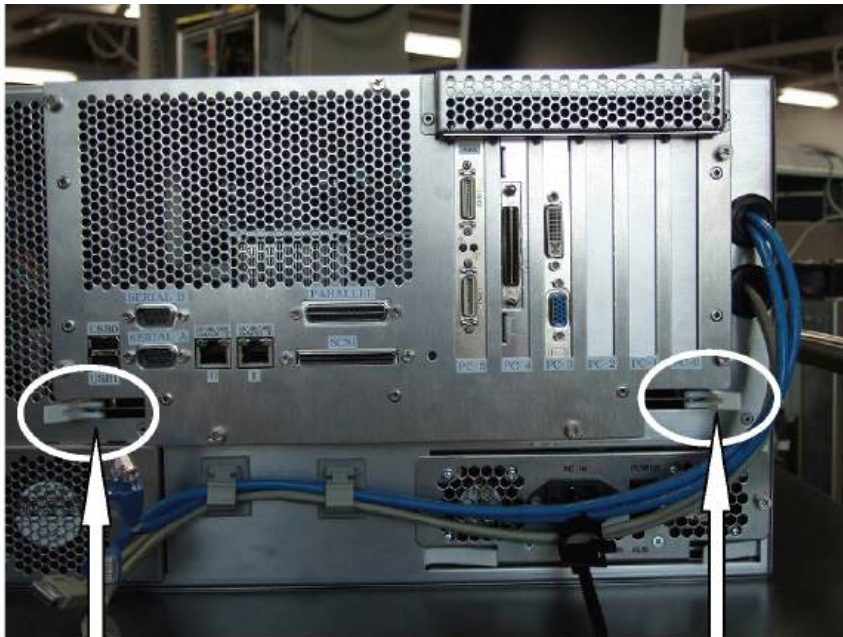
Install the WUN-H3610061 into the PCI5 slot of the TC7 CPU Unit (AAT-ENCHILADA).

For more information on notes when installing it, refer to “(a) TC6 EWS I/F (BGC-027896) installation” in this section.



(4) MB installation

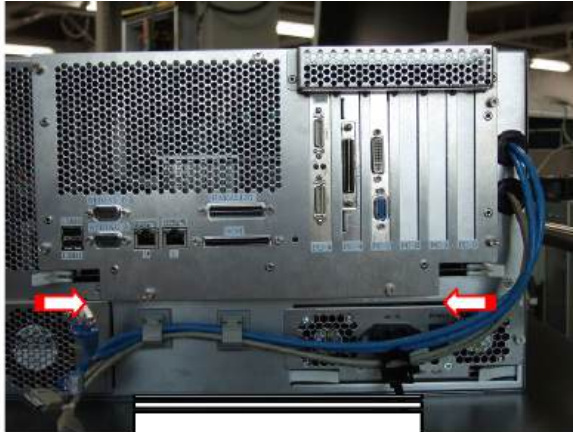
- ① Insert the MB.



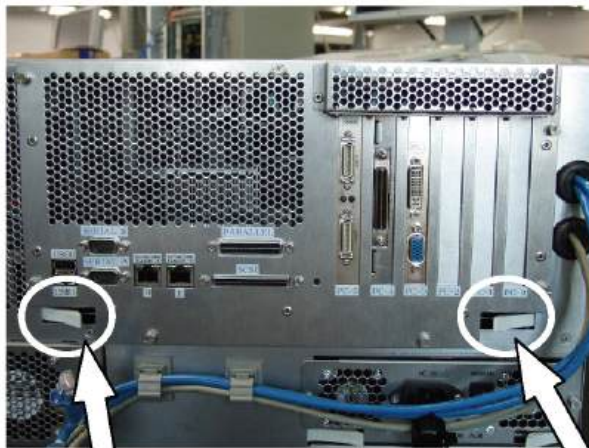
Note: When inserting it, make sure that the right and left latches-handles are positioned as shown in the figure above.

A14.1 Board Installation Procedure

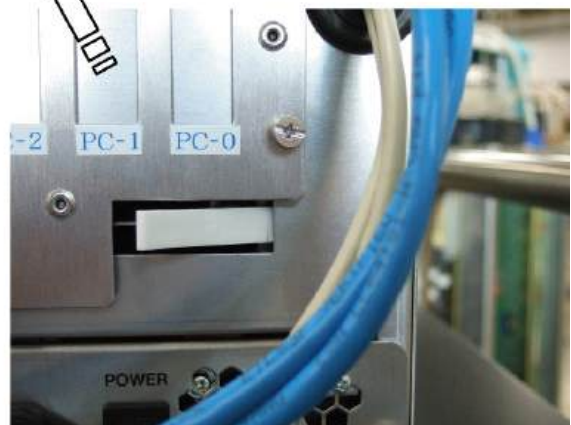
- ② Insert the MB while pressing the latches-handles inward.



The MB is inserted into the back by pressing the latches-handles inward.



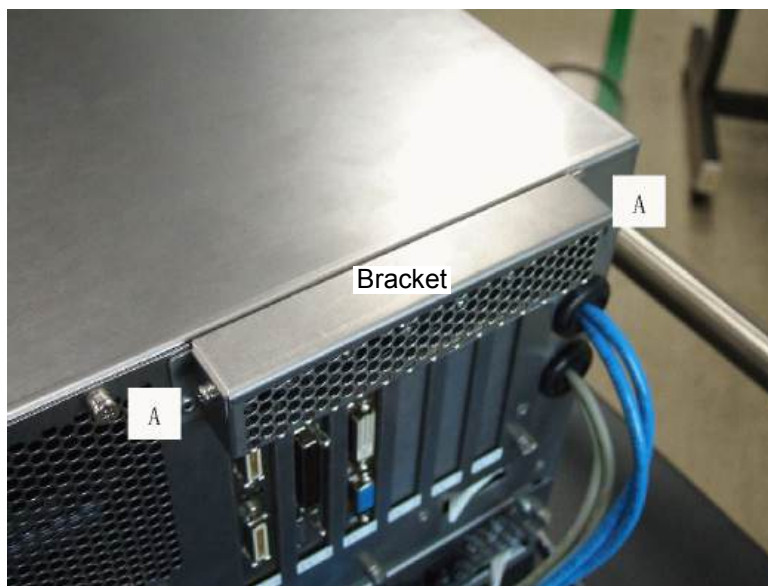
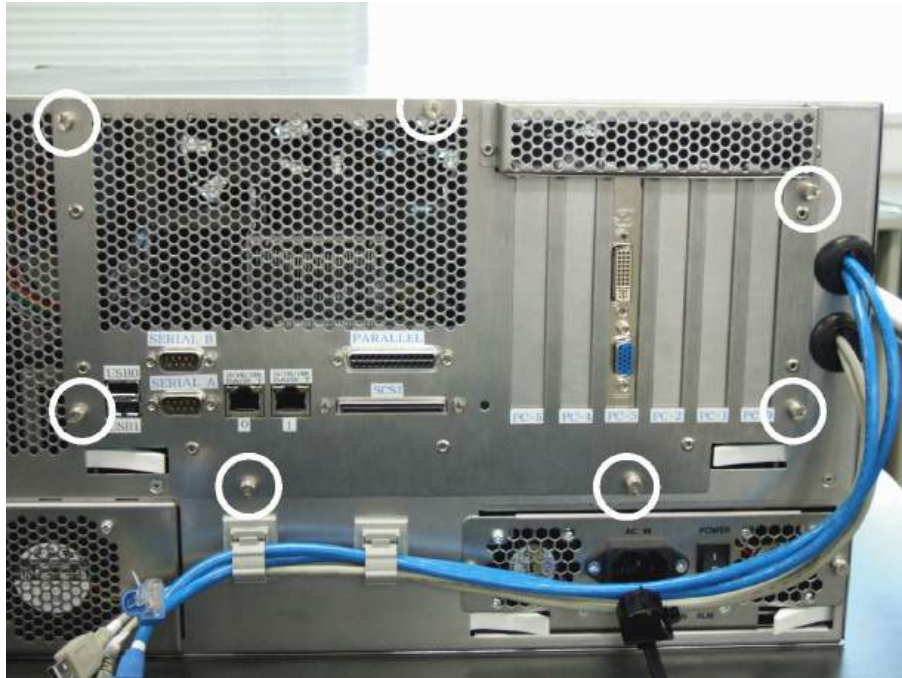
When the MB has been installed.



Note: When the MB is inserted, make sure that the right and left latches-handles are positioned as shown in the figure above.

(5) Securing

Tighten the screws whose locations are circled in the figure below.



Tighten the screws whose locations are indicated by "A" to secure the bracket.

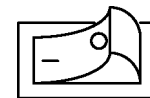
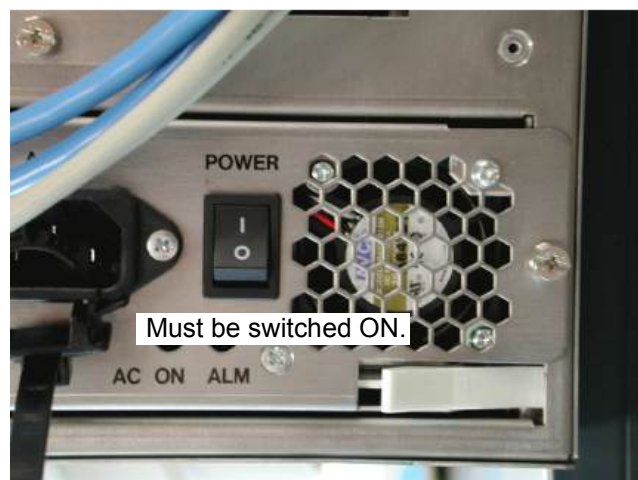
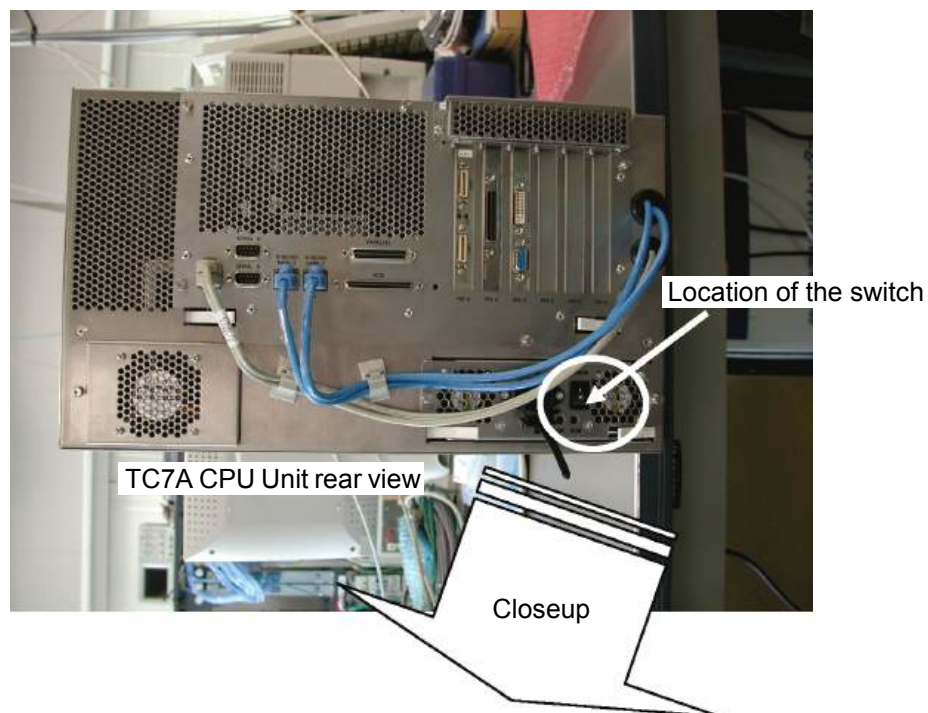
A14.1 Board Installation Procedure

(6) Verifying switch setting

The TC7A CPU Unit has a switch at two locations.
Verify that those switches are set to ON.
If either is set to OFF, set it to ON.

① Rear side switch

Verify switch setting whose location is circled in the figure below.

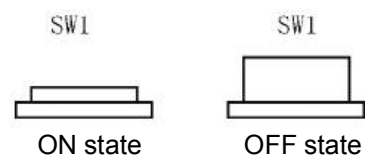
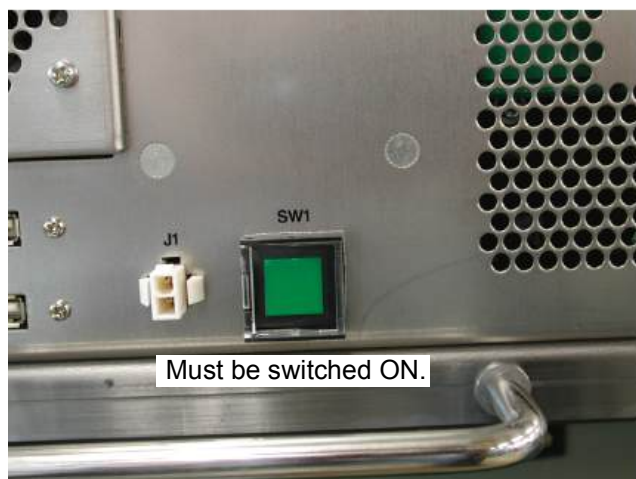
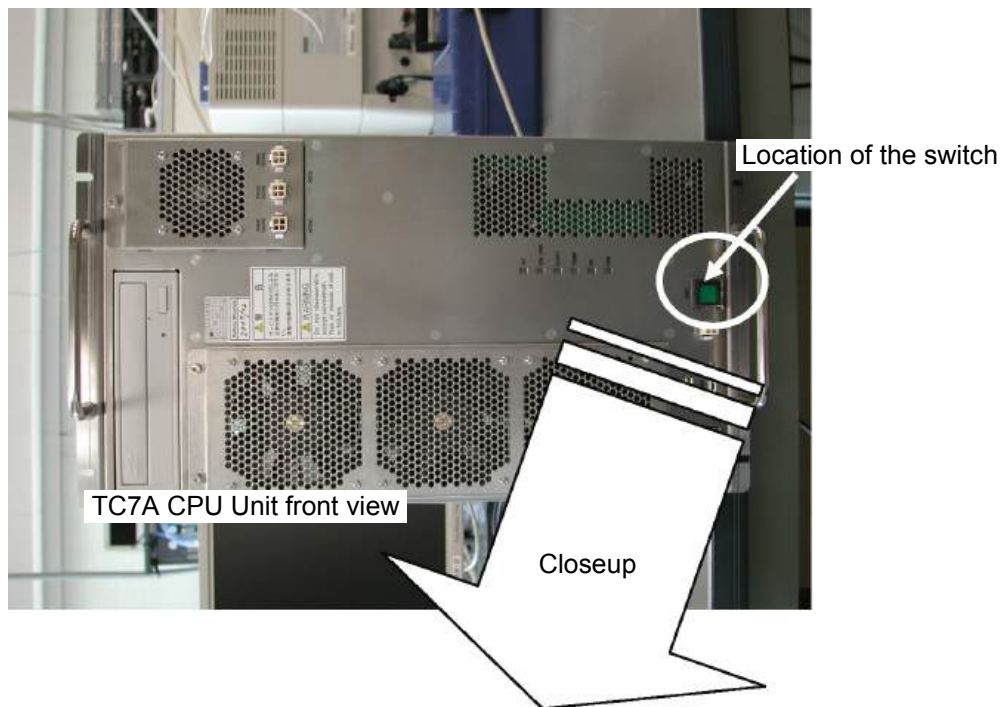


ON state

* The "I" position of the switch must be down and the "O" position must be up.

② Front side switch

Verify switch setting whose location is circled in the figure below.



Switch SW1 has a cover, so open the cover to verify the switch state.

A14.2 DISK Storage Installation Procedure

A14.2 DISK Storage Installation Procedure

(1) Removing the Disk FAN panel

Remove the screws whose locations are circled in the figure below.



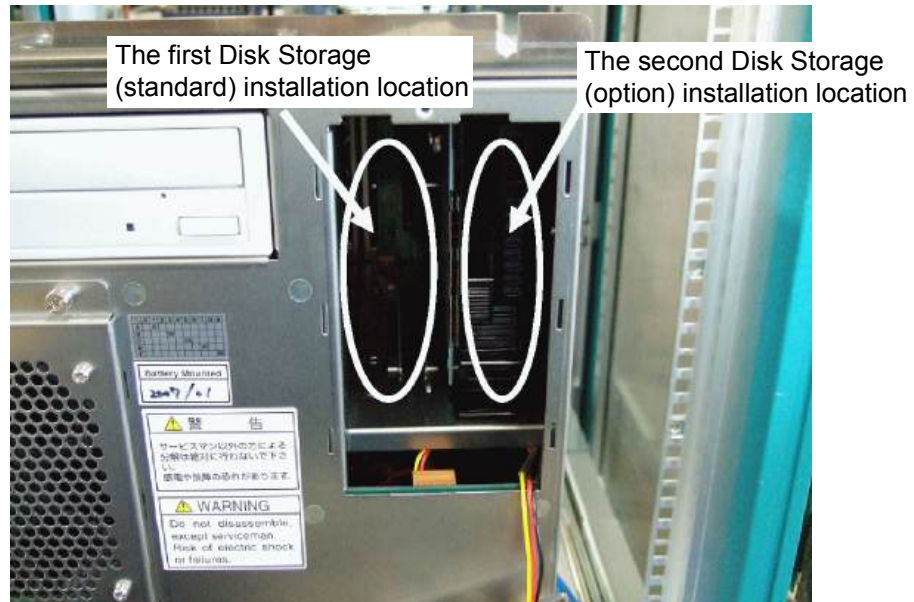
After removing the screw, slide the Disk FAN panel up and then pull it out.



When the Disk FAN panel has been removed.

(2) DISK Storage installation location

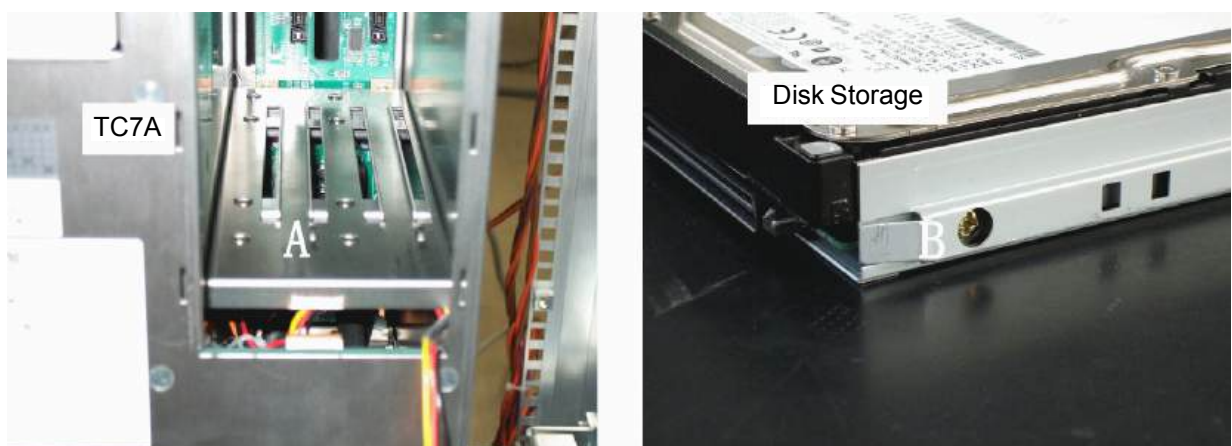
Remove the screws whose locations are circled in the figure below.



(3) Disk Storage Mounting Rails

Position the Disk Storage mounting tab indicated by "B" between the TC7A rails indicated by "A" in the figures below. Opposite rails exist on the top.

Note that a mounting tab for the top rails exists on the opposite side.



A14.2 DISK Storage Installation Procedure

- (4) Position the HDD mounting tabs into TC7A rails and then push the HDD in until it stops while keeping the handle up as shown in the figure below.



- (5) Insert the HDD completely by rotating the handle down.



- (6) Rotate the handle down until it clicks to lock the HDD.



A14.2 DISK Storage Installation Procedure

(7) Attaching the Disk FAN panel

Attach the Disk FAN panel and tighten the screw.

