SONY

SWITCHER PROCESSOR PACK

XVS-8000-C
XVS-7000-C
XVS-6000-C

MULTI FORMAT SWITCHER

XVS-8000
XVS-7000
XVS-6000

OUTPUT PROCESSOR BOARD
XKS-8160

MIX EFFECT BOARD
XKS-8210

FRAME MEMORY BOARD
XKS-8440

FORMAT CONVERTER BOARD
XKS-8460

HD DME BOARD
XKS-8470

SDI INPUT CONNECTOR BOARD
XKS-S8110

SDI OUTPUT CONNECTOR BOARD
XKS-S8165

IP INPUT CONNECTOR BOARD
XKS-T8110

IP OUTPUT CONNECTOR BOARD
XKS-T8165

MIX EFFECT BOARD
XKS-7210

SDI INPUT AND FC CONNECTOR BOARD
XKS-S8111

QSFP IP INPUT AND FC CONNECTOR BOARD
XKS-Q8111

QSFP IP OUTPUT AND FC CONNECTOR BOARD
XKS-Q8166

INSTALLATION MANUAL
1st Edition (Revised 1)

4587422020

⚠警告

このマニュアルは，サービス専用です。
お客様が，このマニュアルに記載された設置や保守，点検，修理などを行うと感電や火災，人身事故につながることがあります。
危険をさけるため，サービストレーニングを受けた技術者のみご使用ください。

⚠WARNING

This manual is intended for qualified service personnel only.
To reduce the risk of electric shock, fire or injury, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.

⚠WARNUNG

Die Anleitung ist nur für qualifiziertes Fachpersonal bestimmt.
Alle Wartungsarbeiten dürfen nur von qualifiziertem Fachpersonal ausgeführt werden. Um die Gefahr eines elektrischen Schlages, Feuergefahr und Verletzungen zu vermeiden, sind bei Wartungsarbeiten strikt die Angaben in der Anleitung zu befolgen. Andere als die angegeben Wartungsarbeiten dürfen nur von Personen ausgeführt werden, die eine spezielle Befähigung dazu besitzen.

⚠AVERTISSEMENT

Ce manual est destiné uniquement aux personnes compétentes en charge de l’entretien. Afin de réduire les risques de décharge électrique, d’incendie ou de blessure n’effectuer que les réparations indiquées dans le mode d’emploi à moins d’être qualifié pour en effectuer d’autres. Pour toute réparation faire appel à une personne compétente uniquement.

XVS-8000 (SY)	Serial No. 10001 and Higher
XVS-8000 (CN)	Serial No. 50001 and Higher
XVS-7000 (SY)	Serial No. 10001 and Higher
XVS-7000 (CN)	Serial No. 50001 and Higher
XVS-6000 (SY)	Serial No. 10001 and Higher
XVS-6000 (CN)	Serial No. 50001 and Higher
XKS-7210 (SY)	Serial No. 10001 and Higher
XKS-8160 (SY)	Serial No. 10001 and Higher
XKS-8210 (SY)	Serial No. 10001 and Higher
XKS-8440 (SY)	Serial No. 10001 and Higher
XKS-8460 (SY)	Serial No. 10001 and Higher
XKS-8470 (SY)	Serial No. 10001 and Higher
XKS-Q8111 (SY)	Serial No. 10001 and Higher
XKS-Q8166 (SY)	Serial No. 10001 and Higher
XKS-S8110 (SY)	Serial No. 10001 and Higher
XKS-S8111 (SY)	Serial No. 10001 and Higher
XKS-S8165 (SY)	Serial No. 10001 and Higher
XKS-T8110 (SY)	Serial No. 10001 and Higher
XKS-T8165 (SY)	Serial No. 10001 and Higher

For kundene i Norge
Dette utstyret kan kobles til et IT-strømfordelingssystem.

・安全のために，周辺機器を接続する際は，過大電圧を持つ可能性があるコネクターを以下のポートに接続しないでください。
: MVS LAN コネクター
: UTL LAN コネクター
上記のポートについては本書の指示に従ってください。

・For safety, do not connect the connector for peripheral device wiring that might have excessive voltage to the following ports.
: MVS LAN connector
: UTL LAN connector
Follow the instructions for the above ports.

警告

万一，異常が起きた際に，お客様が電源を切ることができるように，設置の際には，機器近くの固定配線内に専用遮断装置を設けるか，機器使用中に，容易に抜き差しできるコンセントに電源プラグを接続してください。

WARNING

When installing the unit, incorporate a readily accessible disconnect device in the fixed wiring, or connect the power cord to a socket-outlet which must be provided near the unit and easily accessible, so that the user can turn off the power in case a fault should occur.

WARNUNG

Beim Einbau des Geräts ist daher im Festkabel ein leicht zugänglicher Unterbrecher einzufügen, oder das Netzkabel muß mit einer in der Nähe des Geräts befindlichen, leicht zugänglichen Wandsteckdose verbunden werden, damit sich bei einer Funktionsstörung die Stromversorgung zum Gerät jederzeit unterbrechen läßt.

Attention-when the product is installed in Rack:

1. **Prevention against overloading of branch circuit**
   When this product is installed in a rack and is supplied power from an outlet on the rack, please make sure that the rack does not overload the supply circuit.

2. **Providing protective earth**
   When this product is installed in a rack and is supplied power from an outlet on the rack, please confirm that the outlet is provided with a suitable protective earth connection.

3. **Internal air ambient temperature of the rack**
   When this product is installed in a rack, please make sure that the internal air ambient temperature of the rack is within the specified limit of this product.

4. **Prevention against achieving hazardous condition due to uneven mechanical loading**
   When this product is installed in a rack, please make sure that the rack does not achieve hazardous condition due to uneven mechanical loading.

5. **Install the equipment while taking the operating temperature of the equipment into consideration**
   For the operating temperature of the equipment, refer to the specifications of the Installation Manual.

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1. Installation

2. Service Overview

Manual Structure

Purpose of this manual

This manual is the installation manual of Switcher Processor Pack XVS-8000-C/XVS-7000-C/XVS-6000-C and the optional boards.
This manual is intended for use by trained system and service engineers, and describes the information on installing the XVS-8000-C/XVS-7000-C/XVS-6000-C system.

Related manuals

The following manuals are prepared for XVS-8000-C/XVS-7000-C/XVS-6000-C and the optional boards.

- **Operation Manual (Supplied with XVS-8000-C/XVS-7000-C/XVS-6000-C)**
  This manual describes the overview, system connection example and specifications of options of XVS-8000-C/XVS-7000-C/XVS-6000-C.

- **User's Guide (Supplied with XVS-8000-C/XVS-7000-C/XVS-6000-C)**
  This manual describes the application and operation of XVS-8000-C/XVS-7000-C/XVS-6000-C.

- **Service Manual (Available on request)**
  This manual describes service overview, error messages, periodic maintenance and inspection, replacement of main parts, and etc. of the unit to provide information required for block-level service.
  If this manual is required, please contact your local Sony Sales Office/Service Center.

- **Factory Service Manual (Available on request)**
  Parts list, circuit diagram, and board layouts of the unit are included to provide information required for part-level service.
  If this manual is required, please contact your local Sony Sales Office/Service Center.

Trademarks

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- Internet Explorer is a registered trademark or a trademark of Microsoft Corporation in the United States and other countries.
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- Mozilla and Firefox are registered trademarks of the Mozilla Foundation.

Other system names and product names written in this manual are usually registered trademarks or trademarks of respective development manufacturers.

Section 1
Installation

1-1. Operating Environment

Operating guaranteed temperature:	+5 ˚C to +40 ˚C
Performance guaranteed temperature:	+10 ˚C to +35 ˚C
Operating humidity:	10 % to 90 % (relative humidity)
Storage temperature:	−20 ˚C to +60 ˚C
Mass (when all options are installed):	
XVS-8000:	Approx. 63 kg
XVS-7000:	Approx. 53 kg
XVS-6000:	Approx. 43 kg

Prohibited locations for installation

- Areas where the unit will be exposed do direct sunlight or any other strong lights.
- Dusty areas
- Areas subject to vibration.
- Areas with strong electric or magnetic fields.
- Areas near heat sources.
- Areas subject to electrical noise.
- Areas subject where is subjected to static electricity.

Ventilation

The inside of the XVS-8000/XVS-7000/XVS-6000 is cooled by a fan (right side).
The power supply can be damaged if the exhaust vent (right side) and air intake (front panel) are blocked or the fan is stopped.
Therefore, leave a blank space of more than 10 cm in the front and both sides of the XVS-8000/XVS-7000/XVS-6000.

1-2. Power Supply

1-2-1. Power Specifications

A switching regulator is used for the power supply of this unit. The voltage within the range of 100 V to 240 V can be used without changing the supply voltage.

Power requirements:	100 to 240 V AC ±10 %
Power frequency:	50/60 Hz
Current consumption (when all options are installed):	
XVS-8000:	22 to 9.2 A
XVS-7000:	22 to 9.2 A
XVS-6000:	11 to 4.6 A

Note

- Inrush current (XVS-8000 only)
  As the inrush current at turn-on, the capacity of the AC power source must be commensurate with this load.
  If the capacity of the AC power is not adequately large, the AC power source breaker will operate or the unit will abnormally operate.

  Inrush current: 173 A (at peak), 47 Ar.m.s (at AC 240V)

- The XVS-8000/XVS-7000 contains the four power supply units as the standard configuration. When starting up the XVS-8000/XVS-7000, be sure to turn on the power of four power supply units.

- The XVS-6000 contains the two power supply units as the standard configuration.
  When starting up the XVS-6000, be sure to turn on the power of two power supply units.

1-2-2. Power Cord

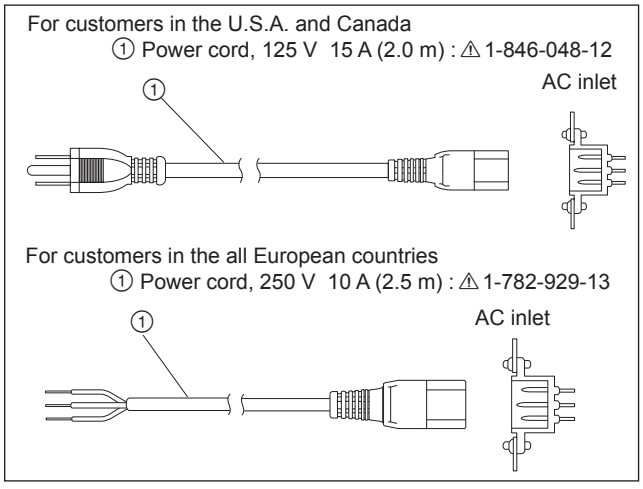
WARNING

- Use the approved Power Cord (3-core mains lead)/Appliance Connector/Plug with earthing-contacts that conforms to the safety regulations of each country if applicable.
- Use the Power Cord (3-core mains lead)/Appliance Connector/Plug conforming to the proper ratings (Voltage, Ampere).

If you have questions on the use of the above Power Cord/Appliance Connector/Plug, please contact your local Sony Sales Office/Service Center.

WARNING

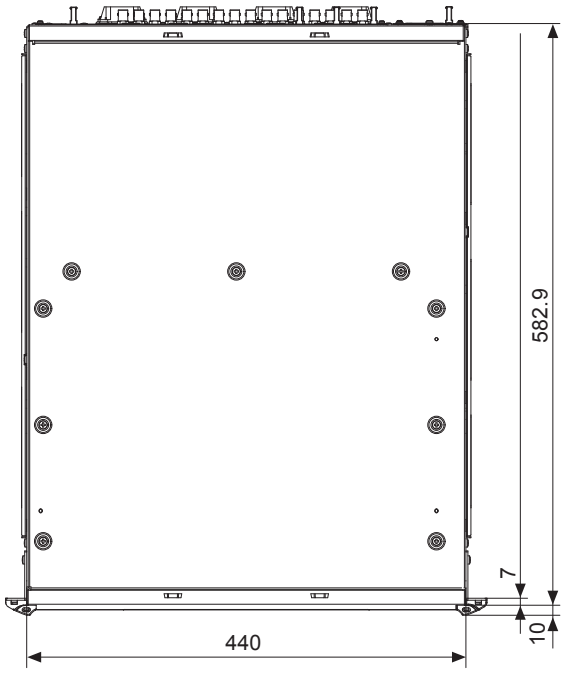
- Never use an injured power cord.
- Plugging the power cord in the AC inlet, push as far as it will go.

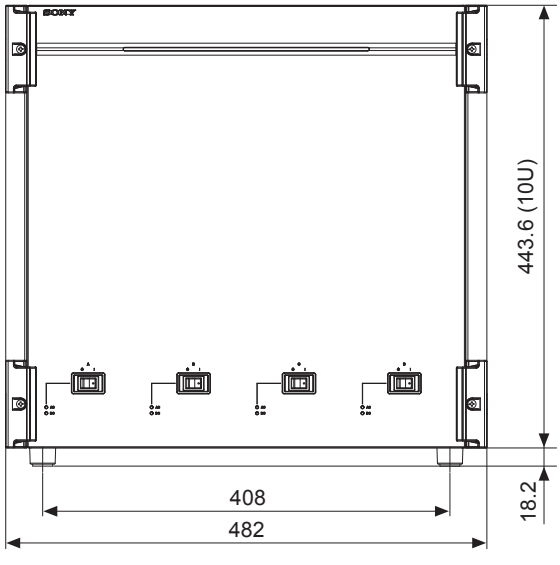


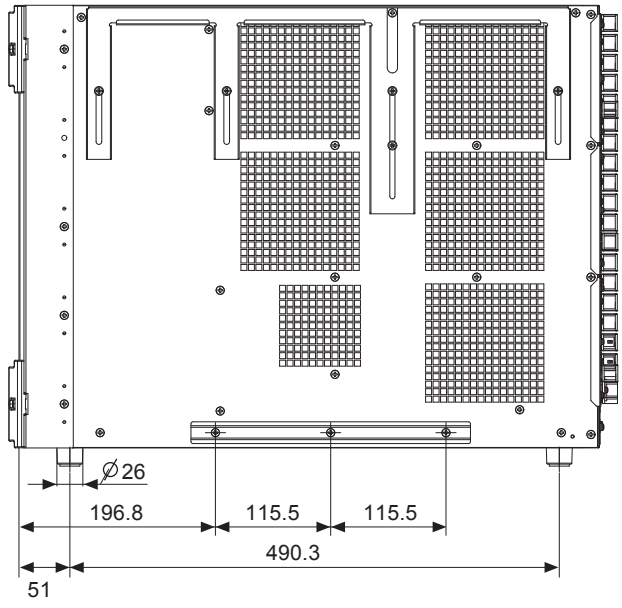
1-3. Installation Space (External Dimensions)

1-3-1. XVS-8000

Mass of this unit (When all options are installed) : approx. 63 kg



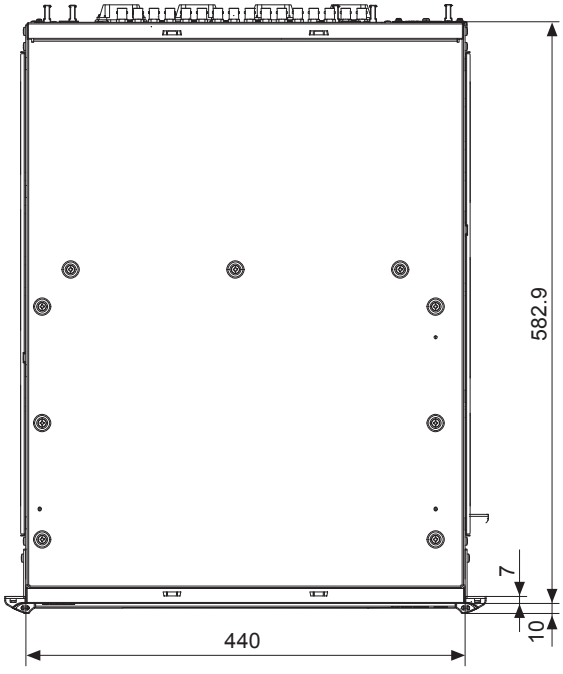


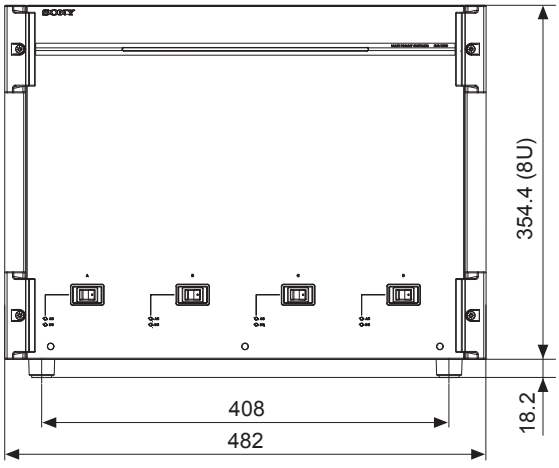


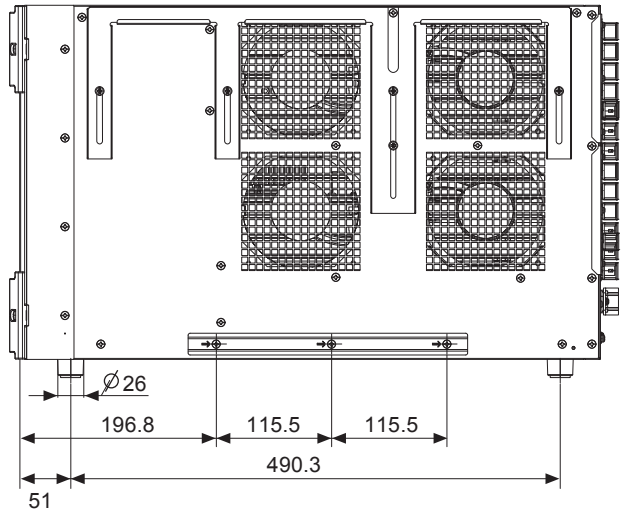
Unit : mm

1-3-2. XVS-7000

Mass of this unit (When all options are installed) : approx. 53 kg



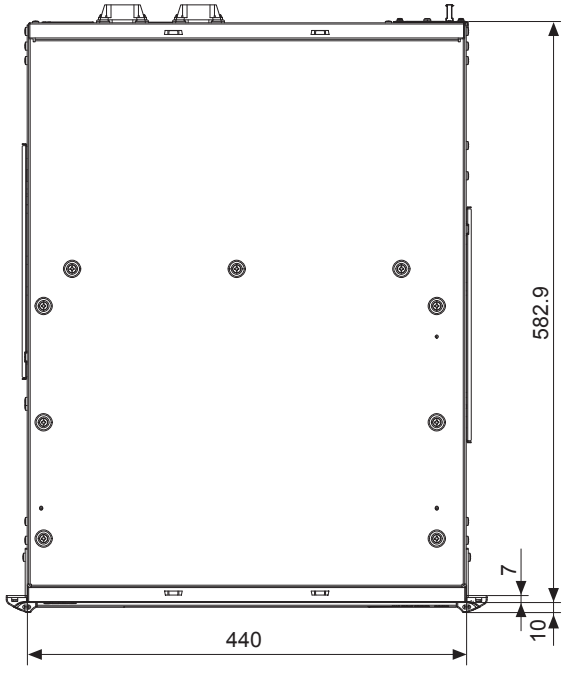


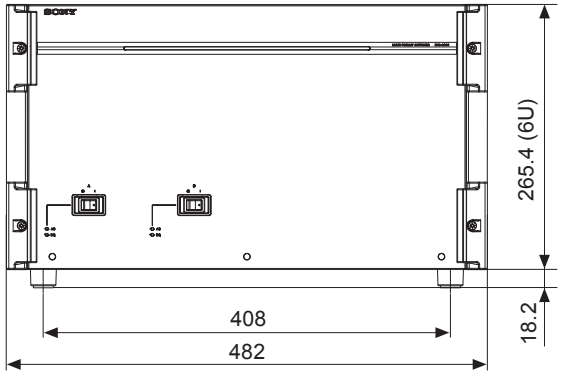


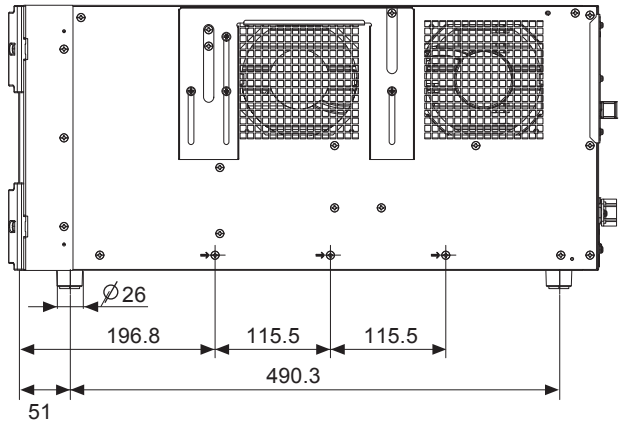
Unit : mm

1-3-3. XVS-6000

Mass of this unit (When all options are installed) : approx. 43 kg







Unit : mm

1-4. Installing the Optional Board

The XVS-8000-C/XVS-7000-C/XVS-6000-C is shipped from the factory with the necessary option boards (refer to the following table) already installed in accordance with the specified system configuration.
The following options are available for the XVS-8000-C/XVS-7000-C/XVS-6000-C.

Option board list

Model name	Board configuration	
	Plug-in board (Front)	Connector board (Rear)
XKS-7210 ∗1 Mix Effect Board	MIX-57A board	–
XKS-8160 ∗2 Output Processor Board	OUT-38A board	–
XKS-8210 ∗3 Mix Effect Board	MIX-57 board	–
XKS-8440 Frame Memory Board	VPR-129 board	–
XKS-8460 Format Converter Board	VPR-129A board	–
XKS-8470 HD DME Board	DVP-53A board	–
XKS-Q8111 QSFP IP Input and FC Connector Board	–	NET-32 board
XKS-Q8166 QSFP IP Output and FC Connector Board	–	NET-32A board
XKS-S8110 SDI Input Connector Board	–	CNI-43 board
XKS-S8111 SDI Input an FC Connector Board	–	CNI-44 board
XKS-S8165 SDI Output Connector Board	–	CNO-43 board
XKS-T8110 IP Input Connector Board	–	NET-28 board
XKS-T8165 IP Output Connector Board	–	NET-28A board

∗1: This is optional model for XVS-7000/XVS-6000 only.
∗2: This is optional model for XVS-8000/XVS-7000 only.
∗3: This is optional model for XVS-8000 only.

1-4-1. Installing the Plug-in Boards

CAUTION

Be sure to turn off the POWER switch before starting installation work.
If installation work is started with the POWER switch left on, it may cause electrical shock or damage to printed circuit boards.

In XVS-8000/XVS-7000/XVS-6000, the slot for installing each plug-in board is specified. Install each board in the specified slot correctly according to the indications as described in ① and ② below.

① The board name is indicated close to the left-of-center of each plug-in board.
② The board name is indicated on the left surface of the inside of front panel of XVS-8000/XVS-7000/XVS-6000.

Note

- Check to see that connectors of the plug-in boards are securely inserted into the mother board (XVS-8000: MB-1223 board, XVS-7000: MB-1233 board, XVS-6000: MB-1234 board) without loose contact.
  If any plug-in board is inserted into the incorrect slot, it causes a system error and the system will not work correctly.
- After installing the plug-in board, the software must be installed. Install the software same version as the XVS-8000/XVS-7000/XVS-6000.
  For installing the software, refer to the user's guide of the XVS-8000/XVS-7000/XVS-6000 system.

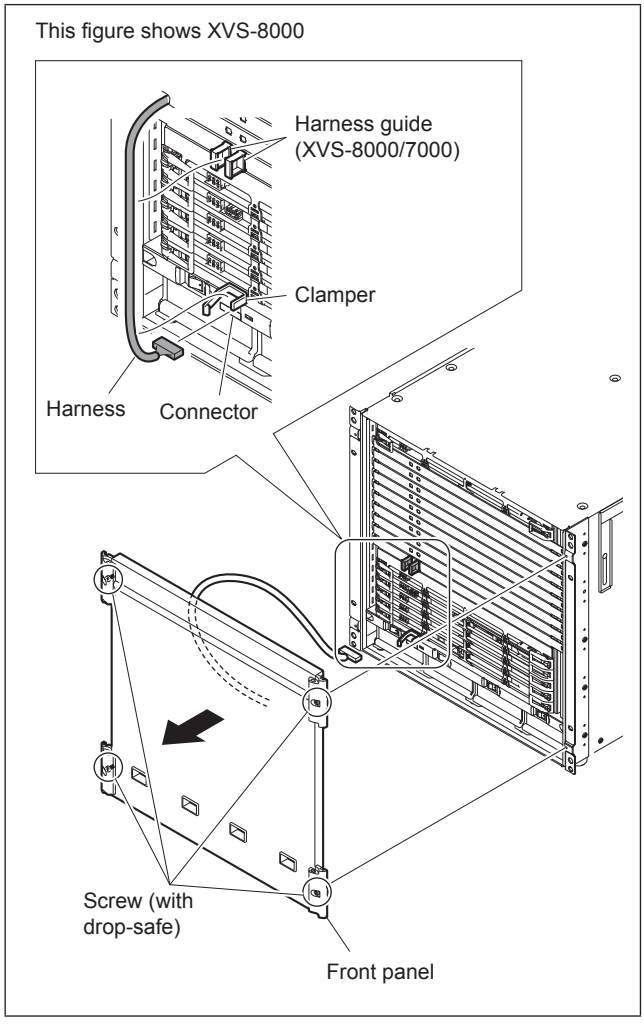
Installation Procedure

1. Turn off the main power of this unit and disconnect the AC power cord from the wall outlet.
2. Loosen the four screws (with drop-safe) and remove the front panel to the arrow.

   Note

   The front panel is connected to the unit by the harness. When removing the front panel, be careful not too pull the harness.

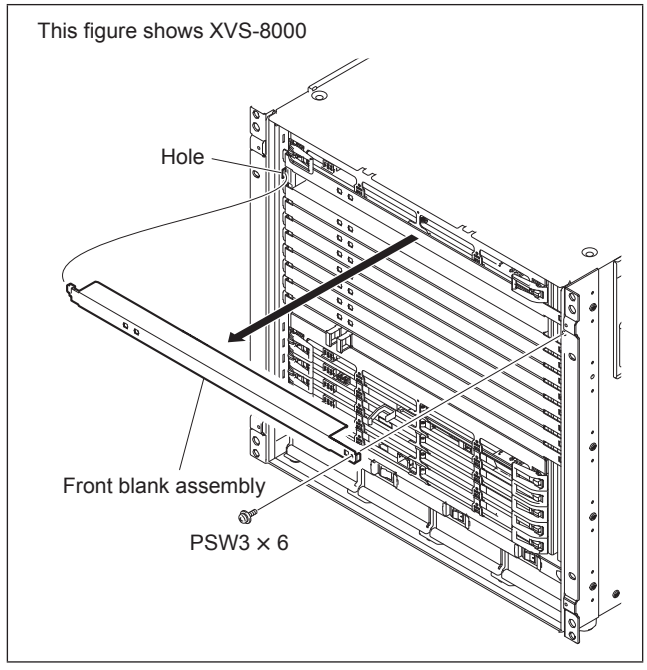
3. Open the clamper.
4. Remove the harness from the clamper, and then remove the front panel.



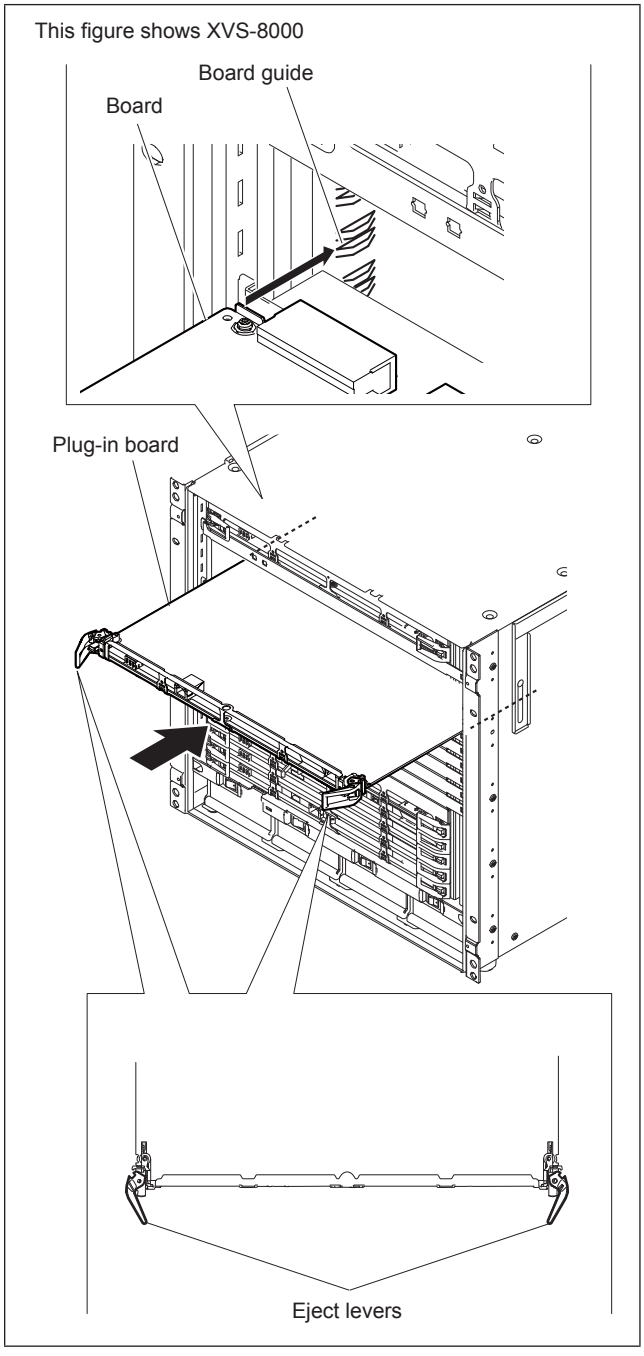
5. Loosen the screw and remove the front blank assembly to the arrow.

Note

Store the removed blank panel and screws in a safe place.



6. While the eject levers are opened as shown in the illustration, insert the plug-in board into the board guide.



XVS-8000 option

Name of option	Name of board	Slot on the front side
XKS-8160	OUT-38A board	17
XKS-8210	MIX-57 board	6, 7, 8, 9, 10
XKS-8440	VPR-129 board	11
XKS-8460	VPR-129A board	15
XKS-8470	DVP-53A board	4, 5

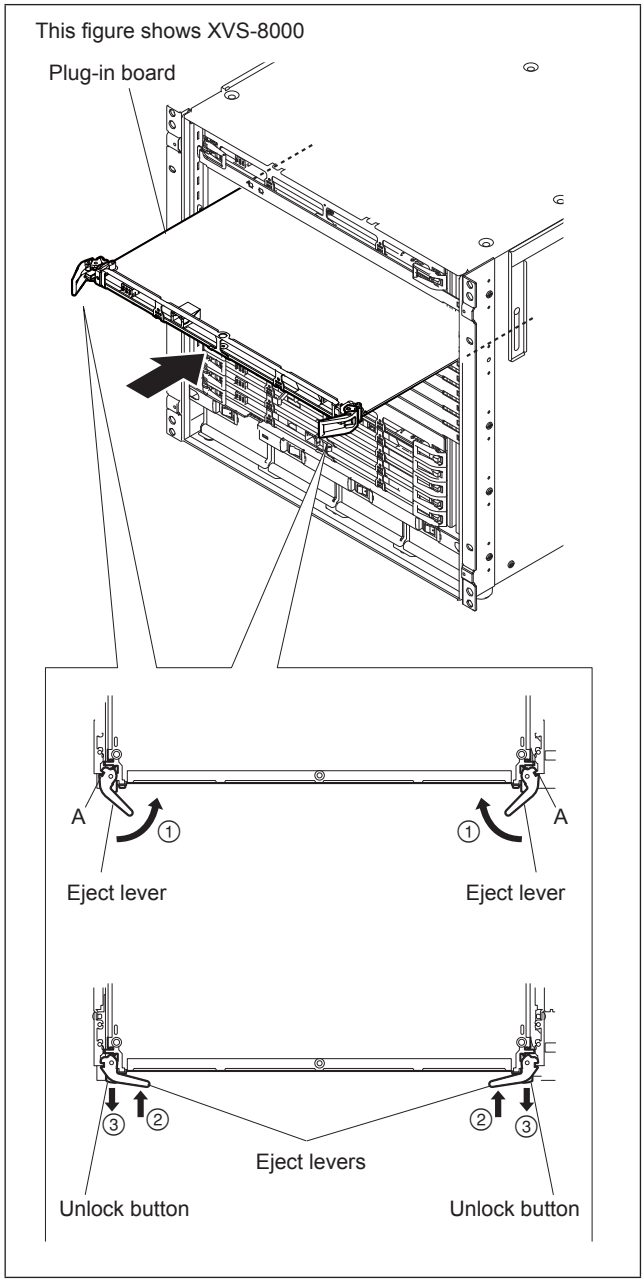
XVS-7000 option

Name of option	Name of board	Slot on the front side
XKS-7210	MIX-57A board	3, 4, 5
XKS-8160	OUT-38A board	12
XKS-8440	VPR-129 board	6
XKS-8460	VPR-129A board	10
XKS-8470	DPR-53A board	1, 2

XVS-6000 option

Name of option	Name of board	Slot on the front side
XKS-7210	MIX-57A board	2
XKS-8440	VPR-129 board	4
XKS-8460	VPR-129A board	7
XKS-8470	DPR-53A board	1

7. Close the both eject levers at a time, when the eject lever claws reach the A position ①.
   And push the eject levers ② until the unlock buttons pop out ③.

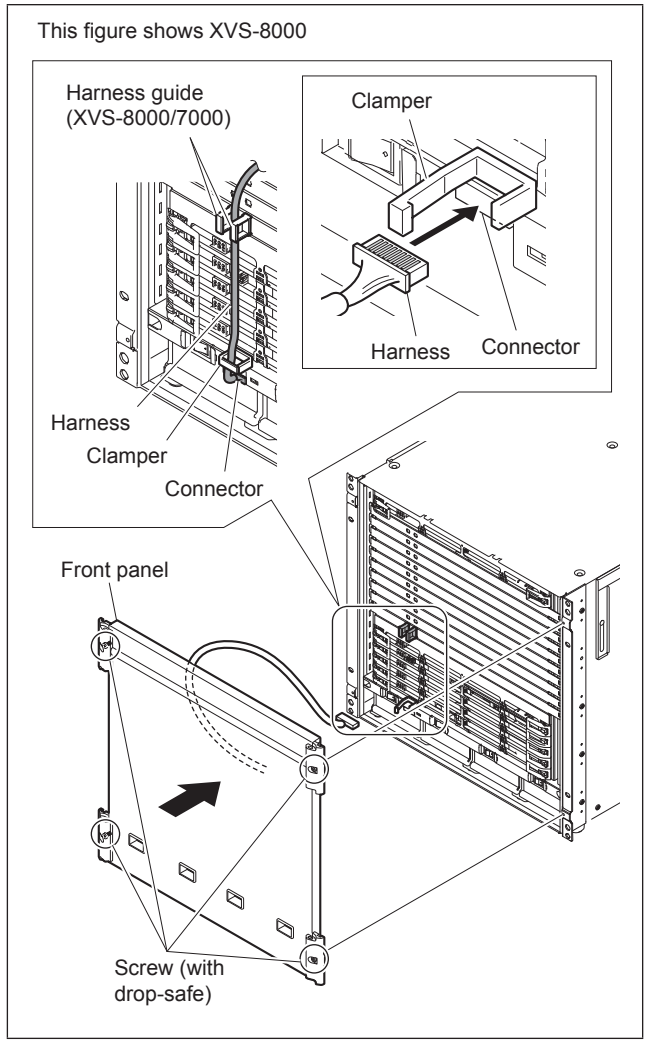


8. Attach the front panel by the following procedure.
   (1) Open the clamper, and then connect the harness of the front panel to the connector of the unit.
   (2) Close the clamper.
   (3) Pass through the harness to the two harness guides.

Tip

This step is not required for XVS-6000.

   (4) Attach the front panel to the unit and tighten the four screws (with drop-safe).

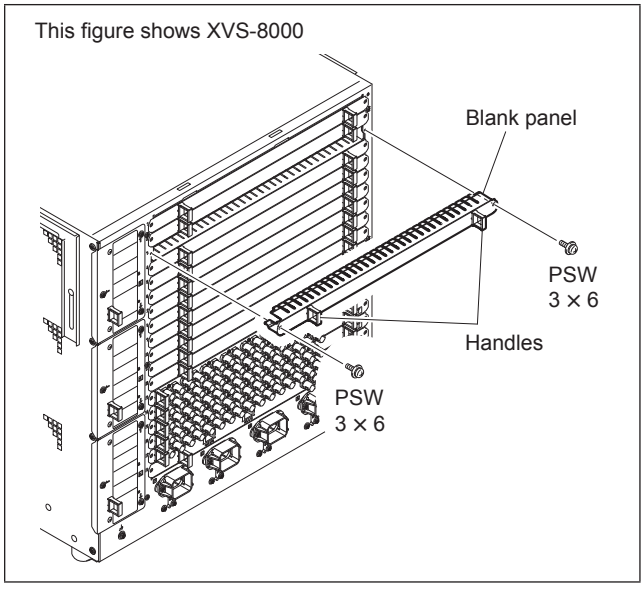


1-4-2. Installing the Connector Board

1. Remove two screws.
2. Pull out the blank panel by pulling the handles.

Note

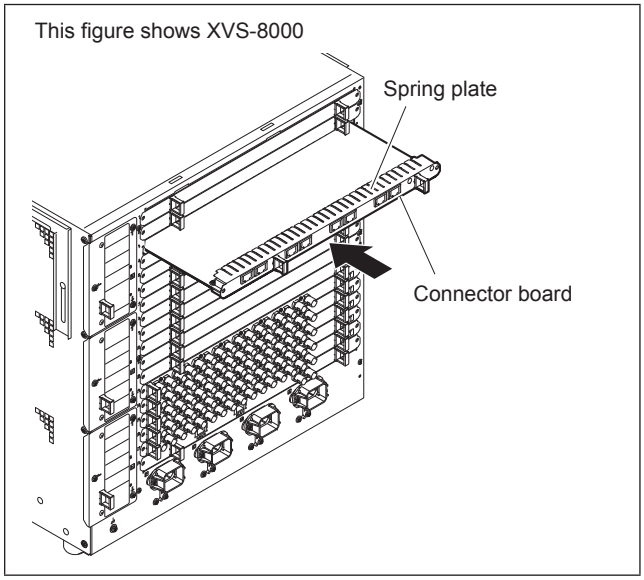
Store the removed blank panel in a safe place.



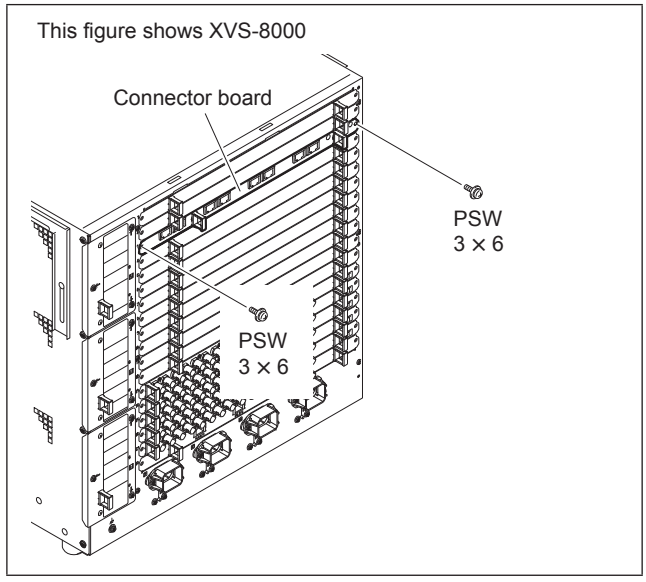
3. Insert the connector board as shown in the illustration.

Note

Insert making sure the board's upper and lower spring plates do not catch on the board.



4. Tighten the two screws.
   (Use the screws removed in step 2.)



XVS-8000 option

Name of option	Board name	Slot on the rear side
XKS-Q8111	NET-32 board	3, 4, 5, 6, 7, 8, 9, 10, 11, 12
XKS-Q8166	NET-32A board	13, 14, 15, 16, 17
XKS-S8110	CNI-43 board	3, 4, 5, 6, 7, 8, 9, 10, 11, 12
XKS-S8111	CNI-44 board	3, 4, 5, 6, 7, 8, 9, 10, 11, 12
XKS-S8165	CNO-43 board	13, 14, 15, 16, 17
XKS-T8110	NET-28 board	3, 4, 5, 6, 7, 8, 9, 10, 11, 12
XKS-T8165	NET-28A board	13, 14, 15, 16, 17

XVS-7000 option

Name of option	Board name	Slot on the rear side
XKS-Q8111	NET-32 board	1, 2, 3, 4, 5, 6, 7
XKS-Q8166	NET-32A board	8, 9, 10, 11, 12
XKS-S8110	CNI-43 board	1, 2, 3, 4, 5, 6, 7
XKS-S8111	CNI-44 board	1, 2, 3, 4, 5, 6, 7
XKS-S8165	CNO-43 board	8, 9, 10, 11, 12
XKS-T8110	NET-28 board	1, 2, 3, 4, 5, 6, 7
XKS-T8165	NET-28A board	8, 9, 10, 11, 12

XVS-6000 option

Name of option	Board name	Slot on the rear side
XKS-Q8111	NET-32 board	1, 2, 3, 4
XKS-Q8166	NET-32A board	5, 6, 7
XKS-S8110	CNI-43 board	1, 2, 3, 4
XKS-S8111	CNI-44 board	1, 2, 3, 4
XKS-S8165	CNO-43 board	5, 6, 7
XKS-T8110	NET-28 board	1, 2, 3, 4
XKS-T8165	NET-28A board	5, 6, 7

1-5. Rack Mounting

This series is used in a 19-inch standard rack. This series can be installed on a VTR rack and a server rack. Available racks vary with models.

Available racks

- VTR rack: XVS-8000/7000/6000
- Server rack: XVS-7000/6000

Be sure to mount this unit into a rack accurately following the procedure and notes mentioned below.

Precautions for rack mounting

WARNING

- To prevent the rack from falling or moving, fix the rack on a flat and steady floor and the like using bolts or others.
  If the rack falls due to the weight of the equipment, it may cause death or serious injury.
- Be sure to use the specified rack mount kit.
  If not, injury may result and the equipment may fall due to insufficient strength.
- After rack mounting, be sure to tighten the screws on the rack angle and fix the unit in the rack.
  If the screws on the rack angle are not tightened, the unit may slip from the rack and fall, causing injury.

CAUTION

When mounting the unit in the rack, note the following:

- Be sure to mount in the rack with two persons or more.
- Be careful not to catch your fingers or hands in the rack mount rail or others.
- Mount in the rack in a stable position.

Note

If several units are mounted in a rack, it is recommended to install a ventilation fan to prevent temperature rise inside the rack.

1-5-1. Installing the Main Unit to the VTR Rack

1. Using parts list

Parts to be used vary with models.

XVS-8000/7000

Use the rack mount kit supplied with the unit.

Note

If other than the supplied rack mount kit is used, the unit may not be mounted in the 19-inch standard rack.

Accessory of the XVS-8000/7000

- Rack tool ..... 2 pcs
- Support angle ..... 2 pcs
- Bracket ..... 4 pcs
- Support angle attaching screw
  (+PSW4 × 10 : 7-682-962-01) ..... 8 pcs
- Bracket attaching screw
  (+B4 × 10 : 7-682-562-04) ..... 8 pcs

Other required parts

- Screw for rack mounting
  (+B5 × 12 : 7-682-576-09) ..... 4 pcs

XVS-6000

Specified Rack Mount Kit
RMM-10 (Optional accessory)

Note

When you use any other rack mount kit than the specified one, you may fail to mount the unit to the specified 19 inch rack.

Parts packed in RMM-10

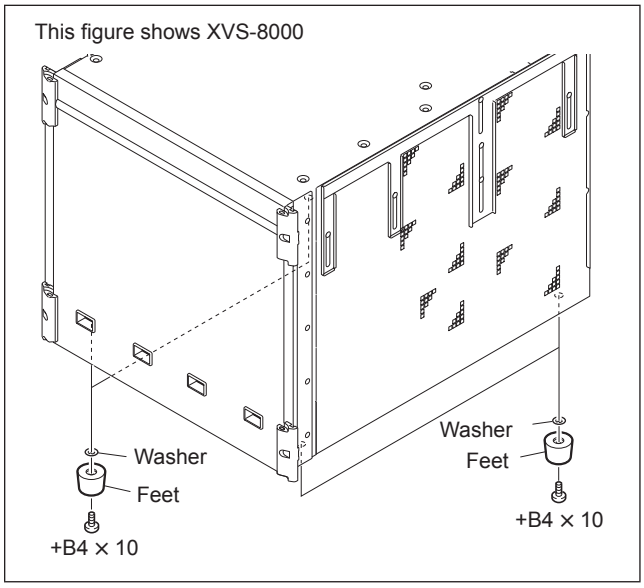
- Rack bracket ..... 2 pcs
- Rack mount adaptor right ..... 1 pc
  [Including screw (B4 × 6: 7-682-560-09) 2 pcs]
- Rack mount adaptor left ..... 1 pc
  [Including screw (B4 × 6: 7-682-560-09) 2 pcs]
- Rack bracket attachment screw
  (B4 × 6: 7-682-560-09) ..... 6 pcs
- Adaptor attachment screw
  (B4 × 10: 7-682-560-10) ..... 6 pcs

Other required parts

- Screw for rack mounting
  (+B5 × 12: 7-682-576-09) ..... 4 pcs

2. Rack Mounting Procedure

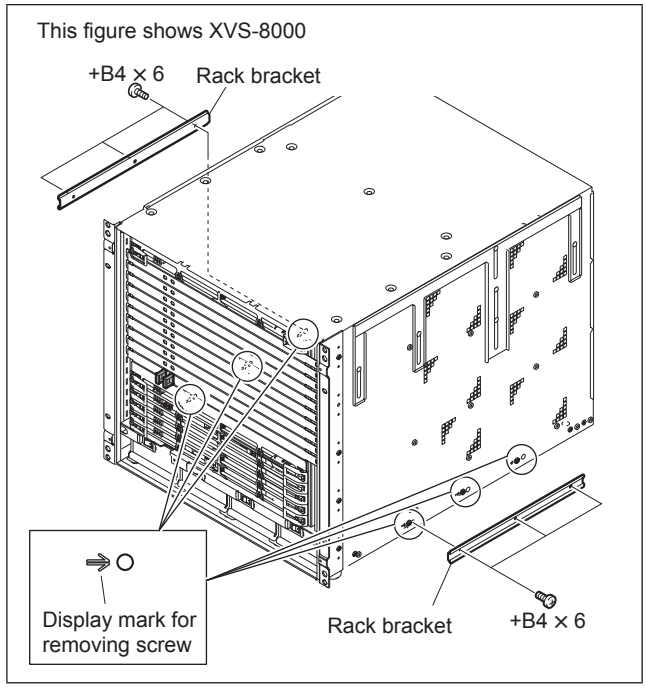
1. Loosen the four screws and remove the four feet.



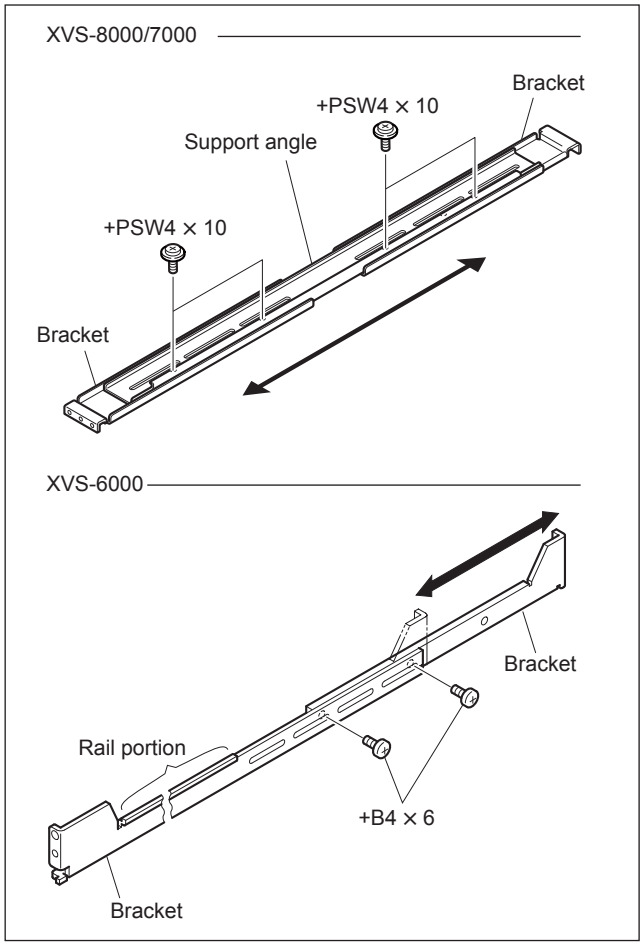
2. Remove the front panel of the unit. (Refer to Section 1-4-1.)
3. Remove the six screws (with display mark for removing screw) from the left and right side panels.
4. Attach the rack brackets to the unit with six screws shown below.
   XVS-8000/7000: +B4 × 6 (Screws removed in step 3)
   XVS-6000: +B4 × 6 (Screws supplied with RMM-10)

Note

Tighten the screws to the following torque.
Tightening torque: 120×10^{-2} N•m {12.2 kgf•cm}



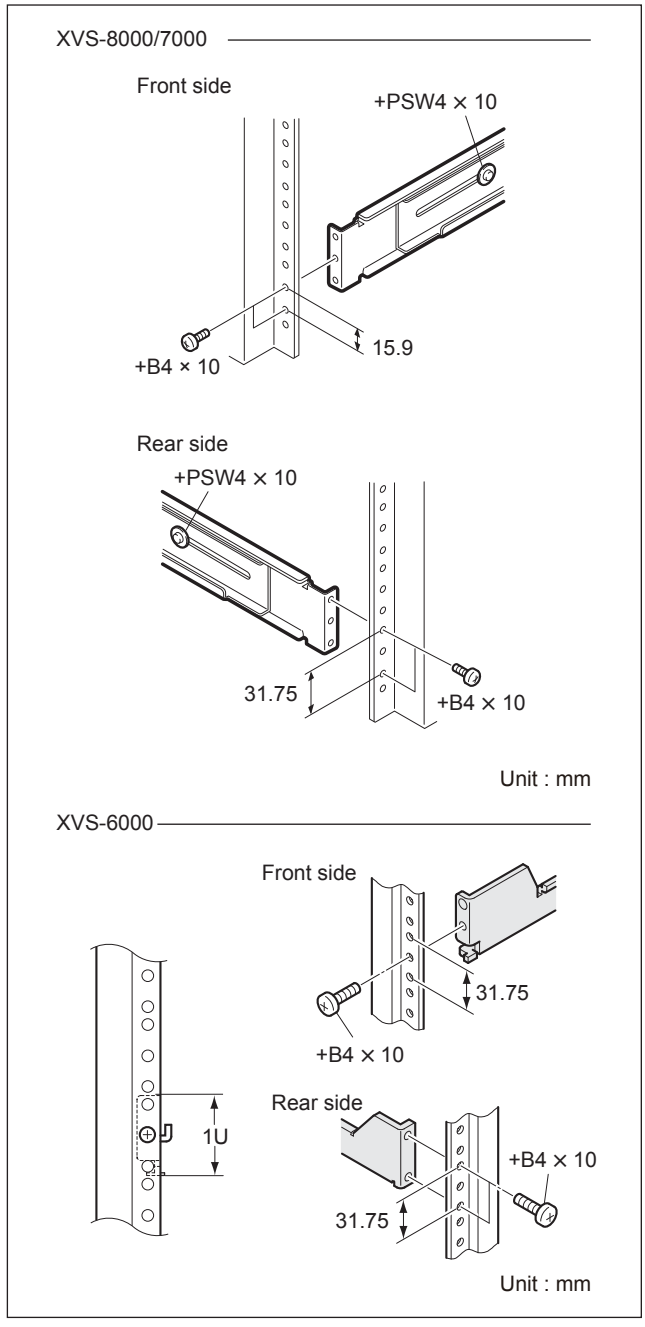
5. Attach the bracket to the support angle by inserting the screws shown below and loosely tightening.
   XVS-8000/7000: +PSW4 × 10 8 pcs
   XVS-6000: +B4 × 6 4 pcs
6. Loosen the screws on the rear of the right and left brackets and adjust the length of the bracket according to the depth of the rack.



Tip

Maximum depth of bracket: 750 mm
Minimum depth of bracket: XVS-8000/7000: 545 mm,
XVS-6000: 595 mm

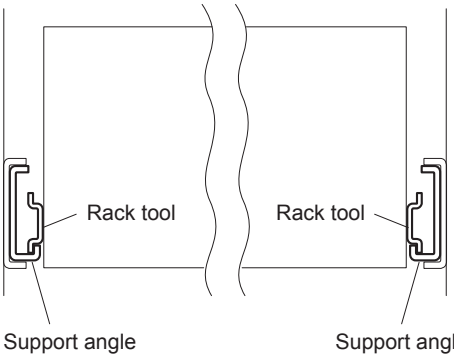
7. Attach the right and left brackets to the rack completely using the screws shown below. (The illustration below shows the left bracket.)
   XVS-8000/7000: +B4 × 10 8 pcs
   XVS-6000: +B4 × 10 6 pcs
8. Tighten the screws (+PSW4 × 10: four screws each on the right and left) for adjusting the length of the bracket completely (the screws that were loosened in step 6).



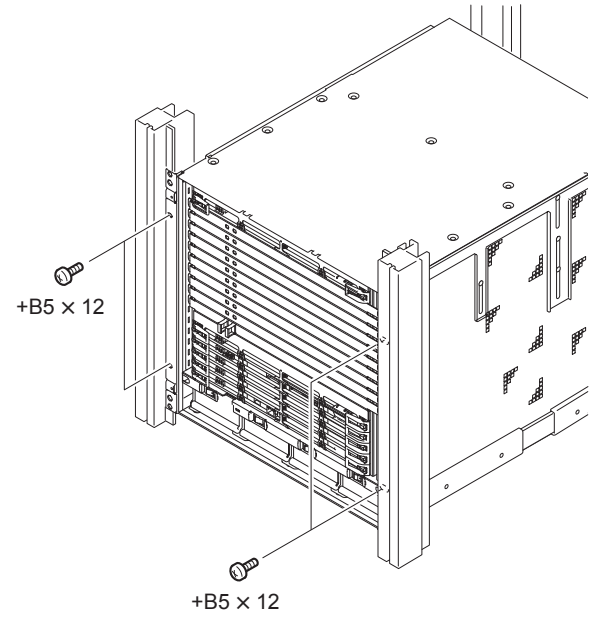
9. Align the groove of the rack bracket at the side of the unit with the rail, and slide the unit to the rear.

Tip

The rack brackets are hooked on the rails as shown below.



10. Fix the unit in the rack using the specified screws.



11. Attach the front panel to the unit. (Refer to Section 1-4-1.)

1-5-2. Installing the Main Unit to the Server Rack

1. Using parts list

Parts to be used vary with models.

XVS-7000

Use the rack mount kit supplied with the unit.

Note

If other than the supplied rack mount kit is used, the unit may not be mounted in the 19-inch standard rack.

Accessory of the XVS-7000

- Rack tool..... 2 pcs
- Support angle..... 2 pcs
- Bracket..... 4 pcs
- Support angle attaching screw
  (+PSW4 × 10 : 7-682-962-01)..... 8 pcs
- Bracket attaching screw
  (+B4 × 10 : 7-682-562-04)..... 8 pcs

Other required parts

- Screw for rack mounting
  (+B5 × 12 : 7-682-576-09)..... 4 pcs

XVS-6000

Specified Rack Mount Kit
RMM-10 (Optional accessory)

Note

When you use any other rack mount kit than the specified one, you may fail to mount the unit to the specified 19 inch rack.

Parts packed in RMM-10

- Rack bracket..... 2 pcs
- Rack mount adaptor right..... 1 pc
  [Including screw (B4 × 6: 7-682-560-09) 2 pcs]
- Rack mount adaptor left 1 pc
  [Including screw (B4 × 6: 7-682-560-09) 2 pcs]
- Rack bracket attachment screw
  (B4 × 6: 7-682-560-09)..... 6 pcs
- Adaptor attachment screw
  (B4 × 10: 7-682-560-10)..... 6 pcs

Other required parts

• Screw for rack mounting
(+B5 × 12: 7-682-576-09) ..... 4 pcs

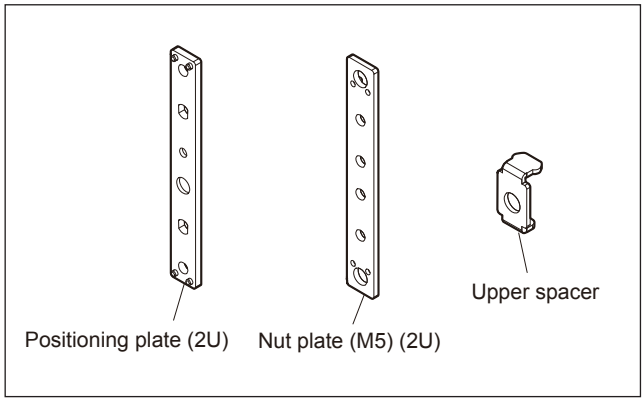
XVS-7000/6000

Additionally required parts

Rack mount parts assembly (A-2179-044-A)

Part of the Rack Mount Parts Assembly

• Positioning plate (2U) (4-690-038-01)..... 4 pcs
• Nut plate (M5) (2U) (4-690-039-01)..... 2 pcs
• Upper spacer (4-690-040-01) ..... 2 pcs

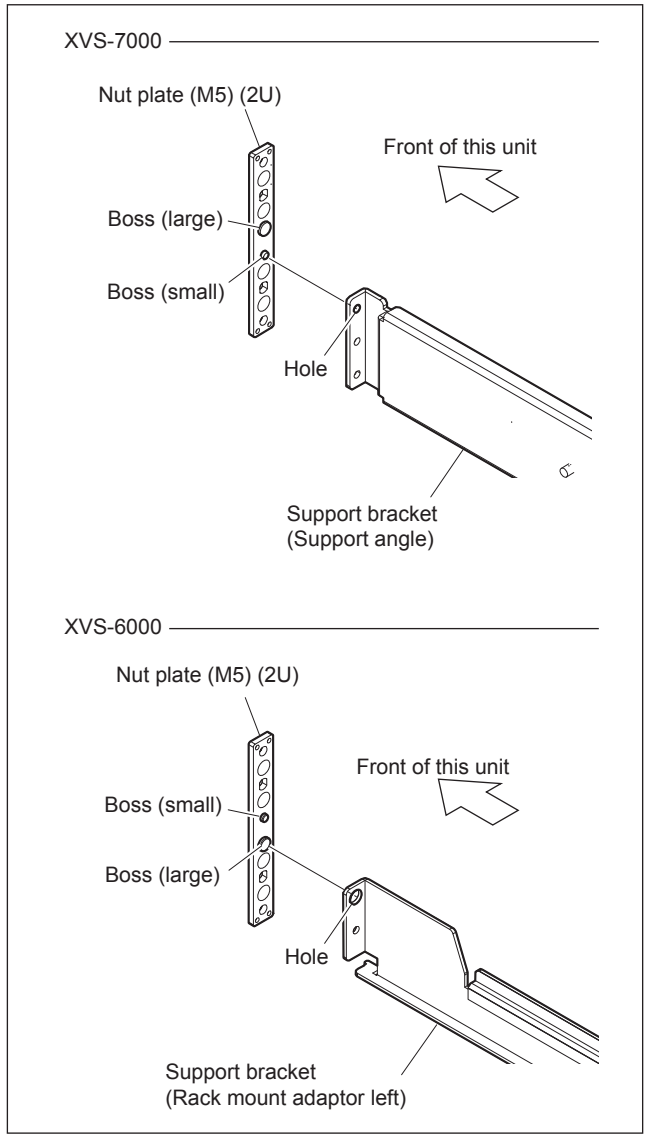


2. Rack Mounting Procedure

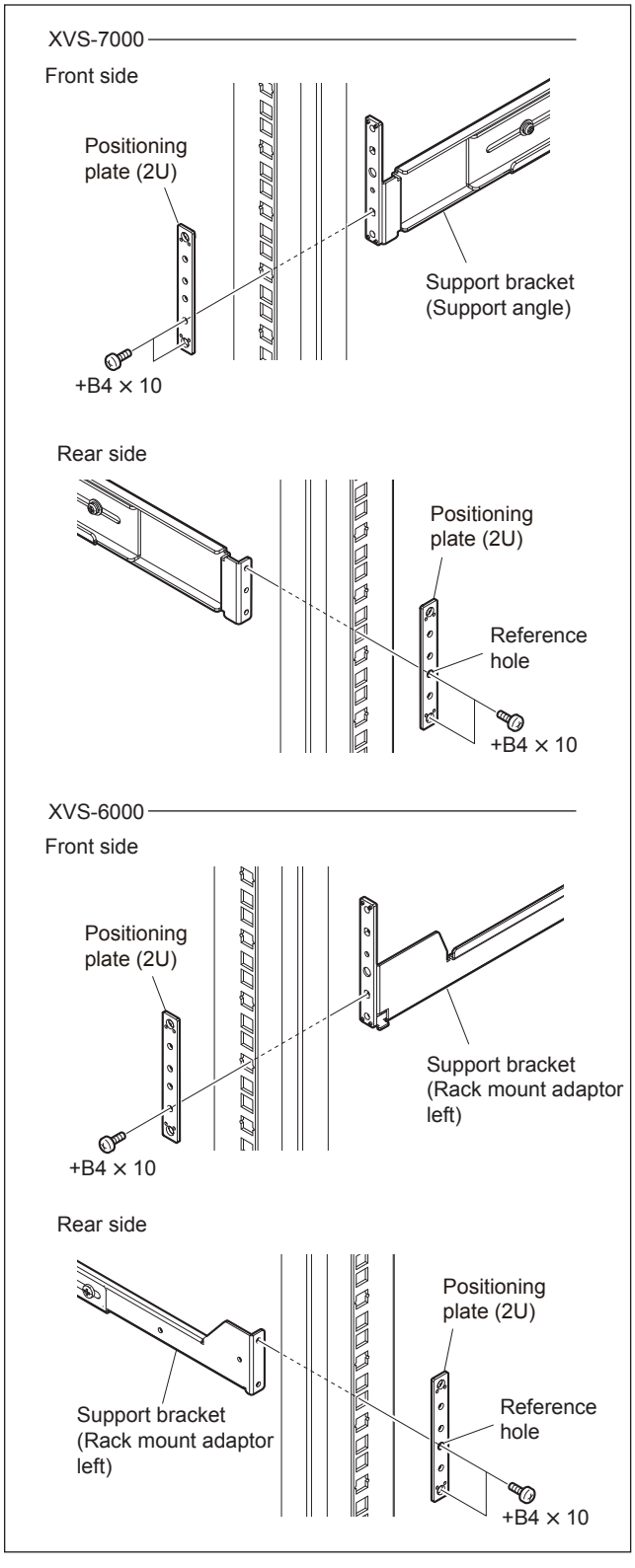
1. Perform steps 1 to 6 in “2. Rack Mounting Procedure” on the section 1-5-1.
2. Remove the release paper from each plate nut (M5) (2U).
3. Attach the plate nuts (M5) (2U) to the right and left support brackets. (The illustration below shows the left bracket.)

Note

Set the boss positions as shown below.



4. Secure the right and left support brackets to the rack with the specified screws. (The illustration below shows the left bracket.)
   XVS-7000: Screw (+B4 × 10) ..... 8 pcs
   XVS-6000: Screw (+B4 × 10) ..... 6 pcs

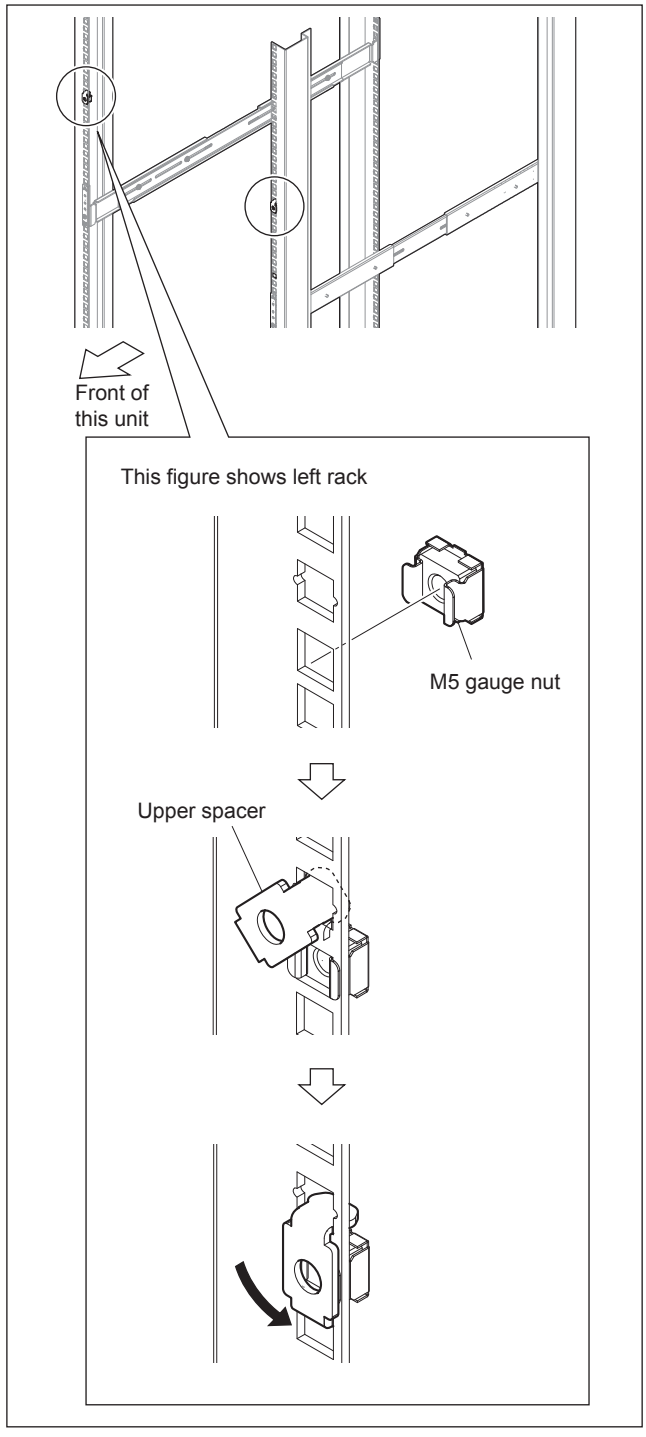


5. Install two M5 gauge nuts at the specified locations of the rack.

Tip

M5 gauge nuts are supplied with the rack.

6. Insert the upper spacer obliquely into the rectangular hole above the mounted M5 gauge nut.
7. Turn the upper spacer.
8. Install the upper spacer to the rack on the other side in the same way.



9. Perform steps 9 and 10 in “2. Rack Mounting Procedure” on the section 1-5-1.
10. Attach the front panel to the unit. (Refer to Section 1-4-1.)

1-6. Matching Connectors and Cables

Use the following connectors, cables or equivalents when connecting cables to the unit.

Model name	Panel indication	Connector name	Matching connector and cable
XVS-8000/ XVS-7000/ XVS-6000	REF IN	BNC, 75Ω	Belden 1694 coaxial cable*1
	MVS LAN UTL LAN	RJ-45 modular jack*2	
XKS-Q8111	IN XVS-8000: 1-16, 17-32, 33-48, 49-64, 65-80, 81-96, 97-112, 113-128, 129-144, 145-160 XVS-7000: 1-16, 17-32, 33-48, 49-64, 65-80, 81-96, 97-112 XVS-6000: 1-16, 17-32, 33-48, 49-64	QFP + Transceiver*3	
XKS-Q8166	OUT XVS-8000: FC1-4, 1-12 FC5-8, 13-24 FC9-12, 25-36 FC13-18, 37-48 SPARE1-4, MV1-8, 49-52 XVS-7000: 1-16, 17-32, 33-48, FC1-16, SPARE1-4, MV1-8, SPARE5-8 XVS-6000: 1-16, 17-24, MV1-8, FC1-16	QFP + Transceiver*3	
XKS-S8110	IN XVS-8000: 1-16, 17-32, 33-48, 49-64, 65-80, 81-96, 97-112, 113-128, 129-144, 145-160 XVS-7000: 1-16, 17-32, 33-48, 49-64, 65-80, 81-96, 97-112 XVS-6000: 1-16, 17-32, 33-48, 49-64	BNC, 75Ω	Belden 1694 coaxial cable*1
XKS-S8111	IN XVS-8000: 1-16, 17-32, 33-48, 49-64, 65-80, 81-96, 97-112, 113-128, 129-144, 145-160 XVS-7000: 1-16, 17-32, 33-48, 49-64, 65-80, 81-96, 97-112 XVS-6000: 1-16, 17-32, 33-48, 49-64	BNC, 75Ω	Belden 1694 coaxial cable*1
XKS-S8165	OUT XVS-8000: OUT FC1-4, 1-12 FC5-8, 13-24 FC9-12, 25-36 FC13-18, 37-48 SPARE1-4, MV1-8, 49-52 XVS-7000: 1-16, 17-32, 33-48, FC1-16, SPARE1-4, MV1-8, SPARE5-8 XVS-6000: 1-16, 17-24, MV1-8, FC1-16	BNC, 75Ω	Belden 1694 coaxial cable*1

∗1: Conforms to the IEEE 802.3 Ethernet 1000BASE-T standards.
∗2: Use the IEEE802.3 Ethernet 10GBASE-T cable (CAT7).
∗3: For information on recommended QSFP + transceiver, contact your local Sony Sales Office/Service Center.

Model name	Panel indication	Connector name	Matching connector and cable
XKS-T8110	IN XVS-8000: 1-16, 17-32, 33-48, 49-64, 65-80, 81-96, 97-112, 113-128, 129-144, 145-160 XVS-7000: 1-16, 17-32, 33-48, 49-64, 65-80, 81-96, 97-112 XVS-6000: 1-16, 17-32, 33-48, 49-64	RJ-45 modular jack*1	
XKS-T8165	OUT XVS-8000: OUT FC1-4, 1-12 FC5-8, 13-24 FC9-12, 25-36 FC13-18, 37-48 SPARE1-4, MV1-8, 49-52 XVS-7000: 1-16, 17-32, 33-48, FC1-16, SPARE1-4, MV1-8, SPARE5-8 XVS-6000: 1-16, 17-24, MV1-8, FC1-16	RJ-45 modular jack*1	

∗1: Use the IEEE802.3 Ethernet 10GBASE-T cable (CAT7).

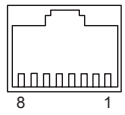
1-7. Input/Output Signals of Connectors

Input and output signals of the connectors on the rear panel are as follows.

1-7-1. XVS-8000/XVS-7000/XVS-6000

REF IN:
BNC × 2, loop through, 75 Ω
NTSC, PAL black burst and sync signal or HD tri-level sync signal

MVS LAN/UTL LAN:
1000BASE-T, RJ-45 (8-pin)



(External View)

Pin No.	Signal Name	Function
1	TRX1+	Transmitted/Received data (+)
2	TRX1–	Transmitted/Received data (–)
3	TRX2+	Transmitted/Received data (+)
4	TRX3+	Transmitted/Received data (+)
5	TRX3–	Transmitted/Received data (–)
6	TRX2–	Transmitted/Received data (–)
7	TRX4+	Transmitted/Received data (+)
8	TRX4–	Transmitted/Received data (–)

1-7-2. XKS-S8110

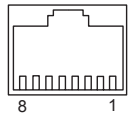
IN 1-16, 17-32, 33-48, 49-64, 65-80, 81-96, 97-112, 113-128, 129-144, 145-160:
BMC × 16, 75 Ω
SDI input: SMPTE259M-C/292M, SMPTE424M/425-1/5

1-7-3. XKS-S8165

OUT FC1-4, 1-12/ FC5-8, 13-24/FC9-12, 25-36/ FC13-18, 37-48/SPARE1-4, MV1-8, 49-52:
BNC × 16, 75 Ω
SDI output: SMPTE259M-C/292M, SMPTE424M/425-1/5

1-7-4. XKS-T8110

IN 1-16, 17-32, 33-48, 49-64, 65-80, 81-96, 97-112, 113-128, 129-144, 145-160:
RJ-45 (8-pin) × 8
Signal name: 10GBASE-T
Function: IP Video input

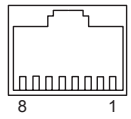


(External View)

Pin No.	Signal Name	Function
1	TRX1+	Transmitted/Received data (+)
2	TRX1–	Transmitted/Received data (–)
3	TRX2+	Transmitted/Received data (+)
4	TRX3+	Transmitted/Received data (+)
5	TRX3–	Transmitted/Received data (–)
6	TRX2–	Transmitted/Received data (–)
7	TRX4+	Transmitted/Received data (+)
8	TRX4–	Transmitted/Received data (–)

1-7-5. XKS-T8165

OUT FC1-4, 1-12/ FC5-8, 13-24/FC9-12, 25-36/ FC13-18, 37-48/SPARE1-4, MV1-8, 49-52:
RJ-45 (8-pin) × 8
Signal name: 10GBASE-T
Function: IP Video output

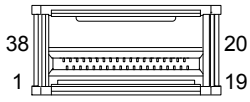


(External View)

Pin No.	Signal Name	Function
1	TRX1+	Transmitted/Received data (+)
2	TRX1–	Transmitted/Received data (–)
3	TRX2+	Transmitted/Received data (+)
4	TRX3+	Transmitted/Received data (+)
5	TRX3–	Transmitted/Received data (–)
6	TRX2–	Transmitted/Received data (–)
7	TRX4+	Transmitted/Received data (+)
8	TRX4–	Transmitted/Received data (–)

1-7-6. XKS-Q8111/Q8166

LAN-1, LAN-2: QSFP+ Connector (38pin) × 2
Signal name: QSFP+
Function (XKS-Q8111): IP Video input
Function (XKS-Q8111): IP Video output



(External View)

Pin No.	Signal name	Function
1	GND	Ground
2	Tx2n	Transmitter Inverted Data Output
3	Tx2p	Transmitter Non-Inverted Data Output
4	GND	Ground
5	Tx4n	Transmitter Inverted Data Output
6	Tx4p	Transmitter Non-Inverted Data Output
7	GND	Ground
8	ModSelL	Module Select
9	ResetL	Module Reset
10	Vcc Rx	+3.3 V Power Supply Receiver
11	SCL	2-wire serial interface clock
12	SDA	2-wire serial interface data
13	GND	Ground
14	Rx3p	Receiver Non-Inverted Data Output
15	Rx3n	Receiver Inverted Data Output
16	GND	Ground
17	Rx1p	Receiver Non-Inverted Data Output
18	Rx1n	Receiver Inverted Data Output
19	GND	Ground
20	GND	Ground
21	Rx2n	Receiver Inverted Data Output
22	Rx2p	Receiver Non-Inverted Data Output
23	GND	Ground
24	Rx4n	Receiver Inverted Data Output
25	Rx4p	Receiver Non-Inverted Data Output
26	GND	Ground
27	ModPrsL	Module Present
28	IntL	Interrupt
29	Vcc Tx	+3.3 V Power Supply Transmitter
30	Vcc1	+3.3 V Power supply
31	LPMode	Low Power Mode
32	GND	Ground
33	Tx3p	Transmitter Non-Inverted Data Output
34	Tx3n	Transmitter Inverted Data Output
35	GND	Ground
36	Tx1p	Transmitter Non-Inverted Data Output
37	Tx1n	Transmitter Inverted Data Output
38	GND	Ground

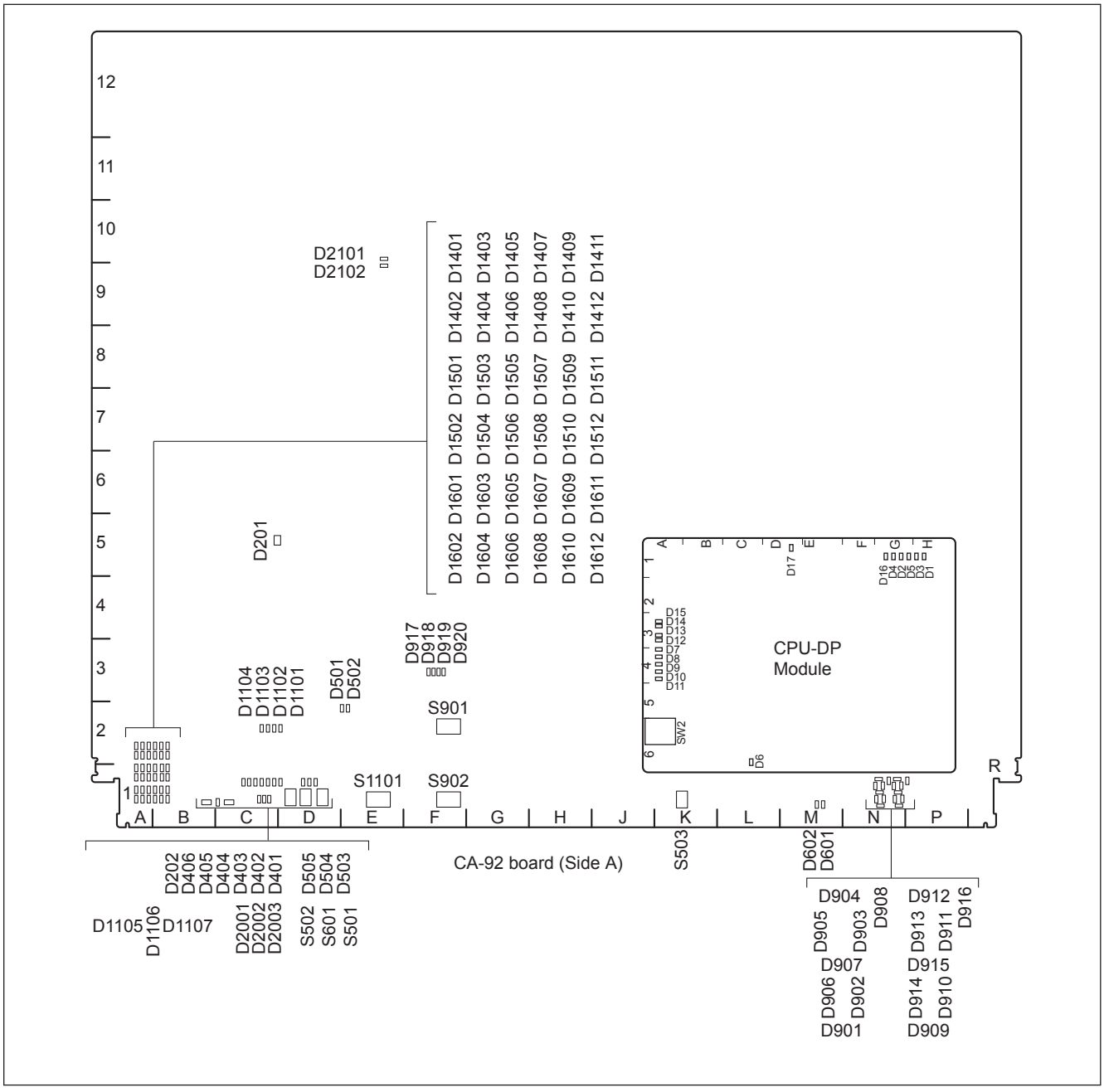
1-8. Description of On-board Switches and LEDs

1-8-1. XVS-8000/XVS-7000/XVS-6000

Note

The number shown in the parentheses ( ) indicated the address on the circuit board.

CA-92 board



<LED>

D1101-4 (C-2, D-2): Debug LED0-4
Used only for design.

D1105 (B-1): PBS Power
For future function expansion.

D1106 (C-1): PBS Beacon
For future function expansion.

D1107 (C-1): PBS Status
For future function expansion.

D1401 (A-2): SW0 Port0 LED1
(XVS-8000 SLOT-14: Not used, XVS-7000 SLOT-09: Not used, XVS-6000 SLOT-06: Not used)
10/100 Link/Act status indication.
Goes off: no link, Lights: 10/100 Link/Act, Blinks: activity

D1402 (A-2): SW0 Port0 LED0
(XVS-8000 SLOT-14: Not used, XVS-7000 SLOT-09: Not used, XVS-6000 SLOT-06: Not used)
1000 Link/Act status indication.
Goes off: no link, Lights: 1000 Link/Act, Blinks: activity

D1403 (A-2): SW0 Port1 LED1
(XVS-8000 SLOT-05: DVP-53, XVS-7000 SLOT-01: DVP-53, XVS-6000 SLOT-01: DVP-53)
10/100 Link/Act status indication.
Goes off: no link, Lights: 10/100 Link/Act, Blinks: activity

D1404 (A-2): SW0 Port1 LED0
(XVS-8000 SLOT-05: DVP-53, XVS-7000 SLOT-01: DVP-53, XVS-6000 SLOT-01: DVP-53)
1000 Link/Act status indication.
Goes off: no link, Lights: 1000 Link/Act, Blinks: activity

D1405 (A-2): SW0 Port2 LED1
(XVS-8000 SLOT-06: MIX-57, XVS-7000 SLOT-02: DVP-53, XVS-6000 SLOT-03: MIX-57)
10/100 Link/Act status indication.
Goes off: no link, Lights: 10/100 Link/Act, Blinks: activity

D1406 (A-2): SW0 Port2 LED0
(XVS-8000 SLOT-06: MIX-57, XVS-7000 SLOT-02: DVP-53, XVS-6000 SLOT-03: MIX-57)
1000 Link/Act status indication.
Goes off: no link, Lights: 1000 Link/Act, Blinks: activity

D1407 (B-2): SW0 Port3 LED1
(XVS-8000 SLOT-07: MIX-57, XVS-7000 SLOT-03: MIX-57, XVS-6000 SLOT-02: MIX-57)
10/100 Link/Act status indication.
Goes off: no link, Lights: 10/100 Link/Act, Blinks: activity

D1408 (B-2): SW0 Port3 LED0
(XVS-8000 SLOT-07: MIX-57, XVS-7000 SLOT-03: MIX-57, XVS-6000 SLOT-02: MIX-57)
1000 Link/Act status indication.
Goes off: no link, Lights: 1000 Link/Act, Blinks: activity

D1409 (B-2): SW0 Port4 LED1 (No connection)
This LED does not light.

D1410 (B-2): SW0 Port4 LED0 (No connection)
This LED does not light.

D1411 (B-2): SW0 Port5 LED1 (CPU-DP board)
Port5 Link/Act status indicator.
Goes off: no link, Lights: link, Blinks: activity

D1412 (B-2): SW0 Port5 LED0 (SW1 PORT5)
Port6 Link/Act status indicator.
Goes off: no link, Lights: link, Blinks: activity

D1501 (A-1): SW1 Port0 LED1
(XVS-8000 SLOT-08: MIX-57, XVS-7000 SLOT-05: MIX-57, XVS-6000: Not used)
10/100 Link/Act status indication.
Goes off: no link, Lights: 10/100 Link/Act, Blinks: activity

D1502 (A-1): SW1 Port0 LED0
(XVS-8000 SLOT-08: MIX-57, XVS-7000 SLOT-05: MIX-57, XVS-6000: Not used)
1000 Link/Act status indication.
Goes off: no link, Lights: 1000 Link/Act, Blinks: activity

D1503 (A-1): SW1 Port1 LED1
(XVS-8000 SLOT-10: MIX-57, XVS-7000 SLOT-04: MIX-57, XVS-6000: Not used)
10/100 Link/Act status indication.
Goes off: no link, Lights: 10/100 Link/Act, Blinks: activity

D1504 (A-1): SW1 Port1 LED0
(XVS-8000 SLOT-10: MIX-57, XVS-7000 SLOT-04: MIX-57, XVS-6000: Not used)
1000 Link/Act status indication.
Goes off: no link, Lights: 1000 Link/Act, Blinks: activity

D1505 (A-1): SW1 Port2 LED1
(XVS-8000 SLOT-09: MIX-57, XVS-7000 SLOT-06: VPR-129, XVS-6000 SLOT-04: VPR-129)
10/100 Link/Act status indication.
Goes off: no link, Lights: 10/100 Link/Act, Blinks: activity

D1506 (A-1): SW1 Port2 LED0
(XVS-8000 SLOT-09: MIX-57, XVS-7000 SLOT-06: VPR-129, XVS-6000 SLOT-04: VPR-129)
1000 Link/Act status indication.
Goes off: no link, Lights: 1000 Link/Act, Blinks: activity

D1507 (B-1): SW1 Port3 LED1
(XVS-8000 SLOT-04: DVP-53, XVS-7000: Not used, XVS-6000: Not used)
10/100 Link/Act status indication.
Goes off: no link, Lights: 10/100 Link/Act, Blinks: activity

D1508 (B-1): SW1 Port3 LED0
(XVS-8000 SLOT-04: DVP-53, XVS-7000: Not used, XVS-6000: Not used)
1000 Link/Act status indication.
Goes off: no link, Lights: 1000 Link/Act, Blinks: activity

D1509 (B-1): SW1 Port4 LED1 (No connection)
This LED does not light.

D1510 (B-1): SW1 Port4 LED0 (No connection)
This LED does not light.

D1511 (B-1): SW1 Port5 LED1 (SW0 Port6)
Port5 Link/Act status indicator.
Goes off: no link, Lights: link, Blinks: activity

D1512 (B-1): SW1 Port5 LED0 (SW2 Port5)
Port6 Link/Act status indicator.
Goes off: no link, Lights: link, Blinks: activity

D1601 (A-1): SW2 Port0 LED1 (SLOT-11: VPR-129)
10/100 Link/Act status indication.
Goes off: no link, Lights: 10/100 Link/Act, Blinks: activity

D1602 (A-1): SW2 Port0 LED0 (SLOT-11: VPR-129)
1000 Link/Act status indication.
Goes off: no link, Lights: 1000 Link/Act, Blinks: activity

D1603 (A-1): SW2 Port1 LED1 (Rear panel NETWORK-A)
10/100 Link/Act status indication.
Goes off: no link, Lights: 10/100 Link/Act, Blinks: activity

D1604 (A-1): SW2 Port1 LED0 (Rear panel NETWORK-A)
1000 Link/Act status indication.
Goes off: no link, Lights: 1000 Link/Act, Blinks: activity

D1605: SW2 Port2 LED1 (Rear panel NETWORK-B)
10/100 Link/Act status indication.
Goes off: no link, Lights: 10/100 Link/Act, Blinks: activity

D1606 (A-1): SW2 Port2 LED0 (Rear panel NETWORK-B)
1000 Link/Act status indication.
Goes off: no link, Lights: 1000 Link/Act, Blinks: activity

D1607 (B-1): SW2 Port3 LED1 (CPU-DP board)
10/100 Link/Act status indication.
Goes off: no link, Lights: 10/100 Link/Act, Blinks: activity

D1608 (B-1): SW2 Port3 LED0 (CPU-DP board)
1000 Link/Act status indication.
Goes off: no link, Lights: 1000 Link/Act, Blinks: activity

D1609 (B-1): SW2 Port4 LED1 (No connection)
This LED does not light.

D1610 (B-1): SW2 Port4 LED0 (No connection)
This LED does not light.

D1611 (B-1): SW2 Port5 LED1 (SW1 Port6)
Port5 Link/Act status indication.
Goes off: no link, Lights: link, Blinks: activity

D1612 (B-1): SW2 Port5 LED0 (No connection)
This LED does not light.

D2001 (C-1): NO LOCK status LED
REF IN status indication.
This LED lights when the setting for the format of signals that are input to the REF IN connector differs from the switcher format setting.

D2002 (C-1): NO ALGIN status LED
This LED indicates the alignment status of the internal REF signal generated from REF IN.
This LED is lit when the alignment is deviated.

D2003 (C-1): NO REF status LED
REF IN status indication.
This LED is unlit while the REF signal is input to the REF IN connector, and is lit while the REF signal is not recognized.

D201 (C-5): eFUSE status ED
Lights in red: eFUSE has been turned OFF by the overload.
Lights in green: eFUSE has turned ON in the normal state.

D202 (C-1): +12 V-1 power supply status
Lights when the +12 V -1 power is supplied.

D401 (C-1): 3.3 V-1 power supply status
Lights when the +3.3 V -1 power is supplied.

D402 (C-1): 1.2 V-1 power supply status
Lights when the +1.2V -1 power is supplied.

D403 (C-1): 3.3 V-2 power supply status
Lights when the +3.3 V-2 power is supplied.

D404 (C-1): 1.8 V-1 power supply status
Lights when the +1.8 V-1 power is supplied.

D405 (C-1): 5 V-1 power supply status
Lights when the +5 V-1 power is supplied.

D406 (C-1): 2.5 V-1 power supply status
Lights when the +2.5 V-1 power is supplied.

D2101 (E-10): REF_EXT
Not used: This LED does not light.

D2102 (E-9): PLL_LOCK
Not used: This LED does not light.

D501 (E-2): CAD1
This LED goes out when configuration of the IC1 is completed correctly.

D502 (E-2): CAD2
This LED goes out when configuration of the IC2 is completed correctly.

D503 (D-1): CA_RESET_B
CA-92 board reset status indication.
This LED lights in the following when:
- Switch S501 (CA_RESET) is pressed
- Switch S502 (RESET) is pressed
- A software reset request is received
- IC1 and IC2 are not working correctly

D504 (D-1): CA_RESET_A
CA-92 board reset status indication.
This LED lights in the following when:
- Switch S501 (CA_RESET) is pressed
- Switch S502 (RESET) is pressed
- A software reset request is received
- IC1 and IC2 are not working correctly

D505 (D-1): SWER_RESET
System reset status indication.
This LED lights in the following when:
- Switch S502 (RESET) is pressed
- A software reset request is received
- IC1 and IC2 are not working correctly

D601 (M-1): DP GbE LINK
Communication status of GbA for communication of inside the unit
This LED lights at link.

D602 (M-1): DP GbE ACT
Communication status of GbE for communication of inside the unit
This LED blinks during the transmission and reception of data.

D901-8 (N-1): 7seg digit1

D909-16 (N-1): 7seg digit0

D917-20 (F-3): BUS LED
Used only for design.

<Switch>

S1101 (E-1): GROUP/UNIT ID switch
This switch is used to set GROUP ID and UNIT ID connected to the LAN.

S501 (D-1): CA_RESET switch
Reset switch for CA-92 board.

S502 (D-1): RESET switch
Reset switch for the overall the unit.

S503 (K-1): CPU_RESET switch
Reset switch for CPU-DP board.

S601 (D-1): MON RESET switch
Software reset switch for CPU-DO board.

S901 (F-2): SETTING2 switch
Used only for design.

S902 (F-1): SETTING1 switch
Used only for design.

<LED on the CPU-DP Module>

D1 (L-6): 3.3 V
Power supply status indication.
Lights when +3.3 V power is supplied to the regulator on CPU-DP module.

D2 (L-6): 2.5 V
Power supply status indication.
Lights when +2.5 V power is supplied normally.

D3 (L-6): 1.8 V_DDR
Power supply status indication.
Lights when +1.8 V power is supplied normally to the DDR2 on CPU-DP module.

D4 (L-6): 1.2 V
Power supply status indication.
Lights when +1.2 V power is supplied normally.

D5 (L-6): 1.1 V
Power supply status indication.
Lights when +1.1 V power is supplied normally.

D6 (R-4): CD
Lights when the connector on CPU-DP module connected to the base board normally.

D7 (N-2): RUN
Lights when complete the boot process normally of CPU-DP module.

D8 to D11 (N-2): STATUS LED1 to 4
Internal status indication of CPU-DP module.
Controlled by software

D12 (N-2): GbE1
Lights when linked Ethernet 1 on CPU-DP module.
On this board, corresponds to Network A connection.

D13 (N-2): GbE2
Lights when linked Ethernet 2 on CPU-DP module.
On this board, corresponds to Network B connection.

D14 (N-2): SGMII1
Lights when linked SGMII 1 on CPU-DP module.
This board supports Ethernet connections for internal communications.

D15 (N-2): SGMII2
Lights when linked SGMII 2 on CPU-DP module.
Not used on this board.

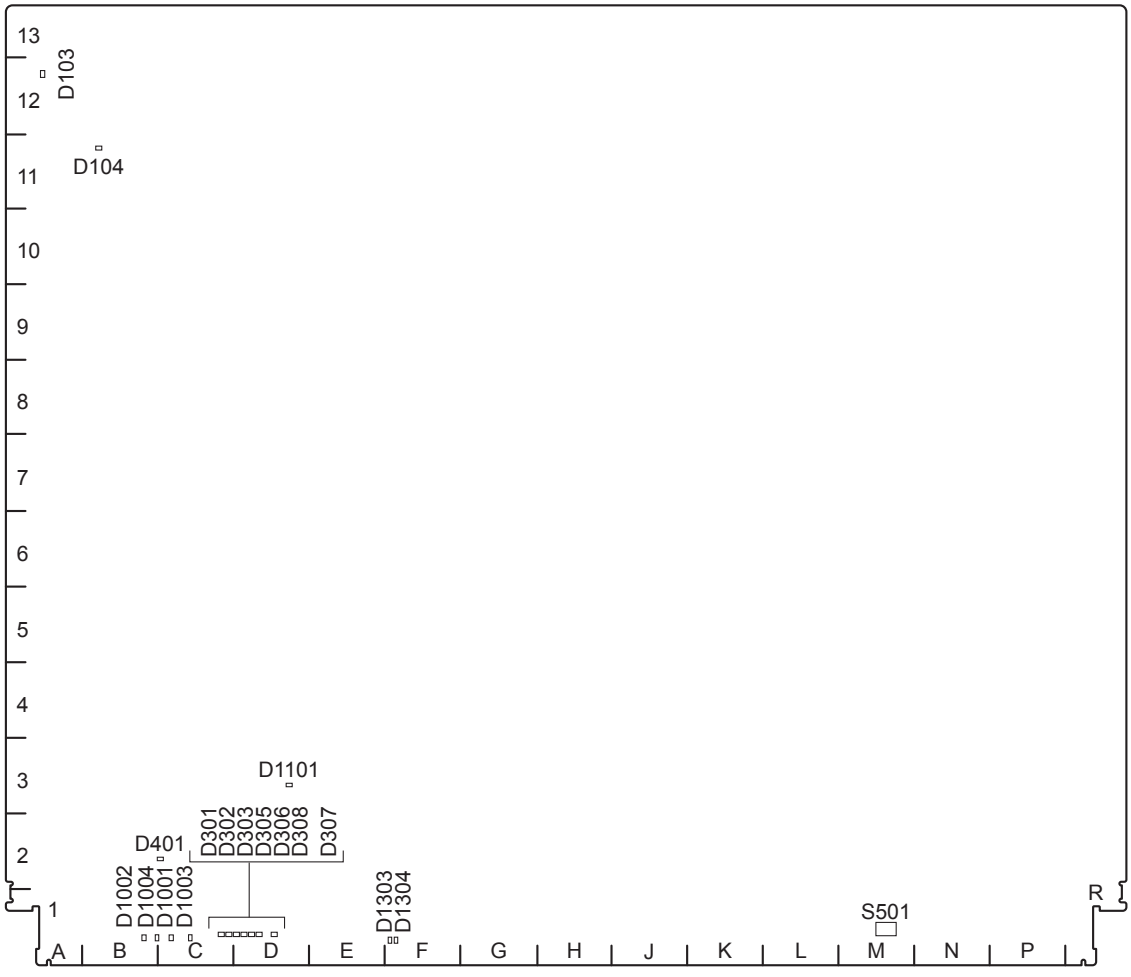
D16 (L-6): 3.3 V_LV
Power supply status indication.
Lights when +3.3 V power is supplied normally.

D17 (L-4): 1.8 V_PHY
Power supply status indication.
Lights when +1.8 V power is supplied normally to the PHY on CPU-DP module.

<Switch on the CPU-DP Module>

SW2 (P-2): CPU-DP MODE
Sets the start-up mode of CPU-DP module.
Default setting when shipped from the factory is all OFF.

OUT-38 board



OUT-38 board (Side A)

<LED>

D1002 (B-1): POWER
Power supply status indication.
Lights in green: All powers are supplied on the board correctly.
Goes off: This LED goes off when the power supply has failure.

D103 (A-12): POWER
HOT SWAP CONTROLLER (IC101) status indication.
Lights in green: The +12 V power is supplied correctly in the board.
Lights in red: Power supply in the board is blocked. The board failure may have occurred such as the power supply short.
Goes off: This LED goes off when the fuse (F102) may have blown.

D104 (A-11): +12 V
+12 V power supply status indication.
Lights when the +12 V power is supplied.

D301 (C-1): +3.3 V
+3.3 V power supply status indication.
Lights when the +3.3 V power is supplied.

D302 (C-1): +2.5 V
+2.5 V power supply status indication.
Lights when the +2.5 V power is supplied.

D303 (C-1): +1.8 V
+1.8 V power supply status indication.
Lights when the +1.8 V power is supplied.

D305, D306, D308 (D-1): +1.1 V-1, -2, -A
+1.1 V power supply status indication.
Lights when the +1.1 V power is supplied.

D307 (D-1): REG
Analog power supply status indication.
Lights when all power (+1.5 V-A1, -A2 and +1.2 V) are supplied.

D401 (C-2): CC1_UNLOCK
Indicates lock/unlock of the clock conditioner for OUT, MSD, CCR.
If this LED lit, the clock conditioner can possibly be unlocked.

D1001 (C-1): STATUS
For future function expansion.

D1003 (C-1): PLL UNLOCK
Indicates lock/unlock of the PLL (Phase Locked Loop) in the FPGA.
If this LED lit, the PLL can possibly be unlocked.

D1004 (B-1): BECON
For future function expansion.

D1101 (D-3): CADEC
Indicates the configuration error of the FPGA.
If this LED lit, the FPGA (IC001) can possibly be working incorrectly.

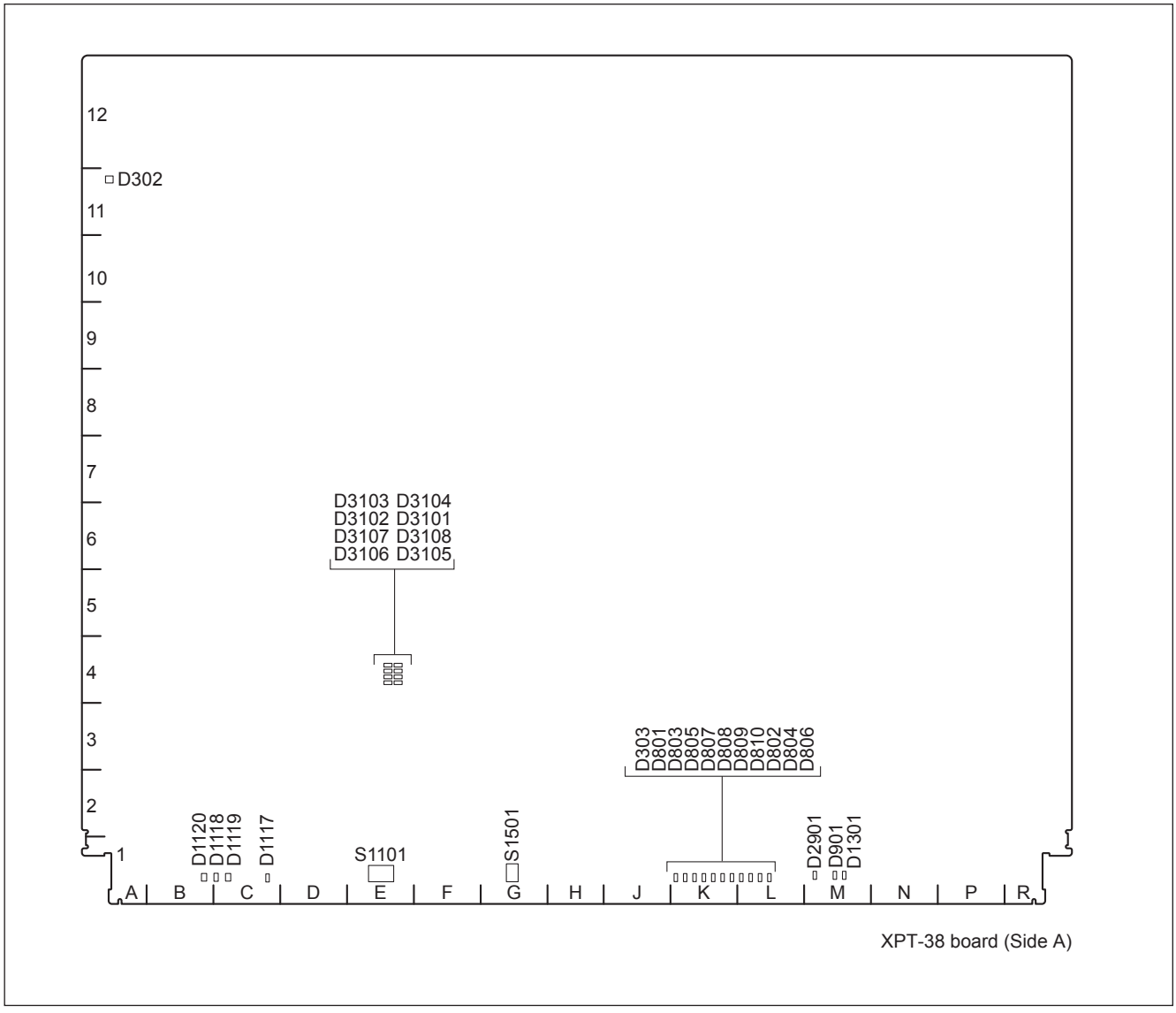
D1303 (F-1): OUT2
Indicates the configuration error of the FPGA.
If this LED lit, the FPGA (IC003) can possibly be working incorrectly.

D1304 (F-1): OUT1
Indicates the configuration error of the FPGA.
If this LED lit, the FPGA (IC002) can possibly be working incorrectly.

<Switch>

S501 (M-1): RST
Used only for design.

XPT-38 board



XPT-38 board (Side A)

<LED>

D1120 (B-1): POWER
Power supply status indication.
Lights in green: when all power supply on the board are normally. If the power supply has abnormality, turns off.
Goes off: This LED goes off when the power supply has failure.

D302 (A-11): POWER
HOT SWAP CONTROLLER (IC301) status indication
Lights in green: The +12 V power is supplied correctly in the board.
Lights in red: Power supply in the board is blocked. The board failure may have occurred such as the power supply short.
Goes off: This LED goes off when the fuse (F102) may have blown.

D303 (K-1): +12 V
+12 V power supply status indication.
Lights in green when the +12 V power is supplied.

D801 (K-1): +3.3 V
+3.3 V power supply status indication.
Lights in green when the +3.3 V power is supplied.

D802 (L-1): +2.5 V-XPT
+2.5 V-XPT power supply status indication.
Lights in green when the +2.5 V-XPT power is supplied.

D803 (K-1): +2.5 V
+2.5 V power supply status indication.
Lights in green when the +2.5 V power is supplied.

D804 (L-1): +1.8 V-XPT
+1.8 V-XPT power supply status indication.
Lights in green when the +1.8 V-XPT power is supplied.

D805 (K-1): +1.8 V
+1.8 V power supply status indication.
Lights in green when the +1.8 V power is supplied.

D806 (L-1): +1.2 V-XPT
+1.2 V-XPT power supply status indication.
Lights in green when the +1.2 V-XPT power is supplied.

D807 (K-1): +1.5 V
+1.5 V power supply status indication.
Lights in green when the +1.5 V power is supplied.

D808 (K-1): +1.2 V
+1.2 V power supply status indication.
Lights in green when the +1.2V power is supplied.

D809 (K-1): +1.0 V
+1.0 V power supply status indication.
Lights in green when the +1.0 V power is supplied.

D810 (L-1): +0.95V
+0.95 V power supply status indication.
Lights in green when the +0.95 V power is supplied.

D901 (M-1): CC_UNLOCK
Indicates lock/unlock of the clock conditioner (IC902) for CADEC, MV.
If this LED lit, the clock conditioner can possibly be unlocked.

D2901 (M-1): CC2_UNLOCK
Indicates lock/unlock of the clock conditioner (IC2902) for MV.
If this LED lit, the clock conditioner can possibly be unlocked.

D1117 (C-1): CONF ERR
Status indication for CADEC (IC001) configuration operation
Lights in red when the configuration has been started up.
Goes off when the configuration of IC001 is completed.
If the LED does not go off, there is a possibility of failure of the IC001.

D1118 (C-1): BECON
For future function expansion.

D1119 (C-1): STATUS
For future function expansion.

D1301 (M-1): MV
Status indication for FPGA (IC003) configuration operation
Lights in green when the configuration of IC003 is completed.
If the LED does not light in green, there is a possibility of failure of the IC003.

D3101 to D3108 (D-4): MV FPGA DEBUG LED
Used only for design

<Switch>

S1101 (E-1): CADEC DEBUG
Used only for design.

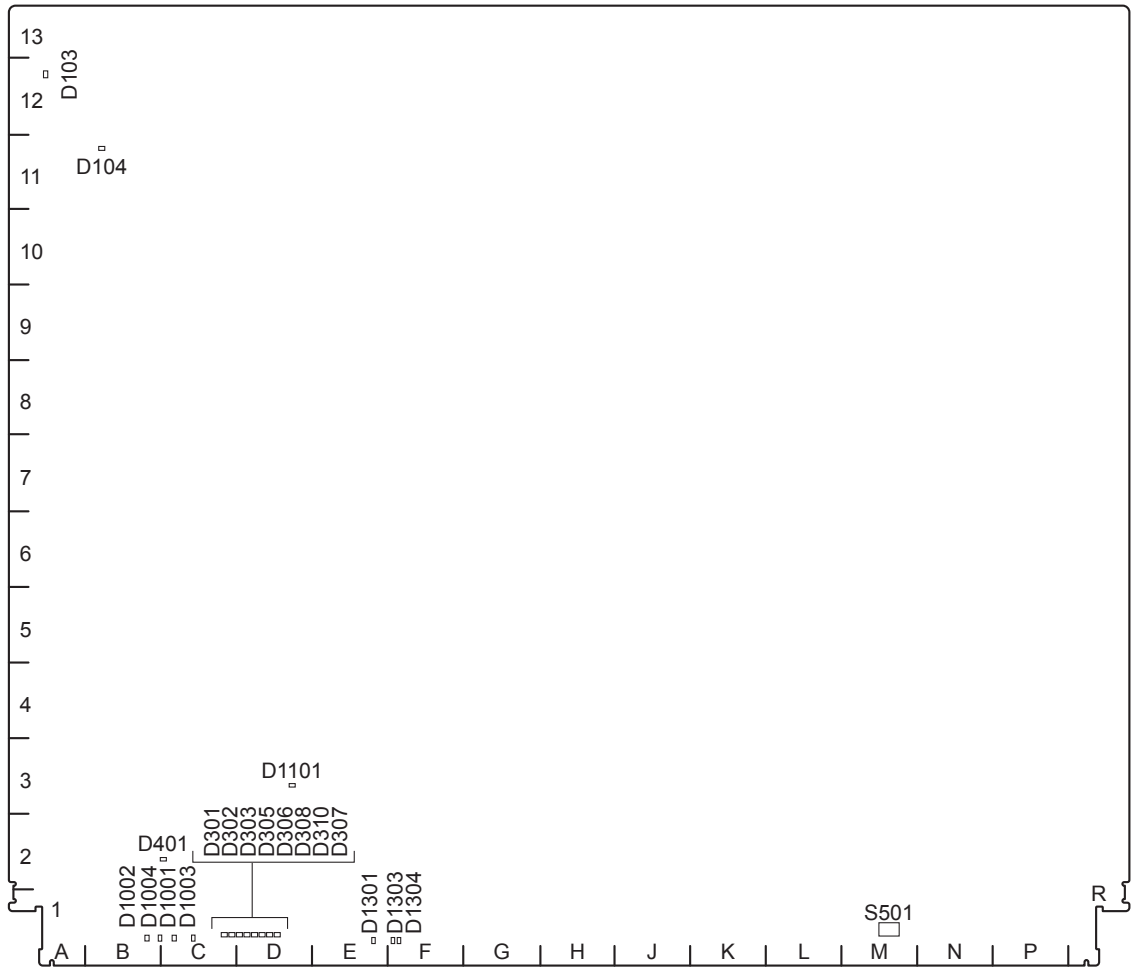
S1501 (G-1): RESET
Used only for design.

1-8-2. XKS-8160

Note

The number shown in the parentheses ( ) indicated the address on the circuit board.

OUT-38A board



OUT-38A board (Side A)

<LED>

D1002 (B-1): POWER

Power supply status indication.
Lights in green: All power are supplied on the board correctly.
Goes off: This LED goes off when the power supply has failure.

D103 (A-12): POWER

HOT SWAP CONTROLLER (IC101) status indication.
Lights in green: The +12 V power is supplied correctly in the board.
Lights in red: Power supply in the board is blocked. The board failure may have occurred such as the power supply short.
Goes off: This LED goes off when the fuse (F102) may have blown.

D104 (A-11): +12 V

+12 V power supply status indication.
Lights when the +12 V power is supplied.

D301 (C-1): +3.3 V

+3.3 V power supply status indication.
Lights when the +3.3 V power is supplied.

D302 (C-1): +2.5 V

+2.5 V power supply status indication.
Lights when the +2.5 V power is supplied.

D303 (C-1): +1.8 V

+1.8 V power supply status indication.
Lights when the +1.8 V power is supplied.

D305, D306, D308 (D-1): +1.1 V-1, -2, -A

+1.1 V power supply status indication.
Lights when the +1.1 V power is supplied.

D307 (D-1): REG

Analog power supply status indication.
Lights when all power (+1.5 V-A1, -A2 and +1.2 V) are supplied.

D310 (D-1): +0.9 V

+0.9 V power supply status indication.
Lights when the +0.9 V power is supplied.

D401 (C-2): CC1_UNLOCK

Indicates lock/unlock of the clock conditioner for OUT, MSD, CCR.
If this LED lit, the clock conditioner can possibly be unlocked.

D1001 (C-1): STATUS

For future function expansion.

D1003 (C-1): PLL UNLOCK

Indicates lock/unlock of the PLL (Phase Locked Loop) in the FPGA.
If this LED lit, the PLL can possibly be unlocked.

D1004 (B-1): BECON

For future function expansion.

D1101 (D-3): CADEC

Indicates the configuration error of the FPGA.
If this LED lit, the FPGA (IC001) can possibly be working incorrectly.

D1301 (E-1): VPR

Indicates the configuration error of the FPGA.
If this LED lit, the FPGA (IC005) can possibly be working incorrectly

D1303 (F-1): OUT2

Indicates the configuration error of the FPGA.
If this LED lit, the FPGA (IC003) can possibly be working incorrectly.

D1304 (F-1): OUT1

Indicates the configuration error of the FPGA.
If this LED lit, the FPGA (IC002) can possibly be working incorrectly.

<Switch>

S501 (M-1): RST

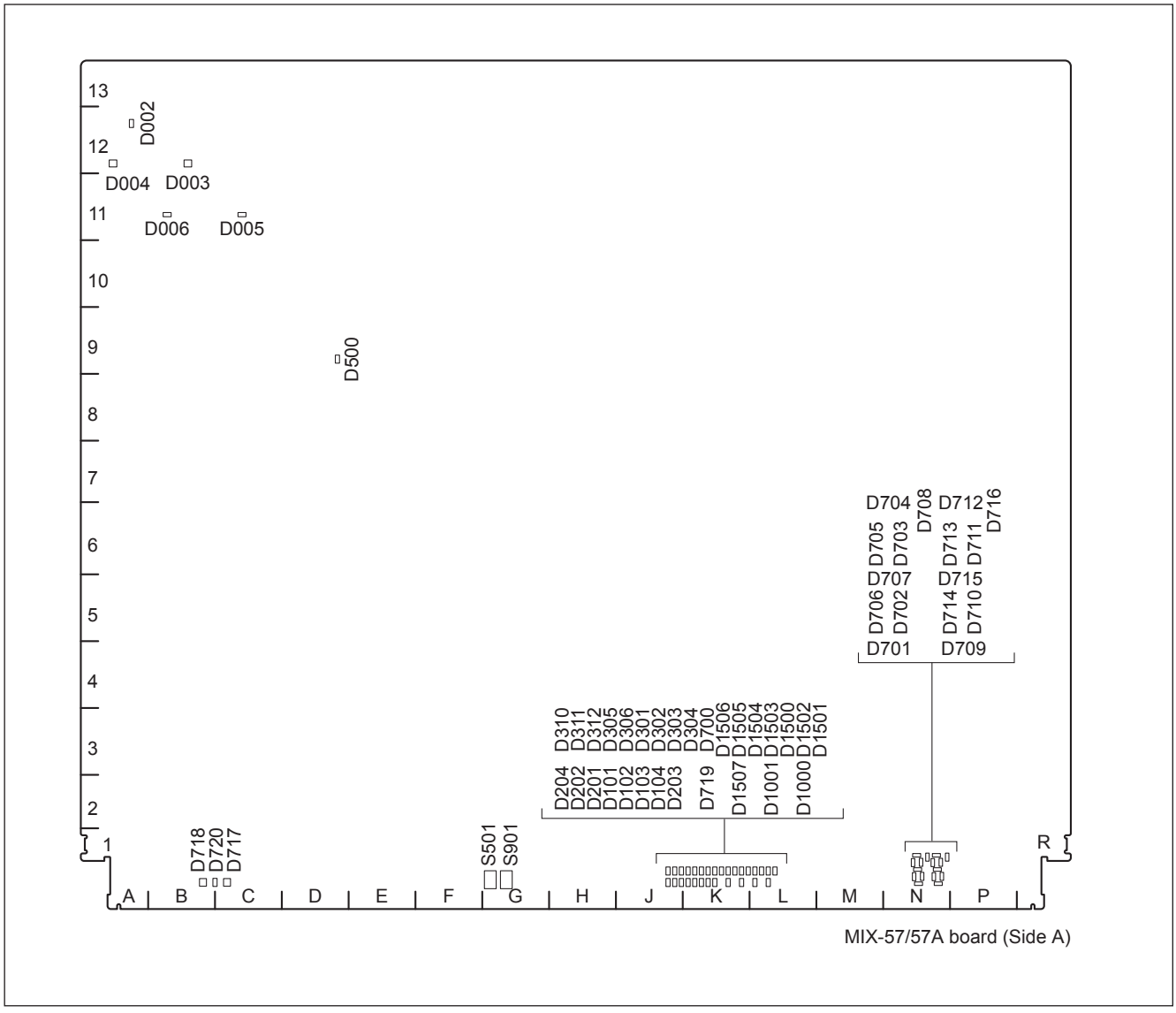
Used only for design.

1-8-3. XVS-6000/XKS-7210/XKS-8210

Note

The number shown in the parentheses ( ) indicated the address on the circuit board.

MIX-57 board (XVS-6000/XKS-8210)
MIX-57A board (XKS-7210)



<LED>

D718 (B-1): POWER
Power supply status indication.
Lights in green when all power supply on the board are normally.

D002 (A-12): 12V
+12 V power supply status indication.
Lights when the +12 V power is supplied.
If this LED does not light, the fuse (F001) may have blown.

D003 (B-12): PWR1
HOT SWAP CONTROLLER (IC002) status indication.
Lights in green: The +12 V power is supplied correctly in the board.
Lights in red: Power supply in the board is blocked. The board failure may have occurred such as the power supply short.
Goes off: The fuse (F001) may have blown.

D004 (A-12): PWR2
HOT SWAP CONTROLLER (IC003) status indication.
Lights in green: The +12 V power is supplied correctly in the board.
Lights in red: Power supply in the board is blocked. The board failure may have occurred such as the power supply short..
Goes off: The fuse (F001) may have blown.

D005 (C-11): 12V-A
+12 V-A power supply status indication.
Lights when the +12 V-A power is supplied.

D006 (B-11): 12V-B
+12 V-B power supply status indication.
Lights when the +12 V-B power is supplied.

D101, D102, D103, D104 (K-1): +1.1 V-1, -2, -3, -4
+1.1 V power supply status indication.
Lights when the +1.1 V power is supplied.

D201 (J-1): +1.8 V
+1.8 V power supply status indication.
Lights when the +1.8 V power is supplied.

D202 (J-1): +2.5 V
+2.5 V power supply status indication.
Lights when the +2.5 V power is supplied.

D203 (K-1): +1.1 V-5
+1.1 V power supply status indication.
Lights when the +1.1 V power is supplied.

D204 (J-1) +3.3 V
+3.3 V power supply status indication.
Lights when the +3.3 V power is supplied.

D301, D302, D303, D304 (K-1): 1.1 V-A1, -A2, -A3, -A4
+1.1 V analog power supply status indication.
Lights when the +1.1 V power is supplied.

D305, D306 (K-1): 1.2 V-A1, -A2
+1.2 V analog power supply status indication.
Lights when the +1.2 V power is supplied.

D310, D311, D312 (J-1): 1.5 V-A1, -A2, -A3
+1.5 V analog power supply status indication.
Lights when the +1.5 V power is supplied.

D500 (D-9): CC_UNLOCK
Indicates lock/unlock of the clock conditioner .
If this LED lit, the clock conditioner can possibly be unlocked.

D700 (K-1): CAD1
Indicates the configuration error of the FPGA.
If this LED lit, the FPGA (IC1) can possibly be working Incorrectly.

D701 to D716 (N-1): CPU status
Indicates the CPU status on the board.

D717 (C-1): STATUS
For future function expansion.

D719 (K-1): PLL UNLOCK
Indicates lock/unlock of the PLL (Phase Locked Loop) in the FPGA.
If this LED lit, the PLL can possibly be unlocked

D720 (B-1): BECON
For future function expansion.

D1000 (L-1): INET LINK
Lights when Ethernet 1 on CPU module links with CA board.

D1001 (L-1): INET ACT
Ethernet 1 on CPU module links with CA board and blinks when data send or receive is in progress.

D1500 (L-1): WPG
Indicates the configuration error of the FPGA.
If this LED lit, the FPGA (IC202) can possibly be working Incorrectly.

D1501 (L-1): R34
Indicates the configuration error of the FPGA.
If this LED lit, the FPGA (IC302) can possibly be working incorrectly.

D1502 (L-1): R12
Indicates the configuration error of the FPGA.
If this LED lit, the FPGA (IC301) can possibly be working incorrectly.

D1503 (L-1): MIX
Indicates the configuration error of the FPGA.
If this LED lit, the FPGA (IC201) can possibly be working incorrectly.

D1504 (K-1): K34
Indicates the configuration error of the FPGA.
If this LED lit, the FPGA (IC402) can possibly be working incorrectly.

D1505 (K-1): K12
Indicates the configuration error of the FPGA.
If this LED lit, the FPGA (IC401) can possibly be working incorrectly.

D1506 (K-1): CAD2
Indicates the configuration error of the FPGA.
If this LED lit, the FPGA (IC21) can possibly be working incorrectly.

D1507 (K-1): CONF ERR
Indicates the configuration error of the FPGA.
If this LED lit, any FPGA can possibly be working incorrectly.

<Switch>
S501 (G-1): RST
Reset the MIX board. Pressing this switch initializes the MIX board.
When pressing this switch, the initialization of the MIX board is performed.

S901 (G-1): MON
For monitor switch used in maintaining through the terminal connector.

<LED on the CPU-DP Module>
Refer to <LED on the CPU-DP Module> in “CA-82 board”.

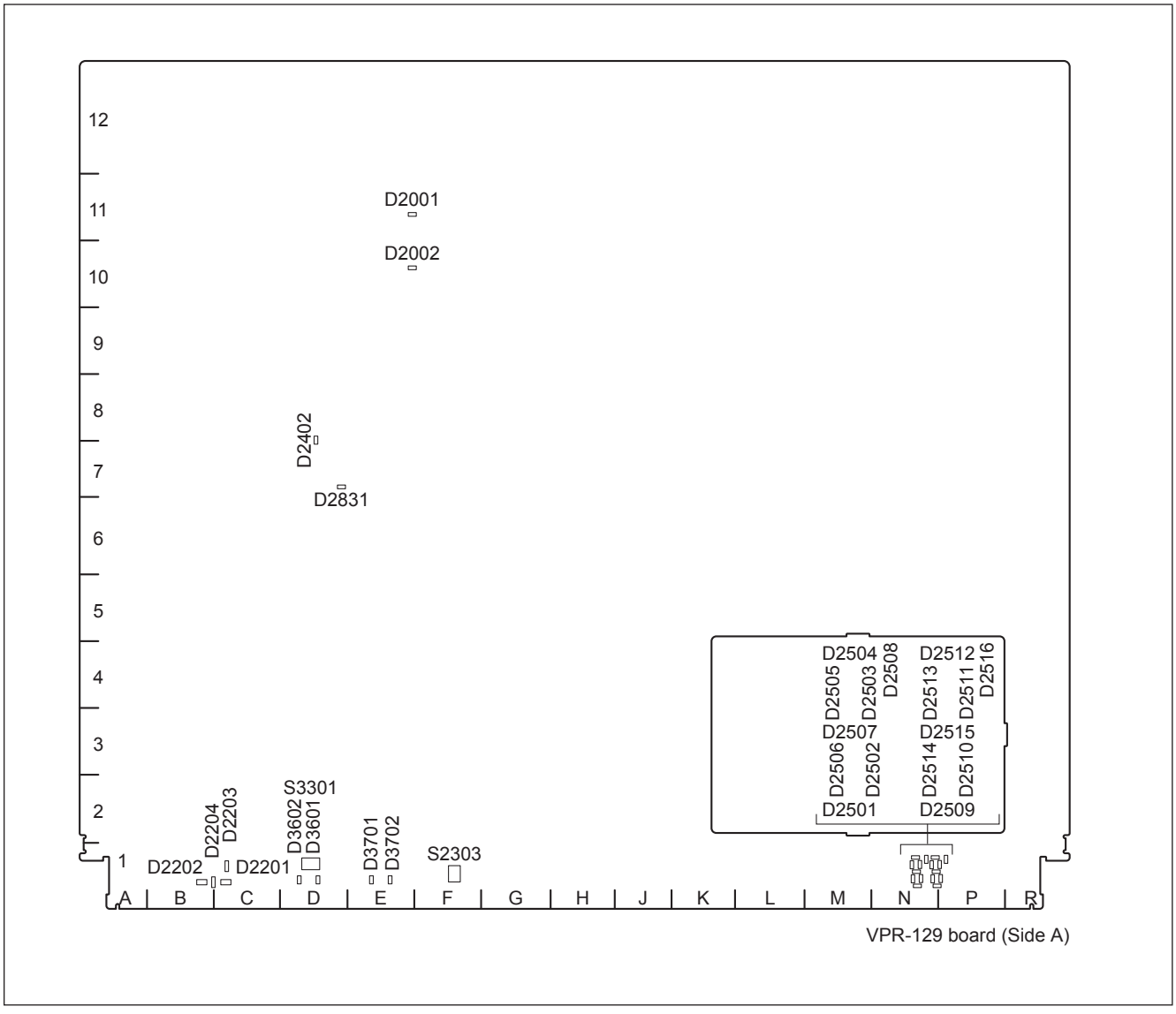
<Switch on the CPU-DP Module>
Refer to <Switch on the CPU-DP Module> in “CA-82 board”.

1-8-4. XKS-8440

Note

The number shown in the parentheses ( ) indicated the address on the circuit board.

VPR-129 board



VPR-129 board (Side A)

<LED>

D2001 (E-11): CC_UNLOCK
Indicates lock/unlock of the clock conditioner (IC2005).
If this LED lit, the clock conditioner can possibly be unlocked.

D2002 (E-10): CC_UNLOCK
Indicates lock/unlock of the clock conditioner (IC2004).
If this LED lit, the clock conditioner can possibly be unlocked.

D2201 (C-1): STATUS
For future function expansion.

D2202 (B-1): POWER
Power supply status indication.
Lights in green: All power supply on the board are normally.
Goes off: If the power supply has abnormality, goes off.

D2203 (C-1): INIT ERR
Status indication for the initialization operation of CADEC (IC2)
Lights in red when the IC2 has been started up. Goes off when the initialization operation is completed.
If the LED does not go off, there is a possibility of failure of the IC2.

D2204 (C-1): BECON
For future function expansion.

D2402 (D-8): CONF_ERR
Status indication for CADEC (IC2) configuration operation.
Lights in red when the configuration has been started up.
Goes off when the configuration of IC2 is completed.
If the LED does not go off, there is a possibility of failure of the IC2.

D2831 (D-7): CPU_RESET
Lights when CPU (IC3) has been reset.

D2501 to D2516 (P-1): CPU_STATUS
Status indication for CPU on the board

D3601 (D-1): LED1
ETHERNET_LED1

D3602 (D-1): LED0
ETHERNET_LED0

D3701 (E-1): LED3
Not used.

D3702 (E-1): LED2
Not used.

<Switch>

S2303 (F-1): BOOT_SEL SWITCH
This switch is used to select the area of the Boot ROM.

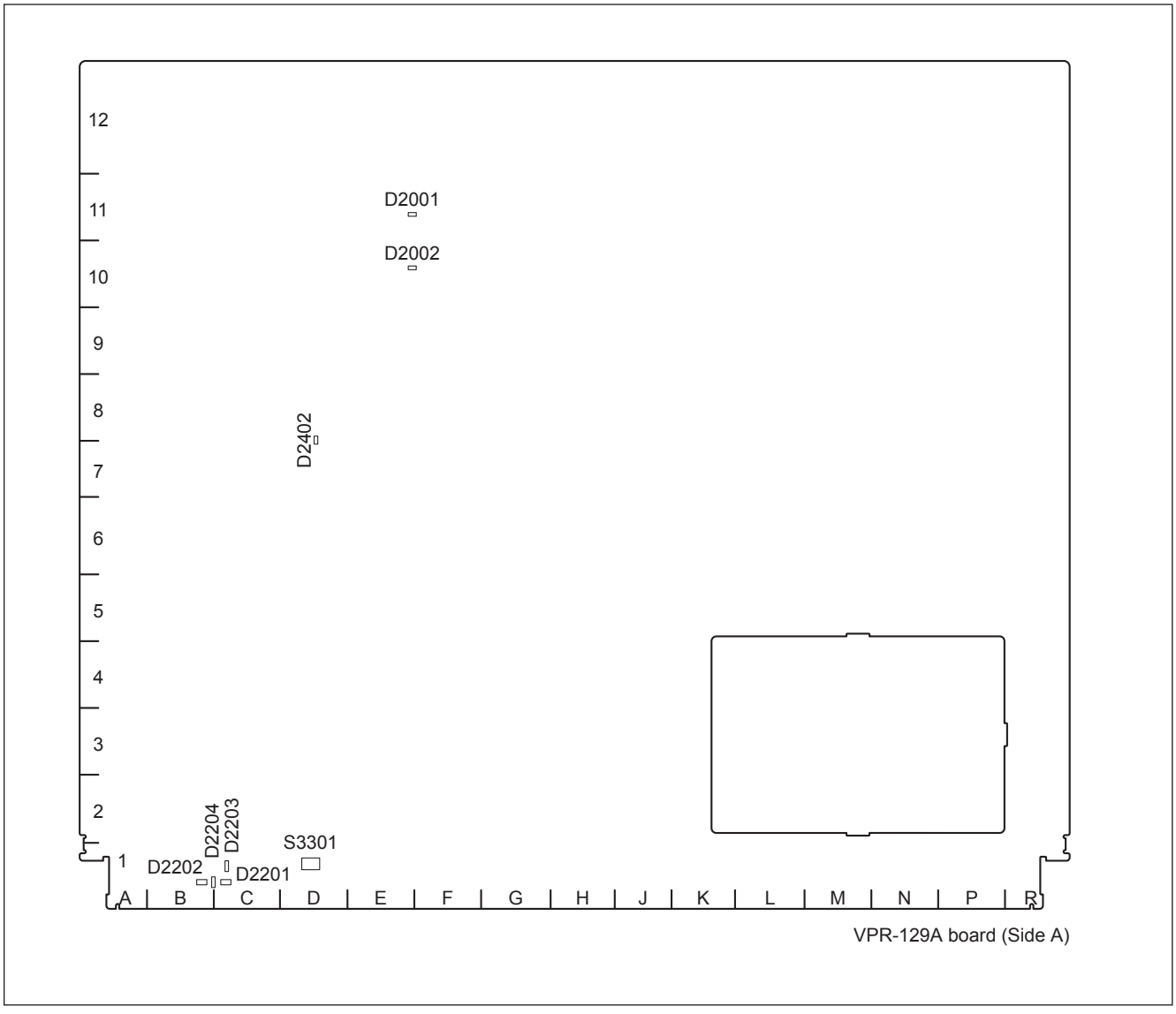
S3301 (D-1): RE_CONFIG
This switch is used to reboot the board manually.

1-8-5. XKS-8460

Note

The number shown in the parentheses () indicated the address on the circuit board.

VPR-129A board



VPR-129A board (Side A)

<LED>

D2001 (E-11): CC_UNLOCK

Indicates lock/unlock of the clock conditioner (IC2005).
If this LED lit, the clock conditioner can possibly be unlocked.

D2002 (E-10): CC_UNLOCK

Indicates lock/unlock of the clock conditioner (IC2004).
If this LED lit, the clock conditioner can possibly be unlocked.

D2204 (C-1): BECON

For future function expansion.

D2201 (C-1): STATUS

For future function expansion.

D2202 (B-1): POWER

Power supply status indication.
Lights in green: All power supply on the board are normally.
Goes off: If the power supply has abnormality, goes off.

D2203 (C-1): INIT ERR

Status indication for the initialization operation of CADEC (IC2).
Lights in red when the IC2 has been started up. Goes off when the initialization operation is completed.
If the LED does not go off, there is a possibility of failure of the IC2.

D2402 (D-8): CONF_ERR

Status indication for CADEC (IC2) configuration operation.
Lights in red when the configuration has been started up. Goes off when the configuration of IC2 is completed.
If the LED does not go off, there is a possibility of failure of the IC2.

<Switch>

S3301 (D-1): RE_CONFIG

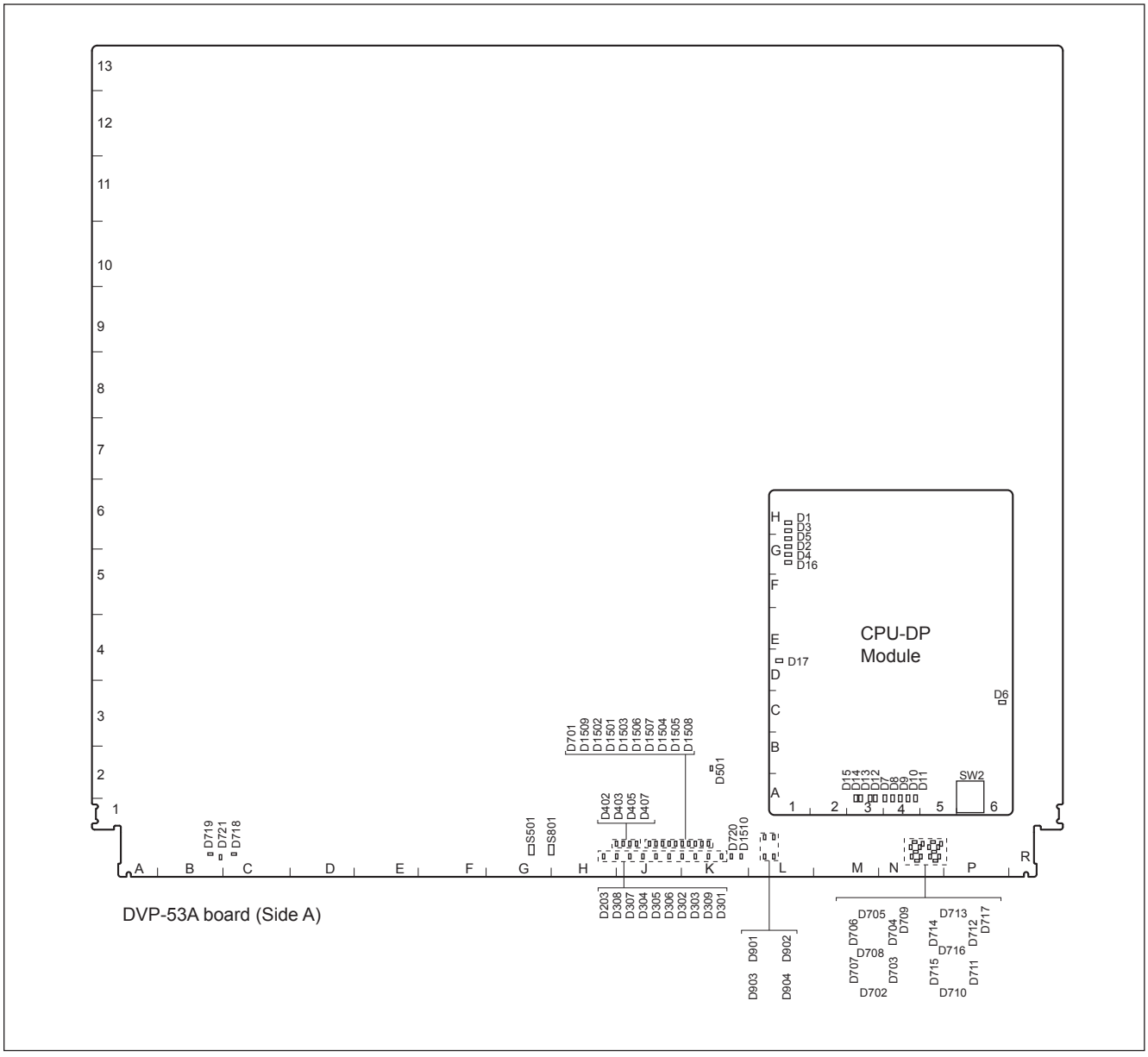
This switch is used to reboot the board manually.

1-8-6. XKS-8470

Note

The number shown in the parentheses () indicated the address on the circuit board.

DVP-53A board



<LED>

D719 (B-1): POWER
Power supply status indication.
Lights in green when all power supply on the board are normally.

D203 (H-1): +12 V
+12 V power supply status indication.
Lights when the +12 V power is supplied. If this LED does not light, the fuse may have blown.

D301 (K-1): +1.0 V
+1.0 V power supply status indication.
Lights when the +1.0 V power is supplied.

D302, D303, D309 (K-1): +1.1 V-1, -2, -3
+1.1 V power supply status indication.
Lights when the +1.1 V power is supplied.

D304, D305, D306 (J-1): +1.8 V-1, -2, -3
+1.8 V power supply status indication.
Lights when the +1.8 V power is supplied.

D307 (J-1): +2.5 V
+2.5 V power supply status indication.
Lights when the +2.5 V power is supplied.

D308 (J-1): +3.3 V
+3.3 V power supply status indication.
Lights when the +3.3 V power is supplied.

D402 (J-1): +1.0 V-AVCC1
+1.0 V analog power supply status indication.
Lights when the +1.0 V power is supplied.

D403, D405 (J-1): +1.2 V-APLL1, +1.2 V-AVT1
+1.2 V analog power supply status indication.
Lights when the +1.2 V power is supplied.

D407 (J-1): +1.2 V
+1.2 V power supply status indication.
Lights when the +1.2 V power is supplied.

D501 (K-2): CC_UNLOCK
Indicates lock/unlock of the clock conditioner.
If this LED lit, the clock conditioner can possibly be unlocked.

D701 (J-1): CAD1
Indicates the configuration error of the FPGA.
If this LED lit, the FPGA can possibly be working incorrectly.

D702 to D717 (N-1): CPU
CPU on the board status indication.

D718 (C-1): STATUS
For future function expansion.

D720 (K-1): PLL UNLOCK
Indicates lock/unlock of the PLL (Phase Locked Loop) in the FPGA.
If this LED lit, the PLL can possibly be unlocked.

D721 (A-1): BECON
For future function expansion.

D901 (L-1): INET SWER LINK
Lights when Ethernet 1 on CPU module links with CA board.

D902 (L-1): INET SWER ACT
Ethernet 1 on CPU module links with CA board and blinks when data send or receive is in progress.

D903 (L-1): INET DME LINK
For test LED.

D904 (L-1): INET DME ACT
For test LED.

D1509 (J-1): CAD2
Indicates the configuration error of the FPGA.
If this LED lit, the FPGA (IC21) can possibly be working incorrectly.

D1510 (K-1): CONF ERR
Indicates the configuration error of the FPGA.
If this LED lit, any FPGA can possibly be working incorrectly.

D1502 (J-1): SDI1
Indicates the configuration error of the FPGA.
If this LED lit, the FPGA (IC5) can possibly be working incorrectly.

D1501 (J-1): SDI2
Indicates the configuration error of the FPGA.
If this LED lit, the FPGA (IC6) can possibly be working incorrectly.

D1503 (J-1): PVMX
Indicates the configuration error of the FPGA.
If this LED lit, the FPGA (IC11) can possibly be working incorrectly.

D1506 (K-1): FINTP1
Indicates the configuration error of the FPGA.
If this LED lit, the FPGA (IC7) can possibly be working incorrectly.

D1507 (K-1): FINTP2
Indicates the configuration error of the FPGA.
If this LED lit, the FPGA (IC8) can possibly be working incorrectly

D1504 (K-1): AINTP1
Indicates the configuration error of the FPGA.
If this LED lit, the FPGA (IC9) can possibly be working incorrectly.

D1505 (K-1): AINTP2
Indicates the configuration error of the FPGA.
If this LED lit, the FPGA (IC10) can possibly be working incorrectly.

D1508 (K-1): VMIX
Indicates the configuration error of the FPGA.
If this LED lit, the FPGA (IC12) can possibly be working incorrectly.

<Switch>
S501 (G-1): RST
This switch is used to reset the DVP board. Pressing this switch initializes the DVP board.

S801 (G-1): MON
For monitor switch used in maintaining through the terminal pin.

<LED on the CPU-DP Module>
Refer to <LED on the CPU-DP module> in “CA-92 board”.

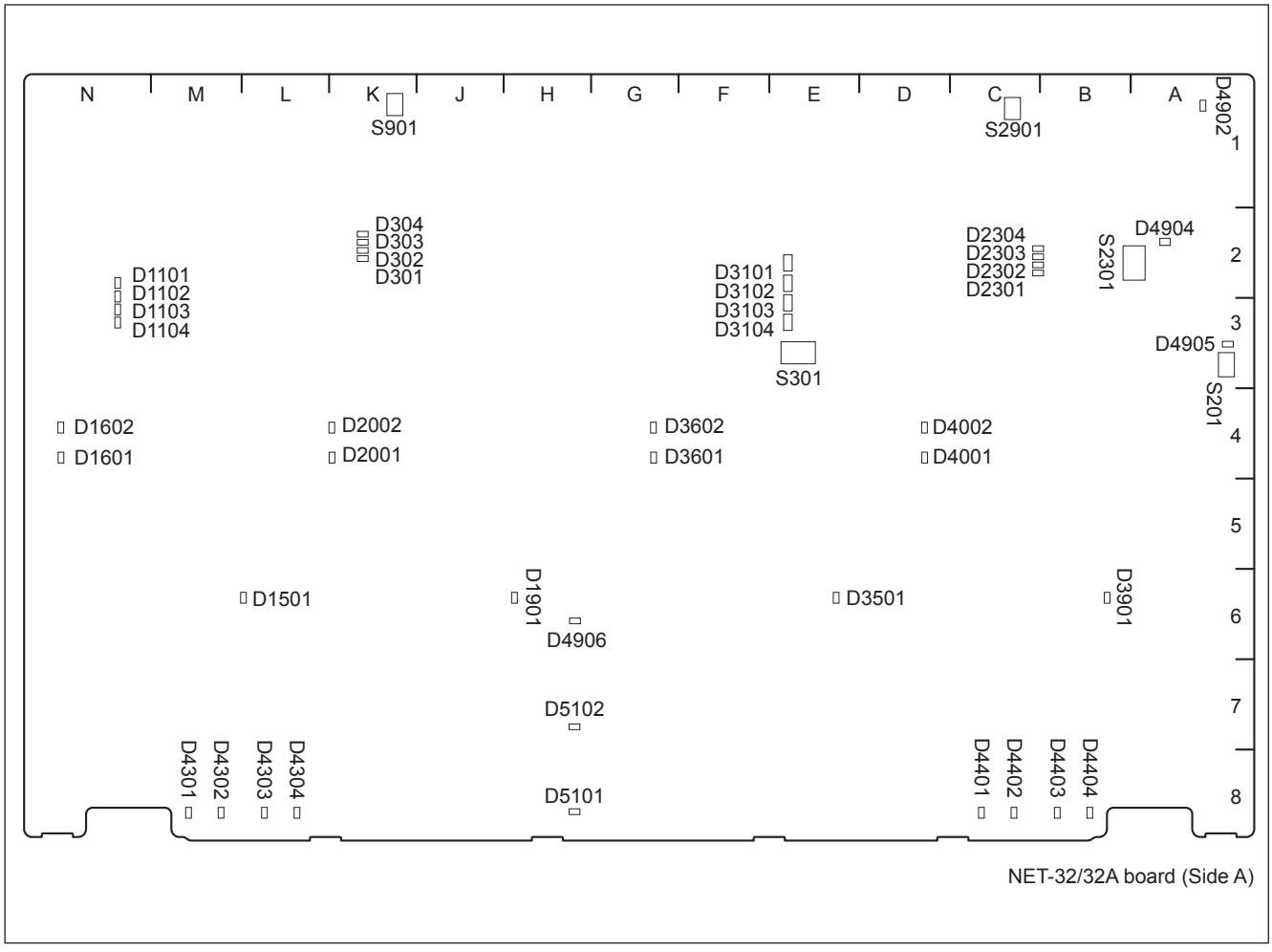
<Switch on the CPU-DP Module>
Refer to <Switch on the CPU-DP module> in “CA-92 board”.

1-8-7. XKS-Q8111/XKS-Q8166

Note

The number shown in the parentheses ( ) indicated the address on the circuit board.

NET-32 board (XKS-Q8111)/NET-32A board (XKS-Q8166)



<LED>

D301 (K-2): CADEC-A
Indicates the startup mode of the FPGA.

D302 (K-2): CADEC-A
Indicates the startup mode of the FPGA.

D303 (K-2): CADEC-A
Indicates the startup mode of the FPGA.

D304 (K-2): CADEC-A
Indicates the configuration status of the FPGA.
Goes off when the configuration has been completed.

D1101 (N-2): FPGA-A
Indicates the System Clock.
Blinks if clock is supplied.

D1102 (N-2): FPGA-A
Indicates the Video Clock 148 MHz.
Blinks if clock is supplied.

D1103 (N-2): FPGA-A
Not used. (Default: Goes off)

D1104 (N-2): FPGA-A
Not used. (Default: Goes off)

D1501 (L-6): LSI-A
Blinks when the ASIC is started up.

D1601 (N-4): LSI-A
Indicates the eTSync status.
Lights: Leader state
Goes off: Follower state

D1602 (N-4): LSI-A
Indicates the System frequency.
Lights: 1001 system
Goes off: 1000 system

D1901 (H-6): LSI-B
Blinks if the ASIC is started up.

D2001 (K-4): LSI-B
Indicates the eTSync status.
Lights: Leader state
Goes off: Follower state

D2002 (K-4): LSI-B
Indicates the System frequency.
Lights: 1001 system
Goes off: 1000 system

D2301 (C-2): CADEC-B
Indicates the startup mode of the FPGA.

D2302 (C-2): CADEC-B
Indicates the startup mode of the FPGA.

D2303 (C-2): CADEC-B
Indicates the startup mode of the FPGA.

D2304 (C-2): CADEC-B
F Indicates the configuration status of the FPGA.
Goes off when the configuration has been completed.

D3101 (E-3): FPGA-B
Indicates the System Clock.
Blinks if clock is supplied.

D3102 (E-3): FPGA-B
Indicates the Video Clock 148 MHz.
Blinks if clock is supplied.

D3103 (E-3): FPGA-B
Not used. (Default: Goes off)

D3104 (E-3): FPGA-B
Not used. (Default: Goes off)

D3501 (E-6): LSI-C
Blinks when the ASIC is started up.

D3601 (G-4): LSI-C
Indicates the eTSync status.
Lights: Leader state
Goes off: Follower state

D3602 (G-4): LSI-C
Indicates the System frequency.
Lights: 1001 system
Goes off: 1000 system

D3901 (B-6): LSI-D
Blinks when the ASIC is started up.

D4001 (D-4): LSI-D
Indicates the eTSync status.
Lights: Leader state
Goes off: Follower state

D4002 (D-4): LSI-D
Indicates the System frequency.
Lights: 1001 system
Goes off: 1000 system

D4301 (M-8): PHY-A
Indicates the network status.
The LED (yellow green) is blinked when the port forwards the packet by the QSFP+ Lane1 (PHY: IC4301).

D4302 (M-8): PHY-A
Indicates the network status.
The LED (yellow green) is blinked when the port forwards the packet by the QSFP+ Lane2 (PHY: IC4301).

D4303 (M-8): PHY-A
Indicates the network status.
The LED (yellow green) is blinked when the port forwards the packet by the QSFP+ Lane3 (PHY: IC4301).

D4304 (L-8): PHY-A
Indicates the network status.
The LED (yellow green) is blinked when the port forwards the packet by the QSFP+ Lane4 (PHY: IC4301).

D4401 (C-8): PHY-B
Indicates the network status.
The LED (yellow green) is blinked when the port forwards the packet by the QSFP+ Lane1 (PHY: IC4401).

D4402 (C-8): PHY-B
Indicates the network status.
The LED (yellow green) is blinked when the port forwards the packet by the QSFP+ Lane2 (PHY: IC4401).

D4403 (B-8): PHY-B
Indicates the network status.
The LED (yellow green) is blinked when the port forwards the packet by the QSFP+ Lane3 (PHY: IC4401).

D4404 (b-8): PHY-B
Indicates the network status.
The LED (yellow green) is blinked when the port forwards the packet by the QSFP+ Lane4 (PHY: IC4401).

D4902 (A-1): +12 V-P
+12 V-P power supply status indication.
This LED lights when the +12 V+P power is supplied. If this LED goes off, the fuse may have blown.

D4904 (A-2): PWR1
HOT SWAP CONTROLLER (IC4902) status indication.
Lights in green: The +12 V power is supplied correctly in the board.
Lights in red: Power supply in the board is blocked. The board failure may have occurred such as the power supply short.

D4905 (A-3): 12V
+12 V power supply status indication.
This LED lights when the +12 V power is supplied.

D4906 (H-6):
Lights when the IC4904 (+0.85 V-F) is operated correctly.
If this LED goes off, the board failure may have occurred such as the power supply short.

D5101 (H-8):
Lights when the IC5103 (+1.0 V-PHY) is operated correctly.
If this LED goes off, the board failure may have occurred such as the power supply short.

D5102 (H-7):
Lights when the IC5104 (+1.5 V-PHY) is operated correctly.
If this LED goes off, the board failure may have occurred such as the power supply short.

< Switch>

S201 (A-3): Board RESET
Used only for design. (Push SW)

S301 (E-3): CPLD-A_SW
Used only for design. (Default setting: All off)

S901 (K-1): FPGA-A_SW
Used only for design. (Default setting: All off)

S2301 (A-2): CPLD-B_SW
Used only for design. (Default setting: All off)

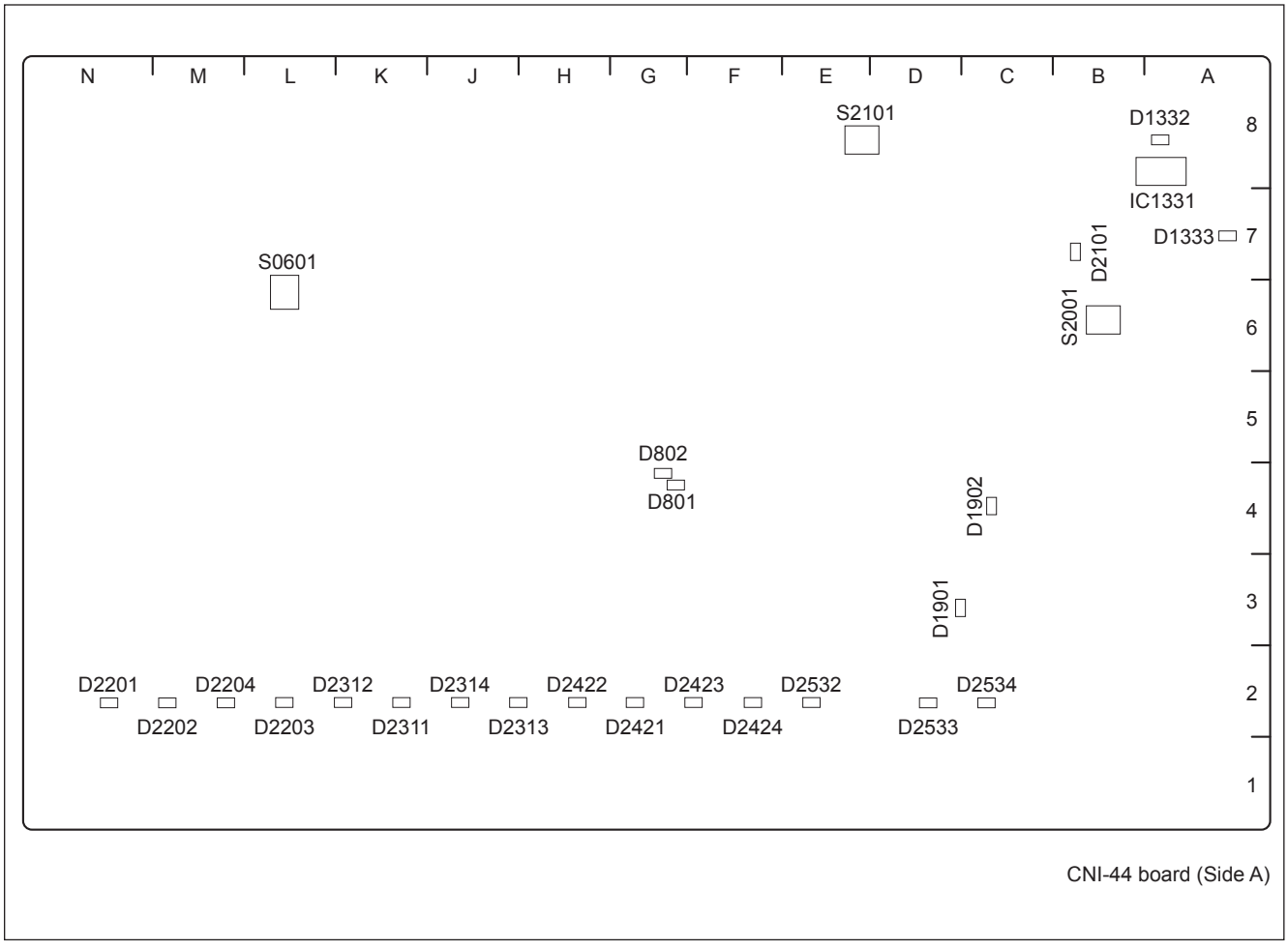
S2901 (C-1): FPGA-A_SW
Used only for design. (Default setting: All off)

1-8-8. XKS-S8111

Note

The number shown in the parentheses ( ) indicated the address on the circuit board.

CNI-44 board



<LED>

D1902 (C-4): CC_UNLOCK (Red)
Indicates lock/unlock of the clock conditioner (IC1902).
If this LED lit, the clock conditioner can possibly be unlocked.

D1901 (C-3): CC_UNLOCK (Red)
Indicates lock/unlock of the clock conditioner (IC1904).
If this LED lit, the clock conditioner can possibly be unlocked.

D2101 (B-6): CONF_ERR (Red)
Status indication for CADEC (IC2) configuration operation.
Lights in red when the configuration has been started up.
Goes off when the configuration of IC2 is completed.
If the LED does not go off, there is a possibility of failure of the IC2.

D1332 (A-8): POWER (Green/Red)
This LED lights green when the power is supplied to the CNI-44 board.
This LED lights red when an overcurrent is detected.

D1333 (A-7): +12V (Green)
This LED lights when the +12 V is output from the IC1331 (power supply control IC).

D801 (G-4): Operation check for FPGA (Green)
This LED lights when FPGA is not configured.
This LED blinks during normal operation.

D802 (G-4): Operation check for FPGA (Red)
This LED lights when FPGA is not configured.

D2201 (N-2) to D2534 (C-2) 16 pcs: Input check for SDI (Green)
These LEDs indicate the lock status of reclocker of each channel from CH1 to CH16 of SDI-IN.
When the normal input signal to SDI-IN is input, LED of the corresponding channel will light.
When there is no input signal, these LEDs light in random. This symptom is caused by the operation of the IC. Therefore this is not a failure.

<Switch>

S0601 (L-6): FPGA_TEST_SWITCH
Not used.

S2001 (B-6): CADEC_TEST_SWITCH
Not used.

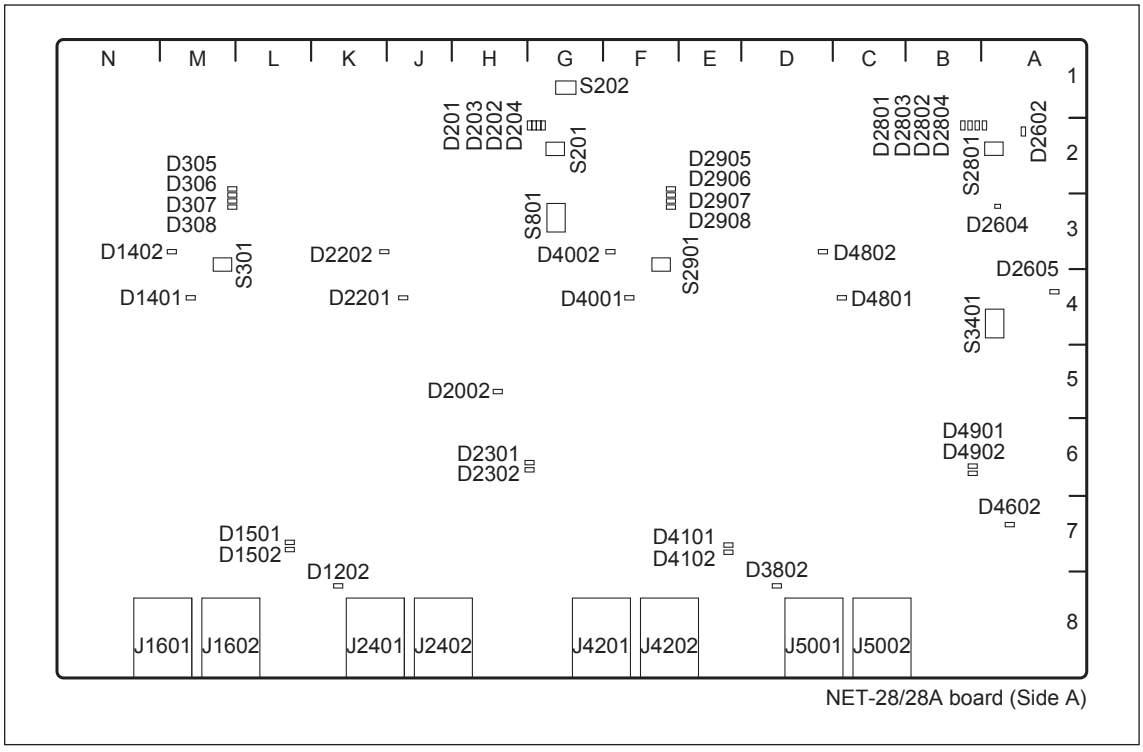
S2101 (E-8): RE_CONFIG
This push switch is used to reboot the board manually.
When the board is installed to the unit, this switch cannot be used.

1-8-9. XKS-T8110/XKS-T8165

Note

The number shown in the parentheses ( ) indicated the address on the circuit board.

NET-28board (XKS-T8110) /NET-28A board (XKS-T8165)



<LED>

D201 (G-2): CADEC-A
Indicates the startup mode of the FPGA.
Lights in Recovery Mode.

D202 (G-2): CADEC-A
Not used. (Default: Goes off)

D203 (G-2): CADEC-A
Indicates the startup mode of the FPGA.
Lights in Normal Mode.

D204 (G-2): CADEC-A
Indicates the configuration status of the FPGA.
Goes off when the configuration has been completed.

D305 (M-2): FPGA-A
Indicates the System Clock.
Blinks if clock is supplied.

D306 (M-2): FPGA-A
Indicates the Video Clock 148 MHz.
Blinks if clock is supplied.

D307 (M-2): FPGA-A
Not used. (Default: Goes off)

D308 (M-2): FPGA-A
Not used. (Default: Goes off)

D1202 (K-8): NEP2-A
Blinks when the ASIC is started up.

D1401 (M-4): NEP2-A
Indicates the eTSync status.
Lights: Leader state
Goes off: Follower. state

D1402 (M-3): NEP2-A
Indicates the System frequency.
Lights: 1001 system
Goes off: 1000 system

D1501 (L-7): PHY-A
Indicates the Master/Slave of PHY Port0.
Lights: Master mode
Goes off: Slave mode

D1502 (L-7): PHY-A
Indicates the Master/Slave of PHY Port1.
Lights: Master mode
Goes off: Slave mode

D2002 (H-8): NEP2-B
Blinks if the ASIC is started up.

D2201 (J-4): NEP2-B
Indicates the eTSync status.
Lights: Leader state
Goes off: Follower. state

D2202 (J-3): NEP2-B
Indicates the System frequency.
Lights: 1001 system
Goes off: 1000 system

D2301 (G-6): PHY-B
Indicates the Master/Slave of PHY Port0.
Lights: Master mode
Goes off: Slave mode

D2302 (G-6): PHY-B
Indicates the Master/Slave of PHY Port1.
Lights: Master mode
Goes off: Slave mode

D2602 (A-1): POWER
+12 V-P power supply status indication.
Lights when the +12 V-P power is supplied.
If this LED does not light, the fuse (F2601) may has blown.

D2604 (A-2): PWR1
Indicates the status of HOT SWAP CONTROLLER (IC002)
Lights in green: The +12 V-A power is supplied correctly in the board.
Lights in red: Power supply in the board is blocked. The board failure may have occurred such as the power supply short.

D2605 (A-3): POWER
+12 V power supply status indication.
Lights when the +12 V power is supplied.

D2801 (B-2): CADEC-B
Indicates the startup mode of the FPGA.
Lights in Recovery Mode.

D2802 (B-2): CADEC-B
Not used. (Default: Goes off)

D2803 (B-2): CADEC-B
Indicates the startup mode of the FPGA.
Lights in Normal Mode.

D2804 (B-2): CADEC-B
Indicates the configuration status of the FPGA
Goes off when the configuration has been completed.

D2905 (F-2): FPGA-B
Indicates the System Clock.
Blinks if clock is supplied.

D2906 (F-2): FPGA-B
Indicates the Video Clock 148 MHz.
Blinks if clock is supplied.

D2907 (F-2): FPGA-B
Not used. (Default: Goes off)

D2908 (F-2): FPGA-B
Not used. (Default: Goes off)

D3802 (D-8): NEP2-C
Blinks when the ASIC is started up.

D4001 (F-4): NEP2-C
Indicates the eTSync status.
Lights: Leader state
Goes off: Follower state

D4002 (F-3): NEP2-C
Indicates the System frequency.
Lights: 1001 system.
Goes off: 1000 system

D4101 (E-7): PHY-C
Indicates the Master/Slave of PHY Port0.
Lights: Master mode
Goes off: Slave mode

D4102 (E-7): PHY-C
Indicates the Master/Slave of PHY Port1.
Lights: Master mode
Goes off: Slave mode

D4602 (A-7): NEP2-D
Blinks when the ASIC is started up.

D4801 (C-4): NEP2-D
Indicates the eTSync status.
Lights: Leader state
Goes off: Follower. state

D4802 (D-3): NEP2-D
Indicates the System frequency.
Lights: 1001 system.
Goes off: 1000 system

D4901 (B-6): PHY-D
Indicates the Master/Slave of PHY Port0.
Lights: Master mode
Goes off: Slave mode

D4902 (B-6): PHY-D
Indicates the Master/Slave of PHY Port1.
Lights: Master mode
Goes off: Slave mode

J1601: RJ-45 LAN1 LED
Indicates the network status.
The left side LED (orange) is lit when the port has been linked up, and the right side LED (yellow green) is blinked when the port forwards the packet.

J1602: RJ-45 LAN2 LED
Indicates the network status.
The left side LED (orange) is lit when the port has been linked up, and the right side LED (yellow green) is blinked when the port forwards the packet.

J2401: RJ-45 LAN3 LED
Indicates the network status.
The left side LED (orange) is lit when the port has been linked up, and the right side LED (yellow green) is blinked when the port forwards the packet.

J2402: RJ-45 LAN4 LED
Indicates the network status.
The left side LED (orange) is lit when the port has been linked up, and the right side LED (yellow green) is blinked when the port forwards the packet.

J4201: RJ-45 LAN5 LED
Indicates the network status.
The left side LED (orange) is lit when the port has been linked up, and the right side LED (yellow green) is blinked when the port forwards the packet.

J4202: RJ-45 LAN6 LED
Indicates the network status.
The left side LED (orange) is lit when the port has been linked up, and the right side LED (yellow green) is blinked when the port forwards the packet.

J5001: RJ-45 LAN7 LED
Indicates the network status.
The left side LED (orange) is lit when the port has been linked up, and the right side LED (yellow green) is blinked when the port forwards the packet.

J5002: RJ-45 LAN8 LED
Indicates the network status.
The left side LED (orange) is lit when the port has been linked up, and the right side LED (yellow green) is blinked when the port forwards the packet.

<Switch>

S201 (G-2): CPLD-A_SW
Used only for design.
Factory default setting: All off
Do not change the setting of this switch.

S202 (G-1): Board RESET
Used only for design.
Factory default setting: All off
Do not change the setting of this switch.

S301 (M-3): FPGA-A_SW
Used only for design.
Factory default setting: All off
Do not change the setting of this switch.

S801 (G-3): FPGA-A_CFG
Used only for design.
Factory default setting: All off
Do not change the setting of this switch.

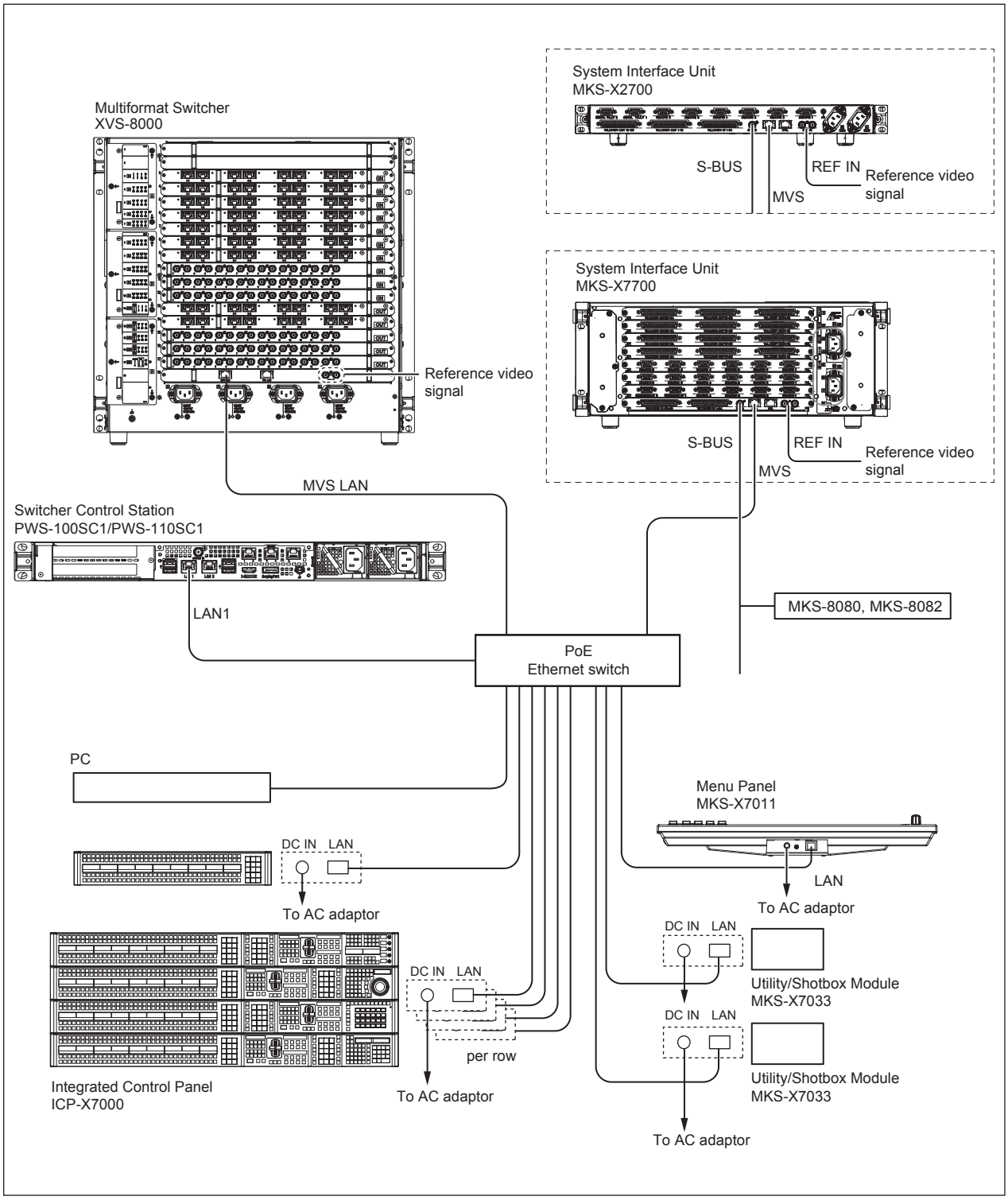
S2801 (A-2): CPLD-B_SW
Used only for design.
Factory default setting: All off
Do not change the setting of this switch.

S2901 (F-3): FPGA-A_SW
Used only for design.
Factory default setting: All off
Do not change the setting of this switch.

S3401 (A-4): FPGA-B_CFG
Used only for design.
Factory default setting: All off
Do not change the setting of this switch.

1-9. System Connection

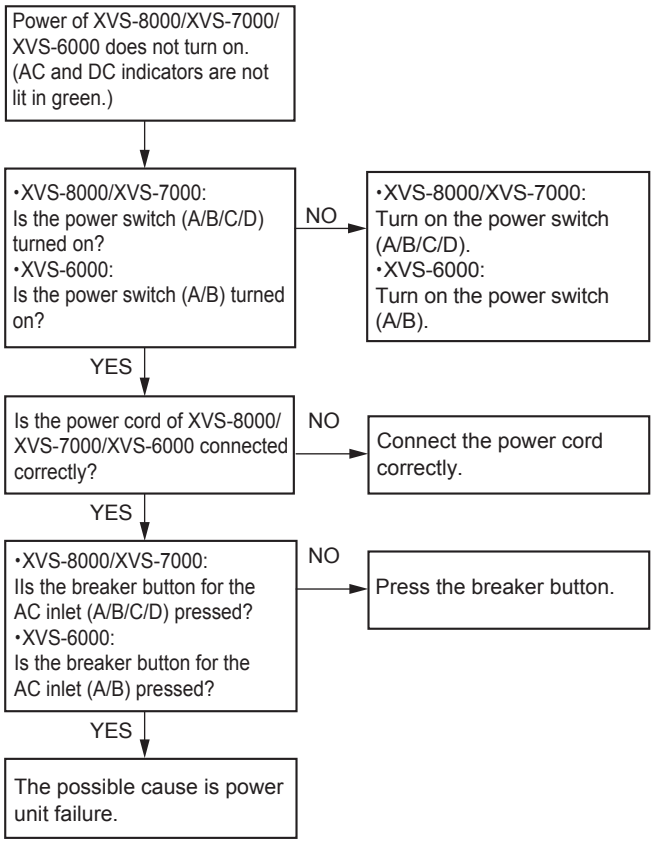
Configure the XVS-8000/XVS-7000/XVS-6000 system connections referring to the connection example as shown below.



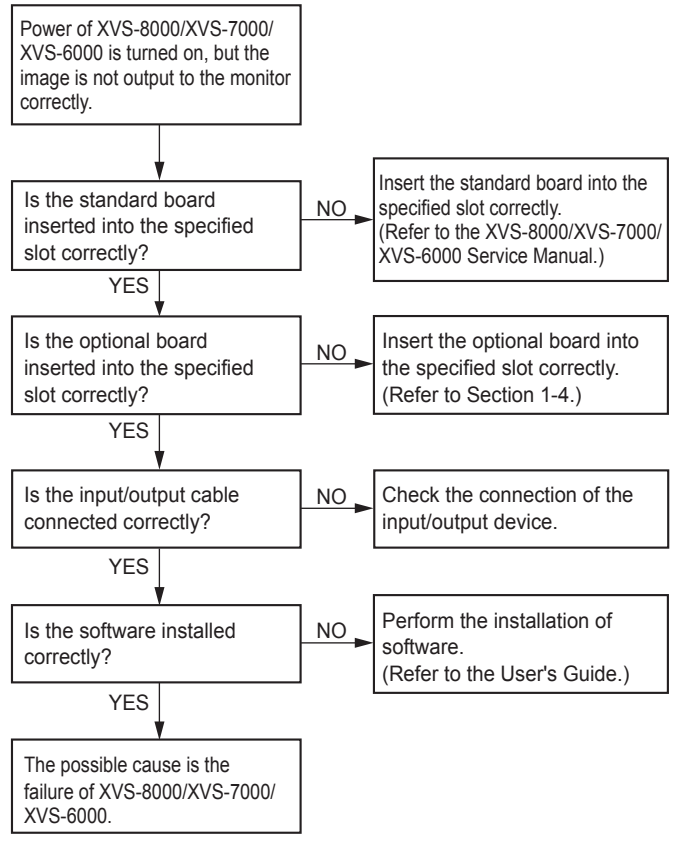
Section 2
Service Overview

2-1. Troubleshooting

Power of XVS-8000/XVS-7000/XVS-6000 does not turn on (AC and DC indicators are not lit in green.)



Monitor image is not output correctly



2-2. Periodic Inspection and Maintenance

2-2-1. Periodic Inspection

The following parts require periodic maintenance.
Refer to the period indicated in the following list for maintenance.

Part	Where used	Maintenance	Suggested period
Fan	Right side panel(rear side) of the XVS-8000/ XVS-7000/XVS-6000	Cleaning Replacement	Once in a month Once in about four years
Filter	Front panel of the XVS-8000/XVS-7000/ XVS-6000	Cleaning	Once in two months
Power supply unit	XVS-8000/XVS-7000/XVS-6000	Replacement	Once in about four and a half years
Lithium battery	VPR-129 board of XKS-8440	Replacement	Once in about five years
Side plate	Right side (rear side) of the XVS-6000	Cleaning	Once in a month

2-2-2. Cleaning

1. Front panel

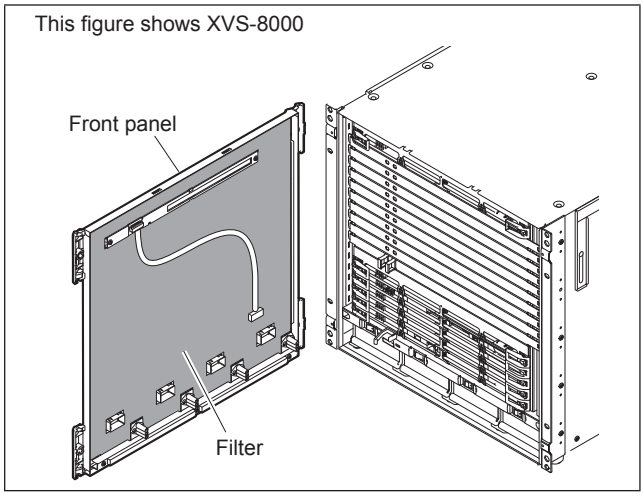
The filter on the rear of the front panel can easily accumulate the dust. Be sure to remove dust by cleaning as follows.

(1) Remove the front panel. (Refer to Section 1-4-1.)

(2) Remove the dust accumulated on the filter with a vacuum cleaner.

Note

Cleaning the filter by washing in water is recommended when there is a heavy accumulation of dust. Be sure to dry the filter completely after it has been washed.



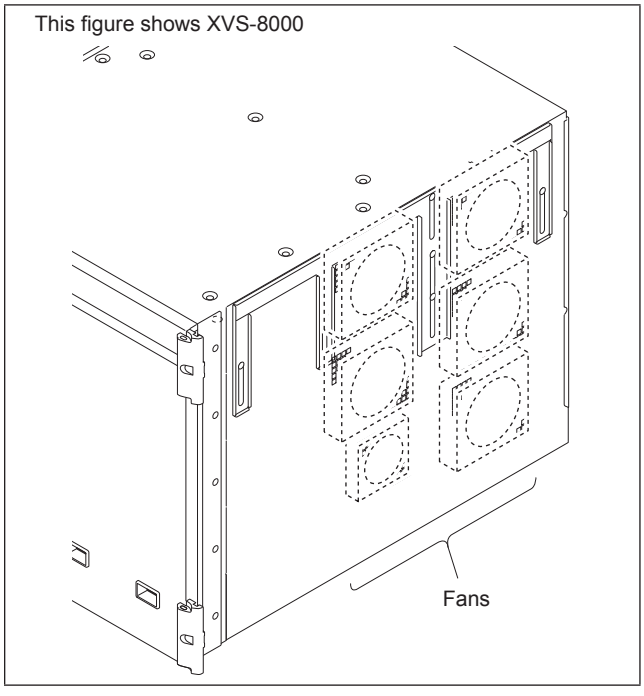
2. Fan

XVS-8000/XVS-7000/XVS-6000 are air-cooled by the fans.

If dust has accumulated in the intake of the fan, air is prevented from flowing smoothly and this may result in a temperature rise inside the unit. This may have an adverse effect on performance and the life of the machine.

Cleaning of the fan every month is recommended.

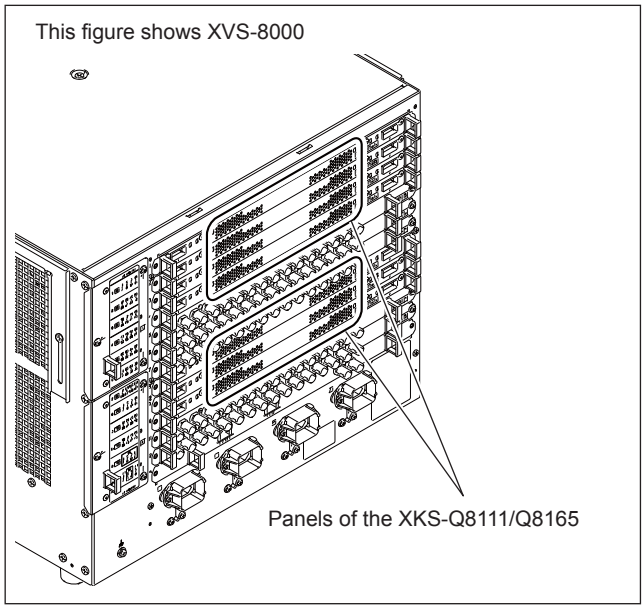
Contact your local Sony Sales Office/Service Center for information on cleaning the fan.



3. Options XKS-Q8111/Q8165

If dust has accumulated in the intake of the panel, air is prevented from flowing smoothly and this may result in a temperature rise inside the machine. This may have an adverse effect on performance and the life of the machine.

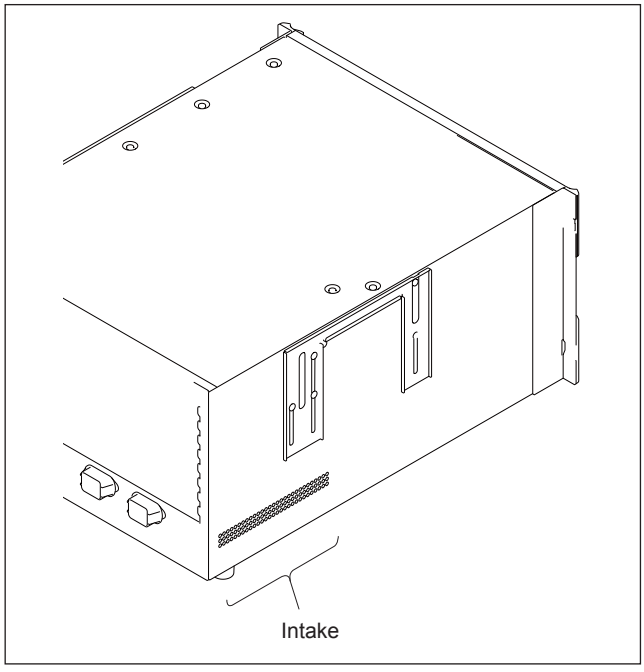
Cleaning of the fan every month is recommended. Contact your local Sony Sales Office/Service Center for information on cleaning the fan.



4. XVS-6000

If dust has accumulated in the intake of the left side, air is prevented from flowing smoothly and this may result in a temperature rise inside the machine. This may have an adverse effect on performance and the life of the machine.

Cleaning of the fan every month is recommended. Contact your local Sony Sales Office/Service Center for information on cleaning the fan.



2-3. Open Source Code Licenses

This section describes how to acquire the following information.
- Acquiring Open Source License Information
- Acquiring Software Open Source Codes

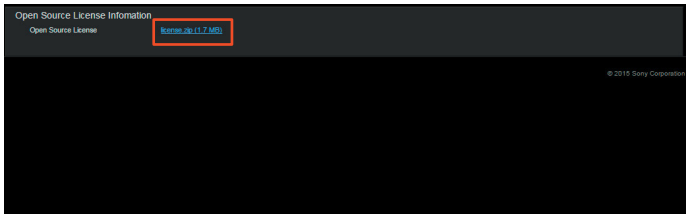
Equipment required
- Personal computer (PC): A PC that can be connected to XKS-T8110/T8165/Q8111/Q8166 through a network and supports the following recommended web browsers.

Recommended web browsers
– Internet Explorer 8 or later
– Google Chrome 43.0 or later
– Firefox 35.0.1 or later

2-3-1. Acquiring Open Source License Information

On the Open Source License Information screen, open source license information can be acquired.

Procedure
1. Run the web browser on the PC.
2. Type “https://(IP address of XKS-T8110/T8165/Q8111/Q8166)/osl” on the address bar, and then press the Enter key.
   Open Source License Information screen appears.
3. Click [license.zip……] in the screen.
   Open source license information is downloaded to the PC.



2-3-2. Acquiring Software Source Codes

Software source codes on the open source license can be acquired on the Sony global homepage.

Procedure
1. Run the web browser on the PC.
2. Type “http://oss.sony.net/Products/Linux/” on the address bar, and then press the Enter key.
   The category selection screen appears.
3. Select the menu items in the following order: [Professional], [IP Live Production System], [XKS-T8110/T8165/Q8111/Q8166].
4. Download the source code of the target to the PC according to the instructions of the screen.

XVS-8000 (SY)
XVS-7000 (SY)
XVS-6000 (SY) J, E
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