⚠ **CAUTION!** Before you set up and operate your device, see the "Important Safety Instructions" in your switcher and router manuals.
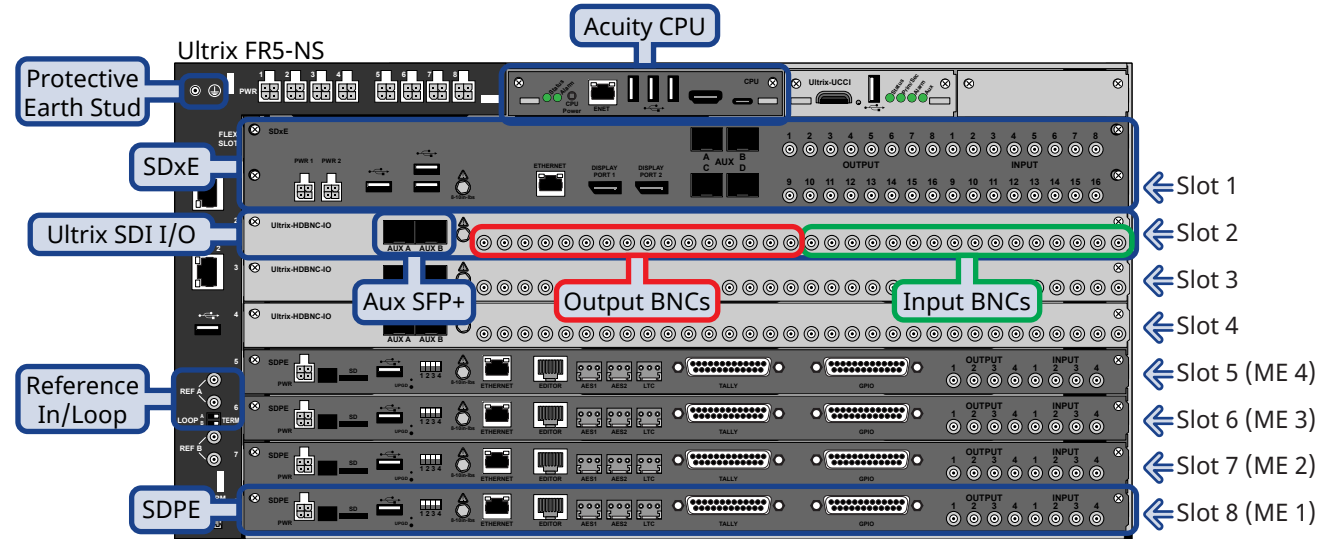
FR5-NS Installation and Cabling

Ultrix FR5-NS Frame

NOTICE Adequate ventilation within a rack frame must be maintained. Ensure side to side ventilation is not compromised. Refer to the Ultrix Installation Guide for more information.

Ultrix FR5-NS

- Acuity CPU
- Protective Earth Stud
- SDxE
- Ultrix SDI I/O
- Aux SFP+
- Output BNCs
- Input BNCs
- Reference In/Loop
- SDPE

- Slot 1
- Slot 2
- Slot 3
- Slot 4
- Slot 5 (ME 4)
- Slot 6 (ME 3)
- Slot 7 (ME 2)
- Slot 8 (ME 1)

Notes:
- The Ultrix FR5-NS frame supports the Acuity switcher platform with up to 4 MEs.
- The Ultrix FR5-NS frame supports a single SDxE blade.
- The switcher uses the Reference input to Ultrix for timing.
- The Input and Output HD-BNCs on the SDPE and SDxE blades are not used at this time.
- Physical sources and destinations on the router must be mapped internally to inputs and outputs on the switcher.
- The Ultrix SDI I/O blade is used to provide the sources and destinations that the switcher can access.
- The REF B connection is not supported at this time.
- A 1GbE ethernet connection is required for Ultrix.
- An Ultricool may be required, depending on your installation.
- The Protective Earth Stud may not be present on all frames.
- The Ethernet port on the SDxE blade should not be connected.

Note: The placement of the SDPE blades shown (slots 8,7,6,5) is only supported by Acuity 11.2a or higher.
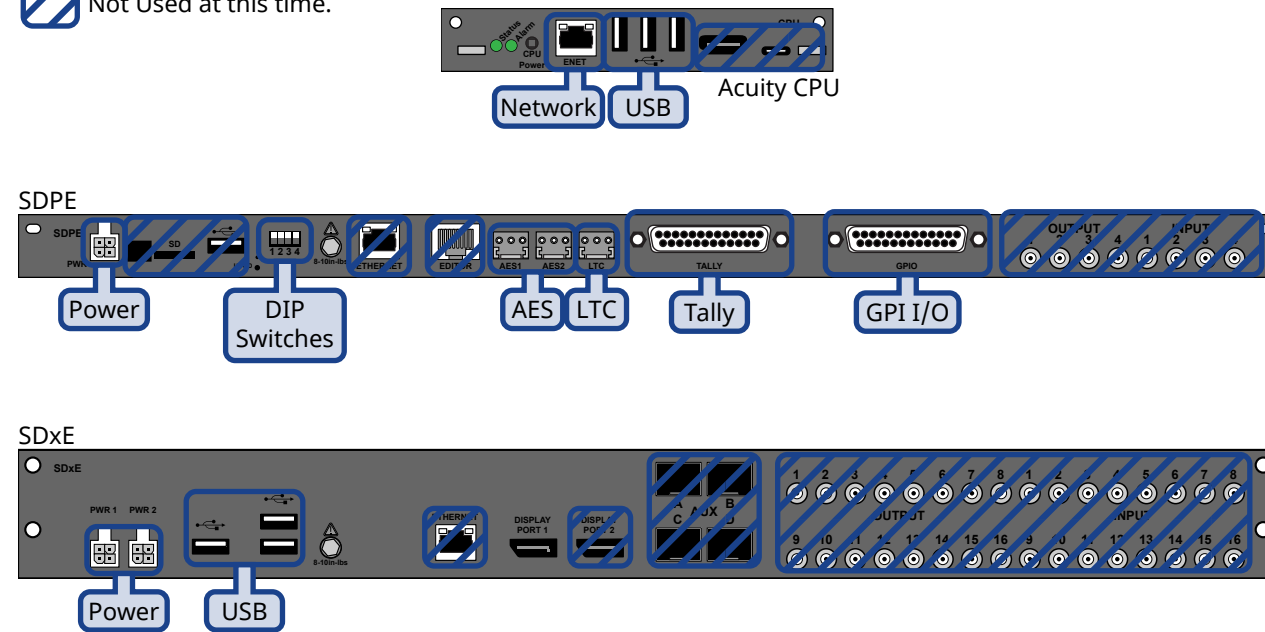
Acuity Switcher

⚠ **CAUTION!** Electrical shock hazard. The Power connector (PWR) must always be disconnected when the SDPE blade is not installed in the frame.

NOTICE Do not connect the Ethernet port on the SDxE blade to a network. Connecting the ethernet port can cause network problems with other blades in the frame.
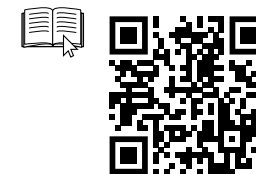
▨ Not Used at this time.

Acuity CPU
- Network
- USB

SDPE
- Power
- DIP Switches
- AES
- LTC
- Tally
- GPI I/O

SDxE
- Power
- USB

Notes:
- The switcher is made up of a single Acuity CPU board, a number of SDPE blades, and a option SdxE blade.
- Each SDPE blade provides a single HD/UHD ME.
- The SDxE blade provides the 3D DVE Warp resources.
- The number of SDPE blades a system can have depends on the size of the Ultrix frame and the other blades that are installed.
- Only the Ethernet port on the Acuity CPU card can be used to connect to the Acuity software.
- On the SDPE blade, the Ethernet, USB, SD, and Input/Output HD-BNCs are not used at this time.
- On the SDxE, the Ethernet, Display Port 2, AUX SFPs, and Input/Output HD-BNCs are not used at this time.
- The GPI and Tally ports on each SDPE blade are independent of each other. As you add more SDPE blades, each ME has an independent set of GPIs and Tallies.

Tally (female DB25)

Pin	Tally	Pin	Tally
1	1	14	14
2	2	15	15
3	3	16	16
4	4	17	17
5	5	18	18
6	6	19	19
7	7	20	20
8	8	21	21
9	9	22	22
10	10	23	23
11	11	24	24
12	12	25	Common
13	13		

GPI I/O (female DB25)

Pin	GPI	Pin	GPI
1	I/O 1	14	I/O 14
2	I/O 2	15	I/O 15
3	I/O 3	16	I/O 16
4	I/O 4	17	I/O 17
5	I/O 5	18	I/O 18
6	I/O 6	19	I/O 19
7	I/O 7	20	I/O 20
8	I/O 8	21	I/O 21
9	I/O 9	22	I/O 22
10	I/O 10	23	I/O 23
11	I/O 11	24	I/O 24
12	I/O 12	25	Ground
13	I/O 13		

LTC+ — LTC- / LTC-

GND — AES+ / AES-

📖 ▣ QR

ROSS

Power and Cabling

Read the instruction manual for your Ultripower and Ultrix FR5-NS before starting work or operating equipment.

CAUTION! Risk of electrical shock. Enclosure shall be connected to earth ground via protective earth stud and 18AWG conductor or larger.

NOTICE The Ultrix frame, SDPE blades, and SDxE blade do not have power switches. Ensure that the Ultripower is not connected to mains power before connecting the power cables from the Ultripower to the Ultrix.
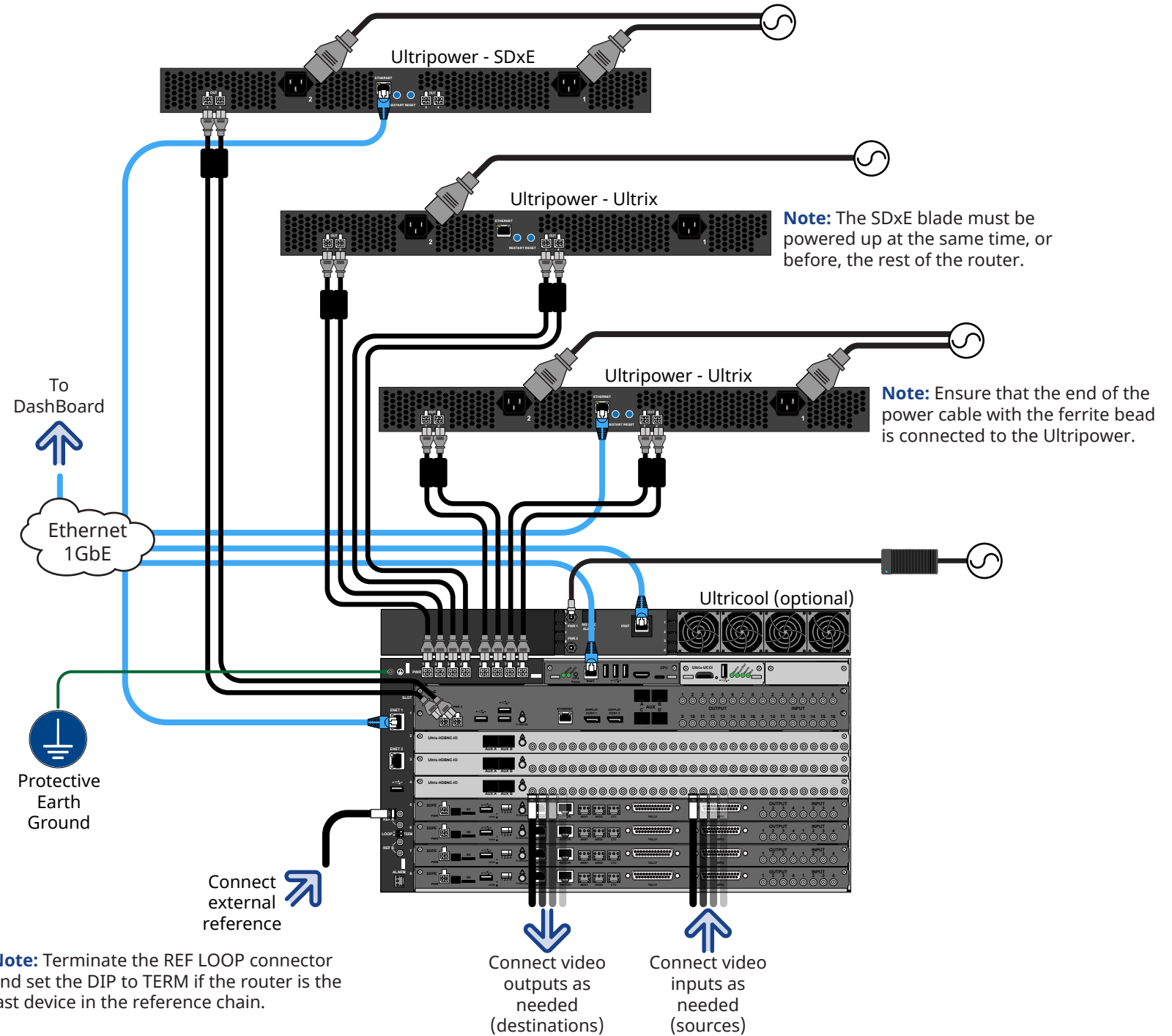
NOTICE The Ultrix FR5-NS frame and SDxE blade require multiple Ultripower units to be tied together in a group to provide power to the router and switcher at the *same time*. The Ultripower group and Manager must be set up before connecting power to the system. Refer to the documentation for your Ultripower for information on setting up groups and using the Manager.

Tip: You can use Ultripower groups and Manager to control both Ultripower units at the same time. Refer to the Ultripower documen

Ultripower - SDxE

Mains Power

Note: The SDxE blade must be powered up at the same time, or before, the rest of the router.

Ultripower - Ultrix

To DashBoard

Note: Ensure that the end of the power cable with the ferrite bead is connected to the Ultripower.

Ultripower - Ultrix

Ethernet 1GbE

Ultricool (optional)

Protective Earth Ground

Connect external reference

Note: Terminate the REF LOOP connector and set the DIP to TERM if the router is the last device in the reference chain.

Connect video outputs as needed (destinations)

Connect video inputs as needed (sources)

Having a problem? Call our free, 24-hour technical support hotline to speak with a live product specialist located right here in our facility.

Tel (North America): 1-844-652-0645
Tel (International): +800 1005 0100
Email: techsupport@rossvideo.com

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