MC1-PANEL-16 Installation

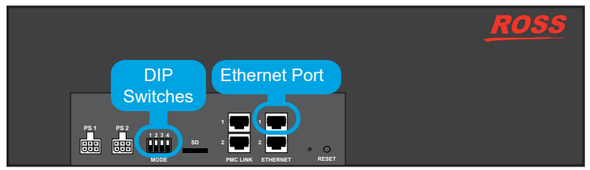
CAUTION Before you set up and operate your MC1-PANEL-16, refer to the "Important Regulatory and Safety Notices to Service Personnel" document that was included with your unit. It is also recommended to refer to the *MC1-PANEL-16 User Guide* which is available for download from our website.

Read the user documentation for your MC1-PANEL-16 before starting work or operating equipment.

NOTICE: The MC1-PANEL-16 does not have a power switch. Ensure that the MC1-PANEL-16 is not connected to mains power before connecting the power cables to the chassis.

Note: Ross Video strongly recommends installing your Master Control System on a network that is segregated from your facility LAN.

Ethernet Setup



DIP Switch 1 and **DIP Switch 2** are used in conjunction with the DashBoard menus to set the IP Address of the MC1-PANEL-16. Please leave **DIP Switch 3** and **4** in their default (UP) positions.

DIP Switch 1 and 2 Positions for IP Address Setup

DIP Switch 1	DIP Switch 2	Description
UP	UP	Custom User Setup via DashBoard
UP	DOWN	Automatic Setup using DHCP
DOWN	UP	IP Address is 192.168.2.10 Subnet Mask is 255.255.255.0
DOWN	DOWN	IP Address is 10.1.2.10 Subnet Mask is 255.255.255.0

You will require a standard network CAT-5 cable to connect the MC1-PANEL-16 to your facility network. Ensure to use only the Ethernet 1 port.

Note: The Ethernet 2 port is not implemented.

Note: Refer to the ***MC1-PANEL-16 User Guide*** for details on verifying and troubleshooting your ethernet connection.

Power Connections

The MC1-PANEL-16 comes standard with one power supply. For redundancy, and in applications where the equipment is used in a critical signal path, we recommend that two power supplies be used with the MC1-PANEL-16.

***NOTICE:** The MC1-PANEL-16 automatically powers on when AC power is applied.*

Note: If you are not installing the redundant power supply, the message "PSU 2" is reported on the panel display. To disable this message, navigate to the Alarm Enables tab in DashBoard and de-select the PSU2 Voltage Out of Range check box.

Specifications

Panel Power Consumption

MC1-PANEL-16	<30W

Input Voltage

Power Rating	100-120V~ 220-240V~ 47-63Hz

Temperature

Operating:	0 - 40°C (32 - 104°F)
Storage:	-20 - 85°C (-4 - 185°F)

Default Values

Ethernet Method	DHCP
PSU Alarm Enable	Selected
Edit Permission	Unlocked

Accessing in DashBoard

Note: Before proceeding, ensure that the latest DashBoard software is installed on your computer. The software is available to download from our website.

To verify a network connection on initial power up

1. Ensure the MC1-PANEL-16 is powered on.
2. Wait approximately 30 seconds while the MC1-PANEL-16 establishes network communications.
3. Verify that the MC1-PANEL-16 IP address is reported on the chassis LCD Display.
4. Make a note of the IP address.

To launch DashBoard

1. Ensure the computer running the DashBoard client software can access the same network that the MC1-PANEL-16 is on.
2. Launch DashBoard by double-clicking its icon on your desktop.

To manually add the MC1-PANEL-16 to the Tree View in DashBoard

1. From the main toolbar in DashBoard, select **File** > **New** > **TCP/IP DashBoard Connect or openGear Device**.
2. In the **IP Address** field, enter the IP Address reported on the LCD Display of the MC1-PANEL-16.
3. Enter a unique identifier for the MC1-PANEL-16 in the **Display Name** field. This will be the name displayed in the DashBoard Tree View for the panel.
4. Click **Finish** to close the dialog.
5. Verify that the MC1-PANEL-16 node displays in the Tree View of DashBoard.
6. If the MC1-PANEL-16 node does not display after two minutes:
   a) Verify the ethernet cable is properly connected.
   b) Check the link/activity LEDs found on the ethernet RJ-45 connector.
   c) Ensure the DIP Switches on the MC1-PANEL-16 are set correctly.
   d) If all cables are connected and the LEDs do not indicate an error, then automatic configuration is not possible. Refer to "Preset Configuration using the DIP Switches" in the ***MC1-PANEL-16 User Guide***.

To access the MC1-PANEL-16 interfaces in DashBoard

1. From the Tree View, expand the node for the MC1-PANEL-16.
2. Select the **Configuration** sub-node to update the network settings, assign an MC1 card to a channel button, and specify the mnenomic display settings.

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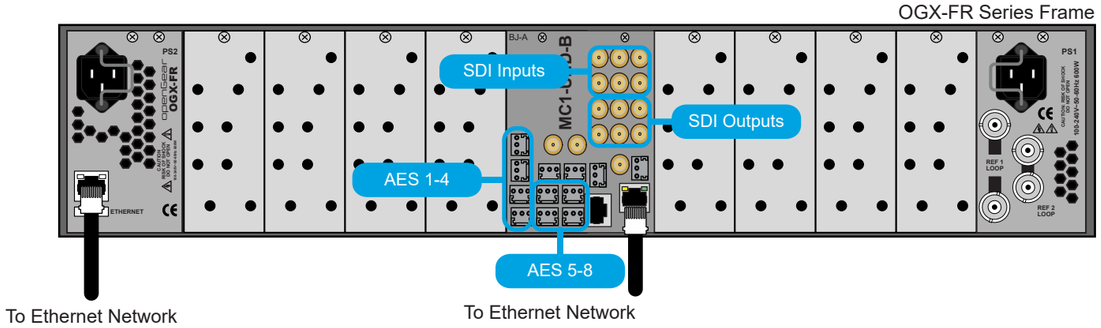
openGear MC1 Cabling

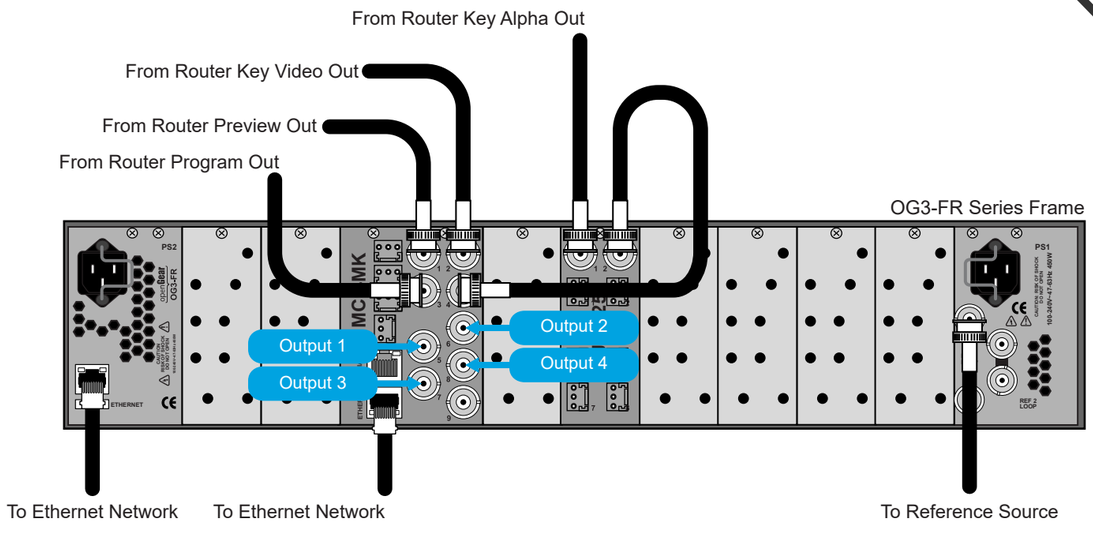
CAUTION Before you set up and operate your MC1 card, refer to the “Important Regulatory and Safety Notices to Service Personnel” document that was included with your card. It is also recommended to refer to the *MC1* user documentation which is available for download from our website.

MC1-UHD Cabling

Note: This illustrates cabling for the MC1-UHD-B in an OGX-FR series frame. Your setup requirements may differ than what is presented here. Refer to the ***MC1-UHD User Guide*** for cabling information for your specific MC1-UHD card and rear module.



MC1-MK Cabling



Note: This illustrates cabling for one MC1-MK card and one MUX-8258 card in an OG3-FR series frame. Your setup requirements may differ than what is presented here. The MUX-8258 is optional.

Specifications

Video Input Specifications

Impedance	75ohms
Return Loss	>15dB to 1.485Gbps >10dB to 2.97Gbps >7dB to 5.94Gbps >4dB to 11.88Gbps
Equalization (using Belden 1694A cable)	>220m (722ft) @ 1.485Gbps >140m (459ft) @ 2.97Gbps >50m (190ft) @ 11.88Gbps

Maximum Power Consumption

OGX-FR Frame	Sum of both outputs not to exceed 500W
MC1-UHD	40W-80W (application dependent

Video Output Specifications

Impedance	75ohms
Return Loss	>15dB to 1.485Gbps >10dB to 2.97Gbps >7dB to 5.94Gbps >4dB to 11.88Gbps
Signal Level	800mV ±10%
DC Offset	0V ±50mV
Rise and Fall Time	1.485Gbps: <270ps, <100ps difference 2.97Gbps: <135ps, <50ps difference 11.88Gbps: <45ps, <18ps difference
Overshoot	<10% (11.88Gpbs: <15%)

Environment

Max. Ambient Temperature	0°C to 40°C (32°F to 104°F)
Humidity, non-condensing	<95%

Specifications

Default Values

Ethernet Method	DHCP
Reference Input	Frame 1
Output 1	Program
Output 2	Program
Output 3	Preview
Output 4	Clean Feed 1
Remote Control	
Serial	Disabled
Ethernet	Disabled
Embedded Audio	All groups enabled
Edit Permission	Unlocked

SDI Output Formats

480i 59.94Hz
720p 59.94Hz
1080i 59.94Hz
576i 50Hz
720p 50Hz
1080i 50Hz

Maximum Power Consumption

OG3-FR Frame	Sum of both PSU not to exceed 375W
MC1-MK	22W

Temperature

Operating:	0 - 40°C (32 - 104°F)
Storage:	-20 - 85°C (-4 - 185°F)

Video Input Specifications

Impedance	75ohms
Return Loss	SDI IN 1: 15dB to 1.5GHz SDI IN 2-4: >15dB to 1.5GHz
Equalization (using Belden 1694A cable)	SD: 120m HD: 100m

Video Output Specifications

Impedance	75ohms
Return Loss	SDI OUT 1: 15dB to 1.5GHz SDI OUT 2-4: >15dB to 1.5GHz
Signal Level	800mV +/- 10%
DC Offset	0+/-50mV
Rise and Fall Time	SD: 900ps typical HD: 150ps typical
Overshoot	75ohm

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