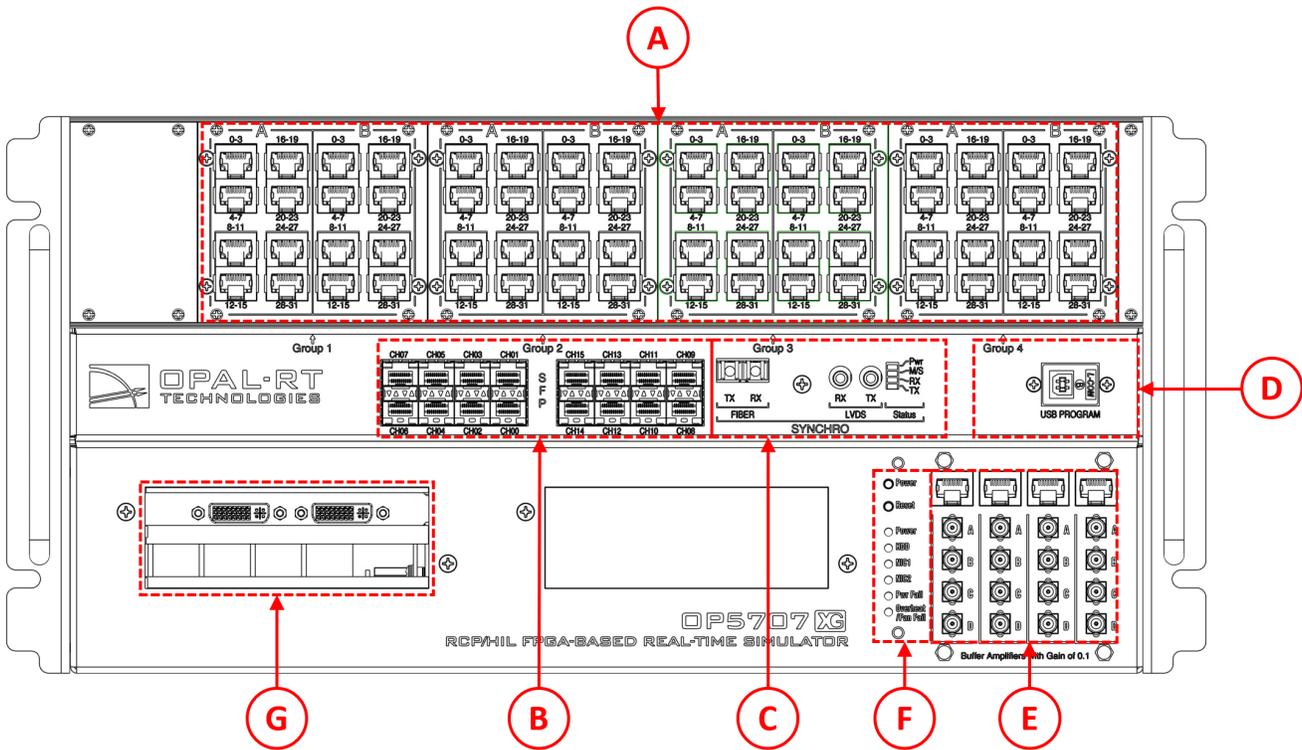


OP5707XG Front Connectors



A. RJ45 connector panels provide connections to monitor signals from mezzanine I/O boards. Each connector is linked to front and back mezzanines on the carrier board. Analog mezzanines (channels 0-15) use only the first column of connectors.

Digital mezzanines use both columns (channels 0-15 in the first column and channels 16-31 on the second column of connectors). See the [OP5707XG Pin Assignments](#) for more detailed information.

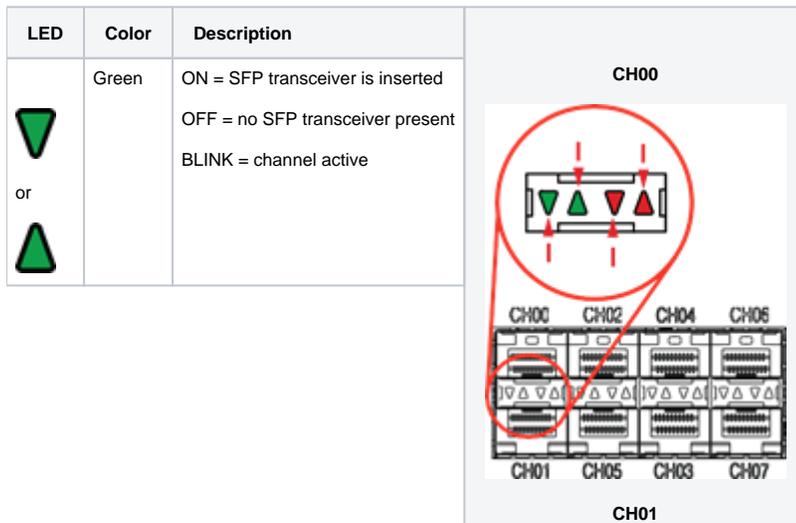
B. 16 SFP (small form-factor pluggable) ports controlled from the FPGA, for high-speed communication with other simulators, FPGAs or with third-party devices. Each socket controls one communication link.

SFP transceivers and optical fiber cables must be selected according to the type and speed of the communication protocol implemented in the FPGA.

Note: MUSE link requires specific SFP transceivers and optical fiber cable:

- **SFP transceiver:** Avago AFBR-57R5APZ
- **Cable:** LC-LC multimode 850nm optical fiber

The LEDs (light pipes) associated to the selected channel will light to indicate the channel is selected. LEDs are arrow-shaped to indicate the channels to which they are associated. The LED upward arrow points to the top channel, the downward arrow points to the bottom channel (see below):



 or 	Red	OFF = no fault	
		ON = transmission fault BLINK = reception loss	

C. Synchronization connectors (fiber optic and audio) and a series of four LEDs on the front panel display the device status

LED	Power On	After Load & During Execution	After Reset
Tx	OFF	GREEN**	OFF
Rx	OFF	GREEN**	OFF
M/S	Default*	ORANGE = Slave	GREEN
PWR	GREEN	GREEN	GREEN



Note:

*The color of the M/S LED at power up depends on the default FPGA configuration: when the FPGA board is programmed in slave synchronization mode, the LED is orange; when it is programmed in master mode, the LED is green.

**Tx and Rx provide synchronization information. When transmitting the synchronization signal, the Tx LED is green. When receiving the synchronization signal, the Rx LED is green.

D. USB connector for JTAG programming (used in the event of lost or damaged FPGA configuration)

E. Monitoring RJ45 connectors with mini-BNC terminals for monitoring: RJ45 cables connect from a channel on an RJ45 panel (A) to one of four RJ45 monitoring connectors (E). Mini-BNC connectors allow for quick cable connections to monitoring devices (such as an oscilloscope). See [OP5707XG Installation and Configuration](#) for details.

F. Target computer monitoring interface. Two pushbuttons include **POWER** in top position to start the Target computer and **RESET** in the bottom position to reset the Target computer. There are 6 LED indicators:

LED	NAME	Description
Green	Power	On indicates that the unit is powered up.
Green	HDD	On indicates that the hard disk drive is operating.
Green	NIC1	On indicates that network port 1 is in use.
Green	NIC2	On indicates that network port 2 is in use.
Red	Power Fail	On indicates a power fault.
Red	Overheat/Fan Fail	On indicates either that unit has overheated or a fan fault.

G. PCI or PCIe connector slots. By default, these spaces are covered by blank plates if there are no optional PCI or PCIe boards installed in the chassis. If there are boards installed, the spaces give access to the card connectors.