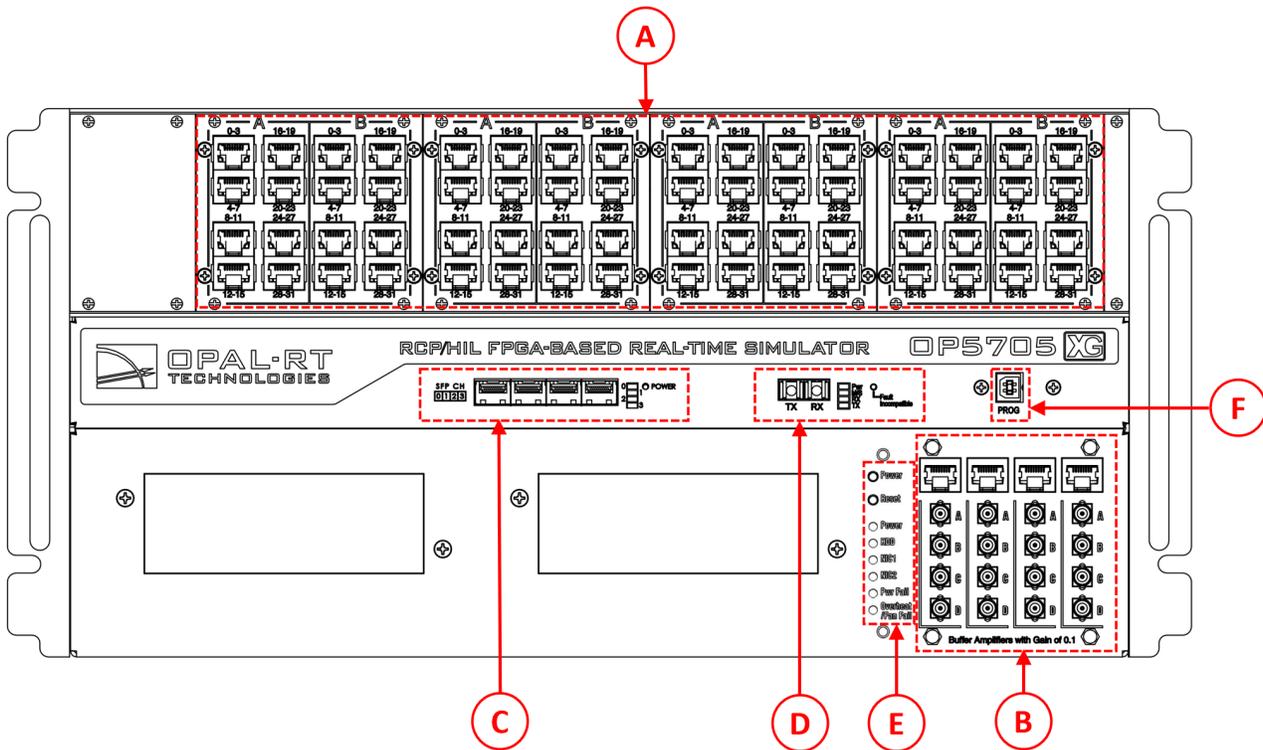# OP5705XG Front Connectors

A. 4 panels of RJ45 connectors provide connections to monitor outputs from I/O modules.

- Each connector is linked to an I/O module in the front and to an I/O module in the back.
- Analog I/O modules (channels 0-16) use only the first column of connectors.
- Digital I/O modules use both columns: channels 0-15 in the first column and channels 16-31 on the second column of connectors.
- See the I/O module connector image and the RJ45 pinouts for detailed information.

B:. Monitoring RJ45 connectors with mini-BNC terminals.

- **RJ45 cables** connect from a channel on an **RJ45 panel** (A) to one of the four **RJ45 monitoring connectors** (B).
- **Mini-BNC connectors** allow for **quick cable connections** to monitoring devices (such as an oscilloscope)
- See OP5705XG Connecting Monitoring Devices for details.

C. 4 SFP ports (for MuSE or device interconnection) and **status LEDs for each channel** (LED 0 = channel 0):

- **Blinking green**: an SFP module is plugged into the port and the bitstream is using Aurora for this channel
- **Continuous green**: an SFP module is plugged into the port and the bitstream is not using Aurora for this channel
- **Blinking red:** rx_loss is 1
- **Continuous red**: tx_fault is 1 (these are SFP status signals)
- **OFF**: no module plugged into the port and no Aurora present in the bitstream for this channel

D. Fiber-optic synchronization connectors and status LEDs.

E. Target computer monitoring interface:

- **POWER push-button**: Start/Stop the target computer
- **RESET push-button**: Reset the target computer
- **6 LED indicators**:
    - **Power**: **Green** when the **unit** is **powered up**
    - **HDD**: **Green** when the **hard disk drive** is **operating**
    - **NIC1**: **Green** when network **port 1** is i**n use**
    - **NIC2 Green** when network **port 2** is i**n use**
    - **Power Fail**: **Red** indicates a p**ower fault**
    - **Overheat/Fan Fail**: **Red** indicates whether **the unit has overheated** or a **fan fault.**

F. USB connector for JTAG programming (for OPAL-RT technicians' use)