


# 2-Port 10-Gigabit Ethernet LAN/WAN PHY Line Card

## Feature Highlights and Installation Instructions

Catalog Number: LC-EF3-10GE-2P

### Feature Highlights

- Uses approved 10G Small-form Factor Pluggable (XFP) laser modules. Laser modules must comply with 21 CFR 1040 Class 1 requirements.
- Pluggable XFP optics providing support for SR, LR, ER, and ZR optical interfaces.
- The EF3 series line cards support a single 18M user configurable CAM with flexible partition assignments. The following max entries are:
  - 256K Layer 3 IP forward information base (FIB)
  - 128K Layer 2 FIB
  - 64K Layer 3 IPv6 FIB
  - 128K Layer 2 and Layer 3 access control list (ACL) entries
  - 12K IPv6 ACL entries
- Supports online insertion and removal (OIR) of line card and XFP optics.
- Supports ingress and egress Layer 2 and Layer 3 ACL processing across all ports.
- Ports are user configurable, on a per port basis, to be either LAN PHY or WAN PHY.
- Requires FTOS 6.1.2.0 or higher
- Supports full duplex only

Label	Description
Port	2 10G Small-form Factor Pluggable (XFP) Ports Port LEDs Green = link up Unlit = port is down Flashing Green = activity
Laser Warning	This is a Class 1 laser product which emits invisible laser radiation. This product complies with CDRH 21 CFR 1040
	 <p>CLASS 1 LASER PRODUCT LASERPRODUKT DER KLASSE 1</p>
Status LED	Flashing Green = Initializing Green = Line card online Amber = Failed power-on self test or fault detected Unlit = No power to the line card or the line card is administratively shut down



**Warning:** Electrostatic discharge (ESD) damage can occur if components are mishandled. Always wear an ESD-preventive wrist or ankle strap when handling line cards. Connect the ESD strap to the grounding plug. Place line cards on an antistatic surface and store in anti-static bags when they are not installed.

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## Installation Instructions

The E300 system line cards are hot-swappable. You can add, replace, or remove a card without interrupting the system power or system operations. If you insert a new line card into a slot occupied by a blank panel or if you hot-swap identical card types, no additional configuration is necessary.

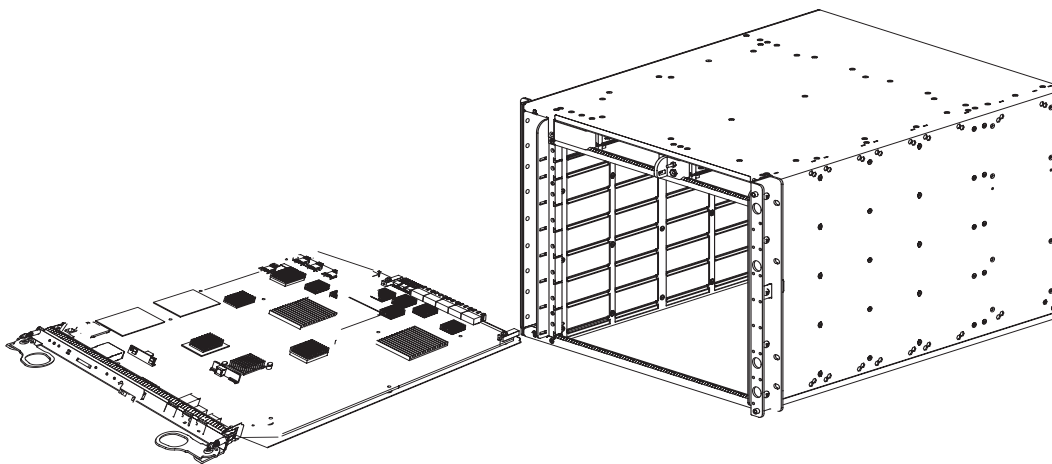


### Installation Notes:

- Do not remove a blank panel from the chassis until you are ready to install a line card into that slot. If you remove a card, immediately fill the empty slot with a blank. Blanks are required to control airflow and electromagnetic interference.
- Line cards fit only in chassis slots 0 through 5. Chassis slots R0 and R1 are designed for the route processor modules (RPMs).
- If you replace an existing line card with a different series line card, you must configure the system with the updated line-card information.

## Install a line card

Step	Task
1	Hold the line card by the edges. Avoid touching the printed circuit board and connector pins. Extend the right and left line-card levers before you insert the line card into the slot. Align the card with the right and left card guides and gently slide the card into the slot until you feel the connectors engage with the chassis backplane.
2	Rotate the levers to seat the backplane connectors and lock the line card in place.
3	Secure the line card in place by tightening the right and left screws on each line card, using a #2 Phillips screwdriver.



**Figure 1** Inserting a Line Card into an E300

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## CLI Commands

It is not necessary to configure a slot when you install a new line card into a slot currently occupied by a blank or if you replace (hot-swap) identical card types. You can also pre-configure an empty line card slot (virtual line card) if you know which card you will be inserting into the empty slot. For more information on configuring a slot for a new line card, refer to the *FTOS Command Line Interface Reference*.

### To replace the current card with a *different* line-card type

Step	Task
1	Remove the existing card from the chassis slot.
2	In the CONFIGURATION mode, execute the <b>no linecard</b> <i>number</i> command to remove the old line card type configuration. Where <i>number</i> is the chassis slot number (range: 0 to 5).
3	Insert the new card. FTOS will detect the new line card and enter it in the running configuration.
4	In the EXEC privilege mode, enter the <b>copy running-config</b> <i>file-url</i> command to save the configuration. Where <i>file-url</i> is the location to save the file. To view a list of possible file locations, enter <b>copy running-config ?</b>

### Pre-configure a line card slot

Step	Task
1	In the CONFIGURATION mode, enter the <b>linecard</b> <i>number card-type</i> command with the card information. Where <i>number</i> is the chassis slot number (range: 0 to 5) and <i>card-type</i> is the line card indicator.
2	In the EXEC privilege mode, enter the <b>copy running-config</b> <i>file-url</i> command to save the configuration. Where <i>file-url</i> is the location to save the file. To view a list of possible file locations, enter the <b>copy running-config ?</b> command.
3	The slot is now configured for your <i>virtual</i> line card. Ensure that you insert only the line card type that you named in step 1.

To view line-card and chassis configurations, use the following commands:

```
show linecard [number] [brief]
```

```
show chassis [brief]
```

