

## User's Guide

### CGFEB1040-140 Chassis Card Media Converter

- One Copper, Two Fiber Ports
- 10/100/1000Base-T to 1000Base-X

Transition Networks CGFEB1040-140 series media converters are designed to be installed in a PointSystem™ chassis, connecting 10/100/1000Base-T twisted-pair copper cable to SFP 1000Base-X devices.

The CGFEB1040-140 has one copper port and two SFP ports.

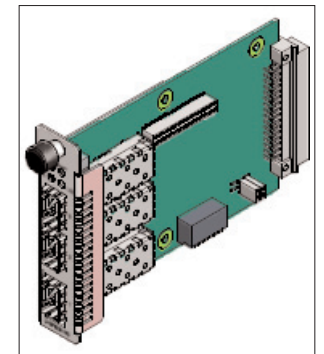
Part Number	Port 1 - Copper 10/100/1000-Base-T	Port 2 - SFP 1000Base-X	Port 3 - SFP 1000Base-X
CGFEB1040-140	RJ-45 100 m (328 ft)	Empty	Empty

### CGFEB4040-180 Chassis Card Media Converter

- Three SFP Ports
- 100/1000Base-X SFPs to 1000Base-X SFPs

Transition Networks CGFEB1040-140 series media converters are designed to be installed in a PointSystem™ chassis, connecting 100/1000Base-X SFP to 1000Base-X SFP devices.

The CGFEB4040-180 three SFP ports.



Part Number	Port 1 - SFP 100/1000Base-X	Port 2 - SFP 1000Base-X	Port 3 - SFP 1000Base-X
CGFEB4040-180	Empty	Empty	Empty

**Note:** Third-party Multi-Source Agreement (MSA) compliant Small Form Factor Pluggables (SFPs) can be used in the CGFEB1040-140 and the CGFEB4040-180 media converters.

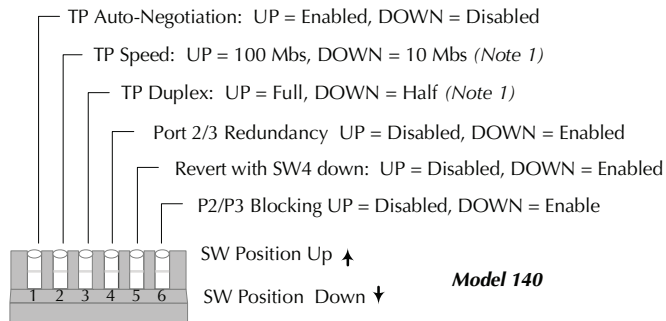
Installation	..2
Operation	..8
Diagnostic Monitoring Interface (DMI)	..14
Cable Specifications	..15
Technical Specifications	..16
Troubleshooting	..17
Contact Us	..19
Compliance Information	..20

## Installation

**CAUTION:** Wear a grounding device and observe electrostatic discharge precautions when handling the media converter. Failure to observe this caution could result in damage or failure of the media converter.

### Six-position switch 140 and 180 models

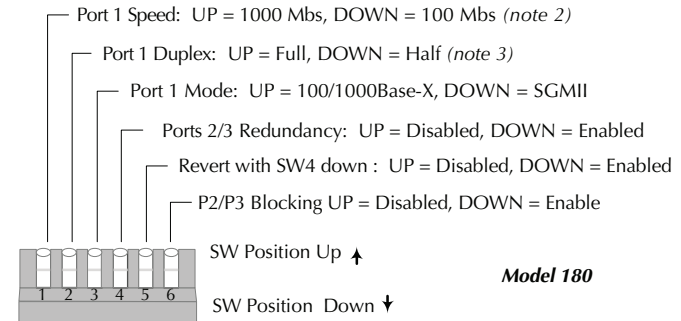
The 140/180 six-position switch is located on the circuit board of the media converter. Use a small, flat-blade screwdriver (*or a similar device*) to set the switches according to the site requirements (*see the drawing below for the 140*).



1. Twisted-Pair Auto-Negotiation
  - UP Enable Auto-Negotiation for the copper connection.
  - DOWN Disable Auto-Negotiation for the copper connection.
2. Twisted-Pair Speed 10Mbs/100Mbs (*See Note 1*)
  - UP Set copper connection speed to 100Mbs.
  - DOWN Set copper connection speed to 10Mbs.
3. Twisted-Pair Full/Half Duplex (*See Note 1*)
  - UP Operate in full-duplex mode.
  - DOWN Operate in half-duplex mode of the attached device.
4. Redundancy (*Ports 2 and 3*)
  - UP Disabled
  - DOWN Enabled
5. Primary/Secondary revert with SW4 DOWN
  - UP Disabled (*continues to use the secondary port after primary port has been restored*) recommended setting
  - DOWN Enabled (*reverts to the primary port after it has been restored*)
6. Port 2 to Port 3 Blocking
  - UP Disabled
  - Down Enabled

**Note 1:** Only use when Auto-Negotiation is disabled.

## Installation—continued



**Note 2:** Only use if in 100/1000Base-X mode, SW3 UP.

**Note 3:** Only use if in 100/1000Base-X mode and in 100 Mbs mode, SW3 UP; SW1 DOWN

1. Speed (*Port 1*) (*See Note 2*)
  - UP 1000 Mbs
  - DOWN 100 Mbs
2. Duplex (*Port 1*) (*See Note 3*)
  - UP Full
  - DOWN Half
3. Mode (*Port 1*)
  - UP 100/1000Base-X.
  - DOWN SGMII (*Port 1 copper, model 140 only*)
4. Redundancy (*Ports 2 and 3*)
  - UP Disabled
  - DOWN Enabled
5. Primary/Secondary revert with SW4 DOWN
  - UP Disabled (*continues to use the secondary port after primary port has been restored*) recommended setting
  - DOWN Enabled (*reverts to the primary port after it has been restored*)
6. Port 2 to Port 3 Blocking
  - UP Disabled
  - Down Enabled

## Installation—Continued

### AutoCross jumper

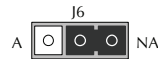
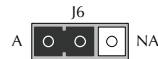
The AutoCross feature allows either straight-through (MDI) or crossover (MDI-X) cables to be used when connecting to 10Base-T, 100Base-TX, or 1000Base-T devices such as hubs, transceivers, or network interface cards (NICs). AutoCross determines the characteristics of the cable connection and automatically configures the unit to link up to its companion device regardless of the cable configuration.

The AutoCross jumper is the three-pin header J6 on the circuit board labeled NA = No Autocross and A = AutoCross. See Jumper positions below.

**Note:** Use small needle-nose pliers to set the jumper.

**A** Either straight-through or crossover cable can be used for all twisted-pair copper links.

**NA** Straight-through or crossover twisted-pair cable, depending on installed site devices, **MUST** be installed at EACH end of the twisted-pair copper link.



**Note:** Factory default is “A” enabled. Transition Networks recommends leaving the jumper in the enabled position.

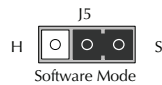
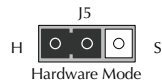
### Hardware/software jumper

The hardware/software jumper is the three-pin header J5 on the circuit board labeled H and S. See jumper positions below.

**Note:** Use small needle-nose pliers to set the jumper.

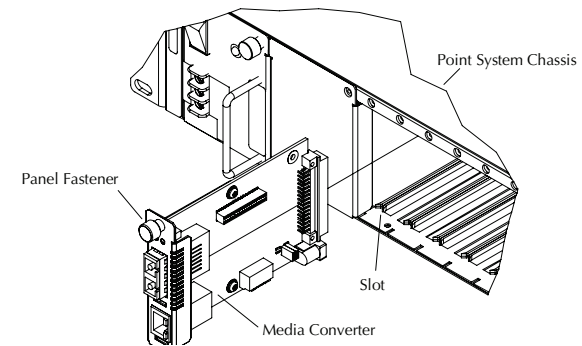
**Hardware** The media converter mode is determined by the 6-position DIP switch settings.

**Software** The media converter mode is determined by the most-recently saved, on-board microprocessor settings.



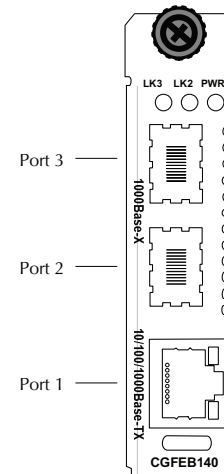
## Install the chassis card

1. Remove one chassis slot cover from the Point System Chassis (*keep the slot cover and screw*).
2. Carefully slide the media converter into the installation slot(s), aligning it with the slot guides.
3. Ensure that the media converter is firmly seated inside the chassis.
4. Push in and rotate the attached panel fastener screw clockwise to secure the module to the chassis. See illustration below.

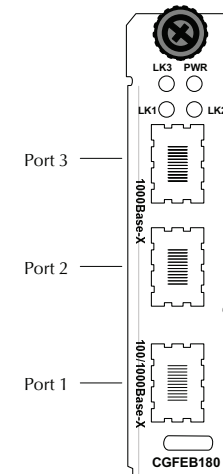


## Port Locations

The CGFEBxx40-1xx media converters have three ports. The drawings below illustrate the locations of Port 1, Port 2, and Port 3



- 140s  
 Port 1: 10/100/1000Base-T  
 Port 2: 1000Base-X SFP  
 Port 3: 1000Base-X SFP



- 180s  
 Port 1: 100/1000Base-X SFP Slot  
 Port 2: 1000Base-X SFP Slot  
 Port 3: 1000Base-X SFP Slot

















