

# Tellabs® 1000 Multiservice Access Platform: OC12c Transceiver (OC12c-XCVR)

Delivers voice, TDM, premium HSI, IPTV video and HiCAP services over fiber.

The Tellabs® 1000 MSAP Optical Carrier Level 12 Transceiver (OC12c-XCVR) plug-in card has more bandwidth for more revenue-generating services. It functions as an uplink to an ATM network and as a high-rate, point-to-point transport between Tellabs 1000 MSAP series terminals. The OC12c-XCVR card is compatible with SONET OC-12c standards per GR 253-CORE. All capabilities are provisioned through the craft interface or Tellabs® Panorama™ Integrated Network Manager (INM).

The OC12c-XCVR plug-in card has a 622 Mbps fiber optic interface using Intermediate Range Optics. Both a transmitter and a receiver are on a single card. The OC12c-XCVR uses a PIN receiver and a single-mode laser operating at 1310 nm.

As a video uplink to the ATM data network, the OC12c-XCVR interfaces to any UNI 3.1 and UNI 4.0 compliant ATM switch or router. As an ATM uplink, the card supports a 500 Mbps payload for use as a video network uplink. Automatic Protection Switching (APS 1+1) is enabled when the card is provisioned as an uplink.

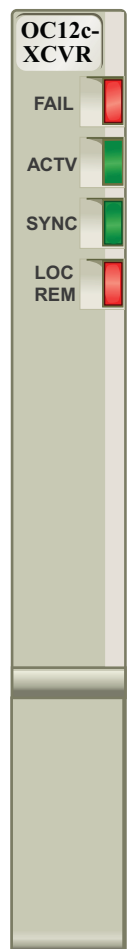
As a general purpose interterminal transceiver, the OC12c-XCVR carries both TDM and ATM traffic: TDM traffic is converted to ATM cells. 50 Mbps are reserved for the TDM backplane. The OC12c-XCVR contains Tellabs' next generation ASIC, the Pathfinder, which is a key differentiator and technology enabler providing access to the ATM cell bus. The Pathfinder functions as an "ATM switch on a chip" providing ATM switching, QoS, concentrator capabilities, and conversion of TDM traffic to ATM and back to TDM.

The OC12c-XCVR card uses powering and heat dissipation technologies available in the Tellabs 1000 MSAP terminal can operate in any of the shelf's 22 general purpose slots.

- Provides a full 622 Mbps physical interface
- Uses the entire Tellabs 1000 MSAP series ATM cell bus capacity with a software-upgradable path to access the high-speed serial bus
- When provisioned as an uplink or transport, provides the terminal reference timing signal
- APS 1+1 enabled when provisioned as an uplink
- GR-253 Intermediate Reach compatible (GR-253-CORE)
- 1310 nm single-mode fiber for its OC12c interface
- Dual-memory for non-service affecting programming
- SC Connectors for easy installation

## LEDs on the faceplate of the OC12c indicate the following:

- FAIL is red — hardware failure of this card, or card is unable to communicate with the CPU
- ACTV is green — card designated as 'Active' by the system, or the card can be used to carry traffic — no locally detected failure conditions exist and the card is 'enabled'
- Green ACTV flashes — card is engaged in a loopback
- SYNC is green — card is operating as transport, and no locally detected failure conditions exist, and the card can communicate with the far-end OC12c-XCVR using the subdata link, or card is operating as an ATM uplink and there are no locally detected failure conditions
- LOC REM is red — the card is operating as a transport, and has detected a data loss failure, or the card is operating as an ATM uplink, and has detected a data loss failure
- LOC REM is yellow — the card is operating as a transport and has detected a remote failure, or the card is operating as an ATM uplink and has detected a remote failure



## Specifications

### Signaling

- Line coding: Binary Non-Return to Zero (NRZ)
- Line rate: 622.08 Mbps

### Transmitter

- Min Launched Power: -15dBm
- Max Launched Power: -8dBm

### Receiver

- Sensitivity: -28dBm

### Environmental

- Operating temperature: -40° F to +158° F (-40° C to +70° C)
- Humidity: 5–95% non-condensing
- Maximum power consumption: 11.01 W

### Dimensions

- Height: 5.125 in (13.018 cm)
- Width: 0.563 in (1.429 cm)
- Depth: 10.5 in (26.67 cm)

### Weight

0.5 lbs (0.23 kg)

### Compliance

GR-253-CORE compatible  
ATM UNI 3.0, 3.1, 4.0

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