aurora NETWORKS

MC2710B

Gigabit Ethernet SMART Media Converter

(10/100/1000Base-T to 1000Base-SX/LX)

Features

- One 10/100/1000Base-T GbE STP port and two 1000Base-SX/LX GbE fiber ports (implemented with SFP transceivers)
- Highly flexible, easily configurable support with SFPs for transmission at 1310nm, 1550nm, or 1 of 15 CWDM wavelengths (in the ranges 1270-1350 nm and 1430-1610 nm, in 20nm steps), supporting links up to 40 km
- LED displays for power, STP port (Act/Link, Speed and Duplex) and fiber port (Act/Link)
- Hot-swap and auto reload configuration
- Supports jumbo frame forwarding up to 9600 bytes
- IEEE 802.1p Priority and IEEE 802.1q Tag VLAN
- Supports Q-in-Q Double Tag VLAN
- MEF 9 and MEF 14 compliant
- RoHS compliant

MC2701B Fast Ethernet (at left) and MC2710B Gigabit Ethernet (at right) SMART Media Converters™ in CH1202B CPE Chassis

Aurora Networks' MC2710B SMART Media Converter module is designed to enable MSOs to deliver Gigabit Ethernet service over fiber using any of 15 CWDM wavelengths.

When installed in a CH2016B Chassis, the MC2710B is supported by user-friendly rack-based SNMP management (implemented in the CX2001B Management Module in the chassis) to manage and monitor fiber optic conversions in mission critical enterprise and service provider applications.

Installed in a CH1202B Chassis, the MC2710B becomes customer premises equipment with remote monitoring and management VLAN capability.

The embedded Intelligent Converter Software of the MC2710B, with its own auto-detection capability, can determine whether it is deployed as a module blade in a CH2016B Chassis at the Headend or as CPE in an enclosed CH1202B Chassis at a remote site.

With Web- and CLI-based management, the network administrator can logon to the converter to monitor, configure and control the activity of each port. In addition, the converter has bandwidth rate limiting management capability via its intelligent software. Overall network management is enhanced, and network efficiency is improved to accommodate and deliver high bandwidth applications.

When the MC2710B is installed in a CH1202B chassis, the following are supported: remote loopback test; "Dying Gasp" function; redundant power failure indication and remote power monitoring; Web UI, CLI, and SNMP management; and IP/IP-less mode selection.

MC2710B Product Specifications

Physical:

- Ports:

  One 10/100/1000M RJ-45 STP port and two SFP facilities

  (Local Port 1 is logically shared between the RJ-45 port or the left-side SFP-configured optical port.)

- Dimensions:

  5.3" L x 2.6" W (13.6 cm x 6.7 cm) (1 slot in CH2016B chassis)

- Weight:

  0.25 lbs (0.11 kg)

General:

- LED indicators:

PWR	Green	On when +5V power is active
FDX	Amber	On when in full duplex mode Blinks when collision present Off when in half duplex mode
P1 (SFP) RX	Green	On when local port FX link is up or good Blinks when FX traffic present
P2 (SFP) RX	Green	On when network port FX link is up or good Blinks when FX traffic present

Electrical:

- Input power: 5V ± 5% (rack-powered)
- Power consumption: 6 Watts max (full loading)

Environmental:

- Operating temperature range: 0º to +50ºC (32º to 122ºF)
- Storage temperature range: –20º to +70ºC (–4º to 158ºF)
- Humidity: 5% to 90%

Regulatory:

- Compliance: IEEE802.3ab, IEEE802.3z
- Emissions: FCC Part 15, Class A and CE Mark

Network Interface:

10Base-T/100Base-Tx/1000Base-T:

- Connectors: RJ-45 STP
- Transmission: Full/Half-Duplex for 10/100; Full-Duplex only 1000-Base-T
- Auto-Negotiation and Auto MDIX
- Max cable length: 100 m

SFPs for Optical Port 1 (Local) and Port 2 (Network):

The optical ports facility of the MC2710B can be populated with a variety of SFP (plug-in) transceivers depending on the network application. Please refer to the appropriate data sheets for the selected transceivers for detailed specifications. Following is a summary of available transceiver options (model numbers and brief descriptions) for these ports.

2.125 Gbps SFP Transceiver Options

- TR4000-PI (transmit at 1310nm for links up to 10 km)
- TR4040-PI (transmit at 1310nm for links up to 40 km)
- TR4540-0000-PI (transmit at 1550nm for links up to 40 km)
- TR4440B-*xxxx*-PI (transmit at CWDM wavelength of *xxxx* = 1270, 1290, . . ., 1350 or 1430, 1450, 1470, . . ., 1610 nm for links up to 40 km)

Management:

- When installed in the CH2016B chassis, management is handled using the chassis controller.
- When the MC2710B is installed in a CH1202B, the following CPE Remote key features are supported:

  Remote loopback test

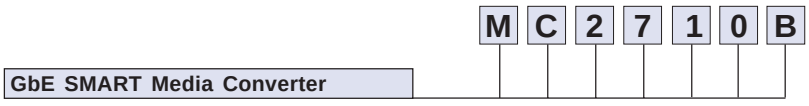
  Dying Gasp function

  Redundant power failure indication, remote power monitoring

  Web UI/CLI/SNMP management

  IP / IP-less modes

Ordering Information



NOTE

SFP transceiver(s) must be ordered separately. Please refer to the appropriate data sheets for selected transceiver(s).

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