



EM-C220B:

10/100Base-TX to 100Base-FX Managed Converter Module

Key Features

- Supports each converter module media configured and monitored ability :
 - Supports port state enabled/disabled
 - Supports auto-negotiation/forced mode
 - Supports port speed and duplex mode
- Supports wire speed packet forwarding ability as below:
 - 10Base-T : 14880 pps
 - 100Base-TX: 148800 pps
- Supports module per port basic counters for traffic raw data monitor of fiber and TP port as below:
 - Rx Packet Counter
 - Rx Byte Counter
 - Tx Packet Counter
 - Tx Byte Counter
 - Error Counter
 - Collision Counter
 - Tx Speed (bps)
 - Rx Speed (bps)
- Supports RMON counters for port traffic quality monitoring function
- Supports bandwidth rating per port ingress and egress rate limit 100Mbps with 1Mbps granularity
- Supports max packet length: 1916 bytes
- Supports 802.3x flow control for full-duplex ports and backpressure for half-duplex ports
- Supports comprehensive types of fiber with different distances and connections, including SC/ST/Bidi/LC and so on
- Supports one 10/100Base-T Fast Ethernet UTP port and one 100Base-FX Fast Ethernet Fiber port
- Supports Q-in-Q double tagged frame transparent
- Supports module firmware upgrade
- Supports converter mode (only block Pause frame 01-80-c2-00-00-01 and supported L2 protocol)
- Supports Module Loopback
- Supports Module Information (S/N, MAC, Model Name)

Technical Specifications

- **Standards Compliance:**
 - IEEE 802.3 10Base-T specification
 - IEEE 802.3u 100Base-TX specification
 - IEEE 802.3x full-duplex flow control specification
 - 100Base-FX Fast Ethernet Fiber specification
- **Network Interface:**
 - 10/100Base-TX:
 - Connectors: RJ-45
 - Auto-Negotiation
 - Auto-MDIX
 - Transmission: Full/Half-Duplex
 - Max. Cable Length: up to 100m
 - 100Base-FX (Multi mode):
 - Connectors: SC / ST / LC
 - Transmission: Full/Half-Duplex
 - Max. Cable Length: 2Km for 62.5/125µm
 - Wavelength: 1310nm
 - 100Base-FX (Single mode):
 - Connectors: SC / Bidi-SC / Bidi-SFF
 - Transmission: Full/Half-Duplex
 - Max. Cable Length: 100Km for 9/125µm
 - Wavelength: 1310nm or 1550nm
- **Power Requirement:** 0.8A /5VDC
- **EMI:** Comply with FCC Part 15 Class A & CE Mark Approval
- **Power Consumption:** 4W
- **Operating Temperature:** 0 to 50°C
- **Humidity:** 5% to 90%
- **Dimensions:** 135.6(L)x66.8(W)mm
- **LED Description**

LED	Color	Function
POWER	Green	Lit when 5V power is coming up
CPU/LOOP	Green	Lit when CPU function is on Blinks when loop test is present
FX LINK/ACT	Green	Lit when fiber connection is good Blinks when any traffic is present
TP LINK/ACT	Green	Lit when TP connection is good Blinks when any traffic is present
TP SPEED	Green	Lit when 100Base-TX connection is good Off when 10Base-T connection is good
TP FDX/ COL	Yellow	Lit when TP full-duplex mode is active or TP Collision happens in half-duplex mode

- Supports per port basic LEDs for monitoring
- Supports media type, connector, wavelength and distance information
- Supports hot-swap and auto reload configuration ability
- Supports IEEE 802.1p Priority
- Supports IEEE 802.1q Tag VLAN
- Supports QoS Classification based on TOS
- Supports LFP(Link Fault Pass Through) function
- RoHS Compliance

Overview

The **EM-C220B** is designed to make conversion between 10/100Base-TX and 100Base-FX Fiber Ethernet. With SNMP agent, web-based management and CLI (command line interface), the network administrator can logon the converter to monitor, configure and control the activity of each port. In addition, the converter implements bandwidth rating management capability via the intelligent software. The overall network flexibility is enhanced, and the network efficiency is also improved to accommodate and deliver high bandwidth applications.

Packing Information

Carton Dimensions (mm)	pcs/Carton	N.W (KG)	G.W (KG)
530x512x345	50	10	11

Ordering Information

Model	Description
EM-C220BSC	10/100Base-TX to 100Base-FX Managed Converter Module, SC Multi-Mode
EM-C220BSC.S05	10/100Base-TX to 100Base-FX Managed Converter Module, SC Single-Mode 5km
EM-C220BSC.S20	10/100Base-TX to 100Base-FX Managed Converter Module, SC Single-Mode 20km
EM-C220BSC.S40	10/100Base-TX to 100Base-FX Managed Converter Module, SC Single-Mode 40km
EM-C220BSC.S60	10/100Base-TX to 100Base-FX Managed Converter Module, SC Single-Mode 60km
EM-C220BST	10/100Base-TX to 100Base-FX Managed Converter Module, ST Multi-Mode
EM-C220BBS5.S20	10/100Base-TX to 100Base-FX Managed Converter Module, Bidi SC Single-Mode 20km, 1550nm
EM-C220BBS3.S20	10/100Base-TX to 100Base-FX Managed Converter Module, Bidi SC Single-Mode 20km, 1310nm
EM-C220BBS5.S40	10/100Base-TX to 100Base-FX Managed Converter Module, Bidi SC Single-Mode 40km, 1550nm
EM-C220BBS3.S40	10/100Base-TX to 100Base-FX Managed Converter Module, Bidi SC Single-Mode 40km, 1310nm
EM-C220BBS5.S60	10/100Base-TX to 100Base-FX Managed Converter Module, Bidi SC Single-Mode 60km, 1550nm
EM-C220BBS3.S60	10/100Base-TX to 100Base-FX Managed Converter Module, Bidi SC Single-Mode 60km, 1310nm
EM-C220BLC	10/100Base-TX to 100Base-FX Managed Converter Module, LC Multi-Mode
EM-C220BLC.S20	10/100Base-TX to 100Base-FX Managed Converter Module, LC Single-Mode 20km
EM-C220BLC.S40	10/100Base-TX to 100Base-FX Managed Converter Module, LC Single-Mode 40km
EM-C220BLC.S60	10/100Base-TX to 100Base-FX Managed Converter Module, LC Single-Mode 60km

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