



- | Ethernet converter or multi-port broadband switch
- | Rack mount card (3U) with up to eight Ethernet user ports and up to two GbE line ports
- | Transmission of up to eight times 100Mbps via a single fiber using WDM technology
- | Guarantees connectivity and high availability due to Ethernet Automatic Protection Switching (EAPS) or Spanning Tree (STP)
- | 1:1 line redundancy
- | Tamper-proof bandwidth limitation per port

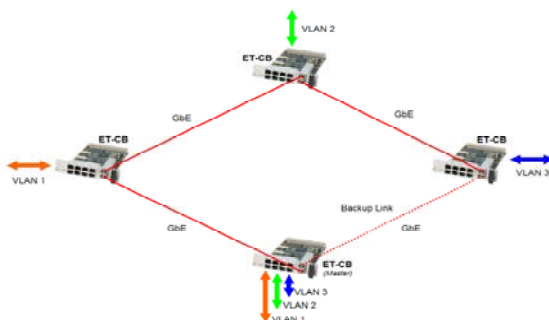


The ETC-B is a next generation high density Ethernet Converter with up to eight 10/100BaseTx (copper port) or six 100BaseFx (fiber optic port) switched ports and two GbE uplink ports. The uplink ports are implemented using SFP (Small Form Pluggable) modules, which can be copper (1000BaseT) or fiber optic (1000BaseSX/LX). Even single fiber transmission is possible by using SFPs with WDM technology.

With the ETC-B, applications can be created for Layer 2 and Layer 3 Ethernet networks. For example, in point-to-point topology, eight customer applications at 100 Mbps each can be switched and converted into one 1000BaseSX/LX optical signal. By cascading another ETC-B via the second GbE port, the number of interfaces can be increased. Also applications requiring 1:1 redundancy can easily be built by using both SFP ports.

In addition, by supporting Ethernet Automatic Protection Switching (EAPS acc. to RFC3619), Ethernet ring topologies can be established.

Due to VLAN tagging (acc. to 802.1Q) the ETC-B is able to transparently interconnect networks of different customers while maintaining complete isolation between their networks. Using the tunneling feature (QinQ), service providers can use a single VLAN to support customers who have multiple VLANs. Additionally, priority marking (acc. to 802.1p) and tamper-proof bandwidth limitation allows providers to offer different classes of service and to sell end customers certain Service Level Agreements (SLAs).



ETC-B in a Ring Application with Automatic Protection Switching

#### Hardware Features

- | 6 x 100BaseFx fiber optic ports or 8 x 10/100BaseTx copper ports:
  - auto-sensing
  - auto-crossing (MDI/MDIX)
  - full/half duplex detection
- | Up to 2 GbE ports with SFP interface
- | Redundancy for the GbE ports
- | SFP transceiver for short, long haul and WDM applications
- | 3U rack mount card designed for Pandatel MACS4000 system

#### Performance Features

- | Single and Double VLAN tagging (QinQ) per port
- | Ethernet Automatic Protection Switching (EAPS) or STP support
- | Remote flash software update
- | Performance monitoring on all ports
- | Bandwidth Limitation per port

#### Management Features

- | SNMPv.2 Agent onboard
- | Secure configuration via SSHv2



## Technical Information

MACS ETC-B	Multiport Switch with Management
<b>Copper User Port</b>	
Port Density	up to 8
Interface	10/100BaseTx (full/half duplex)
Connector	RJ45
Auto-Sensing	Yes
Auto-Crossing (MDI/MDIX)	Yes
<b>Fiber Optic User Port</b>	
Port Density	up to 6
Interface	100BaseFx
Connector	SFP Modules
<b>Fiber Optic Line Port</b>	
Port Density	2
Interface	SFP Modules (GbE)
Connector	LC (fiber optic line) or RJ45 (copper line)
Wavelength	Depending on SFP modules (e.g. 1310 nm MM/SM, 1550 nm SM, WDM)
<b>Features</b>	
Management	SNMPv.2, Telnet/SSH, VT100 via SC-MC agent or one-slot housing
Management Port	configurable to any copper or fiber optic port
In-band Management	Yes
Remote Flash Update	Yes
Bandwidth Limitation	Yes
Performance Monitoring	Yes
DHCP Client Support	Yes
VLAN Support	16 port based VLANs with tagging acc. IEEE802.1Q and double tagging_(QinQ)
CoS	4 priority queues, priority marking acc. 802.1p
Supported MAC Addresses	4096
Link Failover (redundancy)	acc. RFC3619 (EAPS)
Spanning Tree	acc. IEEE 802.1d
LPT/RFD Support	Yes
Single Fiber Solution (WDM)	Yes
Power Consumption	<10W
Power Supply	230/115 VAC or 48 VDC
<b>Dimensions</b>	
Rack Card	3U
Single Slot Housing (H x W x D)	30 x 130 x 190 mm

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