

# MC-216 TS-1000 & OAM Series

16 slot intelligent converter

- Build in Link Loss Forwarding Technology
- Supports TS-1000 on 10/100TX to 100FX module
- Web and TFTP firmware upgrade



## OVERVIEW

The Lantech MC-216 TS-1000 is a 16 slot intelligent converter chassis equipping a function of TS1000. Maximum 16-bracket modules can be installed in the cabinet with two redundant power supplies. The Power supply support AC or DC input type and with load sharing redundant feature. Lantech MC-216 TS-1000's built-in Web-based Management allows easier

management and configuration for the chassis. With cabinet to each bracket module management function, you can configure and manage your network via Web Browser. The 16 Slot intelligent converter chassis can also be managed via Telnet, Console, or third-party SNMP Management.

## FEATURES & BENEFITS

- 16 slot converter chassis with 2 power slots
- AC or DC power with redundant function
- 10/100TX to 100FX module
- 100/1000TX to Gigabit fiber module
- 100/1000TX to Mini GBIC module
- Fiber Module hot-swappable
- CPU module hot-swappable
- SNMP, Web, Telnet, console management
- Support Simple Network Time Protocol (SNTP)
- Power and Fan Detect
- Event log and SNMP Trap support
- SNMP MIB II and private MIB supports
- HTTP, Telnet security
- IP address security for management station
- Web and TFTP firmware upgrade
- Link Lose Forwarding (LLF)
- Back-door password supports
- Module identification
- 100FX and Gigabit module support single mode or multi mode fiber
- EIA RS-310C 19" standard
- Loop Back Test
- Support TS-1000 on 10/100TX to 100FX module

## SPECIFICATION

### Hardware Specification

Standards	IEEE802.3 10BASE-T IEEE802.3u 100BASE-TX and 100BASE-FX with N-way auto negotiation IEEE802.3ab Gigabit copper with N-way auto-negotiation IEEE802.3z for Gigabit fiber
Connectors	<b>100FX Module:</b> Fiber: Duplex ST/SC/MT-RJ, Simplex SC (WDM single mode) RJ-45: CAT-5 (10/100Mbps) Twisted Pair cable <b>Gigabit Module:</b> Fiber: Duplex SC (Single mode 10KM, Multi mode 500Meters) RJ-45 Socket: CAT- 5 (1000Mbps) 4 pairs of UTP/STP cable <b>CPU Board:</b> RJ-45 for 10/100Mbps, Full/Half Duplex. Cable support CAT-3/5 (10/100Mbps) <b>WDM module:</b> Fiber: Simplex SC (single mode 20KM) RJ-45: CAT. 5 2 pairs of UTP cable <b>Mini GBIC module:</b> (for 3.3v only) Fiber: Mini GBIC (Duplex LC)

Switch architecture	RJ-45: CAT- 5 (1000Mbps) 4 pairs of UTP/STP cable [Multi-Mode] power budget : Min: 9dB , MAX: 19dB. [Single-Mode] power budget : Min: 19dB , MAX: 26dB. Store and Forward, Internal Packet Gap 960ns, Filter illegal and error packet.
LED	<b>CPU Module</b> CPU Ready, Power Good (A, B) Power Fail (A, B), TX (link/Act, FDX) <b>100FX Module</b> Power, TX (Link /Act, speed, FDX), FX (Link /Act, FDX) <b>Gigabit Module</b> Power, Gigabit Copper (Speed, 1000Mbps, LK/ACT, FDX/COL), Fiber (Link/Act, FDX/COL) <b>100/1000TX to MINI GBIC module</b> Power, Gigabit Copper (Speed, 1000Mbps, LK/ACT, FDX/COL), Fiber (Link/Act, FDX/COL)
Fiber parameters	<b>Fiber Core:</b> Multi-Mode (62.5/125um, 50/125um) Single-Mode (9/125um) <b>Wavelength:</b> 100Mbps multi-mode: 1310nm / 100Mbps single-mode: 1310nm

Datasheet Version 1.0

**Converters**

	<p>100Mbps WDM 1330: TX 1310nm, RX 1550nm 100Mbps WDM 1550: TX 1550nm, RX 1310nm <b>Available Fiber distance:</b> 100Mbps module: Single-Mode Fiber (30 KM)/ Multi-Mode (2KM) 100Mbps WDM module (WDM13, WDM15):20KM Gigabit Fiber Distance: SX (Multi-mode) 500Meters LX (Single mode) 10KM <b>Optical Transceiver parameter:</b> 100Mbps Multi-Mode: TX (-19dBm), RX (-31dBm), Power budget (12dBm) 100Mbps Single-mode (30KM): TX (-15 dBm), RX (-34 dBm), Power budget (19dBm) Gigabit SX Transceiver: TX (-9.5dBm), RX (12.5 dBm), Power budget (3dBm) Gigabit LX Transceiver: TX (-9.5dBm), RX (-20 dBm), Power budget (10.5dBm)</p>
Transparent packet	64 to 1518 Bytes for Non-VLAN Ethernet packet 68 to 1522 Bytes for VLAN-Tag type Ethernet packet
Power Supply	Redundant and Load Sharing function support (AC or DC) AC 90-240 VAC, 50/60 HZ @ 20A (max) DC - 40.5 ~ - 57.0VDC @ 20A (max)
Operation Temp.	0°C to 45°C (32°F to 113°F)
Operation Humidity	10% to 90% (Non-condensing)
Storage Temp.	-10°C to 70°C
Dimension	448mm(w) * 89mm(H) * 279mm(D)
EMI & safety	FCC Class A, CE, UL
Warranty	2 years
<b>Software Specification</b>	
Management	Telnet Web Console (RS-232)
Web/Telnet	Can be enabled or disabled
MIBS	RFC 1213 MIB II

	Private MIB
SNMP Trap	Link down Link up Power module status change Authorization Fail Module plug in and plug out Chassis configuration change Module configuration change
Software Upgrade	Firmware upgrade by Web interface and TFTP
Link Loose Forward	Each module support LLF feature. It can be set by Web or CLI menu <b>LLF Mode TX</b> → <b>Fiber</b> : UTP port link down, the fiber port will be forced down <b>LLF Mode Fiber</b> → <b>UTP</b> : Fiber port link down, the UTP port will be forced down
Packet counter	<b>UTP port</b> : IN-good / In-bad packet counter out-good /out-bad packet counter collision counter <b>Fiber port</b> : IN-good / In-bad packet counter out-good /out-bad packet counter
SNMP Trap Node	Up to 4 Trap node
IP security	IP security for telnet HTTP and SNMP access Up to 4 IP nodes when security is enabled
Module Note	Per module can added notice for allocate information and characters which is up to 32
Back-door pass word	Supports on CLI mode only
TS-1000	Loop back test, remote configuration
SNTP	RFC2030 Simple Network Time Protocol
Events log	Up to 4095 event records. It can be reviewed by CLI and Web browser mode

**ORDERING INFORMATION**

- **MC-216 TS-1000 (A)**.....P/N:8423-222  
16 slot managed chassis W/AC Power
- **MC-216 TS-1000 (D)**.....P/N:8423-223  
16 slot managed chassis W/DC Power
- **MB-100SC**.....P/N:8423-230  
10 / 100 TX-FX (SC) Multi-Mode for MC16 / 16i
- **MB-100ST**.....P/N:8423-232  
10 / 100 TX-FX (ST) Multi-Mode for MC16 / 16i
- **MB-100SC(30KM)**.....P/N:8423-241  
10 / 100 TX-FX (SC 30km) Single-Mode 30km for MC-16i
- **MB-100SC(60KM)**.....P/N:8423-243  
10 / 100 TX-FX (SC 60km) Single-Mode 60km for MC-16i
- **MB-MGBIC**.....P/N:8423-280  
100 / 1000 TX-Mini GBIC (3.3v) Module for MC-16 / MC-16i
- **MBT-100SC**.....P/N:8423-233  
10 / 100 TX-FX (SC 2km) Multi-Mode 2km for MC-16 / 16i (supports TS-1000)
- **MBT-100SC(30KM)**.....P/N:8423-244  
10 / 100 TX-FX (SC 30km) Single-Mode 30km for MC-16 / 16i (supports TS-1000)

**OPTIONAL ACCESSORIES**

**Mini GBIC (SFP)**

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|--|--|
| ■ <b>8330-162</b> MINI GBIC 1000SX (LC/0.5km) Transceiver      | ■ <b>8330-188</b> LTSFP-1000BX-10KM Transceiver (WDM 1310) |
| ■ <b>8330-163</b> MINI GBIC 1000SX2 (LC/2km) Transceiver       | ■ <b>8330-189</b> LTSFP-1000BX-10KM Transceiver (WDM 1550) |
| ■ <b>8330-165</b> MINI GBIC 1000LX (LC/10km) Transceiver       | ■ <b>8330-186</b> LTSFP-1000BX-20KM Transceiver (WDM 1310) |
| ■ <b>8330-166</b> MINI GBIC 1000LHX (LC/40km) Transceiver      | ■ <b>8330-187</b> LTSFP-1000BX-20KM Transceiver (WDM 1550) |
| ■ <b>8330-169</b> MINI GBIC 1000XD (LC/60km) Transceiver       | ■ <b>8330-180</b> LTSFP-1000BX-40KM Transceiver (WDM 1310) |
| ■ <b>8330-167</b> MINI GBIC 1000ZX (LC/80km) Transceiver       | ■ <b>8330-182</b> LTSFP-1000BX-40KM Transceiver (WDM 1550) |
| ■ <b>8330-168</b> MINI GBIC 1000T (100m) Transceiver           | ■ <b>8330-181</b> LTSFP-1000BX-60KM Transceiver (WDM 1310) |
| ■ <b>8330-170</b> MINI GBIC 1000EZ (120m) Transceiver          | ■ <b>8330-183</b> LTSFP-1000BX-60KM Transceiver (WDM 1550) |
| ■ <b>8330-061</b> 100Base LX 30KM, Single-mode, LC Transceiver | ■ <b>8330-184</b> LTSFP-1000BX-80KM Transceiver (WDM 1490) |
| ■ <b>8330-060</b> 100Base FX 2KM, Multi-mode, LC Transceiver   | ■ <b>8330-185</b> LTSFP-1000BX-80KM Transceiver (WDM 1550) |

**Lantech Communications Global Inc.**

www.lantechcom.tw  
info@lantechcom.tw

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