IMC-100M

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

c UL us LISTED

IMC-100M is a family of managed Fast Ethernet media converters that support conversion between electrical 10/100Base-TX and optical 100Base-FX Ethernet. Housed in rugged DIN rail or wall mountable enclosures, these converters are designed for harsh environments, such as industrial networking and intelligent transportation systems (ITS) and are also suitable for many military and utility market applications where environmental conditions exceed commercial product specifications. The converter is Web, SNMP or In-Band managed with an easy to use user interface for Operation, Administration, Maintenance & Provisioning, including bandwidth control, speed, and VLAN, Diagnostic, storm filter or converter configurations. It also provide loop-back test and dying gasp, and can be monitored from a centrally located OAM-enabled FRM220-1000MS converter via remote in-band management.

Features

- Conversion between 10/100Base-TX and 100Base-FX Fiber cable interface
- Redundant dual DC input power 12/24/48VDC (9.6 ~ 60VDC)
- IP30 rugged metal housing
- Wide operating temperature -20~75°C
- UL60950-1, CE, FCC, Railway traffic EN50121-4 certification
- Industry grade EMS, EMI EN61000-6-2, EN61000-6-4 certification
- Supports jumbo frame 9K bytes packet
- Ingress/Egress bandwidth control
- MIB counters
- Auto Laser Shutdown (ALS)
- CTC SmartView Management System support
- Web management
- SNMP management
- Supports 16 IEEE 802.1Q Tag VLAN Group
- SNMP alarm trap for power loss and port link down
- Supports in-band management from FRM220 Chassis With FRM220-1000MS
- Remote loop back test
- Dying gasp (remote power failure detection)

Specifications

Standard	IEEE802.3 10Base-T
	IEEE802.3u 100Base-TX, 100Base-FX
	IEEE802.3x Flow Control and Back pressure
	IEEE802.1q Tag VLAN
Fiber Ports	100Base-FX Supports Auto laser shutdown (ALS)
RJ45 Ports	10/100Base-TX
Push Button	Reset, Load default seting
Jumbo Frame	9K bytes
Fiber Parameters	Fiber Cable (Multi-mode): 50/125um, 62.5/125um
	Fiber Cable (Single-mode): 9/125um
	Wavelength: 1310nm (Multi-mode/Single-mode)
	Available distance: 2 KM (Muti-mode) 30KM (Single-mode) 50KM (Single-mode)
Link Lose Forward	TX-Fiber: If TX port link down, the media converter will force Fiber port to link down
	Fiber-TX: If Fiber port link down, the media converter will force TX port to link down
Connector	Fiber: SC (Multi-mode, 2KM), SC (Single-mode, 30KM, 50KM)
	RJ-45: CAT 5e (10/100Mbps) Twisted Pair cable
	Auto MDI/MDI-X and Auto-Negotiation Function Supports
LED	Per Unit : Power 1 (Green), Power 2 (Green), Fault (Amber)
	Fiber LNK/ACT (Green): ON: Connected to network OFF: Not connected to network BLK: Receive /Transmit Data
	RJ-45 port: Speed: 10 (OFF), 100 (Green)
	LNK/ACT for RJ45(Green): ON : Connected to network/ OFF: Not connected to network/ BLK: Networking is active
Reverse Polarity Protection	Present for Power Input
Overload Current Protection	Present
Power Supply	12/24/48VDC (9.6~60VDC), Redundant power with polarity reverse protect function and removable terminal block

Power Suppl	Provide DC Power JACK adapter cable for external power adapter
Alarm Relay Contact	Relay outputs with current carrying capacity of 1 A @24VDC
	Relay Alarm Output for Power Fail or Port link down
Power Consumption	4.8W
Removable Terminal Block	Provide 2 redundant power, alarm relay contact, 7 Pin
Operating Humidity	5% ~ 95% (Non-condensing)
Operating Temperatur	-10 ~ 60°C (IMC-100M)
	-20 ~ 75°C (IMC-100M-E)
Storage Temperature	-40 ~ 85°C
Housing	Rugged Metal, IP30 Protection
Dimensions	106 x 38.6 x 142 mm (D x W x H)
Weight	630g
Installation	DIN Rail mounting or wall mounting
EMC	CE
EMI	FCC, FCC Part 15 Subpart B Class A, CE EN 55022 Class A
Railway Traffic	EN 50121-4
Immunity for Heavy Industrial Environment	EN61000-6-2
Emission for Heavy Industrial Environment	EN61000-6-4
EMS Protection Level	EN61000-4-2 (ESD) Level 3,Criteria B
	EN61000-4-3 (RS) Level 3,Criteria A
	EN61000-4-4 (Burst) Level 3,Criteria A
	EN61000-4-5 (Surge) Level 3,Criteria B
	EN61000-4-6 (CS) Level 3,Criteria A
	EN61000-4-8 (Magnetic Field)
Safety	UL60950-1
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6
Warranty	5 years
MTBF	778,604 hrs (MIL-HDBK-217)

Software Specification

Stand-alone or Web Mode

Management	Ingress/Egress bandwidth control with 64K granularity
	Web management, Firmware upgrade via Web
	Supports SNMP, MIB for management
	Supports DHCP client for automatic IP configuration
	Supports 802.1Q tag VLAN, 16 Tag VLAN group, MIB counters display
Configuation	IP configuration, password setting, converter configuration, port configuration, MIB counter, SNMP configuration, VLAN group configuration, alarm configuration
Diagnostic & Monitor	Supports Link Fault Pass-Through (LFPT) Function Broadcast/Multicast/Unicast storm filter SNMP alarm trap for power loss and port link Up/Down

In-Band Remote mode

Management	Supports in-band management from FRM220 Chassis With FRM220-1000MS card
	Ingress/Egress bandwidth control with 64K granularity
Configuation	IP configuration, converter configuration, port configuration, MIB counter, VLAN group configuration, alarm configuration
Diagnostic & Monitor	Remote loop-back test
	Dying gasp (remote power failure detection)
	Supports Link Fault Pass-Through (LFPT) Function
	Broadcast/Multicast/Unicast storm filter

Application

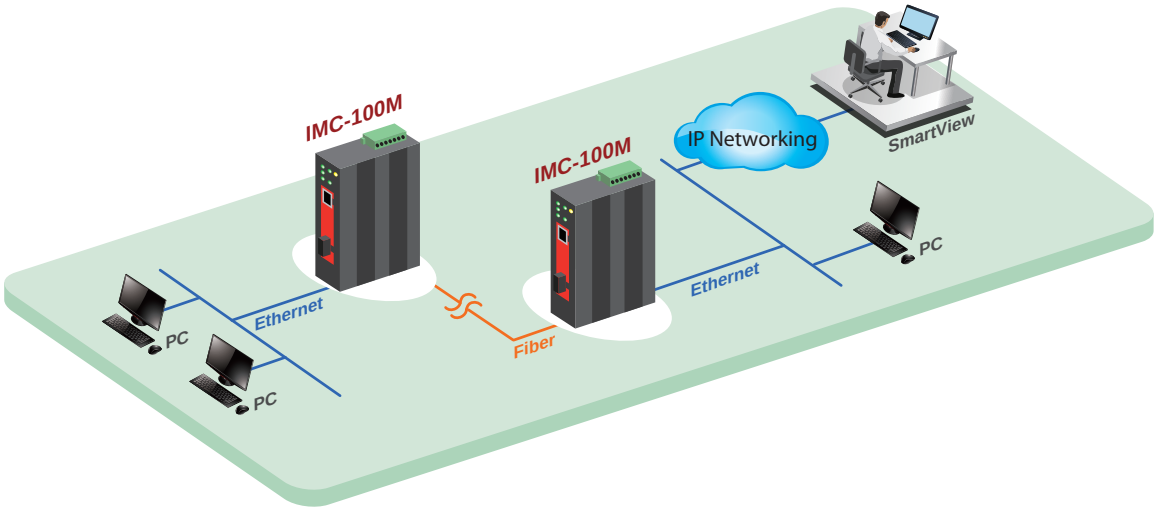


Figure : IMC-100M Application in Stand-alone SNMP management by CTCSmartView

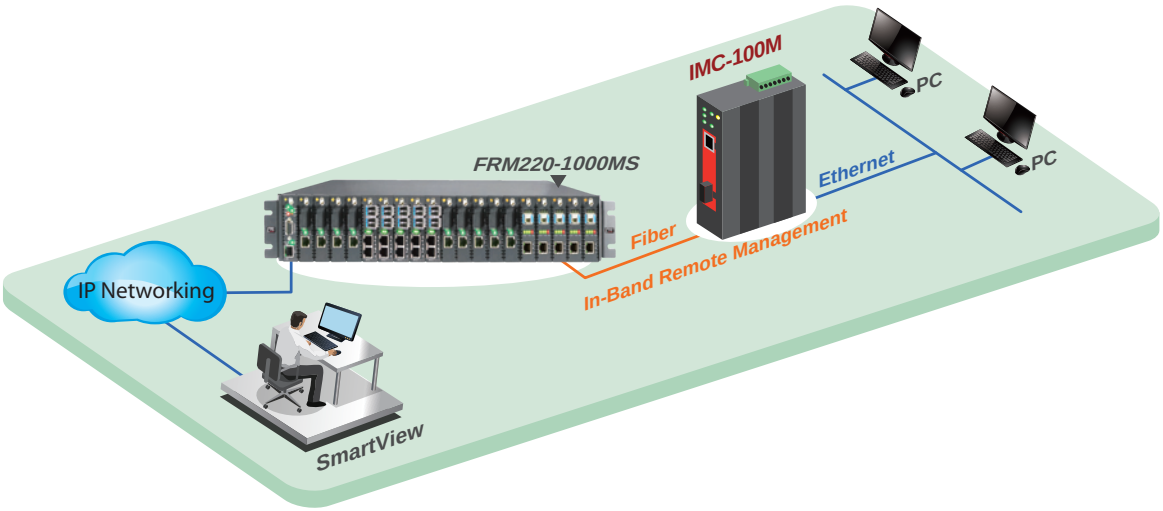


Figure : IMC-100M Application in Remote, In-Band managment

Application

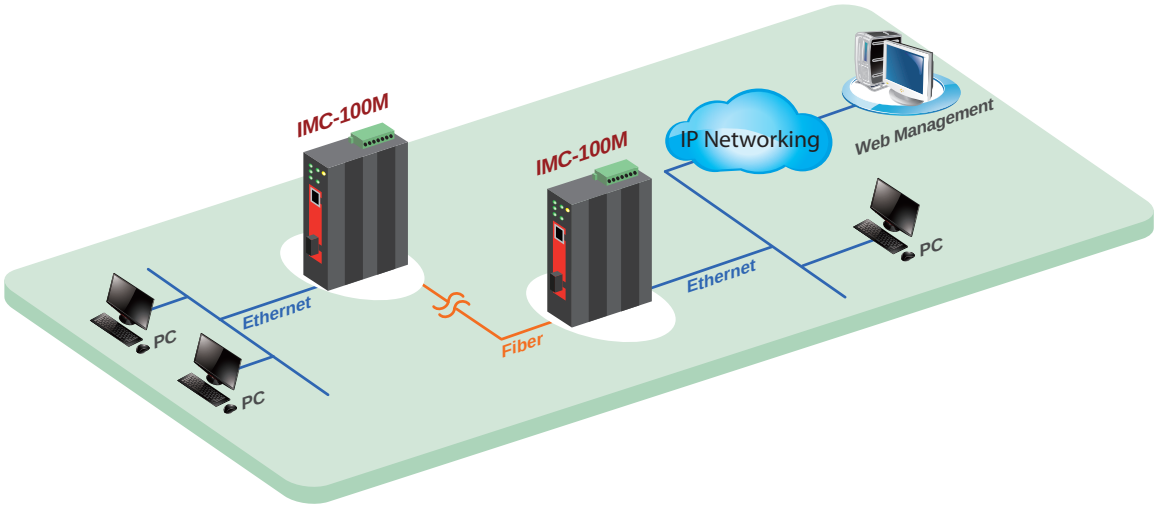
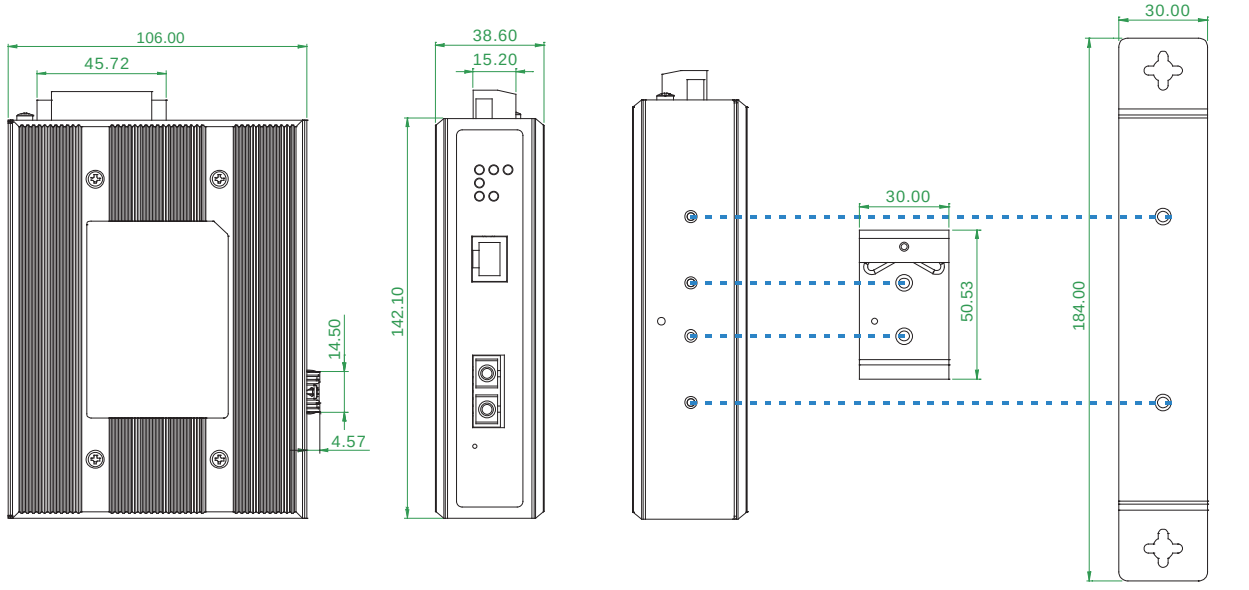


Figure : IMC-100M Application in Web Management

Dimensions



Side View | Front View | Rear View | DIN-Rail Kit View | Wall-Mount Kit View

Ordering Information

Model Name	Description
IMC-100M	Industrial Managed 10/100Base-TX to 100Base FX Fiber Converter (-10 ~ 60°C)
IMC-100M-E	Industrial Managed 10/100Base-TX to 100Base FX Fiber Converter (-20 ~ 75°C)
Connector Type	**Connectivity Distance**
SC	002: 2KM (M/M) 030k : 30km (S/M) 050: 50km (S/M) 020A: WDM 20km A type (TX:1310nm) 020B: WDM 20km B type (TX: 1550nm)

Accessories

DR-4524	Industrial Power, Input 85 ~ 264VAC, Output 24VDC, 48W, -10 ~ +50°C
MDR-40-24	Industrial Power, Input 85 ~ 264VAC, Output 24VDC, 40W, -20 ~ +70°C

Temperature | Connector Type | Connectivity Distance

IMC–100M – □ – □□□□□

Example: IMC–100M – E – SC002