IE-MiniFiberLinX-II

DS-IE-MiniFiberLinX-II-1313

SNMP-MANAGEABLE OPTICAL ETHERNET DEMARCATION UNIT FOR 10/100 MBPS ETHERNET

Compact Fiber Optic CPE Device for Industrial-Grade Delivery of Transparent LAN Services over Fiber, with Media Conversion, Carrier Grade Remote Management and Line Provisioning Capabilities.

Features and Benefits

- Smallest stand-alone fiber optic network interface device
- VLAN compatible - secure and separate customer traffic
- VLAN filtering
- Supports passive 802.3ah OAM (Operations, Administration & Management)
- Bandwidth limiting per port/per direction
- Extra Tagging (Q-in-Q)
- -48 VDC terminal for Telco applications*
- Supports Remote Loopback with MAC Address Swap
- Last Gasp SNMP Trap support*

Management

- Carrier-grade SNMP management and line provisioning
- Link Loss and Loopback troubleshooting
- Free iView² software allows remote bandwidth management and traffic prioritization

"Industrial Equipment" (IE) features for operation in difficult environments

- Extended temperature functionality, up to -45° to +85° C
- Multiple power options: AC, DC and Power over Ethernet (PoE)
- DIN Rail mountable (DIN clips sold separately)

Transparent LAN service providers require remote management capabilities, and must be able to isolate management traffic and customer data. The compact IE-MiniFiberLinX-II, functioning as a more advanced Network Interface Device (NID), is designed for operation by service providers and campus network administrators. It provisions point-to-point fiber optic connections and provides a remote network interface at the customer's location that monitors the entire link between two locations.

The IE-MiniFiberLinX-II for fiber optic networks allows service providers to deliver managed, high-bandwidth "triple play" voice, video and data services to the customer premises.

As a copper-to-fiber media converter, the IE-MiniFiberLinX-II allows low-cost copper switches to connect to the fiber line. Offering unparalleled flexibility, the it supports multiple fiber types including multi-mode and single-mode as well as single-strand fiber, doubling the capacity of installed fiber. Coarse Wavelength Division Multiplexing (CWDM) functionality is also an option.

The IE-MiniFiberLinX-II comes equipped with one 100 Mbps fiber port for data and management, one 10/100 twisted pair port for customer data, as well as an RS-232 port for local configuration on the unit during installation.

The IE-MiniFiberLinX-II supports multiple powering options. Use the included AC power adapter or use the DC terminal block. Additionally, the IE-MiniFiberLinX-II with Telco Power models support -48 VDC office batteries that are commonly used in Telco applications*. Also compliant with the IEEE 802.3af Power over Ethernet standard, the IE-MiniFiberLinX-II can function as a Powered Device (PD) to draw power when connected to 802.3af-compliant Power Sourcing Equipment (PSE).

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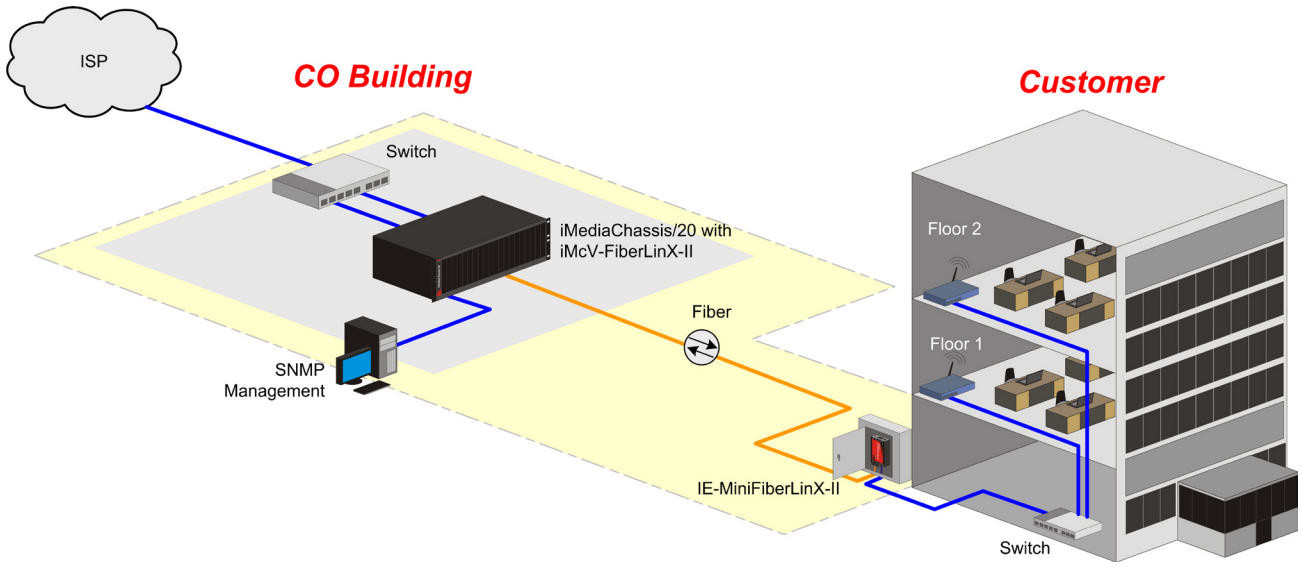
PRODUCT INFORMATION

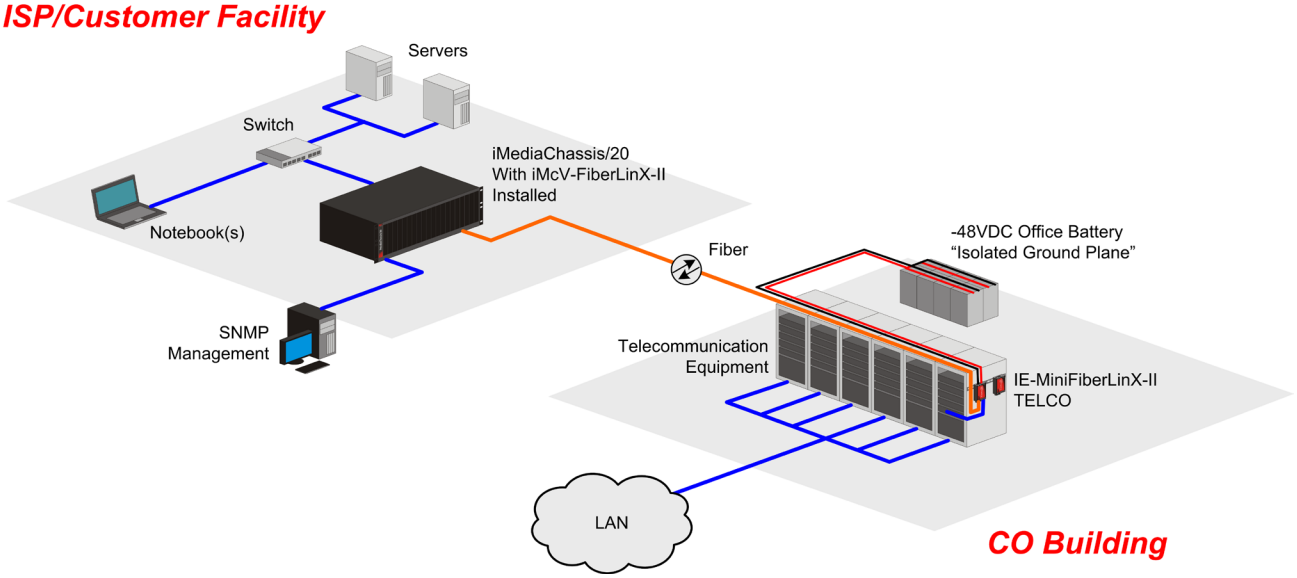
Application Examples

In this diagram, the ISP supplies Ethernet services to Central Office via a copper switch, which is then converted to fiber by the iMcV-FiberLinX-II module, effectively delivering internet access to its subscribers up to 100 km away. The IE-MiniFiberLinX-II at the Customer Premises is being IP-lessly managed via the iMcV-FiberLinX-II in the iMediaChassis/20 which is located at the CO Building.



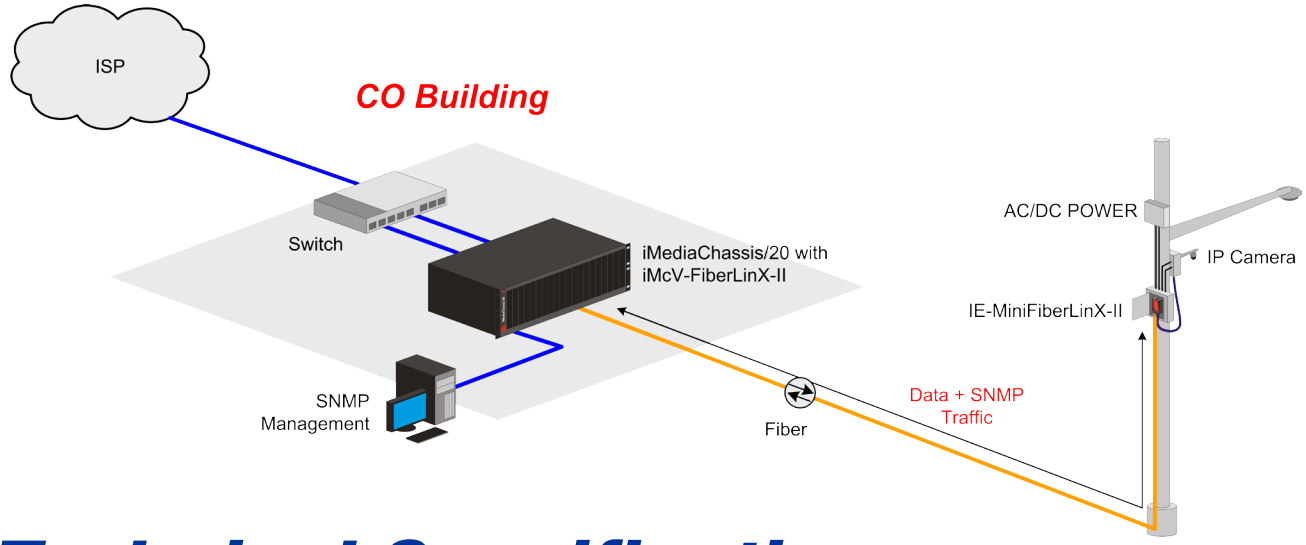
2) -48 VDC Telco Power and the IE-MiniFiberLinX-II

Network operators can deploy a single IE-MiniFiberLinX-II as a CPE device in stand-alone applications. At the Central Office (CO), a copper switch connects to the IE-MiniFiberLinX-II at the customer premises. Here, the IE-MiniFiberLinX-II with Telco Power is managed from the ISP via SNMP and is powered by a typical -48 VDC power supply found in Telco applications.



3) Last Gasp TRAP and the IE-MiniFiberLinX-II

Due to the small size and extended temperature functionality of the IE-MiniFiberLinX-II, its versatility allows it to be installed in tight spaces without the need to be temperature controlled. In this application, the IE-MiniFiberLinX-II with Telco Power and Last Gasp is installed in a light pole, converting fiber to copper for an IP camera. In the event of a loss of connectivity, the Last Gasp TRAP feature notifies the Network Engineer as to whether or not the power has failed or if a data cable has been broken without having to send a technician to the site.



Technical Specifications

Networking

General

- Preserves complete end-to-end fiber connection integrity
- Bi-directional bandwidth control (per port, per direction, per VLAN)
- Read/write IEEE 802.1Q VLAN-tags
- Extra Tagging with Q-in-Q mode (802.1p)
- Supports passive 802.3ah OAM (Operation, Administration & Management)
- QoS: IEEE 802.1p-based packet prioritization (2 queues [high/low] with 8 levels of priority)
- VLAN filtering up to 32 values
- Layer 2 packet switching, store and forward operation
- Forwarding rate: 14,881 pps for 10 Mbps; 148,810 pps for 100 Mbps
- AutoCross for MDI/MDIX
- Features Auto Negotiation and Selective Advertising
- Supports Half and Full-Duplex operation
- MTU: Supports over-sized packets up to 1916 bytes per packet

Security

- Password Control
- Multiple Access Levels: User Assigned Accounts & Access Levels

Ethernet Types Supported

- IEEE 802.3i 10Base-T twisted pair
- IEEE 802.3u 100Base-TX twisted pair
- IEEE 802.3u 100Base-FX or SX fiber

Management

- SNMP V1 and V2c compatible
- Includes GUI-based iView² software for remote management and upgrades
- Monitors far-end (remote) status without a physical presence or separate connection
- IEEE 802.3x Flow Control
- Includes DHCP and TFTP clients
- Supports Telnet
- Includes loopback test modes (MAC swap)
- Includes LinkLoss and FiberAlert
- Remote capabilities with built-in support for UMA (IP-less management)
- RS-232 (Craft) interface for local management
- Serial cable for direct connection to a PC's Serial Port

Physical Specifications

Fiber Types Supported

- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Single-strand fiber or CWDM

Connectors:

- RJ-45, and ST or SC

Dimensions:

- 0.83"H x 1.80"W x 3.35"D (2.11 x 4.57 x 8.51 cm)

Environmental

Humidity:

- 5% - 95% (non-condensing)

Operating Temperature:

- -49° to +185° F (-45° to +85° C) DC Telco -13° to +167° F (-25° to +75° C) DC Adapter
- +14° to +122° F (-10° to +50° C) AC Adapter

Storage Temperature: z

- -49° to +185° F (-45° to +85° C)

Power

AC Wall Adapter:

- 100 to 240 VAC ±10% input, 5 VDC output, 2A max.

DC Input Voltage:

- 12 to 48 VDC *, 1 to .02A, 7 to 50 VDC, 1 to 0.1A

IEEE 802.3af Power over Ethernet

* Telco compatible 48 VDC allows for an absolute maximum voltage of 56.5 VDC.

Technical Specifications (cont.)

MIB:

- Traps (Cold Start, Warm Start, Authentication Failure, Link Up, Link Down, Remote Unit Lost, Remote Unit Back Online, Far End TX Link On and Far End TX Link Off, Last Gasp)
- Link Status of Ports
- Port Type
- Fiber Type
- SNMP Port (Host/Remote)
- SNMP Agent IP Address
- (Host/Remote/Single)
- Link Partner
- User-Definable Name of Product
- User-Definable ID/Name of Ports
- Enable/Disable Ports
- Enable/Disable FiberAlert
- Enable/Disable loopback modes
- Set Duplex Mode for Twisted Pair Ports
- Set Auto Negotiation/Speed for Twisted Pair Ports

MIB-II (RFC 1213):

- Packets Transmitted
- Packets Received
- Octets (bytes) Transmitted
- Octets (bytes) Received
- Plus All Standard MIB II Objects

RMON Statistics provided for:

- Drop Events
- Total Bytes
- Total Packets
- Broadcast Packets
- Multicast Packets
- CRC Align Errors
- Undersize Packets
- Oversize Packets
- Fragments
- Jabbers
- Collisions
- Distribution of Frame Size

Ordering Information

STANDARD W/ AC ADAPTER	W/ TELCO POWER	W/ TELCO POWER & LAST GASP	DESCRIPTION	DISTANCE
IE-MiniFiberLinX-II TP-TX/FX **				
856-19717	856-17620	856-17720	IE-MiniFiberLinX-II, TP-TX/FX-MM850-ST	2 km
856-19718	856-17621	856-17721	IE-MiniFiberLinX-II, TP-TX/FX-MM850-SC	2 km
856-19722	856-17622	856-17722	IE-MiniFiberLinX-II, TP-TX/FX-MM1300-ST	5 km
856-19723	856-17623	856-17723	IE-MiniFiberLinX-II, TP-TX/FX-MM1300-SC	5 km
—	856-17624	856-17724	IE-MiniFiberLinX-II, TP-TX/FX-SM1310-ST	10 km
—	856-17625	856-17725	IE-MiniFiberLinX-II, TP-TX/FX-SM1310-SC	10 km
856-19724	856-17626	856-17726	IE-MiniFiberLinX-II, TP-TX/FX-SM1310/PLUS-ST	30 km
856-19725	856-17627	856-17727	IE-MiniFiberLinX-II, TP-TX/FX-SM1310/PLUS-SC	30 km
856-19726	856-17628	856-17728	IE-MiniFiberLinX-II, TP-TX/FX-SM1310/LONG-ST	80 km
856-19727	856-17629	856-17729	IE-MiniFiberLinX-II, TP-TX/FX-SM1310/LONG-SC	80 km
856-19730	856-17631	856-17731	IE-MiniFiberLinX-II, TP-TX/FX-SM1550/LONG-SC	80 km
—	856-17630	856-17730	IE-MiniFiberLinX-II, TP-TX/FX-SM1310/XLONG-SC	100 km
856-19728	856-17632	856-17732	IE-MiniFiberLinX-II, TP-TX/FX-SM1550/XLONG-SC	100 km
IE-MiniFiberLinX-II TP-TX/SSFX Single-Strand Fiber * **				
856-19750	856-17640	856-17740	IE-MiniFiberLinX-II, TP-TX/SSFX-MM1300-SC (1550rcv)	2 km
856-19751	856-17641	856-17741	IE-MiniFiberLinX-II, TP-TX/SSFX-MM1550-SC (1310rcv)	2 km
856-19752	856-17642	856-17742	IE-MiniFiberLinX-II, TP-TX/SSFX-SM1310-SC (1550rcv)	20 km
856-19753	856-17643	856-17743	IE-MiniFiberLinX-II, TP-TX/SSFX-SM1550-SC (1310rcv)	20 km
856-19754	856-17644	856-17744	IE-MiniFiberLinX-II, TP-TX/SSFX-SM1310/PLUS-SC (1550rcv)	40 km
856-19755	856-17645	856-17745	IE-MiniFiberLinX-II, TP-TX/SSFX-SM1550/PLUS-SC (1310rcv)	40 km
856-19756	856-17646	856-17746	IE-MiniFiberLinX-II, TP-TX/SSFX-SM1310/LONG-SC (1550rcv)	60 km
856-19757	856-17647	856-17747	IE-MiniFiberLinX-II, TP-TX/SSFX-SM1550/LONG-SC (1310rcv)	60 km

* Single-strand fiber modules should be paired to an iMcV-FiberLinX-II module that is also single-strand fiber to allow for Host/Remote management. It is not recommended to use IE-MiniFiberLinX-II modules back-to-back, as they are strictly a CPE devices.
** CWDM wavelengths are also available. Contact B&B Electronics for a complete list of part numbers.

ISO 9001:2008 REGISTERED

6-YEAR Comprehensive Warranty

B&B ELECTRONICS

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