

# AccessEtherLinX/4

# Offering a host of capabilities unique to Ethernet-based CPE, the AccessEtherLinX/4 is the price/performance market leader.

#### Small Footprint, Full-Featured

- Read/write 802.1Q VLAN-tags on a per-port basis
- QoS: 802.1p-based packet prioritization
- Allows configuration via Telnet, serial port (CRAFT) or SNMP (iView<sup>2</sup>)
- Remote software upgrades
- Set bi-directional bandwidth control
- Supports IGMP multicast pruning
- Includes RMON statistics

#### **Integrated Solution**

- Lowers the cost of provisioning fiber services
- Optical demarcation and active switching
- SNMP-Manageable

#### **Secure Solution**

- VLAN-tagging segregates customer traffic
- Managed only through the Uplink port

#### **Flexible Solution**

- Available with four downlink ports
- Available for single-strand fiber and CWDM fiber wavelengths

#### AccessEtherLinX/4

- Four 10/100 twisted pair Ethernet downlink ports (for connecting users/LANs)
- One uplink port (either 100Base-FX fiber or 10/100 twisted pair)
- Internal AC power supply.



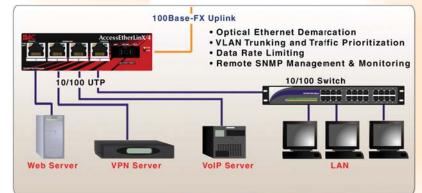
The AccessEtherLinX/4 enables service providers to offer differentiated, "Transparent LAN" services to multi-tenant building and business customers. Residing at the customer premises, the AccessEtherLinX/4 provides a VLAN-based, Layer 2 entry point to the last mile fiber network, trunking, differentiating and separating customer traffic.

Featuring SNMP management, 802.1Q VLAN, 802.1p QoS, traffic prioritization, bandwidth control and multicast pruning/ snooping (using IGMP v1, v2), the AccessEtherLinX/4 is perfect for a wide range of Fiber to-the-Home, Fiber-to-the-Curb and Fiber-to-the-Business (collectively "FTTx") services, and is an ideal solution for delivering those Ethernet based services to customers quickly and cost-effectively. Designed with a small footprint, the AccessEtherLinX/4 facilitates easy installation inside the premises.

Bandwidth control and 802.1Q VLAN compatibility built-in: The AccessEtherLinX/4 accepts traffic containing VLAN tags on the Uplink port and directs traffic to the twisted pair downlink ports or to management based on VLAN ID. In addition to assigning 802.1Q VLAN-tags on a per-port basis, priority can be defined for each port and SNMP tag; traffic is divided into a hi/low level for packet prioritization in the queue. The AccessEtherLinX/4 also includes bi-directional bandwidth control, and supports IGMP multicast pruning to ensure the necessary amount of IP multicast packets are bridged.

### **Application Example**

For residential and commercial fiber services, install the AccessEtherLinX inside the customer premises to provide a bridge between the customer and service provider networks. Multiple services can be connected to the same AccessEtherLinX.



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# **Technical Specifications**

#### **Ethernet Types supported:**

- IEEE 802.3i Ethernet 10Base-T IEEE 802.3u Fast Ethernet (100Base-TX and 100Base-FX)
- · Features Auto-Negotiation and Selective Advertising
- Supports Half and Full-Duplex operation
- · Includes bi-directional bandwidth control
- Read/write IEEE 802.1Q VLAN-tags
- QoS IEEE 802.1p-based packet prioritization (two queues [high/low] with eight priority levels)
- Supports IGMP multicast pruning (v1/v2) Layer 2 packet switching, store and
- forward operation • Includes LinkLoss and FiberAlert
- Forwarding rate: 14,880pps for 10 Mbps; 148,800pps for 100 Mbps
- 1024 MAC address learning
- MTU: Supports over-sized packets up to 1916 bytes

#### Management

- Includes GUI-based iView<sup>2</sup> software
- SNMP V1 and V2c compatible
- Supports Telnet and RS-232 Craft
- Managed through uplink
- IEEE 802.3x compliant for Flow Control Includes loopback test modes

Fiber Optics Specifications

- (MAC Swap) Includes DHCP and TFTP clients for
- remote management and upgrades
- Includes diagnostic LEDs

- IMC MIB:
- Traps (Cold Start, Warm Start, Link Up, Link Down, Authentication Failure)
  - Link Status of Ports
- Port Type • Fiber Type\*
- User-Definable Name of Product User-Definable ID/Name for Ports
  - Enable/Disable Ports
- Enable/Disable FiberAlert
- Set for Auto-Negotiation/Selective Advertising
- Force speed and Duplex Mode for twisted pair ports

#### MIB-II (RFC 1213):

- Packets Transmitted
- Packets Received
- Octets (bytes) Transmitted
- Octets (bytes) Received
- Unicast Packets Transmitted
- Unicast Packets Received
- Non-Unicast Packets Transmitted
- Non-Unicast Packets Received
- Errors Received

- Total Packets • Fragments
- labbers
- Broadcast Packets

- Multicast Packets
- CRC Align Errors • Under & oversize Packets
- Distribution of Frame Size

#### Transmission Dot 3 (RFC1643):

#### Alignment Errors

- Single Collision Frames
- CRC Errors • SQE Test Errors
- · Late Collisions
- Frame Too Long
- Excessive Collisions
- Deferred Transmissions
- Multiple Collision Frames

#### **Physical Specifications**

- 50/125µm or 62.5/125µm multi-mode fiber
- 9/125µm single-mode fiber
- Available for single-strand fiber and
- CWDM fiber wavelengths AutoCross for automatic MDI-II/MDI-X switching

#### Connectors:

RJ-45, ST and SC

#### **Regulatory Approvals:**

FCC Class A UL/cUL, CSA CF

**Operating Temperature:** 32° to 122°F (0° to 50°C)

Storage Temperature:

-13° to 158°F (-25° to 70°C)

**Humidity:** 5 to 95% (non-condensing)

Altitude:

0 to 10,000 ft.

Dimensions

1.5" H x 4.75" W x 7.25" D (3.18 cm x 12.07 cm x 18.42 cm)

**Power Rating** 

1.6 lbs. (0.6 kg) **Shipping Weight:** 1.6 lbs. (0.6 kg)

For each product listed below in the Ordering Information section, the DISTANCE represents an approximate fiber distance based on industrystandard fiber attenuation specifications. Actual distances will vary for each installation. For complete power budgets and information on calculating specific distances, visit www.imcnetworks.com/go/fcs or contact IMC Networks Fiber Consulting Services at 949-465-3000.

# **Ordering Information**

PART NUMBER	DESCRIPTION	DISTANCE
AccessEtherLinX/4		
852-13120	TX/4 + TX	100 m
852-13121	TX/4 + FX-MM1300-ST	2 km
852-13122	TX/4 + FX-MM1300-SC	2 km
852-13123	TX/4 + FX-SM1310/PLUS-ST	40 km
852-13124	TX/4 + FX-SM1310/PLUS-SC	40 km
852-13125	TX/4 + FX-SM1310/LONG-ST	80 km
852-13126	TX/4 + FX-SM1310/LONG-SC	80 km
852-13127	TX/4 + FX-SM1550/LONG-SC	80 km
AccessEtherLinX/4 Single Strand Fiber *		
852-10133	TX4 + SSFX-SM1310-SC	20 km
852-10134	TX4 + SSFX-SM1550-SC	20 km
852-10135	TX4 + SSFX-SM1310/PLUS-SC	40 km
852-10136	TX4 + SSFX-SM1550/PLUS-SC	40 km
852-10137	TX4 + SSFX-SM1310/LONG-SC	60 km
852-10138	TX4 + SSFX-SM1550/LONG-SC	60 km

\* These products have single-strand fiber technology. Deploy in pairs, or connect to another compatible IMC Networks single-strand fiber product. Go to www.imcnetworks.com/products/SSFX.cfm for more information

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#### **IMC Networks**

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Plus All Standard MIB II Objects **RMON Statistics:** 

#### Drop Events

- Collisions
- Total Bytes