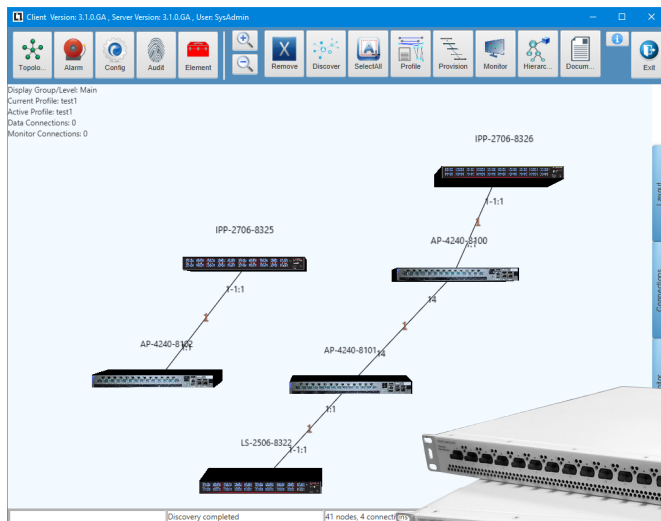


# INTELLIGENT CROSS CONNECT

## FMXC SERIES

### PRODUCT DESCRIPTION

The Intellicore ICCs - FMXC series from Legrand®, provides software-managed optical switching between any port to any other port, creating a dynamic and protocol agnostic connectivity fabric with ultra-low latency. Available in black or white, this FMXC series of intelligent cross connects offer integrated 24-fiber pinned MPO ports for a total of 160 duplex 10G fiber ports (320 fibers) in 1RU.



Legrand Management Software  
& FMXC Series



### FMXC SERIES | APPLICATIONS

- Network tapping for monitoring and signal replication for broadcasting
- Dynamic physical layer remote managed moves, adds and changes (MACs) for “lights-out” operating environments
- Colocation data center applications for remote network activation and subscriber enablement
- Laboratory automation, with application software to support schedule reconfigurations
- Built-in optical signal regeneration allows the FMXC series ICC to also be used as a repeater

### INTELLIGENT CROSS CONNECTS | FMXC SERIES

- 19-inch (1RU) rack-mountable enclosure with equipment support brackets included
- Available in black or white chassis
- Ultra-low (5 nanosecond) port-to-port latency
- On the front 1U panel, onboard OM4 multimode optics with 160 duplex ports (320 fiber strands) are terminated with fourteen 24-fiber pinned MPO aqua adapters.
- MPO adapters are connected to 24-F un-pinned MPO trunk cables to complete the network.
- 10 & 40 Gbps connections are supported, easily reconfigured via the IMS
- Each fiber strand supports a maximum of 10 Gbps per strand
- The ICC can be configured and monitored by the Intellicore Management Software (IMS), or third-party SDN controllers, with support for an HTTP API
- Multi-color LEDs at each MPO connector can be used for port verification, technical guidance and alarming, all programmed under the IMS control

### POINT TO MULTIPOINT FUNCTIONALITY

In conjunction with the Intellicore Management Software (IMS), the FMXC series of the ICCs also provide point-to-multipoint connection functionality, which is ideal for network tapping and broadcasting. This feature enables applications that require data received at a particular port to be replicated one or more times and sent to specified multiple unique output ports. The IMS provides advanced provisioning for monitoring connections to assist with complex tapping configurations in networked environments.

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## FMXC SERIES

### LAYER-1 SOFTWARE MANAGED SWITCHING

The IMS provides network-wide visibility, including discovery of network attached products in the FMXC series. Applications are designed to take advantage of the total network view, so tasks, such as provisioning end-to-end connectivity, are easily performed via point & click workflows. The IMS also provides documentation management with port labeling, reservation, asset management and more. Security is improved with audit trails providing historical records of changes to device configuration, changes to data and monitoring connections, IMS manager updates, and database backups and restoral activity. A graphical rendering of the Layer-1 topology provides a network-wide view of the physical layer. An enhanced feature, such as a path finder, for example, graphically draws the connection path on the IMS GUI from a selected port to the associated destination port.

PART #	DESCRIPTION
<b>FMXCM14MCB</b>	ICC with 14 x 24F pinned MPO receptacles (for a total of 160x160 10G duplex fiber ports) at the front panel faceplate, black enclosure
<b>FMXCM14MCW</b>	ICC with 14 x 24F pinned MPO receptacles (for a total of 160x160 10G duplex fiber ports) at the front panel faceplate, white enclosure

### INTELLIGENT CROSS CONNECT TECHNICAL SPECIFICATIONS

#### Electrical

- Voltage: 100-240 VAC at 1.5A, 50/60 HZ
- Max consumption: 100W
- Fuse: 2A Timelag

#### Environmental

- Max operating temperature 40° C, no condensation
- Storage temperature -40° C to +85° C
- Humidity 5% to 95% non condensing
- Max altitude 2000 meters, no condensation

#### Physical

- Weight: 20.8 lbs.
- Shipping Weight: 23.4 lbs.
- Dimensions: 1.75" x 17.5" x 17.5"

#### Safety

- Optical transmitters designed for EN-60825 and CDRH eye safety compliance
- IEC 60825-1 Class 1 laser eye safety compliant

#### Regulatory Compliance

- UL 94 V-0 Vertical Burn Test for all plastic components
- UL 1863 Communications-Circuit Accessories
- UL / cUL 60950-1 2nd edition
- FCC Part 15 Class B
- CISPR 22 Class B
- EN 55022 Information Technology – Radio
- Disturbance Characteristics, limits and methods of measurement
- EN 55024 Information technology equipment
- Immunity characteristics limits and methods of measurement
- IEC 61000-4-2 Electrostatic Discharge
- IEC 61000-4-3 Radiated Immunity
- IEC 61000-4-4 Fast Transients
- IEC 61000-4-5 Surge Transients
- IEC 61000-4-6 Conducted Immunity

#### Regulatory Compliance Continued...

- IEC 61000-4-8 Power Frequency Magnetic Field
- IEC 61000-4-11 Voltage Dips, Short Interruptions and Voltage Variations

#### Crosspoint Switch

- 160x160 12.5Gbps Asynchronous Crosspoint Switch as the core switching circuitry for switching up to 160 input ports to 160 output ports

#### Physical Connectivity

- 14 x MPO (Multi-fiber Push-On) faceplate connectors as defined by IEC-61754-7 and TIA-604-5-D. MPO connectors provide superior optical and mechanical performance

#### Console Port – RJ45

- Initial configuration will be via Linux CLI over the console port
- Default console port configuration should be 11500 baud, 8 data bits, no parity, 2 stop bits (9600 8N2) or 1 stop bit

#### Ethernet Management Ports

- IEEE 802.3-2012 IEEE Standard for Ethernet

#### EMC

- Directive, 2004/108/EEC

#### Optical Specifications

- Compliant to IEEE 802.3-2012 Clauses 44-55 10GbE (10GBASE-SR) per lane
- Compliant to IEEE 802.3-2012 Clauses 80-88 40GbE (40GBASE-SR4) per lane
- Compliant to IEEE 802.3-2012 Clauses 80-88 100GbE (100GBASE-SR10) per lane
- Capable of supporting fiber connections up to 150m at 10.3125 Gbps with OM4 4700 MHz-km 50µm MMF
- The optical transmitters are VCSEL arrays, and the optical receivers are PIN photodiode arrays.

INTELLICORE™

# INTELLIGENT CROSS CONNECT

## FMXC SERIES

### CHANNEL INSERTION LOSS

FIBER TYPE	MAX DISTANCE	MAX CHANNEL INSERTION	MAX CHANNEL CONNECTOR
10G OM3	300 m	2.6 dB	1.5 dB
10G OM4	550 m	2.6 dB	1.5 dB
40/100G OM3	100 m	1.9 dB	1.5 dB
40/100G OM4	150 m	1.5 dB	1.0 dB
Typical MPO Connector Insertion Loss: < 0.35 dB			

