

Data Sheet

L-x148 MAGNM™ Copper Modules

HIGHLIGHTS

- Modular Hot Swappable Line Cards
- Redundant links to Fabric/Transport modules
- Innovative Emergency Stand Alone (ESA)
- Advanced MLT, SELT and DELT line diagnostics
- Industry Leading Softswitch and Gateway Interoperability
- 864 ADSL2+/POTS subscribers per MAGNM-20 chassis
- 384 ADSL2+/POTS subscribers per MAGNM-10 chassis
- Support for SIP and MGCP on the same module
- High performance VoIP
- Distributed Multicast Processing

DESCRIPTION

The L-3148 triple play optimized Subscriber Module provides 48 ADSL2+ and digitized POTS combination ports. The L-2148 double play optimized Subscriber Module provides 48 ADSL2+ ports. The L-1148 POTS Subscriber Module provides 48 digitized POTS Ports. The MAGNM Copper Modules support distributed processing. This distributed architecture ensures that MAGNM performance does not decrease as additional Subscriber Modules are added. Each Subscriber Module has dedicated links to each Fabric Module, redundant connections to each of the power inputs, and is fully hot-swappable ensuring maximum resiliency and serviceability.



Boasting an impressive list of certified interoperable softswitches and gateways from leading vendors, the MAGNM Copper Modules ensure a smooth VoIP deployment. The flexible VoIP implementation supports SIP or MGCP on a per port basis, an industry first.

Utilizing high performance ADSL2+ chipsets, the MAGNM Copper Modules are designed for ultra-broadband applications, with no performance penalty when all ports are active. The POTS function employs dual state-of-the-art Digital Signal Processors (DSPs) to ensure maximum performance and reliability.

Enableness employs unique G.BOND line bonding control software which allows any ports on a card to be bonded, not just sequential ports. This approach increases operational simplicity by allowing bonding to be applied on a per subscriber basis with no disruption to adjacent used subscriber ports or copper cross connects.

KEY FEATURES

- IGMP Snooping optimized for IPTV deployments
- Standards based (G.BOND) ADSL2+ line bonding
- Flexible QoS capabilities for triple play service offerings
- MAC and IP Address locking security
- Granular Filtering Capabilities
- Fully Manageable with Enableness's Broadband Access Manager (BAM)

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Specifications

Interfaces

- 48 ADSL2+ ports with VoIP enabled POTS (L-3148)
- 48 ADSL2+ports (L-2148)
- 48 VoIP enabled POTS ports (L-1148)
- Category-5 RJ-21 connectors

General

- IEEE 802.1Q — Virtual LANs with Port based VLANs
- DIFFSERV
- MAC Forced Forwarding
- IGMP v1/v2/v3 snooping
- DHCP relay/Option 82
- MAC Address Locking
- IP Address Locking
- Granular Rate Shaping

ADSL Standards/Functions

- ANSI T1.413 issue 2
- ITU G.992.1 (G.dmt)
- G.992.2 (G.lite)
- G.992.3 (ADSL2)
- G.992.3 (Annex-L),
- G.992.3 (Annex-M)
- G.992.5 (ADSL2+)
- G.992.5 (Annex-M)
- G997.1 (G.BOND)
- SELT
- DELT

Management

- SNMP
- Command Line Interface via RS-232, Telnet, and SSH
- XML
- SNTIP
- Syslog
- FTP

POTS Voice

- Advanced Call Services
- CLASS feature support
- 3-way calling
- Emergency Stand Alone (ESA)
- G.711 PCM
- SIP or MGCP signaling
- RFC-2833
- G.168 echo cancellation
- GR-909 MLT
- Loop Start

Compliance

- NEBS Level 3 (GR-63-CORE/GR-1089-CORE)
- EMC: FCC part 15 Class A, EN55022
- Safety: UL/CSA 60950, EN60950/IEC 950
- Telecom: US TIA IS 968, Canada
- CS03, EU RTT & E directive 1999/5/EC

Environmental

- Ambient Operating temperature -40° to 65°C
- Relative Humidity: 10 to 90% non-condensing

Ordering Information

- **L-3148**
- ADSL2+/POTS combo subscriber module with 48 ports, Includes CAM
- **L-3148-ESA**
- Emergency Stand alone (ESA) license for L-3148. One license required per module in an ESA domain
- **L-2148**
- ADSL2+ module with 48 ports, Includes CAM
- **L-1148**
- POTS subscriber module with 48 ports, Includes CAM
- **L-1148-ESA**
- Emergency Stand alone (ESA) license for L-1148. One license required per module in an ESA domain

About Enablence

Enablence Technologies Inc., (TSX: ENA-V) a publicly traded company headquartered in Ottawa, Canada, designs, manufactures and sells optical components, subsystems and systems to a global customer base.

Enablence's Systems Division has an expanding fiber-to-the-premise (FTTP) product portfolio featuring a variety of architectural options. It enables service providers to evolve their access networks from traditional copper-based networks to advanced optical communications access networks that are based on state-of-the-art IP and Ethernet standards, for triple-play voice, video and data services including HDTV, IP Telephony and ultrafast internet access. The Division's network equipment has been deployed with 420 service providers worldwide that serve over 4 million subscribers.

Enablence's Optical Components and Subsystems Division is a global leader in applying Planar Lightwave Circuit (PLC) technology to integrate multiple components into a single optical chip to reduce footprint and costs. Network and equipment designers around the world turn to Enablence for a variety of components and subsystems for access, metro and long-haul including transceivers, splitters, waveguides, optical channel monitors, multiplexers, ROADMs, switches, tunable dispersion compensators, and photodiodes. The Division serves over 120 system and subsystem developers and its products have been integrated in all major communications networks worldwide, serving tens of millions of subscribers.