

ZHONE MXK EFM SHDSL 24 NTP / NTWC

SHDSL EFM LINE CARD FOR MXK

The MXK-EFM-SHDSL-24-NTP provides 24 Individual Single Copper pair SHDSL Lines, allowing for Data Rates ranging from 144Kbps up to 5.7Mbps symmetrical Bandwidth per Port.

The MXK-EFM-SHDSL-24 also supports Loop Bonding (either EFM bonding or Ethernet Loop Bonding), which allows the Service Provider to bond multiple Copper Pairs together for Bandwidths of over 22Mbps per End User (using the ETHX-3344 CPE) and over 45Mbps to a single End User (using the ETHX-3384 CPE). The MXK-EFM-SHDSL-24-NTP provides Network Timing for Remote Devices as well as Power on each Loop.



- Seamless Migration from pre standard Ethernet based SHDSL to full 802.3ah compliance using 2Base-TL and Ethernet OAM.
- Works in the MXK Chassis alongside the most flexible Family of Line Cards in the Industry
- Compatible with all SHDSL Network Extender Products as well as new EFM compliant Ethernet Access Devices.
- Industry Leading MTM Traffic Management provides IP QoS, Traffic shaping, and dynamic Bandwidth Allocation to support Video, VoIP, and other Applications.
- Supports Loop Bonding using EFM or Pre Standard Bonding for Maximum Deployment Flexibility.
- Automatic Loop Bonding with Hitless Adds & Drops for reliable and resilient bonded Connections

| INTERFACES | BANDWIDTH / DISTANCE |
|--|--|
| 24 extended Rate (5.7 Mbps) SHDSL Interfaces (Front Panel-50 Pin Amphenol) | Data Rates provisionable up to 5.7 Mbps symmetrical |
| STANDARDS SUPPORT | REGULATORY COMPLIANCE |
| ITU G.991.2 G.SHDSL | Distances up to 24,000 ft/7,320m |
| ITU G.994.1 G.Handshake | NEBS Level 3 compliant, RUS listed |
| IEEE 802.3 Ethernet | Safety: UL 60950 3rd Edition, CSA 950 3rd Edition, EN 60950, AS / NZS 3260, TS 001 |
| IEEE 802.3ah Ethernet in the First Mile (2 Base-TL) | Emissions: EN 55022A, CFR47 PART 15A (FCC) |
| IEEE 802.3ah OAM | Immunity: NEBS GR-1089-Core Level 3, EN 55024, EN 55082-1, T1.601-1992 |
| IEEE 802.1Q/p | Environmental: NEBS GR-63-Core Level 3, GR-487, ETS 300 019-2-x, ISTA |
| PROTOCOL SUPPORT | OPERATING REQUIREMENTS |
| Multicast IGMP v1 / v2 | Temperature: -40°C-65°C |
| Host based Routing per Interface single IP Address Assignments | Non operating Temperature: -40°F-158°F (-40°C-70°C) |
| Network based Routing per Interface IP Subnet Address Assignments | Humidity: Up to 85%, non condensing |
| IP Host and Gateway Support | |
| RFC 1483/2684 Encapsulation | |
| DHCP Server (RFC 2131, 2132), DHCP Relay | |
| Bridging 802.1D Support | |
| VLAN 802.1Q Support | |
| Dense / Sparse Multicast Support | |
| Integrated Access Control and Content Protection | |

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| MANAGEMENT | Altitude: -200 ft-16,500 ft (-60m-5,000m) |
| ZMS (Zhone Management System) via SNMPv2c for GUI and CORBA IDL Machine Interface | |
| Terminal for Command Line Interface (CLI) | |
| Out band IP via 10/100 Ethernet or V.24 Serial for Async Terminal | |

| MODEL | BESCHREIBUNG |
|-----------------------|--|
| MXK-EFM-SHDSL-24-NTP | 24 port EFM SHDSL line card with network timing and line power for MXK 319, 819 & 823 chassis |
| MXK-EFM-SHDSL-24-NTWC | 24 port EFM SHDSL line card with network timing and wetting current for MXK 319, 819 & 823 chassis |