DZS
Enabling the
Hyper-Connected World

DATA SHEET

MXP-1648 2UP VDSL2+POTS MSAN

MX-1648 / MXP-1648 Front and Rear Views

Features

- Triple-Play Services in a 1U Multi Service Access Node (MSAN)
- 48 Port VDSL2 17a (with ADSL2+ fallback) with VoIP POTS
- Vectoring support to increase data rates and distance (rate and reach) over the same copper facility
- SLMS family member supporting industry-leading multimedia traffic management
- First in family featuring of 8-port bonding capability
- Environmentally Hardened
- Full-Featured VoIP: MGCP, SIP, SIP-PLAR, 248

Overview

The DASAN Zhone MXP-1648 provides next generation MSAN and MDU ONU features in a compact, hardened form-factor that makes it easy and cost-effective to deliver uncompromised triple play services throughout serving area. Models are available with 48VDSL2 17a Ports with integrated, full featured VoIP POTS (MGCP, SIP, SIP-PLAR, H.248). Offering double the port density in the same form factor as the MXP-160, this MXP family product is designed for easy configuration and management via built-in Web Graphical Interface. It's compact design allows easy deployment in remote cabinets and space constrained central offices. Vectoring support is featured on the MXP-1648 family, providing best in class speeds and increases the loop length of the clients served by utilizing board-level noise mitigation and cancelling. The MXP-1648 offers two Active Ethernet uplink interfaces. The Fast/Gigabit Ethernet interfaces on MXP family products can be configured as linear, ring, or aggregated links. DASAN Zhone's MXP-1648 VDSL2 solution offers full-rate VDSL2 17a performance for packet-based service delivery. This low-power, fully programmable, high performance solution enables service providers to cost-effectively generate additional revenue through their triple-play offering, including the different iterations of video services emerging in the marketplace. As an end-to-end solution, DASAN Zhone offers VDSL2 CPE and CO products to offer high-speed, long reach and low cost solutions for multi-tenant and multi-dwelling unit (MxU), remote terminal and CO deployments.

Ease of Management
MXP-1648 provides simple yet powerful management facility via embedded Web GUI along with complete NMS integration.

Triple Play Services
MXP-1648 includes high-performance packet switching with advanced IP capabilities to deliver secure, reliable, and efficient voice, data, and video services. Now service providers can offer compelling bundles of multi-line voice, high-speed Internet access, and multi-set IP video (including HDTV) over their existing copper infrastructure. MXP-1648 is defined by its ease of use and packet processing/switching capability to support rich triple-play services on each subscriber port.

Optical or Copper Transport
MXP-1648 provides two SFP+ 10Gigabit Ethernet uplinks, supporting both copper and fiber, to provide simple cost-effective transport. The two 10GigE ports allow for daisy-chained linear or ring deployments, and on rings the MXP-1648 provides standards-based EAPS support.

End-to-End Access Management
The easy-to-use DASAN Zhone Management System (ZMS) provides OSMINE-certified management and provisioning across the access network, from CPE to the Central Office. The MXP-1648 is fully remote managed, allowing carriers to reduce service turn-up intervals, reduce truck rolls, and ultimately, improve customer service.

Specifications

WEIGHT & DIMENSIONS

- 1.72in H x 17.32in W x 9.06in D
- 4.37cm H x 43.99 cm W x 23.02 cm D
- 10lbs (4.53kg)

POWER

- DC: -43.75V to -59.90V (Dual/Redundant Inputs)
- Optional AC and Line Power Supplies
- 80 Watts nominal, 198 Watts maximum

STANDARDS SUPPORT

- ITU-T 999.1 (VDSL2) Link layer interface
- ITU-T 993.2 (VDSL2)
- VDSL2 Bonding
- ITU-T 992.5 (ADSL2+) Fallback
- ADSL2+ Bonding
- SELT/DELT
- ITU-T G.984 (GPON)
- IEEE 3 Ethernet
- IEEE 802.1p
- IEEE 1Q
- IEEE w
- IEEE 802.3ad

Voice:

- MGCP (RFC 3435) signaling
- SIP (RFC 3261) signaling
- MEGACO/H.248 signaling
- 711 encoding with G.168 echo cancellation
- 729 with G.711 fallback
- 38 Fax Relay
- Integrated Emergency Stand-Alone (ESA)
- Hybrid signaling support
- Loopstart

MANAGEMENT

- In-band IP
- Out-band IP over 10/100BT Ethernet or 24 RS-232 serial for async terminal
- ZMS (DASAN Zhone Management System, 3.01.00.146, service pack 4) via SNMP v2c for GUI and CORBA/XML Northbound interface
- Embdedded Web Graphical Interface
- Command Line Interface (CLI)

Specifications

OPERATING REQUIREMENTS

- Operating Temperature: -40°F to 149°F (-40°C to 65°C)
- Storage temperature: -40°F to 158°F (-40°C to 70°C)
- Humidity: Up to 85%, non-condensing
- Altitude: -200ft to 16,500ft (-60m to 5,000m)

PROTOCOL SUPPORT

- IP host and gateway support
- EAPS RFC3619 support
- RIP v1 (RFC 1058) RIP v2 (RFC 2453)
- RFC 1483/2684 encapsulation
- DHCP server (RFC 2131, 2132)
- DHCP Relay with Option 82
- Bridging 802.1D support
- VLAN 1p/q support
- RSTP 802.w support
- Link Aggregation and LACP 3ad support
- Dense / sparse multicast support, IGMPv2
- Integrated access control and content protection
- RADIUS Authentication

INTERFACES

- Uplink Interfaces:
    - (2) SFP+ 10G Ethernet
- Subscriber Line Interfaces:
- 48 VDSL2 17a (ITU-T G.993.2) / POTS (VoIP)
    - (2) Telco RJ11 50-pin connector
- Serial craft management interface
- 10/100BT management interface
- Alarm Output & Input connections
- Port Status LEDs
- MELT Metallic Testing Capabilities

CERTIFICATIONS

- EN 300 386 V.1.6.1
- EN 61000-4-2
- EN 61000-4-3
- EN 61000-4-4
- EN 61000-4-5
- EN 61000-4-6
- FCC Part 15 Class A
- ICES-003 Class A
- CAN/CSA C22.2 No.60950-1:2007/A2:2014
- UL 60950-1:2007/R:2014-10
- EN 60950-1:2006/A2:2013

Ordering Information

MODELS	
MODEL	**DESCRIPTION**
MXP-1648	MXP 48-PORT VDSL2, VOIP/POTS, 2 10GIGE, DUAL -48V DC W/ MELT (REQUIRES SFPS+)
MX-1648	MX 48-PORT VDSL2, NO SPLTR, 2 10GIGE, DUAL -48V DC (REQUIRES SFPS+)
MX-1648P-600	MX 48-PORT VDSL2, W/ 600 OHM SPLTR, 2 10GIGE, DUAL -48V DC (REQUIRES SFPS+)
MX-1648P-900	MX 48-PORT VDSL2, W/ 900 OHM SPLTR, 2 10GIGE, DUAL -48V DC (REQUIRES SFPS+)
MX-1624Q	COMING SOON! MX 24-PORT VDSL2, NO SPLTR, 2 10GIGE, DUAL -48V DC (REQUIRES SFPS+), ANNEX Q
MXP-1624Q	COMING SOON! MX 24-PORT VDSL2, VOIP/POTS, 2 10GIGE, DUAL -48V DC (REQUIRES SFPS+), ANNEX Q

ACCESSORIES	
MODEL	**DESCRIPTION**
XP-AC-SUPPLY	Raptor/MALC XP AC Power Supply, 90-264 VAC, 48 VDC, 150W

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