DATA SHEET

M1200T – 1U Pseudowire / Mobile Backhaul Platform

Features

- **Small footprint as Cell Site Router Product**
- **Network management via OAM (802.1ag/Y.1731)**
- **Ethernet Ring Protection (G.8032)**
- **CES Service (SAToP / CESoPSN)**
- **CAS Signaling / RBS for T1**
- **Pseudowire Encapsulation**
- **SNMPv1/v2/v3 with RMON, Alarms**
- **Improved QoS and differentiated traffic service**
- **RADIUS, TACACS+ Authentication**
- **Realtime network traffic monitoring and analyzing**
- **IEEE1588v2 TC/BC & SyncE**
- **BITS Input / Output**
- **Power: Dual -48VDC inputs**

Overview

DASAN Networks' small footprint M1200T platform can be used for various applications, including migration of existing TDM based legacy services to a next-generation networks and mobile backhaul applications. With low power consumption and high service scale, M1200T is optimized for small aggregation and remote point-of-presence (POP) applications making it a highly cost effective option. The M1200 provides four 10 gigabit Ethernet ports, 16 gigabit Ethernet ports (8 electric and 8 optic, fixed) and 8 E1/T1 PWE3 interfaces. To ensure equipment reliability the M1200 supports redundant DC power modules.

Pseudowire Services – TDM Migration to IP

PWE[3] provides a migration path from TDM to IP allowing traditional TDM services to be extended seamlessly over existing packet switched networks.

- Comprehensive support of PWE3 standards
- 8 E1/T1 legacy services carried over packet networks (MPLS, CoE, IP) via pseudo-wire (PWE3)
- CES Service (SAToP / CESoPSN)
- CAS Signaling / RBS for T1 and CCS for E1

Ethernet Services

- Network management via OAM (802.1ag/Y.1731)
- Ethernet Ring Protection (G.8032)
- Link aggregation (802.3ad)
- Improved QoS and differentiated traffic service
- Traffic Prioritization via VLAN tagging and priority labeling

Clocking

The M1200T offers timing services, allowing for mobile clocking synchronization from the core of the network. The M1200T can receive clocking information into its Building Integrated Timing Supply (BITS) interface.

- IEEE 1588 Tc/BC and slave modes
- IEEE1588v2 TC/BC & SyncE
- BITS
- T1/E1
- Sync-Ethernet

Mobile Backhaul

The M1200T advanced Ethernet services, legacy TDM and flexible clocking options make it an ideal platform for mobile carriers. A variety of PTN and mobile backhaul solutions supports a wide range of network architectures. M1200T supports the technology and media needed for the different generations of mobile communications (2G, 3G, 4G and LTE). Therefore, the provider has the ability to migrate to an IP/Ethernet mobile platform with traffic management and carrier class reliability.

- Extensive OAM and performance monitoring capabilities
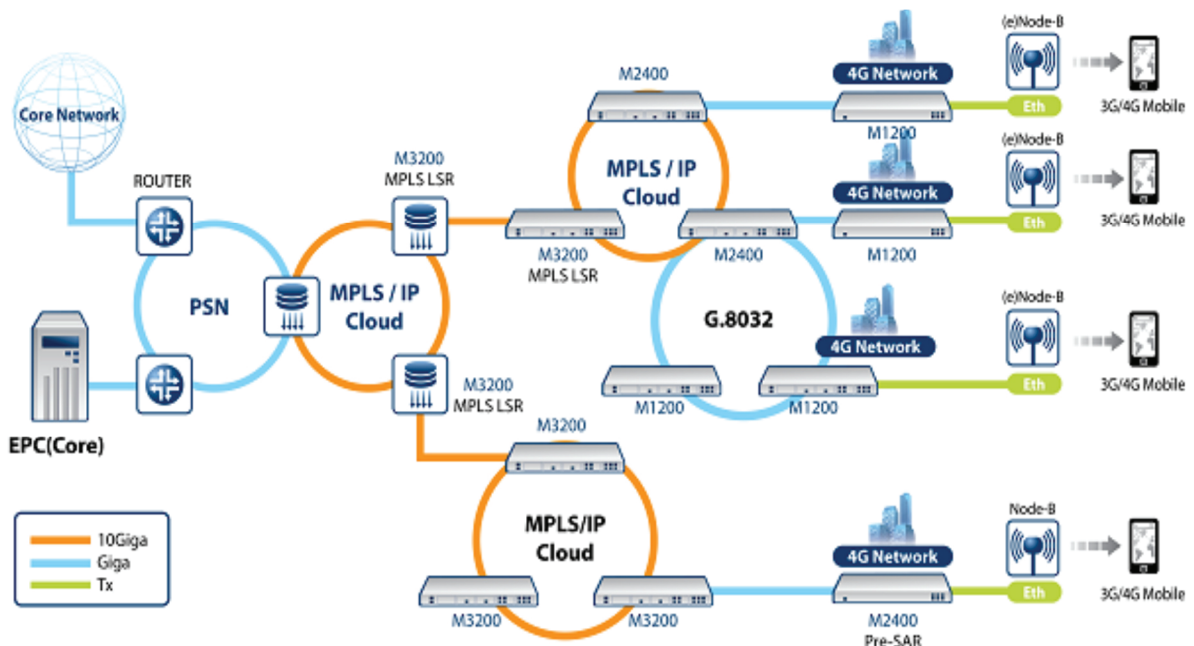- Carrier-class/environmentally hardened device

Figure 1: Potential User Configuration

Specification

Flash Memory	512MB(B/L+NOS)
SDRAM	512MB DDR3
Main Chassis	4 port 10G-Base-R(SFP+)
	8 port 100/1000Base-X(SFP)
	+ 8 port 100/1000Base-T(RJ45)
	+ 8 port E1/T1(RJ45)
Power	2 Input(-48V/24V)
Management	Total 2 Ports(RJ45)
	- 1 port RS232 : Console
	- 1 port FE : MGMT
Clock Interface	4 Ports(2 SMA, 2 RJ45)
	- 1 port 1PPS (SMA)
	- 1 port 10MHz (SMA)
	- 1 port TOD (RJ45)
	- 1 port BITS(RJ45)
MAC Table	16K
VLAN	4K
L3 IPv4	32K(LPM)/16K(Host)
L3 IPv6	16K(LPM)/8K(Host)
Switching Capacity	72Gbps (Full-duplex)
Operating Temp.	-40~65°C
Operating Humidity	5~90% (non-condensing)
Power Voltage	DC : -48/24VDC
Power Consumption	36.1[W]
Dimensions (WxHxD)	440 x 44 x 200mm
Switching Capacity	72Gbps (Full-duplex)

Capabilities

Layer 2	• Standard Ethernet Bridging
	•Port/Subnet/Protocol-based VLAN
	• 16K MAC Address Entries
	• Spanning Tree: STP, RSTP, MSTP
Multicast	• VLAN port filtering
	• Destination address port filtering
	• Source MAC address learning
	• IGMP snooping management
QoS	• Ethernet type / L4-based ACL
	• SSHv1/v2
	• QoS and Marking : SP, WRR, DWRR
	• Cos/QoS acc. to 802.1p, DSCP/TOS, IP
OAM	• Fully compliant with IEEE 802.1ag(CFM)
	• Fully compliant with ITU-T Y.1731
	• Ethernet Ring Protection(G.8032)
CES Feature	• E1/T1 Circuit Emulation
	• SAToP(RFC4553), CESoPSN(RFC5086)
	• ACR, DCR Timing mode support
	• CAS Signaling RBS
	• Pseudowire
Clock Function	• IEEE 1588v2 BC/TC
	• PTP BMCA (Both direction)
	• Synchronous Ethernet(SyncE)
	• 1PPS, 10MHz, TOD, BITS
Management	• Serial / Telnet (CLI)
	• RMON
	• SNMPv1/v2/v3