Metro-Optical Transport Access

OnSite™ Series Model OS1052

The Patton Model OS1052 delivers flexible and modular multiservice solutions for 2G/3G backhaul, fixed-line networks, and private and utility networks.

Ultra-compact design (1 RU)
STM-1 trunks, built-in E1/T1 and Ethernet client ports, and integrated non-blocking cross-connect

Highly flexible configurations
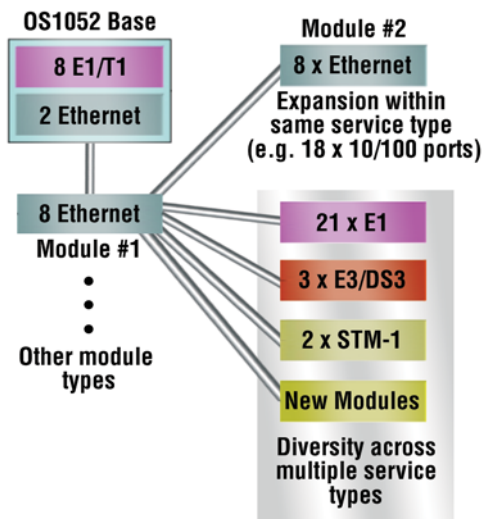*Terminal mux and ADM, linear MSP 1+1 protection, point-to-point, linear ADM, ring ADM, and SNCP/I and SNCP/N*

Next-generation SDH features
GFP encapsulation, virtual concatenation (VCAT), LO/HO, LCAS

Layer 2 packet intelligence
Ethernet MAC with flow control, VLAN, rate limiting, Q-in-Q, and QoS

Example combinations of service and port capacity expansions

OS1052 Base
- 8 E1/T1
- 2 Ethernet

Module #1
- 8 Ethernet
- Other module types

Module #2
- 8 x Ethernet
- Expansion within same service type (e.g. 18 x 10/100 ports)
- 21 x E1
- 3 x E3/DS3
- 2 x STM-1
- New Modules
- Diversity across multiple service types

The Patton OnSite Series Model OS1052 is an ultra-compact next-generation flex access node. The OS1052 is the platform of choice for economical deployment of access points with low initial count of E1 and Ethernet ports, but with flexibility for future capacity expansion and simple migration toward converged IP service networks. The OS1052 supports 3G/4G mobile network backhaul, secure and scalable carrier Ethernet transport, multi-service aggregation, quad-play connectivity (voice, data, video and mobility), and technology mediation among TDM, ATM, and Ethernet.

The advanced modular design of the OnSite OS1052 provides unequaled flexibility in its class in terms of service offerings, capacity and functional upgrades.

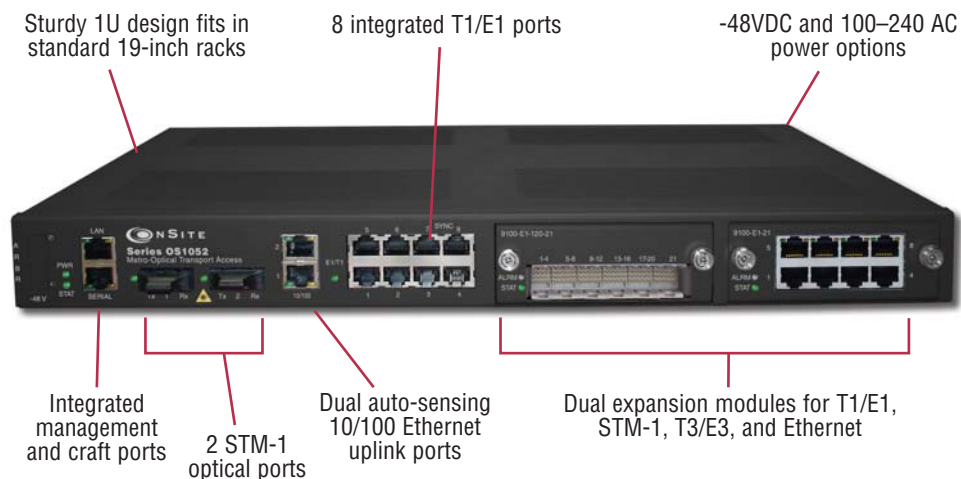The OS1052 incorporates next-generation SDH features such as virtual concatenation (VCAT), link capacity adjustment scheme (LCAS) and generic framing procedure (GFP) for efficient packet data transport. The platform also incorporates Layer 2 features such as VLAN tagging, rate limiting and statistical multiplexing with multi-level QoS control.

The base OS1052 system is configured with 2 STM-1, 8 E1/T1 and 2 Ethernet 10/100Base-TX.

Two expansion module slots are included for increasing system capacity beyond the initial base configuration. Additional ports and features only require simple insertion of one of the many available types of TDM and packet data modules.

In only one RU, the OS1052 supports expansion up to 50 E1 ports and 18 Ethernet 10/100 ports

Visit www.patton.com for more information.

Sturdy 1U design fits in standard 19-inch racks

8 integrated T1/E1 ports

-48VDC and 100–240 AC power options

Integrated management and craft ports

2 STM-1 optical ports

Dual auto-sensing 10/100 Ethernet uplink ports

Dual expansion modules for T1/E1, STM-1, T3/E3, and Ethernet

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Typical Application

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• 2 STM-1

• 8 E1/T1

• 2 Ethernet

• 10/100Base-TX

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The OS1052 incorporates next-generation SDH features such as virtual concatenation (VCAT), link capacity adjustment scheme (LCAS) and generic framing procedure (GFP) for efficient packet data transport. The platform also incorporates Layer 2 features such as VLAN tagging, rate limiting and statistical multiplexing with multi-level QoS control. The OS1052 is easily configured and managed through a simple Web-based GUI interface or the scalable Patton OnSight NMS.
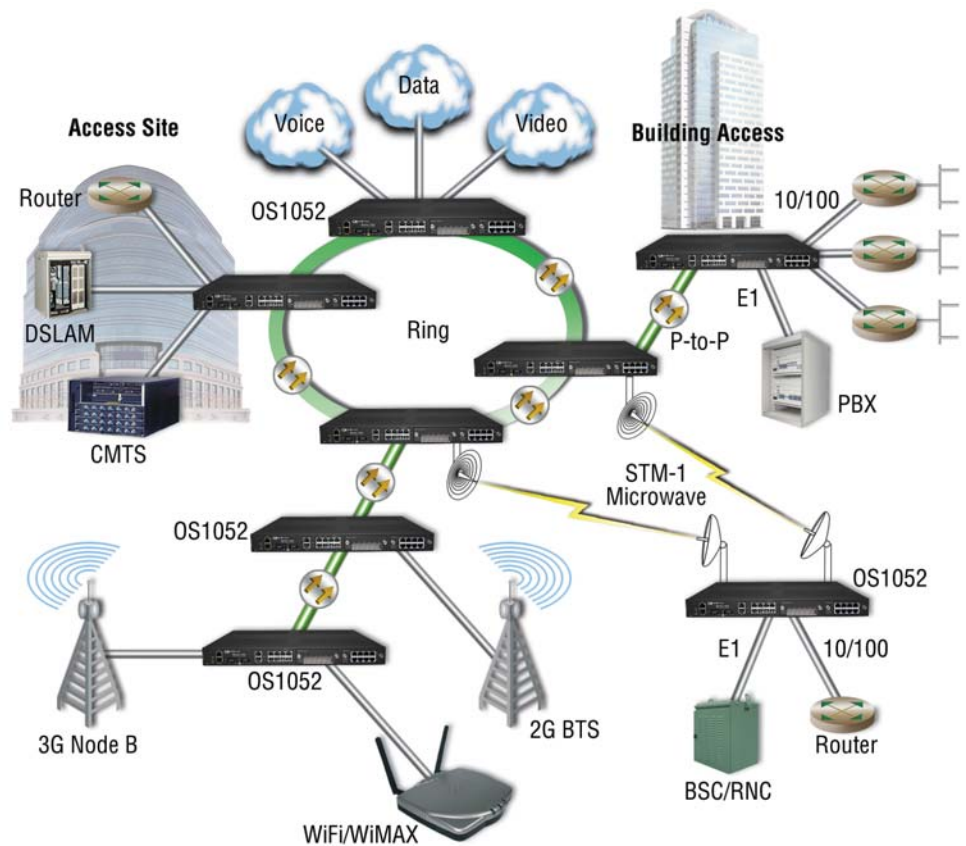
Specifications*

Trunk Interfaces
STM-1: G.707, G.783 • Optics: G.957 S-1.1, L-1.1 and L-1.2 options

Client Interfaces
E1: G.703, 75-ohm and 120-ohm options • T1: G.703, 100-ohm • Ethernet 10/100Base-TX: 802.3u

Expansion Modules
SDH: STM-1 optical (2 ports) • STM-1 electrical (2 ports)
PDH: E1 (21 ports) • E3/DS3 (3 ports)
Packet Data: 10/100Base-TX (8 ports)

Configuration & Port Capacity for 2 Expansion Slots
STM-1: Base: 2 • Max: 6
E1: Base: 8 • Max: 50
E3/DS3: Base: – • Max: 6
10/100Base-TX: Base: 2 • Max: 18

Protection
Linear MSP 1+1 • SNCP/I and SNCP/N

Bandwidth Connectivity and Provisioning
Connectivity: VC-12, VC-3 levels • One-way, two-way, drop-and-continue and multicast connections • VCAT: VC-12-Xv and VC-3-Xv • LCAS: G.7042 • Packet encapsulation: GFP-F (G.7041)

Timing & Synchronization
Internal: Stratum 3 clock • Line timing: STM-1 and E1/T1 • External timing: Dual Sync In/Out ports at 2 or 1.5 Mbps/MHz • SSM support: G.781

System Access
Serial RS-232 and Ethernet LAN management ports • IP over DCCr and DCCm options • IP over E1 signal mapped into selected VC-12 channel • DCC transparency (any subset of DCC rows) • Telnet

Operations
Local and remote software download and upgrade (FTP/TFTP) • Loopbacks: facility and terminal • ALS (automatic laser shutdown): G.958 • Alarm Contacts (optional) • Orderwire: 2-wire interface using E1 or E2 byte (optional)

Management
Web-based GUI management interface • XML • SNMP v1/v2

Packet Intelligence
Ethernet MAC: 802.3 • VLAN: 802.1Q and Q-in-Q • Service provider VLAN (SP-VLAN) using S-Tag: 802.1ad • Tagging operations: C-Tag and S-Tag add/strip • Flow Control: 802.3x • Rate Limiting: Sustained and peak rates with 64 kbit/s granularity for ports and VLANs • QoS: 4 levels with strict priority, WFQ and WRED support

Dimensions
1.75H x 17.25W x 11.54D in. (44.45H x 438.2W x 293D mm)
1RU

Weight
11 lbs (5 kg)

Cooling
Natural convection cooling (no fans)

Mounting
19-inch EIA/TIA or ETSI 300 mm racks, or desktop and wall-mounting options

Power
AC input: 100 to 245 V at 50 to 60 Hz
DC input: -36 to -72 V (-48V nominal), dual inputs
Consumption: 60 W maximum

Environment
Temperature: 0 to +50 C (+32 to +122 F)
Humidity: 5 to 95%, non-condensing

EMC
EN 55022 Class A, FCC part 15 Class A

Safety
EN 60950, UL 60950

CE Mark

* Specifications subject to change without notice.