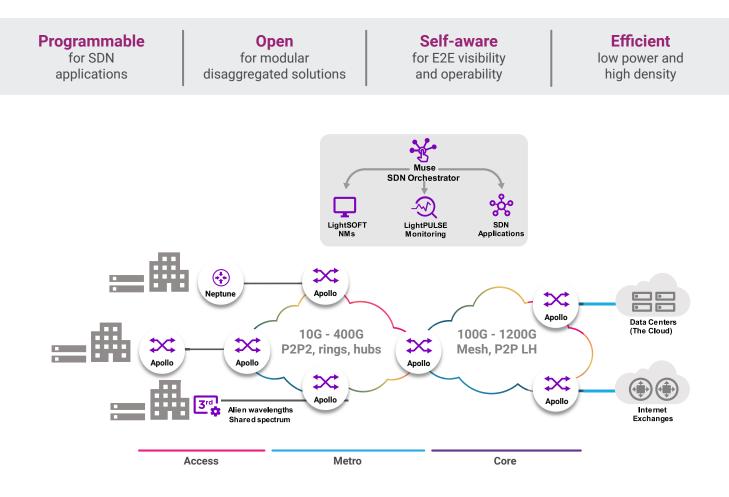*ribbon®*

Apollo 9608

Powerful and Versatile Metro to Core Optical Transport

Using 9608 is a powerful and versatile 5RU optical transport platform for metro, core, and data center applications. It accommodates the entire range of Apollo transponder, muxponder, ROADM, and amplification blades. Each of its eight slots supports dual 400G density-power-cost-optimized blades, for a total client plus line platform capacity of 12.8T. It also supports double-slot blades that delivers two performance-optimized 800G lines, for the most demanding transport applications.

Apollo optical transport and switching platforms combine to deliver high-performance access-to-core optical networking solutions at the lowest cost per bit. Highly modular, they are tailorable into solutions that precisely meet current needs, and can evolve economically to accommodate traffic growth and new technologies. All Apollo platforms support multiservice client interfaces including 400GbE, as well as alien wavelengths, shared spectrum, and packet services. They are controllable through Muse Domain Orchestrator, or directly, via open industry-standard interfaces, and can stand by themselves in disaggregated networks such as for Open Optical Line Systems.

Programmable	**Open**	**Self-aware**	**Efficient**
for SDN applications	for modular disaggregated solutions	for E2E visibility and operability	low power and high density

Data Sheet

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Technical Specifications

Topologies	Mesh, hub, ring, linear, point-to-point
Spectrum	Extended C-band Flexible grid at 6.25GHz resolution Fixed grid: 50GHz/96ch, 75GHz/64ch, 100GHz/48ch Super-channel up to 128 channels
Capacity	8 slots for blades, interchangeable across Apollo family of transport platforms Max platform capacity 12.8T (6.4T client capacity plus 6.4T line capacity)
Service (client) interfaces	Ethernet (1GbE, 10GbE, 40GbE, 100GbE, 400GbE) SDH/SONET (STM-1, 4, 16, 64/OC-3, 12, 48, 192) SAN (FC-1, 2, 4, 8, 10, 16, 32, 64) Video (DVB-ASI, SDI 270, HD-SDI 1.5G/3G) OTU 1, 2, 2e, 3, 4; FlexO
Layer 2 interfaces	MEF Carrier Ethernet 2.0 virtual LAN services: E-Line, E-LAN, E-Tree, and E-Access Statistical multiplexing transport aggregation
Security and Encryption	AES256-GCM encryption; Diffie-Hellman key exchange with X.509 node authentication, enhanceable with external QKD keys and with PQC algorithms; FIPS 140-3 level 3; CC EAL2
Network (DWDM) interfaces	OTU1 (2.5 Gbps) OTUC2 (200 Gbps) OTU2/2e (10 Gbps) OTUC4 (400 Gbps) OTU3e (40 Gbps) OTUC6 (600 Gbps) OTU4 (100 Gbps) OTUA (100 to 800Gbps, in 50Gbps increments)
Optical add/drop multiplexers	2-, 4-, 9-, and 20-degree ROADMs (flexible and fixed grid) with OCM and automatic power equalization and Colorless, Directionless, and Contentionless (CDC) wavelength routing Fixed OADM 100% add/drop capacity
Amplification	EDFA, Raman, Hybrid EDFA/Raman, with embedded optical leveling and control Output power: 16 dBm to 26 dBm Gain: up to 40 dB with/without 10 dB midstage
Protection	OCH 1+1, OLP, OMSP, Y Protection, DRI/DNI
Restoration	Spectrum Switched Optical Network (SSON) - spectrum level Wavelength Switched Optical Network (WSON) – wavelength level Automatic Switched Optical Network (ASON) – service level 1+1, 1+1 forever, preplanned/dynamic protection
HW redundancy	All common units/cards: power supply, controllers, fan units
Dimensions	19" width, 221 mm height, 253 mm depth, 8 service slots
Power input	-40.5 VDC to -75 VDC with 1800W maximum power consumption, AC mains
Environmental	Operating temperature: -5C to +55C (short term) 5C to +45C (long term) Relative humidity: 5% to 90% (non-condensing)
SDN	Muse Optical Domain Controller and Applications
Network management	LightSOFT® end-to-end, point-and-click network management
Performance monitoring	LightPULSE™ integrated real-time OSNR and other parameters, and integrated OTDR
Control interfaces	Netconf/Yang open interface
Management Ports	One IMG port, three multi-shelf ports

Specifications subject to change without notice

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