

Apollo 9608D

Data Center Platform for Powerful and Versatile Optical Transport

Apollo 9608D extends the power and versatility of Apollo optical networking solutions to data centers. 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.









Technical Specifications

Topologies	Mesh, hub, ring, linear, point-to-point
	Extended C-band
0	Flexible grid at 6.25GHz resolution
Spectrum	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)
	Ethernet (1GbE, 10GbE, 40GbE, 100GbE, 400GbE)
	SDH/SONET (STM-1, 4, 16, 64/OC-3, 12, 48, 192)
Service (client) interfaces	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
	OTU1 (2.5 Gbps) OTUC2 (200 Gbps)
	OTU2/2e (10 Gbps) OTUC4 (400 Gbps)
Network (DWDM) interfaces	OTU3e (40 Gbps) OTUC6 (600 Gbps)
	OTU4 (100 Gbps) OTUA (100 to 800Gbps, in 50Gbps increments)
	2-, 4-, 9-, and 20-degree ROADMs (flexible and fixed grid) with OCM and automatic power
Optical add/drop multiplexers	equalization and Colorless, Directionless, and Contentionless (CDC) wavelength routing
	Fixed OADM 100% add/drop capacity
	EDFA, Raman, Hybrid EDFA/Raman, with embedded optical leveling and control
Amplification	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
	Spectrum Switched Optical Network (SSON) - spectrum level Wavelength Switched Optical
Restoration	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, 620 mm depth, 8 service slots
Power input	-40.5 VDC to -75 VDC, AC mains
Environmental	Operating temperature: -5C to +55C (short term) 5C to +45C (long term) Relative humidity: 5% to 90% (non-condensing)
Environmental	Front-to back airflow
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
- <u>-</u>	Specifications subject to change without notice

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