

System Specifications

The LightStream 1010 ATM switch system specifications are described in Table A-1.

Table A-1 System Specifications

Description	Specifications
Switch and Processor Capacity	5 Gbps ¹ shared memory, nonblocking switch fabric 65,536 cells of ATM cell buffers
Software Images	Default image with IISP protocol Optional PNNI image with plug-and-play capacity
Dimensions (H x W x D)	10.4 x 17.25 x 18.4" (26.4 x 43.1 x 46.0 cm) Chassis depth including cable guide is 21.64" (55.0 cm) (L1010-BASE5) ASP and CAM: 1.2 x 14.4 x 16" (3.0 x 36.6 x 40.6 cm) PAM: 1.2 x 6.5 x 10" (3.0 x 16.5 x 25.4 cm)
Weight	Chassis only: 32 lb (13.6 kg) Chassis fully configured with 1 ASP, 8 PAMs, and 2 power supplies: 67 lb (30 kg)
DC Voltages Supplied and Steady-state Maximum Current Ratings	+5V @ 70A +12V @ 2A +24V @ 0.2A
Power Supply	376W maximum (AC-input power supplies) (L1010-PWR-1)
Power Dissipation	350W maximum configuration, 110W typical with maximum configuration
Heat Dissipation	563W (1919 Btu ² /hr)
Input Voltage	100–240 VAC wide input with power factor correction
Frequency	Auto sensing limits: 100-127/200-240 VAC, 8/4A, 47-63 Hz

Description	Specifications
AC Current Rating	Maximum power budget: 8A @ 115 VAC, 60 Hz 4A @ 230 VAC, 50 Hz with the chassis fully configured
Airflow	95 cfm ³ through the system fan assembly
Operating Temperature	32–104°F (0–40°C)
Nonoperating Temperature	-40–167°F (-40–75°C)
Humidity	10–90%, noncondensing
Altitude	-500 to 10,000 ft (-52 to 3,048 m)
Microprocessor	100-MHz MIPS R4600
Memory	8 MB of Flash memory (upgradable to 16 MB) 16 MB of packet-buffer DRAM ⁴ standard (upgradable to 64 MB) 256 KB of boot EPROM 128 KB of SRAM ⁵
Interface Timing	Loop timing, Stratum 4 accuracy clock for self-timing, master clock distribution port
ATM Switch Processor (ASP)	ASP module, 16-MB DRAM, 8-MB Flash memory, no Flash card installed (WATM-ASP1)
Carrier Adapter Module (CAM)	Carrier module for 2-port adapter modules with PAM slot covers for empty slots installed (WATM-CAM -2P)
Port Adapter Modules (PAM)	PAM with 4 SONET STS3c/SDH STM1 multimode fiber ports, SC connectors (WAI-OC3-4MM) PAM with 4 SONET STS3c/SDH STM1 single-mode fiber ports, SC connectors (WAI-OC3-4SM) PAM with 4 SONET STS3c/SDH STM1 UTP-5 ports, RJ-45 connectors (WAI-C3-4U5) PAM with 1 SONET STS12c/SDH STM4c single-mode fiber ports, SC connector (WAI-OC12-1SM) PAM with 1 SONET STS12c/SDH STM4c multimode fiber ports, SC connector (WAI-OC12-1MM) PAM with 4 DS3 ports, BNC connectors (WAI-T3-2BNC) PAM with 2 E3 ports, BNC connectors (WAI-E3-2BMC)
Management Access	Standard Ethernet and dual EIA/TIA 232 serial ports on ASP module

Description	Specifications
Management Information Bases (MIB)	SNMP MIB II (RFC 1213) Interface table MIB (RFC 1573) ATOMIC (RFC 1695) ATM Forum LANE A MIB ATM Forum PNNI MIB SONET MIB (RFC 1595) ATM Forum UNI 30/3.11 ILMI MIB DS-3 and E3 MIB (RFC 1407) RMON MIB (RFC 1757) Ethernet MIB (RFC 1398) RS-232 MIB (RFC 1659)
Maximum Station-to-station Cabling Distance	10BaseT Ethernet—Category 3-5 UTP ¹³ : 328' (100 m) ATM multimode—50/125-micron and 62.5/125-micron multimode fiber: 1.24 miles (2 km) ATM single-mode—8/125-micron single-mode fiber: 9 miles (15 km) DS-3—coaxial cable: 450 ft (137 m) E3—coaxial cable: 450 ft (137 m) OC-12—8/125-micron single-mode fiber: 9 miles (15 km) OC-12—50/125-micron and 62.5/125-micron multimode fiber: 1,640 ft (500 m)
Fiber-Optic Power Levels:	
OC-3 Single-mode	
Output Center Wavelength	1261 to 1360 nm ¹⁴
Transmit	Minimum: -15.0 dBm Maximum: -8.0 dBm
Receive	Minimum: -30.0 dBm Maximum: -8.0 dBm
OC-3 Multimode	
Output Center Wavelength	1270 to 1380 nm
Transmit	Minimum: -20.0 dBm Maximum: -14.0 dBm
Receive	Minimum: -30.0 dBm Maximum: -14.0 dBm

Description	Specifications
Fiber-optic power levels: (cont.)	
OC-12 Single-mode	
Output Center Wavelength	1274 to 1356 nm
Transmit	Minimum: -15.0 dBm Maximum: -8.0 dBm
Receive	Minimum: -28.0 dBm Maximum: -8.0 dBm
OC-12 Multimode	
Output Center Wavelength	1270 to 1380 nm
Transmit	Minimum: -20.0 dBm Maximum: -14.0 dBm
Receive	Minimum: -26.0 dBm Maximum: -14.0 dBm
Agency Approvals	Safety: UL ¹⁵ 1950, CSA ¹⁶ -C22.2 No. 950-93, and EN60950 EMI ¹⁷ : FCC Class A CE Mark, and VCCI Class II with shielded cables

1. Gbps = gigabits per second
2. Btu = British thermal units
3. cfm = cubic feet per minute
4. DRAM = dynamic random-access memory
5. SRAM = static random-access memory
6. OAM = Operations, Administration, and Maintenance
7. RDI = remote defect identification
8. AIS = alarm indication signal
9. CLP = cell loss priority
10. EFCI = explicit forward congestion indicator
11. EIA/TIA = Electronics Industry Association/Telecommunications Industry Association
12. TACACS = Terminal Access Control Access System
13. UTP = unshielded twisted-pair
14. nm = nanometers
15. UL = Underwriters Laboratory
16. CSA = Canadian Standards Association
17. EMI = electromagnetic interference

