



AlpineTM 3800 Series

The Alpine 3800 chassis switches are ideally suited for delivering broadband IP services to metropolitan area networks (MANs), service provider and enterprise data centers, multi-tenant buildings and enterprise wiring closets. The Alpine platform provides total Ethernet coverage with support for both standard Category 5 and fiber optic media as well as first mile technologies that extend the reach of Ethernet over VDSL and legacy WAN technologies.

The Alpine 3800 series includes the Alpine 3802, Alpine 3804 and Alpine 3808 switches. Every Alpine switch has a fully redundant power supply for increased fault tolerance. Additionally, all modules of the Alpine 3800 series are hot swappable and interchangeable. The power supply units of the Alpine 3804 and Alpine 3808 switches are hot swappable and interchangeable, and each has its own hot swappable fan tray.

The Alpine 3808 has nine slots, the Alpine 3804 has five slots and the Alpine 3802 has three slots. The first slot of each chassis is used for the Switch Management Module (SMMi), which performs all management functions, manages the switch forwarding database and routing tables, and processes all route protocol updates. The remaining slots of each Alpine 3800 series switch are used for switch interchangeable modules.

The Alpine 3802 comes in a small two-slot form factor, supporting all existing Alpine 3800 interface modules. An expansion third slot provides legacy WAN module support in specific configurations. WAN modules include a four-port RJ-48-based T1 and E1 WAN (WM-4T1i and WM-4E1i) modules, a one-port BNC-based T3 WAN (WM-1T3i) module, and an eight-port RJ-21-based 10BASE-T Ethernet over VDSL (FM-8Vi) module to support CAT1/2/3 unshielded twisted pair cable up to 3000 feet.

Features:

- **Fully redundant load-sharing power supplies**
- **NEBS Level 3 compliance**
- **Wire-speed IP/IPX routing using RIP v1/v2 OSPF, BGP4, PIM and DVMRP**
- **Bidirectional rate shaping to provision and manage bandwidth by the slice from 500Kbps to 1Gbps**
- **Built-in link redundancy offers active and backup data paths**
- **Extreme Standby Router Protocol (ESRP) provides Layer 2 and Layer 3 redundancy for smart, ultra-fast failover to a default router or switch**
- **Integrated server load balancing at wire speed greatly increases availability**
- **Integrated transparent web cache redirection at wire speed optimizes the use of bandwidth**
- **OSPF equal-cost multipath routing distributes traffic across multiple high bandwidth links**
- **Policy-Based QoS at wire speed to allocate bandwidth, and prioritize traffic**
- **Access Control Lists can be linked to a class of service, while performing Layer 1-4 packet-level security and controlling traffic flows—all at wire-speed**
- **RADIUS offers authentication and centralized control over all enterprise users**
- **Secure Shell (SSH2) encrypts remote telnet management connections applications across the network**

Alpine 3800 Series Product Specifications

General

Alpine 3802

16 Gbps switch fabric
12 million pps

Alpine 3804

32 Gbps switch fabric
24 million pps

Alpine 3808

64 Gbps switch fabric
48 millions pps

Protocols and Standards

IEEE 802.3z 1000BASE-X
IEEE 802.3x Flow control
RFC 1058 RIP
RFC 1723 RIP v2
RFC 2236 IGMP v2
DVMRP v3
PIM-Dense Mode
RFC 2178 OSPF
RFC 1587 OSPF NSSA
RFC 1519 Classless Interdomain Routing (CIDR)
RFC 1122 Host requirements
IEEE 802.1D-1998 (includes 802.1p)

Ordering Information

Order Number	Description
45061	Alpine 3802 Chassis (includes SMMi, single AC PSU, fan tray)
45062	Alpine 3802 Chassis (includes SMMi, dual AC PSU, fan tray)
45064	Alpine 3802 Chassis (includes SMMi, dual DC PSU, fan tray)
45040	Alpine 3804 Chassis (includes fan tray)
45080	Alpine 3808 Chassis (includes fan tray)
45022	Alpine 3800 DC Power Supply
45012	Alpine 3800 AC Power Supply; includes power cord for US & Japan
45014	Alpine 3800 Switch Management Module
45110	Alpine 3800 4-port 1000BASE-SX (MT-RJ-based) Module
45112	Alpine 3800 4-port 1000BASE-X GBIC-based (unpopulated) Module
45113	Alpine 3800 4-port auto-negotiating 100/1000BASE-T (RJ-45) Module
45114	Alpine 3800 Wavelength Division Multiplexing Module (GM-WDMi)
45210	Alpine 3800 32-port 10/100BASE-TX (RJ-45) Module
45211	Alpine 3800 24-port 100BASE-FX (MT-RJ) Multimode Module
45212	Alpine 3800 24-port 100BASE-FX (MT-RJ) Single Mode Module
45213	Alpine 3800 24-port 10/100BASE-TX (RJ-21) Module
45302	Alpine 3800 4-port T1 (RJ-48) WAN Module
45305	Alpine 3800 1-port T3 (BNC) WAN Module
45306	Alpine 3800 4-port E1 (RJ-48) WAN Module
45310	Alpine 3800 8-port VDSL (RJ-21) Module
45380	VDSL CPE with 10BASE-T Interface
45005	Alpine 3800 Blank Faceplate (spare)
45013	Alpine 3808 Spare Fan Tray
45015	Alpine 3804 Spare Fan Tray
45033	ExtremeWare full Layer 3 voucher for the Alpine 3804 and 3808
45034	ExtremeWare full Layer 3 voucher for the Alpine 3802

IEEE 802.1Q VLAN tagging
RFC 1256 Router discovery protocol
RFC 1812 IP router requirement
RFC 1771 BGP4
RFC 1965 Confederations
RFC 1997 Communities
RFC 2439 Route Flap Dampening
RFC 783 TFTP
RFC 1542 BootP
RFC 951 BootP
RFC 854 Telnet
RFC 768 UDP
RFC 791 IP
RFC 792 ICMP
RFC 793 TCP
RFC 826 ARP
RFC 2068 HTTP
RFC 2131 BootP/DHCP relay
RFC 2878 PPP BCP with support for 802.1Q and 802.1D tagging
RFC 1332 PPP IPCP
RFC 1661,1662 PPP
RFC 1332 PPP IPCP
RFC 1990 Multilink PPP
RFC 1994 CHAP

Management and Security

RFC 1157 SNMP v1
RFC 1213 MIB II
RFC 1354 IP forwarding table MIB
RFC 1850 OSPF 2 MIB

RFC 1493 Bridge MIB
RFC 2037 Entity MIB
RFC 1573 Evolution of Interface
RFC 1643 Ethernet MIB
RFC 1757 Four groups of RMON
RFC 2021 RMON probe configuration
RFC 2239 802.3 MAU MIB
RFC 1724 RIP v2 MIB
ExtremeWare Enterprise MIB
HTML and telnet management
RFC 2096 IP Route Table MIB
RFC 2030 Simple Network Time Protocol
RFC 1406 T1 MIB
RFC 1471 PPP LCP

Physical Dimensions and Heat Dissipation

Alpine 3802

(H) 7.0 in x (W) 17.32 in x (D) 12.0 in
(H) 17.78 cm x (W) 43.99 cm x (D) 30.48 cm
Weight: Empty: 25 lbs (two PSUs)
Fully loaded: 31 lbs
One module: 3 lbs
Power supply input: 315 watts
Heat dissipation: 1076 BTU/hr

Alpine 3804

(H) 10.5 in x (W) 17.32 in x (D) 15.53 in
(H) 26.65 cm x (W) 43.99 cm x (D) 39.42 cm
Weight: Empty: 30 lbs
Fully loaded: 68 lbs

One AC power supply: 14 lbs
One module: 3 lbs

Power supply input: 577 watts
Heat Dissipation: 2000 BTU/hr

Alpine 3808

(H) 21.0 in x (W) 17.32 in x (D) 11.375 in
(H) 53.3 cm x (W) 43.99 cm x (D) 28.9 cm
Weight: Empty: 50 lbs
Fully loaded: 98 lbs
One AC power supply: 14 lbs
One module: 3 lbs
Power supply input: 1046 watts
Heat dissipation: 3600 BTU/hr

Input Voltage and Current Rating

-70 to -40 VDC: 30 A
100 to 120 VAC (auto-ranging): 10 A
200 to 240 VAC (auto-ranging): 5 A
AC line frequency: 47 to 63 Hz

Regulatory

Safety

UL 1950 3rd Edition, Listed (Safety of ITE)
EN60950:1992/A1-4:1997+ZB/ZC Deviations (Safety of ITE)
IEC 950CB (Safety of ITE)
Low Voltage Directive (LVD)
CSA 22.2#950-95 (Safety of ITE)
AS/NZS 3260 (Product Safety Standard)
EN60825-1 (Safety of Lasers Products)
FCC CFR 21 (Laser Products)

EMI/EMC

NEBS Level III Compliant
FCC CFR 47 part 15 Class A (USA EMC standard)
ICES-003A/C108.8-M1983 Class A (Canada EMC standard)
VCCI Class A (Japan EMC standard)
AS/NZS 3548 (Australia EMC standard)
EN 55022 Class A (European EMC standard)
CISPR 22 Class A (European EMC standard)
EN 50082-1:1997 includes ENV 50204 (European EMC standards)
EN 55024:1998 includes IEC 61000-4-2,3,4,5, 6,8,11 (European EMC standards)
EN 61000-3-2,3 (European EMC standards)
CNS 13438 Class A (BSMI-Taiwan)
Low Voltage Directive (LVD)

Requirements

Operating Temperature: 0° C to 40° C
Storage Temperature: -40° C to 70° C
Operating Humidity: 10% to 95% relative humidity, non-condensing
EN60068 to Extreme IEC68 schedule

Reliability

Minimum 50000 hrs MTBF to Mil HDBK 217F
Notice 1, Parts Stress Method

For more product information from Extreme Networks, please call 1.888.257.3000. 3585 Monroe Street, Santa Clara, CA 95051-1450 Phone 408.579.2800
Fax 408.579.3000 Email info@extremenetworks.com Web www.extremenetworks.com



© 2002 Extreme Networks, Inc. All rights reserved. Extreme Networks, BlackDiamond, Summit, Summit7i, ExtremeWare, ServiceWatch, Extreme Ethernet Everywhere, Ethernet Everywhere, Extreme Velocity, Extreme Turbidity and the color purple are registered trademarks of Extreme Networks, Inc. in certain jurisdictions. Alpine, ExtremeWare Vista, Extreme Standby Router Protocol, ESRP, Summit1i, Summit4, Summit4 FX, Summit5i, Summit24, Summit24e2, Summit24e3, Summit48, Summit48i, SummitLink, SummitGbX, SummitRPS, SummitPxl, PxlSilicon, EPICenter, vMAN, the BlackDiamond logo, the Alpine logo and the Extreme Networks logo are trademarks of Extreme Networks, Inc., which may be registered or pending registration in certain jurisdictions. ExtremeWorks, the Extreme Turbidity logo and the Go Purple-Extreme Solution Partner logo are service marks of Extreme Networks, Inc., which may be registered or pending registration in certain jurisdictions. All other registered trademarks, trademarks and service marks are property of their respective owners. Specifications are subject to change without notice. LS-DS-ALP-210