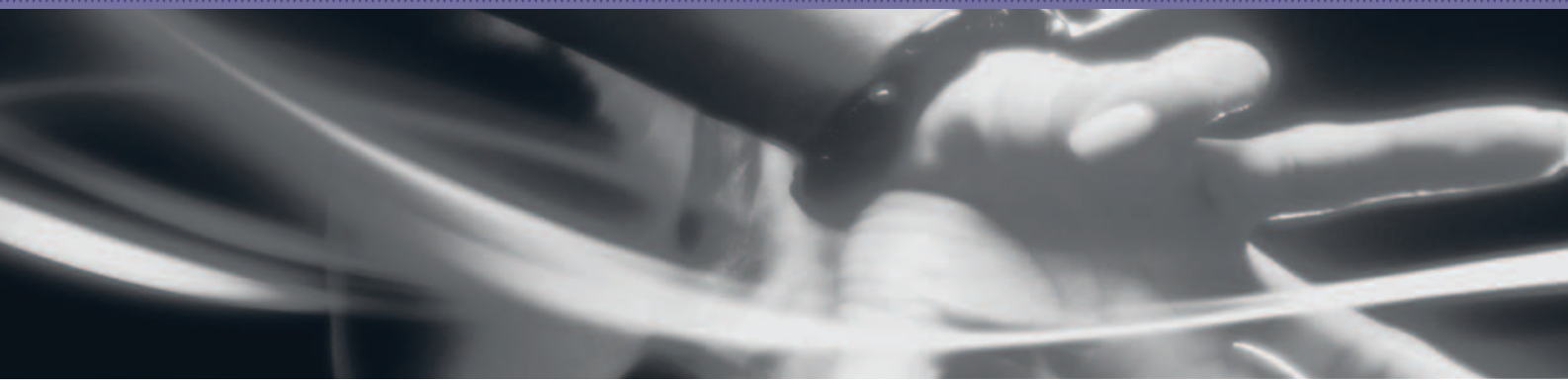

SUMMIT 300-48 SWITCH

Industry leading versatility for converged networks: Power over Ethernet and wireless LAN capabilities integrated with advanced Layer 3 features.

With its implementation of Extreme Networks® Unified Access Architecture™ (UAA), the Summit® 300-48 sets a standard for edge connectivity in today's most demanding converged networks. In addition to offering a solid foundation of performance, security, availability, and management capabilities, the Summit 300-48 provides 48 "universal access ports", with every port enabling high-performance data to the desktop, Power over Ethernet (PoE), and wireless LAN. With its integrated PoE, the Summit 300-48 can power devices such as voice-over-IP (VoIP) phones, surveillance cameras, and badge readers. Finally, because of Extreme Networks unique UAA, wireless access points can be seamlessly and securely deployed and managed throughout a facility for any number of wireless data or voice applications.

SUMMIT 300-48 BENEFITS

- **High Performance**
- **Extraordinary Availability**
- **Industry-leading Security**
- **Power over Ethernet**
- **Integrated Wireless**
- **End-to-End Manageability**

The Summit 300-48 is Wi-Fi Alliance certified for 802.11a/b/g and WPA

HARDWARE FEATURES

- 48 10/100 auto-negotiating Ethernet ports in a 2 RU footprint
- 4 10/100/1000BASE-T copper ports and 4 SFP GBIC ports deliver four active gigabit uplinks for greater throughput and four redundant uplinks for high availability
- Power supply provides 450W of available power for PoE devices. Each port supports IEEE 802.3af Class 3 (15.4W) devices.

PERFORMANCE FEATURES

- Non-blocking wire speed architecture
- 17.6 Gbps switch fabric, enabling all 10/100 ports to operate at line rate
- Flow-based central rate limiting that can be applied to any classified packet flow
- 255 port based and MAC based VLANs
- 8,192 MAC addresses
- 4 hardware queues per 10/100 port; 8 hardware queues per 10/100/1000 port
- 4 Gigabit Ethernet uplink ports and 4 redundant with Layer 1 failover
- ACLs for optimal security and diverse traffic classification

Based on the award-winning ExtremeWare® Layer 3 software, the Summit 300-48 provides 48 ports of 10/100 Ethernet with four physical Gigabit Ethernet uplinks (four active and four redundant). Every port delivers a vast array of ExtremeWare Layer 3 and Layer 2 features; ranging from OSPF routing and advanced Quality of Service (QoS) classification to the latest advancements in security. Years of development based on the requirements of thousands of customers enables ExtremeWare to deliver the most comprehensive Layer 3 advanced software solution set at the edge while allowing easy expansion and addition of services without major upgrades.

Once again, Extreme Networks demonstrates why it is the leader in Layer 3 switching for today's most demanding converged networks.

SUMMIT 300-48 BENEFITS

High Performance:

Non-blocking wire-speed architecture ensures performance for the most demanding wired and wireless applications. Extreme's Altitude access points support 802.11 a, b, and g, today's fastest wireless LAN standards.

Extraordinary Availability:

Redundant copper and fiber gigabit uplinks, dual-homed configurations, and sub-second EAPS failover provide mission-critical resiliency. The switch continuously monitors "heartbeats" generated by the Altitude access points, ensuring more continuous wireless user operation.

Industry-leading Security:

Extreme Networks UAA provides a single wired/wireless authentication infrastructure for consistent, policy-based security from the edge to the core. Wireless security includes hardware-accelerated AES and RC4 encryption. Extreme Networks also offers rogue access point detection for defending the wireless perimeter of a network.

Scalability:

The Summit 300-48 provides PoE to every port for voice, video, wireless, or data devices.

End-to-End Manageability:

As a member of Extreme's comprehensive family of switches, the Summit 300-48 can be centrally deployed, managed, and monitored using Extreme Networks EPICenter® management platform or any SNMP-based products. In addition, Extreme Networks offers the RF Manager site survey tool for simplified wireless design and its Access-Adapt™ utility for no-config installation of the Altitude access points.

EXTRAORDINARY PERFORMANCE, POE, AND WIRELESS

With its non-blocking architecture the Summit 300-48 has a 17.6 Gbps switch fabric that enables all RJ-45 copper 10/100 ports to operate at line rate. Four hardware queues per 10/100 port provide granularity and guarantee low latency and low jitter for time-sensitive voice and multi-media applications. These applications also benefit from features such as DiffServ and 802.1p which deliver varied levels of service and ensure efficient bandwidth usage. The four Gigabit Ethernet uplink ports—four 1000BASE-T RJ-45 copper and four SFP GBIC—can be configured as 4 active and 4 redundant for fast Layer 1 failover. These uplink ports provide the added flexibility of port redundancy between copper and fiber ports, enabling backup links to the active uplinks with sub-second (50 msec) failover capability through EAPS.

The Summit 300-48 offers a number of features that improve the performance of the network, such as RIP, OSPF, Network Address Translation, QoS classification, dynamic VLANs, and Access Control Lists (ACLs). For converged applications involving voice or rich media, the switch provides multicast, re-writing 802.1p tag prioritization, or prioritization using Layer 2/3/4. Rate shaping can be used for optimum VoIP performance.

The Summit 300-48 delivers advanced high availability features traditionally reserved for carrier networks. Ethernet Automatic Protection Switching (EAPS, RFC 3619) delivers sub-second (less than 50 msec recovery) protection switching to interconnected switches in an Ethernet ring topology. Similar to the Spanning Tree Protocol (STP), EAPS offers the advantage of converging in significantly less time than STP or even Rapid Spanning Tree (802.1W) when a link breaks in the ring. Extreme Standby Routing Protocol™ (ESRP) can be implemented at both Layers 2 and 3 and extends the Virtual Redundant Redundancy Protocol's (VRRP) capabilities, adding Layer 2 resiliency and loop prevention and Layer 3 default router redundancy. It can be used as a STP substitute and can be scaled to protect thousands of VLANs. Multiple instances of ESRP in the same VLAN allow direct host attachment to standby switches. Equal Cost Multipath (ECMP) adds network resiliency as multiple equal-cost routes can be used concurrently to an end destination.

With software redundant port feature, a specified primary port can be backed up by another port. Should the link go down on the primary port, the redundant port will establish link and become active. Thus multi-homed redundancy can be easily designed without the implementing complexity of a protocol.

For PoE, the switch generates up to 15.4 watts of PoE for devices such as VoIP phones, surveillance cameras, badge readers, Extreme's Altitude access points, and "fat" access points sold by other vendors. Up to 480 watts of redundant PoE are available by adding the hot-swappable optional PoE supply. When used with Altitude access points, the Summit 300-48 ensures wireless performance as each access point simultaneously broadcasts both 802.11a and 802.11b/g. Extreme Networks has also implemented the SpectraLink Voice Protocol (SVP), a QoS standard used by the leading wireless LAN handsets today for recognizing and prioritizing voice packets. When enabled in tandem with the Inter-Access Point Protocol (IAPP) which allows Layer 2 roaming between AP's, Voice over Wireless LAN (VoWLAN) users can productively communicate with customers, patients, emergency personnel and employees anytime within a facility.

The Summit 300-48 enables high quality Voice-over-Wireless LAN (VoWLAN) with leading handsets such as SpectraLink

Compared to other vendors' point solutions, the Summit 300-48 offers a low total cost of owner-ship because it is fully integrated into Extreme's family of edge, aggregation, and core end-to-end solutions. ExtremeWare Layer 2 and Layer 3 features implemented in the Summit 300-48 are shared with all other Extreme platforms in the Summit product line as well as with Alpine® and BlackDiamond® switches.

From a PoE/wireless perspective, the Summit 300-48 is complementary to the 24 port Summit 300-24, the BlackDiamond 8800 series PoE blade, and the Alpine 3800 PoE blade. Each of these switches supports Extreme Networks UAA, providing a seamless infrastructure for voice and data support on both wired and wireless networks. Extreme Networks EPICenter management platform makes it easy to develop centralized configuration and management policies throughout the network. The Summit 300-48 also uses the same command line interface (CLI) and the same management commands as other Extreme switches so training time and expense are reduced as operational expertise can be shared over an entire network solution.

INTELLIGENCE AT THE EDGE – WHERE YOU NEED IT

Enterprise networks need both Layer 2 and Layer 3 intelligent services at the edge to ensure maximum network efficiency. Intelligence supports critical functionality such as security to prevent unauthorized access, high availability to ensure network uptime, and common management to reduce expenses.

Security is a paramount concern in today's converged networks. Extreme Networks UAA provides consistent wired and wireless security from the edge to the core. ExtremeWare supports multiple authentication options including 802.1x, web-based login with SSL, and MAC address. With IEEE 802.1x login, Network Managers can always control who is accessing and connected to the network. Web-based network login offers the freedom of authenticating through any HTTP-compliant web browser. During the authentication process, SSL (Secure Sockets Layer) encrypts logon information.

MAC Address Security prevents unauthorized port abuse from rogue wireless access points or hubs/switches on edge ports. Port abuse can be reduced using lockdown on a per port basis and/or limiting of the number of MAC addresses learned by a port. The lockdown feature and saving learned MAC addresses between reboot can be used, for example, to help protect dedicated ports for VoIP phones or printers from abuse. Limiting the number of MAC addresses learned on a port also allows enforcement of service level agreements in tenant or service provider environments. MAC Address Security can also be used in conjunction with a RADIUS server to allow devices such as bar code readers that do not support 802.1x to enter the network based on their MAC address.

Extreme Networks Altitude access points provide secure wireless connectivity with the Summit 300-48.

Multiple Supplicant (client) enables clients to be individually authenticated on the same port. This ensures that all clients are authenticated to a wireless access point or hub. Without this, a client could authenticate, leaving the port open for additional clients to connect without authentication. Wire speed Layer 2-4 ACLs enable port security without worrying about the degrading performance and disrupting business applications or reducing productivity. SSHv2 allows Network Managers to securely and remotely configure the switch with less risk of packet snooping or man-in-the-middle attacks. SSHv2, denial of service protection, TACACS+ and RADIUS provide reliable and more secure configuration traffic (encryption) and authentication.

As part of its UAA, Extreme Networks has comprehensively designed for wireless security. The Altitude access point offers scalable, hardware-accelerated AES and RC4 encryption. Extreme also offers rogue access point detection for defending the wireless perimeter of a network. Perimeter defense is monitored and reported by EPICenter, which also offers a "one-click" command to disable the rogues. Optional directional antennas can be used to focus the wireless beam into the enterprise's facility. And finally, the Altitude is a "thin" access point, reducing the physical theft of critical security parameters because it loses its configuration as soon as it is unplugged.

SUMMIT 300-48 FEATURE SET SUMMARY

Hardware Features

- 48 10/100 auto-negotiating Ethernet ports in a 2 RU footprint
- 4 10/100/1000BASE-T copper ports and 4 SFP GBIC ports deliver four active gigabit uplinks for greater throughput and four redundant uplinks for high availability
- Power supply provides 450W of available power for PoE devices. Each port supports IEEE 802.3af Class 3 (15.4W) devices. An optional hot-swappable power supply (p/n 15412) provides 30 additional watts of power – for a total of 480 watts of PoE — as well as redundancy for transparent failover.

Performance Features

- Non-blocking wire speed architecture
- 17.6 Gbps switch fabric, enabling all 10/100 ports to operate at line
- Flow-based central rate limiting that can be applied to any classified packet flow
- 255 port based and MAC based VLANs
- 8,192 MAC addresses
- 4 hardware queues per 10/100 port; 8 hardware queues per 10/100/1000 port
- 4 10/100/1000BASE-T copper ports and 4 SFP GBIC ports deliver four active gigabit uplinks for greater throughput and four redundant uplinks for high availability
- ACLs for optimal security and diverse traffic classification

ExtremeWare Intelligent Services

Security:

- Denial of Service (DoS) protection
- Intelligent Network Access with integration with EPICenter Policy Manager, including compatibility with Sygate host integrity checking
- IP Address Security: DHCP Option 82
- IP Address Security: Disable ARP learning
- Layer 2/3/4 Access Control points
- MAC Address Security (lockdown + limit)
- Management Security: SNMPv3, SSH2-client, SCP/SFTP
- Multiple supplicants
- Network Login
  - 802.1x
  - Web based Network Login
- RADIUS authentication separated between Network Access and Device Management Security
- SSH2 server
- TACACS+ support

Availability:

- ESRP (in Advanced Edge license)
- Ethernet Automatic Protection Switching-edge (EAPS-edge)
- Loop detection via Lbdetect and ELRP CLI
- Network Address Translation
- RSTP: 802.1w Rapid Spanning Tree
- Software Redundant Port
- STP: Compatibility mode for PVST+, EMISTP (1 domain per port)
- VRRP (in Advanced Edge license)

QoS

- 4 priority queues
- 802.1p priority marking
- Layer 2 classification
- Layer 3 DiffServ
- Layer 2/3/4 Access Control Lists (ACLs)

Extensibility

- Multicast: static IGMP membership
- Static Multicast Routes

Scalability

- LACP for edge deployment (server connectivity)

Routing

- Extreme Standby Router Protocol (ESRP)
- OSPF Edge
- RIP v1/v2

Multicast - edge

- IGMP v1/v2
- IGMP snooping
- PIM/SM edge

Simplicity

- Entity MIB for inventory
- mtrace/mrinfo

Management Features

- Serial management port on the front panel for ease of installation
- Extensive management through SNMP, RMON and command line interface
- More secure remote management with strong encryption using SSH2
- Port mirroring

EXTREMEWARE PROTOCOLS ENABLED BY THE SUMMIT 300-48 EDGE AND ADVANCED EDGE LICENSES

PROTOCOLS AND STANDARDS

General Routing and Switching

- RFC 1812 Requirements for IP Version 4 Routers
- RFC 1519 CIDR
- RFC 1256 IPv4 ICMP Router Discovery (IRDP)
- RFC 1122 Host Requirements
- RFC 768 UDP
- RFC 791 IP
- RFC 792 ICMP
- RFC 793 TCP
- RFC 826 ARP
- RFC 894 IP over Ethernet
- RFC 1027 Proxy ARP
- RFC 2338 VRRP
- RFC 3619 Ethernet Automatic Protection Switching (EAPS)
- IEEE 802.1D - 1998 Spanning Tree Protocol (STP)
- IEEE 802.1w – 2001 Rapid Reconfiguration for STP, RSTP
- IEEE 802.1Q - 1998 Virtual Bridged Local Area Networks
- EMISTP, Extreme Multiple Instances of Spanning Tree Protocol compatibility mode (one domain per port)
- PVST+, Per VLAN STP (802.1Q interoperable) compatibility mode (one domain / VLAN per port)
- Extreme Standby Router Protocol (ESRP)
- Static Unicast Routes
- Loop detection / protection via Layer 2 LBdetect and ELRP
- Software Redundant Ports

VLANs

- IEEE 802.1Q VLAN Tagging
- IEEE 802.3ad Static configuration and dynamic (LACP) for server attached
- IEEE 802.1v: VLAN classification by Protocol and Port
- Port-based VLANs
- MAC-based VLANs

Quality of Service and Policies

- IEEE 802.1D -1998 (802.1p) Packet Priority
- RFC 2474 DiffServ Precedence, including 4 (8 on S400) queues/port
- RFC 2598 DiffServ Expedited Forwarding (EF)
- RFC 2597 DiffServ Assured Forwarding (AF)
- RFC 2475 DiffServ Core and Edge Router Functions
- Ingress Rate Limiting
- Layer 1-4, Layer 7 (user name) Policy-Based Mapping
- Policy-Based Mapping/Overwriting of DiffServ code points, .1p priority
- Network Login/802.1x and DLCS (Dynamic Link Context System, WINS snooping) based integration with EPICenter Policy Manager for dynamic user/device based policies

RIP

- RFC 1058 RIP v1
- RFC 2453 RIP v2

OSPF Edge (2 Active Interfaces, router priority 0)

- RFC 2328 OSPF v2 (including MD5 authentication)
- RFC 1587 OSPF NSSA Option
- RFC 1765 OSPF Database Overflow
- RFC 2370 OSPF Opaque LSA Option

IP Multicast

- RFC 2328 OSPF v2 (including MD5 authentication)
- RFC 1587 OSPF NSSA Option
- RFC 1765 OSPF Database Overflow
- RFC 2370 OSPF Opaque LSA Option

Management and Traffic Analysis

- RFC 2030 SNTP, Simple Network Time Protocol v4
- RFC 1866 HTML – web-based device management and Network Login
- RFC 2068 HTTP server
- RFC 854 Telnet client and server
- RFC 783 TFTP Protocol (revision 2)
- RFC 951, 1542 BootP
- RFC 2131 BOOTP/DHCP relay agent and DHCP server
- RFC 1591 DNS (client operation)
- RFC 1155 Structure of Mgmt Information (SMIv1)
- RFC 1157 SNMPv1
- RFC 1212, RFC 1213, RFC 1215 MIB-II, Ethernet-Like MIB and TRAPs
- RFC 1573 Evolution of Interface
- RFC 1650 Ethernet-Like MIB (update of RFC 1213 for SNMPv2)
- RFC 1901 – 1908 SNMP Version 2c, SMIv2 and Revised MIB-II
- RFC 2570 – 2575 SNMPv3, user based security, encryption and authentication
- RFC 2576 Coexistence between SNMP Version 1, Version 2 and Version 3
- RFC 2665 Ethernet-Like-MIB
- RFC 1757 RMON 4 groups: Stats, History, Alarms and Events
- RFC 2021 RMON2 (probe configuration)
- RFC 2668 802.3 MAU MIB
- RFC 1643 Ethernet MIB
- RFC 1493 Bridge MIB
- RFC 2737 Entity MIB, Version 2
- RFC 2674 802.1p / 802.1Q MIBs
- RFC 1354 IPv4 Forwarding Table MIB
- RFC 2233 Interface MIB
- RFC 1724 RIPv2 MIB
- RFC 1850 OSPFv2 MIB
- RFC 2787 VRRP MIB
- RFC 2925 Ping / Traceroute / NSLOOKUP MIB Draft-ietf-bridge-rstpmib-03.txt (Definitions of Managed Objects for Bridges with RSTP) draft-ietf-bridge-8021x-01.txt (IEEE8021-PAE-MIB)
- IEEE 802.1x – 2001 MIB
- Extreme extensions to 802.1x-MIB
- Secure Shell (SSHv2) clients and servers
- Secure Copy (SCPv2) client and server
- Secure FTP (SFTP) server
- Configuration logging
- Multiple Images, Multiple Configs
- BSD System Logging Protocol (SYSLOG), with Multiple Syslog Servers
- Local Messages (critical messages stored across reboots)
- ExtremeWare vendor MIBs (includes ACL, MAC FDB, IP FDB, MAC Address Security, Software Redundant Port, DoS-Protect MIB, QoS policy, Cable Diagnostics, VLAN config.
- http://www.extremenetworks.com/zervices/documentation

Security

- Routing protocol MD5 authentication
- Secure Shell (SSHv2),Secure Copy (SCPv2) and
- SFTP with encryption/authentication
- SNMPv3 user based security, with encryption/authentication (see above)
- RFC 1492 TACACS+
- RFC 2138 RADIUS Authentication
- RFC 2139 RADIUS Accounting
- RADIUS Per-command Authentication
- Access Profiles on All Routing Protocols
- Access Profiles on All Management Methods
- Network Login (web-based DHCP / HTTP/ RADIUS mechanism)
- RFC 2246 TLS 1.0 + SSL v2/v3 encryption for web-based Network Login
- IEEE 802.1x – 2001 Port-Based Network Access Control for Network Login
- Multiple supplicants for Network Login (web-based and 802.1x modes)
- MAC Address Security – Lockdown, Limit and Trusted OID
- IP Address Security with DHCP Option 82, DHCP Enforce / Duplicate IP Protection via ARP Learning Disable
- Network Address Translation (NAT)
- Layer 2/3/4/7 Access Control Lists (ACLs)

Denial of Service Protection

- RFC 2267 Network Ingress Filtering
- RPF (Unicast Reverse Path Forwarding) Control via ACLs
- Wire-speed ACLs
- Rate Limiting by ACLs
- IP Broadcast Forwarding Control
- ICMP and IP-Option Response Control
- SYN attack protection
- Unidirectional Session Control
- CPU DOS protection with ACL integration: Identifies packet floods to CPU and sets an ACL automatically, configurable
- CPU DoS Protection with traffic ratelimiting to management CPU

Robust against common Network Attacks

- CERT (http://www.cert.org)
- CA-2003-04: “SQL Slammer”
- CA-2002-36: “SSHredder”
- CA-2002-03: SNMP vulnerabilities
- CA-98-13: tcp-denial-of-service
- CA-98.01: smurf
- CA-97.28:Teardrop_Land -Teardrop and "LAND " attack
- CA-96.26: ping
- CA-96.21: tcp_syn_flooding
- CA-96.01: UDP_service_denial
- CA-95.01: IP_Spoofing_Attacks_and_Hijacked_ Terminal_Connections
- IP Options Attack

Host Attacks

- Teardrop, boink, opentear, jolt2, newtear, nestea, syndrop, smurf, fraggle, papasmurf, synk4, raped, winfreeze, ping –f, ping of death, pepsi5, Latierra, Winnuke, Simping, Sping, Ascend, Stream, Land, Octopus

Switch Fabric:
- Bandwidth: non-blocking, 17.6 Gbps

Forwarding Rate:
- 13.1 million packets/second
- Max Packet Size: 9,216

Ports:
- 48 RJ-45 10/100 ports (IEEE 802.3 Type 10BASE-T; 802.3u Type 100BASE-TX)
- 8 dual personality ports (four active max.). Four RJ-45 10/100/1000 ports (IEEE 802.3 Type 10BASE-T; 802.3u Type 100BASE-TX; 802.3ab 1000BASE-T Gigabit Ethernet) and 4 open SFP GBIC slots

General:
- Number of QoS queues/port: 4 per 10/100 port
- Number of VLANs: 255
  VLAN Types: Port, IEEE 802.1Q, and MAC-based
- Number of ACL Rules/lines: 1014
  (can be applied to either ingress or egress)

Forwarding Tables:
- Layer 2/MAC Addresses: 8K
- Layer 3 forwarding database in hardware: 2K
- Layer 3 Routing table size: 8K

Rate Limiting:
- Flow-based Bandwidth policing/rate limiting: pool of 315 rate limiters that can be applied to any classified ACL flow (ingress flows)
- Rate Limiting Granularity: 1Mb/s on 10/100BASE-T ports. 8Mb/s on 1000BASE-T ports

PHYSICAL AND ENVIRONMENTAL

Dimensions:
- (H) 3.5 in x (W) 17.25 in (D) x 18.25 in
- (H) 8.9 cm (W) 43.87 cm x (D) 46.41 cm
- Weight: 14 lbs (6.35 Kg) (1 PSU)
- PSU Weight: 2.2 lbs (1.0 Kg)

Operating Conditions:
- Operating Temperature 0°C to 40°C (32 F to 104 F)
- Storage Temperature:-40°C to 70°C (-40 F to 158 F)
- Operating Humidity:10% to 95% relative humidity, non-condensing
- Operational Shock: 30 m/s2 (3g)

Acoustics:

Sound Power in accordance with EN 300 753
- Sound Power = 62 dBA per ISO 7779
- Declared Sound Power = 6.5 belsA per ISO 7779 & ISO 9296

Sound Pressure in accordance with NEBS GR-63 Core
- Bystander Sound Pressure = 54 dBA right side @ .6m per NEBS GR-63

Power:

• AC Voltage Input Range	90-240 VAC
• Input Amperage	3.2A @ 200VAC () 6.8A @ 90VAC ()
• AC Line Frequency	47 to 63 Hz
• Heat Dissipation:	631 BTU/hr (185 watts)

Power Over Ethernet:
The Summit 300-48 supports 802.3af PoE power management
- Available PoE power with the one power supply shipped with the system is 450 Watts
- Available PoE power with additional hot-swappable redundant power supply (p/n 15412) is 480 Watts

Regulatory:

North American Safety of ITE
- UL 60950 3rd Edition, Listed Device (US)
- CSA 22.2#60950-00 (Canada)
- Complies with FCC 21CFR1040.10 & 1040.11, LN#50 7/2001 (US Laser Safety)
- CDRH Letter of Approval (US FDA Approval)
- NOM/NYCE (Mexico)

European Safety of ITE
- EN60950:2000
- EN 60825-1+A2:2001 (Lasers Safety)
- 73/23/EEC Low Voltage Directive

International Safety of ITE
- CB Scheme IEC 60950:1999+All Country Deviations
- AS/NZX 3260 (Australia /New Zealand)
- GOST (Russia)

EMI/EMC:

North America EMC for ITE
- FCC CFR 47 part 15 Class A (USA)
- ICES-003 Class A (Canada)

European EMC standards
- EN 55022:1998 Class A
- EN 55024:1998 Class A
  includes IEC 61000-4-2, 3, 4, 5, 6, 8, 11
- EN 61000-3-2,3 (Harmonics & Flicker)
- ETSI EN 300 386:2001 (EMC Telecommunications)
- 89/336/EEC EMC Directive

International EMC Certifications
- CISPR 22:1997 Class A (International Emissions)
- CISPR 24:1997 Class A (International Immunity)
- IEC/EN 61000-4-2 Electrostatic Discharge
- IEC/EN 61000-4-3 Radiated Immunity
- IEC/EN 61000-4-4 Transient Burst
- IEC/EN 61000-4-5 Surge
- IEC/EN 61000-4-6 Conducted Immunity
- IEC/EN 61000-4-11 Power Dips & Interruptions

Country Specific
- VCCI Class A (Japan Emissions)
- AS/NZS 3548 ACA (Australia Emissions)
- NOM/NYCE (Mexico)
- CNS 13438:1997 Class A (BSMI-Taiwan)
- MIC Mark, EMC Approval (Korea)
- GOST (Russian Federation)

Environmental:
- EN/ETSI 300 019-2-1 v2.1.2 - Class 1.2 Storage
- EN/ETSI 300 019-2-2 v2.1.2 - Class 2.3 Transportation
- EN/ETSI 300 019-2-3 v2.1.2 - Class 3.1e Operational
- EN/ETSI 300 753 (1997-10) - Acoustic Noise
- ASTM D3580 Random Vibration Packaged 1.5G

Reliability:
- Calculated MTBF: 124,768 hours
- Fan Redundancy, resilient to up to 2 fan failures

ORDERING INFORMATION

Part Number	Part Name	Description
15402	Summit 300-48	L2/L3/WLAN switch, 48 10/100BASE-TX PoE, 4 1000BASE-T & mini-GBIC based 1000BASE-X slots (unpopulated), Advanced Edge software, Wireless feature pack, single 600W AC power supply (450W available to PoE devices). Includes power cord for US & Japan
15412	Summit 300-48 Spare 600W PSU	600W AC power supply (450W available to power Ethernet devices). Redundant and Load sharing power supply or spare
15441	Summit 300-48 Spare Blank Panel	Optional slot cover. For sparing only

ACCESSORIES

Part Number	Part Name	Description
10051	SX mini-GBIC	Mini-GBIC, SFP, 1000BaseSX, LC Connector
10052	LX mini-GBIC	Mini-GBIC, SFP, 1000BaseLX, LC connector
10053	ZX mini-GBIC	Mini-GBIC, SFP, Extra long distance SMF 70 Km/21 dB budget, LC connector

ACCESS POINTS, ANTENNAS, AND ACCESSORIES

Part Number	Part Name	Description
15700	Altitude 300-2i North America	802.11a/b/g, dual radio, integrated 2.4 & 5 GHz antennas, AES, 10/100BASE-TX PoE port; mounting accessories (U.S., Canada only)
15701	Altitude 300-2d North America	802.11a/b/g, dual radio, detachable RP-TNC (2/4 GHz) & RP-SMA (5 GHz) antenna connectors, AES, 10/100BASE-TX PoE port; mounting accessories (U.S., Canada only)
15702	Altitude 300-2i Japan	802.11a/b/g, dual radio, integrated 2.4 & 5 GHz antennas, AES, 10/100BASE-TX PoE port; mounting accessories; meets regulatory certification for Japan
15703	Altitude 300-2d Japan	802.11a/b/g, dual radio, detachable RP-TNC (2.4 GHz) & RP-SMA (5 GHz) antenna connectors, AES, 10/100BASE-TX PoE port; mounting accessories; meets regulatory certification for Japan
15706	Altitude 300-2i EU and RoW	802.11a/b/g, dual radio, integrated 2.4 & 5 GHz antennas, AES, 10/100BASE-TX PoE port; mounting accessories; meets regulatory certification for EU and all other countries excluding NA, Japan & Taiwan
15707	Altitude 300-2d EU and RoW	802.11a/b/g, dual radio, detachable RP-TNC (2.4 GHz) & RP-SMA (5 GHz) antenna connectors, AES, 10/100BASE-TX PoE port; mounting accessories; meets regulatory certification for EU and all other countries excluding NA, Japan & Taiwan
15901	Indoor/Outdoor Dual Band Dir. Ant.	Indoor/outdoor integrated dual band 2.4 GHz & 5 GHz diverse directional antenna. Includes indoor mounting and 1m/3 foot cable. Use with 15701, 15703, or 15707 Access Points
15902	Antenna Outdoor Mounting Kit	Outdoor mounting kit for 15901 detachable antenna. Includes universal mounting bracket for wall, ceiling and pool installations, nuts, bolts and fasteners
15922	Altitude 300 Translucent Covers	Includes Qty. 5 Altitude 300 Translucent paintable plastic covers (includes integrated antenna shrouds)
15923	Altitude 300 Grey Covers	Includes Qty. 5 Altitude 300 Cool Grey paintable plastic covers (includes integrated antenna shrouds)

3585 Monroe Street Santa Clara, CA 95051-1450 Phone 408.579.2800 Fax 408.579.3000
Email info@extremenetworks.com Web www.extremenetworks.com

Specifications are subject to change without notice. L-DS-SUMMIT300-48-502