Extreme Networks’ Summit48si sets the new standard for Layer 3 switching at the edge by maximizing 10/100 port density and architecting unparalleled levels of reliability while maintaining leadership in Layer 3 software features and performance. The Summit48si’s unsurpassed software features, capacity, and performance enable customers to provide more Layer 3 services to more users while using less space and at a lower Total Cost of Ownership (TCO) than ever before.

At an incredible one rack unit (1.75”) in height, the Summit48si packs a whopping 48 10/100 Ethernet ports and 2 Gigabit Ethernet ports—with non-blocking capacity to support every port at full line rate. This compact yet powerful package is capable of supporting two hot-swappable load sharing power supplies—a reliability first in a 1 rack unit Layer 3 switch. And the Summit48si reliability is enhanced even further with dual Gigabit Ethernet uplinks, both of which are active and can be aggregated for enhanced throughput and increased redundancy.

Extreme Networks’ advanced Layer 3 software feature set, ExtremeWare®, combined with the new 1 rack unit and dual power supply form factor makes the Summit48si an unbeatable solution at the edge of the network. Featuring the same “i” series chipset that powers Extreme Networks’ award-winning Alpine™ and BlackDiamond® modular switches, the Summit48si supports the most comprehensive set of Layer 3 switched services in the industry—including open shortest path first (OSPF), prioritization and bandwidth management Quality of Service (QoS), Access Control Lists (ACLs), Denial of Service (DoS) protection, and many more features.

This unique combination of high performance, reliability and extensive Layer 3 switched services enables the Summit48si to support redeployment of Layer 3 edge services right to the edge of the network—saving the customer money and improving overall network functionality and performance.
Summit48si Product Specifications

Protocols and Standards

**General Routing**
- RFC 1812 Router requirements
- RFC 1519 CIDR
- RFC 1256 IRDP router discovery
- RFC 783 TFTP
- RFC 951 BootP
- RFC 1542 BootP
- RFC 2131 BootP/DHCP helper
- RFC 1591 DNS (client operation)
- RFC 1122 Host requirements
- RFC 768 UDP
- RFC 792 ICMP
- RFC 793 TCP
- RFC 826 ARP
- RFC2338 Virtual Redundant Router Protocol (VRRP)
- ESRP Extreme Standby Router Protocol, with Groups, Host attach and Domain features

**RIP**
- RFC 1058 RIPv1
- RFC 2453 RIPv2

**OSPF**
- RFC 2328 OSPFv2
- RFC 1587 OSPF NSSA Option
- RFC 2154 OSPF with Digital Signatures (password, MD-5)

**BGP4**
- RFC 1771 Border Gateway Protocol 4
- RFC 1965 Autonomous System Confederations for BGP
- RFC 1966 BGP Route Reflection
- RFC 1997 BGP Communities Attribute
- RFC 1745 BGP/OSPF interaction

**IP Multicast**
- RFC 2362 PIM-SM
- PIM-DM Draft IETF PIM Dense Mode v2-dm-03
- RFC 1122 DVMRP Host req
- DVMRP v3 draft IETF DVMRP v3-07
- RFC 2236 IGMP v2

**Quality of Service**
- IEEE 802.1D - 1998 (802.1p) packet priority
- RFC 2474 DiffServ Precedence
- RFC 2598 DiffServ Expedited Forwarding
- RFC 2597 DiffServ Assured Forwarding
- RFC 2475 DiffServ Core and Edge router functions

**IEEE General**
- IEEE 802.1D Spanning Tree Protocol (STP), with multiple domains
- IEEE 802.1Q VLAN tagging
- IEEE 802.3ad draft - static config
- IEEE GVRP (Generic VLAN Registration Protocol)
- Port-based
- MAC-based

Protocol-sensitive

**Management**
- RFC 1157 SNMPv1/v2c
- RFC 1907 SNMPv2
- RFC 1757 RMON 4 groups: Stats, History, Alarms & Events
- RFC 2021 RMON2 (probe config)
- RFC 2668 MAU
- RFC 1493 Bridge MIB
- RFC 1213 MIB-II
- RFC 2037 Entity MIB
- RFC 2233 Interface MIB
- RFC 2096 IP Forwarding
- RFC 1724 RIPv2 MIB
- ExtremeWare private MIB (includes ACL, QoS policy and VLAN config)
- RFC 1866 HTML
- RFC 2068 HTTP
- RFC 854 Telnet
- Multiple images, multiple configs
- Multiple Syslog servers
- 999 local messages, criticals stored across reboots
- RFC 1769 Ver 3 Simple Network Time Protocol

**Security**
- FIPS-186 (Federal Information Processing Standards Publication 186) Secure Shell 2 (SSH2).
- RFC 1851 3DES-CBC cipher
- RFC 2792 DSA key exchange
- TACACS+
- RFC 2138 RADIUS
- RFC 2139 RADIUS Accounting
- RADIUS per-command Authentication
- Access Profiles on all routing protocols
- Access Profiles on all management methods
Data Sheet - Summit48si™

Denial of Service Protection

- RFC 2267 Network Ingress Filtering
- RPF (Source Route Path Forwarding) control
- Wire-speed ACLs
- Rate Limiting by ACLs
- Server Load Balancing with Layer 3, 4 protection of Servers
- STF attack protection
- Unidirectional session control
- CERT and “rootshell” immunity testing including:
  - CA-97.28.Tweektop_Land - Tweektop and “LAND” attack
  - IP Options Attack
  - CA-98.13.topo-dialer-of-services
  - CA-98.26.ping
  - CA-99.21.topo.ping_floding
  - CA-99.03.20.oبد seizure
  - CA-99.01.P_SpooferAttacks_and_Hijacked_Terminal_Connections

Host Attacks (http://www.rootshell.org/beta/exploits.html)

- Synthop
- Natas
- Lates
- Nastyn
- Bone
- Winneka
- Simping
- Sling
- Async
- Fram
- Reped

Certificate and “rootshell” immunity testing including:

- CERT (http://www.cert.org)
- CA-97.28.Tweektop_Land - Tweektop and “LAND” attack
- IP Options Attack
- CA-98.13.topo-dialer-of-services
- CA-98.26.ping
- CA-99.21.topo.ping_floding
- CA-99.03.20.oبد seizure
- CA-99.01.P_SpooferAttacks_and_Hijacked_Terminal_Connections

Physical and Environmental

- Summit48si Dimensions
  - (H) 1.75 in x (W) 17.25 in x (D) 18.25 in (Including PSU handle)
  - (H) 4.45 cm x (W) 43.87 cm x (D) 46.41 cm
  - Weight: 14 lbs (6.35 Kg) (1 PSU)
  - PSU Weight: 2 lbs (0.9 Kg)

- Operating Temperatures: -40˚ C to 40˚ C (-40˚ F to 104˚ F)
- Storage Temperatures: -40˚ C to 70˚ C (-40˚ F to 158˚ F)
- Humidity: 10% to 95% non-condensing
- AC Power: 100 to 240 VAC, 50-60 Hz, 1.5-3.0 A max.
- DC Power: 36 to 75 VDC, 3% max ripple, 4.2 Amps maximum at 48 VDC
- Heat Dissipation: 631 BTU/hr (185 watts)

Regulatory

- UL 1950 3rd Edition, listed
- BIC 95DC
- Low Voltage Directive (LVD)
- CSA 22.2#950-95
- AS/NZS 3260
- EN60601-1
- FCC CFR 21
- EN/ECN
- EN60950 A1-4:1997 listed
- SCC-22.2#950-95
- IECE 950CB
- AS/NZS 3260
- EN60825-1
- FCC Part 15 Class A
- ICES-003 A/C108.8-M1983 Class A
- VCCI Class A
- AS/NZS 2658
- Ascend
- EN50122 Class A
- CECP 32 Class A
- EN60828-1:1997 includes ENV 930004
- EN60828-3:1998 includes ENV 61000-4-2, 3, 4, 5, 6, 8, 11
- EN 61000-3-2, 3
- CNS 13438 Class A
- Environmental
  - EN60068 to Extreme EC88 schedule

Ordering Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>15601</td>
<td>Summit48si AC with 48 10/100BASE-TX Ethernet ports, two miniGBIC-based 1000BASE-X slots (unpopulated), basic Layer 3 switching, single AC power supply. Includes power cord for US and Japan.</td>
</tr>
<tr>
<td>15602</td>
<td>Summit48si DC with 48 10/100BASE-TX Ethernet ports, two miniGBIC-based 1000BASE-X slots (unpopulated), basic Layer 3 switching, single DC power supply. Includes power cord for US and Japan.</td>
</tr>
<tr>
<td>15603</td>
<td>Summit48si AC power supply. Second power supply or spare.</td>
</tr>
<tr>
<td>15604</td>
<td>Summit48si DC power supply. Second power supply or spare.</td>
</tr>
<tr>
<td>15605</td>
<td>ExtremeWare Full Layer 3 Software License Voucher</td>
</tr>
</tbody>
</table>

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