enterasys® Secure Networks™

DATASHEET

SecureStack B3 Switch Family

Policy-based L2 switching with high-availability stacking

High-density, High-availability stackable 10/100/1000 switching

Policy license option delivers affordable Secure Networks to the stackable edge

PoE capable

Stacks together with B2 switches

IPv6 management capability

Basic routing functions supported

Lifetime warranty

Product Overview

Enterasys Networks introduces the SecureStack B3 stackable switch for customers looking for industry-leading performance at an economical price point. The SecureStack B3 delivers line rate switching as well as as policy capabilities that enable customers to deploy a role-based policy on their network.

Leading Performance, High-End Features at a Low-Entry Cost

By offering unprecedented port density in a stackable switch, the SecureStack B3 allows customers to start small and then keep growing. In addition, customers can upgrade their switches to an Enterasys Secure Network via a license upgrade, providing many of the features that make Enterasys Networks known as the Secure Networks company. Enterasys Secure Networks is the role-based security architecture where every user is assigned an easy-to-deploy, yet highly granular role on the network. The SecureStack B3 supports up to 768 policy rules per switch or stack. Once users are authenticated to the network (using 802.1X, MAC, or optional web authentication), they are then controlled according to the rules of their particular role.

The SecureStack B3 provides a low-cost way to build a switched network with extremely high performance. The B3 Switch Family delivers advanced Layer 2+ switching in a single stack with up to 384 10/100/1000 ports and up to 32 Gigabit uplink ports. The SecureStack B3 provides scalable and flexible options with 24- and 48-port versions available with PoE. In the tradition of Enterasys always preserving our customers investments, the SecureStack B3 is fully interoperable and stackable with existing B2 switches.

Benefits

Minimal Operator Intervention

- Patented Secure Networks command and control functions enable you to apply up to 768 policy rules to create a self-managed network
- Auto-discovery of network attached devices (LLDP/LLDP-MED) enable you to create new policy, configuration, location and management applications
- NetSight management console makes it easy to deploy policy changes in large networks

Predictable Quality of Service

- Extensive controls for managing QoS by Layer 2,3 and 4 traffic, bandwidth, rate limits, user profile or application
- High availability through Loop Protect, redundant power supplies, automatic link failover and closed loop stacking

Support and Service

- The Enterasys service and support staff is an industry best with a 95% customer satisfaction rating and an average tenure of 10 years

There is nothing more important than our customers.

B3 Stacks with B2 Switches to Preserve Existing Investment in SecureStack

Customers who have invested in B2 switches from Enterasys can invest in next-generation technology today by integrating the B3 switches into their existing network easily and inexpensively because there is no forklift upgrade. The B3 will stack out of the box in a B2 stack, and automatically assume the capabilities of the existing B2s.

Converged Networks Ready

Customers can take advantage of the cost savings of converged networks using the advanced Quality of Service features of the SecureStack B3. Traffic classification features combined with network-wide policies and 8 priority queues provide highly granular traffic prioritization and control of delay-sensitive traffic like VoIP.

Ensure Network Uptime with Increased Reliability and Availabilty

Revenue-producing networks are not tolerant of network downtime. The SecureStack B3 provides protection against downtime by providing redundant network connections, automatic failover, and recovery capabilities. Spanning Tree allows for redundant network connections. Link Aggregation Groups support link aggregation across multiple units in the stack to ensure that a failure in a single unit does not disconnect the stack from the uplink to the core switch. Redundant stack management is supported providing a primary and one backup for managing the stack entity. The SecureStack B3 also supports Closed Loop Stacking, which ensures that if a switch or cable fails, there is no loss of connectivity for the remainder of the stack.

Full power redundancy is available as an option for both the Power-over-Ethernet and standard Ethernet SecureStack. The redundant power options are the same as those used by the SecureStack C2/C3 and allow a switch to operate from its own internal AC power supply or, if there is a failure, seamlessly fail over to the external redundant power system.

Expanded Mask and Role Capabilities

The SecureStack B3 expands the capabilities of Secure Networks on the SecureStack product line by significantly expanding the mask capability of the switch. The B3 supports up to 768 different policy rules with a mask for each rule on a single switch or stack. The table below outlines the capabilities of different stacks. Note that in a mixed stack, the stack automatically assumes the lesser switch's capabilities.

Stack Policy Specifications

Type of Stack	**B3 Stack**	**B3/B2G Mix**	**B3/B2H Mix**
# of Rules/Stack	768	768	100
Stack Masks	768	768	18
# of Rules/Policy	100	100	100
# of Masks/Policy	100	10	10
Layer 2 Rule Support	Yes	Yes	Yes

Outstanding Configuration Flexibility

With the SecureStack B3 switching family, mixing and matching various types of switches is a snap. A small stack can be started with dual 10/100/1000 switches with redundant Gigabit uplinks to the core. If Power-over-Ethernet is needed for remote access points or IP phones, a 10/100/1000 PoE switch can simply be added to the stack. As higher desktop speeds are required, 10/100/1000 switches can be added. As the stack grows and demands on the uplinks to the core increase, distributed link aggregation provides the ability to aggregate as many as 8 ports stackwide as a single virtual link, increasing uplink bandwidth from a single gigabit up to 8 Gigabits. Network administration tasks are lightened because all the switches in the stack can be managed as a single entity with a single IP address and all of the switches run a common software image so there are never any incompatibility issues between switches.

SecureStack Lifetime Warranty

All SecureStack products from Enterasys provide a free lifetime warranty that continues for 5 years after the date of product discontinuation and includes power supply, fans, chassis, redundant power supply, and stacking cables. There is also a full software and firmware warranty to cover patches, bug fixes, and feature upgrades with 8 x 5 telephone support.

Extensive Traffic Classification

SecureStack B3 switches comprise the ideal family of switches for delivering any converged network solution. A major component for supporting converged networks is traffic classification. All SecureStack B3 switches deliver extensive Layer 2/3/4 packet classification and marking at the edge based on any of the following:

- Physical port
- IP address
- IP protocol
- IP ToS/DSCP marking
- TCP/UDP port
- IP subnet

With the optional Secure Networks Policy License, these classifications can then be used to deny or permit access, or prioritize traffic.

Advanced Quality of Service

Broad support for Quality of Service makes SecureStack B3 switches an ideal choice for all types of networks, including Voice over IP, real-time and non-real-time video, and data-intensive applications. Extensive classification capabilities combined with 8 priority queues per-port allow the SecureStack B3 to rate limit traffic flows granularly. Strict and Weighted Round Robin Queuing is supported. Support for the IP Differentiated Services Code Point (DSCP) enables the switches to enforce requested service levels.

SecureStack B3 Switching Specifications

Layer 2 Capabilities

- IEEE 802.1D — Spanning Tree
- IEEE 802.1t — 802.1D Maintenance
- IEEE 802.1p— Traffic Management/Mapping to 6 queues
- IEEE 802.1Q — Virtual LANs w/ Port-based VLANs
- IEEE 802.1s — Multiple Spanning Tree
- IEEE 802.1w— Rapid Spanning Tree Reconvergence
- IEEE 802.1X — Port-based Authentication
- IEEE 802.3 — 10 Base-T
- IEEE 802.3ab — 1000 Base-T
- IEEE 802.3ac — VLAN Tagging
- IEEE 802.3ad — Link Aggregation
- IEEE 802.3u — 100 Base-T
  GARP — Generic Attribute Registration Protocol:
  Clause 12, 802.1D-2004
  GVRP — Dynamic VLAN Registration:
  Clause 11.2, 802.1Q-2003
- IEEE 802.3x — Flow Control
- GMP Snooping v1, 2
- Private Port (Private VLAN)
- Jumbo Ethernet Frames (9,216 bytes)
- Many-to-One Port Mirroring, One-to-One Port Mirroring
- Port Description
- Protected Ports
- Per-Port Broadcast Suppression
- Spanning Tree Backup Root
- STP Pass Thru
- RFC 826 ARP and ARP Redirect
- RFC 951, RFC 1542—DHCP, BootP Relay
- RFC 1213 — MIB II
- RFC 1493 — Bridge MIB
- RFC 1643 — Ethernet-like MIB
- RFC 2131, RFC 3046-DHCP Client/relay
- RFC 2233 — Interfaces Group MIB using SMI v2
- RFC 2618 — RADIUS Authentication Client MIB
- RFC 2620 — RADIUS Accounting MIB
- RFC 2674 — VLAN MIB
- RFC 2737 — Entity MIB version 2
- RFC 2819 — RMON Groups 1, 2, 3 & 9
- RFC 2933—IGMP MIB
- IEEE 802.1X MIB (IEEE 802.1-PAE-MIB)
- IEEE 802.3ad MIB (IEEE802.3-AD-MIB)
- VLAN Marking of Mirror Traffic

Authentication

- User and IP Phone Authentication
- 802.1X IP and MAC Port Authentication
- MAC Authentication
- Web Authentication (PWA) (requires policy license)
- Web Redirect—PWA + and URL redirection
- 802.1X Authentication, MAC, and Web
- RFC 3580— Dynamic VLAN Assignment
- Multiple User RFC3580 Authentication per gigabit port
- RADIUS Client
- RADIUS Accounting for MAC Authentication
- EAP Pass Through
- Dynamic and Static MAC Locking

Routing

- RFC 826 — Ethernet ARP
- RFC 1058 — RIPv1
- RFC 2453 — RIPv2
- RFC 1256 — ICMP Router Discovery Messages

QoS

- Queuing Control Strict & Weighted Round Robin
- 8 Priority Queues/Port
- 802.3x Flow Control

PoE

- 802.3af—Power over Ethernet

Management

- NetSight Console
- NetSight Policy Manager
- NetSight Inventory Manager
- NetSight Automated Security Manager
- Sentinel
- WebView
- SSL Interface to WebView
- RMON (4 Groups)
- Text-based Configuration Upload/Download
- Simple Network Time Protocol (SNTP)
- Alias Port Naming
- Node/Alias Table
- Telnet with SSH
- Password Protection (encryption)
- Syslog
- RFC 854 — Telnet
- RFC 1157 — SNMP
- RFC 1901 — Community-based SNMPv2
- RFC 2271 — SNMP Framework MIB
- RFC 3413 — SNMPv3 Applications
- RFC 3414 — User-based Security Model for SNMPv3
- RFC 3415 — View-based Access Control Model for SNMP

Physical Specifications

Capacity & Performance

Address Table Size: 16k MAC Addresses
RAM: 256 MB
Flash Memory: 512 KB Flash + 32 MB run time flash
4096 VLANs supported; 1024 VLAN entries/stack
8 Priority Queues/Port (6 Available for traffic prioritization)
VLAN Spanning Tree (802.1s): 4 Instances Supported
802.3ad Link Aggregation: 8 ports per trunk group, 6 groups supported
Jumbo 9K Frame Supported on Gigabit Links

Throughput Capacity (wire-speed)

35.7 mpps	on B3Gxxx 24-port models
71.4 mpps	on B3Gxxx 48-port models

Aggregate Throughput Capacity

144.0 gbps	maximum per switch
1,150.0 gbps	maximum per stack

Switching Capacity Dedicated to Stacking

48.0 gbps	per switch dedicated to stacking
384.0 gbps	aggregate dedicated to stacking

Physical Specifications

Dimensions (H x W x D)

4.4 cm (1.73") x 44.1 cm (17.36") x 36.85 cm (14.51")

Net Weight

B3G124-48P	6.55 Kg (14.41 lb)
B3G124-48	5.35 Kg (11.77 lb)
B3G124-24P	6.25 Kg (13.75 lb)
B3G124-24	5.05 Kg (11.11 lb)

Heat Dissipation

B3G124-48P	1670 BTU/Hr
B3G124-48	441 BTU/Hr
B3G124-24P	1451 BTU/Hr
B3G124-24	294 BTU/Hr

MTBF

B3G124-48P	81,176 Hours
B3G124-48	110,509 Hours
B3G124-24P	115,324 Hours
B3G124-24	162,308 Hours

PoE

B3G124-48P

— IEEE 802.3af compliant total PoE power of 375W average of 7.8 watts per port. (Class 2 = 7.5W)

B3G124-24P

— IEEE 802.3af compliant total PoE power of 369.6W average of 15.4 watts per port (Class 3).

Environmental Specifications

Power Requirements

Nominal Input Voltages: 100 V to 240 V
Input Voltage: 18 and 32 Volt DC and 110/220 Volt DC
Input Frequency: 47 Hz to 63 Hz

Input Current

B3G124-48P	110V - 5.09A	220V - 2.882A
B3G124-48	110V - 1.06AA	220V - .526A
B3G124-24P	110V - 4.37A	220V - 2.483A
B3G124-24	110V - .577A	220V - .291A

Power Consumption

B3G124-48P	559.9W
B3G124-48	116.6W
B3G124-24P	481W
B3G124-24	63.5W

Temperature

Operating Temperature: Standard Operating 0°C to 50 °C (32°F to 122 °F);
Non-Operating: -40°C to 70°C (-40° F to 158° F)

Humidity

Operating Humidity: 10-90% non-condensing

Agency and Standards Specifications

Standard Safety: UL 60950, CSA 60950 EN 60825 IEC 60950
Electromagnetic compatibility: 47 CFR Parts 2 and 15, CSA C108.8, EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3, AS/NZS CISPR 22, and VCCI V-3

Warranty

All SecureStack Switches are warranted to be free from defects for the life of the product. Enterasys offers advance replacement with Next Business Day Arrival Shipment options. The SecureStack Warranty continues until 5 years after the date of product discontinuation and includes power supply, fans, and stacking cables. The Software and Firmware Warranty covers patches, bug fixes, and feature upgrades with 8 x 5 telephone support.

Service and Support

Enterasys Networks provides comprehensive service offerings that range from Professional Services to design and implement customer networks, customized technical training, to service and support tailored to individual customer needs. Please contact your Enterasys account executive for more information about Enterasys Service and Support.

Ordering Information

Part Number	Description
SecureStack B3 Switches	
B3G124-24	SecureStack B3 with 24 10/100/1000 ports via RJ45 w/ 4 SFP ports (24 Total Active Ports/Switch)
B3G124-24P	SecureStack B3 with 24 10/100/1000 Power over Ethernet ports via RJ45 w/ 4 SFP ports (24 Total Active Ports/Switch)
B3G124-48	SecureStack B3 with 48 10/100/1000 ports via RJ45 w/ 4 SFP ports (48 Total Active Ports/Switch)
B3G124-48P	SecureStack B3 with 48 10/100/1000 Power over Ethernet ports via RJ45 w/ 4 SFP ports (48 Total Active Ports/Switch)
MGBIC Module	
MGBIC-LC01	Mini-GBIC with 1000Base-SX via LC Connector
MGBIC-LC03	Mini-GBIC with 1000Base-LX/LH (2KM Long Haul) MMF via LC Connector
MGBIC-08	Mini-GBIC with 1000Base-LX/LH (70KM Long Haul) SMF via LC Connector
MGBIC-LC09	Mini-GBIC with 1000Base-LX via LC Connector
MGBIC-02	Mini-GBIC with 1000Base-T via RJ45 Connector
MGBIC-MT01	Mini-GBIC with 1000Base-SX via MTRJ Connector
Software License	
B3POL-LIC	SecureStack B3 Policy License (Per Switch)
Accessories	
C2CAB-SHORT	SecureStack stacking cable for connecting adjacent switches (.3 Meter)
C2CAB-LONG	SecureStack stacking cable for connecting the top switch to the bottom switch (1 Meter)
C2CAB-5M	SecureStack stacking cable for C2 and B2 Series (48-port models only) and all C3 and B3 Models (5 Meter)
SSCON-CAB	SecureStack console cable (for use on all A2, B2, B3, C2 and C3 switches)
C2RPS-SYS	SecureStack RPS chassis plus one C2RPS-PSM (chassis supports up to 8 C2RPS-PSMs)
C2RPS-CHAS8	SecureStack RPS chassis (chassis supports up to 8 C2RPS-PSMs)
C2RPS-PSM	SecureStack 150-watt redundant non-PoE power supply with one DC cable
C2RPS-POE	SecureStack 500-watt redundant PoE power supply with one DC cable
C2RPS-CHAS2	SecureStack RPS chassis (chassis supports up to 2 C2RPS-PSMs)

Contact Us

For more information, call Enterasys Networks toll free at 1-877-801-7082, or +1-978-684-1000 and visit us on the Web at enterasys.com

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Over 500 global patents

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