wvOASIS

Welcome, Lu Anne Cottrill | Procurement | Budgeting | Accounts Receivable | Accounts Payable

Solicitation Response(SR) | **Dept:** 0506 | **ID:** ESR02241500000002178 | **Ver.:** 1 | **Function:** New | **Phase:** Final | ▼ | Modified by batch , 02/24/2015

Header ☐ ☐

📋 List View

| General Information | Contact | Default Values | Discount | Document Information |

Procurement Folder: 53744

Procurement Type: Central Purchase Order

Vendor ID: 000000219123 ⬆

Legal Name: POMEROY IT SOLUTIONS SALES CO

Alias/DBA:

Total Bid: $84,782.95

Response Date: 02/24/2015 📅

Response Time: 10:50

SO Doc Code: CRFQ

SO Dept: 0506

SO Doc ID: WIC1500000002

Published Date: 2/19/15

Close Date: 2/24/15

Close Time: 13:30

Status: Closed

Solicitation Description: ADDENDUM NO. 1 (50) CISCO NETWORK SWITCHES OR

Total of Header Attachments: 0

Total of All Attachments: 0

Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

State Of West Virginia
Solicitation Response

Proc Folder : 53744

Solicitation Description : ADDENDUM NO. 1 (50) CISCO NETWORK SWITCHES OR EQUAL

Proc Type : Central Purchase Order

Date issued	Solicitation Closes	Solicitation No		Version
	2015-02-24 13:30:00	SR 0506	ESR02241500000002178	1

VENDOR

000000219123

POMEROY IT SOLUTIONS SALES CO

FOR INFORMATION CONTACT THE BUYER

Gregory Clay
(304) 558-2566
gregory.c.clay@wv.gov

Signature X   **FEIN #**   **DATE**

All offers subject to all terms and conditions contained in this solicitation

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	NETWORK SWITCHES 24 GIG	45.00000	EA	$1,485.65	

Comm Code	Manufacturer	Specification	Model #
43222612			

Extended Description : Network device that filters, forwards, and floods frames based on the destination address of each frame. The switch operates at the data link layer of the OSI model.

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
2	NETWORK SWITCHES 48 GIG	5.00000	EA	$3,585.74	

Comm Code	Manufacturer	Specification	Model #
43222612			

Extended Description : Network device that filters, forwards, and floods frames based on the destination address of each frame. The switch operates at the data link layer of the OSI model.

State of West Virginia
Request for Quotation
—

Proc Folder: 53744	
Doc Description: ADDENDUM NO. 1 (50) CISCO NETWORK SWITCHES OR EQUAL	
Proc Type: Central Purchase Order	

Date Issued	Solicitation Closes	Solicitation No	Version
2015-02-19	2015-02-24 13:30:00	CRFQ 0506 WIC1500000002	2

BID RECEIVING LOCATION

BID CLERK
DEPARTMENT OF ADMINISTRATION
PURCHASING DIVISION
2019 WASHINGTON ST E
CHARLESTON   WV   25305
US

VENDOR

Vendor Name, Address and Telephone Number: Pomeroy IT Solutions
500 Westmoreland Office Park
Dunbar, WV 25064
Phone: 304.746.4434
Fax: 866.307.5674
Michelle Clark, Inside Sales
Linda.clark@pomeroy.com

FOR INFORMATION CONTACT THE BUYER
Gregory Clay
(304) 558-2566
gregory.c.clay@wv.gov

Signature X _(signature)_   FEIN # 61-1352158   DATE 02/24/2015
All offers subject to all terms and conditions contained in this solicitation

FORM ID : WV-PRC-CRFQ-001

INVOICE TO			SHIP TO		
PURCHASING DIRECTOR - 304-356-4095			PURCHASING DIRECTOR - 304-356-4095		
HEALTH AND HUMAN RESOURCES			HEALTH AND HUMAN RESOURCES		
BPH - NUTRITION SERVICES			BPH - NUTRITION SERVICES		
350 CAPITOL ST, RM 519			350 CAPITOL ST, RM 519		
CHARLESTON	WV 25301-3717		CHARLESTON	WV 25301-3717	
US			US		

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	NETWORK SWITCHES 24 GIG	45.00000	EA	$1,485.65	$66,853.80

Comm Code	Manufacturer	Specification	Model # B5G124-24P2 / STK-CAB-SHORT / 5601513-U1
43222612	Extreme Networks	B5 24PT 10/100/1000 POE 4 SFP COMBO PTS - CORD NEMA 5-15 C13 14 AWG USA - B5/C5 30CM STACKING CBL	

Extended Description :

Network device that filters, forwards, and floods frames based on the destination address of each frame. The switch operates at the data link layer of the OSI model.

INVOICE TO			SHIP TO		
PURCHASING DIRECTOR - 304-356-4095			PURCHASING DIRECTOR - 304-356-4095		
HEALTH AND HUMAN RESOURCES			HEALTH AND HUMAN RESOURCES		
BPH - NUTRITION SERVICES			BPH - NUTRITION SERVICES		
350 CAPITOL ST, RM 519			350 CAPITOL ST, RM 519		
CHARLESTON	WV 25301-3717		CHARLESTON	WV 25301-3717	
US			US		

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
2	NETWORK SWITCHES 48 GIG	5.00000	EA	$3,585.74	$17,928.70

Comm Code	Manufacturer	Specification	Model # C5G124-48P2 / STK-CAB-SHORT / 5601513-U1
43222612	Extreme Networks	C5 48PT 10/100/1000 POE 4 SFP COMBO PTS - CORD NEMA 5-15 C13 14 AWG USA - B5/C5 30CM STACKING CBL	

Extended Description :

Network device that filters, forwards, and floods frames based on the destination address of each frame. The switch operates at the data link layer of the OSI model.

ADDITIONAL TERMS AND CONDITIONS

See attached document(s) for additional Terms and Conditions

SPECIFICATIONS

1. **PURPOSE AND SCOPE:** The West Virginia Purchasing Division is soliciting bids on behalf of Bureau for Public Health, Office of Nutrition Services to establish a contract for the one time purchase of cisco network switches or equal for fifty of their field offices.

2. **DEFINITIONS:** The terms listed below shall have the meanings assigned to them below. Additional definitions can be found in section 2 of the General Terms and Conditions.

   2.1 **"Contract Item"** means (45) Cisco catalyst 2960S 24 port network switches or equal, and (5) Cisco Catalyst 2960S 48 port network switches or equal (total of 50 switches) and associated hardware as more fully described by these specifications.

   2.2 **"Pricing Page"** means the pages, contained in wvOASIS or attached, upon which Vendor should list its proposed price for the Contract Items.

   2.3 **"Solicitation"** means the official notice of an opportunity to supply the State with goods or services that is published by the Purchasing Division.

3. **GENERAL REQUIREMENTS:**

   3.1 **Mandatory Contract Item Requirements:** Contract Item must meet or exceed the mandatory requirements listed below.

   3.1.1 **Contract Item #1 Quantity-45 – 24 Port Gigabit Ethernet Switch**

   3.1.1.1 Switch must have a minimum of 24 10/100/1000 PoE (.af + .at) auto-sensing, auto negotiating MDI/MDI-X RJ45 ports.

   3.1.1.2 Switch must support a minimum of two one gigabit SFP connections.

   3.1.1.3 Switch must have a minimum of two dedicated stacking ports and include a stacking cable to connect to an adjacent switch.

   3.1.1.4 Switch must provide IEEE 802.3at-compliant PoE+ with a total POE budget of a minimum of 370 Watts.

   3.1.1.5 Switch must support the Automatic discovery and deployment of VoIP services and VLAN assignment using the following

protocols; Cisco Discovery Protocol (CDP), IWWW 802.1AB-LLDP, and ANSI/TIA-1057 – LLDP-MED or equal.

3.1.1.6 Switch must have a manufacturer provided lifetime warranty that includes next business day hardware replacement, and firmware/operating system software updates for a minimum of 5 years after the end of sale announcement for the device.

3.1.2 Contract Item #2 Quantity (5) – 48 Port Gigabit Ethernet Switch

3.1.2.1 Switch must have minimum 48 10/100/1000 PoE (.af + .at) auto-sensing, auto negotiating MDI/MDI-X RJ45 ports.

3.1.2.2 Switch must support a minimum of two one gigabit SFP connections.

3.1.2.3 Switch must have a minimum of two dedicated stacking ports and include a stacking cable to connect to an adjacent switch.

3.1.2.4 Switch must provide IEEE 802.3at-compliant PoE+ with a total POE budget of a minimum of 740 Watts.

3.1.2.5 Switch must support the Automatic discovery and deployment of VoIP services and VLAN assignment using the following protocols; Cisco Discovery Protocol (CDP), IEEE 802.1AB – LLDP, and ANSI/TIA-1057 –LLDP-MED or equal.

3.1.2.6 Switch must have a manufacturer provided warranty that includes next business day hardware replacement, and firmware/operating system software updates for a minimum of 5 years after the end-of-sale announcement for the device.

4. CONTRACT AWARD:

4.1 Contract Award: The Contract is intended to provide Agencies with a purchase price for the Contract Items. The Contract shall be awarded to the Vendor that provides the Contract Items meeting the required specifications for the lowest overall total cost as shown on the Pricing Pages.

4.2 Pricing Page: Vendor should complete their bid by providing a Unit Price for Commodity Lines on the Request for Quotation. If responding to the Request for Quotation on paper, vendors should also provide a Total Price for each Commodity line by multiplying their bid Unit Price by the listed

Quantity (Qty.) for each line. Vendor should provide bids for all commodity lines, as failure to do so may result in Vendor's bid being disqualified.

Vendor should electronically enter the information into the Pricing Pages through wvOasis, if available, or as an electronic document. In most cases, the vendor can request an electronic copy of the Pricing pages for bid purposes by sending an email request to the following address: Gregory.C.Clay@wv.gov

(Note: there are no separate, electronic Pricing Pages for this solicitation. Vendors responding on paper should use the printed Request for Quotation document.)

5. PAYMENT:

5.1 Payment: Vendor shall accept payment in accordance with the payment procedures of the State of West Virginia.

6. DELIVERY AND RETURN:

6.1 Shipment and Delivery: Vendor shall ship the Contract Items immediately after being awarded this Contract and receiving a purchase order or notice to proceed. Vendor shall deliver the Contract Items within 30 working days after receiving a purchase order or notice to proceed. Contract Items must be delivered to Agency at West Virginia Office of Nutrition Services, WIC Program, Attention; Betsy Chapman, Room 519, 350 Capitol Street, Charleston, West Virginia 25301.

6.2 Late Delivery: The Agency placing the order under this Contract must be notified in writing if the shipment of the Contract Items will be delayed for any reason. Any delay in delivery that could cause harm to an Agency will be grounds for cancellation of the Contract, and/or obtaining the Contract Items from a third party.

Any Agency seeking to obtain the Contract Items from a third party under this provision must first obtain approval of the Purchasing Division.

6.3 Delivery Payment/Risk of Loss: Vendor shall deliver the Contract Items F.O.B. destination to the Agency's location.

6.4 Return of Unacceptable Items: If the Agency deems the Contract Items to be unacceptable, the Contract Items shall be returned to Vendor at Vendor's expense

and with no restocking charge. Vendor shall either make arrangements for the return within five (5) days of being notified that items are unacceptable, or permit the Agency to arrange for the return and reimburse Agency for delivery expenses. If the original packaging cannot be utilized for the return, Vendor will supply the Agency with appropriate return packaging upon request. All returns of unacceptable items shall be F.O.B. the Agency's location. The returned product shall either be replaced, or the Agency shall receive a full credit or refund for the purchase price, at the Agency's discretion.

6.5 Return Due to Agency Error: Items ordered in error by the Agency will be returned for credit within 30 days of receipt, F.O.B. Vendor's location. Vendor shall not charge a restocking fee if returned products are in a resalable condition. Items shall be deemed to be in a resalable condition if they are unused and in the original packaging. Any restocking fee for items not in a resalable condition shall be the lower of the Vendor's customary restocking fee or 5% of the total invoiced value of the returned items.

7 VENDOR DEFAULT:

7.1 The following shall be considered a vendor default under this Contract.

    7.1.1 Failure to provide Contract Items in accordance with the requirements contained herein.

    7.1.2 Failure to comply with other specifications and requirements contained herein.

    7.1.3 Failure to comply with any laws, rules, and ordinances applicable to the Contract Services provided under this Contract.

    7.1.4 Failure to remedy deficient performance upon request.

7.2 The following remedies shall be available to Agency upon default.

    7.2.1 Immediate cancellation of the Contract.

    7.2.2 Immediate cancellation of one or more release orders issued under this Contract.

    7.2.3 Any other remedies available in law or equity.

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: WIC1500000002

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:
(Check the box next to each addendum received)

[X] Addendum No. 1   [ ] Addendum No. 6

[ ] Addendum No. 2   [ ] Addendum No. 7

[ ] Addendum No. 3   [ ] Addendum No. 8

[ ] Addendum No. 4   [ ] Addendum No. 9

[ ] Addendum No. 5   [ ] Addendum No. 10

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Pomeroy IT Solutions
_____
Company

Michelle Mix
_____
Authorized Signature

02/24/2015
_____
Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.
Revised 6/8/2012

CERTIFICATIONAND SIGNATURE PAGE

By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; understand the requirements, terms and conditions, and other information contained herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

Pomeroy IT Solutions
(Company)

Michelle Clark, Inside Sales
(Authorized Signature) (Representative Name, Title)

Phone: (304) 746-4434 Fax: 866.307.5674 02/24/2015
(Phone Number) (Fax Number) (Date)

State of West Virginia
VENDOR PREFERENCE CERTIFICATE

Certification and application* is hereby made for Preference in accordance with **West Virginia Code**, §5A-3-37. (Does not apply to construction contracts). **West Virginia Code**, §5A-3-37, provides an opportunity for qualifying vendors to request (at the time of bid) preference for their residency status. Such preference is an evaluation method only and will be applied only to the cost bid in accordance with the **West Virginia Code**. This certificate for application is to be used to request such preference. The Purchasing Division will make the determination of the Vendor Preference, if applicable.

1.   **Application is made for 2.5% vendor preference for the reason checked:**
   _____ Bidder is an individual resident vendor and has resided continuously in West Virginia for four (4) years immediately preceding the date of this certification; **or,**
   _____ Bidder is a partnership, association or corporation resident vendor and has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or 80% of the ownership interest of Bidder is held by another individual, partnership, association or corporation resident vendor who has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; **or,**
   _____ Bidder is a nonresident vendor which has an affiliate or subsidiary which employs a minimum of one hundred state residents and which has maintained its headquarters or principal place of business within West Virginia continuously for the four (4) years immediately preceding the date of this certification; **or,**

2.   **Application is made for 2.5% vendor preference for the reason checked:**
   _____ Bidder is a resident vendor who certifies that, during the life of the contract, on average at least 75% of the employees working on the project being bid are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; **or,**

3.   **Application is made for 2.5% vendor preference for the reason checked:**
   ✓ Bidder is a nonresident vendor employing a minimum of one hundred state residents or is a nonresident vendor with an affiliate or subsidiary which maintains its headquarters or principal place of business within West Virginia employing a minimum of one hundred state residents who certifies that, during the life of the contract, on average at least 75% of the employees or Bidder's affiliate's or subsidiary's employees are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; **or,**

4.   **Application is made for 5% vendor preference for the reason checked:**
   _____ Bidder meets either the requirement of both subdivisions (1) and (2) or subdivision (1) and (3) as stated above; **or,**

5.   **Application is made for 3.5% vendor preference who is a veteran for the reason checked:**
   _____ Bidder is an individual resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard and has resided in West Virginia continuously for the four years immediately preceding the date on which the bid is submitted; **or,**

6.   **Application is made for 3.5% vendor preference who is a veteran for the reason checked:**
   _____ Bidder is a resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard, if, for purposes of producing or distributing the commodities or completing the project which is the subject of the vendor's bid and continuously over the entire term of the project, on average at least seventy-five percent of the vendor's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years.

7.   **Application is made for preference as a non-resident small, women- and minority-owned business, in accordance with West Virginia Code §5A-3-59 and West Virginia Code of State Rules.**
   _____ Bidder has been or expects to be approved prior to contract award by the Purchasing Division as a certified small, women- and minority-owned business.

Bidder understands if the Secretary of Revenue determines that a Bidder receiving preference has failed to continue to meet the requirements for such preference, the Secretary may order the Director of Purchasing to: (a) reject the bid; or (b) assess a penalty against such Bidder in an amount not to exceed 5% of the bid amount and that such penalty will be paid to the contracting agency or deducted from any unpaid balance on the contract or purchase order.

By submission of this certificate, Bidder agrees to disclose any reasonably requested information to the Purchasing Division and authorizes the Department of Revenue to disclose to the Director of Purchasing appropriate information verifying that Bidder has paid the required business taxes, provided that such information does not contain the amounts of taxes paid nor any other information deemed by the Tax Commissioner to be confidential.

Under penalty of law for false swearing (West Virginia Code, §61-5-3), Bidder hereby certifies that this certificate is true and accurate in all respects; and that if a contract is issued to Bidder and if anything contained within this certificate changes during the term of the contract, Bidder will notify the Purchasing Division in writing immediately.

Bidder: _Pomeroy IT Solutions_   Signed: _Michelle CK_

Date: _02/24/2015_   Title: _Inside Sales_

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

MANDATE: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"**Debt**" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"**Employer default**" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"**Related party**" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (*W. Va. Code* §61-5-3) that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: _Pomeroy IT Solutions_____

Authorized Signature: _Michelle_____ Date: _02/24/2015_____

State of _West Virginia_____

County of _Kanawha_____, to-wit:

Taken, subscribed, and sworn to before me this _24_ day of _February_____, 20 _15_.

My Commission expires _October 26_____, 20 _20_.

AFFIX SEAL HERE   NOTARY PUBLIC _____

Purchasing Affidavit (Revised 07/01/2012)

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
TODD FOWLER
212 Geronimo Drive, Saint Albans, WV 25177
My Commission Expires October 26, 2020

POMEROY
infrastructure. optimized.™

POMEROY
500 Westmoreland Office Park
Dunbar, WV 25064
Phone: 800-227-8798 - 5753 Fax: 866-307-5674

WIC1500000002 - Extreme Networks

Number: **9115101**

Date: **02/24/2015**
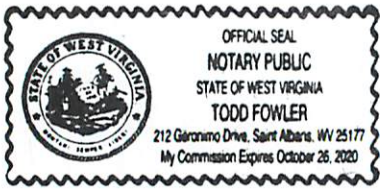
Bill To:
Gregory Clay
WV DHHR
BPH - NUTRITION SERVICES,
350 CAPITOL ST, RM 519
CHARLESTON, WV 25301

Phone: (304)558-2566
Email: gregory.c.clay@wv.gov

Ship To:
Gregory Clay
WV DHHR
BPH - NUTRITION SERVICES,
350 CAPITOL ST, RM 519
CHARLESTON, WV 25301

Phone: (304)558-2566

Srl	Mfr. Part	Description	Price	Qty.	Extended
*1	B5G124-24P2	B5 24PT 10/100/1000 POE 4 SFP COMBO PTS Mfr: Extreme Networks	$ 1,398.14	45	$ 62,916.30
*2	C5G124-48P2	C5 48PT 10/100/1000 POE 4 SFP COMBO PTS Mfr: Extreme Networks	$ 3,498.24	5	$ 17,491.20
*3	STK-CAB-SHORT	B5/C5 30CM STACKING CBL Mfr: Extreme Networks	$ 77.78	50	$ 3,889.00
*4	5601513-U1	CORD NEMA 5-15 C13 14 AWG USA Mfr: Extreme Networks	$ 9.72	50	$ 486.00
		4 item(s)	**Sub-Total**		**$ 84,782.50**
			Freight:		**$ 0.00**
			Tax @ 0%		**$ 0.00**
			Total		**$ 84,782.50**

(*) Tax exempted Part(s)

Terms and Conditions

This quotation has been prepared by Pomeroy based upon current product pricing and product availability as of the date of this quotation. The quotation provided hereon is subject to change if, after the issuance of this quotation, product pricing and/or product availability is affected as the direct result of a force majeure event or circumstance that is beyond Pomeroy's reasonable control.

For any questions regarding our returns policy, please contact your Pomeroy sales associate or Click on the link below for a copy of our written
policy. https://shop.pomeroy.com/CustomPages/CustomPage.aspx?PageId=3186

Quote valid until: 03/26/2015

Payment Details
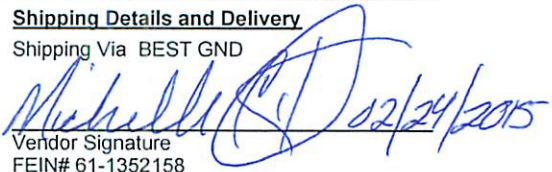Company PO [ ]
Payment Term 30 days
Additional References
Customer Name
Sales Consultant

Shipping Details and Delivery
Shipping Via BEST GND

Vendor Signature _02/24/2015_
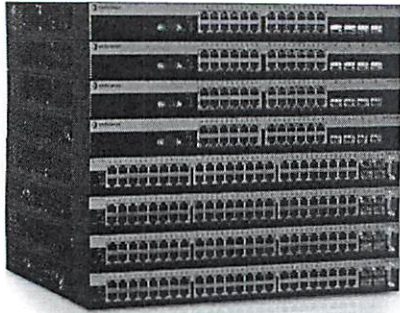FEIN# 61-1352158

Purchase Orders can be faxed to:
Michelle Clark 1.866.307.5674

☐ Prepared by: Michelle Clark ☐ michelle.clark@pomeroy.com ☐ 800-227-8798 - 5753

B-Series B5
Gigabit Ethernet Stackable Edge Switch

Future-proofed with 802.3at high-power PoE support

Automatic discovery and deployment of VoIP services

High-availability stacking assures reliable network operations

Automated management features reduce operational costs

Investment protection via comprehensive lifetime warranty

1.47 Tbps capacity and 809.5 Mpps

Benefits

Business Alignment
- Aligns network resource utilization with business goals and priorities
- Reliable network operation for mission-critical applications

Operational Efficiency
- Management automation capabilities reduce network operational expenses
- Automatic discovery and deployment of VoIP services

Security
- Ability to audit network for adherence to compliance regulations, such as PCI or HIPAA
- Network resources securely allocated according to user roles
- Network security maintained concurrently with user mobility

Support and Service
- Industry-leading customer satisfaction and first call resolution rates
- Personalized services, including site surveys, network design, installation, and training
- Comprehensive lifetime warranty, including feature upgrades and more

Product Overview

The Enterasys B5 is a scalable, high-performance Gigabit Ethernet switch that provides support for the bandwidth-intensive and latency-sensitive requirements of today's demanding business applications. The B5 is an excellent choice for environments that require complete multi-layer switching capabilities and support for high density 10/100/1000 Ethernet ports, cost effective 10GE uplinks, dual IPv4/IPv6 management, basic routing and policy-based automation capabilities for advanced edge deployments.

The B5 incorporates the new 802.3at high-power PoE on all ports, translating into increased power provisioning for power-hungry devices such as Pan/Tilt/Zoom (PTZ) IP surveillance cameras, IP videophones, third party 802.11n access points and virtual desktops. Built-in high-power PoE support is a cost effective alternative for customers in place of purchasing separate PoE midspans, which can take away valuable rack space, add cost and contribute more cabling to the wiring closet.

The B5 provides high port density in a 1U footprint and is environmentally friendly by design. The B5's overall energy efficiency is further enhanced by a low current draw and an extreme tolerance for high environmental temperatures. A highly-scalable architecture and a comprehensive lifetime warranty ensure that a B5 network investment will sustain a secure, feature-rich and cost-effective network well into the future.

The B5's highly customizable Layer 2/3/4 packet classification capabilities work together with the 8 hardware-based priority queues associated with each Ethernet port to support a suite of differentiated services with as many as 8 distinct priority levels to provide guaranteed Quality of Service (QoS) for critical voice and video network traffic. In conjunction with its non-blocking L2 switching and L3 routing architecture, the B5's intelligent queuing mechanisms ensure that mission-critical applications receive prioritized access to network resources.

There is nothing more important than our customers.

Reliability and Availability

The B5 design incorporates redundancy and failure protection mechanisms complete with automatic failover and recovery capabilities to provide a reliable network. An integral power supply is the primary source of power for the B5 and complete power redundancy is provided by an optional external power supply. A virtual switch can be created by *interconnecting* as many as eight B5s in a single stack, which can be managed via a single IP address with redundant management connections. The B5's closed-loop stacking capability utilizes bi-directional switch interconnects to maintain connectivity within the virtual switch despite any physical failures, which includes switches, cables and connections. Up to eight Ethernet ports can be grouped together to create a multi-link aggregation group (LAG). A LAG's Ethernet ports can be co-located on a single B5 or they can be distributed across multiple B5s within a stack to prevent a switch-level failure from disrupting data communications. The B5 also includes Host CPU Protection support to help prevent Denial of Service (DoS) and BPDU attacks.

Advanced Quality of Service

Robust Quality of Service (QoS) features enable strong support for integrated multimedia networks, as well as all types of data-intensive applications. The B5 is a standards-based solution optimized for multimedia applications, including VoIP, videoconferencing and real-time collaboration. The B5 uses multiple standards-based discovery methods with Enterasys policy capabilities to automatically identify and provision VoIP services for IP phones from all major vendors. B5 switches provide dynamic mobility for VoIP clients to reduce operating costs; when an IP phone moves and plugs in elsewhere in the enterprise network, its VoIP service provisioning, security and traffic priority settings move with it, with no manual administration required.

Security

The B5 enables strong network security by utilizing its authentication and security features, which can be applied at the port level or at the user level. Making use of the Enterasys Network Management Suite's Policy Manager or a standard CLI, the Enterasys role-based architecture enables a network administrator to define distinct roles or profiles that represent operational groups within a business (e.g., employee, executive, guest, etc). Multiple users/devices per port can be authenticated via IEEE 802.1X, MAC address, or web authentication, and then assigned a pre-

defined operational role.

Administrators can easily transition from RFC 3580 and complex access control list (ACL) deployments to the Enterasys role-based policy framework in a seamless fashion, without the need to make changes to their RADIUS infrastructure (e.g., adding filter-ID). In addition, the B5 also supports ACLs for supplementary network security. Network operations can be easily tailored to meet business-oriented requirements by providing each role with individualized access to network services and applications (e.g., a guest should have different network access privileges than an employee). Utilizing Enterasys role-based policy, administrators are able to manipulate DSCP and 802.1p rewrite for classification and prioritization of network traffic.

The B5 allows administrators even more network visibility, with the ability to audit their network for adherence to compliance regulations, such as PCI or HIPAA. The B5 is able to segment roles down to group levels, such as supporting a guest access role, helping to protect corporate applications and information.

Investment Protection

The B5 is a cost-effective, feature-rich, stackable switch that provides a broad set of features today and will continue to deliver benefits well into the future. All B-Series products include a lifetime warranty that includes warranty and support services for which many competitors charge additional fees – adding up to 10% of initial deployment costs on an annual basis. Included benefits, such as advanced hardware return, firmware feature upgrades (which most vendors cover at most for 90 days) and telephone support (which most don't include or severely limit) combine to significantly decrease operational costs for customers over the life of their network. For more information regarding warranty terms and conditions please go to http://www.enterasys.com/support/warranty.aspx.

Performance & Scalability

The B5, with support for 32,000 MAC addresses, provides scalable, wire-rate performance in support of the bandwidth-intensive and delay-sensitive requirements of today's demanding applications. Along with a switch capacity of 184 Gbps, the B5 provides up to 48 10/100/1000 Ethernet ports as well as two 10 GE ports. Leveraging the B5's stacking capability, as many as 8 B5s (both 24-port and 48-port combinations) can be interconnected in a single stack to create a virtual switch that provides 1.47 Tbps of capacity and up to 384 10/100/1000 Ethernet ports as well as 16 10GE uplink ports.

Features / Standards and Protocols

MAC Address Table Size
32,000

VLANs
4,094 VLAN IDs
1,024 VLAN Entries per Stack

Switching Services
IEEE 802.1AB – LLDP
ANSI/TIA-1057 – LLDP-MED
IEEE 802.1D – MAC Bridges
IEEE 802.1s – Multiple Spanning Trees
IEEE 802.1t – 802.1D Maintenance
IEEE 802.1w – Rapid Spanning Tree
Reconvergence
IEEE 802.3 – Ethernet
IEEE 802.3ab – GE over Twisted Pair
IEEE 802.3ad – Link Aggregation
IEEE 802.3ae – 10 Gigabit Ethernet (fiber)
IEEE 802.3af – PoE
IEEE 802.3at – High Power PoE
(up to 30W per port)
IEEE 802.3i – 10Base-T
IEEE 802.3u – 100Base-T, 100Base-FX
IEEE 802.3z – GE over Fiber
Full/half duplex auto-sense support on all ports
IGMP Snooping v1/v2/v3
Jumbo Frame support (9,216 bytes)
Loop Protection
One-to-One and Many-to-One Port Mirroring
Port Description
Protected Ports
Host CPUProtection – Broadcast/ Multicast/
Unknown Unicast Suppression
Spanning Tree Backup Root
STP Pass-Thru

VLAN Support
Generic Attribute Registration Protocol (GARP)
Generic VLAN Registration Protocol (GVRP)
IEEE 802.1p – Traffic classification
IEEE 802.1q – VLAN Tagging
Protocol-based VLANs with Enterasys Policy
IEEE 802.3ac – VLAN Tagging Extensions
Port-based VLAN (private port/private VLAN)
Tagged-based VLAN
VLAN Marking of Mirror Traffic

Quality of Service
8 Priority Queues per Port
802.3x Flow Control
Class of Service (CoS)
Ingress Rate Limiting
IP ToS/DSCP Marking/Remarking
IP Precedence
IP Protocol
Layer 2/3/4 Classification
Multi-layer Packet Processing
Queuing Control – Strict and
Weighted Round Robin
Source/Destination IP Address
Source/Destination MAC Address
RFC 2474 Definition of Differentiated Services
Field

Security
ARP Spoof Protection
DHCP Spoof Protection
Dynamic and Static MAC Locking
EAP Pass Thru
Hybrid Mode
IEEE 802.1X Port Authentication
MAC-based Port Authentication
RADIUS Accounting for network access
RADIUS Client
RFC 3580 – IEEE 802.1X RADIUS Usage
Guidelines
Multi-user Authentication
Password Encryption
Secure Networks Policy
Secured Shell (SSHv2)
Secured Socket Layer (SSL)
User and IP Phone Authentication
Web-based Port Authentication

IPv4 Routing
Standard Access Control List (ACLs)
Extended ACLs
VLAN-based ACLs
ARP & ARP Redirect
IP Helper Address
RFC 826 – Ethernet ARP
RFC 1058 – RIP v1
RFC 1256 – ICMP Router Discovery Messages
RFC 1519 Classless Inter-Domain Routing
RFC 1724 – RIPv2 MIB Extension
RFC 2236 – IGMPv2
RFC 2453 – RIP v2
RFC 3046 – DHCP/BootP Relay
RFC 3376 – IGMPv3
Static Routes

MIB Support
Enterasys Entity MIB
Enterasys Policy MIB
Enterasys VLAN Authorization MIB
ANSI/TIA-1057 – LLDP-MED MIB
IEEE 802.1AB – LLDP MIB
IEEE 802.1X MIB – Port Access
IEEE 802.3ad MIB – LAG MIB
RFC 826 – ARP and ARP Redirect
RFC 951, RFC 1542 – DHCP/BOOTP Relay
RFC 1213 – MIB/MIB II
RFC 1493 – BRIDGE-MIB
RFC 1643 – Ethernet-like MIB
RFC 2096 – IP Forwarding Table MIB
RFC 2131, RFC 3046 – DHCP Client/Relay
RFC 2571 – SNMP Framework MIB
RFC 2466 – ICMPv6 MIB
RFC 2613 – SMON MIB
RFC 2618 – RADIUS Authentication
Client MIB
RFC 2620 – RADIUS Accounting Client MIB
RFC 2668 – Managed Object Definitions for
802.3 MAUs
RFC 2674 – P-BRIDGE-MIB
RFC 2674 – QBRIDGE-MIB VLAN
Bridge MIB

RFC 2737 – Entity MIB (physical branch only)
RFC 2819 – RMON-MIB
RFC 2863 – IfMIB
RFC 2933 – IGMP MIB
RFC 3413 – SNMP v3 Applications MIB
RFC 3414 – SNMP v3 User-based Security
Module (USM) MIB
RFC 3415 – View-based Access Control
Model for SNMP
RFC 3584 – SNMP Community MIB
RFC 3621 – Power over Ethernet MIB

Management
Alias Port Naming Command Line
Interface (CLI)
Configuration Upload/Download
Dual IPv4/IPv6 Management Support
Editable Text-based Configuration File
TFTP Client
Multi-configuration File Support
NMS Automated Security Manager
NMS Console
NMS Inventory Manager
NMS Policy Manager
Node/Alias Table
RFC 768 – UDP
RFC 783 – TFTP
RFC 791 – IP
RFC 792 – ICMP
RFC 793 – TCP
RFC 826 – ARP
RFC 854 – Telnet
RFC 951 – BootP
RFC 1157 – SNMP
RFC 1901 – Community-based SNMPv2
RFC 1981 – Path MTU for IPv6
RFC 2030 – Simple Network Time Protocol
(SNTP)
RFC 2465 – IPv6 MIB
RFC 2933 – IGMP MIB
RFC 3176 – sFlow
RFC 3413 – SNMP Applications MIB
RFC 3414 – SNMP User-based Security
Module (USM) MIB
RFC 3415 – View-based Access Control
Model for SNMP
RFC 3826 – Advanced Encryption Standard
(AES) for SNMP
RMON (Stats, History, Alarms, Events,
Filters, Packet Capture)
Secure Copy (SCP)
Secure FTP (SFTP)
Simple Network Management Protocol
(SNMP) v1/v2c/v3
SSHv2
RFC 3164 – The BSD Syslog Protocol
TACACS+ for Management Authentication,
Authorization and Auditing
Web-based Management
Webview via SSL Interface

Switch Model Specifications

	B5G124-24	B5G124-24P2	B5G124-48	B5G124-48P2
Performance				
Throughput Capacity wire-speed Mpps (switch / stack)	35.7 Mpps / 285.7 Mpps	35.7 Mpps / 285.7 Mpps	71.4 Mpps / 571.4 Mpps	71.4 Mpps / 571.4 Mpps
Switching Capacity (switch / stack)	48 Gbps (35.7 Mpps)/ 384 Gbps (285.7 Mpps)	48 Gbps (35.7 Mpps)/ 384 Gbps (285.7 Mpps)	96 Gbps (71.4 Mpps)/ 768 Gbps (571.4 Mpps)	96 Gbps (71.4 Mpps)/ 768 Gbps (571.4 Mpps)
Stacking Capacity (switch / stack)	48 Gbps (35.7 Mpps)/ 384 Gbps (285.7 Mpps)	48 Gbps (35.7 Mpps)/ 384 Gbps (285.7 Mpps)	48 Gbps (35.7 Mpps)/ 384 Gbps (285.7 Mpps)	48 Gbps (35.7 Mpps)/ 384 Gbps (285.7 Mpps)
Aggregate Throughput Capacity (switch / stack)	96 Gbps (71.4 Mpps)/ 768 Gbps (571.4 Mpps)	96 Gbps (71.4 Mpps)/ 768 Gbps (571.4 Mpps)	144 Gbps (107.1 Mpps)/ 1,152 Gbps (857.1 Mpps)	144 Gbps (107.1 Mpps)/ 1,152 Gbps (857.1 Mpps)
PoE Specifications				
802.3af Interoperable	N/A	Yes	N/A	Yes
802.3at Interoperable	N/A	Yes	N/A	Yes
System Power	N/A	375 watts per switch with up to 30 watts per port Per-port switch power monitor: • Enable/disable • Priority safety • Overload & short circuit protection	N/A	375 watts per switch with up to 30 watts per port Per-port switch power monitor: • Enable/disable • Priority safety • Overload & short circuit protection
Physical Specifications				
Dimensions (H x W x D)	H: 4.4 cm (1.73") W: 44.1 cm (17.36") D: 36.85 cm (14.51")	H: 4.4 cm (1.73") W: 44.1 cm (17.36") D: 36.85 cm (14.51")	H: 4.4 cm (1.73") W: 44.1 cm (17.36") D: 36.85 cm (14.51")	H: 4.4 cm (1.73") W: 44.1 cm (17.36") D: 36.85 cm (14.51")
Net Weight	4.92 kg (10.85 lb)	6.10 kg (13.45 lb)	5.31 kg (11.70 lb)	6.49 kg (14.30 lb)
MTBF	394,679 hours	345,093 hours	308,359 hours	260,806 hours
Physical Ports	• (24) 10/100/1000 auto-sensing, auto-negotiating MDI/MDI-X RJ45 ports • (4) Combo SFP ports • (2) dedicated stacking ports • (1) DB9 console port • (1) RPS connector	• (24) 10/100/1000 PoE (.af + .at) auto-sensing, auto-negotiating MDI/MDI-X RJ45 ports • (4) Combo SFP ports • (2) dedicated stacking ports • (1) DB9 console port • (1) RPS connector	• (48) 10/100/1000 auto-sensing, auto-negotiating MDI/MDI-X RJ45 ports • (4) Combo SFP ports • (2) dedicated stacking ports • (1) DB9 console port • (1) RPS connector	• (48) 10/100/1000 PoE (.af + .at) auto-sensing, auto-negotiating MDI/MDI-X RJ45 ports • (4) Combo SFP ports • (2) dedicated stacking ports • (1) DB9 console port • (1) RPS connector
Power Requirements				
Normal Input Voltage	100 - 240 VAC	100 - 240 VAC	100 - 240 VAC	100 - 240 VAC
Input Frequency	50 – 60 Hz	50 – 60 Hz	50 – 60 Hz	50 – 60 Hz
Input Current	2 A Max	7.5 A Max	2 A Max	7.5 A Max
Power Consumption	48 watts	93 watts	76 watts	125 watts
Temperature				
IEC 6-2-1 Standard Operating Temperature	0° to 50° C (32° to 122° F)	0° to 50° C (32° to 122° F)	0° to 50° C (32° to 122° F)	0° to 50° C (32° to 122° F)
IEC 6-2-14 Non-Operating Temperature	-40° to 70° C (-40° to 158° F)	-40° to 70° C (-40° to 158° F)	-40° to 70° C (-40° to 158° F)	-40° to 70° C (-40° to 158° F)
Heat Dissipation	164 BTUs/Hr	318 BTUs/Hr	258 BTUs/Hr	427 BTUs/Hr
Humidity				
Operating Humidity	5% - 95% non-condensing	5% - 95% non-condensing	5% - 95% non-condensing	5% - 95% non-condensing
Vibration				
	IEC 68-2-6, IEC68-2-36	IEC 68-2-6, IEC68-2-36	IEC 68-2-6, IEC68-2-36	IEC 68-2-6, IEC68-2-36
Shock				
	IEC 68-2-29	IEC 68-2-29	IEC 68-2-29	IEC 68-2-29
Drop				
	IEC 68-2-32	IEC 68-2-32	IEC 68-2-32	IEC 68-2-32
Altitude				
Operating	10,000 ft (3,048 m)	10,000 ft (3,048 m)	10,000 ft (3,048 m)	10,000 ft (3,048 m)
Non-operating	15,000 ft (4,572 m)	15,000 ft (4,572 m)	15,000 ft (4,572 m)	15,000 ft (4,572 m)

Acoustics				
Front of switch (normal operation)	44.5 dB	45 dB	45.5 dB	44.5 dB

Agency and Regulatory Standard Specifications				
Safety	UL 60950-1, CSA 22.1 60950, EN 60950-1, and IEC 60950-1	UL 60950-1, CSA 22.1 60950, EN 60950-1, and IEC 60950-1	UL 60950-1, CSA 22.1 60950, EN 60950-1, and IEC 60950-1	UL 60950-1, CSA 22.1 60950, EN 60950-1, and IEC 60950-1
EMC	FCC Part 15 (Class A), ICES-003 (Class A), BSMI, VCCI V-3, AS/NZS CISPR 22 (Class A), EN 55022 (Class A), EN 55024, EN 61000-3-2, and EN 61000-3-3	FCC Part 15 (Class A), ICES-003 (Class A), BSMI, VCCI V-3, AS/NZS CISPR 22 (Class A), EN 55022 (Class A), EN 55024, EN 61000-3-2, and EN 61000-3-3	FCC Part 15 (Class A), ICES-003 (Class A), BSMI, VCCI V-3, AS/NZS CISPR 22 (Class A), EN 55022 (Class A), EN 55024, EN 61000-3-2, and EN 61000-3-3	FCC Part 15 (Class A), ICES-003 (Class A), BSMI, VCCI V-3, AS/NZS CISPR 22 (Class A), EN 55022 (Class A), EN 55024, EN 61000-3-2, and EN 61000-3-3
Environmental	2002/95/EC (RoHS Directive), 2002/96/EC (WEEE Directive), Ministry of Information Order #39 (China RoHS)	2002/95/EC (RoHS Directive), 2002/96/EC (WEEE Directive), Ministry of Information Order #39 (China RoHS)	2002/95/EC (RoHS Directive), 2002/96/EC (WEEE Directive), Ministry of Information Order #39 (China RoHS)	2002/95/EC (RoHS Directive), 2002/96/EC (WEEE Directive), Ministry of Information Order #39 (China RoHS)

	B5K125-24	B5K125-24P2	B5K125-48	B5K125-48P2
Performance				
Throughput Capacity wire-speed Mpps (switch / stack)	65.5 Mpps / 523.8 Mpps	65.5 Mpps / 523.8 Mpps	101.2 Mpps / 809.5 Mpps	101.2 Mpps / 809.5 Mpps
Switching Capacity (switch / stack)	88 Gbps (65.5 Mpps)/ 704 Gbps (523.8 Mpps)	88 Gbps (65.5 Mpps)/ 704 Gbps (523.8 Mpps)	136 Gbps (101.2 Mpps)/ 1,088 Gbps (809.5 Mpps)	136 Gbps (101.2 Mpps)/ 1,088 Gbps (809.5 Mpps)
Stacking Capacity (switch / stack)	48 Gbps (35.7 Mpps)/ 384 Gbps (285.7 Mpps)	48 Gbps (35.7 Mpps)/ 384 Gbps (285.7 Mpps)	48 Gbps (35.7 Mpps)/ 384 Gbps (285.7 Mpps)	48 Gbps (35.7 Mpps)/ 384 Gbps (285.7 Mpps)
Aggregate Throughput Capacity (switch / stack)	136 Gbps (101.2 Mpps)/ 1,088 Gbps (809.5 Mpps)	136 Gbps (101.2 Mpps)/ 1,088 Gbps (809.5 Mpps)	184 Gbps (136.9 Mpps)/ 1,472 Gbps (1,095.2 Mpps)	184 Gbps (136.9 Mpps)/ 1,472 Gbps (1,095.2 Mpps)
PoE Specifications				
802.3af Interoperable	N/A	Yes	N/A	Yes
802.3at Interoperable	N/A	Yes	N/A	Yes
System Power	N/A	375 watts per switch with up to 30 watts per port Per-port switch power monitor: • Enable/disable • Priority safety • Overload & short circuit protection	N/A	375 watts per switch with up to 30 watts per port Per-port switch power monitor: • Enable/disable • Priority safety • Overload & short circuit protection
Physical Specifications				
Dimensions (H x W x D)	H: 4.4 cm (1.73") W: 44.1 cm (17.36") D: 36.85 cm (14.51")	H: 4.4 cm (1.73") W: 44.1 cm (17.36") D: 36.85 cm (14.51")	H: 4.4 cm (1.73") W: 44.1 cm (17.36") D: 36.85 cm (14.51")	H: 4.4 cm (1.73") W: 44.1 cm (17.36") D: 36.85 cm (14.51")
Net Weight	4.92 kg (10.85 lb)	6.10 kg (13.45 lb)	5.31 kg (11.70 lb)	6.49 kg (14.30 lb)
MTBF	374,029 hours	328,905 hours	297,808 hours	252,940 hours
Physical Ports	• (24) 10/100/1000 auto-sensing, auto-negotiating MDI/MDI-X RJ45 ports • (2) Combo SFP ports • (2) 10GE ports • (2) dedicated stacking ports • (1) DB9 console port • (1) RPS connector	• (24)10/100/1000 PoE (.af + .at) auto-sensing, auto-negotiating MDI/MDI-X RJ45 ports • (2) Combo SFP ports • (2) 10GE ports • (2) dedicated stacking ports • (1) DB9 console port • (1) RPS connector	• (48) 10/100/1000 auto-sensing, auto-negotiating MDI/MDI-X RJ45 ports • (2) Combo SFP ports • (2) 10GE ports • (2) dedicated stacking ports • (1) DB9 console port • (1) RPS connector	• (48)10/100/1000 PoE (.af + .at) auto-sensing, auto-negotiating MDI/MDI-X RJ45 ports • (2) Combo SFP ports • (2) 10GE ports • (2) dedicated stacking ports • (1) DB9 console port • (1) RPS connector
Power Requirements				
Normal Input Voltage	100 - 240 VAC	100 - 240 VAC	100 - 240 VAC	100 - 240 VAC
Input Frequency	50 – 60 Hz	50 – 60 Hz	50 – 60 Hz	50 – 60 Hz
Input Current	2 A Max	7.5 A Max	2 A Max	7.5 A Max
Power Consumption	59 watts	98 watts	94 watts	125 watts
Temperature				
IEC 6-2-1 Standard Operating Temperature	0° to 50° C (32° to 122° F)	0° to 50° C (32° to 122° F)	0° to 50° C (32° to 122° F)	0° to 50° C (32° to 122° F)
IEC 6-2-14 Non-Operating Temperature	-40° to 70° C (-40° to 158° F)	-40° to 70° C (-40° to 158° F)	-40° to 70° C (-40° to 158° F)	-40° to 70° C (-40° to 158° F)

	B5K125-24	B5K125-24P2	B5K125-48	B5K125-48P2
Heat Dissipation	200 BTUs/Hr	335 BTUs/Hr	321 BTUs/Hr	427 BTUs/Hr
Humidity				
Operating Humidity	5% - 95% non-condensing	5% - 95% non-condensing	5% - 95% non-condensing	5% - 95% non-condensing
Vibration				
	IEC 68-2-6, IEC68-2-36	IEC 68-2-6, IEC68-2-36	IEC 68-2-6, IEC68-2-36	IEC 68-2-6, IEC68-2-36
Shock				
	IEC 68-2-29	IEC 68-2-29	IEC 68-2-29	IEC 68-2-29
Drop				
	IEC 68-2-32	IEC 68-2-32	IEC 68-2-32	IEC 68-2-32
Acoustics				
Front of switch (normal operation)	45.5 dB	45 dB	46 dB	45.5 dB
Altitude				
Operating	10,000 ft (3,048 m)	10,000 ft (3,048 m)	10,000 ft (3,048 m)	10,000 ft (3,048 m)
Non-operating	15,000 ft (4,572 m)	15,000 ft (4,572 m)	15,000 ft (4,572 m)	15,000 ft (4,572 m)
Agency and Regulatory Standard Specifications				
Safety	UL 60950-1, CSA 22.1 60950, EN 60950-1, and IEC 60950-1	UL 60950-1, CSA 22.1 60950, EN 60950-1, and IEC 60950-1	UL 60950-1, CSA 22.1 60950, EN 60950-1, and IEC 60950-1	UL 60950-1, CSA 22.1 60950, EN 60950-1, and IEC 60950-1
EMC	FCC Part 15 (Class A), ICES-003 (Class A), BSMI, VCCI V-3, AS/NZS CISPR 22 (Class A), EN 55022 (Class A), EN 55024, EN 61000-3-2, and EN 61000-3-3	FCC Part 15 (Class A), ICES-003 (Class A), BSMI, VCCI V-3, AS/NZS CISPR 22 (Class A), EN 55022 (Class A), EN 55024, EN 61000-3-2, and EN 61000-3-3	FCC Part 15 (Class A), ICES-003 (Class A), BSMI, VCCI V-3, AS/NZS CISPR 22 (Class A), EN 55022 (Class A), EN 55024, EN 61000-3-2, and EN 61000-3-3	FCC Part 15 (Class A), ICES-003 (Class A), BSMI, VCCI V-3, AS/NZS CISPR 22 (Class A), EN 55022 (Class A), EN 55024, EN 61000-3-2, and EN 61000-3-3
Environmental	2002/95/EC (RoHS Directive), 2002/96/EC (WEEE Directive), Ministry of Information Order #39 (China RoHS)	2002/95/EC (RoHS Directive), 2002/96/EC (WEEE Directive), Ministry of Information Order #39 (China RoHS)	2002/95/EC (RoHS Directive), 2002/96/EC (WEEE Directive), Ministry of Information Order #39 (China RoHS)	2002/95/EC (RoHS Directive), 2002/96/EC (WEEE Directive), Ministry of Information Order #39 (China RoHS)

Redundant Power Supply Equipment Specifications

STK-RPS-150CH2 Power Shelf

Power Supply Slots
2

Dimensions (H x W x D)*
5.5 cm (2.2") x 44.0 cm (17.3") x 18.0 cm (7.0")

Weight
0.95 kg (2.09 lbs)

*Note: dimensions include integrated rack mount ears

STK-RPS-150CH8 Power Shelf

Power Supply Slots
8

Dimensions (H x W x D)*
22.26 cm (8.77") x 44.0 cm (17.3") x 26.4 cm (10.4")

Weight
5.27 kg (11.6 lbs)

STK-RPS-150PS Power Supply

Dimensions (H x W x D)
19.6 cm (7.7") x 5.2 cm (2.04") x 25.7 cm (10.1")

Net Weight (Unit Only)
1.75 kg (3.85 lbs)

Gross Weight (Packaged Unit)
3.20 kg (7.04 lbs)

MTBF
300,000 hours

Operating Temperature
0° C to 50° C (32° F to 122° F)

Storage Temperature
-30° C to 73° C (-22° F to 164° F)

Operating Relative Humidity
5% to 95%

AC Input Frequency Range
50 – 60 Hz

AC Input Voltage Range
100 – 240 VAC

Maximum Output Power
156 W continuous

STK-RPS-500PS Power Supply

Dimensions (H x W x D)*
4.45 cm (1.75") x 44.5 cm (17.5") x 16.5 cm (6.5")

Net Weight (Unit Only)
3.47 kg (7.63 lbs)

Gross Weight (Packaged Unit)
4.95 kg (10.89 lbs)

MTBF
589,644 hours at 25° C (77° F)

Operating Temperature
0° C to 50° C (32° F to 122° F)

Storage Temperature
-30° C to 73° C (-22° F to 164° F)

Operating Relative Humidity
5% to 95%

AC Input Frequency Range
50 – 60 Hz

AC Input Voltage Range
100 – 240 VAC

Maximum Output Power
500 W continuous

Ordering Information

Part Number	Description
B5 Switches	
B5G124-24	(24) 10/100/1000 RJ45 ports, (4) combo SFP ports, (2) dedicated high-speed stacking ports and external RPS connector. Total active ports per switch: (24) Gigabit ports
B5G124-24P2	(24) 10/100/1000 PoE (.at + .af) RJ45 ports, (4) combo SFP ports, (2) dedicated high-speed stacking ports and external RPS connector. Total active ports per switch: (24) Gigabit ports
B5G124-48	(48) 10/100/1000 RJ45 ports, (4) combo SFP ports, (2) dedicated high-speed stacking ports and external RPS connector. Total active ports per switch: (48) Gigabit ports
B5G124-48P2	(48) 10/100/1000 PoE (.at + .af) RJ45 ports, (4) combo SFP ports, (2) dedicated high-speed stacking ports and external RPS connector. Total active ports per switch: (48) Gigabit ports
B5K125-24	(24) 10/100/1000 RJ45 ports, (2) combo SFP ports, (2) 10GE ports, (2) dedicated high-speed stacking ports and external RPS connector. Total active ports per switch: (24) Gigabit ports + (2) 10GE ports
B5K125-24P2	(24) 10/100/1000 PoE (.at + .af) RJ45 ports, (2) combo SFP ports, (2) 10GE ports, (2) dedicated high-speed stacking ports and external RPS connector. Total active ports per switch: (24) Gigabit ports + (2) 10GE ports
B5K125-48	(48) 10/100/1000 RJ45 ports, (2) combo SFP ports, (2) 10GE ports, (2) dedicated high-speed stacking ports and external RPS connector. Total active ports per switch: (48) Gigabit ports + (2) 10GE ports
B5K125-48P2	(48) 10/100/1000 PoE (.at + .af) RJ45 ports, (2) combo SFP ports, (2) 10GE ports, (2) dedicated high-speed stacking ports and external RPS connector. Total active ports per switch: (48) Gigabit ports + (2) 10GE ports
Cables	
STK-CAB-SHORT	Stacking cable for connecting adjacent B5/C5 switches (30cm)
STK-CAB-LONG	Stacking cable for connecting top switch to bottom switch in a B5 or C5 stack (1m)
STK-CAB-2M	Stacking cable for B5/C5 models (2m)
STK-CAB-5M	Stacking cable for B5/C5 models (5m)
SSCON-CAB	Spare DB9 Console Cable
Redundant Power Supplies	
STK-RPS-150CH2	2-slot modular power supply shelf (power supply STK-RPS-150PS sold separately)
STK-RPS-150CH8	8-slot modular power supply shelf (power supply STK-RPS-150PS sold separately)
STK-RPS-150PS	150W Non-PoE redundant power supply
STK-RPS-500PS	500W 802.3at PoE redundant power supply

Transceivers

Enterasys transceivers provide connectivity options for Ethernet over twisted pair copper and fiber optic cables with transmission speeds from 100 Megabits per second to 10 Gigabits per second. The Enterasys B5 10GE ports support SFP+ transceivers that operate at 10GE, but do not support 1GE transceivers. All Enterasys transceivers meet the highest quality for extended life cycle and the best possible return on investment. For detailed specifications, compatibility and ordering information please go to http://www.enterasys.com/products/transceivers-ds.pdf.

Warranty

As a customer-centric company, Enterasys is committed to providing quality products and solutions. In the event that one of our products fails due to a defect, we have developed a comprehensive warranty that protects you and provides a simple way to get your products repaired or media replaced as soon as possible.

B-Series switches come with the Enterasys lifetime warranty against manufacturing defects. For full warranty terms and conditions please go to: www.enterasys.com/support/warranty.aspx.

Service and Support

Enterasys Networks provides comprehensive service offerings that range from Professional Services to design, deploy and optimize 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.

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

Thought Leadership
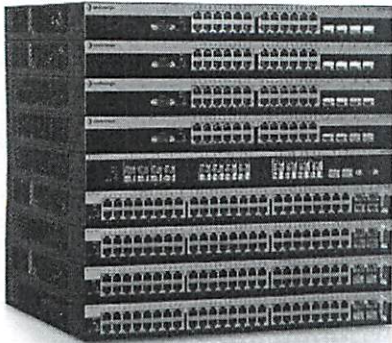Patented Innovation

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Secure Networks™

Delivering on our promises. On-time. On-budget.

![enterasys logo] **enterasys**®
Secure Networks™

C-Series C5
Gigabit Ethernet Stackable L2/L3/L4 Switch

Future-proofed with 802.3at high-power PoE and IPv6 routing support

Automatic discovery and deployment of VoIP services

High-availability stacking assures reliable network operations

Automated management features reduce operational costs

Investment protection via comprehensive lifetime warranty

2.11Tbps capacity and 809.5Mpps

Product Overview

The Enterasys C5 is a scalable, high-performance Gigabit Ethernet switch that provides support for the bandwidth-intensive and latency-sensitive requirements of today's demanding business applications. The C5 is an excellent choice for environments that require complete multi-layer switching capabilities and support for high density 10/100/1000 Ethernet ports and 10GE uplinks. The C5 also includes dynamic IPv4 and IPv6 routing and switching built into the hardware and policy-based automation capabilities for advanced edge deployments.

The C5 incorporates the new 802.3at high-power PoE on all ports, which translates into increased power provisioning for power-hungry devices such as Pan/Tilt/Zoom (PTZ) IP surveillance cameras, IP videophones, third party 802.11n access points and virtual desktops. Built-in high-power PoE support is a cost effective alternative for customers in place of purchasing separate PoE midspans, which can take away valuable rack space, add cost and contribute more cabling to the wiring closet.

The C5 provides high port density in a 1U footprint and is environmentally friendly by design. The C5's overall energy efficiency is further enhanced by a low current draw and an extreme tolerance for high environmental temperatures. A highly-scalable architecture and a comprehensive lifetime warranty ensure that a C5 network investment will sustain a secure, feature-rich and cost-effective network well into the future.

The C5's highly customizable Layer 2/3/4 packet classification capabilities work together with the 8 hardware-based priority queues associated with each Ethernet port to support a suite of differentiated services with as many as 8 distinct priority levels to provide guaranteed Quality of Service (QoS) for critical voice and video network traffic. In conjunction with its non-blocking L2 switching and L3 routing architecture, the C5's intelligent queuing mechanisms ensure that mission-critical applications receive prioritized access to network resources.

Benefits

Business Alignment

- Aligns network resource utilization with business goals and priorities
- Reliable network operation for mission-critical applications

Operational Efficiency

- Management automation capabilities reduce network operational expenses
- Automatic discovery and deployment of VoIP services

Security

- Ability to audit network for adherence to compliance regulations, such as PCI or HIPAA
- Network resources securely allocated according to user roles
- Network security maintained concurrently with user mobility

Support and Service

- Industry-leading customer satisfaction and first call resolution rates
- Personalized services, including site surveys, network design, installation, and training
- Comprehensive lifetime warranty, including feature upgrades and more

There is nothing more important than our customers.

Reliability and Availability

The C5 design incorporates redundancy and failure protection mechanisms complete with automatic failover and recovery capabilities to provide a reliable network. An integral power supply is the primary source of power for the C5 and complete power redundancy is provided by an optional external power supply. The C5 redundant power supply provides load sharing, backup, or additive PoE power to a C5 stackable switch. With the power supply connected, the power requirement for the switch is equally shared by the two power supplies thereby stressing the power supplies less and increasing the lifetime and reliability of the power supplies.

A virtual switch can be created by interconnecting as many as eight C5s in a single stack, which can be managed via a single IP address with redundant management connections. The C5's closed-loop stacking capability utilizes bi-directional switch interconnects to maintain connectivity within the virtual switch despite any physical failures, which includes switches, cables and connections. Up to eight Ethernet ports can be grouped together to create a multi-link aggregation group (LAG). A LAG's Ethernet ports can be co-located on a single C5 or they can be distributed across multiple C5s within a stack to prevent a switch-level failure from disrupting data communications. The C5 also supports equal cost multipath protocol (ECMP) and virtual router redundancy protocol (VRRP) to strengthen its ability to quickly recover from a network failure. The C5 also includes Host CPU Protection support to help prevent Denial of Service (DoS) and BPDU attacks.

Advanced Quality of Service

Robust Quality of Service features enable strong support for integrated multimedia networks, as well as all types of data-intensive applications. The C5 is a standards-based solution optimized for multimedia applications, including VoIP, videoconferencing and real-time collaboration. The C5 uses multiple standards-based discovery methods with Enterasys policy capabilities to automatically identify and provision VoIP services for IP phones from all major vendors. C5 switches provide dynamic mobility for VoIP clients and reduce operating costs; when an IP phone moves and plugs in elsewhere in the enterprise network, its VoIP service provisioning, security and traffic priority settings move with it, with no manual administration required.

Advanced packet buffering on the C5 means less jitter on the network and a greater level of QoS for time-sensitive applications, such as VoIP and IP video, resulting in better network performance.

Security

The C5 enables strong network security by utilizing its authentication and security features, which can be applied at the port level or at the user level. Making use of the Enterasys Network Management Suite's Policy Manager or a standard CLI, the Enterasys role-based architecture enables a network administrator to define distinct roles or profiles that represent operational groups within a business (e.g., employee, executive, guest, etc). Multiple users/devices per port can be authenticated via IEEE 802.1X, MAC address, or web authentication, and then assigned a pre-defined operational role.

Administrators can easily transition from RFC 3580 and complex access control list (ACL) deployments to the Enterasys role-based policy framework in a seamless fashion, without the need to make changes to their RADIUS infrastructure (e.g., adding filter-ID). In addition, the C5 also supports ACLs for supplementary network security. Network operations can be easily tailored to meet business-oriented requirements by providing each role with individualized access to network services and applications (e.g., a guest should have different network access privileges than an employee). Utilizing Enterasys role-based policy, administrators are able to manipulate DSCP and 802.1p rewrite for classification and prioritization of network traffic.

The C5 allows administrators even more network visibility, with the ability to audit their network for adherence to compliance regulations, such as PCI or HIPAA. The C5 is able to segment roles down to specific business functions, such as marketing, finance, HR or corporate, tailoring employee access to sensitive information.

Investment Protection

The C5 is a cost-effective, feature-rich, stackable switch that provides a broad set of features today and will continue to deliver benefits well into the future. All C-Series products include a lifetime warranty that includes warranty and support services for which many competitors charge additional fees – adding up to 10% of initial deployment costs on an annual basis. Included benefits, such as advanced hardware return, firmware feature upgrades (which most vendors cover at most for 90 days) and telephone support (which most don't include or severely limit) combine to significantly decrease operational costs for customers over the life of their network. For more information regarding warranty terms and conditions please go to http://www.enterasys.com/support/warranty.aspx.

Performance & Scalability

The C5, with support for 32,000 MAC addresses, provides scalable, wire-rate performance in support of the bandwidth-intensive and delay-sensitive requirements of today's demanding applications. Along with a switch capacity of 264 Gbps, the C5 provides up to 48 10/100/1000 Ethernet ports as well as 2 SFP+ ports, with the ability to support both 1GE and 10GE uplinks on the same port. Leveraging the C5's stacking capability, as many as 8 C5s (both 24-port and 48-port combinations) can be interconnected in a single stack to create a virtual switch that provides 2.11 Tbps of capacity and up to 384 10/100/1000 Ethernet ports as well as 16 10GE uplink ports.

Features / Standards and Protocols

MAC Address Table Size
32,000

VLANs
4,094 VLAN IDs
1,024 VLAN Entries per Stack

Switching Services Protocols
IEEE 802.1AB – LLDP
ANSI/TIA-1057 – LLDP-MED
IEEE 802.1D – MAC Bridges
IEEE 802.1s – Multiple Spanning Trees
IEEE 802.1t – 802.1D Maintenance
IEEE 802.1w – Rapid Spanning Tree
Reconvergence
IEEE 802.3 – Ethernet
IEEE 802.3ab – GE over Twisted Pair
IEEE 802.3ad – Link Aggregation
IEEE 802.3ae – 10 Gigabit Ethernet (fiber)
IEEE 802.3af – PoE
IEEE 802.3at – High Power PoE
(up to 30W per port)
IEEE 802.3i – 10Base-T
IEEE 802.3u – 100Base-T, 100Base-FX
IEEE 802.3z – GE over Fiber
Full/half duplex auto-sense support on all ports
IGMP Snooping v1/v2/v3
Jumbo Frame support (9,216 bytes)
Loop Protection
One-to-One and Many-to-One Port Mirroring
Port Description
Protected Ports
Selectable LAG Configuration Ready (6 x 8, 12 x 4, 24 x 2)
Host CPU Protection – Broadcast/ Multicast/ Unknown Unicast Suppression
Spanning Tree Backup Root
STP Pass Thru

VLAN Support
Generic Attribute Registration Protocol (GARP)
Generic VLAN Registration Protocol (GVRP)
IEEE 802.1p – Traffic classification
IEEE 802.1Q – VLAN Tagging
Protocol-based VLANs with Enterasys Policy
IEEE 802.3ac – VLAN Tagging Extensions
Port-based VLAN (private port/private VLAN)
Tagged-based VLAN
VLAN Marking of Mirror Traffic

Security
ARP Spoof Protection
DHCP Spoof Protection
IEEE 802.1X Port Authentication
MAC-based Port Authentication
RADIUS Accounting for network access
RADIUS Client
RFC 3580 – IEEE 802.1X RADIUS Usage Guidelines
Multi-user Authentication
Password Protection (encryption)
Secure Networks Policy
Secured Shell (SSHv2)
Secured Socket Layer (SSL)
User and IP Phone Authentication
Web-based Port Authentication

IPv4 Routing
Standard Access Control List (ACLs)
Extended ACLs
VLAN-based ACLs
ARP & ARP Redirect
DVMRP
IP Helper Address
RFC 826 – Ethernet ARP
RFC 1058 – RIP v1
RFC 1256 – ICMP Router Discovery Messages
RFC 1519 Classless Inter-Domain Routing
RFC 1724 – RIPv2 MIB Extension
RFC 2236 – IGMPv2
RFC 2328 – OSPF version 2
RFC 2338 – IP Redundancy VRRP
RFC 2362 – PIM-SM
RFC 2453 – RIP v2
RFC 3046 – DHCP/BootP Relay
RFC 3376 – IGMPv3
RFC 3768 – VRRP – Virtual Router
Redundancy Protocol Static Routes

IPv6 Routing
RFC 1981 – Path MTU for IPv6
RFC 2373 – IPv6 Addressing
RFC 2460 – IPv6 Protocol Specification
RFC 2461 – Neighbor Discovery
RFC 2462 – Stateless Autoconfiguration
RFC 2463 – ICMPv6
RFC 2464 – IPv6 over Ethernet
RFC 2473 – Generic Packet Tunneling in IPv6
RFC 2271 – SNMP Framework MIB
RFC 2711 – IPv6 Router Alert
RFC 2740 – OSPFv3
RFC 2893 – Transition Mechanisms for IPv6 Hosts and Routers (6 over 4 configured)
RFC 3315 – DHCPv6 (stateless + relay)
RFC 3484 – Default Address Selection for IPv6
RFC 3493 – Basic Socket Interface for IPv6
RFC 3513 – Addressing Architecture for IPv6
RFC 3542 – Advanced Sockets API for
RFC 3587 – IPv6 Global Unicast Address Format
RFC 3736 – Stateless DHCPv6

Dual IPv4/IPv6 TCP/IP Stack

MIB Support
Enterasys Entity MIB
Enterasys Policy MIB
Enterasys VLAN Authorization MIB
ANSI/TIA-1057 – LLDP-MED MIB
IEEE 802.1AB – LLDP MIB
IEEE 802.1X MIB – Port Access
IEEE 802.3ad MIB – LAG MIB
RFC 826 – ARP and ARP Redirect
RFC 951, RFC 1542 – DHCP/ BOOTP Relay
RFC 1213 – MIB/MIB II
RFC 1493 – BRIDGE-MIB
RFC 1643 – Ethernet-like MIB
RFC 1724 – RIPv2 MIB Extension
RFC 1850 – OSPF MIB
RFC 2096 – IP Forwarding Table MIB
RFC 2131, RFC 3046 – DHCPClient/Relay
RFC 2233 – IF-MIB
RFC 2465 – IPv6 MIB
RFC 2466 – ICMPv6 MIB
RFC 2571 – SNMP Framework MIB
RFC 2618 – RADIUS Authentication Client MIB
RFC 2620 – RADIUS Accounting Client MIB
RFC 2668 – Managed Object Definitions for 802.3 MAUs
RFC 2674 – P-BRIDGE-MIB
RFC 2674 – QBRIDGE-MIB VLAN Bridge MIB
RFC 2737 – Entity MIB (physical branch only)
RFC 2787 – VRRP-MIB
RFC 2819 – RMON-MIB
RFC 2933 – IGMP MIB
RFC 2934 – PIM MIB for IPv4
RFC 3413 – SNMP v3 Applications MIB
RFC 3414 – SNMP v3 User-based Security Module (USM) MIB
RFC 3584 – SNMP Community MIB
RFC 3621 – Power over Ethernet MIB

Quality of Service
8 Priority Queues per Port
802.3x Flow Control
Class of Service (CoS)
Ingress Rate Limiting
IP ToS/DSCP Marking/Remarking
IP Precedence
IP Protocol
Layer 2/3/4 Classification
Multi-layer Packet Processing
Queuing Control – Strict and Weighted Round Robin
Source/Destination IP Address
Source/Destination MAC Address
Dynamic and Static MAC Locking
EAP Pass-Thru
RFC 2474 Definition of Differentiated Services Field

Features / Standards and Protocols (cont.)

Management
Alias Port Naming
Command Line Interface (CLI)
Configuration Upload/Download
Dual IPv4/IPv6 Management Support
Editable Text-based Configuration File
TFTP Client
Multi-configuration File Support
NMS Automated Security Manager
NMS Console
NMS Inventory Manager
NMS Policy Manager
Node/Alias Table
RFC 768 – UDP
RFC 783 – TFTP
RFC 791 – IP

RFC 792 – ICMP
RFC 793 – TCP
RFC 826 – ARP
RFC 854 – Telnet
RFC 951 – BootP
RFC 1157 – SNMP
RFC 1321 – The MD5 Message-Digest Algorithm
RFC 1901 – Community-based SNMPv2
RFC 2030 Simple Network Time Protocol (SNTP)
RFC 2933 – IGMP MIB
RFC 3176 – sFlow
RFC 3413 – SNMPV3 Applications
RFC 3414 –User-based Security Module (USM) for SNMPv3

RFC 3415 – View-based Access Control Model for SNMP
RFC 3826 – Advanced Encryption Standard (AES) for SNMP
RMON (Stats, History, Alarms, Events, Filters, Packet Capture)
Secure Copy (SCP)
Secure FTP (SFTP)
Simple Network Management Protocol (SNMP) v1/v2c/v3
SSHv2
RFC 3164 – The BSD Syslog Protocol
TACACS+ support
Authentication, Authorization and Auditing
Web-based Management
Webview via SSL Interface

Switch Model Specifications

	C5G124-24	C5G124-24P2	C5G124-48	C5G124-48P2
Performance				
Throughput Capacity wire-speed Mpps (switch / stack)	35.7 Mpps / 285.7 Mpps	35.7 Mpps / 285.7 Mpps	71.4 Mpps / 571.4 Mpps	71.4 Mpps / 571.4 Mpps
Switching Capacity (switch / stack)	48 Gbps (35.7 Mpps) / 384 Gbps (285.7 Mpps)	48 Gbps (35.7 Mpps) / 384 Gbps (285.7 Mpps)	96 Gbps (71.4 Mpps) / 768 Gbps (571.4 Mpps)	96 Gbps (71.4 Mpps) / 768 Gbps (571.4 Mpps)
Stacking Capacity (switch / stack)	128 Gbps (95.2 Mpps) / 1,024 Gbps (761.8 Mpps)	128 Gbps (95.2 Mpps) / 1,024 Gbps (761.8 Mpps)	128 Gbps (95.2 Mpps) / 1,024 Gbps (761.8 Mpps)	128 Gbps (95.2 Mpps) / 1,024 Gbps (761.8 Mpps)
Aggregate Throughput Capacity (switch / stack)	176 Gbps (130.9 Mpps) / 1,408 Gbps (1,047.5 Mpps)	176 Gbps (130.9 Mpps) / 1,408 Gbps (1,047.5 Mpps)	224 Gbps (166.6 Mpps) / 1,792 Gbps (1,333.2 Mpps)	224 Gbps (166.6 Mpps) / 1,792 Gbps (1,333.2 Mpps)
PoE Specifications				
802.3af Interoperable	N/A	Yes	N/A	Yes
802.3at Interoperable	N/A	Yes	N/A	Yes
System Power	N/A	850 watts per switch with up to 30 watts per port. Per-port switch power monitor: • Enable/disable • Priority safety • Overload & short circuit protection	N/A	850 watts per switch with up to 30 watts per port. Per-port switch power monitor: • Enable/disable • Priority safety • Overload & short circuit protection
Physical Specifications				
Dimensions (H x W x D)	H: 4.4 cm (1.73") W: 44.1 cm (17.36") D: 36.85 cm (14.51")	H: 4.4 cm (1.73") W: 44.1 cm (17.36") D: 36.85 cm (14.51")	H: 4.4 cm (1.73") W: 44.1 cm (17.36") D: 36.85 cm (14.51")	H: 4.4 cm (1.73") W: 44.1 cm (17.36") D: 36.85 cm (14.51")
Net Weight	5.03 kg (11.10 lb)	6.21 kg (13.70 lb)	5.42 kg (11.95 lb)	6.60 kg (14.55 lb)
MTBF	395,557 hours	289,425 hours	311,897 hours	229,532 hours
Physical Ports	• (24) 10/100/1000 auto-sensing, auto-negotiating MDI/MDI-X RJ45 ports • (4) Combo SFP ports • (2) dedicated stacking ports • (1) DB9 console port • (1) RPS port	• (24) 10/100/1000 PoE (.af+.at) auto-sensing, auto-negotiating MDI/MDI-X RJ45 ports • (4) Combo SFP ports • (2) dedicated stacking ports • (1) DB9 console port • (1) RPS port	• (48) 10/100/1000 auto-sensing, auto-negotiating MDI/MDI-X RJ45 ports • (4) Combo SFP ports • (2) dedicated stacking ports • (1) DB9 console port • (1) RPS port	• (48) 10/100/1000 PoE (.af+.at) auto-sensing, auto-negotiating MDI/MDI-X RJ45 ports • (4) Combo SFP ports • (2) dedicated stacking ports • (1) DB9 console port • (1) RPS port
Power Requirements				
Normal Input Voltage	100 - 240 VAC	100 - 240 VAC	100 - 240 VAC	100 - 240 VAC
Input Frequency	50 – 60 Hz	50 – 60 Hz	50 – 60 Hz	50 – 60 Hz
Input Current	2 A Max	12 A Max	2 A Max	12 A Max
Power Consumption	65 watts	125 watts	101 watts	150 watts

Switch Model Specifications (cont.)

	C5G124-24	C5G124-24P2	C5G124-48	C5G124-48P2
Temperature				
IEC 6-2-1 Standard Operating Temperature	0° to 50° C (32° to 122° F)	0° to 50° C (32° to 122° F)	0° to 50° C (32° to 122° F)	0° to 50° C (32° to 122° F)
IEC 6-2-14 Non-Operating Temperature	-40° to 70° C (-40° to 158° F)	-40° to 70° C (-40° to 158° F)	-40° to 70° C (-40° to 158° F)	-40° to 70° C (-40° to 158° F)
Heat Dissipation	222 BTUs/Hr	428 BTUs/Hr	345 BTUs/Hr	513 BTUs/Hr
Humidity				
Operating Humidity	5% - 95% non-condensing	5% - 95% non-condensing	5% - 95% non-condensing	5% - 95% non-condensing
Vibration				
	IEC 68-2-6, IEC68-2-36	IEC 68-2-6, IEC68-2-36	IEC 68-2-6, IEC68-2-36	IEC 68-2-6, IEC68-2-36
Shock				
	IEC 68-2-29	IEC 68-2-29	IEC 68-2-29	IEC 68-2-29
Drop				
	IEC 68-2-32	IEC 68-2-32	IEC 68-2-32	IEC 68-2-32
Acoustics				
Front of switch (normal operation)	44 dB	45.5 dB	46 dB	45.5 dB
Altitude				
Operating	10,000 ft (3,048 m)	10,000 ft (3,048 m)	10,000 ft (3,048 m)	10,000 ft (3,048 m)
Non-operating	15,000 ft (4,572 m)	15,000 ft (4,572 m)	15,000 ft (4,572 m)	15,000 ft (4,572 m)
Agency and Regulatory Standard Specifications				
Safety	UL 60950-1, CSA 22.1 60950, EN 60950-1, and IEC 60950-1	UL 60950-1, CSA 22.1 60950, EN 60950-1, and IEC 60950-1	UL 60950-1, CSA 22.1 60950, EN 60950-1, and IEC 60950-1	UL 60950-1, CSA 22.1 60950, EN 60950-1, and IEC 60950-1
EMC	FCC Part 15 (Class A), ICES-003 (Class A), BSMI, VCCI V-3, AS/NZS CISPR 22 (Class A), EN 55022 (Class A), EN 55024, EN 61000-3-2, and EN 61000-3-3	FCC Part 15 (Class A), ICES-003 (Class A), BSMI, VCCI V-3, AS/NZS CISPR 22 (Class A), EN 55022 (Class A), EN 55024, EN 61000-3-2, and EN 61000-3-3	FCC Part 15 (Class A), ICES-003 (Class A), BSMI, VCCI V-3, AS/NZS CISPR 22 (Class A), EN 55022 (Class A), EN 55024, EN 61000-3-2, and EN 61000-3-3	FCC Part 15 (Class A), ICES-003 (Class A), BSMI, VCCI V-3, AS/NZS CISPR 22 (Class A), EN 55022 (Class A), EN 55024, EN 61000-3-2, and EN 61000-3-3
Environmental	2002/95/EC (RoHS Directive), 2002/96/EC (WEEE Directive), Ministry of Information Order #39 (China RoHS)	2002/95/EC (RoHS Directive), 2002/96/EC (WEEE Directive), Ministry of Information Order #39 (China RoHS)	2002/95/EC (RoHS Directive), 2002/96/EC (WEEE Directive), Ministry of Information Order #39 (China RoHS)	2002/95/EC (RoHS Directive), 2002/96/EC (WEEE Directive), Ministry of Information Order #39 (China RoHS)

	C5K125-24	C5K125-24P2	C5K125-48	C5K125-48P2	C5K175-24
Performance					
Throughput Capacity wire-speed Mpps (switch / stack)	65.5 Mpps / 523.8 Mpps	65.5 Mpps / 523.8 Mpps	101.2 Mpps / 809.5 Mpps	101.2 Mpps / 809.5 Mpps	65.5 Mpps / 523.8 Mpps
Switching Capacity (switch / stack)	88 Gbps (65.5 Mpps) / 704 Gbps (523.8 Mpps)	88 Gbps (65.5 Mpps) / 704 Gbps (523.8 Mpps)	136 Gbps (101.2 Mpps) / 1,088 Gbps (809.5 Mpps)	136 Gbps (101.2 Mpps) / 1,088 Gbps (809.5 Mpps)	88 Gbps (65.5 Mpps) / 704 Gbps (523.8 Mpps)
Stacking Capacity (switch / stack)	128 Gbps (95.2 Mpps) / 1,024 Gbps (761.8 Mpps)	128 Gbps (95.2 Mpps) / 1,024 Gbps (761.8 Mpps)	128 Gbps (95.2 Mpps) / 1,024 Gbps (761.8 Mpps)	128 Gbps (95.2 Mpps) / 1,024 Gbps (761.8 Mpps)	128 Gbps (95.2 Mpps) / 1,024 Gbps (761.8 Mpps)
Aggregate Throughput Capacity (switch / stack)	216 Gbps (160.7 Mpps) / 1,728 Gbps (1,285.6 Mpps)	216 Gbps (160.7 Mpps) / 1,728 Gbps (1,285.6 Mpps)	264 Gbps (196.4 Mpps) / 2,112 Gbps (1,571.3 Mpps)	264 Gbps (196.4 Mpps) / 2,112 Gbps (1,571.3 Mpps)	216 Gbps (160.7 Mpps) / 1,728 Gbps (1,285.6 Mpps)
PoE Specifications					
802.3af Interoperable	N/A	Yes	N/A	Yes	N/A
802.3at Interoperable	N/A	Yes	N/A	Yes	N/A

Switch Model Specifications (cont.)

	C5K125-24	C5K125-24P2	C5K125-48	C5K125-48P2	C5K175-24
System Power	N/A	850 watts per switch with up to 30 watts per port Per-port switch power monitor: • Enable/disable • Priority safety • Overload & short circuit protection	N/A	850 watts per switch with up to 30 watts per port Per-port switch power monitor: • Enable/disable • Priority safety • Overload & short circuit protection	N/A
Physical Specifications					
Dimensions (H x W x D)	H: 4.4 cm (1.73") W: 44.1 cm (17.36") D: 36.85 cm (14.51")	H: 4.4 cm (1.73") W: 44.1 cm (17.36") D: 36.85 cm (14.51")	H: 4.4 cm (1.73") W: 44.1 cm (17.36") D: 36.85 cm (14.51")	H: 4.4 cm (1.73") W: 44.1 cm (17.36") D: 36.85 cm (14.51")	H: 4.4 cm (1.73") W: 44.1 cm (17.36") D: 36.85 cm (14.51")
Net Weight	4.92 kg (10.85 lb)	6.10 kg (13.45 lb)	5.31 kg (11.70 lb)	6.49 kg (14.30 lb)	4.97 kg (10.95 lb)
MTBF	365,615 hours	273,083 hours	284,345 hours	213,965 hours	395,839 hours
Physical Ports	• (24) 10/100/1000 auto-sensing, auto-negotiating MDI/MDI-X RJ45 ports • (2) Combo SFP ports • (2) SFP+ ports • (2) dedicated stacking ports • DB9 console port • (1) RPS port	• (24) 10/100/1000 PoE (.af + .at) auto-sensing, auto-negotiating MDI/MDI-X RJ45 ports • (2) Combo SFP ports • (2) SFP+ ports • (2) dedicated stacking ports • DB9 console port • (1) RPS port	• (48) 10/100/1000 auto-sensing, auto-negotiating MDI/MDI-X RJ45 ports • (2) Combo SFP ports • (2) SFP+ ports • (2) dedicated stacking ports • (1) DB9 console port • (1) RPS port	• (48) 10/100/1000 PoE (.af + .at) auto-sensing, auto-negotiating MDI/MDI-X RJ45 ports • (2) Combo SFP ports • (2) SFP+ ports • (2) dedicated stacking ports • (1) DB9 console port • (1) RPS port	• (24) SFP • (2) SFP+ ports • (2) dedicated stacking ports • (1) DB9 console port • (1) RPS port
Power Requirements					
Normal Input Voltage	100 - 240 VAC	100 - 240 VAC	100 - 240 VAC	100 - 240 VAC	100 - 240 VAC
Input Frequency	50 – 60 Hz	50 – 60 Hz	50 – 60 Hz	50 – 60 Hz	50 – 60 Hz
Input Current	2 A Max	12 A Max	2 A Max	12 A Max	2 A Max
Power Consumption	74 watts	130 watts	120 watts	165 watts	69 watts
Temperature					
IEC 6-2-1 Standard Operating Temperature	0° to 50° C (32° to 122° F)	0° to 50° C (32° to 122° F)	0° to 50° C (32° to 122° F)	0° to 50° C (32° to 122° F)	0° to 50° C (32° to 122° F)
IEC 6-2-14 Non-Operating Temperature	-40° to 70° C (-40° to 158° F)	-40° to 70° C (-40° to 158° F)	-40° to 70° C (-40° to 158° F)	-40° to 70° C (-40° to 158° F)	-40° to 70° C (-40° to 158° F)
Heat Dissipation	253 BTUs/Hr	445 BTUs/Hr	408 BTUs/Hr	565 BTUs/Hr	234 BTUs/Hr
Humidity					
Operating Humidity	5% - 95% non-condensing	5% - 95% non-condensing	5% - 95% non-condensing	5% - 95% non-condensing	5% - 95% non-condensing
Vibration					
	IEC 68-2-6, IEC68-2-36	IEC 68-2-6, IEC68-2-36	IEC 68-2-6, IEC68-2-36	IEC 68-2-6, IEC68-2-36	IEC 68-2-6, IEC68-2-36
Shock					
	IEC 68-2-29	IEC 68-2-29	IEC 68-2-29	IEC 68-2-29	IEC 68-2-29
Drop					
	IEC 68-2-32	IEC 68-2-32	IEC 68-2-32	IEC 68-2-32	IEC 68-2-32
Acoustics					
Front of switch (normal operation)	45 dB	45.5 dB	47 dB	46 dB	46 dB
Altitude					
Operating	10,000 ft (3,048 m)	10,000 ft (3,048 m)	10,000 ft (3,048 m)	10,000 ft (3,048 m)	10,000 ft (3,048 m)
Non-operating	15,000 ft (4,572 m)	15,000 ft (4,572 m)	15,000 ft (4,572 m)	15,000 ft (4,572 m)	15,000 ft (4,572 m)

Agency and Regulatory Standard Specifications					
Safety	UL 60950-1, CSA 22.1 60950, EN 60950-1, and IEC 60950-1	UL 60950-1, CSA 22.1 60950, EN 60950-1, and IEC 60950-1	UL 60950-1, CSA 22.1 60950, EN 60950-1, and IEC 60950-1	UL 60950-1, CSA 22.1 60950, EN 60950-1, and IEC 60950-1	UL 60950-1, CSA 22.1 60950, EN 60950-1, and IEC 60950-1
EMC	FCC Part 15 (Class A), ICES-003 (Class A), BSMI, VCCI V-3, AS/ NZS CISPR 22 (Class A), EN 55022 (Class A), EN 55024, EN 61000-3-2, and EN 61000-3-3	FCC Part 15 (Class A), ICES-003 (Class A), BSMI, VCCI V-3, AS/NZS CISPR 22 (Class A), EN 55022 (Class A), EN 55024, EN 61000-3-2, and EN 61000-3-3	FCC Part 15 (Class A), ICES-003 (Class A), BSMI, VCCI V-3, AS/ NZS CISPR 22 (Class A), EN 55022 (Class A), EN 55024, EN 61000-3-2, and EN 61000-3-3	FCC Part 15 (Class A), ICES-003 (Class A), BSMI, VCCI V-3, AS/ NZS CISPR 22 (Class A), EN 55022 (Class A), EN 55024, EN 61000-3-2, and EN 61000-3-3	FCC Part 15 (Class A), ICES-003 (Class A), BSMI, VCCI V-3, AS/ NZS CISPR 22 (Class A), EN 55022 (Class A), EN 55024, EN 61000-3-2, and EN 61000-3-3
Environmental	2002/95/EC (RoHS Directive), 2002/96/ EC (WEEE Directive), Ministry of Information Order #39 (China RoHS)	2002/95/EC (RoHS Directive), 2002/96/ EC (WEEE Directive), Ministry of Information Order #39 (China RoHS)	2002/95/EC (RoHS Directive), 2002/96/ EC (WEEE Directive), Ministry of Information Order #39 (China RoHS)	2002/95/EC (RoHS Directive), 2002/96/ EC (WEEE Directive), Ministry of Information Order #39 (China RoHS)	2002/95/EC (RoHS Directive), 2002/96/ EC (WEEE Directive), Ministry of Information Order #39 (China RoHS)

Redundant Power Supply Equipment Specifications

STK-RPS-1005CH3 Power Shelf

Power Supply Slots
3

Dimensions (H x W x D)*
5.5 cm (2.2") x 44.0 cm (17.3") x 35.1 cm (13.8")

Weight
0.95 kg (2.09 lbs)

STK-RPS-150CH2 Power Shelf

Power Supply Slots
2

Dimensions (H x W x D)*
5.5 cm (2.2") x 44.0 cm (17.3") x 18.0 cm (7.0")

Weight
5.27 kg (11.6 lbs)

STK-RPS-150CH8 Power Shelf

Power Supply Slots
8

Dimensions (H x W x D)*
22.26 cm (8.77") x 44.0 cm (17.3") x 26.4 cm (10.4")

Weight
5.27 kg (11.6 lbs)

Note: dimensions include integrated rack mount ears

STK-RPS-150PS Power Supply

Dimensions (H x W x D)
19.6 cm (7.7") x 5.2 cm (2.04") x 25.7 cm (10.1")

Net Weight (Unit Only)
1.75 kg (3.85 lbs)

Gross Weight (Packaged Unit)
3.20 kg (7.04 lbs)

MTBF
300,000 hours

Operating Temperature
0° C to 50° C (32° F to 122° F)

Storage Temperature
-30° C to 73° C (-22° F to 164° F)

Operating Relative Humidity
5% to 95%

AC Input Frequency Range
50 – 60 Hz

AC Input Voltage Range
100 – 240 VAC

Maximum Output Power
156 W continuous

STK-RPS-1005PS Power Supply

Dimensions (H x W x D)*
4.3 cm (1.7") x 15.4 cm (6.06") x 34.0 cm (13.39")

Net Weight (Unit Only)
2.1 kg (4.63 lb)

Gross Weight (Packaged Unit)
3.53 kg (7.77 lb)

MTBF
800,000 hours

Operating Temperature
0° C to 50° C (32° F to 122° F)

Storage Temperature
-40° C to 70° C (-40° F to 158° F)

Operating Relative Humidity
5% to 95%

AC Input Frequency Range
50-60 Hz

AC Input Voltage Range
100 - 240 VAC

Maximum Output Power
1005 W continuous

Ordering Information

Part Number	Description
C5 Switches	
C5G124-24	(24) 10/100/1000 RJ45 ports, (4) combo SFP ports, (2) dedicated high-speed stacking ports and external RPS connector. Total active ports per switch: (24) Gigabit ports
C5G124-24P2	(24) 10/100/1000 PoE (.at + .af) RJ45 ports, (4) combo SFP ports, (2) dedicated high-speed stacking ports and external RPS connector. Total active ports per switch: (24) Gigabit ports
C5G124-48	(48) 10/100/1000 RJ45 ports, (4) combo SFP ports, (2) dedicated high-speed stacking ports and external RPS connector. Total active ports per switch: (48) Gigabit ports
C5G124-48P2	(48) 10/100/1000 PoE (.at + .af) RJ45 ports, (4) combo SFP ports, (2) dedicated high-speed dedicated stacking ports and external RPS connector. Total active ports per switch: (48) Gigabit ports
C5K125-24	(24) 10/100/1000 RJ45 ports, (2) combo SFP ports, (2) SFP+, (2) dedicated high-speed stacking ports and external RPS connector. Total active ports per switch: (24) Gigabit ports + (2) 1GE or 10GE SFP+ ports
C5K125-24P2	(24) 10/100/1000 PoE (.at + .af) RJ45 ports, (2) combo SFP ports, (2) SFP+, (2) dedicated high-speed stacking ports and external RPS connector. Total active ports per switch: (24) Gigabit ports + (2) 1GE or 10GE SFP+ ports
C5K125-48	(48) 10/100/1000 RJ45 ports, (2) combo SFP ports, (2) SFP+, (2) dedicated high-speed stacking ports and external RPS connector. Total active ports per switch: (48) Gigabit ports + (2) 1GE or 10GE SFP+ ports
C5K125-48P2	(48) 10/100/1000 PoE (.at + .af) RJ45 ports, (2) combo SFP ports, (2) SFP+, (2) dedicated high-speed stacking ports and external RPS connector. Total active ports per switch: (48) Gigabit ports + (2) 1GE or 10GE SFP+ ports
C5K175-24	(24) SFP, (2) SFP+ ports, (2) dedicated high-speed stacking ports and external RPS connector. Total active ports per switch: (24) SFP, (2) 1GE or 10GE SFP+ ports
Optional Software Licenses	
C5L3-LIC	C5 advanced IPv4 (OSPF, PIM-SM, DVMRP and VRRP) and IPv6 routing licensing (OSPF) (per switch)
Cables	
STK-CAB-SHORT	Stacking cable for connecting adjacent B5/C5 switches (30cm)
STK-CAB-LONG	Stacking cable for connecting top switch to bottom switch in a B5 or C5 stack (1m)
STK-CAB-2M	Stacking cable for B5/C5 models (2m)
STK-CAB-5M	Stacking cable for B5/C5 models (5m)
SSCON-CAB	Spare DB9 Console Cable
Redundant Power Supplies	
STK-RPS-1005CH3	3-slot modular power supply chassis (power supply STK-RPS-1005PS sold separately)
STK-RPS-1005PS	1005W 802.3at PoE redundant power supply with load-balancing support
STK-RPS-150CH2	2-slot modular power supply shelf (power supply STK-RPS-150PS sold separately)
STK-RPS-150CH8	8-slot modular power supply shelf (power supply STK-RPS-150PS sold separately)
STK-RPS-150PS	150W non-PoE redundant power supply

Transceivers

Enterasys transceivers provide connectivity options for Ethernet over twisted pair copper and fiber optic cables with transmission speeds from 100 Megabits per second to 10 Gigabits per second. The Enterasys C5 includes SFP+ transceivers that can support both 10GE and 1GE transceivers. All Enterasys transceivers meet the highest quality for extended life cycle and the best possible return on investment. For detailed specifications, compatibility and ordering information please go to http://www.enterasys.com/products/transceivers-ds.pdf.

Warranty

As a customer-centric company, Enterasys is committed to providing quality products and solutions. In the event that one of our products fails due to a defect, we have developed a comprehensive warranty that protects you and provides a simple way to get your products repaired or media replaced as soon as possible.

C-Series switches come with the Enterasys lifetime warranty against manufacturing defects. For full warranty terms and conditions please go to: www.enterasys.com/support/warranty.aspx.

Service and Support

Enterasys Networks provides comprehensive service offerings that range from Professional Services to design, deploy and optimize 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.

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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