

Manageable L2+ Switch with PoE+ support and 12 ports

bintec ESW4000-12PH

- 8 Gigabit Ethernet port with PoE+
- 2 SFP ports and 2 Combo ports
- 24 Gbit/s switch capacity
- Extensive L2 feature set (QoS, Security, ...)
- Energy efficient by 802.3az support
- Manageable via Web, be.SDx prepared
- Available End of January 2019



bintec ESW4000-12PH

The bintec ESW4000-12PH is a powerful L2 switch for enterprise applications.

The ESW4000-12PH switch has a total PoE power budget of 180 Watt und support up to 8 PoE devices (802.3bt/af/at) directly with power. The protocol 802.3az reduce the power consumption in case of use short ethernet cables by reducing the transmit level. Ports there not in use are switched off automatically to save energy. Additional to the 8 Gigabit Ethernet ports are two SFP port available to connect fiber cables via SFP transceiver and two Combo ports there allow the connection for a Ethernet cable or a SFP transceiver.

Extensive L2 features allow a efficient management. In example allow the IEEE 802.3ad Link Aggregation Control Protocol (LACP) a efficient loadblancing and fault tolerance.

The switch ESW4000-12PH is manageable via a web interface or via a CLI interface. In addition is the switch prepared for the coming up bintec SD-WAN solution be.SDx.

Variants

bintec ESW4000-12PH Part number: 5510000472

Features

Interfaces	
Ethernet Ports	8x 10/100/1000BASE-T Ports with RJ45 socket; PoE+ for all 8 ports; Auto-negotiation for port speed and duplex mode (Auto MDI/MDI-X)
SFP Ports	2x IEEE 802.3 100BASE-FX; IEEE 802.3z (1000BASE-SX/LX/LHX/ZX) transceiver; Transceiver threshold current/rx-power/temperature/tx-power/voltage/high-low alarm and warnings; DDM (Digital Diagnostic Monitoring)
Combo Ports	2x Gigabit Combo Ports
Console port	RJ45 socket, serial interface via adaptor cable (R45<->DB9)

Layer 2 Functionality	
Spanning Tree Protocol	IEEE 802.1D Spanning Tree Protocol (STP); IEEE 802.1w Rapid Spanning Tree Protocol (RSTP); IEEE 802.1s Multiple Spanning Tree Protocol (MSTP); BPDU Guard; BPDU Filtering; Root Guard; BPDU Transparent; Loopback detection; Non loopback detection
VLAN	Supports 4K VLAN; Port-based VLAN; IEEE 802.1Q VLAN; GVRP (256 VLAN); IEEE 802.1v protocol-based VLAN; IP Subnet-based VLAN; MAC-based VLAN; Traffic Segmentation

L2 Virtual Private Network (Q-in-Q)	Selective Q-in-Q; VLAN Translation; L2 Protocol tunneling (xSTP, CDP, VTP&PVST+; LLDP); CDP/PVST+ Filtering
Link Aggregation	Static Trunk; IEEE 802.3ad Link Aggregation Control Protocol; Trunk groups 16 up to 8 GE ports per group; Load Balancing (SA+DA, SA, DA, SIP+DIP, SIP, DIP)
IGMP Snooping	IGMP v1/v2/v3 Snooping; IGMP Proxy Reporting; IGMP Filtering; IGMP Throttling; IGMP Immediate Leave; IGMP Querier; IGMP mrouter-forward-mode; IGMP Router-alert-option-check; IGMP Router-port-expire-time; IGMP tcn-flood; IGMP tcn-query-solicit
Multicast VLAN Registration (MVR)	Support 5 multicast VLANs Port mirroring. Multiple source ports to one destination port or one source port to one destination port.

Quality of Service (QoS)	
Priority Queues	8 hardware queues per port
Traffic classification	IEEE 802.1p CoS; IP Precedence; DSCP
Traffic scheduling	Strict Priority; Weighted Round Robing; Strict+WRR
Diffserv	Ingress policy map (police rate, remark CoS); Egress policy map (police rate, remark CoS/DSCP)
Rate Limiting	Ingress and Egress per port base; Resolution 64 to 1000 Mbps

IP Routing	
IPv4 static route	Supported
RIP support	RIP v1/v2
Traceroute	Traceroute/Traceroute6

IPv6	
IPv4/IPv6 dual protocol stack	Supported
IPv6 Address type stack	Unicast
IPv6 Neighbor Discovery	Duplicate address; Address resolution; Unreachable neighbor detection
IPv6 configuration	Stateless auto-configuration; Manual configuration
Other IPv6 features	Remote IPv6 ping; IPv6 Telnet; HTTP over IPv6; SNMP over IPv6; IPv6 Syslog; IPv6 TFTP; IPv6 MLD filtering and throttling; IPv6NM snooping; IPv6 source guard; DHCPv6 snooping; MVR6

OAM

IEEE 802.3ah	IEEE 802.3ah Link
IEEE 802.1ag	Cross check; Link trace; Loop back
ITU-T Y.1731	Performance and Throughput Management

Security

User security	IEEE 802.1X port based and MAC based authentication; Dynamic VLAN assignment; Dynamic QoS assignment; MAC authentication; Web authentication; Voice VLAN; Guest VLAN
Security mechanism	L2/L3/L4 Access control list; MAC Access control list; IP Access control list (Source IP); IP extended Access control list; DHCP snooping; DHCP option 82; DHCP option 82 relay; IP source guard
Network security	IPv6 ACL; Port security; PPPoE IA; Dynamic ARP inspection; CPU guard; CPU/Memory threshold and alarm; DOS protection
Management Security	Login Security; RADIUS authentication/accounting; TACACS+ authentication/accounting/authorization; Management interface filtering (SNMP, Web, Telnet); SSH for secure Telnet; SSL for HTTPS; SNMPv3

Management

Switch management	Prepared for the bintec SD-WAN solution be.SDx; Web management; CLI via console port or Telnet; SNMP v1, v2c, v3
Configuration management	Configuration file up/download via TFTP/HTTP/FTP/SFTP; Multiple configuration file support
Firmware management	Firmware update via TFTP/HTTP/FTP/SFTP; Dual images; Firmware auto update
Monitoring	sFlow v4, v5 support; Cable diagnostic; Event/Error log; Syslog; RMON (groups 1,2,3,9)
Other management features	BOOTP; DHCP client for IP address assignment; DHCP dynamic provision option 66,67; SNTP/NTP; DNS client; SMTP; LLDP (802.1ab)

Energy Saving Functions

Green Ethernet	Energy-Efficient Ethernet according 802.3az
Cable length detection	Reduce the power at short Ethernet cables
No-Link detection	Switches off unused ports automatically to save energy.

Hardware	
Performance values	Switch Capacity 24Gbps; Forward rate 17,8 Mbps; MAC Address table size 16k; Jumbo Frames 12kB; Flash Memory 32MB / DRAM 256MB; Auto-MDI/MDIX
PoE	PoE+ according 802.3bt/802.3af/802.3at for 8 ports; Ultra PoE 60W; PoE power budget 180 Watt; Dynamic power allocation; Auto disable after exceeding power budget
Power Supply	Integrated power supply 100-240 VAC, 50-60Hz with cold device plug at the rear panel; Maximum power consumption 230 Watt
Dimension / Weight	Dimension 28x22x4,4 cm (W x D x H); Weight appr. 2,4 kg
Acoustics	0 dB(A) for <70 Watt PoE budget; 48 dB(A)
Environmental	Operation 0°C to 50°C; Storage -40°C to 70°C; Humidity in operation and storage 10% to 90% (non-condensing)
Approvals	EN60950-1; EN61000-3-2; EN61000-3-3; EN61000-4-2; EN61000-4-3; EN61000-4-4; EN61000-4-5; EN61000-4-6; EN61000-4-8; EN61000-4-11; EN55032; EN55024

Content of Delivery	
Content of delivery	Power supply cable with EU-plug, 19" mounting kit with 2 brackets and 8 screws; 4 foot pads; Adaptor cable RJ45<->DB9 for console port; Quick install guide

Accessories

Part number 5530000190 bintec SFP-LC-TX/LX/LH

Part number 5530000189 bintec SFP-LC-SX