IgniteNet FusionSwitch™ PoE

FNS-PoE-10

10-Port L2 Gigabit Ethernet PoE Switch

Product Overview

The IgniteNet FusionSwitch™ FNS-PoE-10 is a cost-effective L2 managed switch with eight Gigabit PoE ports and two 1G uplink ports. The FNS-PoE-10 is a full-PoE fanless design, it supports PoE on up to 8 ports at 15.4 W, or 4 ports at 30 W to meet the increasing power demands of users for IP cameras, IP telephones, or access points. With powerful software and hardware features, the FNS-PoE-10 is designed for SMB and enterprise markets and provides plenty of management options, including a console port.

Key Features and Benefits

Performance and Scalability

The FNS-PoE-10 is a web-smart switch designed for the SMB market. The switch can be deployed in different target network topologies, from small to large. The FNS-PoE-10 offers a complete PoE solution up to 125 W with powerful software and security features.

Continuous Availability

IEEE 802.1w Rapid Spanning Tree Protocol provides a loop-free network and redundant links to the core network with rapid convergence, which ensures a faster recovery from failed links, enhancing overall network stability and reliability.
IEEE 802.1Q VLAN-segmented broadcast domains reduce broadcast traffic and increase LAN security and performance.
IEEE 802.3ad Link Aggregation Control Protocol (LACP) increases bandwidth by automatically aggregating several physical links together as a logical trunk and provides load balancing and fault tolerance for uplink connections.

Multiple Management Options

The FNS-PoE-10 switch supports CLI, Web, SNMP v1/v2c/v3, and Telnet for multiple network management options. The switch supports a private MIB for detailed information. The switch also supports management functions through both IPv4 and IPv6.

Comprehensive QoS

Eight egress queues per port enables differentiated management of up to eight traffic types. Traffic is prioritized according to 802.1p or DSCP, giving optimal performance to real-time applications such as voice and video.

Asymmetric bidirectional rate-limiting, per port or per traffic class, preserves network bandwidth and allows maximum control of network resources.

Enhanced Security

Port Security allows access to a switch port based on MAC address. This limits the total number of devices from using a switch port and protects from MAC flooding attacks.

IEEE 802.1X port-based access control ensures all users are authorized before being granted access to the network. User authentication is carried out using a standards-based RADIUS server.

Access Control Lists (ACLs) restrict access to sensitive network resources by denying packets based on source and destination MAC addresses, IP addresses, and TCP/UDP ports. ACLs are hardware supported, so switching performance is not compromised.

Secure Shell (SSH) and Secure Sockets Layer (SSL/HTTPS) encrypts Telnet and web access to the switch, providing secure network management.

IP Source Guard can be enabled with DHCP snooping on trunk ports with a large number of VLANs to filter and control IP traffic access to the network.

DHCP snooping provides security by filtering un-trusted DHCP messages and by building and maintaining a DHCP snooping binding table.

Dynamic VLAN assignment for user authentication and location-independent access to the network.

Smart Network Deployment

Automatic Voice VLAN for quick deployment of VoIP, and automatic Video VLAN to help deploy your IP-based surveillance system. Static routing helps you set simple routes for control of your network resources. IGMP and MLD snooping provide better multicast services.

PoE Support

The FNS-PoE-10 provides up to 30 Watts of power to attached devices, such as VoIP phones, wireless access points, and surveillance cameras, all over existing Ethernet cables. The switch can deliver up to 30 Watts on 4 ports, or 15.4 Watts on 8 ports.

Specifications

Port	10/100/1000 RJ-45 PoE Ports	8
	SFP Gigabit Uplink Ports	2
	PoE Ports	8
	RJ-45 Console Port	1
Performance	Switching Capacity	20 Gbps
	Forwarding Rate	14.9 Mpps
	Flash Memory	32 MB
	DRAM	256 MB
	Packet Buffer	4.1 Mbit
	MAC Address Table Size	8 K
	Jumbo Frames	10 KB
	MTBF	865,820 hrs
	Heat Dissipation	545,933 Btu/H
	Acoustic Noise	0 dB (A)
	Surge Protection	Ethernet: ± 2 KV Power: ± 2 KV (line-earth), ± 1 KV (line-line)
Mechanical	Rack Space	13"
	Form Factor	Rackmount
	Dimension (W x D x H)	33 x 20.4 x 4.26 cm (12.9 x 8 x 1.67 in)
	Weight	2.4 kg (5.34 lb)
PoE	IEEE 802.3af/802.3at	√
	PoE Power Budget	0°C - 40°C / 125 W, 40°C - 45°C / 100 W
	PoE Timer	√
Power Supply	100-240 VAC, 50-60 Hz	√
	Max System Power Consumption (Watts)	160 W
Environmental	Operating Temperature	0°C to 45°C (32°F to 113°F)
	Storage Temperature	-40°C to 70°C (-40°F to 158°F)
	Operating Humidity (non-condensing)	10% to 90%
	Storage Humidity (non-condensing)	10% to 90%
	Altitude	3000 m
	Environmental Regulation compliance: WEEE	√
	Environmental Regulation compliance: RoHS	√
Certification	FCC Class A	√
	CE	√
	Safety Compliance: CB	√
	Safety Compliance: UL	√

Features

L2 FEATURES
Spanning Tree Protocol:
  IEEE 802.1D Spanning Tree Protocol (STP)
  IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
  IEEE 802.1s Multiple Rapid Spanning Tree Protocol (MSTP)
  Loopback Detection
  BDPU Filter/Guard
  BDPU Forward
  Root Guard
VLANs:
  Supports 4K IEEE 802.1Q VLANs
  Port-Based/MAC-Based/Protocol-Based VLANs
  Guest VLAN
  Auto Voice VLAN
Link Aggregation:
  Static Trunk
  IEEE 802.3ad Link Aggregation Control Protocol (LACP)
IGMP Snooping:
  IGMP v1/v2/v3 snooping
  IGMP Filtering/Throttling
  IGMP Queries
  IGMP Immediate leave
  MLD Snooping
LLDP/LLDP-MED
Green-Saving
  IEEE 802.3az
  Cable Length
  No Link Power-Saving
Jumbo Frame packet
Cable Diagnostic
Q-in-Q
mDNS
Ethernet Ring Protection Switching (ITU G.8032)
IP clustering

L3 FEATURES
Static Routing

QoS FEATURES
Rate Limiting
Priority Queues Schedule (WRR/Strict Priority/Hybrid QoS)
Port-Based QoS
IPv4/IPv6 DSCP
DiffServ
Auto VOIP
Auto Video
8 HW Queues per port
Dynamic QoS

IPv6
IPv4/IPv6 Dual Protocol Stack
IPv6 Management
  IPv6 Ping/Trace
  IPv6 Telnet
  IPv6 Syslog
  IPv6 TFTP
HTTP over IPv6
SNMP over IPv6

PoE
Support IEEE 802.3af (15.4 W)/IEEE 802.3at (30W) on each port
Total PoE Power Budget: 125 W
Dynamic Power Allocation
Auto disable after exceeding power budget
PoE Timer

SECURITY
DDOS Protection
CPU Guard (CPU Protection)
Port Isolation
Port Mirror (One to One, One to Many)
Remote Mirror
Storm Control
Broadcast/Multicast/Unknown Storm Control
IEEE 802.1X
ACL
  Ingress Only
  L2/L3/L4
  ACL entry: 512
  IPv4/IPv6
  TCP/UDP-Based, MAC-Based ACL
Port Security
MAC Filter
MAC Authentication
Port max count per port
Dynamic VLAN Assignment
Dynamic ARP Inspection
AAA (RADIUS/TACACS+)
IP Source Guard
SSH v1.5/v2.0
  SSL v1/v2/v3
  SSL IPv4/IPv6
SFlow (Trace on port - ingress only)
Traffic segmentation
Web Authentication

Features

MANAGEMENT
System password protection
NTP/SNTP
Dual Image/Configuration
Configuration upload/download (HTTP/TFTP/FTP/SFTP)
Firmware upload/download (HTTP/TFTP/FTP/SFTP)
Auto Firmware Upgrade
RMON (groups 1,2,3 and 9)
SNMP
   SNMP Trap
   SNMP v1/v2/v3
   SNMP Standard/Private MIB
Management Access (Console/SNMP/Web /Telnet)
Memory Flash Log
Event/Error Log/Syslog
DHCP v4/v6 Client//DHCP Snooping
DHCP Snooping Option82
Dynamic Provision (via Option 66,67)
DHCP Relay v4 (v6)
Port Mirroring (One to One) TX/RX (both)
DNS Client without DNS proxy

SAFETY
CSA (CSA 22.2 NO 60950-1 & UL 60950-1)
CB (IEC/EN60950-1)

ELECTROMAGNETIC COMPATIBILITY
CE Mark
FCC Class A
EN 55022 (CISRP 22) Class A
EN 61000-3-2/3
VCCI

WARRANTY
2 year warranty

Contact

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