

HES-3109SSFP-DR Managed CPE Switch



8-Port 10/100/1000Base-T RJ-45 + 1-Port
100/1000Base-X SFP Managed Gigabit CPE Switch

Features

- **IPv4/IPv6 Dual Stack**
Support IPv6 management, packet forwarding and MLD v1/v2 snooping
- **SFF-8472 Diagnostic Monitor Interface**
Allow administrator to view SFP information and status including speed, distance, vendor ID, vendor S/N, temperature, voltage, TX bias, etc.
- **Rich in functions to facilitate multimedia streaming**
Support IGMP snooping, IGMP fast leave, IGMP filtering to intelligently transmit multicast traffic and deliver IPTV service.
- **Q-in-Q VLAN Tagging**
Allow service providers to implement Metro Ethernet service while maintaining the layer-2 separating of different customers.
- **Unique Power Down Trap Technology**
Built-in CTS unique SNMP power down trap function and detect network fault caused by power outage rapidly.
- **Optional Cable Tray**
This is a flexible option for FTTH installation. Users can keep excessive fiber inside the cable tray to have extra protection for the sensitive fiber.
- **DHCP Auto-Provision with Text Based Config File**
Fulfill the deployment requirement and reduce the OPEX of device maintenance for service providers or operators.

Description

Connection Technology Systems (CTS) HES-3109SSFP-DR is a Gigabit Ethernet 10/100/1000Base-T to 100/1000Base-X SFP CPE Switch within an eye-catching pearl-white box. Often, the fiber is intentionally left longer than it actually needs. Optional cable tray (HES-FCT-S) allows users to enclose the excessive fiber within the box, providing extra protection for the sensitive fiber.

HES-3109SSFP-DR switches the traditional twisted-pair RJ-45 cable into various fiber media including multi-mode, single-mode, or bi-directional WDM. The traditional transmission distance of 100M over RJ-45 copper can be greatly extended using fiber.

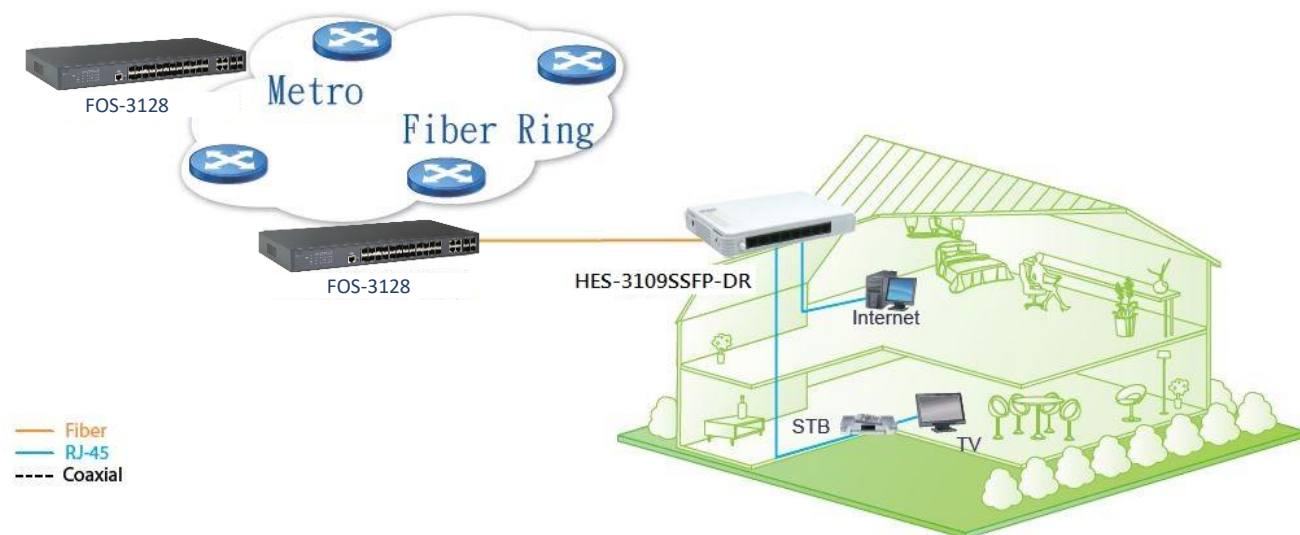
HES-3109SSFP-DR is fully compliant with IEEE 802.3, 802.3u, 802.3ab and 802.3z standards. You can connect to another switch or NIC through RJ-45 ports without crossover cables and monitor the status through comprehensive LED display.

HES-3109SSFP-DR can be easily managed by Web interface, CLI, Telnet, SNMP, and DHCP auto-provision. With CTS unique Power Down Trap feature, HES-3109SSFP-DR is able to send out a SNMP trap message when unexpected power outage occurs.

Target Applications

▪ **SOHO & Residential CPE switch application**
which requires network management for FTTH service deployment.

Application Diagram



Specification

Interface

TP Port:
8 x 10/100/1000Base-T RJ-45
Fiber Port:
1 x 100/1000Base-X SFP

Standards

IEEE 802.3 10Base-T
IEEE 802.3u 100Base-T/FX
IEEE 802.3ab 1000Base-T
IEEE 802.3z 1000Base-X
IEEE 802.1p Priority
IEEE 802.1q Tag VLAN
IEEE 802.3x Flow Control

H/W Specification

Store and Forward Switching Mechanism
Auto-Cross Over for MDI/MDI-X in TP Port
Auto-Negotiation in TP Port
Half/Full Duplex Mode Operation
MAC address Table: 8K
Non-Blocking Switching Fabric: 18Gbps
Memory Buffer: 128K Bytes
Jumbo Frame up to: 9K Bytes

Forward / Filter Rate

10M : 14,880/14,880pps
100M : 148,800/148,800pps
1000M : 1,488,000/1,488,000pps

LED

Power, Port Link/Act, Status
LED ON/OFF Control Button

Switch Feature

IEEE 802.1q Tag VLAN
Q-in-Q VLAN Tag
QoS based P-bit, VLAN & DSCP
Priority Queues : 4 Queues
Bandwidth Control
Storm Control
IGMP Snooping v1/v2
VLAN ID: 4K
VLAN Group: 128
Loop Detection
DHCP-Option60-Based VLAN
Port Mirroring
DHCP Snooping
DHCP Relay Agent with Option 82/37
DHCP Server Trust Port

Network Management

IPv4/IPv6 dual stack
Stateless Address Autoconfiguration (SLAAC)
Power Down Trap
Network Time Protocol (NTP)
WEB/SNMP/CLI/Telnet Interface
Support SNMP v1/v2c
DHCP Client
DHCP Auto Provision
DHCPv6
Text Based Config
FTP, TFTP Firmware & Configuration Upgrade
SFP SFF-8472 DDMI (Digital Diagnostic Management Interface)
Layer Link Discovery Protocol (LLDP)
Event Log, Syslog

Power Requirement

External Power Adaptor:
AC Input: 100VAC~240VAC
Frequency Range: 50~60Hz
DC Output: 12V/1.5A
Power Max. Consumption:
-AC Side: 11.8W
-DC Side: 8.3W

Environmental Condition

Operation: 0°C ~ 50°C
Storage Temperature: -20°C ~ 60°C
Humidity: 5% ~ 90%, non-condensing

Dimension & Weight

Size: 180 x 130 x 30mm (W x D x H)
Weight: 0.6KG

EMC/Safety

FCC Class A, CE

Order Information

HES-3109SSFP-DR

Model	Fiber Ports					TP Ports		CATV RF Receiver	Power Type
	Speed(Mbps)	Type	Connector	Distance	Ports	Speed(Mbps)	Ports		
HES-3109SSFP-DR	100/1000	SFP	-	-	1	10/100/1000	8	-	External Power Adapter
HES-FCT-S	Fiber Cable Management Tray Unit								

SFP-31-DR

Model	Fiber Port					
	Speed(Mbps)	Type	Connector	Distance	Wavelength (nm)	Temperature
SFP-31FC-DR	100/1000	MM	LC	2KM/550M	1310	0°C to 70°C
SFP-31FC(SM-10)-DR	100/1000	SM	LC	10KM	1310	0°C to 70°C
SFP-31W2A(SM-10/20)-DR	100/1000	WDM	LC	10/20KM	TX:1310/1310	0°C to 70°C
					RX:1550/1550	
SFP-31W2B(SM-10/20)-DR	100/1000	WDM	LC	10/20KM	TX:1550/1550	0°C to 70°C
					RX:1310/1310	

SFP-31

Model	Fiber Port					
	Speed(Mbps)	Type	Connector	Distance	Wavelength (nm)	Temperature
SFP-31FC	1000	MM	LC	550M	850	0~70°C
SFP-31FC (SM-10/20/40/50/80/120)	1000	SM	LC	10/20/40/50/ 80/120KM	1310/1310/1310/1550/1550/1550	0~70°C
SFP-31W2A (SM-10/20/40/60/80)	1000	WDM	LC	10/20/40/ 60/80KM	TX:1310/1310/1310/1310/1510	0~70°C
					RX:1550/1550/1550/1550/1570	
SFP-31W2B(SM- 10/20/40/60/80)	1000	WDM	LC	10/20/40/ 60/80KM	TX:1550/1550/1550/1550/1570	0~70°C
					RX:1310/1310/1310/1310/1510	
SFP-31FC-C11	1000	CWDM	LC	80KM	1470	0~70°C
SFP-31FC-C12	1000	CWDM	LC	80KM	1490	0~70°C
SFP-31FC-C13	1000	CWDM	LC	80KM	1510	0~70°C
SFP-31FC-C14	1000	CWDM	LC	80KM	1530	0~70°C
SFP-31FC-C15	1000	CWDM	LC	80KM	1550	0~70°C
SFP-31FC-C16	1000	CWDM	LC	80KM	1570	0~70°C
SFP-31FC-C17	1000	CWDM	LC	80KM	1590	0~70°C
SFP-31FC-C18	1000	CWDM	LC	80KM	1610	0~70°C

With Optional Cable Tray(HES-FCT-S)

Front :



Rear :



Without Cable Tray

Front (Customer Side) :



Rear(Operator Side) :



* This is an overview of CTS HES-3106-PLUS-DR series and does not represent specific