FOS-3126-PLUS Management Gigabit Ethernet Switch

24 combo ports (10/100/1000Mbps RJ-45 and 100/1000Mbps SFP slot) + 2 combo uplink ports (1000Mbps RJ-45 and 1000Mbps SFP slot) Managed Ethernet Access Switch

Features

- **MEF 9 compliant**
  MEF 9 compliant product to dramatically reduce the time cost and risk of deployment

- **SKA 3.1 compliant**
  SKA 3.1 compliant makes the switch to offer a secured and high quality solution that is easier to enter metro Ethernet market

- **SFF-8472 Diagnostic Monitor Interface**
  Allow manager to View SFP information and status including speed, distance, Vendor ID, Vendor S/N, temperature, voltage, TX Bias, etc

- **Many functions to facilitate multimedia streaming**
  Support IGMP snooping, IGMP fast leave, IGMP filtering & advanced MVR to intelligently transmit multicast traffic and deliver IPTV service

- **Support Q-in-Q VLAN tag**
  Allows service providers to implement Metro Ethernet service while maintaining the layer-2 separation of different customers

- **IEEE 802.3ad Link Aggregation**
  Cost-efficient way to increase bandwidth and reliability by grouping multiple links into one

- **Unique power down trap technology**
  Built in CTS unique SNMP power down trap function to rapidly detect network fault due to power outage

- **Power Supply Redundancy**
  Combination of two powers (2AC, 2DC, 1AC1DC) can be installed to increase reliability as well as power sharing

Target Applications

- FTTX implementations, Metro Ethernet implementations

Description

Connection Technology Systems (CTS) FOS-3126-PLUS is a layer-2+ gigabit access switch equipped with 24 combo ports (10/100/1000Mbps RJ45 and dual-speed SFP slot) and 2 combo uplink ports (1000Mbps RJ45+1000Mbps SFP slot). All combo SFP slots can accommodate wide range of SFP transceivers including single-mode, wdm or cwdm transceivers. It is built for service providers and enterprises who plan to implement FTTX or Metro Ethernet networks, with further spanning into triple-play service.

FOS-3126-PLUS delivers wire-speed throughput for data, voice and IPTV services, using non-locking 52Gbps switching fabric. 1+1 power supply design can provide both failover and power sharing capabilities when power supplies are connected to different circuits. AC and DC powers can be mixed in the same unit for deployment flexibility.

Many service providers are extending their existing data service with triple-play service, because triple-play service can generate higher revenue return by combining data, voice and IPTV in one box. Advanced features including MVR, IGMP snooping, IGMP fast leave, IGMP filtering, various QoS classifications and rate limit control facilitate service providers to deploy a manageable network environment and deliver a successful triple-play service.

Deploying Metro Ethernet Network is also the market trend that gradually replaces traditional wide area network through router and serial port. Metro Ethernet Network not only provides much higher bandwidth to satisfy the market demand in the long run, but also allows service providers to plan more value-added and multimedia services while simplifying the needed skills to manage the network. In order to provide customers extra security and separation, FOS-3126-PLUS has come with Q-in-Q feature. This feature enables service providers to separate different customers at layer-2 level, even the customers already have configured their own VLANs.

Designed with carrier-grade in mind while keeping user-friendly for administrators, FOS-3126-PLUS can be easily managed by web interface, console CLI, telnet, SNMP, private MIB, and DHCP auto-provision. With CTS unique power down trap feature, FOS-3126-PLUS will send out a SNMP trap message when encountering power outage.
### Application Diagram

- **Workgroup 1**
  - ESW-2128GSFP
  - SWH-3124GSFP

- **Workgroup 2**
  - ESW-2128GSFP

- **Headquarter Office**
  - FOS-3126-PLUS

- **Local Exchange Carrier**
  - Metro E Fiber Ring
  - FOS-3126-PLUS

### Specification

#### Interface
- Combo ports x 24 (Front panel)
- Combo ports x 2 (Rear panel)
- DB-9 (DTE) console port x 1

#### Standards
- IEEE 802.3 10Base-T
- IEEE 802.3u 100Base-T
- IEEE 802.3z 1000Base-X
- IEEE 802.3ad Link Aggregation
- IEEE 802.1w Rapid Spanning Tree
- IEEE 802.1q Priority
- IEEE 802.1q Tag VLAN
- IEEE 802.1x Port Based Network Access Control
- QoS classification based on IEEE 802.1p, VID,ToS/DSCP
- IEEE 802.1ag CFM
- IEEE 802.3ad Link Aggregation Control Protocol (LACP)
- Jumbo frame on all ports up to 9600 bytes size
- Ethertype and L4 Port

#### LED
- Power 1/2, Fiber 1/2, Copper 1/2, Console, Status, Link/Act, Speed

#### Product Spec
- Mac address table: 8192
- Memory buffer: Total 1391K bytes
- VLANs: Support up to 128 VLAN Groups
- Priority Queues: 4 Queues

#### Software Feature
- Store and Forward Switching Mechanism
- Auto-Cross over for MDI/MDIX in TP port
- Auto-Negotiation in TP port
- Auto-Cross over for MDI/MDIX in TP port
- - Private, RFC-1213, RMON MIBs
- - Port Mirror
- - Power Down Trap management

#### Order Information

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### Additional Information
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- **IEEE 802.1q Tag VLAN**
- **IEEE 802.1x Port Based Network Access Control**
- **QoS classification based on IEEE 802.1p, VID,ToS/DSCP**
- **IEEE 802.1ag CFM**
- **IEEE 802.3ad Link Aggregation Control Protocol (LACP)**
- **Jumbo frame on all ports up to 9600 bytes size**
- **Ethertype and L4 Port**
- **DHCP Snooping**
- **Provider bridging with multiple VLAN tags (Q-in-Q)**
- **Rate Limit Control**
- **SNTP Time Server**
- **Static Multicast**
- **IGMP Snooping v1, v2**
- **IGMP fast leave**
- **IGMP filtering via Filtering Profile**
- **Multicast channel limitation per port**
- **Multicast VLAN Register (MVR)**
- **DHCP client and provision server**
- **RFC3046 DHCP relay agent with option 82**
- **FTP, TFTP server and client firmware upgrade**
- **Access Control List (ACL) in web interface**
- **Radius Authentication**
- **SNMP v1, v2c and network management**