Features
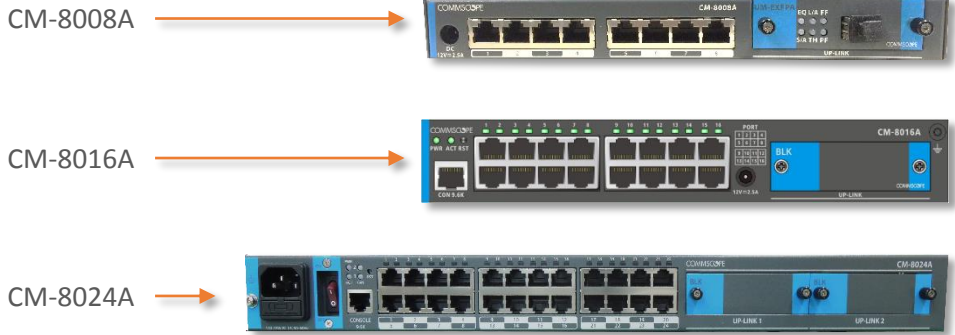
- Supports various types of uplink media
  - 10G/10G EPON
  - 1G/1G EPON
  - 10G/10G Ethernet
  - 1G/1G Ethernet
- Flexible placement options
  - 8, 16 or 24 port options are available
  - Using same OS for three models
- Supports 10/100/1000 Base-T media
- Different physical dimension
  - Convenient installation
- Supports Hardware based QoS
- Supports rate limit per port
- Provides traffic statistics
- Incorporates security via packet filtering

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Access Switch Solution
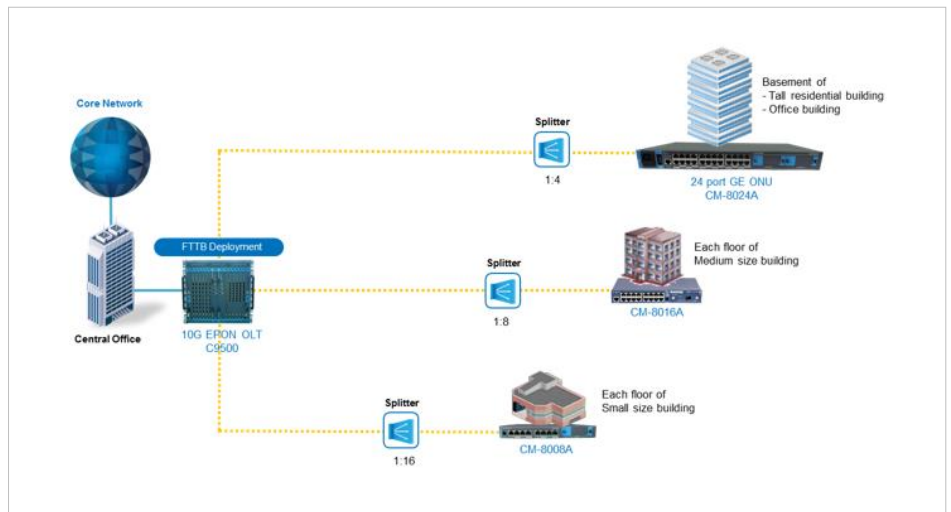
CM-8000A Series

CM-8008A

CM-8016A

CM-8024A

System Overview

The CM-8000A series is a family of Gigabit Ethernet class Layer 2 switches with built-in 10/100/1000Base-T Gigabit Ethernet ports. Each model included in this family has different number of service port and uplink module while they all use same OS. Today, demands for higher bandwidth are dramatically getting increased with the advent of various IP based services and contents such as HD grade IPTV, and VoD. In addition, more and more residential houses and complexes are equipped with optical cables, which allow maximum efficiency at affordable cost. The CM-8000A Series is designed to meet those requirements for both increasing bandwidth and affordable cost. The CM-8000A Series can accommodate various uplink interfaces such as 10G EPON, 10G Ethernet, 1G EPON, or 1G Ethernet.

The CM-8000A Series Switches support IPv6, Rate Limit, and hardware-based QoS, and provide mobile Internet, home network, and differentiated IP services suitable for the next-generation Internet environment.

The CM-8000A Series has adopted proven technologies on the software such as QoS, filtering features for security and traffic monitoring for efficient service operation. The operator can manage and monitor the CM-8000A series switches remotely, and can reset them either by manual remote reset or automatic reset if required.

Deployment Diagram

Specification

HW Specification

System Architecture
① CM-8024A
- Down Link : 24 Ports 10/100/1000Base-T
- UP Link : Two uplink slots available for any combination of below modules
  - 1 Port 10G EPON module (SFP+)
  - 1 Port 10G Ethernet module (XFP)
  - 1 port 1G Combo Module(UTP/SFP)
  - 1 Port 1G EPON module (SFF)

② CM-8016A
- Down Link : 16 Ports 10/100/1000Base-T
- UP Link : One uplink slot available for any one module of below choices
  - 1 Port 10G EPON module (SFP+)
  - 1 Port 10G Ethernet module (XFP)
  - 1 port 1G Combo Module(UTP/SFP)
  - 1 Port 1G EPON module (SFF)

③ CM-8008A: installed in terminal box cabinet
- Down Link : 8 Ports 10/100/1000Base-T
- UP Link : One uplink slot available for any one module of below choices
  - 1 Port 10G EPON module (SFP+)
  - 1 Port 10G Ethernet module (XFP)
  - 1 port 1G Combo Module(UTP/SFP)
  - 1 Port 1G EPON module (SFF)

Console
- RJ-45 type RS-232C Serial port(RJ-45 type)

Memory
- 256MB DDR2 SDRAM Main Memory
- 1MB Boot/ 128MB OS Flash Memory

Physical Dimension
- 19" Rack Mount type(1U)
- **CM-8024A** : 437mm(W) x 220mm(D) x 44mm(H)
- **CM-8016A** : 250mm(W) x 178.8mm(D) x 39mm(H)
- **CM-8008A** : 240mm(W) x 149.5mm(D) x 30mm(H)

Environment Condition

Input voltage and Frequency
- **CM-8024A** : 100~240 VAC / 50~60 Hz SMPS integral
- **CM-8016A, CM-8008A** : 100~240 VAC / 50~60 Hz Adapter, 12V3A

Power consumption
- **CM-8024A** : 34.6W
- **CM-8016A** : 23W
- **CM-8008A** : 16.8W

Operating Temperature
- **CM-8024A** : -20℃ ~ 60℃
- **CM-8016A** : 0℃ ~ 40℃
- **CM-8008A** : 0℃ ~ 40℃

Storage Temperature
- -30 ~ 70℃

Operating Humidity
- 10 ~ 90 % relative humidity, non-condensing

Performance

Switch Fabric Performance
- **CM-8024A** : 126G (System capacity: 88Gbps)
- **CM-8016A** : 126G (System capacity: 52Gbps)
- **CM-8008A** : 126G (System capacity: 36Gbps)

Throughput
- **CM-8024A** : 65Mpps
- **CM-8016A** : 38Mpps
- **CM-8008A** : 26Mpps

Capacity

MAC Address
- Up to 16K MAC Management

VLAN
- Up to 256 VLANs

Services and features

Filtering, Security & QoS
- IEEE 802.1p QoS, Diff-serv, Congestion Management
- Filtering: Mac address, Mac address Count limit, Netbios, NBT, TCP Sync cookies, ether type 88d9/86dd, private-ip, TCP RST-UNKnown, Martian-Filter, DHCP, Broadcast Storm, selective handling of specified IP address, IP Packet filtering, detection of IP address collision
- Virus Filtering: DoS prevention, Warm virus Filtering
- Subscriber Traffic control by ACLs
- Packet classification and Marking/ Remarking
- 8 Queue
- SPQ, WRR, DRR, SPQ+WRR, SPQ+DRR
- Rate Limit
  - ingress rate-limit , Egress shaping
- DAI(Dynamic arp inspection) support
- Service differentiation for Control Packet
  - (Ping, Telnet, SNMP, FTP, TFT, etc)

Management
- SNMP v1/v2
- RMON
- MIB-I/II
- log flash
- Subscriber (Block/unblock)
- Last MAC Management
- Remote S/W Upgrade
- Telnet
- TFTP, FTP
- Port Mirroring
- CLI
- Syslog
- Access level control for administrator
- RADIUS
- TACACS+

Management Standards & MIB
- RFC 783 TFTP
- RFC 854 Telnet
- RFC 1157 SNMP v1
- RFC 1213 MIB-I I
- RFC 1493 Bridge-MIB
- RFC 1757 RMON-MIB
- RFC 1902 SNMP v2
- RFC 1907 SNMP-MIB
- RFC 1643 Ethernet-like Internet MIB

L2 Functions
- STP(802.1D)
- RSTP(802.1w)
- Self-Loop controlled
- DHCP relay/DHCP snooping
- DHCP option 82
- DHCP request flooding attack guard
  - (DHCP snoop rate-limit)
- Storm control (L2DLF, Broadcast, Multicast)
- Flood-Guard (pps control)
- CPU Filter(IP+TCP/UDP PORT NO)
- NTP (Network Time protocol) Client
- Jumbo Frame packet support: 9,216byte
- External/ Internal Calibration support
- Stacking & IP Clustering: 8 Clustering
- Remote-reset support(EPON/AON)
- Dying-Gasp support(EPON/AON)
- Auto-reset support
- EEE(802.3az) support
- port flow-control state detection support
- Supports up to 10 Telnet sessions
- IPv4/IPv6 H/W ready

Multicasting Protocol
- IGMP v2.0,
- IGMP snooping
- 512group support
- IGMP query
- IGMP Join/Leave Suppression
- IGMP Fast Leave
- IGMP Static Join
- IGMP proxy reporting
- unknown multicast block

Standard
IEEE Standards
- 802.1D Spanning Tree Protocol
- 802.1w RSTP
- 802.1p Priority Control
- 802.1Q VLAN
- 802.3 10Base-T Ethernet
- 802.3u 100Base-X Fast Ethernet
- 802.3x Flow Control
- 802.3ad Link Aggregation
- 802.3z 1000Base-X Gigabit Ethernet

IEEE Standards
- RFC 768 UDP
- RFC 791 IP
- RFC 903 TCP
- RFC 2131 DHCP Relay
- RFC 2236 IGMP v2
- RFC 1112 IGMP

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Seamless Network Solution
All IP Convergence
Perfective Technology
The best partner of the main Internet Service Providers in Korea
Best OAM (Operation, Administration, Maintenance) Support
Many Experience of System Deployment