

Access Switch Solution

E5000H Series

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

E5008H



E5016H



E5024H



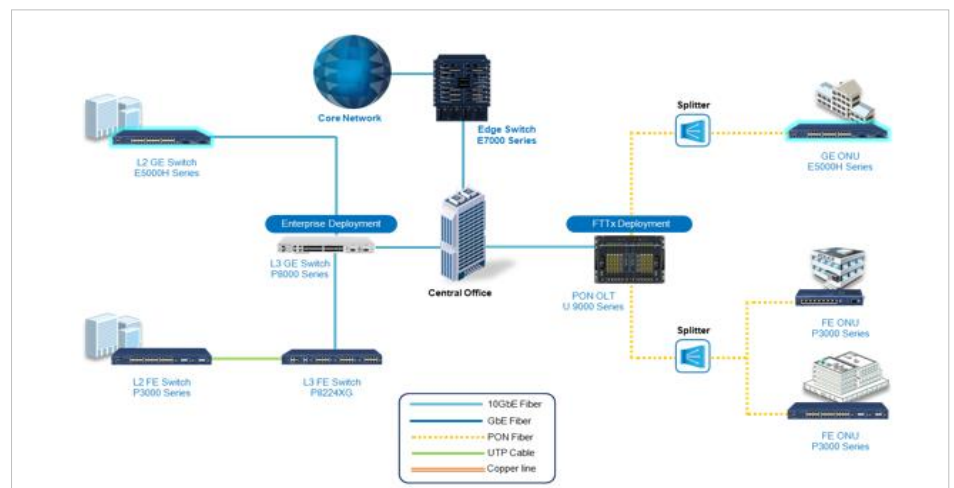
System Overview

The ubiQuoss E5000H series is a family of Gigabit Ethernet class Layer 2 switches with built-in 10/100/1000Base-T Gigabit Ethernet ports. Today, demands for higher bandwidth are dramatically getting increased with the advent of various IP based services and contents such as IPTV, VoD and HDTV. In addition, more and more residential houses and complexes are equipped with optical cables, which allow maximum efficiency at affordable cost. The E5000H Series switches are designed to meet those requirements for both increasing bandwidth and affordable cost. E5000H Series products can accommodate various uplink interfaces such as GbE, 10GbE, GPON, and EPON.

E5000H Series supports Rate Limit, and hardware-based QoS, and provides mobile Internet, home network, and differentiated IP services suitable for the next-generation Internet environment.

The E5000H Series has adopted proven technologies on the software such as QoS, filtering features for security, traffic monitoring for efficient service operation. The operator can manage and monitor the E5000H series switches remotely, and can reset them in either remote manual or automatic manner.

Deployment Diagram



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Specification

HW Specification

System Architecture

① E5024H

- Down Link : 24 Ports 10/100/1000Base-T
- UP Link : Various combinations of uplink modules for two available slots.

- ① Up to 2 x 1000Base-X/1000Base-T modules
- ② 1 x 1000Base-X/1000Base-T(Combo) module and 1 x EPON module
- ③ 2 x 10Gbase-X(XFP) modules
- ④ 1 x 10Gbase-X(XFP) module and 1 x EPON module
- ⑤ 1 x 10Gbase-X(XFP) module and 1 x 1000Base-X/1000Base-T(Combo) module

② E5016H

- Down Link : 16 Ports 10/100/1000Base-T
- UP Link : Three different uplink modules for one available slot

- ① 1 Port 1000Base-X/1000Base-T(Combo)
- ② 1 Port EPON
- ③ 1 Port 10Gbase-X(XFP)

③ E5008H

- Down Link : 8 Ports 10/100/1000Base-T
- UP Link : Three different uplink modules for one available slot

- ① 1 Port 1000Base-X/1000Base-T(Combo)
- ② 1 Port EPON
- ③ 1 Port 10Gbase-X(XFP)

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)
- E5024H : 437mm(W) x 220mm(D) x 44mm(H)
- E5016H : 250mm(W) x 178.8mm(D) x 39mm(H)
- E5008H : 240mm(W) x 149.5mm(D) x 30mm(H)

Environment Condition

Input voltage and Frequency

- E5024H : 100~240 VAC / 50~60Hz SMPS integral
- E5016H, E5008H : 100~240 VAC / 50~60Hz Adapter

Power consumption

- E5024H : 34.6W
- E5016H : 23W
- E5008H : 16.8W

Operating Temperature

- E5024H : -20°C ~ 60°C
- E5016H : 0°C ~ 40°C
- E5008H : 0°C ~ 40°C

Storage Temperature

- -30 ~ 70°C

Operating Humidity

- 10 ~ 90 % relative humidity, non-condensing

Performance

Switch Fabric Performance

- E5024H : 126G (System capacity: 88Gbps)
- E5016H : 126G (System capacity: 52Gbps)
- E5008H : 126G (System capacity: 36Gbps)

Throughput

- E5024H : 65Mpps
- E5016H : 38Mpps
- E5008H : 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, TFTP, 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+

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

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



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