CTC°union®

HGS-6000M

24x 10G SFP+ slot + 6x 100G QSFP28 slot L3 Aggregation Ethernet Switch

Preliminary

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CTC Union Technologies unveils the first 100G uplink Ethernet gear, which is a high- performance Layer 3 managed switch for the next generation edge deployment demand of AI application driven network. The HGS-6000M is designed to deploy in aggregation layer network for service providers. It is equipped 24 ports 10G SFP+ slot and 6 ports 100G QSFP28 uplink as in a compact 1RU form factor. The HGS-6000M has carrier-class hardware resiliency to guarantee the uninterrupted service and operation.

To fulfill the future-proof network demands of versatile AI applications, The HGS-6000M delivers up to 1.68Tbps of non-blocking switch capacity with forwarding rates up to 1.25Bpps. The compact 1RU system design is well considered 1+1 hot-swappable redundant power supply and front-to-rear airflow as well as 3 hot-swappable FAN modules to ensure the overall system availability and heat dissipated efficiency. The HGS-6000M is ideal for the target market such as the enterprise, campus and metro access or aggregation network.

Besides the generally required layer 2 switch feature sets, the HGS-6000M also supports advanced L3 feature sets with IPv4/v6 dual stack basis to enable the conventional IP based routing deployment. The L3 dynamic IP routing technologies are included RIPv1/v2, OSPF v2/v3, BGP, IS-IS and so on as well as L3 multicasting services like PIM-DM/SM. The VRRP feature secures the high network availability in the complicated traffic routing path fundamentally.
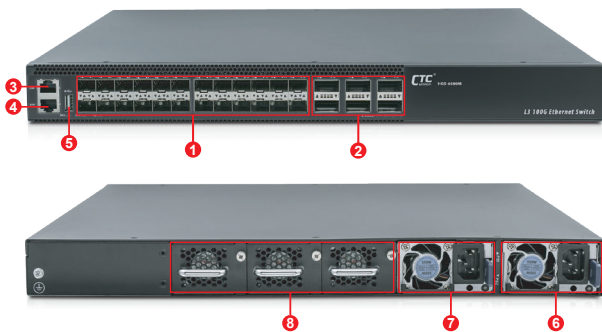
Specifications

Interface	10G SFP+ slot × 24
	100G QSFP28 slot × 6
	Console port: RS-232 in RJ45 × 1
	Management port: 10/100/1000Base-T RJ45 × 1
	General Purpose port: USB type-A × 1
Processor	ARM based dual core CPU@1.2GHz
Flash	8GB
DRAM	2GB
Packet Buffer	16M Bytes
Non-Blocking Switching Capacity	1.68Tbps
Packet Forwrading Rate	1249.92.68 Mpps
MAC Table Size	98K
Jumbo Frame Size	9.6K Bytes
VLAN Feature	IEEE 802.1Q tagged VLAN (4096 VLAN groups), IEEE 802.1ad QinQ VLAN; Selective QinQ, Port based VLAN
	MAC based VLAN, IP subnet based VLAN, Protocol based VLAN, Private VLAN for port isolation, VLAN translation
	Voice VLAN, Guest VLAN
L2/L3 Tunneling	L2TP (support CDP/CFM/DOT1X/LLDP/SLOW-PROTO/STP/VTP), IPv6 over IPv4 tunnel, ISATAP tunnel
Network Link Resilience	Static link aggregation, IEEE 802.3ad LACP, Weighted link aggregation
	Static/Dynamic/Round-Robin load balancing, IEEE 802.1D STP/IEEE 802.1w RSTP/IEEE 802.1s MSTP
	BPDU guard, Root guard, Loop protection, ITU-T G.8031 ELPS, ITU-T G.8032 ERPS
Stacking	Stacking for L2/L3, Unified management, Stacking line topology mode (2 devices stacking)
	Stacking member port load balance, Stacking local priority forwarding, Dual active detection
	Master/standby switchover hitless, System MAC address switch, Management port backup
	File system access, Stacking member device management

L3 100G Ethernet Switch

QoS Feature	Hard wired IEEE 802.1p 8 priority queues per port, Traffic scheduling based on strict/WDRR/mixed priority
	CoS based traffic classification on switch port, IEEE 802.1p, VLAN ID, DSCP, IP precedence, ACL
	DiffServ Field in IPv4/IPv6 Headers, IEEE 802.1p remarking, Per Port/Queue/VLAN based ingress/egress rate limit
	IEEE 802.3x flow control, Multicast/Broadcast/Unicast storm control with flooding control
Security	Static port security (MAC based), Per port limited MAC learning
	Port based/MAC base/single/multiple IEEE 802.1x access control, ACL based on IPv4/v6 L2~L4 information
	IPv4/v6 ACL packet filtering, RADIUS/TACACS+ AAA, HTTPs & SSHv2, DHCP v4/v6 snooping
	IPv4/v6 source guard & ARP inspection, ND snooping
	DDoS attack prevention(ICMP Flood/Smurf/Fraggle/LAND/SYN Flood)
L2/L3 Multicasting	IGMP snooping v1/v2/v3, IGMP proxy, IGMP snooping fast leave
	MLD snooping v1/v2, PIM-DM/SM for IPv4/IPv6, IPv4/v6 MVR
Routing	IPv4/v6 static Route, IPv4 ECMP (Equal-cost multi-path route), IPv4/v6 Policy Based Routing
	IPv4/v6 Unicast Routing, RIP v1/v2, OSPF v2/v3, BGP v4, IS-IS for IPv4/IPv6, VRRP v3 for IPv4/IPv6
	BFD for (IPv4/v6 static route/RIP/OSPF/IS-IS/BGP/VRRP)
Network Virtualization	IPv4/v6 static Virtual Extensible LAN (VxLAN), IPv4/v6 Virtual ARP, IPv4 BGP EVPN for VxLAN
	L2 protocol packet passthrough, GRE/NVGRE/GENEVE tunnel
Management	CLI access via console, telnet (IPv4/IPv6) and SSH (IPv4/IPv6), SNMP v1/v2c/v3 (IPv4/IPv6)
	DHCP client/snooping/relay option 82, TFTP/FTP/SCP/Xmodem based firmware and configuration upgrade
	Port mirroring, RSPAN, Multi-destination mirroring, Event syslog server (IPv4/IPv6), IPv4/v6 NTP client
	SFF-8472 DDMI, IEEE 802.1ab LLDP, sFlow, IPv4/v6 SLA, Ping and traceroute (IPv4/IPv6), Static DNS client
	Errdisable detection and recovery, UDLD, Internal/External hardware loopback, Time zone and time configuration
	Privileged user priority and privileged commands, CPU protection, Dual image & Dual configuration
	IPv4/v6 ICMP, IPv6 NDP, IPv6 PMTU
Ethernet OAM	IEEE 802.3ah, IEEE 802.1ag, ITU-T Y.1731
Power Input	100~240VAC ; 36~72VDC
Power Consumption	95 Watts
Operating Temperature	0~45°C
Storage Temperature	-20~70°C
Humidity	5%~95% (non-condensing)
Dimension	442 x 440 x 44 mm (W x D x H)
Weight	7.5kg ± 0.5 kg

Description

1. 10G SFP+ slot × 24		**5.** General Purpose USB port	
2. 100G QSFP28 slot × 6		**6.** PSU1	
3. Console port		**7.** PSU2	
4. GbE Management port		**8.** Hot Swappable FAN module	

Ordering Information

Model Name	Description
HGS-6000M-AC	24 × 10 SFP+ slots + 6 × 100G QSFP28 slots L3 Aggregation Switch with single AC Power Supply
HGS-6000M-DC	24 × 10 SFP+ slots + 6 × 100G QSFP28 slots L3 Aggregation Switch with single DC Power Supply
HGS-6000M-AA	24 × 10 SFP+ slots + 6 × 100G QSFP28 slots L3 Aggregation Switch with dual AC Power Supply
HGS-6000M-DD	24 × 10 SFP+ slots + 6 × 100G QSFP28 slots L3 Aggregation Switch with single DC Power Supply
HGS-6000M-AD	24 × 10 SFP+ slots + 6 × 100G QSFP28 slots L3 Aggregation Switch with AC Power Supply and DC Power Supply