ECS8854F

CloudSwitch Core 54

Cloud Managed 48x SFP+ + 6x QSFP28 Stackable L3 Switch

Overview

EnGenius CloudSwitch Core ECS8854F is a high-performance Layer 3 aggregation and core switch for backbone infrastructure, core edge, and high-performance network architectures. It delivers high throughput, low latency, high availability, hybrid cloud management, local control, and cloud visibility. With 48 × 10G SFP+ ports and 6 × 100G QSFP28 uplinks, it delivers enterprise-class switching and routing capacity for networks built on VXLAN EVPN, MLAG, and VSF. L3 routing, virtualization, VSF capabilities, and redundant hardware with hot-swappable power supplies simplify core operations.



Features & Benefits

- Hybrid Cloud management with flexible cloud, standalone, and on-premises deployment.
- Advanced hardware-based Layer 3 features including OSPF, BGP, and VRRP.
- Core-ready architecture with VXLAN EVPN, MLAG, and L2/L3 VPN support.
- 48× 10G SFP+ ports with 6 × 100G QSFP28 uplinks for high-speed connectivity.
- VSF virtualization for simplified management and high availability.*
- Full hardware redundancy with hot-swappable power supplies and fans.
- Wire-speed forwarding for high-performance IPv4 and IPv6 traffic.
- Advanced multicast support for efficient video and real-time services.
- Enterprise-grade security with 802.1X, ACLs, and RADIUS/TACACS+.
- Built for reliable 24/7 mission-critical network operations.

Technical Specifications

General

Port Standards
802.3z 1000Base-X
802.3ae 10GBase-X
802.3bj 100GBase-CR4/KR4
802.3bm 100GBase-SR4

Network Port - SFP+ Ports
48

Network Port - QSFP28 Ports
6

Console
RJ-45 Console x1

MGMT Port
1

USB
USB 2.0 x1

Switching Capacity
2160Gbps

Forwarding Rate (64Bytes)
Up to 600 Mpps

SDRAM
DDR4 4GB

Flash Memory
32M SPI+ 8G eMMC

Power Source
AC in

L2 Features

Jumbo Frame
Up to 10K bytes

MAC address Table
Max. 32K

STP
Support STP/RSTP/MSTP
Port Fast/ BPDU Guard/ Loop Guard/ Root Guard

Port Channel
Support Static / LACP
Max. 128 trunks/ Max. 8 ports per trunk

VLAN
Max. 4K 802.1Q VLAN
MAC VLAN, Super VLAN, Private VLAN, Protocol VLAN, GVRP, Voice VLAN

802.1ad Vlan Stacking (QinQ)
Yes

Selective QinQ
Yes (shared with ACL entry)

VLAN translation
Yes

LLDP/LLDP-MED
Yes

BPDU tunnel
Yes

Port isolation
Yes

Port Limited
Based on Tx/Rx

ERPS
Support v1/v2

Loopback detection
Yes

L3 Features

Routing Table
Up to Max. 30K, shared by IPv4/IPv6

IP Interface
Max. IPv4 interface : 65
Max. IPv6 interface : 32

ARP
Max. 8K, shared by IPv4/IPv6
Support ARP aging/ ARP Proxy

VRF
Max. 1K entries

IPv4/IPv6 Ping/ Traceroute
Yes

ECMP
Yes

URPF
Yes

GRE Tunnel
Yes

ISATAP
Yes

VRRP
Support IPv4/IPv6 (VRRPv2/v3)

L2/L3 Multicast Features

MLD
L2 Multicast Max. 4K entries, shared by MLD snooping/IGMP snooping
L3 Multicast Max. 0.5K entries, shared by MLD/IGMP
MLD v1/v2
MLD Snooping

IGMP
L2 Multicast Max. 4K entries, shared by MLD/IGMP snooping
L3 Multicast Max. 2K entries, shared by MLD/IGMP
IGMP v1/v2/v3
IGMP Snooping
IGMP Proxy

PIM
IPv4/v6 PIM-DM/SM
IPv4/v6 PIM-SSM

MSDP/DVMRP
Yes

Routing Features

Null Interface
Yes

Technical Specifications

IPv4/IPv6 Static Route
Yes

RIP/RIPng
Yes

OSPFv2/v3
Yes

BGP/BGP4+
Yes

IPv4/ IPv6 IS-IS
Yes

IPv4/IPv6 PBR
Yes

Graceful Restart
Yes

BFD (Bidirectional Forwarding Detection)
Yes

ACL Features

ACL entry
Max.1000 entries is shared by IPv4 ingress/egress, and IPv6 ingress/egress

Access List
Support IPv4/IPv6 standard and extended ACL
Support MAC ACL
Support user-defined ACL

QoS Features

Hardware queue
8

Based on 802.1q/ DSCP/ IP precedence
Yes

Queue scheduling
Support SP/ WRR/ WDRR

Bandwidth control
Based on Tx/Rx per port

Management Features

SNMP
Support IPv4/IPv6 address
Support V1/V2/V3

Web UI
Support IPv4/IPv6 HTTP/HTTPS

RMON
Support Statistics (Group 1)/ History (Group 2)/ Alarms (Group 3)/ Events (Group 9).

Mirror
Supports 7 mirroring groups
Based on One-to-One, Many-to-One, flow-based
VLAN Mirroring

RSPAN
Yes

ERSPAN
Yes

Netconf
Yes

sFlow
Yes

SNTP
Yes

NTP
Support IPv4/IPv6 server address
Support IPv4/IPv6 client address

DNS
Support IPv4/IPv6 client

DHCP Client
Support IPv4/IPv6
Support option 67

DHCP relay
Support IPv4/IPv6 address
Support option 82

DHCP server
Support IPv4/IPv6 address
Support option 43

DHCP Snooping
Support option 82
Support IP source guard

Telnet
Support IPv4/IPv6 client
Support IPv4/IPv6 server

SSH
Support IPv4/IPv6 client
Support IPv4/IPv6 server

TFTP
Support IPv4/IPv6 client

SFTP
Support IPv4 client

FTP
Support IPv4/IPv6 client
Support IPv4/IPv6 server

Multiple Image
Yes

Multiple Configuration File
Yes

Syslog Server
Support IPv4/IPv6 client

EnGenius Cloud management
Yes

OAM (Operations, Administration, and Maintenance) Features

EFM OAM
Yes

CFM OAM
Yes

Dying Gasp
Yes

FAN status / alert
Yes

Technical Specifications

Power status / alert
Yes

DOM (Digital Optical Monitoring)
Yes

Security Features

RADIUS
Support IPv4/IPv6 RADIUX client

TACACS+
Support IPv4 TACACS+ client

Storm suppression
Support broadcast/ multicast/ unknown unicast
Based on bps (Bits per second)

802.1X
Based on Port/ Port Channel/ Mac address-based
Support MAB (MAC Authentication Bypass)
Support Local database

Port Security
Yes

Dynamic ARP Inspection
Yes

CPU protection
Yes

DoS protection
prevent from ICMP/IP/TCP attack

ARP protection
Yes

Captive Portal
MAC /IP address authentication bypass
Support HTTPS

High Availability Features

Stacking
VSF (Virtual Switch Framework)
Max. 4 units
Support Ring/ Chain Topology
Number of Stacking Links: 2
Maximum Ports per Stacking Link: 8

MC-LAG
Yes

UDLD (Unidirectional Link Detection Protocol)
Yes

Uplink Monitor
ULSM (Uplink State Monitor)
ULPP (Upstream Link Protection Protocol)

Technical Specifications

Metro Ethernet Features

MPLS L3 VPN
Yes

MPLS L2 VPN
Support VPLS/ VPWS

Data Center Features

Telemetry
Yes

VXLAN
Yes

Environmental & Physical

Temperature Range
Operating: 32°F to 122°F (0°C to 50°C)

Humidity (non-condensing)
Operating: 10% to 90%

Power Supply
1+1 Redundant (Hot-Swappable)

FAN
3+1 Redundant

Air Flow
Front to back

Device Dimensions & Weight

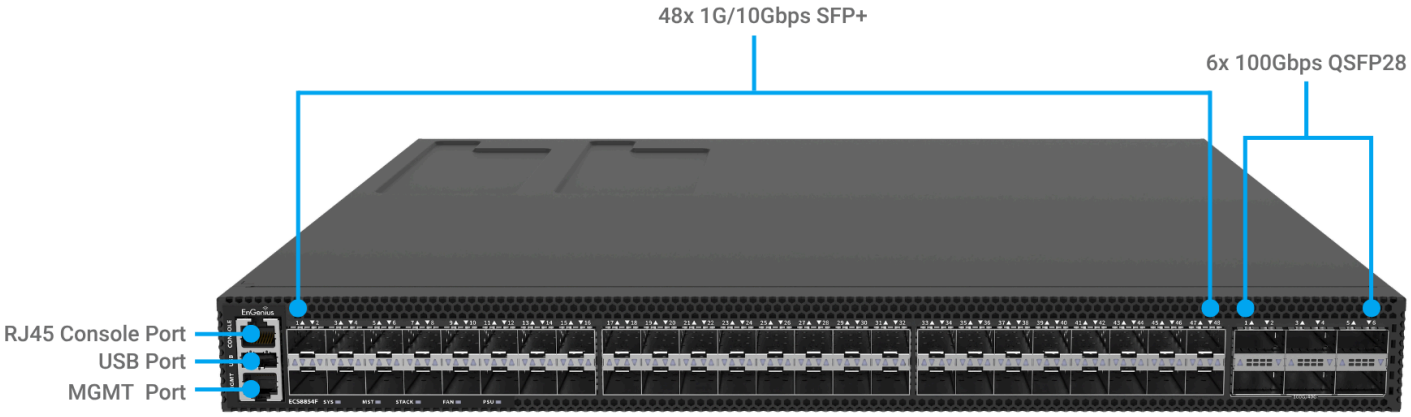
Form Factor
1U, 19-inch rack-mount

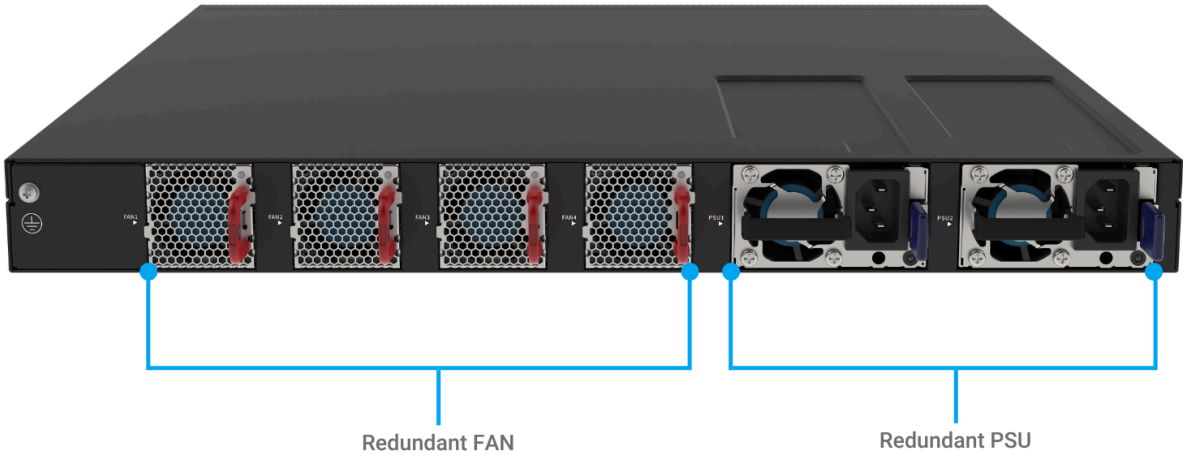
Device Dimensions
442mm×450mm×45mm

Package Contents
1x Cloud Managed Switch
1x Product Card
2x Power Cord
1x RJ45 Console Cable
1x Rack Mount Kit

VSF combines up to four ECS8800 series switches into a single logical switch for simplified management and increased port density. System and forwarding information are synchronized across VSF members to maintain network availability if a member switch fails.
Cross-member link aggregation provides additional bandwidth and redundancy, enabling a simple and highly available architecture for enterprise core and aggregation networks.

Hardware Overview





EnGenius®

Features and specifications subject to change without notice. Trademarks and registered trademarks are the property of their respective owners. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his/her own expense. Prior to installing any surveillance equipment, it is your responsibility to ensure the installation is in compliance with local, state and federal video and audio surveillance and privacy laws.