

ECS8854F



CloudSwitch Core 54

Cloud Managed 48x SFP+ + 6x QSFP28 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-R
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

ISAPAP

Yes

VRRP

Support IPv4/IPv6 (VRRPv2/v3)

L2/L3 Multicast Features

MLD

Max. 4K entries, shared by MLD/IGMP
MLD v1/v2
MLD Snooping

IGMP

Max. 4K 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

IPv4/IPv6 Static Route

Yes

RIP/RIPng

Yes

OSPFv2/v3

Yes

Technical Specifications

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

Power status / alert

Yes

DDM (Digital Optical Monitoring)

Yes

Security Features

Radius

Support IPv4/IPv6 Radius client

TACACS+

Support IPv4 TACACS+ client

Technical Specifications

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

MC-LAG

Yes

UDLD (Unidirectional Link Detection Protocol)

Yes

ULPP (Upstream Link Protection Protocol)

Yes

Uplink Monitor

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

Metro Ethernet Features

MPLS L3 VPN

Yes

MPLS L2 VPN

Support VPLS/ VPWS

Data Center Features

Telemetry

Yes

VXLAN

Yes

Environmental & Physical

Temperature Range

0-50

Operating Humidity (Non-Condensing)

10 - 90% (non-condensing)

Power Supply

1+1 Redundant

FAN

3+1 Redundant

Air Flow

Front to back

Device Dimensions & Weight

Form Factor

1U, 19-inch rack-mount

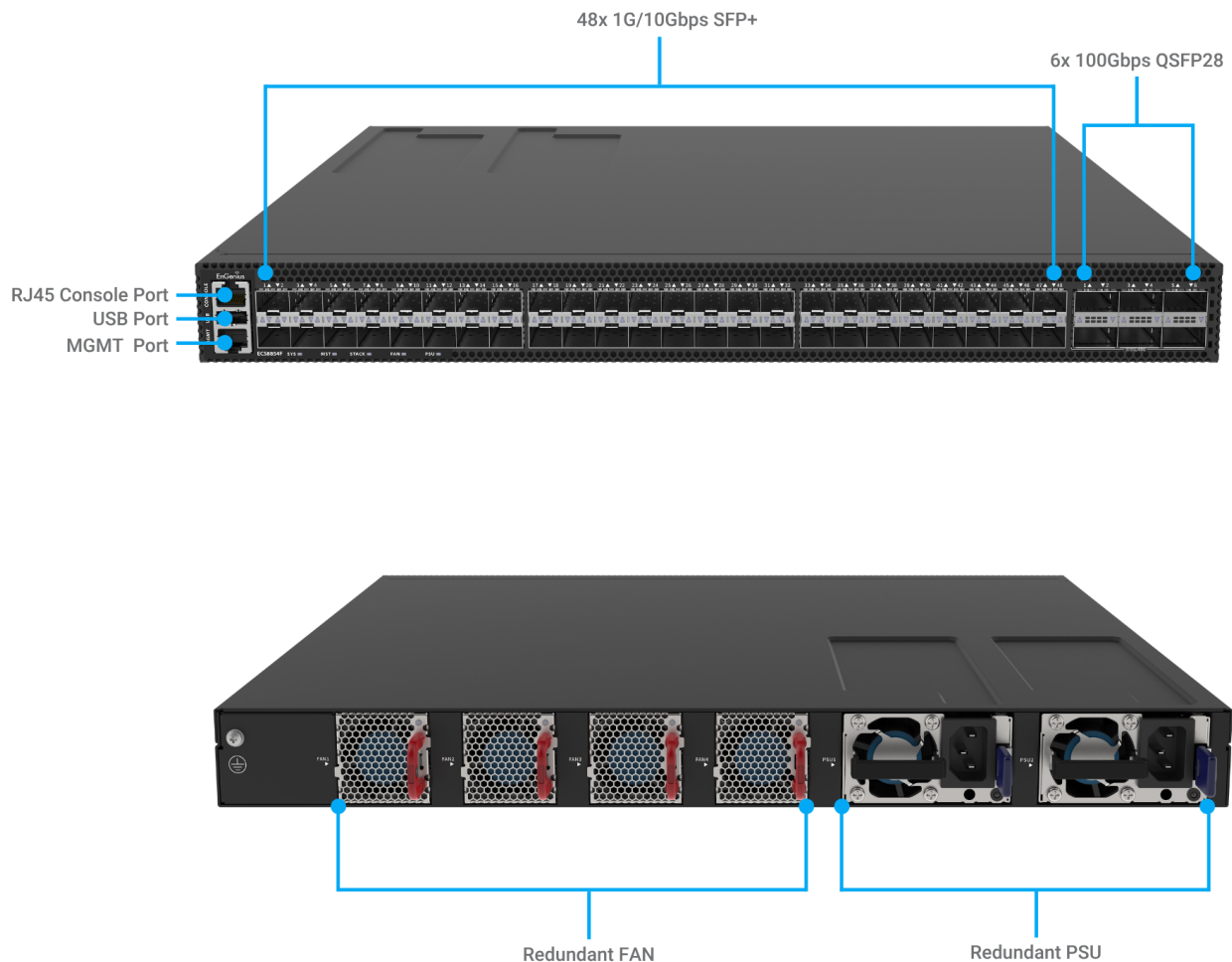
Device Dimensions

442mm×450mm×45mm

Package Contents

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

Hardware Overview



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.

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Quick Start Guide