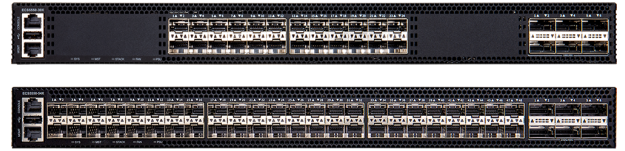


## L2+/Lite L3 10G Ethernet Switch

ECS5550-30X/ECS5550-54X

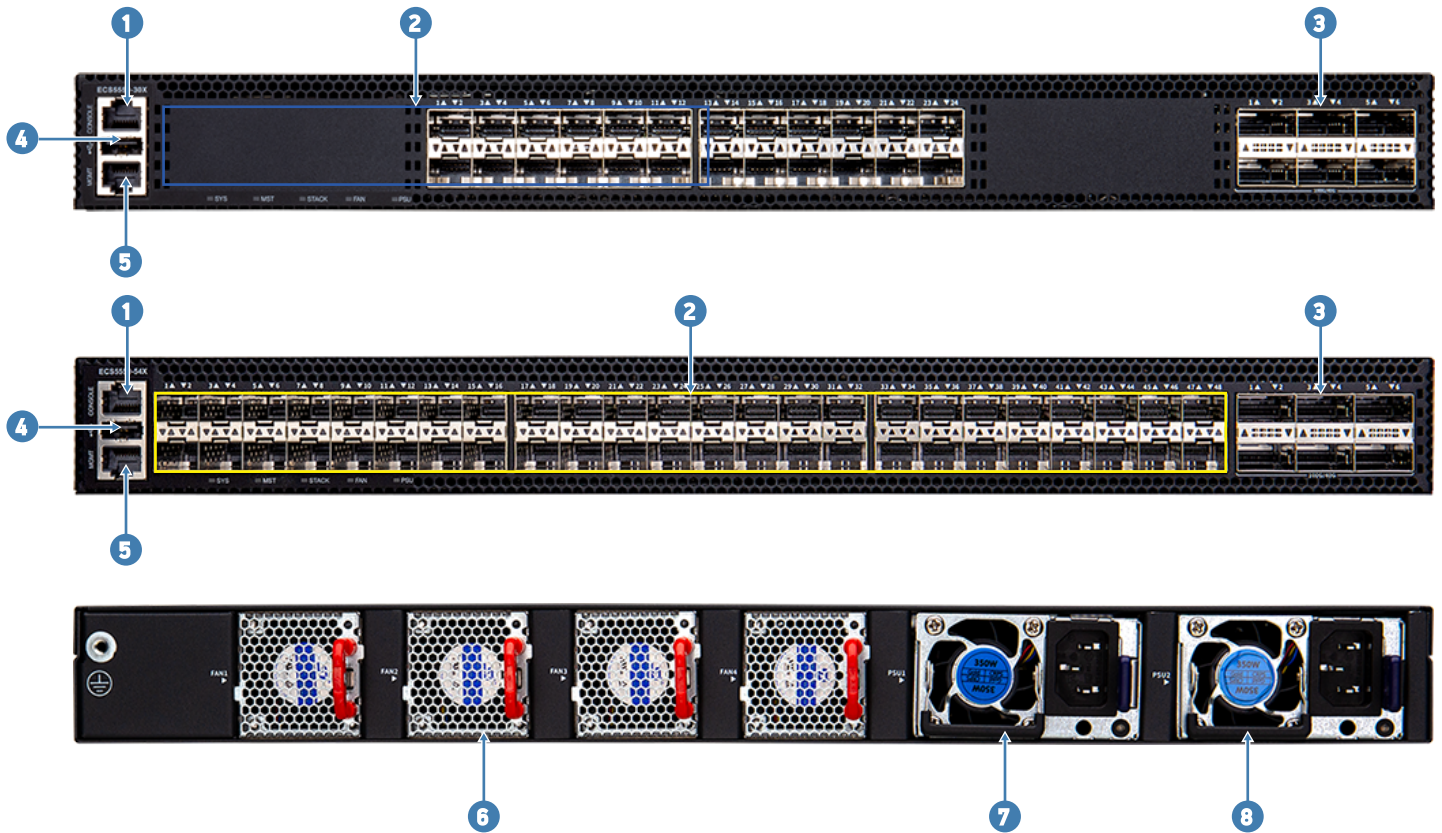


The ECS5550 series consists of two switches with 24 or 48 10GbE SFP+ ports and 6 100GbE uplink ports. The switches are designed for carrier/enterprise aggregation or small data center top-of-rack. The ECS5550 series is an ideal solution for traditional three-tier aggregation or core topologies and folded-Clos architectures without over-subscription. The ECS5550 switches are packed with features that bring high availability, comprehensive security, robust multicast control, and advance QoS to network aggregation, while maintaining simple management. The switch also supports the most advance IPv6 management, IPv6 security, and IPv6 multicast control in accordance with the growth of IPv6 deployment. ISPs can expand their services from home to business users by providing a more reliable and resilient network (ITU-T G.8032 ERPS), L2 VPNs, and advanced OAM (Operations, Administration, and Maintenance) functions to ensure service-level agreements.

### Key Features and Benefits

- Best price-performance 10 Gigabit Ethernet aggregation switch with 100G uplinks
- ITU-T G.8032 ERPS L2 ring protection with <50ms convergence time
- Comprehensive and field-proven software features for ISPs/carriers, providing broadband access, IPTV services
- Enhanced security, IPv6, and multicast features
- Simple management (CLI, SNMP, Web)
- Complete Private MIB to fully control and monitor the switch via customer's EMS

Interfaces



Description

- |   |                          |
|---|--------------------------|
| 1. RJ-45 console port   | 5. RJ-45 management port |
| 2. 24 x 10G SFP+ ports (ECS5550-30X)<br>48 x 10G SFP+ ports (ECS5550-54X) | 6. 3+1 fans              |
| 3. 6 x 100G QSFP28 ports  | 7. AC PSU 1              |
| 4. USB management port  | 8. AC PSU 2              |

Product Model	ECS5550-30X	ECS5550-54X
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### Product Image



<b>Port</b>	1G/2.5G/10G SFP+ Ports	24	48
	100G/40G QSFP28/QSFP+ Uplink Ports	6	6
	RJ-45 Console Port	1	1
	USB port	1	1
<b>Performance</b>	Switching Capacity	1.68 Tbps	2.16 Tbps
	Forwarding Rate	600 Mpps	600 Mpps
	eMMC	8 GB	8 GB
	DRAM	4GB/w EEC	4GB/w EEC
	MAC Address Table	32 K	32 K
	Jumbo Frames	10 KB	10 KB
<b>Mechanical</b>	Dimension (W x D x H) mm	442 x 420 x 43.6	442 x 420 x 43.6
	Weight	TBD	TBD
<b>Power Supply</b>	AC PSU: 100-240 VAC, 50/60 Hz	Yes	Yes
	DC PSU: -36 – -72 VDC	Yes	Yes
	Max System Power Consumption (Watts)	200 W	230 W
<b>Environmental</b>	Operating Temperature	-5 – 50°C	-5 – 50°C
	Storage Temperature	-40 – 70°C	-40 – 70°C
	Operating Humidity (non-condensing)	5% – 95%	5% – 95%
	Storage Humidity (non-condensing)	5% – 95%	5% – 95%
	Environmental Regulation Compliance: WEEE	Yes	Yes
	Environmental Regulation Compliance: RoHS	Yes	Yes
<b>Certification</b>	FCC Class A	Yes	Yes
	CE	Yes	Yes
	Safety Compliance: CB	Yes	Yes
	Safety Compliance: UL	Yes	Yes
	BSMI	Yes	Yes

## L2 Features

- 100G QSFP28/40G QSFP+ interface
  - 100GBASE-SR4/LR4
  - 100G DAC/AOC
  - 100G to 4x 25G DAC or AOC breakout cable
  - 40GBASE-SR4/LR4
  - 40G DAC/AOC
  - 40G to 4x 10G DAC or AOC breakout cable
  - 10G SFP+ fiber interfaces
  - IEEE 802.3ae (10GBASE-SR/LR)
  - IEEE 802.3z (100GBASE-SX/LX)
  - 10G DAC/AOC
- Broadcast/Multicast/Unknown Unicast storm control
- Digital Diagnostic Monitoring (DDM)
- Flow Control:
  - IEEE 802.3x for full duplex mode
- IGMP Snooping:
  - IGMP Authentication
  - IGMP Filtering
  - IGMP Immediate Leave
  - IGMP Proxy reporting
  - IGMP Querier
  - IGMP v1/v2/v3 snooping
  - IGMP Throttling
- ITU-T G.8032 Ethernet Ring Protection:
  - Multiple-ring network
  - Revertive operation mode
  - Sub 50 msec convergence
- Jumbo frames 10KB
- L2 Virtual Private VLAN:
  - CDP/PVST+ filtering
  - L2 Protocol tunneling (xSTP, CDP, VTP and PVST+, LLDP)
  - Selective Q-in-Q
  - Q-in-Q
- Link Aggregation:
  - IEEE 802.3ad Link Aggregation Control Protocol
  - Load Balancing: SA+DA, SA, DA, SIP+DIP, SIP, DIP
  - Static Trunk
  - Trunk Groups: 28, up to 8 GE/4 10G ports per group
- Multi-chassis Link Aggregation
- MVR (Multicast VLAN Registration): Supports 5 multicast VLANs
- Port mirroring
  - VLAN Mirror/Mac Based Mirror/ACL Mirror
- Remote port mirror (RSPAN)
- SFP+ port support:
  - IEEE 802.3ae (10GBASE-SR/LR/ZR/ER)
  - 10G DAC/AOC
  - IEEE 802.3z (100GBASE-SX/LX/LHX/ZX)
- Spanning Tree Protocol:
  - BPDU Guard
  - BPDU filtering
  - BPDU transparent
  - IEEE 802.1D Spanning Tree Protocol (STP)
  - IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
  - IEEE 802.1s Multiple Spanning Tree Protocol (MSTP), 64 instances
  - Loopback detection
  - Root Guard
- Static LACP

## L2 Features-continued

- VLANs:
  - EEE 802.1Q VLAN
  - GVRP
  - IEEE 802.1v Protocol-based VLAN
  - IP Subnet-based VLAN
  - MAC-based VLAN
  - Port-based VLAN
  - Supports 4K VLAN
  - Traffic Segmentation

## QoS Features

- Auto Traffic Control
- Egress policy map (police rate, remark CoS/DSCP)
- Ingress policy map (police rate, remark CoS)
- Priority Queues: 8 hardware queues per port
- Rate Limiting (ingress and egress, per port base)
  - GE: Resolution 64 Kbps ~ 1,000 Mbps
  - 10G: Resolution 64 Kbps ~ 10,000 Mbps
  - 100G: Resolution 64Kbps ~ 100,000Mbps
- Traffic Classification:
  - DSCP
  - IEEE 802.1p CoS
  - IP Precedence
  - IP standard access control list (source IP)
  - IP extended access control list (source/destination IP, protocol, TCP/UDP port number)
  - MAC Access control list (source/destination MAC, Ethertype, priority ID/VLAN ID)
- Traffic Scheduling:
  - Strict Priority
  - Strict + WRR
  - Weighted Round Robin

## Security

- Denial of Service
- DHCP Snooping
- DHCP Info
- DHCP Option 82
- DHCP Option 82 Relay
- Dynamic ARP Inspection
- Dynamic VLAN Assignment, Auto QoS
- Guest VLAN
- IEEE 802.1X port based and MAC based authentication
- IEEE 802.1X Supplicant
- IP Source Guard
- IPv6 ACL
- L2/L3/L4 Access Control List:
  - IP standard access control list (source IP)
  - IP extended access control list (source/destination IP, protocol, TCP/UDP port number)
  - MAC Access control list (source/destination MAC, Ethertype, priority ID/ VLAN ID)
- Login Security
- MAC authentication
- Management interface access filtering (SNMP, Web, Telnet)
- Port security
- PPPoE IA
- RADIUS authentication
- RADIUS accounting
- SSH (v2.0) for security Telnet
- SSL for HTTPS
- SNMPv3
- TACACS + authentication
- TACACS + accounting
- TACACS + authorization
- Voice VLAN
- Web authentication

## IPv6 Features

- DHCPv6 Snooping
- HTTP over IPv6
- IPv4/IPv6 dual protocol stack
- IPv6 Address Types Stack: Unicast
- IPv6 Neighbor Discovery:
  - Address resolution
  - Duplicate address
  - Unreachable neighbor detection
- IPv6 Telnet support
- IPv6 TFTP support
- IPv6 Source Guard
- IPv6 Syslog support
- Manual configuration
- MLD Snooping v1/v2
- MVR6
- Remote IPv6 ping
- SNMP over IPv6
- Stateless auto-configuration

## Management

- DHCP client for IP address assignment
- DHCP dynamic provision Option 66,67
- Firmware and Configuration:
  - Firmware upgrade via TFTP/HTTP/FTP/SFTP/SCP server
  - Multiple configuration files
  - Configuration file upload/download via TFTP/HTTP/FTP/SFTP/SCP server
- IPv6 sFlow
- mDNS
- Remote log (RFC3164)
- RMON (groups 1, 2, 3 and 9)
- sFlow v4, v5
- SMTP (E-mail Notification)
- SNTP
- Supports LLDP (802.1ab)
- Switch Management:
  - CLI via console port or Telnet
  - Web management
  - SNMP v1, v2c, v3
- Syslog (local Flash)
- Zero Touch provisioning

## Safety

- UL (CSA 22.2. NO 62368-1)
- CB (IEC62368-1)

## Power Supply

- Power Input:
  - AC power supply module (100 – 240 VAC, 50/60 Hz)
  - DC power supply module (-36 – -72 VDC), project based\*

## Supported Transceivers and Cables

- 100GBASE-SX/LX
  - 2.5GBASE-X
  - 10GBASE-SR/LR/RJ45
  - 40GBASE-SR4/LR4
  - 40G DAC/AOC cable
  - 40G to 4 x 10G DAC or AOC breakout cable
  - 100GBASE-SR4/LR4
  - 100G DAC
  - 100G AOC
  - 100G to 4 x 25G DAC or AOC breakout cable
- Note: More optics and detailed cabling information can be found at [www.edge-core.com](http://www.edge-core.com).

## Routing

- L3 Features IPv4
  - CIDR (Classless Inter-Domain Routing)
  - DHCP Relay
  - IGMP
  - Multi-netting
  - RIPv1/v2
  - Static routes (1 K)
  - Unicast routing
- L3 Features IPv6
  - DHCPv6 Relay
  - IPv6 unicast routing
  - Static Routes (1 K)

## Electromagnetic Compatibility

- CE Mark
- FCC Class A
- CISPR Class A
- BSMI

## Environmental Specifications

- Temperature:
  - 5°C to 50°C
  - 40°C to 70°C (Non-Operating)
- Humidity: 5% to 95% (Non-condensing)

**Warranty**

Please check [www.edge-core.com](http://www.edge-core.com) for the warranty terms in your country.

**For More Information**

To find out more about Edgecore Networks Corporation products and solutions, visit [www.edge-core.com](http://www.edge-core.com).

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