ECS4120 Series
L2+/L3 Lite Gigabit Ethernet Access / Aggregation Switch with 4 10G Uplinks

Product Overview

The Edgecore ECS4120 switch series is a Gigabit Ethernet access switch with four 10G uplink ports. The switch is ideal for Internet Service Providers (ISPs) and Multiple System Operators (MSOs) to provide home users with triple-play services with up to Gigabit bandwidth. It is also an ideal Gigabit access switch for SMB, enterprise, and campus networks. The ECS4120 switch series is packed with features that bring high availability, comprehensive security, robust multicast control, and advance QoS to the network edge, 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.

L2+/L3 Lite Gigabit Ethernet Access Aggregation Switch

Key Features and Benefits
Performance and Scalability

The Edgecore ECS4120 Series is a high-performance Gigabit Ethernet L2+/L3 Lite managed switch with 128Gbps/176Gbps switching capacity. The switch delivers wire-speed switching performance on all Gigabit ports, taking full advantage of existing high-performance Gigabit CPEs, PCs,11n/ac Wi-Fi APs etc, significantly improving the responsiveness of applications and file transfer times.

The four built-in 10G SFP+ ports provide uplink flexibility, allowing the insertion of fiber or copper, Gigabit or 10G transceivers, to create up to 10 Gbps high-speed uplinks to servers or service provider, corporate, or campus networks, reducing bottlenecks and increasing the performance of the access network.

The Voice VLAN function automatically detects VoIP devices by OUI or LLDP and groups the voice traffic into a separate VLAN for better performance. It can also automatically change port priorities, so a higher CoS value can be assigned for guaranteed voice quality.

Continuous Availability

The IEEE 802.1w Rapid Spanning Tree Protocol provides a loop-free network and redundant links to the core network with rapid convergence, to ensure faster recovery from failed links, enhancing overall network stability and reliability.

The IEEE 802.1s Multiple Spanning Tree Protocol runs STP per VLAN base, providing Layer 2 load sharing on redundant links up to 64 instances.

The ECS4120 Series supports IEEE 802.3ad Link Aggregation Control Protocol (LACP). LACP increases bandwidth by automatically aggregating several physical links together as a logical trunk and offers load balancing and fault tolerance for uplink connections.

The ECS4120 Series supports G.8032 Ethernet Ring Protection Switching with the ability for the network to detect and recover from incidents without impacting users, meeting the most demanding quality and availability requirements. Rapid recovery time when problems do occur is as low as 50ms.

Reliability and Energy Efficiency

The fanless design of ECS4120-28T ensures noiseless operation and increases the reliability of the system.

The design of the ECS4120 Series incorporates high energy efficiency in order to reduce the impact on the environment. The Green Ethernet power-saving features and fanless design significantly reduce the power consumption.

Enhanced Security

Port security limits the total number of devices from using a switch port and protects against MAC flooding attacks.
IEEE 802.1X port-based or MAC-based access control ensures all users are authorized before being granted access to the network. When a user is authenticated, the VLAN, QoS and security policy are automatically applied to the port where the user is connected, otherwise the port is grouped in a guest VLAN with limited access.

DHCP snooping allows a switch to protect a network from rogue DHCP servers that offer invalid IP addresses.
IP Source Guard prevents people from using IP addresses that were not assigned to them.

Access Control Lists (ACLs) can be used to restrict access to sensitive network resources by denying packets based on source and destination MAC addresses, IP addresses, or TCP/UDP ports. ACLs are hardware supported, so switching performance is not compromised.

Private VLANs (traffic segmentation per port) isolate edge ports to ensure user privacy.

DAI (Dynamic ARP Inspection) is a security feature that validates Address Resolution Protocol (ARP) packets in a network. DAI allows a network administrator to intercept, log, and discard ARP packets with invalid MAC-to-IP address bindings.

Secure Shell (SSH) and Secure Sockets Layer (SSL/HTTPS) encrypt Telnet and web access to the switch, providing secure network management.
The ECS4120 Series also supports both RADIUS and TACACS+ authentication methods to secure your network.

For a world always connected...

Key Features and Benefits

Comprehensive QoS

The ECS4120 Series offers advanced QoS for marking, classification, and scheduling to deliver best-in-class performance for data, voice, and video traffic at wire speed. Eight egress queues per port enable differentiated management of up to eight traffic types through the switch.
Traffic is prioritized according to 802.1p and DSCP to provide optimal performance for real-time applications. Weighted Round Robin (WRR) and strict priority ensure differential prioritization of packet flows and avoid congestion of ingress and egress queues.

Asymmetric bidirectional rate-limiting, per port or per traffic class, preserves network bandwidth and allows maximum control of network resources.

The ECS4120 Series supports Three Color Marker and Policing Single rate: Committed Information Rate (CIR) Two rate: CIR + Peak Information Rate (PIR) Traffic Policing: The switch drops or remarks the priority tags of packets when they exceed the burst size.

Robust Multicast Control

IGMP snooping prevents the flooding of multicast traffic by dynamically configuring switch ports so that multicast traffic is forwarded to only those ports associated with an IP multicast receiver. IGMP increases the performance of networks by reducing multicast traffic flooding.

IGMP groups allow you to create customer packages for IP-TV channels, making switch configuration easy. IGMP Filtering prevents subscribers seeing unsubscribed IP-TV channels. And, IGMP Throttling allows you to set how many IP-TV channels a subscriber can receive simultaneously.

Multicast VLANs are shared in the network, while subscribers remain in separate VLANs. This increases network security and saves bandwidth on core links. Multicast streams do not have to be routed in core L3 switches, which saves CPU power.

Multicast VLAN Registration (MVR) is designed for applications such as Media-on-Demand that send multicast traffic across an Ethernet network.

IPv6 Support

The switch supports a number of IPv6 features, including IPv6 Management, DHCPv6 Snooping with Option 37, IPv6 Source Guide, and MVR6.

Stacking

ECS4120-28Fv2/ECS4120-28Fv2-I(Only Hardware Version R01A) supports hardware stacking via 10G SFP+ port with Edgecore DAC cable (ET5402-DAC-1M) , no special stacking module and stacking cable are needed, up to 4 switches can be stacked together. The switch stack can be managed with a single IP address as a single entity, one switch will become master and all other switches within the stack will become slave, the configuration and firmware can be automatically synchronized from master to slave for easy management. When 4 switches are stacked in a ring topology, if there is link failure on the stacking cable, traffic will go through the redundant link so there is no network downtime. The hardware stacking supports cross stack trunking, for example, 10G ports on different switches can be trunked together, if one unit fail, there is still redundant port on the switch for uplink.

Superior Management

An industry-standard command-line interface (CLI), accessed through the console port or Telnet, provides a familiar user interface and command set for users to manage the switch.

An embedded user-friendly web interface helps users to quickly and simply configure switches.

The ECS4120 Series supports SNMPv1,2c,3 and four-group RMON. The switch provides a complete private MIB for the configuration of most functions via the SNMP protocol.

Administrators can backup and restore firmware and configuration files via TFTP or FTP. The switch also provides the configuration of auto-provision for ease of use in large deployments.

AAA (Authentication, Authorization and Accounting) via RADIUS, TACACS+, enables centralized control of the switch. You can also authorize access rights per user and account for all actions performed by administrators.

Service Monitoring and Management

The ECS4120 Series supports IEEE 802.1ag and ITU-T Y.1731, allowing service providers to monitor end-to-end services, identify connectivity and performance issues, and isolate problems from a remote location without dispatching an engineer onsite.

The switch also provides the capability to monitor service availability, delay and delay variation for verifying SLA conformance (for billing purposes) and providing advance indication of performance degradation before a service outage occurs.

Virtual Private Networks

The ECS4120 Series supports Layer 2 VPNs by using Q-in-Q functions, where an 802.1Q tag from a customer VLAN (called CE-VLAN ID) is encapsulated in a second 802.1Q tag from a service-provider network (called an SP-VLAN ID). The switch supports rewriting the VLAN tag of egress traffic when the ingress traffic is tagged.

The switch also supports Layer 2 Protocol Tunneling for STP, CDP, VTP, PVST+, with Cisco-proprietary multicast address (01-00-0c-cd-cd-d0) replacement.

PoE Features

The ECS4120-28P can provide up to 30 Watts of power to attached devices, such as VoIP phones, wireless access points, and surveillance cameras etc, all over existing Cat. 5 cables. The switch can deliver up to 30 Watts on 13 ports, or 15.4 Watts on 24 ports.

PoE eliminates the need for individual power sources for devices in the network, saving on costs for power cables and avoiding power outlet availability issues.

If the power demand exceeds the switch's maximum power budget, ports can be prioritized to receive power, and the power allocation is configurable.

The PoE power can be enabled or disabled remotely by setting a time schedule. For example, during off-duty hours all the PoE devices can be shut down for power saving without human intervention.

TEL: +886-3-5638888 FAX: +886-3-6686111
No.1, Creation Rd. III, Hsinchu Science Park, Taiwan 30077
sales@edge-core.com   www.edge-core.com

TEL: +1 (949)-336-6801
20 Mason Irvine, CA 92618

ECS4120 Series Product Specifications

Product Model		ECS4120-28T	ECS4120-28F	ECS4120-28P	ECS4120-52T
Product Image					
Port	RJ-45 10/100/1000BASE-T Ports	24	0	24	48
	100/1000BASE-X SFP Ports	0	20	0	0
	Combo Gigabit (RJ-45/SFP) Ports	0	4	0	0
	SFP+ 10 Gigabit Uplink Ports	4	4	4	4
	GE Out-of-Band Management Port	No	1	No	No
	RJ-45 Console Port	1	1	1	1
Performance	Switching Capacity	128 Gpbs	128 Gpbs	128 Gpbs	176 Gpbs
	Forwarding Rate	95 Mpps	95 Mpps	95 Mpps	130 Mpps
	Flash Memory	256 MB	256 MB	256 MB	256 MB
	DRAM	512 MB	512 MB	512 MB	512 MB
	MAC Address Table Size	16 K	16 K	16 K	16 K
	Jumbo Frames	9 KB	9 KB	9 KB	9 KB
	Auto-negotiation, Auto-MDI/MDIX	Yes	Yes	Yes	Yes
PoE	Support on all Gigabit ports based on IEEE 802.3af	No	No	Yes	No
	PoE+ based on IEEE 802.3at	No	No	Yes	No
	Auto disable after exceeding power budget	No	No	Yes	No
	Dynamic Power Allocation	No	No	Yes	No
	PoE Power Budget	No	No	370 W	No
Mechanical	Rack Space	19"	19"	19"	19"
	Dimension (W x D x H) cm	44 x 22 x 4.4	44 x 22 x 4.4	44x 33 x 4.4	44 x 27.9 x 4.4
	Weight	2.35 kg	3.32 kg	4.53 kg	3.72 kg
Power Supply	100-240 VAC, 50-60 Hz	Yes	Yes	Yes	Yes
	DC Power Input (48-60 V)	No	Yes	No	No
	Max System Power Consumption (Watts)	20 W	60 W	460 W	60 W
Environmental	Operating Temperature	0ºC to 50ºC	0ºC to 50ºC	0ºC to 50ºC	0ºC to 50ºC
	Storage Temperature	-40ºC to 70ºC	-40ºC to 70ºC	-40ºC to 70ºC	-40ºC to 70ºC
	Operating Humidity (non-condensing)	10% to 90%	10% to 90%	10% to 90%	10% to 90%
	Storage Humidity (non-condensing)	10% to 90%	10% to 90%	10% to 90%	10% to 90%
	Environmental Regulation Compliance: WEEE	Yes	Yes	Yes	Yes
	Environmental Regulation Compliance: RoHS	Yes	Yes	Yes	Yes
Certification	FCC Class A	Yes	Yes	Yes	Yes
	CE	Yes	Yes	Yes	Yes
	Safety Compliance: CB	Yes	Yes	Yes	Yes
	Safety Compliance: UL	Yes	Yes	Yes	Yes

*Not support sfp-preferred-auto in ECS4120-28F Combo Ports.

ECS4120 Series Product Specifications

Product Model	ECS4120-28Fv2	ECS4120-28Fv2-I
Product Image		
Port		
RJ-45 10/100/1000BASE-T Ports	0	0
100/1000BASE-X SFP Ports (Support DDM)	20	20
Combo Gigabit (RJ-45/SFP) Ports	4	4
SFP+ 10 Gigabit Uplink Ports	4	4
GE Out-of-Band Management Port	1	1
RJ-45 Console Port	1	1
Performance		
Switching Capacity	128 Gpbs	128 Gpbs
Forwarding Rate	95 Mpps	95 Mpps
Flash Memory	256 MB	256 MB
DRAM	512 MB	512 MB
MAC Address Table Size	16 K	16 K
Jumbo Frames	9 KB	9 KB
Auto-negotiation, Auto-MDI/MDIX	Yes	Yes
PoE		
Support on all Gigabit ports based on IEEE 802.3af	No	No
PoE+ based on IEEE 802.3at	No	No
Auto disable after exceeding power budget	No	No
Dynamic Power Allocation	No	No
PoE Power Budget	No	No
Mechanical		
Rack Space	19"	19"
Dimension (W x D x H) cm	44 x 22 x 4.4	44 x 22 x 4.4
Weight	3.32 kg	3.32 kg
Power Supply		
100-240 VAC, 50-60 Hz	Yes	Yes
DC Power Input (48-60 V)	Yes	Yes
Max System Power Consumption (Watts)	60 W	60 W
Environmental		
Operating Temperature	0ºC to 50ºC	-10ºC to 65ºC
Storage Temperature	-40ºC to 70ºC	-40ºC to 70ºC
Operating Humidity (non-condensing)	10% to 90%	10% to 90%
Storage Humidity (non-condensing)	10% to 90%	10% to 90%
Environmental Regulation Compliance: WEEE	Yes	Yes
Environmental Regulation Compliance: RoHS	Yes	Yes
Certification		
FCC Class A	Yes	Yes
CE	Yes	Yes
Safety Compliance: CB	Yes	Yes
Safety Compliance: UL	Yes	Yes

Features

L2 Features

Tri-speed (10/100/1000BASE-T) copper interfaces
Auto-negotiation for port speed and duplex mode
Auto MDI/MDI-X
100 M/1 G fiber interface
SFP ports support:
  IEEE802.3 100BASE-FX
  IEEE 802.3z (1000BASE-SX/LX/LHX/ZX) transceivers
Transceiver-threshold current/rx-power/temperature/tx-power/
  voltage/high-low alarm and warning
Digital Diagnostic Monitoring (DDM) on SFP port only
Flow Control:
  IEEE 802.3x for full duplex mode
  Back-Pressure for half duplex mode
Jumbo frames: 12 KB
Broadcast/Multicast/ Unknown Unicast Storm Control
Spanning Tree Protocol:
  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
  Spanning-tree restricted-tcn
  Spanning-tree tc-prop-stop Stops propagation of topology change
    information
  BPDU Guard
  BPDU filtering
  Root Guard
  BPDU transparent
  Loopback detection
Non-Spanning Tree Loopback detection
ITU-T G.8032 Ethernet Ring Protection Switching:
  Sub 50 msec convergence
  Non-revertive operation mode
  Multiple-ring topology
  Mulitiple instance
VLANs:
  Supports 4K VLAN
  Port-based VLAN
  IEEE 802.1Q VLAN
  GVRP (256 VLAN)
  IEEE 802.1v Protocol-based VLAN
  IP Subnet-based VLAN
  MAC-based VLAN
  Traffic Segmentation
L2 Virtual Private Networks (Q-in-Q):
  Selective QinQ
  VLAN Translation
  L2 Protocol tunneling (xSTP, CDP, VTP and PVST+, LLDP)
  CDP/PVST+ Filtering
Link Aggregation:
  Static Trunk
  IEEE 802.3ad Link Aggregation Control Protocol
  Trunk groups: 16, up to 8 GE ports per group
  Load Balancing: SA+DA, SA, DA, SIP+DIP, SIP, DIP
IGMP Snooping:
  IGMP v1/v2/v3 snooping
  IGMP Proxy reporting
  IGMP Filtering
  IGMP Throttling
  IGMP Immediate Leave
  IGMP Querier
  IGMP mrouter-forward mode
  IGMP router-alert-option-check
  IGMP router-port-expire-time
  IGMP tcn-flood
  IGMP tcn-query-solicit
  IGMP unregistered-data-flood
MVR (Multicast VLAN Registration): Supports 5 multicast VLANs
Port mirroring (many source ports to one destination port. One
  source port to one destination port only)
Remote port mirror (RSPAN)

Security

User Security for Enterprise:
  IEEE 802.1X port based and MAC based authentication
  Dynamic VLAN Assignment, Auto QoS
  MAC authentication
  Web authentication
  Voice VLAN
  Guest VLAN
User Security for ISP/MSO:
  L2/L3/L4 Access Control List
  MAC Access control list (Source/Destination MAC, Ether type,
    Priority ID/ VLAN ID)
  IP standard access control list (Source IP)
  IP extended access control list (Source/Destination IP, Protocol,
    TCP/UDP port number)
  DHCP Snooping
  DHCP Option 82
  DHCP Option 82 Relay
  IP Source Guard
Network Security:
  IPv6 ACL
  Port security
  Sticky MAC
  PPPoE IA
  Dynamic ARP Inspection
  CPU guard
  CPU/Memory threshold and alarm
  Denial of Service protection
    echo-chargen
    smurf
    tcp-flooding
    tcp-null-scan
    tcp-syn-fin-scan
    tcp-xmas-scan
    udp-flooding
    win-nuke
Management Security:
  Login Security
  RADIUS authentication
  RADIUS accounting
  TACACS + authentication
  TACACS + accounting
  TACACS + authorization
  Management Interface Access Filtering (SNMP, Web, Telnet)
  SSH (v1.5/v2.0) for security Telnet
    Cipher:
      aes192-ctr
      aes256-ctr
      aes256-gcm@openssh.com
      chacha20-poly1305@openssh.com
      aes128-ctr
      aes128-gcm@openssh.com
    KEY
      ssh-rsa
      rsa-sha2-512
      rsa-sha2-256" in below
  SSL for HTTPS
  SFTP IPv4/ IPv6
  SNMPv3

Green Ethernet

IEEE 802.3az Energy-Efficient Ethernet (EEE)

Features

OAM
IEEE 802.3ah Link
IEEE 802.1ag Connectivity Fault Management:
  Connectivity check
  Loopback
  Linktrace
ITU-T Y.1731 Performance and Throughput Management:
  Frame Delay
  Frame Delay variation

QoS Features
Priority Queues: 8 hardware queues per port
Traffic classification:
  IEEE 802.1p CoS
  IP Precedence
  DSCP
  MAC Access control list (Source/Destination MAC, Ether type,
    Priority ID/ VLAN ID)
  IP Standard access control list (Source IP)
  IP extended access control list (Source/Destination IP, Protocol,
    TCP/UDP port number)
Traffic Scheduling:
  Strict Priority
  Weighted Round Robin
  Strict + WRR
Ingress policy map (police rate, remark CoS)
Egress policy map (police rate, remark CoS/DSCP)
Rate Limiting (Ingress and Egress, per port base):
  GE: Resolution 64Kbps ~ 1,000Mbps
Auto Traffic Control

IPv6 Features
IPv4/IPv6 Dual Protocol stack
IPv6 Address Types Stack: Unicast
IPv6 Neighbor Discovery:
  Duplicate address
  Address resolution
  Unreachable neighbor detection
Stateless auto-configuration
Manual configuration
Remote IPv6 ping
IPv6 Telnet support
HTTP over IPv6
SNMP over IPv6
IPv6 Syslog support
IPv6 TFTP support
IPv6 MLD filter: MLD max-groups(throttling)
IPv6 ND snooping
MLD Snooping v1/v2
IPv6 source guard
DHCPv6 snooping
MVR6
TACACS IPv6

Routing
IPv4 Static Route
IPv6 Static Route
RIP v1/v2
Traceroute
Traceroute6
Dying Gasp (ECS4120-28Fv2 and ECS4120-28Fv2-I only)

Management
Switch Management:
  CLI via console port or Telnet
  Web management
  SNMP v1, v2c, v3
IP clustering (32 members)
Firmware & Configuration:
  Firmware upgrade via TFTP/HTTP/FTP server
  Dual images
  Multiple configuration files
  Configuration file upload/download via TFTP/HTTP/FTP server
  Firmware auto upgrade
RMON (groups 1, 2, 3 and 9)
BOOTP, DHCP client for IP address assignment
DHCP dynamic provision option 66,67
SNTP/NTP IPv4/ IPv6
DNS client
Event/Error Log
Syslog
SMTP
Support LLDP (802.1ab) IPv4/ IPv6
sFlow v4, v5
Cable diagnostics
Traceroute
Traceroute6
DHCP server (8 pools, 512 IP addaress)
TWAMP probe and responder
(Optional) ECView Pro, a powerful network management software
  that maximizes the managed capabilities of Edgecore devices
  with:
  Topology management
  Performance management
  Configuration management
  Event management
  SNMP management

Safety
UL (CSA 22.2. NO 60950-1 & UL60950-1)
CB (IEC60950-1)

Electromagnetic Compatibility
CE Mark
FCC Class A
CISPR Class A
BSMI

Environmental Specifications
Temperature:
  0℃ to 50℃ (180 W PoE budget) standard operation
  0℃ to 55℃ (120 W PoE budget)
  ≤ 70W PoE budget, fanless for silent operation
  -40°C to 70°C (Non-Operating)
Humidity: 10% to 90% (Non-condensing)

Power Supply
Power input
  100 to 240 VAC, 50/60 Hz
  AC/DC: 90VAC~300VAC, 50/60 Hz
Dying gasp

Warranty
Please check www.edge-core.com for the warranty terms in your
country.

TEL: +886-3-5638888 FAX: +886-3-6686111
No.1, Creation Rd. III, Hsinchu Science Park, Taiwan 30077
sales@edge-core.com   www.edge-core.com

TEL: +1 (949)-336-6801
20 Mason Irvine, CA 92618

Features

For More Information
To find out more about Edgecore Networks Corporation products and solutions, visit www.edge-core.com.

About Edgecore Networks Corporation
Edgecore Networks Corporation is in the business of providing innovative network solutions. In the service provider network, in the data center or in the cloud, Edgecore Networks Corporation delivers the software and systems that transform the way the world connects. Edgecore Networks Corporation serves customers and partners worldwide. Additional information can be found at www.edge-core.com.

Edgecore Networks Corporation is a subsidiary of Accton Technology Corporation, the leading network ODM company. The Edgecore data center switches are developed and manufactured by Accton.

To purchase Edgecore Networks solutions, please contact your Edgecore Networks Corporation representatives at +886 3 563 8888 (HQ) or +1 (949)-336-6801 or authorized resellers.

Ordering Information

Optional Accessories	Product Description
ET3201-FXP	100BASE-FX Multi mode LC Duplex SFP transceiver, up to 2 km (1310 nm)
ET3201-FX20	100BASE-FX Single mode LC Duplex SFP transceiver, up to 20 km (1310 nm)
ET3203-BX20	100BASE-FX Single mode LC Simplex SFP transceiver, up to 20 km Tx1310 nm/Rx1550 nm
ET3203-BX20D	100BASE-FX Single mode LC Simplex SFP transceiver, up to 20 km Tx1550 nm/Rx1310 nm
ET4201-LX5	1Gbps, Small Form Factor Pluggable (Distance: 5 km; Wavelength: 1310 nm)
ET4201-LX15	1Gbps, Small Form Factor Pluggable (Distance: 15 km; Wavelength: 1310 nm)
ET4201-LHX	1Gbps, Small Form Factor Pluggable (Distance: 40 km; Wavelength: 1310 nm)
ET4201-ZX	1Gbps, Small Form Factor Pluggable (Distance: 80 km; Wavelength: 1550 nm)
ET4202-SX	1Gbps, Small Form Factor Pluggable (Distance: 550 m; Wavelength: 850 nm, DDM)
ET4202-LX	1Gbps, Small Form Factor Pluggable (Distance: 10 km; Wavelength: 1310 nm, DDM)
ET5402-SR	10Gbps, Small Form Factor Pluggable (Distance: 300 m; Wavelength: 850 nm)
ET5402-LR	10Gbps, Small Form Factor Pluggable (Distance: 10 km; Wavelength: 1310 nm)
ET5402-ER	10Gbps, Small Form Factor Pluggable (Distance: 40 km; Wavelength: 1550 nm)
ECView Pro	Network Management Software

TEL: +886-3-5638888 FAX: +886-3-6686111
No.1, Creation Rd. III, Hsinchu Science Park, Taiwan 30077
sales@edge-core.com   www.edge-core.com

TEL: +1 (949)-336-6801
20 Mason Irvine, CA 92618

EC-DS-0120-10