ECS3810-26T
L2 Fast Ethernet Carrier Grade Switch

Product Overview

The Edge-Core ECS3810-26T is a Carrier Ethernet access switch ideal for Ethernet service demarcation, extension and aggregation.

ECS3810-26T allows service provider to deliver managed converged services such as voice, video and data over virtual Ethernet, MPLS/VPLS and IP networks. Flexible combo , QoS, advanced operation, administration and maintenance (OAM), support for extended temperature range environments, the ECS3810-26T is an adds value and builds differentiated services over Carrier Ethernet networks.

Key Features and Benefits

Carrier-class design

The Edge-Core ECS3810-26T is a carrier grade aggregation switch consists of 24 FE ports with 2 Gigabit Combo ports.

All interfaces of the ECS3810-26T are located in the same panel, including CIT (Craft Interface Terminal) out of band management port, external alarm input /output interface and power outlet.

The ECS3810-26T is a carrier grade switch which provides dual power input with AC and DC and the operating temperature is ranging from -25 ℃ ~ 65 ℃ .

The Fan-less design of ECS3810-26T ensures noiseless operation and increase the reliability of the system.

The design of the ECS3810-26T is green consumption and high energy efficiency in order to reduce the effect of the global warming. The 55nm switch controller chipset and Green Ethernet power saving features significantly reduce the power consumption. The Fan-less design also reduce the power consumption.

When a loss of power is detected, the dying gasp support allows 200msec for the system to notice administrator by an SNMP trap.

Continuous Availability

The ECS3810-26T 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.

Service Monitoring and Management

The ECS3810-26T supports IEEE 802.1ag Connectivity Fault Management (CFM) and ITU-T Y.1731, allowing service provider to monitor end to end services, identify connectivity and performance issues and isolate the problem from a remote location without dispatching engineer onsite.

It also provides the capability to monitor service availability, delay, jitter and dropped packets, for verifying SLA conformance for billing purposes and providing advance indication of performance degradation before a service outage occurs.

Comprehensive QoS

ECS3810-26T supports Three Color Marker and Policing Single rate: Committed Information Rate (CIR) Two rate: CIR + Peak Information Rate (PIR) Traffic Policing: Drop or remark the priority tag of packets exceeds burst size

Virtual Private Network

The ECS3810-26T supports L2 VPN by using Q-in-Q functions in which 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).

Support L2 Protocol Tunneling for STP, CDP, VTP, PVST+, with Cisco proprietary multicast address (01-00-0c-cd-cd-d0) replacement.

Layer 2 PDU filtering allows a service provider to specify which Layer 2 PDUs are to be dropped at an ingress interface on a provider edge switch.

Features

Physical Ports

24 10/100Base-T ports and 2 Gigabit combo ports (RJ-45/SFP)
Dual power input with 1 AC and 1 DC Power Connector
1 out of band 1000Mbps RJ45 Management Port
1 RJ45 Console Port
1 DB15 Alarm

Performance

Switching Capability: 8.8Gbps
Packet Buffer Size: 8Mb
MAC Address Table: 16K

L2 Features

Tri-speed (10/100/1000Base-T) copper interfaces
Auto-negotiation for port speed and duplex mode
Dual-speed(100M and 1000M) fiber interfaces
SFP port support changeable 1000Base-SX/LX/LHX/ZX
transceiver
Digital Diagnostic Monitoring (DDM)
Flow Control:
■ IEEE 802.3x for full duplex mode
■ Back-Pressure for half duplex mode
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)
■ BPDU Guard
■ BPDU filtering
■ Root Guard
■ BPDU transparent
■ Loopback detection
ITU-T G.8032 Ethernet Ring Protection
■ Sub 50 msec convergence
■ Revertive operation mode
■ Multiple-ring network
VLANs:
■ Supports 4K VLAN
■ Port-based VLAN
■ IEEE 802.1Q VLAN
■ IEEE 802.1v Protocol-based VLAN and Subnet –based VLAN
■ MAC-based VLAN
■ Traffic Segmentation
■ GVRP
L2 Virtual Private VLAN
■ QinQ
■ selective QinQ
■ L2 Protocol tunneling (xSTP, CDP, VTP & PVST+)
■ CDP/PVST+ Filtering
■ Support Voice VLAN
Link Aggregation:
■ Static Trunk
■ IEEE 802.3ad Link Aggregation Control Protocol
■ Trunk groups: 12, up to 8 ports per group
IGMP Snooping:
■ IGMP v1/v2/v3 snooping
■ IGMP Proxy reporting
■ IGMP Filtering
■ IGMP Throttling
■ IGMP Immediate Leave
■ IGMP Querier
MVR (Multicast VLAN Registration)
■ Support 5 Multicast VLAN
Port Mirroring
Supports jumbo frames up to 10KB

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 traffic scheduling
Weighted Random Early Detection
Two rate Three color marker
        Ingress traffic policing
        Egress traffic shaping
        Marking/remarking
Rate Limiting (Ingress and Egress, per port base)
■ GE: Resolution 64Kbps ~ 1000Mbps
Bundle Rate Control

Security

Port security
IEEE 802.1X port based and MAC based authentication
Dynamic VLAN Assignment, Auto QoS, Auto ACL
MAC authentication, Web authentication
Voice VLAN, Guest VLAN
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)
IPv6 ACL
DHCP Snooping
DHCP Option 82
IP Source Guard
Dynamic ARP Inspection
PPPoE IA
Login Security
RADIUS authentication
TACACS + authorization and accounting
TACACS+ 3.0
Management Security
SSH (v1.5/v2.0) for security Telnet
SSL for HTTPS
SNMPv3

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

Features

Green Ethernet

■ Save power when ports are not connected
■ Reduces power for short cable runs

IPv6 Features

IPv4/IPv6 Dual Protocol stack
IPv6 Address Types Stack: Unicast
IPv6 Neighbor Discovery
SNMP over IPv6
HTTP over IPv6
Remote IPv6 ping

Management Features

Switch Management:
■ CLI via console port or Telnet
■ WEB management
■ SNMP v1, v2c, v3
Firmware & Configuration:
■ Firmware upgrade via TFTP server
■ Multiple configuration files
■ Configuration file upload/download via TFTP server
RMON (groups 1, 2, 3 and 9)
BOOTP, DHCP client for IP address assignment
DHCP dynamic provision option 66,67*
SNTP
Event/Error Log/ Syslog, SMTP
Supports LLDP (802.1ab)
UPnP
IP clustering
(Optional) ECview Pro, a powerful network management software
that maximizes the managed capabilities of Edge-Core devices with:
■ Topology Management
■ Performance Management
■ Configuration Management
■ Event Management
■ SNMP Management

Mechanical

Dimensions (W x D x H): 252 mm x 440 mm x 44 mm
Weight : 3.2kg (7.05lbs)
LED Indicators: Port, Uplink, System, Diagnostic

Safety

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

Electromagnetic Compatibility

CE Mark
FCC Class A
CISPR Class A

Environmental Specifications

Temperature:
■ IEC 68-2-14
■ 0℃ to 60℃ (Standard Operating)
■ -40℃ to 70℃ (Non-Operating)
Humidity: 10% to 90% (Non-condensing)
Vibration: IEC 68-2-36, IEC 68-2-6
Shock: IEC 68-2-29
Drop: IEC 68-2-32

Power Supply

Dual power input
■ AC Input: 110V ±10V, 50~60Hz, 0.33A
■ DC Input: -42V~-56V, 0.57A
■Internal, auto-ranging transformer: 100 to 240 VAC, 50 to 60 Hz
Power Consumption
■16.1 Watts maximum
Dying gasp

Warranty

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

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

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

To purchase Edge-Core Networks solutions, please contact your Edge-Core Networks representative at 886 3 563 8888 or authorized reseller.

Ordering Information

Optional Accessories

ET4201-SX
ET4201-LX
ET4201-LHX
ET4201-ZX
ECView Pro

Product Description

1Gbps, Small Form Factor Pluggable (Distance: 500m; Wavelength: 850nm)
1Gbps, Small Form Factor Pluggable (Distance: 10km; Wavelength: 1310nm)
1Gbps, Small Form Factor Pluggable (Distance: 40km; Wavelength: 1310nm)
1Gbps, Small Form Factor Pluggable (Distance: 80km; Wavelength: 1550nm)
SNMP Network Management Software