



ISCOM 2948 Series

ISCOM2948GF-4C | Intelligent Ethernet Service Aggregation

Product Overview

ISCOM2948GF-4C, as new generation Carrier-grade Ethernet Gigabit device, is complied with CE 2.0 standards to deliver EPL, EVPL, EP-LAN, EVP-LAN, E-Access services based on three major characteristics, Multi-CoS, Interconnected and Managed. In addition, it is often used as an intelligent aggregation device in network architectures for Metropolitan Area Network data convergence, business connections, mobile backhaul and cloud access.

The 48 interfaces with SFP or RJ45 morphology enrich service lines and provide 100/1000Mbit/s access rate, thereby ensuring the transmission quality and efficiency. Moreover, the series plays an important role to accelerate large-scale deployment and provide diversified access solutions thanks to its high bandwidth provision (10G) and H-CAR performance. In addition, this series also provides with standardized protection mechanisms (ITU G.8031&G.8032) as well as the Auto-provision function. Furthermore, ISCOM2948GF-4C series can guarantee Carrier Ethernet service and performance via good SLA (jitter, delay, packet loss) functionality and make network more reliable thanks to its compliance with IEEE 802.3ah, IEEE 802.1ag and ITU-T Y.1731.

ISCOM2948GF-4C is defined as multi-service treatment device for mission-critical applications. On one hand, the series is in combination with EDD device and give full play to the role of aggregation function. It can be used as PE device to support MPLS data encapsulation transmission mode so that the device is able to build L2 VPN channel with high bandwidth Gigabit Ethernet transmission rate. On the other hand, ISCOM2948GF-4C can be used in conjunction with network terminal suitable for most last mile access applications. It ensures ultra-low delay and jitter for Ethernet service due to advanced SLA management.

Highlights

- Creation, identification and isolation of CE2.0-compliant service end-to-end or end-to-core
- Zero-touch Auto Provisioning ideal for large-scale deployment & upgrade
- Stable and reliable network assurance with real-time monitoring and per-service visualized SLA parameters
- Low latency and low jitter for delivery of high performance services
- Comprehensive OAM solutions based on 802.3ah, 802.1ag and Y.1731 for OPEX reduction

Specifications

NNI: 4 x 10GE SFP+
UNI: 48 x 100BASE-FX/1000Base-X SFP

SNMP interface: 1 x RJ45
Console interface: 1 x RJ45
Dimensions: 360(L), 440(W), 44(H) mm
Operating temperature: -5 to 50°C
Storage temperature: -25 to 60°C
Humidity: 10 to 90%, non-condensing
Lightning proof: 6kV/AC, 2kV/DC

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- Eco-system warranty with low power consumption design
- Redundant hot-swappable power module protection
- L2 MPLS VPN compliant (next phase)

PSU: 100/240V AC, -36 to -72V DC
Max power consumption: 95 W

Access Capacity

- MTU: 12k byte (default 1526 byte)
- Switching buffer size: 16Mbit

Ethernet

- Up to 32k MAC
- Support 4,094 VLANs (C-tag), stacked VLANs (QinQ, S-tag), VLAN mapping and 1:1 inner/outer VLAN translation
- Recommended 32 Ethernet virtual circuits (EVC) per network interface device (NID)²
- Layer 2 loopback on single and multiple flows
- Interface protection, port monitoring
- Layer 2 control protocol (L2CP) handling

IP Services

- ARP
- DHCP client, snooping, option61/82³
- IPv4, IPv6
- Static routing

Traffic Management

- Service classification per port/VLAN/CoS(DSCP)
- Support SP, WRR and SP+WRR scheduling modes, and up to 8 queues per port
- MEF-compliant 3-color policing with color-aware and color-blind mode
- Bandwidth throttling per port/VLAN/CoS(DSCP)
- Support hierarchical bandwidth profile in the ingress direction
- Traffic shaping for both UNI and NNI

Security

- Secure MAC address
- ACL based on VLAN, CoS, MAC, EtherType, IPv4, IPv6, or user-define combinations
- RADIUS, TACACS+
- Storm control (broadcast, multicast, DLF)

Reliability

- Link aggregation group (LAG) – up to 3 groups with 4 ports in each group, and six load balancing modes based on source/destination IP and/or MAC
- Interface backup
- ITU-T G.8031 Ethernet link protection switching (ELPS) and G.8032 Ethernet ring protection switching (ERPS) with the automatic protection switchover time less than 50ms
- Port/VLAN-based Ethernet local loop detection
- Fault propagation

Ethernet OAM

- IEEE 802.3ah EFM-OAM link management
- IEEE 802.1ag connectivity fault management (CFM) with 3.3ms CCM resolution
- ITU-T Y.1731 performance monitoring (PM)
- Hardware-based frame delay (FD) measurement
- Hardware-based SLA KPIs per port or EVC, which include throughput, delay, jitter, packet loss and availability
- E-LMI (MEF 16)
- Dying gasp message in case of power failure

Auto-Provisioning

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- Auto-establishment of management tunnels across L2/L3 networks
- Recommended management and monitoring ratio up to 1:128 (extendable)
- IEEE 802.1x port authentication
- Easy generation and distribution of massive configuration files using GUI-based toolkit

System Management

- Remote management via SNMP v1/v2/v3, Telnet and SSH v1/v2
- Local management via console interface
- MEF 36 compliant MIB
- KeepAlive, RMON, LLDP, Syslog
- Port/VLAN/Cos-based statistics
- Alarm management

- SFP digital diagnostic management (DDM)
- FAN, CPU monitoring
- Voltage and temperature monitoring

Standard Compliance

- IEEE802.1Q (VLAN), 802.3ad (LAG), 802.1ad (QinQ), 802.1ag (CFM), 802.1D (STP), 802.1w (RSTP), 802.1s (MSTP), 802.1p (QoS/CoS Priority), 802.1x (Security), 802.3x Flow Control, 802.3ah OAM
- G.8031 (ELPS), G.8032 (ERPS), Y.1731
- IETF RFC 2865 (RADIUS), 2819 (RMON)
- MEF 6, 9, 10, 14, 16, 36 (CE1.0-certified, CE2.0-compliant)
- Safety CE certified, UL and RoHS compliant
- EMI Class A

Ordering Information

Model	Description
ISCOM2948GF-4C-AC/D	48x100/1000BASE-X SFP; 4x10G SFP+; Dual AC Power Supply
ISCOM2948GF-4C-DC/D	48x100/1000BASE-X SFP; 4x10G SFP+; Dual DC Power Supply

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