RBG-T4806M3-AC-PSE

Stackable Managed Switch with 48GE PoE ports,

6 x 10G/GE SFP+ ports

Overview

RBG-T4806M3-AC-PSE is a next-generation aggregation 10GE switch. It is targeted at the IP MAN (metropolitan area network), government and enterprise networks, Internet café and disk-less working environment. It supports functions such as powerful ACL, flexible QinQ, 1:1 or N:1 VLAN switching, Ethernet OAM, carrier-level QoS and industry-level 10GE Ether-ring, ensuring this switch series meets application requirements in all kinds of complicated sites. It also supports layer-3 routing protocol.

Features

VLAN: 4K Active VLAN, QinQ & Selective QinQ, GVRP, Private VLAN, Voice VLAN

Spanning Tree: 802.1D (STP) 802.1W (RSTP) and 802.1S (MSTP); BPDU guard, root guard and loopback guard

Multicast: IGMP v1/v2/v3, IGMP Snooping, IGMP Fast Leave, MVR, IGMP filter

IP: Static route, RIP, OSPF; IPv4/v6 dual stack

IPv6: ICMPv6, DHCPv6, ACLv6 and IPv6 Telnet; IPv6 neighbor discovery, Path MTU discovery; MLD v1/2, MLD snooping; IPv6 Static Routing, RIPng, OSPFv3; Manual tunnel, ISATAP tunnel,6 to 4 tunnels

QoS: CAR, HQoS, MAC/IP/TCP/UDP/VLAN/ COS/ DSCP/ TOS based QoS, 802.1P/ DSCP priority re-labeling, SP, WRR, and "SP+WRR", Tail-Drop, WRED, flow monitoring and traffic shaping

Security: Port isolation, Port security, and "IP + MAC + port" binding, MAC sticky DAI & IP source guard, PPPoE+; IEEE

802.1x, AAA, Radius and Tacacs+; L2/L3/L4 ACL flow identification and filtration Anti-attack from DDoS, TCP's SYN Flood, UDP Flood, etc.; Broadcast/multicast/unknown unicast storm-control; MD5, SHA-256, RSA-1024, AES256, etc.

DHCP: DHCP server/relay/client; DHCP snooping/option82.

Reliability: Static/LACP link aggregation, Interface backup; EAPS and ERPS; ISSU uninterrupted system upgrade; VSS, ups to 16-units per stack; VRRP; UDLD

Management: Console, Telnet, SSH v1/2, HTTP, HTTPS SNMP v1/v2/v3, RMON; TFTP, FTP, SFTP; NTP; ZTP (Zero Touch Provisioning); SPAN, RSPAN; Dying gasp*

Environment: Operating temperature/humidity: 0°C -50°C, 10%-90% non-condensing

Storage temperature/humidity: -20°C -70°C, 5%-95% non-condensing

Accessories: Power cord, rack-mount kits, console cable

Certification: CE, FCC, ROHS

Characteristics

Innovative Virtual Cluster Switching Technique

- Innovative VSS (Virtual Switch System): L3-lite Series virtualizes multiple physical devices into one. The performance, reliability and management of the virtual system are superior to the physical ones.
- Improved Performance: VSS makes full use of each link in the physical devices, which avoids STP blocking the link and protects the original link to the maximum extent.
- High Reliability: Based on the advanced distribution mechanism and efficient cross-physical link aggregation link function, the logic control plane, service control plane and service data plane are separated. Thus, L3-lite Series can support continuous layer-3 routing forwarding, avoiding service interruption as a result of a single point of failure.
- Easy Management: VSS realizes single IP management, greatly improving the networking efficiency and lowering the operating cost.

Industrial Ethernet Ring with Zero Delay and Zero Packet Loss

- Supports industry-level EAPS and their protection shift time is less than 50ms. Their high reliability is represented by the null packet loss, which has been proved by many years of application in the Grid, rail transportation and defense systems.

Telecom- Level Ethernet Switch

- Supports the telecom-level Ethernet-ring protection protocol with a protection shift time of less than 50ms, STP/RSTP/MSTP, backup of active and standby uplinks and LACP link aggregation to cater to the requirements of high reliability of carriers.
- Support Ethernet standard 802.3u, 802.3x, 802.3ad, 802.1d, 802.1p, 802.1q, 802.1w, 802.1ad.
- Support system status LED, port dynamic LED
- Provides the perfect Ethernet OAM mechanism to monitor the network running status in real time for rapid trouble locating and detection.
- Supports powerful ACL functions to access and control L2-L7 data based on physical port, VLAN, MAC, IP and protocol port ID, and providing carriers flexible and various policy control methods.

- Supports In-Service Software Upgrade (ISSU) to ensure the unremitting data forwarding during system upgrade.
- Supports various L2 multicast functions, including
- IGMP-Snooping, fast-leave and trans-VLAN

Flexible and Convenient Management and Maintenance

- Supports management modes such as the console port, Telnet, SSH, etc.
- Supports the WEB management mode, which is easy and efficient so that it makes installation and debugging convenient.
- Supports TFTP-patterned file upload/download management.
- Supports ISSU (In-Service Software Upgrade).
- Support SNMP and NMS smart network management platform to realize automatic equipment discovery, network topology management, equipment configuration management, performance data statistics and analysis and trouble management.

Carrier-Level QoS Policies

- Supports priority retagging and complicated flow classification based on VLAN, MAC, source address, destination address, IP or priority to better streamline carrier's services.
- Supports provides flexible bandwidth control policies and supports port-/flow-based flow limit and ensuring line speed forwarding of each port to make sure high quality of video, audio and data services.
- Supports 8 priority queues by each port.
- Supports multiple queue schedule algorithms such as SP, WRR, and SP+WRR.

Versatile IPv6 Solutions

- Supports the IPv6 protocol suite, IPv6 neighbor discovery, ICMPv6, path MTU discovery, etc.
- Supports Ping, Traceroute, Telnet, SSH, ACL and so on the basis of IPv6, meeting IPv6 networks' equipment management requirements and service control requirements.

Perfect Security Mechanisms

- Equipment-level security: The advanced hardware infrastructure design realizes the level-based packet schedule and packet protection, prevents DoS-/TCP-related SYN flood, UDP flood, broadcast storm or large traffic attacks, and supports level-based command line protection, endowing different levels of users with different management permissions.
- Supports perfect security authentication mechanisms: IEEE 802.1x, Radius and Tacacs+.
- Supports storm/multicast/unicast limit to ensure normal running in harsh network conditions.
- Supports a perfect ring detection mechanism to ensure the long-term stable running of network.
- Supports port isolation within the same VLAN, DHCP-Snooping, and IP plus MAC plus Port binding for ensuring user data security.

Intelligent PoE+

- Support IEEE 802.3af/at PoE standard, and power mapping scales up to a max.740w of PoE+ power;
- Support PoE non-stop power supply. The PoE+ power is maintained during a switch reload;

- Support manual and dynamic PoE power allocation;
- Support up to 6KV thunder-proof of the PoE port and power supply.

Specifications

Model No.	RBG-T4806M3-AC-PSE
Interface	48GE RJ45 PoE, 6×10G/GE SFP+ ports
Console	1 RJ45
Backplane	216 Gbps
Forwarding Rate (Mpps with 64 bytes)	162 Mpps
Chassis Dimension (W x D x H)	440x300x44mm
Chassis Weight (empty)	5.2KGs
Package Dimension (W x D x H)	576x448x94mm
Package Weight	6.1KGs
Power consumption (No-load)	<25W
Power consumption (Full load)	<48W (without POE)
Power supply (AC: 100-240V/ DC: 36-72V)	450W AC and 800W DC
POE power budget	370W AC or 740W DC
Total output BTU (1000BTU/H=293W)	1535.84@AC, 2730.38@DC
Fan Number	2
Noise@25℃ (dBA)	45
MTBF(H)	>200,000
Forwarding mode	Store-forward
Flash (MB)	16
DRAM (MB)	512
MAC	32K
Buffer size (MB)	2
Interface VLAN	64
Routing table	512
Jumbo frame	9K

Ordering Information

PART NO	DESCRIPTION
RBG-T4806M3-AC-PSE (Stackable)	Ethernet Layer-3 lite POE switch with 48GE ports and 6x10G/GE ports (1 console port, 48 GE POE TX ports, 6x10G/GE SFP+ ports; AC-220V+DC-48V power supplies, 370W AC POE power, 740W DC POE power, with cooling fan; 1U; standard 19-inch rack-mounted installation)
Optical Modules	
10GE Optical Modules	
SFP-1000-RJ45	10GE SFP+-to-RJ45 module
SFP-1000-SR	10GE SFP+ multi-mode, 300m, 850nm, LC, DDM
SFP-1010-LR	10GE SFP+ single-mode, 10km, 1310nm, LC, DDM
SFP-1020-LR	10GE SFP+ single-mode, 20km, 1310nm, LC, DDM
SFP-1040-ERL	10GE SFP+ single-mode, 40km, 1310nm, LC, DDM
SFP-1080-ZR	10GE SFP+ single-mode, 80km, 1550nm, LC, DDM
SFP-1020-WA	10GE SFP+ BiDi, 20km, Tx1270/Rx1310, LC, DDM
SFP-1020-WB	10GE SFP+ BiDi, 20km, Tx1310/Rx1270, LC, DDM
SFP-1040-WA	10GE SFP+ BiDi, 40km, Tx1270/Rx1310, LC, DDM
SFP-1040-WB	10GE SFP+ BiDi, 40km, Tx1310/Rx1270, LC, DDM
SFP-1080-WA	10GE SFP+ BiDi, 80km, Tx1490/Rx1550, LC, DDM
SFP-1080-WB	10GE SFP+ BiDi, 80km, Tx1550/Rx1490, LC, DDM
Gigabit Optical Modules	
SFP-7000-RJ45A	10/100/1000Mb Base-T, RJ45 Copper
SFP-7000-85	Gigabit SFP multi-mode, 500m, 850nm, LC, DDM
SFP-7010-31	Gigabit SFP single mode, 10km, 1310nm, LC, DDM
SFP-7020-31	Gigabit SFP single mode, 20km, 1310nm, LC, DDM
SFP-7040-31	Gigabit SFP single mode, 40Km, 1310nm, LC, DDM
SFP-7080-55	Gigabit SFP single mode, 80Km, 1550nm, LC, DDM
SFP-7010-WA	Gigabit SFP BiDi, 10km, Tx1310/Rx1550, LC, DDM
SFP-7010-WB	Gigabit SFP BiDi, 10km, Tx1550/Rx1310, LC, DDM
SFP-7020-WA	Gigabit SFP BiDi, 20km, Tx1310/Rx1550, LC, DDM
SFP-7020-WB	Gigabit SFP BiDi, 20km, Tx1550/Rx1310, LC, DDM
SFP-7040-WA	Gigabit SFP BiDi, 40km, Tx1310/Rx1550, LC, DDM
SFP-7040-WB	Gigabit SFP BiDi, 40km, Tx1550/Rx1310, LC, DDM
SFP-7080-WA	Gigabit SFP BiDi, 80km, Tx1490/Rx1550, LC, DDM
SFP-7080-WB	Gigabit SFP BiDi, 80km, Tx1550/Rx1490, LC, DDM