

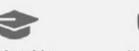
Stackable Managed Switch with 48GE PoE ports, 6 x 10GE/GE SFP+ ports



#### Ideal for:









**Public Places** 











### **OVERVIEW**

BC3348PGM4TS-740W 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



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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; Ulnnovative 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

### **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.
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#### 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.



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#### **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 gueues 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 like 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.



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### **Specifications**

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°C (dBA)         45           MTBF(H)         >200,000           Forwarding mode         Store-forward           Flash (MB)         16           DRAM (MB)         512           MAC         16K           Buffer size (MB)         1.5           Interface VLAN         64           Routing table         512           Jumbo frame         9K	Interface	48GE RJ45 PoE, 6×10GE/GE SFP+ ports
Forwarding Rate (Mpps with 64 bytes)  Chassis Dimension (W x D x H)  Chassis Weight (empty)  5.2KGs  Package Dimension (W x D x H)  Package Weight  6.1KGs  Power consumption (No-load)  Power consumption (Full load)  Power supply (AC: 100-240V/ DC: 36-72V)  POE power budget  370W AC or 740W DC  Total output BTU (1000BTU/H=293W)  Fan Number  2  Noise@25°C (dBA)  MTBF(H)  Powarding mode  Flash (MB)  DRAM (MB)  512  MAC  Buffer size (MB)  Interface VLAN  Routing table  512	Console	1 RJ45
Chassis Dimension (W x D x H)  Chassis Weight (empty)  5.2KGs  Package Dimension (W x D x H)  Package Weight  6.1KGs  Power consumption (No-load)  Power consumption (Full load)  Power supply (AC: 100-240V/ DC: 36-72V)  POE power budget  70tal output BTU (1000BTU/H=293W)  Fan Number  Noise@25°C (dBA)  MTBF(H)  Power dBA (MB)  DRAM (MB)  512  MAC  Buffer size (MB)  Interface VLAN  Routing table  576x448x94mm  46.1KGs  64.46x300x44mm  425W  425W  425W  425W  430W AC and 800W DC  450W AC and	Backplane	216 Gbps
Chassis Weight (empty)  Package Dimension (W x D x H)  Package Weight  6.1KGs  Power consumption (No-load)  Power consumption (Full load)  Power supply (AC: 100-240V/ DC: 36-72V)  POE power budget  Total output BTU (1000BTU/H=293W)  Fan Number  2  Noise@25°C (dBA)  MTBF(H)  Power dBA  Store-forward  Flash (MB)  DRAM (MB)  512  MAC  Buffer size (MB)  Interface VLAN  Routing table  556x448x94mm  576x448x94mm  576x48x94mm  576x4x94mm  576x4x94mm  576x4x8x94mm  576x4x8x94mm  576x4x8x94mm  576x4x8x94mm  5	Forwarding Rate (Mpps with 64 bytes)	162 Mpps
Package Dimension (W x D x H)  Package Weight  6.1KGs  Power consumption (No-load)  Power consumption (Full load)  Power supply (AC: 100-240V/ DC: 36-72V)  POE power budget  Total output BTU (1000BTU/H=293W)  Fan Number  2  Noise@25°C (dBA)  MTBF(H)  Forwarding mode  Flash (MB)  DRAM (MB)  DRAM (MB)  512  Interface VLAN  Routing table  576x448x94mm  576x448x94mm  6.1KGs  64  6.1KGs  64  6.1KGs  64  6.1KGs  64  6576x448x94mm  66.1KGs  66  6576x448x94mm  66.1KGs  66  6576x448x94mm  66.1KGs  66  6576x448x94mm  66.1KGs  66  6576x48x94mm  66.1KGs  66  676x48x94mm  66.1KGs  676x48x94mm  66.1KGs  676x48x94mm  66.1KGs  676x48x94mm  66.1KGs  676x48x94mm  676x48x94mm  676x48x94mm  676x48x94mm  676x48x94mm  676x448x94mm  676x48x94mm  676x448x94mm  676x48x94mm  676x48x48x94mm  676x48x48x94mm  676x48x48x94mm  676x48x48x94mm  676x48x48x94mm  676x48x48x94mm  676x48x48x94mm  676x48x48x94mm  676x48x48x48x4  676x48x48x94mm  676x48x48x4  676x48x4  676x48x4  676x4x48x4  676x4x48x4  676x4x4  676x4  676x4  676x4  676x4  676x4  676x4  676x4  676x4  676x4  676	Chassis Dimension (W x D x H)	440x300x44mm
Package Weight Power consumption (No-load) Power consumption (Full load) Power supply (AC: 100-240V/ DC: 36-72V) Power supply (AC: 100-240V/ DC: 36-72V) 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°C (dBA) MTBF(H) >200,000 Forwarding mode Flash (MB) 16 DRAM (MB) 512 MAC 16K Buffer size (MB) Interface VLAN Routing table  512	Chassis Weight (empty)	5.2KGs
Power consumption (No-load)  Power consumption (Full load)  Power supply (AC: 100-240V/ DC: 36-72V)  POE power budget  Total output BTU (1000BTU/H=293W)  Fan Number  Noise@25°C (dBA)  MTBF(H)  Powarding mode  Flash (MB)  DRAM (MB)  DRAM (MB)  Store-forward  1.5  Interface VLAN  Routing table  Stoward (without POE)  45W (without POE)  45W AC and 800W DC  45W AC and 800W DC  153W AC and 800W AC and 80	Package Dimension (W x D x H)	576x448x94mm
Power consumption (Full load)  Power supply (AC: 100-240V/ DC: 36-72V)  POE power budget  Total output BTU (1000BTU/H=293W)  Fan Number  Noise@25°C (dBA)  MTBF(H)  Forwarding mode  Flash (MB)  DRAM (MB)  MAC  Buffer size (MB)  Interface VLAN  Routing table  Store-forward  450W AC and 800W DC  450W AC or 740W AC or 740W AC or 740W AC or 740W AC  450W AC or 740W AC  450W AC or 740W AC or 74	Package Weight	6.1KGs
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°C (dBA)       45         MTBF(H)       >200,000         Forwarding mode       Store-forward         Flash (MB)       16         DRAM (MB)       512         MAC       16K         Buffer size (MB)       1.5         Interface VLAN       64         Routing table       512	Power consumption (No-load)	<25W
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°C (dBA)       45         MTBF(H)       >200,000         Forwarding mode       Store-forward         Flash (MB)       16         DRAM (MB)       512         MAC       16K         Buffer size (MB)       1.5         Interface VLAN       64         Routing table       512	Power consumption (Full load)	<48W (without POE)
Total output BTU (1000BTU/H=293W)  Fan Number  2  Noise@25℃ (dBA)  45  MTBF(H)  >200,000  Forwarding mode  Store-forward  Flash (MB)  16  DRAM (MB)  512  MAC  Buffer size (MB)  Interface VLAN  Routing table  1535.84@AC, 2730.38@DC  166  1535.84@AC, 2730.38@DC  166  1535.84@AC, 2730.38@DC  166  1535.84@AC, 2730.38@DC  166  1535.84@AC, 2730.38@DC  1535.84@AC, 2730.38@DC  1535.84@AC, 2730.38@DC  1535.84@AC, 2730.38@DC  1535.84@AC, 2730.38@DC	Power supply (AC: 100-240V/ DC: 36-72V)	450W AC and 800W DC
Fan Number 2 Noise@25°C (dBA) 45 MTBF(H) >200,000 Forwarding mode Store-forward  Flash (MB) 16 DRAM (MB) 512 MAC 16K Buffer size (MB) 1.5 Interface VLAN 64 Routing table 512	POE power budget	370W AC or 740W DC
Noise@25°C (dBA) 45  MTBF(H) >200,000  Forwarding mode Store-forward  Flash (MB) 16  DRAM (MB) 512  MAC 16K  Buffer size (MB) 1.5  Interface VLAN 64  Routing table 512		
MTBF(H) >200,000  Forwarding mode Store-forward  Flash (MB) 16  DRAM (MB) 512  MAC 16K  Buffer size (MB) 1.5  Interface VLAN 64  Routing table 512	Total output BTU (1000BTU/H=293W)	<b>1535.84@AC</b> , 2730.38@DC
Forwarding mode  Flash (MB)  DRAM (MB)  512  MAC  Buffer size (MB)  Interface VLAN  Routing table  Store-forward  16  16  16  512		
Flash (MB) 16  DRAM (MB) 512  MAC 16K  Buffer size (MB) 1.5  Interface VLAN 64  Routing table 512	Fan Number	2
DRAM (MB) 512  MAC 16K  Buffer size (MB) 1.5  Interface VLAN 64  Routing table 512	Fan Number Noise@25℃ (dBA)	2 45
MAC 16K Buffer size (MB) 1.5 Interface VLAN 64 Routing table 512	Fan Number  Noise@25℃ (dBA)  MTBF(H)	2 45 >200,000
Buffer size (MB)  Interface VLAN  Routing table  1.5  512	Fan Number  Noise@25℃ (dBA)  MTBF(H)  Forwarding mode	2 45 >200,000 Store-forward
Interface VLAN 64 Routing table 512	Fan Number  Noise@25℃ (dBA)  MTBF(H)  Forwarding mode  Flash (MB)	2 45 >200,000 Store-forward 16
Routing table 512	Fan Number  Noise@25℃ (dBA)  MTBF(H)  Forwarding mode  Flash (MB)  DRAM (MB)	2 45 >200,000 Store-forward 16 512
	Fan Number  Noise@25°C (dBA)  MTBF(H)  Forwarding mode  Flash (MB)  DRAM (MB)  MAC	2 45 >200,000 Store-forward 16 512 16K
Jumbo frame 9K	Fan Number  Noise@25°C (dBA)  MTBF(H)  Forwarding mode  Flash (MB)  DRAM (MB)  MAC  Buffer size (MB)	2 45 >200,000 Store-forward 16 512 16K 1.5
	Fan Number  Noise@25°C (dBA)  MTBF(H)  Forwarding mode  Flash (MB)  DRAM (MB)  MAC  Buffer size (MB)  Interface VLAN	2 45 >200,000 Store-forward 16 512 16K 1.5



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### **Ordering Information**

PART NO DESCRIPTION

BC3348PGM4TS-740W (Stackable)

Ethernet Layer-3 lite POE switch with 48GE ports and 6x10GE/GE ports (1 console port, 48 GE POE TX ports, 6x10GE/GE SFP+ ports; standard AC220V power supply, 370W AC POE power, 740W DC POE power, the cooling fan; 1U; standard 19-inch rack-mounted installation)







