BELLCOMMS ®

SFP Fiber Switch BC-0862

สเปคราชการ
กระทรวง ICT

SWITCH ETHERNET
CATALOG

- **100 Mbps Switch Ethernet Series**
- **1000 Mbps Switch Ethernet Series**

Content

Ethernet Switch Unmanage, Commercial Series

100Mbps Ethernet Switch Unmanage, Commercial Series

	Part Number	Fiber Port					RJ45 Port			Function	Name	Page
		Port	Connctor	Typ	Wavelength	Distance	Port	Connctor	Typ			
	BC-0104	1-port	SC	100Base-Fx	Duplex FO 1310nm	20Km.	4-port	RJ45	10/100Base-Tx	VLAN	Ethernet Switch	03
	SMD-008	-	-	-	-	-	8-port	RJ45	10/100Base-Tx	-	Ethernet Switch	04
	SMD-2402	2-port/ Combo	SFP slot	1000Base-X	850/1310/1550nm Sim/Dup FO	Up to 120Km.	24-port 2-port/Combo	RJ45 RJ45	10/100Base-Tx 10/100Base-Tx	Uplink Combo port	Ethernet Switch	05

1000Mbps Ethernet Switch Unmanage, Commercial Series

	Part Number	Fiber Port					RJ45 Port			Function	Name	Page
		Port	Connctor	Typ	Wavelength	Distance	Port	Connctor	Typ			
	BC-0802	8-port	SFP slot	1000Base-X	850/1310/1550nm Sim/Dup FO	Up to 120Km.	2-port	RJ45	10/100/1000Base-T	-	Ethernet Switch	06
	BCG-0208	2-port	SFP slot	1000Base-X	850/1310/1550nm Sim/Dup FO	Up to 120Km.	8-port	RJ45	10/100/1000Base-T	-	Ethernet Switch	07
	BCG-24044	24-port 4-port/Combo	SFP slot SFP slot	1000Base-X 1000Base-X	850/1310/1550nm Sim/Dup FO	Up to 120Km.	4-Port/Combo	RJ45	10/100/1000Base-T	Uplink Combo port	Ethernet Switch	08
	BCG-2400	-	-	-	-	-	24-port	RJ45	10/100/1000Base-T	-	Ethernet Switch	09

1000Mbps Ethernet Switch Manage Layer-2, Commercial Series

	Part Number	Fiber Port					RJ45 Port			Function	Name	Page	
		Port	Connctor	Typ	Wavelength	Distance	Port	Connctor	Typ				
	BCG-0802P	2-port	SFP slot	100/1000Base-X	850/1310/1550nm Sim/Dup FO	Up to 120Km.	8-port	RJ45	10/100/1000Base-T	VLAN, Spaning Tree	Ethernet Switch Manage	10	ICT TOR
	BCG-2404P	4-port/Combo	SFP slot	100/1000Base-X	850/1310/1550nm Sim/Dup FO	Up to 120Km.	24-port	RJ45	10/100/1000Base-T	VLAN, Spaning Tree	Ethernet Switch Manage	11	ICT TOR
	BC-33108	2-port	SFP slot	1000Base-X	850/1310/1550nm Sim/Dup FO	Up to 120Km.	8-port	RJ45	10/100/1000Base-T	VLAN, Spaning Tree	Ethernet Switch Manage	12	ICT TOR
	BC-33116	2-port/Combo	SFP slot	1000Base-X	850/1310/1550nm Sim/Dup FO	Up to 120Km.	16-port	RJ45	10/100/1000Base-T	VLAN, Spaning Tree	Ethernet Switch Manage	13	ICT TOR
	BC-33124	4-port/Combo	SFP slot	1000Base-X	850/1310/1550nm Sim/Dup FO	Up to 120Km.	24-port	RJ45	10/100/1000Base-T	VLAN, Spaning Tree	Ethernet Switch Manage	14	ICT TOR

Sim = Simplex, Dup = Duplex, FO = Fiber Optic

สเปคราชการ
กระทรวง ICT

BC-0104

4-port 10/100Base-TX RJ45 to 1-port 100Base-Fx/SC Duplex Singlemode Fiber, 20Km, Ethernet Switch, VLAN
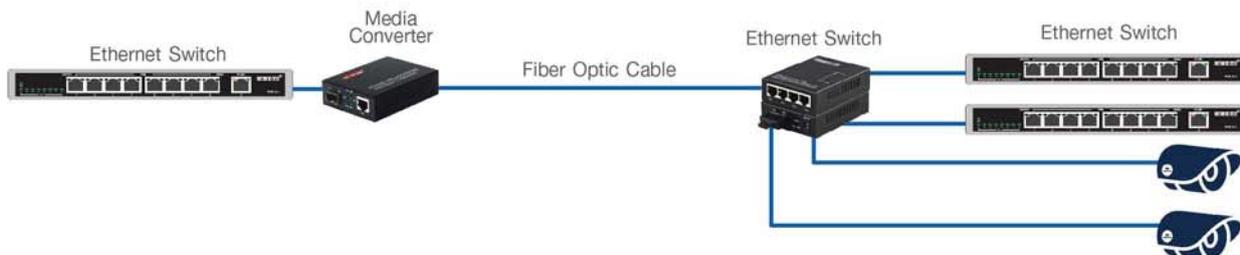
Feature and Descriptions

- 10/100Mbps auto-sensed, facilitating network upgrade
- VLAN configuration optional by dip-switch
- Flow control and reduce broadcast packets
- Providing four respective 10M/100Mbps adaptive twisted pair switching ports to implement the backup of electrical ports and the access of multiple users
- Supporting full-duplex and half-duplex and its auto-sensed, Auto MDI/MDIX
- Supporting the transmission of extra-long packets up to 1536 bytes
- Supporting Quality of Service (QoS) and ensuring the transmission of VoIP packets
- Supporting STP to form a redundant network
- Low power consumption, low heat, reliable and stable performance, and long lifetime
- Options in single mode in dual fiber, multi-mode in dual fiber, and single mode in single fiber

Application

- Network Communication
- FTTH / FTTB / FTTx
- ISP Backhaul Networking

4-UTP port Switch is 10/100Mbps Ethernet media converter, can inter-convert electrical signals of 10Base-T and/or 100Base-TX twisted pairs with optical signals of 100Base-FX. It extends the transmission distance of a network from 100m via copper cables to 20km with Signle model Fiber Cable

Specification	Descriptions
Access mode	10/100Mbps
Standard	IEEE802.3 10Base-T Ethernet,IEEE802.3u 100Base-TX/FX Fast Ethernet, IEEE802.3x Flow control, IEEE802.1q VLAN,IEEE802.1p QoS,IEEE802.1d Spanning Tree
Wavelength	Singlemode: 1310nm
Transmission distance	Single-mode:20km and Multimode: 2km ; Category-5 twisted pairs: 100m
Port	Four RJ45 port: For connecting STP/UTP category-5 twisted pairs One Duplex optical port: SM: SC (9/125µm) or (50, 62.5/125µm)
Conversion means	Media conversion, store-and-forward
MAC address table	1K
Buffer space	1Mbit
Flow control	Full duplex: flow control; Half duplex: back pressure
Delay	9.6µs
BER	<10-9
MTBF	100,000 hours
LED indicator	PWR (power supply); FDX (FX full duplex) FX LINK/ACT (optical link/action) FX 100M (fiber 100M transmission rate) TP1/2/3/4 LINK/ACT (1/2/3/4 port twisted pair link action) TP1/2/3/4 100M (1/2/3/4 port twisted pair 100M transmission rate)
Power supply	DC5V 1A (external)
Power consumption	3.5W
Operating temperature	-10~55°C
Operating humidity	5%~90%
Maintaining temperature	-40~70°C
Maintaining humidity	5%~90% non-condensing
Dimensions	98mm * 72mm* 26 mm (external power supply)

Order Part Number as Below.

Part Number.   **Descriptions**
BC-0104   4-port 10/100Base-TX RJ45 to 1-port 100Base-Fx/SC Duplex Singlemode Fiber, Wavelength 1310nm , 20Km, Ethernet Switch, VLAN

SMD-008

8-port 10/100Base-TX RJ45 Ethernet Switch

FRONT

BACK

Feature and Descriptions

- IEEE802.3, IEEE 802.3u, IEEE 802.3ab, IEEE802.3z
- Provides 8 x 10/100Base-TX ports
- High back-plane bandwidth 1Gbps
- 1K MAC address table
- Reliable Power Adapter
- IEEE802.3x Flow control
- Surge protection for power port and data ports
- Plug and play, no configuration required
- EMI standards complies with FCC, CE class B

Application

- Network Communication
- FTTH / FTTB / FTTx
- ISP Backhaul Networking

he SMD-008 is a low-cost desktop 8 ports 10/100M network switch. It provides 8 10/100Mbps Auto-Negotiation RJ45 ports. All ports support Auto MDI/MDIX function, eliminating the need for crossover cables or Uplink ports. The Switch is Plug-and-Play and each port can be used as general ports or Uplink ports and can be simply plugged into a server, a hub or a switch, using straight cable or crossover cable. The SMD-008 is a metal-shell device which is useful for the small office and home using.

Specification	Descriptions
Fixed port	8-Ports 10/100Mbps Auto-Negotiation RJ45 ports (Auto MDI/MDIX)
Forwarding Rate	10BASE-T: 14880pps/port 100BASE-TX: 148800pps/port
Basic Function	full duplex wire-speed forwarding MAC Address Auto-Learning and Auto-updating IEEE802.3x flow control for Full-Duplex Mode and 802.3z asymmetric flow Control
Network Media	10Base-T: UTP category 3, 4, 5 cable (maximum 100m), EIA/TIA-568 100Ù STP (maximum 100m). 100Base-Tx: UTP category 5, 5e cable (maximum 100m), EIA/TIA-568 100Ù STP (maximum 100m)
LED Indicators	PWR, Link/Act
Power Supply	AC Power adaptor 12V 0.5A
Operating temperature	0°C~40°C,
Storage temperature	-40°C~70°C
Operating Humidity	10%~90% non-condensing
Storage Humidity	5%~90% non-condensing
Relative humidity	20%~85% (non-condensing).
Thermal methods	Fanless.
Switching capacity	1.6G.
MAC address table	1K.
Traffic control	IEEE 802.3x full-duplex flow control.
Size	13.7*7.5*2.5cm
Packing Size	19.1*14.1*6.4cm
Unit weight	420g
Package	SMD-008 Network Switch User Manual Power Adapter Warranty Card

Ethernet Switch

Media Converter

Fiber Optic Cable

Ethernet Switch
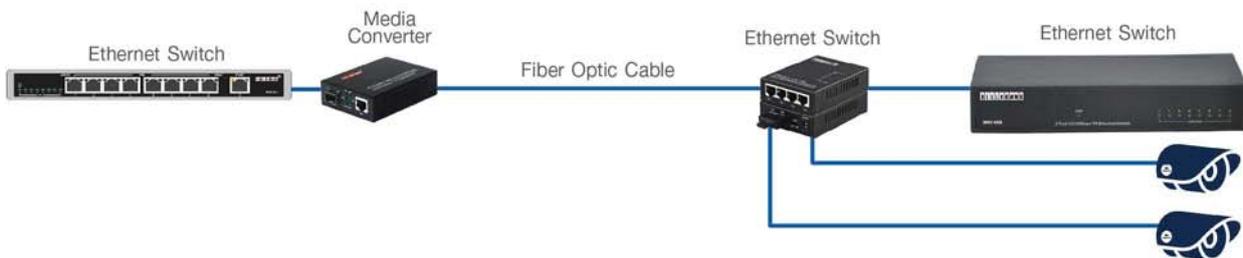
Ethernet Switch

Order Part Number as Below.

Part Number.   **Descriptions**
SMD-008   8-port 10/100Base-TX RJ45, Ethernet Switch

SMD-2402

24-port 10/100Base-TX RJ45 to
2-port 10/100/1000Base-T RJ45 Combo
2-port 1000Base-X SFP slot, up to 120Km Combo
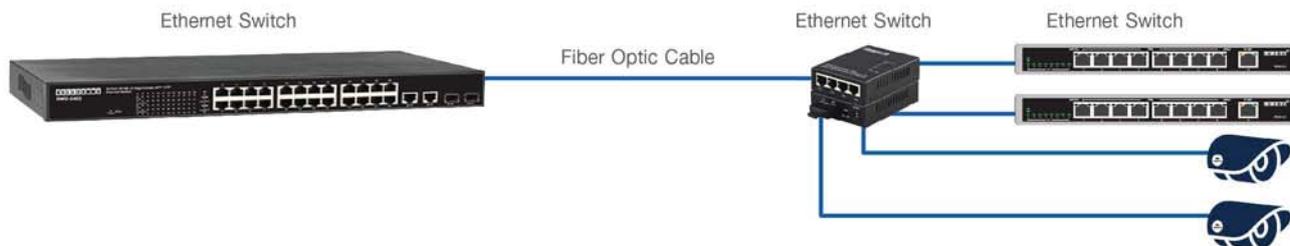## Ethernet Switch, 19" Rackmount

Feature and Descriptions

- 10/100Mbps auto-sensed, facilitating network upgrade
- VLAN configuration optional by dip-switch
- Flow control and reduce broadcast packets
- Providing four respective 10M/100Mbps adaptive twisted pair switching ports to implement the backup of electrical ports and the access of multiple users
- Supporting full-duplex and half-duplex and its auto-sensed, Auto MDI/MDIX
- Supporting the transmission of extra-long packets up to 1536 bytes
- Supporting Quality of Service (QoS) and ensuring the transmission of VoIP packets
- Supporting STP to form a redundant network
- Low power consumption, low heat, reliable and stable performance, and long lifetime
- Options in single mode in dual fiber, multi-mode in dual fiber, and single mode in single fiber

Application

- Network Communication
- FTTH / FTTB / FTTx
- ISP Backhaul Networking

24+2G network Switch which is designed by Shenzhen Hi-Net Technology Company. It is designed for residential building in the corridor-level broadband switching equipment, for the edge of the access and LAN to provide high-quality network connections. The SMD-2402 is 19" case-shaped device with 1U high. It provides 24-Ports 10/100 Base-TX ports and 2 Gigabit Combo Ports (SFP+RJ45). The SMD-2402 can provide you an easy, economic, high-performance solution for networking, which is your ideal choice for high-speed networking.

Specification	Descriptions
Fixed port	24-Ports 10/100Base-TX ports and 2 Gigabit Combo Ports (SFP+RJ45)
LED Indicators	PWR, Speed, Link/Act VLAN LED.
Input voltage	100V~240V AC, 50/60Hz
Transmission Method	Store and Forward
Forwarding Speed	10Mbps : 14880pps 100Mbps : 148800pps 1000Mbps : 1488000pps
Power consumption	5W
Operating temperature	0°C~40°C.
Storage temperature	-10°C~70°C.
Relative humidity	20%~85% (non-condensing).
Thermal methods	Fanless.
Switching capacity	8.8G.
MAC address table	8K.
Traffic control	IEEE 802.3x full-duplex flow control.
Unit Size	44*20*4.4cm
Weight	<3KG
package	Carton Box
Package	SMD-2402 Network Switch User Manual Warranty Card Power Cord*1 Rack Mount Kit*2 Rubber Feet*4

Ethernet Switch   Fiber Optic Cable   Ethernet Switch   Ethernet Switch

Order Part Number as Below.

Part Number.	Descriptions
SMD-2402	24-port 10/100Base-TX RJ45 to 2-port 10/100/1000Base-T RJ45 Combo 2-port 1000Base-X SFP slot, up to 120Km Combo Ethernet Switch, 19" Rackmount

BELLCOMMS®

BC-0802

2-port 10/100/1000Base-T RJ45
8-port 1000Base-X SFP slot, up to 120Km
Ethernet Switch, 19" Rack Mount

Feature and Descriptions
- 8 port 1000Base-Fx SFP to 2 port 1000Base-Tx RJ45 Fiber Ethernet Switch.
- 10/100/1000Mbps auto-negotiation, auto-MDI-MDI-X.
- Complies IEEE802.3, 10BASE-T; IEEE802.3u, IEEE802.3ab, IEEE802.3z, IEEE802.3ae, IEEE802.3x.
- Full/Half duplex auto-negotiation.
- Back pressure flow control for full duplex.
- Converter mode with auto-change-forward(Switch)function.
- Back pressure flow control for full/half duplex IEEE802.3X.
- Support 1.25G SFP module.
- Rack Mounting installation.

Application
- Network Communication
- FTTH / FTTB / FTTx
- ISP Backhaul Networking

The BC-0802 Unmanaged SFP Fiber Ethernet Switch is a high performance Layer 2 Gigabit Ethernet switch for service providers. The switch provides an uplink port 2*100/100/1000Base-Tx and 8*1000BaseX SFP slot on the downstream port.

The BC-0802 switch is designed for emerging Ethernet-based FTTX applications. The switch is feature-rich and widely used. It is especially suitable for access networks and small-to-medium-sized private networks. The appearance is 19 inches and only 1U. With a high standard rack, the switching chip adopts multiple newest PHY integration combinations from the United States, and has the highest Gigabit port density, providing users with the best performance/price ratio.

The BC-0802 series switches mainly include FTTx, fiber-optic LAN, industrial Ethernet, Ethernet-based high-reliability industrial distributed control system (DCS) and optical fiber digital video surveillance systems. Support universal hot-swappable SFP optical modules. It can be connected to fiber switches, optical transceivers, and various types of terminators that contain fiber interfaces. It supports super-high-definition video streaming capabilities, streamline network structures, and can provide up to 20Gbps of switching capacity. It can meet the different requirements of large-scale network convergence or small and medium-sized network cores. All ports support line-speed forwarding and MDI/MDIX auto-flip function, which enables plug-and-play operation without management.

Specification	Descriptions
Product Name	8 Port 1000Base-Fx SFP to 2-port 1000Base-Tx RJ45 Fiber Ethernet Switch
Interface	8 Port 1000Base-Fx SFP slot + 2 Port 1000Base-Tx RJ45 Ethernet
PoE	Non PoE
Switch Architecture	Store and Forward
MAC Address Table	8K
Switch Bandwidth	20Gbps
Cache	4M
Packet Forwarding Rate	14.88Mpps
Flow Control	Full-duplex: IEEE 802.3x pause frame; Half-duplex: Back pressure
Network protocol	IEEE802.3 10BASE-T; IEEE802.3i 10Base-T;IEEE802.3u;100Base-TX/FX;
Network Media	IEEE802.3ab 1000Base-T; IEEE802.3z 1000Base-X; IEEE802.3x; 10BASE-T: Cat3,4,5 UTP(≤100 meter) ; 100BASE-TX: Cat5 or later UTP(≤150 meter)
Fiber Media	1000BASE-TX: Cat6 or later UTP(≤150 meter) SFP Fiber connector: Multi-mode: 1310nm, 2KM and Single-mode: 1310nm, 20KM; 1550nm, 40/60/80KM
Power Input	Input Voltage: DC 5V
Cooling System	Double Fan, Automatic Temperature Control, Failure Alarm
LED Display	PWR; ACT/LNIK
Shell	Metal shell
Installation	1U Rack-Mount
MTBF	100000 Hours
Power Consumption	<9 watts
Operating Environment	-40~85 °C
Storage Environment	-45~85 °C
Operating Humidity	10%~90%(non-condensing)
Storage Humidity	5%~90%(non-condensing)
Dimensions(W×D×H)	216mm×133mm×30mm
Weight	0.8KG

Ethernet Switch   Fiber Optic Cable   Ethernet Switch   Ethernet Switch
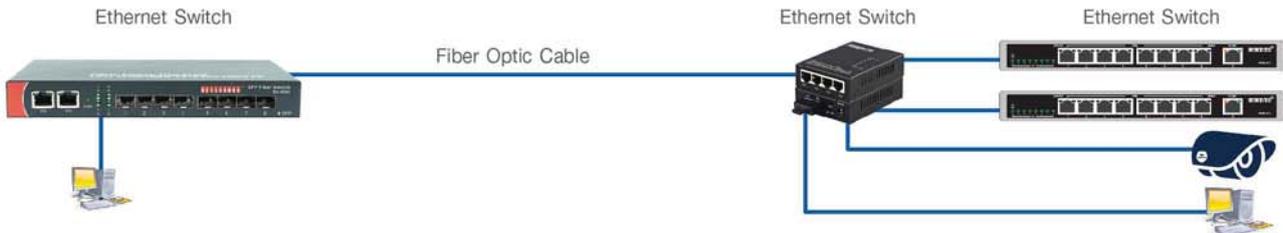
Order Part Number as Below.

Part Number.	Descriptions
BC-0802	2-port 10/100/1000Base-T RJ45 8-port 1000Base-X SFP slot, up to 120Km Combo Ethernet Switch, 19" Rack Mount

BCG-0208

8-port 10/100/1000Base-T RJ45
2-port 1000Base-X SFP slot, up to 120Km
Ethernet Switch, 19" Rack Mount

Feature and Descriptions
- Support 10/100/1000Base-T and 1000Base-SX/LX Stardnard
- 8-RJ45 ports auto 10/100/1000M,
- Flow control for full duplex and half duplex
- 2-SFP sockets support hot plug, all 1.25G SFP modules
- Supports Auto MDI / MDI-X function
- Broadcast storm protection
- Supporting the transmission of extra-long VLAN packets 1632bytes

Application
- Network Communication
- FTTH / FTTB / FTTx
- ISP Backhaul Networking

10/100/1000M Ethernet Optical Fiber Switch with eight 10/100/1000M UTP ports and two 1000M SFP sockets. The end users can use different SFP module according to his requirement, for example: 1000Base-T, 1000Base-SX, 1000Base-LX etc.

Specification	Descriptions
Access mode	10/100/1000Mbps
Standard	IEEE 802.3/u/z/ab,10Base-T, 100Base-TX, 1000Base-T and 1000Base-X
Wavelength	850nm/1310nm/1550nm and Bidi
Transmission distance	Fiber Optic: depends on the SFP module; Category-5 twisted pair: 100m
Port	Eight RJ45 ports: Connecting with STP/UTP category-5 twisted pairs Two optical port: LC(SFP module)
MAC address table	8K
Flow control	Full duplex: flow control; half duplex: back pressure
Power supply	AC100~240V, 50/60Hz; DC5V 2A
Operating temperature	-10~55°C
Operating humidity	5%~90%
Maintaining temperature	-40~70°C
Maintaining humidity	5%~90% non-condensing
Color	Metal/Black
Size	209*130*32mm

Ethernet Switch

Fiber Optic Cable

Ethernet Switch   Ethernet Switch
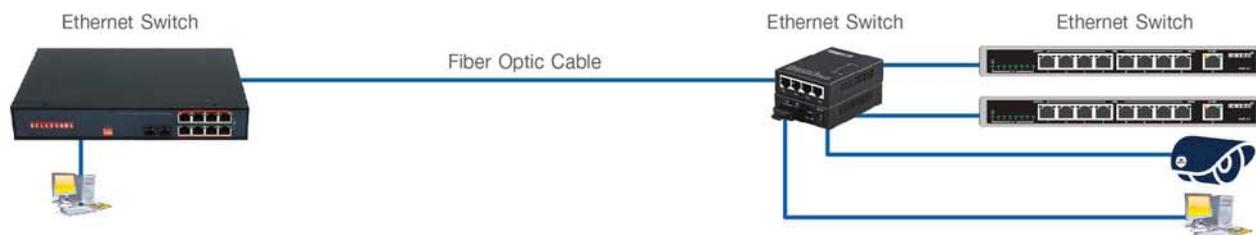
Order Part Number as Below.

Part Number. **Descriptions**
BCG-0208   8-port 10/100/1000Base-T RJ45
                2-port 1000Base-X SFP slot, up to 120Km
                Ethernet Switch, 19" Rack Mount

BCG-24044

24-port 1000Base-X SFP slot up to 120Km to
4-port 1000Base-X SFP slot, up to 120Km Combo
4-port 10/100/1000Base-T RJ45 Combo
Ethernet Switch, 19" Rack Mount

Feature and Descriptions

- Uplink port 4*COMBO (4x10/100/1000Base-T or 4*1000Base-X SFP slot),Downlink port 24*1000BaseX SFP slot
- Compatible with single-mode/multi-mode, single-fiber/double-fiber SFP optical modules, or electrical modules (hot swappable)
- Supports multiple modes of SFP optical modules or modular plugs
- Standard 1U rack design, built-in dual cooling fans, stable operation
- Low power consumption (24W), low heat generation, good stability
- RJ45 supports automatic MDI / MDI-X function
- Auto-negotiate speed, half/full duplex
- Supports flow control to prevent broadcast storms
- Store and Forward Mode
- Jumbo Frame Support 10kbytes
- AC90-264V wide range power input

Application

- Network Communication
- FTTH / FTTB / FTTx
- ISP Backhaul Networking

Overview

The BCG-24044 Unmanaged SFP Fiber Ethernet Switch is a high performance Layer 2 Gigabit Ethernet switch for service providers. The switch provides an uplink port 4*COMBO (4x10/100/1000Base-T or 4*1000Base-X SFP slot) and 24*1000BaseX SFP slot on the downstream port.

The BCG-24044 switch is designed for emerging Ethernet-based FTTX applications. The switch is feature-rich and widely used. It is especially suitable for access networks and small-to-medium-sized private networks. The appearance is 19 inches and only 1U. With a high standard rack, the switching chip adopts multiple newest PHY integration combinations from the United States, and has the highest Gigabit port density, providing users with the best performance/price ratio.

The BCG-24044 series switches mainly include FTTx, fiber-optic LAN, industrial Ethernet, Ethernet-based high-reliability industrial distributed control system (DCS) and optical fiber digital video surveillance systems. Support universal hot-swappable SFP optical modules. It can be connected to fiber switches, optical transceivers, and various types of terminators that contain fiber interfaces. It supports super-high-definition video streaming capabilities, streamline network structures, and can provide up to 56Gbps of switching capacity. It can meet the different requirements of large-scale network convergence or small and medium-sized network cores. All ports support line-speed forwarding and MDI/MDIX auto-flip function, which enables plug-and-play operation without management.

Specification	Descriptions
Standards	IEEE802.3 10Base-T IEEE802.3u 100Base-TX IEEE802.3ab 1000Base-T IEEE802.3z 1000Base-SX/LX standards IEEE802.3x Flow control and back pressure IEEE802.1d Spanning Tree
Performance	Processing Type: Store and Forward Back bandwidth: 56Gbps MAC Table Size: 16Kbit Packet Buffer Size: 6Mbit Time Delay: <5μs Frame: 10Kbytes
Copper Port	Data Rate: 10/100/1000M Connector: 4xRJ45(shielded) Distance: 100m
Fiber Port	Data Rate: 1.25G Connector: 24*1000Base-X(SFP)
LED indicators	PWR (Red light); G1~G24(Optical port indicator) G25~G28(Combo port indicator)
Power	AC: 90~264V/47~67Hz
Environment	Operating temperature: -20~65°C Storage Temperature: -40~85°C Relative Humidity: 5-95% (no condensation)
Physical Characteristics	Dimension: 440*195*45mm Weight: 2.5kg (Does not include optical modules)

Ethernet Switch

Fiber Optic Cable

Ethernet Switch   Ethernet Switch
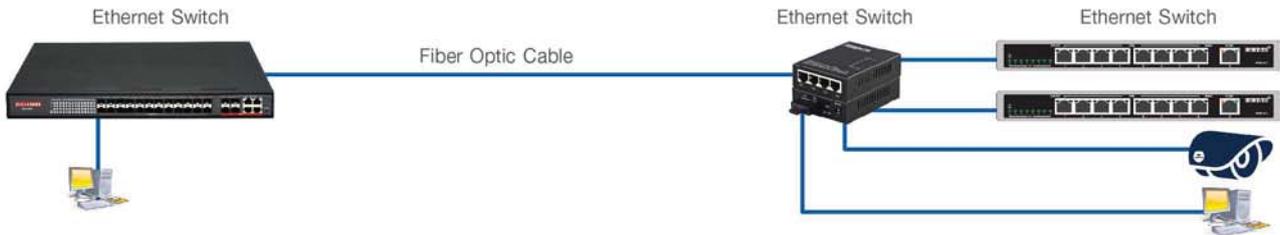
Order Part Number as Below.

Part Number.	Descriptions
BCG-24044	24-port 1000Base-X SFP slot up to 120Km to 4-port 1000Base-X SFP slot, up to 120Km Combo 4-port 10/100/1000Base-T RJ45 Combo Ethernet Switch, 19" Rack Mount

BCG-2400

24-port 10/100/1000Base-T RJ45 Ethernet Switch, 19" Rack Mount

Feature and Descriptions
- IEEE802.3, IEEE 802.3u, IEEE 802.3ab, IEEE802.3z
- Provides 24-Ports 10/100/1000 Base-TX ports
- Build in AC power
- High back-plane bandwidth 48Gbps
- 19'' rack-mounted metal case
- Up to 8k MAC address table size
- Surge protection for power port and data ports
- Plug and play, no configuration required
- IEEE802.3x Flow control
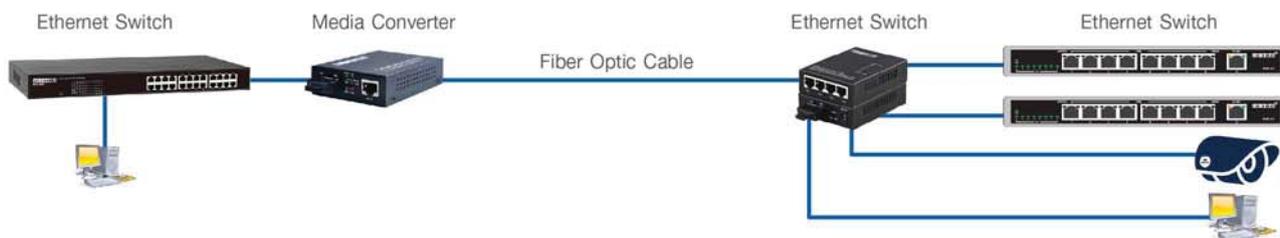- EMI standards complies with FCC, CE class B

Application
- Network Communication
- FTTH / FTTB / FTTx
- ISP Backhaul Networking

Overview
The BCG-2400 is 24 ports Gigabit Switch which is designed by Hi-Net Technology Company. It provides 24 10/100/1000Mbps Auto-Negotiation RJ45 ports and easy using for residential building in the corridor-level broadband switching equipment, for the edge of the access and LAN to provide high-quality network connections. The BCG-2400 network switch is designed based on a chassis of 1U high. It provides 24 10/100/1000M Base-TX ports. The BCG-2400 can provide you an easy, economic, high-performance solution for 1000M networking, which is your ideal choice for high-speed networking.

Specification	Descriptions
LED Indicators	PWR, 1000M, Link/Act LED.
Input voltage	100V~240V AC, 50/60Hz
Network Media	10BASE-TX: UTP category 5, 5e cable (≤250m) 100BASE-TX: UTP category 5, 5e cable (≤150m) 1000BASE-TX: UTP category 5, 5e cable (≤150m)
Forwarding Rate	10BASE-T: 14880pps/port 100BASE-TX: 148800pps/port 1000BASE-TX: 148800pps/port
Power consumption	15W
Operating temperature	0°C~40°C.
Storage temperature	-10°C~70°C.
Relative humidity	20%~85% (non-condensing).
Thermal methods	Built-in Noiseless FAN.
Layer 2 Switching Switching capacity	48G
Layer 2 Switching MAC address table	8K
Package Unit Size	44*20*4.4cm
Package Weight	2.5KG
package	Carton Box
Package	S2624Network Switch User Manual Power Cord*1 Rack Mount Kit*2 Rubber Feet*4 Warranty Card

Ethernet Switch Media Converter Fiber Optic Cable Ethernet Switch Ethernet Switch

Order Part Number as Below.

Part Number.   **Descriptions**
BCG-2400   24-port 10/100/1000Base-T RJ45
                    Ethernet Switch, 19" Rack Mount

BELLCOMMS®

BCG-0802P

8-port 10/100/1000Base-T RJ45 to 2-port 100/1000Base-X SFP slot, up to 120Km Ethernet Switch Manage L2 19" Rack Mount

FC CE RoHS ISO

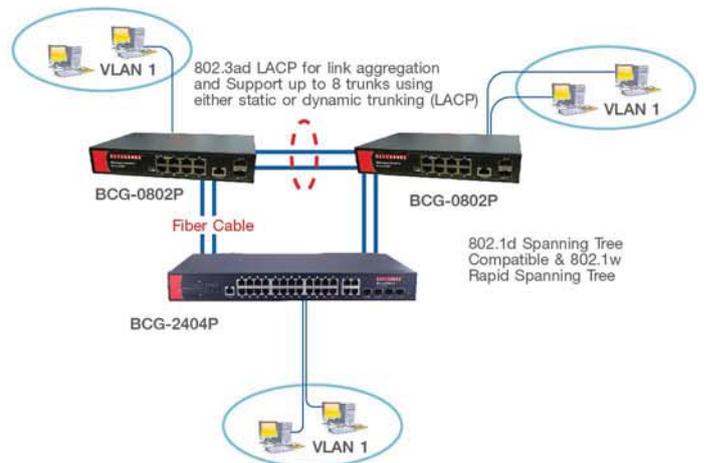สเปคราชการ
กระทรวง ICT

Feature and Descriptions
- 8 ports 10/100/1000Mbps RJ45+ 2 port 100/1000Mbps SFP Fiber+1 Console
- 10/100/1000Mbps auto-negotiation and auto MDI/MDI-X.
- Circuit protection prevents power interference between ports.
- L2+ management provide better manageability, security, QoS.
- Layer 2 managed switching features including 802.1Q VLAN, Mirroring,Port isolation, IGMP Snooping, DHCP Snooping, POE+ management, LLDP, IP Source Guard, ARP inspection, ACLs etc.
- Support spanning tree STP(802.1D) and RSTP(802.1W).
- Jumbo frames support up to 9.6K kilobytes.
- Support enhanced management through WEB, CLI, TELNET, SSH, SNMP.
- Support short-circuit protection function

Application
- Network Communication
- FTTH / FTTB / FTTx
- ISP Backhaul Networking

Layer 2 Management

Specification	Descriptions
Port Management	"Port disable/enable Auto-negotiation 10/100/1000Mbps full and half duplex mode selection Flow Control disable/enable Bandwidth Control/Broadcast Storm Control"
Port Mirroring	"TX / RX / Both Many-to-one Monitoring"
VLAN	"4K VLAN 802.1Q tagged-based VLAN, up to 30 VLAN groups, out of 4094 VLAN IDs Port-based VLAN, up to 10 VLAN groups"
QoS	"802.1p port queue priority algorithm Cos/Tos, QOS sign WRR (Weighted Round Robin),Weighted priority rotation algorithm WRR/SP/WFQ,3 priority scheduling models"
Spanning Tree Protocol	"STP(Spanning Tree Protocol) RSTP/MSTP(Rapid Spanning Tree Protocol) EPPS ring network protocol EAPS ring network protocol 802.1x argumentation agreement"
Link Aggregation	"Max 8 aggregation groups, each supports 8 ports Static aggregation and dynamic aggregation"
DHCP	DHCP Snooping
Loop Guard	Loop protection function, real-time detection, rapid alarm, accurate positioning, intelligent blocking, automatic recovery
Isolation	Support downlink ports isolated from each other and communicate with upstream port
Line Rate	Support port based input / output bandwidth management
IGMP Snooping	"IGMPv1/2/3 and MLDv1/2 Snooping GMRP protocol registration Multicast address management, multicast VLAN, multicast routing ports, static multicast addresses"
Storm Suppression	"Unknown unicast, multicast, unknown multicast, storm suppression of broadcast type Storm suppression based on bandwidth tuning and storm filtering"
Security	"User port+IP address+MAC ACL based on IP and MAC Security properties of port based MAC address quantities"
System Maintenance	"Upgrade package upload ; system log view WEB restore factory configuration"
Management	"WEB Management (support http and https protocol), CLI management Telnet remote management, SSH V1/V2, Support SNMP network management"

Specification	Descriptions
Network Connector	8-port 10/100/1000Mbps RJ45+2-port 100/1000Mbps SFP Fiber+1 Console Port
PoE Port	Non PoE
Switch Architecture	Store and Forward
MAC Address Table	8K
Switch Bandwidth	20G
Forwarding Rate	14.44Mpps
RAM	128M
Cache	4.1M
Flash	16M
Packet Forwarding Rate	"1000M forwarding rate: 1.488Mpps 100M forwarding rate: 0.1488Mpps 10M forwarding rate: 0.01488Mpps"
Flow Control	Full-duplex:IEEE 802.3x pause frame; Half-duplex: Back pressure
VLAN	Support
Trans mission Distance	"10BASE-T: Cat3,4,5 UTP (150 meter) 100BASE-TX: Cat5 or later UTP(150 meter) 1000BASE-TX: Cat6 or later UTP(150 meter)"
Power Input	AC 100-240V 50/60Hz
ESD Protections	6kV DC
LED Display	PWR,SYS,Giga,ACT/LNIK
Standard Conformance	
EMI Safety	FCC Clas s B,CE
Standard Compliance	IEEE802.3/IEEE802.3i/IEEE802.3u/IEEE802.3a b/IEEE802.3x
Environment	
Operating Environment	-30°C~50°C
Storage Environment	-35°C~65°C
Operating Humidity	0%~90%(non-condensing)
Storage Humidity	5%~90%(non-condensing)
Others	
Installation	Des top/ Rack Mounting
Dimensions (W×D×H)	210mm (L)*140m m (W)*45mm (H)
Packing Dimensions (W×D×H)	260mm (L)*205m m (W)*67mm (H)
Cross Weight	1.7KG

VLAN 1

802.3ad LACP for link aggregation and Support up to 8 trunks using either static or dynamic trunking (LACP)

VLAN 1

BCG-0802P   BCG-0802P

Fiber Cable

802.1d Spanning Tree Compatible & 802.1w Rapid Spanning Tree

BCG-2404P

VLAN 1

Order Part Number as Below.

Part Number.	Descriptions
BCG-0802P	8-port 10/100/1000Base-T RJ45 to 2-port 100/1000Base-X SFP slot, up to 120Km Ethernet Switch Manage L2 19" Rack Mount

BCG-2404P

24-port 10/100/1000Base-T RJ45 to
4-port 100/1000Base-X SFP slot, up to 120Km Combo
4-port 10/100/1000Base-T RJ45 Combo
Ethernet Switch Manage L2
19" Rack Mount

สเปคราชการ
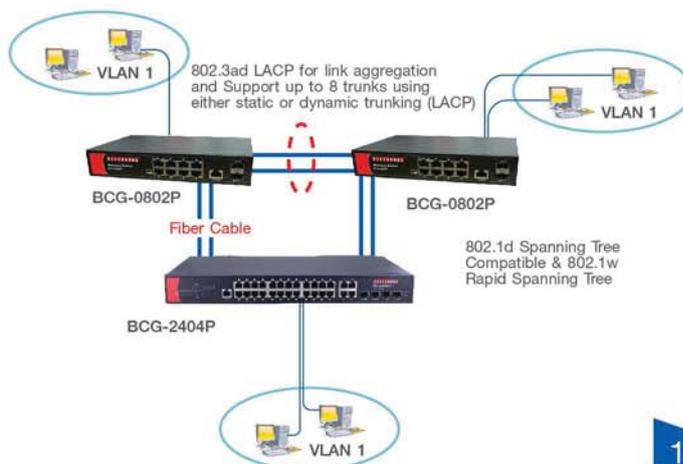กระทรวง ICT

Feature and Descriptions

- 24 ports 10/100/1000M RJ45+ 4 port 1000M RJ45+4 port 1000M SFP Combo
- 10/100/1000Mbps auto-negotiation and auto MDI/MDI-X.
- Circuit protection prevents power interference between ports.
- L2+ management provide better manageability, security, QoS.
- Layer 2 managed switching features including 802.1Q VLAN, Mirroring, Port isolation, IGMP Snooping, DHCP Snooping, POE+ management, LLDP, IP Source Guard, ARP inspection, ACLs etc.
- Support spanning tree STP(802.1D) and RSTP(802.1W).
- Jumbo frames support up to 9.6K kilobytes.
- Support enhanced management through WEB, CLI, TELNET, SSH, SNMP.
- Support short-circuit protection function

Application

- Network Communication
- FTTH / FTTB / FTTx
- ISP Backhaul Networking

Layer 2 Management

Specification	Descriptions
Port Management	Port disable/enable Auto-negotiation 10/100/1000Mbps full and half duplex mode selection Flow Control disable/enable Bandwidth Control/Broadcast Storm Control
Port Mirroring	TX / RX / Both Many-to-one Monitoring
VLAN	4K VLAN 802.1Q tagged-based VLAN, up to 30 VLAN groups, out of 4096 VLAN IDs Port-based VLAN, up to 10 VLAN groups
QoS	802.1p port queue priority algorithm Cos/Tos, QOS sign WRR (Weighted Round Robin), Weighted priority rotation algorithm WRR/SP/WFQ, 3 priority scheduling models
Spanning Tree Protocol	STP(Spanning Tree Protocol) RSTP/MSTP(Rapid Spanning Tree Protocol) EPPS ring network protocol EAPS ring network protocol 802.1x argumentation agreement
Link Aggregation	Max 8 aggregation groups, each supports 8 ports Static aggregation and dynamic aggregation
DHCP	DHCP Snoping
Loop Guard	Loop protection function, real-time detection, rapid alarm, accurate positioning, intelligent blocking, automatic recovery
Isolation	Support downlink ports isolated from each other and communicate with upstream port
Line Rate	Support port based input / output bandwidth management
IGMP Snooping	IGMPv1/2/3 and MLDv1/2 Snooping GMRP protocol registration Multicast address management, multicast VLAN, multicast routing ports, static multicast addresses
Storm Suppression	Unknown unicast, multicast, unknown multicast, storm suppression of broadcast type Storm suppression based on bandwidth tuning and storm filtering
Security	User port+IP address+MAC ACL based on IP and MAC Security properties of port based MAC address quantities
System Maintenance	Upgrade package upload ; system log view WEB restore factory configuration
PoE Management	Open or close port Standard POE scheduling management A variety of timing reset function (recently upgraded) POE Automatic equipment on-line inspection
Management	WEB Management (support http and https protocol) CLI management Telnet remote management SSH V1/V2 Support SNMP network management

Specification	Descriptions
Network Connector	24-port 10/100/1000M RJ45+4-port 1000M RJ45+4-port 1000M SFP Combo+1 Console
PoE Port	Non PoE
Switch Architecture	Store and Forward
MAC Address Table	8K
Switch Bandwidth	56Gbps
Forwarding Rate	40.32Mpps
RAM	128M
Cache	4.1M
Flash	16M
Packet Forwarding Rate	1000M forwarding rate: 1.488Mpps 100M forwarding rate: 0.1488Mpps 10M forwarding rate: 0.01488Mpps
Flow Control	Full-duplex:IEEE 802.3x pause frame ; Half-duplex: Back pressure
VLAN	Support
Transmission Distance	10BASE-T: Cat3,4,5 UTP (150 meter) 100BASE-TX: Cat5 or later UTP(150 meter) 1000BASE-TX: Cat6 or later UTP(150 meter) AC 100-240V 50/60Hz
Power Input	6kV DC
ESD Protections	PWR,SYS,Giga,ACT/LNIK
LED Display	Standard Conformance
Standard Conformance	FCC Class B,CE
EMI Safety	IEEE802.3/IEEE802.3i/IEEE802.3u/IEEE802.3ab/IEEE802.3x
Standard Compliance	
Environment	Environment
Operating Environment	-30°C~60°C
Storage Environment	-40°C~75°C
Operating Humidity	5%~90%(non-condensing)
Storage Humidity	5%~95%(non-condensing)
Others	Others
Installation	Rack Mounting
Dimensions(W×D×H)	440mm(L)*290mm(W)*45mm(H)
Packing Dimensions(W×D×H)	515mm(L)*300mm(W)*95mm(H)
Cross Weight	4.5KG

VLAN 1

802.3ad LACP for link aggregation and Support up to 8 trunks using either static or dynamic trunking (LACP)

VLAN 1

BCG-0802P

BCG-0802P

Fiber Cable

802.1d Spanning Tree Compatible & 802.1w Rapid Spanning Tree

BCG-2404P

VLAN 1

Order Part Number as Below.

Part Number. BCG-2404P

Descriptions
24-port 10/100/1000Base-T RJ45 to
4-port 100/1000Base-X SFP slot, up to 120Km Combo
4-port 10/100/1000Base-T RJ45 Combo
Ethernet Switch Manage L2
19" Rack Mount

BC-33108

8-port 10/100/1000Base-T RJ45 to 2-port 1000Base-X SFP slot, up to 120Km Ethernet Switch Manage L2 19" Rack Mount

Feature and Descriptions

Hardware Features
- Provide 8/16/24 multi-spec port products; all ports have Gigabit wire speed forwarding capability to meet different user needs.
- The whole series supports the "Ethernet port + optical port" combination, which is convenient for users to group the network flexibly and meet the demand of various scenarios.
- Support under-voltage, over-voltage, over-current, overload, and over-temperature protection, providing users with a safer, more stable, and more reliable experience.
- Support surge, fast pulse, electrostatic protection, significantly extending the device's service life.
- Complete LED indicator, easy for users to identify the device's working status quickly.
- Adopt high quality wide temperature components to ensure stable operation of the device in residential, commercial, and light industrial environments.
- IP30 anti-oxidation metal housing, durable.

Software Features
- Support IEEE 802.1Q VLAN, so you can flexibly divide VLANs according to your needs.
- Supports voice VLANs and configures QoS parameters for voice data streams to improve transmission priority and ensure call quality.
- Support QoS, supporting three priority modes based on port, 802.1P and DSCP, and four queue scheduling algorithms: Equ, SP, WRR, and SP+WRR.
- ACLs are supported to provide flexible security access control policies by configuring matching rules, processing operations, and time permissions to filter packets.
- Support IGMP V1/V2/V3 multicast protocols and IGMP Snooping to meet the needs of multi-terminal HD video surveillance and video conference access.
- Support multicast VLAN, multicast filtering, efficient data transmission, saving network bandwidth and reducing network load.
- Support port monitoring, which makes a copy of the packets of the monitored port to the monitoring port to realize network monitoring.

Application
- Network Communication
- FTTH / FTTB / FTTx
- ISP Backhaul Networking

สเปคราชการ
กระทรวง ICT

Layer 2 Management

Specification	Descriptions
Access Management	support
SSL/TLS	SSLv2, SSLv3, TLSv1
WebUI	HTTPS
CLI	SSH v1/v2
Port Security	Dynamic Lock/256
Storm Control	Broadcast, Unknown Multicast, Unknown Unicast
Spanning Tree	BPDU Guard
Port Isolation	Supported
Black Hole MAC	Supported
CPU Defence Engine	Supported
DoS Prevention	Supported
DHCP Snooping	Option 82
Dynamic ARP Inspection	Supported
IP Source Guard	Supported/256
IMPB	IP/MAC/Port Binding
IPv6	
IPv6 Host	Auto Configuration, Static IPv6 Address and Prefix Length Static IPv6 Default Gateway,IPv6 Neighbor Discovery (ND) IPv6 Duplicate Address Detection, ICMPv6
IPv6 Application	HTTP/HTTPS, Telnet, SSH, SNMP, TFTP, Syslog, Ping, DHCPv6
Management	
CLI	Console, Telnet
HTTP	support
SNMP	v1/v2cv3
File Management	Firmware Upgrade/Backup, Dual Images, Configuration Download/Backup, Multiple Configurations
Upload/Download	TFTP, HTTP, UART
Time Management	Local, SNTP
Port Management	Friendly Port Name (Port Description),Error Disabled Recovery
Line Management	Console, Telnet, SSH v1/v2
DHCP	Client, Snooping, Server, Relay, option82
DNS	Client
EEE	IEEE802.3az
RMON Management	32 entries
Discovery	
LLDP	IEEE 802.1AB Link Layer Discovery Protocol
LLDP-MED	ANSI/TIA-1057 LLDP Media Endpoint Discovery
Diagnostics	
Mirroring	Port-based (Many to One)
Syslog (RFC3164)	Local RAM, Local Flash, Remote Server
System Diagnostics	CPU, Memory, Port Utilization
Port Diagnostics	Cable Test, Fiber Module Status
Network Diagnostics	Ping Test, Traceroute
UDLD	supported
MIB	
RFC1213 MIBII	MIBII System & Interface groups
RFC2819	RMON I (1,2,3, & 9 groups)
RFC1215	Generic Traps
RFC1493	Bridge
RFC2674	Bridge MIB Extensions
RFC2737	Entity
RFC3635	Ethernet-Like
RFC2863	Interface Group
SNMP-Community-MIB	supported
SNMPv3	supported

Order Part Number as Below.

Part Number.	Descriptions
BC-33108	8-port 10/100/1000Base-T RJ45 to 2-port 1000Base-X SFP slot, up to 120Km Ethernet Switch Manage L2 19" Rack Mount

Specification	Descriptions
Port configuration	8 x 10/100/1000M RJ45, 2 x 1G SFP,1 x Console
Switch capacity	20Gbps/non-blocking
Forwarding rates	41.6 Mpps
MAC Address	8k
Buffer Space	4M
Jumbo Frame	10Kb
Input voltage	100~240Vac 50/60Hz (Rated); 90~264Vac 47Hz~63Hz (Max.)
Power Protection	Under-voltage/over-voltage, over-current, overload, and over-temperature protection
Heat dissipation	Natural
Working Temperature	-20°C ~ 60°C
Storage Temperature	-40°C ~ 85°C
Relative Humidity	5-95% (no condensation)
Installation	Rack-mounted 1U 19"
Dimension	266x200x43.6mm
Safety, EMC	Safety: EN60950, GB4943 EN 55022 Class A, FCC Part 15 Subpart B Class A IEC 61000-3-2 CLASS A, IEC 61000-3-3 CLASS A IEC 61000-4-2 Contact: ±6kV, Air: ±8kV Class A IEC 61000-4-4 Level4 IEC 61000-4-5 Power: Com ±6KV, Diff. ±6KV; UPT: Com ±4KV, diff.±2KV
SOFTWARE FEATURE	
General	
Spanning Tree	STP/RSTP/MSTP, Auto Edge Port， BPDU Filtering, Self Loop Detection
Link Aggregation	IEEE 802.3ad LACP,Static Trunk, Max. 8 Ports/Group, Traffic Load Balancing
Loopback detection	support
ERPS	support
PoE Management	Port configure, PoE Timer
VLAN	
Voice VLAN	Static VLAN， Port-based， IEEE 802.1Q Tagged-based， Protocol-based， MAC-based ， OUI Mode (Auto/Manual)
Surveillance VLAN	OUI Mode (Auto/Manual)
QinQ	IEEE 802.1ad Basic
GVRP	supported
Multicast	
Basic	Multicast Groups， Immediate Leave,Static/Forbidden Router Port, Static/Forbidden Forward Port， Filtering, Throttling
IGMP Snooping	IGMP v1/v2, IGMP v3 Basic (BISS), IGMP v2/v3 Querier
MLD Snooping	MLD v1/v2
MVR	Multicast VLAN Registration
QoS	
Priority Queue	8 queues/port
Queue Scheduling	WRR, WFQ, Strict Priporial, Hybrid(WRR+SP or WFQ+SP
Class of Service	Port-based, 802.1p, IP TOS Precedence, IP DSCP
Trusted QoS	supported
Rate Limit	Port-based (Ingress/Egress)
ACL	Access Control List, L2/L3/L4, MAC-based, IPv4/IPv6-based
Access Rules	supported/1024
Security	
AAA	Authentication
TACACS+	supported/8
RADIUS	supported/8
Authentication	IEEE 802.1X, MAC/Web/Guest VLAN/Port-Based/Host-Based
Account Management	support

BC-33116

16-port 10/100/1000Base-T RJ45 to
2-port 1000Base-X SFP slot, up to 120Km Combo
2-port 10/100/1000Base-T RJ45 Combo
Ethernet Switch Manage L2
19" Rack Mount

สเปครายการ
กระทรวง ICT

Feature and Descriptions

Hardware Features
- Provide 8/16/24 multi-spec port products; all ports have Gigabit wire speed forwarding capability to meet different user needs.
- The whole series supports the "Ethernet port + optical port" combination, which is convenient for users to group the network flexibly and meet the demand of various scenarios.
- Support under-voltage, over-voltage, over-current, overload, and over-temperature protection, providing users with a safer, more stable, and more reliable experience.
- Support surge, fast pulse, electrostatic protection, significantly extending the device's service life.
- Complete LED indicator, easy for users to identify the device's working status quickly.
- Adopt high quality wide temperature components to ensure stable operation of the device in residential, commercial, and light industrial environments.
- IP30 anti-oxidation metal housing, durable.

Software Features
- Support IEEE 802.1Q VLAN, so you can flexibly divide VLANs according to your needs.
- Supports voice VLANs and configures QoS parameters for voice data streams to improve transmission priority and ensure call quality.
- Support QoS, supporting three priority modes based on port, 802.1P and DSCP, and four queue scheduling algorithms: Equ, SP, WRR, and SP+WRR.
- ACLs are supported to provide flexible security access control policies by configuring matching rules, processing operations, and time permissions to filter packets.
- Support IGMP V1/V2/V3 multicast protocols and IGMP Snooping to meet the needs of multi-terminal HD video surveillance and video conference access.
- Support multicast VLAN, multicast filtering, efficient data transmission, saving network bandwidth and reducing network load.
- Support port monitoring, which makes a copy of the packets of the monitored port to the monitoring port to realize network monitoring.

Application
- Network Communication
- FTTH / FTTB / FTTx
- ISP Backhaul Networking

Specification

Specification	Descriptions
Port configuration	16x10/100/1000M RJ45, 2x1G SFP Combo, 1xConsole
Switch capacity	36Gbps/non-blocking
Forwarding rates	26.7 Mpps
MAC Address	8k
Buffer Space	4M
Jumbo Frame	10Kb
Input voltage	100~240Vac 50/60Hz (Rated); 90~264Vac 47Hz~63Hz (Max.)
Power Protection	Under-voltage/over-voltage, over-current, overload, and over-temperature protection
Heat dissipation	Natural
Working Temperature	-20°C ~ 60°C
Storage Temperature	-40°C ~ 85°C
Relative Humidity	5-95% (no condensation)
Installation	Rack-mounted 1U 19"
Dimension	440x270x43.6mm
Safety, EMC	Safety: EN60950, GB4943 EN 55022 Class A, FCC Part 15 Subpart B Class A IEC 61000-3-2 CLASS A, IEC 61000-3-3 CLASS A IEC 61000-4-2 Contact: ±6kV, Air: ±8kV Class A IEC 61000-4-4 Level4 IEC 61000-4-5 Power: Com ±6KV, Diff. ±6KV; UPT: Com ±4KV, diff.±2KV
SOFTWARE FEATURE	
General	
Spanning Tree	STP/RSTP/MSTP, Auto Edge Port，BPDU Filtering, Self Loop Detection
Link Aggregation	IEEE 802.3ad LACP,Static Trunk, Max. 8 Ports/Group, Traffic Load Balancing
Loopback detection	support
ERPS	support
PoE Management	Port configure, PoE Timer
VLAN	
Voice VLAN	Static VLAN，Port-based，IEEE 802.1Q Tagged-based，Protocol-based，MAC-based，OUI Mode (Auto/Manual)
Surveillance VLAN	OUI Mode (Auto/Manual)
QinQ	IEEE 802.1ad Basic
GVRP	supported
Multicast	
Basic	Multicast Groups，Immediate Leave,Static/Forbidden Router Port, Static/Forbidden Forward Port，Filtering, Throttling
IGMP Snooping	IGMP v1/v2, IGMP v3 Basic (BISS), IGMP v2/v3 Querier
MLD Snooping	MLD v1/v2
MVR	Multicast VLAN Registration
QoS	
Priority Queue	8 queues/port
Queue Scheduling	WRR, WFQ, Strict Pripority, Hybrid(WRR+SP or WFQ+SP
Class of Service	Port-based, 802.1p, IP TOS Precedence, IP DSCP
Trusted QoS	supported
Rate Limit	Port-based (Ingress/Egress)
ACL	Access Control List, L2/L3/L4, MAC-based, IPv4/IPv6-based
Access Rules	supported/1024
Security	
AAA	Authentication
TACACS+	supported/8
RADIUS	supported/8
Authentication	IEEE 802.1X, MAC/Web/Guest VLAN/Port-Based/Host-Based
Account Management	support

Layer 2 Management

Specification	Descriptions
Access Management	support
SSL/TLS	SSLv2, SSLv3, TLSv1
WebUI	HTTPS
CLI	SSH v1/v2
Port Security	Dynamic Lock/256
Storm Control	Broadcast, Unknown Multicast, Unknown Unicast
Spanning Tree	BPDU Guard
Port Isolation	Supported
Black Hole MAC	Supported
CPU Defence Engine	Supported
DoS Prevention	Supported
DHCP Snooping	Option 82
Dynamic ARP Inspection	Supported
IP Source Guard	Supported/256
IMPB	IP/MAC/Port Binding
IPv6	
IPv6 Host	Auto Configuration, Static IPv6 Address and Prefix Length Static IPv6 Default Gateway,IPv6 Neighbor Discovery (ND) IPv6 Duplicate Address Detection, ICMPv6
IPv6 Application	HTTP/HTTPS, Telnet, SSH, SNMP, TFTP, Syslog, Ping, DHCPv6
Management	
CLI	Console, Telnet
HTTP	support
SNMP	v1/v2cv3
File Management	Firmware Upgrade/Backup, Dual Images, Configuration Download/Backup, Multiple Configurations
Upload/Download	TFTP, HTTP, UART
Time Management	Local, SNTP
Port Management	Friendly Port Name (Port Description),Error Disabled Recovery
Line Management	Console, Telnet, SSH v1/v2
DHCP	Client, Snooping, Server, Relay, option82
DNS	Client
EEE	IEEE802.3az
RMON Management	32 entries
Discovery	
LLDP	IEEE 802.1AB Link Layer Discovery Protocol
LLDP-MED	ANSI/TIA-1057 LLDP Media Endpoint Discovery
Diagnostics	
Mirroring	Port-based (Many to One)
Syslog (RFC3164)	Local RAM, Local Flash, Remote Server
System Diagnostics	CPU, Memory, Port Utilization
Port Diagnostics	Cable Test, Fiber Module Status
Network Diagnostics	Ping Test, Traceroute
UDLD	supported
MIB	
RFC1213 MIBII	MIBII System & Interface groups
RFC2819	RMON I (1,2,3, & 9 groups)
RFC1215	Generic Traps
RFC1493	Bridge
RFC2674	Bridge MIB Extensions
RFC2737	Entity
RFC3635	Ethernet-Like
RFC2863	Interface Group
SNMP-Community-MIB	supported
SNMPv3	supported

Order Part Number as Below.

Part Number.	Descriptions
BC-33116	16-port 10/100/1000Base-T RJ45 to 2-port 1000Base-X SFP slot, up to 120Km Combo 2-port 10/100/1000Base-T RJ45 Combo Ethernet Switch Manage L2 19" Rack Mount

BC-33124

24-port 10/100/1000Base-T RJ45 to
4-port 1000Base-X SFP slot, up to 120Km Combo
4-port 10/100/1000Base-T RJ45 Combo
Ethernet Switch Manage L2
19" Rack Mount

สเปคราชการ
กระทรวง ICT

Feature and Descriptions

Hardware Features
- Provide 8/16/24 multi-spec port products; all ports have Gigabit wire speed forwarding capability to meet different user needs.
- The whole series supports the "Ethernet port + optical port" combination, which is convenient for users to group the network flexibly and meet the demand of various scenarios.
- Support under-voltage, over-voltage, over-current, overload, and over-temperature protection, providing users with a safer, more stable, and more reliable experience.
- Support surge, fast pulse, electrostatic protection, significantly extending the device's service life.
- Complete LED indicator, easy for users to identify the device's working status quickly.
- Adopt high quality wide temperature components to ensure stable operation of the device in residential, commercial, and light industrial environments.
- IP30 anti-oxidation metal housing, durable.

Software Features
- Support IEEE 802.1Q VLAN, so you can flexibly divide VLANs according to your needs.
- Supports voice VLANs and configures QoS parameters for voice data streams to improve transmission priority and ensure call quality.
- Support QoS, supporting three priority modes based on port, 802.1P and DSCP, and four queue scheduling algorithms: Equ, SP, WRR, and SP+WRR.
- ACLs are supported to provide flexible security access control policies by configuring matching rules, processing operations, and time permissions to filter packets.
- Support IGMP V1/V2/V3 multicast protocols and IGMP Snooping to meet the needs of multi-terminal HD video surveillance and video conference access.
- Support multicast VLAN, multicast filtering, efficient data transmission, saving network bandwidth and reducing network load.
- Support port monitoring, which makes a copy of the packets of the monitored port to the monitoring port to realize network monitoring.

Application
- Network Communication
- FTTH / FTTB / FTTx
- ISP Backhaul Networking

Specification	Descriptions
Port configuration	24x10/100/1000M RJ45, 4x1G SFP Combo, 1xConsole
Switch capacity	56Gbps/non-blocking
Forwarding rates	41.6 Mpps
MAC Address	8k
Buffer Space	4M
Jumbo Frame	10Kb
Input voltage	100~240Vac 50/60Hz (Rated); 90~264Vac 47Hz~63Hz (Max.)
Power Protection	Under-voltage/over-voltage, over-current, overload, and over-temperature protection
Heat dissipation	Fan@6000RPM, Noise <31dB
Working Temperature	-20°C ~ 60°C
Storage Temperature	-40°C ~ 85°C
Relative Humidity	5-95% (no condensation)
Installation	Rack-mounted 1U 19"
Dimension	440x270x43.6mm
Safety, EMC	Safety: EN60950, GB4943 EN 55022 Class A, FCC Part 15 Subpart B Class A IEC 61000-3-2 CLASS A, IEC 61000-3-3 CLASS A IEC 61000-4-2 Contact: ±6kV, Air: ±8kV Class A IEC 61000-4-4 Level4 IEC 61000-4-5 Power: Com ±6KV, Diff. ±6KV; UPT: Com ±4KV, diff.±2KV
SOFTWARE FEATURE	
General	
Spanning Tree	STP/RSTP/MSTP, Auto Edge Port，BPDU Filtering, Self Loop Detection
Link Aggregation	IEEE 802.3ad LACP,Static Trunk, Max. 8 Ports/Group, Traffic Load Balancing
Loopback detection	support
ERPS	support
PoE Management	Port configure, PoE Timer
VLAN	
Voice VLAN	Static VLAN，Port-based，IEEE 802.1Q Tagged-based，Protocol-based，MAC-based，OUI Mode (Auto/Manual)
Surveillance VLAN	OUI Mode (Auto/Manual)
QinQ	IEEE 802.1ad Basic
GVRP	supported
Multicast	
Basic	Multicast Groups，Immediate Leave,Static/Forbidden Router Port, Static/Forbidden Forward Port，Filtering, Throttling
IGMP Snooping	IGMP v1/v2, IGMP v3 Basic (BISS), IGMP v2/v3 Querier
MLD Snooping	MLD v1/v2
MVR	Multicast VLAN Registration
QoS	
Priority Queue	8 queues/port
Queue Scheduling	WRR, WFQ, Strict Priority, Hybrid(WRR+SP or WFQ+SP
Class of Service	Port-based, 802.1p, IP TOS Precedence, IP DSCP
Trusted QoS	supported
Rate Limit	Port-based (Ingress/Egress)
ACL	Access Control List, L2/L3/L4, MAC-based, IPv4/IPv6-based
Access Rules	supported/1024
Security	
AAA	Authentication
TACACS+	supported/8
RADIUS	supported/8
Authentication	IEEE 802.1X, MAC/Web/Guest VLAN/Port-Based/Host-Based
Account Management	support

Layer 2 Management

Specification	Descriptions
Access Management	support
SSL/TLS	SSLv2, SSLv3, TLSv1
WebUI	HTTPS
CLI	SSH v1/v2
Port Security	Dynamic Lock/256
Storm Control	Broadcast, Unknown Multicast, Unknown Unicast
Spanning Tree	BPDU Guard
Port Isolation	Supported
Black Hole MAC	Supported
CPU Defence Engine	Supported
DoS Prevention	Supported
DHCP Snooping	Option 82
Dynamic ARP Inspection	Supported
IP Source Guard	Supported/256
IMPB	IP/MAC/Port Binding
IPv6	
IPv6 Host	Auto Configuration, Static IPv6 Address and Prefix Length Static IPv6 Default Gateway,IPv6 Neighbor Discovery (ND) IPv6 Duplicate Address Detection, ICMPv6
IPv6 Application	HTTP/HTTPS, Telnet, SSH, SNMP, TFTP, Syslog, Ping, DHCPv6
Management	
CLI	Console, Telnet
HTTP	support
SNMP	v1/v2cv3
File Management	Firmware Upgrade/Backup, Dual Images, Configuration Download/Backup, Multiple Configurations
Upload/Download	TFTP, HTTP, UART
Time Management	Local, SNTP
Port Management	Friendly Port Name (Port Description),Error Disabled Recovery
Line Management	Console, Telnet, SSH v1/v2
DHCP	Client, Snooping, Server, Relay, option82
DNS	Client
EEE	IEEE802.3az
RMON Management	32 entries
Discovery	
LLDP	IEEE 802.1AB Link Layer Discovery Protocol
LLDP-MED	ANSI/TIA-1057 LLDP Media Endpoint Discovery
Diagnostics	
Mirroring	Port-based (Many to One)
Syslog (RFC3164)	Local RAM, Local Flash, Remote Server
System Diagnostics	CPU, Memory, Port Utilization
Port Diagnostics	Cable Test, Fiber Module Status
Network Diagnostics	Ping Test, Traceroute
UDLD	supported
MIB	
RFC1213 MIBII	MIBII System & Interface groups
RFC2819	RMON I (1,2,3, & 9 groups)
RFC1215	Generic Traps
RFC1493	Bridge
RFC2674	Bridge MIB Extensions
RFC2737	Entity
RFC3635	Ethernet-Like
RFC2863	Interface Group
SNMP-Community-MIB	supported
SNMPv3	supported

Order Part Number as Below.

Part Number.	Descriptions
BC-33124	24-port 10/100/1000Base-T RJ45 to 4-port 1000Base-X SFP slot, up to 120Km Combo 4-port 10/100/1000Base-T RJ45 Combo Ethernet Switch Manage L2 19" Rack Mount