



# S5700-24ET6X



Varied Service Characteristics  
Versatile IPv6 Solution  
Complete Security Mechanism



Carrier-Level High Reliability  
Full Layer-3 Functions



Ups to 16-unit Virtual Stack



Supports 24-Port 2.5G RJ45 and 6-Port 10G SFP+ Uplink

## Product Overview

BDCOM S5700-24ET6X is a BDCOM-developed multi-gigabit Ethernet switch oriented for the next-generation IP metropolitan area network, large campus network, and enterprise network.

BDCOM S5700-24ET6X adopts the cutting edge hardware architecture and is equipped with the BDROS operating system with BDCOM's independent intellectual property rights.

On the basis of providing high-performance L2/L3/L4 wire-speed switching services, S5700-24ET6X further integrates various network services such as IPv6 and network security.

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S5700-24ET6X supports 24-port 2.5G access and 6-port 10G uplink.

S5700-24ET6X is widely used in high-end cyber cafes, E-sports hotels, and high-speed enterprise network.

# Product Characteristics

## Advanced hardware architecture, cutting edge processing capability

S5700-24ET6X 1U pizza-box switch realizes the ultrahigh port density of 24 2.5G RJ45 ports and 6 10G SFP+ ports. Equipped with high performance ASIC switch chipset, S5700-24ET6X can meet the application requirements of various complex scenarios.

**Doubled performance:** The virtualized system makes full use of every link between physical devices, avoiding the link congestion of the traditional networking model Spanning Tree Protocol, making the best use of devices, doubling the performance, and protecting the original link investment to the greatest extent.

**High reliability:** Based on advanced distributed processing technology, the efficient cross-physical device link aggregation function separates the logical control plane, service control plane and service data plane, providing uninterrupted Layer 3 routing and forwarding and avoiding business interruption caused by the single failure. Therefore, the reliability of the virtual system is greatly improved.

**Easy management:** The entire virtual system realizes unified management of a single IP, and physical devices are visible to users, which simplifies the management of network devices and network topology, greatly improves operation efficiency, and effectively reduces operation and maintenance costs.

## Carrier-level high reliability

S5700-24ET6X supports STP/RSTP/MSTP, VRRP, ring network protection, dual uplink active/standby link protection, LACP and other simple and efficient redundancy protection mechanisms.

S5700-24ET6X supports In-Service Software Upgrade (ISSU), ensuring the unremitting data forwarding during system upgrade.

The ultra-high-precision BFD mechanism, through linkage with Layer 2 and Layer 3 protocols, realizes millisecond-level fault detection and service recovery, which greatly improves the reliability of the network system.

Perfect Ethernet OAM mechanism, supporting 802.3ah and 802.1ag, realizes rapid detection and location of faults through real-time monitoring of network operation status.

The high reliability hardware and software of the S5700 series meet the fault recovery time requirement of 50ms for carrier-level services, and truly achieve the high reliability (99.999%) of carrier-class core devices.

## Innovative BVSS

The BDCOM S5700-24ET6X supports innovative BDCOM Virtual Switch System (BVSS), which can virtualize multiple physical devices into one logical device with unparalleled performance, reliability, and management compared to stand-alone physical devices.

# Product Characteristics

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## Rich service features

Perfect Layer 2 and Layer 3 multicast routing protocols meet the access requirements of IPTV, multi-terminal high-definition video surveillance and video conferencing;

Complete Layer 3 routing protocols and large routing table capacity meet the needs of various network interconnection, and can built up ultra-large campus network, enterprise network and industry private network.

## Comprehensive IPv6 solutions

Supports the IPv6 protocol suite, IPv6 neighbor discovery, ICMPv6, path MTU discovery, DHCPv6, etc.

Supports Ping, Traceroute, Telnet, SSH, ACL and so on, meeting IPv6 networks' device management and service control requirements.

Supports IPv6 multicast features such as MLD, MLD Snooping, IPv6 static routing, IPv6 Layer 3 routing protocols such as RIPng, OSPFv3, BGP4+, providing complete IPv6 Layer 2 and Layer 3 solutions.

Supports a wealth of IPv4 to IPv6 transition technologies, including: IPv6 manual tunnel, automatic tunnel, 6to4 tunnel, and ISATAP tunnel to ensure the smooth transition from IPv4 network to IPv6 network.

## 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.

Perfect security authentication mechanisms: IEEE 802.1x, Radius and TACACS+.

Enhanced service security mechanism: Supports clear text or MD5 authentication of related routing protocols, and Unicast Reverse Path Forwarding (uRPF), which can effectively control illegal services; supports in-depth detection and filtering of control packets and data packets, thereby effectively isolating illegal data packets and improving the security of the network system.

## Innovative eco-friendly design

Intelligent power management system: S5700 series adopts advanced power system architecture design to achieve efficient power conversion, unique power monitoring, slow start function, real-time monitoring of the running status, intelligent adjustment, and deep energy saving.

Intelligent fan management system: Intelligent fan design supports automatic speed regulation, effectively reduces the speed, reduces noise, and prolongs the service life of the fan.

Supports energy efficient Ethernet function and complies with the international standard IEEE 802.3az EEE, effectively reducing energy consumption.

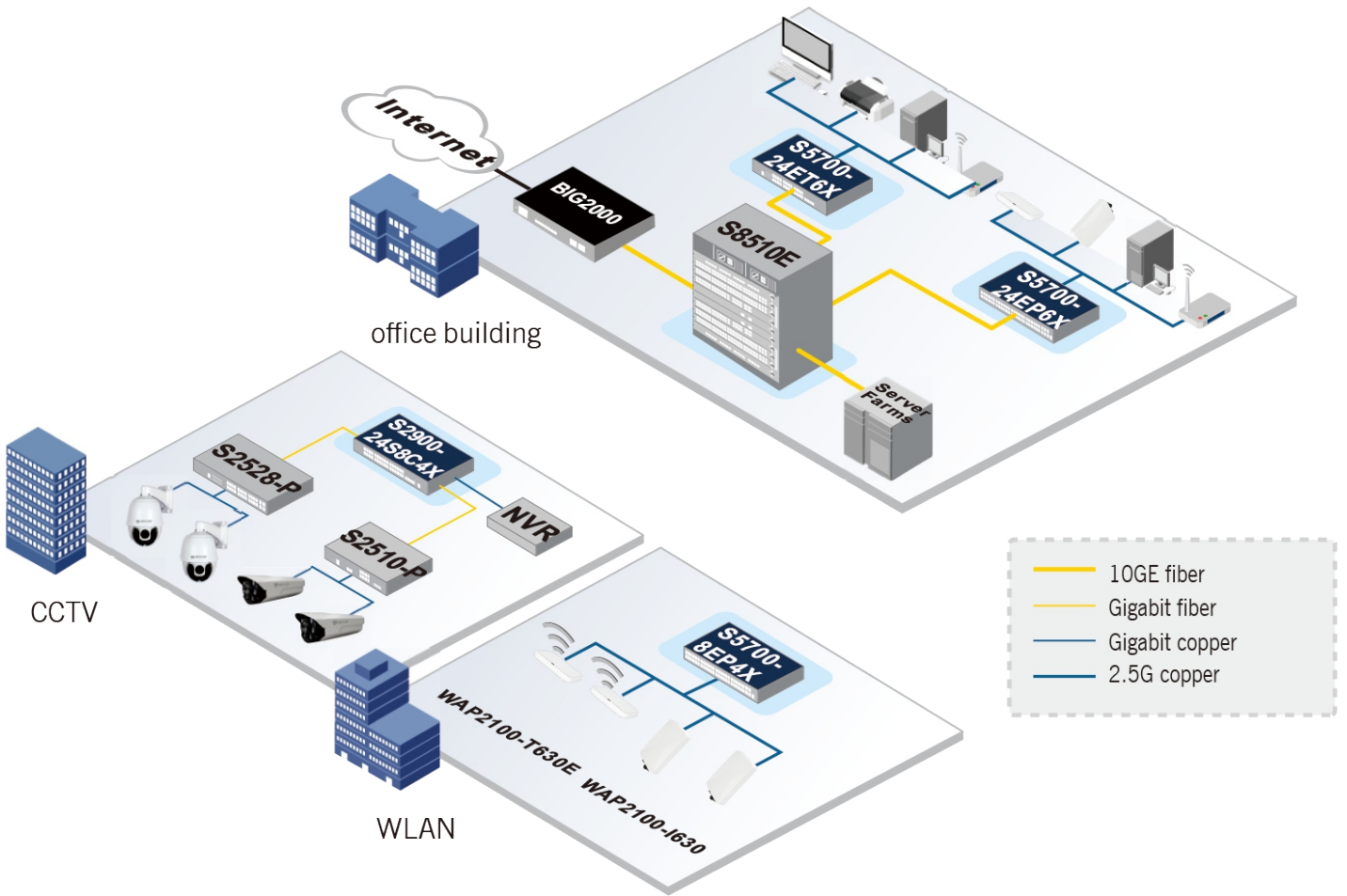
# Model



## S5700-24ET6X

- 24-Port 2.5G/GE RJ45
- 6-Port 10G/GE SFP+

# Application Diagram



# Specifications

Item		S5700-24ET6X
Interface	RJ45	24-Port 2.5G/GE
	SFP	6-Port 10G/GE
Console		1 RJ45 Port
Switching capacity		240 Gbps
Forwarding rate		180 Mpps
Physical Specifications		
Chassis	Dimensions (WxDxH mm)	440x210x44
Package	Dimensions (WxDxH mm)	576x448x94
Power		
Power supply		AC: 100V-240V, 50/60Hz DC: 36~72V
Power consumption		<48W
Total output BTU		163.82
Noise@25°C(dBA)		45
MTBF(H)		>200,000
Forwarding mode		Store-forward
Flash (MB)		16
DRAM (MB)		512
MAC		32K
Buffer size(MB)		2
Jumbo frame		9K
Routing table	IPv4	8K
	IPv6	4K
ARP table	IPv4	12K
	IPv6	2K
Total SVI		1K

# Features

## Multicast

- IGMP v1/v2c/v3
- IGMP Snooping
- IGMP Fast Leave
- Multicast group policy and multicast number limit
- Multicast filtering
- MVR
- IGMP snooping in certain port and VLAN
- Support for transparent passing of multicast traffic without IGMP
- snooping in certain port and VLAN
- PIM-DM/SM/SSM

## IPv4

- Static routing, RIP v1/v2, OSPF,
- Policy Based Routing(PBR)
- ECMP
- BFD for static routing, RIP, OSPF,

## DHCP

- DHCP server, client, relay, snooping

## MPLS

- MCE

## IPv6

- IPv4/v6 dual stack
- ICMPv6, DHCPv6, ACLv6 and IPv6 Telnet
- Ipv6 neighbor discovery
- Path MTU discovery
- MLD V1
- MLD snooping
- IPv6 Static Routing, RIPng, OSPFv3,
- Manual tunnel, ISATAP tunnel, 6-to-4 tunnel

## QoS

- Traffic classification of port/L2~4 protocol headers/VLAN/CoS/DSCP
- CAR traffic control
- 802.1P/DSCP priority mapping and remark
- Multiple queuing algorithms such as SP, WRR or SP+WRR
- Tail-Drop, WRED
- Traffic supervision and traffic shaping
- 8 queues per port

## Security

- DDoS attack prevention, TCP-SYN/UDP/ARP Flood attack prevention
- IEEE 802.1x authentication, multiple-user authentication, guest vlan
- L2-L4 ACL
- Anti-DOS/IP spoofing/TCP/ping/SYN/ICMP flood attacks
- Broadcast/multicast/unknown-unicast storm-control
- Port isolation
- Port Security, MAC address limitation, IP+MAC+port binding
- DHCP Snooping, DHCP Option 82
- DAI(Dynamic ARP Inspection)
- IPSG(IP Source Guard)
- IEEE 802.1x certification
- MAC-based authentication AAA
- Radius, TACACS+
- Multiple user privileges

## Reliability

- 802.3ad Static/LACP link aggregation,
- EAPS
- G.8032 ERPS
- ISSU
- VRRP
- GR for OSPF and BGP
- BFD for OSPF and BGP
- BVSS virtual stacking system

## Management

- CLI: Console, Telnet, SSHv1/2
- Web-GUI: HTTP, HTTPS/SSL
- SNMP v1/v2c/v3, RMON, SNMP alarm/inform/traps
- Upload and download of FTP/TFTP/SFTP files
- Debugging
- Syslog for alarm/notification/command/debug
- Web-GUI: HTTP, HTTPS/SSL
- NTP
- SPAN, RSPAN (1:1 and N:1 mirror)
- LLDP, LLDP-MED
- sFLOW
- ZTP(Zero Touch Provisioning)
- Optical DDM
- Ethernet cable diagnosis
- 802.3ah, 802.1ag

## Environment

- Operating temperature/humidity: 0°C-50°C, 10%-90% non-condensing
- Storage temperature/humidity: -20°C-70°C; 5%-95% non-condensing

# Ordering Information

Item	Description
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## S5700 series switch

**S5700-24ET6X** 24-Port 2.5G RJ45 + 6-Port 10G SFP+ L3 Managed Switch (built-in single AC-220V power supply; with cooling fan, 1U, standard 19-inch rack-mounted installation)

## Optical modules

### Gigabit Optical Modules

<b>GSFP-TX-B</b>	GE SFP-to-RJ45 module
<b>GSFP-SX-D</b>	GE SFP multi-mode (500m, 850nm, LC, DDM)
<b>GSFP-LX-10-D</b>	GE SFP single-mode (10Km, 1310nm, LC, DDM)
<b>GSFP-LX-20-D</b>	GE SFP single-mode (20Km, 1310nm, LC, DDM)
<b>GSFP-LX-40-D</b>	GE SFP single-mode (40Km, 1310nm, LC, DDM)
<b>GSFP-ZX-80-D</b>	GE SFP single-mode (80Km, 1550nm, LC, DDM)
<b>GSFP-ZX-120-D</b>	Gigabit SFP single-mode (120Km, 1550nm, LC, DDM)
<b>GSFP-LX-SM1310-10-BIDI</b>	GE SFP single-mode, single-chip and two-way (10Km, TX1310/RX1550, LC, DDM)
<b>GSFP-LX-SM1550-10-BIDI</b>	GE SFP single-mode, single-chip and two-way (10Km, TX1550/RX1310, LC, DDM)
<b>GSFP-LX-SM1310-20-BIDI</b>	GE SFP single-mode, single-chip and two-way (20Km, TX1310/RX1550, LC, DDM)
<b>GSFP-LX-SM1550-20-BIDI</b>	GE SFP single-mode, single-chip and two-way (20Km, TX1550/RX1310, LC, DDM)
<b>GSFP-LX-SM1310-40-BIDI</b>	GE SFP single-mode, single-chip and two-way (20Km, TX1550/RX1310, LC, DDM)
<b>GSFP-LX-SM1490-80-BIDI</b>	GE SFP single-mode, single-chip and two-way (80Km, TX1490/RX1550, LC, DDM)
<b>GSFP-LX-SM1550-80-BIDI</b>	GE SFP single-mode, single-chip and two-way (80Km, TX1550/RX1490, LC, DDM)
<b>GSFP-LX-SM1490-120</b>	GE SFP single-mode, single-chip and two-way (120Km, TX1490/RX1550, LC, DDM)
<b>GSFP-LX-SM1550-120</b>	GE SFP single-mode, single-chip and two-way (120Km, TX1550/RX1490, LC, DDM)

## Optical modules

### 10G Optical Modules

<b>SFP+TX</b>	10GE SFP+ to RJ45 port module (10M/100M/1000M/2.5G/5G/10G)
<b>SFP+SX</b>	TE SFP+ multi-mode (300m, 850nm, LC)
<b>SFP+LX-10</b>	TE SFP+ single-mode (10Km, 1310nm, LC, DDM)
<b>SFP+LX-20</b>	TE SFP+ single-mode (20Km, 1310nm, LC, DDM)
<b>SFP+LX-40-1310</b>	TE SFP+ single-mode (40Km, 1310nm, LC, DDM)
<b>SFP+LX-40</b>	TE SFP+ single-mode (40Km, 1550nm, LC, DDM)
<b>SFP+LX-80</b>	TE SFP+ single-mode (80Km, 1550nm, LC, DDM)
<b>SFP+AOC-1M</b>	10GE SFP+, 850nm, AOC, 1m, 3.3V, DDM
<b>SFP+LX-SM-1270-10</b>	10GE SFP+ single-mode, single-chip and two-way (10Km, TX1270/RX1330, LC, DDM)
<b>SFP+LX-SM-1330-10</b>	10GE SFP+ single-mode, single-chip and two-way (10Km, TX1330/RX1270, LC, DDM)
<b>SFP+LX-SM-1270-20</b>	10GE SFP+ single-mode, single-chip and two-way (20Km, TX1270/RX1330, LC, DDM)
<b>SFP+LX-SM-1330-20</b>	10GE SFP+ single-mode, single-chip and two-way (20Km, TX1330/RX1270, LC, DDM)
<b>SFP+LX-SM-1270-40</b>	10GE SFP+ single-mode, single-chip and two-way (40Km, TX1270/RX1330, LC, DDM)
<b>SFP+LX-SM-1330-40</b>	10GE SFP+ single-mode, single-chip and two-way (40Km, TX1330/RX1270, LC, DDM)

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