

**SW3G-20TGX-4UCB-S36**  
**SW3G-44TGX-4UCB-S36**  
**SW3G-20USF-4UCB-S36**  
**SW3G-44USF-4UCB-S36**  
**SW3G-20GPS-4UCB-S36**

## Advantages

- Layer 3 Switch Router
  - Versions
- SW3G-20TGX-4UCB-S36**
- 20 x 10/100/1000BaseT ports
- SW3G-44TGX-4UCB-S36**
- 44 x 10/100/1000BaseT ports
- SW3G-20USF-4UCB-S36**
- 20 x SFP for 100FX/1000SX/LX/ZX ports
- SW3G-44USF-4UCB-S36**
- 44 x SFP for 100FX/1000SX/LX/ZX ports
- SW3G-20GPS-4UCB-AC**
- 20 x 10/100/1000BaseT ports POE 802.11af
  - 1 AC power + 1 power slot
- Common interfaces:**
- 4 Combo ports 10/100/1000BT ou 100FX/1000SX/LX/ZX
  - 2 slots for dual 10GE XSPF or chassis stacking
  - 2 power slots
  - 1 SNMP and 1 console port
- Switch**
- Wire-speed forwarding
  - MEF9 et MEF14
  - VLAN 802.1q and Q-in-Q av 4096 S-VLAN, 4096 C-VLAN
- Router**
- Static, RIP, BGPv4, OSPFv2
- Protection**
- STP/RSTP/MSSTP
  - IIT G.8031/8032
  - R-link. <50msec
- Others**
- 1U 19" chassis
  - Option stacking of up to 8 copper or fiber chassis
  - Working temperature 0°+50°C  
Option -10° +65°C
  - Dual modular power supply AC or DC 48v

## CONCENTRATION OF GIGABIT ETHERNET & 10GE

These 10 Gigabit-Ethernet routing switches **SW3G-xxTGX-4UCB-S36** and **SW3G-xxUSF-4UCB-S36** include 20 or 44 Gigabit Ethernet copper 10/100/1000BaseT or SFP fiber 100FX/1000SX/LX/ZX tributaries with 4 GE Combo up-links and 4 optional 10GE XFP.

These equipments are used into broadband network Ethernet with multiservice and aggregation infrastructures. They support large payload in Telco networks, transportation or large industries. These « Carrier Class » switches are developed according to MEF 9 & 14. They are fully powered to support

Transport Ethernet infrastructure with auto-switch protection, selective provider VLAN (Q-in-Q), multicast, QoS with Class of service, high security and great support of OAM management. They provide high-speed switching & routing with high-density Gigabit-E interfaces. The protection is done less then 50ms in ring infrastructure.

For large node up to 8 copper or fiber GE swiches can be stacked over a dual 10GE bus.



## SPECIFICATIONS

### Wire-speed multi-layer switching

All ports support wire-speed forwarding. Up to 44x Gigabit optical/electrical port, 4x GE Combo (10/100/1000Base-T or 100/1000FX) port plus 4x 10GE port available that meet diversified network requirements for high-density GE and 10GE uplink. **SW3G series** supports hardware based L2/L3 wire-speed switching, enables powerful stacking capability.

### Large nodes

Up to 8 **SW3G series** switch can be stacked over a 10GE bus supporting up to 352 GE and several 10GE.

### Carrier Ethernet technology

Other than traditional spanning-tree protocol (STP/RSTP/MSSTP), S3600 series switches support G.8032, R-LINK, BFD, VRRP technologies to build-up ring/tree-type topologies that offer auto switching protection within 50ms. The industry-level design is also applied into S3600 series switch to improve physical reliability & usability.

### Miscellaneous service support and management function

SW3G series switch support VLAN demarcation based on different fields, VLAN mapping, selective Q-in-Q, packet classification based on port/VLAN/traffic flow, which fulfill flexible service differentiation.

**SW3G series** support extended ACL (L2 - L4), rate limit, priority schedule, mapping as well as flexible queues scheduling algorithm.

**SW3G series** support rich multicast protocols, including IGMPv1/v2/v3, IGMP Snooping, IGMP Proxy, IGMP Filter, IGMP Fast Leave, PIM-SIM, inter-VLAN multicast duplication, etc.

### Advanced QoS

Up to 8 priorities per port can be supported. Diffserv is able to classify the services based on source MAC, destination MAC, source IP and TCP/UDP port. SW3G series support port, flow and VLAN based rate limit, support SP/PQ, RR, WRR, DRR, SP/PQ+WRR, SP/PQ+DRR and WRED.

### High security

**SW3G series** own protection mechanism to prevent network from attacking, such as broadcast storm control, anti-ARP, black hole MAC, URPF, IP Source Guard, CPU protection, etc. Beside, thanks to AAA and multi-level access privileges, user-binding (port+MAC+IP based), port isolation, the switch can stop away unauthorized users and ACL can also contribute to the attack protection.

## Carrier Ethernet

Function	Description
Interfaces	SW3G-20TGX: 20*10/100/1000Base-T, 4*GE Combo, 2 extension slots , 2power slots SW3G-44TGX: 44*10/100/1000Base-T, 4*GE Combo, 2 extension slots , 2power slots SW3G-20USF: 20*100FX/1000SX/LX/ZX SFP, 4*GE Combo, 2 ext. slots , 2pow. slots SW3G-44USF: 44*100FX/1000SX/LX/ZX SFP, 4*GE Combo, 2 ext. slots , 2pow. Slots SW3G-20GPS: 20*10/100/1000Base-T POE, 4*GE Combo, 2 ext. slots , 1pow. Slot
Extension slots	Dual 10GE XFP port interface card, Dual GE Combo port interface card
	Stack BUS bus card for 8 SW3G copper or fiber 20 or 44 ports switches.
Packet forwarding	96Mpps(SW3G-20), 132Mpps(SW3G-44)
Switching capacity	128Gbps(SW3G-20), 176Gbps(SW3G-44)
Backplane capacity	128Gbps(SW3G-20), 1256Gbps(SW3G-44)
MAC adresse	32K
VLAN	Support 4K VLAN, conforming to IEEE802.1Q Support based on Ports-based VLANs/MAC-based VLANs/protocol-based VLANs/IP sub-net based VLANs Support 1:1 and N:1 VLAN Mapping Support Voice VLAN, Private VLAN Support Selective Q-in-Q function
Protection	Support STP/RSTP/MSTP Protocol Support G.8032 Support R-Link, fast switching for primary/slave link Support VRRP Support BFD & BFD For VRRP
DHCP	Support DHCP (server and relay) Support DHCP Snooping Support DHCP Option 82
Multicast	Multicast 2K Support IGMP v1/v2/v3 Support IGMP Snooping Support IGMP Proxy Support IGMP Filter Support IGMP Fast Leave Support inter-VLAN multicast duplication Support PIM-SM
Port aggregation	Support LACP Support 8 aggregation group, per aggregation group supports 8FE、4GE
ACL/QOS	Support L2~L4 Packet filtering, based on Mac address, IP address, ports, protocol, IP TOS, 802.1P, VLAN ID SVLAN ID, VLAN scope, MAC address scope filtering Support based on time range of ACL Support DLF storm suppression, multicast storm suppression, Broadcast storm suppression Support port/flow/VLAN based bandwidth limit, Rate limit granularity 64Kbps Support based on flow-bandwidth restrict Support flow based priority scheduling and mapping Support flexible scheduling algorithm, support SP/PQ、RR、WRR、DRR、SP/PQ+WRR、SP/PQ+DRR Support WRED Per port supports 8 QOS hardware based priority queues Support 802.1P, DSCP/TOS priority
Security	Support user privilege management and CLI grade protection Support user grade number limit Support anti ARP attack Support black hole MAC、URPF Support IP Source Guard Support CPU protection Support port isolation Support MAC address number limit based on port Support user binding (port, source MAC, source IP address access control) Support access terminal limit Support DHCP Snooping、DHCP Option82 Support SSH v2.0 Support AAA, Local authentication, PPPoE+、802.1x、RADIUS



## Carrier Ethernet

## SPECIFICATIONS SUITE

Mirroring	Support port-based, VLAN-based, VLAN+MAC based, Ports+MAC based, flow-based mirror Support remote mirroring
Routing	Static routing, RIP1 & 2, OSPF, BGP
Administration	Support Cluster management Support SNMPv1/v2/v3 Support RMON Support CLI/Telnet/Console based network management Support SNMP GUI management based on F-engine Wview Management platform Support FTP, TFTP, ZModem based Upload and download Support SSH v2.0 Support Ethernet OAM, 802.3ah, MEF 9, MEF 14 Support LLDP Support loopback testing
Energy-saving	Support temperature monitoring Support high-temperature alarm function Support power/fans rotation speed monitoring Support auto turn-off for unused line card Support ROHS
Environment	Working temperature : 0~50, Option -10~60. Stocking temperature -15~85 Relative humidity 10%~90%
Power	AC : 88~264VAC, 50Hz±5% DC : -36~-72VDC
Consumption	SW3G-20: <65W SW3G-44: <80W
Dimensions	440×400×44 (L x D x H)
Weight	<5Kg
MTBF	200.000 h
Conformity	CE, EN60950



## ORDER REFERENCES

<b>SW3G-20TGX-4UCB-S36</b>	Layer 3 Carrier Class Ethernet Switch, routing static/RIP/OSPF/BGP, 0° à +60°C, 19" 1U. 20x10/100/1000TX, 4 universal Combo port 10/100/1000Baset and SFP for 100FX or 1000FX, 2 extension slots for Dual 10GE XFP module, 2 power slots.
<b>SW3G-44TGX-4UCB-S36</b>	Layer 3 Carrier Class Ethernet Switch, routing static/RIP/OSPF/BGP, 0° à +60°C, 19" 1U. 20 ports SFP universal pour 100FX et 1000FX, 4 universal Combo port 10/100/1000Baset and SFP for 100FX or 1000FX, 2 extension slots for Dual 10GE XFP module, 2 power slots.
<b>SW3G-20USF-4UCB-S36</b>	Layer 3 Carrier Class Ethernet Switch, routing static/RIP/OSPF/BGP, 0° à +60°C, 19" 1U. 44x10/100/1000TX, 4 universal Combo port 10/100/1000Baset and SFP for 100FX or 1000FX, 2 extension slots for Dual 10GE XFP module, 2 power slots.
<b>SW3G-44USF-4UCB-S36</b>	Layer 3 Carrier Class Ethernet Switch, routing static/RIP/OSPF/BGP, 0° à +60°C, 19" 1U. 44ports SFP universal pour 100FX et 1000FX, 4 universal Combo port 10/100/1000Baset and SFP for 100FX or 1000FX, 2 extension slots for Dual 10GE XFP module, 2 power slots.
<b>SW3G-20GPS-4UCB-AC</b>	Layer 3 Carrier Class Ethernet Switch, routing static/RIP/OSPF/BGP, 0° à +60°C, 19" 1U. 20x10/100/1000TX POE 802.11af, 4 universal Combo port 10/100/1000Baset and SFP for 100FX or 1000FX, 2 extension slots for Dual 10GE XFP module, 1 AC power (500W), 1 power slot.
<b>PS-S36-AC-500W</b>	AC power module 88-264V for SW3G (500W), maxi 2
<b>PS-S36-AC-1000W</b>	AC power module 88-264V for SW3G (1000W), maxi 2
<b>PS-S36-DC48</b>	DC -36 à -72Vcc power module for SW3G, maxi 2
<b>UP-S36-2XFP</b>	Dual 10GE module with XFP slots delivered w/o modules
<b>UP-S36-STK</b>	Stacking extension module for 8 copper or fiber switches SW3G.

<b>XSFP 10GE Modules</b>	LC/PC connector, working temperature -10°C à +70°C
<b>XFP-10G-LR-SM10</b>	XSFP 10GE-LR module single-mode 1310nm, budget for 10km
<b>XFP-10G-LR-SM40</b>	XSFP 10GE-LR module single-mode 1310nm, budget for 40km
<b>XFP-10G-ZR-SM80</b>	XSFP 10GE-ZR module single-mode 1550nm, budget for 80km
<b>XFP-10G-ZR-SM80-Cxx</b>	XSFP 10GE-ZR module single-mode CWDM color Cxx, budget for 80km



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