SICOM3012BA

2+12G port Layer 2 managed intrinsically safe Ethernet switch

⟫ Product introduction

SICOM3012BA is a low-power, high-density port rail-type managed switch that meets the intrinsic safety certification in explosion-proof standards. SICOM3012BA supports DT-Ring protocol suite (self-healing time <50ms), DRP/DHP (self-healing time <20ms), STP/RSTP/MSTP, VLAN, multicast, QoS, SSH and other rich layer 2 software features, and supports CLI, Telnet, Web multiple management methods and network management software based on SNMPv1/v2c/v3. Support IEEE1588 PTPV2, DDM (SFP interface), support Ethernet IP and Modbus TCP protocols. SICOM3012BA has a metal casing with IP40 protection, a strong vibration-resistant rail seat, and excellent insulation and moisture-proof performance. It is mainly used in harsh environments such as factory automation, coal mining areas, and chemical industries.

⟫ Key Features

- Support 6 100Base-FX, 1000Base-X SFP ports, 6 10/100/1000Base-T(X) RJ45 electrical ports Support 2 long-distance RJ45 electrical ports, up to 300 meters 100Mbit/s, 900 meters 10Mbit/s

- Full load power consumption is less than 12W

- Supports redundant protocols: DT-Ring (self-healing time <50ms), DRP/DHP (self-healing time <20ms), STP/RSTP/MSTP Supports rich security policies

- Support CLI, Telnet, Web multiple management methods and network management software based on SNMPv1/v2c/v3

- Support hardware-based IEEE1588 PTPv2 (BC, P2P TC, E2E TC clock mode, time synchronization accuracy ±100 ns)

- Support EtherNet/IP and Modbus/TCP protocols

- Support DDM (SFP interface)

- IP40 protection class

⟫ Performance parameters

Software function	Exchange function	Support VLAN, PVLAN GVRP support Support port aggregation, LACP supports port flow control Support flow-based rate limiting (ACL rate limiting configuration) Support global broadcast storm suppression (QOS storm policy)
	Redundancy technology	Support DT-Ring, DT-Ring+, DT-VLAN protocol suite, self-healing time <50ms Support DRP/DHP, self-healing time <20ms Support STP/RSTP/MSTP
	Multicast technology	Support IGMP Snooping Support GMRP Support static multicast Support IGMPv2/v3
	safety technology	Support HTTPS/SSL SSH support Support TACACS+ Support IEEE802.1X Support RADIUS Support user classification Support port MAC address binding
	Service Quality Management	Support QoS, 802.1p(CoS), DSCP Support SP, WRR queue scheduling Support ACL
	management and maintenance	Support Console, Telnet, WEB management methods Support SNMPv1/v2c/v3, can be centrally managed by Kyvision Support SFTP/HTTP software upgrade Support power alarm,IP/MAC conflict alarm, memory/CPU utilization alarm, port alarm, ring alarm, port traffic alarm, CRC and packet loss rate alarm, SFP interface receive optical power alarm and transmit optical power alarm Support DDM (SFP interface) Support loop detection Support RMON Support port mirroring Support Syslog Support LLDP Support Link-check Supports EtherNet/IP and Modbus/TCP
	IP management	Support DHCP server/snooping/client, DHCP Option 82 Support ARP
	clock management	Support SNTP Client Support PTP, time synchronization accuracy within ±100ns

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Product Specifications	technical standard	IEEE 802.3i (10Base-T) IEEE 802.3u (100Base-T and 100Base-FX) IEEE 802.3ab (1000Base-T) IEEE 802.3z (1000Base-SX/LX) IEEE 802.3ad (Link Aggregation) IEEE 802.3x (Flow Control) IEEE 802.1p (priority) IEEE 802.1Q (VLAN) IEEE 802.1d (STP) IEEE 802.1w (RSTP) IEEE 802.1s (MSTP) IEEE 802.1x (Network Access Control) IEEE 802.1ab (LLDP) IEEE1588 V2 (PTP)
	exchange property	Priority queue 8 VLANs 4K VLAN ID 1 ~ 4094 Number of multicast groups 8K MAC table 8K packet buffer4Mbit packet forwarding rate17.9Mpps switching delay <5µs Extra long frame length9.6KB
	interface	Gigabit port 100Base-FX, 1000Base-X, 10/100/1000Base-T(X) SFP interface 10/100/1000Base-T(X), RJ45 interface long distance port RJ45 interface, up to 300 meters 100Mbit/s, 900 meters 10Mbit/s Console interface RS232, RJ45 interface RS485 1-channel RS485 serial bus, 2000V isolation protection, 2-pin 5.08mm pitch plug-in terminal RS232 1-way RS232, RX/TX/GND/3.3V, 160mA, 4-pin 5.08mm pitch plug-in terminal
	Status Indicator	Running indicator: Run Alarm indicator: Alarm Power indicator: PWR Ring indicator: Ring Interface indicator: Link/ACT, Speed (electrical port); Link/ACT (optical port) Serial port status indicator: 485,232
	button	Reset: Support restart and restore default configuration
	power supply	Input voltage12VDC(9-18VDC), non-isolated power access terminal 4-pin 5.08mm pitch plug-in terminal power<12W Overvoltage Protection Support Overcurrent Protection Support Reverse Polarity Protection Support
	Mechanical structure	Shell metal material Natural cooling, no fan protection class IP40 size88mm×135mm×108mm (W×H×D) Weight 1.20Kg Installation method: DIN rail type
	surroundings	Working temperature -40℃ ~ +75℃ Storage temperature -40℃ ~ +85℃ Relative humidity 5 ~ 95% non-condensing
	Warranty	MTBF >300000h warranty period5 years
	Industry Standard	EMI FCC CFR47 Part 15, EN55032/CISPR22, Class A EMS IEC61000-4-2(ESD) ±6kV(contact),±8kV(air) IEC61000-4-3(RS) 10V/m(80MHz ~ 2GHz) IEC61000-4-4(EFT) Power Port:±2kV;Data Port:±1kV IEC61000-4-5(Surge) Power Port:±1kV/DM,±2kV/CM;Data Port:±1kV IEC61000-4-6(CS) 10V(150kHz ~ 80MHz) mechanical IEC60068-2-6 (vibration) IEC60068-2-27 (shock) IEC60068-2-32 (free fall)

≫ Mechanical Dimensions
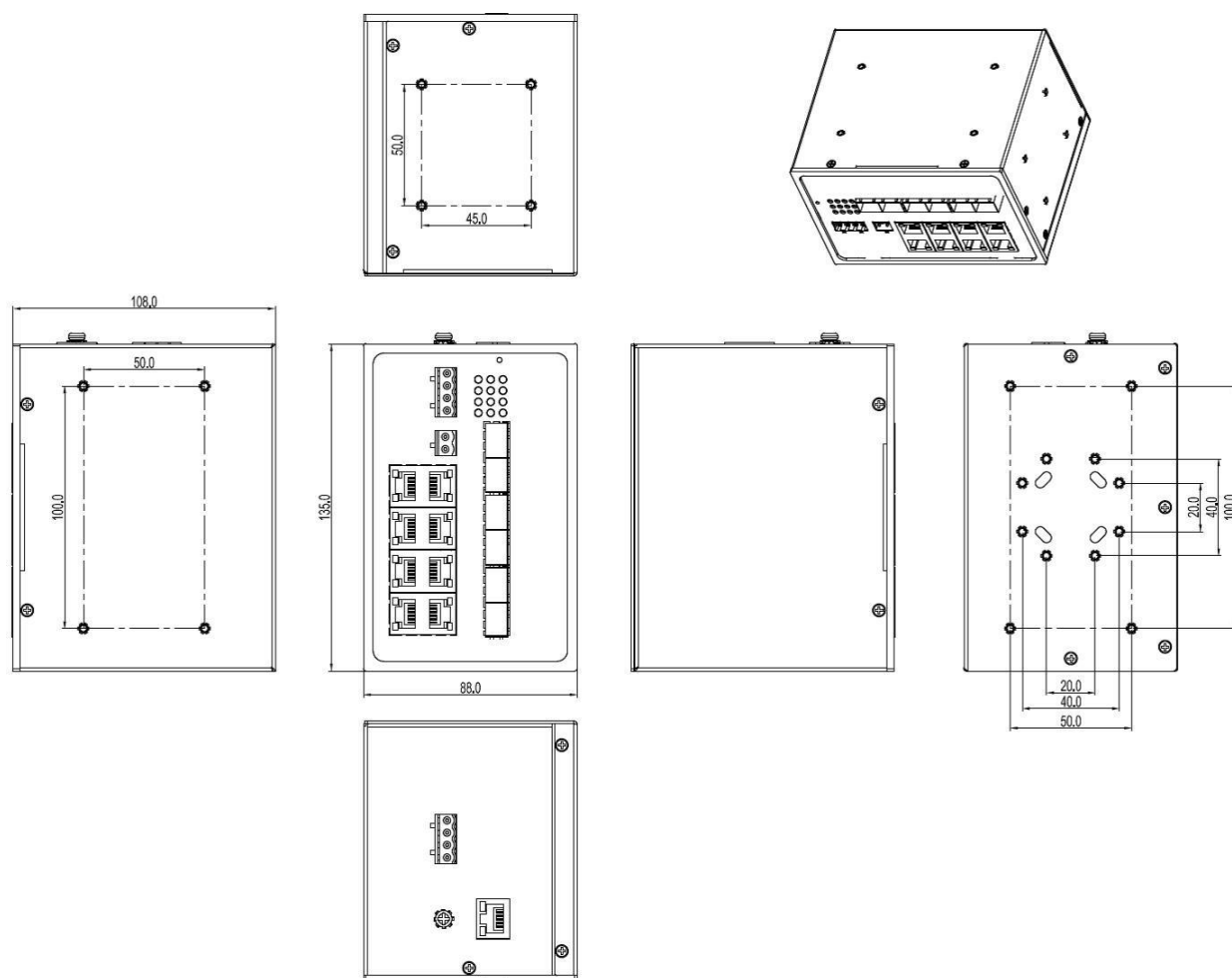
≫ Ordering Information

Product number	SICOM3012BA-C-Ports-PS SICOM3012BA-EC-Ports-PS
code definition	Code selection
C	Three anti-coating
EC	Three anti-coating of bare board
Ports	6GX6GE=6×100Base-FX, 1000Base-X, 10/100/1000Base-T(X) SFP interface; 6×10/100/1000Base-T(X) RJ45 electrical port
PS	L6=12VDC(9-18VDC), single input

Accessory model	Accessories description
SFP modules	Refer to the Industrial Grade SFP Module Selection Table
DT-FCZ-RJ45-01	Single port RJ45 dust cover