![CTS Connection Technology Systems logo]

SRS-3106

SRS-3106-4BT

| SRS-3106

4 x 10/100/1000Base-T RJ-45 Ports +

2 x 100/1000Base-X SFP Slots

Managed Rugged Switch

| SRS-3106-4BT

4 x 10/100/1000Base-T RJ-45 Ports with IEEE 802.3af/at/bt PoE injector +

2 x 100/1000Base-X SFP Slots

Managed Rugged PoE Switch

Description

CTS's SRS-3106 series consists of advanced 6-port layer-2 managed Ethernet switches meticulously designed to meet the evolving demands of rigorous network environments. This series includes the **SRS-3106** and the **SRS-3106-4BT** models, with the latter featuring a PoE injector.

Interface

| SRS-3106

This robust model features two 100/1000Base-X SFP slots for flexible distance extension & four 10/100/1000Base-T RJ-45 ports.

| SRS-3106-4BT

This model features not only two 100/1000Base-X SFP slots, but four 10/100/1000Base-T RJ-45 ports equipped with IEEE 802.3af/at/bt PoE injectors, capable of delivering up to 90W per port with a total power budget of 300W.

Network Resilience: Wide Temperature Tolerance

For ensuring and perfecting network resilience, the SRS-3106 series is distinguished by its ability to operate in a wide temperature range from -20°C to 60°C, which ensures reliable performance in harsh environmental conditions.

This resilience is further embodied by exclusive Fast Ring v2 and chain technologies, which guarantee a network recovery time of less than 50 ms, thereby minimizing downtime and enhancing overall network reliability. It also support standard RSTP/STP protocols to prevent network loops and ensure efficient data traffic management.

Ideal Applications

The switch series comes equipped with comprehensive management and security features, safeguarding network integrity and data. These advanced capabilities make it an ideal solution for demanding applications such as surveillance systems, enterprise networks, and outdoor installations, where high-power PoE, resilient network architecture, and robust environmental performance are paramount.

Key Features

Similarities between the 2 models

■ **Wide Temperature Tolerance: -20°C ~ 60°C**

The extensive operation temperature range allows it to perform reliably in environments with extreme temperature fluctuations, making it suitable for outdoor applications or the increasingly unpredictable conditions caused by global warming.

■ **All Aluminum Housing**

The robust aluminum casing enhances heat dissipation, ensuring efficient cooling during operation, as well as reduces the overall weight of the device.

■ **Dual Power Input**

Both models are shipped with a 4-pin terminal block to ensure a seamless transition of power supply in case of a sudden outage on either set of power inputs.

■ **Fast Ring v2**

Aside from standard RSTP/STP protocols, the SRS-3106 series features Fast Ring v2 technology to ensure network resilience with rapid recovery times of less than 50 ms (milliseconds,) which minimizes downtime, prevent network loops & enhances overall reliability for uninterrupted network performance.

Dissimilarities between the 2 models

■ **Power Input Range**

The **SRS-3106** supports a range of **DC 12V to 57V**, while the **SRS-3106-4BT** supports a range of **DC 48V to 57V.**

■ **SRS-3106-4BT:**
   90W per PoE Port, 300W of Total Power Budget

Equipped with 4 x 10/100/1000Base-T RJ-45 ports supporting IEEE 802.3af/at/bt PoE injectors, the SRS-3106-4BT model can provide up to 90W per port & a total power budget of up to 300W.

Hence, it's ideal for powering high-demand powered devices, such as PTZ IP cameras, Wi-Fi 7 access points, and self-service terminals via Ethernet cables.

Target Applications

• Extreme environments with unstable temperature changes
• Long-distance fiber Ethernet network deployment

Specification

■ Interface

Fiber Port
-2 x 100/1000Base-X SFP
RJ-45 Port
-4 x 10/100/1000Base-T RJ-45 (SRS-3106 only)
-4 x 10/100/1000Base-T RJ-45 with IEEE
 802.3af/at/bt PoE injector (SRS-3106-4BT only)
-6KV surge protected on PoE ports
Console Port
-1 x RS-232 to RJ-45 Serial Port
Terminal Block
-1 x Digital Output (Alarm Relay)
   Relay output with current
   carrying capacity of 1 A @ 24 VDC
-1 x Digital Input (Dry contact)
Standards
-IEEE 802.3 10Base-T
-IEEE 802.3u 100Base-TX/FX
-IEEE 802.3ab 1000Base-T
-IEEE 802.3z 1000Base-X
-IEEE 802.3x Flow Control
-IEEE 802.3ad Link Aggregation (Static)**
-IEEE 802.1ab LLDP
-IEEE 802.1p Priority
-IEEE 802.1q Tag VLAN
-IEEE 802.1d STP**
-IEEE 802.1w RSTP**
-IEEE 802.3af Power over Ethernet *
-IEEE 802.3at Power over Ethernet +*
-IEEE 802.3bt Power over Ethernet ++*

■ H/W Specification

-MAC Address Table: 2K
-Non-Blocking Switching Fabric: 12Gbps
-Throughput @ 64Bytes: 8.928Mpps
-Packet Buffer: 1Mbit
-Jumbo Frame: 9K Bytes
-Store and Forward Switching Mechanism
-Auto-Cross Over for MDI/MDIX in TP Ports
-Auto-Negotiation in TP Ports
-Full/Half Duplex Mode Operation

■ LED

-P1, P2, STA, ALM, Ring, Ring Master, COM,
Link/Act, PoE

■ Forward/Filter Rate

10M: 14,880/14,880pps
100M: 148,800/148,800pps
1000M: 1,488,000/1,488,000pps

■ Power over Ethernet*

-Per Port Power Pin Assignment
 IEEE 802.3af/at (mode A/end-span):
  1/2(-), 3/6(+)
  max. PoE output Budget: 15/30W
 IEEE 802.3bt
 (4-pair mode, 4-pair mode mandatory):
  1/2(-), 3/6(+) & 4/5(+), 7/8(-)
  max. PoE output Budget: 90W
-Total PoE Power Budget: 300W

■ Layer 2 Switch Features

Port Management
-State, Description, Media Type, Port Type,
 Speed, Duplex and Flow Control

Network Redundancy
-IEEE 802.1d Spanning Tree Protocol (STP)**
-IEEE 802.1w Rapid Spanning Tree Protocol
 (RSTP)**
-Fast Ring v2/Chain Redundancy Protocols**
-Static Port Trunking**
-Up to 3 Aggregation Groups, 2-4 Ports per
 Group**

VLAN
-IEEE 802.1q VLAN
 VLAN ID: 4094 IDs
 VLAN Concurrent Groups: 128 VLAN Groups
-Port-Based VLAN
-Q-in-Q Double tag with Configurable Ether
Type

QoS
-QoS based on 802.1p CoS and DSCP
-Scheduling Algorithm
 Weighted Round Robin (WRR)
 Strict Priority Queuing (SPQ)
-QoS Priority Queues: 4 Queues
-802.1p P-bit & DSCP Remarking
-Port-Based Rate Limit (Ingress/Egress)

Multicast
-IGMP Snooping v1/v2/v3
-IGMP Fast Leave
-MLD Snooping v1/v2
-IGMP/MLD Snooping Group: 64/32 Groups

IPv6 Feature
-IPv6 Over Ethernet (RFC 2464)
-IPv6 Addressing Architecture (RFC 4291)
-IPv6 Dual Stack (RFC 4213)
-ICMPv6 (RFC 4884)
-Path MTU Discovery for IPv6 (RFC 1981)
-Neighbour Discovery (RFC 4861)
-DHCPv6 Client

■ PoE Management*

-System/per port PoE off and on
-PoE Usage Alarm Threshold**
-PoE Inline Mode
 Auto af/at, Auto bt, Fix, Force
-PoE Priority
 Critical, High, Low
-PoE off/on by schedule

■ Security

-802.1x RADIUS Authentication for
 login username/password
-DHCP Server Trust Port
-Port Isolation
-Broadcast Storm Control
-Loop Detection

■ Management

-SNMP v1, v2c & v3 (Support Traps)
-Web (HTTP/HTTPS)
-CLI (Console/Telnet/SSHv2)
-NTP with Daylight Saving Time
-LLDP

Upgrade/Restore
-Firmware Upgrade/Downgrade
 HTTP/HTTPS/FTP/TFTP
 DHCP Auto-provision via DHCP Option 60/43
-Configuration Upload/Backup
 HTTP/HTTPS/FTP/TFTP
 DHCP Auto-provision via DHCP Option 60/43
-Auto configure backup
 FTP/TFTP

■ Maintenance

Diagnostic
-Port Mirror
-ICMP Ping
-Event log
-Syslog
-SFP SFF-8472 DDMI Monitor
 Temp/Voltage/TX Bias/TX Power/RX Power
-CPU Temperature/Utilization
-Memory Statistics
-Digital Input
 Normal Open, Normal Close
-Digital Output
 Event Trigger (Digital Input, Power 1/2 Down
 and Port Down)

■ Power Requirement

Dual DC Input (4-pin removable terminal block)
-SRS-3106:12~57 VDC
-SRS-3106-4BT: 48~57 VDC
Recommend PoE Output Requirement Voltage
-802.3at: 50~57VDC
-802.3bt: 52~57VDC
Max. Power Consumption:
-SRS-3106: 7.4W (25.25 BTU/h)
-SRS-3106-4BT: 313W (1068 BTU/h)

■ Environmental Condition

Operation: -20˚C ~ 60˚C
Storage: -30˚C ~ 70˚C
Humidity: 5% ~ 90%, Non-condensing

■ Dimension & Weight

Size: 56.5 x 110 x 135mm (W x D x H)
Housing: Aluminium, IP30

■ Standards and Certifications

FCC Class A, CE
-Safety: EN/IEC 62368-1
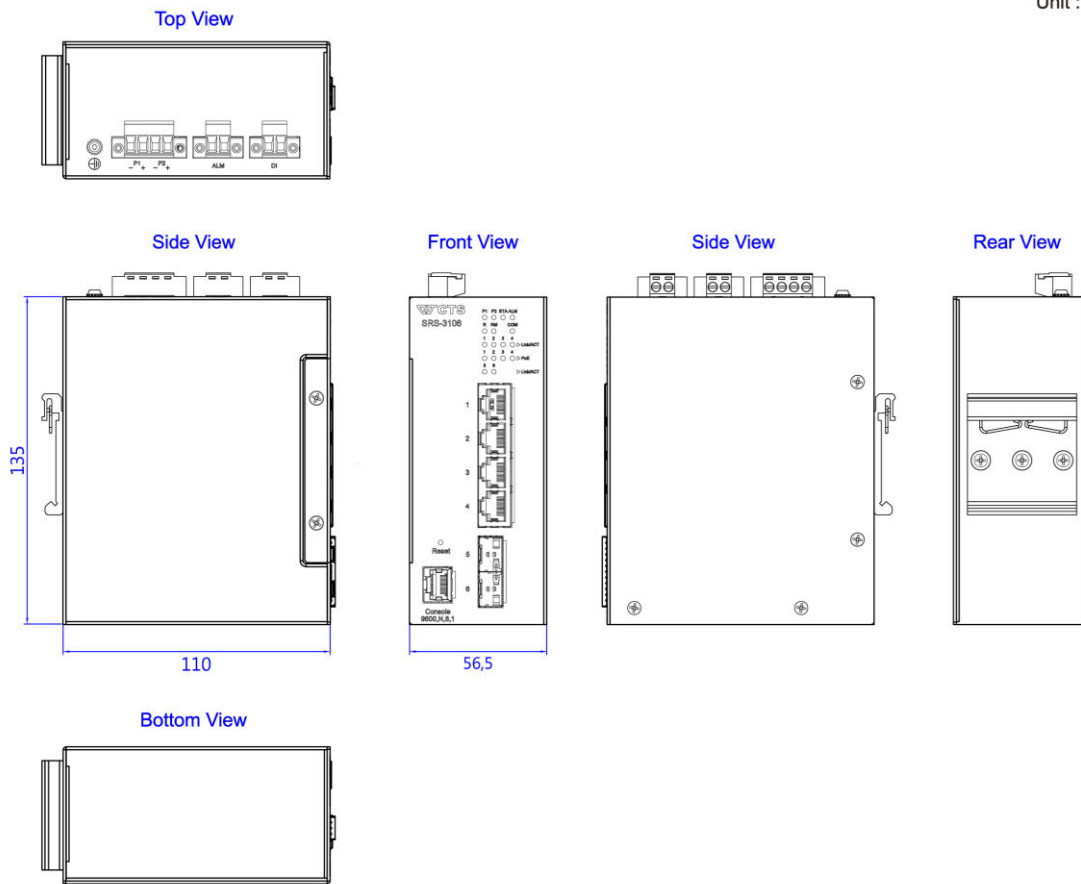-EMC: EN 55032 / EN 55035
-Surge Protection: +/-6kV (RJ-45)
Freefall/Shock/Vibration
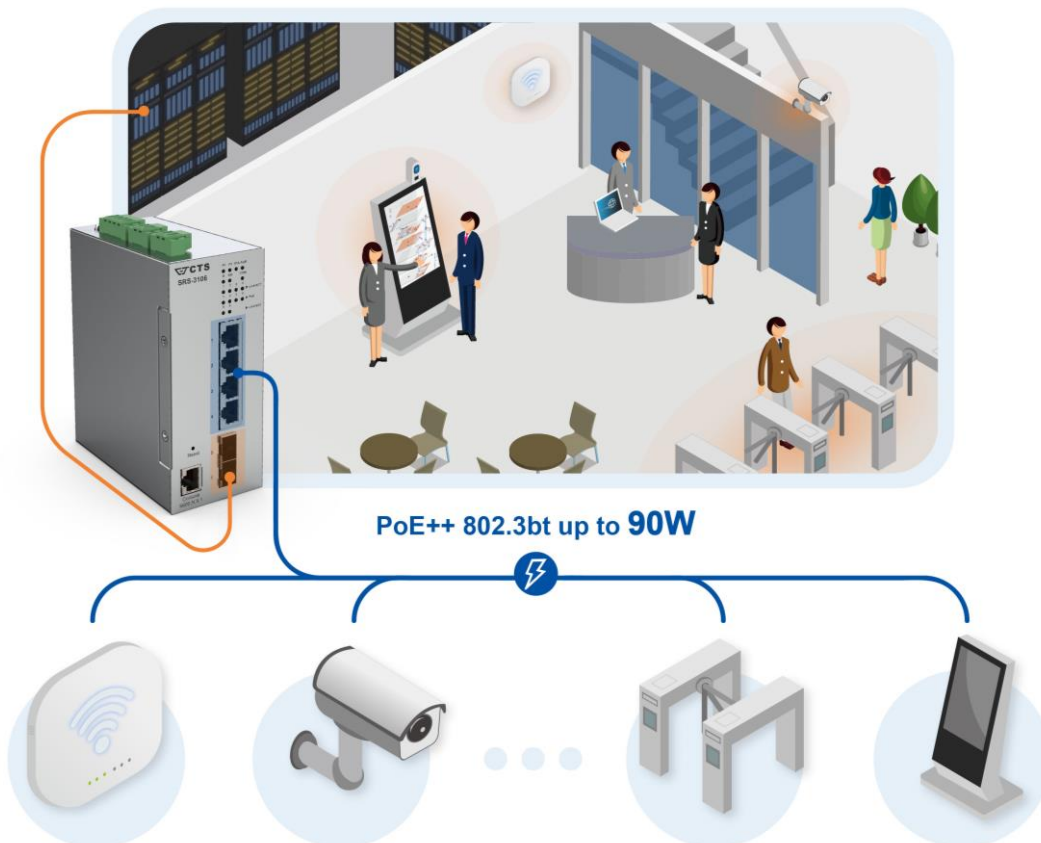-IEC 60068-2-32
-IEC 60068-2-27
-IEC 60068-2-6
RoHS 2.0

* The PoE related function only operates on
   SRS-3106-4BT
** Coming soon

Dimension

Unit : mm

Top View

Side View

135

110

Front View

ωCTS
SRS-3106

Reset

Console
9600,N,8,1

56,5

Side View

Side View

Rear View

Bottom View

Application Diagram

PoE++ 802.3bt up to **90W**

Order Information

Model	Fiber Port			TP Port		Support Power Source
	Speed	Type	Slots	Speed	Ports	
SRS-3106	100/1000Mbps	SFP	2	10/100/1000Mbps	4	2 x 12~57V DC with removable terminal block
SRS-3106-4BT	100/1000Mbps	SFP	2	10/100/1000Mbps	4 with 802.3af/at/bt Injector	2 x 48~57V DC with removable terminal block

Accessory

SFP-31FC-D

Model	Specification					
	Speed	Type	Connector	Distance	Wavelength	Operating Temperature
SFP-31FC-D	1000Mbps	MM	LC	550M	850nm	-40˚C ~ 85˚C
SFP-31FC-(MM-02)-D	1000Mbps	MM	LC	2KM	1310nm	-40˚C ~ 85˚C
SFP-31FC(SM-10/20)-D	1000Mbps	SM	LC	10/20KM	1310/1310nm	-40˚C ~ 85˚C
SFP-31W2A(SM-10/20)-D	1000Mbps	WDM	LC	10/20KM	TX: 1310/1310nm RX: 1550/1550nm	-40˚C ~ 85˚C
SFP-31W2B(SM-10/20)-D	1000Mbps	WDM	LC	10/20KM	TX: 1550/1550nm RX: 1310/1310nm	-40˚C ~ 85˚C