SRP820 Series

Quick Start Guide

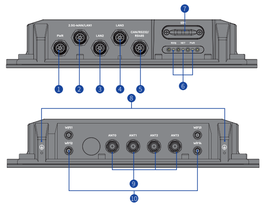
Welcome to the SRP Series

SRP series ruggedized outdoor router provides 5G NR service in a ruggedized form factor. With an operating temperature range of -40℃ ~ 70℃ endurance, they offer industrial-grade environmental qualifications while providing higher speed data services for video and other bandwidth-intensive applications. SRP series industrial router has very strong anti-vibration ability and it is qualified for extreme industrial environments and ideally suited for rail, transportation, mining, oil and gas, manufacturing, and other outdoor applications.

With the diverse self-developed 5G NR embedded modules integrated, SRP series industrial router can support multi-band for Private 5G NR, even support uncommon frequencies. SRP series industrial router can provide accurate real-time location information.

This document will serve as a quick start guide for SRP series ruggedized outdoor router. In this document, the SRP series ruggedized outdoor router will be replaced by the router.

Device Architecture



1. Power port
2. 2.5G-LAN1/WAN port
3. LAN2 port (support PSE)
4. LAN3 port (support PSE)
5. CAN/RS232/RS485 port
6. LED interface
7. SIM interface
8. Ground screws
9. Cellar antenna interface
10. Wi-Fi antenna interface

Note1 The reset button is beside SIM interface, if press 1s, router will restart; If press on for 10s, the router will reset to factory defaults.

Note2 There are two white ground screws also at behind of device.

RS232/485 Cable Definition

RS232/485 cable definition

Number	Colors	CAN/RS232/RS485
1	Orange&white	RS485_A
2	Orange	RS485_B
3	Green&white	RS232_RX
4	Blue	RS232_TX
5	Blue&white	RS_GND
6	Green	RS_GND
7	Brown&white	CAN_H
8	Brown	CAN_L

LAN/WAN Cable Definition

LAN/WAN cable definition

Number	Colors	LAN/WAN
1	Orange&white	MDI0+/RJ45-1
2	Orange	MDI0-/RJ45-2
3	Green&white	MDI1+/RJ45-3
4	Blue	MDI2+/RJ45-4
5	Blue&white	MDI2-/RJ45-5
6	Green	MDI1-/RJ45-6
7	Brown&white	MDI3+/RJ45-7
8	Brown	MDI3-/RJ45-8

Power Cable Definition

Power cable definition

Number	Colors	PWR
1/4	Red	PWR_Positive
2/3	Black	PWR_GND

Working Environment

Operating Temperature	-40℃ ~ 70℃
Storage Temperature	-40℃ ~ 85℃
Humidity	5% ~ 95%
Power Supply	12 ~ 36VDC
Power Consumption	＜60W
Water and Dustproof	IP67

Packing List

Items	Accessories	Qty
1	A-Code cable to RJ45 jack ADC2 (Ethernet cable)	1
2	A-Code 8-Pin cable ADB1 (Data cable)	1
3	A-Code 4-Pin cable M12A (Power cable)	1
4	Mounting bolt	4
5	Grounding cable	1
6	Protective cap (TNC)	4
7	Protective cap (SMA)	4
8	Protective cap (M12)	5
9	AC/DC power adapter (comes in separate packing)	1
10	Full-band rubber antenna for cellular (TNC)	4
11	Full-band rubber antenna for Wi-Fi (SMA)	4
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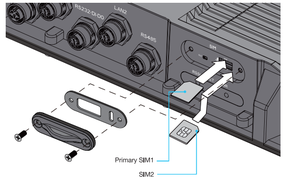
Hardware Configuration

Install SIM Cards

Step1 Use a cross screwdriver to remove the SIM card cover.

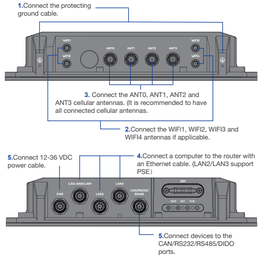
Step2 Slide the SIM cards into the SIM slots until they click into place. By default, the SIM card in slot 1 (the upper slot) is the Primary SIM card. When the SRP router is powered on or rebooted, it automatically connects to the network associated with the Primary SIM card.

Step3 Re-attach the cover.



Connect and Turn on the Router

⚠ Please connect the protecting ground cable as first step, connect 12-36 VDC power cable as the last step.



Connect to the Network

When the router is powered on, a green PWR LED may occur. This indicates that the power input is good.

Once the router' s radio module is configured for the SIM card, it begins the activation/provisioning process and attempts to connect to the mobile network. This process typically takes several minutes. A successful connection is indicated by a solid green NET LED. And the strength of the RF signal can be indicated by the Signal LEDs in different quantity.

Indicator	Status	Description
PWR	Green	Power on
	Off	No power supply
NET	Green	Registered to network
	Off	Not register to network
	Blinking	Searching network
RSSI	Green	Signal strong
	Yellow	Signal good
	Red	Signal weak
	Off	No signal
	Red Blinking	No SIM or SIM error

Software Configuration

Login to the Web Management Page

Step1 Launch the web browser, enter http://192.168.1.1 in the address bar, and press Enter.

Step2 Enter the username and password, and click **Login**.

Step3 After the password is verified, you can login to the web management page.

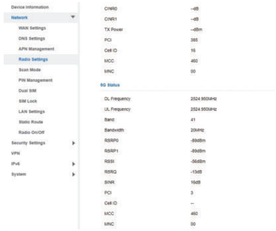
The default username and password are both **admin**. If you want to view or configure the router, you should use the super account to login to the web management page. The default super username is **superadmin**, and the password is **admin**.

Radio Settings

Step1 Choose **Network** > **Radio Settings**.

Step2 On **Radio Settings** page, you can set the configuration of 5G NR network.

Step3 In the **5G Status** list, you can view the 5G NR status, such as Frequency, RSSI, RSRP, RSRQ,CINR, SINR, Cell ID and etc.



FAQs

The POWER indicator does not turn on.

- Make sure that the power cable is connected properly and the router is powered on.
- Make sure that the power supply is compatible with the router.

Fails to Login the web management page.

- Make sure that the router is powered on.
- Verify that the router is correctly connected to the computer through Wi-Fi or a network cable.
- If the problem persists, please contact the authorized local service suppliers.

The router fails to search for the wireless network.

- Check if the power supply is connected properly.
- Check if the router is placed in an open area that is far away from obstructions, such as concrete or wooden walls.
- If the problem persists, please contact the authorized local service suppliers.

The parameters are restored to default values.

- If the router is powered off unexpectedly while being configured, the parameters may be restored to the default settings.
- After configure the parameters, download the configuration file and restore the desired settings quickly.

The router does not support SIM card hot-plug, please confirm that the device is powered off when the SIM card is inserted or removed.

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
—Reorient or relocate the receiving antenna.
—Increase the separation between the equipment and receiver.
—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
—Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment and it also complies with Part 15 of the FCC RF Rules. This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provided with antenna installation instructions and consider removing the no-collocation statement.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.
Caution!

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

ISED Warning statements

This device complies with Industry Canada' s licence-exempt RSSs. Operation is subject to the following two conditions:
(1) This device may not cause interference; and
(2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d' Industrie Canada applicables aux appareils radio exempts de licence.
L' exploitation est autorisée aux deux conditions suivantes :
(1) l' appareil ne doit pas produire de brouillage;
(2) l' utilisateur de l' appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d' en compromettre le fonctionnement.

ISED Radiation Exposure Statement

The device meets the exemption from the routine evaluation limits in section 2.5 of RSS 102 and compliance with RSS-102 RF exposure, users can obtain Canadian information on RF exposure and compliance.

Le dispositif rencontre l'exemption des limites courantes d'évaluation dans la section 2.5 de RSS 102 et la conformité à l'exposition de RSS-102 rf, utilisateurs peut obtenir l'information canadienne sur l'exposition et la conformité de rf.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

Cet émetteur ne doit pas être Co-placé ou ne fonctionnant en même temps qu'aucune autre antenne ou émetteur. Cet équipement devrait être installé et actionné avec une distance minimum de 20 centimètres entre le radiateur et votre corps.

ISED Statement

1.The device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;

2.For devices with detachable antenna(s), the maximum antenna gain permitted for devices in the bands 5250-5350 MHz and 5470-5725 MHz shall be such that the equipment still complies with the e.i.r.p. limit;

3.For devices with detachable antenna(s), the maximum antenna gain permitted for devices in the band 5725-5850 MHz shall be such that the equipment still complies with the e.i.r.p. limits specified for point-to-point and non-point-to-point operation as appropriate.

1.Les dispositifs fonctionnant dans la bande 5150-5250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;

2.Le gain maximal d'antenne permis pour les dispositifs utilisant les bandes 5250-5350 MHz et 5470-5725 MHz doit se conformer à la limite de p.i.r.e.;

3.Le gain maximal d'antenne permis (pour les dispositifs utilisant la bande 5725-5850 MHz) doit se conformer à la limite de p.i.r.e. spécifiée pour l'exploitation point à point et non point à point, selon le cas.