



Aprisa SR+

Quick Start Guide

Aprisa SR+ Radio

Version: 1.8.0

GA Release



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May 2025

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Aprisa SR+ Radio Quick Start Guide

Check the Box Contents

The box contains one Aprisa SR+ radio fitted with power connector:



Install Aprisa SR+ Radio and connect protection earth

The Aprisa SR+ has four threaded holes (M4) in the base and two holes (for M5 screws) through the enclosure for mounting. Mounting options include:

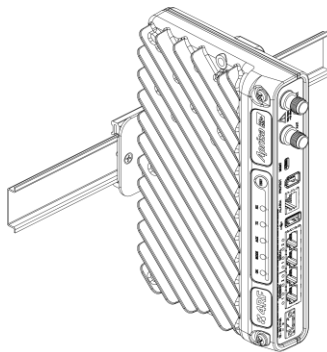
Aprisa SR+ DIN rail mounting

The Aprisa Family has an optional accessory part (APGA-MBRK-DIN) to enable the mounting on a standard DIN rail:

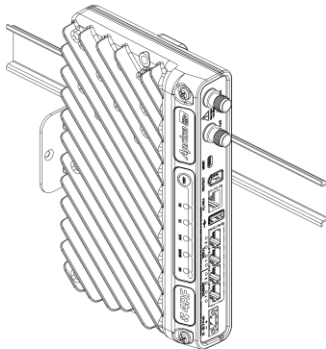
The Aprisa SR+ is mounted into the DIN rail mounting bracket using the four M4 threaded holes in the enclosure base. Four 8 mm M4 pan pozi machine screws are supplied with the bracket.

The DIN rail mounting bracket can be mounted in three positions on a horizontal DIN rail:

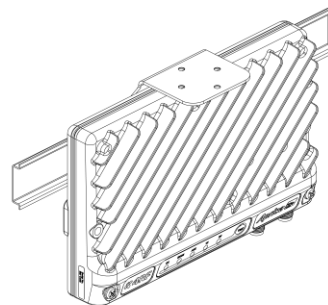
- Vertical Mount (vertical enclosure perpendicular to the mount)
- Flat Vertical Mount (vertical enclosure parallel to the mount)
- Flat Horizontal Mount (horizontal enclosure parallel to the mount)



Vertical Mount



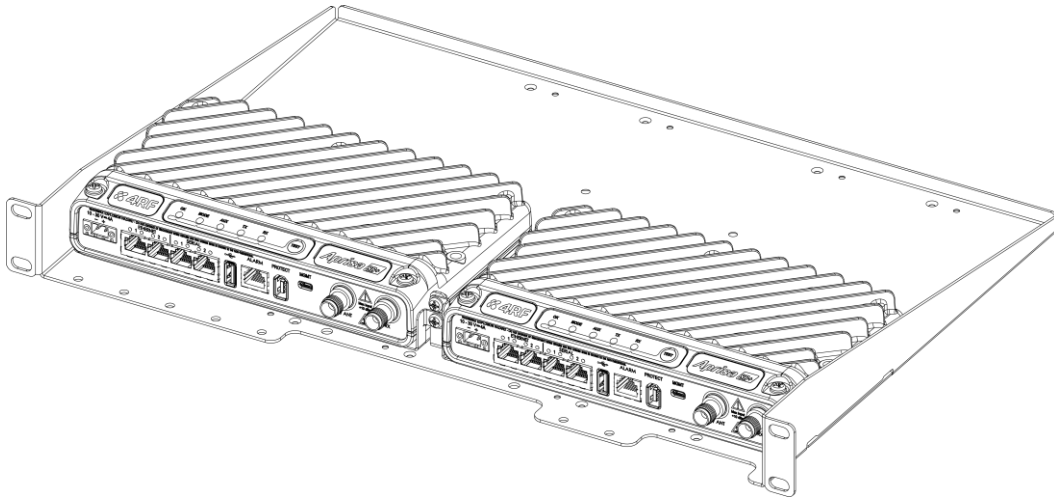
Flat Vertical Mount



Flat Horizontal Mount

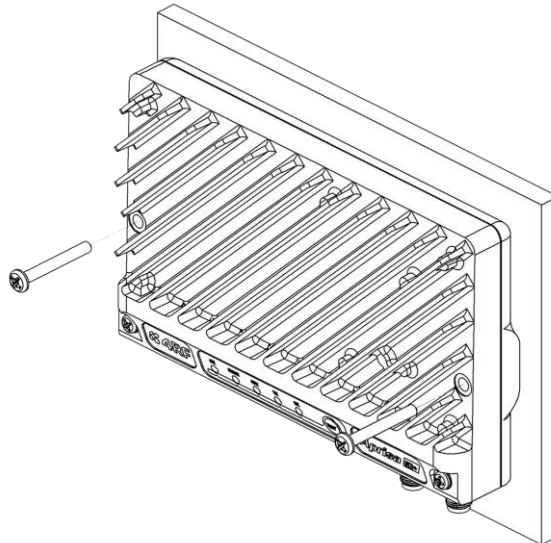
Aprisa SR+ Rack Shelf mounting

The Aprisa Family has an optional accessory part (APGA-MR19-X1U) to enable the mounting on a standard 19" rack shelf:



Aprisa SR+ Wall mounting

The Aprisa SR+ can be mounted on a wall using the two holes through the enclosure (5.2 mm diameter). Typically, M5 screws longer than 35 mm would be used.



The Aprisa SR+ has an earth connection point on the top left and the top right of the enclosure. Use the supplied M4 screws to earth the enclosure to a protection earth.

The antenna feeder cable should use grounding kits for lightning protection as specified or supplied by the coaxial cable manufacturer to properly ground or bond the cable outer.



Warning: If the Aprisa SR+ is operated in an environment where the ambient temperature exceeds 50°C, the Aprisa SR+ must be installed within a restricted access location to prevent human contact with the enclosure heatsink.



Note: The Aprisa SR+ radio operates within frequency bands that require a site license be issued by the radio regulatory authority with jurisdiction over the territory in which the equipment is being operated. It is the responsibility of the user, before operating the equipment, to ensure that where required the appropriate license has been granted and all conditions attendant to that license have been met.

	BE	BG	CZ	DK	DE
	EE	IE	EL	ES	FR
	HR	IT	CY	LV	LT
	LU	HU	MT	NL	AT
	PL	PT	RO	SI	SK
	FI	SE	UK		

Hereby, Aviat Networks declares that the Aprisa SR+ digital radio is in compliance with Directive 2014/53/EU.

Connect the antenna and apply power to the Aprisa SR+ Radio

Connect the antenna to the antenna port TNC female connector. If the antenna is not available, terminate the 'TX / Ant' port with a TNC male 50 ohm terminator (10 Watts min).



Warning: Do not directly connect the two radio antenna ports without attenuation of at least 40 dB. The receiver can be damaged if signals greater than +10 dBm are applied to the antenna port.



The Aprisa SR+ is operated from a DC source of voltage between +10 VDC and +30 VDC (negative earth) and consumes up to 35 Watts. External power supplies are available from 4RF as accessories (see the *Aprisa SR+ User Manual*).

The power connector (Molex 2 pin female) is supplied fitted to the radio. Wire your power source to the power connector (- / +) and plug the connector into the radio. The connector screws should be fastened to secure the connector.



Note: The radio fuses will blow if the connected power supply is over voltage, or the polarity is reversed. Two spare fuses are located inside the enclosure (see the **Spare Fuses** section of the *Aprisa SR+ User Manual*).



Note: The factory default for the Terminal Operating Mode is set to Remote Station for all radios.

Turn your power source on. All the radio LEDs will flash orange for two seconds.

Then the **OK**, **AUX**, **TX** and **RX** LEDs will light green, and the **TX** and **RX** LEDs will also flash as traffic is transmitted / received. The **MODE** LED will flash red to indicate that the radio is unregistered.

When the radio has been configured and has registered with the network, the **MODE** LED will turn green (so all LEDs are now green).

The radio is now ready to operate.

If the radio has an active alarm, such as being unable to communicate with the base station, the **OK** LED will go red.



Warning: On link operation, RF energy is radiated from the antenna. Do not stand in front of the antenna.

Connect to the Aprisa SR+

The Aprisa SR+ has a factory default IP address of **169.254.50.10** with a subnet mask of **255.255.0.0**. The Aprisa SR+ protected station has a factory default IP address of **169.254.50.10** for radio A and **169.254.50.20** for radio B with a subnet mask of **255.255.0.0**.

Each radio in the Aprisa SR+ network must be set up with a unique IP address on the same subnet.

If the IP address of the radio is unknown, it can be changed via the Command Line Interface on the radio MGMT USB port:

- Connect your PC USB port to the Aprisa SR+ MGMT USB port. USB to UART Bridge VCP Drivers are required to connect the radio USB port to your PC. You can download and install the relevant driver from <https://www.silabs.com/products/development-tools/software/usb-to-uart-bridge-vcp-drivers>.
- Log in to the radio with the default login **admin** and password **admin**.
- At the command prompt `>>`
 - type `cd APRISASR-MIB-4RF` and **Enter**.
 - type `set ethController1IpAddress xxx.xxx.xxx.xxx` and **Enter**.
 - type `set ethController1SubnetMask 255.255.0.0` and **Enter**.
 - type `set ethController1Gateway xxx.xxx.xxx.xxx` and **Enter**.

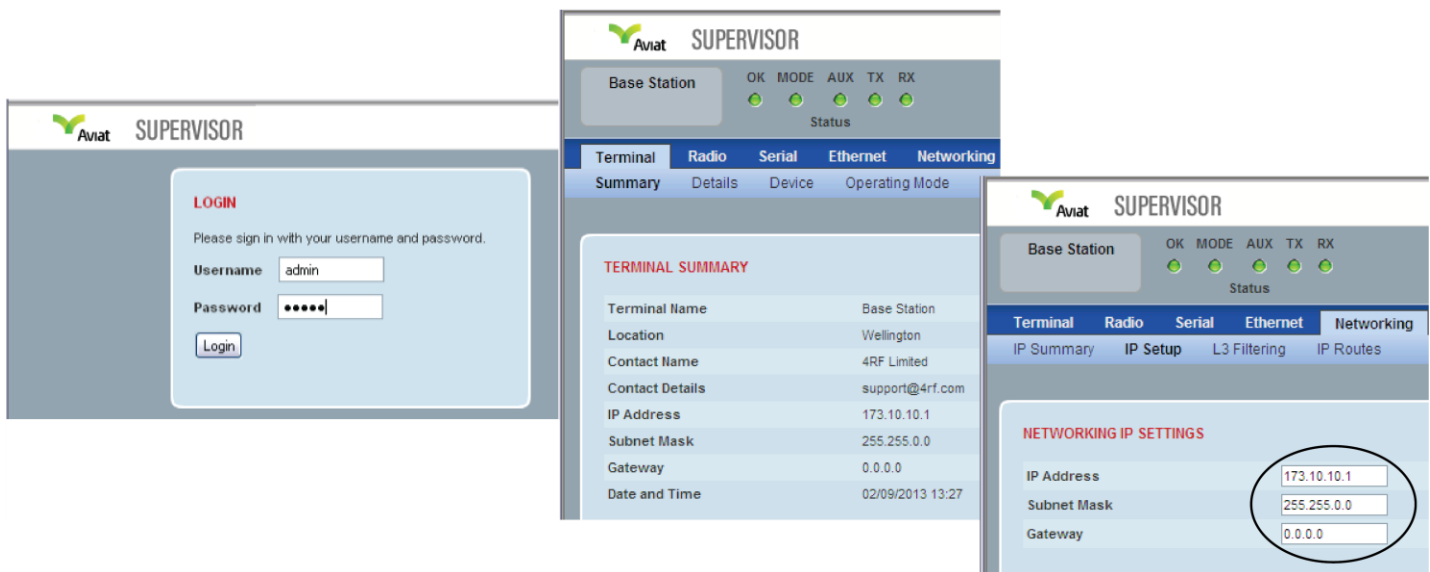
If the IP address of the radio is known or is the default IP address, it can be changed via the Ethernet port:

- Set up your PC for a compatible IP address, e.g., **169.254.50.1** with a subnet mask of **255.255.0.0**.
- Connect your PC network port to one of the Aprisa SR+ Ethernet ports.
- Open a browser and enter **http://169.254.50.10**.



Note: The Aprisa SR+ has a Self-Signed security certificate which may cause the browser to prompt a certificate warning. It is safe to ignore the warning and continue. The valid certificate is 'Issued By: 4RF-APRISA' which can be viewed in the browser.

- Log in to the radio with the default login **admin** and password **admin**.
- Change the IP address, Subnet mask and Gateway to network compatible IP addresses.



Set up the Aprisa SR+ Radio

The Aprisa SR+ has a factory default **Terminal Operating Mode** of Remote Station.

One radio in the Aprisa SR+ network must be set up as a **Base** Station.

The other radios in the Aprisa SR+ network are set up as **Remote** Stations or **Repeater** Stations.

Set the **Ethernet Operating Mode**.

Set the unique radio **Network ID** to be the same in your entire network including the **Base Station ID**.

Set the Aprisa SR+ **TX Frequency**, **TX Power**, **RX Frequency**, and **Channel Size** to comply with your site license.

Set the **Antenna Port Configuration** required.

You can now configure the remaining terminal and network parameters and settings.

Please refer to the *Aprisa SR+ User Manual* for detailed instructions. For ACM implementations, we recommend that the Default Modulation be set to QPSK (Low Gain).

Monitor the Aprisa SR+ radio signal strength

When the network is installed, the radio signal strength can be monitored on remote stations by setting the radio to Test Mode.

To enter Test Mode, press and hold the **TEST** button on the radio LED panel until all the LEDs flash green (about 3 - 5 seconds).

In Test Mode, the LED Display panel presents a real time visual display of the RSSI. This can be used to adjust the antenna for optimum signal strength.



Note: The response time is variable and can be up to 5 seconds.

To exit Test Mode, press and hold the **TEST** button until all the LEDs flash red (about 3 – 5 seconds).

The **OK**, **MODE** and **AUX** LEDs will be solid green, and the **TX** and **RX** LEDs will be solid or flash green if the network is operating correctly.

OK LED	MODE LED	AUX LED	TX LED	RX LED	RSSI
					>= -80 dBm
					-84 dBm to -81 dBm
					-88 dBm to -85 dBm
					-92 dBm to -89 dBm
					-96 dBm to -93 dBm
					-100 dBm to -97 dBm
					-104 dBm to -101 dBm
					-108 dBm to -105 dBm
					-112 dBm to -109 dBm
					-116 dBm to -113 dBm
					< RSSI threshold
					No response received

For more information, please refer to the *Aprisa SR+ User Manual*, available from Aviat Networks's Customer Resource Center.

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