4RF Aprisa SR+ Data Driven Protected Station User Guide

User Guide
Aprisa SR+ Data Driven Protected Station

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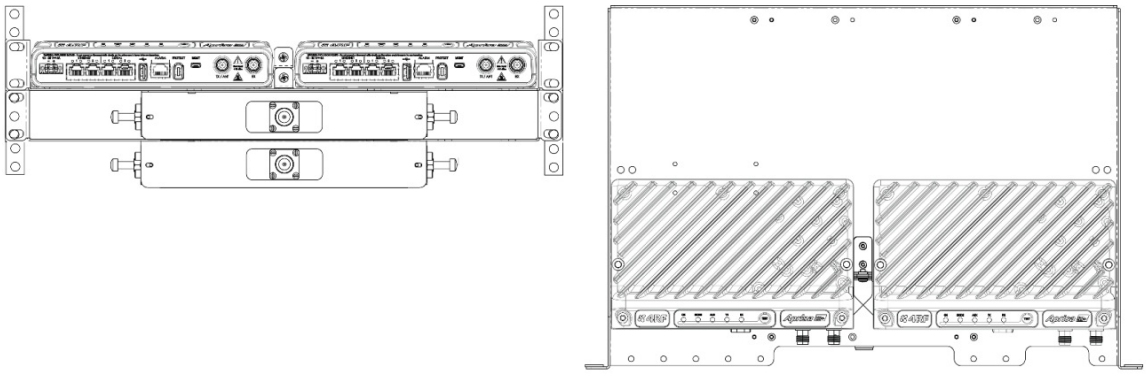
Check the box contents

The Aprisa SR+ Data-Driven Protected Station is shipped to you in a containing the following:
Aprisa SR+ Data-Driven Protection Station

- Two Aprisa SR+ radios mounted on a 19” rack mount shelf.
- Two duplexers mounted on a 19” rack mount shelf with fitted SMA to TNC cables for connection to the radios
- Two 2 pin female power connectors
- One 4 pin female remote control connector

Install the Aprisa SR+ Data-Driven Protected Station and connect the protection earth

The Aprisa SR+ Data-Driven Protected Station is designed to mount in a standard 19” rack.



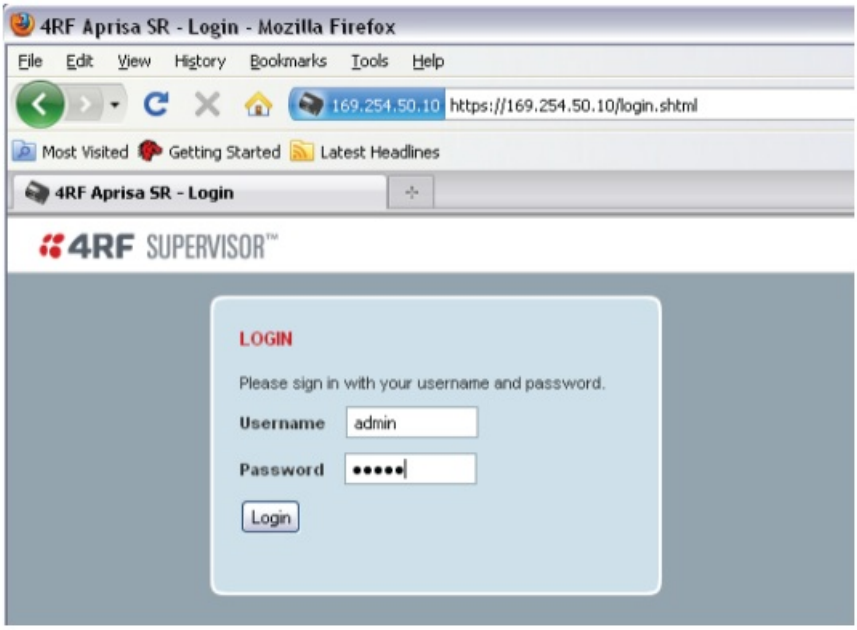
The Aprisa SR+ Data-Driven Protected Station has an earth connection point on the left top of each radio. Use the supplied M4 screw to earth the enclosure to protect earth.
The antenna feeder cable should use grounding kits for lightning protection as specified or supplied by the coaxial cable manufacturer to properly ground or bond the cable outer.

Connect the antenna and apply power to the Aprisa SR+ Data-Driven Protected Station

Connect the antennas to the duplexer antenna ports (N-type female connector). If the antennas are not available, terminate the antenna ports with N-type male 50-ohm terminators (5 Watts min).
The Aprisa SR+ Data-Driven Protected Station is operated from a DC source of voltage between +10 VDC and +30 VDC (negative earth) and consumes up to 35 Watts. Two power connectors (Phoenix Contact 2 pin female) are supplied fitted to the radios. Wire your power source to the two power connectors (- / +) and plug the connectors into the radios. The connector screws can be fastened to secure the connectors.

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). Turn your power source on. All the LEDs on both radios will flash orange for one second and then change to:

- Active radio – the OK, MODE, and AUX LEDs will light green and the TX and RX LEDs will light green (steady or flashing).
- Standby radio – the OK, TX, RX, and AUX LEDs will light green and the MODE LED will flash green.



If the IP addresses of radios in the Data-Driven Protected Station are unknown for some reason, they can be shown or changed via the Command Line Interface (CLI) on the radios MGMT USB ports. 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. Set the PC serial port to 38,400 baud, 8 data bits, no parity, and 1 stop bit, with no hardware flow control.

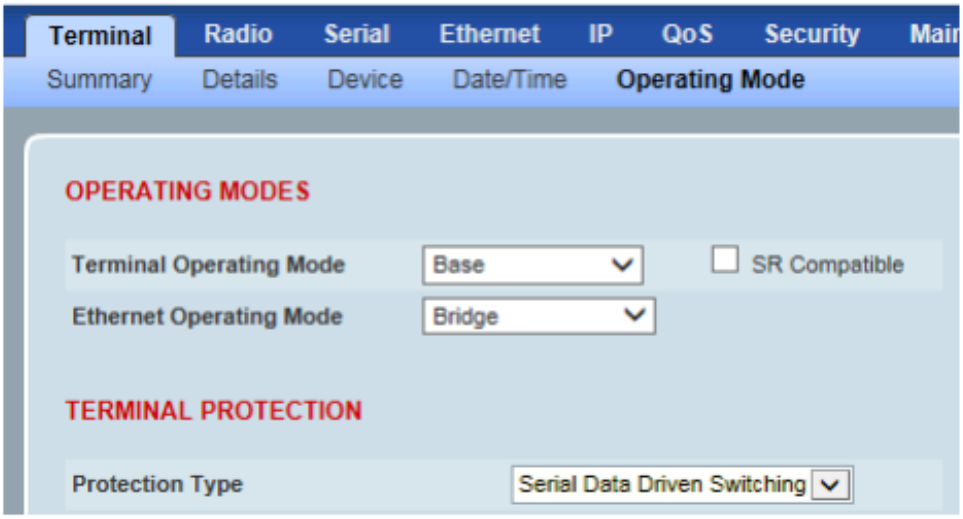
- Connect your PC USB port to the primary Aprisa SR+ (A) MGMT USB port (see the Aprisa SR+ User Manual CLI section)
- Login to the radio with the default login ‘admin’ and password ‘admin’.
- At the command prompt,>> type ‘cd APRISASR-MIB-4RF’ and enter
- At the command prompt >> type ‘ls Terminal’ and enter to show the existing IP address
- At the command prompt >> type ‘set termEthController1IpAddress xxx.xxx.xxx.xxx’ and enter to change the IP address.

  The Data-Driven Protected Station is configured in the 4RF factory as a Data-Driven Protected Station. If for some reason it is not set up as a

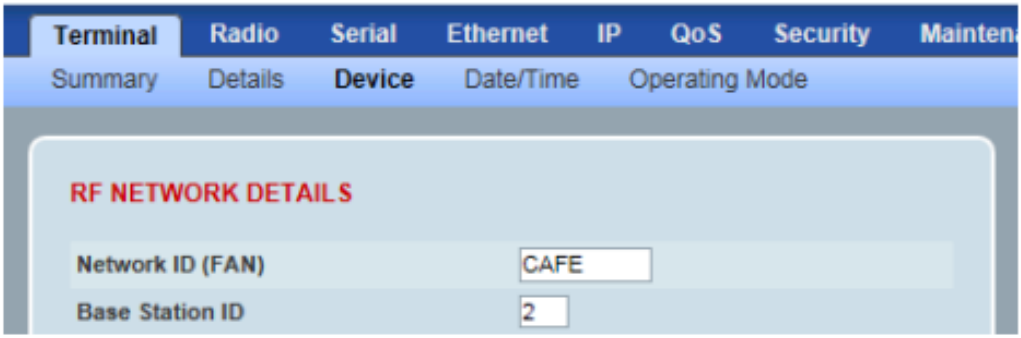
  Data-Driven Protected Station, please see ‘Creating a Data-Driven Protected Station’ in the Aprisa SR+ User Manual.

Set up the Aprisa SR+ Data-Driven Protected Station

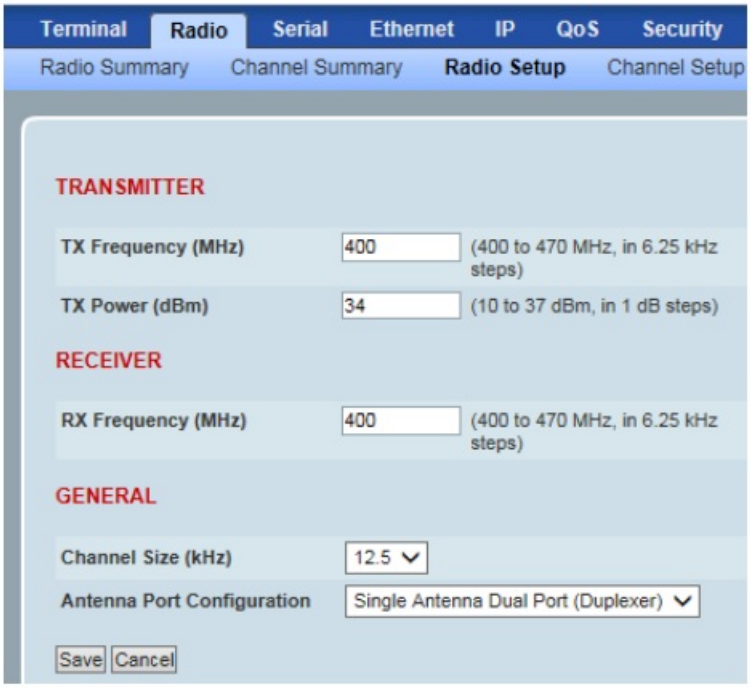
Login using the IP address of either the primary or secondary radio (do not use the PVIP address for login). All parameters will be automatically synchronized on both radios.
Set the Ethernet Operating Mode and the Compliance Mode required. The Protection Type should already be set to ‘Serial Data-Driven Switching’.



Set the unique radio Network ID to be the same in your entire network.



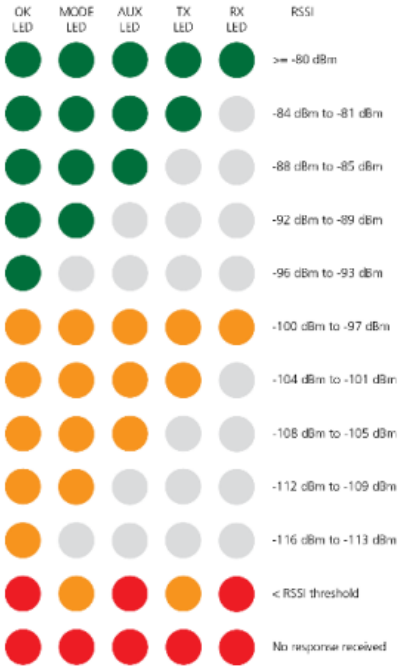
Set the Aprisa SR+ TX Frequency, RX Frequency, TX Power, and Channel Size to comply with your site license.
Set the Antenna Port Configuration required.



You can now configure the remaining Data-Driven Protected Station and network parameters and settings.
For more information, please refer to the Aprisa SR+ User Manual available from the 4RF website **https://www.4rf.com/secure** (login required).
Reboot both Primary and Secondary radios.
The Aprisa SR+ Data-Driven Protected Station is ready to operate.

Monitor the Aprisa SR+ Data-Driven Protected Station 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 front 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 – 5seconds).
If the network is operating correctly, all the LEDs OK, MODE, AUX, TX, and RX LEDs will be light green.



Documents / Resources

	4RF Aprisa SR+ Data Driven Protected Station [pdf] User Guide Aprisa SR, Data Driven Protected Station

References

- Secure Area - 4RF
- CP210x USB to UART Bridge VCP Drivers - Silicon Labs