



**Automation
Electronics**

SROAM Bell 202 Radio Modem Board

Overview

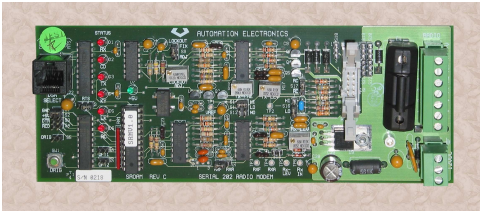


Figure 1: Bell 202 Radio Modem Board

Our SROAM is a Bell 202 Compatible 1200bps half duplex radio modem, with an RS-232 serial interface.

It is designed as a stand alone unit. The SROAM has a built in 10 pin interface for standard low power data radios, and can also be directly interfaced to many mobile radios without making modifications.

Features

- Adjustments for pre-emphasis and de-emphasis
- Selectable band pass filter and limiter
- Wide range audio adjustments
- On board power fuse for radio power
- Radio lockout timer
- LED indicators and test button generates alternating tone pattern for modulation adjustment

Specifications

Mechanical

Size: 3" x 7-3/4" x 1-1/2" PC board snap track
Data interface: RS-232, 9 pin male Tx, Rx, DTR, DSR, DCD
Radio interface: Standard 10 pin ribbon cable or hi density terminal block: +12, Gnd, Tx, Rx, Key, CD

Environmental

Operating temperature: -40 to 140 °F (-40 to +60 °C)
Relative humidity: 20 to 90% non-condensing

Power requirements

Voltage: 10 V_{DC} to 15 V_{DC}, 12 V_{DC NOM} (120-160 mA @ 12 V_{DC} without radio)
Current: 1 A maximum with poly fuse or 10 A maximum with fuse

Modem

Style: Bell 202
Mark frequency: 1200 Hz
Space frequency: 2200 Hz
Modulation: Frequency shift key (FSK)
Baud rate: 1200 bits/sec asynchronous half duplex

Transmit output power 0-8 V_{PP} with adjustment pre-emphasis/de-emphasis (±6 dB)

Receive sensitivity 100 mV_{PP} minimum, adjustable (±6 dB max skew)

Transmit lockout After 11 seconds of continuous transmission
