



RFInnovations

Leaders in Wireless Data

900MHz High Speed Data Radio

The RFI-9256 data radio modem is a licence free frequency hopping unit designed for reliable operation in industrial environments.



Features

- Dual RS232 ports for separate data streams
- 1 Watt transmit power (software selectable)
- Up to 30km line of sight
- 115,200 kbps air data rate
- Multi-mode LED front panel display for diagnostics, including RSSI meter
- Protocol addressing and routing support, DNP-3, Modbus and IEC 870 compatibility.

Applications

The RFI-9256 is suited for applications in Utilities, Mining, Agriculture and Transport industries where reliable wide area data transfer is critical.

The data radio can be used in small or large scale telemetry systems, with almost any PLC, RTU, HMI or DCS vendor for monitoring and control of critical assets.

Telemetry applications include pipeline monitoring, pump station and tank control, irrigation, fan and pressure control, and environmental monitoring.

The radios are also used in complex GPS systems for fleet tracking and management, and high precision correctional systems for machine control and automation.

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Specifications

Frequency Hopping Spread Spectrum	Users can select from a range of pseudo random hopping sequences to avoid interference in the license free band.
Data Integrity	User selectable Automatic Retry Request (ARQ) combined with radio CRC offers a high level of data integrity for end-to-end error free transmission
Diagnostics at a Glance	The front panel LEDs display diagnostic information indication such as Receive Signal Strength (RSSI), transmit power, radio temperature and RS232 port status.
Adjacent Channel Rejection	Superior receiver design enables good data recovery even in crowded spectrum environments by rejecting unwanted radio signals
Easy Network Management	The user is able to view diagnostics and change the settings of other remote radios within a network from a single point.
Easy Network Configuration	The Cruise Control software allows the user to configure, save and upload radio configuration settings. This allows for multiple radios to be configured more efficiently.

PHYSICAL

Dimensions: 130mm x 80mm x 45mm

Weight:

- In Case 300g
- OEM 70g

Construction: Powder coated aluminium

MODEM

Serial Data: RS-232 Asynchronous with handshaking

Interface Speed: 110bps to 115200bps software selectable

Error Rate:
-106 dBm for less than 1×10^{-6} BER

GENERAL

Operating Voltage: 9V to 30V DC (negative ground)

Operating Current:

- Transmit @12.5V 350 mA nominal @ 1W
- Standby @12.5V 150mA nominal

Operating Temp: -10 to +60°C

Operating Humidity: Up to 90% non-condensing relative humidity

CONNECTORS

Antenna: BNC Female (50 Ohm)

Serial: 2 x RS-232 ports and power on a custom DB25M connector

RADIO

Frequency Range: 915 MHz to 928 MHz (ACA), 902 MHz to 928 MHz (FCC), 921 MHz to 929 MHz (DOC-NZ)

Air Data Rate: upto 115 kbps (software selectable)

Duty Cycle: 100%

Transmit Power: 1mW (+0dBm to W (+30dBm)

Mode of Operation: Time Division Duplex (Pseudo full duplex)

OPTIONS

RFI-9256 CA00: 915 MHz to 928 MHz, ACA, Data Radio

RFI-9256 CA01: 921 MHz to 929 MHz, DOC-NZ, Data Radio

RFI-9256 CF02: 902 MHz to 928 MHz, FCC, Data Radio

RFI-9256 OA00: 915 MHz to 928 MHz, ACA, Data Radio, OEM

RFI-9256 OA01: 921 MHz to 929 MHz, DOC-NZ, Data Radio, OEM

RFI-9256 OF02: 902 MHz to 928 MHz, FCC, Data Radio, OEM

