RF INNOVATIONS

Introducing the

RFI595F

Intelligent UHF Radio Modem

The RFI 595F is a high-speed radio modem capable of functioning in hostile RF environments with data throughput of 9600 bps. Intelligent integrated software allows many different data configurations, including store and forward repeater operation and intelligent protocol routing for large SCADA systems.

Features

- Economical
- Built in path testing
- In built in diagnostics
- Front panel indicators
- Up to 50 km in one hop
- Forward error correction
- Can be commissioned without test equipment

Applications

Point to Multipoint Acquisition and Control

Intelligent built in Modem can interface with virtually any standard Data logger, PLC, computer; i.e. any RS232 device. In built buffers handshake with input/output devices at data speeds up to 38400 bps and transparently move data to the other end.

Linking of Local and Remote RS232 Ports

Depending upon the geography and terrain, the Radio modems can communicate reliably over considerable distances. Good line of site paths from mountaintop to hill can extend useful range beyond 100 km. In any event, repeater facility permits extension of useful range when clear line-of-site paths are not available.

Special Functions

Software options include store and forward repeater function, which permits remote hilltop repeater applications. There is no progressive degradation of Signal to Noise Ratio as the repeater function brings the signal back to digital base band. Also, the radio modem supports many industry standard communications protocols with routing tables and packet timers. For more information on protocol support contact the manufacturer.

RFI-595F UHF MODEM

SPECIFICATIONS

Physical

Dimensions	170mm L x 110mm W x 50mm H
Weight	260 grams
Construction	Alodined aluminium chassis and cover

General

Operating voltage	10.8 VDC to 17 VDC negative ground
Operating current	
Standby mode	100 mA
Transmit mode (2.5 Watts)	850 mA
Operating temperature range	-10 to +65 Deg C
Operating humidity range	Up to 95% non-condensing RH @ 50 Deg C
Parameter and mode settings	In built software Windows TM based.
Channel selection	Hardware and software selectable
Channel spacing	25 KHz (25, 12.5 or 6.25 KHz raster)
Antenna port	BNC
Connector	D type standard 25 pin including power

Transmitter

Output power	100mW to 2.5 Watt software selectable
Modulation	4 level FSK with Trellis coding
Deviation	+/- 5 KHz for 25KHz channelling
Spurious emissions	< -30 dBm
Duty cycle	100% @ 60 Deg C
Output protection	Transmitter fully protected for any load

Receiver

Sensitivity	< -118 dBm for 12 dB SINAD
Frequency range	All UHF channels from 390 to 512 MHz
Output protection	Transmitter fully protected for any load

Data System

End to end performance	Better than 1 in 10^{-6} BER for 20 dB SINAD
Error detection	Foward Error Correction plus encoding
RS232 handshaking	Hardware/ software/ none (software selectable)
Interface data speed	1200 to 9600 bps software selectable
I/O	Asyncronous RS232C
Character	8 bits plus no parity and one stop bit