

Introducing the
CRESCENDO SERIES

PACCS LinkRFI-150 VHF Full Duplex Radio Modem

The RFI-150 VHF full duplex is part of the new Crescendo series of radio modems for UHF and VHF operation. Incorporating a 5 Watt radio and integrated modem the unit is capable of 19.2kbit/s full duplex transmission over the air.



Features

- *Transparent operation*
- *Up to 80 km line of sight**
- *Inbuilt configuration menu*
- *Fully integrated radio modem*
- *Separate transmit and receive RF ports*
- *User data speeds up to 19.2kbit/s full duplex*
- *Forward Error Correction and data interleaving*
- *Rugged design for high vibration environments*
- *Diagnostics mode for testing and installation*



Design



Radio

The RFI-150 VHF full duplex radio modem has been designed to comply with world wide regulatory guidelines. The radio provides frequency selection anywhere within the specified VHF band in 12.5kHz software selectable increments. Microprocessor control ensures powerful data control algorithms whilst advanced receiver design provides superior rejection of unwanted signals.

Modem

The inbuilt modem provides RS232 serial connection with handshaking at interface speeds up to 115000bps. It allows transparent communications by emulating dumb data-driven modem operation; making the RFI-150 VHF full duplex suitable for wireless transmission of even the most timing critical serial protocols.

Application

The RFI-150 VHF full duplex is suitable for small point-to-point or large broadcast point-to-multipoint data communications networks either through standard antennas or underground leaky-feeder cables. Additional I/O modules can be connected to the radio modems for potentially large wireless SCADA networks.

**Maximum practical point-to-point with suitable antennas*

SPECIFICATIONS

Physical

Dimensions 258mm L x 158mm W x 37mm H (inc vibration mount)
 Weight 1600g (inc vibration mount)
 Construction Coated machined aluminium chassis and cover

Connectors

Antenna Ports Separate Tx/Rx BNC Female (50 Ohm nominal)
 User Data Ports 2 x DB9 RS232 Female
 Power PSC 1.5/3-M (mating connector provided)

General

Operating Voltage 10.8V to 13.8V DC (negative ground)
 Operating Current 1.3A
 Transmit mode (37dBm) -10 to +60°C
 Operating temperature range Up to 95% non condensing RH @ 50°C
 Operating humidity range In built software
 Parameter and mode settings

Radio

Frequency Range 148MHz to 174MHz software selectable
 Duty Cycle 100% full duplex
 Air Data Rate 19.2kb/s
 RF Data Latency Maximum 100ms
 Output Power 100mW to 5 Watt software selectable
 Channel Bandwidth Model specific 12.5kHz or 25kHz
 Modulation Nyquist Shaped 4-Level FSK
 Receiver Sensitivity -113dBm @ 10-4 raw BER

Modem

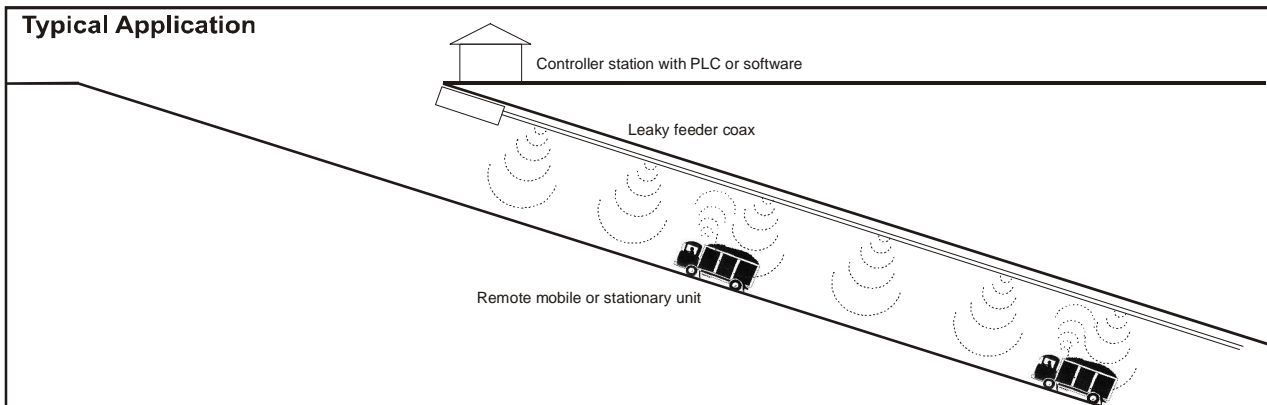
Serial Data RS232 Asynchronous with handshaking
 Interface Speed 110bps to 115000bps software selectable

Ordering Information

FREQUENCY BAND	RF MODE		CHANNEL BANDWIDTH		AIR RATE		OPERATING MODE		COMPLIANCE CLASSIFICATION		
150	VHF	H	Half Duplex	N	12.5 kHz	L	1200 / 2400	BD	Bit-Driven	0	Unlicensed
290	VHF	S	Half Duplex (Separate RF Port)	W	25 kHz	M	9600	DD	Data-Driven	1	Licensed
450	UHF	D	Full Duplex	C	Custom	H	19200	PD	Packet-Driven	2	Military
						C	Custom	VF	VF Only		
								CC	Custom		

Accessories Available

ACCESSORY	DESCRIPTION
RFI PROG CRES-D	2 x DCE to DTE DB9 data programming cables and 1m 12V DC leads



Wired & Wireless Solutions International
 Level 11, Zenith Tower B, 821 Pacific Hwy Chatswood NSW, Sydney, Australia, 2067
 Telephone +61 2 9403 7800 / Facsimile +61 2 9403 7900
 Email: info@wwsinternational.net Web: <http://www.wwsinternational.com.au>