

# VHF DATA TRANSCEIVER

MODEL NUMBER: RF-V-47-TR



Superior Engineering Design Services



## NuWaves Ltd.

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## DESCRIPTION

The RFV47TR VHF Data Transceiver is a high performance and cost effective VHF data transceiver. The transceiver operates on one of two channels providing either half duplex communications or in a streaming mode for continuous transmission of data.

The message formatting, synchronization, and transceiver transmission/reception is performed by the transceiver; no special host software is required to operate the radio.

The transceiver includes high performance interference suppression front end filters providing resistance to out of band interferers. The RFV47TR incorporates state-of-the-art receiver technology to prevent overload caused by co-located transmitters.

Hardware is configured during the manufacturing process and stored on an in-board EEPROM eliminating the need for user to reconfigure the transceiver.

The transceiver boasts a unique NuWaves proprietary architecture. The robust design provides the user with future growth capabilities. For example, the transceiver can be tailored to operate over frequency bands inclusive of the UHF band with little Non-Recurring Engineering (NRE) costs.

## Hardware Specifications (subject to change without notice)

Frequency Range:	46.00 – 47.00 MHz	Input Power (Power Handling)	+20 dBm
Forward Error Correction:	User Selectable	RF Output Power:	>100mW
Frequency Stability:	± 7 PPM over Temperature	Sensitivity (BER 1E-4):	-98 dBm
Command Interface:	RS-232	Interface Rate:	115.2 kbps
Addressing:	Broadcast or Specific Destination (MAC ID)	RF Protocol:	Streaming or Acknowledgement
RF Baud Rate:	76.8 kbps	Receive Current:	75 mA Typical
Modulation Type:	FSK	Transmit Current:	350 mA Typical
Temperature: Operating	-40°C to +75°C	Dimensions:	6.75" x 3.00" x 1.50"
Storage	-40°C to +75°C		(LxWxH)
DC Power:	+9.0 to +18.0 VDC	Error Detection::	Transmitter Retries

## Applications:

The unique architecture of NuWaves' RFV47TR enables it to be easily modified to support other frequency ranges and/or RF output power requirements – custom designs are available. Representative applications include:

- Telemetry Range Instrumentation Transceivers
- Temperature Monitoring
- Access and Activity Alerts
- Inventory Tracking
- Unattended Aerial Vehicle (UAV) Communication Links
- C/NA Vehicles
- Wireless Sensors
- General Purpose Short Range or Long Range Data Transceiver Communication Links

Specifications Subject to Change without Notice.

Revision: 02 July 2005

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