

# UHF RADIO FREQUENCY (RF) DATA TRANSCEIVER

MODEL NUMBER: RF-U-3545-TR-2



## DESCRIPTION

The RF-U-3545-TR-2 transceiver provides half-duplex communications at data rates up to 80 kbps at UHF. The transceiver boasts superb transmit filtering providing extremely low transmit spurious signals. The RF output is spectrally pure delivering greater than 100mW at the antenna port. Additionally, the design includes robust defenses from interface issues such as over-voltage protection, over-current protection, and reverse voltage protection.

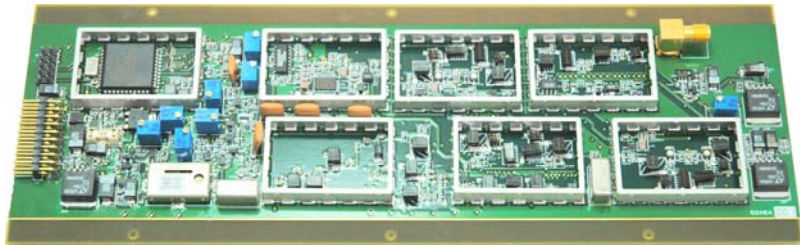
Further enhancements include a user friendly alignment process to configure the unit for the desired frequency of operation. The RF-U-3545-TR-2 is designed for embedded applications, to be integrated within any host requiring a high data rate, RF data transceiver. The transceiver utilizes a straight-forward command/control interface for ease of integration. The host controller programs the synthesizer to tune the transceiver over the full spectrum coverage of 350 - 450 MHz.

As an added benefit, the RF-U-3545-TR-2 incorporates status LEDs to verify key functionality of the radio. Specifically, receive signal present, synthesizer frequency lock, and transmit mode indicators can be viewed.

The RF-U-3545-TR-2 transceiver satisfies numerous requirements for commercially available off-the-shelf transceivers. NuWaves can customize this transceiver to meet your particular requirements. The robust VHDL modulator provides an easy means to modify the transceiver's characteristics to meet custom requirements.

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## Hardware Specifications (subject to change without notice)

Frequency Range:	350 to 450 MHz	Transmit Current:	500 mA (@15.0 VDC)
Modulator:	VHDL Based GFSK	Receive Current:	135 mA Typical
Frequency Stability:	$\pm 2$ PPM over Temperature	Sensitivity:	-98 dBm Typical
Data Rate:	Up to 80 kbps	RF Transmit Power:	100 mW typical
Command and Control Interface:	TTL	Temperature: Operating:	-30°C to +70°C
		Storage:	-50°C to +85°C
DC Power:	+11 to +16 VDC (+12.5 VDC typical)	Dimensions:	9.10" x 3.26" x 0.57" (W x L x H)

## Applications:

The unique architecture of NuWaves' RF-U-3545-TR-2 enables it to be applied to a broad spectrum of uses – custom designs are available (size, data rates, frequencies, modulations, RF power output, etc.). Representative applications include:

- Airborne RF Data Transmission and Reception
- Light Weight Transceiver Applications - UAVs
- General Purpose Short Range or Long Range Data Transceiver Communication Links

Use NuWaves bi-directional power amplifier to boost the RF power output of this transceiver to increase range. Contact sales for additional information.

NuWaves Ltd.

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