



# Tersus 915MHz Radio Eagle

## Wireless Data Transceiver

### Overview

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The Tersus 915MHz radio Eagle is a radio solution for both the base and the rover. It provides reliable data communications for mission-critical applications where a combination of stability, superior performance and long distance are required.

The 915MHz radio Eagle is a ultralight weight, ruggedized UHF receiver designed for digital radio communications at 915MHz, which can be used widely in GNSS/RTK surveying and precise positioning system applications. The Eagle radio is equipped with two LEDs which indicate the status or transmitting or receiving.

### Key Features

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915MHz operating frequency

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Surface Acoustic Wave filter for anti-interference

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High air link rate

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Supports up to 1Mbps air baud rate

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Supports up to 115200bps serial baud rate

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Ultralight weight

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Wide temperature range

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# Technical Specifications

## General

Frequency:	915MHz
Operating Mode:	Half-duplex
Operation Voltage:	7V~28V
Power Consumption (typical):	
– Transmitting:	1.2W@DC12V
– Receiving:	< 0.6W@DC12V
Dimension:	100x47x21mm
Weight:	≈80g
Operation Temperature:	-40°C ~ +85°C
Storage Temperature:	-40°C ~ +85°C
Antenna Port:	SMA
Antenna Impedance:	50Ω
Serial Port:	TTL

## Modem

Air Baud Rate:	20Kbps to 1Mbps
Serial Baud Rate:	1200bps to 115200bps
Modulation Type:	QPSK/BPSK +DSSS

## Transmitter

Frequency Stability (at 25°C):	±5ppm
RF Output Power:	1200mW
Output Current:	≤1000mA
Modulation Distortion:	≤ 3%
Carrier Frequency Tolerance:	≤ 5*10 <sup>-6</sup>

## Receiver

Sensitivity:	-125dBm@20kbps -112dBm@100kbps
Adjacent Channel Selectivity:	≥ 65dB
Distortion:	≤ 5%
Bit Error Rate:	≤ 0.001%

## Interface (Pin) Definition

Type:	TTL
Pin 1:	GND
Pin 2:	T/B
Pin 3:	R/A
Pin 4:	CFG
Pin 5:	GND
Pin 6:	7-28V

