Tersus 2W Radio RS460

Wireless Data Transceiver

Overview

The Tersus 2W radio RS460 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 range are required.

The RS460 is a lightweight, ruggedized UHF receiver designed for digital radio communications between 457 MHz and 467 MHz in 25 kHz channels, which can be used widely in GNSS/RTK surveying and precise positioning system applications. The RS460 is equipped with a LED display and a keypad which is used for checking the operating status, changing the operating channel, and transmitting power level. It is easy to operate.

Key Features

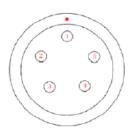| 10 MHz bandwidth coverage over 457-467 MHz bands |
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| Advanced data link design for high performance over entire bands |
| Software-derived channel bandwidth |
| Compatible with 25 kHz channel radios |
| High air link rate |
| Supports 38400 bps band rate |
| All metal heavy-duty construction |
| Wide temperature range |

Technical Specifications

General

Frequency Range:	457MHz~467MHz
Band Width:	10 MHz
Channel Width:	25KHz
Operation Voltage:	5V~12V
Power Consumption (typical):	
– Transmitting 2W:	6.5W@DC5.5V
– Transmitting 1W:	4W@DC5.5V
– Receiving:	< 400W@DC5.5V
Dimension:	107x62x26.6mm
Weight:	≈213g
Operation Temperature:	-30℃ ~ +60℃
Storage Temperature:	-40℃ ~ +85℃
Antenna Port:	TNC Female
Antenna Impedance:	50Ω
VSMR:	≤ 1.5

Transmitter

Frequency Stability (at 25℃):	≤±1.5ppm
Configurable Channels:	10
Adjacent Channel Selectivity:	≥ 60dB
RF Output Power:	
– High Power Level (2W):	33.5±0.5dBm@DC5.5V
– Low Power Level (1W):	30±0.5dBm@DC5.5V

Modem

Air Baud Rate:	9600bps @ 25KHz
Modulation Type:	GMSK
RF Sensitivity:	Better than 13dB @ -119dBm
Decode Sensitivity:	-116 dBm BER 10E-5 @ 9600bps
Protocol:	Transparent EOT, TT450S and Tersus

Interface (Pin) Definition

Type:	RS232
Pin 1:	Power Ground, GND
Pin 2:	Power Ground, GND
Pin 3:	Power, 5V~12V DC
Pin 4:	RXD
Pin 5:	TXD

Overview of Interface (Pin)