

# Tersus GNSS 2W Radio RS460H

## Overview

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The Tersus 2W radio RS460H 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 RS460H is a lightweight, ruggedized UHF receiver designed for digital radio communications between 410 MHz and 470 MHz with 12.5/25 KHz channel spacing, which can be used widely in GNSS/RTK surveying and precise positioning system applications. The RS460H 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

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- ✓ Wide frequency range of 410-470 MHz
- ✓ Advanced data link design for high performance over entire bands
- ✓ Software-derived channel bandwidth
- ✓ Compatible with 25 KHz channel radios
- ✓ High air link rate
- ✓ All metal heavy-duty construction
- ✓ Wide temperature range

# Tersus GNSS

## 2W Radio RS460H

### Technical Specifications

#### General

|                              |                 |
|------------------------------|-----------------|
| Frequency range:             | 410MHz ~ 470MHz |
| Channel spacing:             | 12.5KHz / 25KHz |
| Modulation type:             | GMSK, 4FSK      |
| Operation voltage:           | 5V~12V          |
| Power consumption (typical): |                 |
| Transmitting 2W:             | 6W@5V DC        |
| Transmitting 1W:             | 5W@5V DC        |
| Receiving:                   | 0.5W@5V DC      |
| Dimension:                   | 107x62x26.6mm   |
| Weight:                      | ≈200g           |
| Operation temperature:       | -30°C ~ +60°C   |
| Storage temperature:         | -40°C ~ +85°C   |
| Antenna port:                | TNC Female      |
| Antenna impedance:           | 50Ω             |
| VSMR:                        | ≤ 1.5           |

#### 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               |

#### Transmitter

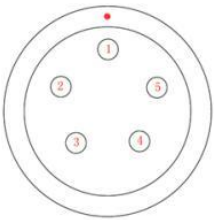
|                      |                   |
|----------------------|-------------------|
| RF output power:     |                   |
| High power (2W):     | 33.5±0.5dBm@5V DC |
| Low power (1W):      | 30.5±1.0dBm@5V DC |
| Power stability:     | ±1dB              |
| Distance (Typical) : | 5-7KM             |

#### Receiver

|                               |                                       |
|-------------------------------|---------------------------------------|
| Sensitivity:                  | 115dBm@BER 10 <sup>-3</sup> , 9600bps |
| Co-channel rejection:         | > -12dB                               |
| Adjacent channel selectivity: | >50dB@25KHz                           |

#### Modem

|                     |   |
|---------------------|---|
| Air baud rate:      | 19200/9600/4800bps                                |
| Serial baud rate:   | 115200/38400/19200/9600bps                        |
| Radio protocol:     | TrimTalk450, TrimMark3, South, Transparent, Satel |
| Dust- & Waterproof: | IP68  |



Overview of Interface (Pin)

**Website:** [www.tersus-gnss.com](http://www.tersus-gnss.com)  
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