RS400H3

Wireless Data Transceiver, External Radio for RTK Applications

Overview

The Tersus radio RS400H3 is a base radio solution for RTK applications. It provides reliable data communications for mission-critical applications where a combination of stability, superior performance and long range are required.

The RS400H3 provides high speed, high power, wireless data links and has been designed to survive the rigors of GNSS/RTK surveying and precise positioning applications. Up to 28W transmit power maximizes range and supports operation in difficult urban areas. The RS400H3 is equipped with OLED display and keypads which are used for checking the operating status, changing the operating channel, and transmitting power level.

Key Features

- 60MHz bandwidth coverage 410-470MHz bands
- Advanced data link design for high performance over entire bands
- Multi-function user interface
- It is designed for easy mobile use in demanding field conditions
- Supports three transmission power switching
- Compatible with 12.5KHz and 25KHz radios
- IP67 environmental protection rating

Technical Specifications

General

Frequency range:	410~470MHz
Operating mode:	Transmitter
Channel width:	12.5KHz, 25KHz
Channels:	32
Operation voltage:	9~16V DC
Power consumption (typical):	
– High power level (28W)	78W @ DC12V
– Medium power level (22W)	60W @ DC12V
– Low power level (5W)	35W @ DC12V
– Standby:	2W @ DC12V
Frequency stability:	≤±1.0ppm

Physical

Dimension:	175x130x86.5mm
Weight:	≈2kg
Data interface:	LEMO 5pin
Antenna port:	TNC Female

Environmental

Operation temperature:	-40℃ ~ +65℃
Storage temperature:	-50℃ ~ +85℃
Dust and water proof:	IP67

Data Interface Definition

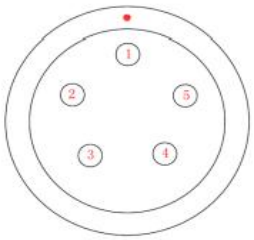
Type:	RS232
Pin 1:	Power, 9~16V DC
Pin 2:	Power ground, GND
Pin 3:	Serial data receiving, RXD
Pin 4:	Signal ground, GND
Pin 5:	Serial data transmitting, TXD

Transmitter

RF output power (typical):	
– High (28W)	44.5±0.5dBm@DC12V
– Medium (22W)	43.4±0.5dBm@DC12V
– Low (5W)	37±1dBm@DC12V
RF power stability:	±1dB
Adjacent channel power:	>50dB
Distance(Typical):	14-16KM

Modem

Air baud rate:	4800 / 9600 / 19200 bps
Modulation type:	GMSK/4FSK
Serial port baud rate:	9600/19200/38400/57600/115200 bps
Protocol:	TrimTalk, TrimMark3, Transparent-EOT, SATEL



View from outside to radio

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