HX-DU8608D

Wireless Data Transceiver, 35W Radio for Oscar

Overview

The Tersus HX-DU8608D radio is a base radio solution for wireless applications. It provides reliable data communications for mission-critical applications where a combination of stability, superior performance and long range are required.

The HX-DU8608D 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 35W transmit power maximizes range and supports operation in difficult urban areas. The HX-DU8608D is equipped with LEDs display and keypads which are used for checking the operating status, changing the operating channel, and transmitting power level.

Key Features

- 60 MHz bandwidth coverage 410-470 MHz 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
- Configurable transmit power
- Supports 5W, 10W,15W, 20W, 30W, 35W power switching
- Software-derived channel bandwidth
- Compatible with 12.5KHz and 25KHz radios
- High environmental protection rating of IP67

Technical Specifications

General

Frequency range:	410~470MHz
Tuning range:	60MHz
Operating mode:	Half-duplex
Channel width:	25KHz, 12.5KHz
Modulation type:	GMSK
Operation voltage:	12V DC
Power dissipation(Typical):	
– High Power Level (35W)	≤ 110W @ DC12V
– High Power Level (30W)	≤ 100W @ DC12V
– High Power Level (20W)	≤ 75W @ DC12V
– Low Power Level (15W)	≤ 60W @ DC12V
– Low Power Level (10W)	≤ 45W @ DC12V
– Low Power Level (5W)	≤ 25W @ DC12V
– Standby:	≤ 1.5W@DC12V
Frequency Stability:	≤±1.0ppm
Antenna Port:	TNC Female
Antenna Impedance:	50Ω

Receiver

Sensitivity:	-114dBm@BER 10^{-3}, 9600bps
Co-channel rejection:	>-12 dB
Adjacent cahnnel selectivity:	>50dB @25KHz
Intermodulation Attenuation:	>60dB
Spurious Radiation:	<2nW

Physical

Dimension:	186x140x73mm
Weight:	≈1.5kg
Data Interface: This is a cable type. Not a voltage.	LEMO 5pin
Data Format:	Asynchronous
Installation:	Hook

Environmental

Operation Temperature:	-25℃ ~ +55℃
Storage Temperature:	-40℃ ~ +85℃
Dust and Water Proof:	IP67

Transmitter

RF output power(Typical):	
– High Level (35W)	45.5±0.5dBm@DC12V
– High Level (30W)	44.8±0.5dBm@DC12V
– High Level (20W)	43.0±1.0dBm@DC12V
– Low Level (15W)	41.8±1.0dBm@DC12V
– Low Level (10W)	40.0±1.0dBm@DC12V
– Low Level (5W)	37.5±1.0dBm@DC12V
Power Stability:	±1dB
Harmonics:	>50dBm

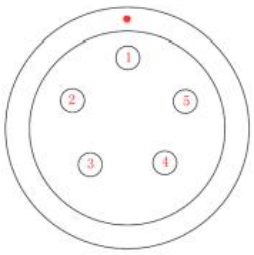
Modem

Air Baud Rate:	9600 bps, 19200 bps
Modulation Type:	GMSK
Serial port baud rate:	9600/19200/38400/57600/115200 bps
Protocol:	TrimTalk450, TrimMark 3, South, Transparent, Satel

Serial Data line Interface

Interface Type: asynchronous serial communication standard of RS232

Pin 1:	Input voltage, 9~16V DC
Pin 2:	Power Ground, GND
Pin 3:	Serial data receiver, RXD
Pin 4:	Signal Ground, GND
Pin 5:	Serial data transmission, TXD



Note: this figure is a view from outside to the radio.

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