UHF Radio **HX-DU1603D**

Harxon a BDStar company

Harxon HX-DU1603D is an UHF external radio that designed for easy mobile use in demanding field conditions for wireless data communication between 410 and 470MHz with channel spacing selectable to be in 12.5 or 25 kHz. This lightweight transceiver is equipped with an OLED display, menu operation enabled and low power consumption, interference detection, remote control, great receiving performance, which can be widely used as a way of wireless correction data transmission in applications of GNSS/RTK surveying, GNSS precise positioning system and autonomous guidance of agricultural machinery.

COMPATIBLE WITH MAINSTREAM RADIO PROTOCOLS

The HX-DU1603D is compatible with mainstream radio protocols on the market, including Trans EOT, TrimTalk450S, TrimMark3, SATEL, and also other industrial manufacturer's radio protocols(optional).

SUPPORT MULTI-MODE DATA TRANSMIT

The HX-DU1603D support RS232 serial port and Bluetooth wireless technology for data transmission. As a wireless data transmission method, this radio could be integrated into outdoor base station as external radio and provide convenience for surveyors in various application environments.

OLED DISPLAY FOR RADIO OPERATION CONFIGURATION

This radio support users to easily setting up radio parameters or inquire radio status via local display. Users could setting and switching serial port baud rate, and channels without reaching a computer or other terminals.

VERSATILE FEATURES WITH RELIABLE PERFORMANCE

This small, lightweight radio provides reliable operation with sophisticated features as compact single board structure, high/ low power switching, serial port baud rate switching, air baud rate switching, starting-up status identification, interference detection, and remote control. Besides, the radio embeds a 5800mAh battery that supports 8-hour long operation endurance in the field without charging. All of these advantages make it versatile and easy to be used for a wide variety of applications.

KEY FEATURES

- **Support Air Baud Rate Switching: 19200bps, 9600bps**
- **Support Serial Port Baud Rate Self-adaptation: 115200bps, 57600bps, 38400bps, 19200bps, 9600bps**
- **Compatible with Multiple Radio Protocols: SATEL(9600bps,19200bps) ,Trans EOT (9600bps),TrimTalk450S(9600bps), TrimMark3(19200bps)**
- Support Online Firmware Update
- Support High/ Low Power Switch
- IP67 Ingress Protection Rating

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General Specification

Frequency Range	410~470MHz
Operating Mode	Half-duplex
Channel Spacing	25KHz/12.5KHz
Modulation Type	GMSK/4FSK
Channels	36(programmable)
Operation Voltage	7~9V
Power Consumption(typical)	
High power	8.5W@7.26V DC
Low Power	3.5W@7.26V DC
Standby	0.8W@7.26V DC
Frequency Stability	≤±1.0ppm

Structural Specification

Size	147.6L×83W×31.5H mm
Weight	Approx. 612g
Antenna Interface	TNC Female
Antenna Interface Impedance	50ohm
Data Interface	LEMO 5pin

Modem

Air Baud Rate	9600bps / 19200bps
Serial Port Baud	9600bps / 19200bps
	38400bps / 115200bps

Transmitter

RF Output Power	410~470MHz
High Power (2.0W)	33.5±0.5dBm@DC 7.26V
Low Power (0.5W)	27.5±1.0dBm@DC 7.26V
Power Stability	±1dB
Adjacent Channel Power	>50dB@25KHz

Receiver

Sensitivity	-115dBm@BER 10^{-3}, 9600bps
Co-channel Rejection	>-12dB

Radio Battery

Battery	Cylindrical Li-ion battery pack
Model	INR18650F1L 7.26V 6700mAh-2S2P
Rating	7.26V, 6700mAh, 48.642Wh

Battery External Operation Environment

Temperature(operation)	-0℃~+55℃
Temperature(storage)	-20℃~+60℃

For the most recent details of this product:
https://en.harxon.com/products-detail.php?ProId=176

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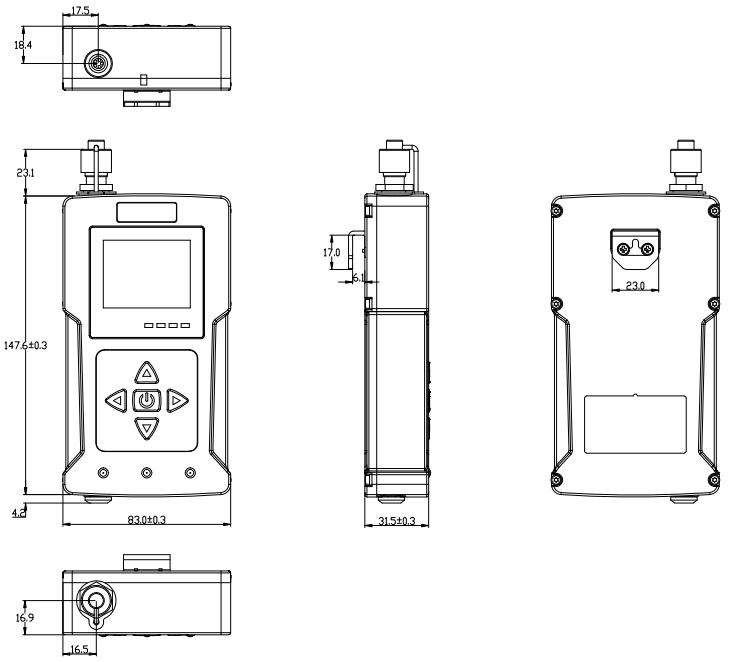
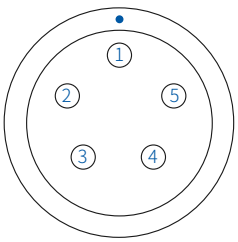
Structure Diagram(mm)



FRONT VIEW SIDE VIEW BACK VIEW

Undeclared Tolerance:±0.3mm

Interface Pin Definition



Interface Type: Asynchronous Serial Communication RS232

Interface Type:

Pin 1— POWER SUPPLY, 7~9V DC

Pin 2— POWER GND

Pin 3—RXD

Pin 4—SERIAL PORT SIGNAL GND

Pin 5—TXD