UHF Radio **HX-DU1603D**

The **Harxon HX-DU1603D** UHF external radio is designed for easy mobile use in demanding field conditions for wireless data communication between 410 and 470MHz with channel spacing of either 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 making it ideal for GNSS/RTK surveying operations and for autonomous guidance of agricultural machinery and mine site machine control.

COMPATIBLE WITH MAINSTREAM RADIO PROTOCOLS

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

SUPPORT MULTI-MODE DATA TRANSMIT

The HX-DU1603D supports RS232 serial port and Bluetooth wireless for data interface. When using bluetooth transmission it can be used as an external radio for a GNSS base station to provide added convenience for surveyors in a variety of environments.

OLED DISPLAY FOR RADIO OPERATION CONFIGURATION

Its OLED display clearly shows current operating status. This radio has a user-friendly interface for easy configuration of radio parameters. Users can set serial port baud rate, and channels etc. without the need for a computer.

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 has an internal 5800mAh battery that supports 8-hours of operation. All these advantages make it versatile for a wide variety of applications.

KEY FEATURES

- Supports Air Baud Rate Switching: 19200bps, 9600bps

- Supports 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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Harxon
a **BDStar** company

General Specification

Frequency Range 410~470MHz

Operating Mode Half-duplex

Channel Spacing 25KHz/12.5KHz

Modulation Type GMSK/4FSK

Channels 36(programmable)

Operation Voltage 9~36V

Power Consumption(typical)

High power 7.5W@12V DC

Low Power 4.0W@12V DC

Standby 1.2W@12V DC

Frequency **Stability** ≤±1.0ppm

Structural Specification

Size 147.6L×83W×31.5H mm

Weight Approx. 612g
Antenna Interface TNC Female
Antenna Impedance 50ohm
Data Interface LEMO 5pin

Modem Transmitter

RF Output Power

High Powe（2.0W) 33.5±1.0dBm@DC 12V
Low Power (0.5W) 27.5±1.0dBm@DC 12V

Power Stability ±1dB

Adjacent Channel Power >50dB@25KHz

Receiver

Sensitivity -115dBm@BER 10^{-5}，9600bps

Co-channel Rejection >-12dB

Radio Battery

Battery: Cylindrical Li-ion battery pack

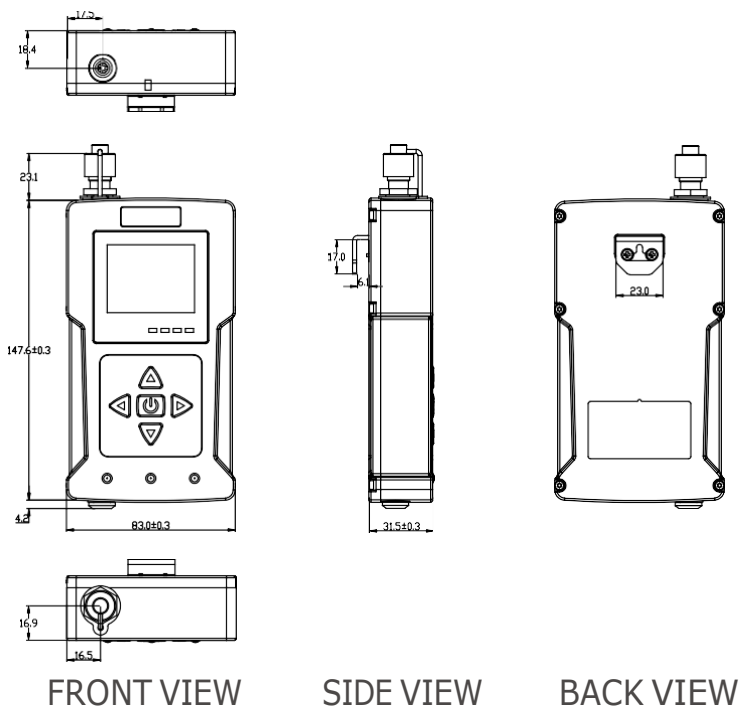**Model:** INR18650F1L 7.26V 6700mAh-2S2P

Rating: 12V, 6700mAh, 48.642Wh

Battery External Operation Environment

Temperature(operation) -0℃~+55℃

Temperature(storage) -20℃~+60℃

Structure Diagram(mm)

FRONT VIEW   SIDE VIEW   BACK VIEW

Undeclared Tolerance: ±0.3mm

Interface Pin Definition
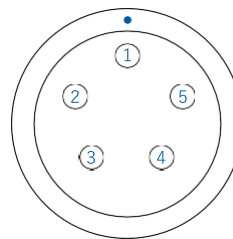
Interface type: asynchronous serial communication standard of RS232

Pin definitions:

Pin 1 ----- Power GND

Pin 2 ----- Serial port signal ground

Pin 3 ----- Power 9-36V DC.

Pin 4 ----- Serial port data transmission, TXD

Pin 5 ----- Serial port data receiving, RXD

Note: Supply voltage not over 36V.