# UHF Radio HX-DU1601D



Harxon HX-DU1601D is an UHF external radio that designed for easy mobile use in demanding field conditions for wireless data communication between 410 and 470MHz bandwidth. It's specifically designed as a way of wireless corrections data transmission in applications of GNSS/RTK surveying, GNSS precise positioning system and autonomous guidance of agricultural machinery. This lightweight, small rugged radio excels itself in the field with features as easy operation, great receiving performance, low power consumption and strong anti-interference capability.



#### COMPATIBLE WITH MAINSTREAM RADIO PROTOCOLS

The HX-DU1601D is compatible with mainstream radio protocols on the market, including SATEL, Trans EOT, TRIMTALK, TrimMark3 and also other industrial manufacturer's radio protocols (optional).

#### **VERSATILE FEATURES WITH RELIABLE PERFORMANCE**

This small, radio modem provides reliable operation with profound features as lightweight compact structure, high/low power switching, serial port baud rate switching, channel switching, online firmware upgrade support, and configuration setting, making it versatile and easy to be integrated for a wide variety of applications.

#### LOW POWER CONSUMPTION, EASY FOR INTEGRATION

This radio has been optimized the hardware layout, aiming to reducing power consumption while at standby status as well as improving emission efficiency without increasing power consumption. Thanks to the optimization of hardware layout, the radio exhibits a very low power consumption. Beside, This small dimension radio is easy to carry, ideal for applications integration.

#### **KEY FEATURES**

- Support Air Baud Rate Switching: 19200bps, 9600bps
- Support Serial Port Baud Rate Switching:
   115200bps, 38400bps, 19200bps, 9600bps
- Compatible with Multiple Radio Protocols: SATEL(9600bps,19200bps), Trans EOT (9600bps), TrimTalk (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
Modulation Type GMSK/4FSK
Channels 8(programmable)
Operation Voltage 9~20V

Power Consumption(typical)

 $\begin{array}{lll} \mbox{High Power} & 3.2\mbox{W@12V DC} \\ \mbox{Low Power} & 2.5\mbox{W@12V DC} \\ \mbox{Standby} & 0.7\mbox{W@12V DC} \\ \mbox{Frequency Stability} & \leqslant \pm 1.0\mbox{ppm} \end{array}$ 

# **Structural Specification**

Size143.6(L)×76(W)×44(H)mmWeightApprox.340gAntenna InterfaceTNC FemaleAntenna Interface Impedance50 ohmData InterfaceLEMO 5pin

#### Modem

 Air Baud Rate
 9600bps / 19200bps

 Serial Port Baud
 9600bps / 19200bps

 38400bps / 115200bps

#### **Transmitter**

RF Output Power 410~470MHz
High Power (1W) 30.0±0.5dBm@DC 12V
Low Power (0.5W) 27.0±1.0dBm@DC 12V
Power Stability \$\pm\$1dB
Adjacent Channel Power >50dB@25KHz

#### Receiver

## Sensitivity

better than -115dBm@BER 10<sup>-3</sup>/9600bps

Co-channel Rejection >-12dB

## **Operation Environment**

Temperature(operation)  $-40^{\circ}\text{C} \sim +70^{\circ}\text{C}$ Temperature(storage)  $-50^{\circ}\text{C} \sim +85^{\circ}\text{C}$ 

For the most recent details of this product: https://en.harxon.com/products-detail.php?ProId=107

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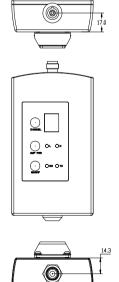
sales@harxon.com

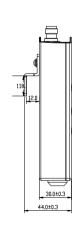
9/F, Block B, Building D3, TCL International E City, N0.1001 Zhongshanyuan Road, Nanshan District, Shenzhen, China Tel: +86-755-26989948

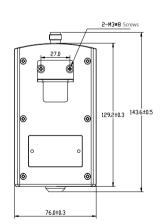
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# Structure Diagram(mm)





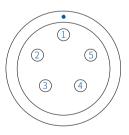


FRONT VIEW SIDE VIEW

BACK VIEW

Undeclared Tolerance:±0.3mm

# **Interface Pin Definition**



Interface Type: Asynchronous Serial Communication RS232

Pin 1— POWER SUPPLY, 9~20V DC

Pin 2— POWER GND

Pin 3-RXD

Pin 4—SERIAL PORT SIGNAL GND

Pin 5-TXD