

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)	
High Power	3.2W@12V DC
Low Power	2.5W@12V DC
Standby	0.7W@12V DC
Frequency Stability	$\leq \pm 1.0$ ppm

Structural Specification

Size	143.6(L) \times 76(W) \times 44(H)mm
Weight	Approx.340g
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 (1W)	30.0 \pm 0.5dBm@DC 12V
Low Power (0.5W)	27.0 \pm 1.0dBm@DC 12V
Power Stability	$\leq \pm 1$ dB
Adjacent Channel Power	>50dB@25KHz

Receiver

Sensitivity	better than -115dBm@BER 10 ⁻³ /9600bps
Co-channel Rejection	>-12dB

Operation Environment

Temperature(operation)	-40°C~+70°C
Temperature(storage)	-50°C~+85°C

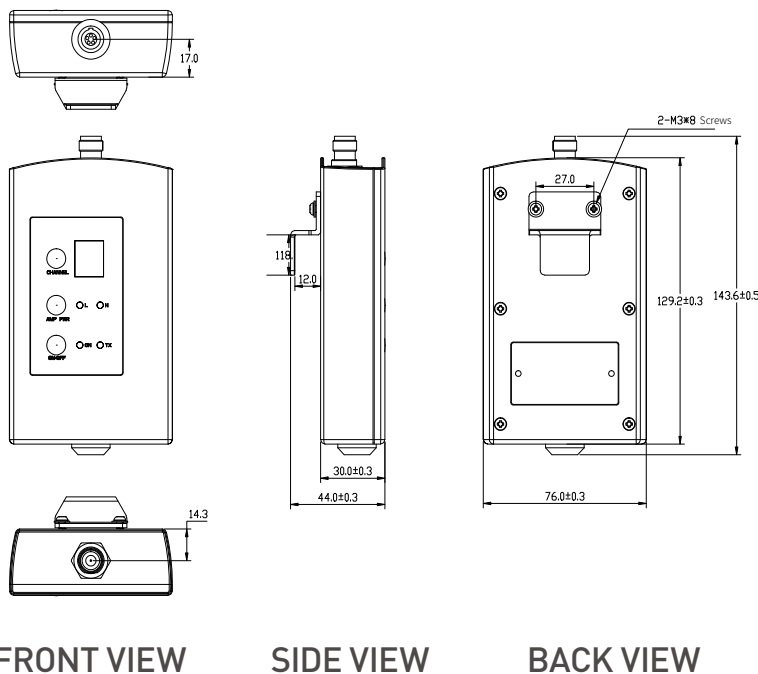
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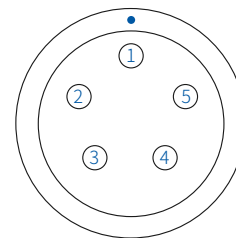
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Version 1 Specifications subject to change without notice.
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Printed in China
July 2021

Structure Diagram(mm)



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

Undeclared Tolerance: ± 0.3 mm