

# Radio Modem HX-DU2005D

**Harxon**  
a *BDStar* company

## Embedded Radio Modem for Wireless Data Communications

Harxon HX-DU2005D is an embedded high performance radio modem providing reliable and stable wireless data communications for mission critical applications such as geodetic surveying and autonomous guidance solution for agricultural machines. It is an adjustable 0.5W and 2W UHF transceiver designed for integration into products that require either a one- or two-way radio communication link that is configurable for operation between 410-470MHz.



### VERSATILE FEATURES WITH RELIABLE PERFORMANCE

This low power consumption radio modem provides reliable operation with sophisticated features as lightweight compact single board structure, high/low power switching, serial port baud rate switching, air baud rate switching, robust product performance with strong anti-interference capacity that make it versatile and easy to use for a wide variety of applications.

### COMPATIBLE WITH MAJOR RADIO PROTOCOLS

Harxon HX-DU2005D is compatible with mainstream radio protocols such as TrimTalk450, TrimMark3, Transparent, SATEL, and also upgradable with expandable customized radio protocols are available.

### COMPACT SINGLE BOARD STRUCTURE FOR EASY INTEGRATION

HX-DU2005D weights only 60g with small dimension and practical interface, it could be easily integrated into the customer's host device without complexity. It adopts a compact single board structure with efficient heat dissipation case ensuring reliable product performance.

### LOW POWER CONSUMPTION

HX-DU2005D adopts optimized structure design for upgraded transmission efficiency while reducing power consumption, prolongs the battery life.

### KEY FEATURES

- Support Air Baud Rate Switching: 19200bps, 9600bps
- Support Serial Port Baud Rate Switching: 115200bps, 38400bps, 19200bps, 9600bps
- Compatible with Radio Protocols: TrimTalk450(9600bps), TrimMark3(19200bps), Transparent(9600bps), SATEL(9600bps, 19200bps)
- Support Online Update
- Support High / Low Power Switch

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## General Specification

Frequency Range	410~470MHz
Operating Mode	Half-duplex
Channel Spacing	12.5KHz/25KHz
Modulation Type	GMSK / 4FSK
Channels	1(programmable)
Operation Voltage	5.0V
Power Consumption(typical)	
High power	5.0W@5V DC
Low Power	3.5W@5V DC
Standby	0.5W@5V DC
Frequency Stability	≤±1.0ppm

## Structural Specification

Size	75L×46W×11H mm
Weight	About 60g
Antenna Interface	MCX Female
Antenna Interface Impedance	50ohm
Data Interface	2*8pin 1.27mm

## Modem

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

## Transmitter

RF Output Power	
High Power (2.0W)	33.2±0.5dBm@DC 5V
Medium Power (1.0W)	30.0±0.5dBm@DC 5V
Low Power (0.5W)	27.5±1.0dBm@DC 5V
Power Stability	±1dB
Adjacent Channel Power	>50dB@25KHz

## Receiver

Sensitivity	-115dBm@BER 10-5/9600bps
Co-channel Rejection	>-12dB

## Operation Environment

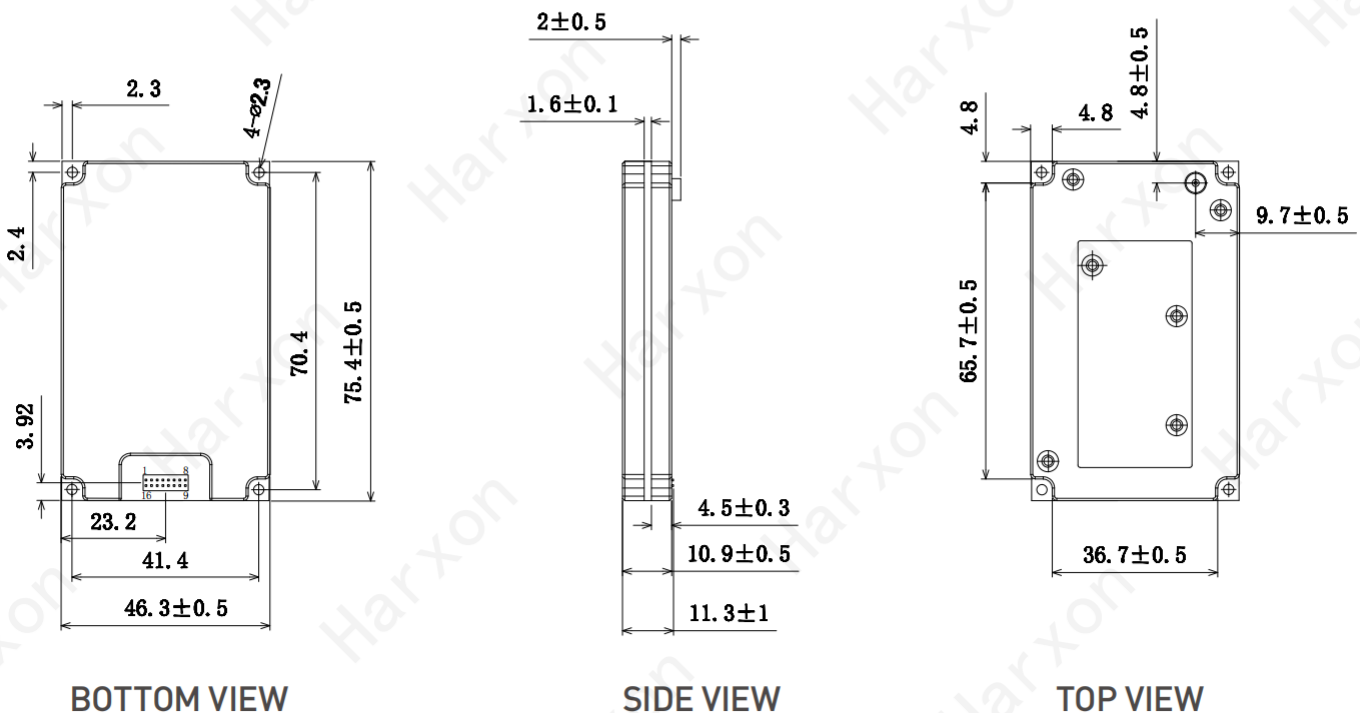
Temperature(operation)	-40℃~+70℃
Temperature(storage)	-50℃~+85℃
Shock and Vibration	GB / T2423.56-2006 / ISO 16750-3 2003

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## Structure Diagram(mm)



Undeclared Tolerance:±0.3mm

