



UHF eRadio HX-DU8616D PRO

Harxon
a *BDStar* company

SMART AND HIGH EFFICIENT RADIO MODEM FOR FAST DATA TRANSMISSION



HIGH PERFORMANCE WIRELESS DATA LINKS

HX-DU8616D PRO is an advanced, high speed, high power wireless data link built to withstand the demanding conditions of GNSS/RTK surveying and precise positioning. Due to the 35W high transmitting power, connection distances up to 20 kilometers can be covered in favorable conditions. It is designed with a ruggedized IP67 weatherproof enclosure to withstand extreme environments.

INTELLIGENT SERIAL BAUD RATE IDENTIFICATION

HX-DU8616D PRO supports intelligent serial baud rate identification function for different RTK devices. It can automatically identify RTK serial baud rate with radio data cable and provide a plug and play form for easy connection between eRadio and RTK.

MULTIPLE OPERATING MODES

HX-DU8616D PRO is an easy-to-use radio modem that provides dependable performance as either a base, radio repeater or network repeater working with other Harxon radio modems in challenging environments. In the store and forward operating mode, eRadio receives messages, buffers the received data, and transmits further to another substation.

CONVENIENT MOBILE APP OPERATIONS

The user programmable eRadio also supports the Bluetooth of APP to configure data and updates radio status. Its diagnostic reporting software can realize the built-in reliability monitoring, such as internal temperature, environment status, battery level and channel inspection etc., these features allow users to both anticipate and deal with potential issues efficiently.

MULTIPLE COMMUNICATION PROTOCOLS

HX-DU8616D PRO is a highly versatile device that is capable of supporting multiple communication protocols, including ETALK, TRIMTALK™, TRIMMARK™3, Transparent-EOT, SATEL®, and the unique ETALK communication protocol developed by Harxon. With this wide range of communication protocols, HX-DU8616D PRO is able to connect and communicate with a variety of different devices and systems.

KEY FEATURES

- Supports H/M/L three level transmission power(customized)
- Supports serial baud rate identify between 115200bps、57600bps、38400bps、19200bps、9600bps
- Compatible communication protocols of ETALK, TRIMTALK™, TRIMMARK™3, Transparent-EOT, SATEL®
- Supports mobile APP data configuration¹
- Supports network repeater²
- User friendly OLED screen display
- IP67 rugged protection

GENERAL

Frequency	410MHz~470MHz
Operating Mode	Transceiver Transmitter Radio Repeater Network Repeater
Channel Width	12.5KHz/25KHz
Channels	Up to 200 programmable channels (user selectable)
Operating Voltage	9V~16V
Power Consumption (Typical)	
Transmit Output Power H:[35W]	85W@12V DC
Transmit Output Power M:[22W]	60W@12V DC
Transmit Output Power L:[5W]	35W@12V DC
Sleep State	2W@12V DC
Frequency Stability	<±1ppm
Ingress Protection Rating	IP67
Dimension	175(H)×130(W)×86.5(D)mm
Weight	2kg
Operating Temperature	-40°C to +65°C
Storage Temperature	-50°C to +85°C
Connector	TNC female
Data Connector	LEMO 5pin

TRANSMITTER

RF Output Power	
H:35W	45.4±0.5dBm @DC 12V
M:22W	43.4±0.5dBm @DC 12V
L:5W	37±1dBm @DC12V
RF Power Stability	±1dB

RECEIVER

Sensitivity	<-114dBm@BER 10 ⁻⁵ , 9600bps
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DATA MODEM

Data Rate	4800bps/9600bps/19200bps
Data Speed of Serial Interface	9600、19200、38400、57600、115200bps
Modulation	GMSK/4FSK

BLUETOOTH

Bluetooth Version	2.0/4.0
Bluetooth Antenna	Built-in

4G³

Support Bands	
4G bands[MHz]:	B1(2100), B3(1800), B7(2600), B8(900), B20(800)
3G bands[MHz]:	B2(2100), B8(900)
2G bands[MHz]:	B3(1800), B8(900)

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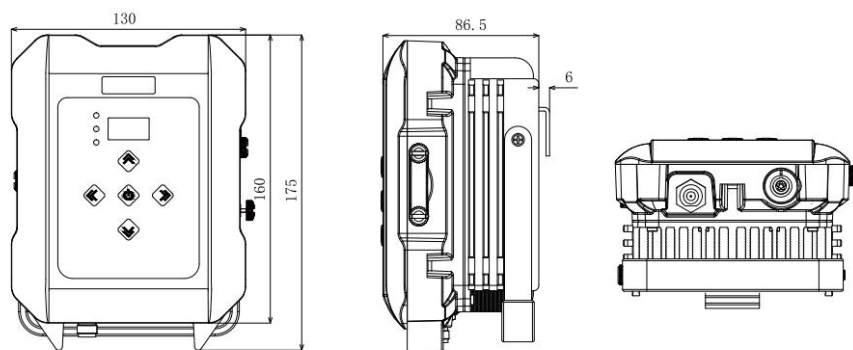
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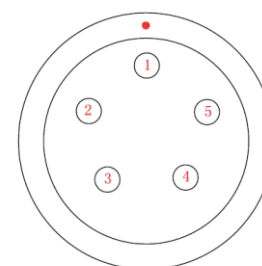
Version 1 Specifications subject to change without notice.
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Structure Diagram(mm)



Undeclared Tolerance:±0.3mm

Interface Pin Definition



Interface Type:

Asynchronous Serial Communication RS232

Pin 1—POWER SUPPLY, 9~16V DC

Pin 2—POWER GND

Pin 3—RXD

Pin 4—SERIAL PORT SIGNAL GND

Pin 5—TXD