

SMART AND HIGH EFFICIENT RADIO MODEM FOR RTK APPLICATIONS



INTELLIGENT SERIAL BAUD RATE IDENTIFICATION

The eRadio has enabled with intelligent serial baud rate identification 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.

MULTI-OPERATING MODE IDENTIFY

It offers surveyors an easy-to-use radio modem that provides dependable performance as either a base, or 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.

EXCLUSIVE ETALK COMMUNICATION PROTOCOL

In addition to compatible with radio protocols by Trimble® and Satel®, eRadio is also equipped with its unique ETALK communication protocol, which used Harxon's exclusive algorithms and advanced processors. Under the same conditions, ETALK protocol can significantly reduce the BER of weak signals and the communication distance can be increased by 20%.

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
- 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 ⁻³ , 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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1: the Bluetooth version supports mobile APP data configuration
2: the 4G version supports network repeater
3: can be customized according to different regions

Selectable eRadio Series:

	HX-DU8616D SE	HX-DU8616D	HX-DU8616D Pro
Transmitter	✓	✓	✓
Receiver	—	✓	✓
Radio Repeater	—	✓	✓
Network Repeater	—	—	✓
OLED	✓	✓	✓
32 Channels	✓	✓	—
200 Channels	—	—	✓
Bluetooth	—	✓	✓
4G	—	—	✓
GPS Module	—	—	✓
CSMA	—	✓	✓
Call Sign	—	✓	✓