eRadio HX-DU8616D

Harxon
a *BDStar* company

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 configuration [1]

- Supports network repeater [2]

- 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℃ to +65℃
Storage Temperature	-50℃ to +85℃
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

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

4G [3]

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)

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	—	✓	✓