

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, TRIMMK3, TRANSEOT
- 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: (30W) | 78W@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 | -40C~+65C |
| Storage Temperature | -50C~+85C |
| Connector | TNC female |
| Data Connector | LEMO 5pin |

TRANSMITTER

| | |
|---------------------------|---------------------|
| RF Output Power | |
| H:30W | 44.8±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 |

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) |

For the most recent details of this product:
<http://en.harxon.com/products-detail.php?ProId=168>

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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 | — | — | ✓ |
| Beidou Module | — | — | ✓ |
| CSMA | — | ✓ | ✓ |
| Call Sign | — | ✓ | ✓ |