

# Accessory **DR35**

**External Data Transmission Radio**



# External Digital Radio DR35

TOKNAV external digital radio provides reliable data communications for mission-critical applications where a combination of stability and long range are required. The DR35 radio is the latest fully compatible protocol radio station of TOKNAV. With professional IP67 rating, it is robust and reliable, suitable for various outdoor harsh environment. Its adjustable multiple transmit power can easily achieve stable transmission over long distances of 30KM.

## CHARACTERISTIC

### Intelligent Serial Baud Rate Identification

The External Digital Radio DR35 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 Radio 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 radio modems in challenging environments. In the store and forward operating mode, Digital Radio receives messages, buffers the received data, and transmits further to another substation.

### Convenient Mobile App Operations

The user programmable Digital Radio 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.

### Compatible with Multiple Protocols

Compatible communication protocols of ETALK, TRIMTALK™, TRIMMARK™3, Transparent-EOT, SATEL®

### IP67 Design

Industrial design, solid magnesium alloy shell, in line with IP67 design requirements, safe and reliable.

### Adjustable Multiple Transmit Power

The Radio supports H/M/L three level transmission power(customized), three power levels adjustable from 5W to 35W.



# SPECIFICATION

## GENERAL

Frequency	Android 11
Operating Mode	Transceiver Transmitter Radio Repeater Network Repeater
Channel Width	4GB RAM + 64GB ROM
Channels	Micro SD, up to 512GB
Frequency Stability	$< \pm 1\text{ppm}$

## POWER

Operating Voltage	9V~16V
Power Consumption (Typical)	Transmit Output Power H: (35W) 78W@12V DC Transmit Output Power M: (22W) 60W@12V DC Transmit Output Power L: (5W) 35W@12V DC Sleep State 2W@12V DC

## MODEM

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

## TRANSMITTER

RF Output Power	H: 35W $44.5 \pm 0.5\text{dBm}$ @DC 12V M: 22W $43.4 \pm 0.5\text{dBm}$ @DC 12V L: 5W $37 \pm 1\text{dBm}$ @DC12V $\pm 1\text{dB}$
RF Power Stability	$\pm 1\text{dB}$

## RECEIVER

Sensitivity	$\leq -114\text{dBm}$ @BER 10-3, 9600bps
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## DATA COMMUNICATION

Bluetooth	Built-in Bluetooth Antenna Bluetooth Version: 2.0/4.0
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## ENVIRONMENTAL

Protection	IP67
Operating Temperature	$-40^{\circ}\text{C}$ to $+65^{\circ}\text{C}$
Storage Temperature	$-50^{\circ}\text{C}$ to $+85^{\circ}\text{C}$

## PHYSICAL

Dimension (H*W*D)	175mm*130mm*86.5mm
Weight	2kg
Data Connector	LEMO 5pin
Connector	TNC female

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Manufacturers may update parameters at any time, please refer to the latest product information.



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