



## High-Power External Radio for Surveying

The ADL35 is an external high-power data transmission radio module specifically designed for the surveying and mapping market. It features long-range communication, low power consumption, and intelligent, user-friendly design. Equipped with a high-definition OLED display, it supports menu operations, automatic baud rate recognition, smart power-on detection, interference monitoring, and remote control. With versatile power settings, multiple operation modes, and dual data transmission channels (RS232 and Bluetooth), this radio module ensures reliable and efficient performance in demanding field applications.

### Ultra-Wide Frequency Range & Multi-Mode Flexibility

Covers 410–470MHz, supporting 25KHz/12.5KHz channel spacing and GMSK/4FSK modulation. Operates in TX-only, transceiver, and radio relay modes, adaptable for diverse surveying and industrial tasks.

### High Power Output with Precision Control

Delivers 35W (max) RF power with  $\pm 1$ dB stability, plus medium (22W) and low (5W) modes for energy efficiency. Ensures  $>50$ dB adjacent-channel rejection for minimal interference.

### Robust Connectivity & Fast Data Transmission

Dual interfaces: RS232 (up to 115.2kbps) and Bluetooth ( $>5$ m range). Supports air data rates up to 19.2kbps and 32 programmable channels for seamless integration.

# ADL35

### Extreme Environmental Durability

Operates in  $-40^{\circ}\text{C}$  to  $+65^{\circ}\text{C}$  and withstands storage at  $-50^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$ , ideal for harsh field conditions.

### Low Power Consumption & Smart Efficiency

108W max (35W TX) down to 2W standby, optimized for prolonged battery use. Features  $\pm 1$ ppm frequency stability and  $-114$ dBm sensitivity for reliable long-range communication.

## RF PERFORMANCE

Frequency Range	410-470 MHz
Channel Spacing	GFSK mode: 12.5 kHz, 25 kHz
Work Mode	Half-duplex
Frequency Stability	<±1.5ppm
Modulation System	GFSK/4FSK
RF power stability	±1.5dB
Adjacent channel power	>50dB

## ELECTRICAL

Input Voltage	9 - 16V DC
RF Transmit Power	-High power (28W): 44.5±0.7dBm @DC12V -Medium power (22W): 43.4±1.0dBm@DC12V -Low power (5W): 37±1.8dBm@DC12V
Power Consumption (typical)	-High transmit power (28W): 83W @12V DC -Medium transmit power (22W): 60W @12V DC -Low transmit power (5W): 35W@12V DC -Standby: 2W@12V DC

## DATA TRANSMISSION

Air Baud Rate	9600bps/19200bps /38400bps/115200bps
Serial Port Baud Rate	9600bps/19200bps /38400bps/57600bps/115200bps
Protocol	TRIMTALK, TRIMMK3, TRANSEOT
Data Interface	Lemo 5-pin connector supportRS232 and Bluetooth

## PHYSICAL

Size	175×130×86.5mm
Weight	2 kg
User Interaction	-OLED screen -5 buttons &3 status indicators
Antenna Interface	TNC, female
Antenna Impedance	50 Ohm

## ENVIRONMENTAL

Operating Temperature	-40°C ~ +65°C
Storage Temperature	-50°C ~ +85°C
Waterproof & Dustproof	IP67



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