

# 868M/915MHz 20W RF Signal Extender

Model : EP-AB093

## 1. Product Overview

The EP-AB093 is a high-power RF signal extender designed for long-range wireless communication and sub-GHz signal enhancement applications.

Operating within the 860MHz–930MHz frequency range, the device delivers up to 43dBm (20W) output power with low-noise performance and automatic TX/RX switching capability. It significantly improves signal coverage, transmission stability, and communication reliability in long-distance wireless systems.



## 2. Applications

- Long-range wireless communication systems
- Sub-GHz RF signal enhancement
- 868MHz / 915MHz telemetry systems
- LoRa and low-frequency data transmission systems
- Wireless monitoring and control systems
- Industrial wireless transmission systems
- Remote data communication applications

## 3. Key Features

- High output power: Up to 43dBm (20W)
- Low noise figure: <2.5dB
- Frequency range: 860MHz–930MHz
- Automatic TX/RX switching
- Wide operating voltage range: 12V–20V DC
- Plug-and-play operation
- Aluminum alloy enclosure for efficient heat dissipation
- Compact and durable industrial-grade design

## 4. Electrical Specifications

No.	Items	Specifications
1	Frequency Range	860–930MHz
2	Operating Voltage	DC 12–20V
3	Receiving Gain	18dB ±1
4	Transmission Gain	18dB ±1
5	Max Output Power (P1dB)	43dBm (20W)
6	Input Trigger Power	Min: 3dBm / Max: 22dBm
7	EVM	3%@37dBm 802.11g 54Mbps OFDM 64QAM BW 20MHz
8	Noise Figure	<2.5dB
9	Current Supply	3.7A @ Pout 43dBm 12V
10	TX/RX Switch Time Delay	<1us
11	LED Indicator	TX: Green / RX: Red
12	RF Connector	Input: SMA-K / Output: SMA-K
13	Power Connector	5.5×2.1mm DC
14	Operating Temperature	-30°C ~ +70°C
15	Storage Temperature	-40°C ~ +150°C
16	Operating Humidity	Up to 95% RH
17	Shell Material	Aluminum Alloy
18	Shell Size	104 × 60 × 17 mm
19	Net Weight	0.27kg

## 5. Performance & Installation Guidelines

- Maximum output power reaches 43dBm (20W)
- Recommended power supply: 12V / ≥5A regulated DC supply
- Ensure adequate heat dissipation during continuous high-power operation:  
Aluminum enclosure provides primary thermal management  
Additional cooling or airflow is recommended for long-duration use
- Installation sequence must be followed:
  - 1、 Connect matched antenna first
  - 2、 Then connect the power supply
  - 3、 Finally connect the RF device
- Use properly matched 868MHz or 915MHz antennas for optimal performance
- Do NOT operate without antenna connected, to avoid RF damage