**EP-AB003 datasheet**

## Product Description

This product is a bidirectional power amplifier specially developed for the 2.4GHz frequency band, compliant with IEEE 802.11 b/g/n standards. It is compatible with frequency extension technologies such as Direct Sequence Spread Spectrum (DSSS) and Orthogonal Frequency Division Multiplexing (OFDM). Using Time Division Duplex (TDD) fast microwave detection technology and linear power amplifier technology, this product greatly extends the wireless RF communication distance while maintaining the transmission rate of 802.11b/g/n wireless devices.

## Product Specifications

- **Product Name**: 2.4GHz 802.11b/g/n Bidirectional Power Amplifier
- **Model**: EP-AB003
- **Operating Frequency Range**: 2.4~2.5GHz
- **Operating Voltage**: 6~18V
- **Receive Gain**: 25dB ± 1
- **Transmit Gain**: 15dB ± 1
- **Input Power Range**: Min 3dBm; Max 30dBm
- **Maximum Output Power (P1dB)**: 37dBm (5W)
- **EVM**: 3%@29dBm, 802.11g 54Mbps OFDM 64QAM BW 20MHz
- **DC Power Consumption**: 575mA@Pout 29dBm 12V
- **Transmit Gain**: 15dB, which can increase the transmit power by 20 times and significantly extend the transmission distance
- **Noise Figure**: 2.5dB, which can enhance product sensitivity and extend the reception range
- **Transmit Power**: 5000mW, which can greatly increase the product's coverage area
- **Wide Power Supply Input Range**: 6~18V, facilitating network deployment
- **Extends any 2.4G frequency band, operating in TDD mode**
- **Plug-and-play**: No software setup required
- **Full metal casing**: Greatly improves heat dissipation performance

## Product Features

- **Noise Figure**: ＜2.5dB
- **TX/RX Switch Delay**: ＜1us
- **LED Status Indicators**:
    - Transmit: Green
    - Receive: Red
    - Transmit/Receive Switch: Orange-yellow (combination of green and red)
- **Operating Temperature**: -40℃ to +70℃
- **Operating Humidity**: ＜95% RH
- **Dimensions**: 103.5mm × 96.5mm × 30.5mm
- **Net Weight**: 0.3Kg

## Installation Steps

1. Disconnect the power of the wireless AP/Router
2. Remove the antenna from the wireless AP/Router
3. Connect the bidirectional amplifier's RFIN port to the wireless AP/Router's antenna using the provided RG316 coaxial cable
4. Screw the antenna onto the RFOUT port of the bidirectional amplifier
5. Power on the bidirectional amplifier first, then power on the wireless AP/Router