

EPA-2 is a dual-channel 2×2 W TDD bidirectional RF power amplifier launched by Zencheer. Measuring only 69 × 58 mm, it operates over 500–1500 MHz and delivers high-linearity output, making it compatible with radio modules supporting standards such as WiFi, LTE, and DVB-T.

Key Features

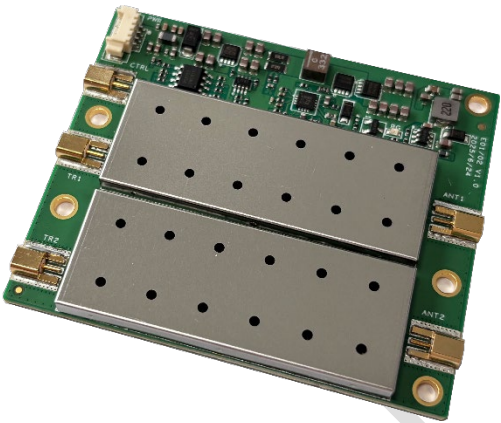
- Supports 2×2 MIMO with integrated TX/RX amplifiers, TDD mode
- Onboard DC-DC boost converter, supporting a wide input voltage range
- Operating band can be customized on request
- Compact and lightweight, suitable for handheld and backpack radio
- Up to 2 W output power per channel

Specifications

Frequency Range	Typical: 1420–1530 MHz Customizable within 500–1500 MHz on request
Bandwidth	Typical: 110 MHz
TX Channel	
Gain	Typical: 12 dB
Output Power	33 dBm ± 1 dB
EVM	≤ −25 dB @ 33 dBm ≤ −28 dB @ 30 dBm
RX Channel	
Gain	Typical: 12 dB
RF Connectors	MMCX
Control Interface	
Connector	MMCX
Switch Logic	Logic high (1.8–3.3 V) enables TX Logic low (0 V) enables RX
Switching Time	< 1 μs
Supply Voltage	12–27 V
Dimensions	69 × 58 × 5.7 mm
Weight	30 g
Temperature Range	Storage: −40 to +125 °C Operating: −20 to +65 °C
Power Consumption	TBD

Interface Definitions

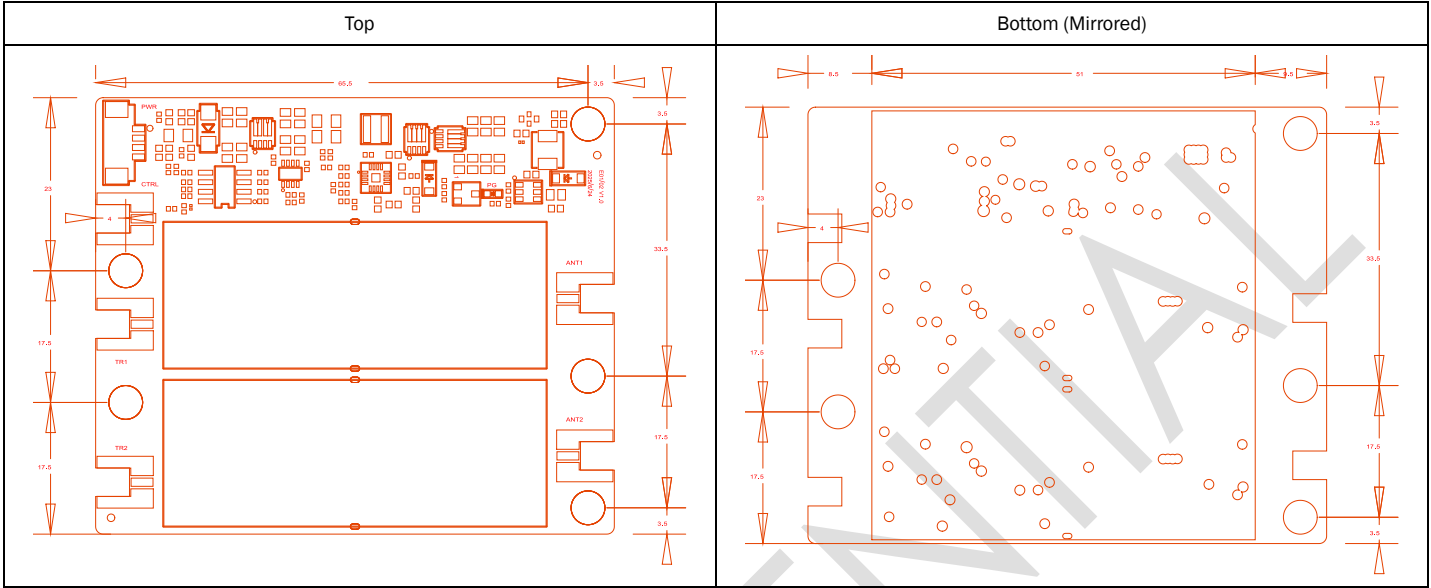
Interface	Description
TR1/TR2	RF signal I/O, connect to the RF module
ANT1/ANT2	PA output and LNA input, connect to the antenna
CTRL	TX/RX control signal
PWR	4-pin power connector for PA power input: Pins 1 and 2 are positive (+), Pins 3 and 4 are negative (−)



Ordering Information

Model	Frequency Range	TX Gain	TX Power	RX Gain
EPA1470-2	1420~1530 MHz	12 dB	33 dBm	12 dB

Physical Size



Note: All mounting holes have a diameter of 3.1 mm and can be secured with M3 screws. The black shaded area indicates the heat-generating region and should be in contact with the device enclosure.