

DPA-5 is a dual-channel 2×5 W TDD bi-directional RF power amplifier launched by Zencheer. Measuring 88 × 77 mm, it operates over 500–1500 MHz and provides high-linearity output, 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
- Comprehensive protection design
- Operating band can be customized on request
- Up to 5 W output power per channel



Specifications

Frequency Range	1428–1448 MHz typical Customizable within 500–1500 MHz on request
Bandwidth	20 MHz typical Can be customized up to 100 MHz (maximum)
Tx Channel	
Gain	15 dB typical Can be customized up to 35 dB (maximum)
Output Power	37 dBm ± 1 dB
EVM	≤ -25 dB @ 37 dBm ≤ -28 dB @ 34 dBm
Rx Channel	
Gain	6 dB Typical Can be customized up to 12 dB (maximum)
RF Connectors	MMCX
Control Interface	
Connector	MMCX
Switch Logic	Logic high (1.8–3.3 V) enables TX Logic low (0 V) enables RX
Switch Speed	< 1 μs
Power Supply	12–27 V
Size	88 × 77 × 15.6 mm(excluding SMA connectors)
Temperature Range	Storage: -40 to +125 °C Operation: -20 to +65 °C
Power Consumption	50 W @ 70% TX duty cycle

Interface Definitions

Interface	Description
TX/RX0	RF signal input/output, connecting to the RF module
TX/TX1	RF signal input/output, connecting to the RF module
ANT0/ANT1	PA output and LNA input, connecting to the antenna
CTRL	Tx/Rx control signal
PWR	2-pin power connector for PA power input: Pin 1 is positive (+), Pin 2 is negative (-)

Ordering Information

Model	Frequency Range	Tx Gain	Tx Power	Rx Gain
DPA1400-5	1428-1448 MHz	10 dB	37 dBm	6 dB
DPA1450-5	1400-1500 MHz	10 dB	37 dBm	6 dB
DPA1470-5	1420-1530 MHz	16 dB	37 dBm	12 dB

Physical Size

