

ZPA-10 is a 10 W TDD integrated bidirectional RF power amplifier launched by Zencheer. Measuring 121.6 × 90 mm, it operates over 500–1500 MHz and delivers high-linearity output, making it compatible with our Mesh radios.

Key Features

- Integrated TX/RX amplifiers, TDD mode
- Operating band can be customized on request
- Maximum output power up to 40 dBm



Specifications

|                     |                                   |
|---------------------|-----------------------------------|
| Frequency Range     | 500–1500 MHz                      |
| Bandwidth           | 20–100 MHz                        |
| TX Channel          |                                   |
| Gain                | 13 dB ± 1 dB                      |
| Output Power        | 40 dBm ± 1 dB                     |
| EVM                 | ≤ −25 dB @ 40 dBm                 |
|                     | ≤ −28 dB @ 37 dBm                 |
| RX Channel          |                                   |
| Gain                | 5 dB ± 1 dB                       |
| RF Connectors       | SMA                               |
| Control Interface   |                                   |
| Connector           | SMA                               |
| Switch Logic        | Logic high (1.8–3.3 V) enables TX |
|                     | Logic low (0 V) enables RX        |
| Switching Time      | < 1 μs                            |
| Supply Voltage      | 28 V ± 4 V                        |
| Dimensions          | 121.6 × 90 × 26 mm                |
| Temperature Range   | Storage: −40 °C to +125 °C        |
|                     | Operating: −20 °C to +65 °C       |
| Current Consumption | 2A Max@28 V                       |

Interface Definitions

| Interface | Description                                                                            |
|-----------|----------------------------------------------------------------------------------------|
| IN        | RF signal I/O, connect to the RF module                                                |
| OUT       | PA output and LNA input, connect 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 |
|------------|-----------------|---------|----------|---------|
| ZPA580-10  | 565–595 MHz     | 13 dB   | 40 dBm   | 6 dB    |
| ZPA616-10  | 566–616 MHz     | 13 dB   | 40 dBm   | 6 dB    |
| ZPA1400-10 | 1428–1448 MHz   | 13 dB   | 40 dBm   | 6 dB    |

Physical Size

