

# Power Amplifier

## 10-14GHz/53dB Gain/53dBm Psat

TLPA10G14G-53-53

TURPA10G14G-5353 is a power amplifier with a minimum power gain of 53 dB and a minimum Psat of 53 dBm across the frequency range of 10 to 14 GHz. The DC power requirement for the amplifier is +24 VDC. The input port configuration offers coax adapter structure with N female and output port configuration offers WR75.

Features:

- Frequency range: 10-14GHz
- Gain: 53dB Min
- Output Power Psat: 53dBm Min
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

电气特性 Electrical Characteristics:

| 参数 Parameter             | Min   | Typ  | Max  | 单位 Units |
|--------------------------|-------|------|------|----------|
| 频率范围 Frequency range     | 10-14 |      |      | GHz      |
| 功率增益 Power Gain          | 53    |      |      | dB       |
| 增益平坦度 Gain Flatness      |       | ±3   |      | dB       |
| 增益调节范围 Gain adjust Range |       | 31.5 |      | dB       |
| 增益调节步进 Gain adjust Step  |       | 0.5  |      | dB       |
| 饱和输出功率 Output Psat       | 53    |      |      | dBm      |
| 杂散 Spurious@Pout=53dBm   |       |      | -50  | dBc      |
| 谐波抑制 Harmonic@Pout=53dBm |       |      | -15  | dBc      |
| 输入驻波 Input VSWR          |       |      | 2    | :1       |
| 直流电压 DC Voltage          |       | 24   |      | V DC     |
| 功耗 Power Consumption     |       |      | 1600 | W        |
| 阻抗 Impedance             | 50    |      |      | Ohms     |

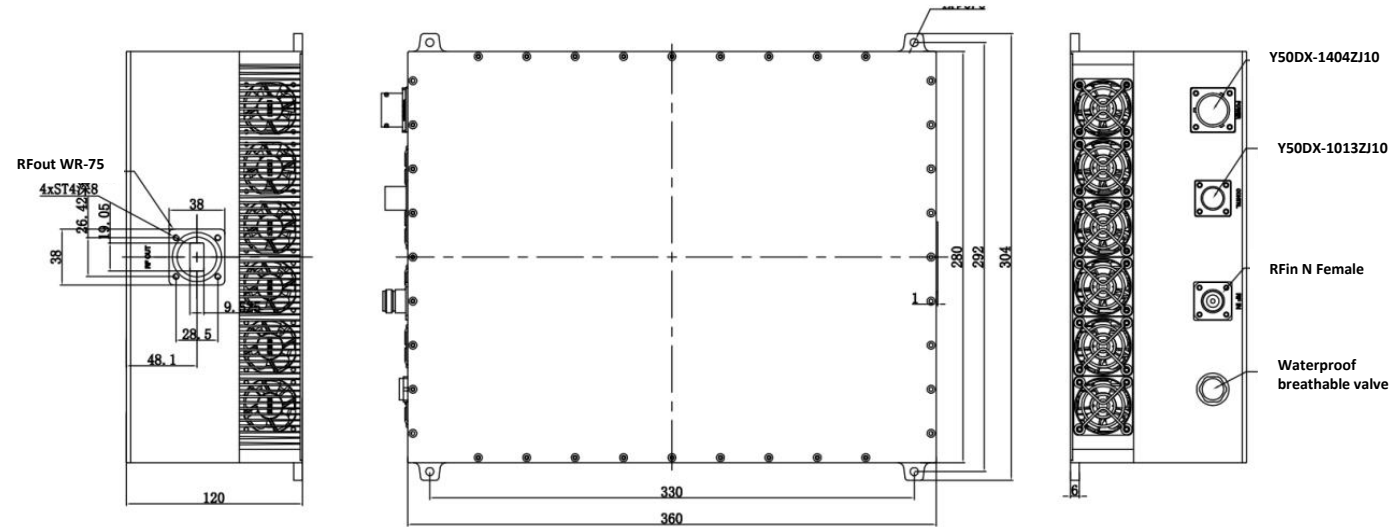
机械特性 Mechanical Specifications:

| 参数 Parameter                     | 指标 Value      | 单位 Units |
|----------------------------------|---------------|----------|
| 输入/输出接口 Input /Output Connector  | N Female/WR75 |          |
| 直流供电接口 DC Power Supply Connector | Y50DX-1404    |          |
| 控制接口 Control Connector           | Y50X-1013     |          |
| 尺寸 Size                          | 360*280*120   | mm       |
| 重量 Weight                        | ≤15           | Kg       |

绝对最大值 Absolute Maximum Ratings:

| 参数 Parameter                 | 指标 Value             |
|------------------------------|----------------------|
| 输入功率 RF Input Power          | +10 dBm              |
| ESD灵敏度 ESD sensitivity (HBm) | Class 0, passed 150V |

外形图 Outline Drawing: Unit:mm





ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.



温度环境 Environmental Conditions:

| 参数 Parameter                       | Min                                                 | Typ | Max | 单位 Units |
|------------------------------------|-----------------------------------------------------|-----|-----|----------|
| 操作温度 Operating Temperature*        | -20                                                 |     | +50 | °C       |
| 存储温度 Non-operating Temperature*    | -30                                                 |     | +60 | °C       |
| 相对湿度 Relative humidity             |                                                     | 95  |     | %        |
| 海拔 Altitude                        | 10,000                                              |     |     | feet     |
| 震动 Shock / Vibration(MIL-STD-810F) | 25g rms (15 degree 2KHz) endurance, 1 hour per axis |     |     |          |
| 冲击 Shock(non operating)            | 20G for 11msc half sin wave,3 axis both directions  |     |     |          |

\*Note: For a wider temperature range, please consult the manufacturer.

订货信息 Ordering Information:

| 标准型号 Base Number    | 描述 Description                                                             | 版本号 Revision |
|---------------------|----------------------------------------------------------------------------|--------------|
| TURPA10G14G-5353    | Power amplifier 10-14GHz,<br>Gain:53dB,Psat:53dBm,+24V DC,Without Heatsink | Rev.1.1      |
| TURPA10G14G-5353 HS | Power amplifier 10-14GHz,<br>Gain:53dB,Psat:53dBm,+24V DC,With Heatsink    | Rev.1.1      |