

Power Amplifier

7-10GHz /53dB Gain/53 dBm Psat

TLPA7G10G-53-53

TURPA7G10G-5353 is a power amplifier with a power gain of 53 dB and a nominal Psat of 53 dBm across the frequency range of 7 to 10 GHz. The DC power requirement for the amplifier is +100 V AC/14 A. The input configuration offers coax adapter structure with SMA female and the output is a WR112 waveguide.

Features:

- Ultra Wide Band: 7-10GHz
- Gain: 53dB Min
- Output Power Psat: 53dBm Typ
- Functions:Power setting on/off,gain adjustment
- 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 | | 7-10 | | GHz |
| 工作模式 Working Mode | CW/PULSE compatible | | | |
| 功率增益 Power Gain | 53 | | | dB |
| 增益平坦度 Gain Flatness | | ±3 | | dB |
| 线性输出功率 Output P1dB | 46 | | | dBm |
| 饱和输出功率 Output Psat | | 53 | | dBm |
| 杂散 Spurious@Pout=53dBm | | | -60 | dBc |
| 谐波抑制 Harmonic@Pout=53dBm | | -20 | | dBc |
| 输入驻波 Input VSWR | | | 2 | :1 |
| 交流电压 AC Voltage | 86 | 100 | 120 | V AC |
| 交流电流 AC Supply Current | | 14 | | A |
| 功耗 Power consumption@CW | | 1400 | | W |

机械特性 Mechanical Specifications:

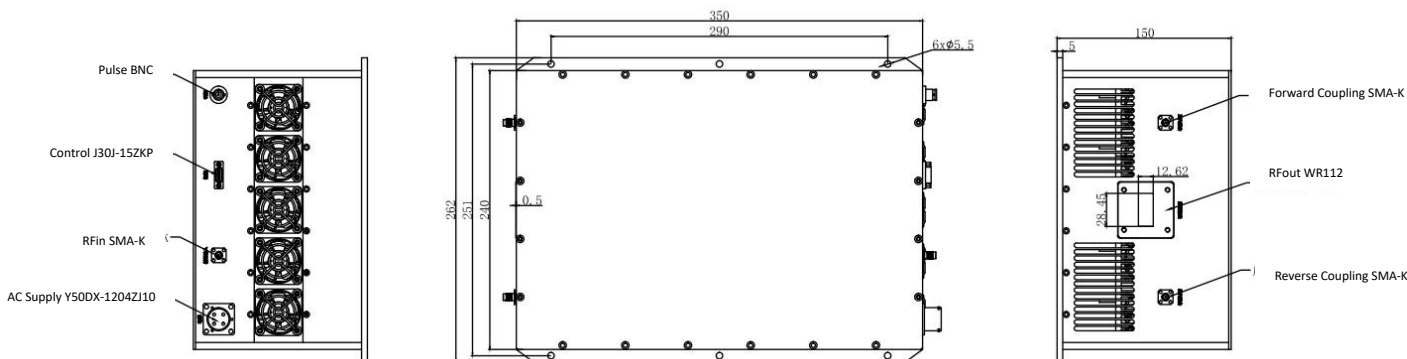
| 参数 Parameter | 指标 Value | 单位 Units |
|----------------------------------|-----------------------|----------|
| 输入/输出接口 Input /Output Connector | SMA Female/WR112 | |
| 正向/反向耦合 Forward/Reverse Coupling | SMA Female/SMA Female | |
| 交流供电接口 AC Supply Connector | Y50DX-1204 | |
| 脉冲输入接口 Pulse Input Connector | BNC Female | |
| 控制接口 Control Connector | J30J-15ZKP | |
| 尺寸 Size | 350*262*150 | mm |
| 重量 Weight | ≤20 | Kg |

绝对最大值 Absolute Maximum Ratings:

| 参数 Parameter | 指标 Value |
|------------------------------|----------------------|
| 供电偏置电压 Supply Bias Voltage | +120 V |
| 输入功率 RF Input Power | TBD |
| ESD灵敏度 ESD sensitivity (HBm) | Class 0, passed 150V |

外形图 Outline Drawing:

Unit:mm



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 |
|------------------|-------------------------------------------------------------------------|--------------|
| TURPA7G10G-5353 | Power amplifier 7-10GHz,Gain:53dB,Psat:53dBm, +100V AC,With Heatsink | Rev.1.1 |