

## Power Amplifier

13.7-14.5GHz/52dB Gain/52dBm Psat

Model: TLPA13.7G14.5G-52-52-HS-T

TLPA13.7G14.5G-52-52-HS-T is a power amplifier with a minimum gain of 52 dB and a minimum Psat of 52 dBm across the frequency range of 13.7 to 14.5 GHz. The DC power requirement for the amplifier is +28 V AC/1000 W. The input port configuration offers coax adapter structure with SMA female and output port is WR62.

### Features:

- Frequency range:13.7-14.5GHz
- Gain: 52dB Min
- Output Power Psat: 52dBm Min
- 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	13.7		14.5	GHz
增益 Gain	52			dB
增益平坦度 Gain Flatness@Full band		±2	±3	dB
增益波动 Gain fluctuation @Full TEMP range		±3		dBm
饱和输出功率 Output Psat	52			dBm
杂散 Spurious@Pout=52dBm			-60	dBc
三阶互调 Output IM3*			-25	dBc
输入驻波 Input VSWR			1.5	:1
输出驻波 Output VSWR			1.5	:1
交流电压 DC Voltage		+28		V DC
功耗 Power Consumption			1000	W
阻抗 Impedance		50		Ohms

\*Note: Two-tone interval is 5 MHz,The total power of the two-tone synthesis is 48 dBm.

## 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/WR62	
通信接口 Communication Connector	J30J-15ZKP	
直流供电接口 DC Power Supply Connector	D-SUB5W5	A1-A2+28V A3-A5: GND
尺寸 Size	350*239*90	mm
重量 Weight	≤10	Kg

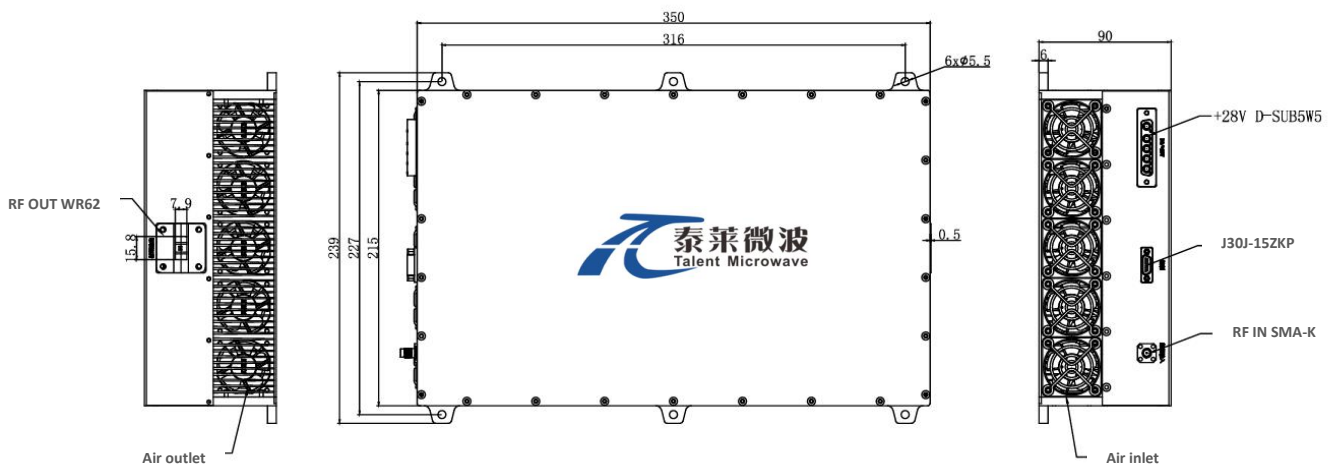
## 绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+28 V
输入功率 RF Input Power	+5 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V



## 外形图 Outline Drawing:

Unit:mm



## \*\*\*Heat Sink Required During Operation



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

## 主要功能 Key Features:

参数 Parameter	特点 Advantages
内置保护功能 Protection functions	1,Over TEM 2,Over voltage 3,Over current protection 4,Over VSWR
查询参数 Query parameters	1,TEM 2,Voltage 3,Current 4,Output power and reflect power
监控和控制 Remote control	RS422
冷却系统 Cooling system	Built in Cooling system,forcedair cooling

## 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)	20g,11ms,saw-tooth			
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
TLPA13.7G14.5G-52-52-HS-T	Power amplifier 13.7-14.5GHz, Gain:52dB,Psat:52dBm,+28V DC,With Heatsink	Rev.1.1