

Power Amplifier

12-13GHz/45dB Gain/45dBm Psat

Model: TLPA12G13G-45-45

TLPA12G13G-45-45 is a power amplifier with a minimum power gain of 45 dB and a minimum Psat of 45 dBm across the frequency range of 12 to 13 GHz. The DC power requirement for the amplifier is +24 VDC/6 A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 12-13GHz
- Gain: 45dB Min
- Output Power Psat: 45dBm 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	12		13	GHz
工作模式 Working Mode		CW/Pulse		
功率增益 Power Gain	45			dB
增益平坦度 Gain Flatness		±2		dB
饱和输出功率 Output Psat	45			dBm
杂散 Spurious@Pout=45dBm			-60	dBc
谐波 Harmonic@Pout=45dBm			-15	dBc
输入驻波 Input VSWR			2	:1
直流电压 DC Voltage		24	25	V DC
直流电流 DC Supply Current			6	A
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	SMA Female/SMA Female	
直流偏置 DC Bias	Feedthru Capacitor	
尺寸 Size	60*60*11(Without heatsink) 188*125*146(With heatsink)	mm
重量 Weight	≤200(Without heatsink)	g

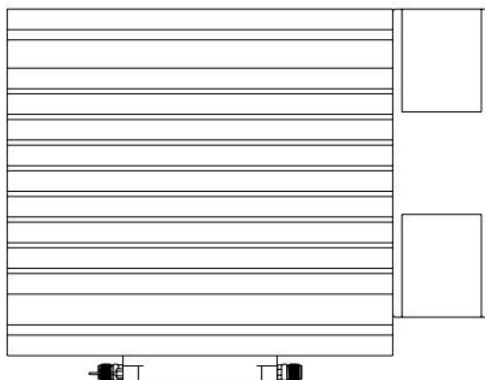
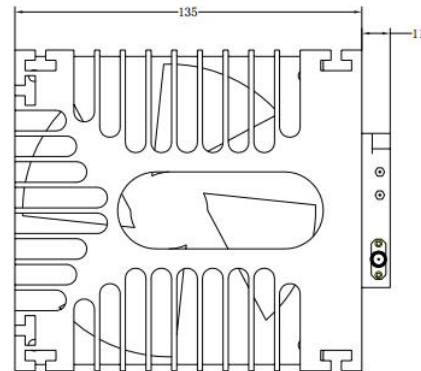
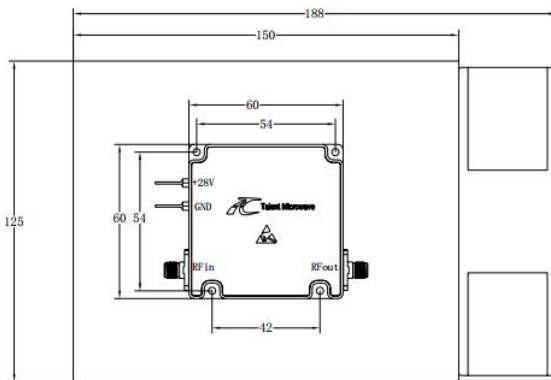
绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+26 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; Tolerance:±0.1mm



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*	-40		+50	℃
存储温度 Non-operating Temperature*	-50		+60	℃
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
TLPA12G13G-45-45	Power amplifier 12-13GHz, Gain:45dB,Psat:45dBm,+24V DC,Without Heatsink	Rev.1.0
TLPA12G13G-45-45-HS	Power amplifier 12-13GHz, Gain:45dB,Psat:45dBm,+24V DC,With Heatsink	Rev.1.0