

Power Amplifier

1-12GHz/24dB Gain/26 dBm Psat

Model: TLPA1G12G-24-26-H

TLPA1G12G-24-26-H is a power amplifier with a typical small signal gain of 24 dB and a nominal Psat of 26 dBm across the frequency range of 1 to 12 GHz. The DC power requirement for the amplifier is +12 VDC/420 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 1-12GHz
- Gain: 24dB Typ
- Output Power Psat: 26dBm Typ
- 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	1		12	GHz
小信号增益 Small Signal Gain	22	24		dB
噪声系数 Noise Figure		3	4	dB
线性输出功率 Output P1dB	25	25.5		dBm
饱和输出功率 Output Psat		26		dBm
输入驻波 Input VSWR		2	2.4	:1
输出驻波 Output VSWR		2	2.4	:1
直流电压 DC Voltage	+11	+12	+13	V DC
直流电流 DC Supply Current		420		mA
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	Solder Pin	
尺寸 Size	44*36*12	mm

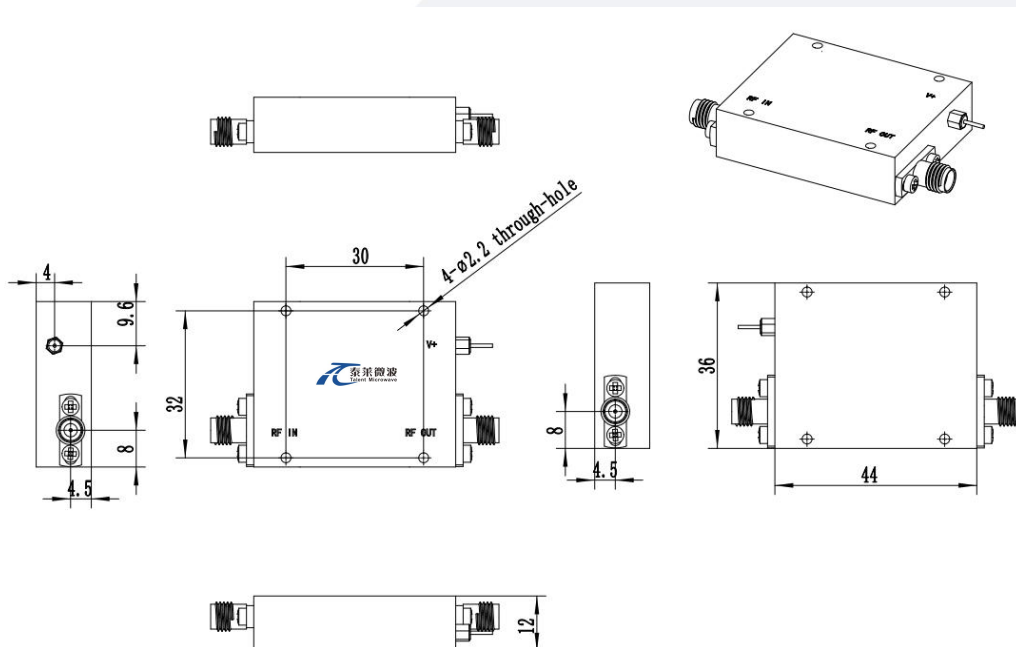
绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+13 V
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



*****Heat Sink Required During Operation**



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		+60	°C
存储温度 Non-operating Temperature*	-50		+70	°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
TLPA1G12G-24-26-H	Power amplifier 1-12GHz, Gain:24dB,Psat:26dBm,+12V DC,Without Heatsink	Rev.1.1
TLPA1G12G-24-26-H-HS	Power amplifier 1-12GHz, Gain:24dB,Psat:26dBm,+12V DC,With Heatsink	Rev.1.1