

Power Amplifier

0.1-18GHz/30dB Gain/29dBm Psat

Model: TLPA0.1G18G-30-27

TLPA0.1G8G-30-27 is a power amplifier with a minimum gain of 30 dB and a nominal Psat of 29 dBm across the frequency range of 0.1 to 18 GHz. The DC power requirement for the amplifier is +12 VDC/800 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 0.1-18GHz
- Gain: 30dB Min
- Output Power Psat: 29dBm 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	0.1		18	GHz
增益 Gain	30	35		dB
增益平坦度 Gain Flatness		±1.5		dB
增益随温度变化 Gain Variation Over Temperature		±1		dB
线性输出功率 Output P1dB	27			dBm
饱和输出功率 Output Psat		29		dBm
噪声系数 Noise Figure		5		dB
杂散 Spurious		-60		dBc
输入驻波 Input VSWR			2.2	:1
输出驻波 Output VSWR			2.2	:1
直流电压 DC Voltage		+12		V DC
直流电流 DC Supply Current		800	900	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	50*30*12	mm
重量 Weight	50	g

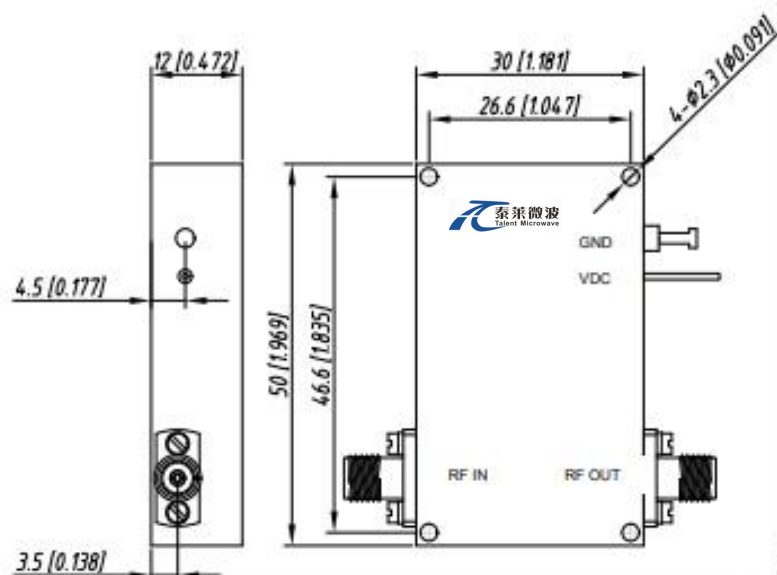
绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	0 dBm
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



*****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
TLPA0.1G18G-30-27	Power amplifier 0.1-18GHz, Gain:30dB,Psat:29dBm,+12V DC,Without Heatsink.	Rev.1.1
TLPA0.1G18G-30-27-HS	Power amplifier 0.1-18GHz, Gain:30dB,Psat:29dBm,+12V DC,With Heatsink.	Rev.1.1