

Power Amplifier

2-20GHz/30dB Gain/36dBm Psat

Model: TLPA2G20G-30-36

TLPA2G20G-30-36 is a power amplifier with a minimum power gain of 30 dB and a minimum Psat of 36 dBm across the frequency range of 2 to 20 GHz. The DC power requirement for the amplifier is +28 VDC/2 A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 2-20GHz
- Gain: 30dB Min
- Output Power Psat: 36dBm 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	2		20	GHz
功率增益 Power Gain	30			dB
线性增益平坦度 Linear Gain Flatness		±4		dB
线性增益调节范围 Linear Gain Adjustment Range		20		dB
饱和输出功率 Output Psat	36			dBm
杂散 Spurious@Pout=36dBm			-50	dBc
谐波抑制 Harmonic@Pout=36dBm			-10	dBc
输入驻波 Input VSWR			2	:1
直流电压 DC Voltage		+28	+29	V DC
直流电流 DC Supply Current		2	2.5	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	
直流供电接口 DC Supply Connector	J30J-9ZKP	Pin1:Gain adjustment(0~+5V) Pin2~5:GND Pin6~9:+28V
尺寸 Size	60*65*11	mm
重量 Weight	≤200	g

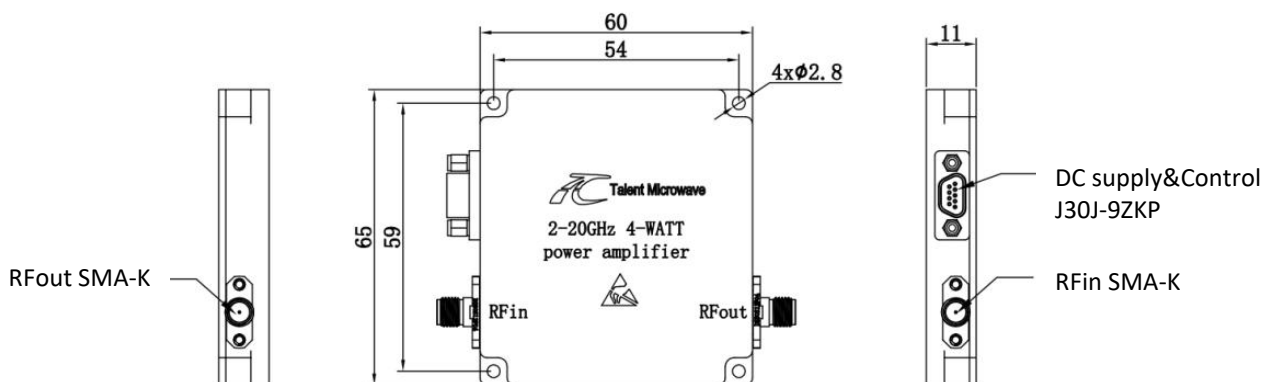
绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+29 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.

主要功能 Key Features:

参数 Parameter	特点 Advantages
保护功能 Protection function	Over DC voltage protection
控制功能 Control function	Gain adjustment

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
TLPA2G20G-30-36	Power amplifier 2-20GHz, Gain:30dB,Psat:36dBm,+28V DC,Without Heatsink	Rev.1.1
TLPA2G20G-30-36-HS	Power amplifier 2-20GHz, Gain:30dB,Psat:36dBm,+28V DC,With Heatsink	Rev.1.1