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TURPNA2G30G-1020

TURPNA2G30G-1020 is a low phase noise driver amplifier across the frequency range of 2 to 30 GHz, with a typical small signal gain of 10dB , provide a +18 dBm P1dB@2-20GHz. The DC power requirement for the amplifier is +12 V DC/20 mA. The input and output port configuration offers coax adapter structure with 2.92mm female.

Features:

- Frequency range:2-30GHz
- Gain: 10dB Typ.
- Output P1dB: +18dB Typ.
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

电气特性 Electrical Characteristics:

参数 Parameter		Min	Typ	Max	单位 Units
频率范围 Frequency range		2		30	GHz
小信号增益 Small Signal Gain	@2-20GHz		10		dB
	@20-29GHz		8		
相位噪声 Phase Noise @10KHz offset			-165		dBc/Hz
噪声系数 Noise Figure			6		dB
线性输出功率 Output P1dB	@2-20GHz		18		dBm
	@20-29GHz		15		
输出三阶交调 Output IP3			21		dBm
输入驻波 Input VSWR			2.5		:1
输出驻波 Output VSWR			2.5		:1
直流电压 DC Voltage		+8	+12	+15	V DC
直流电流 DC Supply Current			20		mA
阻抗 Impedance			50		Ohms

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机械特性 Mechanical Specifications:

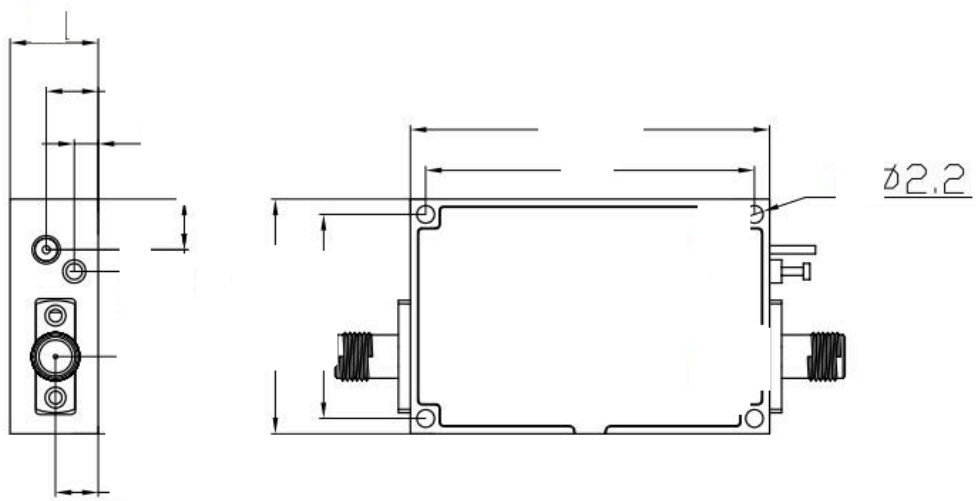
参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	2.92mm Female/2.92mm Female	
直流偏置 DC Bias	Solder Pin	
尺寸 Size	44.8*29.2*11	mm
重量 Weight	55	g

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+15 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



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▲ ESD Protection: Strictly

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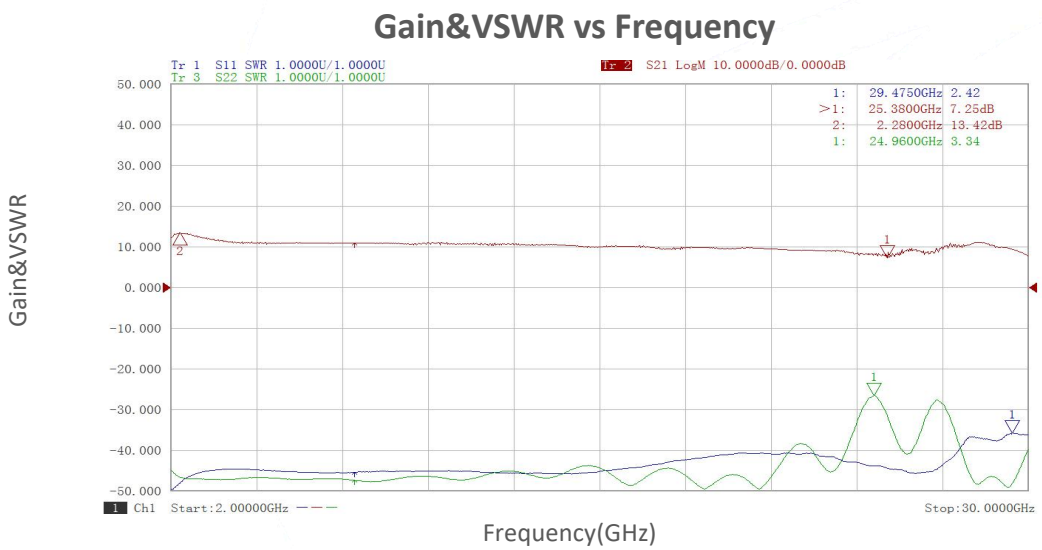
温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-45		+85	℃
存储温度 Non-operating Temperature	-55		+125	℃
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			

订货信息 Ordering Information:

标准型号 Base Number	描述 Description	版本号 Revision
TURPNA2G30G-1020	Low Phase Noise Amplifier, 2-30GHz, Gain:10 dB, Phase Noise:-165dBc/Hz, P1dB:+18dBm,+12V DC, Without Heatsink	Rev.1.1
TURPNA2G30G-1020 HS	Low Phase Noise Amplifier, 2-30GHz, Gain:10 dB, Phase Noise:-165dBc/Hz, P1dB:+18dBm,+12V DC, With Heatsink	Rev.1.1

典型曲线 Typical Performance Data:



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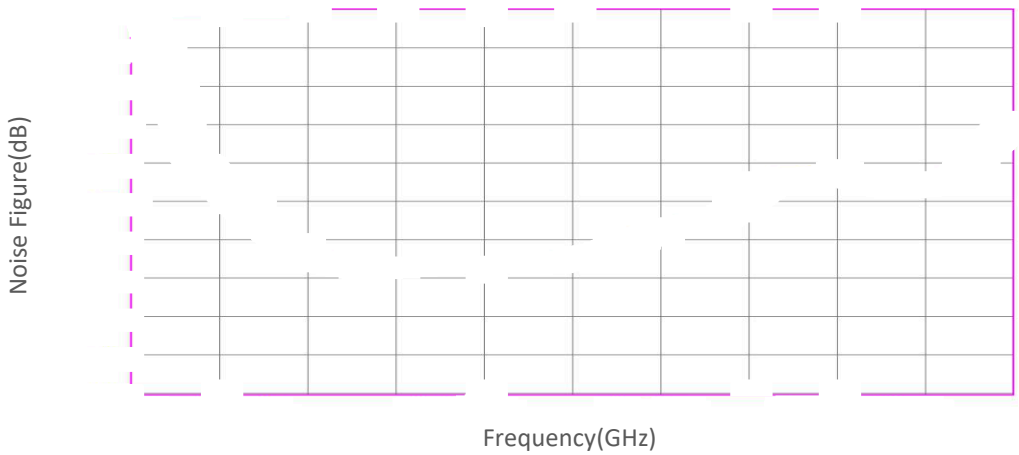
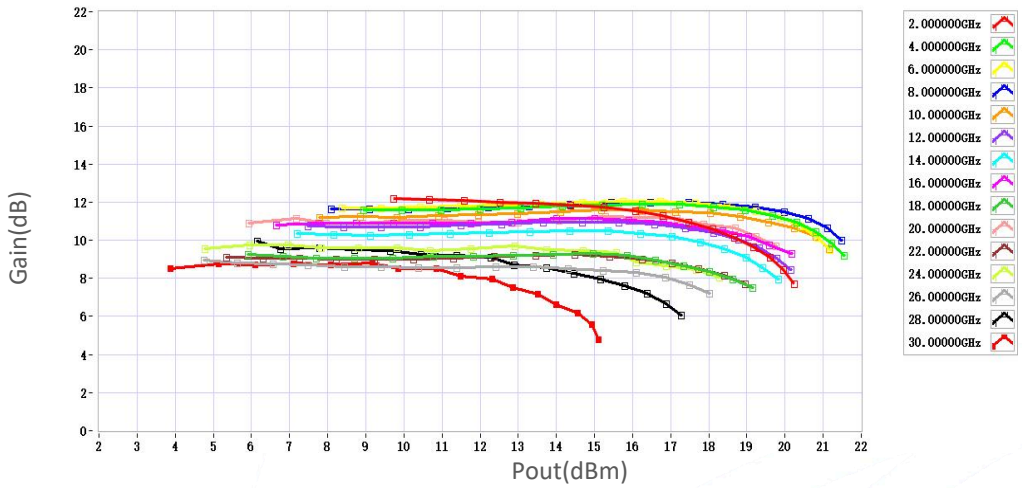
典型曲线 Typical Performance Data:

Noise Figure vs Output Power



Gain vs Output Power



P1dB vs Frequency