

Low Noise Amplifier

18-40GHz/3.0dB NF/43dB Gain/15dBm P1dB

TLLA18G40G-40-35

TURLA18G40G-4035 is a low noise amplifier with a typical small signal gain of 43 dB and a nominal noise figure of 3.0 dB across the frequency range of 18 to 40 GHz. The DC power requirement for the amplifier is +12 V DC/100 mA. The input and output port configuration offers coax adapter structure with 2.92mm female.

Features:

- Frequency range: 18-40GHz
- Gain: 43dB Typ
- Noise Figure: 3.0dB 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	18		40	GHz
小信号增益 Small Signal Gain	40	43		dB
增益平坦度 Gain Flatness		±2.0		dB
噪声系数 Noise Figure		3	3.5	dB
线性输出功率 Output P1dB	12	15		dBm
杂散 Spurious		-60		dBc
输入驻波 Input VSWR		1.6	2	:1
输出驻波 Output VSWR		1.6	2.2	:1
直流电压 DC Voltage		+12		V DC
直流电流 DC Supply Current		100		mA
阻抗 Impedance		50		Ohms

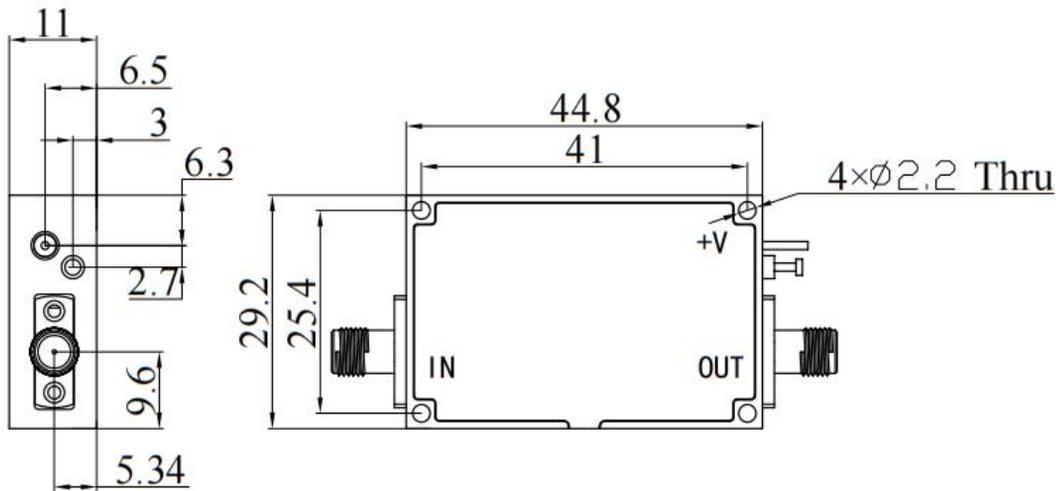
机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	2.92mm Female/2.92mmFemale	
直流偏置 DC Bias	Solder Pin	

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+20 V
输入功率 RF Input Power	+15 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:

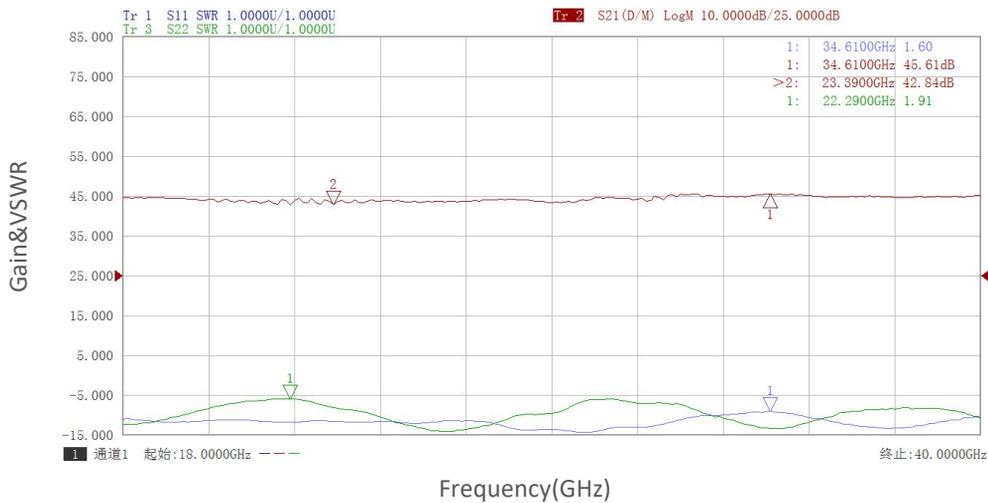
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-40		+85	°C
存储温度 Non-operating Temperature	-55		+125	°C
相对湿度 Relative humidity		95		%
海拔 Altitude		50,000		feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			

订货信息 Ordering Information:

标准型号 Base Number	描述 Description	版本号 Revision
TURLA18G40G-4035	Low Noise Amplifier, 18-40GHz, Noise Figure:3.0dB, Gain:43dB,P1dB:15dBm,+12V DC,Without Heatsink	Rev.1.1
TURLA18G40G-4035 HS	Low Noise Amplifier, 18-40GHz, Noise Figure:3.0dB, Gain:43dB,P1dB:15dBm,+12V DC,With Heatsink	Rev.1.1

典型曲线 Typical Performance Data:

Gain&VSWR vs Frequency

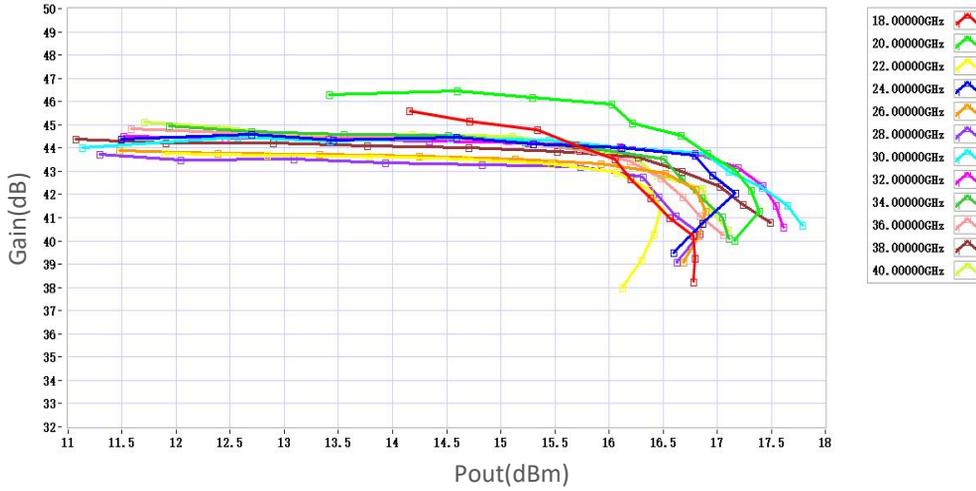


Noise Figure vs Frequency

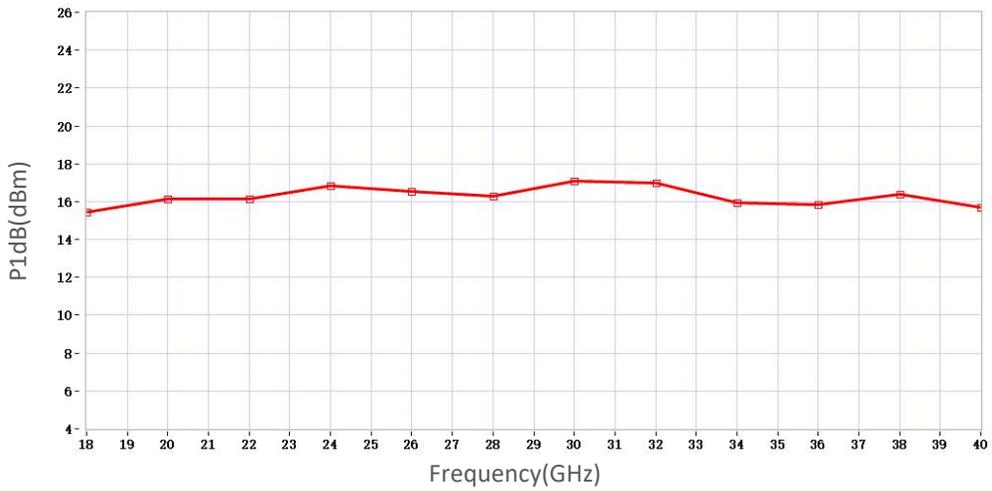
Noise Figure (dB)

典型曲线 Typical Performance Data:

Gain vs Output Power



P1dB vs Frequency



P3dB vs Frequency

P3dB (dBm)