

Power Amplifier

1-18GHz/43dB Gain/43dBm Psat

Model: TLPA1G18G-43-43

TLPA1G18G-43-43 is a power amplifier with a minimum power gain of 43 dB and a normal Psat of 43 dBm across the frequency range of 1 to 18 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: 1-18GHz
- Gain: 43dB Min
- Output Power Psat: 43dBm 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	1-18			GHz
功率增益 Power Gain	43			dB
增益平坦度 Gain Flatness		±3	±4	dB
线性输出功率 Output P1dB	36	38		dBm
饱和输出功率 Output Psat	42.5	43		dBm
输入驻波 Input VSWR		1.5	2	:1
直流电压 DC Voltage		28	30	V DC
静态电流 Static Current		2		A
饱和电流 Saturation current		2	6	A
阻抗 Impedance	50			Ohms

机械特性 Mechanical Specifications:

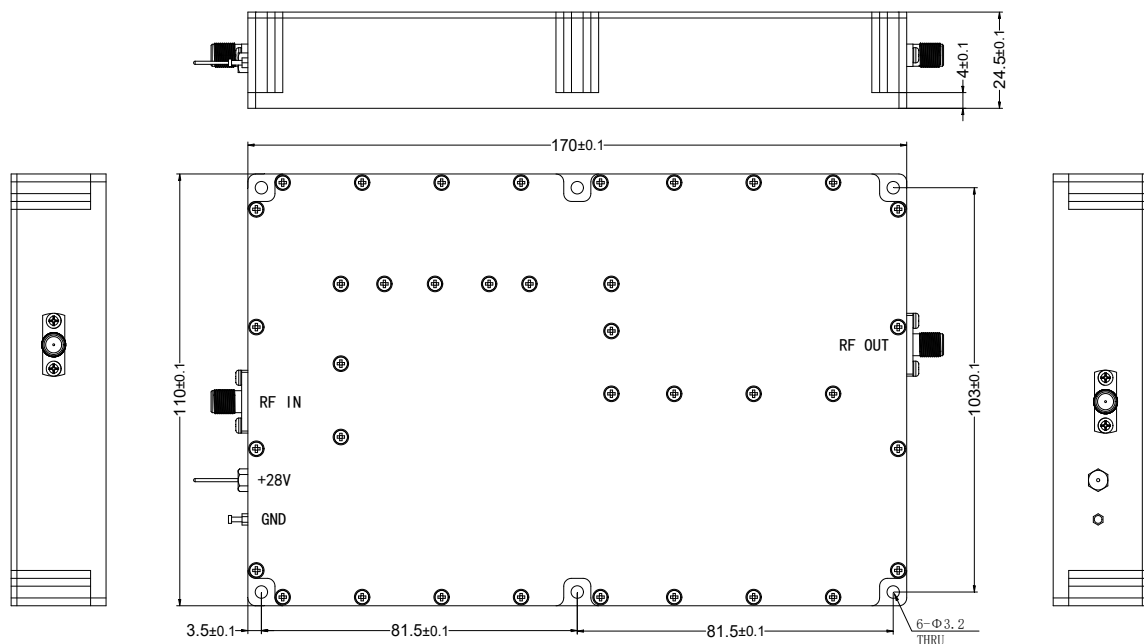
参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	SMA Femlae/SMA Female	
直流偏置 DC Bias	Solder pin	
尺寸 Size	170*110*24.5(Without heatsink) 232*140*86.5(With heatsink)	mm
重量 Weight	700	g

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+30 V
输入功率 RF Input Power	+5 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

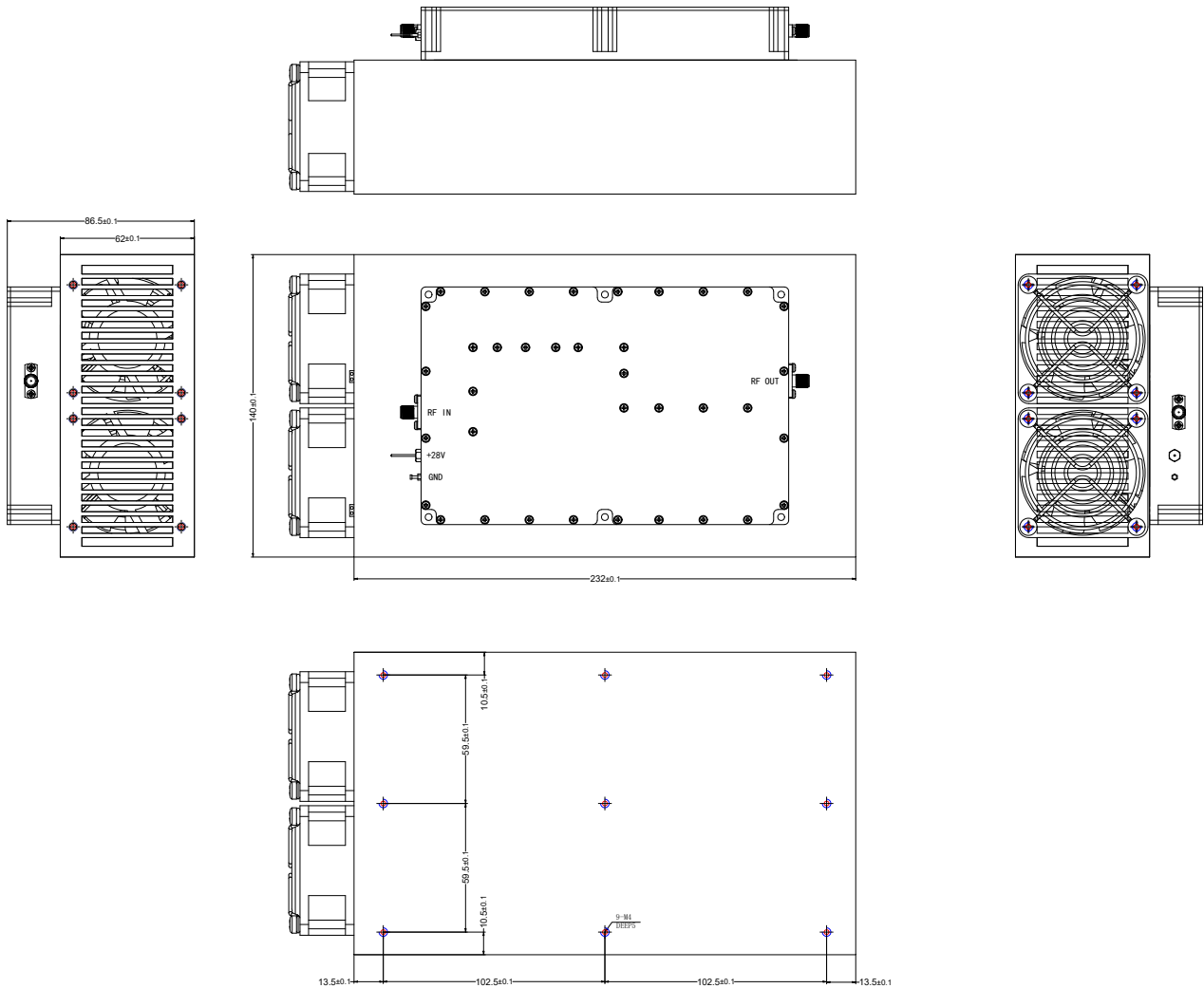
外形图 Outline Drawing:

Unit:mm



外形图 Outline Drawing:

Unit:mm



风扇供电 Fan power supply

Red line	Power supply positive, +24.0-28.0VDC DC current: 0.3A
Black line	Ground



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		+50	℃
存储温度 Non-operating Temperature*	-50		+60	℃
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
TLPA1G18G-43-43	Power amplifier 1-18GHz, Gain:43dB,Psat:43dBm,+28V DC,Without Heatsink	Rev.1.1
TLPA1G18G-43-43-HS	Power amplifier 1-18GHz, Gain:43dB,Psat:43dBm,+28V DC,With Heatsink	Rev.1.1