

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

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	1-18			GHz
Power Gain	43			dB
Gain Flatness		±3	±4	dB
Output P1dB	36	38		dBm
Output Psat	42.5	43		dBm
Input VSWR		1.5	2	:1
DC Voltage		28	30	V DC
Static Current		2		A
Saturation current		2	6	A
Impedance	50			Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Femlae/SMA Female	
DC Bias	Solder pin	
Size	170*110*24.5(Without heatsink) 232*140*86.5(With heatsink)	mm
Weight	700	g

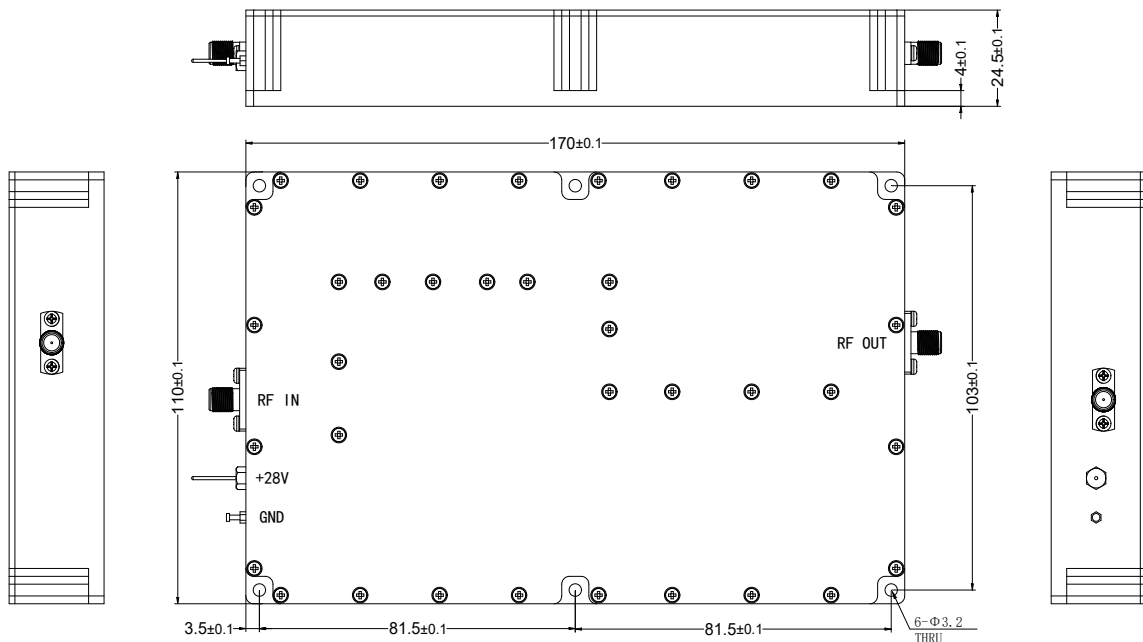
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+30 V
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

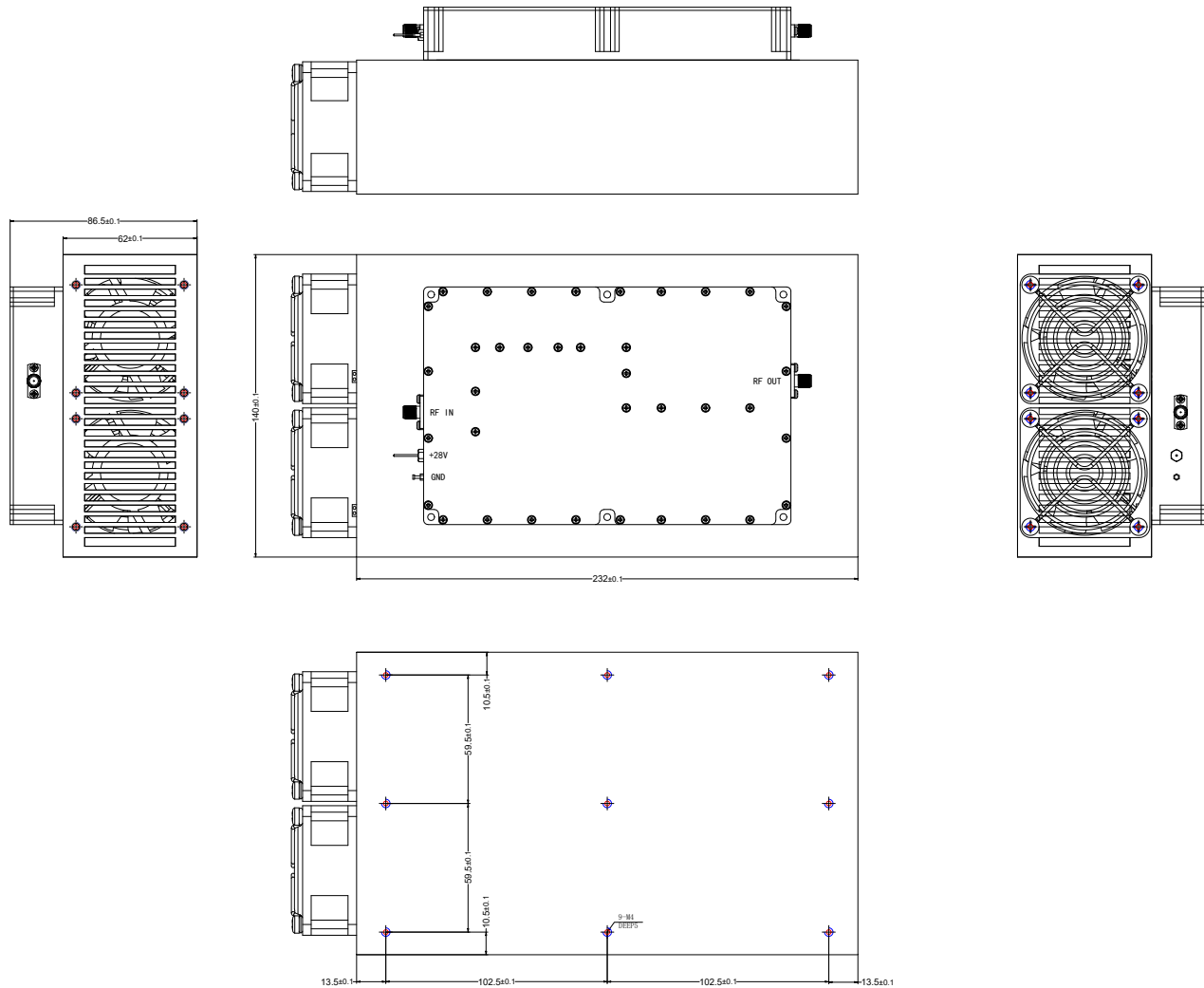
Unit:mm

Regulatory Compliance:



Outline Drawing:

Unit:mm



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.

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-40		+50	°C
Non-operating Temperature*	-50		+60	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

*Note: For a wider temperature range, please consult the manufacturer.

Ordering Information:

Base Number	Description	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