

Power Amplifier

12-13GHz/43dB Gain/43dBm Psat

Model: TLPA12G13G-43-43

TLPA12G13G-43-43 is a power amplifier with a minimum power gain of 43 dB and a minimum Psat of 43 dBm across the frequency range of 12 to 13 GHz. The DC power requirement for the amplifier is +24 VDC/4 A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 12-13GHz
- Gain: 43dB Min
- Output Power Psat: 43dBm Min
- 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	12		13	GHz
Working Mode		CW/Pulse		
Power Gain	43			dB
Gain Flatness		±2		dB
Output Psat	43			dBm
Spurious@Pout=43dBm			-60	dBc
Harmonic@Pout=43dBm			-15	dBc
Input VSWR			2	:1
DC Voltage		24	28	V DC
DC Supply Current			4	A
Impedance	50			Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Feedthru Capacitor	
Size	60*60*11(Without heatsink) 188*125*146(With heatsink)	mm
Weight	≤200(Without heatsink)	g

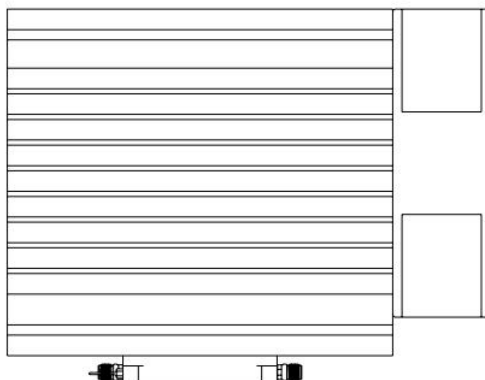
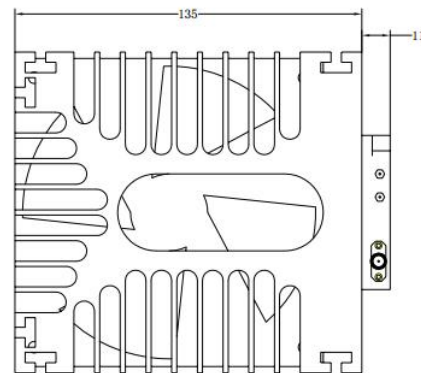
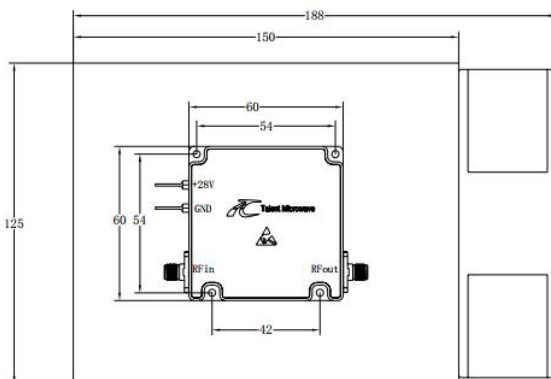
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+29 V
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit:mm; Tolerance:±0.1mm



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
TLPA12G13G-43-43	Power amplifier 12-13GHz, Gain:43dB,Psat:43dBm,+24V DC,Without Heatsink	Rev.1.0
TLPA12G13G-43-43-HS	Power amplifier 12-13GHz, Gain:43dB,Psat:43dBm,+24V DC,With Heatsink	Rev.1.0