

Power Amplifier

40-46GHz/33dB Gain/33dBm Psat

Model: TLPA40G46G-33-33

TLPA40G46G-33-33 is a power amplifier with a minimum small signal gain of 33 dB and a nominal Psat of 33 dBm across the frequency range of 40 to 46 GHz. The DC power requirement for the amplifier is +24 VDC/1 A. The input and output port configuration offers coax adapter structure with 2.4mm female.

Features:

- Frequency range: 40-46GHz
- Gain: 33dB Min
- Output Power Psat: 33dBm 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	40-46			GHz
Small Signal Gain	33			dB
Gain Flatness		±3		dB
Output P1dB		32		dBm
Output Psat		33		dBm
Spurious		-50		dBc
Input VSWR		2		:1
DC Voltage			24	V DC
DC Supply Current		1		A
Impedance	50			Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	2.4mm Female/2.4mm Female	
DC Bias	Feedthru capacitors	
Size	60*60*11(Without heatsink) 188*125*146(With heatsink)	mm
Weight	≤200	g

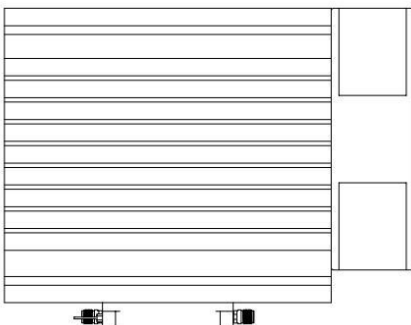
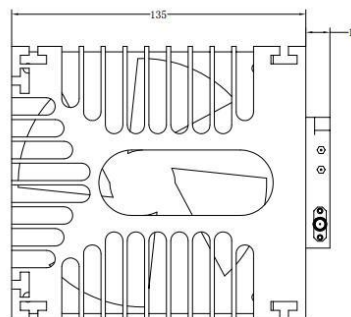
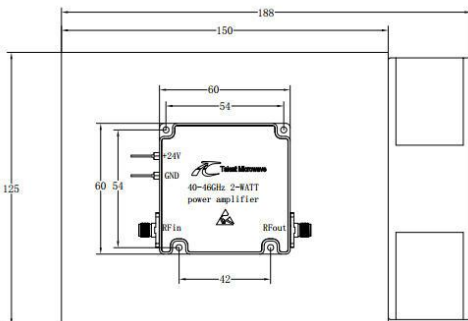
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+28 V
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

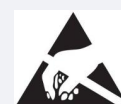
Outline Drawing:

Unit:mm

Regulatory Compliance:



*****Heat Sink Required During Operation**



ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-40		+60	°C
Non-operating Temperature*	-50		+70	°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
TLPA40G46G-33-33	Power amplifier 40-46GHz, Gain:33dB,Psat:33dBm,+24V DC,Without Heatsink	Rev.1.1
TLPA40G46G-33-33-HS	Power amplifier 40-46GHz, Gain:33dB,Psat:33dBm,+24V DC,With Heatsink	Rev.1.1