

Power Amplifier

2-6GHz/30dB Gain/36dBm Psat

Model: TLPA2G6G-30-33

TLPA2G6G-30-33 is a power amplifier with a minimum small signal gain of 30 dB and a nominal Psat of 36 dBm across the frequency range of 2 to 6 GHz. The DC power requirement for the amplifier is +28 VDC/0.6 A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 2-6GHz
- Gain: 30dB Min
- Output Power Psat: 36dBm 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	2		6	GHz
Small Signal Gain	30	33		dB
Gain Flatness		±2	±2.5	dB
Output P1dB	33	35		dBm
Output Psat		36		dBm
Spurious		-60		dBc
Output IP3		42		dBm
Input VSWR		1.6	2	:1
DC Voltage		+28		V DC
DC Supply Current		0.6	1	A
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
Size	67*80*12	mm

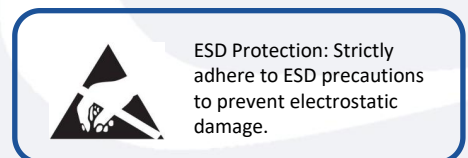
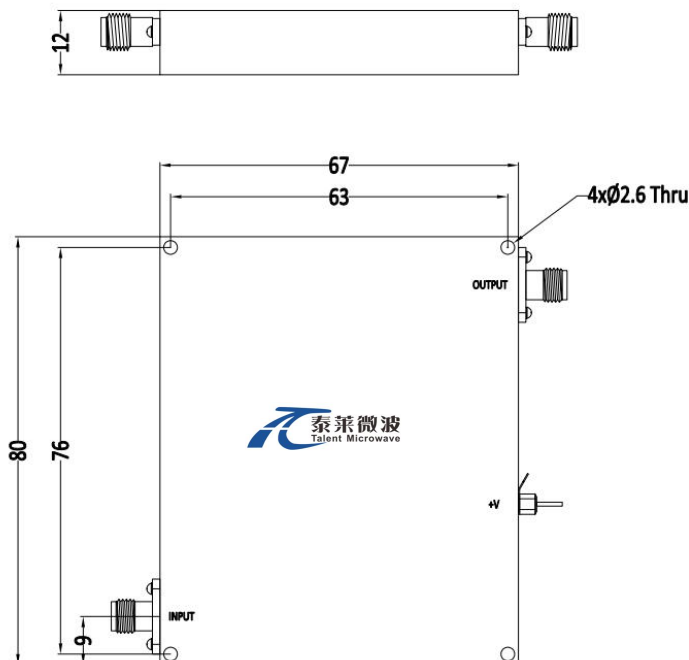
Absolute Maximum Ratings:

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



Outline Drawing:

Unit:mm



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

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-40		+60	°C
Non-operating Temperature*	-50		+70	°C
Relative humidity	100%RH at 35°C, 95%RH at 40°C			%
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			

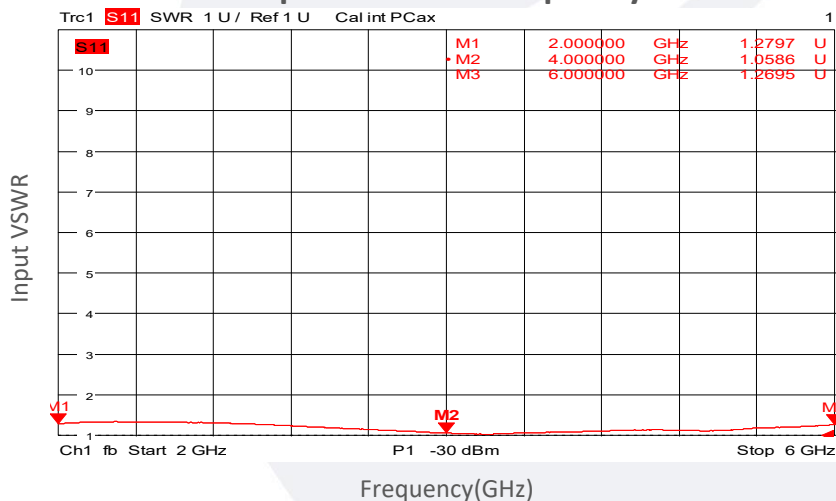
*Note: For a wider temperature range, please consult the manufacturer.

Ordering Information:

Base Number	Description	Revision
TLPA2G6G-30-33	Power amplifier 2-6GHz, Gain:30dB,Psat:36dBm,+28V DC,Without Heatsink	Rev.1.1
TLPA2G6G-30-33-HS	Power amplifier 2-6GHz, Gain:30dB,Psat:36dBm,+28V DC,With Heatsink	Rev.1.1

Typical Performance Data:

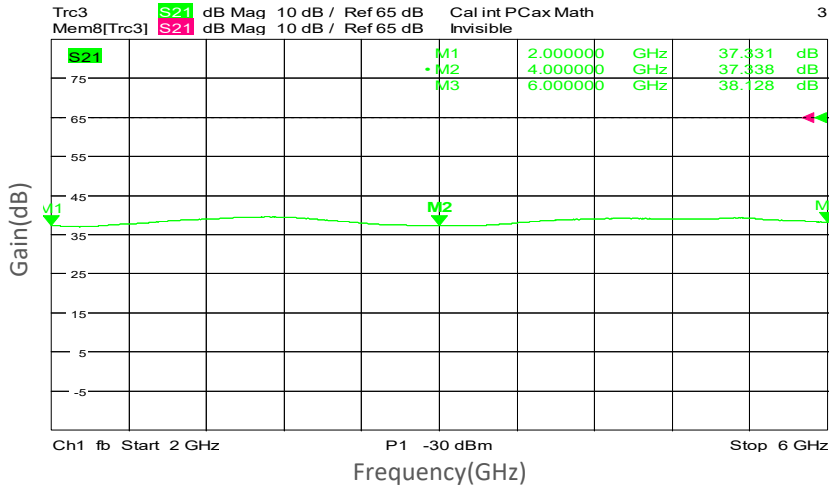
Input VSWR vs Frequency



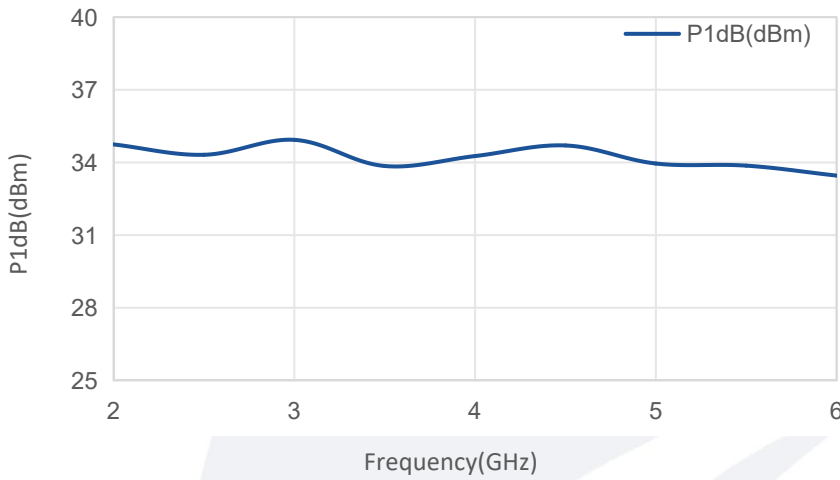
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

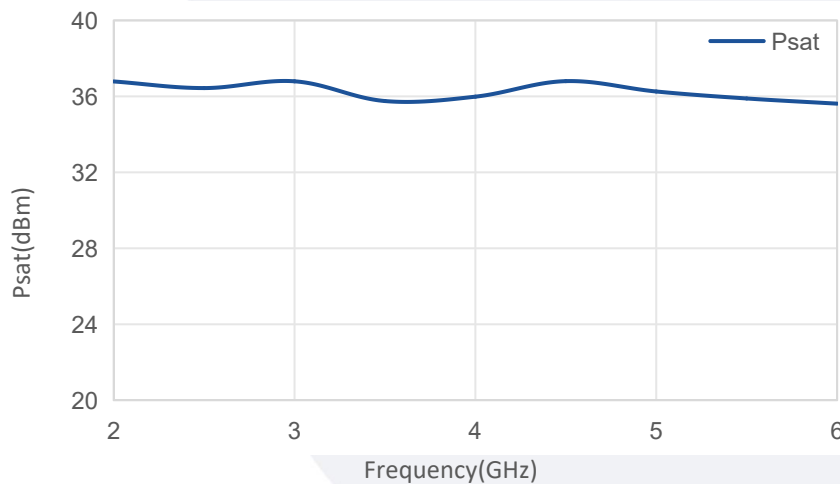
Small Signal Gain vs Frequency



P1dB vs Frequency



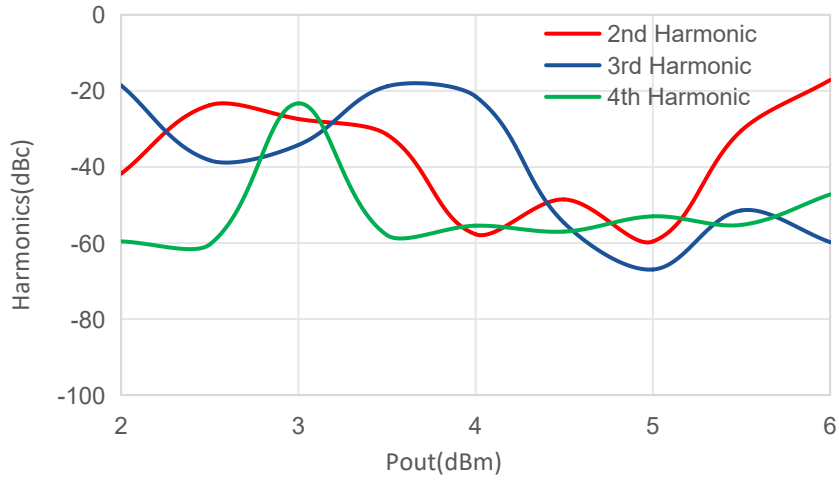
Psat vs Frequency



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Typical Performance Data:

Harmonics vs Output Power



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