

Power Amplifier

0.01-1GHz/30dB Gain/20dBm P1dB

Model: TLPA10M1G-30-20

TLPA10M1G-30-20 is a power amplifier with a typical small signal gain of 30 dB and a minimum Psat of 20 dBm across the frequency range of 0.01 to 1 GHz. The DC power requirement for the amplifier is +15 VDC/0.3 A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 0.01-1GHz
- Gain: 30dB Typ
- Output Power Psat: 21dBm 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	0.01		1	GHz
Small Signal Gain	28	30		dB
Gain Flatness		±0.8	±1	dB
Noise Figure		4		dB
Output P1dB	20	21		dBm
Output Psat	21	22		dBm
Input VSWR		1.5	2.0	:1
Output VSWR		1.5	2.5	:1
DC Voltage	12	15	16	V DC
Quiescent Current		0.2		A
Saturation Current		0.25	0.3	A
Impedance		50		Ohms

Mechanical Specifications:

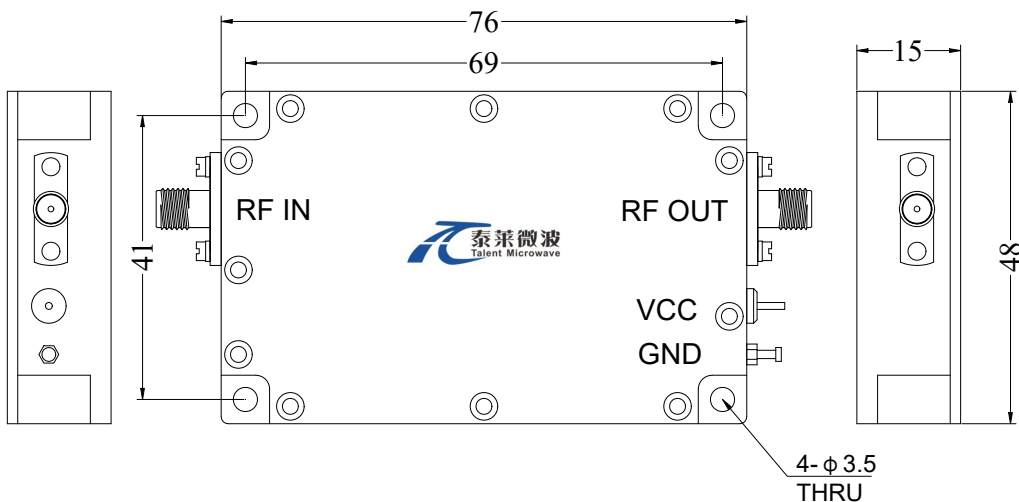
Parameter	Value	Units
Input /Output Connector	SMA Female	
DC Bias	Solder Pin	
Size	76*48*15	mm
Weight	200	g

Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+16 V
RF Input Power	5dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm



*****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
TLPA10M1G-30-20	Power amplifier 0.01-1GHz,Gain:30dB,Psat:20dBm, +15V DC,Without Heatsink	Rev.1.0
TLPA10M1G-30-20-HS	Power amplifier 0.01-1GHz,Gain:30dB,Psat:20dBm, +15V DC,With Heatsink	Rev.1.0