

**Model: TMLA-040060-4550-19-N**
**Low Noise Amplifier**  
**40-60GHz, NF:4.0 dB, Gain:44 dB**
**Feature:**

- Ultra Wide Band: 40-60 GHz
- Gain: 44dB Typ
- Noise Figure: 4.0dB Typ
- Unconditional stability

**Electrical Specifications:**

Parameter	Min	Typ	Max	Units
Frequency range	40		60	GHz
Gain	40	44		dB
Noise Figure		4.0		dB
Output P1dB		18		dBm
Input VSWR		2		:1
Output VSWR		1.5		:1
DC Voltage		+12		V DC
DC power supply		250		mA

**Mechanical Specifications:**

Parameter	Value	Units
Input Connector	WR-19/ UG-383/U	
Output Connector	WR-19/ UG-383/U	
Power Supply Pin	Solder Pin	
Size	15*30*30	mm

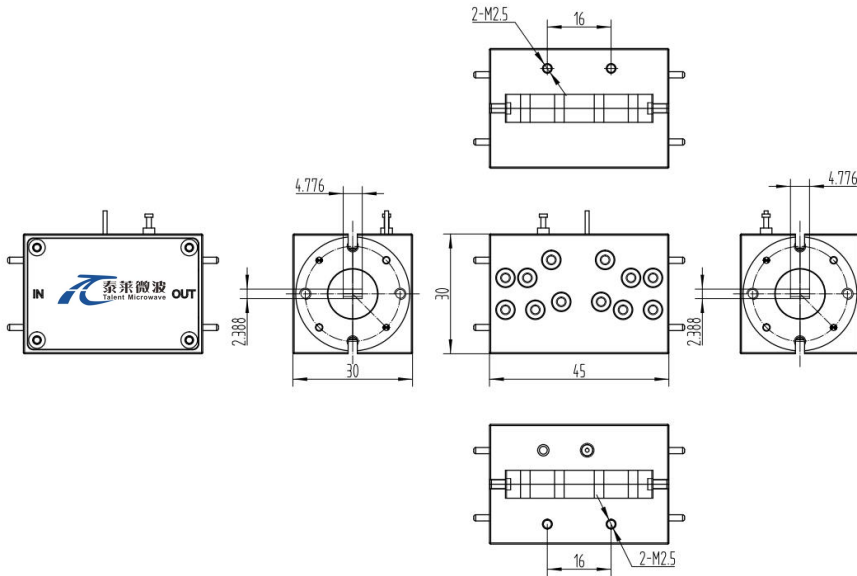
**Absolute Maximum Ratings:**

Parameter	Value
Supply Bias Voltage	+15 V
RF Input Power	15dBm
ESD sensitivity (HBm)	Class 0, passed 150V



**Outline Drawing:**

Unit: mm



OBSERVE PRECAUTIONS  
ELECTROSTATIC SENSITIVE  
DEVICES

**Environmental Conditions:**

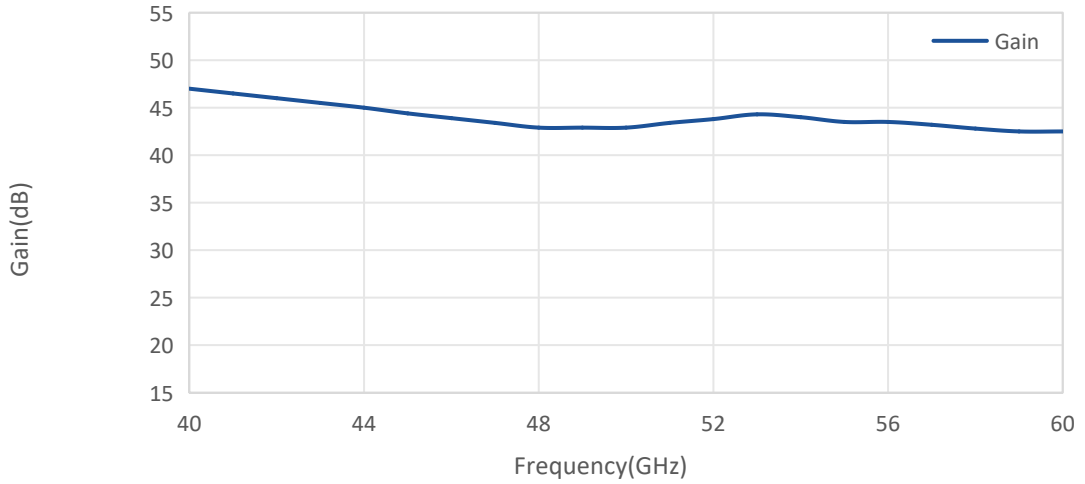
Parameter	Min	Typ	Max	Units
Operating Temperature	-40		+75	°C
Non-operating Temperature	-55		+85	°C
Relative humidity		95		%
Altitude	50,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

**Ordering Information:**

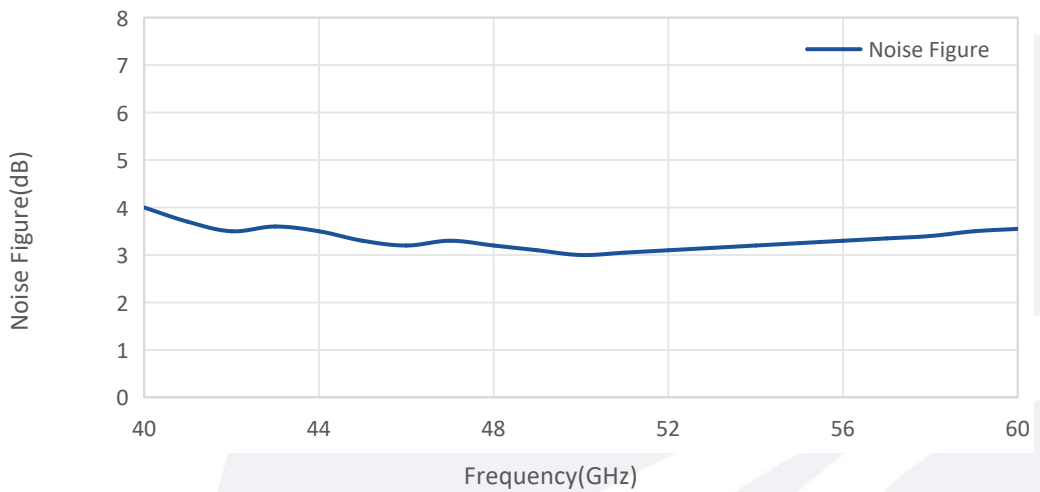
Part Number	Description	Revision
TMLA-040060-4550-19-N	Low Noise Amplifier,40-60GHz, Noise Figure:4.0dB, Gain:44dB,+12V DC,WR-19	Rev.1.1

Typical Performance Data:

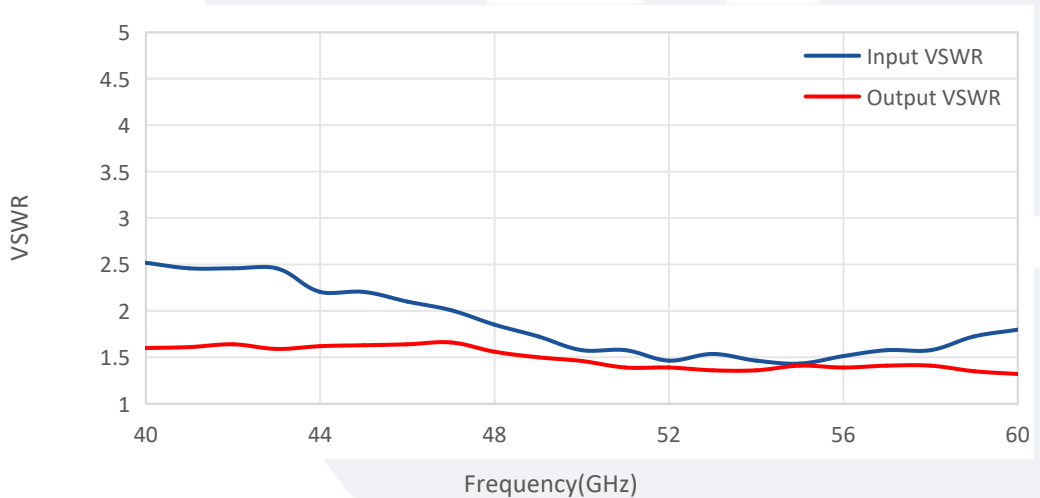
Gain vs Frequency



Noise Figure vs Frequency



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.