Suzhou Talent Microwave,Inc
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Low Noise Amplifier

WR-6.5/100-140GHz/5.5dB NF/30dB Gain Model: TMLA-100140-3050-06

TMLA-100140-3050-06 is a F-Band low noise amplifier with a typical small signal gain of 30 dB and a nominal noise figure of 5.5 dB across the frequency range of 100 to 140 GHz. The DC power requirement for the amplifier is +5 VDC /80 mA. The input and output port configuration offers an inline structure with WR-6.5 waveguides and UG-387/U-M anti-cocking flanges.

Features:

- Frequency range:100-140GHz
- Gain: 30dB Typ
- Noise Figure: 5.5dB Typ
- Unconditional stability

Applications:

- Passive Imaging
- 5G Systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	100		140	GHz
Small Signal Gain		30		dB
Noise Figure		5.5		dB
Output P1dB		-10		dBm
Input VSWR		3		:1
Output VSWR		2.5		:1
DC Voltage		5		V DC
DC Supply Current		80		mA

Mechanical Specifications:

Parameter	Value	Units
Input Connector	WR-6.5/ UG-387/U	
Output Connector	WR-6.5/ UG-387/U	
Power Supply Pin	Solder Pin	
Size	40*30*22	mm

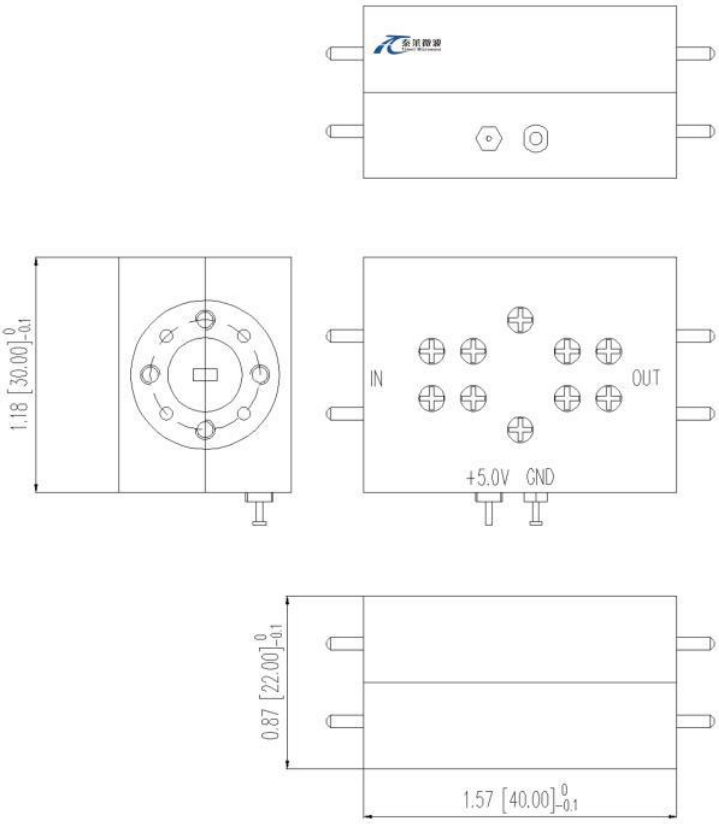
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Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+6 V
RF Input Power	TBD
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.

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Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature	-40		+75	℃
Non-operating Temperature	-55		+85	℃
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:

Base Number	Description	Revision
TMLA-100140-3050-06	Low Noise Amplifier,100-140GHz, Noise Figure:5.5dB, Gain:30dB, +5V DC,WR-6.5	Rev.1.0