

W-Band Power Amplifier

WR-10/92-96GHz/37dB Gain/34dBm Psat

Model: TMPA-092096-3733-10

TMPA-092096-3733-10 is a W-Band power amplifier with a typical small signal gain of 37 dB and Psat of 34 dBm across the frequency range of 92 to 96 GHz. The DC power requirement for the amplifier is +24 VDC/680 mA. The input and output port configuration offers an inline structure with WR-10 waveguides and UG-387/U-M antcocking flanges.

Features:

- Frequency range: 92-96 GHz
- Gain: 37dB Typ
- Output Power Psat: 34dBm Min
- Good Power and Gain Flatness

Applications:

- Passive Imaging
- Communication Systems
- Radar Systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	92		96	GHz
Small Signal Gain		37		dB
Output Psat	34			dBm
Input VSWR			2	:1
Output VSWR		2		:1
DC Voltage		24		V DC
DC Supply Current		680		mA

Mechanical Specifications:

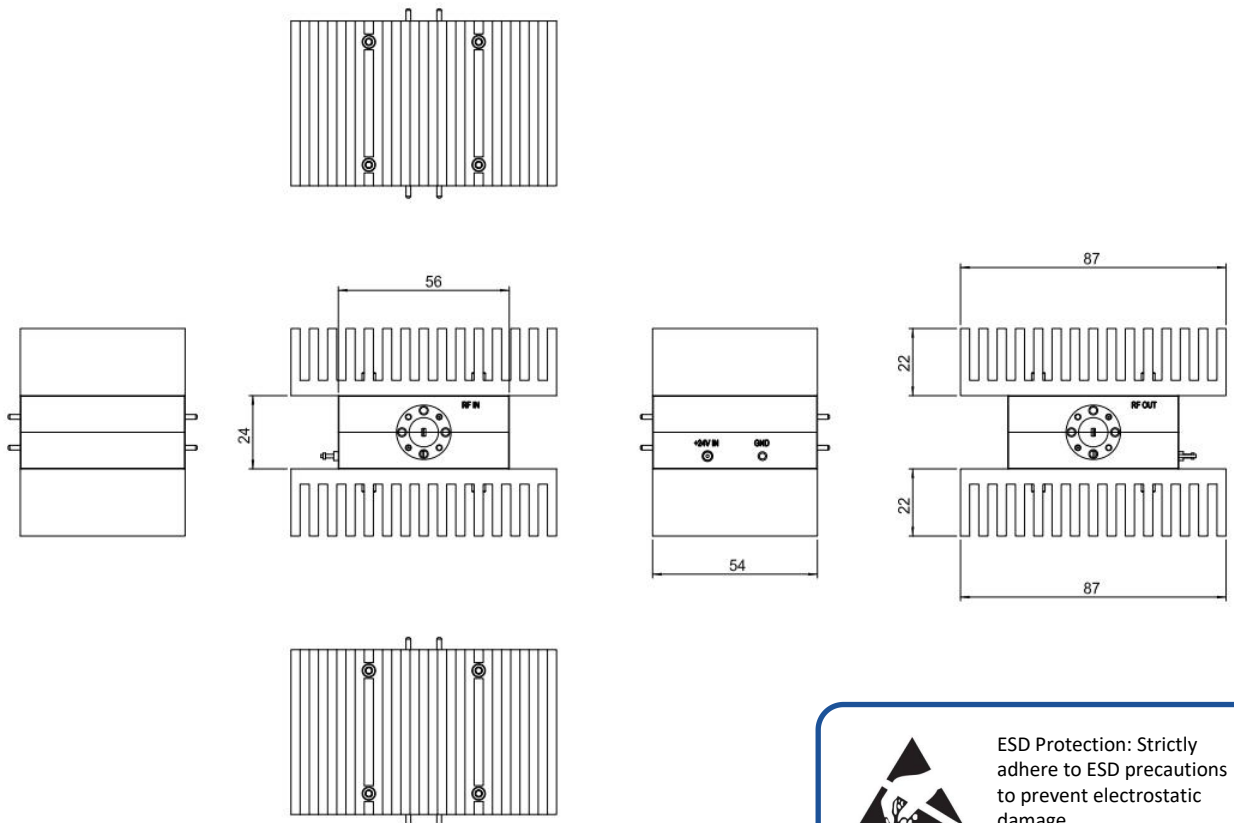
Parameter	Value	Units
Input /Output Connector	WR-10/UG-387/U	
DC Bias	Solder Pin	
Size	54*24*56(Without Heatsink) 54*87*68(With Heatsink)	mm

Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	TBD
RF Input Power	+15 dBm
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.

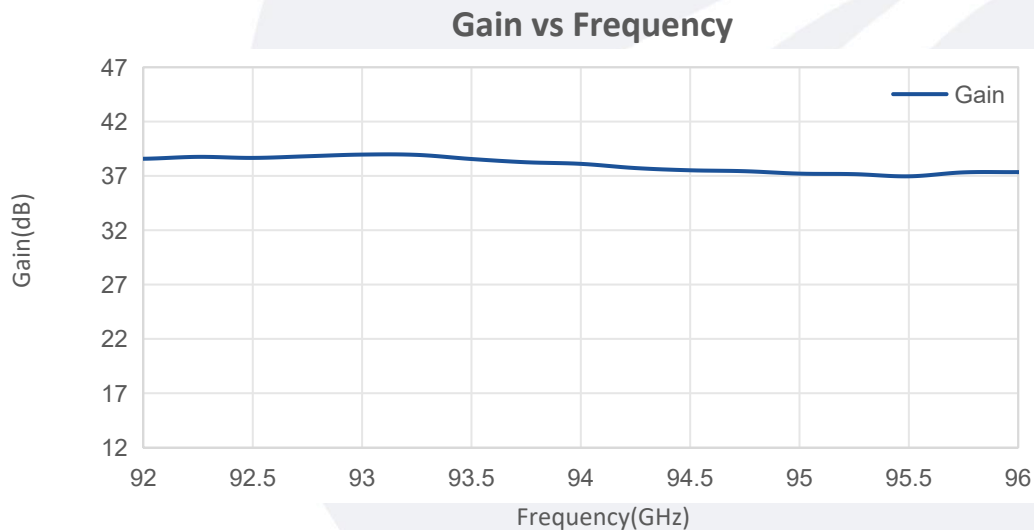
Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature	-10		+65	°C
Non-operating Temperature	-45		+85	°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			

Ordering Information:

Base Number	Description	Revision
TMPA-092096-3733-10	Power Amplifier, 92-96 GHz, Gain:37 dB Type, Psat:34 dBm Min, +24V DC,WR-10, Without heatsink	Rev.1.1
TMPA-092096-3733-10-HS	Power Amplifier, 92-96 GHz, Gain:37 dB Type, Psat:34 dBm Min, +24V DC,WR-10, With heatsink	Rev.1.1

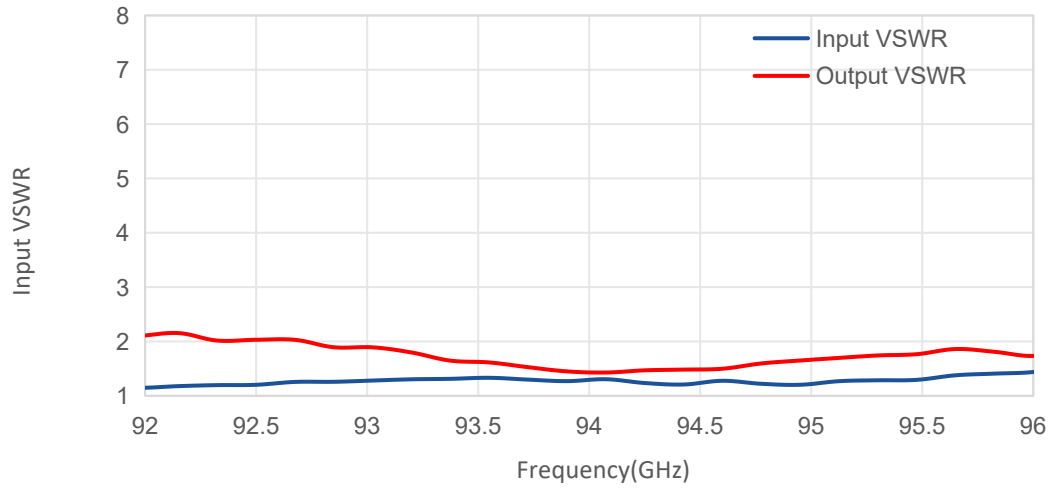
Typical Performance Data:



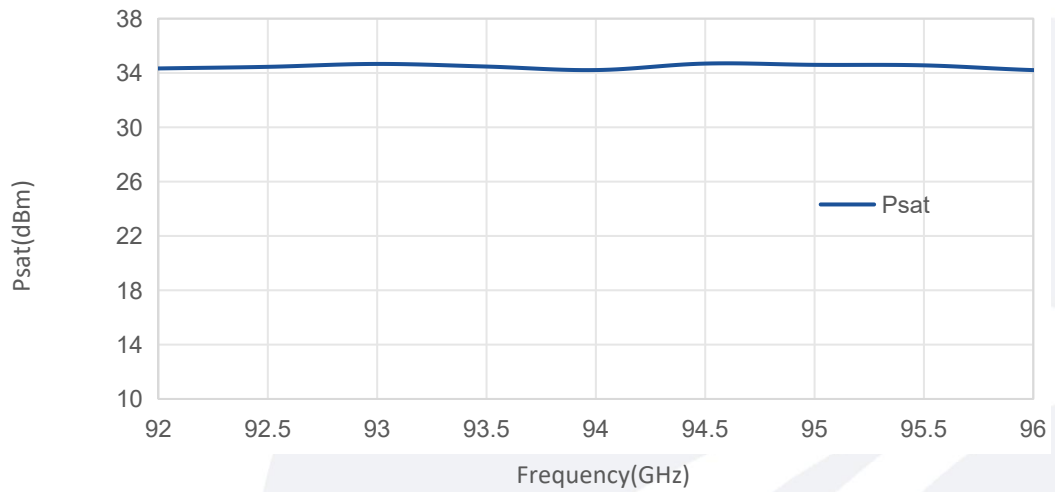
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

Input VSWR vs Frequency



Psat 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.