



Millimeter-Wave Harmonic Mixer 220 - 325GHz

Features

- Broadband, up to 325GHz
- Fundamental and harmonic mixer
- High dynamic range, low noise figure
- Customization available upon request



Electrical Specifications, $T_A=25\text{ }^\circ\text{C}$

Parameter	Min.	Typ.	Max.	Units
RF Input Frequency	220		325	GHz
IF Output Frequency	27.5		40.63	MHz
Conversion Loss			46	dB
Input 1dB Compression (P1dB)		5		dBm
In-Band Spurious Rejection		-50		dBc
Harmonic Number		9		
LO Power	7		12	dBm
Conversion Response		/		dB
Bias Voltage			+5	V
RF / LO/ IF Connectors	WR-03/2.4mm-Female/3.5mm-Female			

Environmental Specifications and Test Standards

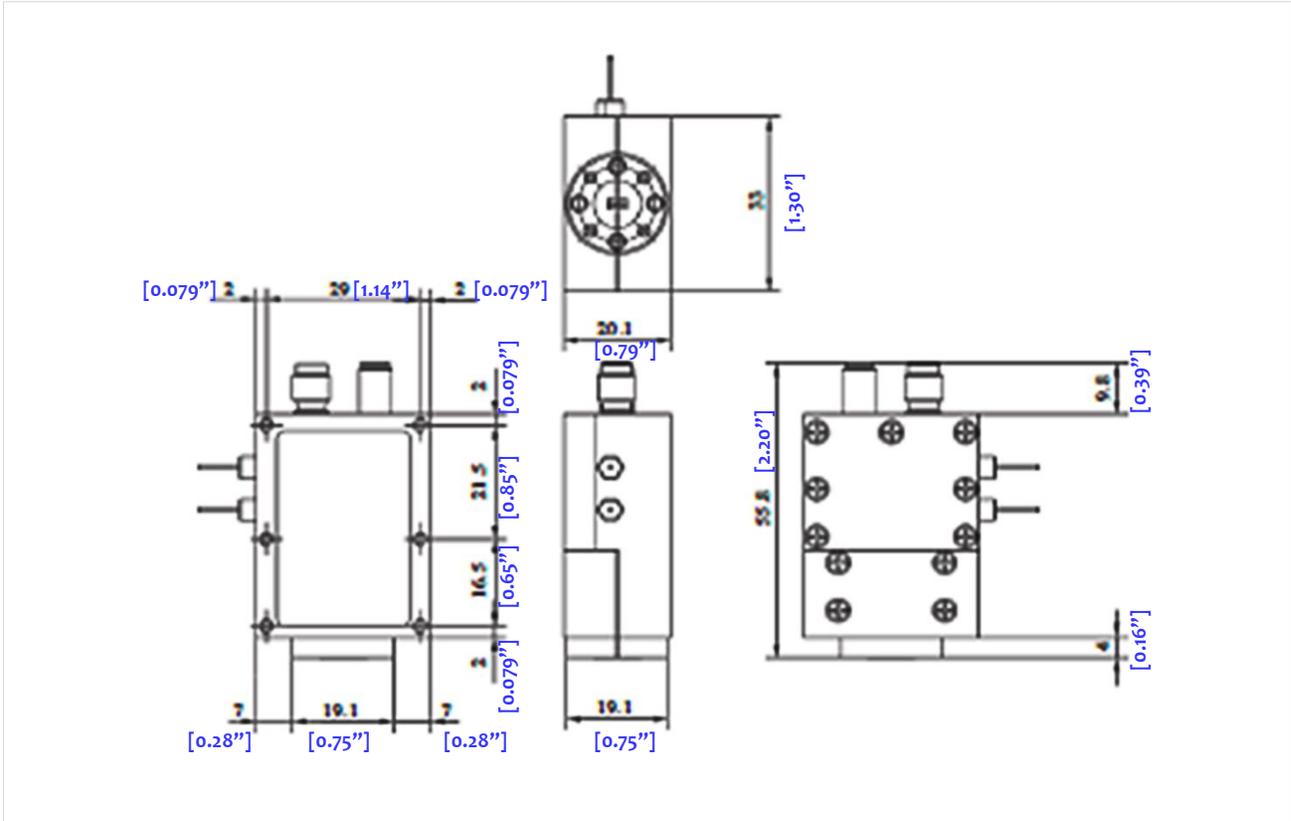
Parameter	Standard	Description
Operational Temperature	MIL-STD-39016	-40°C~+85°C
Storage Temperature		-55°C~+125°C
Thermal Shock		1 Hour@ -45°C → 1 Hour @ +85°C (5 Cycles)
Random Vibration		Acceleration Spectral Density 6 (m/s) Total 92.6 RMS
Electrical & Temperature Burn In		Temperature +85°C for 72 Hours
Shock		1. Weight >20g, 50g half sine wave for 11ms, Speed variation 3.44m/s 2. Weight <=20g, 100g Half sine wave for 6ms, Speed variation 3.75m/s 3. Total 18 times (6 directions, 3 repetitions per direction).
Altitude		Standard: 30,000 Ft (Epoxy Sealed Controlled Environment) Optional: Hermetically Sealed (60,000 ft. 1.0 PSI min)
Hermetically Sealed (Optional)	MIL-STD-883	MIL-STD-883 (For Hermetically Sealed Units)

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Outline Drawing:

All Dimensions in mm [inches]



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