

Ultra Wide Band Mixer (Bi-Directional) 50 - 75GHz

Features

- Ultra Wide Band Mixer
- High Dynamic Range
- Low Noise Figure

Typical Applications

- Research and Development
- Test and Measurement
- Wireless Infrastructure

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

Parameter	Min.	Typ.	Max.	Units
RF Input Frequency	50		75	GHz
LO Input Frequency	40		85	GHz
IF Output Frequency	DC		26	GHz
LO Power		12		dBm
Conversion Gain		-8		dB
Input 1dB Compression (P1dB)		10		dBm
Output Third Order Intercept (OIP3)		18		dBm
Noise Figure		10		dB
RF / LO & IF Connectors	Waveguide & SMA-Female			
Frequency Relationship	RF=IF+LO			

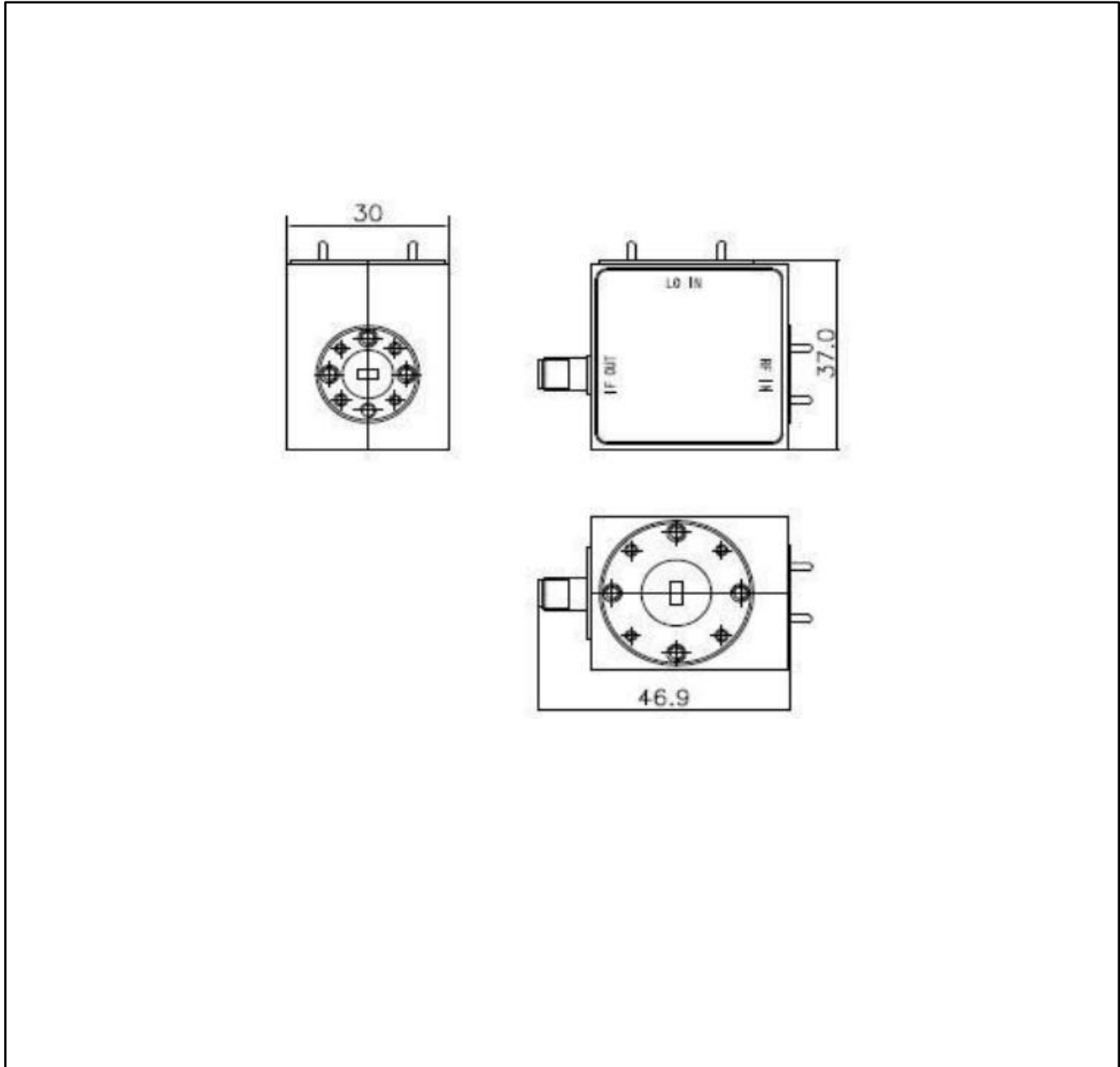
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Environmental Specifications and Test Standards

Parameter	Description
Operational Temperature	-40°C~+85°C (Case Temperature)
Storage Temperature	-50°C~+105°C
Thermal Shock	-40°C → +85°C (5 Cycles / 10 hours)
Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
High 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 (For Hermetically Sealed Units)

Outline Drawing:

All Dimensions in mm [inches]



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