泰莱微波
Talent Microwave

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D-Band Sub-Harmonic Mixer

RF:110-170 GHz/LO:55-85 GHz/IF:DC-30 GHz Model: TLHM-110170-0230-06

TLHM-110170-0220-06 is a D-Band Sub-Harmonic mixer. The mixer supports the full waveguide band operation for LO frequency from 55 to 85 GHz and RF frequency from 110 to 170 GHz with an extremely broad IF output from DC to 30 GHz. The mixer offers a conversion loss of 11 dB typical@IF=322.5MHz and LO input power of 10dBm typical.

Features:

- Low LO Power Requirement
- Subharmonic Mixing
- Compact Package

Applications:

- Radar Systems
- Communication Systems
- Test Equipment

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
RF Frequency	110		170	GHz
LO Frequency	55		85	GHz
IF Frequency	DC		30	GHz
LO-Input power		10		dBm
SSB Conversion Loss@IF=322.5MHz		-11		dB
SSB Conversion Loss@LO=55GHz		-12		dB

Mechanical Specifications:

Parameter	Value	Units
RF Connector	WR-06/UG-387/U	
LO Connector	WR-12/UG-387/U	
IF Connector	2.92mm Female	
Size	24*24.9*20	mm

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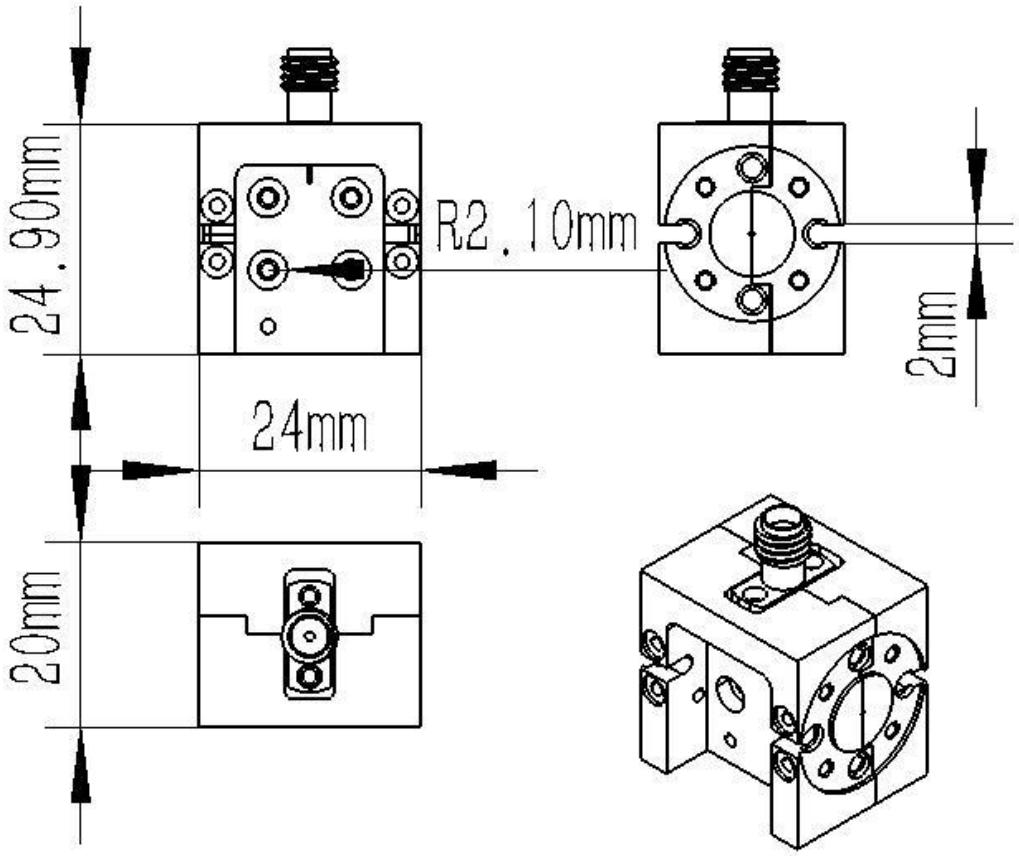
Absolute Maximum Ratings:

Parameter	Value
RF Input Power	6 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm



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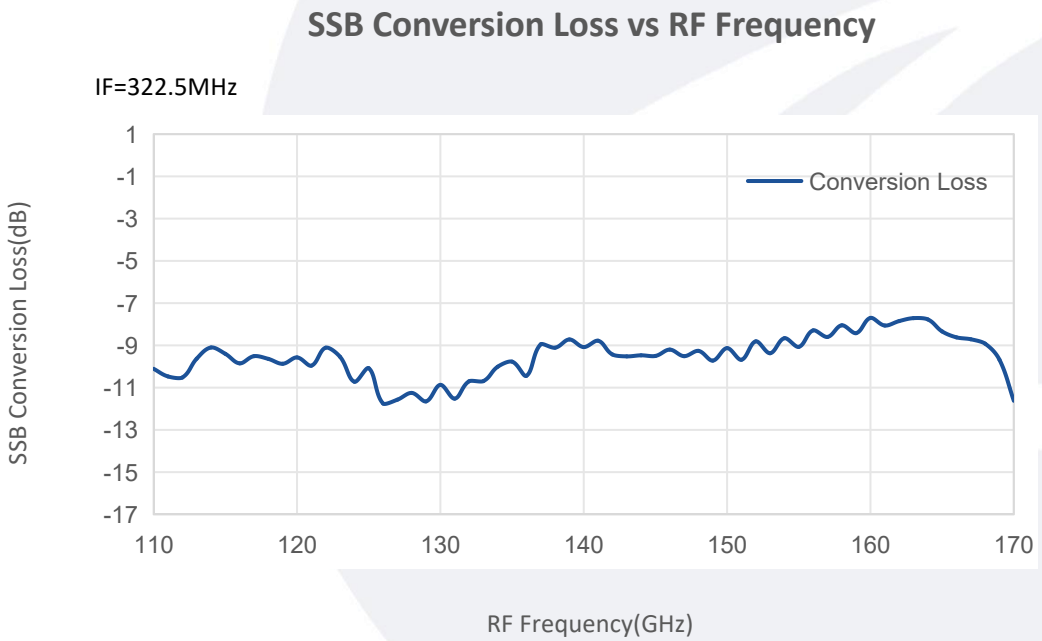
Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature	-10		+65	℃
Non-operating Temperature	-45		+85	℃
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	Desciption	Revision
TLHM-110170-0230-06	D-Band Sub-Harmonic Mixer RF:110-170GHz,LO:55-85GHz,IF:DC-30GHz	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.

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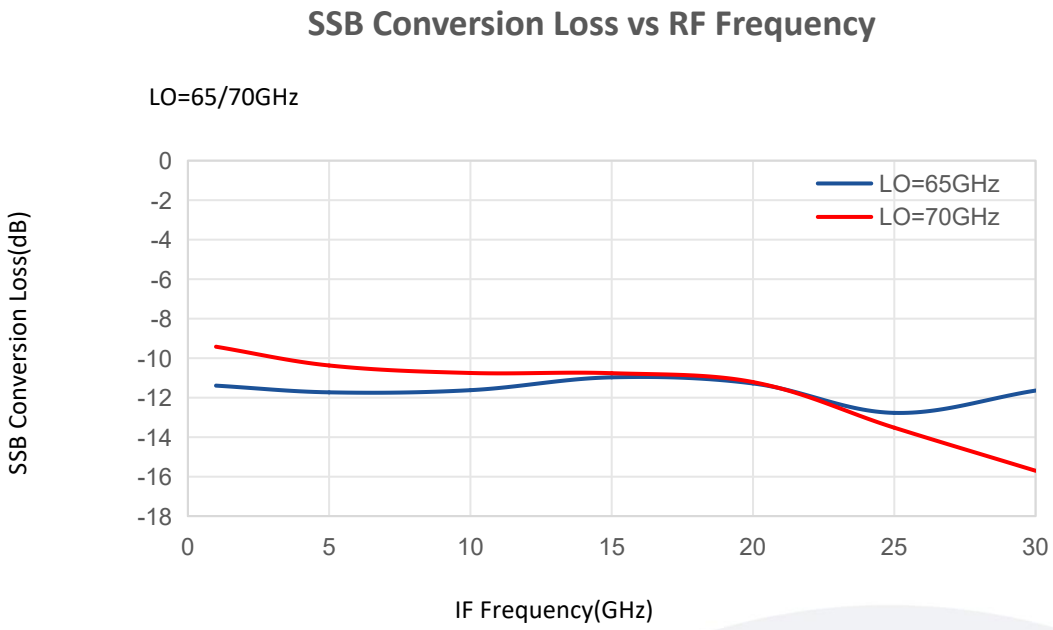

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