泰莱微波
Talent Microwave

Suzhou Talent Microwave,Inc
sales@talentmw.com
www.talentmw.com

D-Band Fundamental Mixer

RF:110-170 GHz/LO:110-170 GHz/IF:DC-30 GHz Model: TLBM-110170-30-06

TLBM-110170-30-06 is a D-Band Fundamental mixer. The mixer supports the full waveguide band operation for LO 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 11dB@IF=1GHz maximum and LO input power of 7 dBm typical.

Features:

- RF Frequency range: 110-170GHz
- LO Frequency range: 110-170GHz
- IF Frequency range: DC-30GHz
- 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	110		170	GHz
IF Frequency	DC		30	GHz
LO Input Power		7		dBm
Conversion Loss@IF=1GHz		11		dB
Conversion Loss@LO=110GHz		12		dB
Bias Voltage	-1.2	-1	-0.8	V DC

Mechanical Specifications:

Parameter	Value	Units
RF Connector	WR-6.5/UG-387/U	
LO Connector	WR-6.5/UG-387/U	
IF Connector	2.92mm Female	

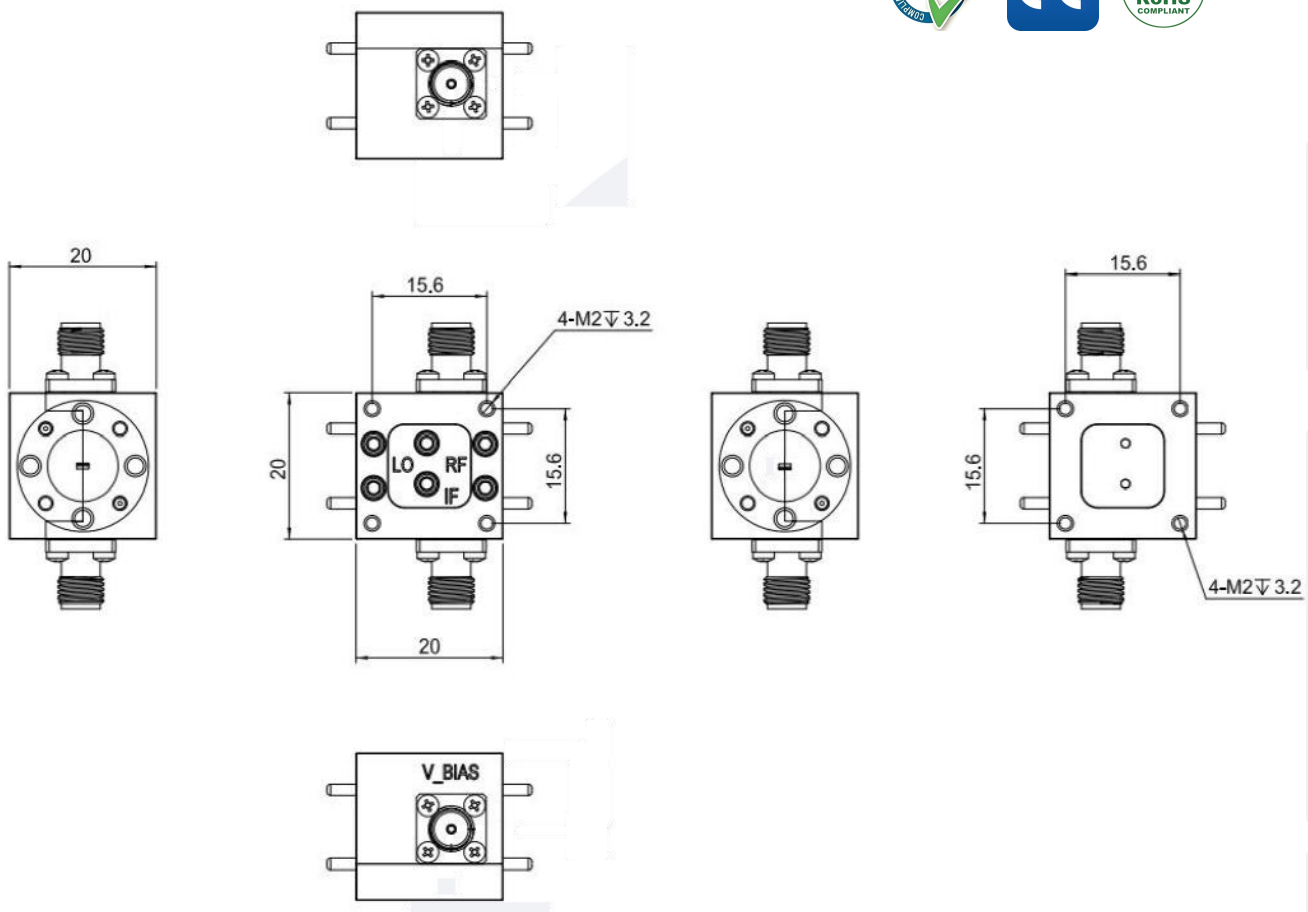
Suzhou Talent Microwave,Inc
sales@talentmw.com
www.talentmw.com

Absolute Maximum Ratings:

Parameter	Value
RF Input Power	13 dBm
IF Input Power	13 dBm
LO Input Power	13 dBm
Bias Voltage	-2V~0V
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm



Regulatory Compliance:

ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

Suzhou Talent Microwave,Inc
sales@talentmw.com
www.talentmw.com

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	Description	Revision
TLBM-110170-30-06	D-Band Fundamental Mixer RF:110-170GHz,LO:110-170GHz,IF:DC-30GHz	Rev.1.1