泰莱微波
Talent Microwave

Suzhou Talent Microwave,Inc
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Balance Mixer

RF:55-90 GHz/LO:55-90 GHz/IF:DC-30GHz Model: TLBM-055090-30-12

TLBM-055090-30-12 is a balance mixer. The mixer supports the full waveguide band operation for both LO and RF frequency from 55 to 90 GHz with an extremely broad IF output from DC to 30 GHz. The mixer offers a typical conversion loss of -10dB@IF=100MHz typical and LO input power of 18 dBm. The E-band,X6 multiplier of Talent model TMAM-057095-0616-12-E can be used as the LO driver for this mixer.

Features:

- RF/LO coverage : 55-90GHz
- IF operation : DC-30GHz
- Conversion loss: 10dB Typ
- High LO to RF isolation
- Suggested LO drive model:TMAM-057095-0616-12-E

Applications:

- Radar Systems
- Communication Systems
- Test Equipment

Electrical Characteristics:

Parameter		Min	Typ	Max	Units
RF Frequency		55		90	GHz
LO Frequency		55		90	GHz
IF Frequency		DC		30	GHz
LO-Input power		16	18	20	dBm
RF Input P1dB			8		dBm
SSB Conversion Loss	@IF=100MHz		10		dB
	@LO=60GHz		10		

Mechanical Specifications:

Parameter	Value	Units
RF Connector	WR-12/UG-387/U	
LO Connector	WR-12/UG-387/U	
IF Connector	2.92mm Female	
Size	28*20*20	mm

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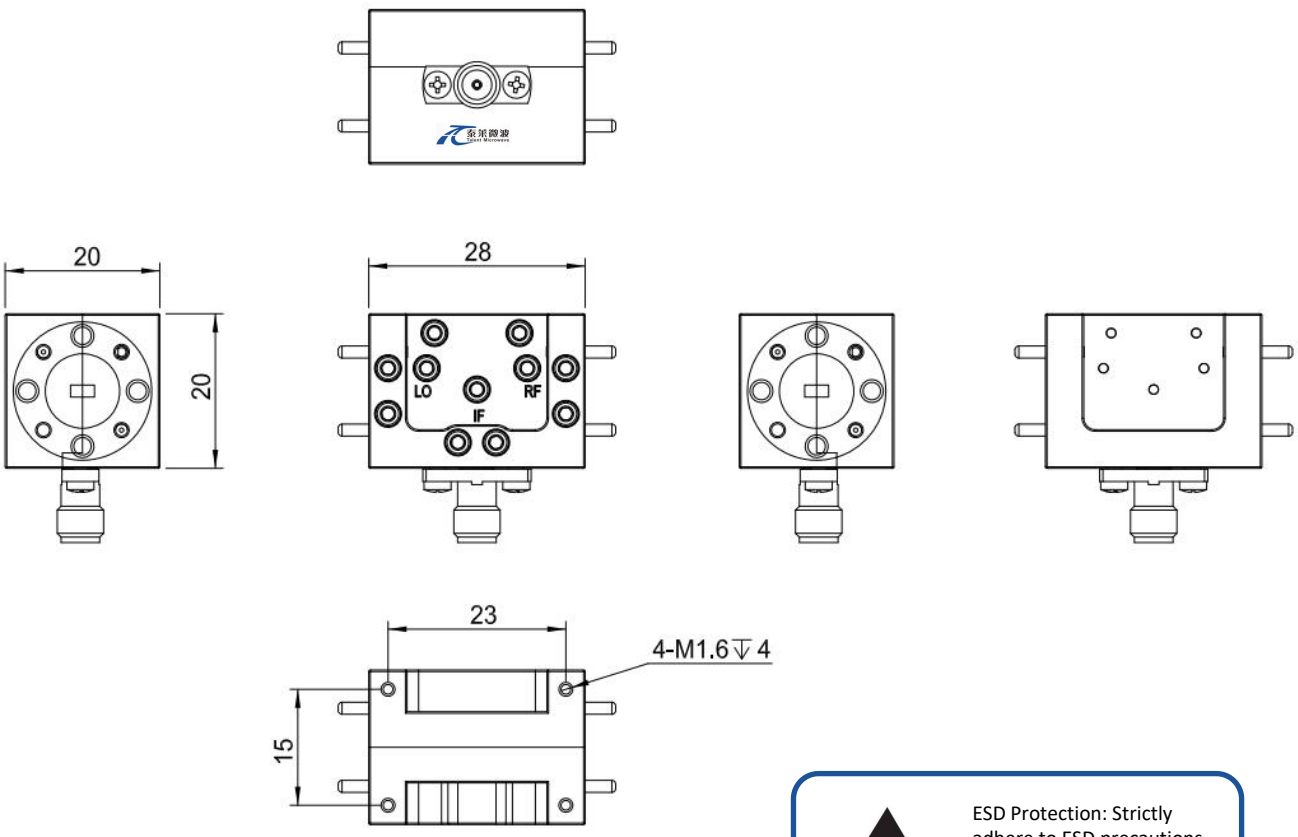
Absolute Maximum Ratings:

Parameter	Value
RF Input Power	15 dBm
IF Input Power	15 dBm
LO Input Power	21 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.

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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	Description	Revision
TLBM-055090-30-12	Balance Mixer RF:55-90GHz,LO:55-90GHz,IF:DC-30GHz	Rev.1.0