

V-Band Dual Balance Mixer

RF:55-75 GHz/LO:55-75 GHz/IF:DC-20 GHz

Model: TLBM-055075-20-15

TLBM-055075-20-15 is a dual balance mixer. The mixer covers the LO and RF frequency from 55 to 75 GHz with an extremely broad IF output from DC to 20 GHz. The mixer offers a conversion loss of 10 dB typical and LO input power of 18 dBm typical. The V-band,X4 multiplier of Talent model TMAM-050075-0417-15 can be used as the LO driver for this mixer.

Features:

- RF/LO coverage : 55-75 GHz
- IF operation : DC-20 GHz
- Conversion loss: 10 dB Typ
- High LO to RF isolation
- Dual Balanced Mixer
- Suggested LO drive model: TMAM-050075-0417-15

Applications:

- Defense & federal communications
- Instrumentations

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
RF Frequency	55		75	GHz
LO Frequency	55		75	GHz
LO-Input power	16	18	20	dBm
IF Frequency	DC		20	GHz
RF Input P1dB		8		dBm
SSB Conversion Loss		10		dB

Mechanical Specifications:

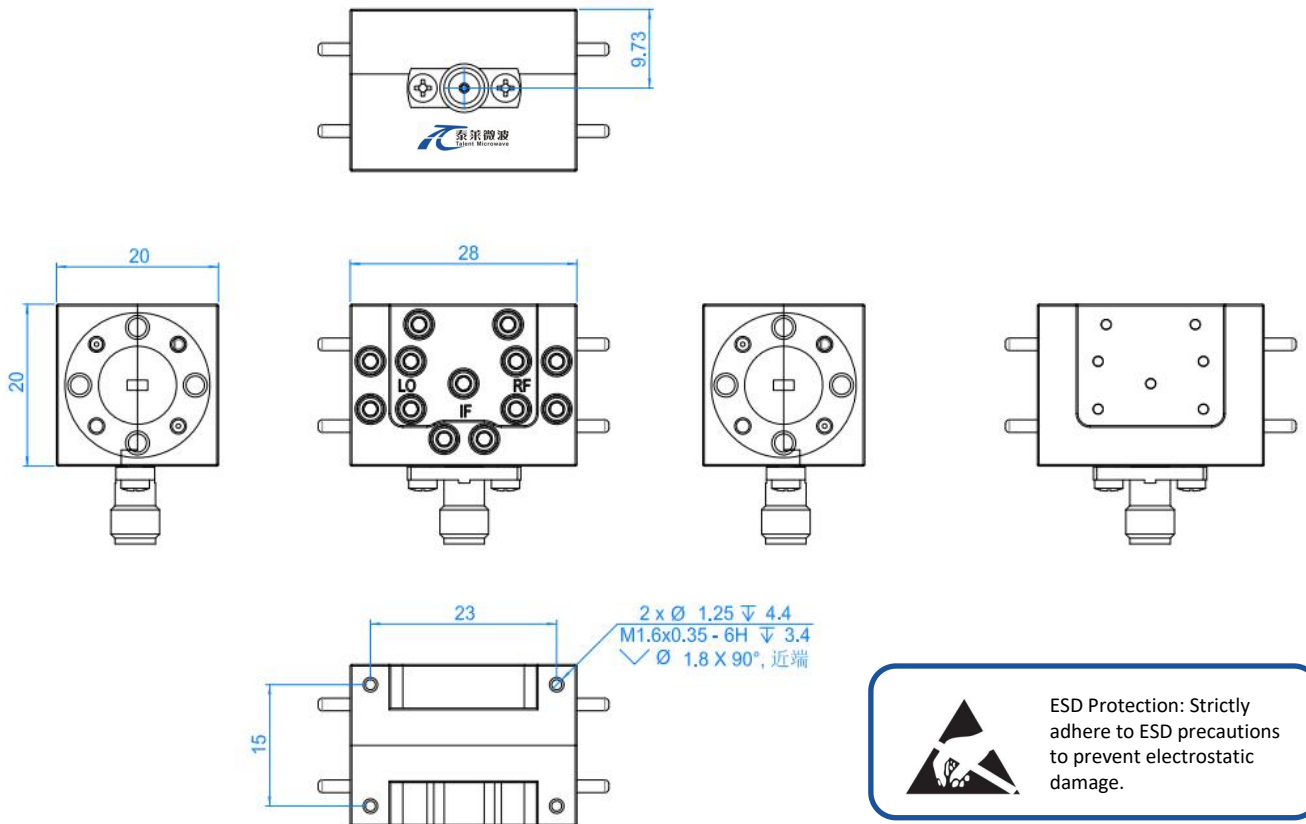
Parameter	Value	Units
RF Connector	WR-15/UG-385/U	
LO Connector	WR-15/UG-385/U	
IF Connector	2.92mm Female	
Size	28*20*20	mm

Absolute Maximum Ratings:

Parameter	Value
RF Input Power	15 dBm
IF Input Power	15 dBm
LO Input Power	20 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.

Environmental Conditions:

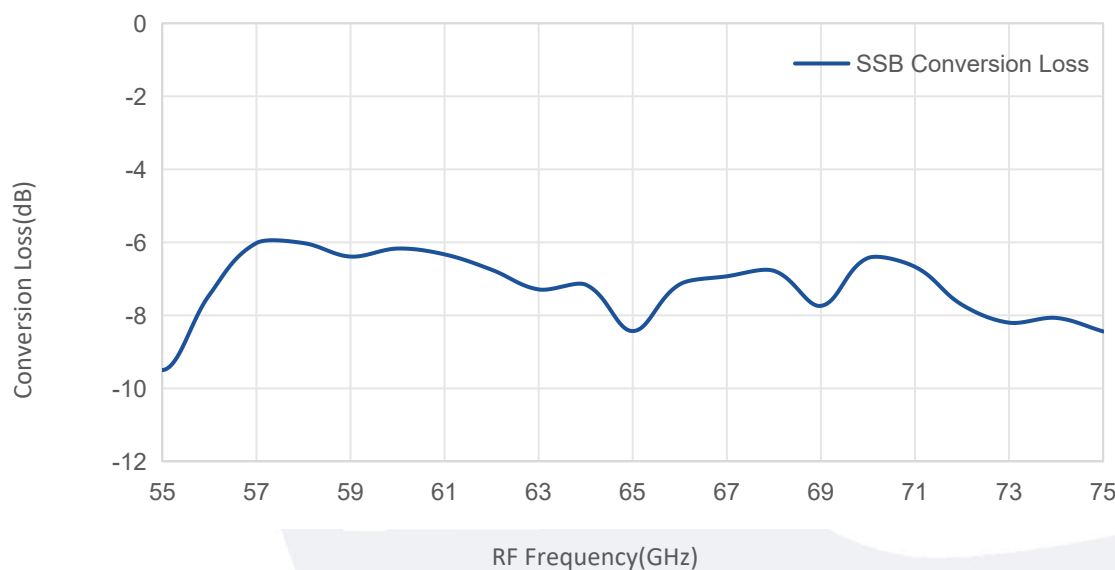
Parameter	Min	Typ	Max	Units
Operating Temperature	-25		+50	°C
Non-operating Temperature	-45		+85	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

Ordering Information:

Base Number	Description	Revision
TLBM-055075-20-15	V-Band Dual Balanced Mixer RF:55-75GHz,LO:55-75GHz,IF:DC-20GHz	Rev.1.1

Typical Performance Data:

Coverison Loss vs RF Frequency



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.