Suzhou Talent Microwave,Inc
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Balance Mixer

RF: 50-110GHz/LO: 50-110GHz/IF: DC-40GHz Model: TLBM-050110-40-1.0

TLBM-050110-40-1.0 is a balance mixer. The mixer covers the LO and RF frequency from 50 to 110 GHz with an extremely broad IF output from DC to 40 GHz. The mixer offers a conversion loss of 9 dB typical and LO input power of 15 dBm typical.

Features:

- RF/LO coverage : 50-110GHz
- IF operation : DC-40GHz
- Conversion loss: 9dB Typ
- High LO to RF isolation
- Balanced Mixer

Applications:

- Defense & federal communications
- Instrumentations

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
RF Frequency	50		110	GHz
LO Frequency	50		110	GHz
LO-Input power	12	15		dBm
IF Frequency	DC		40	GHz
Conversion Loss@IF=100MHz		-9		dB
Conversion Loss@LO=50GHz		-10		dB

Mechanical Specifications:

Parameter	Value	Units
RF Connector	1.0mm Female	
LO Connector	1.0mm Female	
IF Connector	2.92mm Female	
Size	13*13.5*9.7	mm

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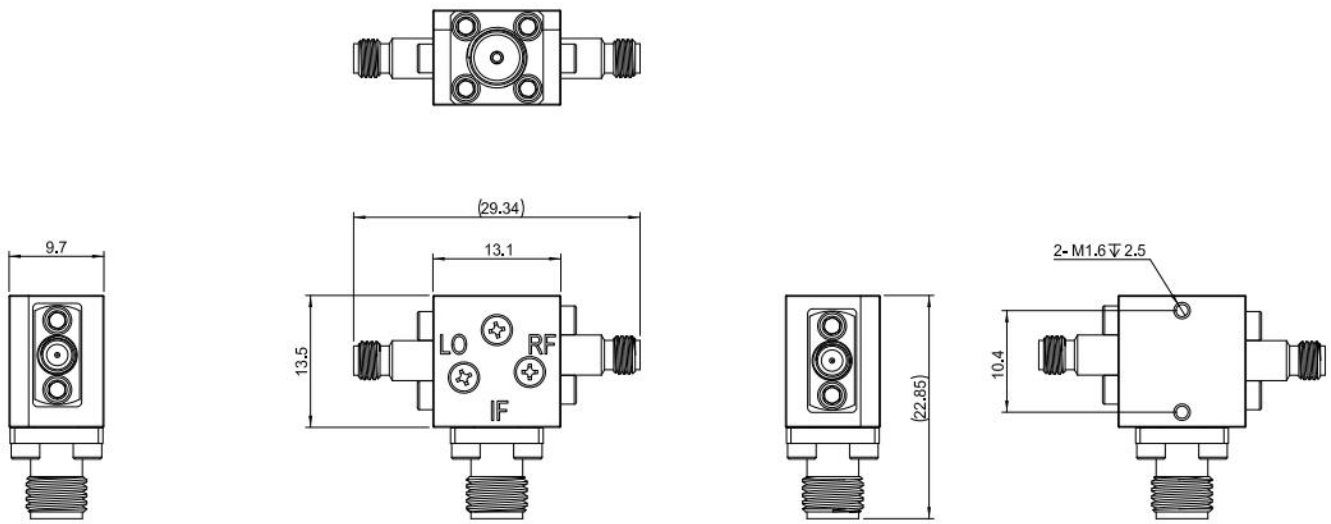
Absolute Maximum Ratings:

Parameter	Value
LO Input Power	TBD
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm



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

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature	-45		+85	℃
Non-operating Temperature	-55		+125	℃
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			

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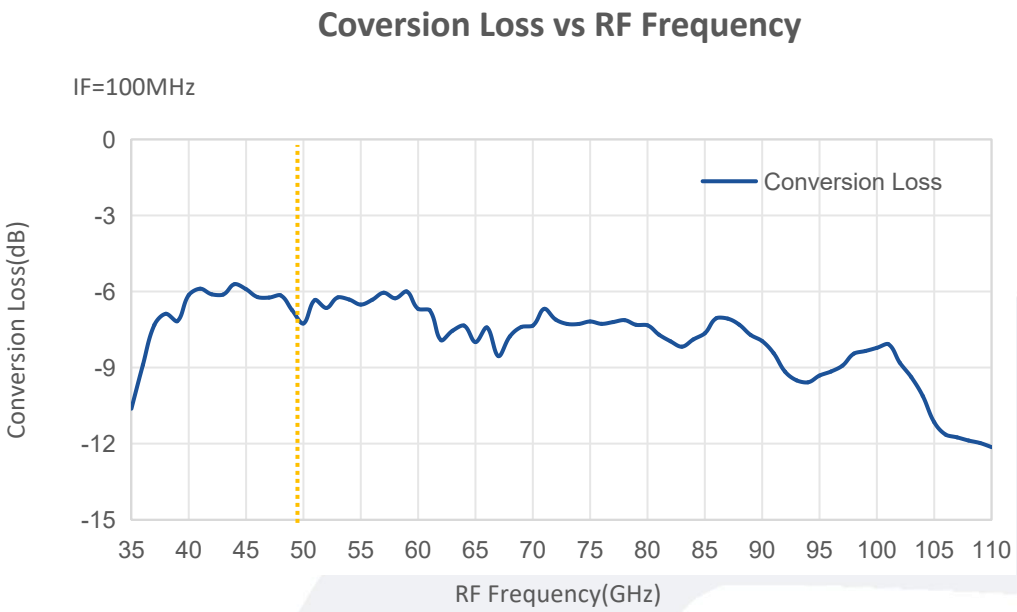
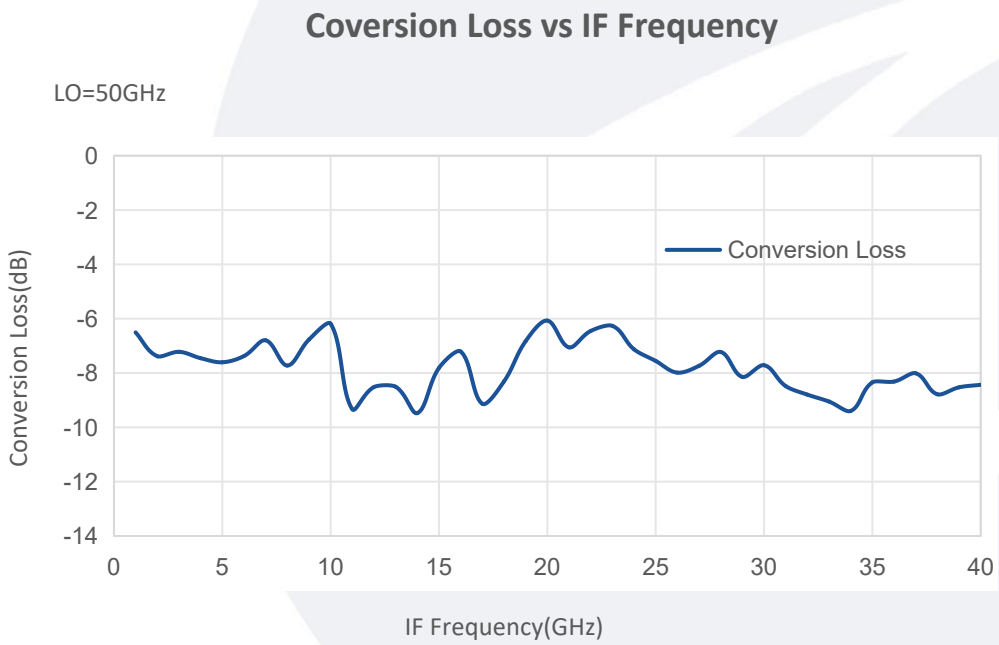
Ordering Information:

Base Number	Description	Revision
TLBM-050110-40-1.0	Balanced Mixer RF:50-110GHz,LO:50-110GHz,IF:DC-40GHz	Rev.1.0

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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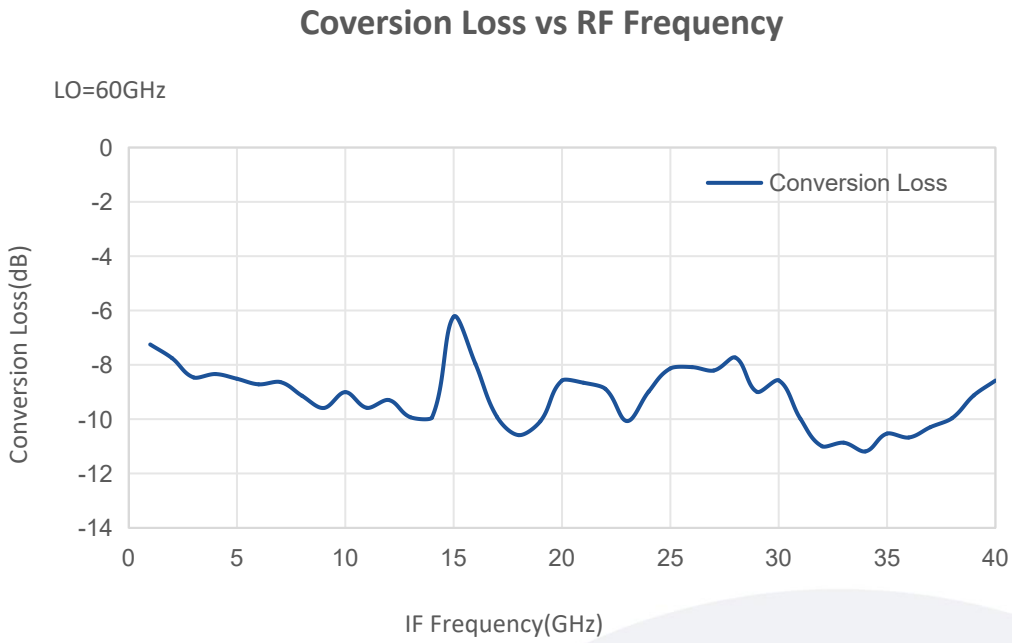

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