Suzhou Talent Microwave,Inc
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G-band,Active Tx/Rx Converter

WR-5.1/140-220GHz /-10dB Conversion Loss Model: TLAMCM-140220-20-05

TLAMCM-140220-20-05 is an up and down fundamental mixer integrated with x12 active frequency multiplier chain. The converter has an input LO frequency of 11.66 to 18.34 GHz with a typical input power of 5 dBm. RF frequency can range from 140 to 220 GHz and IF port can range from DC to 20GHz with 2.92mm connector. The DC power requirement for the multiplier is +12 V DC.

Features:

- RF Frequency: 140-220GHz
- LO Frequency: 11.66-18.34GHz
- IF Frequency: DC-20GHz
- Low Conversion Loss

Applications:

- Test Equipment
- Radar System
- D-band Imaging

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
RF Frequency	140		220	GHz
12XLO Frequency	140		220	GHz
LO Frequency	11.66		18.34	GHz
IF Frequency	DC		20	GHz
LO-Input power	3	5	7	dBm
LO Multiplier factor		12		
Conversion Loss(IF=1GHz)		-14		dB
DC Supply Voltage		12		V DC

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Mechanical Specifications:

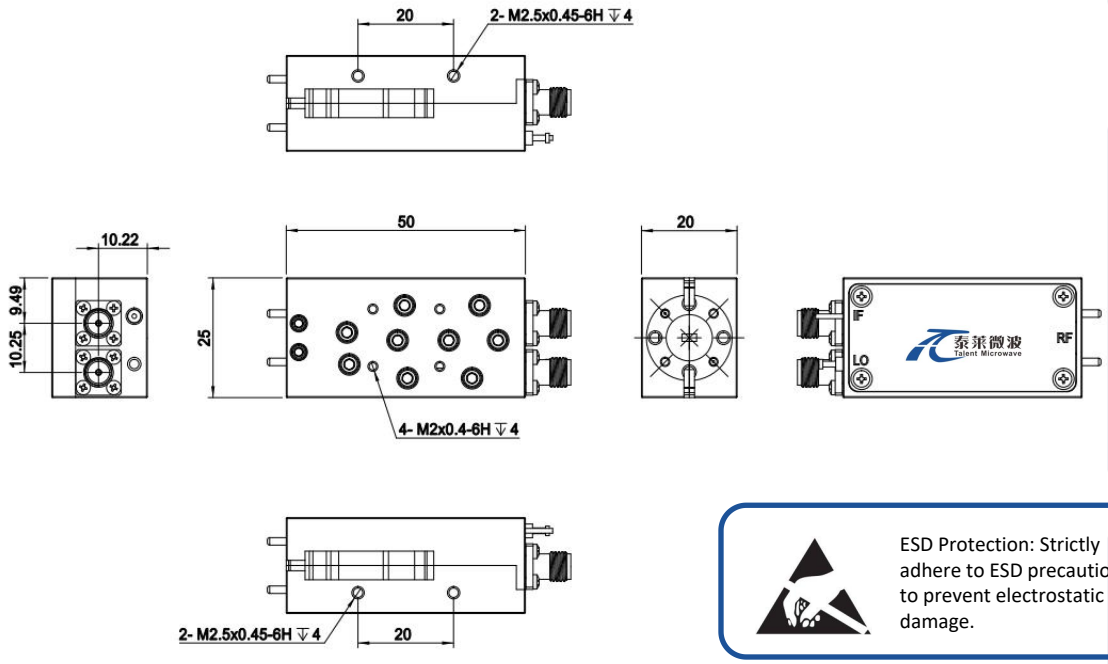
Parameter	Value	Units
RF Connector	WR-5.1/UG-387/U	
LO Connector	SMA Female	
IF Connector	2.92mm Female	
Size	50*25*20	mm

Absolute Maximum Ratings:

Parameter	Value
RF Input Power	5 dBm
LO Input Power	10 dBm
IF Input Power	5 dBm
DC Supply Voltage	+15 V
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	0		+50	℃
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
TLAMCM-140220-20-05	G-band Active Tx/Rx Converter, Conversion Loss:-14dB,WR-5.1/UG-387/U	Rev.1.0