Suzhou Talent Microwave,Inc
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Active Tx/Rx Converter

WR-3.4/220-310GHz/14dB Conversion Loss Model: TLAMCM-220310-1240-03

TLAMCM-220310-1240-03 is an up and down sub-harmonics mixer integrated with x6 active frequency multiplier chain. The converter has an input LO frequency of 18.33 to 25.84 GHz with a typical input power of 0 dBm. RF frequency can range from 220 to 310 GHz and IF port can range from DC to 40GHz with 2.4mm connector.

Features:

- RF Frequency: 220-310GHz
- LO Frequency: 18.33-25.84GHz
- IF Frequency: DC-40GHz
- Low Conversion Loss

Applications:

- Test Equipment
- Radar System
- Defense & federal communications
- Instrumentations

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
RF Frequency	220		310	GHz
12XLO Frequency	220		310	GHz
LO Frequency	18.33		25.84	GHz
IF Frequency	DC		40	GHz
LO-Input power	3	5	7	dBm
LO Multiplier factor		12		
Conversion Loss		14		dB
Input P1dB		0		dBm
DC Supply Voltage		12		V DC
DC Supply Current		680		mA

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Mechanical Specifications:

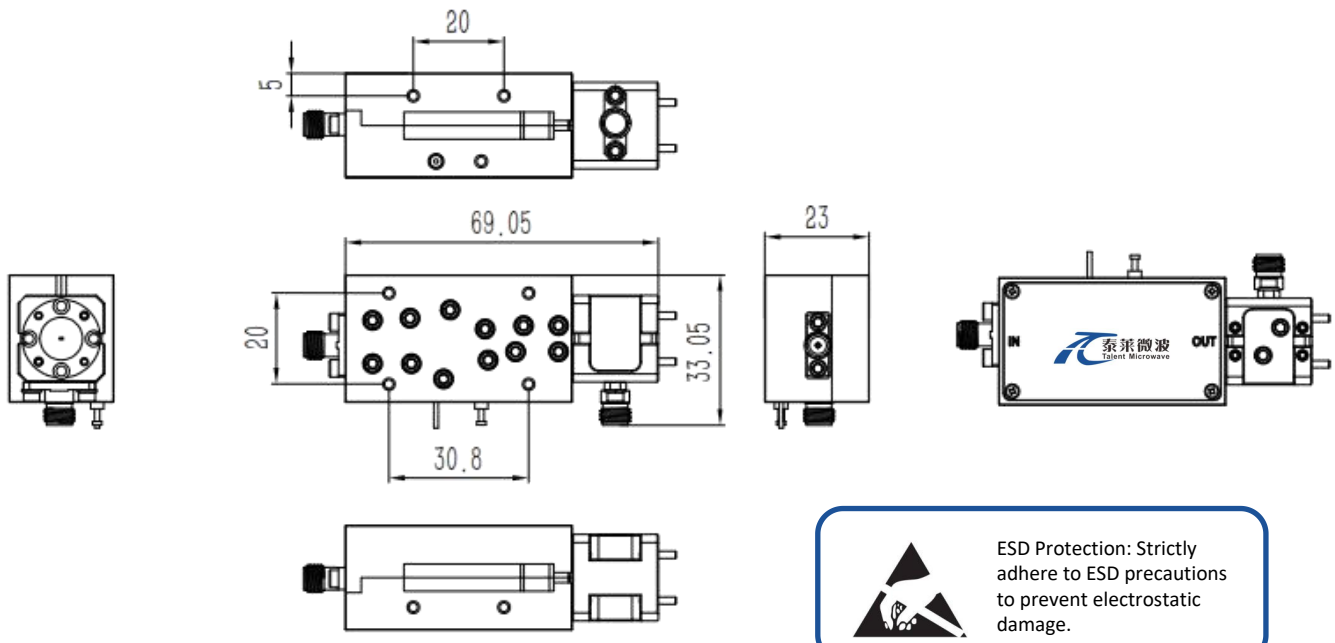
Parameter	Value	Units
RF Connector	WR-3.4/UG-387/U	
LO Connector	SMA Female	
IF Connector	2.4mm Female	
Size	69.05*33.05*23	mm

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-220310-1240-03	Active Tx/Rx Converter, Conversion Loss: 14dB, WR-3.4/UG-387/U	Rev.1.0