

Model: TLHM-90140-0225-08
Sub-Harmonic Mixer
RF:90-140 GHz,LO:45-70GHz,IF:DC-25 GHz
Feature:

- Low LO Power Requirement
- Subharmonic Mixing
- Compact Package

Electrical Specifications:

Parameter	Min	Typ	Max	Units
RF Frequency	90		140	GHz
LO Frequency	45		70	GHz
IF Frequency	DC		25	GHz
LO-Input power		7		dBm
RF Input Power		-15	0	dBm
2XLO to RF Isolation		-20		dBc
SSB Conversion Loss	-10	-8	-6	dB

Mechanical Specifications:

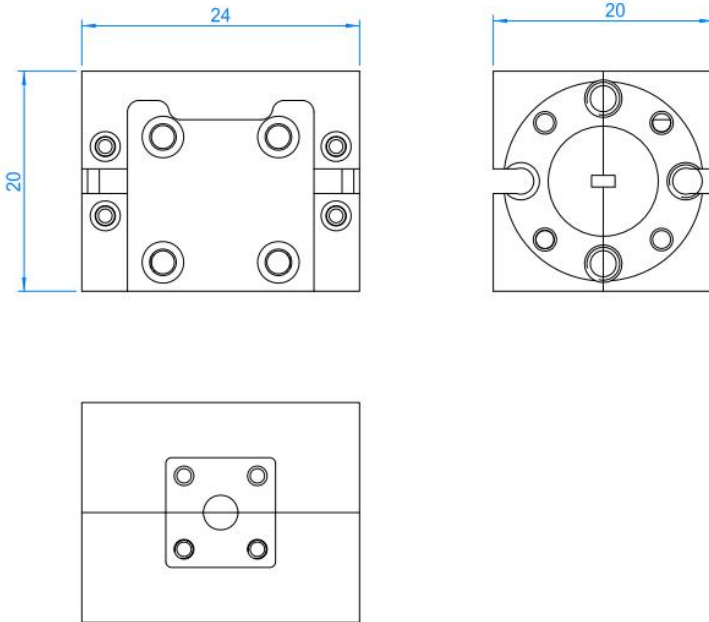
Parameter	Value	Units
RF Connector	WR-08/UG-387	
LO Connector	WR-15/UG-385	
IF Connector	2.92mm Female	
Shell Material	Copper	
Finish	Gold Plated	
Size	24*20*20	mm

Absolute Maximum Ratings:

Parameter	Value
RF Input Power	0 dBm
IF Input Power	0 dBm
LO Input Power	+15 dBm
ESD sensitivity (Hbm)	Class 0, passed 150V

Outline Drawing:

Unit: mm



Environmental Conditions:

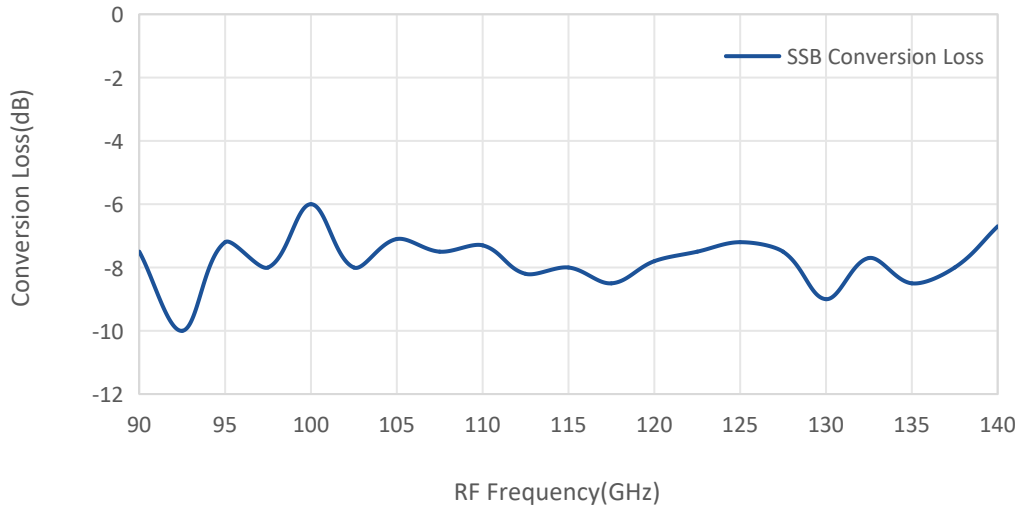
Parameter	Min	Typ	Max	Units
Operating Temperature	0		+50	°C
Non-operating Temperature	-45		+85	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

Ordering Information:

Part Number	Description	Revision
TLHM-90140-0225-08	Subharmonically Mixer RF:90-140GHz,LO:45-70GHz,IF:DC-25GHz	Rev.1.1

Typical Performance Data(Test Data=25°C):

SSB Conversion 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.