

Ka-band Fundamental Mixer

RF:27-40 GHz/LO:27-40 GHz/IF:DC-10 GHz

Model: TLBM-027040-10-28

TLBM-027040-10-28 is a Ka-Band balance mixer. The mixer supports the full waveguide band operation for both LO and RF frequency from 27 to 40 GHz with an extremely broad IF output from DC to 10 GHz. The mixer offers a conversion loss of 8 dB typical and LO input power of 15 dBm typical.

Features:

- Low LO Power Requirement
- Subharmonic Mixing
- Compact Package

Applications:

- Radar Systems
- Communication Systems
- Test Equipment

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
RF Frequency	27		40	GHz
LO Frequency	27		40	GHz
IF Frequency	DC		10	GHz
LO Input Power		15		dBm
Conversion Loss@IF=100MHz		8		dB
Conversion Loss@LO=27GHz		9		dB
IF Input P1dB		11		dBm
RF Input P1dB		11		dBm
RF to IF Isolation		35		dB
RF to LO Isolation		45		dB
LO to IF Isolation		30		dB

Mechanical Specifications:

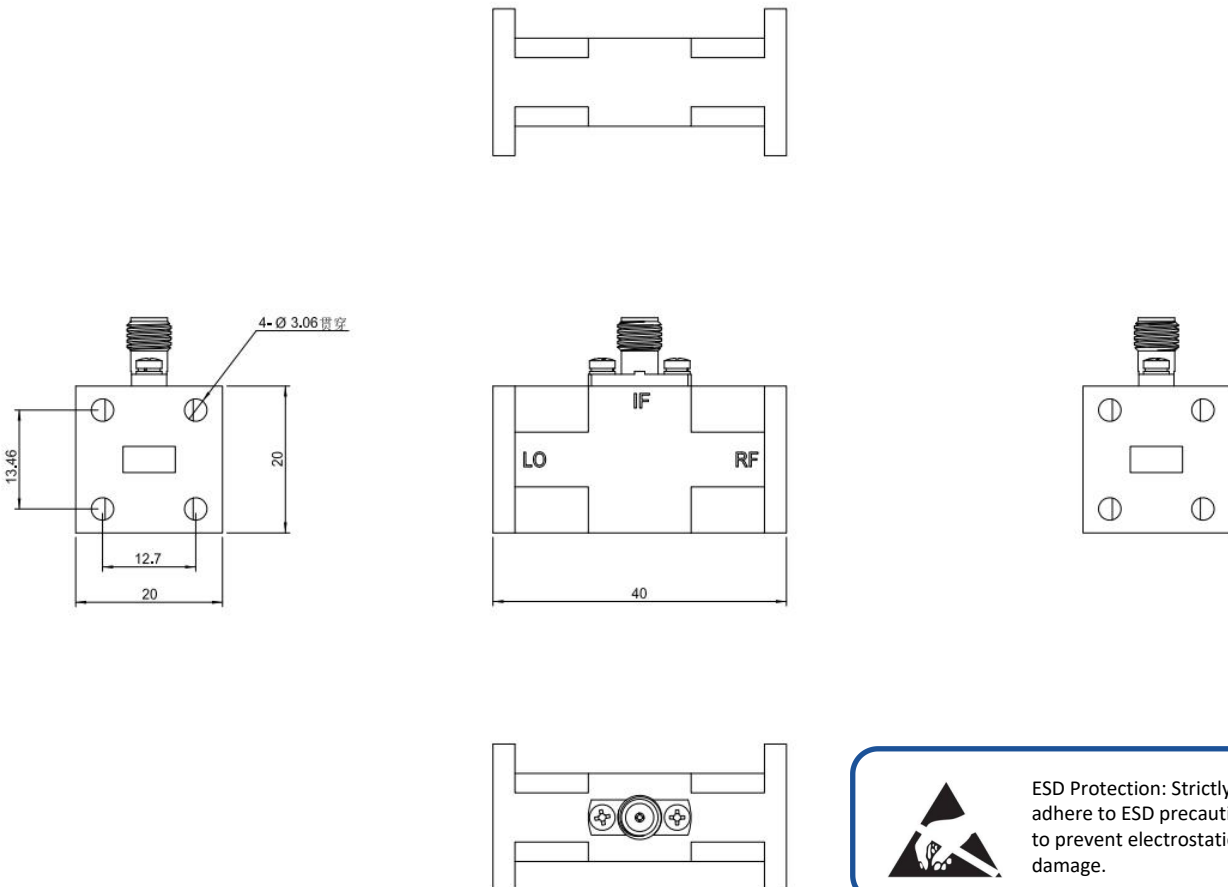
Parameter	Value	Units
RF Connector	WR-28/UG-599	
LO Connector	WR-28/UG-599	
IF Connector	SMA Female	
Size	40*20*20	mm

Absolute Maximum Ratings:

Parameter	Value
RF Input Power	24 dBm
LO Input Power	24 dBm
IF Input Power	24 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	-20		+70	°C
Non-operating Temperature	-65		+150	°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-027040-10-28	Ka-band Fundamental Mixer RF:27-40GHz,LO:27-40GHz,IF:DC-10GHz	Rev.1.0