

18-44GHz Balance Mixer, 2.92mm Integrated X4 Multiplier LO Port

2022-9-1



Description:

AT-4MIX-1844 is an up and down fundamental mixer covering 18-44GHz based on GaAs MMIC technology.

RF Port frequency range is from 18-44GHz with 2.92mm connector. LO range is 4.5-11GHz as X4 multiplier inside on LO chain. IF port frequency from DC to 20GHz with SMA Female connector.

More information, please visit www.atmicrowave.com

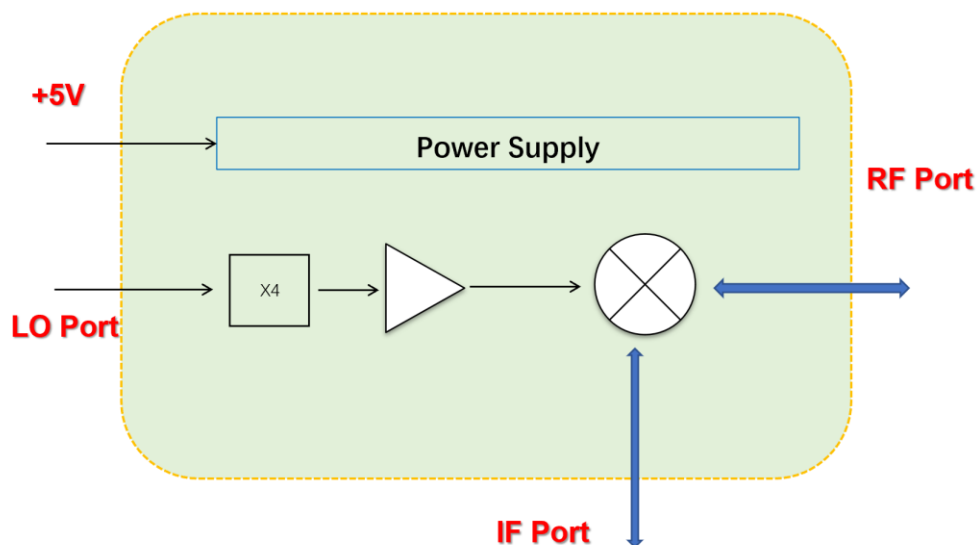
Feature

- ✓ RF Range: 18-44GHz
- ✓ LO Range: 4.5-11GHz
- ✓ Low Conversion Loss
- ✓ High RF/LO Isolation

Application

- ✓ 5G Communication
- ✓ Test Equipment
- ✓ ROF (RF Over Fiber)
- ✓ Radar System

Diagram Block





AT-4MIX-1844

18-44GHz Balance Mixer Integrated with x4

Electronical Specifications: (IF=100MHz if not specified)

Parameter	Min	Typical	Max
RF Frequency		18-44GHz	
IF Range		DC-20GHz	
Conversion Loss		-8dB	-12dB
LO Input Frequency		4.5-11GHz	
LO Driver	+3	+5dBm	+8dBm
LO Multiplier Factor		X4	
Mixer Type		Fundamental Mixer	
Input P1dB		+7dBm	
4XLO to RF Leakage		-25dBm	
4XLO to IF Leakage		-15dBm	
LO to IF Isolation		To be added.	
Vdd		+5V	+8V
Idd		0.3A	
Spec Temp		25C	





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Mechanical Information

Item	Description
RF Port	2.92mm Female
LO Port	SMA Female
IF Port	SMA Female
Case Material	Copper
Finish	Gold Plated
Weight	130g
Size:	See outline

Absolute Maximum Ratings Table

Parameter	Value
IF Power	+15dBm
RF Power	+15dBm
LO Power	+20dBm
Vdd	+9V
Operating Temperature	-40 to +85C
Storage Temperature	-55 to +125C

Notes:

1. Datasheet may be changed according to update of MMIC, Raw materials , process, and so on.
2. This data is only for reference, not for guaranteed specifications.
3. Please contact AT Microwave team to make sure you have the most current data.

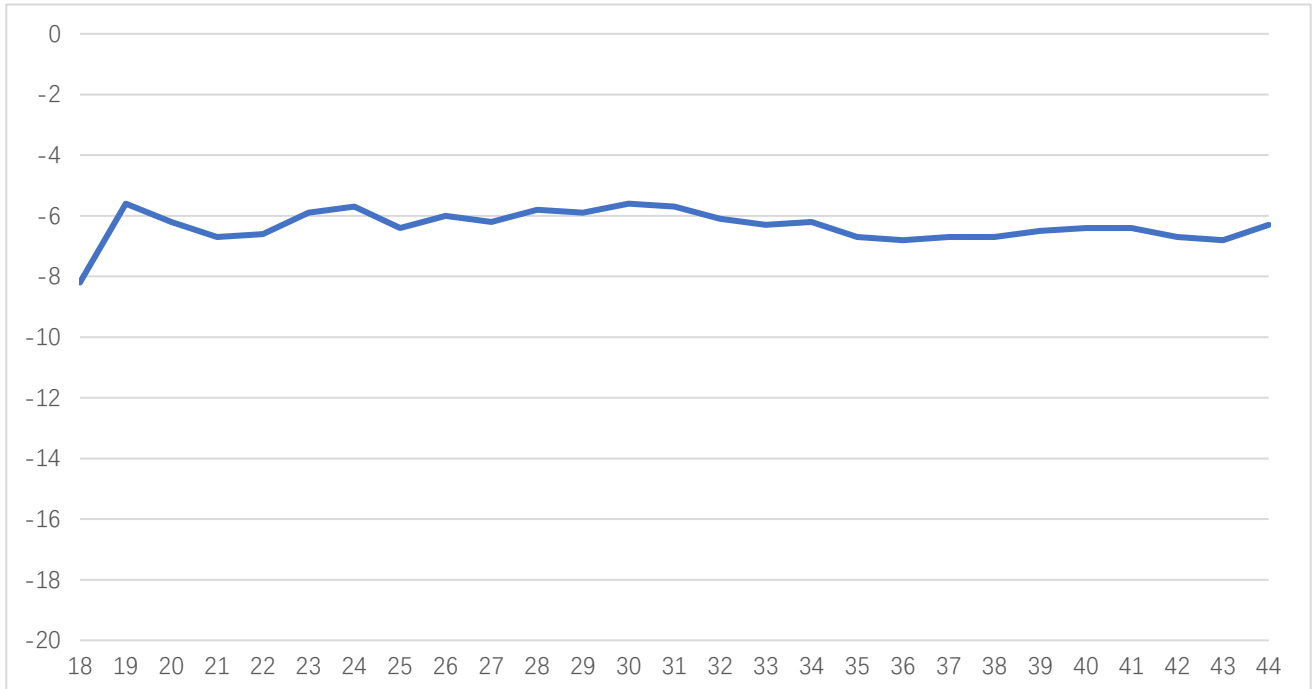




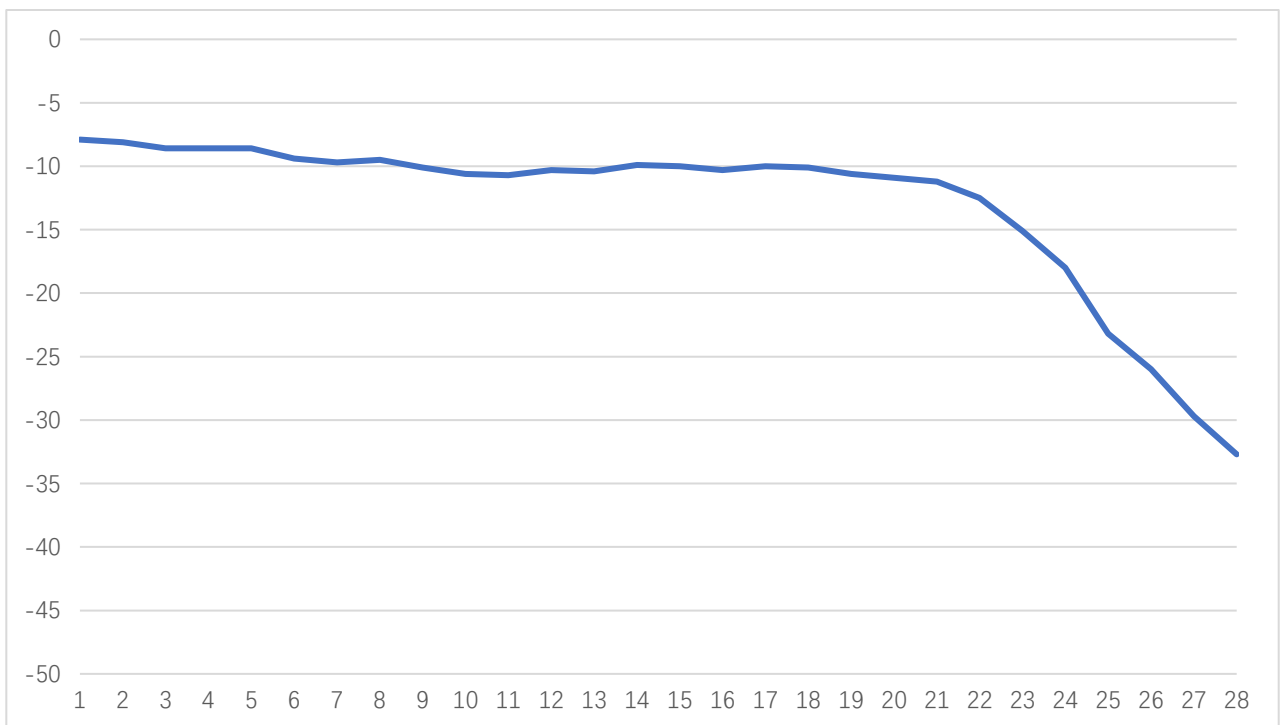
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Test Data (25C)



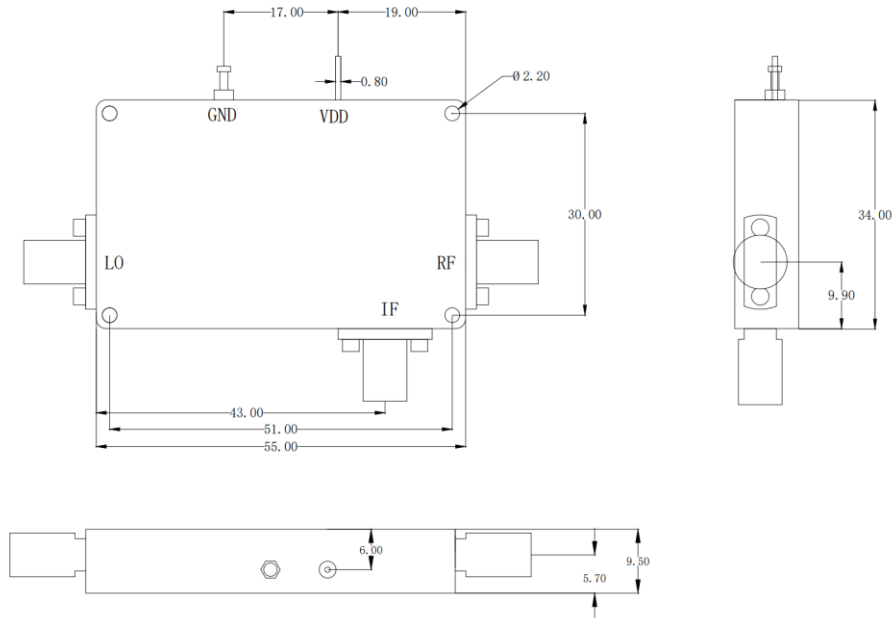
Conversion Loss vs Frequency, IF=100MHz



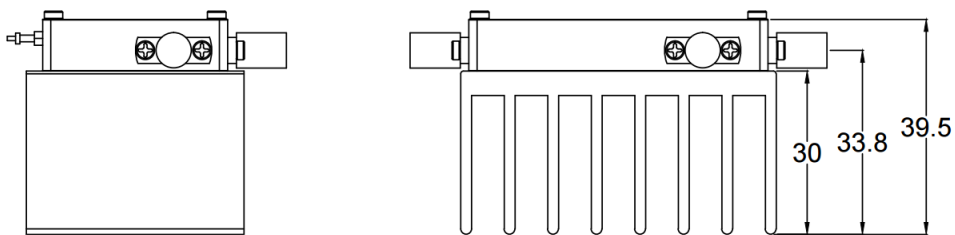
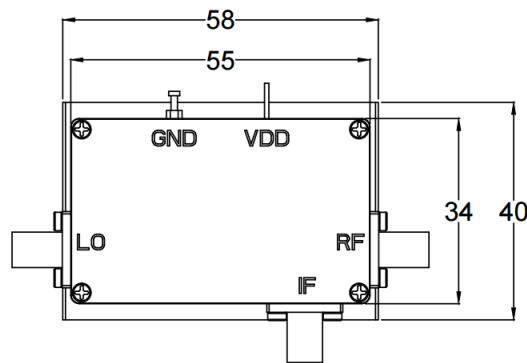
IF Response, Fixed LO=20GHz



Dimension (mm)



Outline without heatsink



Outline with small heatsink in default,
which can be removed according to customer's actual application.

