

### 18-50GHz Balance Mixer, 2.4mm Integrated X4 Multiplier LO Port

2023-3-10



#### Description:

AT-4MIX-1850 is an up and down fundamental mixer covering 18-50GHz based on GaAs MMIC technology.

RF Port frequency range is from 18-50GHz with 2.4mm connector. LO range is 4.5-12.5GHz as X4 multiplier inside on LO chain. IF port frequency from DC to 20GHz with SMA Female connector.

More information, please visit [www.atmicrowave.cm](http://www.atmicrowave.cm)

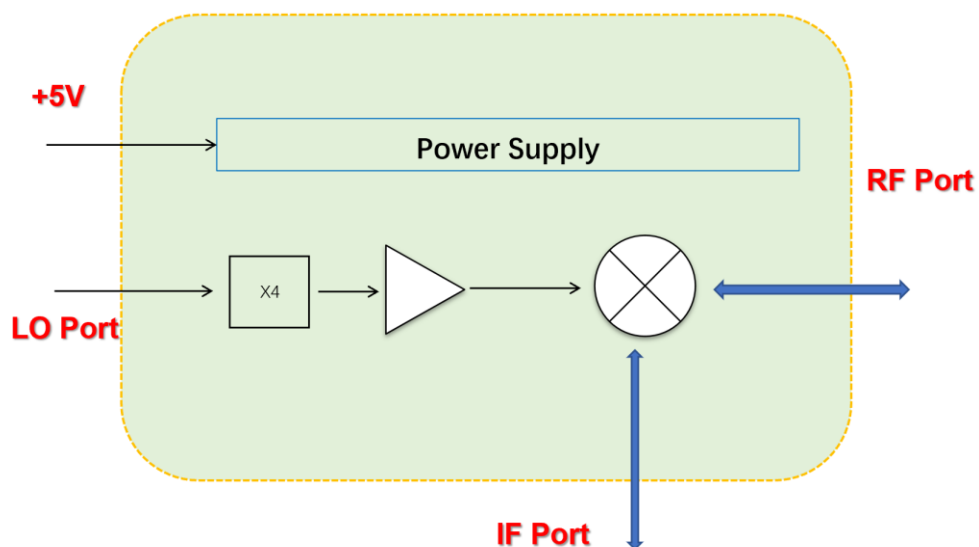
#### Feature

- ✓ RF Range: 18-50GHz
- ✓ LO Range: 4.5-12.5GHz
- ✓ Low Conversion Loss
- ✓ High RF/LO Isolation

#### Application

- ✓ Automotive Test
- ✓ Test Equipment
- ✓ ROF (RF Over Fiber)
- ✓ Radar System

#### Diagram Block





# AT-4MIX-1850

18-50GHz Balance Mixer Integrated with x4

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

Parameter	Min	Typical	Max
RF Frequency		18-50GHz	
LO Input Frequency		4.5-12.5GHz	
LO Multiplier Factor		X4	
Mixer Type		Fundamental Mixer	
IF Range		DC-20GHz	
Conversion Loss		-8dB	-12dB
LO Driver	+3	+5dBm	+8dBm
Input P1dB		+7dBm	
4XLO to RF Leakage		-30dBc	
LO to IF Leakage		-40dBc	
Vdd		+5V	+8V
Idd		0.3A	
Spec Temp		25C	





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## Mechanical Information

Item	Description
RF Port	2.4mm
LO Port	SMA Female
IF Port	SMA Female
Case Material	Copper
Finish	Gold Plated
Weight	100g
Size:	See outline

## Absolute Maximum Ratings Table

Parameter	Value
IF Power	+15dBm
RF Power	+15dBm
LO Power	+23dBm
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.

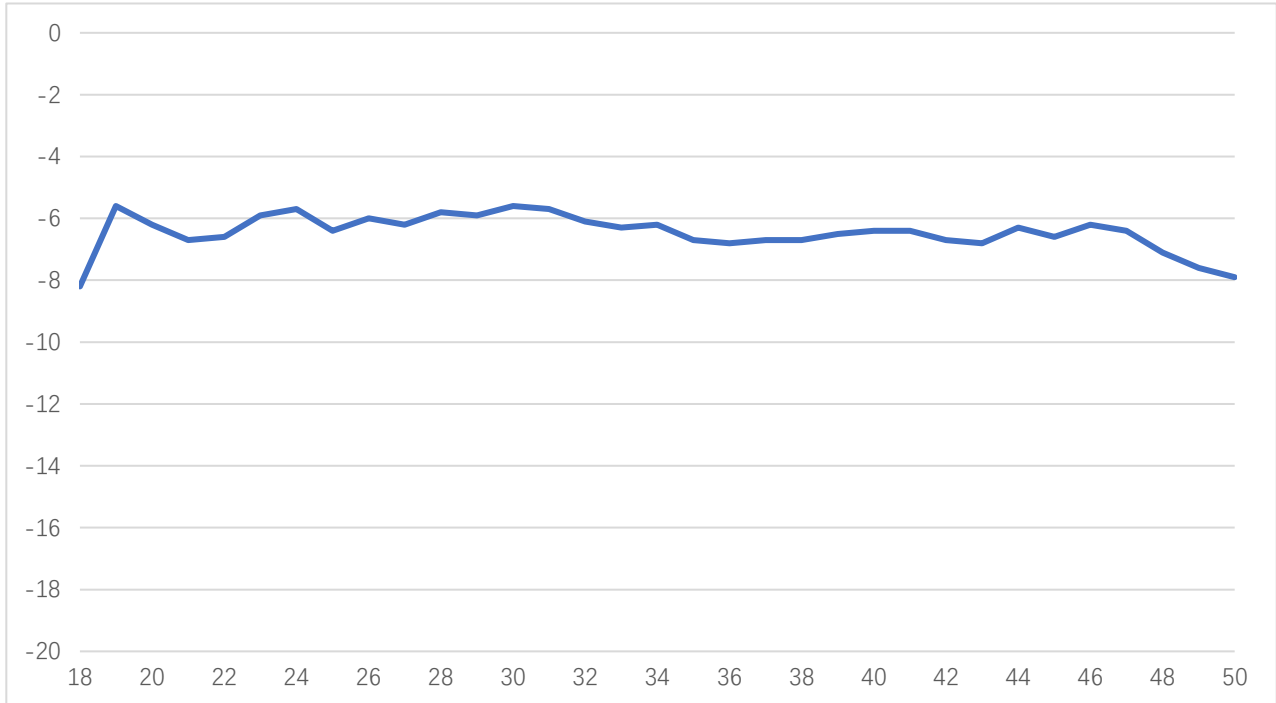




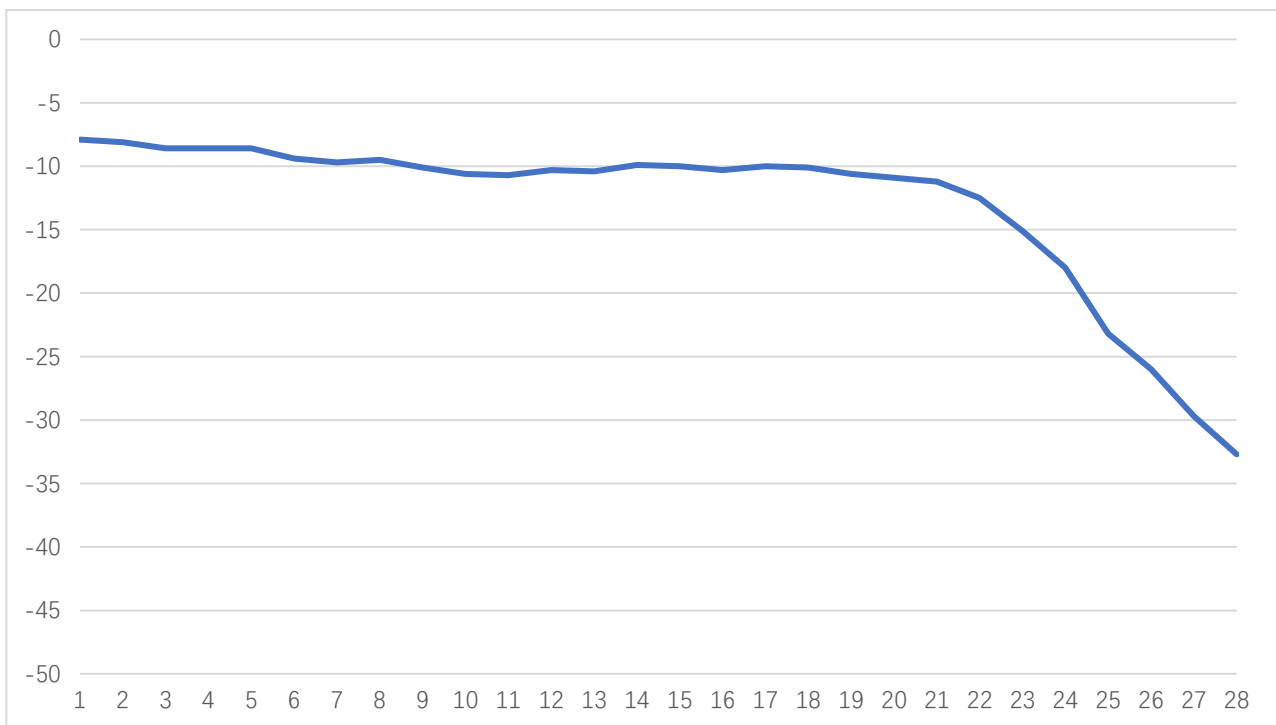
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## Test Data (25C)

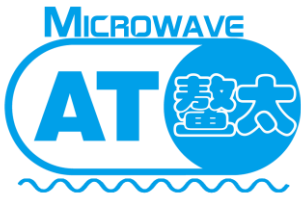


Conversion Loss vs Frequency, IF=100MHz



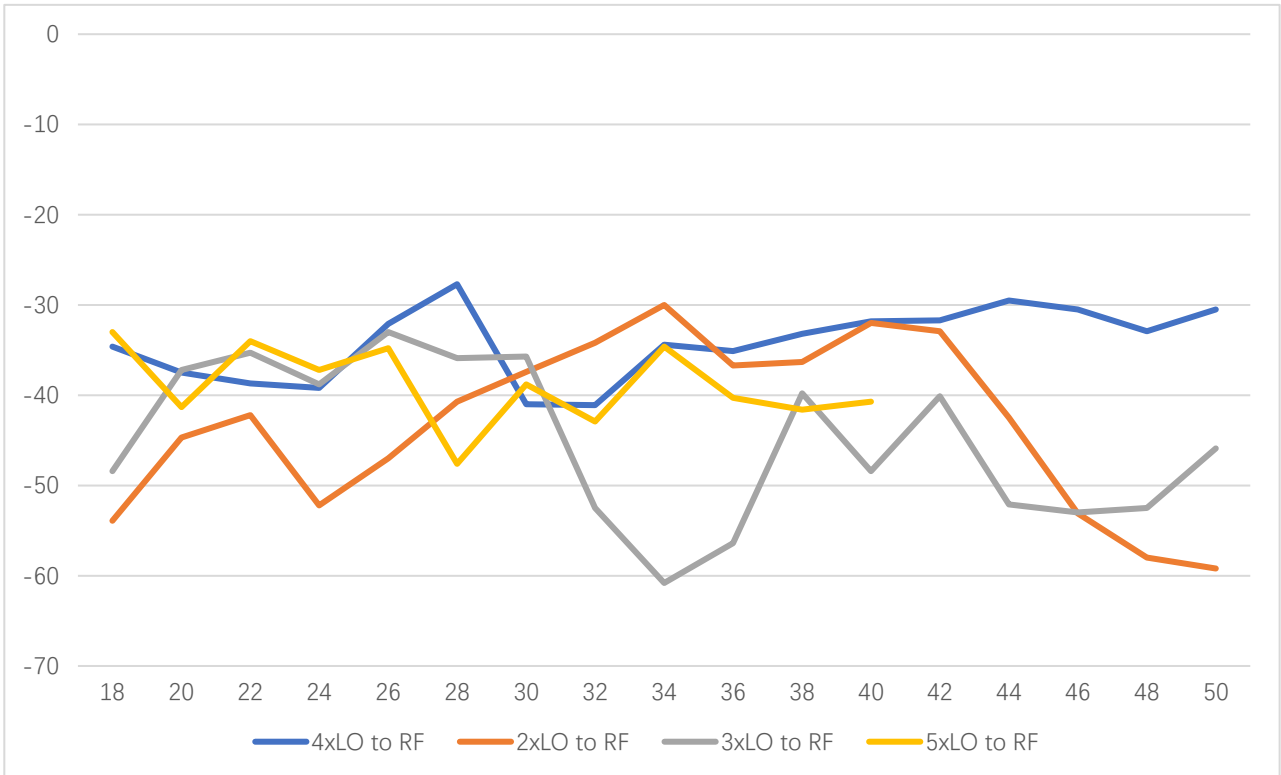
IF Response, Fixed LO=20GHz



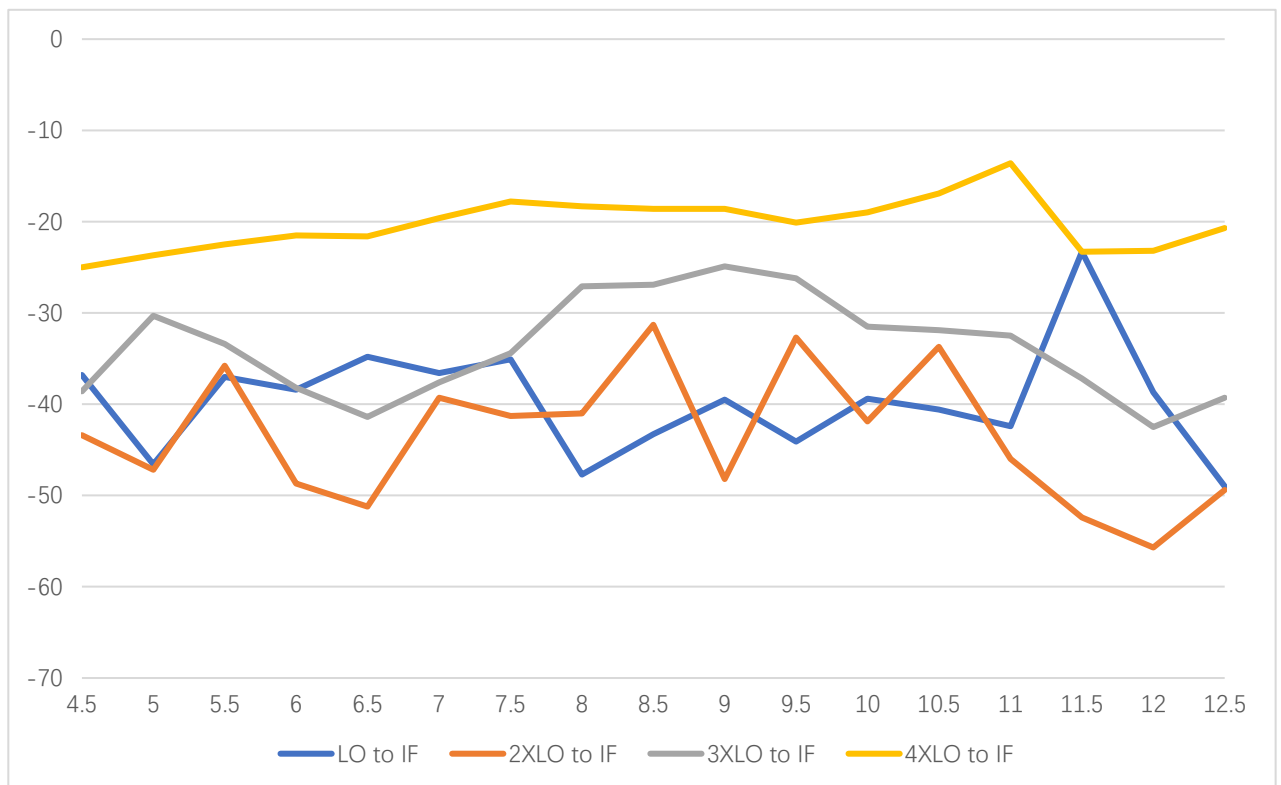


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LO to RF Isolation



LO to IF Isolation



### Dimension(mm)

