

60-90GHz Balance Mixer WR-12 Integrated with AMC Chain

2022-10-1

Description:

AT-6MIX-6090C is an up and down balance mixer integrated with x6 active frequency multiplier chain covering W band based on GaAs MMIC technology.

IF input is balanced and can range from DC to 12GHz with SMA connector.

LO is SMA with X6 Frequency multiplier inside.

For more information, please visit www.atmicrowave.com

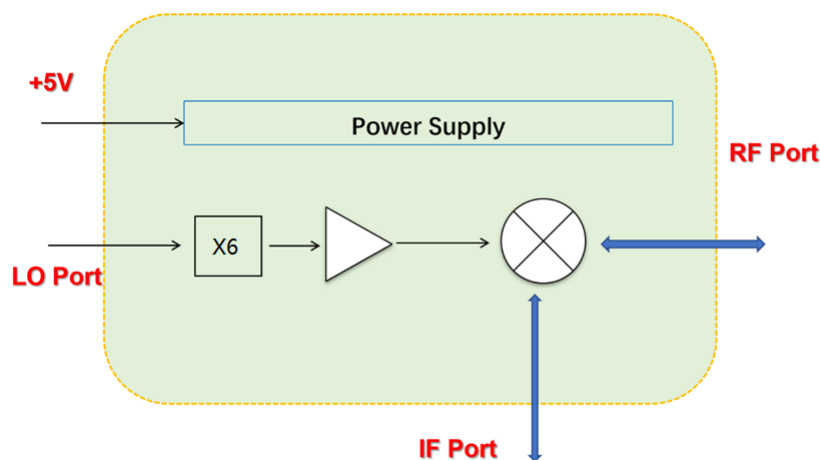
Feature

- ✓ RF: 60-90GHz
- ✓ LO: 10-15, with x6
- ✓ IF: DC-12GHz
- ✓ Low Conversion Loss
- ✓ Low LO power requirement

Application

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

Diagram Block





AT-6MIX-6090C

Full E Band Balance Mixer

Electronical Specifications:

| Parameter | Min | Typical | Max |
|-----------------------------|-----|----------|-------|
| RF Frequency | | 60-90GHz | |
| 6X LO Frequency Range | | 60-90GHz | |
| LO Frequency Range | | 10-15GHz | |
| Multiplier Factor | | X6 | |
| LO Power | +0 | +3dBm | +6 |
| IF Range | | DC-12GHz | |
| Conversion Loss (IF=100MHz) | | -12dB | -18dB |
| 6XLO to RF Leakage | | -15dBm | |
| IF Port Input P1dB | | +3dBm | |
| RF Port Input P1dB | | +0dBm | |
| Power Supply | | +5V | |
| Current | | 0.5A | |
| Spec Temp | | 25C | |





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Mechanical Information

| Item | Description |
|---------------|--|
| RF Port | WR-12 with UG-387/U-M anti-cocking Flange. |
| LO Port | SMA Female |
| IF Port | SMA Female |
| Case Material | Copper |
| Finish | Gold Plated |
| Weight | 230g |
| Size: | See outline |

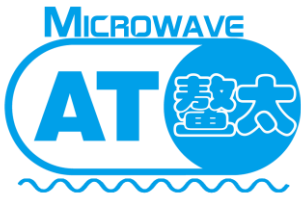
Absolute Maximum Ratings Table

| Parameter | Value |
|-----------------------|--------------|
| IF Port | +7dBm |
| LO Port | +15dBm |
| RF Port | +5dBm |
| Operating Temperature | 0 to +50C |
| Storage Temperature | -65 to +150C |

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.



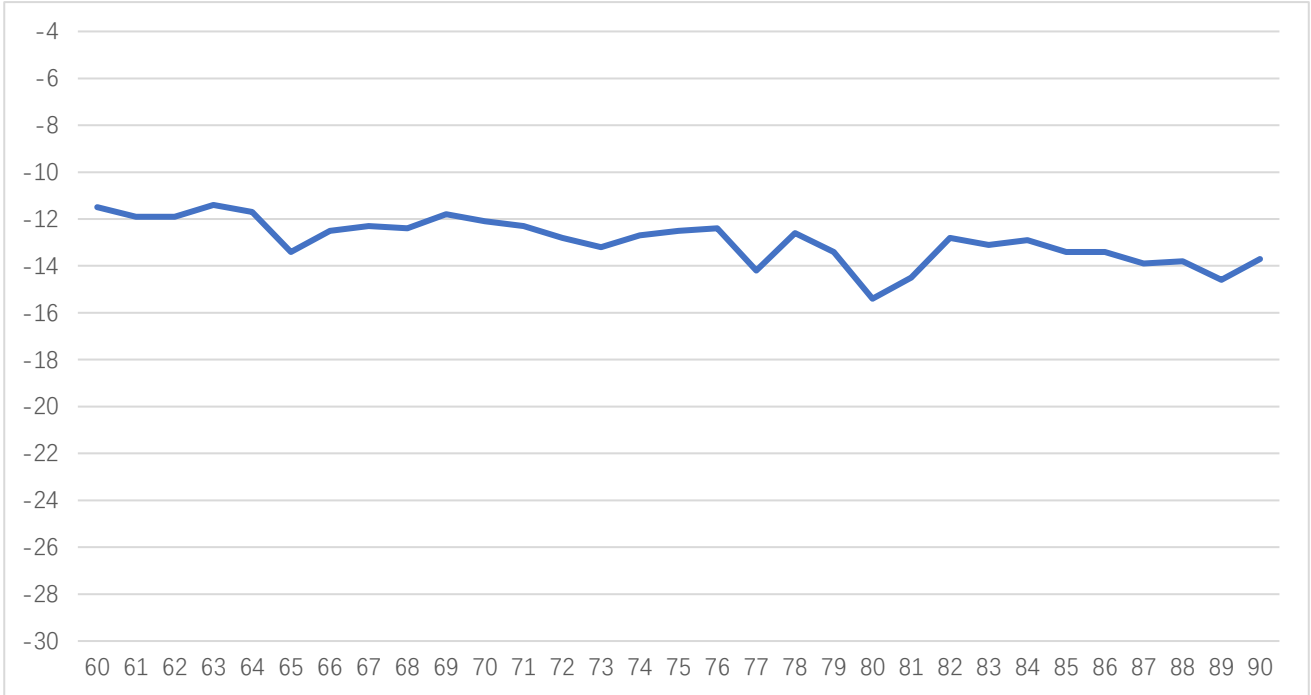


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Test Data (25C)

Please note that test curves will vary slightly from unit to unit.



Conversion Loss vs Frequency

Dimension (mm)

TO BE ADDED.

