

190-230GHz Sub-Harmonics Mixer



Description:

AT-SHM-190230LM is 190-230GHz up and down sub-harmonics mixer. The RF frequency range is 190-230GHz with WR-04 waveguide. The RF Range can be used from 190-230GHz with a little higher insertion loss.

LO Port is 95-115GHz with WR-08, and AT-AM8-90140C or AT-AM8-86106-10 is recommended as broadband LO for this mixer. IF range is DC-20GHz with SMA Female connector.

For more information, please visit www.atmicrowave.com

Feature

- ✓ RF: 190-230GHz
- ✓ LO: 95-115GHz
- ✓ IF: DC-20GHz
- ✓ Low LO power requirement

Application

- ✓ High Speed Communication
- ✓ Test Equipment
- ✓ ROF (RF Over Fiber)
- ✓ Radar System

Electronical Specifications:

Test condition: IF=1GHz, 25C

| Parameter | Min | Typical | Max |
|--------------------|-------|------------|--------|
| RF Frequency Range | | 190-230GHz | |
| LO Frequency Range | | 95-115GHz | |
| LO Driver | +5dBm | +7dBm | +10dBm |
| IF Range | | DC-20GHz | |
| Conversion Loss | | -15dB | |
| Bias | | NO | |
| Spec Temp | | 25C | |





AT-SHM-190230LM

190-230GHz Band Sub-harmonics Mixer

Mechanical Information

| Item | Description |
|---------------|-------------|
| RF Port | WR-04 |
| LO Port | WR-08 |
| IF Port | SMA Female |
| Case Material | Copper |
| Finish | Gold Plated |
| Weight | 30g |
| Size: | See outline |

Absolute Maximum Ratings Table

| Parameter | Value |
|-----------------------|--------------|
| IF Power | +7dBm |
| RF/LO Power | +13dBm |
| Operating Temperature | 0 to +50C |
| Storage Temperature | -65 to +150C |

IF port is extremely ESD sensitive

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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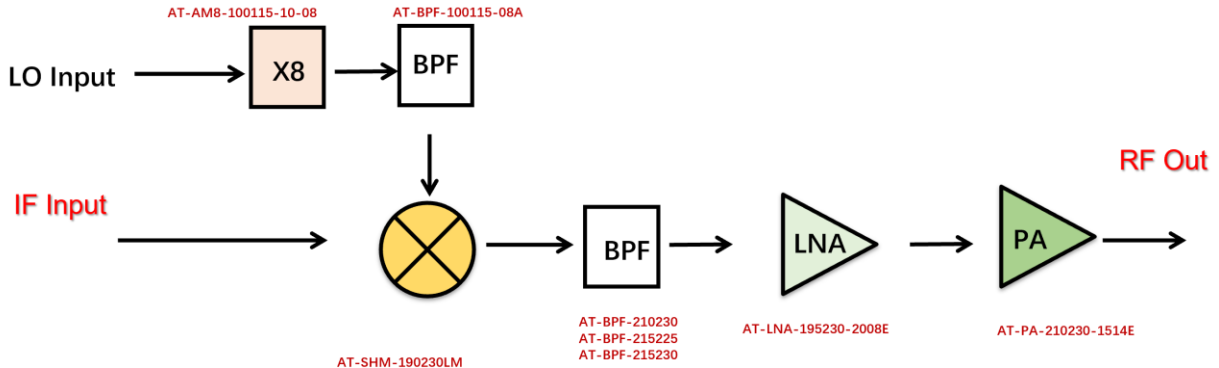
Test Data



Related Products

| Part Number | Description |
|---------------------|---|
| AT-BPF-210230-04A | 210-230GHz Band Pass Filter |
| AT-BPF-215225-04A | 215-225GHz Band Pass Filter |
| AT-BPF-215230-04A | 215-230GHz Band Pass Filter |
| AT-LNA-195230-2008E | 195-230GHz Low Noise Amplifier Gain=20dB, NF=8dB, Pout=-3dBm |
| AT-210230-1514E | 210-230GHz Power Amplifier Gain=15dB, Pout=+14dBm |
| AT-PA-210230-1020T | 210-230GHz Power Amplifier Gain=10dB, Pout=+20dBm |
| AT-PA-210230-2520T | 210-230GHz Power Amplifier Gain=25dB, Pout=+20dBm |
| AT-PDRO-XXGHz | Single Point Frequency 5-40GHz High Performance PDRO |

Tx Application



Rx Application

