

V Band (50-75GHz) Down-Converter

2022-9-1

Low NF=5dB, WR-15



Product Overview

AT-BTDC-5075R is Low NF full V band down-converter with X4 frequency multiplier inside. The down converter RF-IF gain is 20dB with RF Amplifiers.

The down-converter can be used for NF test and general receiver application. The RF Port is with standard WR-15. LO input port and IF Output port are SMA Female. AT Microwave provides full band down-converter from U band to D Band.

More information, please visit www.atmicrowave.com

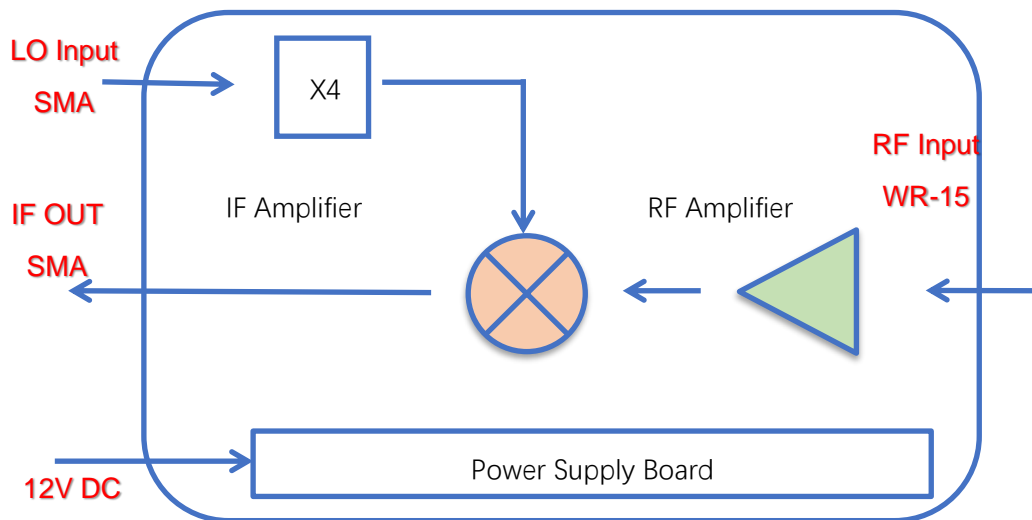
Advantages

- ✓ Frequency: 50-75GHz
- ✓ Gain:20dB
- ✓ IF: DC-20GHz
- ✓ LO Input: 12.5-18.3GHz, +3dBm
- ✓ Bench-Top Labs Test

Application

- ✓ Noise Figure Test
- ✓ 5G Communication
- ✓ ROF (RF Over Fiber)
- ✓ Radar System
- ✓ RCS Test

Diagram Block:





AT-BTDC-5075R

Bench-Top V Band Down-Converter

Key Features (Test condition IF=100MHz)

Parameter	Min	Typical	Max
RF Frequency	50GHz		75GHz
LO Frequency	12.5GHz		18.75GHz
LO Multiplier Factor		X4	
LO Driver	+0dBm	+3dBm	+5dBm
IF Frequency		50kHz-20GHz	
RF-IF Gain (IF=100MHz)		20dB	
RF Input P1dB		-40dBm	
Noise Figure		5dB	8dB
RF Input Return Loss		-8dB	
IF Output Return Loss		-10dB	
Power Supply (With AC/DC Adapter)	+90V	+220V	+240V
Spec Temp		25C	

Mechanical Information:

Parameter	Value
RF Port	WR-15
LO/IF Port	SMA Female
DC Bias	+12V Supply, AC to DC Power Converter included
DC Bias Switch	ON-OFF switch with light indicator
Dimension	204x127x74.6mm

Absolute Maximum Ratings Table

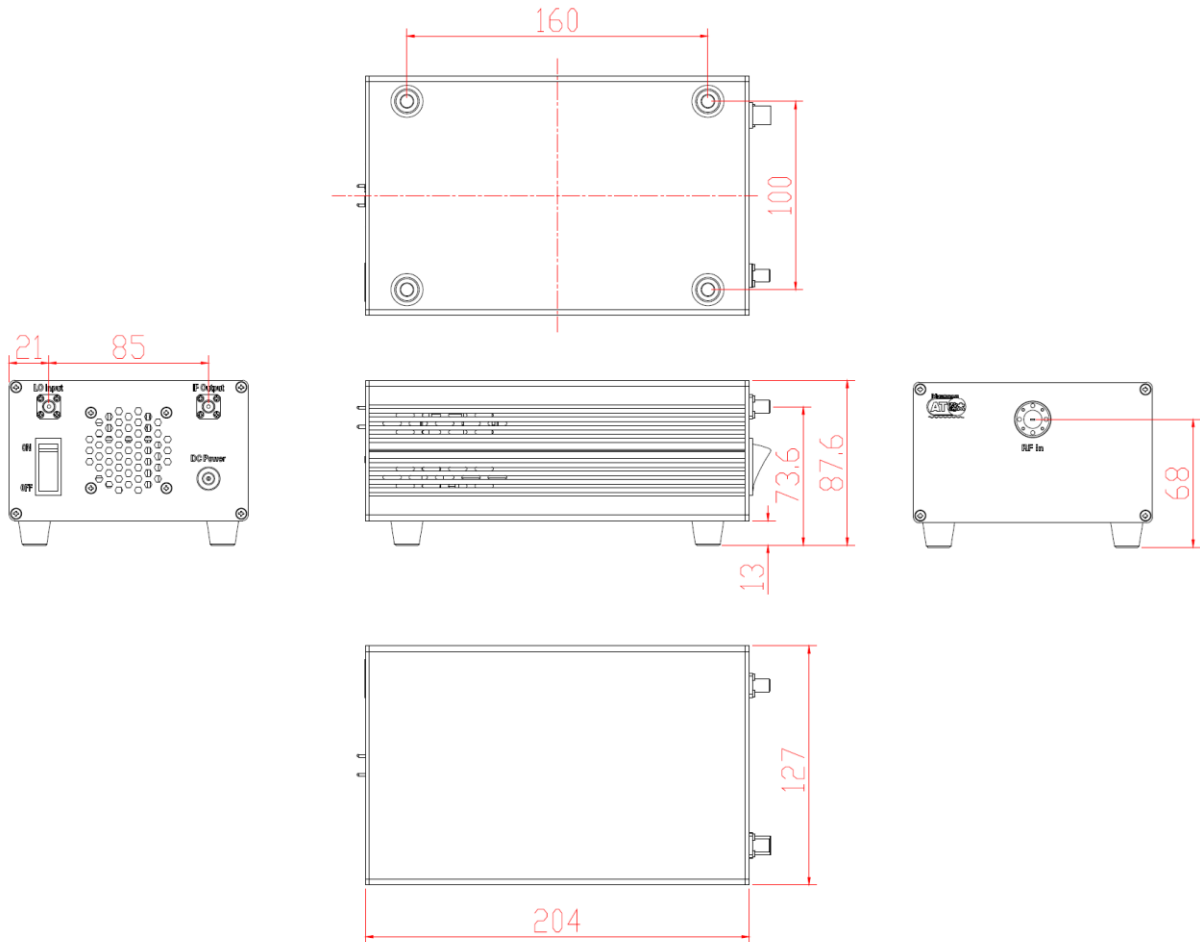
Parameter	Value
AC Supply	+260V
RF Input Power	0dBm
LO Port Power	+15dBm
Operating Temperature	0 to 50 C
Storage Temperature	-65 to +150C



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Dimension: (mm)



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.

