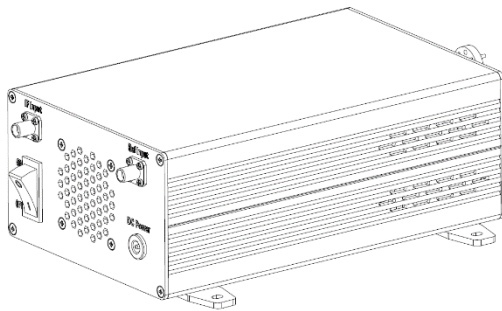


H Band Up-Converter, 215-230GHz, Pout=0dBm, WR-04

2023-2-20



Product Overview

AT-TX-215230-LG is H band up converter with 13.125GHz PDRO inside. The Tx sub-system RF frequency range is 215-230GHz, and IF range is 5-20GHz. PDRO frequency can be changed according to request.

215-230GHz Band Pass Filter is integrated to filter LO and low band side frequency. BPF frequency can be changed to 215-225GHz, 210-230GHz or other frequency according to request. The input port is SMA female, and the output is a WR-04 waveguide with a standard UG-387-M flange.

More information, please visit www.atmicrowave.com

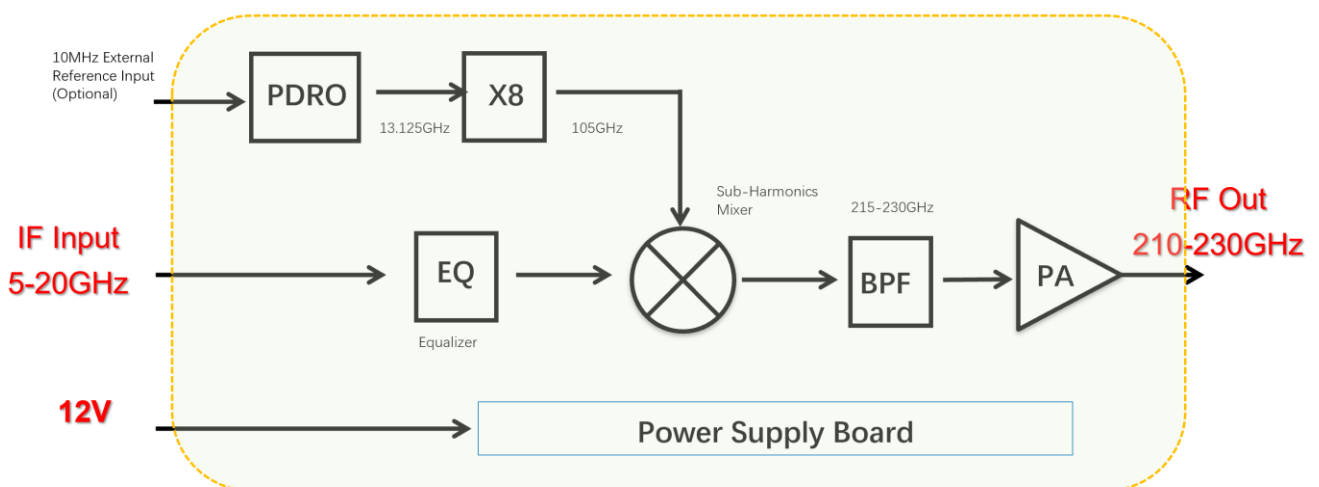
Advantages

- ✓ Frequency: 215-230GHz
- ✓ Pout: +0dBm typical
- ✓ IF Range: 5-20GHz
- ✓ Bench-Top Labs Test

Application

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

Block Diagram:





AT-TX-215230-LG

Bench-Top H Band Up-converter

Key Features

Parameter	Min	Typical	Max
RF Frequency Range		215-230GHz	
Conversion Gain		0dB	
LO (PDRO inside)		13.125GHz	
PDRO Phase Noise		-108dBc/Hz @1kHz -118dBc/Hz @10kHz	
IF input Range		5-20GHz	
IF Linear Input Range		-5dBm	
IF Input Power Damage			+10dBm
RF Output Psat		+0dBm	
Input Return Loss		-10dB	
Power Supply		+12V/0.8A	
Temp Spec		25C	

Key Points:

1. PDRO inside, 13.125GHz, which can be changed according to request.
2. IF Range: 5-20GHz
 $RF = 12 \times PDRO + IF = 210GHz + IF \text{ Frequency}$
3. 215-230GHz Band Pass Filter inside after mixer. BPF is used to reject LO suppression and low band side frequency. BPF frequency can be changed according to request, 210-230GHz, 215-225GHz or other frequency.





AT-TX-215230-LG

Bench-Top H Band Up-converter

Mechanical Information:

Parameter	Value
IF Input Port	SMA Female
External Reference Input	SMA Female
RF Output Port	WR-04 Waveguide with UG-387/U-M Flange
DC Bias	AC to DC Power Converter included
DC Bias Switch	ON-OFF switch with light indicator
Weight	1.6KG
Dimension	See outline

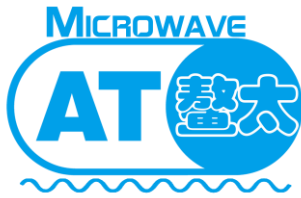
Absolute Maximum Ratings Table

Parameter	Value
Power Supply	+90 to 260V
IF Input Power	+10dBm
Operating Temperature	0 to +50C
Storage Temperature	-45 to +85C

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.

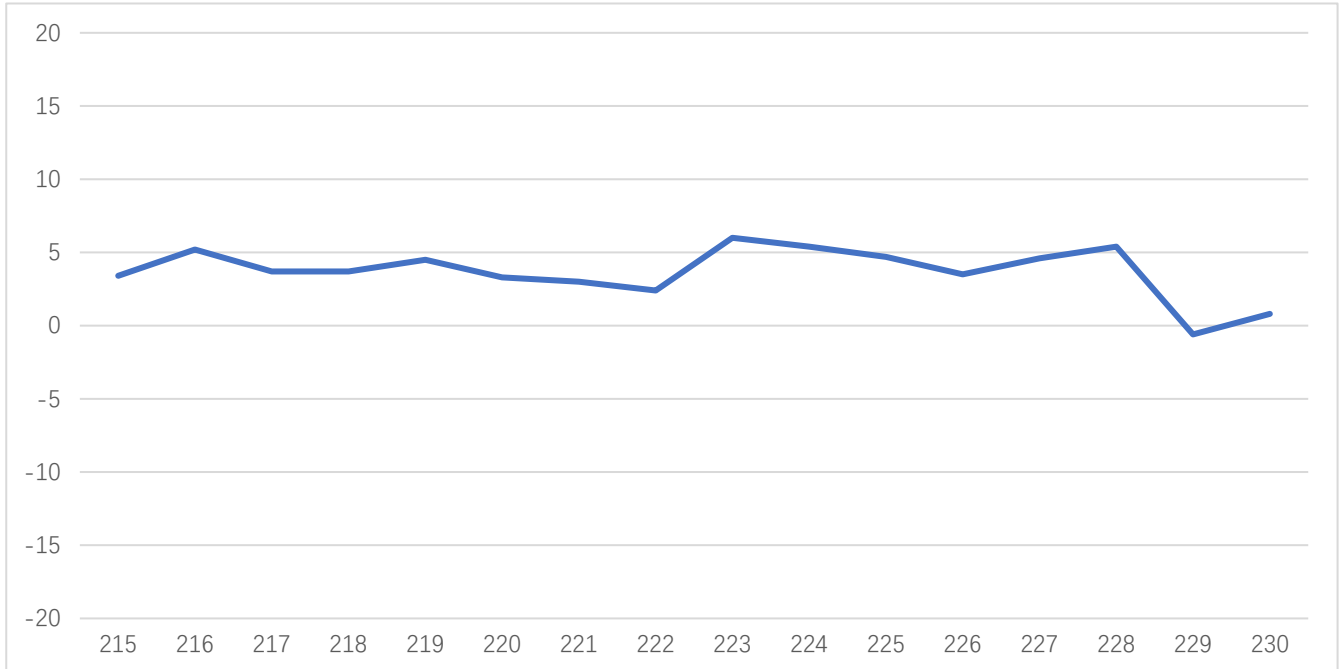




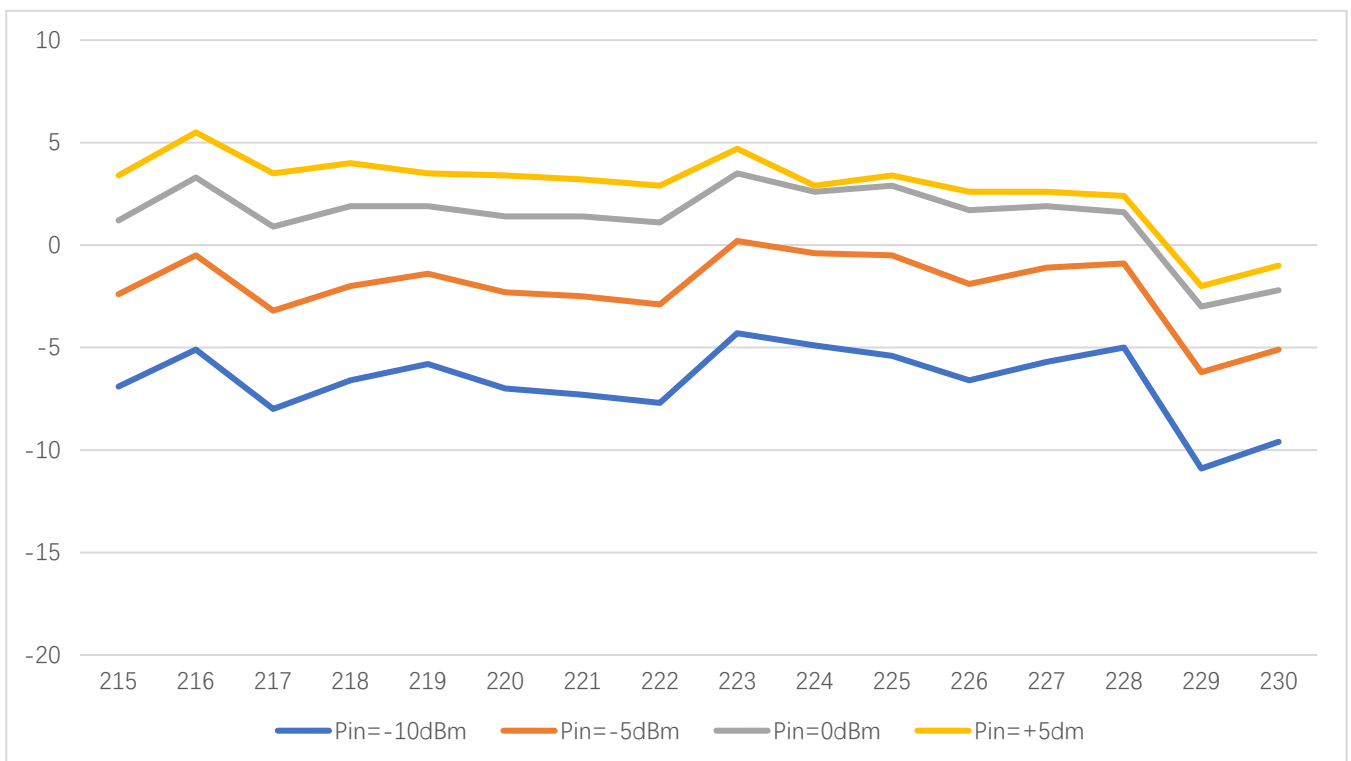
AT-TX-215230-LG

Bench-Top H Band Up-converter

Test Data(25C)

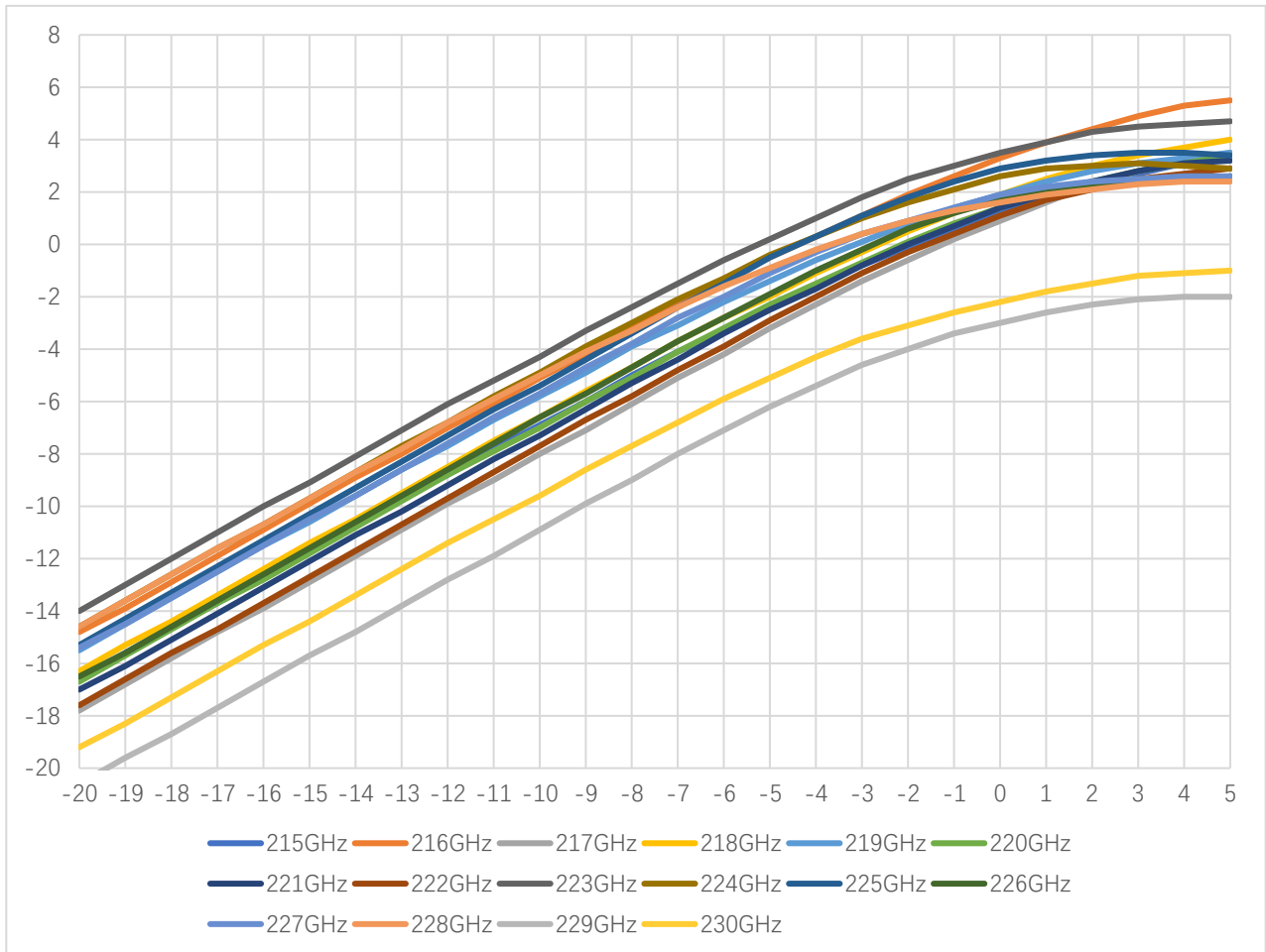


Conversion Gain vs RF Frequency



Pout vs Frequency





Pout vs Pin



Dimension: (mm)

