F Band(90-140GHz)
Highlight Products

Shanghai AT Microwave Ltd.
sales@atmicrowave.com
2023-11-1

Products Lines

1. Low Noise Amplifier
2. Power Amplifier
3. Frequency Multiplier
4. Compact Receiver
5. Detector
6. Band Pass Filter
7. Waveguide Section
8. Test Equipment

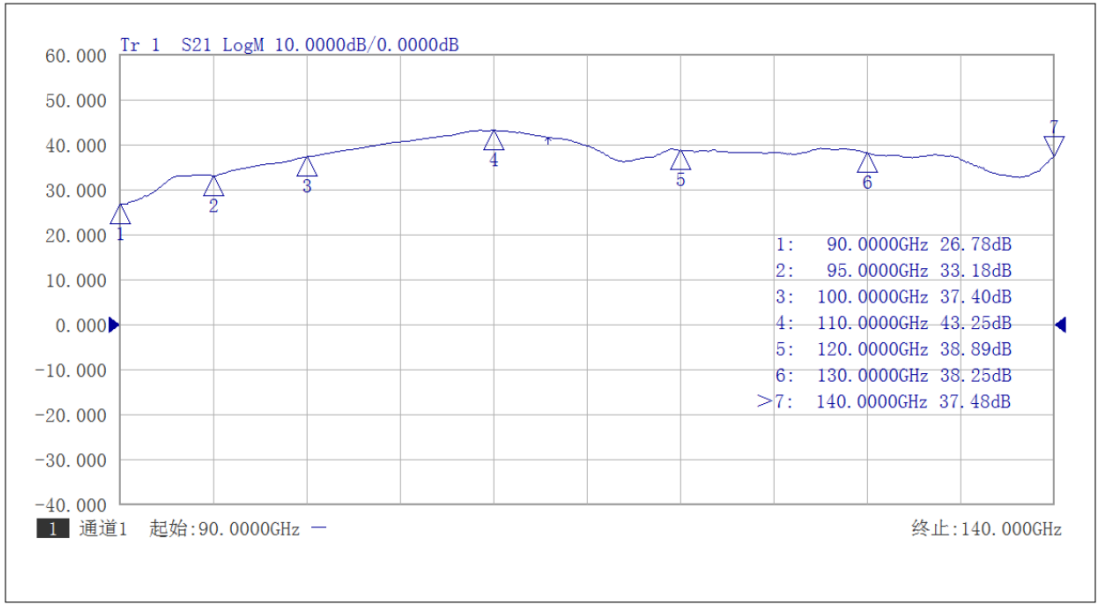
1. Low Noise Amplifier

PN: AT-LNA-95140-1606

AT-LNA-95140-3206

Advantages

- Frequency: 95-140GHz
- Gain: 16/32dB
- NF: 6dB
- WR-08



Gain vs Frequency

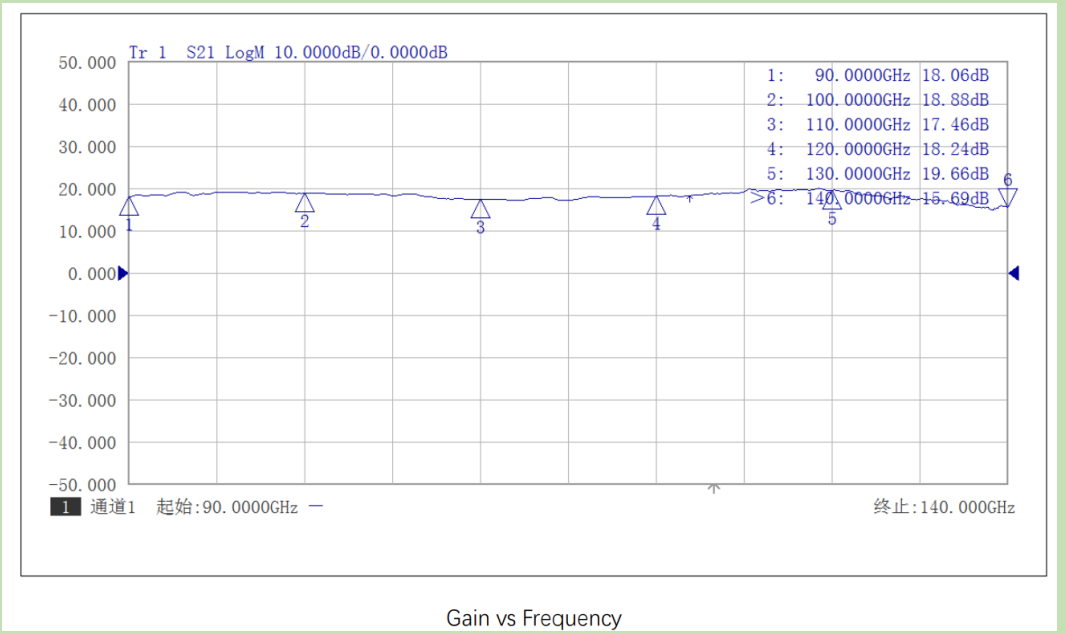
1. Low Noise Amplifier

PN: AT-LNA-90140-1605

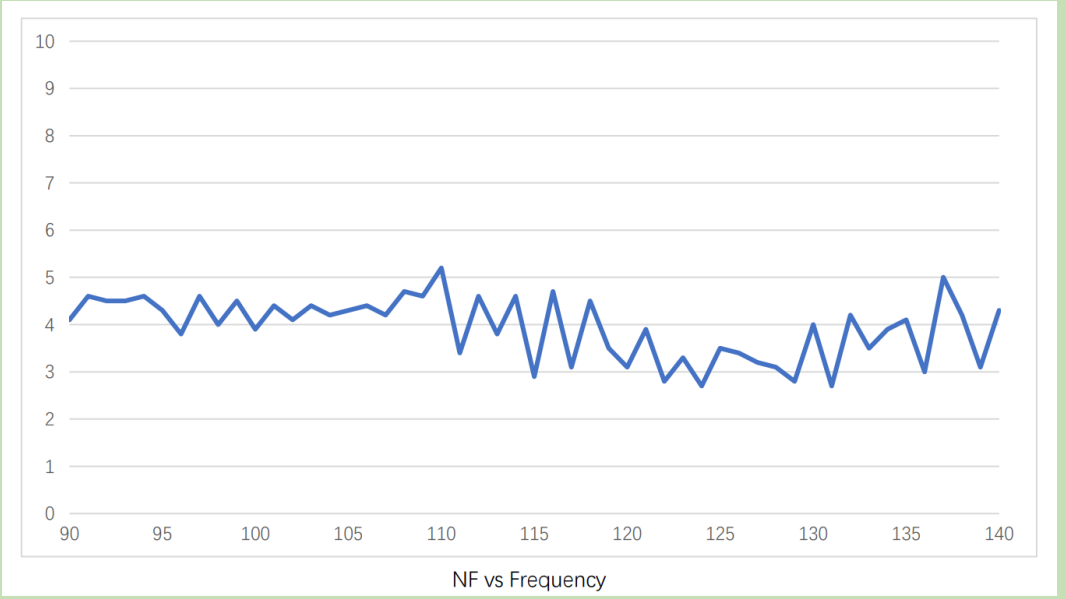
AT-LNA-90140-3305

Advantages

- Frequency: 90-140GHz
- Gain: 16/33dB
- NF: 5dB
- WR-08



Gain vs Frequency



NF vs Frequency

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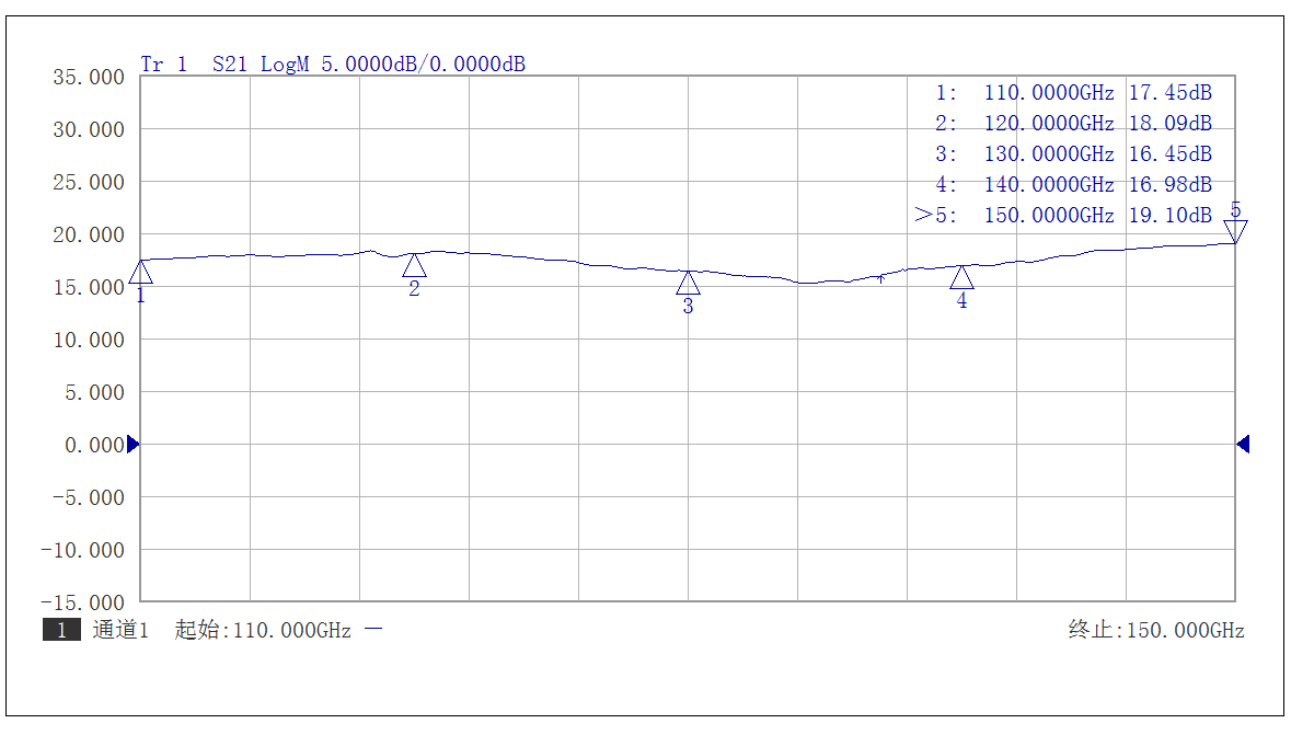
2. Power Amplifier

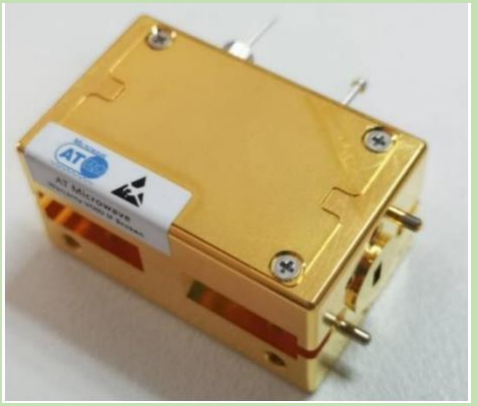
PN: AT-PA-110140-1613, WR-08

Advantages

- Frequency: 110-140GHz
- Gain: 16dB
- Pout=+13dBm
- WR-08



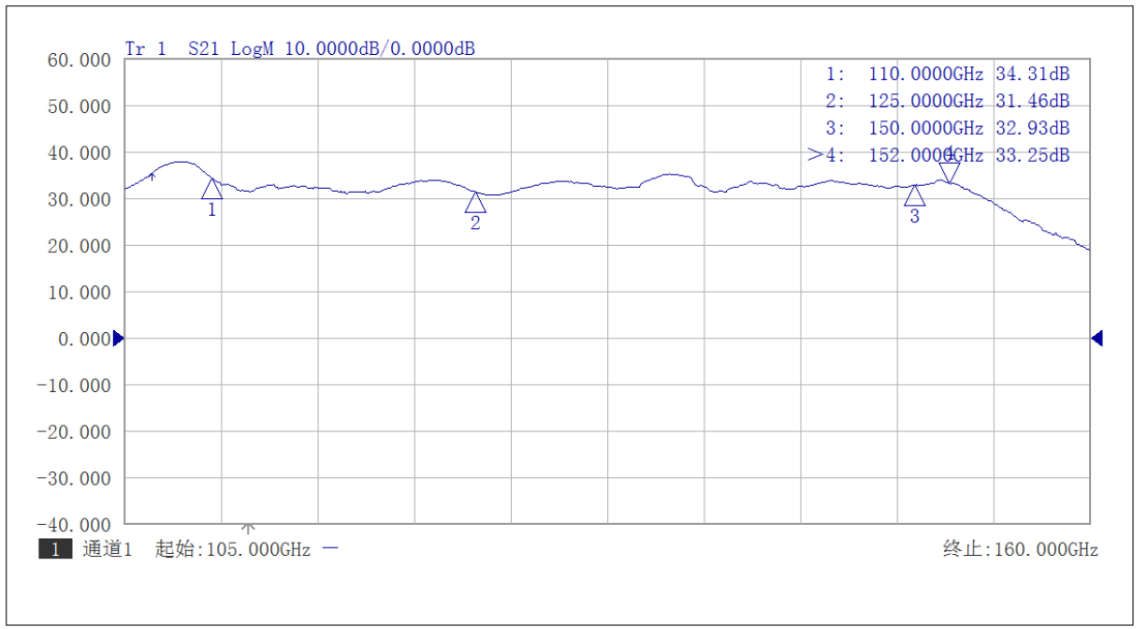
2. Power Amplifier



PN: AT-PA-110140-3013

Advantages

- Frequency: 110-140GHz
- Gain: 30dB
- Pout=+13dBm
- WR-08



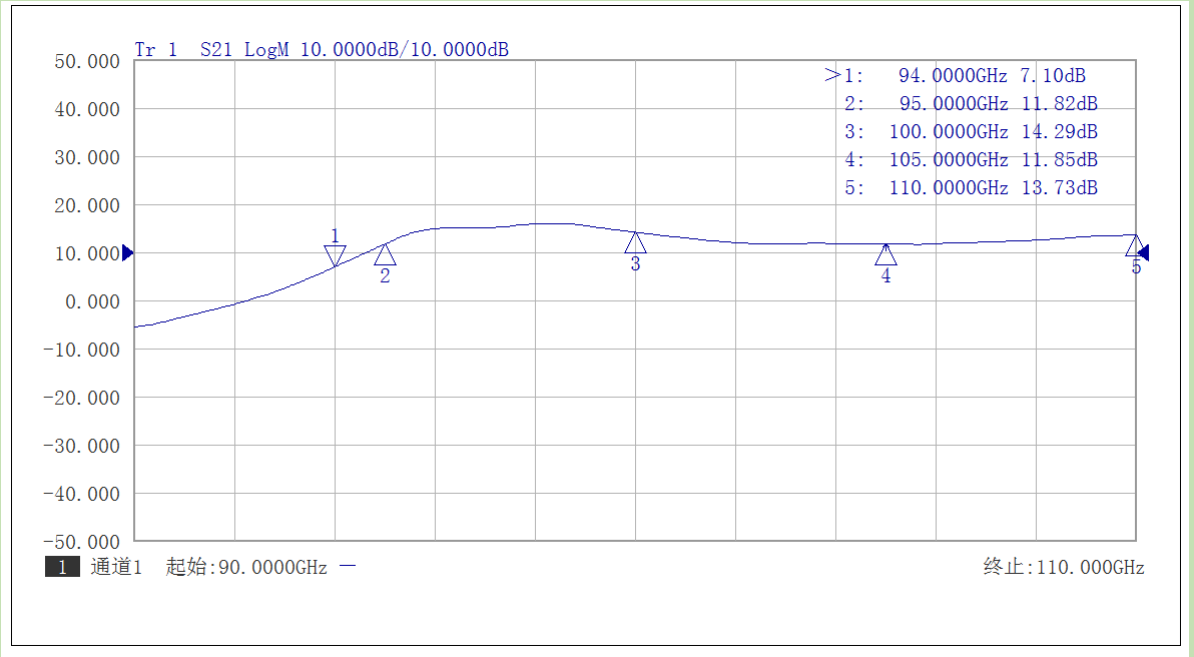
Gain vs Frequency

2. Power Amplifier

PN: AT-PA-95116-1318

Advantages

- Frequency: 95-116GHz
- Gain: 13dB
- Pout=+18dBm
- WR-08

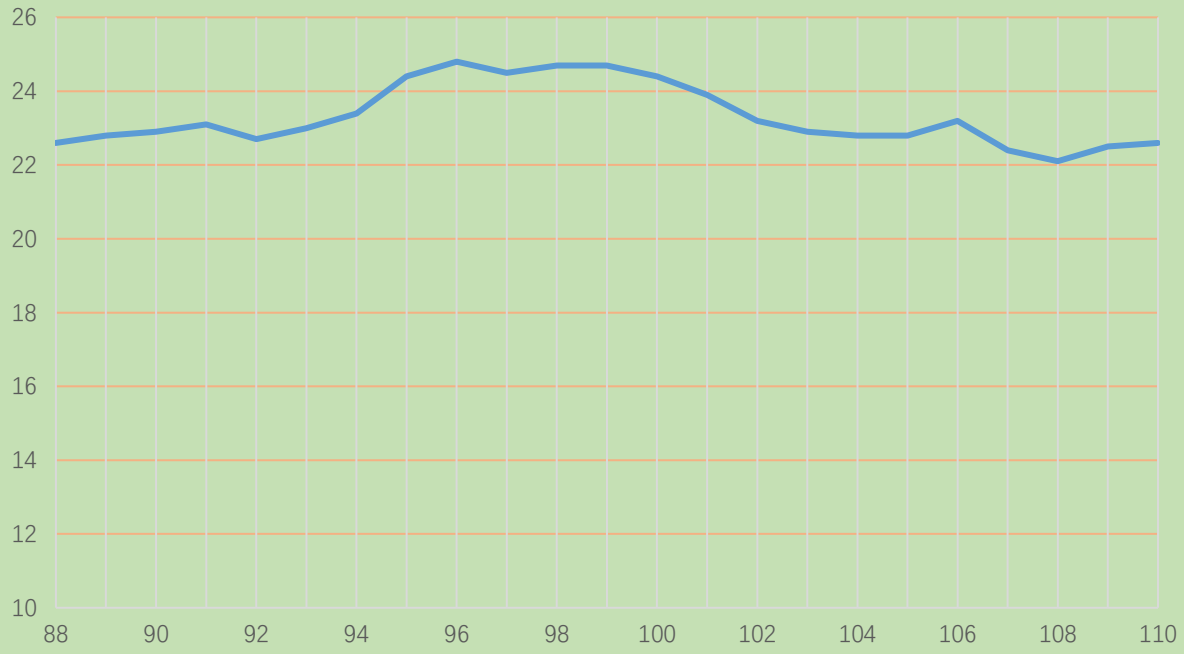


2. Power Amplifier

PN: AT-PA-85115-1523

Advantages

- Frequency: 85-115GHz
- Gain: 15dB
- Pout=+23dBm
- WR-08

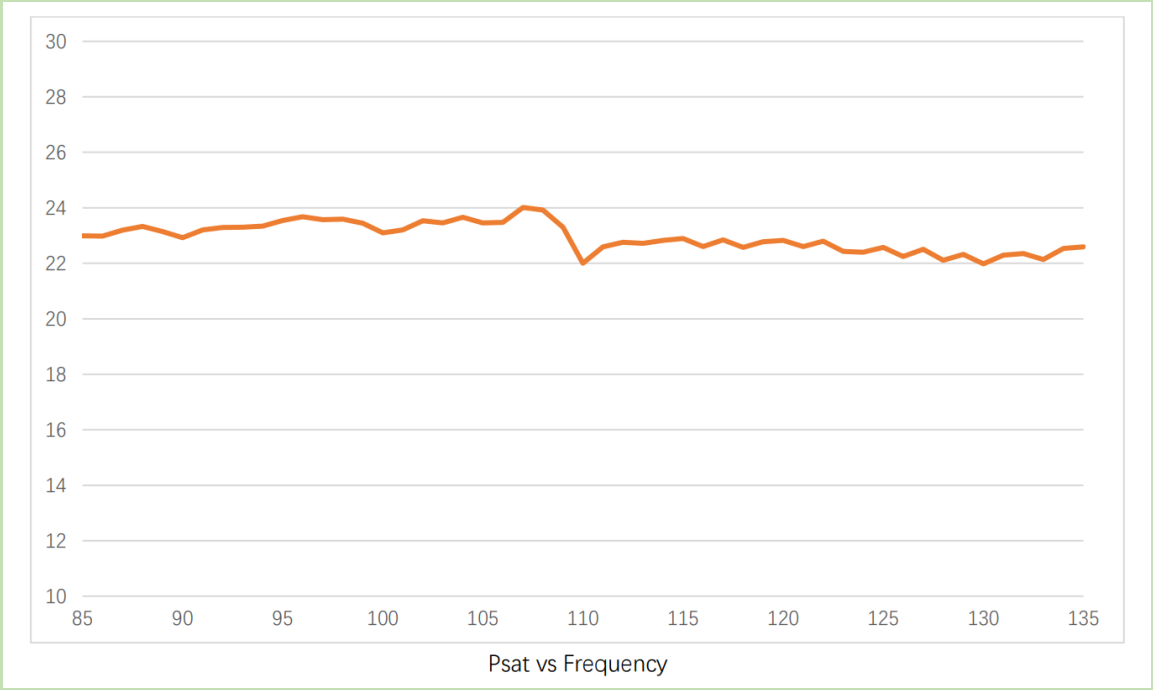


2. Power Amplifier

PN: AT-PA-85135-1823

Advantages

- Frequency: 85-135GHz
- Gain: 18dB
- Pout=+23dBm
- WR-08



Pout vs Frequency

3. Frequency Multiplier

PN: AT-PM2-90140

Advantages

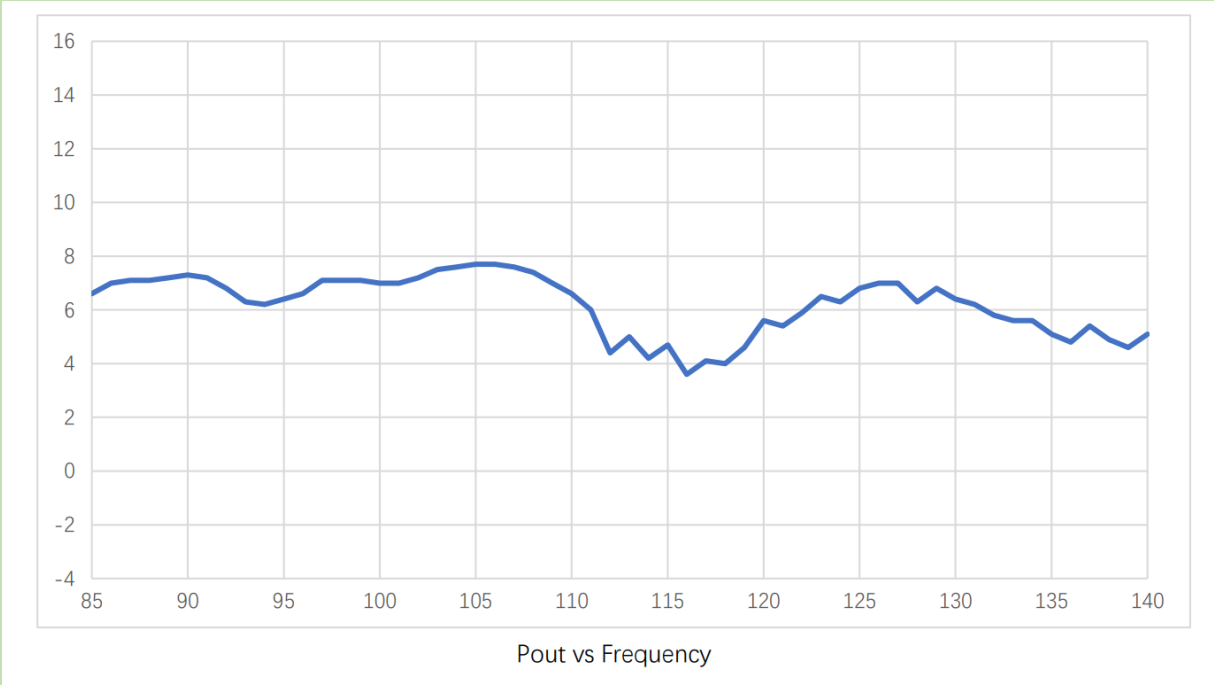
- Frequency: 90-140GHz
- Conversion Loss: -15dB
- Driver: +18dBm
- Input: WR-15, Output: WR-08

3. Frequency Multiplier

PN: AT-AM8-90140L

Advantages

- Frequency: 90-140GHz
- Input: 11.25-17.5GHz, +3dBm
- Pout: +3dBm
- Output: WR-08

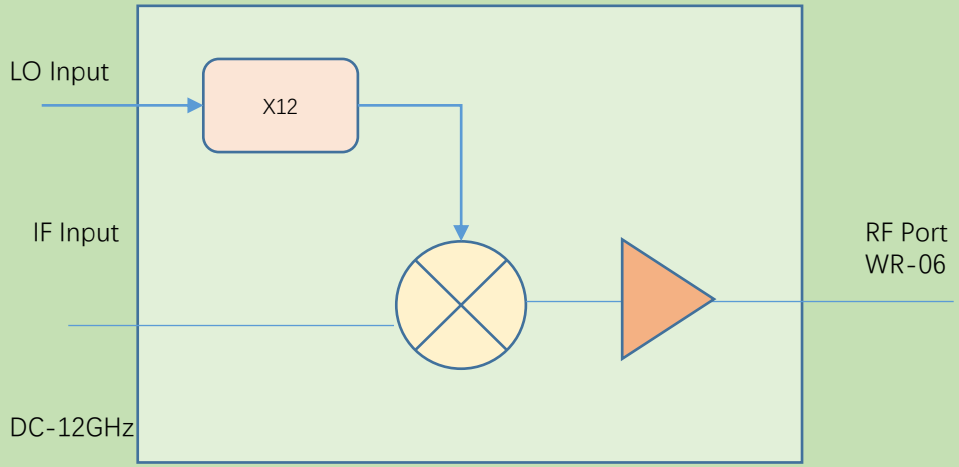


4. Compact Transmitter

PN: AT-DTX-125140SIF

Advantages

- RF Frequency: 125-140GHz, WR-06 Port
- Conversion Gain: 5dB
- Pout: 0dBm
- LO input: 10.41-11.33GHz, Pin=+5dBm
- IF Range: DC-12GHz

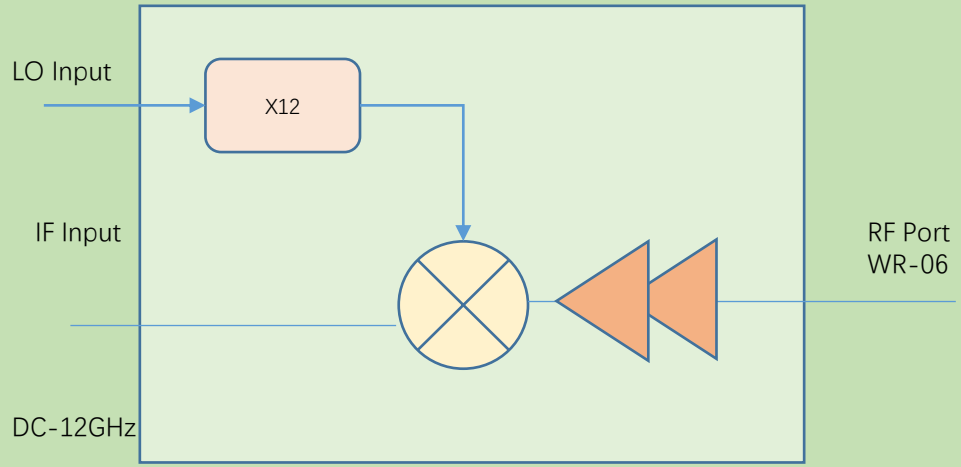


4. Compact Receiver

PN: AT-DRX-125140SIF

Advantages

- RF Frequency: 125-140GHz, WR-06 Port
- Conversion Gain: 15dB
- NF=6dB
- X12 LO inside
- LO input: 10.41-11.33GHz, Pin=+5dBm
- IF Range: DC-12GHz



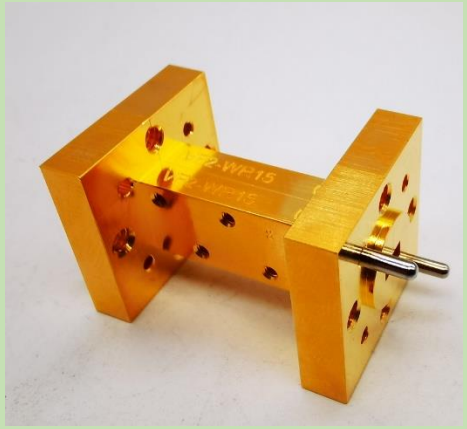
5. Detector

PN: AT-PD-90140N1

Advantages

- RF Frequency: 90-140GHz,
- RF Port: WR-08,
- Sensitivity: 1000V/W

6. Waveguide Band-Pass-Filter

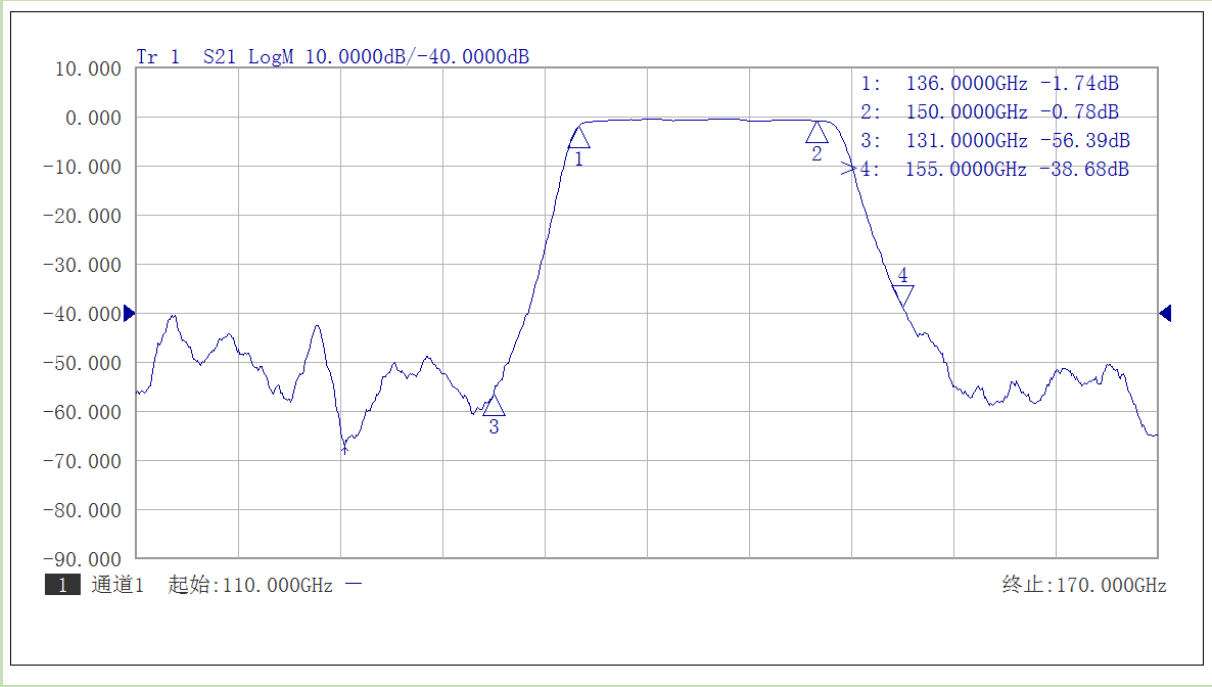


PN: AT-BPF-136150-06A

AT-BPF-141148-06A

Band Pass Filter

- ✓136-150GHz
- ✓141-148.5GHz
- ✓WR-06



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6. Waveguide Filter

PN	Data Sheet	Type	Lead time	Center Freqency/GHz	Low Freq /GHz	High Freq /GHz	IL /DB	RL/DB	Connector
AT-BPF-90102-08A		F Band	6-8 Weeks	96	90	102	-1	15	WR-08
AT-BPF-100112-08A		F Band	6-8 Weeks	106	100	112	-1	15	WR-08
AT-BPF-100115-08A		F Band	Stock	106	100	115	-1	15	WR-08
AT-BPF-110123-08A		F Band	6-8 Weeks	117	110	123	-1	15	WR-08

7. Waveguide Section

RSW Series:

Rugged Straight Waveguide

AT-RSW-2.0-WR08,

Full F band, 2.0inch

RWT Series:

Rugged Waveguide Transition

AT-RWT-0806-1.0: WR-08 to WR-06, 110-140GHz

8. Test Equipment

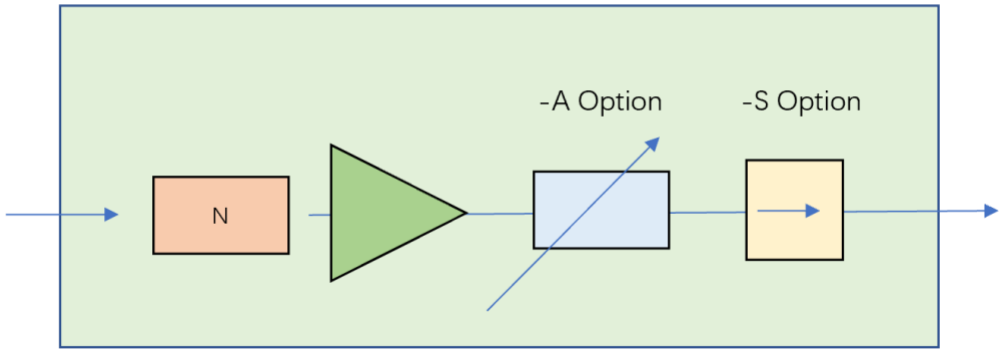
Signal Frequency Extender

AT-SFX8-08

AT-SFX8-08-HP

- Frequency: 90-140GHz
- Multiplier Time: X8
- Pout=+3dBm

Block Diagram



9. Test Equipment

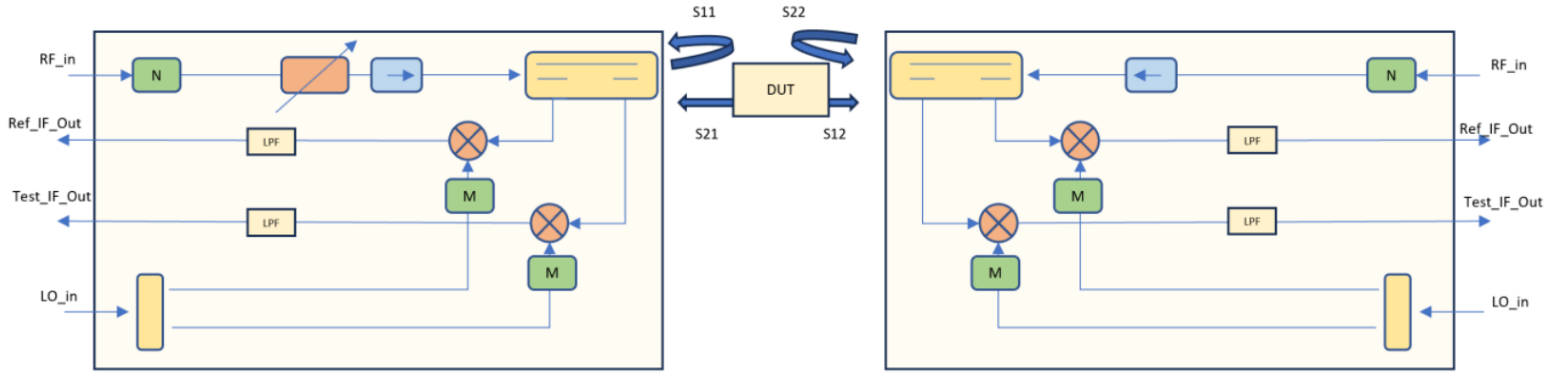
VNA Extender Module

AT-VEX-08

AT-VEX-08HP

- Frequency: 90-140GHz
- Multiplier Time: X8
- Pout=-3dBm

-FTFR Option Diagram Blcok:



9. Test Equipment

Bench-top Low Noise Amplifier

AT-BTLNA-90140-1505

AT-BTLNA-90140-3305

- Frequency: 90-140GHz
- Gain: 15/33dB
- NF: 5dB
- Connector: WR-08

9. Test Equipment

Bench-top Power Amplifier

AT-BTPA-85135-1823

AT-BTPA-110140-3013

- Frequency: 85-135GHz
- Gain: 18dB
- Pout: +23dBm
- Connector: WR-08