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AC- POWER AMPLIFIER

MPC0408.35
0.4GHz-8.5GHz

Features

- ✓ *Broad band operation from 0.4 to 8.5 GHz*
- ✓ *Low VSWR, unconditional stable*
- ✓ *Convenient AC Power Input. (AC 110V/220V)*
- ✓ *SMA female connector I/O*
- ✓ *Gain: 35dB Typical*
- ✓ *Operating temperature -40~+85°C*
- ✓ *Storage temperature -55~+125°C*

Specifications

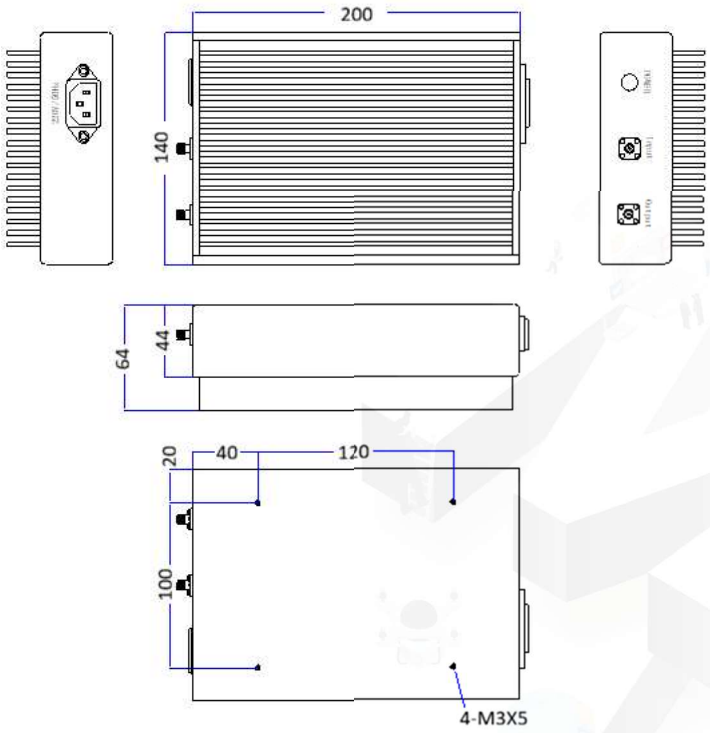
Parameters	Minimum	Typical	Maximum
Frequency Range	0.4GHz		8.5GHz
Gain		35 dB	
Gain Flatness		±2.5 dB	
Input VSWR		2.2:1	
Output VSWR		2.2:1	
Output 1 dB Compression Point (P1dB)		30 dBm	
Saturated Output Power (Psat)		31 dBm	
Noise Figure		5.0 dB	
Spurious		-60 dBc	
Input Max Power(no damage)			5 dBm
Operating Temperature	-25°C		+85°C
Storage Temperature	-55°C		+125°C
AC Voltage	110~220V/50Hz		
RF In/Out connectors	SMA female		
Material/Finishing	Aluminium/Module: Gold Plated; Housing: Black Anodized		

NOTES:
1. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME
2. CUSTOMER OUTLINE DRAWING FOR REFERENCE ONLY

RoHS

Tolerance: X= ±0.5

Outline Drawing (Unit: mm)



Absolute Maximum Ratings	
Supply Bias Voltage	+24V
RF Input Power(RFIN)	+5dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Environmental Specifications	
Operational Temperature	-25~+85°C
Storage Temperature	-55℃~+125℃
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35c, 95%RH at 40ºc
Shock	20G for 11msec half sine wave, 3 axis both directions

Biasing Up Procedure	
Step 1	Connect input and output with 50 Ohm source and load with in band return loss better than 10dB
Step 2	Connect AC Plug
Step 3	Press power button

Power OFF Procedure	
Step 1	Press power button
Step 2	Remove AC Plug
Step 3	Remove RF Connection

**Note: Maximum RF input power is set to assure safety of amplifier. Input power may be increased at own risk to achieve full power of amplifier. Please reference gain and power curves.

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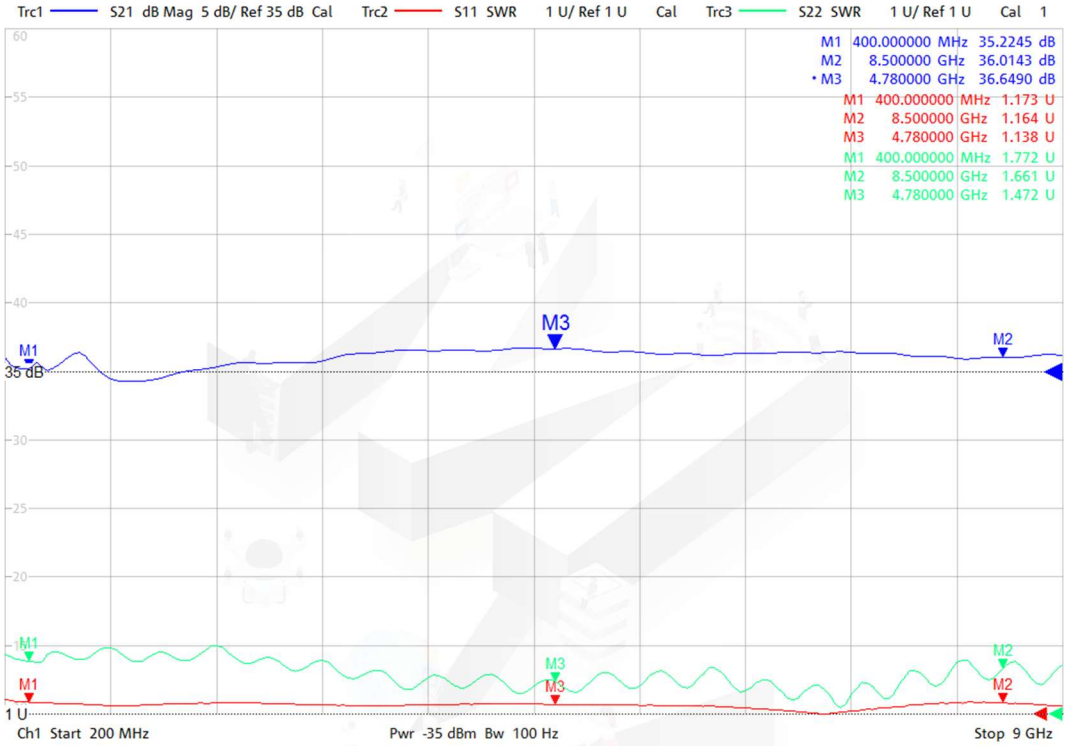
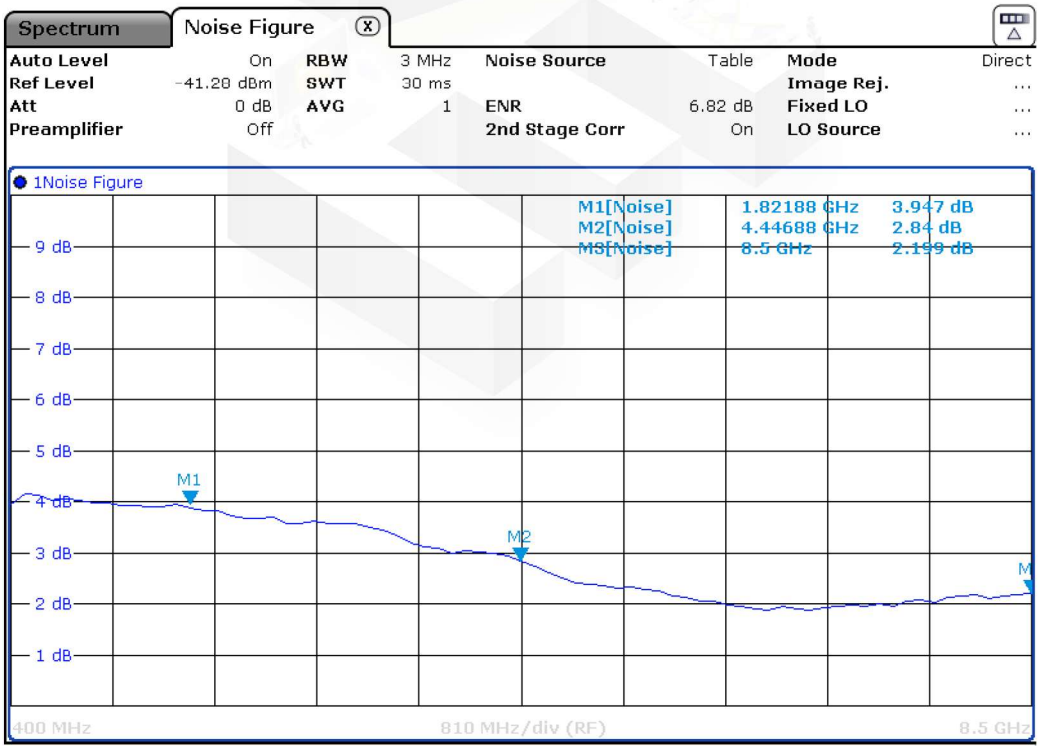
Typical Test Result

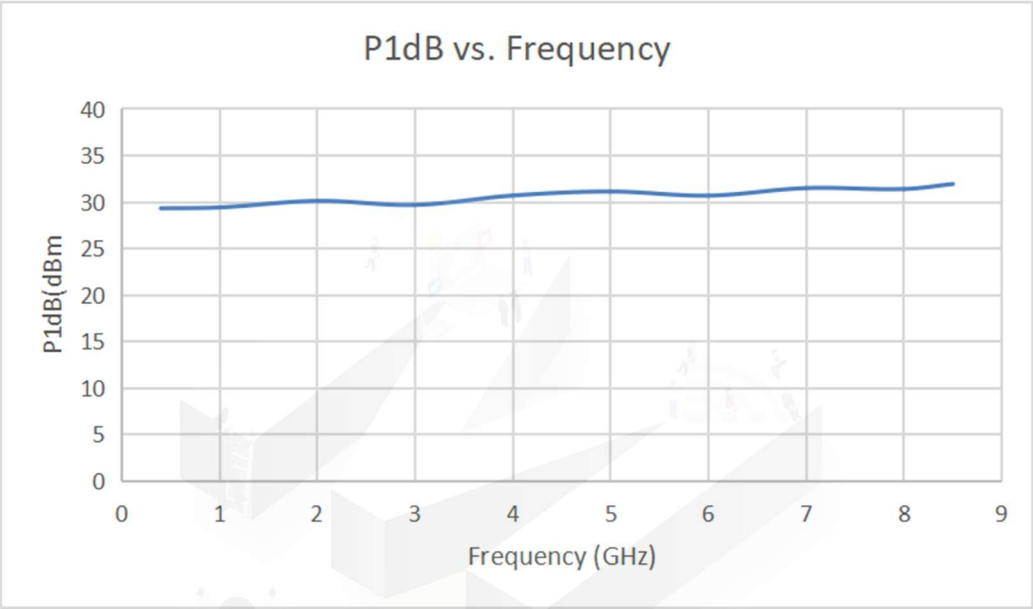
(Gain VSWR)



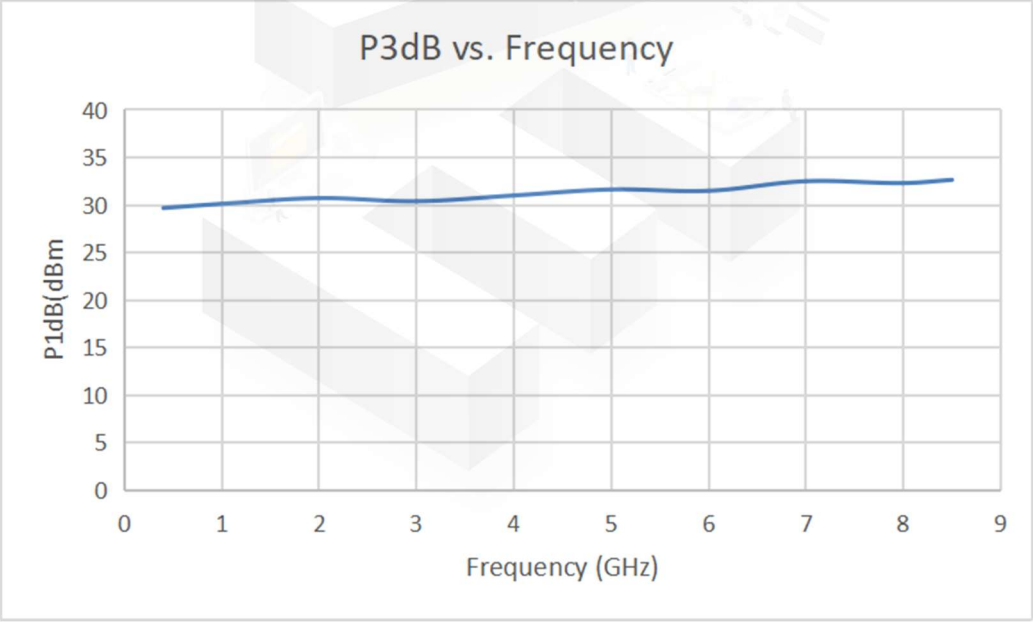
(Noise Figure)



(P1dB)


P1dB vs. Frequency
P1dB(dBm
40
35
30
25
20
15
10
5
0
0
1
2
3
4
5
6
7
8
9
Frequency (GHz)

(Past)


P3dB vs. Frequency
P1dB(dBm
40
35
30
25
20
15
10
5
0
0
1
2
3
4
5
6
7
8
9
Frequency (GHz)