

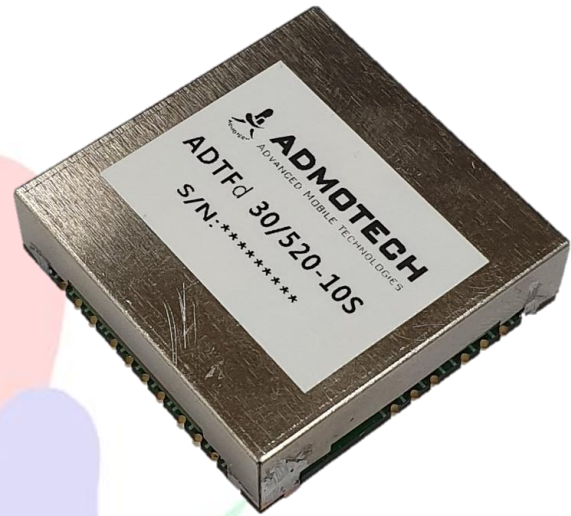


Applications

- Military Tactical Radios
- Military Radar
- Test and Measurement Equipment
- Industrial and Medical Equipment

Features

- Small Size (30mm X 30mm X 8.0mm)
- 2 Watt CW power handling
- 5.0 dB typ. IL
- Fast Tune Time(25 μ s, typ.)



Specification

1.1 Electrical Specifications

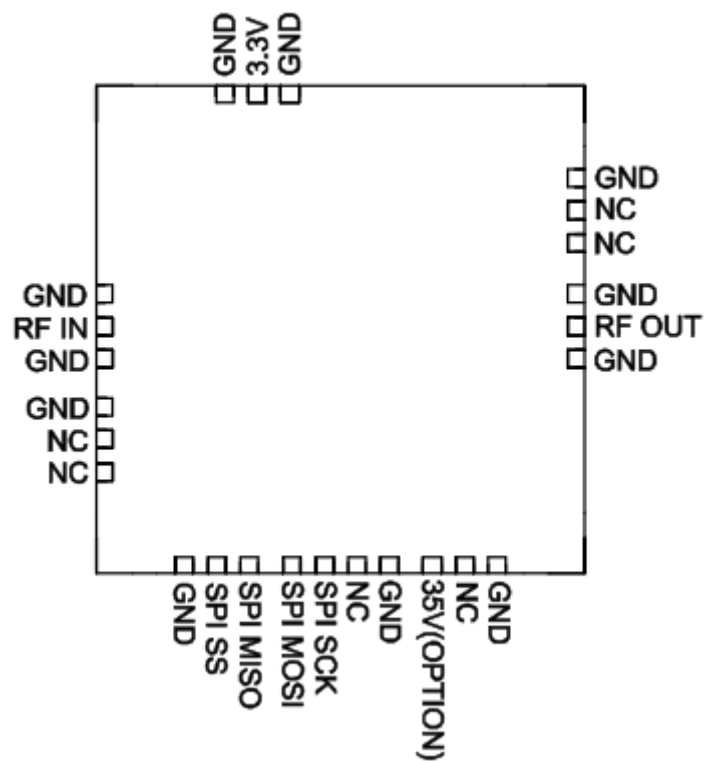
Frequency Coverage:	30 – 520MHz
Input/Output Impedance:	50 Ω
Inband Input/Output VSWR:	1.5:1 typ. 2.0:1 max
Insertion Loss:	5.0 dB typ. 5.5 dB max
Tuning Step Size	1.0 MHz from (30-88) MHz 2.0 MHz from (90-520) MHz
Rejection	Ftune \pm 10 % > 10 dB typ. Ftune \pm 15 % > 15 dB typ. Ftune \pm 20 % > 20 dB typ. 30MHz to 0.5*Ftune > 40 dB (2*Ftune to 750) MHz >35 dB (750-1000) MHz > 25dB
% BW(3dB BW/fo)	10.0 % typ.
Shape Factor (30dB/3dB):	7.0 typ.
Maximum RF input Power for linear operation	33 dBm
Operating Temperature Range:	-40 to +85 $^{\circ}$ C

1.2 Control & Interface

Tuning Control	Serial (SPI)
DC Power (Static)	+3.3 V _{bc} @ 30 mA max
Tuning Speed	40 μ s max. 25 μ s typ.
Tuning Algorithm	Channel Select (Binary or Decimal)

1. Pinout and Functional Information

1.1 Pin out

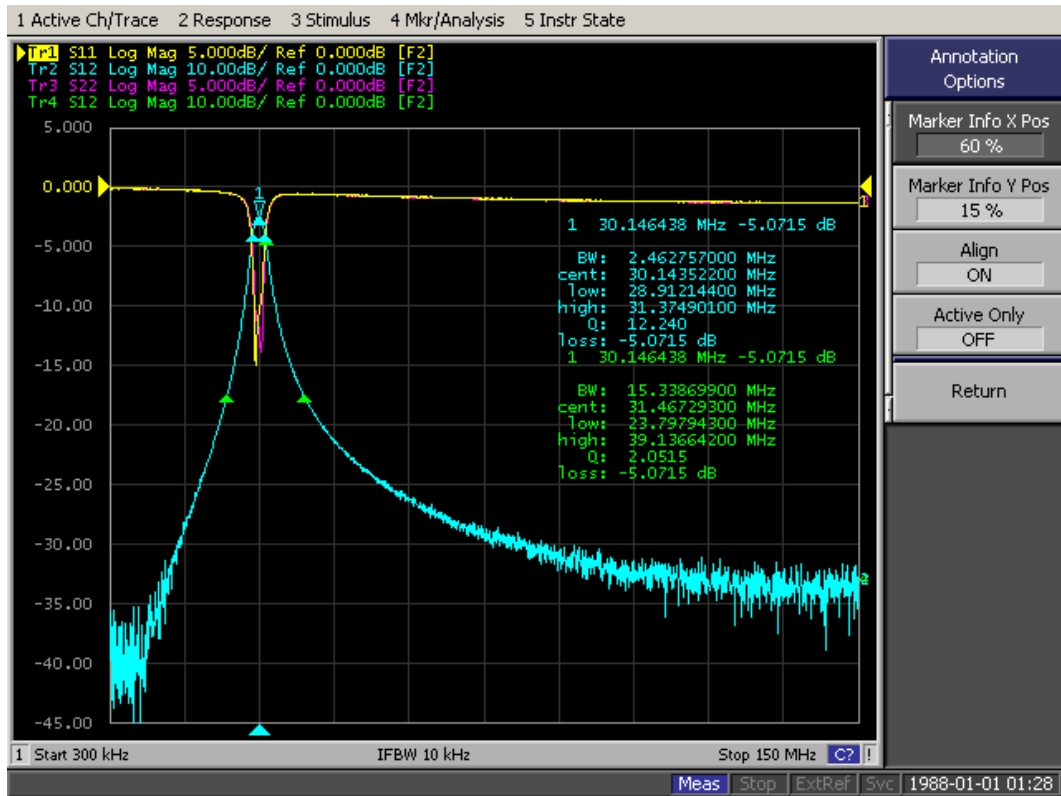


1.2 Pin Description

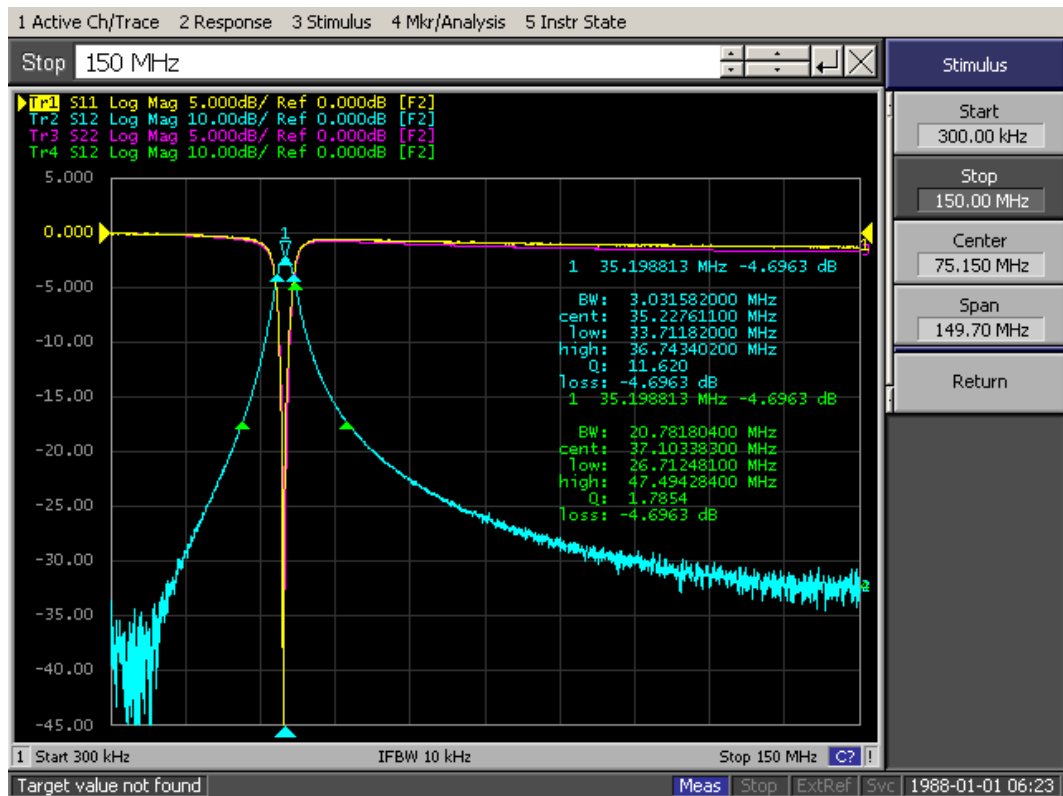
Pin Number	Label	Description
1	GND	Digital and Analog GND
2	RF IN	RF Signal Input
3	GND	Digital and Analog GND
4	GND	Digital and Analog GND
5	NC	Do not connect
6	NC	Do not connect
7	GND	Digital and Analog GND
8	SPI SS	SPI Chip Select.
9	SPI MISO	SPI Master Out Slave In.
10	SPI MOSI	SPI Master In Slave Out.
11	SPI SCK	SPI Clock. SCK is used to clock in the command data in SPI command mode.
12	NC	Do not connect
13	GND	Digital and Analog GND
14	35V(Optional)	Supply Voltage Input: +35 VDC for optimum performance. We have internal +35 V and do not connect.
15	NC	Do not connect
16	GND	Digital and Analog GND
17	GND	Digital and Analog GND
18	RFOUT	RF Signal Output
19	GND	Digital and Analog GND
20	NC	Do not connect
21	NC	Do not connect
22	GND	Digital and Analog GND
23	3.3V	Supply Voltage Input: +3.3 VDC for optimum performance
24	GND	Digital and Analog GND

2. Typical Characteristics

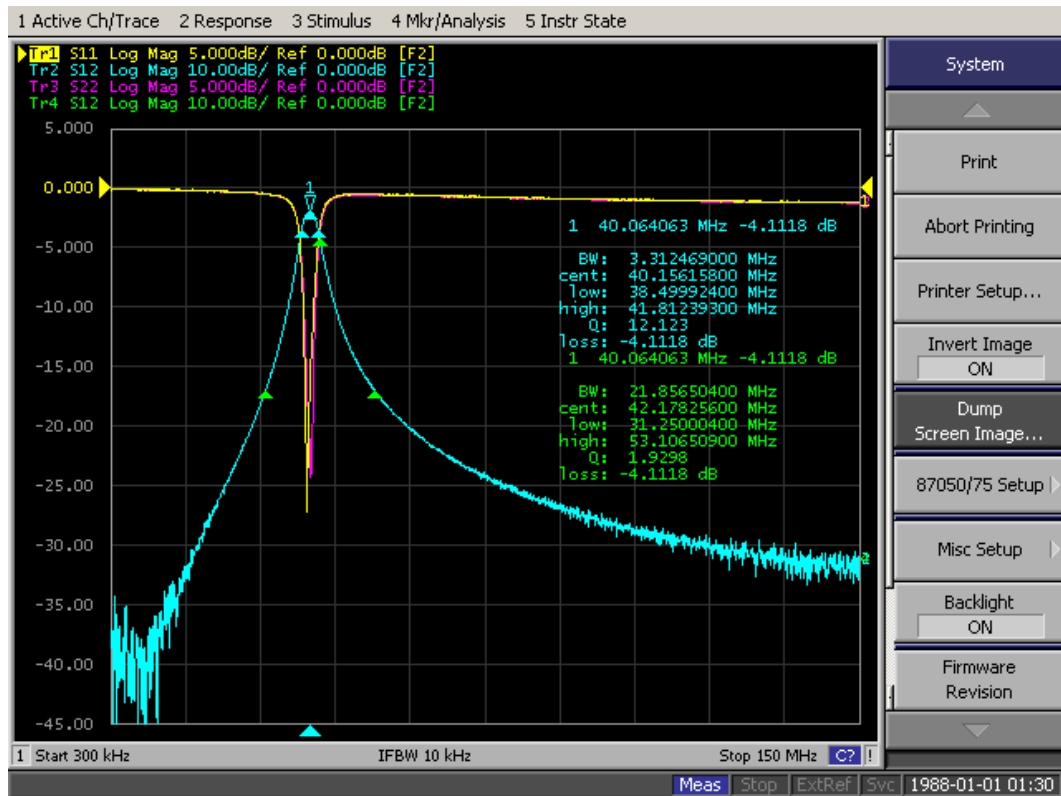
2.1. 30 MHz



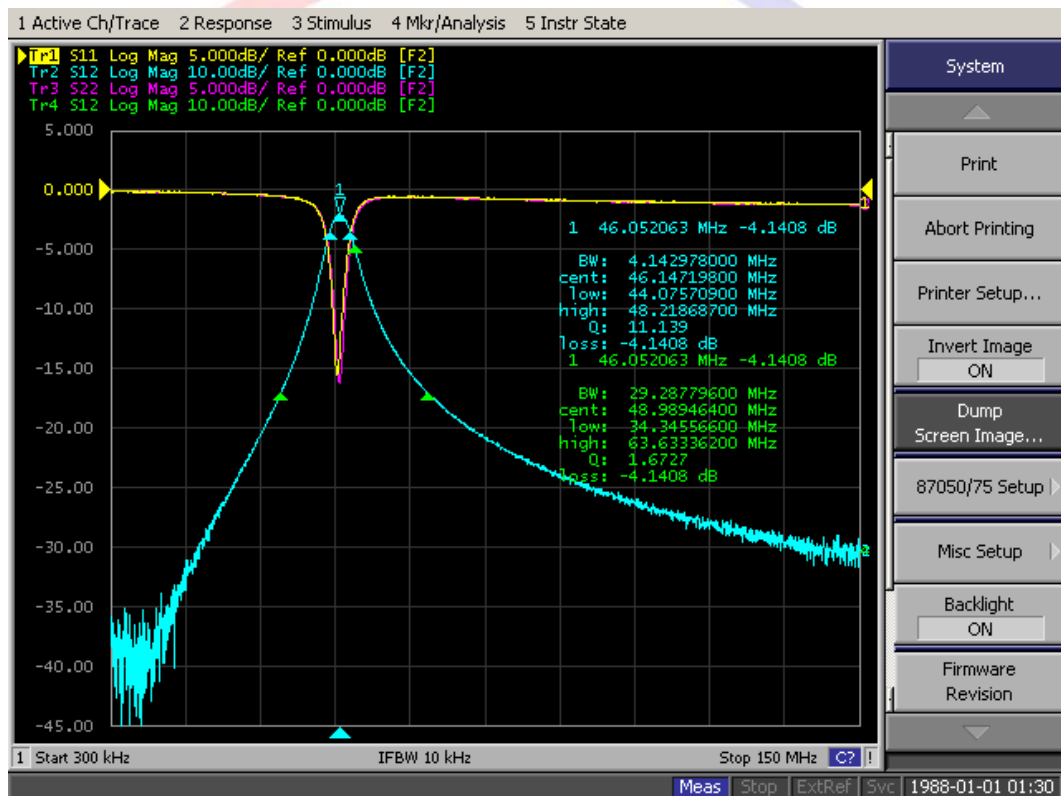
2.2. 35 MHz



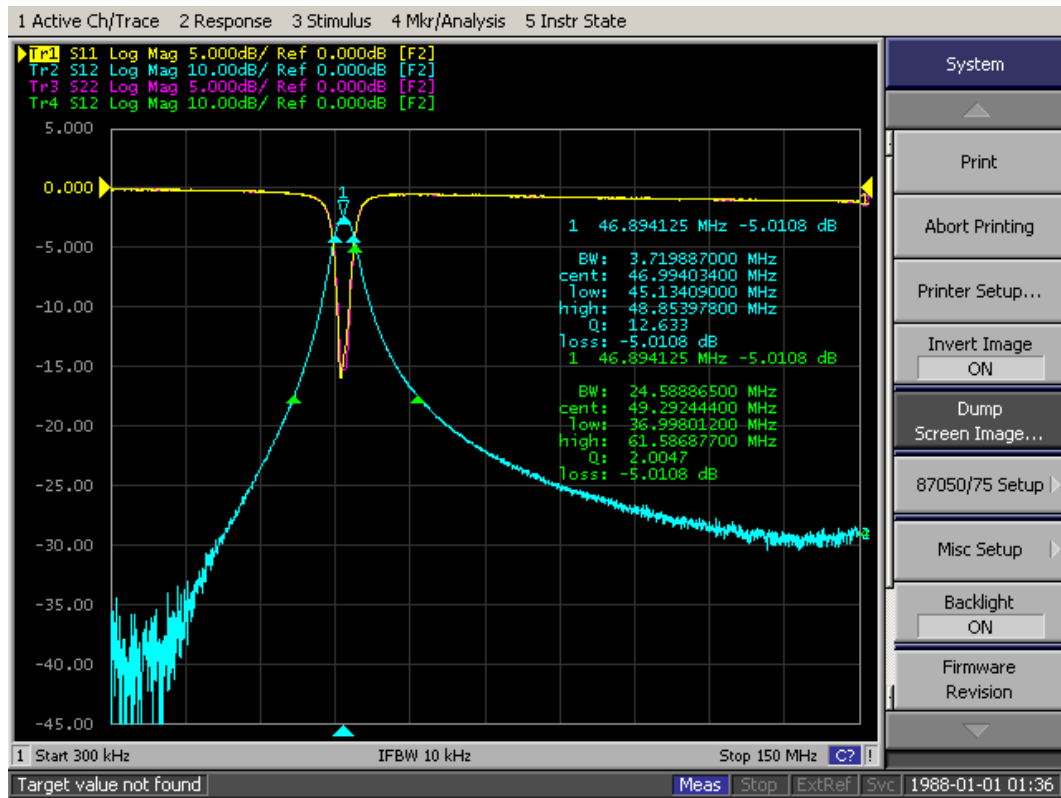
2.3. 40 MHz



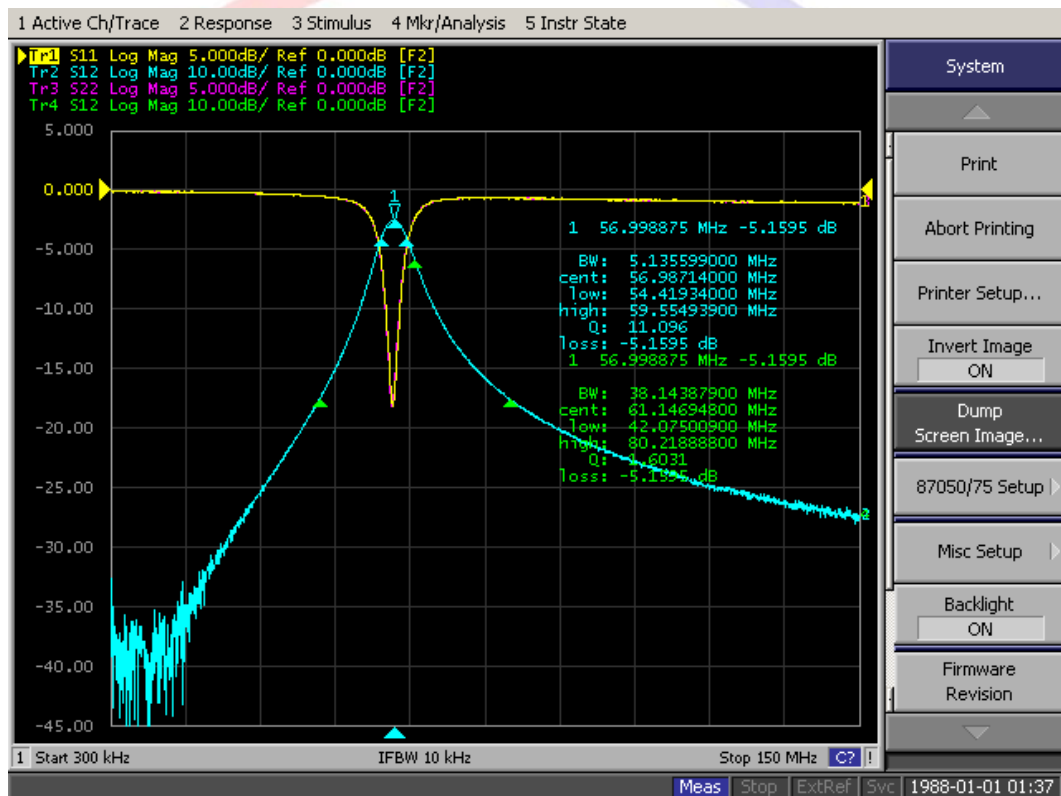
2.4. 46 MHz



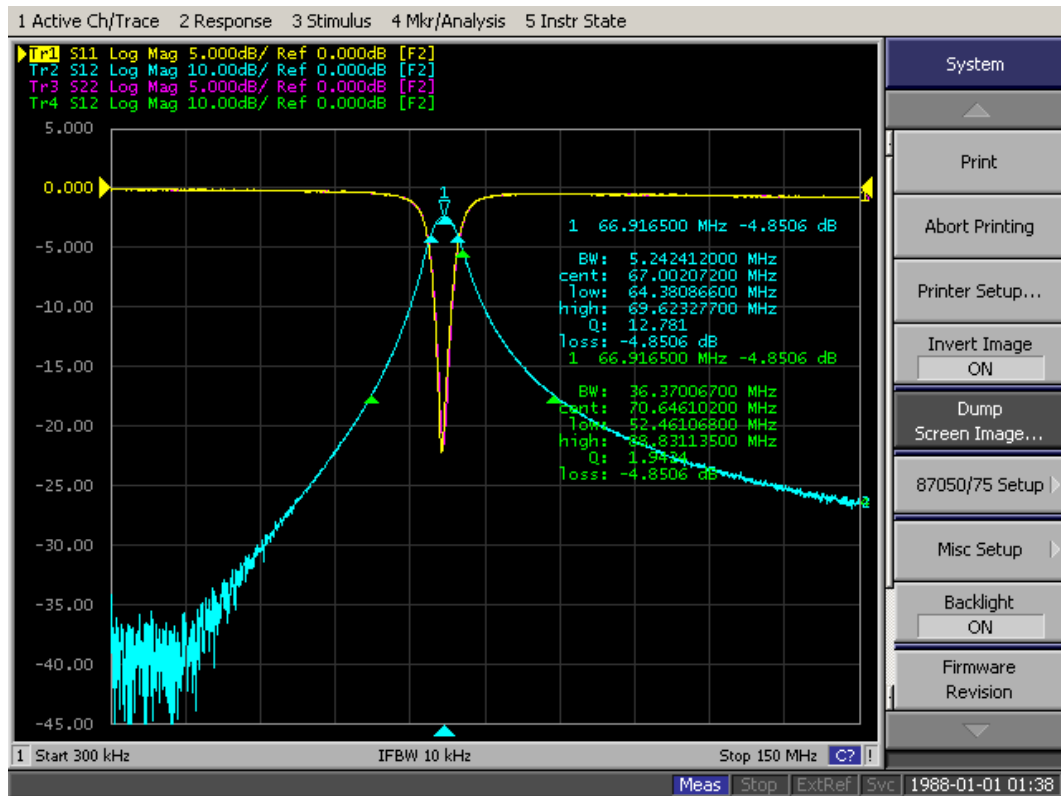
2.5. 47 MHz



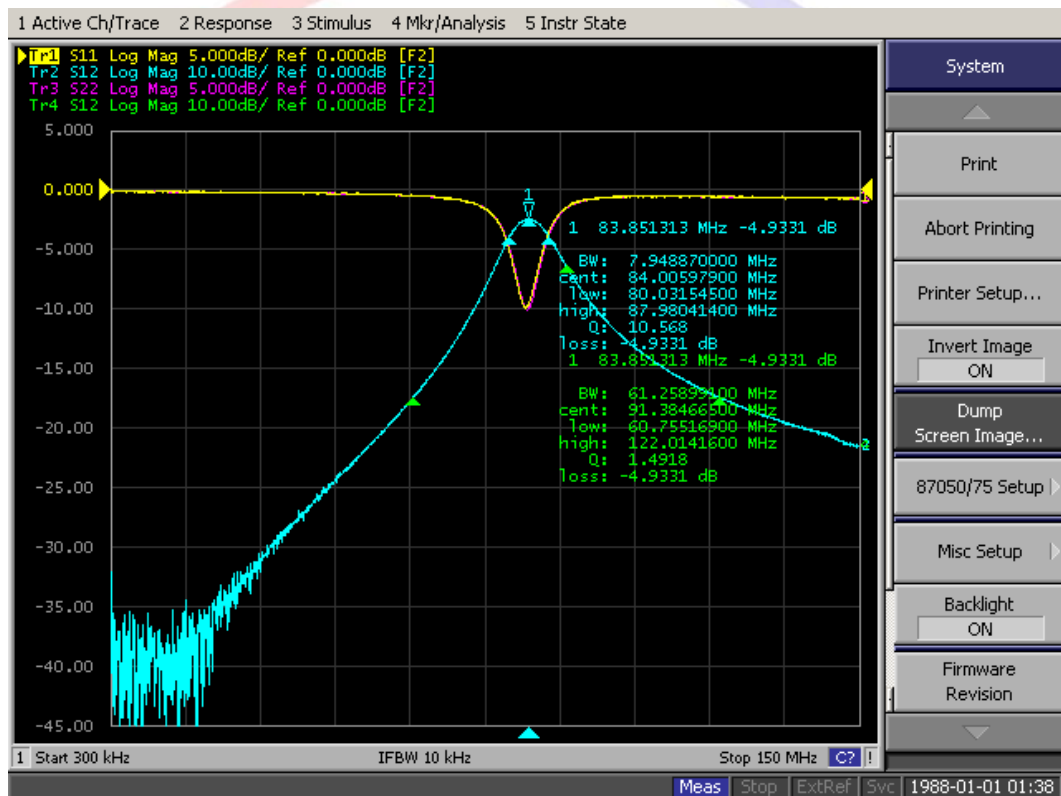
2.6. 57 MHz



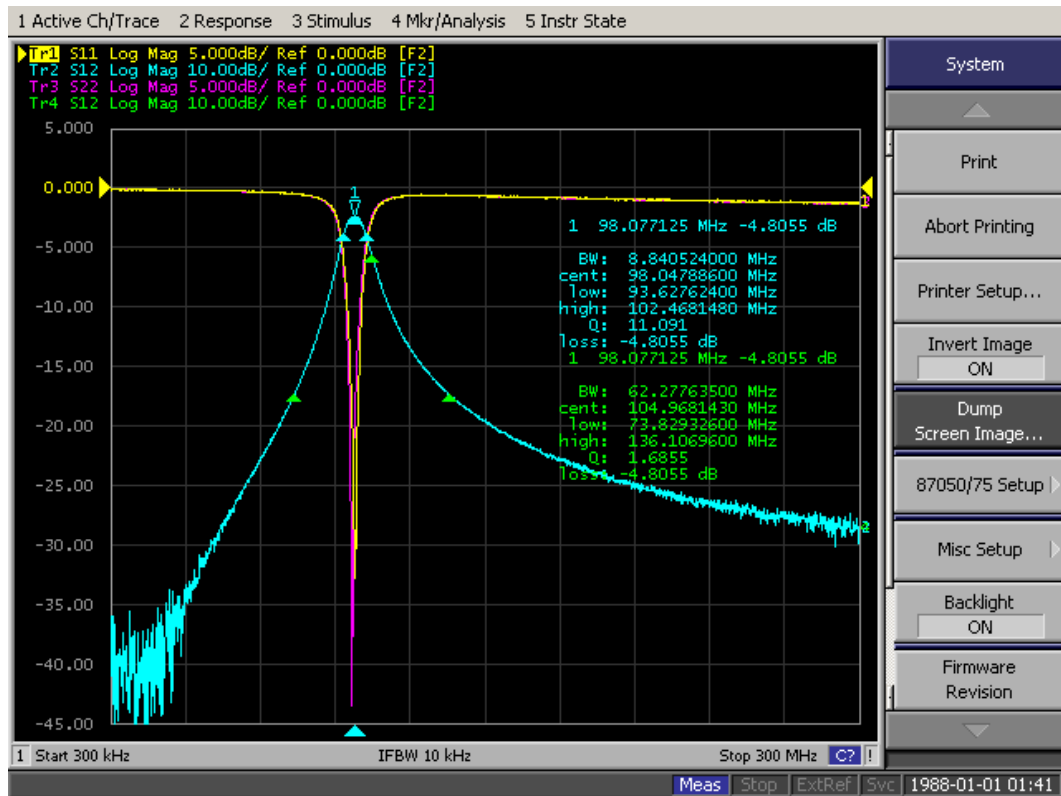
2.7. 67 MHz



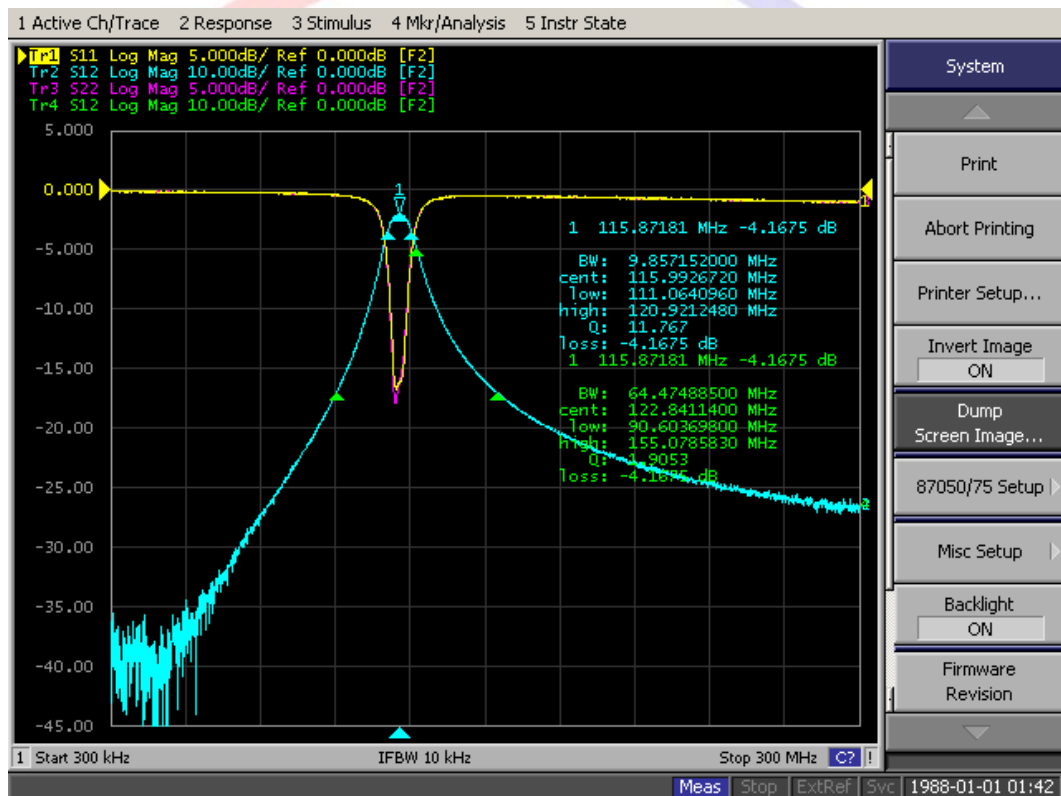
2.8. 87 MHz



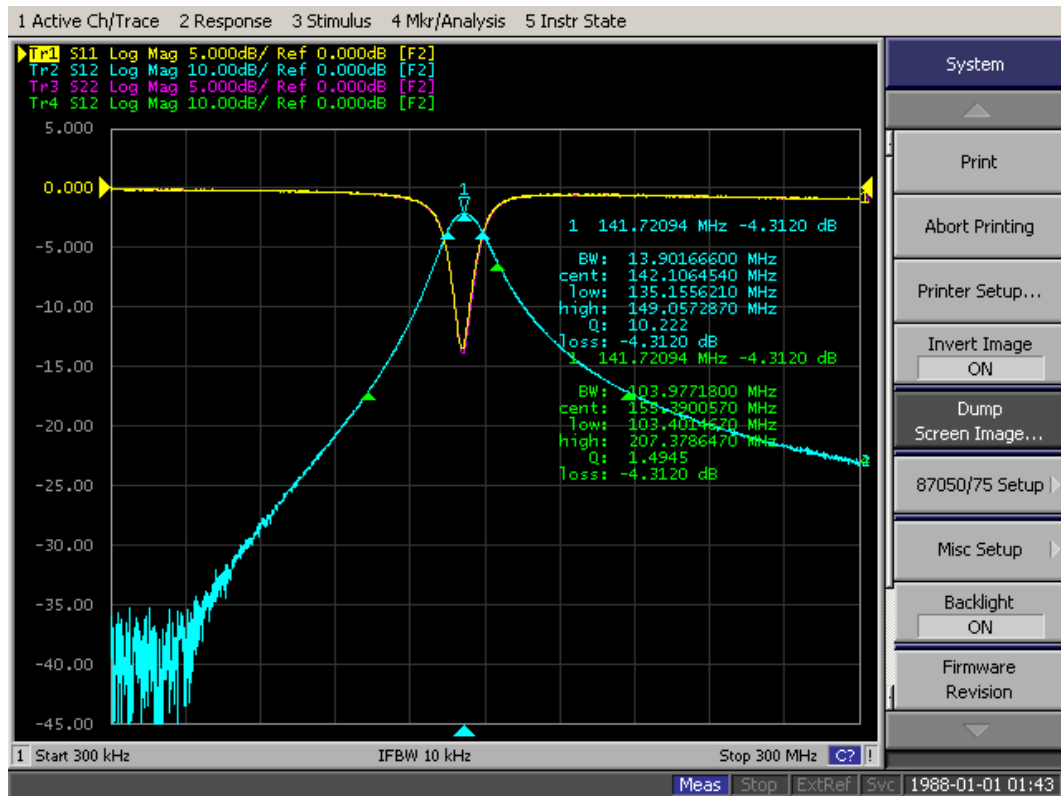
2.9. 98 MHz



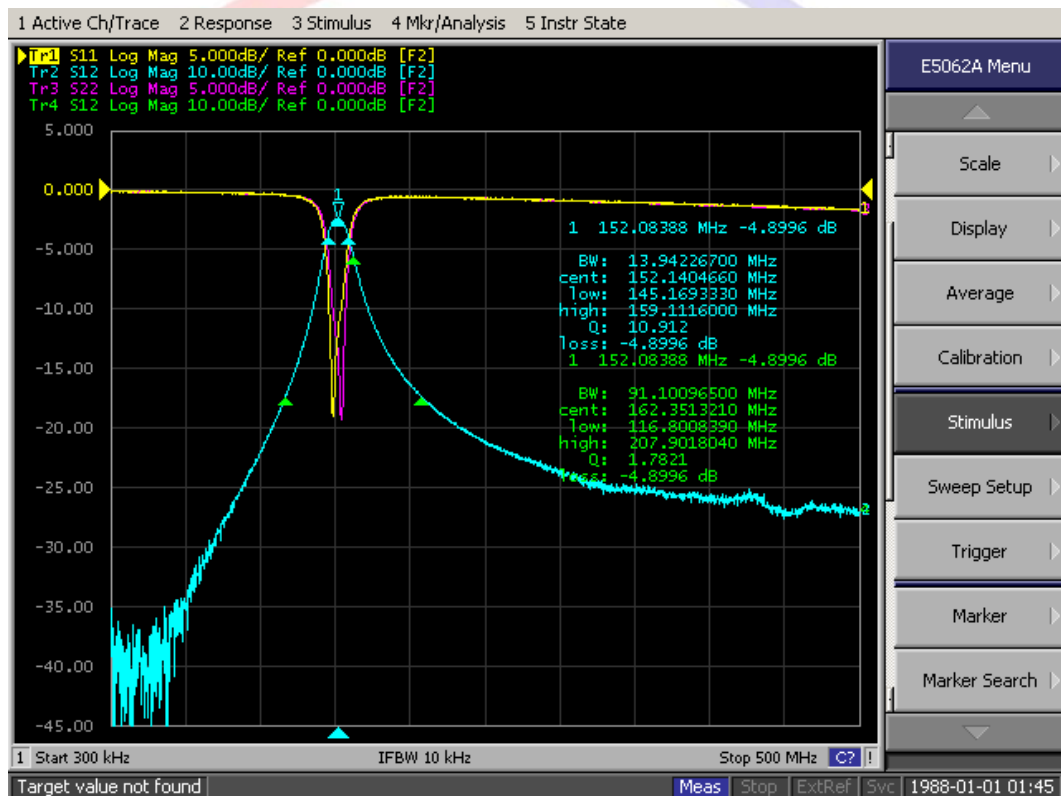
2.10. 116 MHz



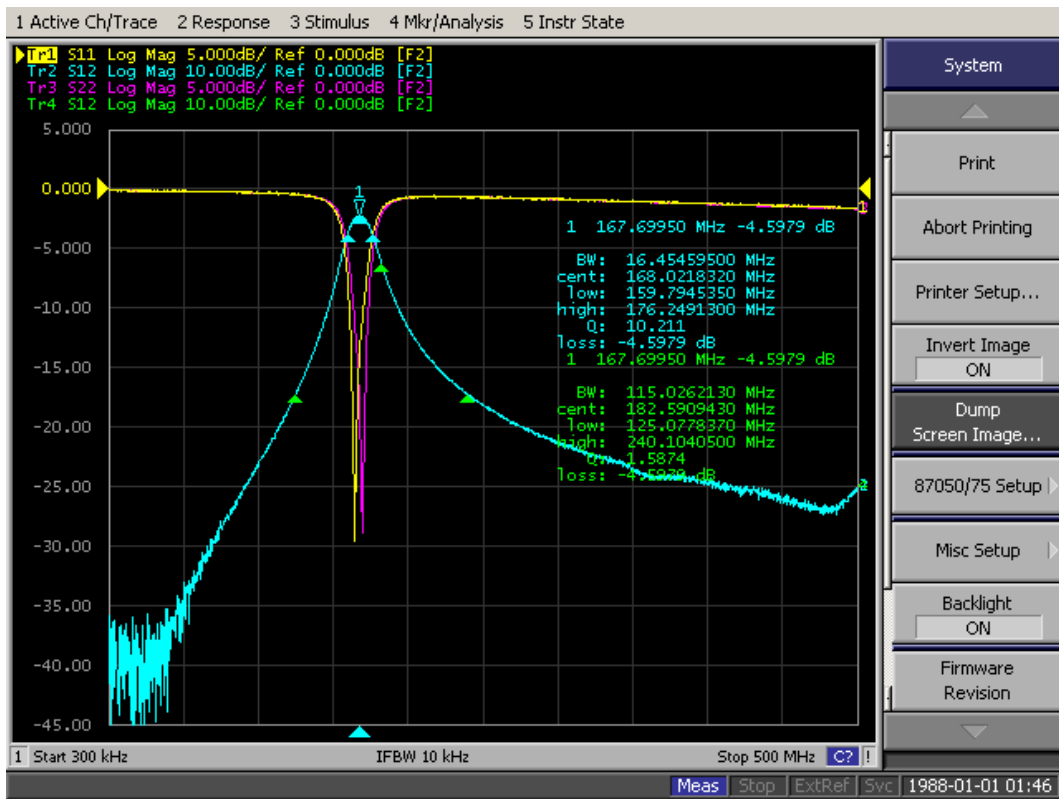
2.12. 142 MHz



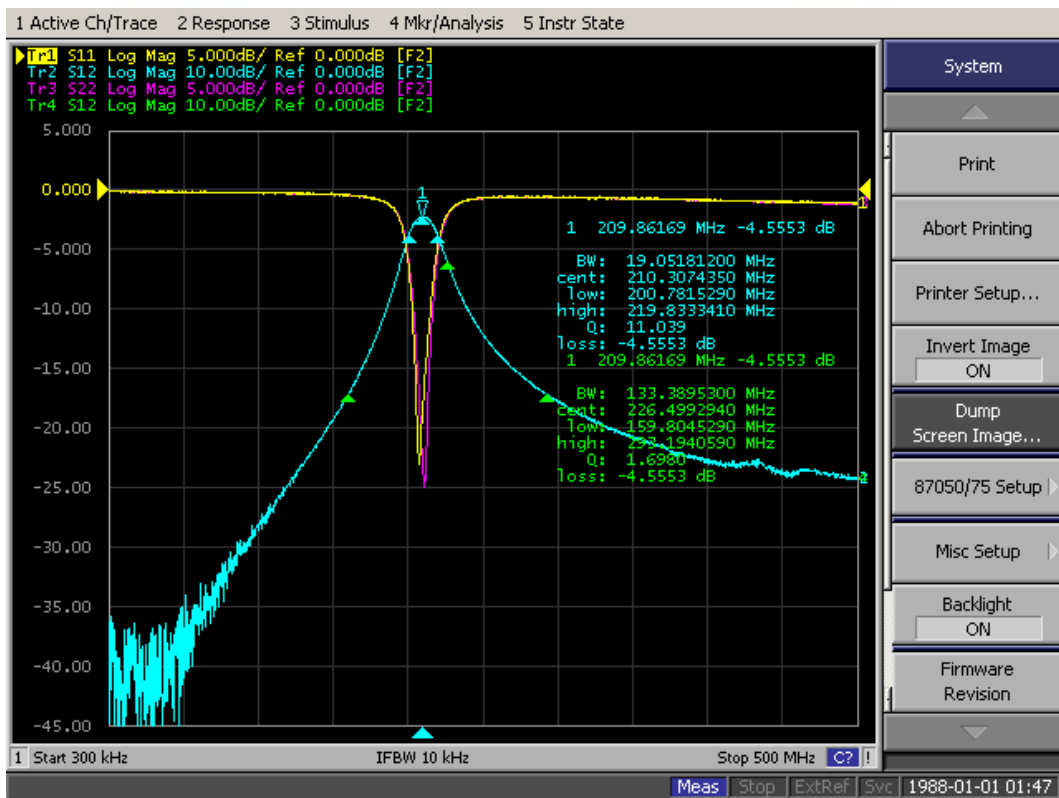
2.13. 152 MHz



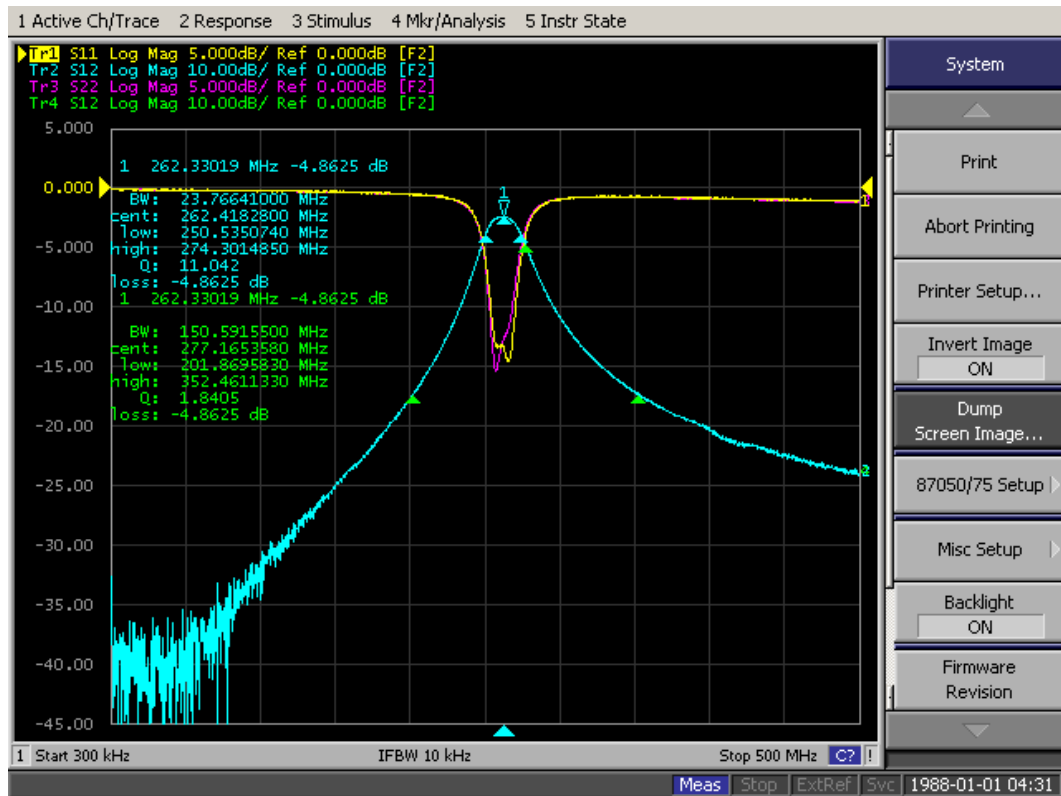
2.14. 168 MHz



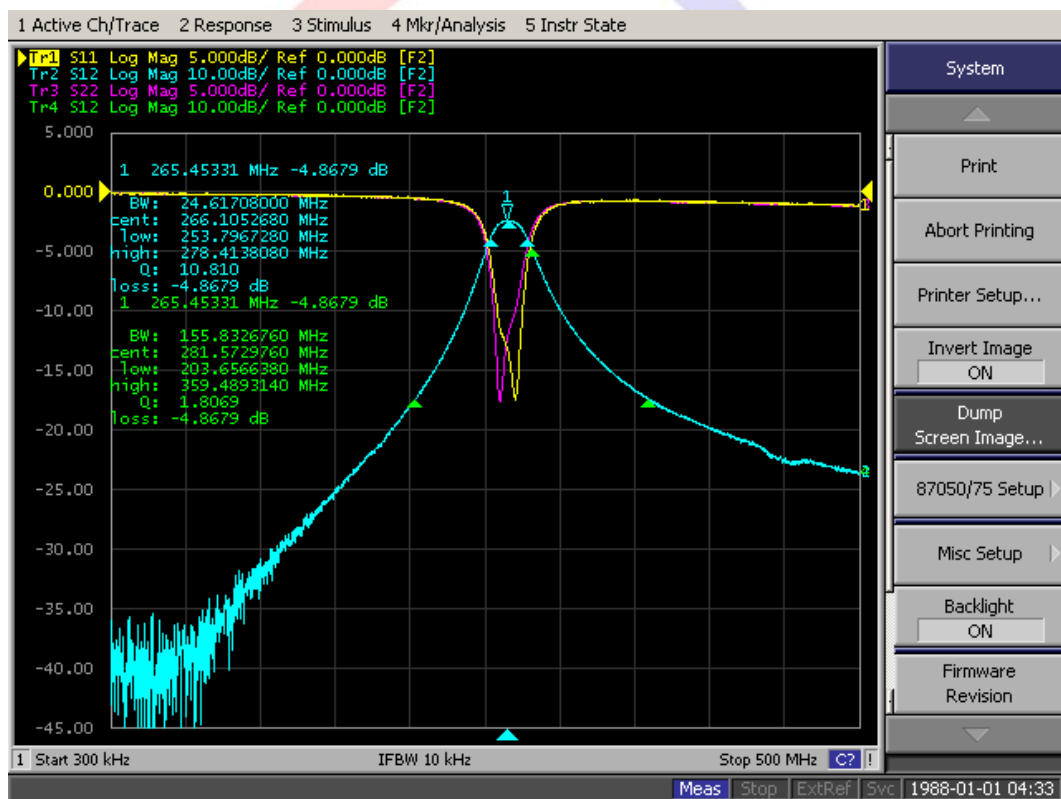
2.15. 210 MHz



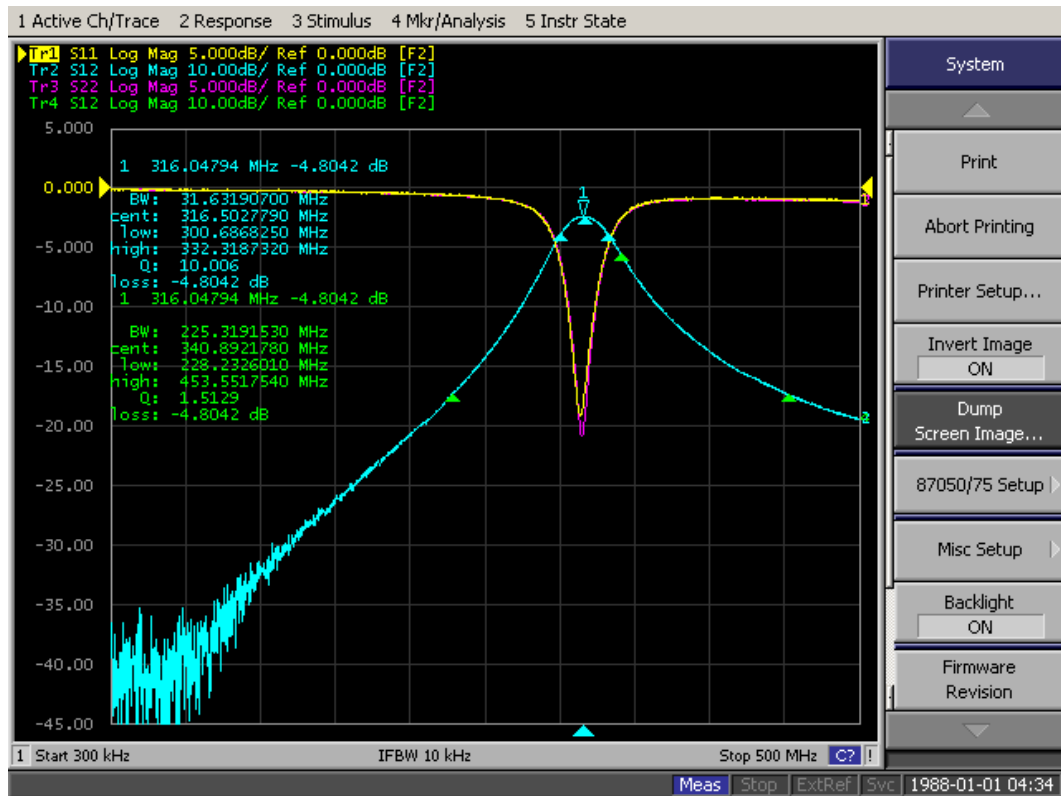
2.16. 262 MHz



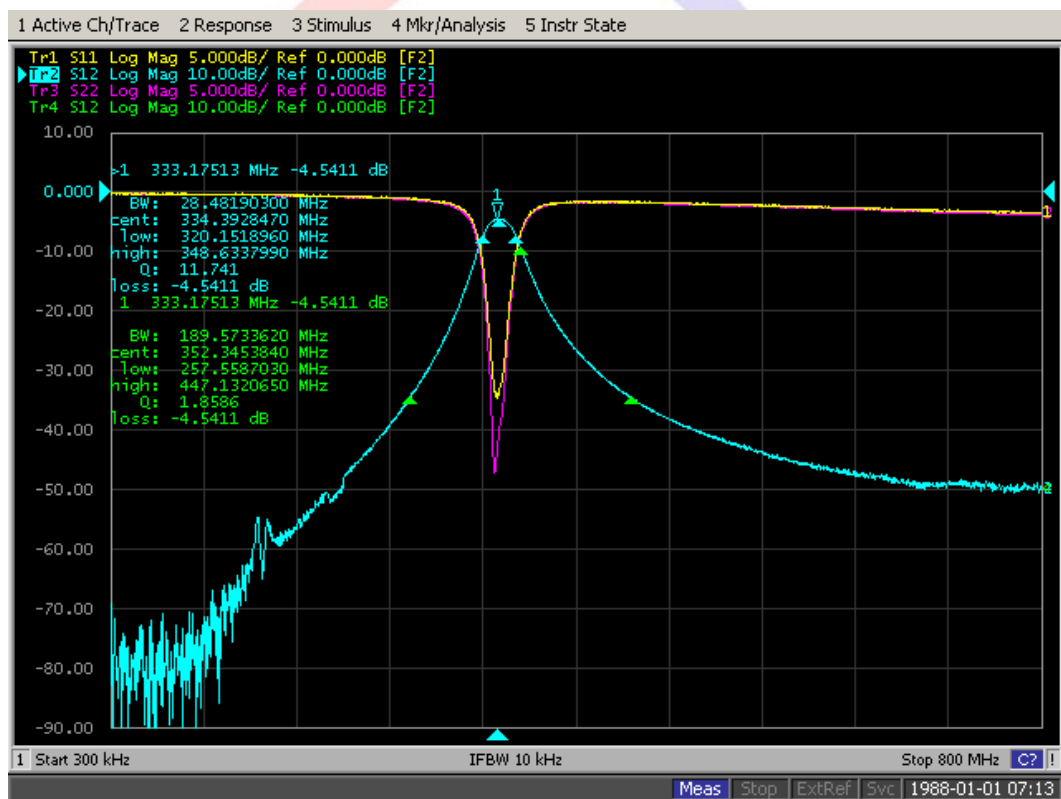
2.17. 266 MHz



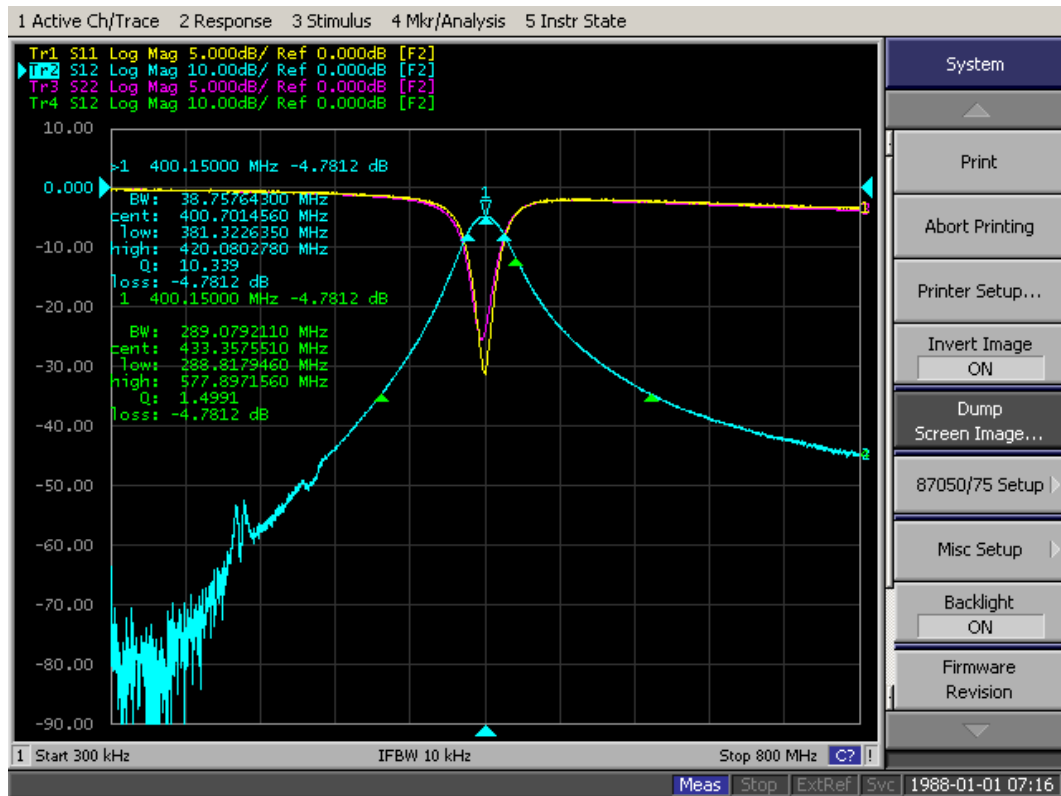
2.18. 316 MHz



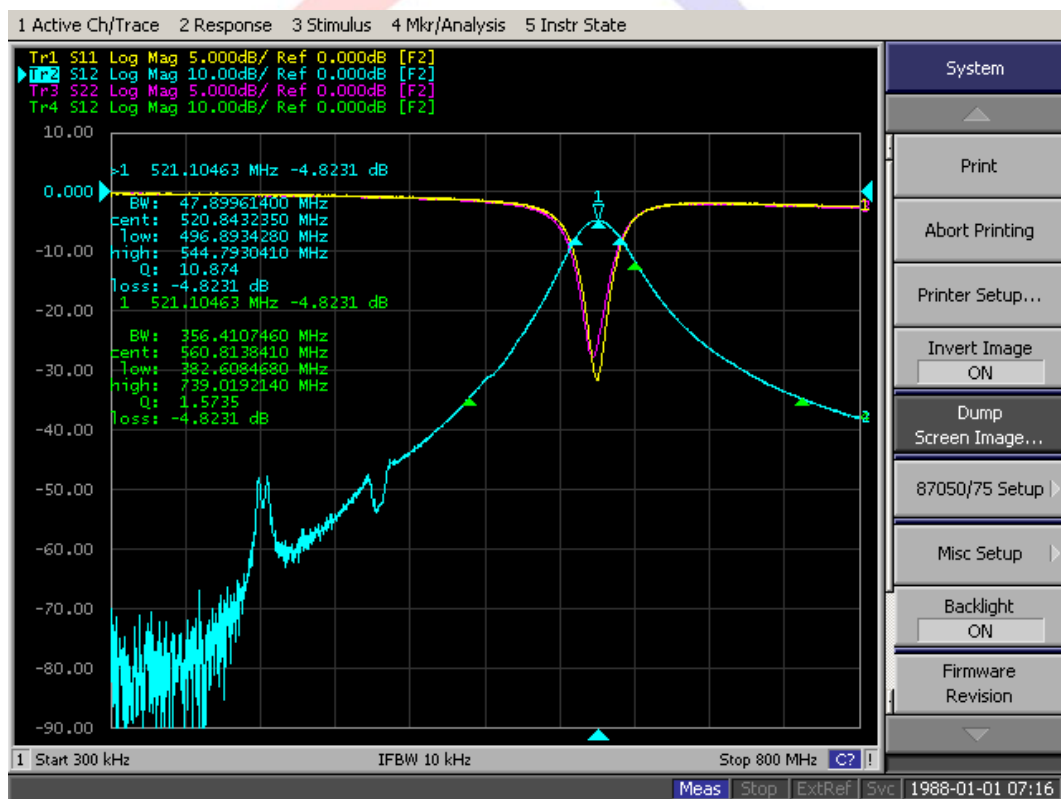
2.19. 334 MHz



2.20. 400 MHz

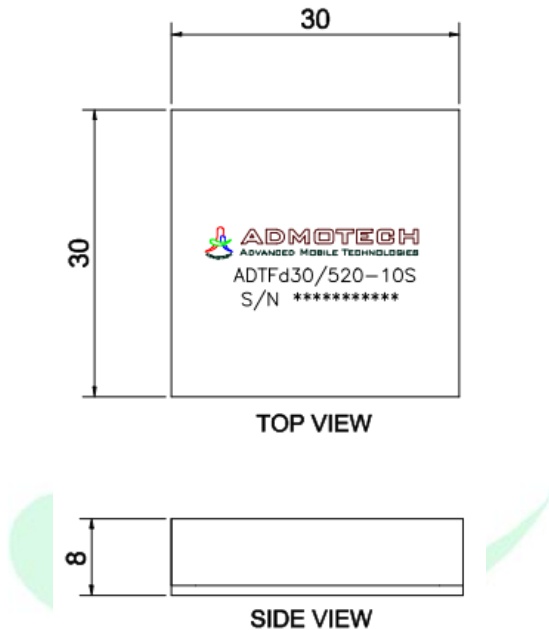


2.21. 520 MHz

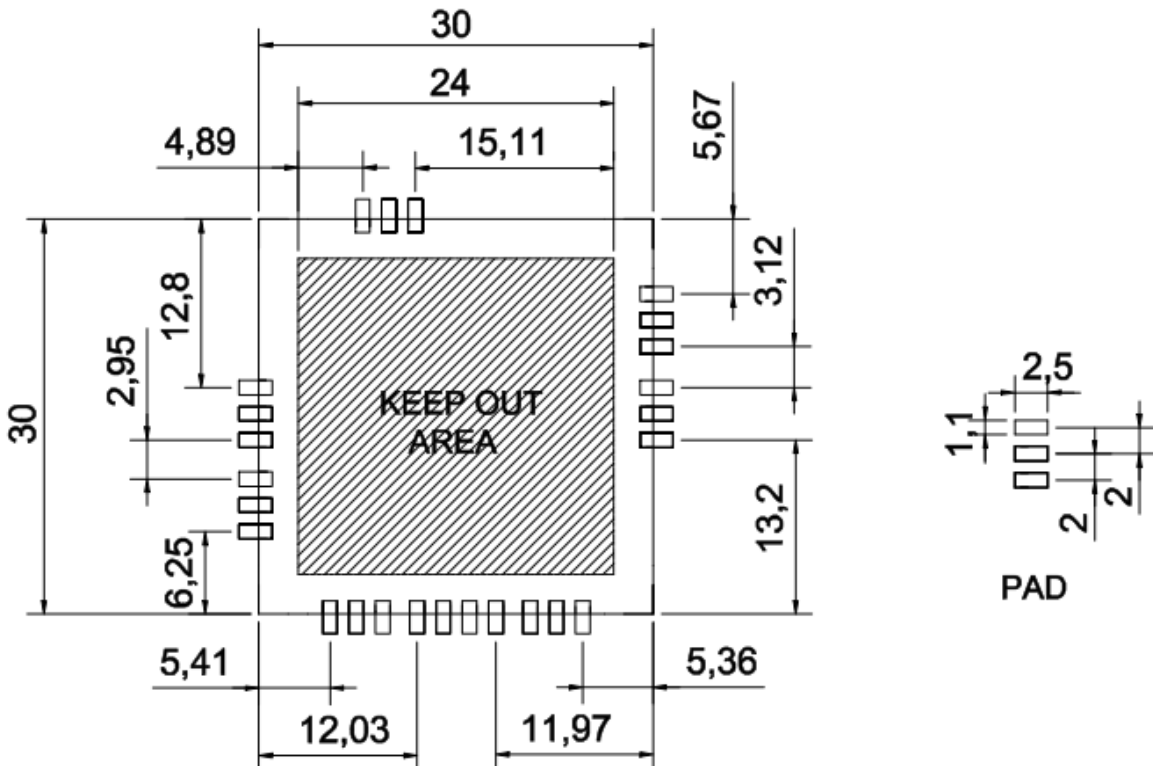


3. Mechanical Drawings

3.1. Dimension



3.2. Recommended PCB Land Pattern



Recommended PCB Land Pattern