



General Specifications

General	
Model Number	RSP1A
Frequency Range	1kHz – 2GHz
Antenna Connector	SMA
Antenna Impedance	50 Ohms
Operating Temperature Range	-10°C to +60°C
Current Consumption (Typical)	185mA
Case Size	95mm X 80mm X 30mm
Case Weight	110 grams
USB Connector	USB Type B
Maximum Input Power	+0dBm Continuous +10dBm Short Duration
ADC Sample Rates	2MSPS – 10.66MSPS
ADC Number of Bits	14bit 2MSPS – 6.048MSPS 12bit 6.048MSPS – 8.064MSPS 10bit 8.064MSPS – 9.216MSPS 8bit >9.216MSPS
Bias – T	4.7V 100mA Guaranteed <i>Note :- Bias T has an over current protection circuit. Current in excess of 100mA will cause the bias T voltage to disable. Removal of the overcurrent condition and a reset of the bias T control will re-establish the voltage</i>
Reference	0.5ppm 24MHz TCXO. Frequency error trimmable to 0.01ppm in field.

Sensitivity

Band	AM	SSB/CW	FM
2200 meters	3.93uV	0.95uV	2.57uV
630 meters	1.2uV	0.56uV	1.7uV
160 meters	0.52uV	0.16uV	0.36uV
80 meters	0.46uV	0.16uV	0.33uV
60 meters	0.46uV	0.16uV	0.33uV
40 meters	0.46uV	0.16uV	0.33uV
30 meters	0.49uV	0.16uV	0.39uV
20 meters	0.48uV	0.16uV	0.36uV
17 meters	0.48uV	0.16uV	0.36uV
15 meters	0.48uV	0.16uV	0.36uV

Sensitivity

Band	AM	SSB/CW	FM
12 meters	0.46uV	0.17uV	0.38uV
10 meters	0.46uV	0.17uV	0.38uV
6 meters	0.46uV	0.17uV	0.38uV
4 meters	0.15uV	0.05uV	0.11uV
2 meters	0.14uV	0.05uV	0.11uV
1.25 meters	0.15uV	0.05uV	0.12uV
70 cm	0.14uV	0.05uV	0.11uV
33 cm	0.18uV	0.06uV	0.12uV
23 cm	0.29uV	0.06uV	0.14uV

AM

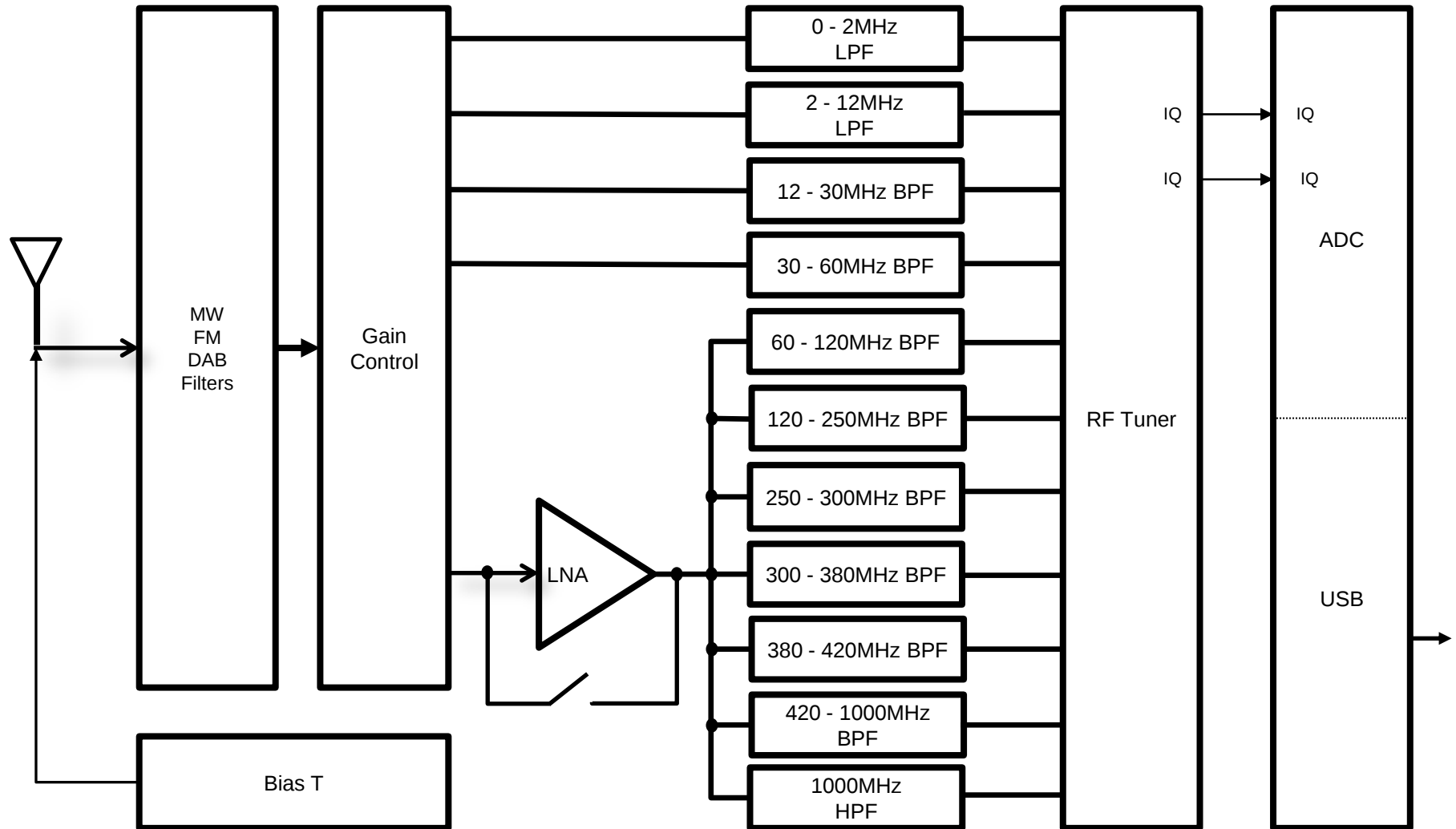
60% Modulation, 1kHz Modulating Tone
3kHz Measurement Bandwidth
AGC Enabled
NR Enabled
12dB SINAD

SSB/CW

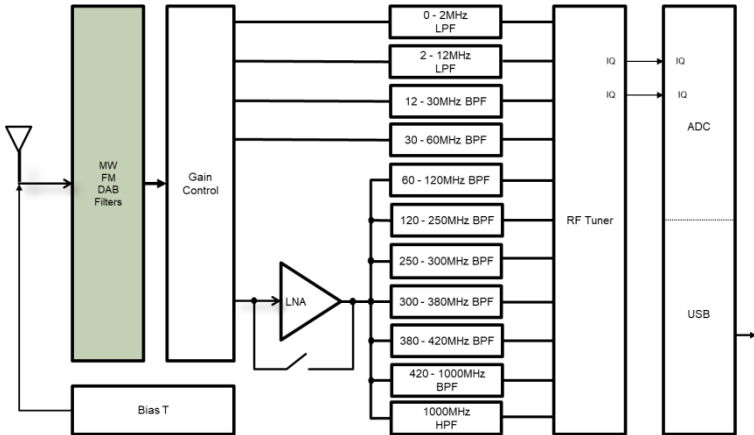
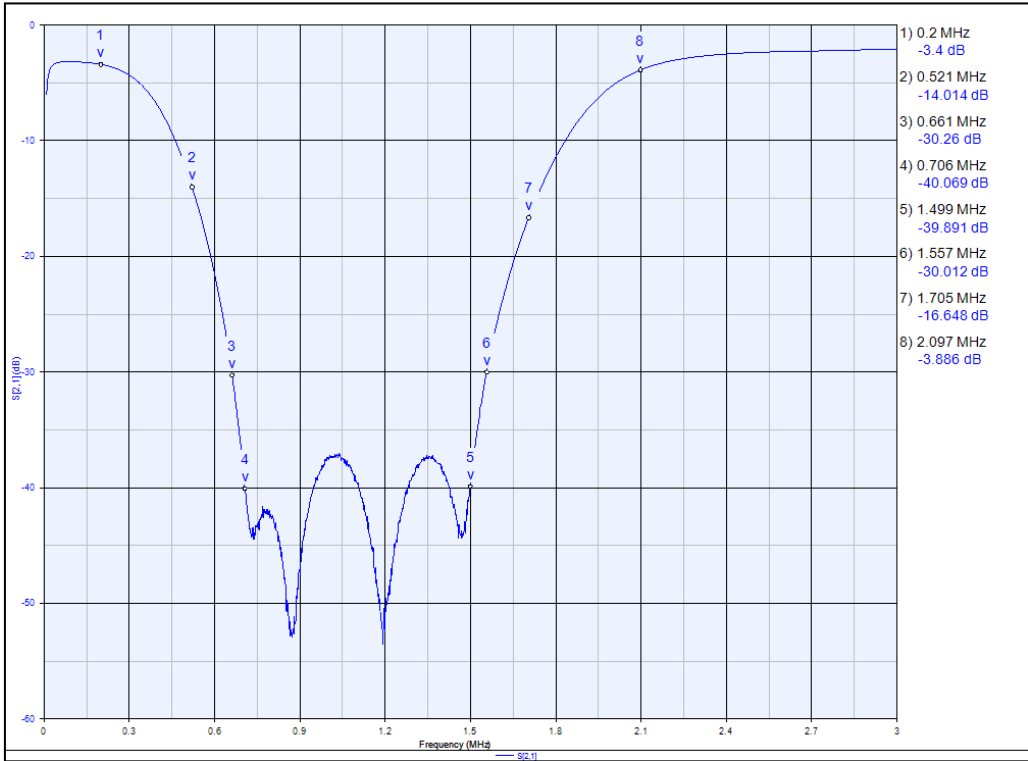
CW Tone, 1kHz Offset from Centre Frequency
1.5kHz Measurement Bandwidth
AGC Enabled
NR Enabled
12dB SINAD

FM

1kHz Modulating Tone, 3kHz Frequency Deviation
8kHz Measurement Bandwidth
AGC Enabled
NR Enabled
12dB SINAD

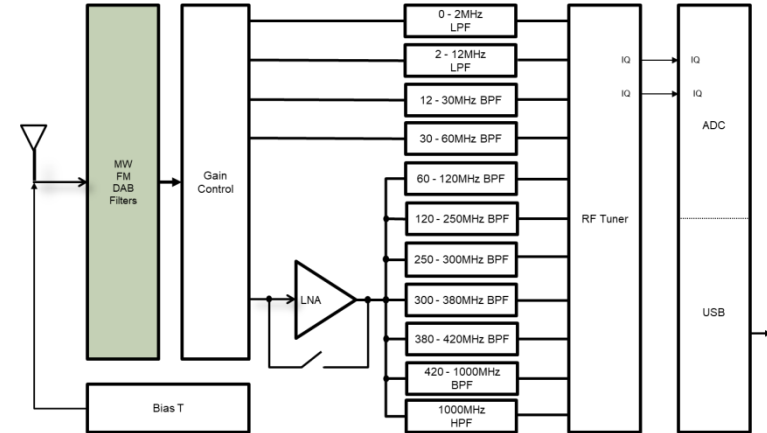
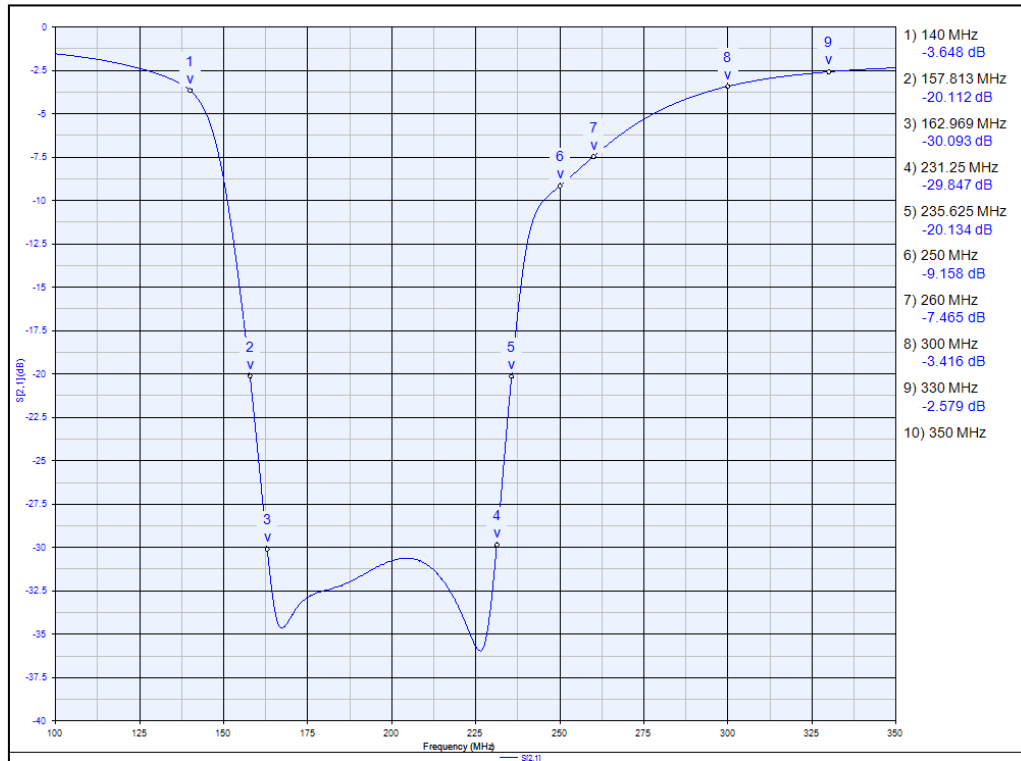


MW Notch Filter



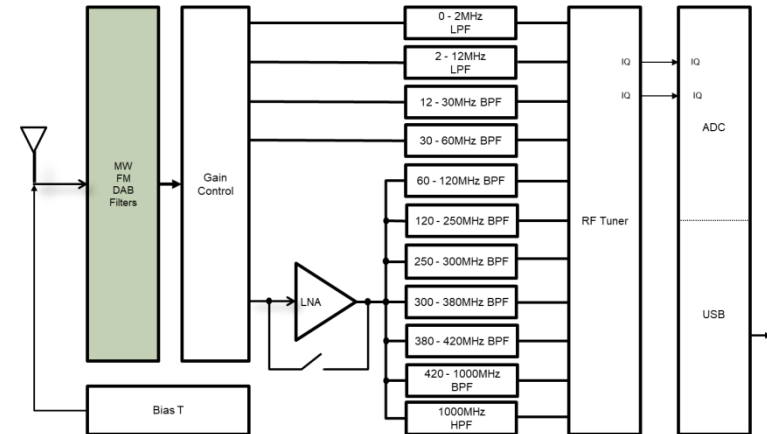
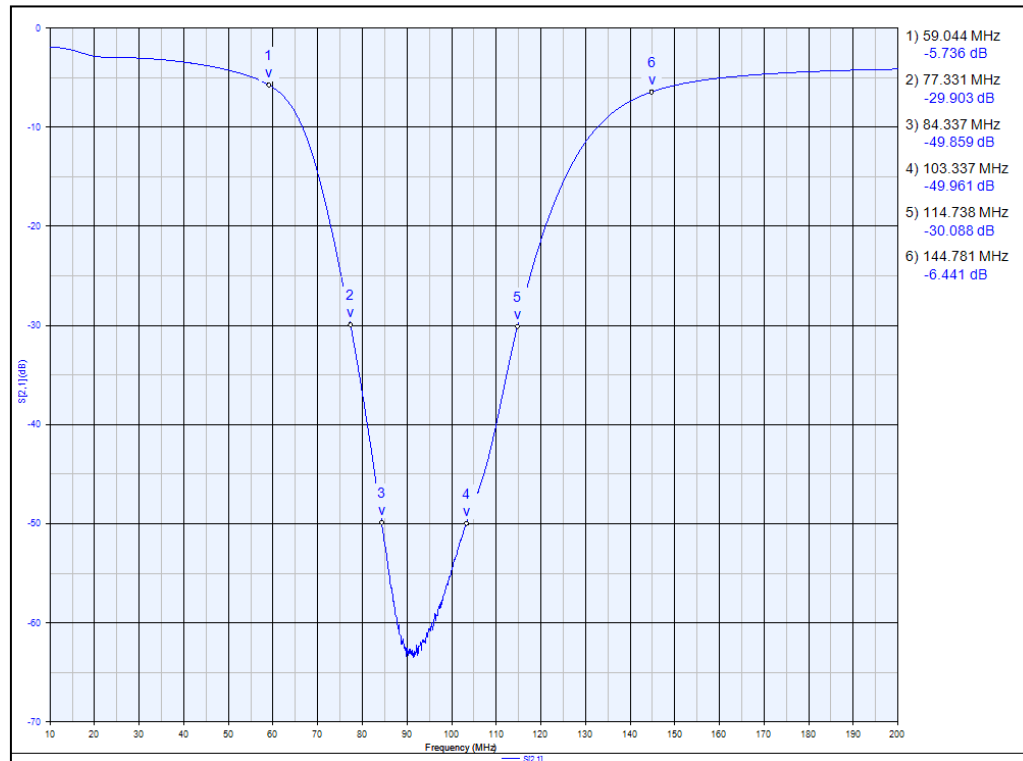
Frequency (kHz)		Attenuation
Lower	Upper	
522	1710	>14dB
660	1550	>30dB

DAB Notch Filter



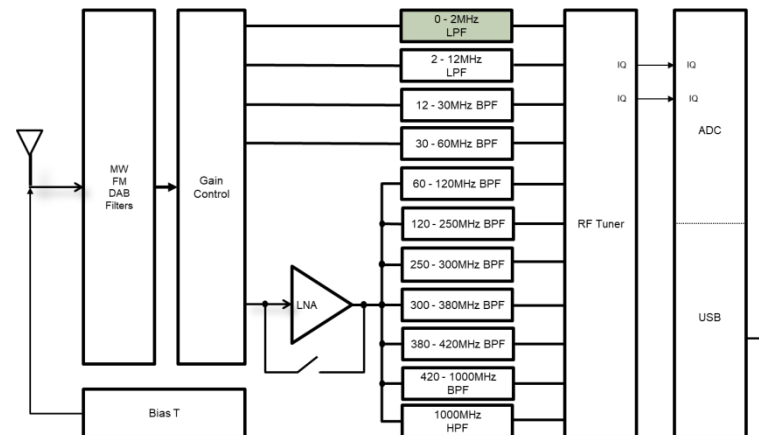
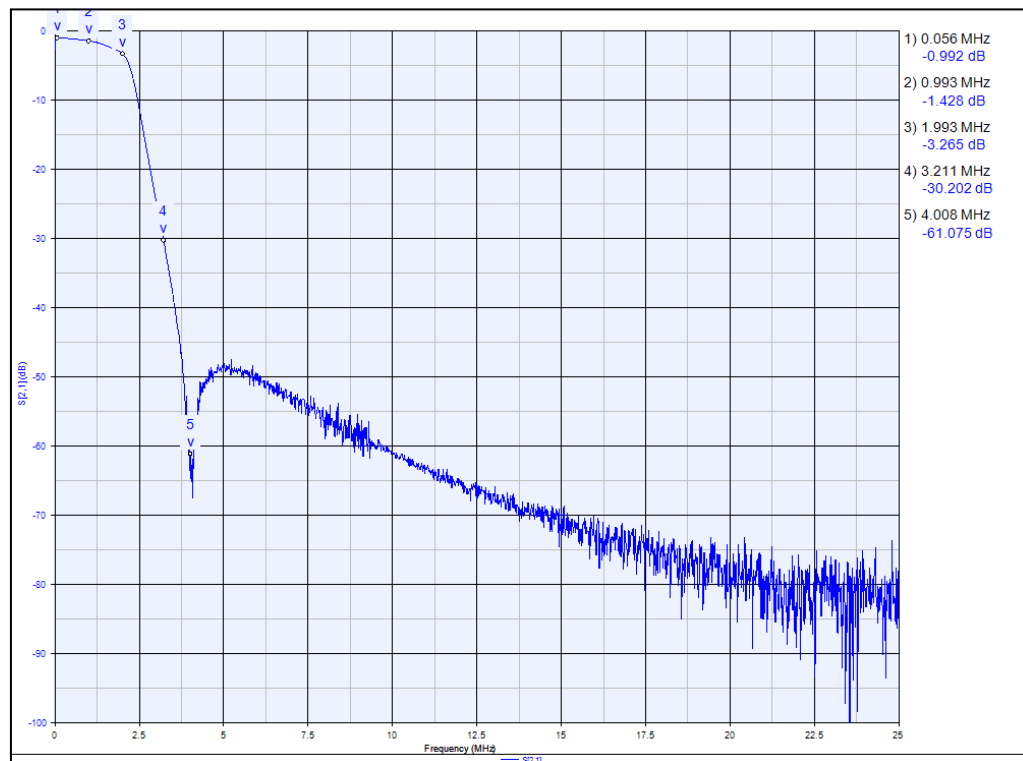
Frequency (MHz)		Attenuation
Lower	Upper	
160	235	>20dB
165	230	>30dB

FM Notch Filter

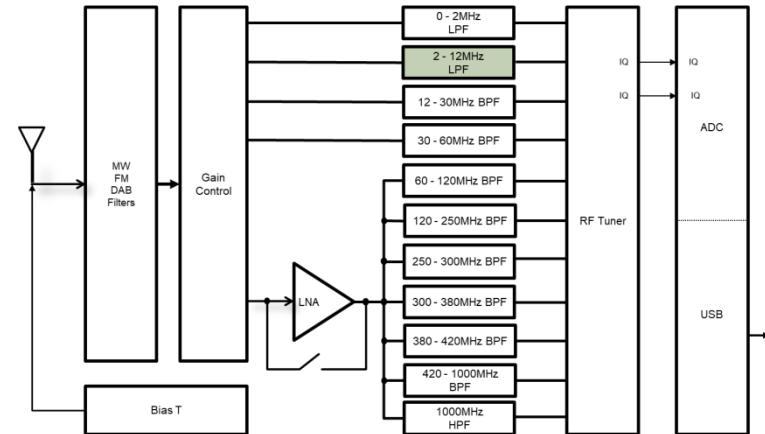
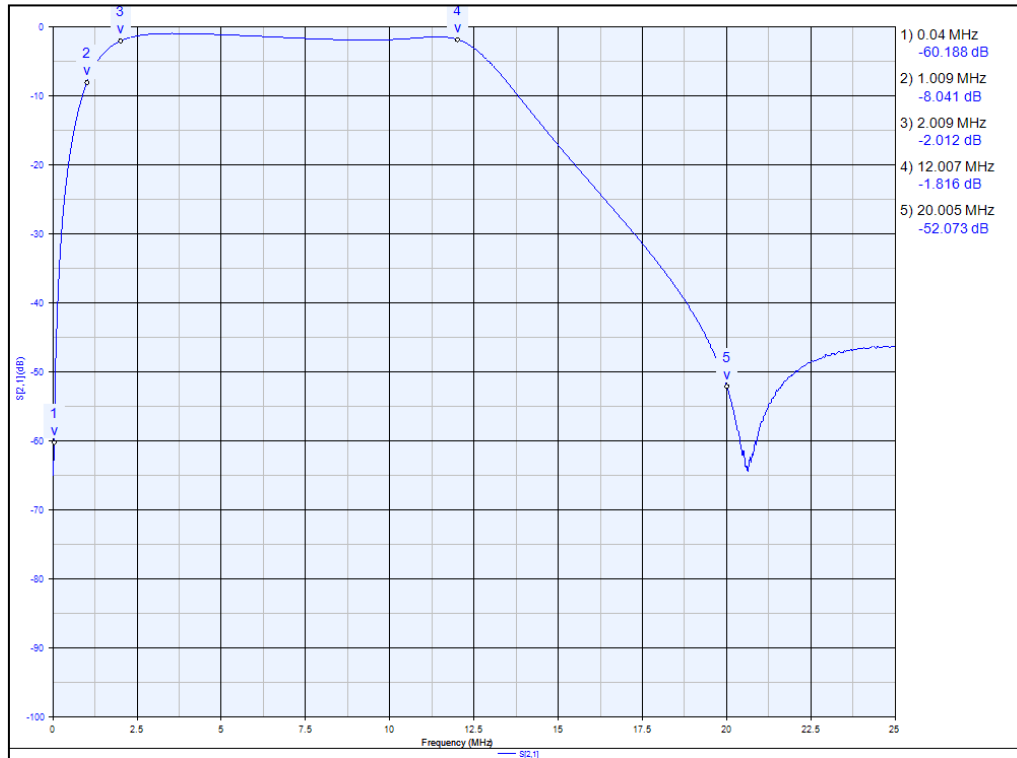


Frequency (MHz)		Attenuation
Lower	Upper	
77	115	>30dB
85	100	>50dB

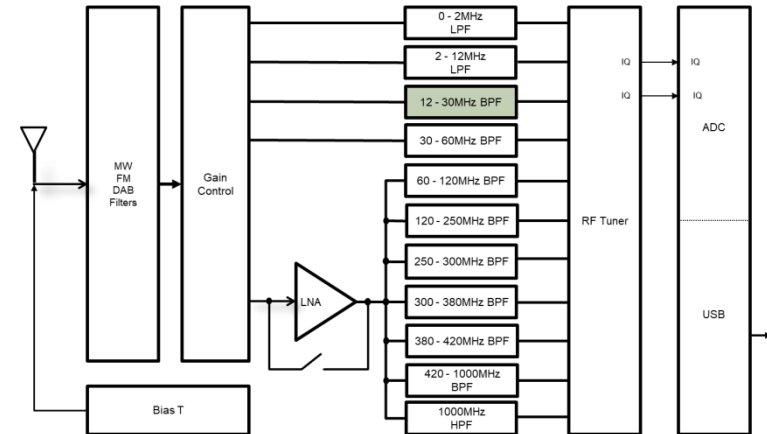
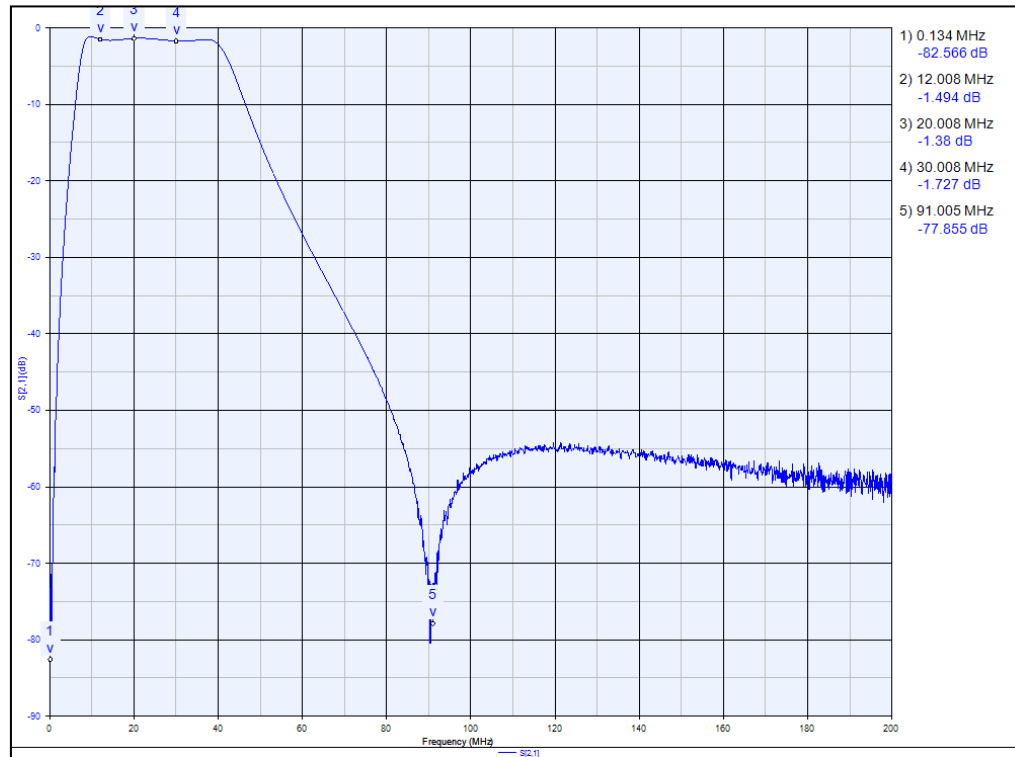
0 – 2MHz Low Pass Filter



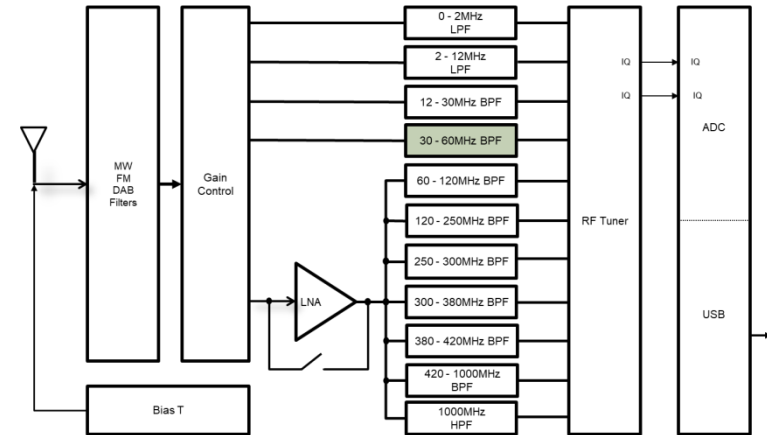
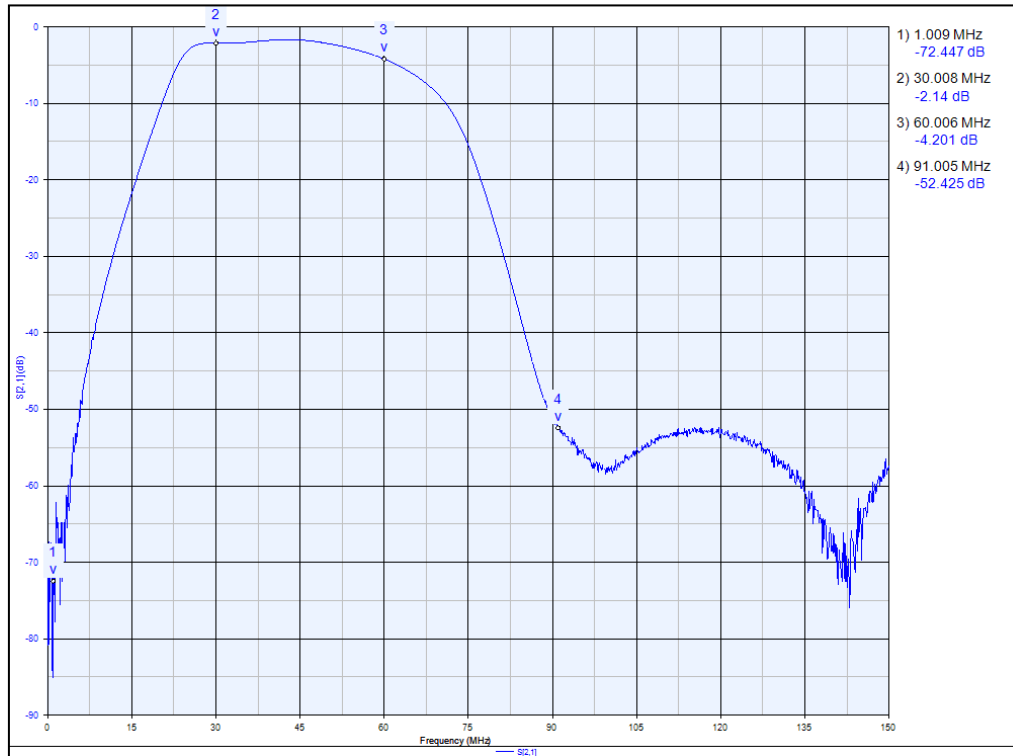
2 – 12MHz Band Pass Filter



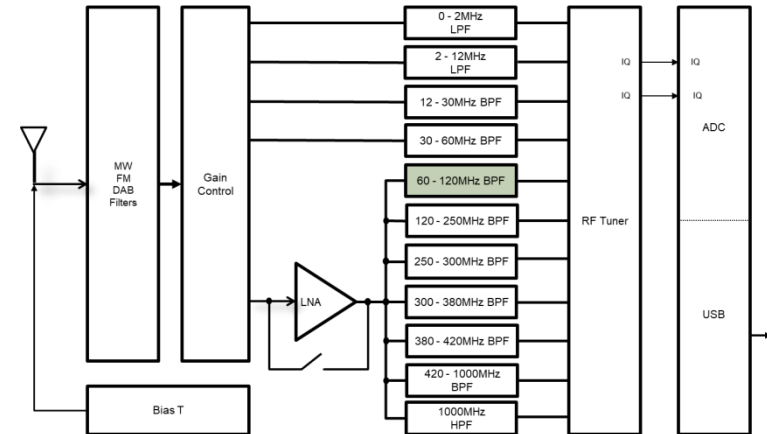
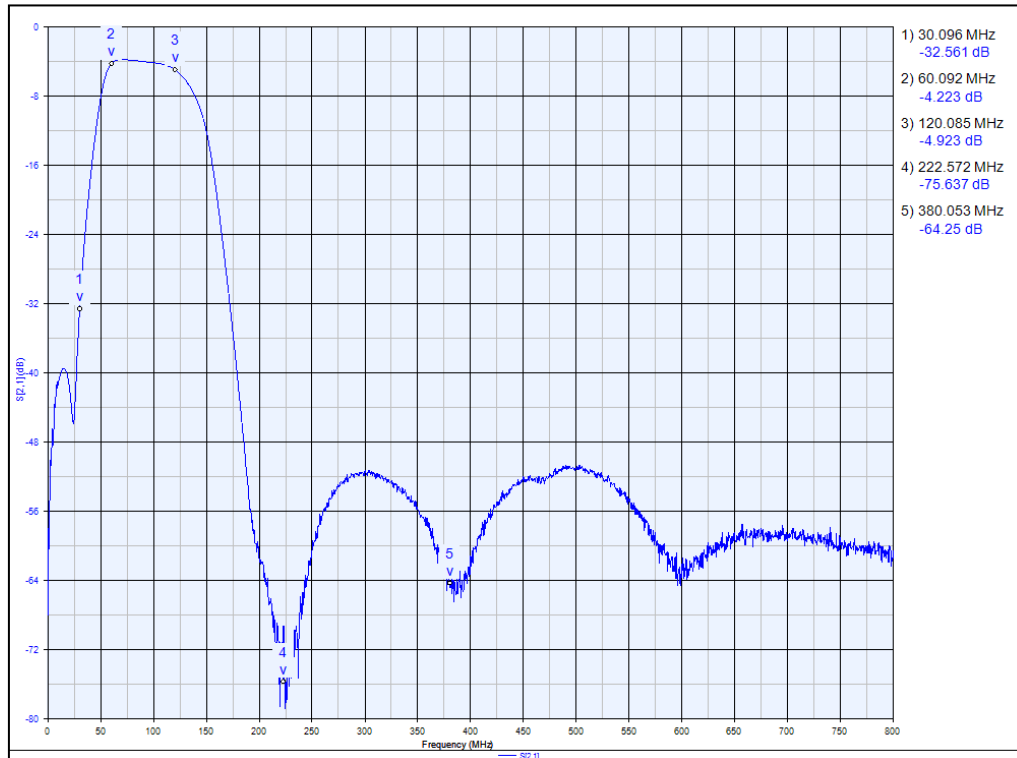
12 – 30MHz Band Pass Filter



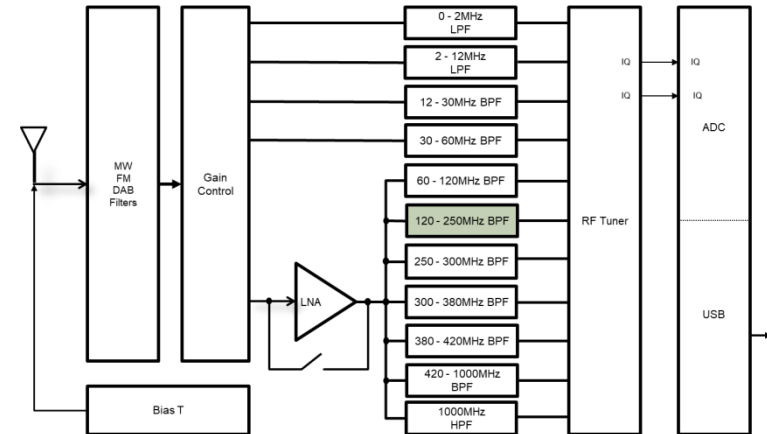
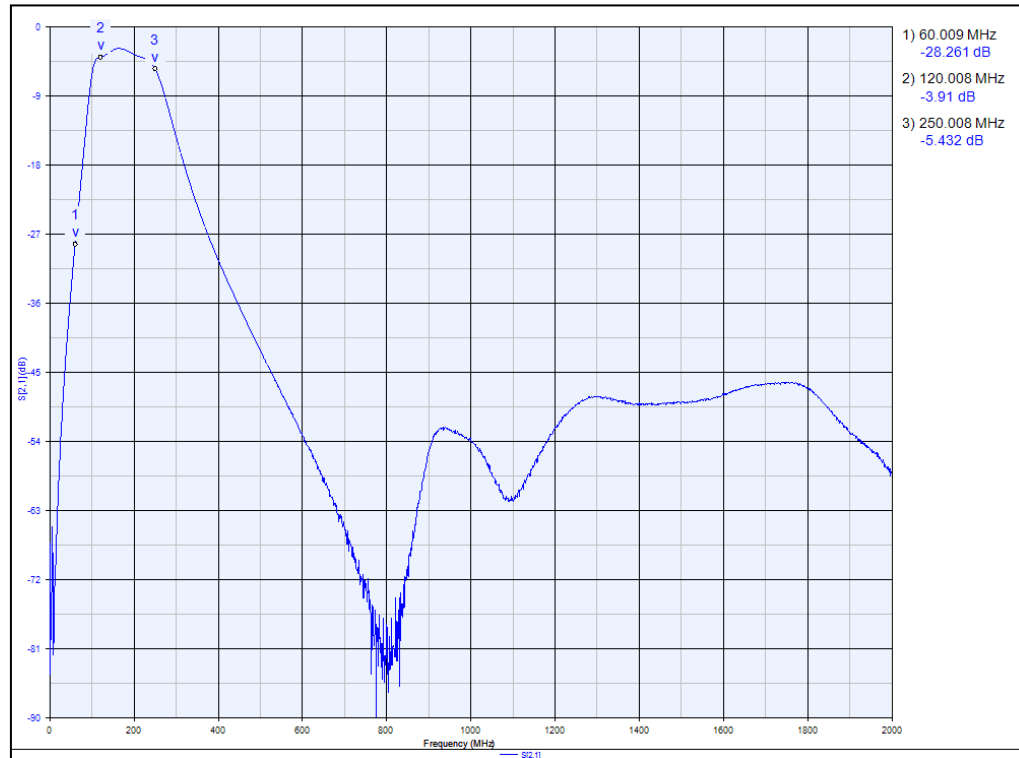
30 – 60MHz Band Pass Filter



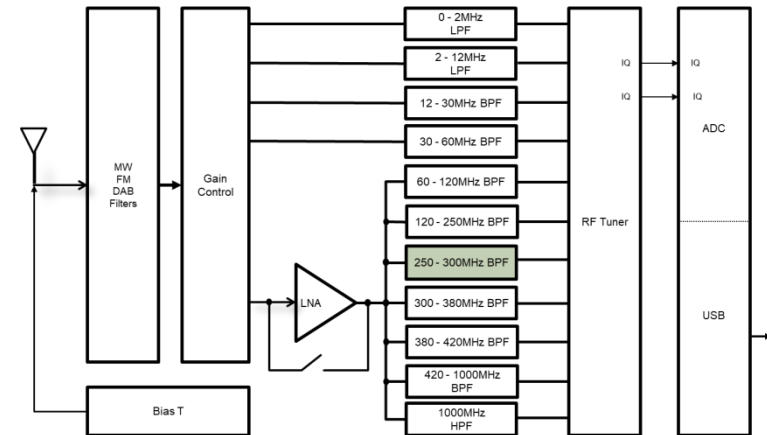
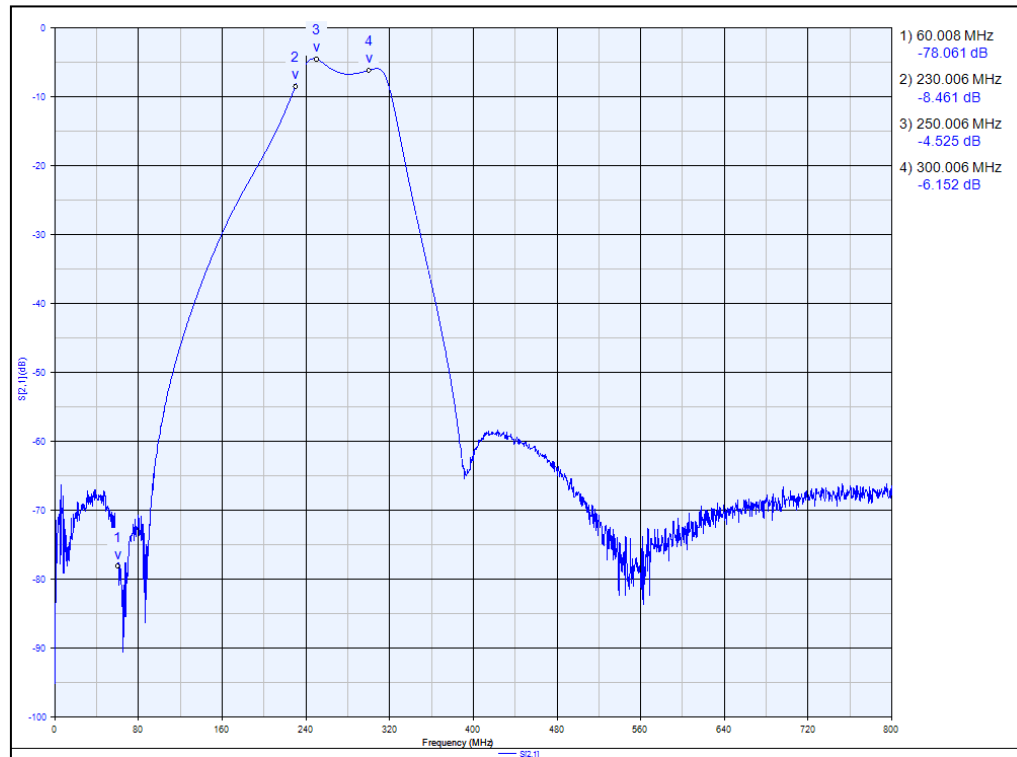
60 – 120MHz Band Pass Filter



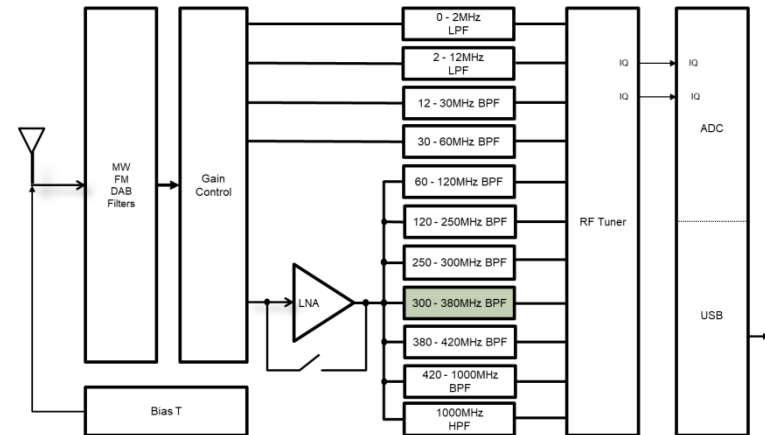
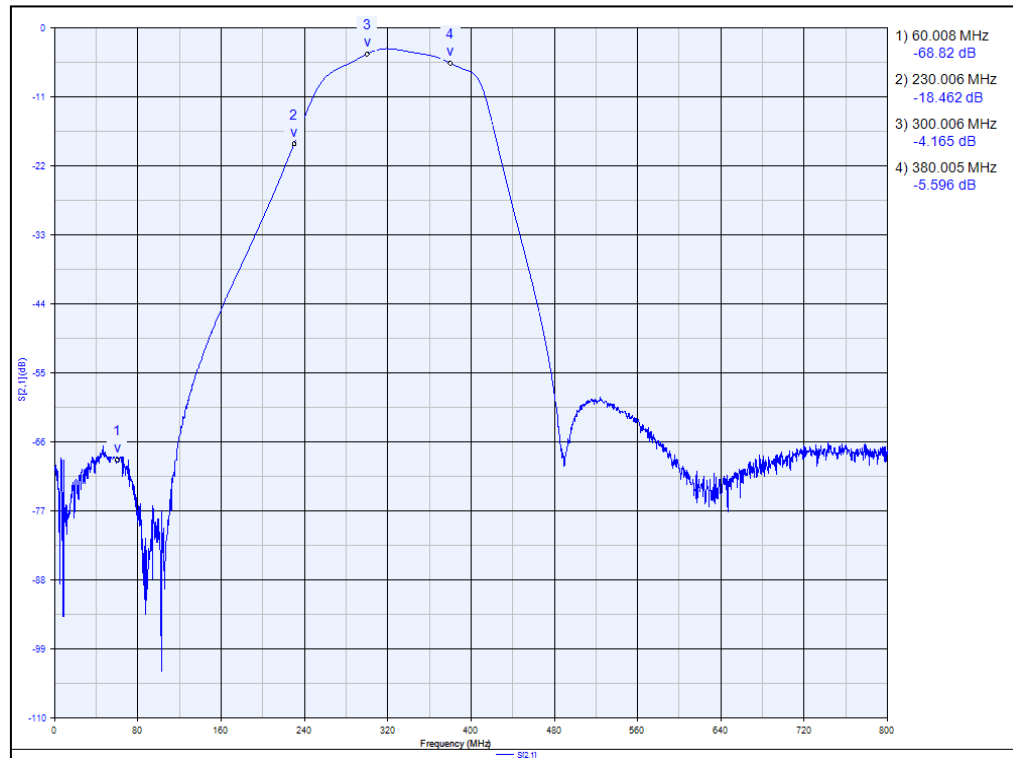
120 - 250MHz Band Pass Filter



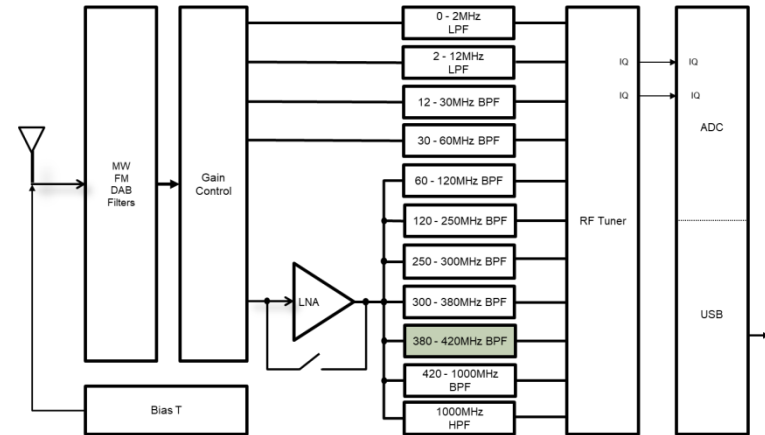
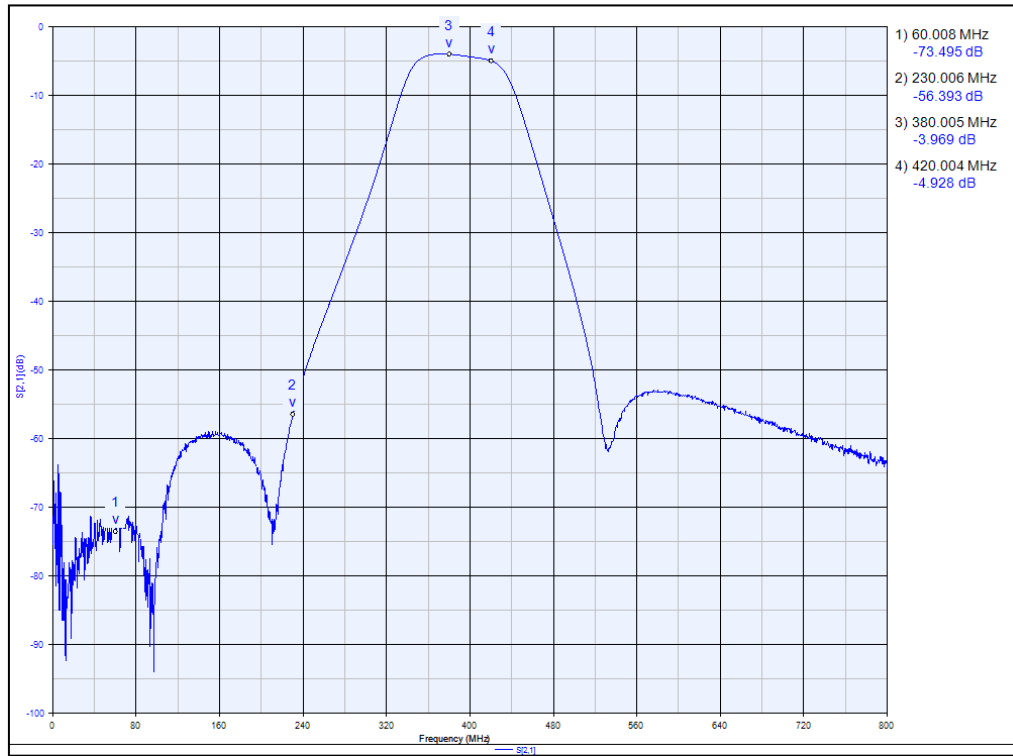
250 - 300MHz Band Pass Filter



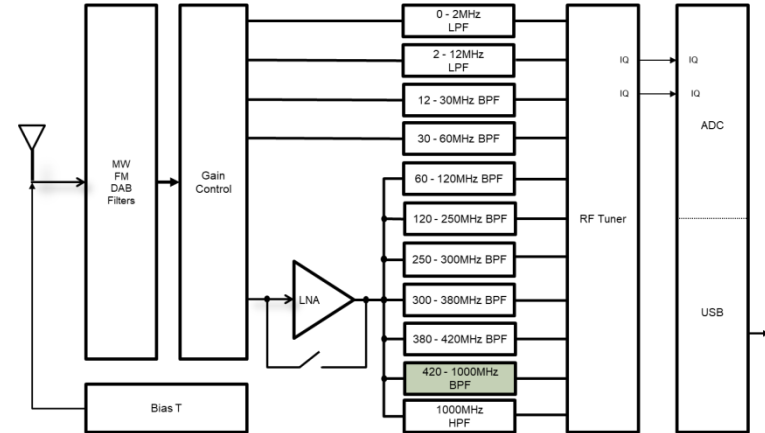
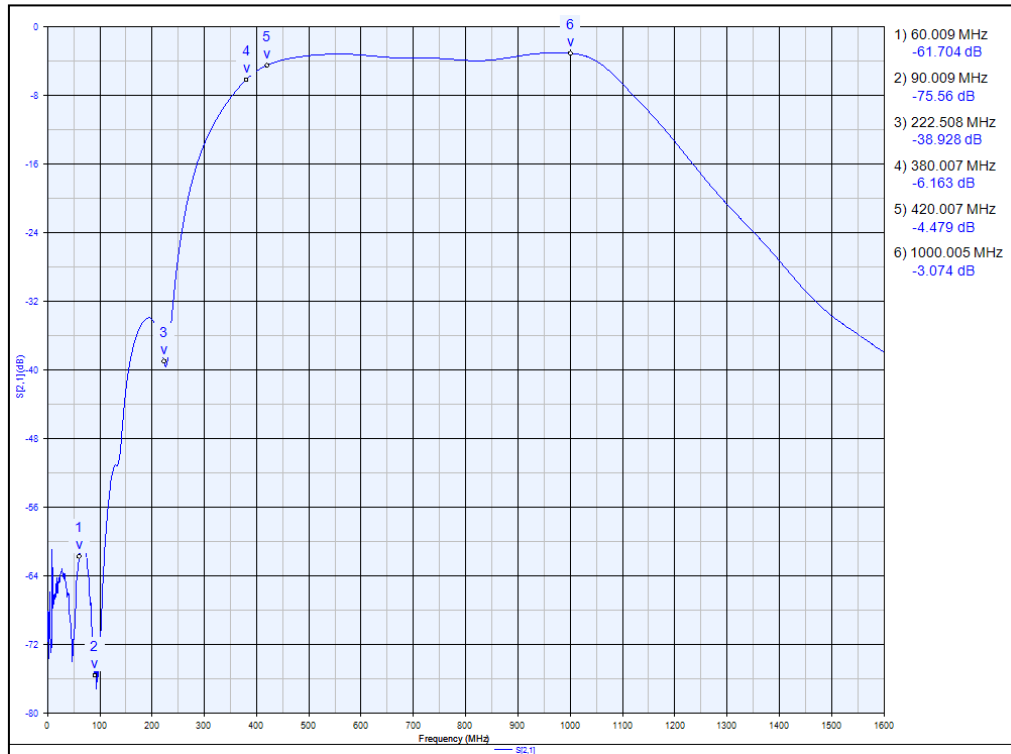
300 - 380MHz Band Pass Filter



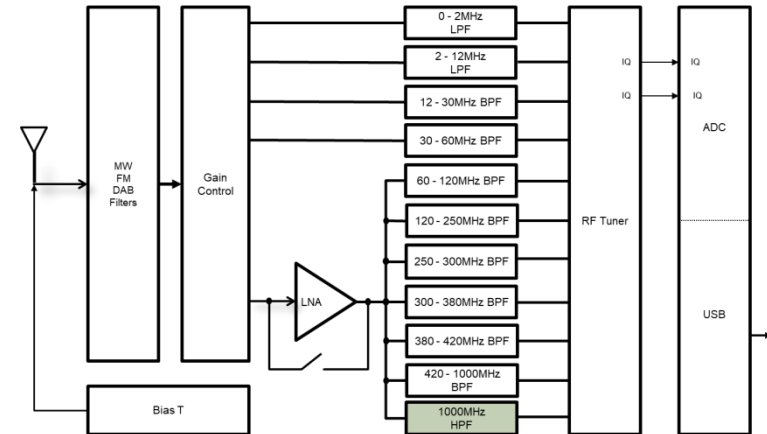
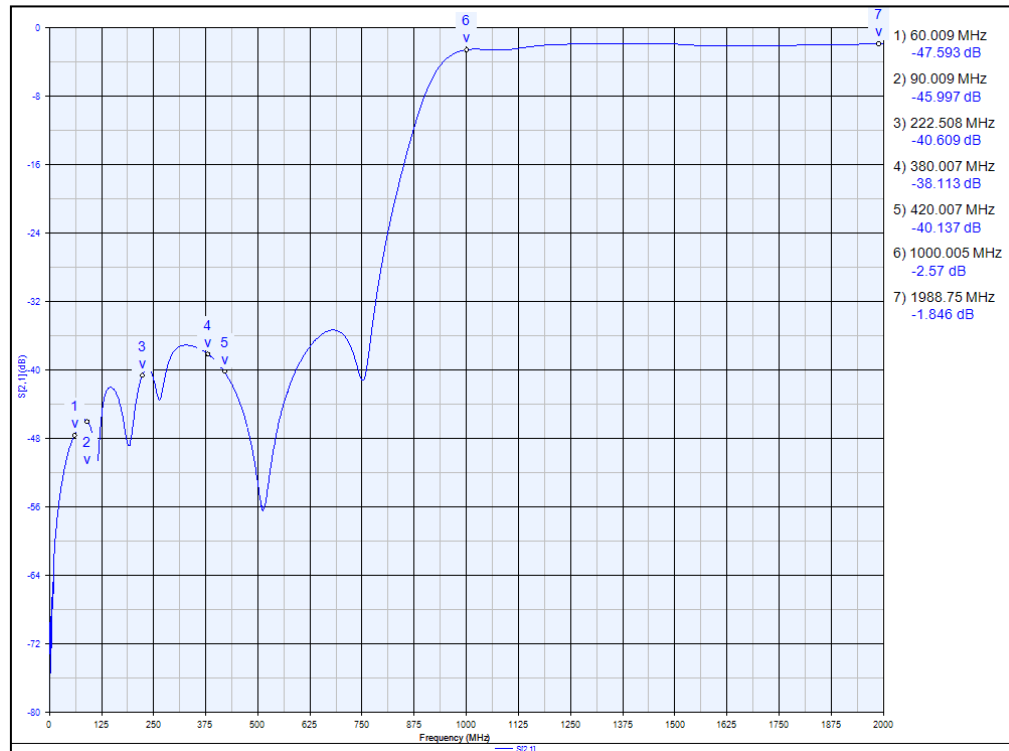
380 - 420MHz Band Pass Filter



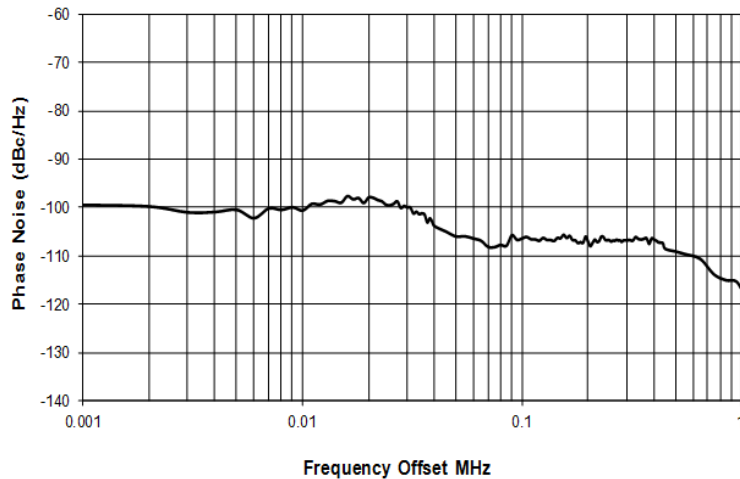
420 - 1000MHz Band Pass Filter



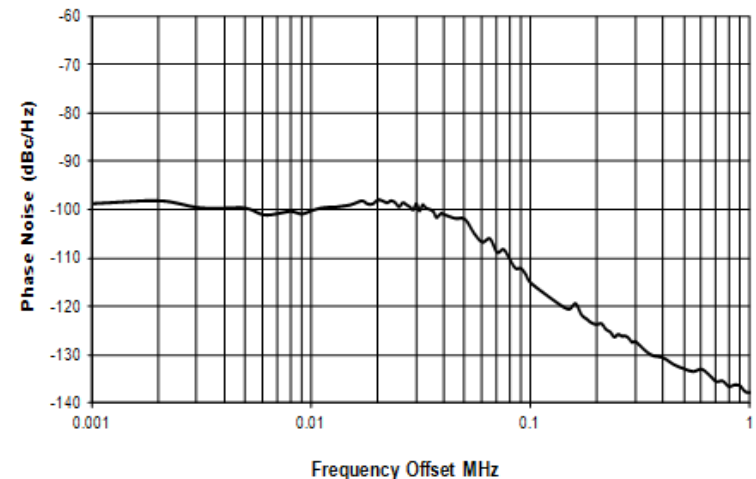
1000 - 2000MHz High Pass Filter



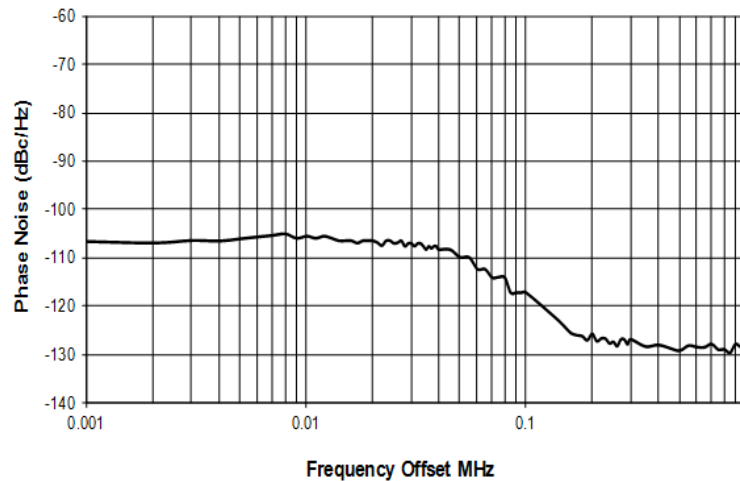
Typical Phase Noise Performance
100kHz to 60MHz



Typical Phase Noise Performance
120MHz to 250MHz



Typical Phase Noise Performance
60MHz to 120MHz



Typical Phase Noise Performance
250MHz to 420MHz

