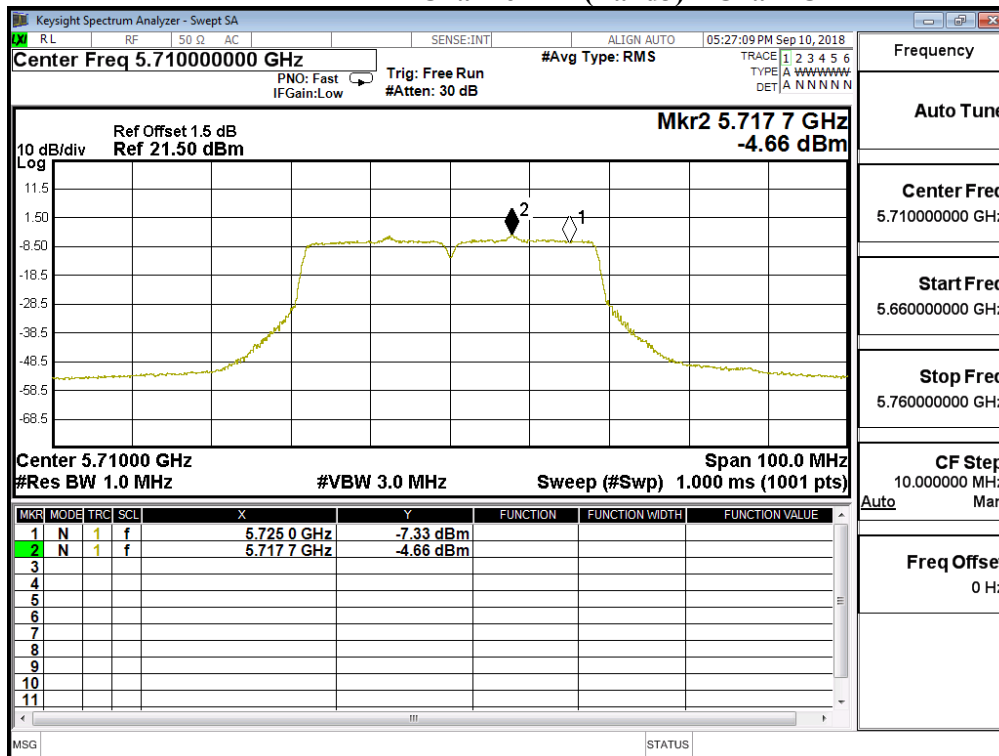
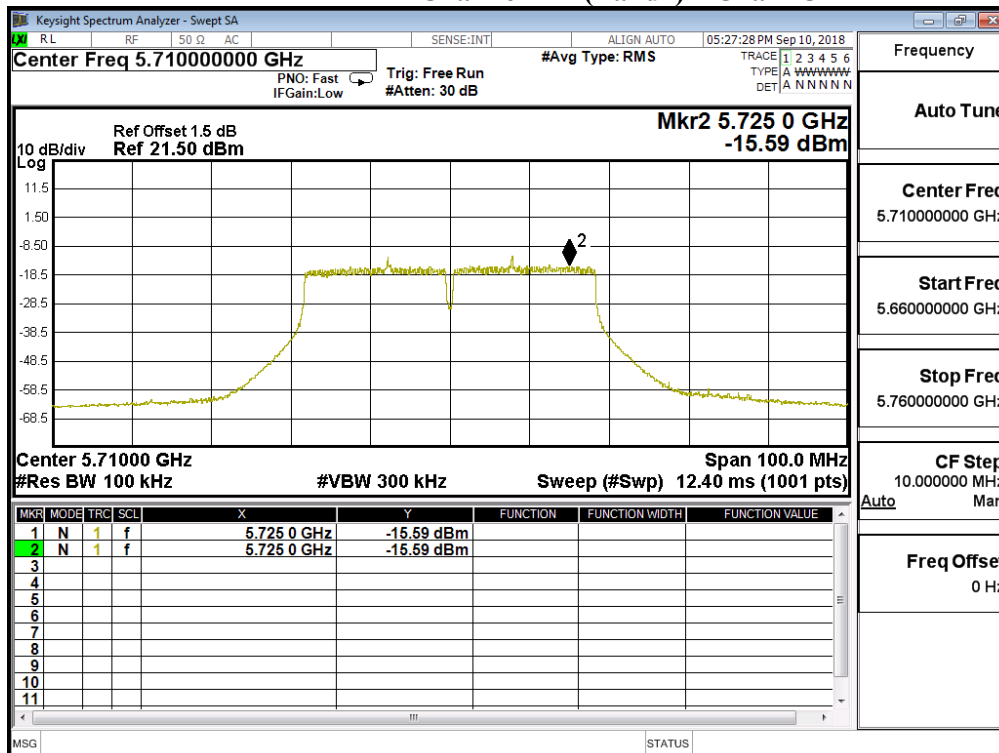


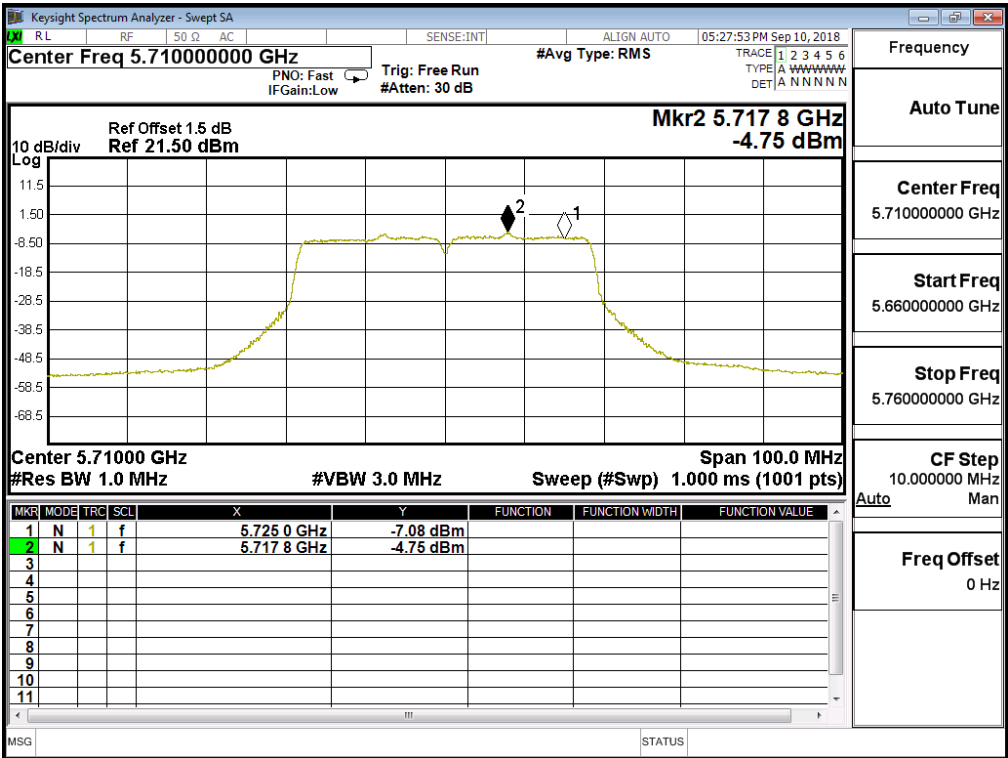
Channel 142 (Band3) – Chain C



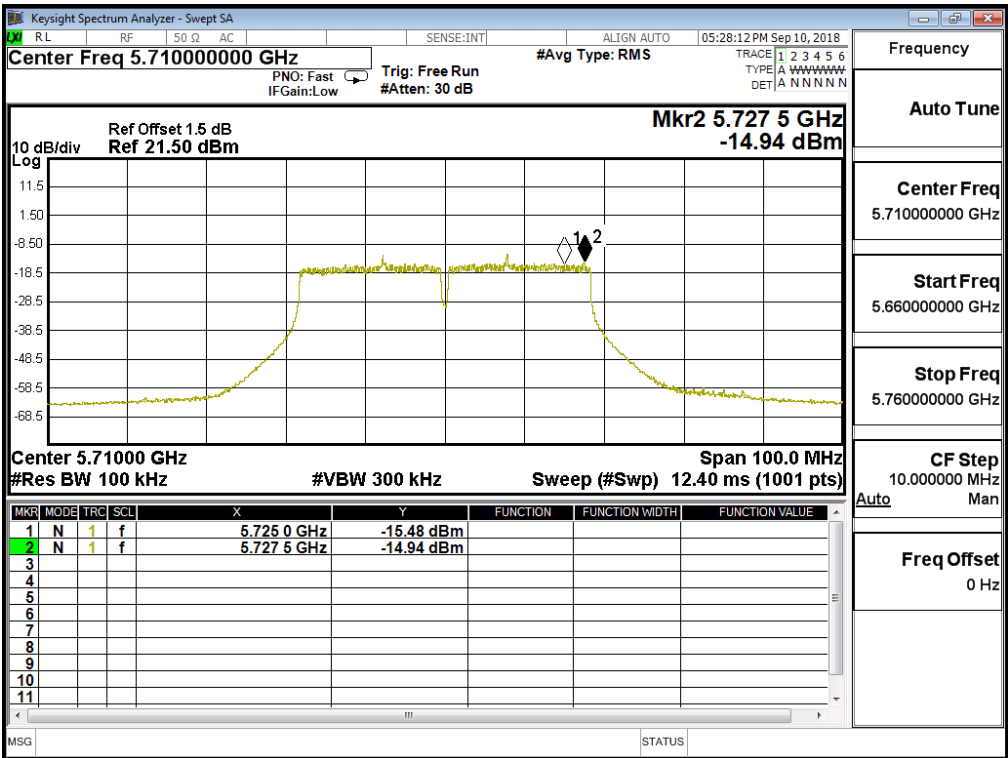
Channel 142 (Band4) – Chain C



Channel 142 (Band3) – Chain D



Channel 142 (Band4) – Chain D



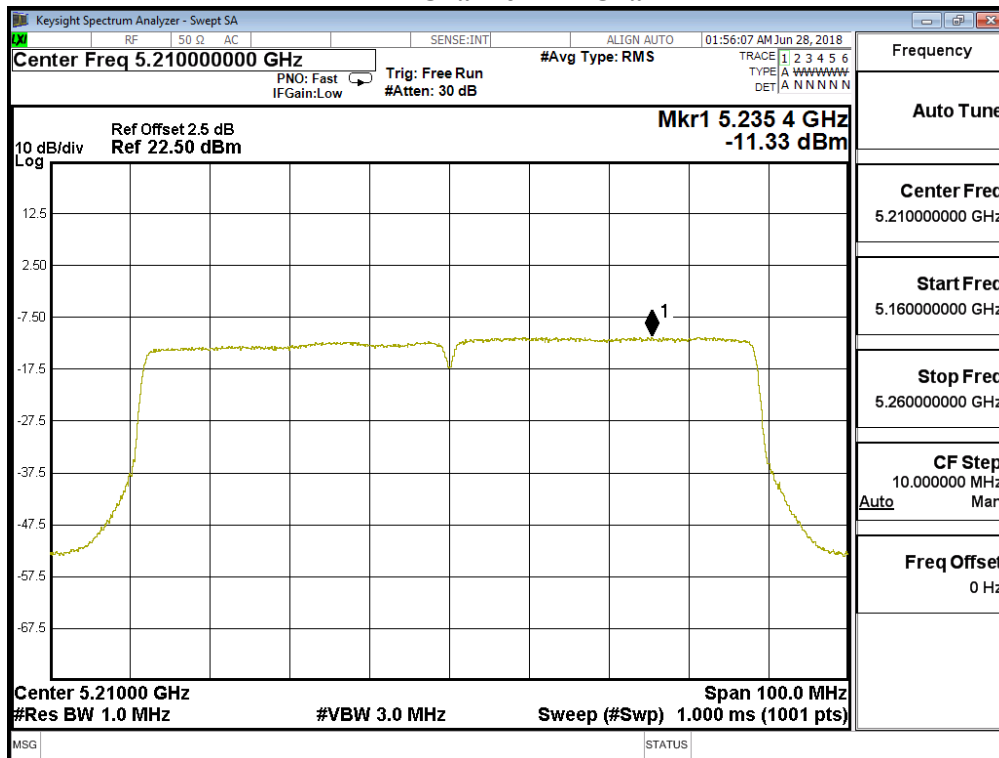
Product : MOXA IEEE 802.11a/n/ac 4*4 module
 Test Item : Peak Power Spectral Density
 Test Site : No.3 OATS
 Test Date : 2018/07/20
 Test Mode : Mode 6: Transmit (802.11ac-80BW-130Mbps) (Antenna No.18)

Channel Number	Frequency (MHz)	Chain	PPSD (dBm)	Total PSD (dBm)	Required Limit (dBm)	Result
42	5210	A	-11.330	-5.310	<2	Pass
		B	-12.120	-6.100	<2	Pass
		C	-11.420	-5.400	<2	Pass
		D	-11.090	-5.070	<2	Pass
58	5290	A	-12.850	-6.830	<2	Pass
		B	-12.130	-6.110	<2	Pass
		C	-12.050	-6.030	<2	Pass
		D	-12.250	-6.230	<2	Pass
106	5530	A	-10.820	-4.800	<2	Pass
		B	-12.010	-5.990	<2	Pass
		C	-11.780	-5.760	<2	Pass
		D	-8.930	-2.910	<2	Pass
122	5610	A	-10.300	-4.280	<2	Pass
		B	-11.560	-5.540	<2	Pass
		C	-12.090	-6.070	<2	Pass
		D	-8.140	-2.120	<2	Pass
138	5690 (Band3)	A	-10.030	-4.010	<2	Pass
		B	-6.840	-0.820	<2	Pass
		C	-8.450	-2.430	<2	Pass
		D	-8.130	-2.110	<2	Pass

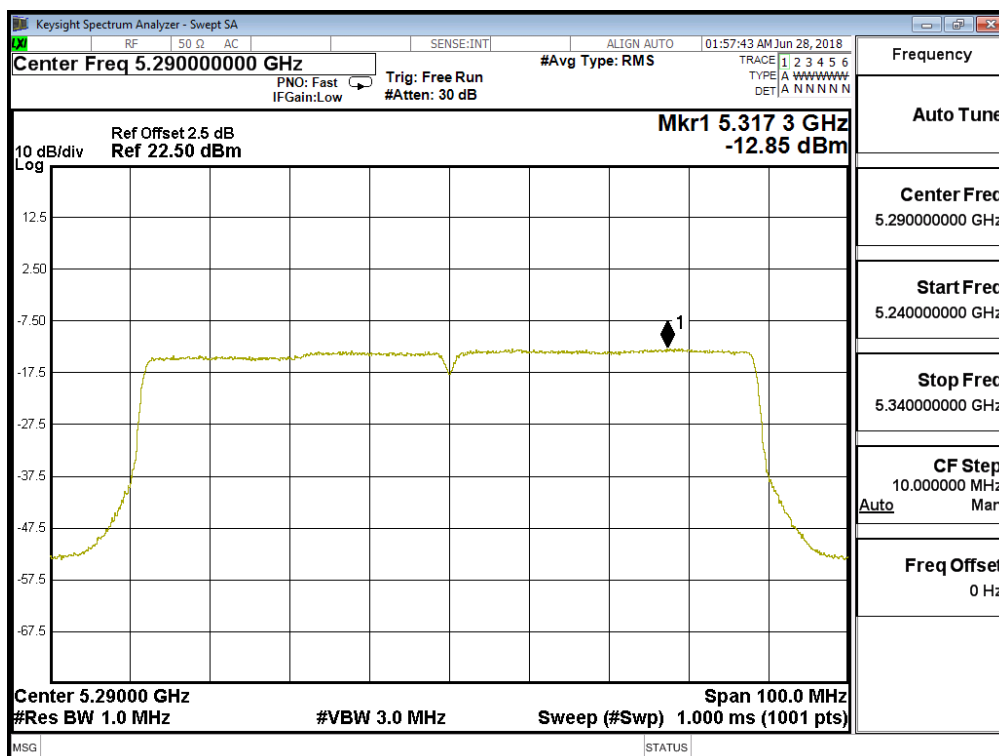
Channel Number	Frequency (MHz)	Chain	PPSD (dBm)	BWCF (dB)	Total PSD (dBm) ₁	Required Limit (dBm)	Result
138	5690 (Band4)	A	-19.080	6.98	-6.080	<21	Pass
		B	-15.860	6.98	-2.860	<21	Pass
		C	-17.990	6.98	-4.990	<21	Pass
		D	-17.550	6.98	-4.550	<21	Pass
155	5775	A	-10.770	6.98	2.230	<21	Pass
		B	-10.610	6.98	2.390	<21	Pass
		C	-12.160	6.98	0.840	<21	Pass
		D	-8.540	6.98	4.460	<21	Pass

Note 1: The quantity $10 \cdot \log 4$ (four antennas) is added to the spectrum peak value according to document 662911 D01.

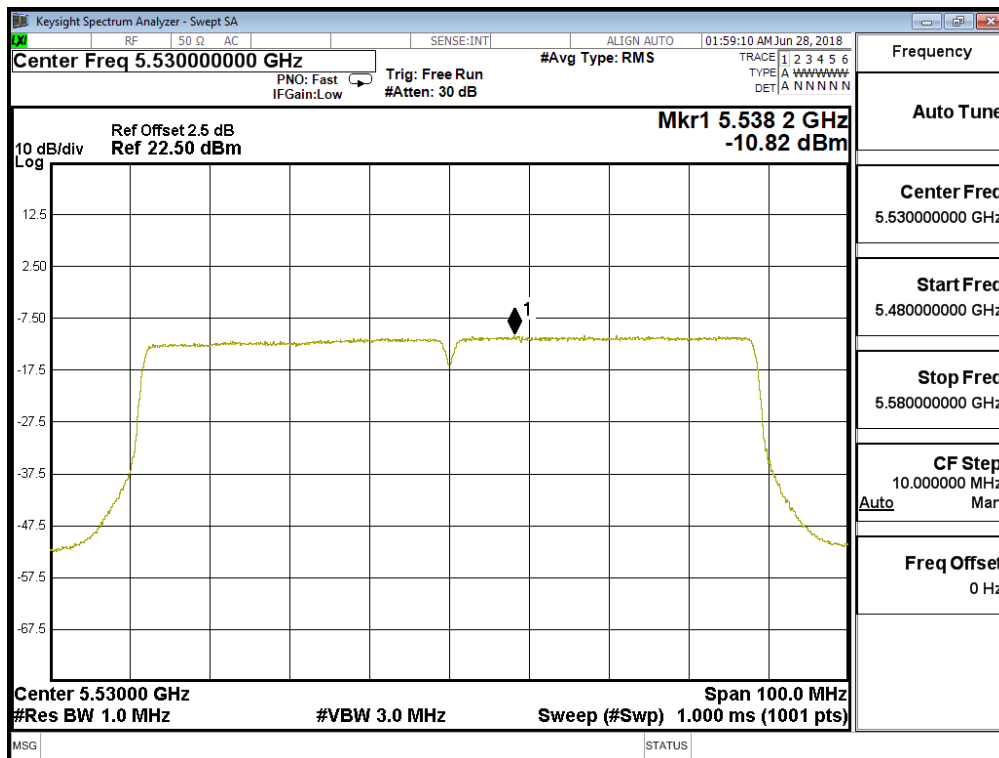
Channel 42 – Chain A



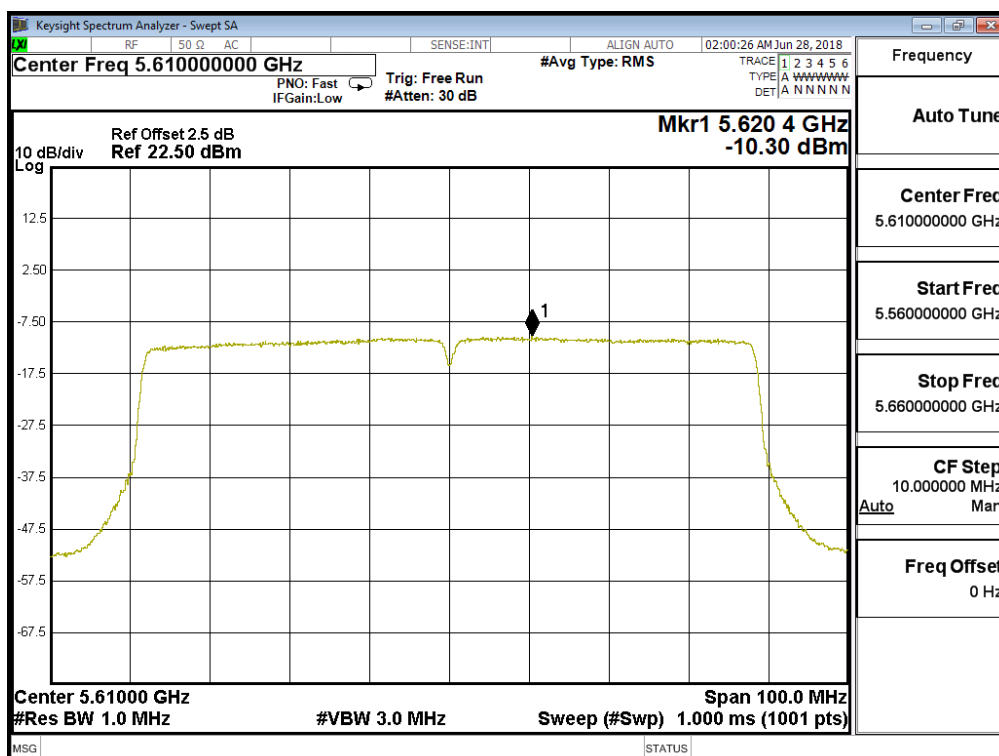
Channel 58 – Chain A



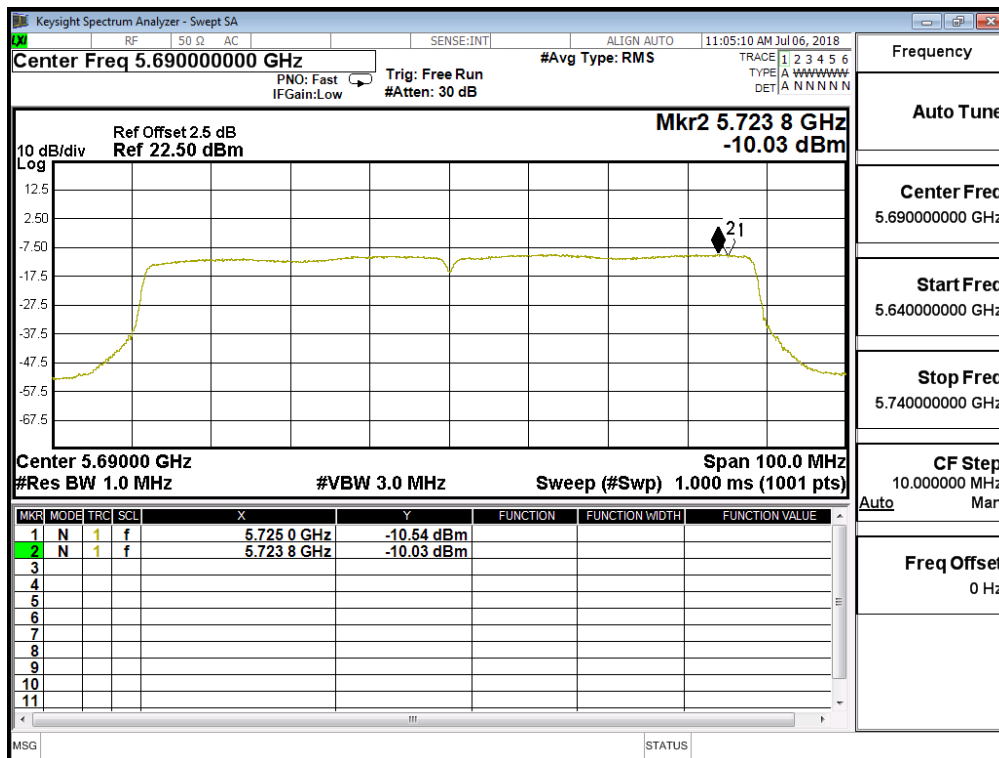
Channel 106 – Chain A



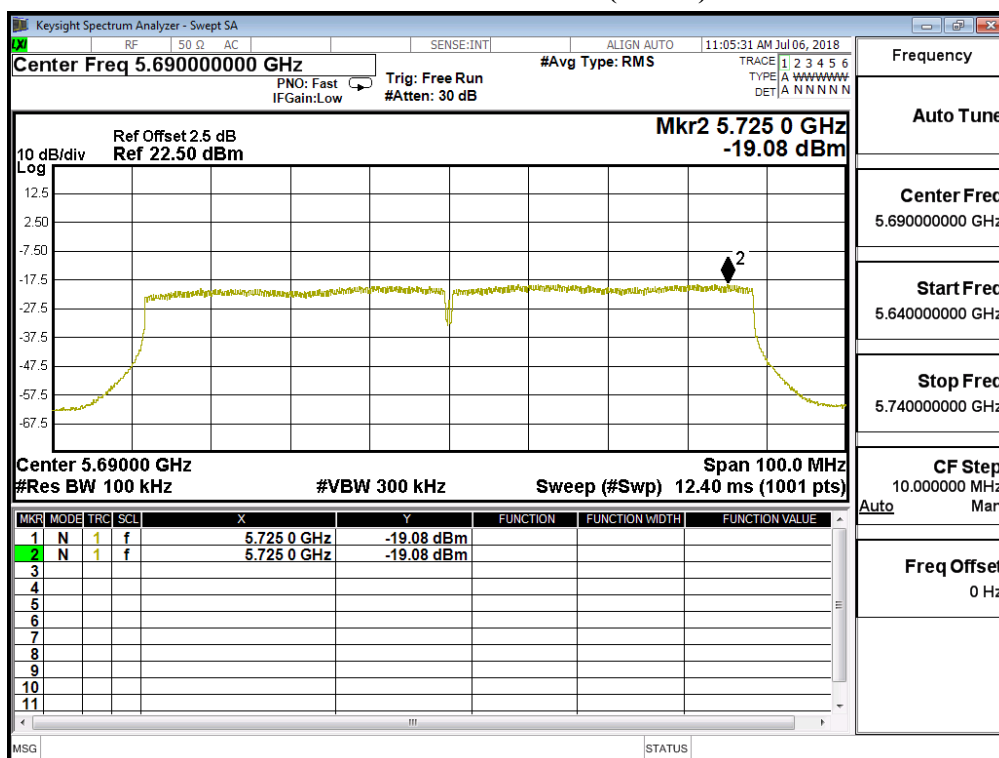
Channel 122 – Chain A



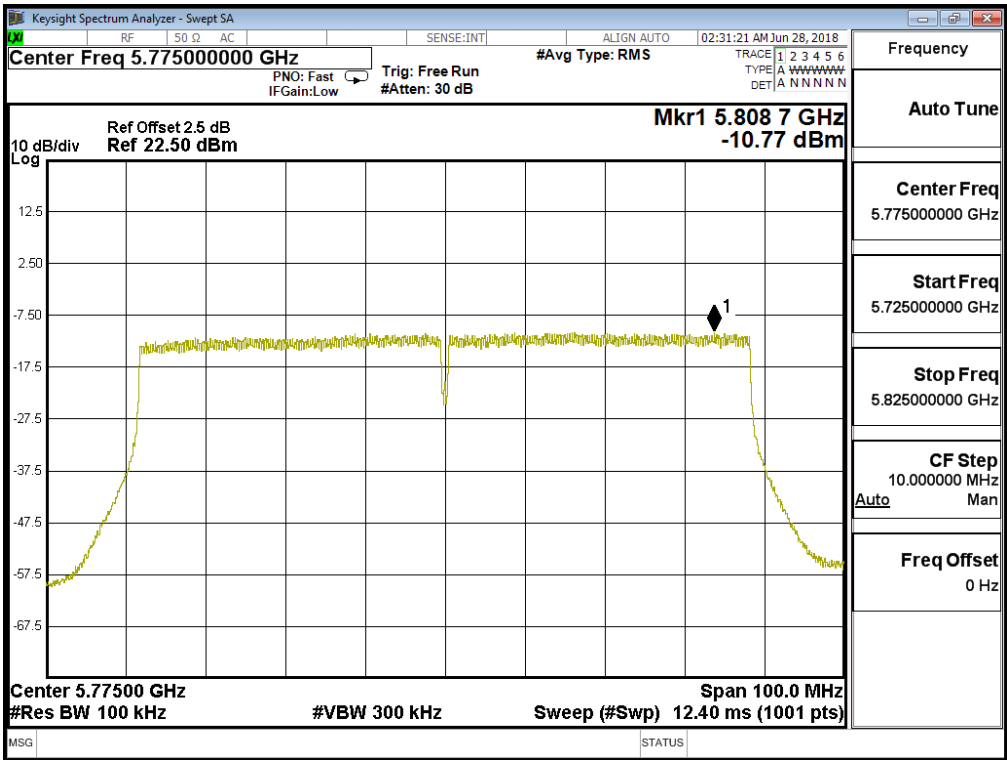
Channel 138(Band3) – Chain A



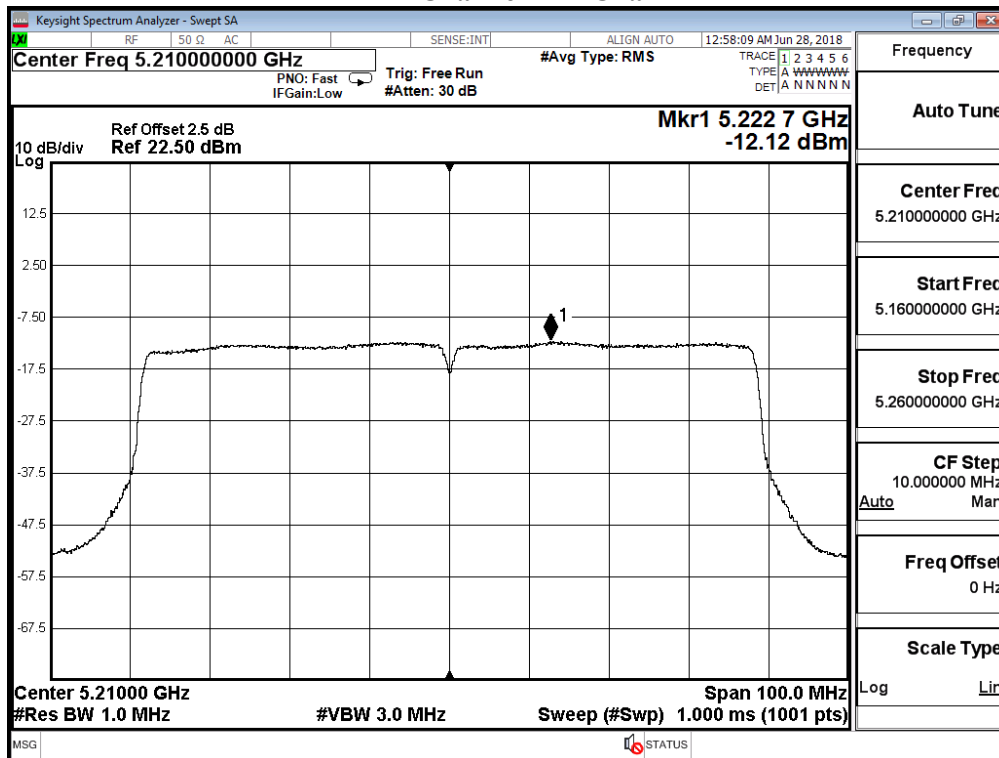
Channel 138(Band4) – Chain A



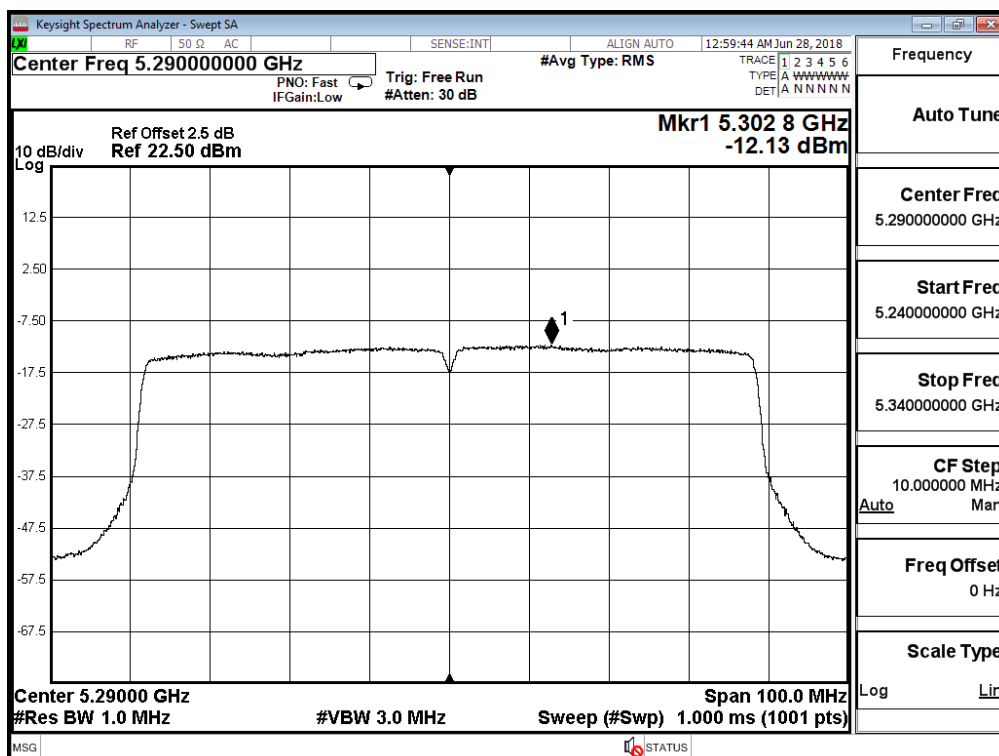
Channel 155: CHAIN A



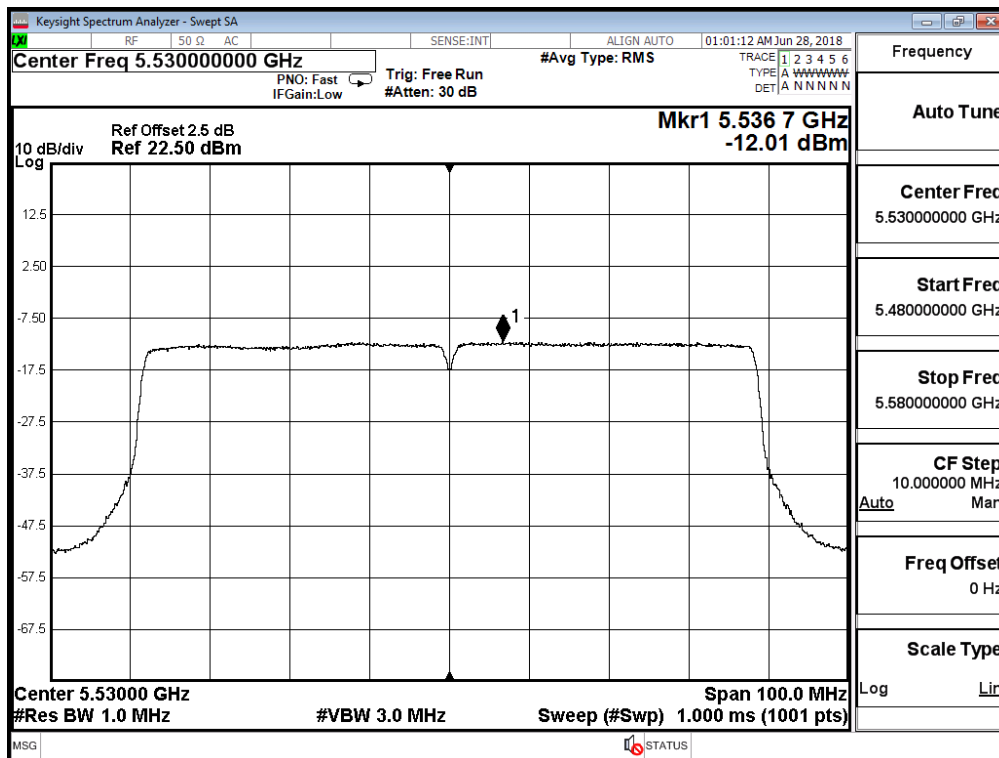
Channel 42 – Chain B



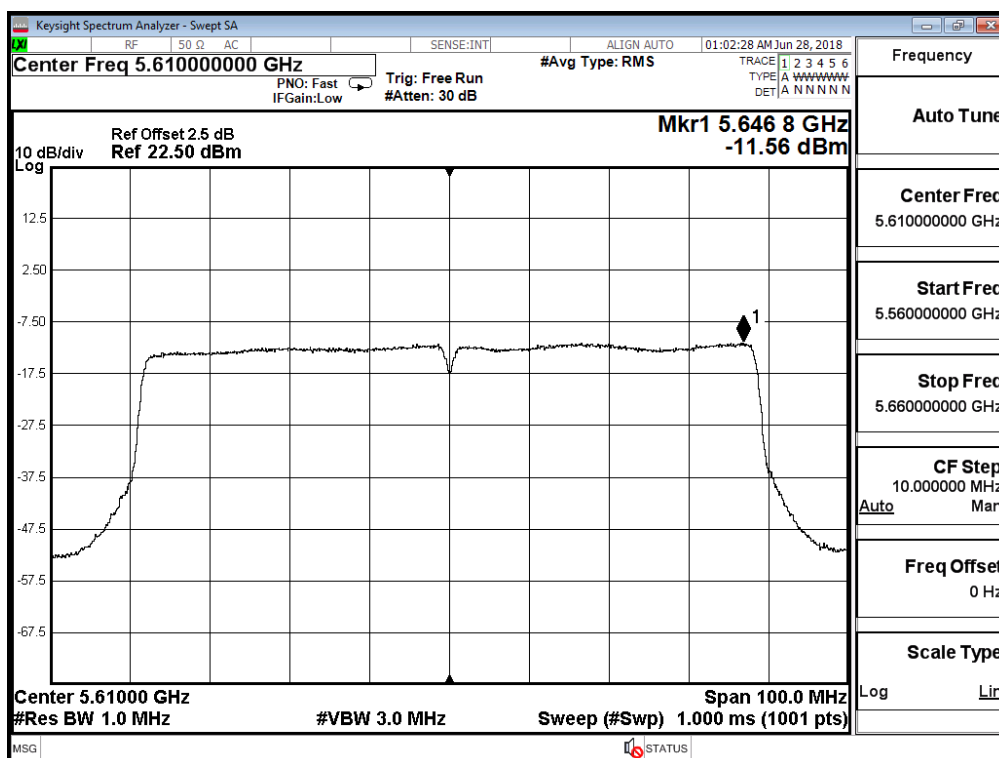
Channel 58 – Chain B



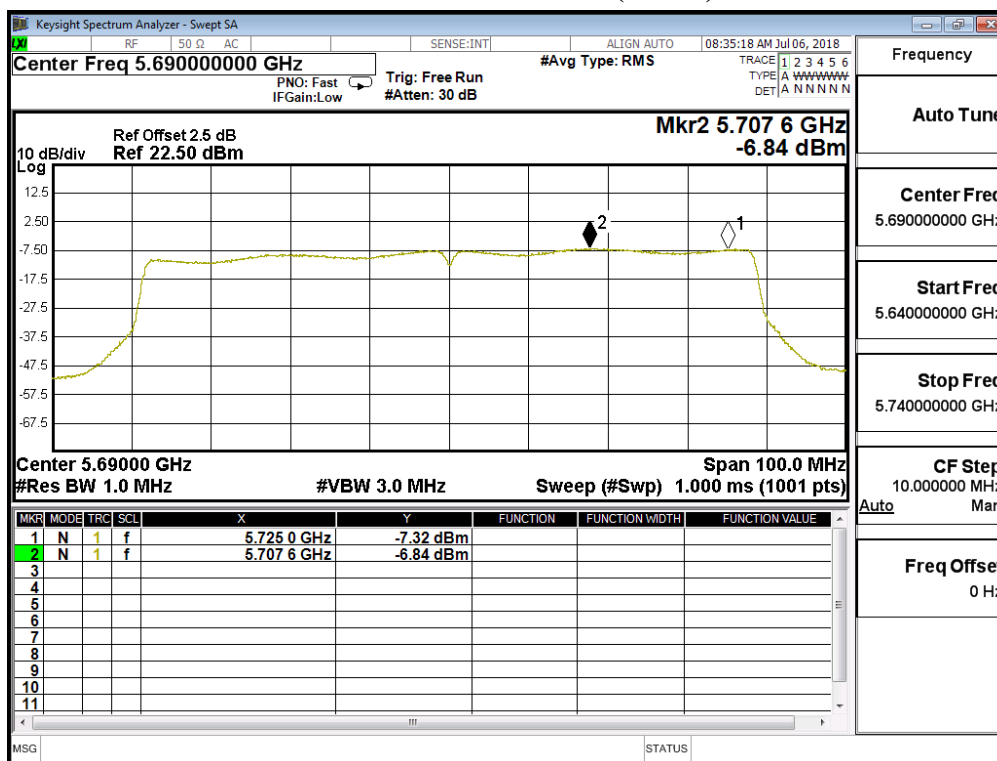
Channel 106 – Chain B



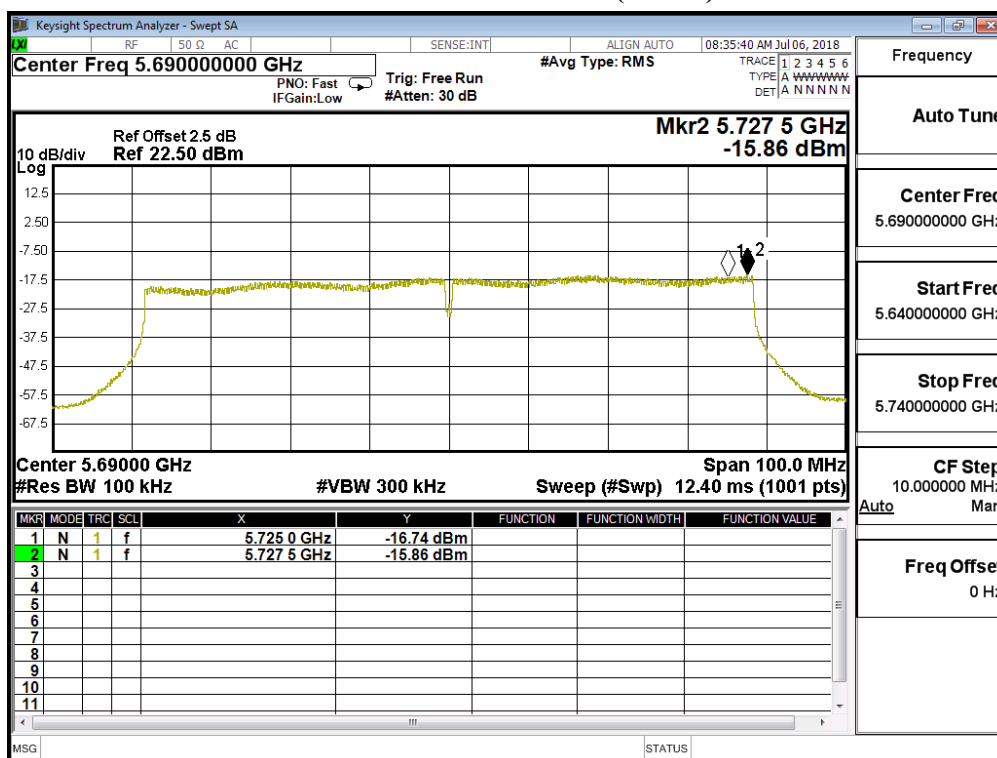
Channel 122 – Chain B



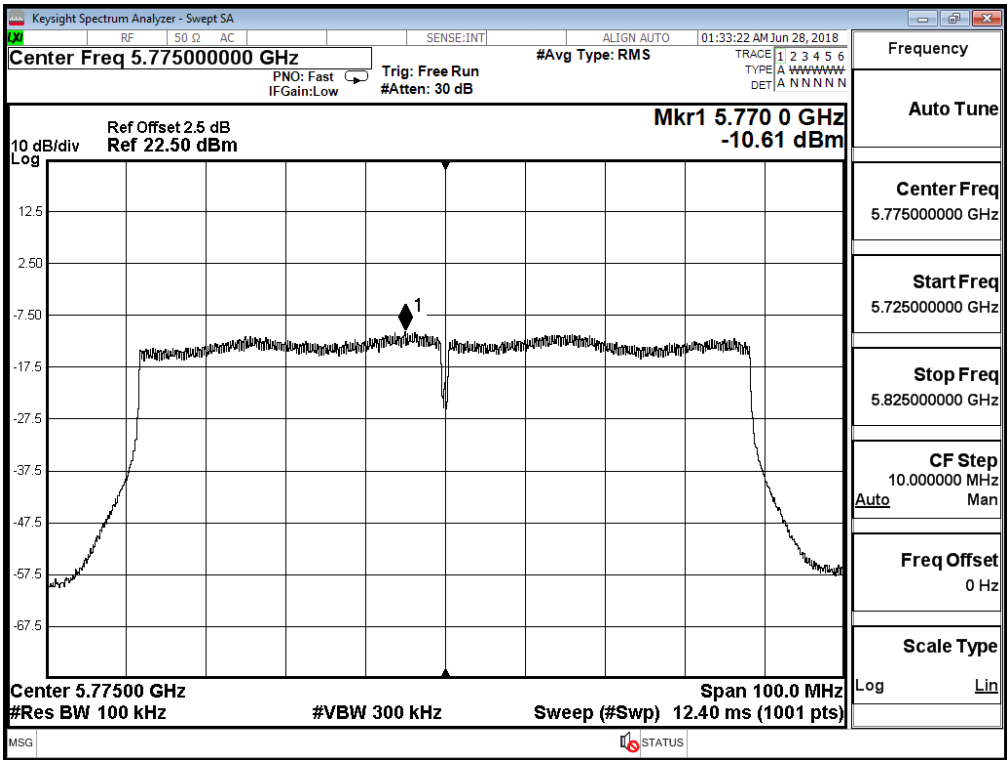
Channel 138 (Band3) – Chain B



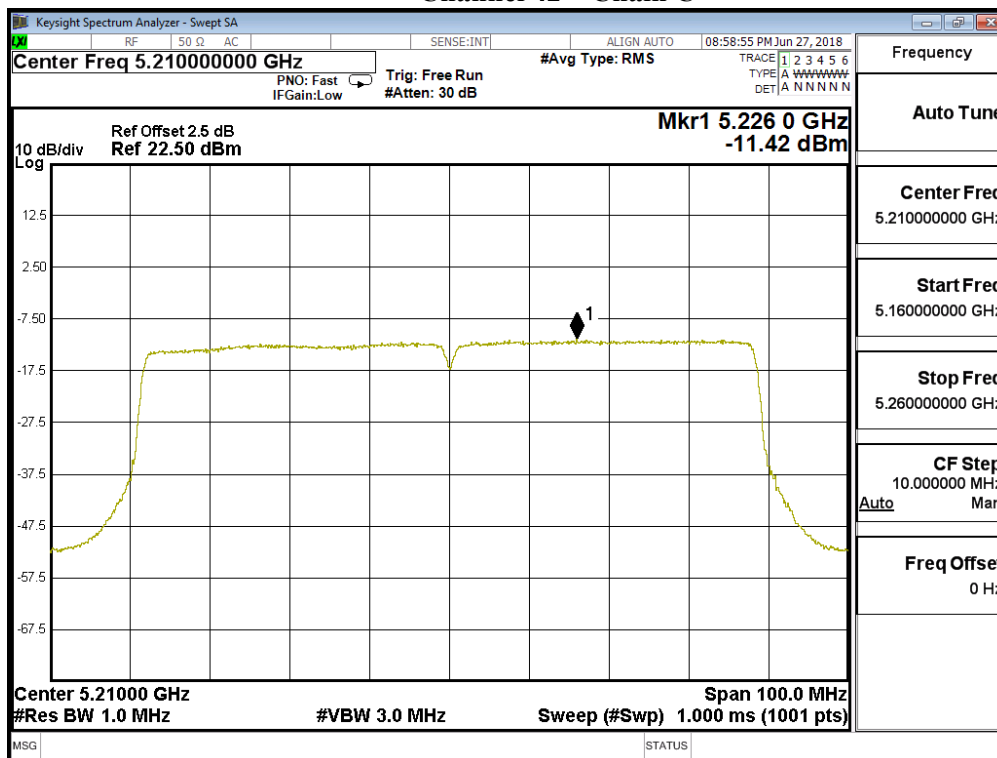
Channel 138 (Band4) – Chain B



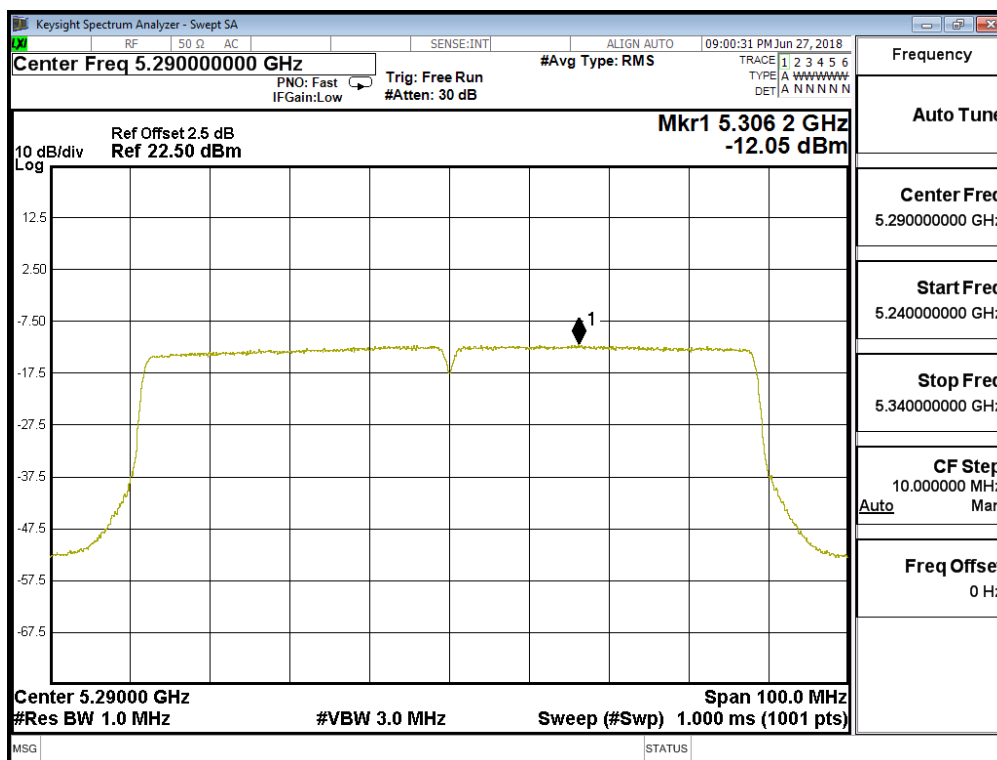
Channel 155: CHAIN B



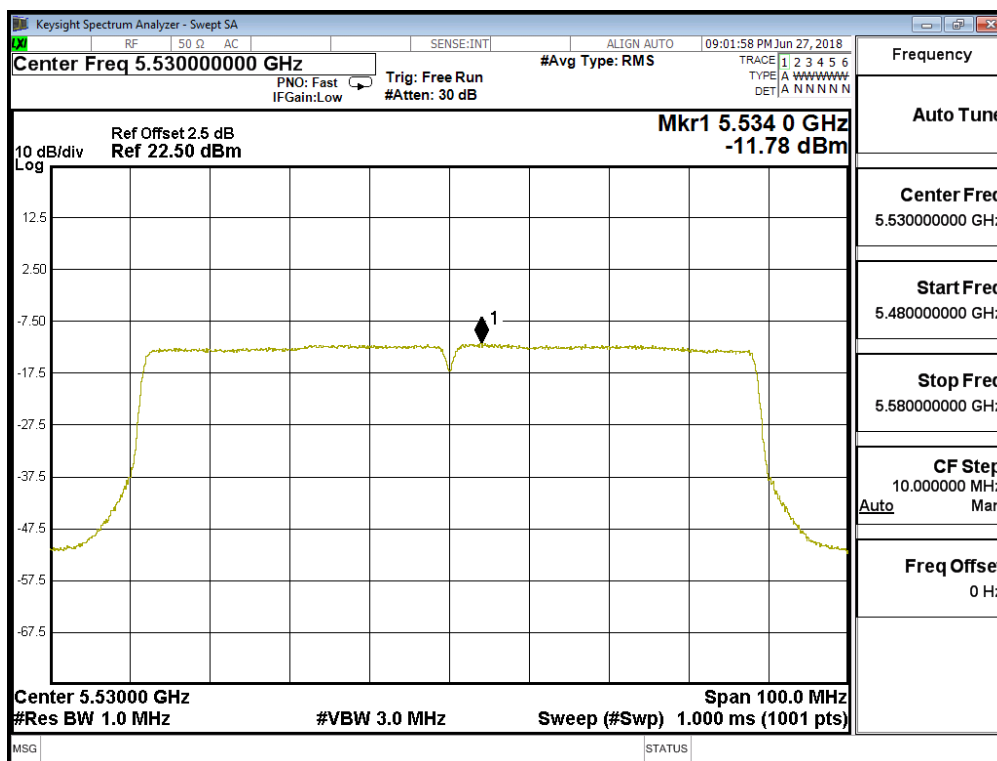
Channel 42 – Chain C



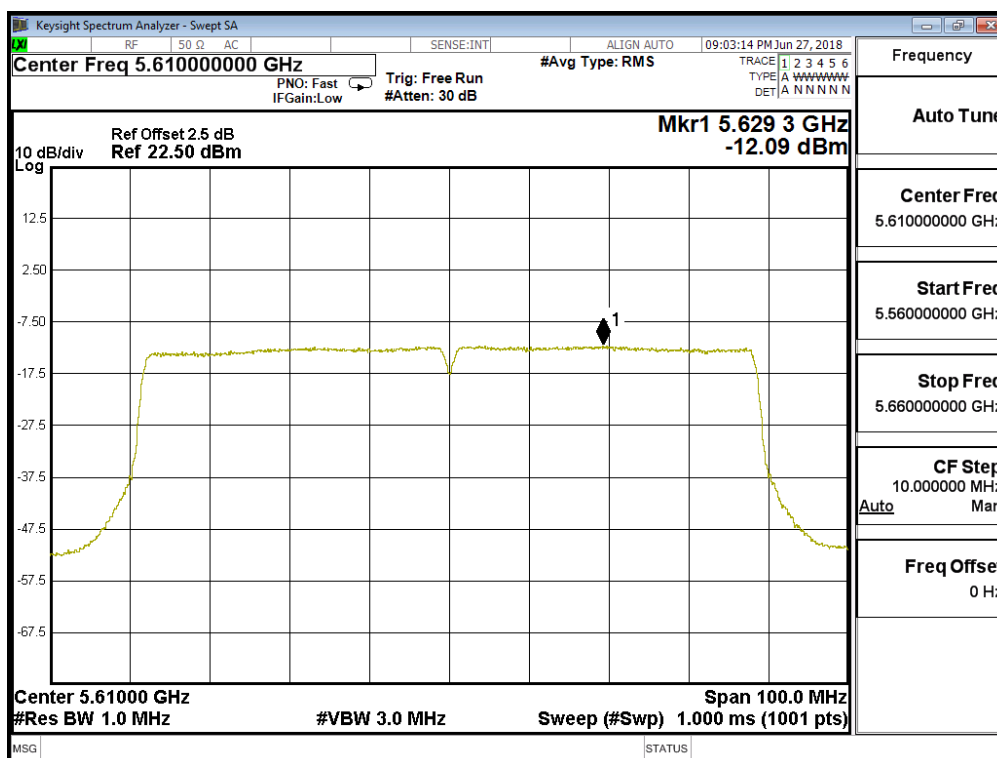
Channel 58 – Chain C



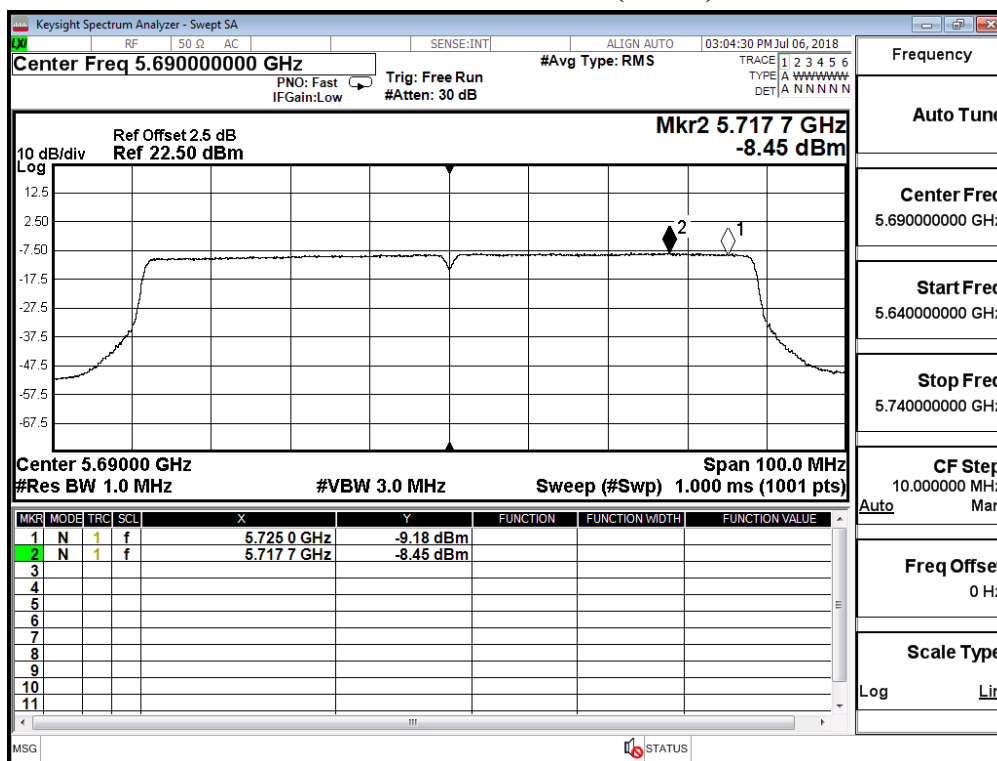
Channel 106 – Chain C



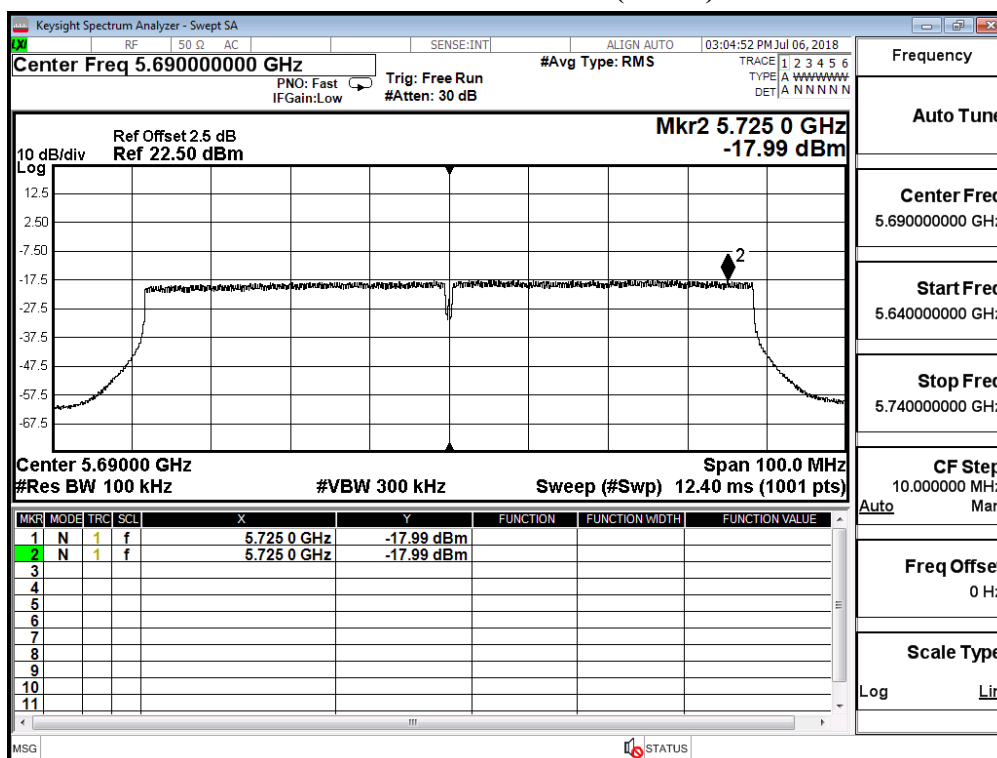
Channel 122 – Chain C



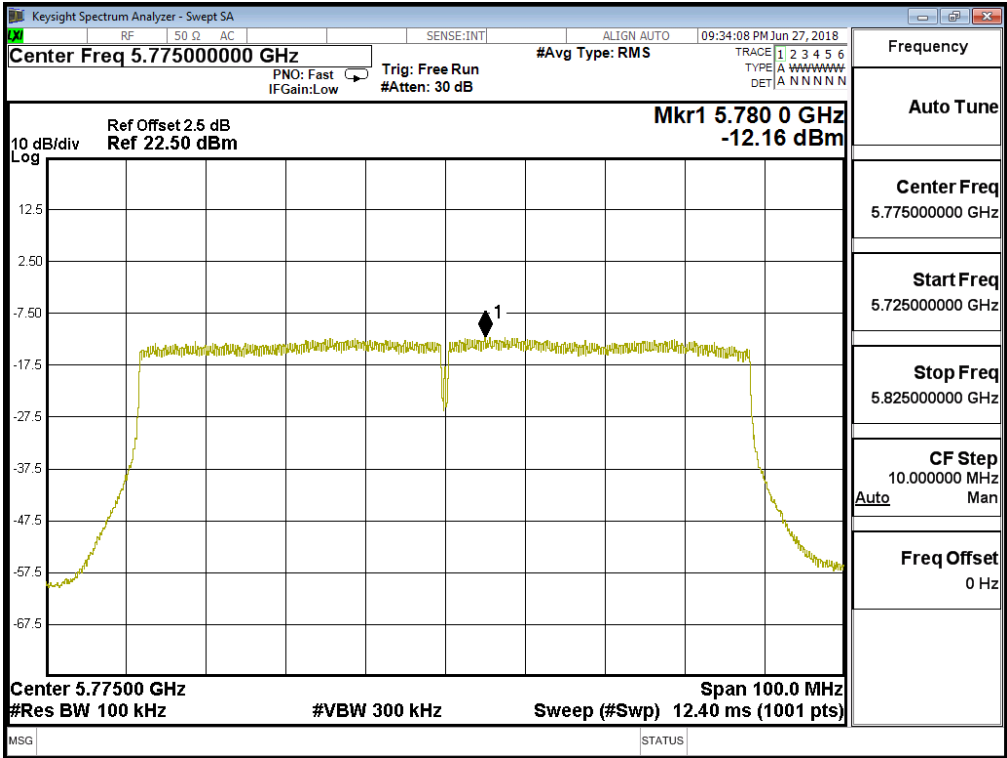
Channel 138 (Band3) – Chain C



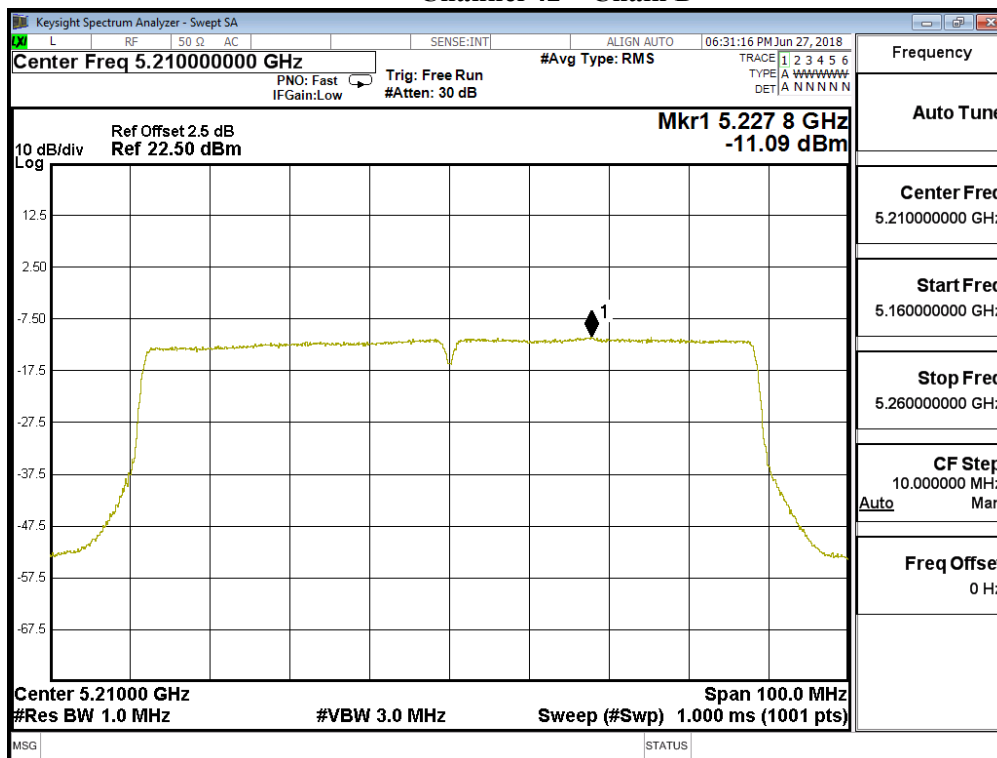
Channel 138 (Band4) – Chain C



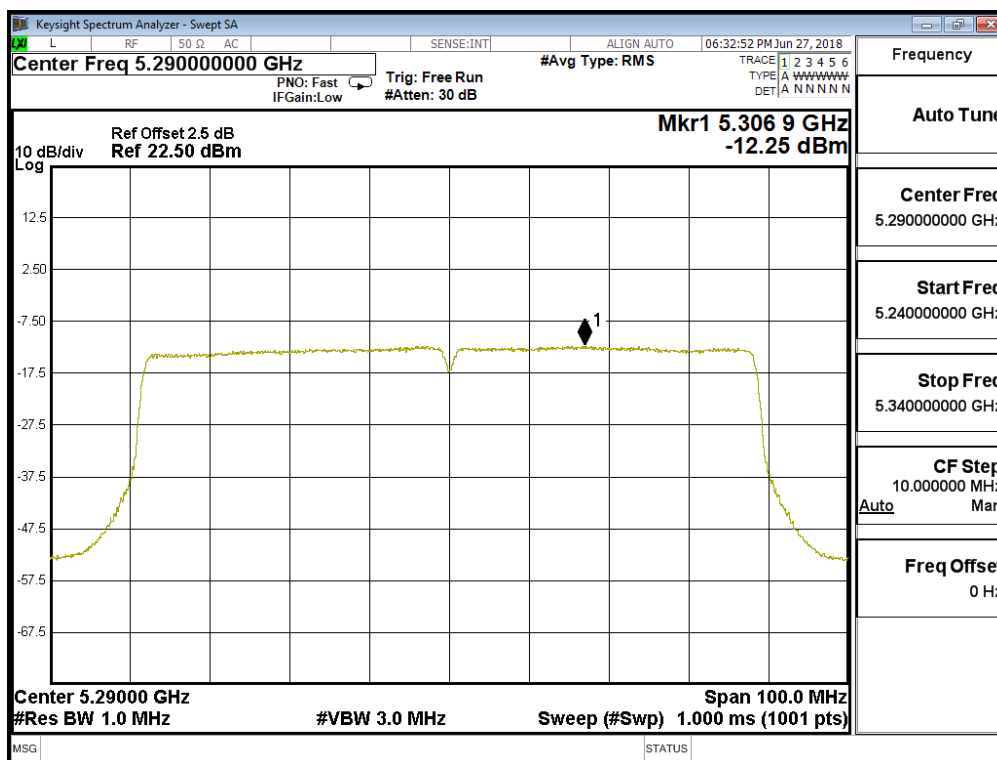
Channel 155: CHAIN C



Channel 42 – Chain D



Channel 58 – Chain D



Keysight Spectrum Analyzer - Swept SA

Center Freq 5.53000000 GHz

Ref Offset 2.5 dB
Ref 22.50 dBm

10 dB/div
Log

Mkr1 5.544 7 GHz
-8.93 dBm

Span 100.0 MHz

#Res BW 1.0 MHz

#VBW 3.0 MHz

Sweep (#Swp) 1.000 ms (1001 pts)

Frequency

Aut Tune

Center Freq
5.530000000 GHz

Start Freq
5.480000000 GHz

Stop Freq
5.580000000 GHz

CF Step
10.000000 MHz

Auto Man

Freq Offset
0 Hz

Trig: Free Run
#Atten: 30 dB

#Avg Type: RMS

TRACE 1 2 3 4 5 6
TYPE A WWWW
DET A N N N N N

PNO: Fast
IFGain: Low

ALIGN AUTO 06:34:20 PM Jun 27, 2018

SENSE:INT

MSG STATUS

Keysight Spectrum Analyzer - Swept SA

L RF 50 Ω AC SENSE:INT ALIGN AUTO 06:35:36 PM Jun 27, 2018

Center Freq 5.61000000 GHz PNO: Fast IFGain:Low Trig: Free Run #Atten: 30 dB #Avg Type: RMS

TRACE 1 2 3 4 5 6
TYPE A WWWW
DET A N N N N N

Ref Offset 2.5 dB
Ref 22.50 dBm

Mkr1 5.624 2 GHz
-8.14 dBm

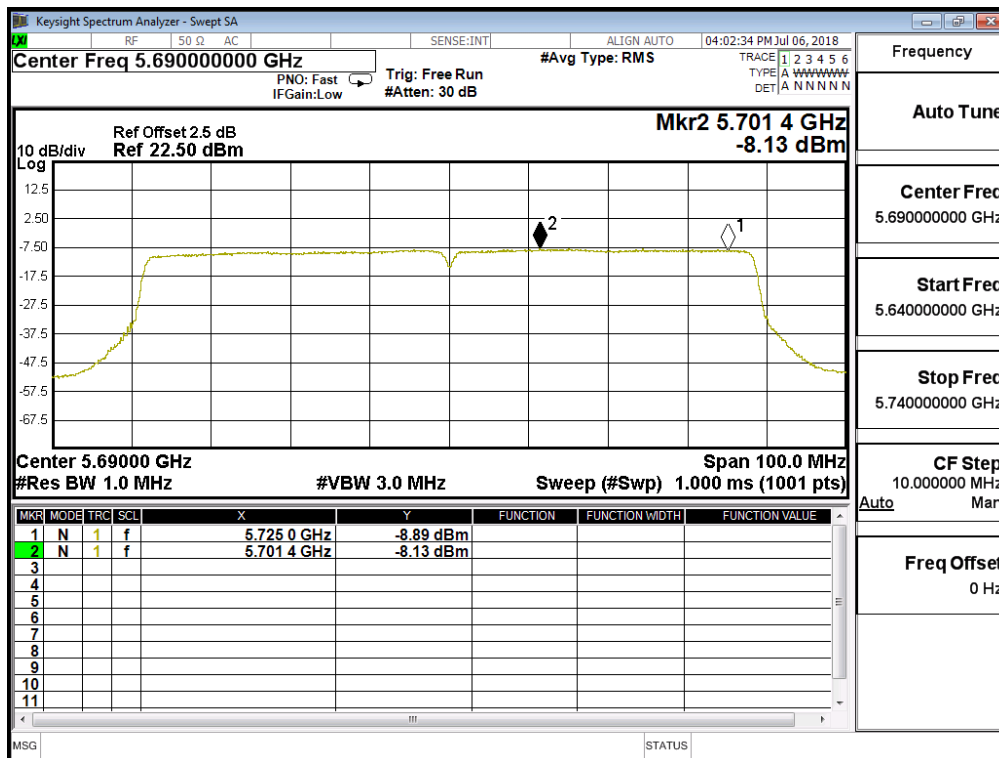
10 dB/div
Log

The plot shows a signal spectrum with a flat top and steep skirts. A yellow marker labeled '1' is positioned at 5.624 GHz with a power level of -8.14 dBm. The y-axis is logarithmic, ranging from -67.5 dBm to 12.5 dBm. The x-axis is linear, spanning 100.0 MHz.

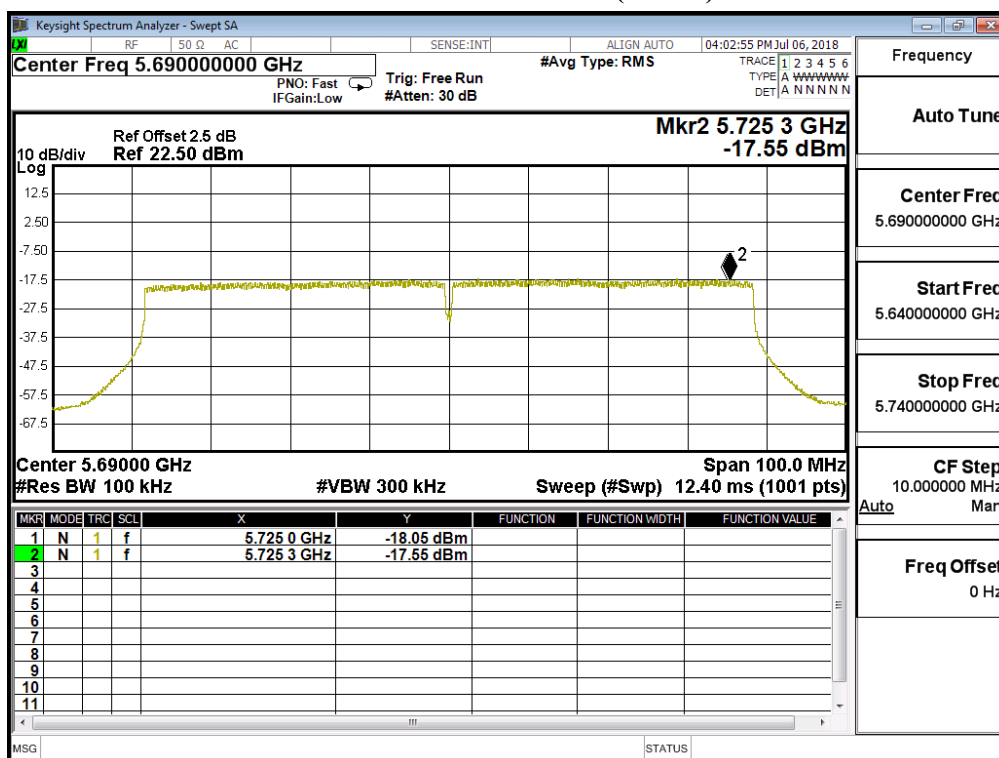
Center 5.61000 GHz Span 100.0 MHz
#Res BW 1.0 MHz #VBW 3.0 MHz Sweep (#Swp) 1.000 ms (1001 pts)

Frequency
Auto Tune
Center Freq 5.61000000 GHz
Start Freq 5.66000000 GHz
Stop Freq 5.66000000 GHz
CF Step 10.00000 MHz
Auto Man
Freq Offset 0 Hz

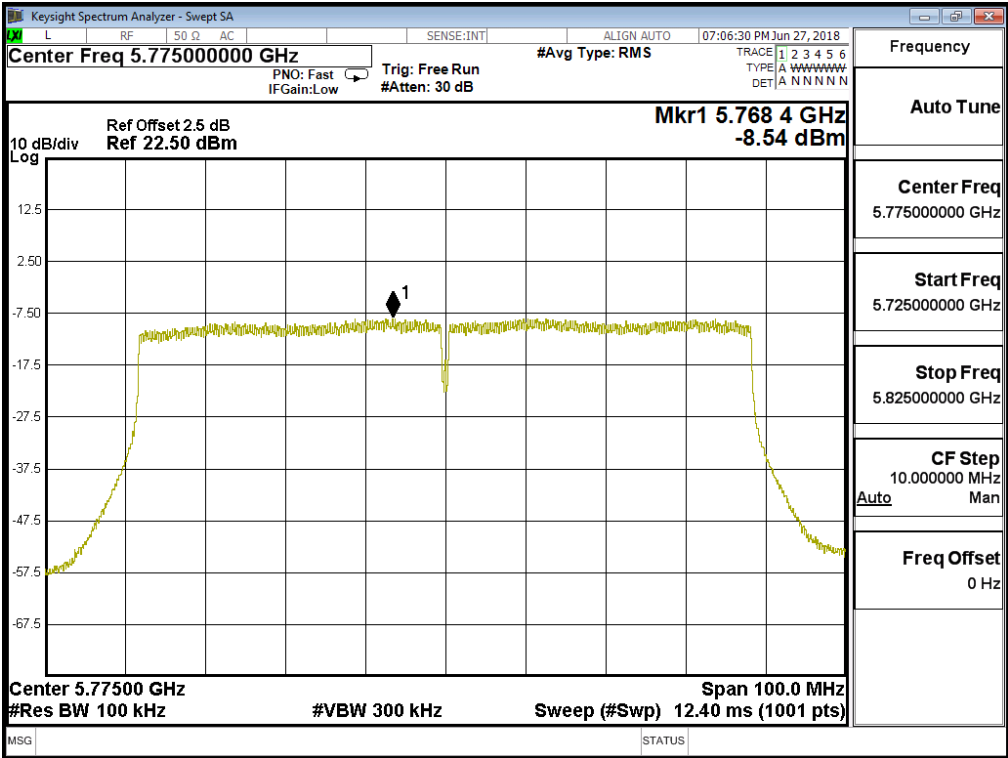
Channel 138 (Band3) – Chain D



Channel 138 (Band4) – Chain D



Channel 155: CHAIN D

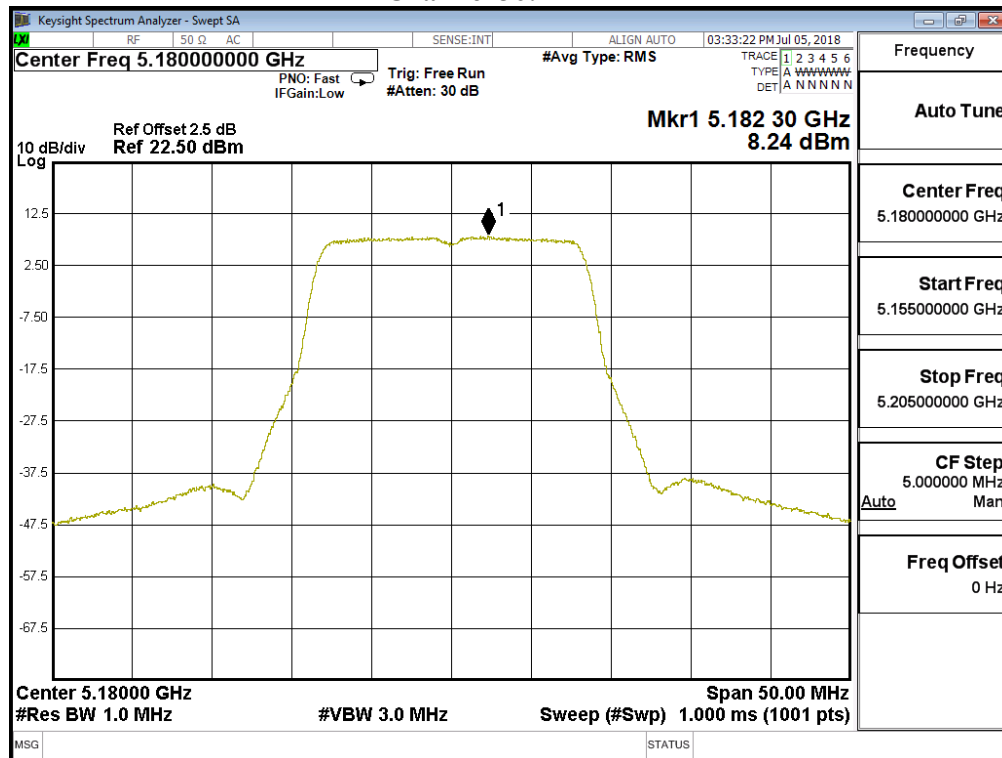


Product : MOXA IEEE 802.11a/n/ac 4*4 module
 Test Item : Peak Power Spectral Density
 Test Site : No.3 OATS
 Test Date : 2018/06/14
 Test Mode : Mode 1: Transmit (802.11a-6Mbps) (Antenna No.19)

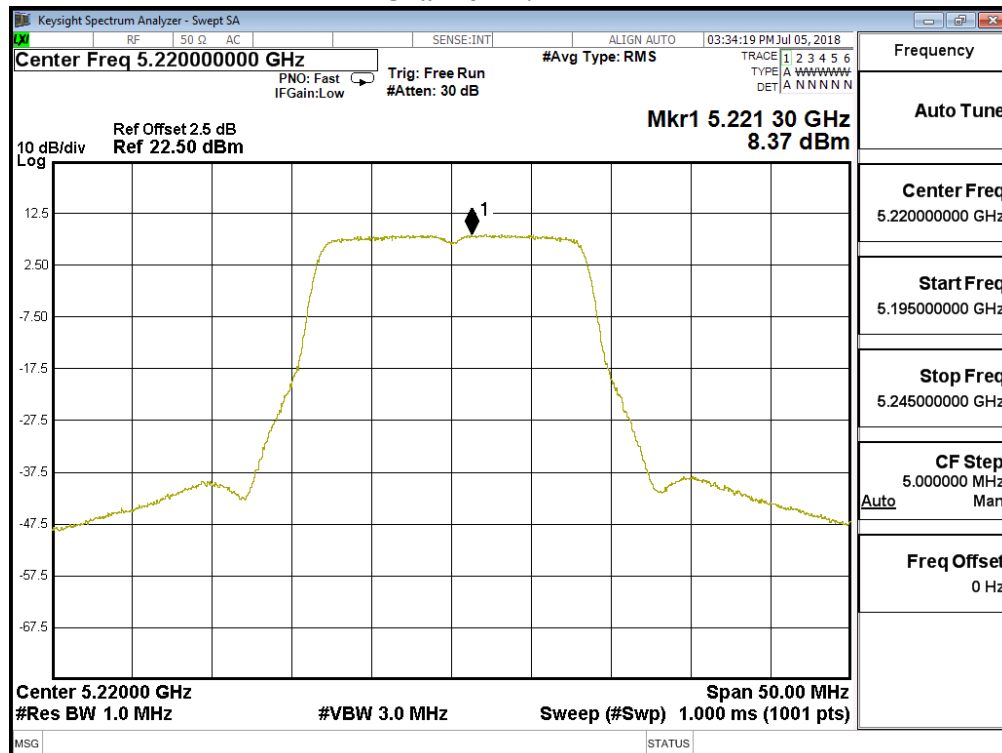
Channel Number	Frequency (MHz)	Data Rate (Mbps)	Measurement Level (dBm)	Required Limit (dBm)	Result
36	5180	6	8.24	8.5	Pass
44	5220	6	8.37	8.5	Pass
48	5240	6	8.10	8.5	Pass
52	5260	6	8.19	8.5	Pass
60	5300	6	7.81	8.5	Pass
64	5320	6	7.88	8.5	Pass
100	5500	6	8.28	8.5	Pass
116	5580	6	8.31	8.5	Pass
140	5700	6	7.97	8.5	Pass

Channel Number	Frequency (MHz)	Data Rate (Mbps)	PPSD (dBm)	BWCF (dB)	Total PSD (dBm)	Required Limit (dBm)	Result
149	5745	6	-0.27	6.98	12.73	<27.5	Pass
157	5785	6	-0.08	6.98	12.92	<27.5	Pass
165	5825	6	-0.28	6.98	12.72	<27.5	Pass

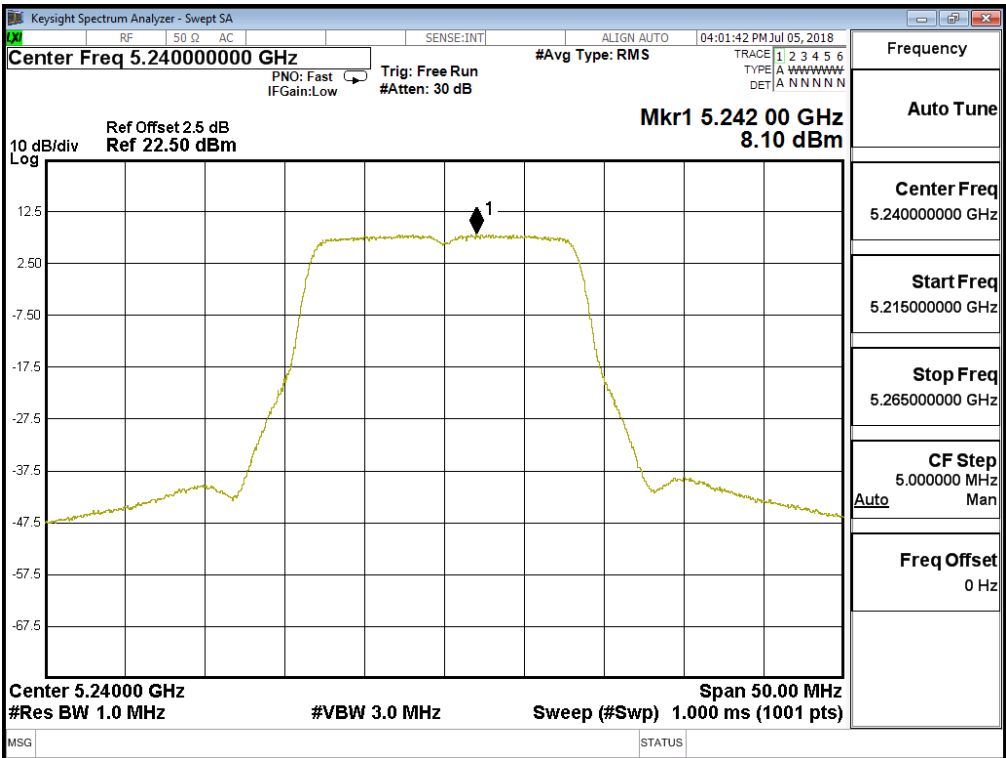
Channel 36:



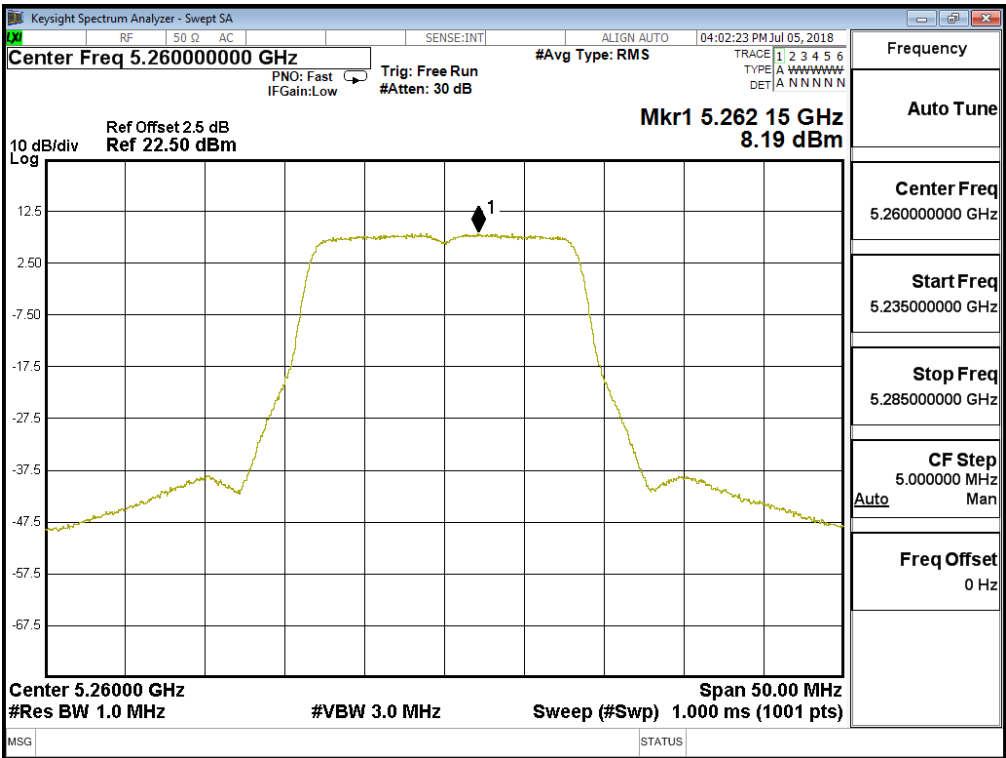
Channel 44:



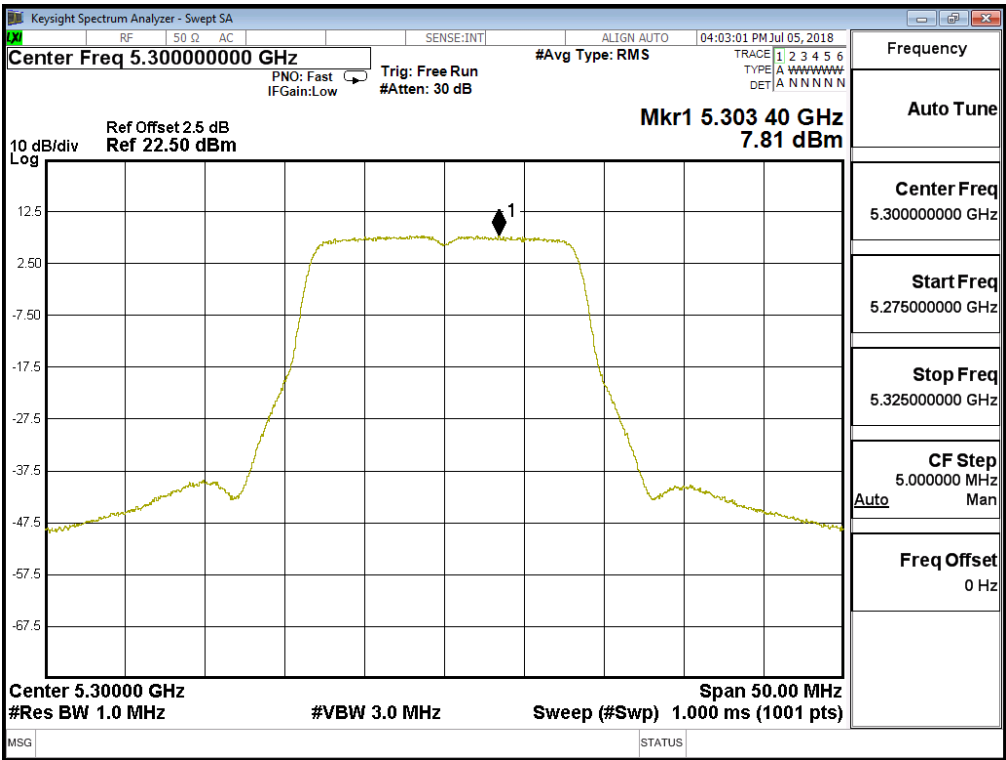
Channel 48:



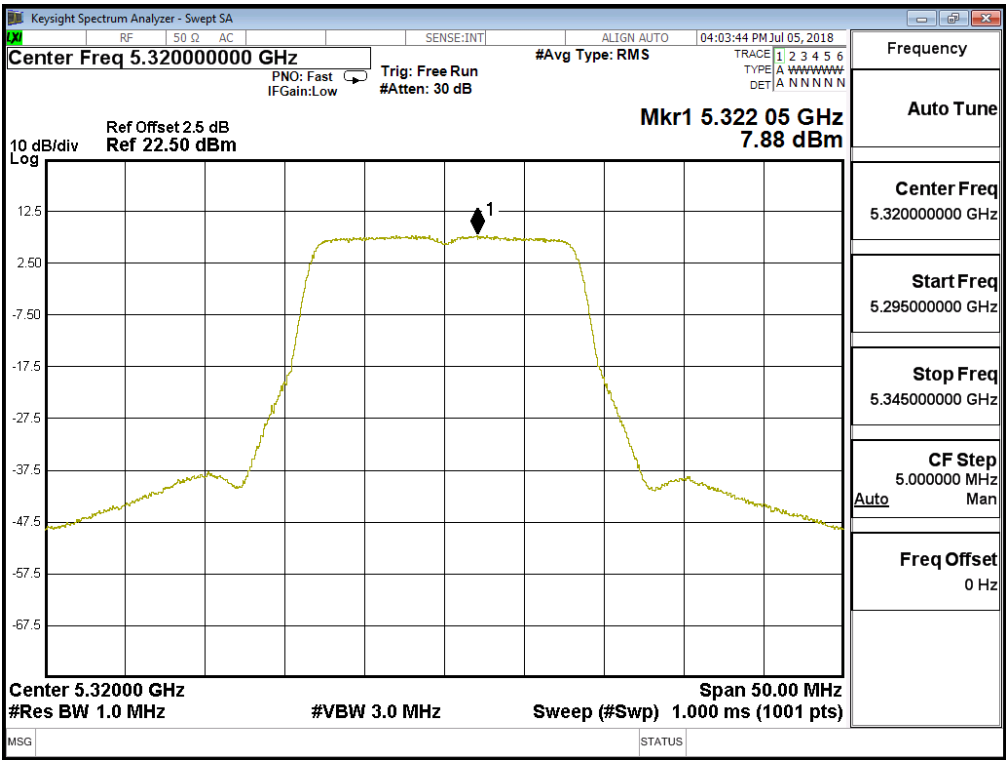
Channel 52:



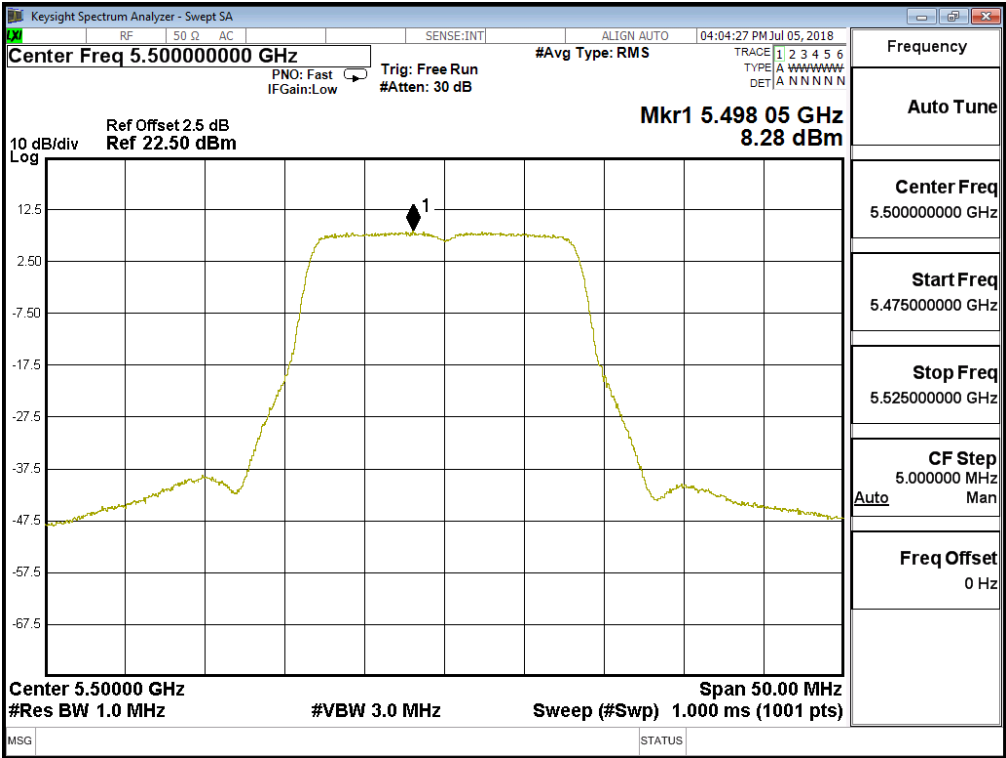
Channel 60:



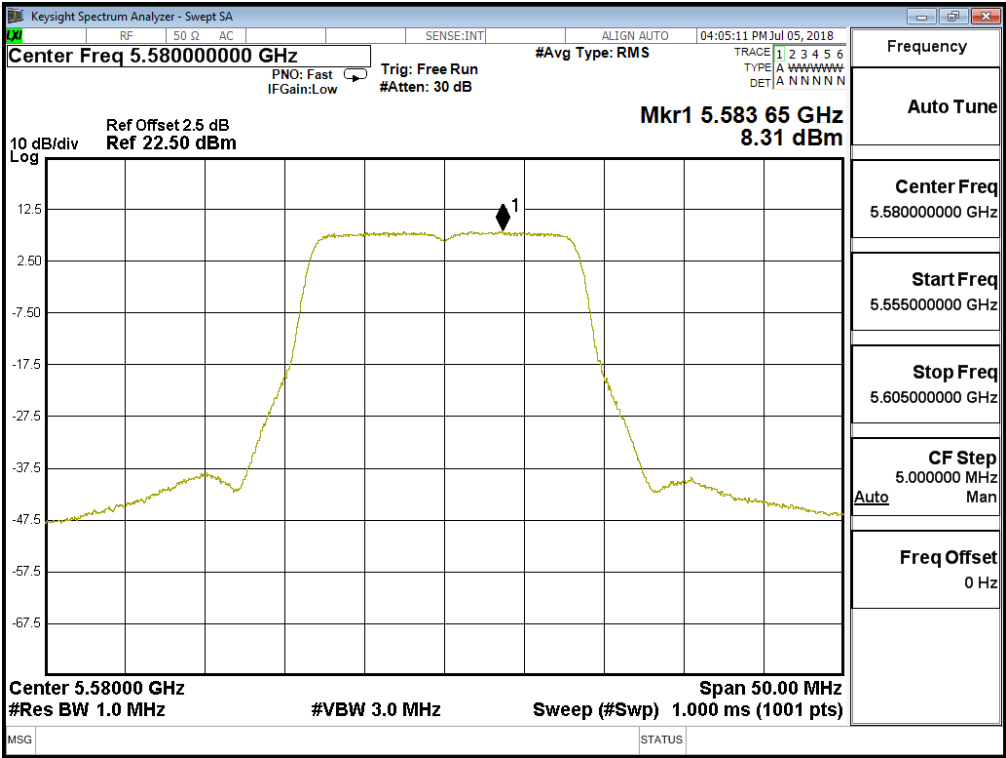
Channel 64:



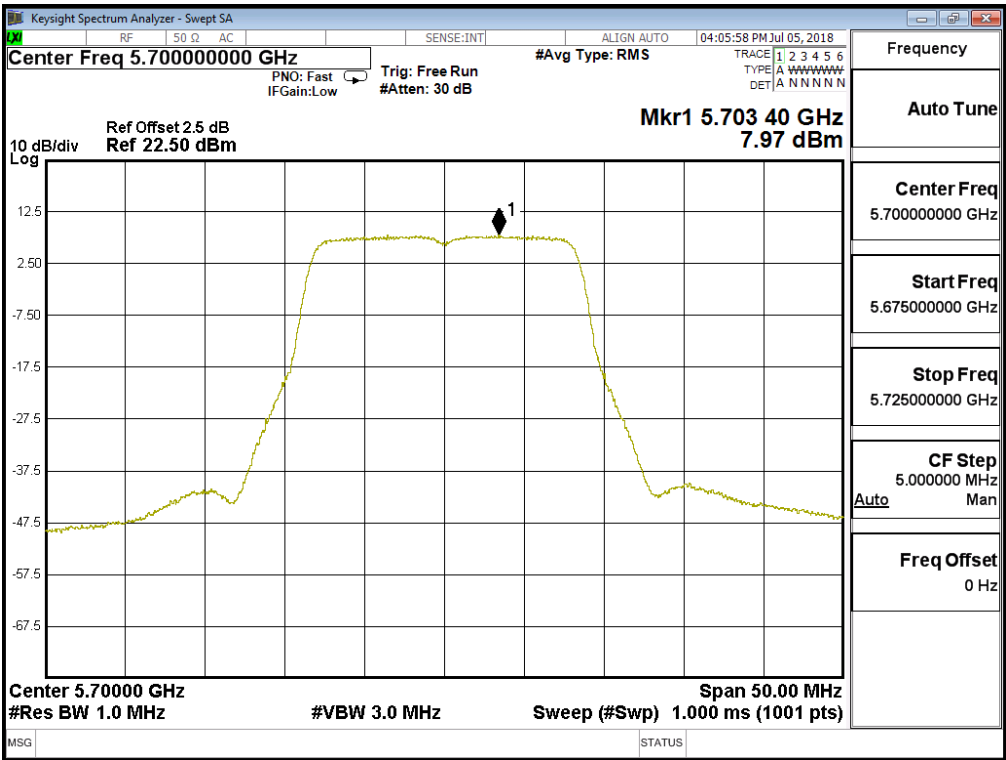
Channel 100:



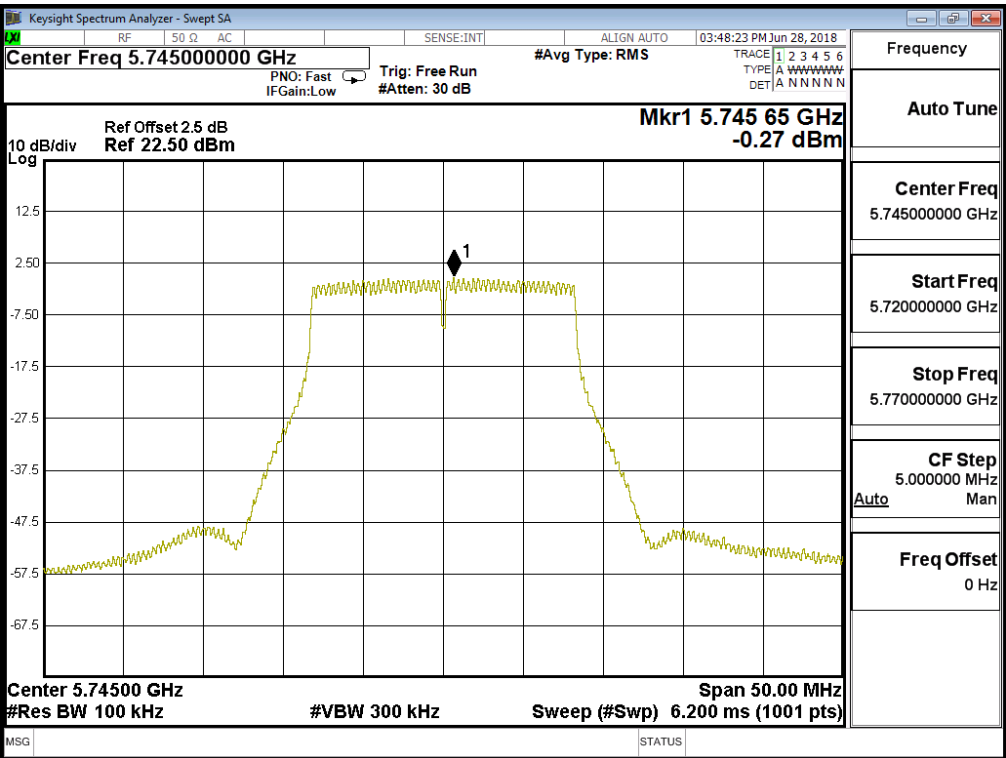
Channel 116:



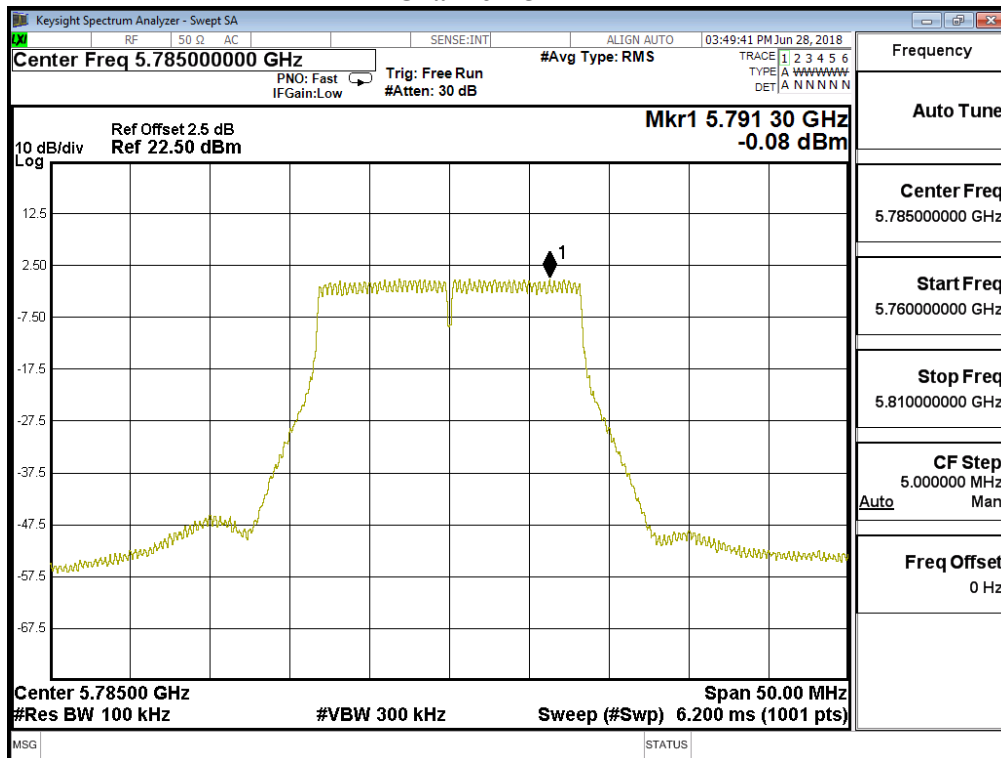
Channel 140:



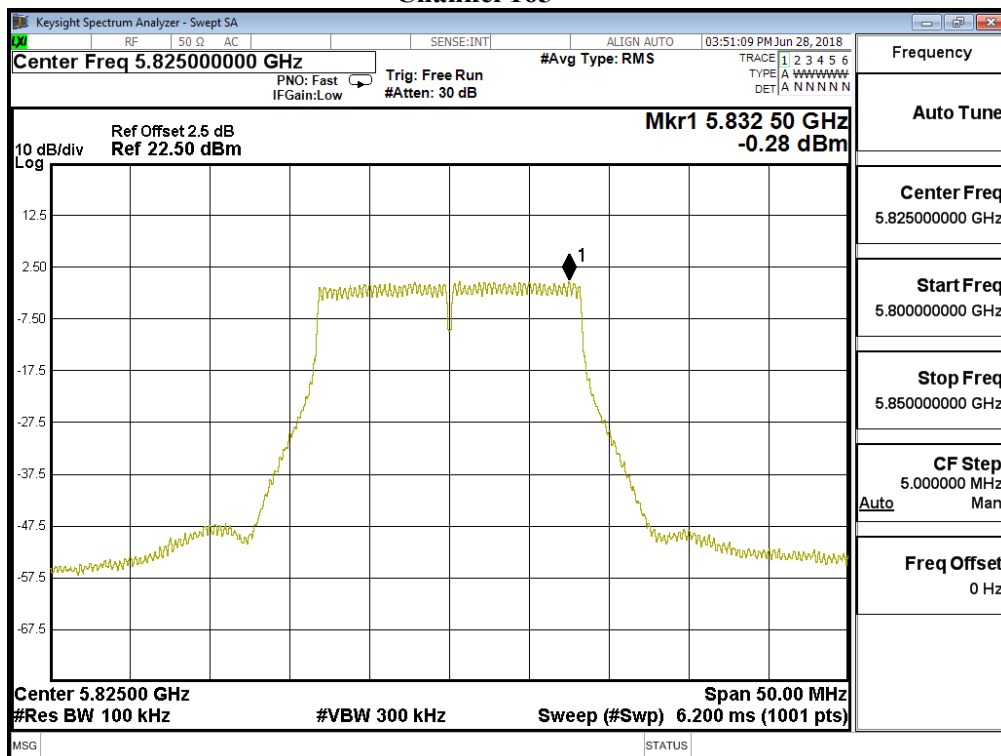
Channel 149



Channel 157



Channel 165



Product : MOXA IEEE 802.11a/n/ac 4*4 module
 Test Item : Peak Power Spectral Density
 Test Site : No.3 OATS
 Test Date : 2018/06/14
 Test Mode : Mode 2: Transmit (802.11n-20BW 28.8Mbps) (Antenna No.19)

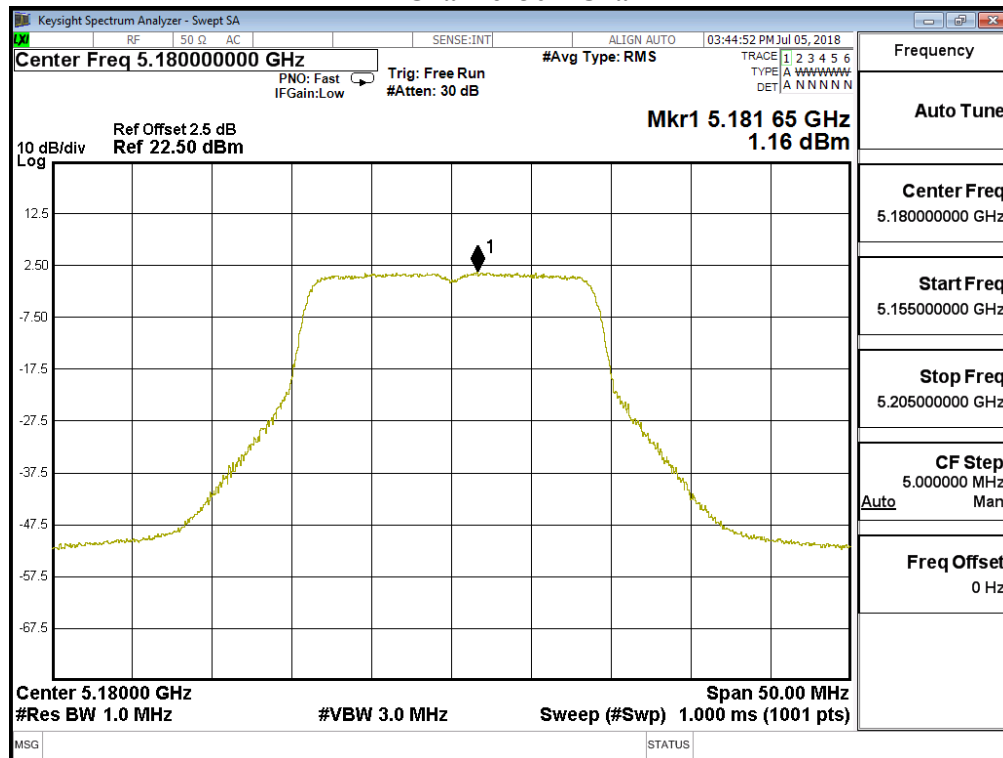
Channel Number	Frequency (MHz)	Chain	PPSD (dBm)	Total PPSD (dBm)1	Required Limit (dBm)	Result
36	5180	A	1.16	7.18	8.5	Pass
		B	1.64	7.66	8.5	Pass
		C	1.76	7.78	8.5	Pass
		D	1.77	7.79	8.5	Pass
44	5220	A	2.00	8.02	8.5	Pass
		B	2.10	8.12	8.5	Pass
		C	2.06	8.08	8.5	Pass
		D	2.28	8.30	8.5	Pass
48	5240	A	2.37	8.39	8.5	Pass
		B	1.81	7.83	8.5	Pass
		C	2.43	8.45	8.5	Pass
		D	2.19	8.21	8.5	Pass
52	5260	A	1.44	7.46	8.5	Pass
		B	0.90	6.92	8.5	Pass
		C	1.90	7.92	8.5	Pass
		D	1.10	7.12	8.5	Pass
60	5300	A	0.76	6.78	8.5	Pass
		B	1.31	7.33	8.5	Pass
		C	2.00	8.02	8.5	Pass
		D	0.90	6.92	8.5	Pass
64	5320	A	0.27	6.29	8.5	Pass
		B	1.09	7.11	8.5	Pass
		C	1.89	7.91	8.5	Pass
		D	1.02	7.04	8.5	Pass
100	5500	A	0.98	7.00	8.5	Pass
		B	1.48	7.50	8.5	Pass
		C	0.87	6.89	8.5	Pass

		D	1.73	7.75	8.5	Pass
116	5580	A	-0.28	5.74	8.5	Pass
		B	1.35	7.37	8.5	Pass
		C	0.89	6.91	8.5	Pass
		D	2.16	8.18	8.5	Pass
140	5700	A	-0.49	5.53	8.5	Pass
		B	1.94	7.96	8.5	Pass
		C	-0.53	5.49	8.5	Pass
		D	1.65	7.67	8.5	Pass

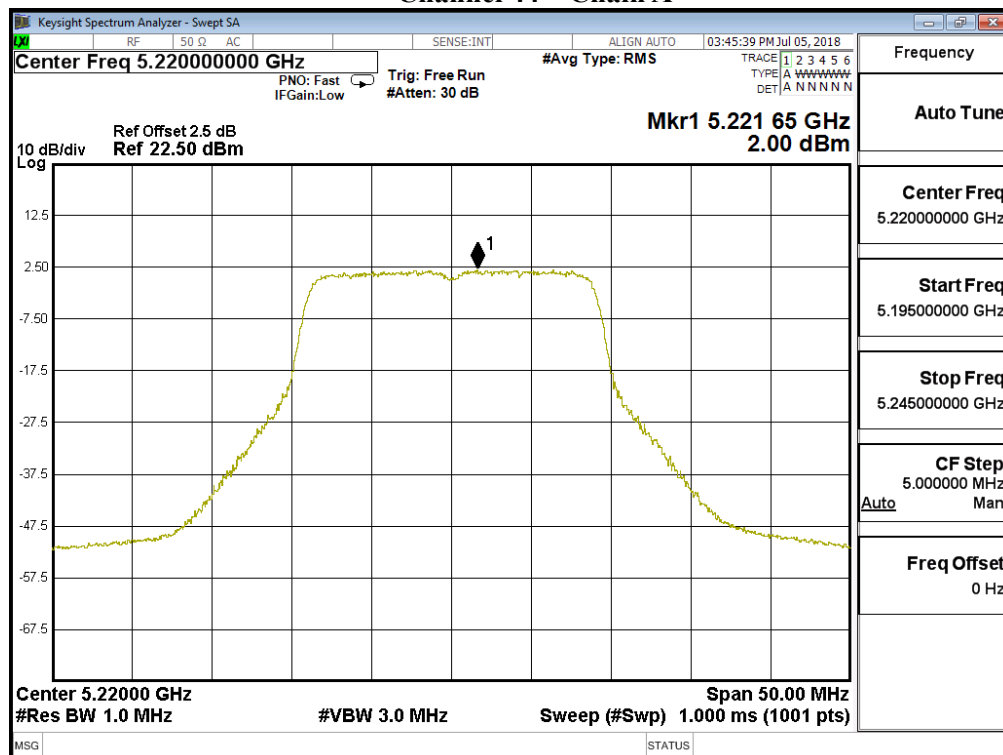
Channel Number	Frequency (MHz)	Chain	PPSD (dBm)	BWCF (dB)	Total PSD (dBm) ₁	Required Limit (dBm)	Result
149	5745	A	-2.26	6.98	10.74	<27.5	Pass
		B	-2.39	6.98	10.61	<27.5	Pass
		C	-3.37	6.98	9.63	<27.5	Pass
		D	0.61	6.98	13.61	<27.5	Pass
157	5785	A	-1.27	6.98	11.73	<27.5	Pass
		B	-2.07	6.98	10.93	<27.5	Pass
		C	-3.25	6.98	9.75	<27.5	Pass
		D	0.70	6.98	13.70	<27.5	Pass
165	5825	A	-1.98	6.98	11.02	<27.5	Pass
		B	-2.98	6.98	10.02	<27.5	Pass
		C	-3.74	6.98	9.26	<27.5	Pass
		D	0.17	6.98	13.17	<27.5	Pass

Note 1: The quantity $10 \cdot \log 4$ (four antennas) is added to the spectrum peak value according to document 662911 D01.

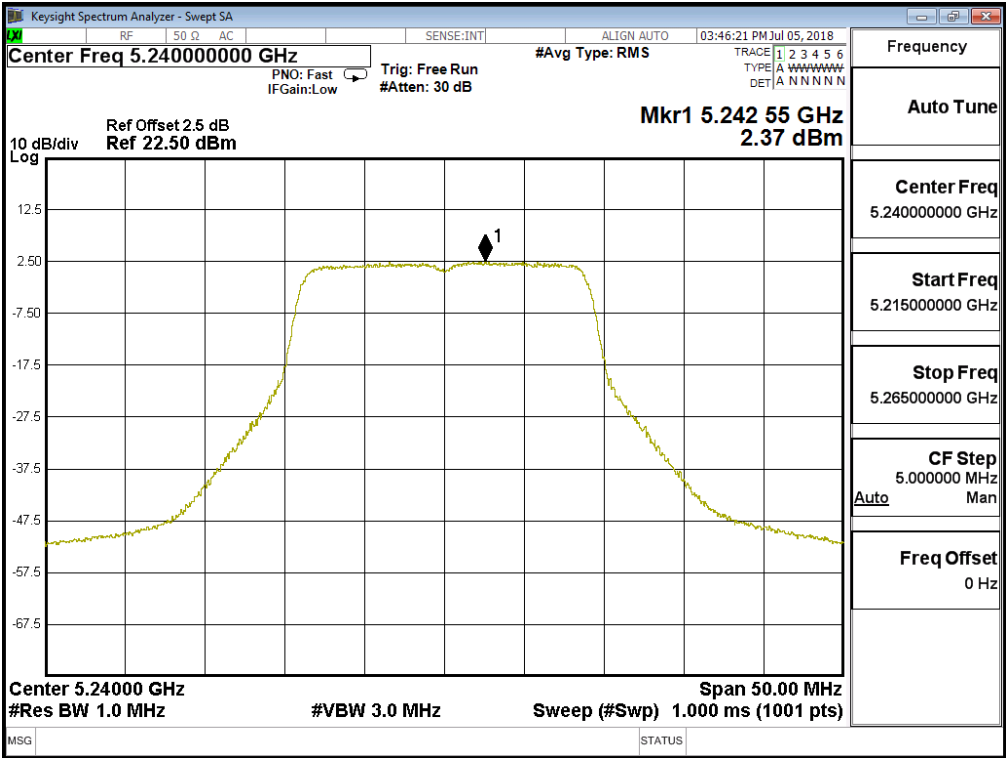
Channel 36 – Chain A



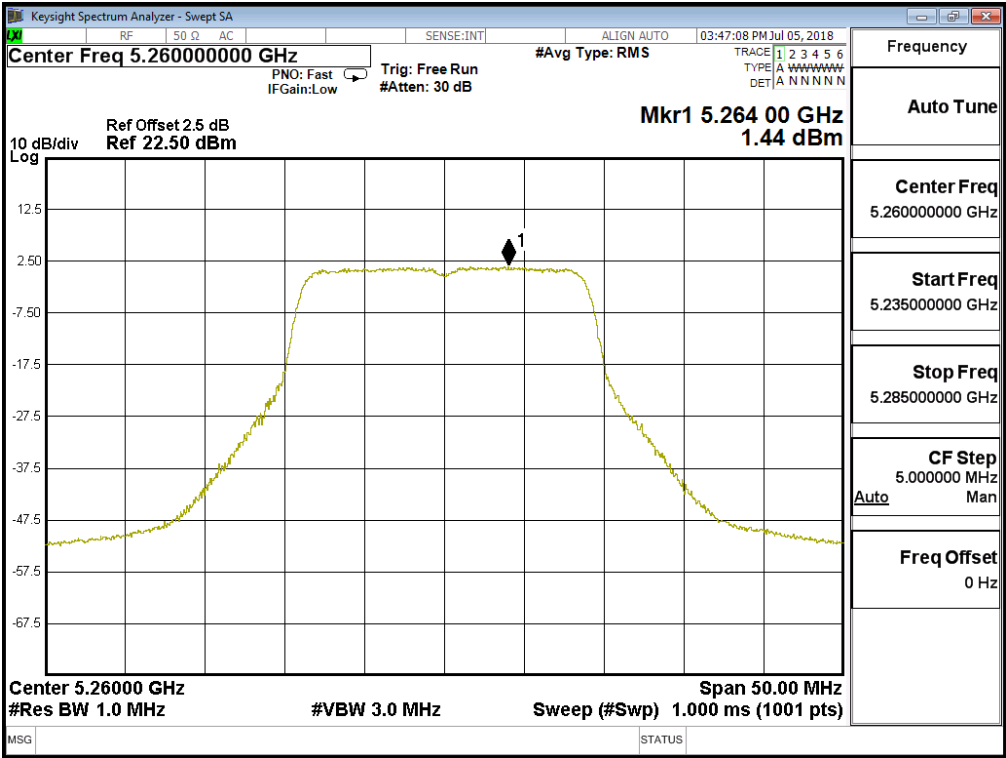
Channel 44 – Chain A



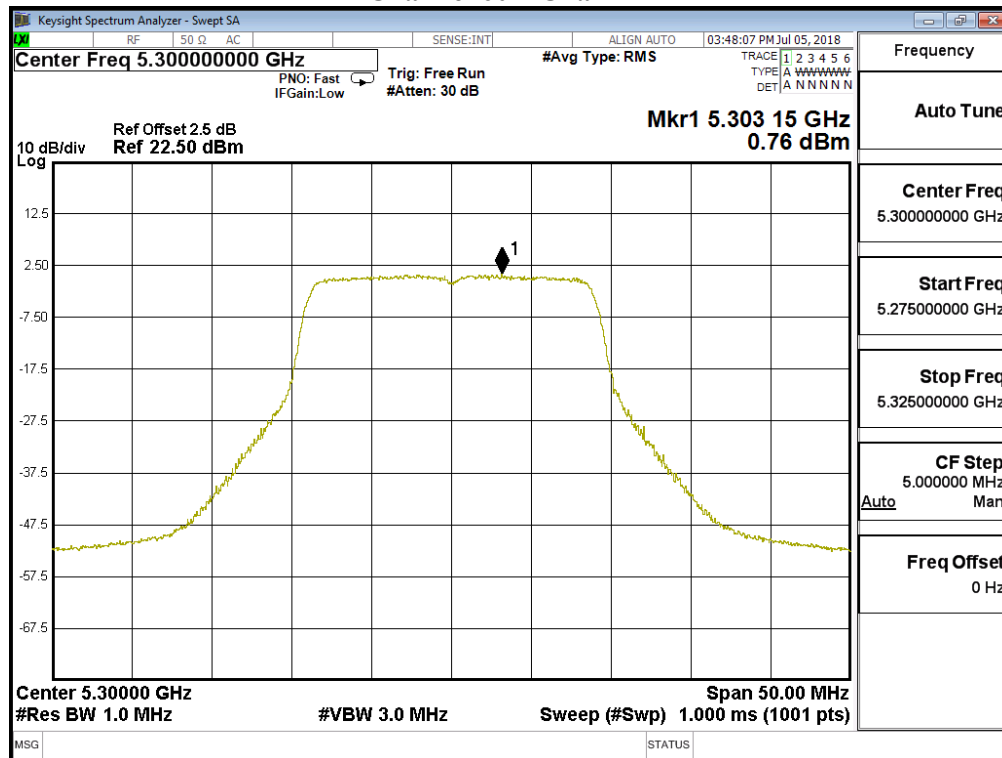
Channel 48 – Chain A



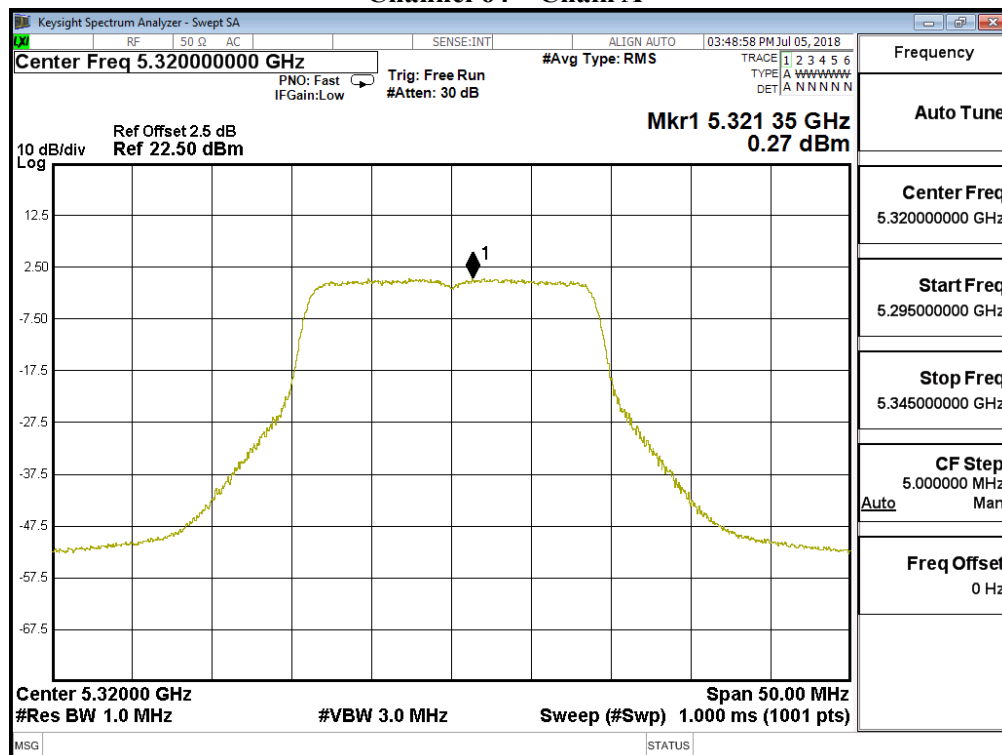
Channel 52 – Chain A



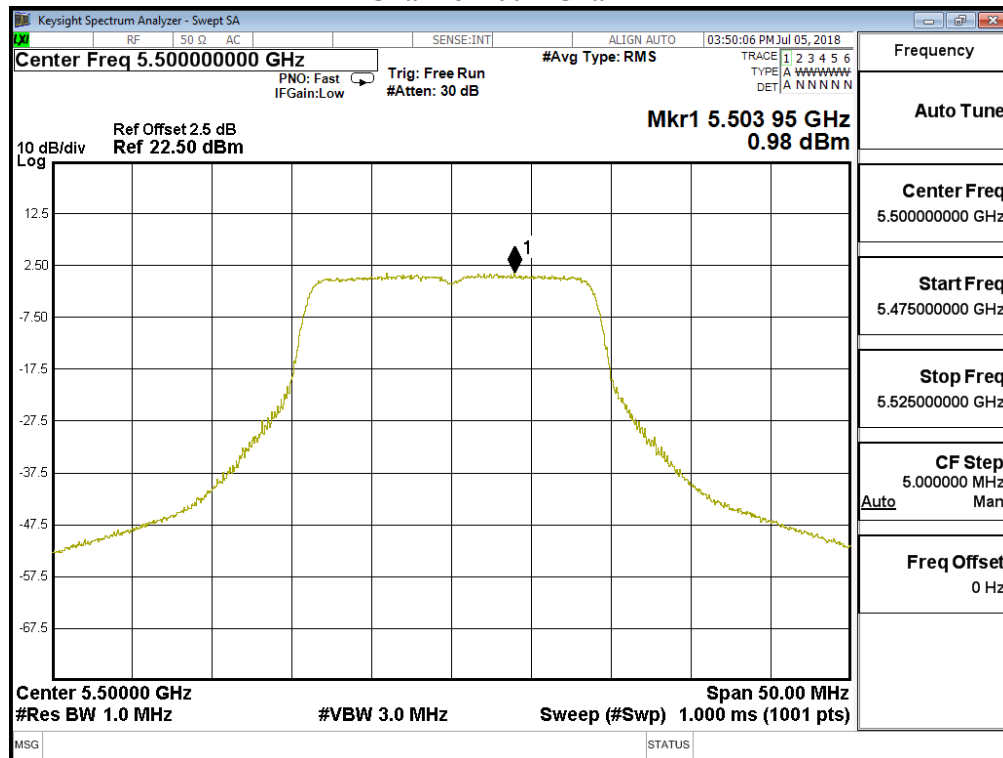
Channel 60 – Chain A



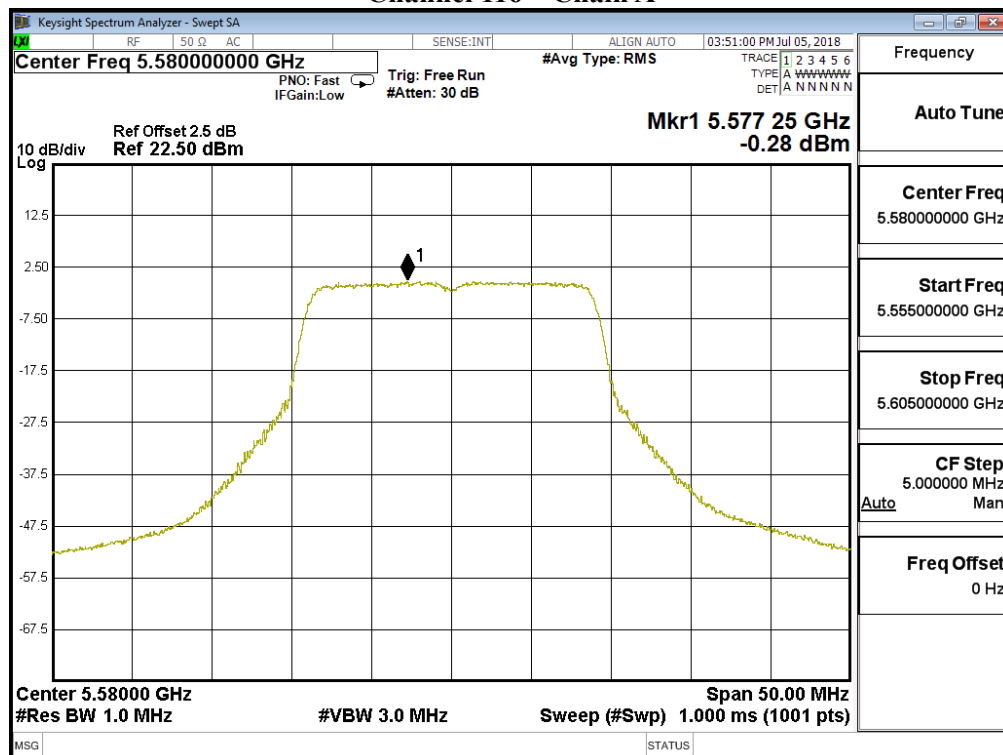
Channel 64 – Chain A



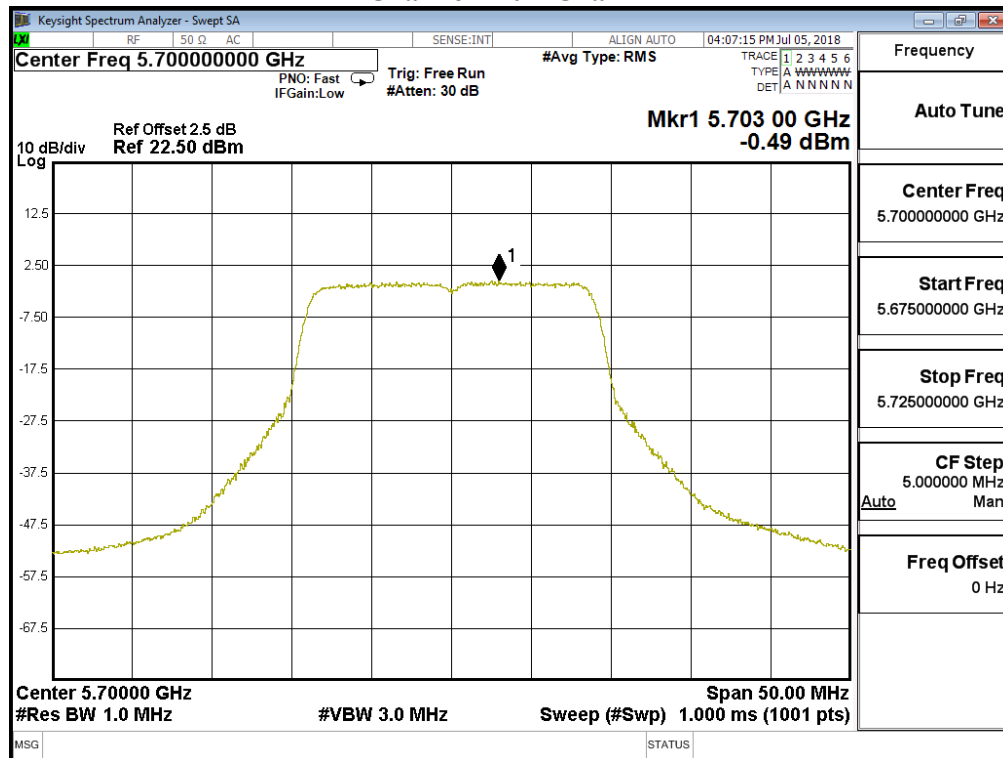
Channel 100 – Chain A



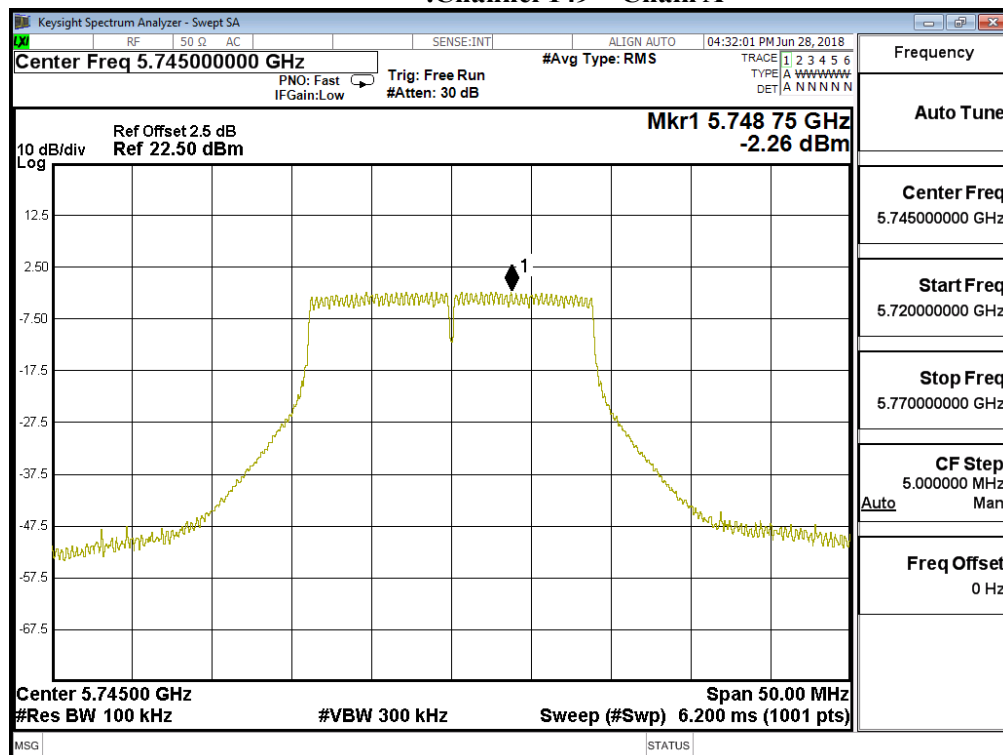
Channel 116 – Chain A



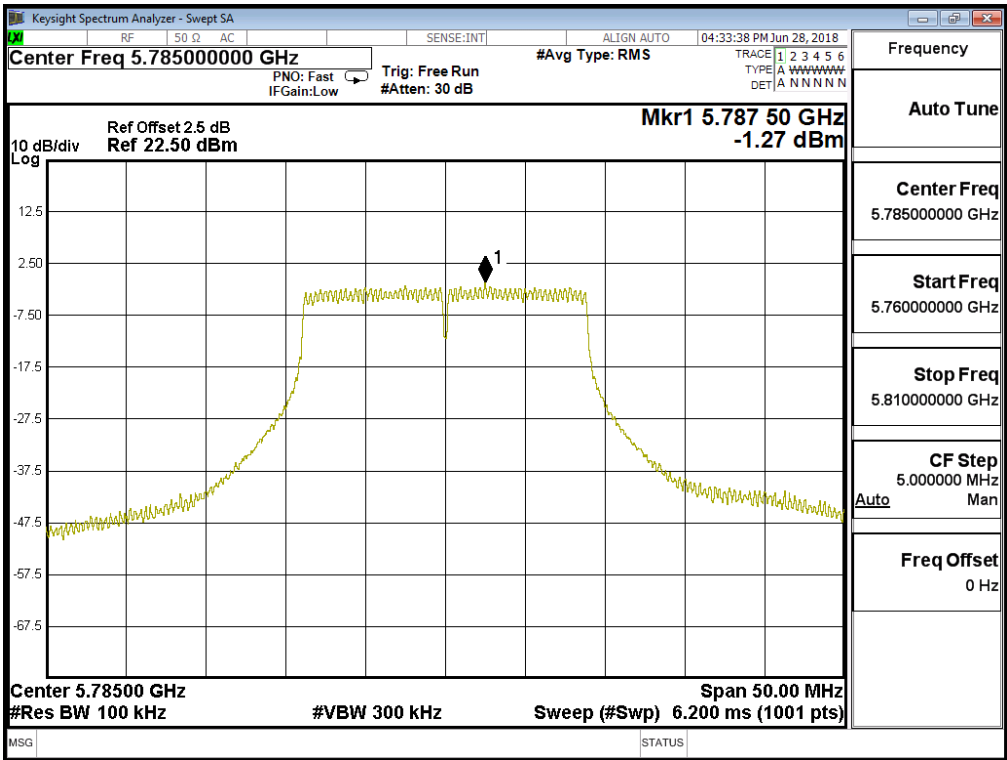
Channel 140 – Chain A



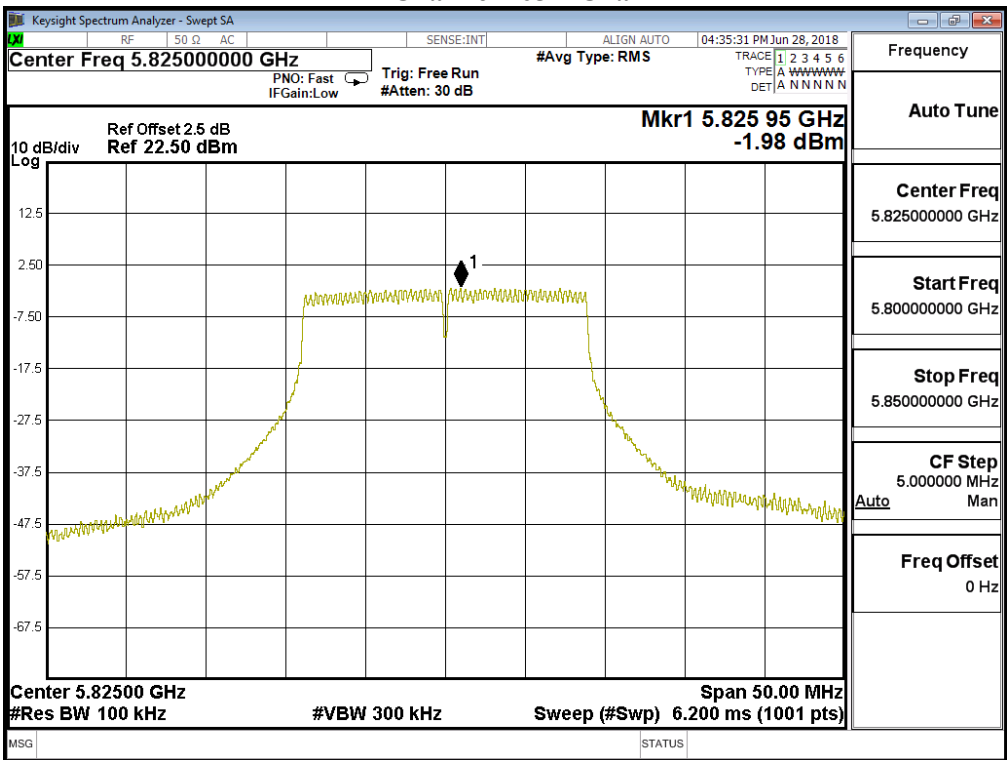
Channel 149 – Chain A



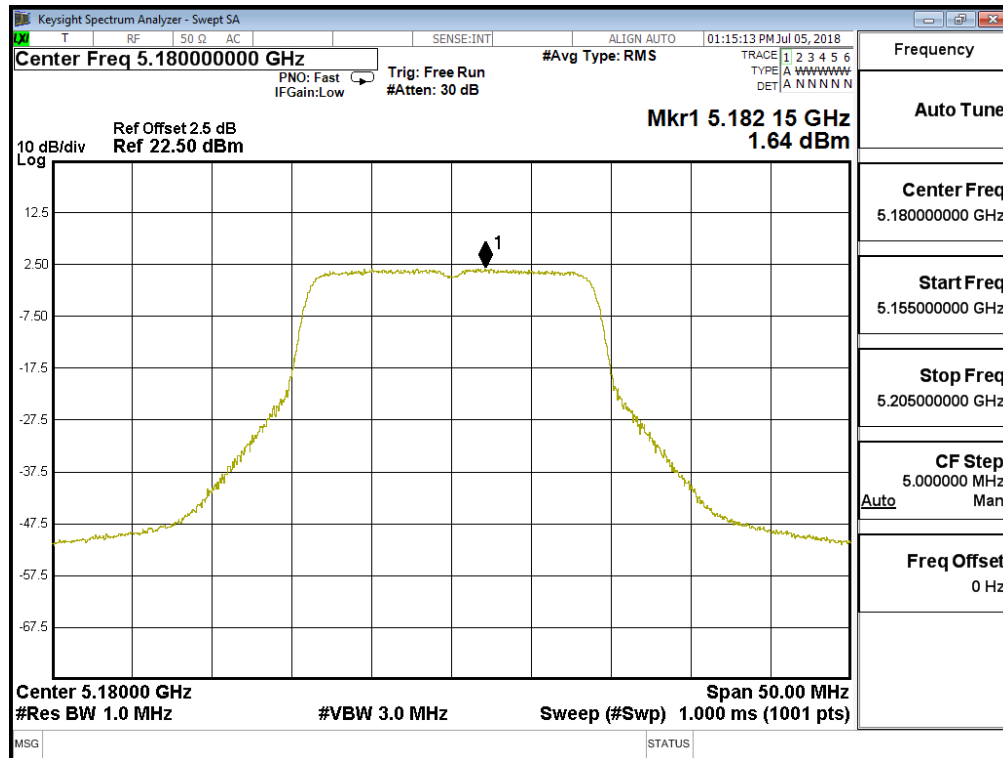
Channel 157 – Chain A



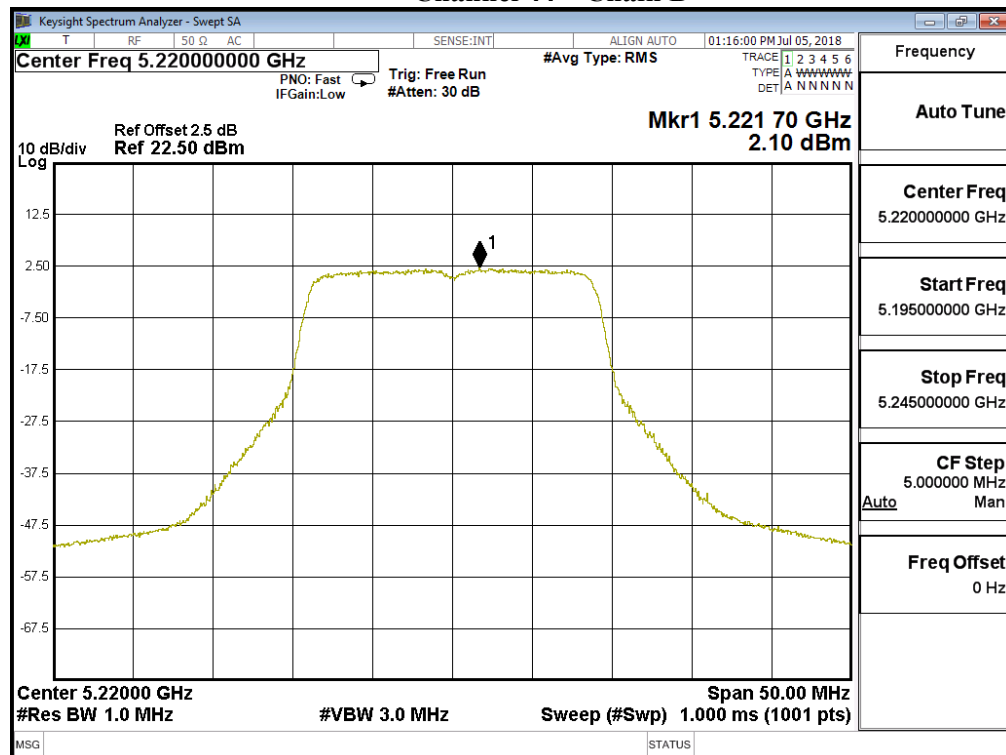
Channel 165 – Chain A



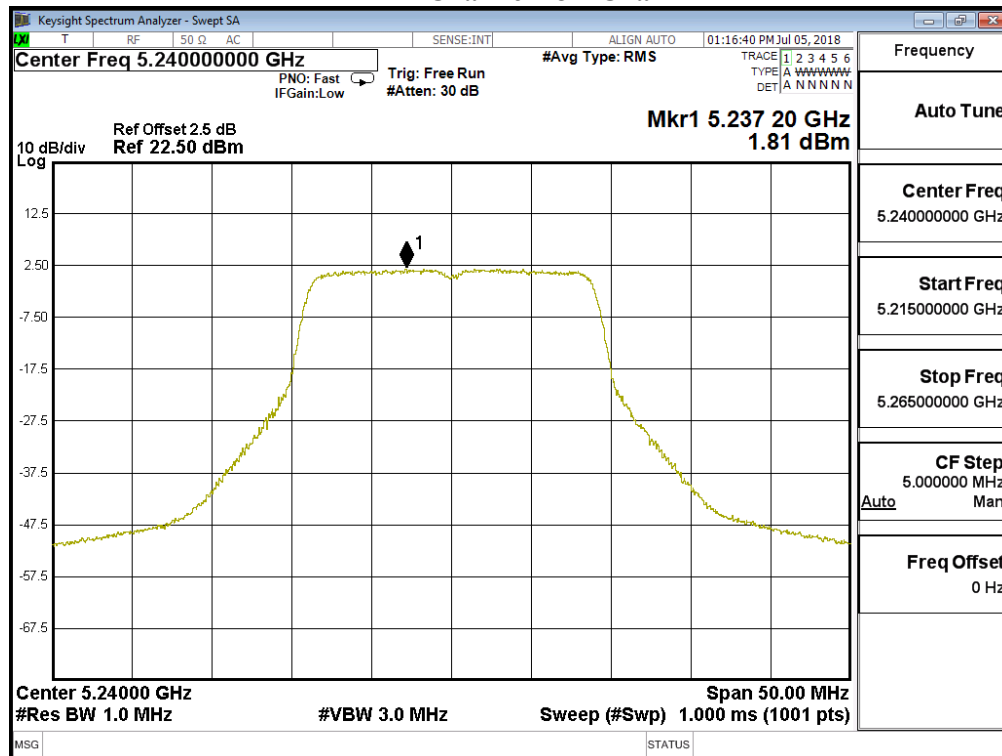
Channel 36 – Chain B



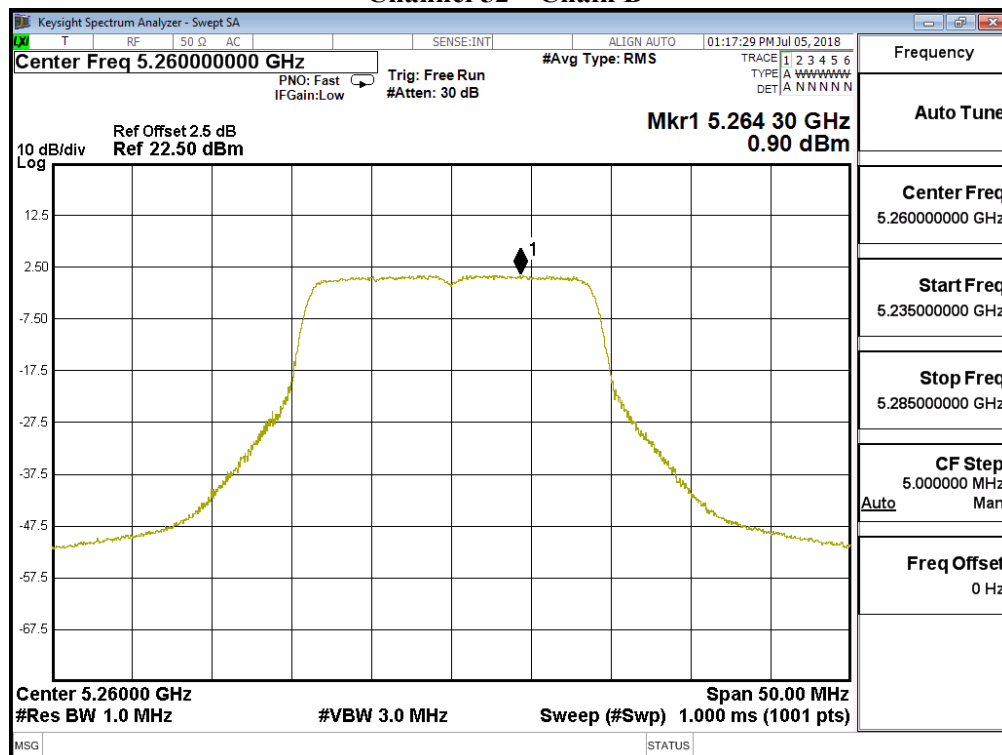
Channel 44 – Chain B



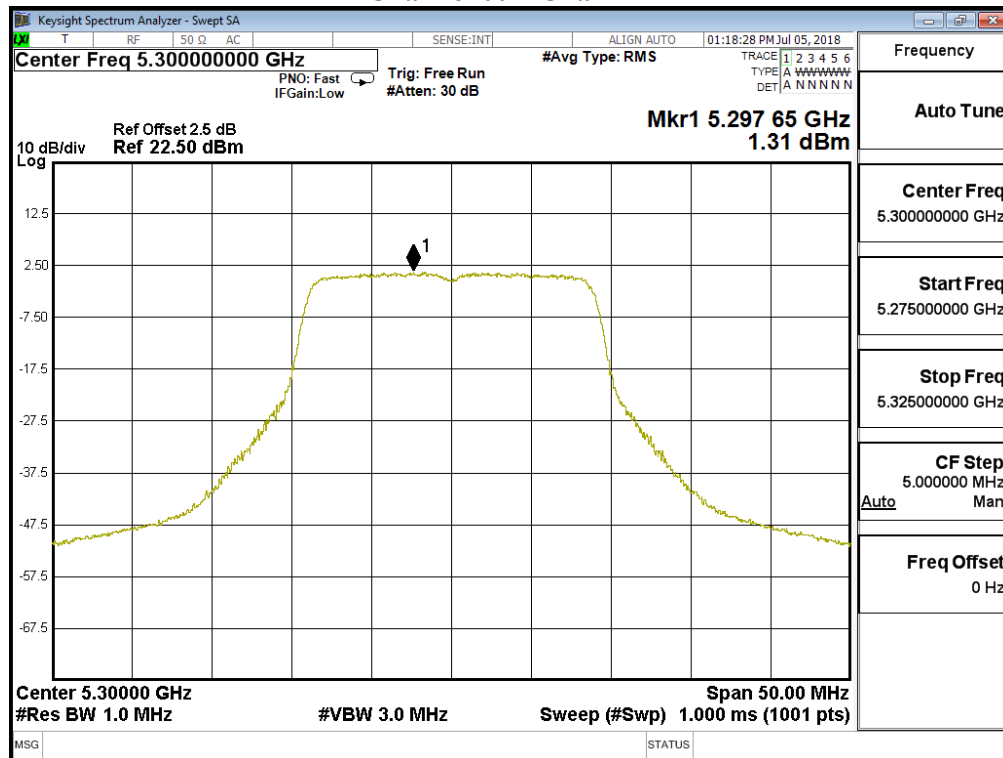
Channel 48 – Chain B



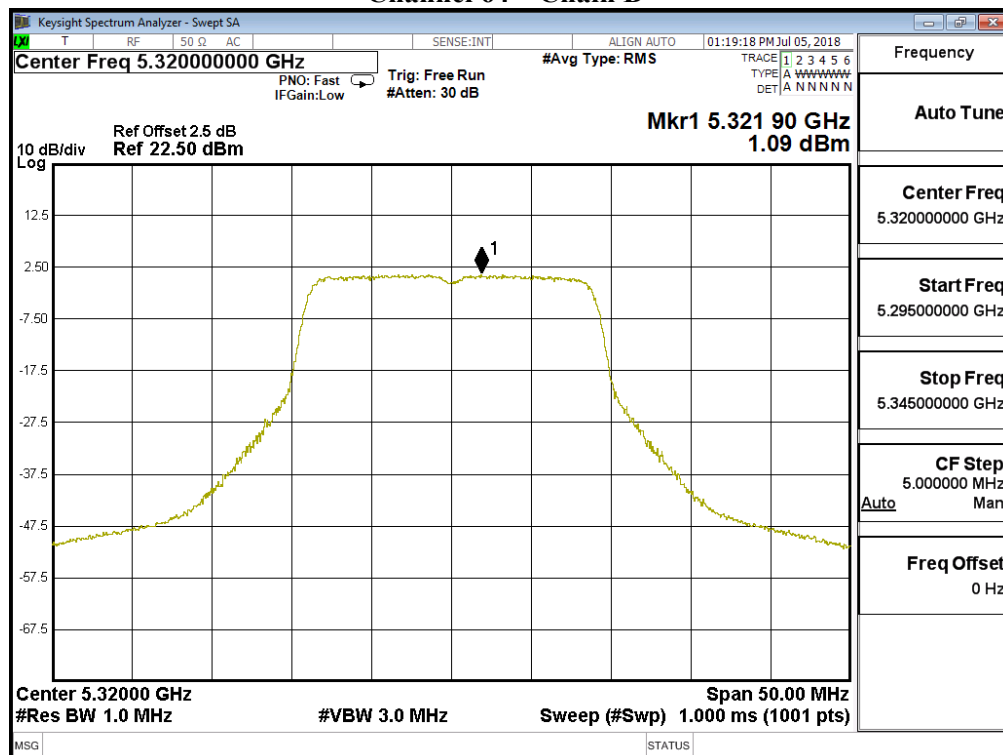
Channel 52 – Chain B



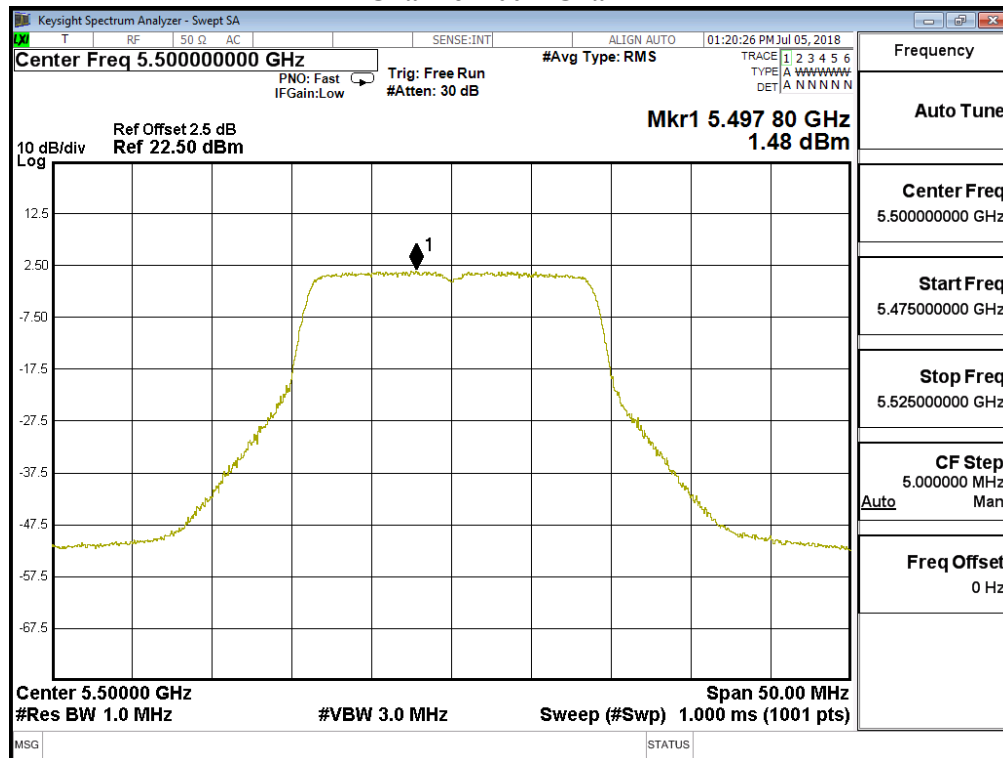
Channel 60 – Chain B



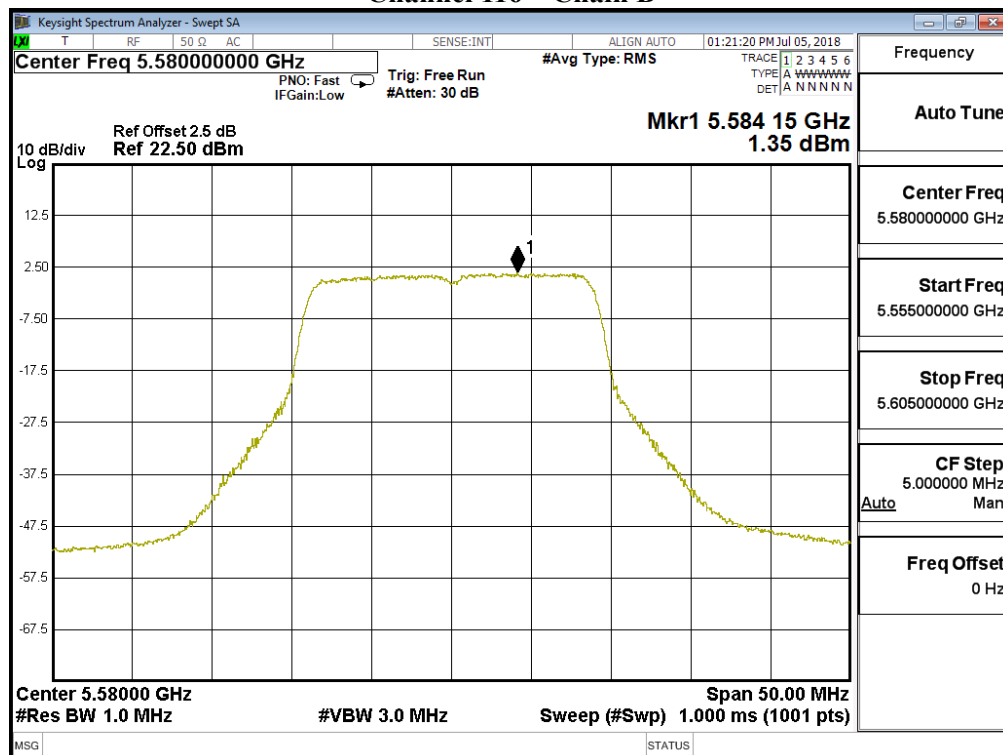
Channel 64 – Chain B



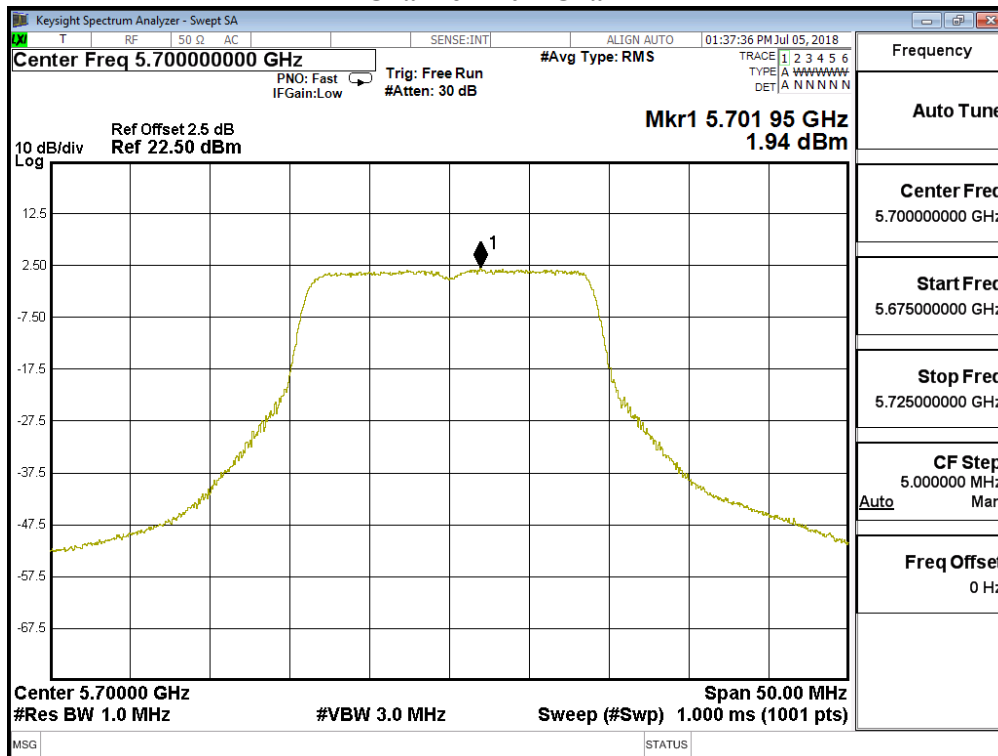
Channel 100 – Chain B



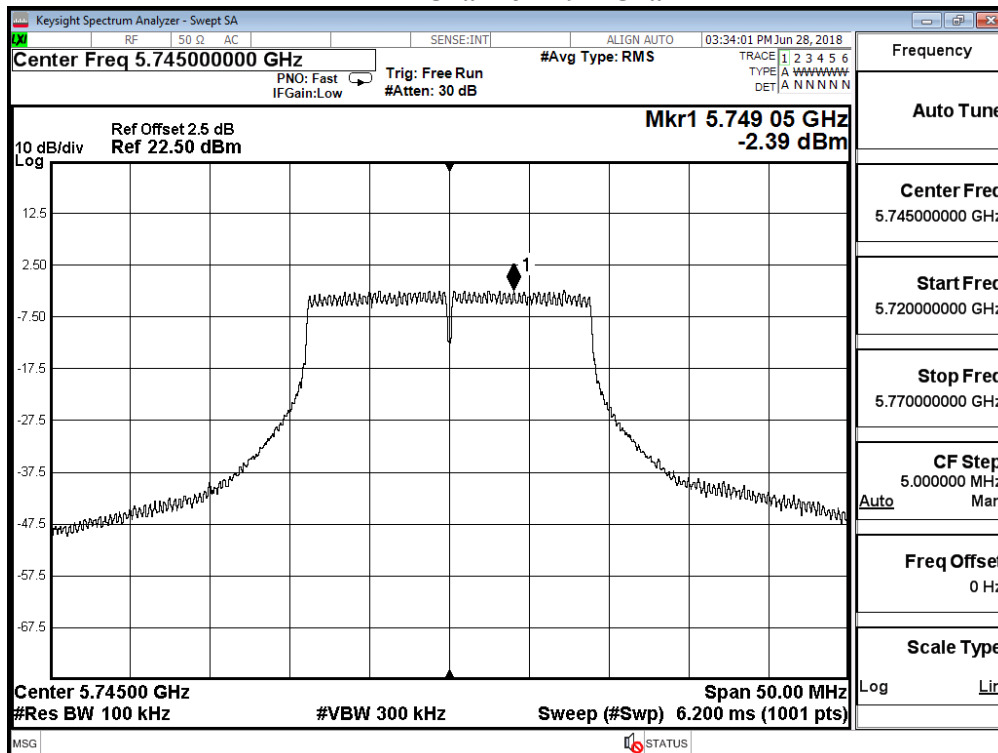
Channel 116 – Chain B



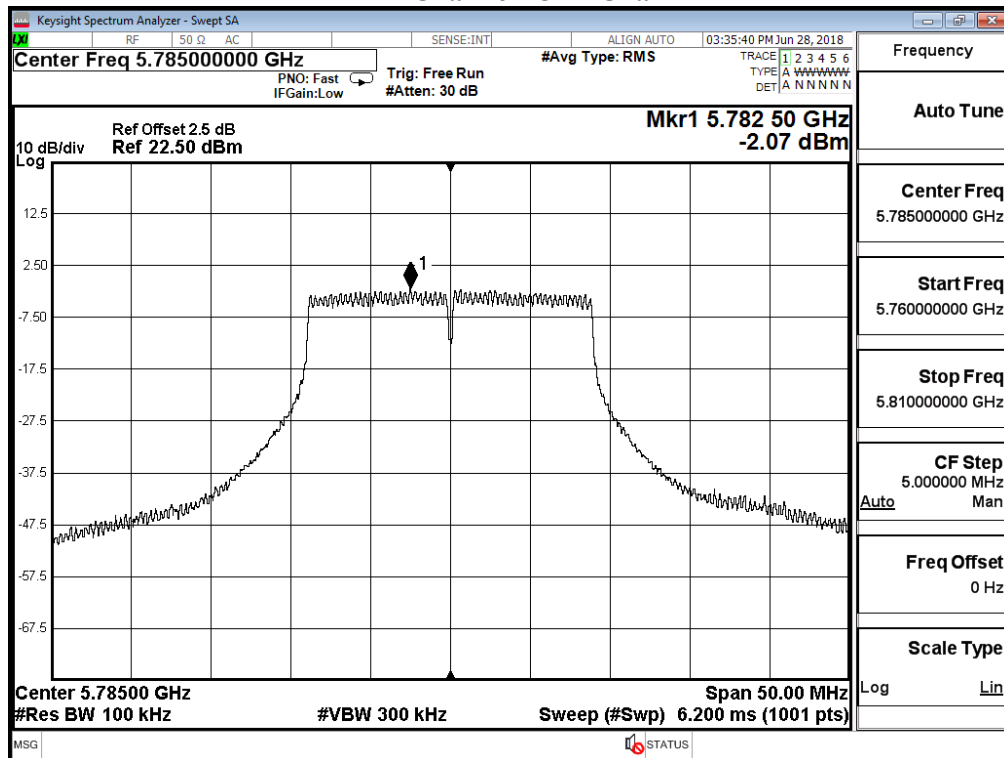
Channel 140 – Chain B



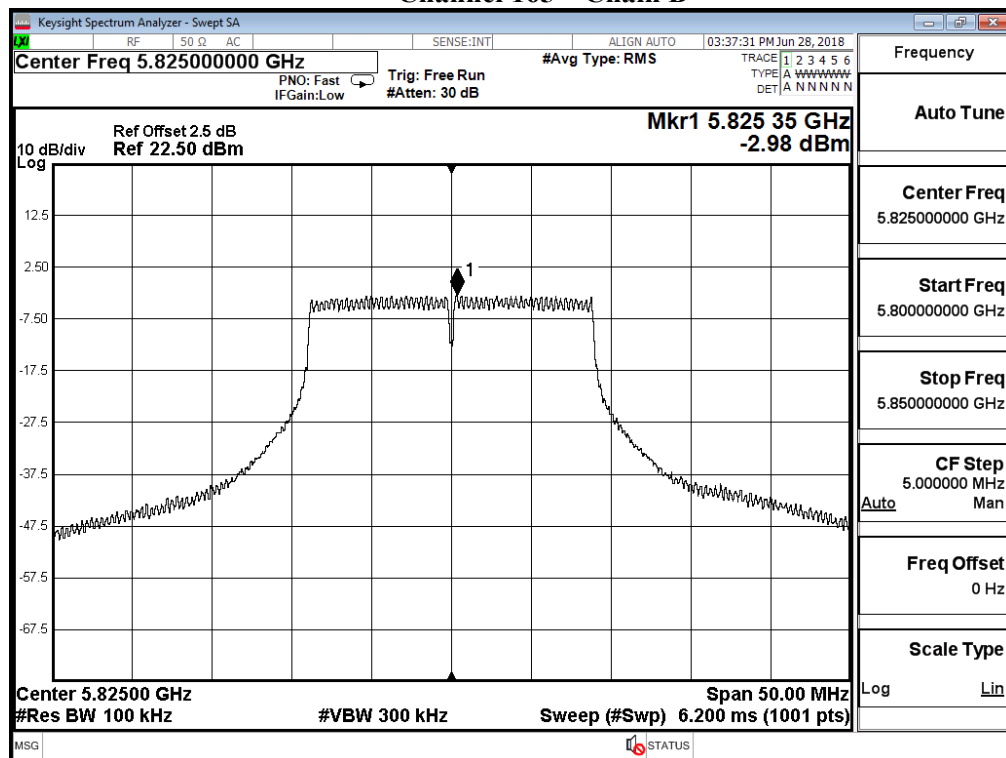
Channel 149 – Chain B



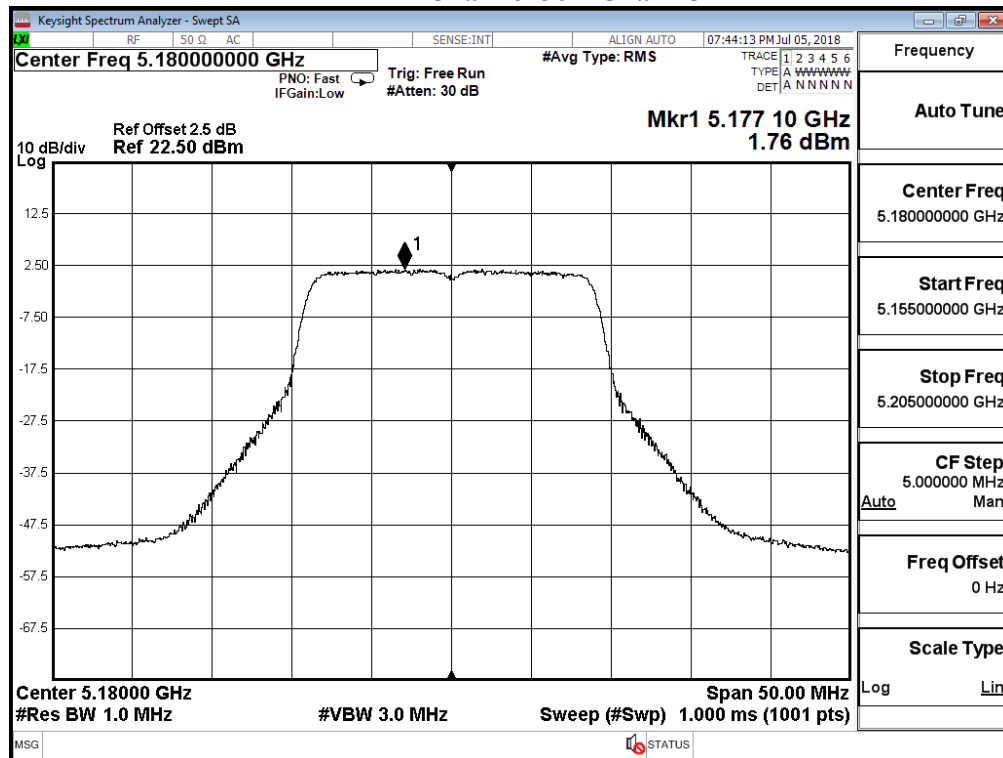
Channel 157 – Chain B



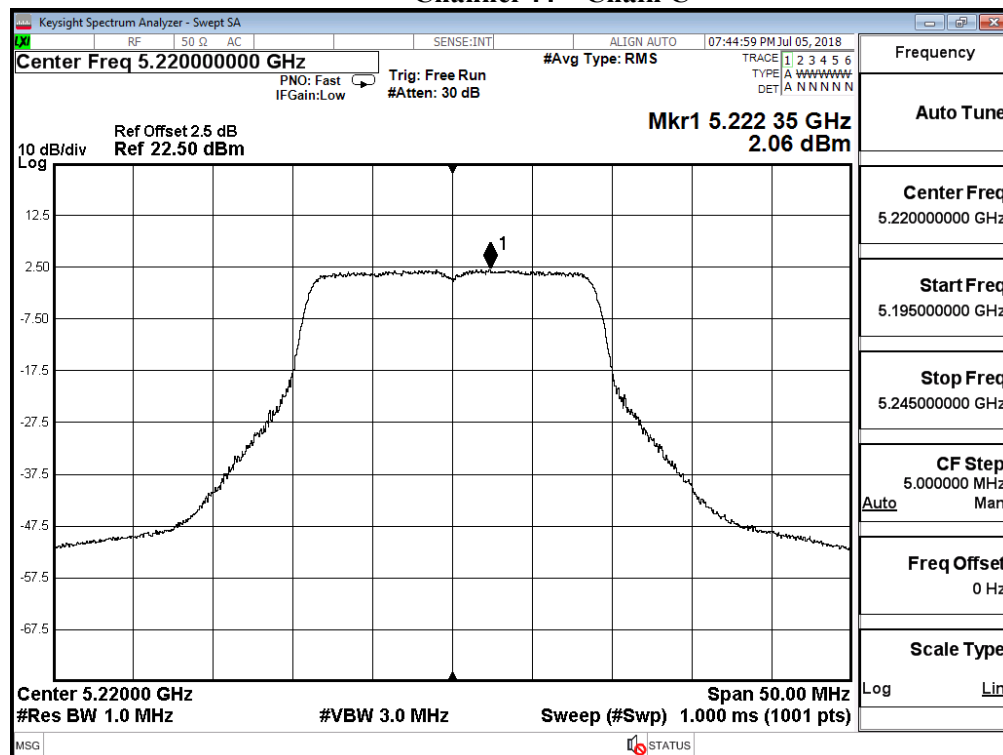
Channel 165 – Chain B



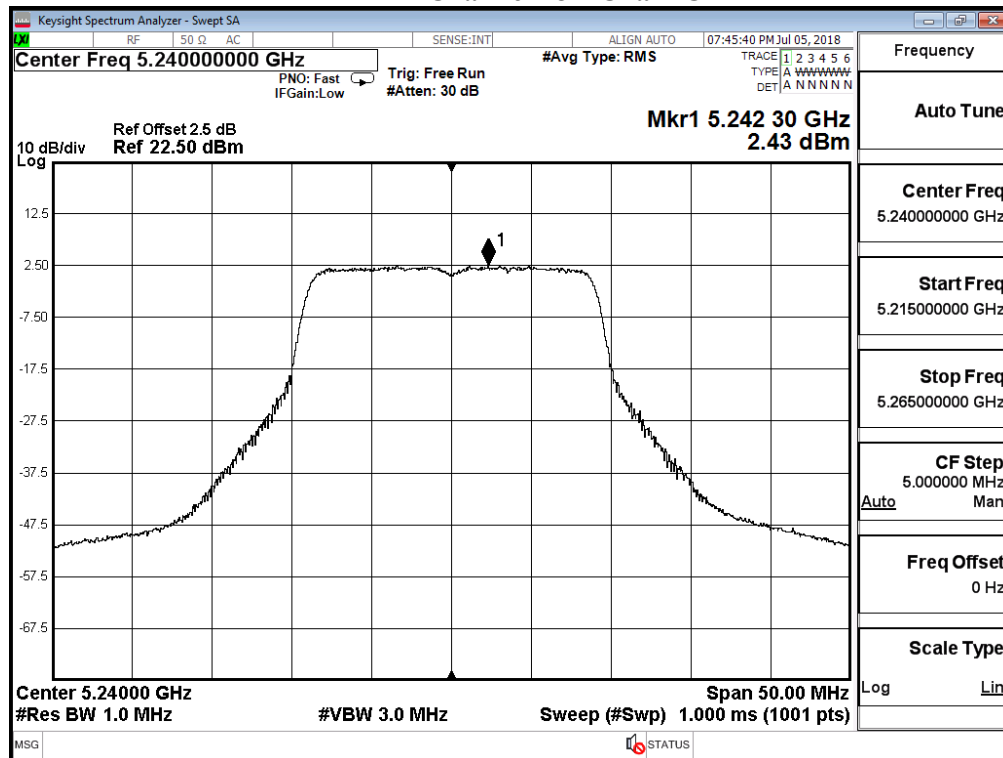
Channel 36 – Chain C



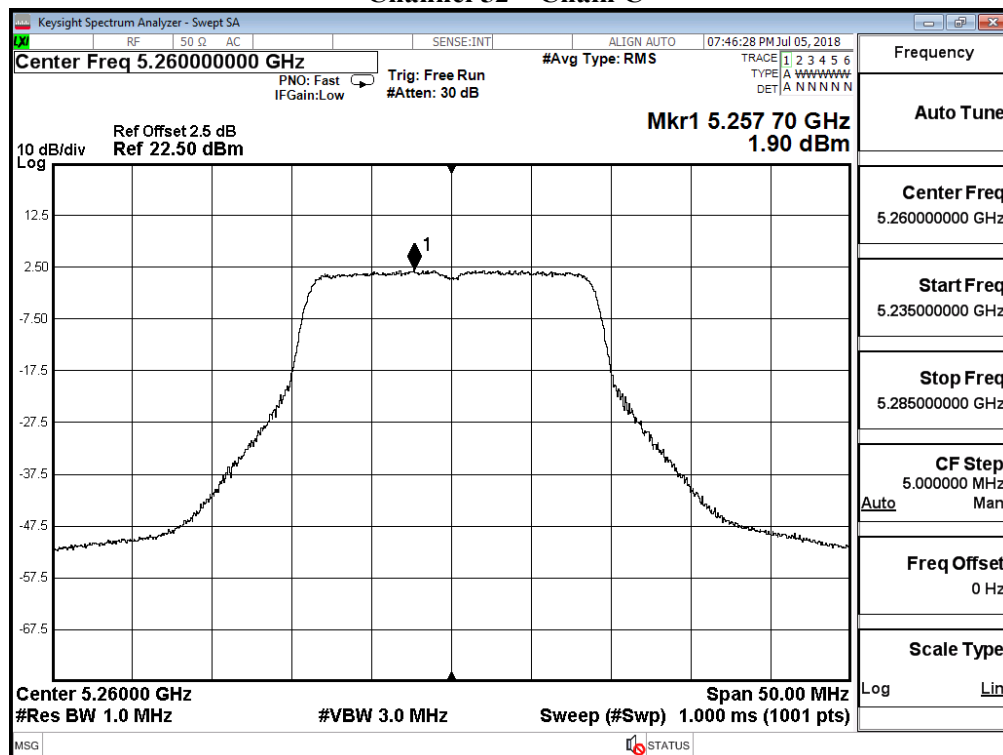
Channel 44 – Chain C



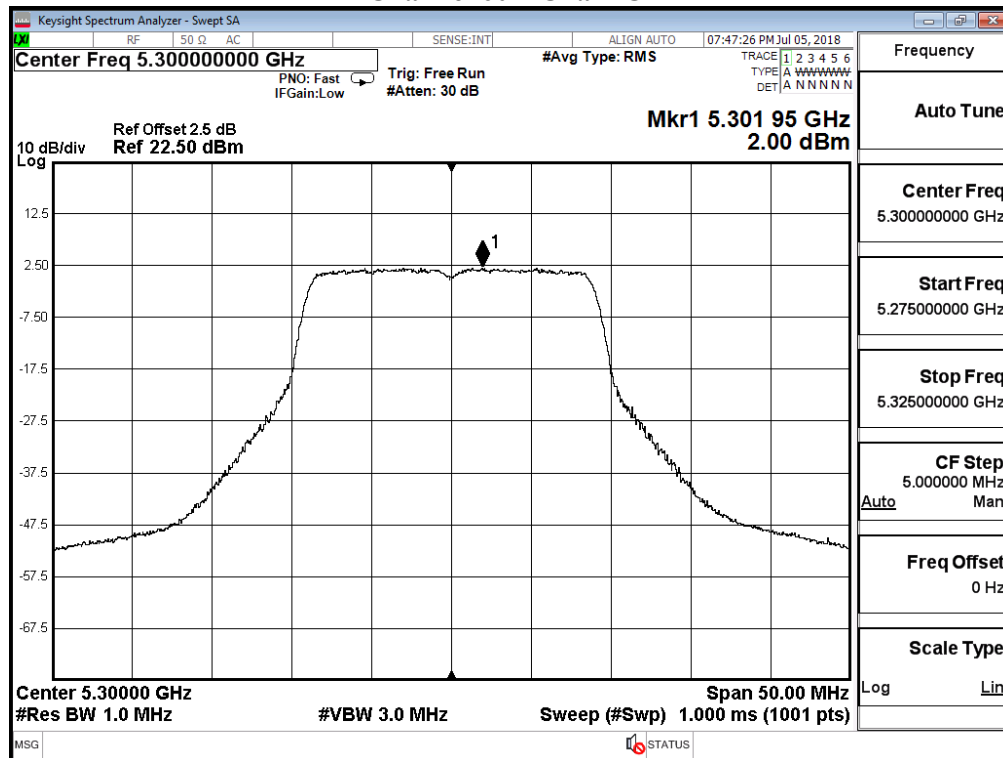
Channel 48 – Chain C



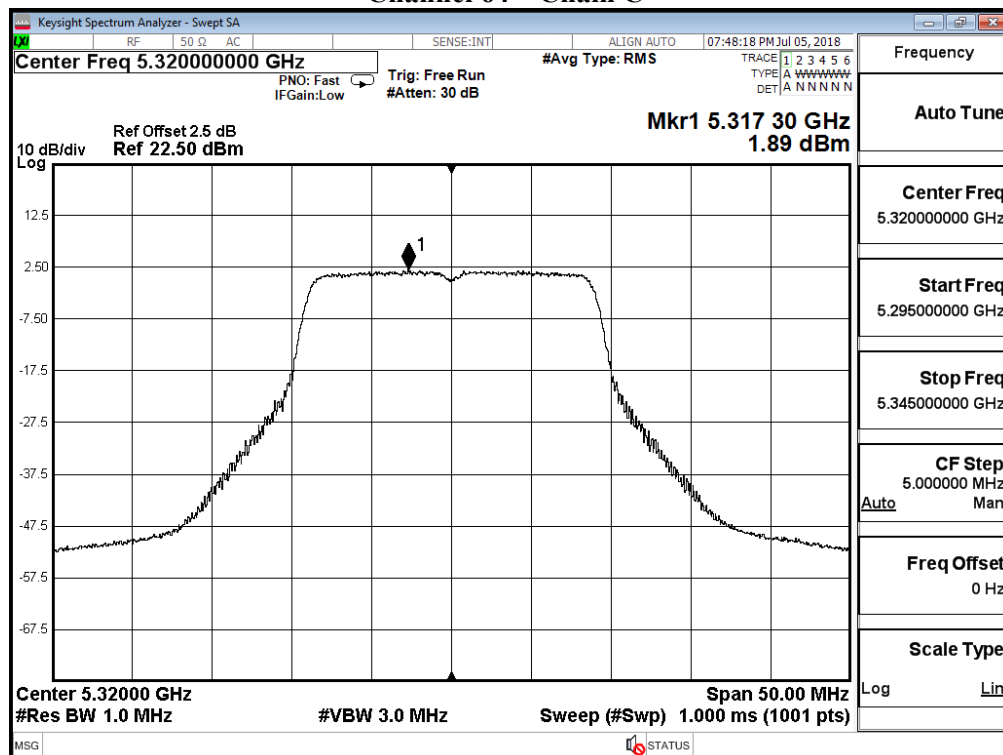
Channel 52 – Chain C



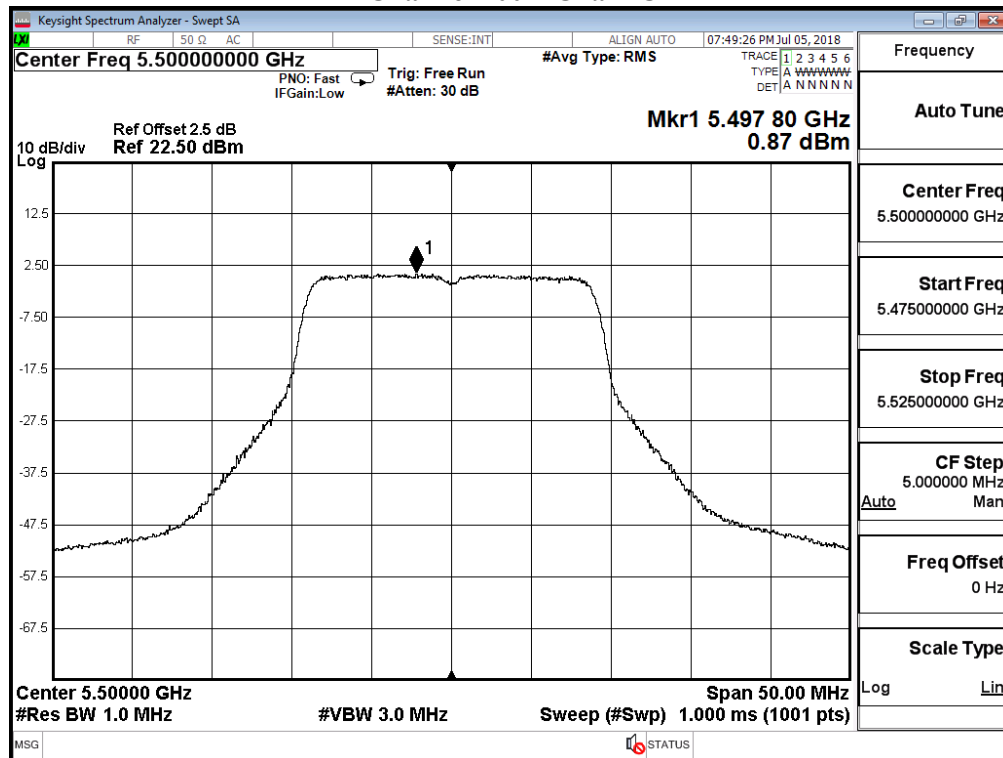
Channel 60 – Chain C



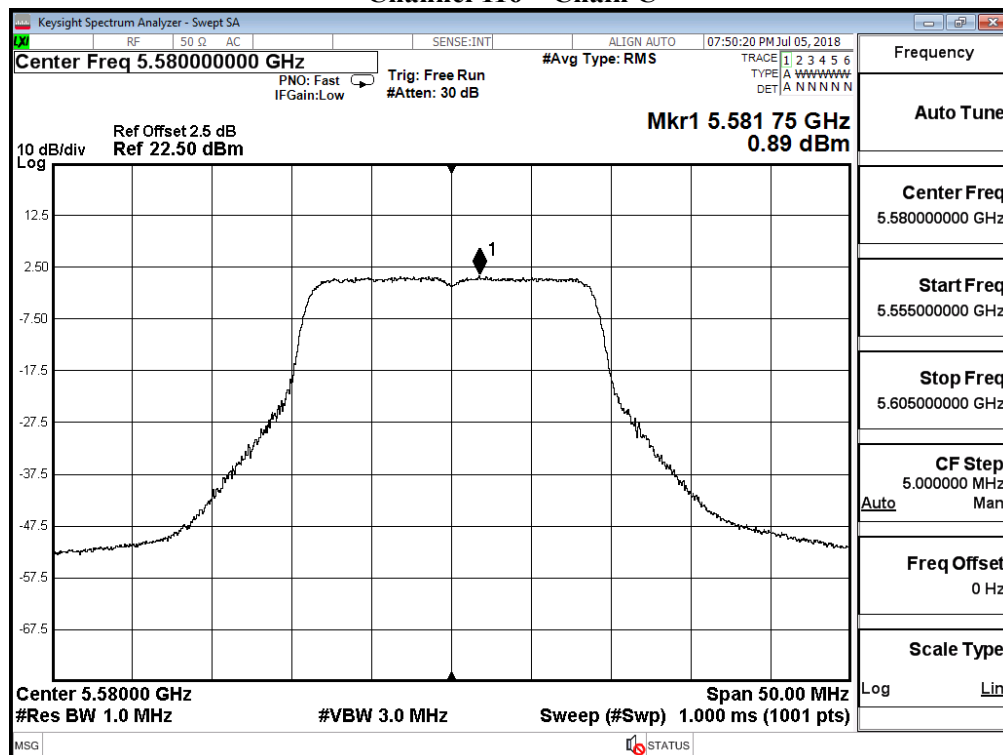
Channel 64 – Chain C



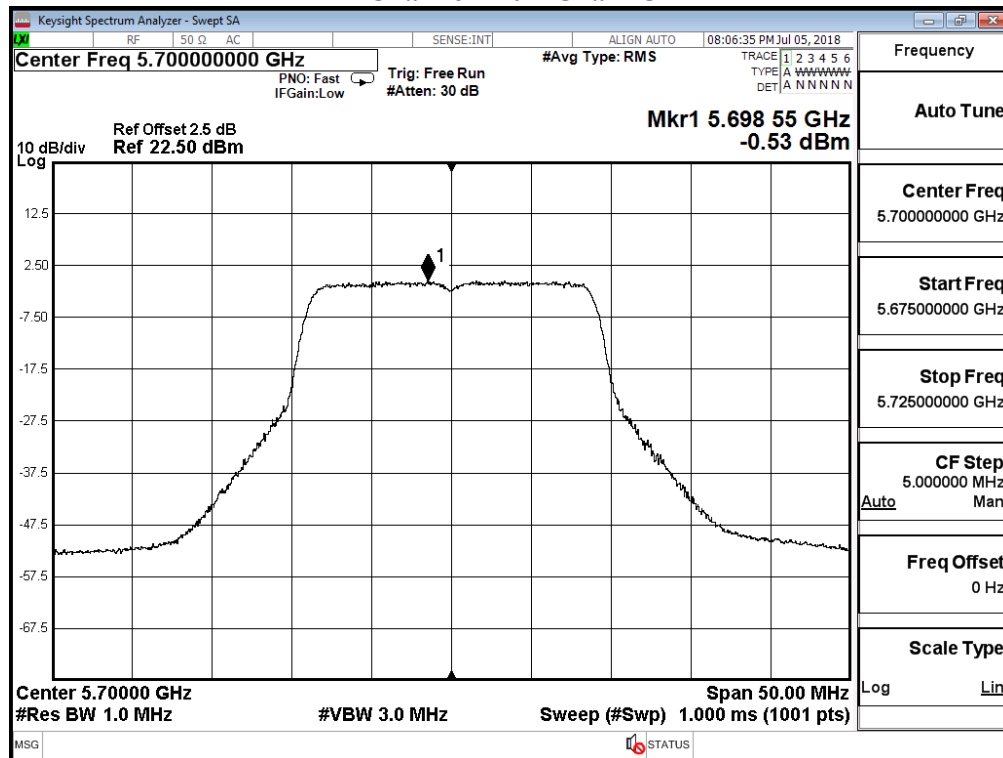
Channel 100 – Chain C



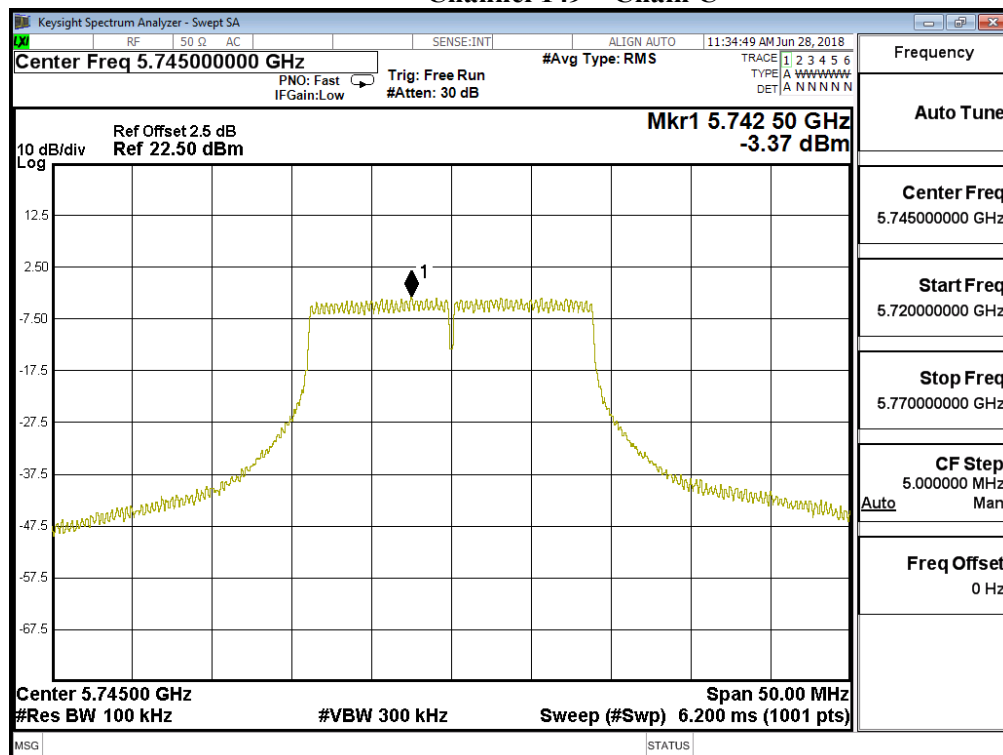
Channel 116 – Chain C



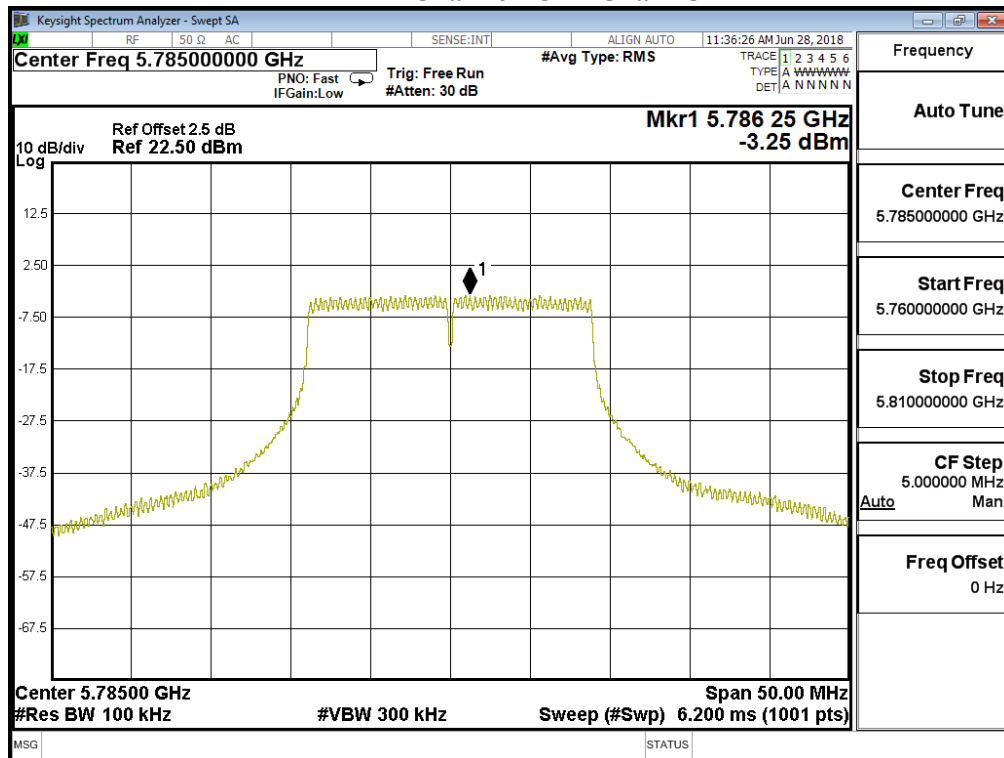
Channel 140 – Chain C



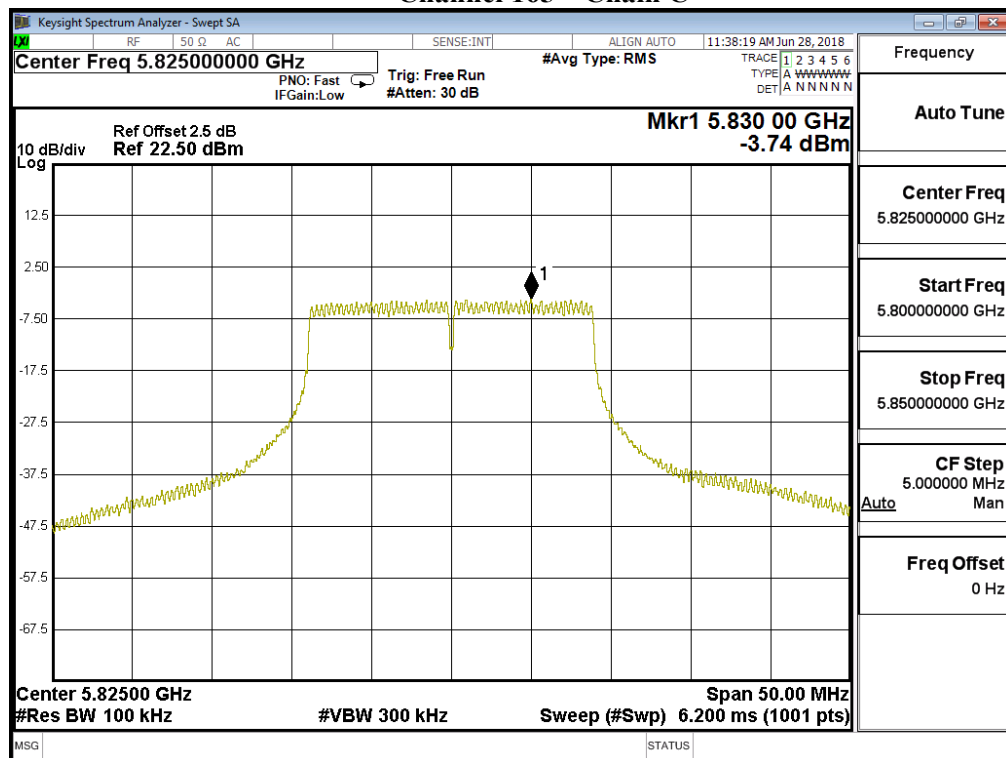
Channel 149 – Chain C



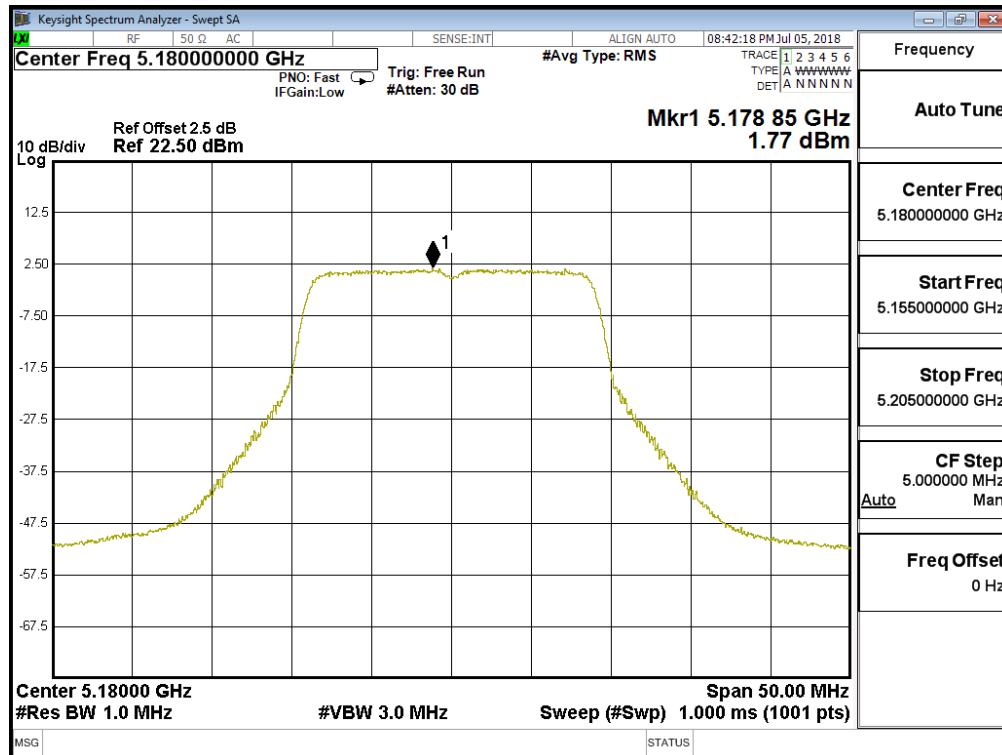
Channel 157 – Chain C



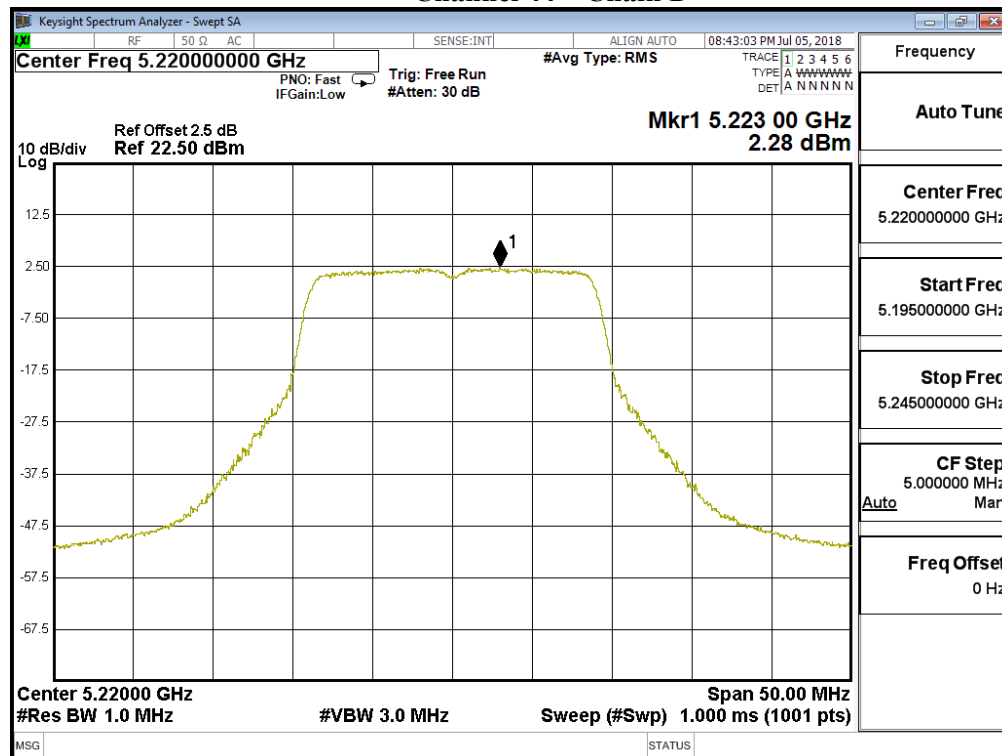
Channel 165 – Chain C



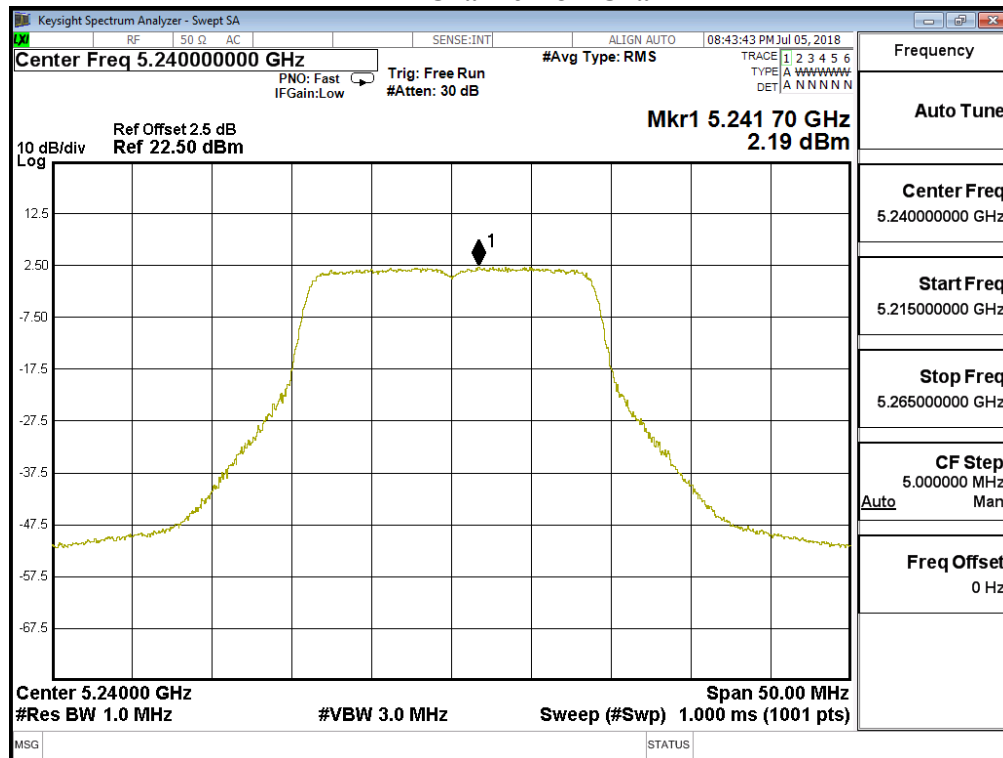
Channel 36 – Chain D



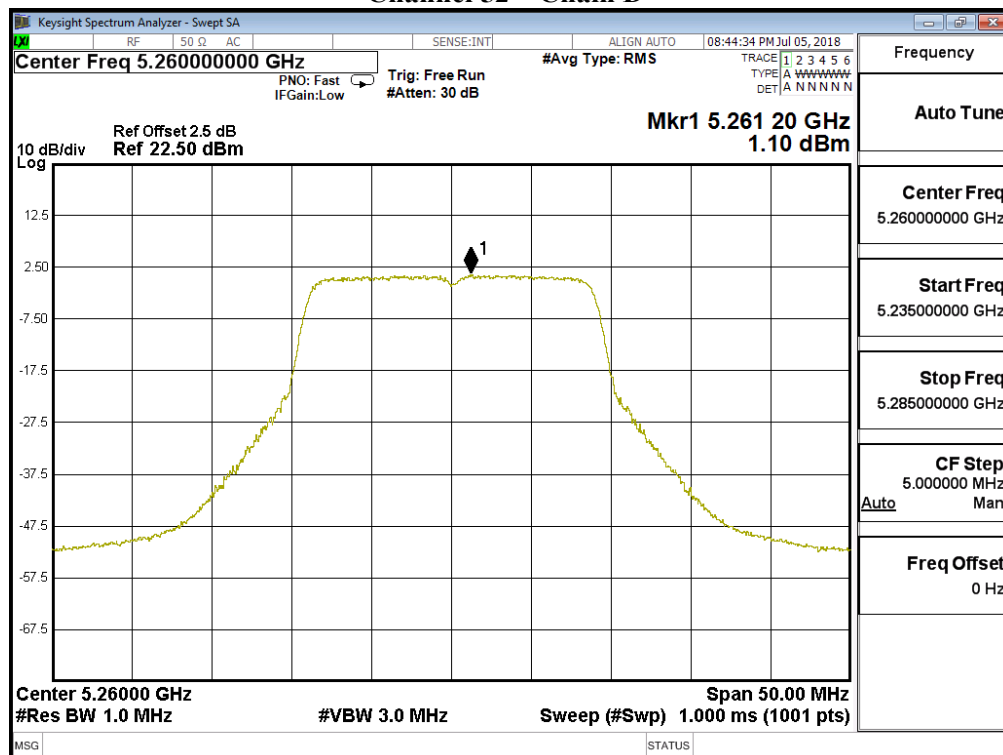
Channel 44 – Chain D



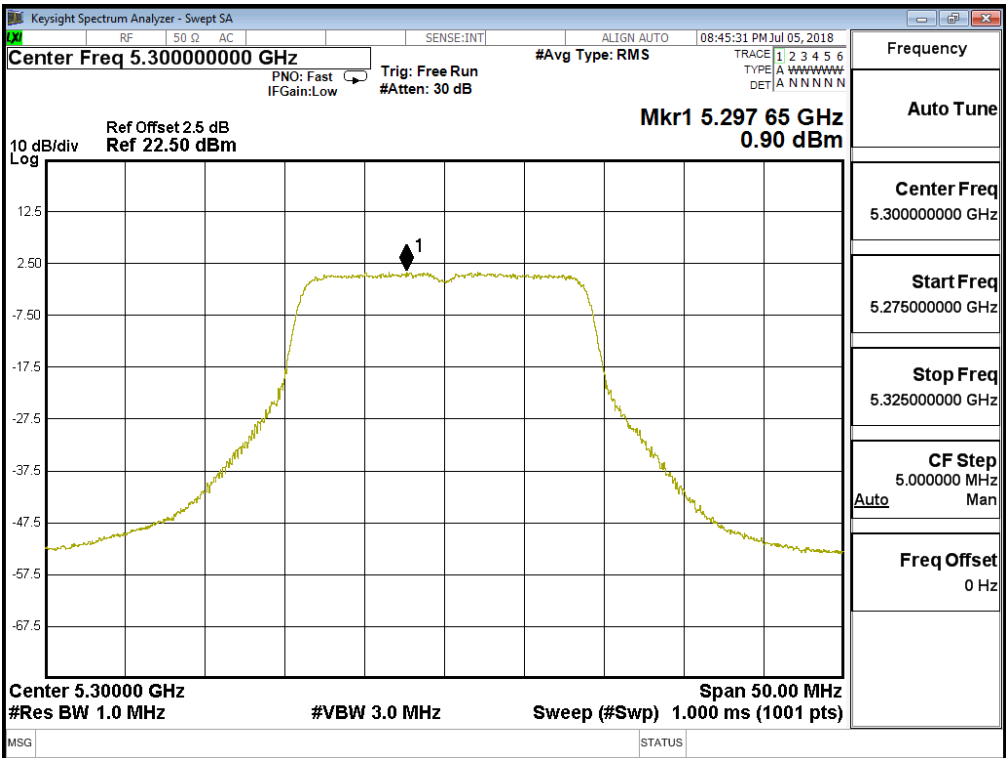
Channel 48 – Chain D



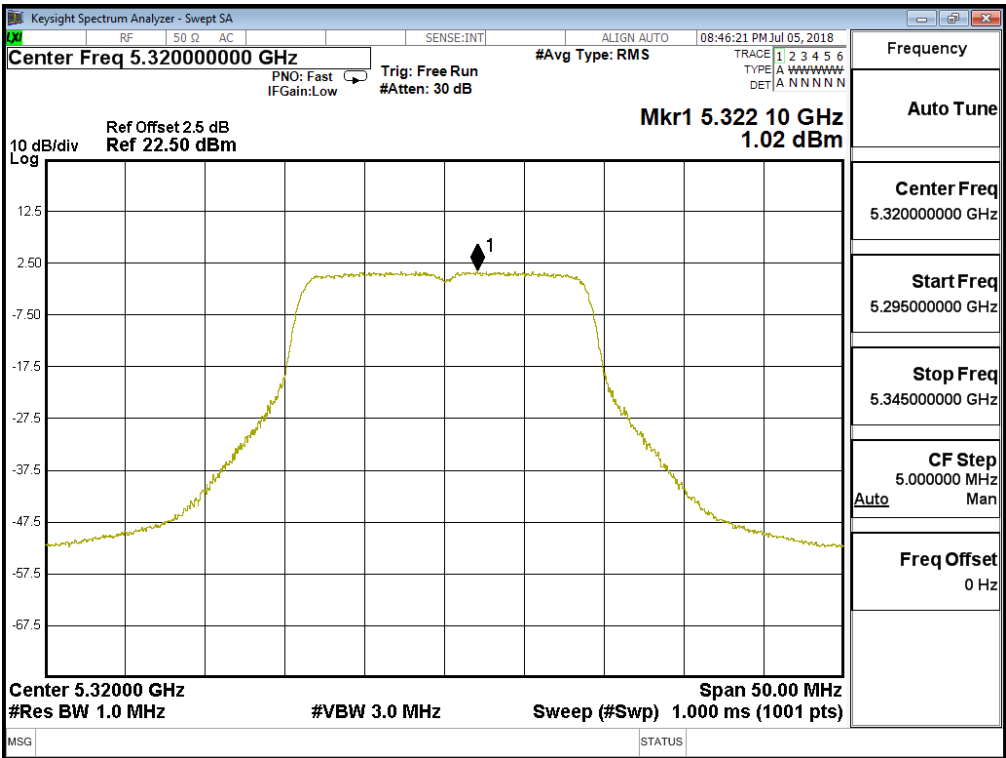
Channel 52 – Chain D



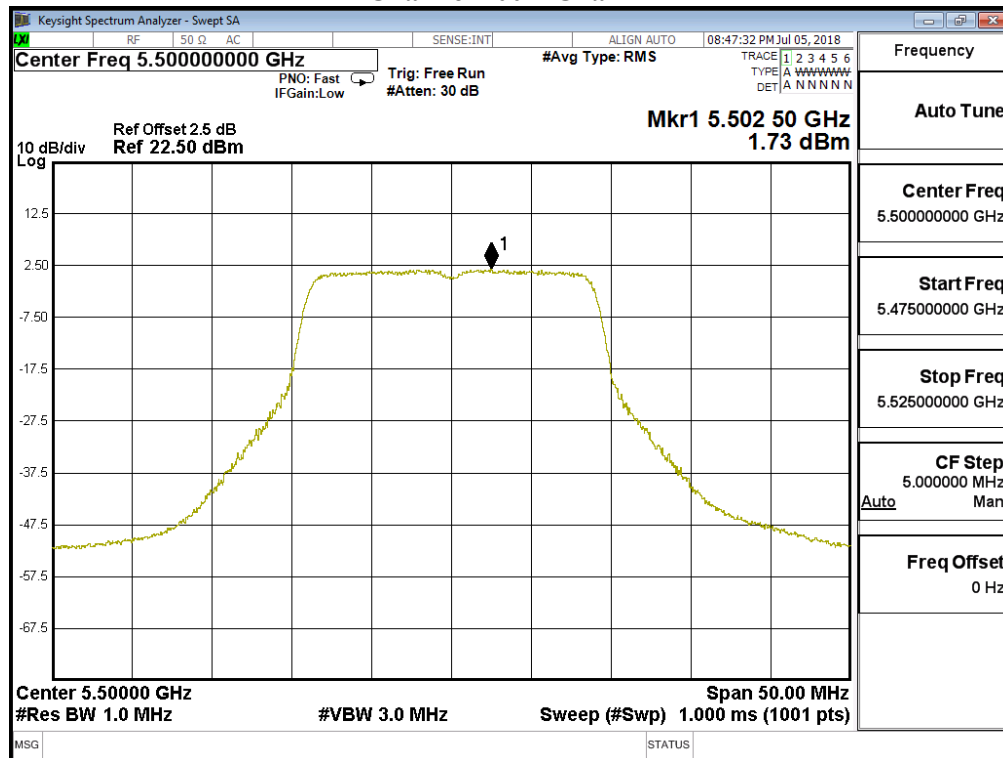
Channel 60 – Chain D



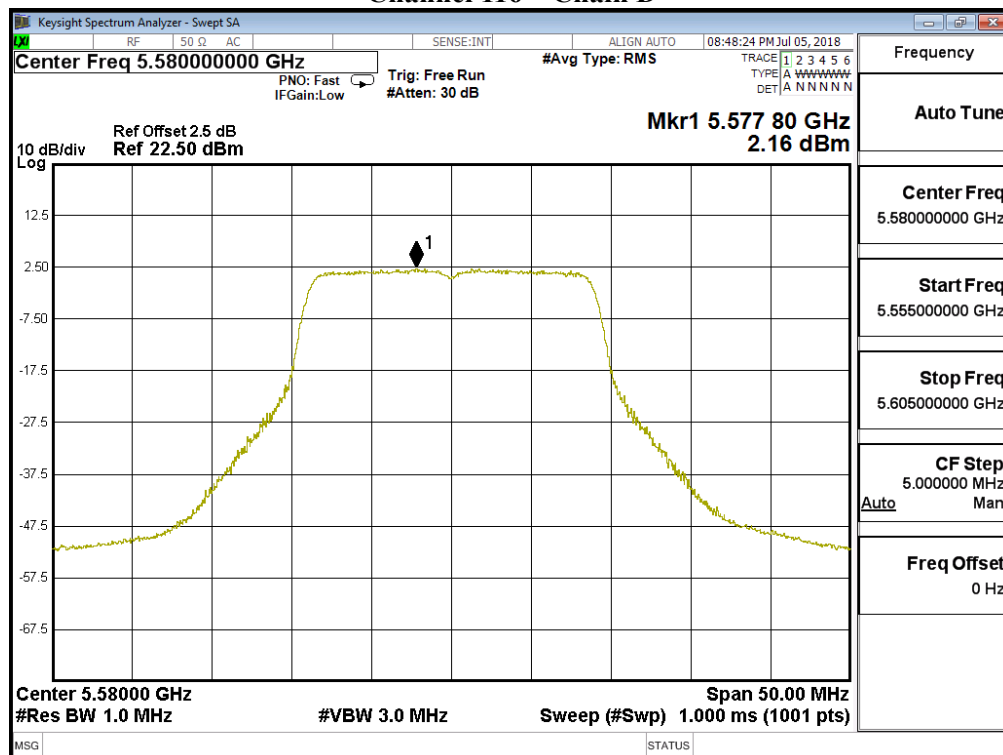
Channel 64 – Chain D



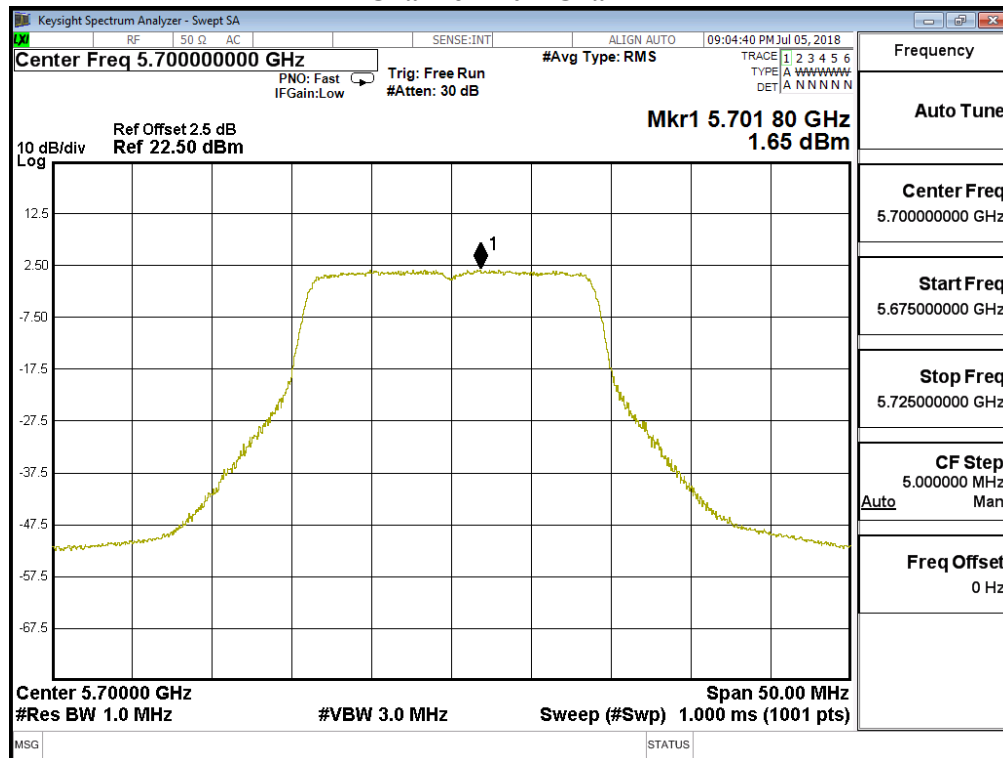
Channel 100 – Chain D



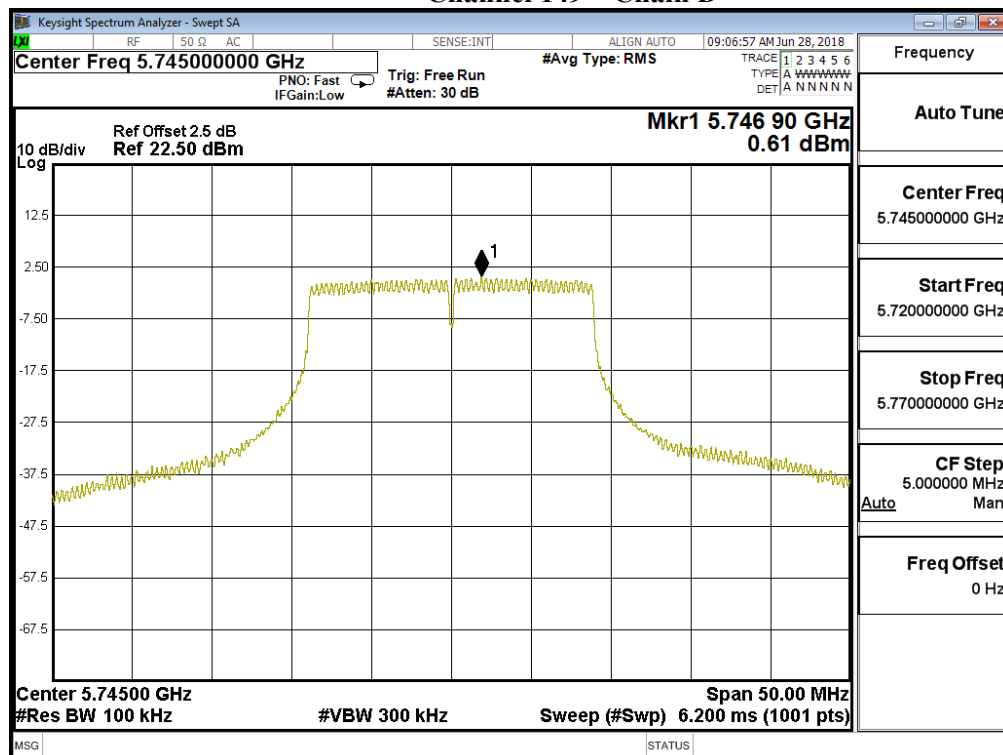
Channel 116 – Chain D



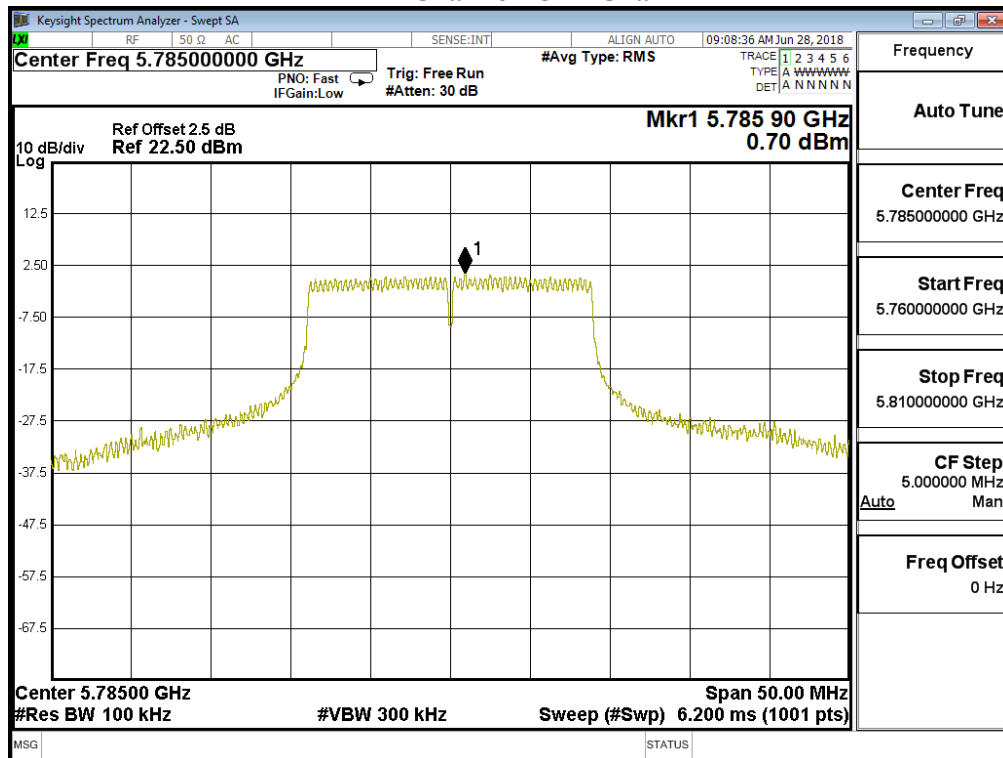
Channel 140 – Chain D



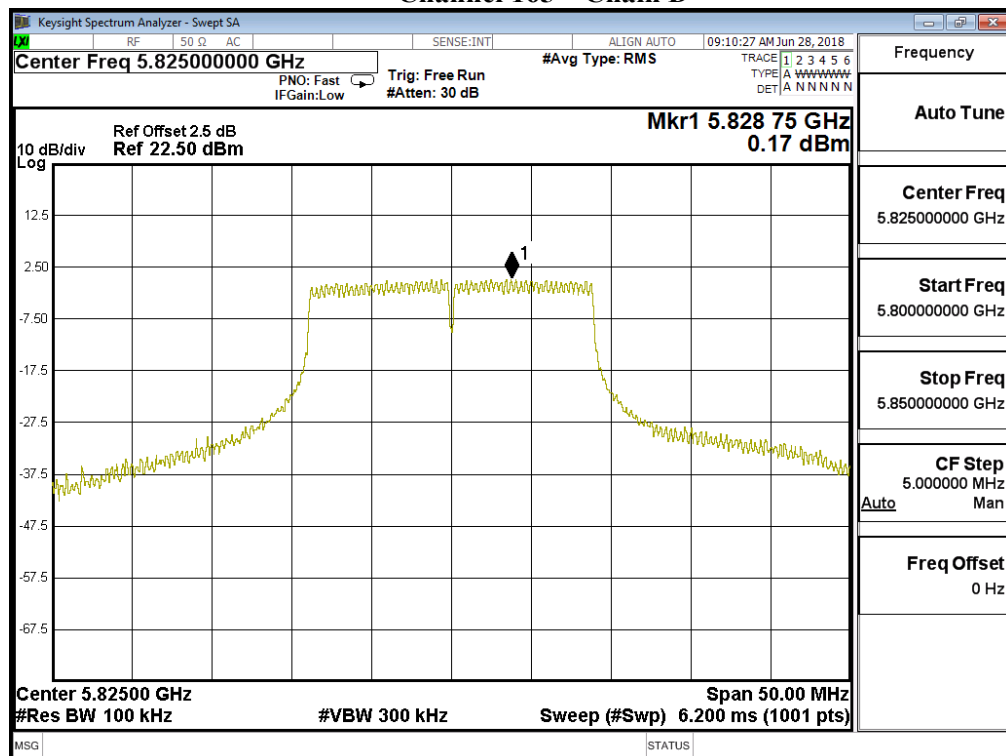
Channel 149 – Chain D



Channel 157 – Chain D



Channel 165 – Chain D

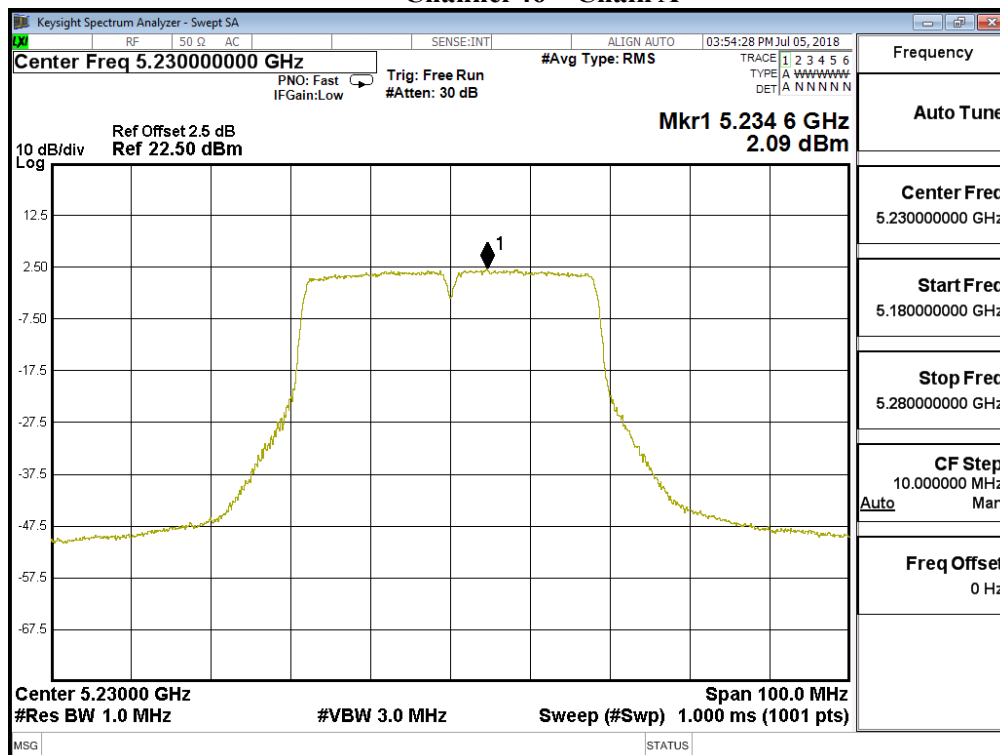
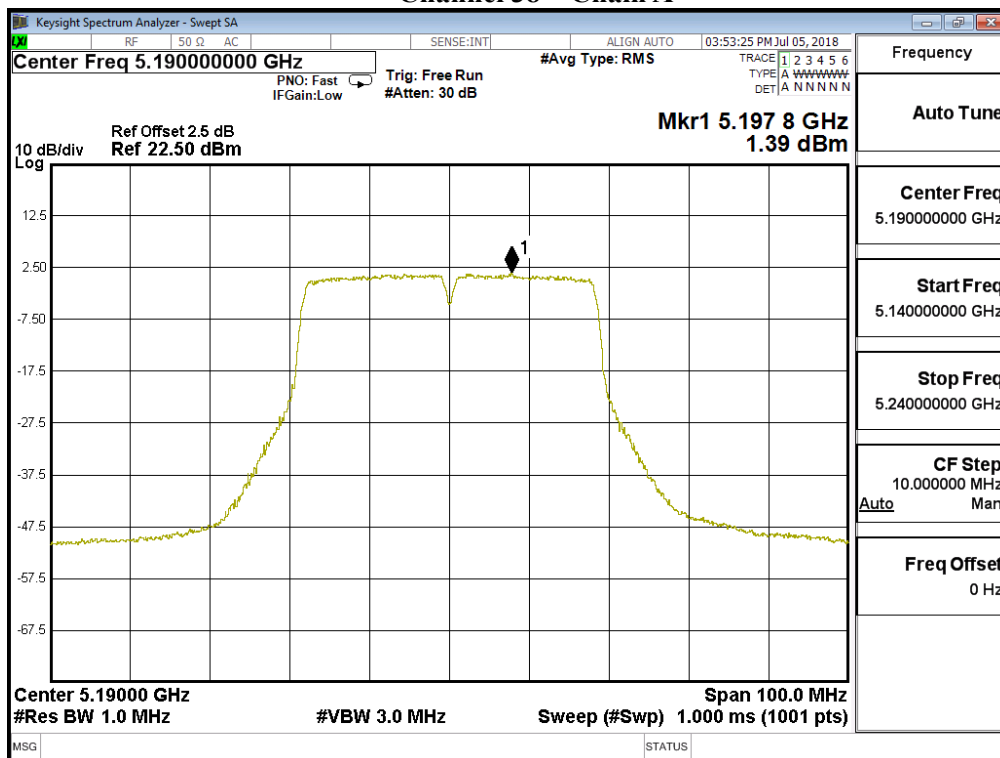


Product : MOXA IEEE 802.11a/n/ac 4*4 module
 Test Item : Peak Power Spectral Density
 Test Site : No.3 OATS
 Test Date : 2018/06/14
 Test Mode : Mode 3: Transmit (802.11n-40BW 60Mbps) (Antenna No.19)

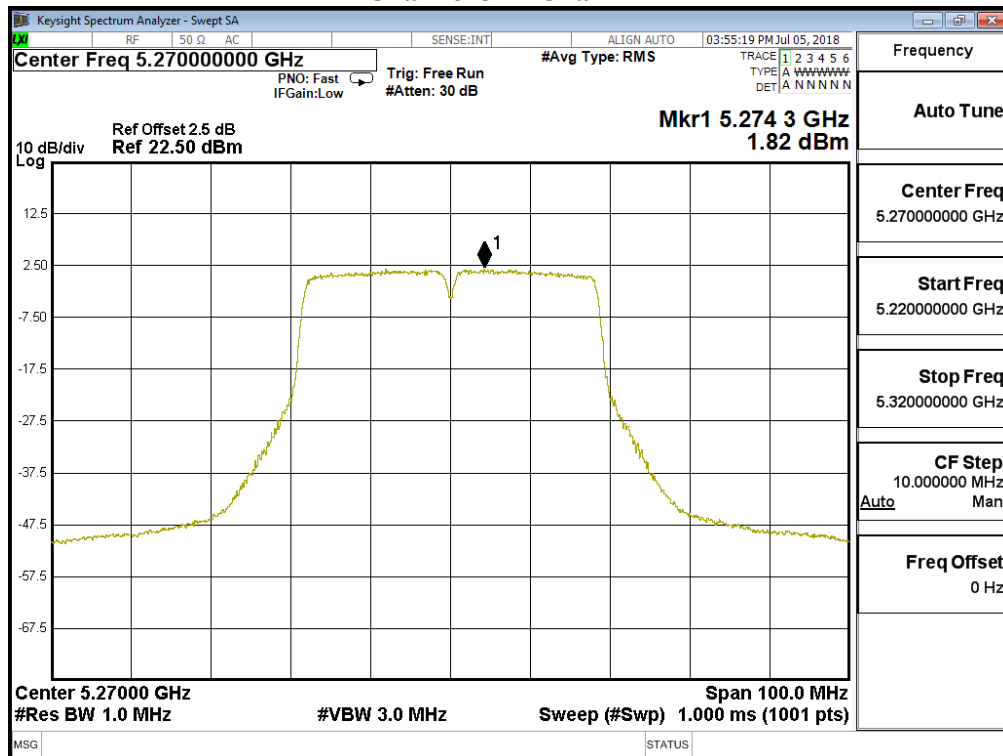
Channel Number	Frequency (MHz)	Chain	PPSD (dBm)	Total PSD (dBm) ¹	Required Limit (dBm)	Result
38	5190	A	1.39	7.41	8.5	Pass
		B	1.86	7.88	8.5	Pass
		C	1.87	7.89	8.5	Pass
		D	1.80	7.82	8.5	Pass
46	5230	A	2.09	8.11	8.5	Pass
		B	2.00	8.02	8.5	Pass
		C	1.95	7.97	8.5	Pass
		D	2.15	8.17	8.5	Pass
54	5270	A	1.82	7.84	8.5	Pass
		B	1.36	7.38	8.5	Pass
		C	1.90	7.92	8.5	Pass
		D	1.00	7.02	8.5	Pass
62	5310	A	1.18	7.20	8.5	Pass
		B	1.13	7.15	8.5	Pass
		C	2.16	8.18	8.5	Pass
		D	0.63	6.65	8.5	Pass
102	5510	A	0.78	6.80	8.5	Pass
		B	1.22	7.24	8.5	Pass
		C	1.08	7.10	8.5	Pass
		D	1.78	7.80	8.5	Pass
110	5550	A	0.50	6.52	8.5	Pass
		B	1.61	7.63	8.5	Pass
		C	0.85	6.87	8.5	Pass
		D	2.04	8.06	8.5	Pass
134	5670	A	-0.19	5.83	8.5	Pass
		B	2.46	8.48	8.5	Pass
		C	0.55	6.57	8.5	Pass
		D	2.25	8.27	8.5	Pass

Channel Number	Frequency (MHz)	Chain	PPSD (dBm)	BWCF (dB)	Total PSD (dBm) ₁	Required Limit (dBm)	Result
151	5755	A	-5.67	6.98	7.33	<27.5	Pass
		B	-5.36	6.98	7.64	<27.5	Pass
		C	-6.58	6.98	6.42	<27.5	Pass
		D	-3.09	6.98	9.91	<27.5	Pass
159	5795	A	-5.02	6.98	7.98	<27.5	Pass
		B	-5.71	6.98	7.29	<27.5	Pass
		C	-6.93	6.98	6.07	<27.5	Pass
		D	-3.25	6.98	9.75	<27.5	Pass

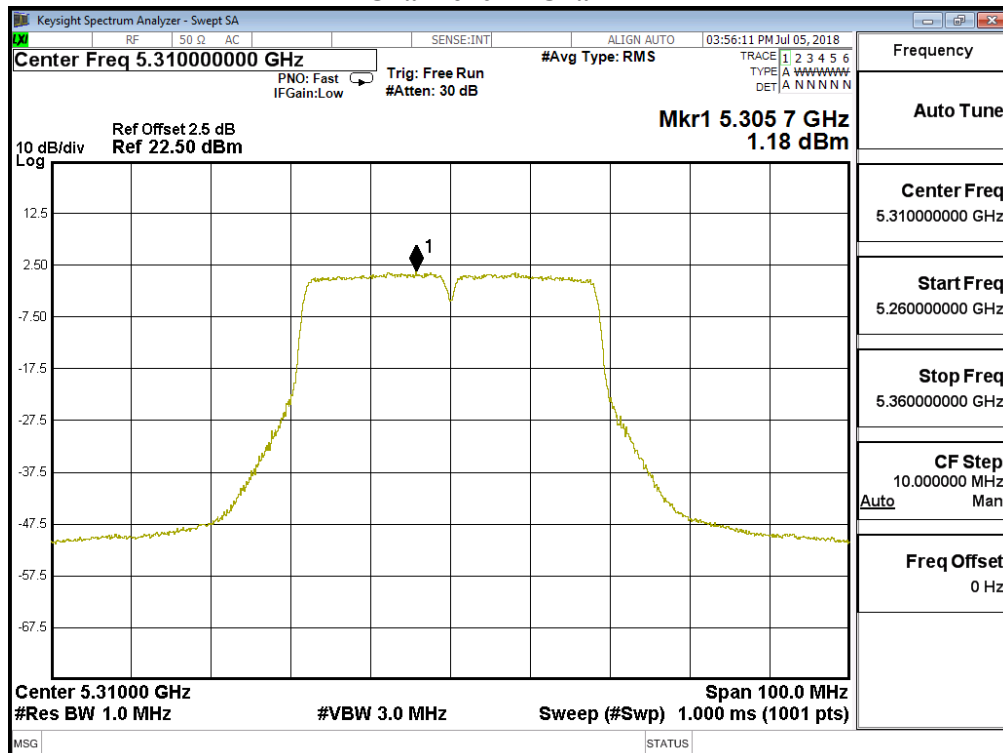
Note 1: The quantity $10 \cdot \log 4$ (four antennas) is added to the spectrum peak value according to document 662911 D01.



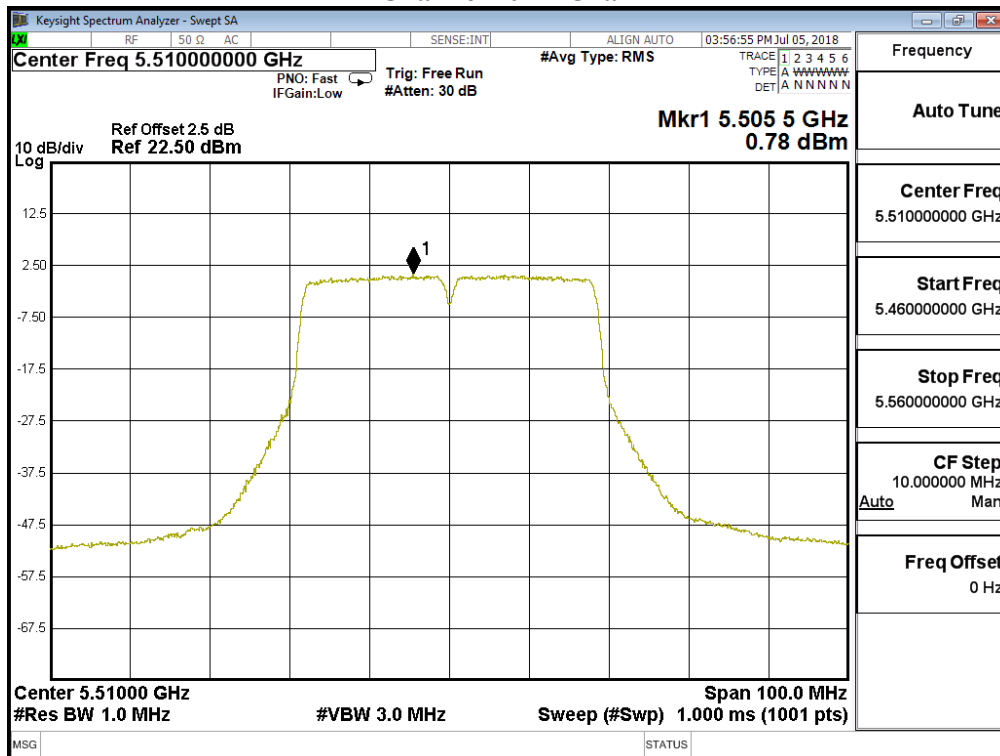
Channel 54 – Chain A



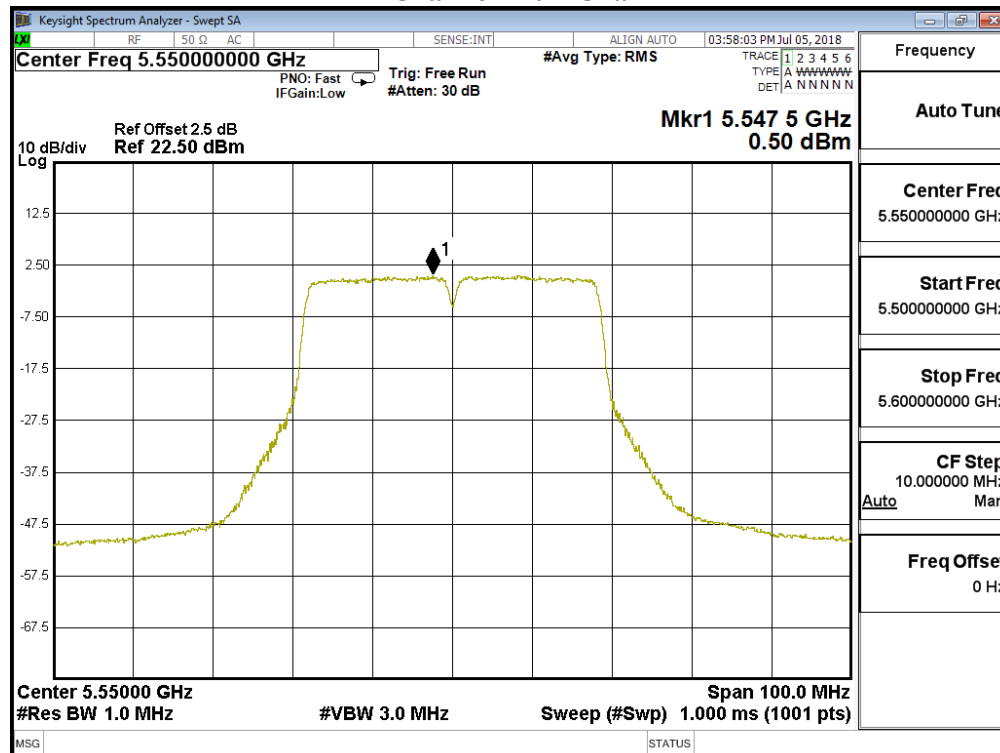
Channel 62 – Chain A



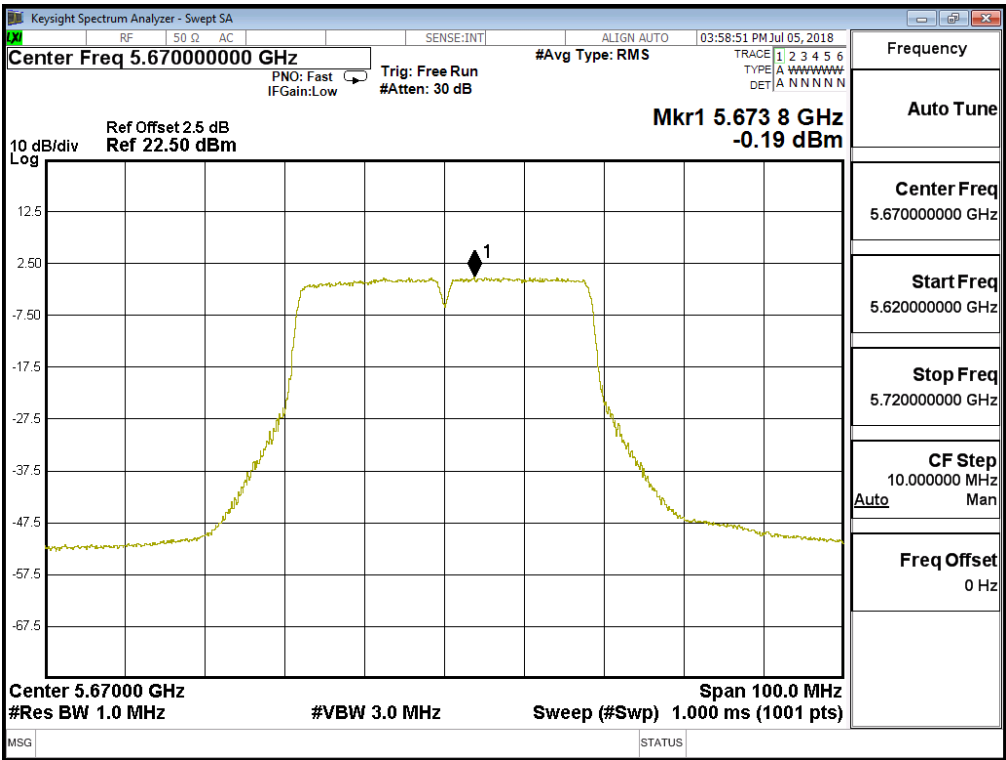
Channel 102 – Chain A



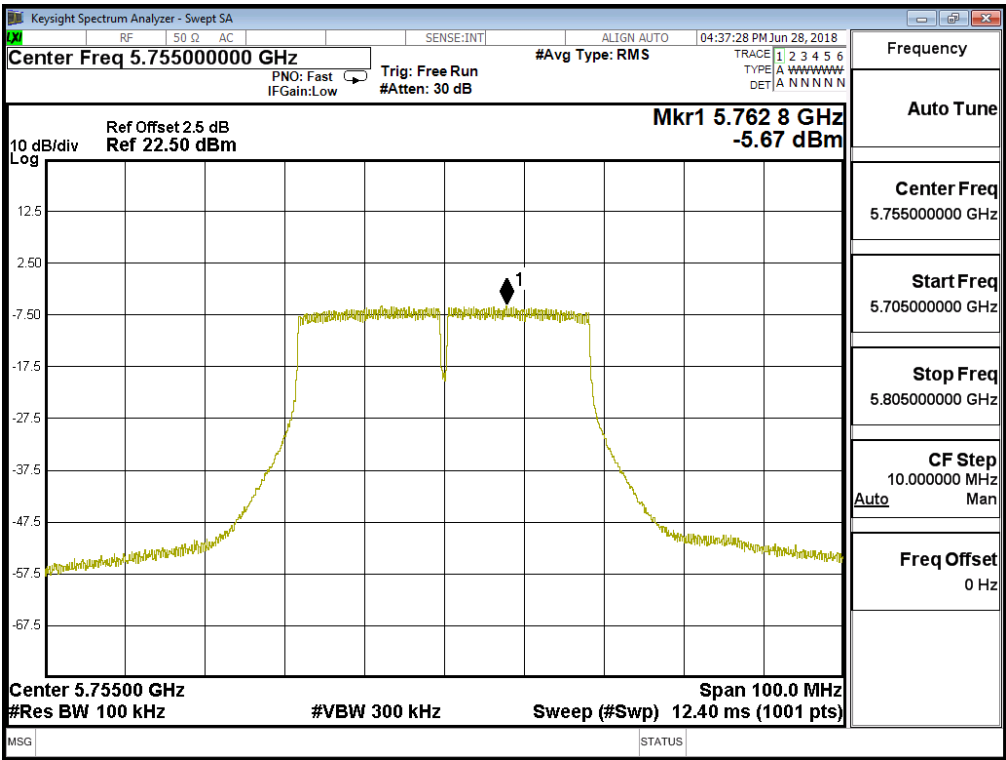
Channel 110 – Chain A



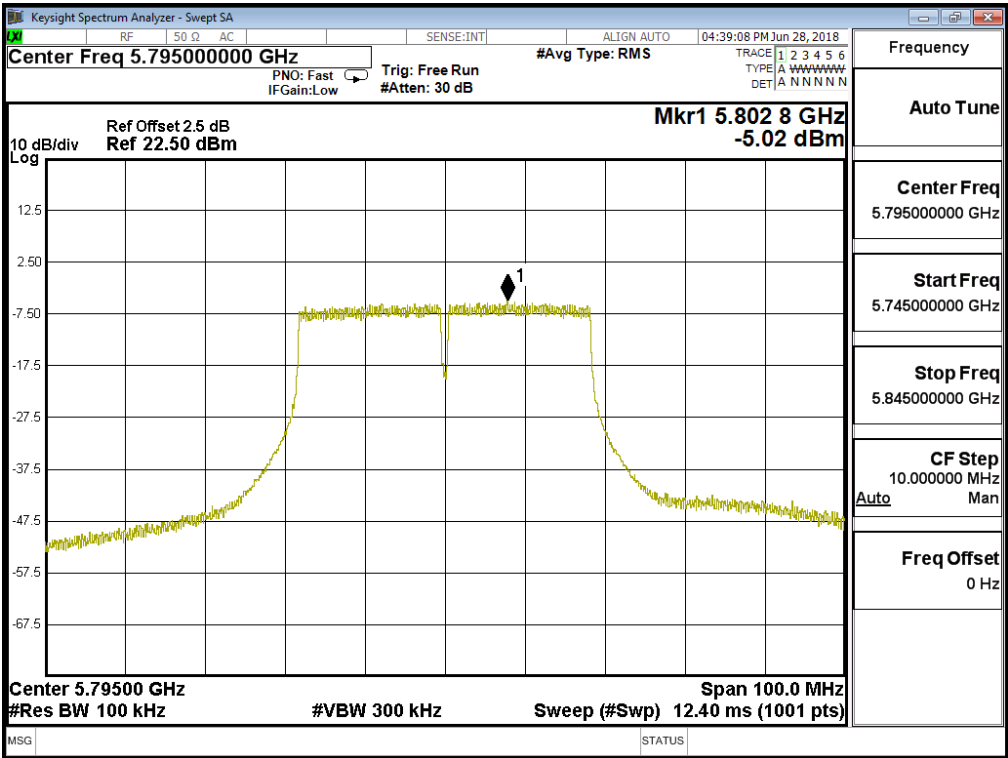
Channel 134 – Chain A



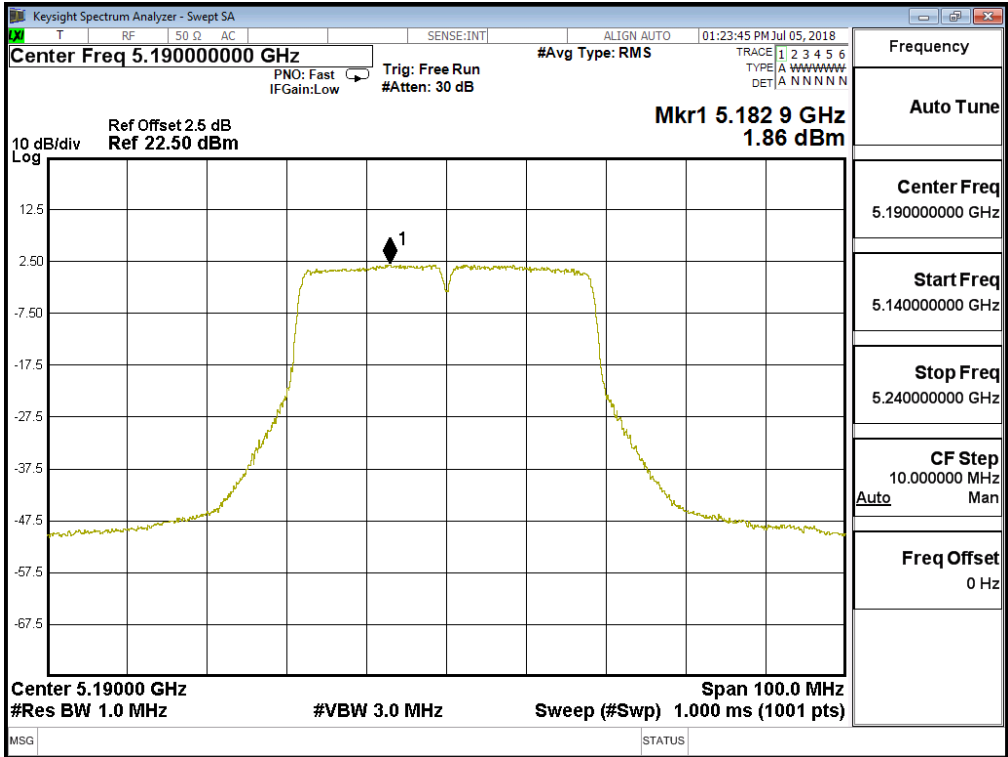
Channel 151 – Chain A



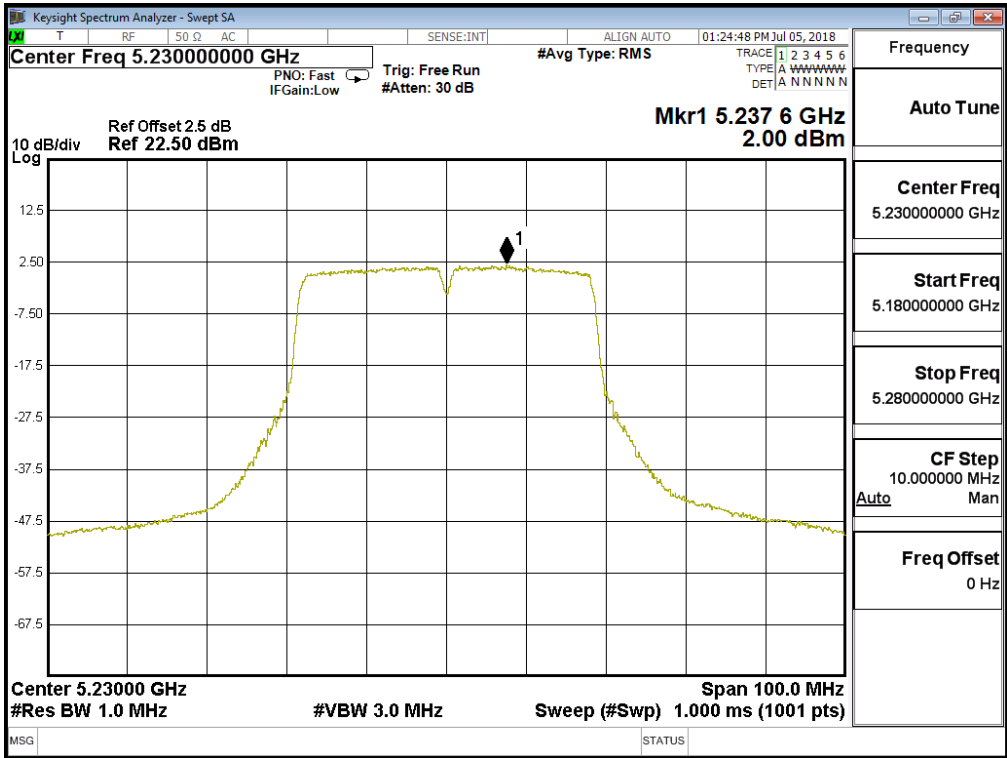
Channel 159 – Chain A



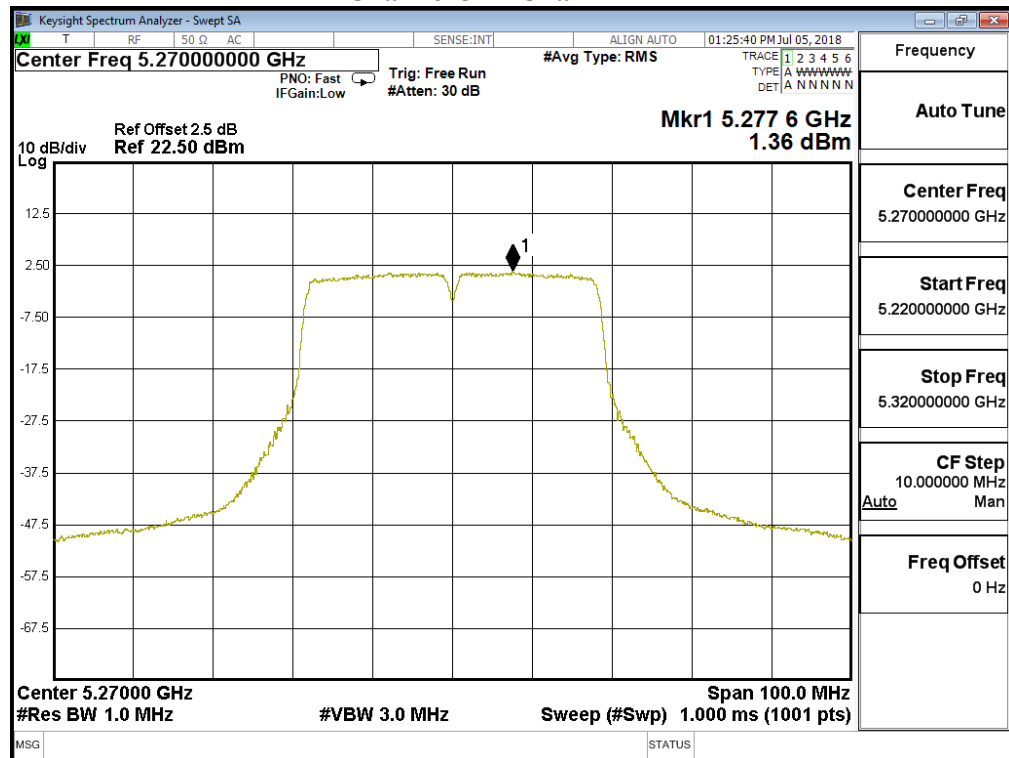
Channel 38 – Chain B



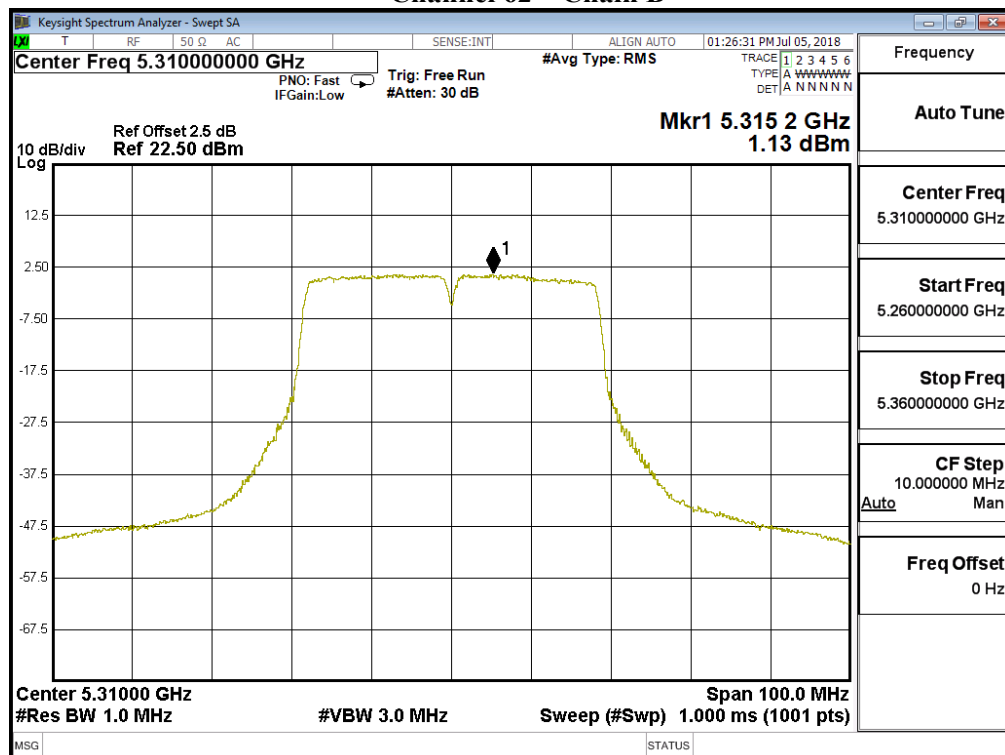
Channel 46 – Chain B



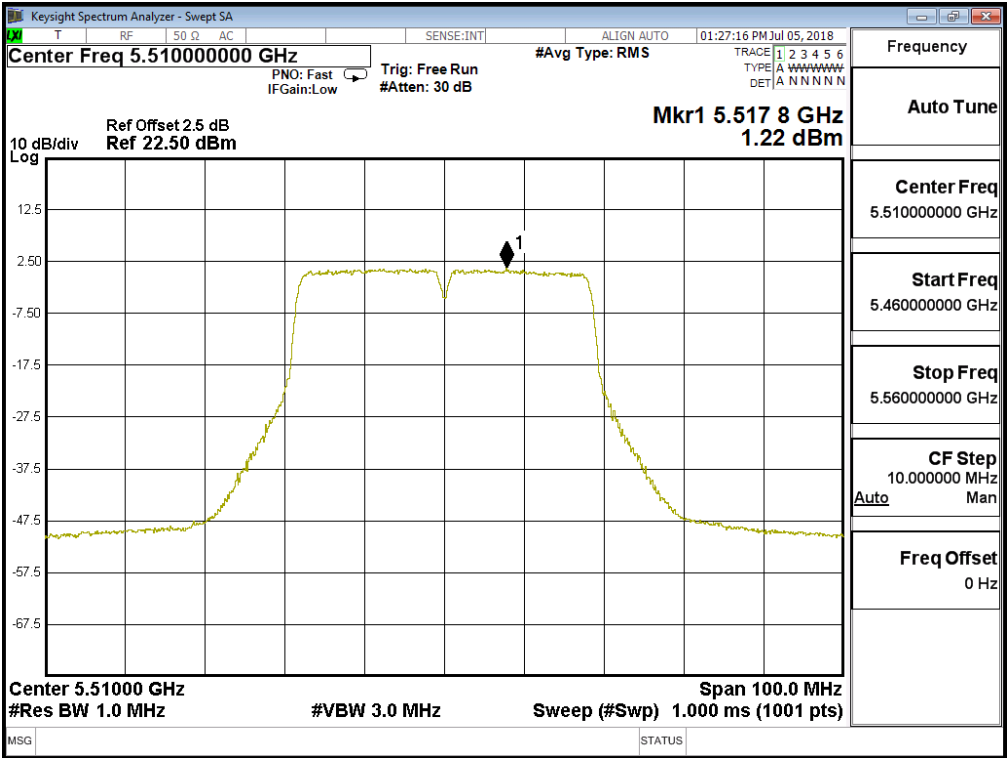
Channel 54 – Chain B



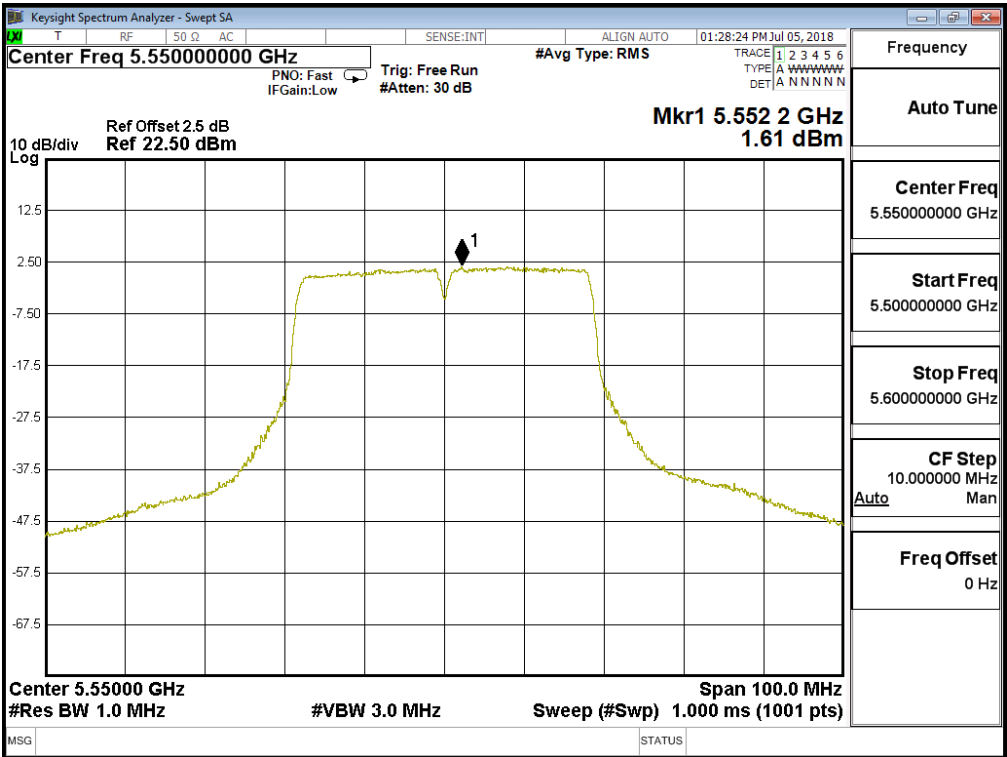
Channel 62 – Chain B



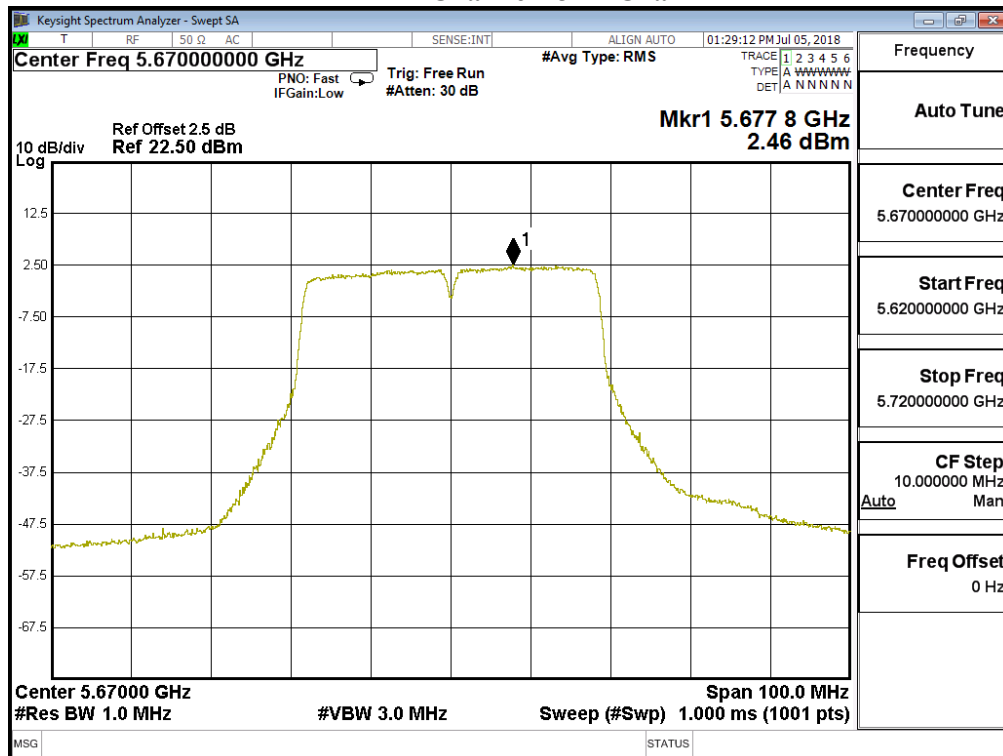
Channel 102 – Chain B



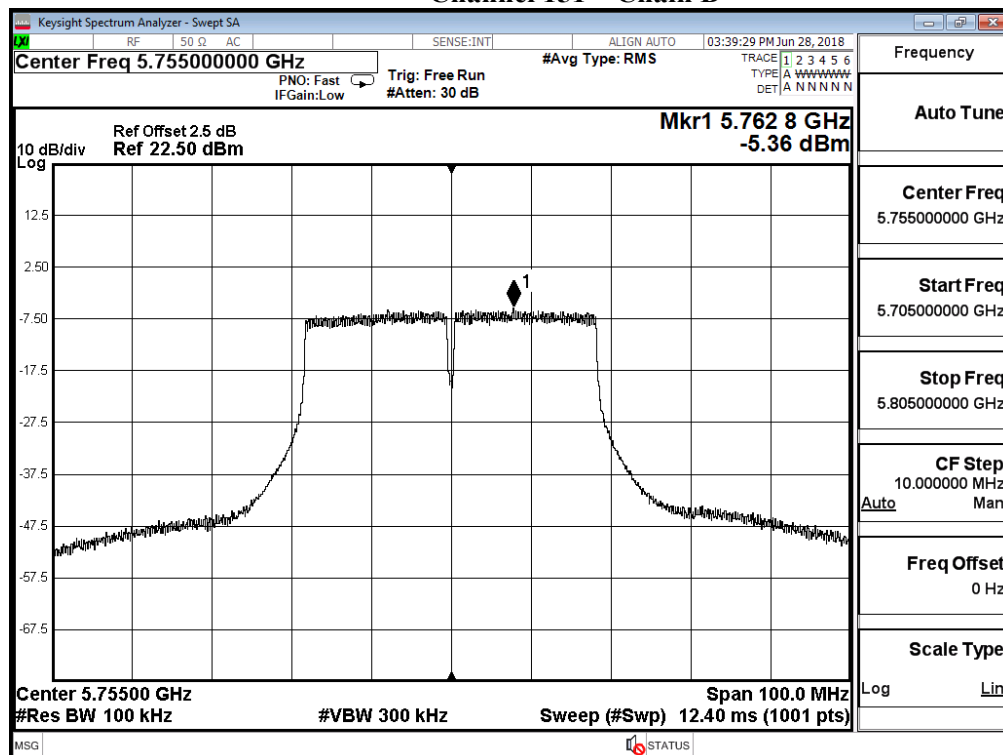
Channel 110 – Chain B



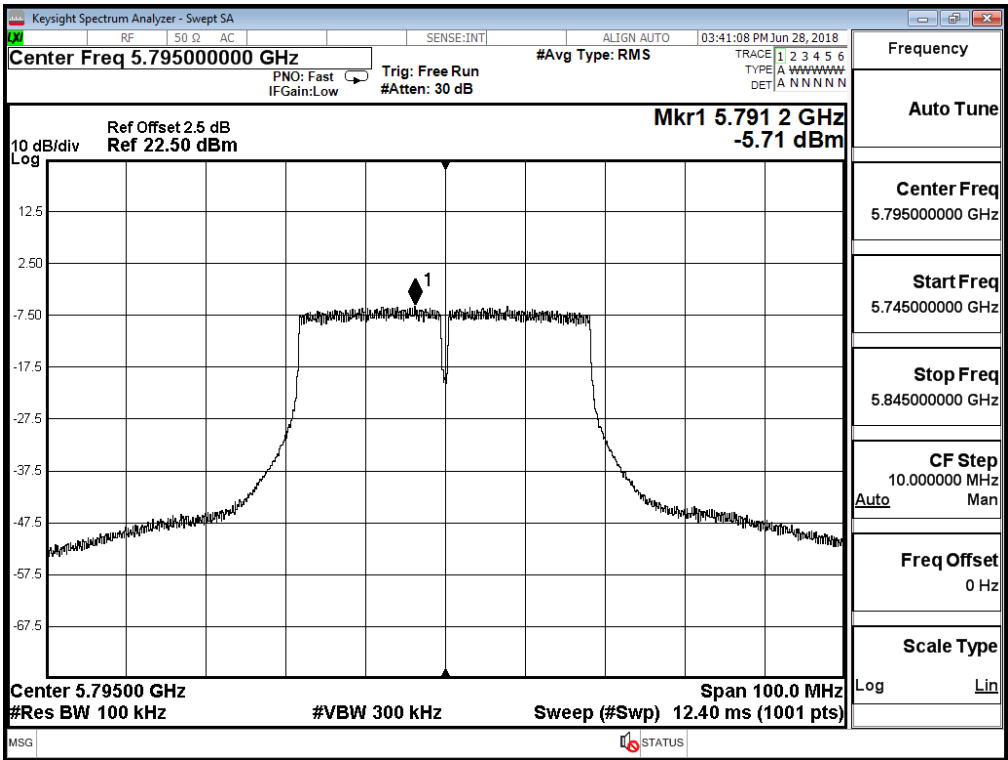
Channel 134 – Chain B



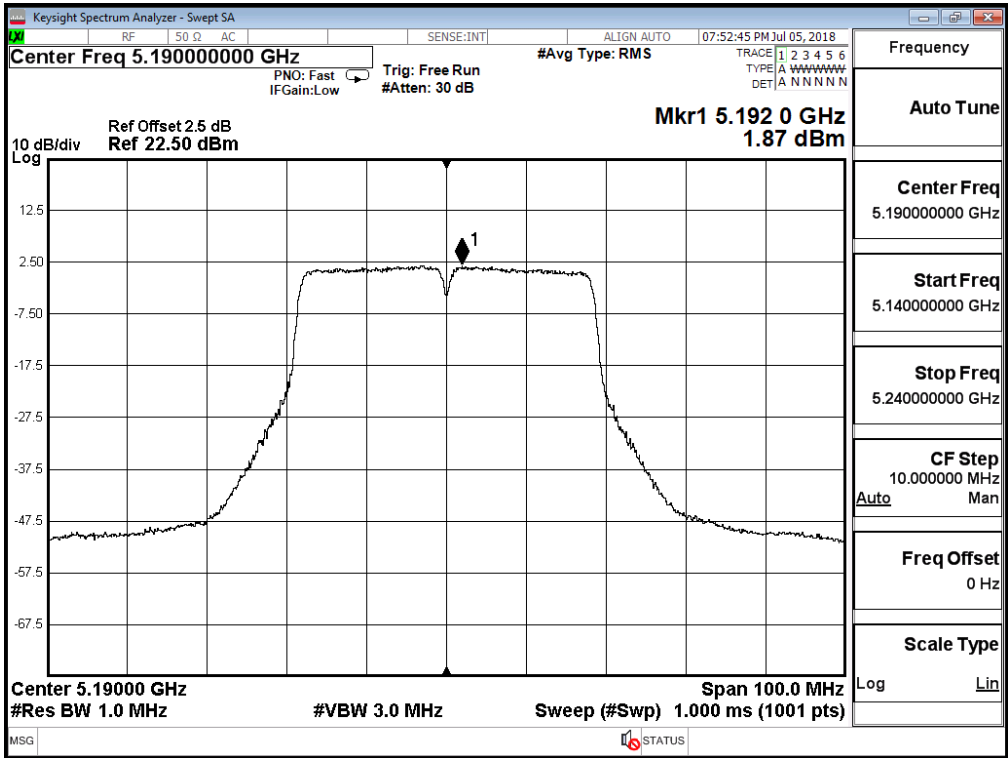
Channel 151 – Chain B



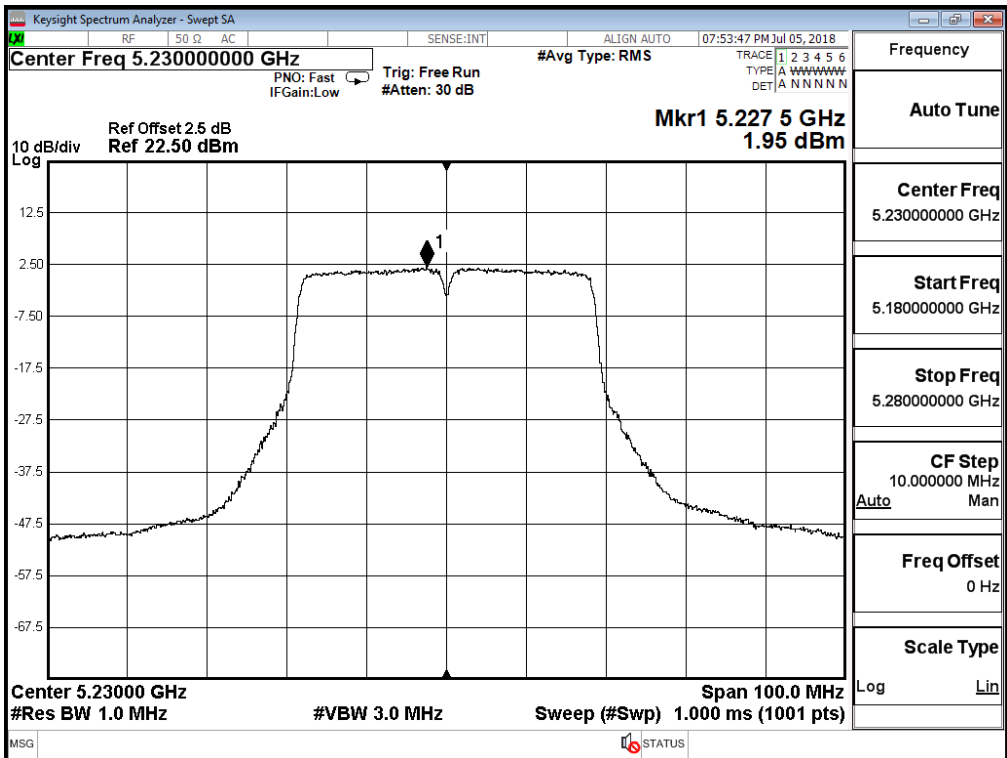
Channel 159 – Chain B



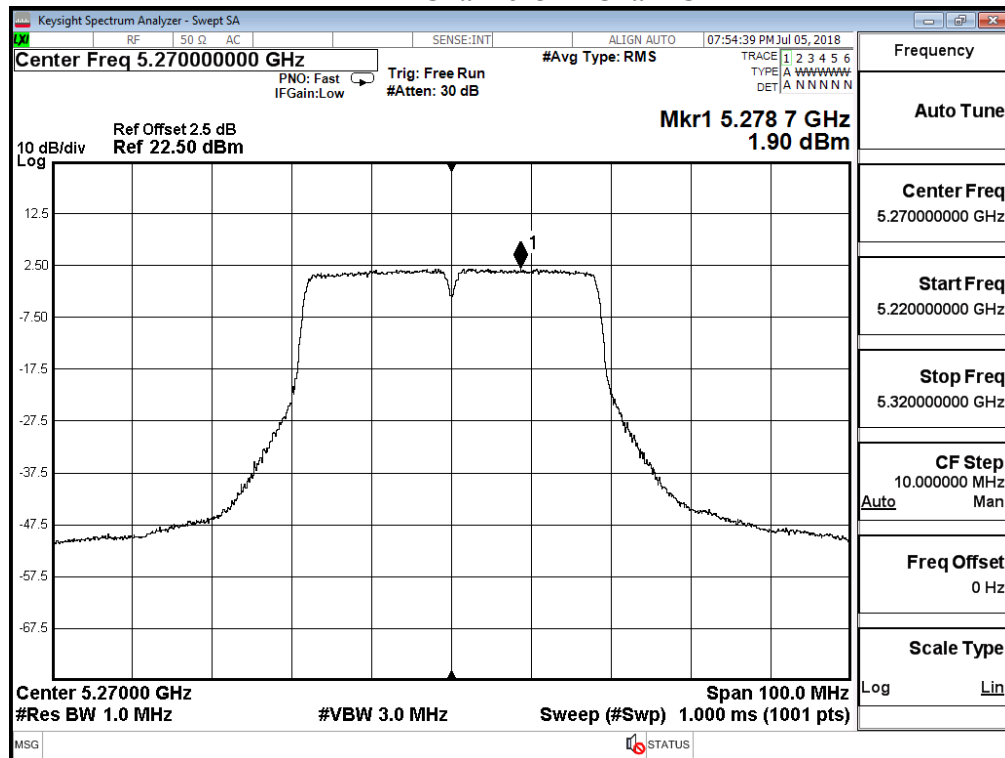
Channel 38 – Chain C



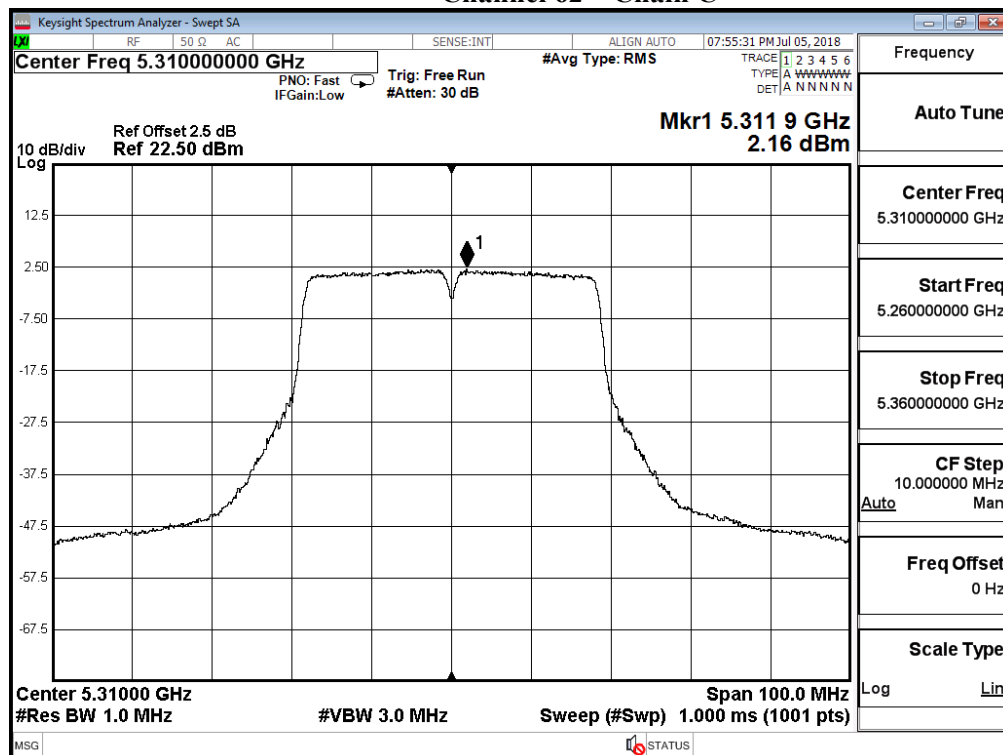
Channel 46 – Chain C



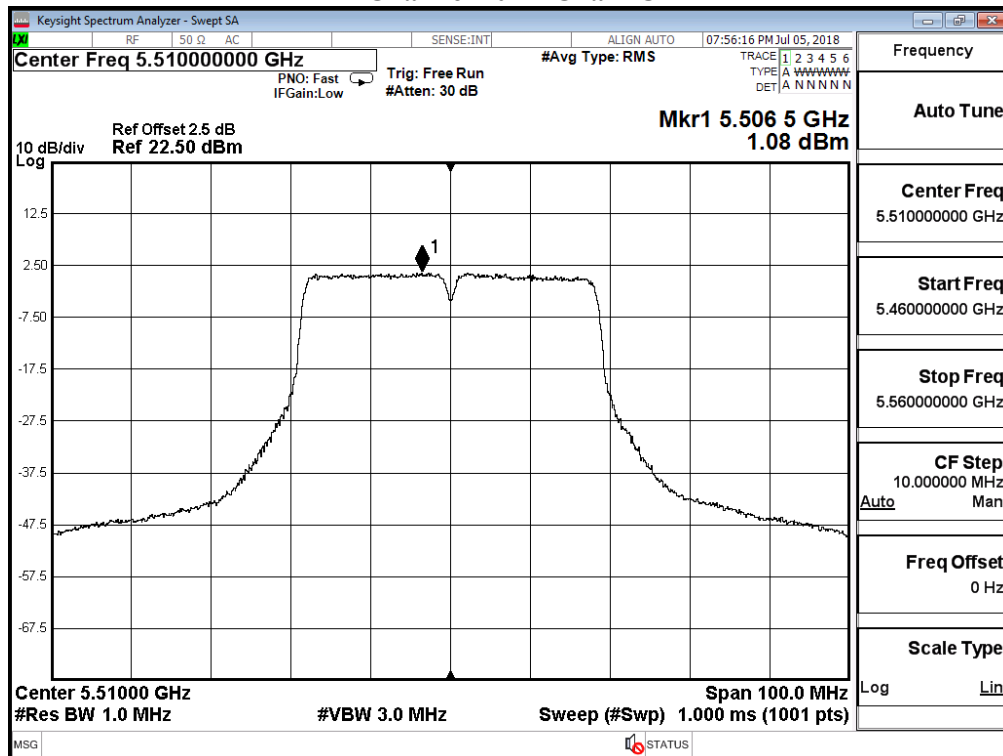
Channel 54 – Chain C



Channel 62 – Chain C



Channel 102 – Chain C



Channel 110 – Chain C

