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Appendix B: 802.11ax Test Plot

FCC ID /IC
BEJLGSBWAX12/2703H-LGSBWAX12

REVISION HISTORY

The revision history for this document is shown in table.

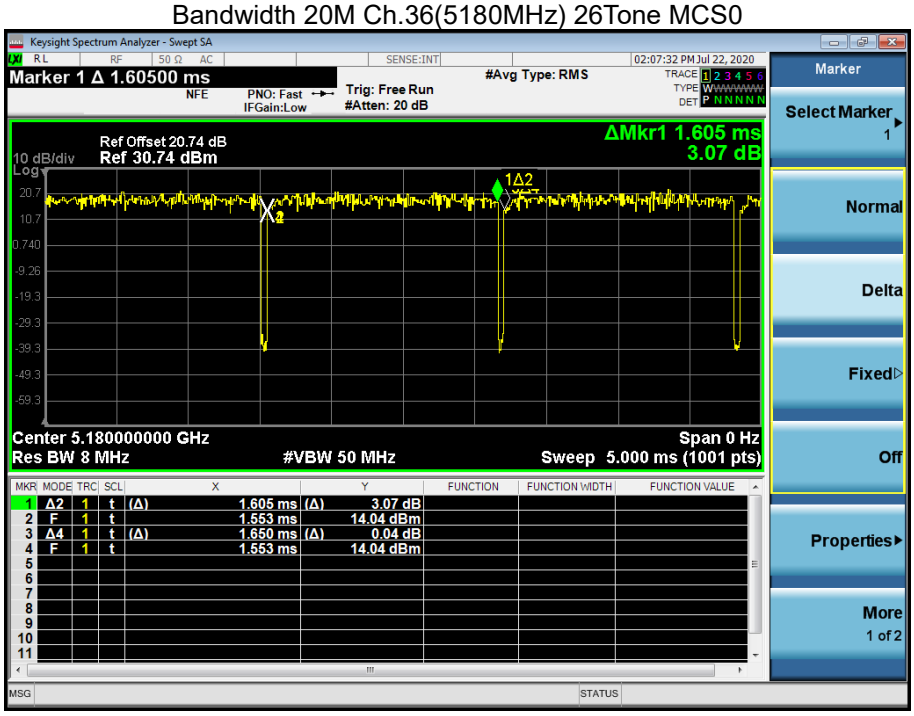
Revision No.	Date of Issue	Description
0	September 10, 2020	Initial Release

Note:
In order to simplify the report, attached plots were only the most lowest datarate.

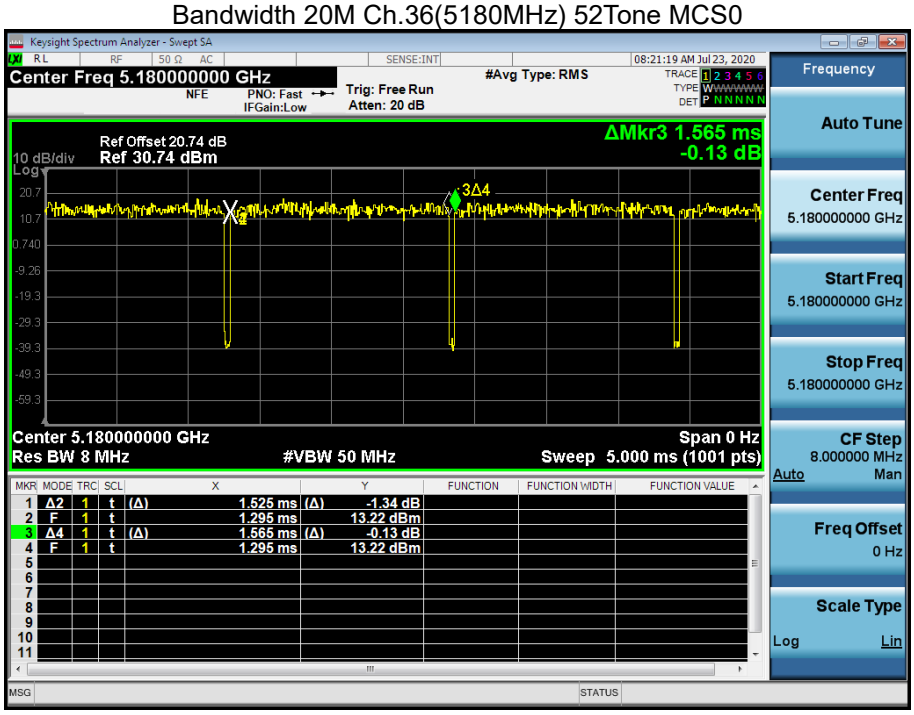
1. Duty Cycle

Note:
In order to simplify the report, attached plots were only the most lowest datarate.

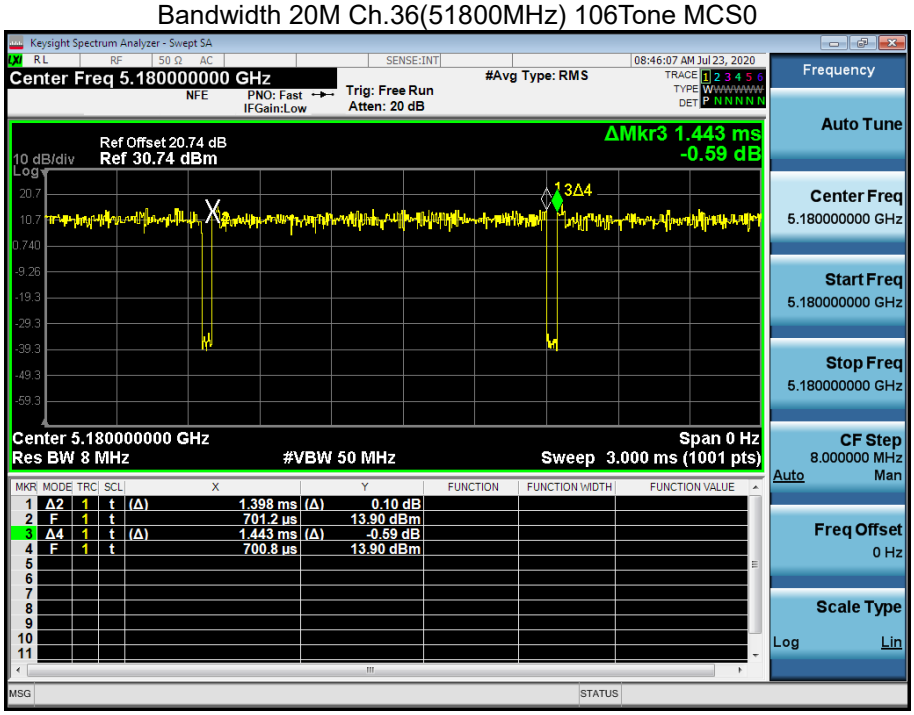
Bandwidth 20M Ch.36(5180MHz) 26Tone MCS0



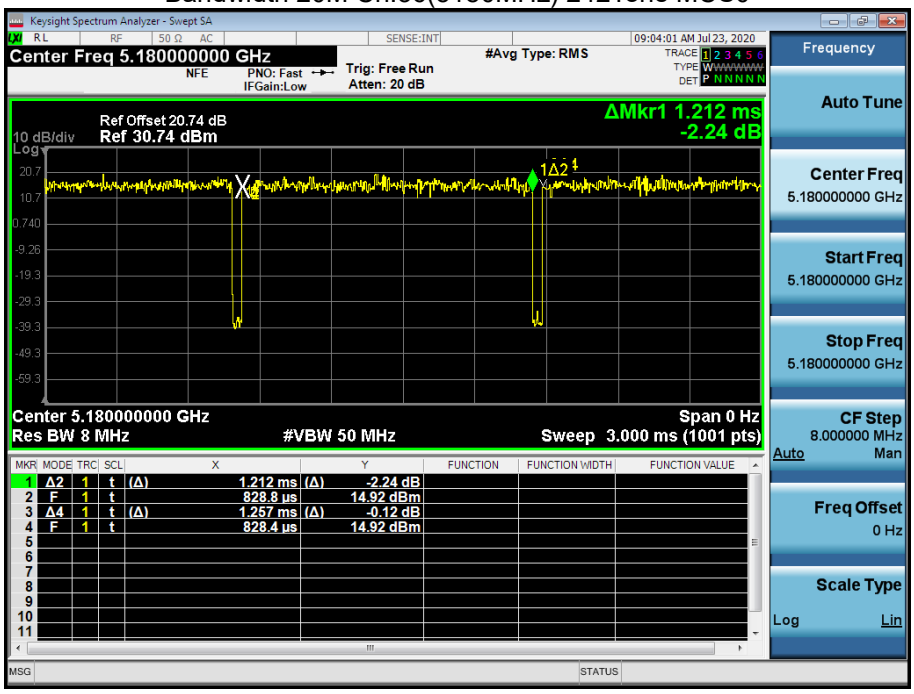
Bandwidth 20M Ch.36(5180MHz) 52Tone MCS0



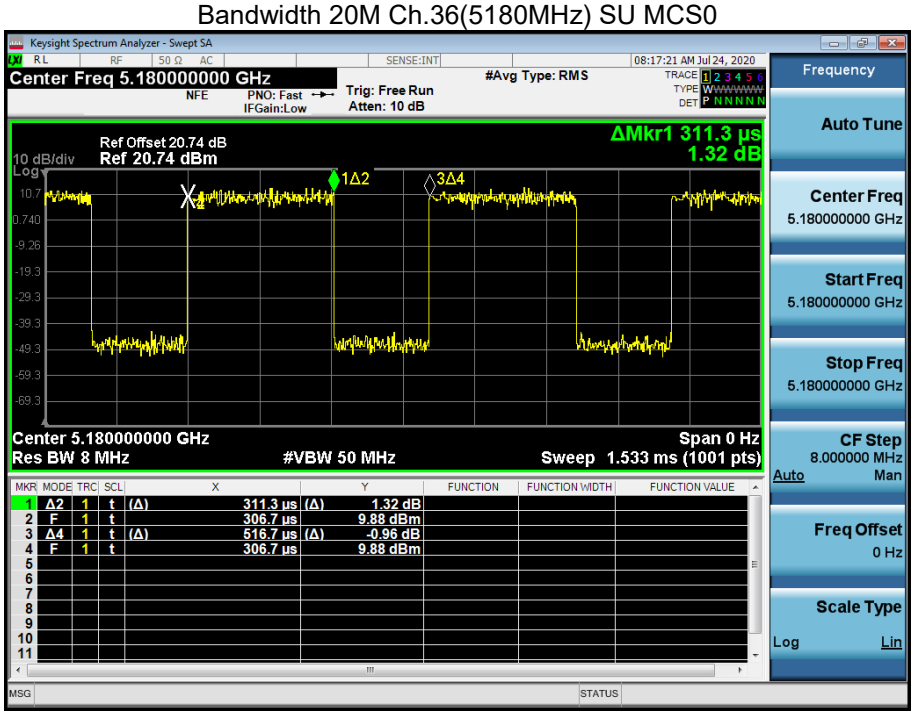
Bandwidth 20M Ch.36(51800MHz) 106Tone MCS0



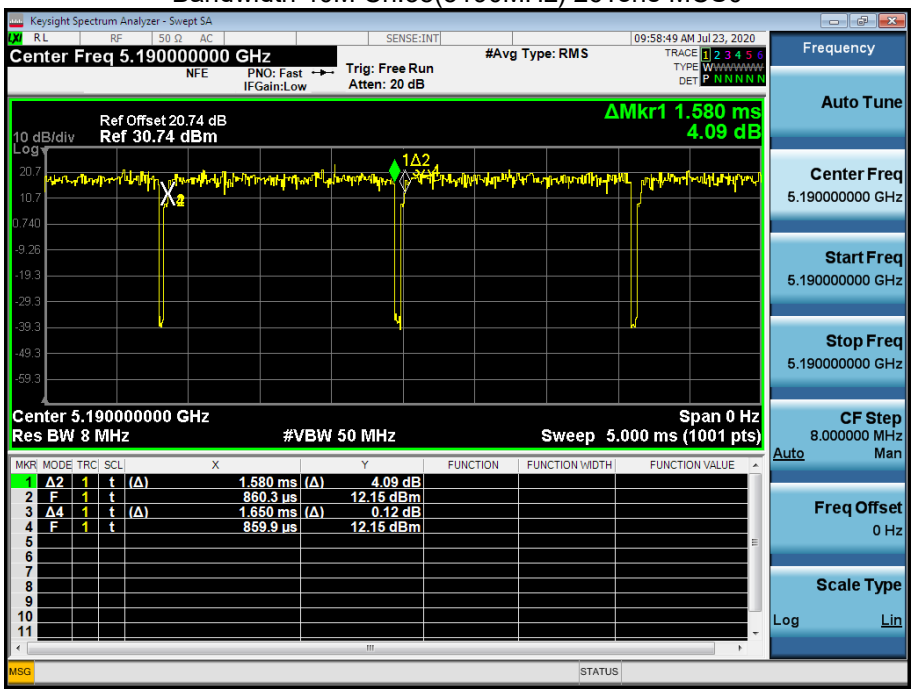
Bandwidth 20M Ch.36(5180MHz) 242Tone MCS0



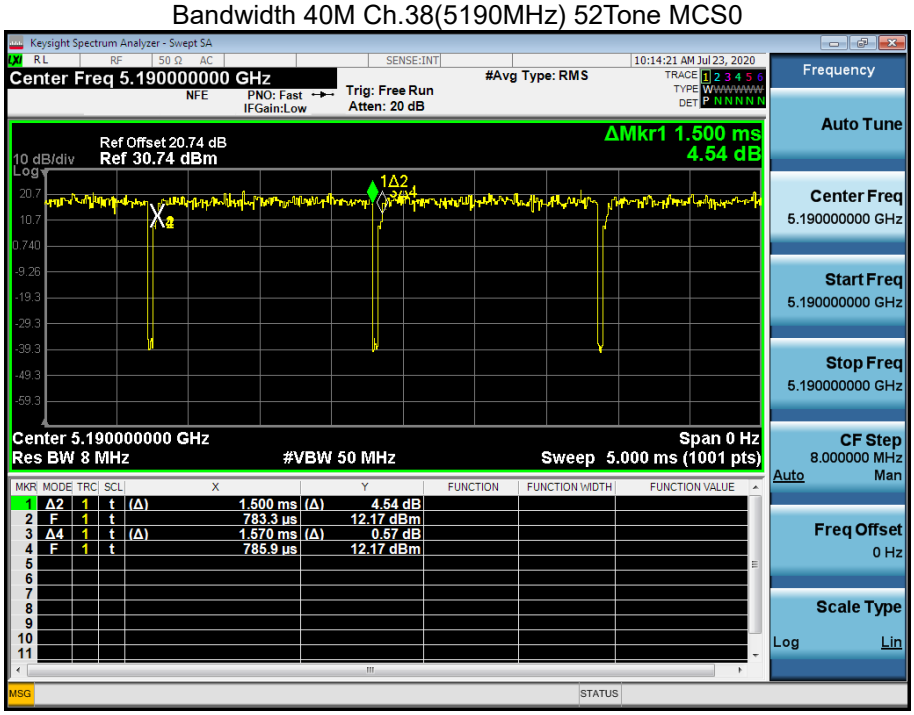
Bandwidth 20M Ch.36(5180MHz) SU MCS0



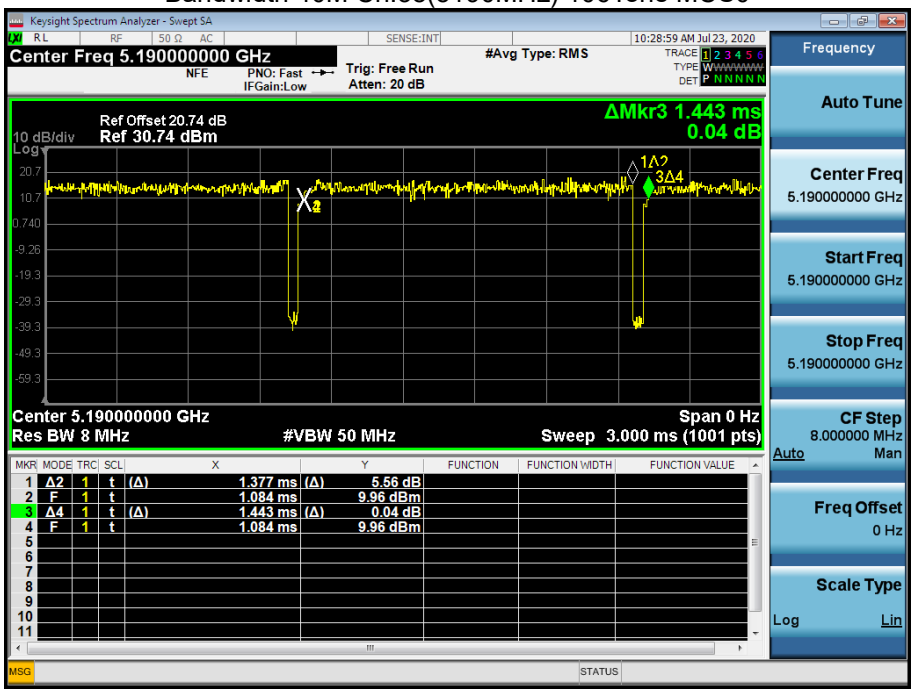
Bandwidth 40M Ch.38(5190MHz) 26Tone MCS0



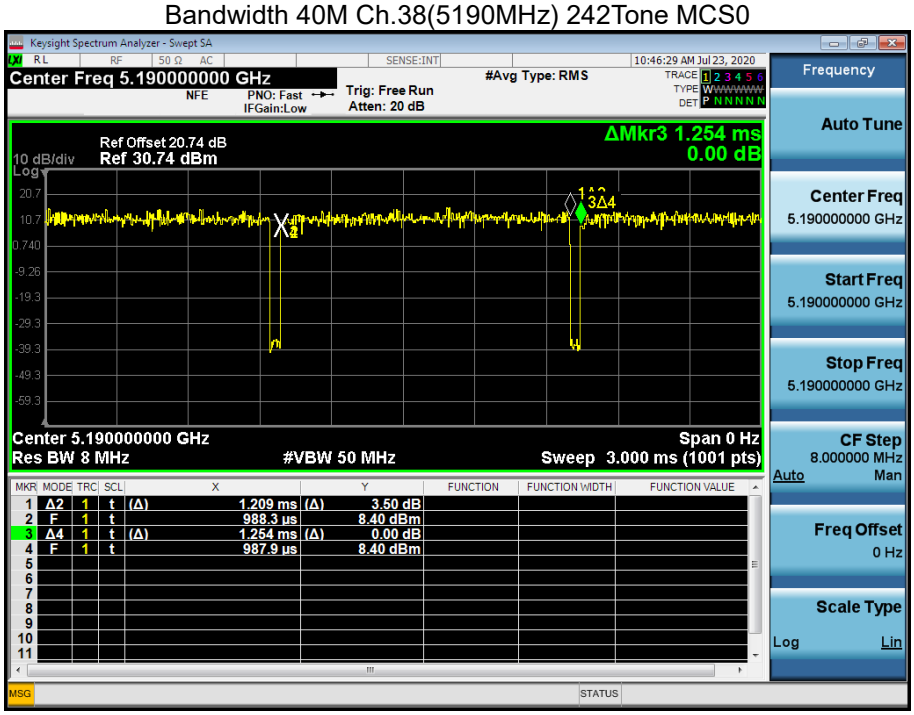
Bandwidth 40M Ch.38(5190MHz) 52Tone MCS0



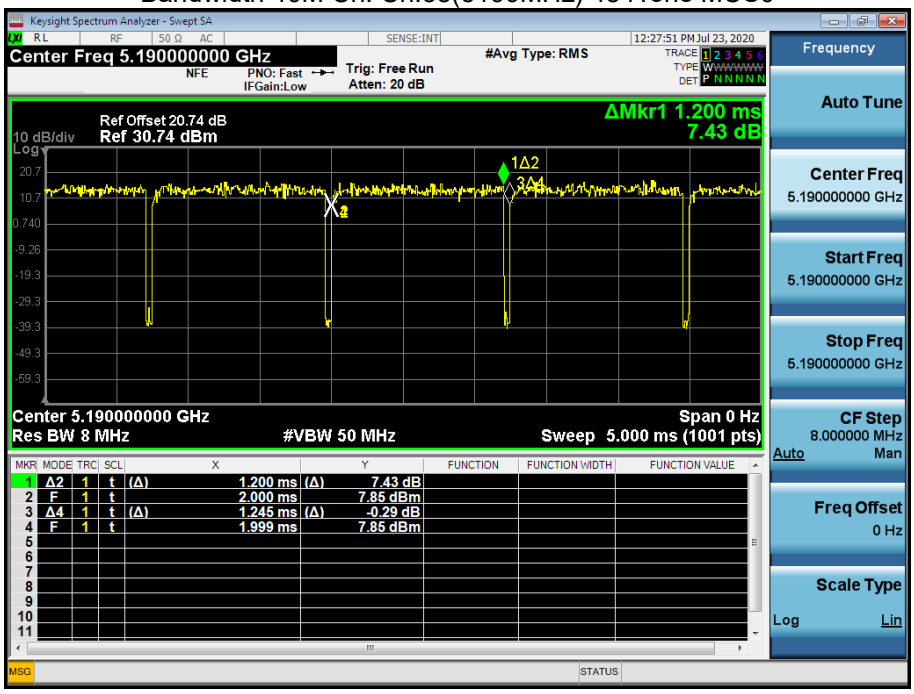
Bandwidth 40M Ch.38(5190MHz) 106Tone MCS0



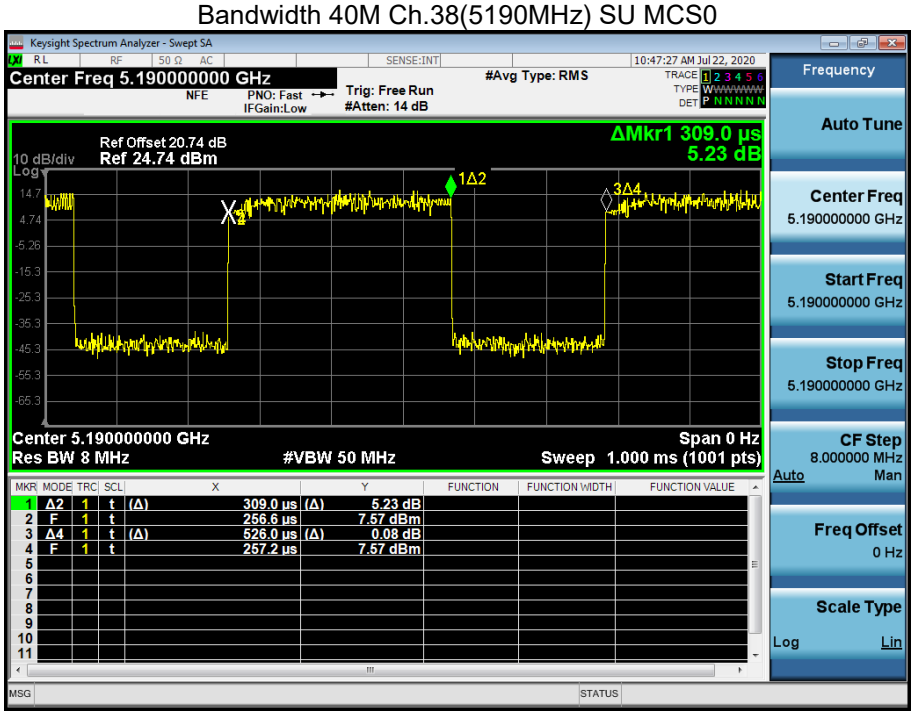
Bandwidth 40M Ch.38(5190MHz) 242Tone MCS0



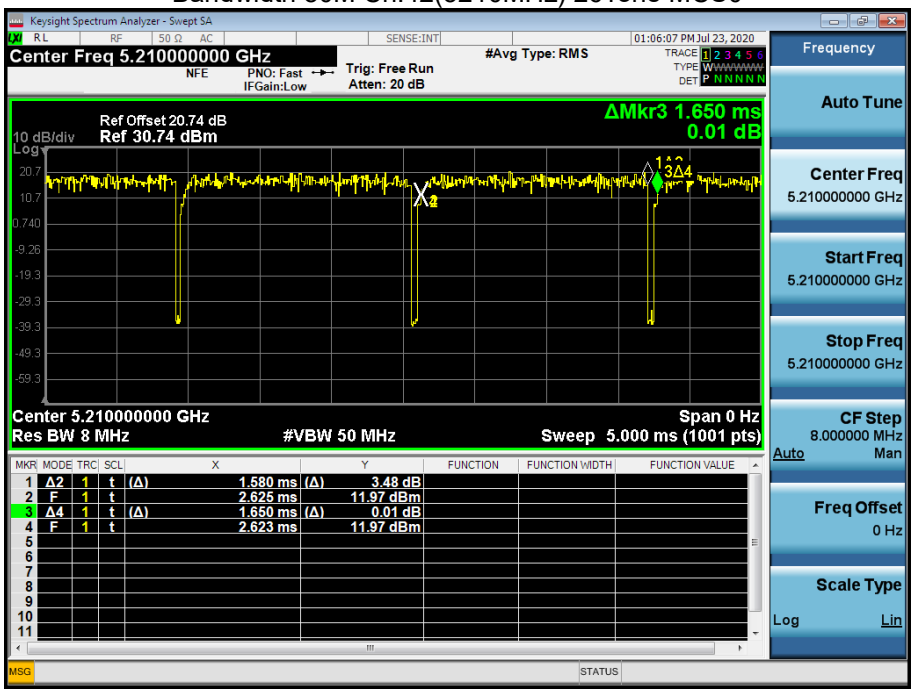
Bandwidth 40M Ch. Ch.38(5190MHz) 484Tone MCS0



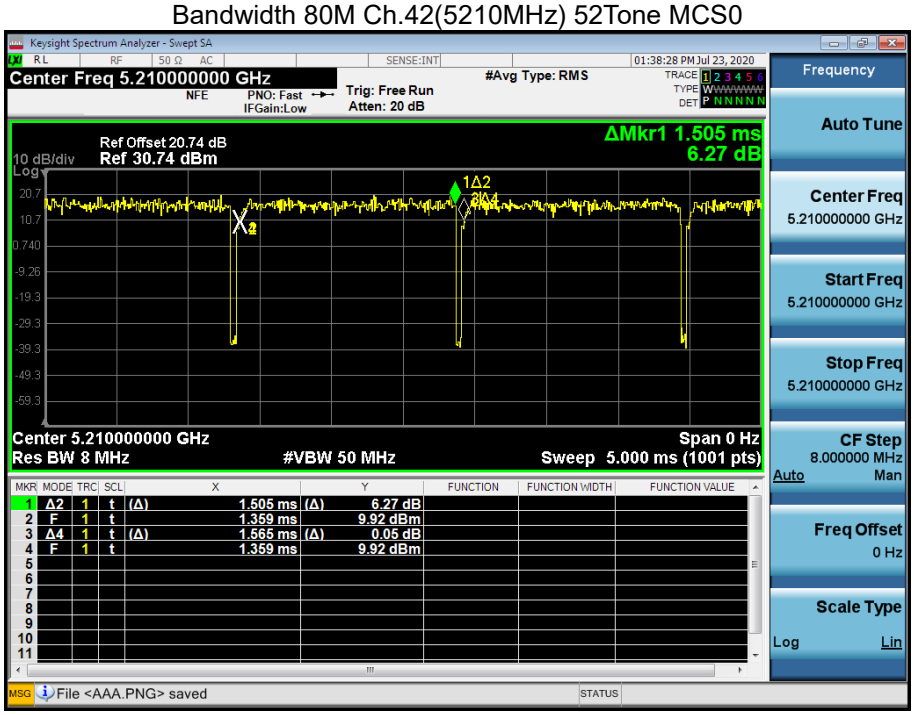
Bandwidth 40M Ch.38(5190MHz) SU MCS0



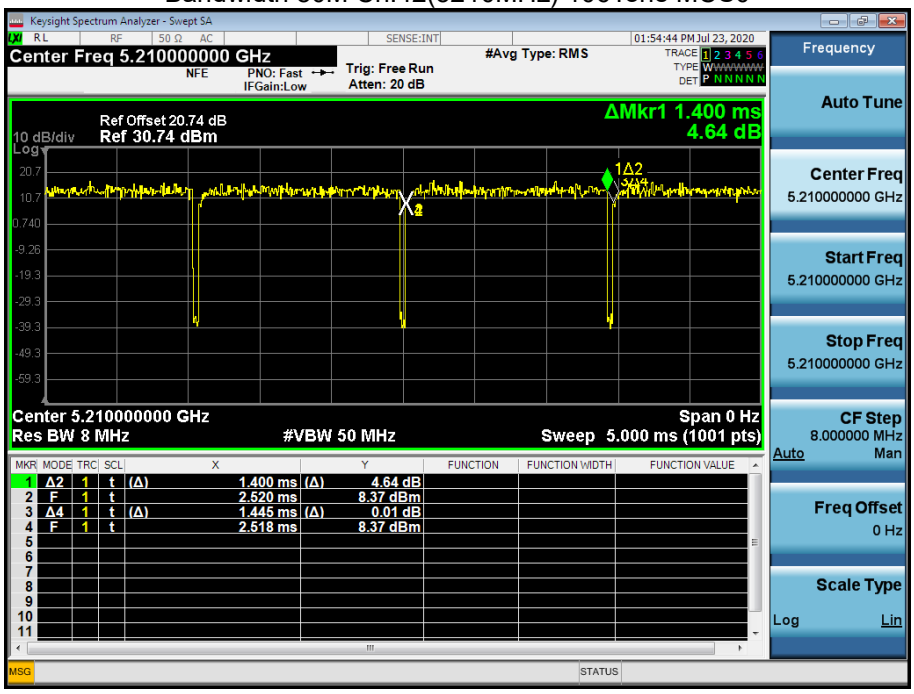
Bandwidth 80M Ch.42(5210MHz) 26Tone MCS0



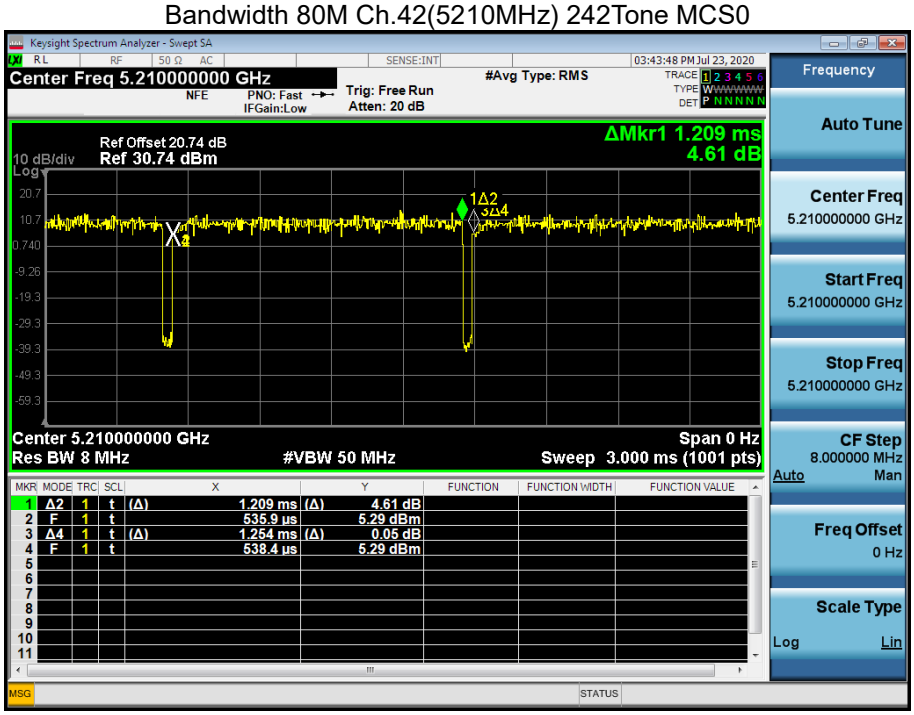
Bandwidth 80M Ch.42(5210MHz) 52Tone MCS0



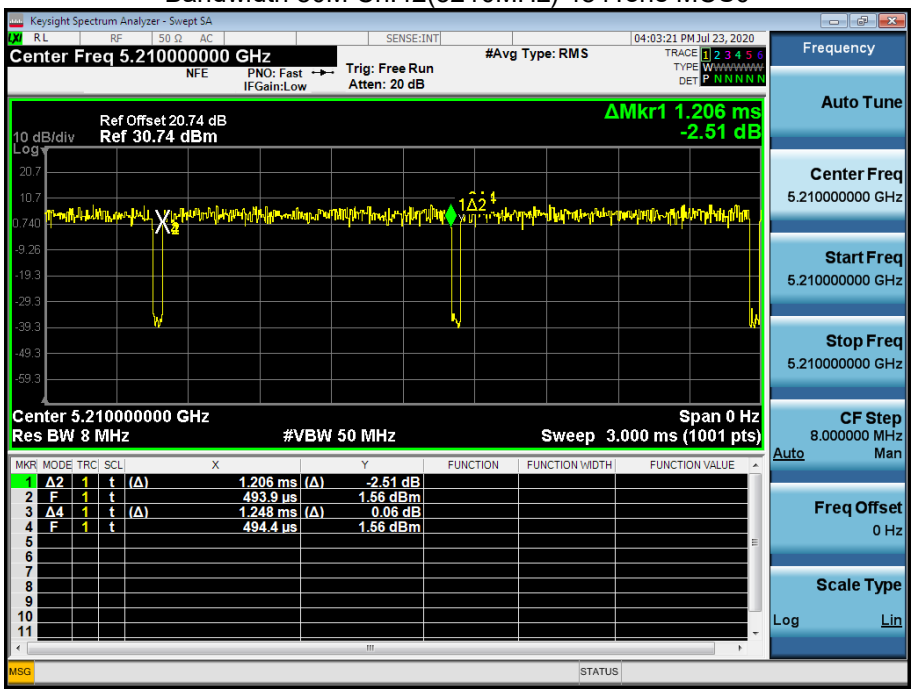
Bandwidth 80M Ch.42(5210MHz) 106Tone MCS0



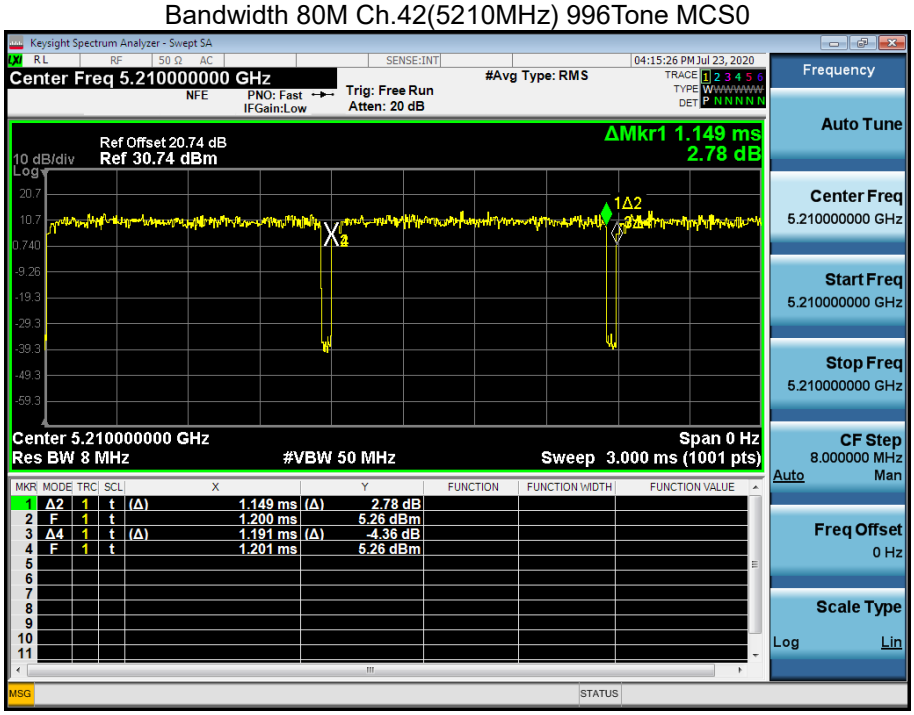
Bandwidth 80M Ch.42(5210MHz) 242Tone MCS0



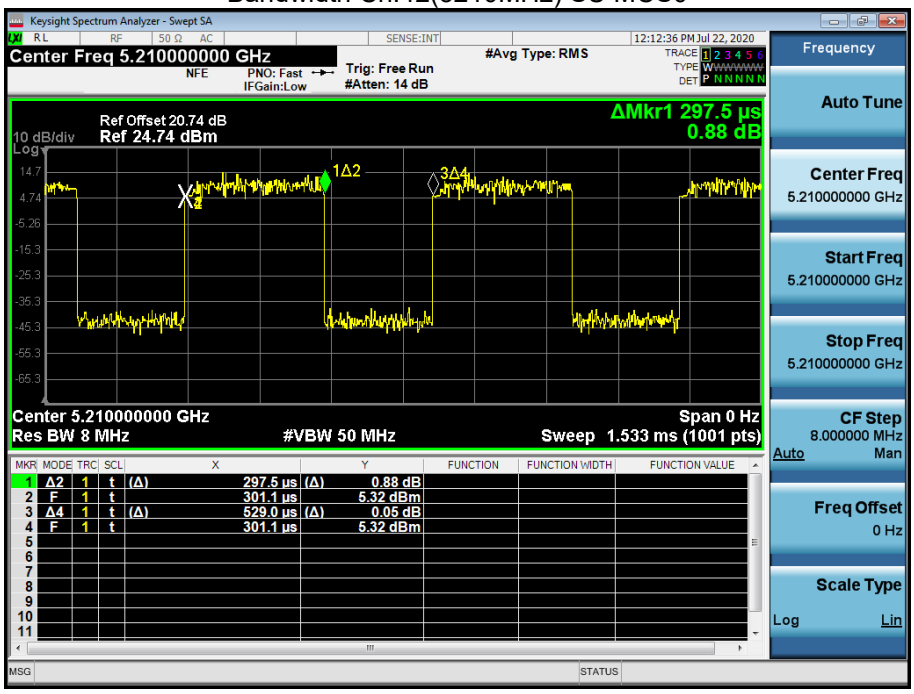
Bandwidth 80M Ch.42(5210MHz) 484Tone MCS0



Bandwidth 80M Ch.42(5210MHz) 996Tone MCS0



Bandwidth Ch.42(5210MHz) SU MCS0

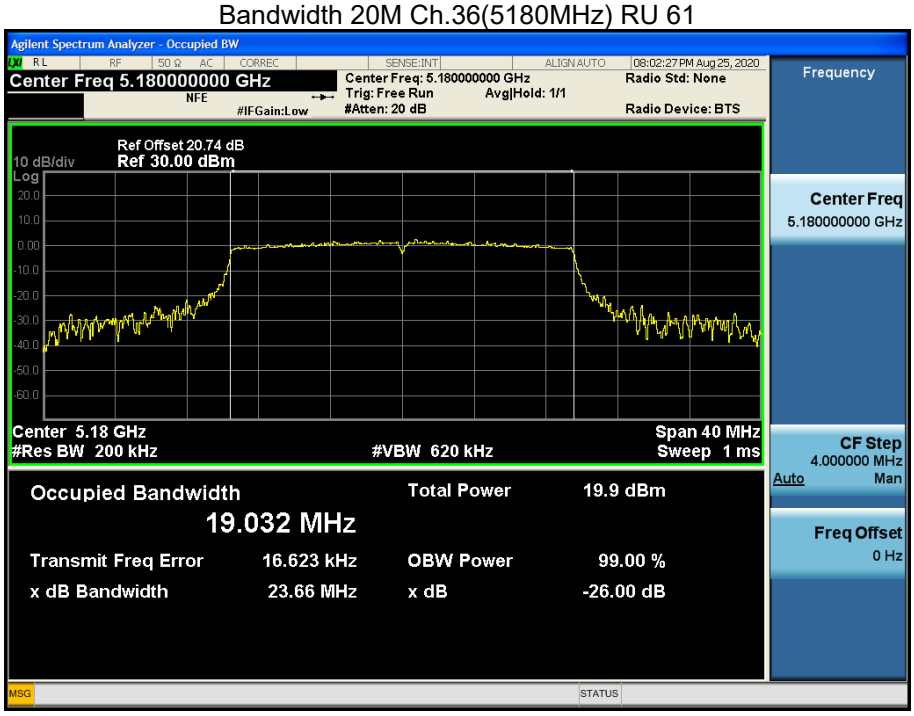


2. 26dB Bandwidth

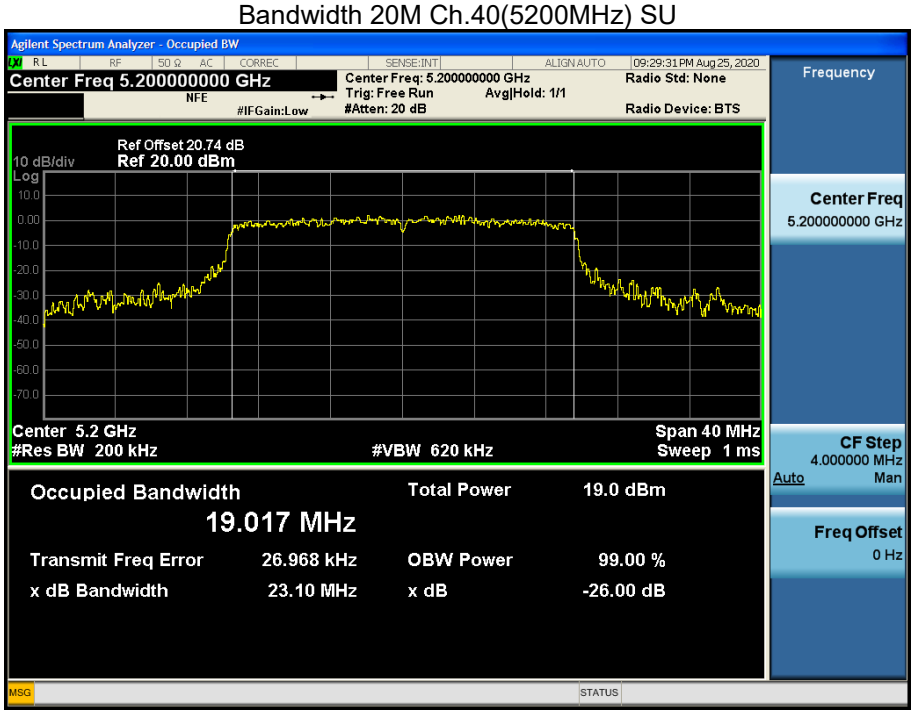
Note:

1. In order to simplify the report, attached plots were only Ant.1 (Worst Case: Ant.1).
2. In order to simplify the report, attached plots were only the most wide channel.

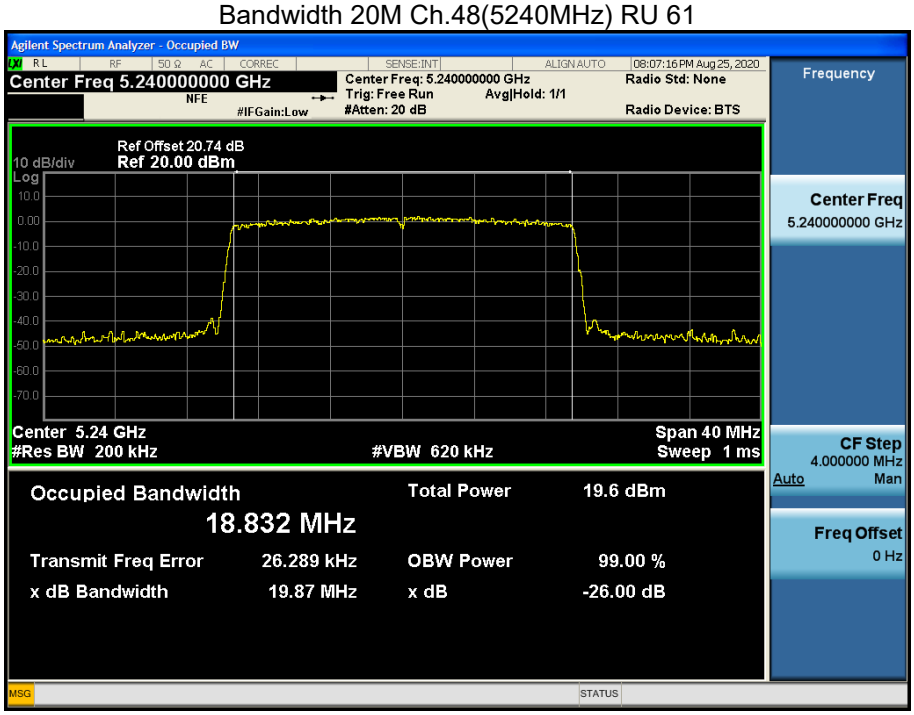
Bandwidth 20M Ch.36(5180MHz) RU 61



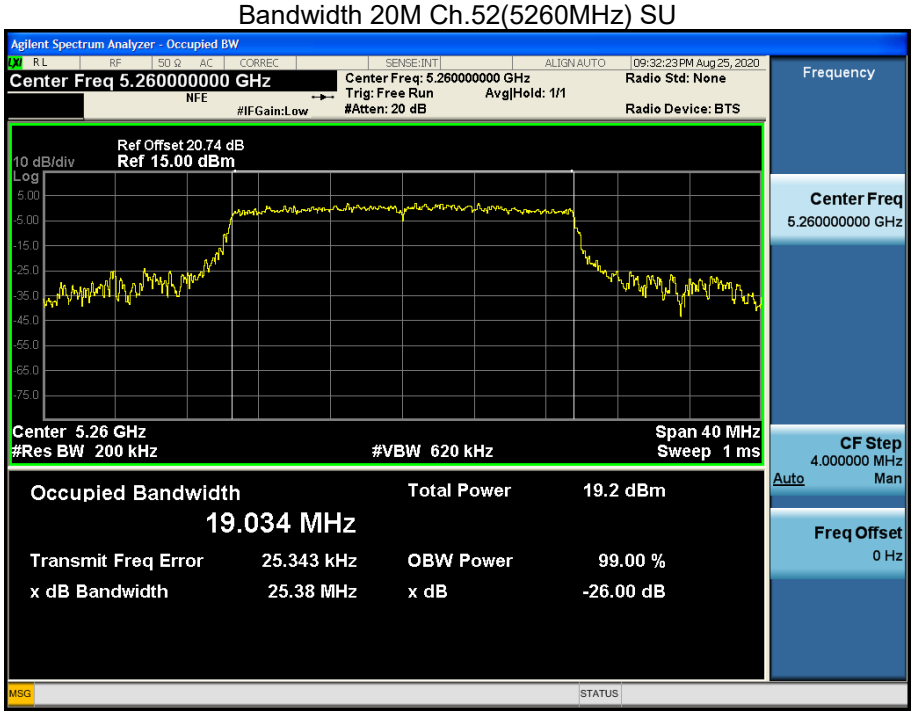
Bandwidth 20M Ch.40(5200MHz) SU



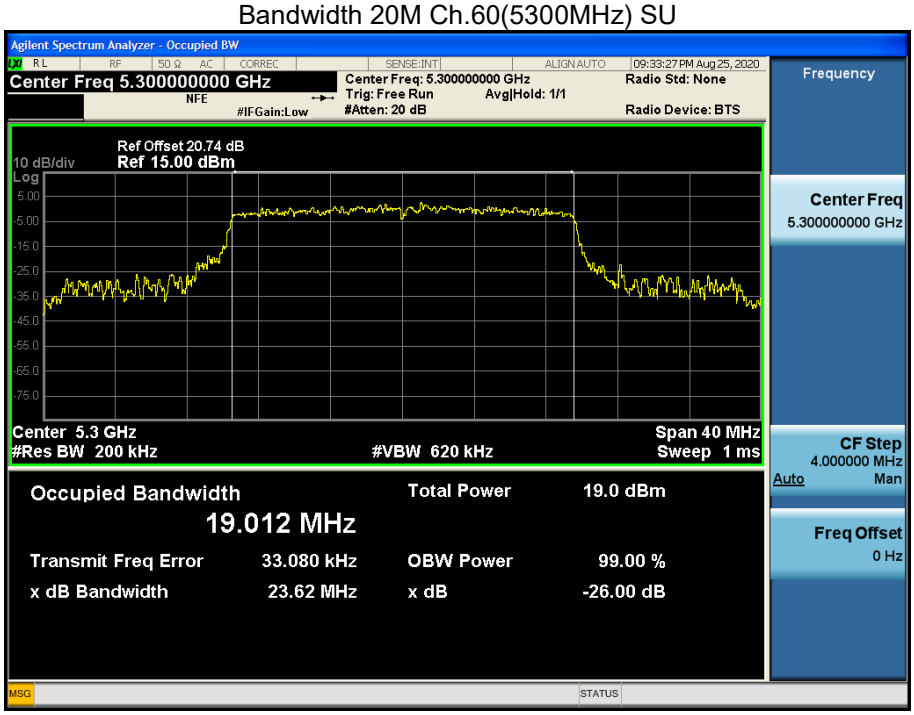
Bandwidth 20M Ch.48(5240MHz) RU 61



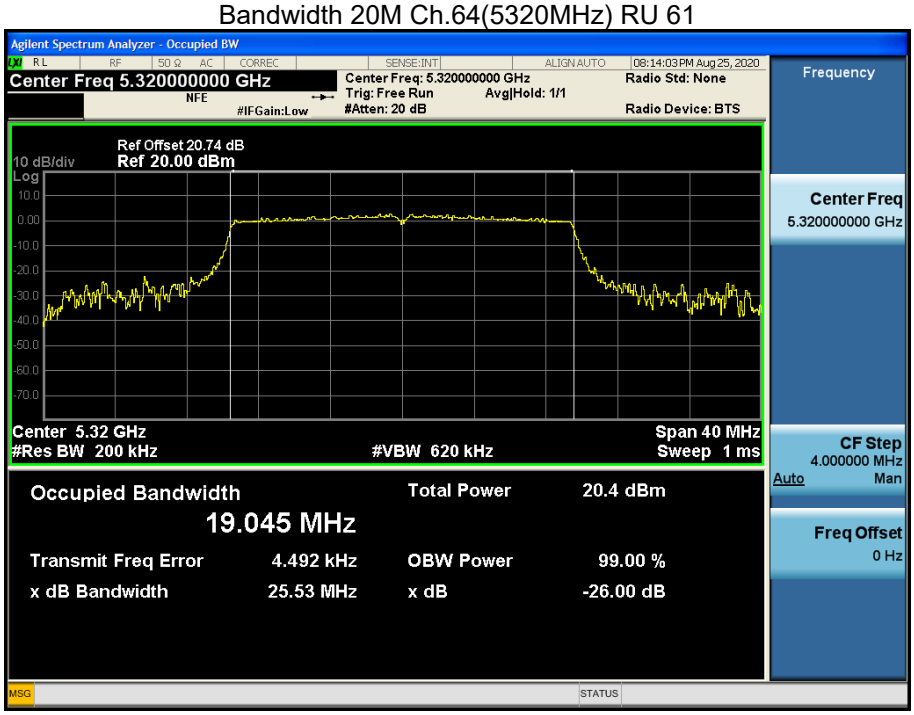
Bandwidth 20M Ch.52(5260MHz) SU



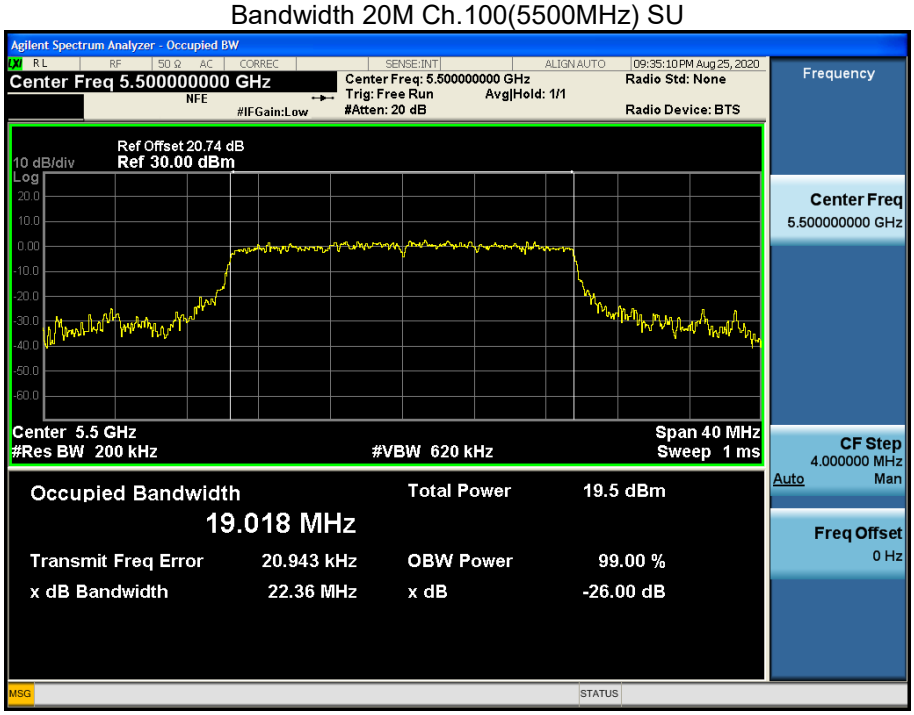
Bandwidth 20M Ch.60(5300MHz) SU



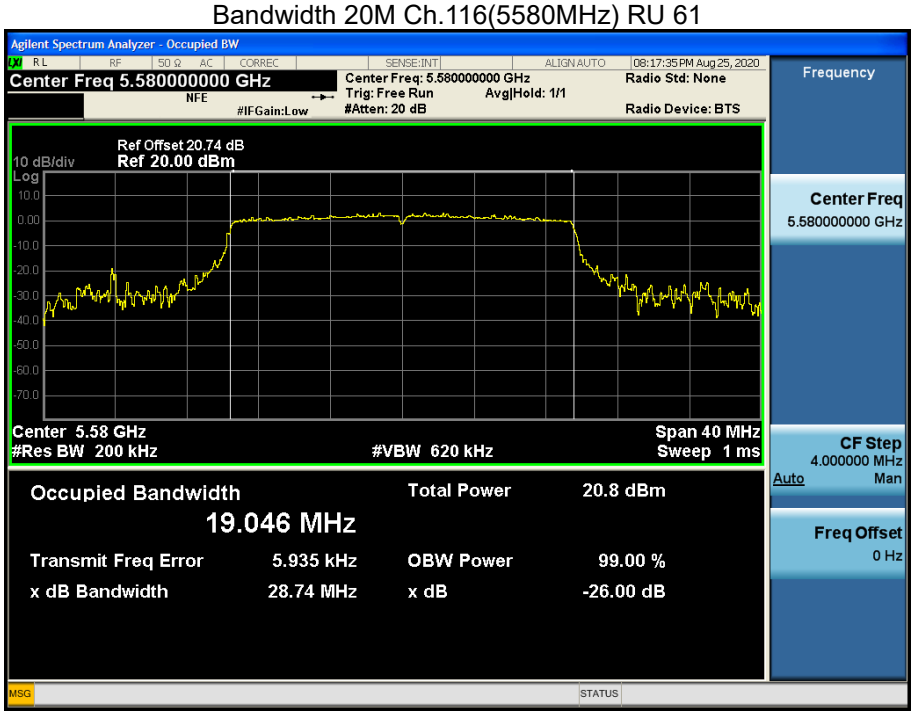
Bandwidth 20M Ch.64(5320MHz) RU 61



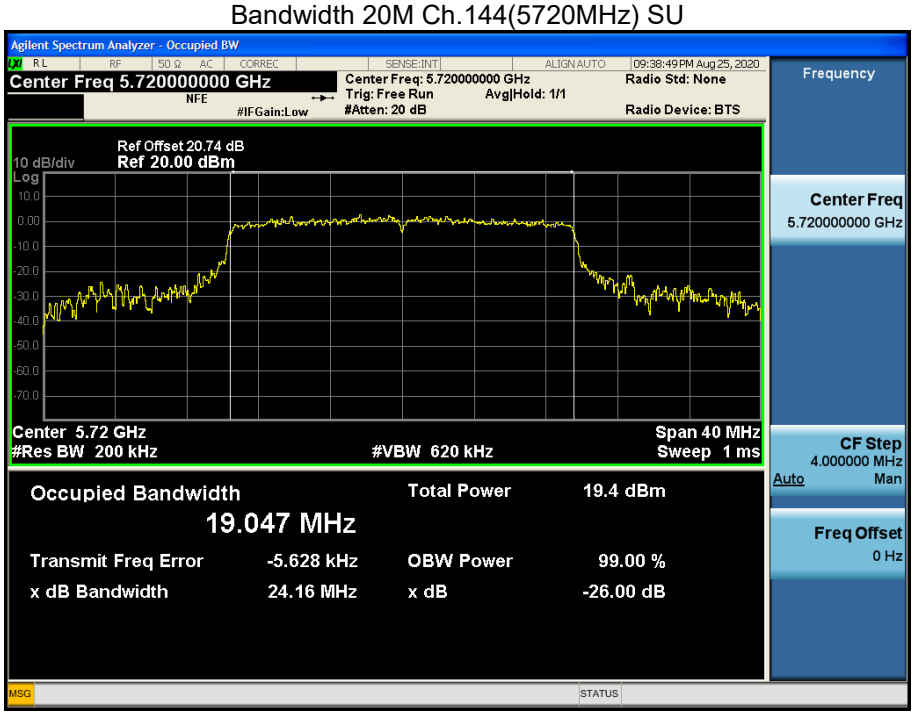
Bandwidth 20M Ch.100(5500MHz) SU



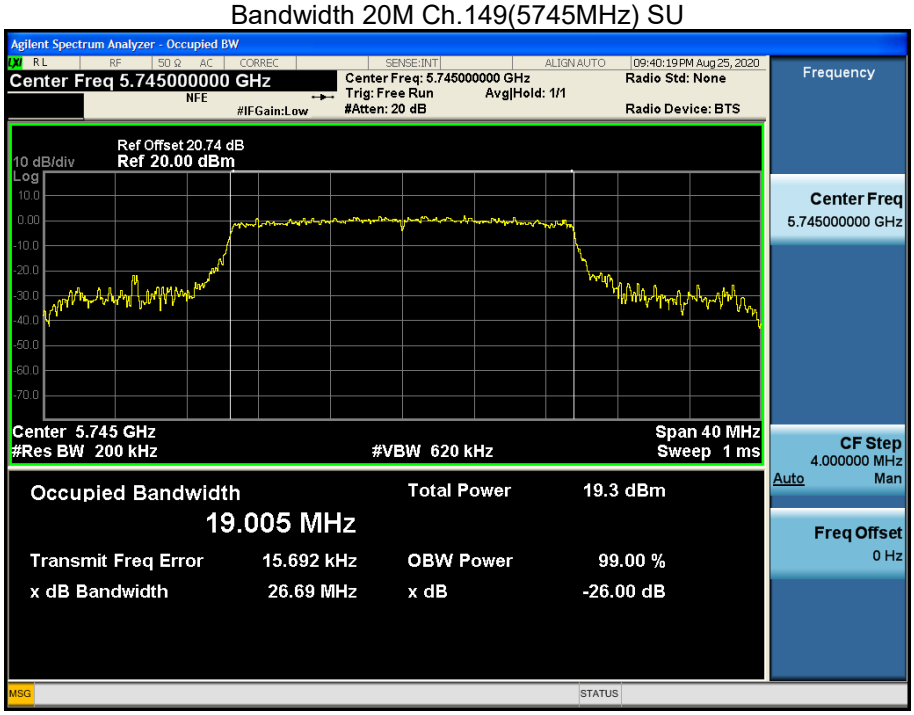
Bandwidth 20M Ch.116(5580MHz) RU 61



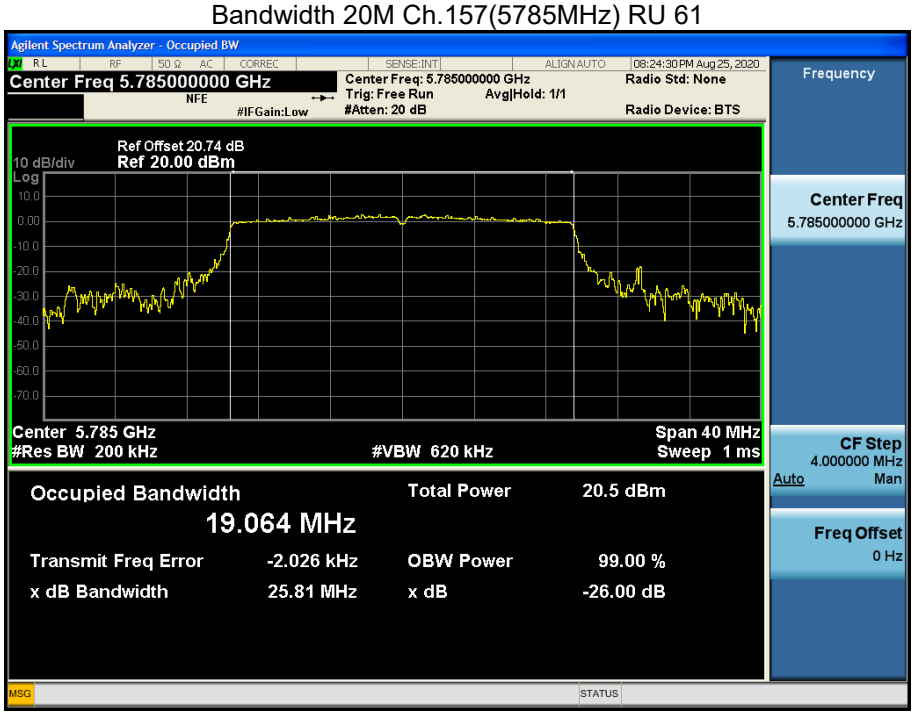
Bandwidth 20M Ch.144(5720MHz) SU



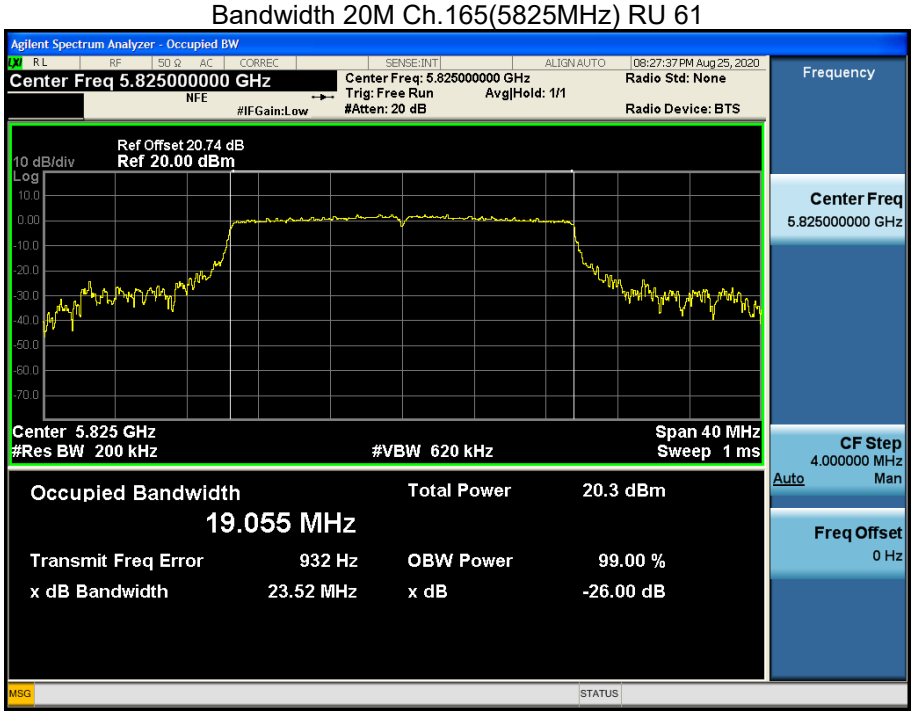
Bandwidth 20M Ch.149(5745MHz) SU



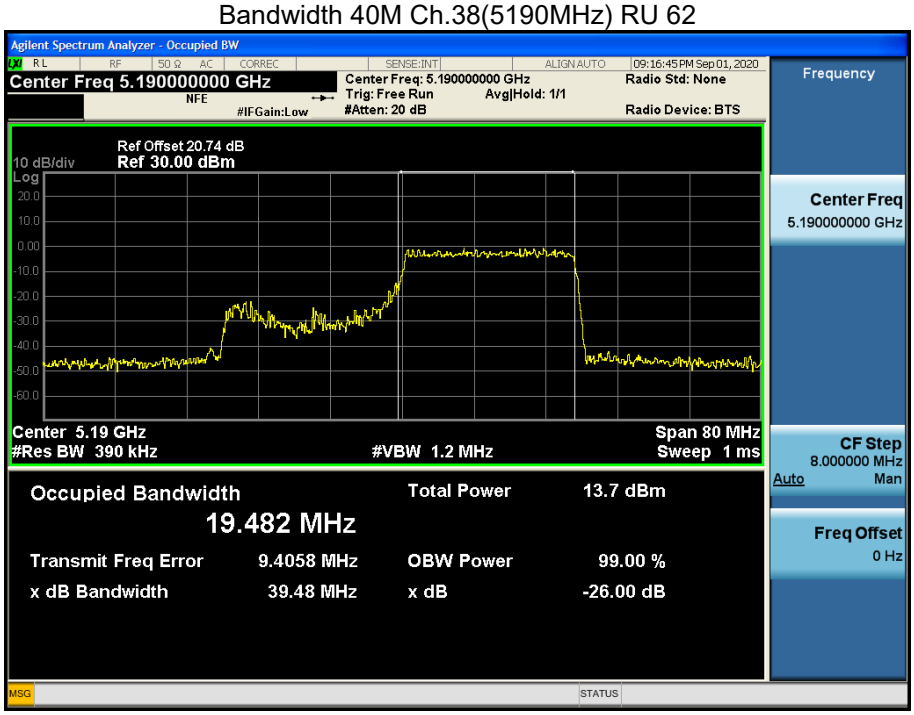
Bandwidth 20M Ch.157(5785MHz) RU 61



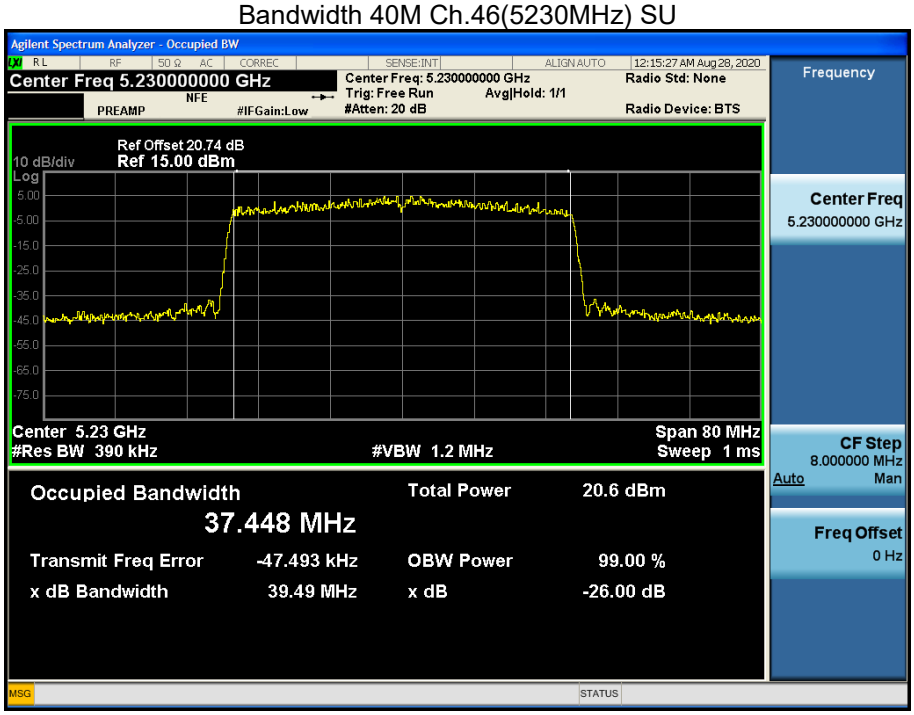
Bandwidth 20M Ch.165(5825MHz) RU 61



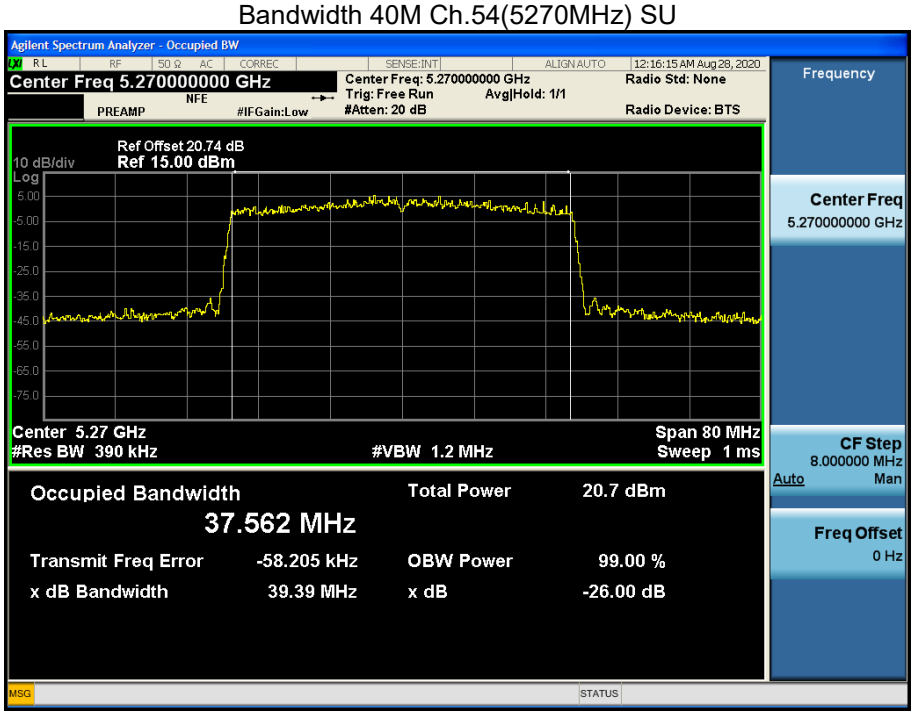
Bandwidth 40M Ch.38(5190MHz) RU 62



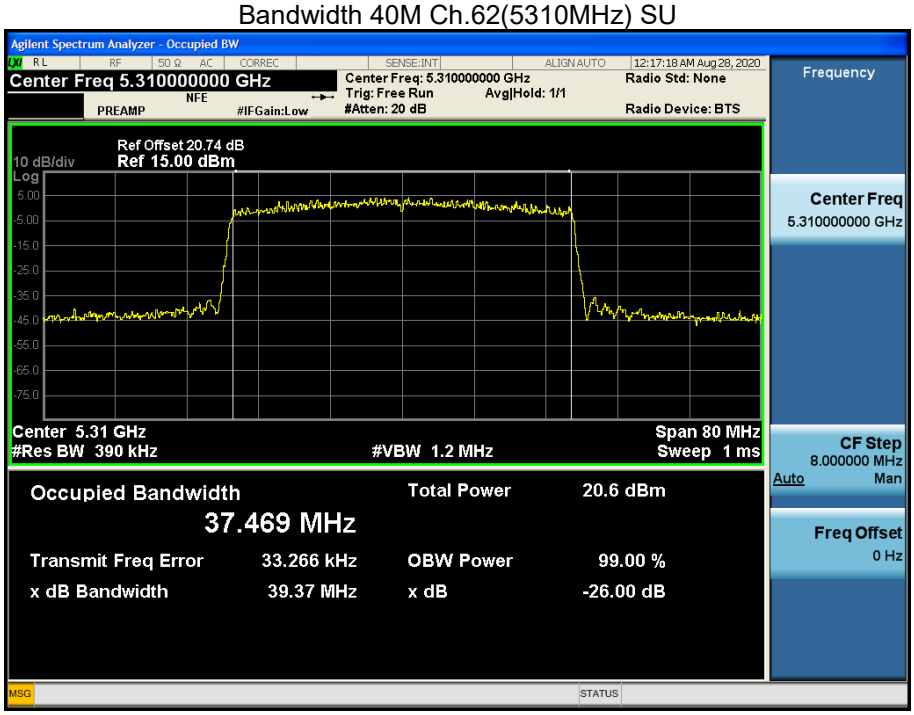
Bandwidth 40M Ch.46(5230MHz) SU



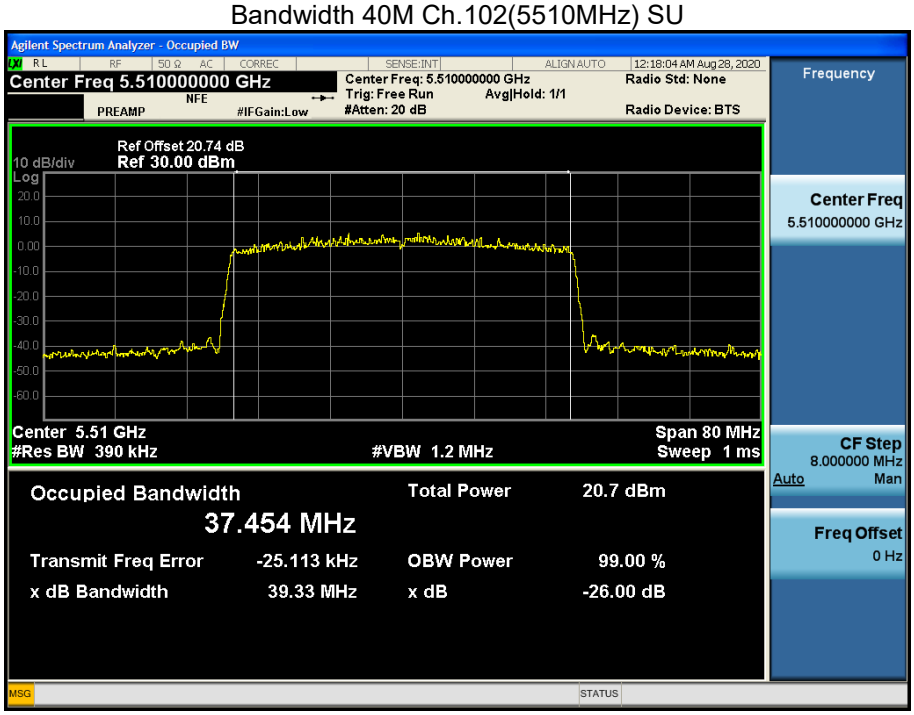
Bandwidth 40M Ch.54(5270MHz) SU



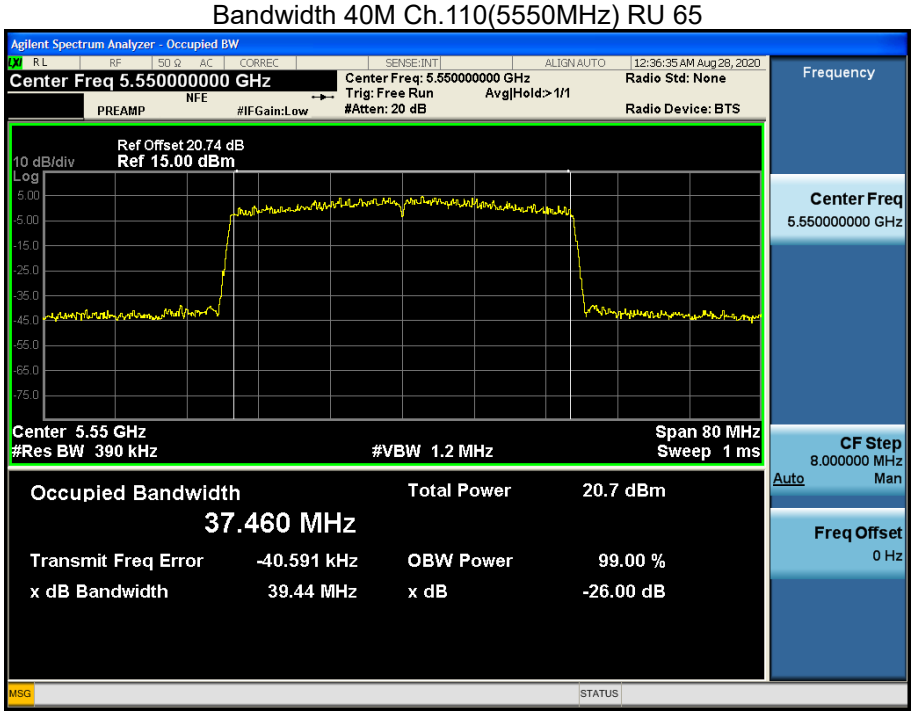
Bandwidth 40M Ch.62(5310MHz) SU



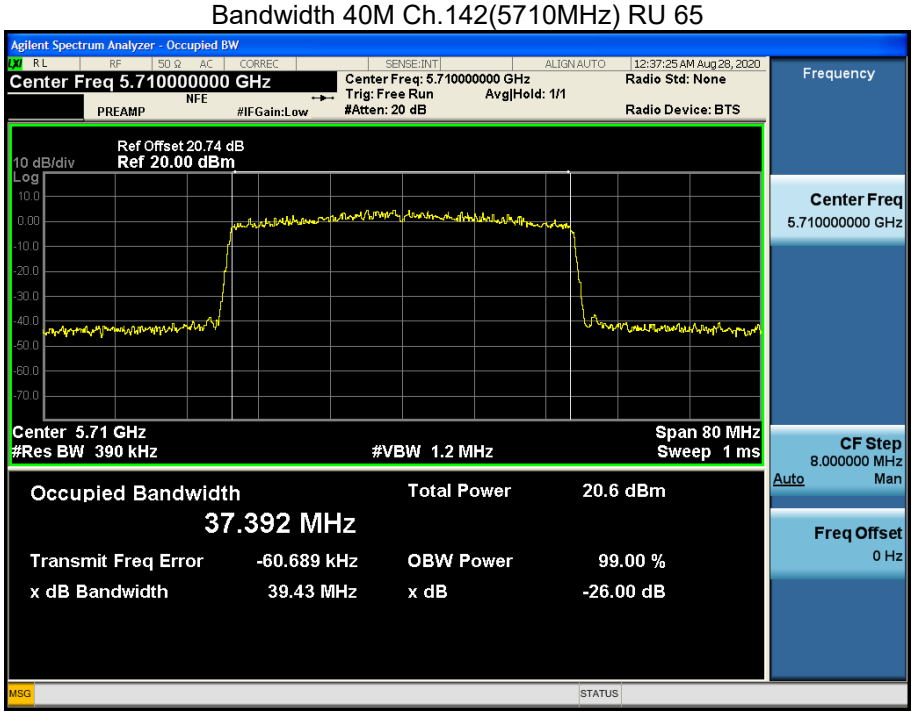
Bandwidth 40M Ch.102(5510MHz) SU



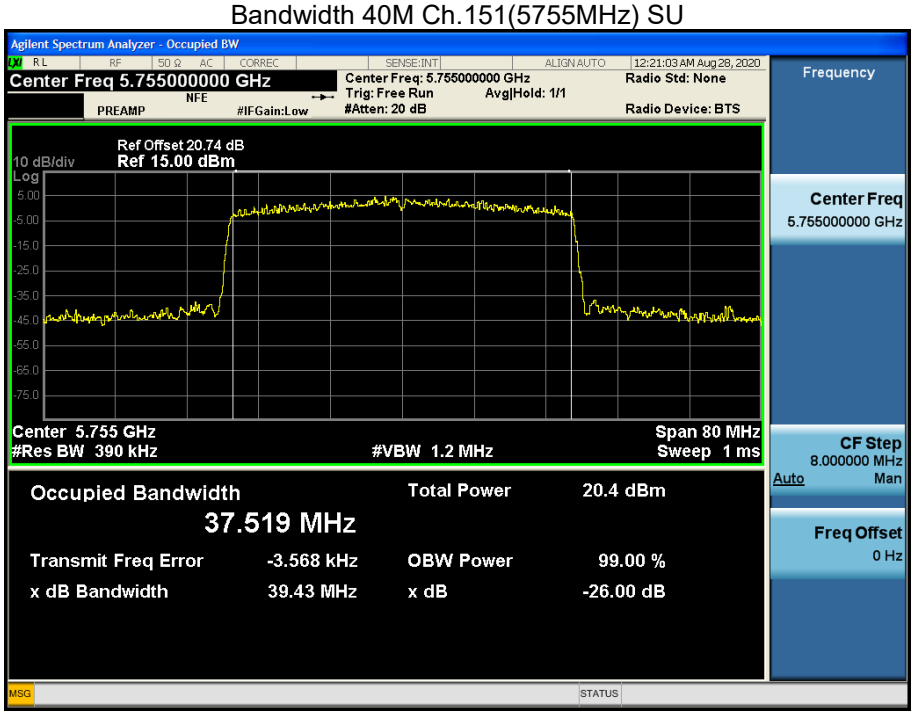
Bandwidth 40M Ch.110(5550MHz) RU 65



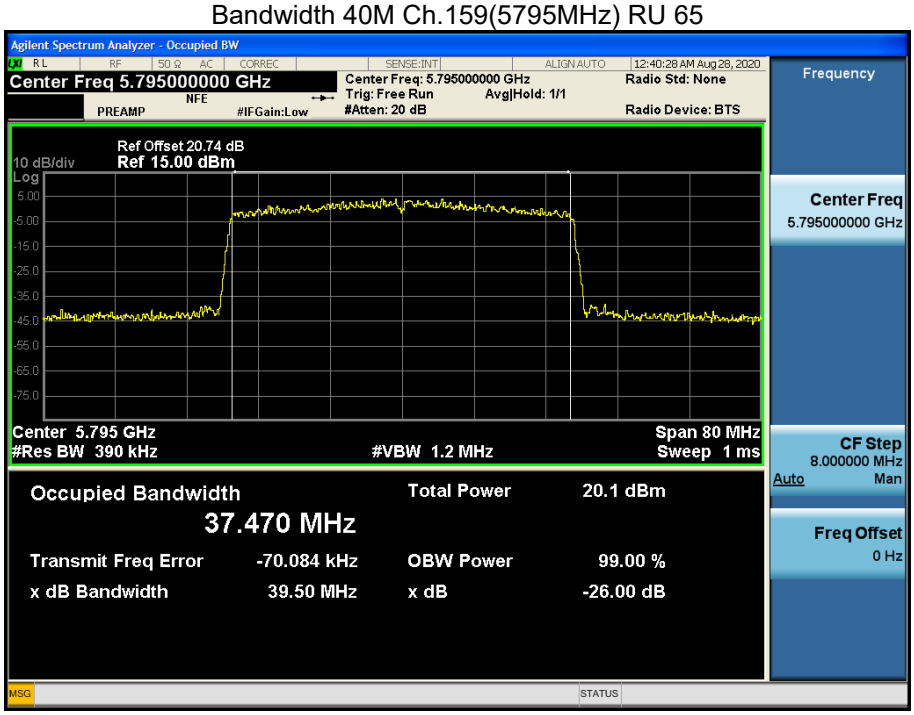
Bandwidth 40M Ch.142(5710MHz) RU 65



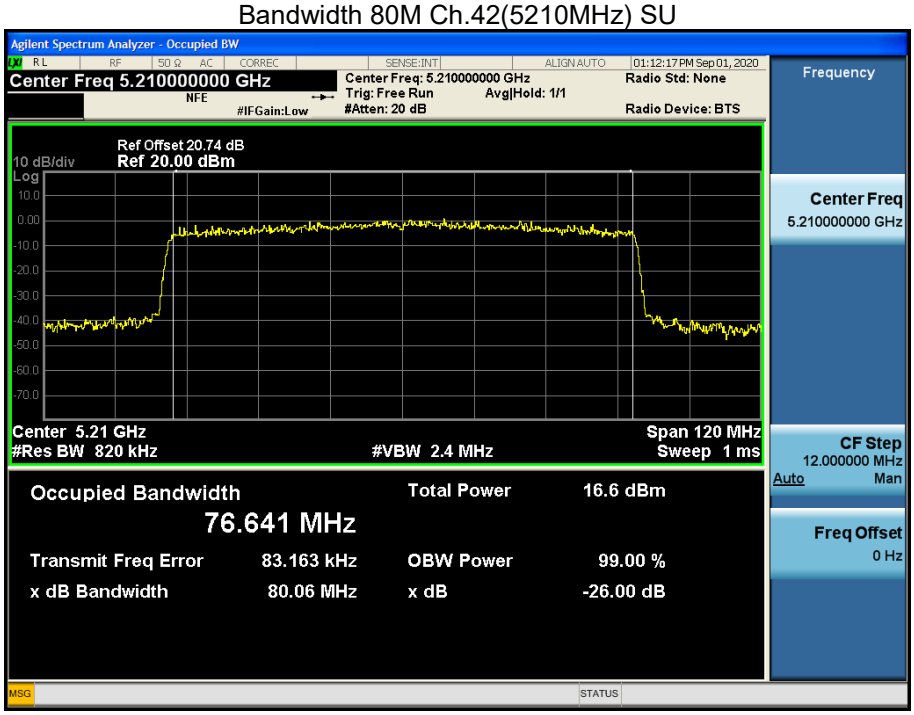
Bandwidth 40M Ch.151(5755MHz) SU



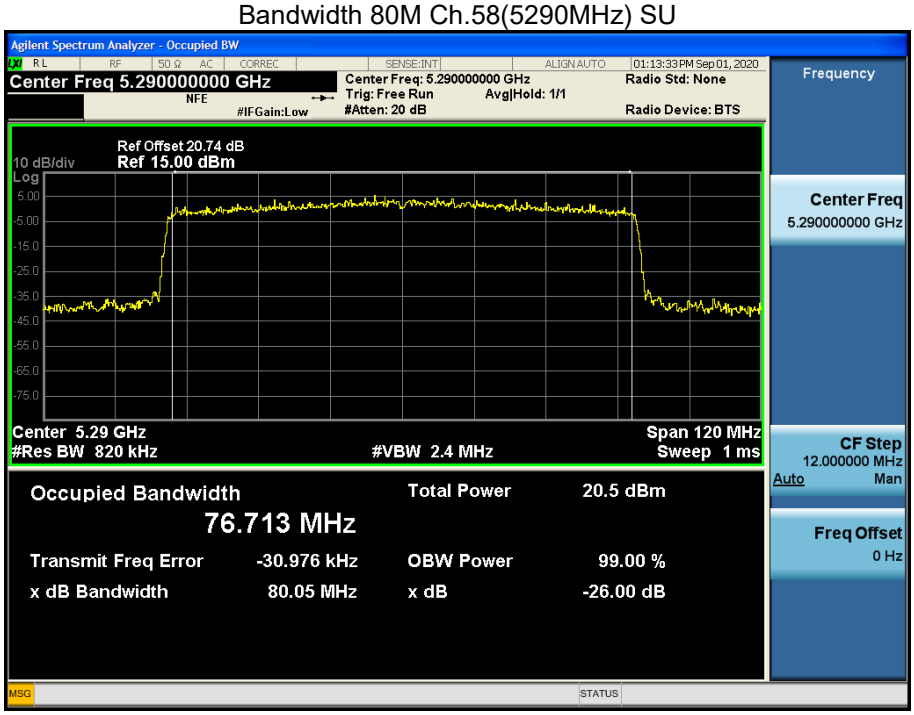
Bandwidth 40M Ch.159(5795MHz) RU 65



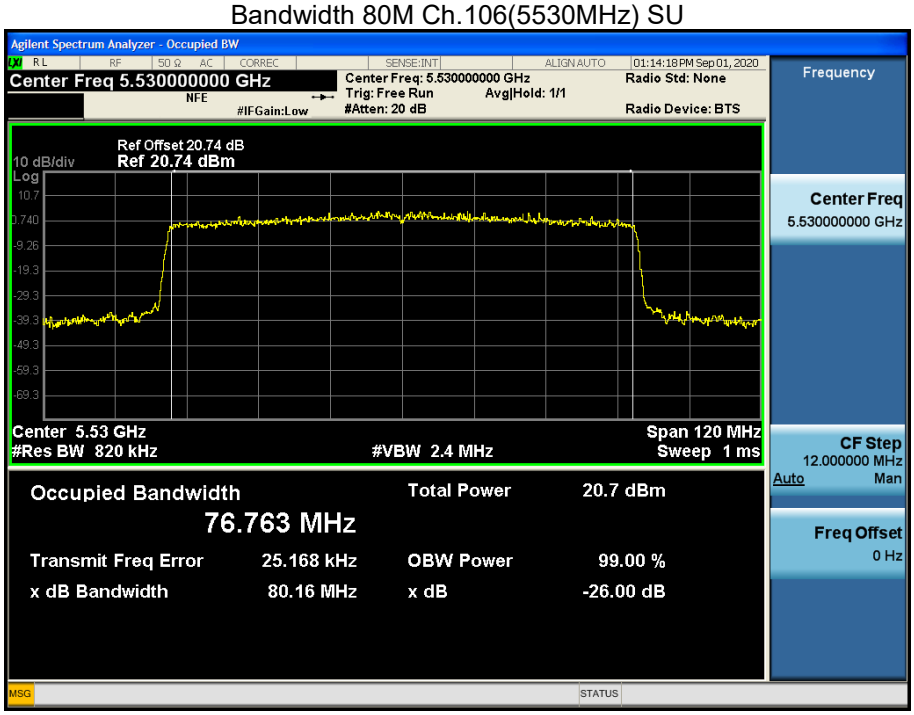
Bandwidth 80M Ch.42(5210MHz) SU



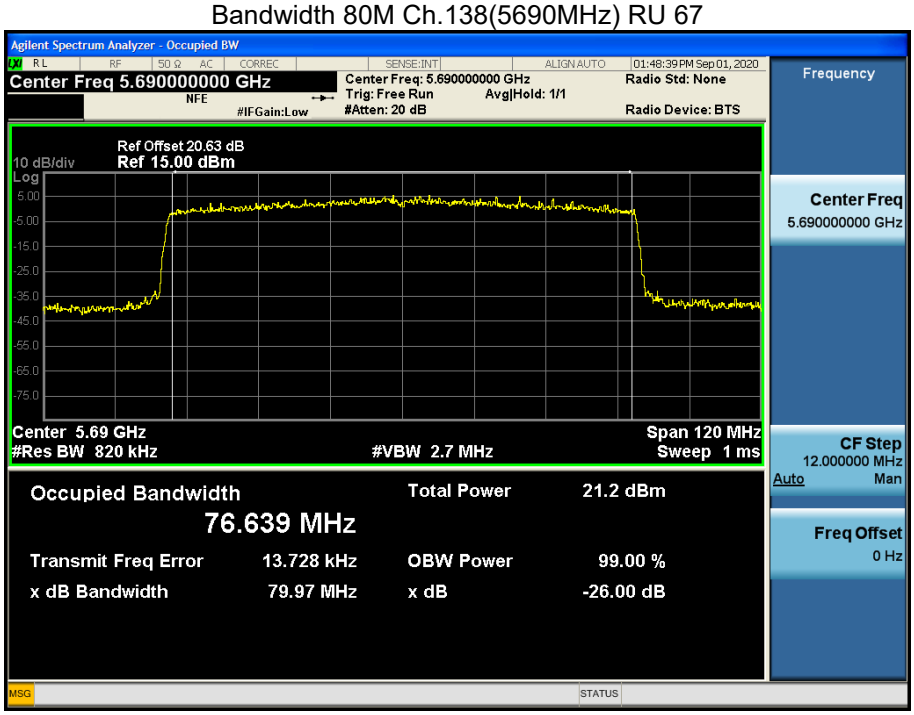
Bandwidth 80M Ch.58(5290MHz) SU



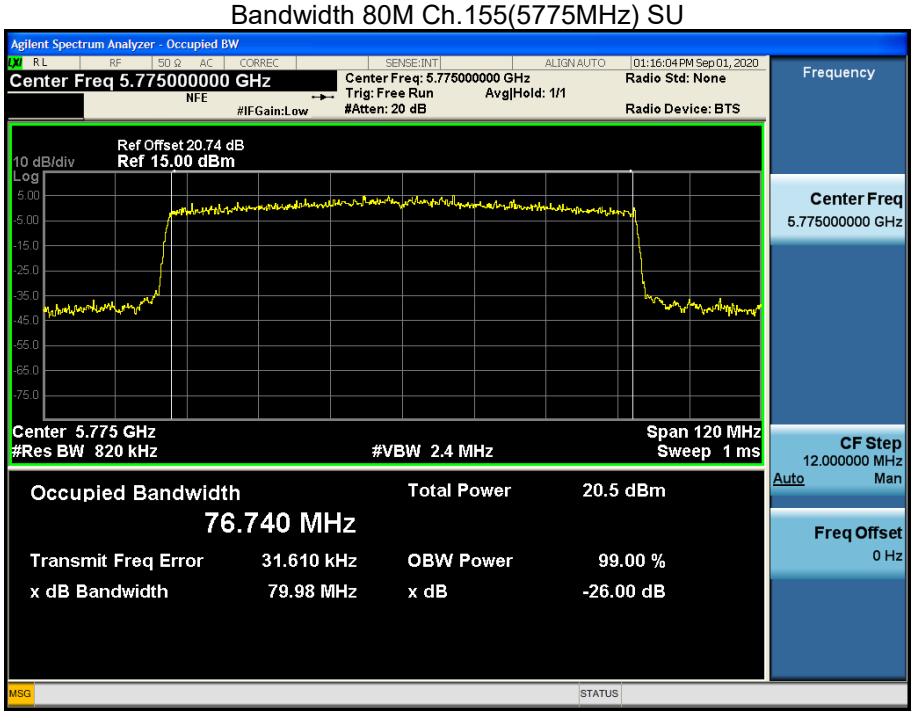
Bandwidth 80M Ch.106(5530MHz) SU



Bandwidth 80M Ch.138(5690MHz) RU 67



Bandwidth 80M Ch.155(5775MHz) SU

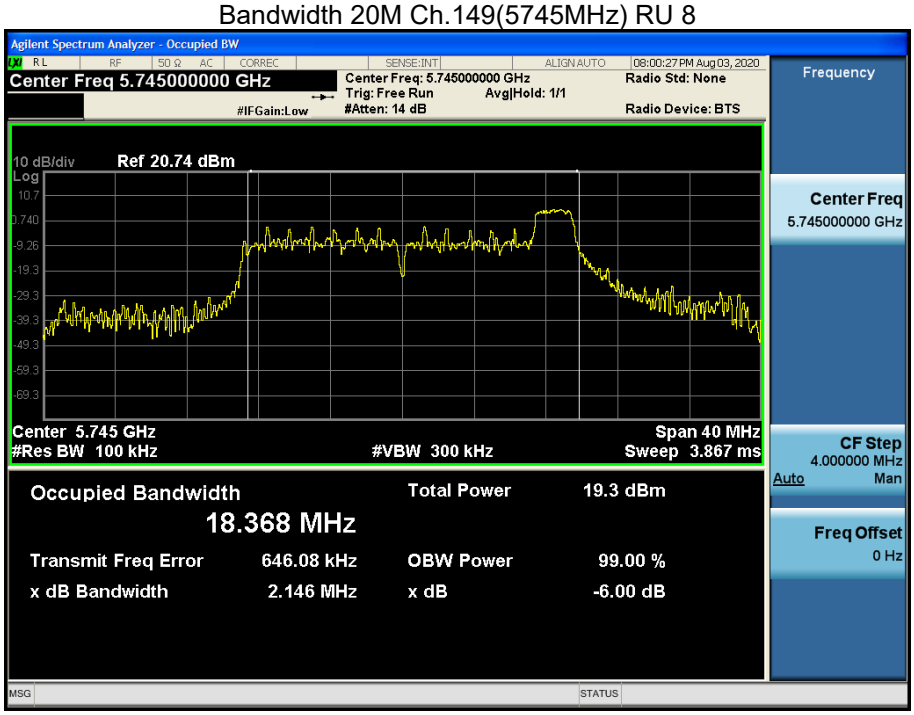


3. 6dB Bandwidth

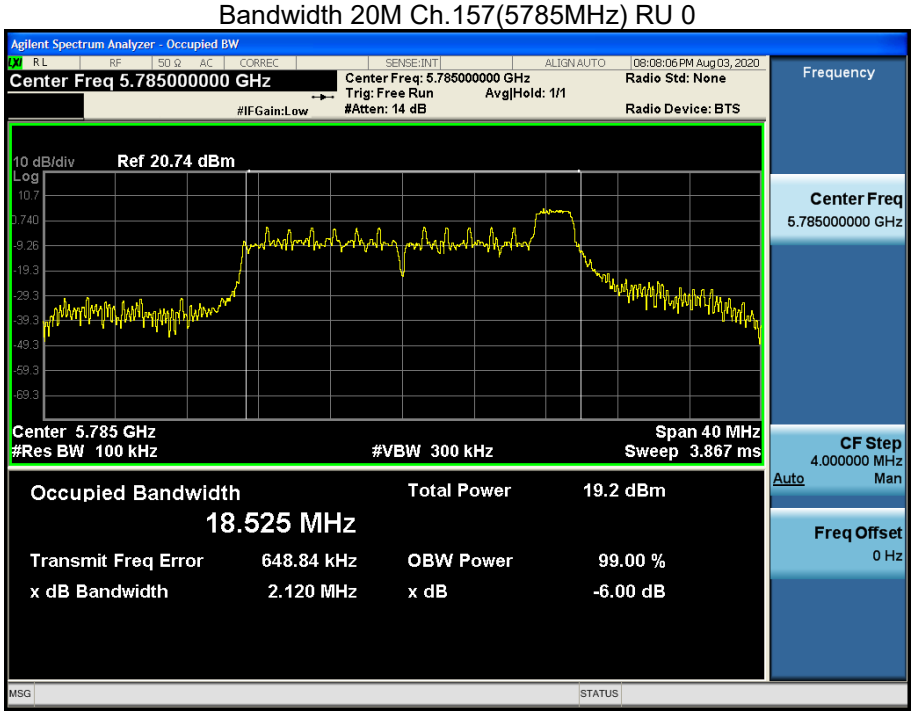
Note:
1. In order to simplify the report, attached plots were only the most narrow channel.

3.1 Ant1

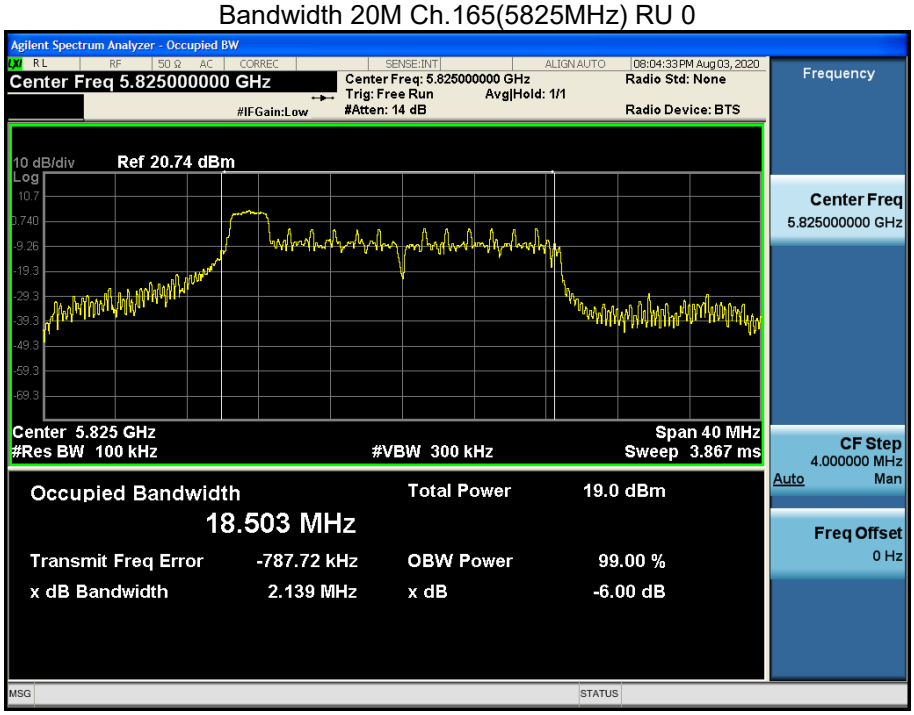
Bandwidth 20M Ch.149(5745MHz) RU 8



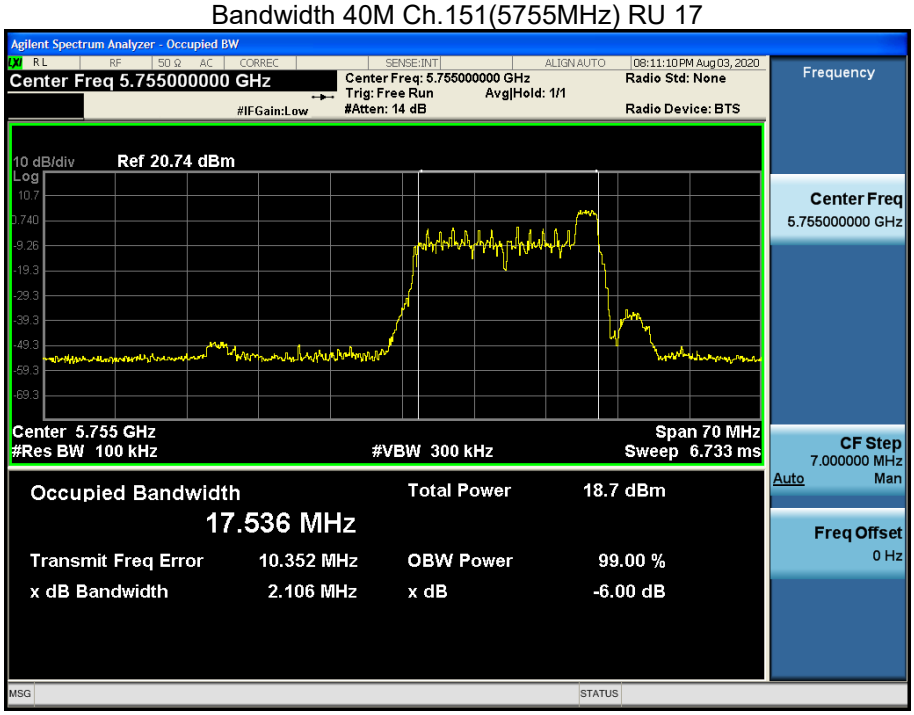
Bandwidth 20M Ch.157(5785MHz) RU 0



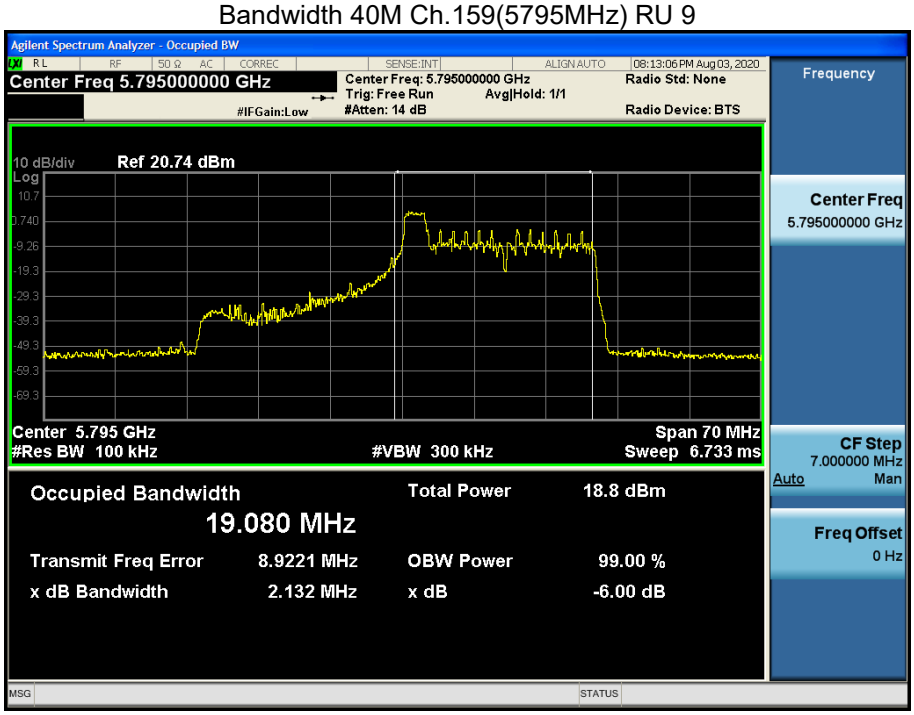
Bandwidth 20M Ch.165(5825MHz) RU 0



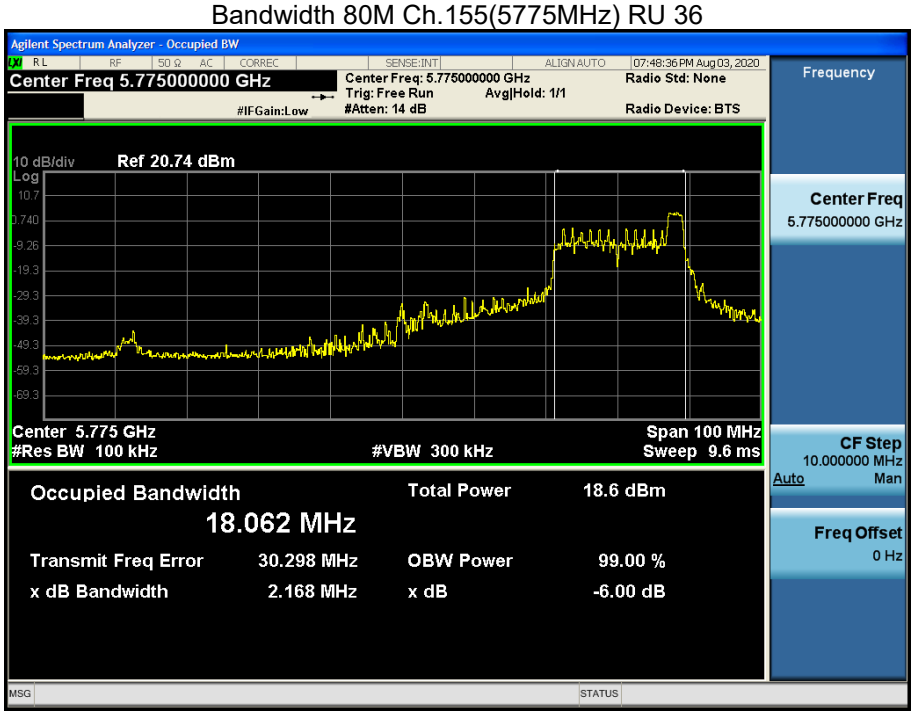
Bandwidth 40M Ch.151(5755MHz) RU 17



Bandwidth 40M Ch.159(5795MHz) RU 9

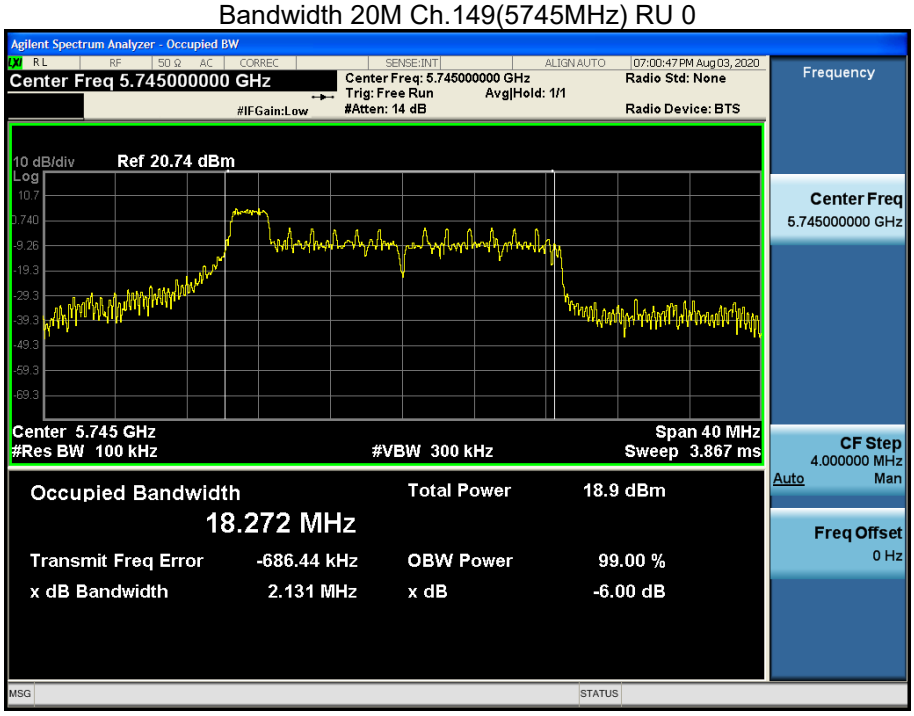


Bandwidth 80M Ch.155(5775MHz) RU 36

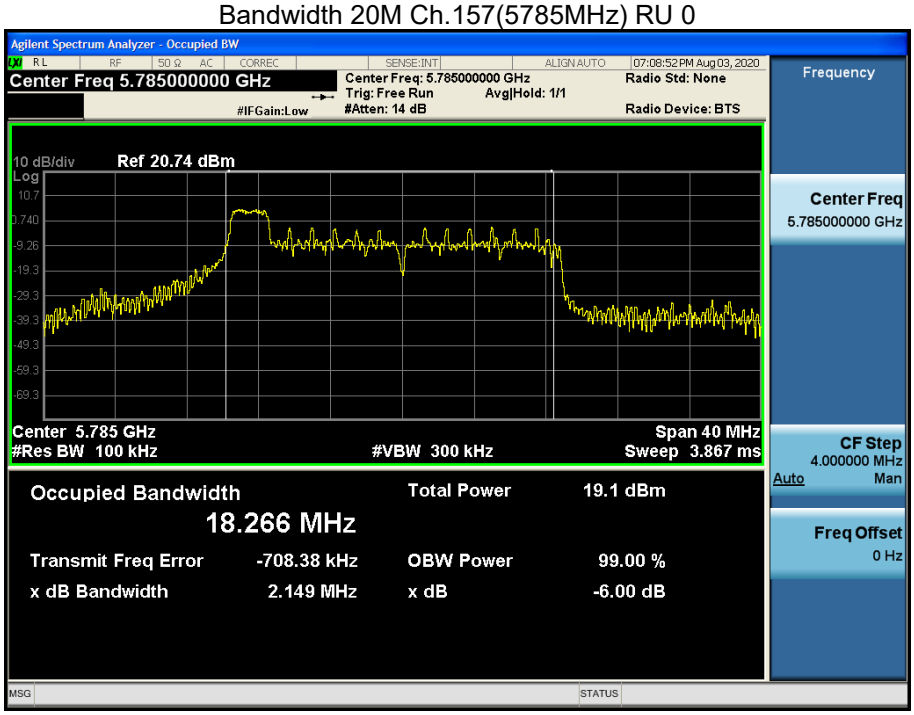


3.2 Ant2

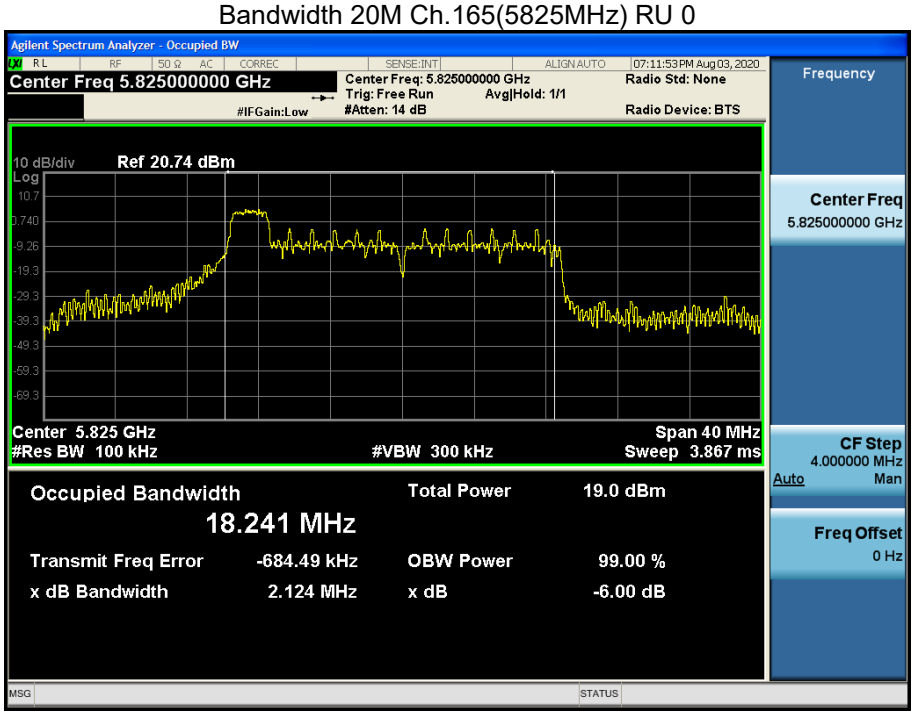
Bandwidth 20M Ch.149(5745MHz) RU 0



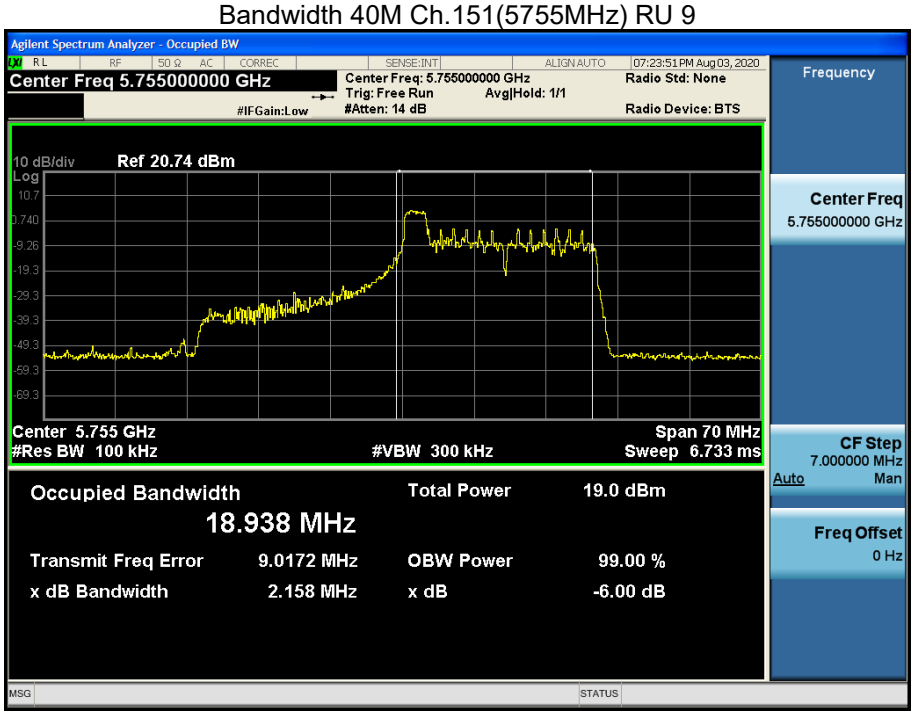
Bandwidth 20M Ch.157(5785MHz) RU 0



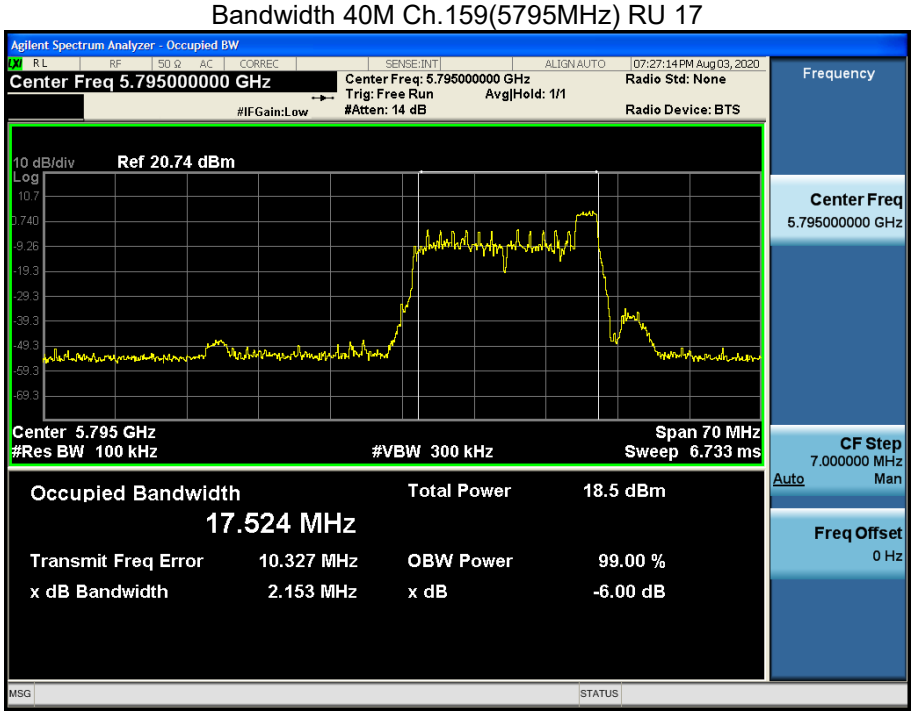
Bandwidth 20M Ch.165(5825MHz) RU 0



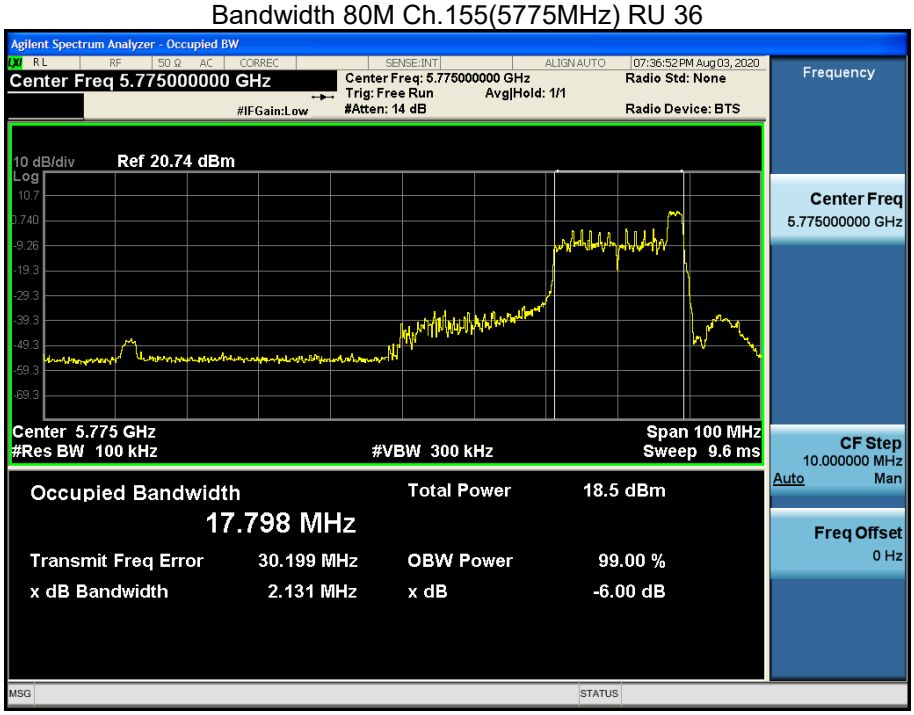
Bandwidth 40M Ch.151(5755MHz) RU 9



Bandwidth 40M Ch.159(5795MHz) RU 17



Bandwidth 80M Ch.155(5775MHz) RU 36



4. Power Spetral Density

Note:
1. In order to simplify the report, attached plots were only channel of highest PSD.

4.1 Ant1

Bandwidth 20M Ch.64(5320MHz) RU 0

Reading Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
8.259	0.120	8.379

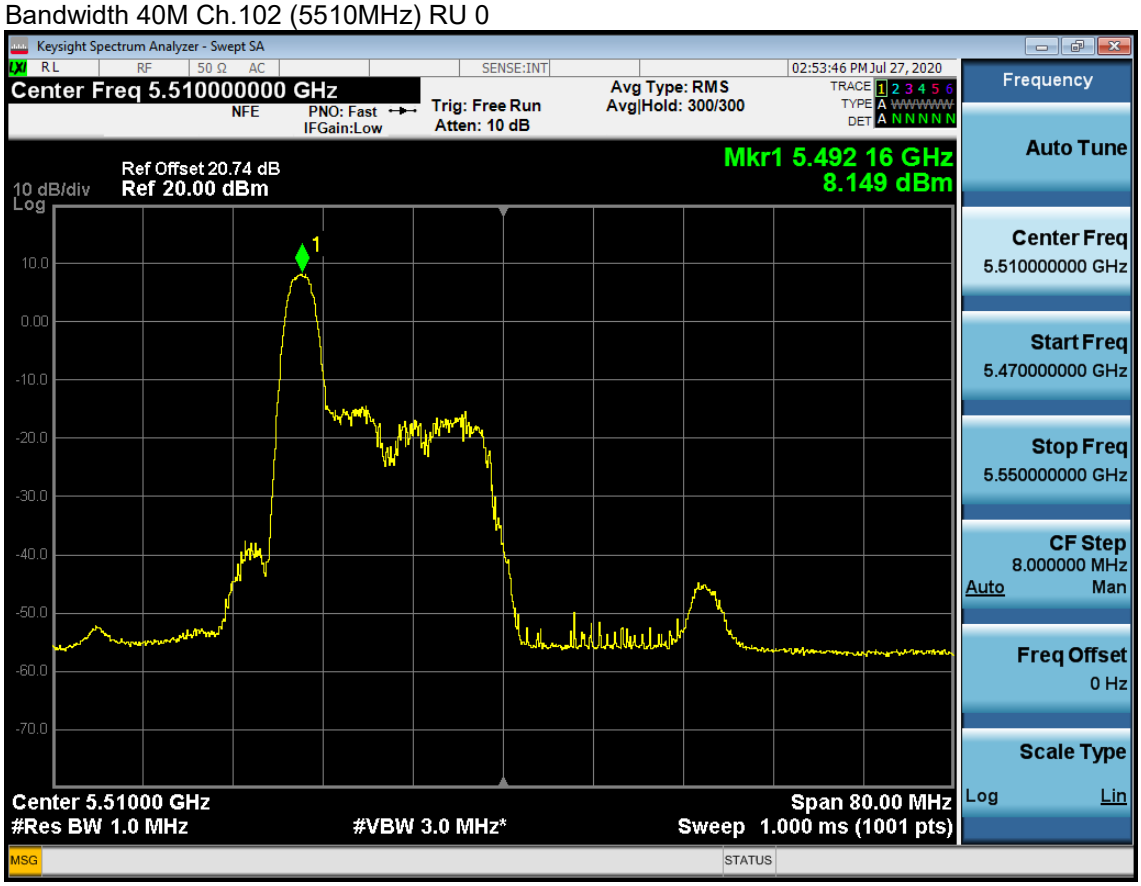
Note:
Total PSD (dBm) = Reading Value(dBm) + Duty Cycle Factor(dB)

Bandwidth 20M Ch.165(5825MHz) RU 4

Reading Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
4.798	0.120	4.918

Note:
Total PSD (dBm) = Reading Value(dBm) + Duty Cycle Factor(dB)

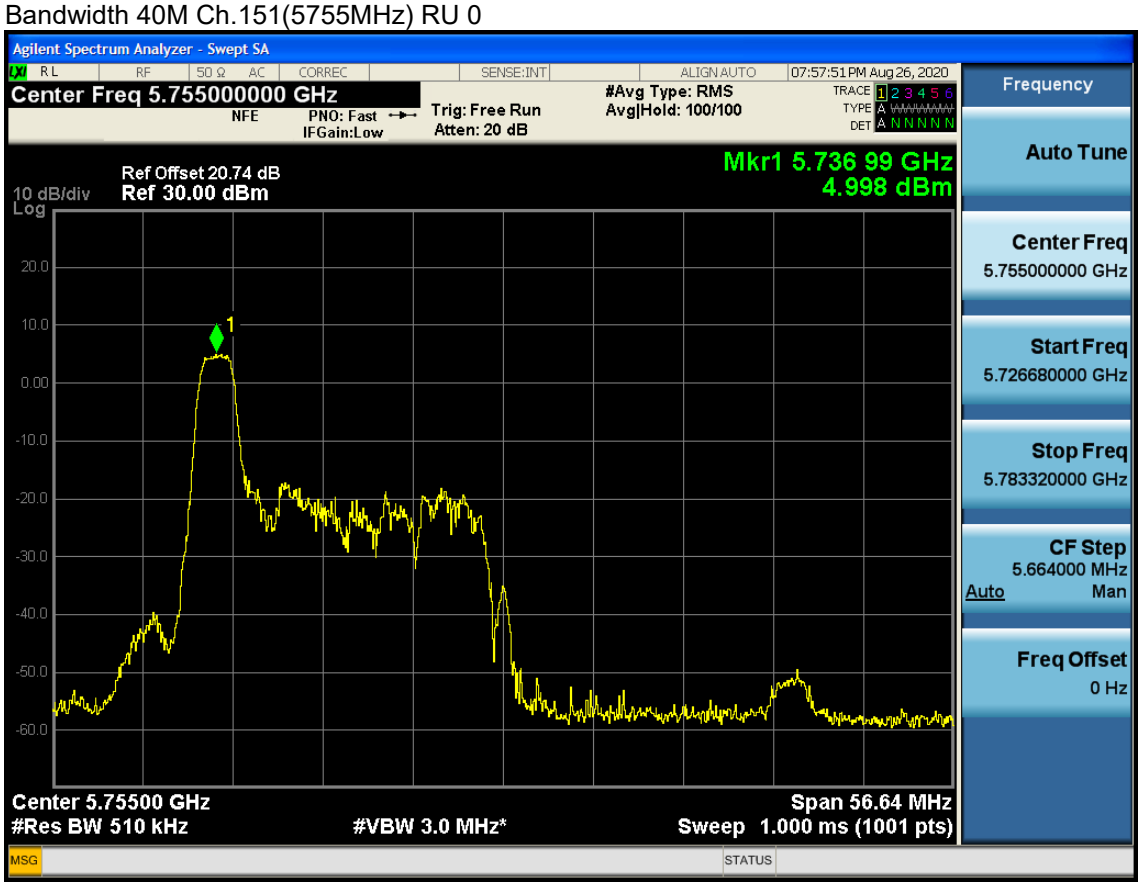
Bandwidth 40M Ch.102 (5510MHz) RU 0



Reading Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
8.149	0.188	8.337

Note:
Total PSD (dBm) = Reading Value(dBm) + Duty Cycle Factor(dB)

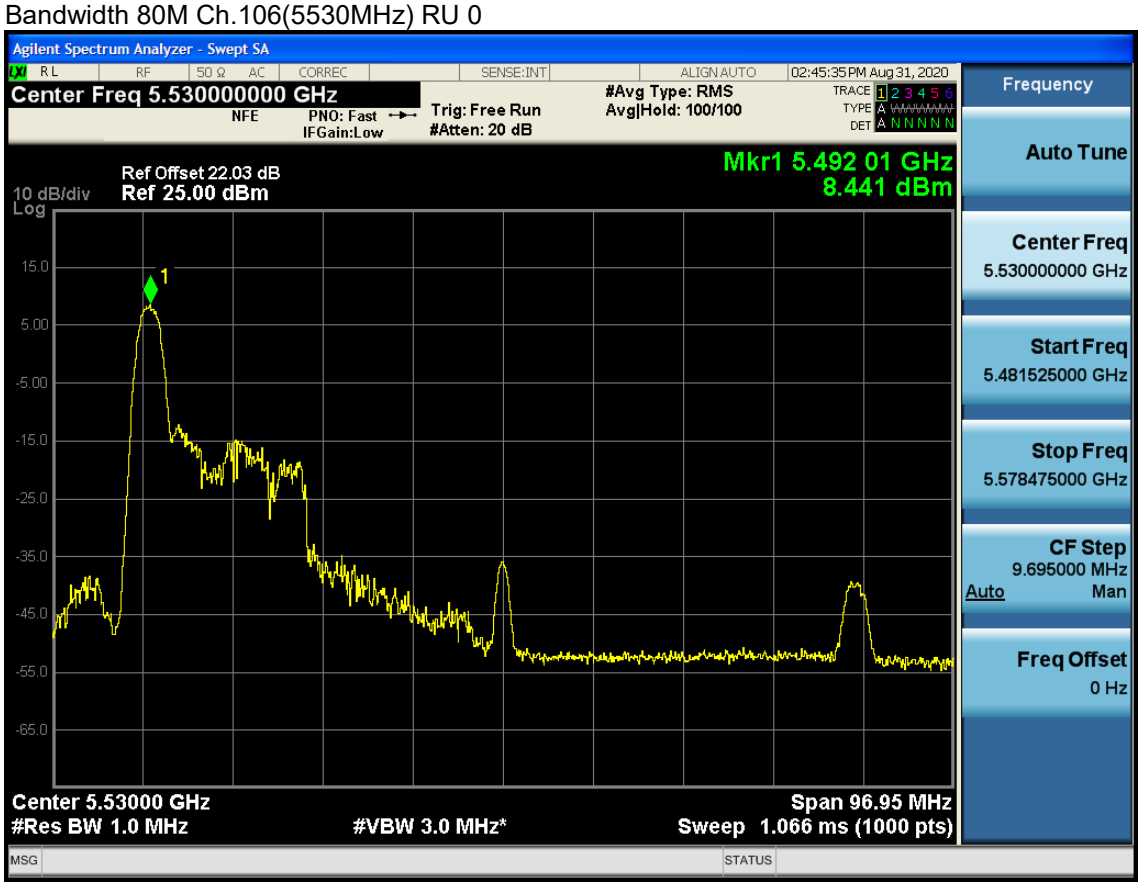
Bandwidth 40M Ch.151(5755MHz) RU 0



Reading Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
4.998	0.188	5.186

Note:
Total PSD (dBm) = Reading Value(dBm) + Duty Cycle Factor(dB)

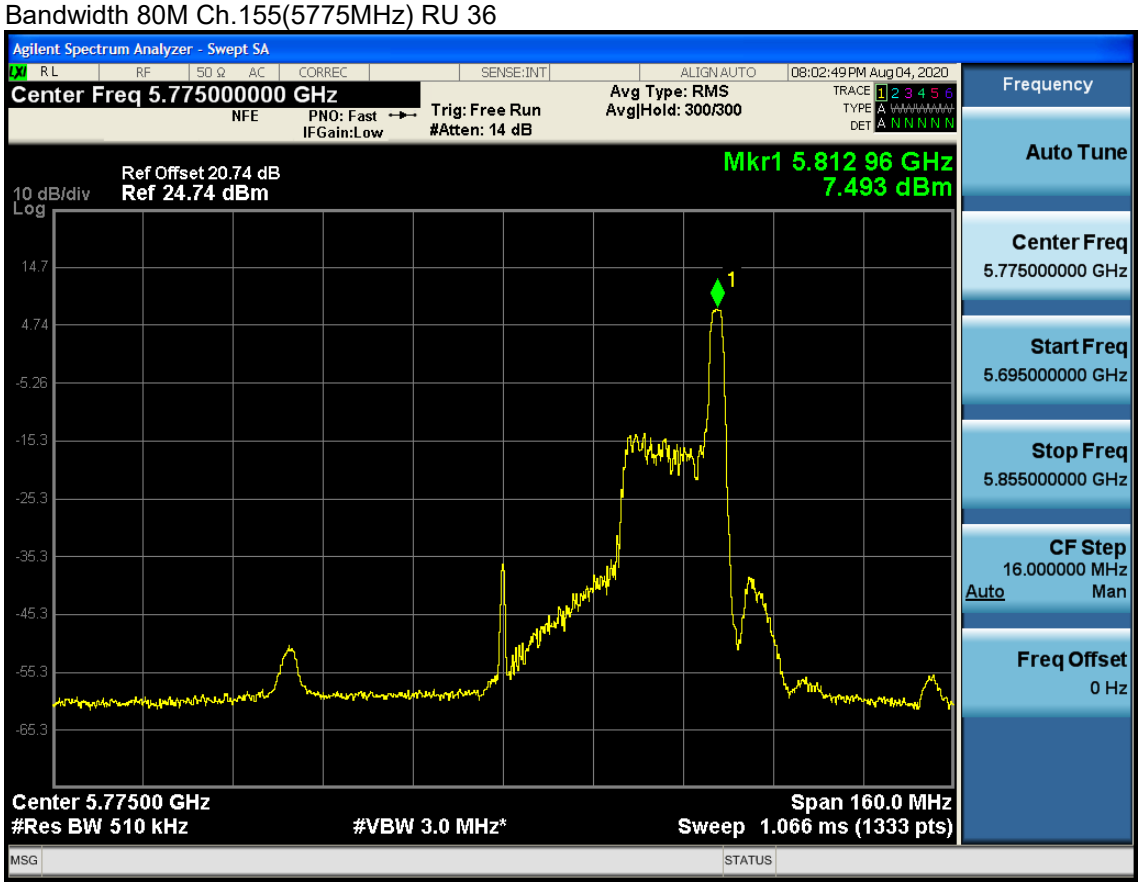
Bandwidth 80M Ch.106(5530MHz) RU 0



Reading Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
8.441	0.188	8.629

Note:
Total PSD (dBm) = Reading Value(dBm) + Duty Cycle Factor(dB)

Bandwidth 80M Ch.155(5775MHz) RU 36

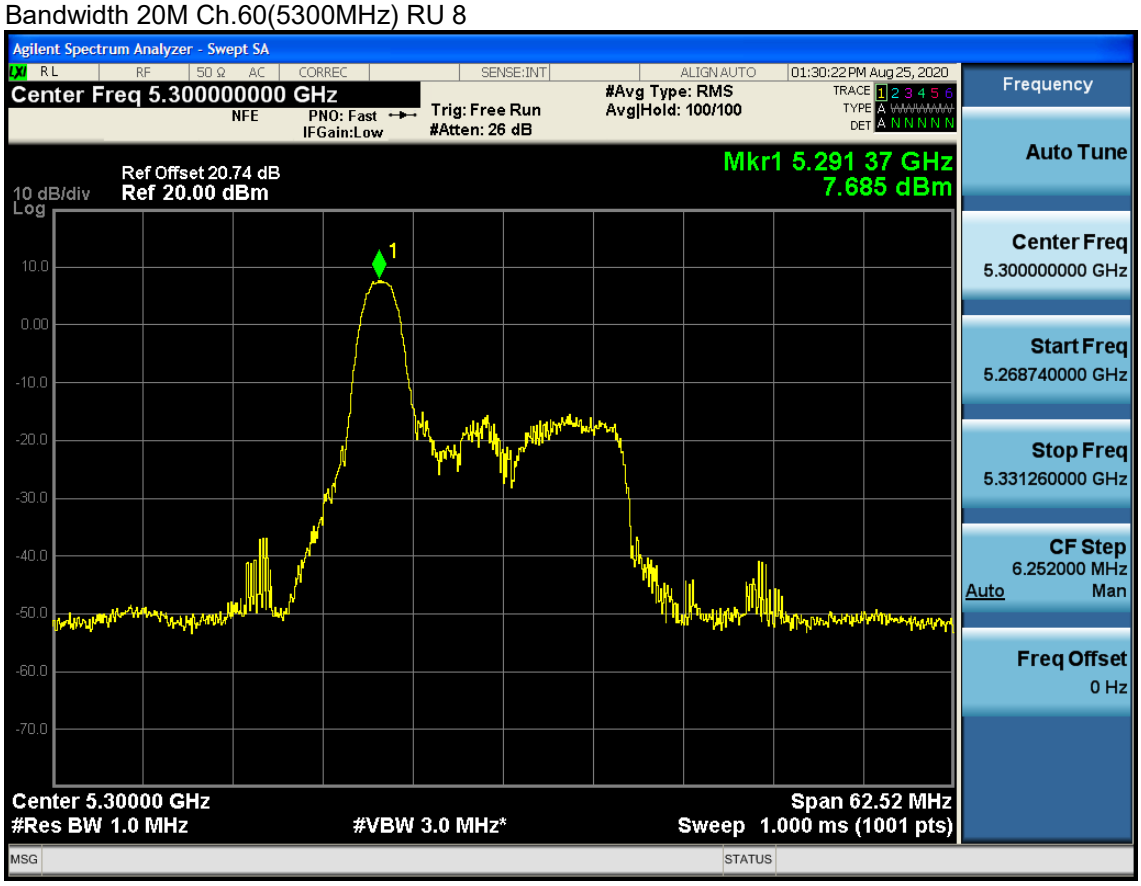


Reading Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
7.493	0.188	7.681

Note:
Total PSD (dBm) = Reading Value(dBm) + Duty Cycle Factor(dB)

4.2 Ant2

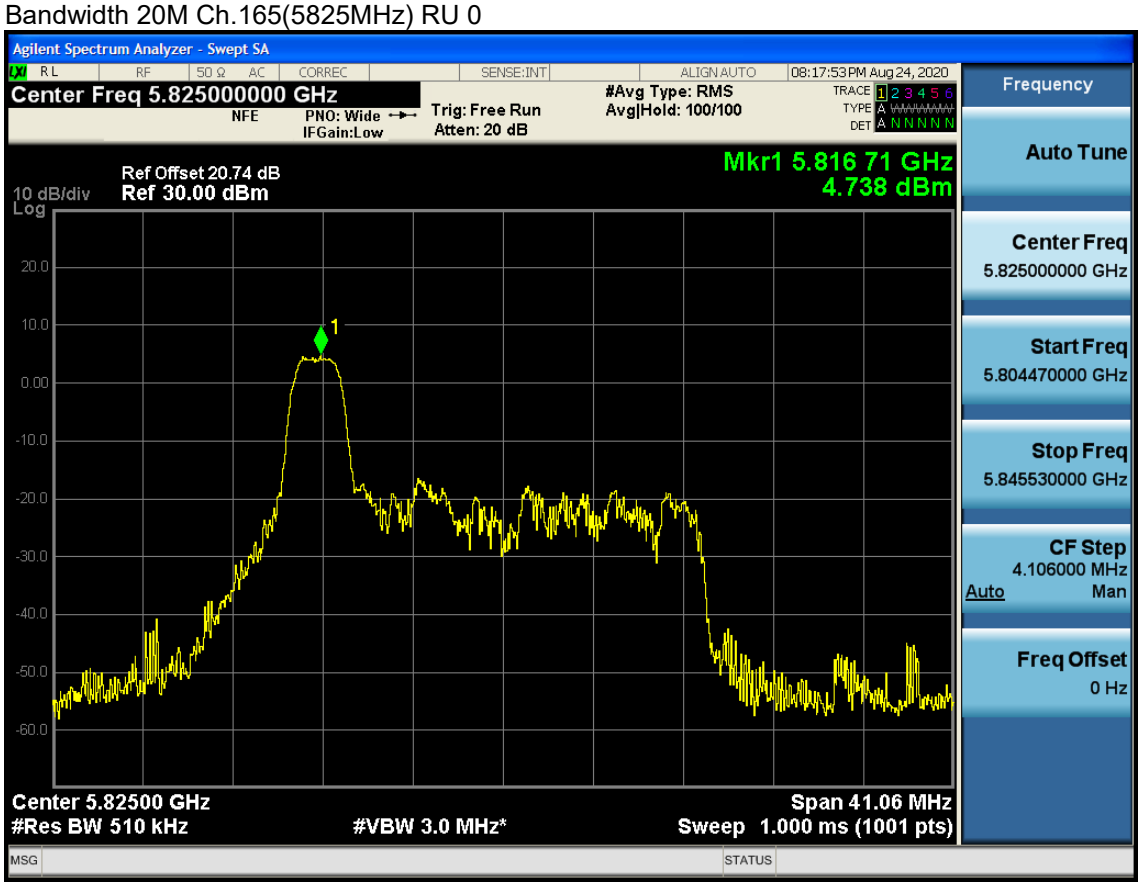
Bandwidth 20M Ch.60(5300MHz) RU 8



Reading Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
7.685	0.120	7.805

Note:
Total PSD (dBm) = Reading Value(dBm) + Duty Cycle Factor(dB)

Bandwidth 20M Ch.165(5825MHz) RU 0



Reading Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
4.738	0.120	4.858

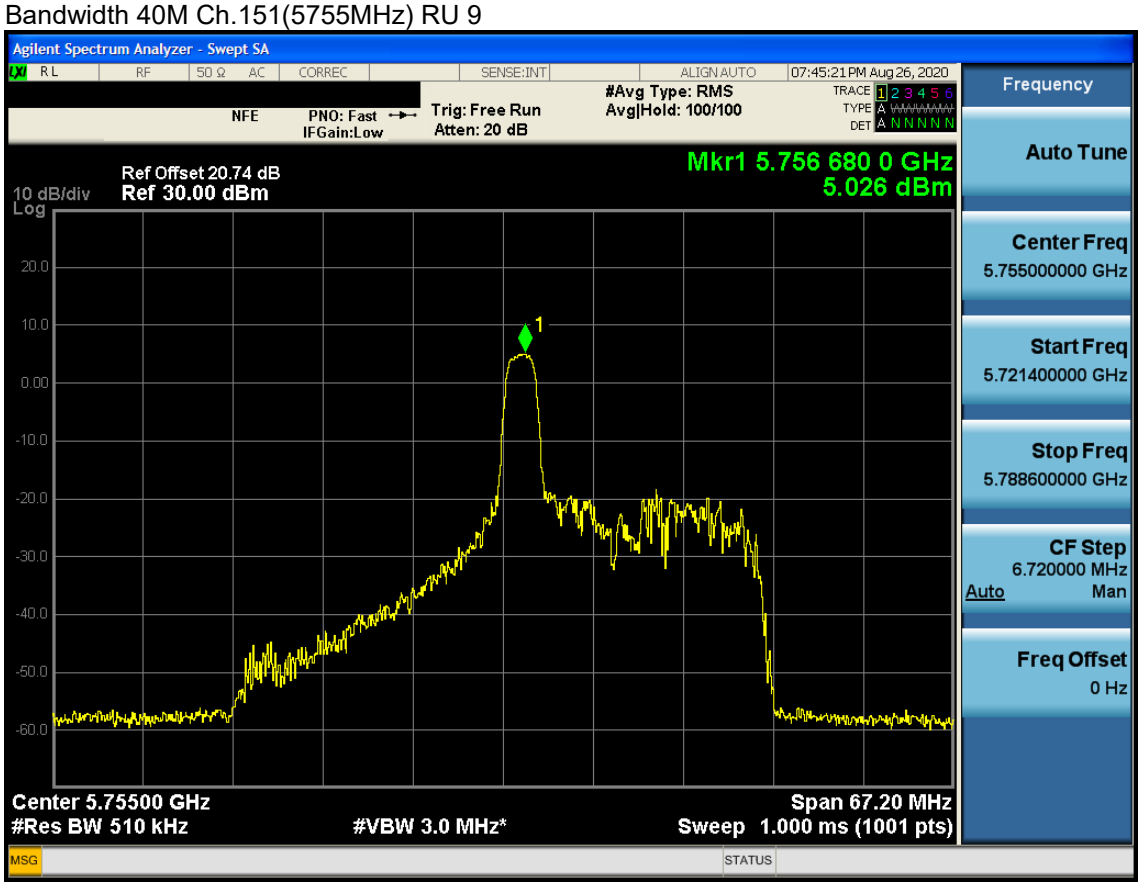
Note:
Total PSD (dBm) = Reading Value(dBm) + Duty Cycle Factor(dB)

Bandwidth 40M Ch.62(5310MHz) RU 9

Reading Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
7.600	0.188	7.788

Note:
Total PSD (dBm) = Reading Value(dBm) + Duty Cycle Factor(dB)

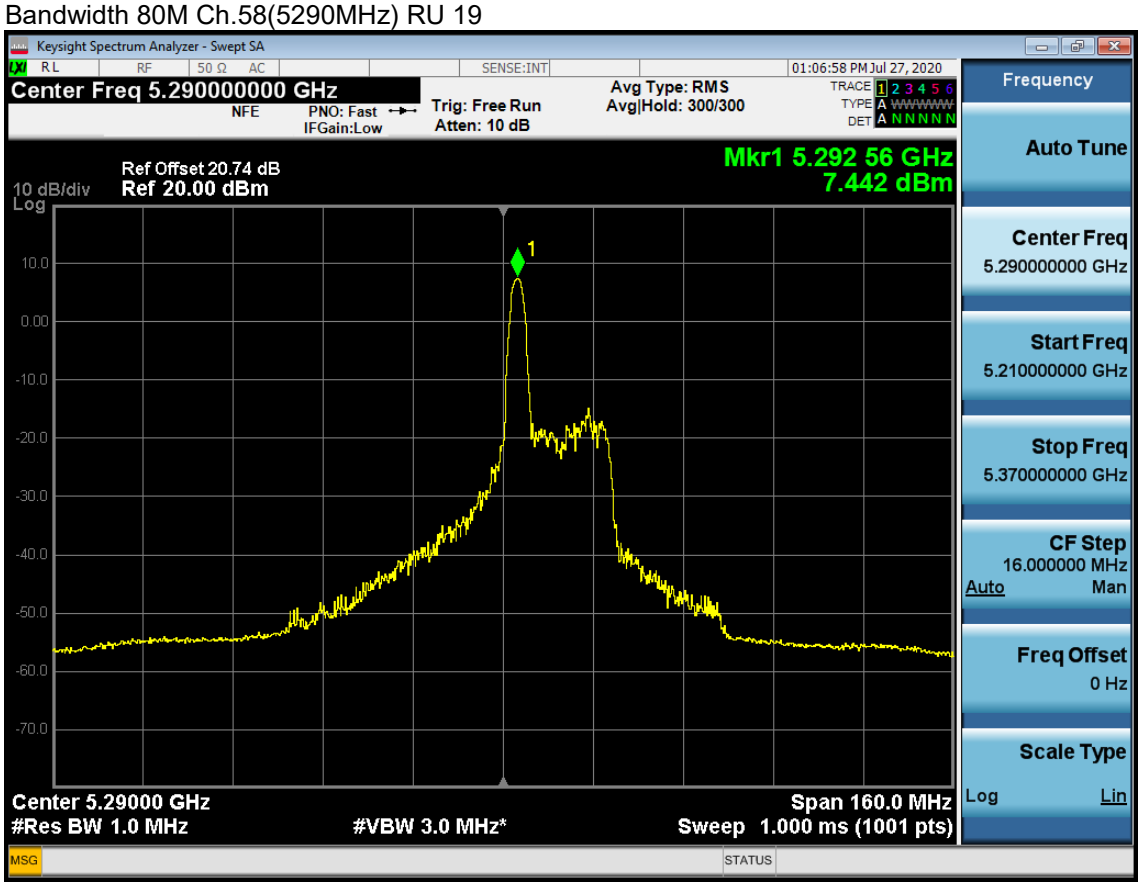
Bandwidth 40M Ch.151(5755MHz) RU 9



Reading Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
5.026	0.188	5.214

Note:
Total PSD (dBm) = Reading Value(dBm) + Duty Cycle Factor(dB)

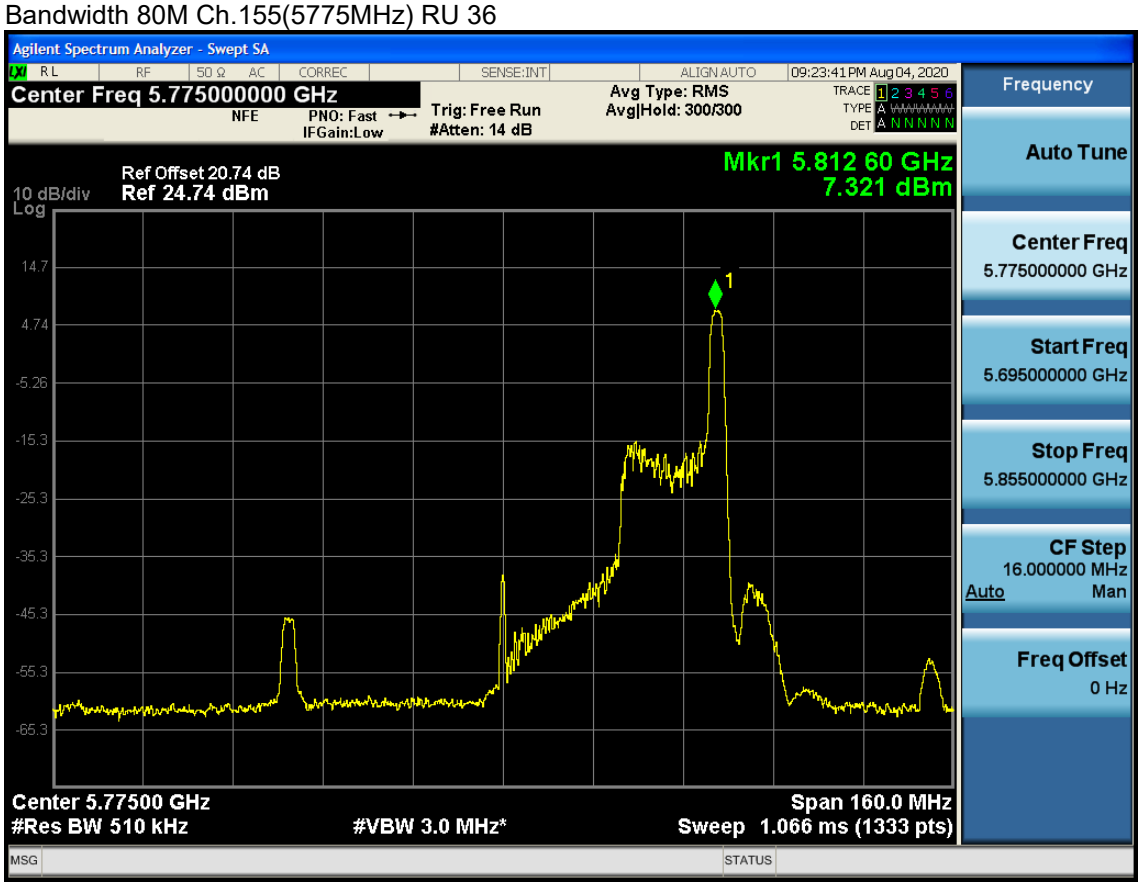
Bandwidth 80M Ch.58(5290MHz) RU 19



Reading Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
7.442	0.188	7.630

Note:
Total PSD (dBm) = Reading Value(dBm) + Duty Cycle Factor(dB)

Bandwidth 80M Ch.155(5775MHz) RU 36

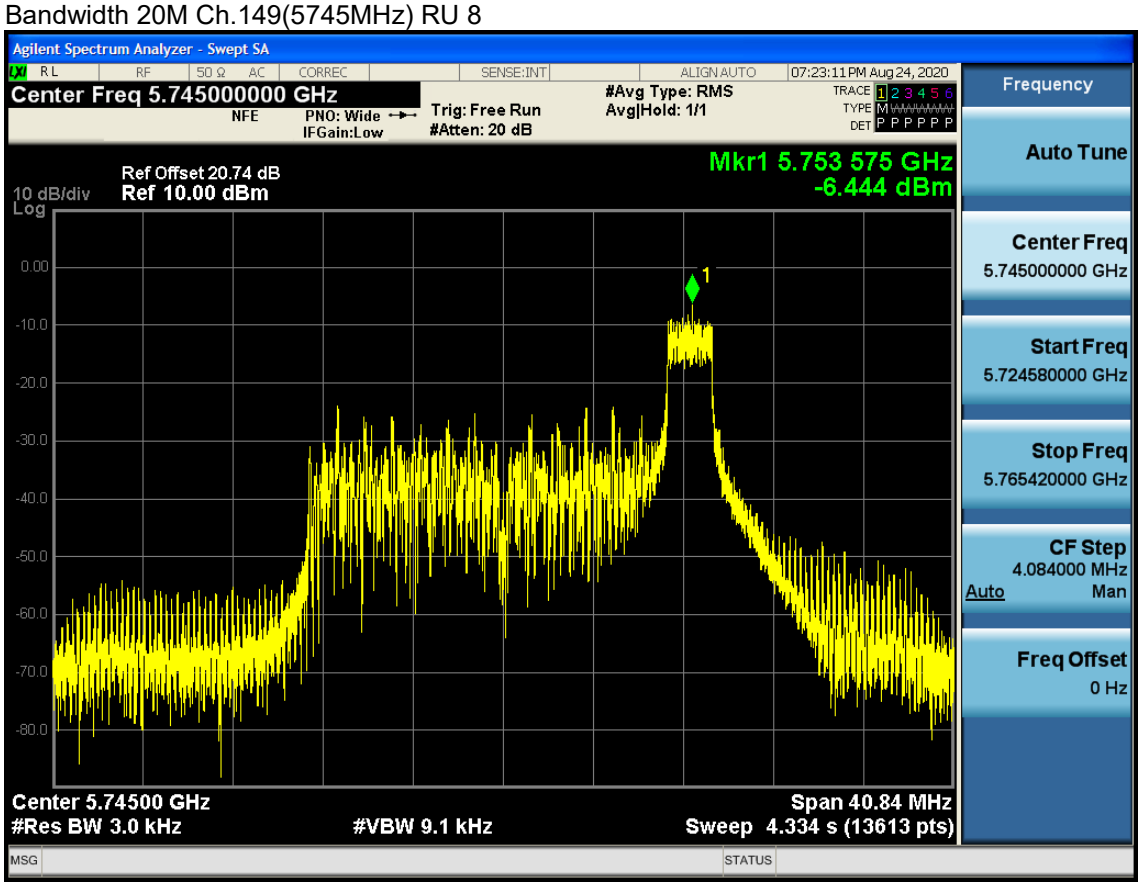


Reading Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
7.321	0.188	7.509

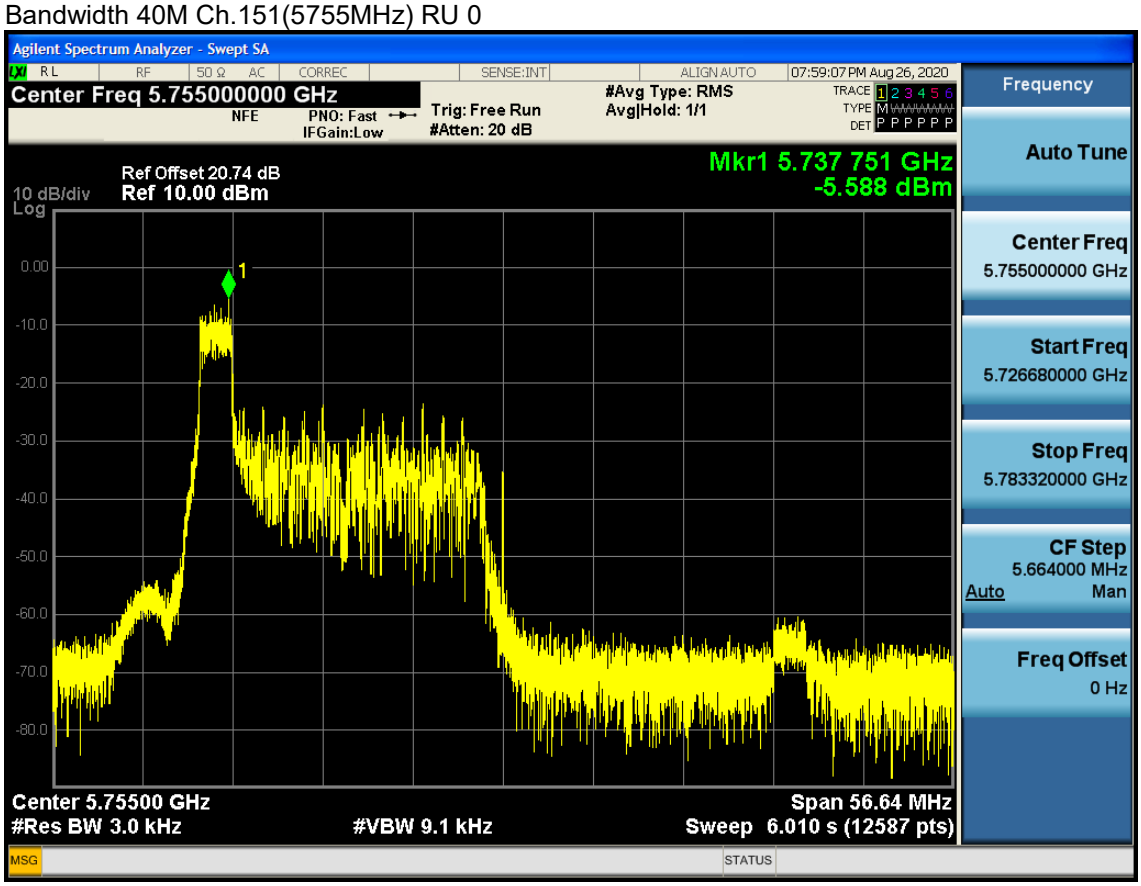
Note:
Total PSD (dBm) = Reading Value(dBm) + Duty Cycle Factor(dB)

4.3 Ant1(IC)

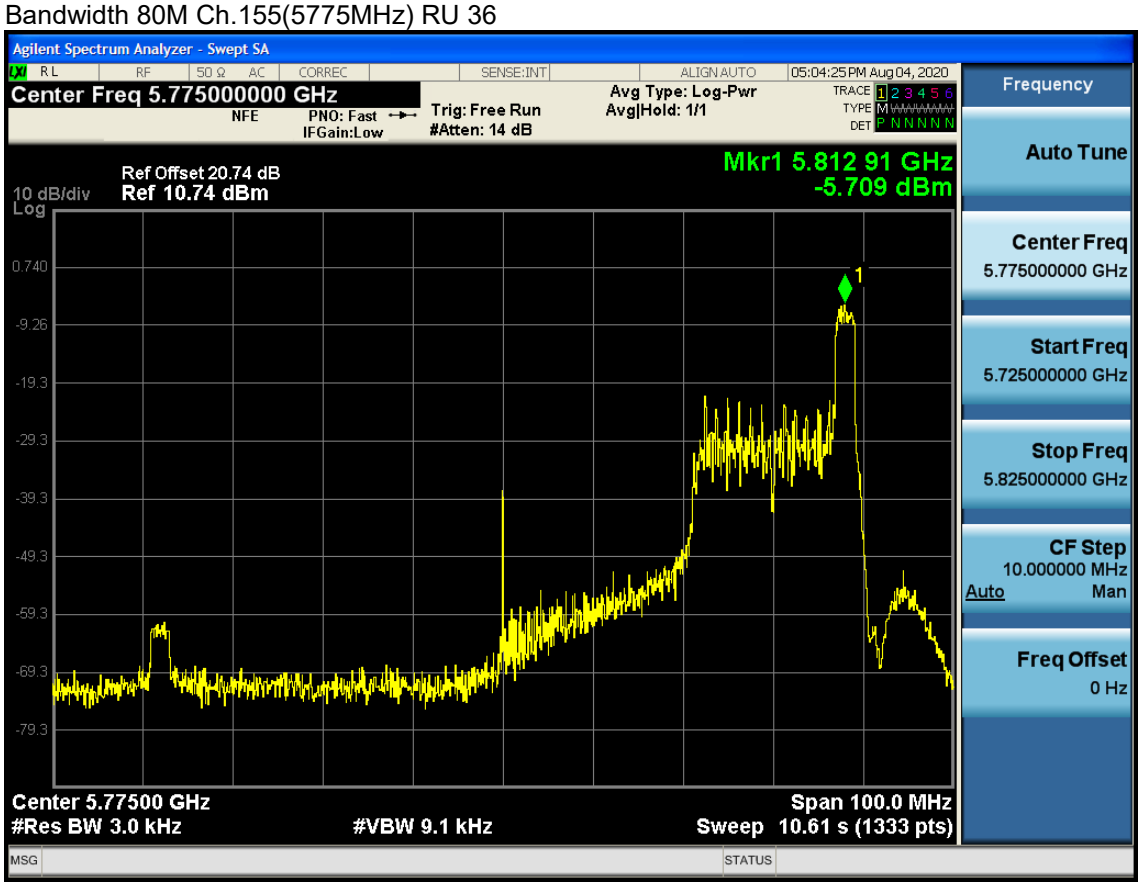
Bandwidth 20M Ch.149(5745MHz) RU 8



Bandwidth 40M Ch.151(5755MHz) RU 0

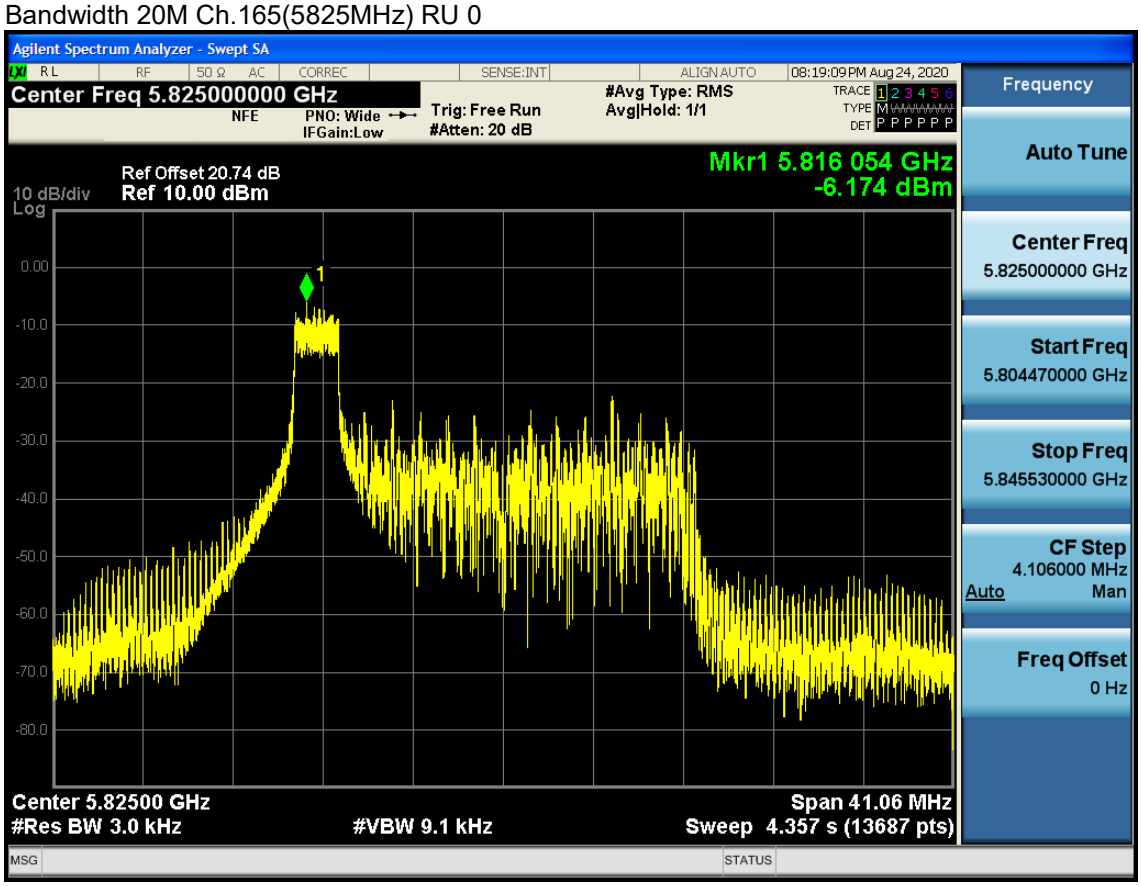


Bandwidth 80M Ch.155(5775MHz) RU 36

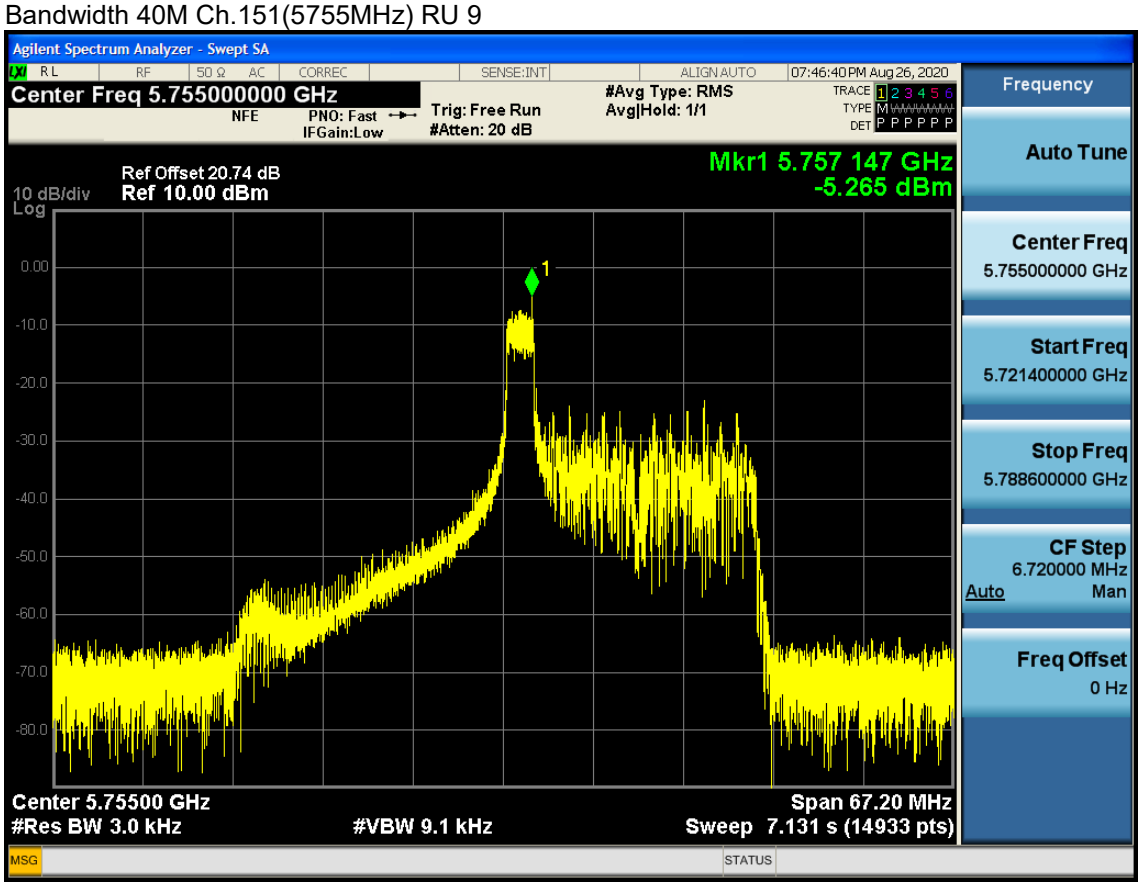


4.4 Ant2(IC)

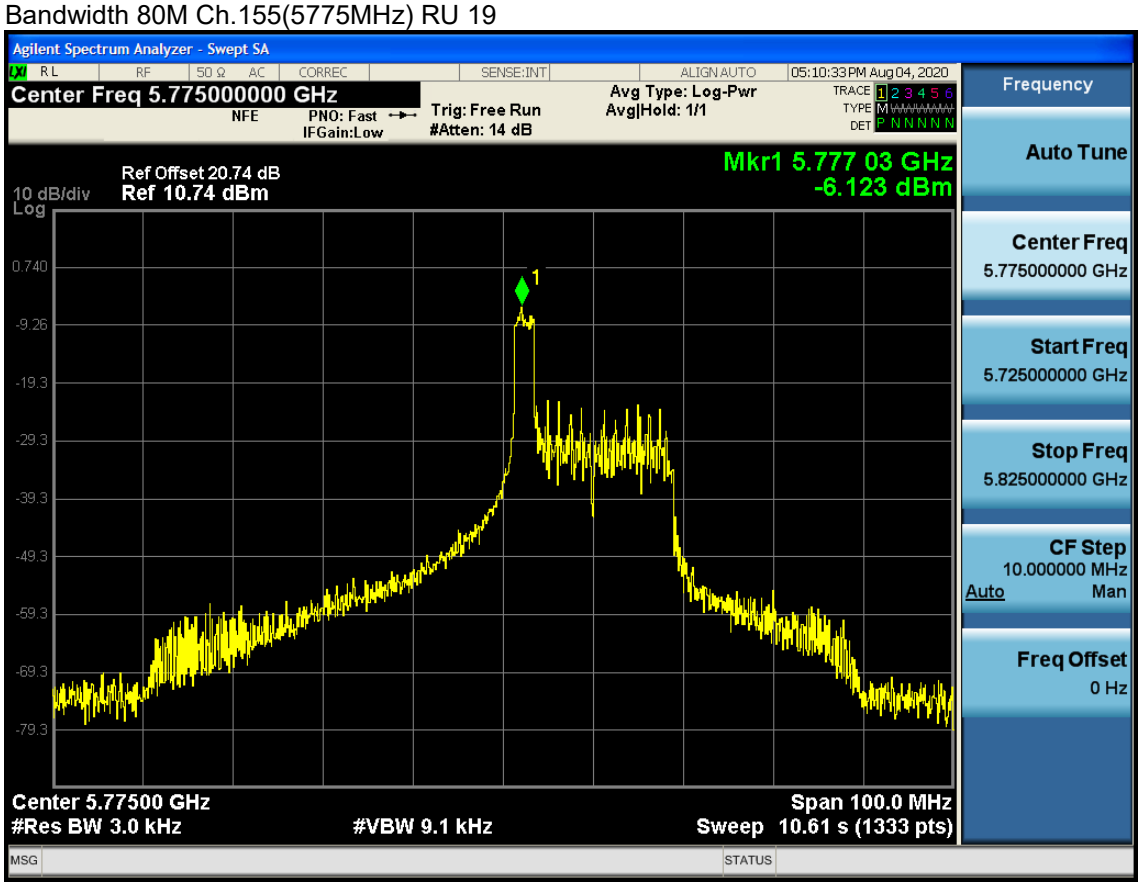
Bandwidth 20M Ch.165(5825MHz) RU 0



Bandwidth 40M Ch.151(5755MHz) RU 9



Bandwidth 80M Ch.155(5775MHz) RU 19



5. Straddle Channel
5.1 26dB Bandwidth

Note:
1. In order to simplify the report, attached plots were only the most wide channel.

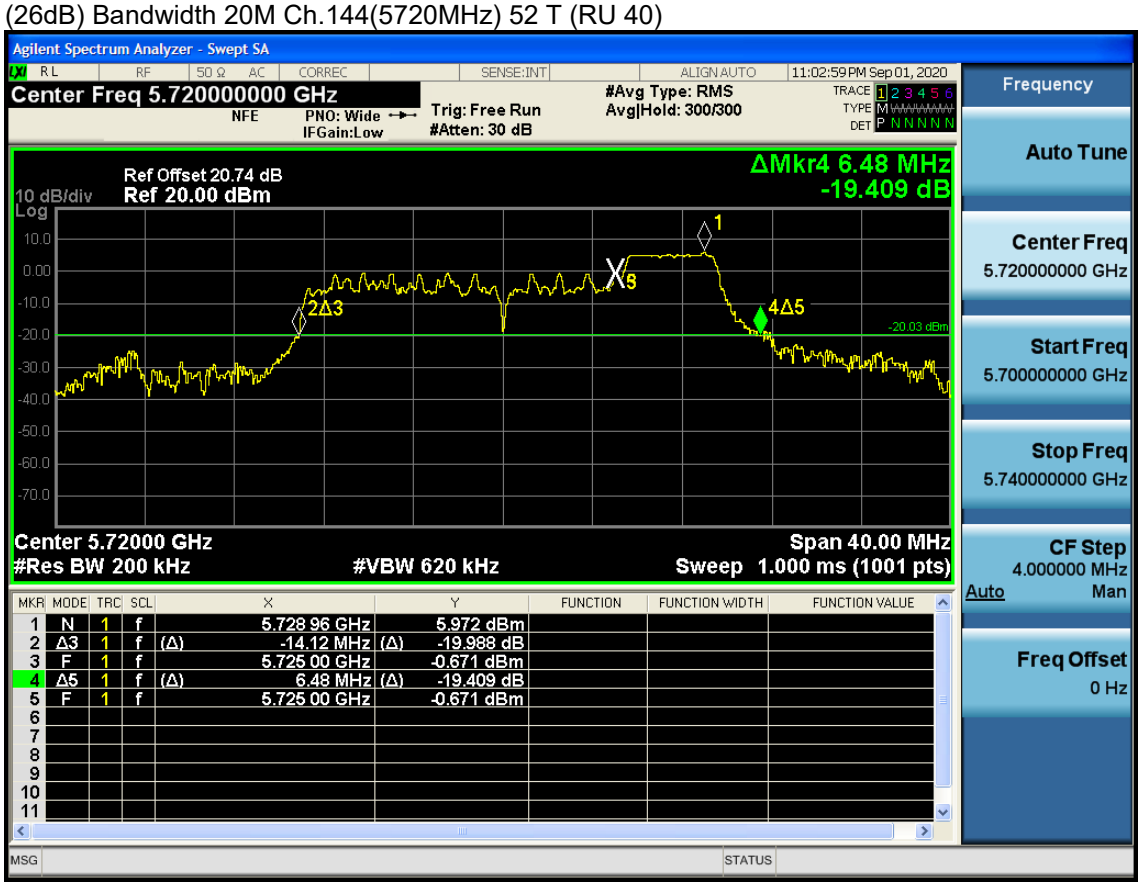
5.1.1 Ant1

(26dB) Bandwidth 20M Ch.144(5720MHz) 106 T (RU 53)

UNII 2C	5725 [MHz]	Measured Frequency [MHz]	26dB Bandwidth [MHz]
	5725	5708.68	16.32

Note:
1. [UNII 2C] 26dB Bandwidth = 5725MHz - Measured Frequency[MHz]

(26dB) Bandwidth 20M Ch.144(5720MHz) 52 T (RU 40)

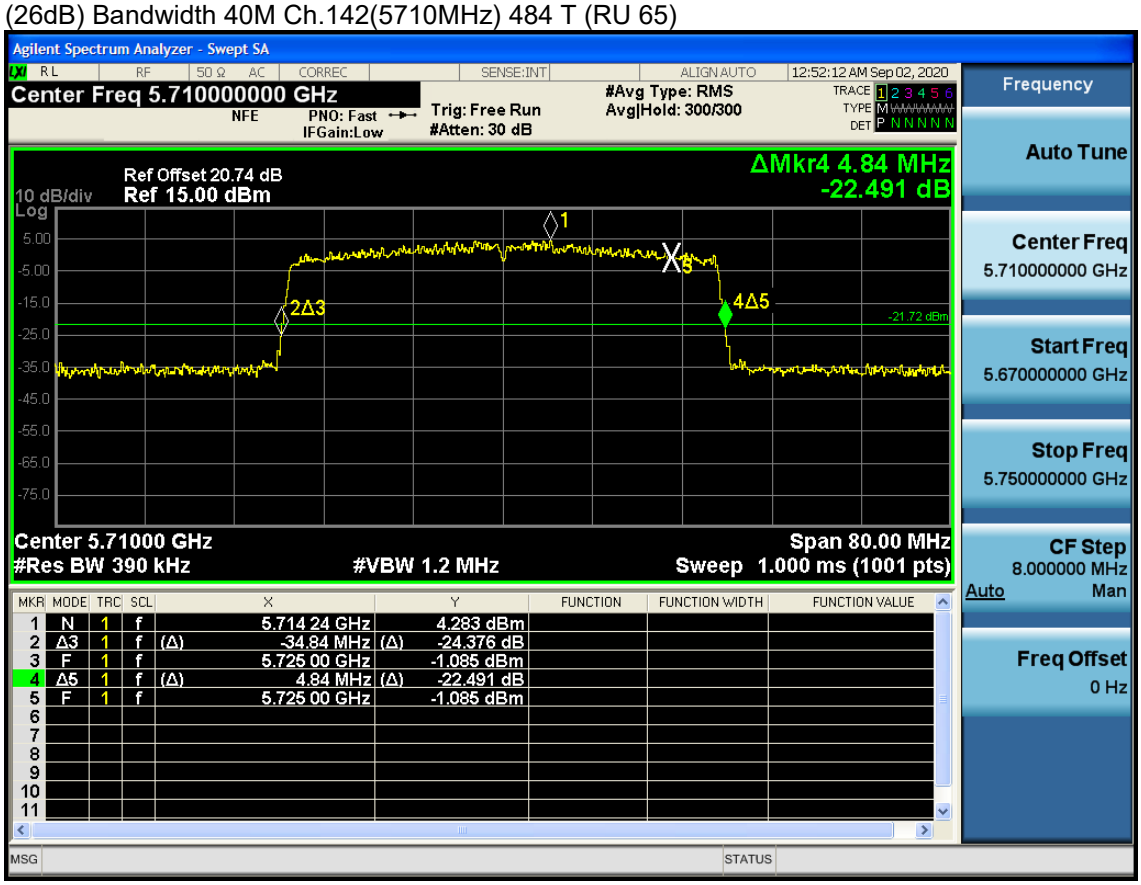


UNII 3	Measured Frequency [MHz]	5725 [MHz]	26dB Bandwidth [MHz]
	5731.48	5725	6.48

Note:

1. [UNII 3] 26dB Bandwidth = Measured Frequency[MHz] -5725MHz

(26dB) Bandwidth 40M Ch.142(5710MHz) 484 T (RU 65)

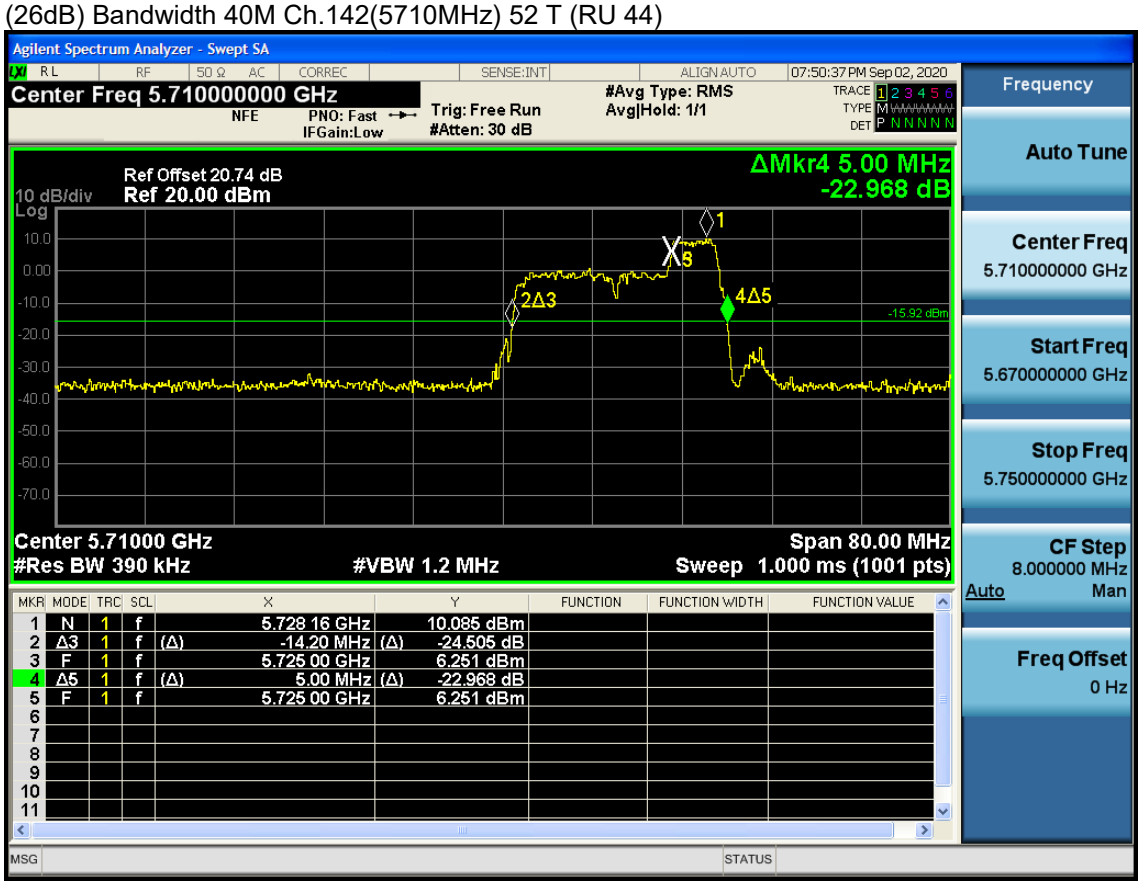


UNII 2C	5725 [MHz]	Measured Frequency [MHz]	26dB Bandwidth [MHz]
	5725	5690.16	34.84

Note:

1. [UNII 2C] 26dB Bandwidth = 5725MHz - Measured Frequency[MHz]

(26dB) Bandwidth 40M Ch.142(5710MHz) 52 T (RU 44)

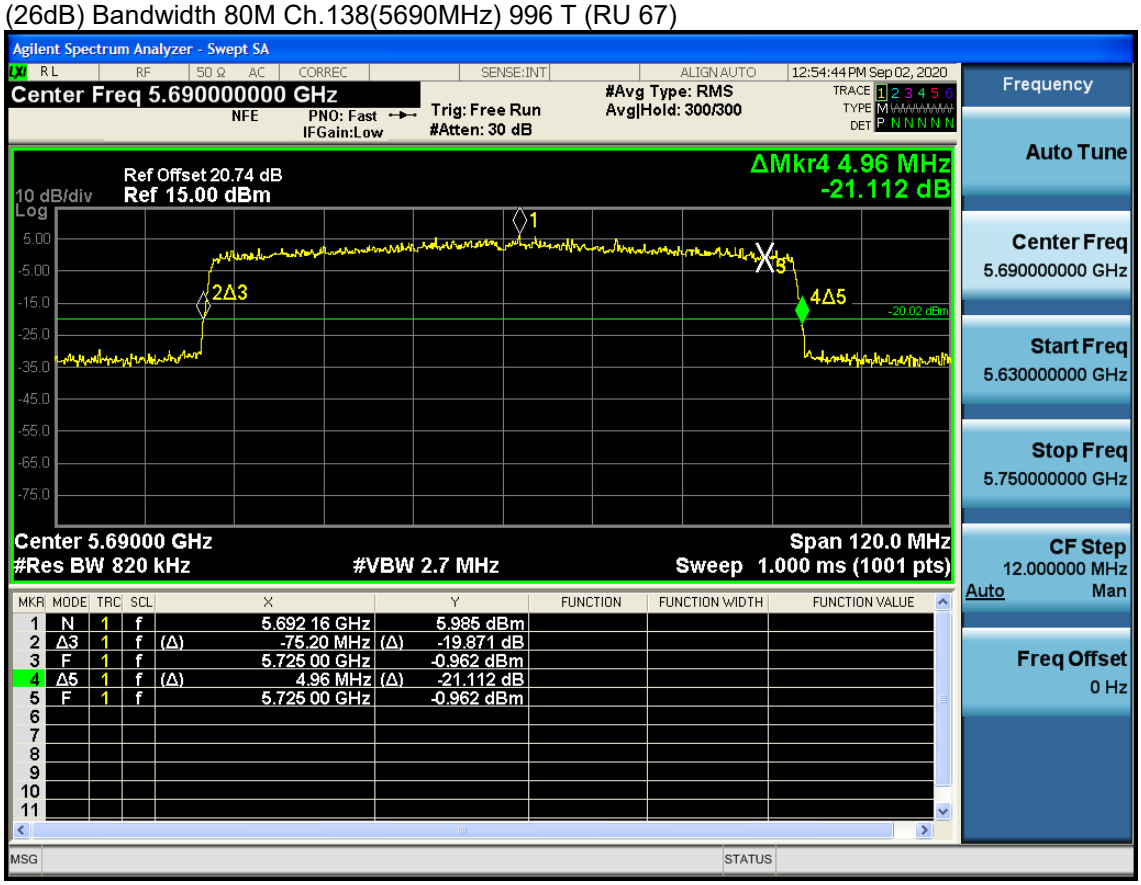


UNII 3	Measured Frequency [MHz]	5725 [MHz]	26dB Bandwidth [MHz]
	5730	5725	5.00

Note:

1. [UNII 3] 26dB Bandwidth = Measured Frequency[MHz] -5725MHz

(26dB) Bandwidth 80M Ch.138(5690MHz) 996 T (RU 67)

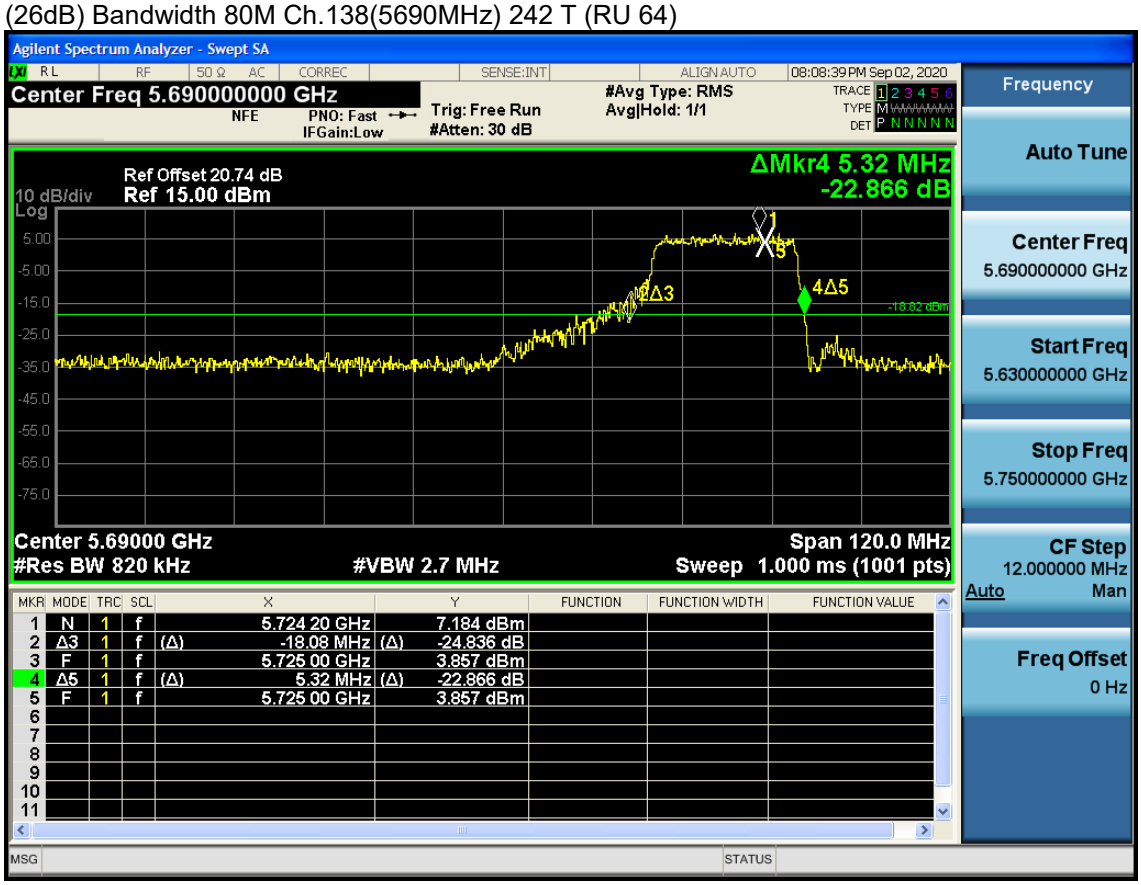


UNII 2C	5725 [MHz]	Measured Frequency [MHz]	26dB Bandwidth [MHz]
	5725	5649.8	75.20

Note:

1. [UNII 2C] 26dB Bandwidth = 5725MHz - Measured Frequency[MHz]

(26dB) Bandwidth 80M Ch.138(5690MHz) 242 T (RU 64)



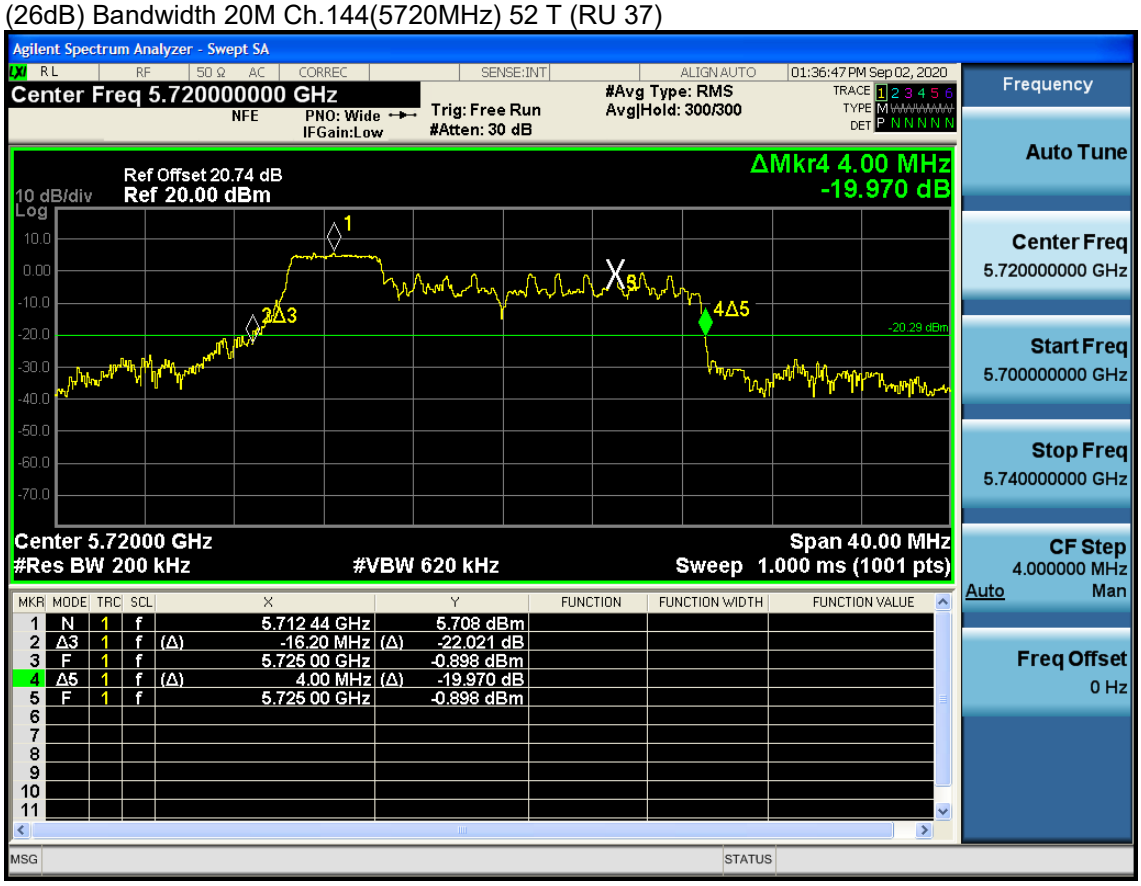
UNII 3	Measured Frequency [MHz]	5725 [MHz]	26dB Bandwidth [MHz]
	5830.32	5725	5.32

Note:

1. [UNII 3] 26dB Bandwidth = Measured Frequency[MHz] -5725MHz

5.1.2 Ant2

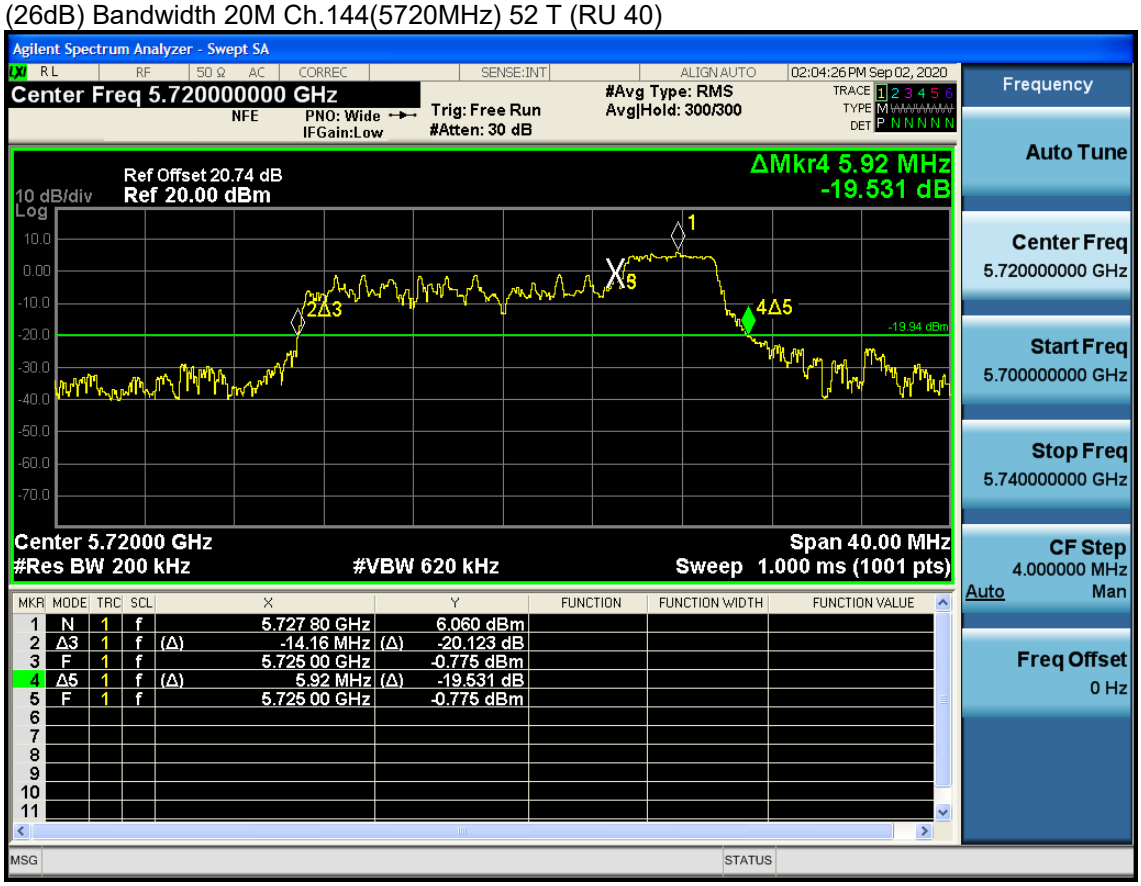
(26dB) Bandwidth 20M Ch.144(5720MHz) 52 T (RU 37)



UNII 2C	5725 [MHz]	Measured Frequency [MHz]	26dB Bandwidth [MHz]
	5725	5708.8	16.20

Note:
1. [UNII 2C] 26dB Bandwidth = 5725MHz - Measured Frequency[MHz]

(26dB) Bandwidth 20M Ch.144(5720MHz) 52 T (RU 40)

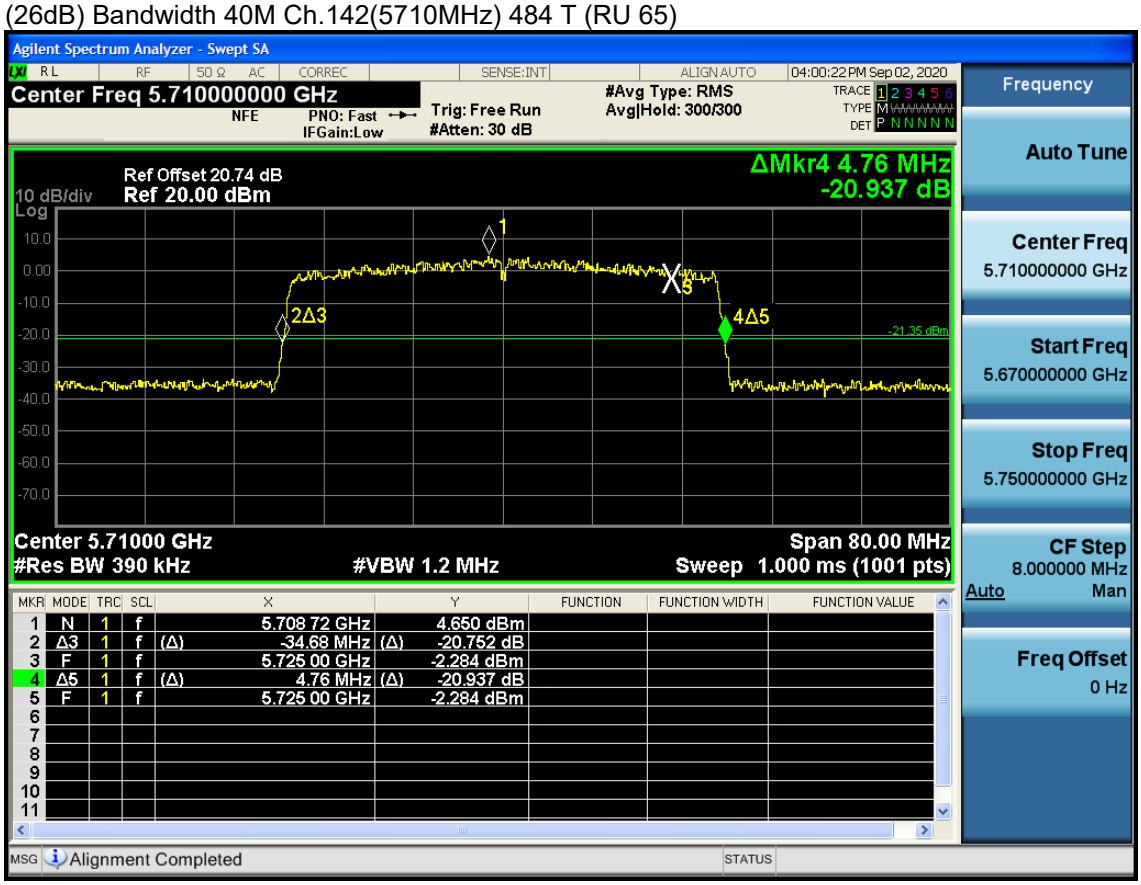


UNII 3	Measured Frequency [MHz]	5725 [MHz]	26dB Bandwidth [MHz]
	5730.92	5725	5.92

Note:

1. [UNII 3] 26dB Bandwidth = Measured Frequency[MHz] -5725MHz

(26dB) Bandwidth 40M Ch.142(5710MHz) 484 T (RU 65)

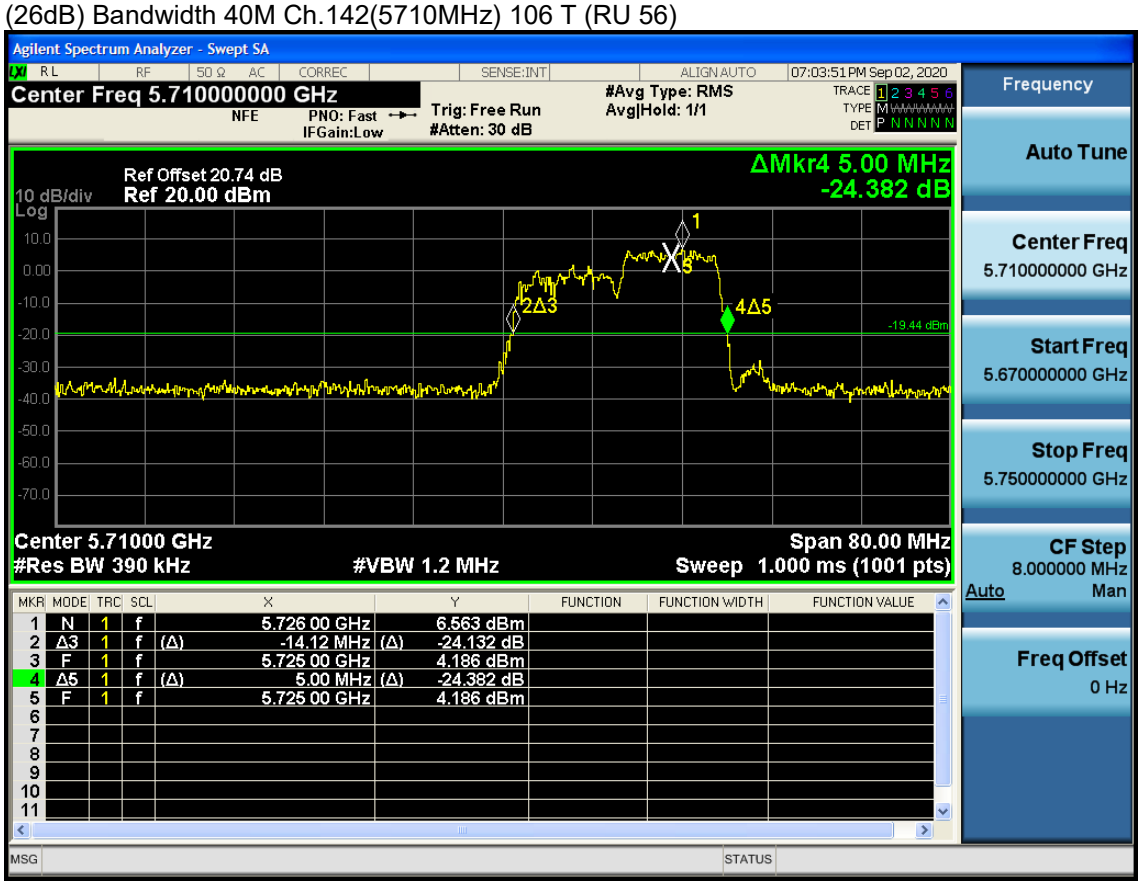


UNII 2C	5725 [MHz]	Measured Frequency [MHz]	26dB Bandwidth [MHz]
	5725	5690.32	34.68

Note:

1. [UNII 2C] 26dB Bandwidth = 5725MHz - Measured Frequency[MHz]

(26dB) Bandwidth 40M Ch.142(5710MHz) 106 T (RU 56)

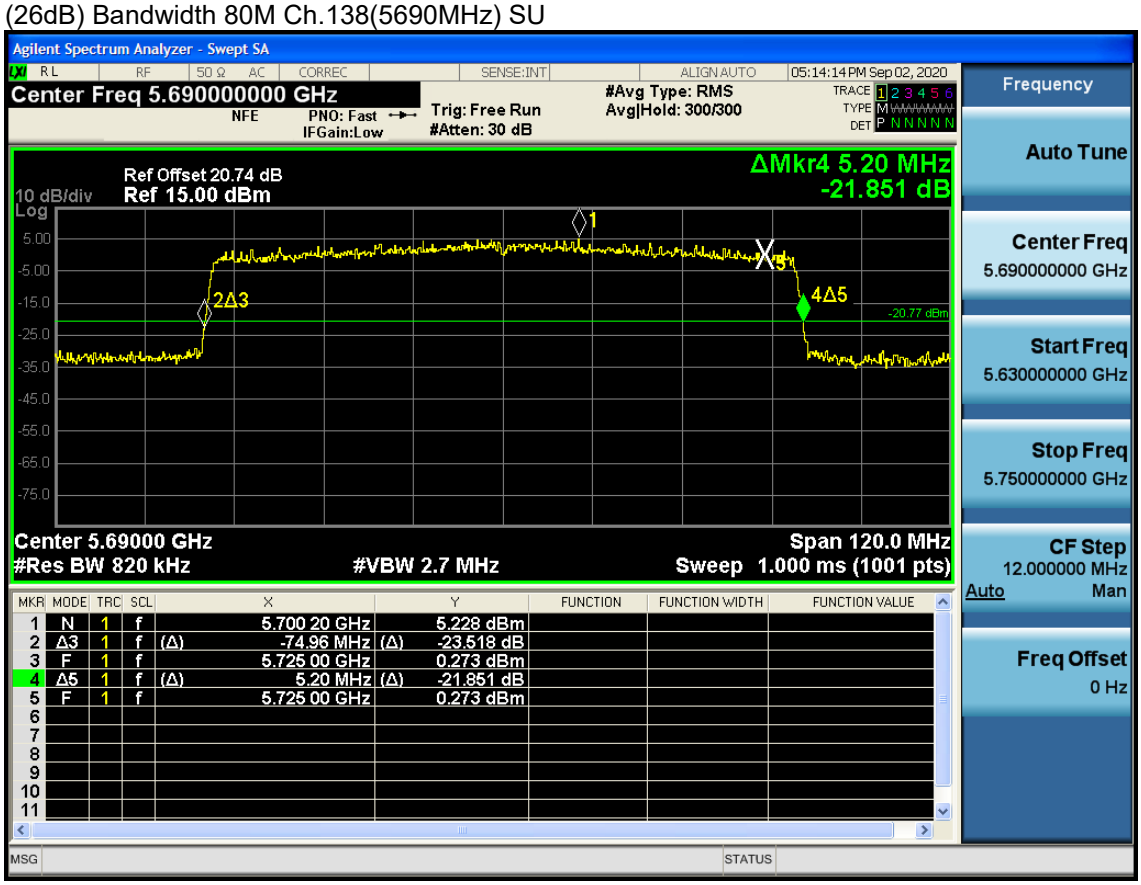


UNII 3	Measured Frequency [MHz]	5725 [MHz]	26dB Bandwidth [MHz]
	5730	5725	5.00

Note:

1. [UNII 3] 26dB Bandwidth = Measured Frequency[MHz] -5725MHz

(26dB) Bandwidth 80M Ch.138(5690MHz) SU

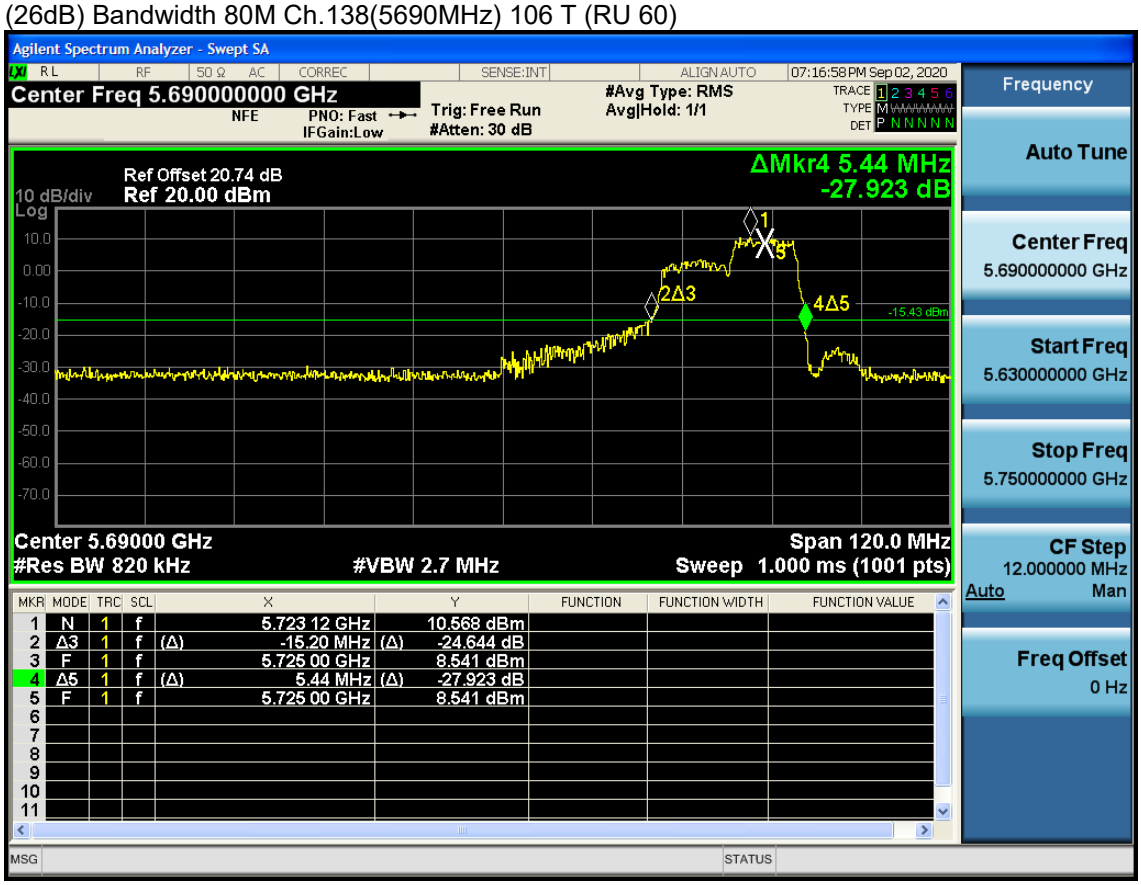


UNII 2C	5725 [MHz]	Measured Frequency [MHz]	26dB Bandwidth [MHz]
	5725	5650.04	74.96

Note:

1. [UNII 2C] 26dB Bandwidth = 5725MHz - Measured Frequency[MHz]

(26dB) Bandwidth 80M Ch.138(5690MHz) 106 T (RU 60)



UNII 3	Measured Frequency [MHz]	5725 [MHz]	26dB Bandwidth [MHz]
	5730.44	5725	5.44

Note:

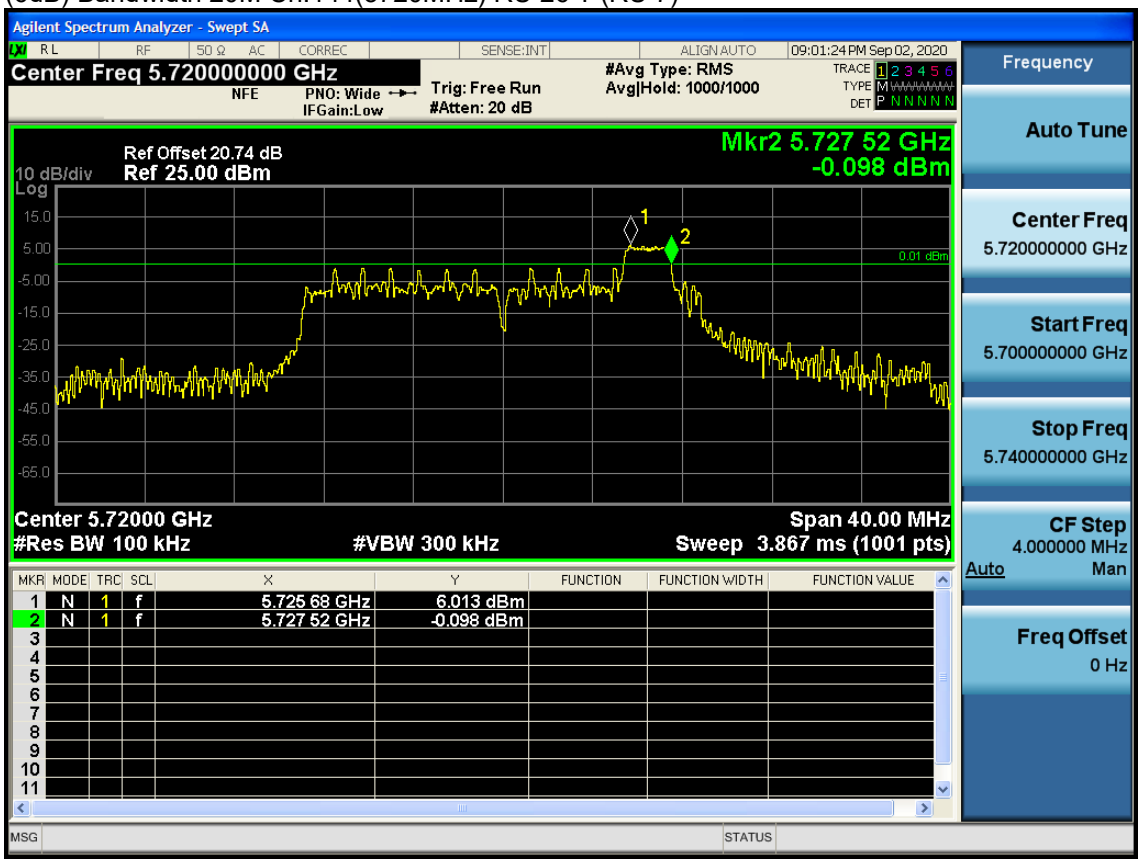
1. [UNII 3] 26dB Bandwidth = Measured Frequency[MHz] -5725MHz

5.2 6dB Bandwidth

Note:
1. In order to simplify the report, attached plots were only the most narrow channel.

5.2.1 Ant1

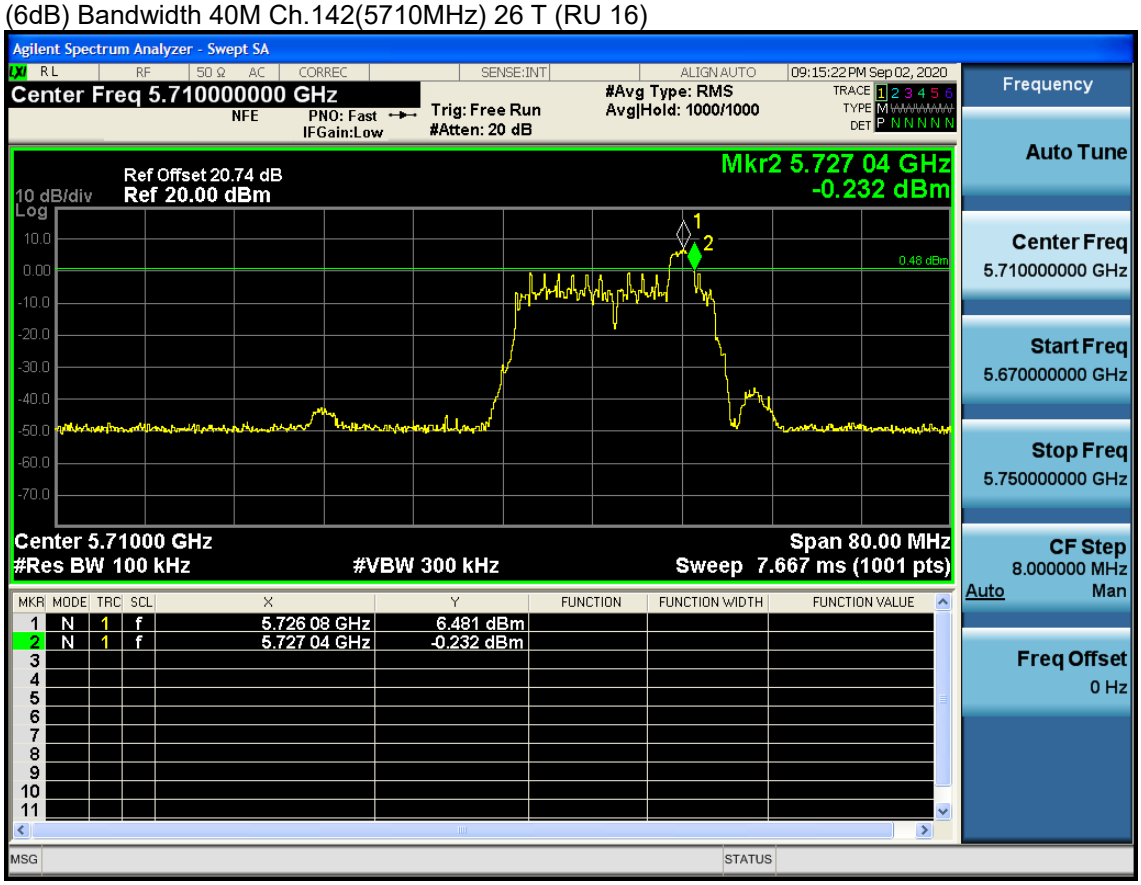
(6dB) Bandwidth 20M Ch.144(5720MHz) RU 26 T (RU 7)



Measured Frequency [MHz]	5725 [MHz]	6dB Bandwidth [MHz]
5727.52	5725	2.52

Note:
6dB Bandwidth = Measured Frequency[MHz] – 5725MHz

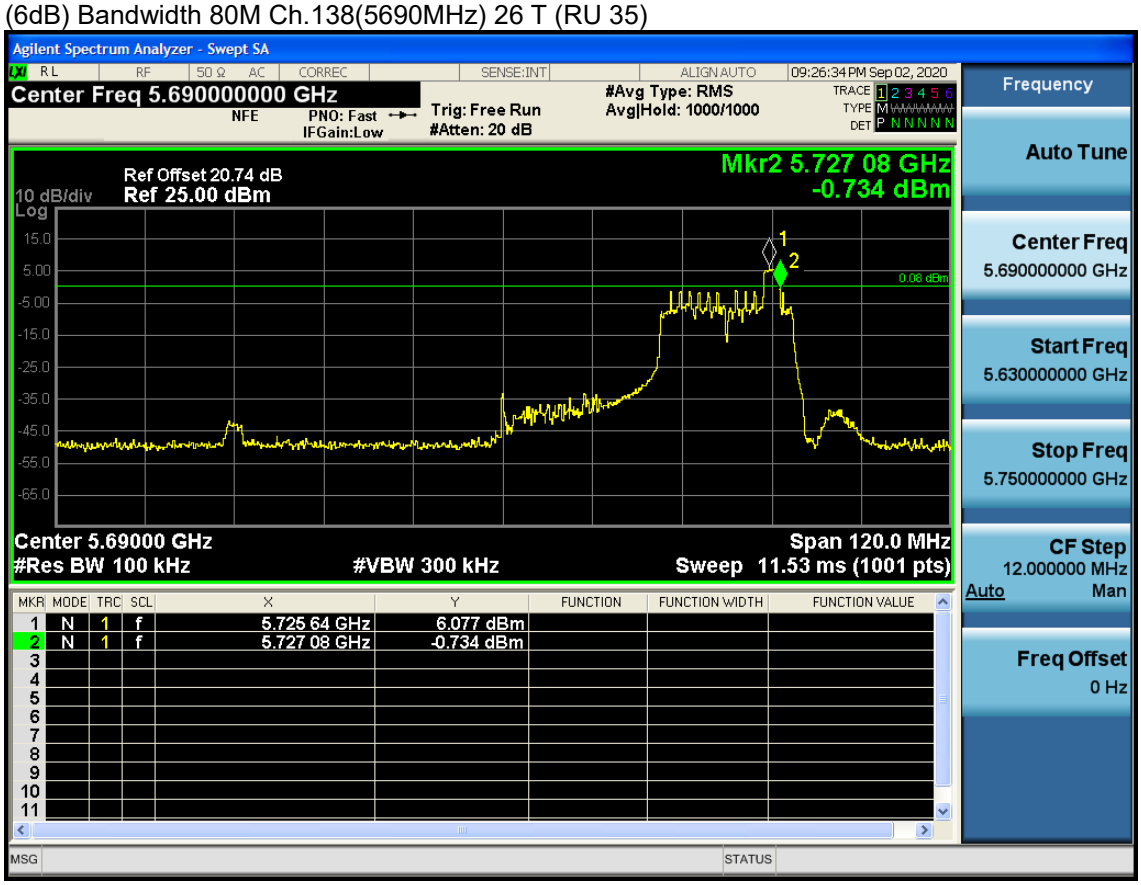
(6dB) Bandwidth 40M Ch.142(5710MHz) 26 T (RU 16)



Measured Frequency [MHz]	5725 [MHz]	6dB Bandwidth [MHz]
5727.04	5725	2.04

Note:
6dB Bandwidth = Measured Frequency[MHz] – 5725MHz

(6dB) Bandwidth 80M Ch.138(5690MHz) 26 T (RU 35)

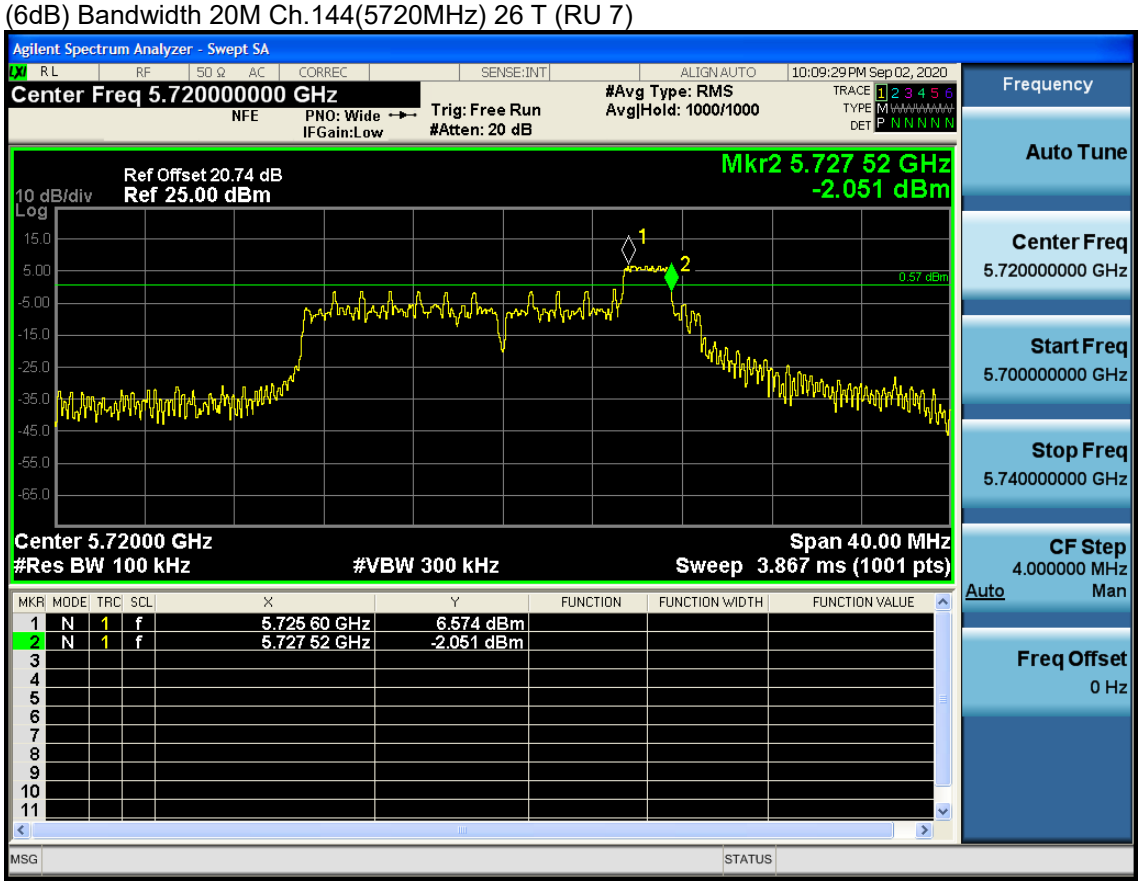


Measured Frequency [MHz]	5725 [MHz]	6dB Bandwidth [MHz]
5727.08	5725	2.08

Note:
6dB Bandwidth = Measured Frequency[MHz] – 5725MHz

5.2.2 Ant2

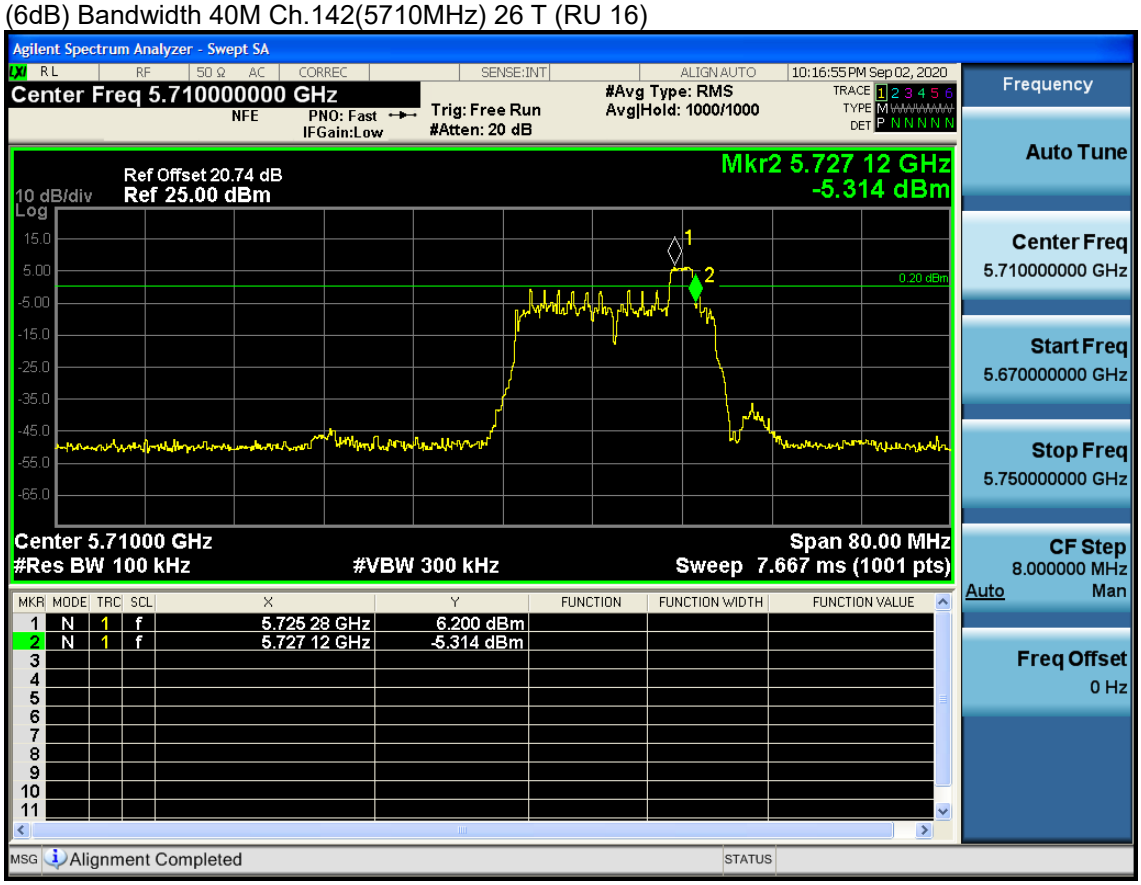
(6dB) Bandwidth 20M Ch.144(5720MHz) 26 T (RU 7)



Measured Frequency [MHz]	5725 [MHz]	6dB Bandwidth [MHz]
5727.52	5725	2.52

Note:
6dB Bandwidth = Measured Frequency[MHz] – 5725MHz

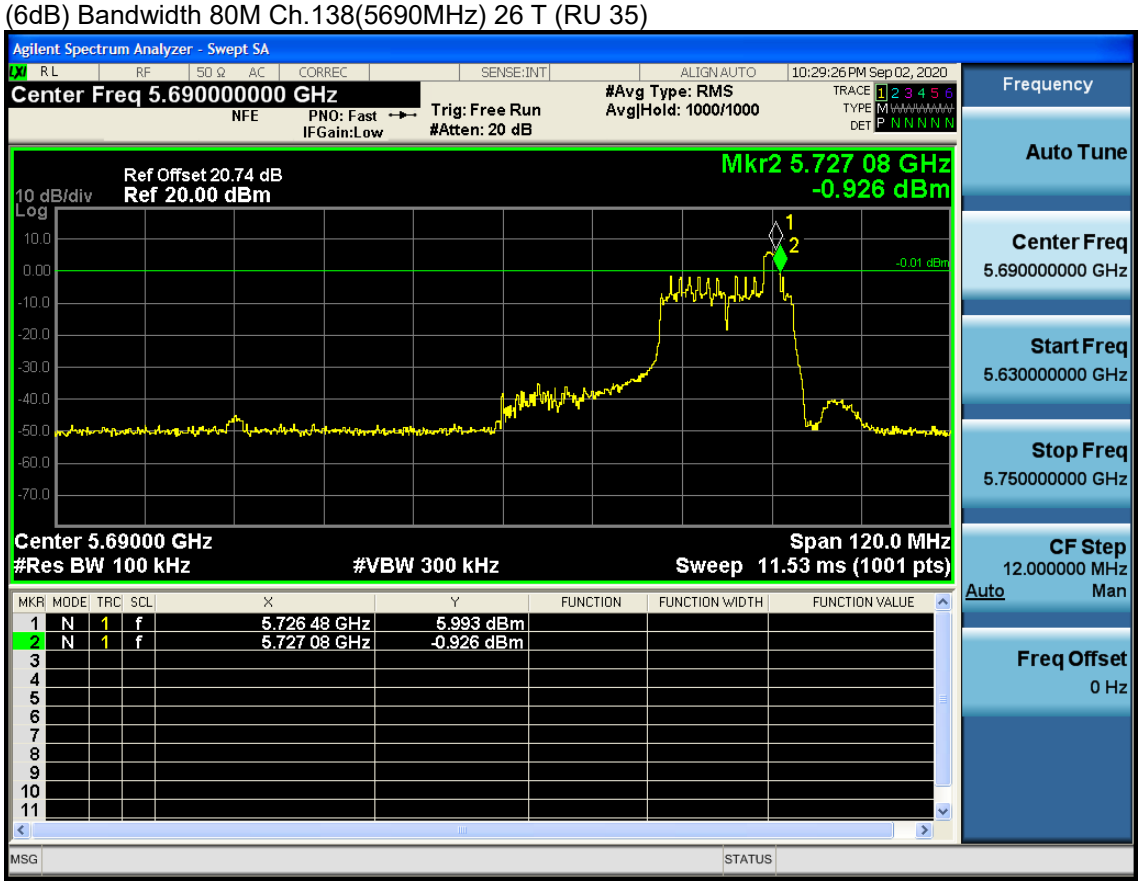
(6dB) Bandwidth 40M Ch.142(5710MHz) 26 T (RU 16)



Measured Frequency [MHz]	5725 [MHz]	6dB Bandwidth [MHz]
5727.12	5725	2.12

Note:
6dB Bandwidth = Measured Frequency[MHz] – 5725MHz

(6dB) Bandwidth 80M Ch.138(5690MHz) 26 T (RU 35)



Measured Frequency [MHz]	5725 [MHz]	6dB Bandwidth [MHz]
5727.08	5725	2.08

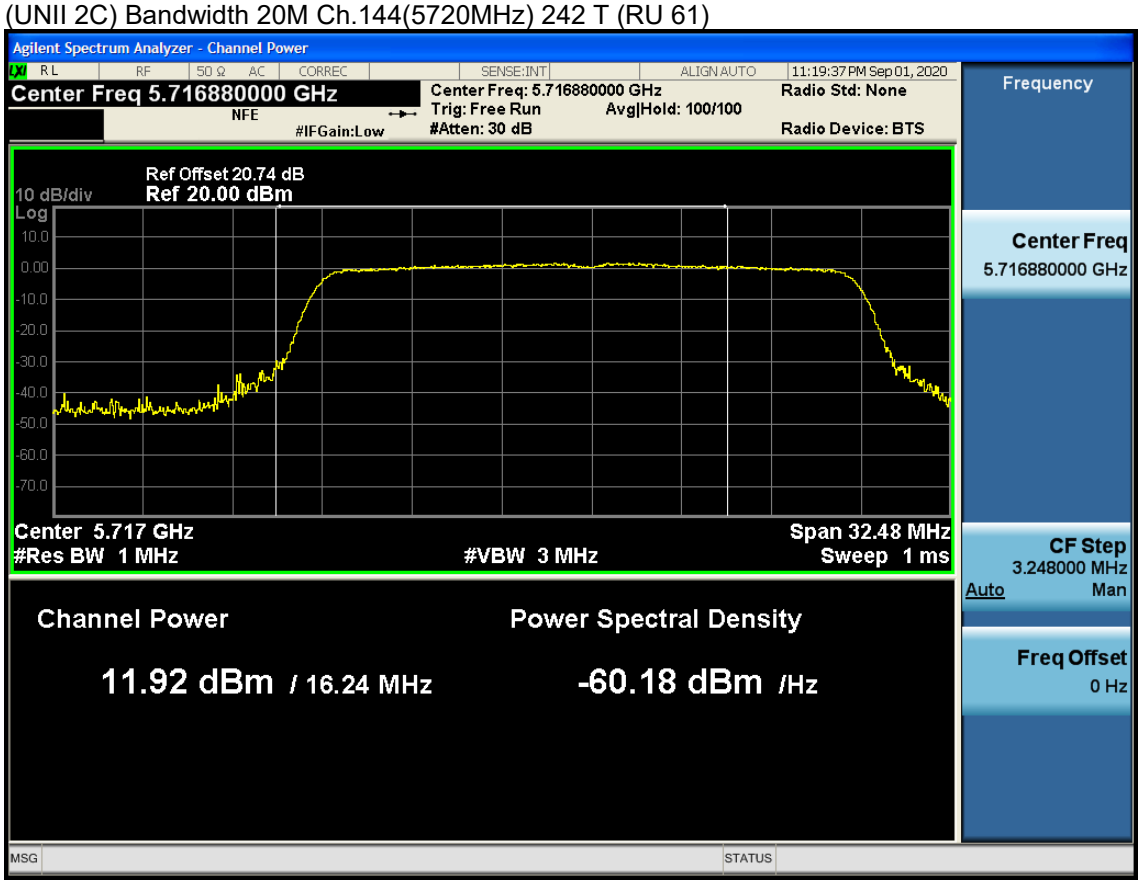
Note:
6dB Bandwidth = Measured Frequency[MHz] – 5725MHz

5.3 Output Power

Note:
1. In order to simplify the report, attached plots were only channel of highest Power.

5.3.1 Ant1

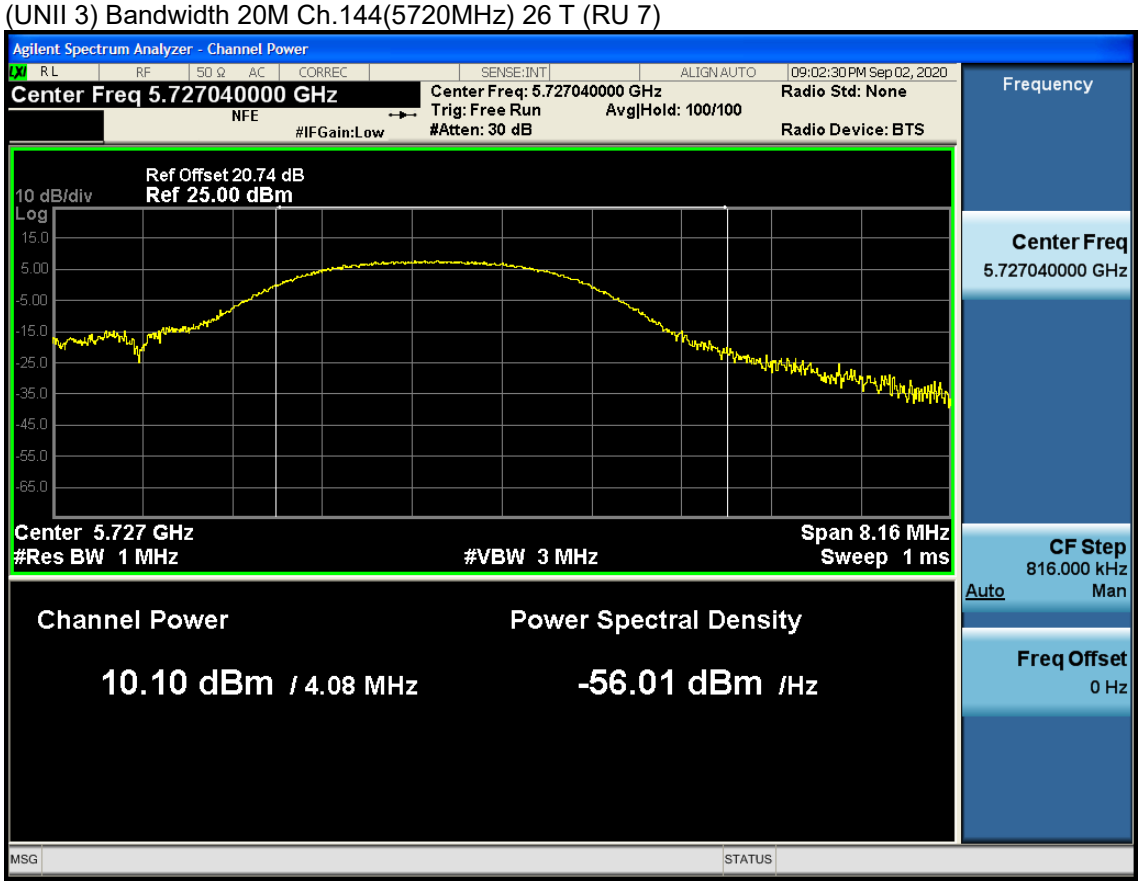
(UNII 2C) Bandwidth 20M Ch.144(5720MHz) 242 T (RU 61)



Reading Value (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)
11.92	0.158	12.08

Note:
Total Power(dBm) = Reading Value(dBm) + Duty Cycle Factor(dB)

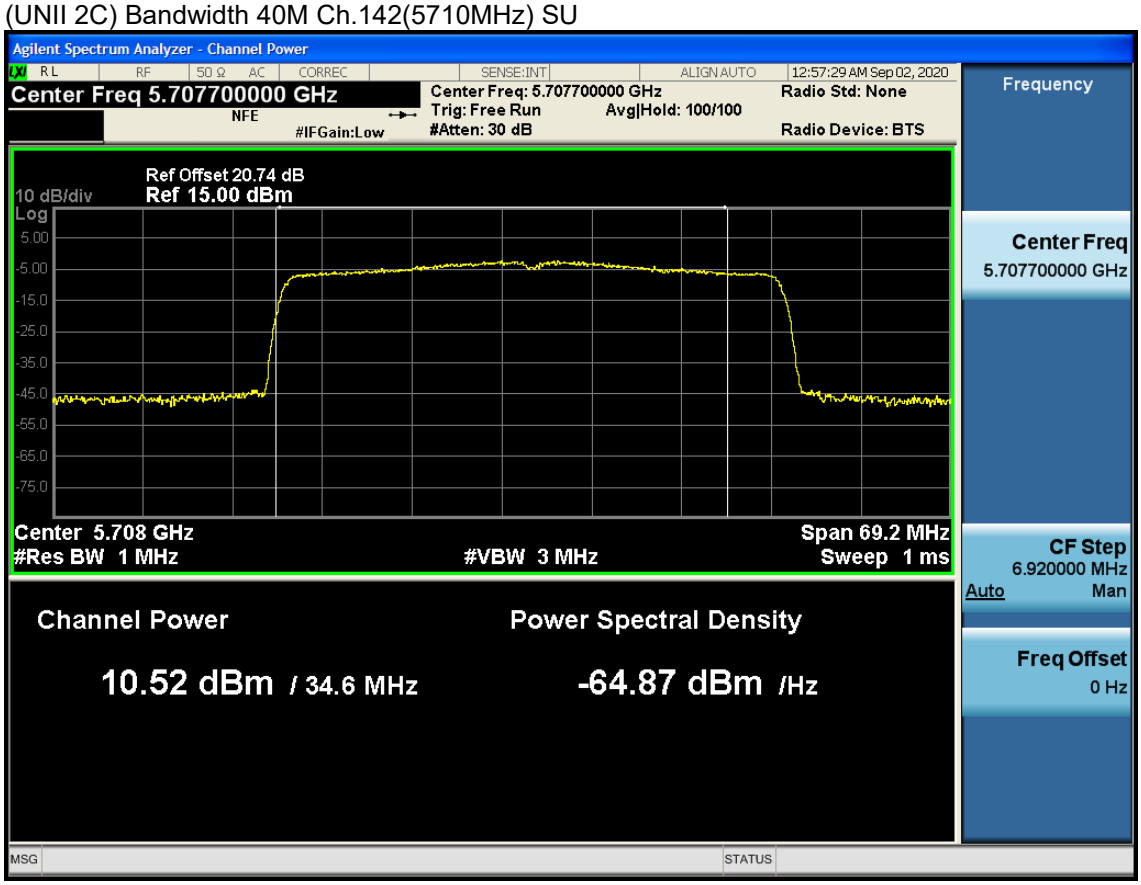
(UNII 3) Bandwidth 20M Ch.144(5720MHz) 26 T (RU 7)



Reading Value (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)
10.10	0.120	10.22

Note:
Total Power(dBm) = Reading Value(dBm) + Duty Cycle Factor(dB)

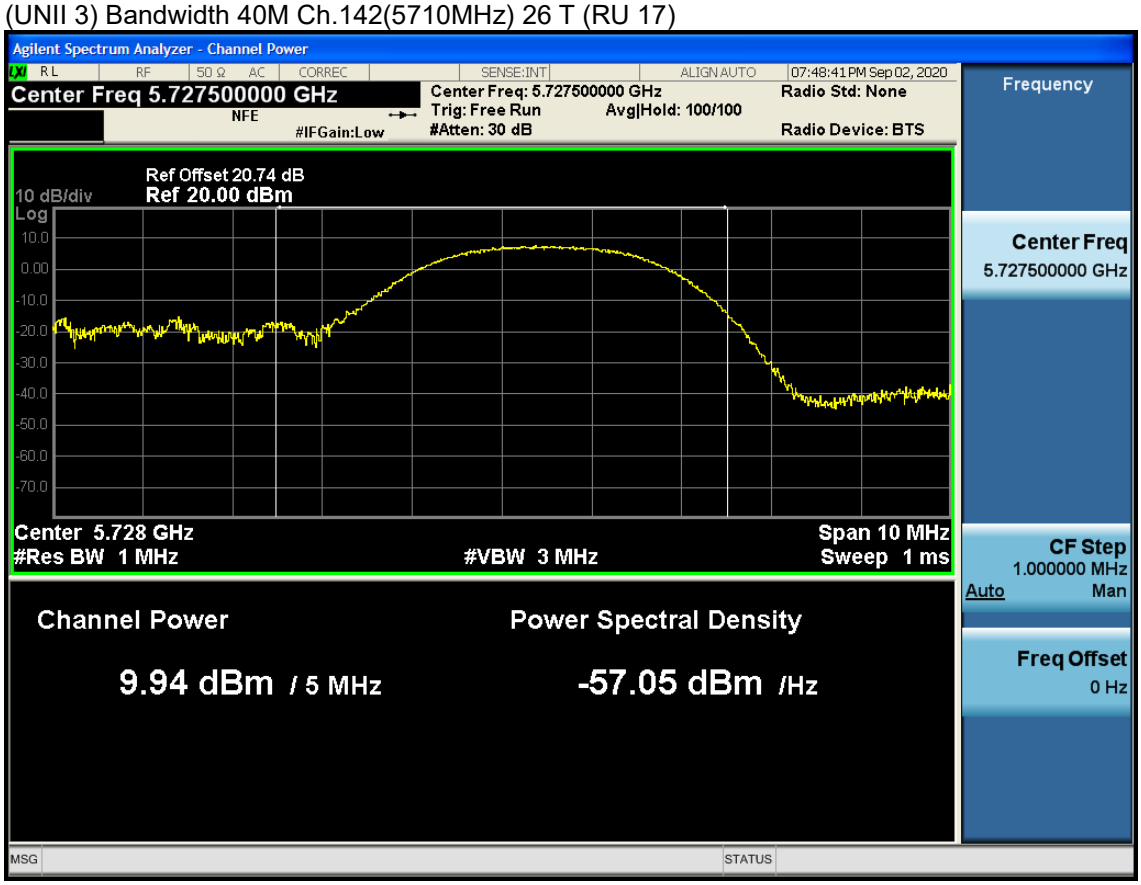
(UNII 2C) Bandwidth 40M Ch.142(5710MHz) SU



Reading Value (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)
10.52	2.253	12.77

Note:
Total Power(dBm) = Reading Value(dBm) + Duty Cycle Factor(dB)

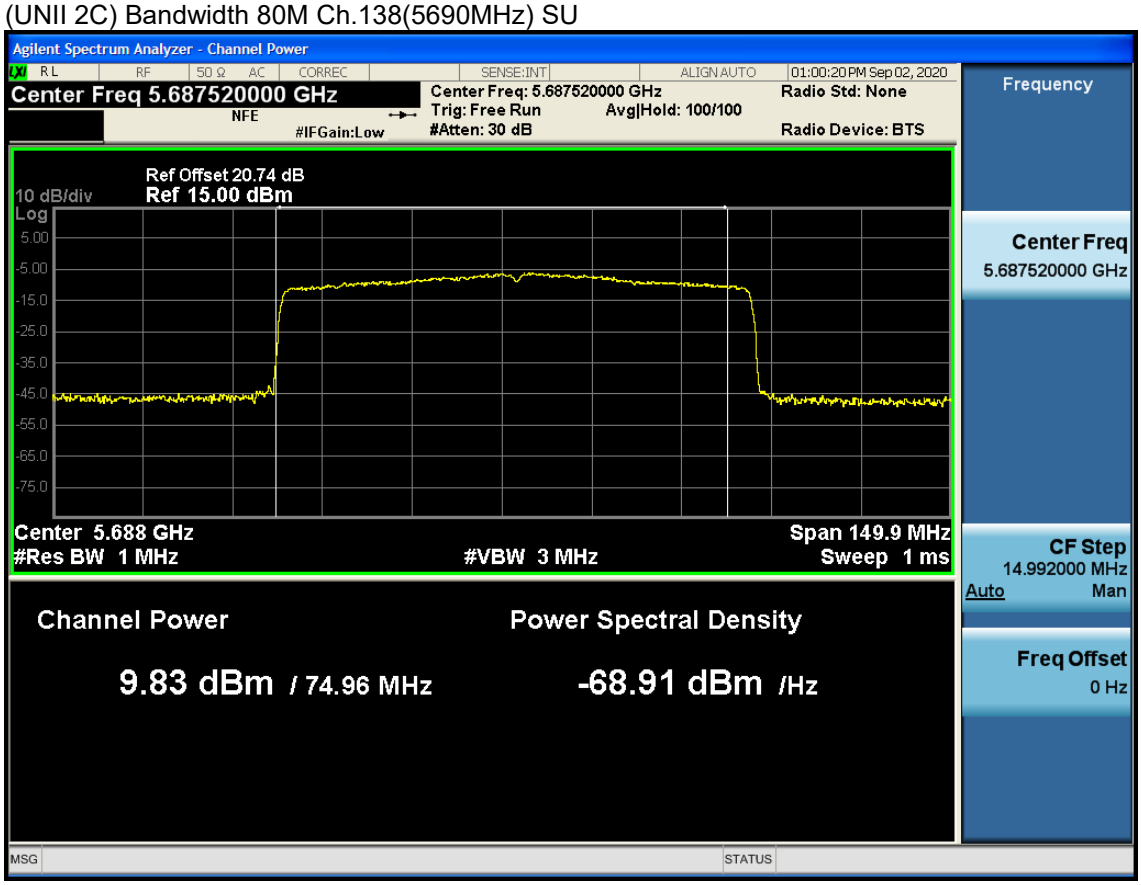
(UNII 3) Bandwidth 40M Ch.142(5710MHz) 26 T (RU 17)



Reading Value (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)
9.94	0.188	10.13

Note:
Total Power(dBm) = Reading Value(dBm) + Duty Cycle Factor(dB)

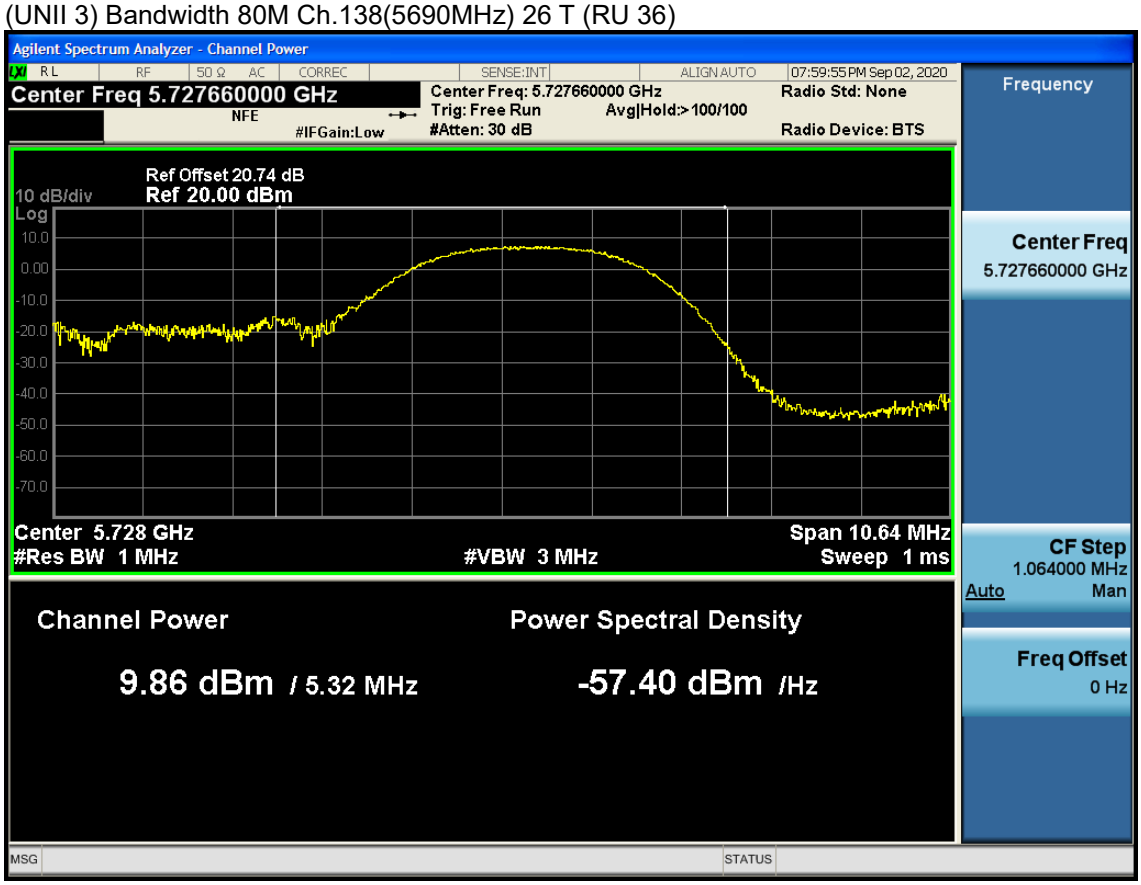
(UNII 2C) Bandwidth 80M Ch.138(5690MHz) SU



Reading Value (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)
9.83	2.943	12.77

Note:
Total Power(dBm) = Reading Value(dBm) + Duty Cycle Factor(dB)

(UNII 3) Bandwidth 80M Ch.138(5690MHz) 26 T (RU 36)

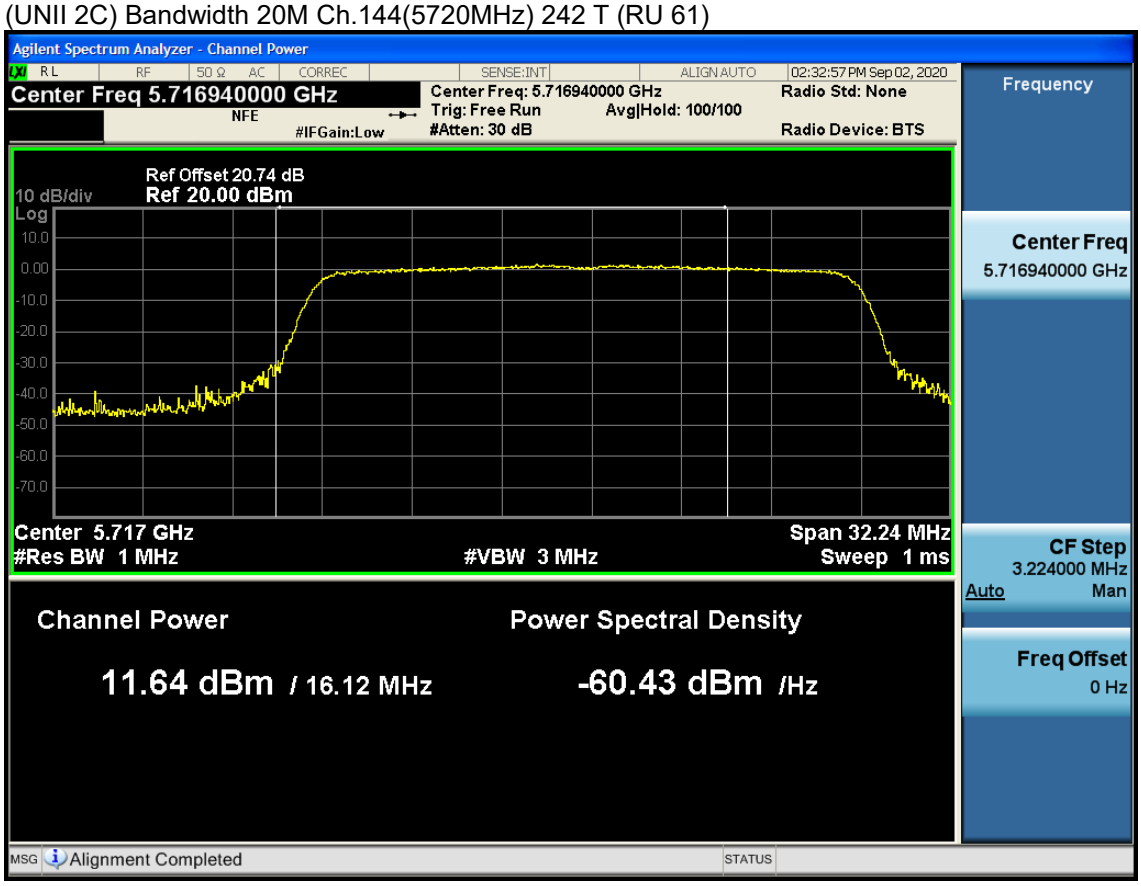


Reading Value (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)
9.86	0.188	10.05

Note:
Total Power(dBm) = Reading Value(dBm) + Duty Cycle Factor(dB)

5.3.1 Ant2

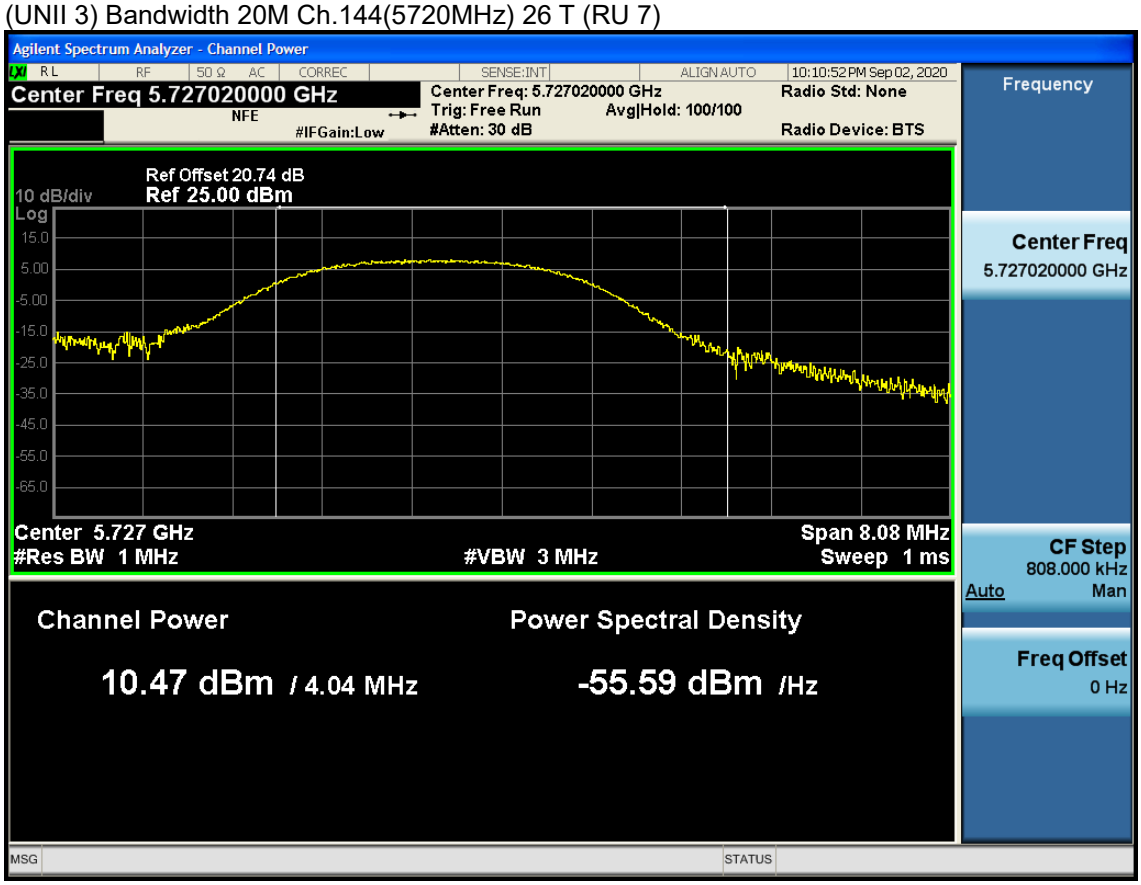
(UNII 2C) Bandwidth 20M Ch.144(5720MHz) 242 T (RU 61)



Reading Value (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)
11.64	0.158	11.80

Note:
Total Power(dBm) = Reading Value(dBm) + Duty Cycle Factor(dB)

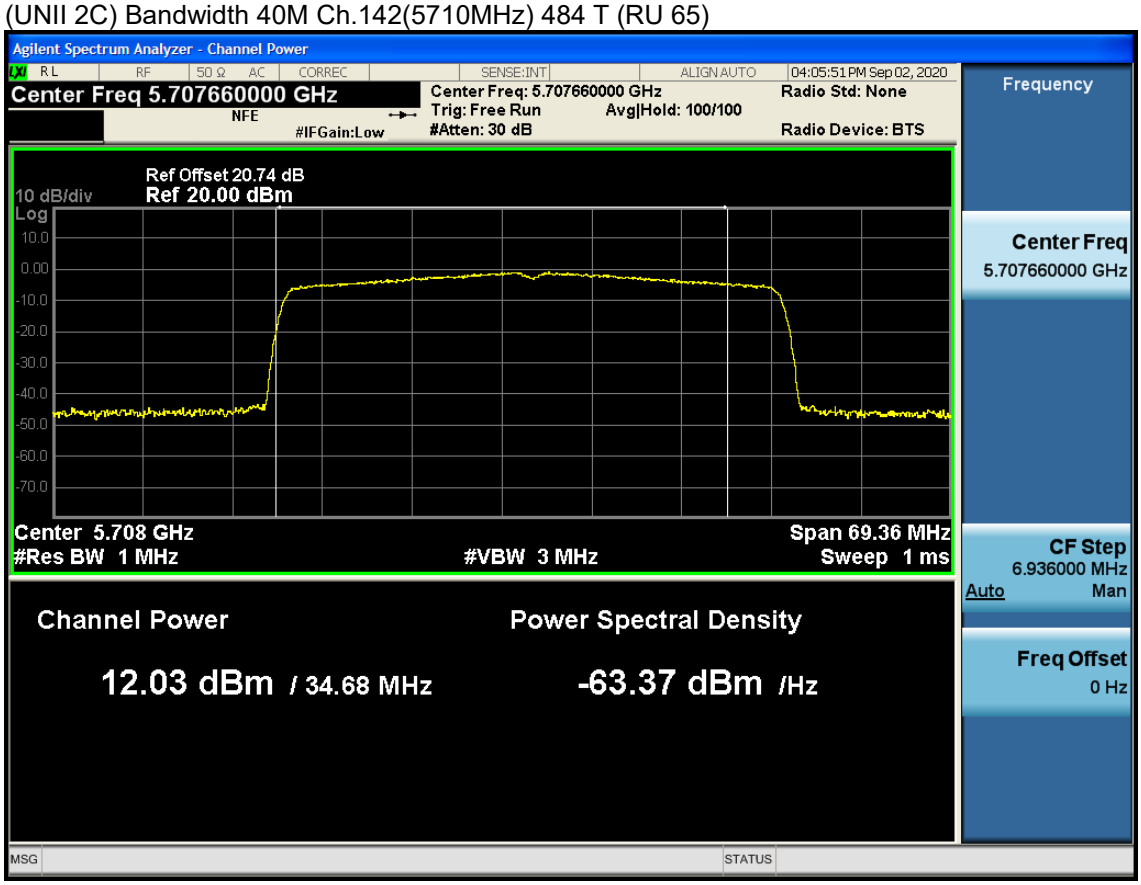
(UNII 3) Bandwidth 20M Ch.144(5720MHz) 26 T (RU 7)



Reading Value (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)
10.47	0.120	10.59

Note:
Total Power(dBm) = Reading Value(dBm) + Duty Cycle Factor(dB)

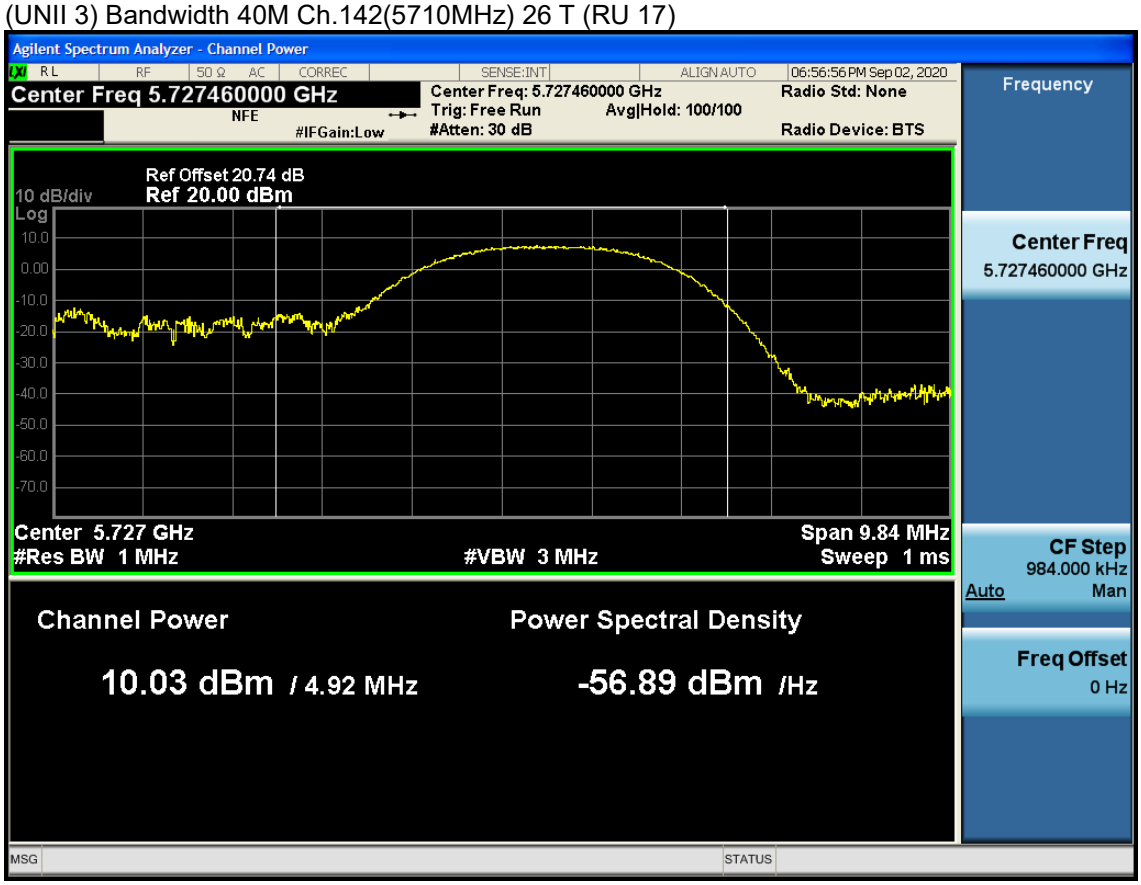
(UNII 2C) Bandwidth 40M Ch.142(5710MHz) 484 T (RU 65)



Reading Value (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)
12.03	0.160	12.19

Note:
Total Power(dBm) = Reading Value(dBm) + Duty Cycle Factor(dB)

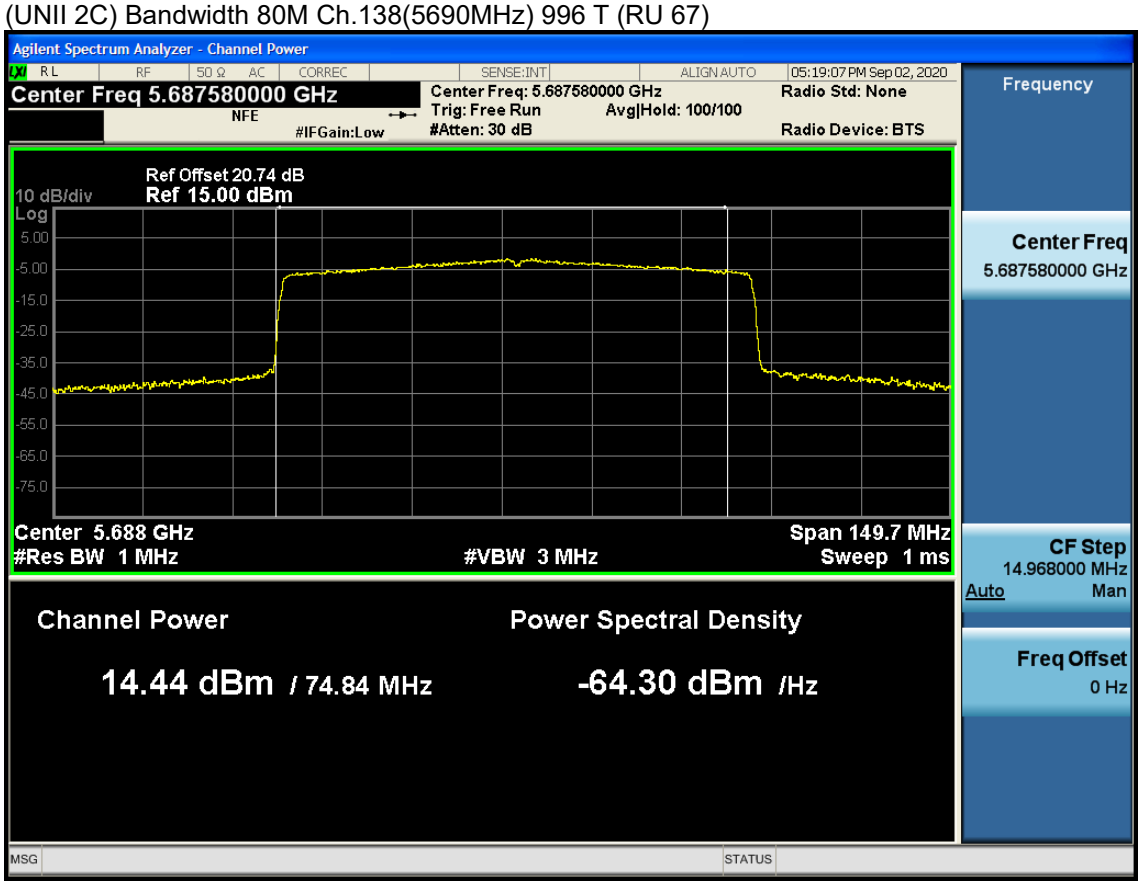
(UNII 3) Bandwidth 40M Ch.142(5710MHz) 26 T (RU 17)



Reading Value (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)
10.03	0.188	10.22

Note:
Total Power(dBm) = Reading Value(dBm) + Duty Cycle Factor(dB)

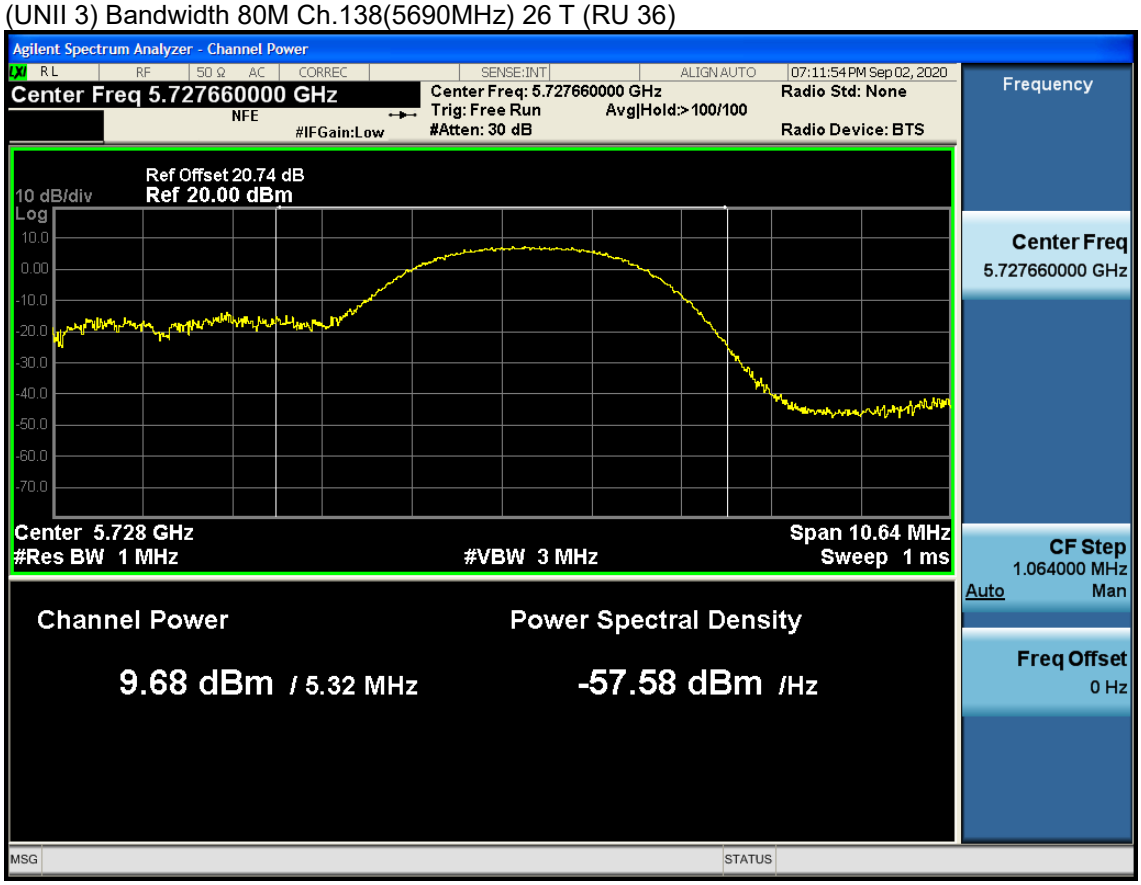
(UNII 2C) Bandwidth 80M Ch.138(5690MHz) 996 T (RU 67)



Reading Value (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)
14.44	0.156	14.60

Note:
Total Power(dBm) = Reading Value(dBm) + Duty Cycle Factor(dB)

(UNII 3) Bandwidth 80M Ch.138(5690MHz) 26 T (RU 36)



Reading Value (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)
9.68	0.188	9.87

Note:
Total Power(dBm) = Reading Value(dBm) + Duty Cycle Factor(dB)

5.4 Power Spectral Density

Note:
1. In order to simplify the report, attached plots were only channel of highest PSD.

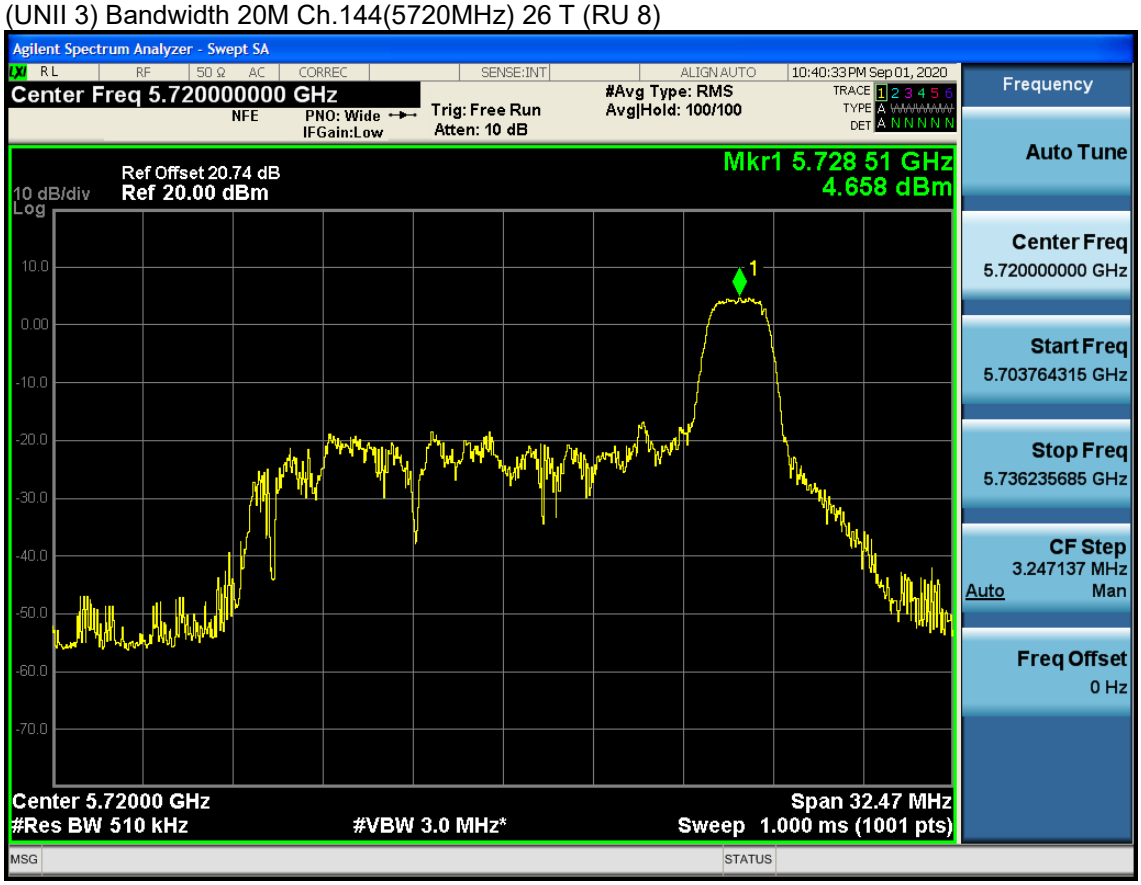
5.4.1 Ant1

(UNII 2C) Bandwidth 20M Ch.144(5720MHz) 26 T (RU 0)

Reading Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
7.279	0.120	7.399

Note:
Total PSD (dBm) = Reading Value(dBm) + Duty Cycle Factor(dB)

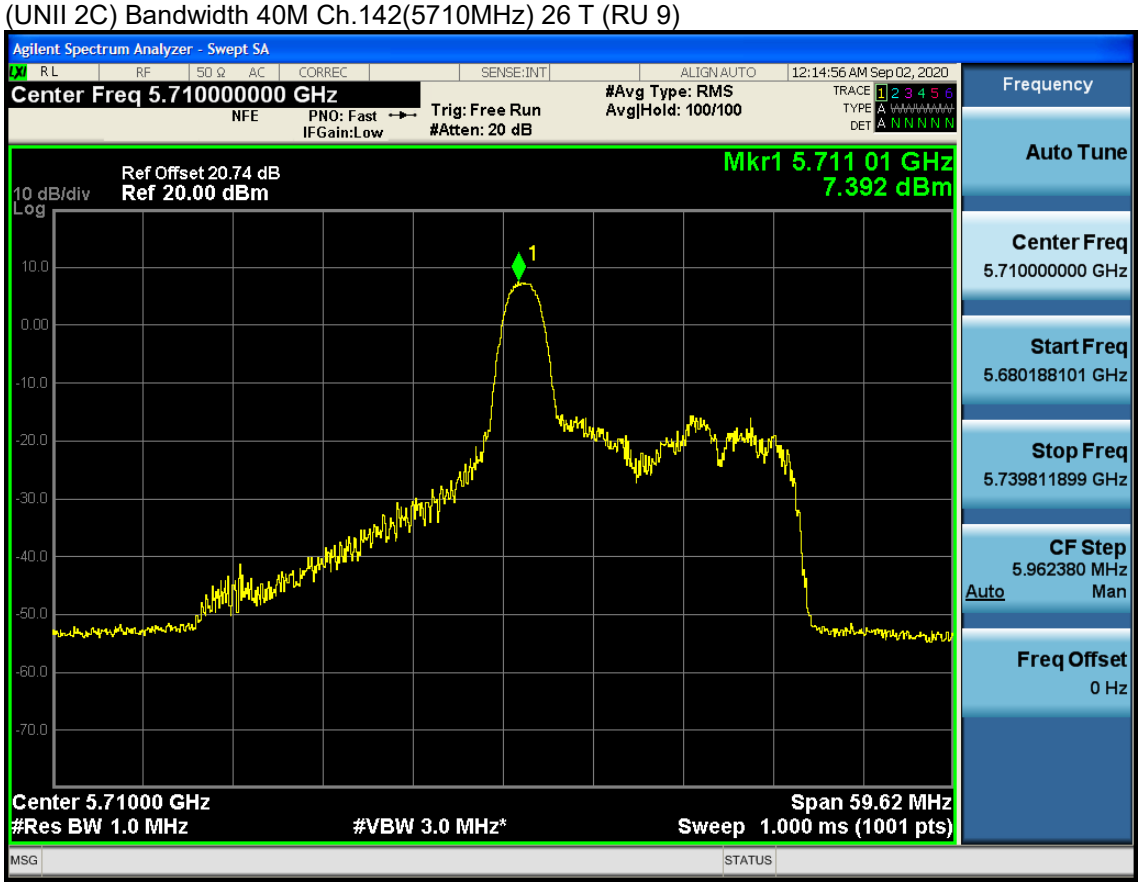
(UNII 3) Bandwidth 20M Ch.144(5720MHz) 26 T (RU 8)



Reading Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
4.658	0.120	4.778

Note:
Total PSD (dBm) = Reading Value(dBm) + Duty Cycle Factor(dB)

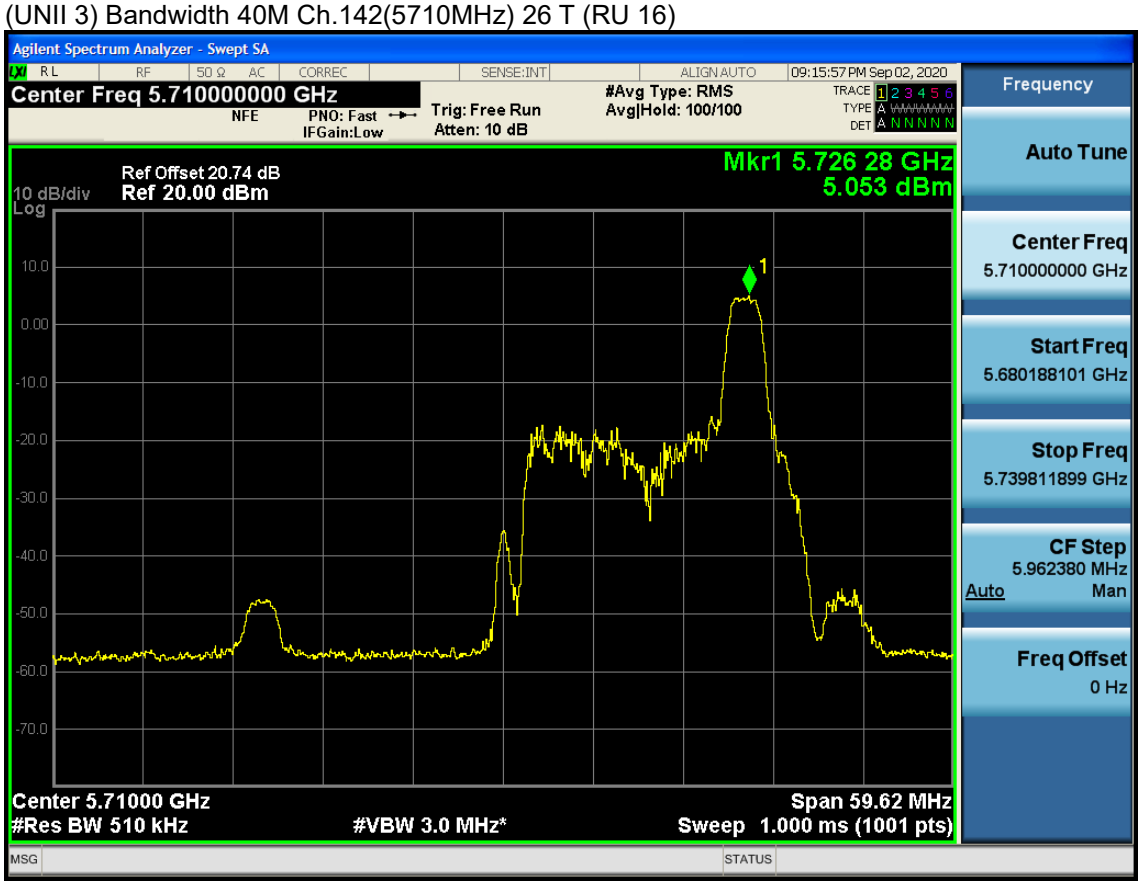
(UNII 2C) Bandwidth 40M Ch.142(5710MHz) 26 T (RU 9)



Reading Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
7.392	0.188	7.580

Note:
Total PSD (dBm) = Reading Value(dBm) + Duty Cycle Factor(dB)

(UNII 3) Bandwidth 40M Ch.142(5710MHz) 26 T (RU 16)



Reading Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
5.053	0.188	5.241

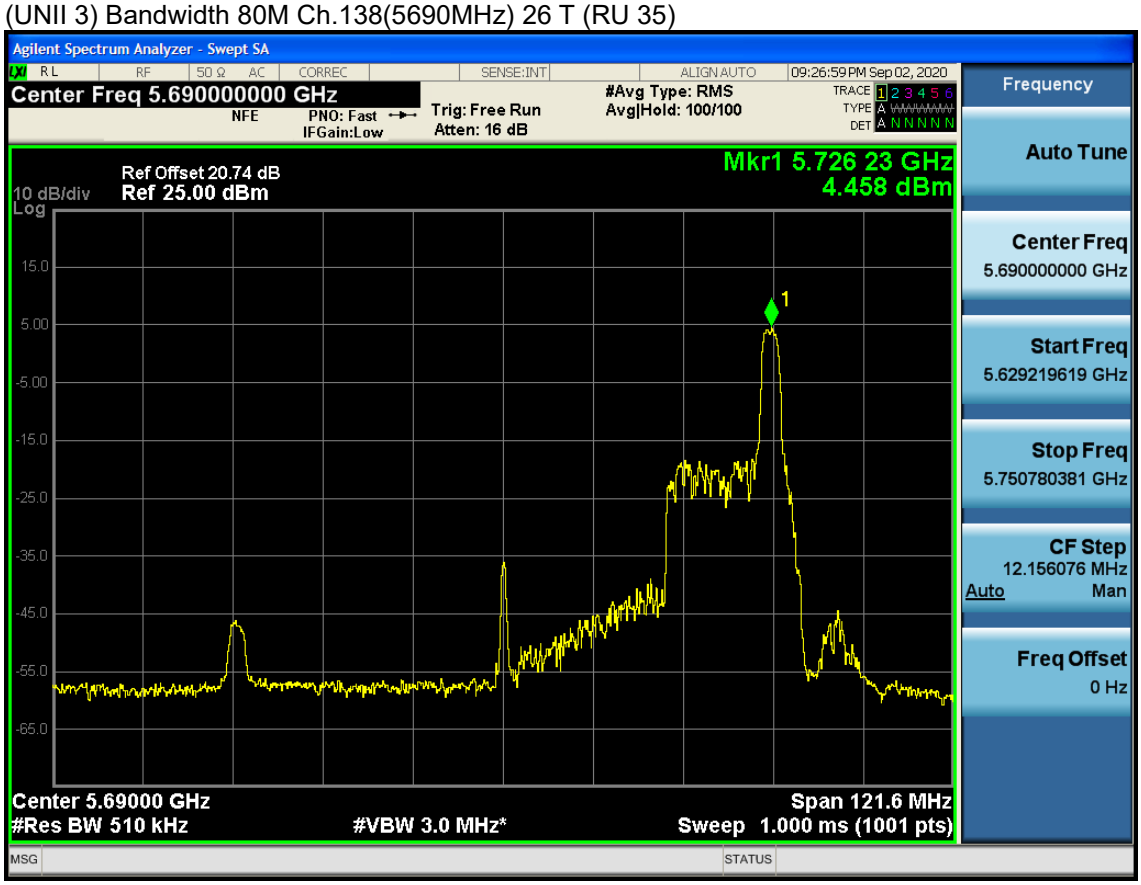
Note:
Total PSD (dBm) = Reading Value(dBm) + Duty Cycle Factor(dB)

(UNII 2C) Bandwidth 80M Ch.138(5690MHz) 52 T (RU 51)

Reading Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
4.471	0.17	4.641

Note:
Total PSD (dBm) = Reading Value(dBm) + Duty Cycle Factor(dB)

(UNII 3) Bandwidth 80M Ch.138(5690MHz) 26 T (RU 35)



Reading Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
4.458	0.188	4.646

Note:
Total PSD (dBm) = Reading Value(dBm) + Duty Cycle Factor(dB)

5.4.2 Ant2

(UNII 2C) Bandwidth 20M Ch.144(5720MHz) 26 T (RU 0)

Reading Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
7.347	0.120	7.467

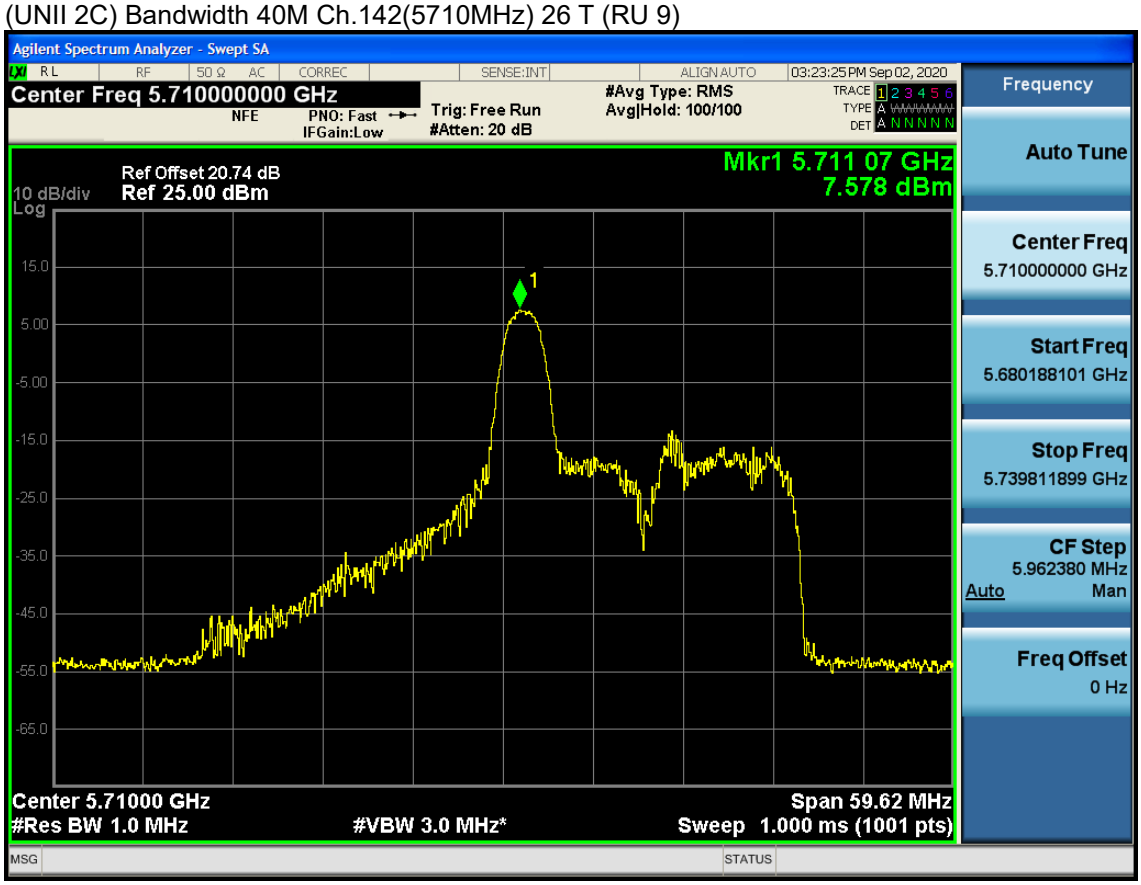
Note:
Total PSD (dBm) = Reading Value(dBm) + Duty Cycle Factor(dB)

(UNII 3) Bandwidth 20M Ch.144(5720MHz) 26 T (RU 7)

Reading Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
5.294	0.120	5.414

Note:
Total PSD (dBm) = Reading Value(dBm) + Duty Cycle Factor(dB)

(UNII 2C) Bandwidth 40M Ch.142(5710MHz) 26 T (RU 9)



Reading Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
7.578	0.188	7.766

Note:
Total PSD (dBm) = Reading Value(dBm) + Duty Cycle Factor(dB)

(UNII 3) Bandwidth 40M Ch.142(5710MHz) 26 T (RU 16)

Reading Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
5.042	0.188	5.230

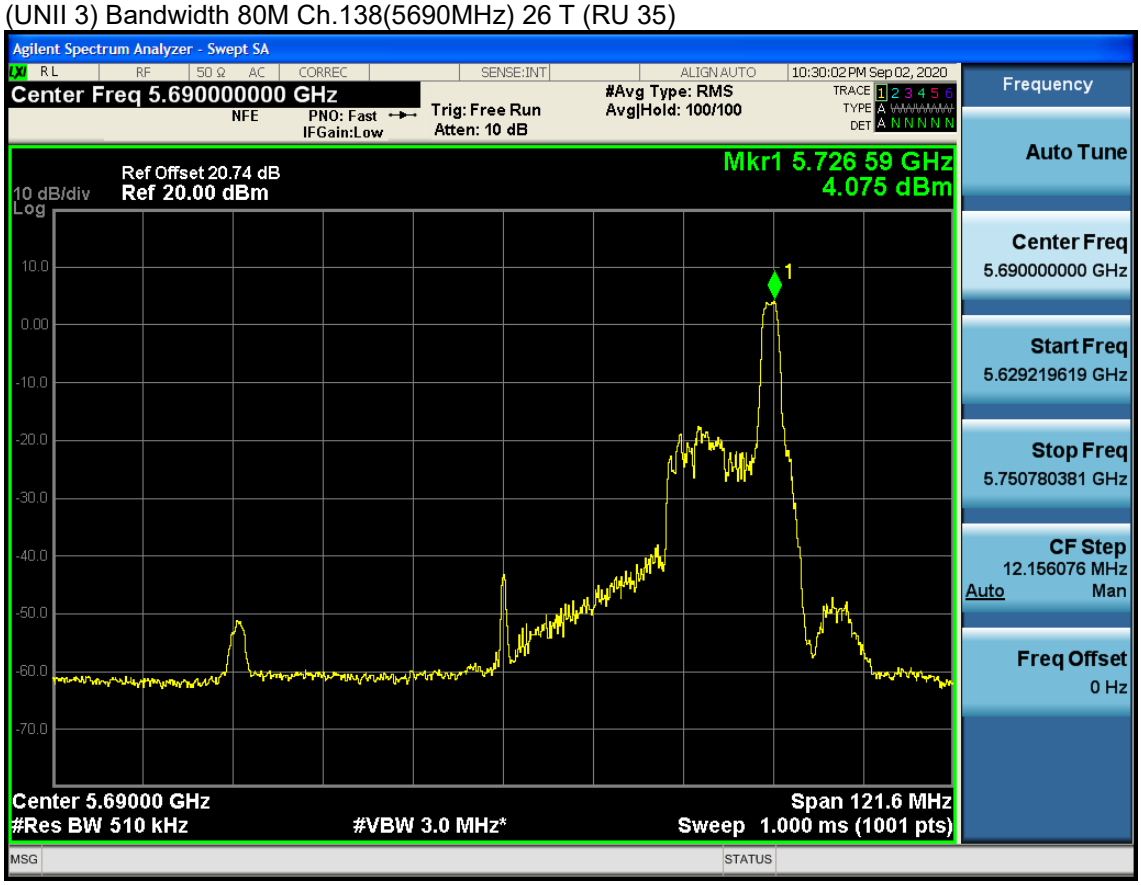
Note:
Total PSD (dBm) = Reading Value(dBm) + Duty Cycle Factor(dB)

(UNII 2C) Bandwidth 80M Ch.138(5690MHz) 52 T (RU 51)

Reading Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
3.970	0.170	4.140

Note:
Total PSD (dBm) = Reading Value(dBm) + Duty Cycle Factor(dB)

(UNII 3) Bandwidth 80M Ch.138(5690MHz) 26 T (RU 35)



Reading Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
4.075	0.188	4.263

Note:
Total PSD (dBm) = Reading Value(dBm) + Duty Cycle Factor(dB)