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Appendix B:
802.11ax
Test Plot

FCC ID
A3LSMG990B2

REVISION HISTORY

The revision history for this document is shown in table.

Revision No.	Date of Issue	Description
0	June 17, 2022	Initial Release

Note:

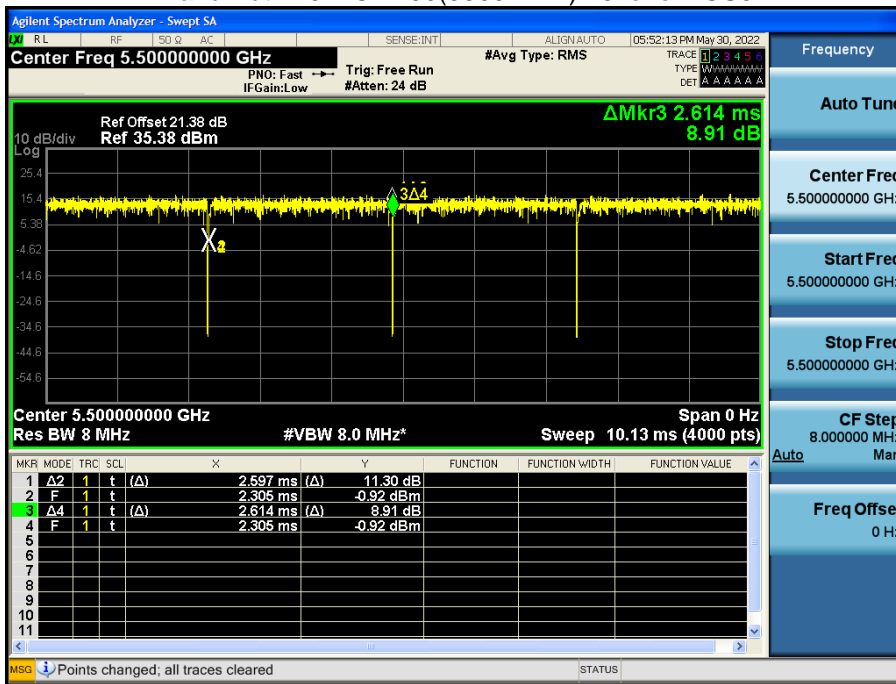
In order to simplify the report, attached plots were only the most lowest datarate.

1. Duty Cycle

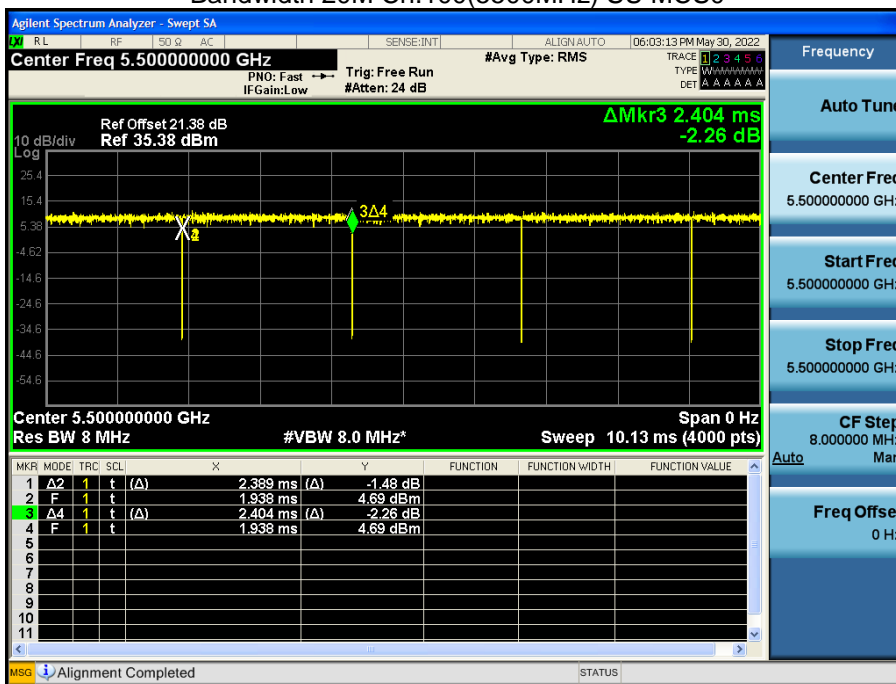
Note :

1. Duty Cycle Factor = $10 \cdot \log(1/\text{Duty Cycle})$. where, $\text{Duty Cycle} = T_{\text{on}} / T_{\text{total}}$
2. In order to simplify the report, attached plots were only the most lowest datarate.

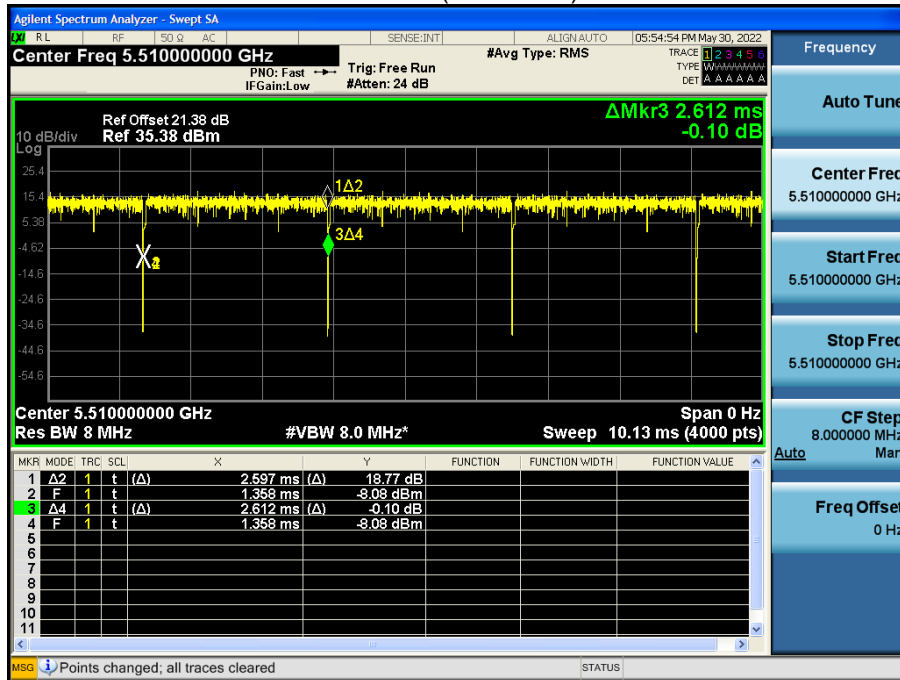
Bandwidth 20M Ch.100(5500 MHz) 26Tone MCS0



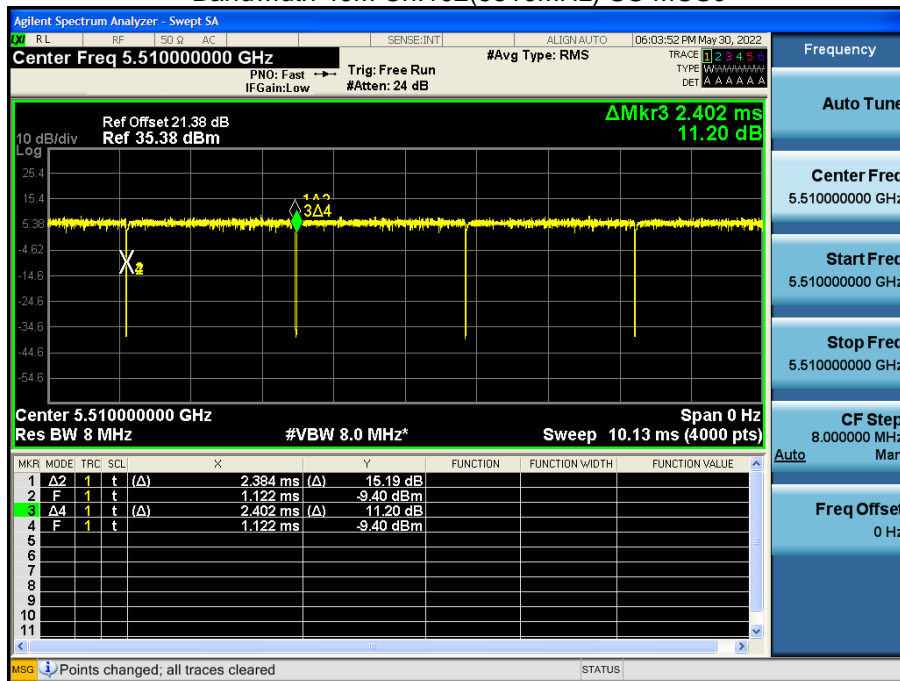
Bandwidth 20M Ch.100(5500MHz) SU MCS0



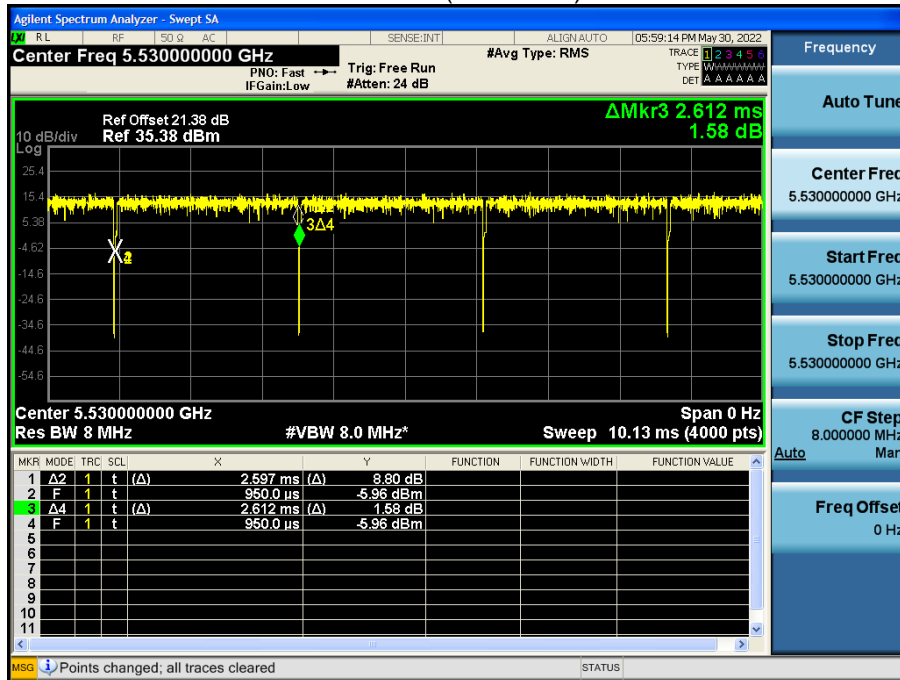
Bandwidth 40M Ch.102(5510 MHz) 26Tone MCS0



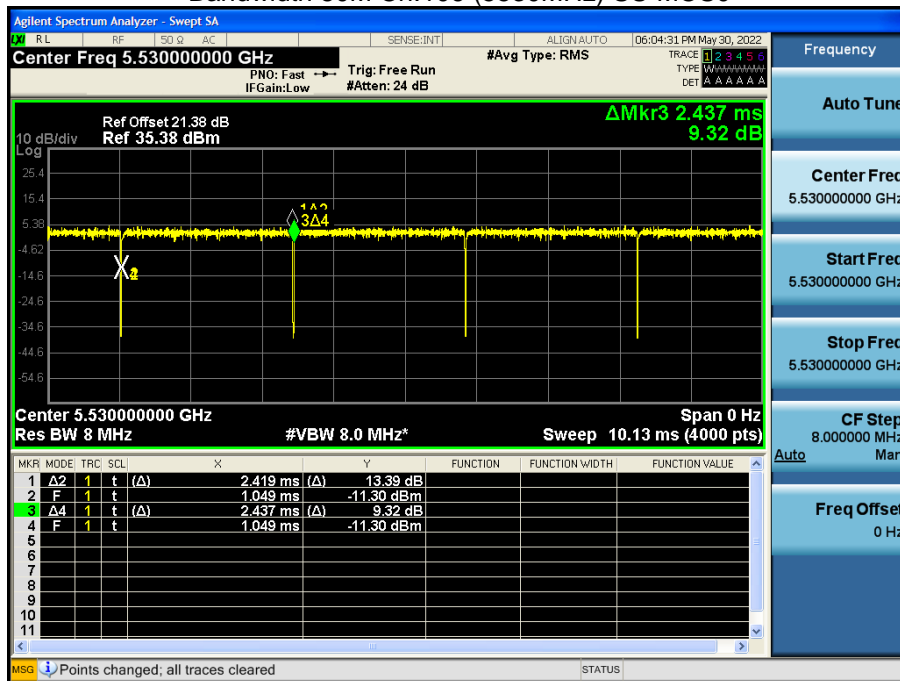
Bandwidth 40M Ch.102(5510MHz) SU MCS0



Bandwidth 80M Ch.106 (5530 MHz) 26Tone MCS0



Bandwidth 80M Ch.106 (5530MHz) SU MCS0

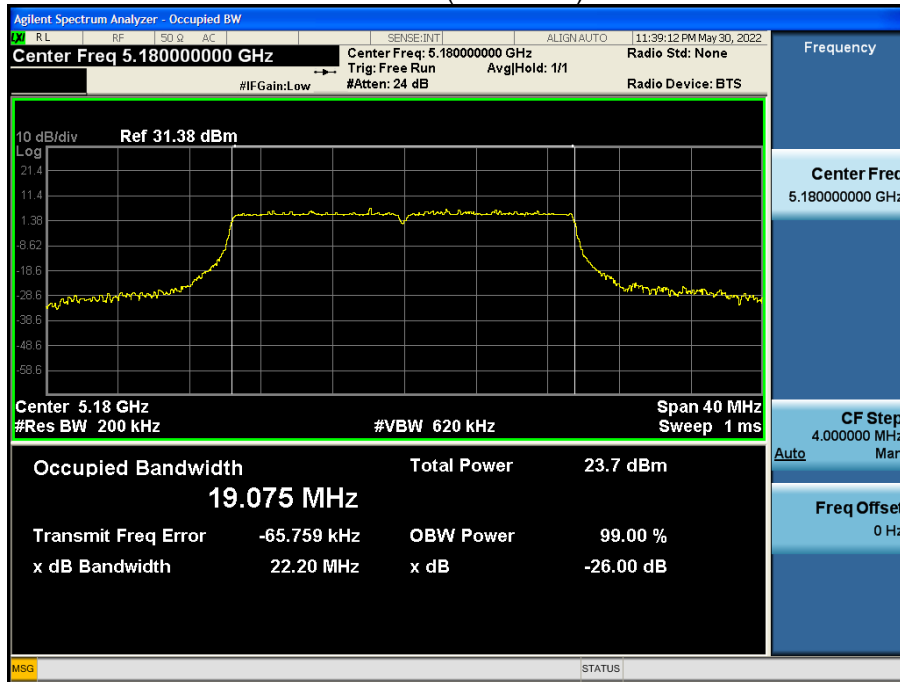


2. 26dB Bandwidth

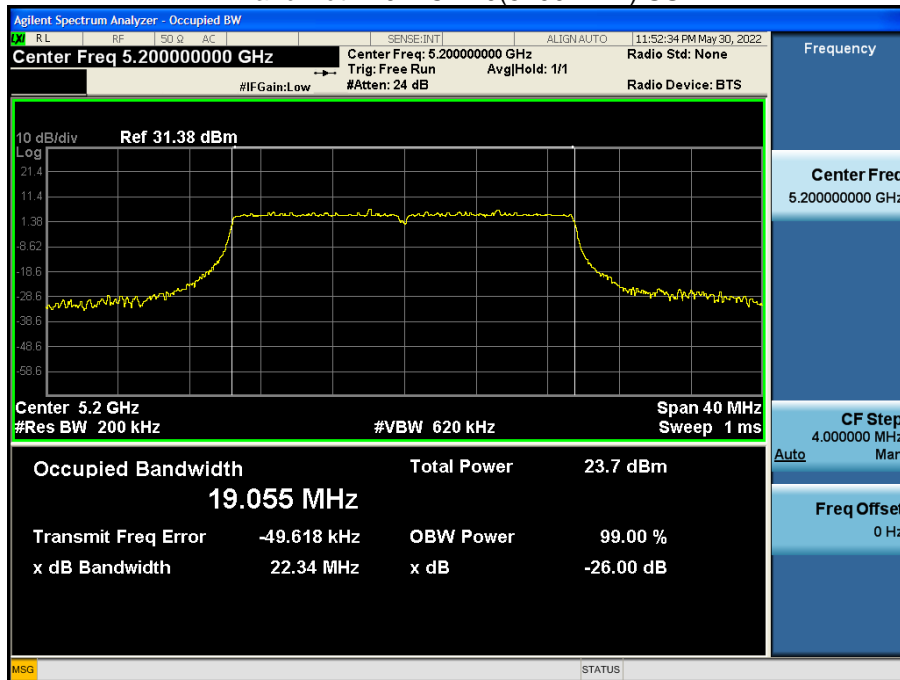
Note:

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

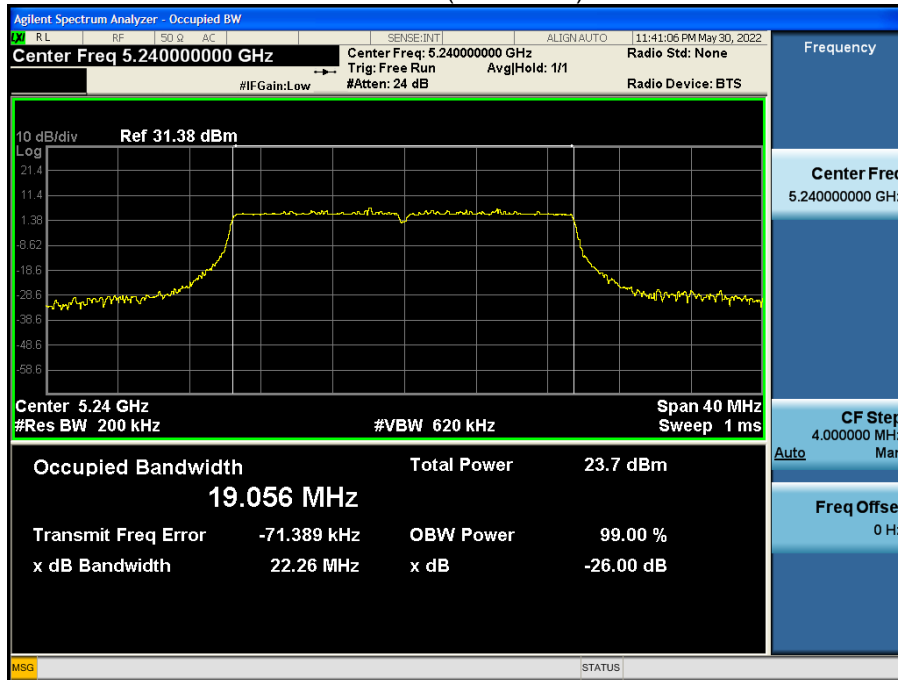
Bandwidth 20M Ch.36(5180 MHz) 242T RU 61



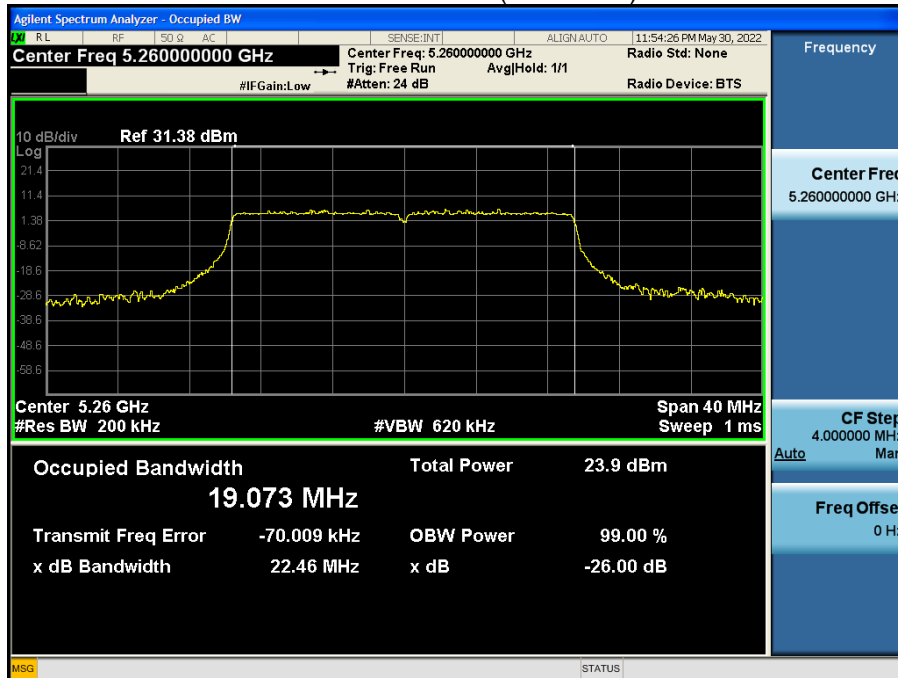
Bandwidth 20M Ch.40(5200 MHz) SU



Bandwidth 20M Ch.48(5240 MHz) 242T RU 61



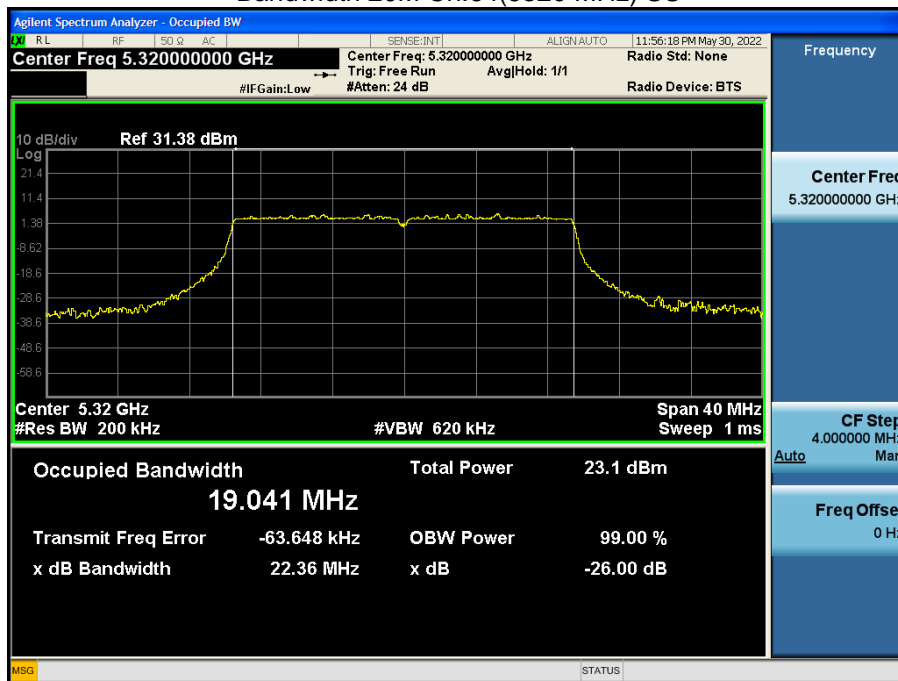
Bandwidth 20M Ch.52(5260 MHz) SU



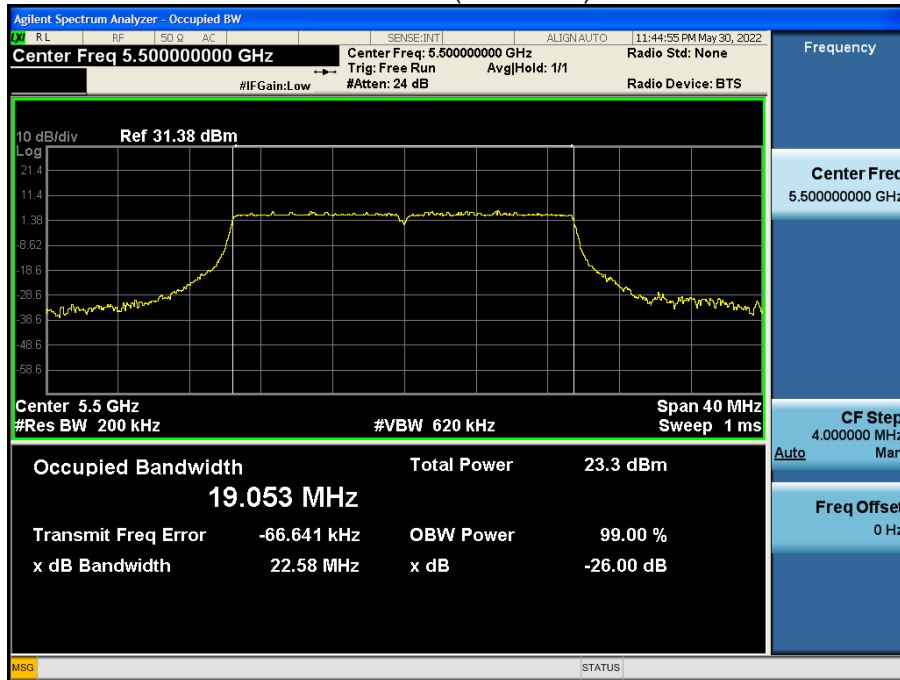
Bandwidth 20M Ch.60(5300 MHz) SU



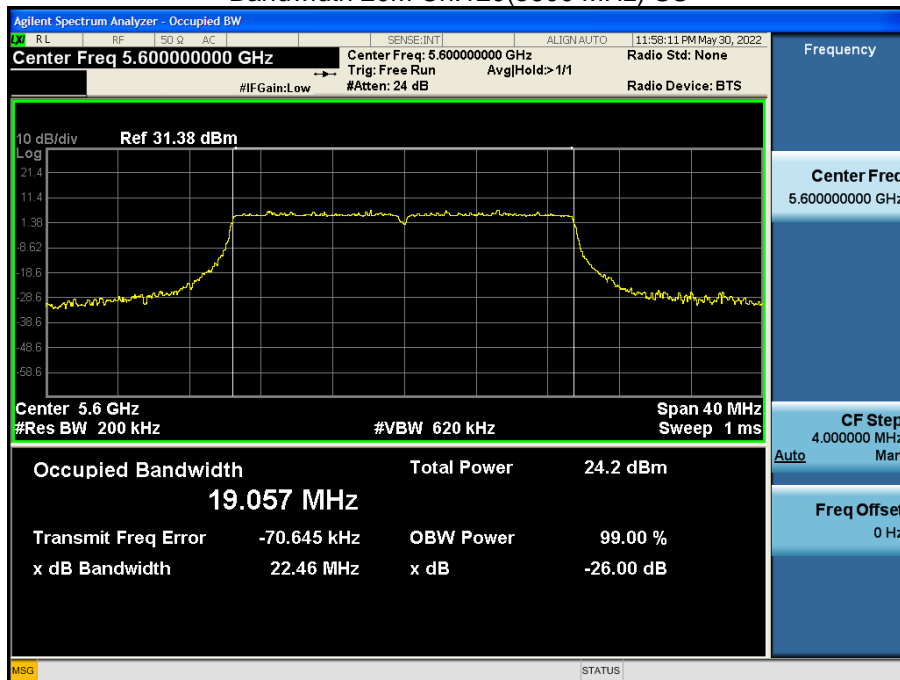
Bandwidth 20M Ch.64(5320 MHz) SU



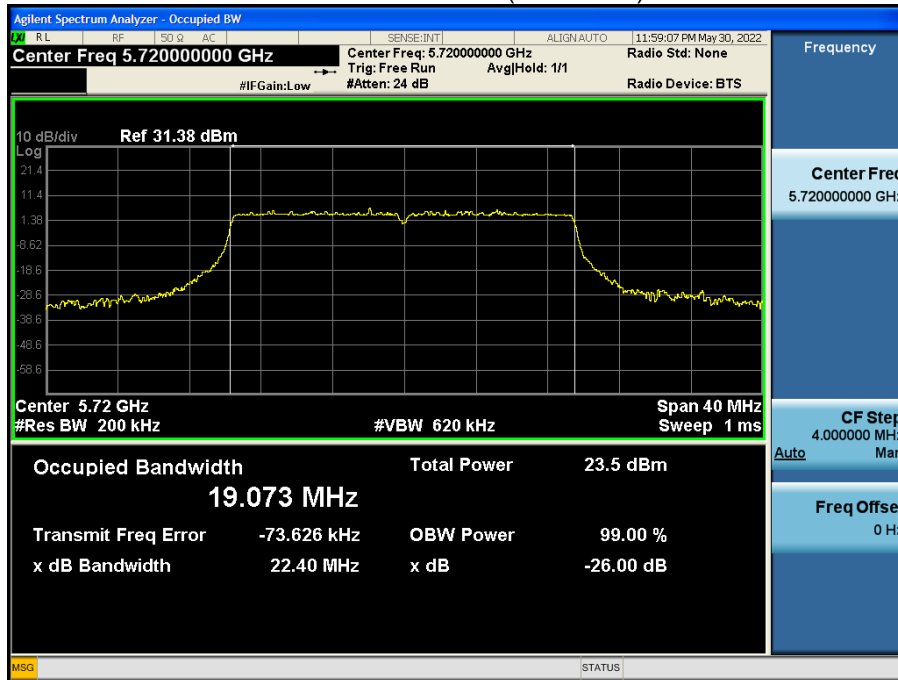
Bandwidth 20M Ch.100(5500 MHz) 242T RU 61



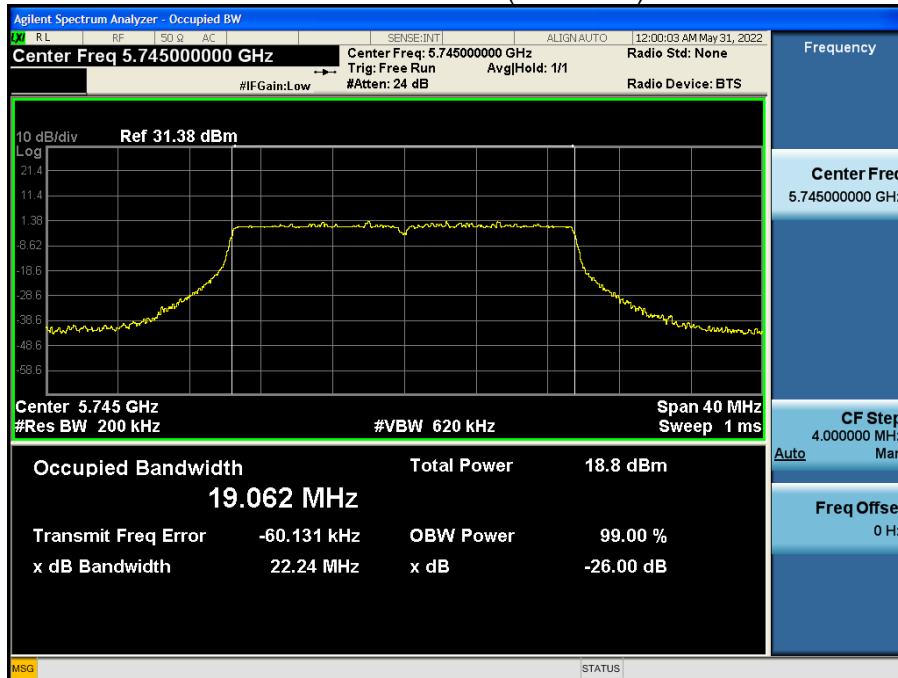
Bandwidth 20M Ch.120(5600 MHz) SU



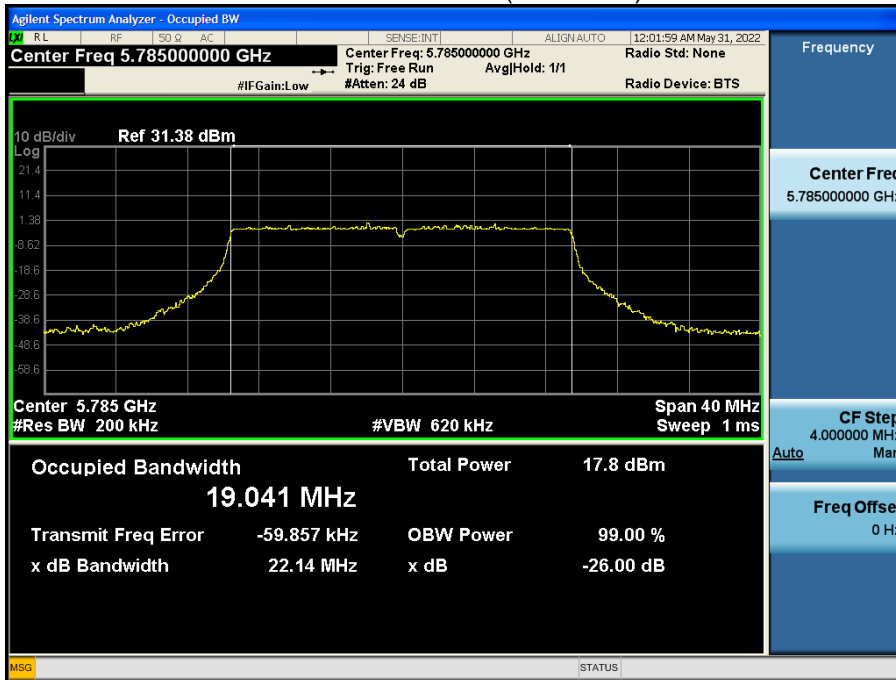
Bandwidth 20M Ch.144(5720 MHz) SU



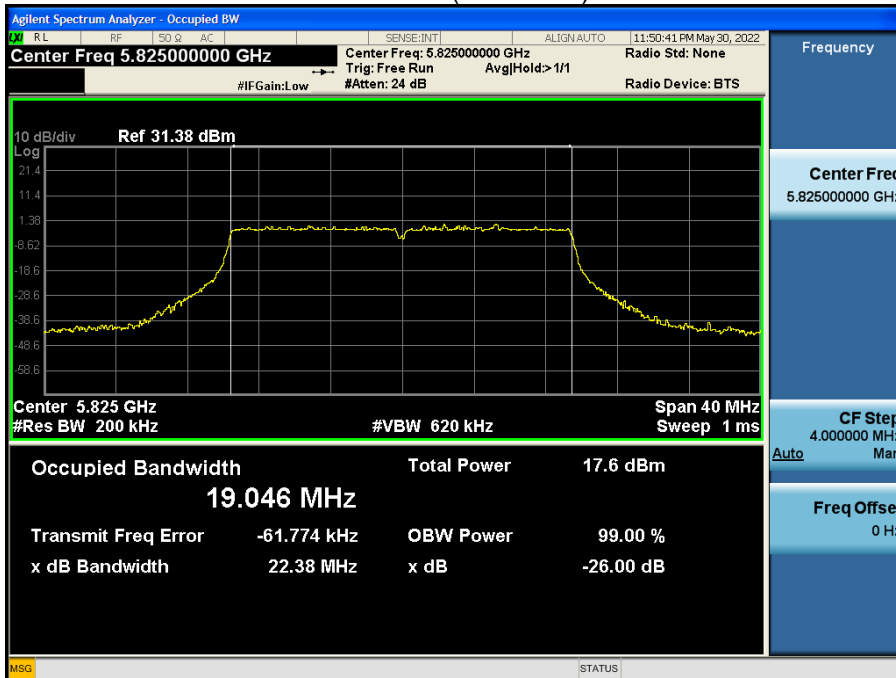
Bandwidth 20M Ch.149(5745 MHz) SU



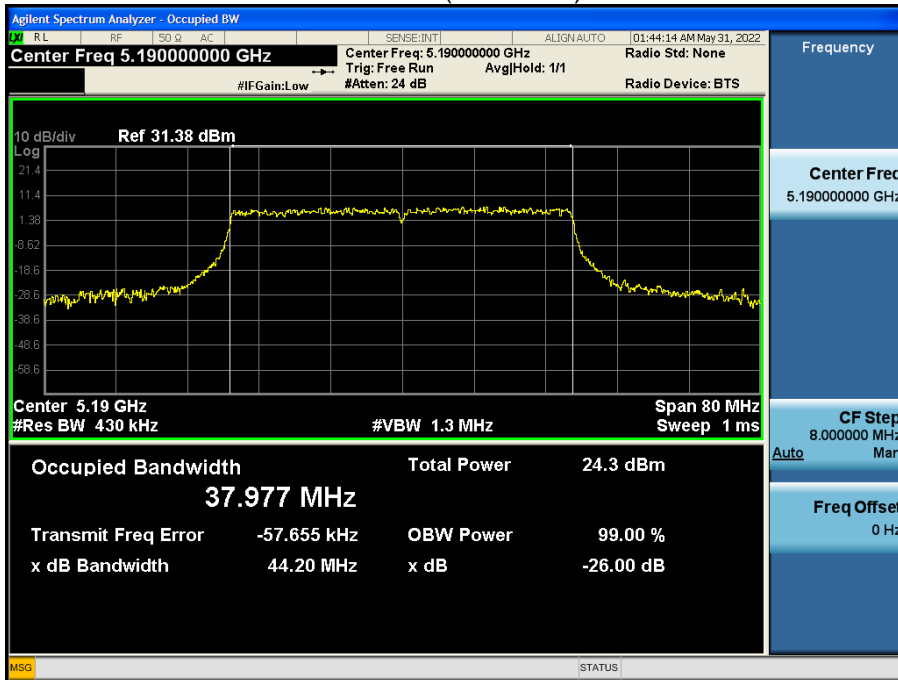
Bandwidth 20M Ch.157(5785 MHz) SU



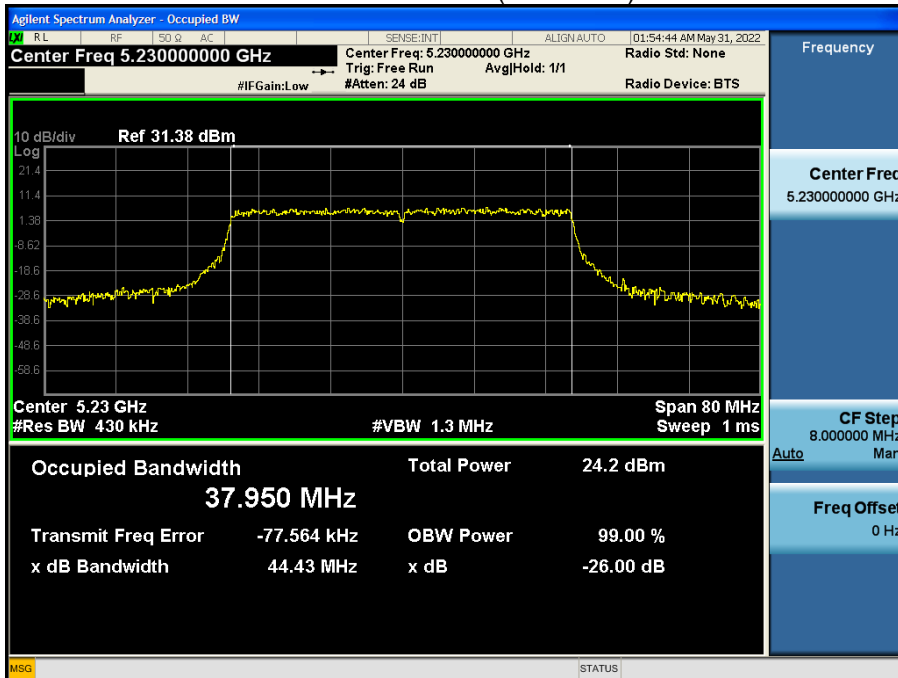
Bandwidth 20M Ch.165(5825 MHz) 242T RU 61



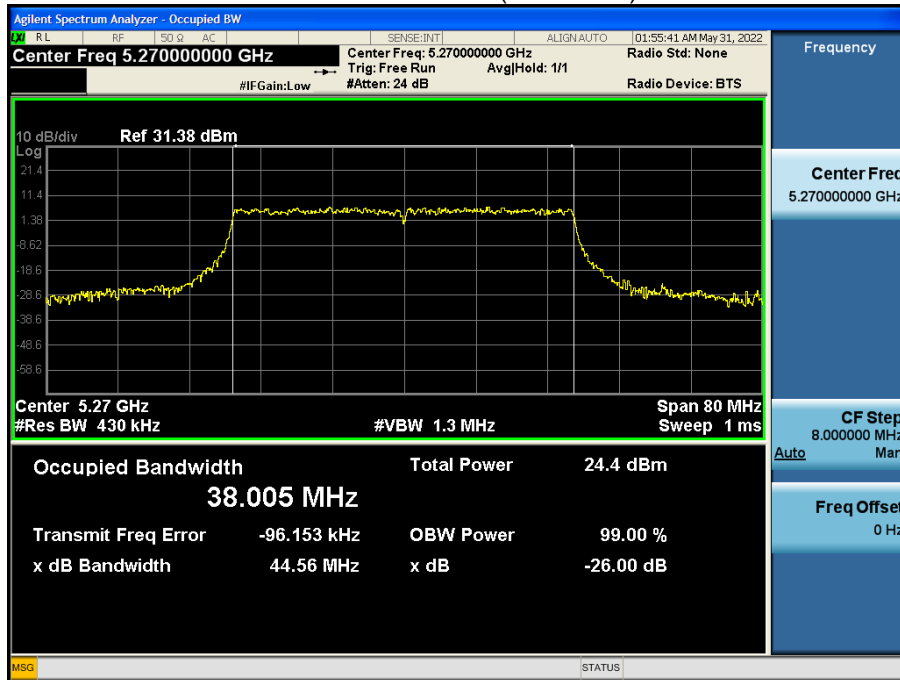
Bandwidth 40M Ch.38(5190 MHz) 484T RU 65



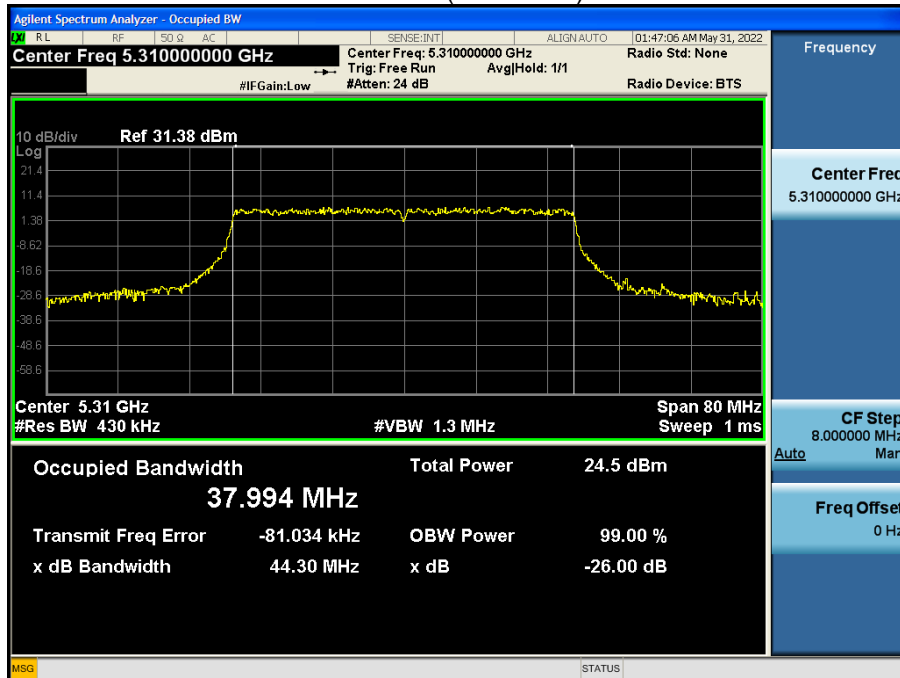
Bandwidth 40M Ch.46(5230 MHz) SU



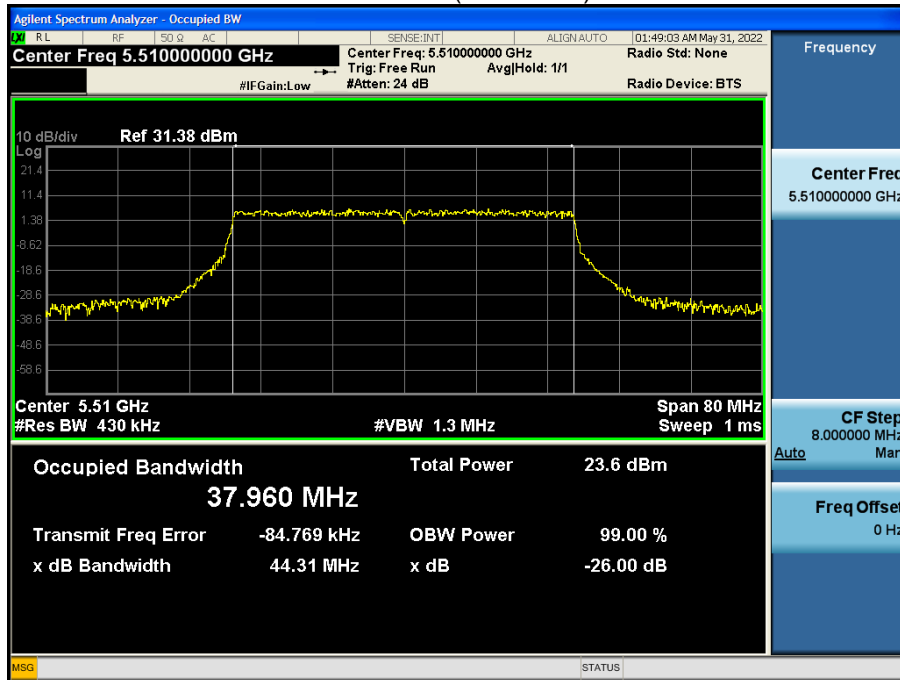
Bandwidth 40M Ch.54(5270 MHz) SU



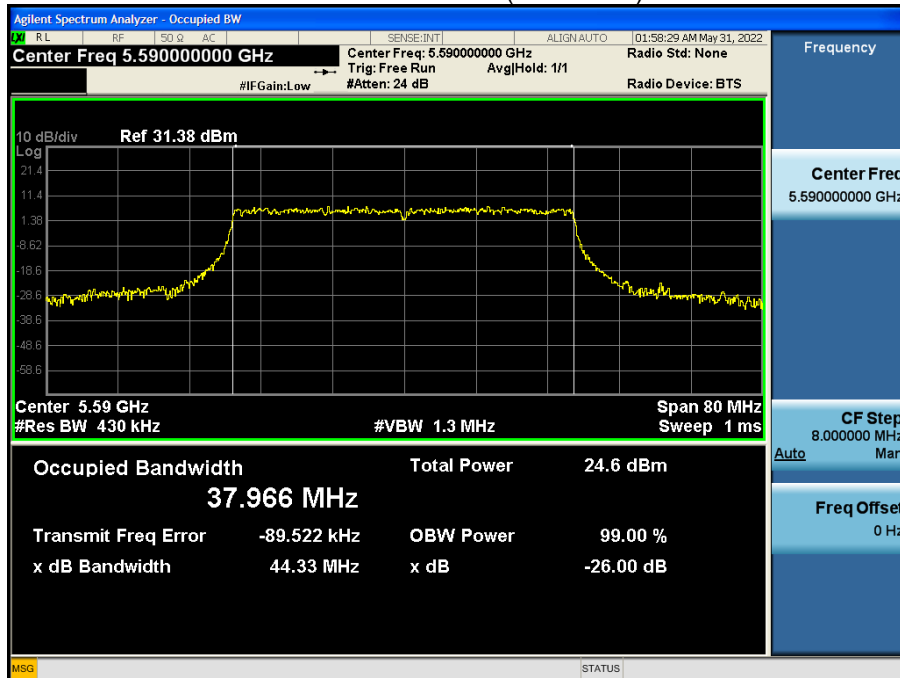
Bandwidth 40M Ch.62(5310 MHz) 484T RU 65



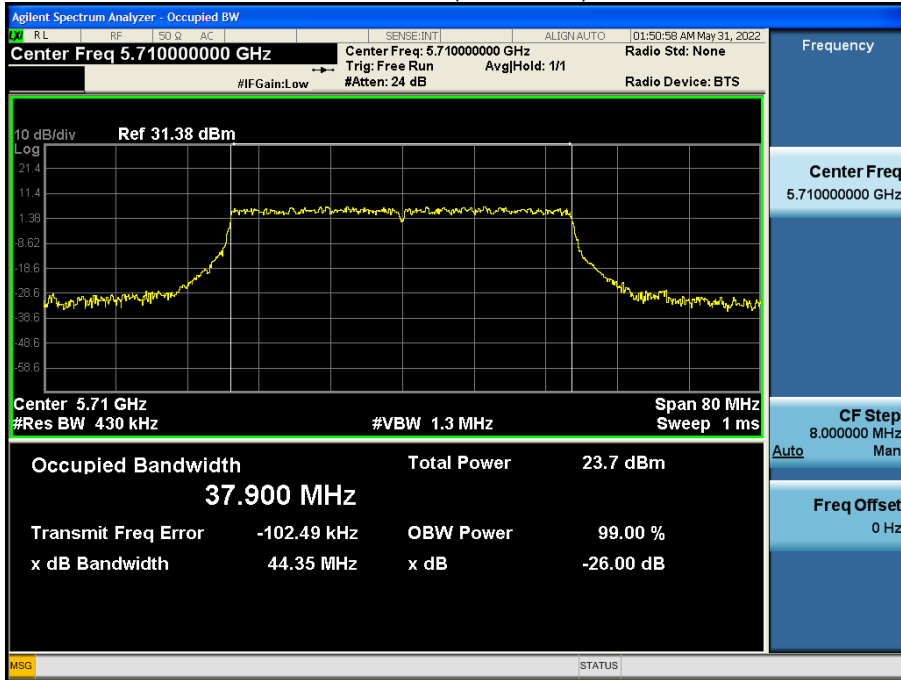
Bandwidth 40M Ch.102(5510 MHz) 484T RU 65



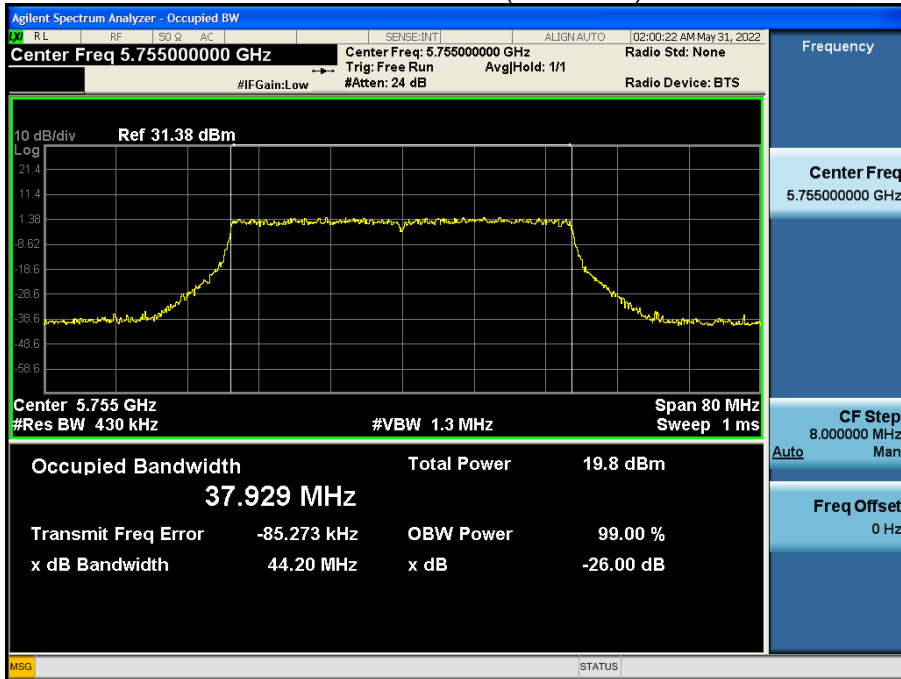
Bandwidth 40M Ch.118(5590 MHz) SU



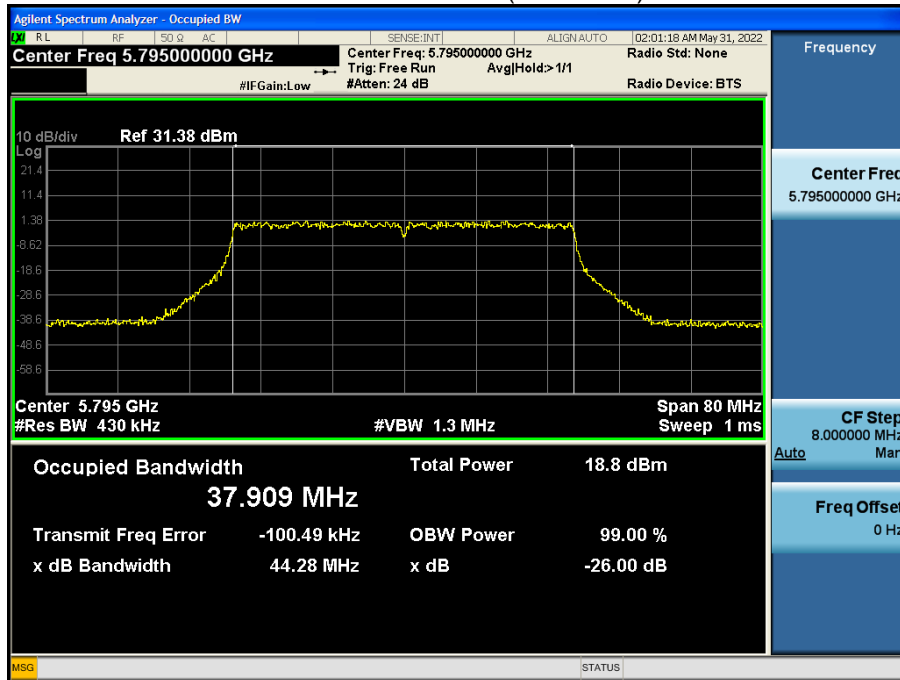
Bandwidth 40M Ch.142(5710 MHz) 484T RU 65



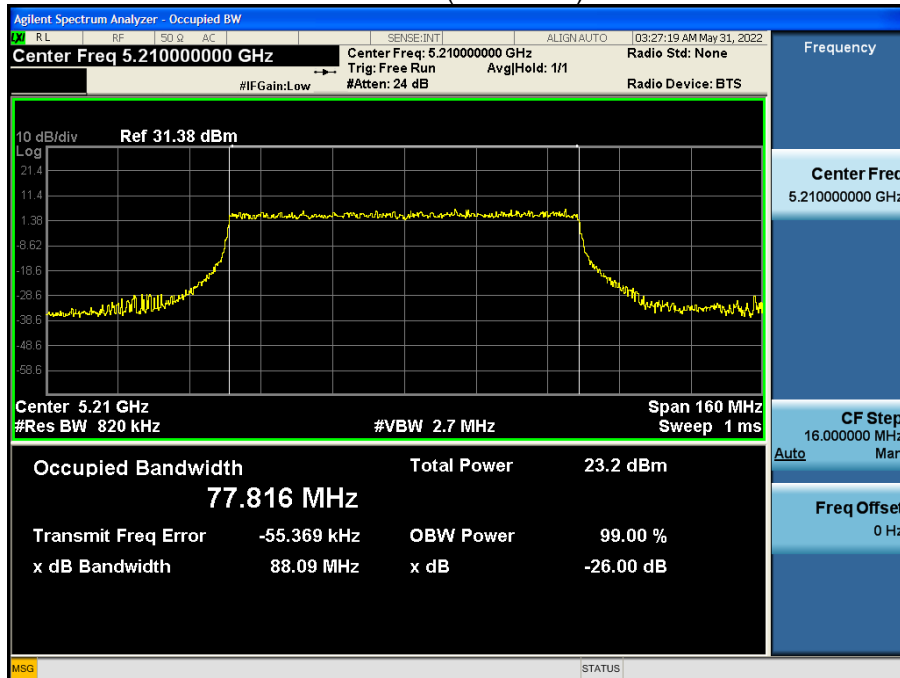
Bandwidth 40M Ch.151(5755 MHz) SU



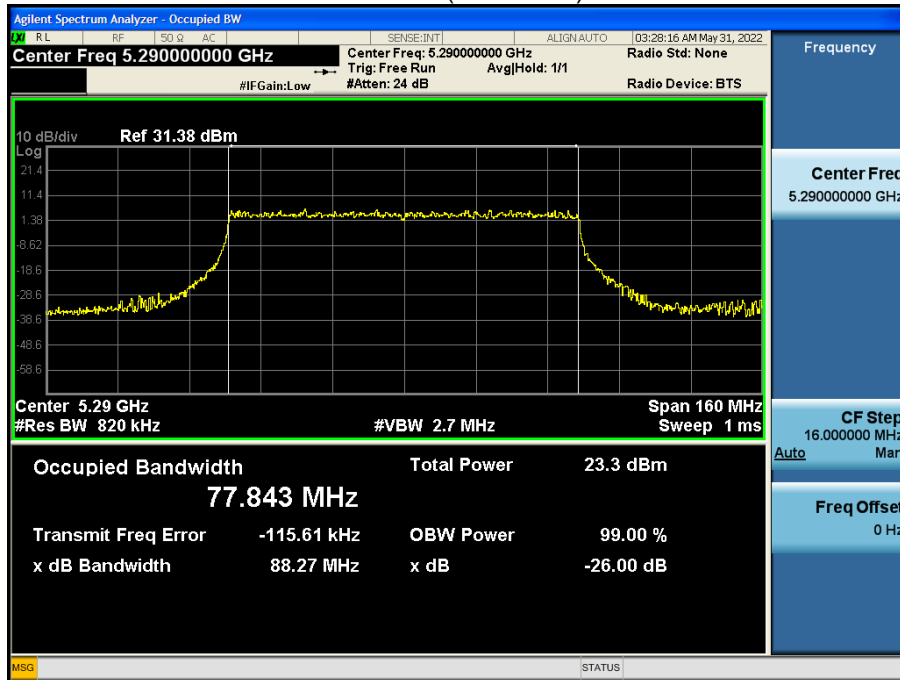
Bandwidth 40M Ch.159(5795 MHz) SU



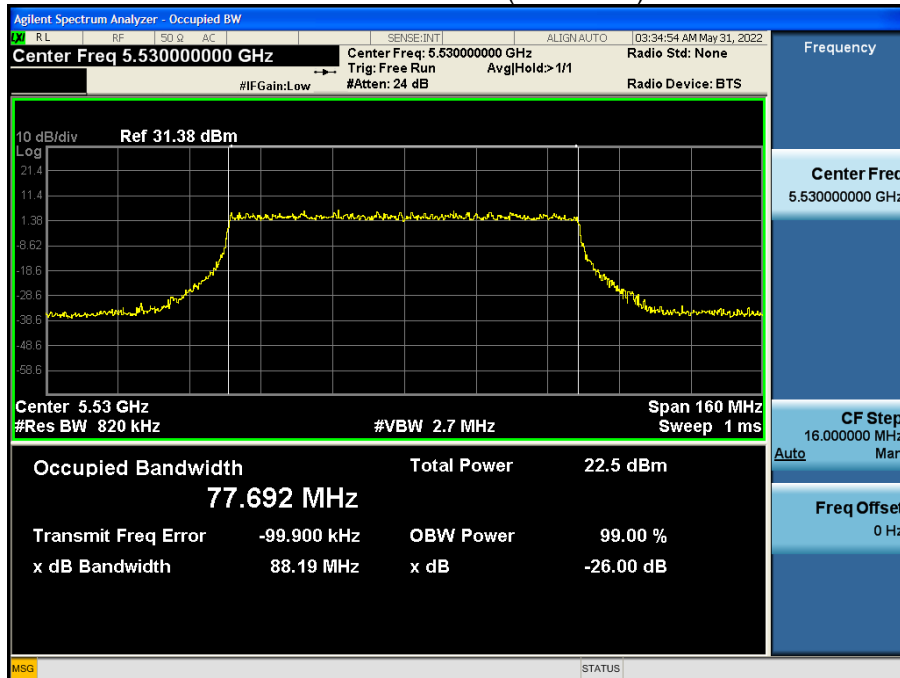
Bandwidth 80M Ch.42(5210 MHz) 996T RU 67



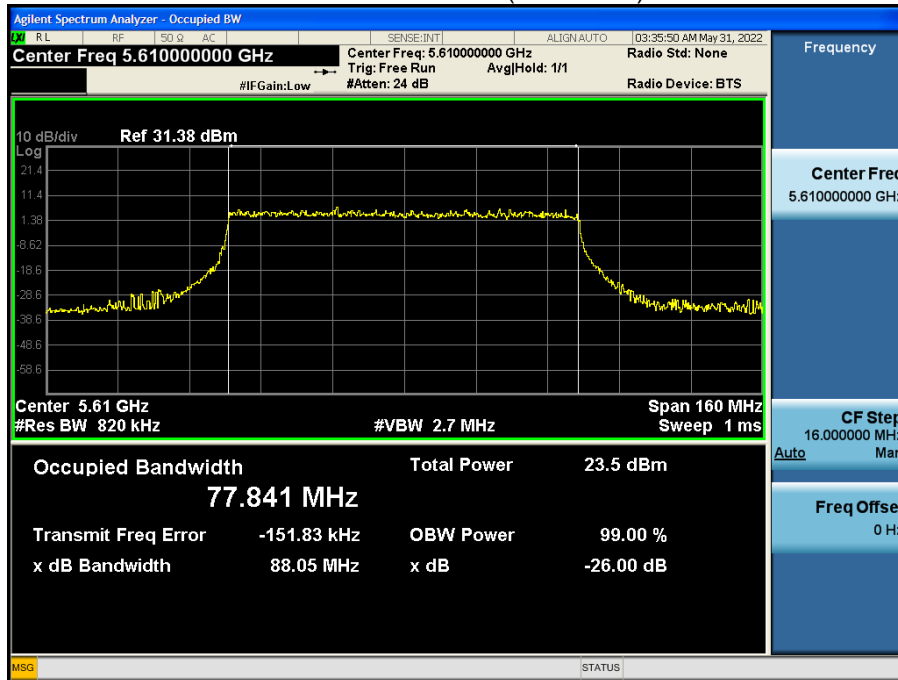
Bandwidth 80M Ch.58(5290 MHz) 996T RU 67



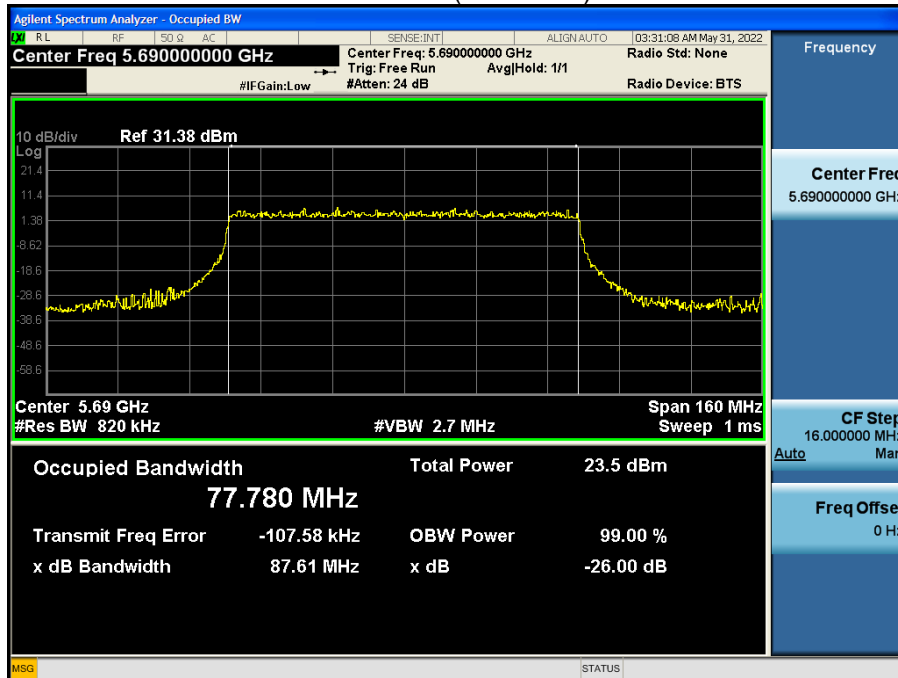
Bandwidth 80M Ch.106(5530 MHz) SU



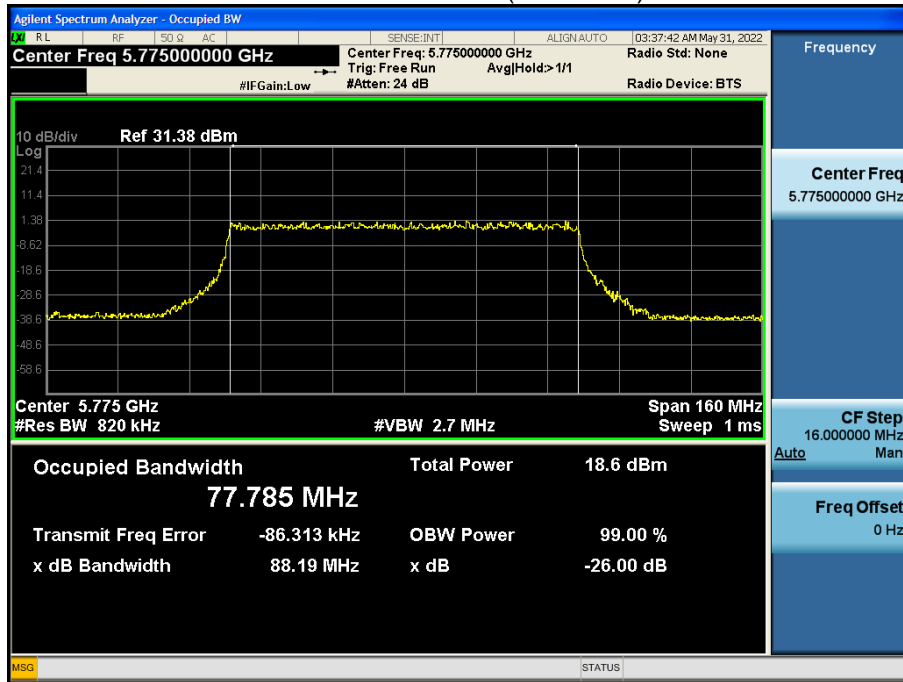
Bandwidth 80M Ch.122(5610 MHz) SU



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



Bandwidth 80M Ch.155(5775 MHz) SU



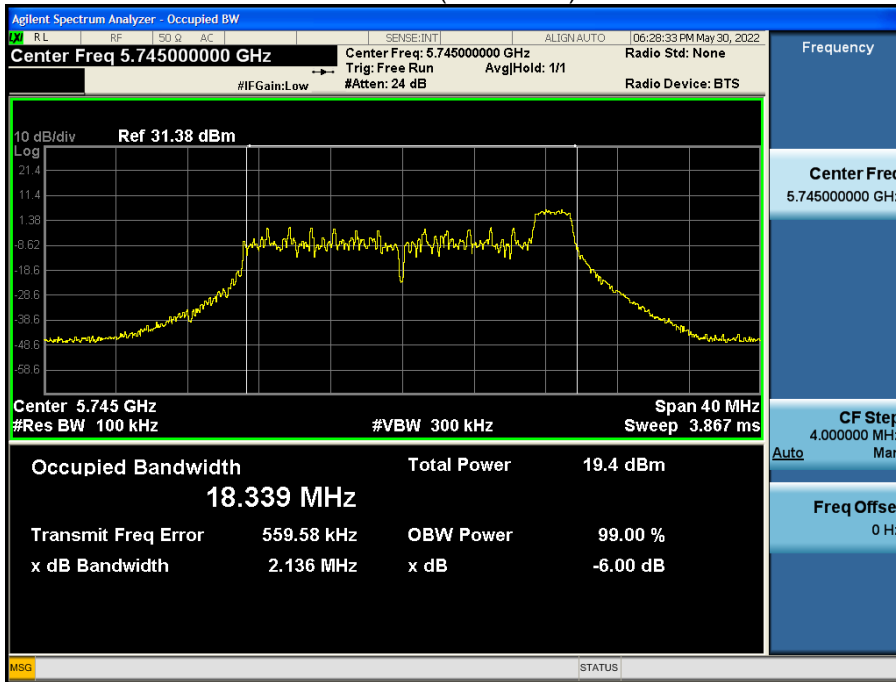
3. 6dB Bandwidth

Note:

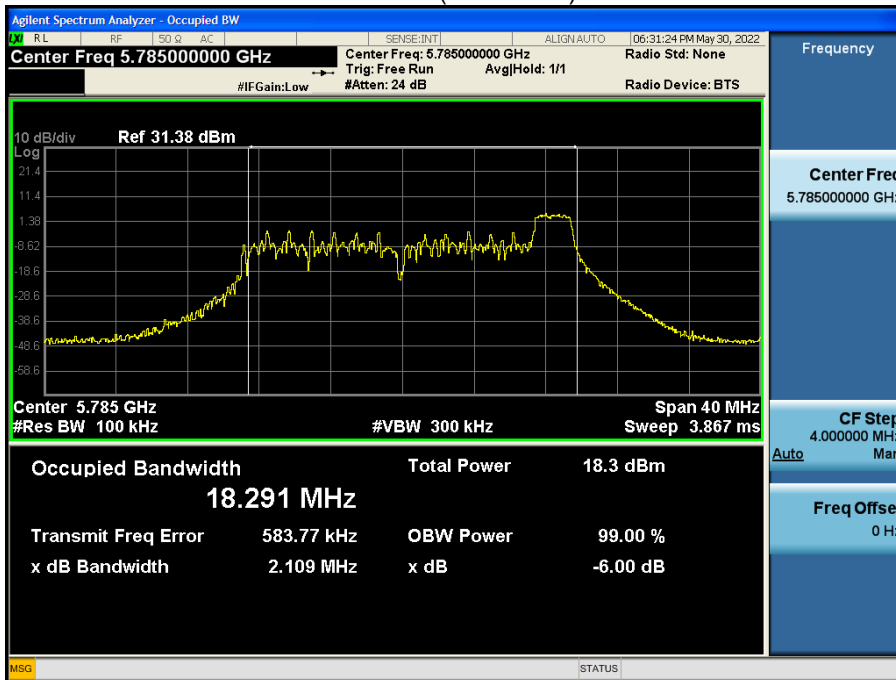
1. In order to simplify the report, attached plots were only the most narrow channel.

3.1 SISO Ant1

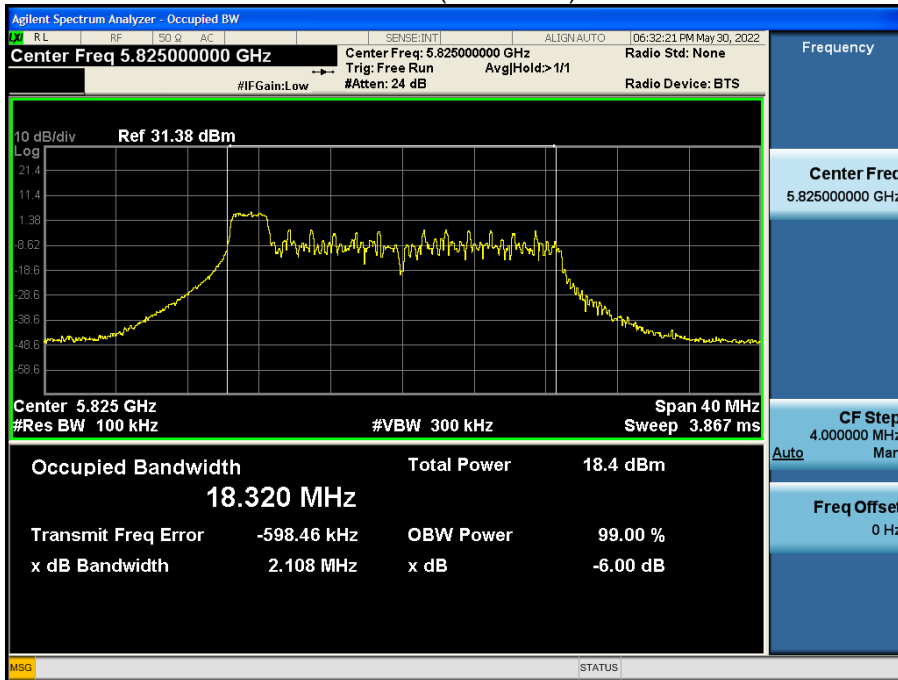
Bandwidth 20M Ch.149(5745 MHz) 26Tones RU 8



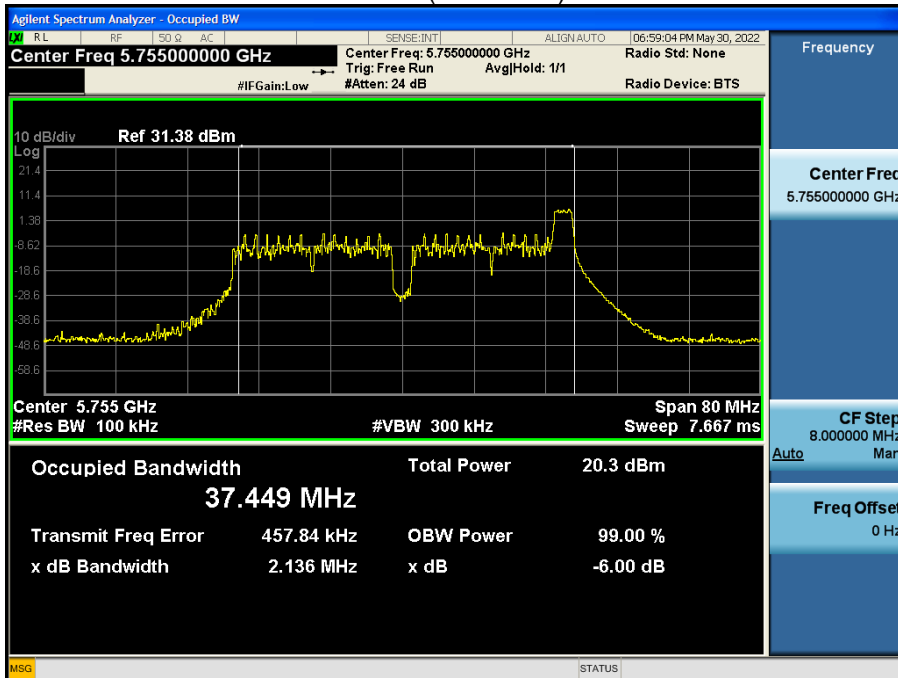
Bandwidth 20M Ch.157(5785 MHz) 26Tones RU 8



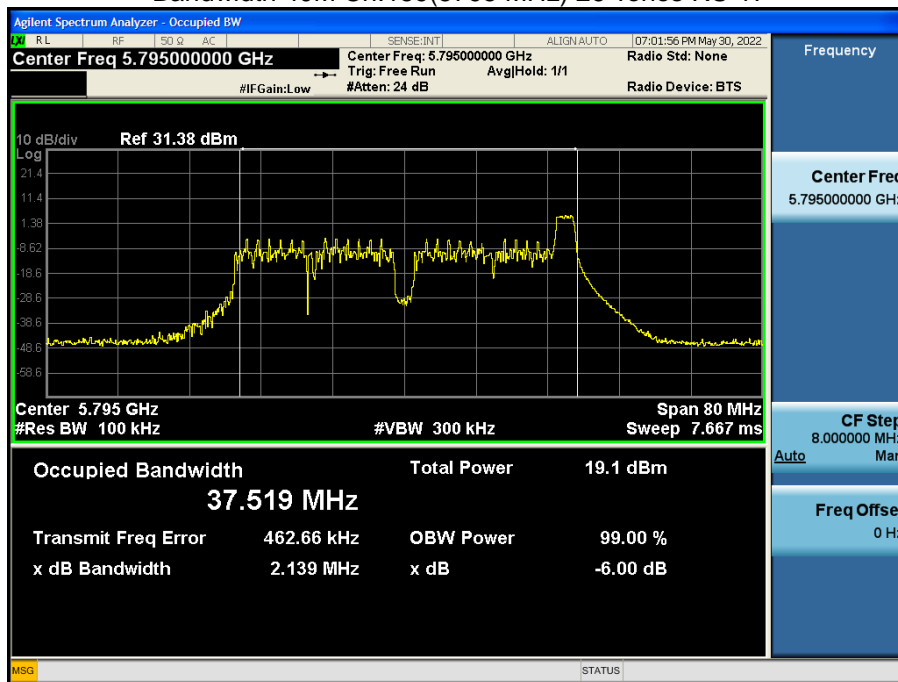
Bandwidth 20M Ch.165(5825 MHz) 26Tones RU 0



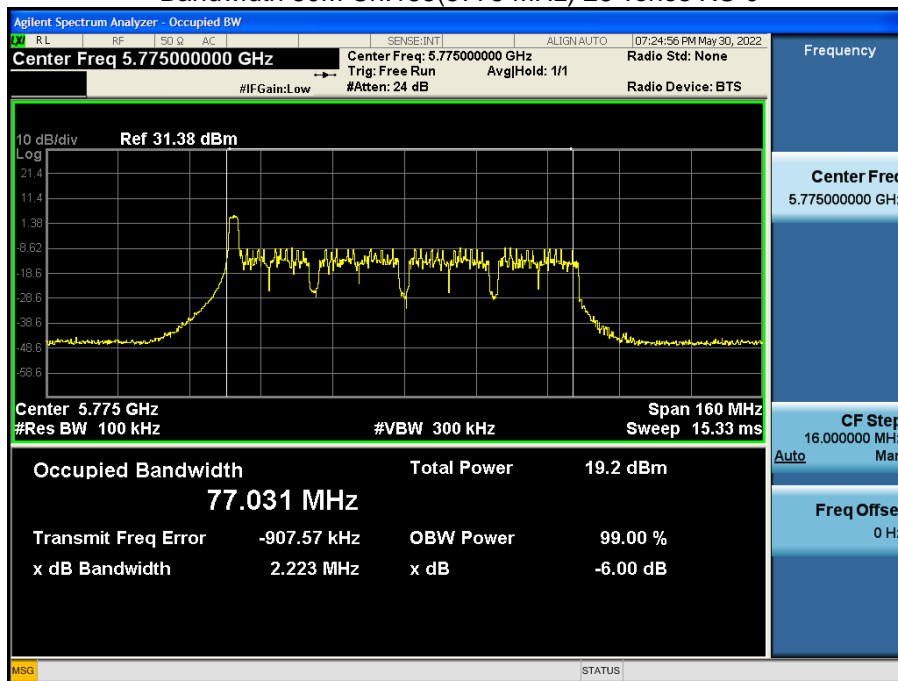
Bandwidth 40M Ch.151(5755 MHz) 26 Tones RU 17



Bandwidth 40M Ch.159(5795 MHz) 26 Tones RU 17

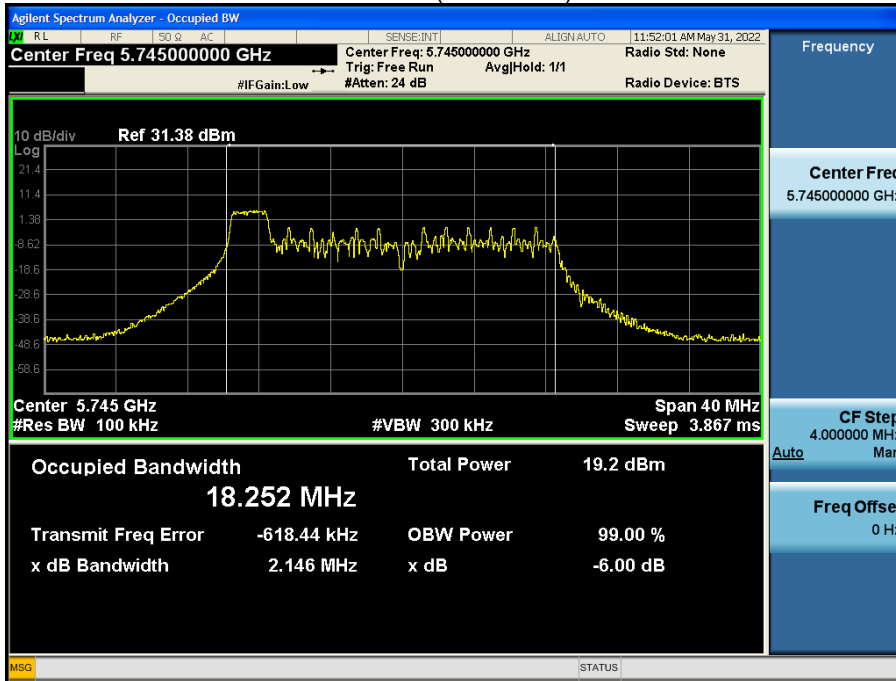


Bandwidth 80M Ch.155(5775 MHz) 26 Tones RU 0

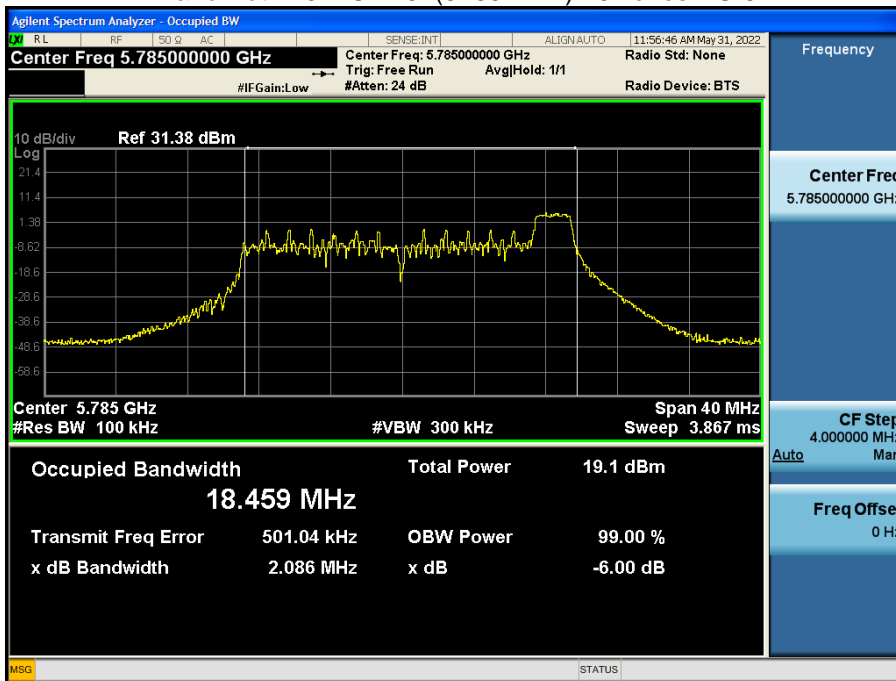


3.2 SISO Ant2

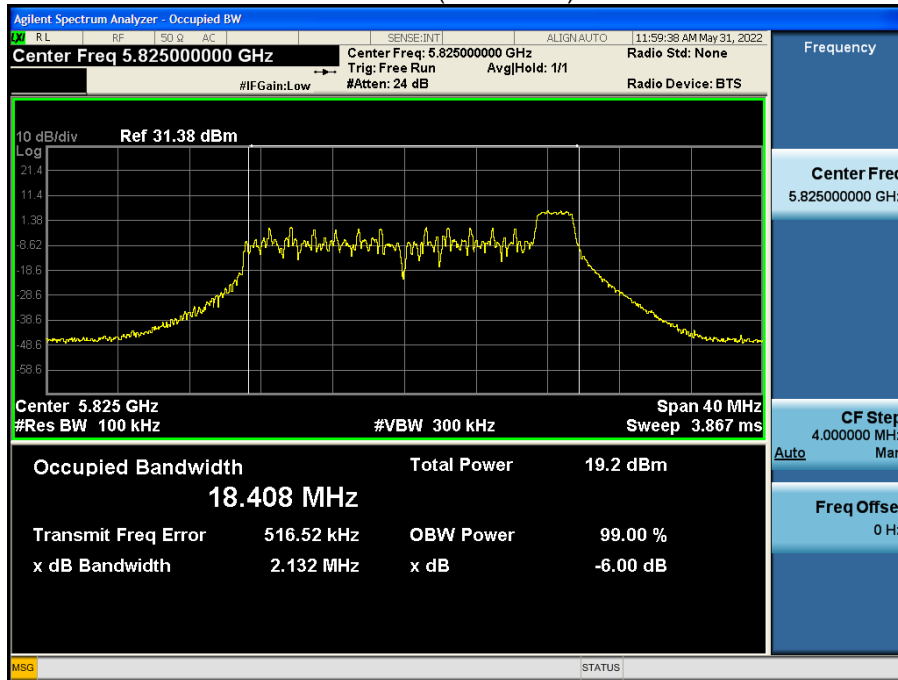
Bandwidth 20M Ch.149(5745 MHz) 26 Tones RU 0



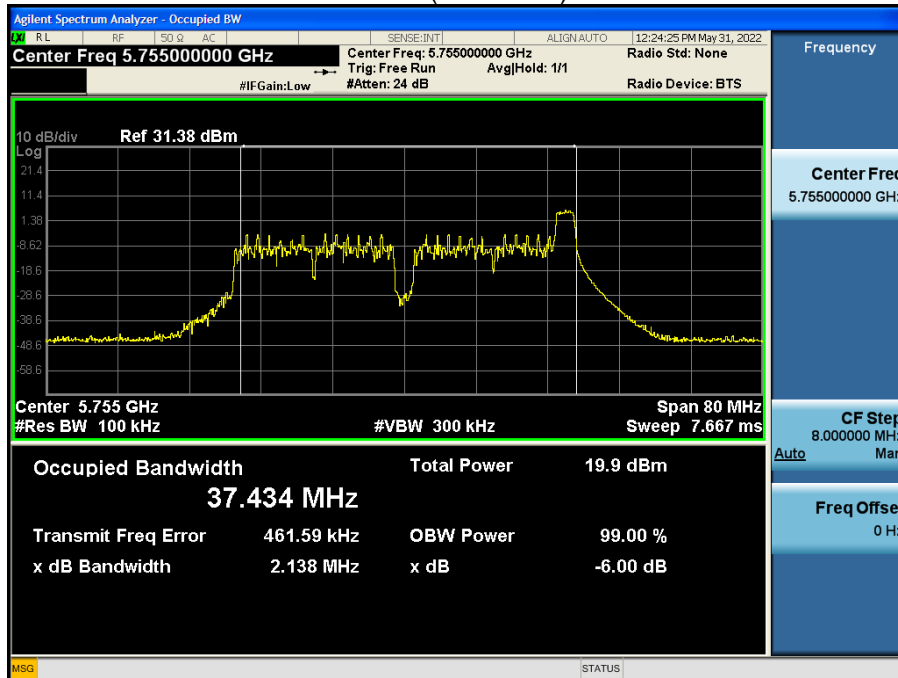
Bandwidth 20M Ch.157(5785 MHz) 26 Tones RU 8



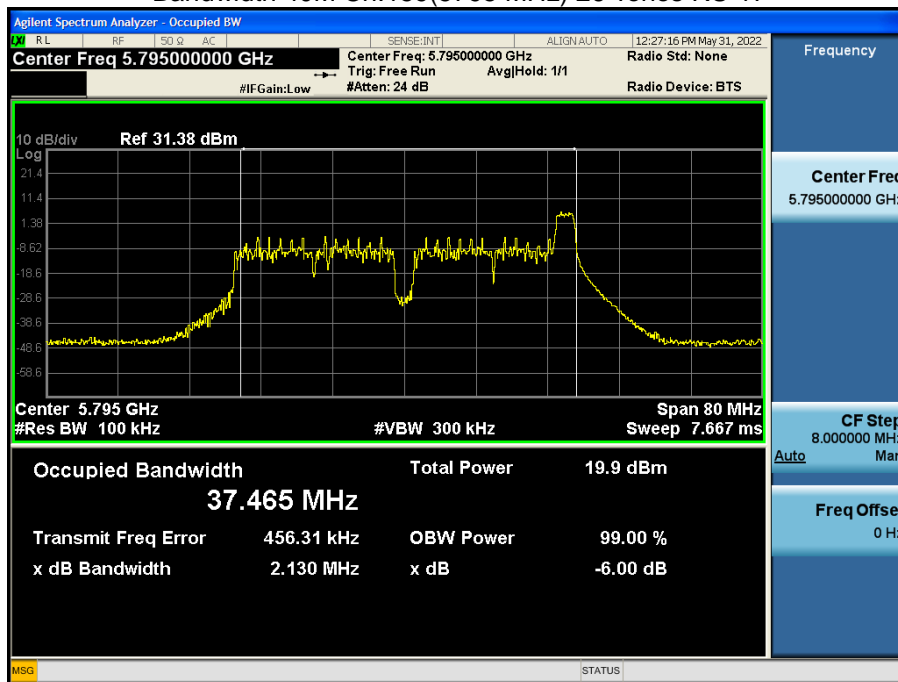
Bandwidth 20M Ch.165(5825 MHz) 26 Tones RU 8



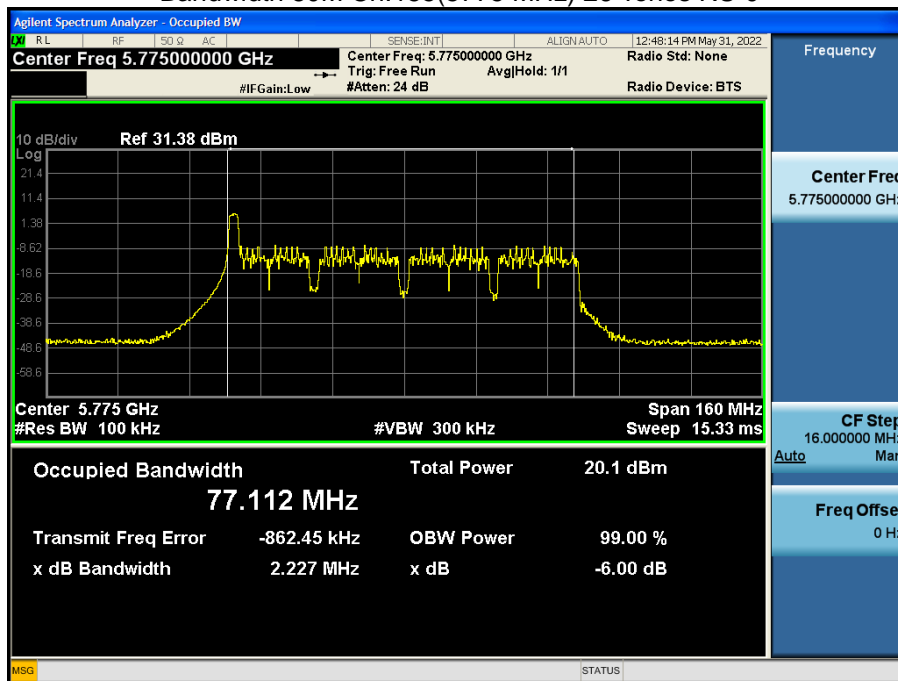
Bandwidth 40M Ch.151(5755 MHz) 26 Tones RU 17



Bandwidth 40M Ch.159(5795 MHz) 26 Tones RU 17



Bandwidth 80M Ch.155(5775 MHz) 26 Tones RU 0



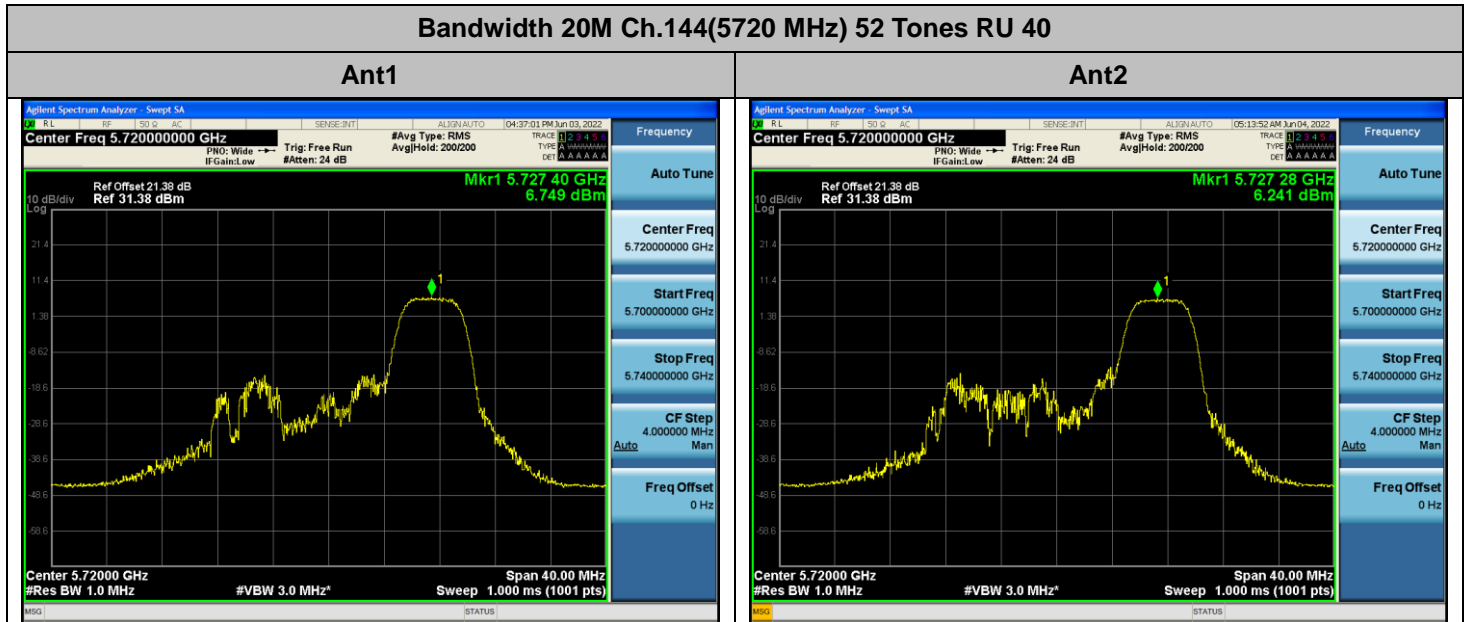
4. Power Spectral Density

Note:

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

4.1 SUM (SISO Ant 1 + SISO Ant 2)

Bandwidth 20M Ch.144(5720 MHz) 52 Tones RU 40

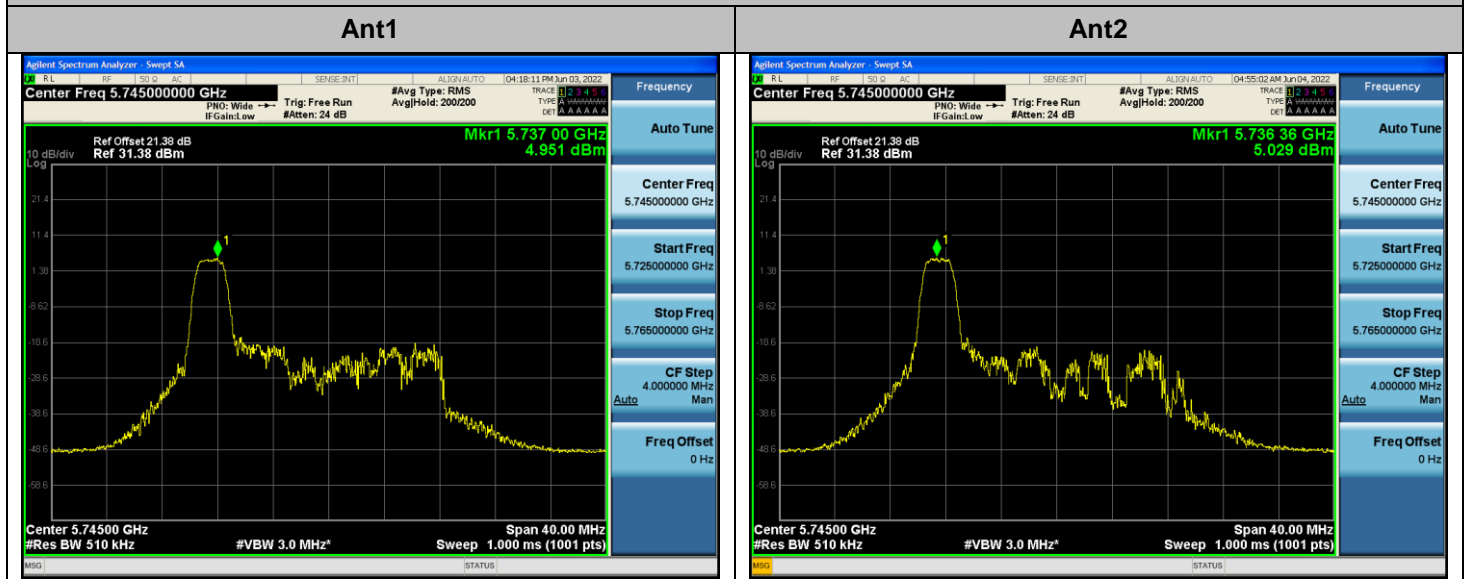


SUM PSD (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
9.513	0.03	9.543

Note:

Total PSD (dBm) = Measured Value (dBm) + Duty Cycle Factor (dB)

Bandwidth 20M Ch.149 (5745 MHz) 26 Tones RU 0

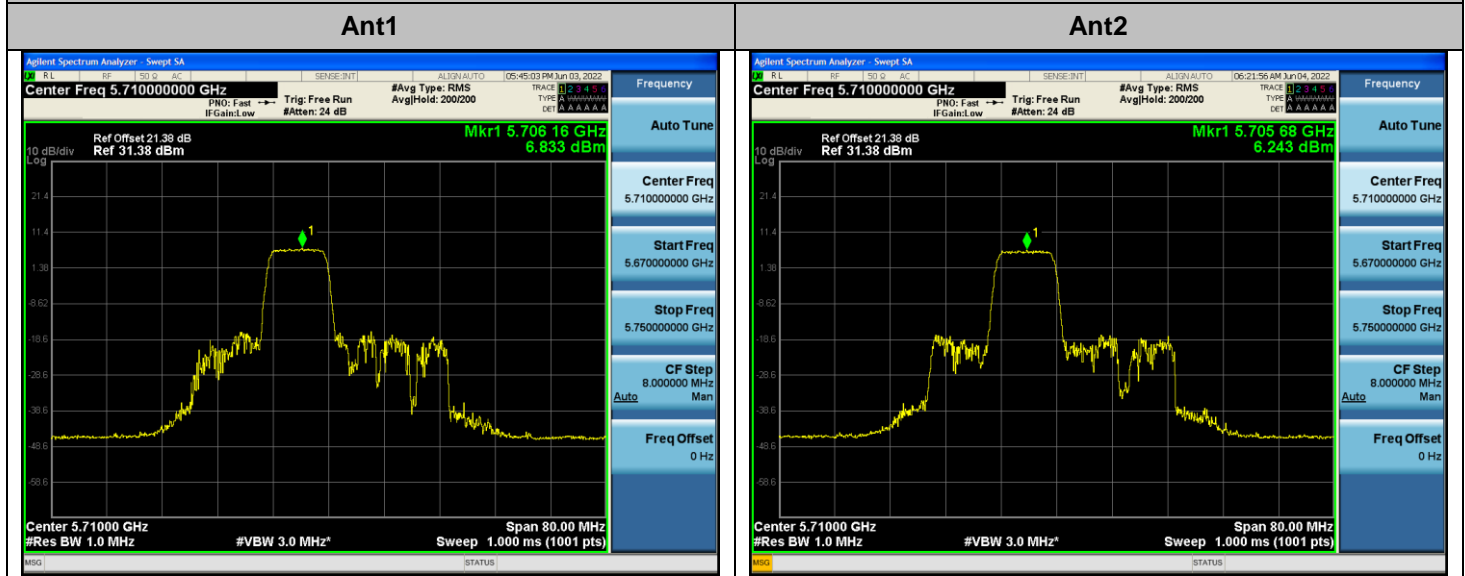


SUM PSD (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
8.000	0.03	8.030

Note:

Total PSD (dBm) = Measured Value (dBm) + Duty Cycle Factor (dB)

Bandwidth 40M Ch.142 (5710 MHz) 106 Tones RU 54

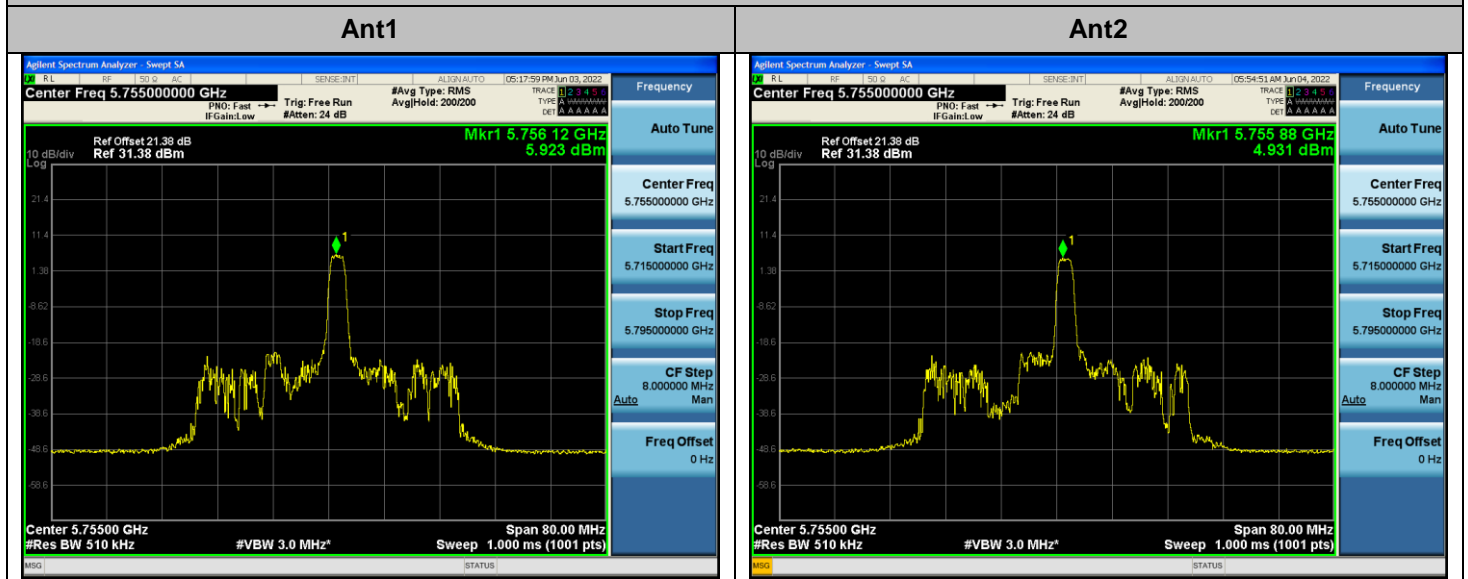


SUM PSD (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
9.558	0.03	9.588

Note:

Total PSD (dBm) = Measured Value (dBm) + Duty Cycle Factor (dB)

Bandwidth 40M Ch.151 (5755 MHz) 26 Tones RU 9

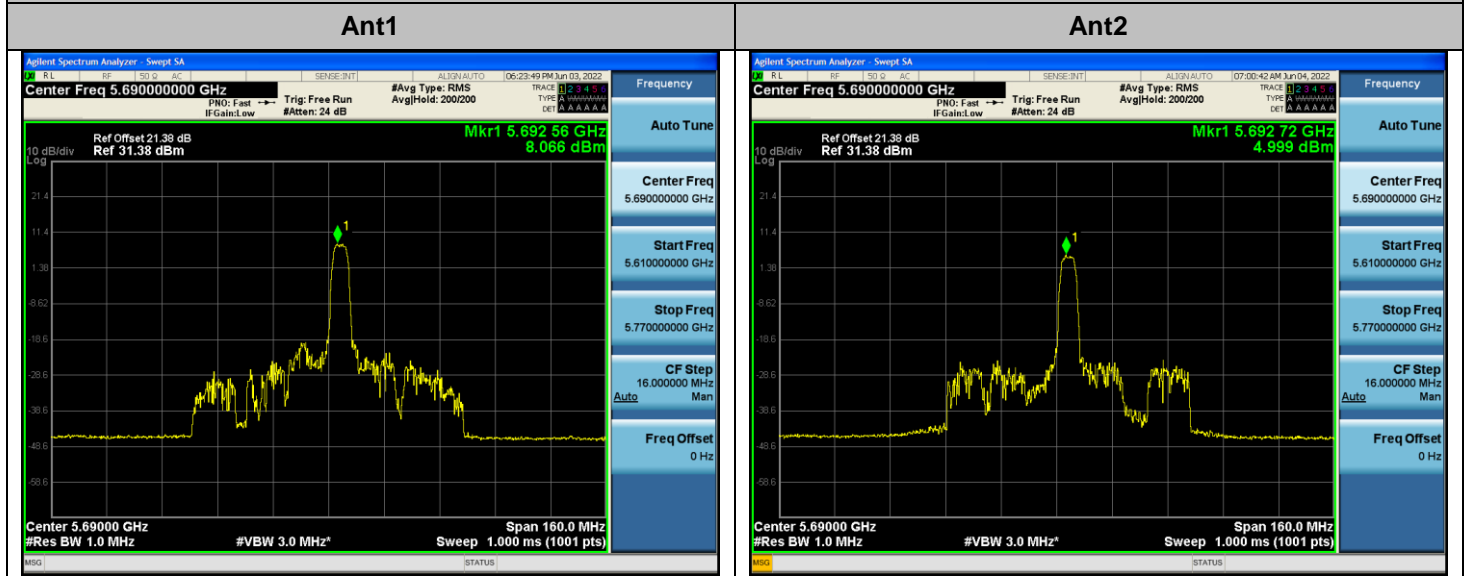


SUM PSD (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
8.466	0.03	8.496

Note:

Total PSD (dBm) = Measured Value (dBm) + Duty Cycle Factor (dB)

Bandwidth 80M Ch.138(5690 MHz) 52 Tones RU 45

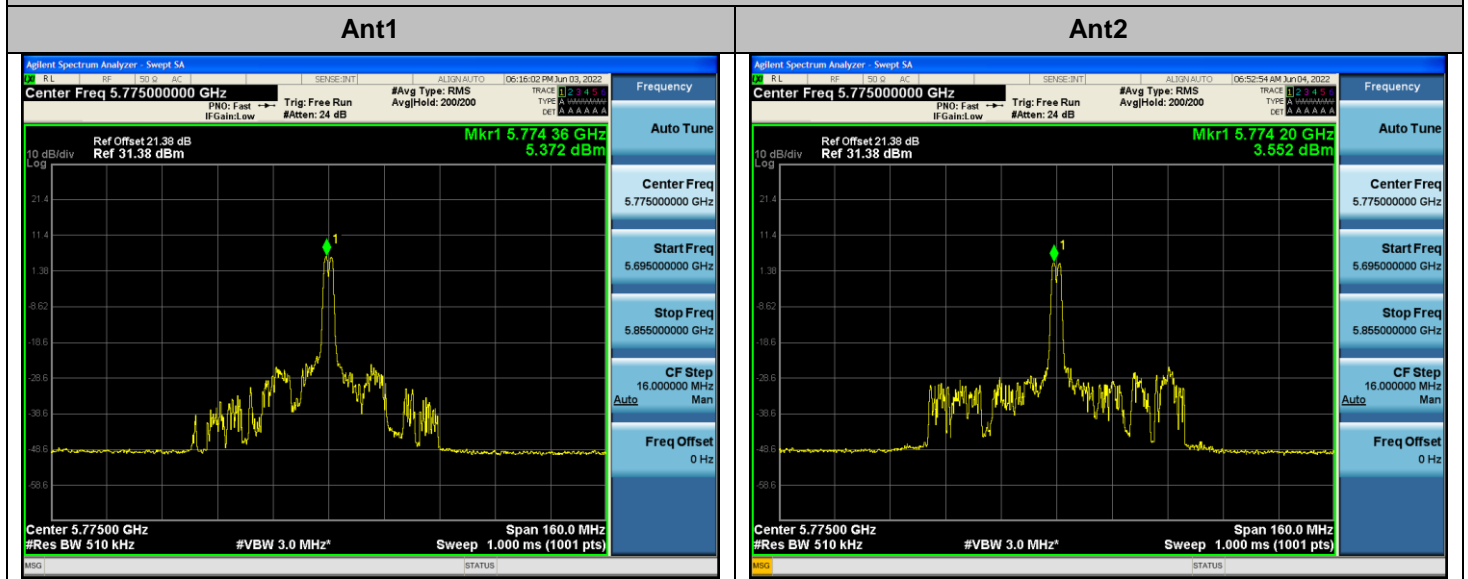


SUM PSD (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
9.808	0.03	9.838

Note:

Total PSD (dBm) = Measured Value (dBm) + Duty Cycle Factor (dB)

Bandwidth 80M Ch.155(5775 MHz) 26 Tones RU 18



SUM PSD (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
7.567	0.03	7.597

Note:

Total PSD (dBm) = Measured Value (dBm) + Duty Cycle Factor (dB)

5. Straddle Channel

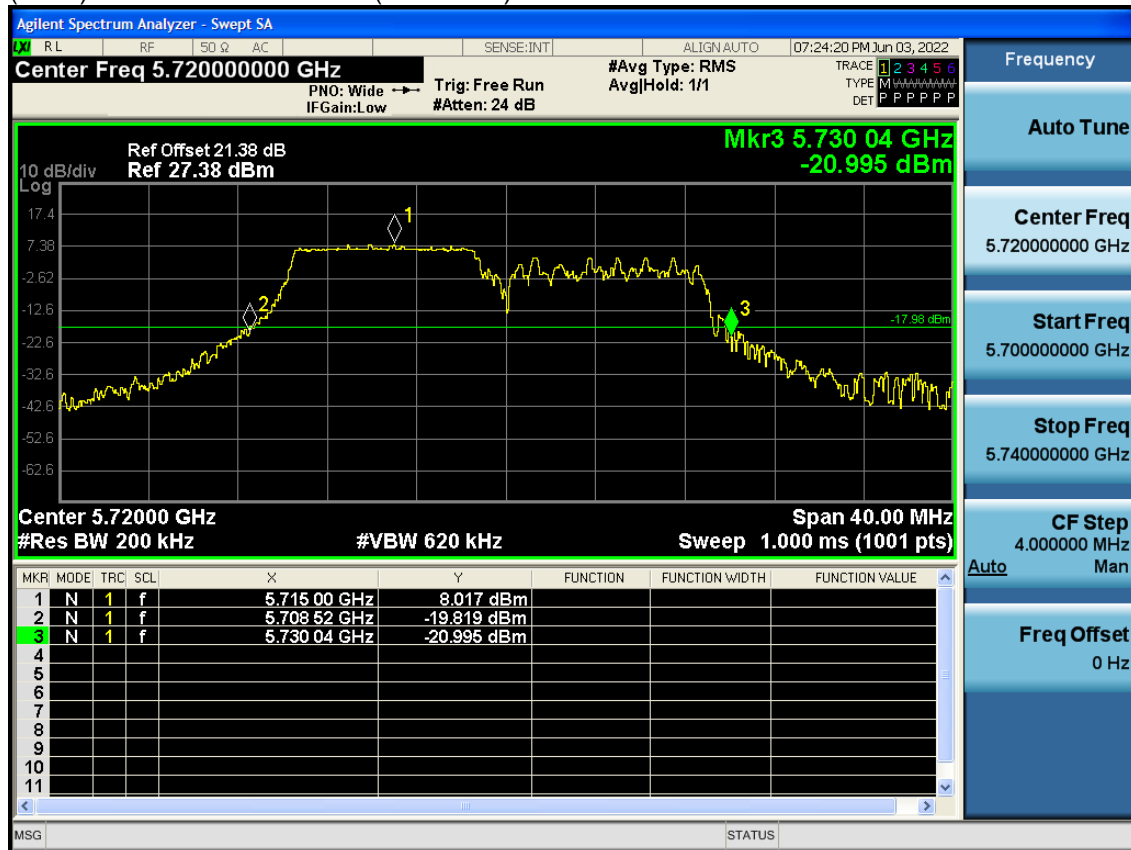
5.1 26dB Bandwidth

Note:

1. In order to simplify the report, attached plots were only the most wide channel. (UNII1~3)

5.1.1 SISO Ant1

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

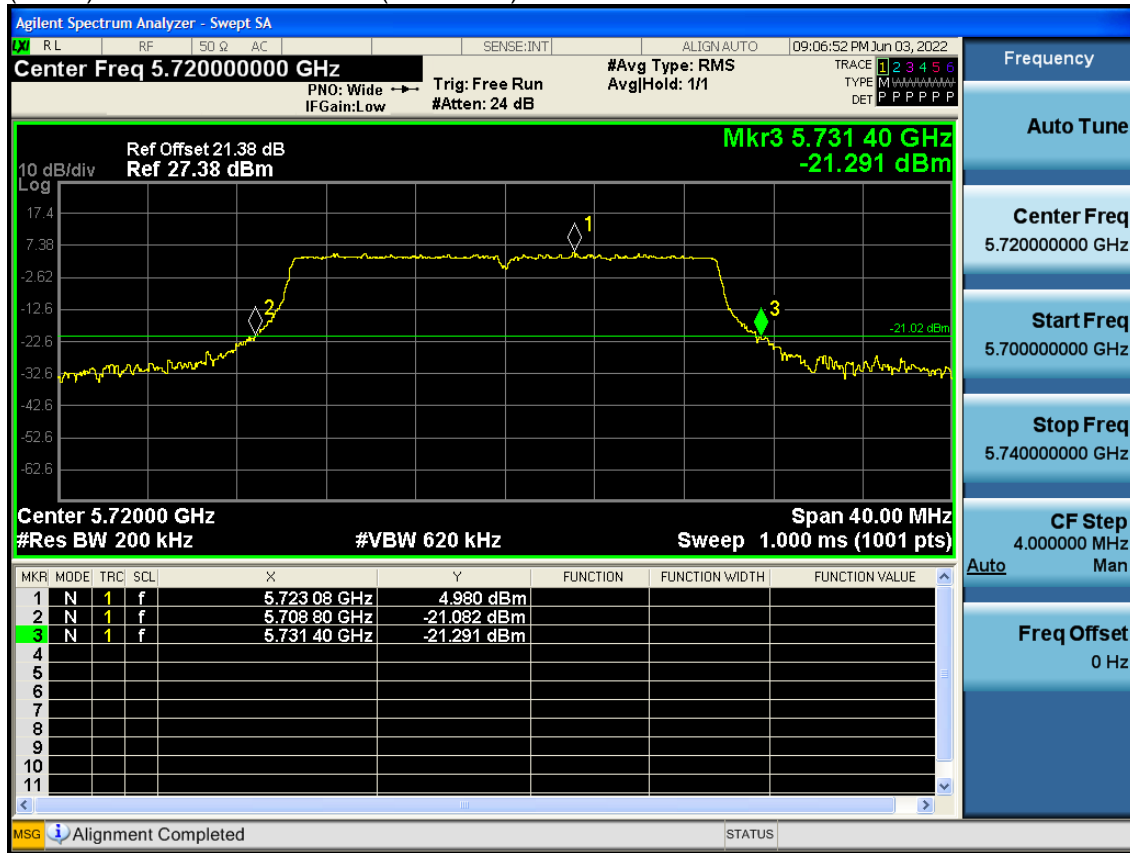


UNII 2C	Straddle Frequency [MHz]	Measured Frequency [MHz]	26dB Bandwidth [MHz]
	5725	5708.52	16.48

Note:

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

(26 dB) Bandwidth 20M Ch.144(5720 MHz) SU

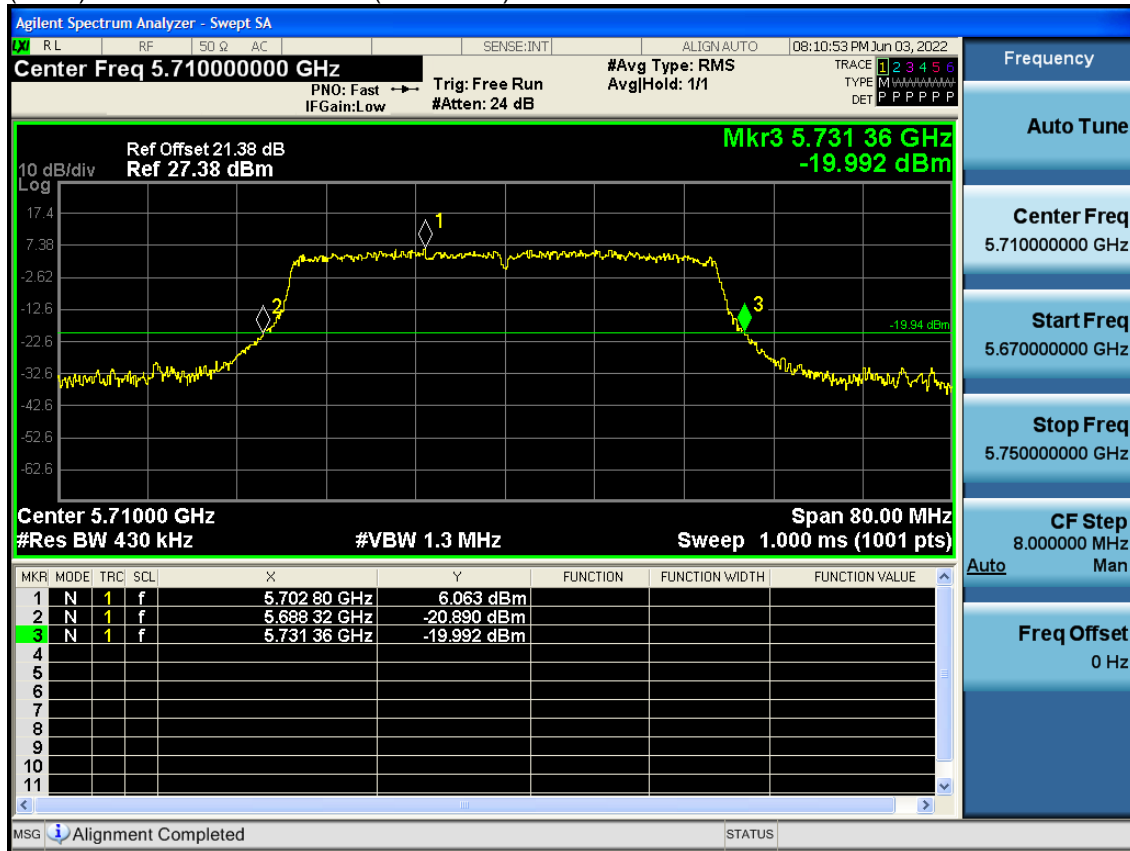


UNII 3	Straddle Frequency [MHz]	Measured Frequency [MHz]	26dB Bandwidth [MHz]
	5731.4	5725	6.40

Note:

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

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

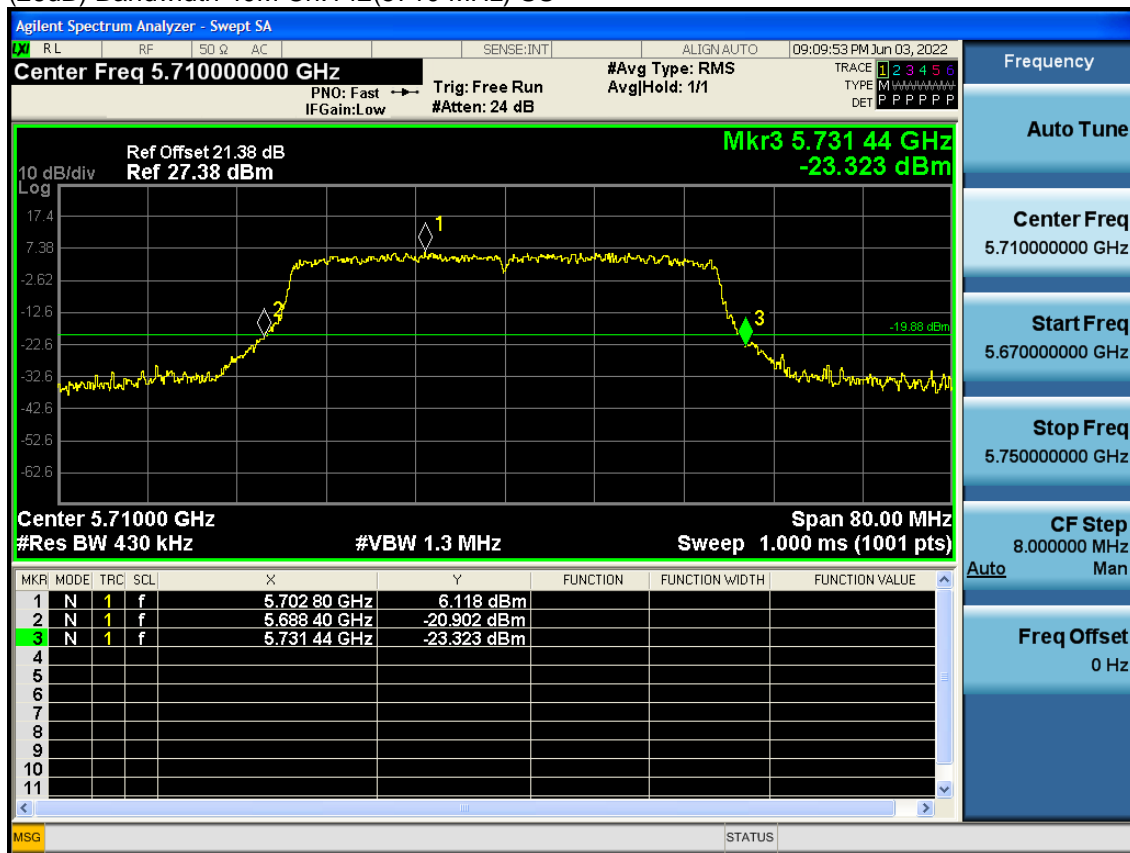


UNII 2C	Straddle Frequency [MHz]	Measured Frequency [MHz]	26dB Bandwidth [MHz]
	5725	5688.32	36.68

Note:

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

(26dB) Bandwidth 40M Ch.142(5710 MHz) SU

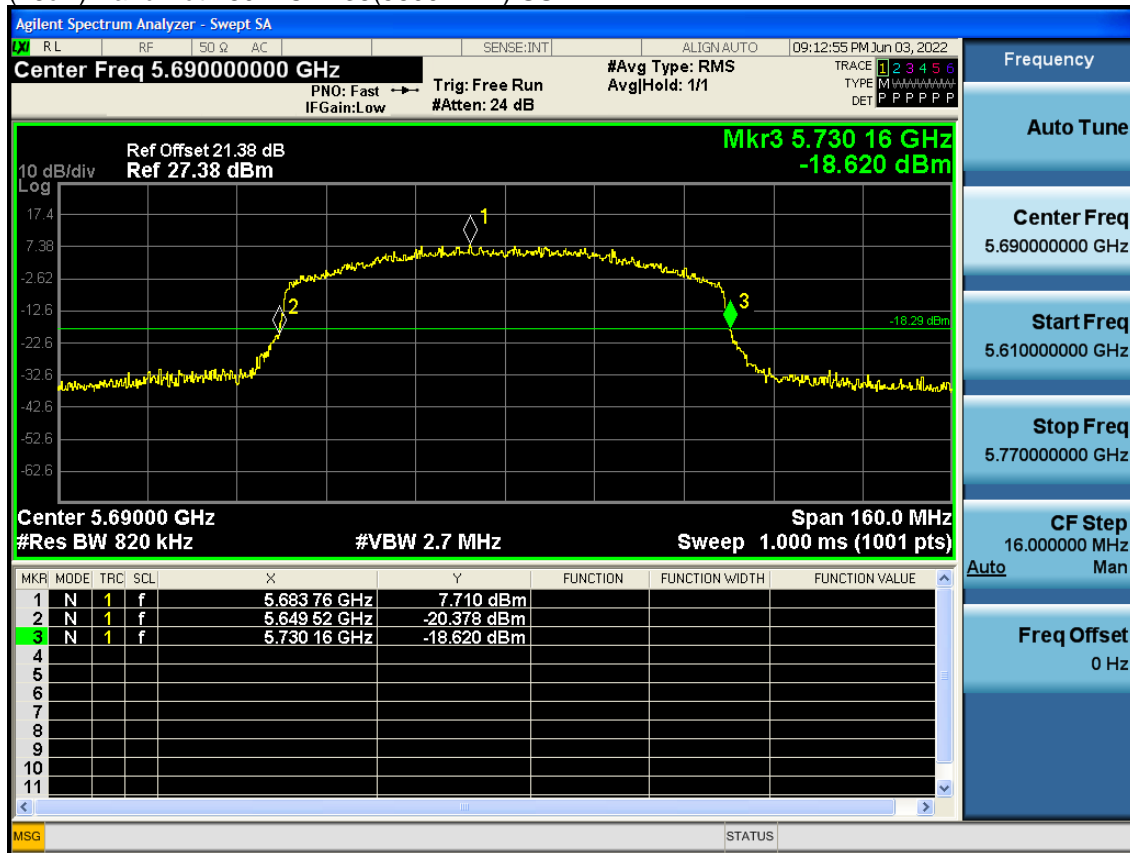


UNII 3	Straddle Frequency [MHz]	Measured Frequency [MHz]	26dB Bandwidth [MHz]
	5731.44	5725	6.44

Note:

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

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

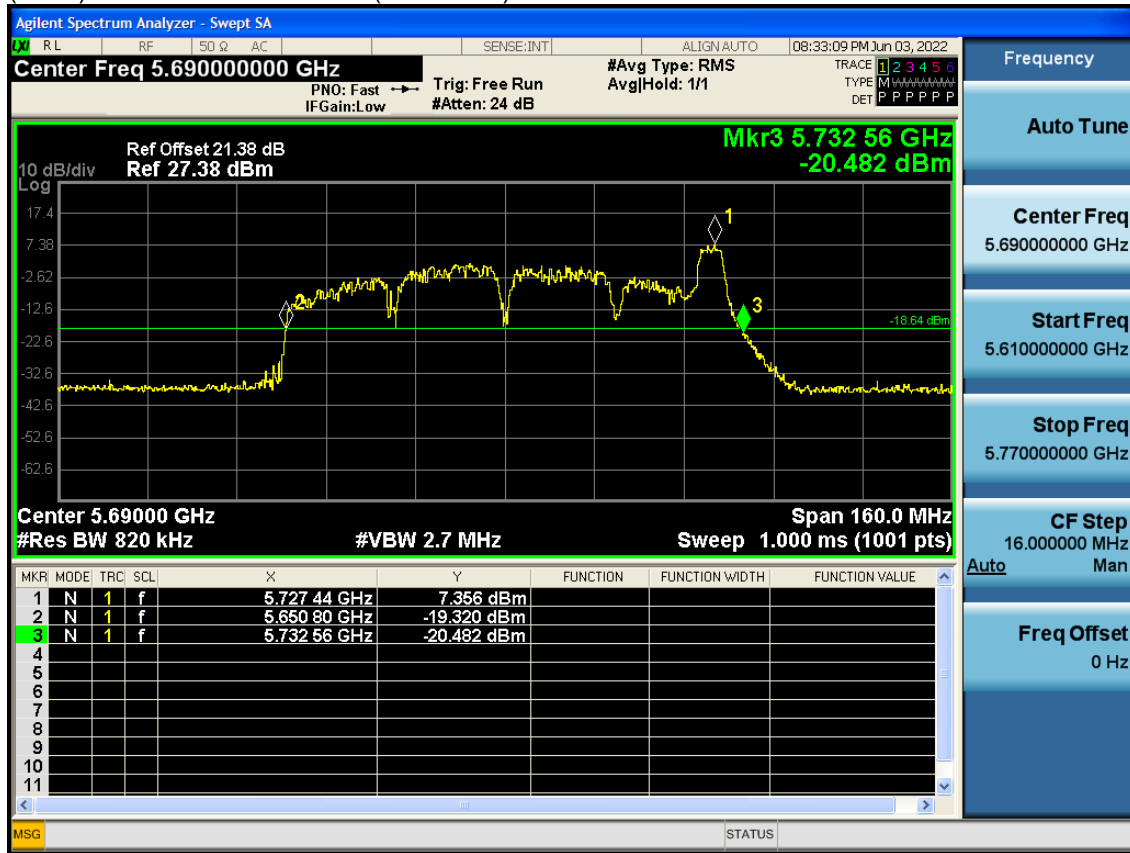


UNII 2C	Straddle Frequency [MHz]	Measured Frequency [MHz]	26dB Bandwidth [MHz]
	5725	5649.52	75.48

Note:

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

(26dB) Bandwidth 80M Ch.138(5690 MHz) 52 Tones RU 52



UNII 3	Straddle Frequency [MHz]	Measured Frequency [MHz]	26dB Bandwidth [MHz]
	5732.56	5725	7.56

Note:

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

5.1.2 SISO Ant2

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

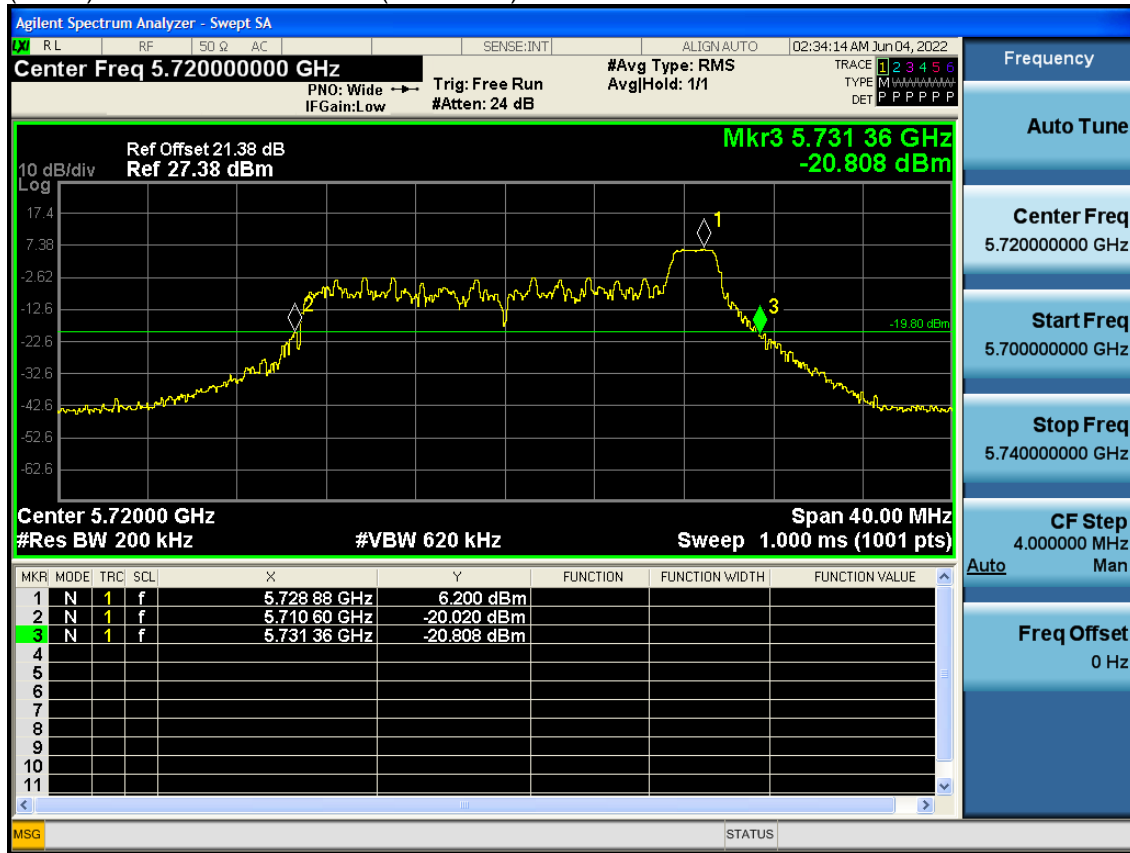


UNII 2C	Straddle Frequency [MHz]	Measured Frequency [MHz]	26dB Bandwidth [MHz]
	5725	5708.4	16.60

Note:

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

(26 dB) Bandwidth 20M Ch.144(5720 MHz) 26 Tones RU 8

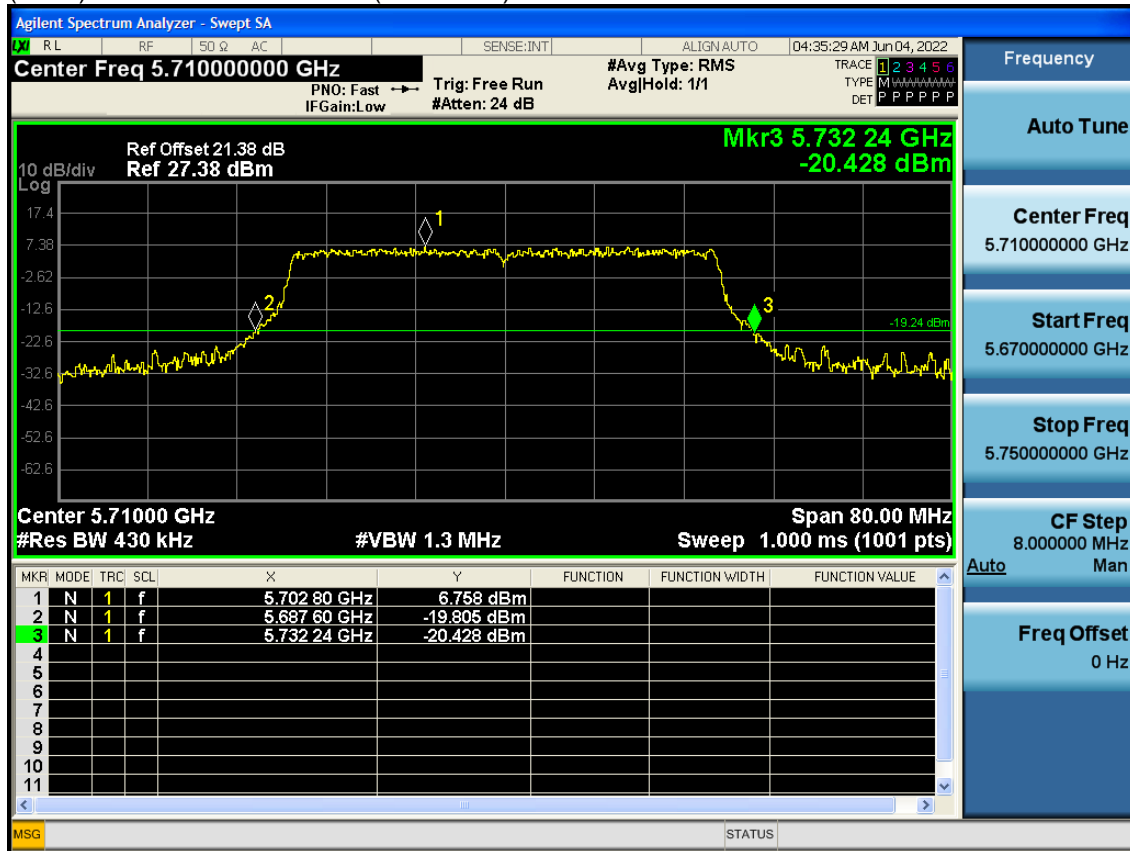


UNII 3	Measured Frequency [MHz]	Straddle Frequency [MHz]	26dB Bandwidth [MHz]
	5731.36	5725	6.36

Note:

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

(26dB) Bandwidth 40M Ch.142(5710 MHz) SU

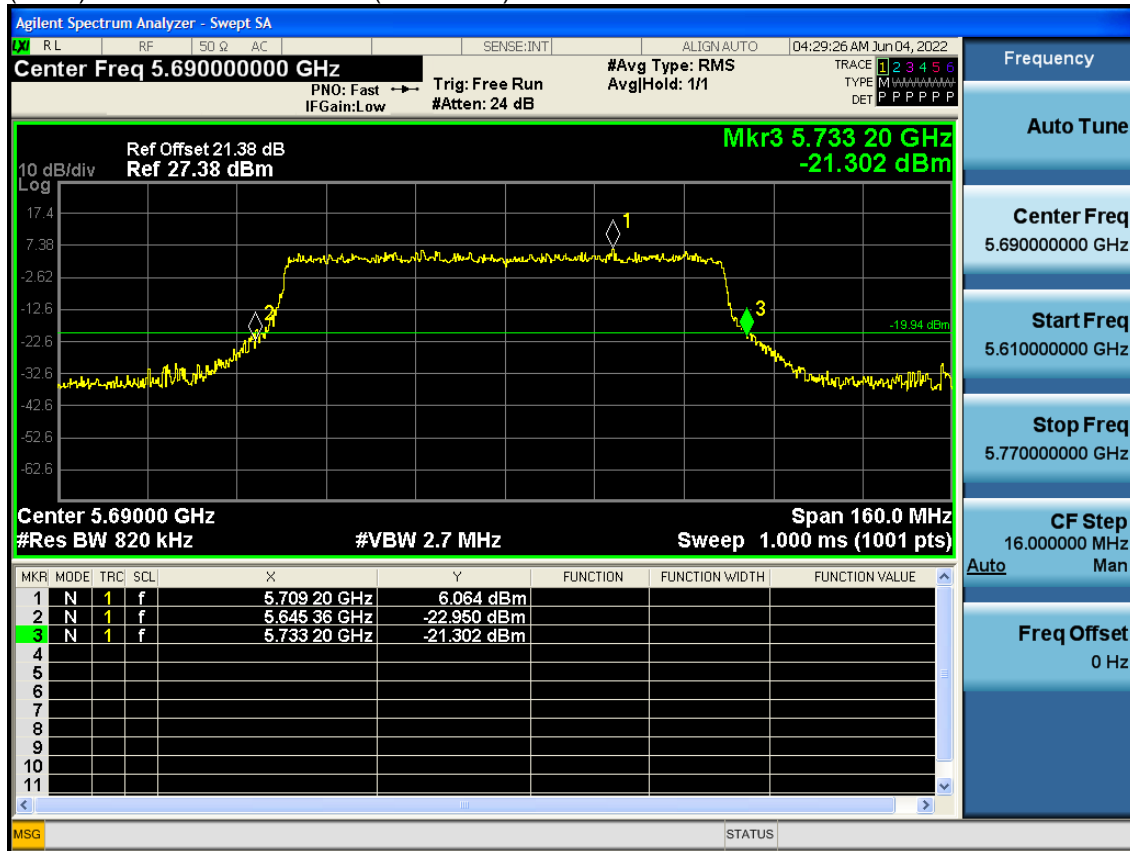


UNII 2C	Straddle Frequency [MHz]	Measured Frequency [MHz]	26dB Bandwidth [MHz]
	5725	5687.6	37.40
UNII 3	Measured Frequency [MHz]	Straddle Frequency [MHz]	26dB Bandwidth [MHz]
	5732.24	5725	7.24

Note:

1. [UNII 2C] 26dB Bandwidth = 5725 MHz - Measured Frequency[MHz]
2. [UNII 3] 26 dB Bandwidth = Measured Frequency[MHz] -5725 MHz

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



UNII 2C	Straddle Frequency [MHz]	Measured Frequency [MHz]	26dB Bandwidth [MHz]
	5725	5645.36	79.64

Note:

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

(26dB) Bandwidth 80M Ch.138(5690 MHz) 484 Tones RU 66



UNII 3	Measured Frequency [MHz]	Straddle Frequency [MHz]	26dB Bandwidth [MHz]
	5734.48	5725	9.48

Note:

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

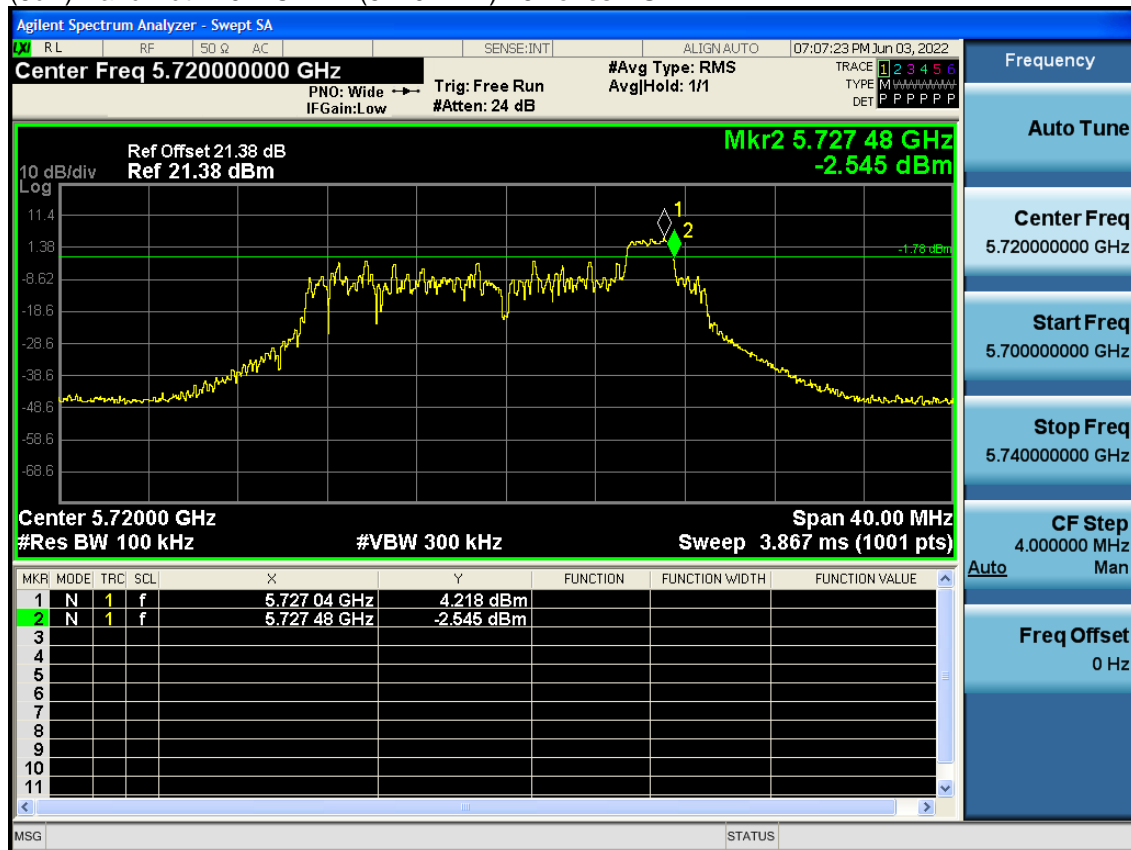
5.2 6dB Bandwidth

Note:

1. In order to simplify the report, attached plots were only the most narrow channel. (UNII1~4)

5.2.1 SISO Ant1

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

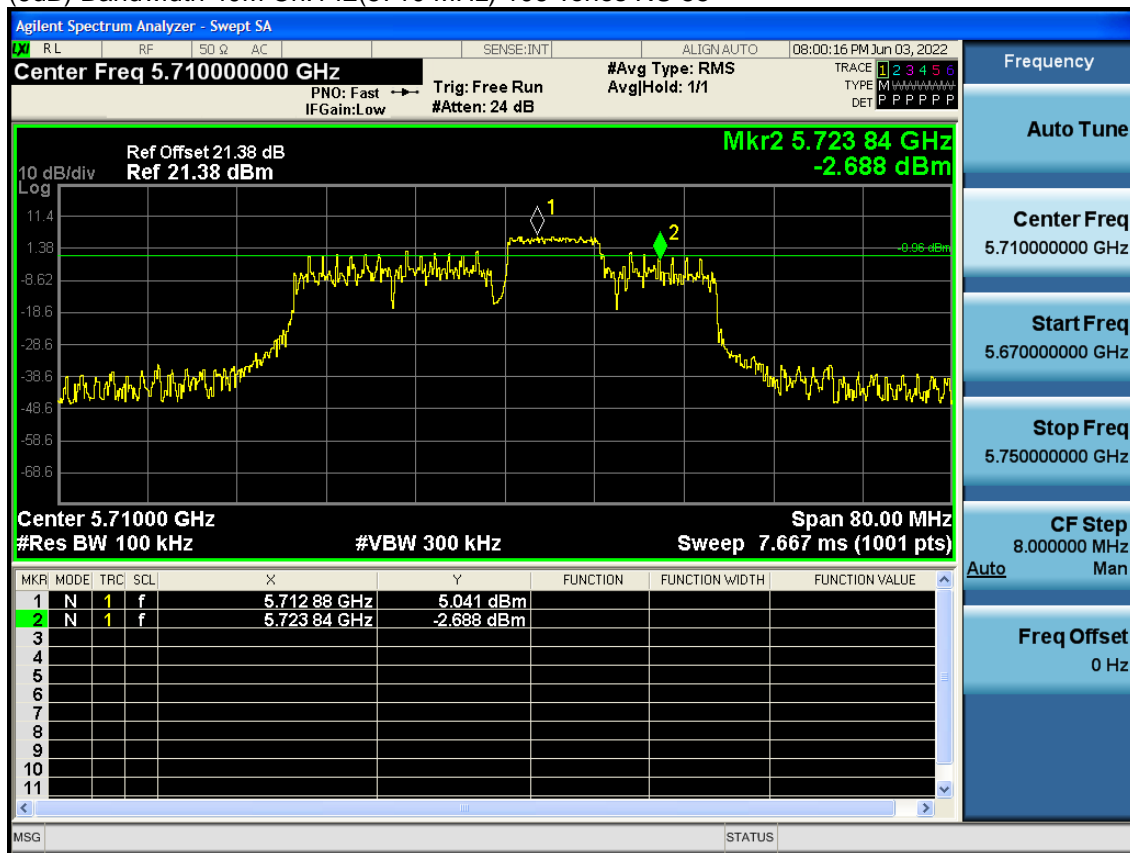


Measured Frequency [MHz]	Straddle Frequency [MHz]	6dB Bandwidth [MHz]
5727.48	5725	2.48

Note:

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

(6dB) Bandwidth 40M Ch.142(5710 MHz) 106 Tones RU 55

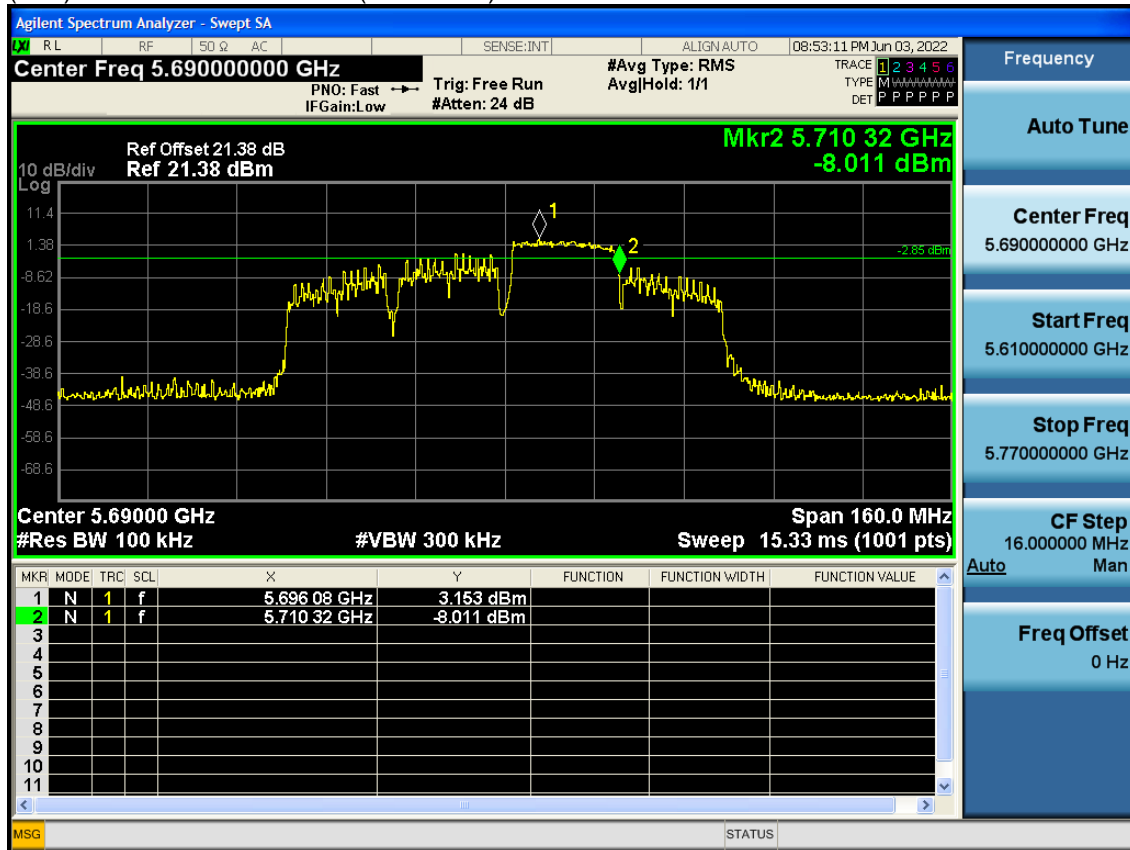


Measured Frequency [MHz]	Straddle Frequency [MHz]	6dB Bandwidth [MHz]
5723.84	5725	-1.16

Note:

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

(6dB) Bandwidth 80M Ch.138(5690 MHz) 242 Tones RU 63



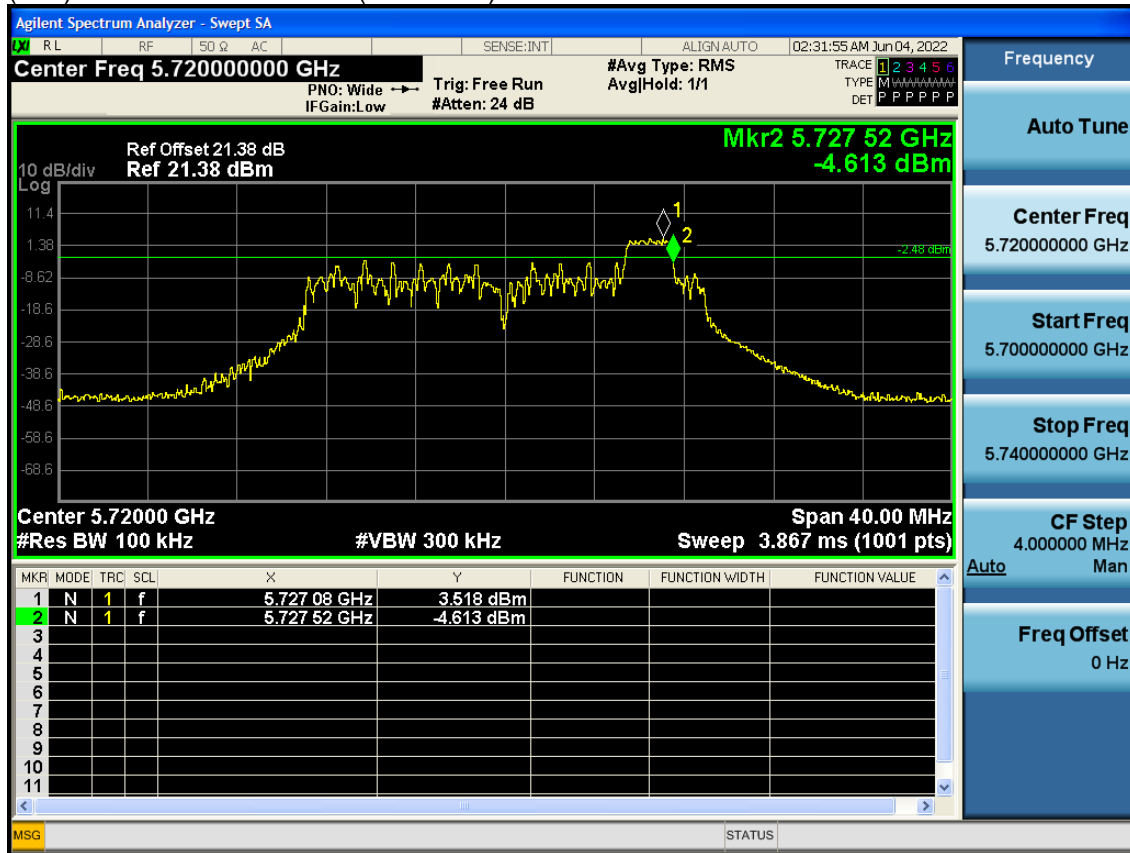
Measured Frequency [MHz]	Straddle Frequency [MHz]	6dB Bandwidth [MHz]
5710.32	5725	-14.68

Note:

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

5.2.2 SISO Ant2

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

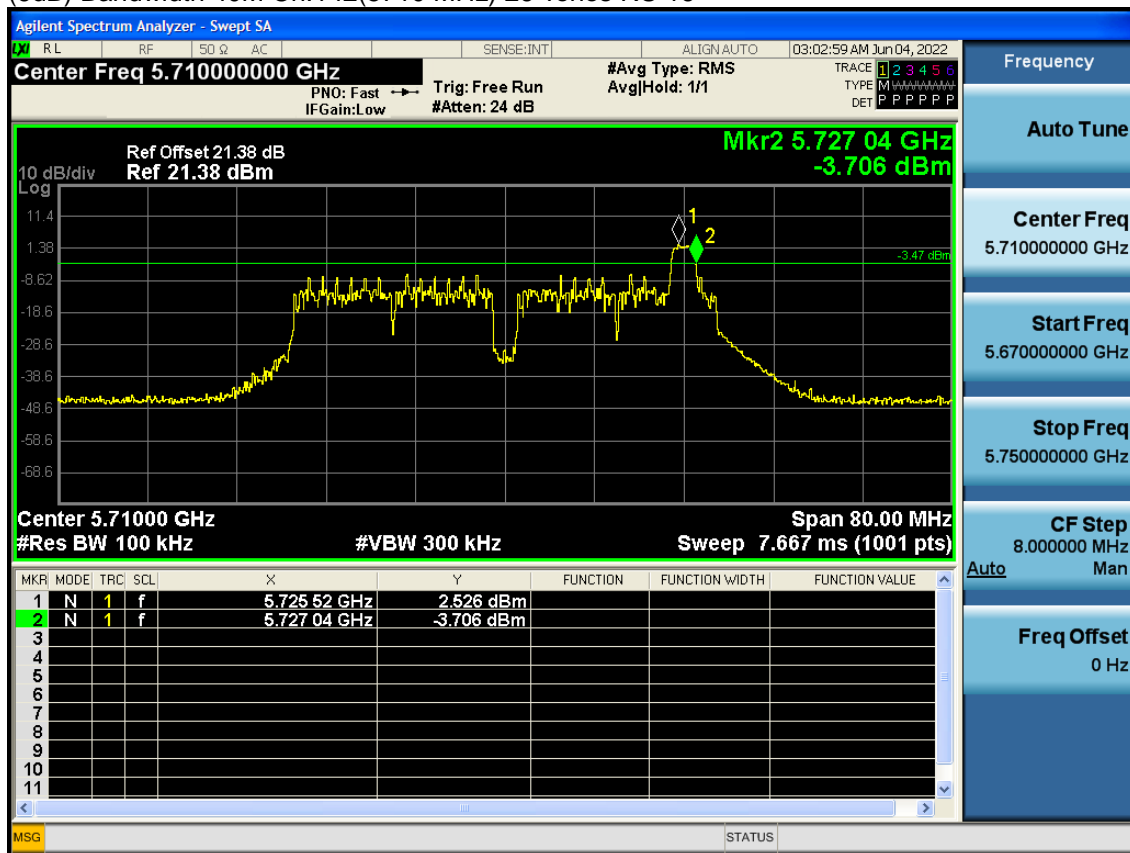


Measured Frequency [MHz]	Straddle Frequency [MHz]	6dB Bandwidth [MHz]
5727.52	5725	2.52

Note:

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

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

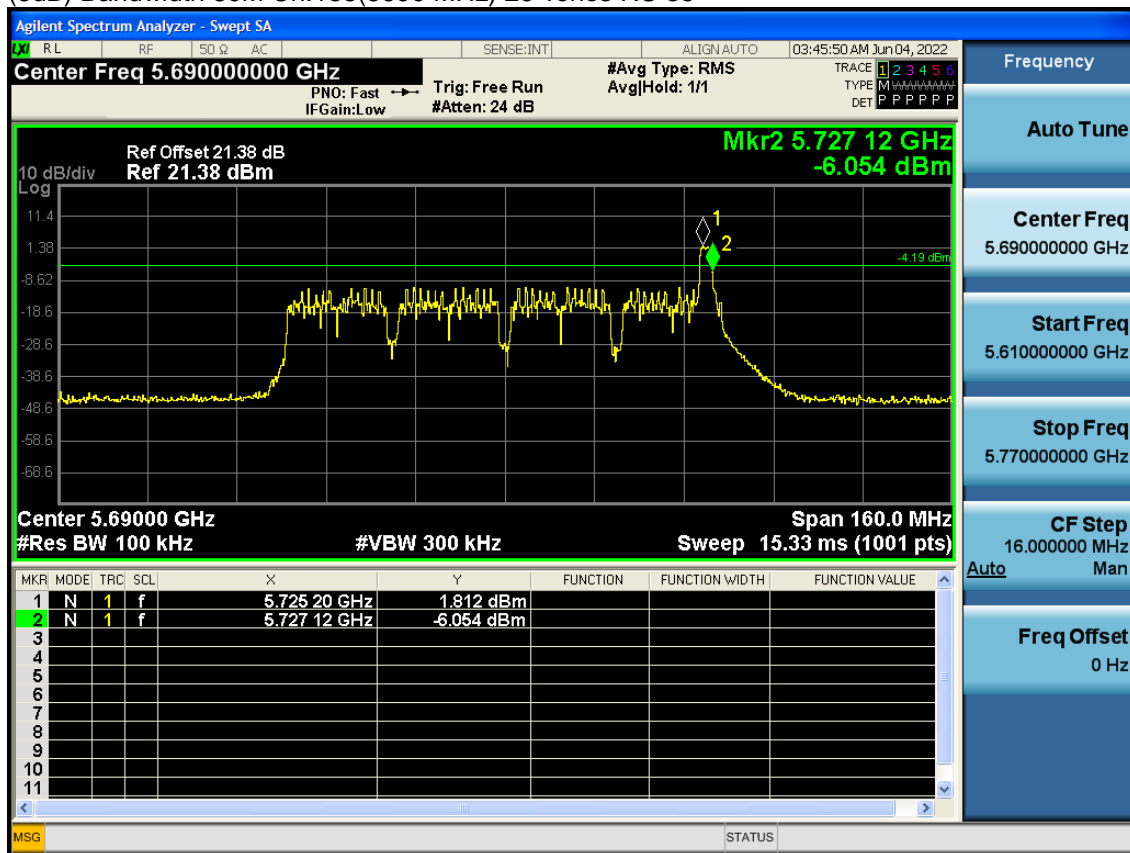


Measured Frequency [MHz]	Straddle Frequency [MHz]	6dB Bandwidth [MHz]
5727.04	5725	2.04

Note:

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

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



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

Note:

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

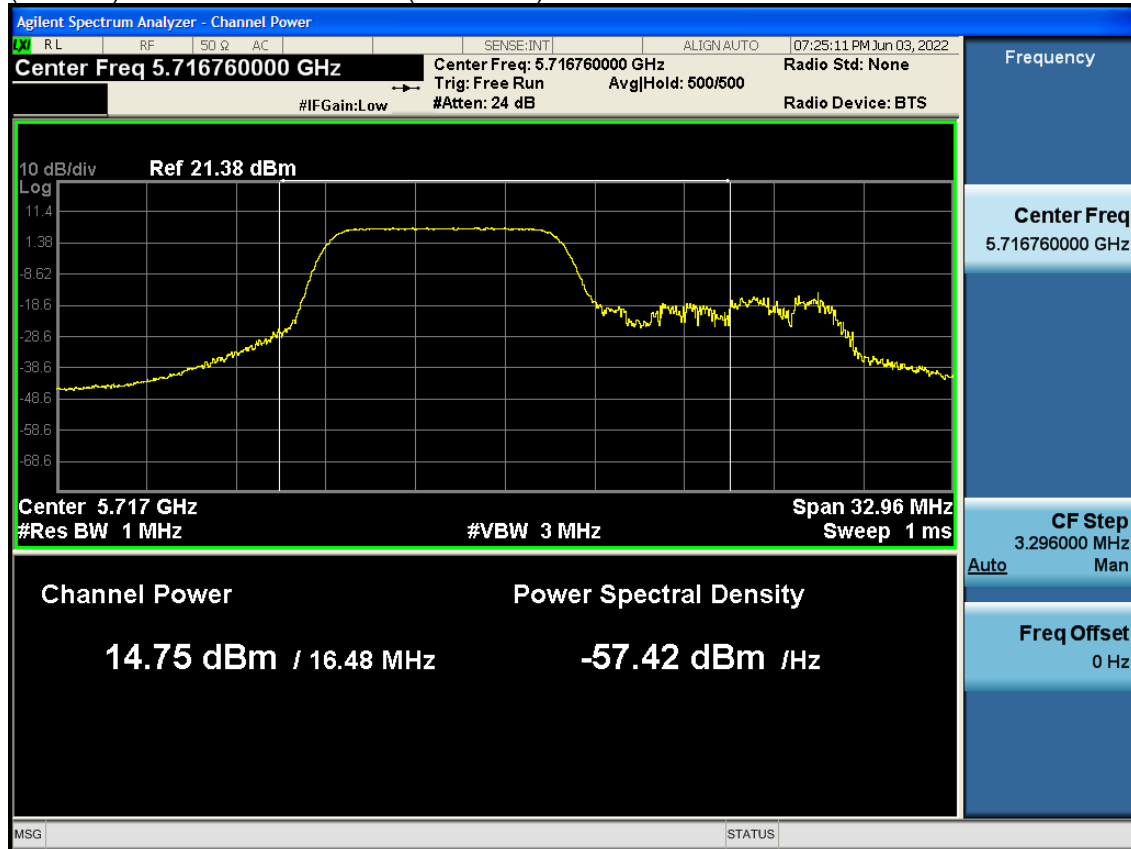
5.3 Output Power

Note:

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

5.3.1 SISO Ant1

(UNII 2C) Bandwidth 20M Ch.144(5720 MHz) 106 Tones RU 53

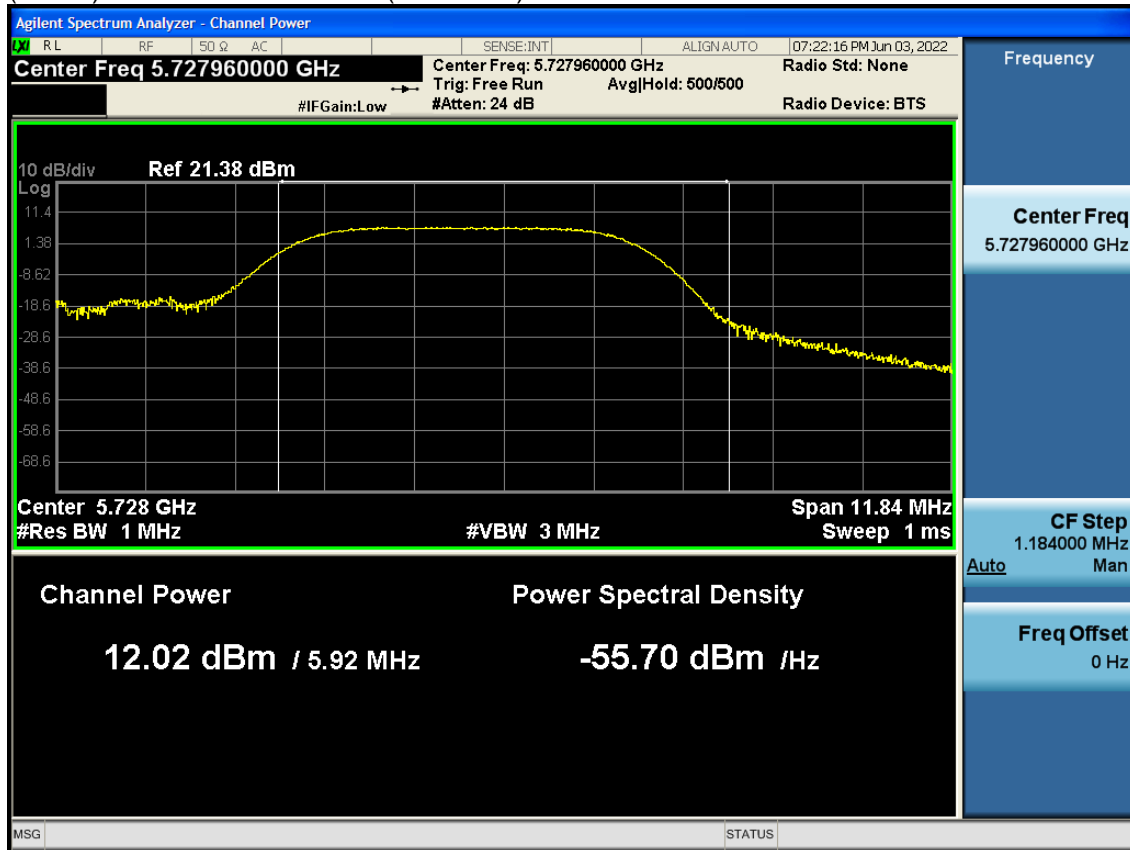


Measured Value (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)
14.75	0.027	14.78

Note:

Total Power (dBm) = Measured Value (dBm) + Duty Cycle Factor (dB)

(UNII 3) Bandwidth 20M Ch.144(5720 MHz) 52 Tones RU 40

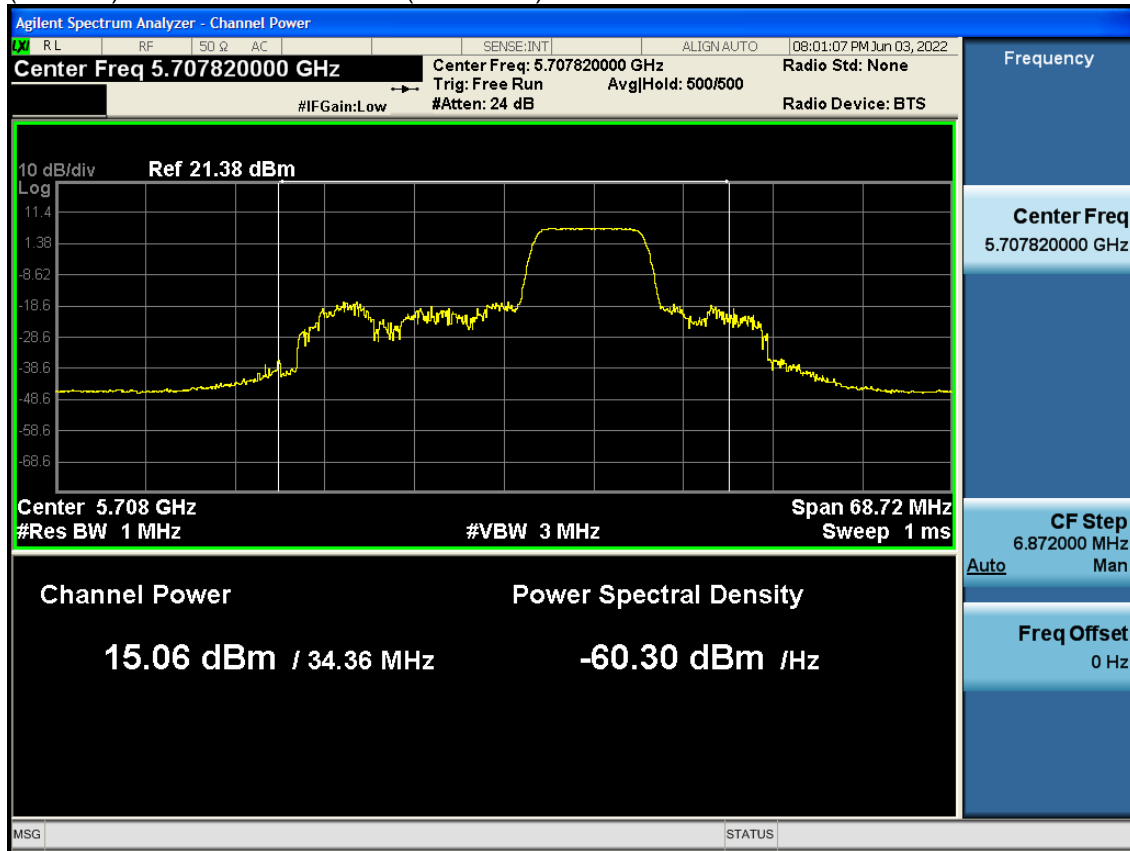


Measured Value (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)
12.02	0.030	12.05

Note:

Total Power (dBm) = Measured Value (dBm) + Duty Cycle Factor (dB)

(UNII 2C) Bandwidth 40M Ch.142(5710 MHz) 106 Tones RU 55

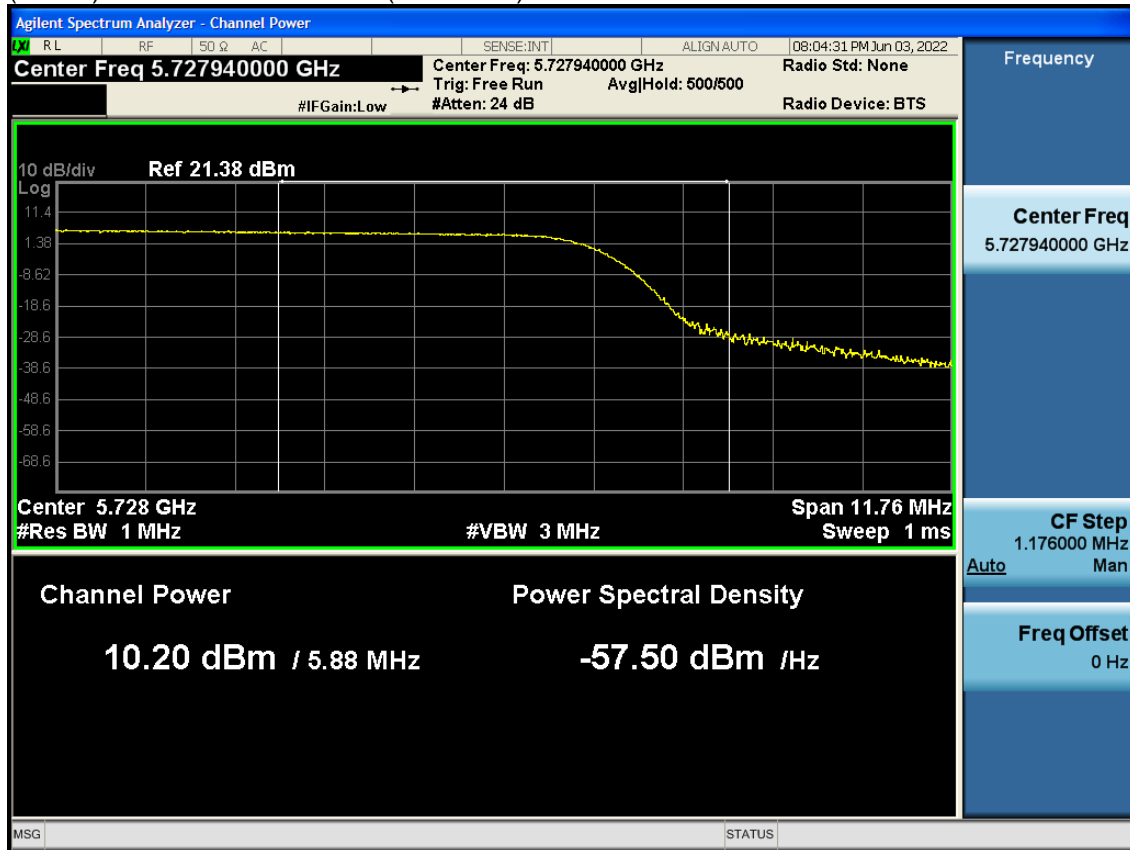


Measured Value (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)
15.06	0.032	15.09

Note:

Total Power (dBm) = Measured Value (dBm) + Duty Cycle Factor (dB)

(UNII 3) Bandwidth 40M Ch.142(5710 MHz) 106 Tones RU 56

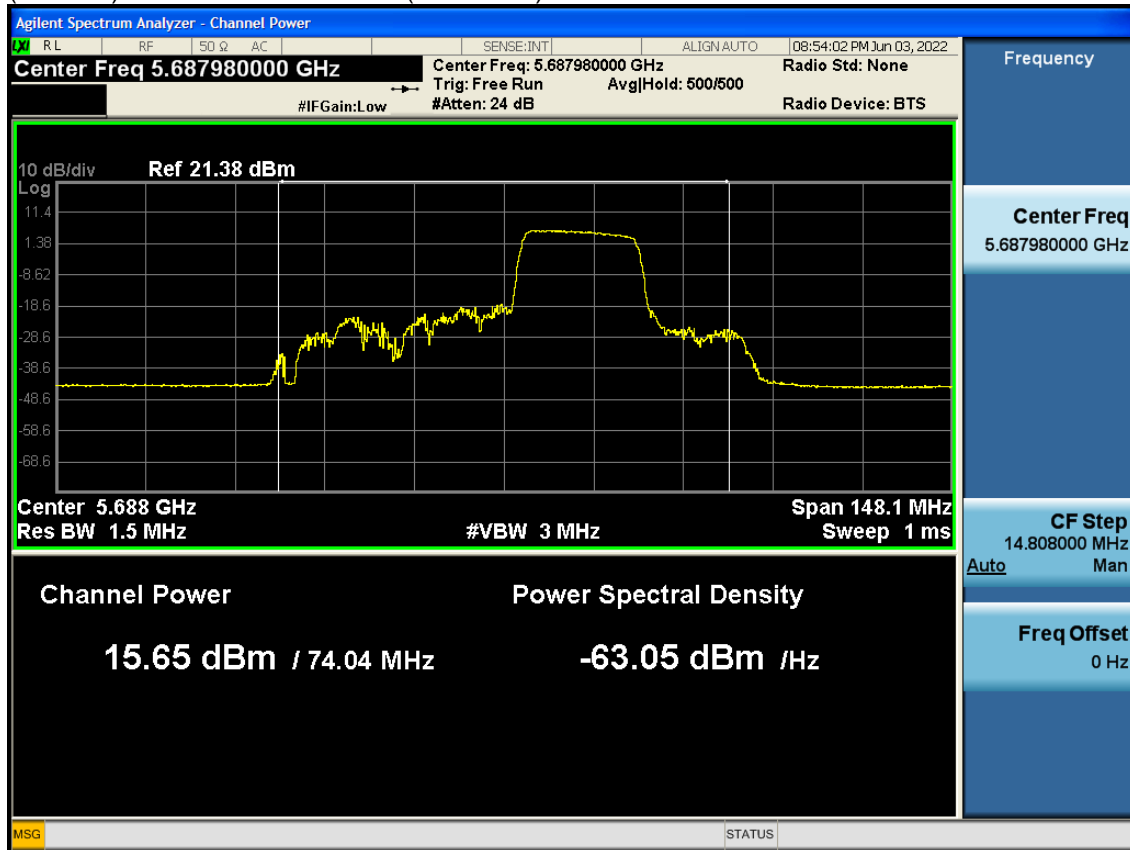


Measured Value (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)
10.20	0.032	10.23

Note:

Total Power (dBm) = Measured Value (dBm) + Duty Cycle Factor (dB)

(UNII 2C) Bandwidth 80M Ch.138(5690 MHz) 242 Tones RU 63

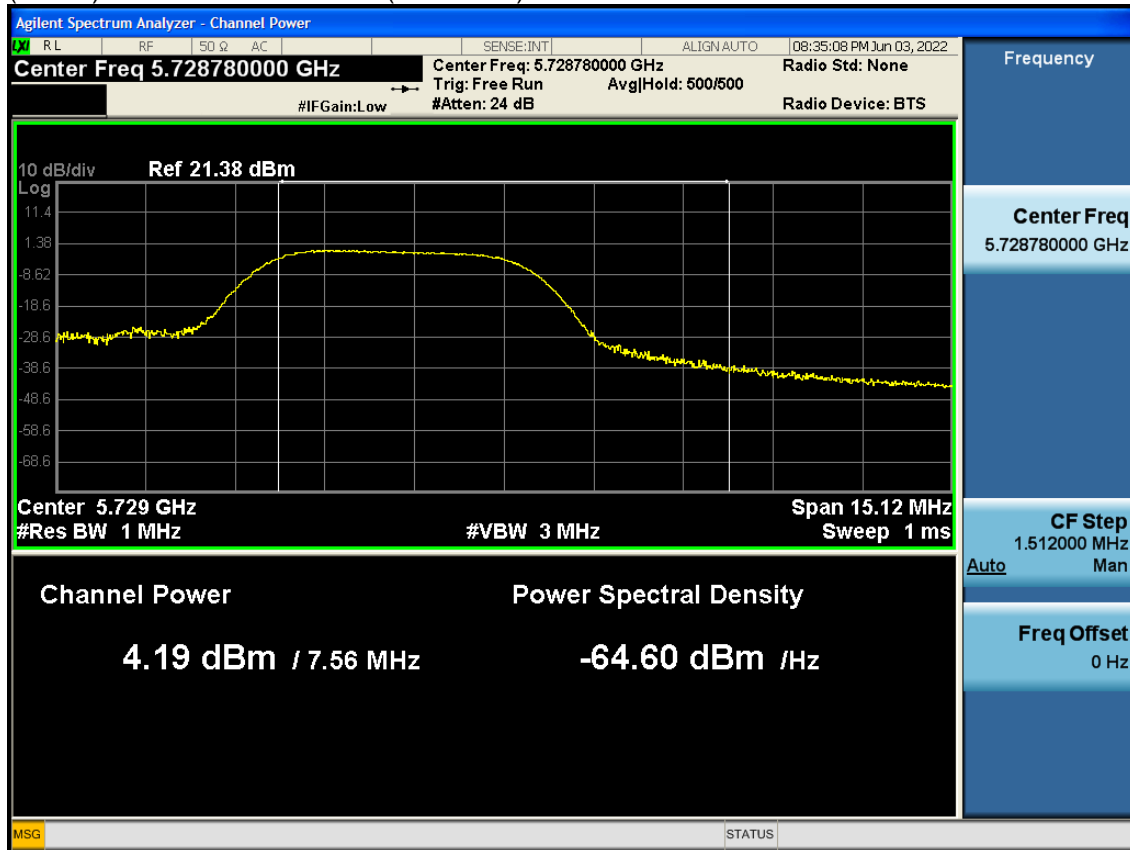


Measured Value (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)
15.65	0.028	15.68

Note:

Total Power (dBm) = Measured Value (dBm) + Duty Cycle Factor (dB)

(UNII 3) Bandwidth 80M Ch.138(5690 MHz) 52 Tones RU 52



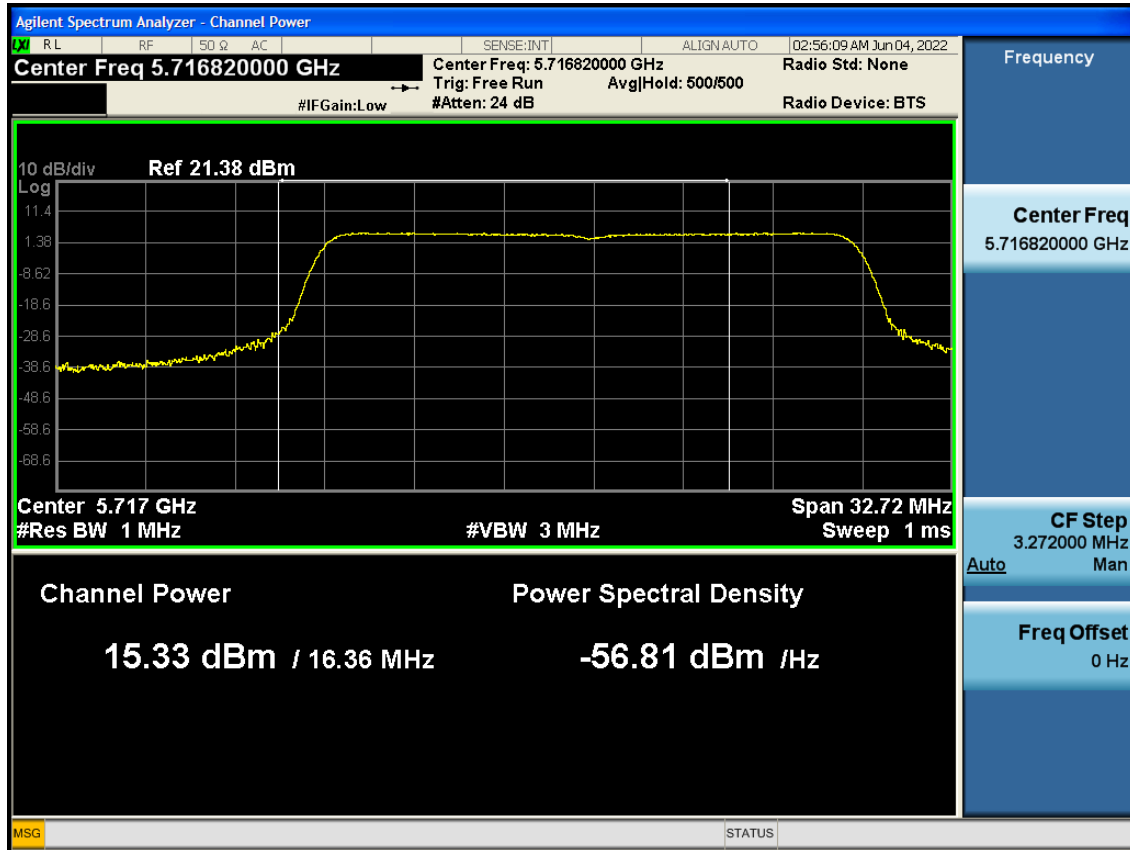
Measured Value (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)
4.19	0.030	4.22

Note:

Total Power (dBm) = Measured Value (dBm) + Duty Cycle Factor (dB)

5.3.2 SISO Ant2

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

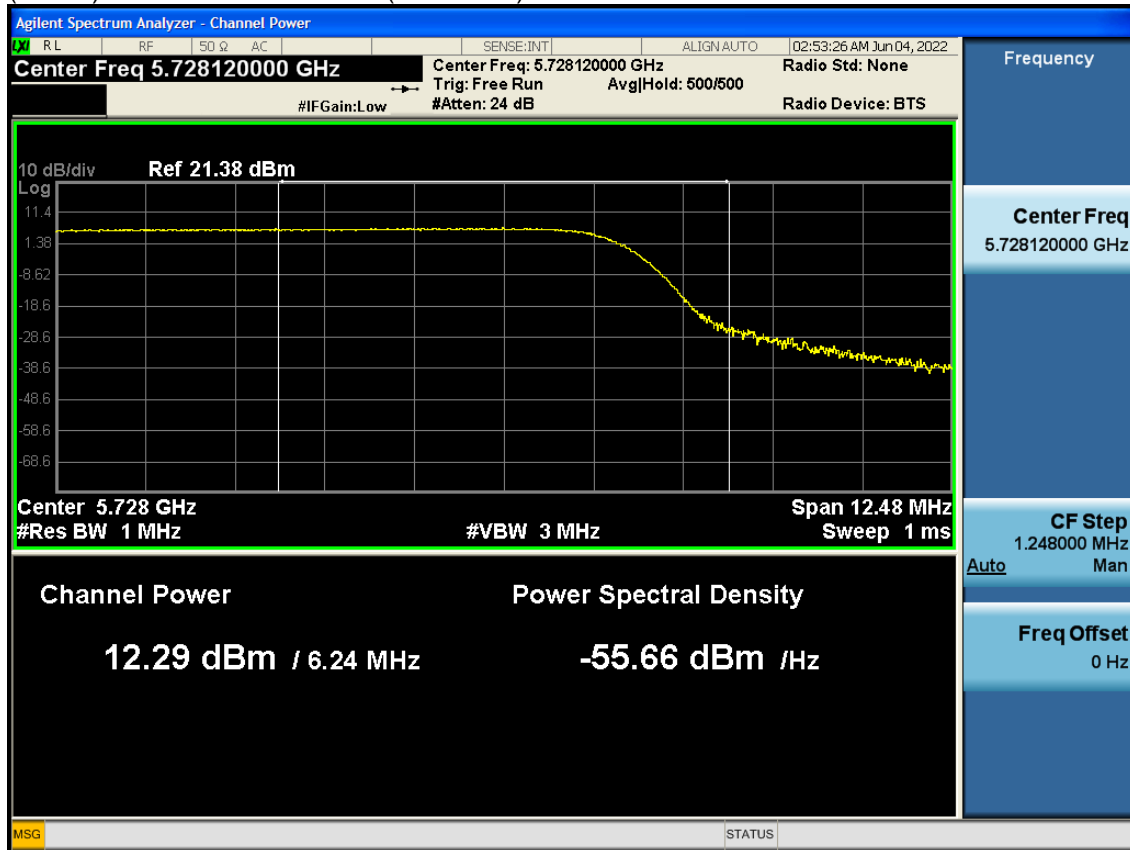


Measured Value (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)
15.33	0.032	15.36

Note:

Total Power (dBm) = Measured Value (dBm) + Duty Cycle Factor (dB)

(UNII 3) Bandwidth 20M Ch.144(5720 MHz) 106 Tones RU 54

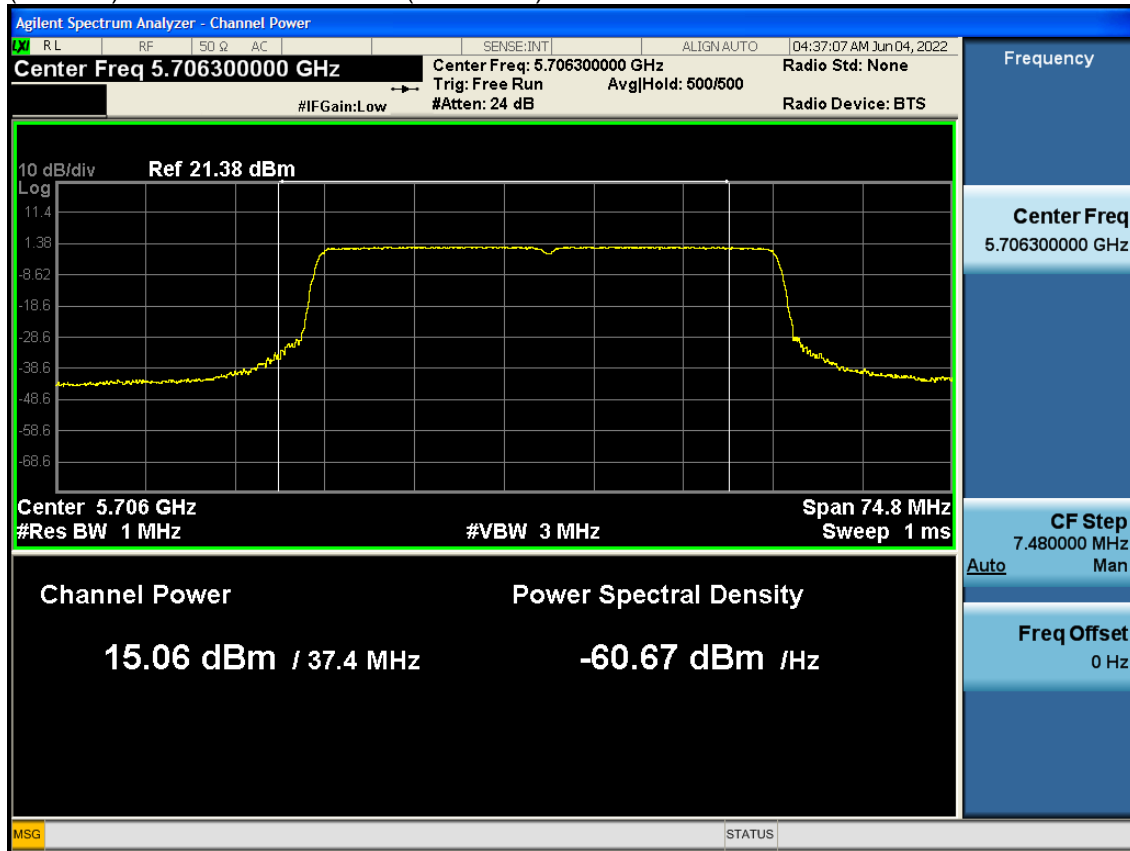


Measured Value (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)
12.29	0.027	12.32

Note:

Total Power (dBm) = Measured Value (dBm) + Duty Cycle Factor (dB)

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

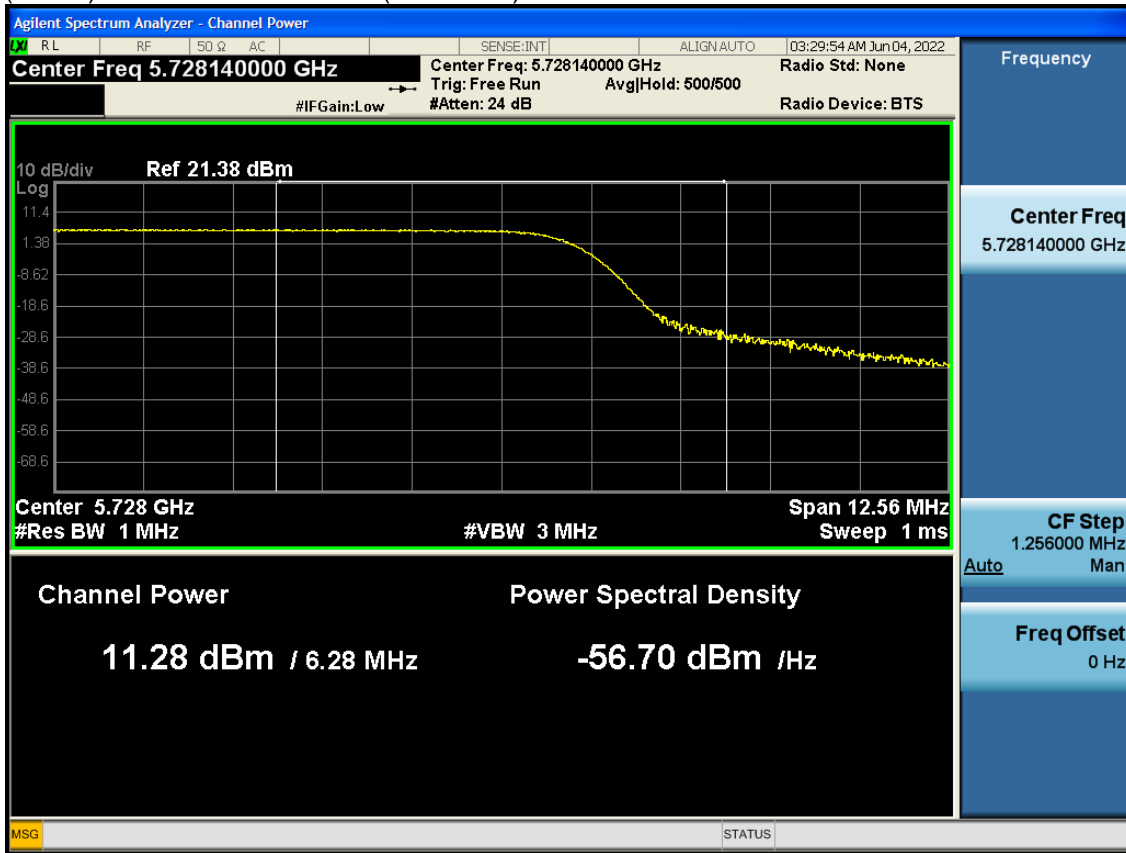


Measured Value (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)
15.06	0.032	15.09

Note:

Total Power (dBm) = Measured Value (dBm) + Duty Cycle Factor (dB)

(UNII 3) Bandwidth 40M Ch.142(5710 MHz) 106 Tones RU 56

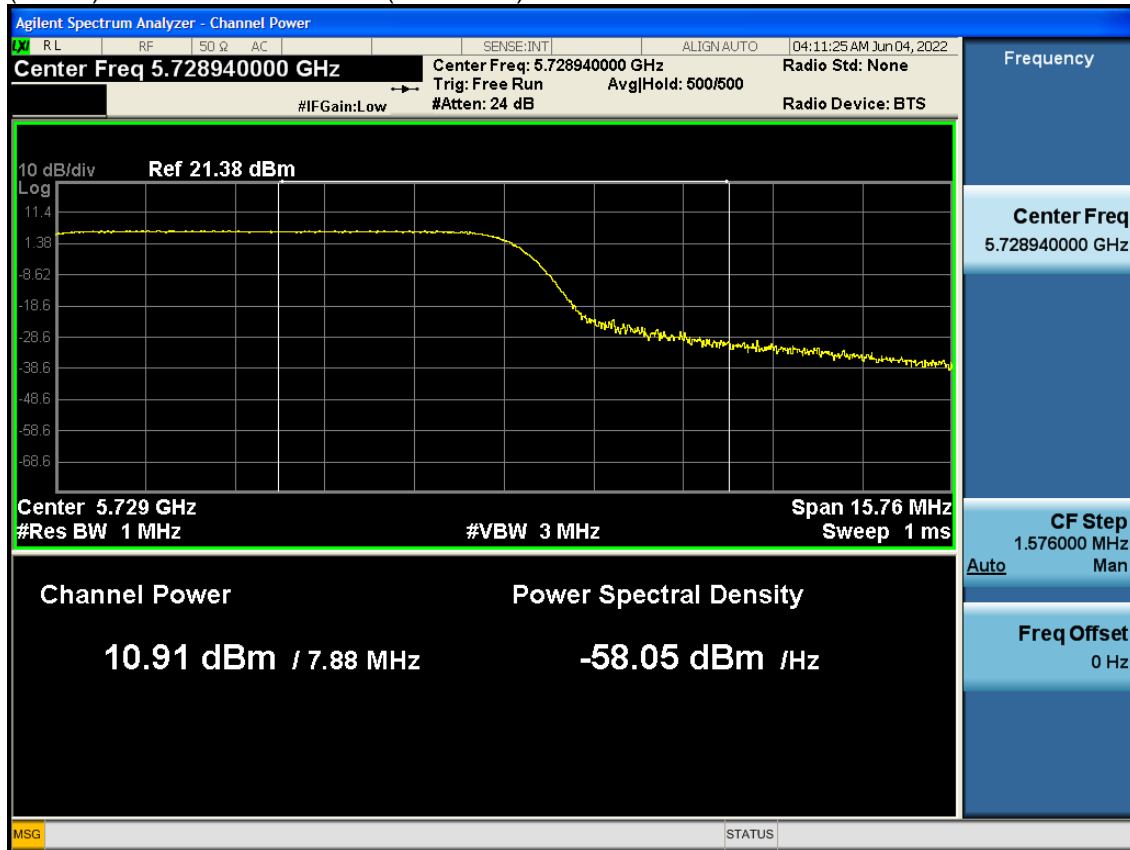


Measured Value (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)
11.28	0.032	11.31

Note:

Total Power (dBm) = Measured Value (dBm) + Duty Cycle Factor (dB)

(UNII 3) Bandwidth 80M Ch.138(5690 MHz) 106 Tones RU 60



Measured Value (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)
10.91	0.032	10.94

Note:

Total Power (dBm) = Measured 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 SISO Ant1

(UNII 2C) Bandwidth 20M Ch.144(5720 MHz) 52 Tones RU 37



Measured Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
6.856	0.030	6.886

Note:

Total PSD (dBm) = Measured Value (dBm) + Duty Cycle Factor (dB)

(UNII 3) Bandwidth 20M Ch.144(5720 MHz) 52 Tones RU 40



Measured Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
3.963	0.030	3.993

Note:

Total PSD (dBm) = Measured Value (dBm) + Duty Cycle Factor (dB)

(UNII 2C) Bandwidth 40M Ch.142(5710 MHz) 106 Tones RU 55

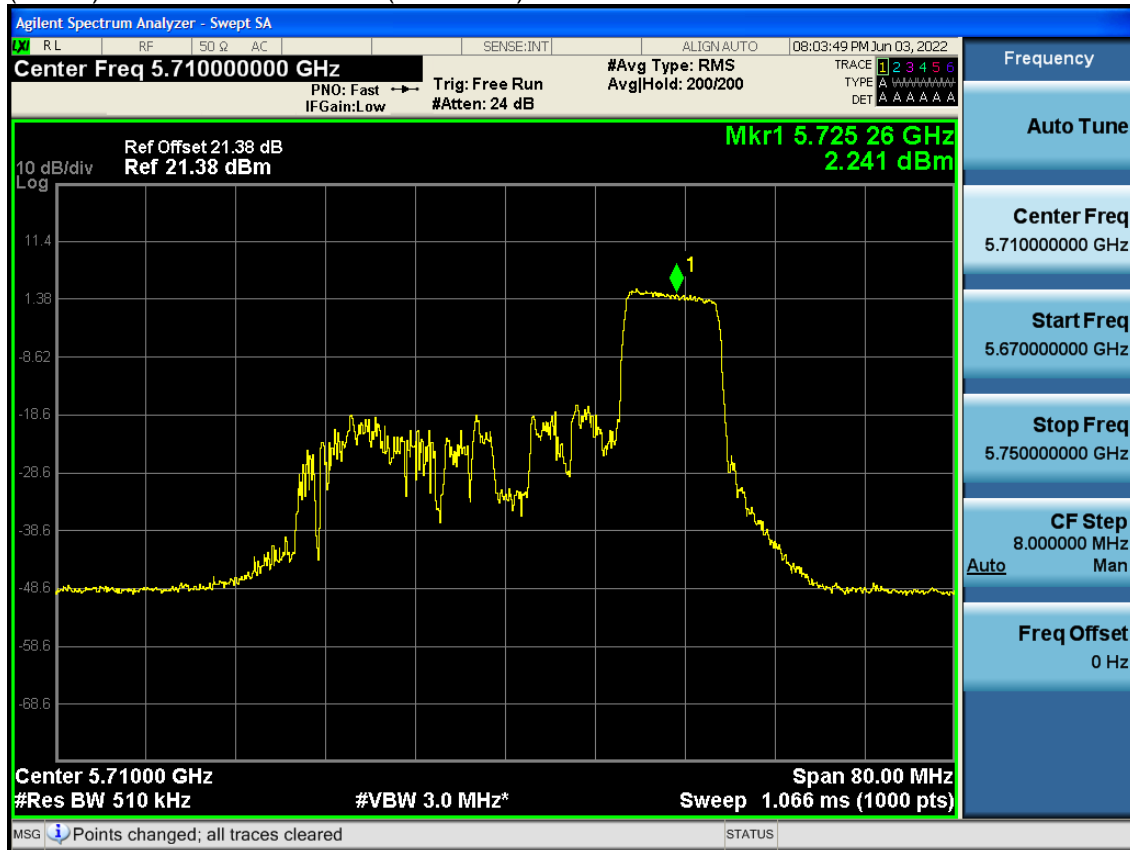


Measured Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
6.448	0.032	6.480

Note:

Total PSD (dBm) = Measured Value (dBm) + Duty Cycle Factor (dB)

(UNII 3) Bandwidth 40M Ch.142(5710 MHz) 106 Tones RU 56



Measured Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
2.241	0.032	2.273

Note:

Total PSD (dBm) = Measured Value (dBm) + Duty Cycle Factor (dB)

(UNII 2C) Bandwidth 80M Ch.138(5690 MHz) 106 Tones RU 59



Measured Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
4.753	0.032	4.785

Note:

Total PSD (dBm) = Measured Value (dBm) + Duty Cycle Factor (dB)

(UNII 3) Bandwidth 80M Ch.138(5690 MHz) 52 Tones RU 52



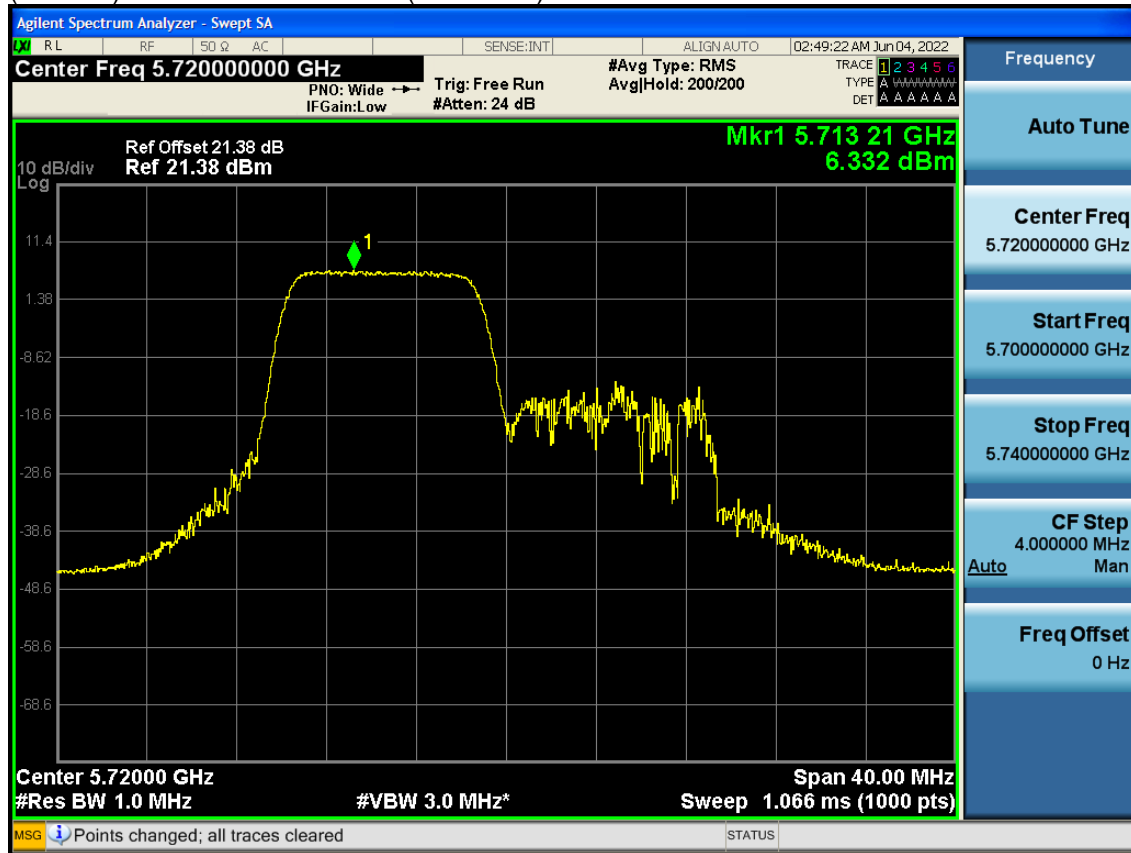
Measured Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
-4.183	0.030	-4.153

Note:

Total PSD (dBm) = Measured Value (dBm) + Duty Cycle Factor (dB)

5.4.2 SISO Ant2

(UNII 2C) Bandwidth 20M Ch.144(5720 MHz) 106 Tones RU 53

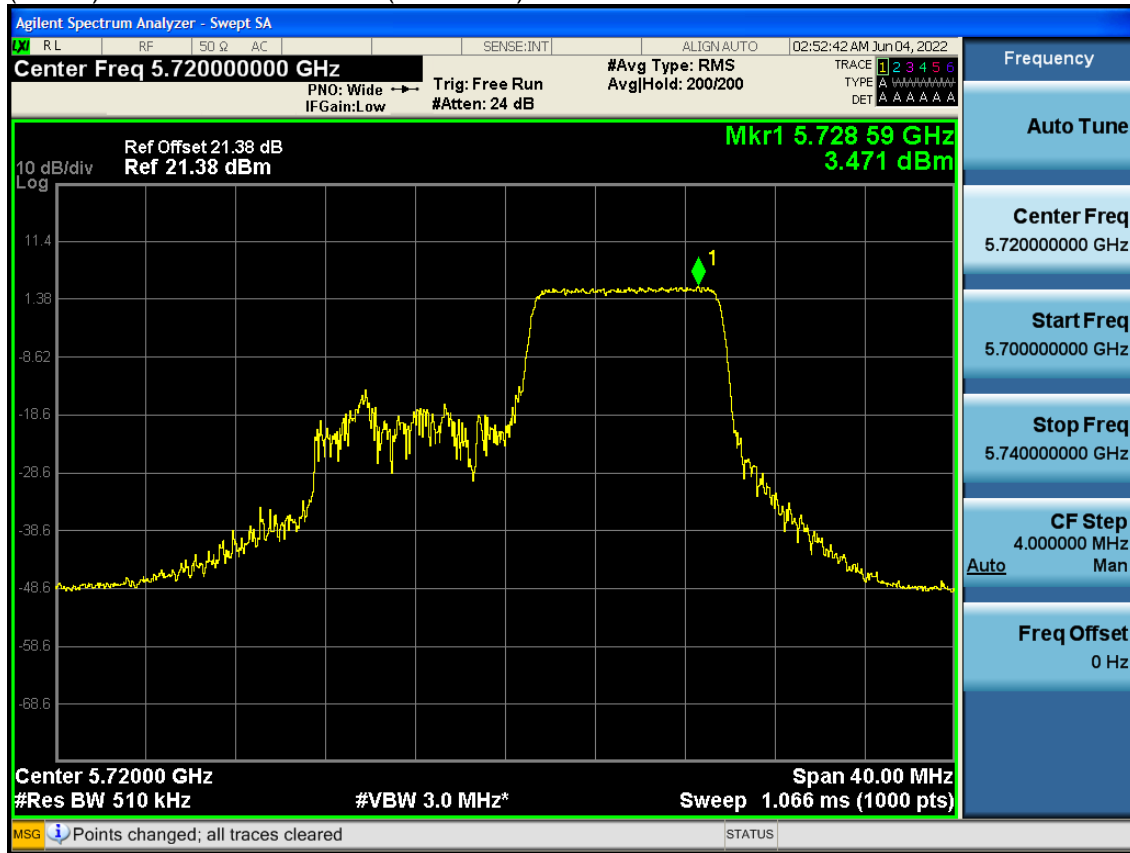


Measured Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
6.332	0.027	6.359

Note:

Total PSD (dBm) = Measured Value (dBm) + Duty Cycle Factor (dB)

(UNII 3) Bandwidth 20M Ch.144(5720 MHz) 106 Tones RU 54



Measured Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
3.471	0.027	3.498

Note:

Total PSD (dBm) = Measured Value (dBm) + Duty Cycle Factor (dB)

(UNII 2C) Bandwidth 40M Ch.142(5710 MHz) 106 Tones RU 55



Measured Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
6.030	0.032	6.062

Note:

Total PSD (dBm) = Measured Value (dBm) + Duty Cycle Factor (dB)

(UNII 3) Bandwidth 40M Ch.142(5710 MHz) 106 Tones RU 56



Measured Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
2.941	0.032	2.973

Note:

Total PSD (dBm) = Measured Value (dBm) + Duty Cycle Factor (dB)

(UNII 2C) Bandwidth 80M Ch.138(5690 MHz) 106 Tones RU 59



Frequency
Auto Tune
Center Freq 5.69000000 GHz
Start Freq 5.61000000 GHz
Stop Freq 5.77000000 GHz
CF Step 16.000000 MHz Auto Man
Freq Offset 0 Hz

Measured Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
5.028	0.032	5.060

Note:

Total PSD (dBm) = Measured Value (dBm) + Duty Cycle Factor (dB)

(UNII 3) Bandwidth 80M Ch.138(5690 MHz) 106 Tones RU 60



Measured Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
2.093	0.032	2.125

Note:

Total PSD (dBm) = Measured Value (dBm) + Duty Cycle Factor (dB)