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<p>Appendix B: 802.11ax Test Plot</p>	<p>FCC ID A3LSMA546JPN</p>
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**REVISION HISTORY**

The revision history for this document is shown in table.

Revision No.	Date of Issue	Description
0	February 27, 2023	Initial Release

**Note:**

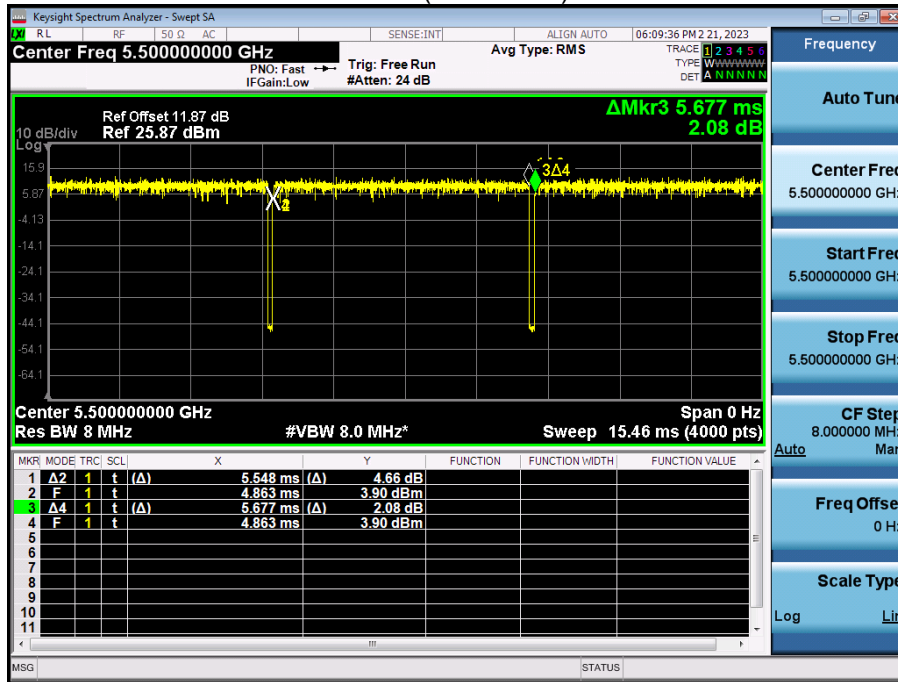
In order to simplify the report, attached plots were only the most lowest datarate.

# 1. Duty Cycle

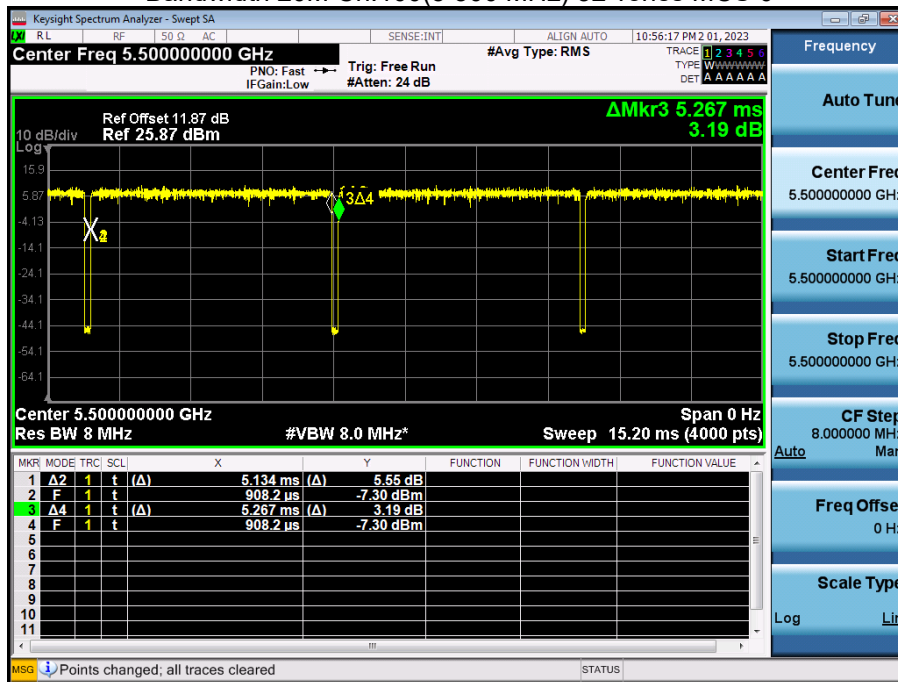
Note :

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

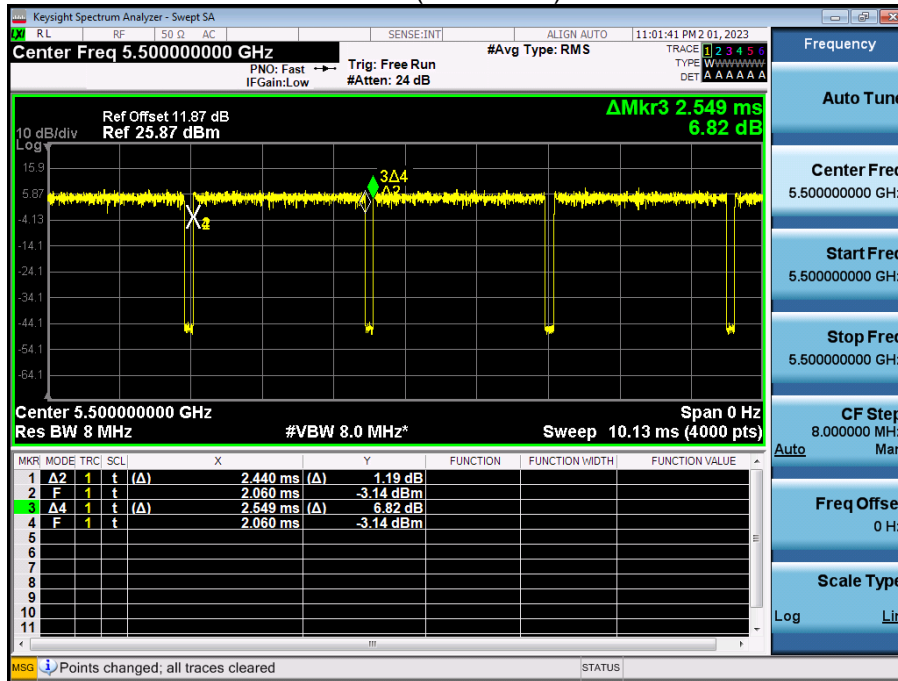
Bandwidth 20M Ch.100(5 500 MHz) 26 Tones MCS 0



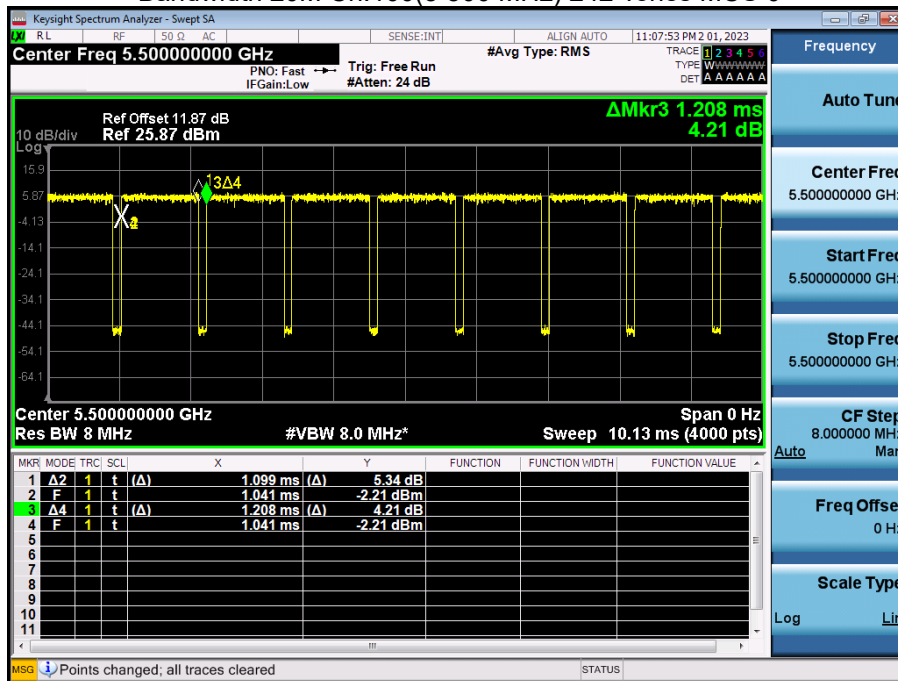
Bandwidth 20M Ch.100(5 500 MHz) 52 Tones MCS 0



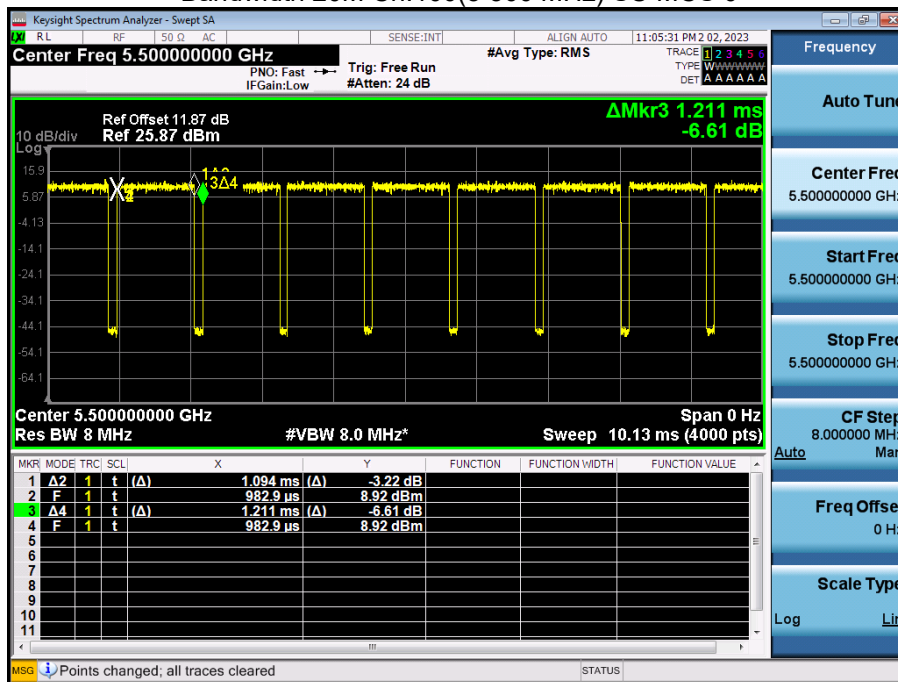
Bandwidth 20M Ch.100(5 500 MHz) 106 Tones MCS 0



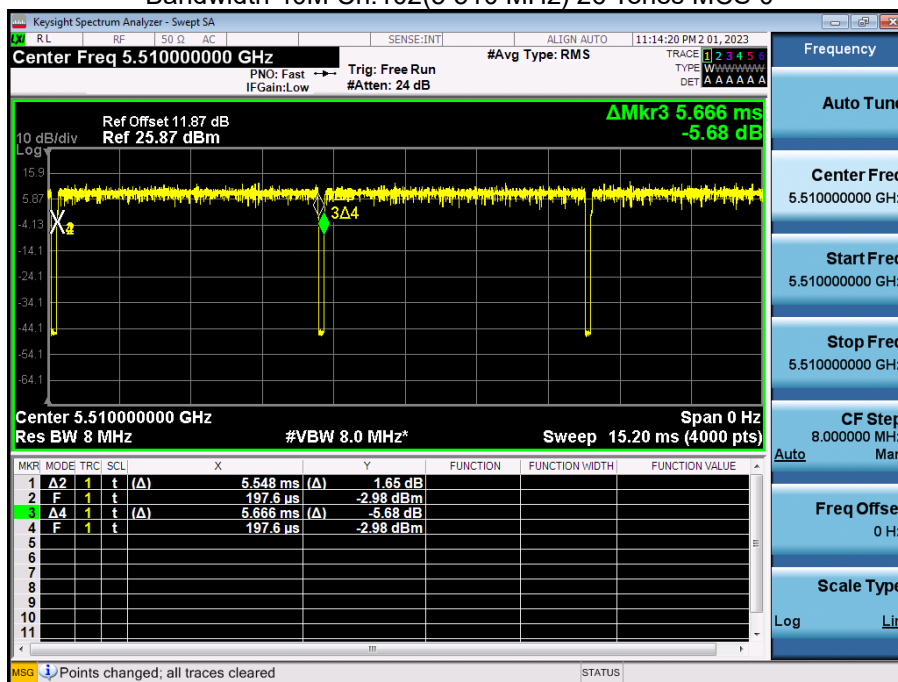
Bandwidth 20M Ch.100(5 500 MHz) 242 Tones MCS 0



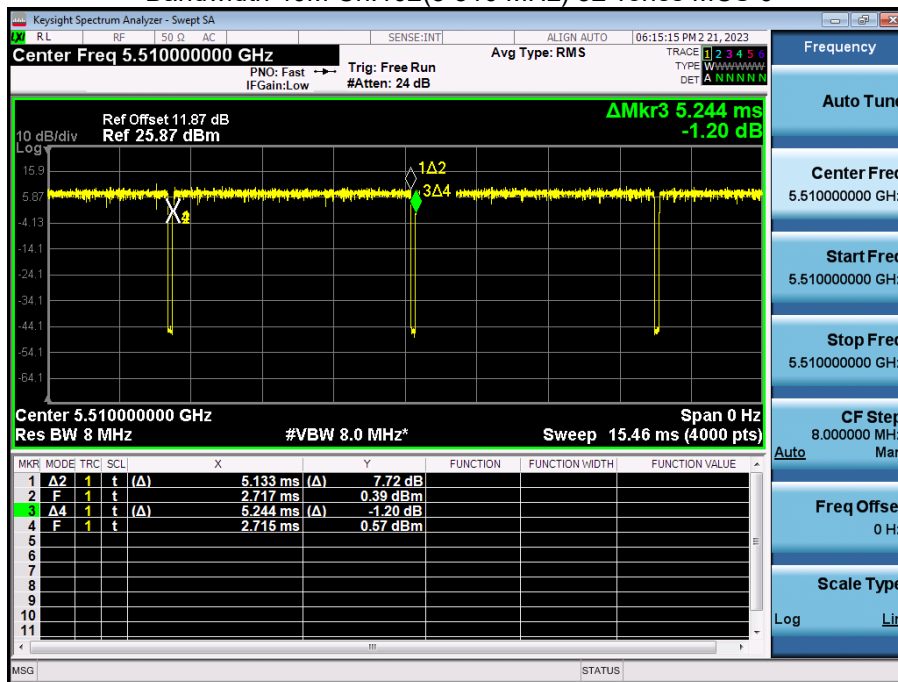
Bandwidth 20M Ch.100(5 500 MHz) SU MCS 0



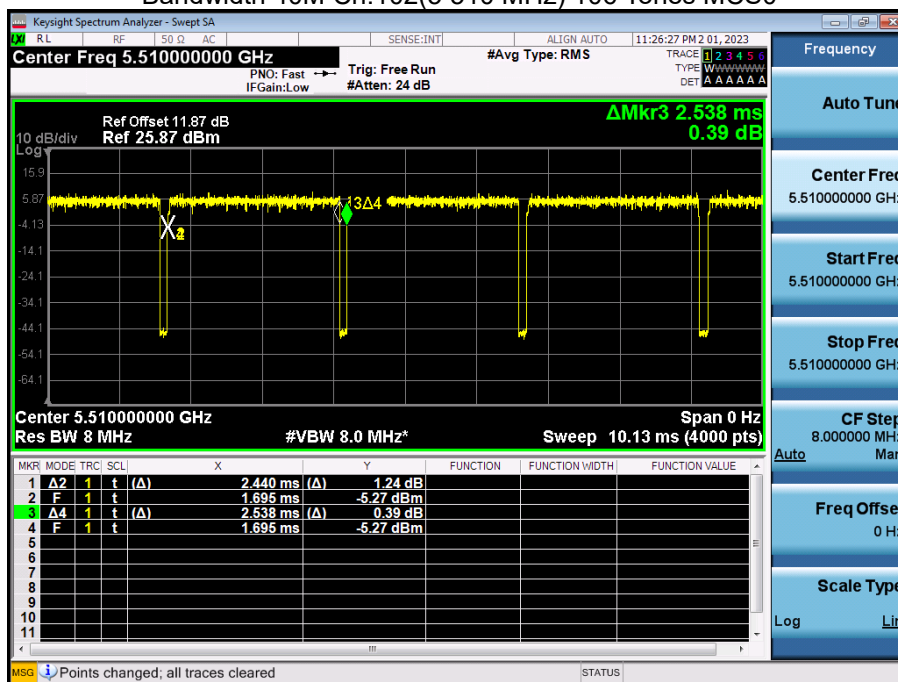
Bandwidth 40M Ch.102(5 510 MHz) 26 Tones MCS 0



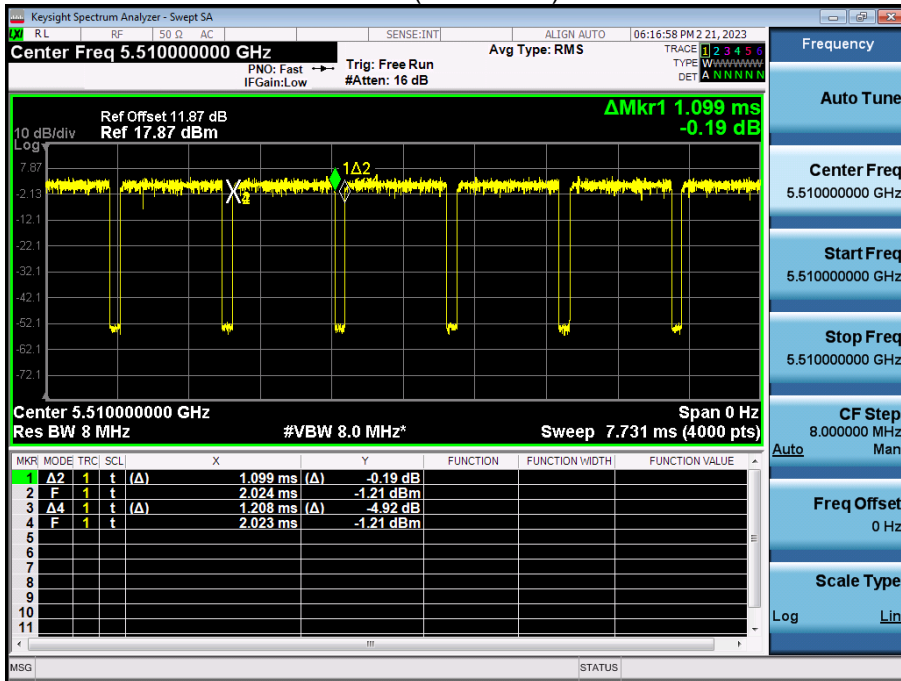
Bandwidth 40M Ch.102(5 510 MHz) 52 Tones MCS 0



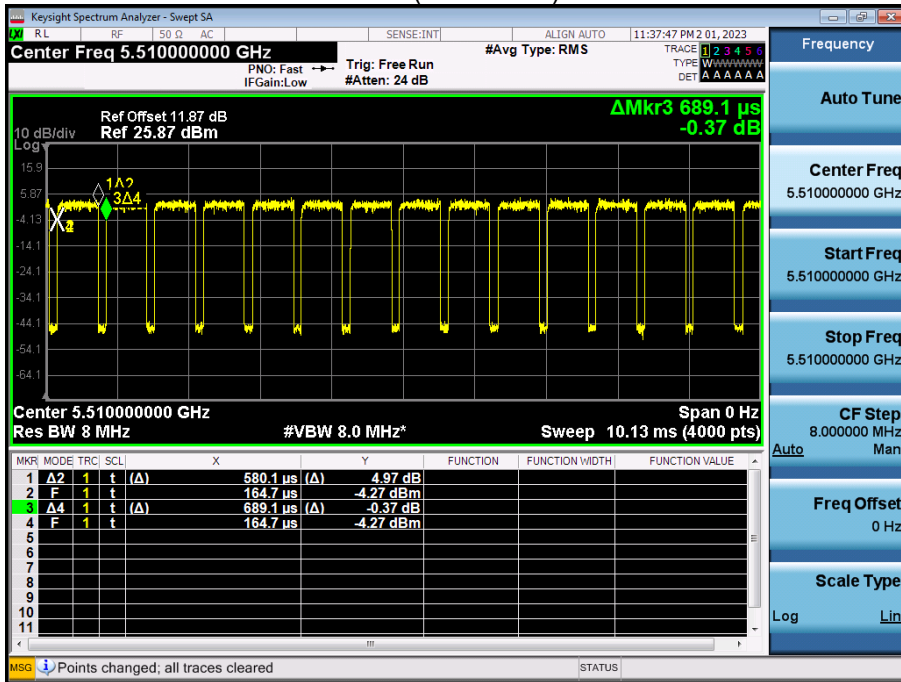
Bandwidth 40M Ch.102(5 510 MHz) 106 Tones MCS0



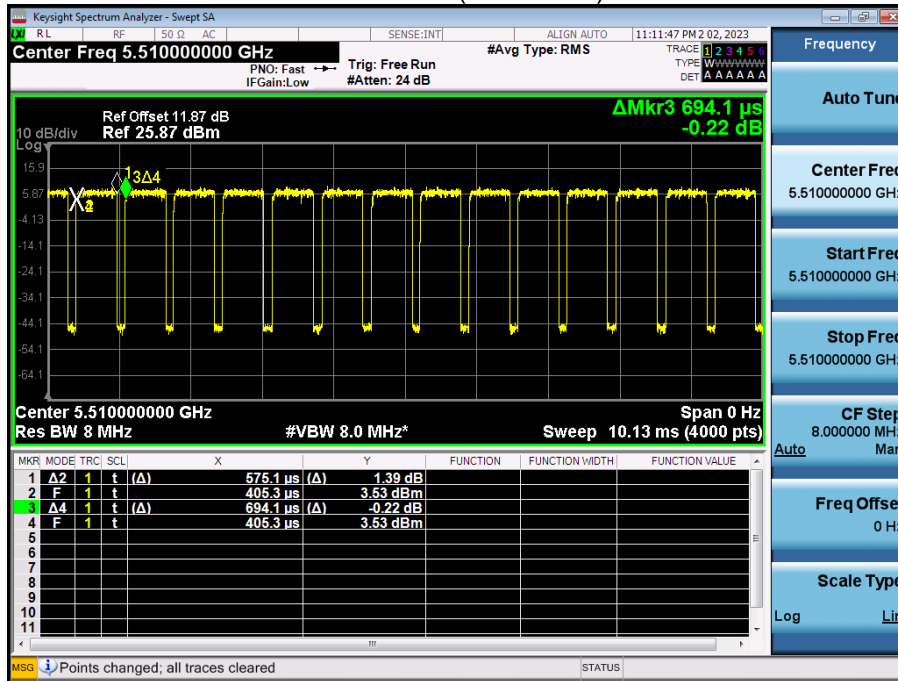
Bandwidth 40M Ch.102(5 510 MHz) 242 Tones MCS 0



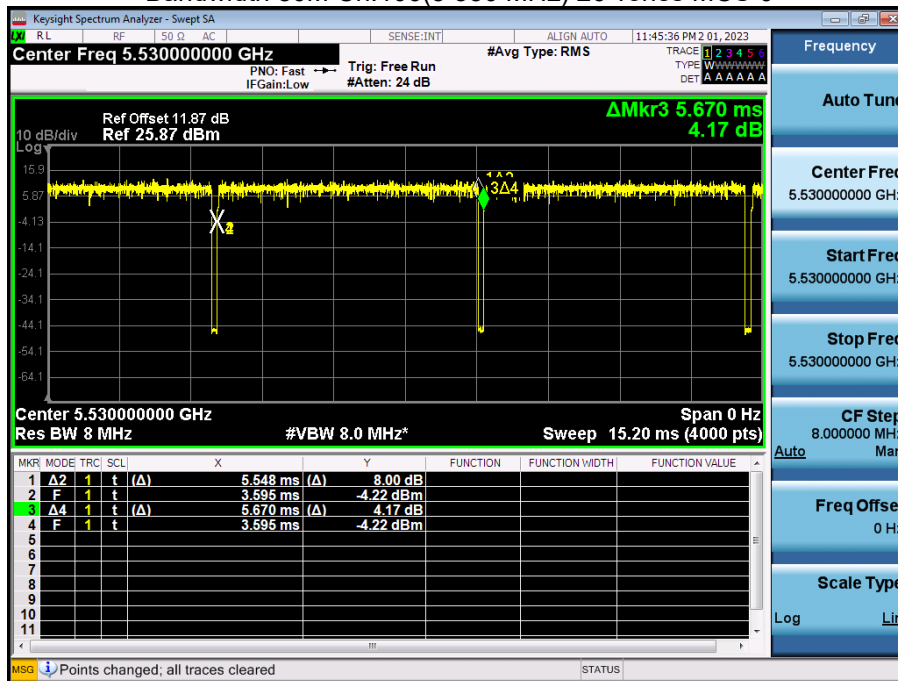
Bandwidth 40M Ch.102(5 510 MHz) 484 Tones MCS 0



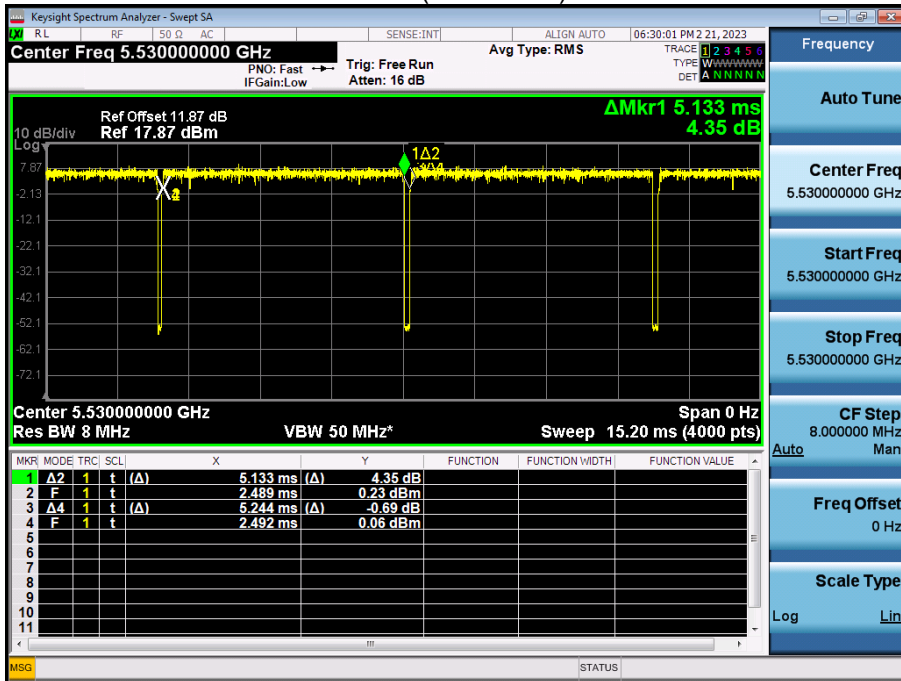
Bandwidth 40M Ch.102(5 510 MHz) SU MCS 0



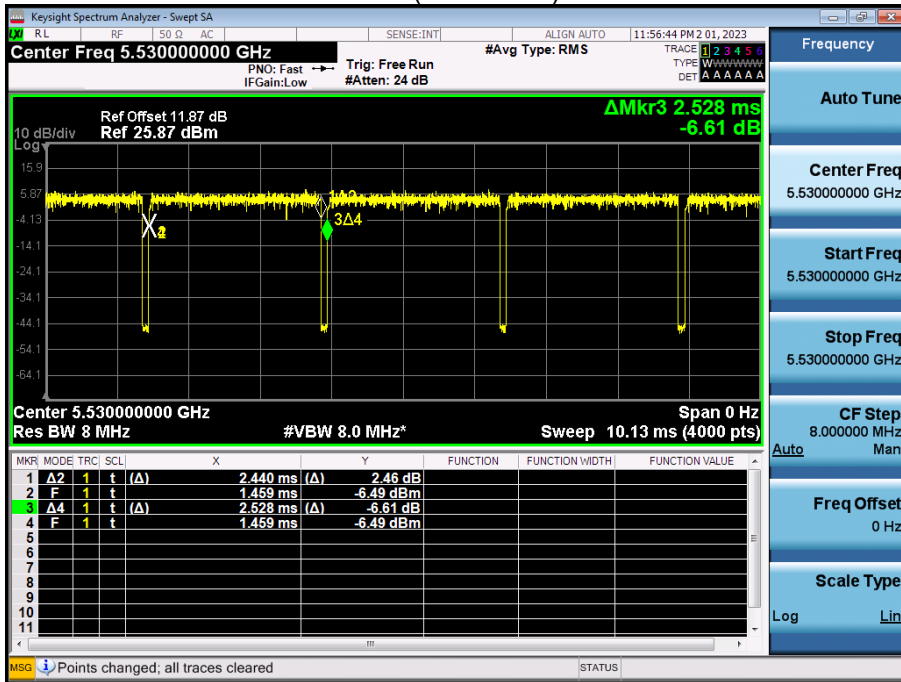
Bandwidth 80M Ch.106(5 530 MHz) 26 Tones MCS 0



Bandwidth 80M Ch.106(5 530 MHz) 52 Tones MCS 0

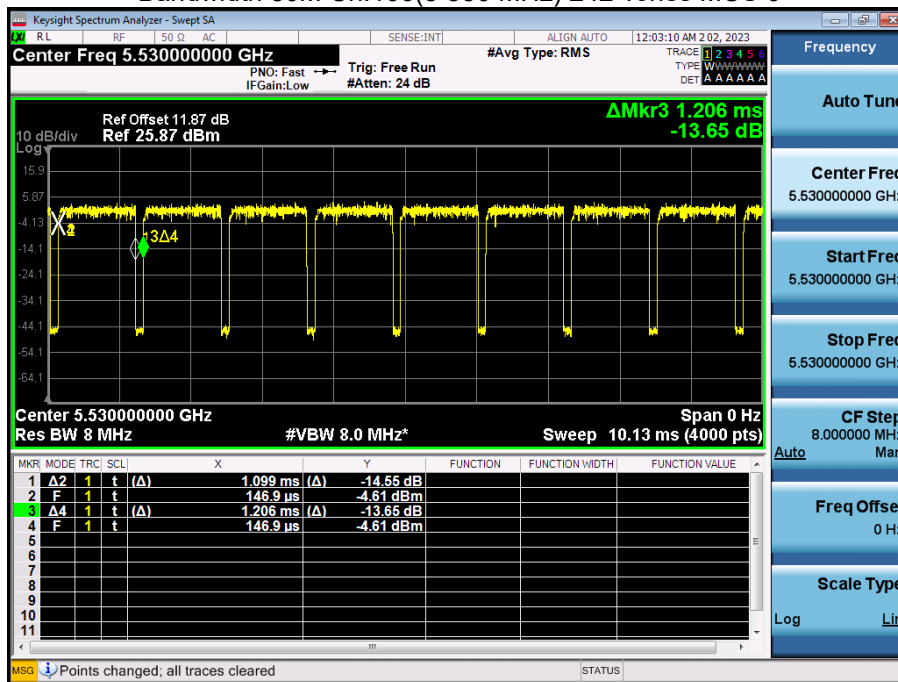


Bandwidth 80M Ch.106(5 530 MHz) 106 Tones MCS 0

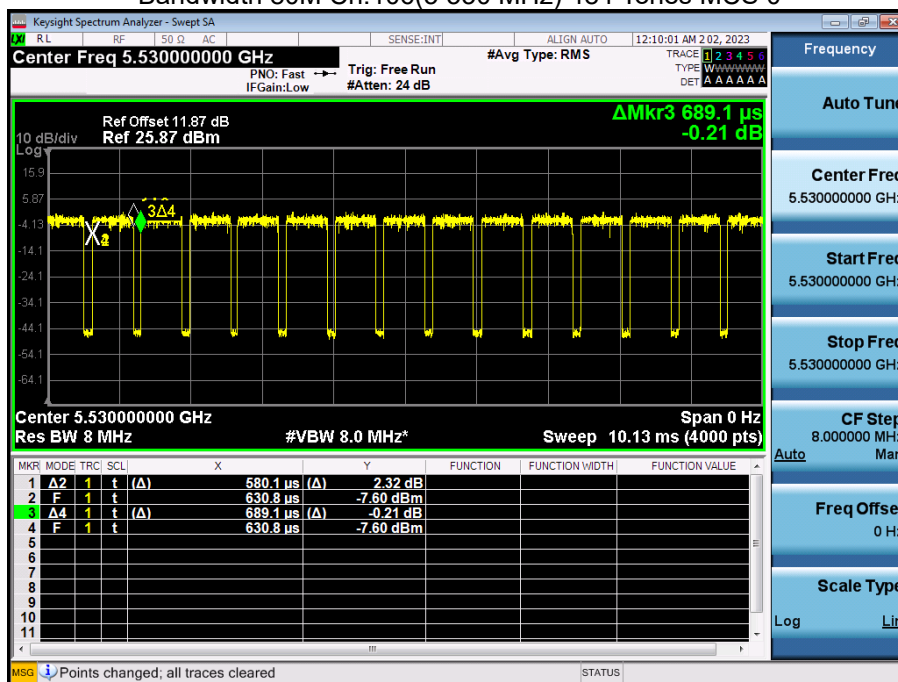




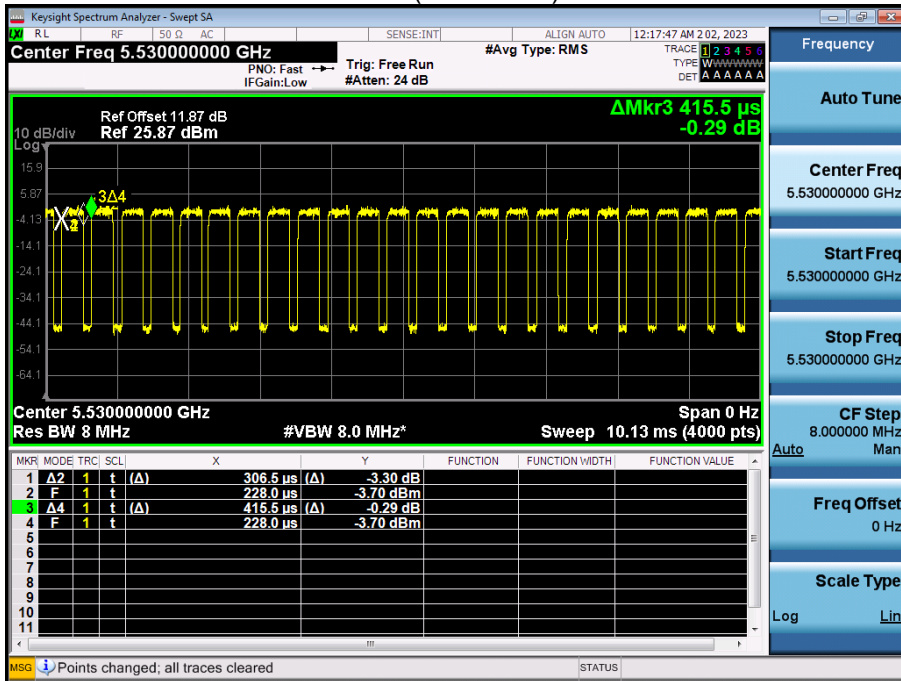
Bandwidth 80M Ch.106(5 530 MHz) 242 Tones MCS 0



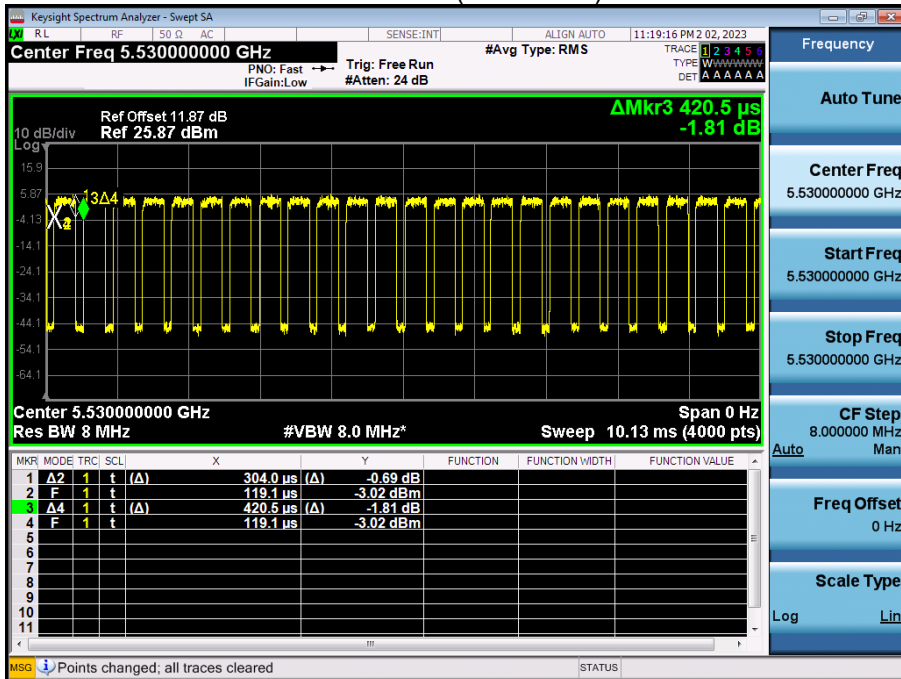
Bandwidth 80M Ch.106(5 530 MHz) 484 Tones MCS 0



Bandwidth 80M Ch.106(5 530 MHz) 996 Tones MCS 0



Bandwidth 80M Ch.106(5 530 MHz) SU MCS 0

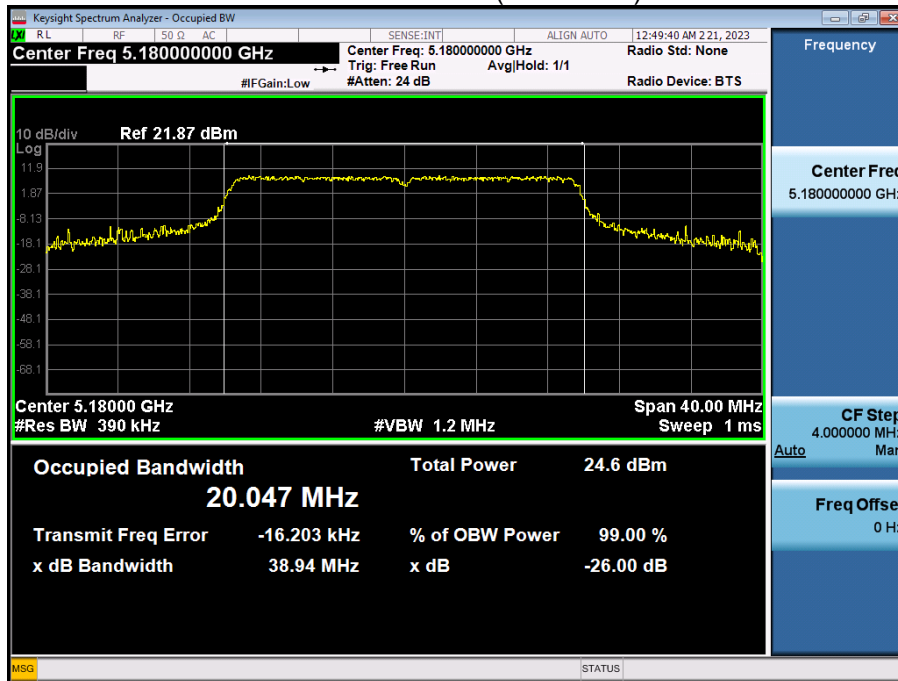


## 2. 26dB Bandwidth

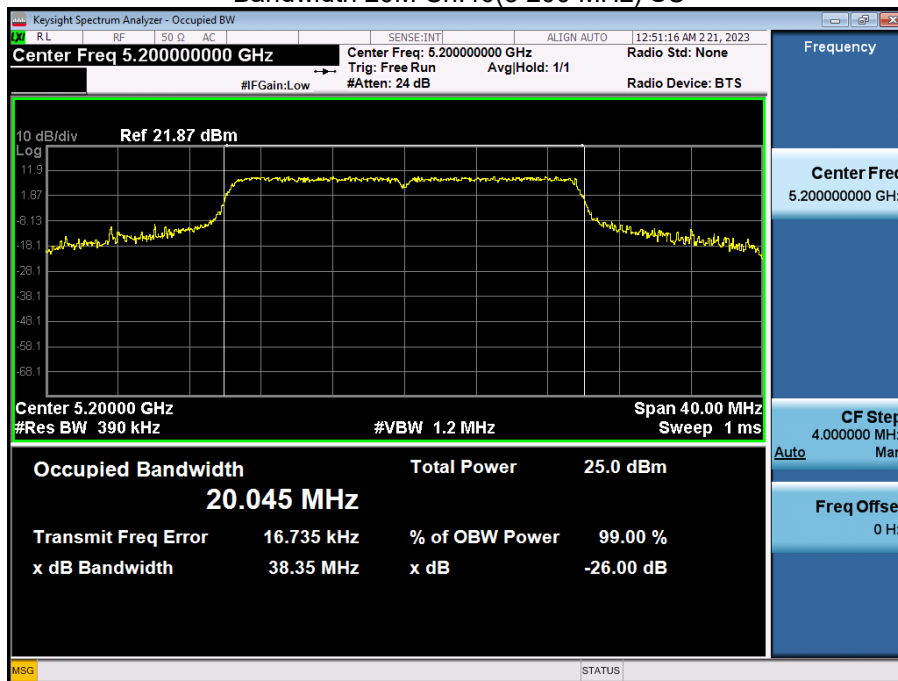
**Note:**

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

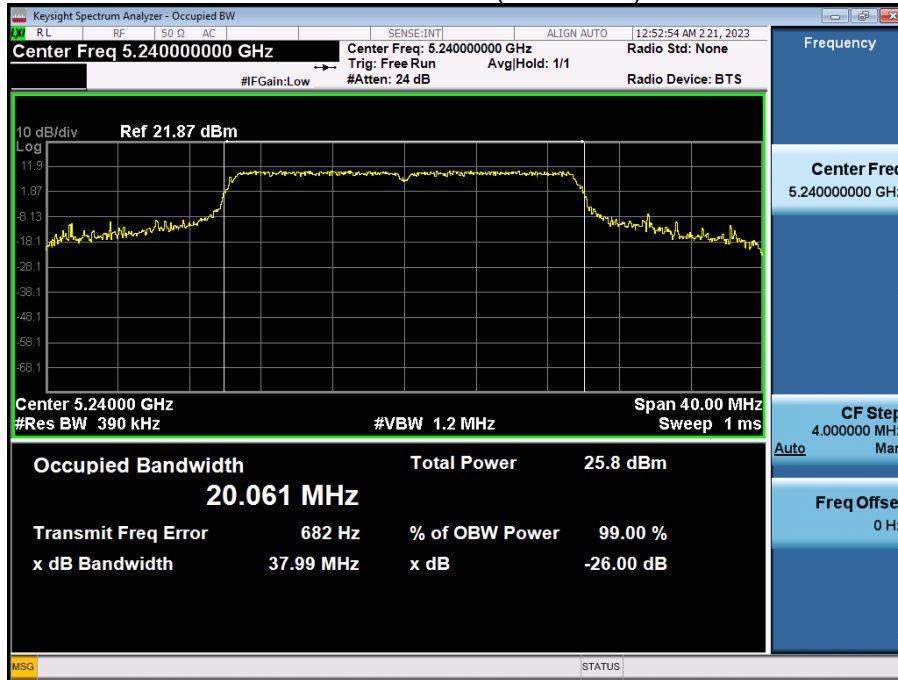
Bandwidth 20M Ch.36(5 180 MHz) SU



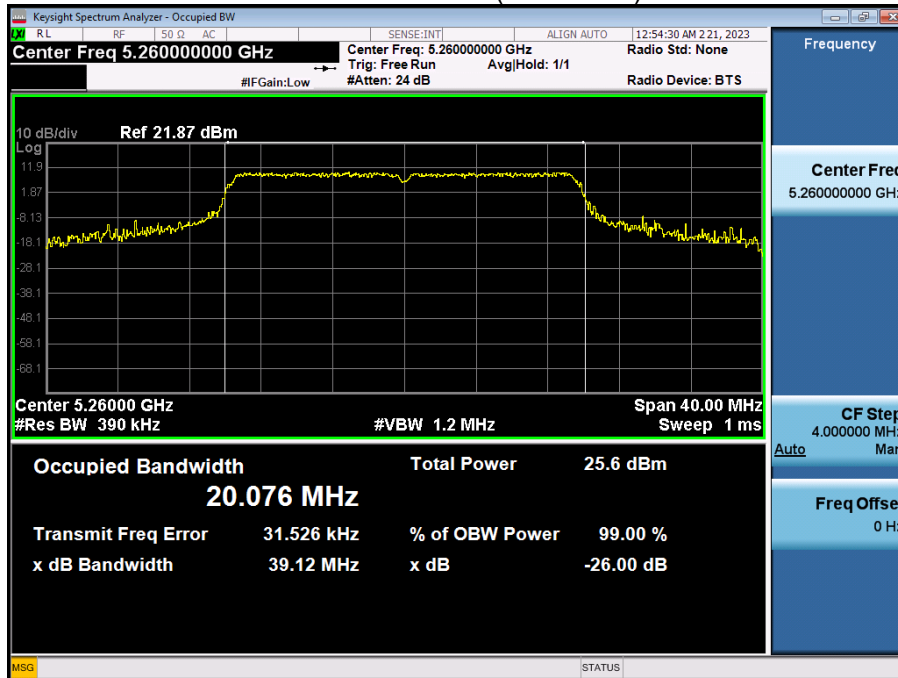
Bandwidth 20M Ch.40(5 200 MHz) SU



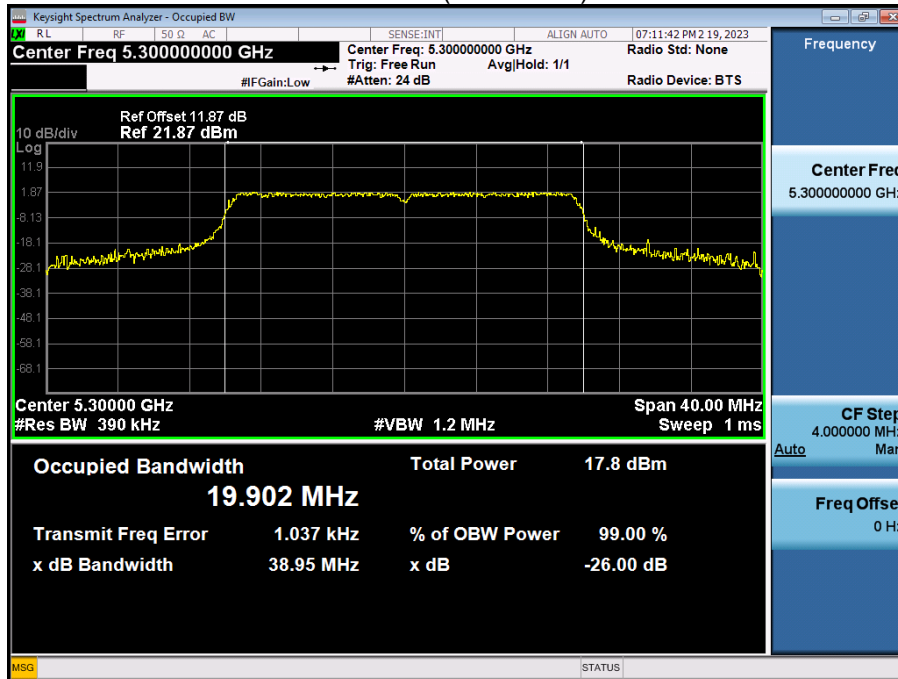
Bandwidth 20M Ch.48(5 240 MHz) SU



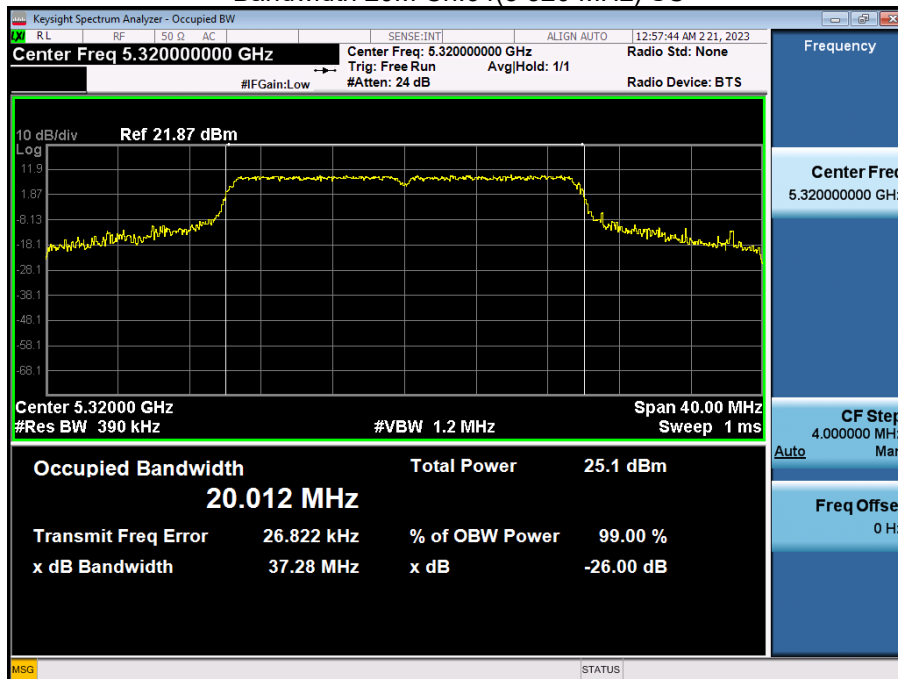
Bandwidth 20M Ch.52(5 260 MHz) SU



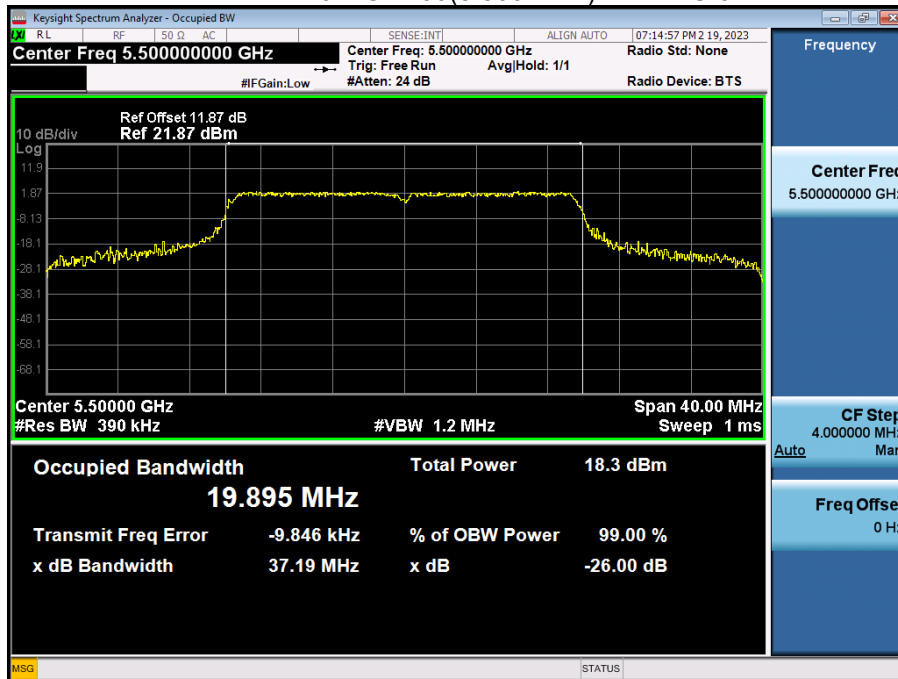
Bandwidth 20M Ch.60(5 300 MHz) 242T RU 61



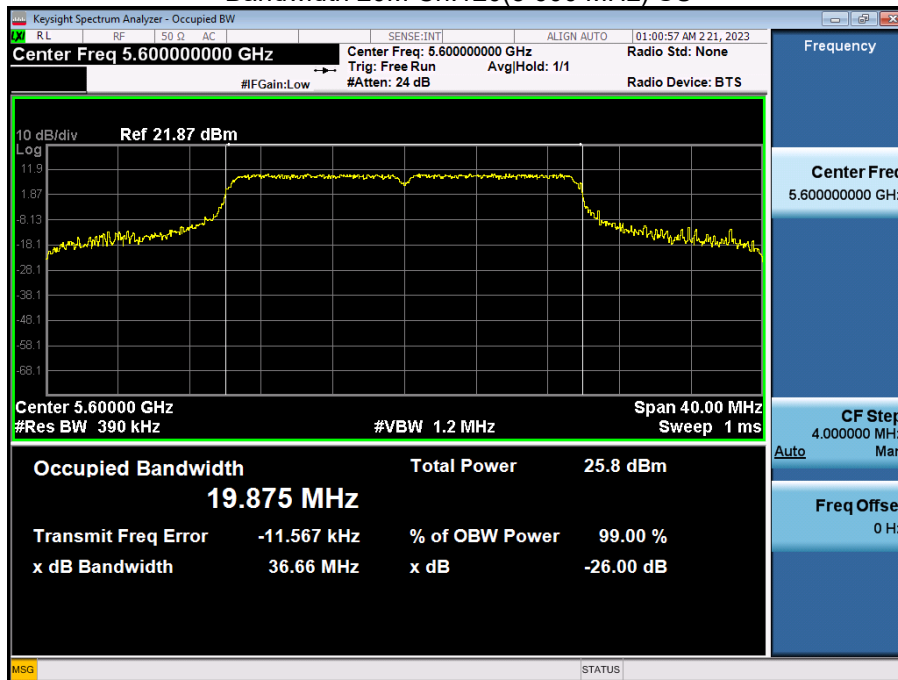
Bandwidth 20M Ch.64(5 320 MHz) SU



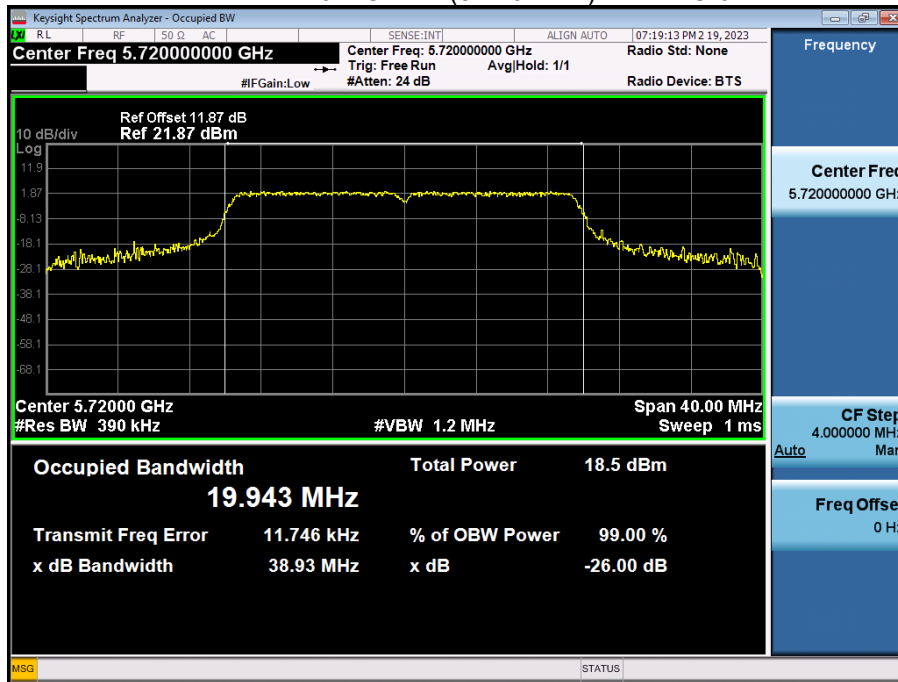
Bandwidth 20M Ch.100(5 500 MHz) 242T RU 61



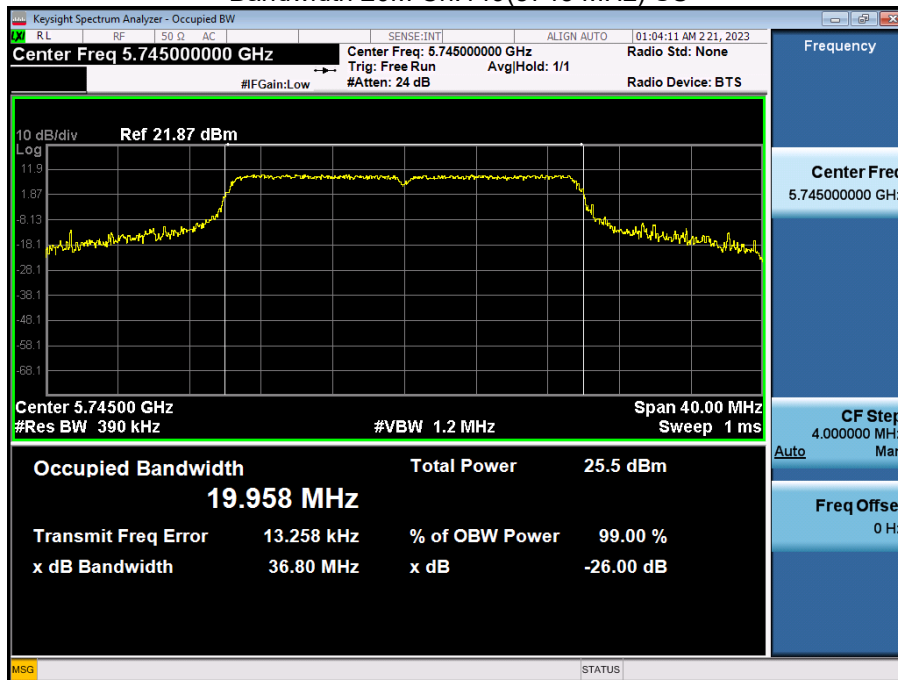
Bandwidth 20M Ch.120(5 600 MHz) SU



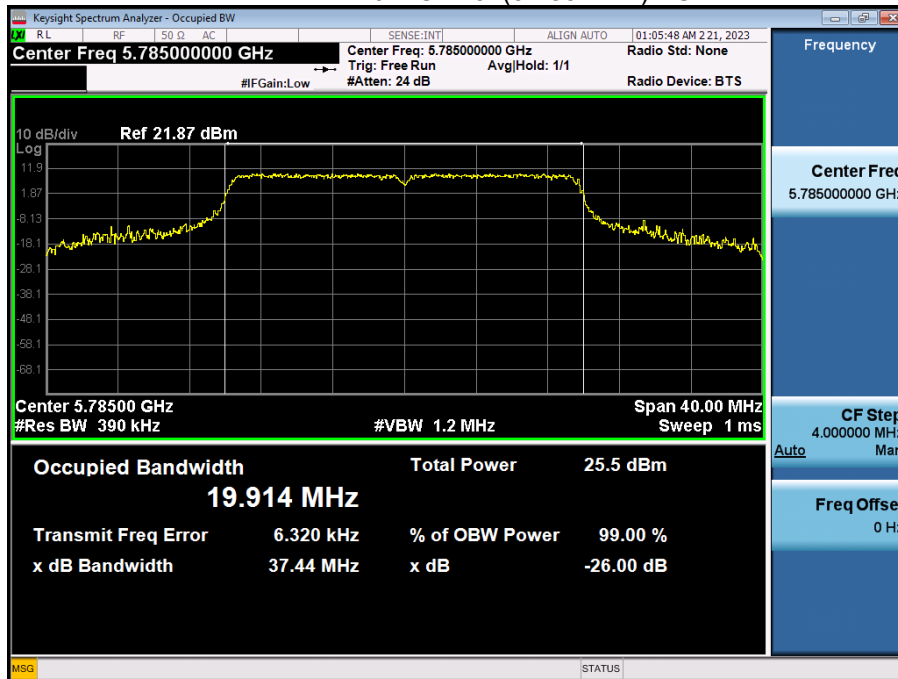
Bandwidth 20M Ch.144(5 720 MHz) 242T RU 61



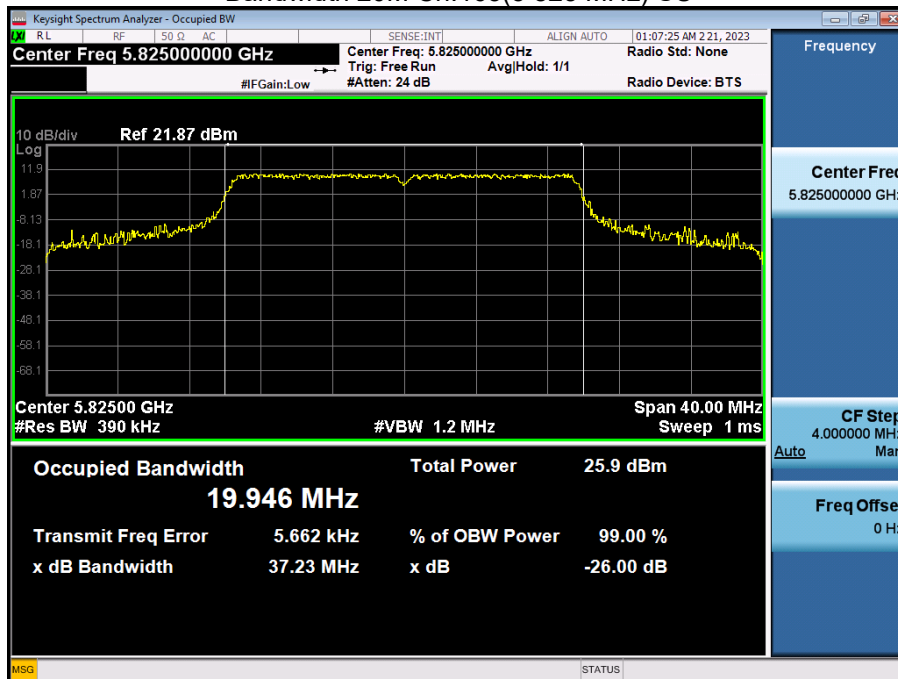
Bandwidth 20M Ch.149(5745 MHz) SU



Bandwidth 20M Ch.157(5 785 MHz) SU

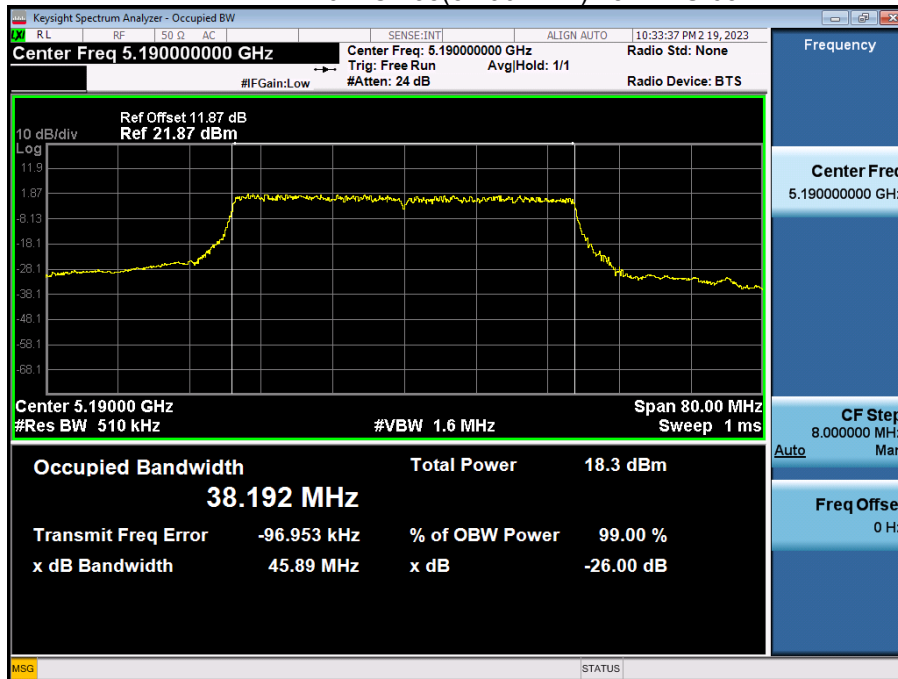


Bandwidth 20M Ch.165(5 825 MHz) SU

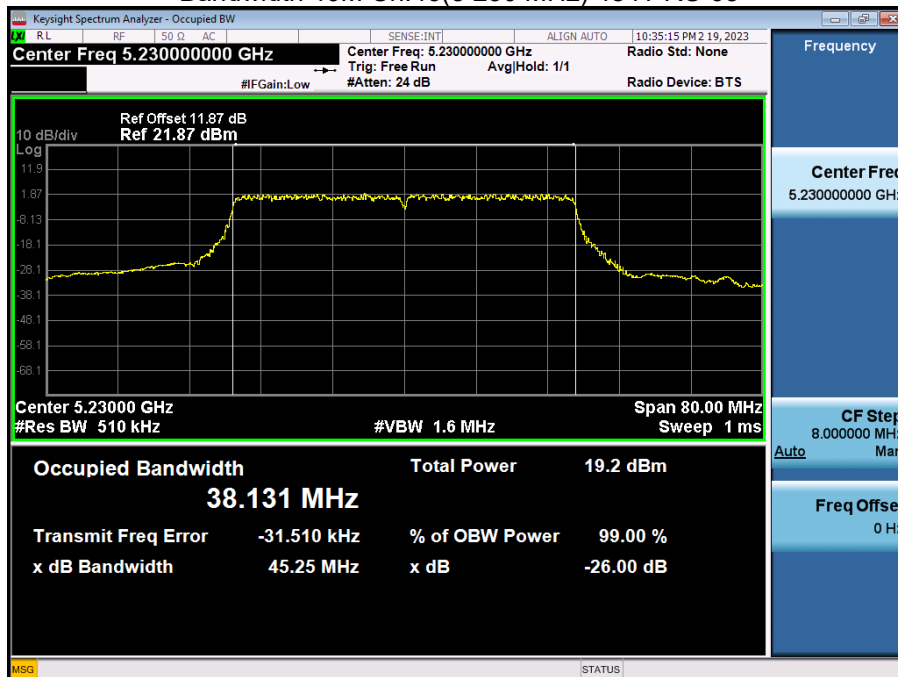




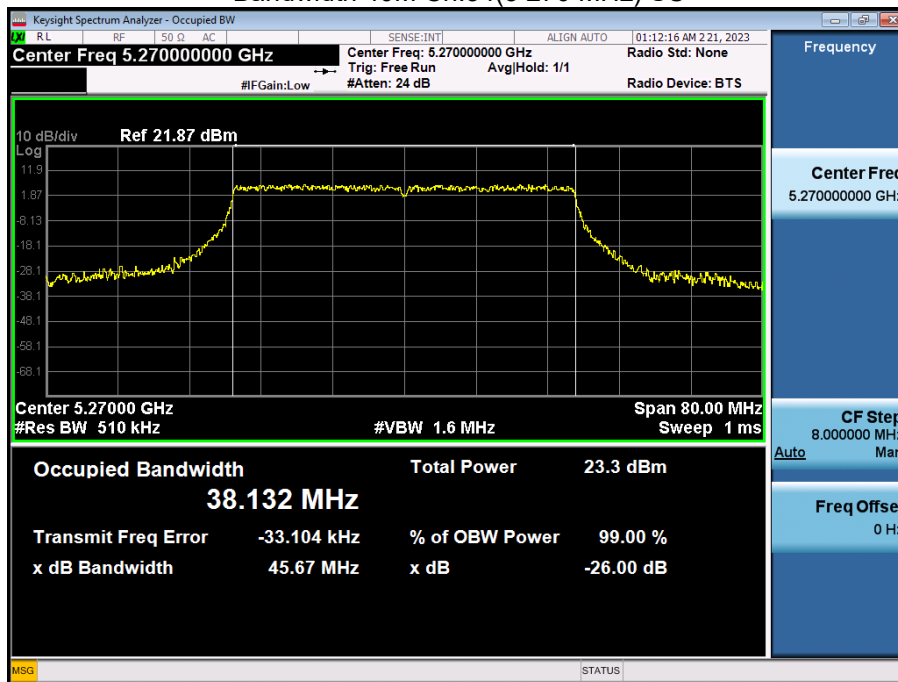
Bandwidth 40M Ch.38(5 190 MHz) 484T RU 65



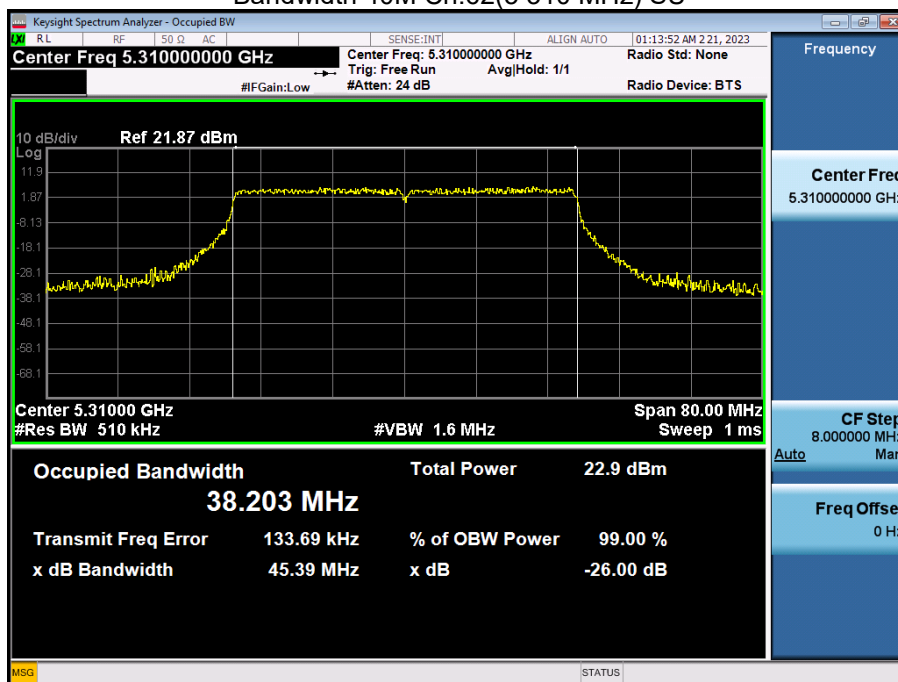
Bandwidth 40M Ch.46(5 230 MHz) 484T RU 65



Bandwidth 40M Ch.54(5 270 MHz) SU



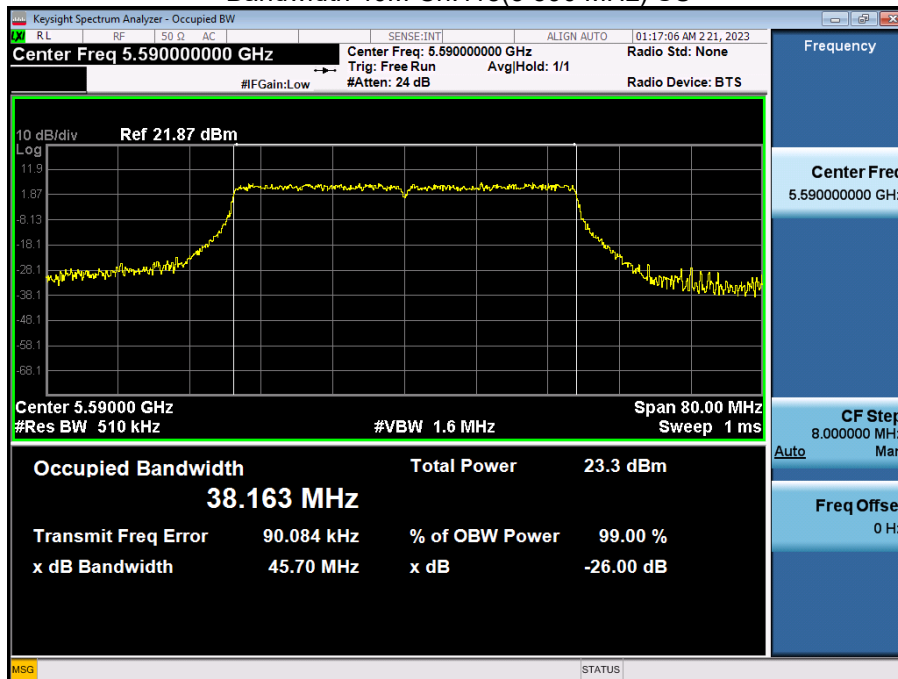
Bandwidth 40M Ch.62(5 310 MHz) SU



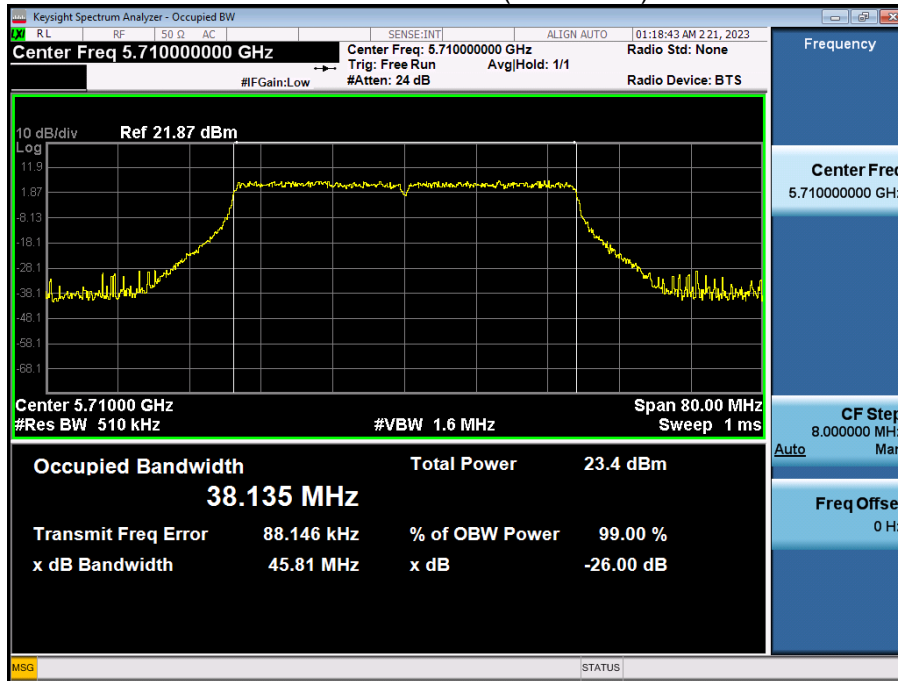
Bandwidth 40M Ch.102(5 510 MHz) 484T RU 65



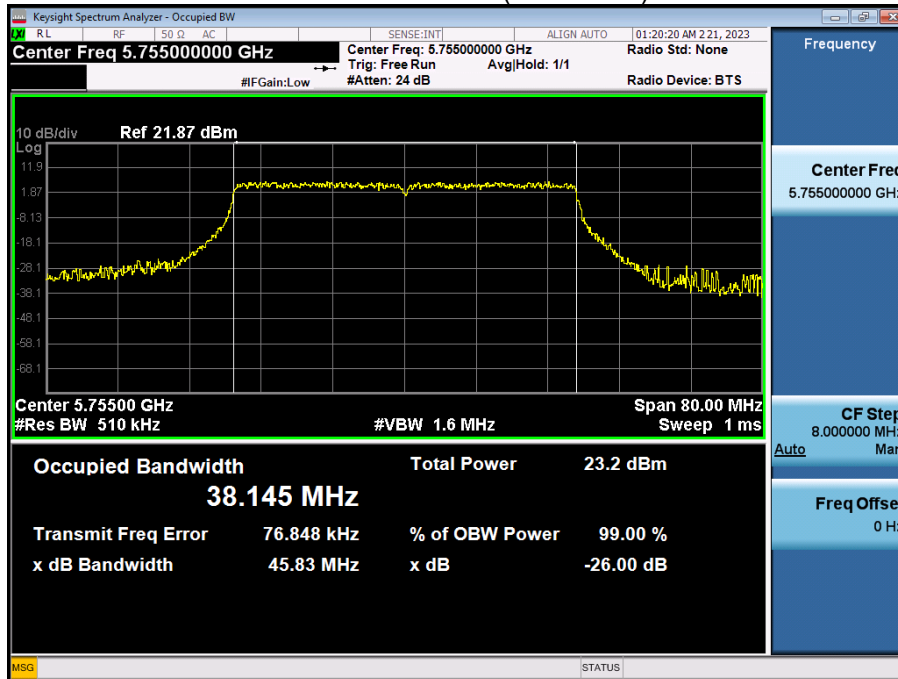
Bandwidth 40M Ch.118(5 590 MHz) SU



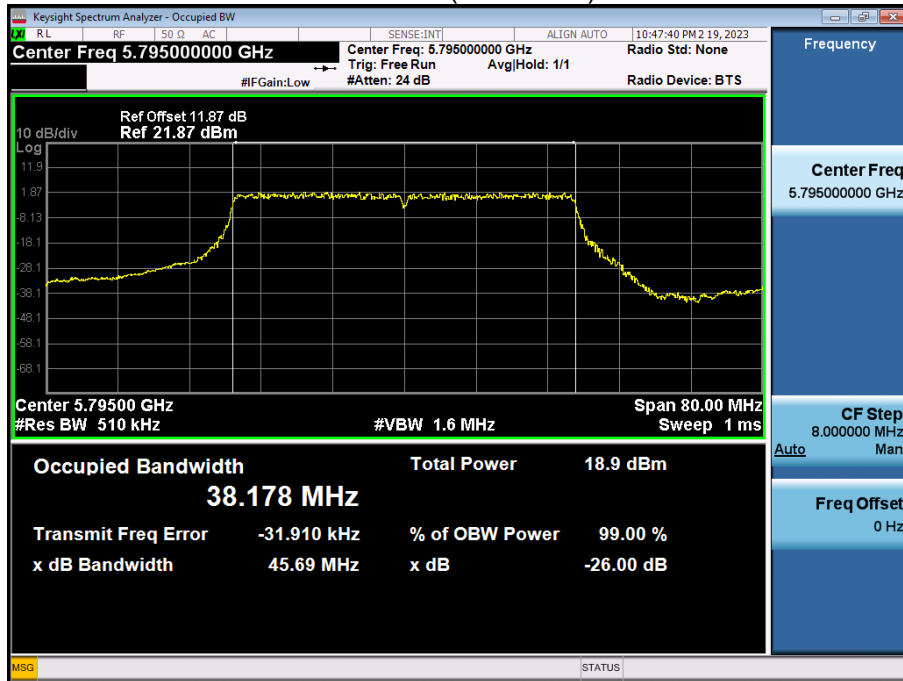
Bandwidth 40M Ch.142(5 710 MHz) SU



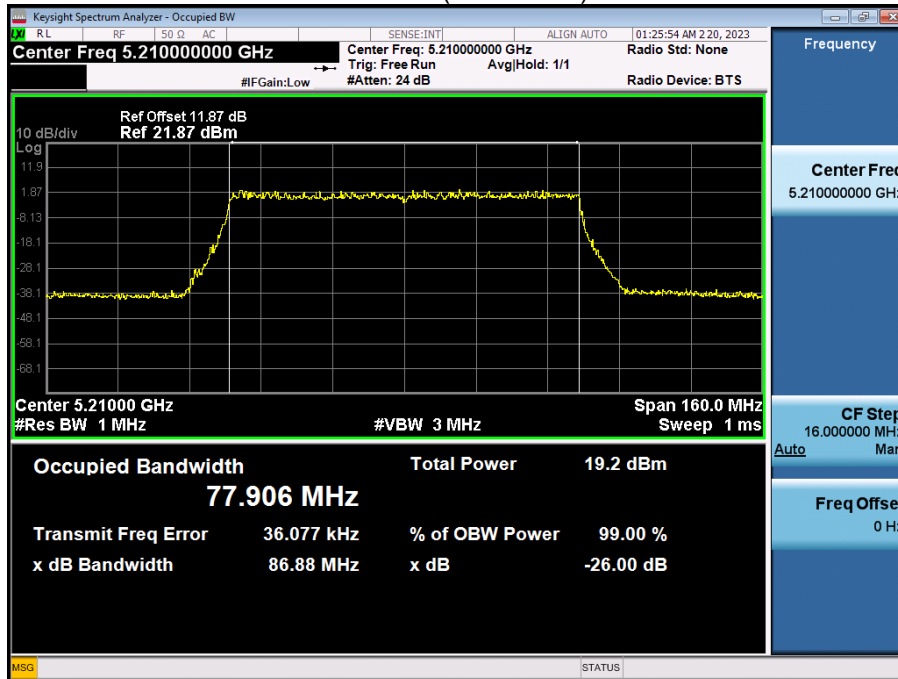
Bandwidth 40M Ch.151(5 755 MHz) SU



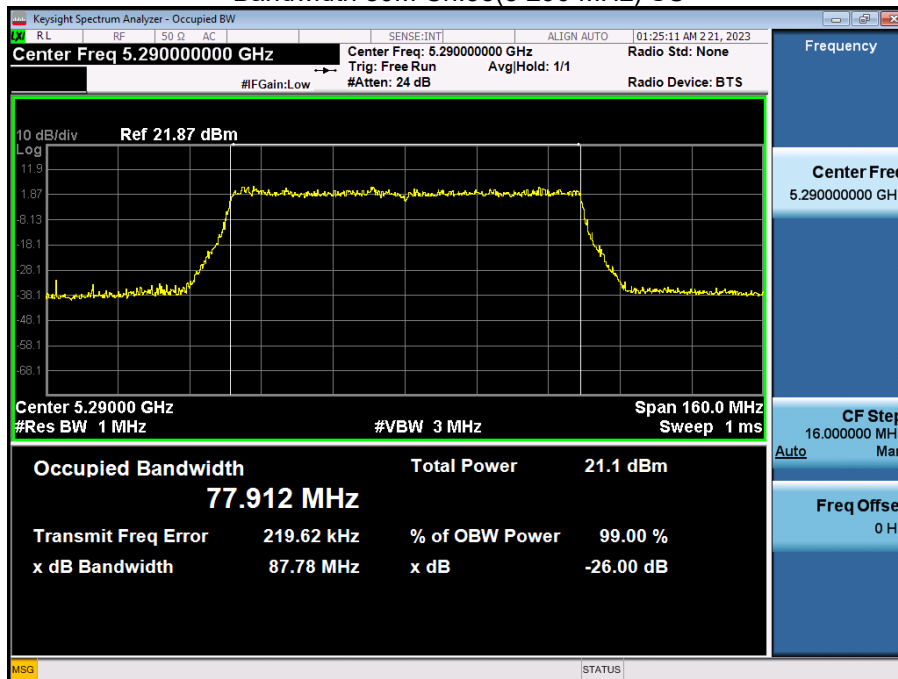
Bandwidth 40M Ch.159(5 795 MHz) 484T RU 65



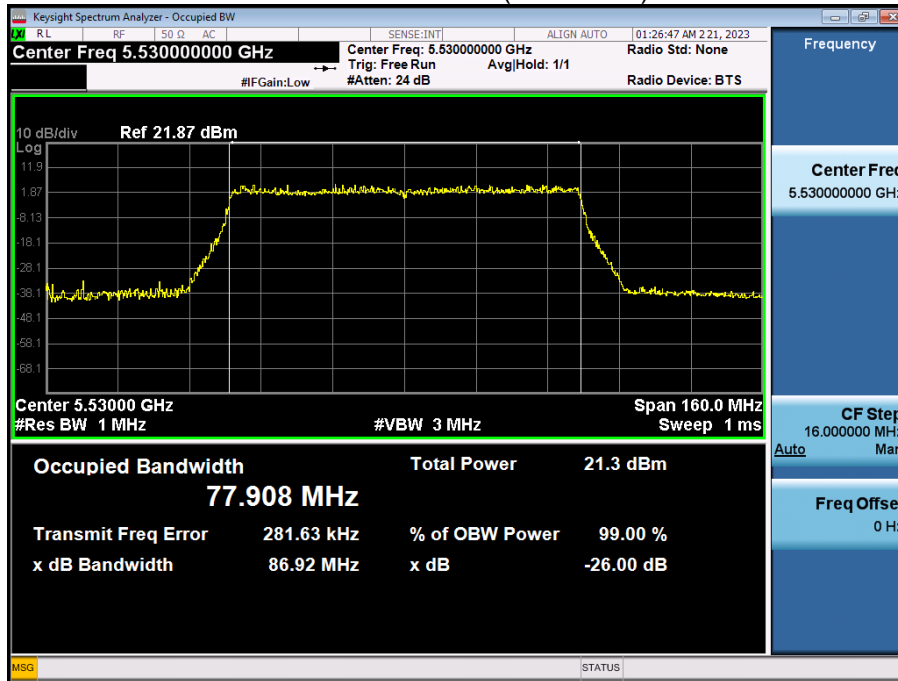
Bandwidth 80M Ch.42(5 210 MHz) 996T RU 67



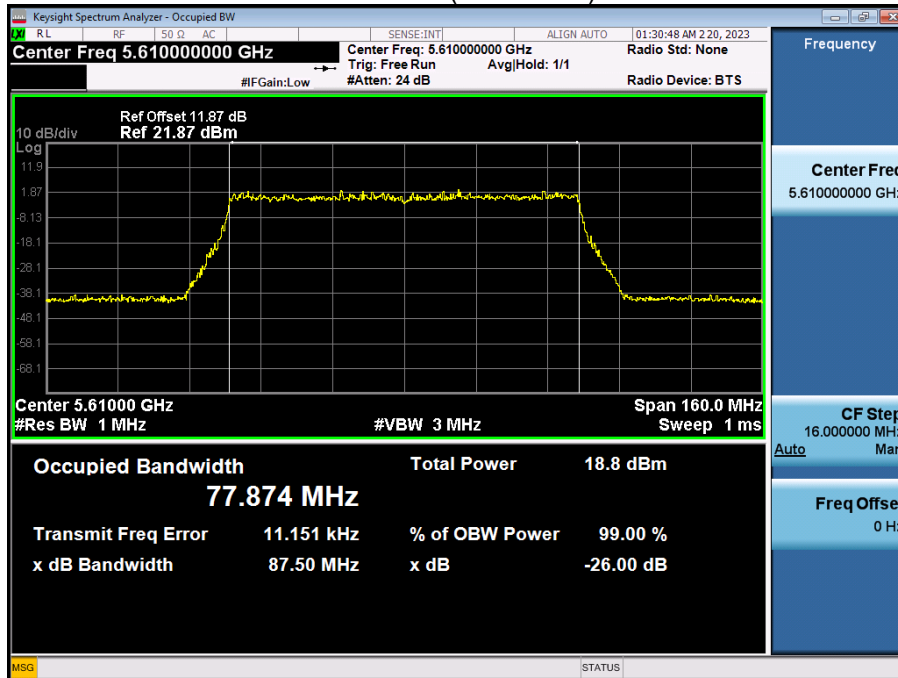
Bandwidth 80M Ch.58(5 290 MHz) SU



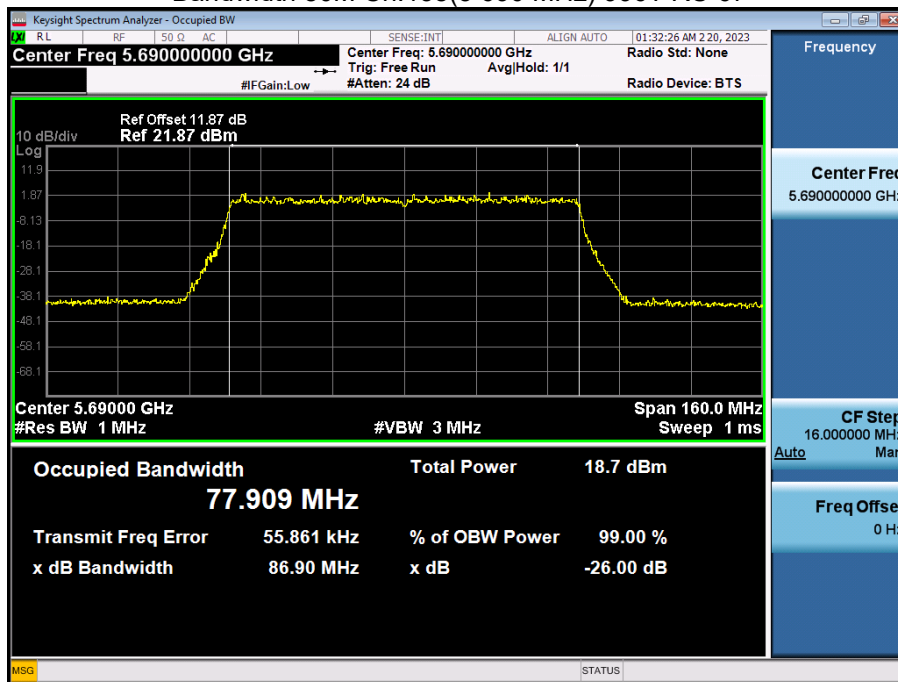
Bandwidth 80M Ch.106(5 530 MHz) SU



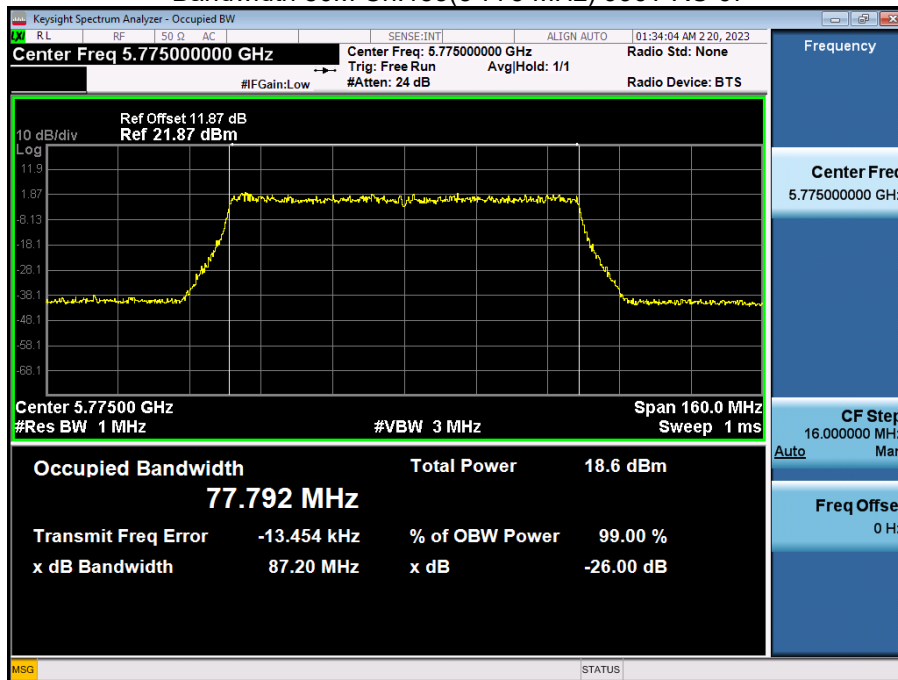
Bandwidth 80M Ch.122(5 610 MHz) 996T RU 67



Bandwidth 80M Ch.138(5 690 MHz) 996T RU 67



Bandwidth 80M Ch.155(5 775 MHz) 996T RU 67





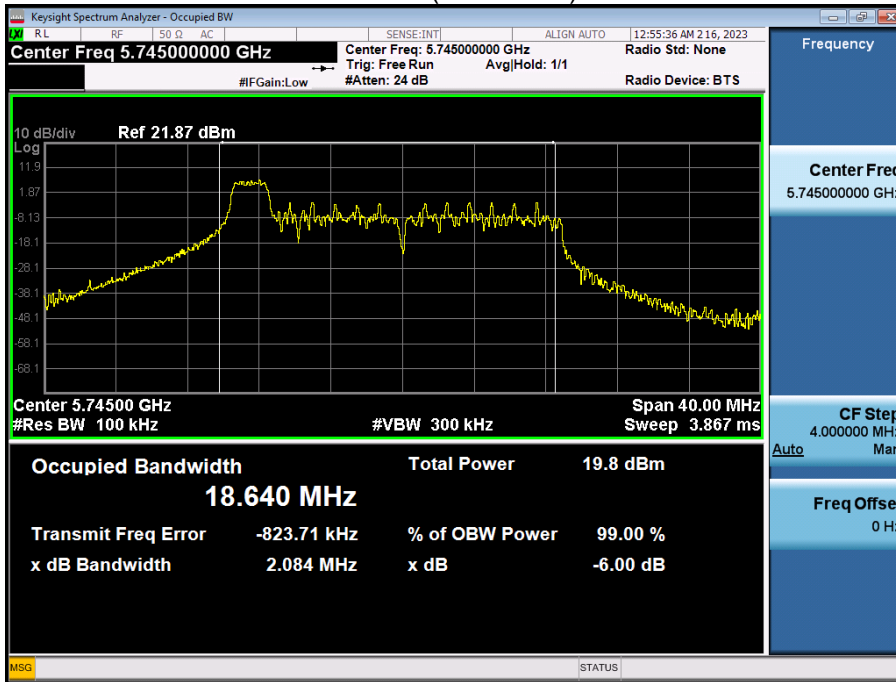
### 3. 6dB Bandwidth

**Note:**

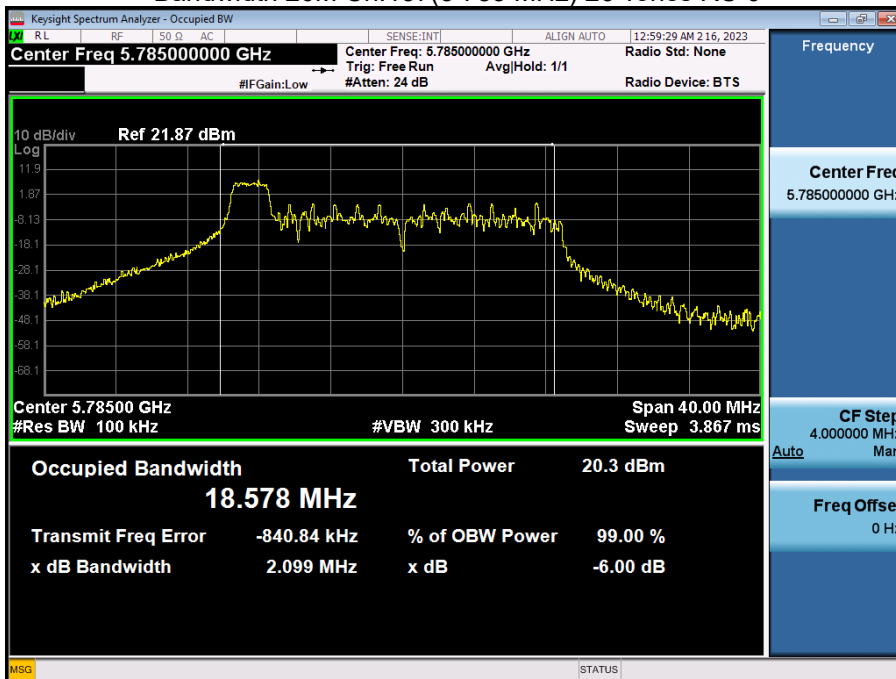
1. In order to simplify the report, attached plots were only the most narrow channel.

#### 3.1 Ant.1

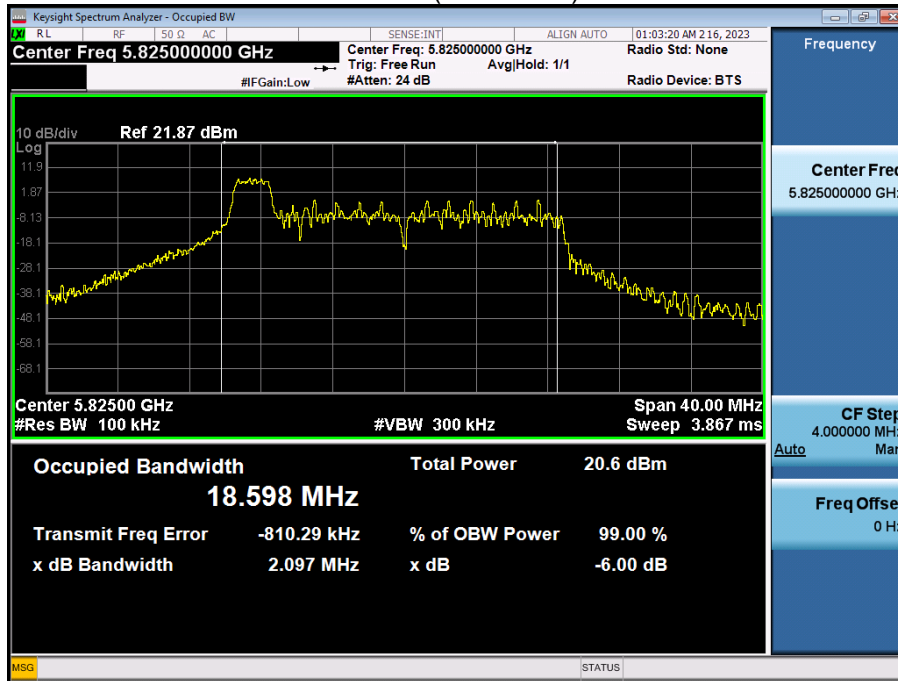
Bandwidth 20M Ch.149(5 745 MHz) 26 Tones RU 0



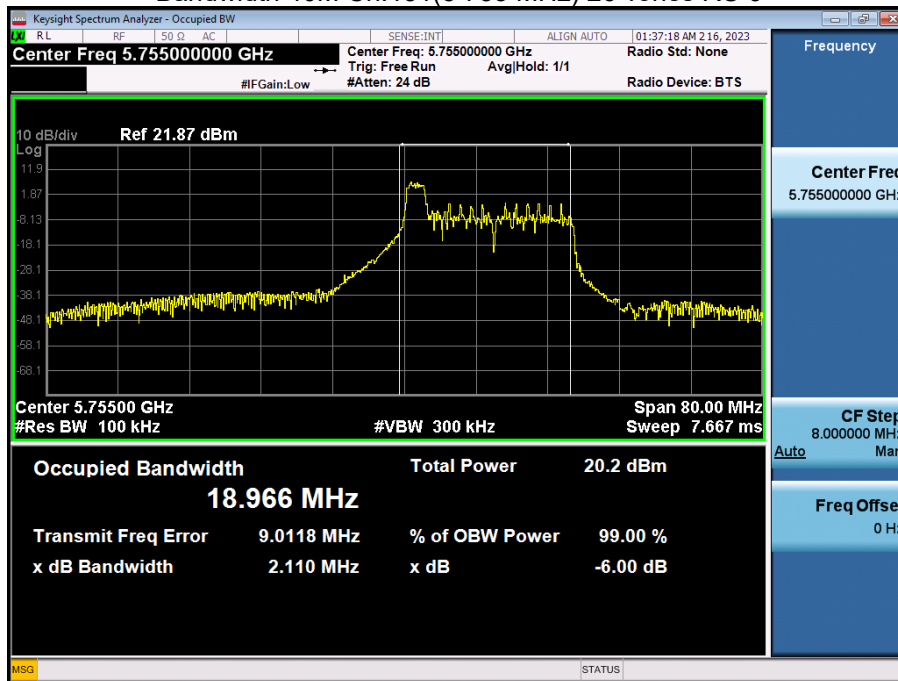
Bandwidth 20M Ch.157(5 785 MHz) 26 Tones RU 0



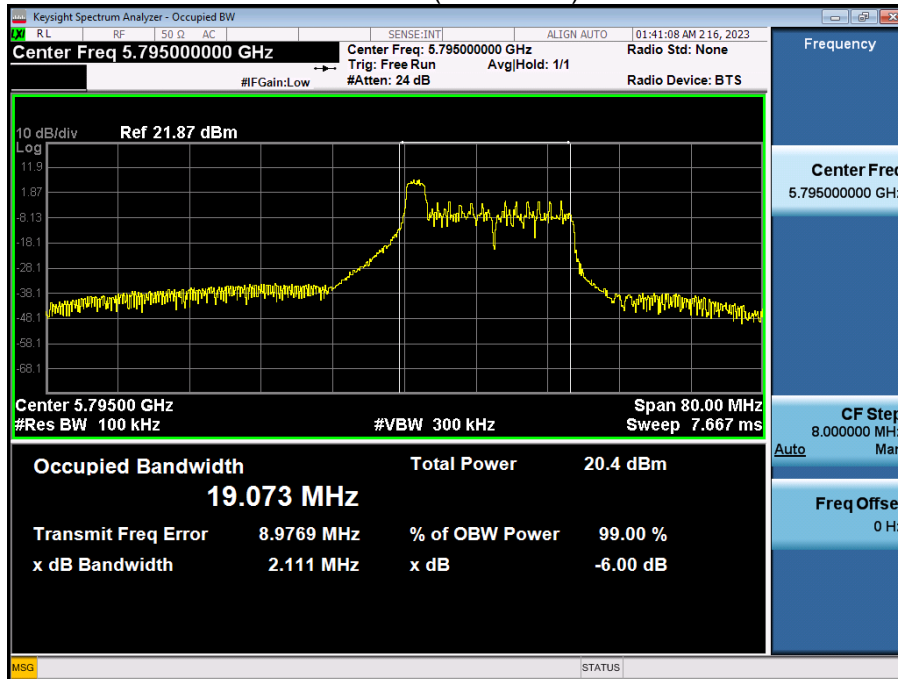
Bandwidth 20M Ch.165(5 825 MHz) 26 Tones RU 0



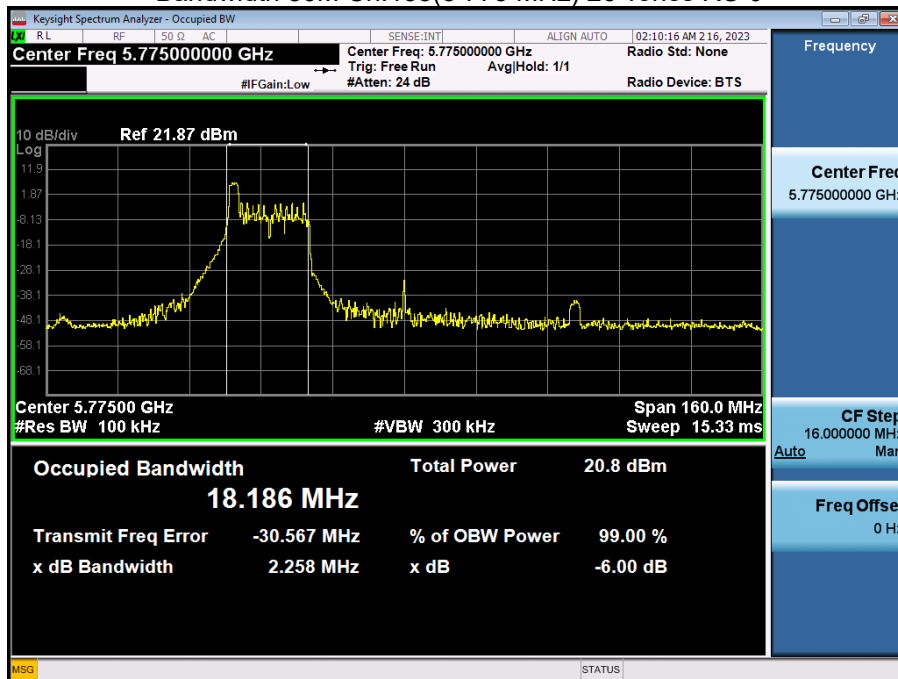
Bandwidth 40M Ch.151(5 755 MHz) 26 Tones RU 9



Bandwidth 40M Ch.159(5 795 MHz) 26 Tones RU 9

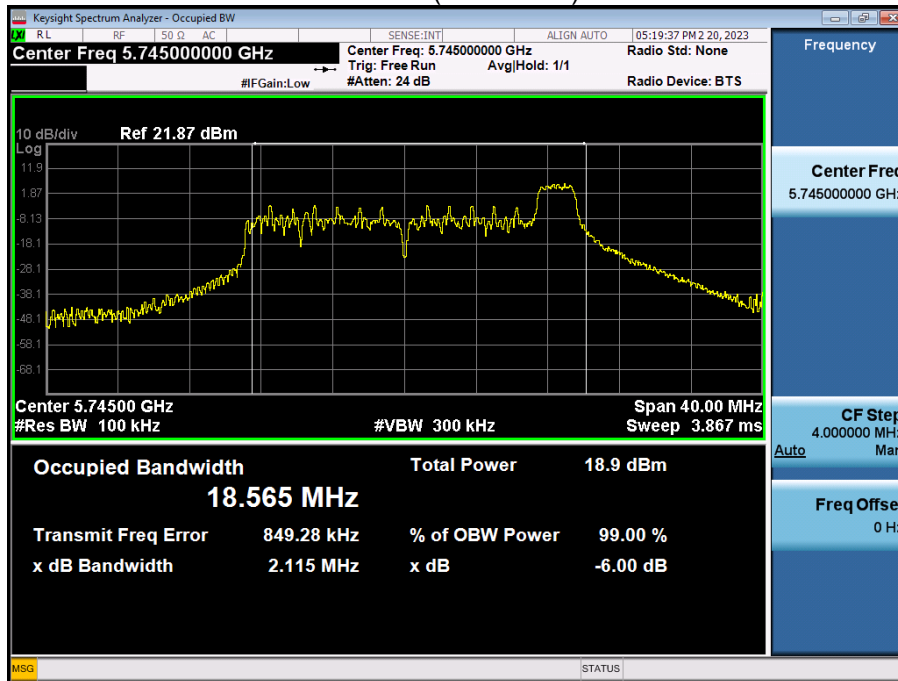


Bandwidth 80M Ch.155(5 775 MHz) 26 Tones RU 0

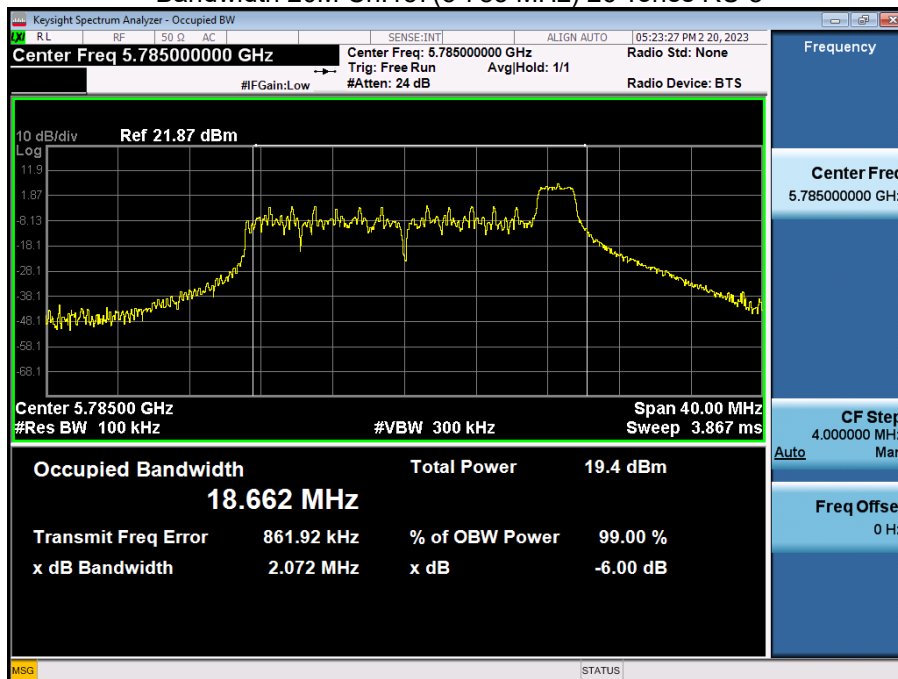


### 3.2 Ant. 2

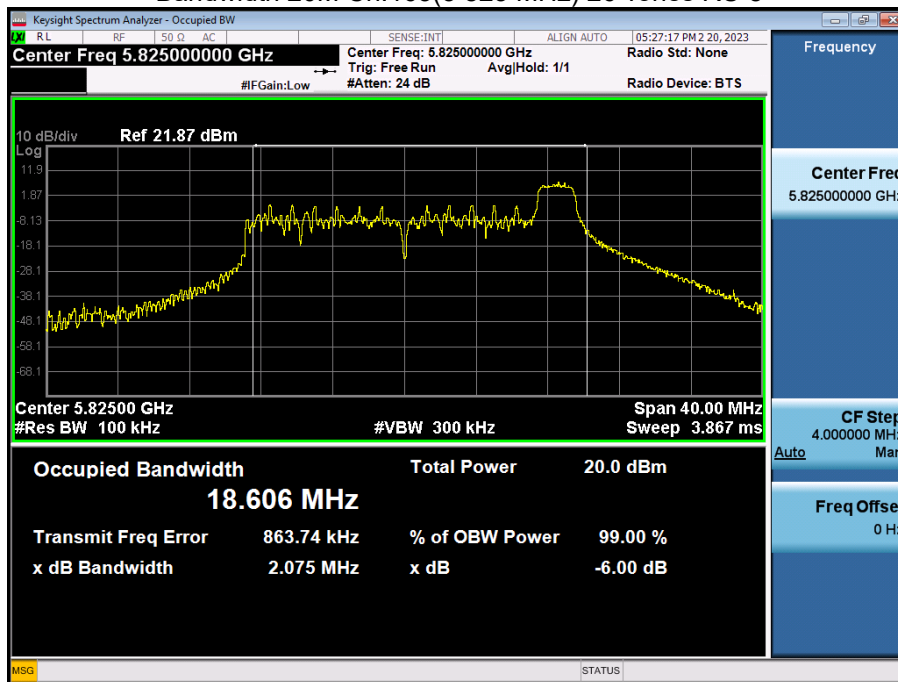
Bandwidth 20M Ch.149(5 745 MHz) 26 Tones RU 8



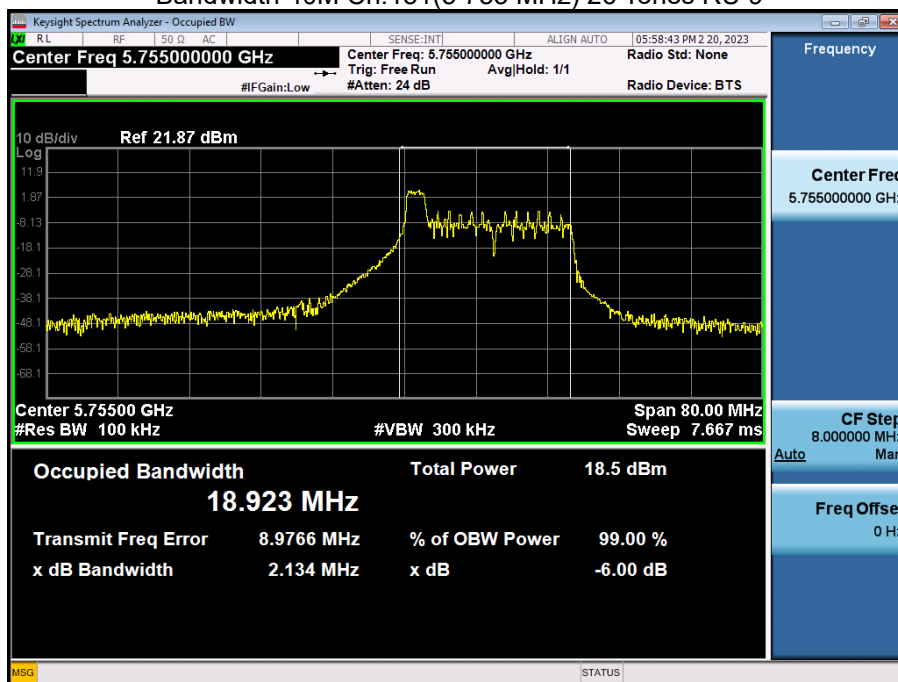
Bandwidth 20M Ch.157(5 785 MHz) 26 Tones RU 8



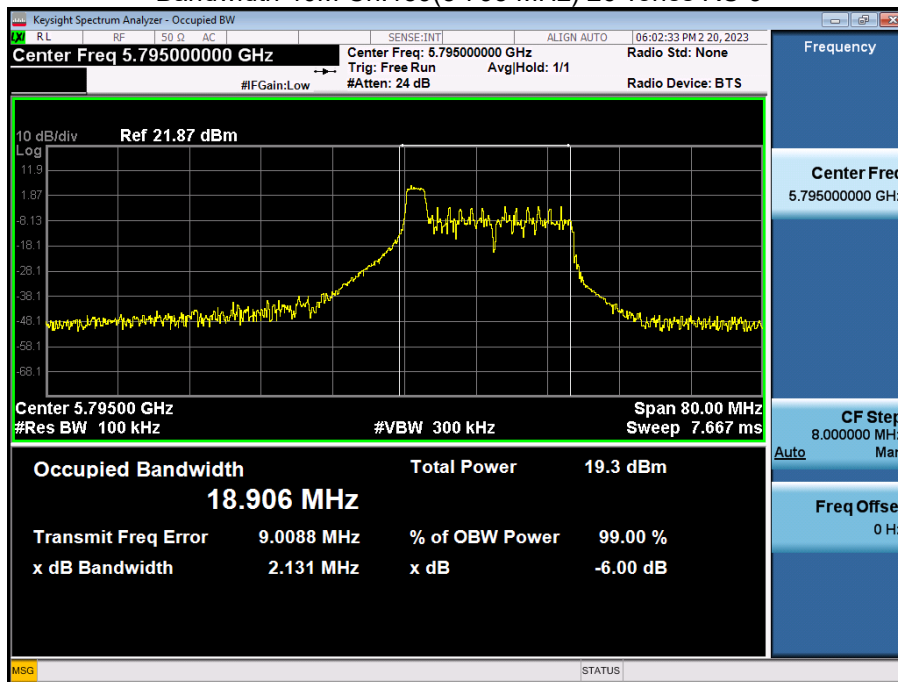
Bandwidth 20M Ch.165(5 825 MHz) 26 Tones RU 8



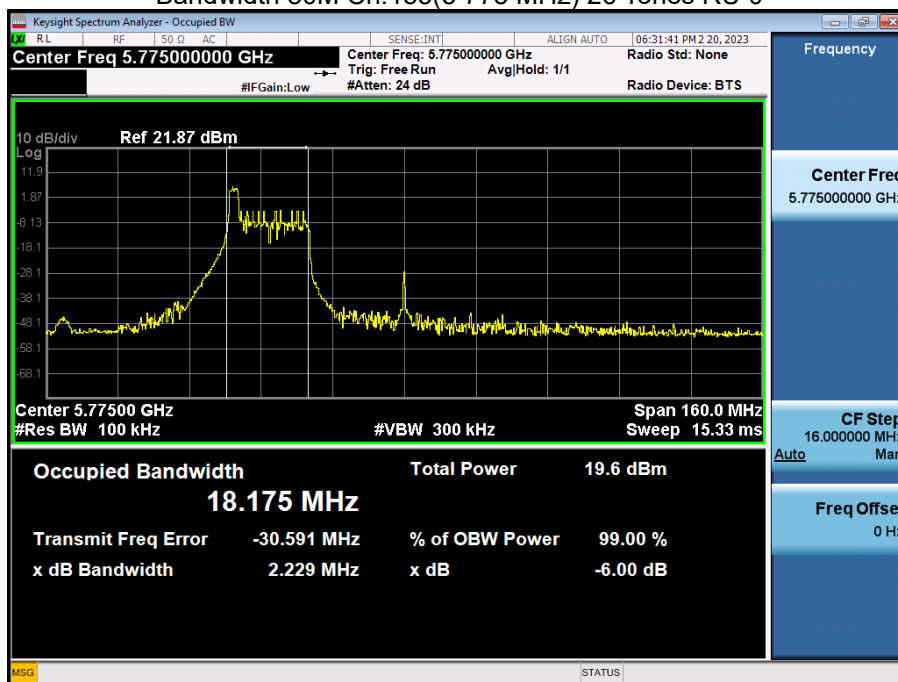
Bandwidth 40M Ch.151(5 755 MHz) 26 Tones RU 9



Bandwidth 40M Ch.159(5 795 MHz) 26 Tones RU 9



Bandwidth 80M Ch.155(5 775 MHz) 26 Tones RU 0



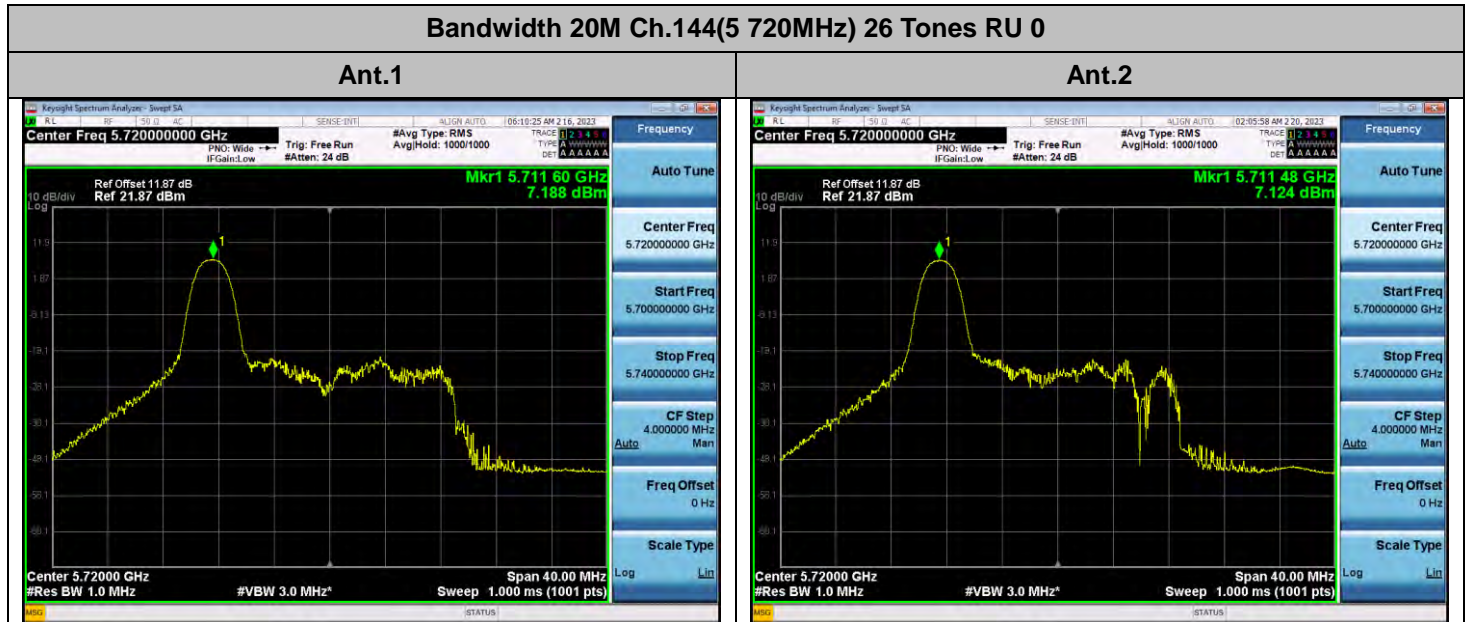
### 4. Power Spectral Density

**Note:**

1. In order to simplify the report, attached plots were only channel of highest PSD.
2. Total PSD (dBm) = Measured Value (dBm) + Duty Cycle Factor (dB)

#### 4.1. MIMO

**Bandwidth 20M Ch.144(5 720MHz) 26 Tones RU 0**



MIMO Measured PSD (dBm)	Duty Cycle Factor (dB)	MIMO Total PSD (dBm)
10.166	0.100	10.266

**Bandwidth 20M Ch.165 (5 825 MHz) 26 Tones RU 8**

**Ant. 1**



**Ant. 2**



MIMO Measured PSD (dBm)	Duty Cycle Factor (dB)	MIMO Total PSD (dBm)
7.895	0.100	7.995



**Bandwidth 40M Ch.142 (5 710 MHz) 26 Tone RU 0**

**Ant.1**



**Ant.2**



MIMO Measured PSD (dBm)	Duty Cycle Factor (dB)	MIMO Total PSD (dBm)
9.948	0.091	10.039

**Bandwidth 40M Ch.159 (5 795 MHz) 26 Tone RU 0**

**Ant.1**



**Ant.2**



MIMO Measured PSD (dBm)	Duty Cycle Factor (dB)	MIMO Total PSD (dBm)
7.417	0.091	7.508

**Bandwidth 80M Ch.42(5 210 MHz) 26 Tone RU 0**

**Ant.1**



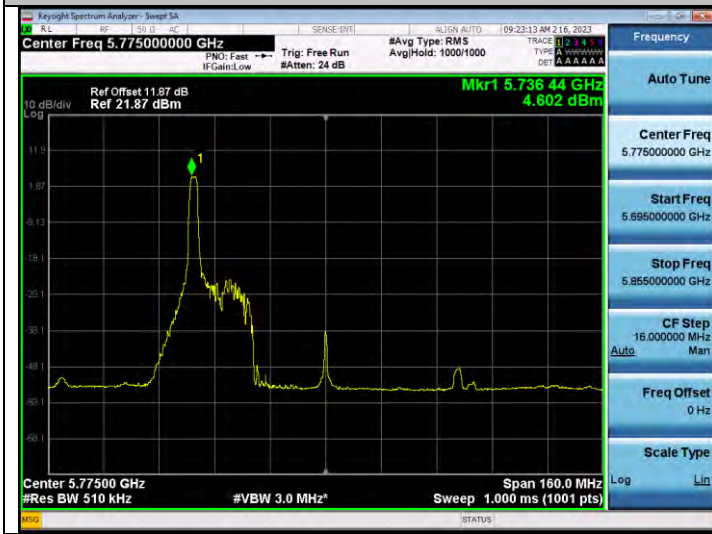
**Ant.2**



MIMO Measured PSD (dBm)	Duty Cycle Factor (dB)	MIMO Total PSD (dBm)
10.242	0.094	10.336

**Bandwidth 80M Ch.155 (5 775 MHz) 26 Tone RU 0**

**Ant.1**



**Ant.2**



MIMO Measured PSD (dBm)	Duty Cycle Factor (dB)	MIMO Total PSD (dBm)
7.161	0.094	7.255

## 5. Straddle Channel

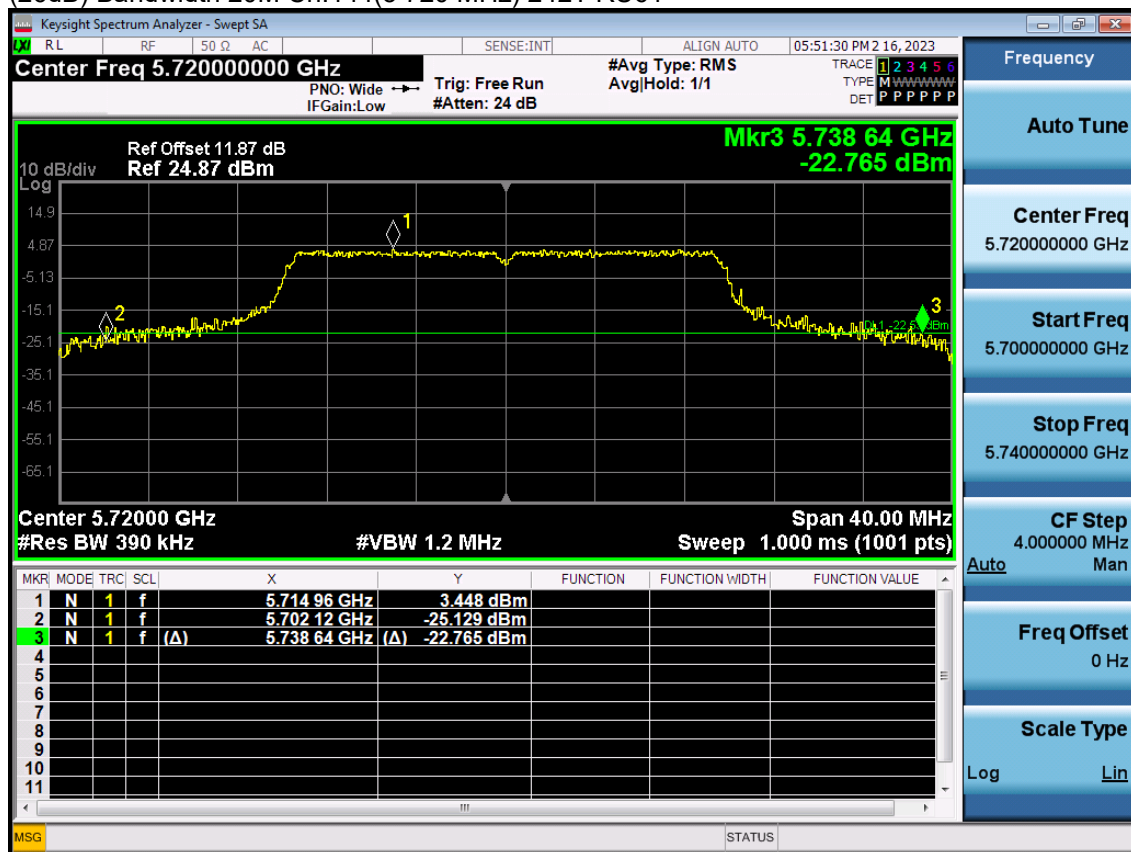
### 5.1 26dB Bandwidth

**Note:**

1. In order to simplify the report, attached plots were only the most wide channel.
2. [UNII 2C] 26dB Bandwidth = 5 725 MHz - Measured Frequency[MHz]
3. [UNII 3] 26 dB Bandwidth = Measured Frequency[MHz] -5 725 MHz

#### 5.1.1 Ant. 1

(26dB) Bandwidth 20M Ch.144(5 720 MHz) 242T RU61



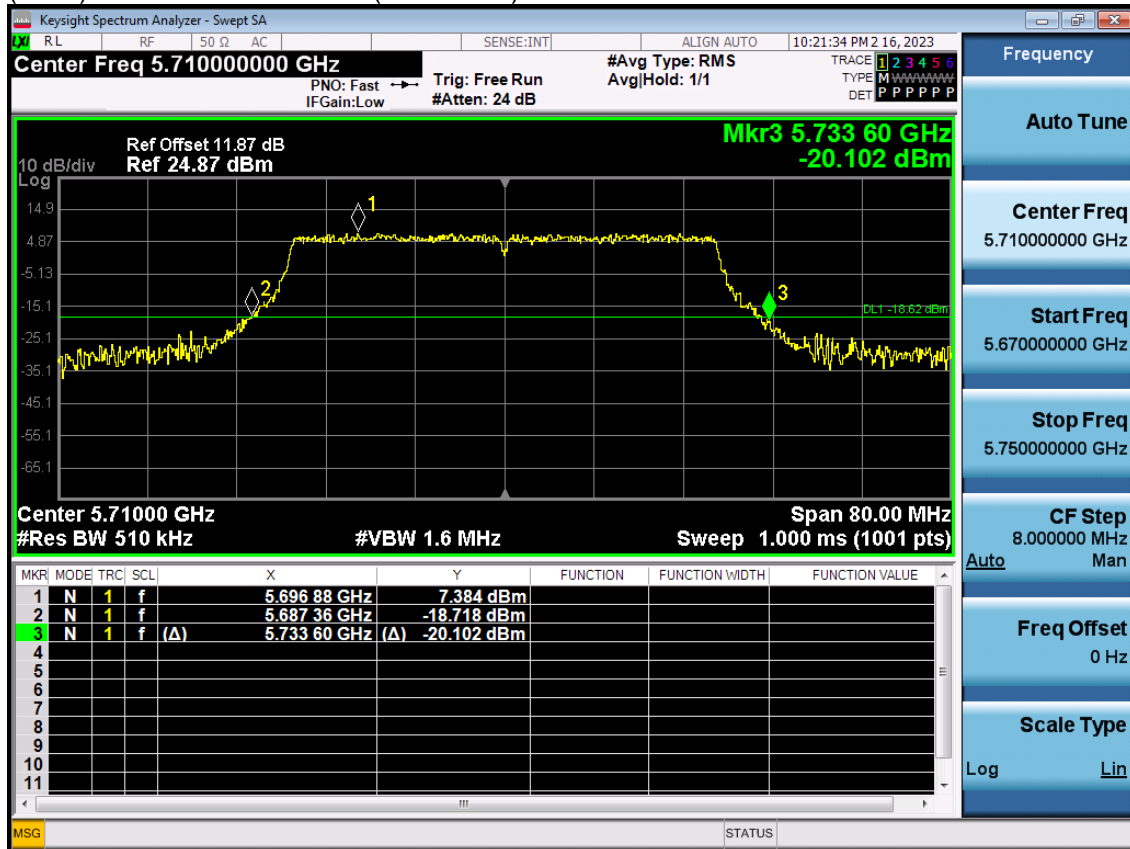
UNII 2C	Straddle Frequency [MHz]	Measured Frequency [MHz]	26dB Bandwidth [MHz]
	5725	5702.12	22.88
UNII 3	Measured Frequency [MHz]	Straddle Frequency [MHz]	26dB Bandwidth [MHz]
	5738.64	5725	13.64

(26 dB) Bandwidth 40M Ch.142(5 710 MHz) 484 Tones RU 65



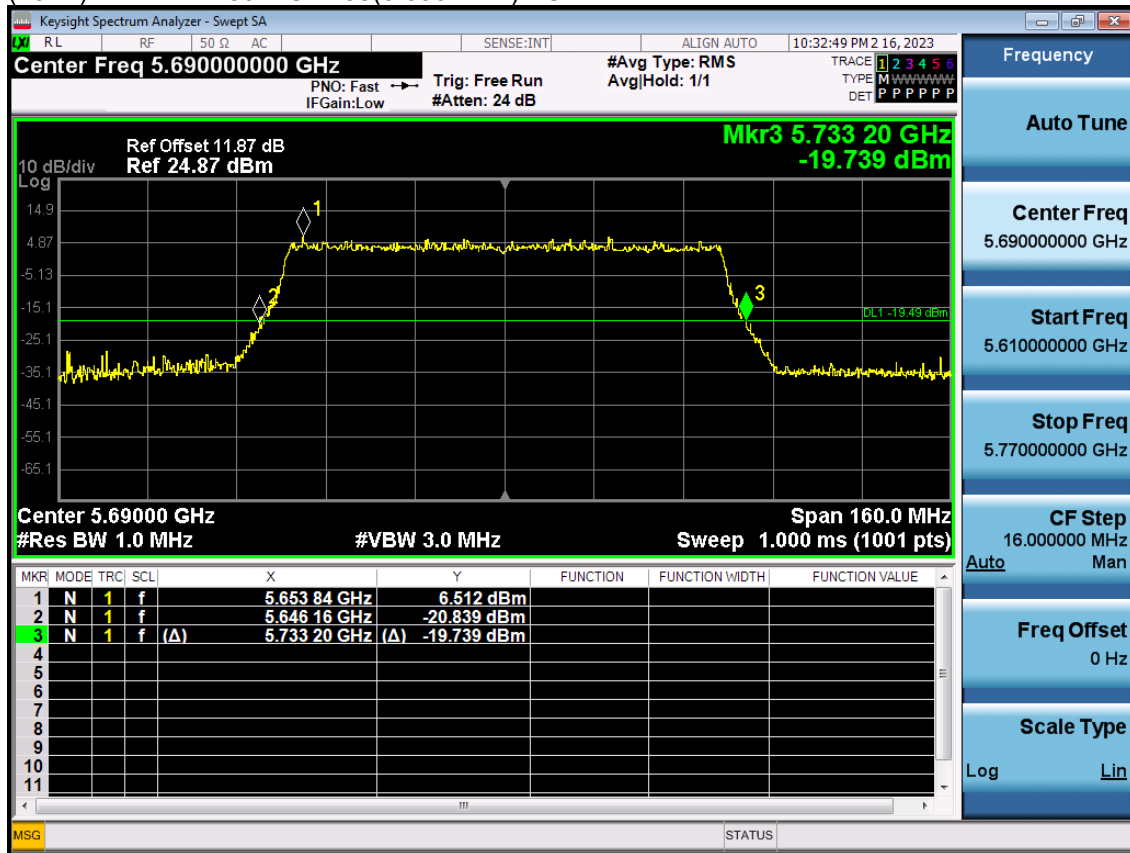
UNII 2C	Straddle Frequency [MHz]	Measured Frequency [MHz]	26dB Bandwidth [MHz]
	5725	5687.28	37.72

(26dB) Bandwidth 40M Ch.142(5 710 MHz) SU



UNII 3	Measured Frequency [MHz]	Straddle Frequency [MHz]	26dB Bandwidth [MHz]
	5733.6	5725	8.60

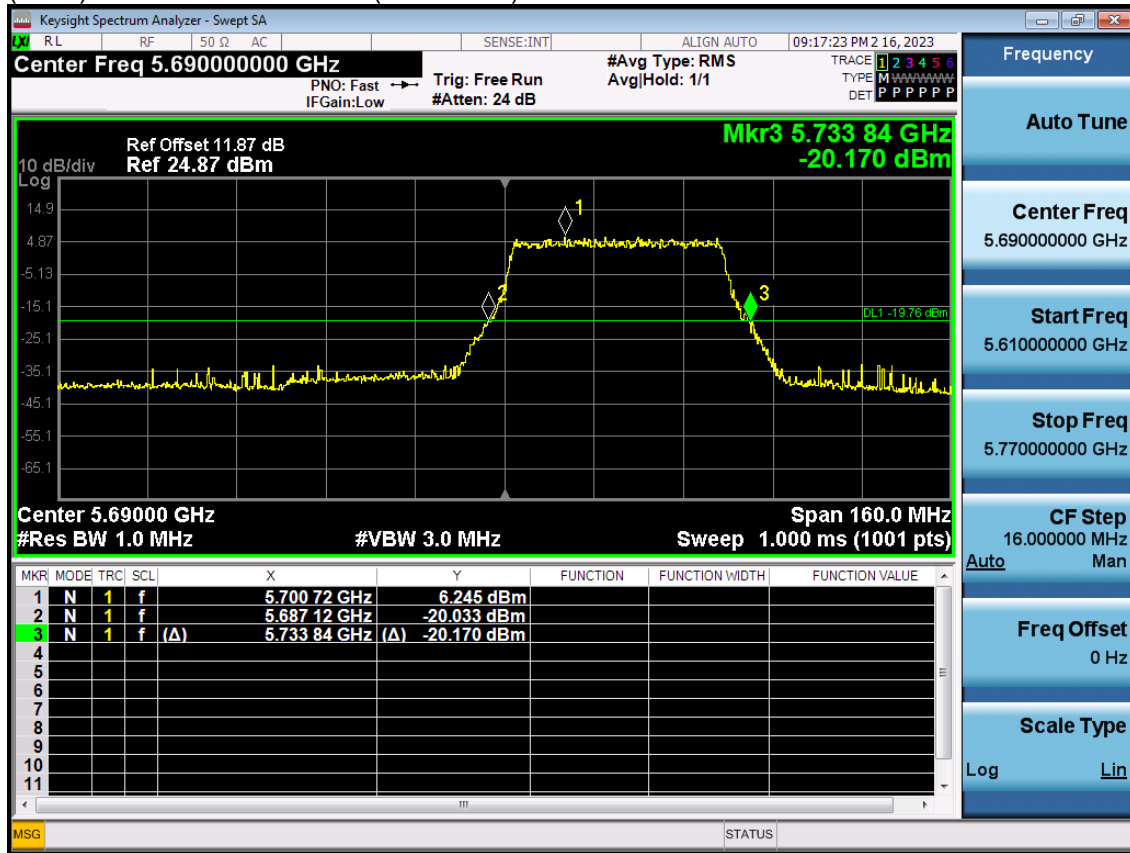
(26dB) Bandwidth 80M Ch.138(5 690 MHz) SU



UNII 2C	Straddle Frequency [MHz]	Measured Frequency [MHz]	26dB Bandwidth [MHz]
	5725	5646.16	78.84



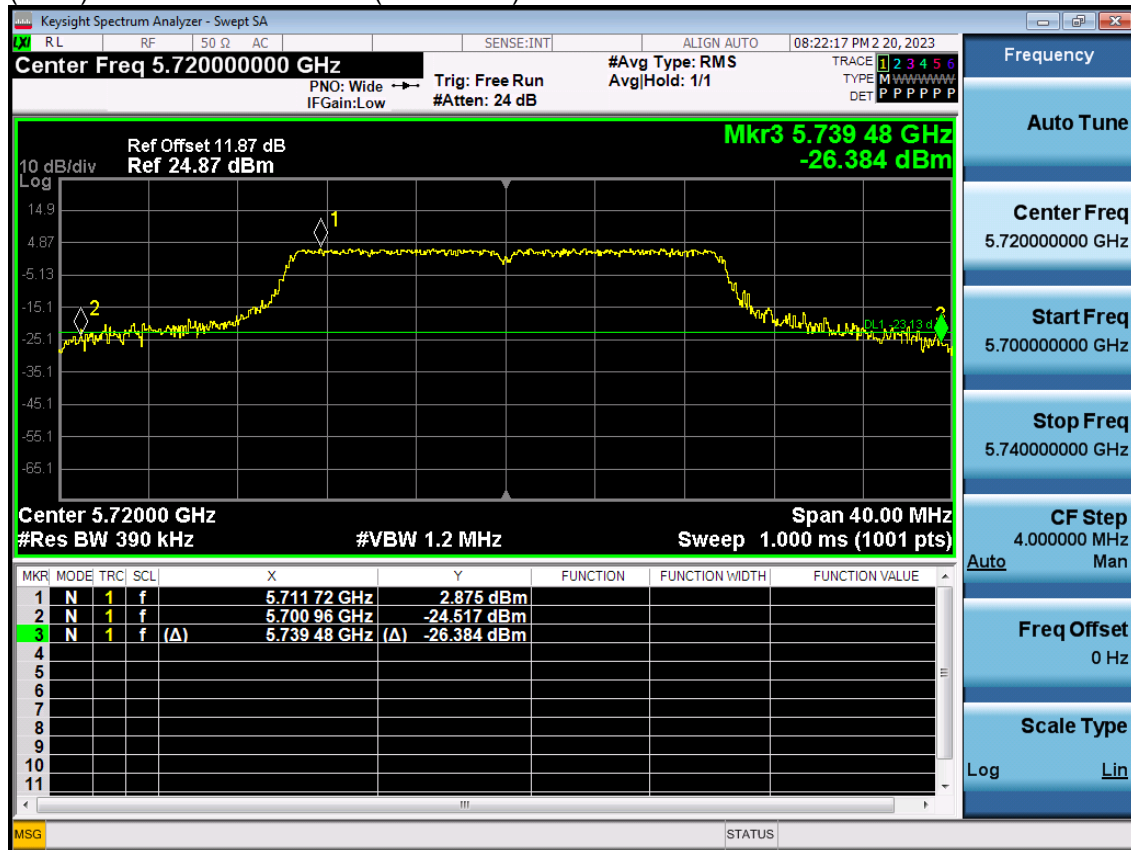
(26dB) Bandwidth 80M Ch.138(5 690 MHz) 484 Tones RU 66



UNII 3	Measured Frequency [MHz]	Straddle Frequency [MHz]	26dB Bandwidth [MHz]
	5733.84	5725	8.84

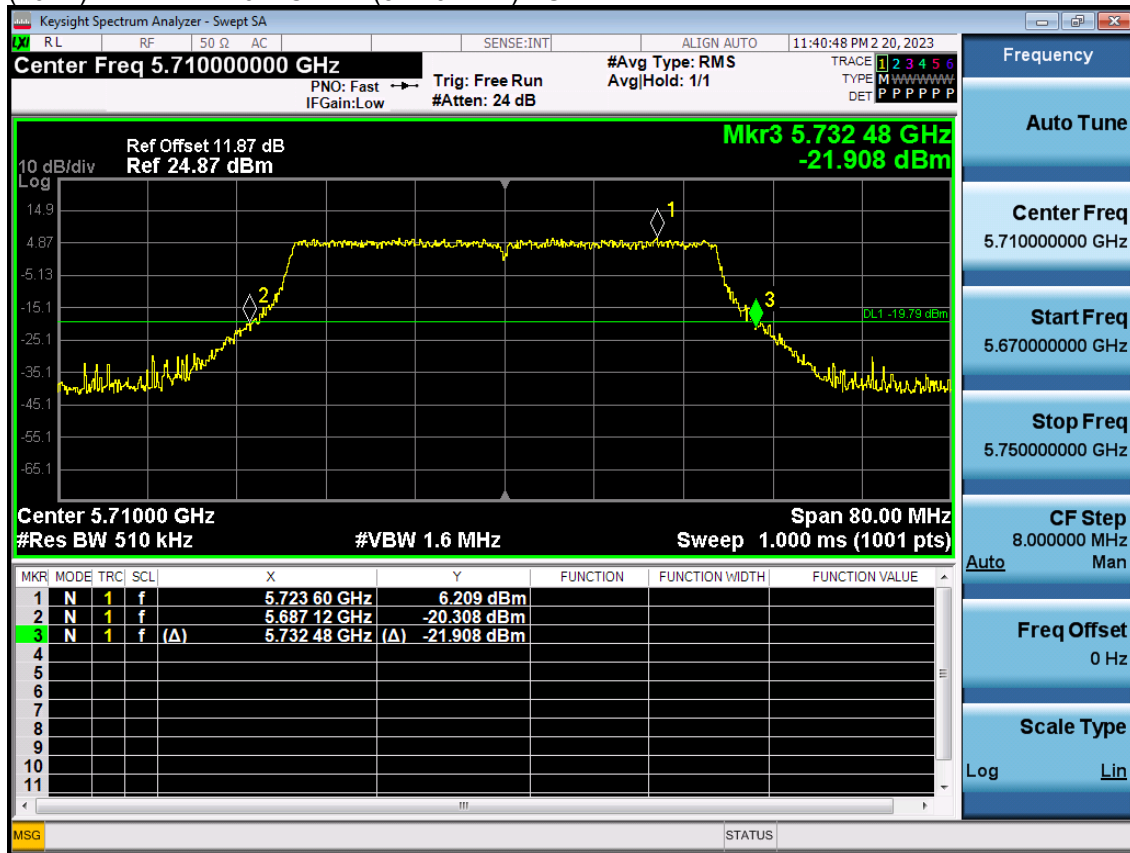
### 5.1.2 Ant. 2

(26dB) Bandwidth 20M Ch.144(5 720 MHz) 242T RU61



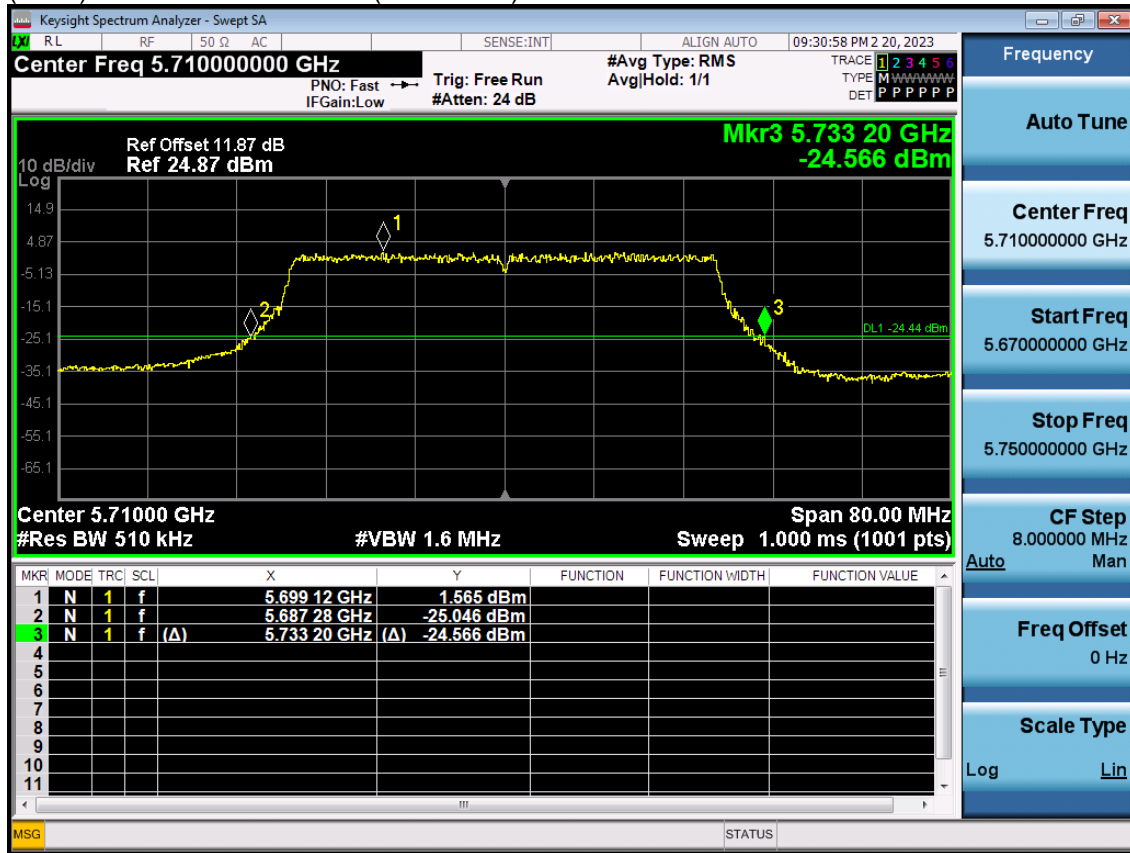
UNII 2C	Straddle Frequency [MHz]	Measured Frequency [MHz]	26dB Bandwidth [MHz]
	5725	5700.96	24.04
UNII 3	Measured Frequency [MHz]	Straddle Frequency [MHz]	26dB Bandwidth [MHz]
	5739.48	5725	14.48

(26dB) Bandwidth 40M Ch.142(5 710 MHz) SU



UNII 2C	Straddle Frequency [MHz]	Measured Frequency [MHz]	26dB Bandwidth [MHz]
	5725	5687.12	37.88

(26dB) Bandwidth 40M Ch.142(5 710 MHz) 484 Tones RU 65



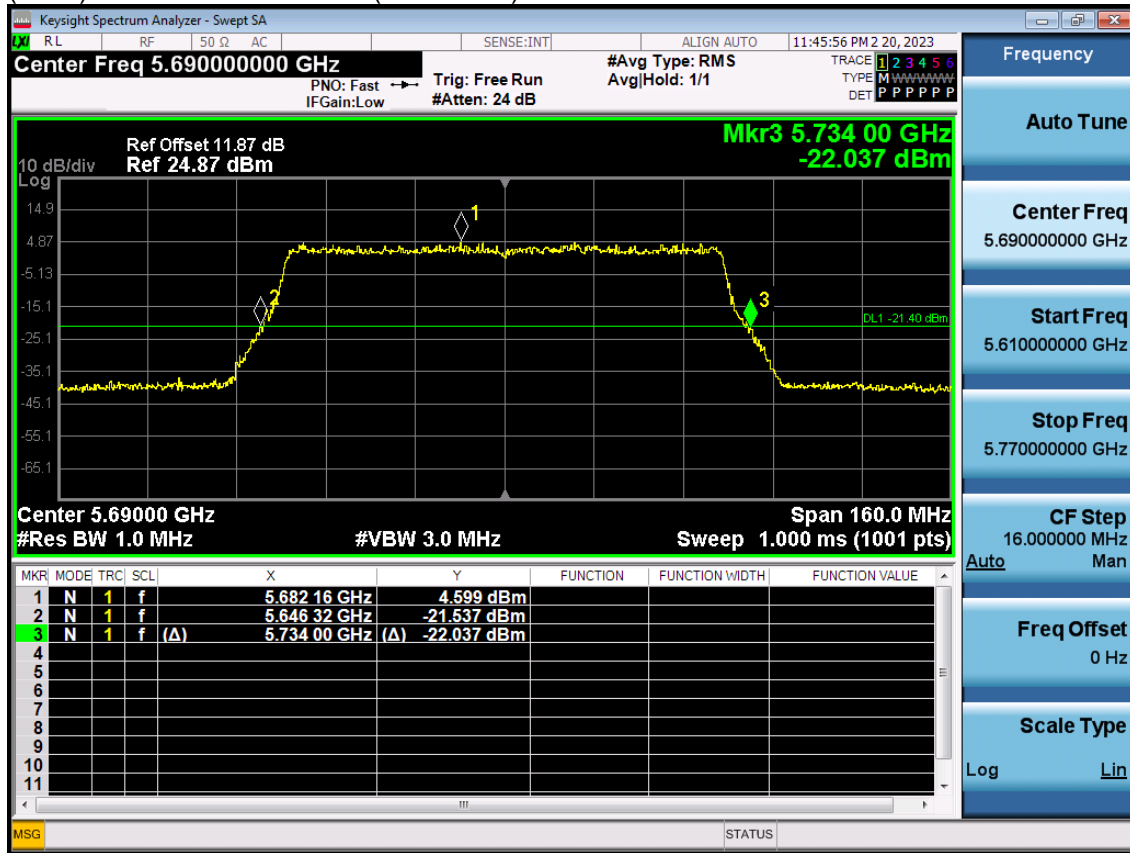
UNII 3	Measured Frequency [MHz]	Straddle Frequency [MHz]	26dB Bandwidth [MHz]
	5733.20	5725	8.20

(26dB) Bandwidth 80M Ch.138(5 690 MHz) 996 Tones RU 67



UNII 2C	Straddle Frequency [MHz]	Measured Frequency [MHz]	26dB Bandwidth [MHz]
	5725	5646.16	78.84

(26dB) Bandwidth 80M Ch.138(5 690 MHz) SU



UNII 3	Measured Frequency [MHz]	Straddle Frequency [MHz]	26dB Bandwidth [MHz]
	5734	5725	9.00

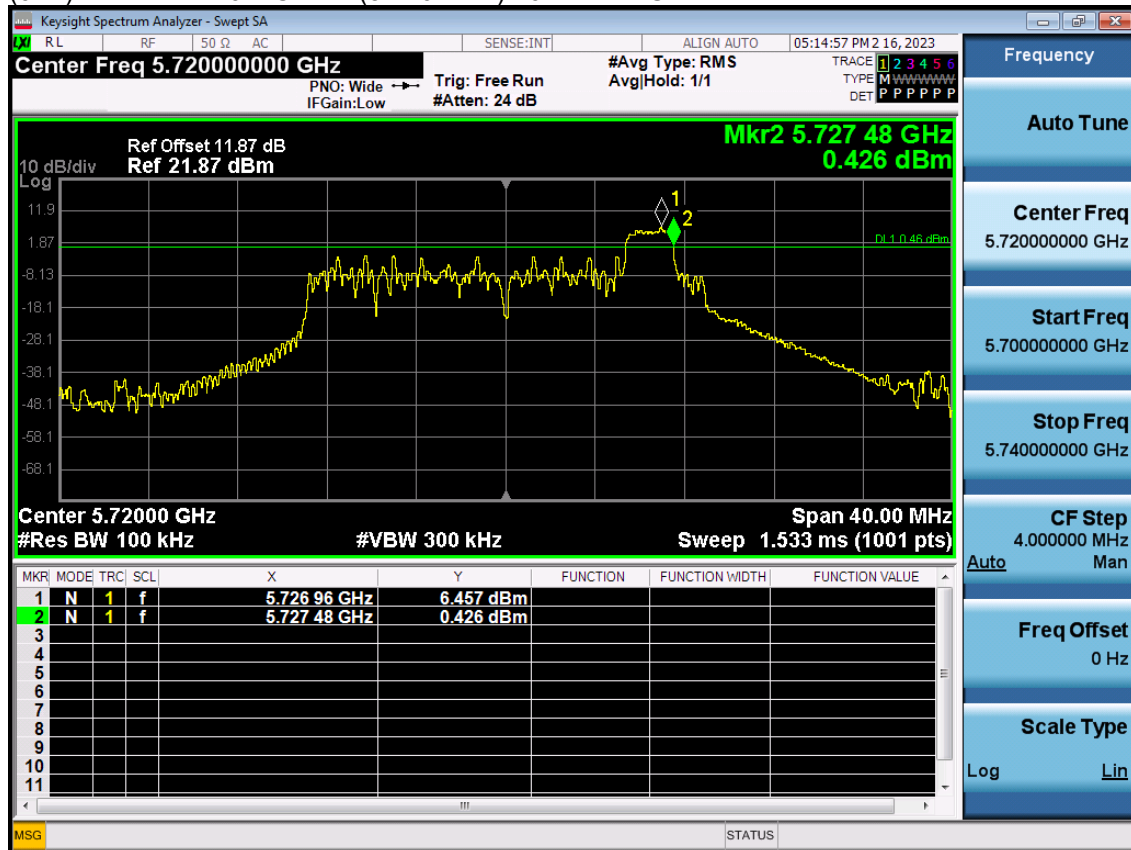
## 5.2 6dB Bandwidth

**Note:**

1. In order to simplify the report, attached plots were only the most narrow channel. (UNII1~4)
2. 6dB Bandwidth = Measured Frequency[MHz] – 5 725 MHz

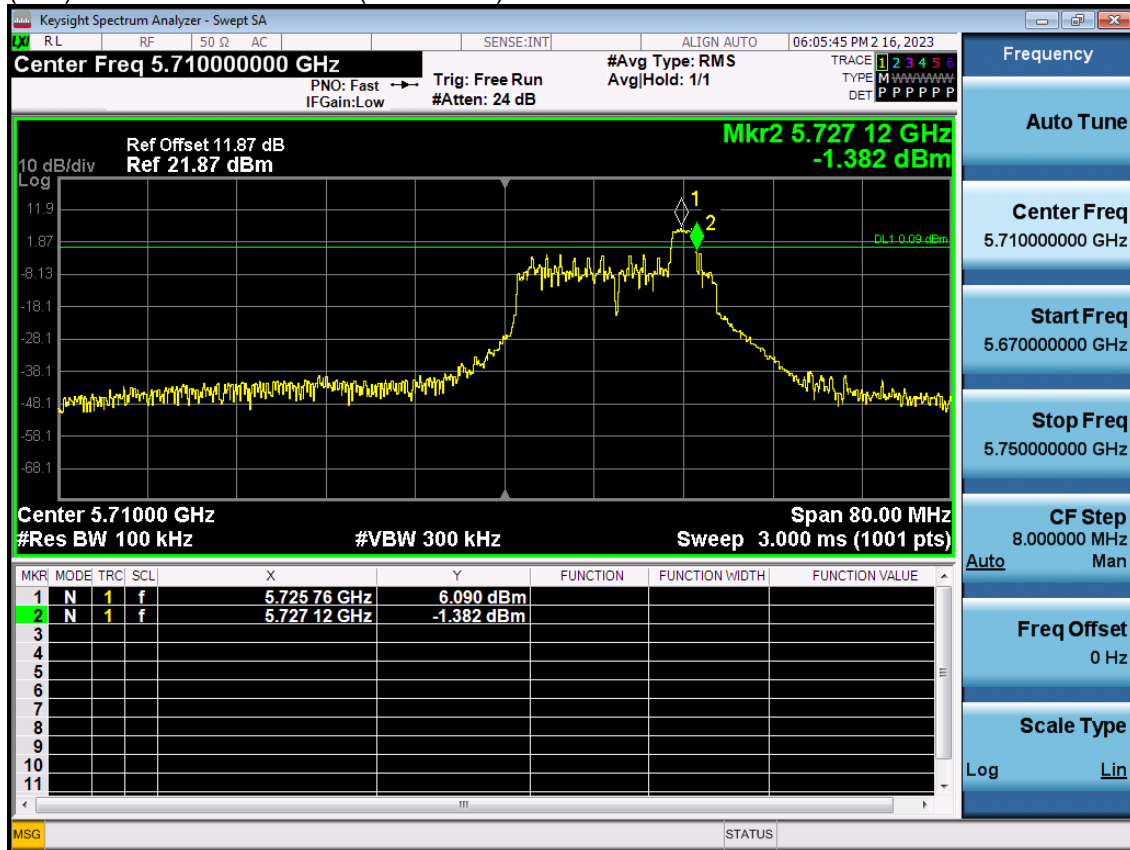
### 5.2.1 Ant. 1

(6dB) Bandwidth 20M Ch.144(5 720 MHz) 26 Tones RU 7



Measured Frequency [MHz]	Straddle Frequency [MHz]	6dB Bandwidth [MHz]
5727.48	5 725	2.48

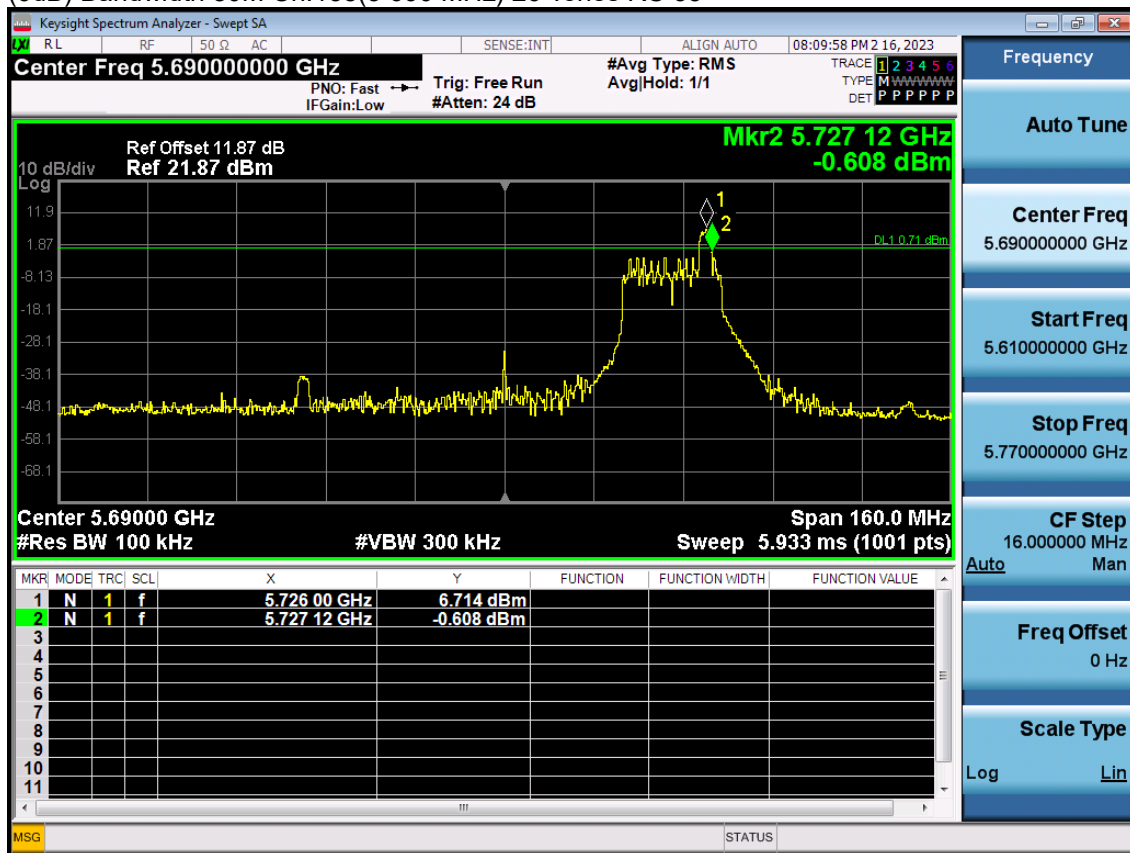
(6dB) Bandwidth 40M Ch.142(5 710 MHz) 26 Tones RU 16



Measured Frequency [MHz]	Straddle Frequency [MHz]	6dB Bandwidth [MHz]
5727.12	5 725	2.12



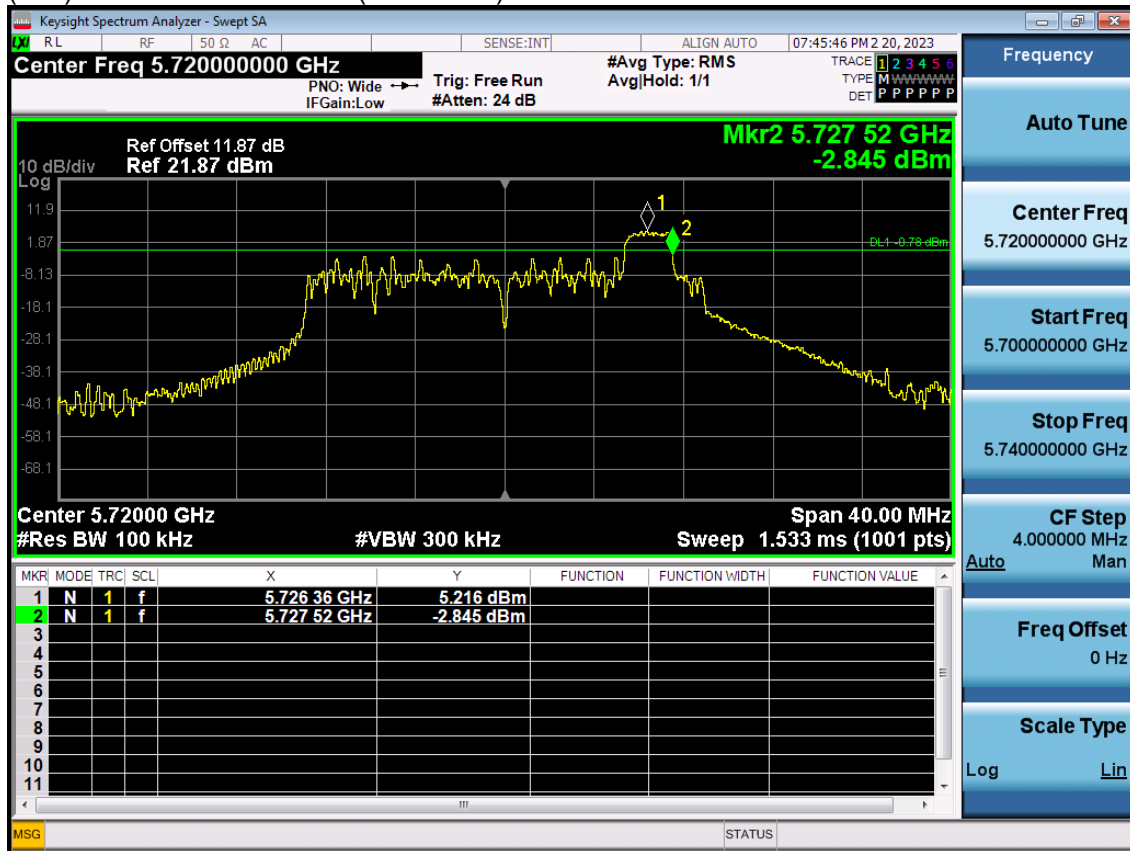
(6dB) Bandwidth 80M Ch.138(5 690 MHz) 26 Tones RU 35



Measured Frequency [MHz]	Straddle Frequency [MHz]	6dB Bandwidth [MHz]
5727.12	5 725	2.12

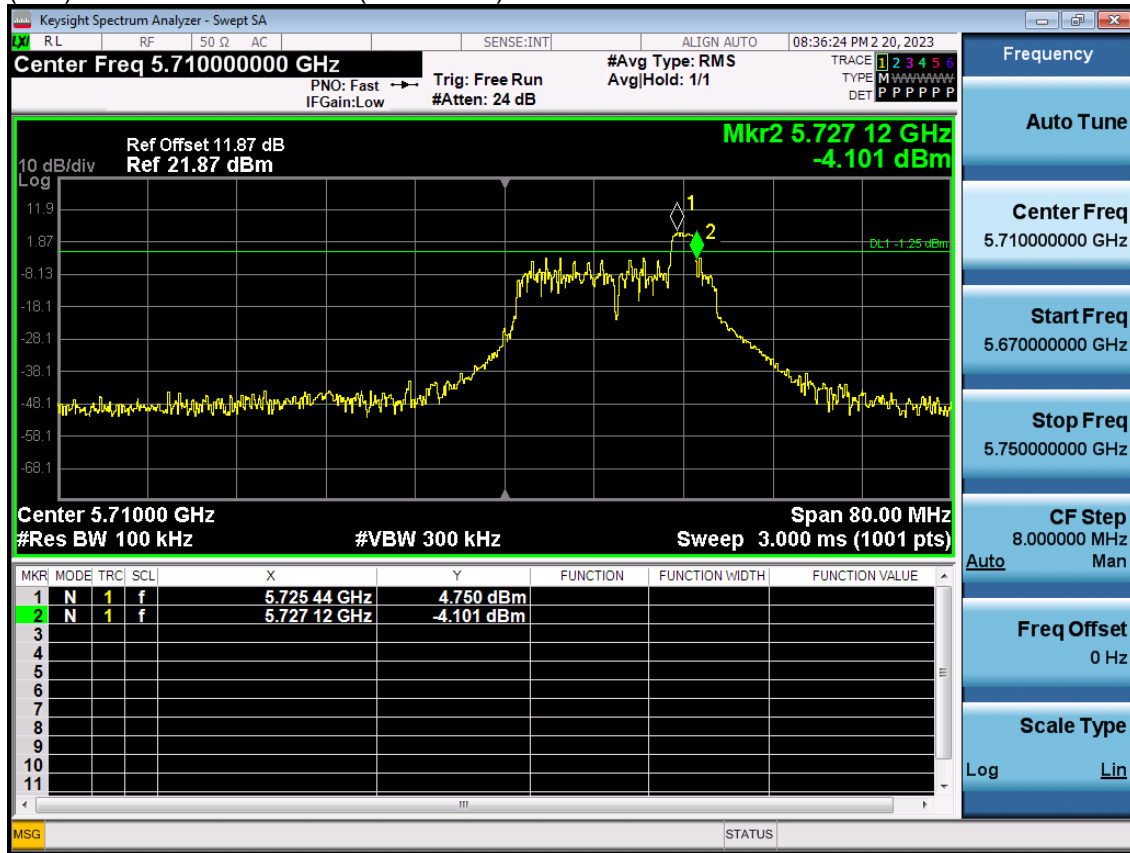
### 5.2.2 Ant. 2

(6dB) Bandwidth 20M Ch.144(5 720 MHz) 26 Tones RU 7



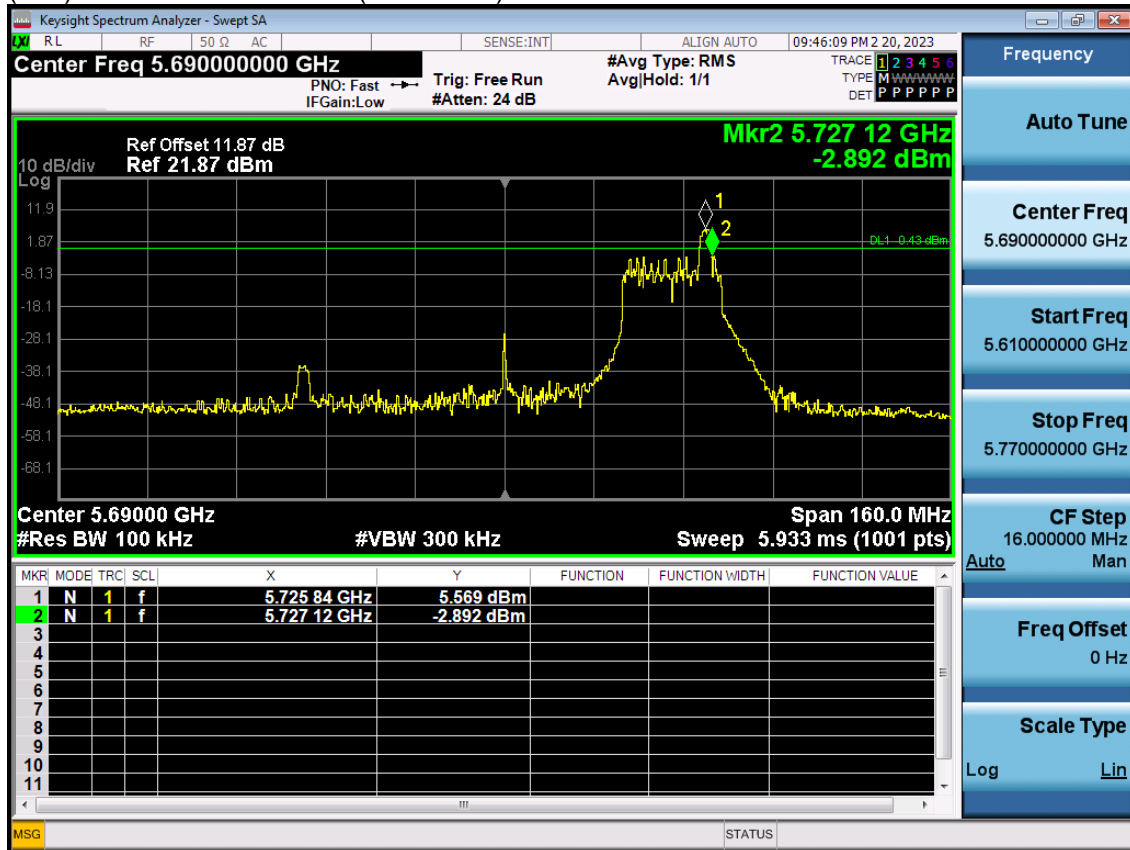
Measured Frequency [MHz]	Straddle Frequency [MHz]	6dB Bandwidth [MHz]
5727.52	5 725	2.52

(6dB) Bandwidth 40M Ch.142(5 710 MHz) 26 Tones RU 16



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

(6dB) Bandwidth 80M Ch.138(5 690 MHz) 26 Tones RU 35



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

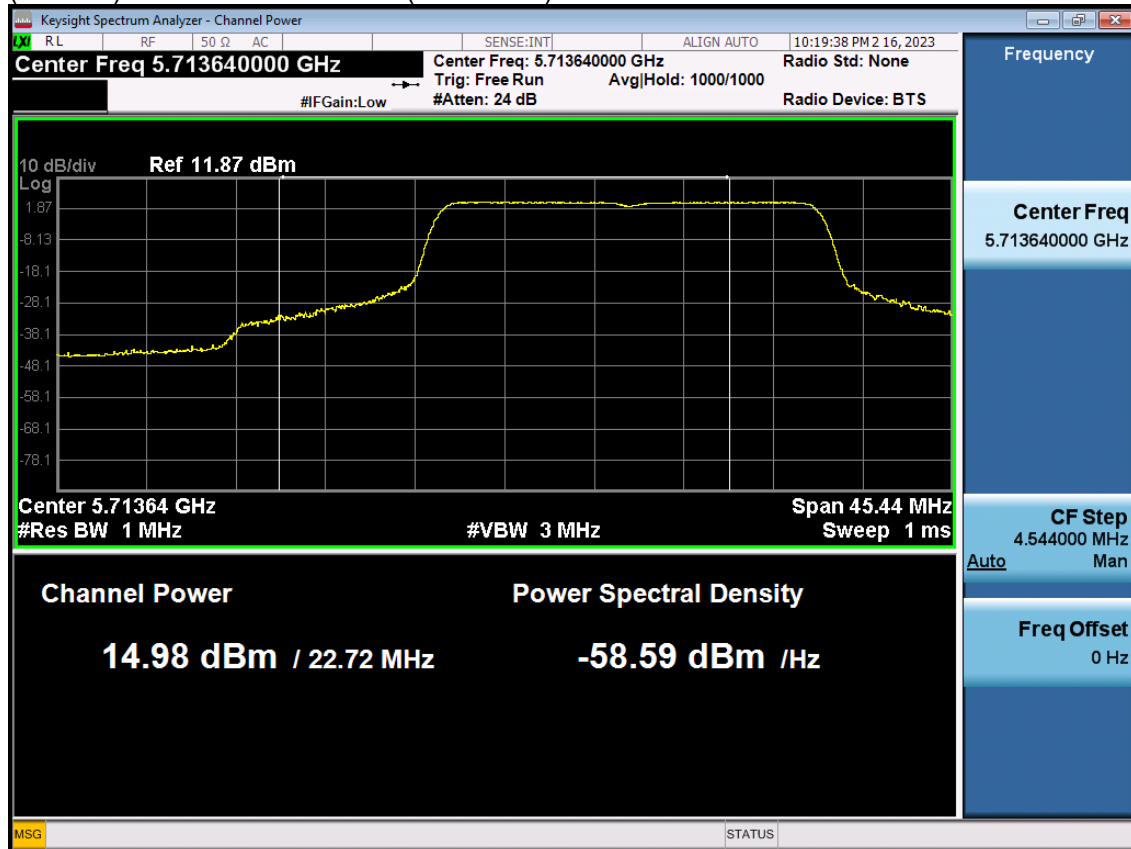
### 5.3 Output Power

**Note:**

1. In order to simplify the report, attached plots were only channel of highest Power.
2. Total Power (dBm) = Measured Value (dBm) + Duty Cycle Factor (dB)

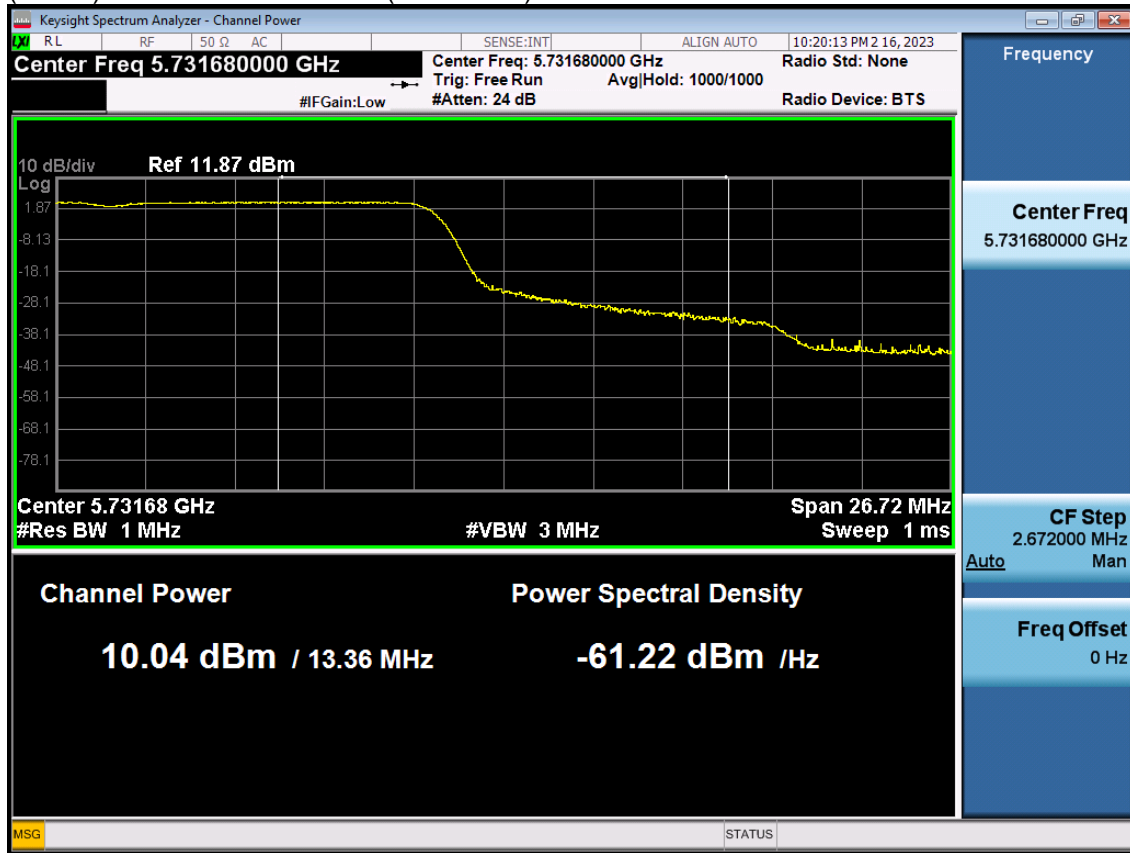
#### 5.3.1 Ant. 1

(UNII 2C) Bandwidth 20M Ch.144(5 720 MHz) SU



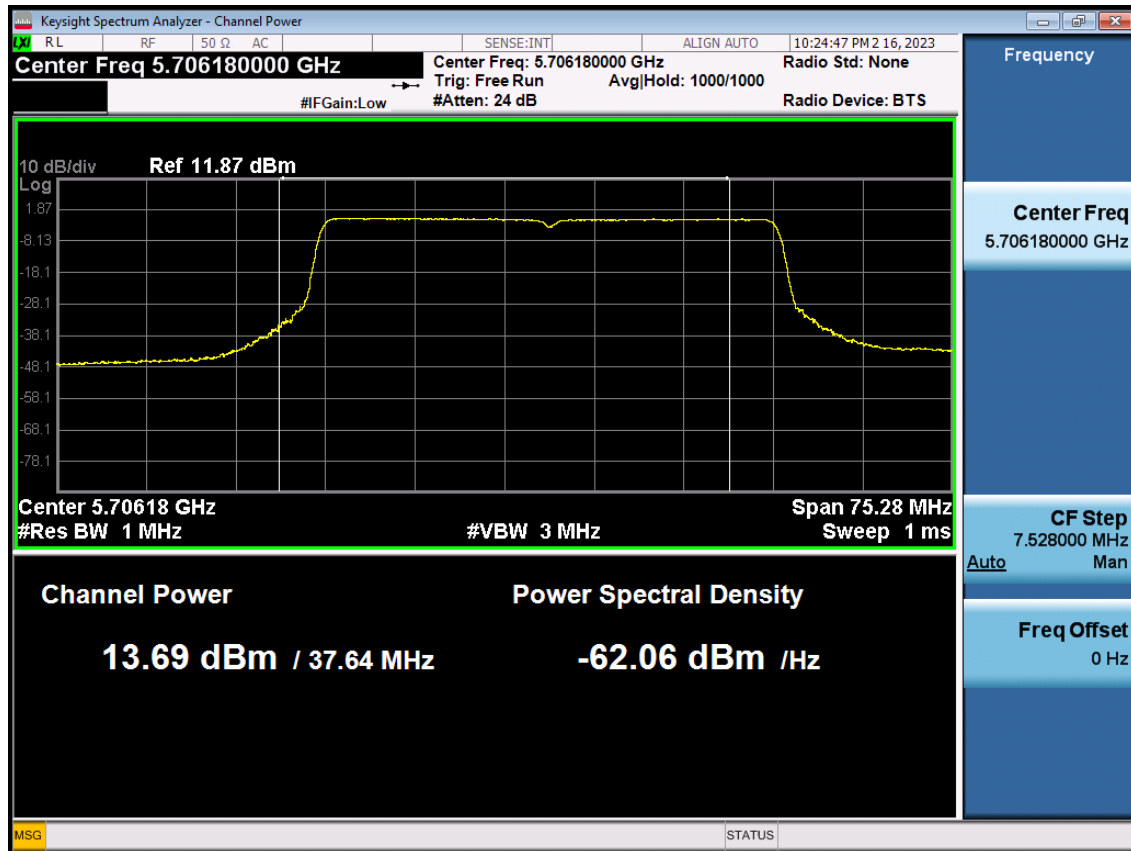
Measured Value (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)
14.98	0.439	15.42

(UNII 3) Bandwidth 20M Ch.144(5 720 MHz) SU



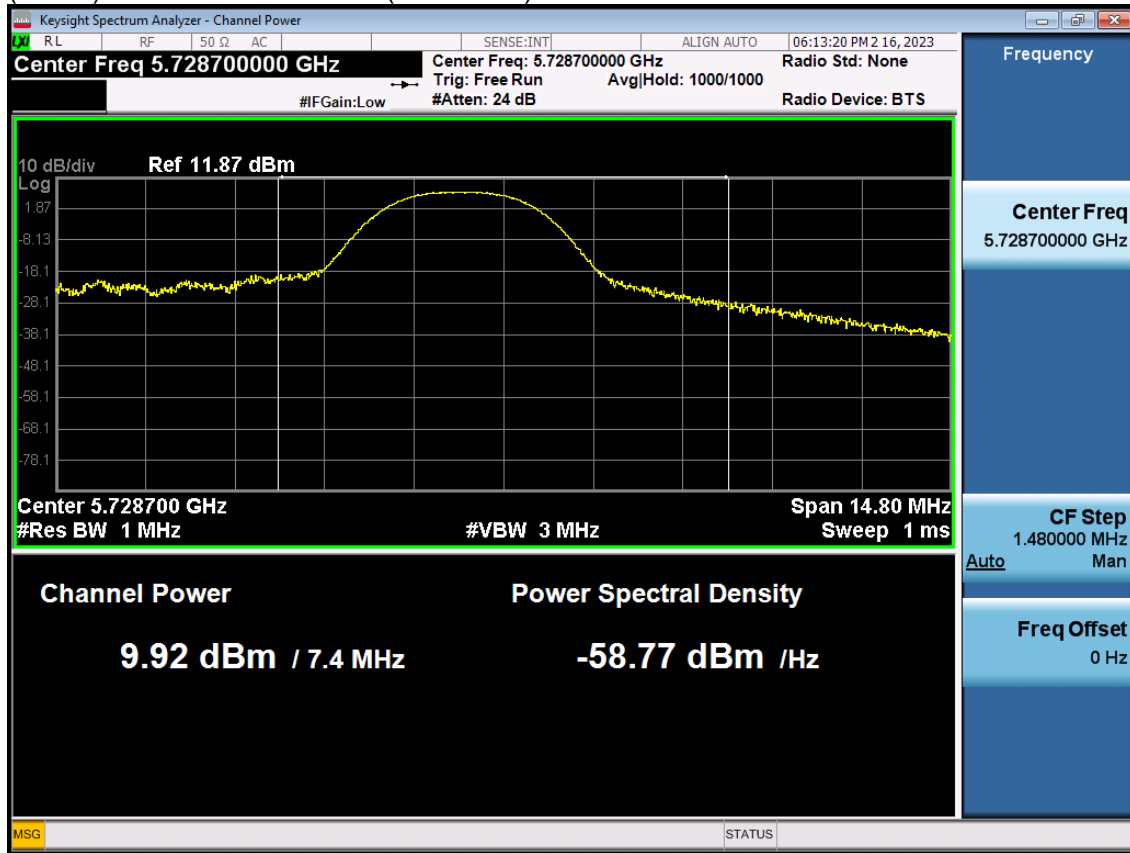
Measured Value (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)
10.04	0.439	10.48

(UNII 2C) Bandwidth 40M Ch.142(5 710 MHz) SU



Measured Value (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)
13.69	0.817	14.51

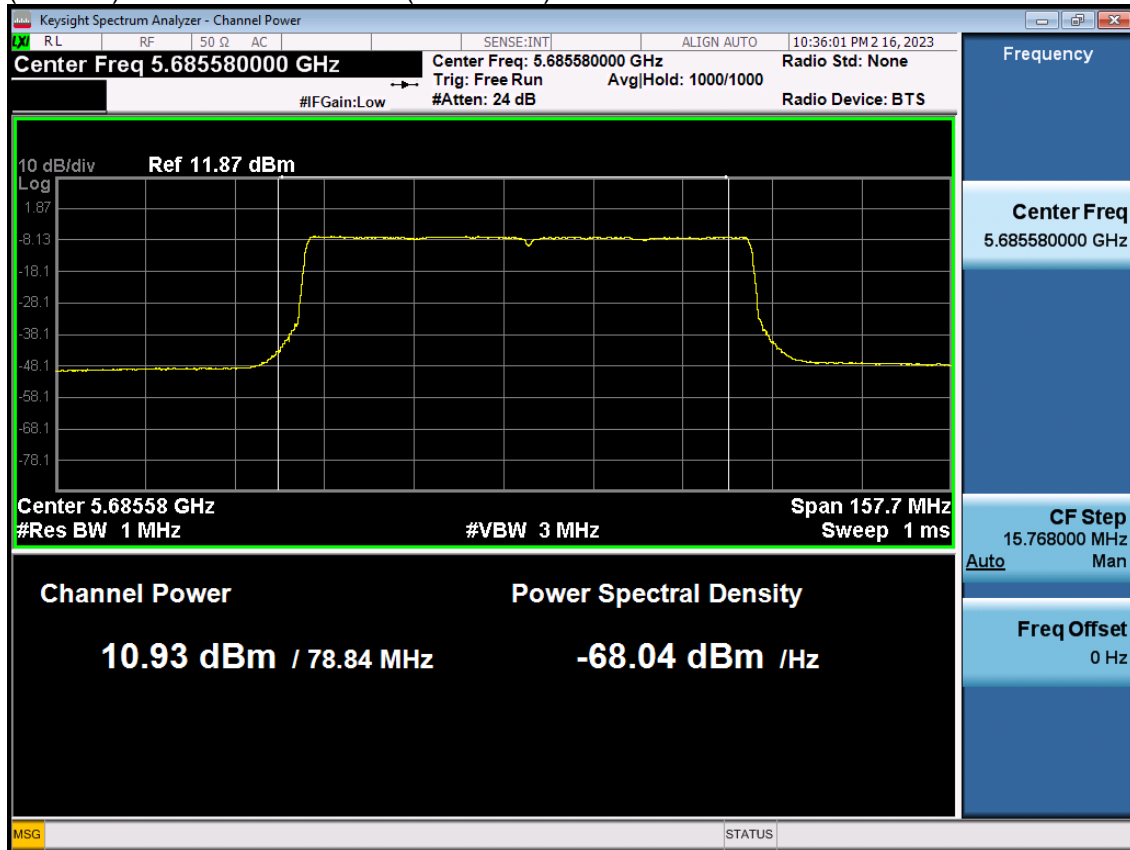
(UNII 3) Bandwidth 40M Ch.142(5 710 MHz) 26 Tones RU 17



Measured Value (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)
9.92	0.091	10.01

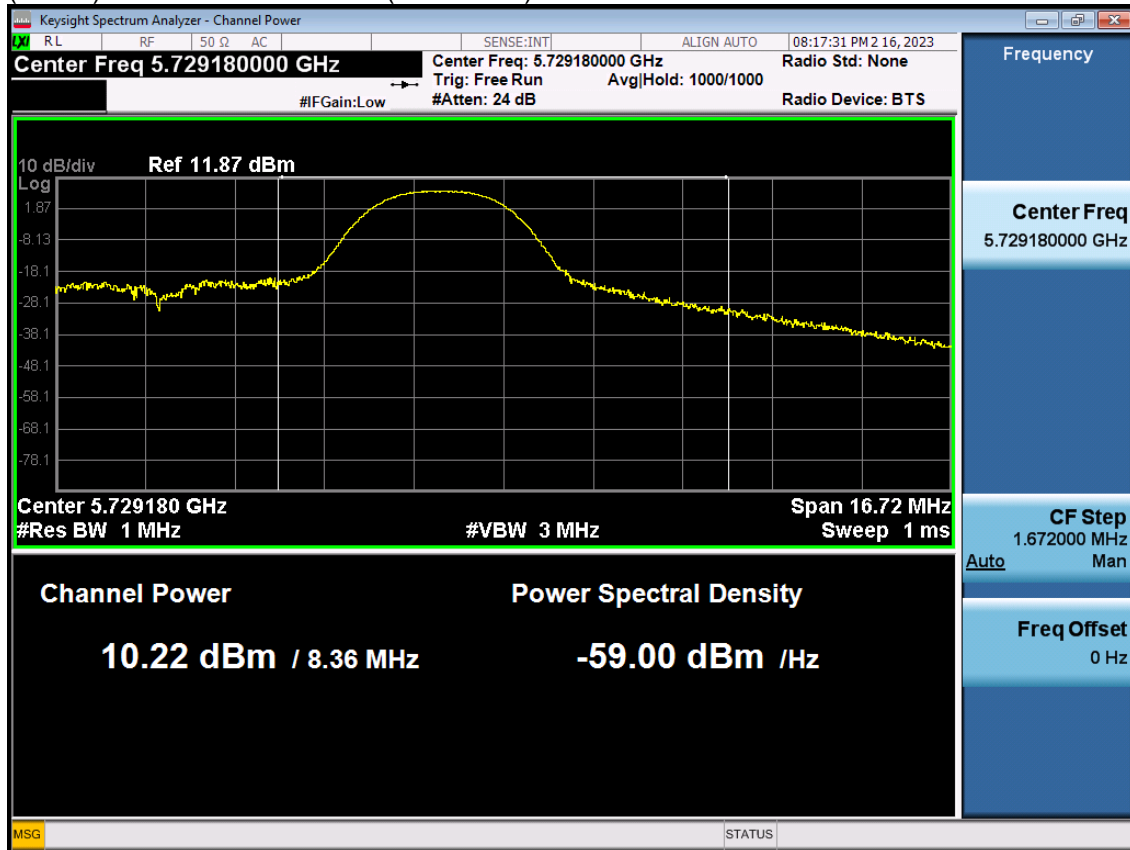


(UNII 2C) Bandwidth 80M Ch.138(5 690 MHz) SU



Measured Value (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)
10.93	1.409	12.34

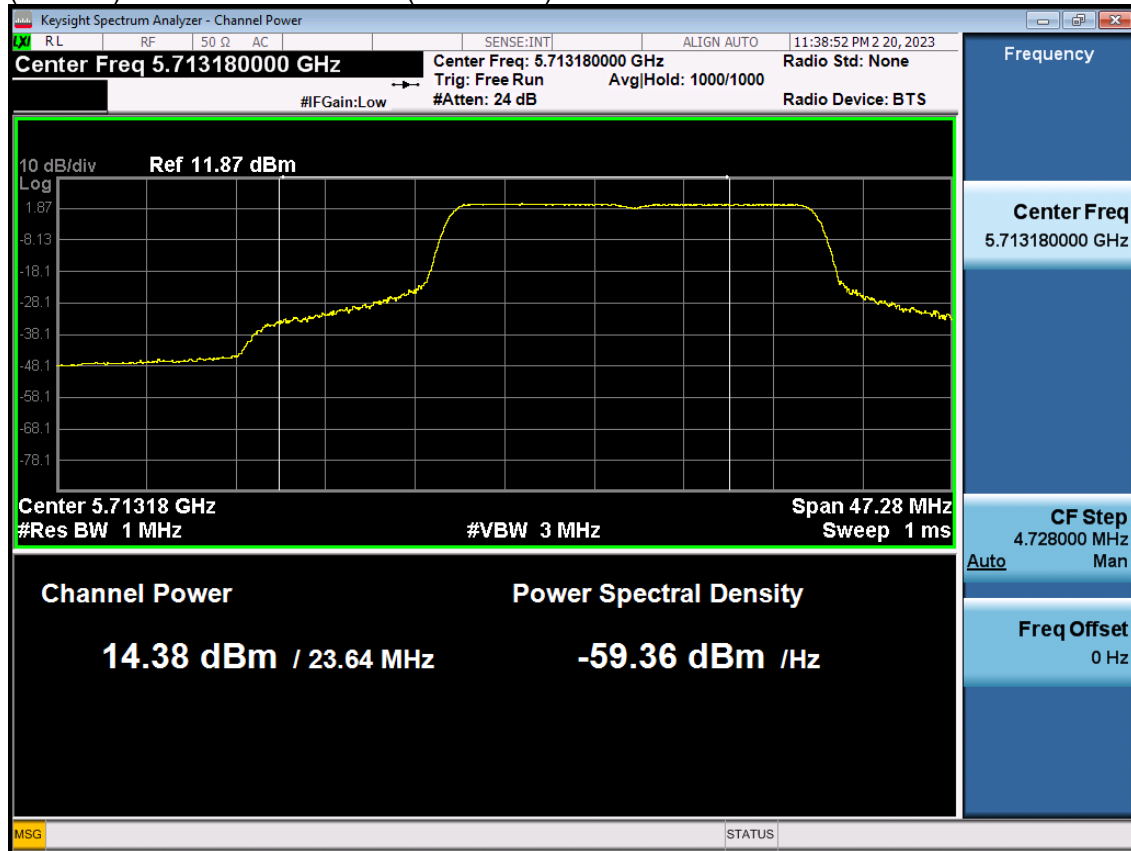
(UNII 3) Bandwidth 80M Ch.138(5 690 MHz) 26 Tones RU 36



Measured Value (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)
10.22	0.094	10.31

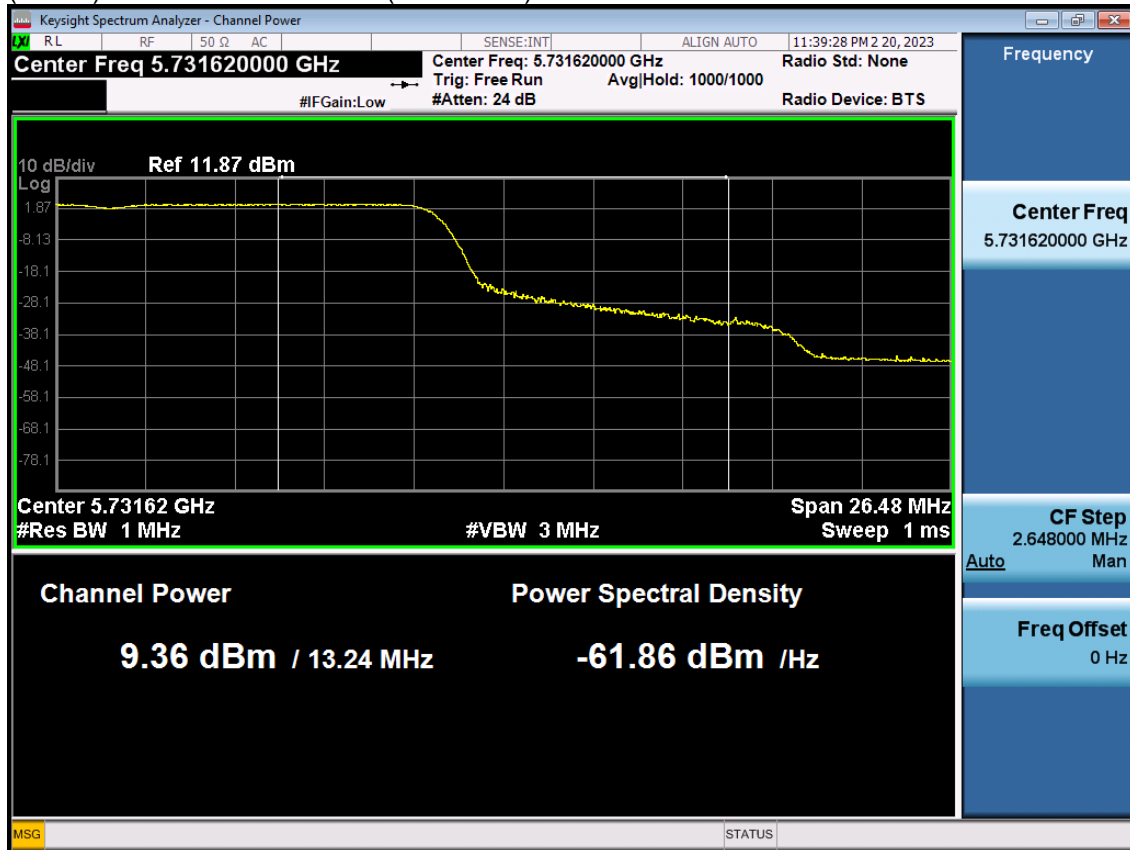
### 5.3.2 Ant. 2

(UNII 2C) Bandwidth 20M Ch.144(5 720 MHz) SU



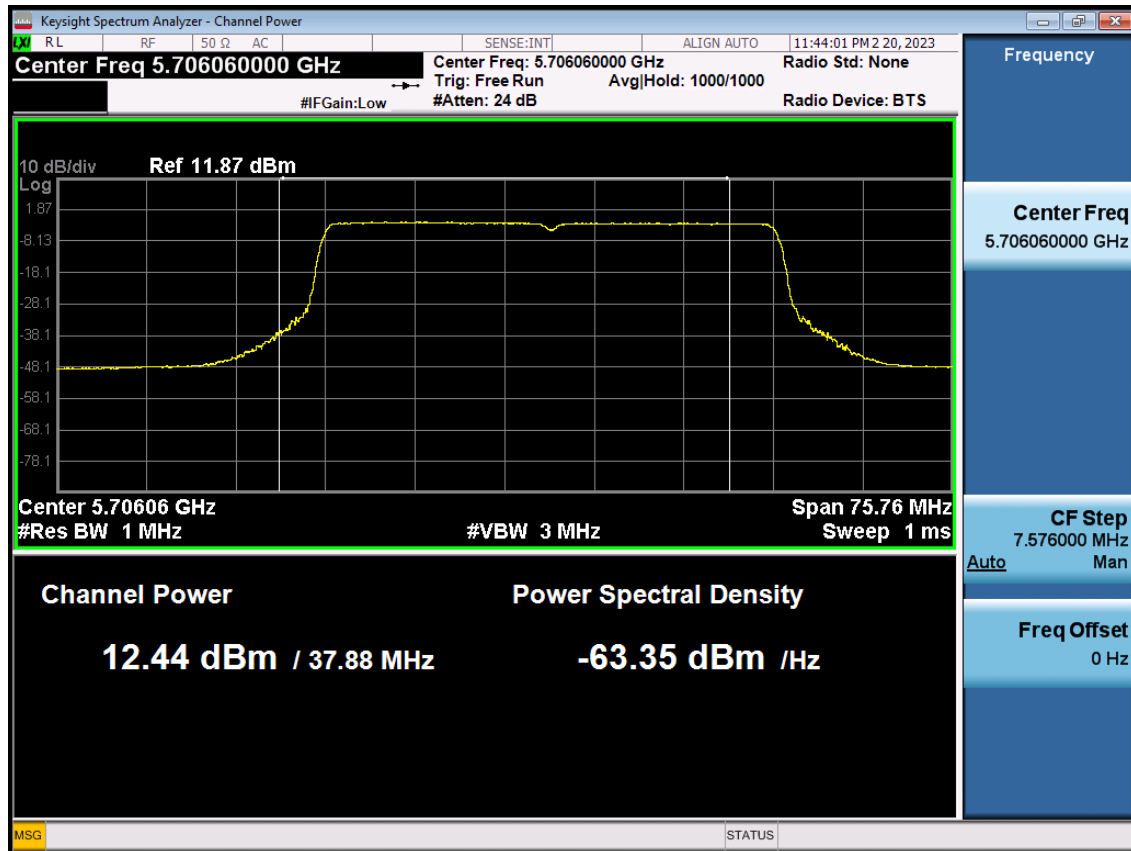
Measured Value (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)
14.38	0.439	14.82

(UNII 3) Bandwidth 20M Ch.144(5 720 MHz) SU



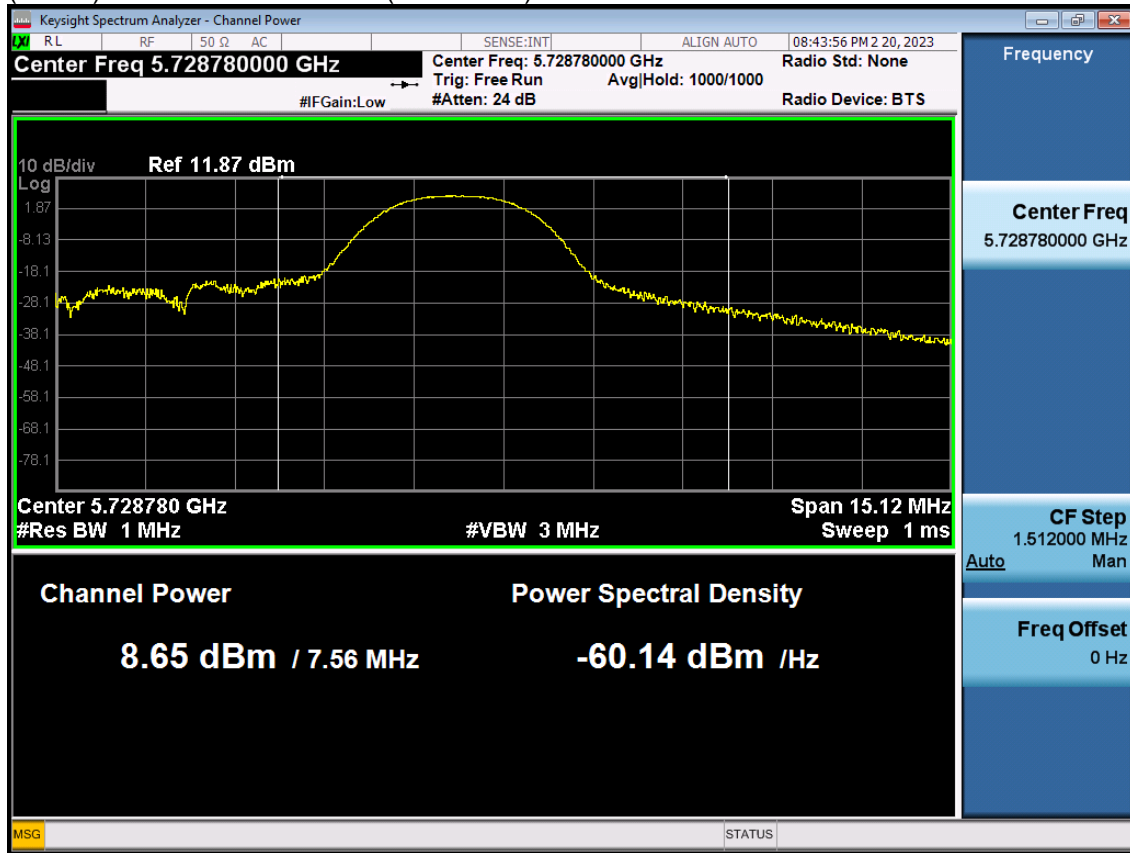
Measured Value (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)
9.36	0.439	9.80

(UNII 2C) Bandwidth 40M Ch.142(5 710 MHz) SU



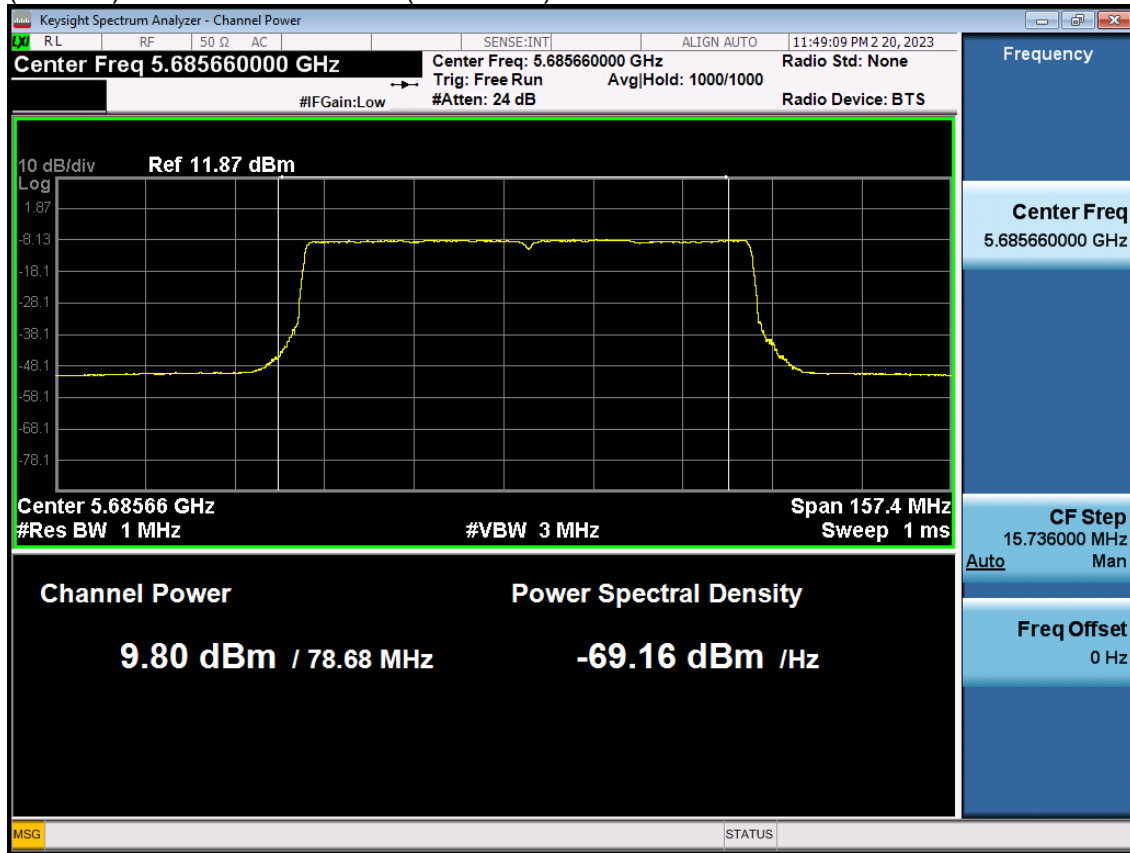
Measured Value (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)
12.44	0.817	13.26

(UNII 3) Bandwidth 40M Ch.142(5 710 MHz) 26 Tones RU 17



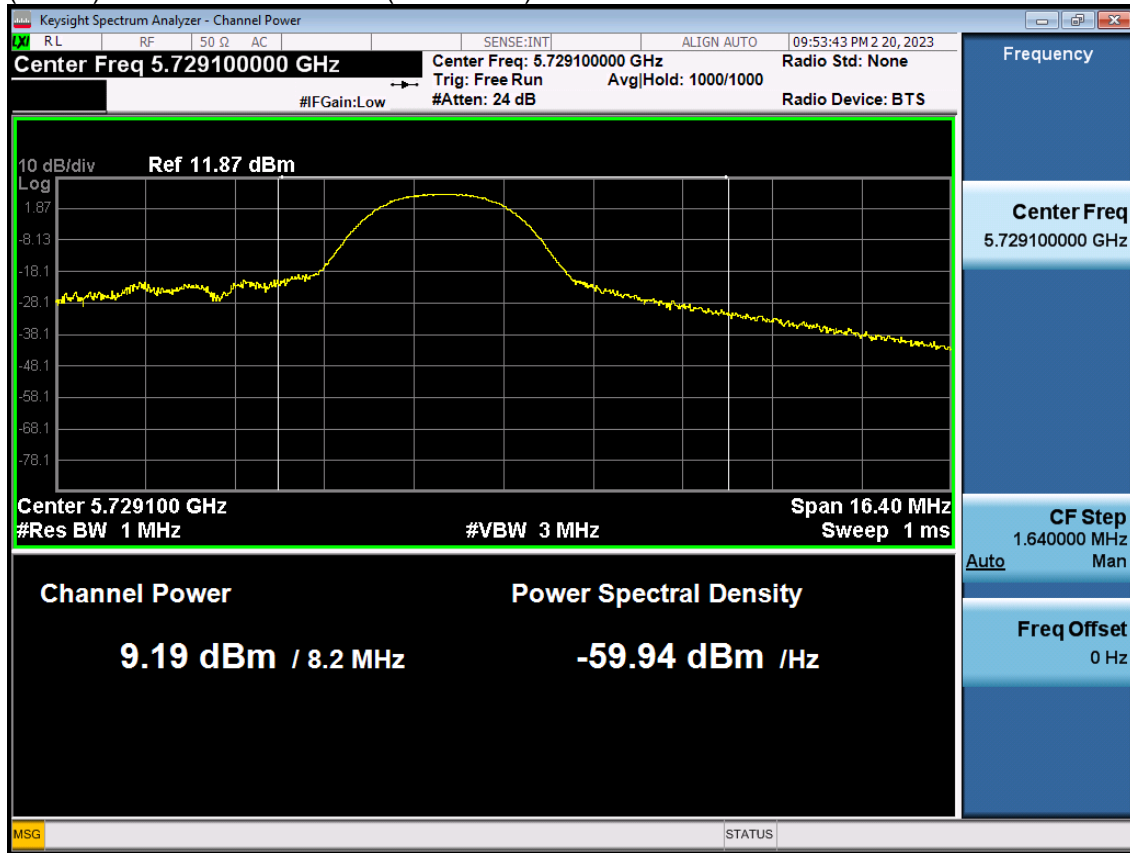
Measured Value (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)
8.65	0.091	8.74

(UNII 2C) Bandwidth 80M Ch.138(5 690 MHz) SU



Measured Value (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)
9.80	1.409	11.21

(UNII 3) Bandwidth 80M Ch.138(5 690 MHz) 26 Tones RU 36



Measured Value (dBm)	Duty Cycle Factor (dB)	Total Power (dBm)
9.19	0.094	9.28



### 5.4 Power Spectral Density

**Note:**

1. In order to simplify the report, attached plots were only channel of highest PSD.
2. Total PSD (dBm) = Measured Value (dBm) + Duty Cycle Factor (dB)

#### 5.4.1 Ant. 1

(UNII 2C) Bandwidth 20M Ch.144(5 720 MHz) 26 Tones RU 0



Measured Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
7.189	0.100	7.289

(UNII 3) Bandwidth 20M Ch.144(5 720 MHz) 26 Tones RU 8



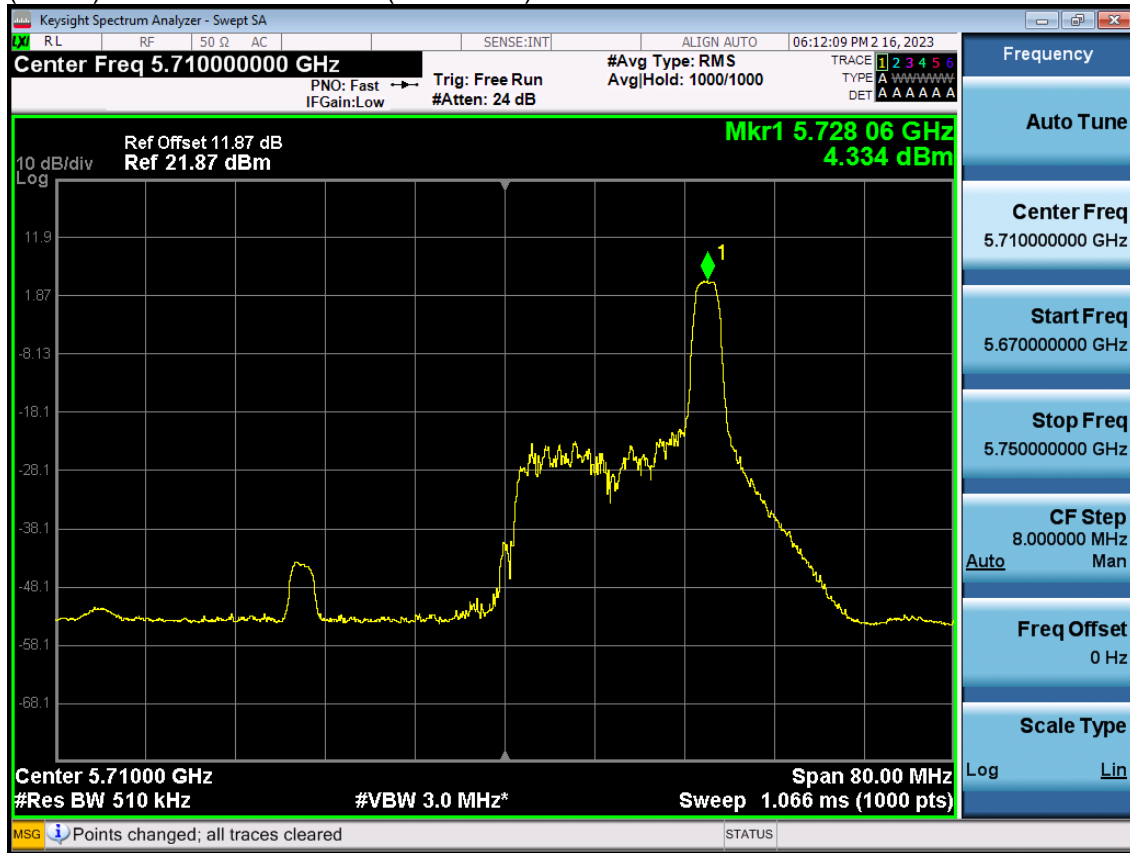
Measured Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
4.305	0.100	4.405

(UNII 2C) Bandwidth 40M Ch.142(5 710 MHz) 26 Tones RU 9



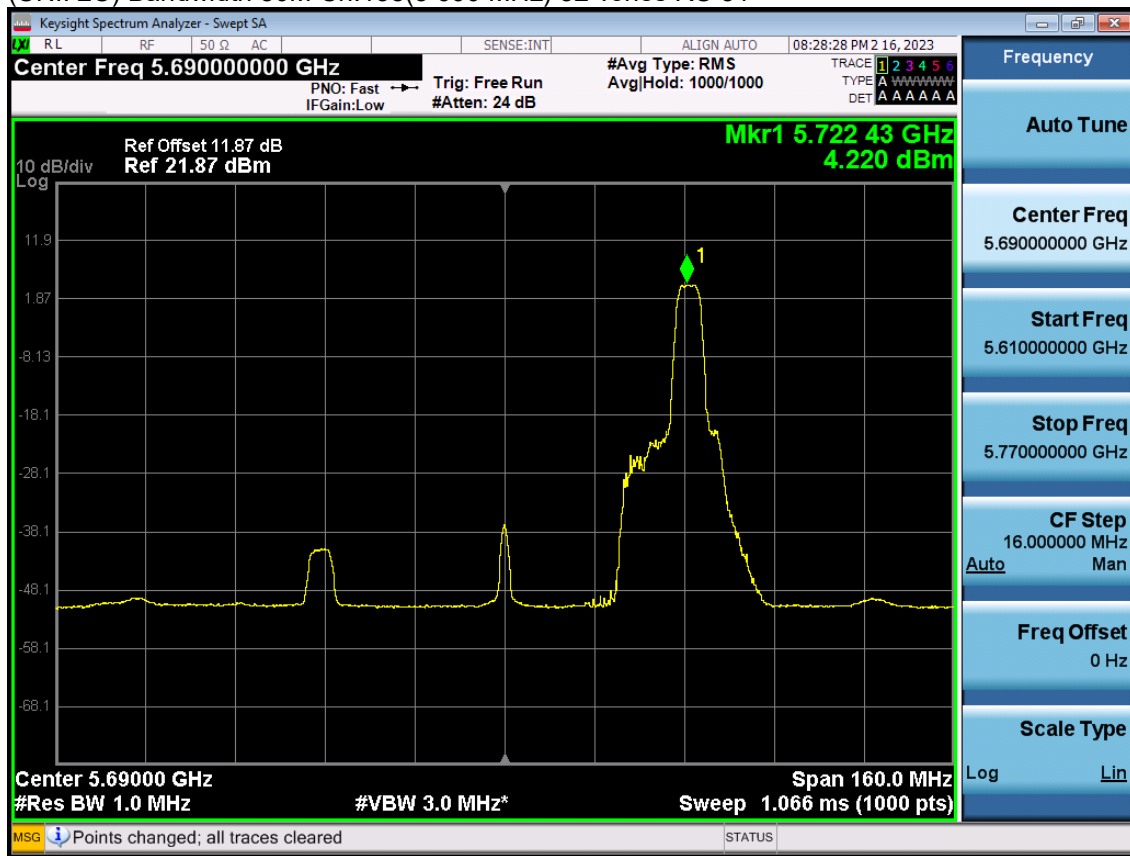
Measured Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
6.872	0.091	6.963

(UNII 3) Bandwidth 40M Ch.142(5 710 MHz) 26 Tones RU 17



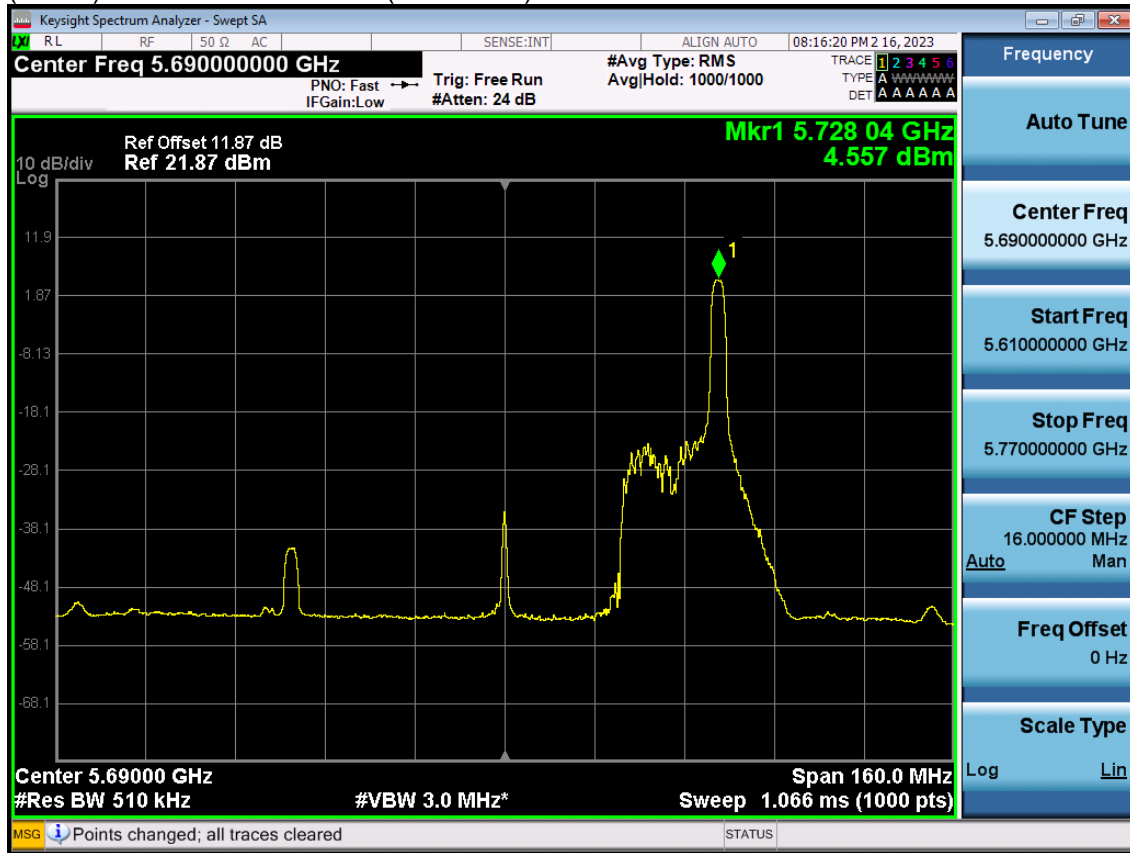
Measured Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
4.334	0.091	4.425

(UNII 2C) Bandwidth 80M Ch.138(5 690 MHz) 52 Tones RU 51



Measured Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
4.220	0.093	4.313

(UNII 3) Bandwidth 80M Ch.138(5 690 MHz) 26 Tones RU 36



Measured Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
4.557	0.094	4.651

### 5.4.2 Ant. 2

(UNII 2C) Bandwidth 20M Ch.144(5 720 MHz) 26 Tones RU 0



Measured Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
6.752	0.100	6.852

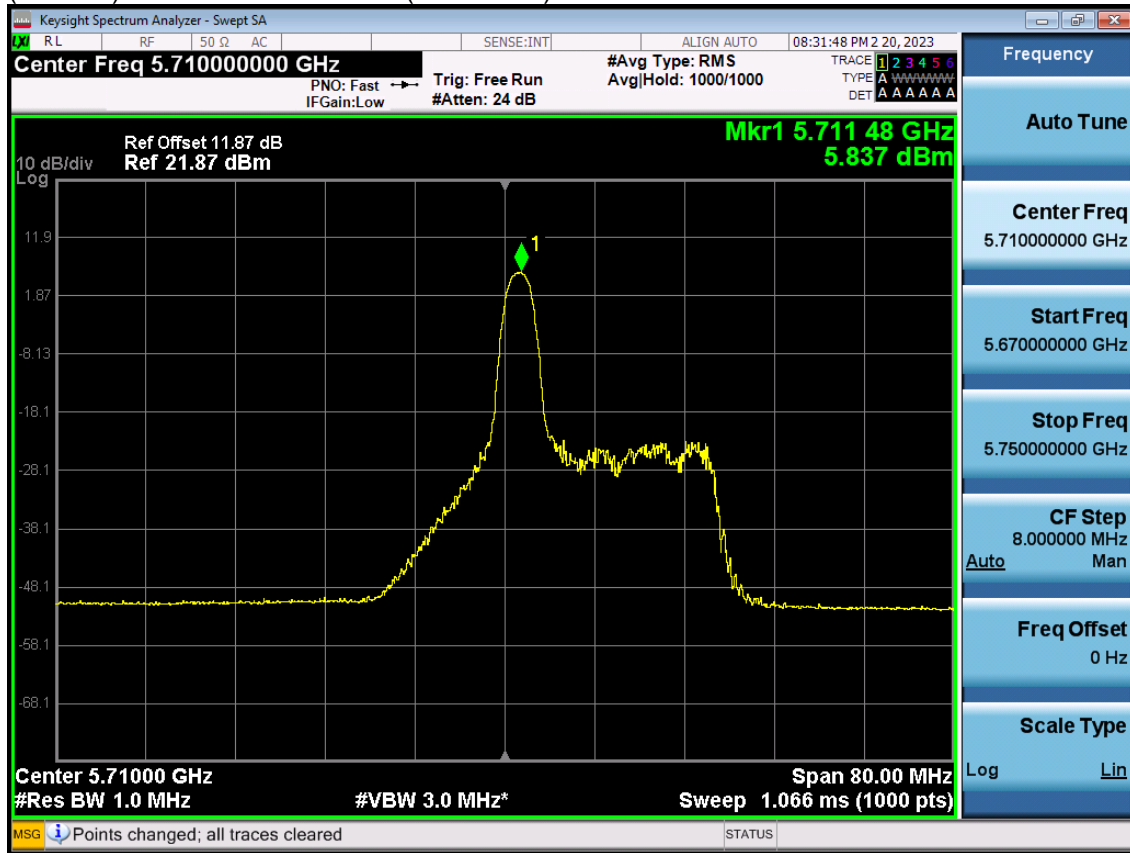
(UNII 3) Bandwidth 20M Ch.144(5 720 MHz) 26 Tones RU 7



Measured Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
3.711	0.100	3.811

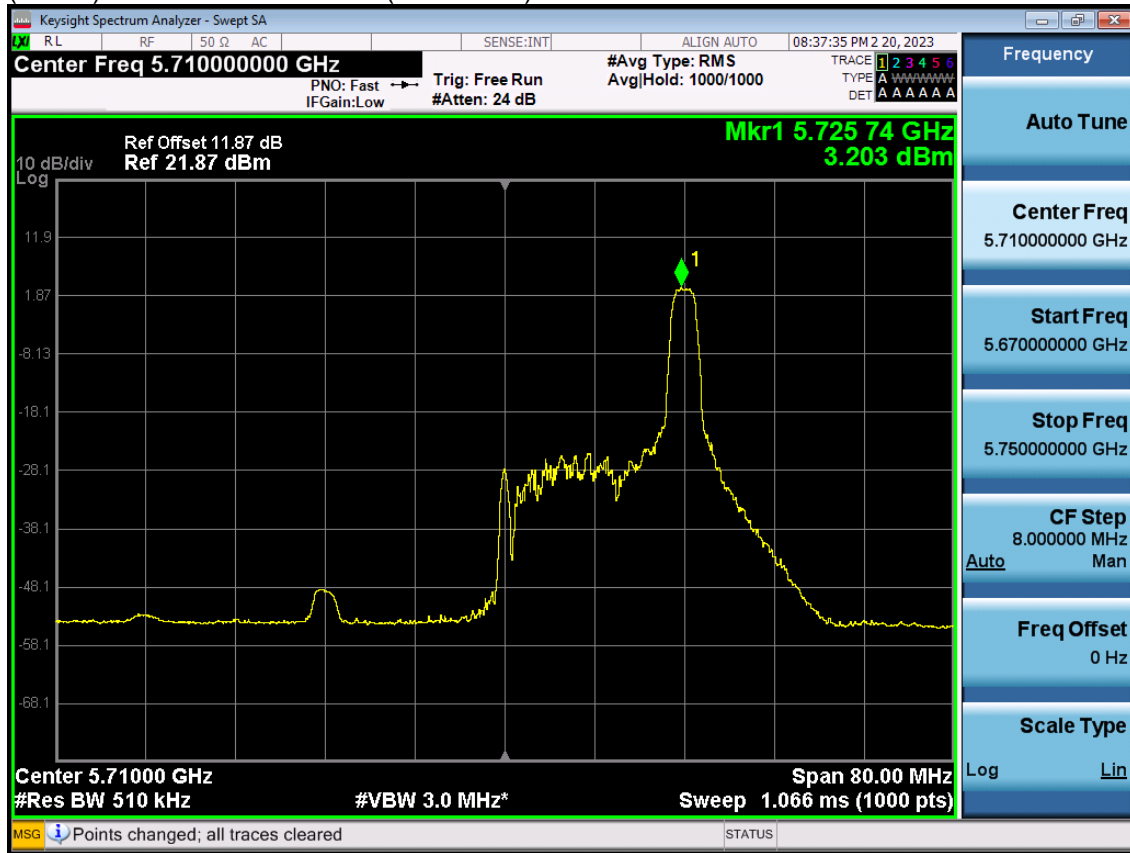


(UNII 2C) Bandwidth 40M Ch.142(5 710 MHz) 26 Tones RU 9



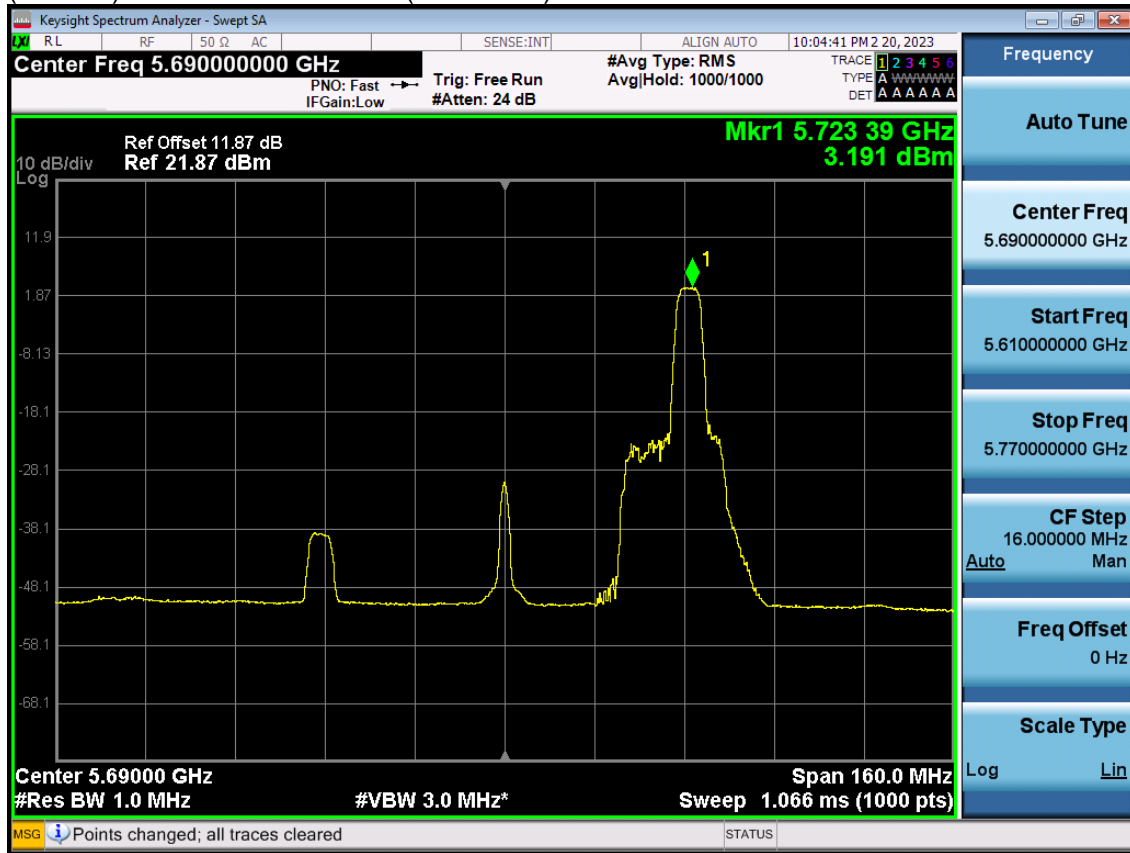
Measured Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
5.837	0.091	5.928

(UNII 3) Bandwidth 40M Ch.142(5 710 MHz) 26 Tones RU 16



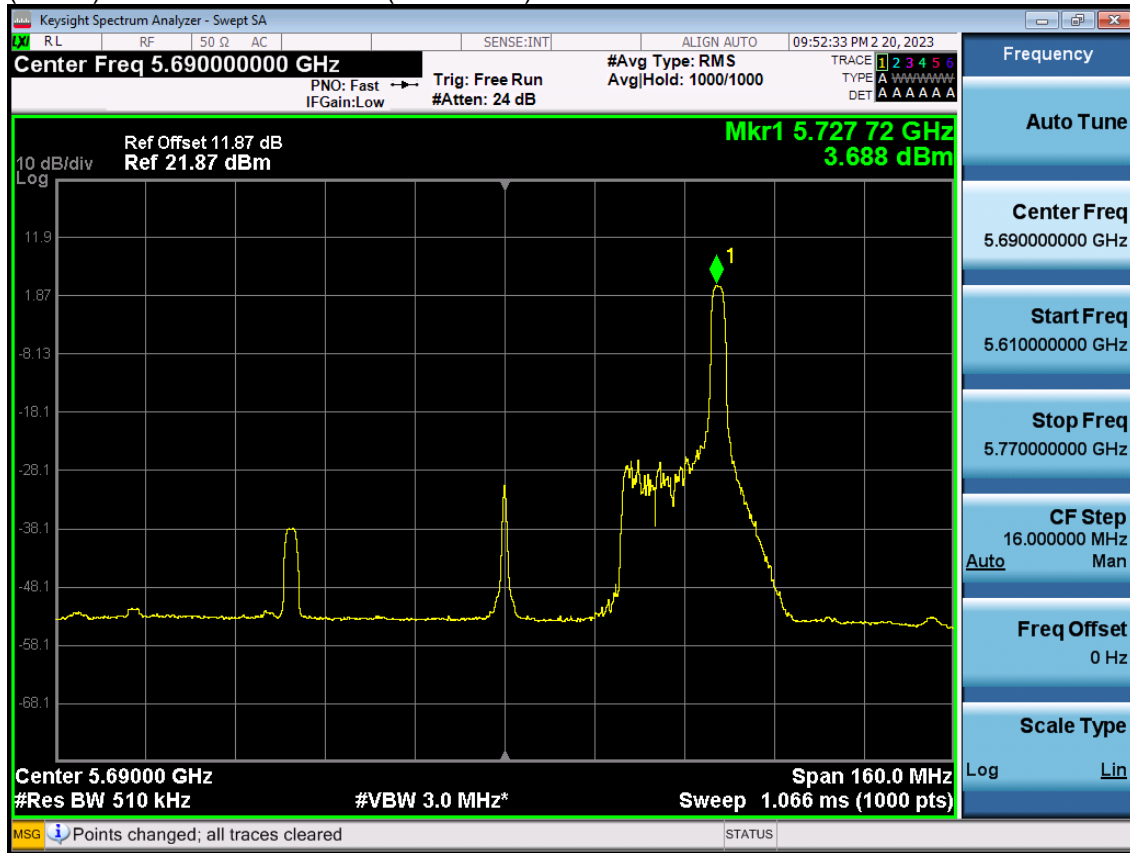
Measured Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
3.203	0.091	3.294

(UNII 2C) Bandwidth 80M Ch.138(5 690 MHz) 52 Tones RU 51



Measured Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
3.191	0.093	3.284

(UNII 3) Bandwidth 80M Ch.138(5 690 MHz) 26 Tones RU 36



Measured Value (dBm)	Duty Cycle Factor (dB)	Total PSD (dBm)
3.688	0.094	3.782