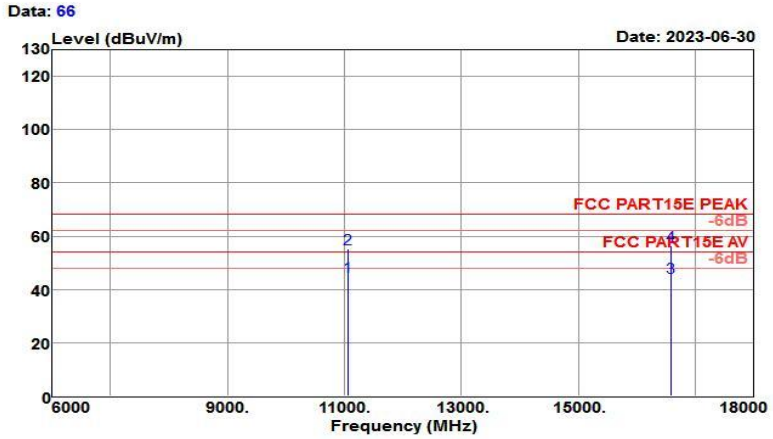
Test Mode :	802.11 ac VHT80 CH106 5530MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	61~64%
Frequencey Range	6GHz~18GHz	Polarization :	Vertical

```
Test Site    : 3m Chamber                    Temp/Humi    : 23℃/61%
               --------------------------                 ----------------
Tested by    : Jack                          Pol/Phase    : VERTICAL
               --------------------------                 ----------------
Test Mode    : 802.11ac VHT80 CH106(5530MHz) Power rating: DC 15V
               --------------------------                 ----------------
EUT          : Digital Video Monitor          Comment     :
               --------------------------                 ----------------
Model No.    : DVM-D1
               --------------------------
```

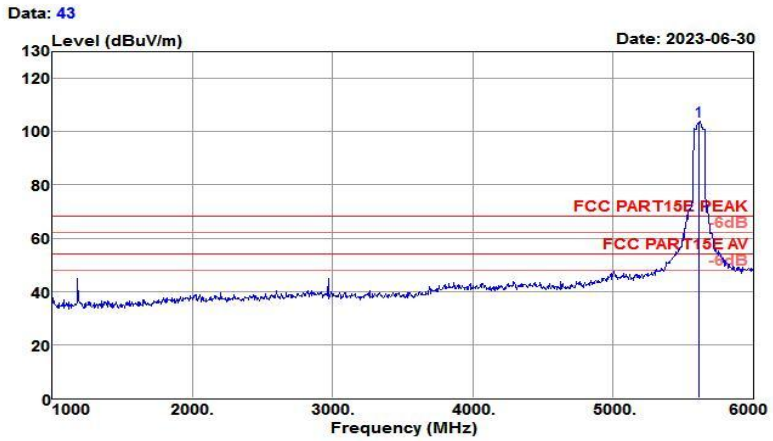


Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
11060.000	24.83	39.88	12.76	32.59	44.88	54.00	-9.12	Average
11060.000	35.25	39.88	12.76	32.59	55.30	68.20	-12.90	Peak
16590.000	19.84	38.87	16.26	30.45	44.52	54.00	-9.48	Average
16590.000	31.59	38.87	16.26	30.45	56.27	68.20	-11.93	Peak

Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

Test Mode :	802.11 ac VHT80 CH122 5610MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	61~64%
Frequencey Range	1GHz~6GHz	Polarization :	Horizontal

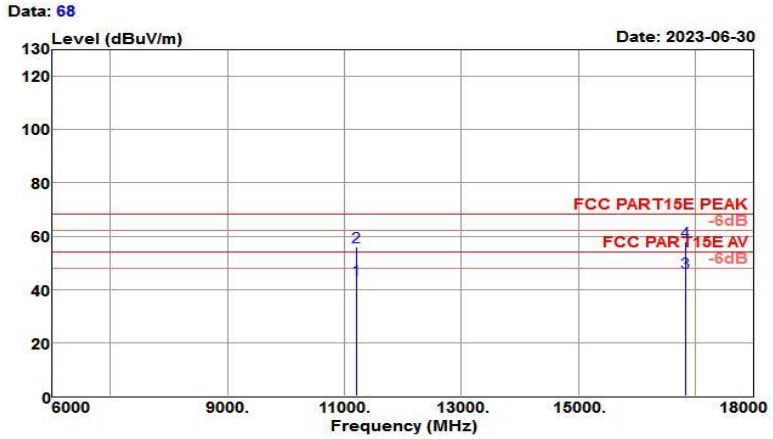
Test Site	: 3m Chamber	Temp/Humi	: 23℃/61%
Tested by	: Jack	Pol/Phase	: HORIZONTAL
Test Mode	: 802.11ac VHT80 CH122(5610MHz)	Power rating	: DC 15V
EUT	: Digital Video Monitor	Comment	:
Model No.	: DVM-D1		



Freq	Reading level	Antenna factor	Cable loss	Preamp factor	level	Limit level	Over limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
5610.000	99.09	31.78	8.20	35.29	103.78	68.20	35.58	Peak

Test Mode :	802.11 ac VHT80 CH122 5610MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	61~64%
Frequencey Range	6GHz~18GHz	Polarization :	Horizontal

Test Site	: 3m Chamber	Temp/Humi	: 23℃/61%
Tested by	: Jack	Pol/Phase	: HORIZONTAL
Test Mode	: 802.11ac VHT80 CH122(5610MHz)	Power rating	: DC 15V
EUT	: Digital Video Monitor	Comment	:
Model No.	: DVM-D1		

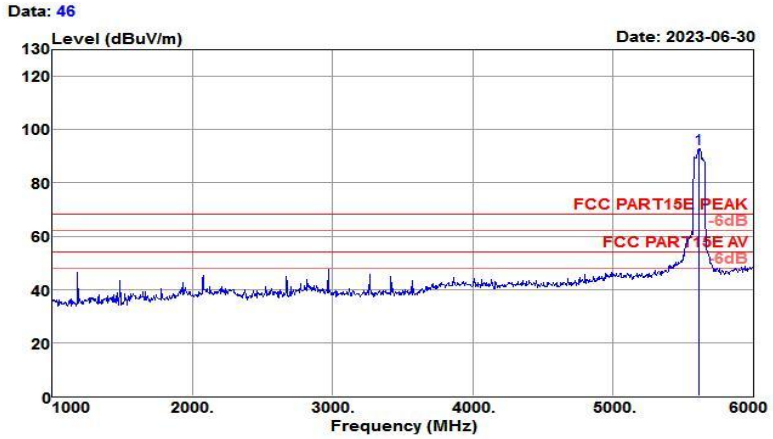


Freq	Reading level	Antenna factor	Cable loss	Preamp factor	level	Limit level	Over limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
11220.000	23.51	39.81	12.98	32.71	43.59	54.00	-10.41	Average
11220.000	35.85	39.81	12.98	32.71	55.93	68.20	-12.27	Peak
16830.000	18.92	39.59	17.99	30.23	46.27	54.00	-7.73	Average
16830.000	30.64	39.59	17.99	30.23	57.99	68.20	-10.21	Peak

Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

Test Mode :	802.11 ac VHT80 CH122 5610MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	61~64%
Frequencey Range	1GHz~6GHz	Polarization :	Vertical

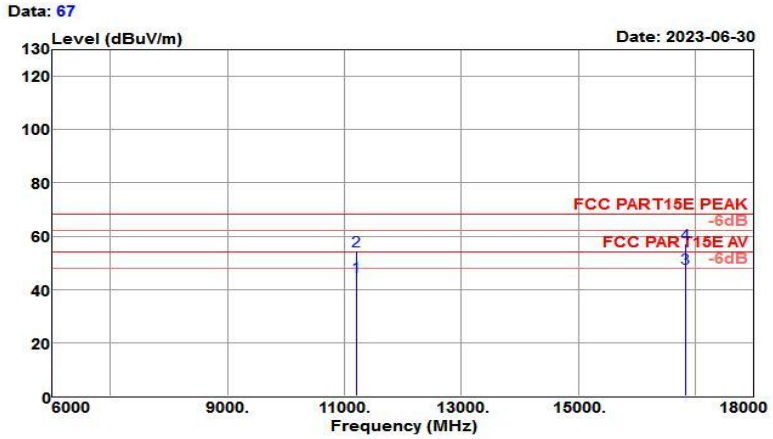
Test Site	: 3m Chamber	Temp/Humi	: 23℃/61%
Tested by	: Jack	Pol/Phase	: VERTICAL
Test Mode	: 802.11ac VHT80 CH122(5610MHz)	Power rating	: DC 15V
EUT	: Digital Video Monitor	Comment	:
Model No.	: DVM-D1		



Freq	Reading level	Antenna factor	Cable loss	Preamp factor	level	Limit level	Over limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
5610.000	88.24	31.78	8.20	35.29	92.93	68.20	24.73	Peak

Test Mode :	802.11 ac VHT80 CH122 5610MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	61~64%
Frequencey Range	6GHz~18GHz	Polarization :	Vertical

```
Test Site    : 3m Chamber                    Temp/Humi    : 23℃/61%
               --------------------------                 ----------------
Tested by    : Jack                          Pol/Phase    : VERTICAL
               --------------------------                 ----------------
Test Mode    : 802.11ac VHT80 CH122(5610MHz) Power rating: DC 15V
               --------------------------                 ----------------
EUT          : Digital Video Monitor          Comment     :
               --------------------------                 ----------------
Model No.    : DVM-D1
               --------------------------
```

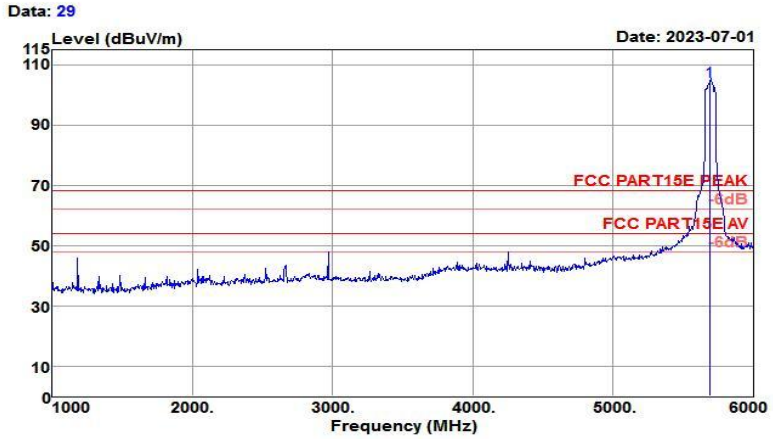


Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
11220.000	24.92	39.81	12.98	32.71	45.00	54.00	-9.00	Average
11220.000	34.20	39.81	12.98	32.71	54.28	68.20	-13.92	Peak
16830.000	20.47	39.59	17.99	30.23	47.82	54.00	-6.18	Average
16830.000	29.90	39.59	17.99	30.23	57.25	68.20	-10.95	Peak

Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

Test Mode :	802.11 ac VHT80 CH138 5690MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	61~64%
Frequencey Range	1GHz~6GHz	Polarization :	Horizontal

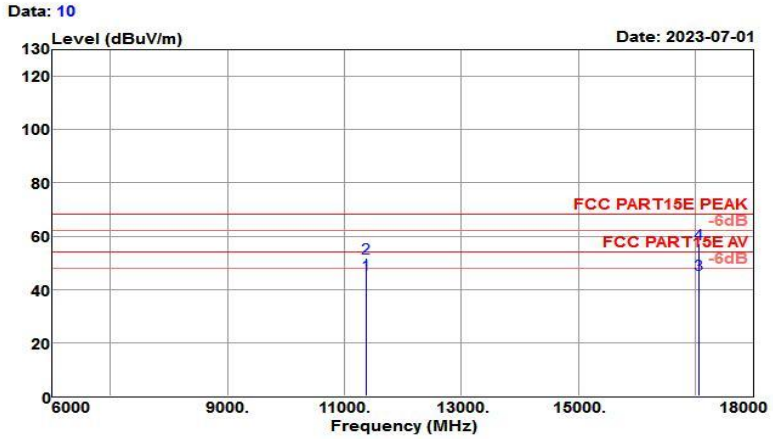
Test Site	: 3m Chamber	Temp/Humi	: 23℃/61%
Tested by	: Jack	Pol/Phase	: HORIZONTAL
Test Mode	: 802.11ac VHT80 CH138(5690MHz)	Power rating	: DC 15V
EUT	: Digital Video Monitor	Comment	:
Model No.	: DVM-D1		



Freq	Reading level	Antenna factor	Cable loss	Preamp factor	level	Limit level	Over limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
5690.000	100.40	31.90	7.57	35.21	104.66	68.20	36.46	Peak

Test Mode :	802.11 ac VHT80 CH138 5690MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	61~64%
Frequencey Range	6GHz~18GHz	Polarization :	Horizontal

```
Test Site    : 3m Chamber                    Temp/Humi    : 23℃/61%
               --------------------------                 ----------------
Tested by    : Jack                          Pol/Phase    : HORIZONTAL
               --------------------------                 ----------------
Test Mode    : 802.11ac VHT80 CH138(5690MHz) Power rating: DC 15V
               --------------------------                 ----------------
EUT          : Digital Video Monitor          Comment     :
               --------------------------                 ----------------
Model No.    : DVM-D1
               --------------------------
```

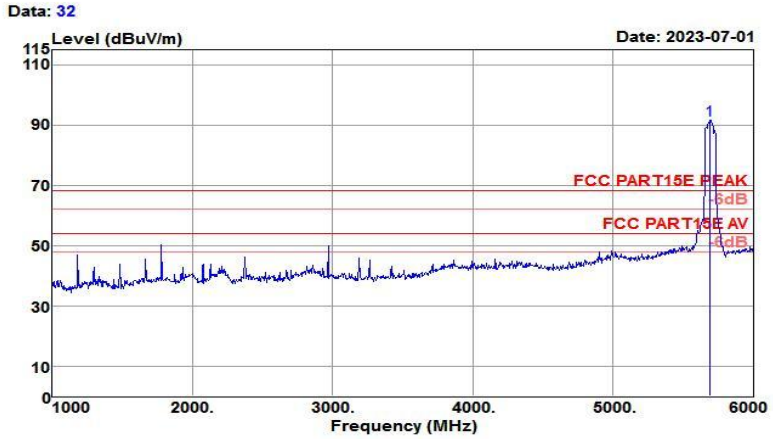


Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
11380.000	25.47	39.75	13.20	32.92	45.50	54.00	-8.50	Average
11380.000	31.58	39.75	13.20	32.92	51.61	68.20	-16.59	Peak
17070.000	16.42	40.34	18.77	30.06	45.47	54.00	-8.53	Average
17070.000	28.20	40.34	18.77	30.06	57.25	68.20	-10.95	Peak

Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

Test Mode :	802.11 ac VHT80 CH138 5690MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	61~64%
Frequencey Range	1GHz~6GHz	Polarization :	Vertical

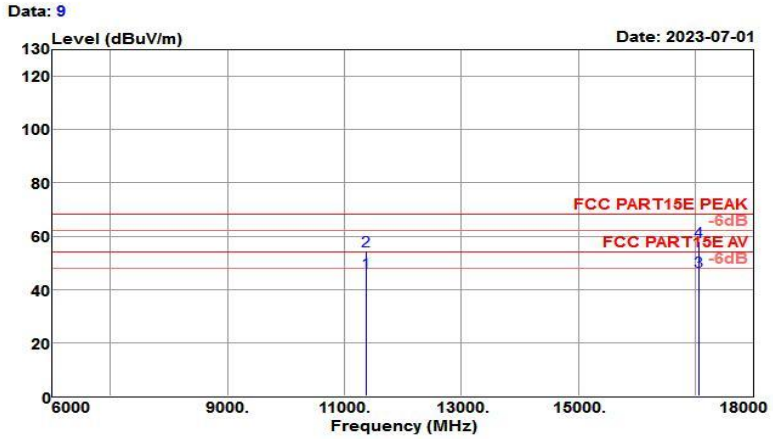
Test Site	: 3m Chamber	Temp/Humi	: 23℃/61%
Tested by	: Jack	Pol/Phase	: VERTICAL
Test Mode	: 802.11ac VHT80 CH138(5690MHz)	Power rating	: DC 15V
EUT	: Digital Video Monitor	Comment	:
Model No.	: DVM-D1		



Freq	Reading level	Antenna factor	Cable loss	Preamp factor	level	Limit level	Over limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
5690.000	87.36	31.90	7.57	35.21	91.62	68.20	23.42	Peak

Test Mode :	802.11 ac VHT80 CH138 5690MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	61~64%
Frequencey Range	6GHz~18GHz	Polarization :	Vertical

```
Test Site    : 3m Chamber                    Temp/Humi    : 23℃/61%
               --------------------------                 ----------------
Tested by    : Jack                          Pol/Phase    : VERTICAL
               --------------------------                 ----------------
Test Mode    : 802.11ac VHT80 CH138(5690MHz) Power rating: DC 15V
               --------------------------                 ----------------
EUT          : Digital Video Monitor          Comment     :
               --------------------------                 ----------------
Model No.    : DVM-D1
               --------------------------
```

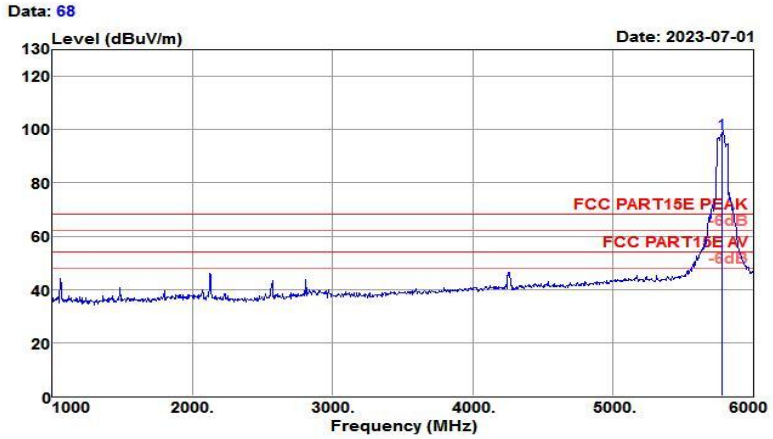


Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
11380.000	26.27	39.75	13.20	32.92	46.30	54.00	-7.70	Average
11380.000	34.34	39.75	13.20	32.92	54.37	68.20	-13.83	Peak
17070.000	17.76	40.34	18.77	30.06	46.81	54.00	-7.19	Average
17070.000	29.03	40.34	18.77	30.06	58.08	68.20	-10.12	Peak

Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

Test Mode :	802.11 ac VHT80 CH155 5775MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	61~64%
Frequencey Range	1GHz~6GHz	Polarization :	Horizontal

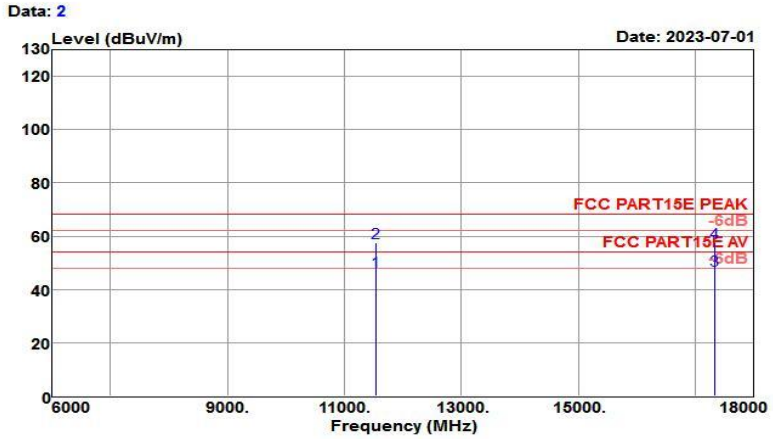
```
Test Site    : 3m Chamber                    Temp/Humi    : 23℃/61%
               --------------------------                 ----------------
Tested by    : Jack                          Pol/Phase    : HORIZONTAL
               --------------------------                 ----------------
Test Mode    : 802.11ac VHT80 CH155(5775MHz) Power rating: DC 15V
               --------------------------                 ----------------
EUT          : Digital Video Monitor          Comment     :
               --------------------------                 ----------------
Model No.    : DVM-D1
               --------------------------
```



Freq	Reading level	Antenna factor	Cable loss	Preamp factor	level	Limit level	Over limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
5775.000	93.61	32.04	6.37	33.33	98.69	68.20	30.49	Peak

Test Mode :	802.11 ac VHT80 CH155 5775MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	61~64%
Frequencey Range	6GHz~18GHz	Polarization :	Horizontal

Test Site	: 3m Chamber	Temp/Humi	: 23℃/61%
Tested by	: Jack	Pol/Phase	: HORIZONTAL
Test Mode	: 802.11ac VHT80 CH155(5775MHz)	Power rating	: DC 15V
EUT	: Digital Video Monitor	Comment	:
Model No.	: DVM-D1		

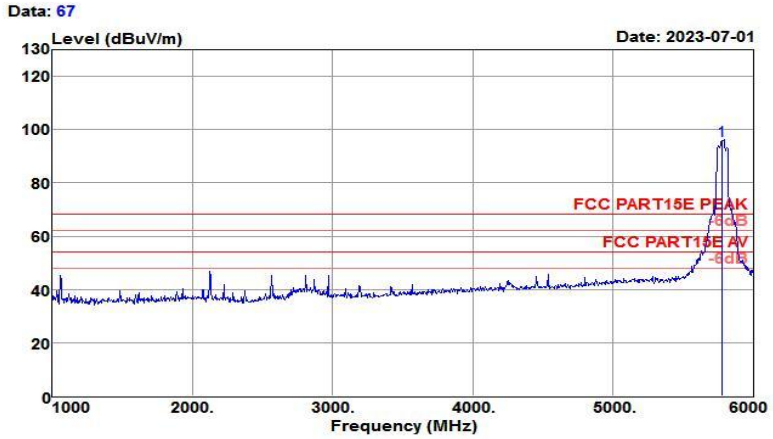


Freq	Reading level	Antenna factor	Cable loss	Preamp factor	level	Limit level	Over limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
11550.000	26.85	39.60	13.49	32.96	46.98	54.00	-7.02	Average
11550.000	37.58	39.60	13.49	32.96	57.71	68.20	-10.49	Peak
17325.000	18.82	41.20	17.18	30.08	47.12	54.00	-6.88	Average
17325.000	29.19	41.20	17.18	30.08	57.49	68.20	-10.71	Peak

Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

Test Mode :	802.11 ac VHT80 CH155 5775MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	61~64%
Frequencey Range	1GHz~6GHz	Polarization :	Vertical

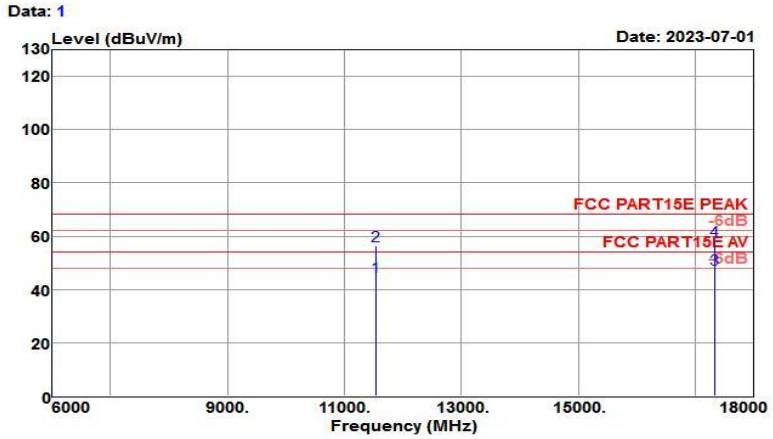
Test Site	: 3m Chamber	Temp/Humi	: 23℃/61%
Tested by	: Jack	Pol/Phase	: VERTICAL
Test Mode	: 802.11ac VHT80 CH155(5775MHz)	Power rating	: DC 15V
EUT	: Digital Video Monitor	Comment	:
Model No.	: DVM-D1		



Freq	Reading level	Antenna factor	Cable loss	Preamp factor	level	Limit level	Over limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
5775.000	90.82	32.04	6.37	33.33	95.90	68.20	27.70	Peak

Test Mode :	802.11 ac VHT80 CH155 5775MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	61~64%
Frequencey Range	6GHz~18GHz	Polarization :	Vertical

```
Test Site    : 3m Chamber                    Temp/Humi    : 23℃/61%
               --------------------------                 ----------------
Tested by    : Jack                          Pol/Phase    : VERTICAL
               --------------------------                 ----------------
Test Mode    : 802.11ac VHT80 CH155(5775MHz) Power rating: DC 15V
               --------------------------                 ----------------
EUT          : Digital Video Monitor          Comment     :
               --------------------------                 ----------------
Model No.    : DVM-D1
               --------------------------
```



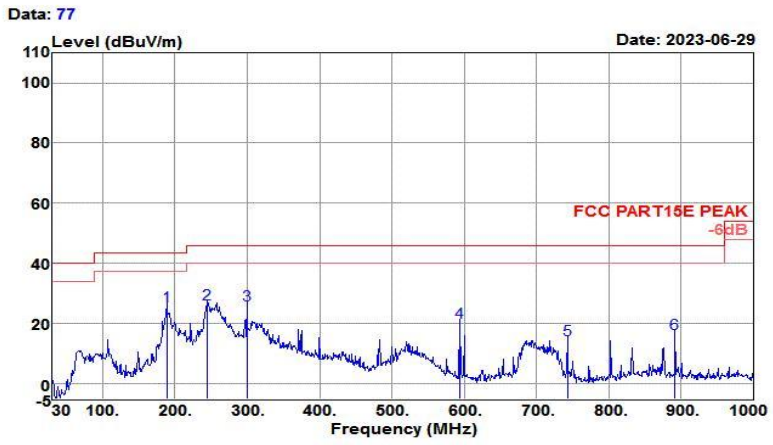
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
11550.000	24.62	39.60	13.49	32.96	44.75	54.00	-9.25	Average
11550.000	36.23	39.60	13.49	32.96	56.36	68.20	-11.84	Peak
17325.000	19.36	41.20	17.18	30.08	47.66	54.00	-6.34	Average
17325.000	29.82	41.20	17.18	30.08	58.12	68.20	-10.08	Peak

Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

3.4.6 Test Result of Radiated Spurious Emission (30MHz ~ 1GHz)

Test Mode :	802.11a CH36 5180MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	61~64%
Frequencey Range	30MHz~1GHz	Polarization :	Horizontal

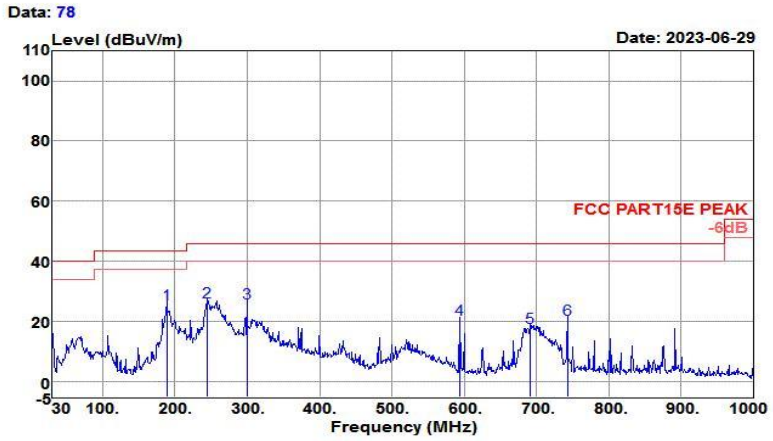
Test Site	: 3m Chamber	Temp/Humi	: 23℃/61%
Tested by	: Jack	Pol/Phase	: HORIZONTAL
Test Mode	: 802.11n HT40 CH62 (5310MHz)	Power rating	: DC 15V
EUT	: Digital Video Monitor	Comment	:
Model No.	: DVM-D1		



Freq	Reading level	Antenna factor	Cable loss	Preamp factor	level	Limit level	Over limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
189.080	44.51	11.27	2.66	32.50	25.94	43.50	-17.56	QP
245.340	44.16	11.80	3.03	32.45	26.54	46.00	-19.46	QP
299.660	42.01	13.24	3.37	32.40	26.22	46.00	-19.78	QP
594.540	29.59	18.75	4.93	32.68	20.59	46.00	-25.41	QP
742.950	20.97	20.76	5.49	32.47	14.75	46.00	-31.25	QP
891.360	21.56	21.64	6.23	32.79	16.64	46.00	-29.36	QP

Test Mode :	802.11a CH36 5180MHz	Temperature :	21~23℃
Test Engineer :	Jack Liu	Relative Humidity :	61~64%
Frequencey Range	30MHz~1GHz	Polarization :	Vertical

Test Site	: 3m Chamber	Temp/Humi	: 23℃/61%
Tested by	: Jack	Pol/Phase	: VERTICAL
Test Mode	: 802.11n HT40 CH62 (5310MHz)	Power rating	: DC 15V
EUT	: Digital Video Monitor	Comment	:
Model No.	: DVM-D1		



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
189.080	44.51	11.27	2.66	32.50	25.94	43.50	-17.56	QP
245.340	44.16	11.80	3.03	32.45	26.54	46.00	-19.46	QP
299.660	42.01	13.24	3.37	32.40	26.22	46.00	-19.78	QP
594.540	29.63	18.75	4.93	32.68	20.63	46.00	-25.37	QP
690.570	25.61	19.70	5.27	32.34	18.24	46.00	-27.76	QP
742.950	26.95	20.76	5.49	32.47	20.73	46.00	-25.27	QP

3.5 Radiated receiver emissions Measurement

3.5.1 Limit of receiver conducted emissions

IC RSS-GEN 7.4

If the receiver has a detachable antenna of known impedance, an antenna-conducted spurious emissions measurement is permitted as an alternative to radiated measurement. However, the radiated method of RSS-GEN section 7.3 is preferred.

The antenna-conducted test shall be performed with the antenna disconnected and with the receiver antenna port connected to a measuring instrument having eq ual input impedance to that specified for the antenna. The RF cable connecting the receiver under test to the measuring instrument shall also have the same impedance to that specified for the receiver's antenna.

The spurious emissions from the receiver at any discrete frequency, measured at the antenna port by the antenna-conducted method, shall not exceed 2 n W in the frequency range 30-1000 MHz and 5 nW above 1 GHz.

Radiated emission measurements shall be performed with the receiver antenna connected to the receiver antenna ports. The search for spurious emissions shall be from the lowest freguency internally generated or used in the receiver (e.g. local oscillator, intermediate or carrier frequency),or 30 MHz, whichever is higher, to at least five times the highest tunable or local oscillator frequency, whichever is higher.without exceeding40 GHz.

3.5.2 Test Procedures

Radiated Test Method

1. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
2. The measurement distance is 3 meter.
3. For each suspected emission, the EUT was arranged to its worst case and then tune the Antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level to comply with the guidelines.
4. Set to the maximum power setting and enable the EUT transmit continuously.
5. Use the following spectrum analyzer settings:
   (1) Span shall wide enough to fully capture the emission being measured;
   (2) Set RBW=100 kHz for f < 1 GHz, RBW=1MHz for f>1GHz ; VBW=3* RBW; Sweep = auto; Detector function = peak; Trace = max hold for peak
   (3) For average measurement:
   VBW = 10 Hz, when duty cycle is no less than 98 percent.
   VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control

level for the tested mode of operation.

Conducted Test Method

(1) Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.

(2) Turn on the EUT and connect it to measurement instrument.

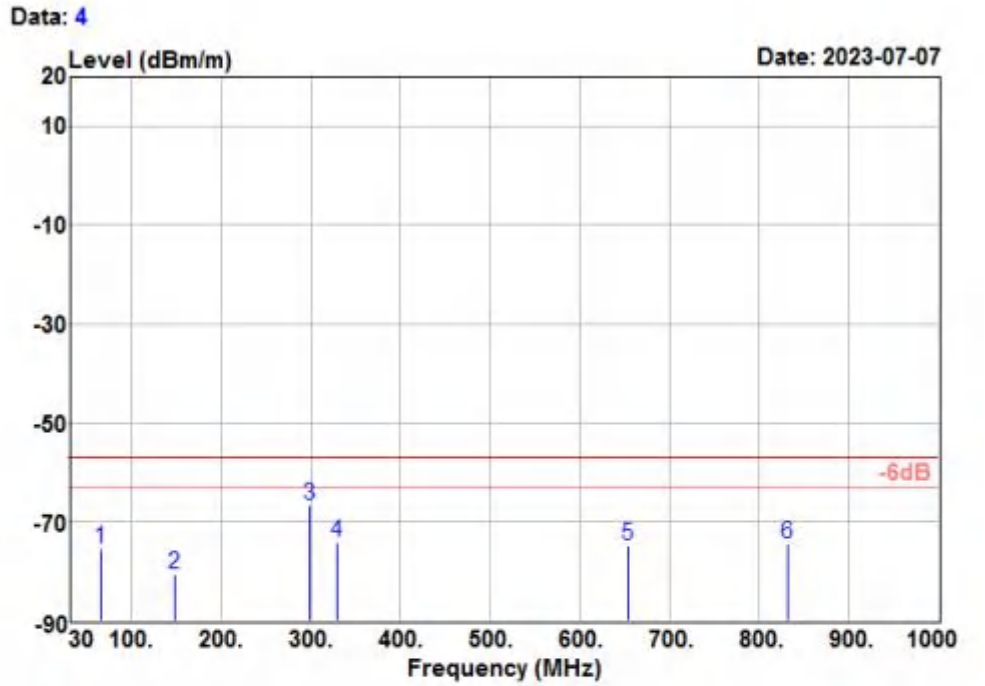
(3) Use the following spectrum analyzer settings:

(4) Span shall wide enough to fully capture the emission being measured;

(5) Set RBW=100 kHz for f < 1 GHz, RBW=1MHz for f>1GHz ; VBW=3* RBW; Sweep = auto; Detector function = peak; Trace = max hold for peak.

3.5.3 Test Result of Radiated receiver emissions

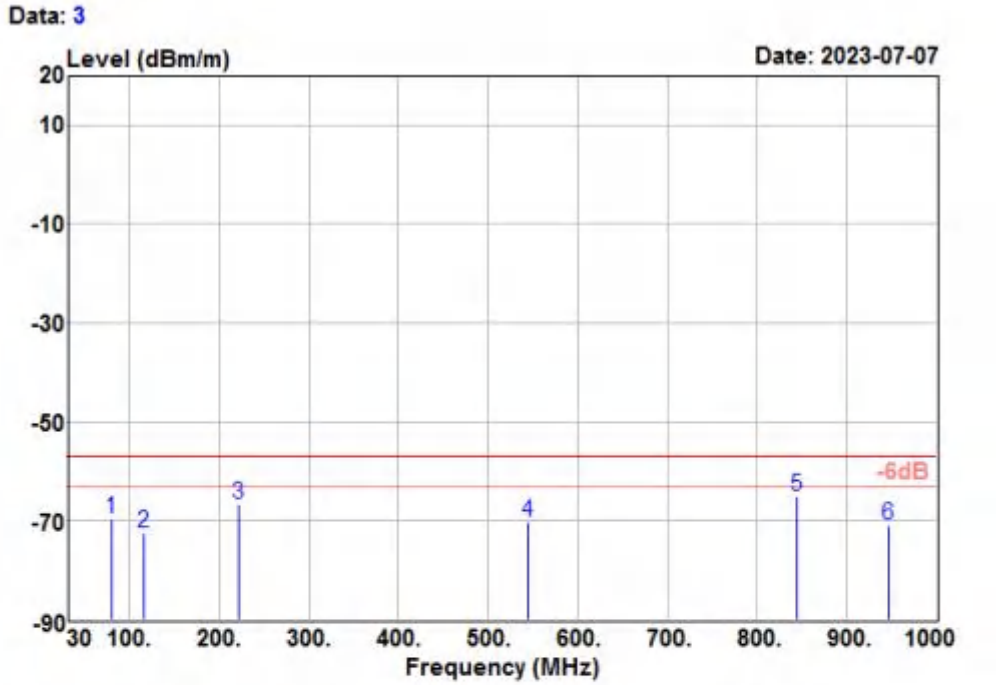
Test Mode :	Mode 1	Temperature :	23℃
Test Engineer :	Jack Liu	Relative Humidity :	61%
Test Voltage :	120Vac / 60Hz	Phase :	Horizontal
Function Type :	802.11b CH11 RX Mode		



Freq MHz	Reading level dBm	Aux factor dB	level dBm	Limit level dBm	Over limit dB	Remark
64.920	430.25	-5.68	-75.43	-57.00	-18.43	Peak
148.340	422.04	-2.46	-80.42	-57.00	-23.42	Peak
299.660	435.78	-2.50	-66.72	-57.00	-9.72	Peak
329.730	427.88	-1.88	-74.00	-57.00	-17.00	Peak
653.710	419.60	5.59	-74.81	-57.00	-17.81	Peak
832.190	416.88	8.62	-74.50	-57.00	-17.50	Peak

Note:
Corrected Reading: Reading level + Aux factor = Level

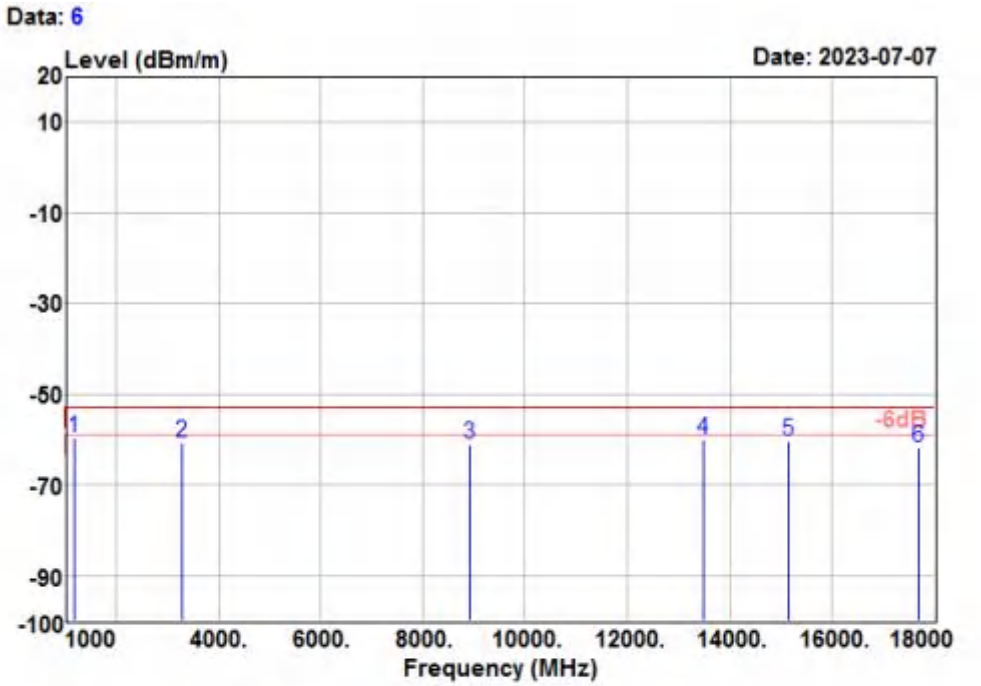
Test Mode :	Mode 1	Temperature :	23℃
Test Engineer :	Jack Liu	Relative Humidity :	61%
Test Voltage :	120Vac / 60Hz	Phase :	Vertical
Function Type :	802.11b CH11 RX Mode		



Freq	Reading level	Aux factor	level	Limit level	Over limit	Remark
MHz	dBm	dB	dBm	dBm	dB	
79.470	437.11	-6.68	-69.57	-57.00	-12.57	Peak
115.360	433.12	-5.64	-72.52	-57.00	-15.52	Peak
222.060	438.90	-5.62	-66.72	-57.00	-9.72	Peak
545.070	426.76	2.97	-70.27	-57.00	-13.27	Peak
843.830	426.32	8.60	-65.08	-57.00	-8.08	Peak
946.650	418.43	10.62	-70.95	-57.00	-13.95	Peak

Note:
Corrected Reading: Reading level + Aux factor = Level

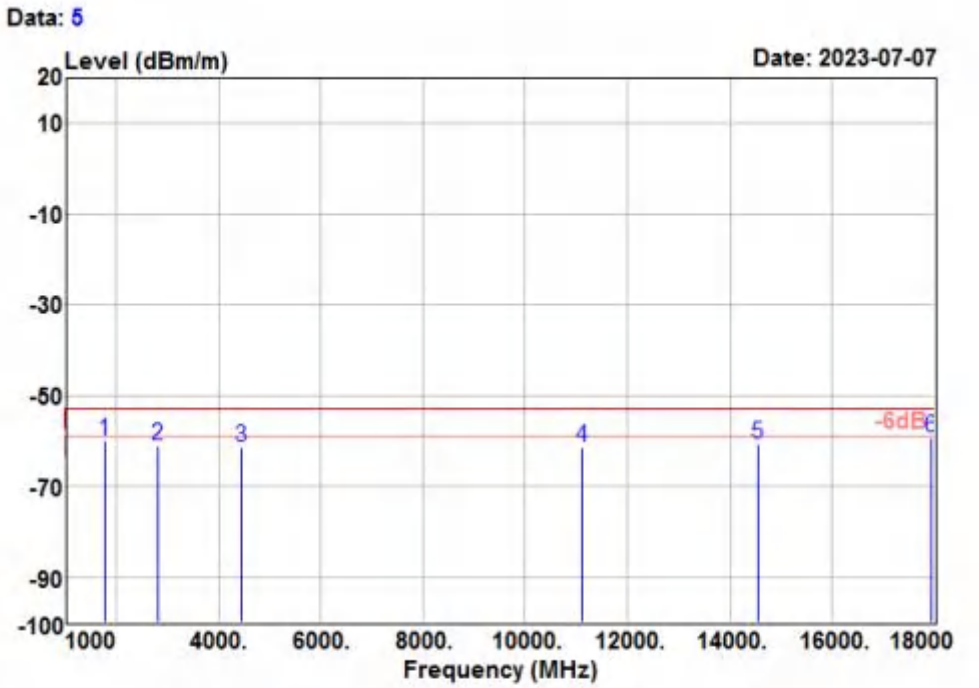
Test Mode :	Mode 1	Temperature :	23℃
Test Engineer :	Jack Liu	Relative Humidity :	61%
Test Voltage :	120Vac / 60Hz	Phase :	Horizontal
Function Type :	802.11b CH11 RX Mode		



Freq MHz	Reading level dBm	Aux factor dB	level dBm	Limit level dBm	Over limit dB	Remark
1187.000	-88.69	4.85	-59.57	-53.02	-6.55	Peak
3278.000	-96.72	7.75	-60.60	-53.02	-7.58	Peak
8905.000	-120.35	22.42	-60.92	-53.02	-7.90	Peak
13478.000	-129.95	30.49	-60.00	-53.02	-6.98	Peak
15127.000	-131.30	31.25	-60.36	-53.02	-7.34	Peak
17694.000	-143.98	38.30	-61.82	-53.02	-8.80	Peak

Note:
Corrected Reading: Reading level + Aux factor = Level

Test Mode :	Mode 1	Temperature :	23℃
Test Engineer :	Jack Liu	Relative Humidity :	61%
Test Voltage :	120Vac / 60Hz	Phase :	Vertical
Function Type :	802.11b CH11 RX Mode		



Freq	Reading level	Aux factor	level	Limit level	Over limit	Remark
MHz	dBm	dB	dBm	dBm	dB	
1782.000	-92.32	6.42	-59.98	-53.02	-6.96	Peak
2819.000	-96.23	7.29	-60.88	-53.02	-7.86	Peak
4468.000	-102.82	10.89	-61.47	-53.02	-8.45	Peak
11132.000	-129.03	27.91	-61.27	-53.02	-8.25	Peak
14532.000	-132.03	30.68	-60.78	-53.02	-7.76	Peak
17949.000	-147.12	41.41	-59.15	-53.02	-6.13	Peak

Note:
Corrected Reading: Reading level + Aux factor = Level

3.6 AC Conducted Emission Measurement

3.6.1 Limit of AC Conducted Emission

FCC §15.207

IC RSS-GEN 8.8

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Frequency of emission (MHz)	Conducted limit (dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

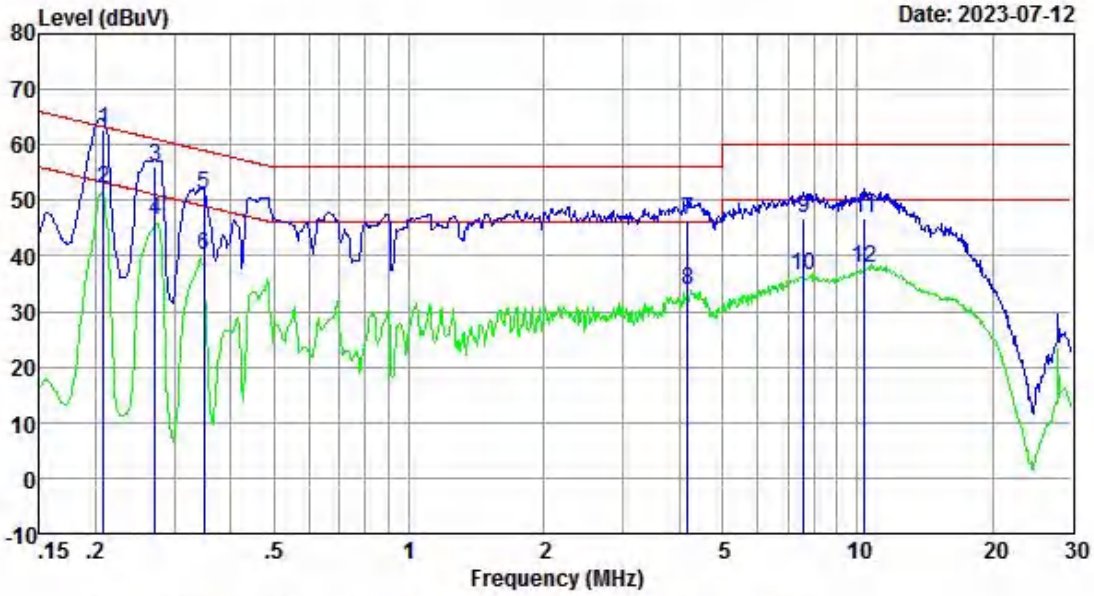
*Decreases with the logarithm of the frequency.

3.6.2 Test Procedures

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF Bandwidth = 9kHz) with Maximum Hold Mode. Then measurement is also conducted by Average Detector and Quasi-Peak Detector Function respectively.

3.6.3 Test Result of AC Conducted Emission

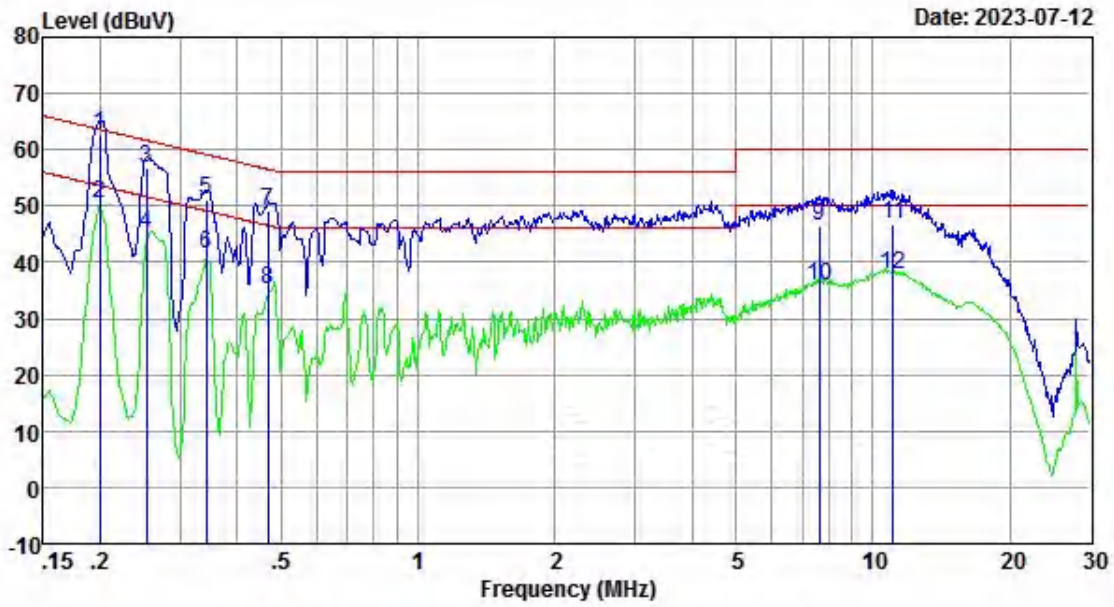
Test Mode :	Mode 1	**Temperature :**	23℃
Test Engineer :	Jack Liu	**Relative Humidity :**	51%
Test Voltage :	120Vac / 60Hz	**Phase :**	Line
Function Type :	RLAN(5G) Link + SDI + RJ-45 + HDMI + USB Disk + H-Steriscope + D-SUBS9 + REMOTE +Adapter		



Freq MHz	Reading level dBuV	LISN/ISN factor dB	Cable loss dB	Result level dBuV	Limit level dBuV	Over limit dB	Remark
0.208	53.01	9.58	0.01	62.60	63.27	-0.67	QP
0.208	42.51	9.58	0.01	52.10	53.27	-1.17	Average
0.272	46.50	9.59	0.02	56.11	61.07	-4.96	QP
0.272	36.80	9.59	0.02	46.41	51.07	-4.66	Average
0.348	41.40	9.59	0.02	51.01	59.00	-7.99	QP
0.348	30.60	9.59	0.02	40.21	49.00	-8.79	Average
4.180	36.60	9.66	0.05	46.31	56.00	-9.69	QP
4.180	24.20	9.66	0.05	33.91	46.00	-12.09	Average
7.606	36.90	9.76	0.07	46.73	60.00	-13.27	QP
7.606	26.70	9.76	0.07	36.53	50.00	-13.47	Average
10.397	36.90	9.82	0.08	46.80	60.00	-13.20	QP
10.397	28.00	9.82	0.08	37.90	50.00	-12.10	Average

Remarks: Result Level = Reading level + LISN/ISN factor + Cable loss

Test Mode :	Mode 1	Temperature :	23℃
Test Engineer :	Jack Liu	Relative Humidity :	51%
Test Voltage :	120Vac / 60Hz	Phase :	NEUTRAL
Function Type :	RLAN(5G) Link + SDI + RJ-45 + HDMI + USB Disk + H-Steriscope + D-SUBS9 + REMOTE +Adapter		



Freq MHz	Reading level dBuV	LISN/ISN factor dB	Cable loss dB	Result level dBuV	Limit level dBuV	Over limit dB	Remark
0.200	53.30	9.58	0.01	62.89	63.62	-0.73	QP
0.200	40.90	9.58	0.01	50.49	53.62	-3.13	Average
0.253	47.10	9.59	0.02	56.71	61.64	-4.93	QP
0.253	35.50	9.59	0.02	45.11	51.64	-6.53	Average
0.343	41.50	9.60	0.02	51.12	59.13	-8.01	QP
0.343	31.70	9.60	0.02	41.32	49.13	-7.81	Average
0.469	39.50	9.60	0.02	49.12	56.54	-7.42	QP
0.469	25.70	9.60	0.02	35.32	46.54	-11.22	Average
7.646	36.70	9.77	0.07	46.54	60.00	-13.46	QP
7.646	26.10	9.77	0.07	35.94	50.00	-14.06	Average
11.080	36.80	9.85	0.09	46.74	60.00	-13.26	QP
11.080	28.00	9.85	0.09	37.94	50.00	-12.06	Average

Remarks: Result Level = Reading level + LISN/ISN factor + Cable loss

3.7 Frequency Stability Measurement

3.7.1 Limit of Frequency Stability

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

3.7.2 Test Procedures

1. To ensure emission at the band edge is maintained within the authorized band, those values shall be measured by radiation emissions at upper and lower frequency points, and finally compensated by frequency deviation as procedures below.
2. The EUT was operated at the maximum output power, and connected to the spectrum analyzer, which is set to maximum hold function and peak detector. The peak value of the power envelope was measured and noted. The upper and lower frequency points were respectively measured relatively 10dB lower than the measured peak value.
3. The frequency deviation was calculated by adding the upper frequency point and the lower frequency point divided by two. Those detailed values of frequency deviation are provided in table below.

3.7.3 Test Result of Frequency Stability

Pass.

3.8 Automatically Discontinue Transmission

3.8.1 Limit of Automatically Discontinue Transmission

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signaling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization to describe how this requirement is met.

3.8.2 Test Result of Automatically Discontinue Transmission

While the EUT is not transmitting any information, the EUT can automatically discontinue transmission and become standby mode for power saving. The EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.

3.9 Antenna Requirements

3.9.1 Standard Applicable

According to antenna requirement of §15.203.

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be re-placed by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of Sections 15.211, 15.213, 15.217, 15.219, or 15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with Section 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this Part are not exceeded..

And according to §15.247(b)(4), The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

If transmitting antenna directional gain is greater than 6 dBi, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.9.2 Antenna Connected Construction

An FPC type antenna design is used.

3.9.3 Antenna Gain

The antenna peak gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum output power limit.

4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Due Date	Remark
Spectrum Analyzer	Keysight	N9010A	MY56070788	2022-12-26	2023-12-25	Conducted
Thermal Chamber	Howkin	UHL-34	19111801	2022-12-23	2023-12-22	Conducted

Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV 30	103728	2022-12-26	2023-12-25	Radiation
EMI Test Receiver	R&S	ESR3	102144	2022-12-21	2023-12-20	Radiation
Amplifier	Sonoma	310	363917	2022-12-26	2023-12-25	Radiation
Amplifier	Schwarzbeck	BBV 9718	327	2022-12-27	2023-12-26	Radiation
Amplifier	Narda	TTA1840-35-HG	2034380	2023-01-04	2024-01-03	Radiation
Loop Antenna	Schwarzbeck	FMZB 1519B	1519B-051	2023-02-12	2026-02-11	Radiation
Broadband Antenna	Schwarzbeck	VULB 9168	9168-757	2020-09-27	2023-09-26	Radiation
Horn Antenna	Schwarzbeck	BBHA 9120 D	1677	2023-02-12	2026-02-11	Radiation
Horn Antenna	COM-POWER	AH-1840	101117	2021-06-05	2024-06-04	Radiation
Test Software	Auidx	E3	6.111221a	N/A	N/A	Radiation
Filter	Micro-Tronics	BRC50703	G117	N/A	N/A	Radiation
Filter	Micro-Tronics	BRC50704	G102	N/A	N/A	Radiation
Filter	Micro-Tronics	BRC50705	G102	N/A	N/A	Radiation

Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Due Date	Remark
LISN	R&S	ENV216	102125	2023-12-19	2023-12-20	Conducted
LISN	R&S	ENV432	101327	2023-12-19	2023-12-20	Conducted
EMI Test Receiver	R&S	ESR3	102143	2023-12-19	2023-12-20	Conducted
EMI Test Software	Audix	E3	N/A	N/A	N/A	Conducted
Base Station	R&S	CMW 270	101231	2022-12-26	2023-12-25	Conducted

N/A: No Calibration Required

5 Uncertainty of Evaluation

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	9kHz~30MHz	2.00 dB
Radiated emissions	30MHz ~ 1GHz	5.28 dB
	1GHz ~ 18GHz	5.12 dB
	18GHz ~ 40GHz	5.27 dB

MEASUREMENT	UNCERTAINTY
Occupied Channel Bandwidth	±71.333Hz
RF output power, conducted	±0.78 dB
Power density, conducted	±2.02dB
Emissions, conducted	±2.00dB

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Appendix A1: Emission Bandwidth

Test Result

TestMode	Antenna	Channel	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	21.040	5169.600	5190.640	---	---
		5220	21.240	5209.520	5230.760	---	---
		5240	21.160	5229.520	5250.680	---	---
		5260	21.280	5249.480	5270.760	---	---
		5300	21.160	5289.440	5310.600	---	---
		5320	21.160	5309.520	5330.680	---	---
		5500	21.160	5489.480	5510.640	---	---
		5580	21.200	5569.400	5590.600	---	---
		5700	21.120	5689.480	5710.600	---	---
		5720	21.200	5709.560	5730.760	---	---
		5720_UNII-2C	15.44	5709.560	5725	---	---
		5720_UNII-3	5.76	5725	5730.760	---	---
		5745	23.680	5733.800	5757.480	---	---
		5785	22.680	5773.760	5796.440	---	---
		5825	23.720	5813.760	5837.480	---	---
11N20SISO	Ant1	5180	21.320	5169.520	5190.840	---	---
		5220	21.480	5209.320	5230.800	---	---
		5240	21.560	5229.320	5250.880	---	---
		5260	21.520	5249.320	5270.840	---	---
		5300	21.560	5289.240	5310.800	---	---
		5320	21.440	5309.320	5330.760	---	---
		5500	21.520	5489.280	5510.800	---	---
		5580	21.720	5569.200	5590.920	---	---
		5700	21.560	5689.320	5710.880	---	---
		5720	21.480	5709.360	5730.840	---	---
		5720_UNII-2C	15.64	5709.360	5725	---	---
		5720_UNII-3	5.84	5725	5730.840	---	---
		5745	23.400	5733.640	5757.040	---	---
		5785	21.840	5774.280	5796.120	---	---
		5825	24.880	5814.280	5839.160	---	---
11N40SISO	Ant1	5190	39.680	5170.400	5210.080	---	---
		5230	39.600	5210.320	5249.920	---	---
		5270	39.840	5250.160	5290.000	---	---

		5310	39.920	5290.080	5330.000	---	---
		5510	40.000	5490.240	5530.240	---	---
		5550	39.920	5530.160	5570.080	---	---
		5590	39.840	5570.160	5610.000	---	---
		5670	39.840	5650.240	5690.080	---	---
		5710	39.840	5690.240	5730.080	---	---
		5710_UNII-2C	34.76	5690.240	5725	---	---
		5710_UNII-3	5.08	5725	5730.080	---	---
		5755	53.920	5734.280	5788.200	---	---
		5795	55.920	5772.840	5828.760	---	---
11AC20SISO	Ant1	5180	21.400	5169.360	5190.760	---	---
		5220	21.400	5209.400	5230.800	---	---
		5240	21.600	5229.360	5250.960	---	---
		5260	21.640	5249.200	5270.840	---	---
		5300	21.480	5289.320	5310.800	---	---
		5320	21.400	5309.440	5330.840	---	---
		5500	21.480	5489.400	5510.880	---	---
		5580	21.640	5569.200	5590.840	---	---
		5700	21.400	5689.400	5710.800	---	---
		5720	21.600	5709.240	5730.840	---	---
		5720_UNII-2C	15.76	5709.240	5725	---	---
		5720_UNII-3	5.84	5725	5730.840	---	---
		5745	27.160	5730.320	5757.480	---	---
		5785	23.080	5773.960	5797.040	---	---
		5825	22.040	5814.280	5836.320	---	---
11AC40SISO	Ant1	5190	39.840	5170.240	5210.080	---	---
		5230	39.920	5210.080	5250.000	---	---
		5270	39.840	5250.240	5290.080	---	---
		5310	40.160	5290.080	5330.240	---	---
		5510	39.920	5490.080	5530.000	---	---
		5550	39.760	5530.240	5570.000	---	---
		5590	40.000	5570.000	5610.000	---	---
		5670	39.760	5650.320	5690.080	---	---
		5710	40.240	5689.840	5730.080	---	---
		5710_UNII-2C	35.16	5689.840	5725	---	---
		5710_UNII-3	5.08	5725	5730.080	---	---
		5755	56.800	5735.000	5791.800	---	---

		5795	49.760	5774.680	5824.440	---	---
11AC80SISO	Ant1	5210	81.760	5169.200	5250.960	---	---
		5290	81.920	5249.360	5331.280	---	---
		5530	81.760	5489.200	5570.960	---	---
		5610	81.600	5569.360	5650.960	---	---
		5690	81.280	5649.840	5731.120	---	---
		5690_UNII-2C	75.16	5649.840	5725	---	---
		5690_UNII-3	6.12	5725	5731.120	---	---
		5775	108.160	5734.680	5842.840	---	---

Test Graphs

11A_Ant1_5180

11A_Ant1_5220

11A_Ant1_5240

11A_Ant1_5260

11A_Ant1_5300

11A_Ant1_5320

11A_Ant1_5500

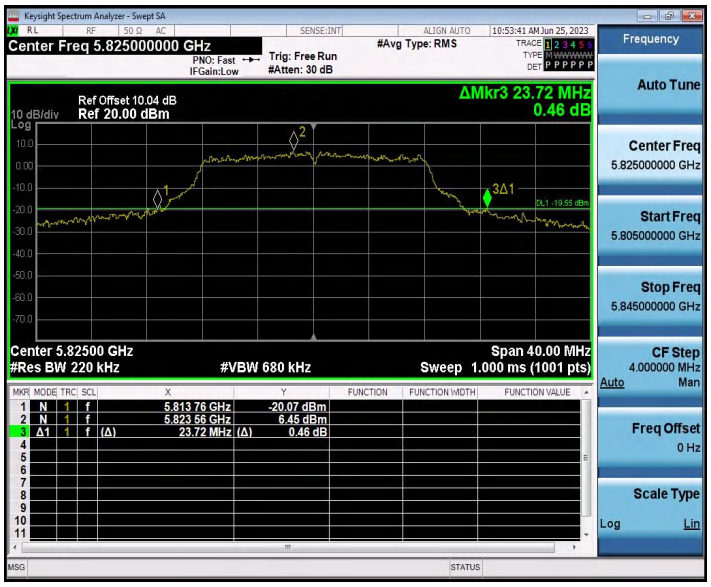
11A_Ant1_5580

11A_Ant1_5700

11A_Ant1_5720

11A_Ant1_5745

11A_Ant1_5785



11A_Ant1_5825

11N20SISO_Ant1_5180

11N20SISO_Ant1_5220

11N20SISO_Ant1_5240

11N20SISO_Ant1_5260

11N20SISO_Ant1_5300

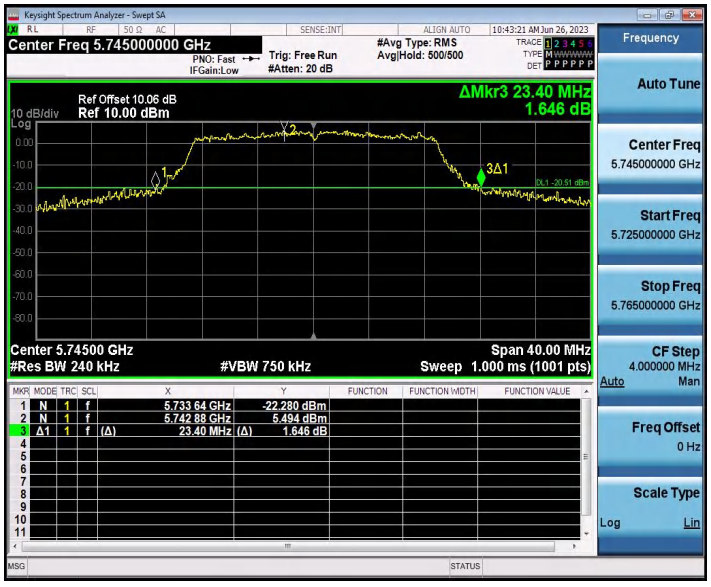
11N20SISO_Ant1_5320

11N20SISO_Ant1_5500

11N20SISO_Ant1_5580

11N20SISO_Ant1_5700

11N20SISO_Ant1_5720



11N20SISO_Ant1_5745

11N20SISO_Ant1_5785

11N20SISO_Ant1_5825

11N40SISO_Ant1_5190

11N40SISO_Ant1_5230

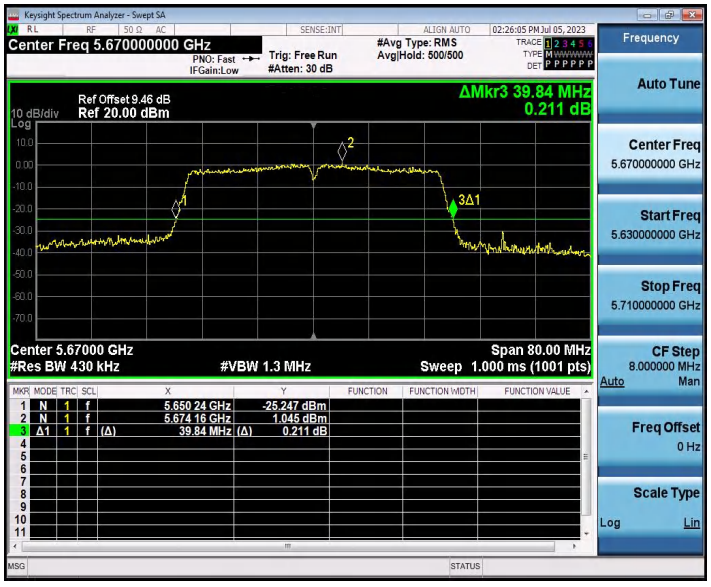
11N40SISO_Ant1_5270

11N40SISO_Ant1_5310

11N40SISO_Ant1_5510

11N40SISO_Ant1_5550

11N40SISO_Ant1_5590



11N40SISO_Ant1_5670

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