FCC Test Report

Report No.: AGC01035180606FE03

FCC ID	:	2ANKUSV-PRI
APPLICATION PURPOSE	:	Original Equipment
PRODUCT DESIGNATION	:	BODY-WORN CAMERA
BRAND NAME	:	Safety Vision
MODEL NAME	:	SV-PRIMAELITE64
CLIENT	:	Safety Vision LLC
DATE OF ISSUE	:	Aug. 13, 2018
STANDARD(S) **TEST PROCEDURE(S)**	:	FCC Part 15.407 KDB 789033 D02 v02r01
REPORT VERSION	:	V1.0

Attestation of ***G***lobal ***C***ompliance (Shenzhen) Co., Ltd

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REPORT REVISE RECORD

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Aug. 13, 2018	Valid	Initial Release

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1. VERIFICATION OF CONFORMITY

Applicant	Safety Vision LLC
Address	6100 West Sam Houston Parkway North | Houston, Texas 77041-5113, USA
Manufacturer	Safety Vision LLC
Address	6100 West Sam Houston Parkway North | Houston, Texas 77041-5113, USA
Product Designation	BODY-WORN CAMERA
Brand Name	Safety Vision
Test Model	SV-PRIMAELITE64
Date of test	Jul. 02, 2018 to Jul. 09, 2018
Deviation	None
Condition of Test Sample	Normal
Test Result	Pass
Report Template	AGCRT-US-BGN/RF

We hereby certify that:
The above equipment was tested by Attestation of Global Compliance (Shenzhen) Co., Ltd. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10 (2013) and the energy emitted by the sample EUT tested as described in this report is in compliance with requirement of FCC Part 15 Rules requirement.

Tested By Max Zhang
Max Zhang(Zhang Yi) Aug. 13, 2018

Reviewed By Bart Xie
Bart Xie(Xie Xiaobin) Aug. 13, 2018

Approved By Forrest Lei
Forrest Lei(Lei Yonggang) Aug. 13, 2018
Authorized Officer

2. GENERAL INFORMATION

2.1. PRODUCT DESCRIPTION

It is designed by way of utilizing the OFDM technology to achieve the system operation.

A major technical description of EUT is described as following

Operation Frequency	5.725 GHz～5.825GHz
Output Power	IEEE 802.11a20:12.45dBm IEEE 802.11n20:11.72dBm IEEE 802.11n(40):10.85dBm IEEE 802.11ac20:11.27dBm IEEE 802.11ac40:9.82dBm IEEE 802.11ac80:9.06dBm
Modulation	BPSK, QPSK, 16QAM, 64QAM, 128QAM, 256QAM,OFDM
Number of channels	8
Hardware Version	V1.0
Software Version	V1.0
Antenna Designation	Fixed Antenna
Antenna Gain	3dBi
Power Supply	DC 3.7V by battery or DC 5V by charging box with adapter

2.2. TABLE OF CARRIER FREQUENCYS

Frequency Band	Channel Number	Frequency
5.725 GHz～5.850GHz	149	5745 MHz
	151	5755 MHz
	153	5765 MHz
	155	5775 MHz
	157	5785 MHz
	159	5795 MHz
	161	5805 MHz
	165	5825MHz

Note: For 20MHZ bandwidth system use Channel 149,153,157,161,165; For 40MHZ bandwidth system use Channel 151,159; For 80MHZ bandwidth system use Channel 155.

2.3. RELATED SUBMITTAL(S) / GRANT (S)

This submittal(s) (test report) is intended for **FCC ID: 2ANKUSV-PRI** filing to comply with the FCC Part 15 requirements.

2.4. TEST METHODOLOGY

Both conducted and radiated testing was performed according to the procedures in ANSI C63.10 (2013).
Radiated testing was performed at an antenna to EUT distance 3 meters.
Others testing (listed at item 5.3) was performed according to the procedures in FCC Part 15.407 rules 789033 D02 General U-NII Test Procedures New Rules v02r01

2.5. SPECIAL ACCESSORIES

Refer to section 5.2.

2.6. EQUIPMENT MODIFICATIONS

Not available for this EUT intended for grant.

3. MEASUREMENT UNCERTAINTY

The uncertainty is calculated using the methods suggested in the “Guide to the Expression of Uncertainty in measurement” (GUM) published by CISPR and ANSI.

- Uncertainty of Conducted Emission, Uc = ±3.2 dB
- Uncertainty of Radiated Emission below 1GHz, Uc = ±3.9 dB
- Uncertainty of Radiated Emission above 1GHz, Uc = ±4.8 dB

4. DESCRIPTION OF TEST MODES

Mode	Available channel	Tested channel	Modulation	Date rate(Mbps)
802.11a/n20/ac20	149,153,157,161,165	149,157, 165	OFDM	6/6.5
802.11n40/ac40	151,159	151,159	OFDM	13.5
802.11ac80	155	155	OFDM	27

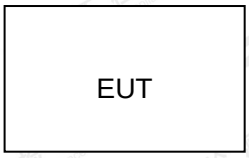
Note:

1. The EUT has been set to operate continuously on tested channel individually, and the EUT is operating at its maximum duty cycle>or equal 98%
2. All modes under which configure applicable have been tested and the worst mode test data recording in the test report, if no other mode data.

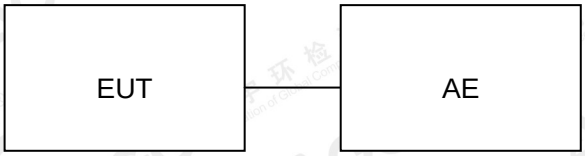
5. SYSTEM TEST CONFIGURATION

5.1. CONFIGURATION OF EUT SYSTEM

Radiated Emission Configure :



Conducted Emission Configure :



5.2. EQUIPMENT USED IN EUT SYSTEM

Item	Equipment	Model No.	ID or Specification	Remark
1	BODY-WORN CAMERA	SV-PRIMAELITE64	2ANKUSV-PRI	EUT
2	Adapter	FJ-SW1260502000UN	DC5V/2A	AE
3	Charging box	SV-PRIMAELITECH	N/A	AE

5.3. SUMMARY OF TEST RESULTS

FCC RULES	DESCRIPTION OF TEST	RESULT
§15.407	6dB Bandwidth	Compliant
§15.407	Maximum conducted output power	Compliant
§15.407	Conducted Spurious Emission and Band edge Emission	Compliant
§15.407	Maximum Conducted Output Power Density	Compliant
§15.209	Radiated Emission	Compliant
§15.407	Frequency Stability	Compliant
§15.207	Line Conduction Emission	Compliant

6. TEST FACILITY

Test Site	Attestation of Global Compliance (Shenzhen) Co., Ltd
Location	1-2F., Bldg.2, No.1-4, Chaxi Sanwei Technical Industrial Park, Gushu, Xixiang, Bao'an District B112-B113, Bldg.12, Baoan Bldg Materials Center, No.1 of Xixiang Inner Ring Road, Baoan District, Shenzhen 518012
NVLAP LAB CODE	600153-0
Designation Number	CN5028
Description	Attestation of Global Compliance(Shenzhen) Co., Ltd is accredited by National Voluntary Laboratory Accreditation program, NVLAP Code 600153-0

TEST EQUIPMENT OF CONDUCTED EMISSION TEST

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Due
TEST RECEIVER	R&S	ESPI	101206	Jun.12, 2018	Jun.11, 2019
LISN	R&S	ESH2-Z5	100086	Aug.21, 2017	Aug.20, 2018

TEST EQUIPMENT OF RADIATED EMISSION TEST

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Due
TEST RECEIVER	R&S	ESCI	10096	Jun.12, 2018	Jun.11, 2019
EXA Signal Analyzer	Aglient	N9010A	MY53470504	Dec.08, 2017	Dec.07, 2018
Power sensor	Aglient	U2021XA	MY54110007	Sep.21, 2017	Sep.20, 2018
Horn antenna	SCHWARZBECK	BBHA 9170	#768	Sep.20, 2017	Sep.19, 2018
preamplifier	ChengYi	EMC184045SE	980508	Sep.15, 2017	Sep.14, 2018
Active loop antenna (9K-30MHz)	SCHWARZBECK	FMZB1519	1519-038	Sep.28, 2017	Sep.27, 2018
Double-Ridged Waveguide Horn	ETS LINDGREN	3117	00034609	May.18, 2017	May.17, 2019
Broadband Preamplifier	SCHWARZBECK	BBV 9718	9718-205	Jun.12, 2018	Jun.11, 2019
ANTENNA	SCHWARZBECK	VULB9168	D69250	Sep.28, 2017	Sep.27, 2018

7. MAXIMUM CONDUCTED OUTPUT POWER

7.1. MEASUREMENT PROCEDURE

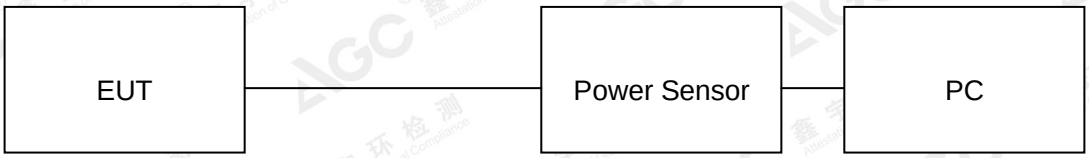
For average power test:

1. Connect EUT RF output port to power sensor through an RF attenuator.
2. Connect the power sensor to the PC.
3. Set the EUT Work on the top, the middle and the bottom operation frequency individually.
4. Record the maximum power from the software.

Note：The EUT was tested according to KDB 789033 for compliance to FCC 47CFR 15.407 requirements.

7.2. TEST SET-UP

AVERAGE POWER SETUP



7.3. LIMITS AND MEASUREMENT RESULT

LIMITS AND MEASUREMENT RESULT FOR 802.11A20 MODULATION			
Frequency (MHz)	Average Power (dBm)	Applicable Limits (dBm)	Pass or Fail
5745	12.45	30	Pass
5785	12.31	30	Pass
5825	12.44	30	Pass

LIMITS AND MEASUREMENT RESULT FOR 802.11N20 MODULATION			
Frequency (MHz)	Average Power (dBm)	Applicable Limits (dBm)	Pass or Fail
5745	11.53	30	Pass
5785	11.48	30	Pass
5825	11.72	30	Pass

LIMITS AND MEASUREMENT RESULT FOR 802.11N40 MODULATION			
Frequency (MHz)	Average Power (dBm)	Applicable Limits (dBm)	Pass or Fail
5755	10.85	30	Pass
5795	10.36	30	Pass

LIMITS AND MEASUREMENT RESULT FOR 802.11AC20 MODULATION			
Frequency (MHz)	Average Power (dBm)	Applicable Limits (dBm)	Pass or Fail
5745	11.27	30	Pass
5785	11.09	30	Pass
5825	10.84	30	Pass

LIMITS AND MEASUREMENT RESULT FOR 802.11AC40 MODULATION			
Frequency (MHz)	**Average Power (dBm)**	**Applicable Limits (dBm)**	**Pass or Fail**
5755	9.17	30	Pass
5795	9.82	30	Pass

LIMITS AND MEASUREMENT RESULT FOR 802.11AC80 MODULATION			
Frequency (MHz)	**Average Power (dBm)**	**Applicable Limits (dBm)**	**Pass or Fail**
5775	9.06	30	Pass

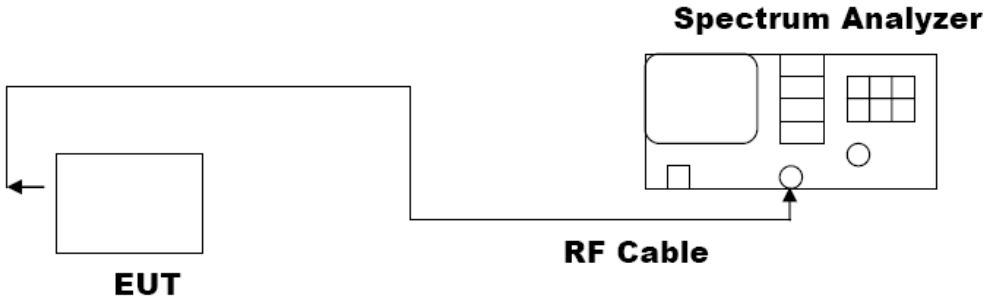
8. 6dB BANDWIDTH

8.1. MEASUREMENT PROCEDURE

1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
2. Set the EUT Work on operation frequency individually.
3. Set RBW = 100kHz.
4. Set the VBW ≥3*RBW. Detector = Peak. Trace mode = max hold.
5. Measure the maximum width of the emission that is 6 dB down from the peak of the emission.

Note: The EUT was tested according to KDB 789033 for compliance to FCC 47CFR 15.407 requirements.

8.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)



8.3. LIMITS AND MEASUREMENT RESULTS

LIMITS AND MEASUREMENT RESULT FOR 802.11A20 MODULATION			
Applicable Limits	Applicable Limits		
	Test Data (MHz)		Criteria
>500KHZ	5745MHz	16.33	PASS
	5785MHz	16.30	PASS
	5825MHz	16.30	PASS

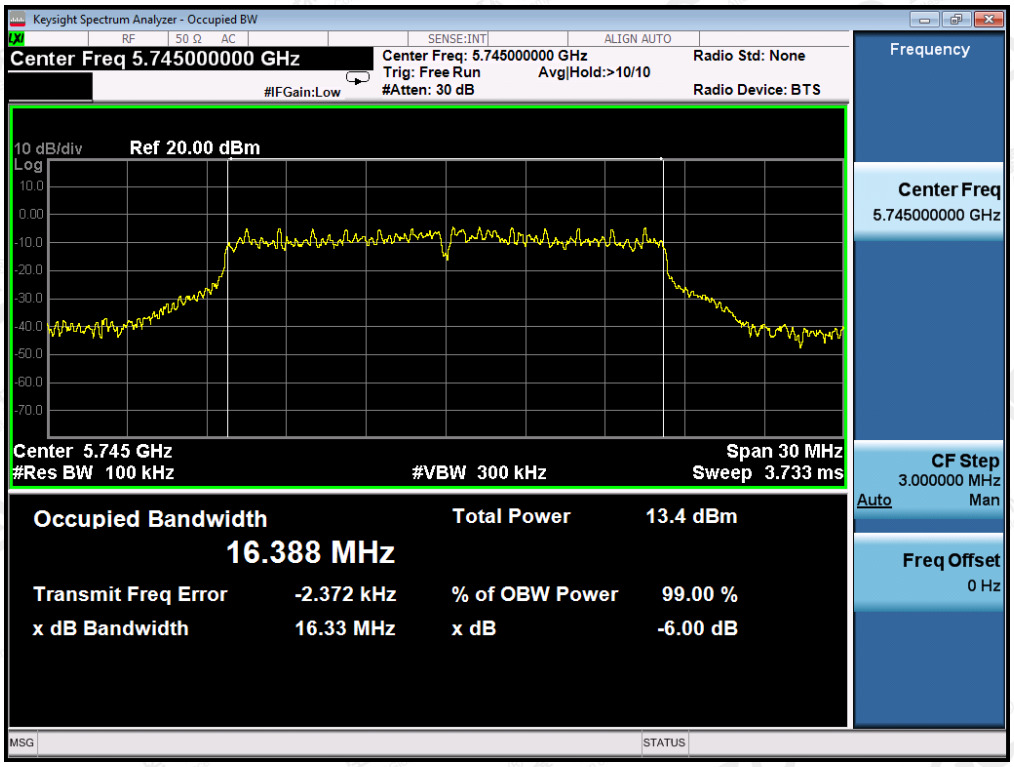
LIMITS AND MEASUREMENT RESULT FOR 802.11N20/40 MODULATION			
Applicable Limits	Applicable Limits		
	Test Data (MHz)		Criteria
>500KHZ	5745MHz	17.37	PASS
	5785 MHz	17.37	PASS
	5825MHz	17.26	PASS
	5755MHz	36.30	PASS
	5795MHz	36.26	PASS

LIMITS AND MEASUREMENT RESULT FOR 802.11AC20/40 MODULATION			
Applicable Limits	Applicable Limits		
	Test Data (MHz)		Criteria
>500KHZ	5745MHz	17.39	PASS
	5785 MHz	17.25	PASS
	5825MHz	17.16	PASS
	5755MHz	36.29	PASS
	5795MHz	36.04	PASS

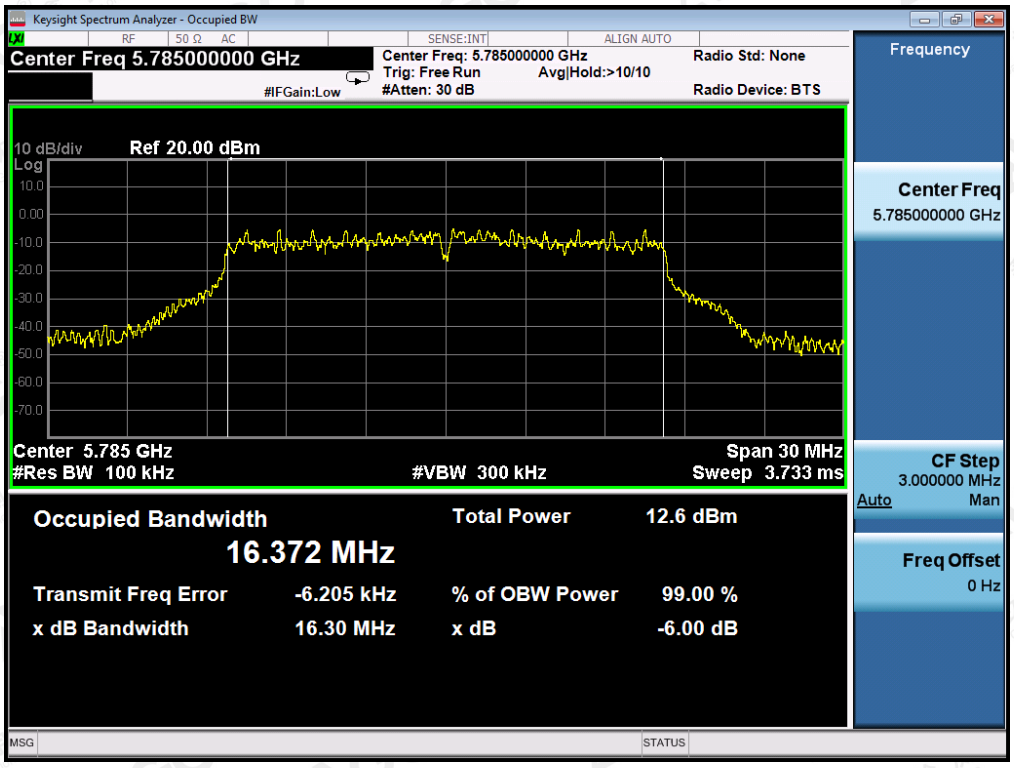
LIMITS AND MEASUREMENT RESULT FOR 802.11AC80 MODULATION			
Applicable Limits	Applicable Limits		
	Test Data (MHz)		Criteria
>500KHZ	5775MHz	75.38	PASS

802.11a20 TEST RESULT:

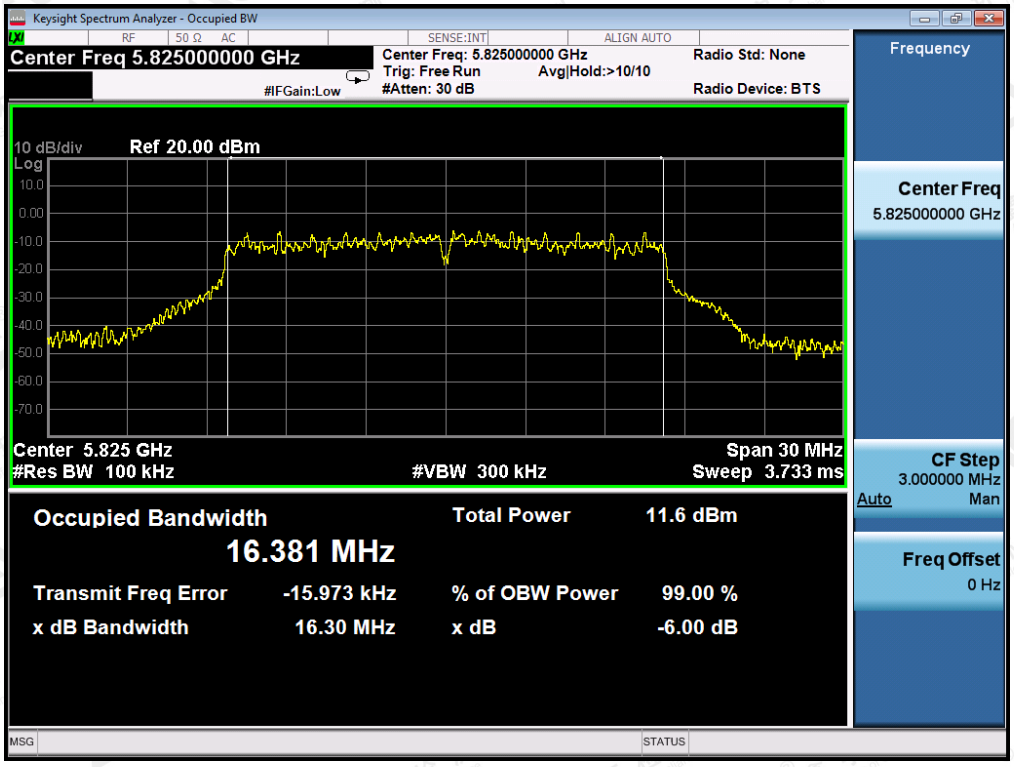
TEST PLOT OF BANDWIDTH FOR 5745MHz



TEST PLOT OF BANDWIDTH FOR 5785MHz

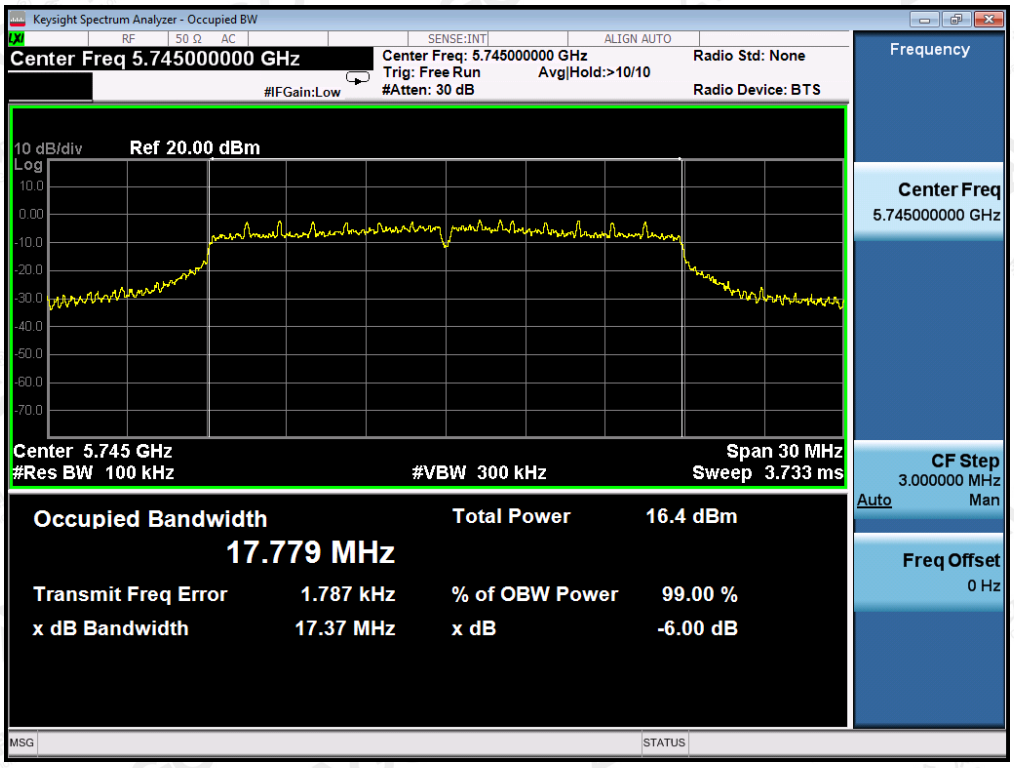


TEST PLOT OF BANDWIDTH FOR 5825MHz



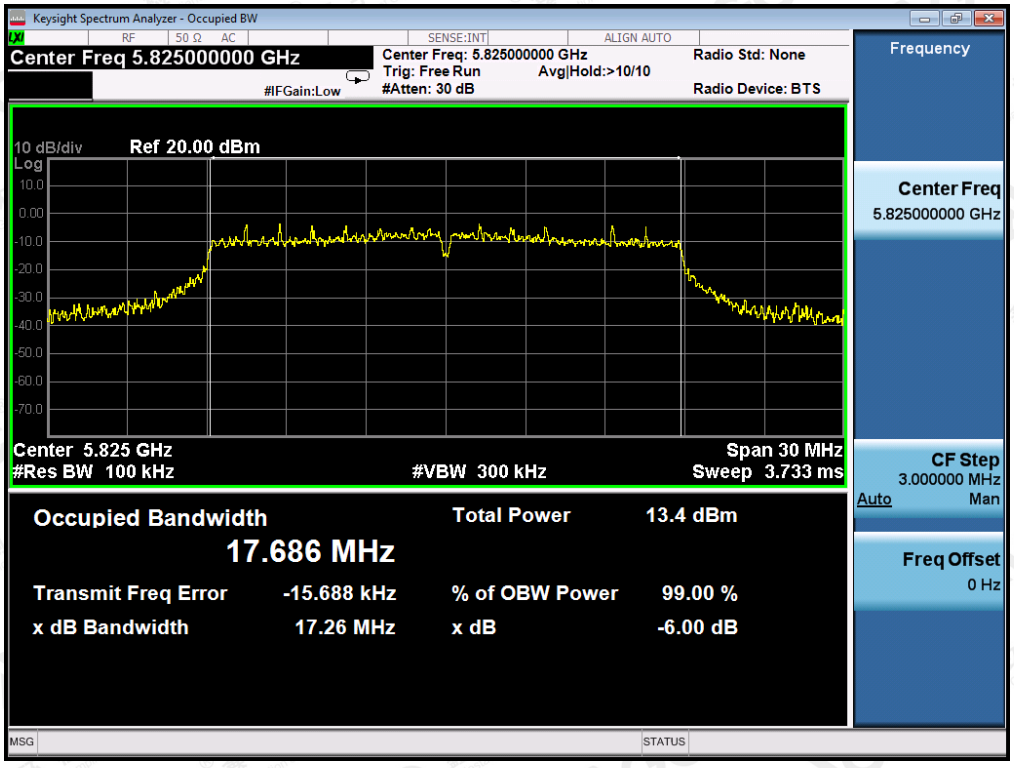
802.11n20 TEST RESULT:

TEST PLOT OF BANDWIDTH FOR 5745MHz



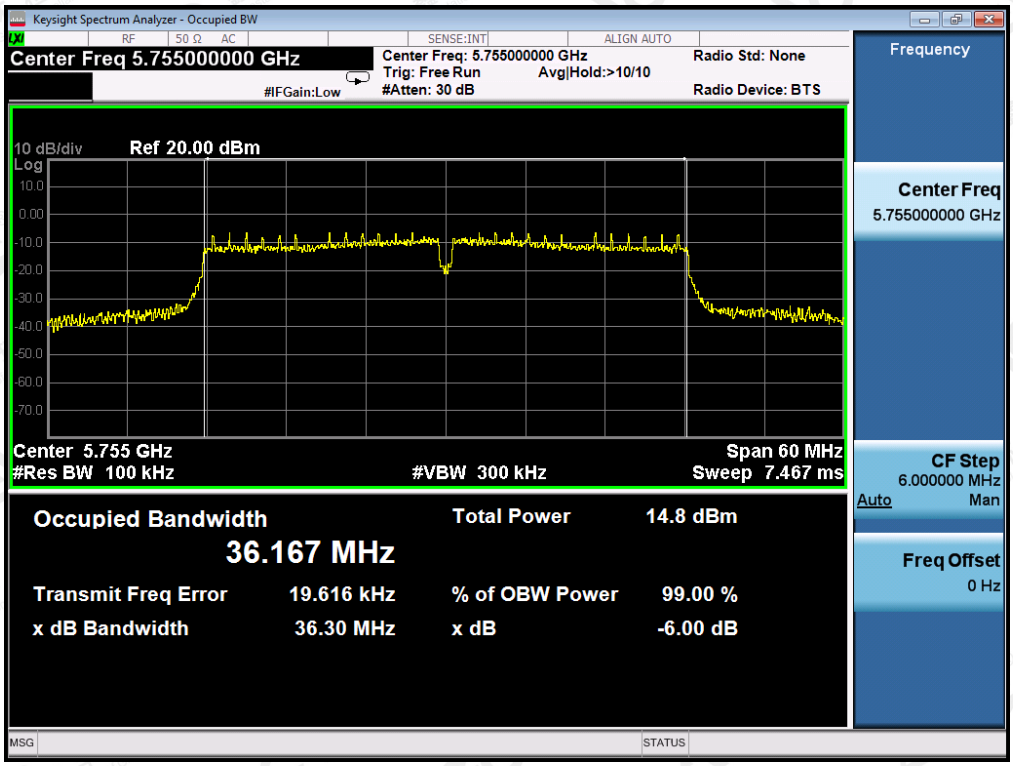
TEST PLOT OF BANDWIDTH FOR 5785MHz

TEST PLOT OF BANDWIDTH FOR 5825MHz

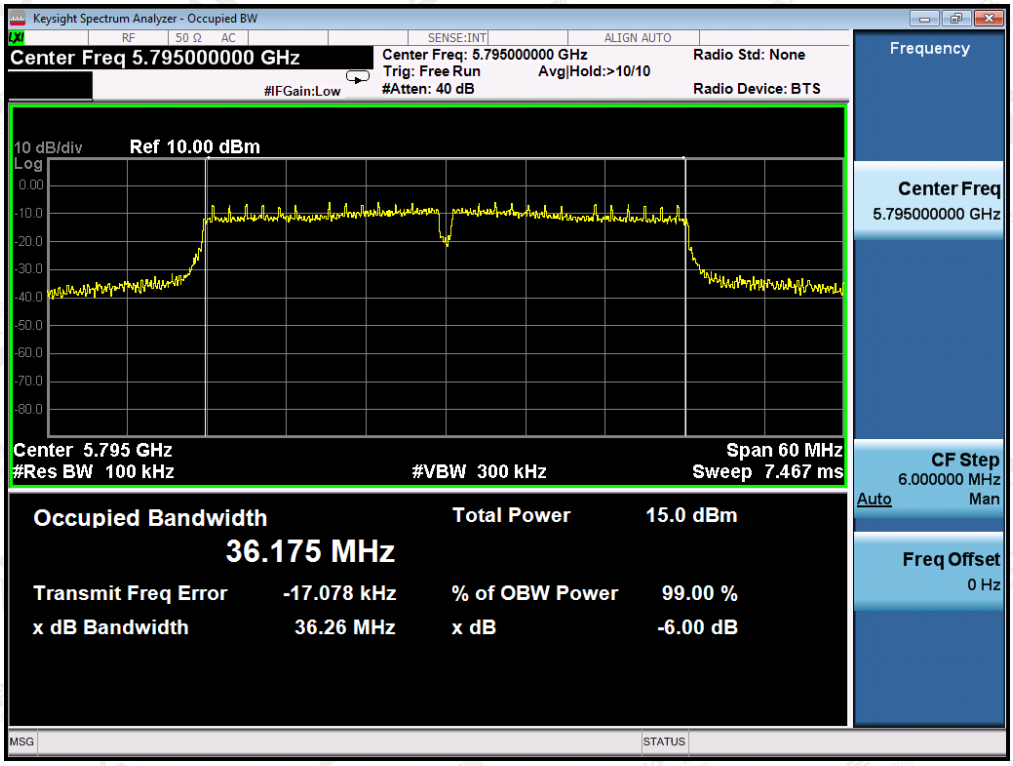


802.11n40 TEST RESULT:

TEST PLOT OF BANDWIDTH FOR 5755MHz

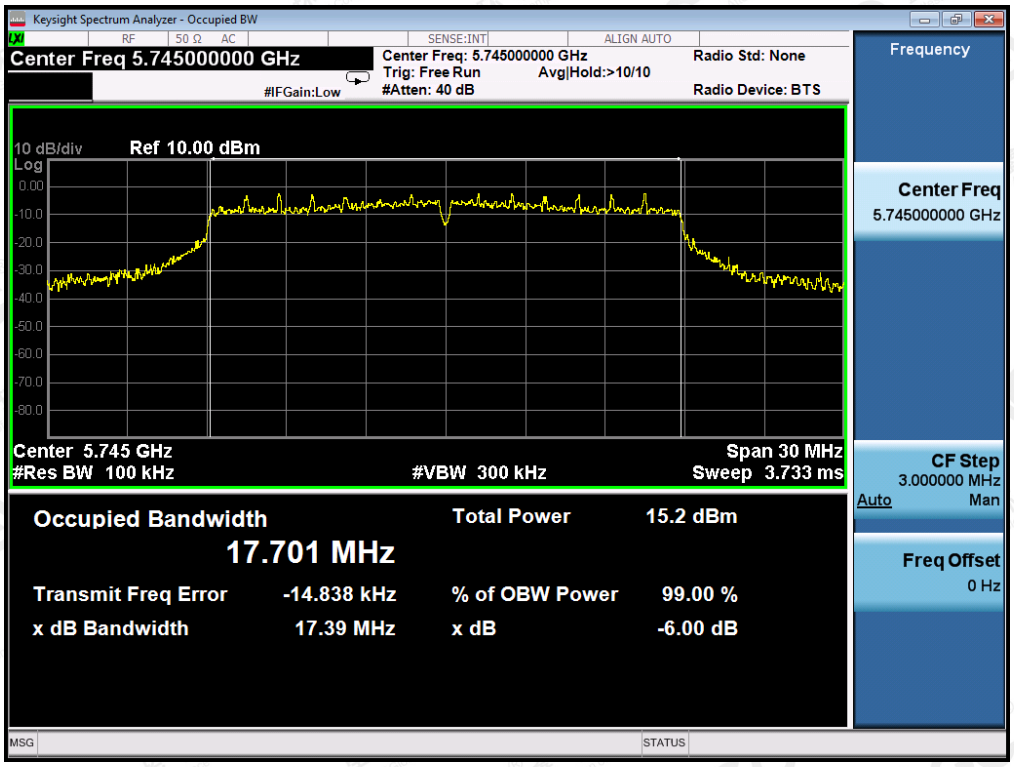


TEST PLOT OF BANDWIDTH FOR 5795MHz



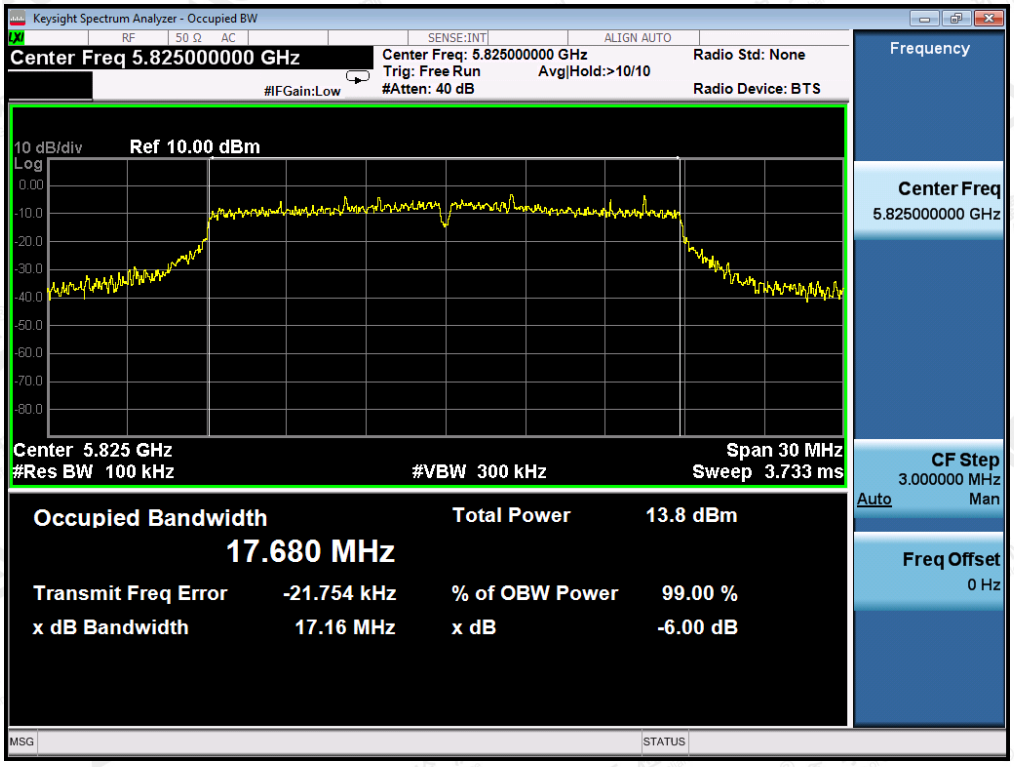
802.11ac20 TEST RESULT:

TEST PLOT OF BANDWIDTH FOR 5745MHz



TEST PLOT OF BANDWIDTH FOR 5785MHz

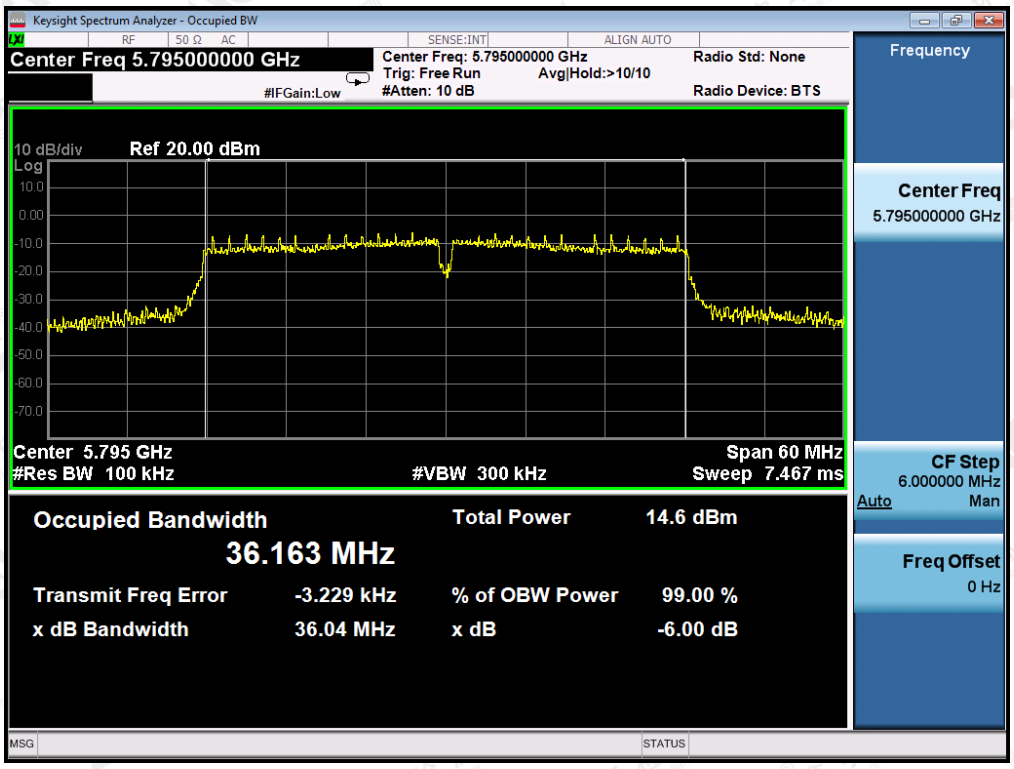
TEST PLOT OF BANDWIDTH FOR 5825MHz



802.11ac40 TEST RESULT:

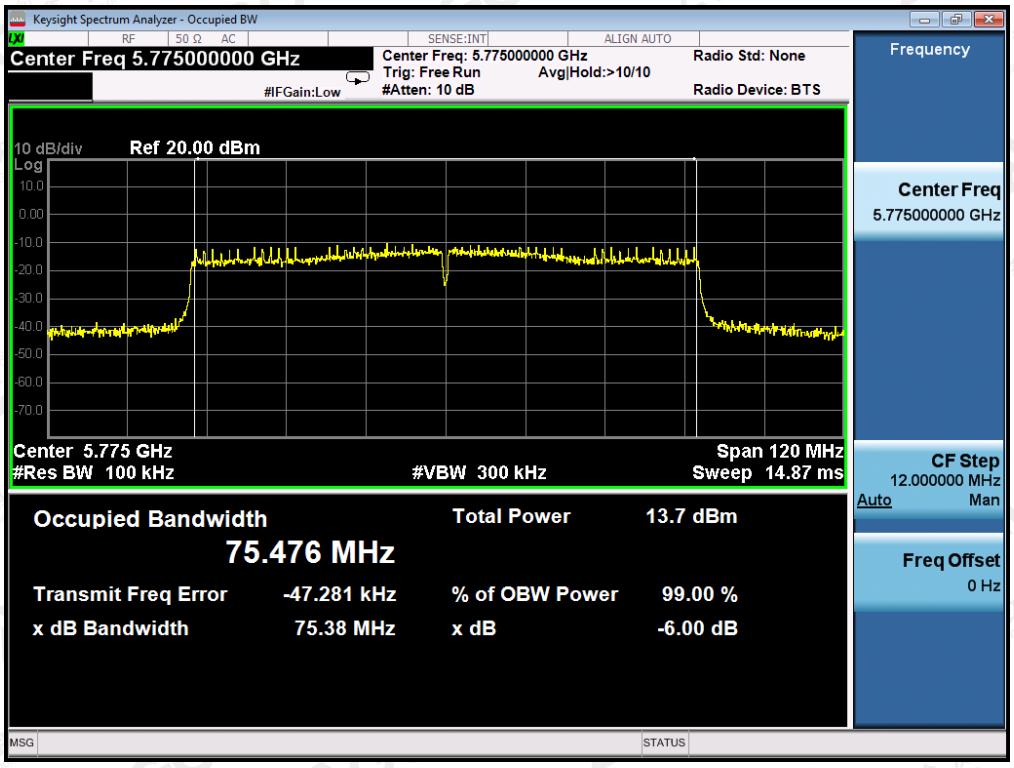
TEST PLOT OF BANDWIDTH FOR 5755MHz

TEST PLOT OF BANDWIDTH FOR 5795MHz



802.11ac80 TEST RESULT-ant0:

TEST PLOT OF BANDWIDTH FOR 5775MHz



9. MAXIMUM CONDUCTED OUTPUT PEAK POWER SPECTRAL DENSITY

9.1 MEASUREMENT PROCEDURE

Refer to KDB 789033 section F

9.2 TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)

Refer To Section 8.2.

9.3 MEASUREMENT EQUIPMENT USED

Refer To Section 6.

9.4 LIMITS AND MEASUREMENT RESULT

Frequency (MHz)		Power density (dBm/500kHz)	Applicable Limits (dBm/500kHz)	Pass or Fail
802.11a	5745	2.365	30	Pass
	5785	2.166	30	Pass
	5825	1.602	30	Pass
802.11n20	5745	3.903	30	Pass
	5785	3.442	30	Pass
	5825	4.357	30	Pass
802.11n40	5755	0.859	30	Pass
	5795	1.133	30	Pass

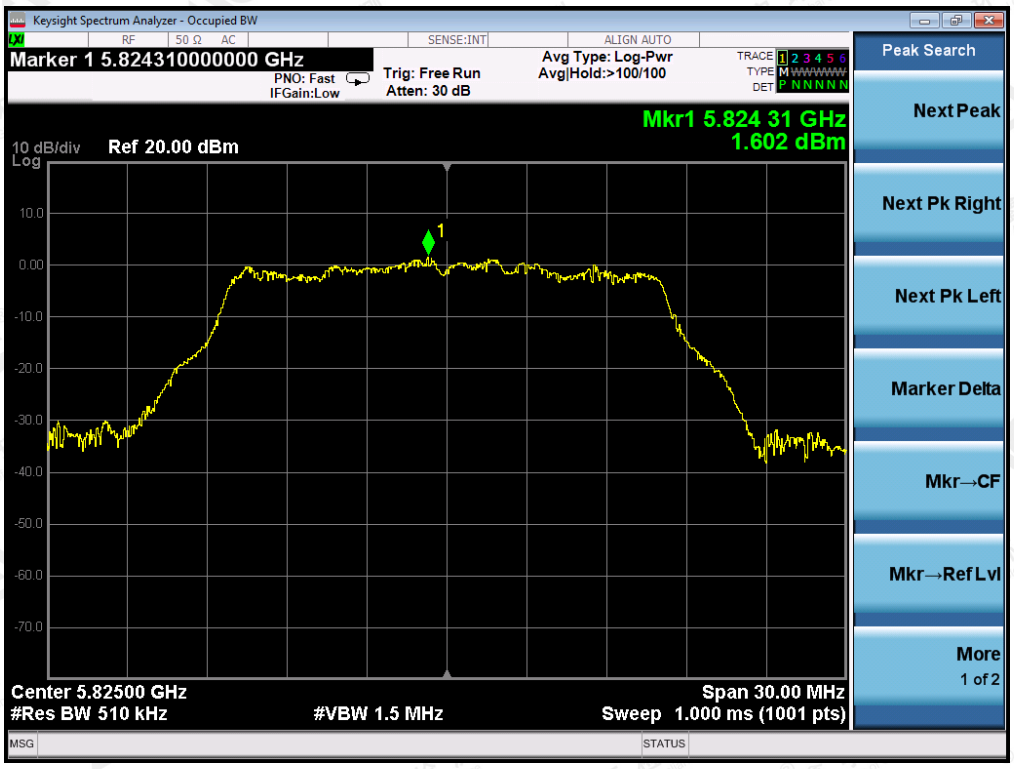
Frequency (MHz)		Power density (dBm/500kHz)	Applicable Limits (dBm/500kHz)	Pass or Fail
802.11ac20	5745	3.296	30	Pass
	5785	3.385	30	Pass
	5825	2.636	30	Pass
802.11ac40	5755	0.998	30	Pass
	5795	1.274	30	Pass
802.11ac80	5775	-2.013	30	Pass

802.11a20 TEST RESULT

TEST PLOT FOR 5745MHz

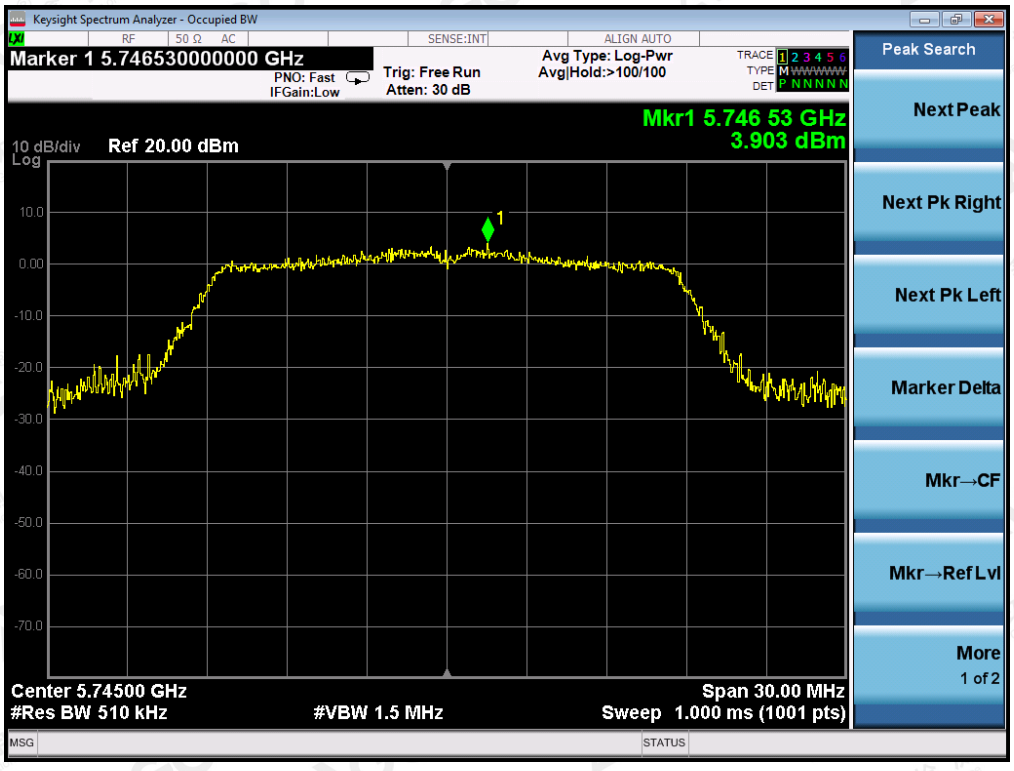
TEST PLOT FOR 5785MHz

TEST PLOT FOR 5825MHz

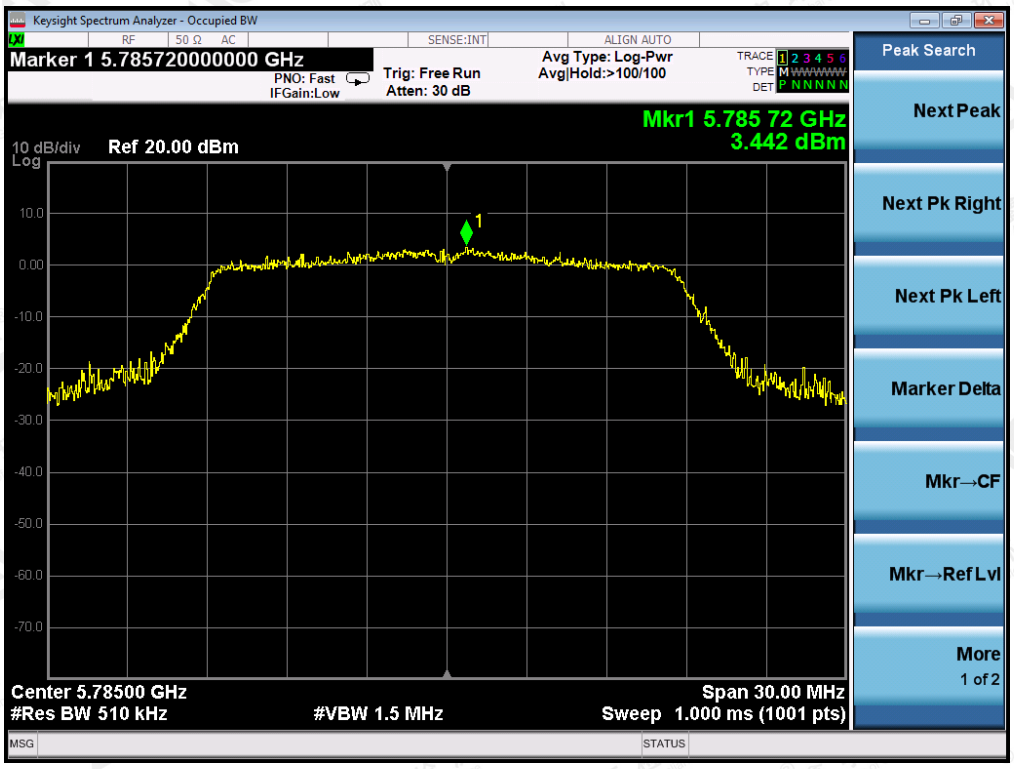


802.11n20 TEST RESULT

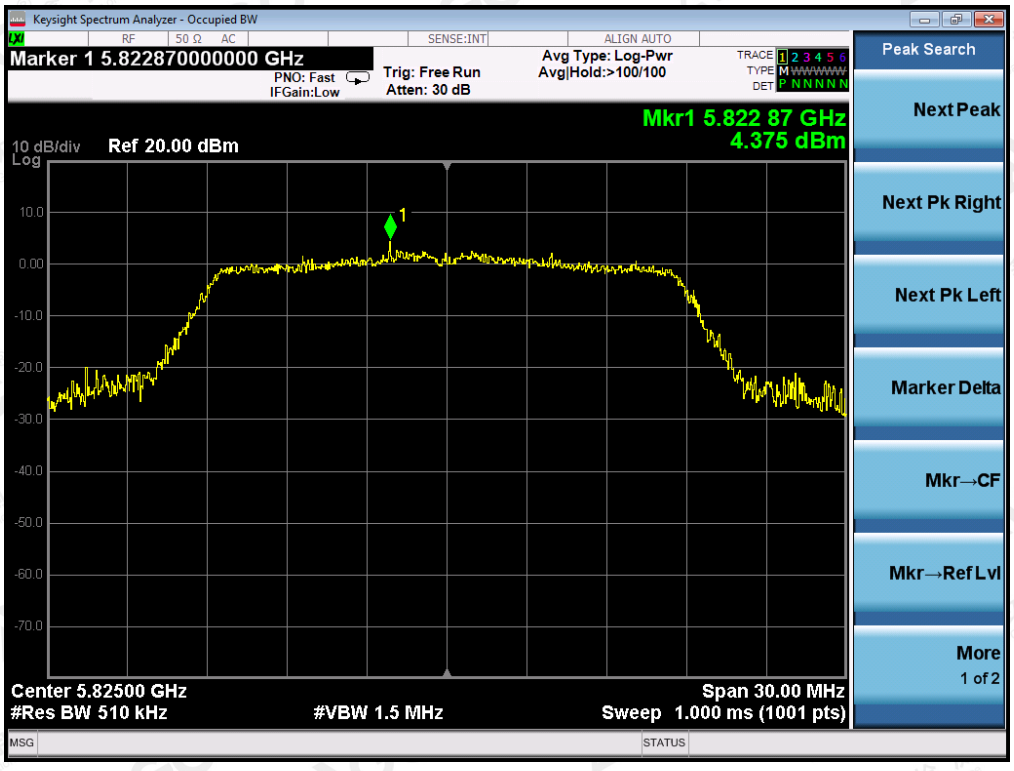
TEST PLOT FOR 5745MHz



TEST PLOT FOR 5785MHz

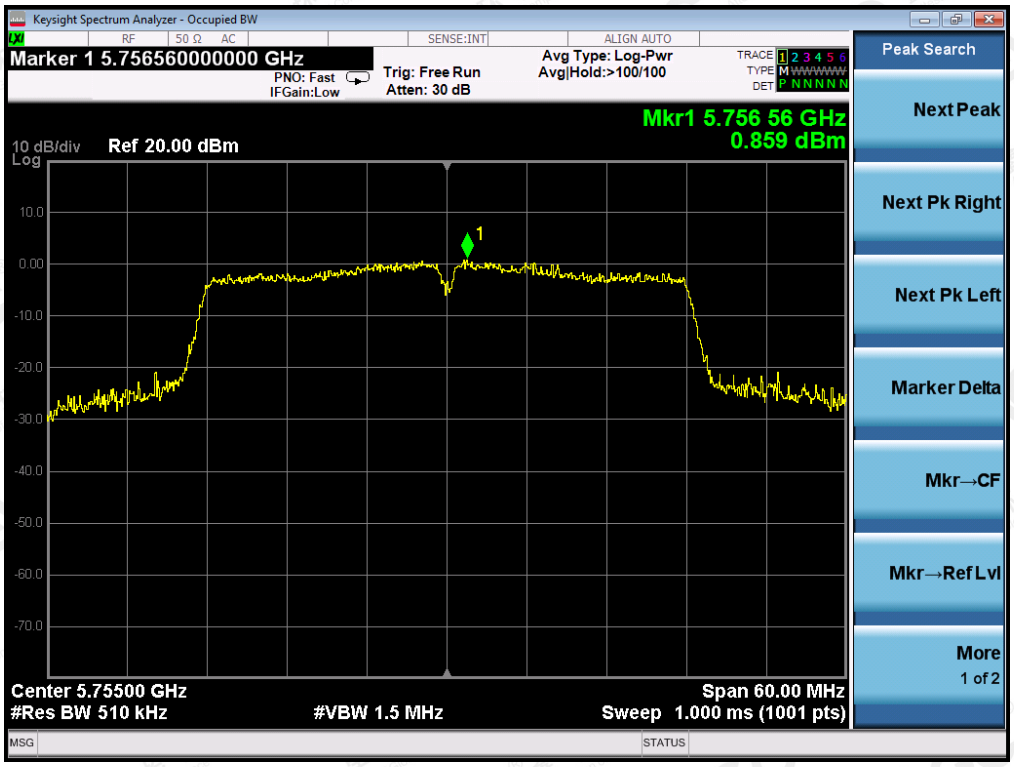


TEST PLOT FOR 5825MHz

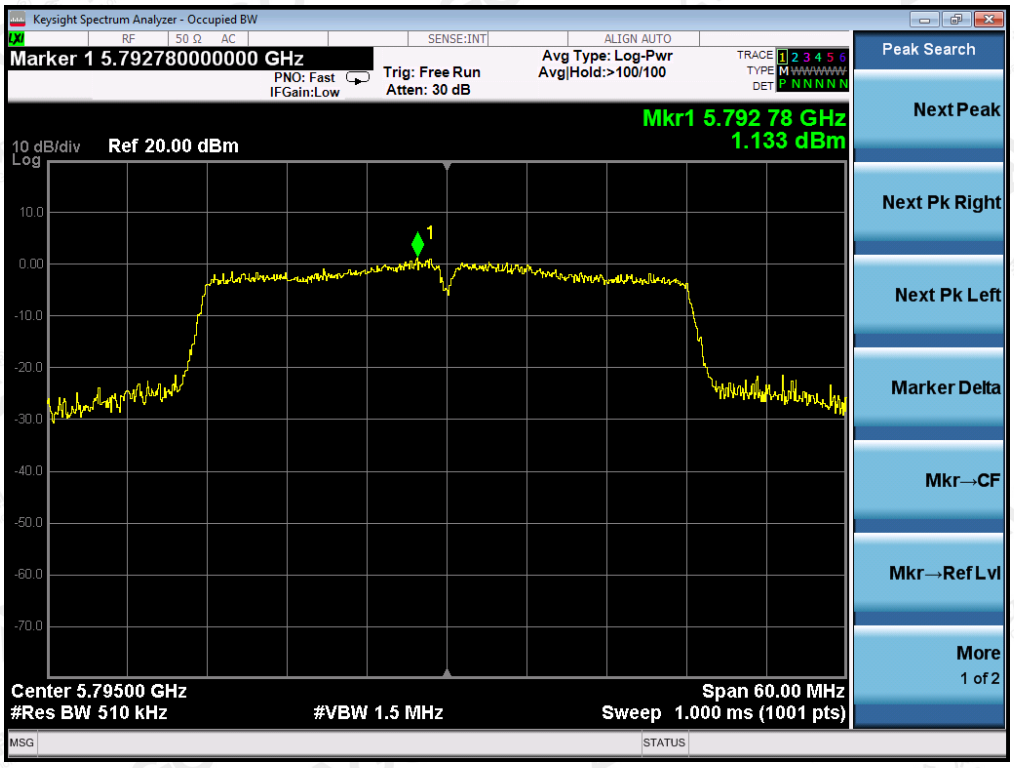


802.11n40 TEST RESULT:

TEST PLOT FOR 5755MHz

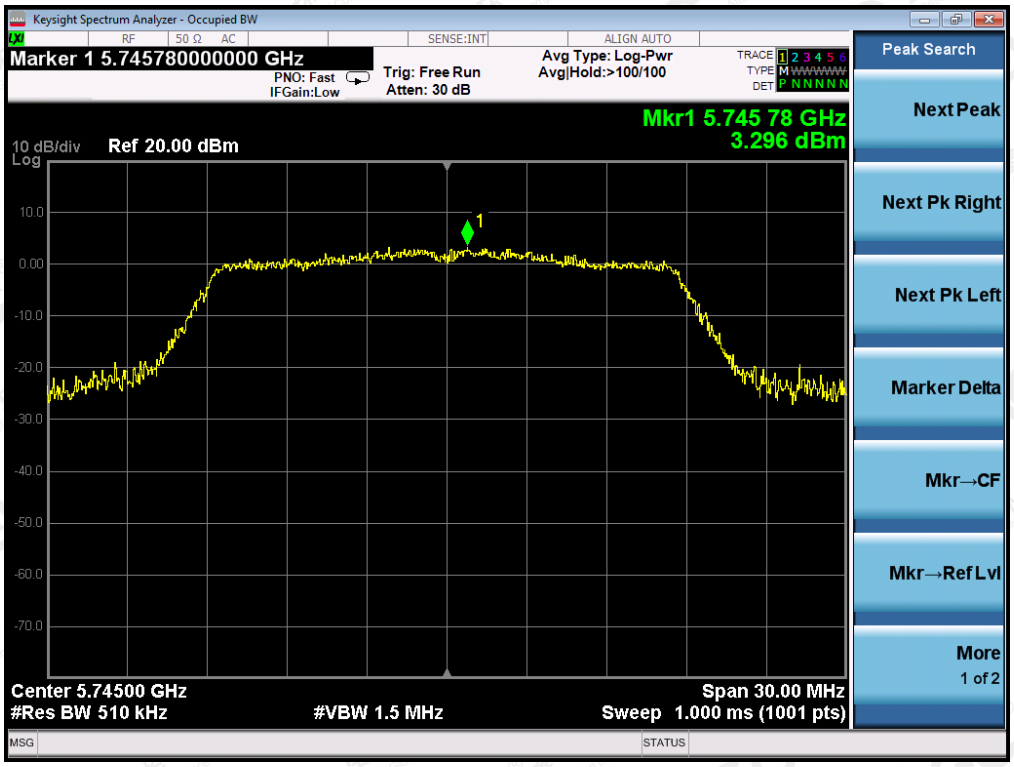


TEST PLOT FOR 5795MHz

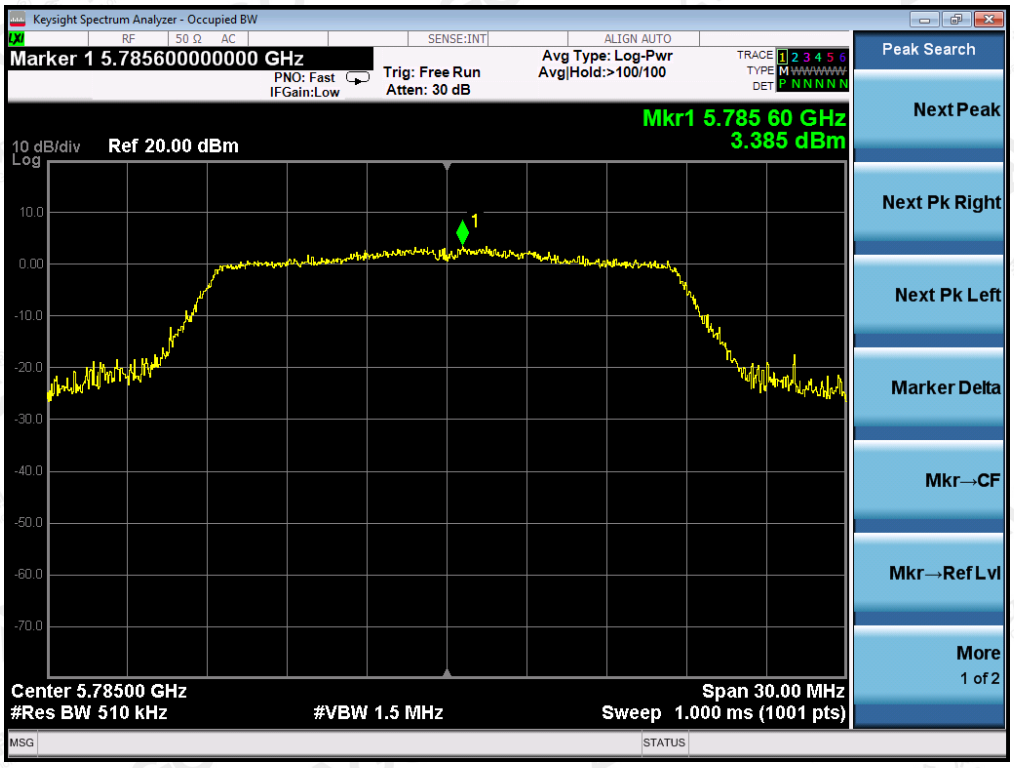


802.11ac20 TEST RESULT

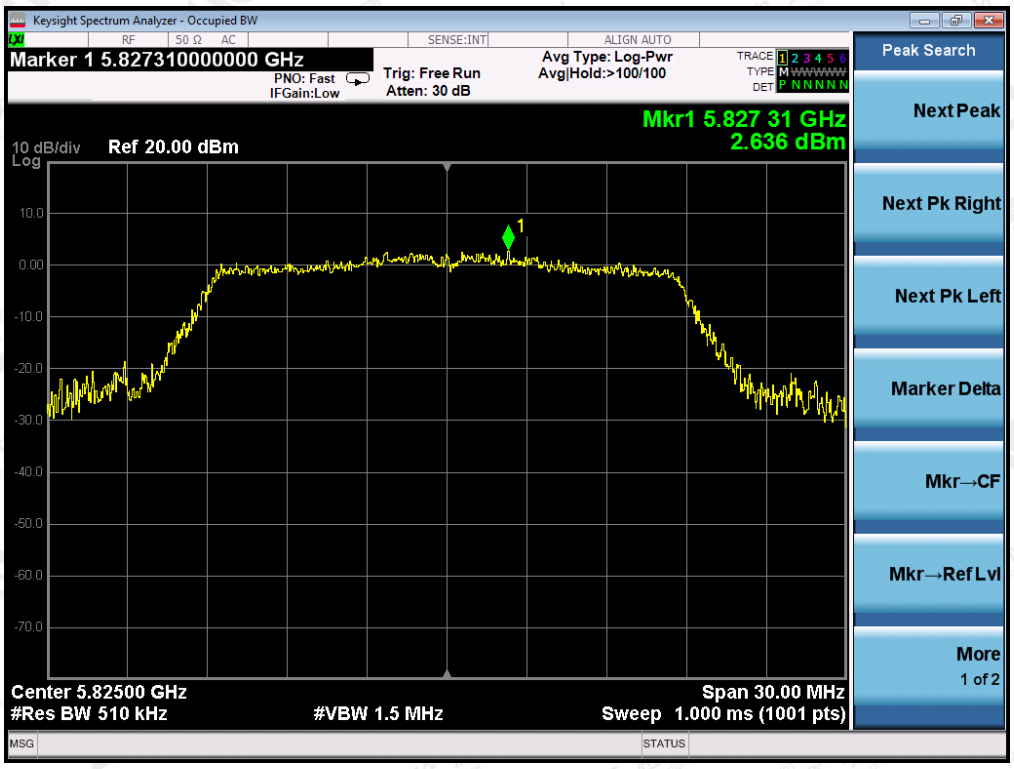
TEST PLOT FOR 5745MHz



TEST PLOT FOR 5785MHz

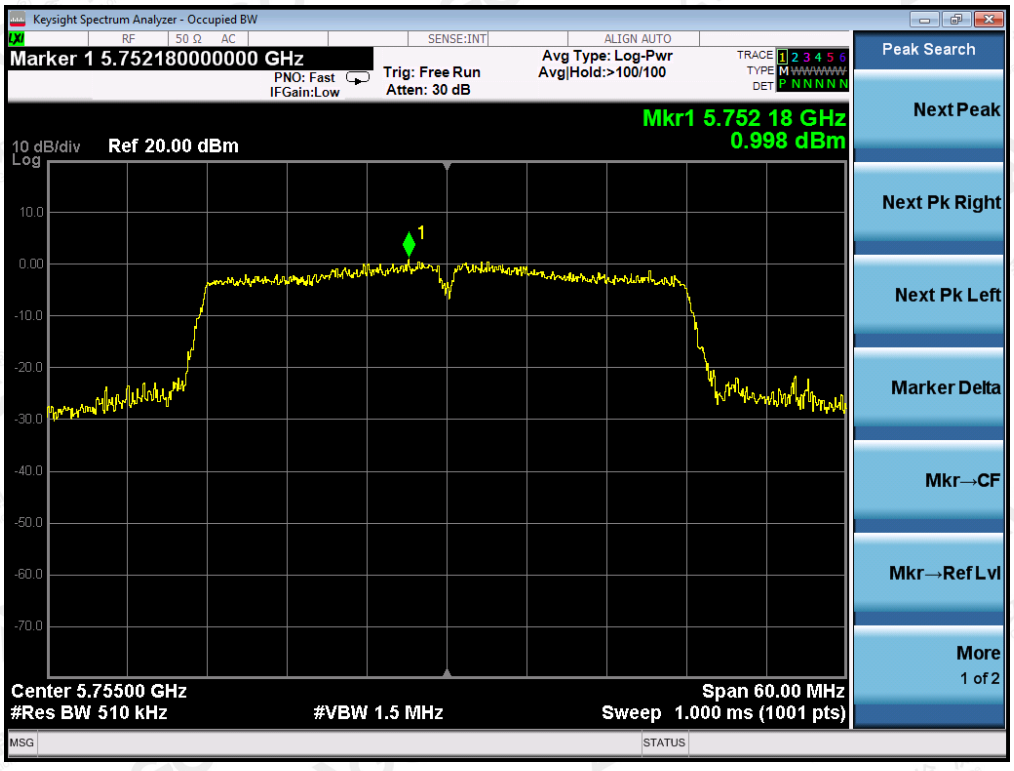


TEST PLOT FOR 5825MHz

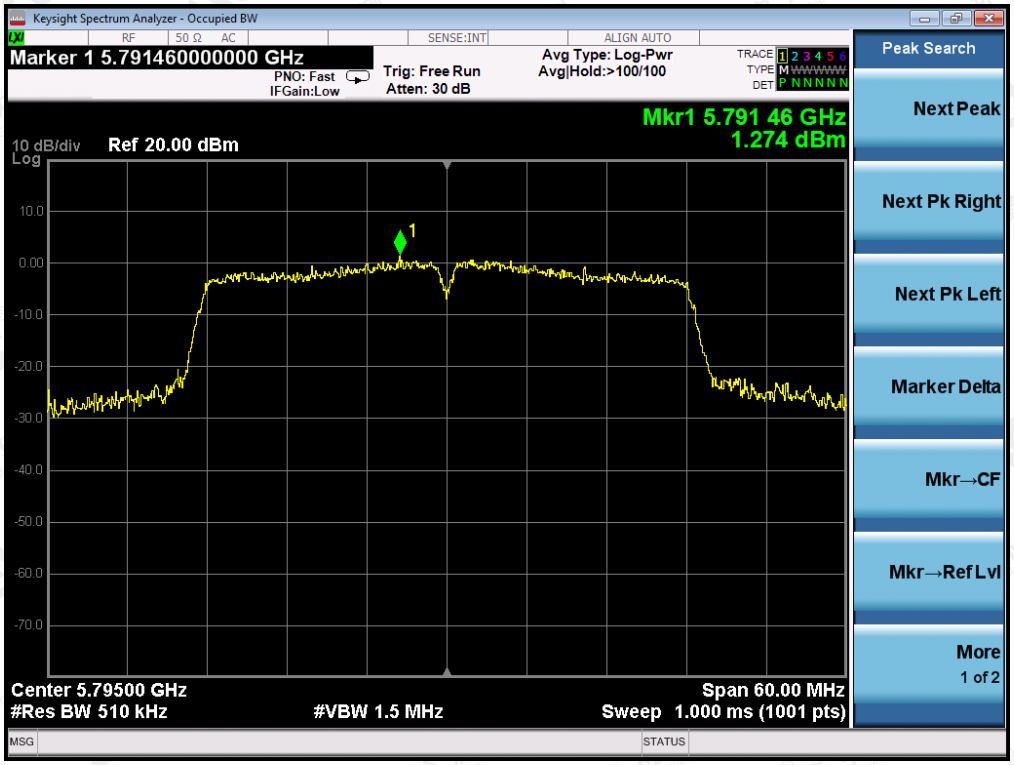


802.11ac40 TEST RESULT

TEST PLOT FOR 5755MHz

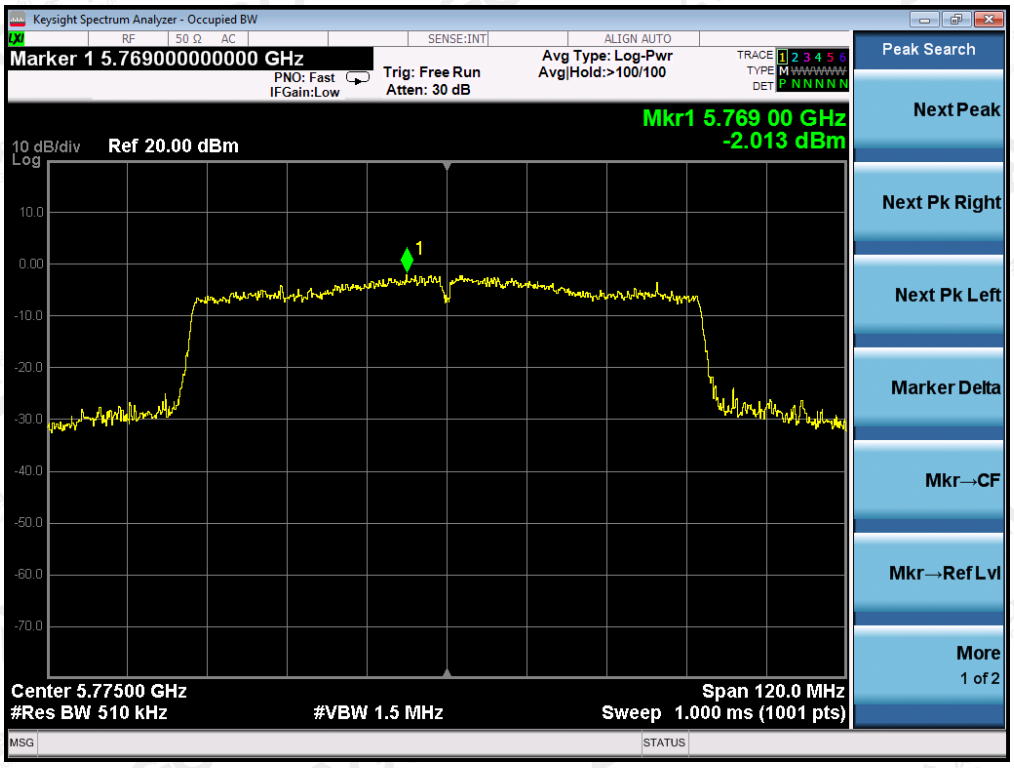


TEST PLOT FOR 5795MHz



802.11ac80 TEST RESULT

TEST PLOT FOR 5775MHz



10. CONDUCTED SPURIOUS EMISSION AND BAND EDGE EMISSION

10.1. MEASUREMENT PROCEDURE

1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
2, Set the EUT Work on the top, the middle and the bottom operation frequency individually.
3. Set SPA Trace 1 Max hold, then View.

Note: The EUT was tested according to KDB 789033 for compliance to FCC 47CFR 15.407 requirements.

10.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)

The same as described in section 8.2.

10.3. MEASUREMENT EQUIPMENT USED

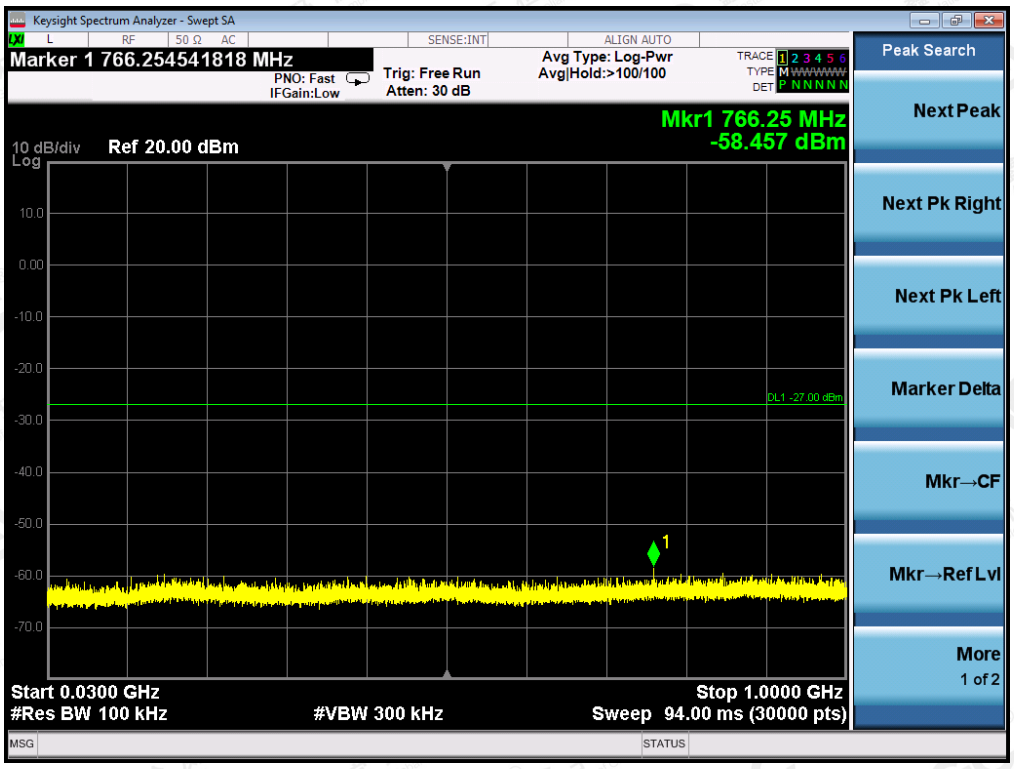
The same as described in section 6.

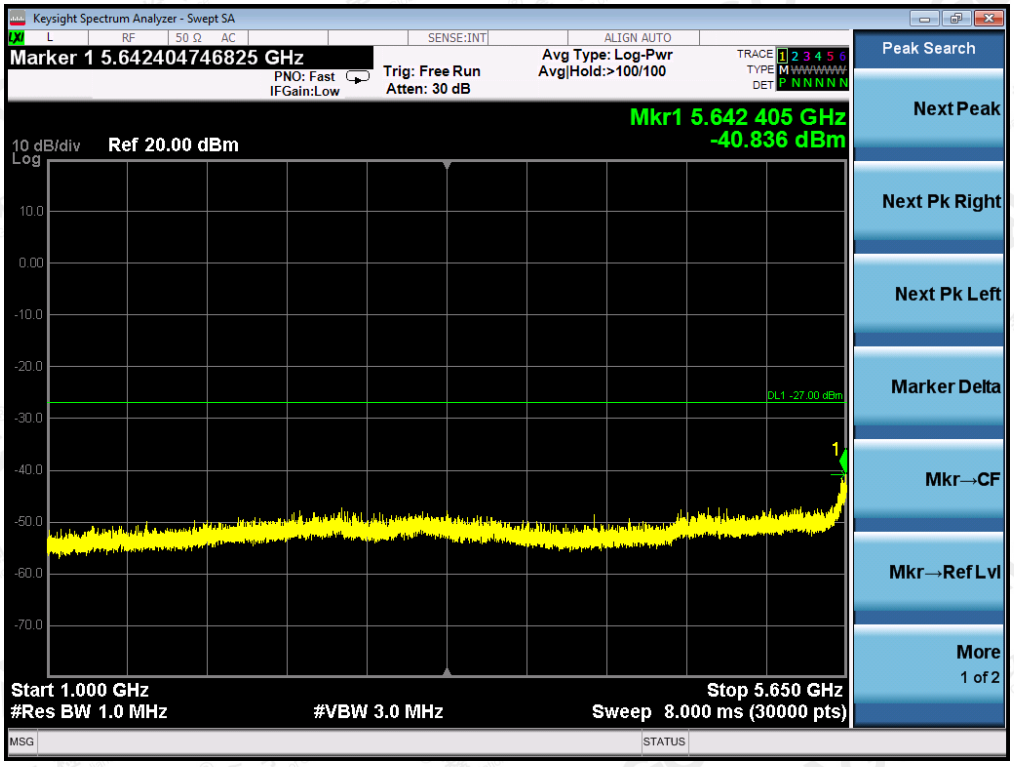
10.4. LIMITS AND MEASUREMENT RESULT

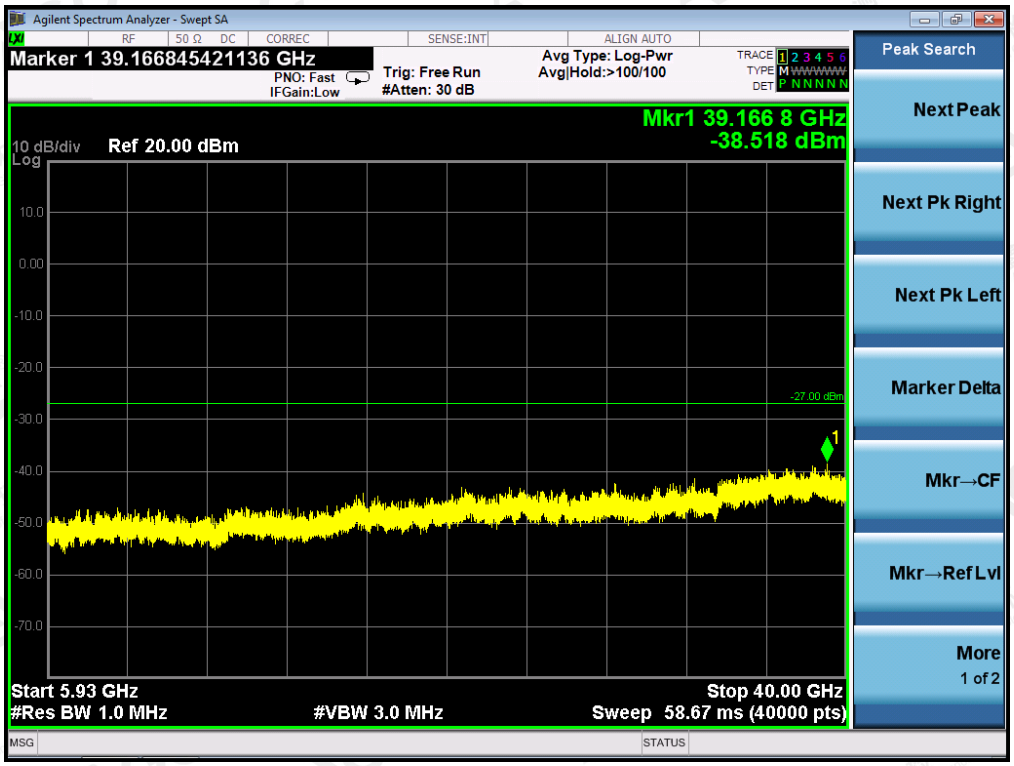
LIMITS AND MEASUREMENT RESULT		
Applicable Limits	Measurement Result	
	Test channel	Criteria
27dBm	5150MHz-5250MHz	PASS
17dBm within 5715-5725MHz and 5850-5860MHz 27dBm outside 5715-5860MHz	5725MHz-5825MHz	PASS

FOR 802.11A20 MODULATION

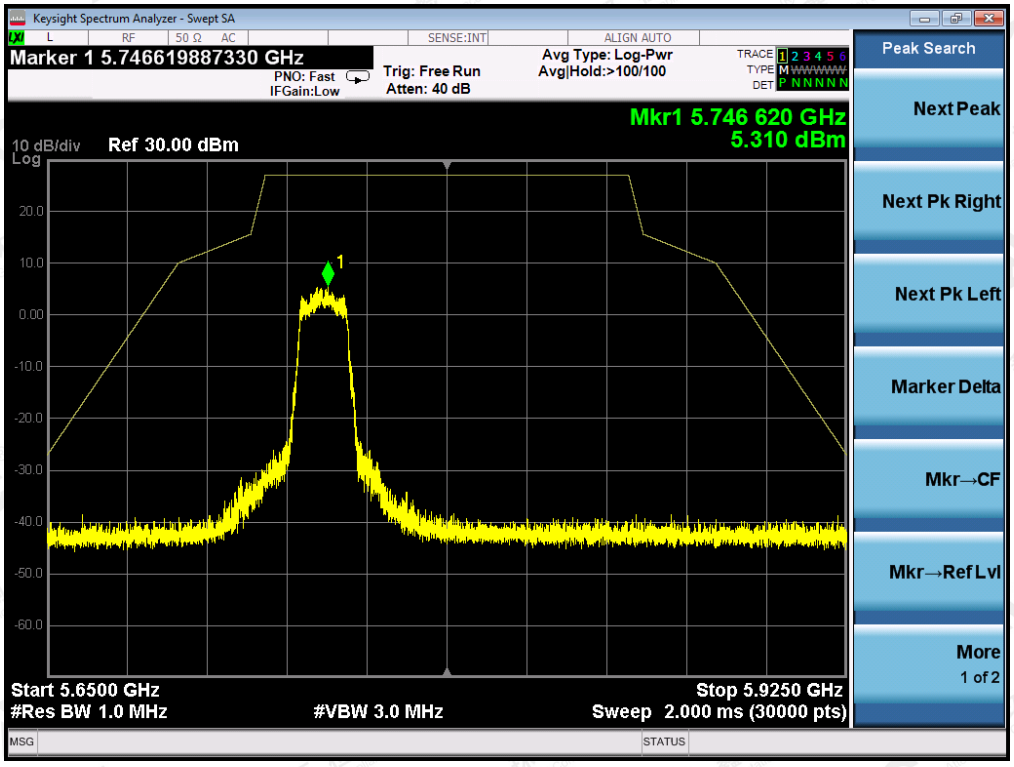
TEST PLOT OF OUT OF BAND EMISSIONS FOR MODULATION IN 5745MHz



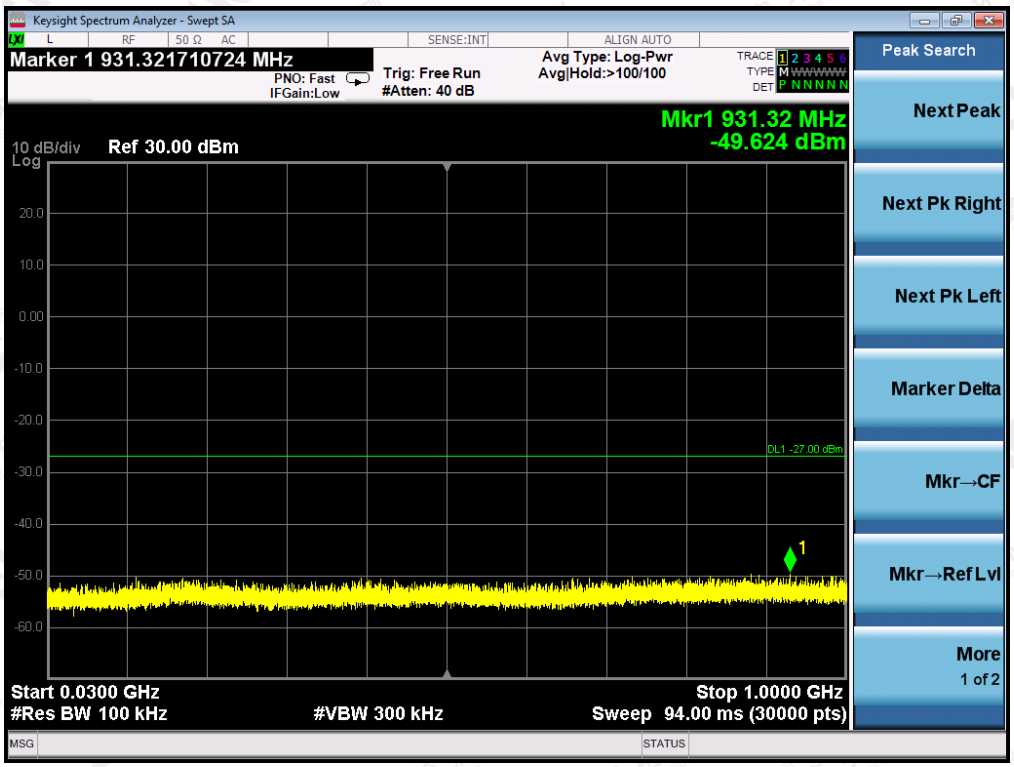


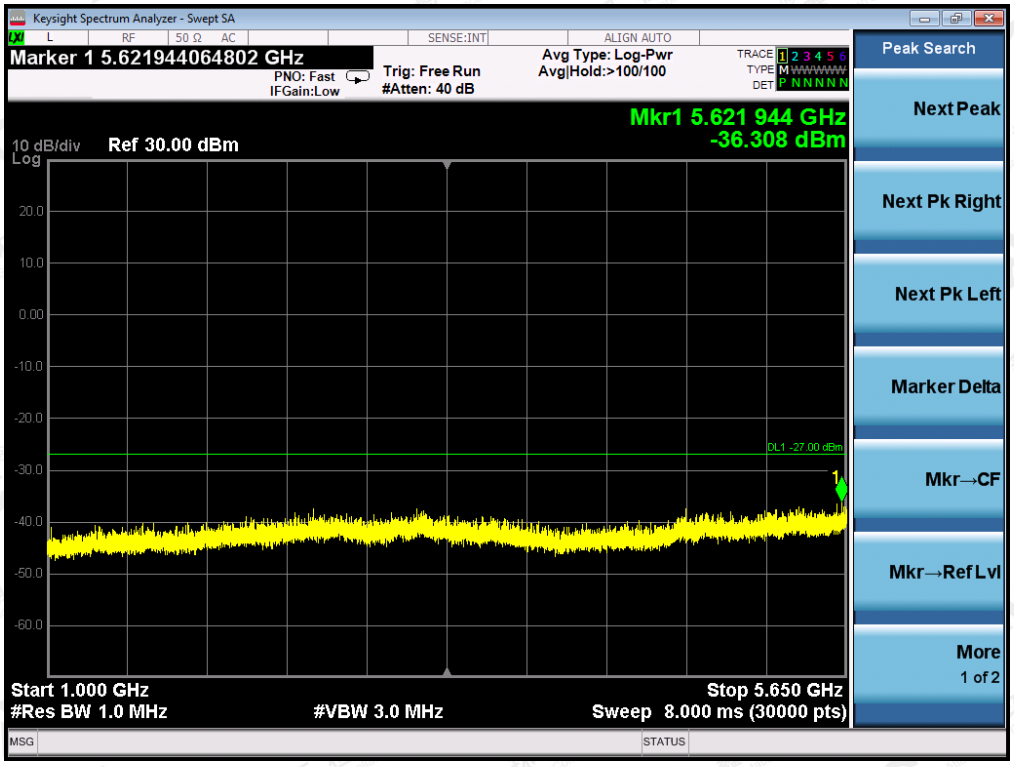


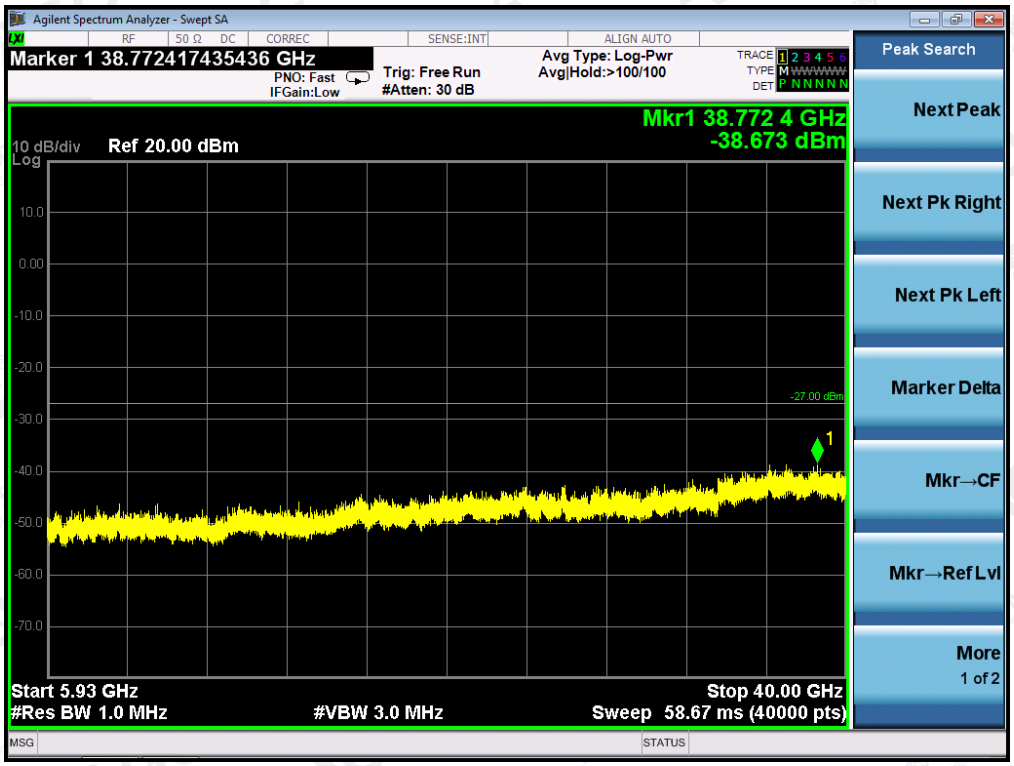
TEST PLOT OF BAND EDGE EMISSION



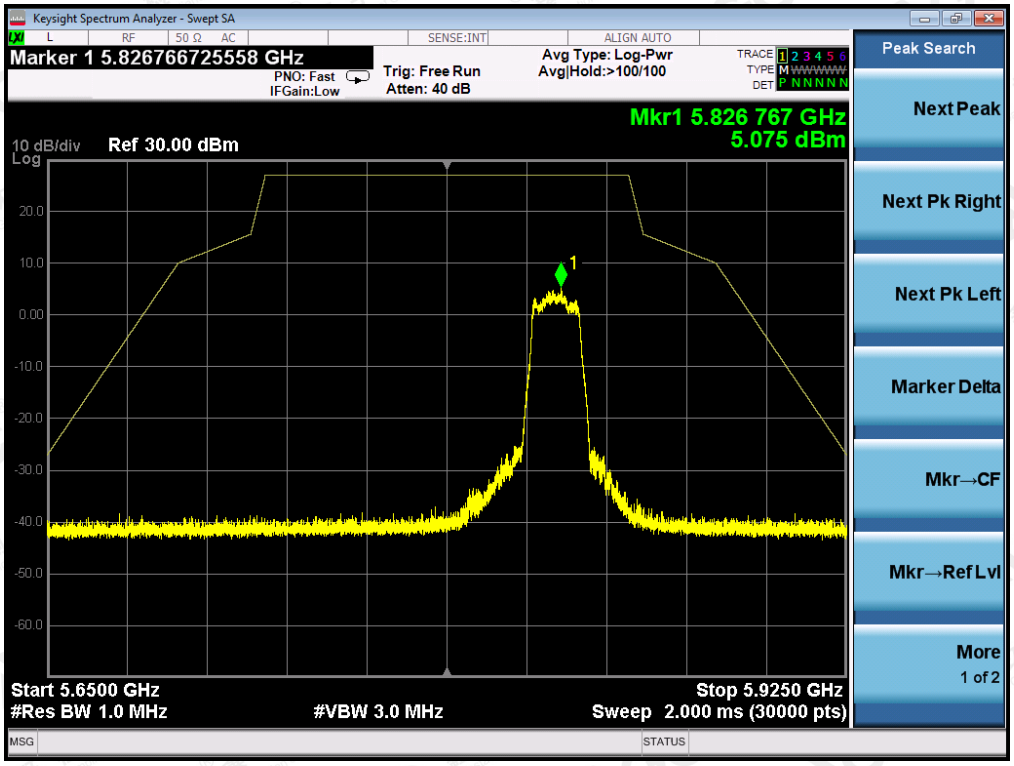
TEST PLOT OF OUT OF BAND EMISSIONS FOR MODULATION IN 5825MHz





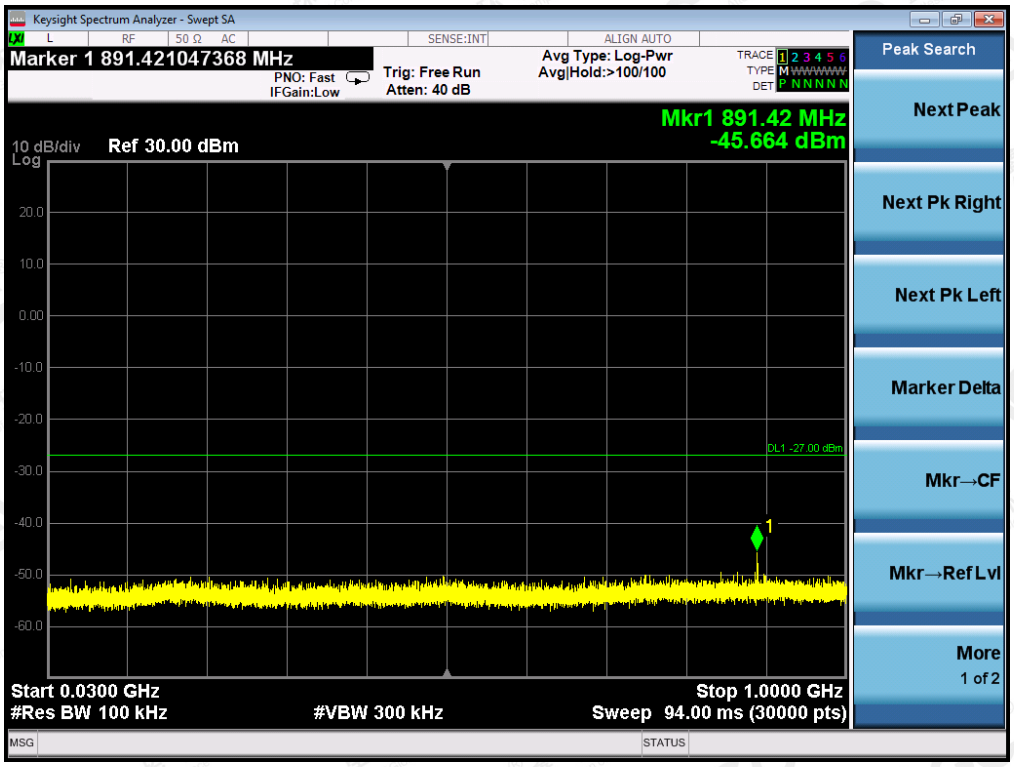


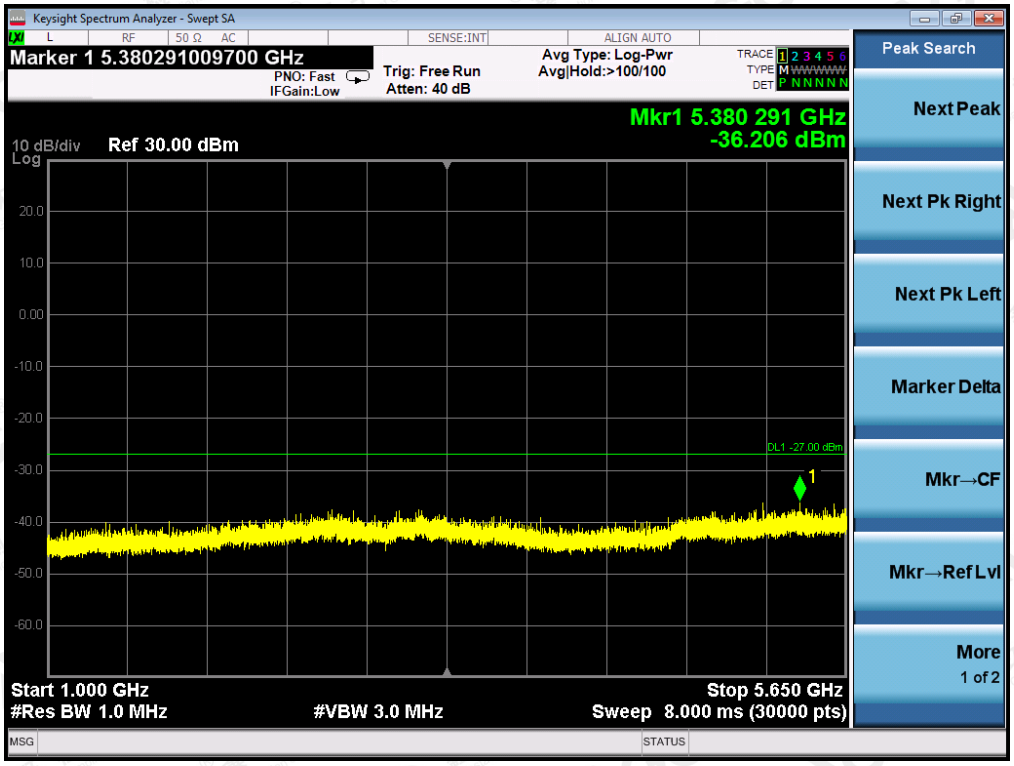
TEST PLOT OF BAND EDGE EMISSION

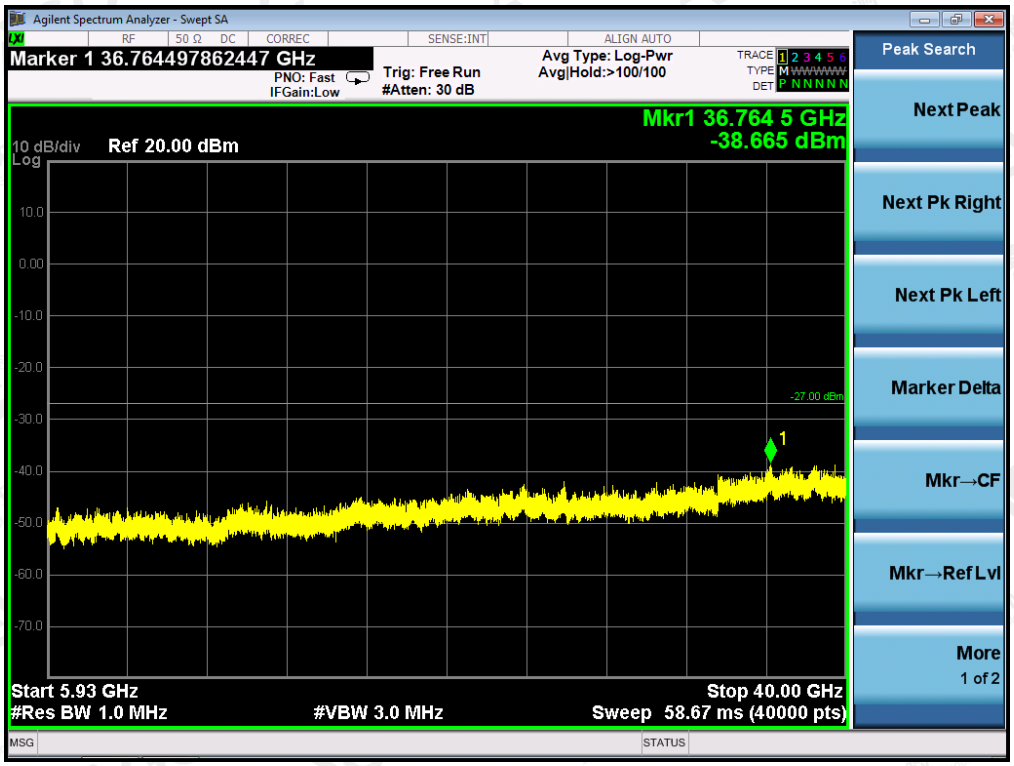


FOR 802.11N40 MODULATION

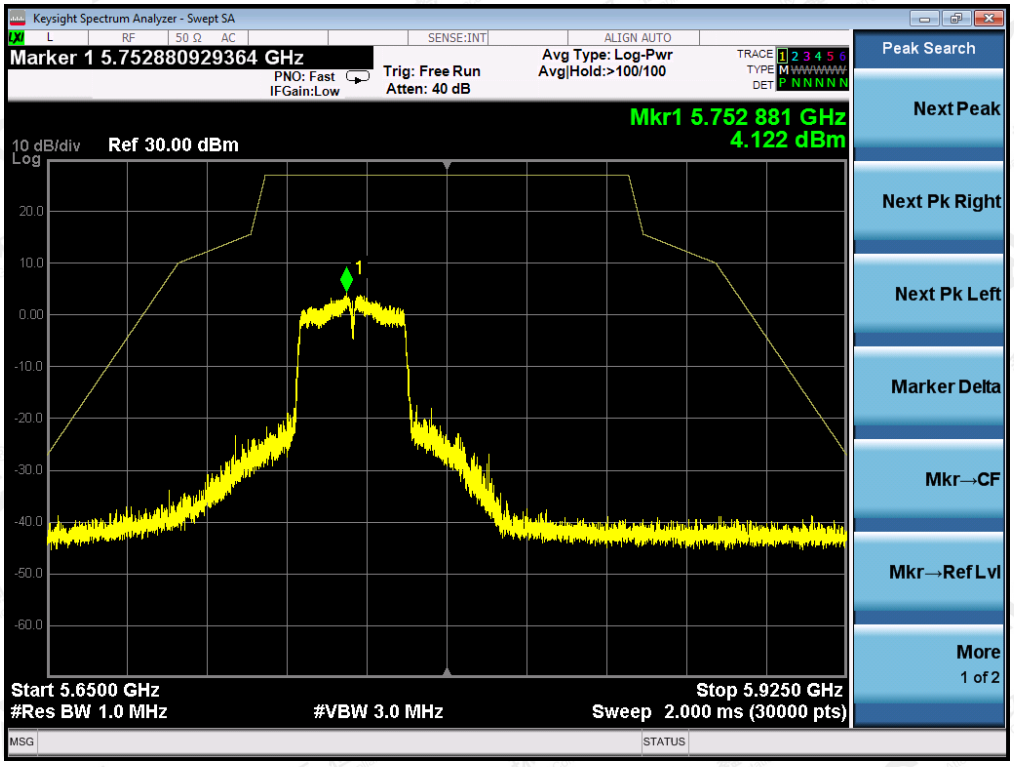
TEST PLOT OF OUT OF BAND EMISSIONS FOR MODULATION IN 5755MHz



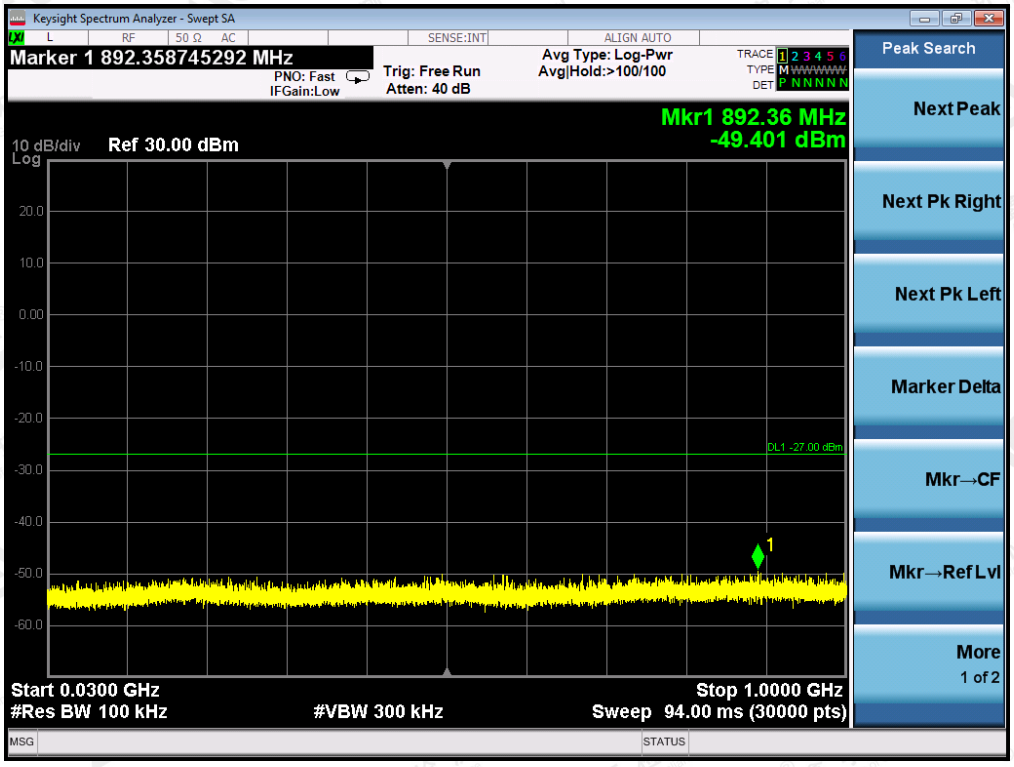


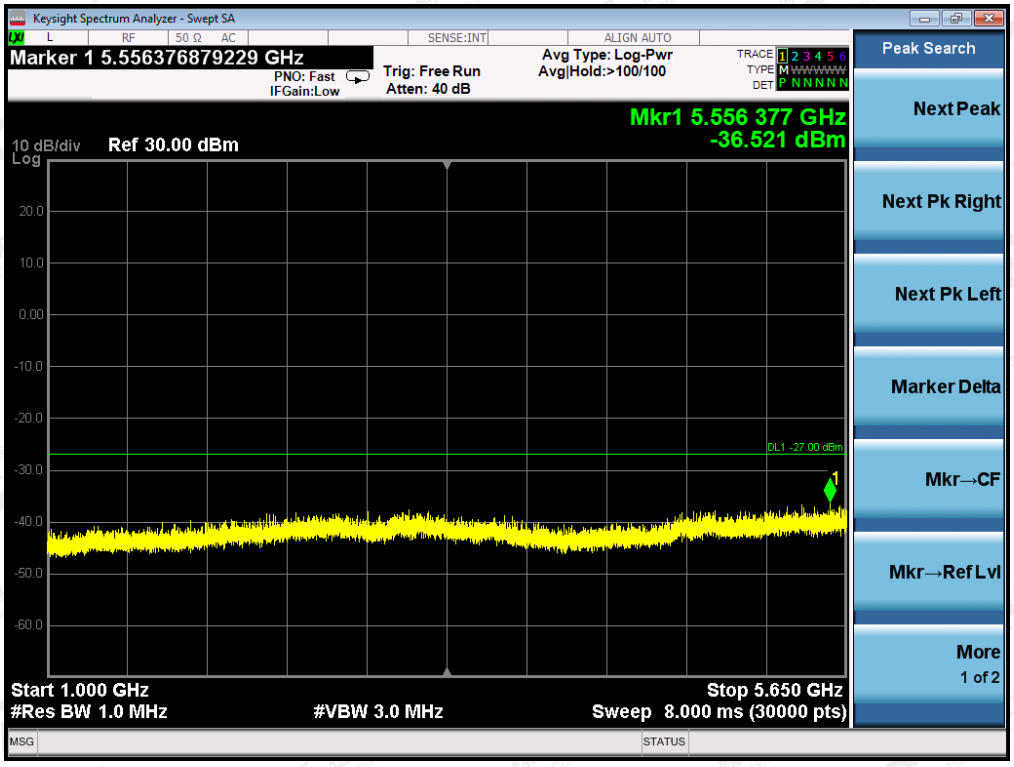


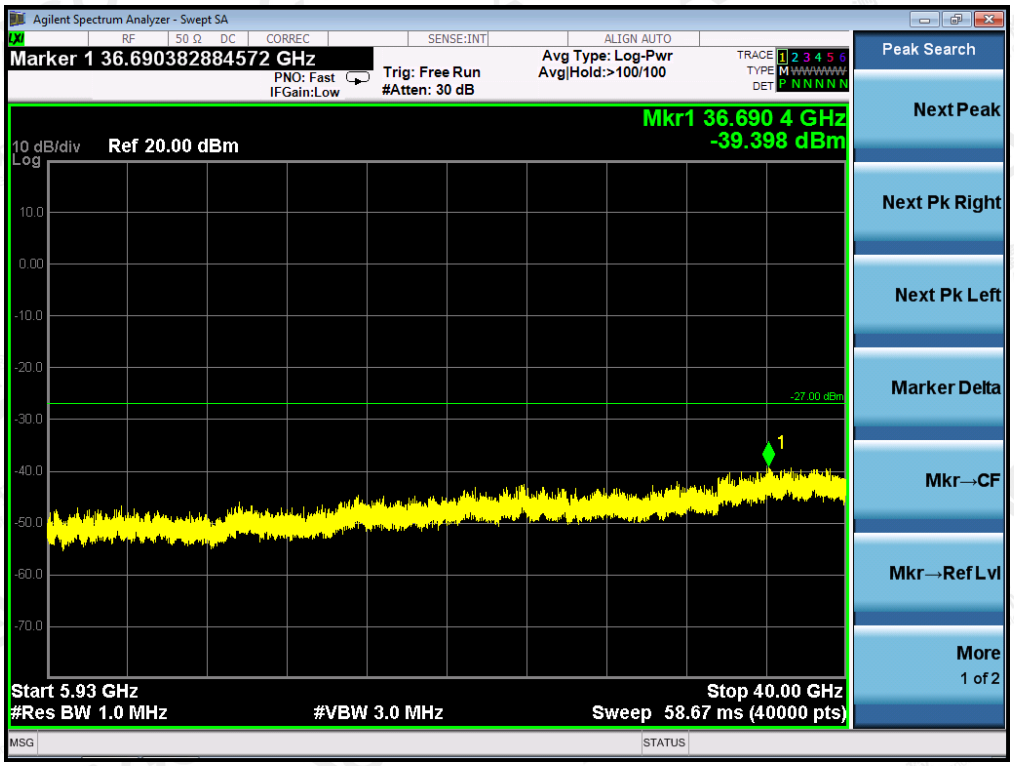
TEST PLOT OF BAND EDGE EMISSION



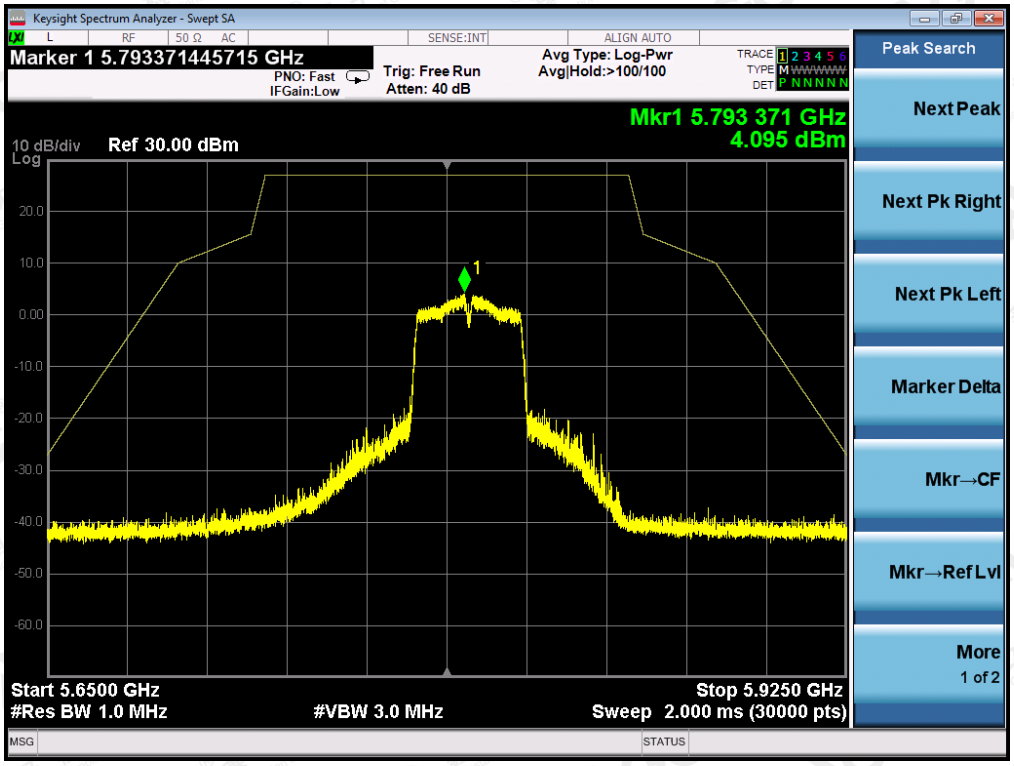
TEST PLOT OF OUT OF BAND EMISSIONS FOR MODULATION IN 5795MHz





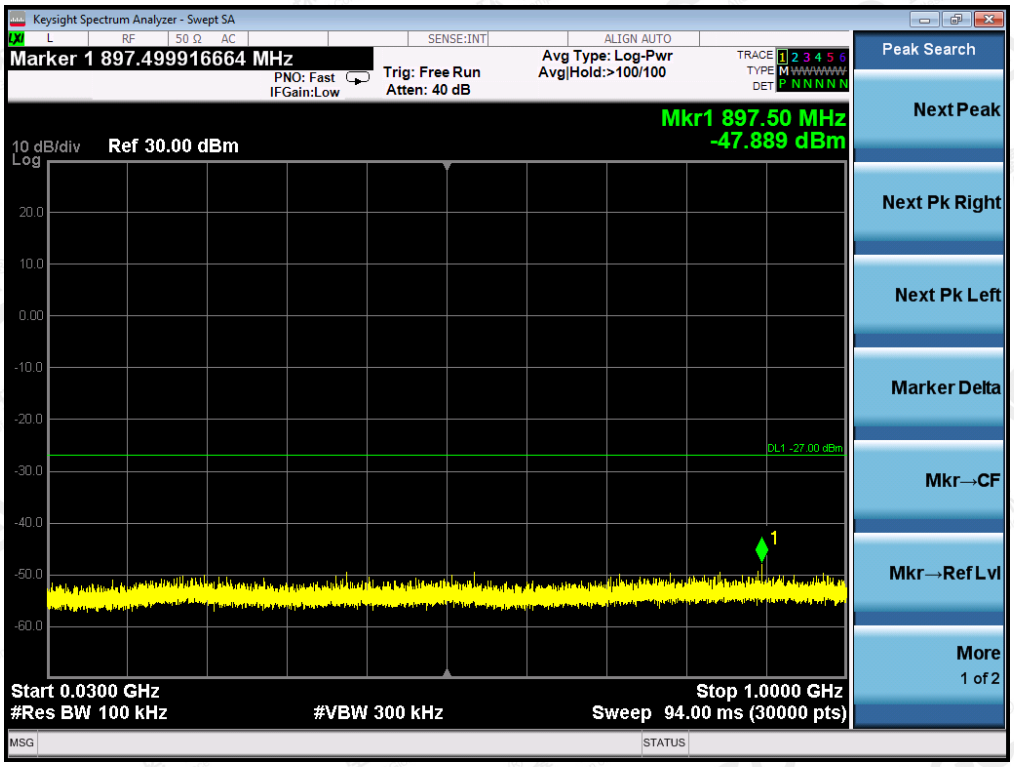


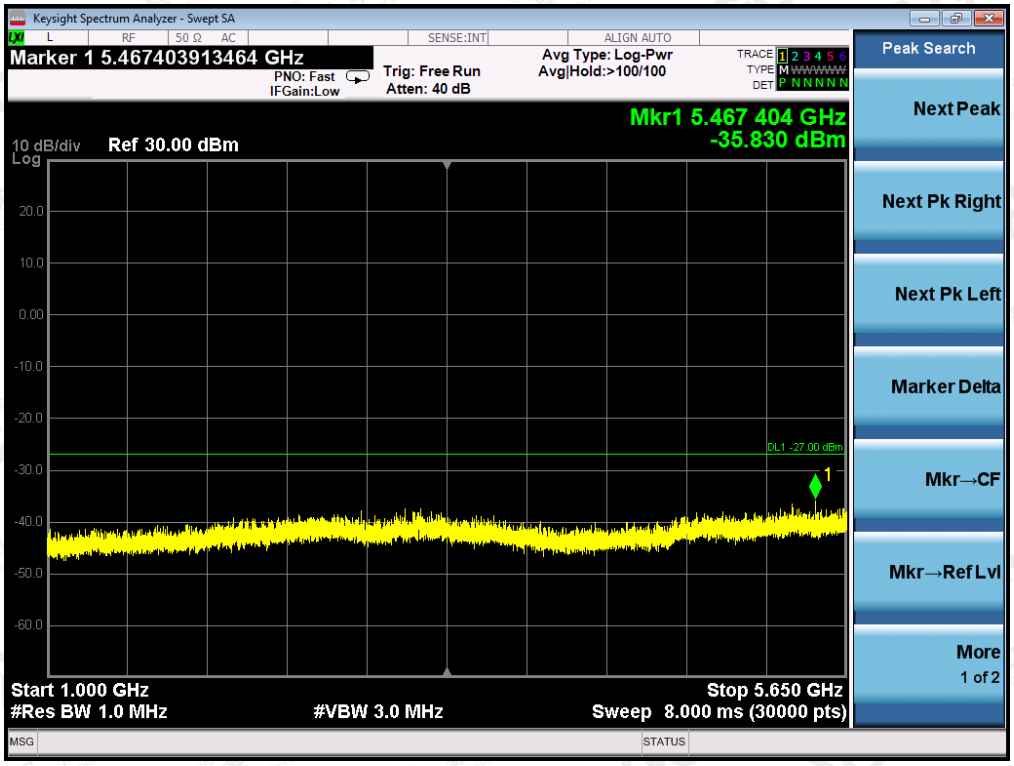
TEST PLOT OF BAND EDGE EMISSION

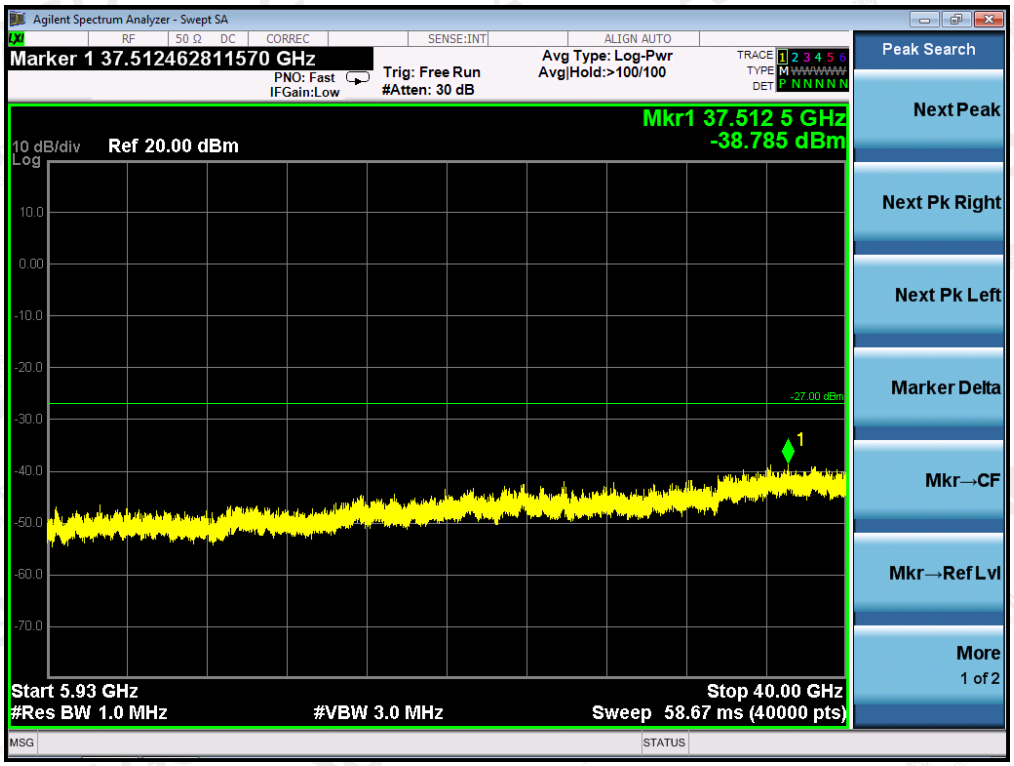


FOR 802.11AC80 MODULATION

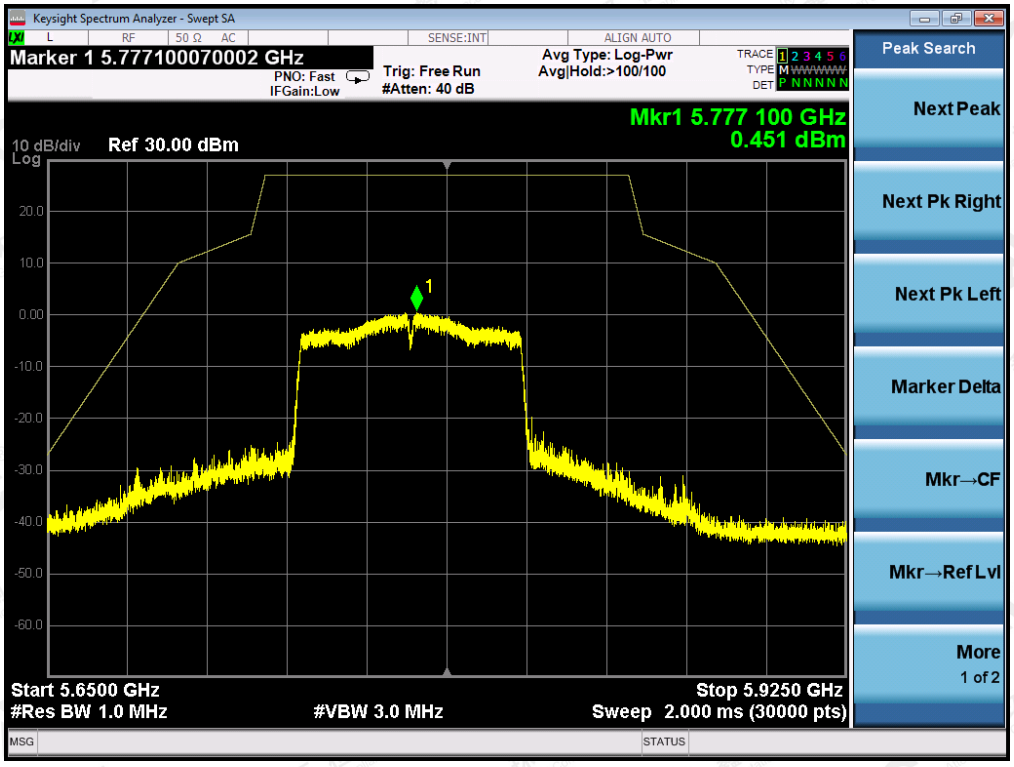
TEST PLOT OF OUT OF BAND EMISSIONS FOR MODULATION IN 5775MHz







TEST PLOT OF BAND EDGE EMISSION



Note: All the 20MHz，40MHz and 80MHz bandwidth modulation had been tested, the 802.11a20/n40/ac80 ant0 was the worst case and record in his test report.

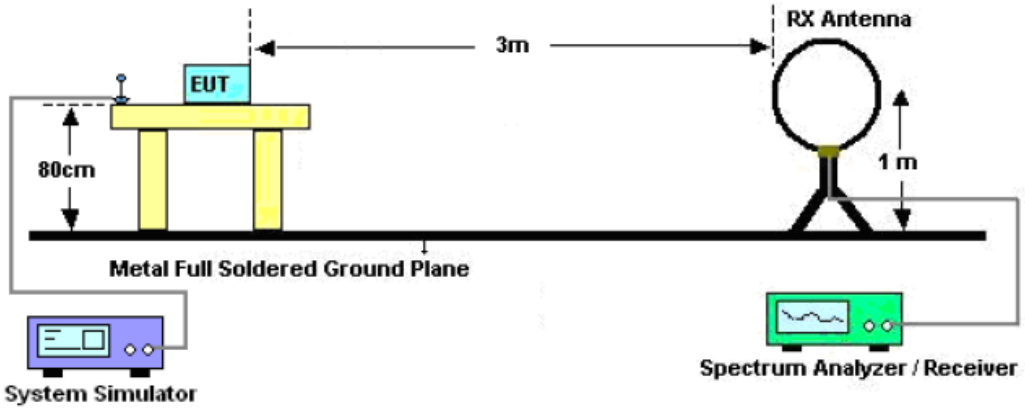
11. RADIATED EMISSION

11.1. MEASUREMENT PROCEDURE

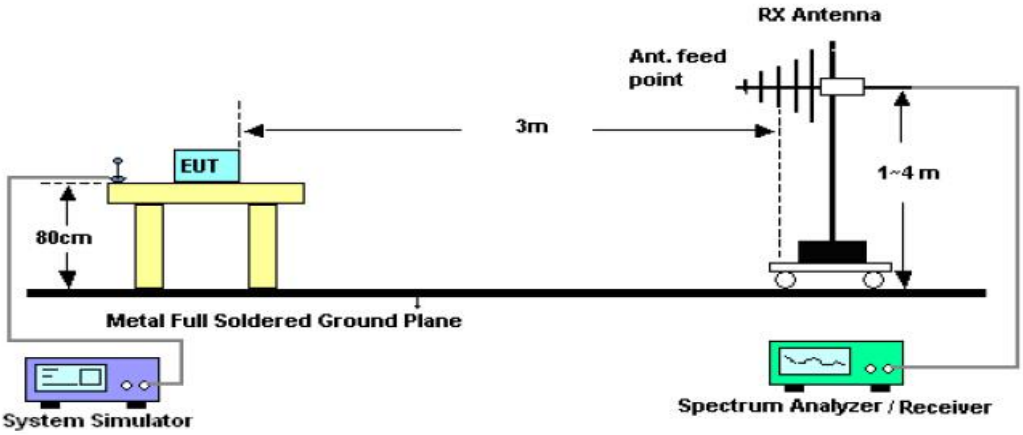
1. The EUT was placed on the top of the turntable 0.8 or 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
6. For emissions above 1GHz, use 1MHz RBW and 3M VBW for peak reading. Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.
7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum values.
8. If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
9. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
10. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High - Low scan is not required in this case.

11.2. TEST SETUP

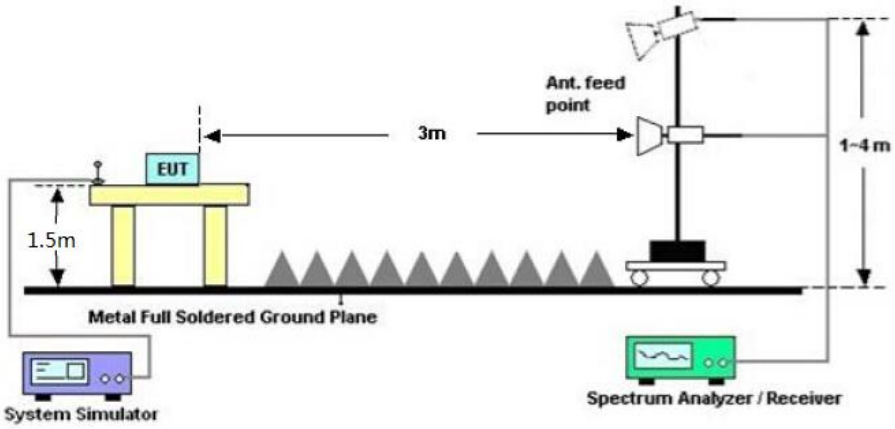
Radiated Emission Test-Setup Frequency Below 30MHz



RADIATED EMISSION TEST SETUP 30MHz-1000MHz



RADIATED EMISSION TEST SETUP ABOVE 1000MHz



11.3. LIMITS AND MEASUREMENT RESULT

15.209(a) Limit in the below table has to be followed

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

Note: All modes were tested For restricted band radiated emission,
the test records reported below are the worst result compared to other modes.

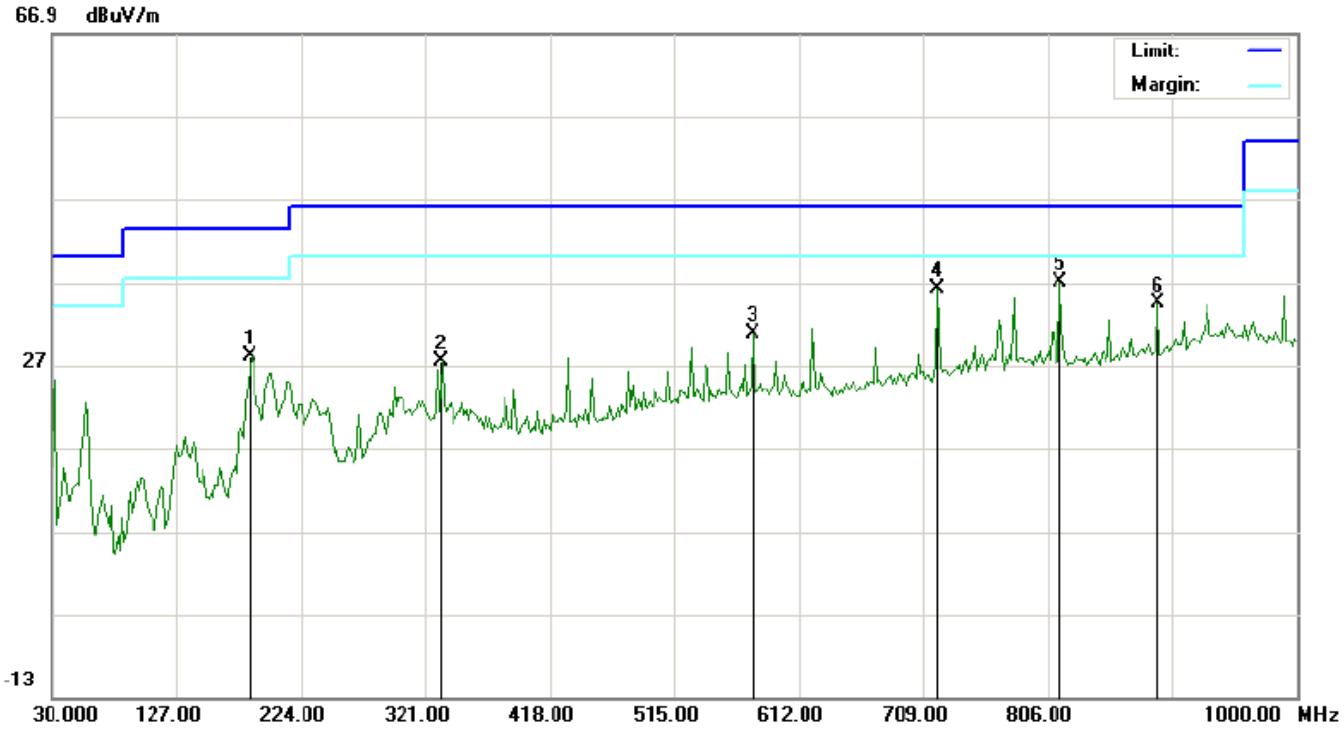
11.4. TEST RESULT

RADIATED EMISSION BELOW 30MHZ

No emission found between lowest internal used/generated frequencies to 30MHz.

RADIATED EMISSION BELOW 1GHZ

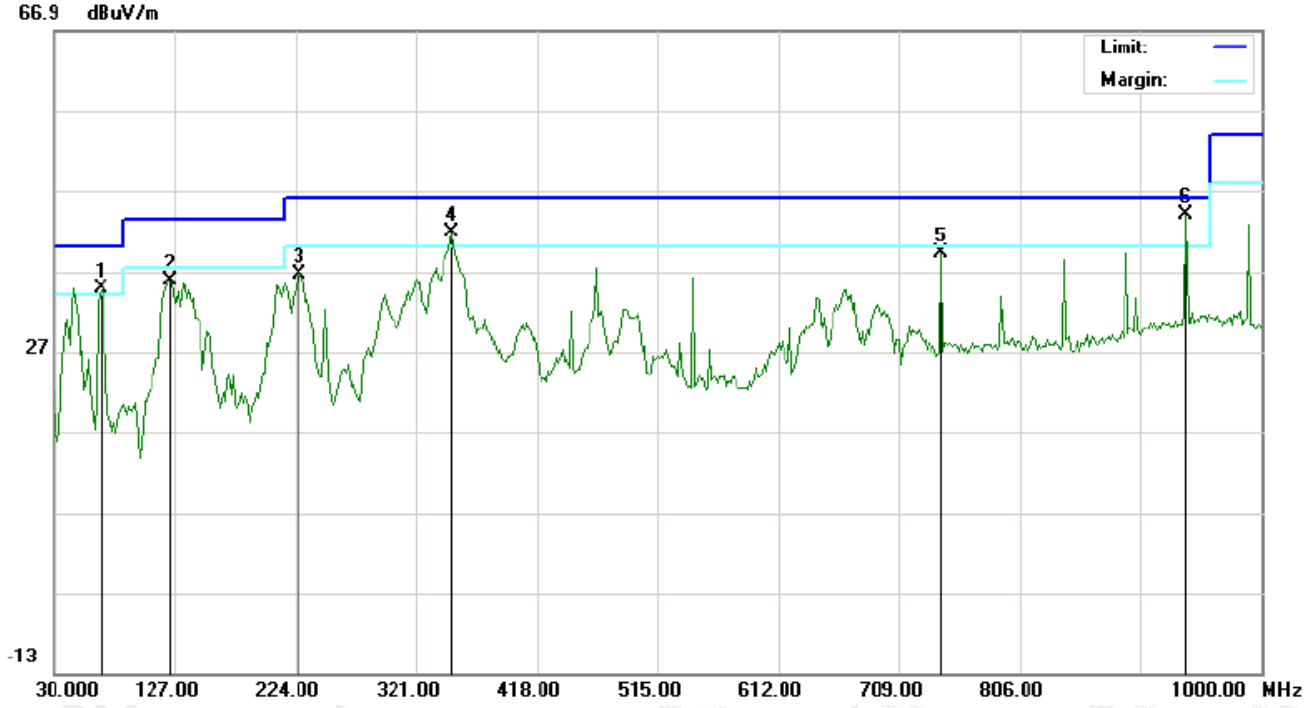
EUT	BODY-WORN CAMERA	Model Name	SV-PRIMAELITE64
Temperature	25℃	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11a20 5745MHz	Antenna	Horizontal



No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		185.1999	16.68	11.31	27.99	43.50	-15.51	peak			
2		333.9332	9.71	17.67	27.38	46.00	-18.62	peak			
3		576.4333	7.58	23.14	30.72	46.00	-15.28	peak			
4		720.3167	10.40	25.79	36.19	46.00	-9.81	peak			
5	*	815.7000	9.66	27.32	36.98	46.00	-9.02	peak			
6		891.6833	6.02	28.39	34.41	46.00	-11.59	peak			

RESULT: PASS

EUT	BODY-WORN CAMERA	Model Name	SV-PRIMAELITE64
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11a20 5745MHz	Antenna	Vertical



No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	!	68.7998	30.15	4.73	34.88	40.00	-5.12	peak			
2		123.7667	27.46	8.43	35.89	43.50	-7.61	peak			
3		227.2333	25.03	11.67	36.70	46.00	-9.30	peak			
4	!	350.1000	22.98	18.74	41.72	46.00	-4.28	peak			
5		742.9500	12.77	26.43	39.20	46.00	-6.80	peak			
6	*	940.1833	14.25	29.73	43.98	46.00	-2.02	peak			

RESULT: PASS

Note: All test channels had been tested. The 802.11a20 at 5745MHz is the worst case and recorded in the test report.

Factor = Antenna Factor + Cable loss - Amplifier gain, Margin= Limit-Level.

The “Factor” value can be calculated automatically by software of measurement system.

RADIATED EMISSION ABOVE 1GHZ

EUT	BODY-WORN CAMERA	Model Name	SV-PRIMAELITE64
Temperature	25℃	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11a20 5745MHz	Antenna	Horizontal/Vertical

RADIATED EMISSION ABOVE 1GHZ–Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
11490.120	43.01	9.42	51.82	74	-22.18	peak
11490.120	39.13	9.42	46.1	54	-7.9	AVG
17235.180	41.58	10.51	49.35	74	-24.65	peak
17235.180	38.45	10.51	44.64	54	-9.36	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

RADIATED EMISSION ABOVE 1GHZ–Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
11490.120	42.18	9.42	51.12	74	-22.88	peak
11490.120	36.15	9.42	44.91	54	-9.09	AVG
17235.180	40.91	10.51	49.07	74	-24.93	peak
17235.180	35.44	10.51	44.36	54	-9.64	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	BODY-WORN CAMERA	Model Name	SV-PRIMAELITE64
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11a20 5785MHz	Antenna	Horizontal/Vertical

RADIATED EMISSION ABOVE 1GHZ–Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
17570.120	40.32	9.42	52.25	74	-21.75	peak
17570.120	36.87	9.42	46.53	54	-7.47	AVG
26355.180	39.15	10.51	49.78	74	-24.22	peak
26355.180	35.21	10.51	45.07	54	-8.93	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

RADIATED EMISSION ABOVE 1GHZ–Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
17570.120	44.15	9.42	51.55	74	-22.45	peak
17570.120	36.02	9.42	45.34	54	-8.66	AVG
26355.180	41.59	10.51	49.5	74	-24.5	peak
26355.180	32.87	10.51	44.79	54	-9.21	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

EUT	BODY-WORN CAMERA	Model Name	SV-PRIMAELITE64
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11a20 5825MHz	Antenna	Horizontal/Vertical

RADIATED EMISSION ABOVE 1GHZ–Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
11650.120	41.58	9.62	49.97	74	-24.03	peak
11650.120	36.19	9.62	44.63	54	-9.37	AVG
17475.180	39.42	10.75	49.64	74	-24.36	peak
17475.180	38.73	10.75	44.87	54	-9.13	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

RADIATED EMISSION ABOVE 1GHZ–Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Value Type
11650.120	41.59	9.62	49.89	74	-24.11	peak
11650.120	36.75	9.62	44.37	54	-9.63	AVG
17475.180	39.81	10.75	48.76	74	-25.24	peak
17475.180	34.11	10.75	44.29	54	-9.71	AVG
Remark:						
Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Note: All the case had been tested. The 802.11a modulation is the worst case and recorded in the test report.

Other frequencies radiation emission from 1GHz to 40GHz at least have 20dB margin and not recorded in the test report.

Factor = Antenna Factor + Cable loss - Amplifier gain, Margin= Limit-Level.

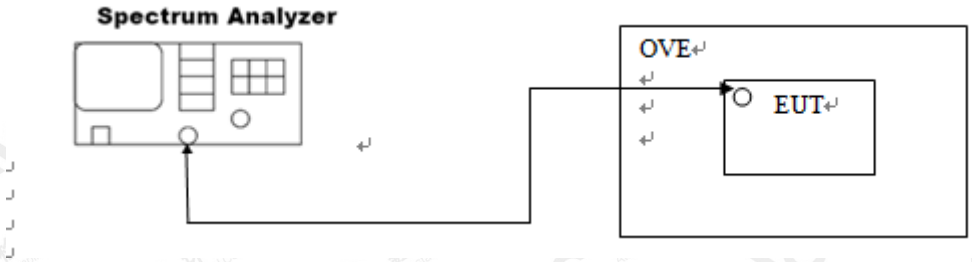
The “Factor” value can be calculated automatically by software of measurement system.

12. FREQUENCY STABILITY

12.1. MEASUREMENT PROCEDURE

1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
2. Set the EUT Work on the operation frequency.
3. Set SPA Centre Frequency = Operation Frequency. SPAN=enough to measure the emission is maintained within the band
4. Set SPA Trace 1 Max hold, then View.
5. Extreme temperature rule is -20°C~60°C.

12.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)



12.3. MEASUREMENT RESULTS

Test Mode	Temperature	Measurement Frequency (MHz)	Result	Conclusion
802.11a	- 10℃	5745	within the band	PASS
	0℃	5745	within the band	PASS
	10℃	5745	within the band	PASS
	20℃	5745	within the band	PASS
	30℃	5745	within the band	PASS
	40℃	5745	within the band	PASS
	50℃	5745	within the band	PASS
	- 10℃	5785	within the band	PASS
	0℃	5785	within the band	PASS
	10℃	5785	within the band	PASS
	20℃	5785	within the band	PASS
	30℃	5785	within the band	PASS
	40℃	5785	within the band	PASS
	50℃	5785	within the band	PASS
	- 10℃	5825	within the band	PASS
	0℃	5825	within the band	PASS
	10℃	5825	within the band	PASS
	20℃	5825	within the band	PASS
	30℃	5825	within the band	PASS
	40℃	5825	within the band	PASS
	50℃	5825	within the band	PASS

Test Mode	Temperature	Measurement Frequency (MHz)	Result	Conclusion
802.11n20	- 10℃	5745	within the band	PASS
	0℃	5745	within the band	PASS
	10℃	5745	within the band	PASS
	20℃	5745	within the band	PASS
	30℃	5745	within the band	PASS
	40℃	5745	within the band	PASS
	50℃	5745	within the band	PASS
	- 10℃	5785	within the band	PASS
	0℃	5785	within the band	PASS
	10℃	5785	within the band	PASS
	20℃	5785	within the band	PASS
	30℃	5785	within the band	PASS
	40℃	5785	within the band	PASS
	50℃	5785	within the band	PASS
	- 10℃	5825	within the band	PASS
	0℃	5825	within the band	PASS
	10℃	5825	within the band	PASS
	20℃	5825	within the band	PASS
	30℃	5825	within the band	PASS
	40℃	5825	within the band	PASS
	50℃	5825	within the band	PASS

Test Mode	Temperature	Measurement Frequency (MHz)	Result	Conclusion
802.11n40	- 10℃	5755	within the band	PASS
	0℃	5755	within the band	PASS
	10℃	5755	within the band	PASS
	20℃	5755	within the band	PASS
	30℃	5755	within the band	PASS
	40℃	5755	within the band	PASS
	50℃	5755	within the band	PASS
	- 10℃	5795	within the band	PASS
	0℃	5795	within the band	PASS
	10℃	5795	within the band	PASS
	20℃	5795	within the band	PASS
	30℃	5795	within the band	PASS
	40℃	5795	within the band	PASS
	50℃	5795	within the band	PASS

Test Mode	Temperature	Measurement Frequency (MHz)	Result	Conclusion
802.11ac20	- 10℃	5745	within the band	PASS
	0℃	5745	within the band	PASS
	10℃	5745	within the band	PASS
	20℃	5745	within the band	PASS
	30℃	5745	within the band	PASS
	40℃	5745	within the band	PASS
	50℃	5745	within the band	PASS
	- 10℃	5785	within the band	PASS
	0℃	5785	within the band	PASS
	10℃	5785	within the band	PASS
	20℃	5785	within the band	PASS
	30℃	5785	within the band	PASS
	40℃	5785	within the band	PASS
	50℃	5785	within the band	PASS
	- 10℃	5825	within the band	PASS
	0℃	5825	within the band	PASS
	10℃	5825	within the band	PASS
	20℃	5825	within the band	PASS
	30℃	5825	within the band	PASS
	40℃	5825	within the band	PASS
	50℃	5825	within the band	PASS

Test Mode	Temperature	Measurement Frequency (MHz)	Result	Conclusion
802.11ac40	- 10℃	5755	within the band	PASS
	0℃	5755	within the band	PASS
	10℃	5755	within the band	PASS
	20℃	5755	within the band	PASS
	30℃	5755	within the band	PASS
	40℃	5755	within the band	PASS
	50℃	5755	within the band	PASS
	- 10℃	5795	within the band	PASS
	0℃	5795	within the band	PASS
	10℃	5795	within the band	PASS
	20℃	5795	within the band	PASS
	30℃	5795	within the band	PASS
	40℃	5795	within the band	PASS
	50℃	5795	within the band	PASS

Test Mode	Temperature	Measurement Frequency (MHz)	Result	Conclusion
802.11ac80	- 10℃	5775	within the band	PASS
	0℃	5775	within the band	PASS
	10℃	5775	within the band	PASS
	20℃	5775	within the band	PASS
	30℃	5775	within the band	PASS
	40℃	5775	within the band	PASS
	50℃	5775	within the band	PASS

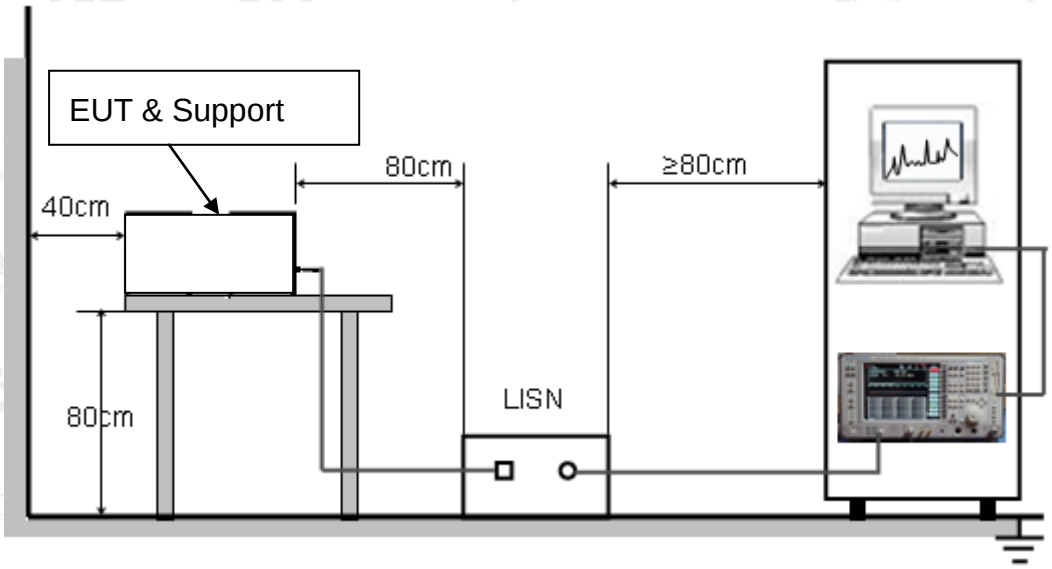
13. FCC LINE CONDUCTED EMISSION TEST

13.1. LIMITS OF LINE CONDUCTED EMISSION TEST

Frequency	Maximum RF Line Voltage	
	Q.P.(dBuV)	Average(dBuV)
150kHz~500kHz	66-56	56-46
500kHz~5MHz	56	46
5MHz~30MHz	60	50

Note:
1. The lower limit shall apply at the transition frequency.
2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50MHz.

13.2. BLOCK DIAGRAM OF LINE CONDUCTED EMISSION TEST



13.3. PRELIMINARY PROCEDURE OF LINE CONDUCTED EMISSION TEST

1. The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.
2. Support equipment, if needed, was placed as per ANSI C63.10.
3. All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.
4. All support equipments received AC120V/60Hz power from a LISN, if any.
5. The EUT received charging voltage by adapter which received 120V/60Hzpower by a LISN.
6. The test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
7. Analyzer / Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.
8. During the above scans, the emissions were maximized by cable manipulation.
9. The test mode(s) were scanned during the preliminary test.

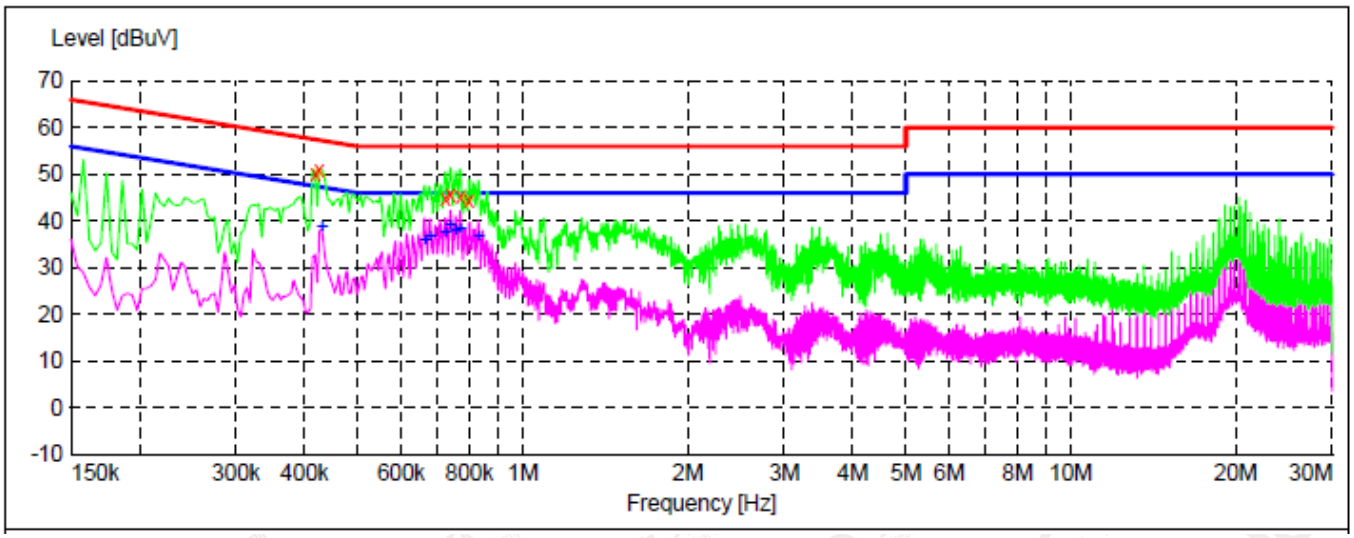
Then, the EUT configuration and cable configuration of the above highest emission level were recorded for reference of final testing.

13.4. FINAL PROCEDURE OF LINE CONDUCTED EMISSION TEST

1. EUT and support equipment was set up on the test bench as per step 2 of the preliminary test.
2. A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. If EUT emission level was less –2dB to the A.V. limit in Peak mode, then the emission signal was re-checked using Q.P and Average detector.
3. The test data of the worst case condition(s) was reported on the Summary Data page.

13.5. TEST RESULT OF LINE CONDUCTED EMISSION TEST

LINE CONDUCTED EMISSION TEST-L



MEASUREMENT RESULT:

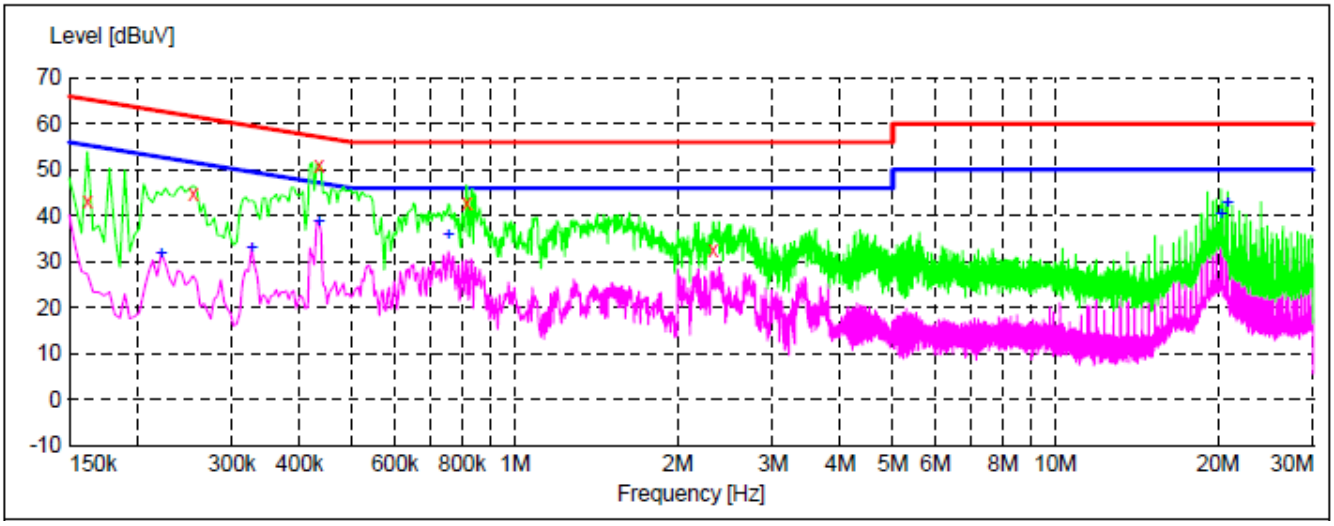
Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.418000	50.10	11.4	58	7.4	QP	L1	FLO
0.426000	50.80	11.4	57	6.5	QP	L1	FLO
0.722000	44.80	11.4	56	11.2	QP	L1	FLO
0.738000	45.80	11.4	56	10.2	QP	L1	FLO
0.770000	45.40	11.4	56	10.6	QP	L1	FLO
0.798000	44.50	11.4	56	11.5	QP	L1	FLO

MEASUREMENT RESULT:

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.430000	38.60	11.4	47	8.7	AV	L1	FLO
0.662000	35.60	11.4	46	10.4	AV	L1	FLO
0.678000	36.50	11.4	46	9.5	AV	L1	FLO
0.722000	37.30	11.4	46	8.7	AV	L1	FLO
0.738000	39.00	11.4	46	7.0	AV	L1	FLO
0.754000	37.80	11.4	46	8.2	AV	L1	FLO
0.770000	38.40	11.4	46	7.6	AV	L1	FLO
0.830000	36.50	11.3	46	9.5	AV	L1	FLO

RESULT: PASS

LINE CONDUCTED EMISSION TEST-N



MEASUREMENT RESULT:

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.162000	43.20	11.4	65	22.2	QP	N	FLO
0.254000	44.70	11.3	62	16.9	QP	N	FLO
0.434000	50.80	11.4	57	6.4	QP	N	FLO
0.814000	42.80	11.4	56	13.2	QP	N	FLO
2.326000	32.40	11.3	56	23.6	QP	N	FLO

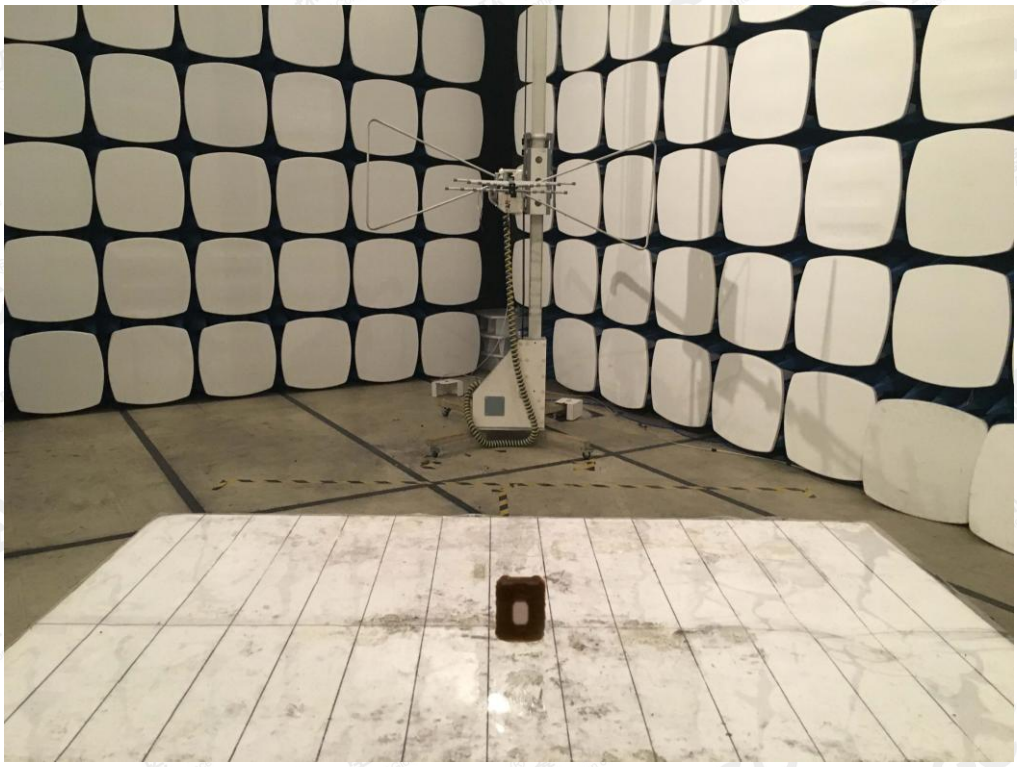
MEASUREMENT RESULT:

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.222000	31.80	11.4	53	20.9	AV	N	FLO
0.326000	33.00	11.3	50	16.6	AV	N	FLO
0.434000	38.70	11.4	47	8.5	AV	N	FLO
0.754000	35.90	11.4	46	10.1	AV	N	FLO
20.258000	40.40	10.9	50	9.6	AV	N	FLO
20.822000	42.70	10.9	50	7.3	AV	N	FLO

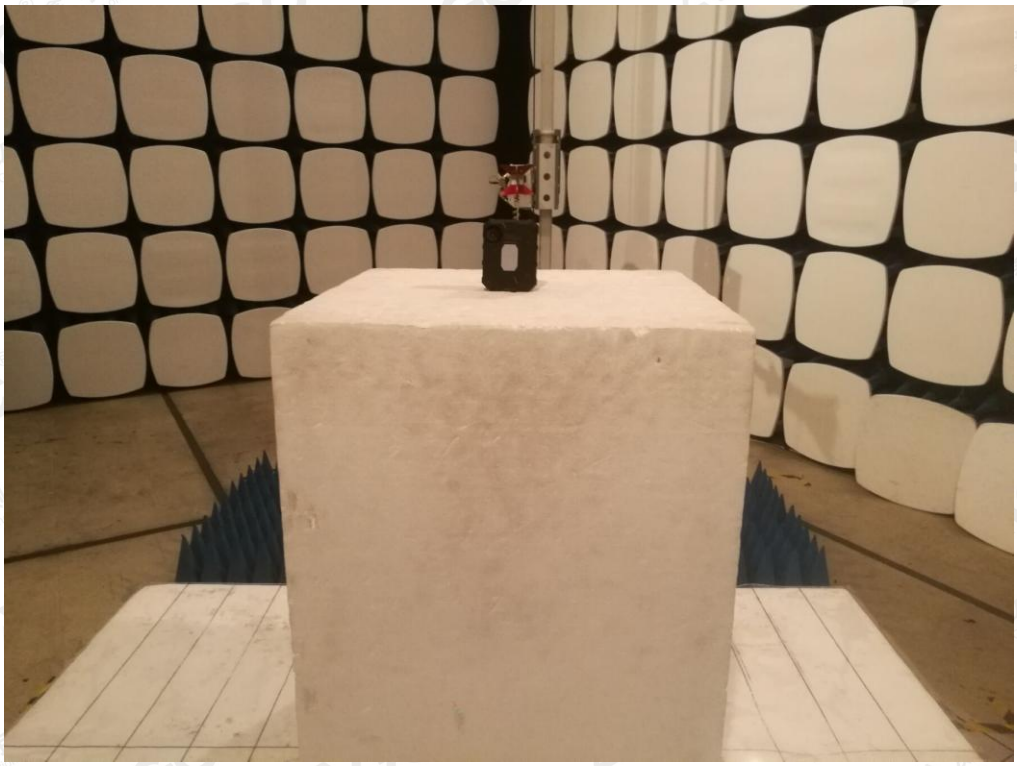
RESULT: PASS

APPENDIX A: PHOTOGRAPHS OF TEST SETUP

FCC RADIATED EMISSION TEST SETUP BELOW 1GHZ



FCC RADIATED EMISSION TEST SETUP ABOVE 1GHZ



FCC CONDUCTED EMISSION TEST SETUP

----END OF REPORT----