



6.4. POWER SPECTRAL DENSITY

LIMITS

CFR 47 FCC Part15, Subpart E ISED RSS-247		
Test Item	Limit	Frequency Range (MHz)
Power Spectral Density	For FCC: Other than Mobile and portable:17dBm/MHz Mobile and portable:11dBm/MHz	5150-5250
	For RSS:10dBm/MHz	
	11dBm/MHz	5250-5350
	11dBm/MHz	For FCC:5470-5725 For IC:5470-5600 5650-5725
	30dBm/500kHz	5725-5850

Note: If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.



TEST PROCEDURE

Connect the UUT to the spectrum analyser and use the following settings:

For U-NII-1, U-NII-2A and U-NII-2C band:

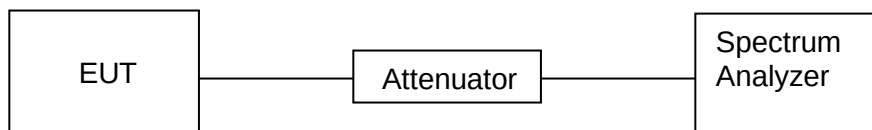
Center Frequency	The center frequency of the channel under test
Detector	RMS
RBW	1MHz
VBW	$\geq 3 \times \text{RBW}$
Span	Encompass the entire emissions bandwidth (EBW) of the signal
Trace	Max hold
Sweep time	Auto

For U-NII-3:

Center Frequency	The center frequency of the channel under test
Detector	RMS
RBW	500KHz
VBW	$\geq 3 \times \text{RBW}$
Span	Encompass the entire emissions bandwidth (EBW) of the signal
Trace	Max hold
Sweep time	Auto

Allow trace to fully stabilize and use the peak marker function to determine the maximum amplitude level within the RBW.

TEST SETUP



TEST ENVIRONMENT

Temperature	24.5°C	Relative Humidity	58%
Atmosphere Pressure	101kPa	Test Voltage	AC120V

RESULTS



6.4.1. UNII-1 BAND

Mode	Frequency (MHz)	Chain	Conducted PSD (dBm)		Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
			Single	Total			
a	5180	A	\		\	\	\
		B	-4.785		11	-3.785	11
	5200	A	\		\	\	\
		B	2.746		11	3.746	11
	5240	A	\		\	\	\
		B	-3.979		11	-2.979	11
n HT20	5180	A	-4.738	-1.57	11	-0.57	11
		B	-4.430				
	5200	A	1.956	5.07	11	6.07	11
		B	2.148				
	5240	A	-4.956	-1.63	11	-1.63	11
		B	-4.336				
ac HT20	5180	A	-4.942	-1.82	11	-0.82	11
		B	-4.714				
	5200	A	1.713	4.76	11	5.76	11
		B	1.788				
	5240	A	-5.018	-1.68	11	-0.68	11
		B	-4.389				
n HT40	5190	A	-6.560	-3.47	11	-2.47	11
		B	-6.398				
	5230	A	-6.348	-3.21	11	-2.21	11
		B	-6.102				
ac HT40	5190	A	-6.511	-3.44	11	-2.44	11
		B	-6.393				
	5230	A	-6.432	-3.28	11	-2.28	11
		B	-6.155				
ac HT80	5210	A	-7.801	-5.13	11	-4.13	11
		B	-8.503				

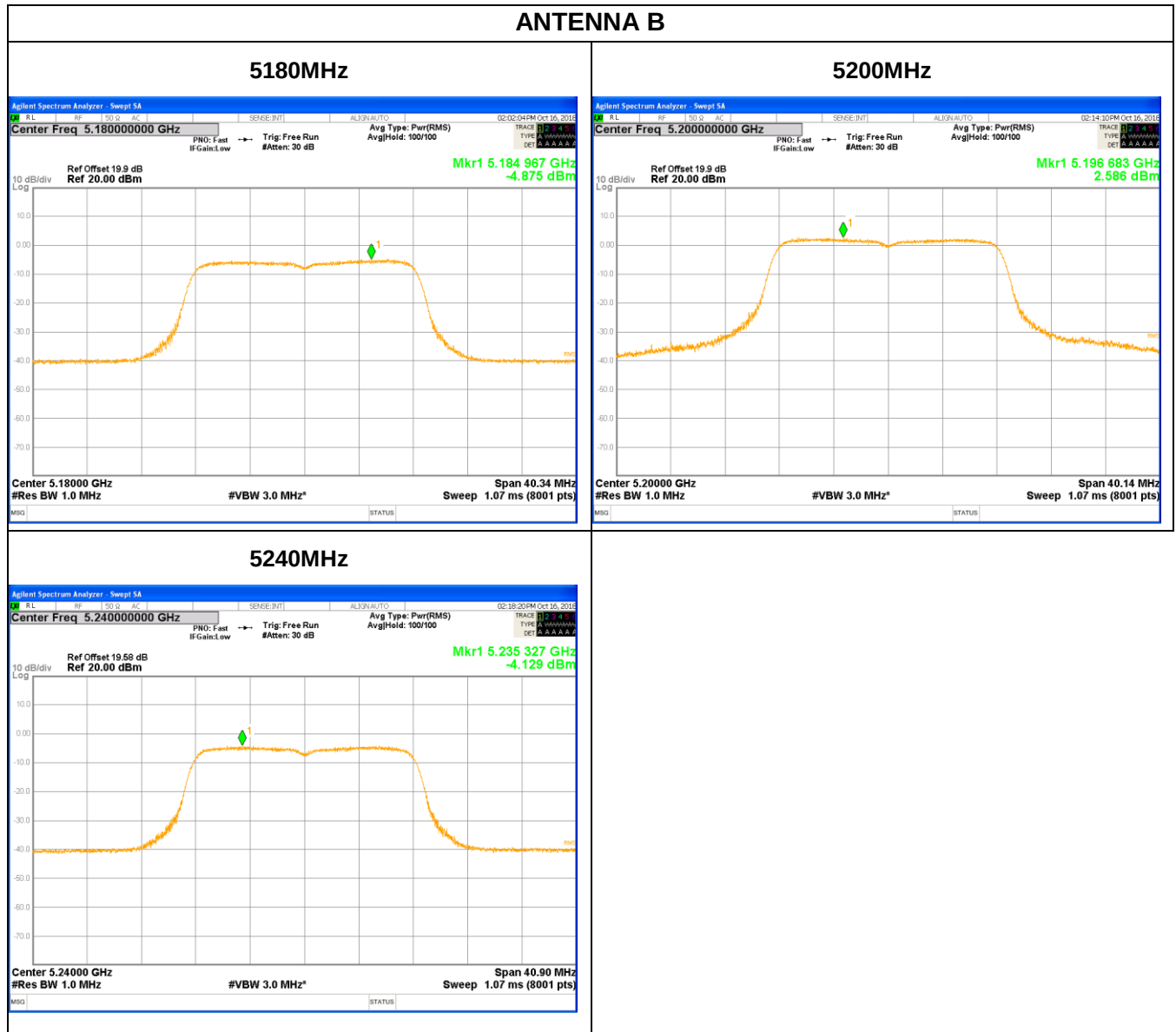
Note: 1.PSD= TEST PLOT Value + 10 log (1/x), where x is the duty cycle.
2.About correction Factor please refer to section 6.1.
3.The EUT only support SISO mode for a, all the antenna had been tested, but only the worst data recorded in the report.



TEST PLOT

802.11a

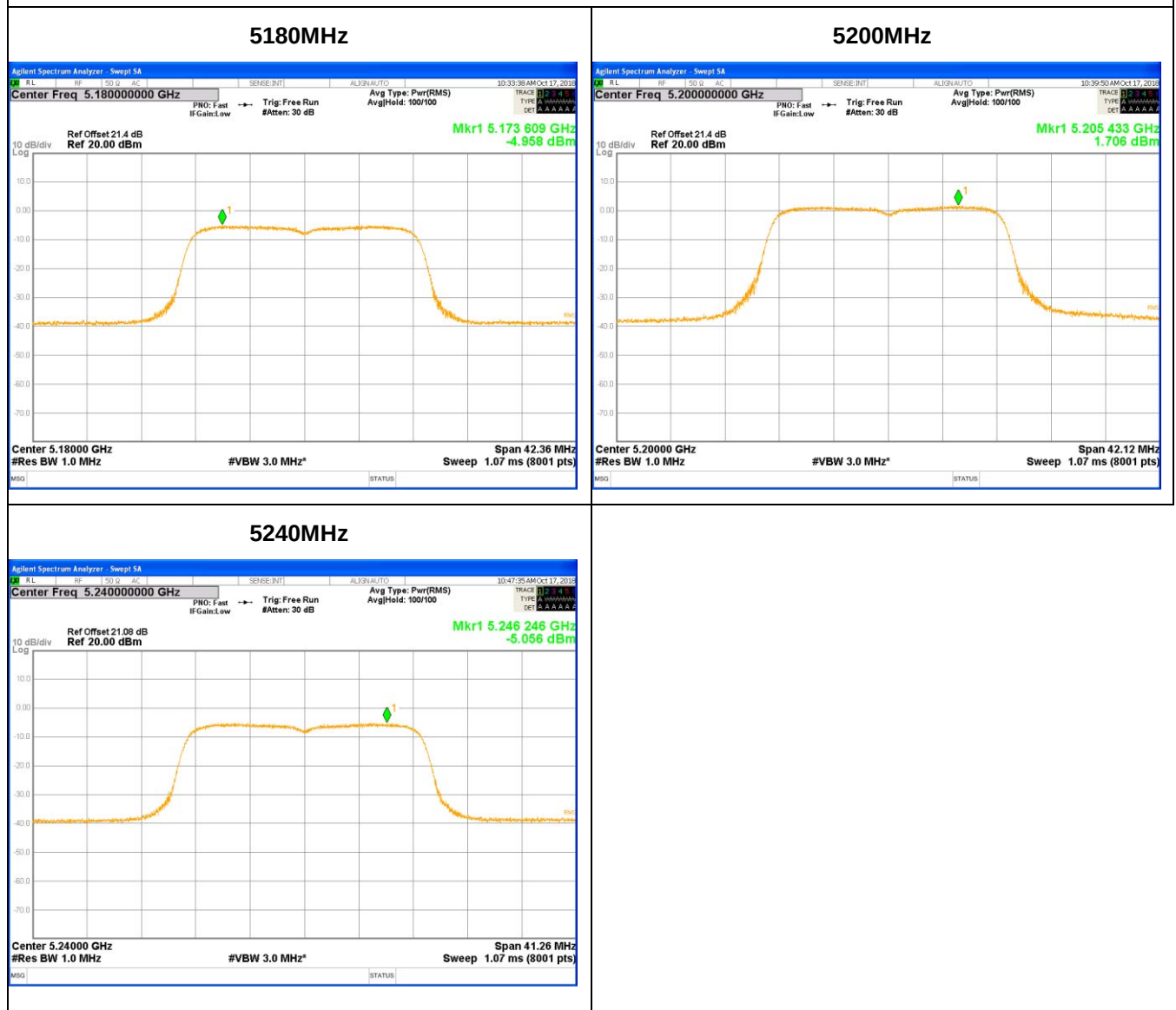
ANTENNA B





802.n HT20

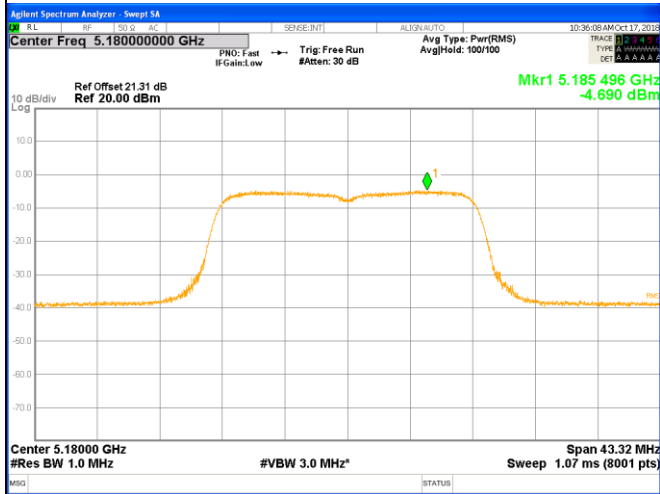
ANTENNA A



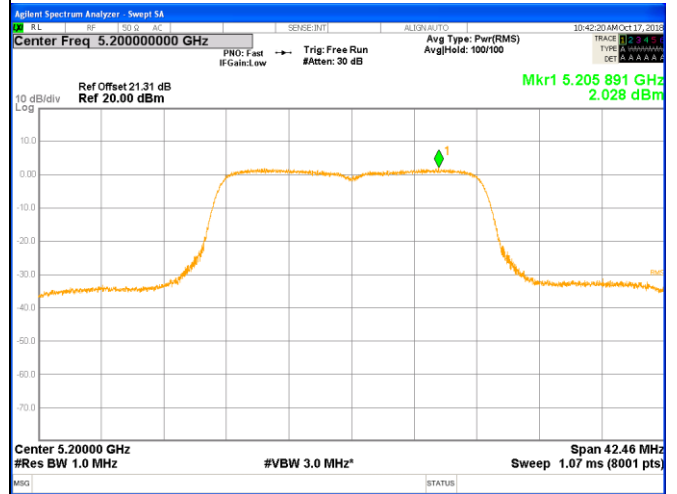


ANTENNA B

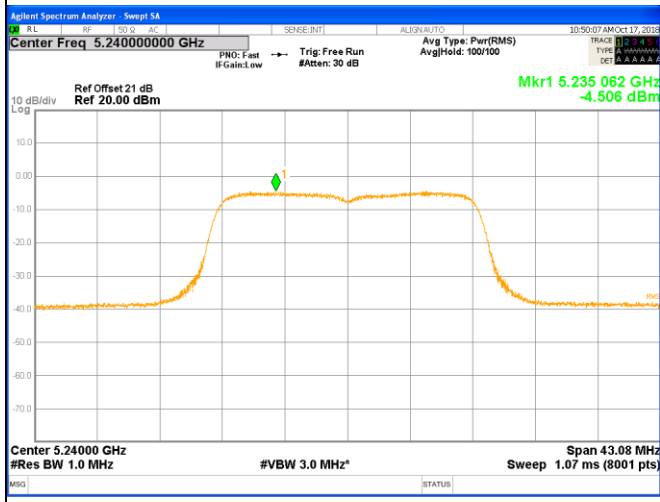
5180MHz



5200MHz



5240MHz

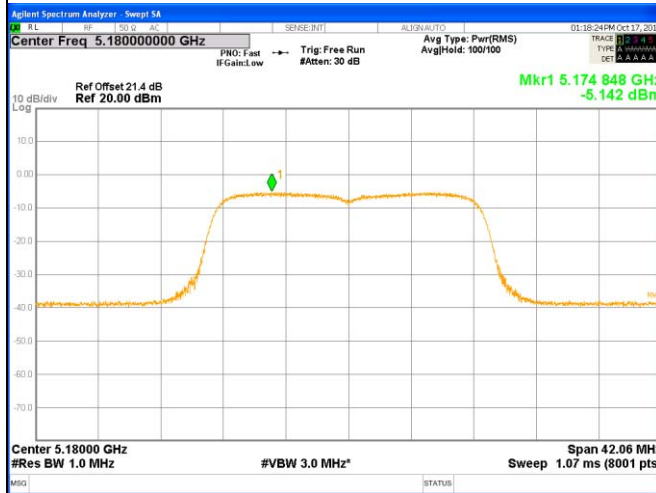




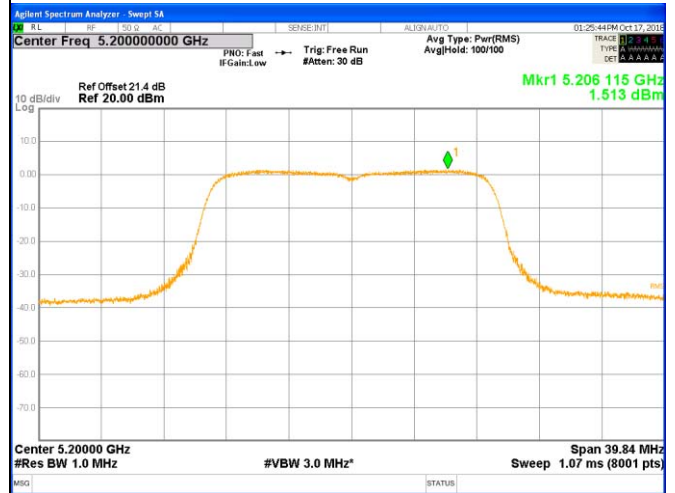
802.11ac HT20

ANTENNA A

5180MHz



5200MHz



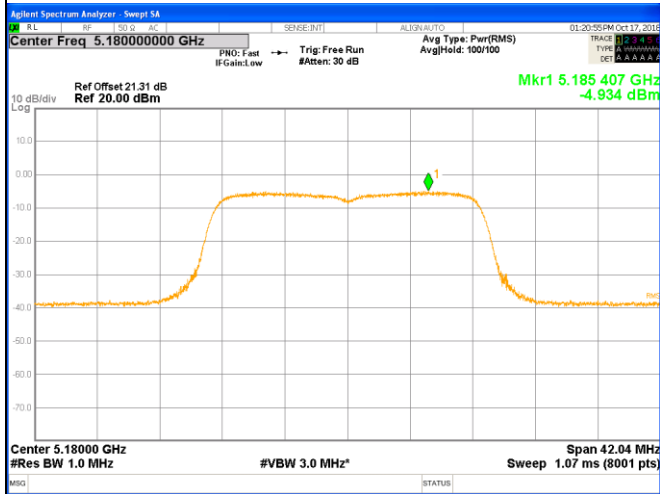
5240MHz



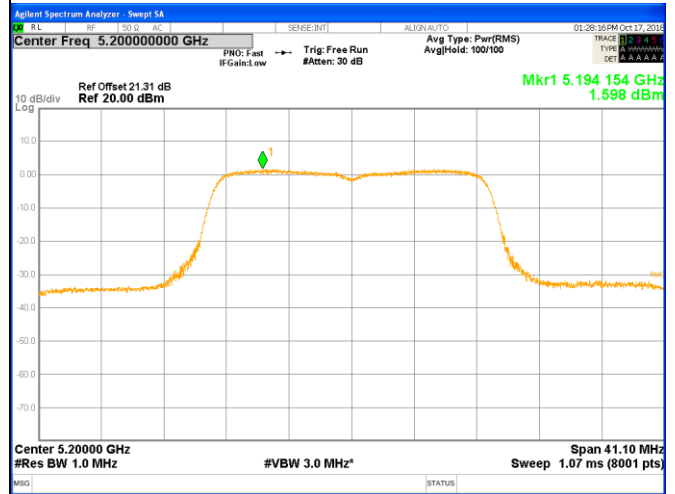


ANTENNA B

5180MHz



5200MHz



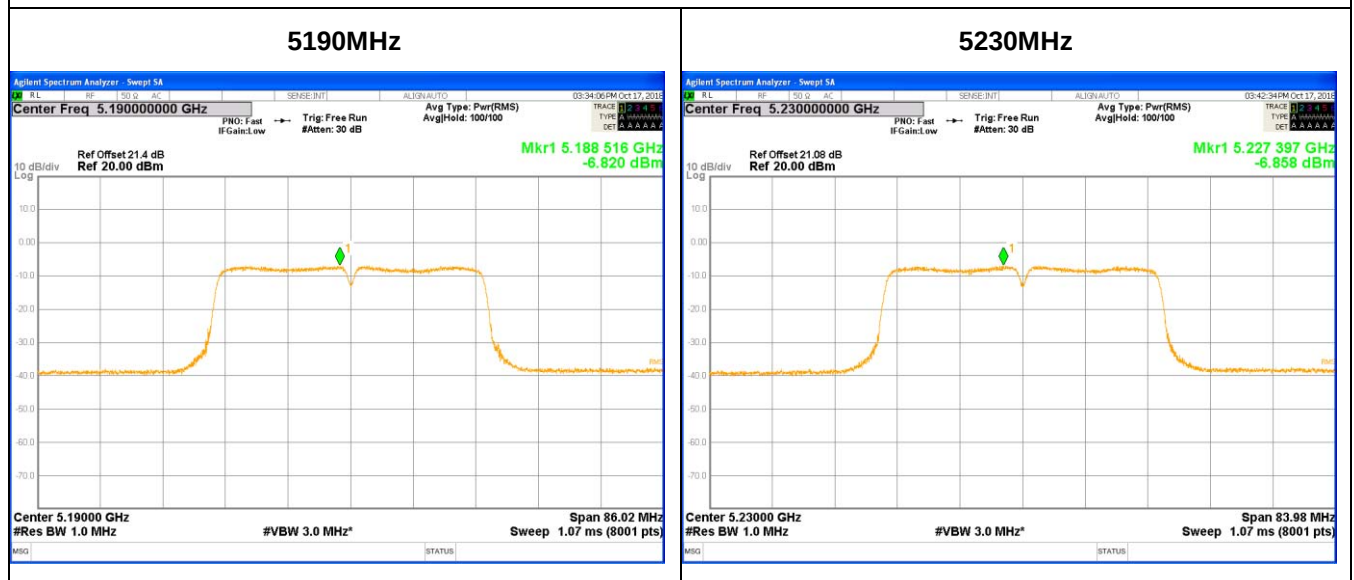
5240MHz



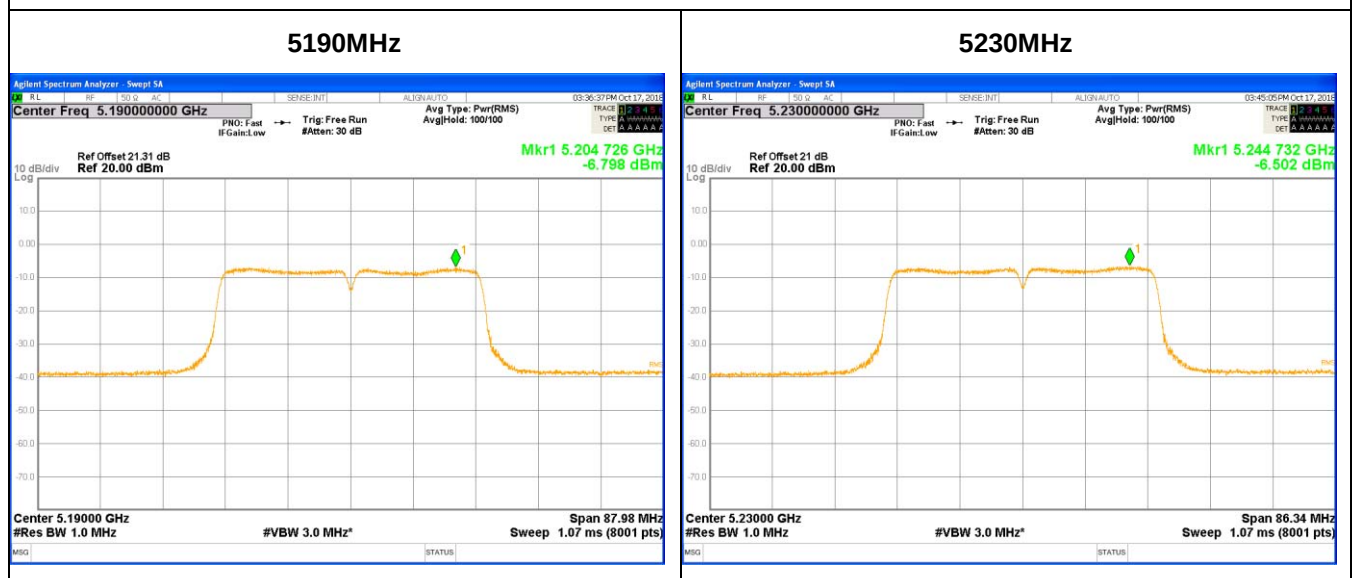


802.n HT40

ANTENNA A



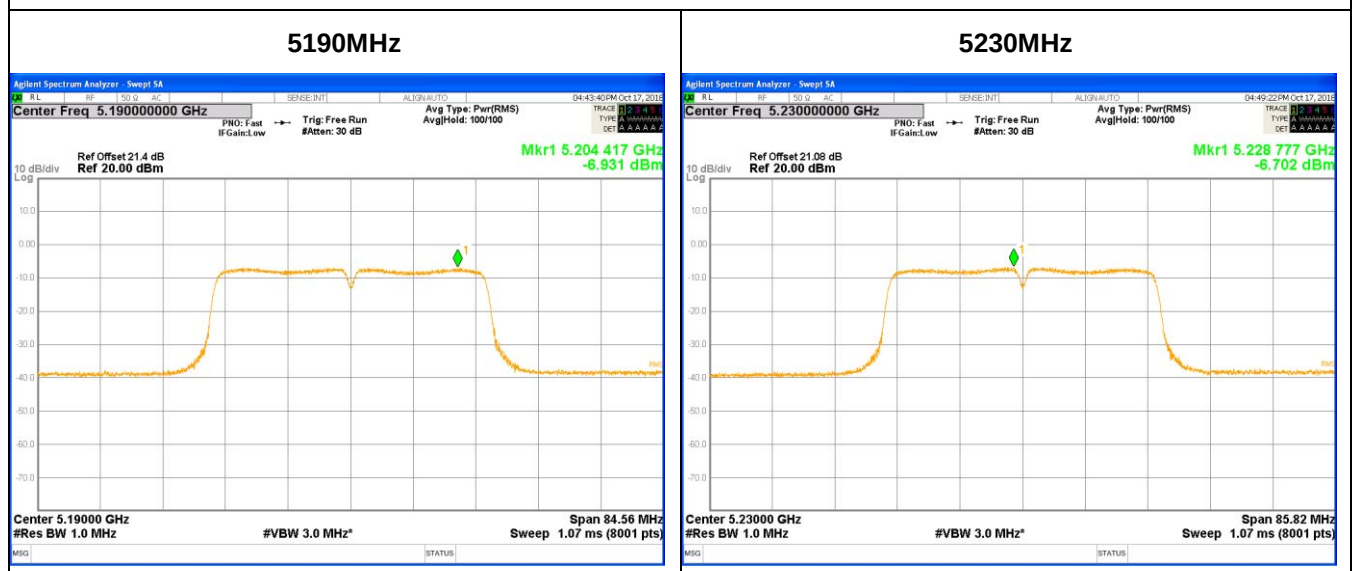
ANTENNA B





802.ac HT40

ANTENNA A

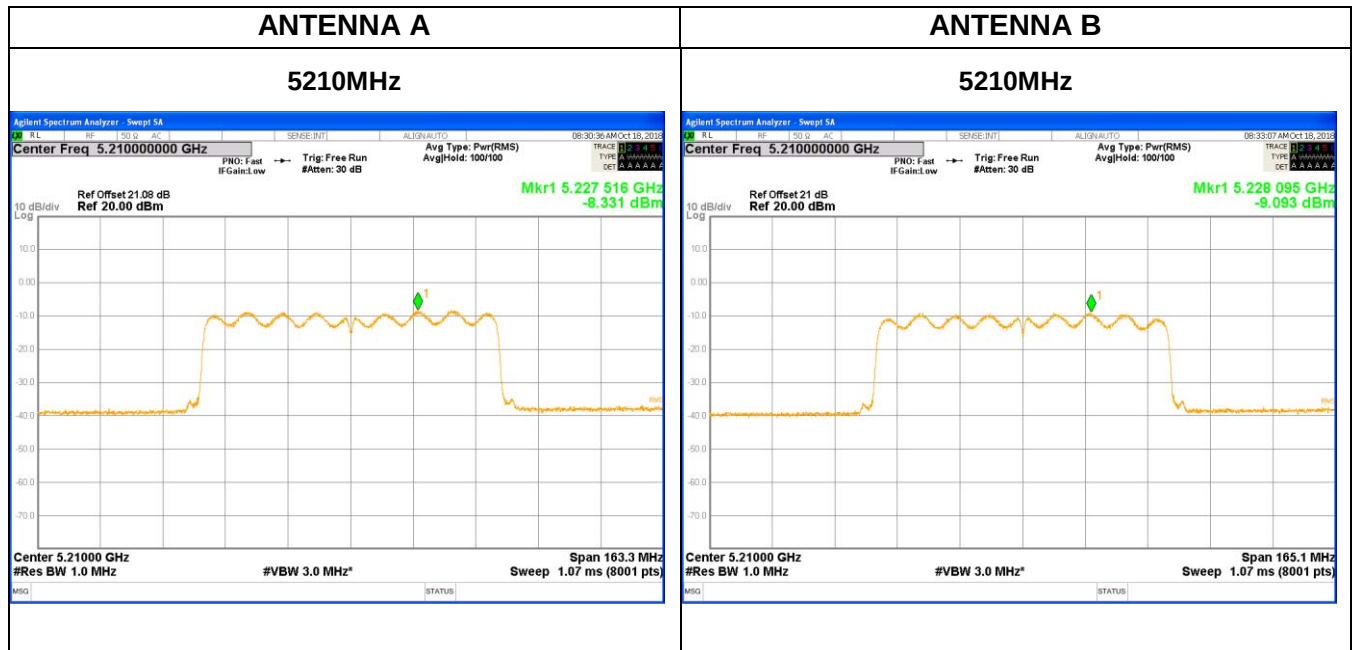


ANTENNA B





802.ac HT80





6.4.1. UNII-2A BAND

Mode	Frequency (MHz)	Chain	Conducted PSD (dBm)		Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
			Single	Total			
a	5260	A	\		\	\	\
		B	-3.657		11	-2.657	10
	5280	A	\		\	\	\
		B	2.939		11	3.939	10
	5320	A	\		\	\	\
		B	-2.825		11	-1.825	10
n HT20	5260	A	-3.779	-1.15	11	-0.15	10
		B	-4.581				
	5280	A	2.412	5.64	11	6.64	10
		B	2.832				
	5320	A	-3.321	-0.49	11	0.51	10
		B	-3.692				
ac HT20	5260	A	-4.369	-1.45	11	-0.45	10
		B	-4.556				
	5280	A	2.419	5.61	11	6.61	10
		B	2.768;				
	5320	A	-3.435	-0.46	11	0.54	10
		B	-3.509				
n HT40	5270	A	-5.403	-2.88	11	-1.88	10
		B	-6.450				
	5310	A	-4.801	-2.24	11	-1.24	10
		B	-5.743				
ac HT40	5270	A	-5.187	-2.72	11	-1.72	10
		B	-6.353				
	5310	A	-4.907	-2.17	11	-1.17	10
		B	-5.467				
ac HT80	5290	A	-7.258	-4.30	11	-3.30	10
		B	-7.367				

Note: 1.PSD= TEST PLOT Value + 10 log (1/x), where x is the duty cycle.

2.About correction Factor please refer to section 6.1.

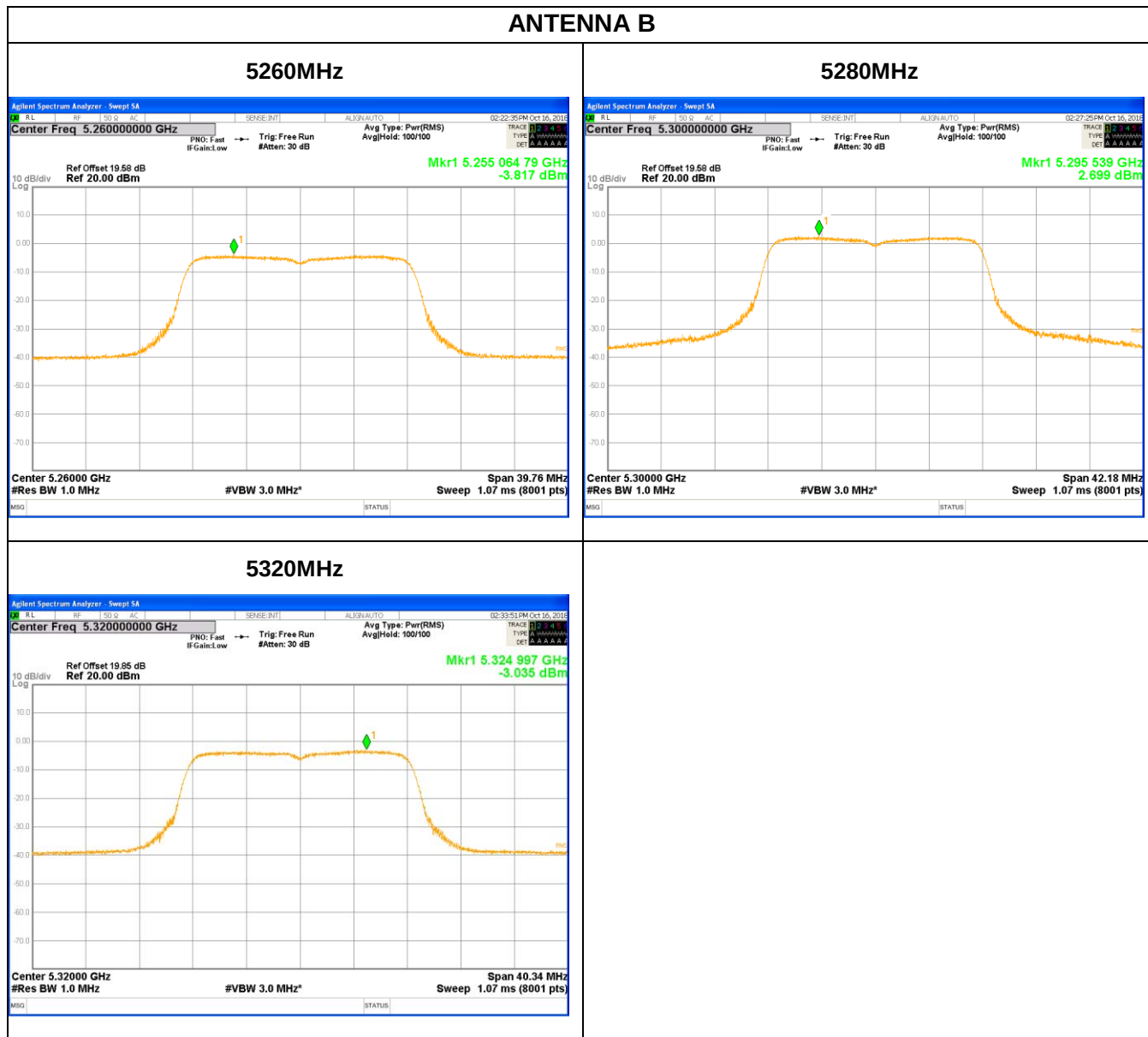
3.The EUT only support SISO mode for a, all the antenna had been tested, but only the worst data recorded in the report.



TEST PLOT

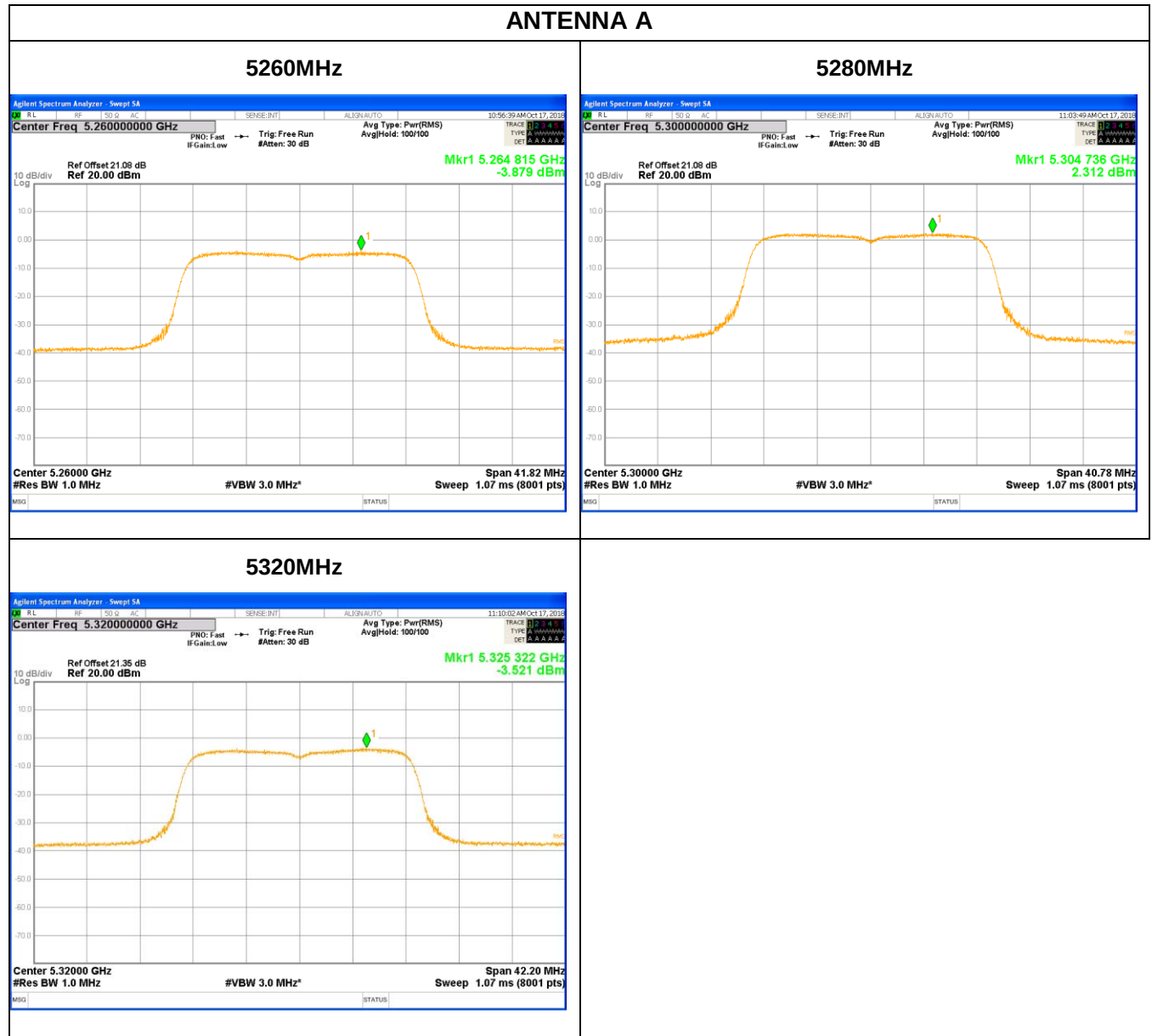
802.11a

ANTENNA B





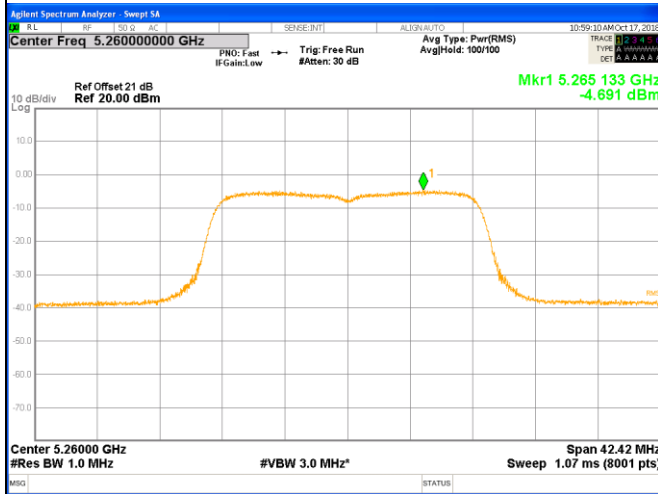
802.n HT20



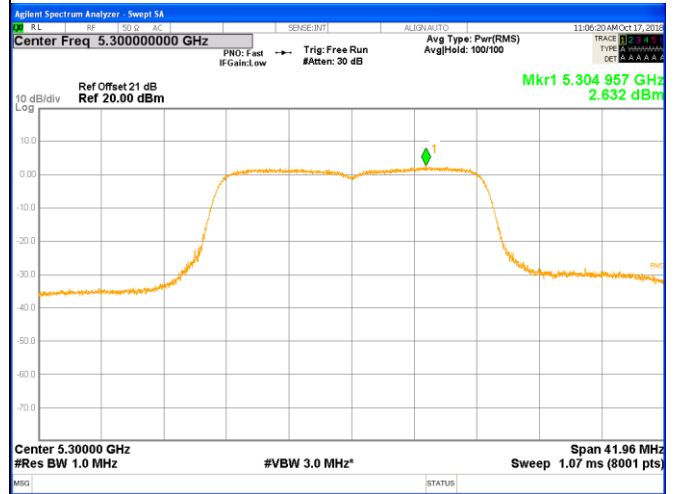


ANTENNA B

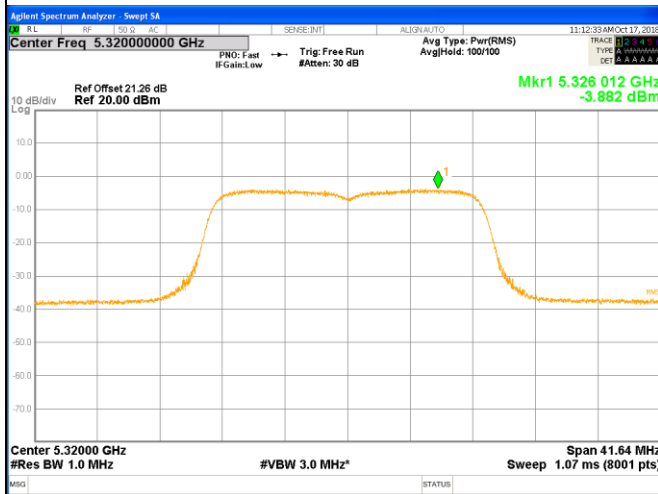
5260MHz



5280MHz



5320MHz

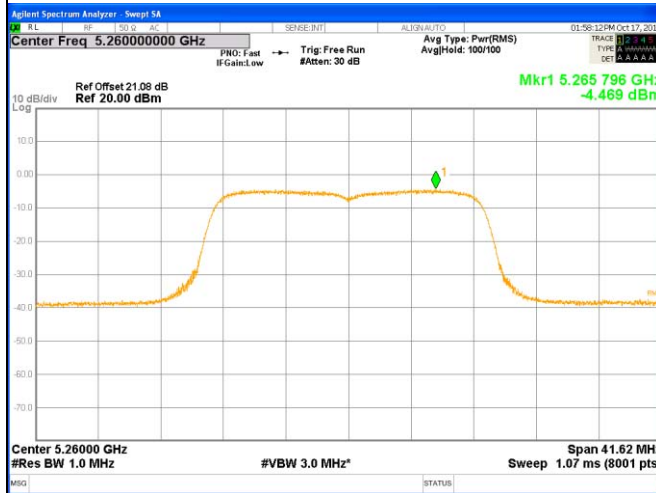




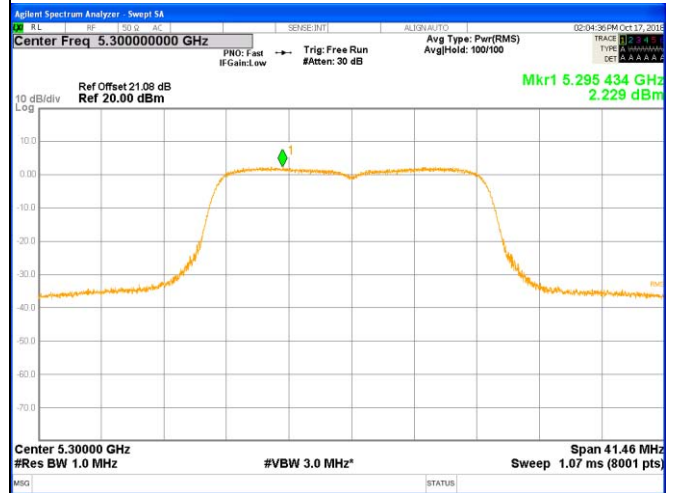
802.11ac HT20

ANTENNA A

5260MHz



5280MHz



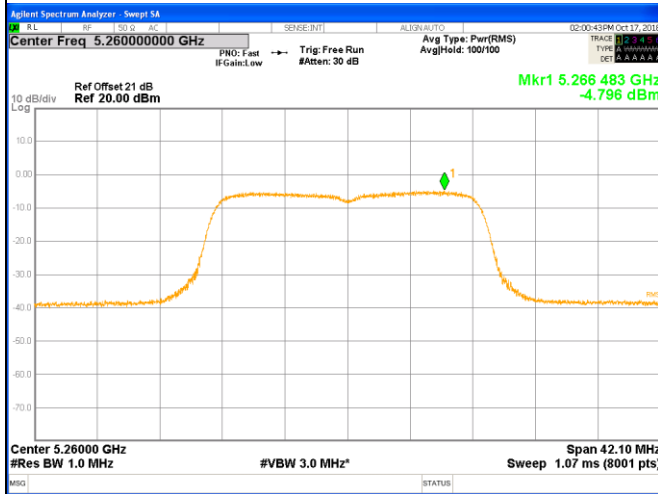
5320MHz



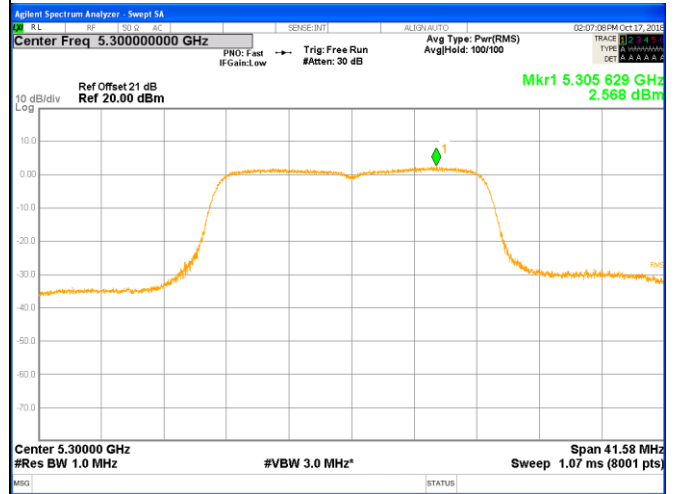


ANTENNA B

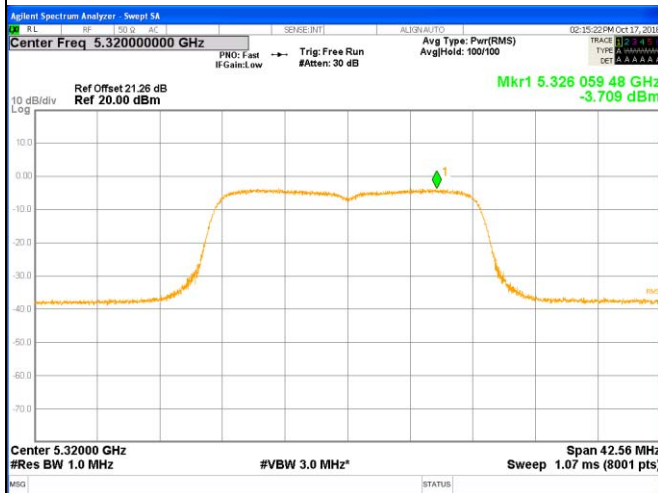
5260MHz



5280MHz



5320MHz



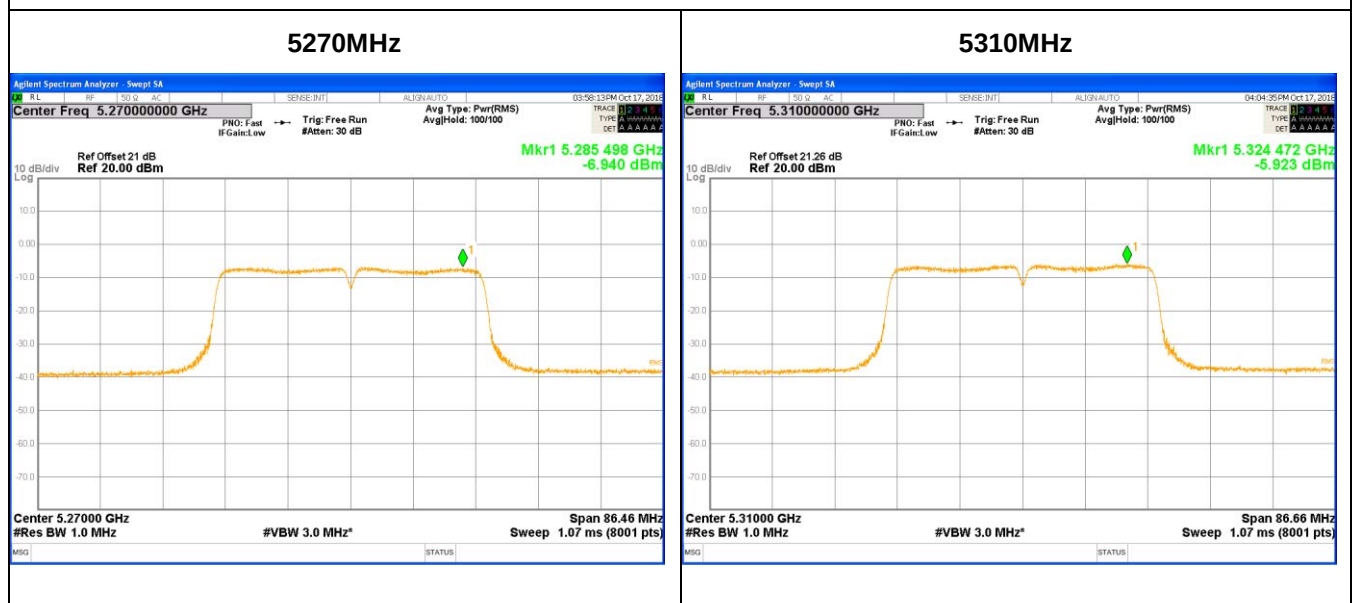


802.n HT40

ANTENNA A



ANTENNA B



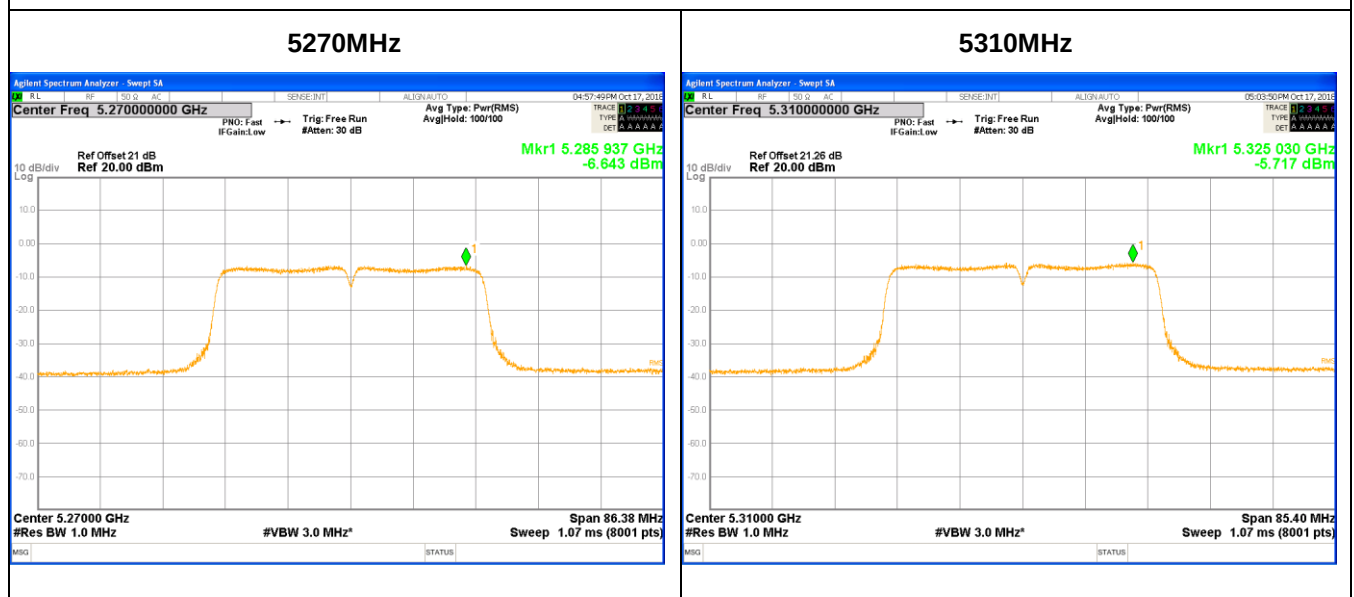


802.ac HT40

ANTENNA A

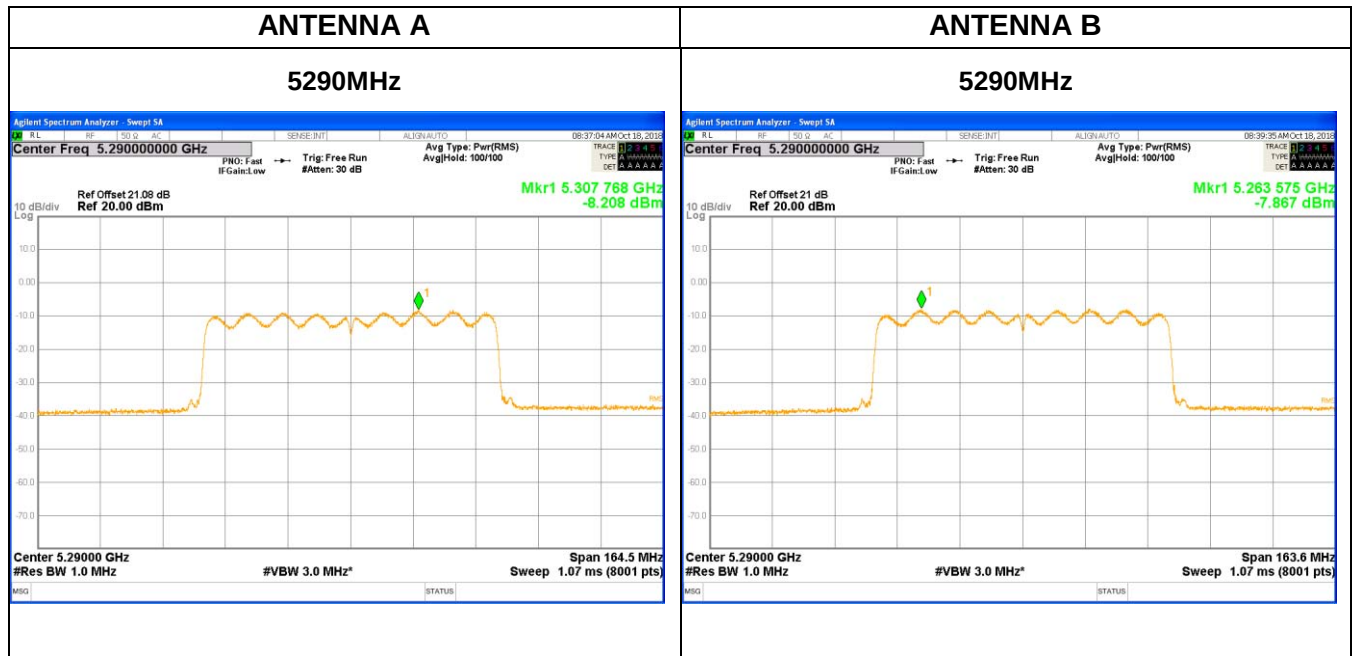


ANTENNA B





802.ac HT80





6.4.2. UNII-2C BAND

Mode	Frequency (MHz)	Chain	Conducted PSD (dBm)		Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
			Single	Total			
a	5500	A	\		\	\	\
		B	-3.370		11	-2.370	10
	5580	A	\		\	\	\
		B	3.081		11	4.081	10
	5700	A	\		\	\	\
		B	-2.989		11	-1.989	10
n HT20	5500	A	-3.254	-0.70	11	0.30	10
		B	-4.218				
	5580	A	2.597	5.75	11	6.75	10
		B	2.874				
	5700	A	-3.548	0.05	11	1.05	10
		B	-2.439				
ac HT20	5500	A	-3.159	-0.54	11	0.45	10
		B	-3.972				
	5580	A	3.023;	5.99	11	6.99	10
		B	2.942				
	5700	A	-3.085	0.25	11	1.25	10
		B	-2.451				
n HT40	5510	A	-5.575	-2.85	11	-1.85	10
		B	-6.151				
	5550	A	-0.662	2.17	11	3.17	10
		B	-1.032				
	5670	A	-5.109	-1.66	11	-0.66	10
		B	-4.265				
ac HT40	5510	A	-5.586	-2.78	11	-1.78	10
		B	-5.997				
	5550	A	-0.794	2.38	11	3.38	10
		B	-0.474				
	5670	A	-4.973	-1.53	11	-0.53	10
		B	-4.142				
ac HT80	5530	A	-8.889	-5.88	11	-4.88	10
		B	-8.894				
	5610	A	-5.778	-3.34	11	-2.34	10
		B	-6.999				

Note: 1.PSD= TEST PLOT Value + 10 log (1/x), where x is the duty cycle.

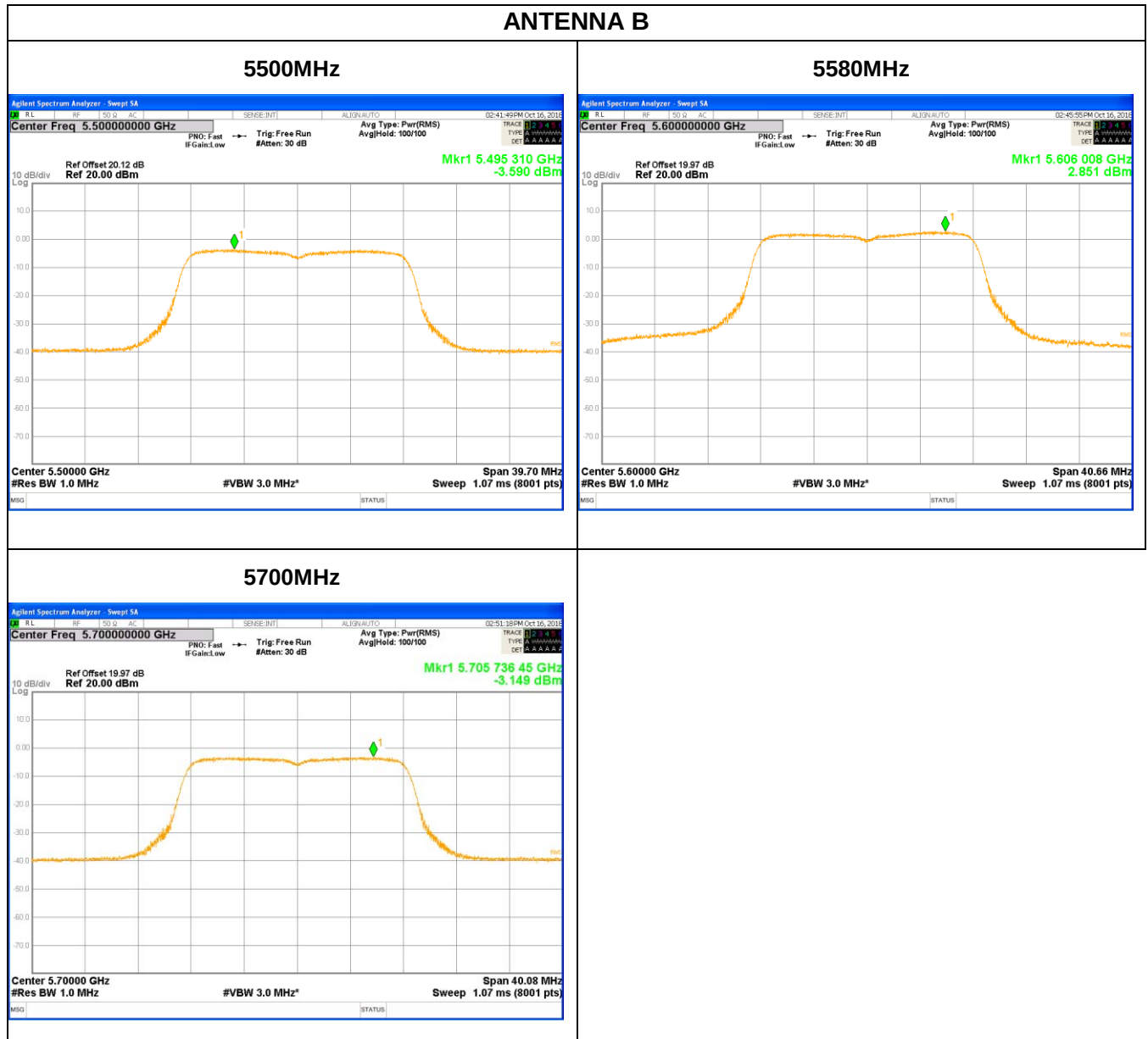
2.About correction Factor please refer to section 6.1.

3.The EUT only support SISO mode for a, all the antenna had been tested, but only the worst data recorded in the report.



TEST PLOT

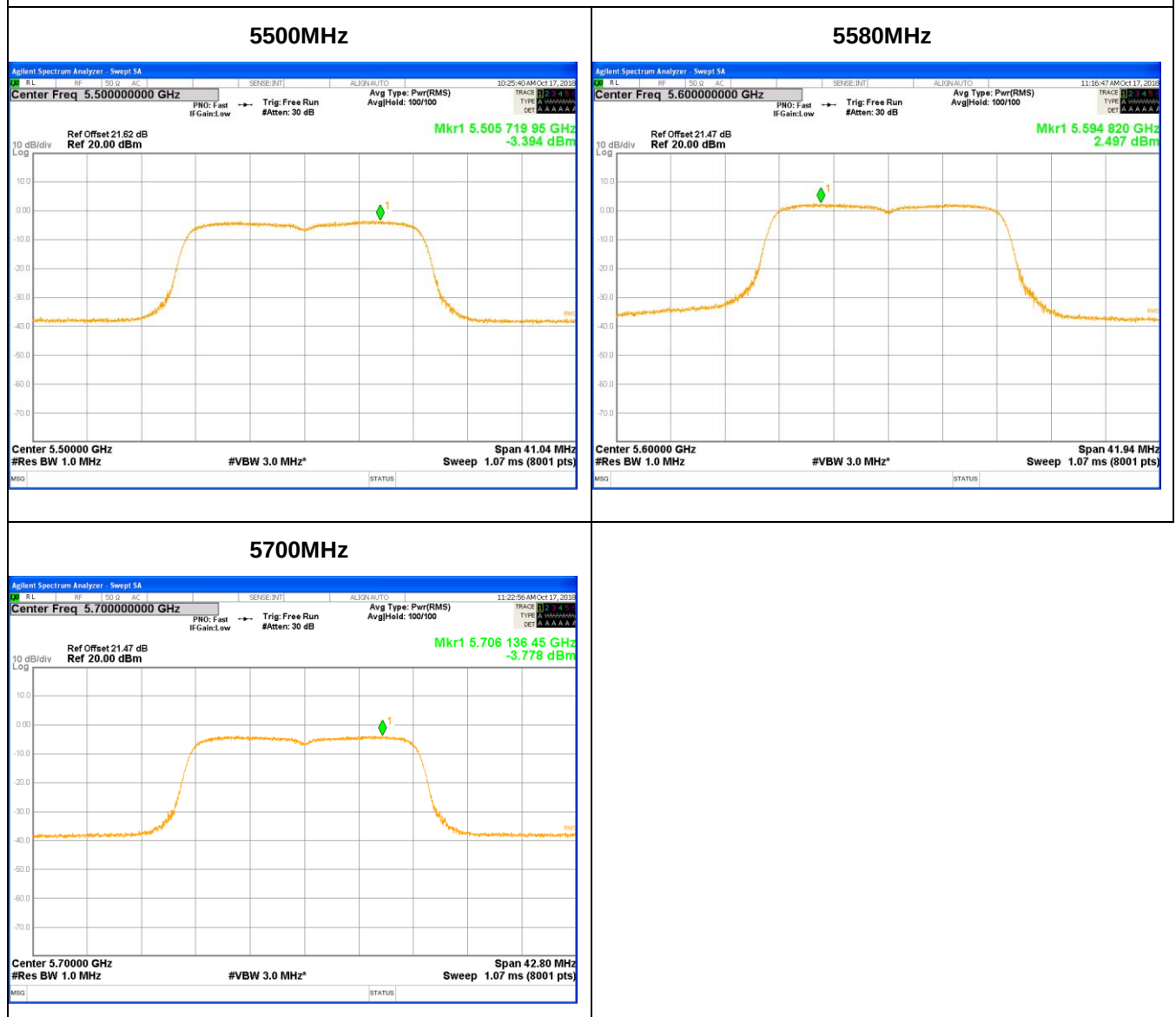
802.11a





802.n HT20

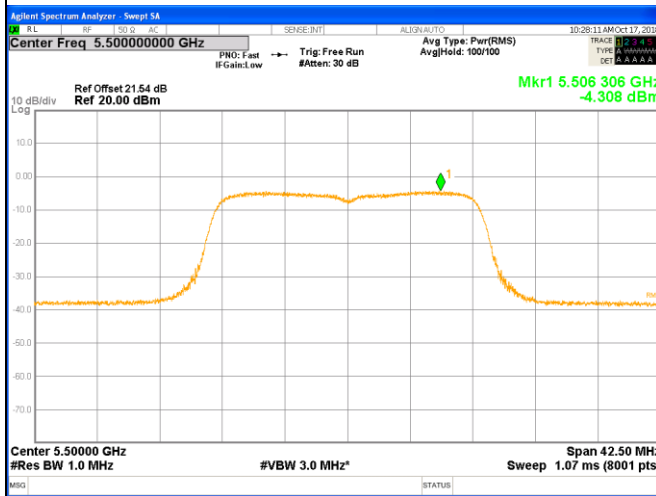
ANTENNA A



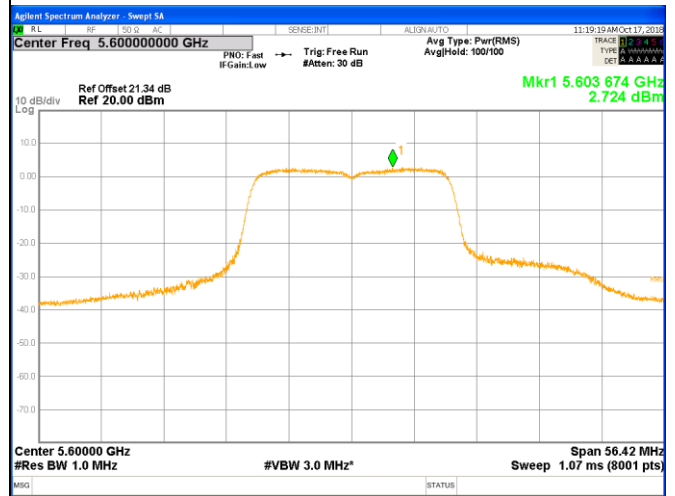


ANTENNA B

5500MHz



5580MHz



5700MHz





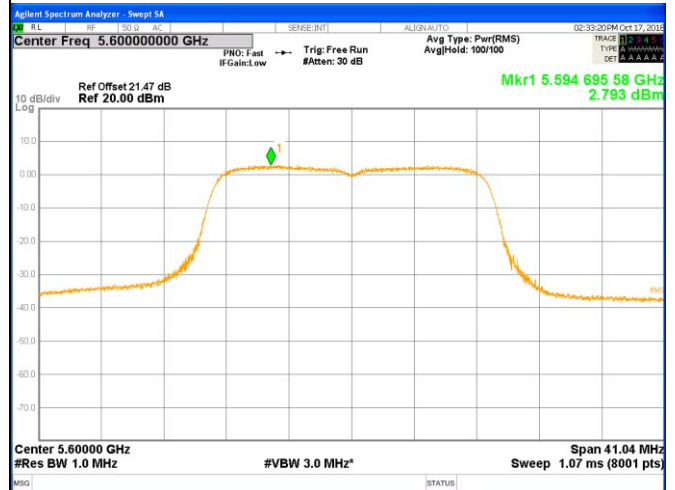
802.11ac HT20

ANTENNA A

5500MHz

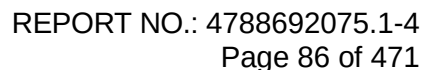


5580MHz

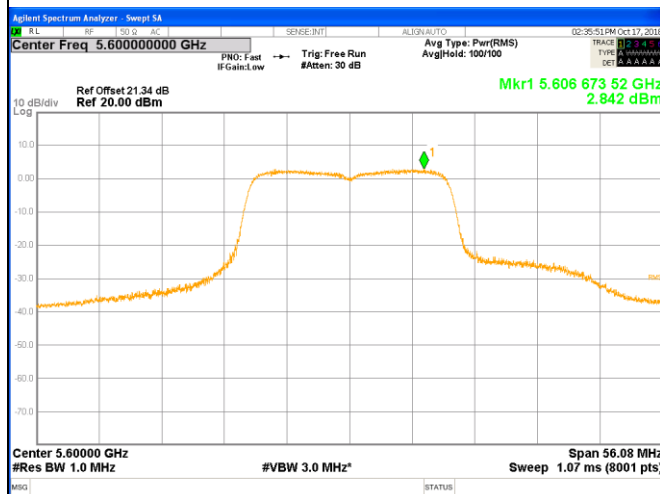


5700MHz





5580MHz



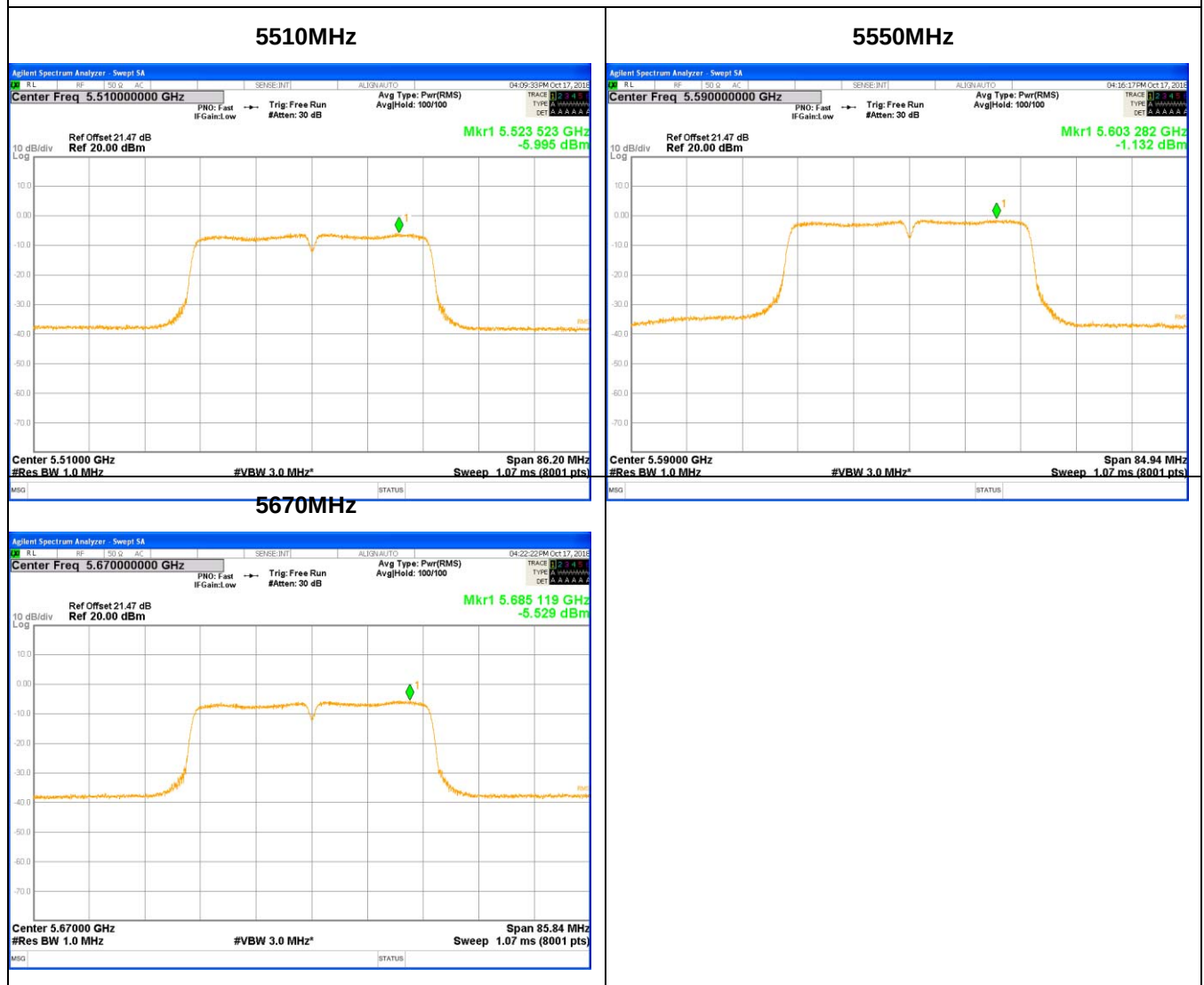
5700MHz





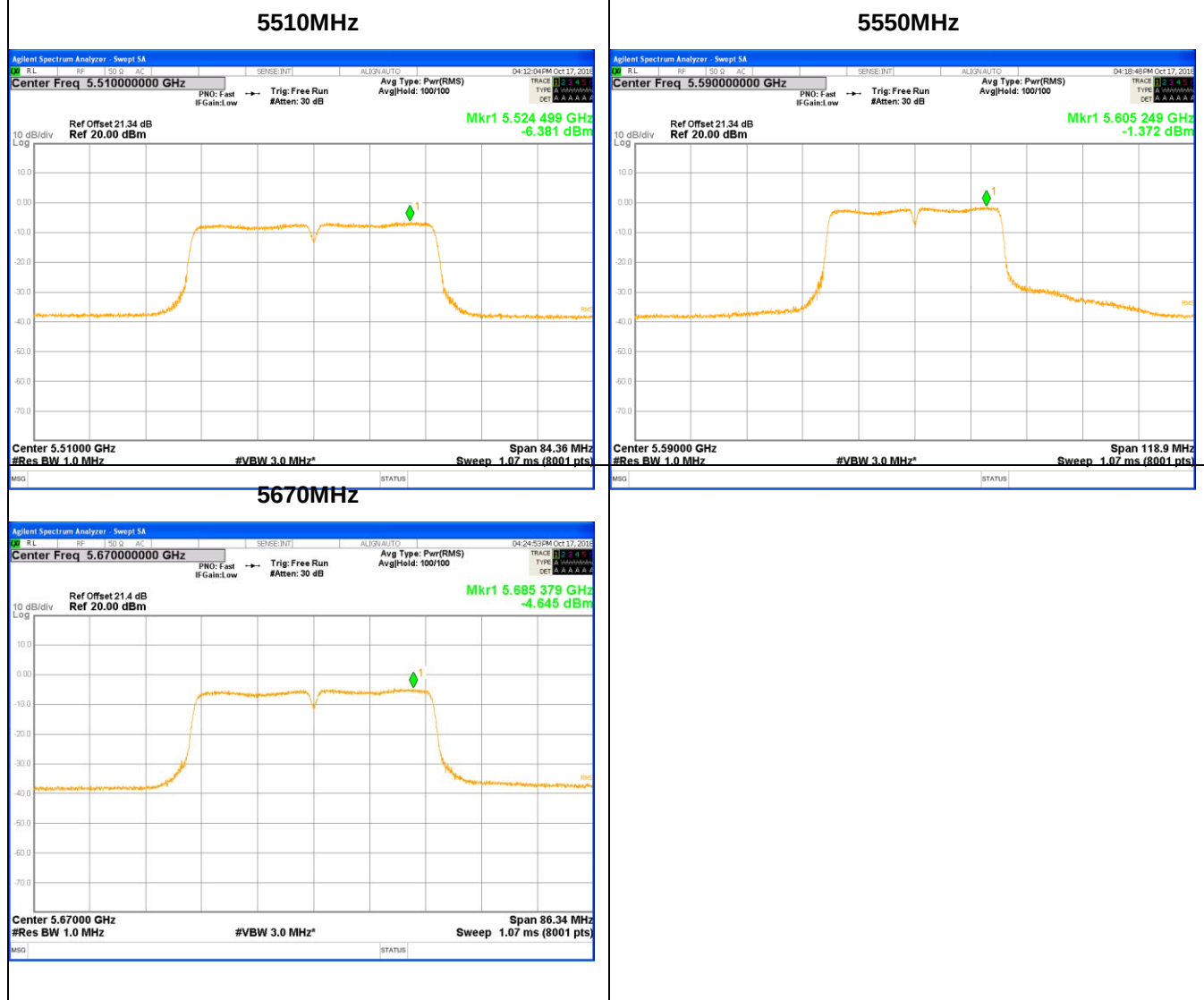
802.n HT40

ANTENNA A





ANTENNA B





802.ac HT40

ANTENNA A

5510MHz



5550MHz



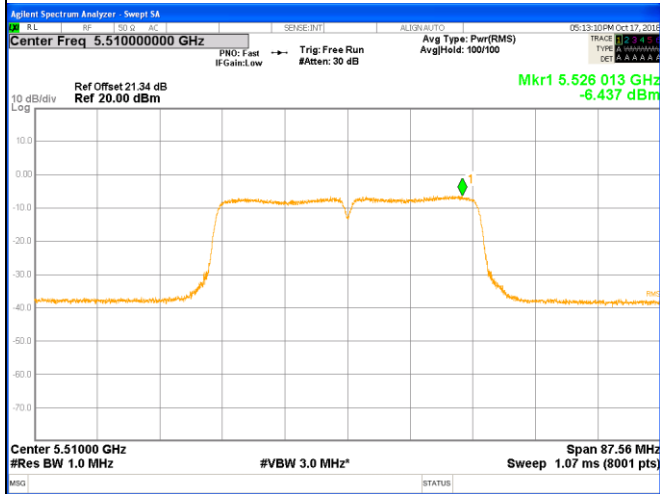
5670MHz



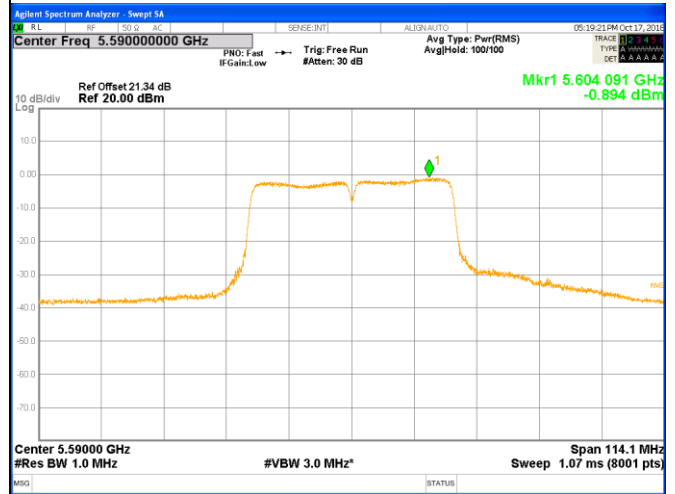


ANTENNA B

5510MHz



5550MHz



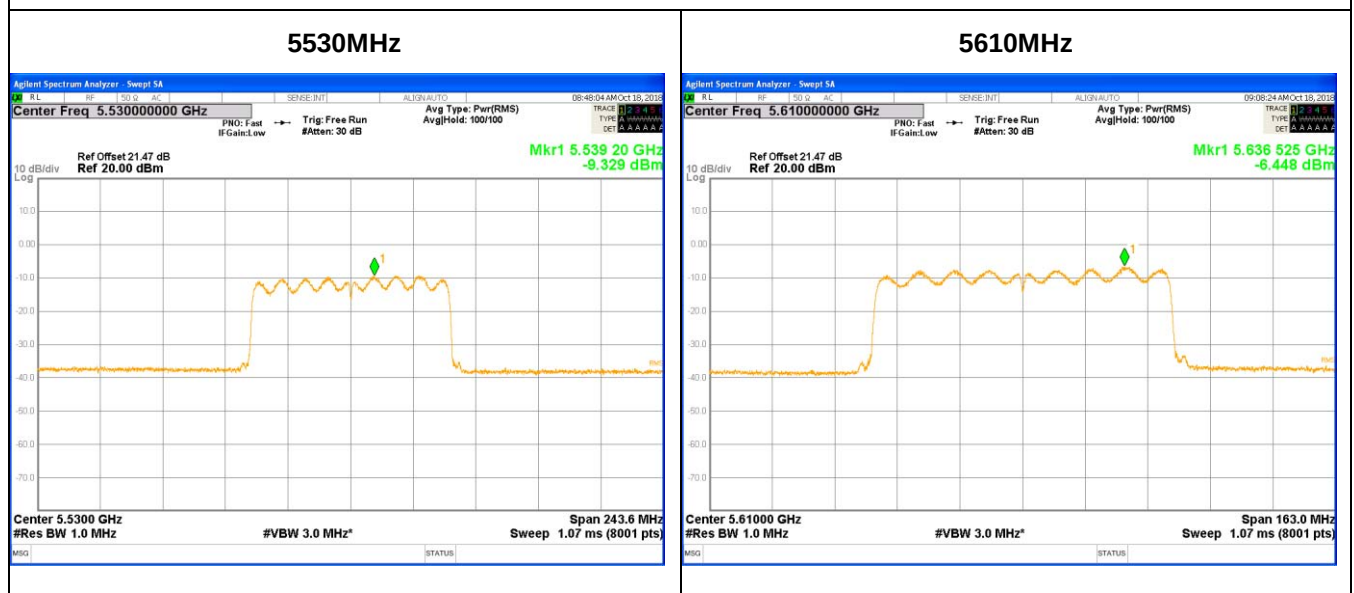
5670MHz



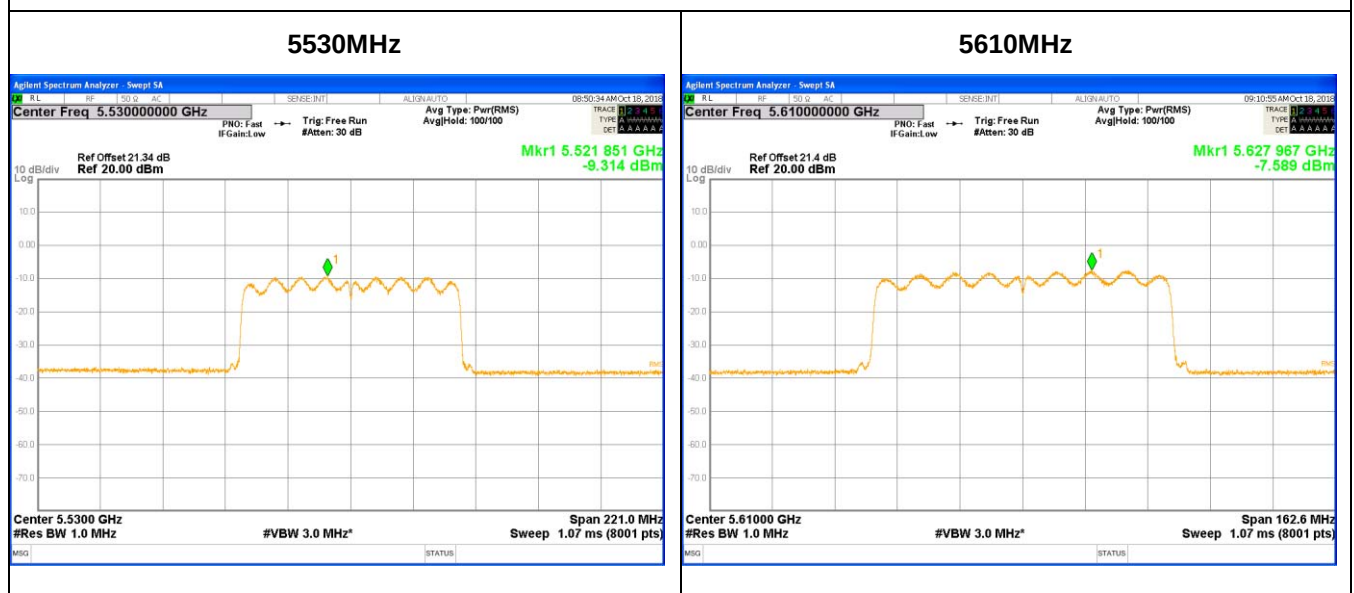


802.ac HT80

ANTENNA A



ANTENNA B





6.4.3. UNII-3 BAND

Mode	Frequency (MHz)	Chain	Conducted PSD (dBm)		Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
			Single	Total			
a	5745	A	\		\	\	\
		B	-0.076		30	0.924	29
	5785	A	\		\	\	\
		B	0.436		30	1.436	29
	5825	A	\		\	\	\
		B	0.300		30	1.300	29
n HT20	5745	A	-0.335	3.39	30	4.39	29
		B	0.996				
	5785	A	-0.377	3.52	30	4.52	29
		B	1.256				
	5825	A	-0.703	3.18	30	4.18	29
		B	0.900				
ac HT20	5745	A	-0.487	3.52	30	4.52	29
		B	1.326				
	5785	A	-0.116	3.69	30	4.69	29
		B	1.356				
	5825	A	-1.124	3.13	30	4.13	29
		B	1.077				
n HT40	5755	A	-5.053	-0.95	30	0.05	29
		B	-3.096				
	5795	A	-4.659	-0.72	30	0.28	29
		B	-2.967				
ac HT40	5755	A	-4.990	-0.92	30	0.08	29
		B	-3.080				
	5795	A	-4.592	-0.80	30	0.20	29
		B	-3.157				
ac HT80	5775	A	-4.543	-2.49	30	-1.49	29
		B	-6.746				

Note: 1.PSD= TEST PLOT Value + 10 log (1/x), where x is the duty cycle.

2.About correction Factor please refer to section 6.1.

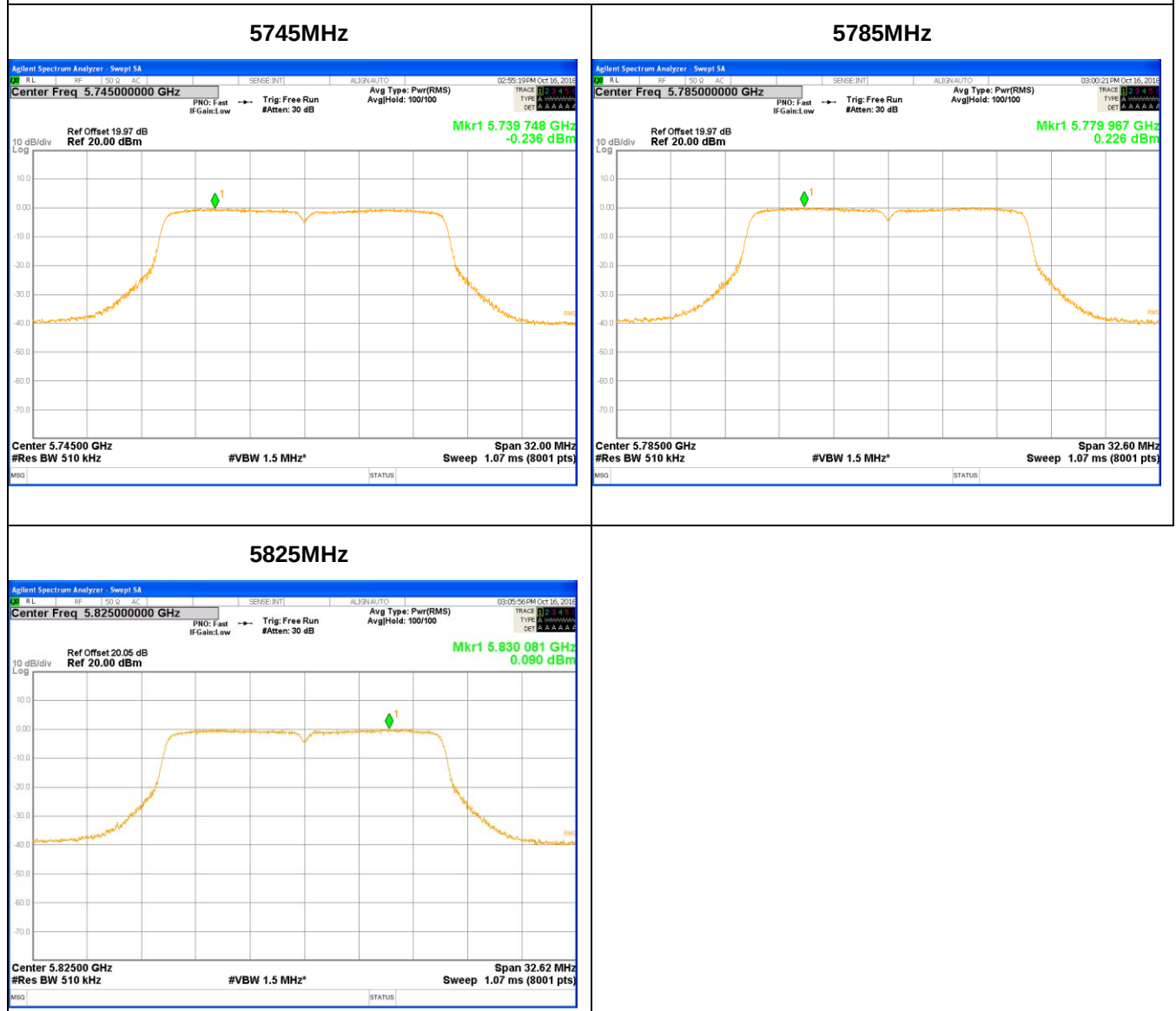
3.The EUT only support SISO mode for a, all the antenna had been tested, but only the worst data recorded in the report.



TEST PLOT

802.11a

ANTENNA B





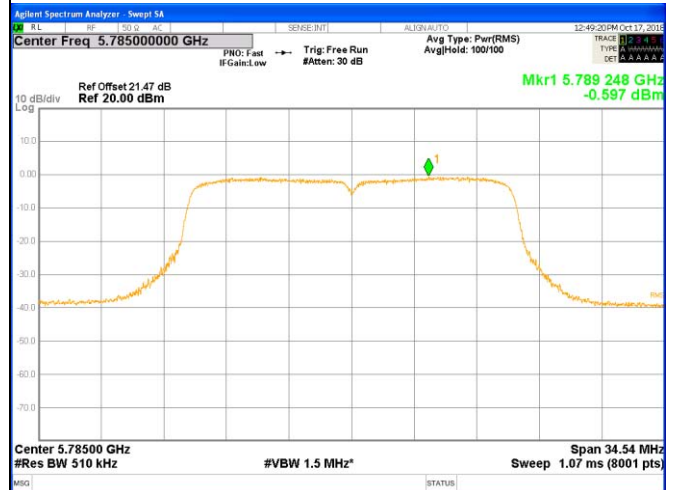
802.n HT20

ANTENNA A

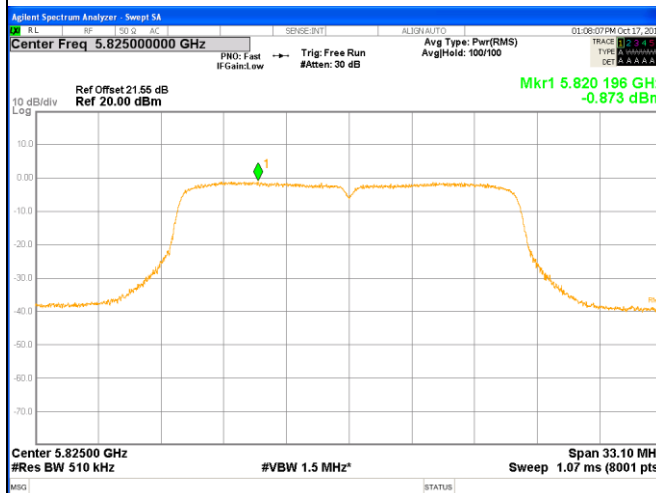
5745MHz



5280MHz



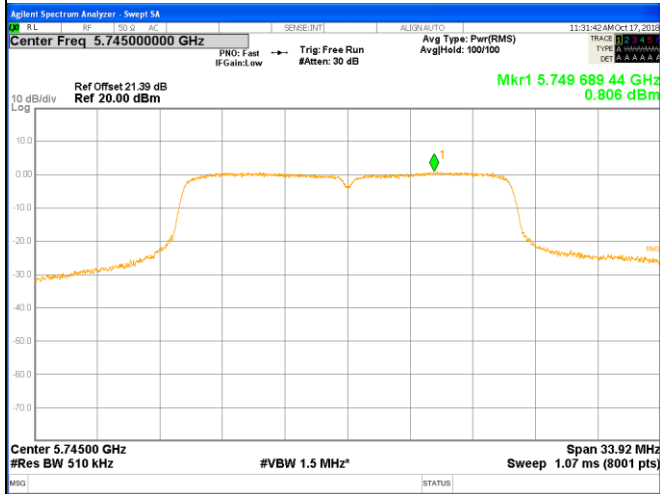
5825MHz



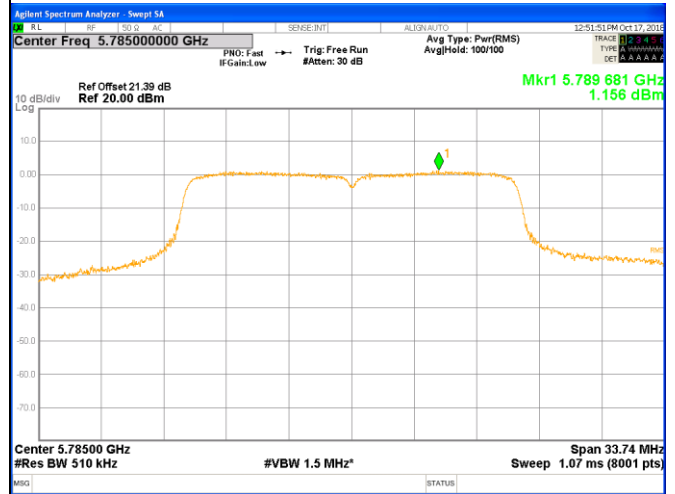


ANTENNA B

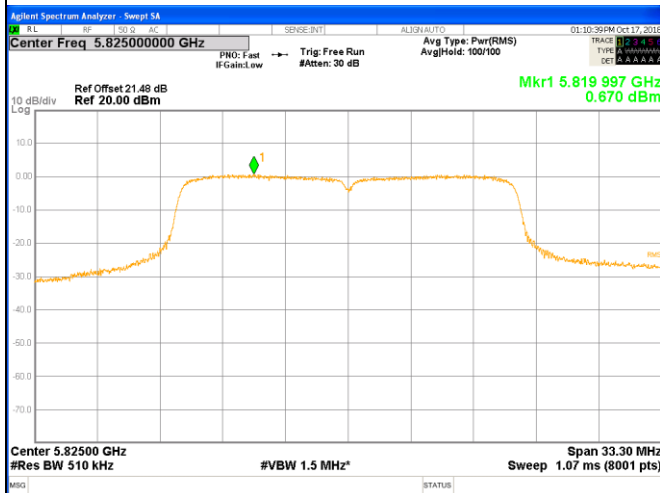
5745MHz



5785MHz



5825MHz





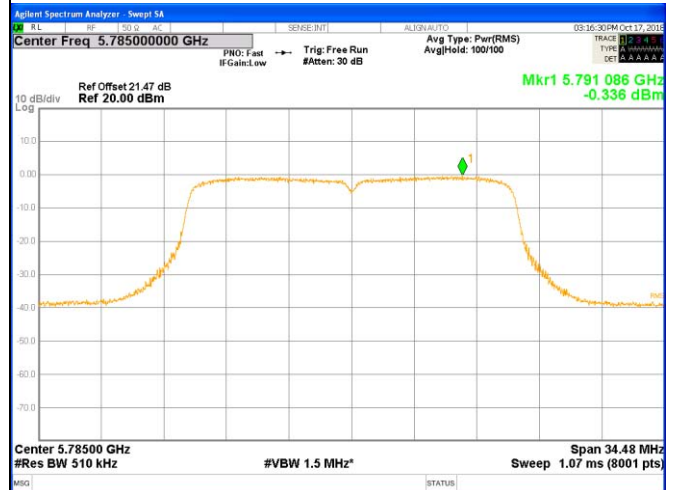
802.11ac HT20

ANTENNA A

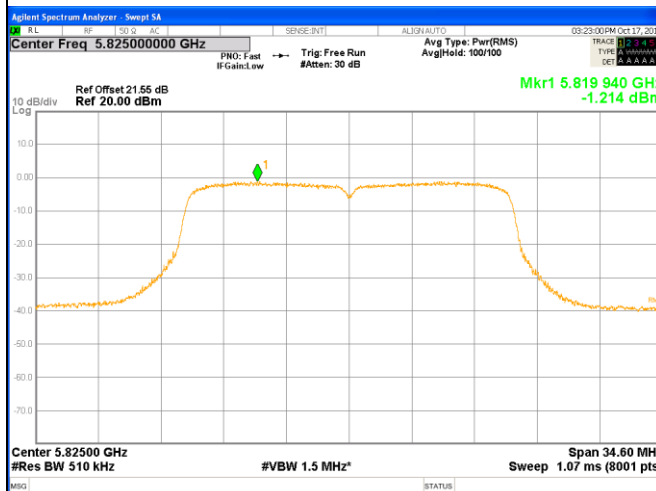
5745MHz



5785MHz



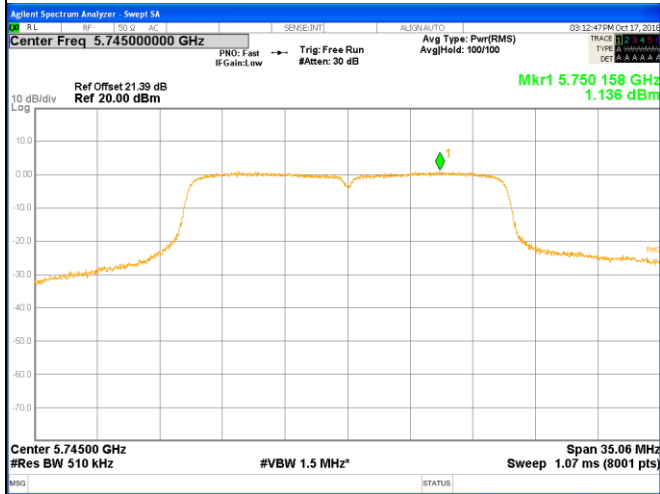
5825MHz



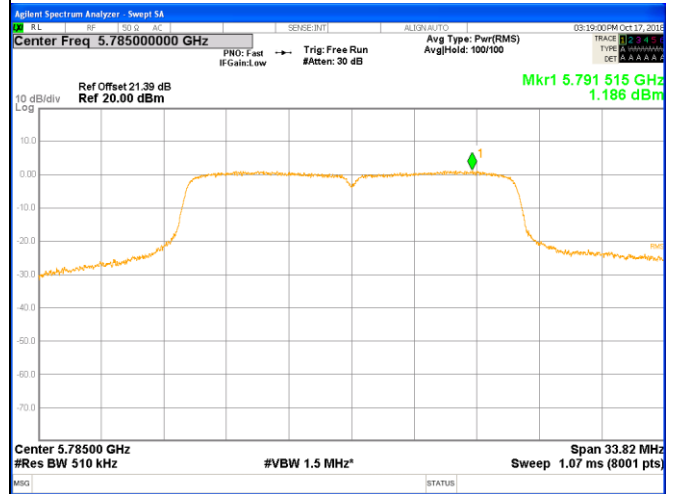


ANTENNA B

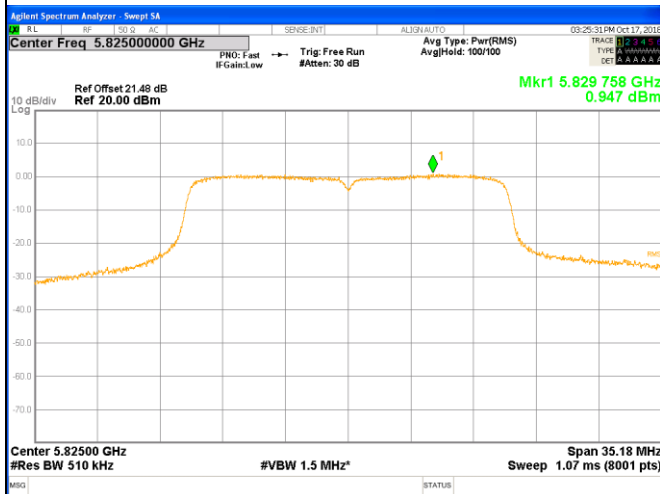
5745MHz



5785MHz



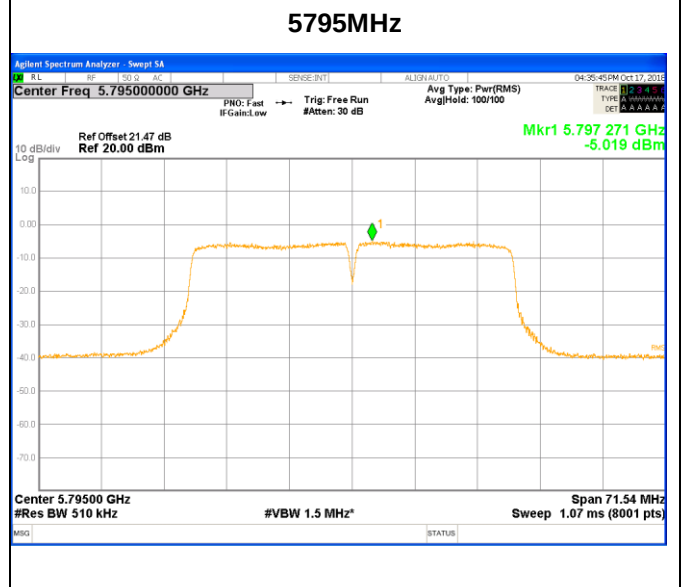
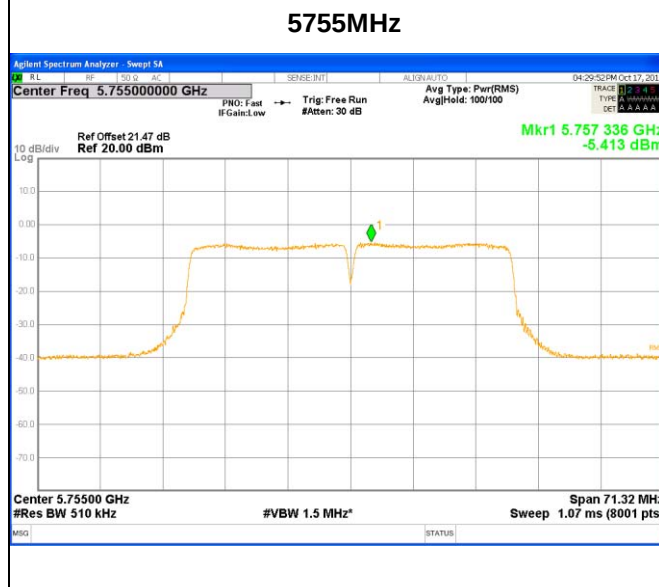
5825MHz



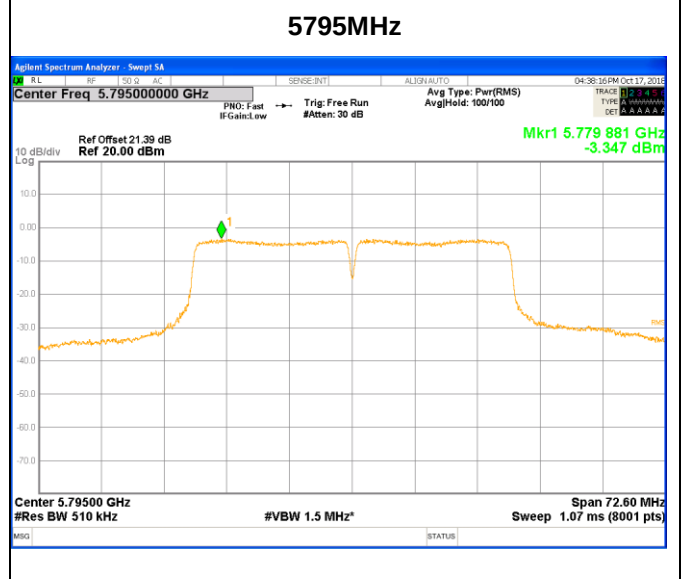
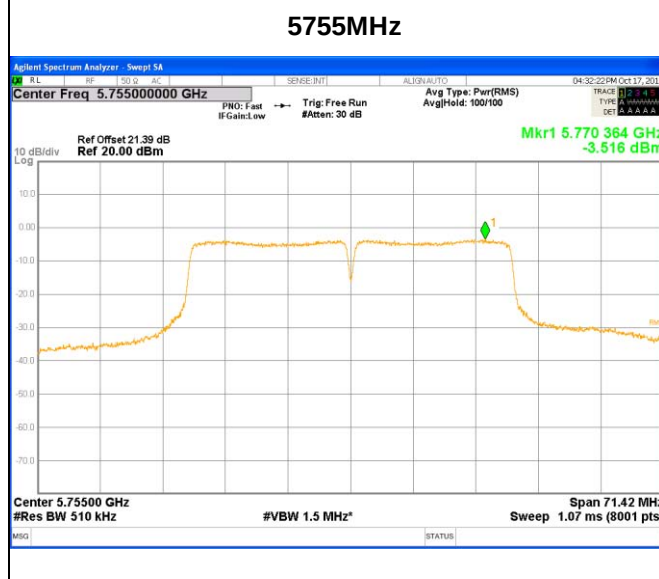


802.n HT40

ANTENNA A



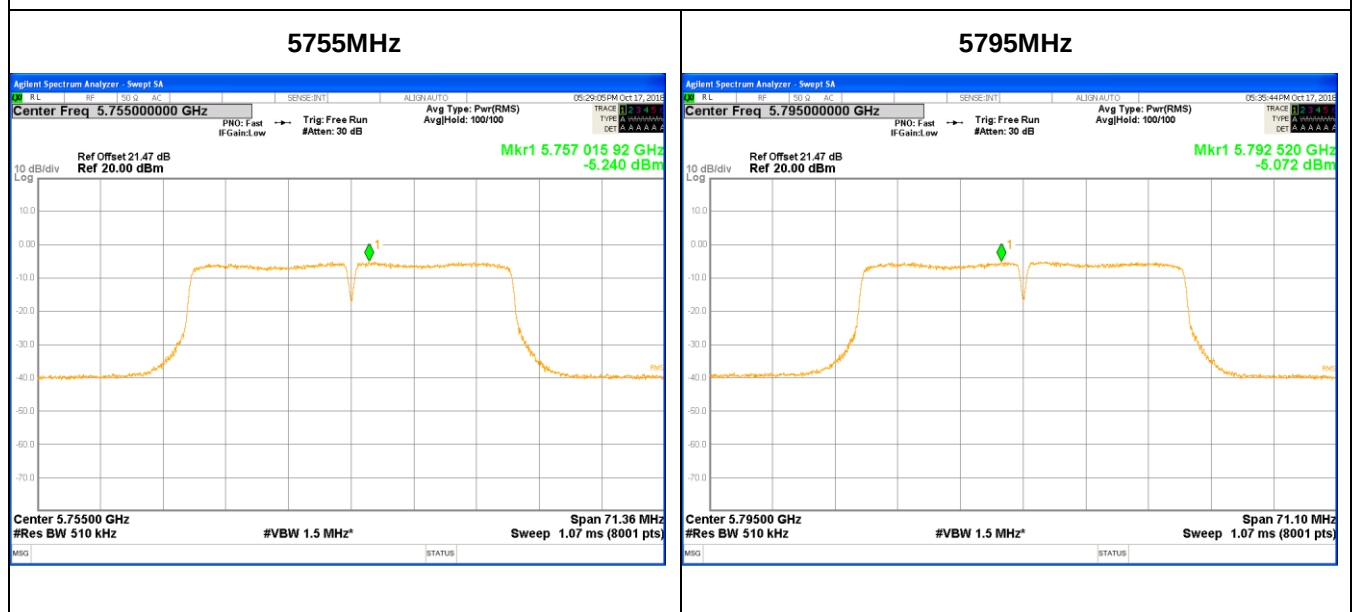
ANTENNA B



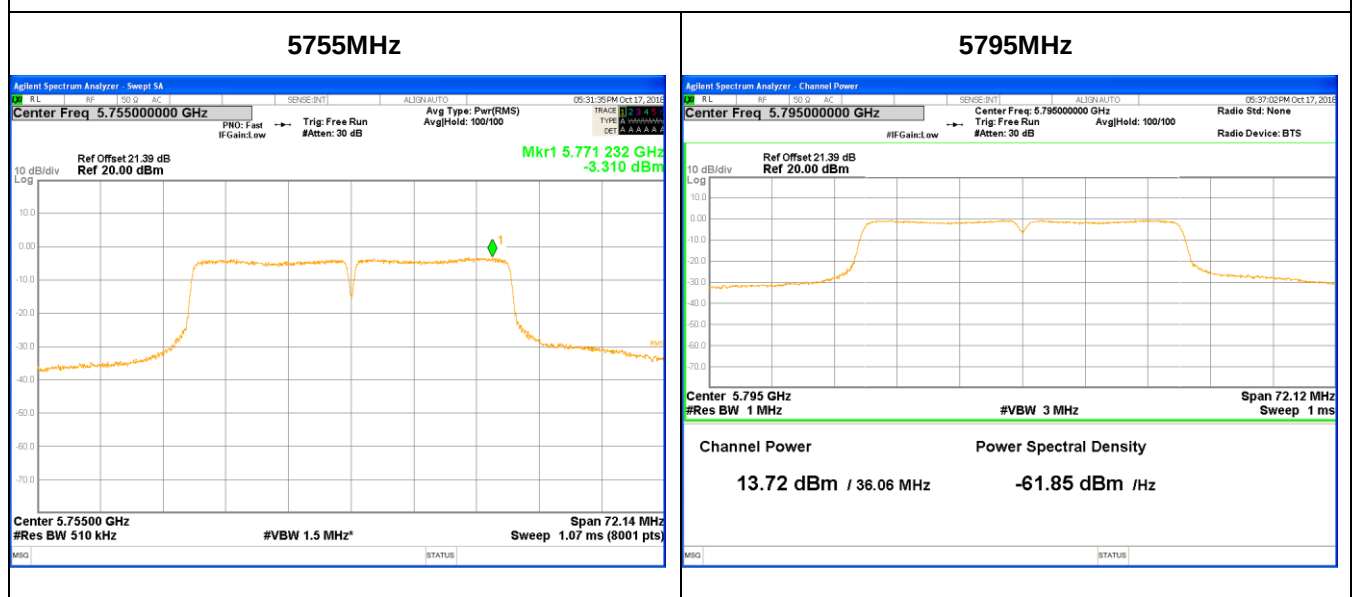


802.ac HT40

ANTENNA A

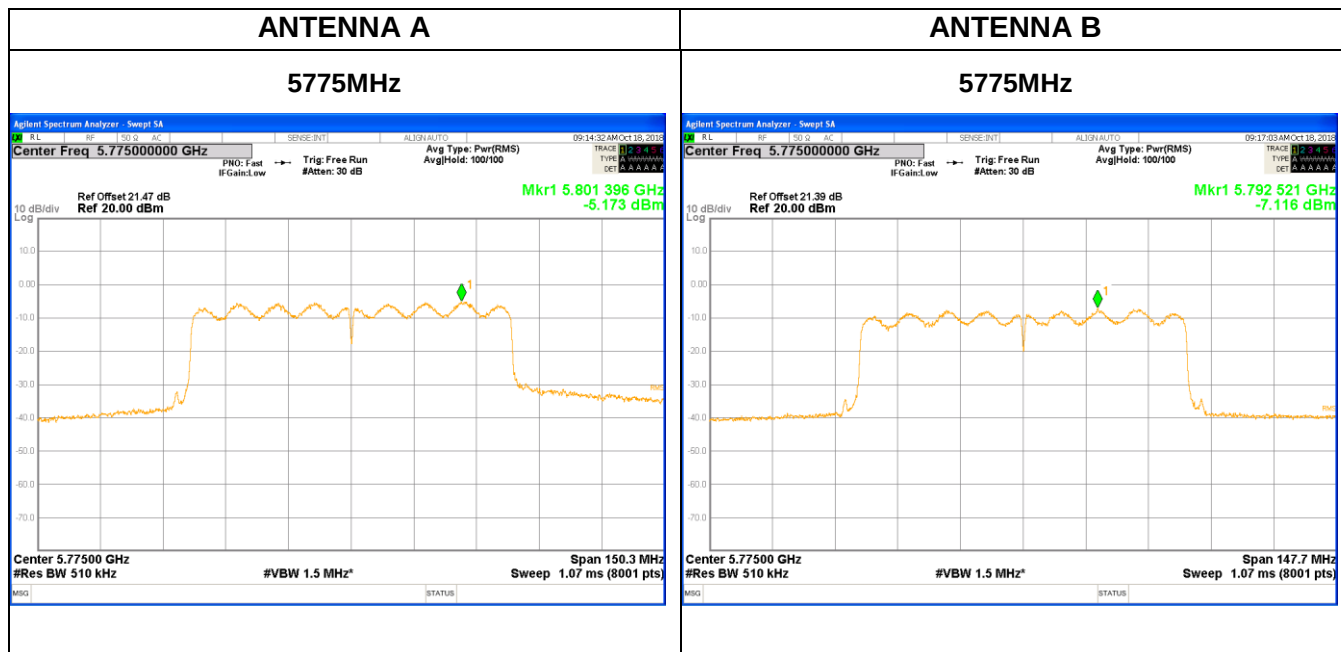


ANTENNA B





802.ac HT80





7. RADIATED TEST RESULTS

LIMITS

Please refer to CFR 47 FCC §15.205, §15.209 and §15.407(b) (4)

Please refer to ISED RSS-GEN Clause 8.9

Radiation Disturbance Test Limit for FCC (Class B)(9KHz-1GHz)

Frequency (MHz)	Field Strength (microvolts/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
960~1000	500	3

Note: 1) At frequencies at or above 30 MHz, measurements may be performed at a distance other than what is specified provided: measurements are not made in the near field except where it can be shown that near field measurements are appropriate due to the characteristics of the device; and it can be demonstrated that the signal levels needed to be measured at the distance employed can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 meters unless it can be further demonstrated that measurements at a distance of 30 meters or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse linear-distance for field strength measurements; inverse-linear-distance-squared for power density measurements).

(2) At frequencies below 30 MHz, measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field. Pending the development of an appropriate measurement procedure for measurements performed below 30 MHz, when performing measurements at a closer distance than specified, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). This paragraph (f) shall not apply to Access BPL devices operating below 30 MHz.



IC Restricted bands please refer to ISED RSS-GEN Clause 8.10.
FCC Restricted bands please refer to CFR 47 FCC 15.209.

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table.

LIMITS OF RADIATED EMISSION MEASUREMENT (Below 1GHz)			
Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m	
		Quasi-Peak	
30 - 88	100	40	
88 - 216	150	43.5	
216 - 960	200	46	
Above 960	500	54	
Above 1000	500	Peak	Average
		74	54

Limits of unwanted emission out of the restricted bands

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1GHz)		
Frequency Range (MHz)	EIRP Limit	Field Strength Limit (dBuV/m) at 3 m
30 - 88		
5150~5250 MHz	PK:-27 (dBm/MHz)	PK:68.2(dBμV/m)
5250~5350 MHz		
5470~5725 MHz		
5725~5850 MHz	PK:-27 (dBm/MHz) *1 PK:10 (dBm/MHz) *2 PK:15.6 (dBm/MHz) *3 PK:27 (dBm/MHz) *4	PK: 68.2(dBμV/m) *1 PK:105.2 (dBμV/m) *2 PK: 110.8(dBμV/m) *3 PK:122.2 (dBμV/m) *4

Note:

*1 beyond 75 MHz or more above of the band edge.

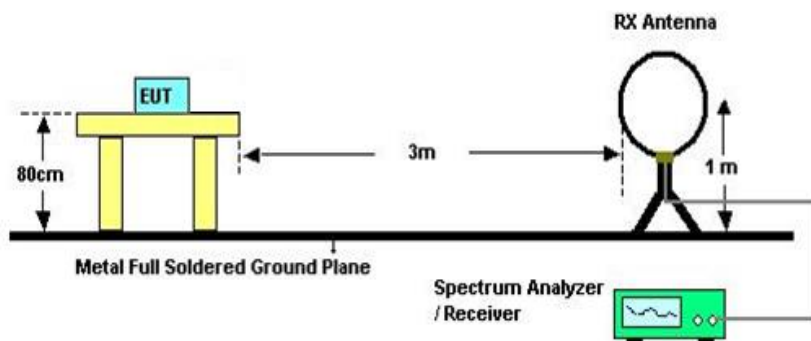
*2 below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above.

*3 below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.

*4 from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

TEST SETUP AND PROCEDURE

Below 30MHz

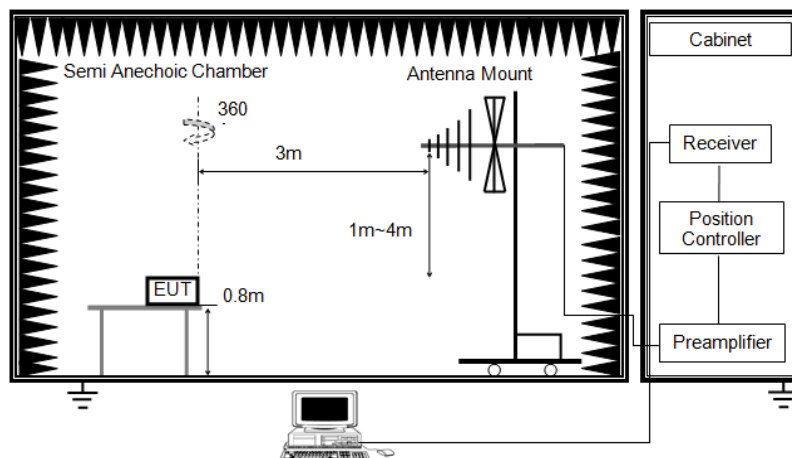


The setting of the spectrum analyser

RBW	200Hz (From 9kHz to 0.15MHz)/ 9KHz (From 0.15MHz to 30MHz)
VBW	200Hz (From 9kHz to 0.15MHz)/ 9KHz (From 0.15MHz to 30MHz)
Sweep	Auto
Detector	Peak/QP/ Average
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013
2. The EUT was arranged to its worst case and then 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. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
3. The EUT was placed on a turntable with 0.8 meter above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. For measurement below 1GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.
6. Although these tests were performed other than open area test site, adequate comparison measurements were confirmed against 30m open area test site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field based on KDB 414788.

Below 1G

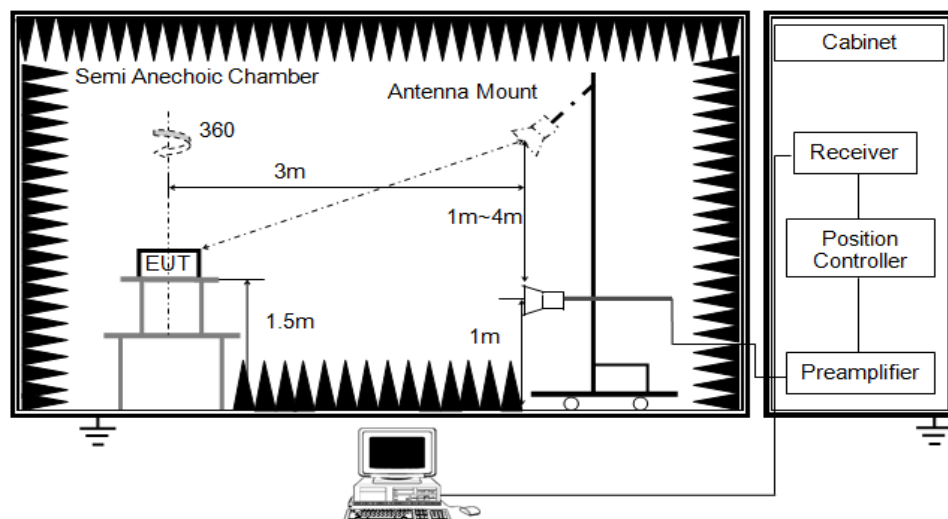


The setting of the spectrum analyser

RBW	120K
VBW	300K
Sweep	Auto
Detector	Peak/QP
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013.
2. 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. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
3. The EUT was placed on a turntable with 0.8 meter above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. For measurement below 1GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

Above 1G

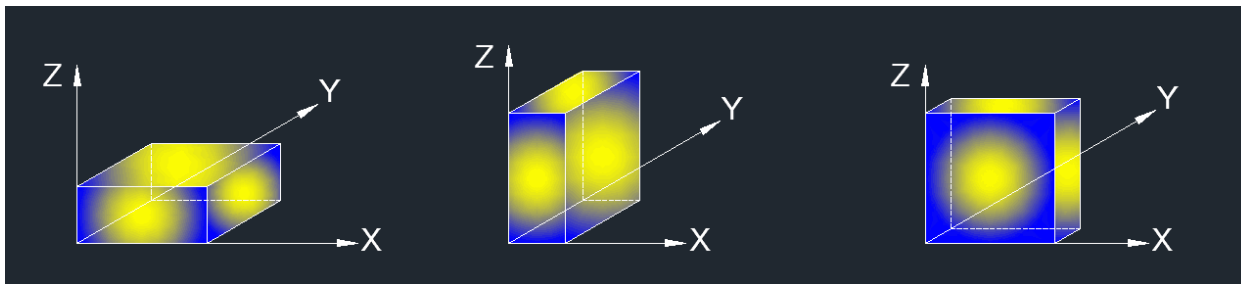


The setting of the spectrum analyser

RBW	1M
VBW	PEAK: 3M AVG: see note 6
Sweep	Auto
Detector	Peak
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013.
2. 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. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
3. The EUT was placed on a turntable with 1.5m above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. For measurement above 1GHz, the emission measurement will be measured by the peak detector. This peak level, once corrected, must comply with the limit specified in Section 15.209.
6. For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video bandwidth with peak detector. For the Duty Cycle please refer to clause 6.1.ON TIME AND DUTY CYCLE.

X axis, Y axis, Z axis positions:



Note 1: For all radiated test, EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.

Note 3: The EUT was fully exercised with external accessories during the test. In the case of multiple accessory external ports, an external accessory shall be connected to one of each type of port.

TEST ENVIRONMENT

Temperature	23.2°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	AC120V



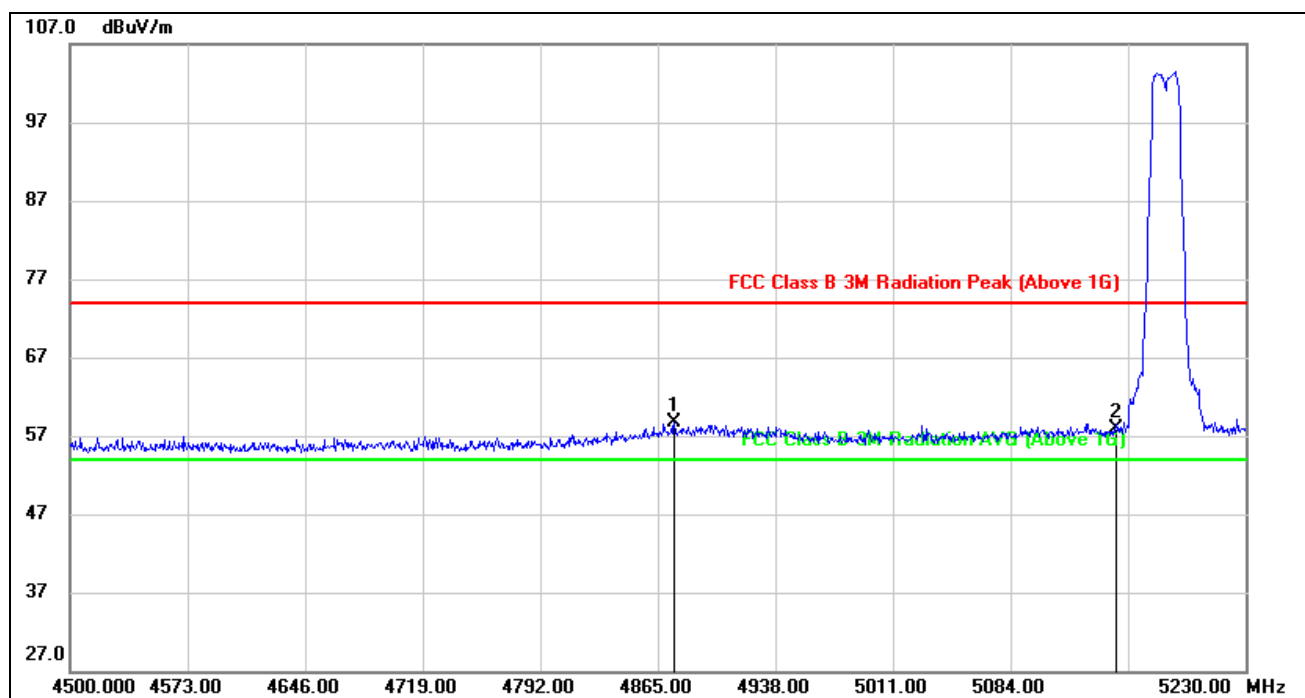
7.1. 802.11a MODE

SISO MODE ANTENNA B (WORST-CASE CONFIGURATION)

7.1.1. UNII-1 BAND

RESTRICTED BANDEDGE LOW CHANNEL

HORIZONTAL RESULTS PEAK

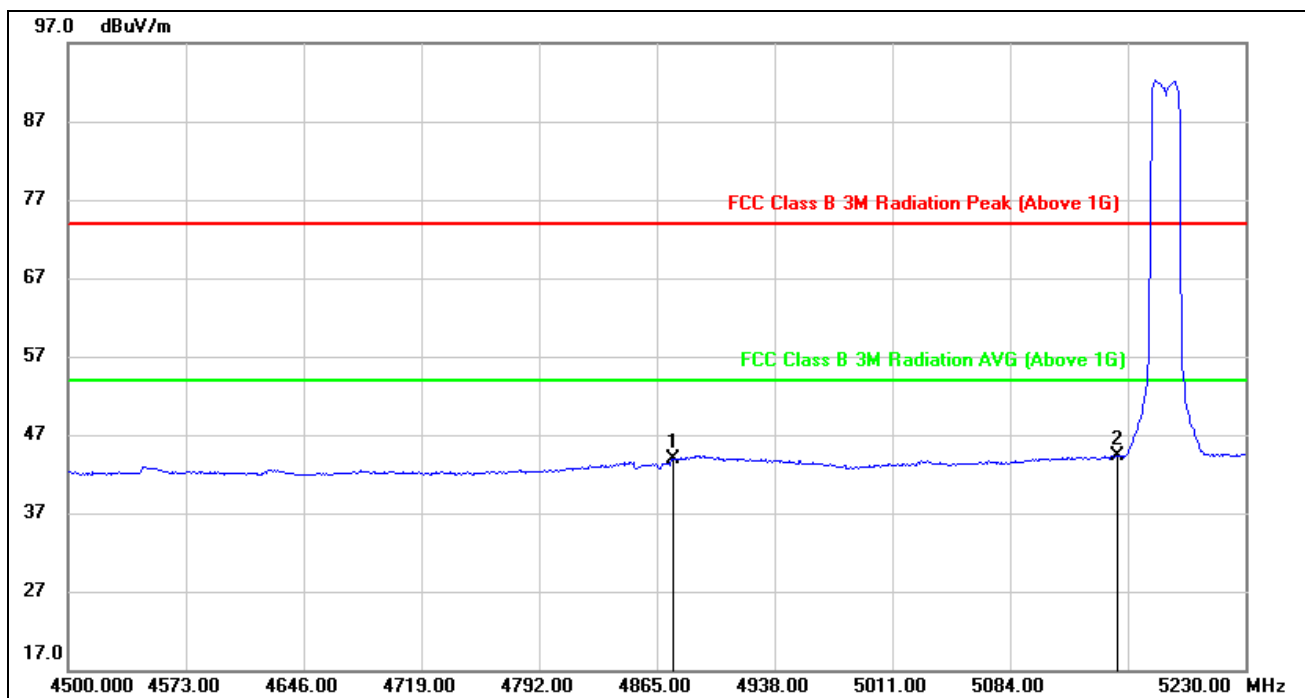


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4875.220	18.88	39.86	58.74	74.00	-15.26	peak
2	5150.000	17.42	40.40	57.82	74.00	-16.18	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.



AVG

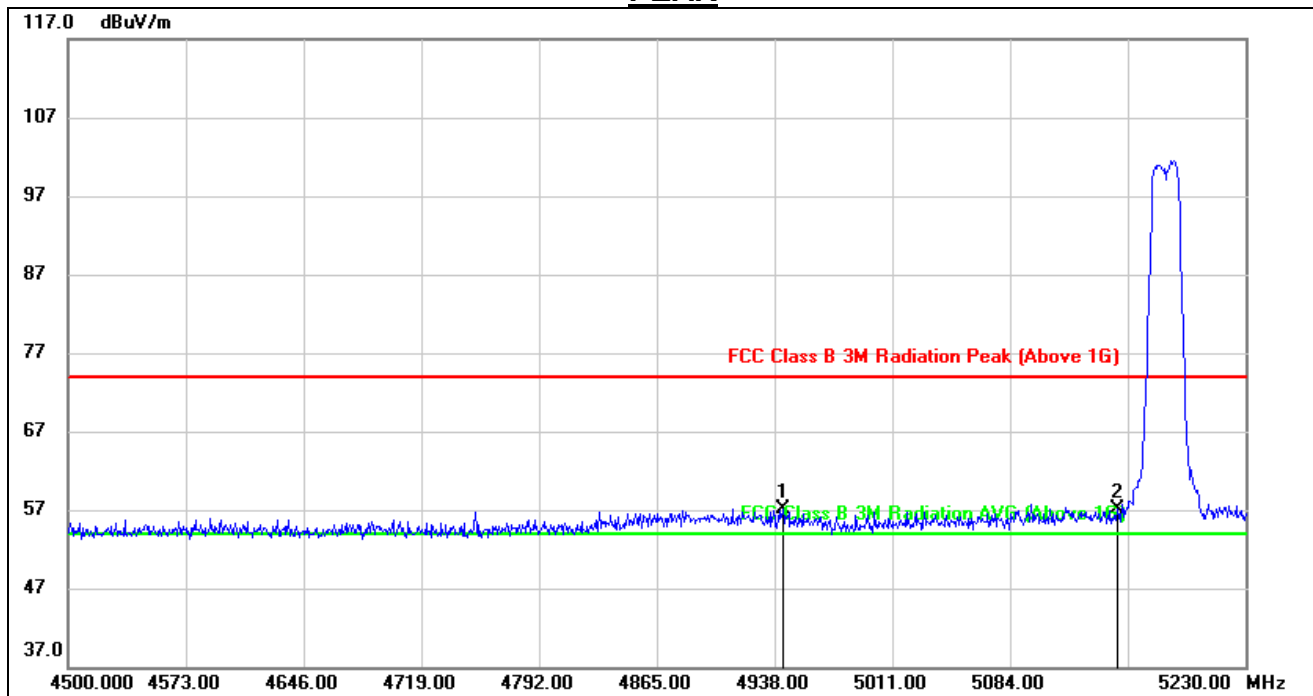


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4875.220	4.11	39.86	43.97	54.00	-10.03	AVG
2	5150.000	3.86	40.40	44.26	54.00	-9.74	AVG

Note: 1. Measurement = Reading Level + Correct Factor.
2. AVG: $VBW=1/Ton$ where: ton is transmit duration.
3. For duty cycle, please refer to clause 6.1.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.



VERTICAL RESULTS PEAK

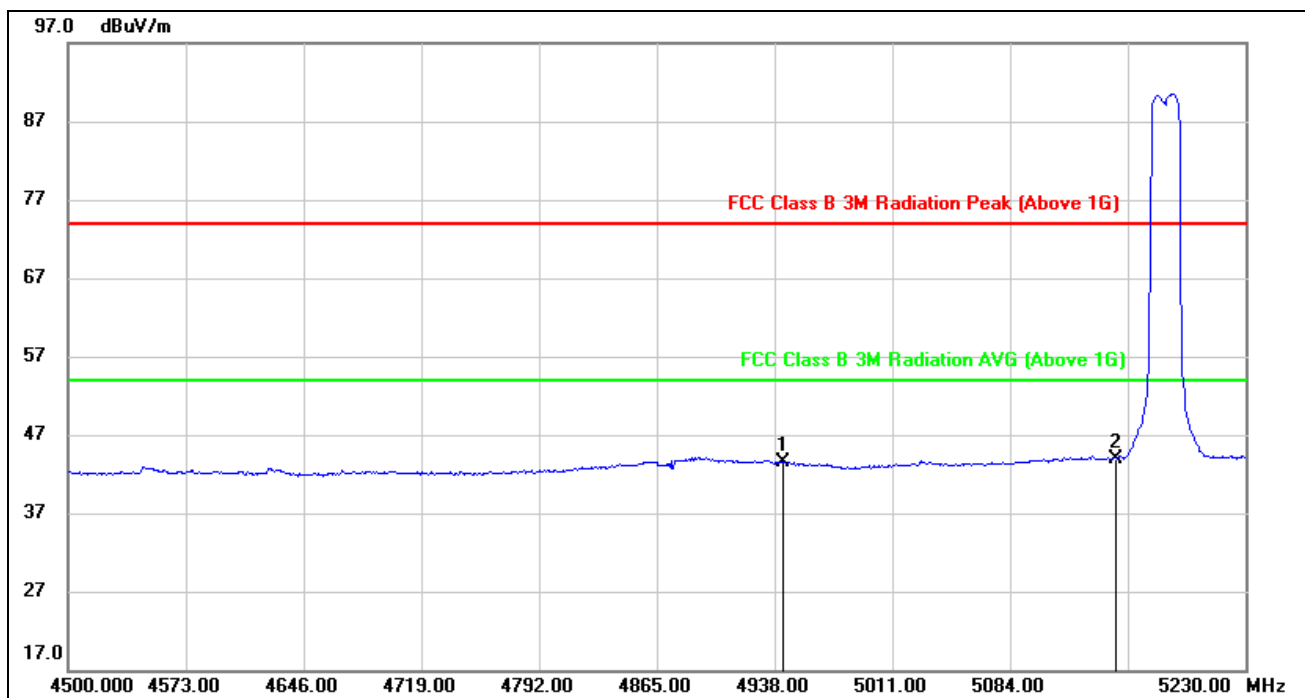


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4943.110	17.05	39.99	57.04	74.00	-16.96	peak
2	5150.000	16.59	40.60	57.19	74.00	-16.81	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.



AVG



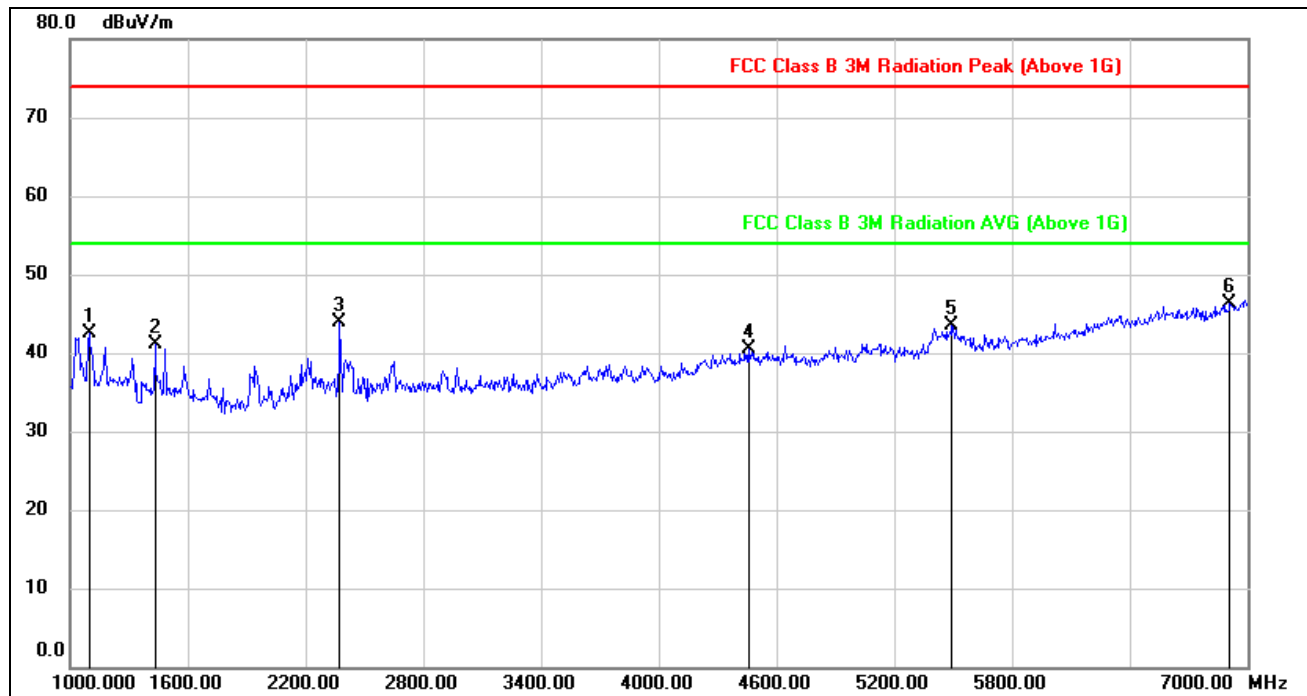
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4943.110	3.44	39.99	43.43	54.00	-10.57	AVG
2	5150.000	3.37	40.60	43.97	54.00	-10.03	AVG

Note: 1. Measurement = Reading Level + Correct Factor.
2. AVG: $VBW=1/Ton$ where: ton is transmit duration.
3. For duty cycle, please refer to clause 6.1.
4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.



HARMONICS AND SPURIOUS EMISSIONS LOW CHANNEL

HORIZONTAL RESULTS 1-7GHz

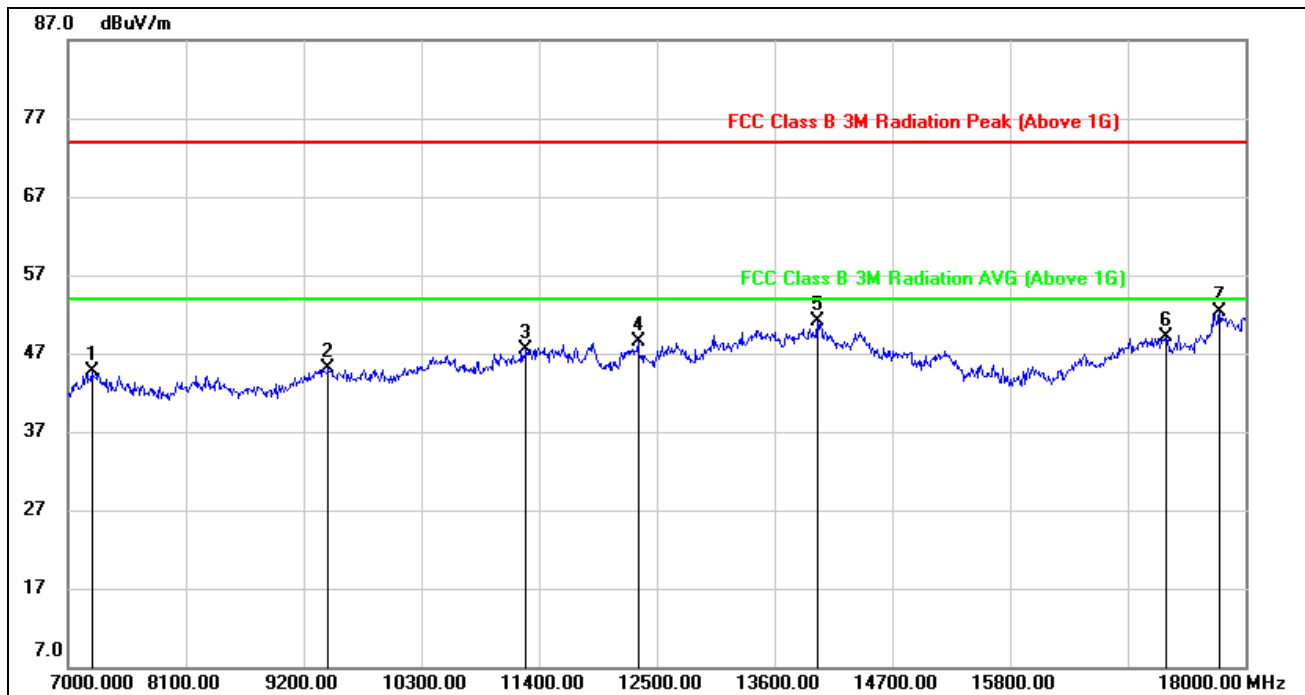


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1096.000	56.31	-13.90	42.41	74.00	-31.59	peak
2	1432.000	53.79	-12.64	41.15	74.00	-32.85	peak
3	2374.000	52.80	-8.85	43.95	74.00	-30.05	peak
4	4456.000	42.89	-2.37	40.52	74.00	-33.48	peak
5	5494.000	42.54	0.99	43.53	74.00	-30.47	peak
6	6910.000	41.33	5.06	46.39	74.00	-27.61	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.



HORIZONTAL RESULTS 7-18GHz

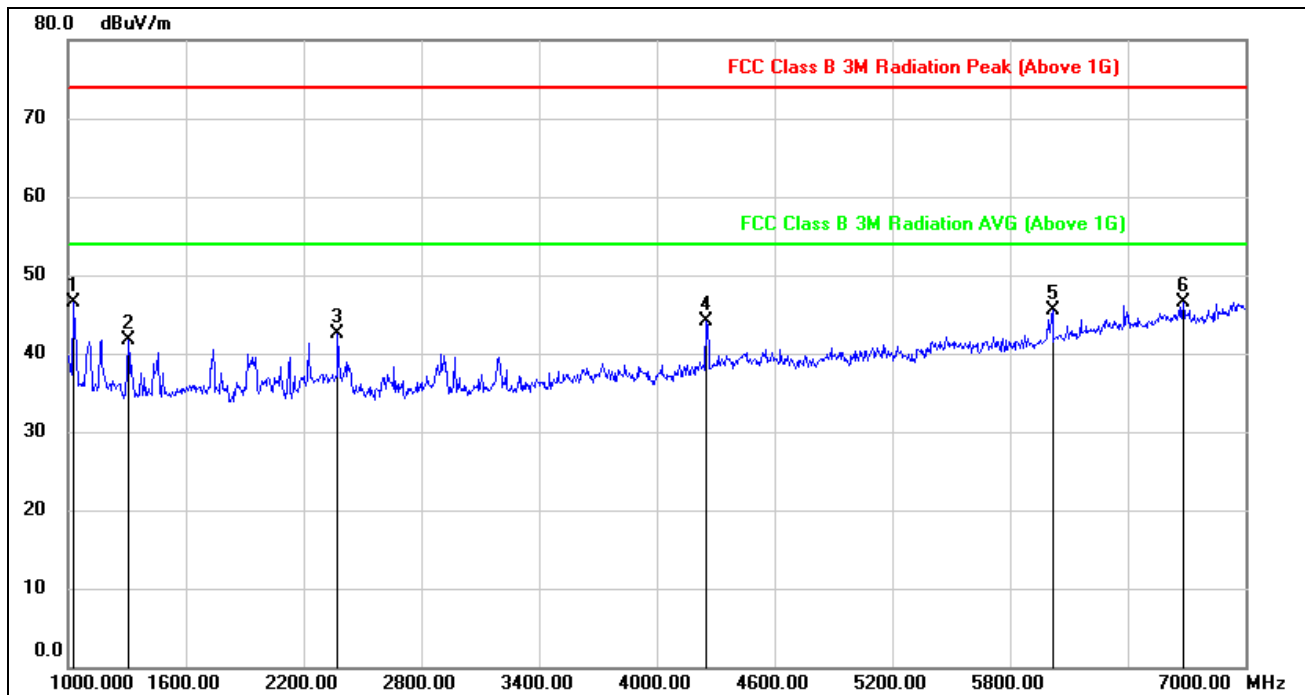


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7220.000	38.33	6.39	44.72	74.00	-29.28	peak
2	9431.000	35.66	9.51	45.17	74.00	-28.83	peak
3	11279.000	33.98	13.56	47.54	74.00	-26.46	peak
4	12324.000	34.02	14.40	48.42	74.00	-25.58	peak
5	13996.000	32.71	18.48	51.19	74.00	-22.81	peak
6	17252.000	28.52	20.50	49.02	74.00	-24.98	peak
7	17758.000	28.68	23.68	52.36	74.00	-21.64	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.



VERTICAL RESULTS
1-7GHz

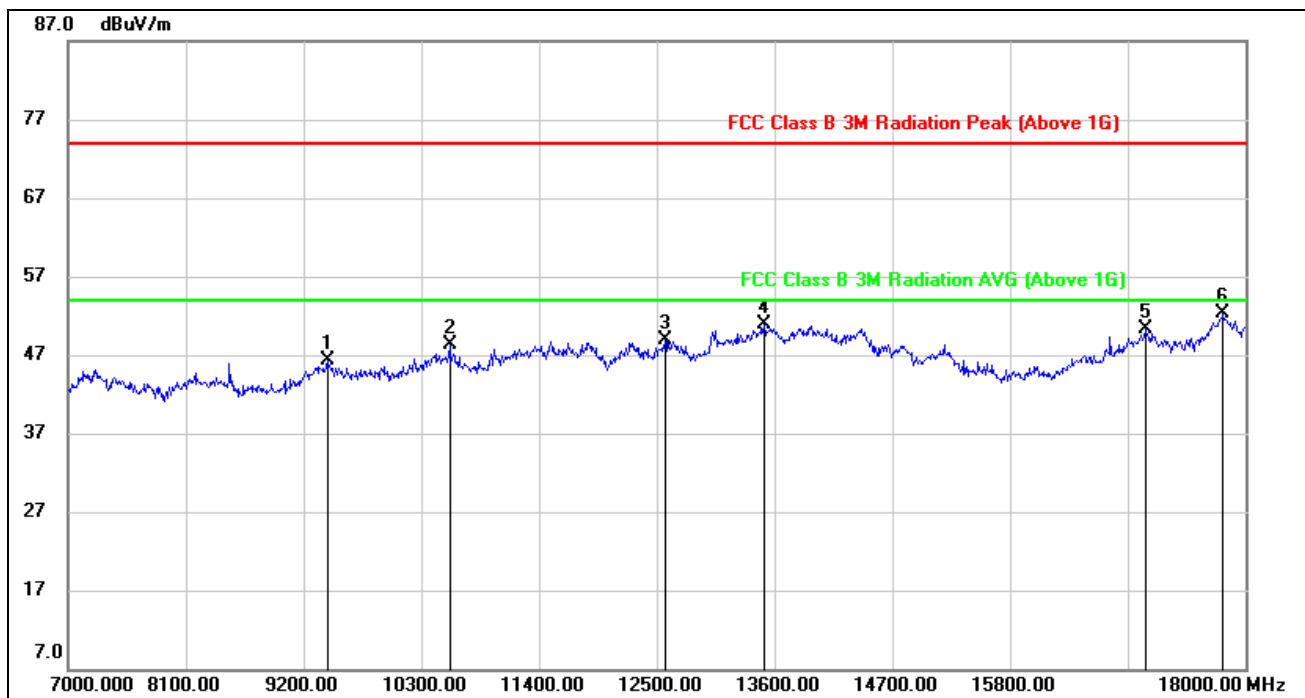


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1024.000	60.86	-14.41	46.45	74.00	-27.55	peak
2	1306.000	54.73	-12.95	41.78	74.00	-32.22	peak
3	2374.000	51.34	-8.75	42.59	74.00	-31.41	peak
4	4252.000	47.35	-3.33	44.02	74.00	-29.98	peak
5	6016.000	43.44	2.10	45.54	74.00	-28.46	peak
6	6682.000	42.13	4.30	46.43	74.00	-27.57	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.



7-18GHz



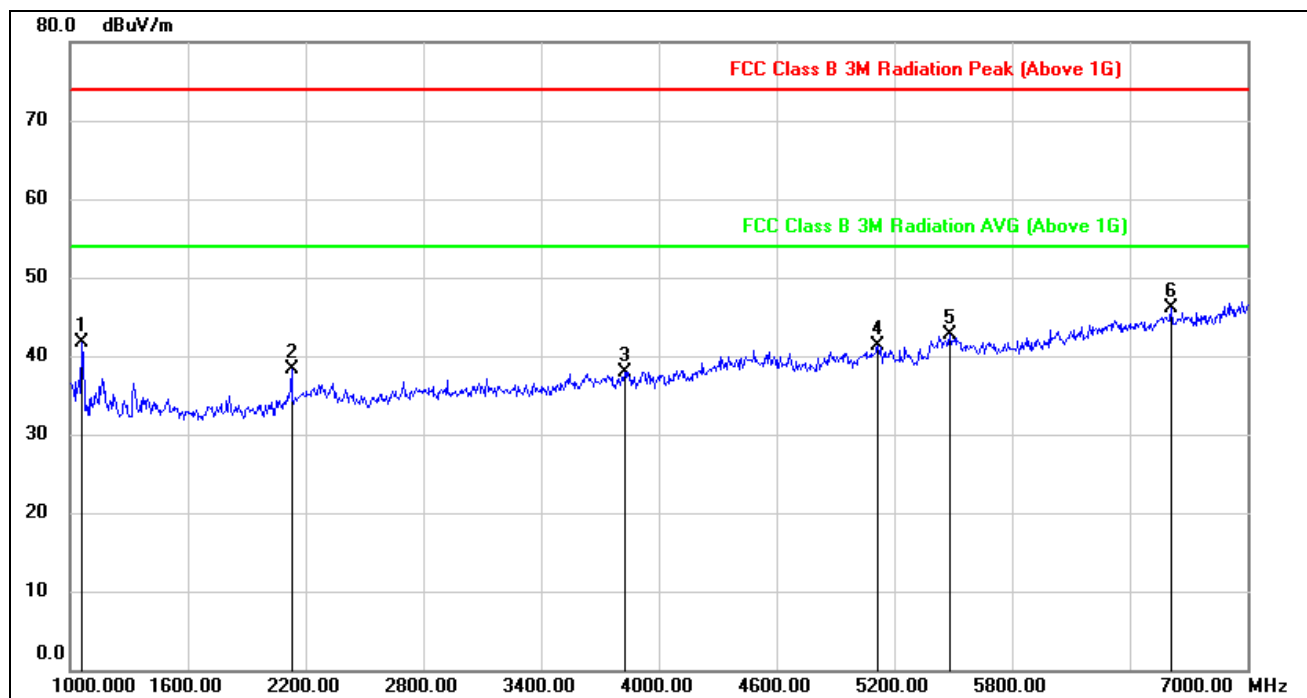
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9420.000	36.69	9.60	46.29	74.00	-27.71	peak
2	10564.000	36.38	11.90	48.28	74.00	-25.72	peak
3	12577.000	33.71	15.28	48.99	74.00	-25.01	peak
4	13501.000	32.29	18.57	50.86	74.00	-23.14	peak
5	17065.000	29.84	20.52	50.36	74.00	-23.64	peak
6	17791.000	27.75	24.52	52.27	74.00	-21.73	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.



HARMONICS AND SPURIOUS EMISSIONS MID CHANNEL

HORIZONTAL RESULTS 1-7GHz

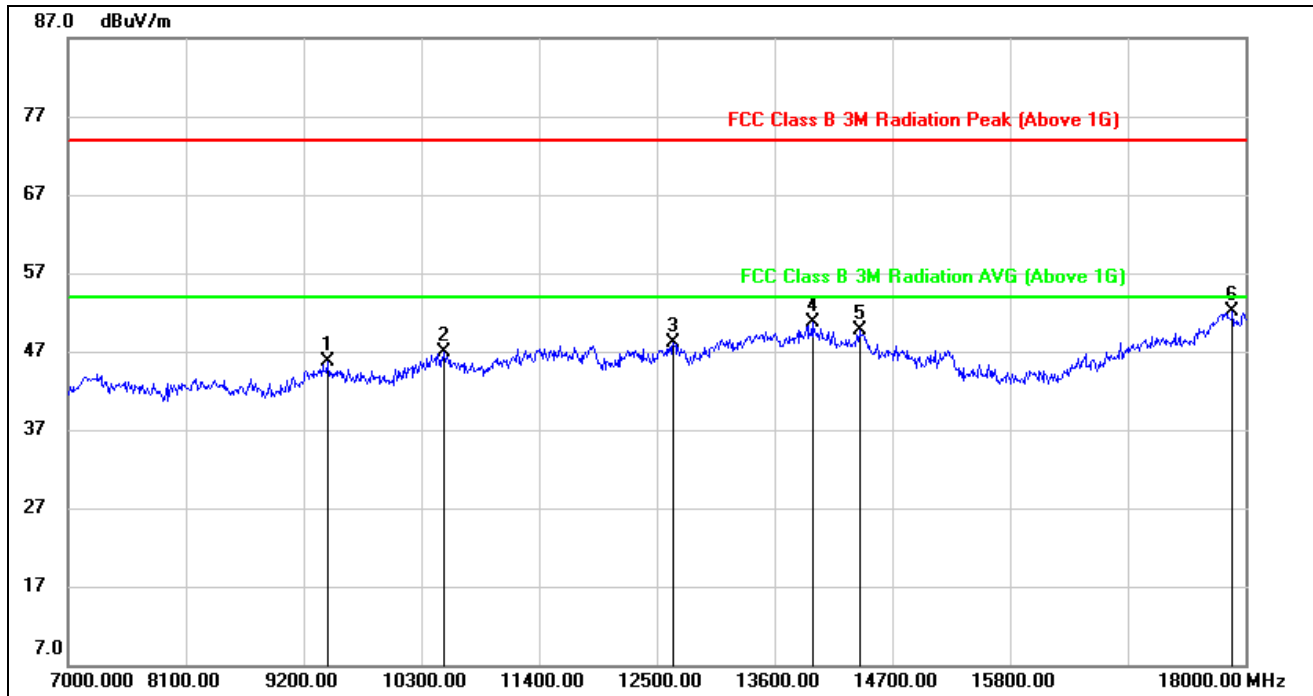


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1060.000	55.67	-14.01	41.66	74.00	-32.34	peak
2	2128.000	48.19	-9.84	38.35	74.00	-35.65	peak
3	3826.000	42.75	-4.76	37.99	74.00	-36.01	peak
4	5116.000	41.72	-0.41	41.31	74.00	-32.69	peak
5	5482.000	41.86	0.90	42.76	74.00	-31.24	peak
6	6610.000	41.84	4.22	46.06	74.00	-27.94	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.



HORIZONTAL RESULTS 7-18GHz

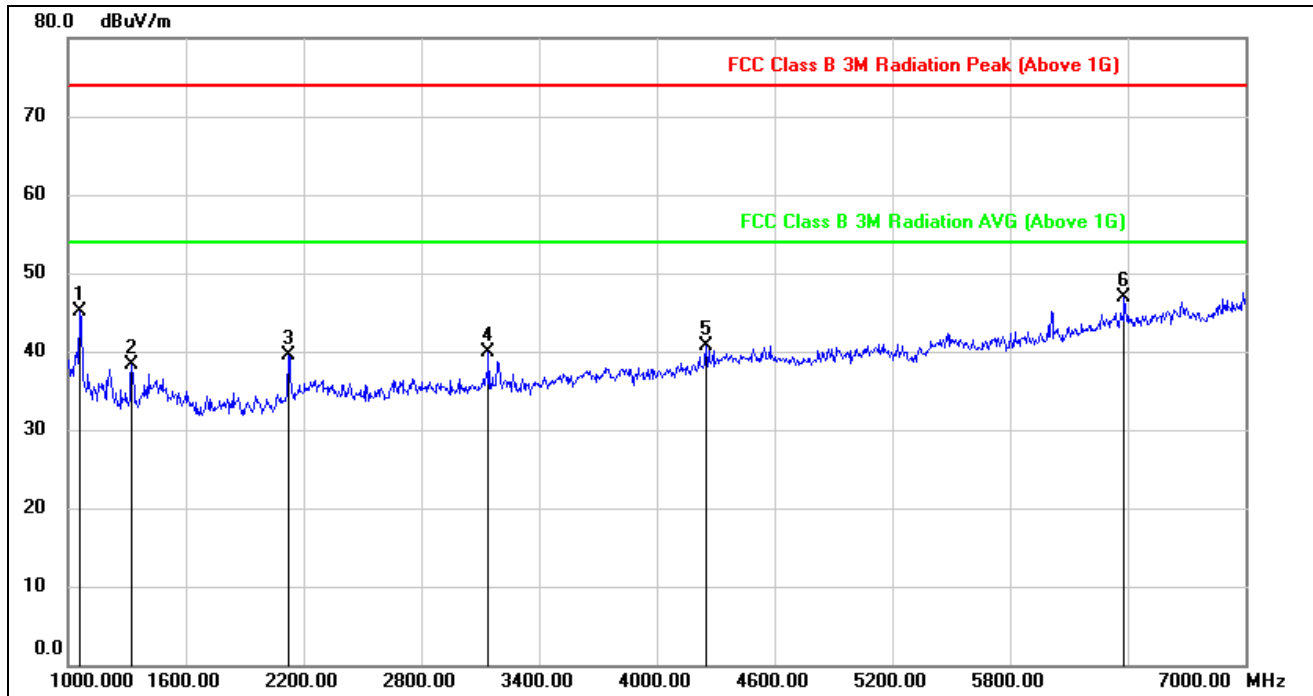


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9420.000	36.14	9.52	45.66	74.00	-28.34	peak
2	10509.000	34.91	11.93	46.84	74.00	-27.16	peak
3	12654.000	32.77	15.36	48.13	74.00	-25.87	peak
4	13952.000	32.17	18.56	50.73	74.00	-23.27	peak
5	14392.000	31.75	17.92	49.67	74.00	-24.33	peak
6	17879.000	28.11	24.09	52.20	74.00	-21.80	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.



VERTICAL RESULTS
1-7GHz

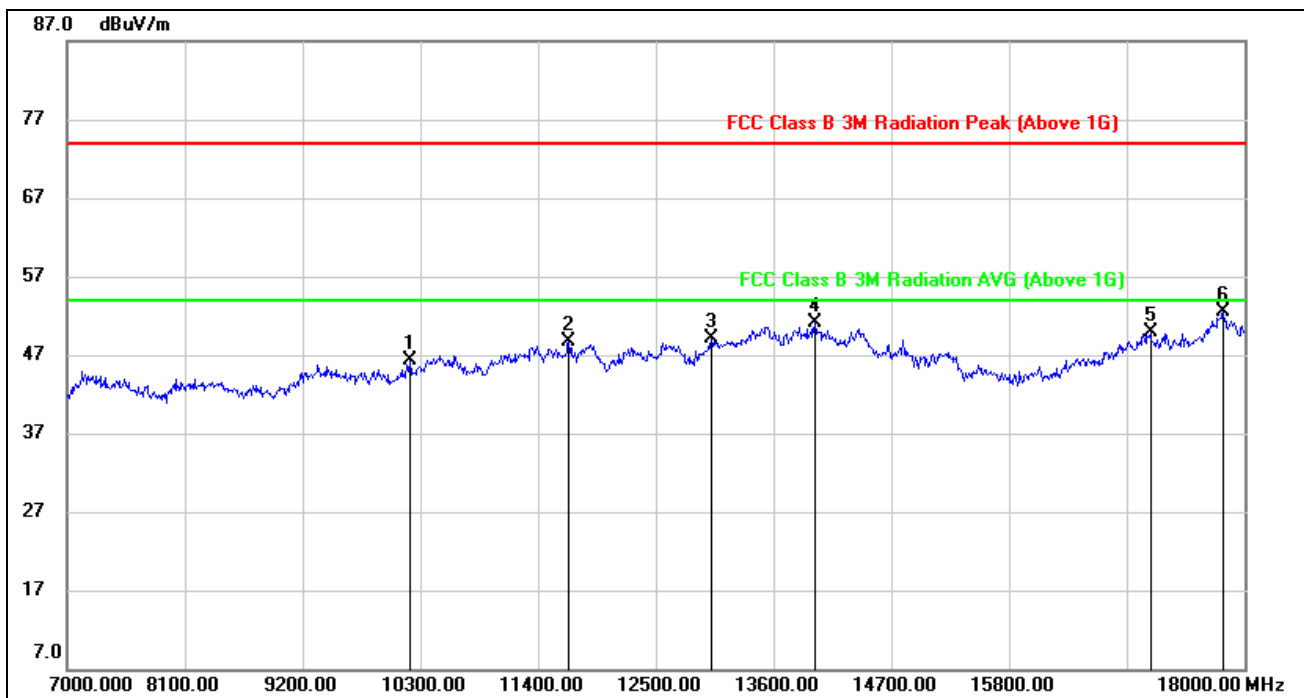


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1060.000	59.37	-14.31	45.06	74.00	-28.94	peak
2	1324.000	51.13	-12.86	38.27	74.00	-35.73	peak
3	2122.000	49.58	-10.03	39.55	74.00	-34.45	peak
4	3142.000	46.58	-6.66	39.92	74.00	-34.08	peak
5	4252.000	43.97	-3.33	40.64	74.00	-33.36	peak
6	6382.000	43.68	3.31	46.99	74.00	-27.01	peak

- Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.



7-18GHz



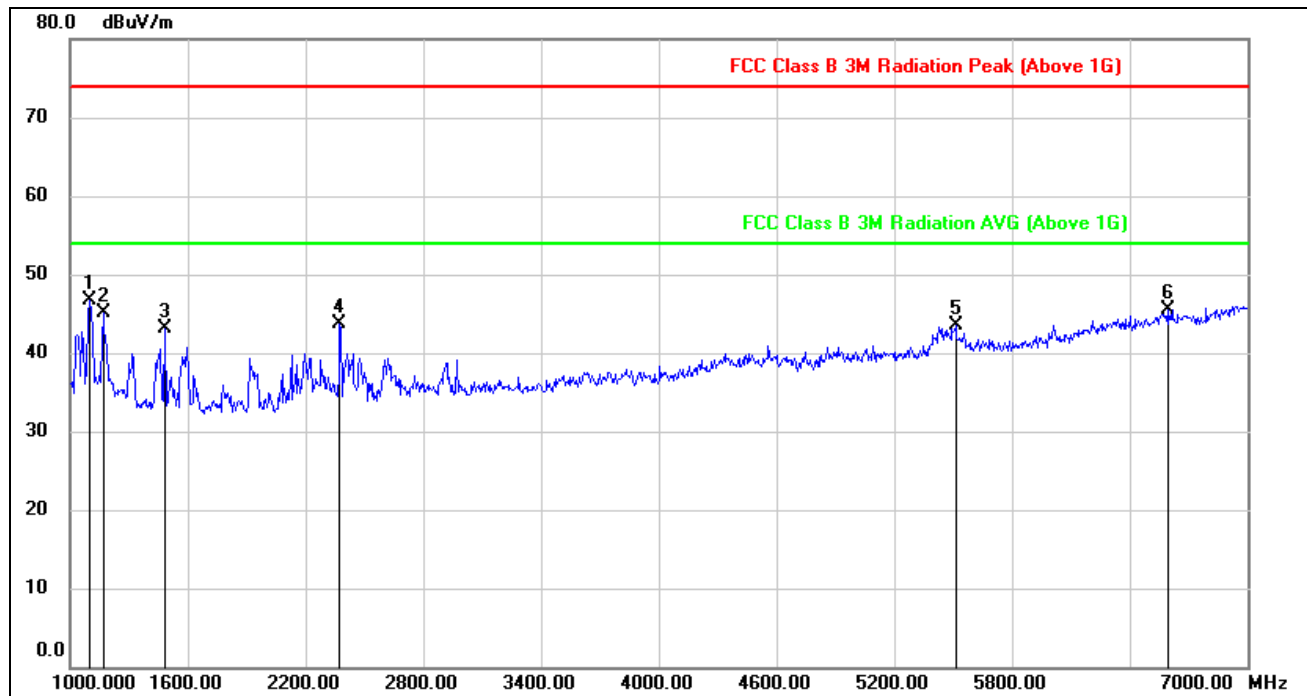
No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10201.000	35.28	10.96	46.24	74.00	-27.76	peak
2	11686.000	33.92	14.71	48.63	74.00	-25.37	peak
3	13017.000	32.29	16.76	49.05	74.00	-24.95	peak
4	13985.000	32.58	18.60	51.18	74.00	-22.82	peak
5	17120.000	29.15	20.66	49.81	74.00	-24.19	peak
6	17802.000	27.81	24.61	52.42	74.00	-21.58	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.



HARMONICS AND SPURIOUS EMISSIONS HIGH CHANNEL

HORIZONTAL RESULTS 1-7GHz

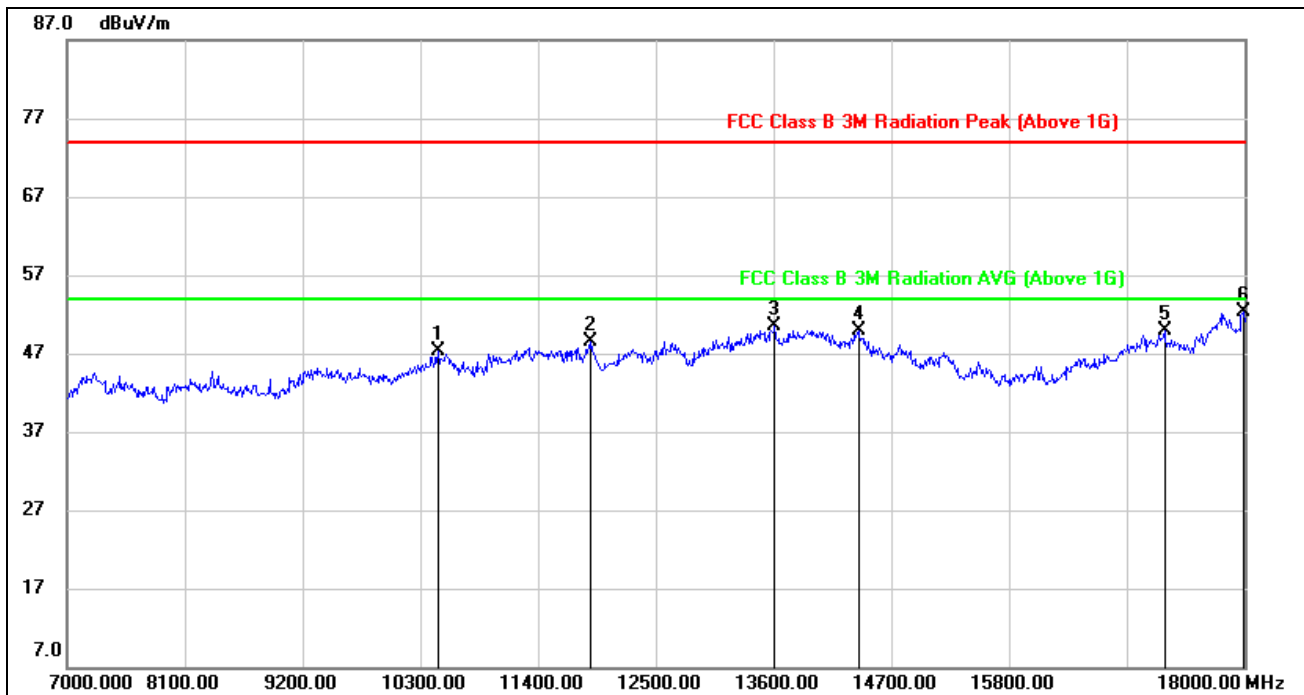


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1102.000	60.67	-13.89	46.78	74.00	-27.22	peak
2	1168.000	58.70	-13.60	45.10	74.00	-28.90	peak
3	1480.000	55.82	-12.65	43.17	74.00	-30.83	peak
4	2374.000	52.59	-8.85	43.74	74.00	-30.26	peak
5	5512.000	42.58	1.00	43.58	74.00	-30.42	peak
6	6592.000	41.36	4.19	45.55	74.00	-28.45	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.



HORIZONTAL RESULTS 7-18GHz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10465.000	35.57	11.74	47.31	74.00	-26.69	peak
2	11895.000	33.31	15.15	48.46	74.00	-25.54	peak
3	13611.000	31.96	18.50	50.46	74.00	-23.54	peak
4	14392.000	32.07	17.92	49.99	74.00	-24.01	peak
5	17252.000	29.36	20.50	49.86	74.00	-24.14	peak
6	17989.000	27.59	24.80	52.39	74.00	-21.61	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.