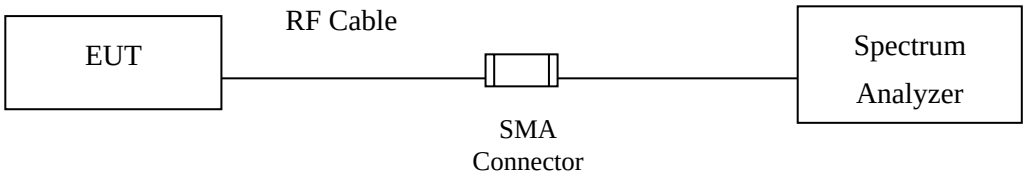
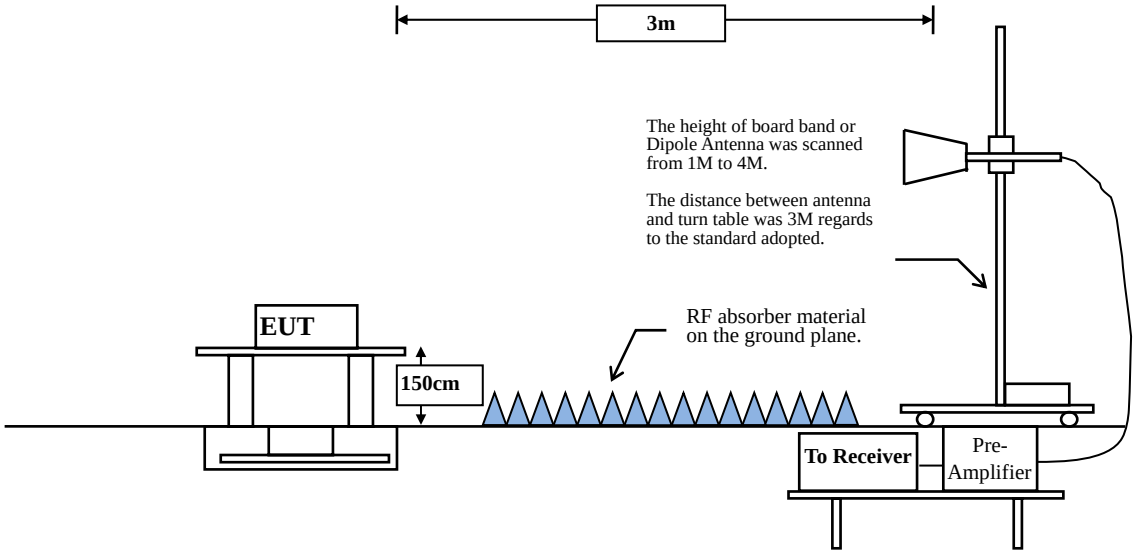
6. Band Edge

6.1. Test Setup

RF Conducted Measurement:



RF Radiated Measurement:



6.2. Limits

The provisions of Section 15.205 of this part apply to intentional radiators operating under this section.

Radiated emissions which fall in the restricted bands, as defined in Section 15.205, must also comply with the radiated emission limits specified in Section 15.209:

FCC Part 15 Subpart C Paragraph 15.209 Limits		
Frequency MHz	uV/m @3m	dBμV/m@3m
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Remarks : 1. RF Voltage (dBμV) = 20 log RF Voltage (uV)

2. In the Above Table, the tighter limit applies at the band edges.

3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

Undesirable emission limits. Except as the provisions of §15.205 apply to intentional radiators operating under this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

(4) For transmitters operating in the 5.725-5.85 GHz band:

(i) All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

6.3. Test Procedure

The EUT is placed on a turn table which is 1.5 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10:2013 on radiated measurement.

The bandwidth below 1GHz setting on the field strength meter is 120 kHz, above 1GHz are 1 MHz.

The EUT was setup to ANSI C63.10, 2013; tested to UNII test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.

RBW and VBW Parameter setting:

According to KDB 789033 section II.G.5 Procedure for Unwanted Maximum Emissions Measurements above 1000 MHz.

RBW = 1MHz.

VBW ≥ 3MHz.

According to KDB 789033 section II.G.6 Procedures for Average Unwanted Emissions Measurements above 1000 MHz.

RBW = 1MHz.

VBW = 10Hz, when duty cycle ≥ 98 %

VBW ≥ 1/T, when duty cycle < 98 %

(T refers to 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.)

5GHz band	Duty Cycle (%)	T (ms)	1/T (Hz)	VBW (Hz)
802.11a	96.44	3.5290	283	300
802.11n20	92.51	1.7899	559	1k
802.11n40	88.93	1.7464	573	1k
802.11ac80	89.59	1.7464	573	1k

Note: Duty Cycle Refer to Section 8

6.4. Uncertainty

Conducted: ±1.23dB

Radiated:

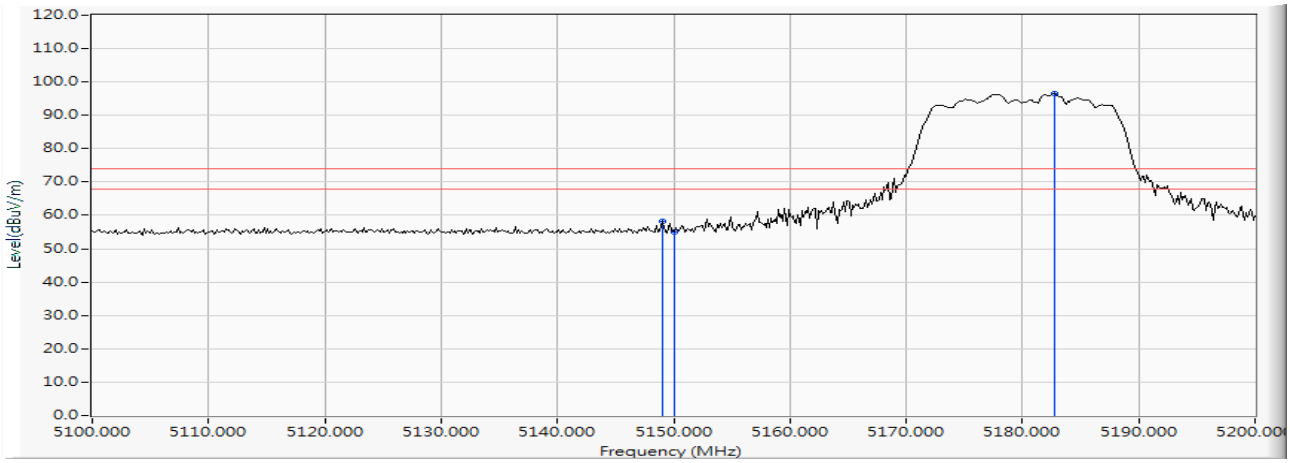
Horizontal polarization：1-18GHz: ±3.77dB

Vertical polarization：1-18GHz : ±3.83dB

6.5. Test Result of Band Edge

Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 1: Transmit (802.11a 6Mbps) (5180MHz)
Test Date : 2019/10/08

Horizontal



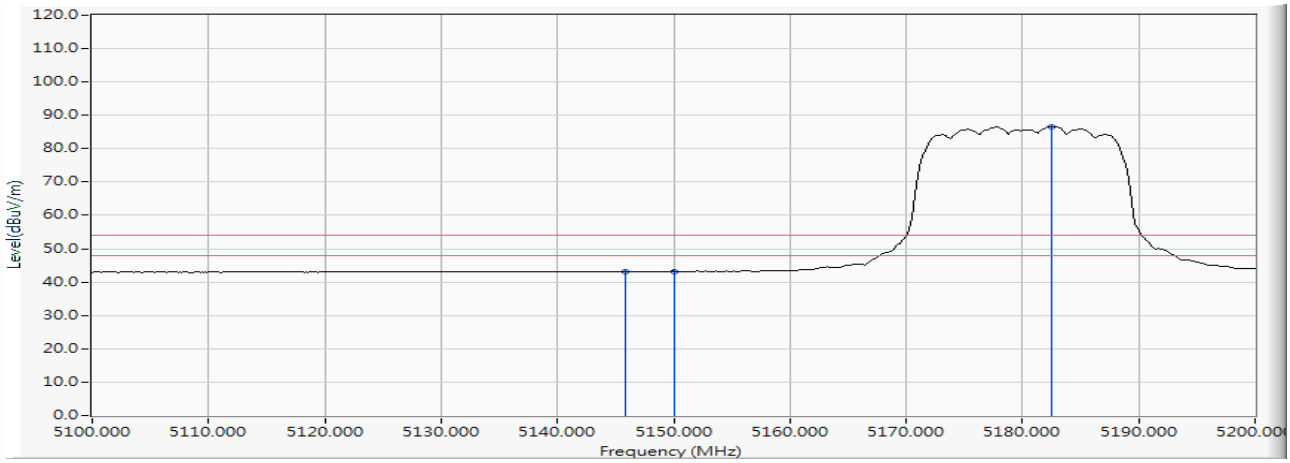
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5148.985	15.302	42.771	58.072	-15.928	74.000	PEAK
2		5150.000	15.307	39.853	55.160	-18.840	74.000	PEAK
3	*	5182.753	15.404	81.033	96.437	--	--	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	UNIT ASSY DA
Test Item	:	Band Edge Data
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5180MHz)
Test Date	:	2019/10/08

Horizontal



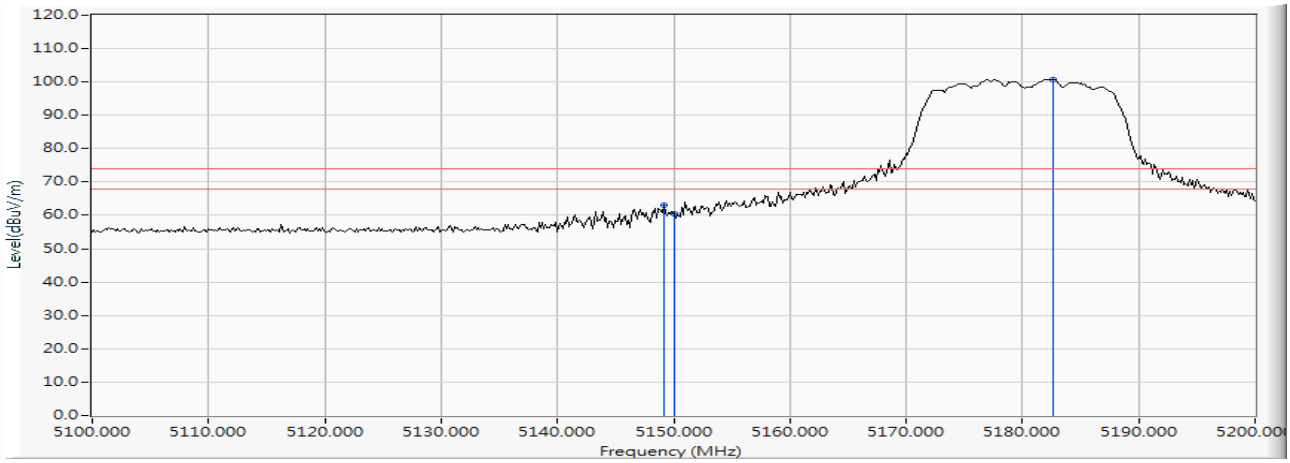
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5145.797	15.283	27.973	43.256	-10.744	54.000	AVERAGE
2		5150.000	15.307	27.888	43.195	-10.805	54.000	AVERAGE
3	*	5182.464	15.403	71.289	86.692	--	--	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	UNIT ASSY DA
Test Item	:	Band Edge Data
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5180MHz)
Test Date	:	2019/10/08

Vertical



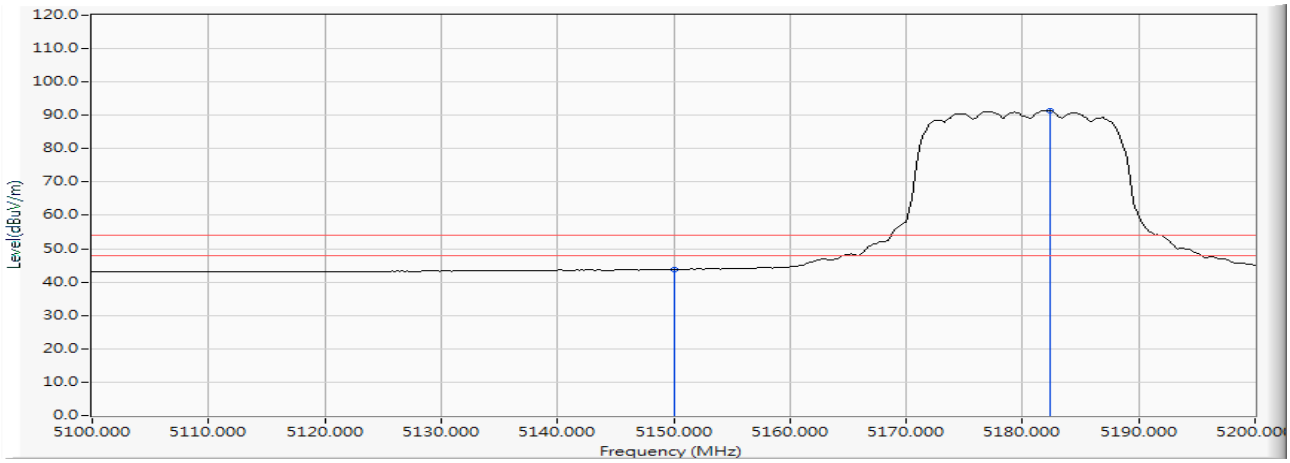
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5149.130	15.302	47.893	63.195	-10.805	74.000	PEAK
2		5150.000	15.307	45.335	60.642	-13.358	74.000	PEAK
3	*	5182.609	15.403	85.356	100.760	--	--	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	UNIT ASSY DA
Test Item	:	Band Edge Data
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5180MHz)
Test Date	:	2019/10/08

Vertical



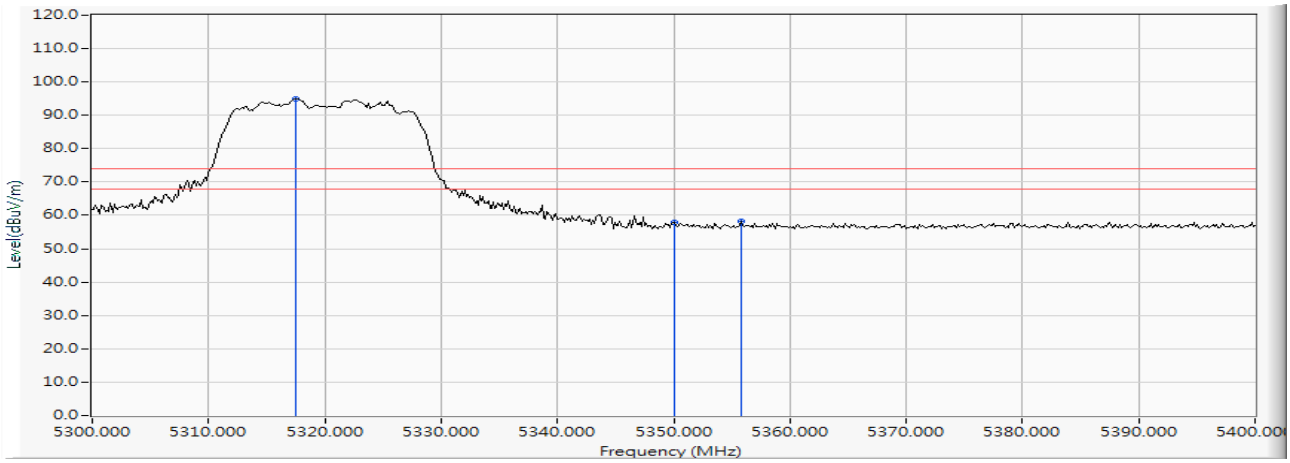
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5150.000	15.307	28.538	43.845	-10.155	54.000	AVERAGE
2	*	5182.319	15.403	76.057	91.459	--	--	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 1: Transmit (802.11a 6Mbps) (5320MHz)
Test Date : 2019/10/08

Horizontal



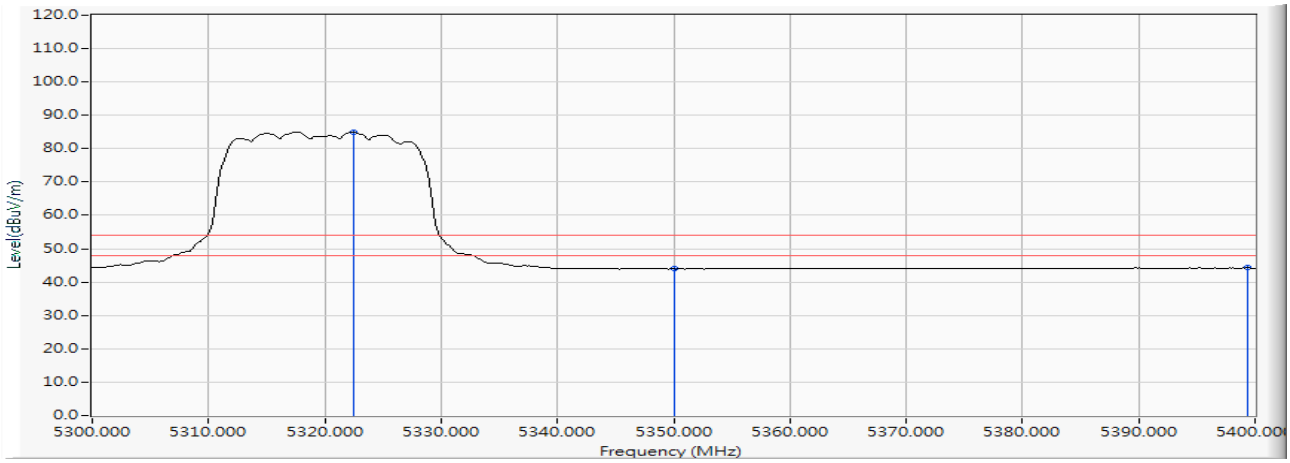
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5317.536	15.842	79.043	94.885	--	--	PEAK
2		5350.000	15.912	41.993	57.905	-16.095	74.000	PEAK
3		5355.797	15.930	42.163	58.093	-15.907	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	UNIT ASSY DA
Test Item	:	Band Edge Data
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5320MHz)
Test Date	:	2019/10/08

Horizontal



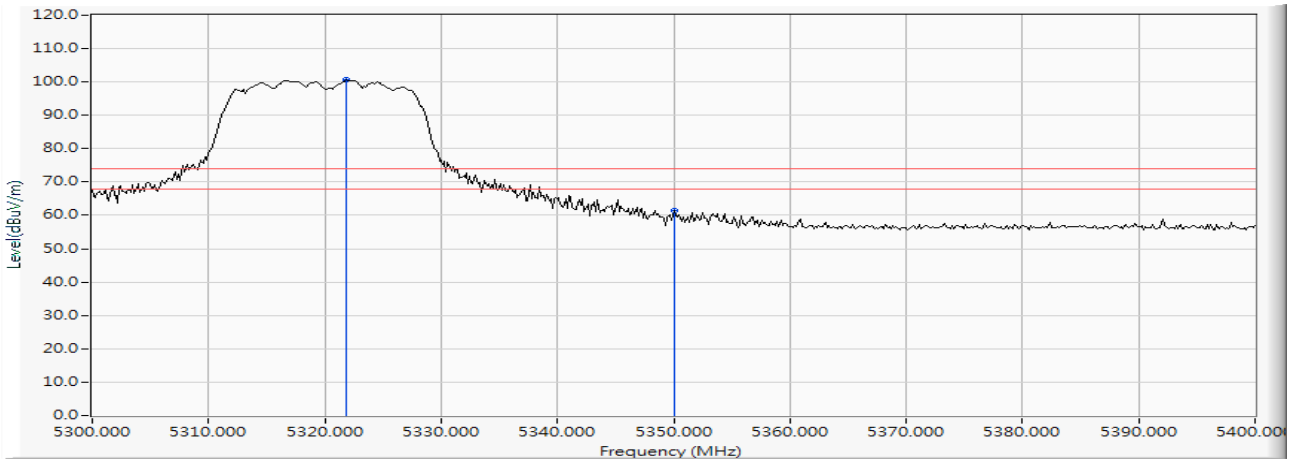
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5322.464	15.858	69.080	84.938	--	--	AVERAGE
2		5350.000	15.912	28.063	43.975	-10.025	54.000	AVERAGE
3		5399.420	16.028	28.278	44.306	-9.694	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 1: Transmit (802.11a 6Mbps) (5320MHz)
Test Date : 2019/10/08

Vertical



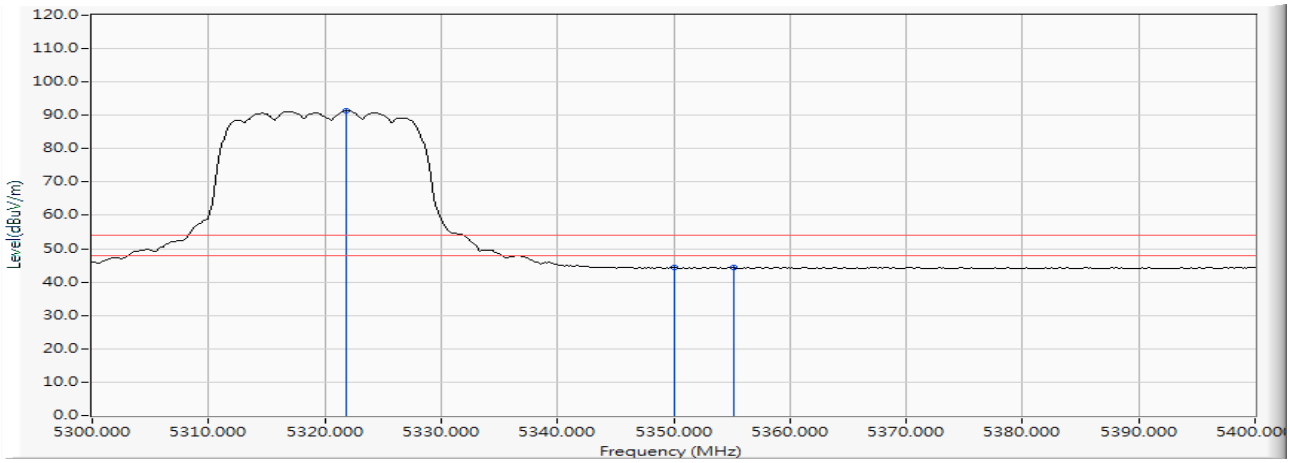
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5321.884	15.856	84.826	100.682	--	--	PEAK
2		5350.000	15.912	45.465	61.377	-12.623	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	UNIT ASSY DA
Test Item	:	Band Edge Data
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5320MHz)
Test Date	:	2019/10/08

Vertical



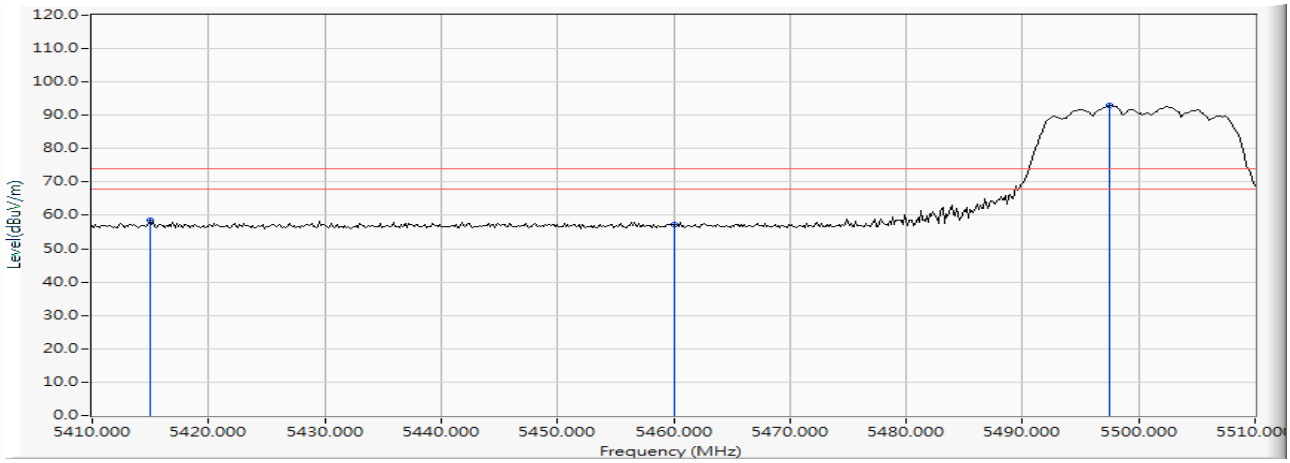
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5321.884	15.856	75.498	91.354	--	--	AVERAGE
2		5350.000	15.912	28.374	44.286	-9.714	54.000	AVERAGE
3		5355.217	15.928	28.383	44.311	-9.689	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 1: Transmit (802.11a 6Mbps) (5500MHz)
Test Date : 2019/05/09

Horizontal



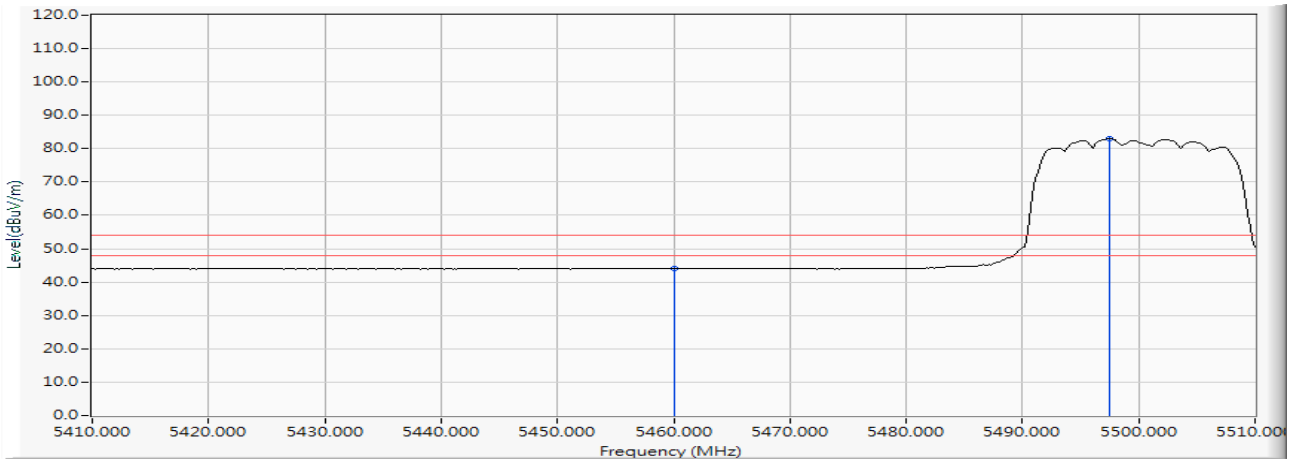
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5414.928	16.067	42.369	58.436	-15.564	74.000	PEAK
2		5460.000	16.185	41.222	57.407	-16.593	74.000	PEAK
3	*	5497.536	16.267	76.713	92.980	--	--	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	UNIT ASSY DA
Test Item	:	Band Edge Data
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5500MHz)
Test Date	:	2019/05/09

Horizontal



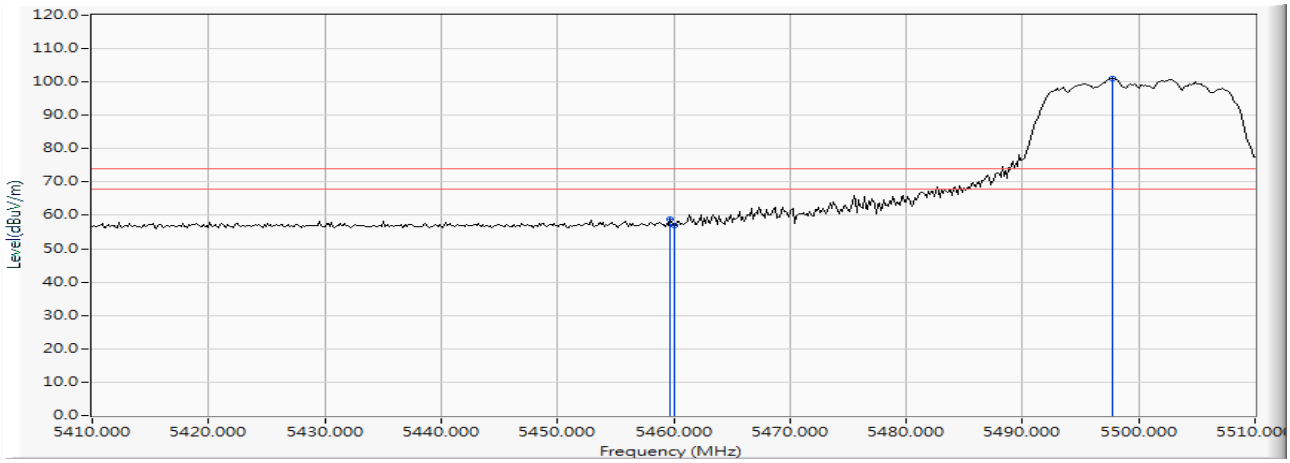
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5460.000	16.185	27.771	43.956	-10.044	54.000	AVERAGE
2	*	5497.536	16.267	66.655	82.922	--	--	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	UNIT ASSY DA
Test Item	:	Band Edge Data
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5500MHz)
Test Date	:	2019/05/09

Vertical



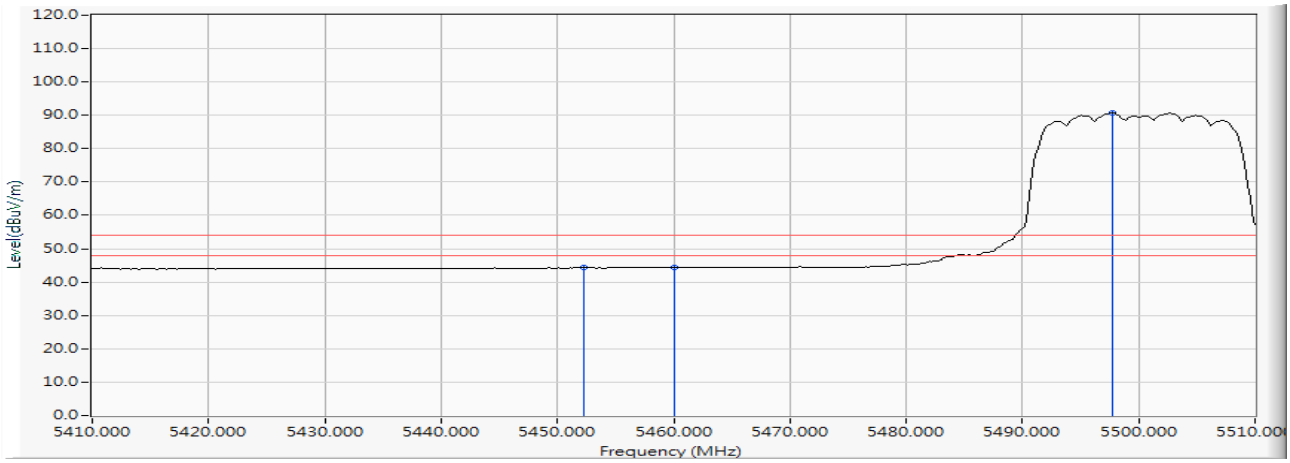
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5459.710	16.184	42.584	58.768	-15.232	74.000	PEAK
2		5460.000	16.185	40.871	57.056	-16.944	74.000	PEAK
3	*	5497.681	16.267	84.769	101.036	--	--	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	UNIT ASSY DA
Test Item	:	Band Edge Data
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5500MHz)
Test Date	:	2019/05/09

Vertical



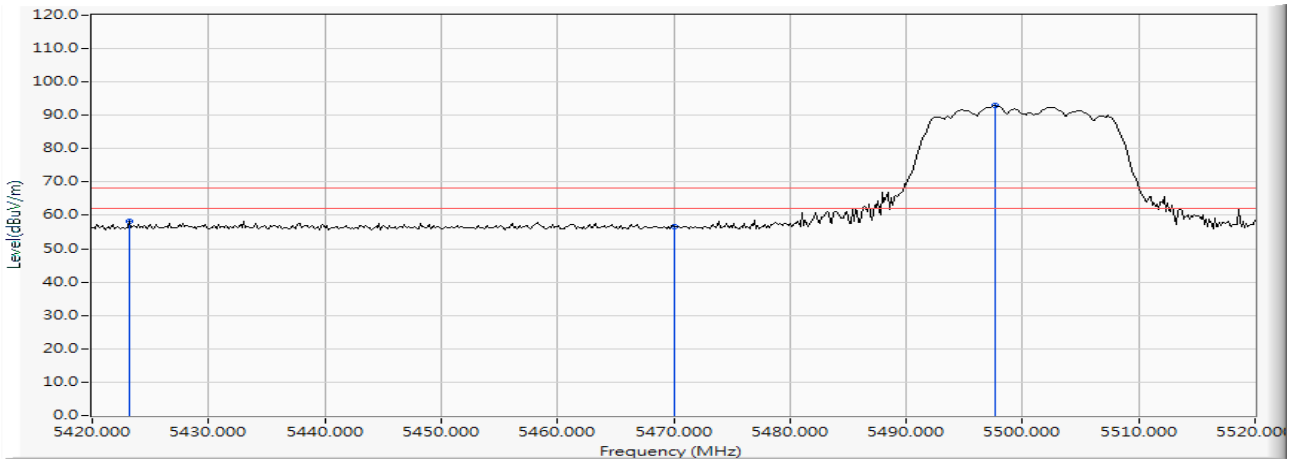
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5452.319	16.165	28.308	44.473	-9.527	54.000	AVERAGE
2		5460.000	16.185	28.066	44.251	-9.749	54.000	AVERAGE
3	*	5497.681	16.267	74.487	90.754	--	--	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

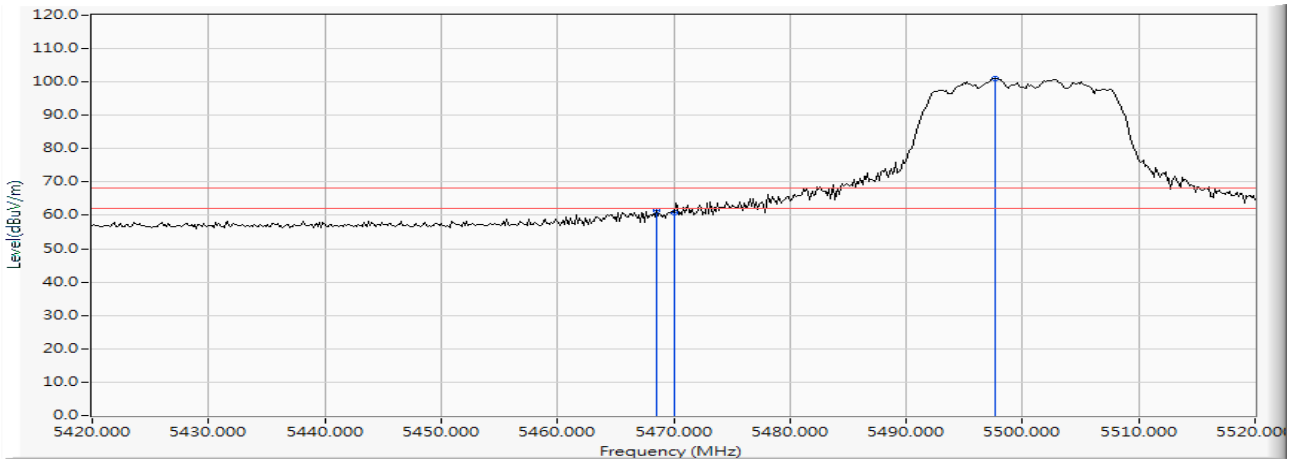
Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 1: Transmit (802.11a 6Mbps) (5500MHz)
Test Date : 2019/05/09

Horizontal



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5423.188	16.090	42.049	58.139	-10.081	68.220	PEAK
2		5470.000	16.200	40.330	56.530	-11.690	68.220	PEAK
3	*	5497.681	16.267	76.605	92.872	--	--	PEAK

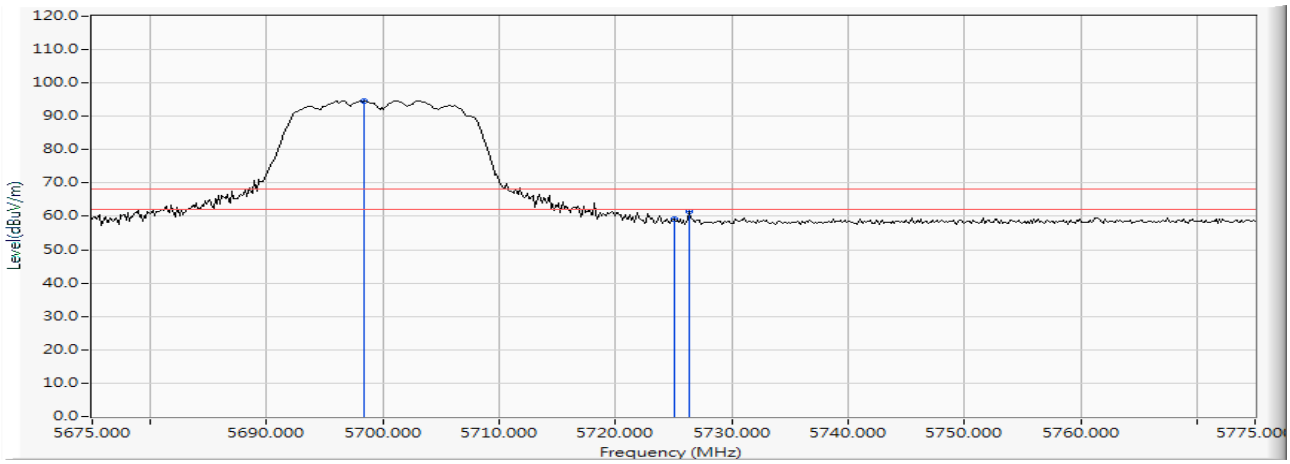
Vertical



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5468.551	16.197	45.182	61.379	-6.841	68.220	PEAK
2		5470.000	16.200	44.545	60.745	-7.475	68.220	PEAK
3	*	5497.681	16.267	84.767	101.034	--	--	PEAK

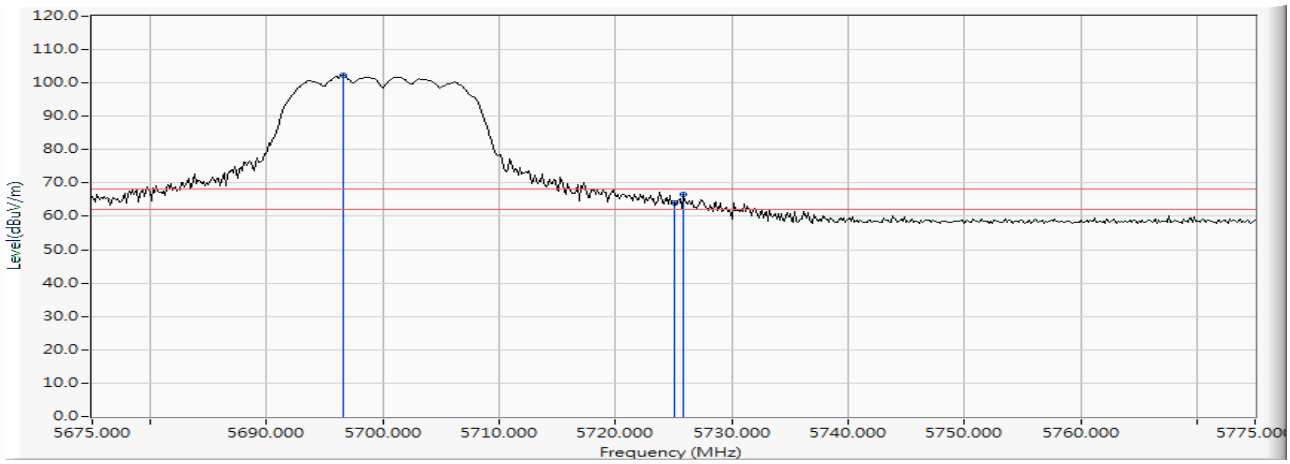
Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 1: Transmit (802.11a 6Mbps) (5700MHz)
Test Date : 2019/05/09

Horizontal



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5698.333	16.500	78.208	94.708	--	--	PEAK
2		5725.000	16.544	42.590	59.134	-9.086	68.220	PEAK
3		5726.304	16.547	44.843	61.390	-6.830	68.220	PEAK

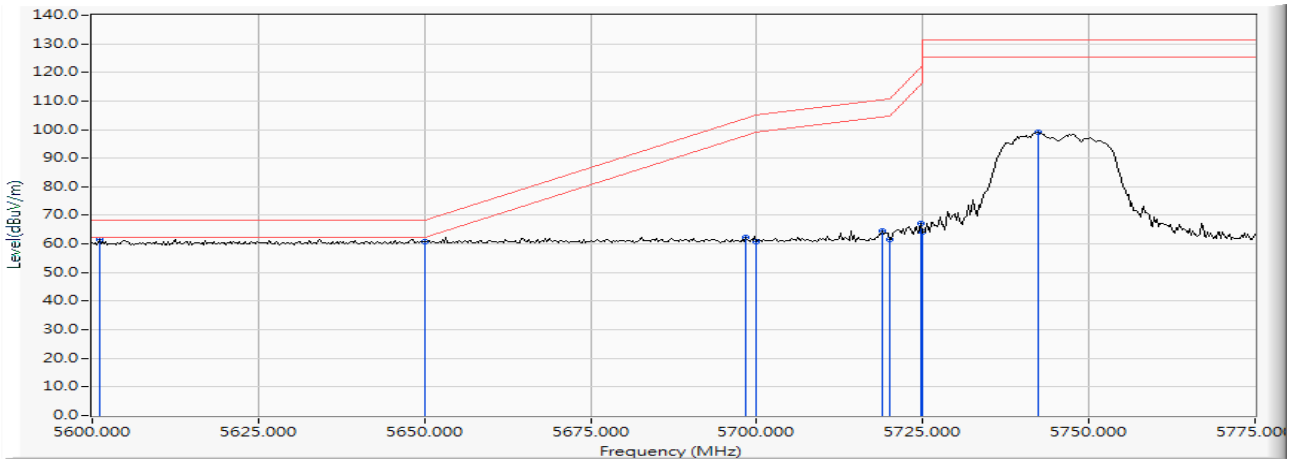
Vertical



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5696.594	16.497	85.924	102.421	--	--	PEAK
2		5725.000	16.544	47.617	64.161	-4.059	68.220	PEAK
3		5725.870	16.546	50.124	66.670	-1.550	68.220	PEAK

Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 1: Transmit (802.11a 6Mbps) (5745MHz)
Test Date : 2019/05/09

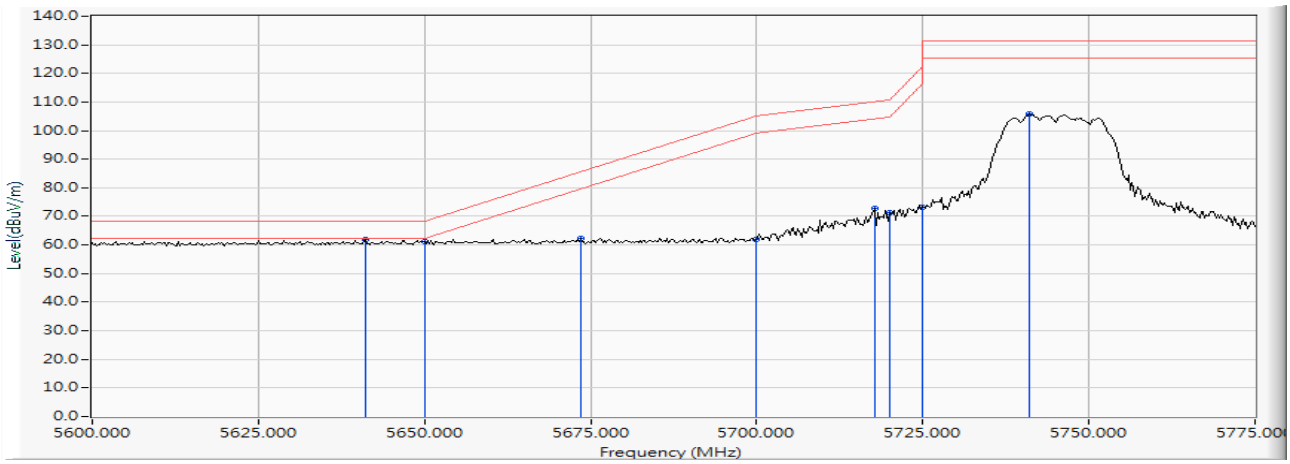
Horizontal



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5601.014	16.385	45.210	61.594	-6.626	68.220	PEAK
2		5650.000	16.447	44.294	60.741	-7.479	68.220	PEAK
3		5698.406	16.500	45.763	62.263	-41.758	104.021	PEAK
4		5700.000	16.502	44.370	60.872	-44.328	105.200	PEAK
5		5718.949	16.533	48.003	64.536	-45.970	110.506	PEAK
6		5720.000	16.535	45.058	61.593	-49.207	110.800	PEAK
7		5724.783	16.544	50.709	67.253	-54.452	121.705	PEAK
8		5725.000	16.544	47.734	64.278	-57.922	122.200	PEAK
9		5742.283	16.557	82.417	98.974	--	--	PEAK

Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 1: Transmit (802.11a 6Mbps) (5745MHz)
Test Date : 2019/05/09

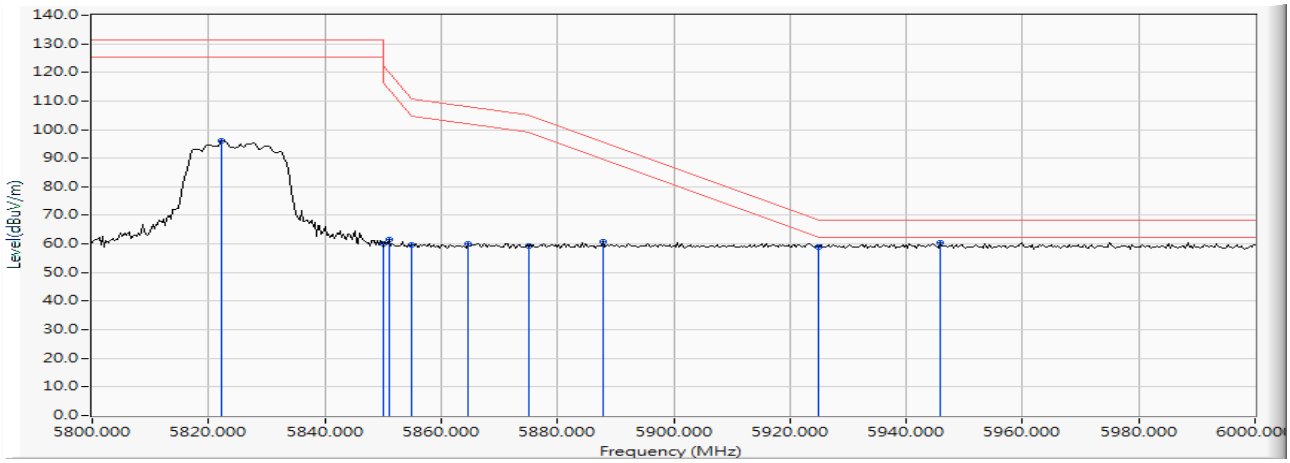
Vertical



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5641.087	16.423	45.357	61.779	-6.441	68.220	PEAK
2		5650.000	16.447	44.557	61.004	-7.216	68.220	PEAK
3		5673.551	16.471	45.809	62.280	-23.358	85.638	PEAK
4		5700.000	16.502	45.605	62.107	-43.093	105.200	PEAK
5		5717.681	16.530	56.101	72.632	-37.519	110.151	PEAK
6		5720.000	16.535	54.656	71.191	-39.609	110.800	PEAK
7		5725.000	16.544	56.817	73.361	-48.839	122.200	PEAK
8		5741.014	16.557	89.241	105.797	--	--	PEAK

Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 1: Transmit (802.11a 6Mbps) (5825MHz)
Test Date : 2019/05/09

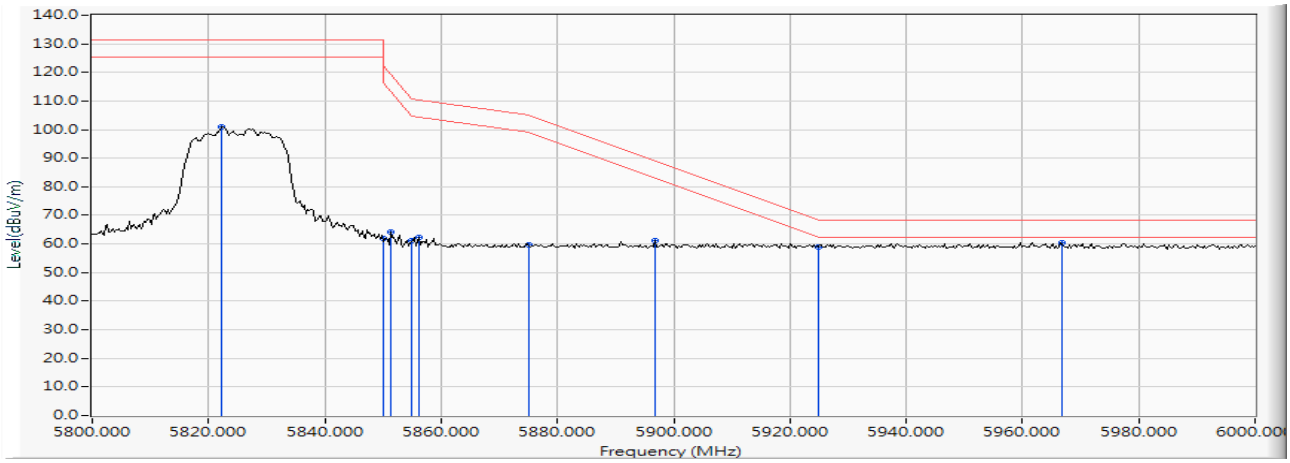
Horizontal



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5822.319	16.708	79.229	95.937	--	--	PEAK
2		5850.000	16.748	43.166	59.914	-62.286	122.200	PEAK
3		5851.014	16.750	44.931	61.681	-58.207	119.888	PEAK
4		5855.000	16.758	42.745	59.503	-51.297	110.800	PEAK
5		5864.638	16.781	43.418	60.199	-47.902	108.101	PEAK
6		5875.000	16.807	42.323	59.131	-46.069	105.200	PEAK
7		5887.826	16.844	43.845	60.689	-35.020	95.709	PEAK
8		5925.000	16.920	42.008	58.928	-9.272	68.200	PEAK
9	*	5945.797	16.946	43.330	60.276	-7.924	68.200	PEAK

Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 1: Transmit (802.11a 6Mbps) (5825MHz)
Test Date : 2019/05/09

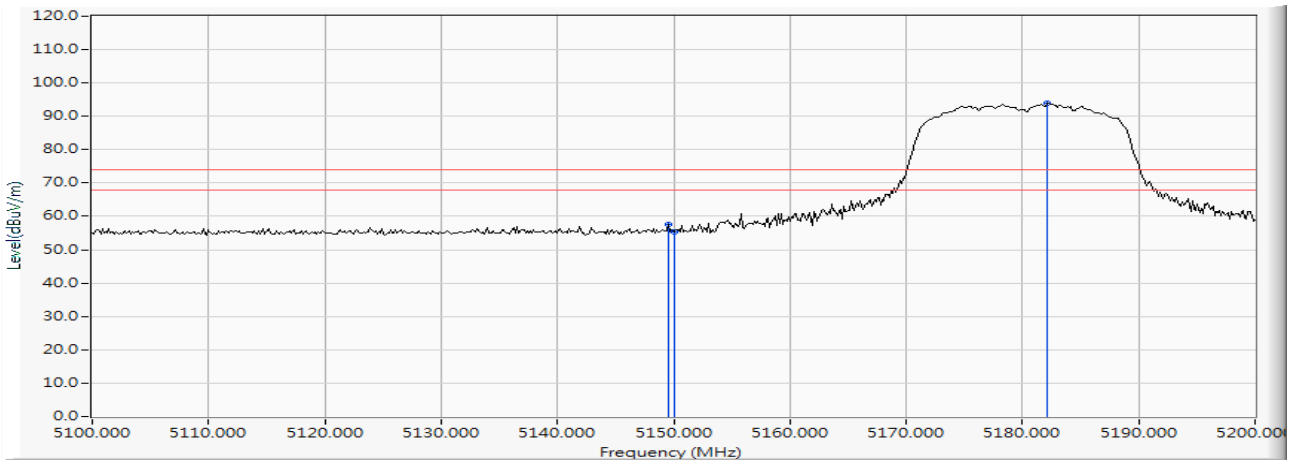
Vertical



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5822.319	16.708	84.111	100.819	--	--	PEAK
2		5850.000	16.748	45.210	61.958	-60.242	122.200	PEAK
3		5851.304	16.750	47.539	64.289	-54.938	119.227	PEAK
4		5855.000	16.758	44.317	61.075	-49.725	110.800	PEAK
5		5856.232	16.761	45.378	62.139	-48.316	110.455	PEAK
6		5875.000	16.807	42.684	59.492	-45.708	105.200	PEAK
7		5896.812	16.856	44.199	61.055	-28.004	89.059	PEAK
8		5925.000	16.920	42.039	58.959	-9.241	68.200	PEAK
9	*	5966.667	16.989	43.443	60.432	-7.768	68.200	PEAK

Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5180MHz)
Test Date : 2019/10/08

Horizontal



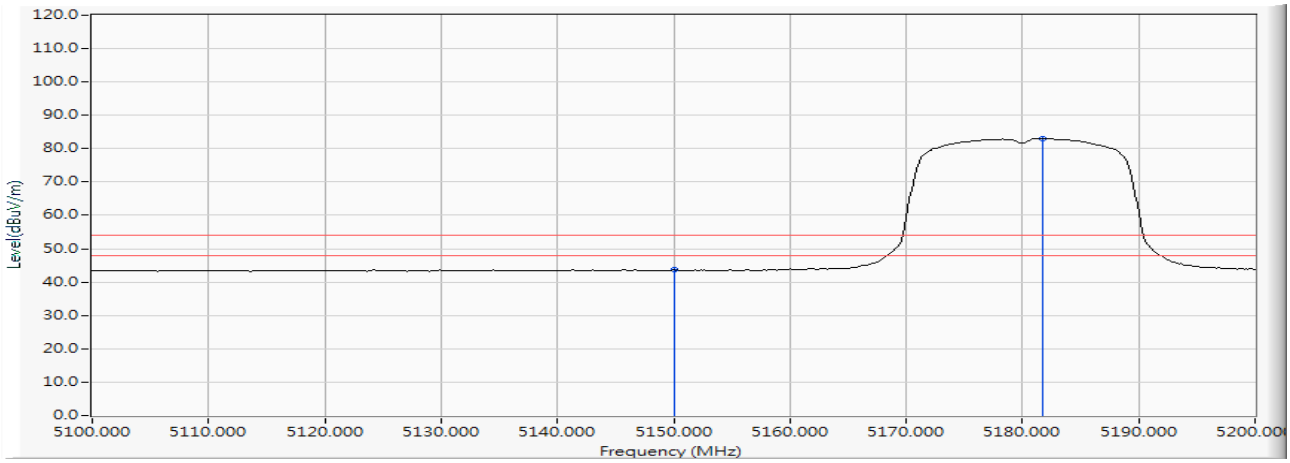
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5149.565	15.304	42.338	57.643	-16.357	74.000	PEAK
2		5150.000	15.307	40.021	55.328	-18.672	74.000	PEAK
3	*	5182.174	15.401	78.522	93.924	--	--	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	UNIT ASSY DA
Test Item	:	Band Edge Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5180MHz)
Test Date	:	2019/10/08

Horizontal



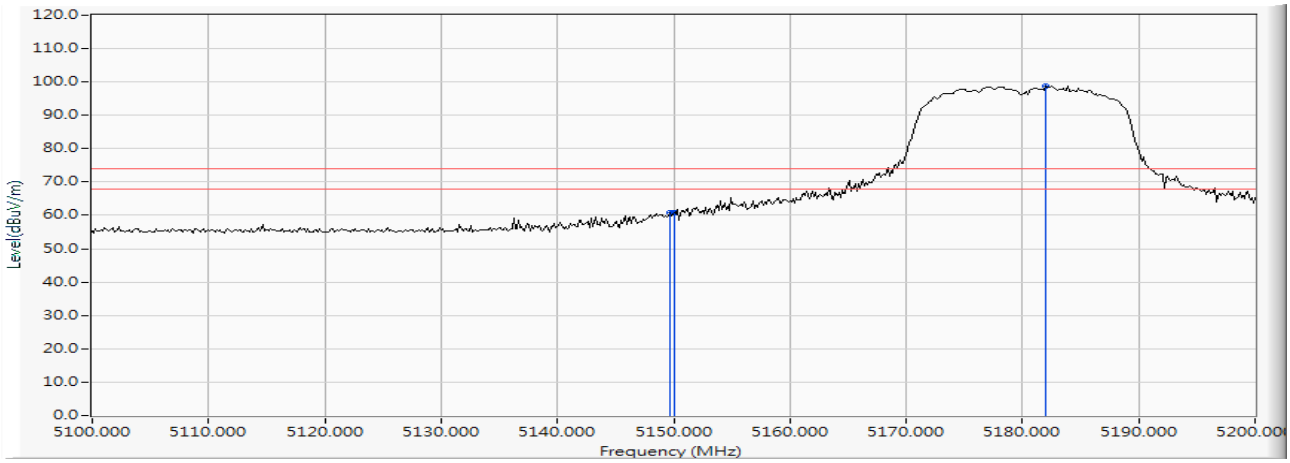
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5150.000	15.307	28.420	43.727	-10.273	54.000	AVERAGE
2	*	5181.739	15.400	67.630	83.030	--	--	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	UNIT ASSY DA
Test Item	:	Band Edge Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5180MHz)
Test Date	:	2019/10/08

Vertical



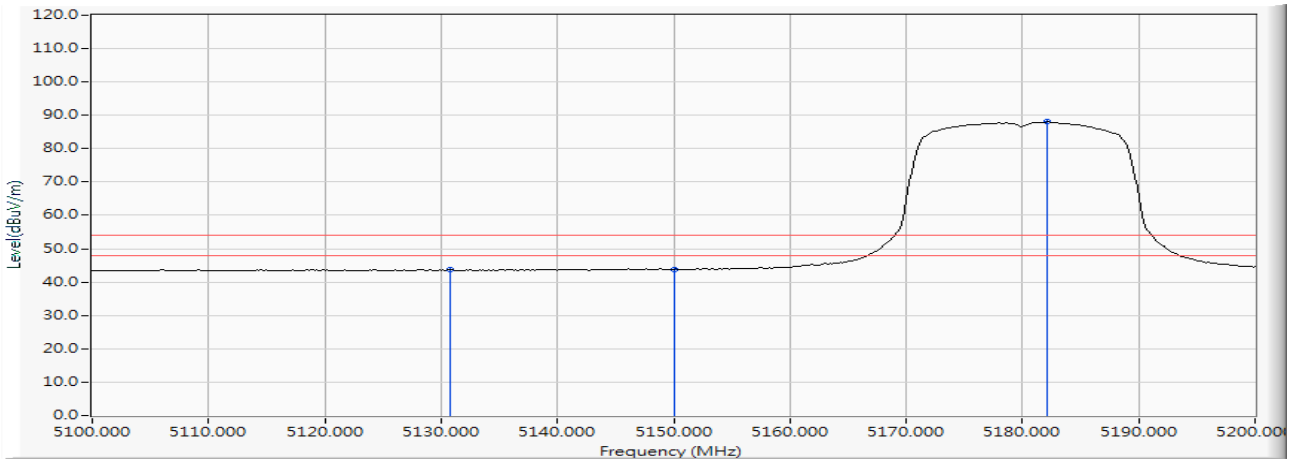
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5149.710	15.305	45.547	60.852	-13.148	74.000	PEAK
2		5150.000	15.307	45.404	60.711	-13.289	74.000	PEAK
3	*	5182.029	15.401	83.519	98.920	--	--	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	UNIT ASSY DA
Test Item	:	Band Edge Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5180MHz)
Test Date	:	2019/10/08

Vertical



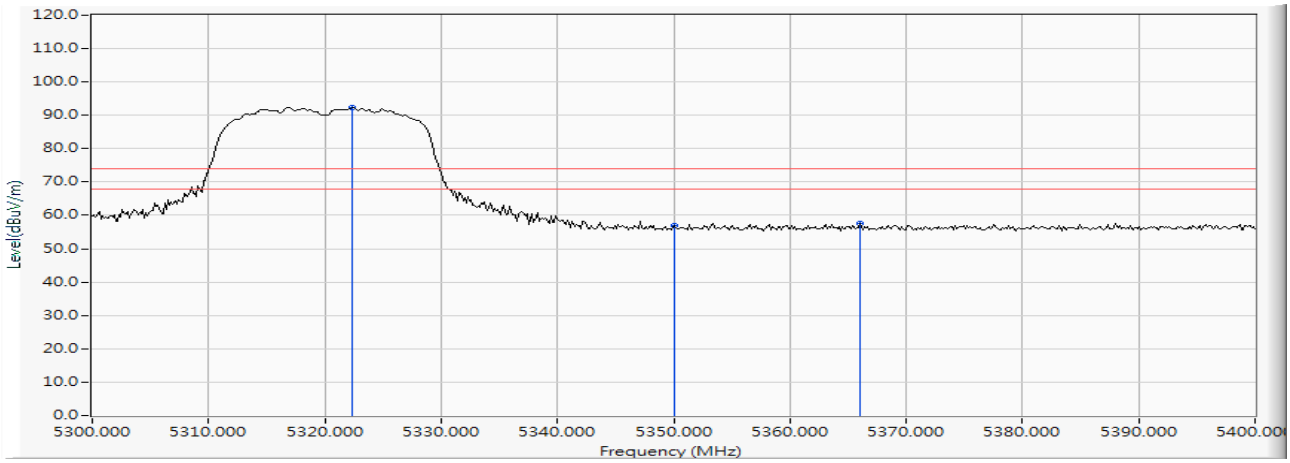
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5130.725	15.204	28.671	43.875	-10.125	54.000	AVERAGE
2		5150.000	15.307	28.510	43.817	-10.183	54.000	AVERAGE
3	*	5182.174	15.401	72.626	88.028	--	--	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5320MHz)
Test Date : 2019/10/08

Horizontal



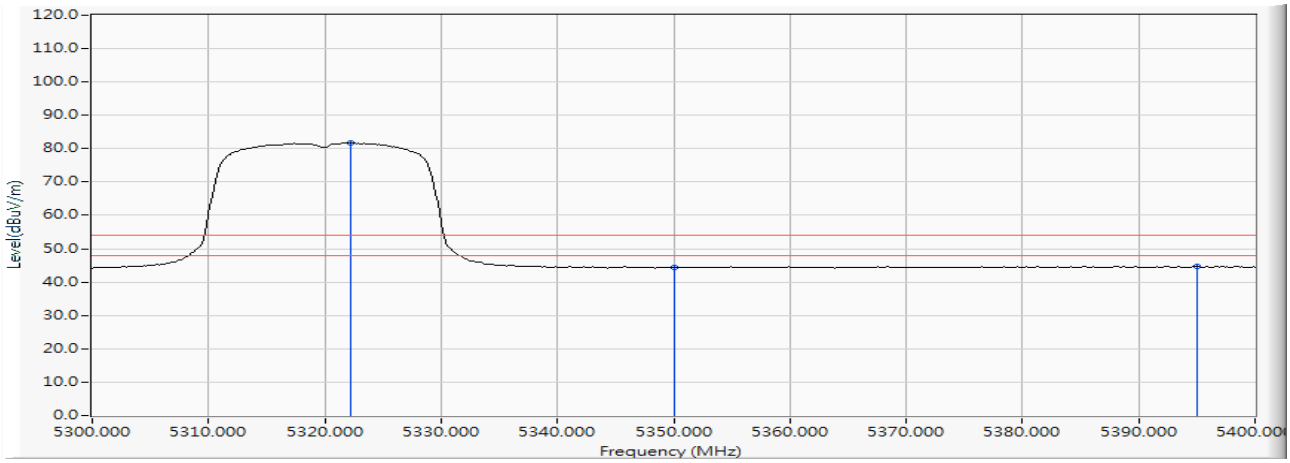
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5322.319	15.858	76.489	92.346	--	--	PEAK
2		5350.000	15.912	40.924	56.836	-17.164	74.000	PEAK
3		5366.087	15.963	41.709	57.672	-16.328	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	UNIT ASSY DA
Test Item	:	Band Edge Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5320MHz)
Test Date	:	2019/10/08

Horizontal



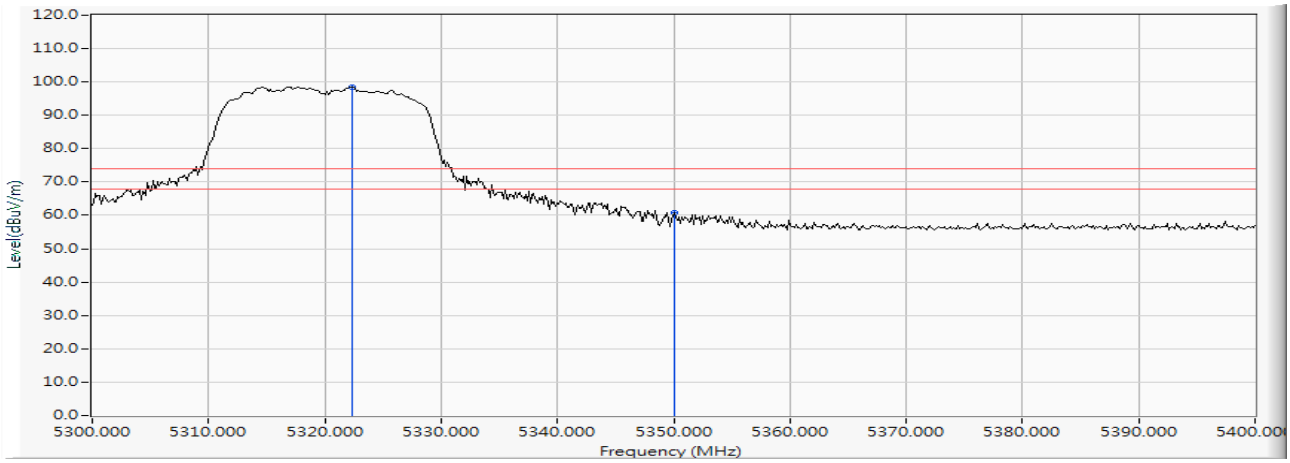
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5322.174	15.857	65.879	81.736	--	--	AVERAGE
2		5350.000	15.912	28.375	44.287	-9.713	54.000	AVERAGE
3		5395.072	16.023	28.808	44.831	-9.169	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	UNIT ASSY DA
Test Item	:	Band Edge Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5320MHz)
Test Date	:	2019/10/08

Vertical



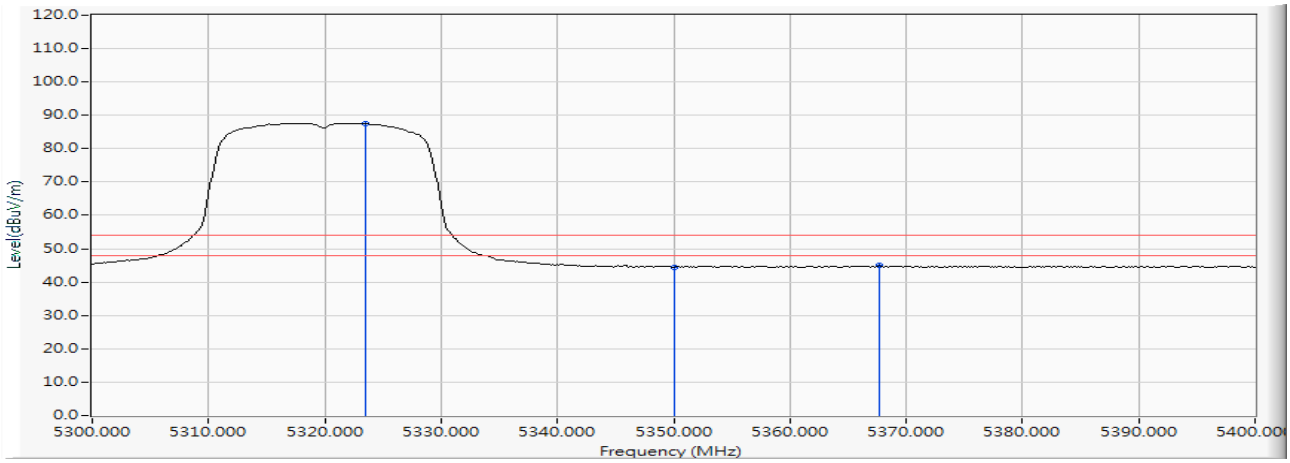
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5322.319	15.858	82.664	98.521	--	--	PEAK
2		5350.000	15.912	44.846	60.758	-13.242	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	UNIT ASSY DA
Test Item	:	Band Edge Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5320MHz)
Test Date	:	2019/10/08

Vertical



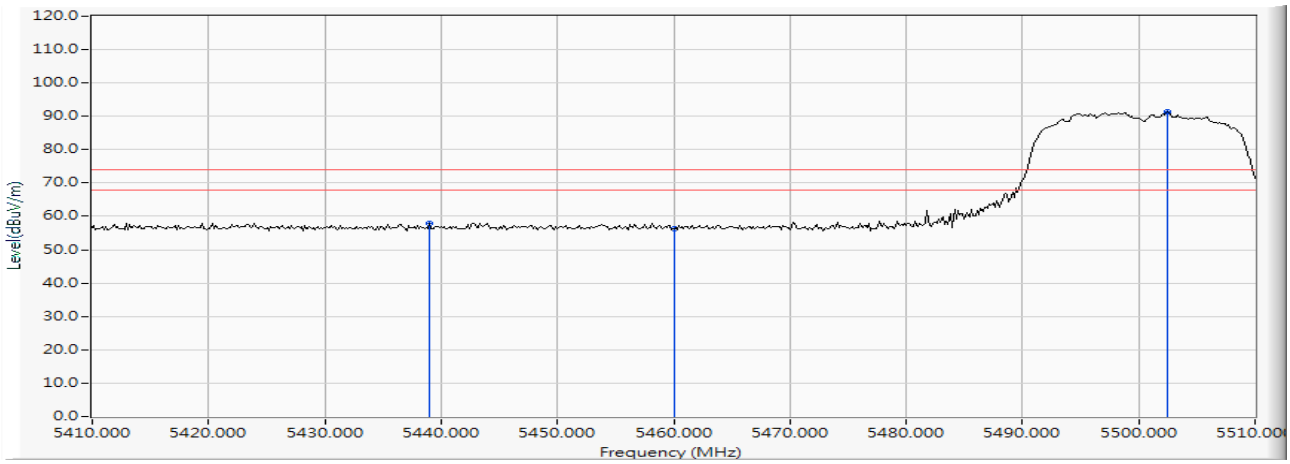
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5323.478	15.861	71.774	87.635	--	--	AVERAGE
2		5350.000	15.912	28.572	44.484	-9.516	54.000	AVERAGE
3		5367.681	15.967	28.951	44.919	-9.081	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5500MHz)
Test Date : 2019/05/09

Horizontal



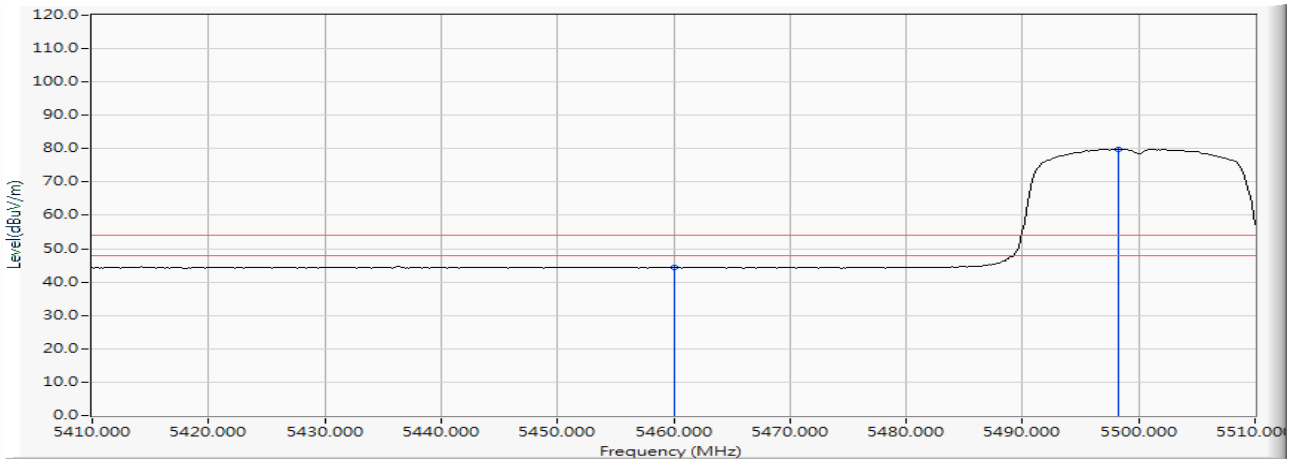
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5438.986	16.121	41.938	58.059	-15.941	74.000	PEAK
2		5460.000	16.185	40.231	56.416	-17.584	74.000	PEAK
3	*	5502.464	16.273	75.045	91.318	--	--	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	UNIT ASSY DA
Test Item	:	Band Edge Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5500MHz)
Test Date	:	2019/05/09

Horizontal



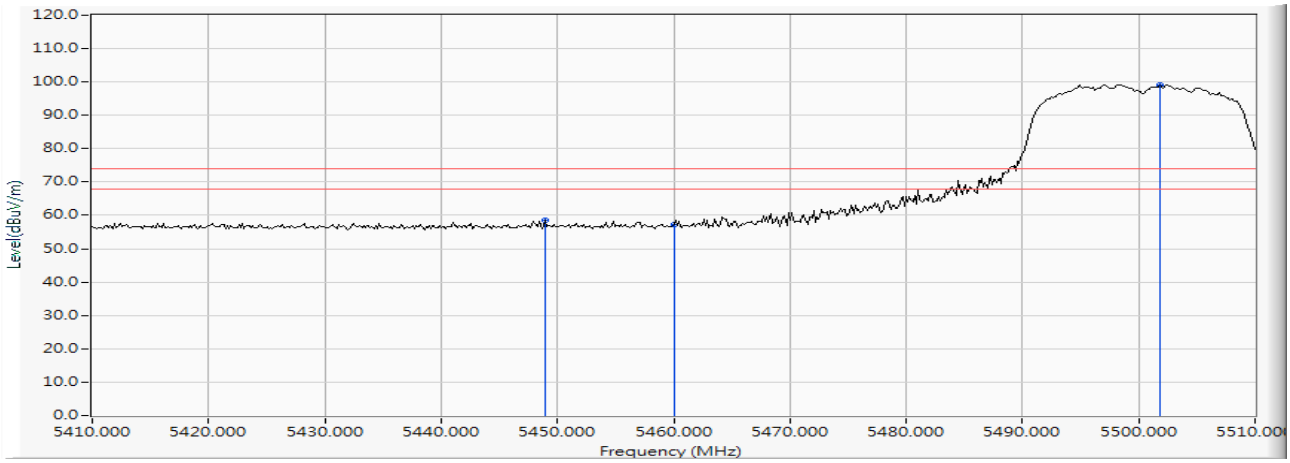
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5460.000	16.185	28.095	44.280	-9.720	54.000	AVERAGE
2	*	5498.261	16.268	63.665	79.933	--	--	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5500MHz)
Test Date : 2019/05/09

Vertical



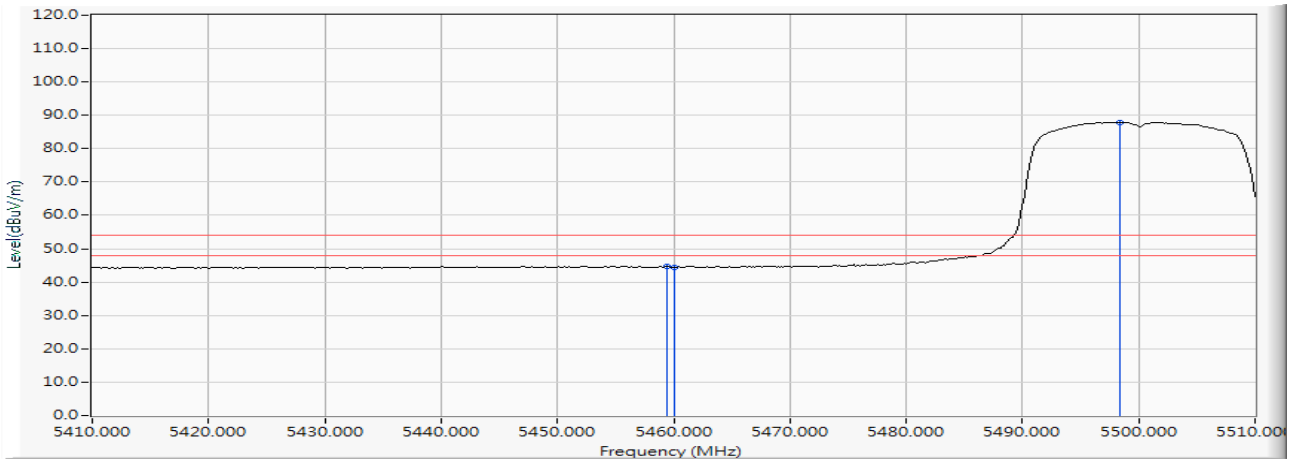
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5448.986	16.154	42.260	58.414	-15.586	74.000	PEAK
2		5460.000	16.185	40.974	57.159	-16.841	74.000	PEAK
3	*	5501.884	16.272	82.951	99.224	--	--	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5500MHz)
Test Date : 2019/05/09

Vertical



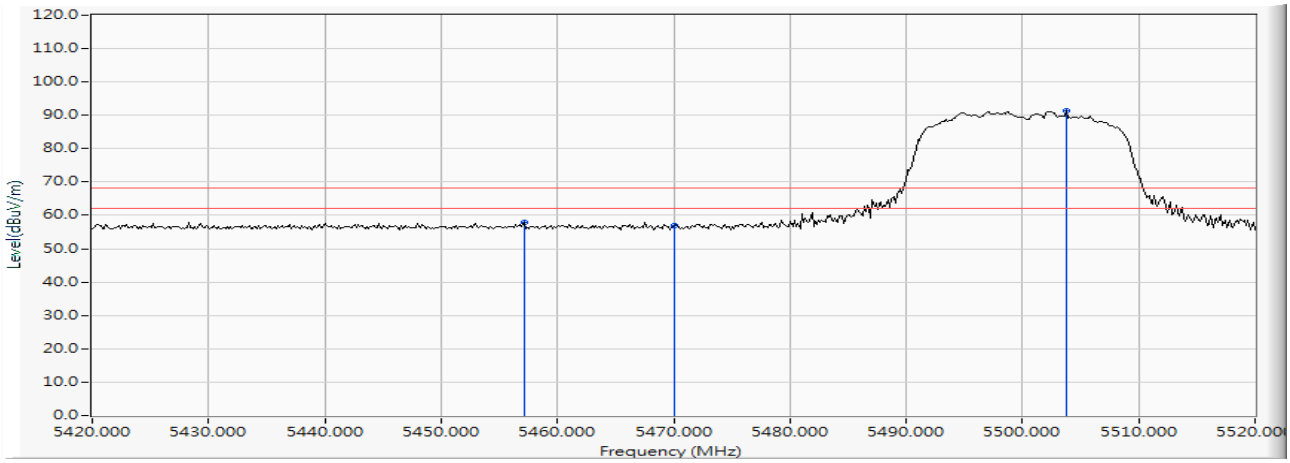
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5459.420	16.184	28.605	44.789	-9.211	54.000	AVERAGE
2		5460.000	16.185	28.243	44.428	-9.572	54.000	AVERAGE
3	*	5498.406	16.268	71.669	87.937	--	--	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

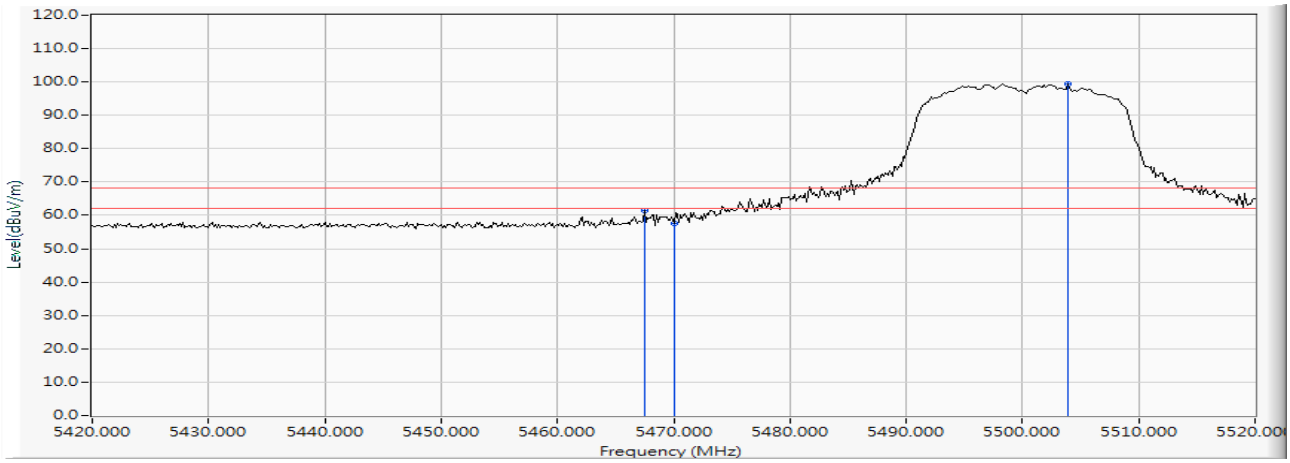
Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5500MHz)
Test Date : 2019/05/09

Horizontal



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5457.101	16.180	41.860	58.040	-10.180	68.220	PEAK
2		5470.000	16.200	40.672	56.872	-11.348	68.220	PEAK
3	*	5503.768	16.273	74.949	91.222	--	--	PEAK

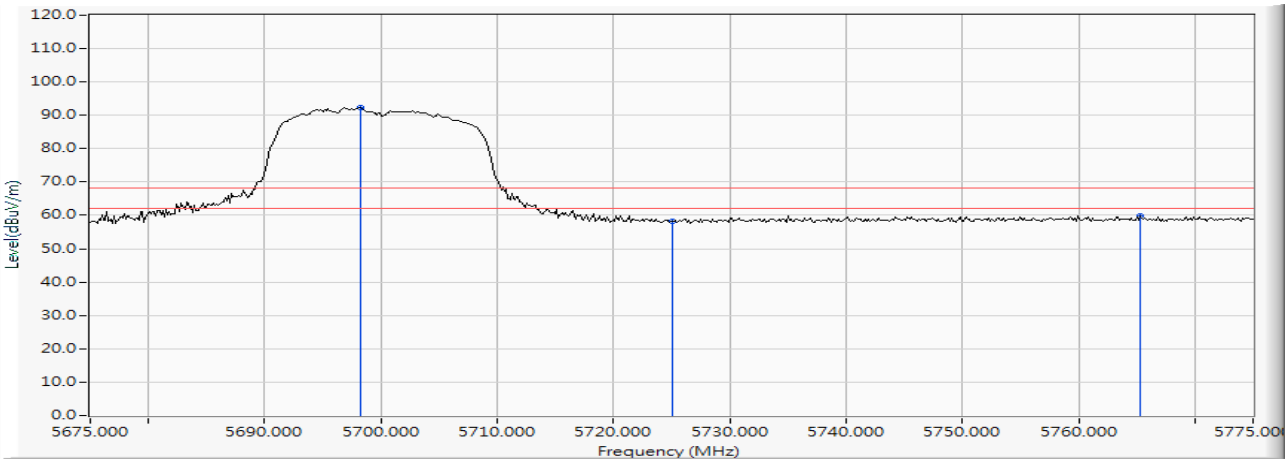
Vertical



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5467.536	16.196	45.321	61.517	-6.703	68.220	PEAK
2		5470.000	16.200	41.390	57.590	-10.630	68.220	PEAK
3	*	5503.913	16.273	82.994	99.267	--	--	PEAK

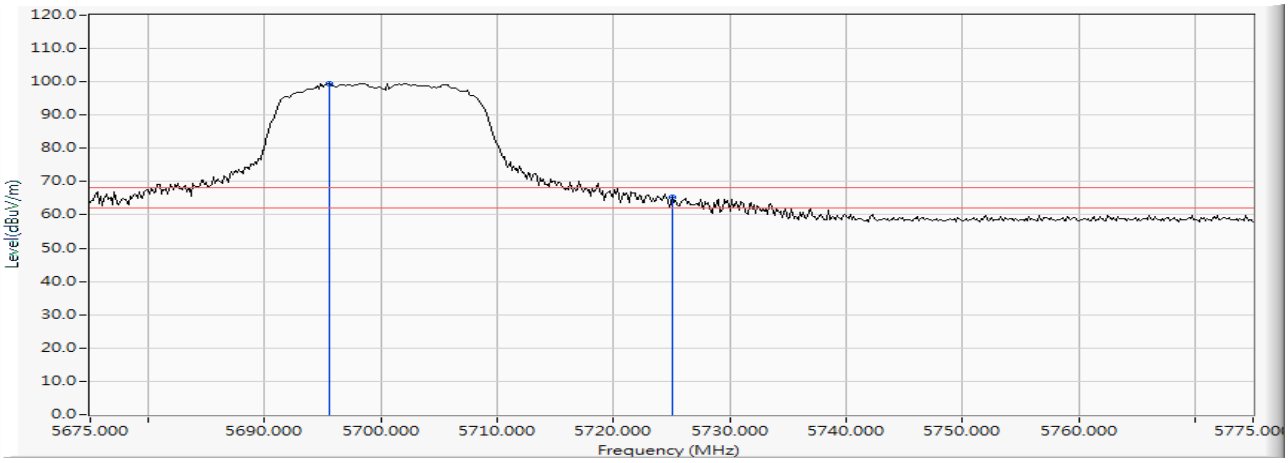
Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5700MHz)
Test Date : 2019/05/09

Horizontal



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5698.188	16.500	75.931	92.430	--	--	PEAK
2		5725.000	16.544	41.681	58.225	-9.995	68.220	PEAK
3		5765.290	16.592	43.283	59.874	-8.346	68.220	PEAK

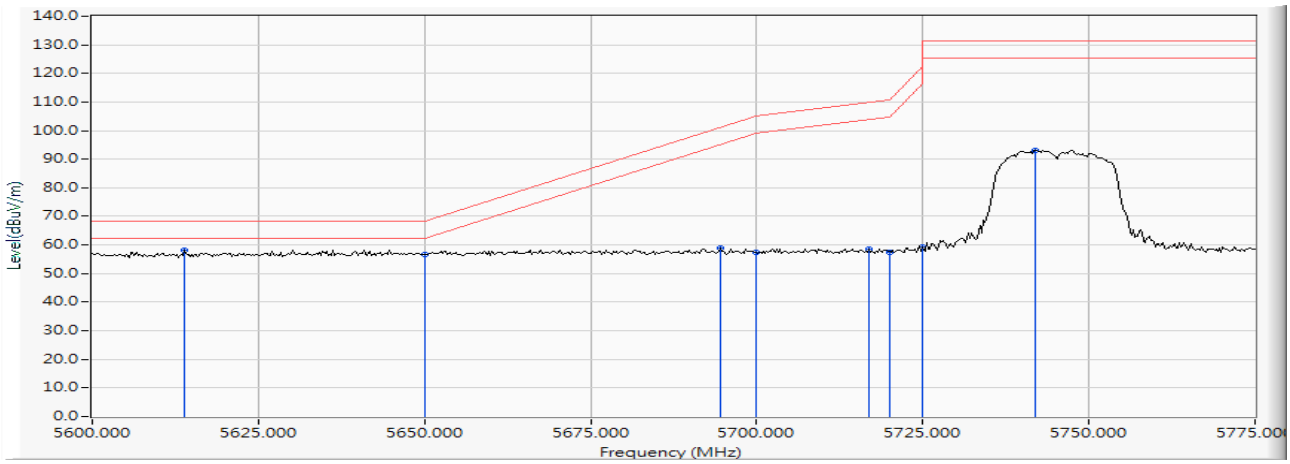
Vertical



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5695.580	16.496	83.013	99.509	--	--	PEAK
2		5725.000	16.544	48.816	65.360	-2.860	68.220	PEAK

Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5745MHz)
Test Date : 2019/05/09

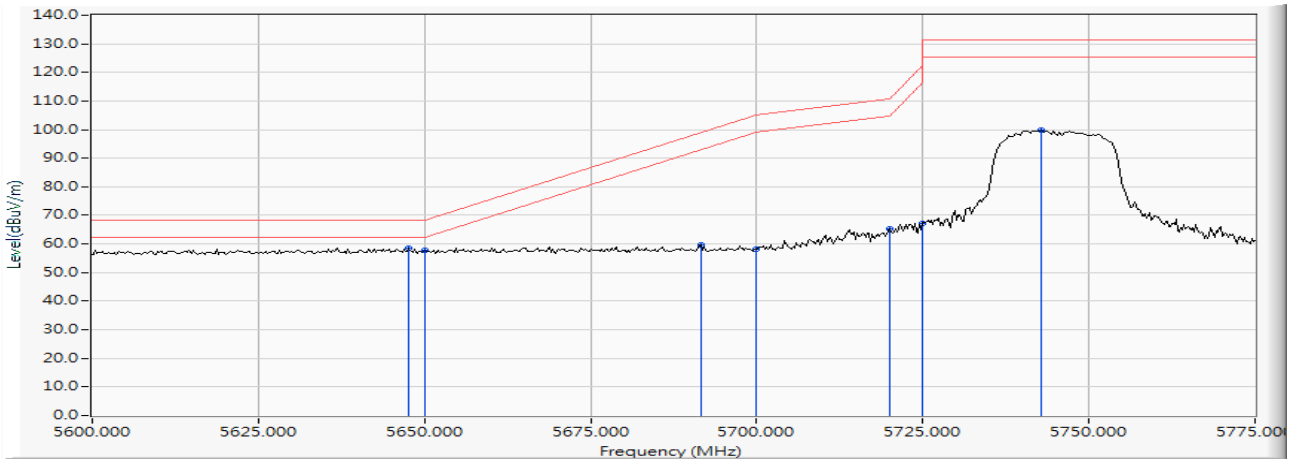
Horizontal



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5613.949	16.400	41.817	58.217	-10.003	68.220	PEAK
2		5650.000	16.447	40.262	56.709	-11.511	68.220	PEAK
3		5694.601	16.494	42.263	58.758	-42.449	101.207	PEAK
4		5700.000	16.502	40.872	57.374	-47.826	105.200	PEAK
5		5716.920	16.529	42.113	58.642	-51.296	109.938	PEAK
6		5720.000	16.535	41.057	57.592	-53.208	110.800	PEAK
7		5725.000	16.544	42.718	59.262	-62.938	122.200	PEAK
8		5742.029	16.557	76.493	93.050	--	--	PEAK

Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5745MHz)
Test Date : 2019/05/09

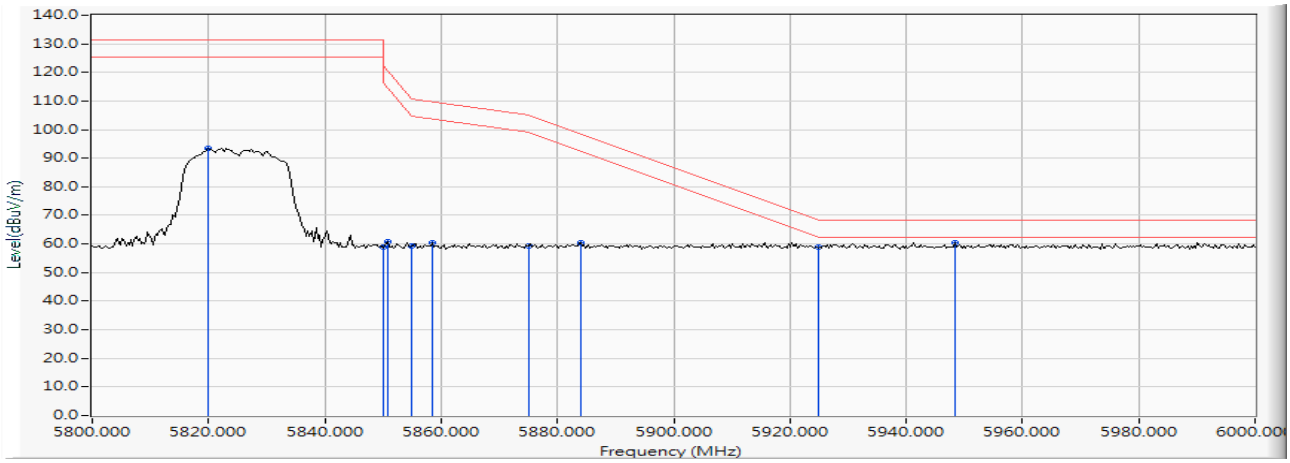
Vertical



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5647.681	16.440	42.222	58.662	-9.558	68.220	PEAK
2		5650.000	16.447	41.238	57.685	-10.535	68.220	PEAK
3		5691.558	16.490	43.146	59.637	-39.319	98.956	PEAK
4		5700.000	16.502	41.640	58.142	-47.058	105.200	PEAK
5		5720.000	16.535	48.590	65.125	-45.675	110.800	PEAK
6		5725.000	16.544	50.592	67.136	-55.064	122.200	PEAK
7		5742.790	16.558	83.185	99.743	--	--	PEAK

Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5825MHz)
Test Date : 2019/05/09

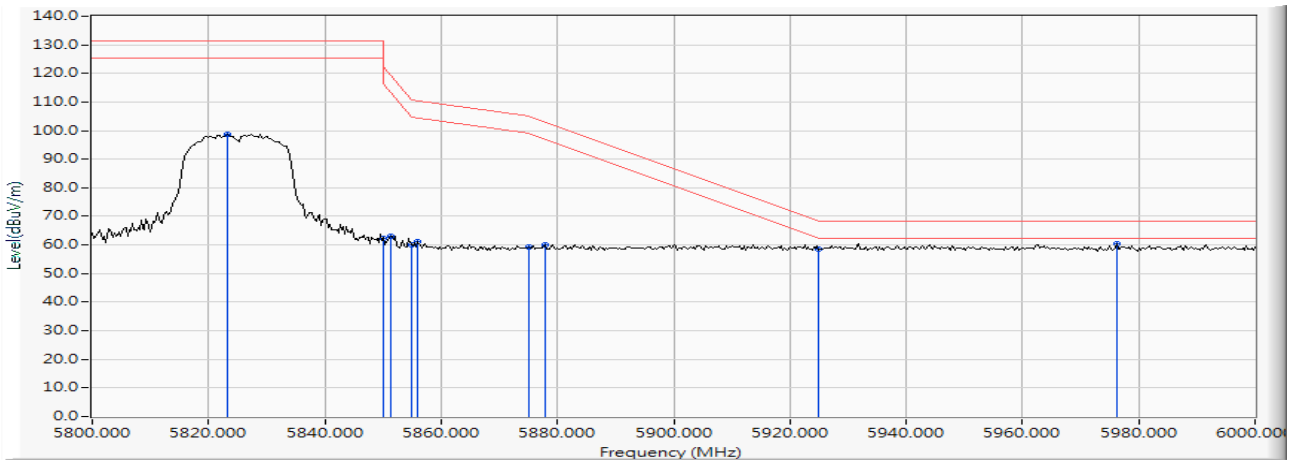
Horizontal



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5820.000	16.705	76.625	93.330	--	--	PEAK
2		5850.000	16.748	42.093	58.841	-63.359	122.200	PEAK
3		5850.725	16.749	44.003	60.752	-59.795	120.547	PEAK
4		5855.000	16.758	42.409	59.167	-51.633	110.800	PEAK
5		5858.551	16.767	43.544	60.311	-49.495	109.806	PEAK
6		5875.000	16.807	42.640	59.448	-45.752	105.200	PEAK
7		5884.058	16.833	43.605	60.438	-38.059	98.497	PEAK
8		5925.000	16.920	41.825	58.745	-9.455	68.200	PEAK
9	*	5948.406	16.951	43.483	60.434	-7.766	68.200	PEAK

Product	:	UNIT ASSY DA
Test Item	:	Band Edge Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5825MHz)
Test Date	:	2019/05/09

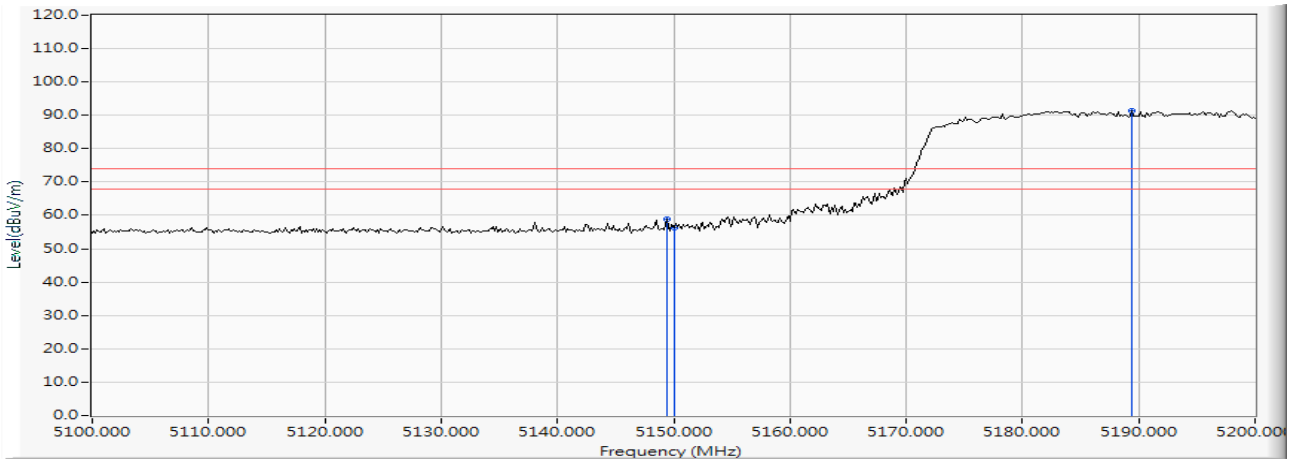
Vertical



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5823.188	16.709	81.956	98.665	--	--	PEAK
2		5850.000	16.748	45.394	62.142	-60.058	122.200	PEAK
3		5851.304	16.750	46.314	63.064	-56.163	119.227	PEAK
4		5855.000	16.758	43.268	60.026	-50.774	110.800	PEAK
5		5855.942	16.761	44.302	61.062	-49.474	110.536	PEAK
6		5875.000	16.807	42.508	59.316	-45.884	105.200	PEAK
7		5877.971	16.816	43.260	60.076	-42.925	103.001	PEAK
8		5925.000	16.920	41.509	58.429	-9.771	68.200	PEAK
9	*	5976.232	17.012	43.319	60.332	-7.868	68.200	PEAK

Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5190MHz)
Test Date : 2019/10/08

Horizontal



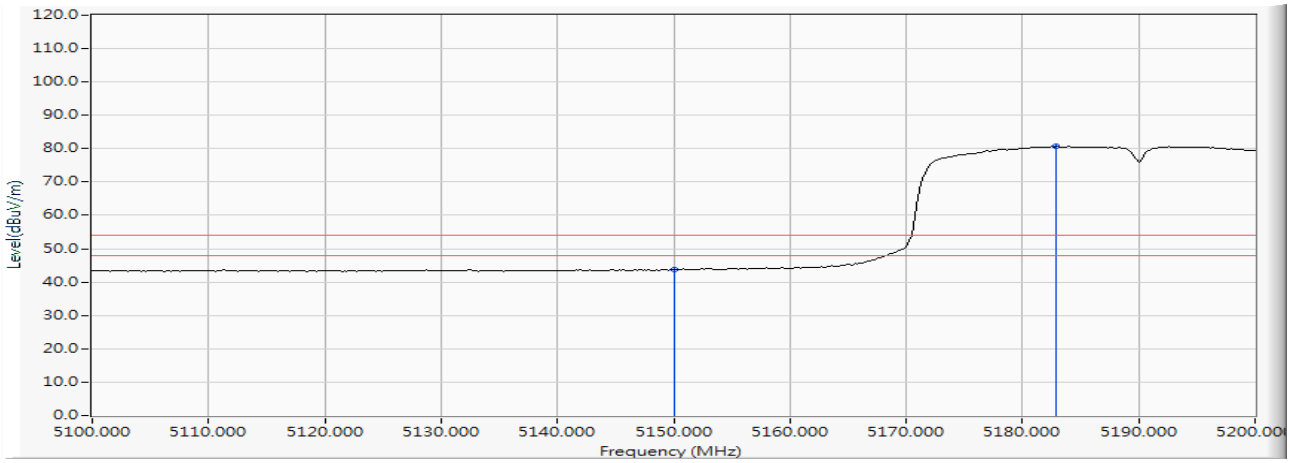
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5149.420	15.304	43.475	58.779	-15.221	74.000	PEAK
2		5150.000	15.307	40.855	56.162	-17.838	74.000	PEAK
3	*	5189.420	15.433	75.989	91.422	--	--	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	UNIT ASSY DA
Test Item	:	Band Edge Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps) (5190MHz)
Test Date	:	2019/10/08

Horizontal



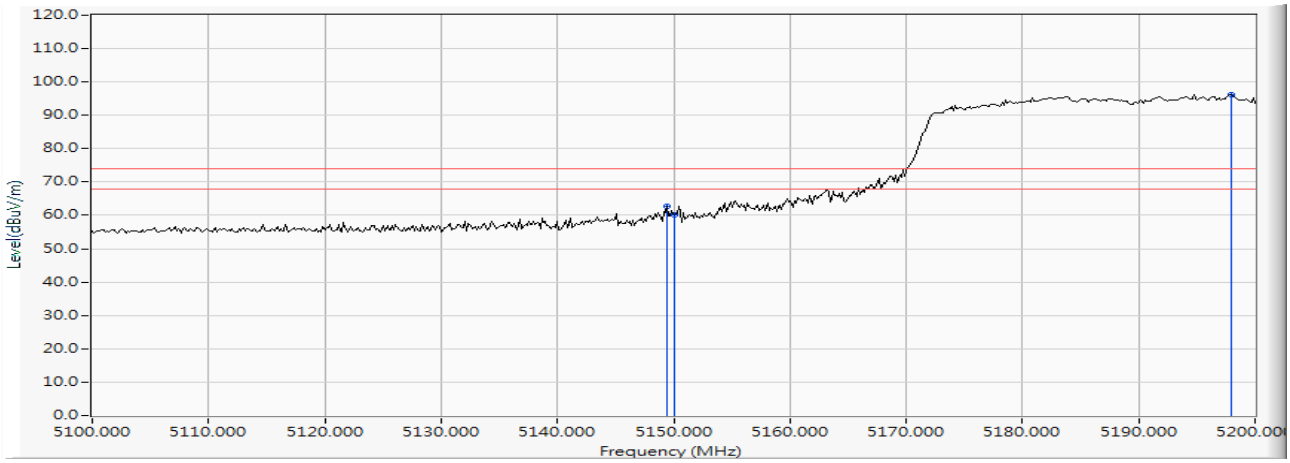
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5150.000	15.307	28.436	43.743	-10.257	54.000	AVERAGE
2	*	5182.899	15.405	65.332	80.737	--	--	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	UNIT ASSY DA
Test Item	:	Band Edge Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps) (5190MHz)
Test Date	:	2019/10/08

Vertical



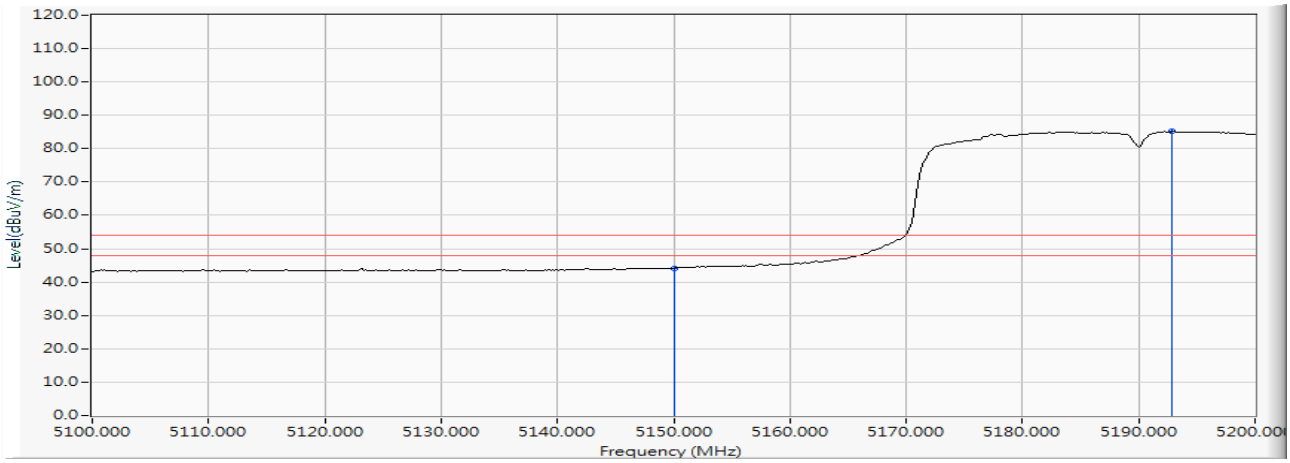
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5149.420	15.304	47.512	62.816	-11.184	74.000	PEAK
2		5150.000	15.307	44.804	60.111	-13.889	74.000	PEAK
3	*	5197.971	15.465	80.723	96.188	--	--	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	UNIT ASSY DA
Test Item	:	Band Edge Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps) (5190MHz)
Test Date	:	2019/10/08

Vertical



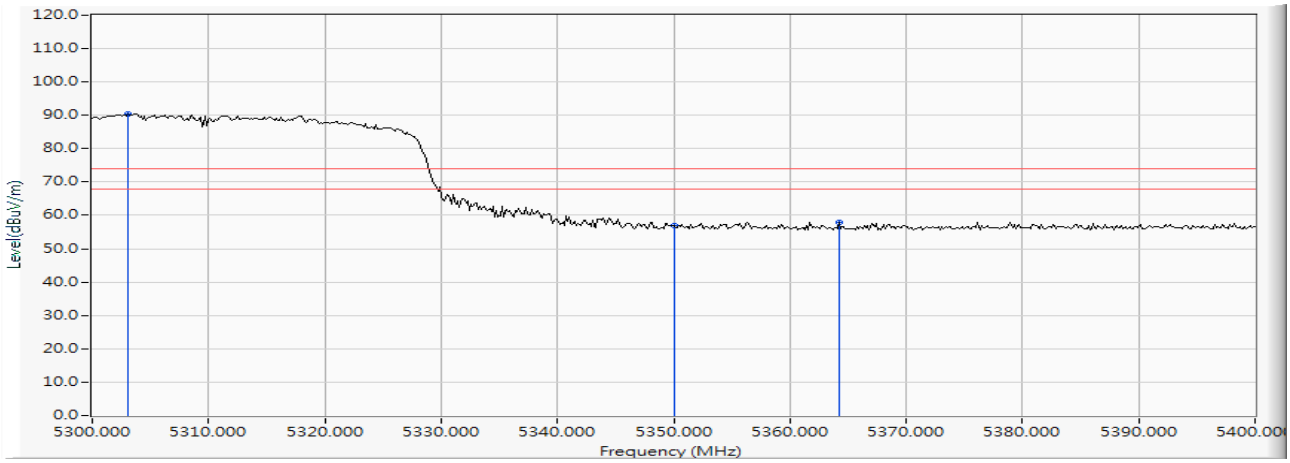
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5150.000	15.307	28.821	44.128	-9.872	54.000	AVERAGE
2	*	5192.899	15.445	69.708	85.154	--	--	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5310MHz)
Test Date : 2019/10/08

Horizontal



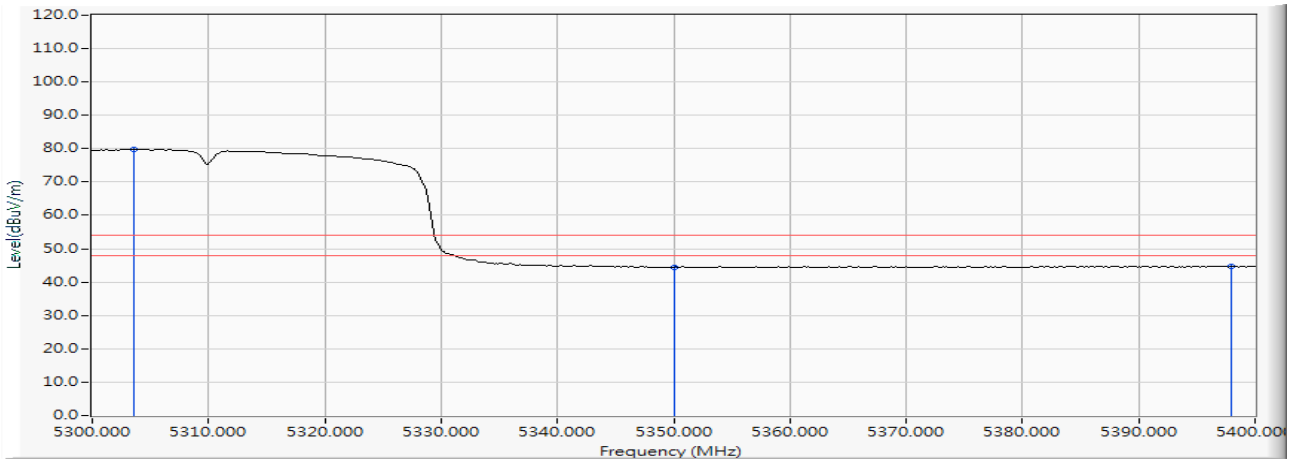
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5303.043	15.804	74.707	90.511	--	--	PEAK
2		5350.000	15.912	41.068	56.980	-17.020	74.000	PEAK
3		5364.203	15.956	41.946	57.903	-16.097	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5310MHz)
Test Date : 2019/10/08

Horizontal



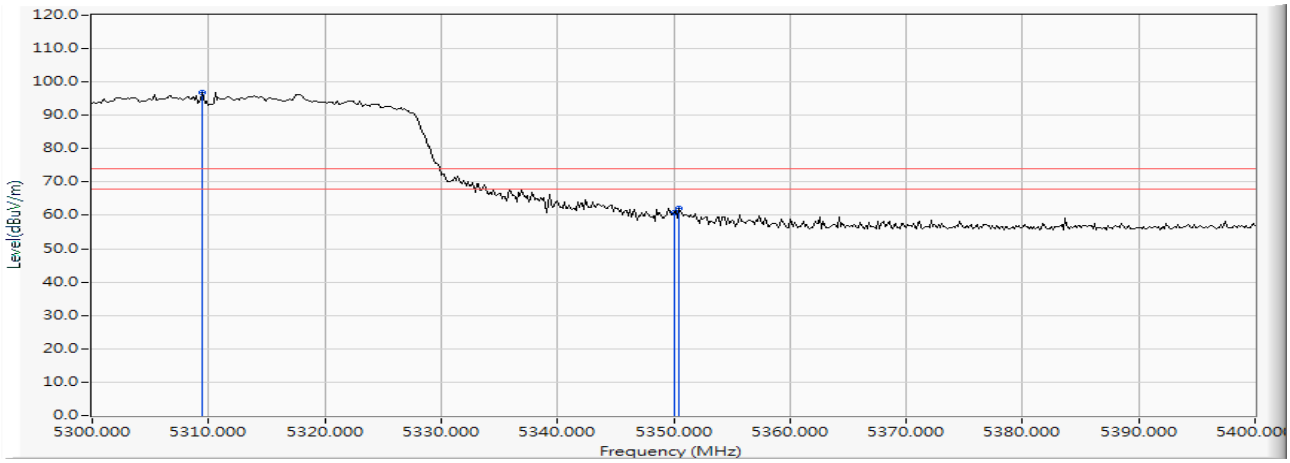
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5303.623	15.805	64.126	79.931	--	--	AVERAGE
2		5350.000	15.912	28.629	44.541	-9.459	54.000	AVERAGE
3		5397.971	16.026	28.827	44.853	-9.147	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	UNIT ASSY DA
Test Item	:	Band Edge Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps) (5310MHz)
Test Date	:	2019/10/08

Vertical



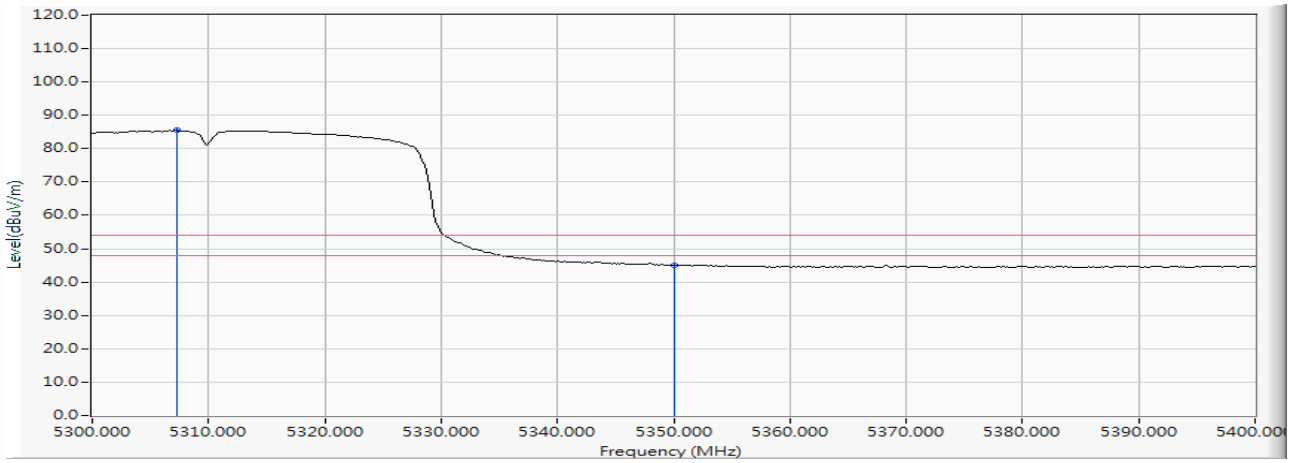
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5309.420	15.820	81.131	96.950	--	--	PEAK
2		5350.000	15.912	44.923	60.835	-13.165	74.000	PEAK
3		5350.435	15.914	46.249	62.162	-11.838	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	UNIT ASSY DA
Test Item	:	Band Edge Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps) (5310MHz)
Test Date	:	2019/10/08

Vertical



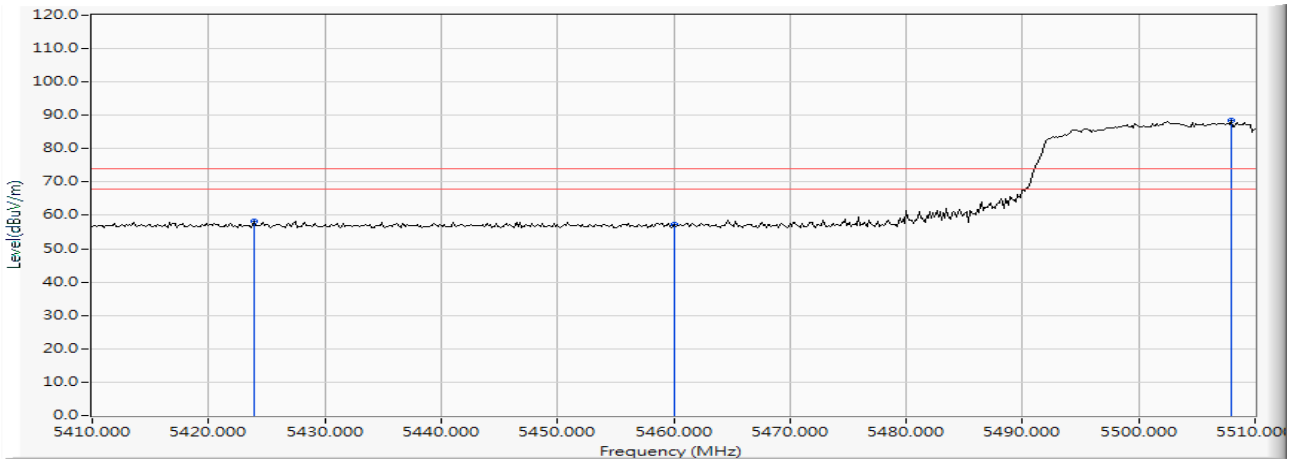
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5307.246	15.814	69.615	85.429	--	--	AVERAGE
2		5350.000	15.912	29.106	45.018	-8.982	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5510MHz)
Test Date : 2019/05/09

Horizontal



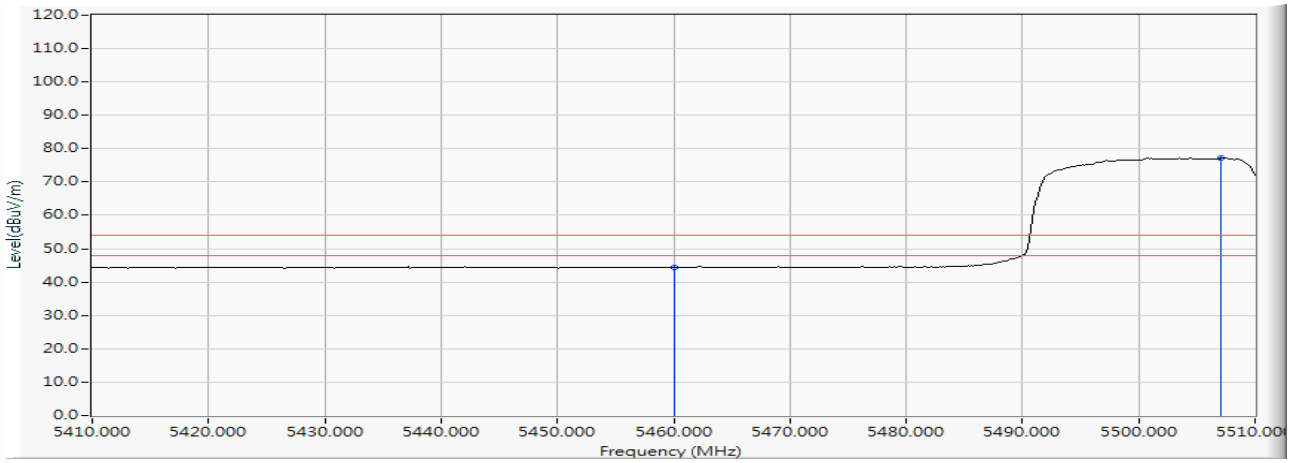
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5423.913	16.091	42.065	58.156	-15.844	74.000	PEAK
2		5460.000	16.185	41.125	57.310	-16.690	74.000	PEAK
3	*	5507.971	16.274	72.138	88.412	--	--	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	UNIT ASSY DA
Test Item	:	Band Edge Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps) (5510MHz)
Test Date	:	2019/05/09

Horizontal



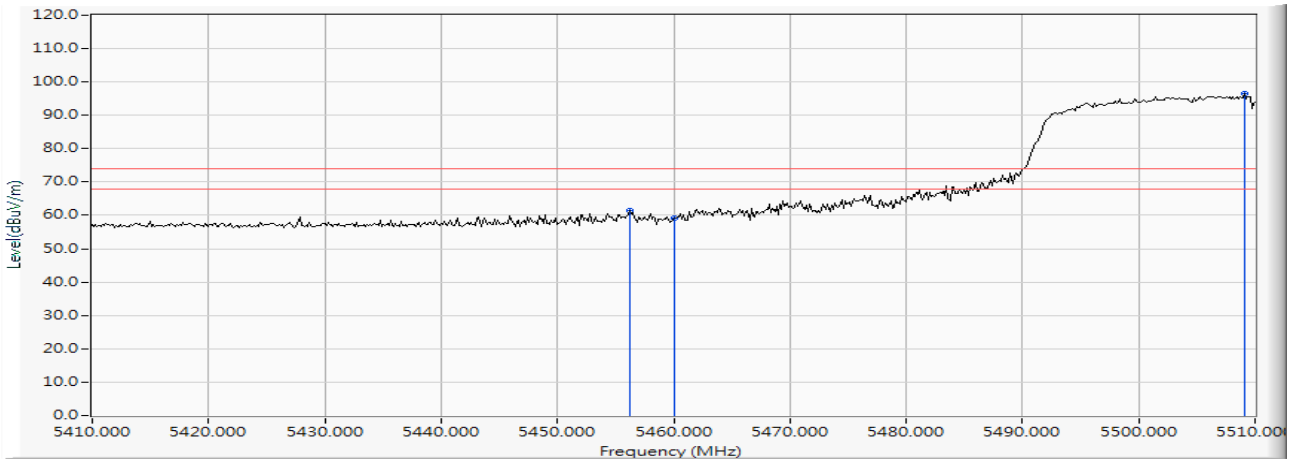
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5460.000	16.185	28.080	44.265	-9.735	54.000	AVERAGE
2	*	5507.101	16.273	60.917	77.191	--	--	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5510MHz)
Test Date : 2019/05/09

Vertical



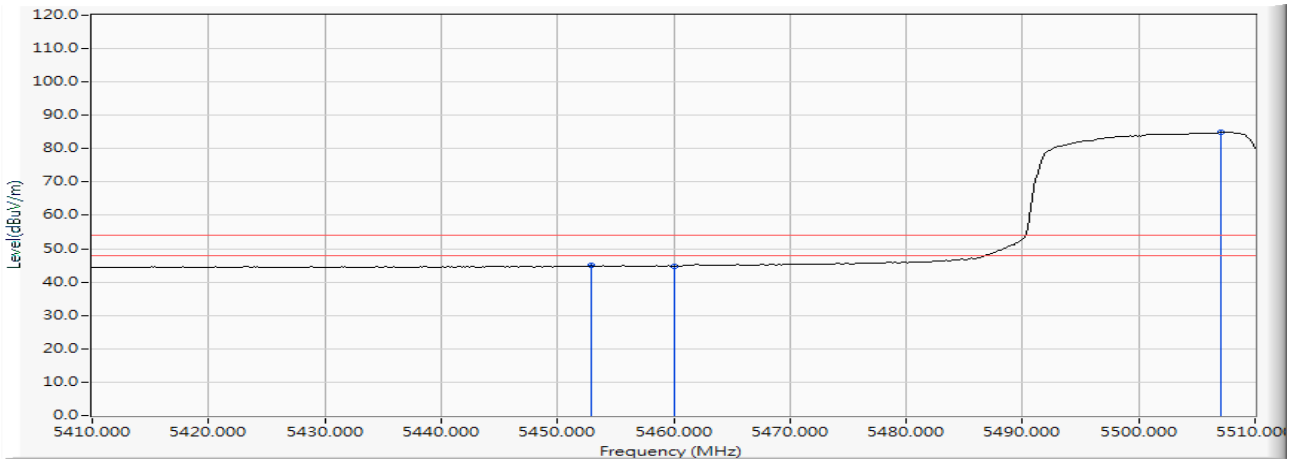
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5456.232	16.177	45.248	61.426	-12.574	74.000	PEAK
2		5460.000	16.185	42.991	59.176	-14.824	74.000	PEAK
3	*	5509.130	16.274	80.198	96.473	--	--	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	UNIT ASSY DA
Test Item	:	Band Edge Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps) (5510MHz)
Test Date	:	2019/05/09

Vertical



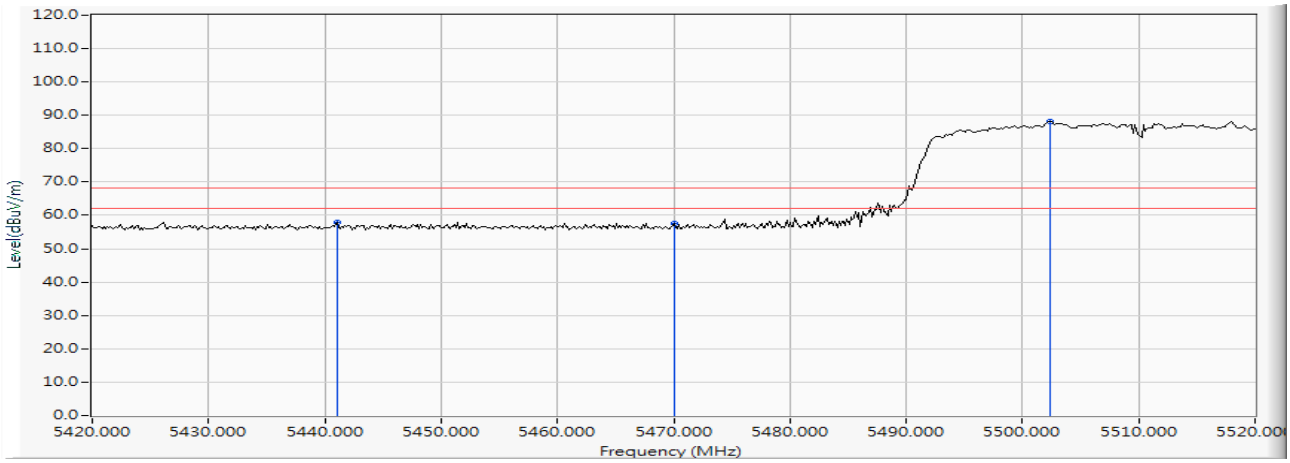
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5452.899	16.167	28.797	44.964	-9.036	54.000	AVERAGE
2		5460.000	16.185	28.625	44.810	-9.190	54.000	AVERAGE
3	*	5507.101	16.273	68.740	85.014	--	--	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

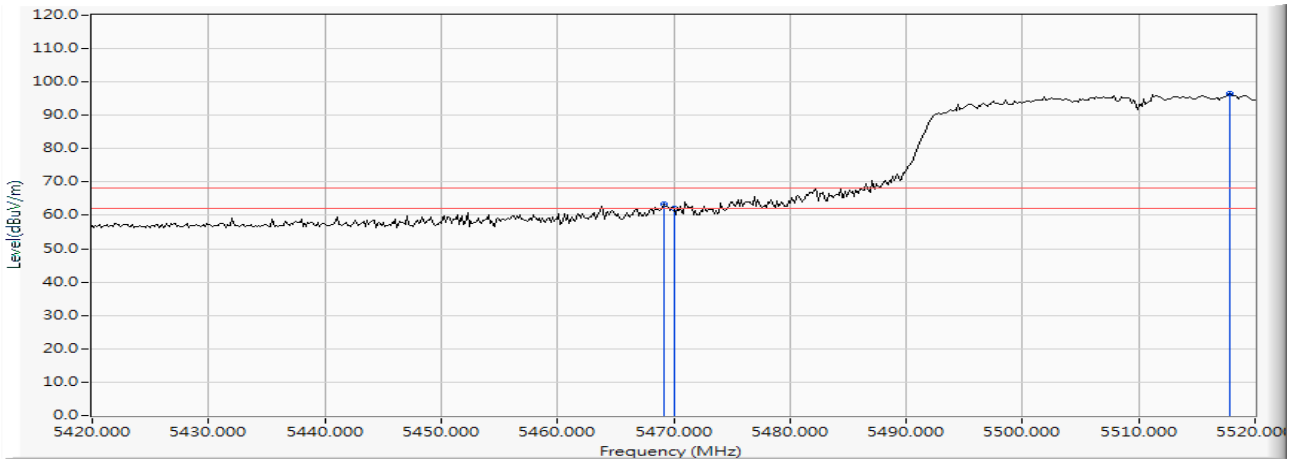
Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5510MHz)
Test Date : 2019/05/09

Horizontal



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5441.014	16.128	41.814	57.942	-10.278	68.220	PEAK
2		5470.000	16.200	41.540	57.740	-10.480	68.220	PEAK
3	*	5502.319	16.273	71.856	88.129	--	--	PEAK

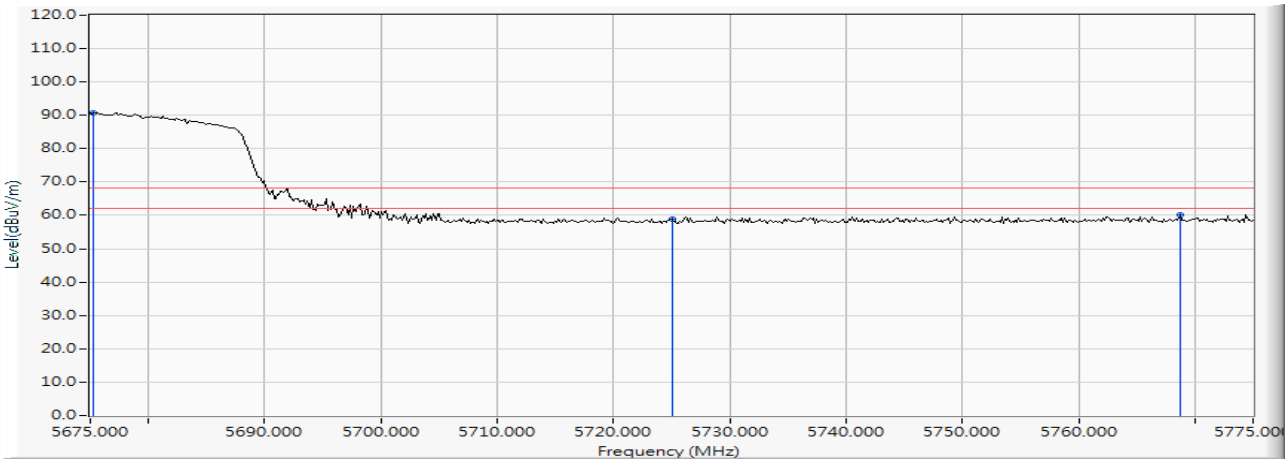
Vertical



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5469.130	16.198	47.080	63.278	-4.942	68.220	PEAK
2		5470.000	16.200	45.909	62.109	-6.111	68.220	PEAK
3	*	5517.826	16.288	80.096	96.384	--	--	PEAK

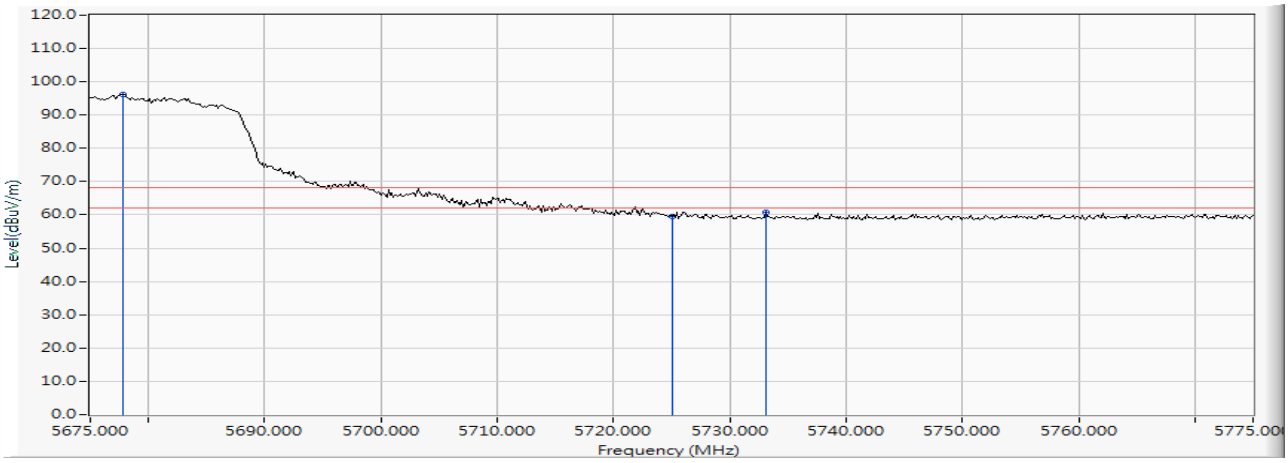
Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5670MHz)
Test Date : 2019/05/09

Horizontal



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5675.290	16.472	74.288	90.760	--	--	PEAK
2		5725.000	16.544	42.311	58.855	-9.365	68.220	PEAK
3		5768.768	16.595	43.680	60.275	-7.945	68.220	PEAK

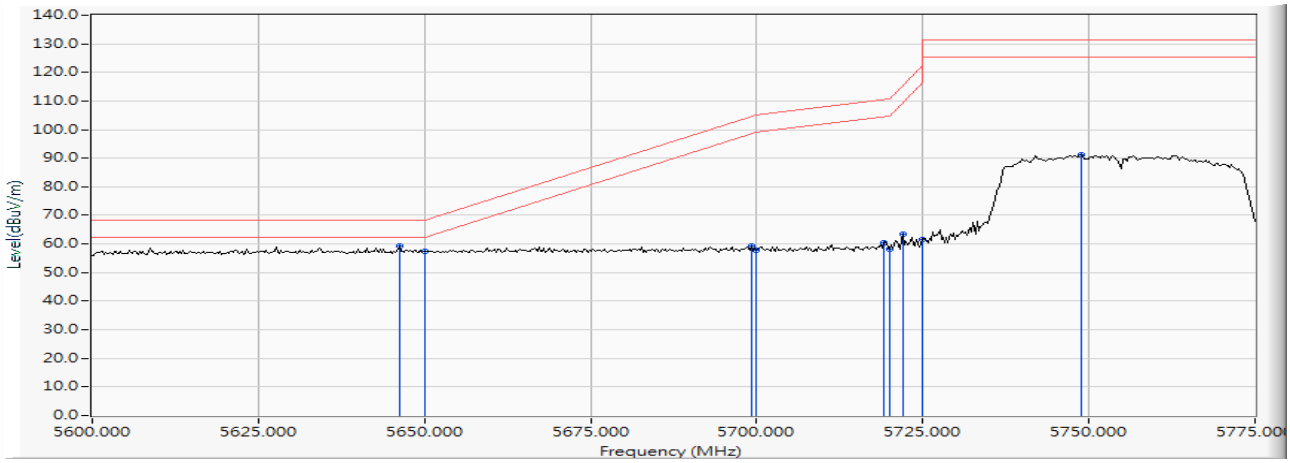
Vertical



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5677.754	16.475	79.827	96.302	--	--	PEAK
2		5725.000	16.544	42.922	59.466	-8.754	68.220	PEAK
3		5733.116	16.552	44.264	60.815	-7.405	68.220	PEAK

Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5755MHz)
Test Date : 2019/05/09

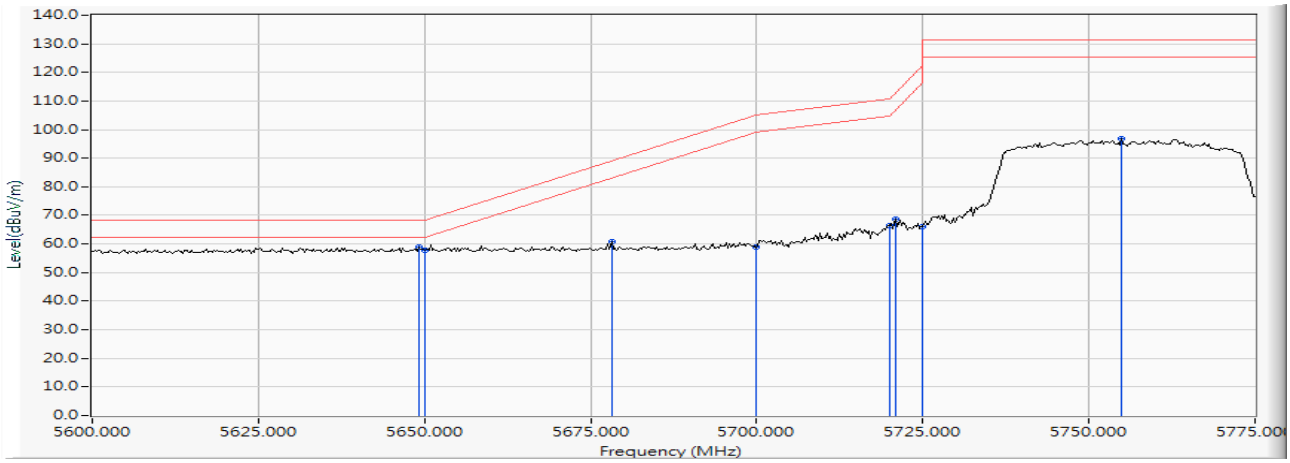
Horizontal



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5646.159	16.436	42.727	59.163	-9.057	68.220	PEAK
2		5650.000	16.447	40.902	57.349	-10.871	68.220	PEAK
3		5699.167	16.500	42.856	59.357	-45.227	104.584	PEAK
4		5700.000	16.502	41.347	57.849	-47.351	105.200	PEAK
5		5719.203	16.533	44.013	60.547	-50.030	110.577	PEAK
6		5720.000	16.535	41.808	58.343	-52.457	110.800	PEAK
7		5721.993	16.539	46.816	63.355	-51.989	115.344	PEAK
8		5725.000	16.544	45.056	61.600	-60.600	122.200	PEAK
9		5748.877	16.566	74.511	91.077	--	--	PEAK

Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5755MHz)
Test Date : 2019/05/09

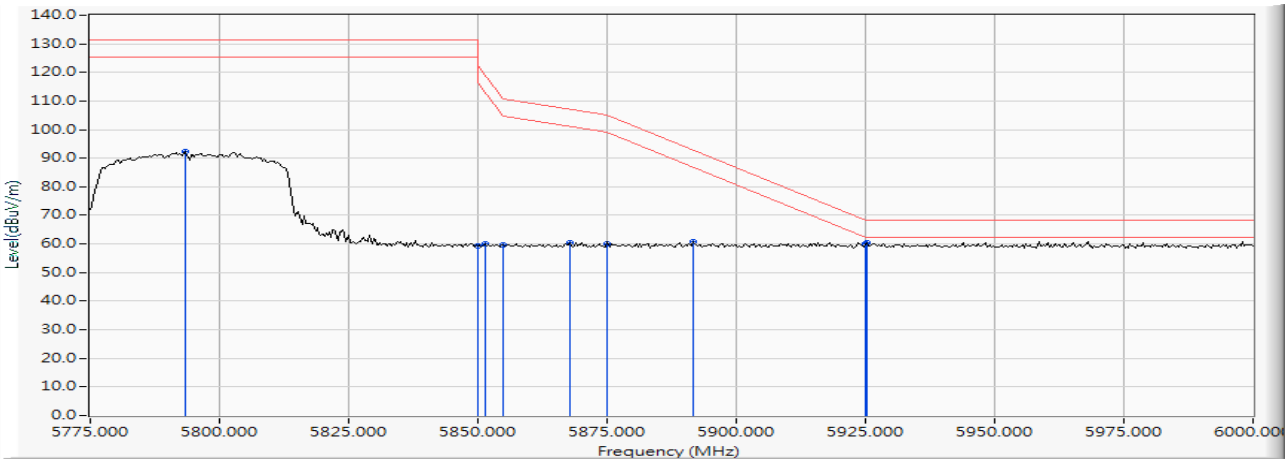
Vertical



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5649.203	16.444	42.587	59.032	-9.188	68.220	PEAK
2		5650.000	16.447	41.412	57.859	-10.361	68.220	PEAK
3		5678.116	16.476	44.150	60.626	-28.389	89.015	PEAK
4		5700.000	16.502	42.301	58.803	-46.397	105.200	PEAK
5		5720.000	16.535	50.026	66.561	-44.239	110.800	PEAK
6		5720.978	16.536	52.122	68.659	-44.371	113.030	PEAK
7		5725.000	16.544	49.581	66.125	-56.075	122.200	PEAK
8		5754.964	16.576	80.448	97.024	--	--	PEAK

Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5795MHz)
Test Date : 2019/05/09

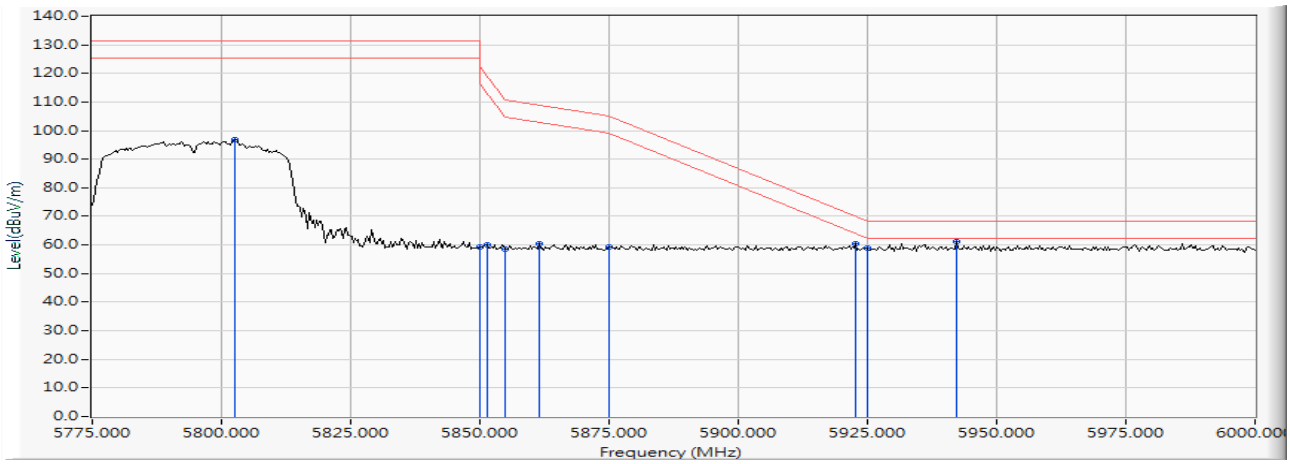
Horizontal



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5793.261	16.643	75.852	92.494	--	--	PEAK
2		5850.000	16.748	42.455	59.203	-62.997	122.200	PEAK
3		5851.304	16.750	43.126	59.876	-59.351	119.227	PEAK
4		5855.000	16.758	42.852	59.610	-51.190	110.800	PEAK
5		5867.935	16.789	43.577	60.366	-46.812	107.178	PEAK
6		5875.000	16.807	43.298	60.106	-45.094	105.200	PEAK
7		5891.739	16.849	43.858	60.707	-32.106	92.813	PEAK
8		5925.000	16.920	43.142	60.062	-8.138	68.200	PEAK
9	*	5925.326	16.920	43.512	60.432	-7.768	68.200	PEAK

Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5795MHz)
Test Date : 2019/05/09

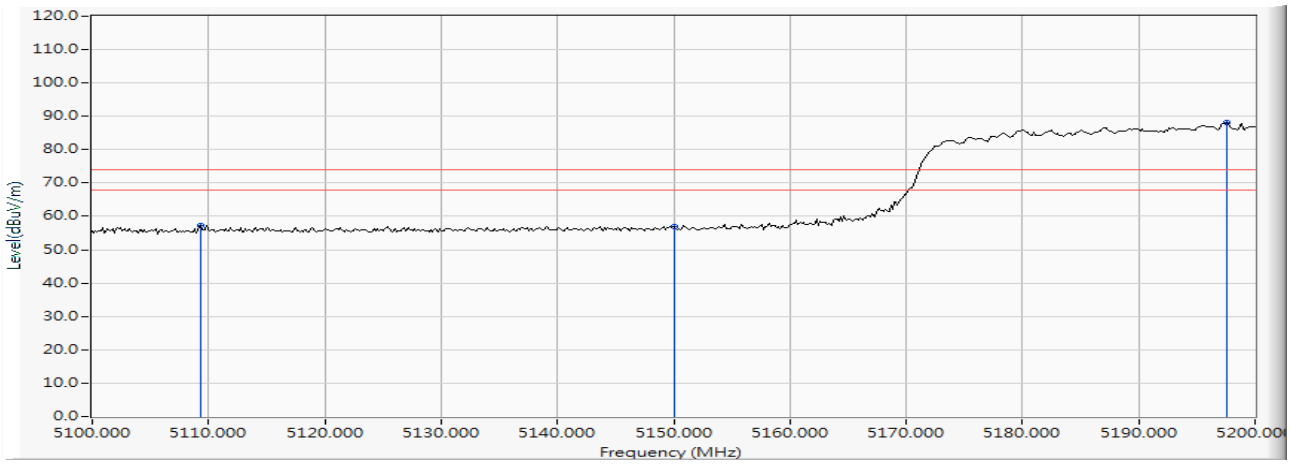
Vertical



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5802.717	16.666	80.182	96.848	--	--	PEAK
2		5850.000	16.748	42.402	59.150	-63.050	122.200	PEAK
3		5851.304	16.750	43.120	59.870	-59.357	119.227	PEAK
4		5855.000	16.758	41.919	58.677	-52.123	110.800	PEAK
5		5861.413	16.773	43.603	60.377	-48.627	109.004	PEAK
6		5875.000	16.807	42.336	59.144	-46.056	105.200	PEAK
7		5922.717	16.915	43.428	60.343	-9.546	69.889	PEAK
8		5925.000	16.920	42.141	59.061	-9.139	68.200	PEAK
9	*	5942.283	16.939	44.085	61.024	-7.176	68.200	PEAK

Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 4: Transmit (802.11ac-80BW 65Mbps) (5210MHz)
Test Date : 2019/10/08

Horizontal



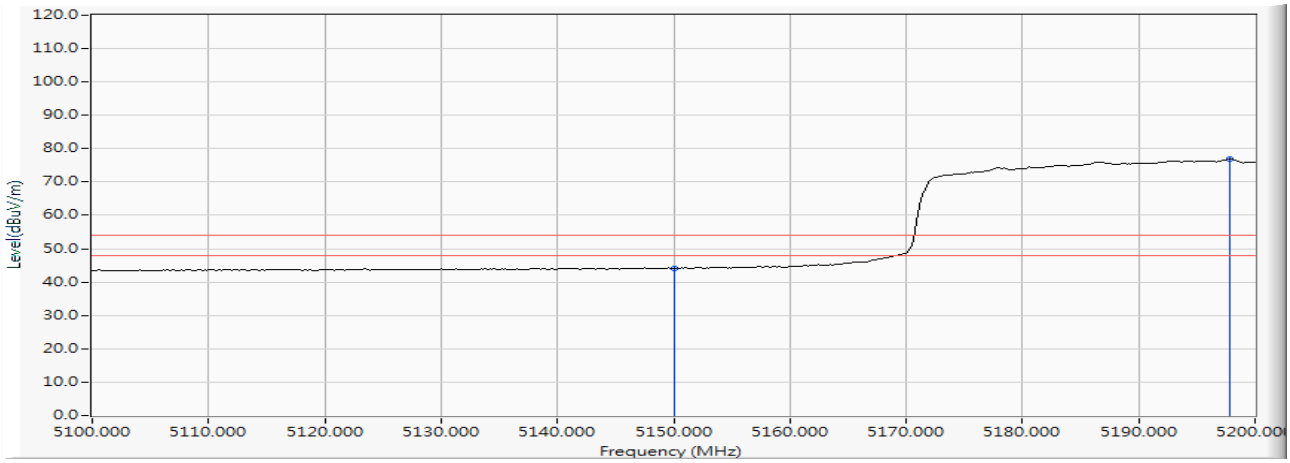
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5109.275	15.123	42.154	57.278	-16.722	74.000	PEAK
2		5150.000	15.307	41.644	56.951	-17.049	74.000	PEAK
3	*	5197.536	15.464	72.632	88.095	--	--	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	UNIT ASSY DA
Test Item	:	Band Edge Data
Test Mode	:	Mode 4: Transmit (802.11ac-80BW 65Mbps) (5210MHz)
Test Date	:	2019/10/08

Horizontal



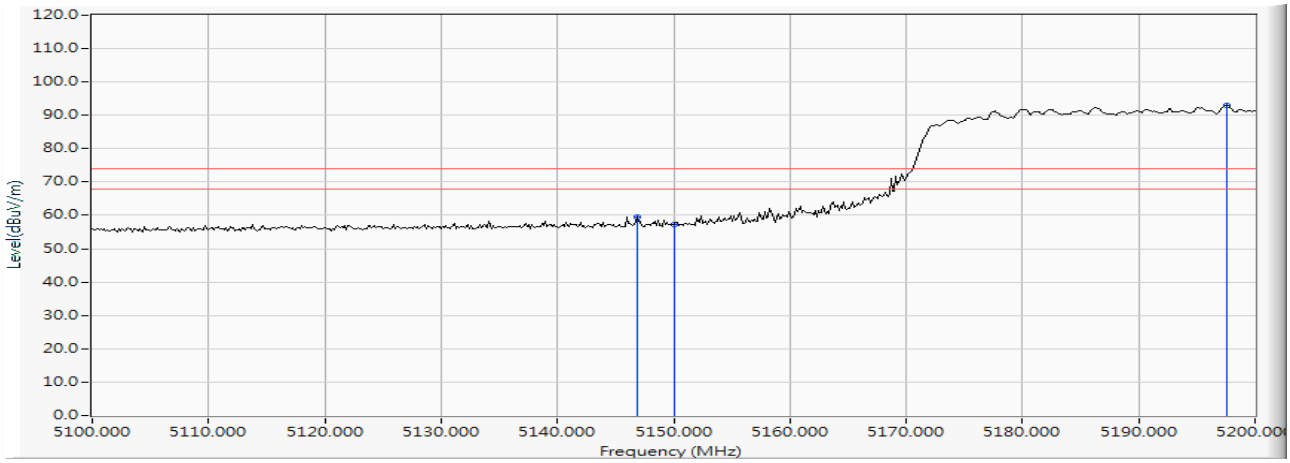
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5150.000	15.307	28.769	44.076	-9.924	54.000	AVERAGE
2	*	5197.826	15.465	61.326	76.791	--	--	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 4: Transmit (802.11ac-80BW 65Mbps) (5210MHz)
Test Date : 2019/10/08

Vertical



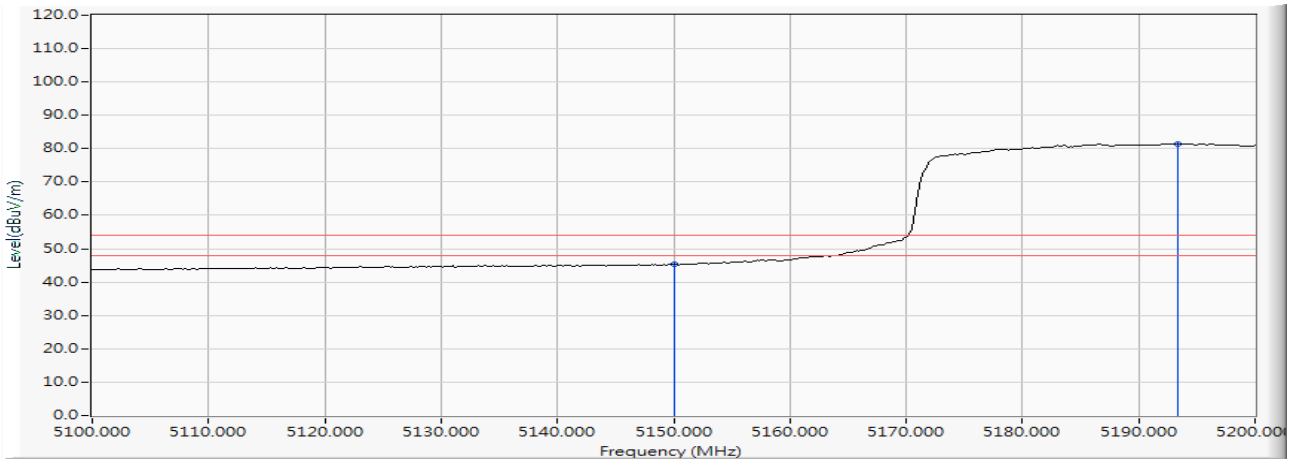
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5146.812	15.289	44.253	59.542	-14.458	74.000	PEAK
2		5150.000	15.307	41.910	57.217	-16.783	74.000	PEAK
3	*	5197.536	15.464	77.515	92.978	--	--	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 4: Transmit (802.11ac-80BW 65Mbps) (5210MHz)
Test Date : 2019/10/08

Vertical



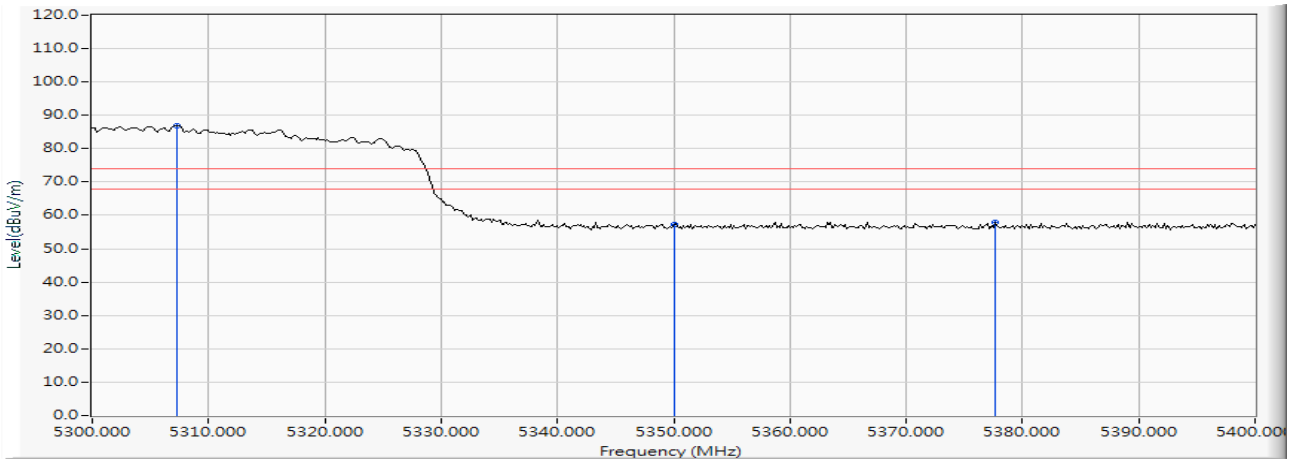
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5150.000	15.307	30.031	45.338	-8.662	54.000	AVERAGE
2	*	5193.333	15.447	66.068	81.515	--	--	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	UNIT ASSY DA
Test Item	:	Band Edge Data
Test Mode	:	Mode 4: Transmit (802.11ac-80BW 65Mbps) (5290MHz)
Test Date	:	2019/10/08

Horizontal



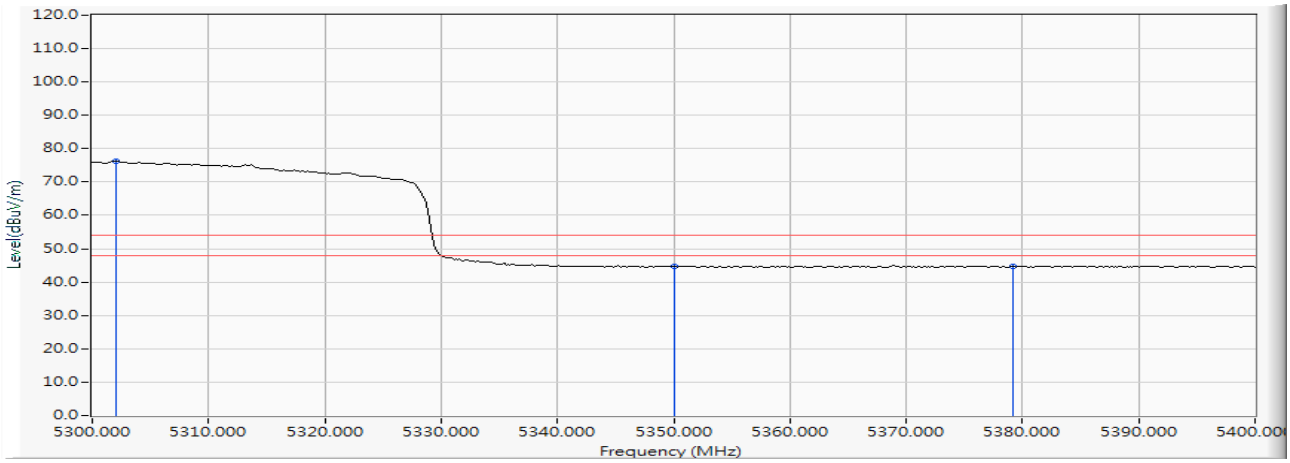
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5307.246	15.814	71.180	86.994	--	--	PEAK
2		5350.000	15.912	41.347	57.259	-16.741	74.000	PEAK
3		5377.681	15.993	42.044	58.037	-15.963	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 4: Transmit (802.11ac-80BW 65Mbps) (5290MHz)
Test Date : 2019/10/08

Horizontal



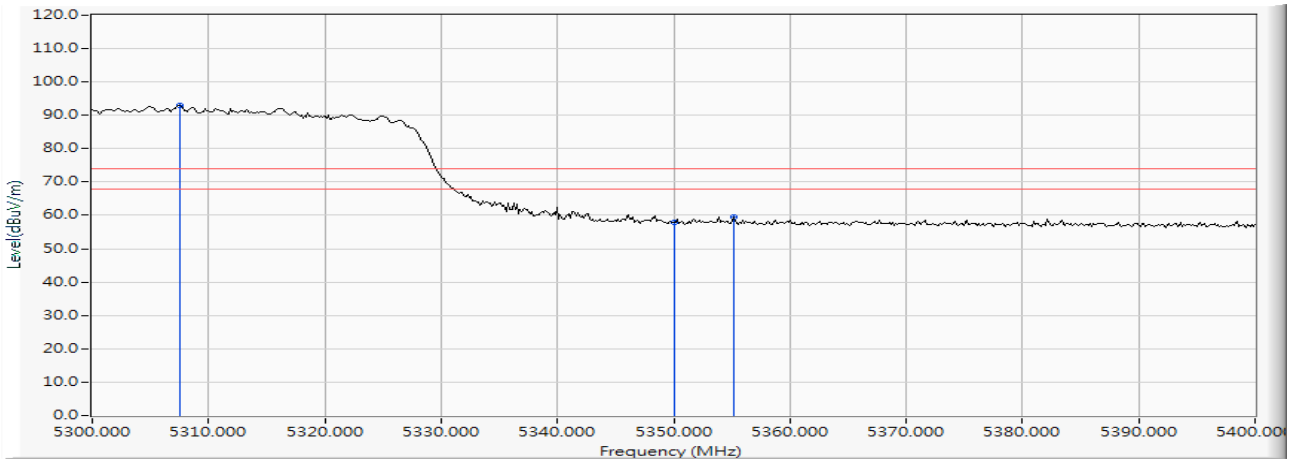
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5302.029	15.801	60.490	76.291	--	--	AVERAGE
2		5350.000	15.912	28.795	44.707	-9.293	54.000	AVERAGE
3		5379.130	15.997	28.843	44.840	-9.160	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 4: Transmit (802.11ac-80BW 65Mbps) (5290MHz)
Test Date : 2019/10/08

Vertical



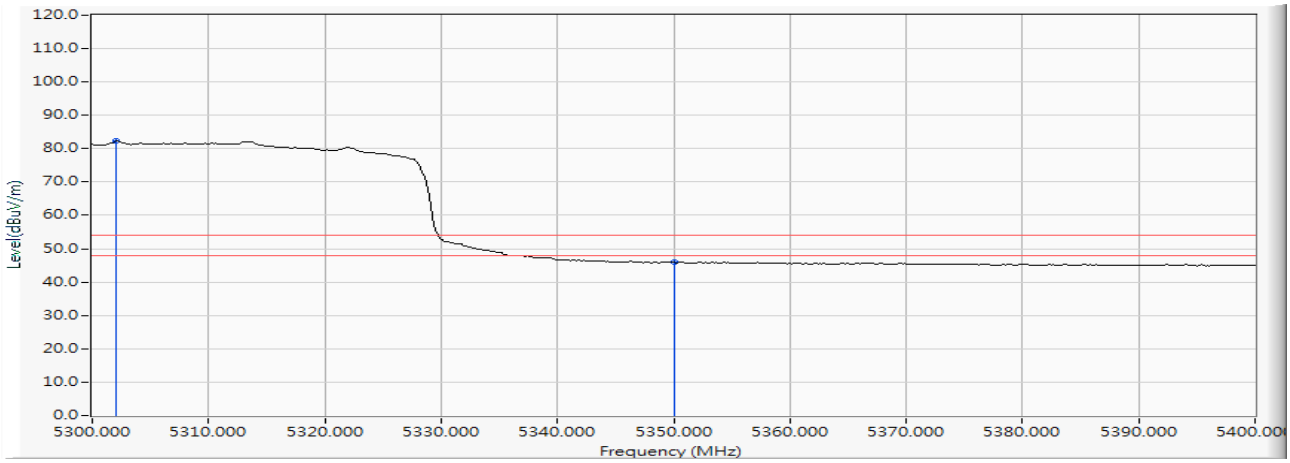
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5307.536	15.815	77.109	92.924	--	--	PEAK
2		5350.000	15.912	41.863	57.775	-16.225	74.000	PEAK
3		5355.217	15.928	43.569	59.497	-14.503	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 4: Transmit (802.11ac-80BW 65Mbps) (5290MHz)
Test Date : 2019/10/08

Vertical



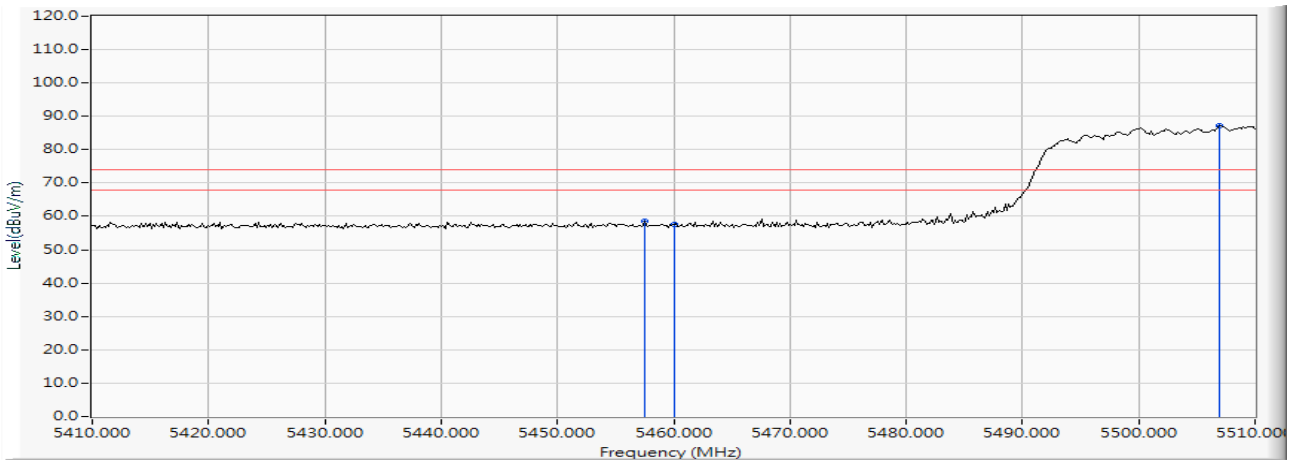
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5302.029	15.801	66.475	82.276	--	--	AVERAGE
2		5350.000	15.912	29.995	45.907	-8.093	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 4: Transmit (802.11ac-80BW 65Mbps) (5530MHz)
Test Date : 2019/05/09

Horizontal



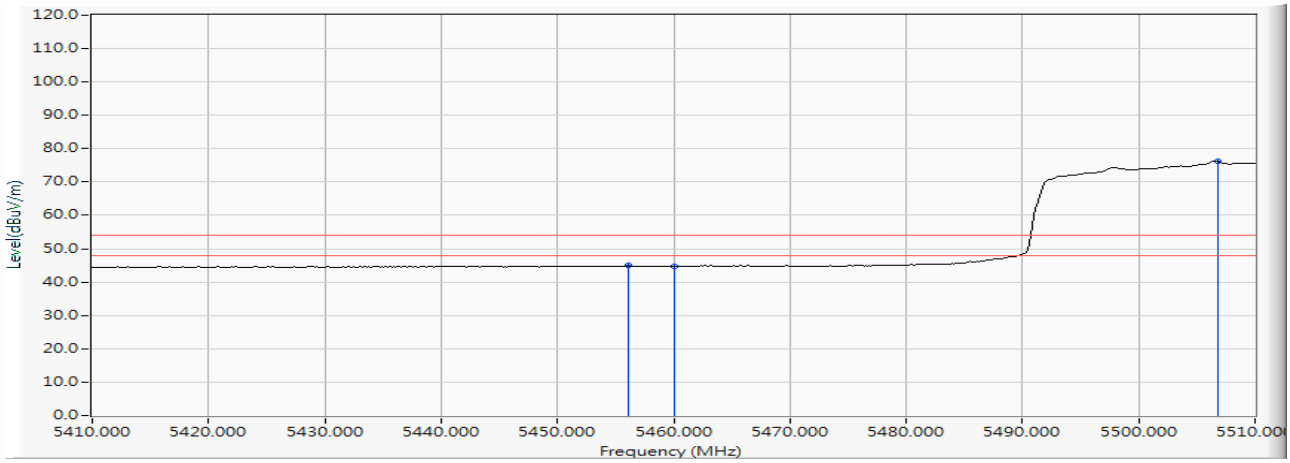
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5457.536	16.181	42.214	58.395	-15.605	74.000	PEAK
2		5460.000	16.185	41.516	57.701	-16.299	74.000	PEAK
3	*	5506.957	16.273	70.873	87.146	--	--	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 4: Transmit (802.11ac-80BW 65Mbps) (5530MHz)
Test Date : 2019/05/09

Horizontal



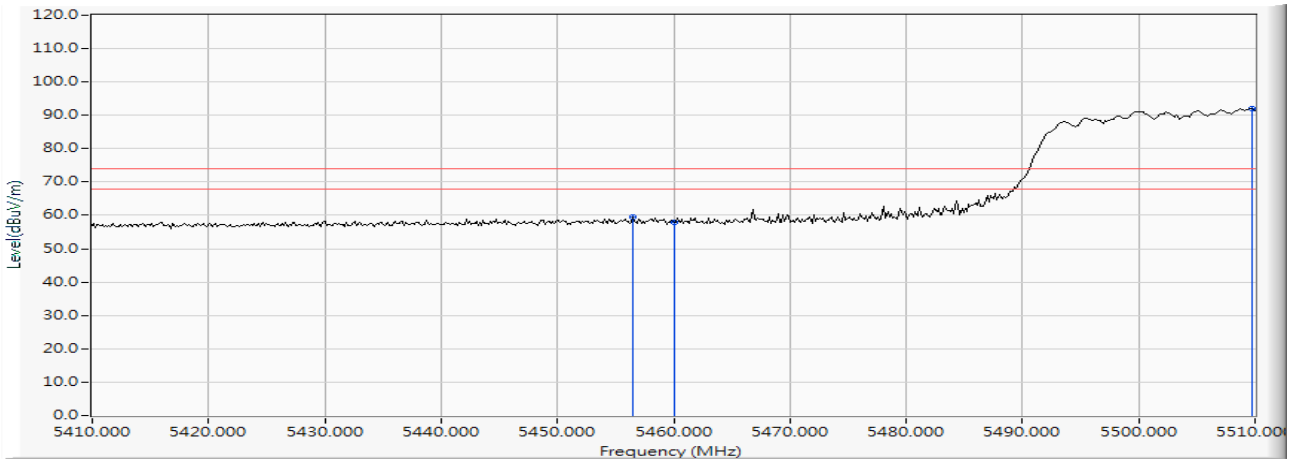
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5456.087	16.177	28.707	44.884	-9.116	54.000	AVERAGE
2		5460.000	16.185	28.540	44.725	-9.275	54.000	AVERAGE
3	*	5506.812	16.273	59.957	76.230	--	--	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 4: Transmit (802.11ac-80BW 65Mbps) (5530MHz)
Test Date : 2019/05/09

Vertical



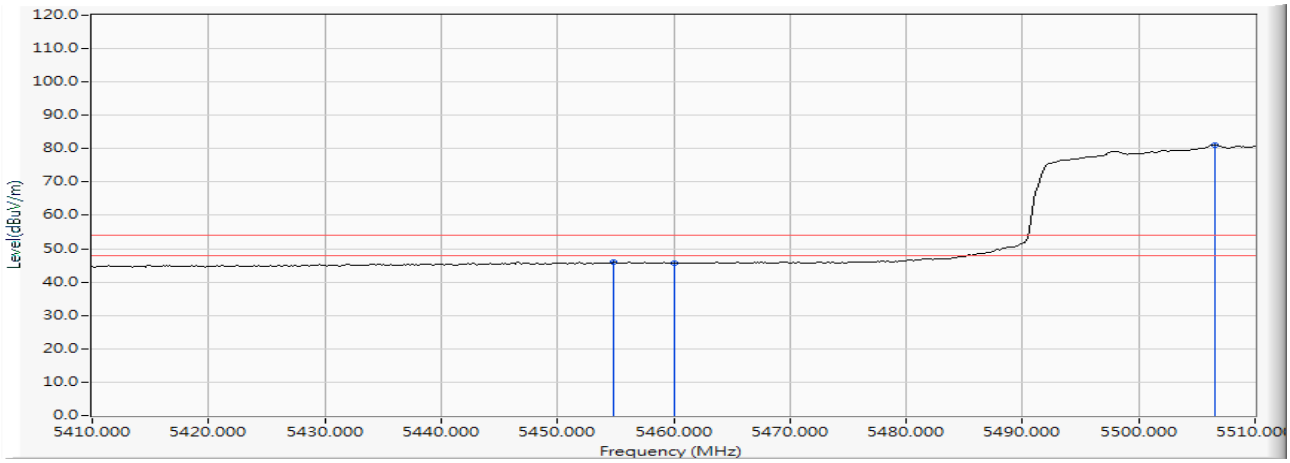
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5456.522	16.179	43.236	59.415	-14.585	74.000	PEAK
2		5460.000	16.185	41.683	57.868	-16.132	74.000	PEAK
3	*	5509.710	16.275	75.704	91.979	--	--	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	UNIT ASSY DA
Test Item	:	Band Edge Data
Test Mode	:	Mode 4: Transmit (802.11ac-80BW 65Mbps) (5530MHz)
Test Date	:	2019/05/09

Vertical



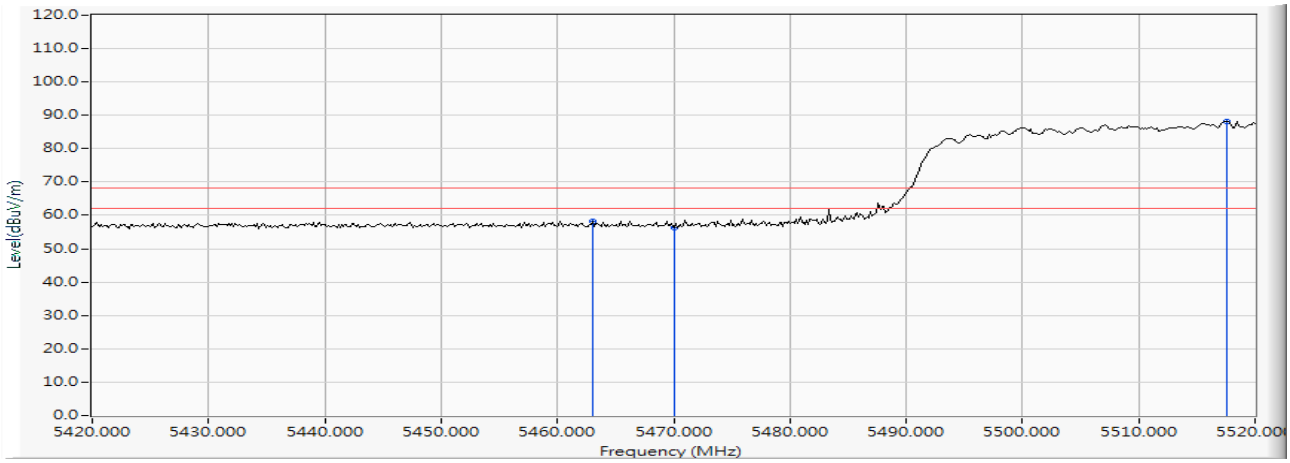
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5454.783	16.173	29.735	45.908	-8.092	54.000	AVERAGE
2		5460.000	16.185	29.536	45.721	-8.279	54.000	AVERAGE
3	*	5506.522	16.273	64.936	81.209	--	--	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

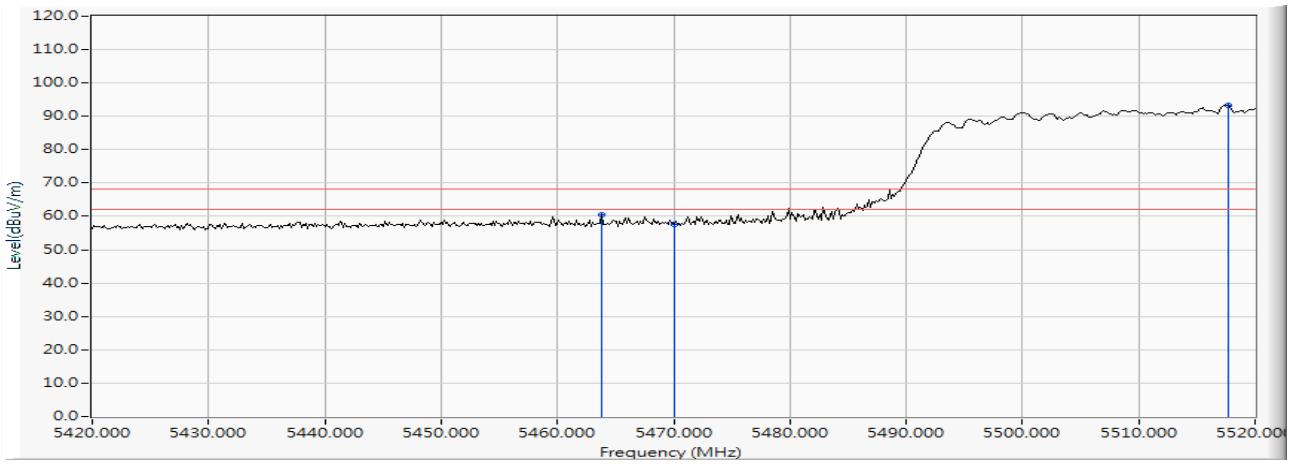
Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 4: Transmit (802.11ac-80BW 65Mbps) (5530MHz)
Test Date : 2019/05/09

Horizontal



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5463.043	16.189	42.069	58.258	-9.962	68.220	PEAK
2		5470.000	16.200	40.232	56.432	-11.788	68.220	PEAK
3	*	5517.536	16.288	71.961	88.249	--	--	PEAK

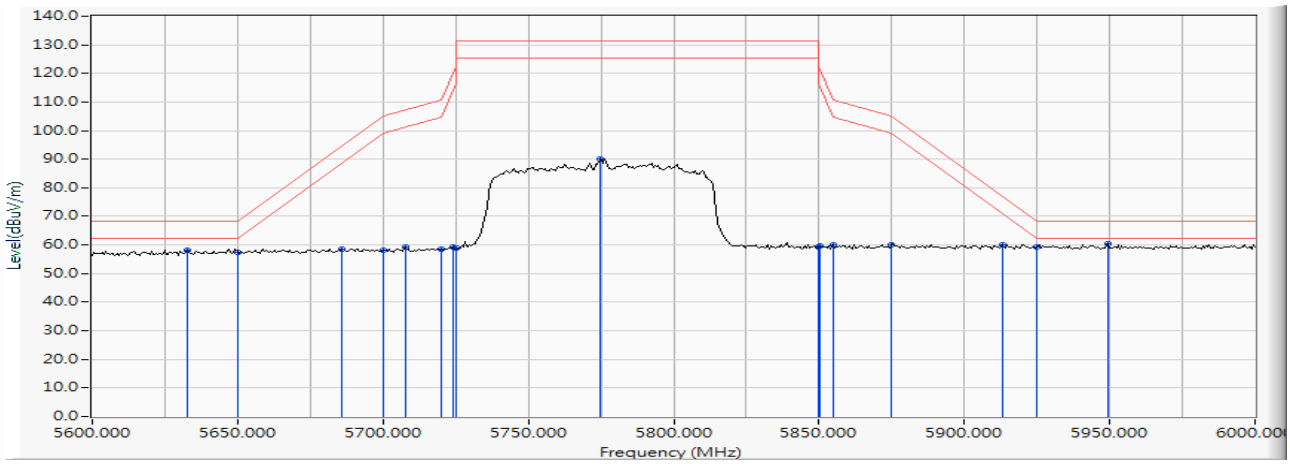
Vertical



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5463.768	16.190	44.176	60.366	-7.854	68.220	PEAK
2		5470.000	16.200	41.432	57.632	-10.588	68.220	PEAK
3	*	5517.681	16.288	77.093	93.381	--	--	PEAK

Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 4: Transmit (802.11ac-80BW 65Mbps) (5775MHz)
Test Date : 2019/05/09

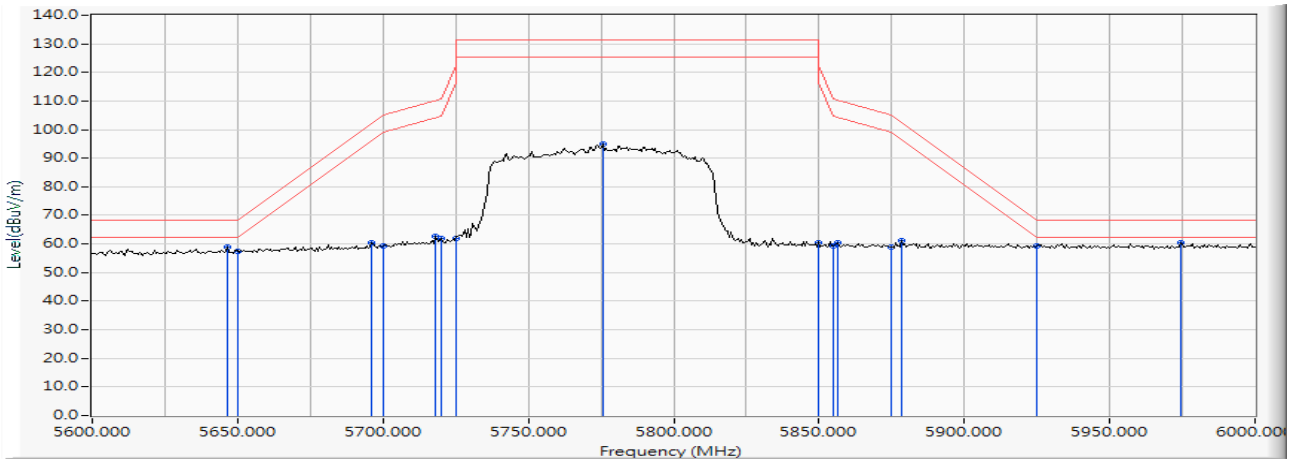
Horizontal



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5632.464	16.409	41.678	58.087	-10.133	68.220	PEAK
2		5650.000	16.447	41.042	57.489	-10.731	68.220	PEAK
3		5685.797	16.485	42.245	58.729	-35.966	94.695	PEAK
4		5700.000	16.502	41.636	58.138	-47.062	105.200	PEAK
5		5707.826	16.512	42.730	59.242	-48.149	107.391	PEAK
6		5720.000	16.535	41.993	58.528	-52.272	110.800	PEAK
7		5724.058	16.543	42.717	59.259	-60.793	120.052	PEAK
8		5725.000	16.544	42.375	58.919	-63.281	122.200	PEAK
9		5774.493	16.602	73.520	90.121	--	--	PEAK
10		5850.000	16.748	42.530	59.278	-62.922	122.200	PEAK
11		5850.435	16.749	43.094	59.843	-61.365	121.208	PEAK
12		5855.000	16.758	43.292	60.050	-50.750	110.800	PEAK
13		5875.000	16.807	43.089	59.897	-45.303	105.200	PEAK
14		5913.043	16.887	43.339	60.226	-16.822	77.048	PEAK
15		5925.000	16.920	42.536	59.456	-8.744	68.200	PEAK
16	*	5949.565	16.953	43.546	60.499	-7.701	68.200	PEAK

Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 4: Transmit (802.11ac-80BW 65Mbps) (5775MHz)
Test Date : 2019/05/09

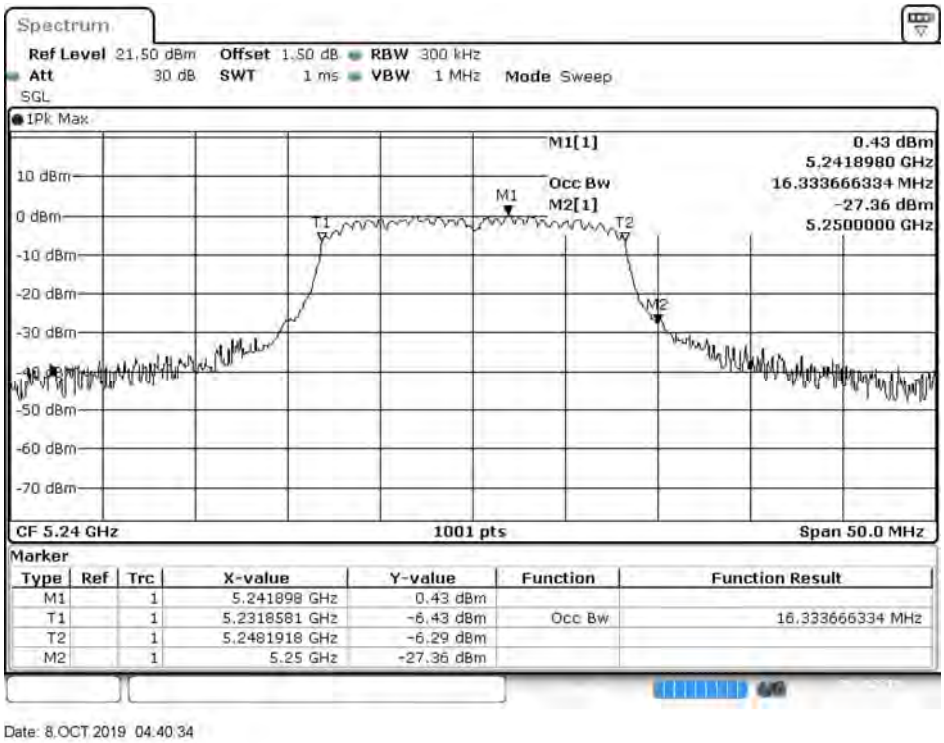
Vertical



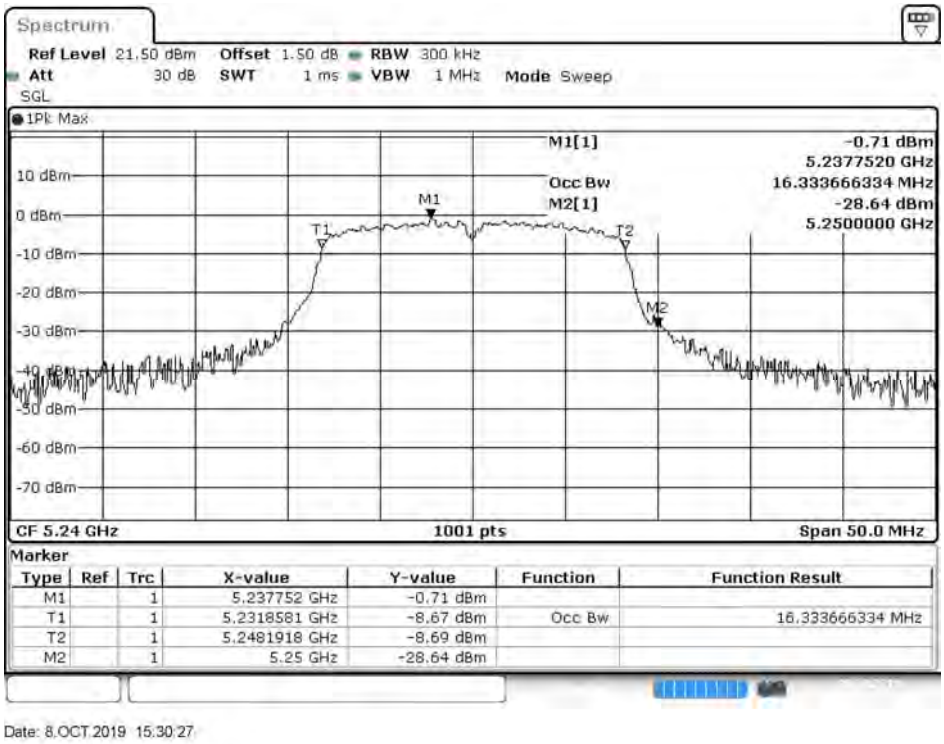
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5646.377	16.437	42.419	58.856	-9.364	68.220	PEAK
2		5650.000	16.447	41.054	57.501	-10.719	68.220	PEAK
3		5696.232	16.497	44.066	60.563	-41.850	102.413	PEAK
4		5700.000	16.502	42.645	59.147	-46.053	105.200	PEAK
5		5718.261	16.532	46.156	62.688	-47.625	110.313	PEAK
6		5720.000	16.535	45.392	61.927	-48.873	110.800	PEAK
7		5725.000	16.544	45.550	62.094	-60.106	122.200	PEAK
8		5775.652	16.602	78.445	95.048	--	--	PEAK
9		5850.000	16.748	43.606	60.354	-61.846	122.200	PEAK
10		5855.000	16.758	42.489	59.247	-51.553	110.800	PEAK
11		5856.232	16.761	43.811	60.572	-49.883	110.455	PEAK
12		5875.000	16.807	42.135	58.943	-46.257	105.200	PEAK
13		5878.261	16.817	44.473	61.290	-41.497	102.787	PEAK
14		5925.000	16.920	42.366	59.286	-8.914	68.200	PEAK
15	*	5974.493	17.008	43.261	60.270	-7.930	68.200	PEAK

Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 1: Transmit (802.11a 6Mbps) (5240MHz)
Test Date : 2019/10/31

Chain A

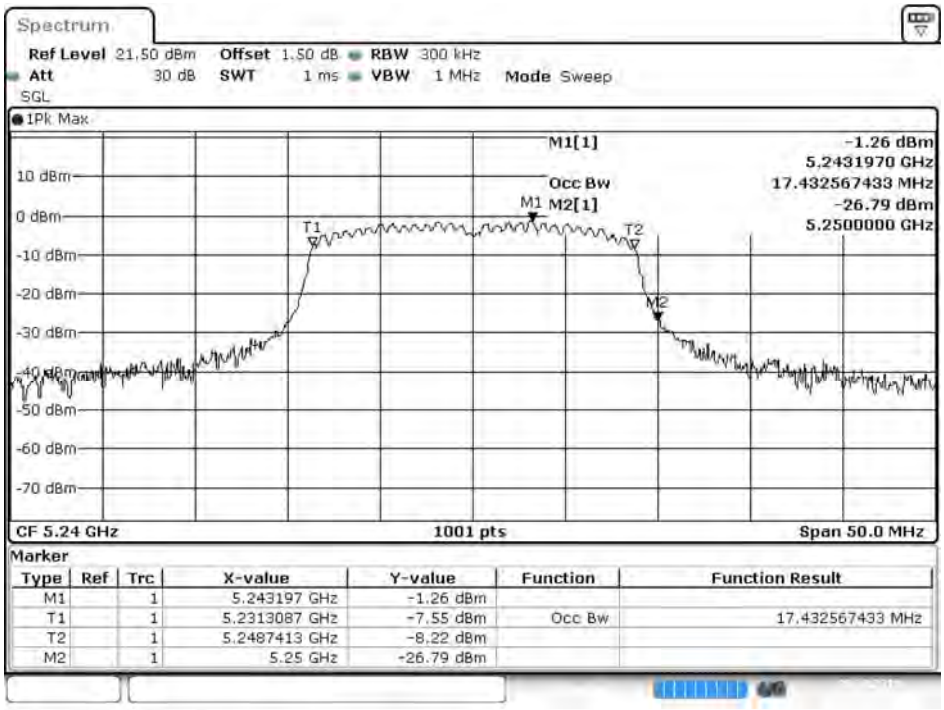


Chain B

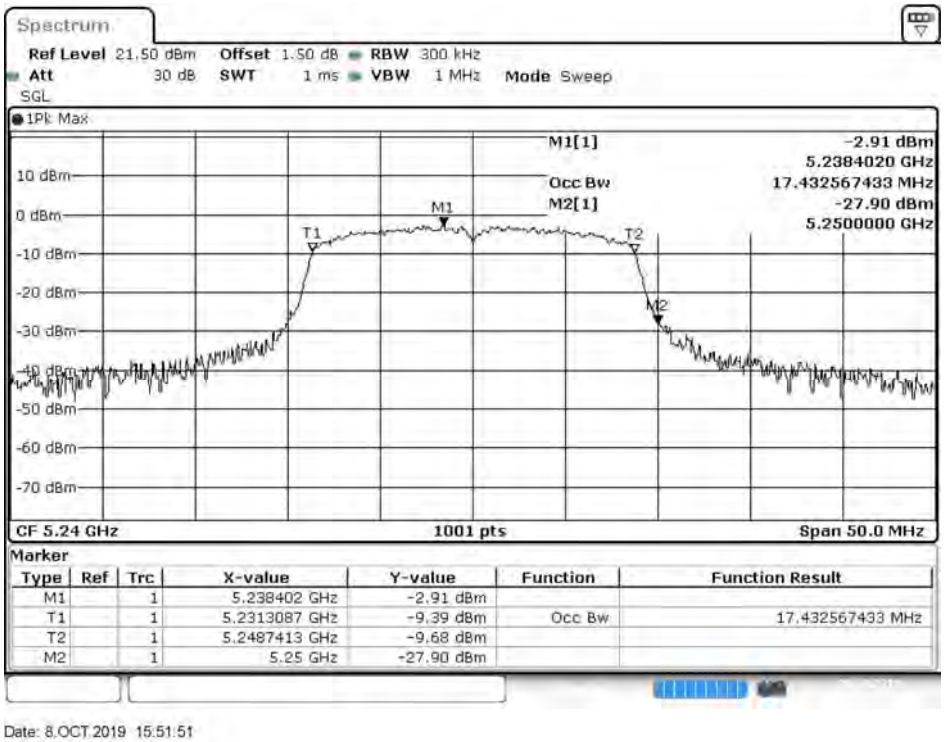


Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5240MHz)
Test Date : 2019/10/31

Chain A

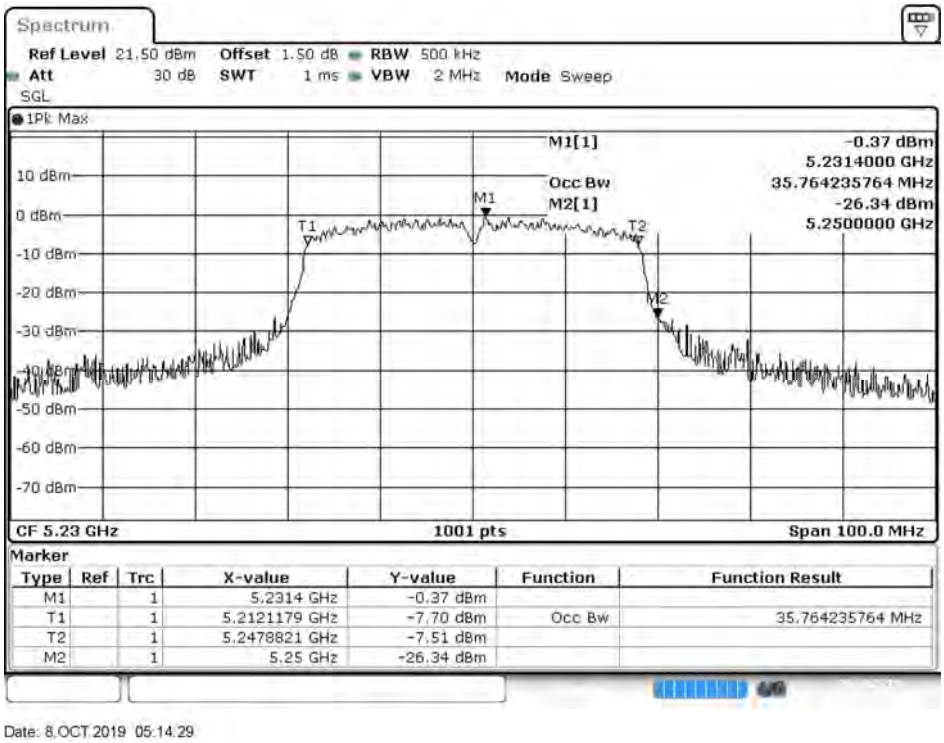


Chain B



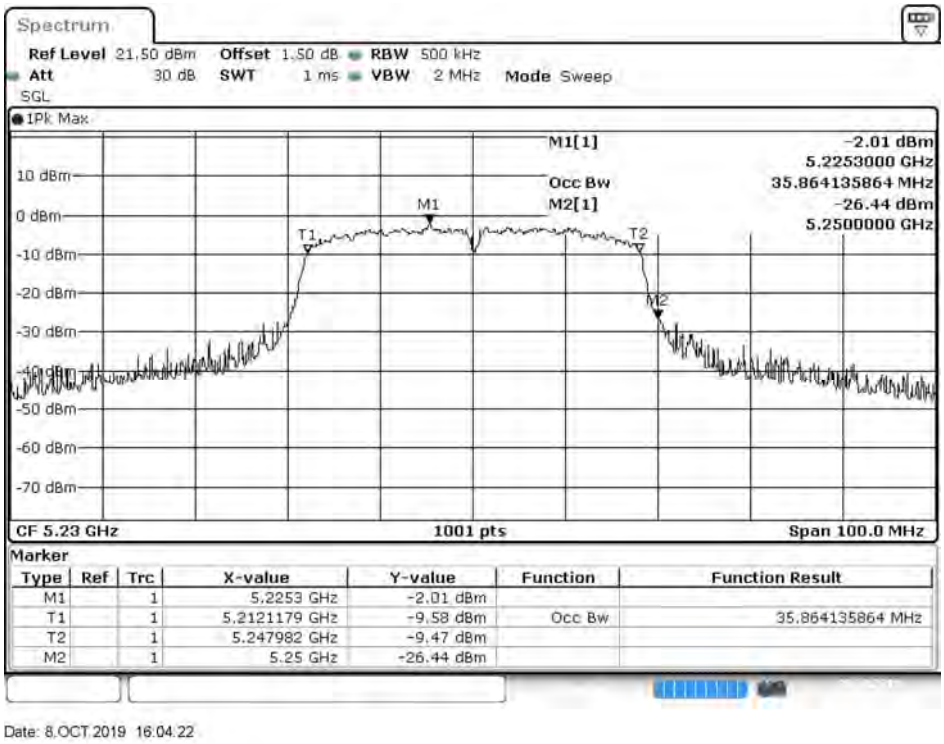
Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5230MHz)
Test Date : 2019/10/31

Chain A



Date: 8.OCT.2019 05:14:29

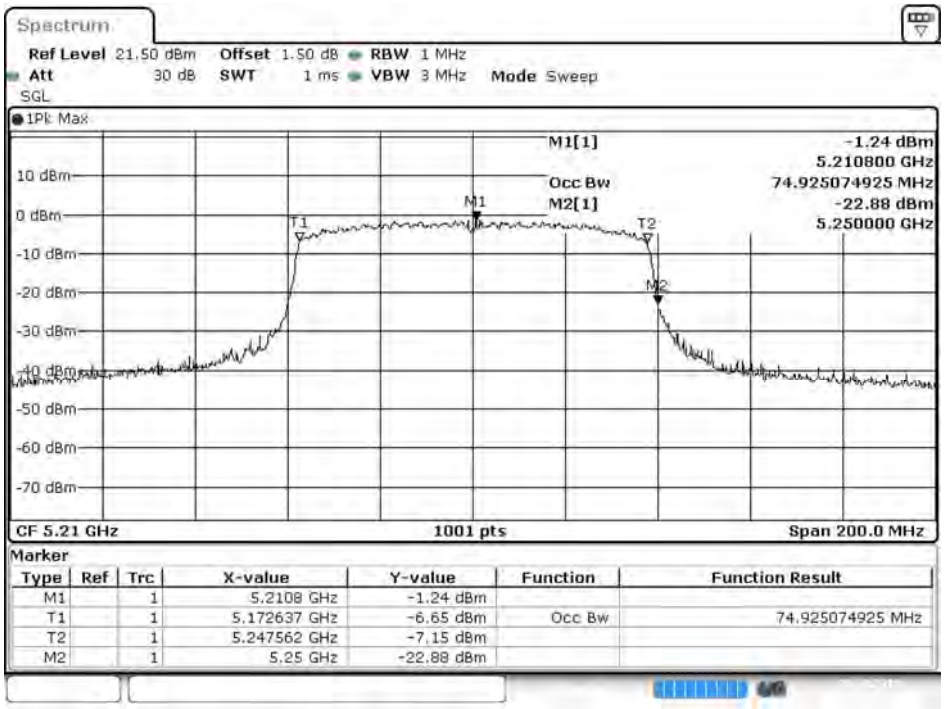
Chain B



Date: 8.OCT.2019 16:04:22

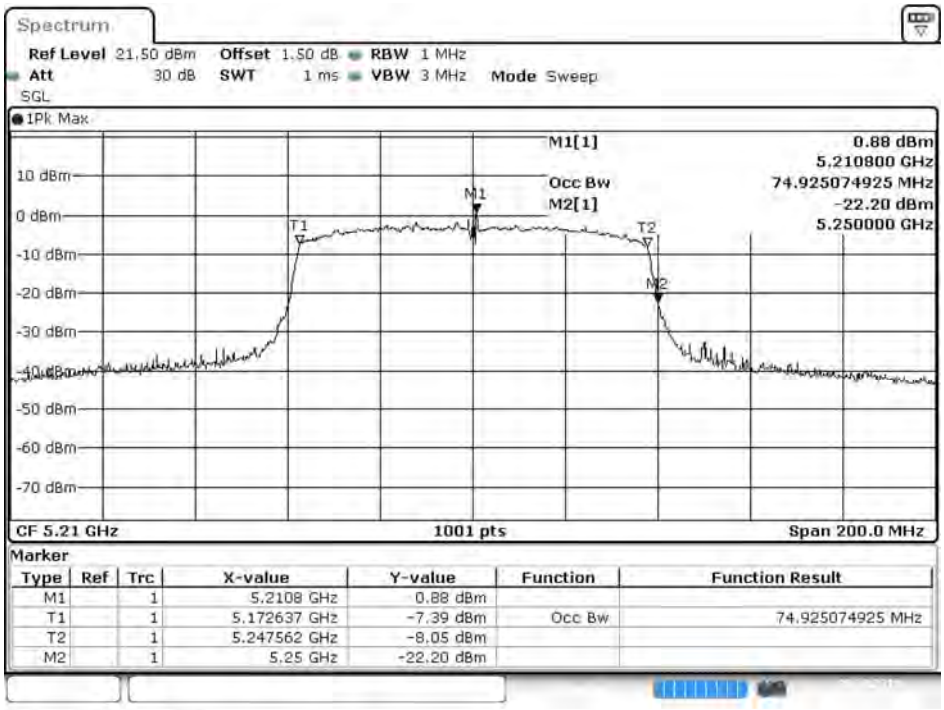
Product : UNIT ASSY DA
Test Item : Band Edge Data
Test Mode : Mode 4: Transmit (802.11ac-80BW 65Mbps) (5210MHz)
Test Date : 2019/10/31

Chain A



Date: 8.OCT.2019 04:51:18

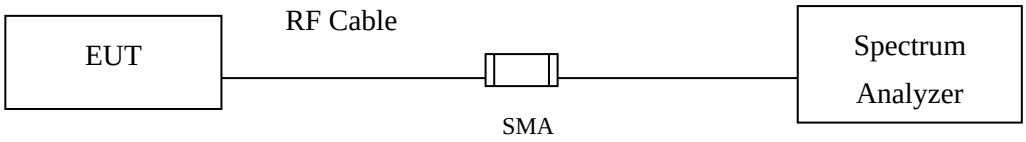
Chain B



Date: 8.OCT.2019 15:41:10

7. Occupied Bandwidth

7.1. Test Setup



7.2. Limits

For the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz

7.3. .Test Procedure

The EUT was setup to ANSI C63.10, 2013; tested to UNII test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.

7.4. Uncertainty

±671.83Hz

7.5. Test Result of Occupied Bandwidth

Product : UNIT ASSY DA
Test Item : Occupied Bandwidth Data
Test Mode : Mode 1: Transmit (802.11a 6Mbps)
Test Date : 2019/05/03

Channel No.	Frequency (MHz)	Chain	Measurement Level (kHz)	Required Limit (kHz)	Result
149	5745	A	15150	>500	Pass
157	5785	A	15200	>500	Pass
165	5825	A	15200	>500	Pass
149	5745	B	15400	>500	Pass
157	5785	B	15400	>500	Pass
165	5825	B	15400	>500	Pass

Figure Channel 149 (Chain A)

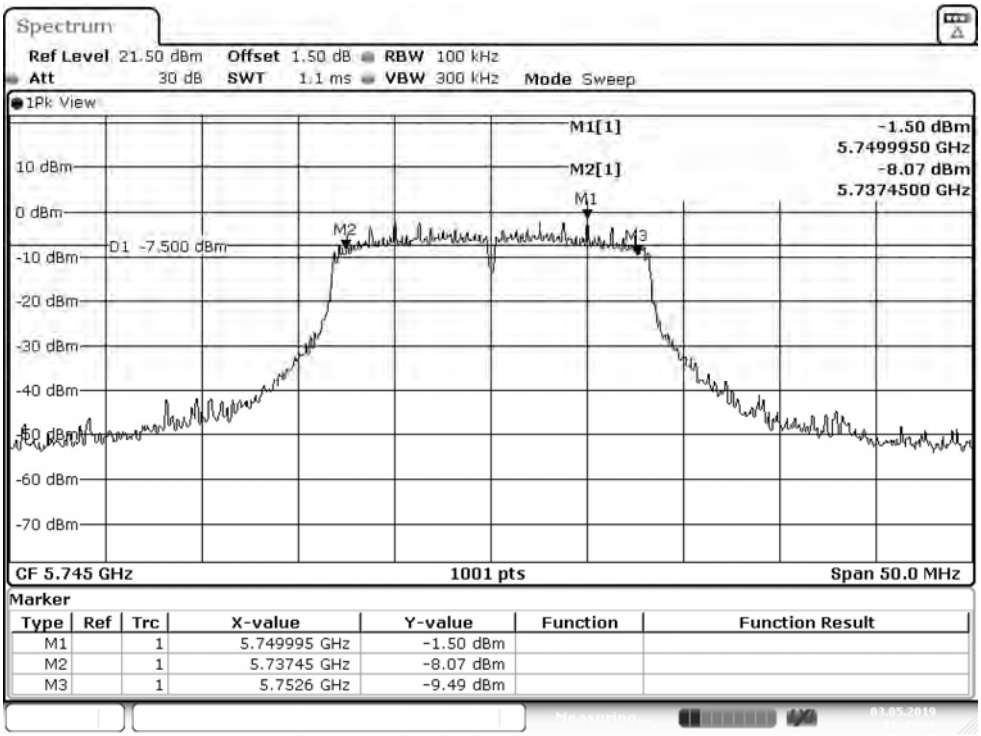


Figure Channel 157 (Chain A)

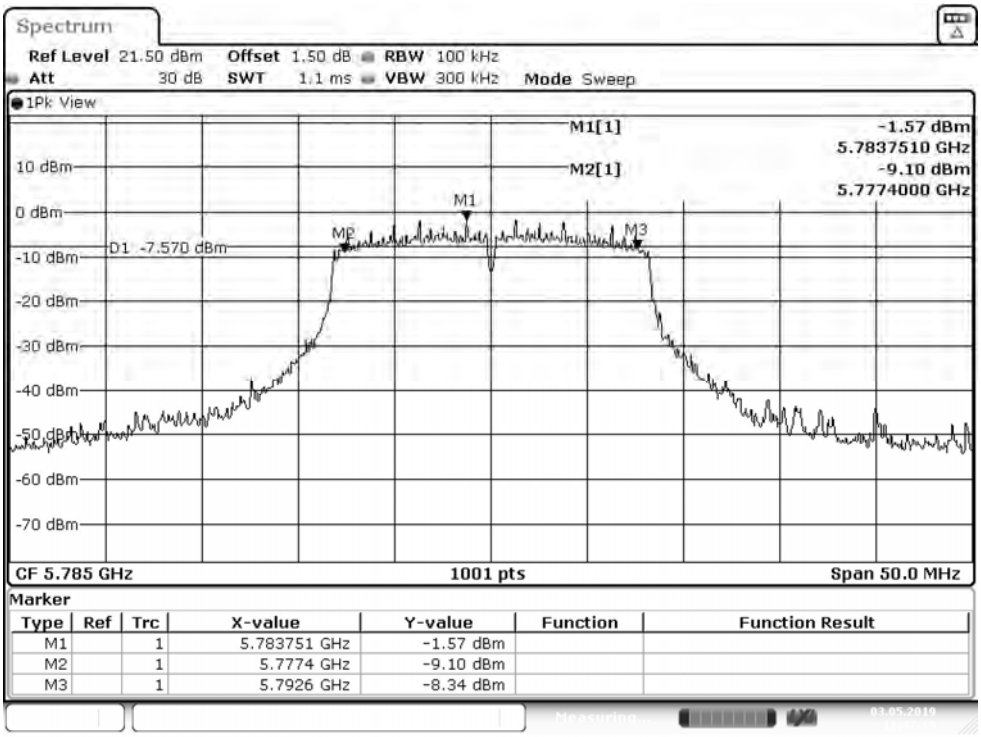


Figure Channel 165 (Chain A)

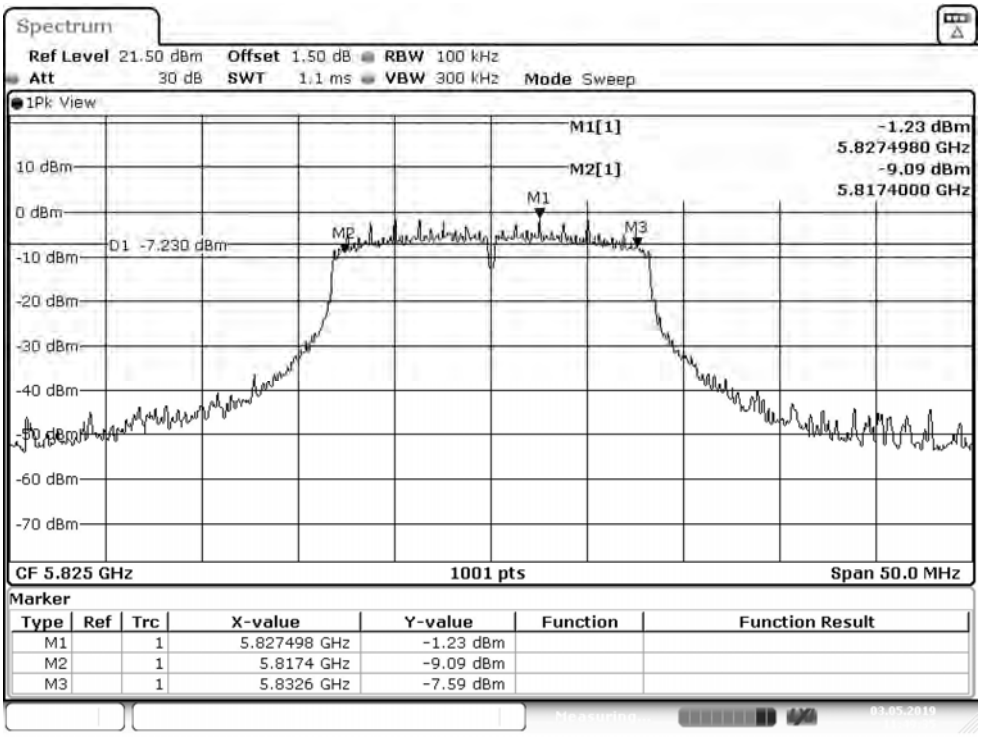
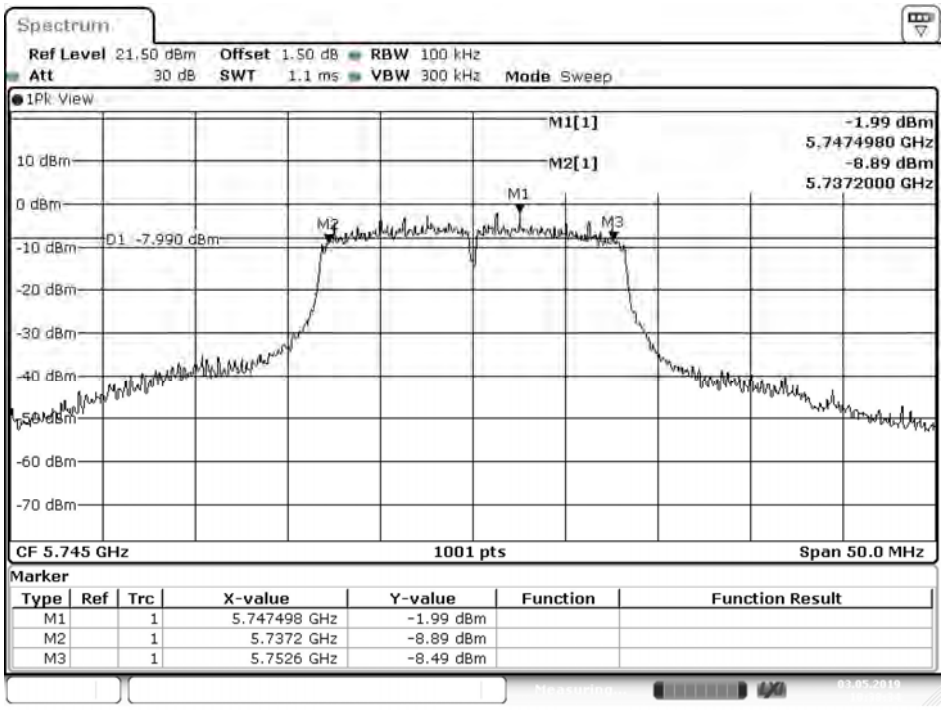
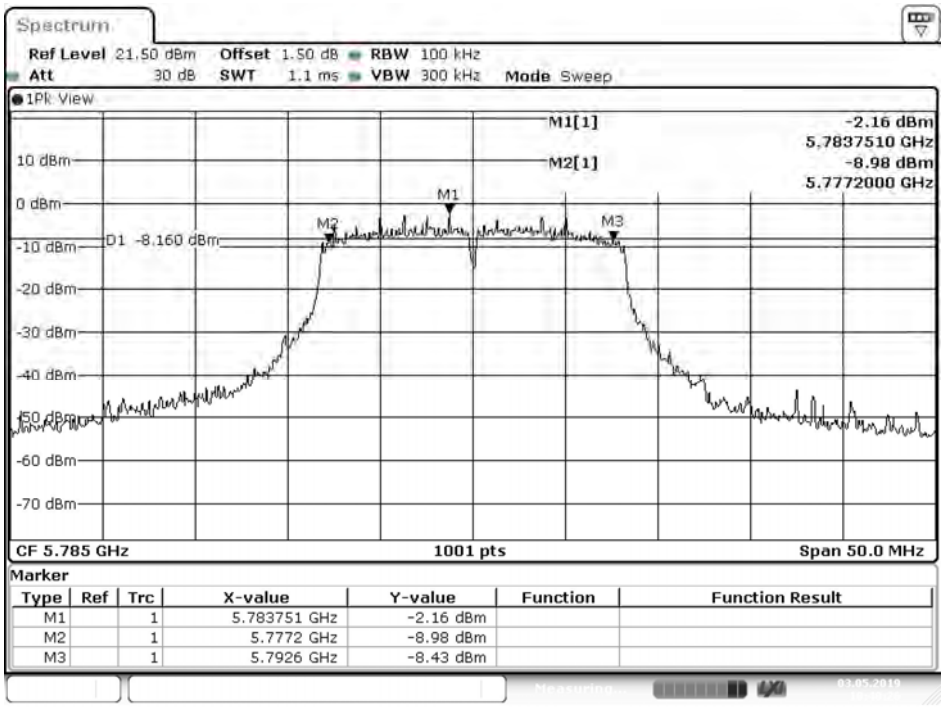


Figure Channel 149 (Chain B)



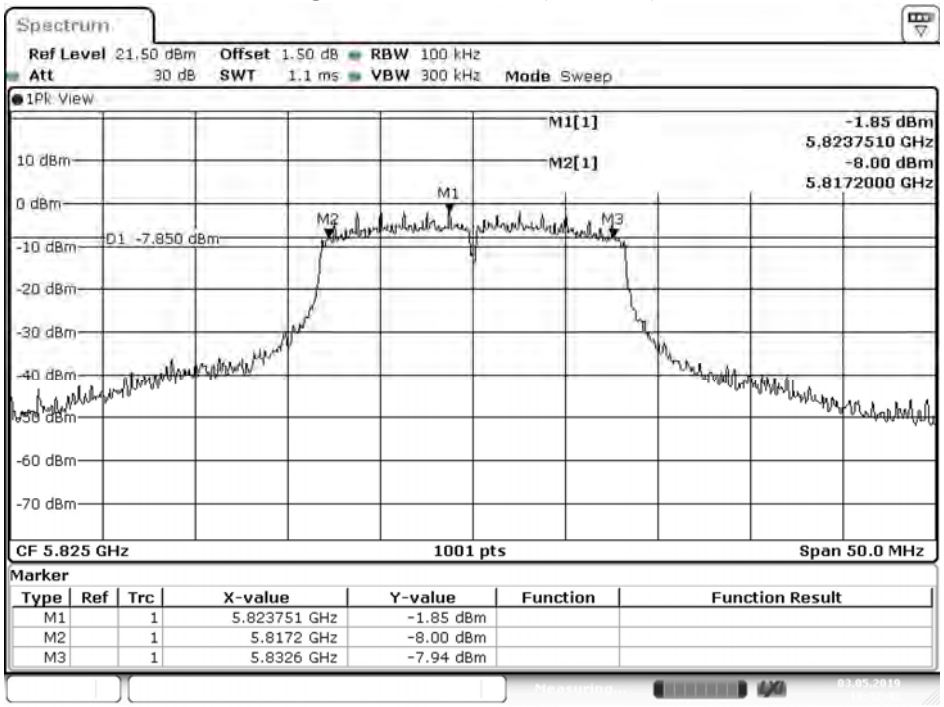
Date: 3.MAY.2019 10:38:34

Figure Channel 157 (Chain B)



Date: 3.MAY.2019 10:40:26

Figure Channel 165 (Chain B)



Date: 3.MAY.2019 10:42:42

Product : UNIT ASSY DA
Test Item : Occupied Bandwidth Data
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps)
Test Date : 2019/05/03

Channel No.	Frequency (MHz)	Chain	Measurement Level (kHz)	Required Limit (kHz)	Result
149	5745	A	15800	>500	Pass
157	5785	A	16350	>500	Pass
165	5825	A	15850	>500	Pass
149	5745	B	15200	>500	Pass
157	5785	B	15200	>500	Pass
165	5825	B	15200	>500	Pass

Figure Channel 149 (Chain A)

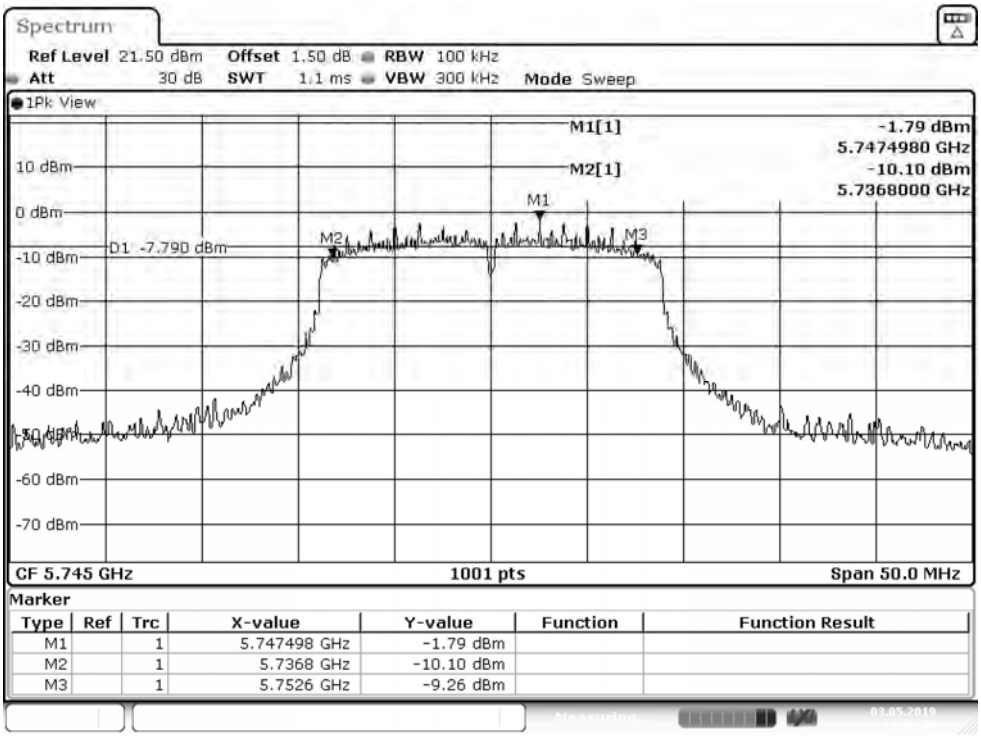


Figure Channel 157 (Chain A)

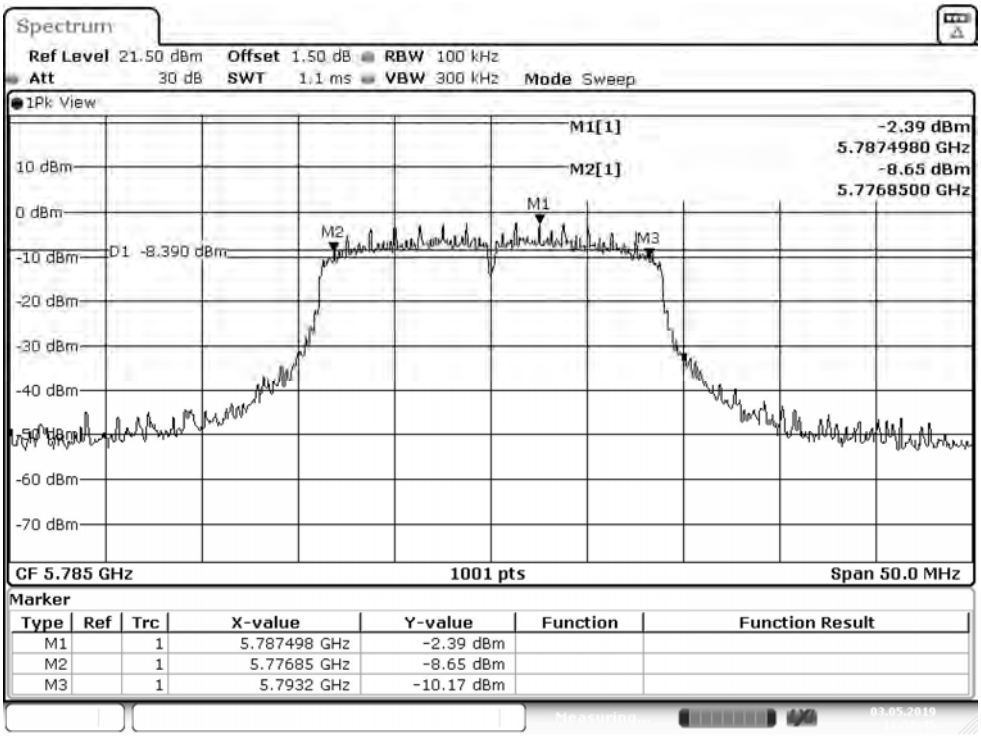


Figure Channel 165 (Chain A)

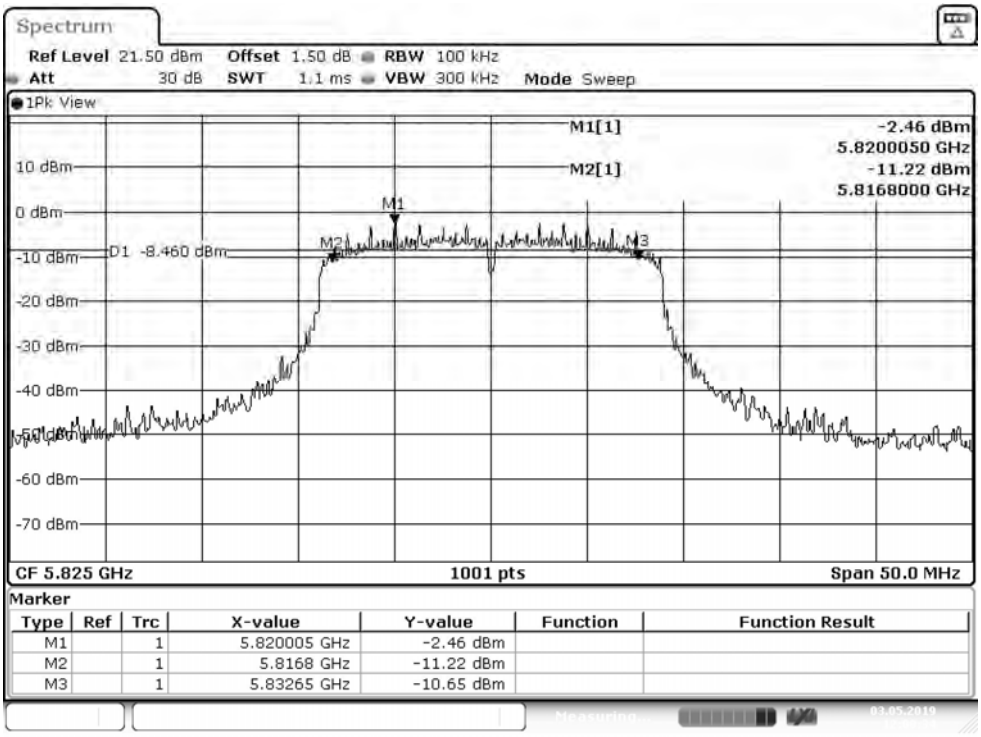
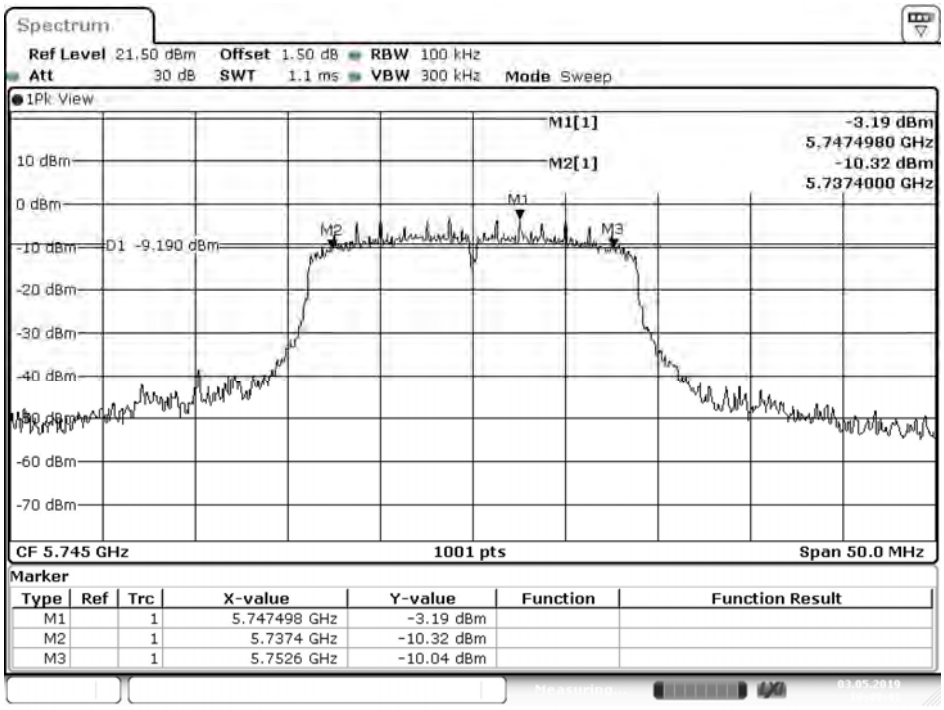
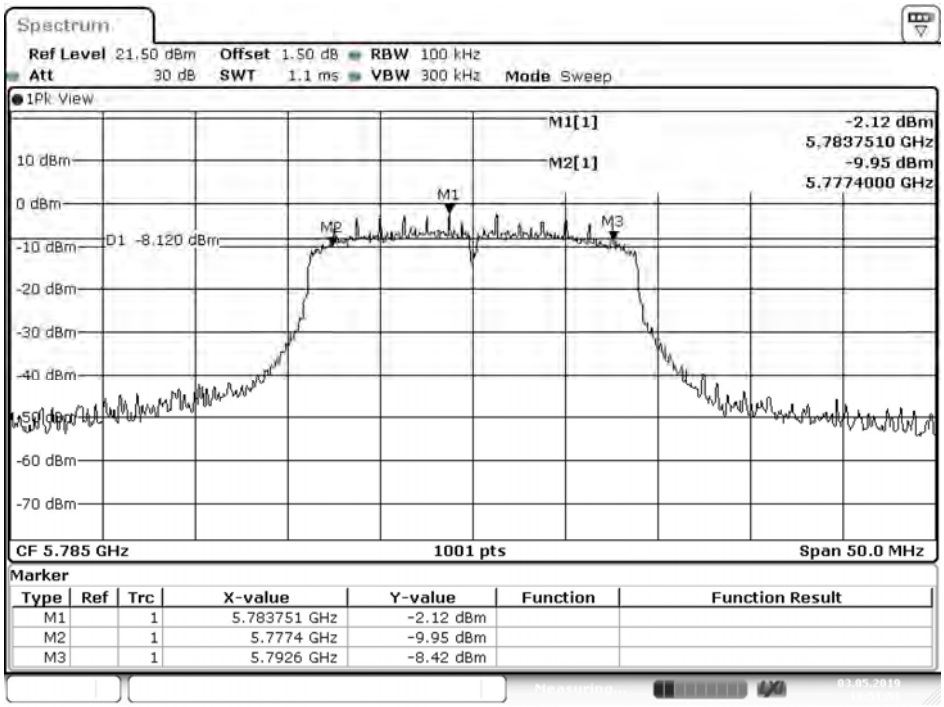


Figure Channel 149 (Chain B)



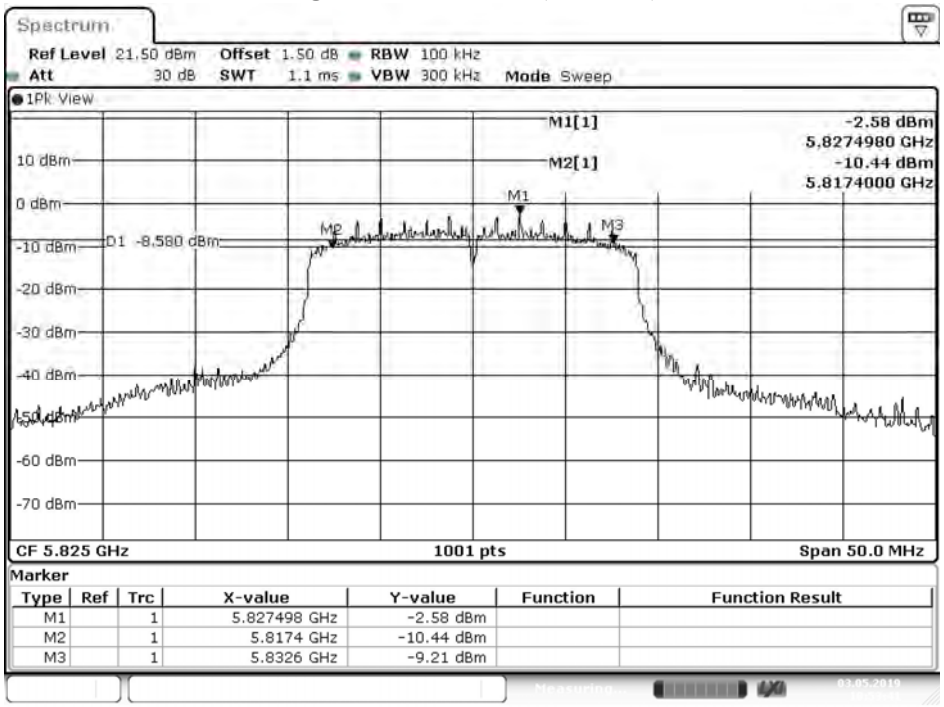
Date: 3.MAY.2019 10:49:42

Figure Channel 157 (Chain B)



Date: 3.MAY.2019 10:51:51

Figure Channel 165 (Chain B)



Date: 3.MAY.2019 10:53:41

Product : UNIT ASSY DA
Test Item : Occupied Bandwidth Data
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps)
Test Date : 2019/05/03

Channel No.	Frequency (MHz)	Chain	Measurement Level (kHz)	Required Limit (kHz)	Result
151	5755	A	35200	>500	Pass
159	5795	A	35300	>500	Pass
151	5755	B	35300	>500	Pass
159	5795	B	35300	>500	Pass

Figure Channel 151 (Chain A)

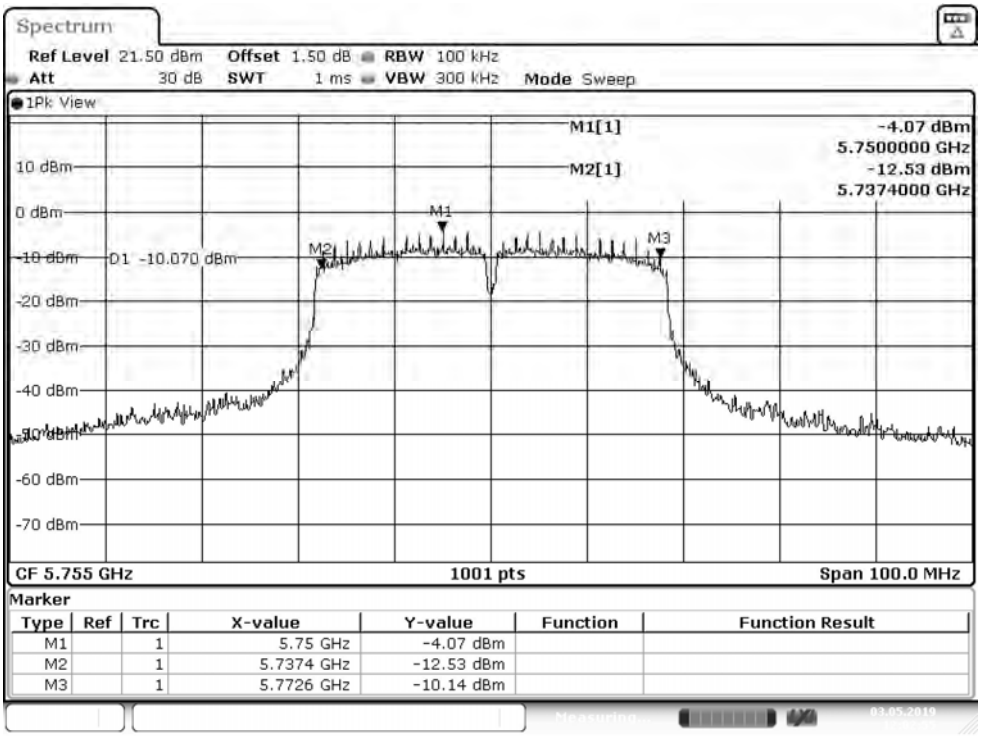


Figure Channel 159 (Chain A)

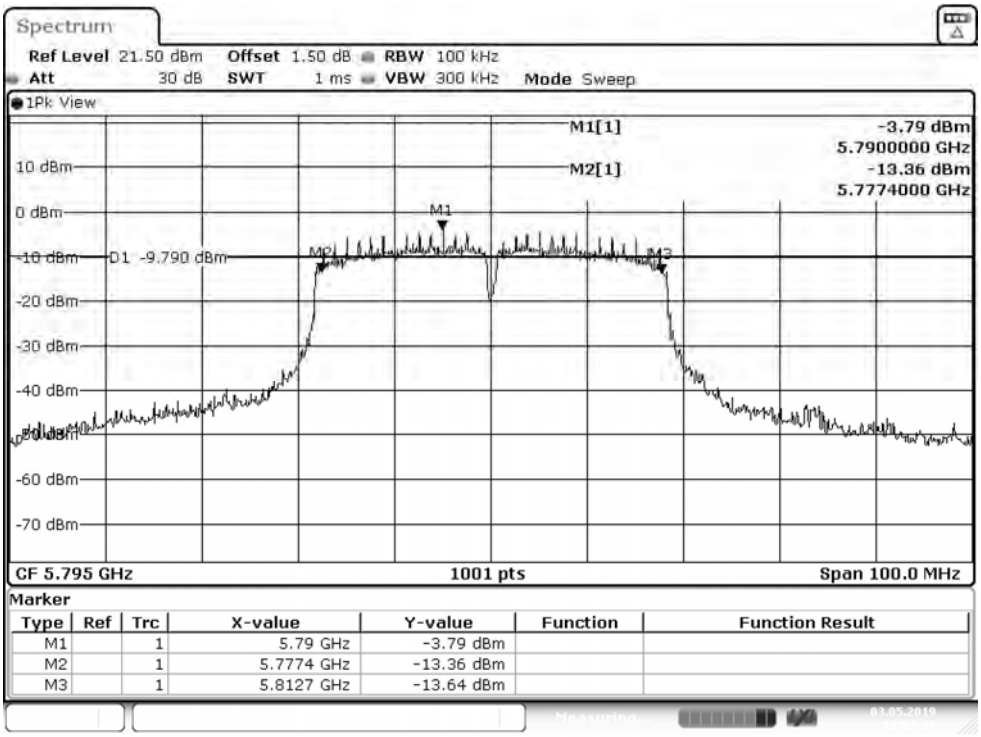
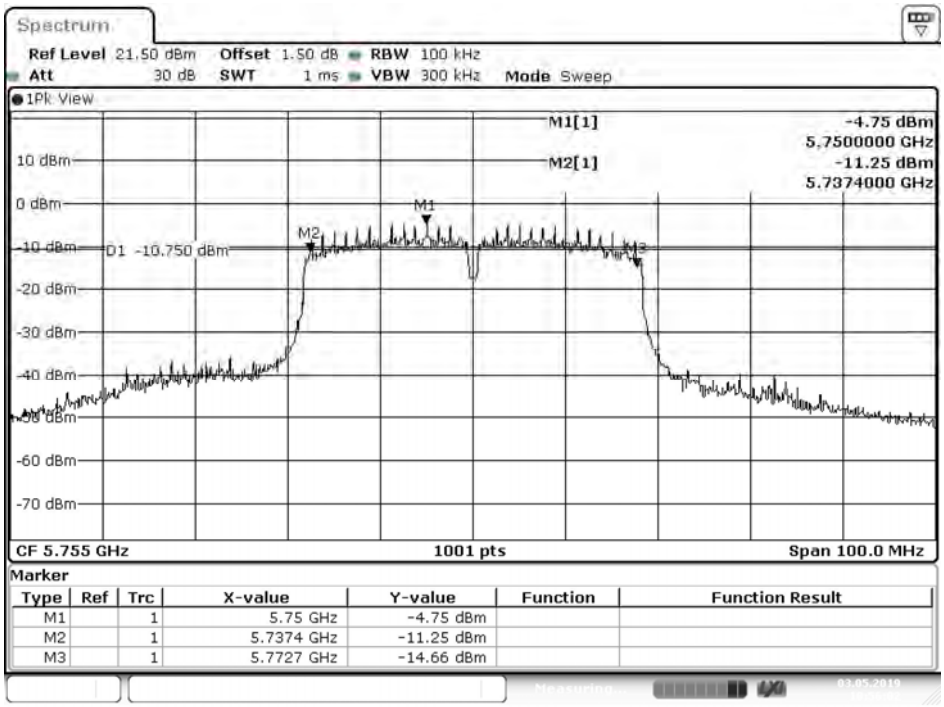
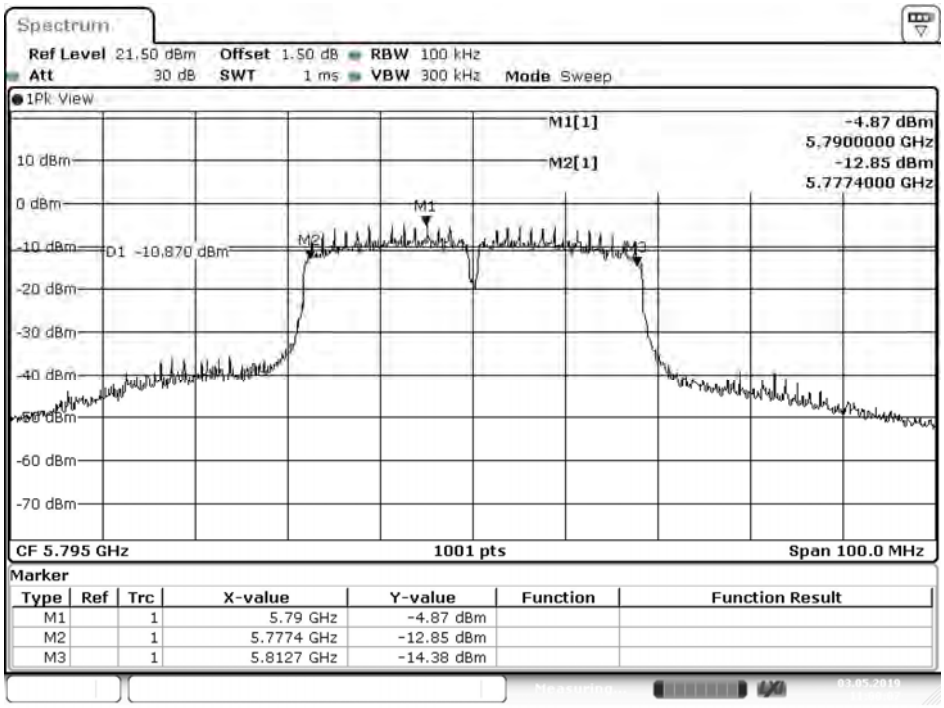


Figure Channel 151 (Chain B)



Date: 3.MAY.2019 10:56:02

Figure Channel 159 (Chain B)



Date: 3.MAY.2019 11:00:07

Product : UNIT ASSY DA
Test Item : Occupied Bandwidth Data
Test Mode : Mode 4: Transmit (802.11ac-80BW 65Mbps)
Test Date : 2019/05/03

Channel No.	Frequency (MHz)	Chain	Measurement Level (kHz)	Required Limit (kHz)	Result
155	5775	A	75600	>500	Pass
155	5775	B	75600	>500	Pass

Figure Channel 155 (Chain A)

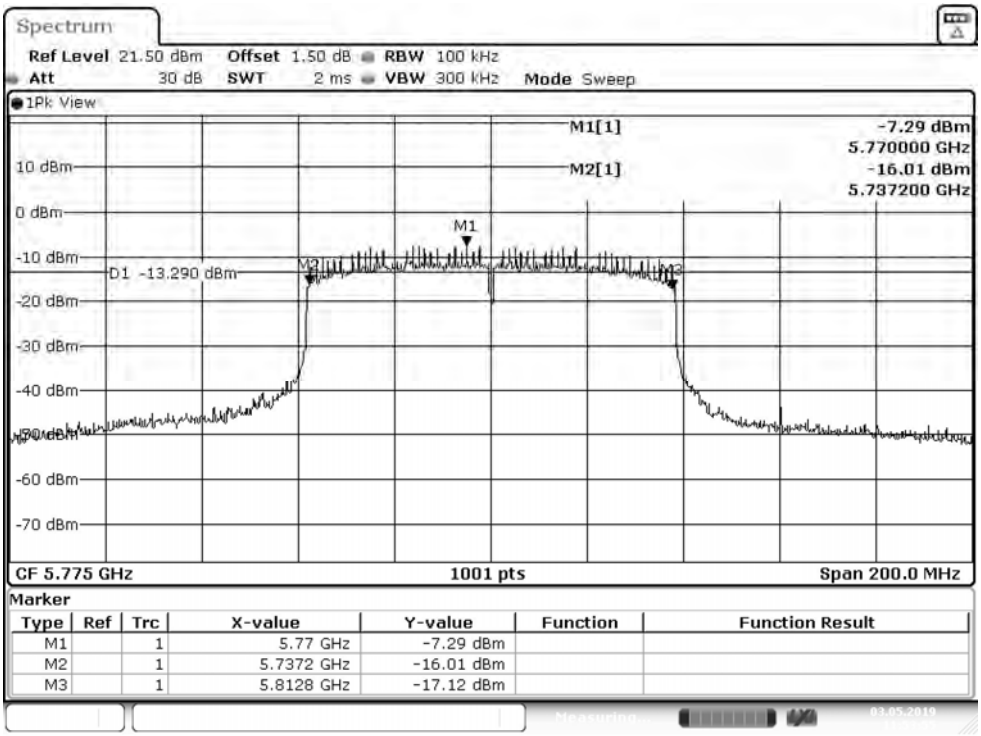
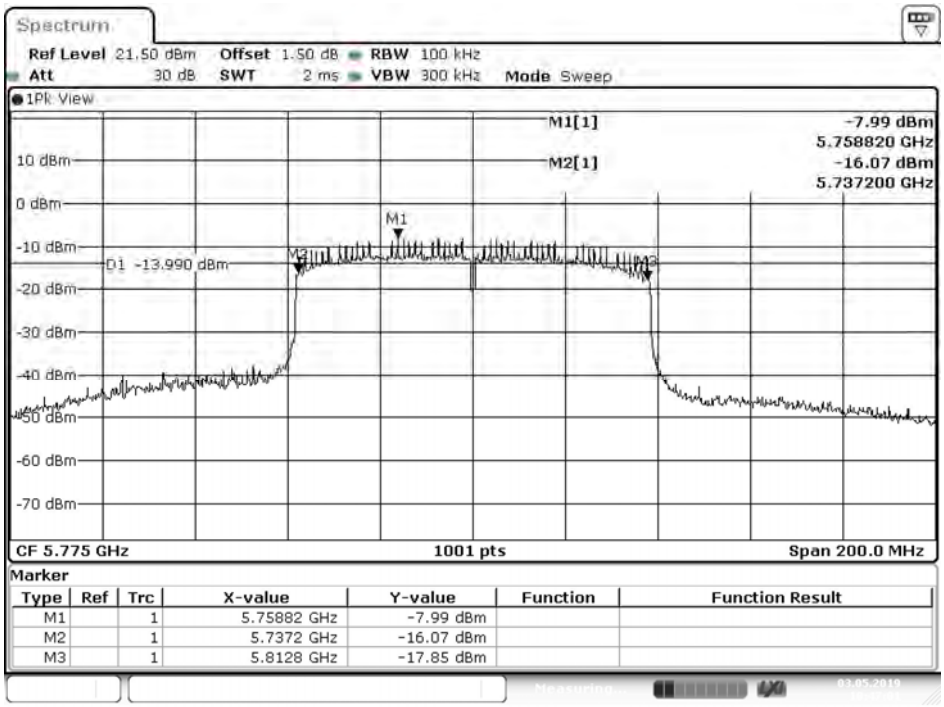


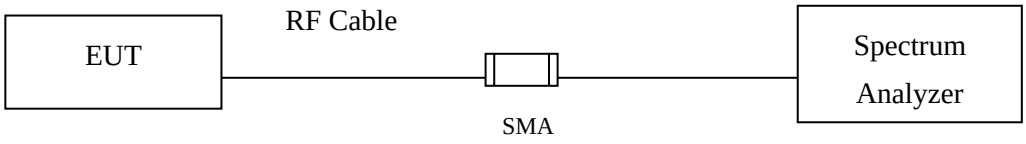
Figure Channel 155 (Chain B)



Date: 3.MAY.2019 10:47:02

8. Duty Cycle

8.1. Test Setup



8.2. Test Procedure

The EUT was setup according to ANSI C63.10 2013; tested according to U-NII test procedure of KDB789033 for compliance to FCC 47CFR 15.407 requirements.

8.3. Uncertainty

± 2.31msec

8.4. Test Result of Duty Cycle

Product : UNIT ASSY DA
Test Item : Duty Cycle
Test Mode : Transmit

Duty Cycle Formula:

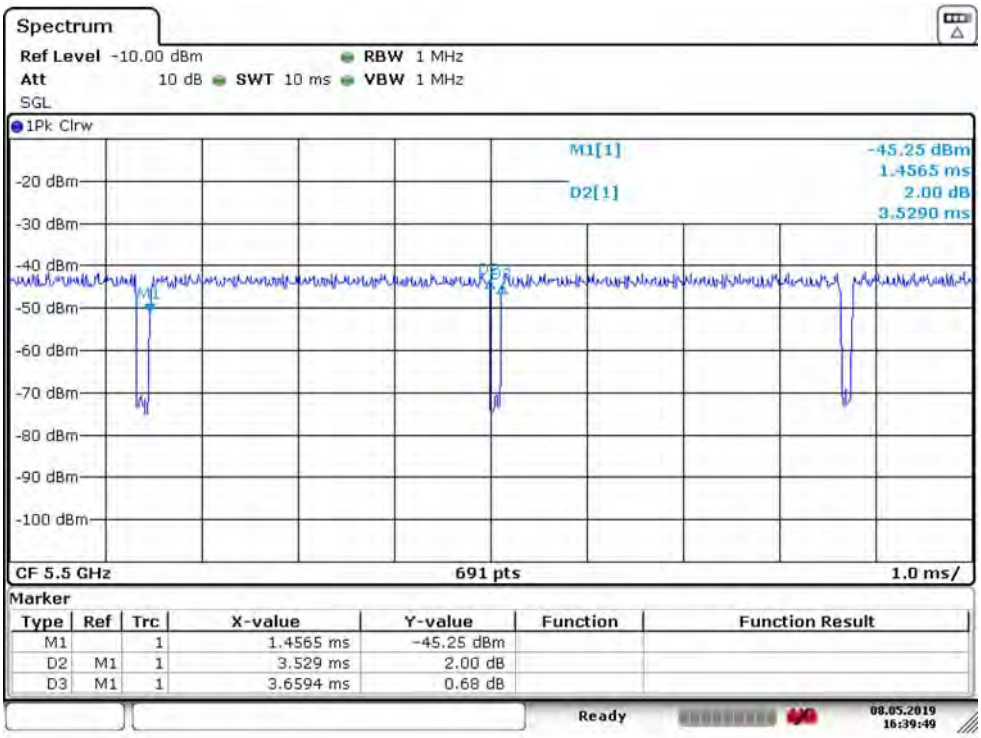
Duty Cycle = Ton / (Ton + Toff)

Duty Factor = 10 Log (1/Duty Cycle)

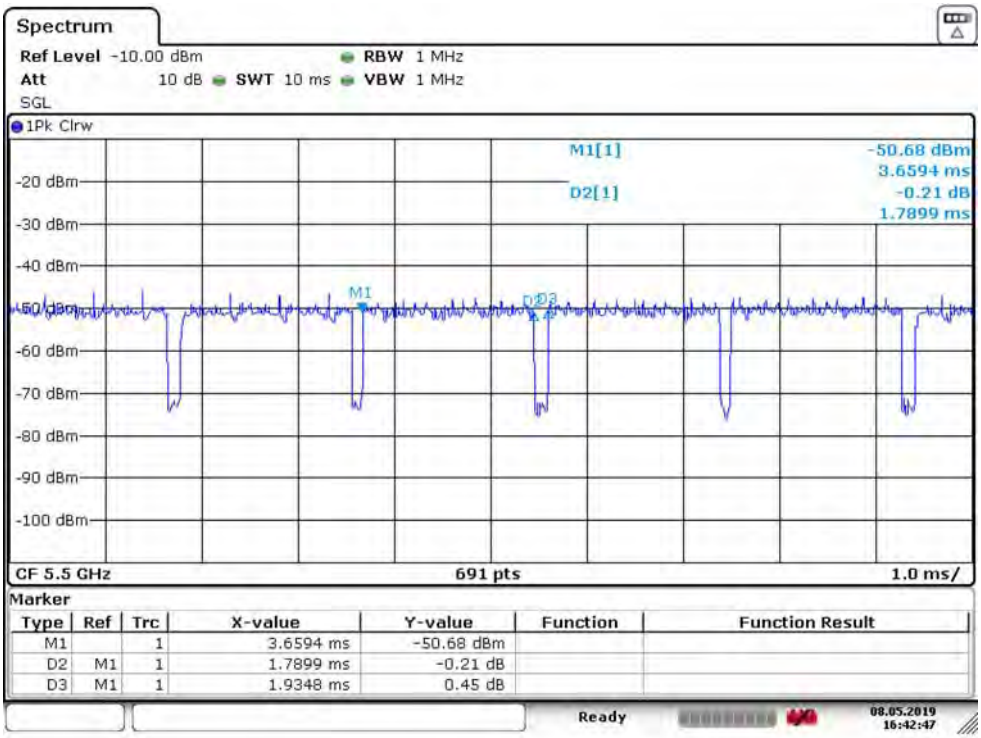
Results:

5GHz band	Ton (ms)	Ton + Toff (ms)	Duty Cycle (%)	Duty Factor (dB)
802.11a	3.5290	3.6594	96.44	0.16
802.11n20	1.7899	1.9348	92.51	0.34
802.11n40	1.7464	1.9638	88.93	0.51
802.11ac80	1.7464	1.9493	89.59	0.48

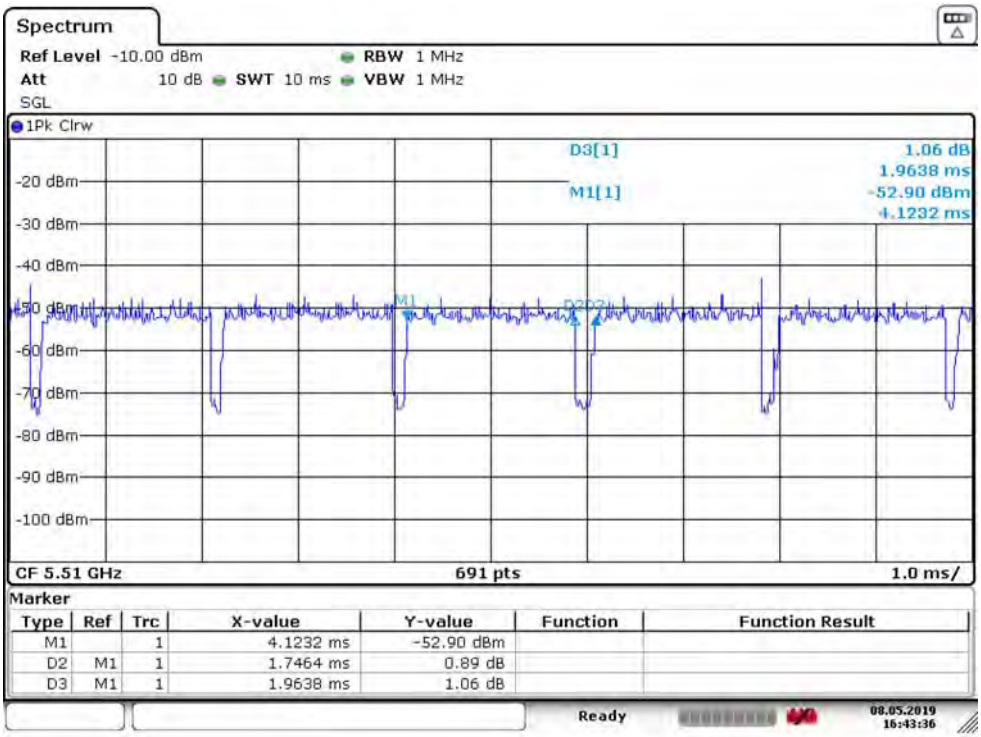
802.11a



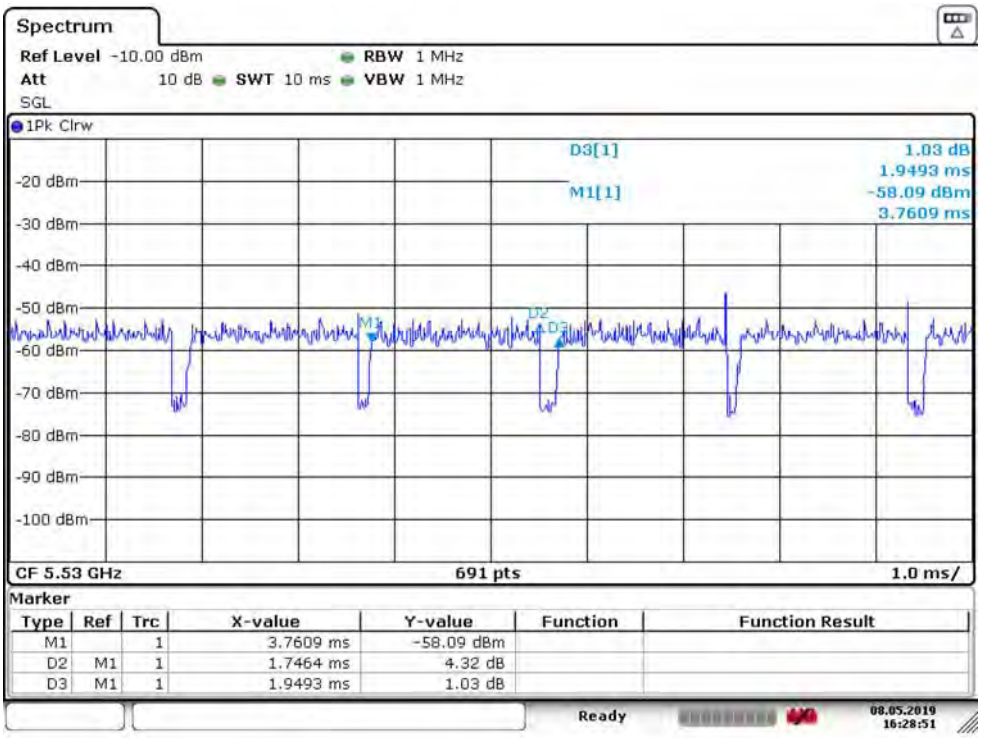
802.11n20



802.11n40



802.11ac80



9. EMI Reduction Method During Compliance Testing

No modification was made during testing.