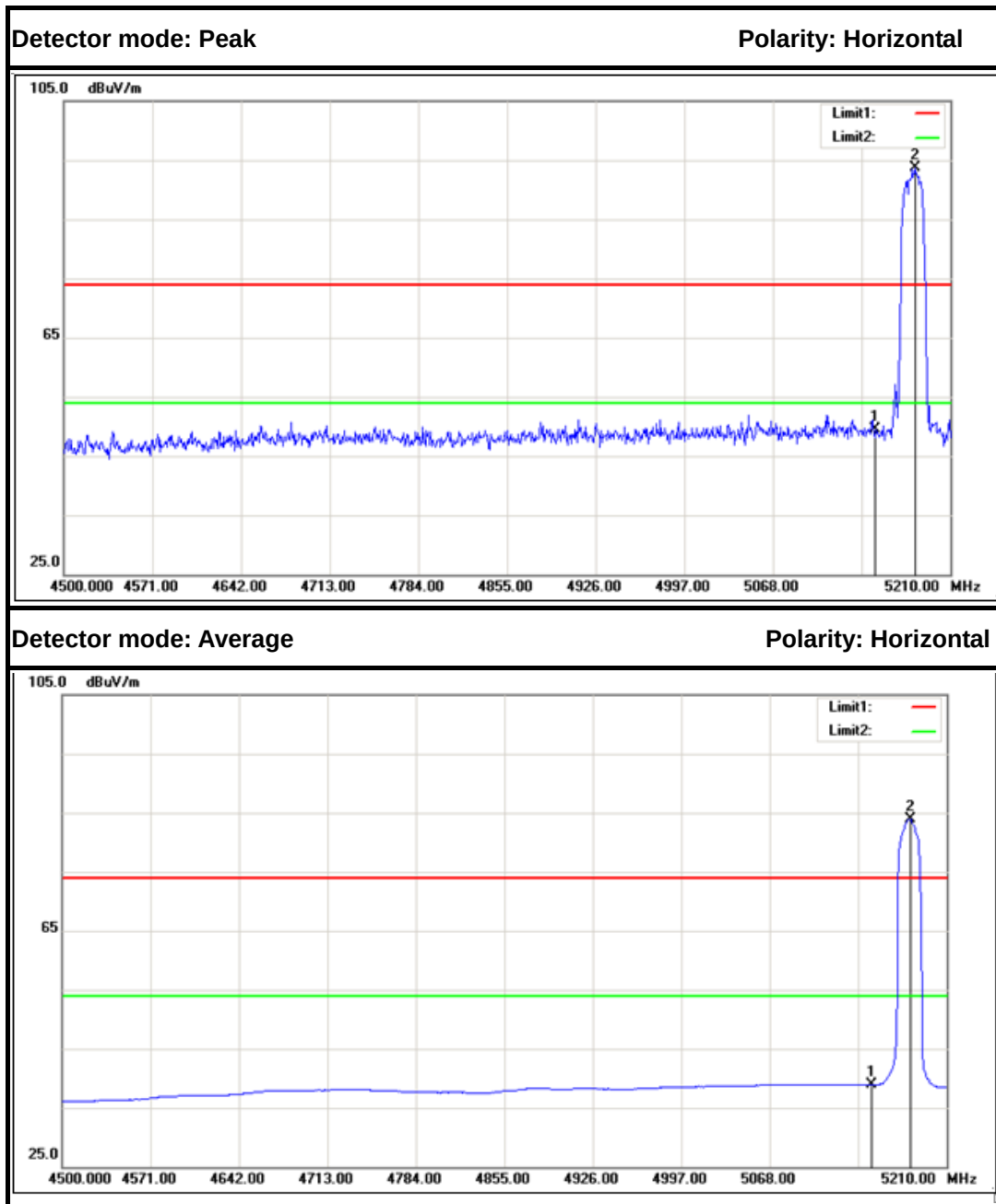




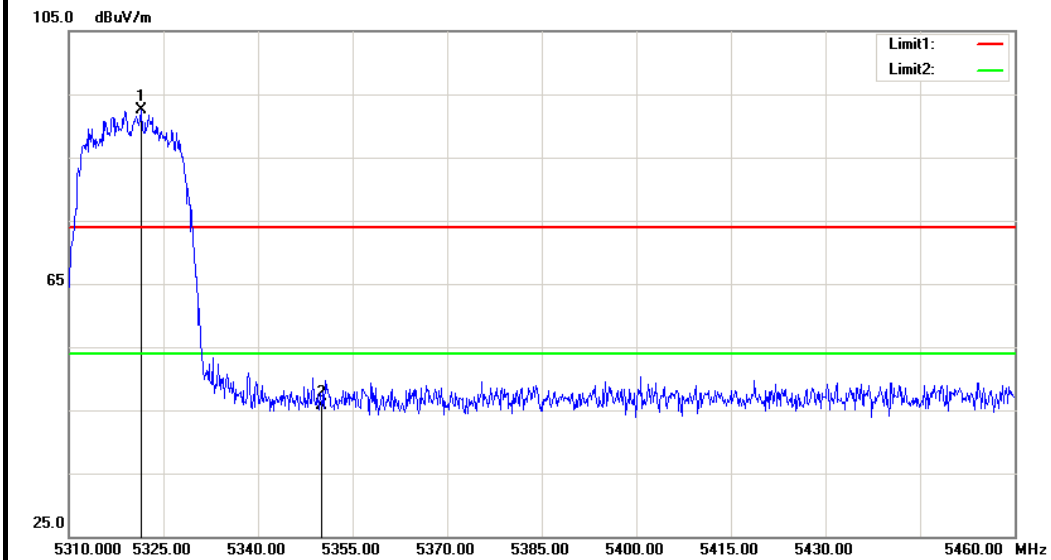
No.	Frequency (MHz)	Reading (dB)	Factor (dB/m)	Result (dB/m)	Limit (dB/m)	Margin (dB)	Remark	Antenna Polar
1.	5150.000	44.29	5.25	49.54	74.00	-24.46	Peak	Horizontal
2.	5181.600	88.49	5.30	93.79	---	---	Peak	Horizontal
3.	5150.000	33.60	5.25	38.85	54.00	-15.15	Average	Horizontal
4.	5180.890	78.58	5.30	83.88	---	---	Average	Horizontal



IEEE 802.11a mode / 5320MHz

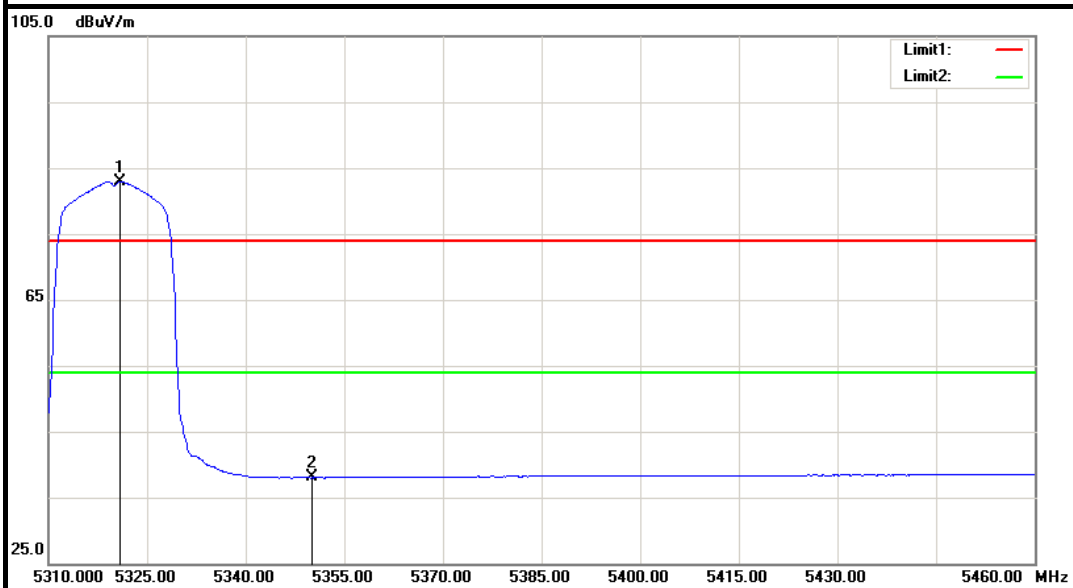
Detector mode: Peak

Polarity: Vertical

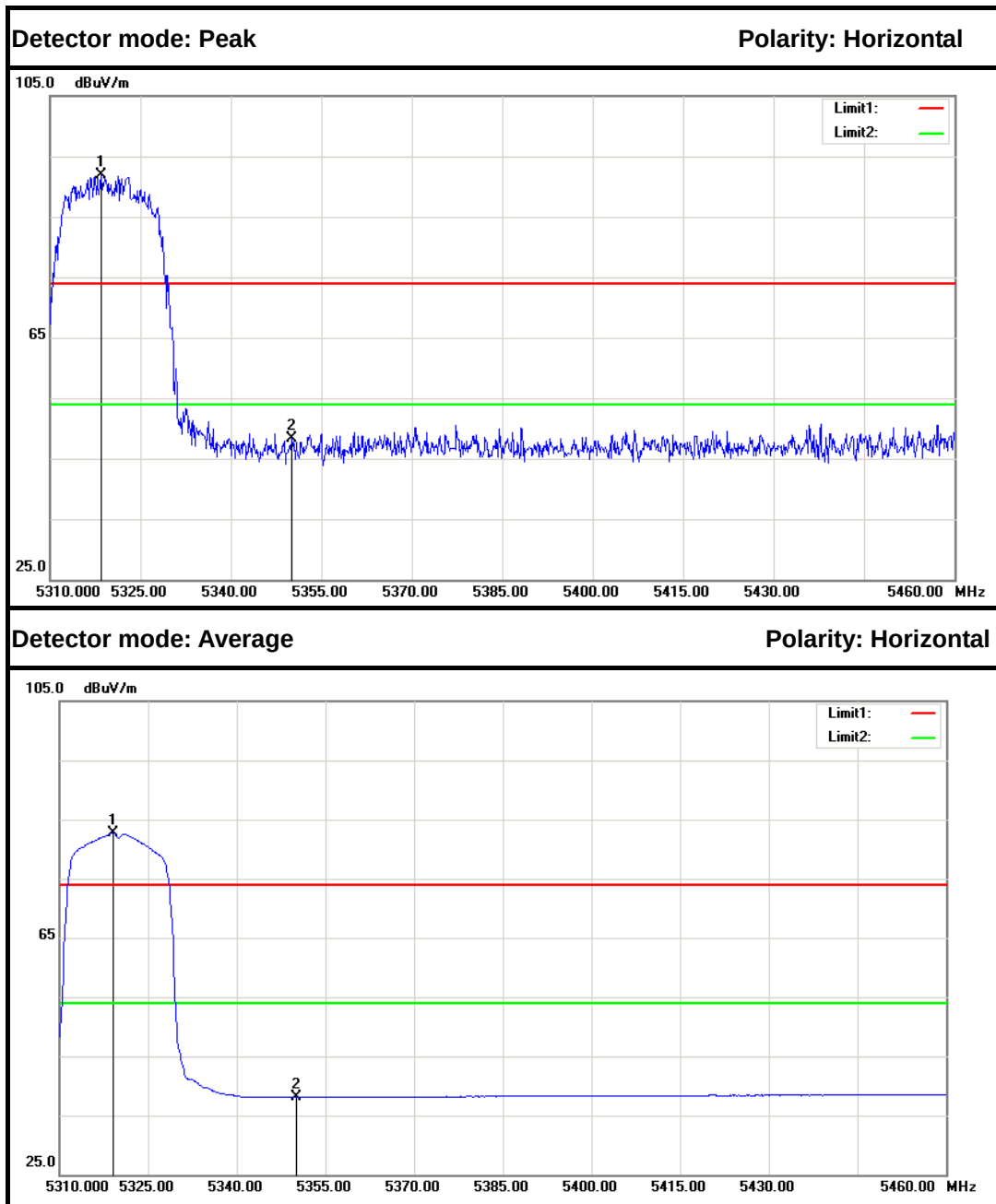


Detector mode: Average

Polarity: Vertical



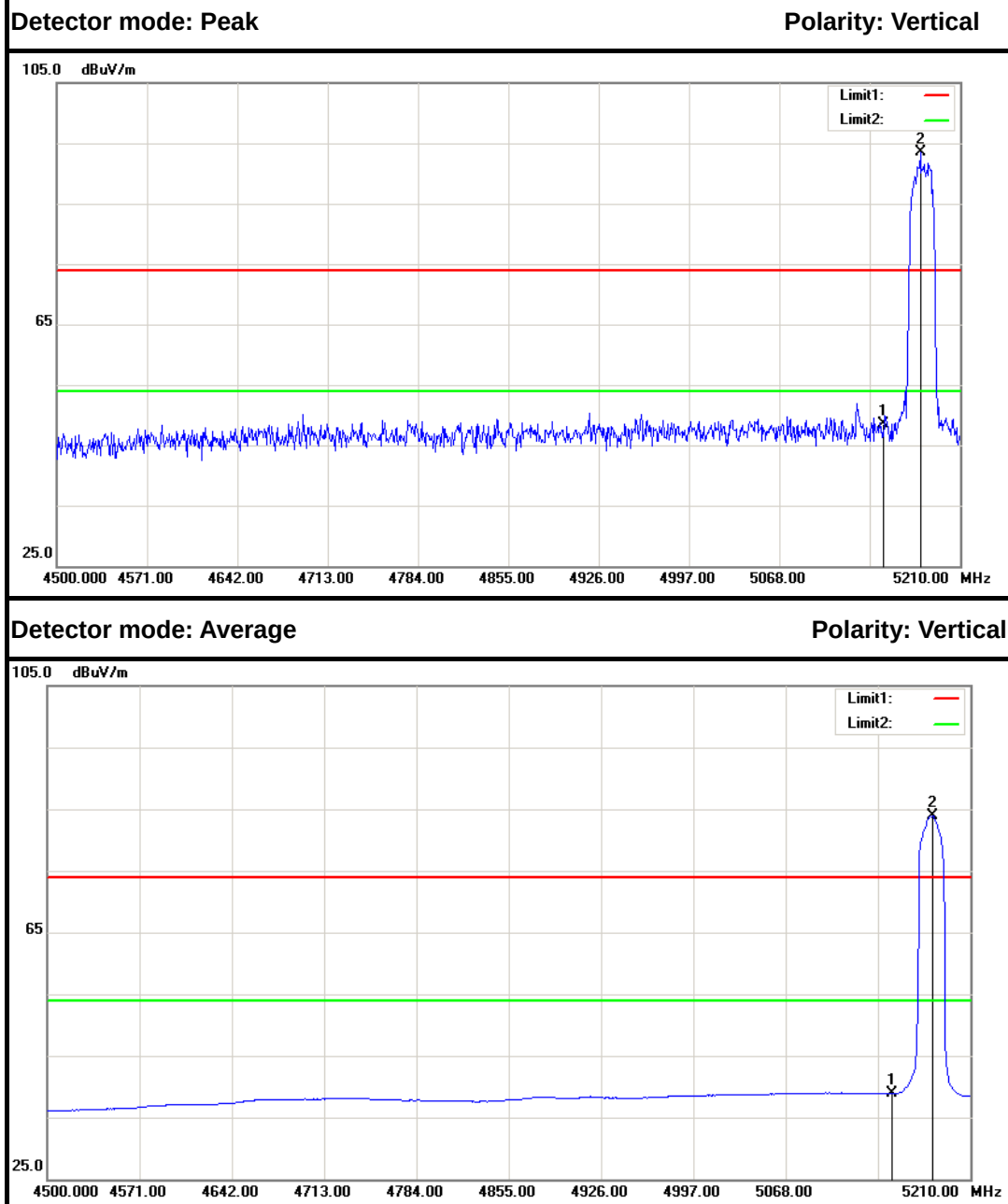
No.	Frequency (MHz)	Reading (dB)	Factor (dB/m)	Result (dB/m)	Limit (dB/m)	Margin (dB)	Remark	Antenna Polar
1.	5321.400	86.98	5.55	92.53	---	---	Peak	Vertical
2.	5350.000	40.20	5.60	45.80	74.00	-28.20	Peak	Vertical
3.	5320.950	77.43	5.55	82.98	---	---	Average	Vertical
4.	5350.000	32.41	5.60	38.01	54.00	-15.99	Average	Vertical



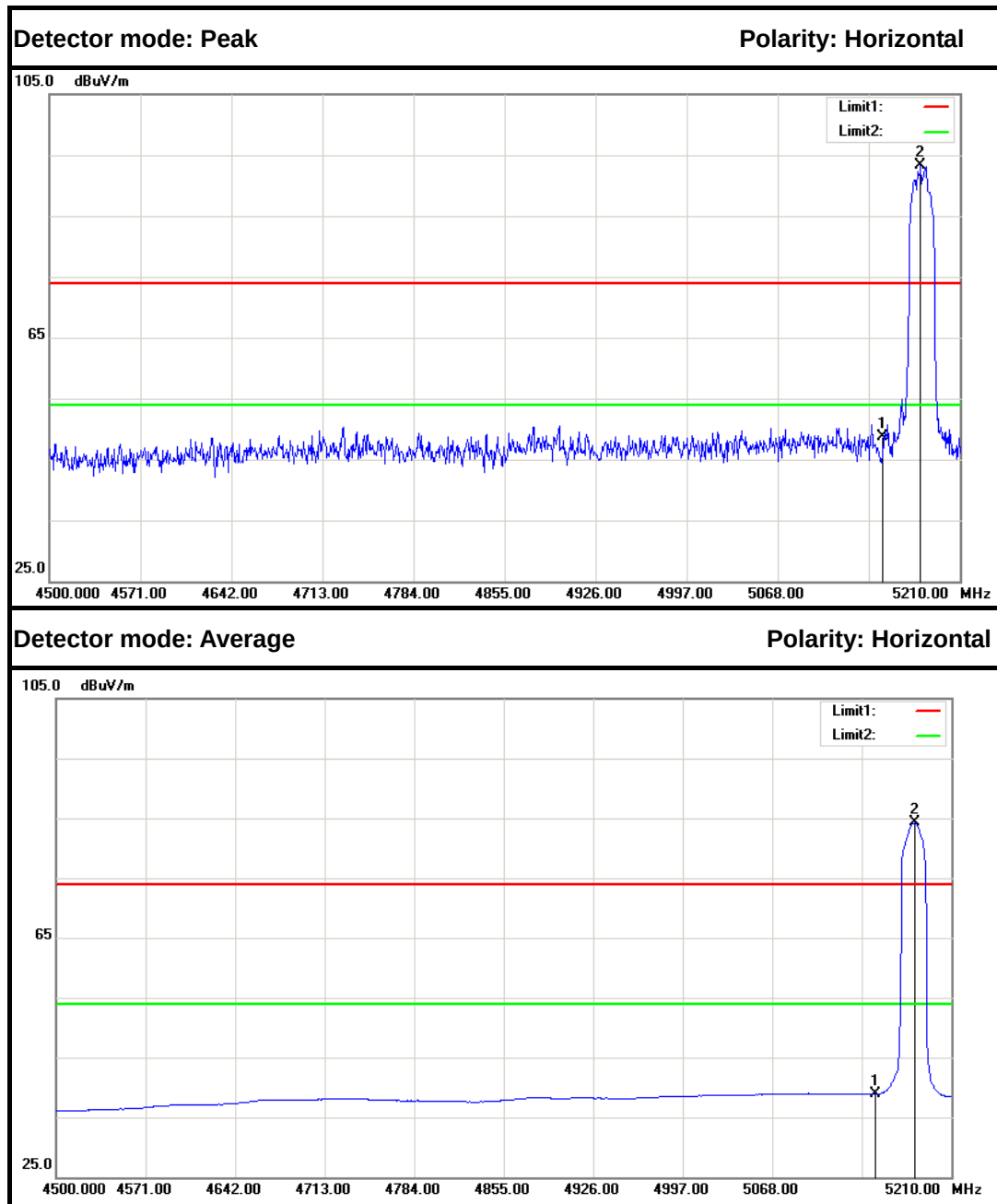
No.	Frequency (MHz)	Reading (dB)	Factor (dB/m)	Result (dB/m)	Limit (dB/m)	Margin (dB)	Remark	Antenna Polar
1.	5318.550	86.30	5.55	91.85	---	---	Peak	Horizontal
2.	5350.000	42.61	5.60	48.21	74.00	-25.79	Peak	Horizontal
3.	5319.000	77.14	5.55	82.69	---	---	Average	Horizontal
4.	5350.000	32.45	5.60	38.05	74.00	-35.95	Average	Horizontal



IEEE 802.11n HT 20 MHz mode / 5180 MHz



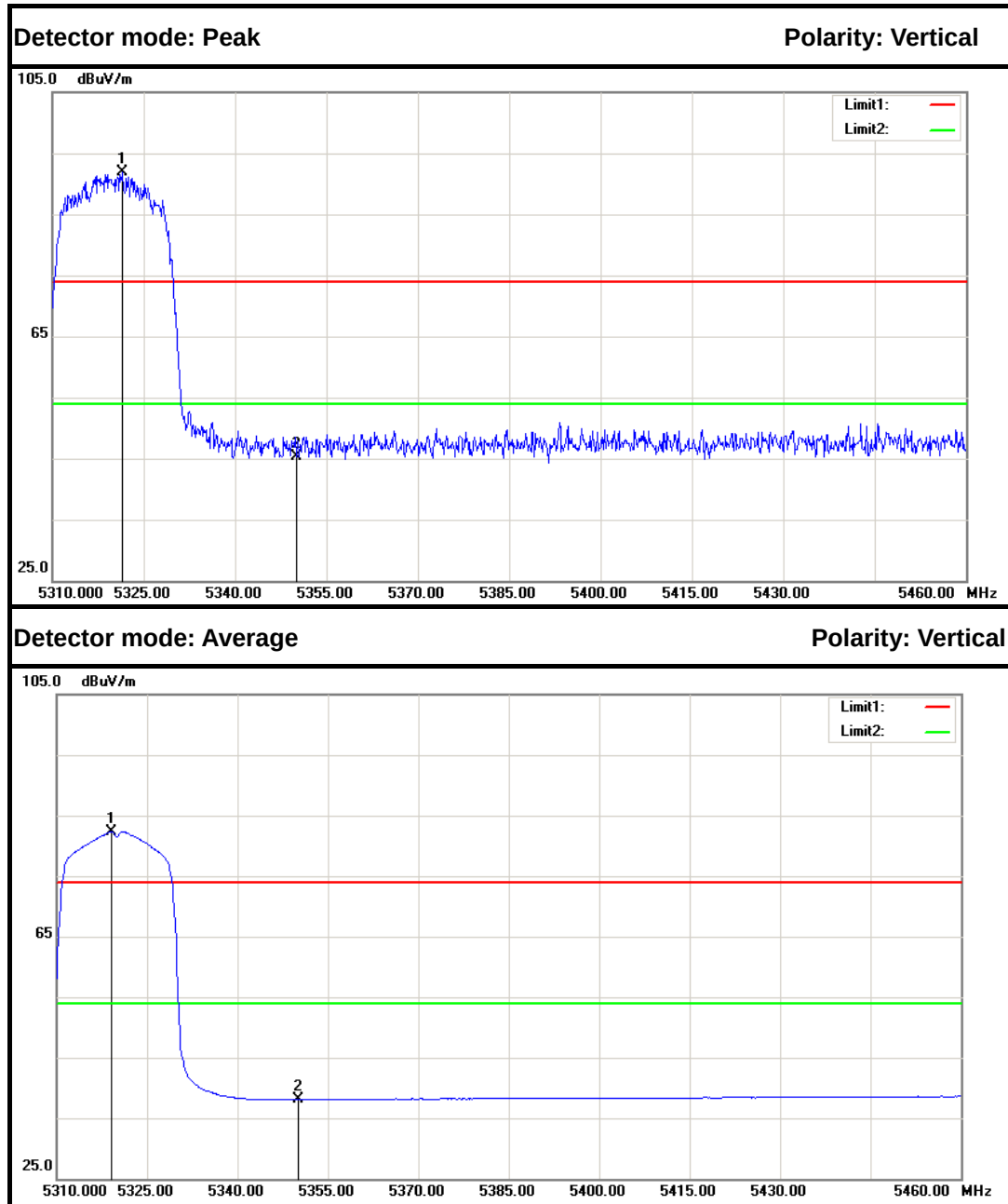
No.	Frequency (MHz)	Reading (dB)	Factor (dB/m)	Result (dB/m)	Limit (dB/m)	Margin (dB)	Remark	Antenna Polar
1.	5150.000	43.18	5.25	48.43	74.00	-25.57	Peak	Vertical
2.	5178.760	88.11	5.30	93.41	---	---	Peak	Vertical
3.	5150.000	33.67	5.25	38.92	54.00	-15.08	Average	Vertical
4.	5180.890	78.66	5.30	83.96	---	---	Average	Vertical



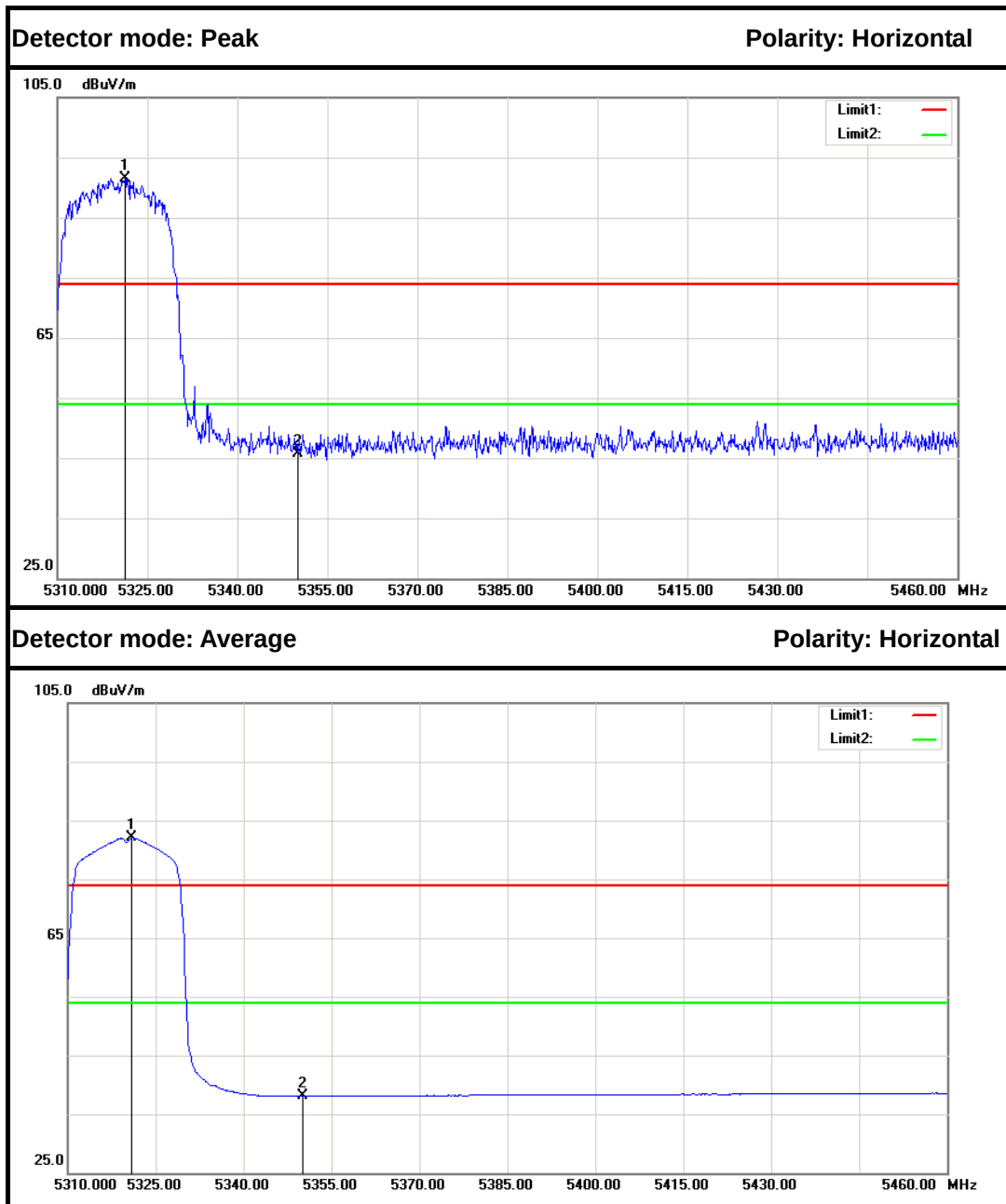
No.	Frequency (MHz)	Reading (dB)	Factor (dB/m)	Result (dB/m)	Limit (dB/m)	Margin (dB)	Remark	Antenna Polar
1.	5150.000	43.50	5.25	48.75	74.00	-25.25	Peak	Horizontal
2.	5179.470	88.08	5.30	93.38	---	---	Peak	Horizontal
3.	5150.000	33.68	5.25	38.93	74.00	-35.07	Average	Horizontal
4.	5180.890	79.09	5.30	84.39	---	---	Average	Horizontal



IEEE 802.11n HT 20 MHz mode / 5320 MHz



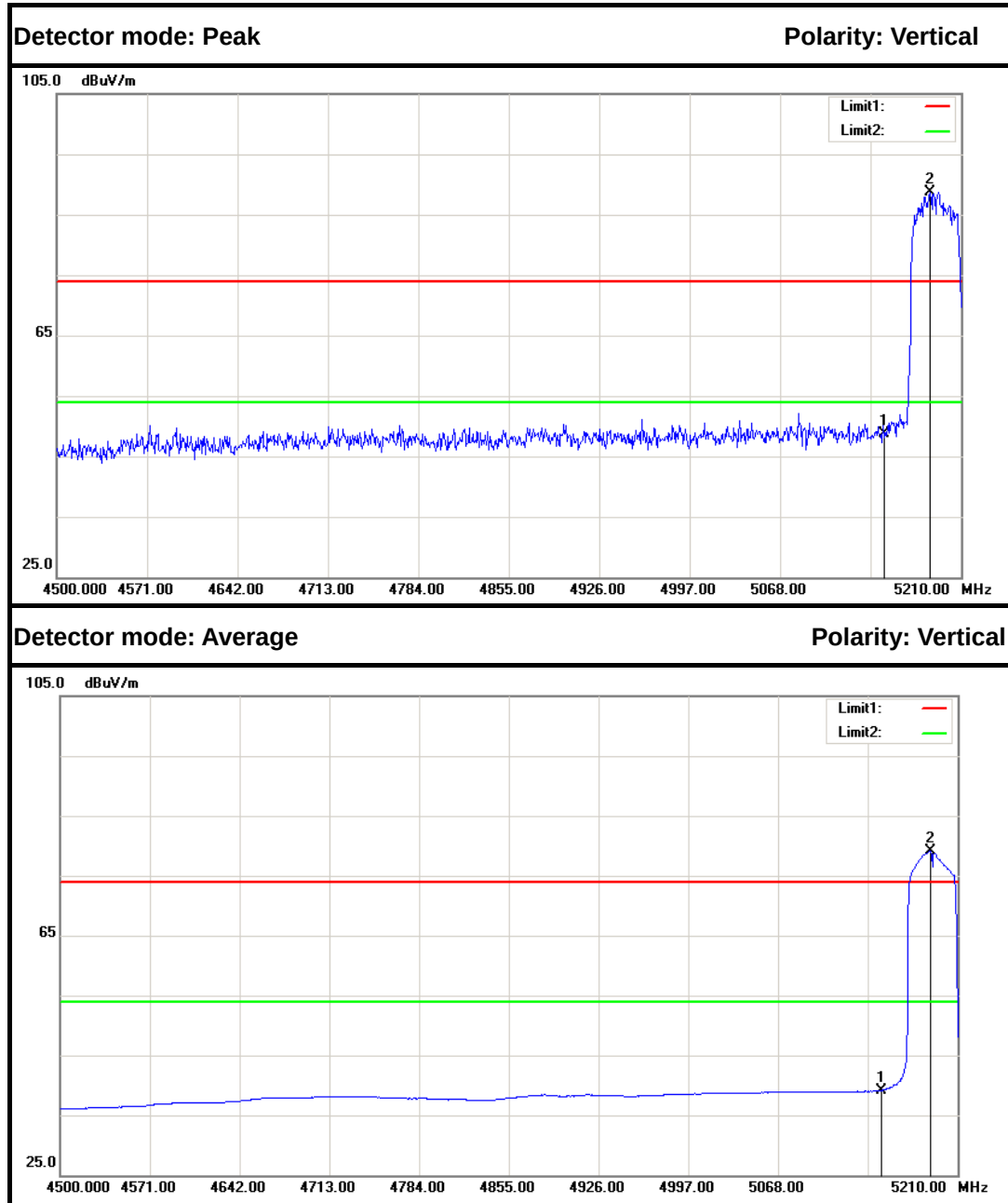
No.	Frequency (MHz)	Reading (dB)	Factor (dB/m)	Result (dB/m)	Limit (dB/m)	Margin (dB)	Remark	Antenna Polar
1.	5321.550	86.28	5.55	91.83	---	---	Peak	Vertical
2.	5350.000	39.63	5.60	45.23	74.00	-28.77	Peak	Vertical
3.	5319.000	76.76	5.55	82.31	---	---	Average	Vertical
4.	5350.000	32.49	5.60	38.09	54.00	-15.91	Average	Vertical



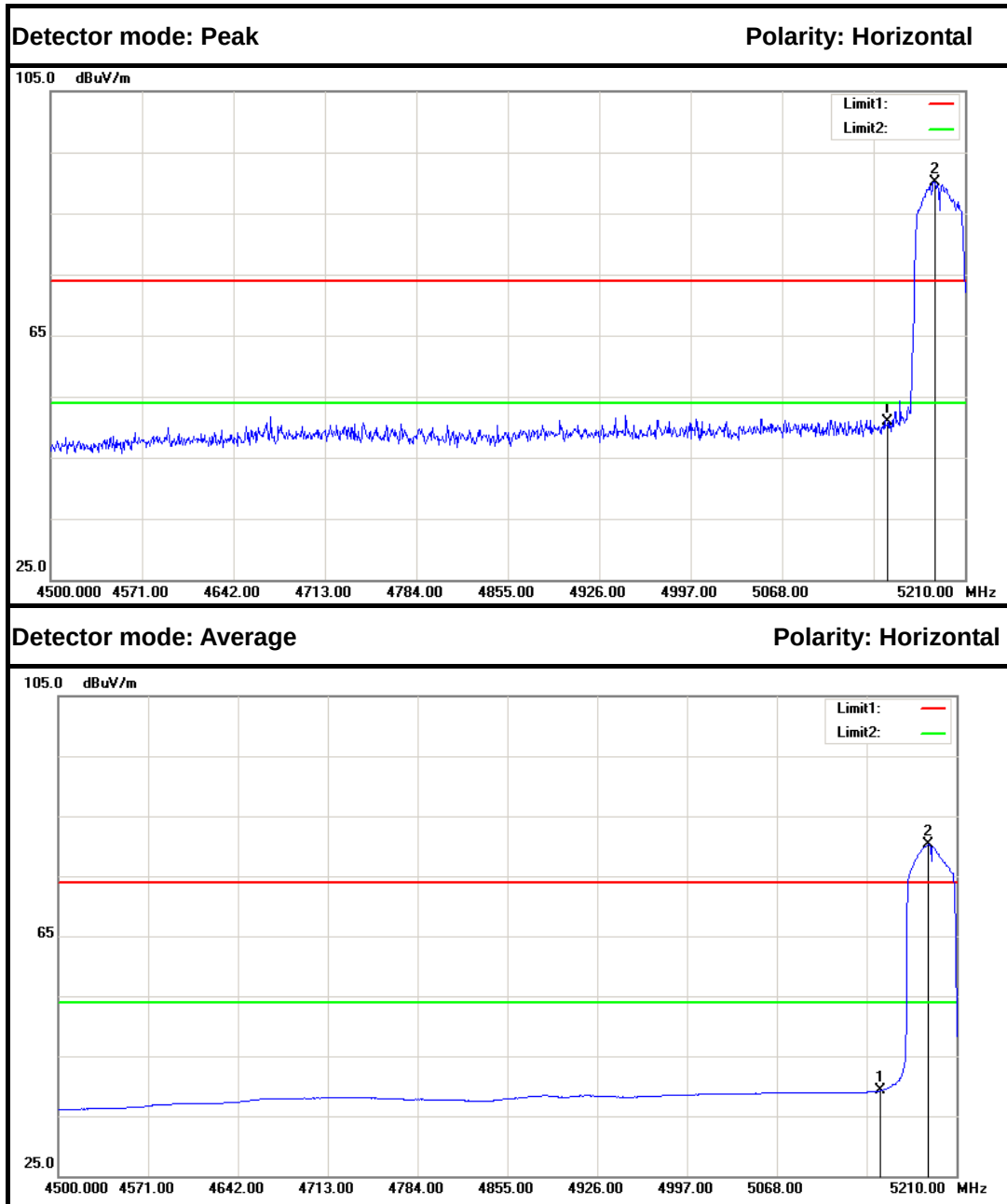
No.	Frequency (MHz)	Reading (dB)	Factor (dB/m)	Result (dB/m)	Limit (dB/m)	Margin (dB)	Remark	Antenna Polar
1.	5321.250	85.94	5.55	91.49	---	---	Peak	Horizontal
2.	5350.000	40.01	5.60	45.61	74.00	-28.39	Peak	Horizontal
3.	5320.950	76.53	5.55	82.08	---	---	Average	Horizontal
4.	5350.000	32.49	5.60	38.09	54.00	-15.91	Average	Horizontal



IEEE 802.11n HT 40 MHz mode / 5190 MHz



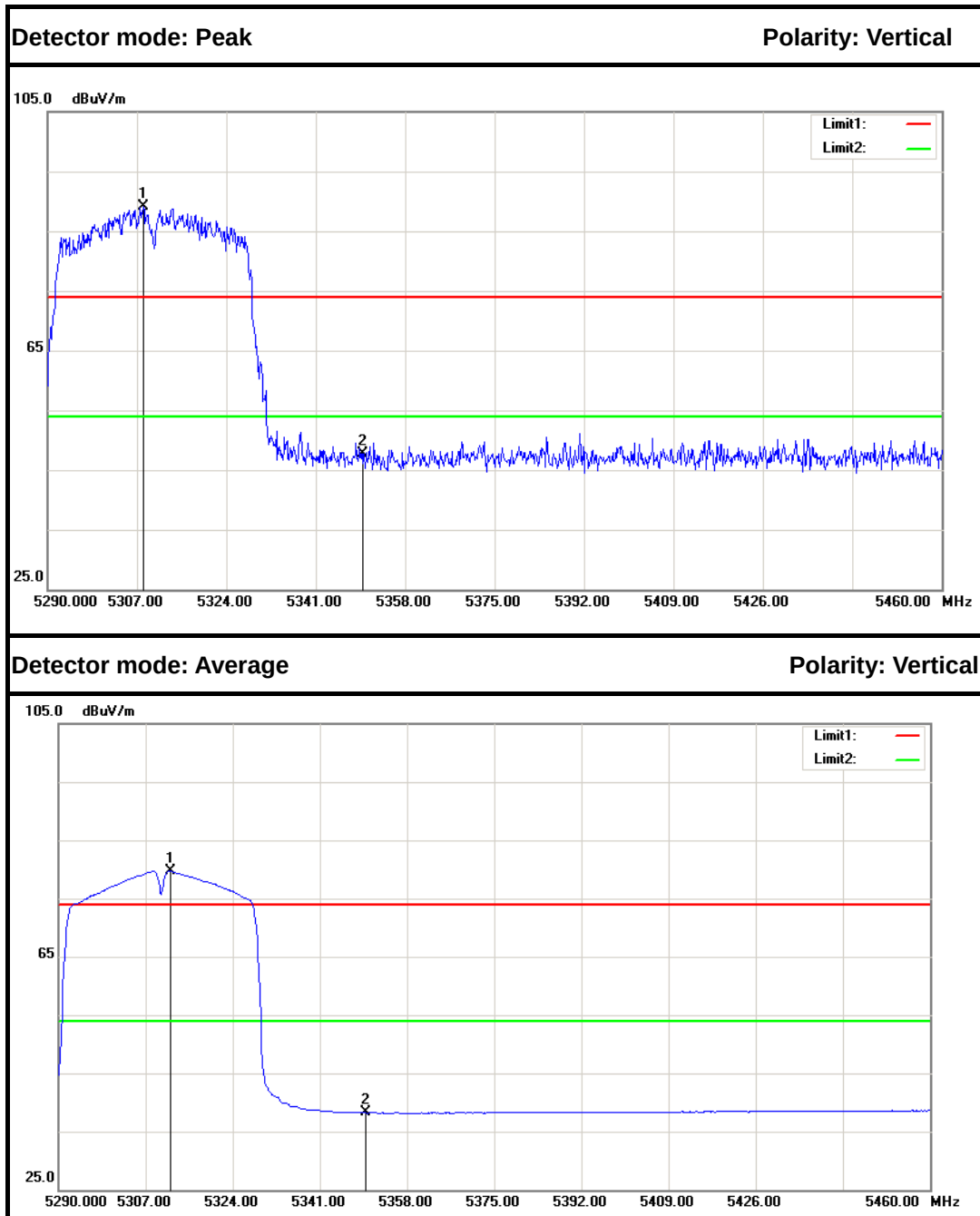
No.	Frequency (MHz)	Reading (dB)	Factor (dB/m)	Result (dB/m)	Limit (dB/m)	Margin (dB)	Remark	Antenna Polar
1.	5150.000	43.53	5.25	48.78	74.00	-25.22	Peak	Vertical
2.	5185.860	83.46	5.31	88.77	---	---	Peak	Vertical
3.	5150.000	33.93	5.25	39.18	54.00	-14.82	Average	Vertical
4.	5188.700	73.76	5.32	79.08	---	---	Average	Vertical



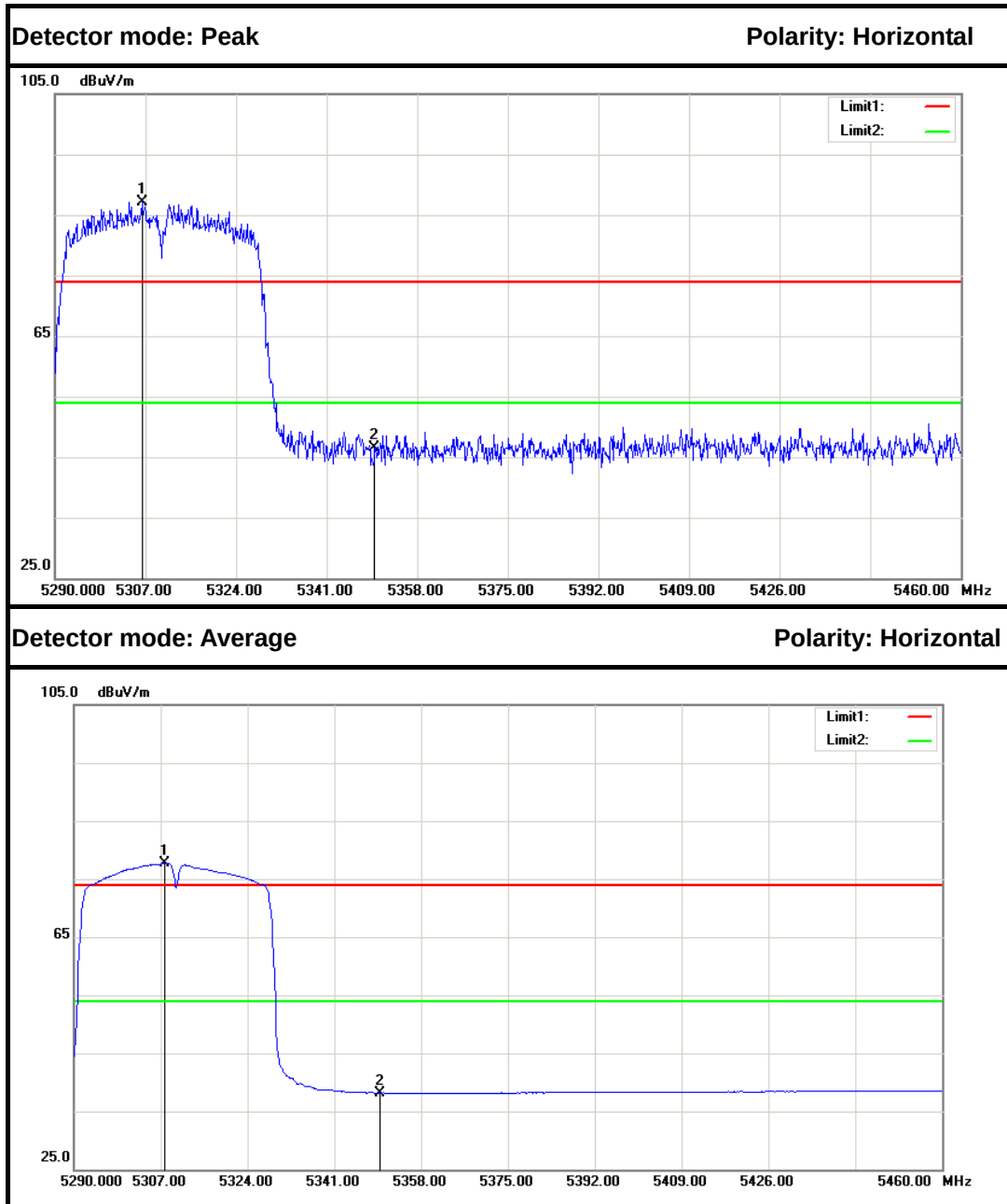
No.	Frequency (MHz)	Reading (dB)	Factor (dB/m)	Result (dB/m)	Limit (dB/m)	Margin (dB)	Remark	Antenna Polar
1.	5150.000	45.65	5.25	50.90	74.00	-23.10	Peak	Horizontal
2.	5186.570	84.75	5.31	90.06	---	---	Peak	Horizontal
3.	5150.000	34.00	5.25	39.25	54.00	-14.75	Average	Horizontal
4.	5187.990	74.94	5.31	80.25	---	---	Average	Horizontal



IEEE 802.11n HT 40 MHz mode / 5310 MHz



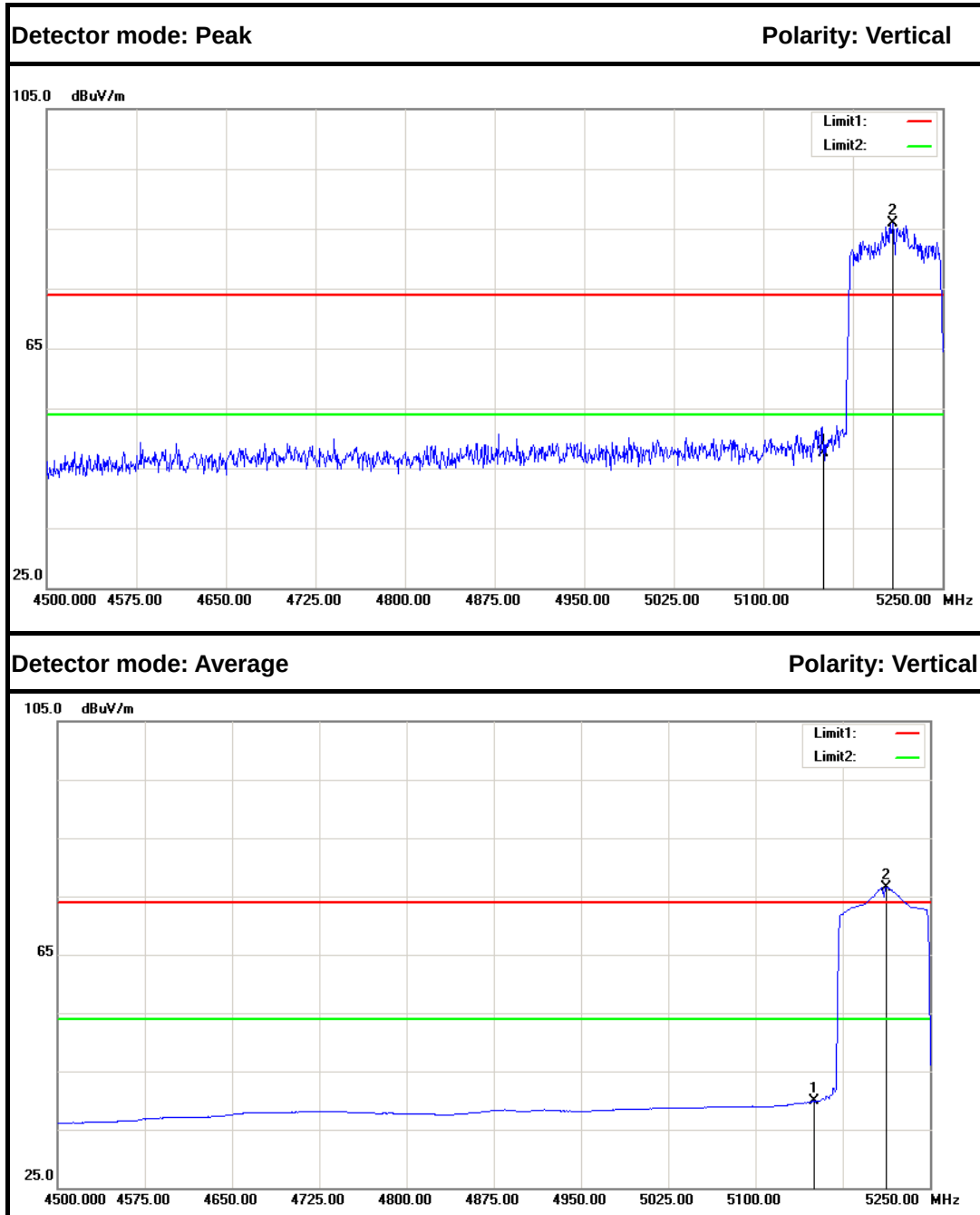
No.	Frequency (MHz)	Reading (dB)	Factor (dB/m)	Result (dB/m)	Limit (dB/m)	Margin (dB)	Remark	Antenna Polar
1.	5308.190	83.59	5.53	89.12	---	---	Peak	Vertical
2.	5350.000	42.10	5.60	47.70	74.00	-26.30	Peak	Vertical
3.	5311.760	74.14	5.53	79.67	---	---	Average	Vertical
4.	5350.000	32.64	5.60	38.24	54.00	-15.76	Average	Vertical



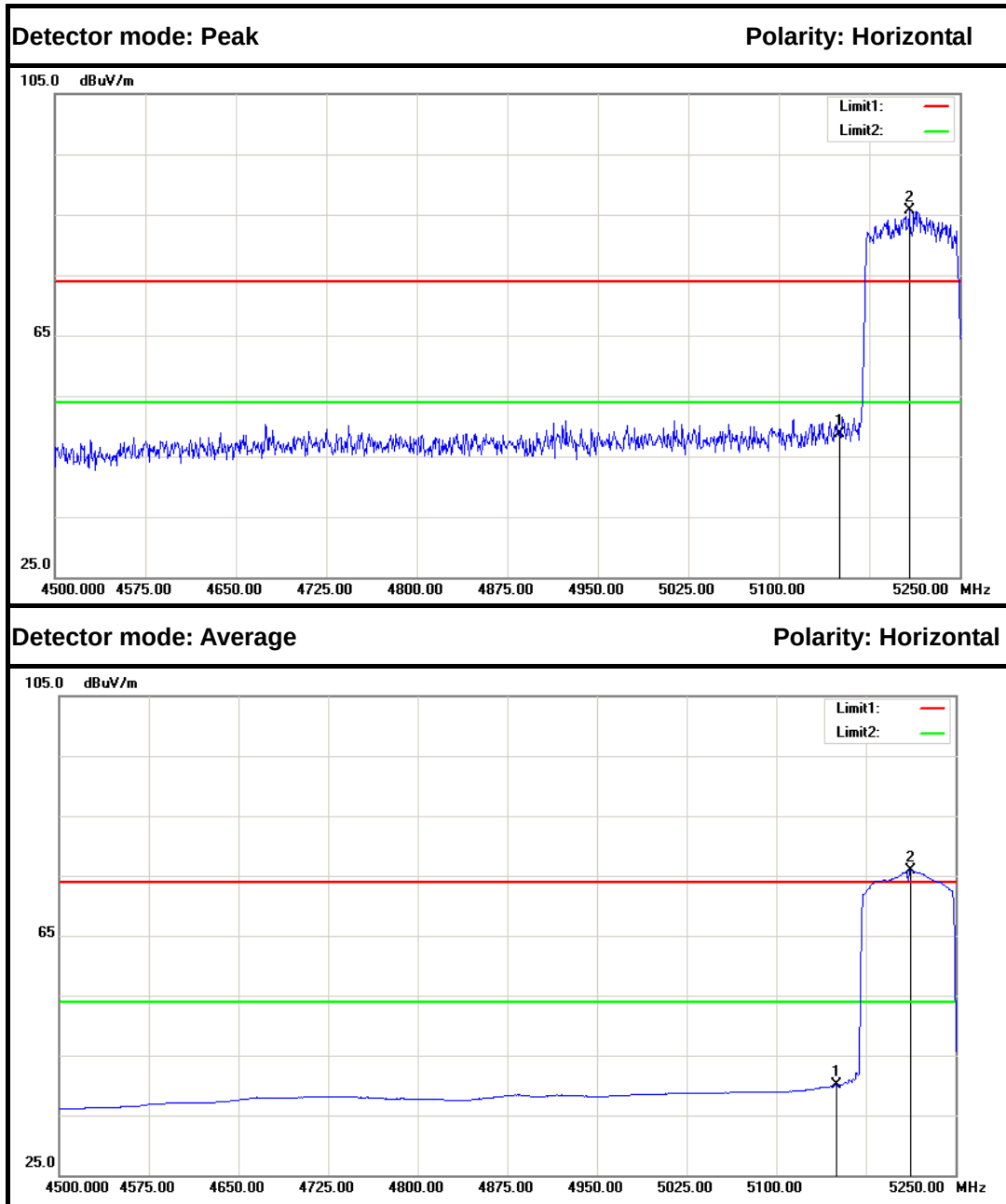
No.	Frequency (MHz)	Reading (dB)	Factor (dB/m)	Result (dB/m)	Limit (dB/m)	Margin (dB)	Remark	Antenna Polar
1.	5306.320	81.67	5.53	87.20	---	---	Peak	Horizontal
2.	5350.000	40.99	5.60	46.59	74.00	-27.41	Peak	Horizontal
3.	5307.850	72.22	5.53	77.75	---	---	Average	Horizontal
4.	5350.000	32.52	5.60	38.12	74.00	-35.88	Average	Horizontal



IEEE 802.11ac 80 mode / 5210 MHz



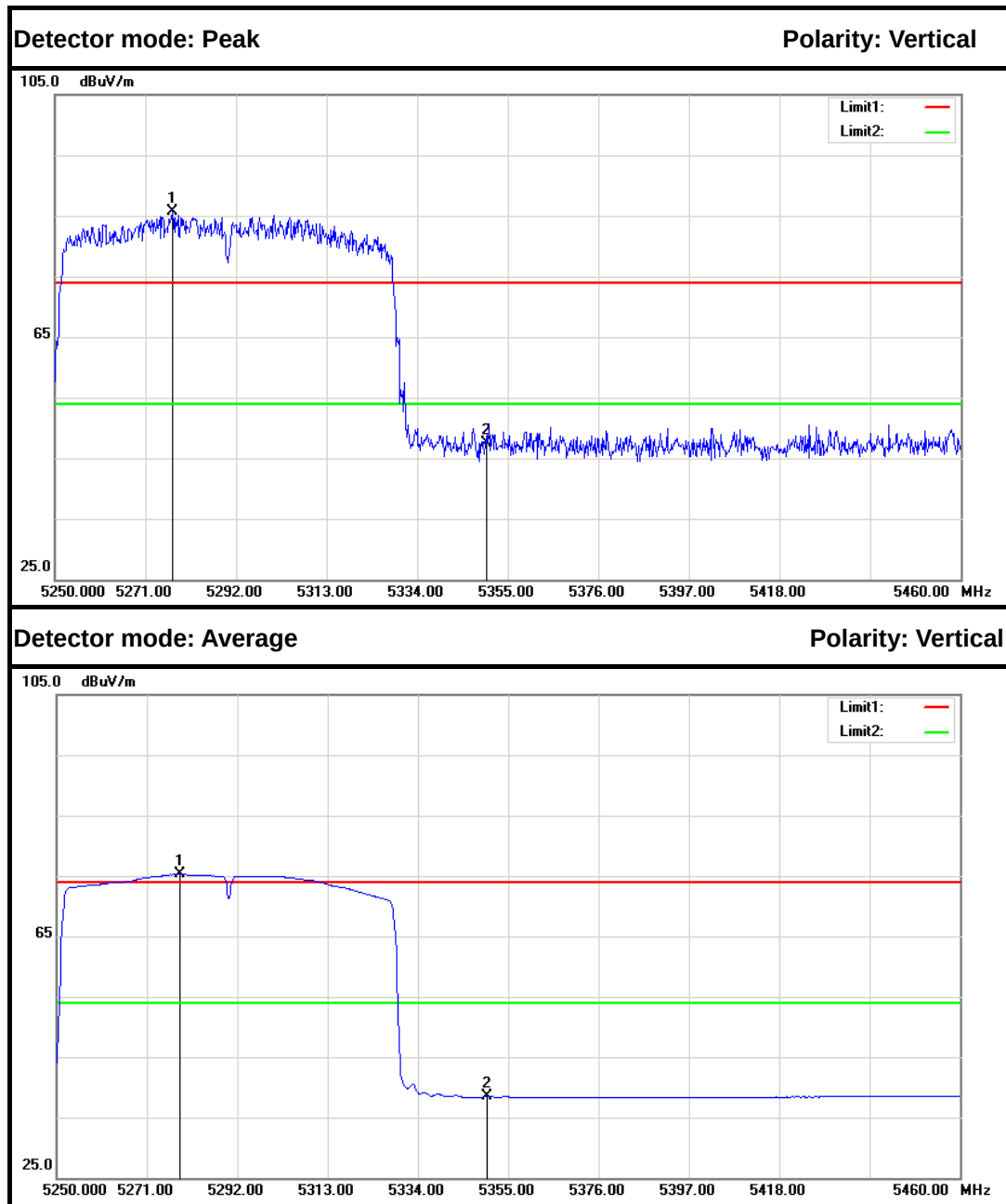
No.	Frequency (MHz)	Reading (dB)	Factor (dB/m)	Result (dB/m)	Limit (dB/m)	Margin (dB)	Remark	Antenna Polar
1.	5150.000	42.16	5.25	47.41	74.00	-26.59	Peak	Vertical
2.	5208.750	80.48	5.35	85.83	---	---	Peak	Vertical
3.	5150.000	34.74	5.25	39.99	54.00	-14.01	Average	Vertical
4.	5212.500	71.21	5.36	76.57	---	---	Average	Vertical



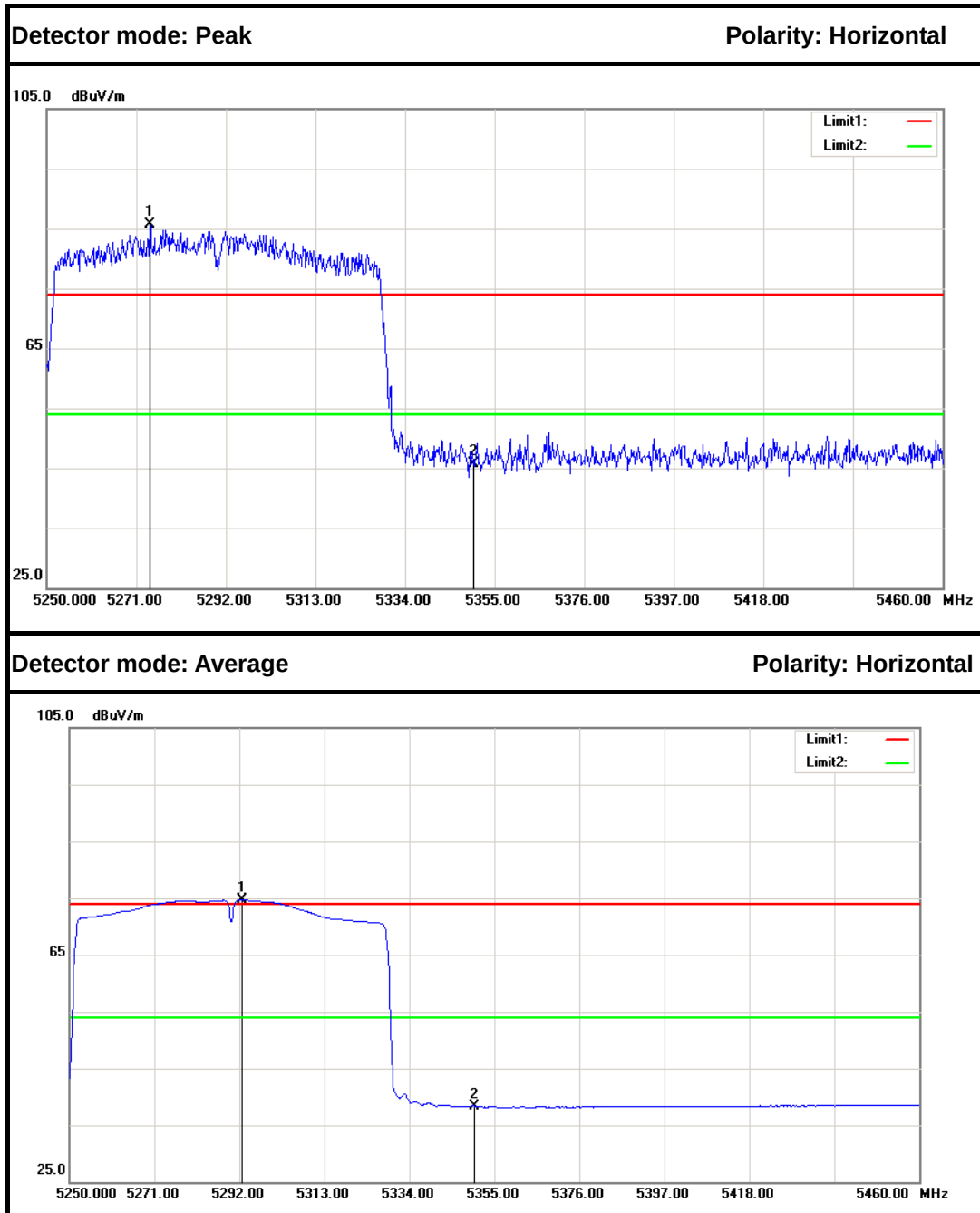
No.	Frequency (MHz)	Reading (dB)	Factor (dB/m)	Result (dB/m)	Limit (dB/m)	Margin (dB)	Remark	Antenna Polar
1.	5150.000	43.50	5.25	48.75	74.00	-25.25	Peak	Horizontal
2.	5208.000	80.34	5.35	85.69	---	---	Peak	Horizontal
3.	5150.000	34.88	5.25	40.13	54.00	-13.87	Average	Horizontal
4.	5212.500	70.47	5.36	75.83	---	---	Average	Horizontal



IEEE 802.11ac 80 mode / 5290 MHz



No.	Frequency (MHz)	Reading (dB)	Factor (dB/m)	Result (dB/m)	Limit (dB/m)	Margin (dB)	Remark	Antenna Polar
1.	5277.300	80.18	5.47	85.65	---	---	Peak	Vertical
2.	5350.000	41.91	5.60	47.51	74.00	-26.49	Peak	Vertical
3.	5278.560	69.82	5.48	75.30	---	---	Average	Vertical
4.	5350.000	32.93	5.60	38.53	54.00	-15.47	Average	Vertical



No.	Frequency (MHz)	Reading (dB)	Factor (dB/m)	Result (dB/m)	Limit (dB/m)	Margin (dB)	Remark	Antenna Polar
1.	5274.150	80.15	5.47	85.62	---	---	Peak	Horizontal
2.	5350.000	40.14	5.60	45.74	74.00	-28.26	Peak	Horizontal
3.	5292.630	69.15	5.50	74.65	---	---	Average	Horizontal
4.	5350.000	32.80	5.60	38.40	54.00	-15.60	Average	Horizontal



6.6 PEAK POWER SPECTRAL DENSITY

6.6.1 LIMIT

According to §15.407(a) & FCC R&O FCC 14-30

(1) For the band 5.15-5.25 GHz.

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(2) For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.



(3) For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple colocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

Note to paragraph (a)(3): The Commission strongly recommends that parties employing U-NII devices to provide critical communications services should determine if there are any nearby Government radar systems that could affect their operation.

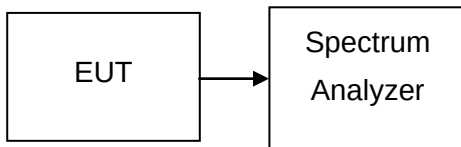
6.6.2 MEASUREMENT EQUIPMENT USED

Name of Equipment	Manufacturer	Model	Serial Number	Last Calibration	Due Calibration
Spectrum Analyzer	Agilent	N9010A	MY52221469	02/21/2017	02/20/2018

Remark: Each piece of equipment is scheduled for calibration once a year.



6.6.3 TEST CONFIGURATION



6.6.4 TEST PROCEDURE

1. Place the EUT on the table and set it in transmitting mode.
Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
2. For devices operating in the bands 5.15-5.25 GHz, Set the spectrum analyzer as RBW = 1MHz, VBW = 3MHz, Span > 26dB bandwidth, Sweep=1ms
3. For devices operating in the bands 5.725-5.85 GHz, Set the spectrum analyzer as RBW = 1MHz, VBW = 3MHz, Span > 26dB bandwidth, Sweep=1ms
4. Record the max. reading.
5. Repeat the above procedure until the measurements for all frequencies are completed



6.6.5 TEST RESULTS

Test Data

Test mode: IEEE 802.11a mode / 5180 ~ 5240MHz

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margain	Result
Low	5180	5.135	11	-5.865	PASS
Mid	5200	5.098		-5.902	PASS
High	5240	4.732		-6.268	PASS

Test mode: IEEE 802.11a mode / 5260~ 5320MHz

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margain	Result
Low	5260	4.823	11	-6.177	PASS
Mid	5300	4.602		-6.398	PASS
High	5320	3.958		-7.042	PASS

Test mode: IEEE 802.11a mode / 5500 ~ 5700MHz

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margain	Result
Low	5500	4.884	11	-6.116	PASS
Mid	5580	4.265		-6.735	PASS
High	5700	4.378		-6.622	PASS

Test mode: IEEE 802.11a mode / 5745 ~ 5825MHz

Channel	Frequency (MHz)	PPSD (dBm)	factor	Limit (dBm)	Margain	Result
Low	5745	1.310	0.27	30	-28.420	PASS
Mid	5785	1.178	0.27		-28.552	PASS
High	5825	3.973	0.27		-25.757	PASS

Remark: factor =10*log10 (500/RBW)

**Test mode: IEEE 802.11n HT 20 MHz mode / 5180 ~ 5240MHz**

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margain	Result
Low	5180	6.186	11	-4.814	PASS
Mid	5200	5.868		-5.132	PASS
High	5240	5.599		-5.401	PASS

Test mode: IEEE 802.11n HT 20 MHz mode / 5260~ 5320MHz

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margain	Result
Low	5260	5.297	11	-5.703	PASS
Mid	5300	5.180		-5.820	PASS
High	5320	5.278		-5.722	PASS

Test mode: IEEE 802.11n HT 20 MHz mode / 5500 ~ 5700MHz

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margain	Result
Low	5500	5.474	11	-5.526	PASS
Mid	5580	5.126		-5.874	PASS
High	5700	5.333		-5.667	PASS

Test mode: IEEE 802.11n HT 20 MHz mode / 5745 ~ 5825MHz

Channel	Frequency (MHz)	PPSD (dBm)	factor	Limit (dBm)	Margain	Result
Low	5745	2.428	0.27	30	-27.302	PASS
Mid	5785	1.629	0.27		-28.101	PASS
High	5825	1.538	0.27		-28.192	PASS

Remark: factor = $10 \cdot \log_{10}(500/\text{RBW})$

**Test mode: IEEE 802.11n HT 40 MHz mode / 5190 ~ 5230MHz**

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margain	Result
Low	5190	3.078	11	-7.922	PASS
High	5230	2.625		-8.375	PASS

Test mode: IEEE 802.11n HT 40 MHz mode / 5270 ~ 5310MHz

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margain	Result
Low	5270	2.783	11	-8.217	PASS
High	5310	2.487		-8.513	PASS

Test mode: IEEE 802.11n HT 40 MHz mode / 5510 ~ 5670MHz

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margain	Result
Low	5510	1.788	11	-9.212	PASS
Mid	5550	1.729		-9.271	PASS
High	5670	0.772		-10.228	PASS

Test mode: IEEE 802.11n HT 40 MHz mode / 5755 ~ 5795MHz

Channel	Frequency (MHz)	PPSD (dBm)	factor	Limit (dBm)	Margain	Result
Low	5755	-1.392	0.27	30	-31.122	PASS
High	5795	-1.566	0.27		-31.296	PASS

Remark: factor = $10 \cdot \log_{10} (500/\text{RBW})$

**Test mode: IEEE 802.11ac 80 mode / 5210MHz**

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margain	Result
	5210	-3.212	11	-14.212	PASS

Test mode: IEEE 802.11ac 80 mode / 5290MHz

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margain	Result
	5290	-3.417	11	-14.417	PASS

Test mode: IEEE 802.11ac 80 mode / 5530MHz

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margain	Result
	5530	-3.643	11	-14.643	PASS

Test mode: IEEE 802.11ac 80 mode / 5775MHz

Channel	Frequency (MHz)	PPSD (dBm)	factor	Limit (dBm)	Margain	Result
	5775	-3.987	0.27	30	-33.717	PASS

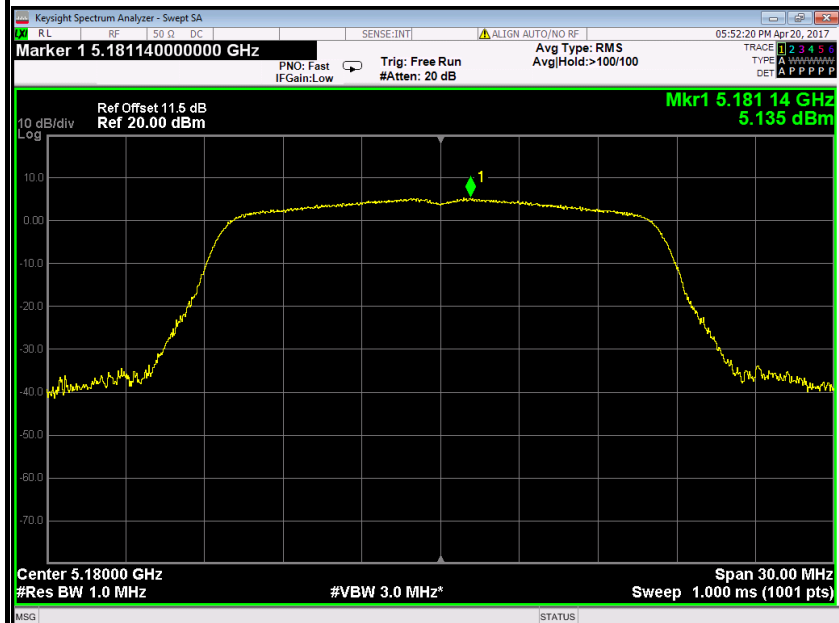
Remark: factor = $10 \cdot \log_{10} (500/\text{RBW})$



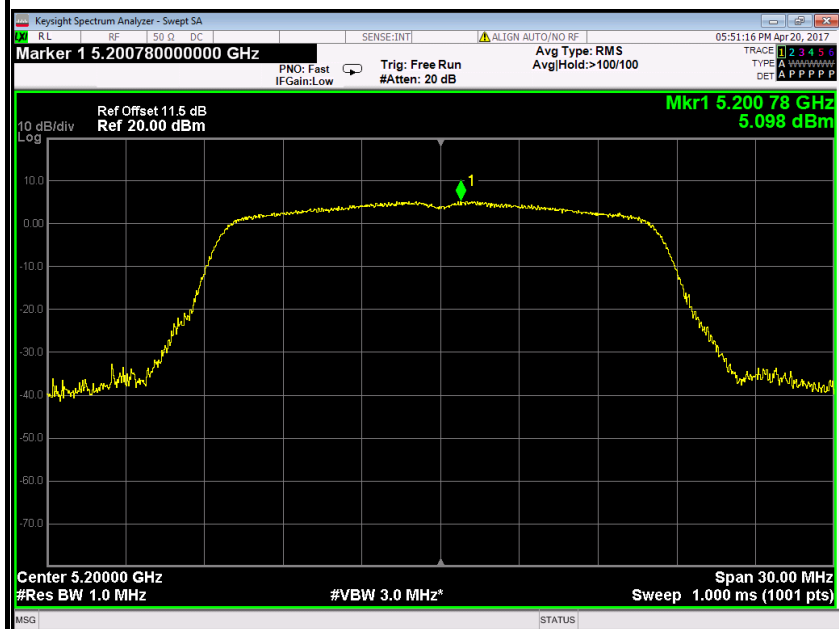
Test Plot

IEEE 802.11a mode / 5180 ~ 5240MHz

PPSD (CH Low)

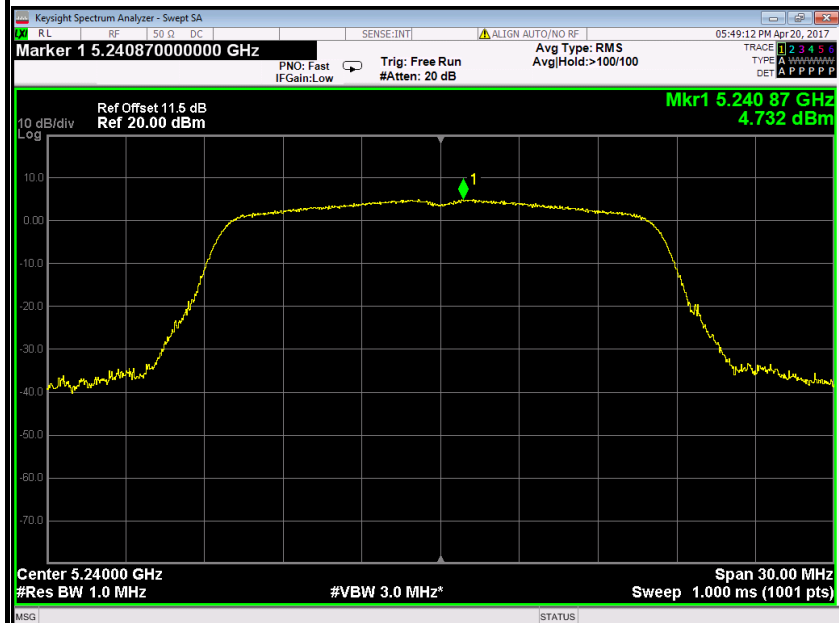


PPSD (CH Mid)



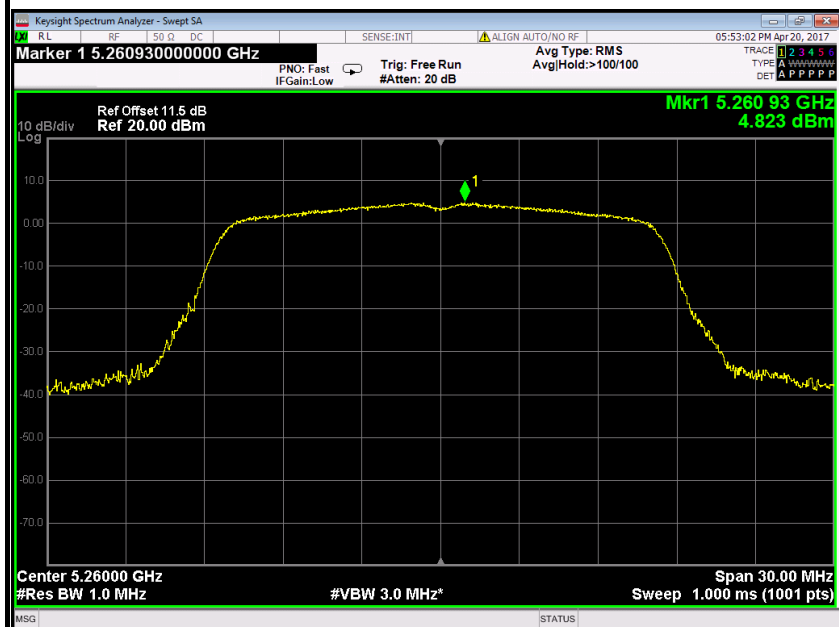


PPSD (CH High)



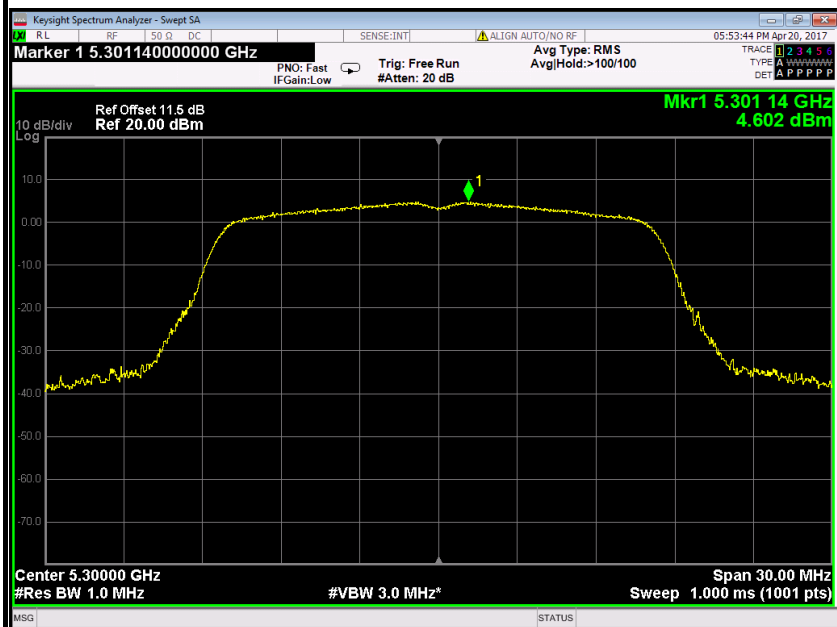
IEEE 802.11a mode / 5260~ 5320MHz

PPSD (CH Low)

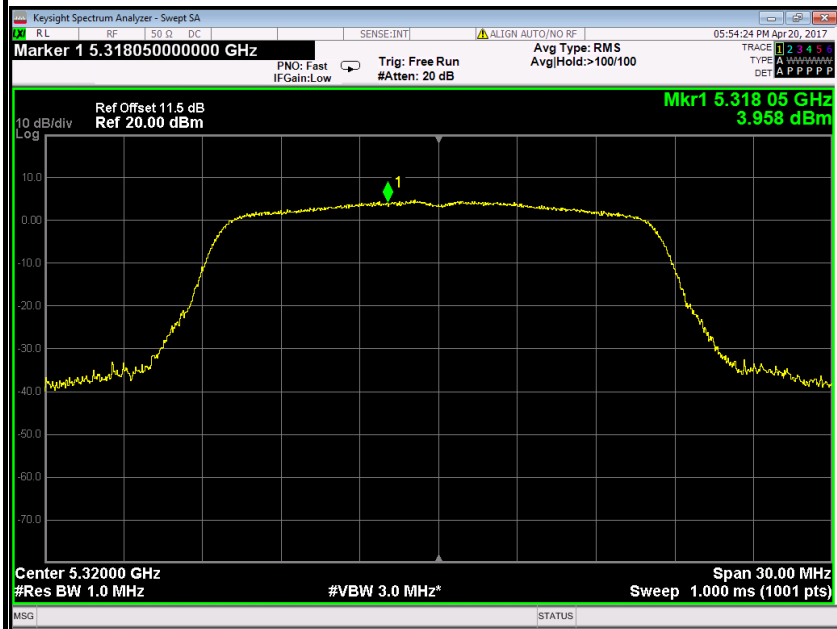




PPSD (CH Mid)



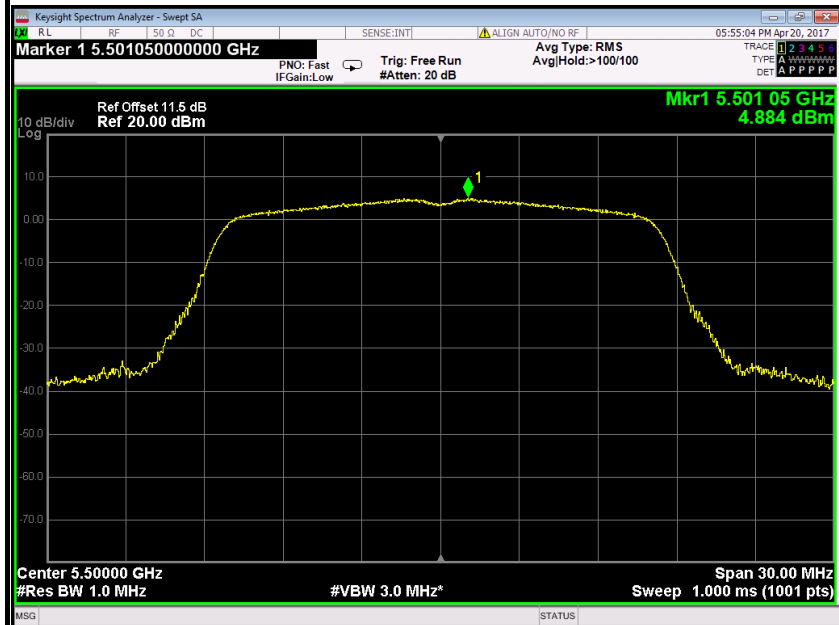
PPSD (CH High)



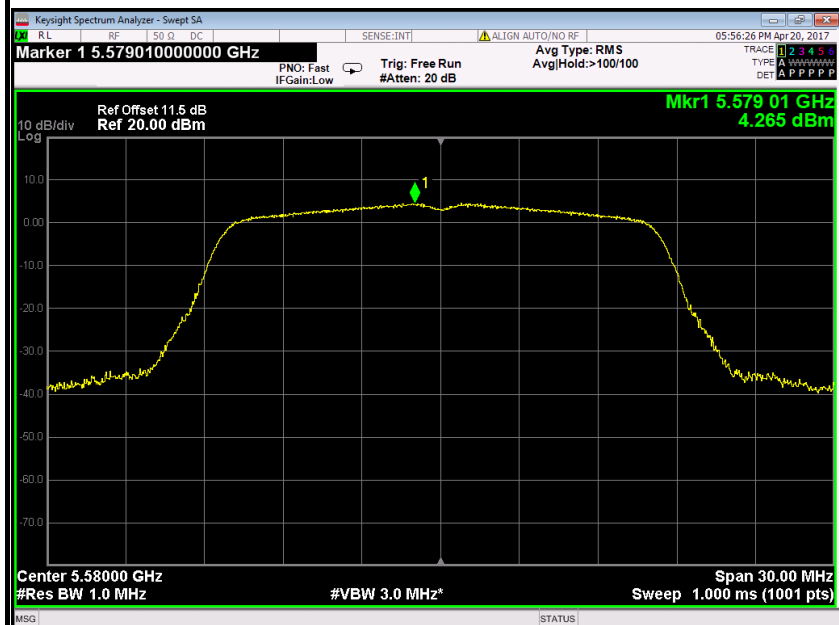


IEEE 802.11a mode / 5500 ~ 5700MHz

PPSD (CH Low)

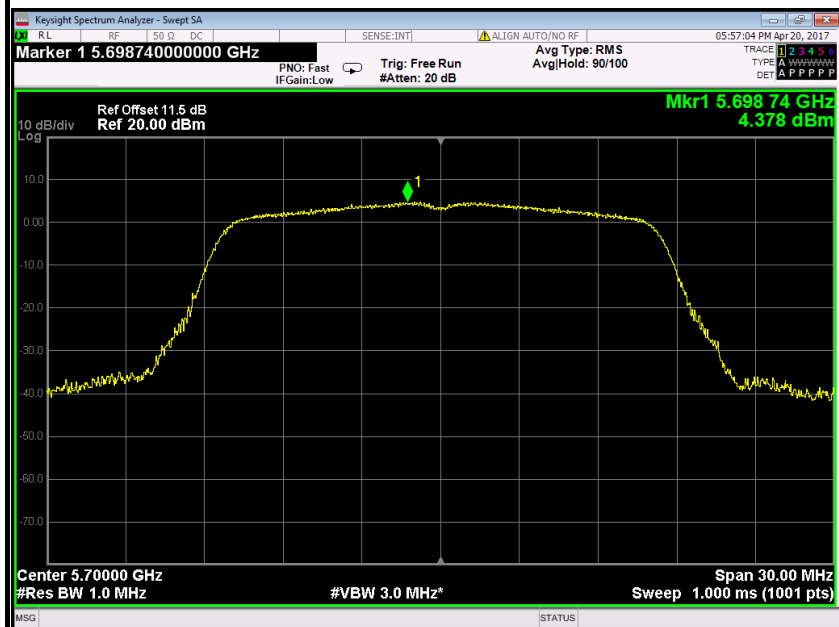


PPSD (CH Mid)



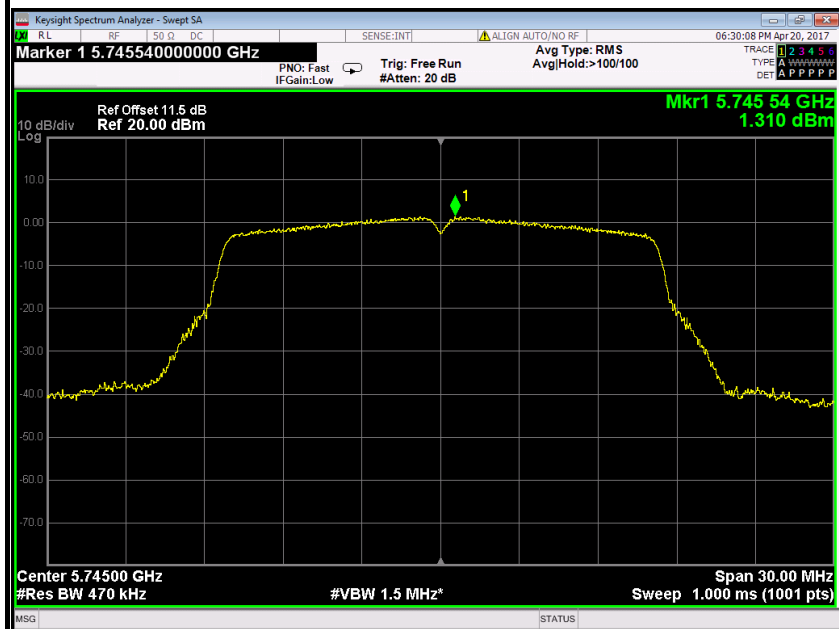


PPSD (CH High)



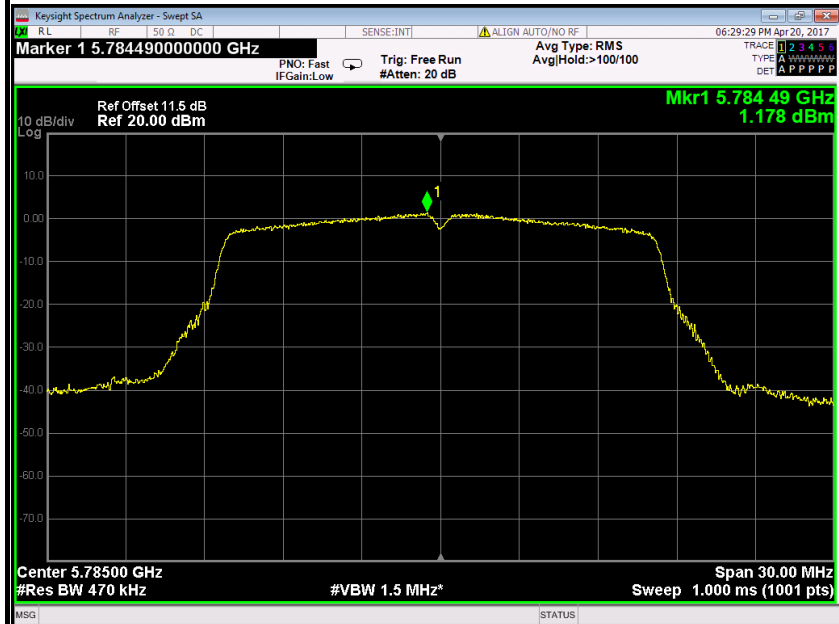
IEEE 802.11a mode / 5745 ~ 5825MHz

PPSD (CH Low)

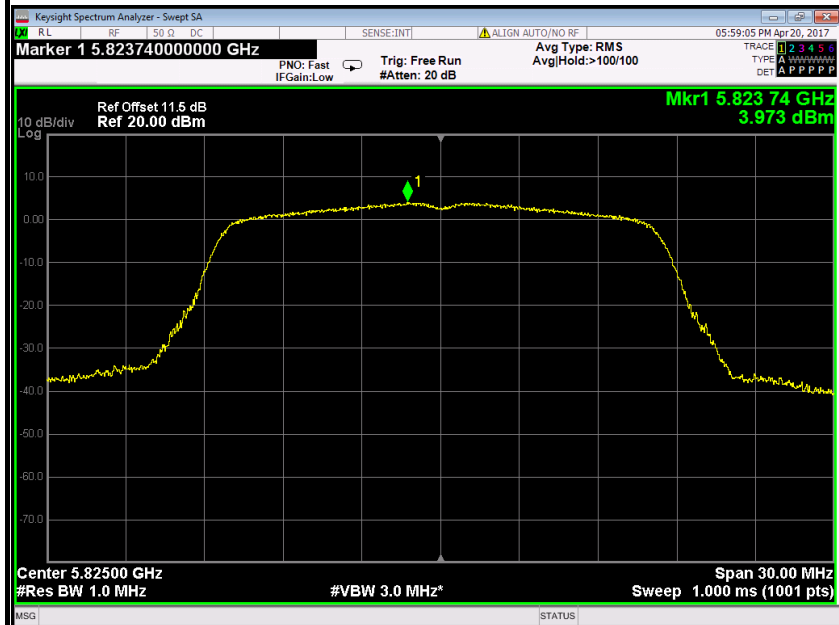




PPSD (CH Mid)



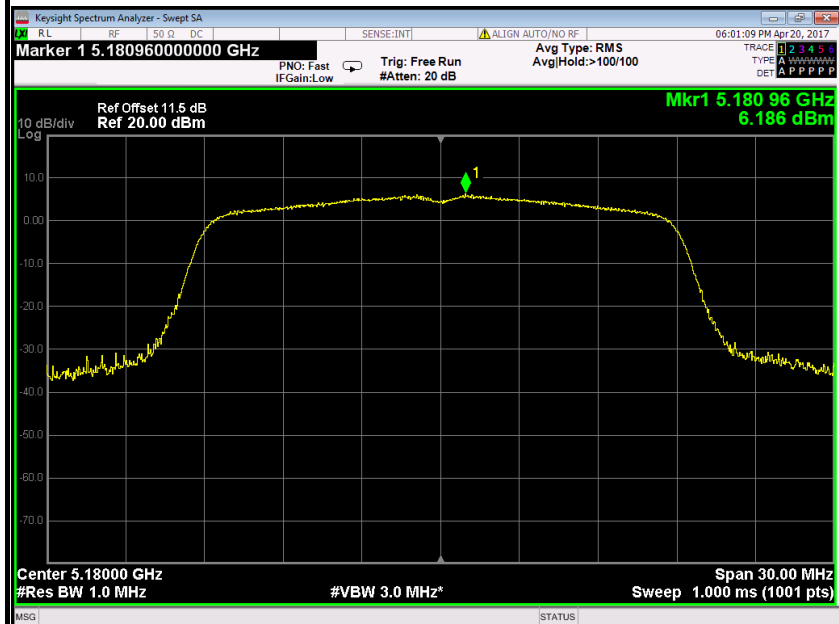
PPSD (CH High)



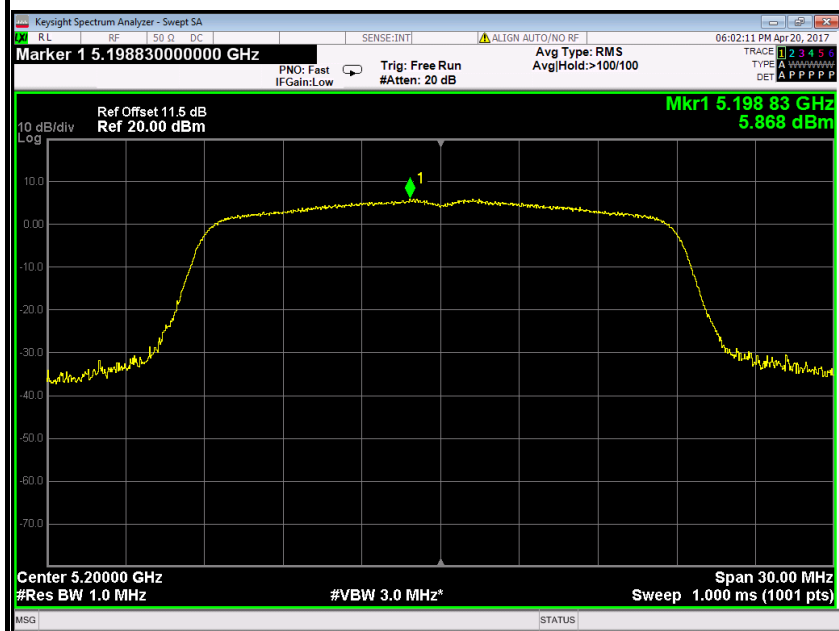


IEEE 802.11n HT 20 MHz mode / 5180 ~ 5240MHz

PPSD (CH Low)

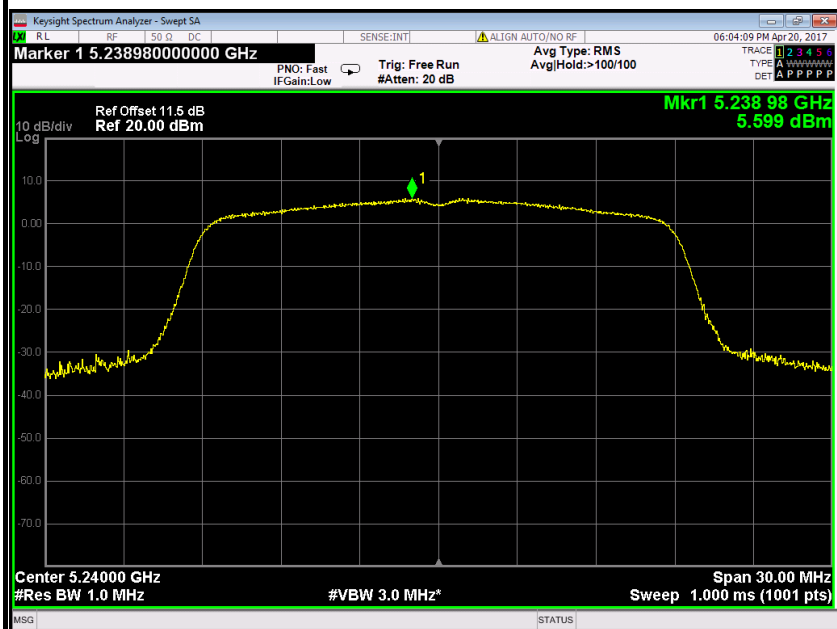


PPSD (CH Mid)



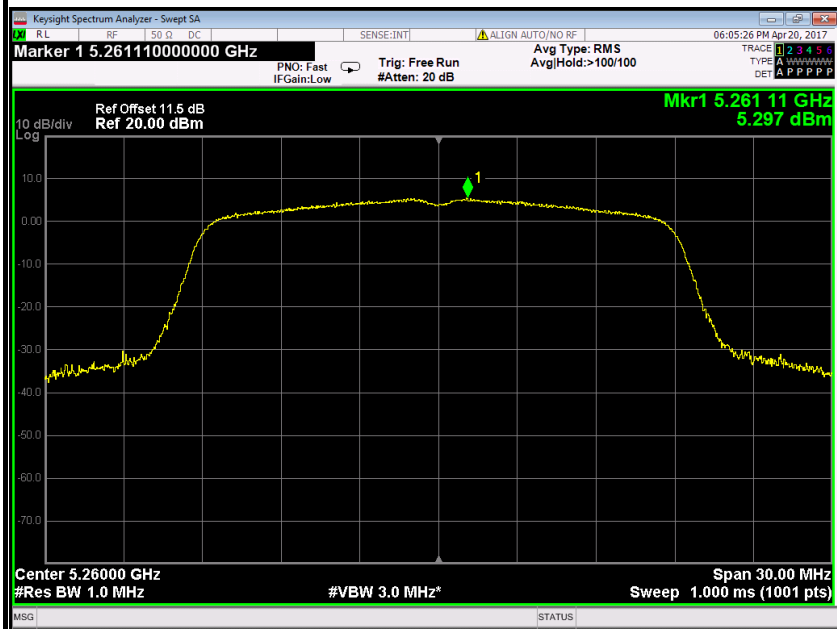


PPSD (CH High)



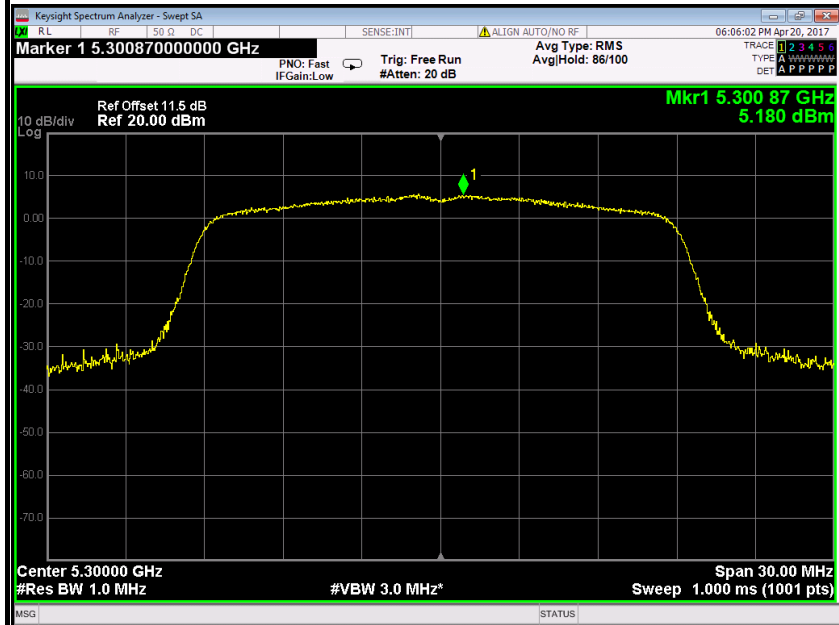
IEEE 802.11n HT 20 MHz mode / 5260~ 5320MHz

PPSD (CH Low)

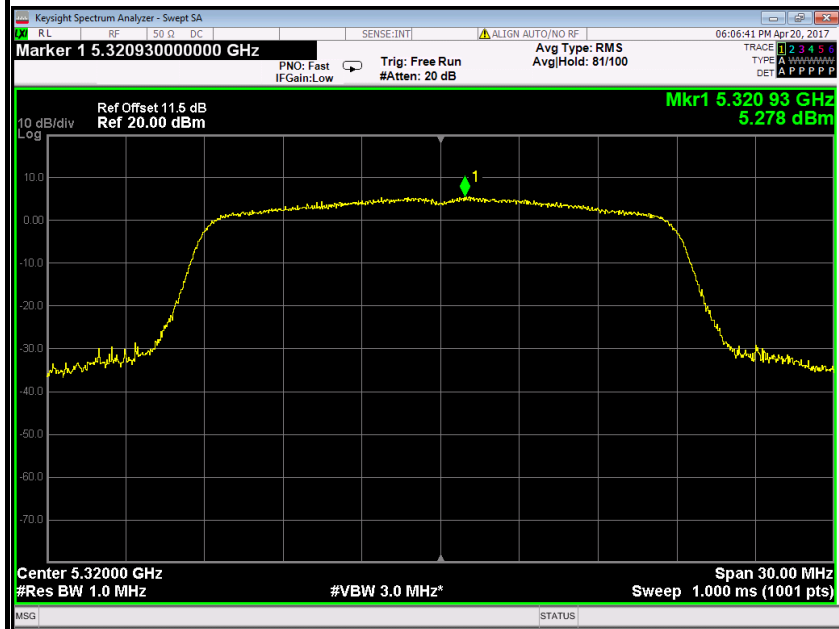




PPSD (CH Mid)



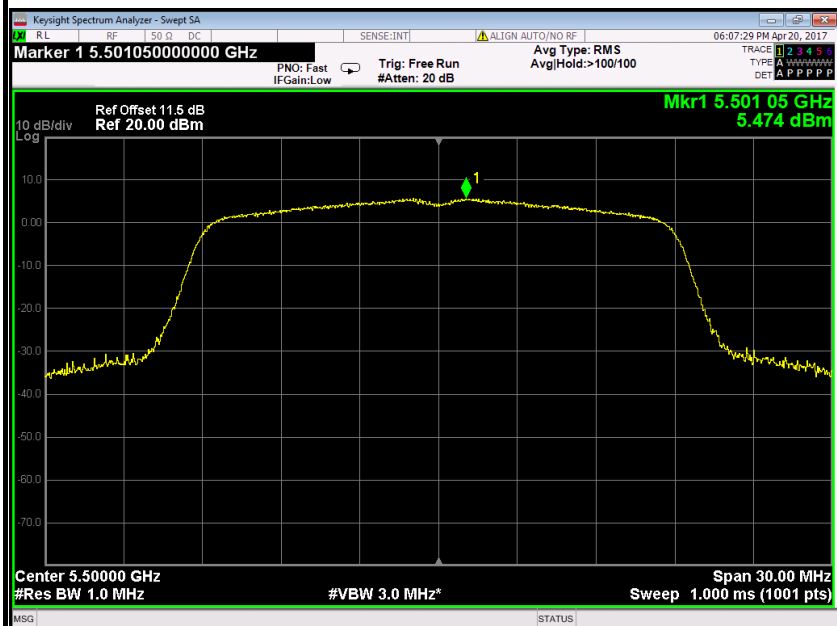
PPSD (CH High)



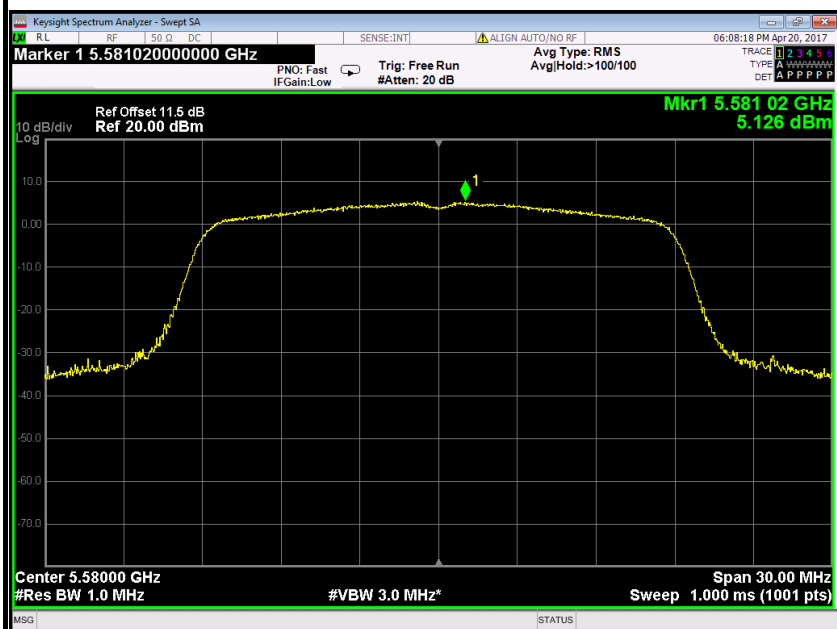


IEEE 802.11n HT 20 MHz mode / 5500 ~ 5700MHz

PPSD (CH Low)

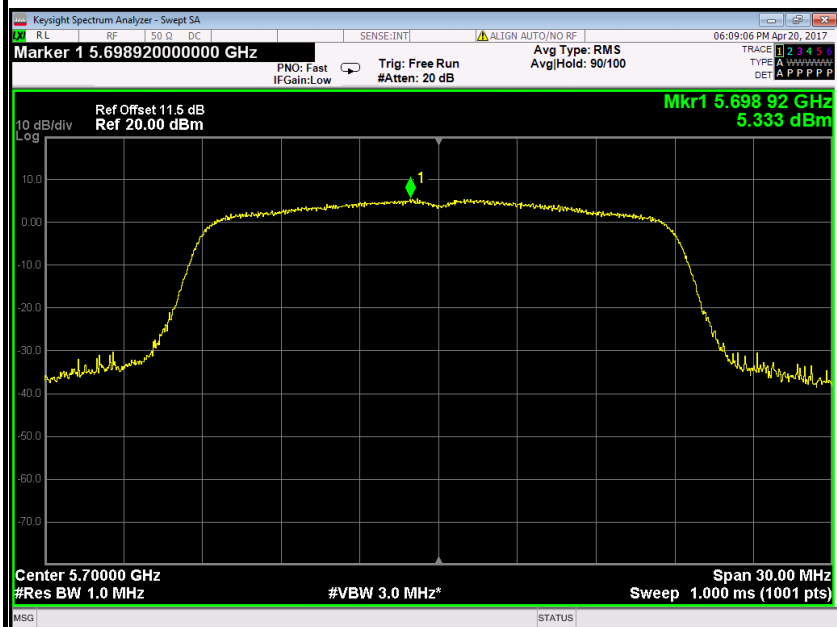


PPSD (CH Mid)



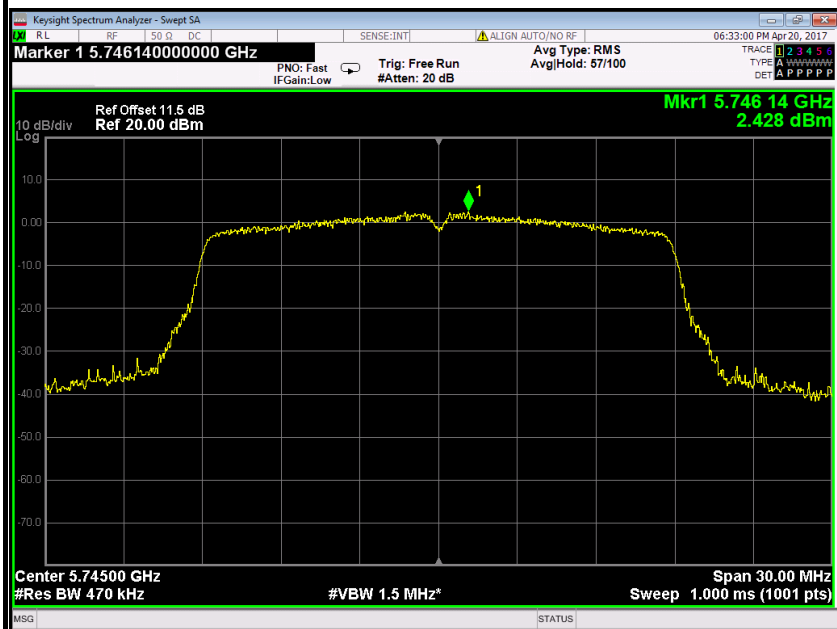


PPSD (CH High)



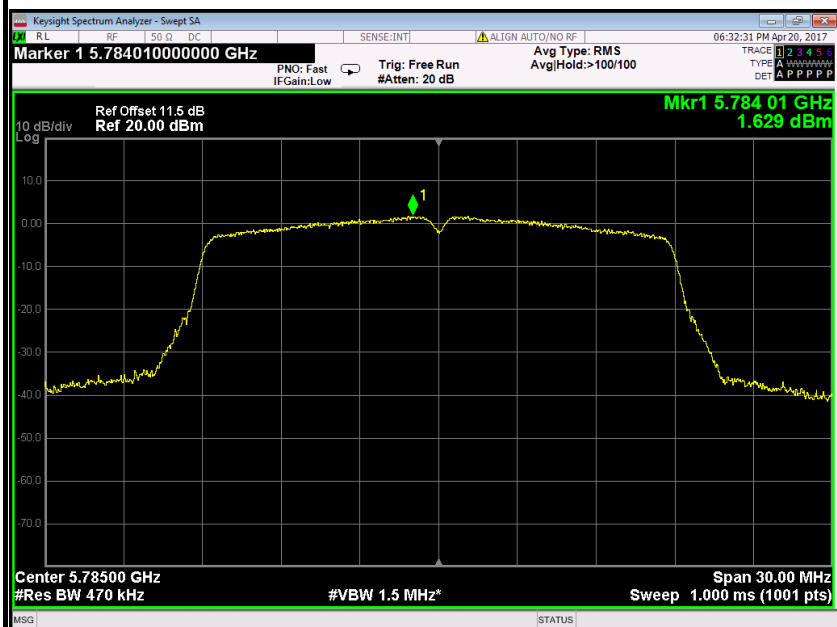
IEEE 802.11n HT 20 MHz mode / 5745 ~ 5825MHz

PPSD (CH Low)

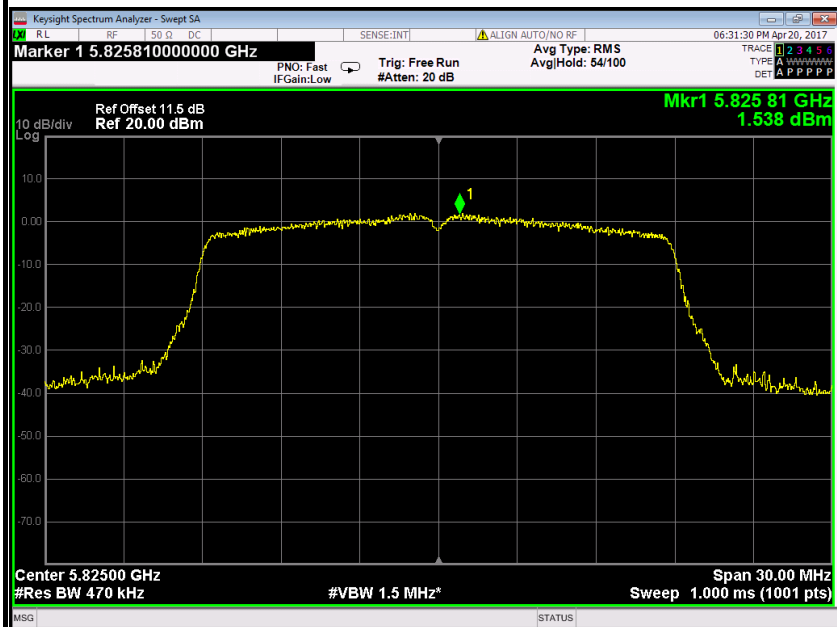




PPSD (CH Mid)



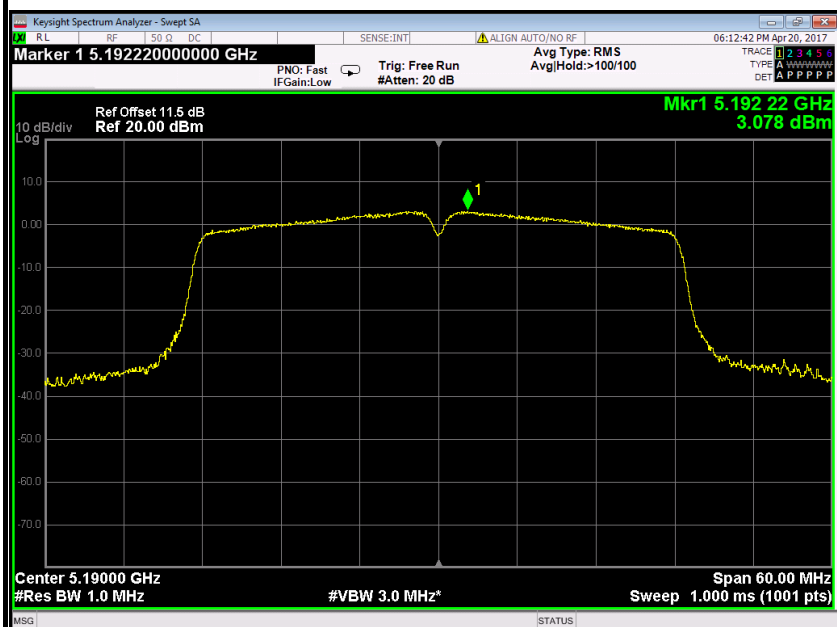
PPSD (CH High)



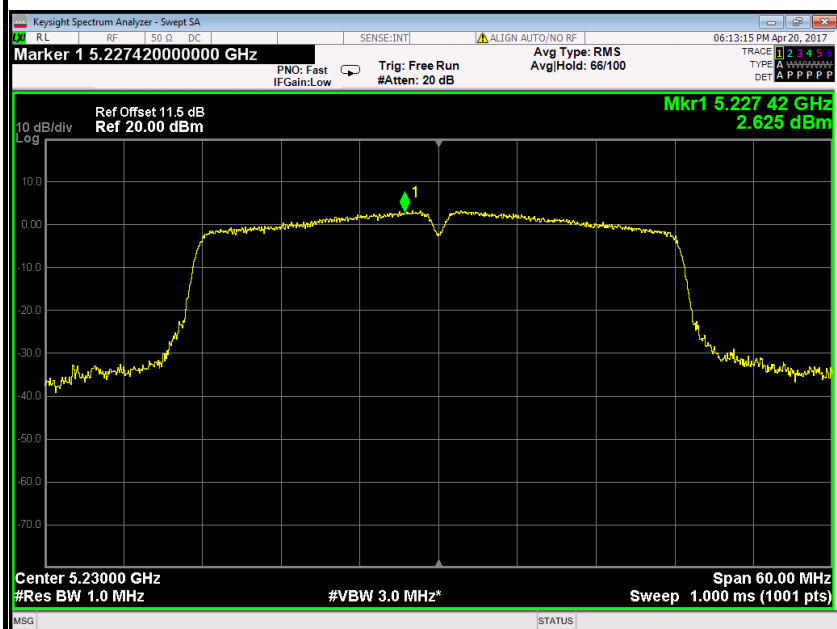


IEEE 802.11n HT 40 MHz mode / 5190 ~ 5230MHz

PPSD (CH Low)



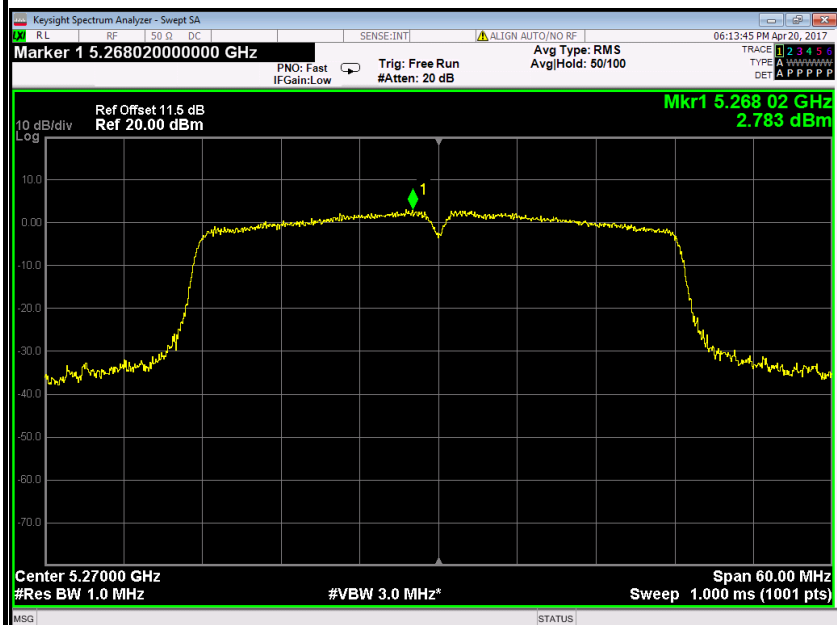
PPSD (CH High)



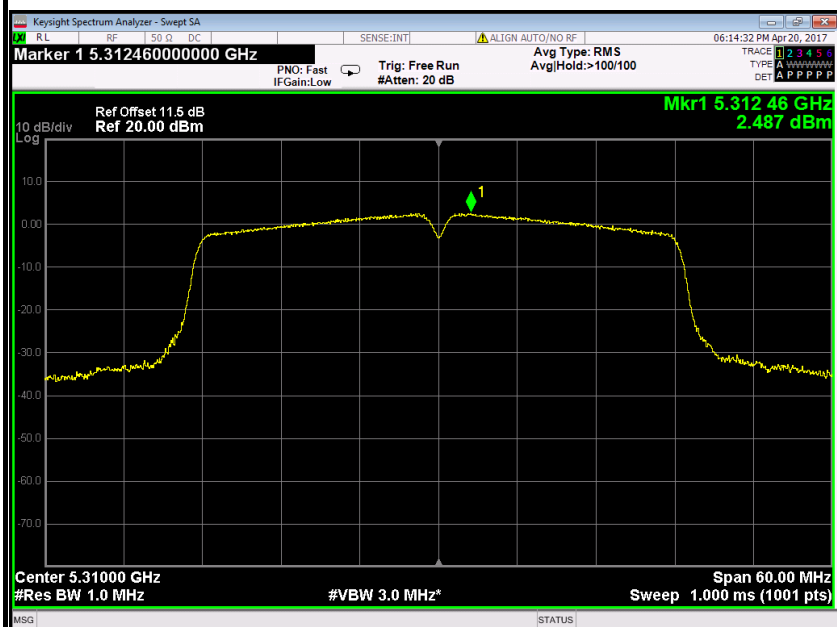


IEEE 802.11n HT 40 MHz mode / 5270 ~ 5310MHz

PPSD (CH Low)



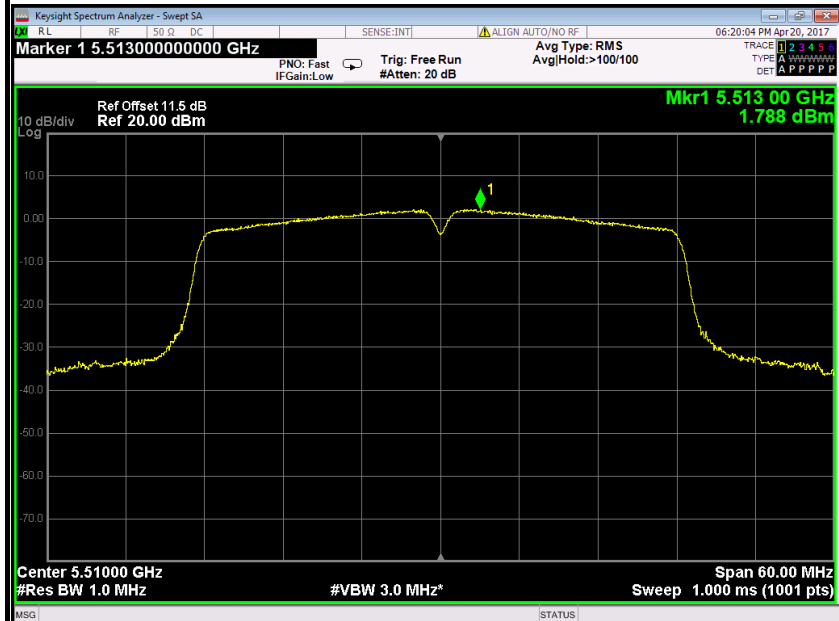
PPSD (CH High)



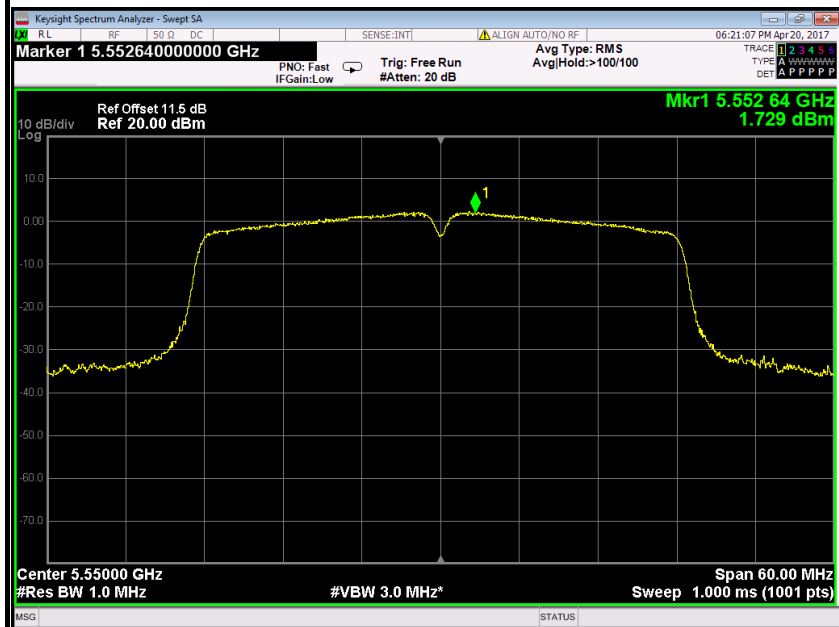


IEEE 802.11n HT 40 MHz mode / 5510 ~ 5670MHz

PPSD (CH Low)

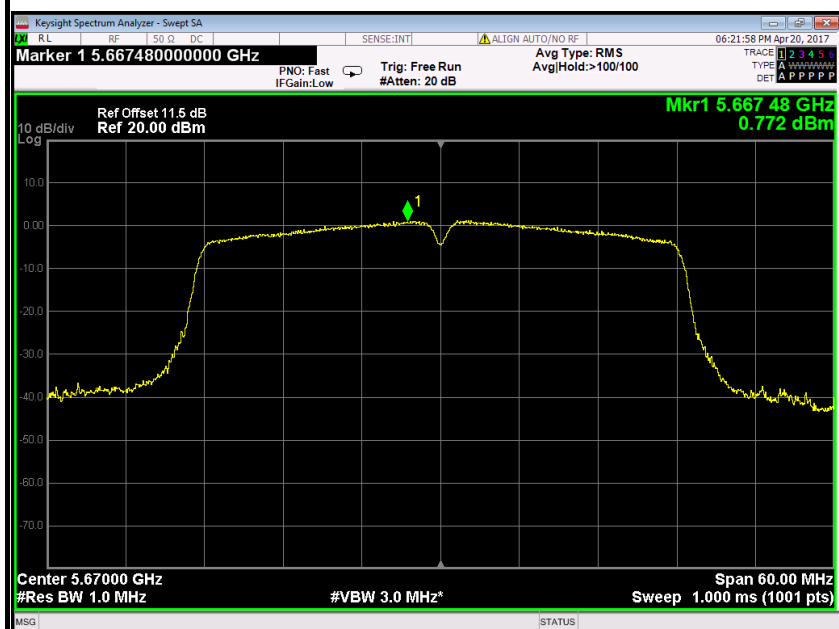


PPSD (CH Mid)



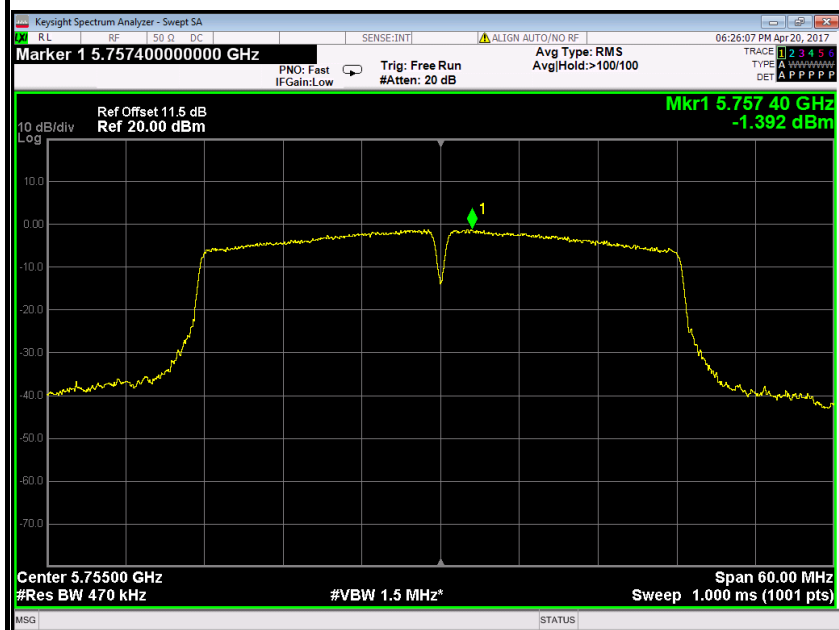


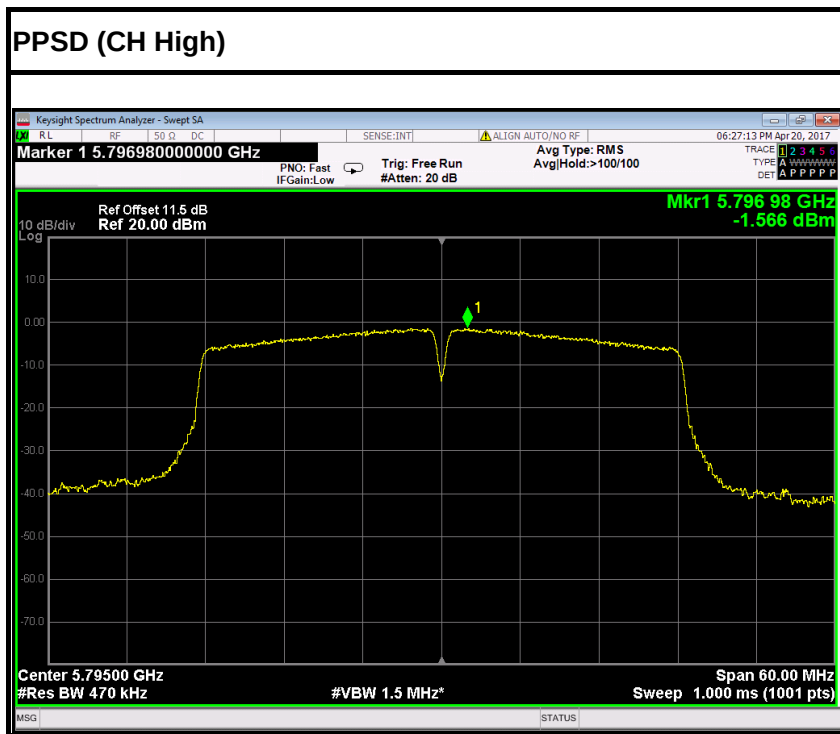
PPSD (CH High)



IEEE 802.11n HT 40 MHz mode / 5755 ~ 5795MHz

PPSD (CH Low)

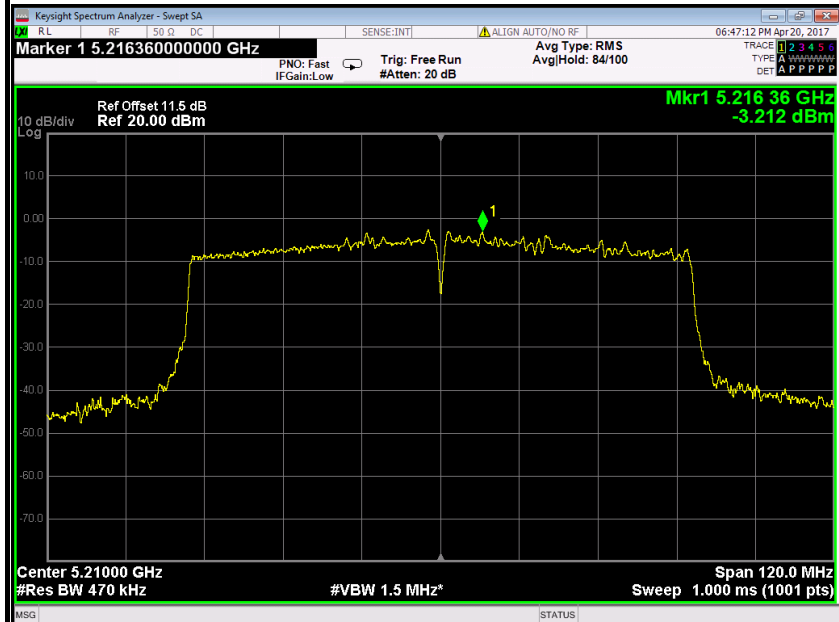






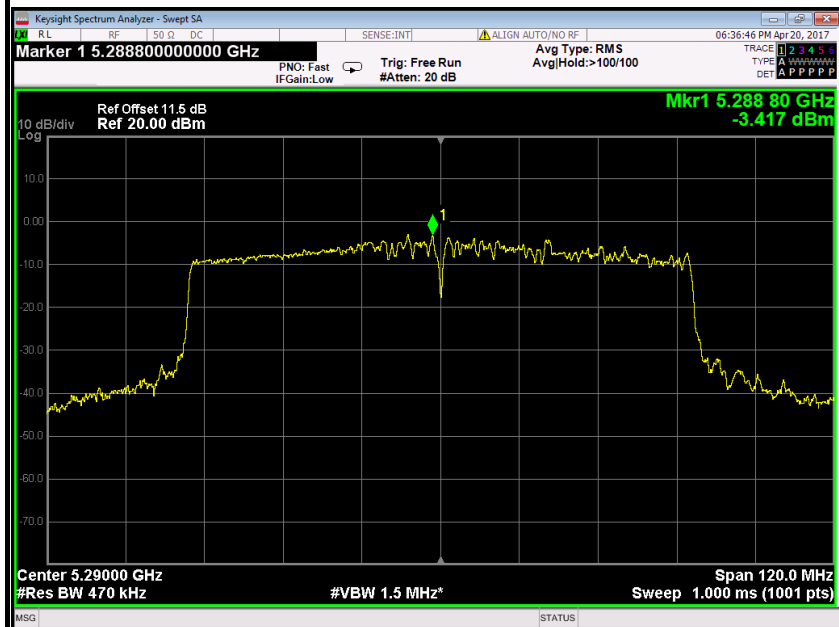
IEEE 802.11ac 80 mode / 5210MHz

PPSD



IEEE 802.11ac 80 mode / 5290MHz

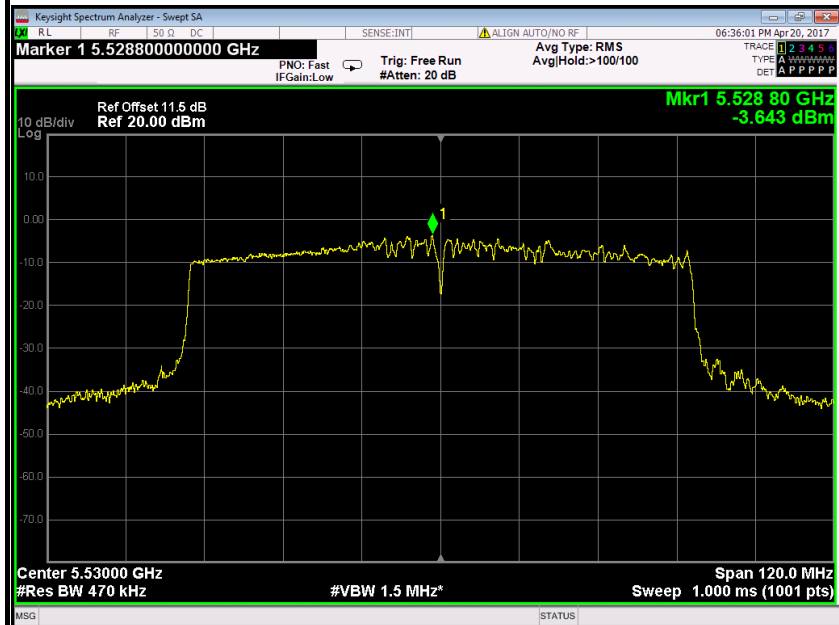
PPSD





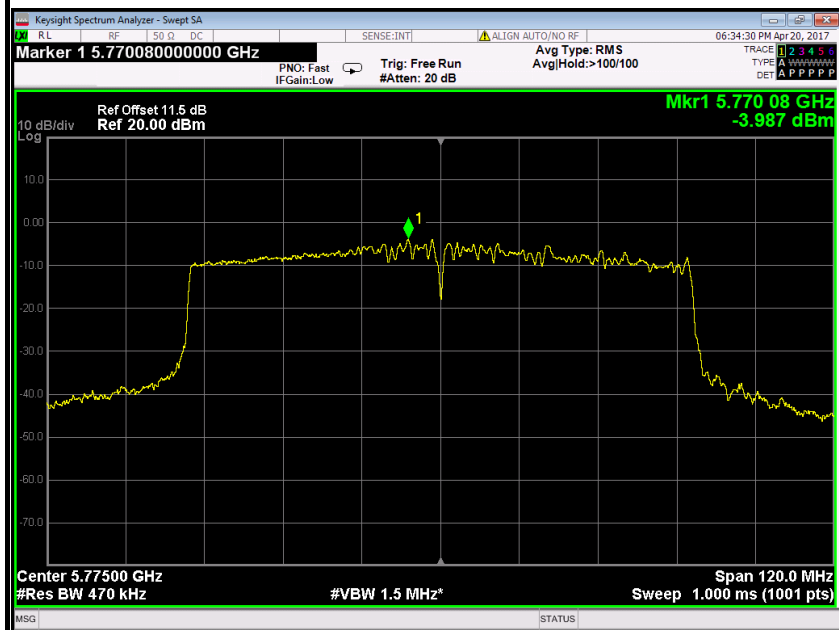
IEEE 802.11ac 80 mode / 5530MHz

PPSD



IEEE 802.11ac 80 mode / 5775MHz

PPSD





6.7 RADIATED UNDESIRABLE EMISSION

6.7.1 LIMIT

1. According to §15.209(a), except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength ($\mu\text{V/m}$)	Measurement Distance (m)
30-88	100*	3
88-216	150*	3
216-960	200*	3
Above 960	500	3

Remark: Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

2. In the emission table above, the tighter limit applies at the band edges.

Frequency (MHz)	Field Strength ($\mu\text{V/m}$ at 3-meter)	Field Strength (dB $\mu\text{V/m}$ at 3-meter)
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

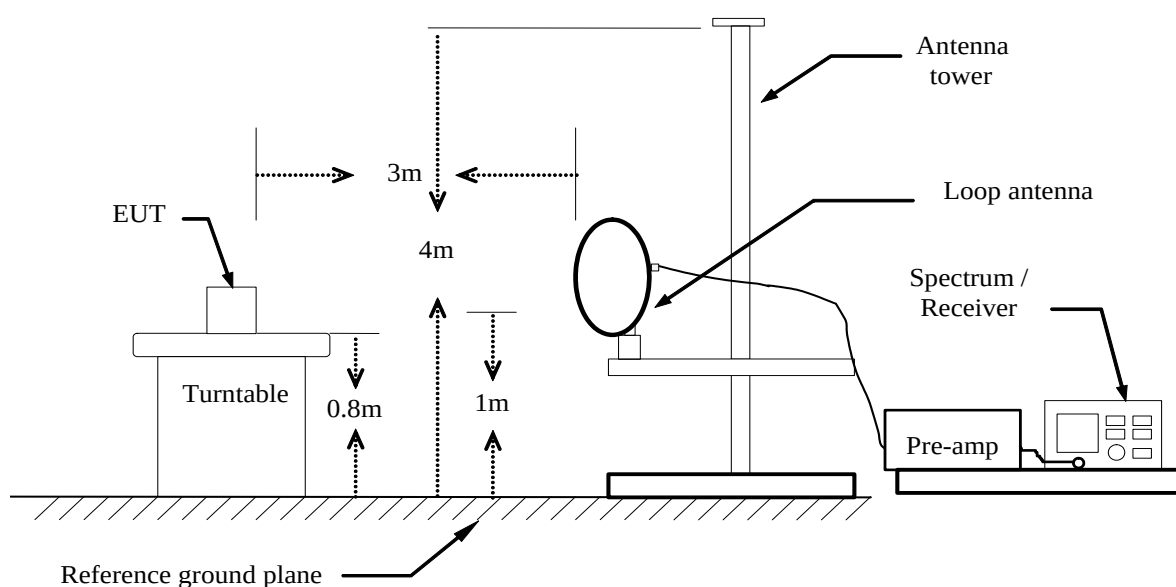


6.7.2 TEST INSTRUMENTS

Radiated Emission Test Site 966 (2)					
Name of Equipment	Manufacturer	Model Number	Serial Number	Last Calibration	Due Calibration
PSA Series Spectrum Analyzer	Agilent	N9010A	MY52221469	02/21/2017	02/20/2018
EMI TEST RECEIVER	ROHDE&SCHWARZ	ESCI	100783	02/21/2017	02/20/2018
Amplifier	EMEC	EM330	060661	03/18/2017	03/17/2018
High Noise Amplifier	Agilent	8449B	3008A01838	02/21/2017	02/20/2018
Loop Antenna	COM-POWER	AL-130	121044	09/25/2016	09/24/2017
Bilog Antenna	SCHAFFNER	CBL6143	5082	02/21/2017	02/20/2018
Horn Antenna	SCHWARZBECK	BBHA9120	D286	02/27/2018	02/27/2018
Board-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170-497	02/27/2018	02/27/2018
Turn Table	N/A	N/A	N/A	N.C.R	N.C.R
Antenna Tower	SUNOL	TLT2	N/A	N.C.R	N.C.R
Controller	Sunol Sciences	SC104V	022310-1	N.C.R	N.C.R
Controller	CT	N/A	N/A	N.C.R	N.C.R
Temp. / Humidity Meter	Anymetre	JR913	N/A	02/21/2017	02/20/2018
Test S/W	FARAD	LZ-RF / CCS-SZ-3A2			

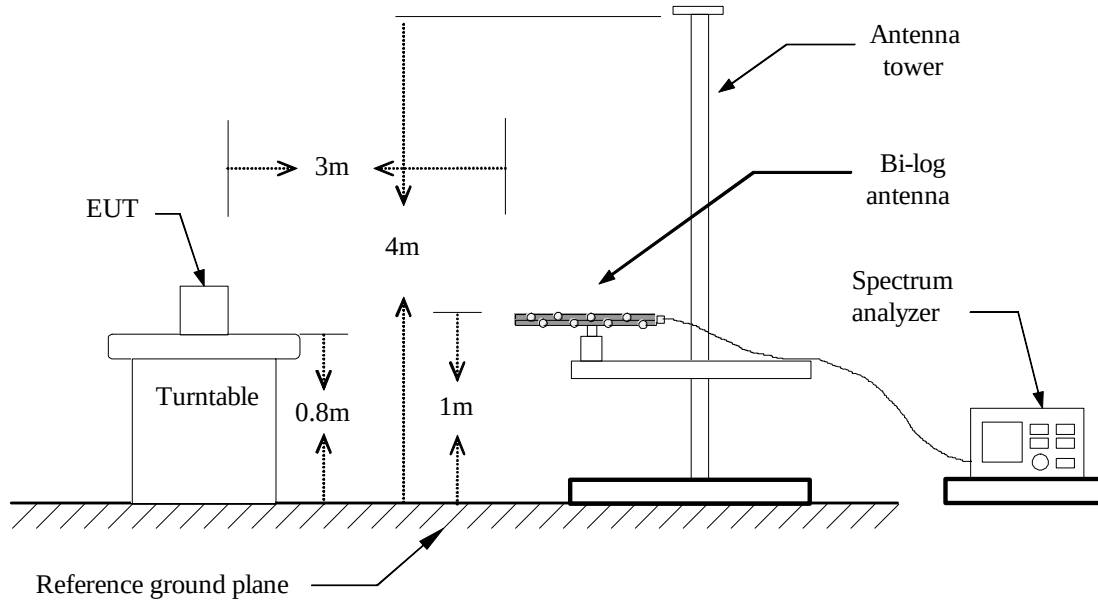
6.7.3 TEST CONFIGURATION

Below 30MHz

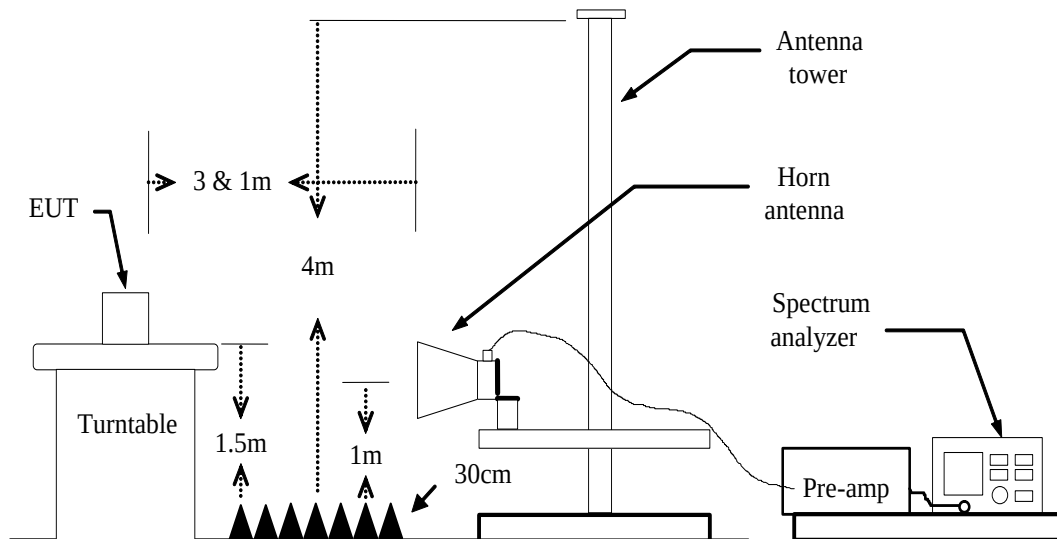




Below 1 GHz



Above 1 GHz



For the actual test configuration, please refer to the related item – Photographs of the TEST CONFIGURATION.



6.7.4 MEASURING SETTING

The following table is the setting of spectrum analyzer and receiver.

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB / VB (Emission in restricted band)	1MHz / 1MHz for Peak, 1 MHz / 10Hz for Average
RB / VB (Emission in non-restricted band)	1MHz / 1MHz for Peak, 1 MHz / 10Hz for Average

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP/AVG
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP/AVG
Start ~ Stop Frequency	30MHz~1000MHz / RB 100kHz for QP

6.7.5 TEST PROCEDURE

1) Sequence of testing 9 kHz to 30 MHz

Setup:

- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.
- If the EUT is a tabletop system, a rotatable table with 0.8 m height is used.
- If the EUT is a floor standing device, it is placed on the ground.
- Auxiliary equipment and cables were positioned to simulate normal operation conditions.
- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- The measurement distance is 3 meter.
- The EUT was set into operation.

Pre measurement:

- The turntable rotates from 0° to 315° using 45° steps.
- The antenna height is 0.8 meter.



--- At each turntable position the analyzer sweeps with peak detection to find the maximum of all emissions

Final measurement:

--- Identified emissions during the pre measurement the software maximizes by rotating the turntable position (0° to 360°) and by rotating the elevation axes (0° to 360°).

--- The final measurement will be done in the position (turntable and elevation) causing the highest emissions with QPK detector.

--- The final levels, frequency, measuring time, bandwidth, turntable position, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the pre measurement and the limit will be stored.

2) Sequence of testing 30 MHz to 1 GHz

Setup:

--- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.

--- If the EUT is a tabletop system, a table with 0.8 m height is used, which is placed on the ground plane.

--- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.

--- Auxiliary equipment and cables were positioned to simulate normal operation conditions

--- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.

--- The measurement distance is 3 meter.

--- The EUT was set into operation.

Pre measurement:

--- The turntable rotates from 0° to 315° using 45° steps.

--- The antenna is polarized vertical and horizontal.

--- The antenna height changes from 1 to 3 meter.

--- At each turntable position, antenna polarization and height the analyzer sweeps three times in peak to find the maximum of all emissions.



Final measurement:

- The final measurement will be performed with minimum the six highest peaks.
- According to the maximum antenna and turntable positions of premeasurement the software maximize the peaks by changing turntable position ($\pm 45^\circ$) and antenna movement between 1 and 4 meter.
- The final measurement will be done with QP detector with an EMI receiver.
- The final levels, frequency, measuring time, bandwidth, antenna height, antenna polarization, turntable angle, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the premeasurement with marked maximum final measurements and the limit will be stored.

3) Sequence of testing 1 GHz to 18 GHz

Setup:

- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.
- If the EUT is a tabletop system, a rotatable table with 1.5 m height is used.
- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.
- Auxiliary equipment and cables were positioned to simulate normal operation conditions
- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- The measurement distance is 3 meter.
- The EUT was set into operation.

Pre measurement:

- The turntable rotates from 0° to 315° using 45° steps.
- The antenna is polarized vertical and horizontal.
- The antenna height scan range is 1 meter to 2.5 meter.
- At each turntable position and antenna polarization the analyzer sweeps with peak detection to find the maximum of all emissions.



Final measurement:

- The final measurement will be performed with minimum the six highest peaks.
- According to the maximum antenna and turntable positions of premeasurement the software maximize the peaks by changing turntable position ($\pm 45^\circ$) and antenna movement between 1 and 4 meter. This procedure is repeated for both antenna polarizations.
- The final measurement will be done in the position (turntable, EUT-table and antenna polarization) causing the highest emissions with Peak and Average detector.
- The final levels, frequency, measuring time, bandwidth, turntable position, EUT-table position, antenna polarization, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the pre measurement with marked maximum final measurements and the limit will be stored.

4) Sequence of testing above 18 GHz

Setup:

- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.
- If the EUT is a tabletop system, a rotatable table with 1.5 m height is used.
- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.
- Auxiliary equipment and cables were positioned to simulate normal operation conditions
- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- The measurement distance is 1 meter.
- The EUT was set into operation.

Pre measurement:

- The antenna is moved spherical over the EUT in different polarisations of the antenna.

Final measurement:

- The final measurement will be performed at the position and antenna orientation for all detected emissions that were found during the premeasurements with Peak and Average detector.
- The final levels, frequency, measuring time, bandwidth, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the premeasurement and the limit will be stored.

**6.7.6 DATA SAPLE****Below 1GHz**

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
XXX.XXXX	36.37	-12.20	24.17	40.00	-15.83	V	QP

Frequency (MHz) = Emission frequency in MHz
Reading (dBuV) = Uncorrected Analyzer / Receiver reading
Correct Factor (dB/m) = Antenna factor + Cable loss – Amplifier gain
Result (dBuV/m) = Reading (dBuV) + Corr. Factor (dB/m)
Limit (dBuV/m) = Limit stated in standard
Margin (dB) = Result (dBuV/m) – Limit (dBuV/m)
Q.P. = Quasi-peak Reading

Above 1GHz

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
XXXX.XXXX	62.09	-11.42	50.67	74.00	-23.33	V	Peak
XXXX.XXXX	49.78	-11.42	38.36	54.00	-15.64	V	AVG

Frequency (MHz) = Emission frequency in MHz
Reading (dBuV) = Uncorrected Analyzer / Receiver reading
Correction Factor (dB/m) = Antenna factor + Cable loss – Amplifier gain
Result (dBuV/m) = Reading (dBuV) + Corr. Factor (dB/m)
Limit (dBuV/m) = Limit stated in standard
Margin (dB) = Result (dBuV/m) – Limit (dBuV/m)
Peak = Peak Reading
AVG = Average Reading

Calculation Formula

Margin (dB) = Result (dBuV/m) – Limits (dBuV/m)

Result (dBuV/m) = Reading (dBuV) + Correction Factor

**6.7.7 TEST RESULTS****Below 1 GHz****Test Mode:** TX / IEEE 802.11a / 5180MHz /(CH Low)**Tested by:** Sam Zeng**Ambient temperature:** 24°C **Relative humidity:** 52% RH**Date:** April 25, 2017

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
51.3400	54.78	-21.56	33.22	40.00	-6.78	V	QP
92.0800	58.15	-24.52	33.63	43.50	-9.87	V	QP
157.0700	38.63	-22.31	16.32	43.50	-27.18	V	QP
220.1200	38.06	-20.37	17.69	46.00	-28.31	V	QP
451.9500	36.76	-15.41	21.35	46.00	-24.65	V	QP
556.7100	33.69	-13.21	20.48	46.00	-25.52	V	QP
55.2200	46.58	-22.75	23.83	40.00	-16.17	H	QP
93.0500	49.05	-24.42	24.63	43.50	-18.87	H	QP
154.1600	45.98	-22.08	23.90	43.50	-19.60	H	QP
220.1200	39.56	-20.37	19.19	46.00	-26.81	H	QP
334.5800	40.56	-18.29	22.27	46.00	-23.73	H	QP
443.2200	37.90	-15.61	22.29	46.00	-23.71	H	QP

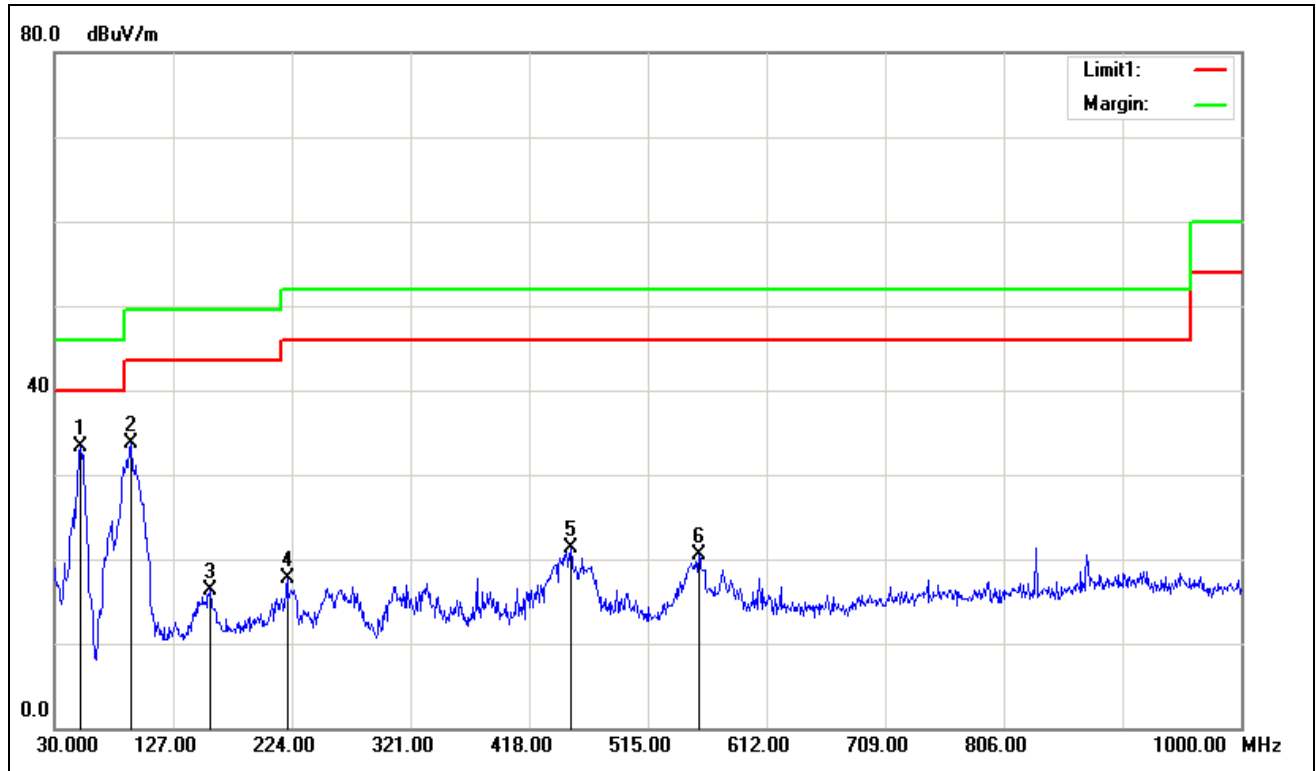
Pre-scan all mode and recorded the worst case results in this report (802.11a (Low Mid)).

Remark:

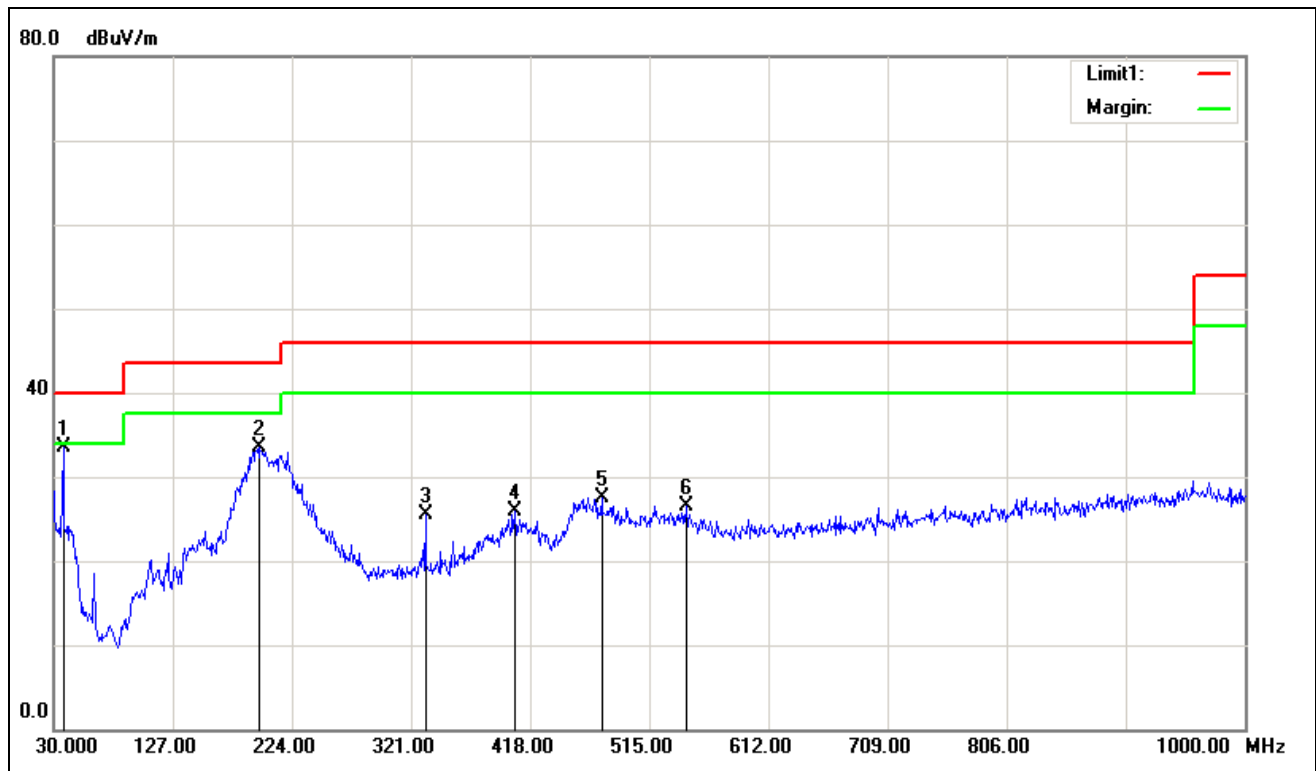
1. No emission found between lowest internal used/generated frequency to 30MHz (9kHz~30MHz)
2. Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using peak/quasi-peak detector mode.
3. Quasi-peak test would be performed if the peak result were greater than the quasi-peak limit.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Quasi-peak limit (dBuV/m).



Vertical



Horizontal



**Above 1 GHz****1GHz~6GHz****Test Mode:** TX / IEEE 802.11a / 5180MHz /(CH Low)**Tested by:** Sam Zeng**Ambient temperature:** 24°C **Relative humidity:** 52% RH**Date:** April 25, 2017

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
1470.000	51.06	-6.93	44.13	74.00	-29.87	V	peak
1755.000	50.49	-6.37	44.12	74.00	-29.88	V	peak
2115.000	49.53	-4.37	45.16	74.00	-28.84	V	peak
2505.000	48.92	-2.25	46.67	74.00	-27.33	V	peak
2635.000	48.55	-2.02	46.53	74.00	-27.47	V	peak
3370.000	46.69	-0.74	45.95	74.00	-28.05	V	peak
1320.000	51.07	-7.35	43.72	74.00	-30.28	H	Peak
1760.000	52.51	-6.36	46.15	74.00	-27.85	H	Peak
2245.000	48.47	-3.66	44.81	74.00	-29.19	H	Peak
2650.000	48.09	-1.99	46.10	74.00	-27.90	H	peak
3210.000	47.06	-1.01	46.05	74.00	-27.95	H	peak
3690.000	46.99	0.28	47.27	74.00	-26.73	H	peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

**Above 6GHz****Test Mode:** TX / IEEE 802.11a / 5180MHz /(CH Low)**Tested by:** Sam Zeng**Ambient temperature:** 24°C **Relative humidity:** 52% RH**Date:** April 25, 2017

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
7056.000	32.92	7.81	40.73	68.23	-27.50	V	peak
8016.000	32.96	9.64	42.60	68.23	-25.63	V	peak
8400.000	33.20	9.43	42.63	68.23	-25.60	V	peak
10044.000	31.70	12.12	43.82	68.23	-24.41	V	peak
10356.000	33.13	13.08	46.21	68.23	-22.02	V	peak
11136.000	32.28	15.02	47.30	68.23	-20.93	V	peak
7020.000	32.75	7.74	40.49	68.23	-27.74	H	Peak
7764.000	33.02	9.19	42.21	68.23	-26.02	H	Peak
8412.000	33.17	9.42	42.59	68.23	-25.64	H	Peak
9000.000	33.32	9.10	42.42	68.23	-25.81	H	peak
10368.000	32.65	13.12	45.77	68.23	-22.46	H	peak
11160.000	32.51	15.01	47.52	68.23	-20.71	H	peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



Test Mode: TX / IEEE 802.11a / 5200MHz /(CH Mid)

Tested by: Sam Zeng

Ambient temperature: 24°C

Relative humidity: 52% RH

Date: April 25, 2017

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
7368.000	32.43	8.42	40.85	68.23	-27.38	V	peak
8148.000	33.20	9.57	42.77	68.23	-25.46	V	peak
9456.000	31.78	10.41	42.19	68.23	-26.04	V	peak
10680.000	31.70	14.09	45.79	68.23	-22.44	V	peak
11184.000	32.38	15.00	47.38	68.23	-20.85	V	peak
12156.000	31.33	15.16	46.49	68.23	-21.74	V	peak
6792.000	33.19	7.36	40.55	68.23	-27.68	H	Peak
7728.000	32.44	9.12	41.56	68.23	-26.67	H	Peak
8136.000	32.79	9.58	42.37	68.23	-25.86	H	Peak
9900.000	31.48	11.69	43.17	68.23	-25.06	H	peak
11028.000	31.40	15.07	46.47	68.23	-21.76	H	peak
11184.000	32.17	15.00	47.17	68.23	-21.06	H	peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



Test Mode: TX / IEEE 802.11a / 5240MHz /(CH High)

Tested by: Sam Zeng

Ambient temperature: 24°C

Relative humidity: 52% RH

Date: April 25, 2017

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
8400.000	33.42	9.43	42.85	68.23	-25.38	V	peak
9420.000	31.80	10.31	42.11	68.23	-26.12	V	peak
10236.000	31.14	12.71	43.85	68.23	-24.38	V	peak
10692.000	31.24	14.13	45.37	68.23	-22.86	V	peak
11136.000	32.22	15.02	47.24	68.23	-20.99	V	peak
11640.000	31.93	14.80	46.73	68.23	-21.50	V	peak
8064.000	32.85	9.61	42.46	68.23	-25.77	H	Peak
8412.000	32.57	9.42	41.99	68.23	-26.24	H	Peak
9804.000	31.47	11.42	42.89	68.23	-25.34	H	Peak
10476.000	32.85	13.46	46.31	68.23	-21.92	H	peak
11376.000	32.27	14.91	47.18	68.23	-21.05	H	peak
12516.000	31.05	16.35	47.40	68.23	-20.83	H	peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



Test Mode: TX / IEEE 802.11a / 5260MHz / (CH Low)

Tested by: Sam Zeng

Ambient temperature: 24°C

Relative humidity: 52% RH

Date: April 25, 2017

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
7920.000	33.26	9.49	42.75	68.23	-25.48	V	peak
8352.000	32.80	9.46	42.26	68.23	-25.97	V	peak
9864.000	31.61	11.59	43.20	68.23	-25.03	V	peak
10980.000	30.79	15.02	45.81	68.23	-22.42	V	peak
11160.000	32.08	15.01	47.09	68.23	-21.14	V	peak
12660.000	31.14	16.82	47.96	68.23	-20.27	V	peak
8112.000	32.77	9.59	42.36	68.23	-25.87	H	Peak
8412.000	33.45	9.42	42.87	68.23	-25.36	H	Peak
9444.000	31.65	10.38	42.03	68.23	-26.20	H	Peak
10524.000	32.92	13.60	46.52	68.23	-21.71	H	peak
11244.000	32.10	14.97	47.07	68.23	-21.16	H	peak
13188.000	30.04	18.44	48.48	68.23	-19.75	H	peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



Test Mode: TX / IEEE 802.11a / 5300MHz / (CH Mid)

Tested by: Sam Zeng

Ambient temperature: 24°C

Relative humidity: 52% RH

Date: April 25, 2017

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
7200.000	32.94	8.09	41.03	68.23	-27.20	V	peak
8124.000	33.08	9.58	42.66	68.23	-25.57	V	peak
8340.000	33.00	9.46	42.46	68.23	-25.77	V	peak
9360.000	32.20	10.14	42.34	68.23	-25.89	V	peak
10356.000	31.21	13.08	44.29	68.23	-23.94	V	peak
11136.000	32.24	15.02	47.26	68.23	-20.97	V	peak
7884.000	32.74	9.42	42.16	68.23	-26.07	H	Peak
8328.000	32.86	9.47	42.33	68.23	-25.90	H	Peak
9828.000	30.93	11.48	42.41	68.23	-25.82	H	Peak
10596.000	32.90	13.83	46.73	68.23	-21.50	H	peak
11220.000	32.07	14.98	47.05	68.23	-21.18	H	peak
12528.000	30.65	16.39	47.04	68.23	-21.19	H	peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



Test Mode: TX / IEEE 802.11a / 5320MHz / (CH High)

Tested by: Sam Zeng

Ambient temperature: 24°C

Relative humidity: 52% RH

Date: April 25, 2017

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
7032.000	32.72	7.76	40.48	68.23	-27.75	V	peak
7920.000	33.15	9.49	42.64	68.23	-25.59	V	peak
9012.000	32.48	9.13	41.61	68.23	-26.62	V	peak
10116.000	31.85	12.34	44.19	68.23	-24.04	V	peak
10740.000	31.47	14.27	45.74	68.23	-22.49	V	peak
11160.000	32.11	15.01	47.12	68.23	-21.11	V	peak
8064.000	32.65	9.61	42.26	68.23	-25.97	H	Peak
8400.000	33.23	9.43	42.66	68.23	-25.57	H	Peak
9432.000	32.08	10.34	42.42	68.23	-25.81	H	Peak
10596.000	33.01	13.83	46.84	68.23	-21.39	H	peak
11520.000	31.72	14.85	46.57	68.23	-21.66	H	peak
12588.000	31.04	16.59	47.63	68.23	-20.60	H	peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).



Test Mode: TX / IEEE 802.11a / 5500MHz / (CH Low)

Tested by: Sam Zeng

Ambient temperature: 24°C

Relative humidity: 52% RH

Date: April 25, 2017

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
6864.000	33.15	7.48	40.63	68.23	-27.60	V	peak
7932.000	32.51	9.52	42.03	68.23	-26.20	V	peak
8412.000	32.86	9.42	42.28	68.23	-25.95	V	peak
9912.000	31.52	11.73	43.25	68.23	-24.98	V	peak
10536.000	31.84	13.64	45.48	68.23	-22.75	V	peak
11136.000	32.42	15.02	47.44	68.23	-20.79	V	peak
7212.000	33.08	8.11	41.19	68.23	-27.04	H	Peak
8184.000	32.78	9.55	42.33	68.23	-25.90	H	Peak
9336.000	33.06	10.07	43.13	68.23	-25.10	H	Peak
10236.000	31.83	12.71	44.54	68.23	-23.69	H	peak
11244.000	32.02	14.97	46.99	68.23	-21.24	H	peak
12576.000	32.15	16.55	48.70	68.23	-19.53	H	peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

**Test Mode:** TX / IEEE 802.11a / 5580MHz /(CH Mid)**Tested by:** Sam Zeng**Ambient temperature:** 24°C**Relative humidity:** 52% RH**Date:** April 25, 2017

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
7176.000	32.73	8.04	40.77	68.23	-27.46	V	peak
7872.000	32.72	9.40	42.12	68.23	-26.11	V	peak
8424.000	33.69	9.42	43.11	68.23	-25.12	V	peak
10680.000	31.26	14.09	45.35	68.23	-22.88	V	peak
11160.000	32.66	15.01	47.67	68.23	-20.56	V	peak
11724.000	31.60	14.76	46.36	68.23	-21.87	V	peak
7020.000	32.72	7.74	40.46	68.23	-27.77	H	Peak
7932.000	32.93	9.52	42.45	68.23	-25.78	H	Peak
8412.000	32.79	9.42	42.21	68.23	-26.02	H	peak
9432.000	31.89	10.34	42.23	68.23	-26.00	H	peak
10788.000	30.94	14.42	45.36	68.23	-22.87	H	peak
11160.000	32.70	15.01	47.71	68.23	-20.52	H	peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).