FCC PART 15.407

TEST REPORT

For

Communication Networks LLC

3 Corporate Drive, DANBURY, Connecticut, United States

FCC ID: 2ANZ6NW10

Report Type: Original Report	**Product Type:** Wireless AP	
Test Engineer:	Chris Wang	Chris. Wang
Report Number:	RKS170721003-00A	
Report Date:	2017-12-22	
Reviewed By:	Oscar Ye RF Leader	Oscar. Ye
Test Laboratory:	Bay Area Compliance Laboratories Corp. (Kunshan) No.248 Chenghu Road,Kunshan,Jiangsu province,China Tel: +86-0512-86175000 Fax: +86-0512-88934268 www.baclcorp.com.cn	

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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Applicant	Communication Networks LLC
Tested Model	NW10
Seties Model	NW10IN, NW10/M
Product Type	Wireless AP
Dimension	45 mm(L)×15 mm(W)×35 mm(H)
Power Supply	DC48-56V from adapter

Adapter Information:
Model: PSE801G
Input: AC100-240 V 50/60Hz
Output:DC48-56V

** Note: The difference between tested model and series model was explained in the declaration letter.*

**All measurement and test data in this report was gathered from production sample serial number: 20170721001. (Assigned by BACL, Kunshan). The EUT was received on 2017-07-21.*

Objective

This type approval report is prepared on behalf of Communication Networks LLC in accordance with Part 2-Subpart J, Part 15-Subparts A and E of the Federal Communication Commissions rules.

The tests were performed in order to determine compliance with FCC Part 15, Subpart E, section 15.203, 15.205, 15.207, 15.209 and 15.407 rules.

Related Submittal(s)/Grant(s)

FCC Part 15B JBP and Part 90 TNB submission with FCC ID: 2ANZ6NW10.

Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2013, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.

All emissions measurement was performed and Bay Area Compliance Laboratories Corp. (Kunshan).

Measurement Uncertainty

Item		Uncertainty
AC Power Lines Conducted Emissions		3.19 dB
RF conducted test with spectrum		0.9dB
RF Output Power with Power meter		0.5dB
Radiated emission	30MHz~1GHz	6.11dB
	1GHz~6GHz	4.45dB
	6GHz~18GHz	5.23dB
	18GHz~40GHz	5.65dB
Occupied Bandwidth		0.5kHz
Temperature		1.0℃
Humidity		6%

Test Facility

The test site used by Bay Area Compliance Laboratories Corp. (Kunshan) to collect test data is located on the No.248 Chenghu Road,Kunshan,Jiangsu province,China.

Bay Area Compliance Laboratories Corp. (Kunshan) Lab is accredited to ISO/IEC 17025 by A2LA (Lab code: 4323.01) and the FCC designation No. CN1185 under the FCC KDB 974614 D01. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2014.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The EUT was configured for testing in an engineering mode which was provided by the manufacturer.

In **5150~5250 MHz** band, test channel list is as below,

for 802.11a and 802.11n-HT20 mode , EUT was tested with channel 36, 40 and 48.
for 802.11n40 mode, EUT was tested with channel 38 and 46.

Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	44	5220
38	5190	46	5230
40	5200	48	5240
42	5210	/	/

In **5725~5850 MHz** band, test channel list is as below,

for 802.11a and 802.11n-HT20 mode , EUT was tested with channel 149, 157 and 165.
for 802.11n40 mode, EUT was tested with channel 151 and 159.

Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	157	5785
151	5755	159	5795
153	5765	161	5805
155	5775	165	5825

EUT Exercise Software

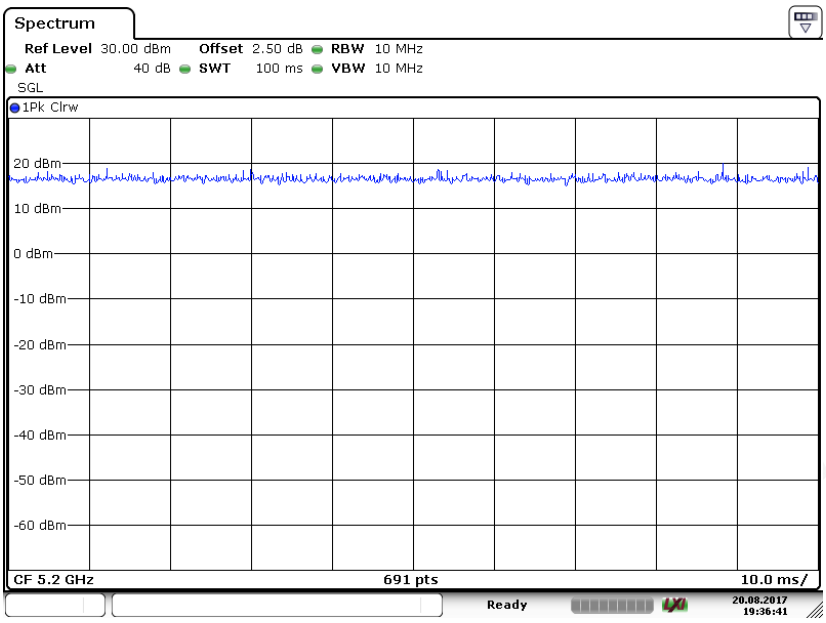
RF test tool: Telnet.

The worst case was performed under:

Mode	Data rate	Power level
802.11a	6 Mbps	14
802.11n-HT20	MCS0	14
802.11n-HT40	MCS0	14

5150MHz-5250MHz Band:

802.11a mode Duty Cycle



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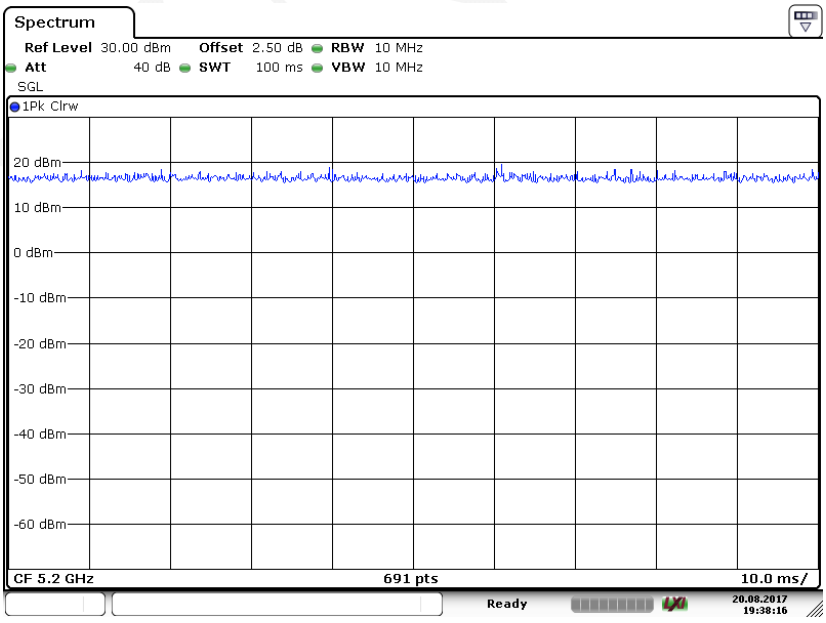
802.11n-HT20 mode Duty Cycle



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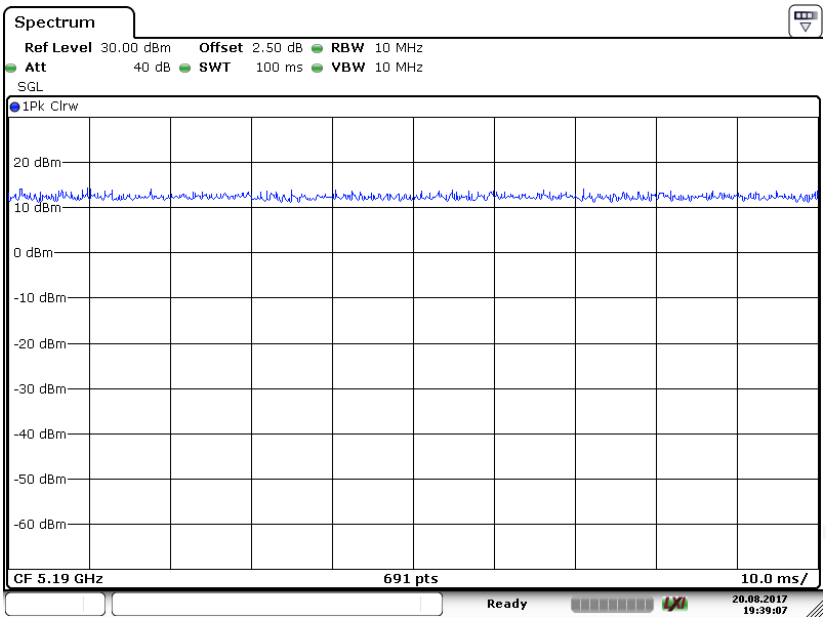
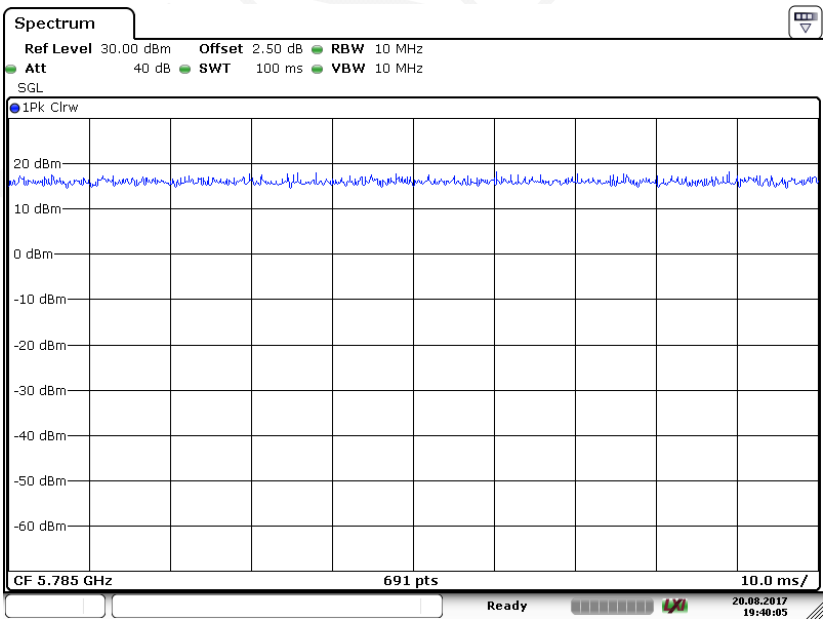
802.11n-HT40 mode Duty Cycle

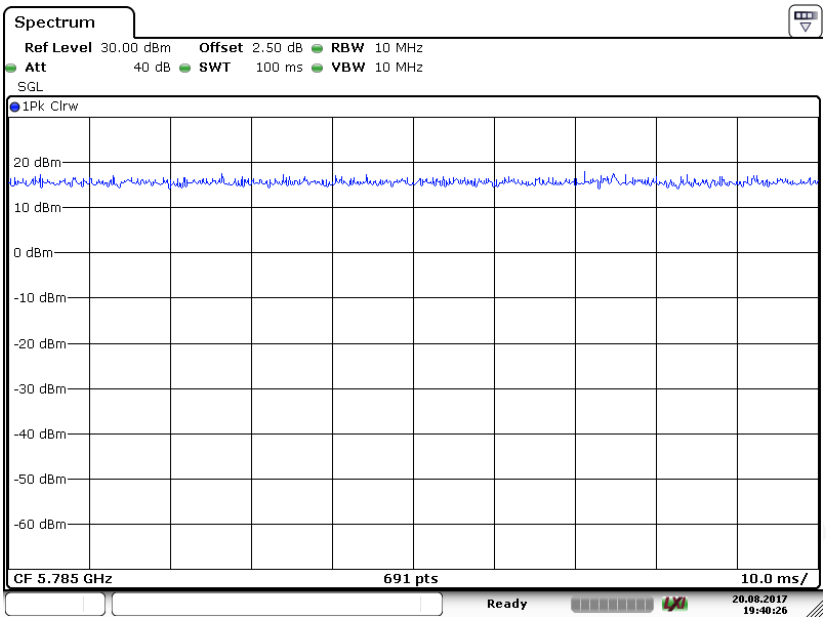


5725MHz-5850MHz Band:

802.11a mode Duty Cycle



802.11n-HT20 mode Duty Cycle



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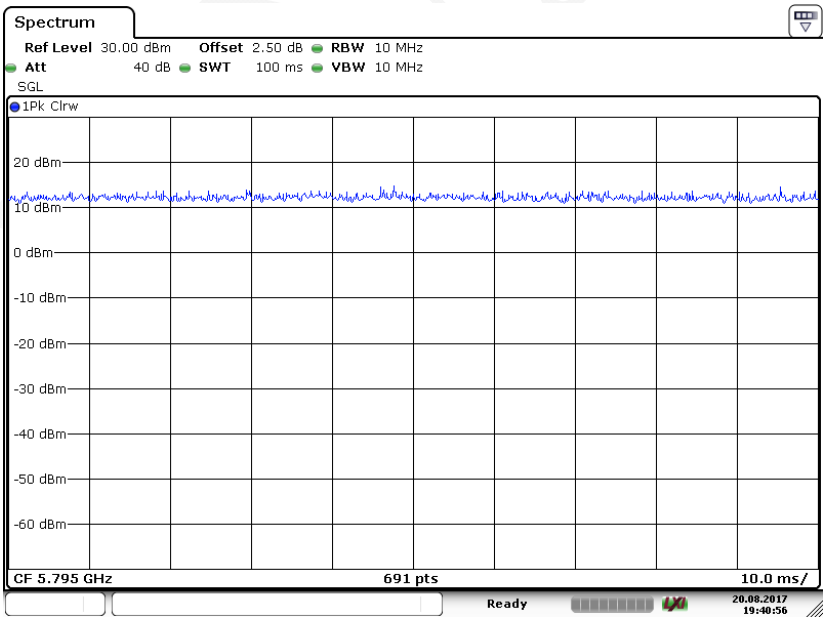
802.11n-HT40 mode Duty Cycle



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Mode	Frequency Range (MHz)	Duty Cycle (%)	T (ms)	1/T (kHz)	VBW Setting	10log(1/x)
802.11a	5150-5250	100	/	/	10Hz	0
802.11n-HT20		100	/	/	10Hz	0
802.11n-HT40		100	/	/	10Hz	0
802.11a	5725-5850	100	/	/	10Hz	0
802.11n-HT20		100	/	/	10Hz	0
802.11n-HT40		100	/	/	10Hz	0

Note: "x" means duty cycle.

Equipment Modifications

No modification was made to the EUT.

Support Equipment List and Details

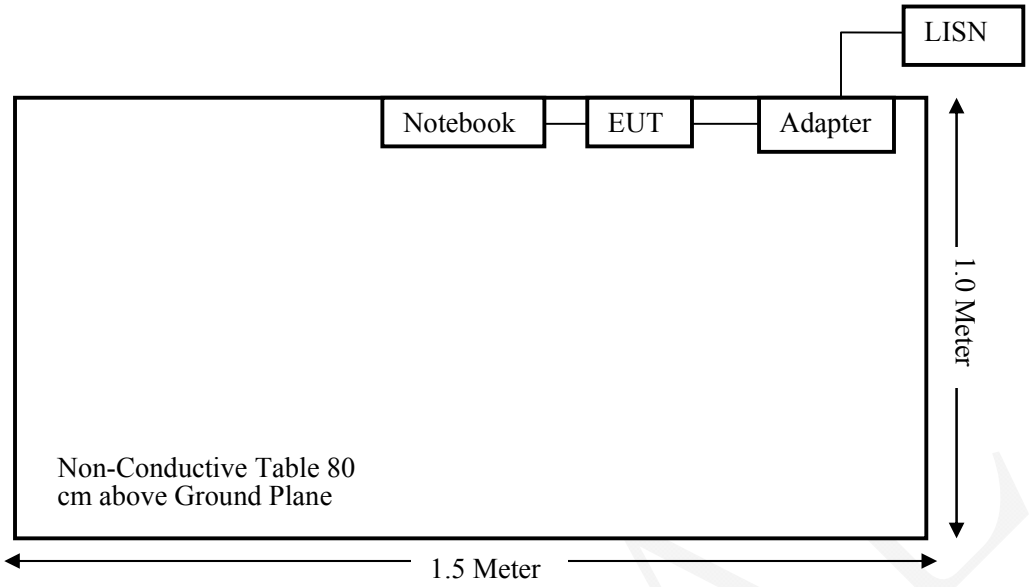
Manufacturer	Description	Model	Serial Number
DELL	Notebook	GX620	D65874152

External I/O Cable

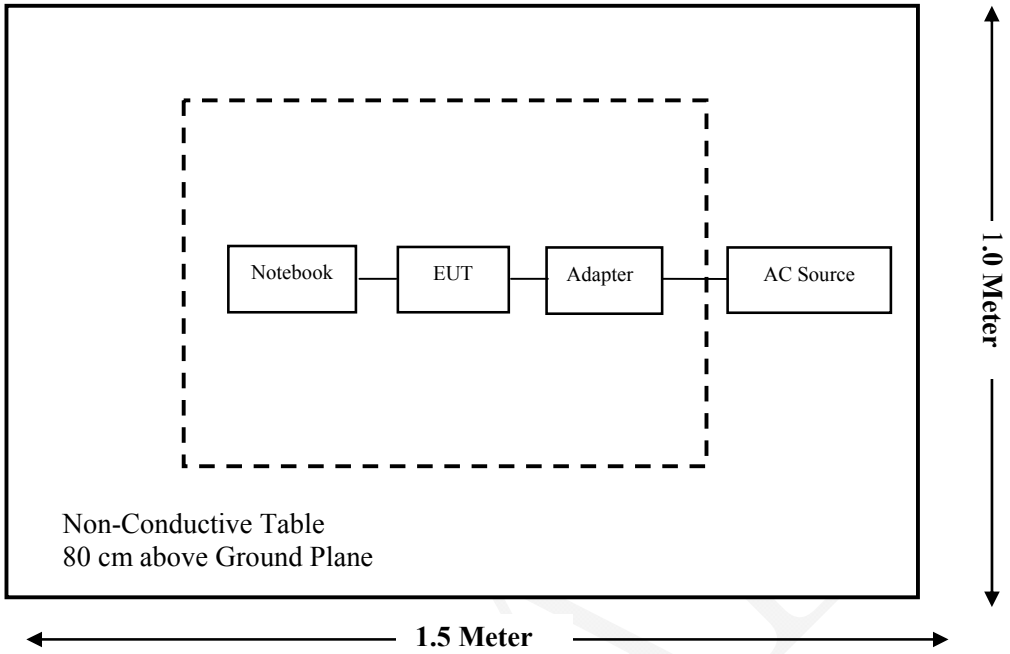
Cable Description	Shielding Type	Length (m)	From Port	To
RJ45 Cable	Un-shielding	1.0	Notebook	EUT

Block Diagram of Test Setup

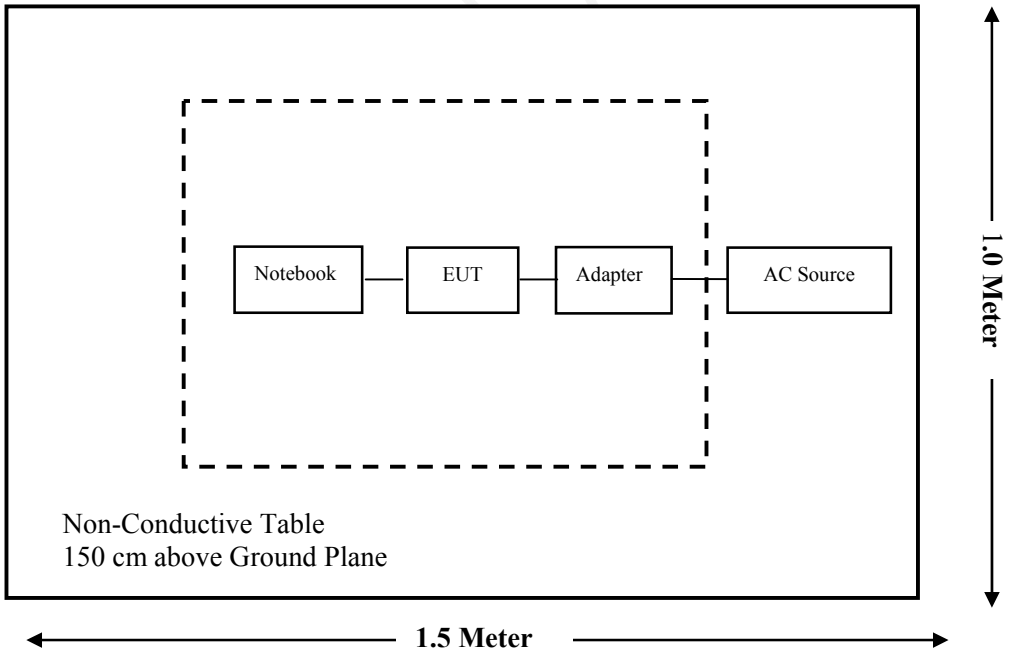
For Conducted Emissions:



For Radiated Emissions(Below 1GHz):



For Radiated Emissions(Above 1GHz):



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§15.407(f) & §2.1091	Maximum Permissible Exposure (MPE)	Compliance
§15.203	Antenna Requirement	Compliance
FCC §15.207 & §15.407(b) (6)	AC Power Line Conducted Emissions	Compliance
§15.205 & §15.209 & §15.407(b) (1) ,(6) ,(7)	Undesirable Emission & Restricted Bands	Compliance
§15.407(b) (1) (4)	Band Edge	Compliance
§15.407(a)(1) (5) & §15.407 (e)	Emission Bandwidth	Compliance
§15.407(g)	Frequency Stability	Compliance
§15.407 (a)(1)	Conducted Transmitter Output Power	Compliance
§15.407 (a)(1) (3)	Power Spectral Density	Compliance

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Emission Test（Chamber 1#）					
Rohde & Schwarz	EMI Test Receiver	ESCI	100195	2016-12-25	2017-12-24
Sunol Sciences	Broadband Antenna	JB3	A040914-2	2016-01-09	2019-01-08
Sonoma Instrunent	Pre-amplifier	310N	171205	2017-08-15	2018-08-14
Rohde & Schwarz	Auto test Software	EMC32	100361	/	/
MICRO-COAX	Coaxial Cable	Cable-8	008	2017-08-15	2018-08-14
MICRO-COAX	Coaxial Cable	Cable-9	009	2017-08-15	2018-08-14
MICRO-COAX	Coaxial Cable	Cable-10	010	2017-08-15	2018-08-14
Radiated Emission Test（Chamber 2#）					
Rohde & Schwarz	Signal Analyzer	FSIQ26	100048	2016-12-25	2017-12-24
Rohde & Schwarz	Signal Analyzer	FSV40	101116	2017-07-22	2018-07-21
ETS-LINDGREN	Horn Antenna	3115	6229	2016-01-11	2019-01-10
ETS-LINDGREN	Horn Antenna	3116	00084159	2016-10-18	2019-10-17
Narda	Pre-amplifier	AFS42-00101800	2001270	2016-12-22	2017-12-21
Heatsink Required	Amplifier	QLW-18405536-J0	15964001009	2016-12-22	2017-12-21
MICRO-TRONICS	Band Reject Filter	BRC50703	G094	2017-08-05	2018-08-04
MICRO-TRONICS	Band Reject Filter	BRC50705	G085	2017-08-05	2018-08-04
Narda	Attenuator/10dB	10dB	/	/	/
Rohde & Schwarz	Auto test Software	EMC32	100361	/	/
MICRO-COAX	Coaxial Cable	Cable-6	006	2017-08-15	2018-08-14
MICRO-COAX	Coaxial Cable	Cable-11	011	2017-08-15	2018-08-14
MICRO-COAX	Coaxial Cable	Cable-12	012	2017-08-15	2018-08-14
MICRO-COAX	Coaxial Cable	Cable-13	013	2017-08-15	2018-08-14
RF Conducted Test					
Rohde & Schwarz	Signal Analyzer	FSV40	101116	2017-07-22	2018-07-21
Agilent	Power Meter	N1912A	MY5000492	2017-05-16	2018-05-15
Agilent	Power Sensor	N1921A	MY54210024	2017-05-16	2018-05-15
BACL	Temperature & Humidity Chamber	BTH-150	30023	2017-07-20	2018-07-19
EAST	Regulated DC Power Supply	MCH-303D-II	14070562	2017-07-20	2018-07-19
Communication Networks	RF Cable	/	/	/	/

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Conducted Emission Test					
Rohde & Schwarz	EMI Test Receiver	ESCI	100195	2016-12-25	2017-12-24
Rohde & Schwarz	LISN	ESH3-Z5	862770/011	2016-10-10	2017-10-09
Rohde & Schwarz	LISN	ENV216	3560655016	2016-11-25	2017-11-24
Rohde & Schwarz	CE Test software	EMC32	100357	/	/
Narda	Attenuator/6dB	10690812-2	26850-6	2017-01-10	2018-01-09
MICRO-COAX	Coaxial Cable	Cable-15	015	2017-08-15	2018-08-14

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Kunshan) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

FCC §1.1310 & §2.1091- MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Applicable Standard

According to §2.1091 and §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

Limits for Maximum Permissible Exposure (MPE) (§1.1310, §2.1091)

(B) Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm^2)	Averaging Time (minutes)
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*($180/f^2$)	30
30–300	27.5	0.073	0.2	30
300–1500	/	/	f/1500	30
1500–100,000	/	/	1.0	30

f = frequency in MHz; * = Plane-wave equivalent power density;

According to §1.1310 and §2.1091 RF exposure is calculated.

Calculated Formulary:

Predication of MPE limit at a given distance
$S = PG/4\pi R^2$ = power density (in appropriate units, e.g. mW/cm^2);
P = power input to the antenna (in appropriate units, e.g., mW);
G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;
R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

Calculated Data:

Mode	Frequency Range (MHz)	Antenna Gain		Tune up Power		Evaluation Distance (cm)	Power Density (mW/cm^2)	MPE Limit (mW/cm^2)
		(dBi)	(numeric)	(dBm)	(mW)			
802.11a	5150-5250	19	79.43	10	10.00	100	0.0063	1.0
	5725-5850	19	79.43	14	25.12	100	0.0159	1.0
802.11n ht20	5150-5250	19	79.43	13	19.95	100	0.0126	1.0
	5725-5850	19	79.43	17	50.12	100	0.0317	1.0
802.11n ht40	5150-5250	19	79.43	13	19.95	100	0.0126	1.0
	5725-5850	19	79.43	17	50.12	100	0.0317	1.0
20MHz	4950-4980	19	79.43	20	100.00	100	0.0632	1.0

Note:

The tune up powers are declared by the Manufacturer.

Result:.The device meet FCC MPE at100cm distance.

FCC §15.203 – ANTENNA REQUIREMENT

Applicable Standard

According to § 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

a. Antenna must be permanently attached to the unit.
b. Antenna must use a unique type of connector to attach to the EUT.

Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.
And according to FCC 47 CFR section 15.407, if the transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Antenna Connector Construction

Model	Chain	Manufacturer	Antenna Type	Max. Antenna Gain
NW10	0	Communication Networks LLC	Cross-polarized antenna	19 dBi
	1	Communication Networks LLC	Cross-polarized antenna	19 dBi
NW10IN	0	Communication Networks LLC	Cross-polarized antenna	18 dBi
	1	Communication Networks LLC	Cross-polarized antenna	18 dBi
NW10/M	0	Communication Networks LLC	Cross-polarized antenna	16 dBi
	1	Communication Networks LLC	Cross-polarized antenna	16 dBi

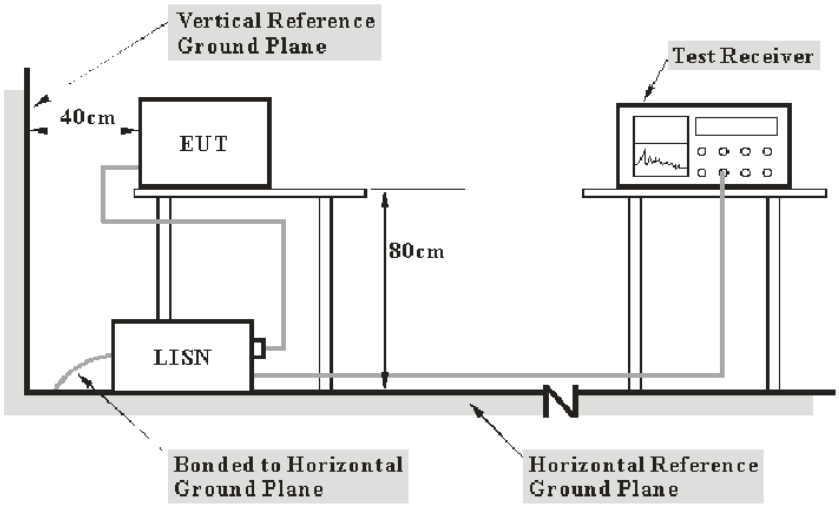
Result: Compliance.

FCC §15.407 (b) (6) §15.207 (a) – AC POWER LINE CONDUCTED EMISSIONS

Applicable Standard

FCC §15.207, §15.407(b) (6)

EUT Setup



Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.207 limits.

EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz

During the conducted emission test, the EMI test receiver was set with the following configurations:

Frequency Range	IF B/W
150 kHz – 30 MHz	9 kHz

Test Procedure

During the conducted emission test, the adapter was connected to the first LISN and the other support equipments were connected to the outlet of the second LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All data was recorded in the Quasi-peak and average detection mode.

Corrected Amplitude & Margin Calculation

The basic equation is as follows:

$V_C = V_R + A_C + VDF$
$C_f = A_C + VDF$

Herein,
V_C (cord. Reading): corrected voltage amplitude
V_R: reading voltage amplitude
A_c: attenuation caused by cable loss
VDF: voltage division factor of AMN
C_f: Correction Factor

The "**Margin**" column of the following data tables indicates the degree of compliance within the applicable limit. For example, a margin of 7dB means the emission is 7dB below the maximum limit. The equation for margin calculation is as follows:

Margin = Limit – Corrected Amplitude

Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Part 15.207.

Test Data

Environmental Conditions

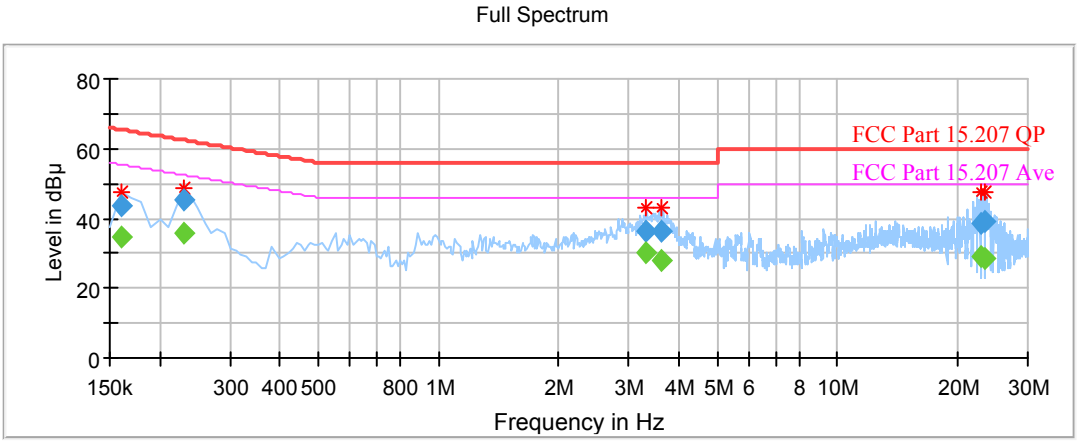
Temperature:	23.5 °C
Relative Humidity:	55 %
ATM Pressure:	100.3 kPa

The testing was performed by Chris Wang on 2017-08-16.

Test Mode: Transmitting in 802.11n40 (5150-5250) mode High channel of chain 1(worst case)

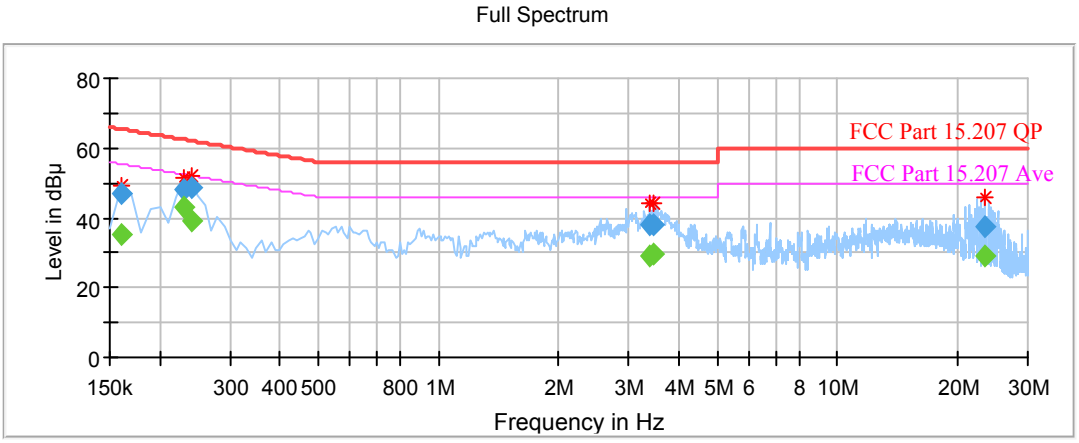
Note: Three models have been tested, the worst case (NW10) was reported.

AC 120V/60 Hz, Line



Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.160000	---	34.79	9.000	L1	16.1	20.67	55.46	Compliance
0.160000	43.91	---	9.000	L1	16.1	21.55	65.46	Compliance
0.230000	---	36.06	9.000	L1	16.0	16.39	52.45	Compliance
0.230000	45.13	---	9.000	L1	16.0	17.32	62.45	Compliance
3.320000	---	30.43	9.000	L1	15.9	15.57	46.00	Compliance
3.320000	36.38	---	9.000	L1	15.9	19.62	56.00	Compliance
3.620000	---	28.06	9.000	L1	15.9	17.94	46.00	Compliance
3.620000	36.51	---	9.000	L1	15.9	19.49	56.00	Compliance
22.910000	---	29.29	9.000	L1	16.5	20.71	50.00	Compliance
22.910000	38.47	---	9.000	L1	16.5	21.53	60.00	Compliance
23.540000	---	28.68	9.000	L1	16.5	21.32	50.00	Compliance
23.540000	38.91	---	9.000	L1	16.5	21.09	60.00	Compliance

AC 120V/60 Hz, Neutral



Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.160000	---	35.38	9.000	N	16.1	20.08	55.46	Compliance
0.160000	46.75	---	9.000	N	16.1	18.71	65.46	Compliance
0.230000	---	42.89	9.000	N	16.1	9.56	52.45	Compliance
0.230000	48.37	---	9.000	N	16.1	14.08	62.45	Compliance
0.240000	---	39.27	9.000	N	16.1	12.83	52.10	Compliance
0.240000	48.55	---	9.000	N	16.1	13.55	62.10	Compliance
3.380000	---	28.86	9.000	N	15.9	17.14	46.00	Compliance
3.380000	38.12	---	9.000	N	15.9	17.88	56.00	Compliance
3.460000	---	29.51	9.000	N	15.9	16.49	46.00	Compliance
3.460000	38.09	---	9.000	N	15.9	17.91	56.00	Compliance
23.440000	---	29.35	9.000	N	16.2	20.65	50.00	Compliance
23.440000	37.57	---	9.000	N	16.2	22.43	60.00	Compliance

Note:

1) Corr.=LISN VDF (Voltage Division Factor) + Cable Loss
2) Corrected Amplitude = Reading + Corr.
3) Margin = Limit –Corrected Amplitude

§15.205 & §15.209 & §15.407(B) (1),(6),(7) – UNDESIRABLE EMISSION & RESTRICTED BANDS

Applicable Standard

FCC §15.407 (b) (1), (6), (7); §15.209; §15.205;

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 EIRP of –27dBm/MHz

For transmitters operating in the 5.725-5.85 GHz band: 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.

As per FCC §15.35(d):Unless otherwise specified, on any frenquency or frequencies above 1000MHz,the radiated emission limits are based on the use of measurement instrunmentation employing an average detector function. Unless otherwise specified, measurements above 1000MHz shall be performed using a minimum resolution bandwidth of 1MHz.

According to KDB 789033 D02 General UNII Test Procedures New Rules v01, emission shall be computed as: E [dBμV/m] = EIRP[dBm] + 95.2, for d = 3 meters.

Measurement Uncertainty

Compliance or non- compliance with a disturbance limit shall be determined in the following manner：

If U_{lab} is less than or equal to U_{cispr} of Table 1, then:
–compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit;
–non - compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.
If U_{lab} is greater than U_{cispr} of Table 1, then:
–compliance is deemed to occur if no measured disturbance level, increased by ($U_{lab} - U_{cispr}$), exceeds the disturbance limit;
–non - compliance is deemed to occur if any measured disturbance level, increased by ($U_{lab} - U_{cispr}$), exceeds the disturbance limit.

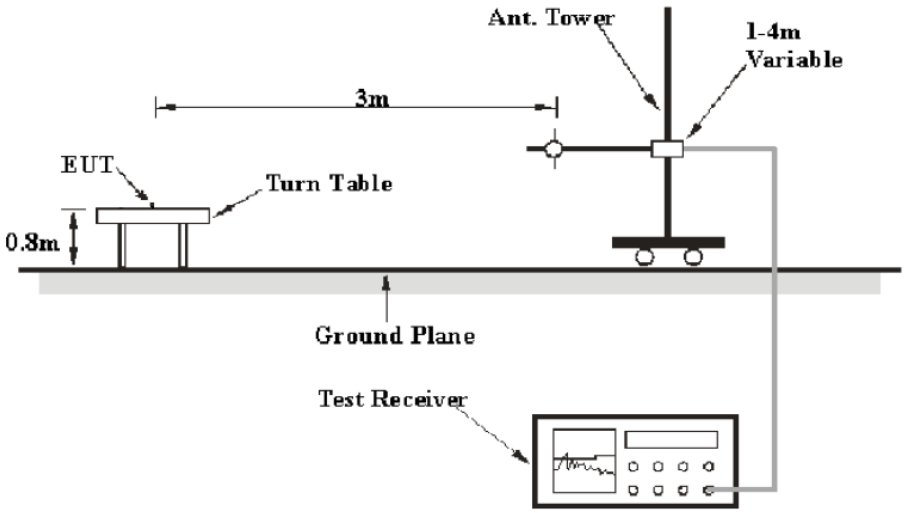
Based on CISPR 16-4-2: 2011, measurement uncertainty of radiated emission at a distance of 3m at Bay Area Compliance Laboratories Corp. (Kunshan) is:
30M~200MHz: 5.0 dB
200M~1GHz: 6.2 dB
1G~6GHz: 4.45 dB
6G~18GHz: 5.23 dB

Table 1 – Values of U_{cispr}

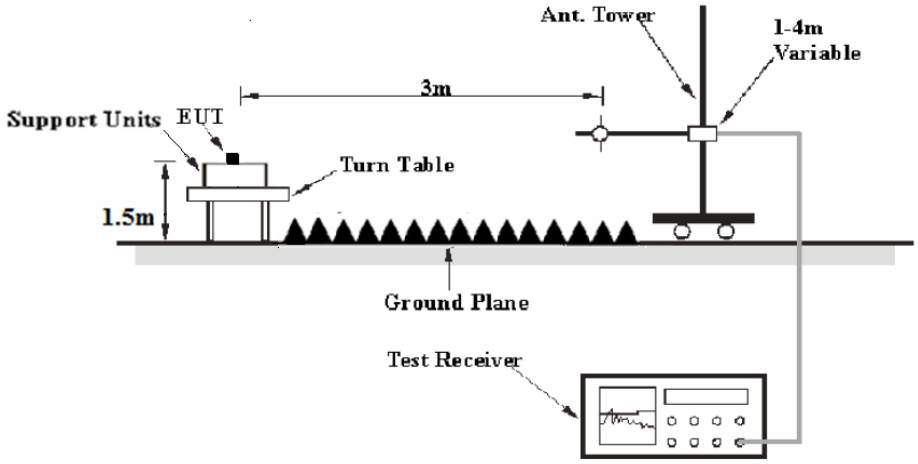
Measurement	U_{cispr}
Radiated disturbance (electric field strength at an OATS or in a SAC) (30 MHz to 1000 MHz)	6.3 dB
Radiated disturbance (electric field strength in a FAR) (1 GHz to 6 GHz)	5.2 dB
Radiated disturbance (electric field strength in a FAR) (6 GHz to 18 GHz)	5.5 dB

EUT Setup

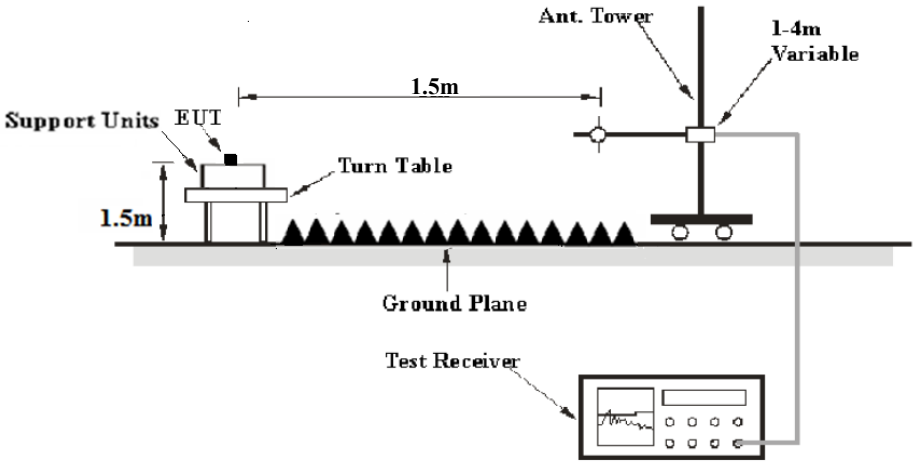
Below 1 GHz:



1 GHz-18GHz:



18 GHz-40GHz:



The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC 15.209 and FCC 15.407 limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 30 MHz to 40 GHz.

During the radiated emission test, the EMI test receiver Setup were set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Detector
30 MHz – 1000 MHz	120 kHz	300 kHz	120 kHz	QP
Above 1GHz	1MHz	3 MHz	/	PK
	1MHz	3 MHz	/	Ave.

Test Procedure

During the radiated emission test, the adapter was connected to the first AC floor outlet and the other support equipments were connected to the second AC floor outlet.

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

Data was recorded in Quasi-peak detection mode for frequency range of 30 MHz-1GHz, peak and Average detection modes for frequencies above 1GHz.

The Radiated measurements was performed, The EIRP converted to field strength as follows:

According to C63.4, the above 1G test result shall be extrapolated to the specified distance using an extrapolation factor of 20dB/decade from 3m to 1.5m
Distance extrapolation factor =20 log (specific distance [3m]/test distance [1.5m]) dB
Extrapolation result = Corrected Amplitude (dBμV/m) - distance extrapolation factor (6dB)
or Limit line = Specific limits(dBμV) + distance extrapolation factor (6dB)

Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Loss and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

Corrected Amplitude = Meter Reading + Antenna factor + Cable Loss - Amplifier Gain

The "**Margin**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

Margin = Limit –Extrapolation result

Test Data

Environmental Conditions

Temperature:	23.5 °C
Relative Humidity:	50 %
ATM Pressure:	101.2 kPa

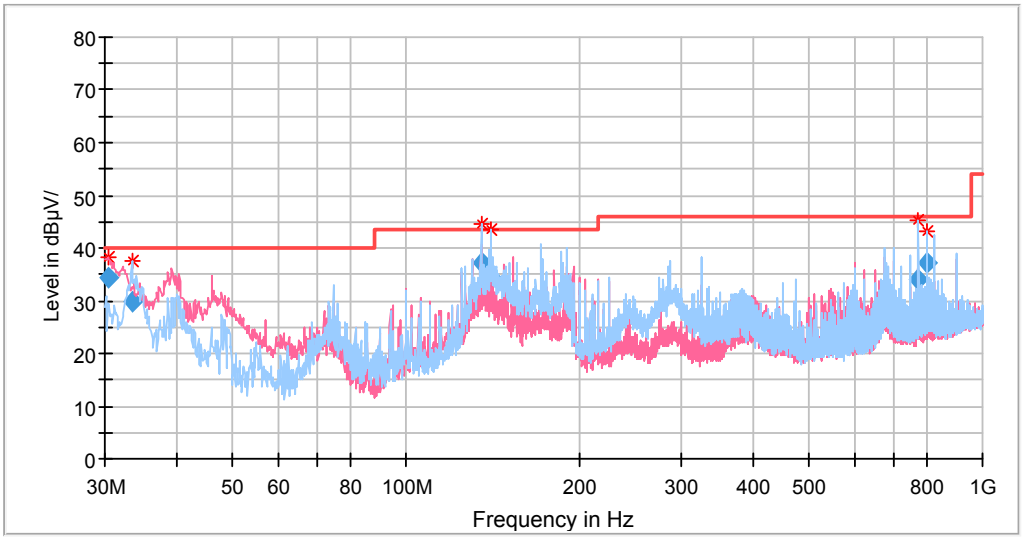
The testing was performed byChris Wang on 2017-08-20 and 2017-12-19.

Mode: Transmitting

Spurious Emission Test

30MHz-1GHz:

Pre-scan with 802.11a, 802.11n-HT20 and 802.11n-HT40 modes of operation in the X,Y and Z axes of orientation, the worst case 802.11n-HT40 mode in channel 5755 of NW10 in Y-axis of orientation was recorded



Frequency (MHz)	Corrected Amplitude	Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	QuasiPeak (dBµV/m)	Height (cm)	Polar (H/V)				
30.363750	34.39	101.0	V	331.0	-4.7	40.00	5.61
33.395000	29.99	199.0	H	165.0	-7.1	40.00	10.01
135.002500	37.20	199.0	H	280.0	-12.2	43.50	6.30
139.973750	34.26	101.0	H	234.0	-12.4	43.50	9.24
775.081250	33.90	101.0	H	19.0	-1.9	46.00	12.10
800.058750	37.29	101.0	H	13.0	-1.4	46.00	8.71

Spurious Emission Test for NW10:

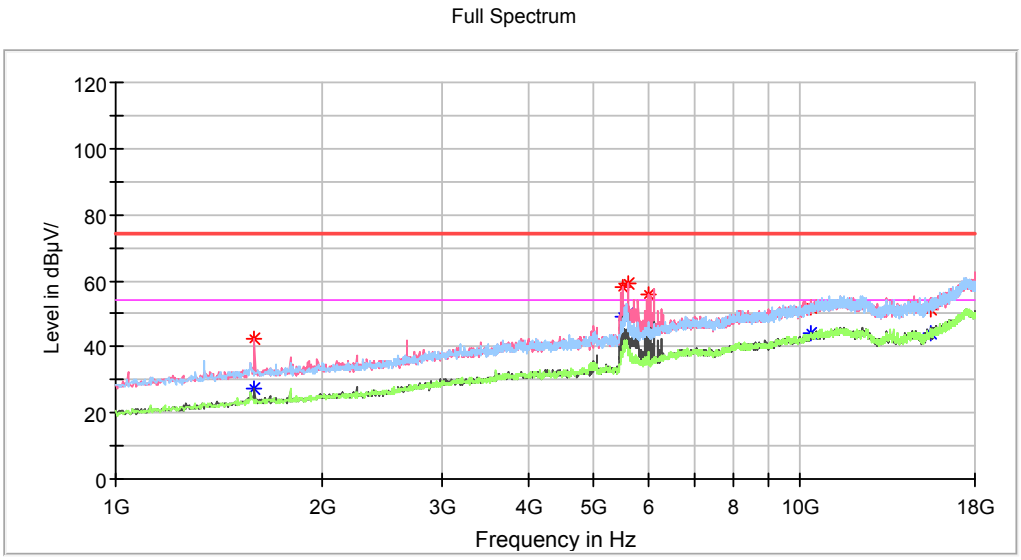
1GHz-18GHz (5150-5250MHz Band):

802.11a Mode:

Note:
1. This test was performed with the 5150-5350MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
   Corrected Amplitude = Corrected Factor + Reading
   Margin = Limit - Corrected. Amplitude

*Pre-scan with X,Y and Z axes of orientation, the worst case Chain 1 at vertical in **Y-axis of orientation** was recorded*

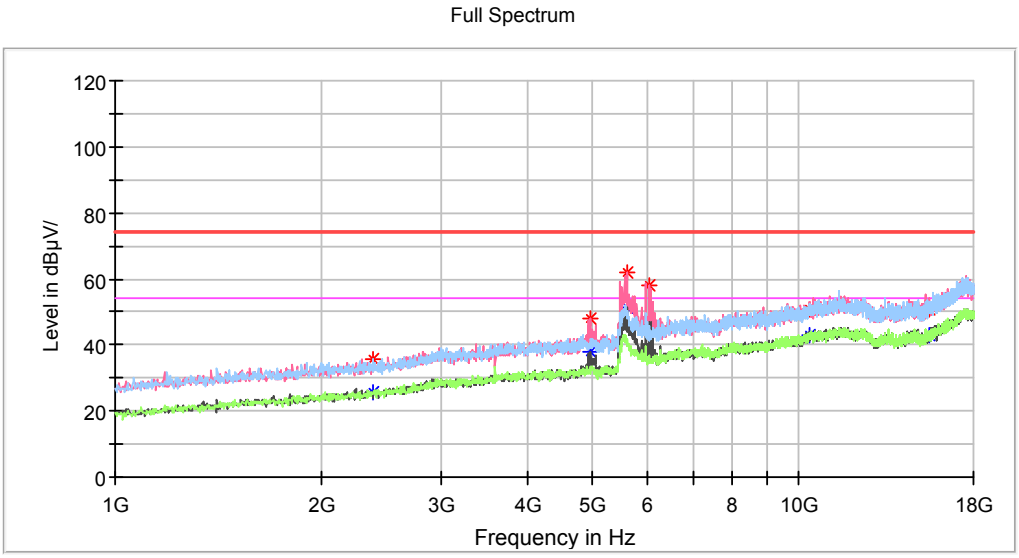
Low Channel: 5180MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1595.000000	---	27.42	241.0	V	324.0	-7.6	54.00	26.58
1595.000000	42.23	---	241.0	V	324.0	-7.6	74.00	31.77
5518.600000	---	49.17	184.0	V	353.0	4.1	54.00	4.83
5518.600000	58.20	---	184.0	V	353.0	4.1	74.00	15.80
5600.200000	58.97	---	191.0	V	353.0	4.4	74.00	15.03
5600.200000	---	50.05	191.0	V	353.0	4.4	54.00	3.95
5998.000000	---	45.09	144.0	V	353.0	5.7	54.00	8.91
5998.000000	55.87	---	144.0	V	353.0	5.7	74.00	18.13
10360.000000	52.09	---	185.0	V	191.0	16.4	74.00	21.91
10360.000000	---	43.84	185.0	V	191.0	16.4	54.00	10.16
15540.000000	51.54	---	227.0	H	168.0	16.3	74.00	22.46
15540.000000	---	43.88	227.0	H	168.0	16.3	54.00	10.12

*Pre-scan with X,Y and Z axes of orientation, the worst case Chain 1 at horizontal in **Y-axis of orientation** was recorded*

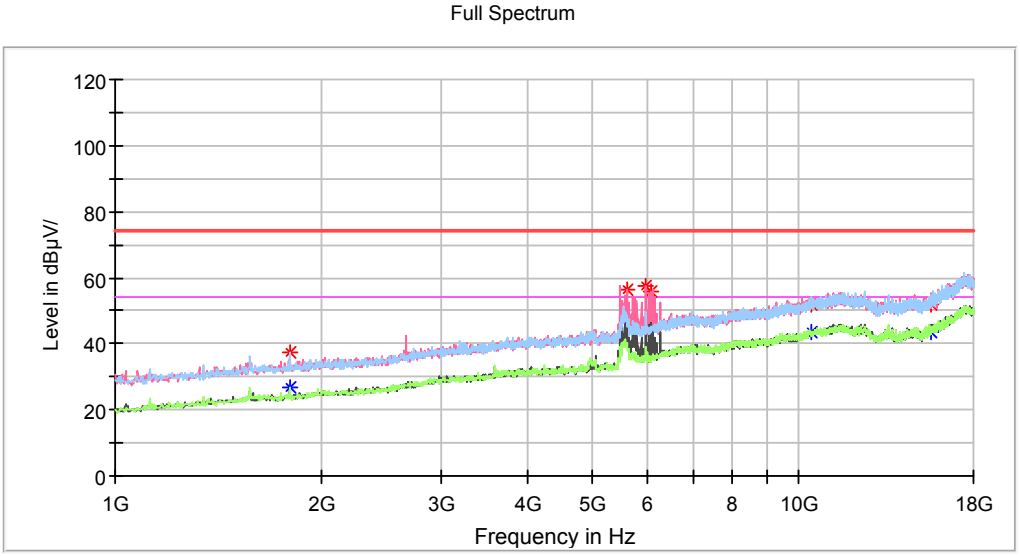
Low Channel: 5180MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
2383.800000	---	25.46	129.0	V	62.0	-4.9	54.00	28.54
2383.800000	35.51	---	129.0	V	62.0	-4.9	74.00	38.49
4957.600000	---	37.89	126.0	V	35.0	2.8	54.00	16.11
4957.600000	47.73	---	126.0	V	35.0	2.8	74.00	26.27
5600.200000	---	51.40	167.0	V	340.0	4.4	54.00	2.60
5600.200000	62.05	---	167.0	V	340.0	4.4	74.00	11.95
6038.800000	---	47.14	206.0	V	32.0	5.9	54.00	6.86
6038.800000	57.80	---	206.0	V	32.0	5.9	74.00	16.20
10360.000000	---	43.02	245.0	V	300.0	16.4	54.00	10.98
10360.000000	50.90	---	245.0	V	300.0	16.4	74.00	23.10
15540.000000	50.94	---	191.0	H	354.0	16.3	74.00	23.06
15540.000000	---	42.91	191.0	H	354.0	16.3	54.00	11.09

*Pre-scan with X,Y and Z axes of orientation, the worst case Chain 1 at vertical in **Y-axis of orientation** was recorded*

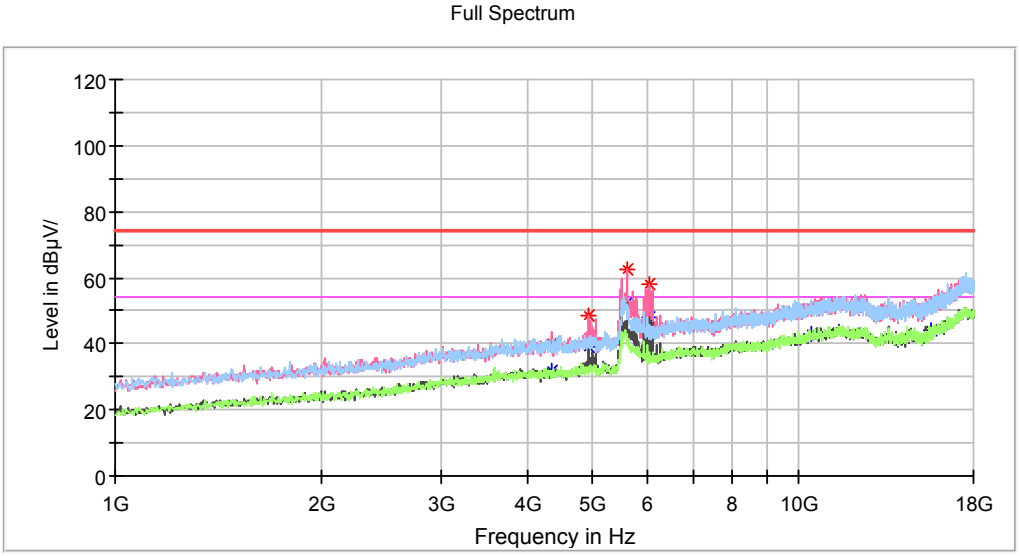
Middle Channel: 5200MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1799.000000	37.28	---	100.0	H	131.0	-6.8	74.00	36.72
1799.000000	---	26.95	100.0	H	131.0	-6.8	54.00	27.05
5600.200000	56.49	---	100.0	V	353.0	4.4	74.00	17.51
5600.200000	---	47.67	100.0	V	353.0	4.4	54.00	6.33
5960.600000	---	45.53	100.0	V	353.0	5.6	54.00	8.47
5960.600000	57.43	---	100.0	V	353.0	5.6	74.00	16.57
6079.600000	---	46.34	100.0	V	353.0	6.1	54.00	7.66
6079.600000	56.07	---	100.0	V	353.0	6.1	74.00	17.93
10400.000000	51.99	---	100.0	H	223.0	16.6	74.00	22.01
10400.000000	---	43.81	100.0	H	223.0	16.6	54.00	10.19
15600.000000	51.74	---	100.0	V	0.0	16.5	74.00	22.26
15600.000000	---	43.51	100.0	V	0.0	16.5	54.00	10.49

*Pre-scan with X,Y and Z axes of orientation, the worst case Chain 1 at horizontal in **Y-axis of orientation** was recorded*

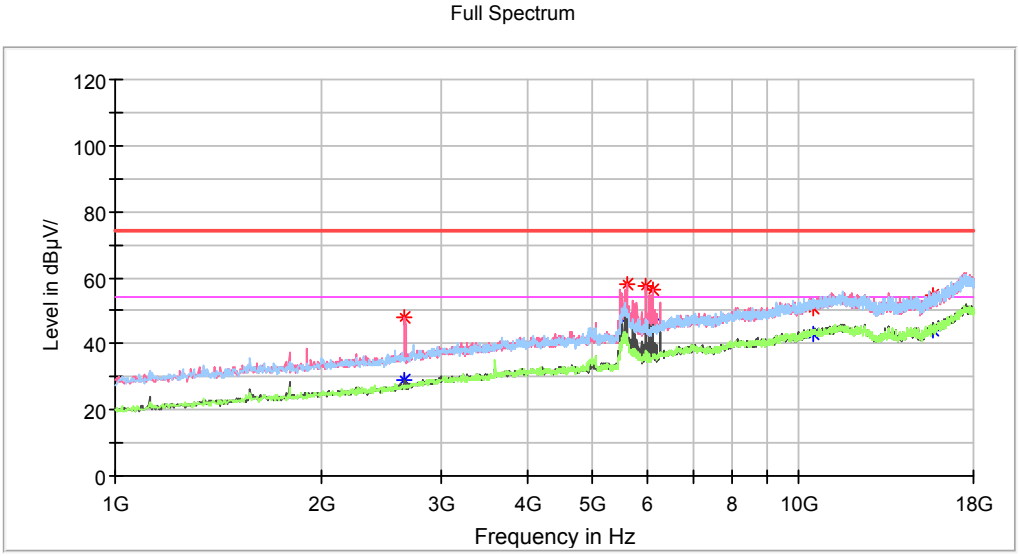
Middle Channel: 5200MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
4345.600000	40.36	---	170.0	H	118.0	1.5	74.00	33.64
4345.600000	---	31.77	170.0	H	118.0	1.5	54.00	22.23
4920.200000	---	39.07	138.0	V	145.0	2.7	54.00	14.93
4920.200000	48.63	---	138.0	V	145.0	2.7	74.00	25.37
5600.200000	---	51.62	242.0	V	92.0	4.4	54.00	2.38
5600.200000	62.52	---	242.0	V	92.0	4.4	74.00	11.48
6038.800000	---	47.87	239.0	V	144.0	5.9	54.00	6.13
6038.800000	57.95	---	239.0	V	144.0	5.9	74.00	16.05
10400.000000	50.55	---	181.0	H	234.0	16.6	74.00	23.45
10400.000000	---	43.10	181.0	H	234.0	16.6	54.00	10.90
15600.000000	51.15	---	227.0	V	117.0	16.3	74.00	22.85
15600.000000	---	43.83	227.0	V	117.0	16.3	54.00	10.17

*Pre-scan with X,Y and Z axes of orientation, the worst case Chain 1 at vertical in **Y-axis of orientation** was recorded*

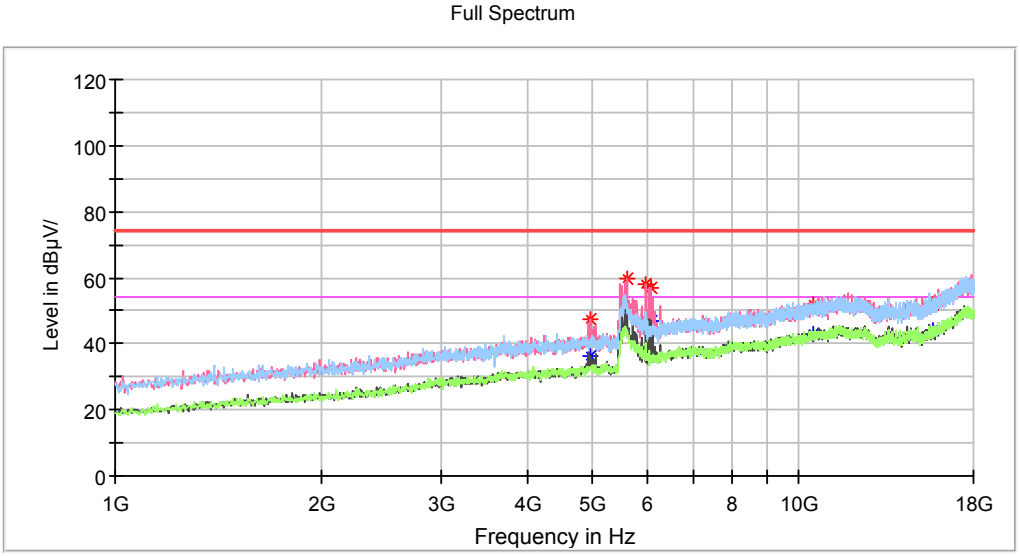
High Channel: 5240MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
2655.800000	---	28.84	146.0	V	246.0	-3.8	54.00	25.16
2655.800000	47.73	---	146.0	V	246.0	-3.8	74.00	26.27
5600.200000	---	48.23	137.0	V	72.0	4.4	54.00	5.77
5600.200000	57.87	---	137.0	V	72.0	4.4	74.00	16.13
5960.600000	---	45.65	111.0	V	52.0	5.6	54.00	8.35
5960.600000	57.22	---	111.0	V	52.0	5.6	74.00	16.78
6120.400000	---	45.52	147.0	V	328.0	6.3	54.00	8.48
6120.400000	56.23	---	147.0	V	328.0	6.3	74.00	17.77
10480.000000	---	43.16	105.0	H	306.0	16.9	54.00	10.84
10480.000000	50.57	---	105.0	H	306.0	16.9	74.00	23.43
15720.000000	---	43.85	110.0	V	204.0	16.8	54.00	10.15
15720.000000	54.51	---	110.0	V	204.0	16.8	74.00	19.49

*Pre-scan with X,Y and Z axes of orientation, the worst case Chain 1 at horizontal in **Y-axis of orientation** was recorded*

High Channel: 5240MHz



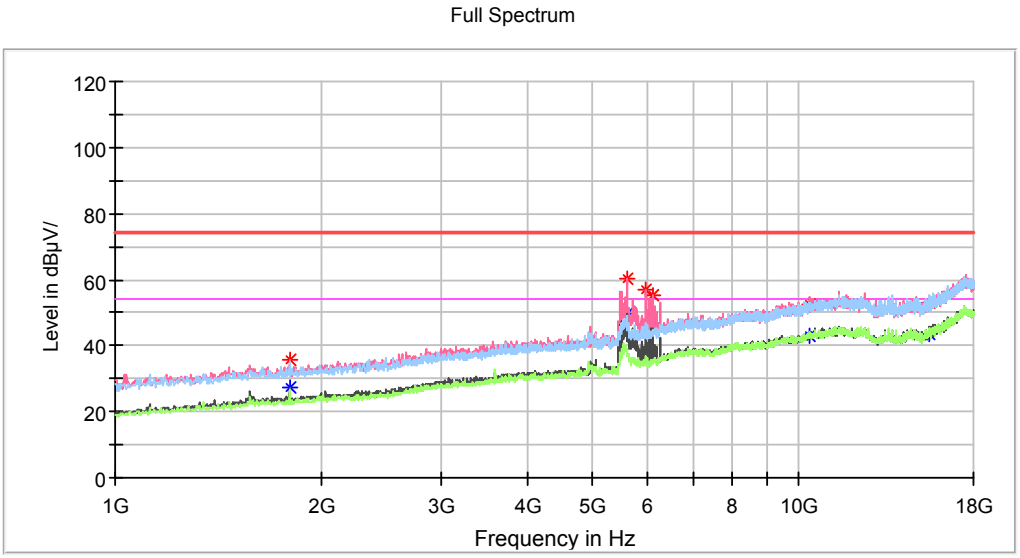
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
4957.600000	---	36.47	206.0	V	77.0	2.8	54.00	17.53
4957.600000	47.35	---	206.0	V	77.0	2.8	74.00	26.65
5600.200000	---	50.00	243.0	V	82.0	4.4	54.00	4.00
5600.200000	59.90	---	243.0	V	82.0	4.4	74.00	14.10
5960.600000	---	46.57	146.0	V	207.0	5.6	54.00	7.43
5960.600000	58.18	---	146.0	V	207.0	5.6	74.00	15.82
6079.600000	---	46.76	224.0	V	103.0	6.1	54.00	7.24
6079.600000	56.72	---	224.0	V	103.0	6.1	74.00	17.28
10480.000000	51.88	---	133.0	H	232.0	16.9	74.00	22.12
10480.000000	---	42.99	133.0	H	232.0	16.9	54.00	11.01
15720.000000	51.94	---	172.0	V	27.0	16.8	74.00	22.06
15720.000000	---	43.89	172.0	V	27.0	16.8	54.00	10.11

802.11n-HT20 Mode:

Note:
1. This test was performed with the 5150-5350MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
   Corrected Amplitude = Corrected Factor + Reading
   Margin = Limit - Corrected. Amplitude

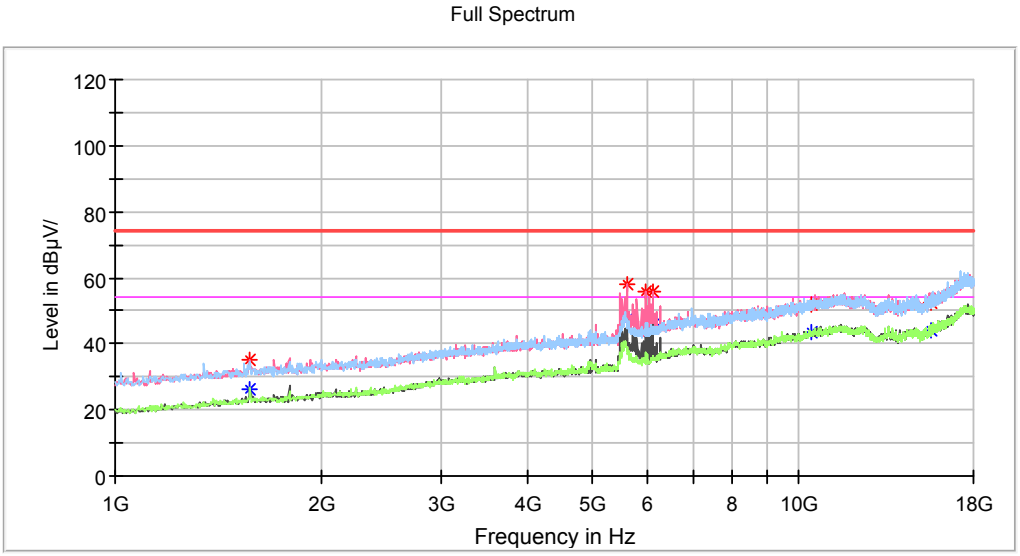
*Pre-scan with X,Y and Z axes of orientation, the worst case **Y-axis of orientation** was recorded*

Low Channel: 5180MHz



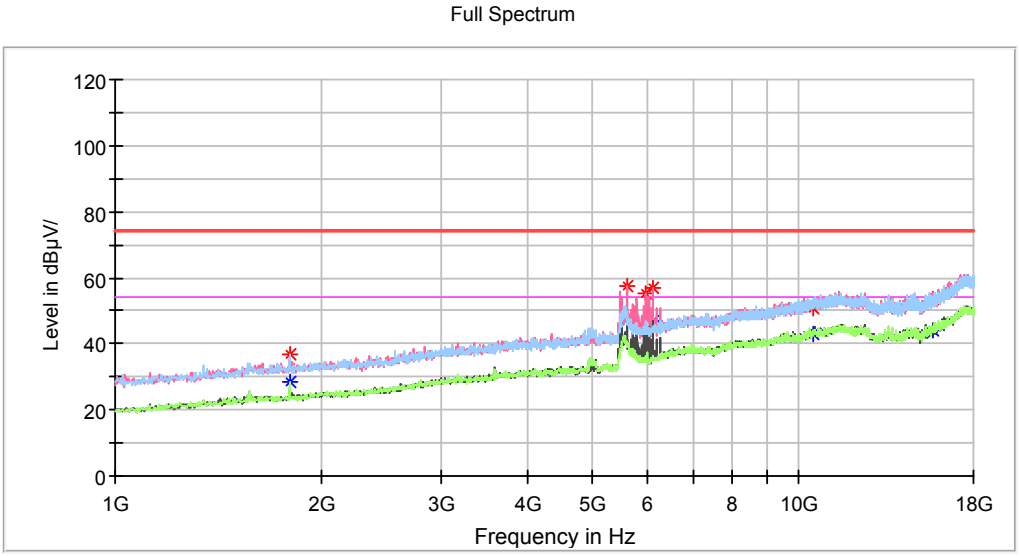
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1799.000000	35.90	---	100.0	V	229.0	-6.8	74.00	38.10
1799.000000	---	27.12	100.0	V	229.0	-6.8	54.00	26.88
5600.200000	60.14	---	150.0	V	353.0	4.4	74.00	13.86
5600.200000	---	49.56	150.0	V	353.0	4.4	54.00	4.44
5960.600000	57.15	---	100.0	V	353.0	5.6	74.00	16.85
5960.600000	---	45.13	100.0	V	353.0	5.6	54.00	8.87
6120.400000	55.28	---	200.0	V	353.0	6.3	74.00	18.72
6120.400000	---	44.94	200.0	V	353.0	6.3	54.00	9.06
10360.000000	52.27	---	250.0	V	324.0	16.4	74.00	21.73
10360.000000	---	43.16	250.0	V	324.0	16.4	54.00	10.84
15540.000000	---	43.57	100.0	H	277.0	16.3	54.00	10.43
15540.000000	52.90	---	100.0	H	277.0	16.3	74.00	21.10

Middle Channel: 5200MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1574.600000	35.17	---	100.0	V	249.0	-7.7	74.00	38.83
1574.600000	---	26.37	100.0	V	249.0	-7.7	54.00	27.63
5600.200000	58.01	---	200.0	V	353.0	4.4	74.00	15.99
5600.200000	---	47.71	200.0	V	353.0	4.4	54.00	6.29
5960.600000	55.72	---	100.0	V	353.0	5.6	74.00	18.28
5960.600000	---	43.94	100.0	V	353.0	5.6	54.00	10.06
6120.400000	55.98	---	200.0	V	353.0	6.3	74.00	18.02
6120.400000	---	45.73	200.0	V	353.0	6.3	54.00	8.27
10400.000000	51.78	---	100.0	V	156.0	16.6	74.00	22.22
10400.000000	---	43.59	100.0	V	156.0	16.6	54.00	10.41
15600.000000	52.42	---	150.0	V	1.0	16.4	74.00	21.58
15600.000000	---	43.94	150.0	V	1.0	16.4	54.00	10.06

High Channel: 5240MHz



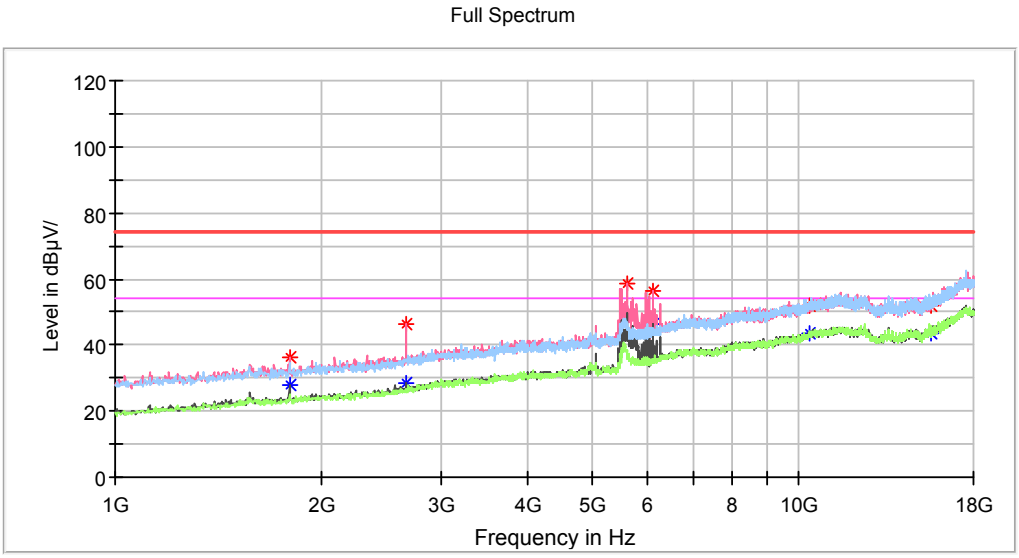
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1799.000000	---	28.26	150.0	H	132.0	-6.8	54.00	25.74
1799.000000	36.94	---	150.0	H	132.0	-6.8	74.00	37.06
5600.200000	57.65	---	100.0	V	353.0	4.4	74.00	16.35
5600.200000	---	47.71	100.0	V	353.0	4.4	54.00	6.29
5960.600000	---	44.16	200.0	V	353.0	5.6	54.00	9.84
5960.600000	54.99	---	200.0	V	353.0	5.6	74.00	19.01
6120.400000	---	46.72	100.0	V	353.0	6.3	54.00	7.28
6120.400000	56.86	---	100.0	V	353.0	6.3	74.00	17.14
10480.000000	---	43.22	200.0	H	358.0	16.9	54.00	10.78
10480.000000	50.85	---	200.0	H	358.0	16.9	74.00	23.15
15720.000000	---	44.19	100.0	V	23.0	16.8	54.00	9.81
15720.000000	53.54	---	100.0	V	23.0	16.8	74.00	20.46

802.11n-HT40 Mode:

Note:
1. This test was performed with the 5150-5350MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
   Corrected Amplitude = Corrected Factor + Reading
   Margin = Limit - Corrected. Amplitude

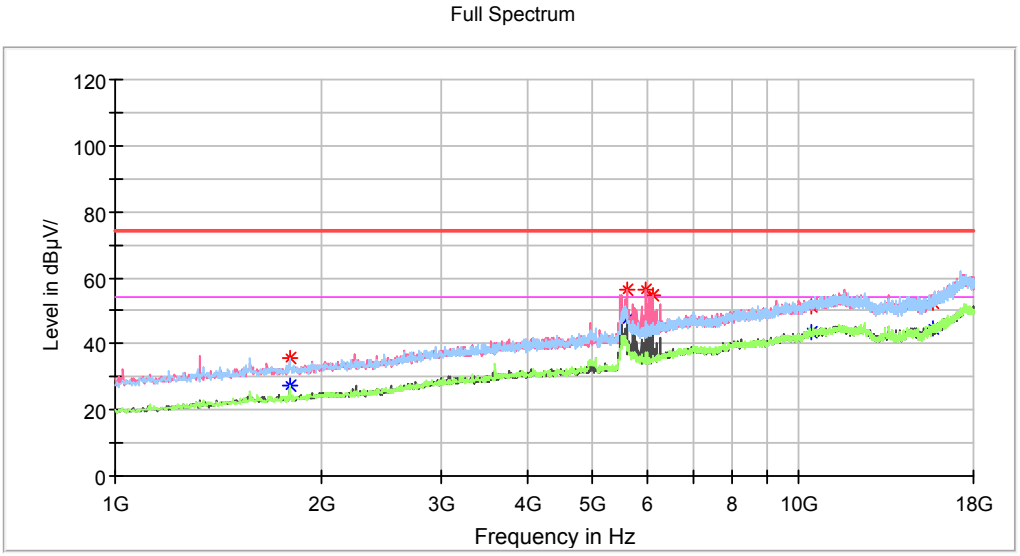
*Pre-scan with X,Y and Z axes of orientation, the worst case **Y-axis of orientation** was recorded*

Low Channel: 5190MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1799.000000	---	27.69	100.0	V	229.0	-6.8	54.00	26.31
1799.000000	36.44	---	100.0	V	229.0	-6.8	74.00	37.56
2662.600000	---	28.33	150.0	V	305.0	-3.8	54.00	25.67
2662.600000	46.18	---	150.0	V	305.0	-3.8	74.00	27.82
5600.200000	---	49.77	100.0	V	353.0	4.4	54.00	4.23
5600.200000	58.80	---	100.0	V	353.0	4.4	74.00	15.20
6120.400000	---	46.56	200.0	V	353.0	6.3	54.00	7.44
6120.400000	56.48	---	200.0	V	353.0	6.3	74.00	17.52
10380.600000	51.70	---	100.0	H	202.0	16.5	74.00	22.30
10380.600000	---	43.72	100.0	H	202.0	16.5	54.00	10.28
15570.000000	51.88	---	150.0	V	92.0	16.4	74.00	22.12
15570.000000	---	43.54	150.0	V	92.0	16.4	54.00	10.46

High Channel: 5230MHz

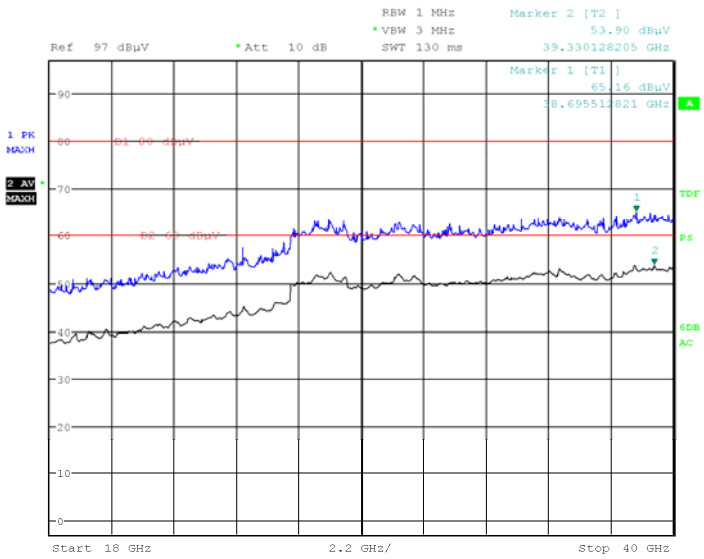


Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1799.000000	---	27.41	100.0	H	126.0	-6.8	54.00	26.59
1799.000000	35.81	---	100.0	H	126.0	-6.8	74.00	38.19
5600.200000	---	47.61	200.0	V	351.0	4.4	54.00	6.39
5600.200000	56.14	---	200.0	V	351.0	4.4	74.00	17.86
5960.600000	---	44.74	200.0	V	351.0	5.6	54.00	9.26
5960.600000	56.54	---	200.0	V	351.0	5.6	74.00	17.46
6120.400000	---	44.92	100.0	V	351.0	6.3	54.00	9.08
6120.400000	54.62	---	100.0	V	351.0	6.3	74.00	19.38
10460.000000	51.54	---	150.0	H	305.0	16.8	74.00	22.46
10460.000000	---	43.40	150.0	H	305.0	16.8	54.00	10.60
15690.000000	52.39	---	100.0	V	283.0	16.7	74.00	21.61
15690.000000	---	44.88	100.0	V	283.0	16.7	54.00	9.12

18GHz-40GHz (5150-5250MHz Band):

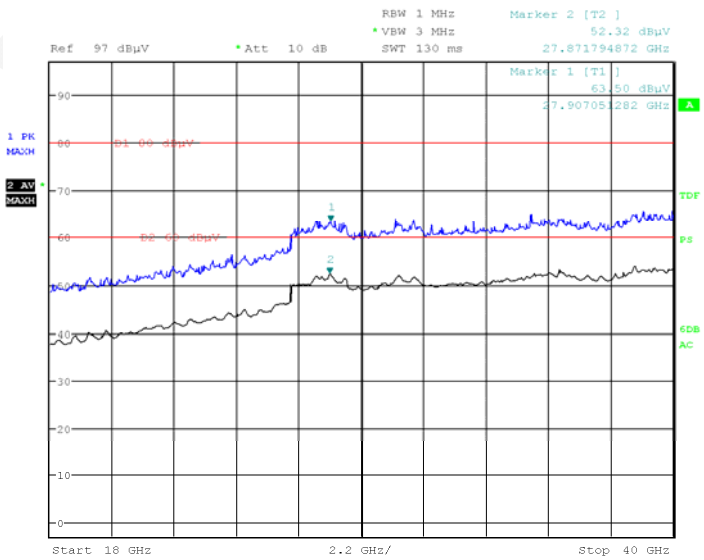
Pre-scan with 802.11a, 802.11n-HT20 and 802.11n-HT40 modes of operation in the X,Y and Z axes of orientation, the worst case ***high channel of 802.11n-HT40 mode in Y-axis of orientation*** *was recorded*
Note: The test distance is 1.5m, The limit 74dBuv/m@3m= 80 dBuv/m@1.5m

Horizontal



Date: 19.DEC.2017 11:03:50

Vertical



Date: 19.DEC.2017 11:05:26

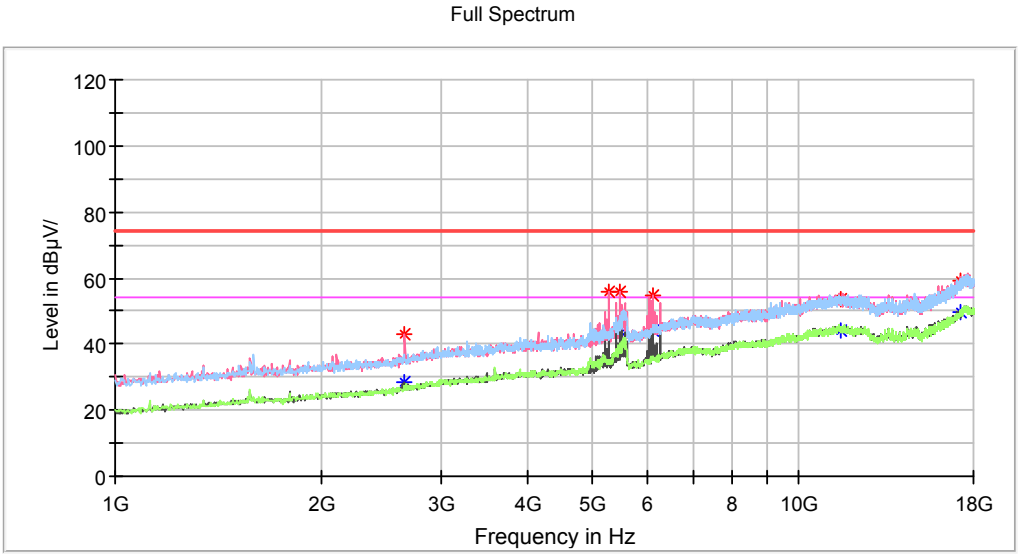
1GHz-18GHz (5745-5825 Band):

802.11a Mode:

Note:
1. This test was performed with the 5725-5875MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
   Corrected Amplitude = Corrected Factor + Reading
   Margin = Limit - Corrected. Amplitude

*Pre-scan with X,Y and Z axes of orientation, the worst case Chain 0 at vertical in **Y-axis of orientation** was recorded*

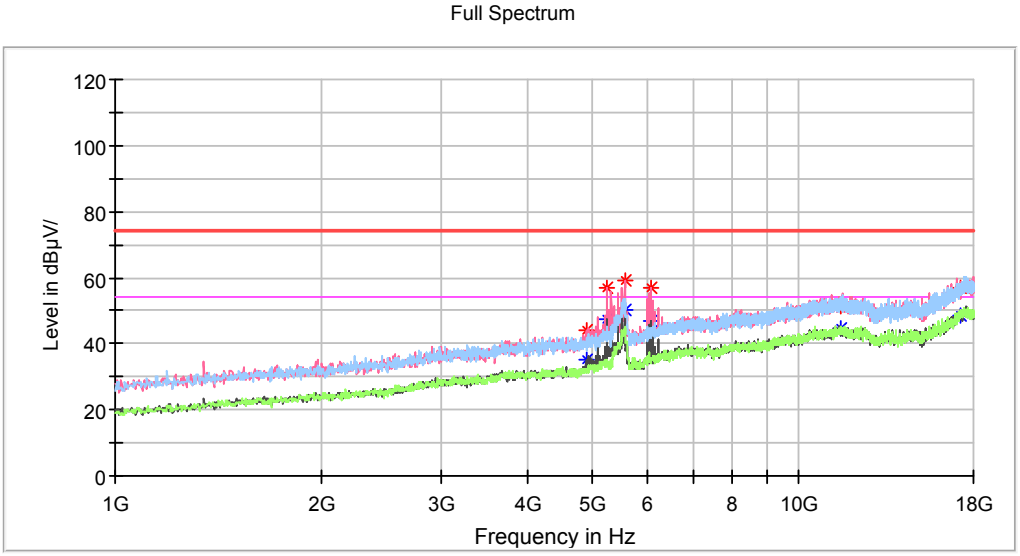
Low Channel: 5745MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
2655.800000	---	28.57	150.0	V	23.0	-3.8	54.00	25.43
2655.800000	42.84	---	150.0	V	23.0	-3.8	74.00	31.16
5280.600000	---	43.53	200.0	V	353.0	3.5	54.00	10.47
5280.600000	55.87	---	200.0	V	353.0	3.5	74.00	18.13
5477.800000	---	43.96	150.0	V	353.0	4.0	54.00	10.04
5477.800000	55.71	---	150.0	V	353.0	4.0	74.00	18.29
6120.400000	---	44.15	200.0	V	353.0	6.3	54.00	9.85
6120.400000	54.88	---	200.0	V	353.0	6.3	74.00	19.12
11490.000000	---	44.00	150.0	H	328.0	18.2	54.00	10.00
11490.000000	53.40	---	150.0	H	328.0	18.2	74.00	20.60
17235.000000	---	49.56	200.0	H	203.0	22.3	54.00	4.44
17235.000000	59.10	---	200.0	H	203.0	22.3	74.00	14.90

*Pre-scan with X,Y and Z axes of orientation, the worst case Chain 0 at horizontal in **Y-axis of orientation** was recorded*

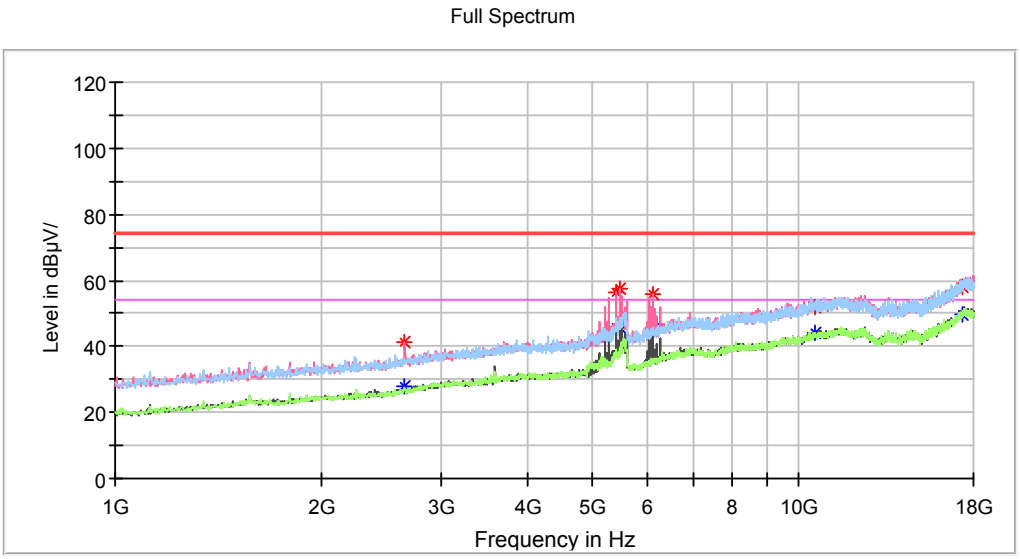
Low Channel: 5745MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
4879.400000	---	35.39	204.0	V	330.0	2.6	54.00	18.61
4879.400000	44.32	---	204.0	V	330.0	2.6	74.00	29.68
5239.800000	---	47.46	141.0	V	19.0	3.5	54.00	6.54
5239.800000	56.94	---	141.0	V	19.0	3.5	74.00	17.06
5559.400000	---	50.29	161.0	V	126.0	4.2	54.00	3.71
5559.400000	59.29	---	161.0	V	126.0	4.2	74.00	14.71
6079.600000	---	47.01	218.0	V	353.0	6.1	54.00	6.99
6079.600000	56.88	---	218.0	V	353.0	6.1	74.00	17.12
11490.000000	51.19	---	140.0	H	266.0	18.2	74.00	22.81
11490.000000	---	44.41	140.0	H	266.0	18.2	54.00	9.59
17235.000000	57.20	---	241.0	H	339.0	22.3	74.00	16.80
17235.000000	---	48.79	241.0	H	339.0	22.3	54.00	5.21

*Pre-scan with X,Y and Z axes of orientation, the worst case Chain 0 at vertical in **Y-axis of orientation** was recorded*

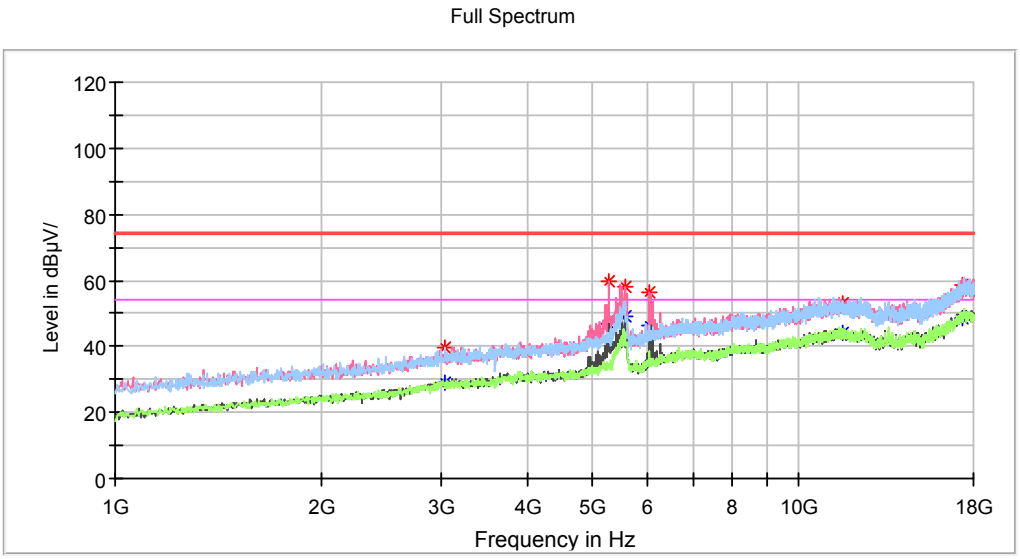
Middle Channel: 5785MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
2655.800000	41.18	---	150.0	V	17.0	-3.8	74.00	32.82
2655.800000	---	27.89	150.0	V	17.0	-3.8	54.00	26.11
5399.600000	56.43	---	200.0	V	353.0	3.8	74.00	17.57
5399.600000	---	46.01	200.0	V	353.0	3.8	54.00	7.99
5477.800000	57.33	---	150.0	V	353.0	4.0	74.00	16.67
5477.800000	---	45.82	150.0	V	353.0	4.0	54.00	8.18
6120.400000	55.65	---	200.0	V	353.0	6.3	74.00	18.35
6120.400000	---	45.32	200.0	V	353.0	6.3	54.00	8.68
10570.000000	52.17	---	150.0	H	215.0	17.0	74.00	21.83
10570.000000	---	44.09	150.0	H	215.0	17.0	54.00	9.91
17355.000000	57.79	---	150.0	H	350.0	22.9	74.00	16.21
17355.000000	---	49.85	150.0	H	350.0	22.9	54.00	4.15

*Pre-scan with X,Y and Z axes of orientation, the worst case Chain 0 at horizontal in **Y-axis of orientation** was recorded*

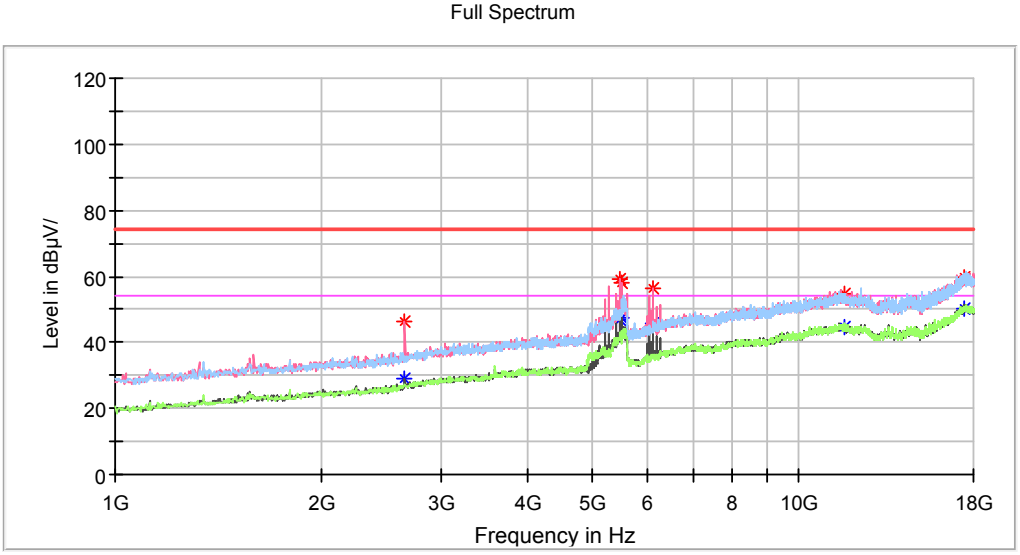
Middle Channel: 5785MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
3033.200000	---	29.18	174	V	106	-2.0	54.00	24.82
3033.200000	39.65	---	174	V	106	-2.0	74.00	34.35
5280.600000	---	46.76	138	V	205	3.5	54.00	7.24
5280.600000	59.79	---	138	V	205	3.5	74.00	14.21
5559.400000	---	49.21	217	V	183	4.2	54.00	4.79
5559.400000	57.92	---	217	V	183	4.2	74.00	16.08
6038.800000	---	46.60	224	V	343	5.9	54.00	7.40
6038.800000	56.51	---	224	V	343	5.9	74.00	17.49
10570.000000	53.00	---	132	H	334	18.0	74.00	21.00
10570.000000	---	44.24	132	H	334	18.0	54.00	9.76
17355.000000	---	48.48	209	H	231	22.9	54.00	5.52
17355.000000	58.35	---	209	H	231	22.9	74.00	15.65

*Pre-scan with X,Y and Z axes of orientation, the worst case Chain 0 at vertical in **Y-axis of orientation** was recorded*

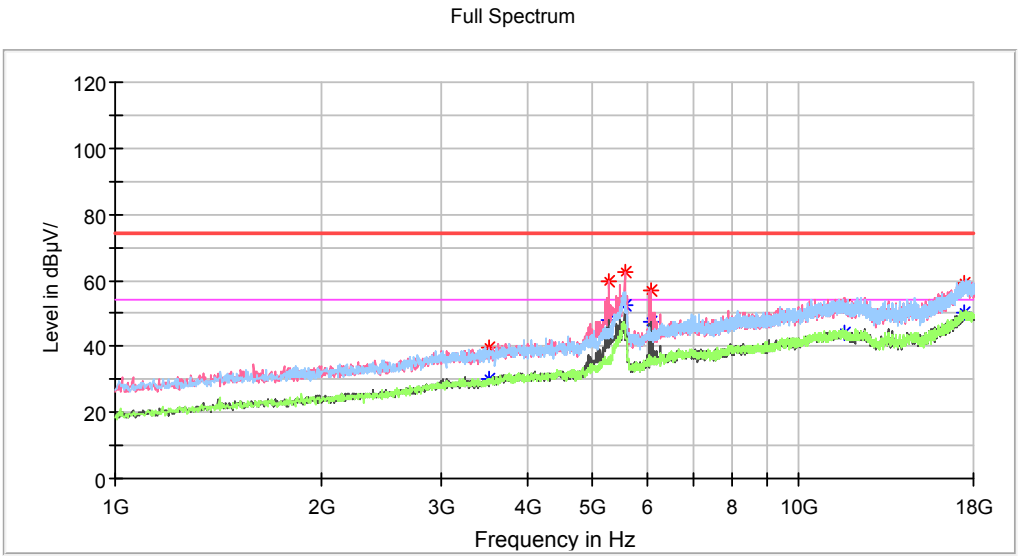
High Channel: 5825MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
2655.800000	---	28.97	200.0	V	184.0	-3.8	54.00	25.03
2655.800000	46.17	---	200.0	V	184.0	-3.8	74.00	27.83
5477.800000	---	46.69	200.0	V	353.0	4.0	54.00	7.31
5477.800000	59.15	---	200.0	V	353.0	4.0	74.00	14.85
5518.600000	57.77	---	200.0	V	353.0	4.1	74.00	16.23
5518.600000	---	47.71	200.0	V	353.0	4.1	54.00	6.29
6120.400000	---	45.87	150.0	V	353.0	6.3	54.00	8.13
6120.400000	56.11	---	150.0	V	353.0	6.3	74.00	17.89
11650.000000	---	44.62	150.0	H	250.0	17.7	54.00	9.38
11650.000000	54.94	---	150.0	H	250.0	17.7	74.00	19.06
17475.000000	---	50.10	150.0	V	184.0	23.6	54.00	3.90
17475.000000	59.68	---	150.0	V	184.0	23.6	74.00	14.32

*Pre-scan with X,Y and Z axes of orientation, the worst case Chain 0 at horizontal in **Y-axis of orientation** was recorded*

High Channel: 5825MHz



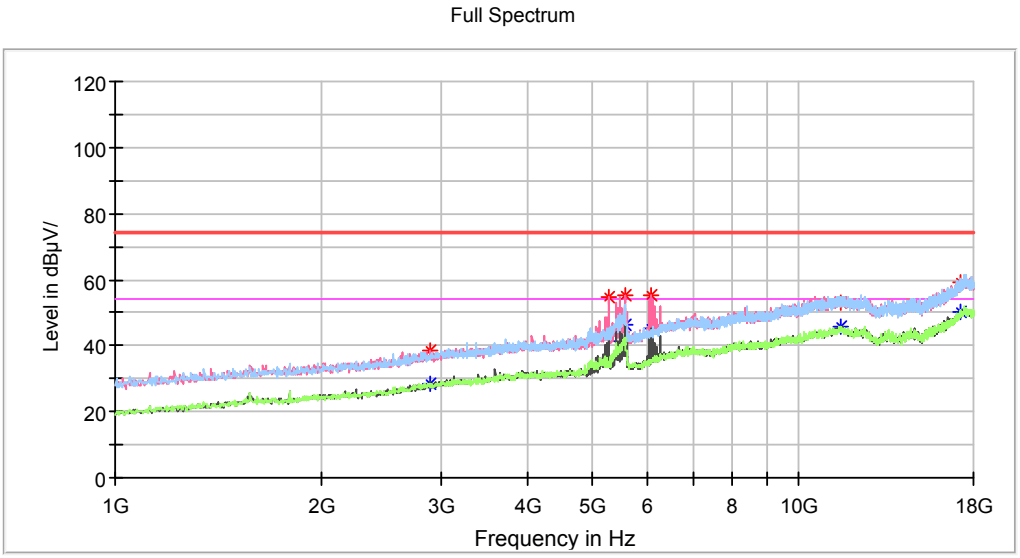
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
3529.600000	39.44	---	179.0	V	341.0	-0.8	74.00	34.56
3529.600000	---	30.23	179.0	V	341.0	-0.8	54.00	23.77
5280.600000	---	48.01	108.0	V	71.0	3.5	54.00	5.99
5280.600000	59.73	---	108.0	V	71.0	3.5	74.00	14.27
5559.400000	---	51.54	236.0	V	74.0	4.2	54.00	2.46
5559.400000	62.57	---	236.0	V	74.0	4.2	74.00	11.43
6079.600000	---	47.42	203.0	V	178.0	6.1	54.00	6.58
6079.600000	56.80	---	203.0	V	178.0	6.1	74.00	17.20
11648.800000	52.27	---	220.0	H	216.0	17.7	74.00	21.73
11648.800000	---	44.14	220.0	H	216.0	17.7	54.00	9.86
17476.400000	---	50.31	136.0	V	223.0	23.6	54.00	3.69
17476.400000	58.94	---	136.0	V	223.0	23.6	74.00	15.06

802.11n-HT20 Mode:

Note:
1. This test was performed with the 5725-5875MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
   Corrected Amplitude = Corrected Factor + Reading
   Margin = Limit - Corrected. Amplitude

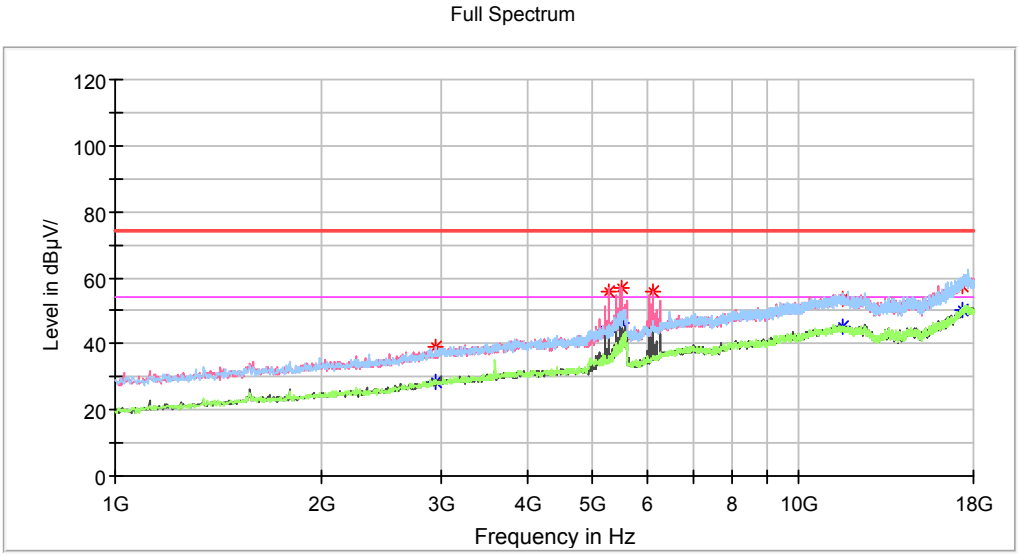
*Pre-scan with X,Y and Z axes of orientation, the worst case **Y-axis of orientation** was recorded*

Low Channel: 5745MHz



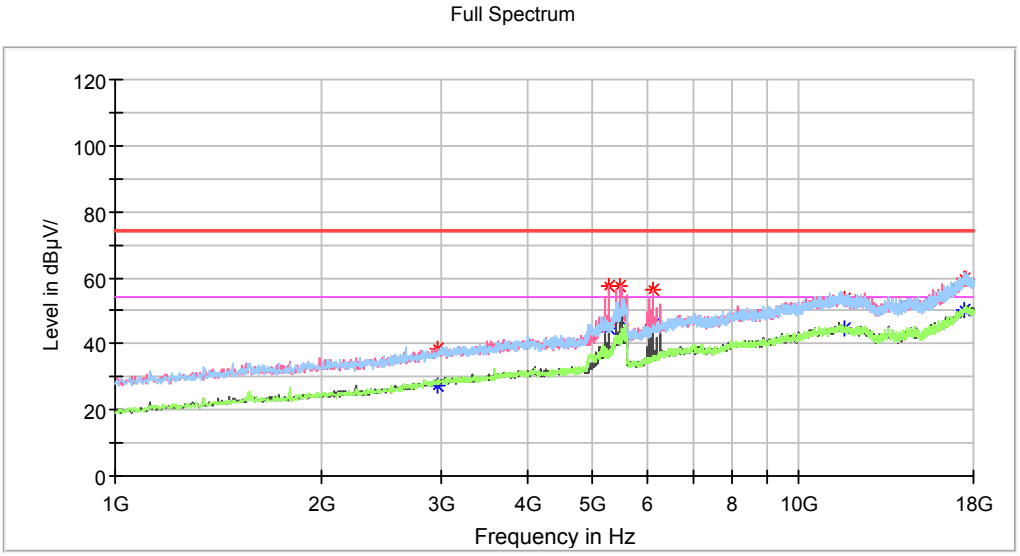
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
2883.600000	---	28.43	150.0	V	16.0	-2.6	54.00	25.57
2883.600000	38.64	---	150.0	V	16.0	-2.6	74.00	35.36
5280.600000	---	42.73	100.0	V	353.0	3.5	54.00	11.27
5280.600000	54.70	---	100.0	V	353.0	3.5	74.00	19.30
5559.400000	---	46.13	200.0	V	353.0	4.2	54.00	7.87
5559.400000	55.03	---	200.0	V	353.0	4.2	74.00	18.97
6079.600000	---	45.35	100.0	V	353.0	6.1	54.00	8.65
6079.600000	55.19	---	100.0	V	353.0	6.1	74.00	18.81
11490.000000	53.12	---	250.0	H	224.0	18.2	74.00	20.88
11490.000000	---	46.04	250.0	H	224.0	18.2	54.00	7.96
17235.000000	58.89	---	100.0	H	354.0	22.3	74.00	15.11
17235.000000	---	50.47	100.0	H	354.0	22.3	54.00	3.53

Middle Channel: 5785MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
2941.400000	---	28.38	200.0	H	314.0	-2.3	54.00	25.62
2941.400000	38.97	---	200.0	H	314.0	-2.3	74.00	35.03
5280.600000	55.95	---	100.0	V	353.0	3.5	74.00	18.05
5280.600000	---	45.10	100.0	V	353.0	3.5	54.00	8.90
5518.600000	---	46.36	100.0	V	353.0	4.1	54.00	7.64
5518.600000	56.71	---	100.0	V	353.0	4.1	74.00	17.29
6120.400000	---	45.43	150.0	V	353.0	6.3	54.00	8.57
6120.400000	56.00	---	150.0	V	353.0	6.3	74.00	18.00
11570.000000	53.55	---	100.0	V	210.0	18.0	74.00	20.45
11570.000000	---	45.32	100.0	V	210.0	18.0	54.00	8.68
17355.000000	57.48	---	100.0	H	188.0	22.9	74.00	16.52
17355.000000	---	49.99	100.0	H	188.0	22.9	54.00	4.01

High Channel: 5825MHz



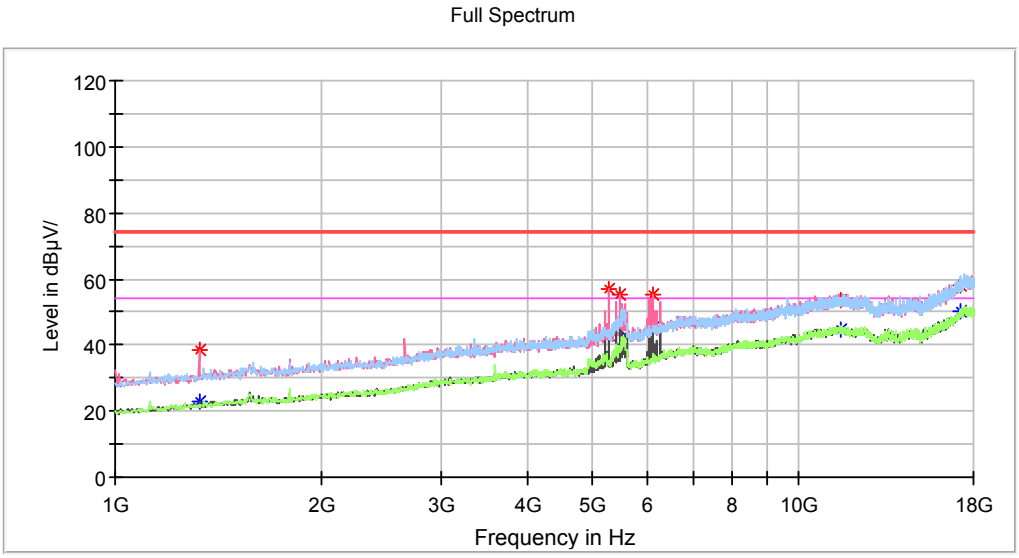
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
2955.000000	---	27.57	200.0	V	324.0	-2.3	54.00	26.43
2955.000000	38.24	---	200.0	V	324.0	-2.3	74.00	35.76
5280.600000	---	44.86	150.0	V	353.0	3.5	54.00	9.14
5280.600000	57.46	---	150.0	V	353.0	3.5	74.00	16.54
5477.800000	---	47.40	100.0	V	353.0	4.0	54.00	6.60
5477.800000	57.70	---	100.0	V	353.0	4.0	74.00	16.30
6120.400000	---	45.92	200.0	V	353.0	6.3	54.00	8.08
6120.400000	56.21	---	200.0	V	353.0	6.3	74.00	17.79
11650.000000	53.44	---	100.0	H	93.0	17.7	74.00	20.56
11650.000000	---	44.69	100.0	H	93.0	17.7	54.00	9.31
17475.000000	---	50.05	100.0	V	0.0	23.5	54.00	3.95
17475.000000	59.70	---	100.0	V	0.0	23.5	74.00	14.30

802.11n-HT40 Mode:

Note:
1. This test was performed with the 5725-5875MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
   Corrected Amplitude = Corrected Factor + Reading
   Margin = Limit - Corrected. Amplitude

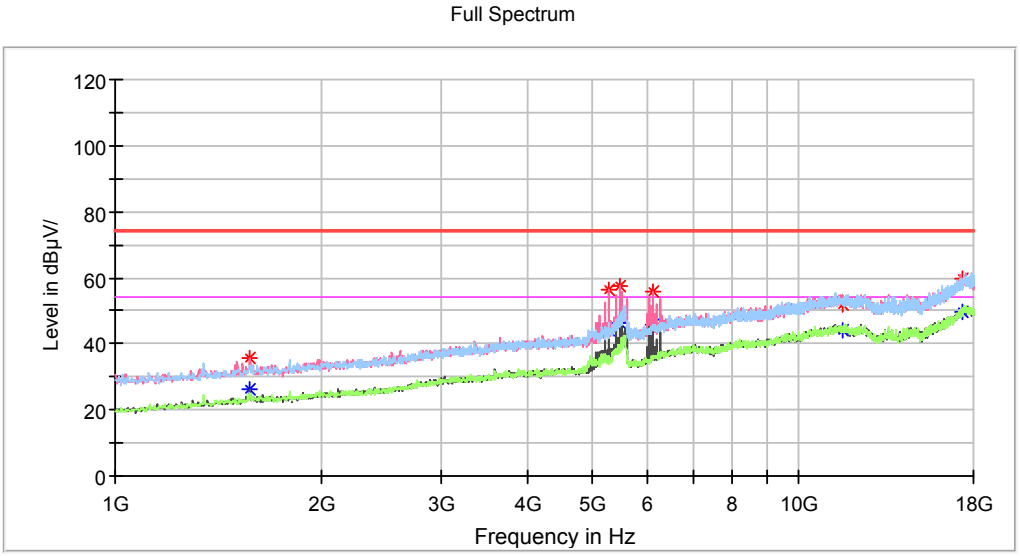
*Pre-scan with X,Y and Z axes of orientation, the worst case **Y-axis of orientation** was recorded*

Low Channel: 5755MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1326.400000	---	23.12	200.0	V	83.0	-9.2	54.00	30.88
1326.400000	38.44	---	200.0	V	83.0	-9.2	74.00	35.56
5280.600000	---	43.14	100.0	V	353.0	3.5	54.00	10.86
5280.600000	56.84	---	100.0	V	353.0	3.5	74.00	17.16
5477.800000	55.09	---	150.0	V	353.0	4.0	74.00	18.91
5477.800000	---	44.41	150.0	V	353.0	4.0	54.00	9.59
6120.400000	55.50	---	100.0	V	353.0	6.3	74.00	18.50
6120.400000	---	45.25	100.0	V	353.0	6.3	54.00	8.75
11510.000000	53.31	---	100.0	H	242.0	18.2	74.00	20.69
11510.000000	---	44.53	100.0	H	242.0	18.2	54.00	9.47
17265.000000	58.22	---	200.0	H	187.0	22.4	74.00	15.78
17265.000000	---	50.46	200.0	H	187.0	22.4	54.00	3.54

High Channel: 5795MHz

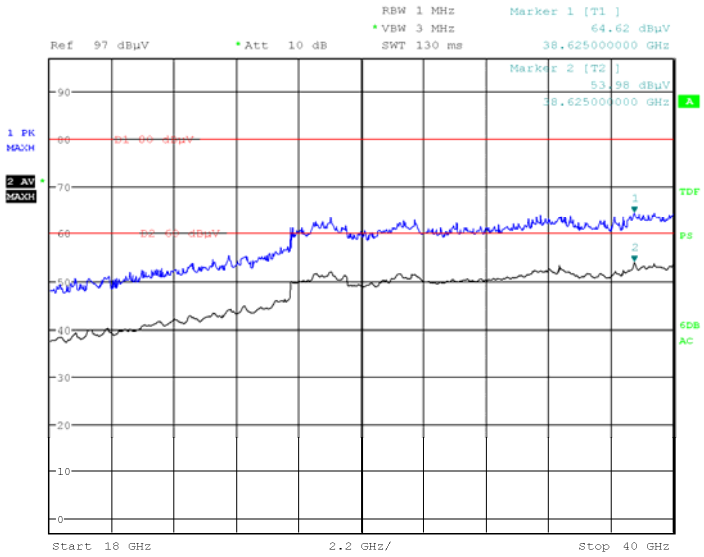


Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1574.600000	---	26.50	150.0	V	202.0	-7.7	54.00	27.50
1574.600000	35.90	---	150.0	V	202.0	-7.7	74.00	38.10
5280.600000	---	43.92	200.0	V	353.0	3.5	54.00	10.08
5280.600000	56.25	---	200.0	V	353.0	3.5	74.00	17.75
5477.800000	---	46.27	100.0	V	353.0	4.0	54.00	7.73
5477.800000	57.49	---	100.0	V	353.0	4.0	74.00	16.51
6120.400000	---	45.97	250.0	V	353.0	6.3	54.00	8.03
6120.400000	55.96	---	250.0	V	353.0	6.3	74.00	18.04
11590.000000	51.78	---	100.0	H	322.0	17.9	74.00	22.22
11590.000000	---	44.10	100.0	H	322.0	17.9	54.00	9.90
17385.000000	---	49.70	200.0	V	258.0	23.1	54.00	4.30
17385.000000	59.92	---	200.0	V	258.0	23.1	74.00	14.08

18GHz-40GHz (5725-5850 Band):

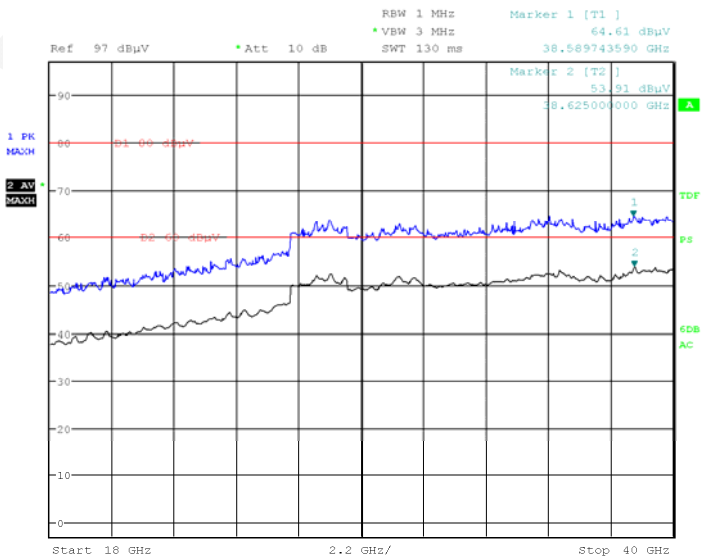
Pre-scan with 802.11a, 802.11n-HT20 and 802.11n-HT40 modes in the X,Y and Z axes of orientation, the worst case ***high channel of 802.11n-HT40 mode of operation in Y-axis of orientation*** *was recorded*
Note: The test distance is 1.5m, The limit 74dBuv/m@3m= 80 dBuv/m@1.5m

Horizontal



Date: 19.DEC.2017 11:04:05

Vertical



Date: 19.DEC.2017 11:06:03

Restricted Bands Emissions Test for NW10(5150-5250MHz band):

Note:
1. This test was performed with a 10dB Attenuator.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
   Corrected Amplitude = Corrected Factor + Reading
   Margin = Limit - Corrected. Amplitude

802.11a Mode: *(Pre-scan in the X,Y and Z axes of orientation, the worst case in Y-axis of orientation was recorded)*

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
Left Band Edge								
5149.950000	55.90	---	250.0	V	1.0	13.3	74.00	18.10
5149.950000	---	47.39	250.0	V	1.0	13.3	54.00	6.61
Right Band Edge								
5350.000000	---	47.76	250.0	V	35.0	13.7	54.00	6.24
5350.000000	55.33	---	250.0	V	35.0	13.7	74.00	18.67

802.11n-HT20 Mode: *(Pre-scan in the X,Y and Z axes of orientation, the worst case in Y-axis of orientation was recorded)*

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
Left Band Edge								
5149.950000	---	46.59	250.0	V	3.0	13.3	54.00	7.41
5149.950000	54.66	---	150.0	V	3.0	13.3	74.00	19.34
Right Band Edge								
5350.060000	58.61	---	250.0	H	345.0	13.7	74.00	15.39
5350.060000	---	50.11	250.0	H	345.0	13.7	54.00	3.89

802.11n-HT40 Mode: *(Pre-scan in the X,Y and Z axes of orientation, the worst case in Y-axis of orientation was recorded)*

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
Left Band Edge								
5149.950000	56.20	---	250.0	H	350.0	13.3	74.00	17.80
5149.950000	---	47.53	200.0	H	350.0	13.3	54.00	6.47
Right Band Edge								
5350.060000	57.13	---	250.0	H	347.0	13.7	74.00	16.87
5350.060000	---	49.80	250.0	H	347.0	13.7	54.00	4.20

Restricted Bands Emissions Test for NW10(5725-5850MHz band):

Note:
1. This test was performed with a 10dB Attenuator.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
   Corrected Amplitude = Corrected Factor + Reading
   Margin = Limit - Corrected. Amplitude

802.11a Mode: *(Pre-scan in the X,Y and Z axes of orientation, the worst case in Y-axis of orientation was recorded)*

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
Left Band Edge								
5725.000000	57.72	---	250.0	V	353.0	14.8	74.00	16.28
5725.000000	---	49.36	250.0	V	353.0	14.8	54.00	4.64
Right Band Edge								
5850.010000	56.96	---	250.0	H	344.0	15.2	74.00	17.04
5850.010000	---	48.63	250.0	H	344.0	15.2	54.00	5.37

802.11n-HT20 Mode: *(Pre-scan in the X,Y and Z axes of orientation, the worst case in Y-axis of orientation was recorded)*

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
Left Band Edge								
5725.000000	58.69	---	250.0	V	353.0	14.8	74.00	15.31
5725.000000	---	49.88	250.0	V	353.0	14.8	54.00	4.12
Right Band Edge								
5850.010000	---	49.73	250.0	H	347.0	15.2	54.00	4.27
5850.010000	58.54	---	250.0	H	347.0	15.2	74.00	15.46

802.11n-HT40 Mode: *(Pre-scan in the X,Y and Z axes of orientation, the worst case in Y-axis of orientation was recorded)*

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
Left Band Edge								
5725.000000	58.89	---	250.0	H	346.0	14.8	74.00	15.11
5725.000000	---	51.47	250.0	H	346.0	14.8	54.00	2.53
Right Band Edge								
5850.020000	---	47.82	250.0	H	357.0	15.2	54.00	6.18
5850.020000	58.15	---	250.0	H	357.0	15.2	74.00	15.85

Spurious Emission Test for NW10IN:

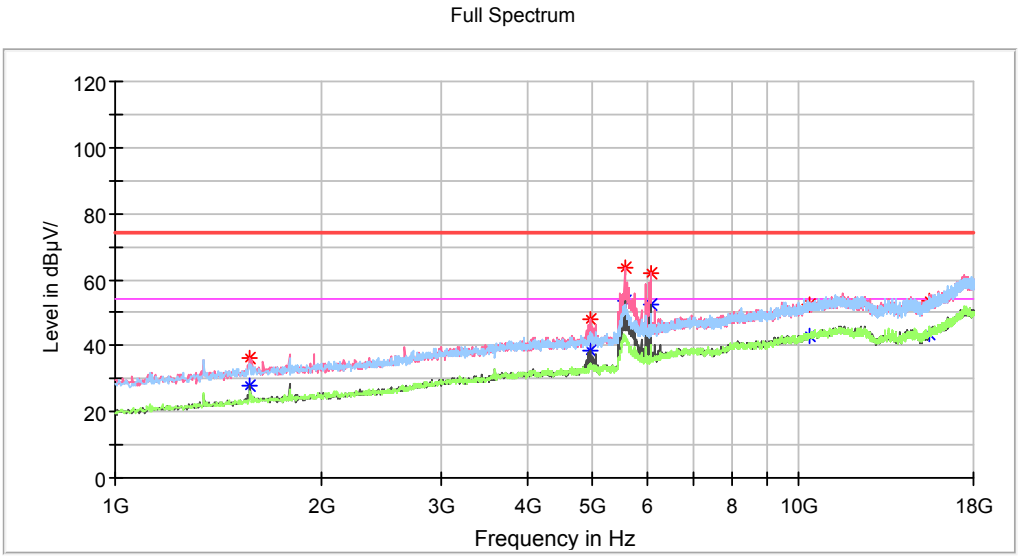
1GHz-18GHz (5150-5250MHz Band):

802.11a Mode:

Note:
1. This test was performed with the 5150-5350MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
   Corrected Amplitude = Corrected Factor + Reading
   Margin = Limit - Corrected. Amplitude

*Pre-scan with X,Y and Z axes of orientation, the worst case Chain 1 at vertical in **Y-axis of orientation** was recorded*

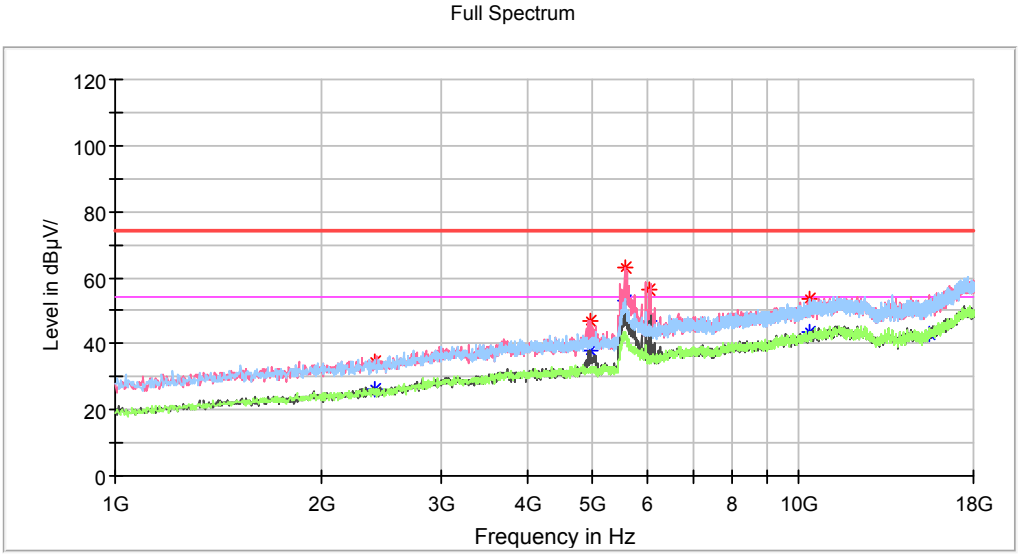
Low Channel: 5180MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1574.600000	---	27.84	100.0	V	220.0	-7.7	54.00	26.16
1574.600000	36.39	---	100.0	V	220.0	-7.7	74.00	37.61
4957.600000	---	38.31	150.0	V	356.0	2.8	54.00	15.69
4957.600000	48.19	---	150.0	V	356.0	2.8	74.00	25.81
5559.400000	---	51.37	100.0	V	356.0	4.2	54.00	2.63
5559.400000	63.66	---	100.0	V	356.0	4.2	74.00	10.34
6079.600000	---	51.24	100.0	V	347.0	6.1	54.00	2.76
6079.600000	61.95	---	150.0	V	347.0	6.1	74.00	12.05
10360.000000	---	43.15	150.0	H	174.0	16.4	54.00	10.85
10360.000000	52.34	---	100.0	H	174.0	16.4	74.00	21.66
15540.000000	---	43.54	200.0	V	238.0	16.2	54.00	10.46
15540.000000	53.45	---	200.0	V	238.0	16.2	74.00	20.55

*Pre-scan with X,Y and Z axes of orientation, the worst case Chain 1 at horizontal in **Y-axis of orientation** was recorded*

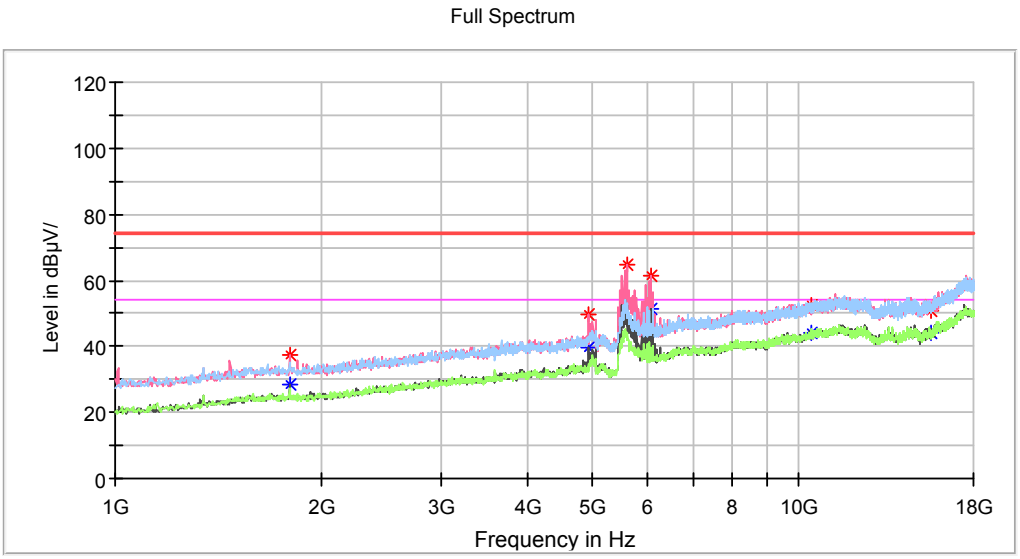
Low Channel: 5180MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
2400.800000	---	26.12	157.0	V	187.0	-4.9	54.00	27.88
2400.800000	34.73	---	157.0	V	187.0	-4.9	74.00	39.27
4957.600000	---	37.75	108.0	V	92.0	2.8	54.00	16.25
4957.600000	46.79	---	108.0	V	92.0	2.8	74.00	27.21
5559.400000	62.91	---	116.0	V	9.0	4.2	74.00	11.09
5559.400000	---	51.11	116.0	V	9.0	4.2	54.00	2.89
6038.800000	---	46.69	204.0	V	281.0	5.9	54.00	7.31
6038.800000	56.59	---	204.0	V	281.0	5.9	74.00	17.41
10360.000000	53.73	---	134.0	H	93.0	16.4	74.00	20.27
10360.000000	---	43.61	134.0	H	93.0	16.4	54.00	10.39
15540.000000	---	42.90	208.0	V	89.0	16.3	54.00	11.10
15540.000000	52.17	---	208.0	V	89.0	16.3	74.00	21.83

*Pre-scan with X,Y and Z axes of orientation, the worst case Chain 1 at vertical in **Y-axis of orientation** was recorded*

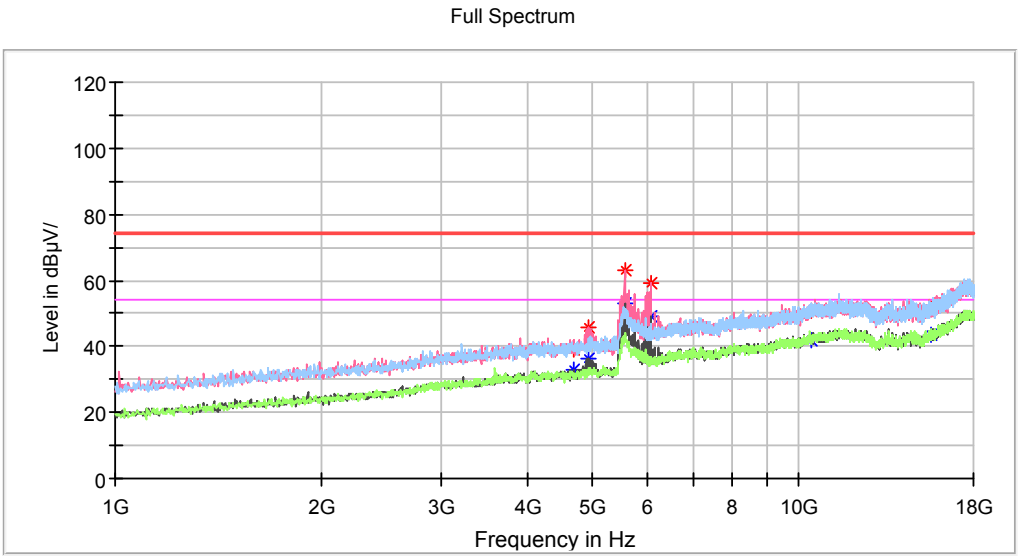
Middle Channel: 5200MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1799.000000	---	28.43	150.0	V	133.0	-6.8	54.00	25.57
1799.000000	37.52	---	150.0	V	133.0	-6.8	74.00	36.48
4920.200000	---	39.50	200.0	V	0.0	2.7	54.00	14.50
4920.200000	49.82	---	200.0	V	0.0	2.7	74.00	24.18
5600.200000	---	51.55	150.0	V	0.0	4.4	54.00	2.45
5600.200000	64.66	---	150.0	V	0.0	4.4	74.00	9.34
6079.600000	---	51.22	150.0	V	0.0	6.1	54.00	2.78
6079.600000	61.64	---	150.0	V	0.0	6.1	74.00	12.36
10400.000000	52.30	---	200.0	V	327.0	16.6	74.00	21.70
10400.000000	---	44.19	200.0	V	327.0	16.6	54.00	9.81
15600.000000	50.56	---	150.0	V	82.0	16.5	74.00	23.44
15600.000000	---	44.10	150.0	V	82.0	16.5	54.00	9.90

*Pre-scan with X,Y and Z axes of orientation, the worst case Chain 1 at horizontal in **Y-axis of orientation** was recorded*

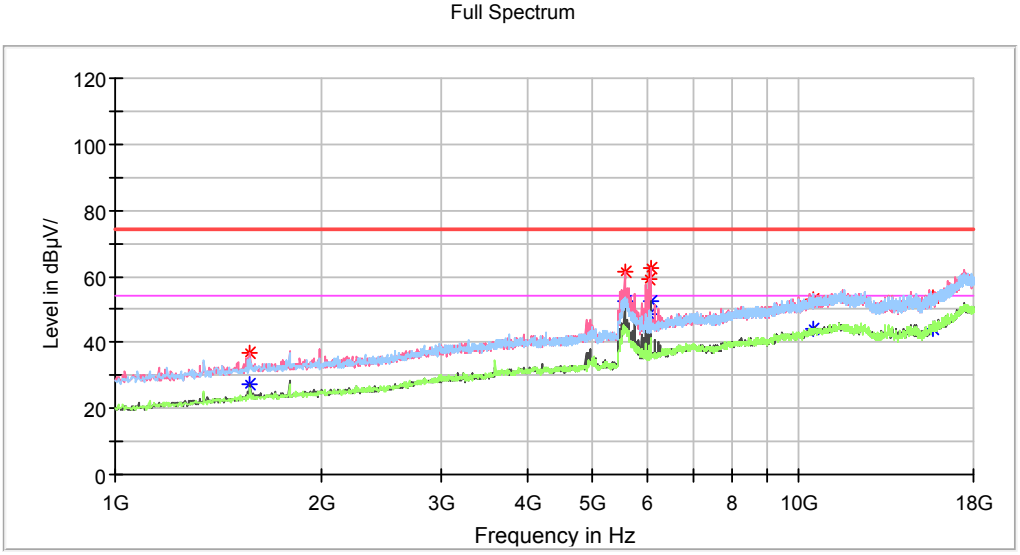
Middle Channel: 5200MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
4692.400000	39.13	---	169	V	91	2.2	74.00	34.87
4692.400000	---	33.20	169	V	91	2.2	54.00	20.80
4920.200000	---	36.54	118	V	346	2.7	54.00	17.46
4920.200000	45.58	---	118	V	346	2.7	74.00	28.42
5559.400000	62.96	---	142	V	20	4.2	74.00	11.04
5559.400000	---	50.99	142	V	20	4.2	54.00	3.01
6079.600000	58.92	---	220	V	271	6.1	74.00	15.08
6079.600000	---	48.97	220	V	271	6.1	54.00	5.03
10400.000000	---	41.70	228	V	330	16.6	54.00	12.30
10400.000000	51.00	---	228	V	330	16.6	74.00	23.00
15600.000000	---	43.48	153	V	312	16.4	54.00	10.52
15600.000000	51.36	---	153	V	312	16.4	74.00	22.64

*Pre-scan with X,Y and Z axes of orientation, the worst case Chain 1 at vertical in **Y-axis of orientation** was recorded*

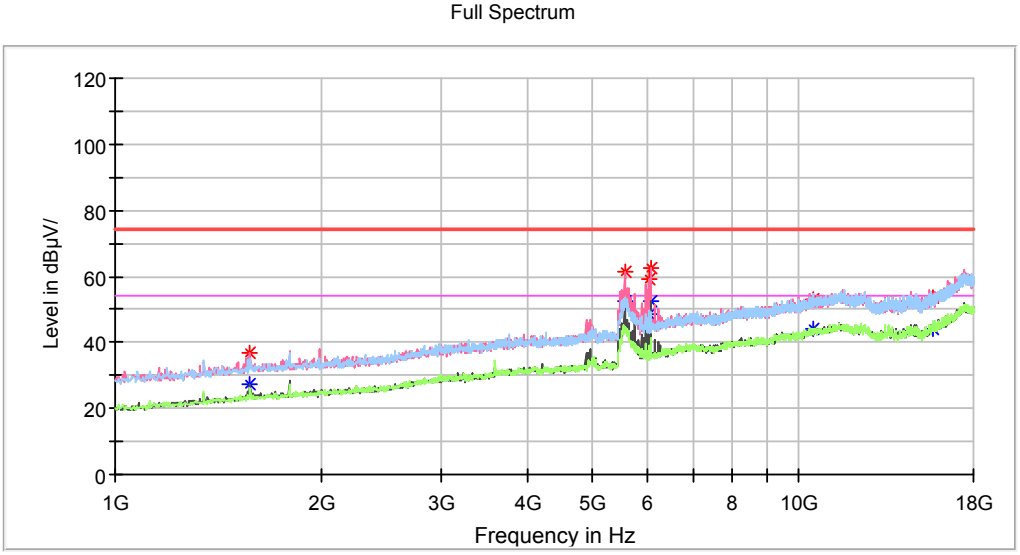
High Channel: 5240MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1574.600000	---	27.07	150.0	V	220.0	-7.7	54.00	26.93
1574.600000	36.84	---	150.0	V	220.0	-7.7	74.00	37.16
5559.400000	---	50.34	100.0	V	356.0	4.2	54.00	3.66
5559.400000	61.37	---	100.0	V	356.0	4.2	74.00	12.63
6038.800000	---	48.34	200.0	V	342.0	5.9	54.00	5.66
6038.800000	59.16	---	200.0	V	342.0	5.9	74.00	14.84
6079.600000	---	51.33	100.0	V	342.0	6.1	54.00	2.67
6079.600000	62.53	---	100.0	V	342.0	6.1	74.00	11.47
10480.000000	52.91	---	100.0	V	185.0	16.9	74.00	21.09
10480.000000	---	43.94	100.0	V	185.0	16.9	54.00	10.06
15720.000000	---	44.05	150.0	V	328.0	16.8	54.00	9.95
15720.000000	53.43	---	150.0	V	328.0	16.8	74.00	20.57

*Pre-scan with X,Y and Z axes of orientation, the worst case Chain 1 at horizontal in **Y-axis of orientation** was recorded*

High Channel: 5240MHz



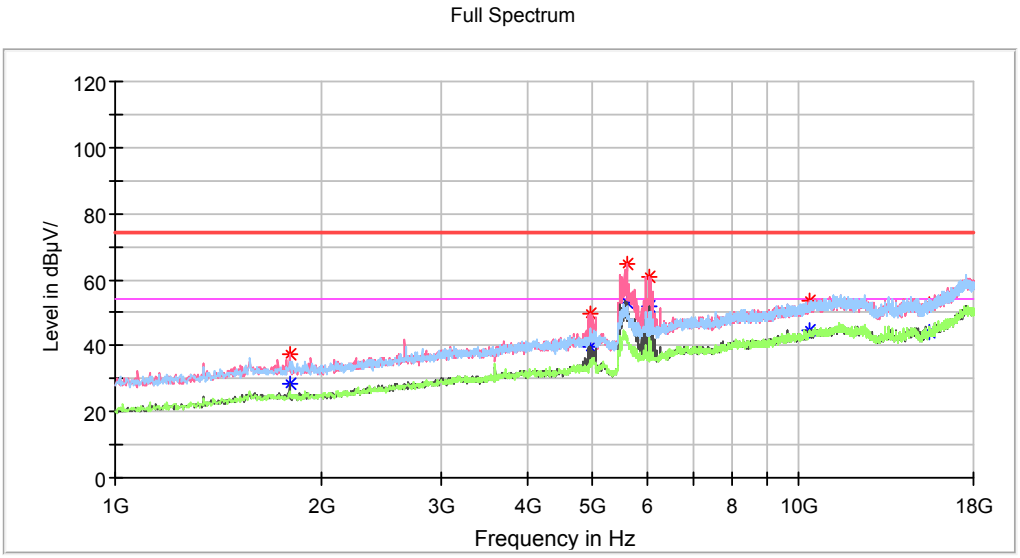
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
4957.600000	46.67	---	203.0	V	60.0	2.8	74.00	27.33
4957.600000	---	37.54	203.0	V	60.0	2.8	54.00	16.46
5559.400000	60.11	---	248.0	V	16.0	4.2	74.00	13.89
5559.400000	---	50.45	248.0	V	16.0	4.2	54.00	3.55
5960.600000	58.23	---	238.0	V	18.0	5.6	74.00	15.77
5960.600000	---	46.39	238.0	V	18.0	5.6	54.00	7.61
6079.600000	57.15	---	184.0	V	305.0	6.1	74.00	16.85
6079.600000	---	47.81	184.0	V	305.0	6.1	54.00	6.19
10480.000000	---	42.32	186.0	V	320.0	16.9	54.00	11.68
10480.000000	49.64	---	186.0	V	320.0	16.9	74.00	24.36
15720.000000	---	43.08	132.0	V	329.0	16.8	54.00	10.92
15720.000000	51.48	---	132.0	V	329.0	16.8	74.00	22.52

802.11n-HT20 Mode:

Note:
1. This test was performed with the 5150-5350MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
   Corrected Amplitude = Corrected Factor + Reading
   Margin = Limit - Corrected. Amplitude

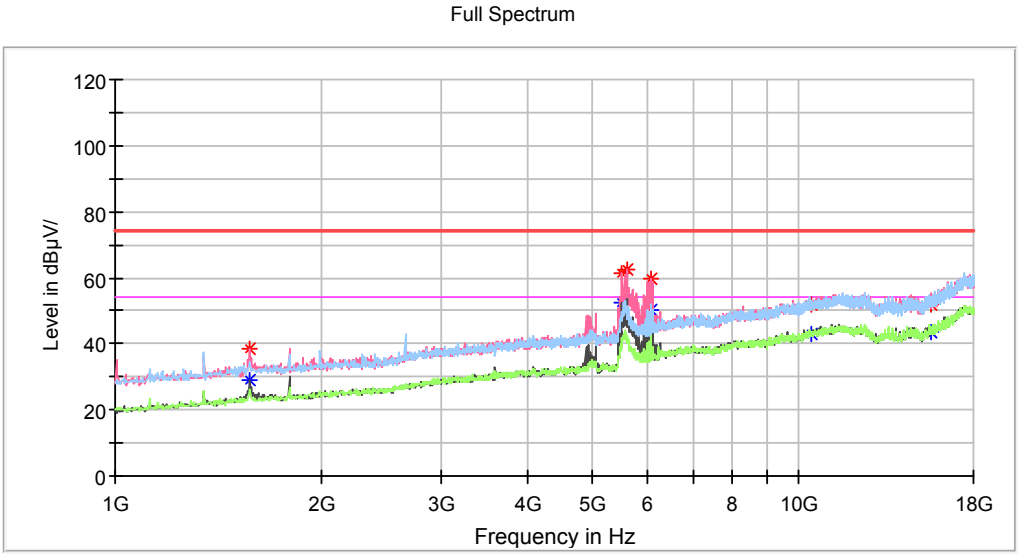
*Pre-scan with X,Y and Z axes of orientation, the worst case **Y-axis of orientation** was recorded*

Low Channel: 5180MHz



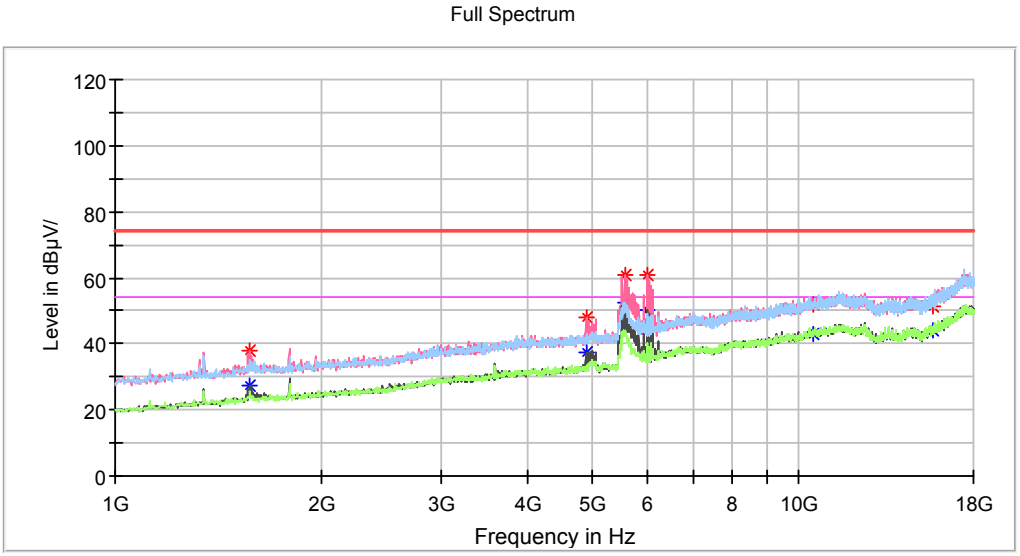
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1799.000000	---	28.66	200.0	V	141.0	-6.8	54.00	25.34
1799.000000	37.67	---	200.0	V	141.0	-6.8	74.00	36.33
4957.600000	---	39.81	100.0	V	0.0	2.8	54.00	14.19
4957.600000	49.93	---	100.0	V	0.0	2.8	74.00	24.07
5600.200000	---	51.85	200.0	V	0.0	4.4	54.00	2.15
5600.200000	64.77	---	200.0	V	0.0	4.4	74.00	9.23
6038.800000	---	51.97	200.0	V	348.0	5.9	54.00	2.03
6038.800000	60.62	---	200.0	V	348.0	5.9	74.00	13.38
10360.000000	53.31	---	200.0	V	236.0	16.4	74.00	20.69
10360.000000	---	44.39	200.0	V	236.0	16.4	54.00	9.61
15540.000000	52.32	---	150.0	V	88.0	16.3	74.00	21.68
15540.000000	---	44.36	150.0	V	88.0	16.3	54.00	9.64

Middle Channel: 5200MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1574.600000	---	28.87	250.0	V	220.0	-7.7	54.00	25.13
1574.600000	38.30	---	250.0	V	220.0	-7.7	74.00	35.70
5518.600000	61.61	---	200.0	V	0.0	4.1	74.00	12.39
5518.600000	---	51.33	200.0	V	0.0	4.1	54.00	2.67
5600.200000	62.68	---	250.0	V	0.0	4.4	74.00	11.32
5600.200000	---	51.44	250.0	V	0.0	4.4	54.00	2.56
6079.600000	---	50.24	200.0	V	0.0	6.1	54.00	3.76
6079.600000	59.72	---	200.0	V	0.0	6.1	74.00	14.28
10400.000000	---	43.21	250.0	V	294.0	16.6	54.00	10.79
10400.000000	51.83	---	250.0	H	106.0	16.6	74.00	22.17
15600.000000	51.92	---	150.0	H	20.0	16.4	74.00	22.08
15600.000000	---	43.79	150.0	H	20.0	16.4	54.00	10.21

High Channel: 5240MHz



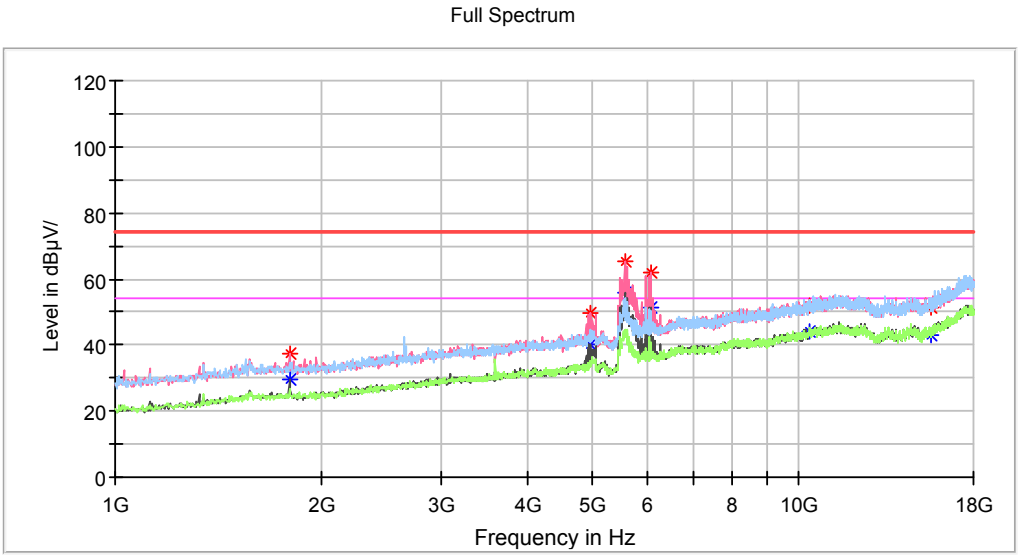
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1574.600000	---	27.58	200.0	V	228.0	-7.7	54.00	26.42
1574.600000	38.21	---	200.0	V	228.0	-7.7	74.00	35.79
4879.400000	---	37.39	250.0	V	0.0	2.6	54.00	16.61
4879.400000	47.73	---	250.0	V	0.0	2.6	74.00	26.27
5559.400000	---	51.43	150.0	V	356.0	4.2	54.00	2.57
5559.400000	60.64	---	150.0	V	356.0	4.2	74.00	13.36
5998.000000	---	50.03	250.0	V	347.0	5.7	54.00	3.97
5998.000000	60.86	---	250.0	V	347.0	5.7	74.00	13.14
10480.000000	---	43.24	250.0	V	347.0	16.9	54.00	10.76
10480.000000	51.95	---	250.0	V	347.0	16.9	74.00	22.05
15720.000000	51.52	---	200.0	V	119.0	16.8	74.00	22.48
15720.000000	---	44.05	200.0	V	119.0	16.8	54.00	9.95

802.11n-HT40 Mode:

Note:
1. This test was performed with the 5150-5350MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
   Corrected Amplitude = Corrected Factor + Reading
   Margin = Limit - Corrected. Amplitude

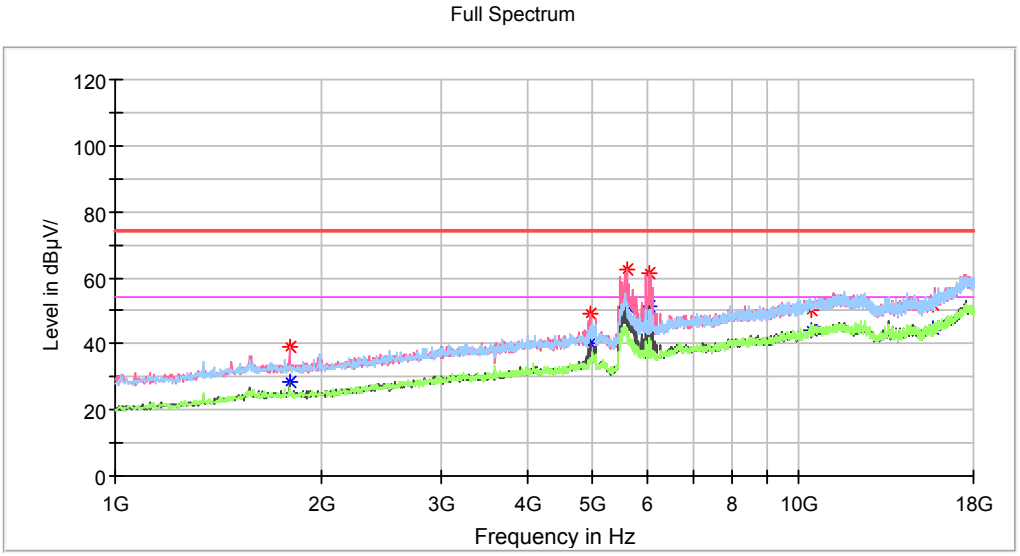
*Pre-scan with X,Y and Z axes of orientation, the worst case **Y-axis of orientation** was recorded*

Low Channel: 5190MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1799.000000	37.14	---	150.0	V	123.0	-6.8	74.00	36.86
1799.000000	---	29.49	150.0	V	123.0	-6.8	54.00	24.51
4957.600000	49.58	---	200.0	V	358.0	2.8	74.00	24.42
4957.600000	---	40.14	200.0	V	358.0	2.8	54.00	13.86
5559.400000	65.39	---	200.0	V	352.0	4.2	74.00	8.61
5559.400000	---	53.58	100.0	V	352.0	4.2	54.00	2.38
6079.600000	61.78	---	100.0	V	352.0	6.1	74.00	12.22
6079.600000	---	51.56	200.0	V	352.0	6.1	54.00	2.44
10380.000000	52.18	---	200.0	V	312.0	16.5	74.00	21.82
10380.000000	---	43.91	200.0	V	312.0	16.5	54.00	10.09
15570.000000	---	42.99	150.0	V	358.0	16.3	54.00	11.01
15570.000000	51.49	---	150.0	V	358.0	16.3	74.00	22.51

High Channel: 5230MHz

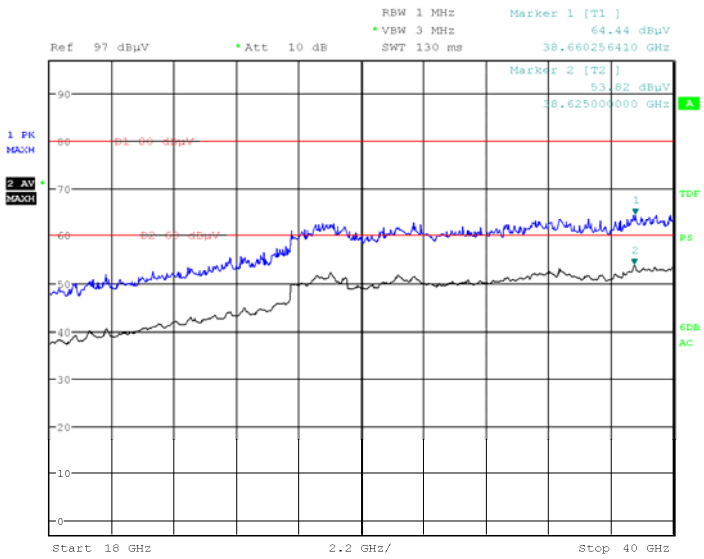


Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1799.000000	---	28.66	200.0	V	124.0	-6.8	54.00	25.34
1799.000000	38.81	---	200.0	V	124.0	-6.8	74.00	35.19
4957.600000	---	40.02	200.0	V	353.0	2.8	54.00	13.98
4957.600000	49.05	---	200.0	V	353.0	2.8	74.00	24.95
5600.200000	---	51.19	250.0	V	358.0	4.4	54.00	2.81
5600.200000	62.38	---	250.0	V	358.0	4.4	74.00	11.62
6038.800000	---	51.62	200.0	V	353.0	5.9	54.00	2.38
6038.800000	61.18	---	200.0	V	353.0	5.9	74.00	12.82
10460.000000	50.29	---	200.0	H	32.0	16.8	74.00	23.71
10460.000000	---	44.25	200.0	H	32.0	16.8	54.00	9.75
15690.000000	52.15	---	150.0	H	117.0	16.7	74.00	21.85
15690.000000	---	44.67	150.0	H	117.0	16.7	54.00	9.33

18GHz-40GHz (5150-5250MHz Band):

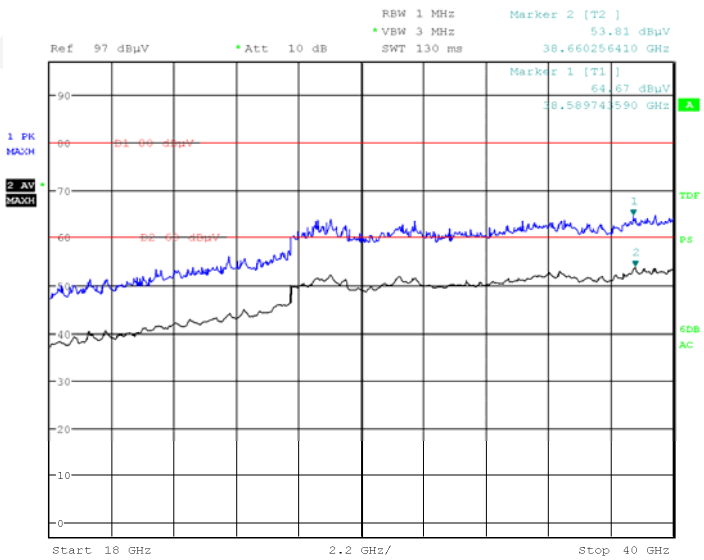
Pre-scan with 802.11a, 802.11n-HT20 and 802.11n-HT40 modes of operation in the X,Y and Z axes of orientation, the worst case ***high channel of 802.11n-HT40 mode in Y-axis of orientation*** *was recorded*
Note: The test distance is 1.5m, The limit 74dBuv/m@3m= 80 dBuv/m@1.5m

Horizontal



Date: 19.DEC.2017 11:04:17

Vertical



Date: 19.DEC.2017 11:08:30

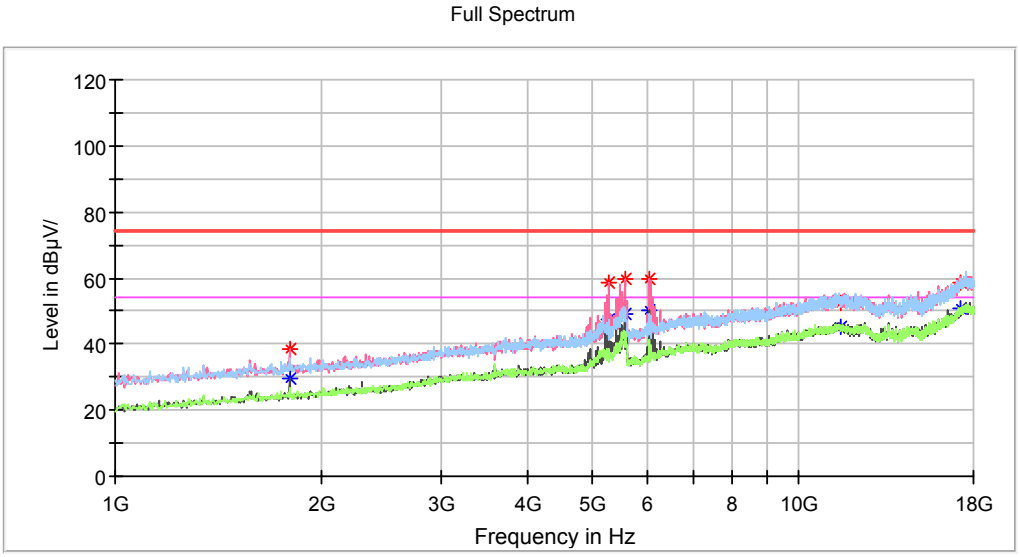
1GHz-18GHz (5745-5825 Band):

802.11a Mode:

Note:
1. This test was performed with the 5725-5875MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
   Corrected Amplitude = Corrected Factor + Reading
   Margin = Limit - Corrected. Amplitude

*Pre-scan with X,Y and Z axes of orientation, the worst case Chain 0 at vertical in **Y-axis of orientation** was recorded*

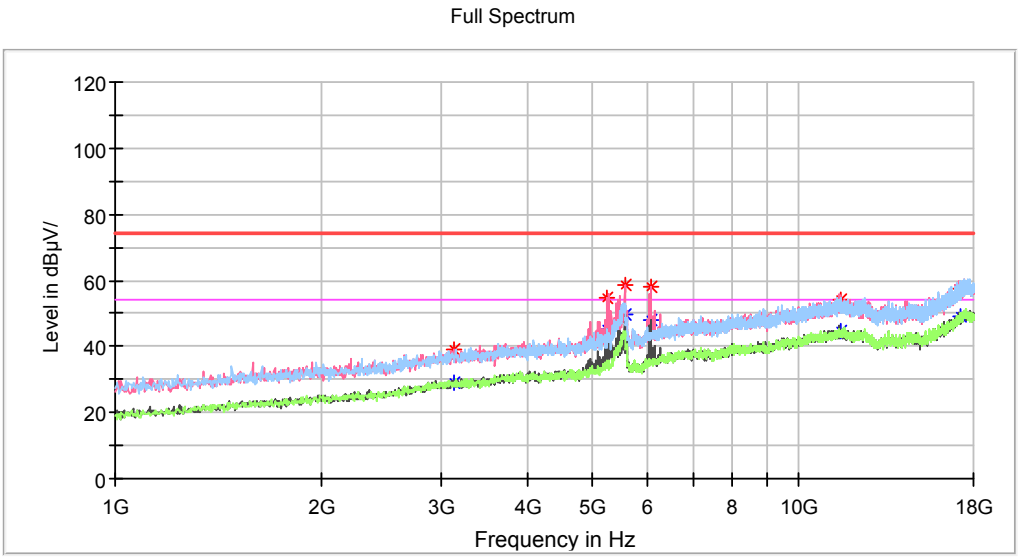
Low Channel: 5745MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1799.000000	38.60	---	250.0	V	270.0	-6.8	74.00	35.40
1799.000000	---	29.84	250.0	V	270.0	-6.8	54.00	24.16
5277.200000	---	47.23	200.0	V	0.0	3.5	54.00	6.77
5277.200000	58.66	---	200.0	V	0.0	3.5	74.00	15.34
5559.400000	---	48.95	100.0	V	356.0	4.2	54.00	5.05
5559.400000	59.46	---	100.0	V	356.0	4.2	74.00	14.54
6038.800000	---	50.04	200.0	V	348.0	5.9	54.00	3.96
6038.800000	59.55	---	200.0	V	348.0	5.9	74.00	14.45
11490.000000	52.45	---	200.0	H	25.0	18.2	74.00	21.55
11490.000000	---	45.27	200.0	H	25.0	18.2	54.00	8.73
17235.000000	58.80	---	200.0	H	353.0	22.3	74.00	15.20
17235.000000	---	50.55	200.0	H	353.0	22.3	54.00	3.45

*Pre-scan with X,Y and Z axes of orientation, the worst case Chain 0 at horizontal in **Y-axis of orientation** was recorded*

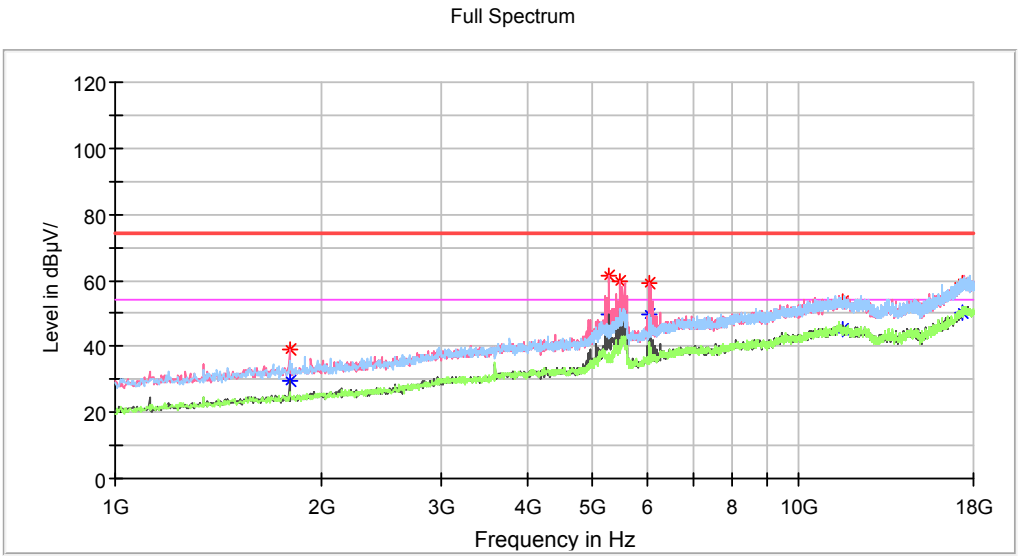
Low Channel: 5745MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
3125.000000	---	28.80	178.0	V	344.0	-1.7	54.00	25.20
3125.000000	39.14	---	178.0	V	344.0	-1.7	74.00	34.86
5239.800000	---	45.24	170.0	V	62.0	3.5	54.00	8.76
5239.800000	54.76	---	170.0	V	62.0	3.5	74.00	19.24
5559.400000	---	49.42	171.0	V	316.0	4.2	54.00	4.58
5559.400000	58.53	---	171.0	V	316.0	4.2	74.00	15.47
6079.600000	---	48.25	146.0	V	161.0	6.1	54.00	5.75
6079.600000	58.32	---	146.0	V	161.0	6.1	74.00	15.68
11490.000000	54.04	---	203.0	H	122.0	18.2	74.00	19.96
11490.000000	---	44.82	203.0	H	122.0	18.2	54.00	9.18
17235.000000	57.65	---	144.0	H	238.0	22.3	74.00	16.35
17235.000000	---	48.87	144.0	H	238.0	22.3	54.00	5.13

*Pre-scan with X,Y and Z axes of orientation, the worst case Chain 0 at vertical in **Y-axis of orientation** was recorded*

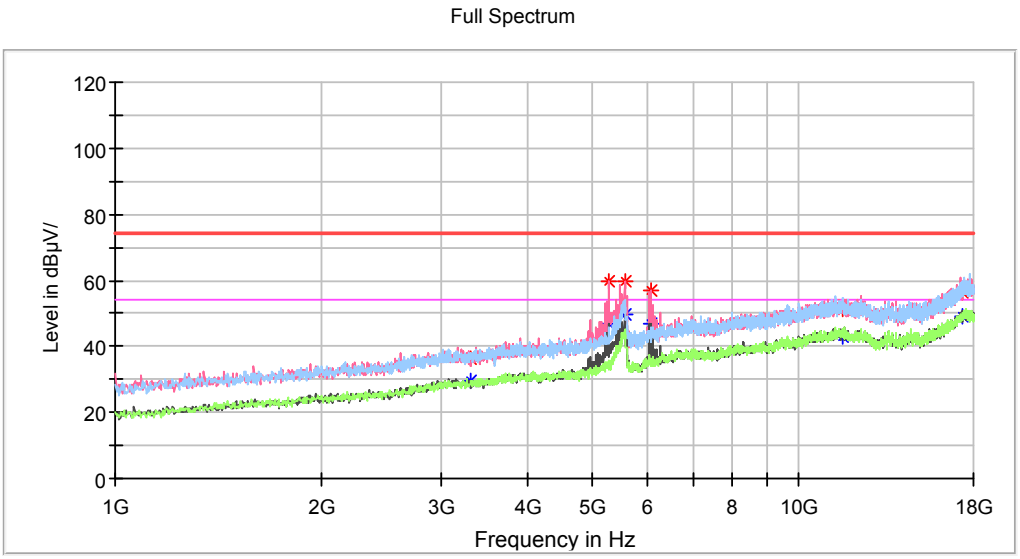
Middle Channel: 5785MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1799.000000	---	29.57	200.0	V	124.0	-6.8	54.00	24.43
1799.000000	38.98	---	200.0	V	124.0	-6.8	74.00	35.02
5277.200000	---	49.56	250.0	V	0.0	3.5	54.00	4.44
5277.200000	61.28	---	250.0	V	0.0	3.5	74.00	12.72
5477.800000	---	51.06	200.0	V	352.0	4.0	54.00	2.94
5477.800000	59.78	---	200.0	V	352.0	4.0	74.00	14.22
6038.800000	---	49.95	100.0	V	352.0	5.9	54.00	4.05
6038.800000	59.13	---	100.0	V	352.0	5.9	74.00	14.87
11570.000000	53.51	---	100.0	H	272.0	18.0	74.00	20.49
11570.000000	---	45.12	100.0	H	272.0	18.0	54.00	8.88
17355.000000	---	50.25	200.0	V	244.0	22.9	54.00	3.75
17355.000000	59.17	---	200.0	V	244.0	22.9	74.00	14.83

*Pre-scan with X,Y and Z axes of orientation, the worst case Chain 0 at horizontal in **Y-axis of orientation** was recorded*

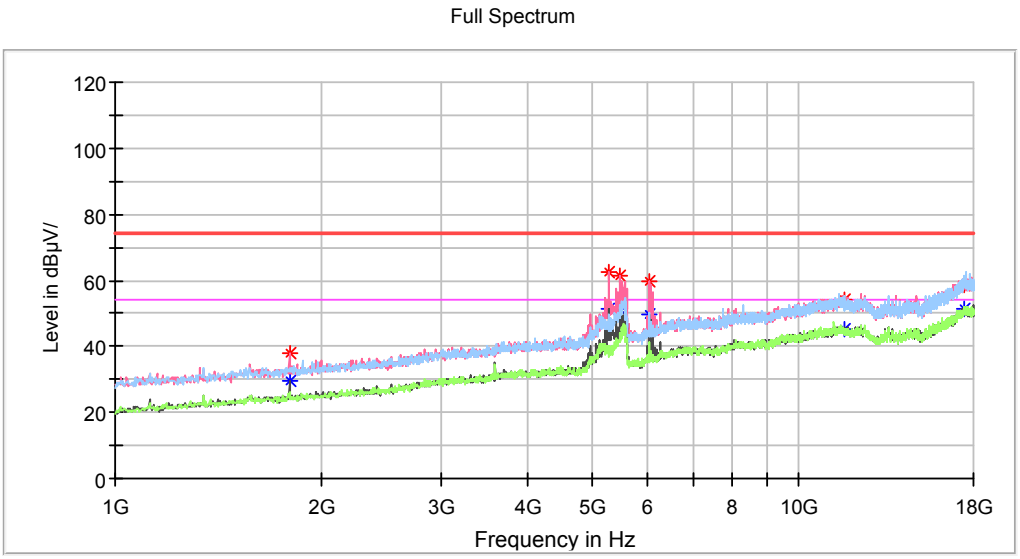
Middle Channel: 5785MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
3312.000000	36.53	---	136.0	V	354.0	-1.3	74.00	37.47
3312.000000	---	29.63	136.0	V	354.0	-1.3	54.00	24.37
5280.600000	---	47.14	171.0	V	73.0	3.5	54.00	6.86
5280.600000	59.87	---	171.0	V	73.0	3.5	74.00	14.13
5559.400000	---	49.62	137.0	V	206.0	4.2	54.00	4.38
5559.400000	59.53	---	137.0	V	206.0	4.2	74.00	14.47
6079.600000	---	46.61	183.0	V	143.0	6.1	54.00	7.39
6079.600000	57.04	---	183.0	V	143.0	6.1	74.00	16.96
11570.000000	51.57	---	233.0	H	284.0	18.0	74.00	22.43
11570.000000	---	43.04	233.0	H	284.0	18.0	54.00	10.96
17355.000000	56.25	---	131.0	V	271.0	22.9	74.00	17.75
17355.000000	---	49.17	131.0	V	271.0	22.9	54.00	4.83

*Pre-scan with X,Y and Z axes of orientation, the worst case Chain 0 at vertical in **Y-axis of orientation** was recorded*

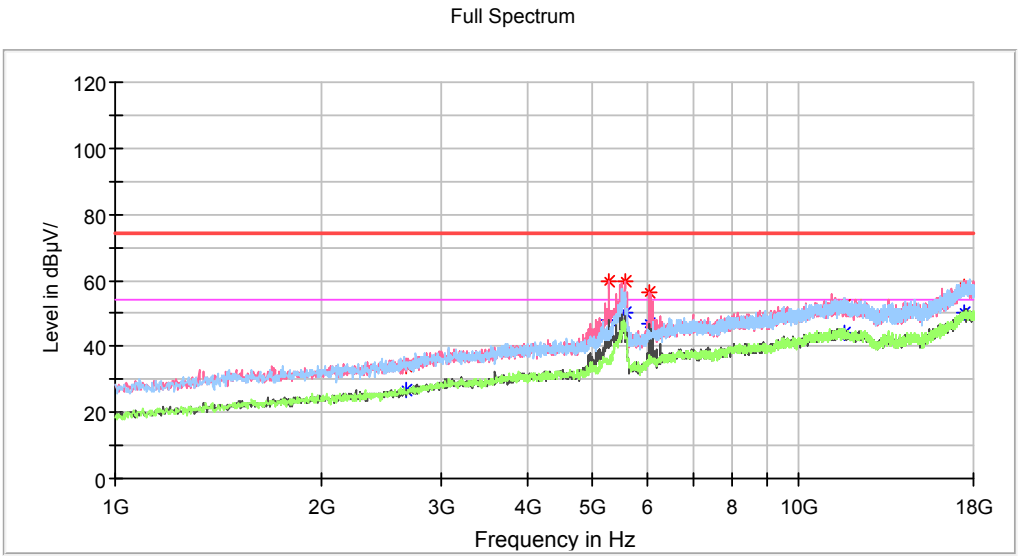
High Channel: 5825MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1799.000000	---	29.52	150.0	V	123.0	-6.8	54.00	24.48
1799.000000	37.80	---	150.0	V	123.0	-6.8	74.00	36.20
5277.200000	---	51.13	200.0	V	358.0	3.5	54.00	2.87
5277.200000	62.64	---	200.0	V	358.0	3.5	74.00	11.36
5477.800000	---	51.33	200.0	V	0.0	4.0	54.00	2.67
5477.800000	61.15	---	200.0	V	0.0	4.0	74.00	12.85
6038.800000	---	49.68	150.0	V	352.0	5.9	54.00	4.32
6038.800000	59.60	---	150.0	V	352.0	5.9	74.00	14.40
11650.000000	54.21	---	200.0	H	0.0	17.7	74.00	19.79
11650.000000	---	45.26	200.0	H	0.0	17.7	54.00	8.74
17475.000000	58.88	---	200.0	V	157.0	23.5	74.00	15.12
17475.000000	---	51.23	200.0	V	157.0	23.5	54.00	2.77

*Pre-scan with X,Y and Z axes of orientation, the worst case Chain 0 at horizontal in **Y-axis of orientation** was recorded*

High Channel: 5825MHz



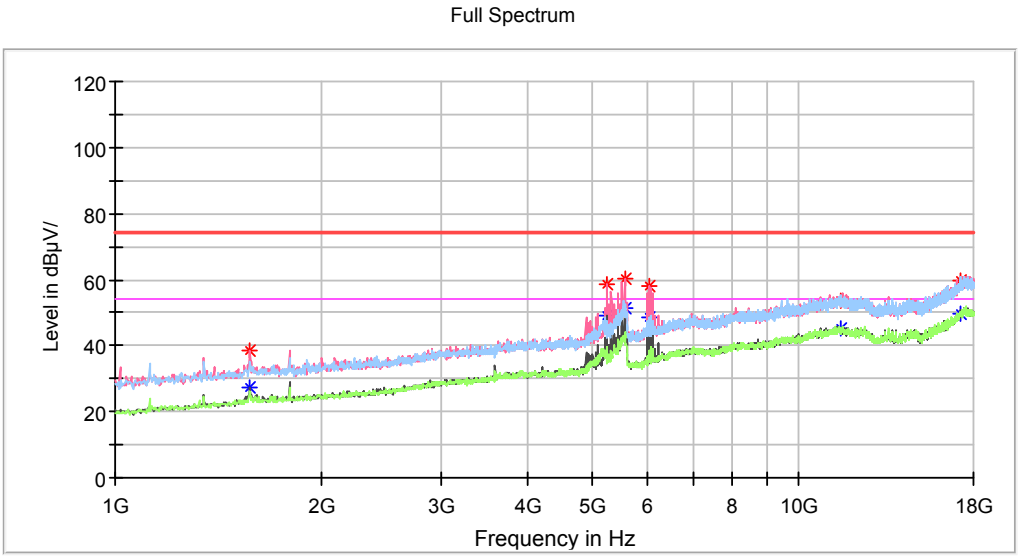
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
2662.600000	34.30	---	114.0	V	128.0	-3.8	74.00	39.70
2662.600000	---	26.94	114.0	V	128.0	-3.8	54.00	27.06
5280.600000	59.73	---	118.0	V	188.0	3.5	74.00	14.27
5280.600000	---	47.74	118.0	V	188.0	3.5	54.00	6.26
5559.400000	---	50.42	133.0	V	338.0	4.2	54.00	3.58
5559.400000	59.97	---	133.0	V	338.0	4.2	74.00	14.03
6038.800000	---	46.82	233.0	V	25.0	5.9	54.00	7.18
6038.800000	56.46	---	233.0	V	25.0	5.9	74.00	17.54
11650.000000	52.48	---	208.0	H	185.0	17.7	74.00	21.52
11650.000000	---	44.21	208.0	H	185.0	17.7	54.00	9.79
17475.000000	58.04	---	173.0	V	109.0	23.6	74.00	15.96
17475.000000	---	50.45	173.0	V	109.0	23.6	54.00	3.55

802.11n-HT20 Mode:

Note:
1. This test was performed with the 5725-5875MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
   Corrected Amplitude = Corrected Factor + Reading
   Margin = Limit - Corrected. Amplitude

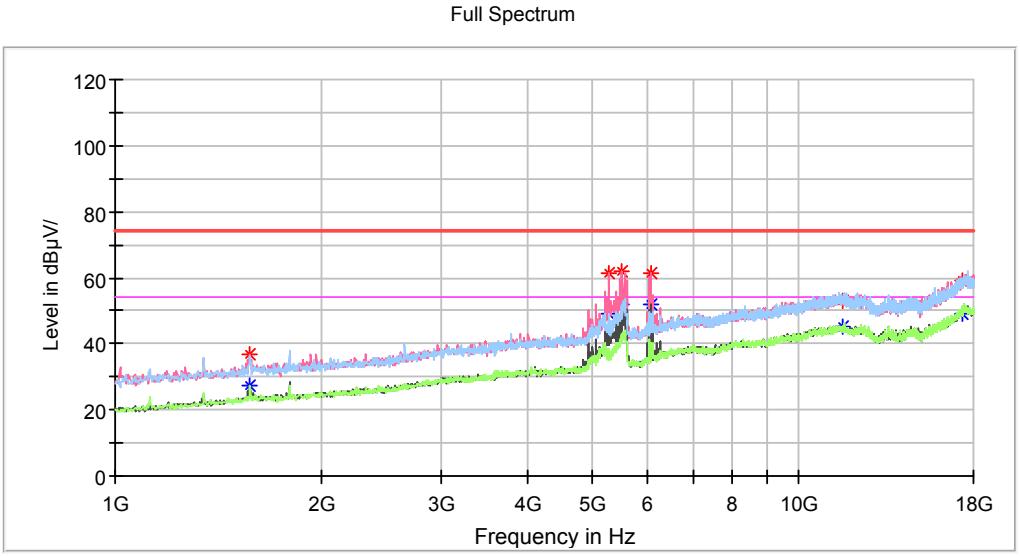
*Pre-scan with X,Y and Z axes of orientation, the worst case **Y-axis of orientation** was recorded*

Low Channel: 5745MHz



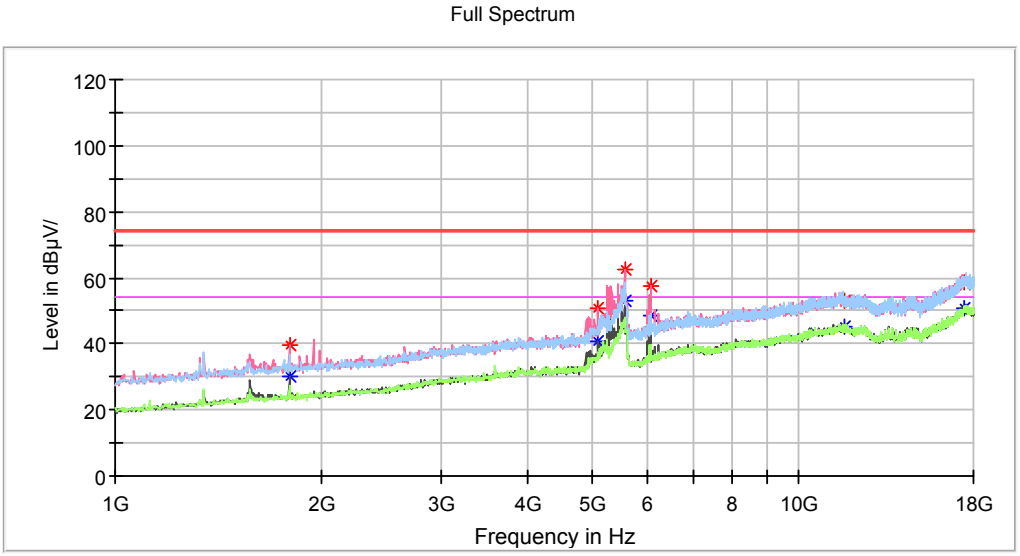
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1574.600000	38.51	---	150.0	V	241.0	-7.7	74.00	35.49
1574.600000	---	27.12	150.0	V	241.0	-7.7	54.00	26.88
5239.800000	---	49.31	200.0	V	353.0	3.5	54.00	4.69
5239.800000	58.83	---	200.0	V	353.0	3.5	74.00	15.17
5559.400000	60.19	---	200.0	V	353.0	4.2	74.00	13.81
5559.400000	---	51.16	200.0	V	353.0	4.2	54.00	2.84
6038.800000	58.18	---	100.0	V	353.0	5.9	74.00	15.82
6038.800000	---	48.59	100.0	V	353.0	5.9	54.00	5.41
11490.000000	53.53	---	200.0	V	205.0	18.2	74.00	20.47
11490.000000	---	45.13	200.0	V	205.0	18.2	54.00	8.87
17235.000000	---	49.73	250.0	H	157.0	22.3	54.00	4.27
17235.000000	59.96	---	250.0	H	157.0	22.3	74.00	14.04

Middle Channel: 5785MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1574.600000	---	27.39	100.0	V	264.0	-7.7	54.00	26.61
1574.600000	36.66	---	100.0	V	264.0	-7.7	74.00	37.34
5280.600000	---	48.87	200.0	V	347.0	3.5	54.00	5.13
5280.600000	61.54	---	200.0	V	347.0	3.5	74.00	12.46
5518.600000	---	51.94	200.0	V	356.0	4.1	54.00	2.06
5518.600000	62.08	---	200.0	V	356.0	4.1	74.00	11.92
6079.600000	---	51.76	150.0	V	347.0	6.1	54.00	2.24
6079.600000	61.24	---	150.0	V	347.0	6.1	74.00	12.76
11570.000000	52.80	---	200.0	H	95.0	18.0	74.00	21.20
11570.000000	---	45.31	200.0	H	95.0	18.0	54.00	8.69
17355.000000	---	49.19	250.0	V	347.0	22.9	54.00	4.81
17355.000000	59.01	---	250.0	V	347.0	22.9	74.00	14.99

High Channel: 5825MHz



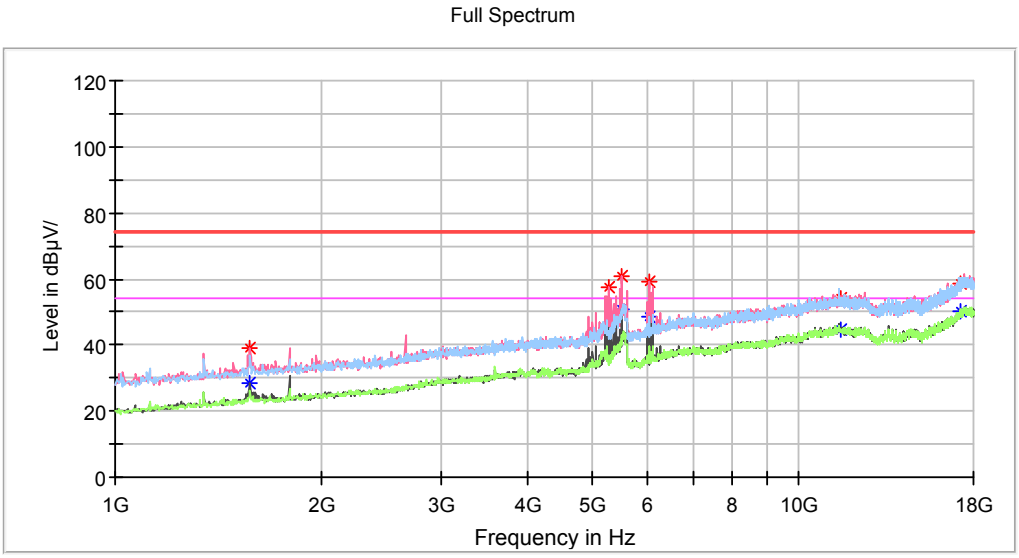
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1799.000000	---	30.11	250.0	V	244.0	-6.8	54.00	23.89
1799.000000	39.80	---	250.0	V	244.0	-6.8	74.00	34.20
5080.000000	---	40.97	200.0	V	0.0	3.1	54.00	13.03
5080.000000	50.91	---	200.0	V	0.0	3.1	74.00	23.09
5559.400000	62.47	---	250.0	V	0.0	4.2	74.00	11.53
5559.400000	---	51.21	250.0	V	0.0	4.2	54.00	2.79
6079.600000	---	48.46	150.0	V	353.0	6.1	54.00	5.54
6079.600000	57.46	---	150.0	V	353.0	6.1	74.00	16.54
11650.000000	52.87	---	250.0	H	134.0	17.7	74.00	21.13
11650.000000	---	45.17	250.0	H	134.0	17.7	54.00	8.83
17475.000000	58.34	---	150.0	H	359.0	23.5	74.00	15.66
17475.000000	---	50.86	150.0	H	359.0	23.5	54.00	3.14

802.11n-HT40 Mode:

Note:
1. This test was performed with the 5725-5875MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
   Corrected Amplitude = Corrected Factor + Reading
   Margin = Limit - Corrected. Amplitude

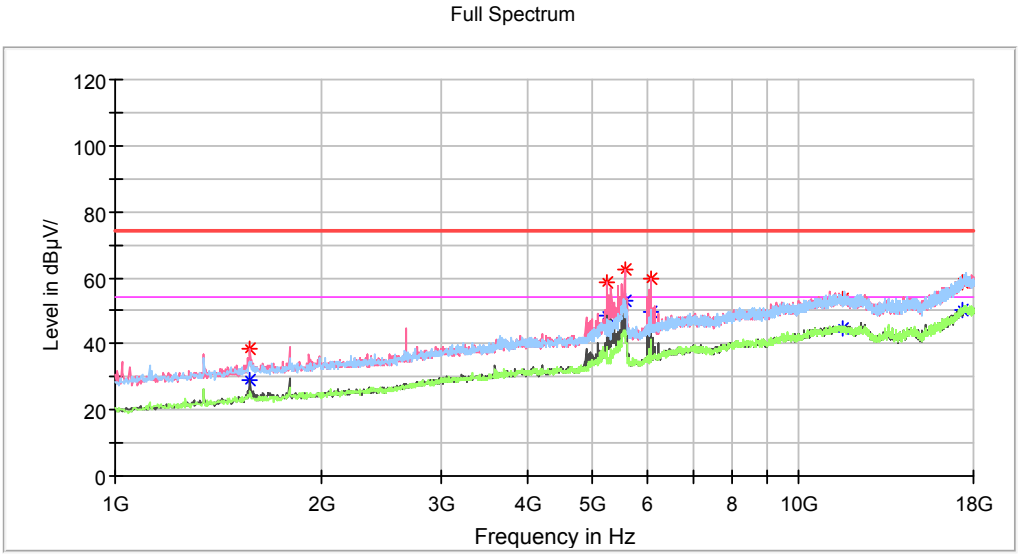
*Pre-scan with X,Y and Z axes of orientation, the worst case **Y-axis of orientation** was recorded*

Low Channel: 5755MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1574.600000	---	28.74	100.0	V	223.0	-7.7	54.00	25.26
1574.600000	38.97	---	100.0	V	223.0	-7.7	74.00	35.03
5280.600000	---	45.24	150.0	V	0.0	3.5	54.00	8.76
5280.600000	57.50	---	150.0	V	0.0	3.5	74.00	16.50
5518.600000	---	50.90	250.0	V	353.0	4.1	54.00	3.10
5518.600000	61.05	---	250.0	V	353.0	4.1	74.00	12.95
6038.800000	---	48.49	250.0	V	353.0	5.9	54.00	5.51
6038.800000	58.95	---	250.0	V	353.0	5.9	74.00	15.05
11510.000000	54.02	---	200.0	H	341.0	18.2	74.00	19.98
11510.000000	---	44.71	200.0	H	341.0	18.2	54.00	9.29
17265.000000	58.85	---	250.0	H	229.0	22.4	74.00	15.15
17265.000000	---	50.14	250.0	H	229.0	22.4	54.00	3.86

High Channel: 5795MHz

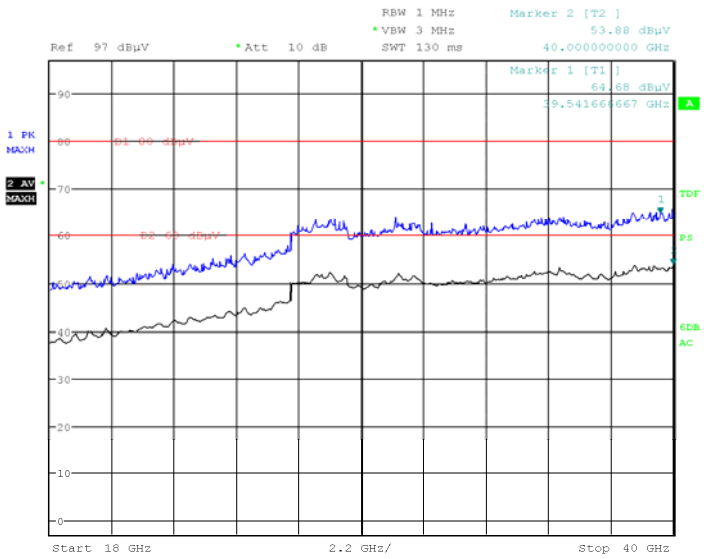


Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1574.600000	---	29.11	250.0	V	246.0	-7.7	54.00	24.89
1574.600000	38.34	---	250.0	V	246.0	-7.7	74.00	35.66
5239.800000	---	48.79	200.0	V	356.0	3.5	54.00	5.21
5239.800000	58.83	---	200.0	V	356.0	3.5	74.00	15.17
5559.400000	---	51.89	250.0	V	356.0	4.2	54.00	2.11
5559.400000	62.37	---	250.0	V	356.0	4.2	74.00	11.63
6079.600000	---	49.80	150.0	V	347.0	6.1	54.00	4.20
6079.600000	59.80	---	150.0	V	347.0	6.1	74.00	14.20
11590.000000	---	44.78	250.0	V	19.0	17.9	54.00	9.22
11590.000000	53.84	---	250.0	V	19.0	17.9	74.00	20.16
17385.000000	58.62	---	200.0	V	264.0	23.1	74.00	15.38
17385.000000	---	50.28	200.0	V	264.0	23.1	54.00	3.72

18GHz-40GHz (5725-5850 Band):

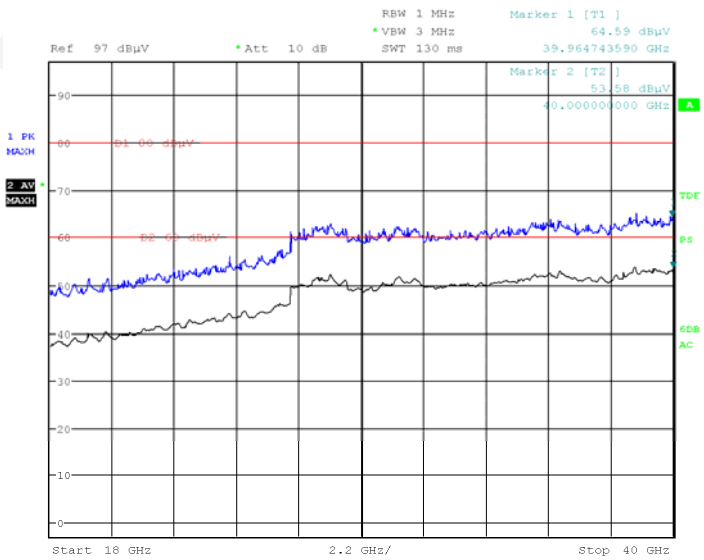
Pre-scan with 802.11a, 802.11n-HT20 and 802.11n-HT40 modes in the X,Y and Z axes of orientation, the worst case ***high channel of 802.11n-HT40 mode of operation in Y-axis of orientation*** *was recorded*
Note: The test distance is 1.5m, The limit 74dBuv/m@3m= 80 dBuv/m@1.5m

Horizontal



Date: 19.DEC.2017 11:04:52

Vertical



Date: 19.DEC.2017 11:08:15

Restricted Bands Emissions Test for NW10IN(5150-5250MHz band):

Note:
1. This test was performed with a 10dB Attenuator.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
   Corrected Amplitude = Corrected Factor + Reading
   Margin = Limit - Corrected. Amplitude

802.11a Mode: *(Pre-scan in the X,Y and Z axes of orientation, the worst case in Y-axis of orientation was recorded)*

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
Left Band Edge								
5149.950000	---	49.90	200.0	V	210.0	13.3	54.00	4.10
5149.950000	58.10	---	200.0	V	210.0	13.3	74.00	15.90
Right Band Edge								
5350.200000	60.89	---	200.0	V	111.0	13.7	74.00	13.11
5350.200000	---	51.93	200.0	V	111.0	13.7	54.00	2.07

802.11n-HT20 Mode: *(Pre-scan in the X,Y and Z axes of orientation, the worst case in Y-axis of orientation was recorded)*

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
Left Band Edge								
5149.950000	57.57	---	250.0	V	353.0	13.3	74.00	16.43
5149.950000	---	50.30	250.0	V	353.0	13.3	54.00	3.70
Right Band Edge								
5350.200000	61.24	---	200.0	V	0.0	13.7	74.00	12.76
5350.200000	---	52.00	200.0	V	0.0	13.7	54.00	2.00

802.11n-HT40 Mode: *(Pre-scan in the X,Y and Z axes of orientation, the worst case in Y-axis of orientation was recorded)*

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
Left Band Edge								
5149.950000	57.26	---	250.0	V	340.0	13.3	74.00	16.74
5149.950000	---	48.82	250.0	V	340.0	13.3	54.00	5.18
Right Band Edge								
5350.200000	59.95	---	200.0	V	3.0	13.7	74.00	14.05
5350.200000	---	51.97	200.0	V	3.0	13.7	54.00	2.03

Restricted Bands Emissions Test for NW10IN (5725-5850MHz band):

Note:
1. This test was performed with a 10dB Attenuator.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
   Corrected Amplitude = Corrected Factor + Reading
   Margin = Limit - Corrected. Amplitude

802.11a Mode: *(Pre-scan in the X,Y and Z axes of orientation, the worst case in Y-axis of orientation was recorded)*

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
Left Band Edge								
5725.000000	60.09	---	250.0	V	0.0	14.8	74.00	13.91
5725.000000	---	51.49	250.0	V	0.0	14.8	54.00	2.51
Right Band Edge								
5850.040000	57.99	---	250.0	H	0.0	15.2	74.00	16.01
5850.040000	---	50.57	250.0	H	0.0	15.2	54.00	3.43

802.11n-HT20 Mode: *(Pre-scan in the X,Y and Z axes of orientation, the worst case in Y-axis of orientation was recorded)*

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
Left Band Edge								
5725.000000	58.65	---	150.0	V	1.0	14.8	74.00	15.35
5725.000000	---	51.55	150.0	V	1.0	14.8	54.00	2.45
Right Band Edge								
5850.010000	---	50.45	250.0	H	353.0	15.2	54.00	3.55
5850.010000	58.35	---	250.0	H	353.0	15.2	74.00	15.65

802.11n-HT40 Mode: *(Pre-scan in the X,Y and Z axes of orientation, the worst case in Y-axis of orientation was recorded)*

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
Left Band Edge								
5725.000000	---	51.63	250.0	V	0.0	14.8	54.00	2.37
5725.000000	64.18	---	250.0	V	0.0	14.8	74.00	9.82
Right Band Edge								
5850.030000	56.91	---	250.0	V	0.0	15.2	74.00	17.09
5850.030000	---	49.35	250.0	V	0.0	15.2	54.00	4.65

Spurious Emission Test for NW10/M:

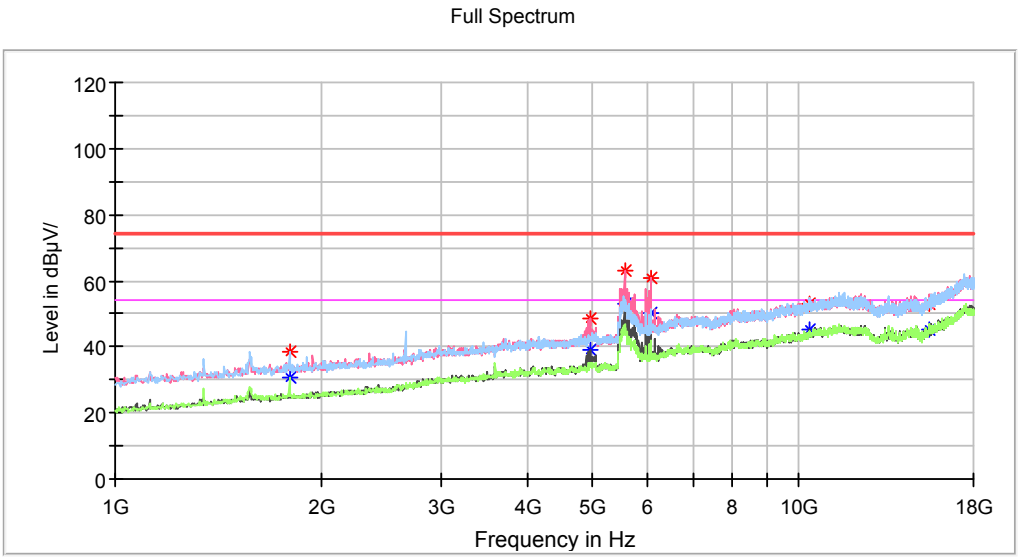
1GHz-18GHz (5150-5250MHz Band):

802.11a Mode:

Note:
1. This test was performed with the 5150-5350MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
   Corrected Amplitude = Corrected Factor + Reading
   Margin = Limit - Corrected. Amplitude

*Pre-scan with X,Y and Z axes of orientation, the worst case Chain 1 at vertical in **Y-axis of orientation** was recorded*

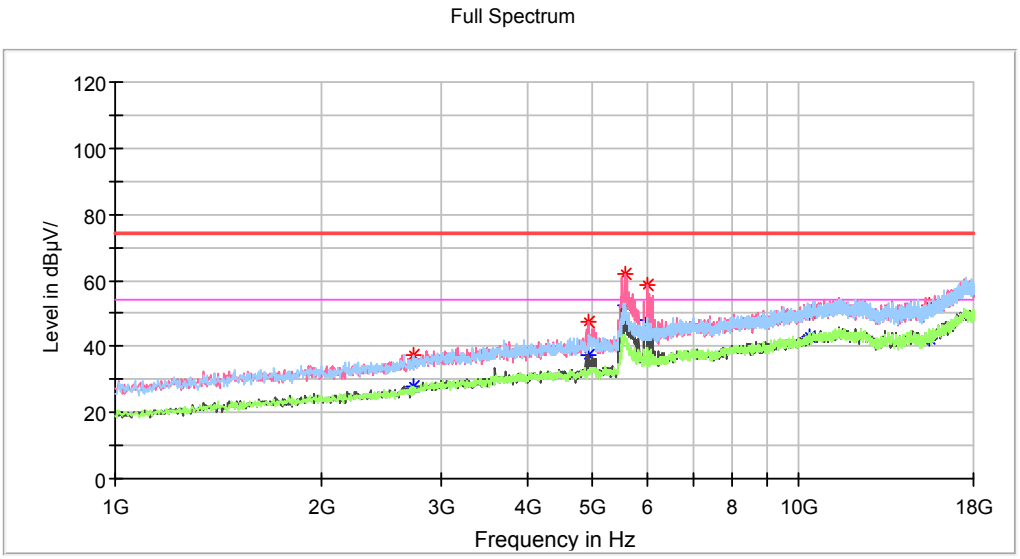
Low Channel: 5180MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1799.000000	38.78	---	150.0	H	326.0	-6.8	74.00	35.22
1799.000000	---	30.65	150.0	H	326.0	-6.8	54.00	23.35
4957.600000	48.31	---	200.0	V	0.0	2.8	74.00	25.69
4957.600000	---	38.95	200.0	V	0.0	2.8	54.00	15.05
5559.400000	62.81	---	200.0	V	359.0	4.2	74.00	11.19
5559.400000	---	51.29	200.0	V	359.0	4.2	54.00	2.71
6079.600000	60.58	---	200.0	V	0.0	6.1	74.00	13.42
6079.600000	---	50.39	200.0	V	0.0	6.1	54.00	3.61
10360.000000	---	45.12	150.0	V	201.0	16.4	54.00	8.88
10360.000000	53.06	---	150.0	V	201.0	16.4	74.00	20.94
15540.000000	52.95	---	150.0	V	130.0	16.2	74.00	21.05
15540.000000	---	45.26	150.0	V	130.0	16.2	54.00	8.74

*Pre-scan with X,Y and Z axes of orientation, the worst case Chain 1 at horizontal in **Y-axis of orientation** was recorded*

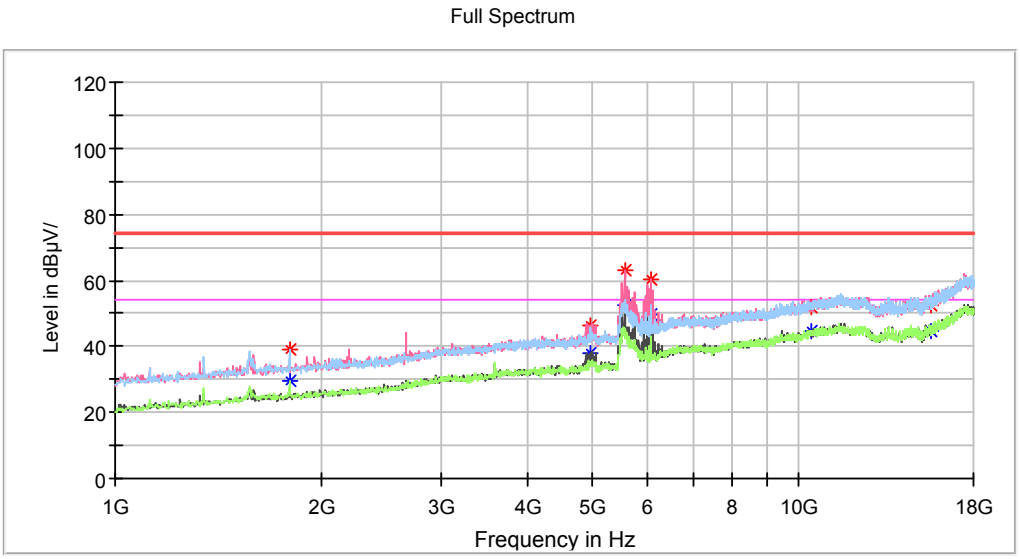
Low Channel: 5180MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
2723.800000	---	27.83	117.0	H	251.0	-3.4	54.00	26.17
2723.800000	37.35	---	117.0	H	251.0	-3.4	74.00	36.65
4920.200000	---	37.22	247.0	V	218.0	2.7	54.00	16.78
4920.200000	47.43	---	247.0	V	218.0	2.7	74.00	26.57
5559.400000	---	51.49	238.0	V	92.0	4.2	54.00	2.51
5559.400000	61.80	---	238.0	V	92.0	4.2	74.00	12.20
5998.000000	---	48.28	195.0	V	234.0	5.7	54.00	5.72
5998.000000	58.55	---	195.0	V	234.0	5.7	74.00	15.45
10360.000000	50.22	---	178.0	V	345.0	16.4	74.00	23.78
10360.000000	---	43.20	178.0	V	345.0	16.4	54.00	10.80
15540.000000	52.40	---	196.0	V	129.0	16.2	74.00	21.60
15540.000000	---	42.48	196.0	V	129.0	16.2	54.00	11.52

*Pre-scan with X,Y and Z axes of orientation, the worst case Chain 1 at vertical in **Y-axis of orientation** was recorded*

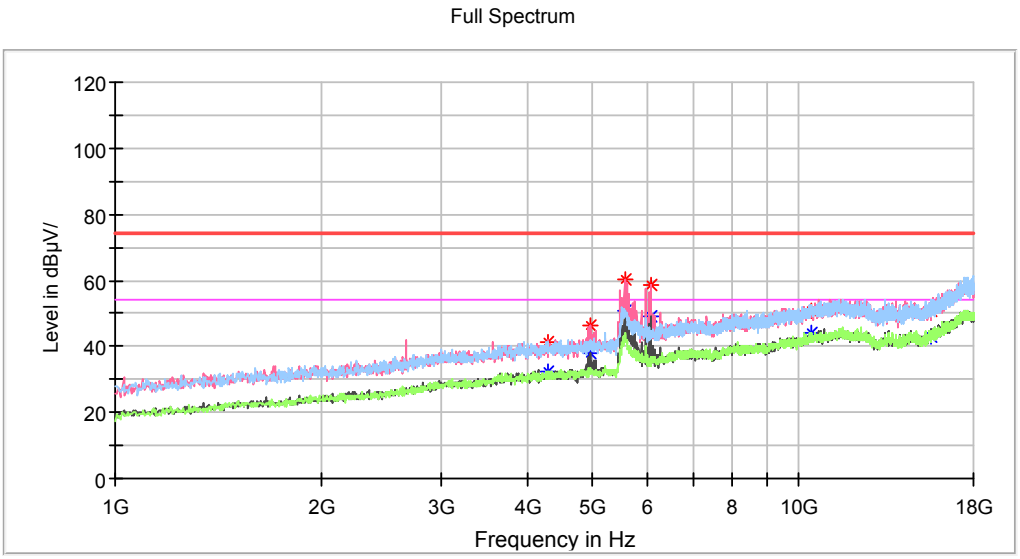
Middle Channel: 5200MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1799.000000	---	29.44	100.0	H	342.0	-6.8	54.00	24.56
1799.000000	39.09	---	100.0	H	342.0	-6.8	74.00	34.91
4957.600000	---	37.94	200.0	V	0.0	2.8	54.00	16.06
4957.600000	46.23	---	200.0	V	0.0	2.8	74.00	27.77
5559.400000	---	51.48	200.0	V	0.0	4.2	54.00	2.52
5559.400000	63.26	---	200.0	V	0.0	4.2	74.00	10.74
6079.600000	---	49.80	200.0	V	0.0	6.1	54.00	4.20
6079.600000	60.17	---	200.0	V	0.0	6.1	74.00	13.83
10400.000000	52.11	---	150.0	V	335.0	16.6	74.00	21.89
10400.000000	---	44.40	150.0	V	335.0	16.6	54.00	9.60
15600.000000	52.54	---	150.0	V	13.0	16.4	74.00	21.46
15600.000000	---	44.43	150.0	V	13.0	16.4	54.00	9.57

*Pre-scan with X,Y and Z axes of orientation, the worst case Chain 1 at horizontal in **Y-axis of orientation** was recorded*

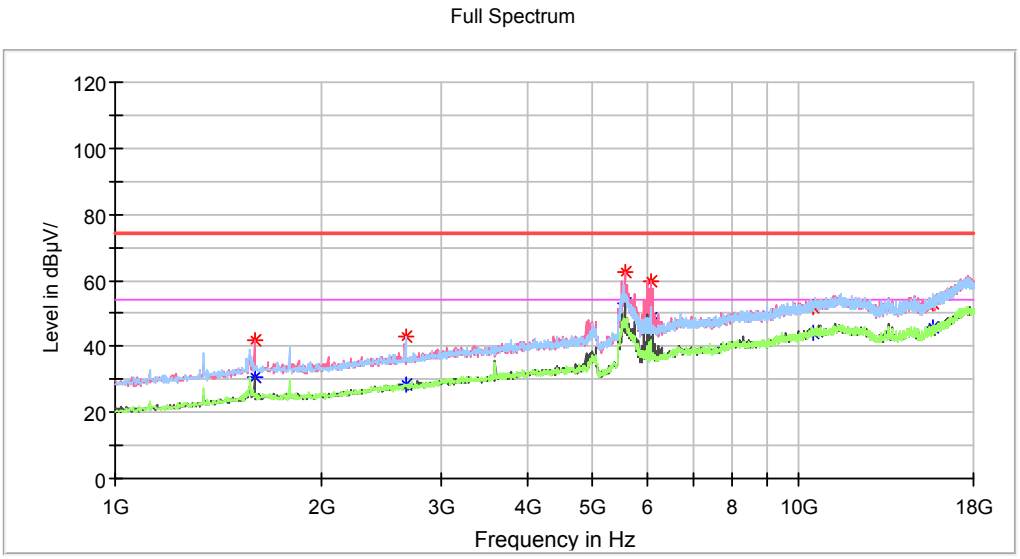
Middle Channel: 5200MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
4304.800000	41.02	---	149.0	H	170.0	1.4	74.00	32.98
4304.800000	---	32.60	149.0	H	170.0	1.4	54.00	21.40
4957.600000	---	37.98	122.0	V	6.0	2.8	54.00	16.02
4957.600000	46.53	---	122.0	V	6.0	2.8	74.00	27.47
5559.400000	---	50.88	156.0	V	93.0	4.2	54.00	3.12
5559.400000	60.20	---	156.0	V	93.0	4.2	74.00	13.80
6079.600000	---	48.92	157.0	V	130.0	6.1	54.00	5.08
6079.600000	58.57	---	157.0	V	130.0	6.1	74.00	15.43
10400.000000	50.57	---	210.0	V	307.0	16.6	74.00	23.43
10400.000000	---	43.83	210.0	V	307.0	16.6	54.00	10.17
15600.000000	50.97	---	227.0	V	184.0	16.4	74.00	23.03
15600.000000	---	43.18	227.0	V	184.0	16.4	54.00	10.82

*Pre-scan with X,Y and Z axes of orientation, the worst case Chain 1 at vertical in **Y-axis of orientation** was recorded*

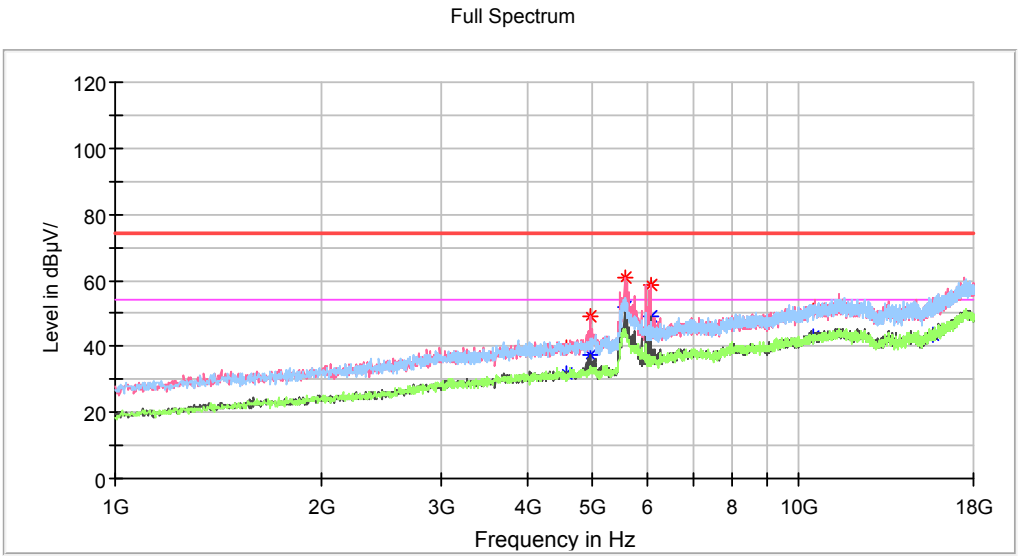
High Channel: 5240MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1598.400000	41.85	---	150.0	V	340.0	-7.6	74.00	32.15
1598.400000	---	30.42	150.0	V	340.0	-7.6	54.00	23.58
2659.200000	42.89	---	200.0	H	70.0	-3.8	74.00	31.11
2659.200000	---	28.67	200.0	H	352.0	-3.8	54.00	25.33
5559.400000	---	51.11	200.0	V	0.0	4.2	54.00	2.89
5559.400000	62.66	---	200.0	V	0.0	4.2	74.00	11.34
6079.600000	---	48.68	200.0	V	5.0	6.1	54.00	5.32
6079.600000	59.74	---	200.0	V	5.0	6.1	74.00	14.26
10480.000000	---	44.18	200.0	H	358.0	16.9	54.00	9.82
10480.000000	51.75	---	200.0	H	358.0	16.9	74.00	22.25
15720.000000	---	45.92	200.0	H	175.0	16.9	54.00	8.08
15720.000000	53.17	---	200.0	H	175.0	16.9	74.00	20.83

*Pre-scan with X,Y and Z axes of orientation, the worst case Chain 1 at horizontal in **Y-axis of orientation** was recorded*

High Channel: 5240MHz



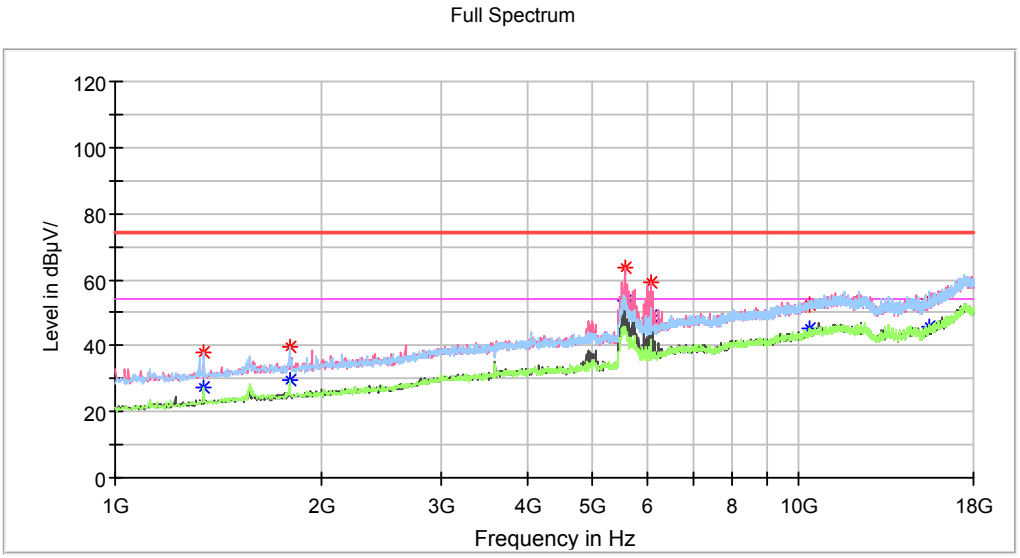
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
4573.400000	39.56	---	185.0	V	165.0	2.0	74.00	34.44
4573.400000	---	31.97	185.0	V	165.0	2.0	54.00	22.03
4957.600000	---	37.53	167.0	H	330.0	2.8	54.00	16.47
4957.600000	49.07	---	167.0	H	330.0	2.8	74.00	24.93
5559.400000	---	51.74	219.0	V	246.0	4.2	54.00	2.26
5559.400000	61.01	---	219.0	V	246.0	4.2	74.00	12.99
6079.600000	---	49.02	137.0	V	281.0	6.1	54.00	4.98
6079.600000	58.42	---	137.0	V	281.0	6.1	74.00	15.58
10480.000000	50.73	---	140.0	H	47.0	16.9	74.00	23.27
10480.000000	---	42.88	140.0	H	47.0	16.9	54.00	11.12
15720.000000	51.80	---	227.0	H	152.0	16.8	74.00	22.20
15720.000000	---	43.40	227.0	H	152.0	16.8	54.00	10.60

802.11n-HT20 Mode:

Note:
1. This test was performed with the 5150-5350MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
   Corrected Amplitude = Corrected Factor + Reading
   Margin = Limit - Corrected. Amplitude

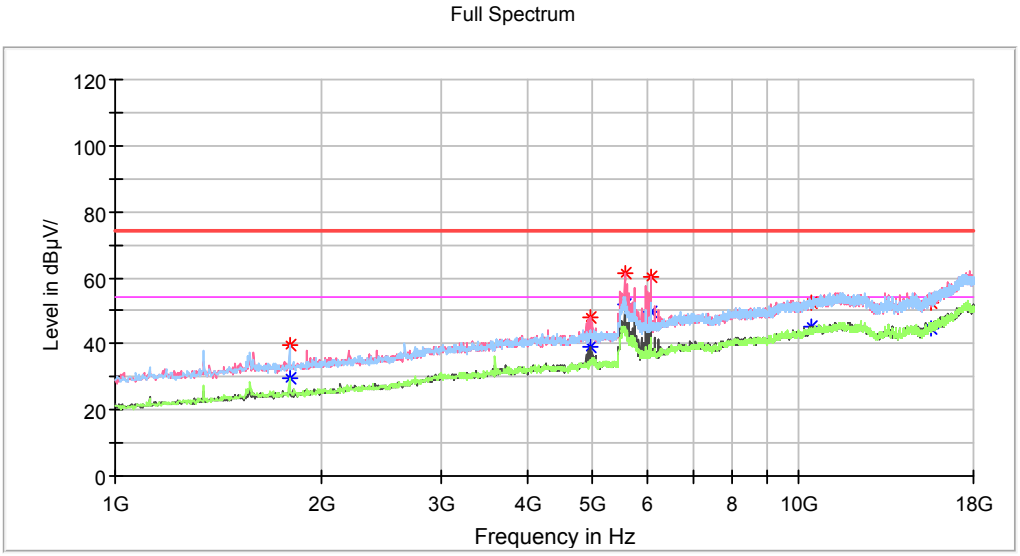
*Pre-scan with X,Y and Z axes of orientation, the worst case **Y-axis of orientation** was recorded*

Low Channel: 5180MHz



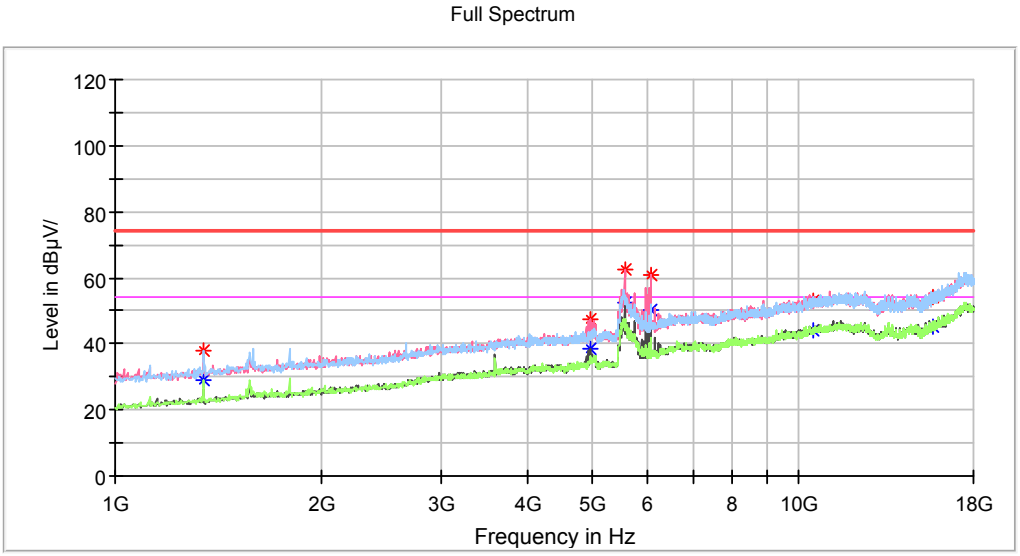
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1346.800000	---	27.59	150.0	H	342.0	-9.0	54.00	26.41
1346.800000	37.74	---	150.0	H	342.0	-9.0	74.00	36.26
1799.000000	---	29.70	150.0	H	142.0	-6.8	54.00	24.30
1799.000000	39.59	---	150.0	H	142.0	-6.8	74.00	34.41
5559.400000	---	51.60	200.0	V	358.0	4.2	54.00	2.40
5559.400000	63.60	---	200.0	V	358.0	4.2	74.00	10.40
6079.600000	---	49.08	200.0	V	0.0	6.1	54.00	4.92
6079.600000	58.98	---	200.0	V	0.0	6.1	74.00	15.02
10360.000000	52.65	---	200.0	V	242.0	16.4	74.00	21.35
10360.000000	---	44.95	200.0	V	242.0	16.4	54.00	9.05
15540.000000	54.20	---	200.0	H	236.0	16.3	74.00	19.80
15540.000000	---	45.53	200.0	H	236.0	16.3	54.00	8.47

Middle Channel: 5200MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1799.000000	---	29.84	150.0	H	346.0	-6.8	54.00	24.16
1799.000000	39.88	---	150.0	H	346.0	-6.8	74.00	34.12
4957.600000	---	38.95	200.0	V	10.0	2.8	54.00	15.05
4957.600000	47.75	---	200.0	V	10.0	2.8	74.00	26.25
5559.400000	---	51.77	200.0	V	120.0	4.2	54.00	2.23
5559.400000	61.49	---	200.0	V	120.0	4.2	74.00	12.51
6079.600000	---	49.93	200.0	V	210.0	6.1	54.00	4.07
6079.600000	60.53	---	200.0	V	210.0	6.1	74.00	13.47
10400.000000	52.56	---	200.0	V	326.0	16.6	74.00	21.44
10400.000000	---	45.07	200.0	V	326.0	16.6	54.00	8.93
15600.000000	52.49	---	150.0	V	100.0	16.4	74.00	21.51
15600.000000	---	44.67	150.0	V	100.0	16.4	54.00	9.33

High Channel: 5240MHz



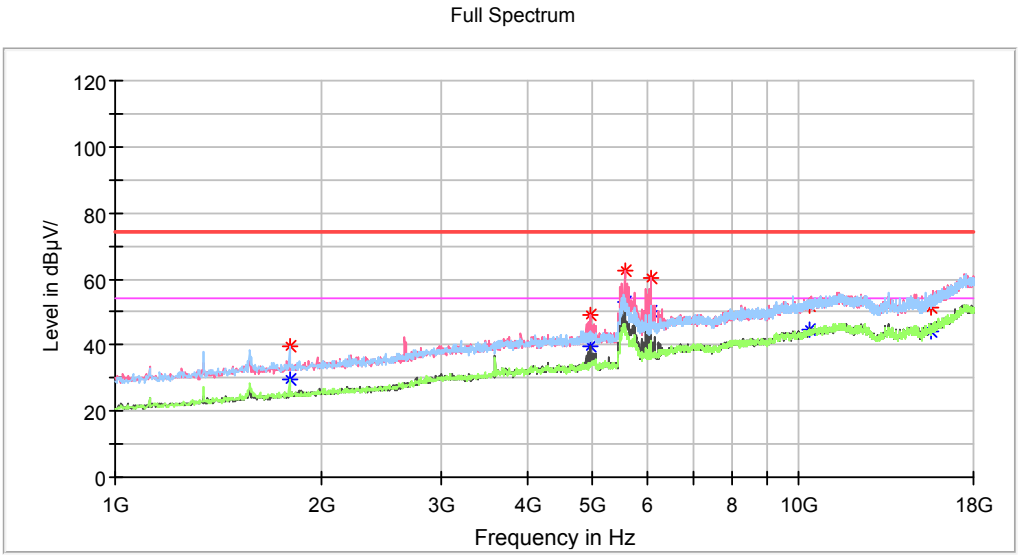
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1346.800000	---	28.98	200.0	H	0.0	-9.0	54.00	25.02
1346.800000	38.15	---	200.0	H	0.0	-9.0	74.00	35.85
4957.600000	---	38.60	200.0	V	358.0	2.8	54.00	15.40
4957.600000	47.50	---	200.0	V	358.0	2.8	74.00	26.50
5559.400000	---	51.50	200.0	V	358.0	4.2	54.00	2.50
5559.400000	62.24	---	200.0	V	358.0	4.2	74.00	11.76
6079.600000	---	50.33	200.0	V	0.0	6.1	54.00	3.67
6079.600000	60.81	---	200.0	V	0.0	6.1	74.00	13.19
10480.000000	---	44.02	150.0	H	311.0	16.9	54.00	9.98
10480.000000	53.12	---	150.0	H	311.0	16.9	74.00	20.88
15720.000000	54.25	---	100.0	V	141.0	16.8	74.00	19.75
15720.000000	---	45.25	200.0	V	141.0	16.8	54.00	8.75

802.11n-HT40 Mode:

Note:
1. This test was performed with the 5150-5350MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
   Corrected Amplitude = Corrected Factor + Reading
   Margin = Limit - Corrected. Amplitude

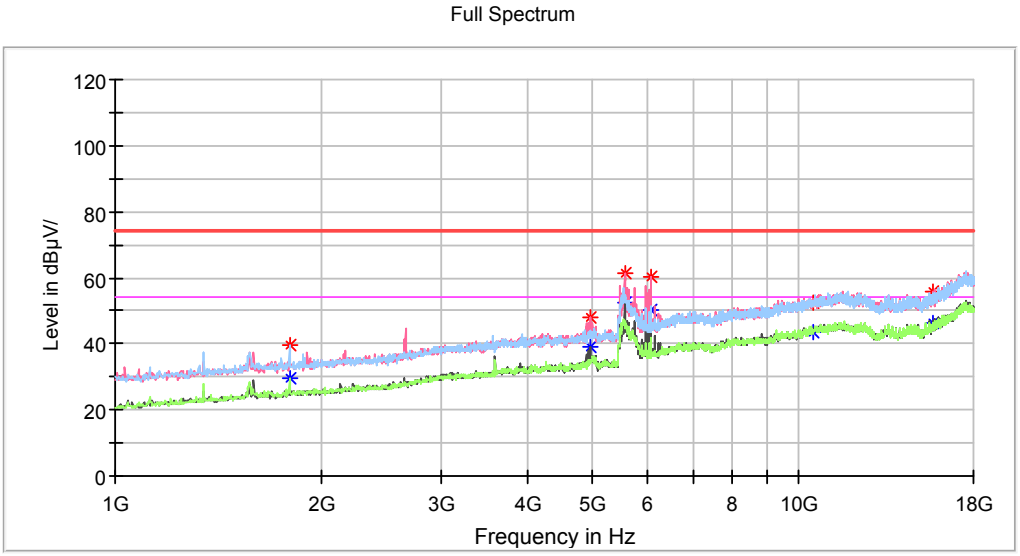
*Pre-scan with X,Y and Z axes of orientation, the worst case **Y-axis of orientation** was recorded*

Low Channel: 5190MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1799.000000	---	29.73	150.0	H	0.0	-6.8	54.00	24.27
1799.000000	39.88	---	150.0	H	8.0	-6.8	74.00	34.12
4957.600000	---	39.68	200.0	V	0.0	2.8	54.00	14.32
4957.600000	49.11	---	200.0	V	0.0	2.8	74.00	24.89
5559.400000	---	51.93	200.0	V	355.0	4.2	54.00	2.07
5559.400000	62.61	---	200.0	V	355.0	4.2	74.00	11.39
6079.600000	---	50.29	200.0	V	0.0	6.1	54.00	3.71
6079.600000	60.46	---	200.0	V	0.0	6.1	74.00	13.54
10380.000000	52.13	---	100.0	H	83.0	16.5	74.00	21.87
10380.000000	---	44.69	100.0	H	83.0	16.5	54.00	9.31
15570.000000	51.45	---	150.0	V	359.0	16.3	74.00	22.55
15570.000000	---	44.35	150.0	V	359.0	16.3	54.00	9.65

High Channel: 5230MHz

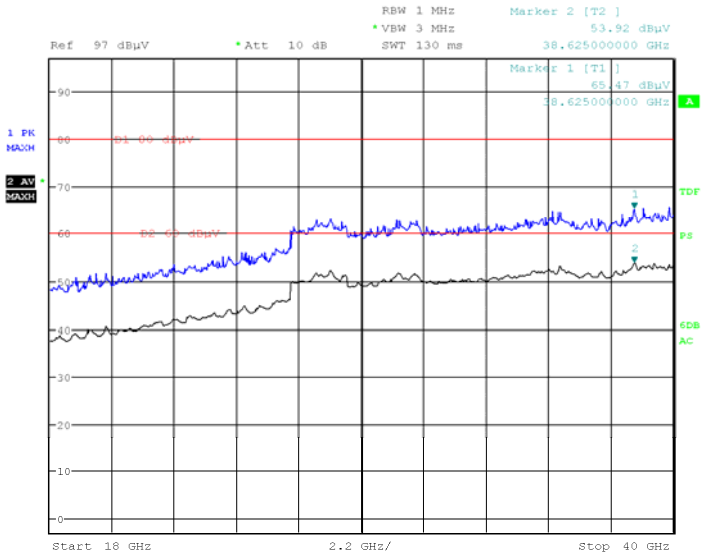


Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1799.000000	---	29.72	100.0	H	341.0	-6.8	54.00	24.28
1799.000000	39.37	---	100.0	H	341.0	-6.8	74.00	34.63
4957.600000	---	39.29	200.0	V	20.0	2.8	54.00	14.71
4957.600000	48.11	---	200.0	V	20.0	2.8	74.00	25.89
5559.400000	---	51.20	200.0	V	358.0	4.2	54.00	2.80
5559.400000	61.35	---	200.0	V	358.0	4.2	74.00	12.65
6079.600000	---	50.05	200.0	V	10.0	6.1	54.00	3.95
6079.600000	60.20	---	200.0	V	10.0	6.1	74.00	13.80
10460.000000	---	43.63	150.0	V	342.0	16.8	54.00	10.37
10460.000000	52.73	---	150.0	V	342.0	16.8	74.00	21.27
15690.000000	---	46.07	150.0	V	185.0	16.7	54.00	7.93
15690.000000	55.85	---	150.0	V	185.0	16.7	74.00	18.15

18GHz-40GHz (5150-5250MHz Band):

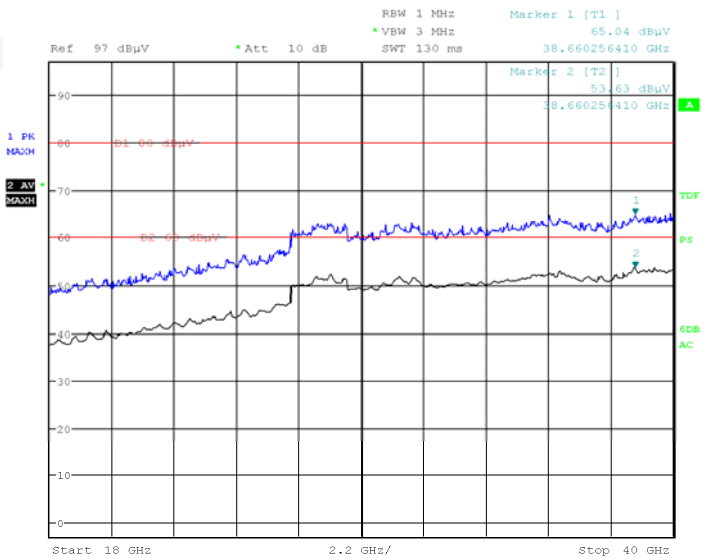
Pre-scan with 802.11a, 802.11n-HT20 and 802.11n-HT40 modes of operation in the X,Y and Z axes of orientation, the worst case ***high channel of 802.11n-HT40 mode in Y-axis of orientation*** *was recorded*
Note: The test distance is 1.5m, The limit 74dBuv/m@3m= 80 dBuv/m@1.5m

Horizontal



Date: 19.DEC.2017 11:08:00

Vertical



Date: 19.DEC.2017 11:01:52

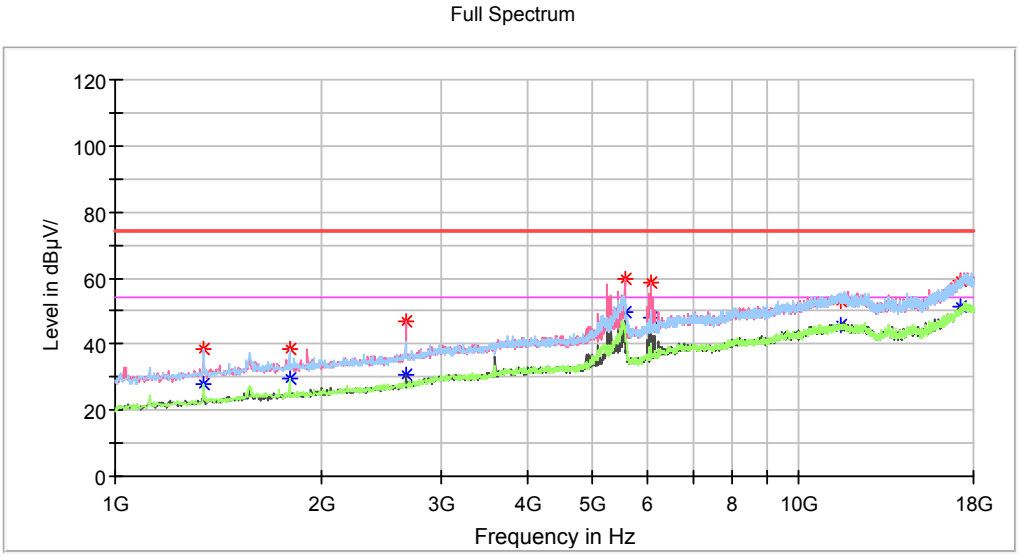
1GHz-18GHz (5745-5825 Band):

802.11a Mode:

Note:
1. This test was performed with the 5725-5875MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
   Corrected Amplitude = Corrected Factor + Reading
   Margin = Limit - Corrected. Amplitude

*Pre-scan with X,Y and Z axes of orientation, the worst case Chain 0 at vertical in **Y-axis of orientation** was recorded*

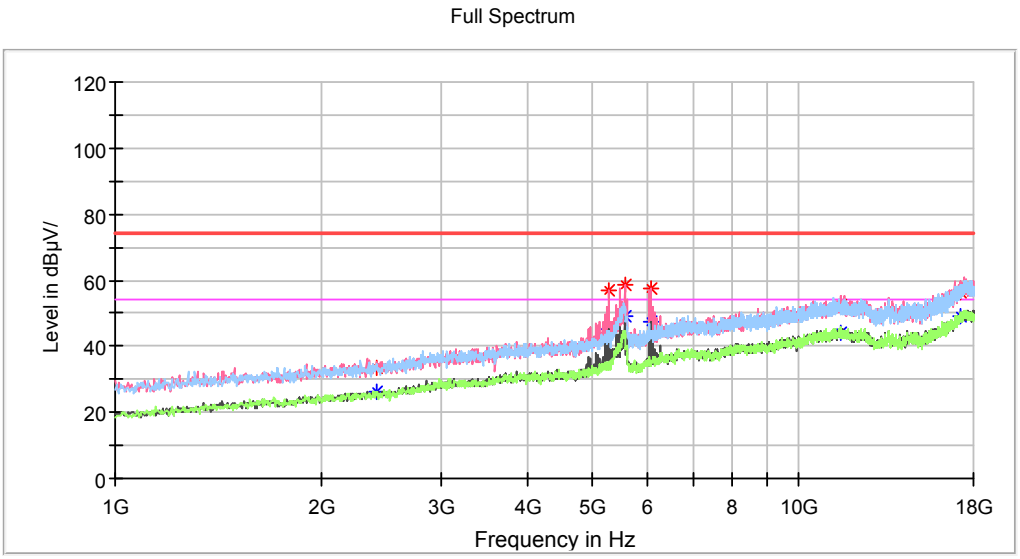
Low Channel: 5745MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1346.800000	---	27.74	150.0	H	17.0	-9.0	54.00	26.26
1346.800000	38.73	---	150.0	H	17.0	-9.0	74.00	35.27
1799.000000	---	29.62	150.0	H	342.0	-6.8	54.00	24.38
1799.000000	38.56	---	150.0	H	342.0	-6.8	74.00	35.44
2666.000000	---	30.57	150.0	V	31.0	-3.8	54.00	23.43
2666.000000	46.98	---	150.0	V	31.0	-3.7	74.00	27.02
5559.400000	---	49.56	200.0	V	358.0	4.2	54.00	4.44
5559.400000	59.70	---	200.0	V	358.0	4.2	74.00	14.30
6079.600000	---	48.09	200.0	V	0.0	6.1	54.00	5.91
6079.600000	58.51	---	200.0	V	0.0	6.1	74.00	15.49
11490.000000	52.86	---	200.0	H	208.0	18.2	74.00	21.14
11490.000000	---	45.74	200.0	H	208.0	18.2	54.00	8.26

*Pre-scan with X,Y and Z axes of orientation, the worst case Chain 0 at horizontal in **Y-axis of orientation** was recorded*

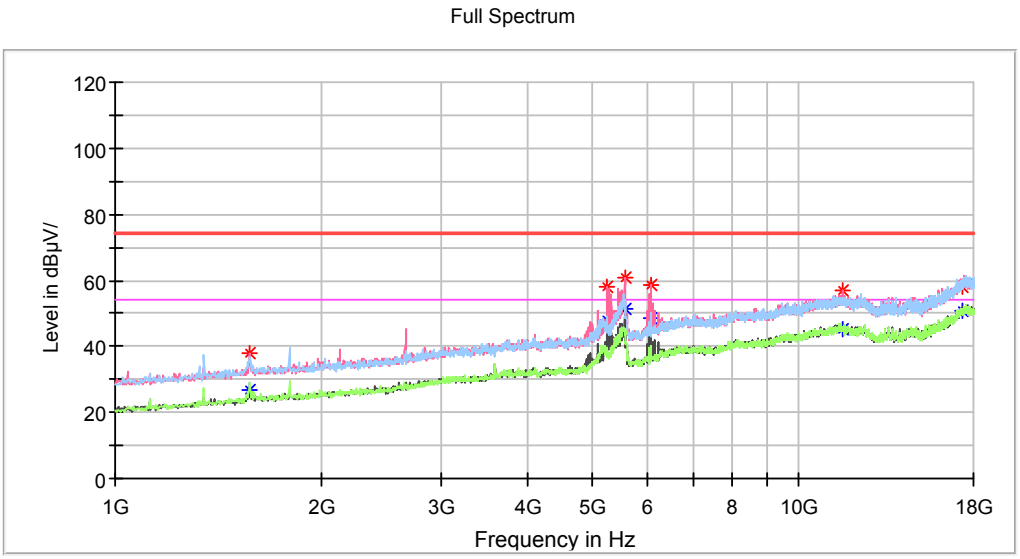
Low Channel: 5745MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
2414.400000	33.27	---	111.0	H	284.0	-4.9	74.00	40.73
2414.400000	---	26.39	111.0	H	284.0	-4.9	54.00	27.61
5280.600000	---	44.95	245.0	H	240.0	3.5	54.00	9.05
5280.600000	56.79	---	245.0	H	240.0	3.5	74.00	17.21
5559.400000	---	48.87	214.0	V	313.0	4.2	54.00	5.13
5559.400000	58.50	---	214.0	V	313.0	4.2	74.00	15.50
6079.600000	---	47.40	204.0	V	51.0	6.1	54.00	6.60
6079.600000	57.26	---	204.0	V	51.0	6.1	74.00	16.74
11490.000000	---	44.12	142.0	V	42.0	18.2	54.00	9.88
11490.000000	52.22	---	142.0	V	42.0	18.2	74.00	21.78
17235.000000	56.62	---	183.0	H	40.0	22.3	74.00	17.38
17235.000000	---	48.99	183.0	H	40.0	22.3	54.00	5.01

*Pre-scan with X,Y and Z axes of orientation, the worst case Chain 0 at vertical in **Y-axis of orientation** was recorded*

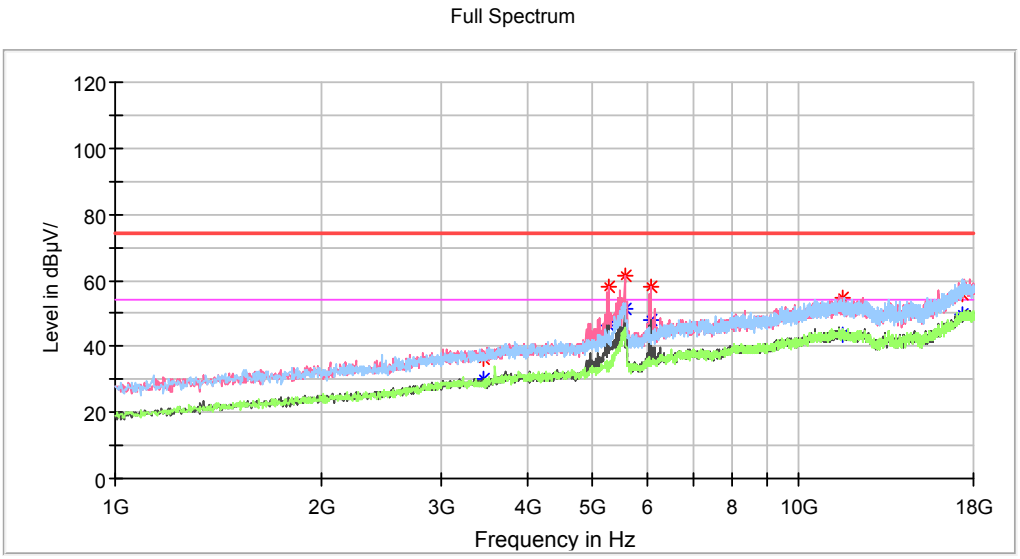
Middle Channel: 5785MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1574.600000	37.93	---	100.0	V	303.0	-7.7	74.00	36.07
1574.600000	---	26.86	100.0	V	303.0	-7.7	54.00	27.14
5239.800000	57.90	---	200.0	V	210.0	3.5	74.00	16.10
5239.800000	---	48.23	200.0	V	210.0	3.5	54.00	5.77
5559.400000	60.80	---	200.0	V	110.0	4.2	74.00	13.20
5559.400000	---	51.55	200.0	V	110.0	4.2	54.00	2.45
6079.600000	---	48.38	200.0	V	20.0	6.1	54.00	5.62
6079.600000	58.57	---	200.0	V	20.0	6.1	74.00	15.43
11570.000000	---	45.04	200.0	V	50.0	18.0	54.00	8.96
11570.000000	56.90	---	200.0	V	50.0	18.0	74.00	17.10
17355.000000	---	50.66	100.0	V	217.0	22.9	54.00	3.34
17355.000000	58.17	---	100.0	V	217.0	22.9	74.00	15.83

*Pre-scan with X,Y and Z axes of orientation, the worst case Chain 0 at horizontal in **Y-axis of orientation** was recorded*

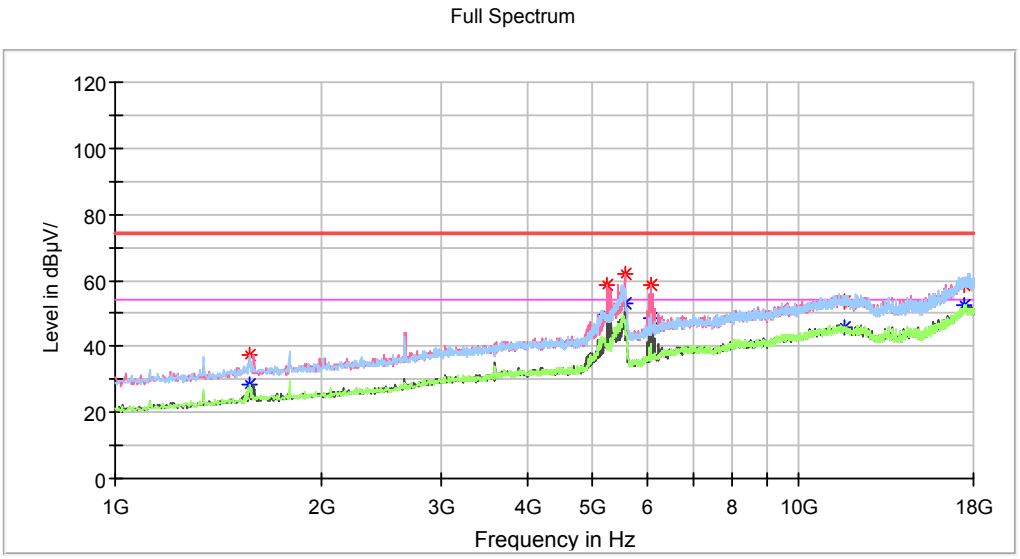
Middle Channel: 5785MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
3451.400000	36.47	---	229.0	V	151.0	-1.0	74.00	37.53
3451.400000	---	30.15	229.0	V	151.0	-1.0	54.00	23.85
5280.600000	---	46.10	240.0	V	292.0	3.5	54.00	7.90
5280.600000	58.20	---	240.0	V	292.0	3.5	74.00	15.80
5559.400000	---	51.22	220.0	V	19.0	4.2	54.00	2.78
5559.400000	61.14	---	220.0	V	19.0	4.2	74.00	12.86
6079.600000	---	48.18	206.0	V	288.0	6.1	54.00	5.82
6079.600000	57.95	---	206.0	V	288.0	6.1	74.00	16.05
11570.000000	---	43.79	167.0	V	148.0	18.0	54.00	10.21
11570.000000	54.65	---	167.0	V	148.0	18.0	74.00	19.35
17355.000000	56.09	---	156.0	V	311.0	22.9	74.00	17.91
17355.000000	---	49.67	156.0	V	311.0	22.9	54.00	4.33

*Pre-scan with X,Y and Z axes of orientation, the worst case Chain 0 at vertical in **Y-axis of orientation** was recorded*

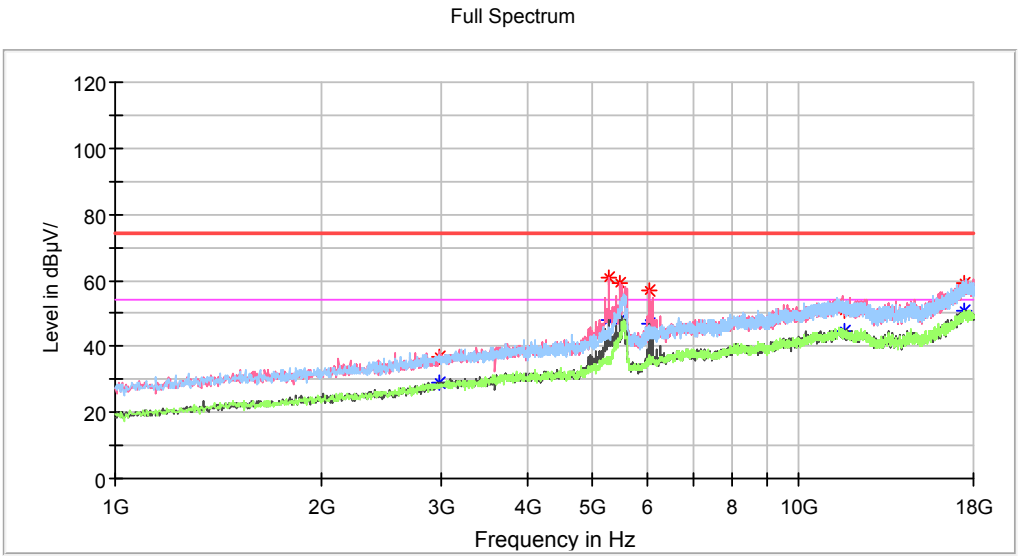
High Channel: 5825MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1574.600000	---	28.41	150.0	H	355.0	-7.7	54.00	25.59
1574.600000	37.37	---	150.0	H	355.0	-7.7	74.00	36.63
5239.800000	---	49.54	200.0	V	359.0	3.5	54.00	4.46
5239.800000	58.34	---	200.0	V	359.0	3.5	74.00	15.66
5559.400000	---	51.12	200.0	V	0.0	4.2	54.00	2.88
5559.400000	62.01	---	200.0	V	0.0	4.2	74.00	11.99
6079.600000	---	48.73	200.0	V	0.0	6.1	54.00	5.27
6079.600000	58.63	---	200.0	V	0.0	6.1	74.00	15.37
11655.000000	53.72	---	100.0	V	190.0	17.7	74.00	20.28
11655.000000	---	45.54	100.0	V	190.0	17.7	54.00	8.46
17475.000000	58.56	---	150.0	H	301.0	23.6	74.00	15.44
17475.000000	---	51.29	120.0	H	301.0	23.6	54.00	2.71

*Pre-scan with X,Y and Z axes of orientation, the worst case Chain 0 at horizontal in **Y-axis of orientation** was recorded*

High Channel: 5825MHz



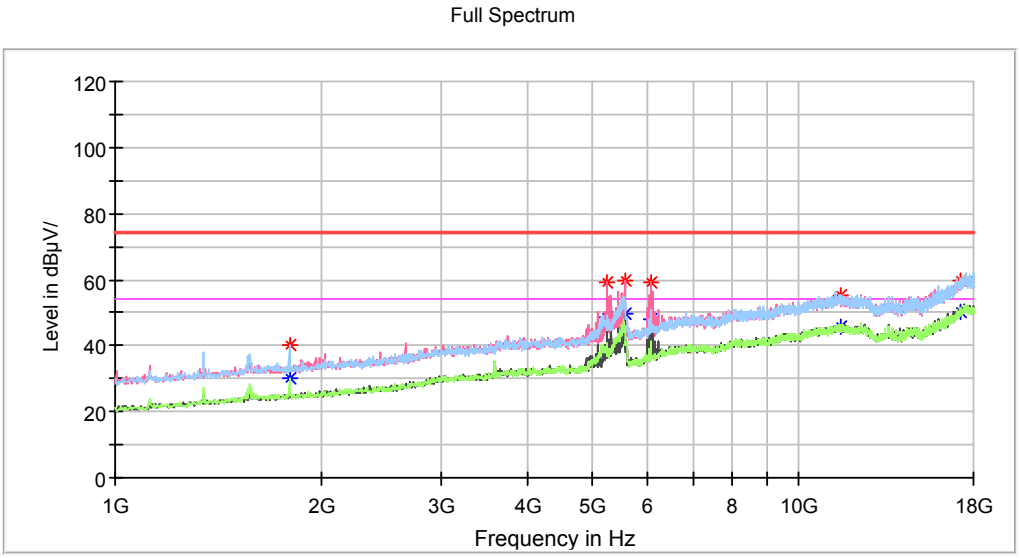
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
2978.800000	36.92	---	187.0	H	195.0	-2.1	74.00	37.08
2978.800000	---	29.26	187.0	H	195.0	-2.1	54.00	24.74
5280.600000	---	48.10	187.0	V	55.0	3.5	54.00	5.90
5280.600000	60.56	---	187.0	V	55.0	3.5	74.00	13.44
5477.800000	---	48.27	211.0	V	217.0	4.0	54.00	5.73
5477.800000	59.36	---	211.0	V	217.0	4.0	74.00	14.64
6038.800000	---	47.09	146.0	V	57.0	5.9	54.00	6.91
6038.800000	56.66	---	146.0	V	57.0	5.9	74.00	17.34
11655.000000	50.97	---	229.0	V	101.0	17.7	74.00	23.03
11655.000000	---	44.80	229.0	V	101.0	17.7	54.00	9.20
17475.000000	58.93	---	200.0	H	17.0	23.5	74.00	15.07
17475.000000	---	50.73	200.0	H	17.0	23.5	54.00	3.27

802.11n-HT20 Mode:

Note:
1. This test was performed with the 5725-5875MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
   Corrected Amplitude = Corrected Factor + Reading
   Margin = Limit - Corrected. Amplitude

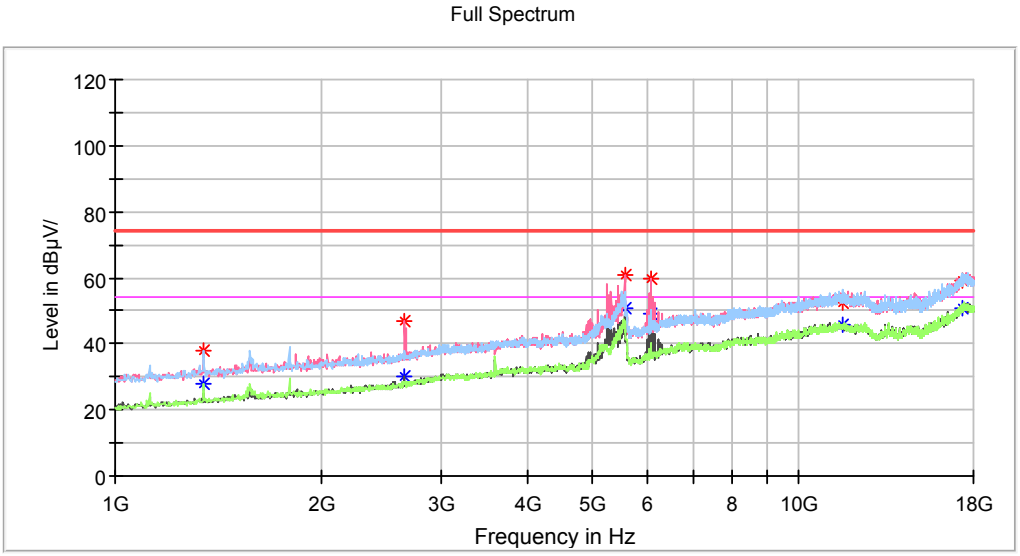
*Pre-scan with X,Y and Z axes of orientation, the worst case **Y-axis of orientation** was recorded*

Low Channel: 5745MHz



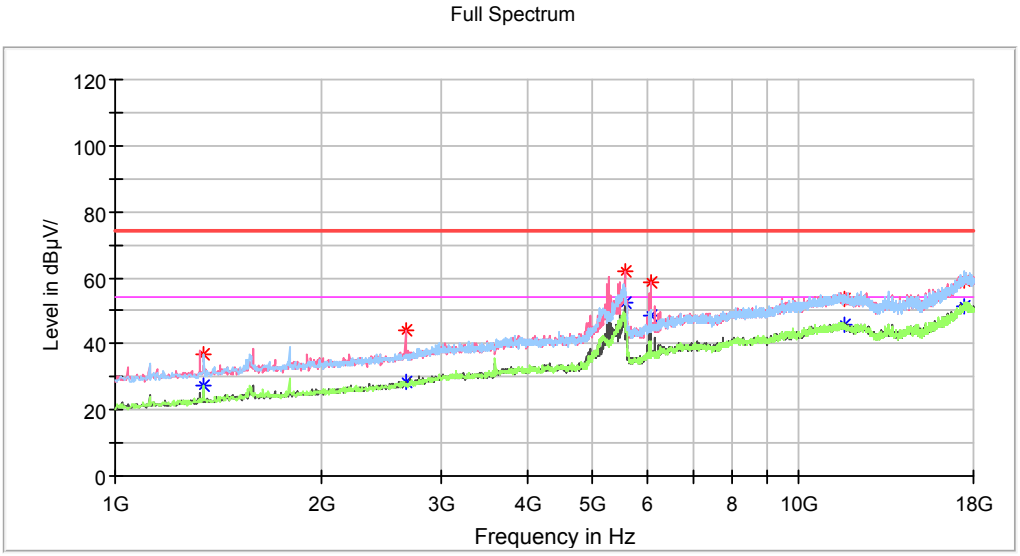
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1799.000000	---	30.36	150.0	H	347.0	-6.8	54.00	23.64
1799.000000	40.30	---	150.0	H	347.0	-6.8	74.00	33.70
5239.800000	---	48.39	200.0	V	352.0	3.5	54.00	5.61
5239.800000	59.04	---	200.0	V	352.0	3.5	74.00	14.96
5559.400000	---	49.66	200.0	V	358.0	4.2	54.00	4.34
5559.400000	59.62	---	200.0	V	358.0	4.2	74.00	14.38
6079.600000	---	48.27	200.0	V	0.0	6.1	54.00	5.73
6079.600000	58.95	---	200.0	V	0.0	6.1	74.00	15.05
11490.000000	55.02	---	100.0	H	110.0	18.2	74.00	18.98
11490.000000	---	45.64	100.0	H	110.0	18.2	54.00	8.36
17235.000000	---	50.13	150.0	V	343.0	22.3	54.00	3.87
17235.000000	59.67	---	150.0	V	343.0	22.3	74.00	14.33

Middle Channel: 5785MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1346.800000	---	27.85	200.0	H	0.0	-9.0	54.00	26.15
1346.800000	38.19	---	200.0	H	0.0	-9.0	74.00	35.81
2652.400000	---	30.18	150.0	V	343.0	-3.8	54.00	23.82
2652.400000	46.95	---	150.0	V	343.0	-3.8	74.00	27.05
5559.400000	---	50.56	200.0	V	0.0	4.2	54.00	3.44
5559.400000	60.92	---	200.0	V	0.0	4.2	74.00	13.08
6079.600000	---	49.17	200.0	V	359.0	6.1	54.00	4.83
6079.600000	59.62	---	200.0	V	359.0	6.1	74.00	14.38
11570.600000	52.43	---	100.0	H	193.0	18.0	74.00	21.57
11570.600000	---	45.68	100.0	H	193.0	18.0	54.00	8.32
17354.000000	59.01	---	200.0	V	30.0	22.9	74.00	14.99
17354.000000	---	50.79	200.0	V	30.0	22.9	54.00	3.21

High Channel: 5825MHz



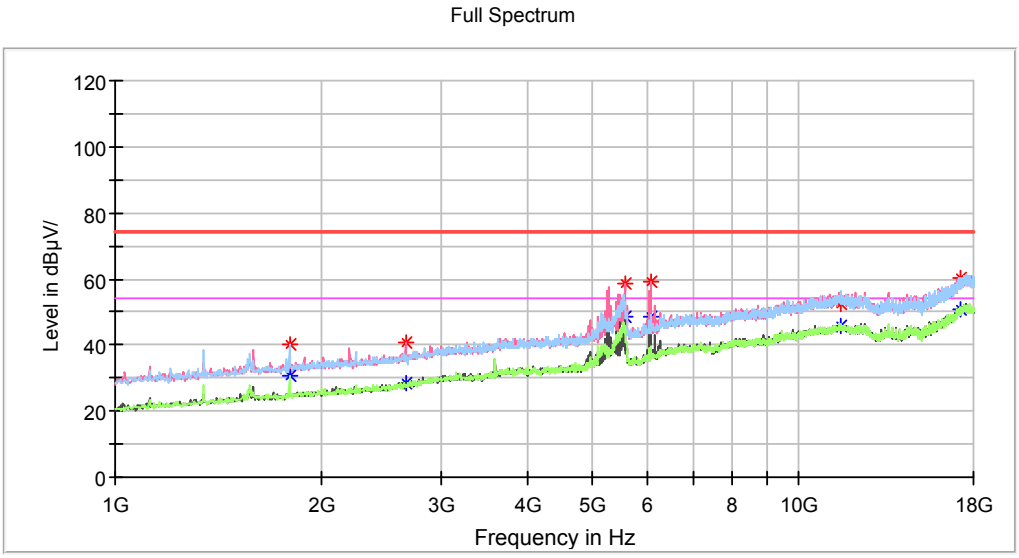
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1346.800000	---	27.59	200.0	H	2.0	-9.0	54.00	26.41
1346.800000	37.05	---	200.0	H	2.0	-9.0	74.00	36.95
2659.200000	---	28.37	150.0	V	0.0	-3.8	54.00	25.63
2659.200000	43.88	---	150.0	V	0.0	-3.8	74.00	30.12
5559.400000	61.93	---	200.0	V	359.0	4.2	74.00	12.07
5559.400000	---	51.32	200.0	V	359.0	4.2	54.00	2.68
6079.600000	---	48.35	200.0	V	0.0	6.1	54.00	5.65
6079.600000	58.75	---	200.0	V	0.0	6.1	74.00	15.25
11650.000000	53.41	---	200.0	V	347.0	17.7	74.00	20.59
11650.000000	---	45.78	200.0	V	347.0	17.7	54.00	8.22
17475.000000	59.01	---	150.0	H	312.0	23.6	74.00	14.99
17475.000000	---	51.40	150.0	H	312.0	23.6	54.00	2.60

802.11n-HT40 Mode:

Note:
1. This test was performed with the 5725-5875MHz band reject filter.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
   Corrected Amplitude = Corrected Factor + Reading
   Margin = Limit - Corrected. Amplitude

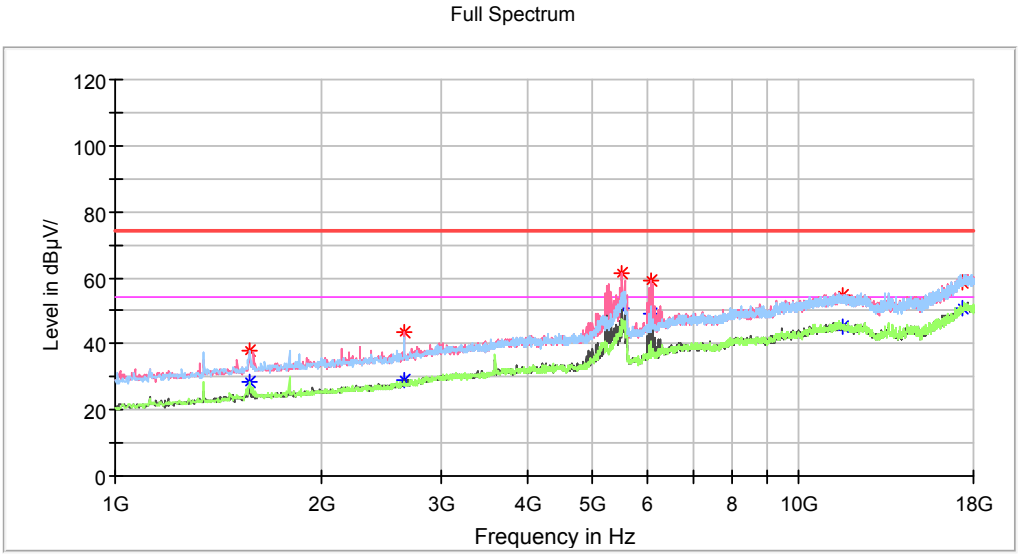
*Pre-scan with X,Y and Z axes of orientation, the worst case **Y-axis of orientation** was recorded*

Low Channel: 5755MHz



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1799.000000	---	30.75	100.0	H	327.0	-6.8	54.00	23.25
1799.000000	40.30	---	100.0	H	327.0	-6.8	74.00	33.70
2659.200000	---	28.40	200.0	V	208.0	-3.8	54.00	25.60
2659.200000	40.80	---	200.0	V	208.0	-3.8	74.00	33.20
5559.400000	---	48.60	200.0	V	358.0	4.2	54.00	5.40
5559.400000	58.74	---	200.0	V	358.0	4.2	74.00	15.26
6079.600000	---	48.43	200.0	V	0.0	6.1	54.00	5.57
6079.600000	58.89	---	200.0	V	0.0	6.1	74.00	15.11
11510.000000	52.60	---	150.0	V	102.0	18.2	74.00	21.40
11510.000000	---	45.70	150.0	V	102.0	18.2	54.00	8.30
17265.000000	60.08	---	150.0	V	233.0	22.5	74.00	13.92
17265.000000	---	50.90	150.0	V	253.0	22.5	54.00	3.10

High Channel: 5795MHz

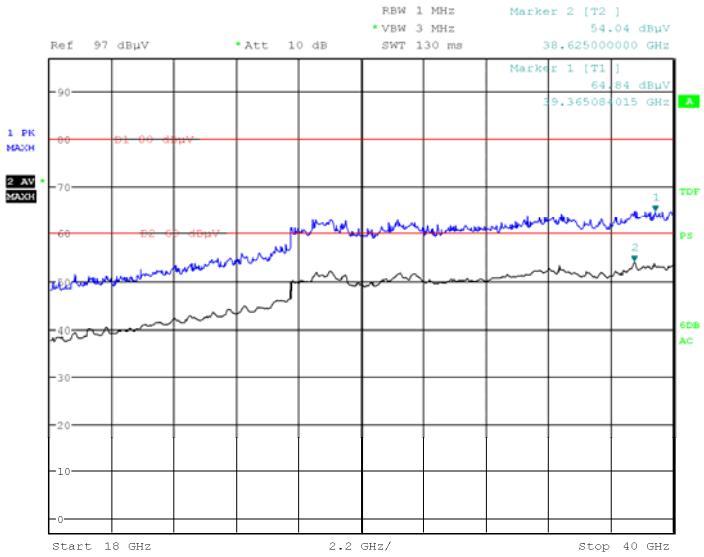


Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1574.600000	---	28.50	200.0	H	353.0	-7.7	54.00	25.50
1574.600000	37.96	---	200.0	H	353.0	-7.7	74.00	36.04
2652.400000	---	28.87	150.0	V	220.0	-3.8	54.00	25.13
2652.400000	43.73	---	150.0	V	220.0	-3.8	74.00	30.27
5518.600000	---	50.80	200.0	V	0.0	4.1	54.00	3.20
5518.600000	61.29	---	200.0	V	0.0	4.1	74.00	12.71
6079.600000	---	49.01	150.0	V	0.0	6.1	54.00	4.99
6079.600000	59.13	---	150.0	V	0.0	6.1	74.00	14.87
11591.000000	---	45.48	150.0	V	18.0	17.9	54.00	8.52
11591.000000	54.54	---	150.0	V	18.0	17.9	74.00	19.46
17381.200000	58.41	---	200.0	H	216.0	23.1	74.00	15.59
17381.200000	---	50.66	200.0	H	216.0	23.1	54.00	3.34

18GHz-40GHz (5725-5850 Band):

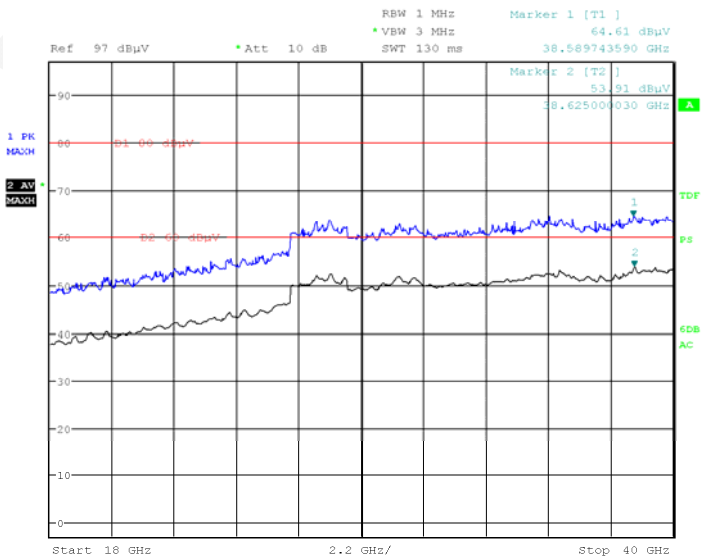
Pre-scan with 802.11a, 802.11n-HT20 and 802.11n-HT40 modes in the X,Y and Z axes of orientation, the worst case ***high channel of 802.11n-HT40 mode of operation in Y-axis of orientation*** *was recorded*
Note: The test distance is 1.5m, The limit 74dBuv/m@3m= 80 dBuv/m@1.5m

Horizontal



Date: 19.DEC.2017 11:12:17

Vertical



Date: 19.DEC.2017 11:01:03

Restricted Bands Emissions Test for NW10/M(5150-5250MHz band):

Note:
1. This test was performed with a 10dB Attenuator.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
   Corrected Amplitude = Corrected Factor + Reading
   Margin = Limit - Corrected. Amplitude

802.11a Mode: *(Pre-scan in the X,Y and Z axes of orientation, the worst case in Y-axis of orientation was recorded)*

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
Left Band Edge								
5149.950000	57.76	---	200.0	H	0.0	13.3	74.00	16.24
5149.950000	---	49.75	200.0	H	0.0	13.3	54.00	4.25
Right Band Edge								
5350.010000	60.99	---	200.0	V	359.0	13.7	74.00	13.01
5350.010000	---	51.39	200.0	V	0.0	13.7	54.00	2.61

802.11n-HT20 Mode: *(Pre-scan in the X,Y and Z axes of orientation, the worst case in Y-axis of orientation was recorded)*

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
Left Band Edge								
5149.950000	58.85	---	200.0	H	20.0	13.3	74.00	15.15
5149.950000	---	50.39	200.0	H	20.0	13.3	54.00	3.61
Right Band Edge								
5350.000000	60.96	---	200.0	V	110.0	13.7	74.00	13.04
5350.000000	---	51.42	200.0	V	110.0	13.7	54.00	2.58

802.11n-HT40 Mode: *(Pre-scan in the X,Y and Z axes of orientation, the worst case in Y-axis of orientation was recorded)*

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
Left Band Edge								
5149.950000	58.74	---	200.0	V	30.0	13.3	74.00	15.26
5149.950000	---	50.43	200.0	V	30.0	13.3	54.00	3.57
Right Band Edge								
5350.010000	---	51.24	200.0	V	10.0	13.7	54.00	2.76
5350.010000	61.90	---	200.0	V	10.0	13.7	74.00	12.10

Restricted Bands Emissions Test for NW10/M (5725-5850MHz band):

Note:
1. This test was performed with a 10dB Attenuator.
2. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
   Corrected Amplitude = Corrected Factor + Reading
   Margin = Limit - Corrected. Amplitude

802.11a Mode: *(Pre-scan in the X,Y and Z axes of orientation, the worst case in Y-axis of orientation was recorded)*

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
Left Band Edge								
5725.000000	---	51.81	200.0	H	359.0	14.8	54.00	2.19
5725.000000	61.75	---	200.0	H	359.0	14.8	74.00	12.25
Right Band Edge								
5850.010000	60.28	---	200.0	H	355.0	15.2	74.00	13.72
5850.010000	---	50.71	200.0	H	355.0	15.2	54.00	3.29

802.11n-HT20 Mode: *(Pre-scan in the X,Y and Z axes of orientation, the worst case in Y-axis of orientation was recorded)*

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
Left Band Edge								
5725.000000	62.36	---	200.0	V	359.0	14.8	74.00	11.64
5725.000000	---	51.57	200.0	V	359.0	14.8	54.00	2.43
Right Band Edge								
5850.010000	60.92	---	200.0	H	358.0	15.2	74.00	13.08
5850.010000	---	51.23	200.0	H	358.0	15.2	54.00	2.77

802.11n-HT40 Mode: *(Pre-scan in the X,Y and Z axes of orientation, the worst case in Y-axis of orientation was recorded)*

Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Correct Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
Left Band Edge								
5725.000000	62.97	---	150.0	V	359.0	14.8	74.00	11.03
5725.000000	---	51.48	150.0	V	359.0	14.8	54.00	2.52
Right Band Edge								
5850.000000	59.28	---	200.0	H	0.0	15.2	74.00	14.72
5850.000000	---	51.84	200.0	H	0.0	15.2	54.00	2.16

FCC §15.407(b) (1) (4) –BAND EDGE

Applicable Standard

FCC §15.407 (b) (1), (4);

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 EIRP of -27dBm/MHz

For transmitters operating in the 5.725–5.850 GHz band: 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.

Test Procedure

1. Check the calibration of the measuring instrument using either an internal calibration or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measuremen instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Set RBW to 1 MHz and VBW to 3MHz of spectrum analyzer. Offset the antenna gain and cable loss.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.

Test Data

Environmental Conditions

Temperature:	23.5 °C
Relative Humidity:	60 %
ATM Pressure:	101.2 kPa

The testing was performed by Chris Wang on 2017-08-23.

5150-5250 MHz Band:

Test mode	Chain	Band (MHz)	BAND EDGE	Reading Level (dBm/MHz)	E.I.R.P (dBm/MHz)	Limits (dBm/MHz)	Result
5150-5250	Chain 0	802.11a	left	-51.73	-32.73	-27	PASS
			right	-62.56	-43.56	-27	PASS
		802.11n20	left	-51.53	-32.53	-27	PASS
			right	-60.33	-41.33	-27	PASS
		802.11n40	left	-53.04	-34.04	-27	PASS
			right	-59.27	-40.27	-27	PASS
	Chain 1	802.11a	left	-52.10	-33.10	-27	PASS
			right	-61.92	-42.92	-27	PASS
		802.11n20	left	-52.09	-33.09	-27	PASS
			right	-62.51	-43.51	-27	PASS
		802.11n40	left	-52.47	-33.47	-27	PASS
			right	-59.69	-40.69	-27	PASS

Note: The antenna gain is 19 dBi.

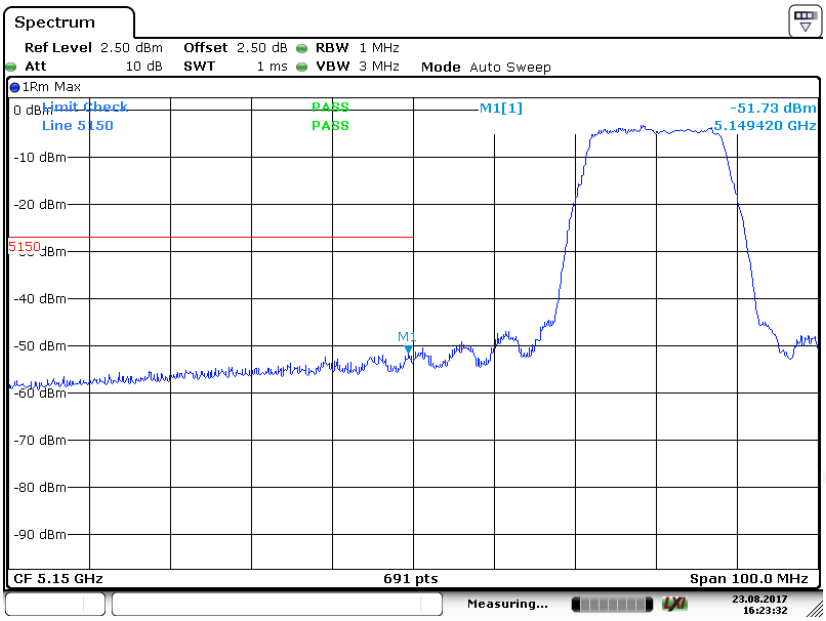
5725-5850 MHz Band:

Test mode	Chain	Band (MHz)	BAND EDGE	Reading Level (dBm/MHz)	E.I.R.P (dBm/MHz)	Margin (dB)	Result
5725-5850	Chain 0	802.11a	left	-58.75	-39.75	>10dB	PASS
			right	-61.76	-42.76	>10dB	PASS
		802.11n20	left	-59.53	-40.53	>10dB	PASS
			right	-61.84	-42.84	>10dB	PASS
		802.11n40	left	-56.76	-37.76	>10dB	PASS
			right	-60.57	-41.57	>10dB	PASS
	Chain 1	802.11a	left	-59.35	-40.35	>10dB	PASS
			right	-60.48	-41.48	>10dB	PASS
		802.11n20	left	-59.41	-40.41	>10dB	PASS
			right	-61.84	-42.84	>10dB	PASS
		802.11n40	left	-57.31	-38.31	>10dB	PASS
			right	-60.54	-41.54	>10dB	PASS

Note: The antenna gain is 19 dBi.

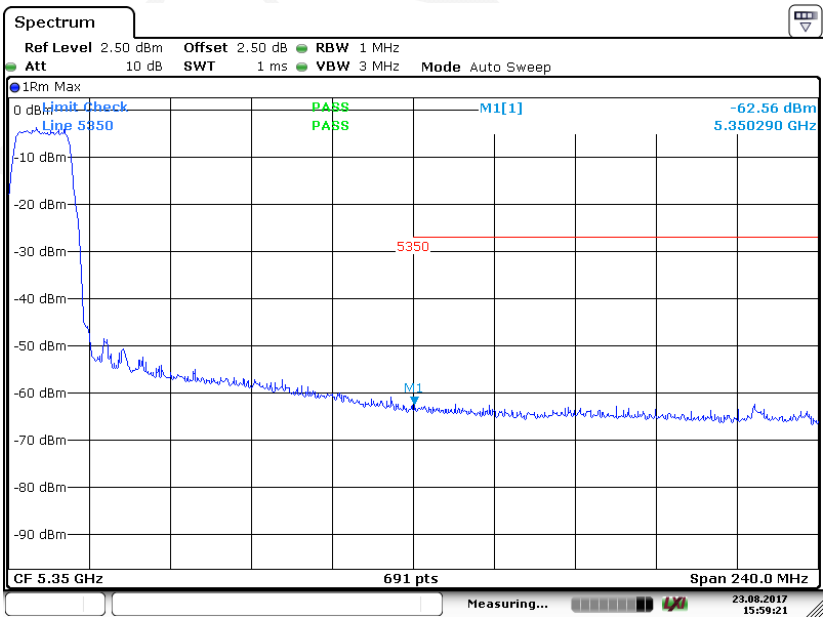
5150-5250 MHz Band:

802.11a Chain0 Band Edge, Left Side



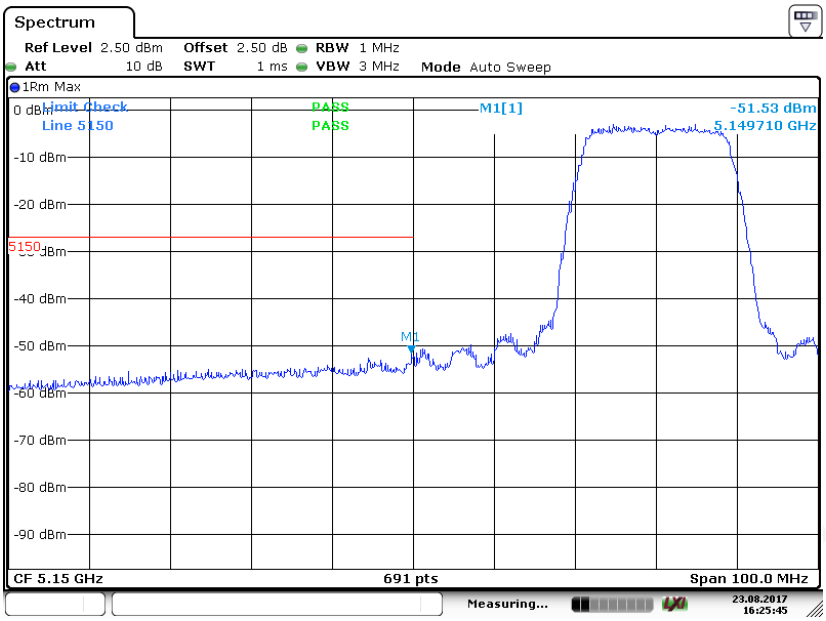
Date: 23.AUG.2017 16:23:32

802.11a Chain0 Band Edge, Right Side



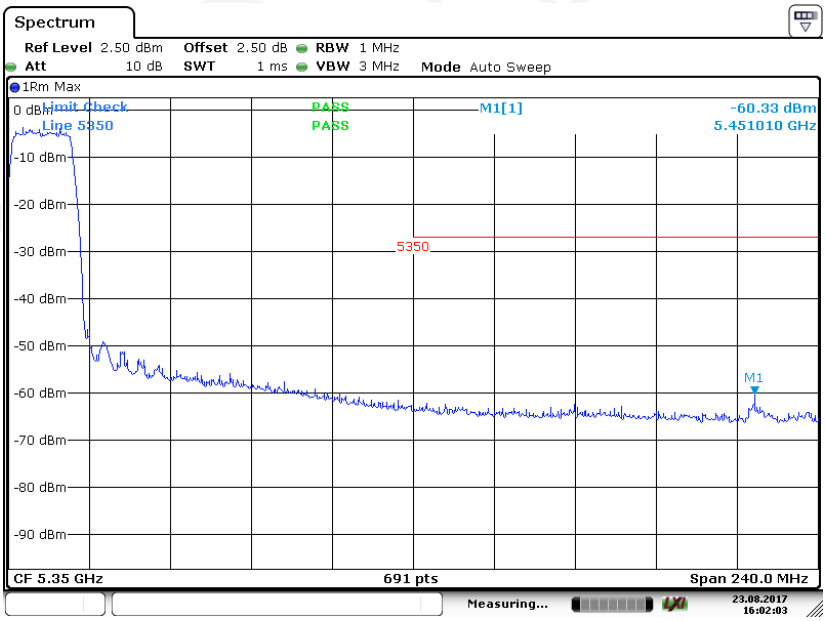
Date: 23.AUG.2017 15:59:22

802.11n-HT20 Chain0 Band Edge, Left Side



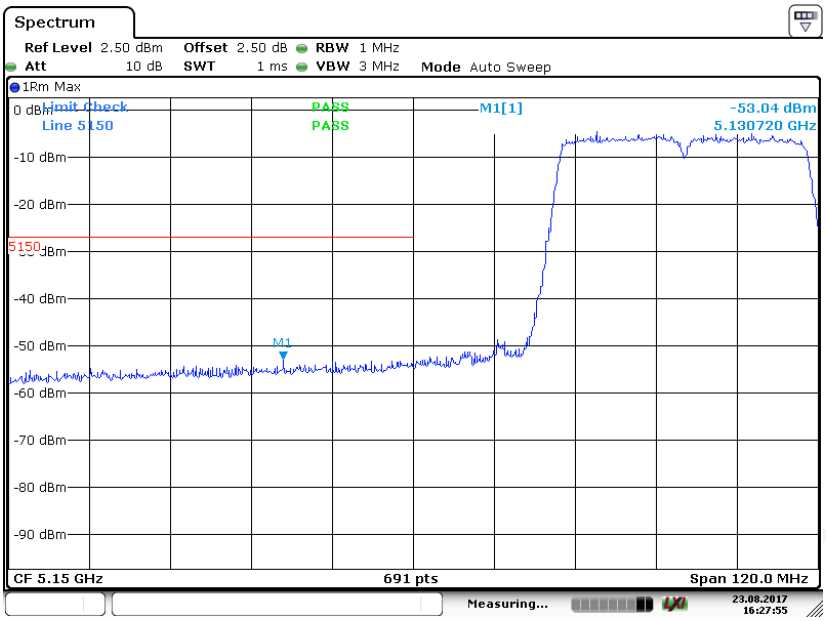
Date: 23.AUG.2017 16:25:46

802.11n-HT20 Chain0 Band Edge, Right Side



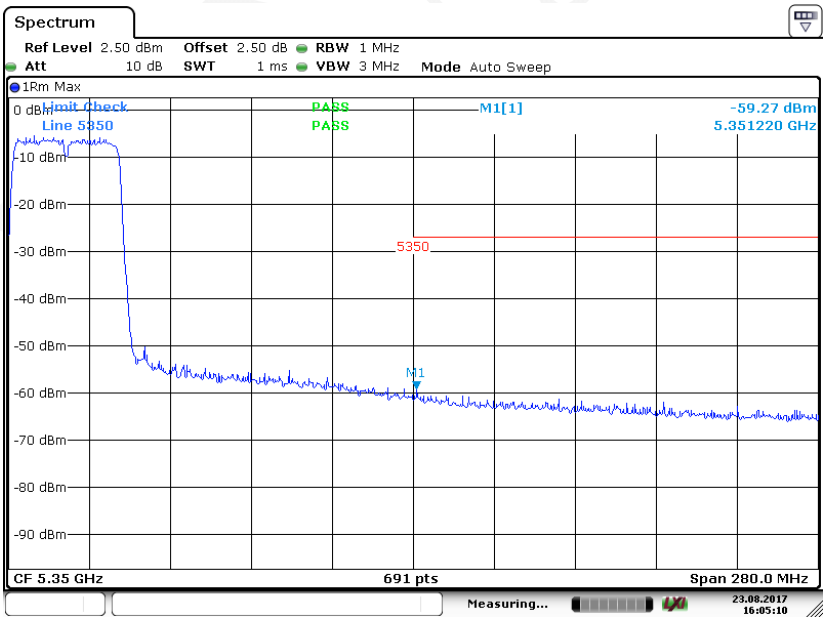
Date: 23.AUG.2017 16:02:03

802.11n ht40 Chain0 Band Edge, Left Side



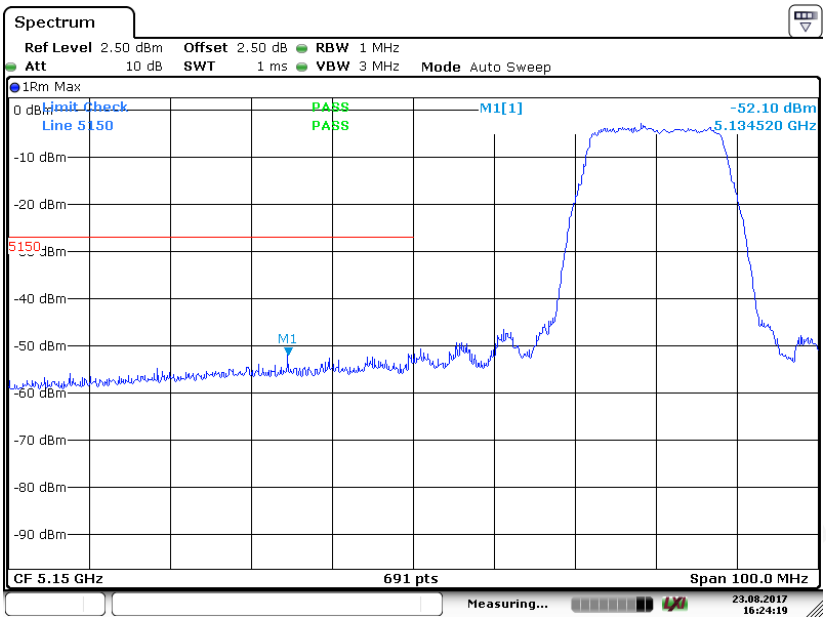
Date: 23.AUG.2017 16:27:55

802.11n ht40 Chain0 Band Edge, Right Side



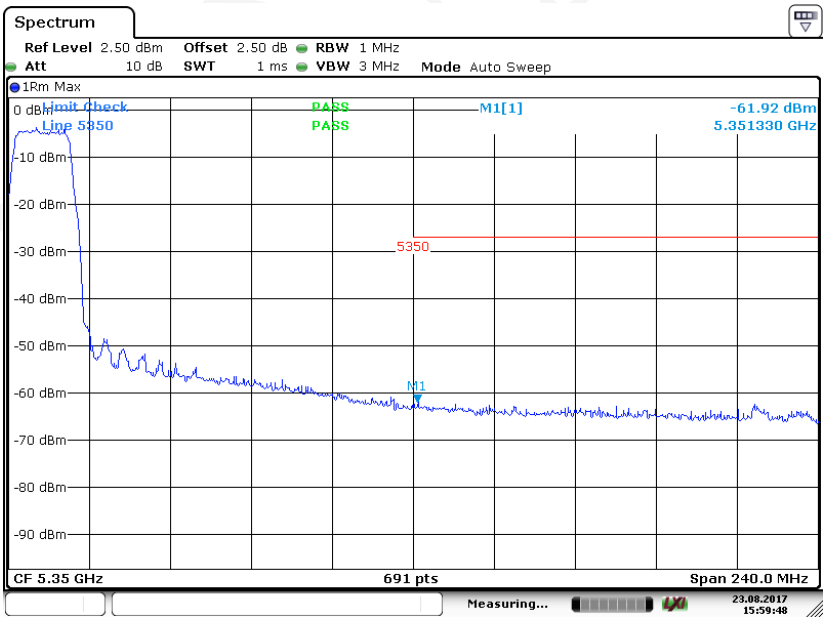
Date: 23.AUG.2017 16:05:10

802.11a Chain1 Band Edge, Left Side



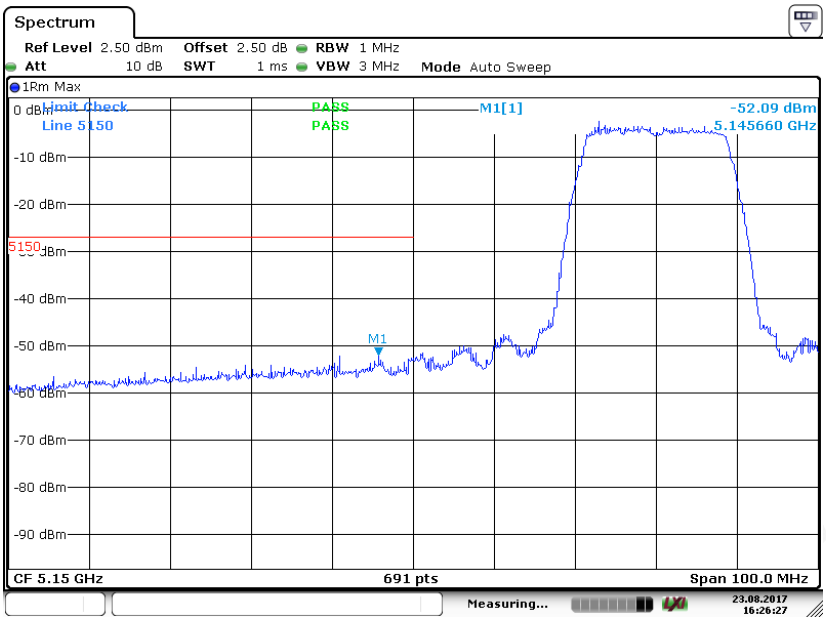
Date: 23.AUG.2017 16:24:19

802.11a Chain1 Band Edge, Right Side



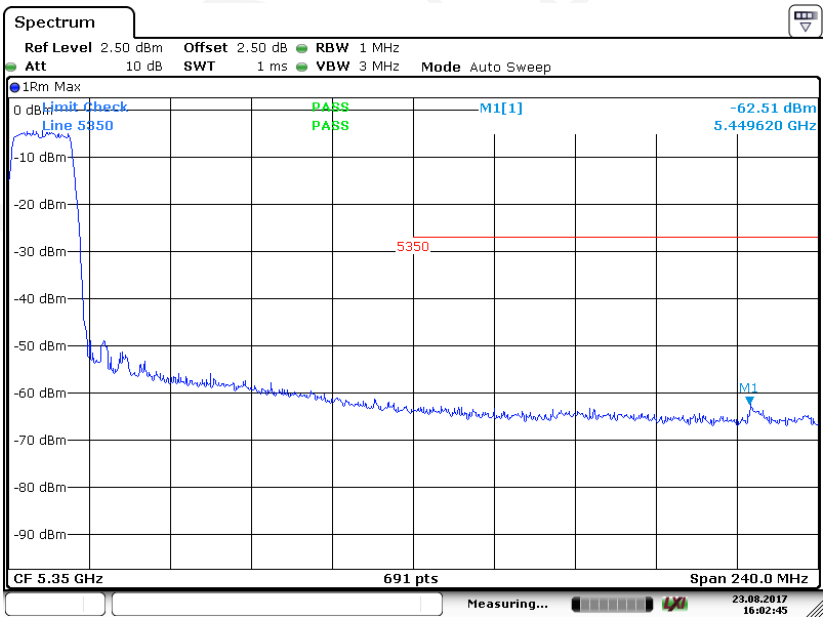
Date: 23.AUG.2017 15:59:47

802.11n-HT20 Chain1 Band Edge, Left Side



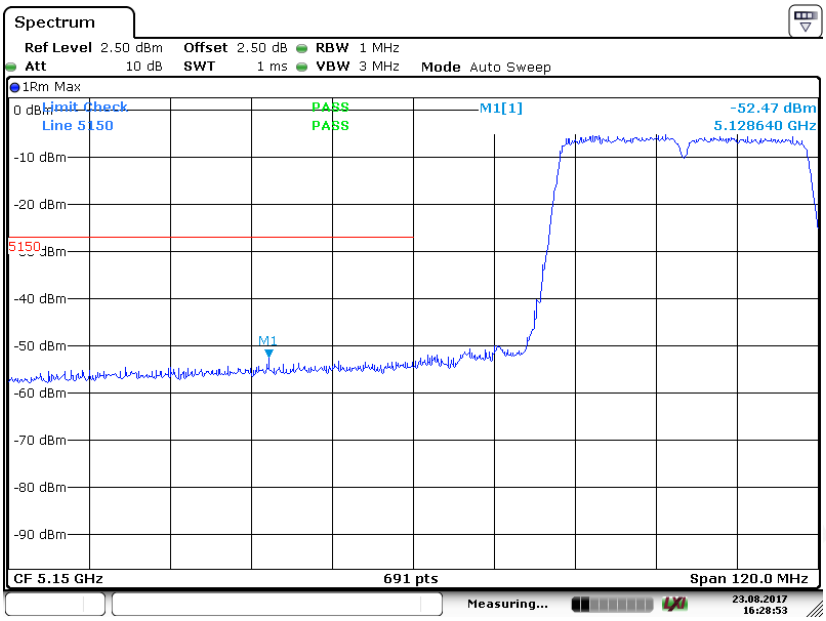
Date: 23.AUG.2017 16:26:27

802.11n-HT20 Chain1 Band Edge, Right Side



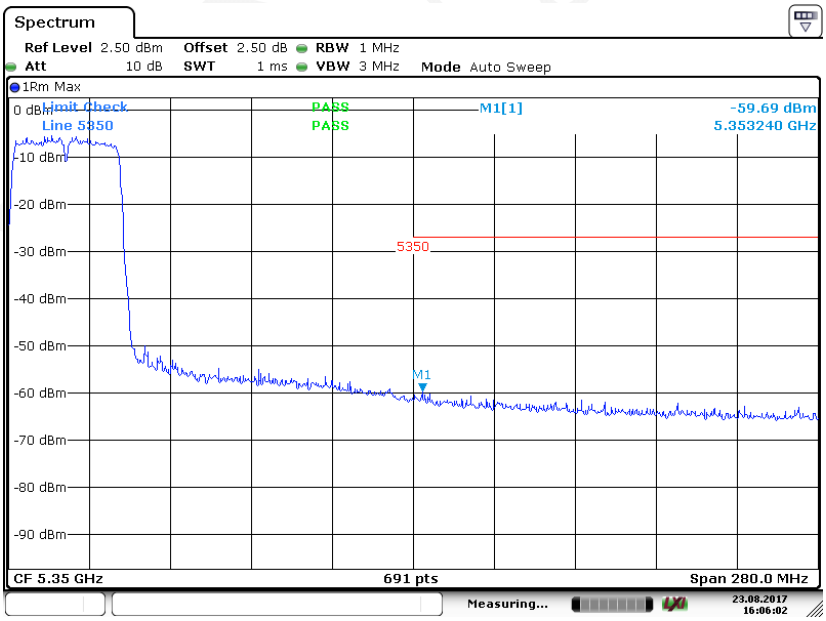
Date: 23.AUG.2017 16:02:45

802.11n ht40 Chain1 Band Edge, Left Side



Date: 23.AUG.2017 16:28:53

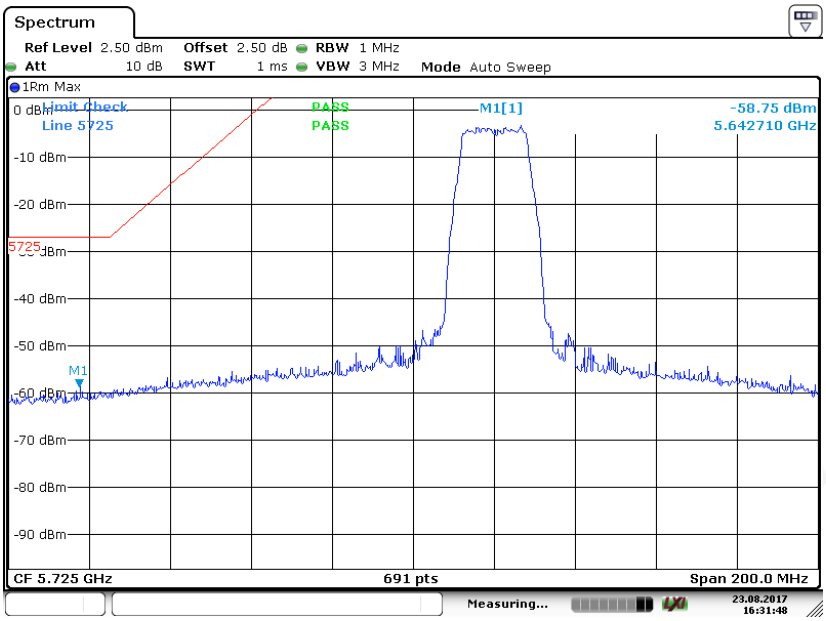
802.11n ht40 Chain1 Band Edge, Right Side



Date: 23.AUG.2017 16:06:02

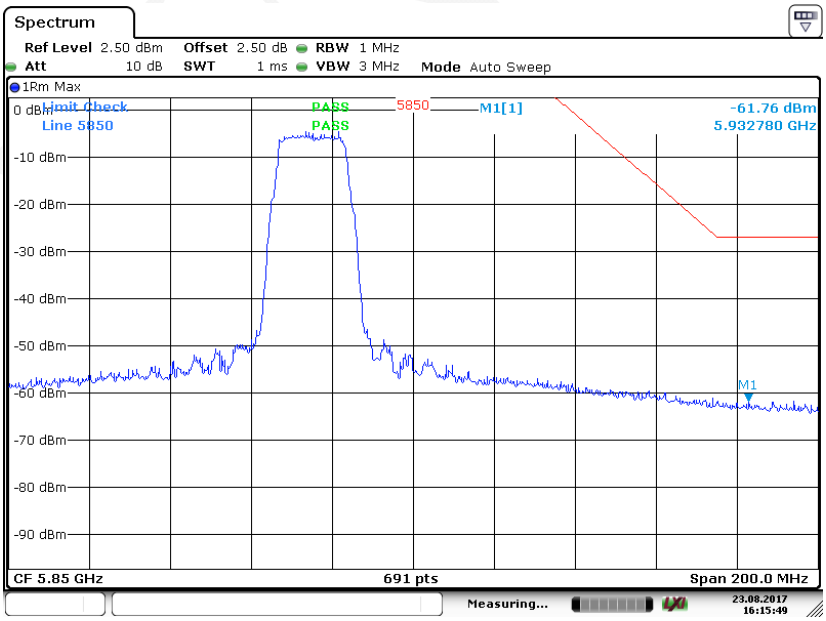
5725-5850 MHz Band:

802.11a Chain0 Band Edge, Left Side



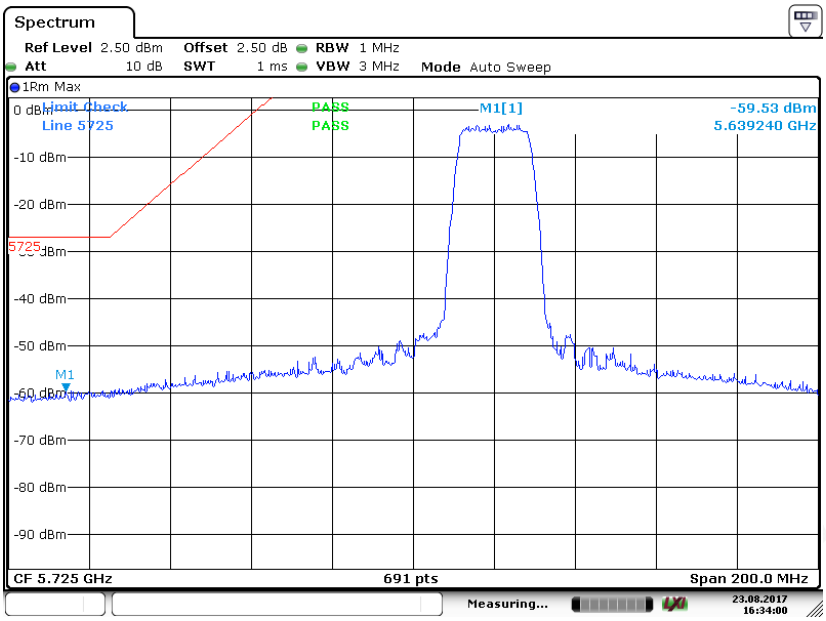
Date: 23.AUG.2017 16:31:49

802.11a Chain0 Band Edge, Right Side



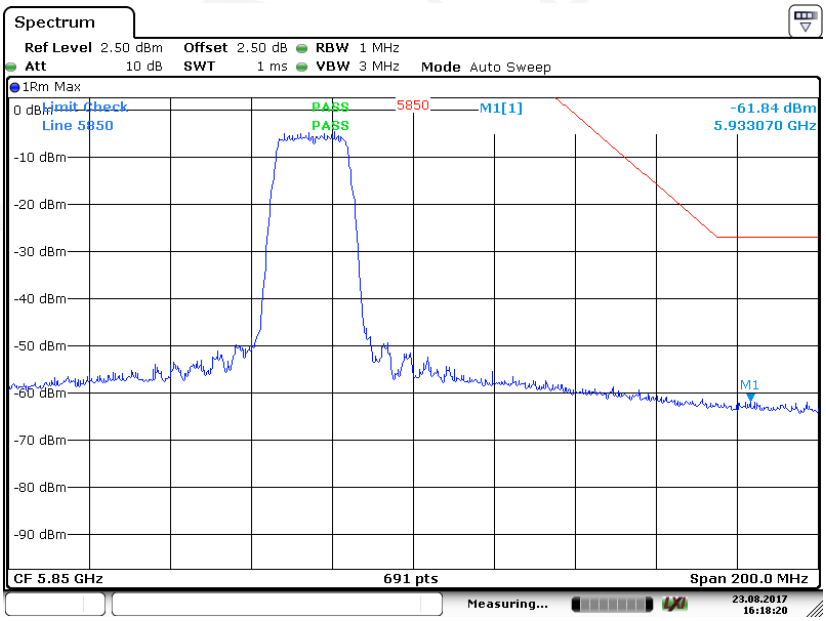
Date: 23.AUG.2017 16:15:49

802.11n Chain0 ht20 Band Edge, Left Side



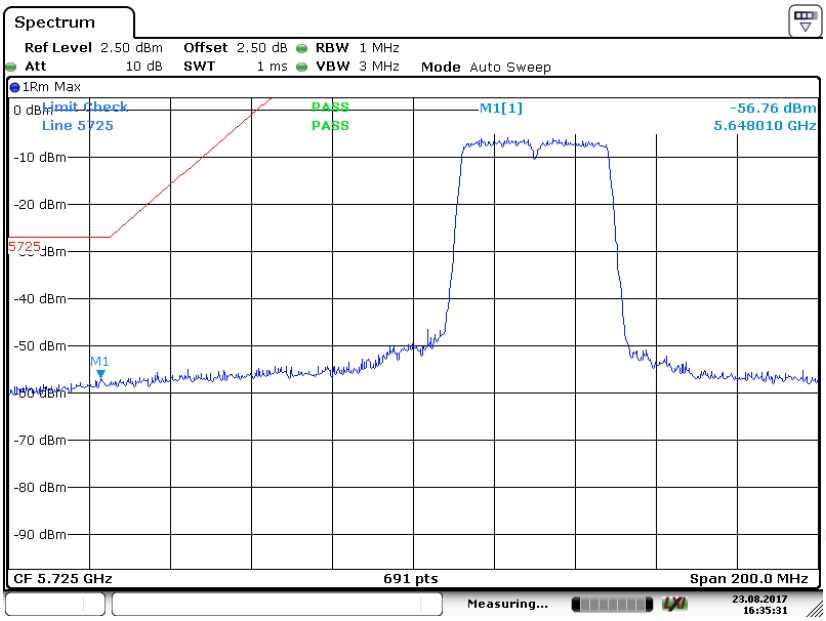
Date: 23.AUG.2017 16:34:00

802.11n Chain0 ht20 Band Edge, Right Side



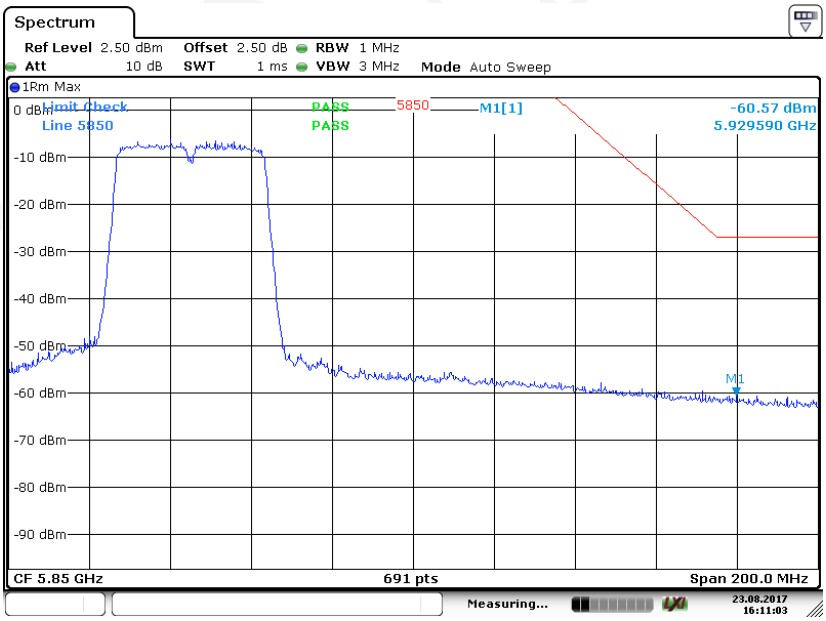
Date: 23.AUG.2017 16:18:20

802.11n Chain0 ht40 Band Edge, Left Side



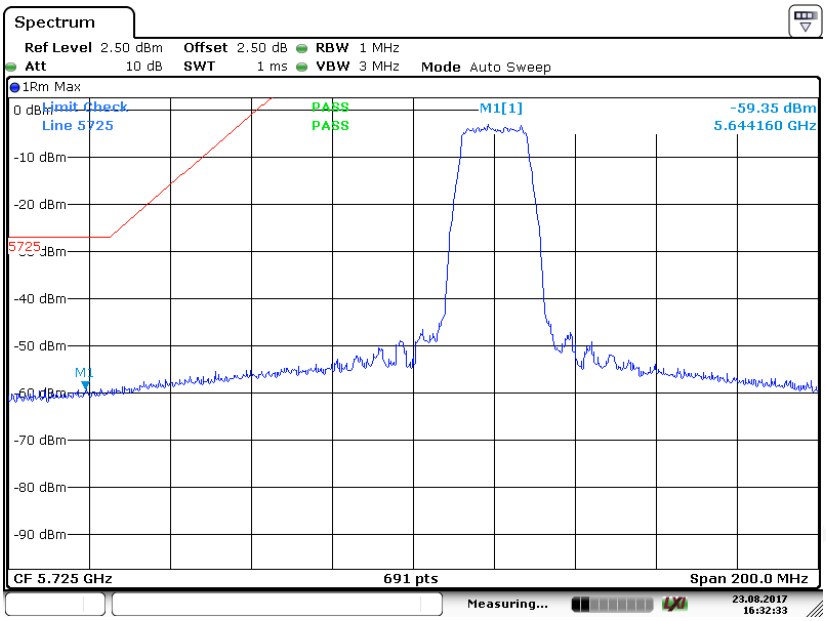
Date: 23.AUG.2017 16:35:31

802.11n Chain0 ht40 Band Edge, Right Side



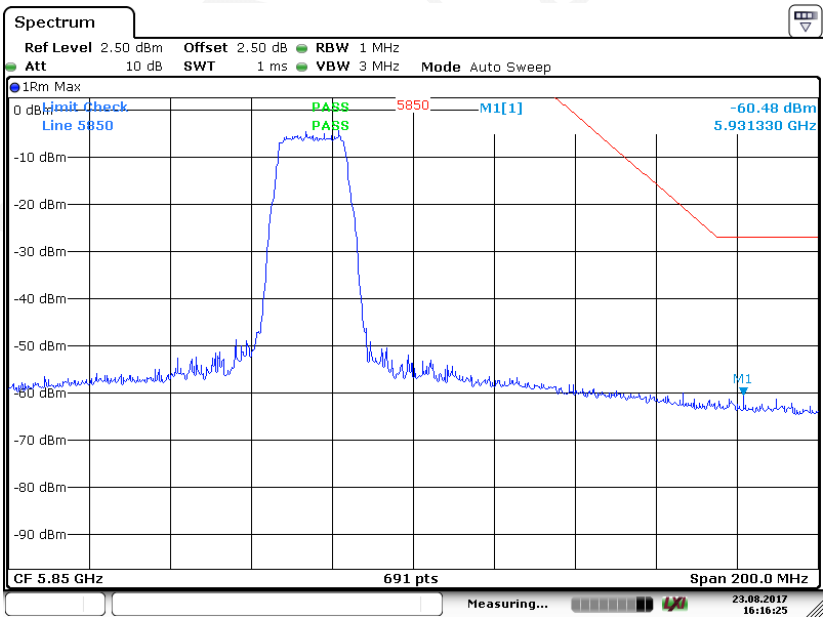
Date: 23.AUG.2017 16:11:03

802.11a Chain1 Band Edge, Left Side



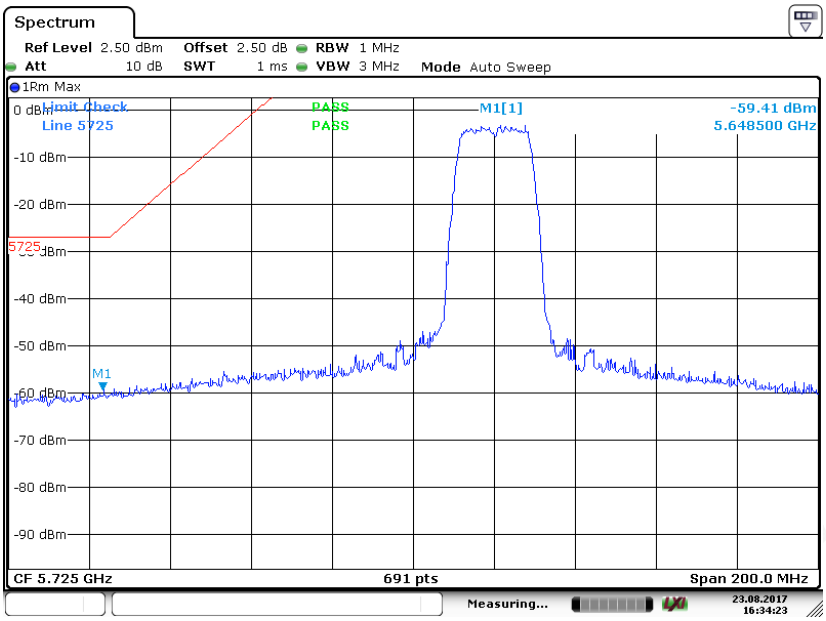
Date: 23.AUG.2017 16:32:33

802.11a Chain1 Band Edge, Right Side



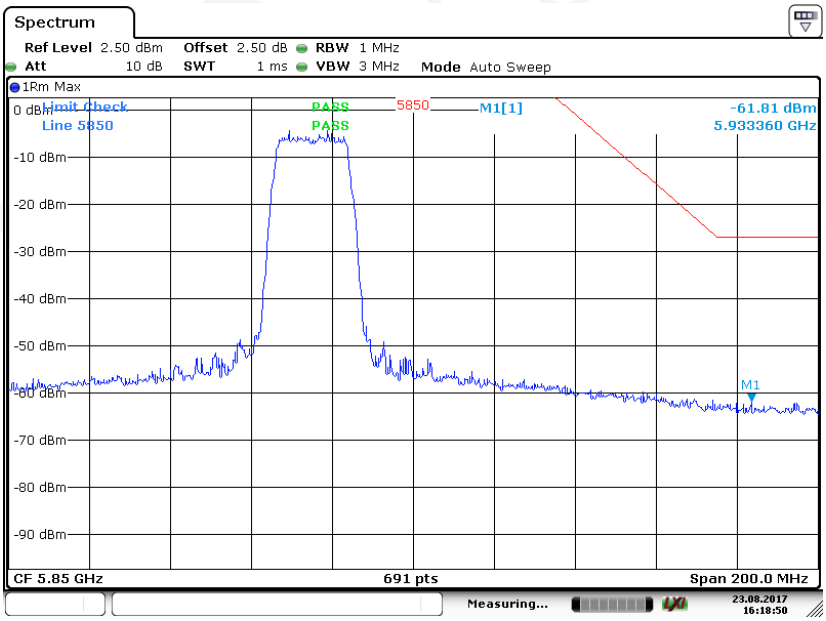
Date: 23.AUG.2017 16:16:26

802.11n-HT20 Chain1 Band Edge, Left Side



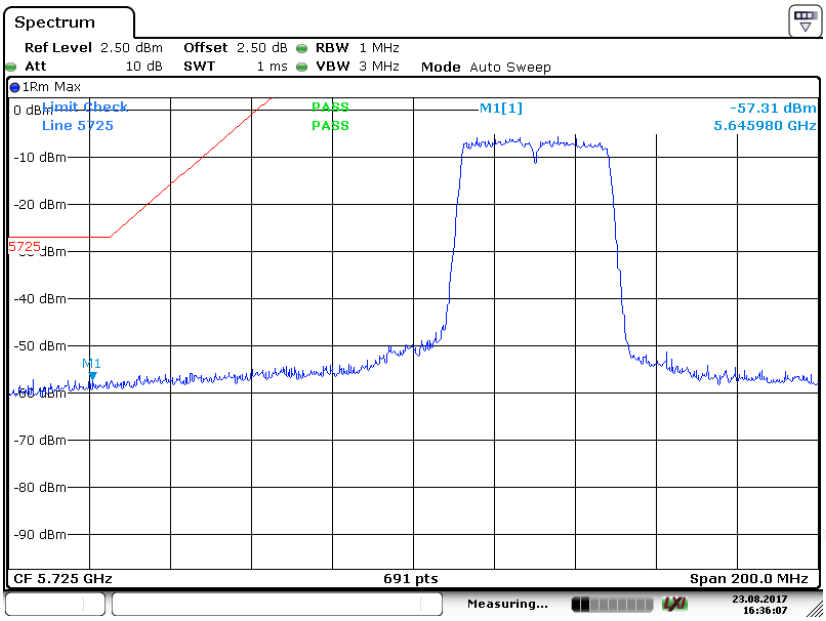
Date: 23.AUG.2017 16:34:24

802.11n-HT20 Chain1 Band Edge, Right Side



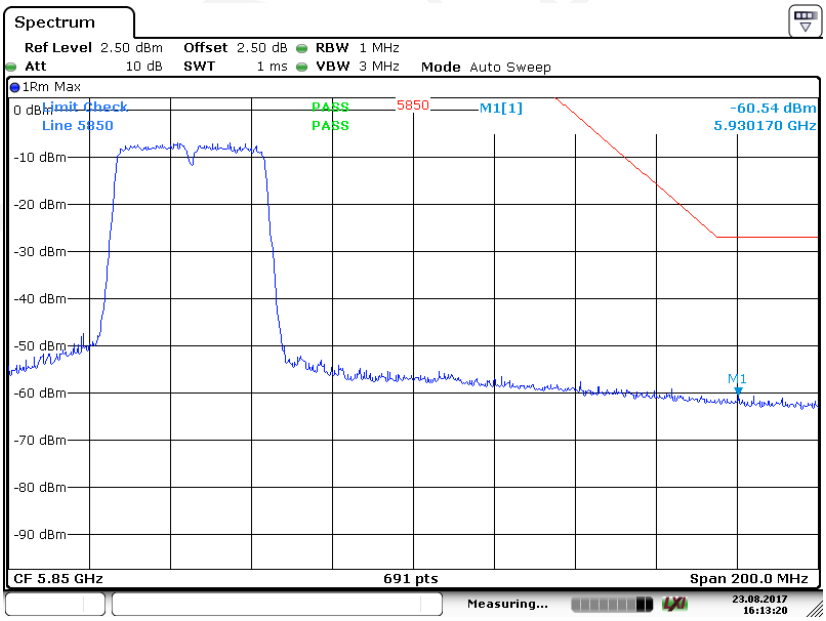
Date: 23.AUG.2017 16:18:51

802.11n ht40 Chain1 Band Edge, Left Side



Date: 23.AUG.2017 16:36:07

802.11n ht40 Chain1 Band Edge, Right Side



Date: 23.AUG.2017 16:13:20

FCC §15.407(a) &§15.407(e)–EMISSION BANDWIDTH

Applicable Standard

.
The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test. If the device cannot be connected directly, alternative techniques acceptable to the Commission may be used. Measurements in the 5.725-5.85 GHz band are made over a reference bandwidth of 500 kHz or the 26 dB emission bandwidth of the device, whichever is less. Measurements in the 5.15-5.25 GHz is made over a bandwidth of 1 MHz or the 26 dB emission bandwidth of the device, whichever is less. A narrower resolution bandwidth can be used, provided that the measured power is integrated over the full reference bandwidth.

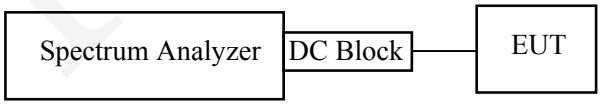
Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

Test Procedure

1. Emission Bandwidth (EBW)
a) Set RBW = approximately 1% of the emission bandwidth.
b) Set the VBW > RBW.
c) Detector = Peak.
d) Trace mode = max hold.
e) Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

2. **Minimum Emission Bandwidth for the band 5.725-5.85 GHz**
Section 15.407(e) specifies the minimum 6 dB emission bandwidth of at least 500 KHz for the band 5.725-5.85 GHz. The following procedure shall be used for measuring this bandwidth:
a) Set RBW = 100 kHz.
b) Set the video bandwidth (VBW) ≥ 3 × RBW.
c) Detector = Peak.
d) Trace mode = max hold.
e) Sweep = auto couple.
f) Allow the trace to stabilize.

g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.



Test Data

Environmental Conditions

Temperature:	23.5 °C
Relative Humidity:	50 %
ATM Pressure:	101.2 kPa

The testing was performed by Chris Wang on 2017-08-20 to 2017-09-19.

Test Result: Pass.

5150-5250 MHz:

Test mode	Channel	Frequency (MHz)	26dB Bandwidth (MHz)		99% Bandwidth (MHz)	
			Chain0	Chain1	Chain0	Chain1
802.11a	Low	5180	21.93	21.84	17.02	17.06
	Middle	5200	22.10	21.62	16.93	17.06
	High	5240	22.40	21.84	17.11	16.93
802.11n-HT20	Low	5180	22.36	22.92	18.10	18.06
	Middle	5200	22.62	22.36	18.10	18.06
	High	5240	22.58	22.53	18.10	18.06
802.11n-HT40	Low	5190	44.46	45.07	36.90	36.99
	High	5230	44.63	44.89	36.82	36.82

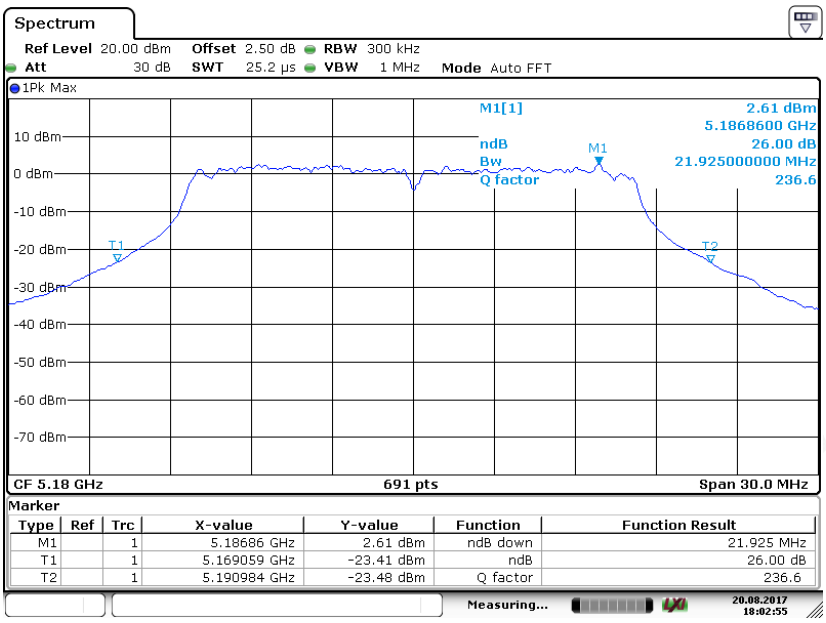
5725-5850MHz:

Test mode	Channel	Frequency (MHz)	6dB Bandwidth (MHz)		99% Bandwidth (MHz)		Limit (MHz)
			Chain0	Chain1	Chain0	Chain1	
802.11a	Low	5745	16.54	16.54	17.02	16.93	≥0.5
	Middle	5785	16.54	16.54	16.98	16.89	≥0.5
	High	5825	16.54	16.54	16.93	17.02	≥0.5
802.11n-HT20	Low	5745	17.76	17.76	18.02	18.06	≥0.5
	Middle	5785	17.76	17.76	17.97	17.97	≥0.5
	High	5825	17.76	17.76	17.97	18.02	≥0.5
802.11n-HT40	Low	5755	36.56	36.56	36.99	36.90	≥0.5
	High	5795	36.56	36.56	36.90	36.90	≥0.5

5150-5250 MHz Band:

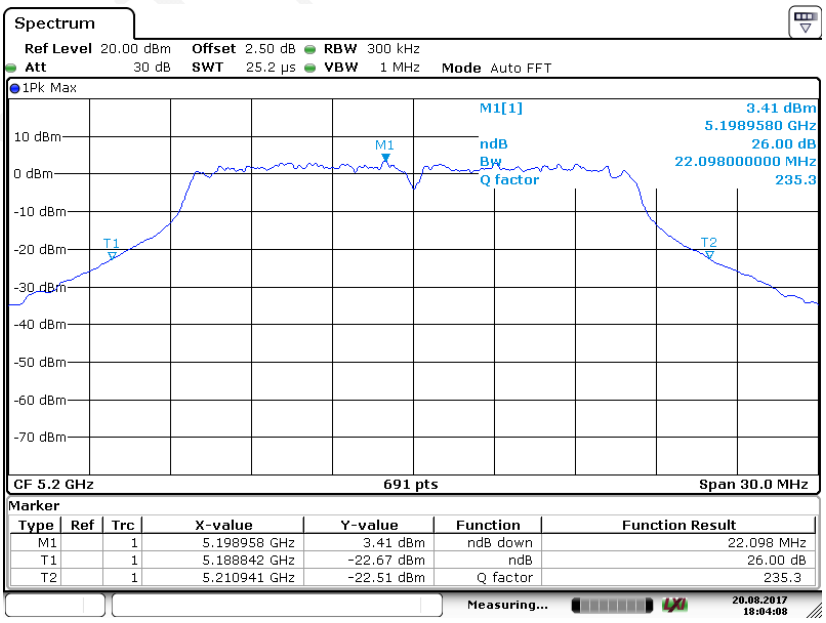
26 Bandwidth

802.11a mode, Chain 0: 5180MHz



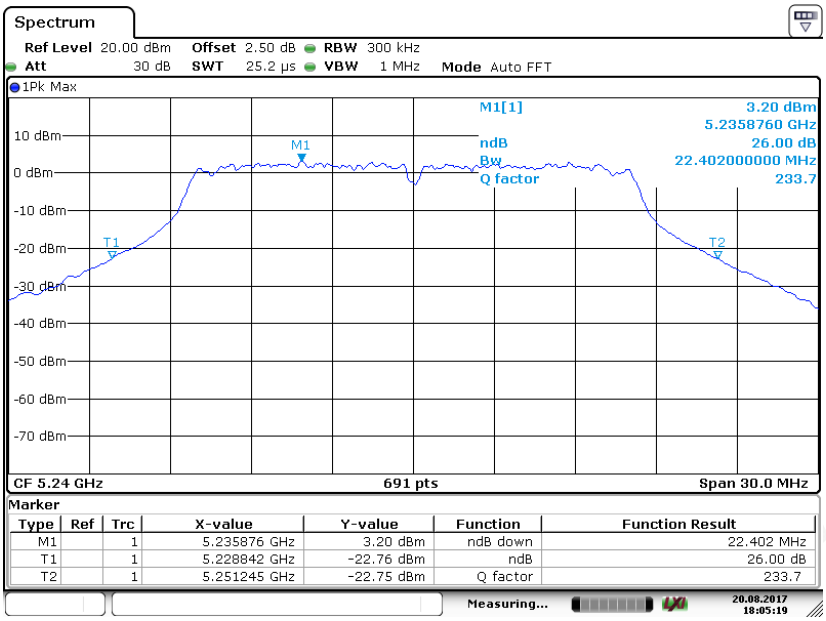
Date: 20.AUG.2017 18:02:55

802.11a mode, Chain 0: 5200MHz



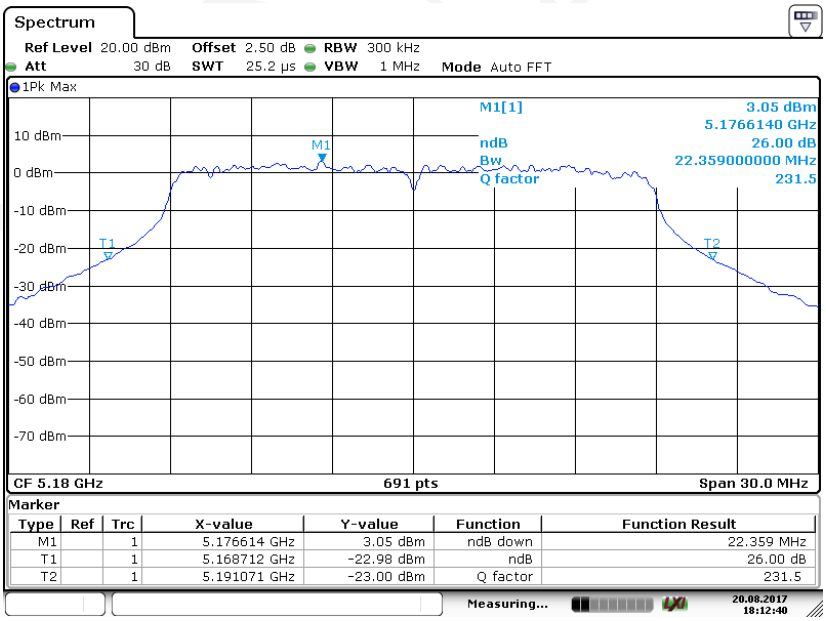
Date: 20.AUG.2017 18:04:08

802.11a mode, Chain 0: 5240MHz



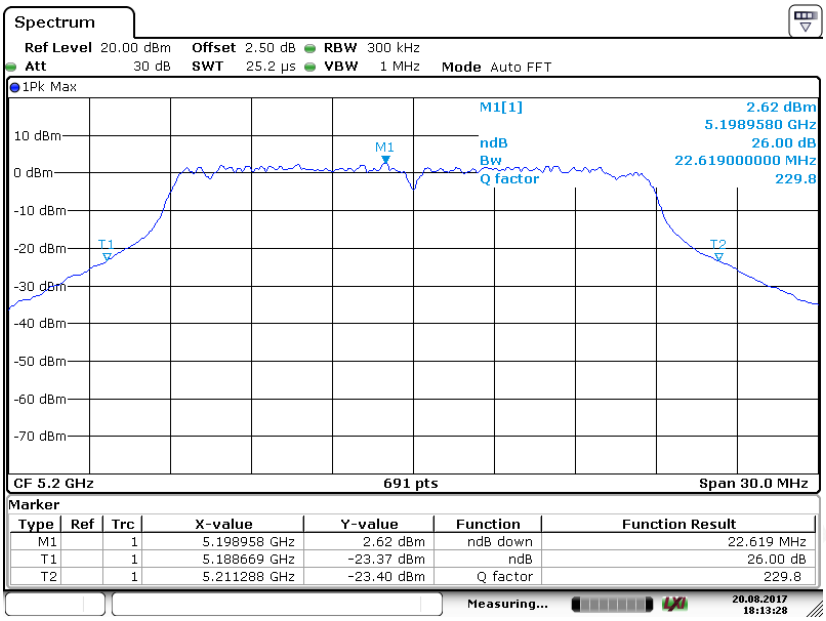
Date: 20.AUG.2017 18:05:19

802.11n-HT20 mode, Chain 0: 5180MHz



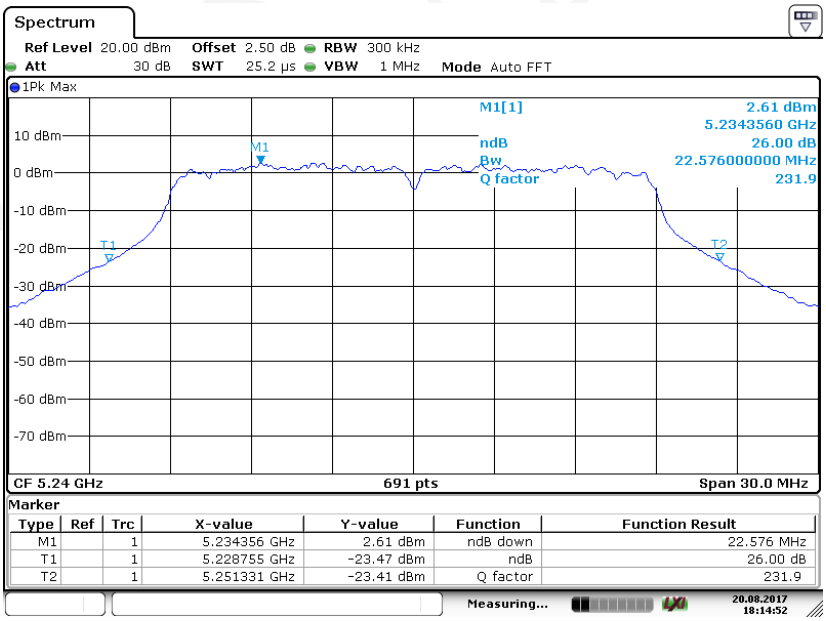
Date: 20.AUG.2017 18:12:40

802.11n-HT20 mode, Chain 0: 5200MHz



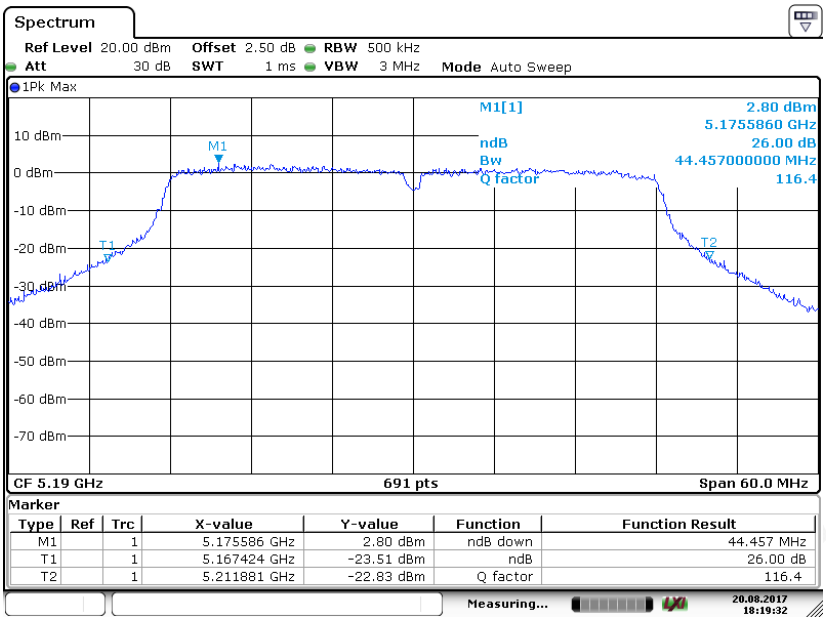
Date: 20.AUG.2017 18:13:27

802.11n-HT20 mode, Chain 0: 5240MHz



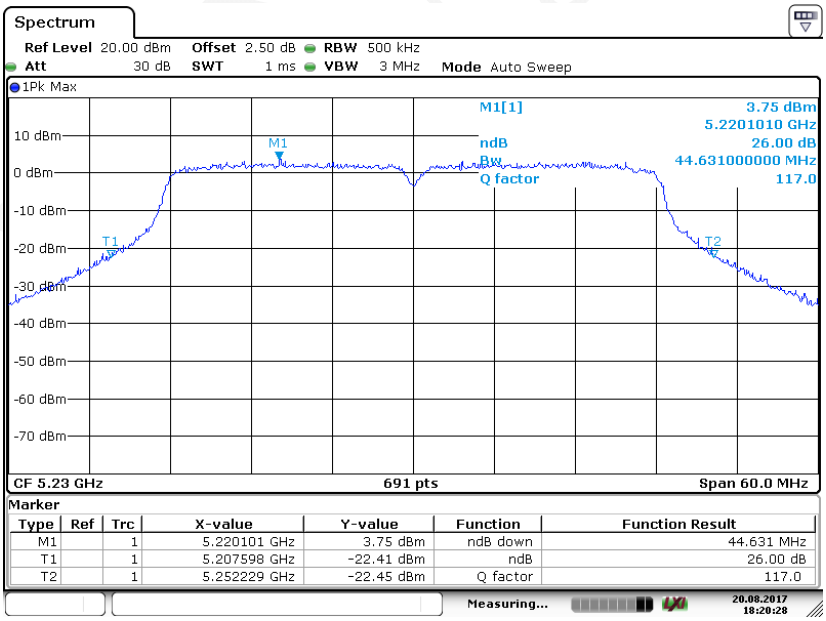
Date: 20.AUG.2017 18:14:52

802.11n-HT40 mode, Chain 0: 5190MHz



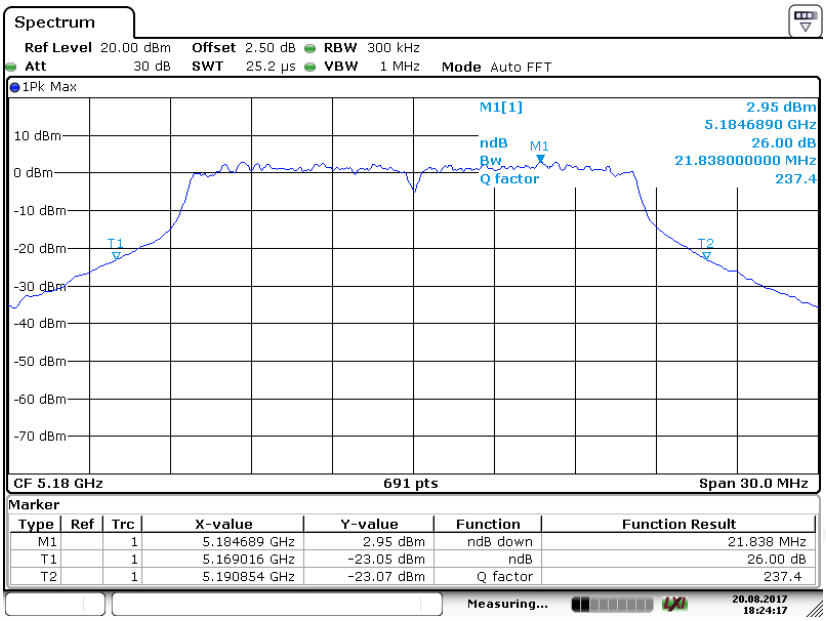
Date: 20.AUG.2017 18:19:31

802.11n-HT40 mode, Chain 0: 5230MHz



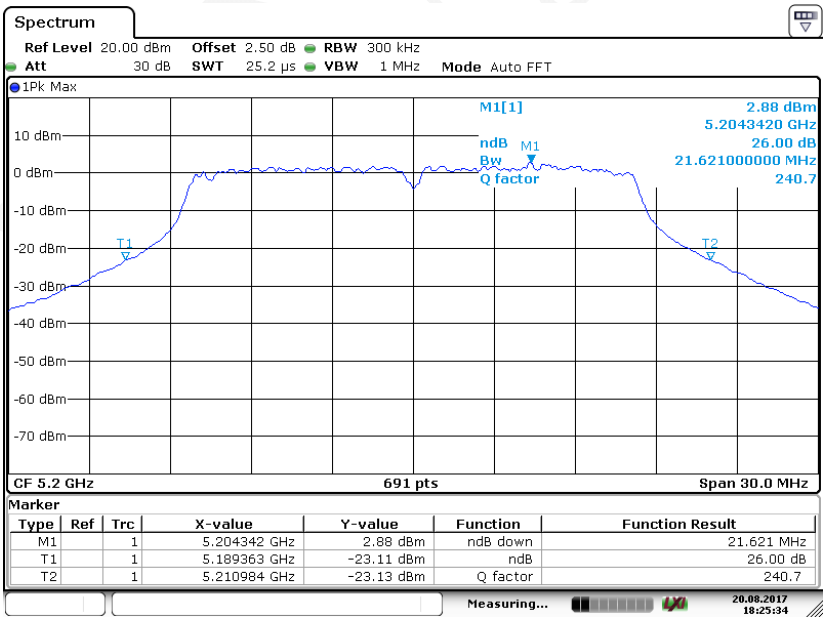
Date: 20.AUG.2017 18:20:28

802.11a mode, Chain 1: 5180MHz



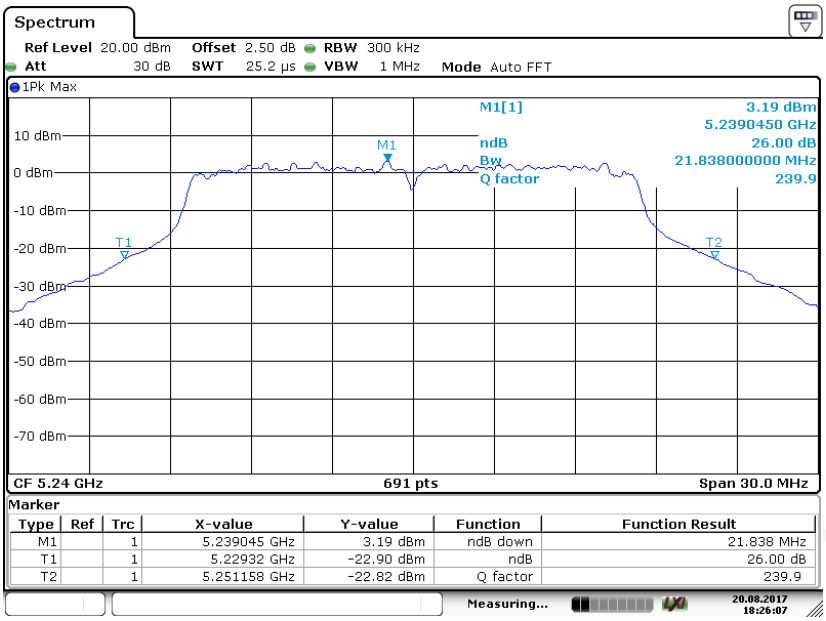
Date: 20.AUG.2017 18:24:17

802.11a mode, Chain 1: 5200MHz



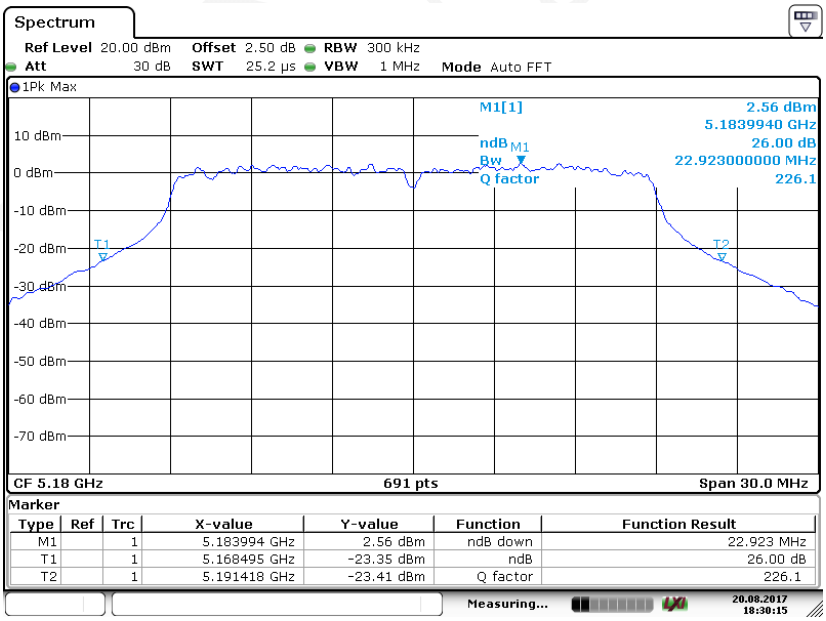
Date: 20.AUG.2017 18:25:34

802.11a mode, Chain 1: 5240MHz



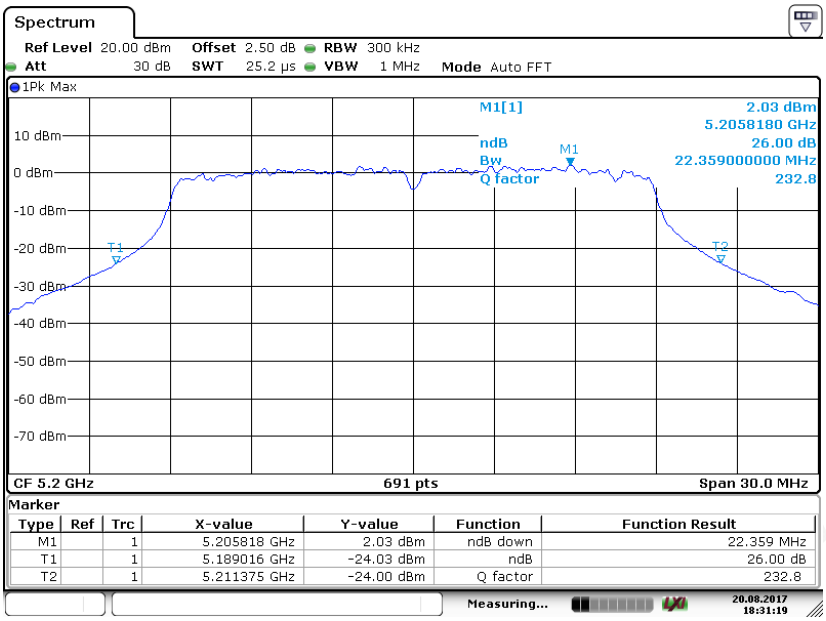
Date: 20.AUG.2017 18:26:07

802.11n-HT20 mode, Chain 1: 5180MHz



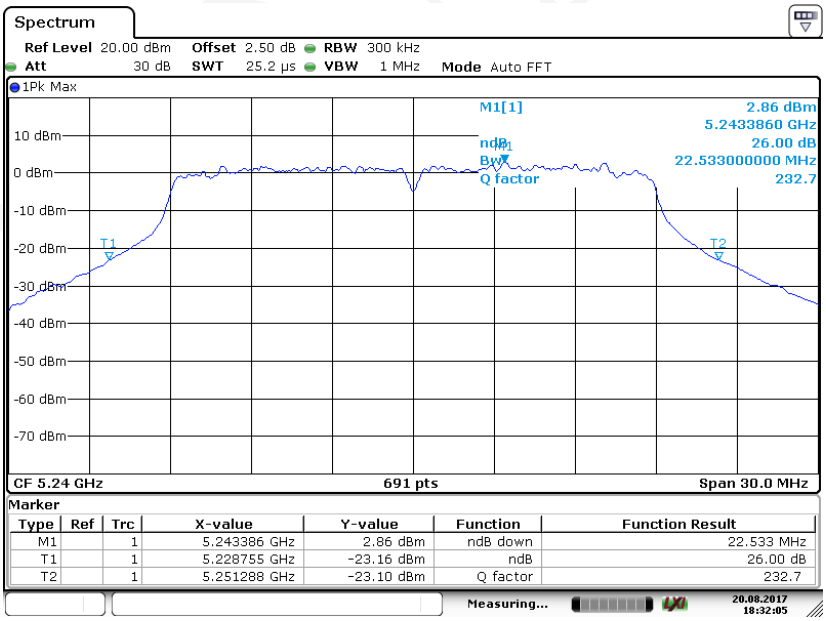
Date: 20.AUG.2017 18:30:16

802.11n-HT20 mode, Chain 1: 5200MHz



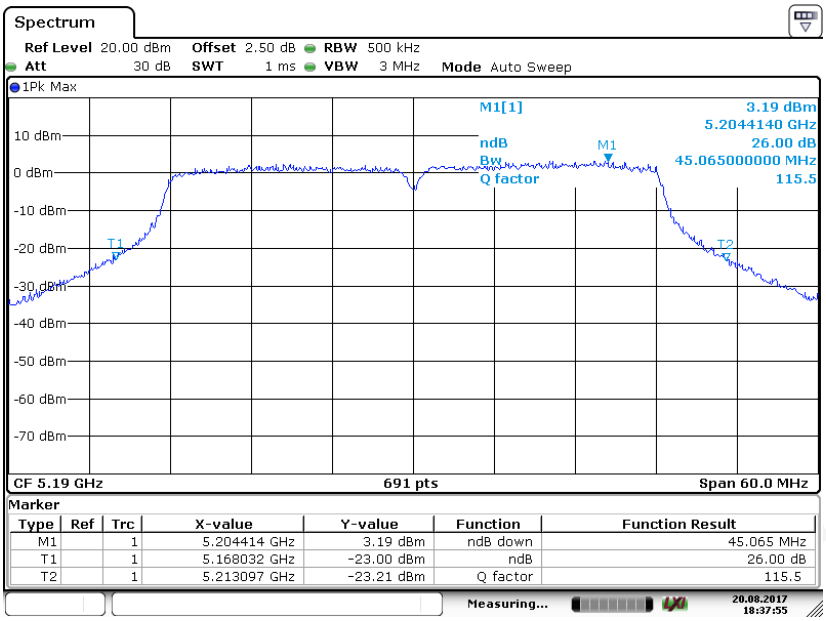
Date: 20.AUG.2017 18:31:19

802.11n-HT20 mode, Chain 1: 5240MHz



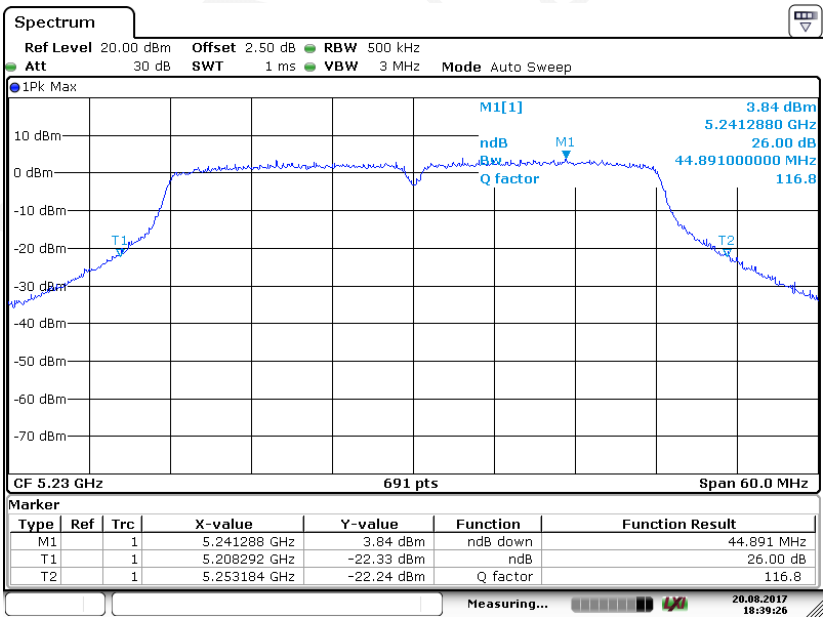
Date: 20.AUG.2017 18:32:05

802.11n-HT40 mode, Chain 1: 5190MHz



Date: 20.AUG.2017 18:37:55

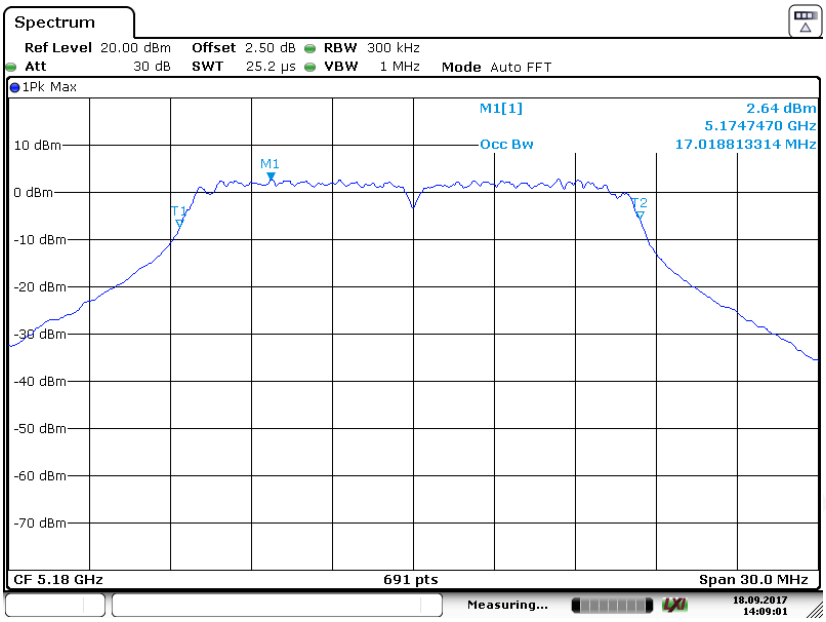
802.11n-HT40 mode, Chain 1: 5230MHz



Date: 20.AUG.2017 18:39:27

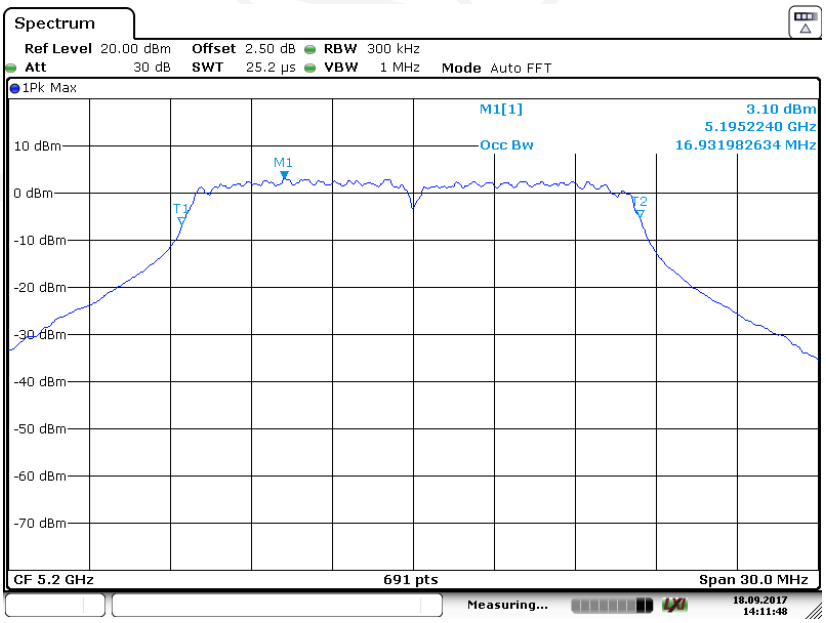
99% Occupied Bandwidth

802.11a mode, Chain 0: 5180MHz



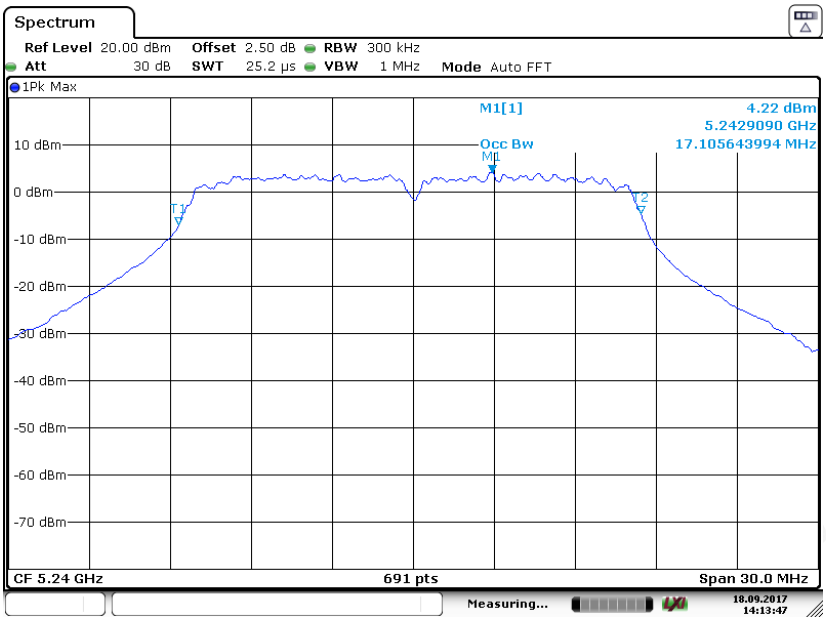
Date: 18.SEP.2017 14:09:01

802.11a mode, Chain 0: 5200MHz



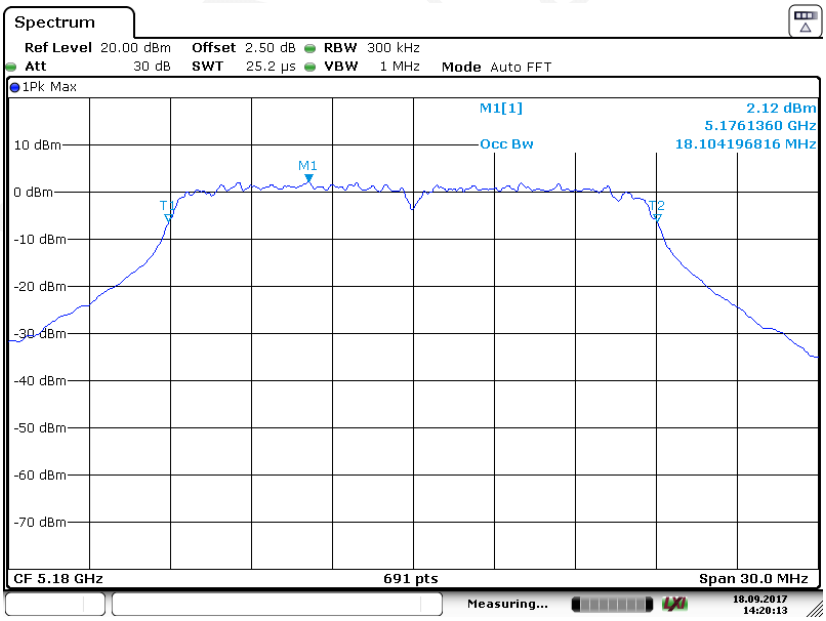
Date: 18.SEP.2017 14:11:48

802.11a mode, Chain 0: 5240MHz



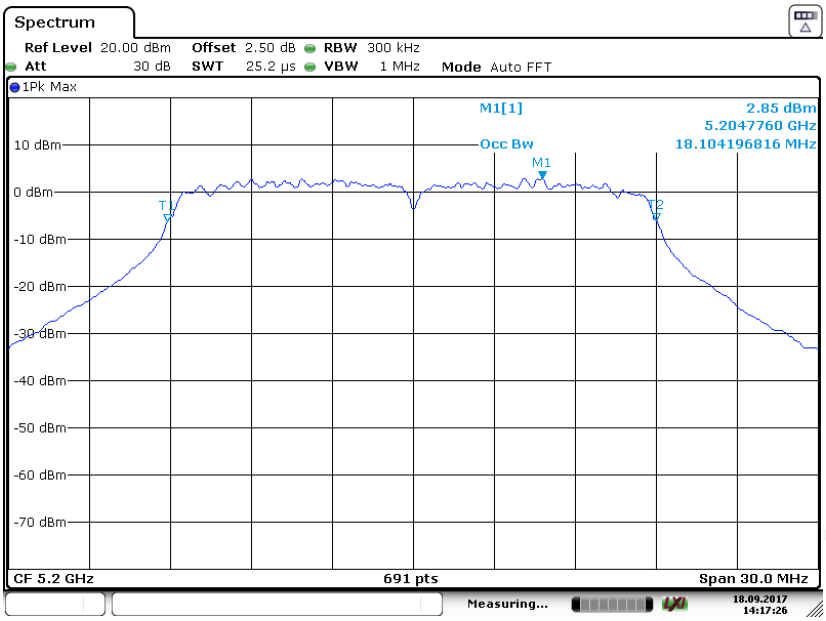
Date:18.SEP.2017 14:13:47

802.11n-HT20 mode, Chain 0: 5180MHz



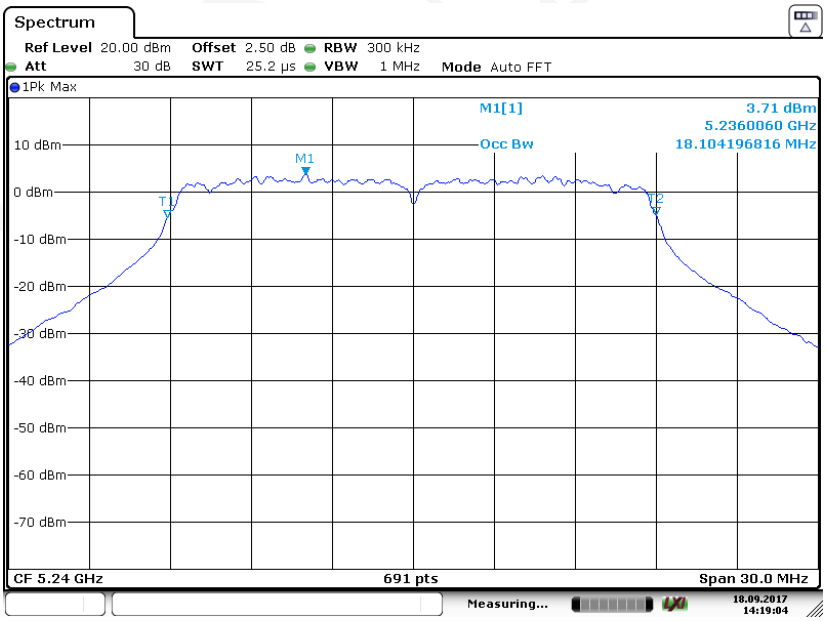
Date:18.SEP.2017 14:20:13

802.11n-HT20 mode, Chain 0: 5200MHz



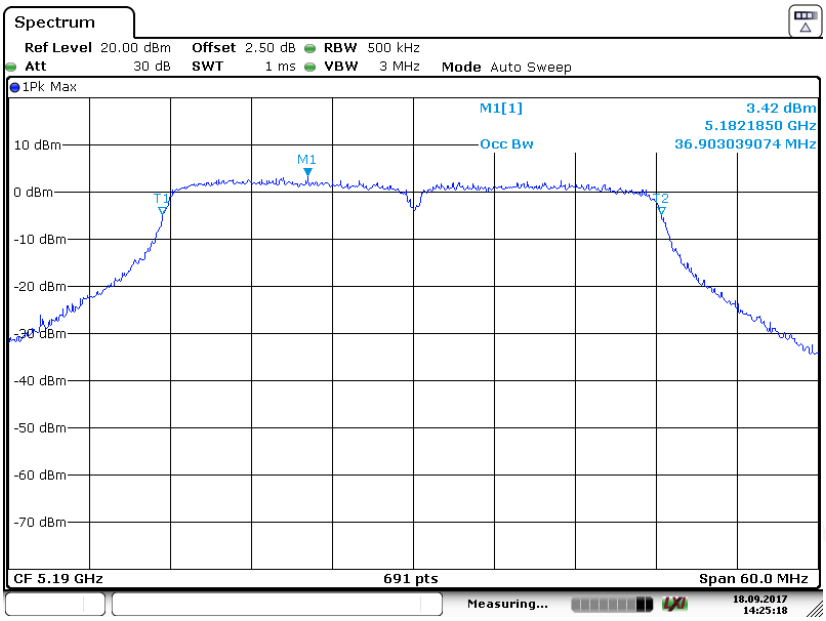
Date: 18.SEP.2017 14:17:25

802.11n-HT20 mode, Chain 0: 5240MHz



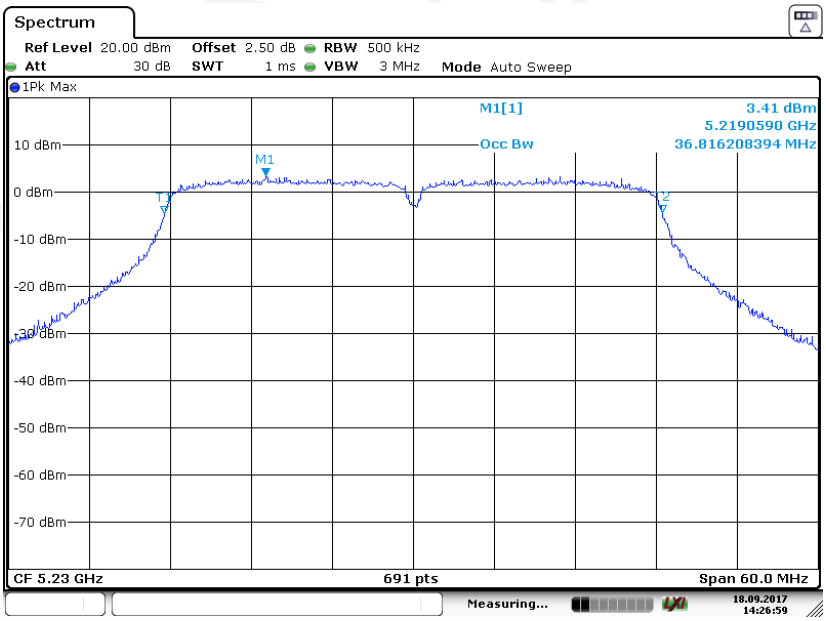
Date: 18.SEP.2017 14:19:04

802.11n-HT40 mode, Chain 0: 5190MHz



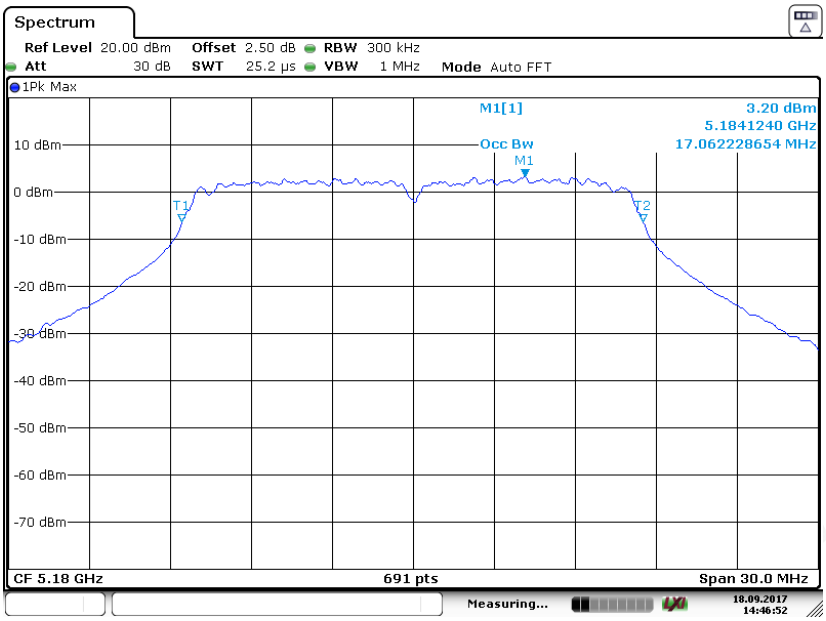
Date: 18.SEP.2017 14:25:18

802.11n-HT40 mode, Chain 0: 5230MHz



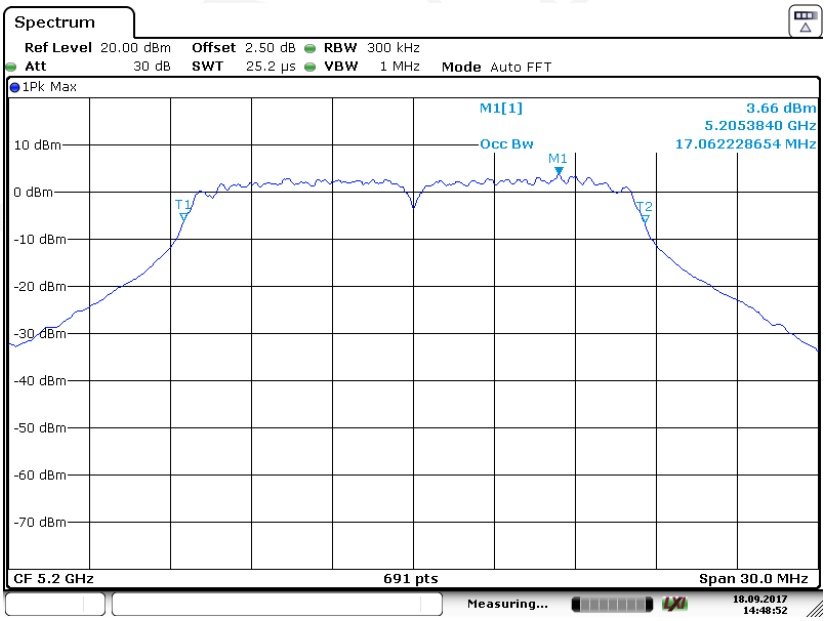
Date: 18.SEP.2017 14:26:59

802.11a mode, Chain 1: 5180MHz



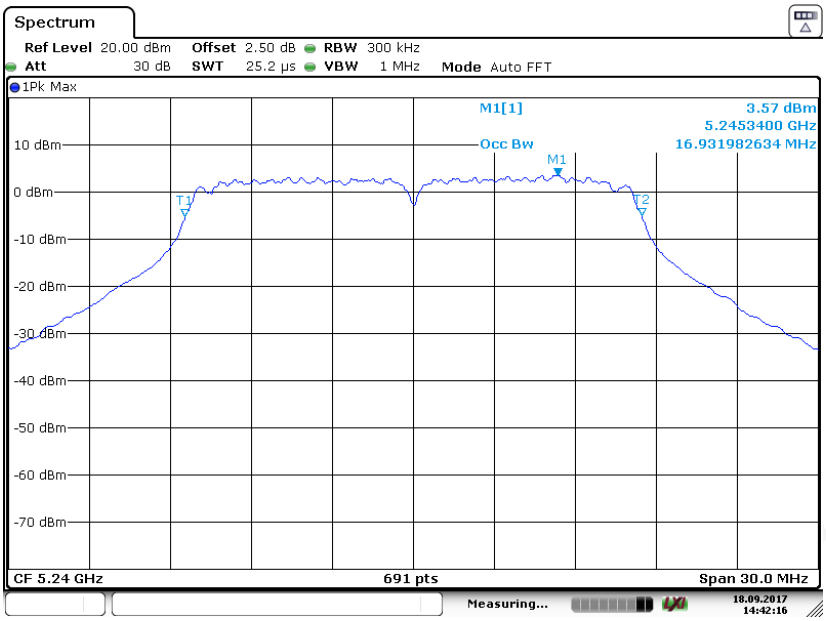
Date:18.SEP.2017 14:46:52

802.11a mode, Chain 1: 5200MHz



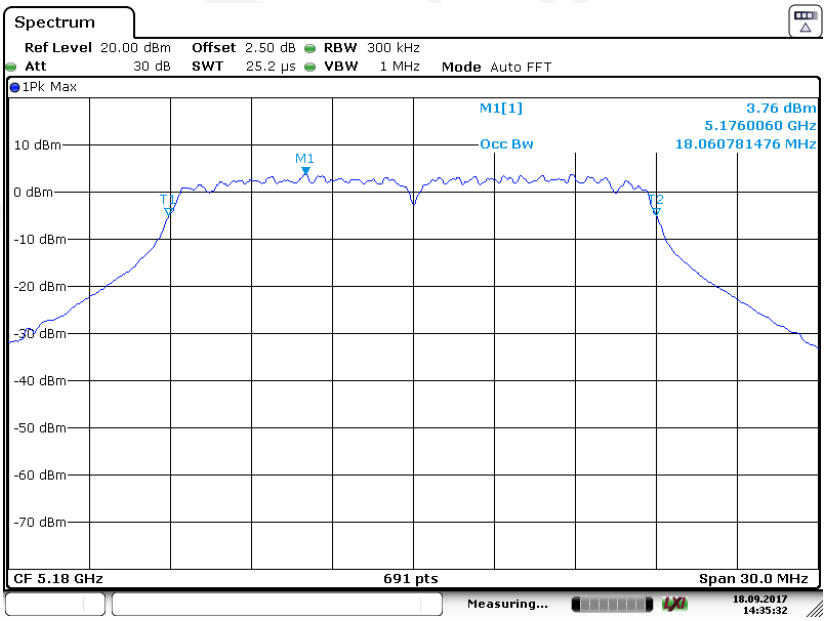
Date:18.SEP.2017 14:48:52

802.11a mode, Chain 1: 5240MHz



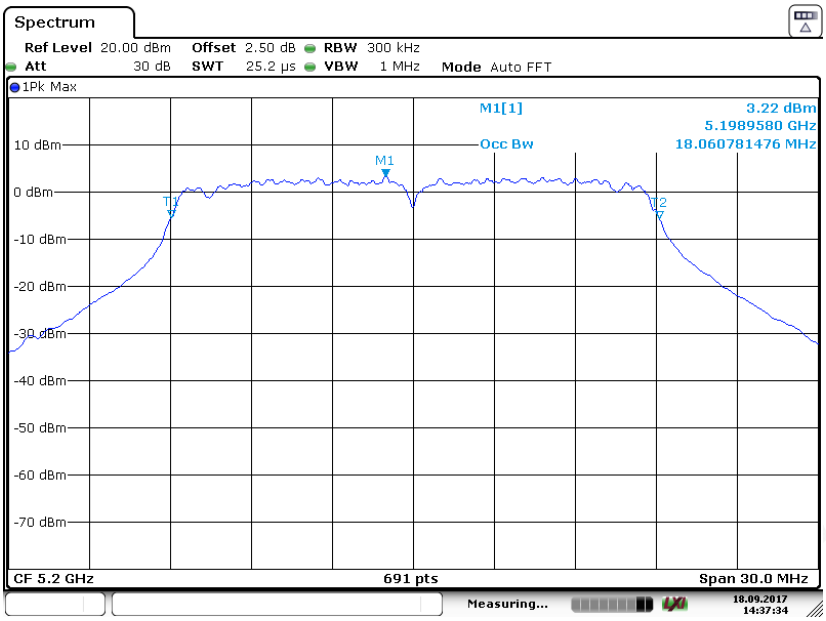
Date:18.SEP.2017 14:42:16

802.11n-HT20 mode, Chain 1: 5180MHz



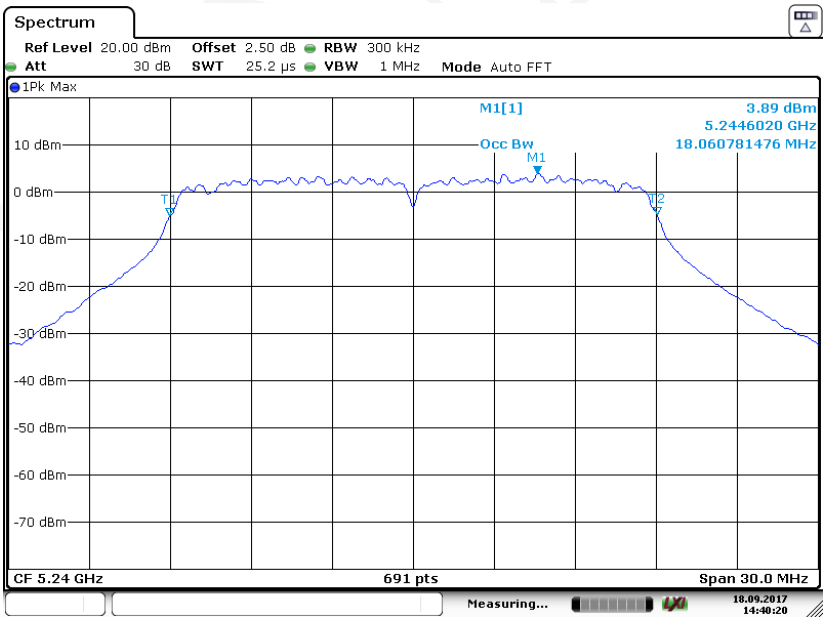
Date:18.SEP.2017 14:35:31

802.11n-HT20 mode, Chain 1: 5200MHz



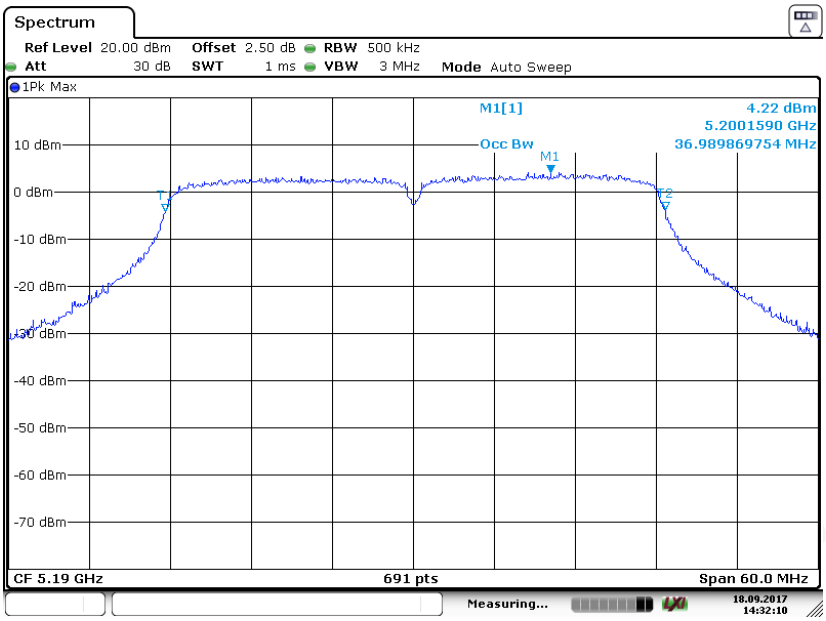
Date:18.SEP.2017 14:37:34

802.11n-HT20 mode, Chain 1: 5240MHz



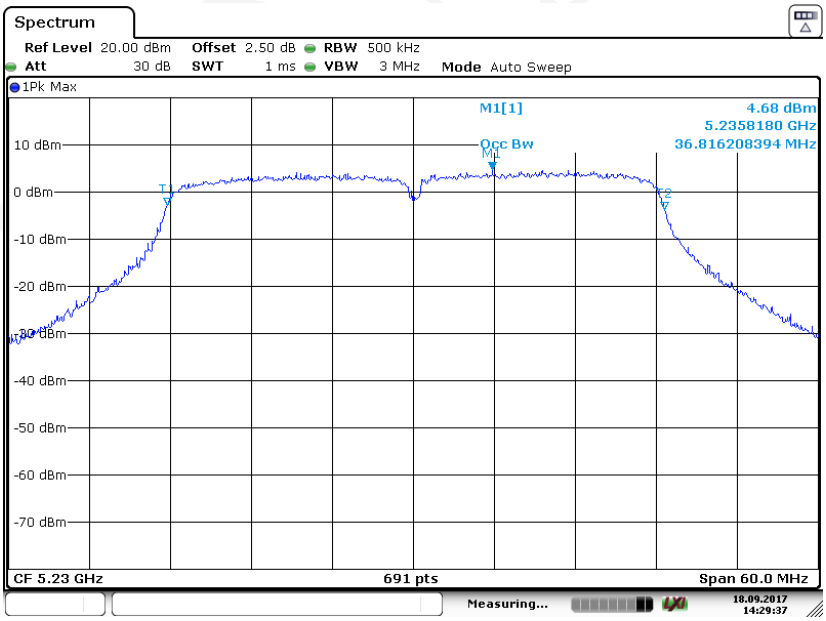
Date:18.SEP.2017 14:40:20

802.11n-HT40 mode, Chain 1: 5190MHz



Date:18.SEP.2017 14:32:10

802.11n-HT40 mode, Chain 1: 5230MHz

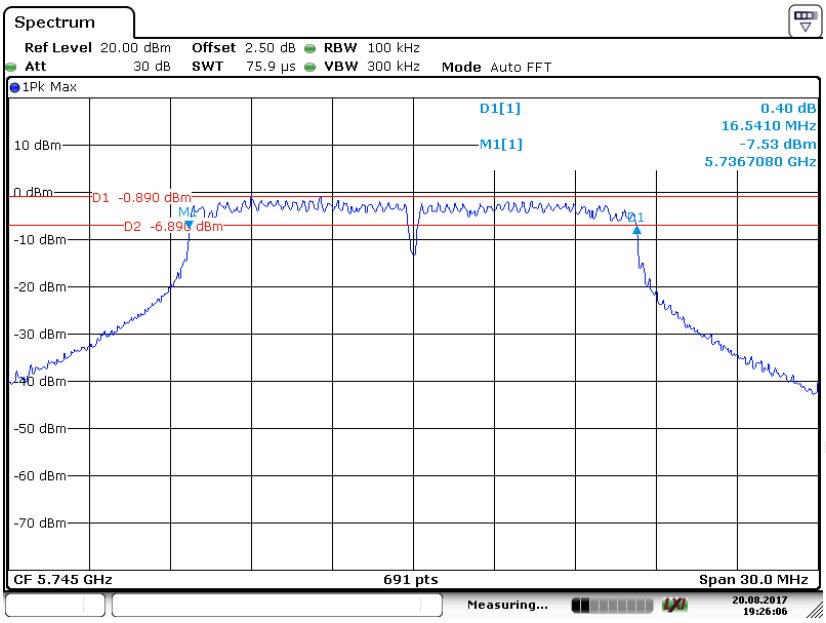


Date:18.SEP.2017 14:29:37

5725-5850 MHz Band:

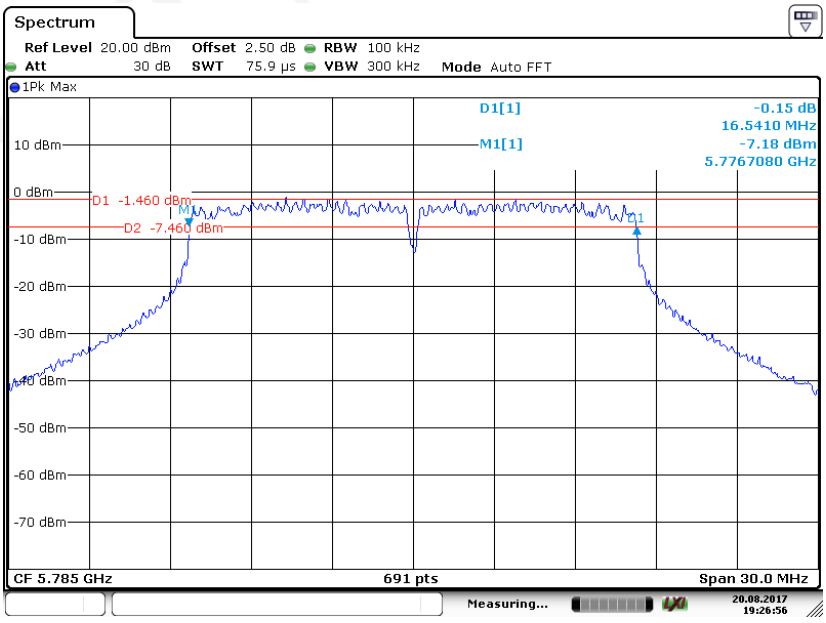
6 Bandwidth

802.11a mode, Chain 0: 5745MHz



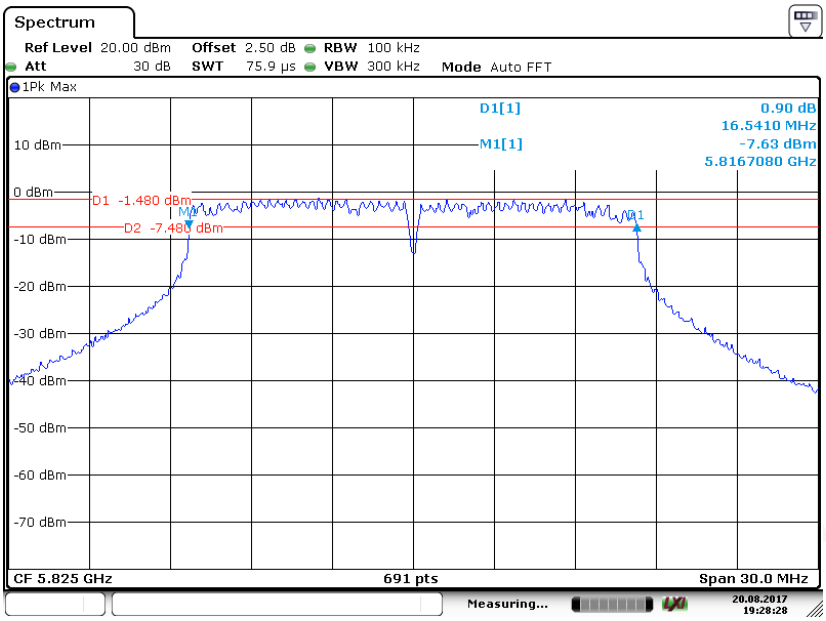
Date: 20.AUG.2017 19:26:06

802.11a mode, Chain 0: 5785MHz



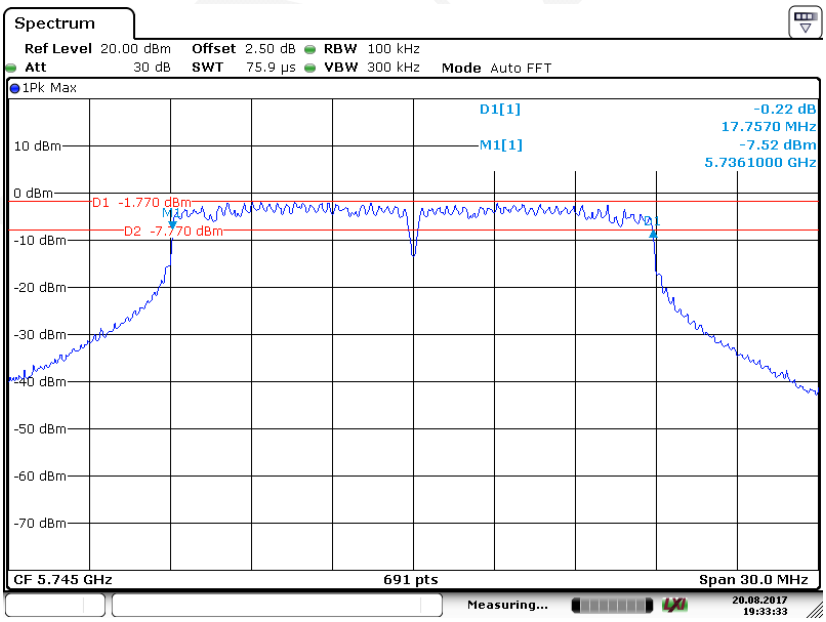
Date: 20.AUG.2017 19:26:56

802.11a mode, Chain 0: 5825MHz



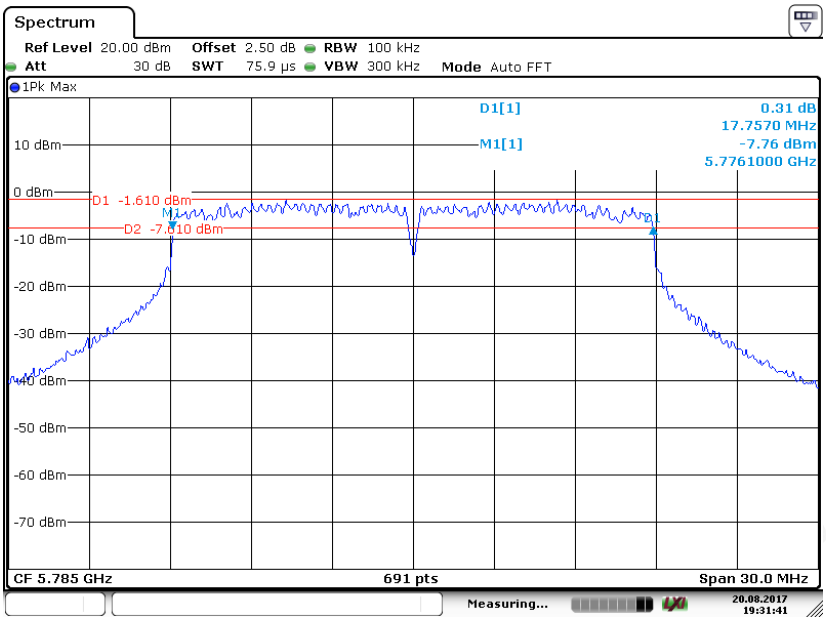
Date: 20.AUG.2017 19:28:28

802.11n-HT20 mode, Chain 0: 5745MHz



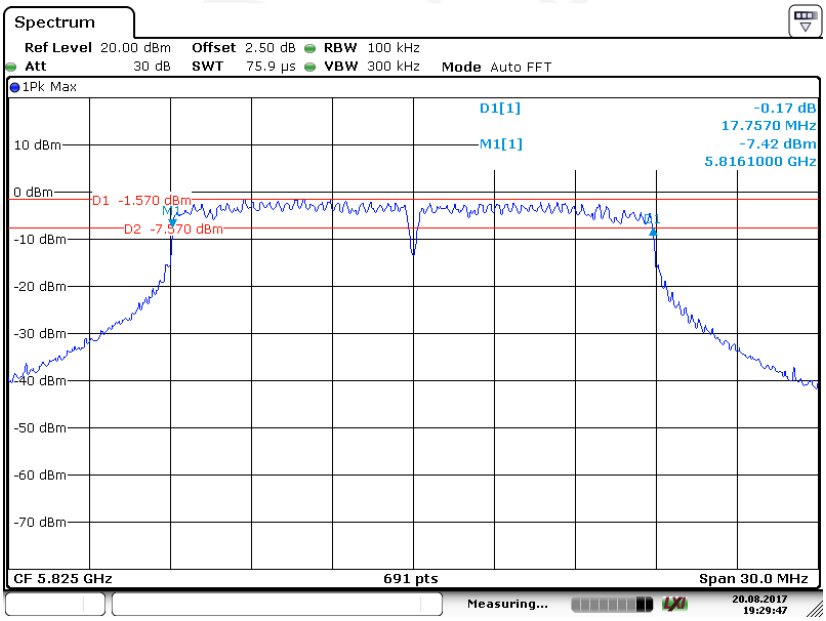
Date: 20.AUG.2017 19:33:33

802.11n-HT20 mode, Chain 0: 5785MHz



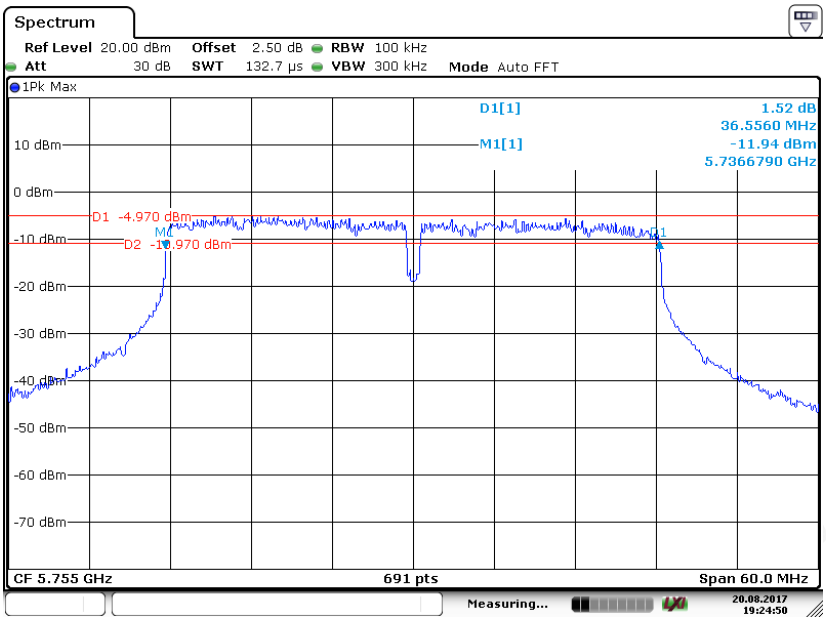
Date: 20.AUG.2017 19:31:42

802.11n-HT20 mode, Chain 0: 5825MHz



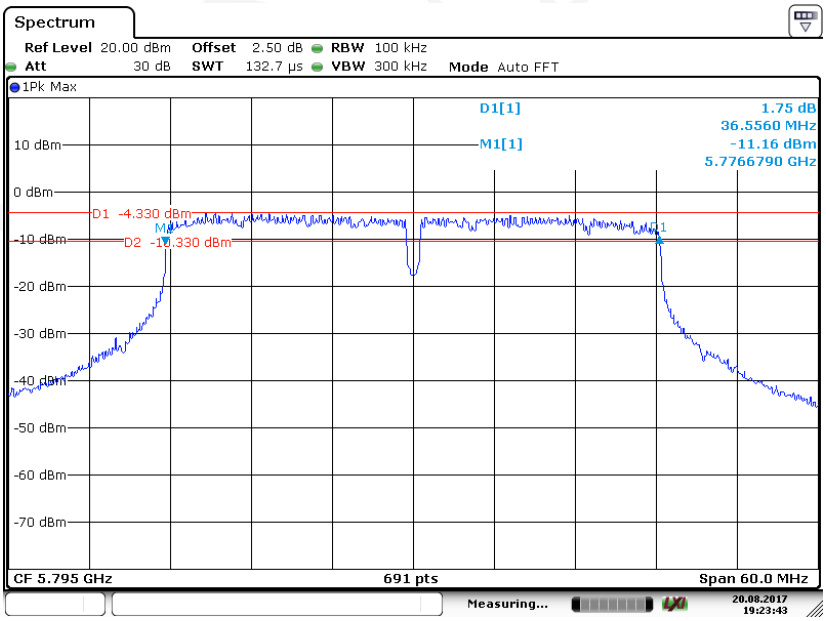
Date: 20.AUG.2017 19:29:47

802.11n-HT40 mode, Chain 0: 5755MHz



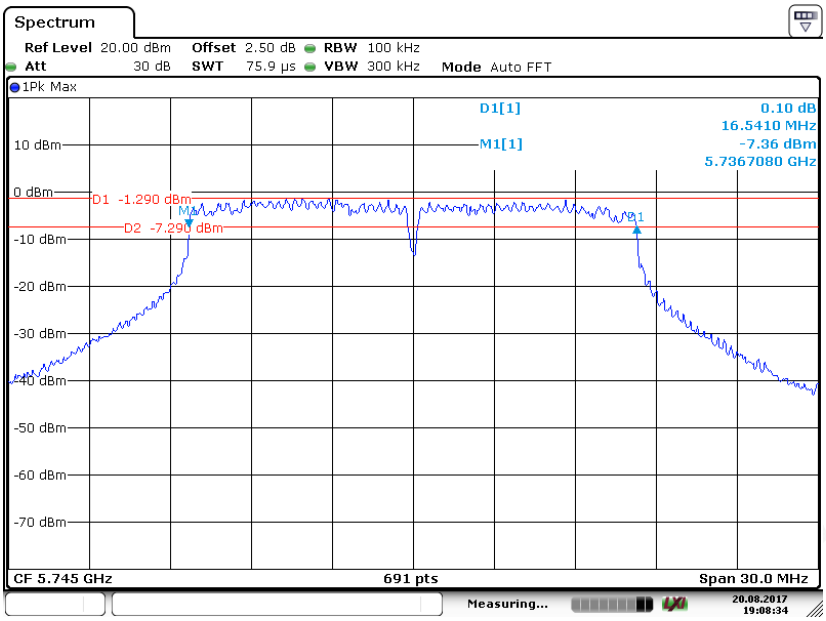
Date: 20.AUG.2017 19:24:50

802.11n-HT40 mode, Chain 0: 5795MHz



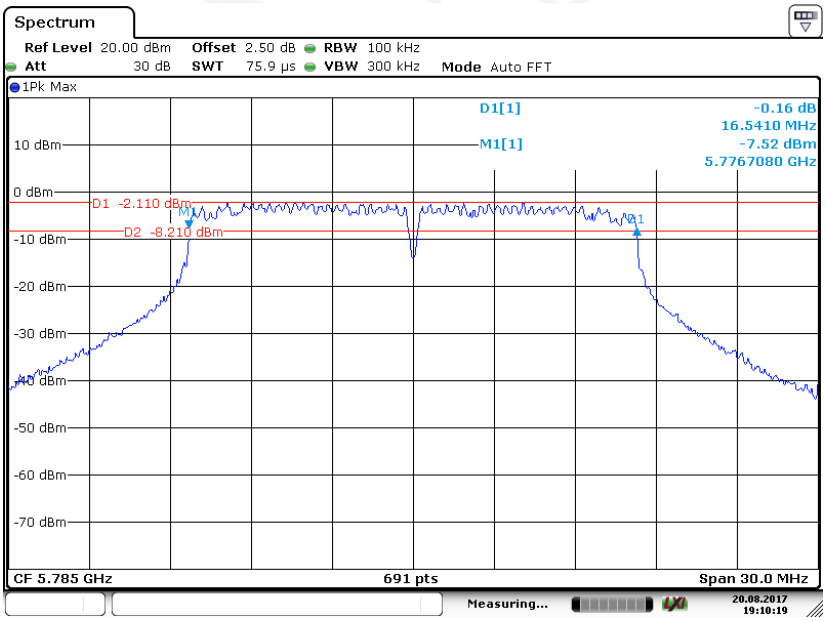
Date: 20.AUG.2017 19:23:43

802.11a mode, Chain 1: 5745MHz



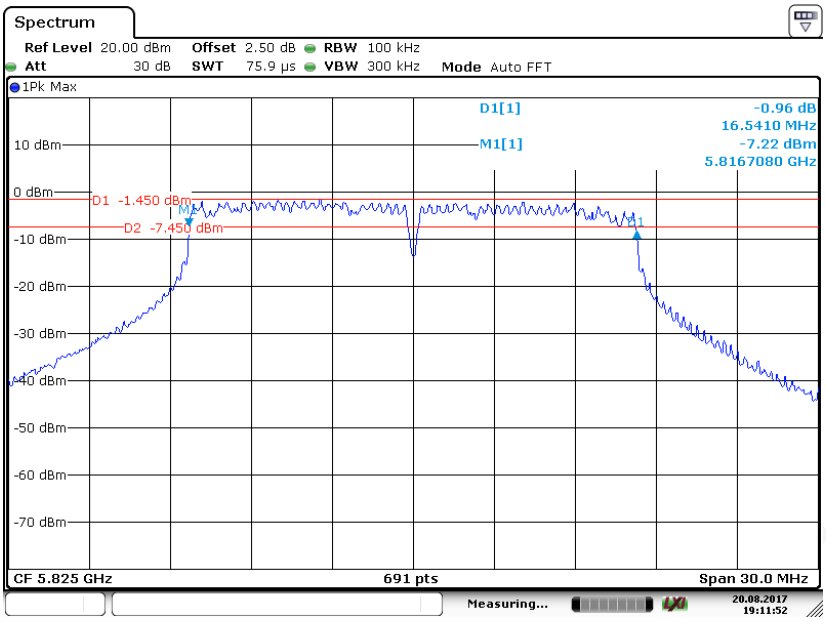
Date: 20.AUG.2017 19:08:34

802.11a mode, Chain 1: 5785MHz



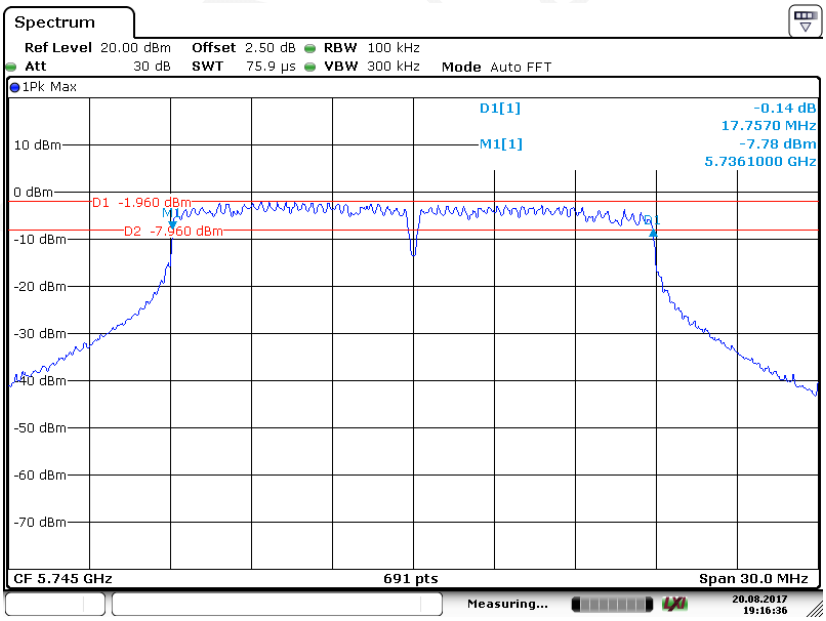
Date: 20.AUG.2017 19:10:18

802.11a mode, Chain 1: 5825MHz



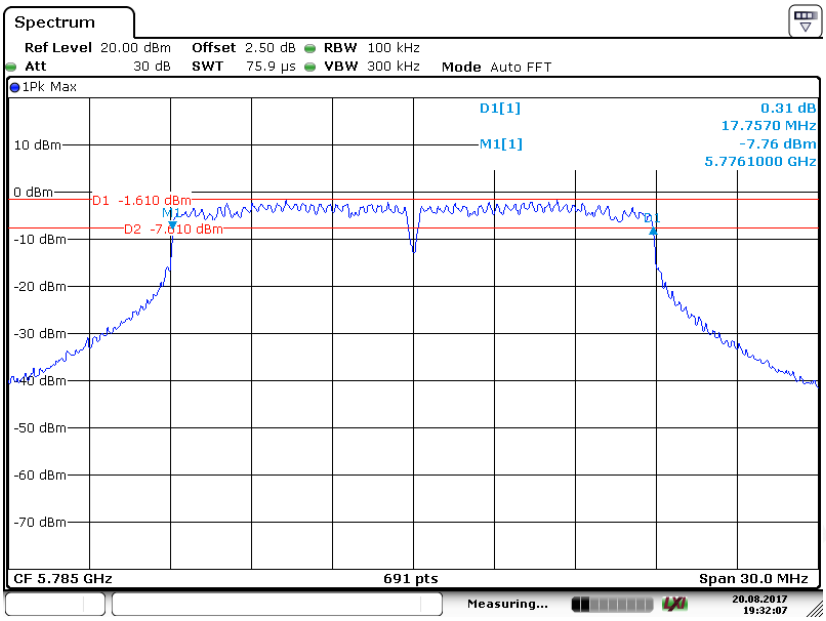
Date: 20.AUG.2017 19:11:52

802.11n-HT20 mode, Chain 1: 5745MHz



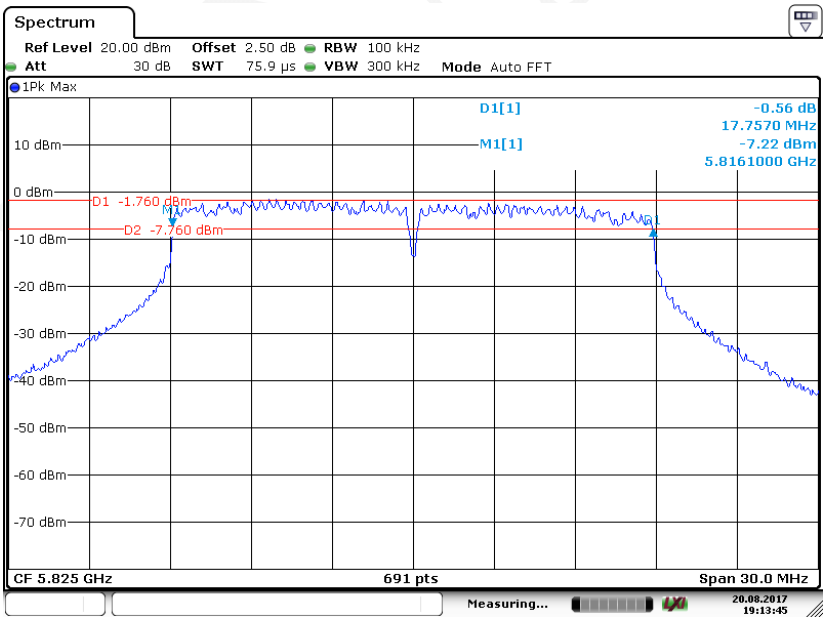
Date: 20.AUG.2017 19:16:36

802.11n-HT20 mode, Chain 1: 5785MHz



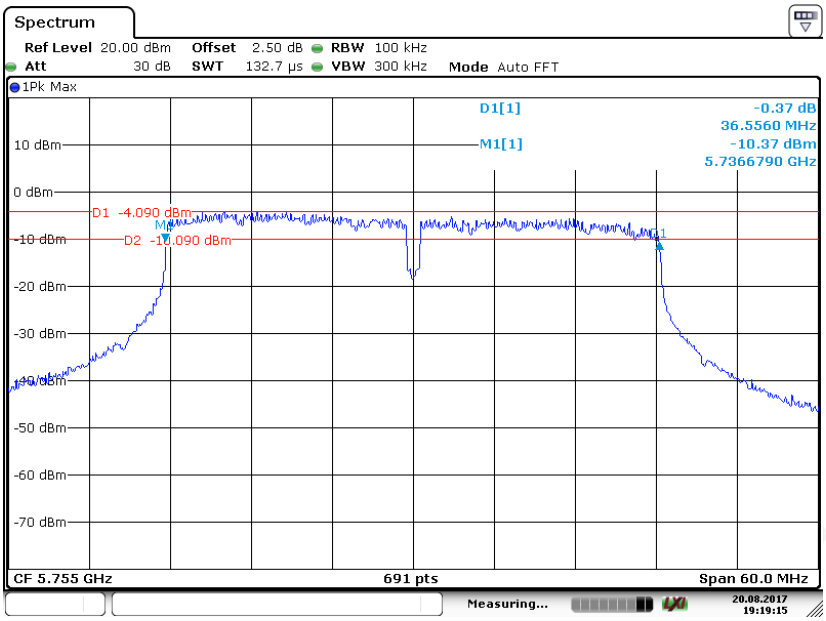
Date: 20.AUG.2017 19:32:07

802.11n-HT20 mode, Chain 1: 5825MHz



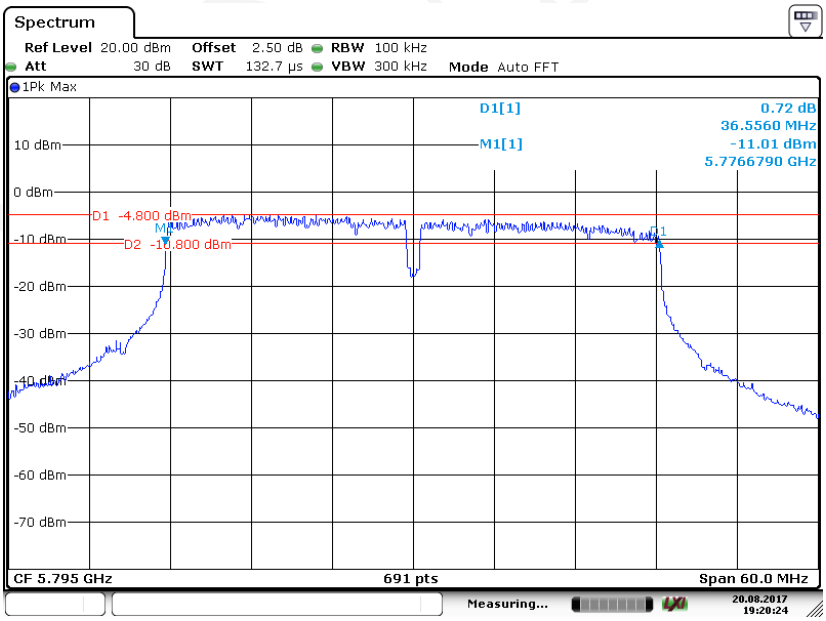
Date: 20.AUG.2017 19:13:45

802.11n-HT40 mode, Chain 1: 5755MHz



Date: 20.AUG.2017 19:19:15

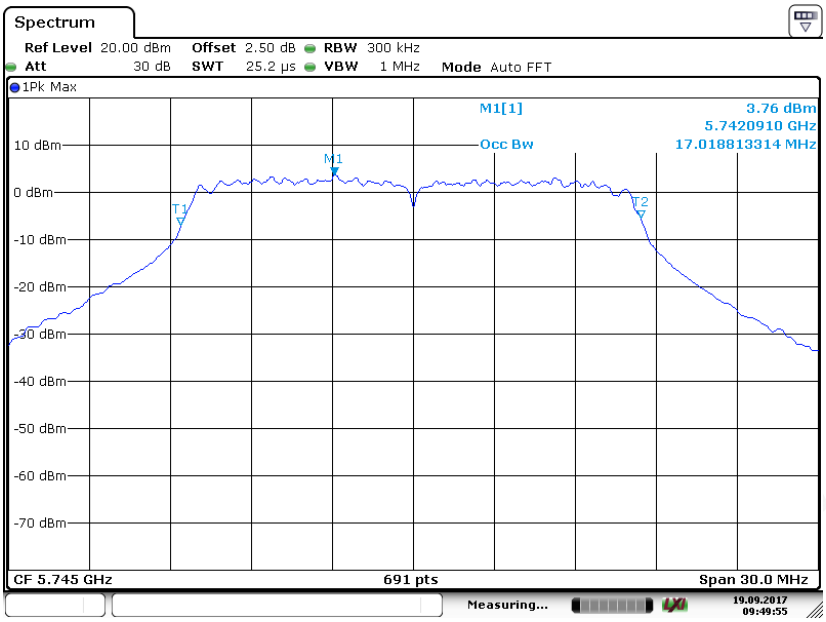
802.11n-HT40 mode, Chain 1: 5795MHz



Date: 20.AUG.2017 19:20:25

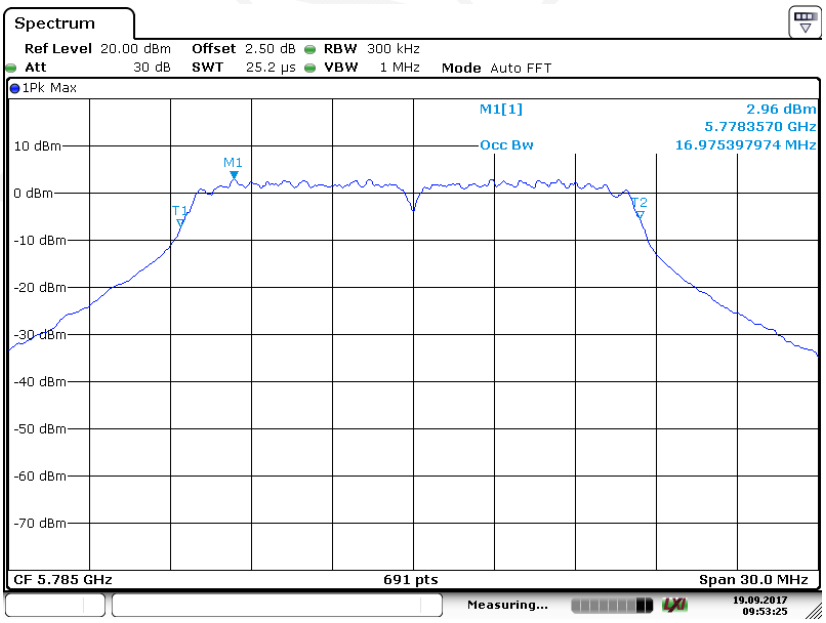
99% Occupied Bandwidth

802.11a mode, Chain 0: 5745MHz



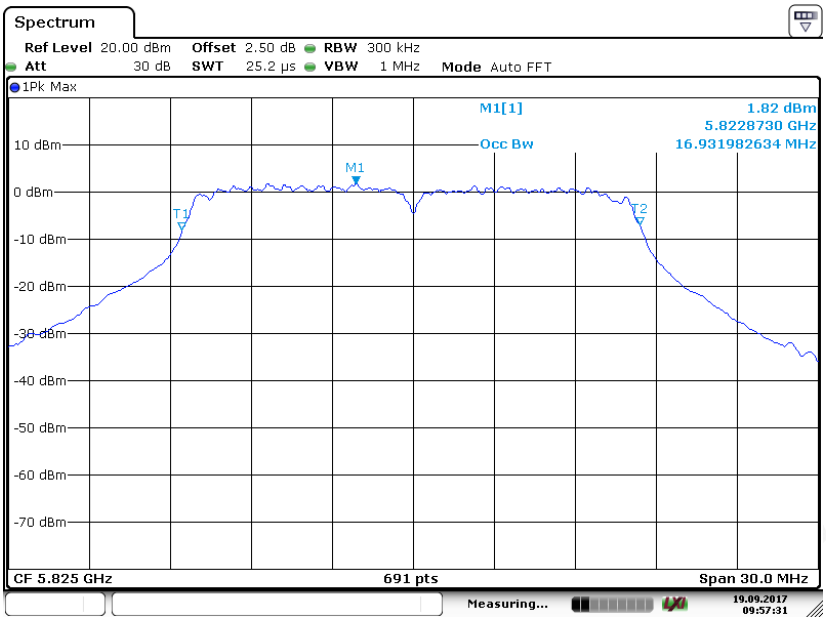
Date: 19.SEP.2017 09:49:55

802.11a mode, Chain 0: 5785MHz



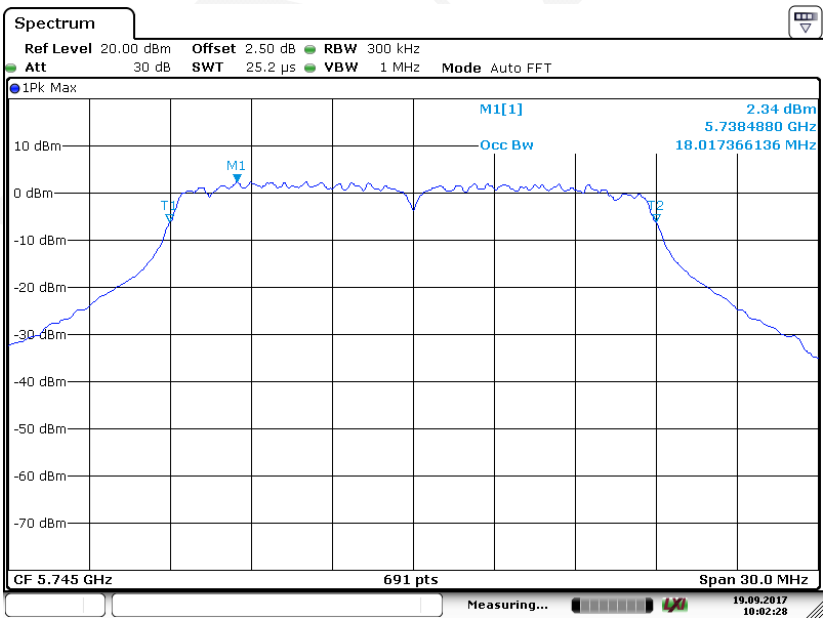
Date: 19.SEP.2017 09:53:25

802.11a mode, Chain 0: 5825MHz



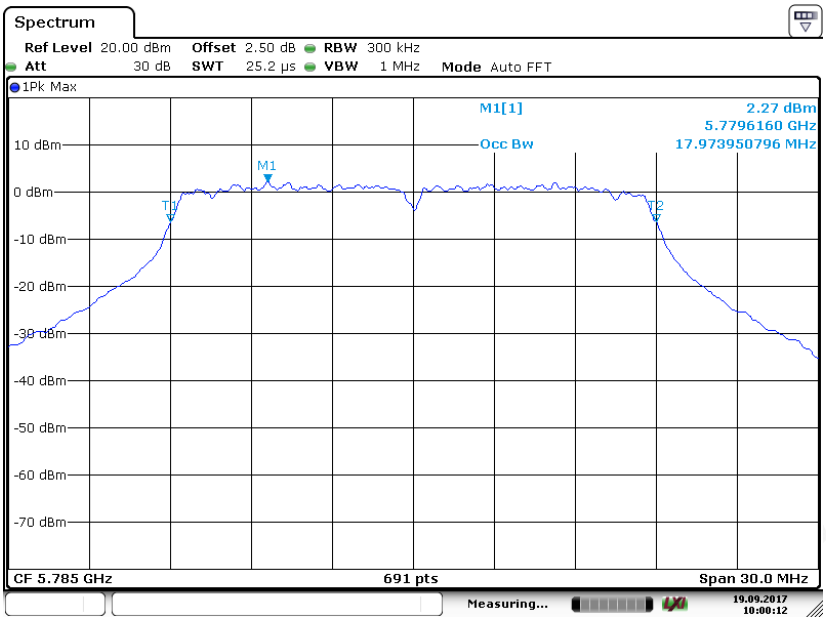
Date:19.SEP.2017 09:57:32

802.11n-HT20 mode, Chain 0: 5745MHz



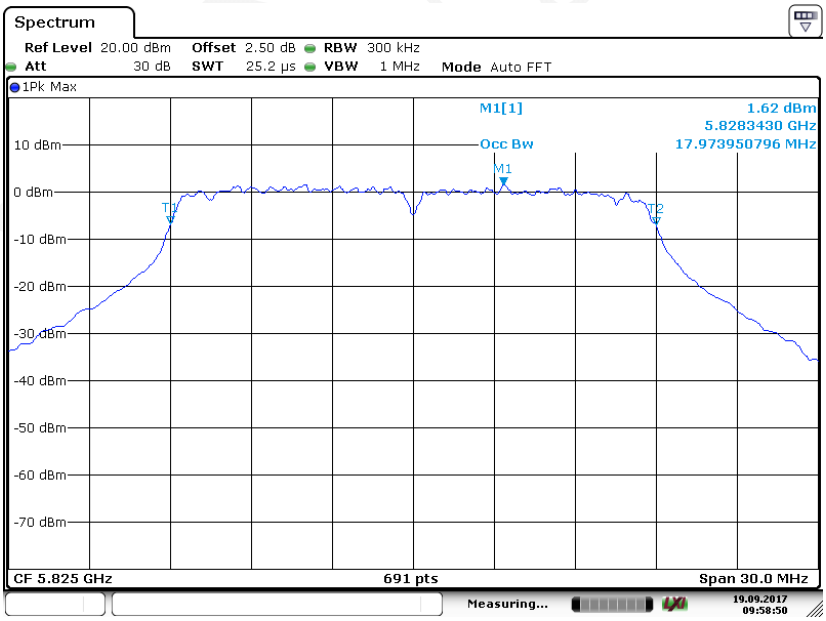
Date:19.SEP.2017 10:02:28

802.11n-HT20 mode, Chain 0: 5785MHz



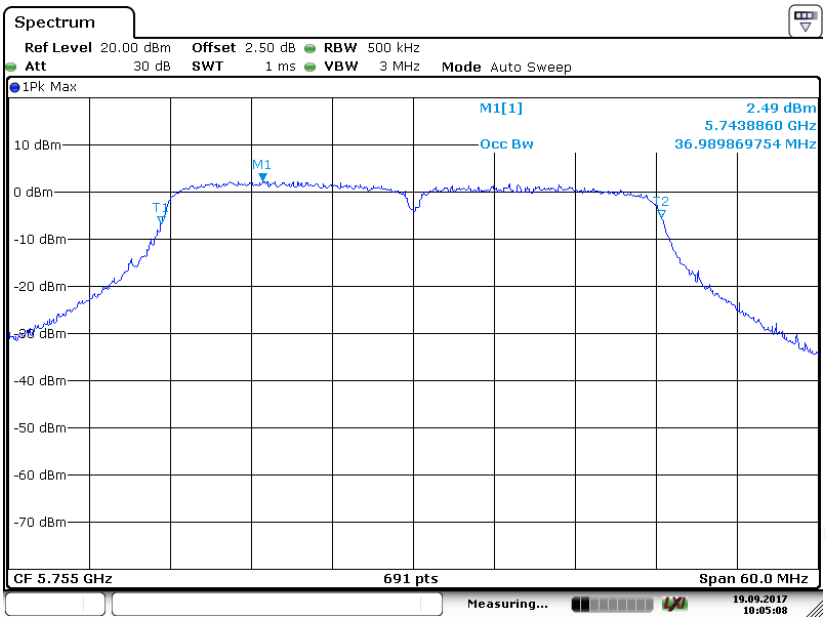
Date:19.SEP.2017 10:00:12

802.11n-HT20 mode, Chain 0: 5825MHz



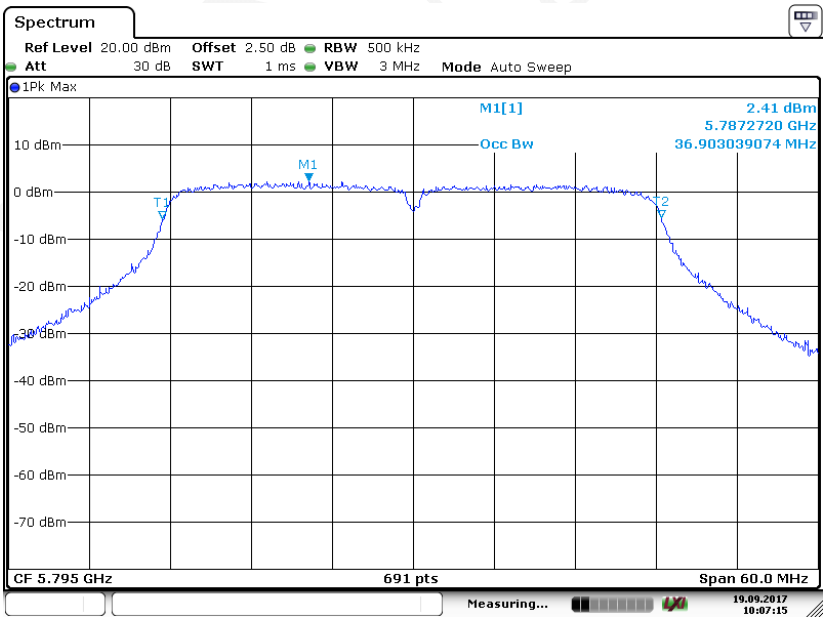
Date:19.SEP.2017 09:58:50

802.11n-HT40 mode, Chain 0: 5755MHz



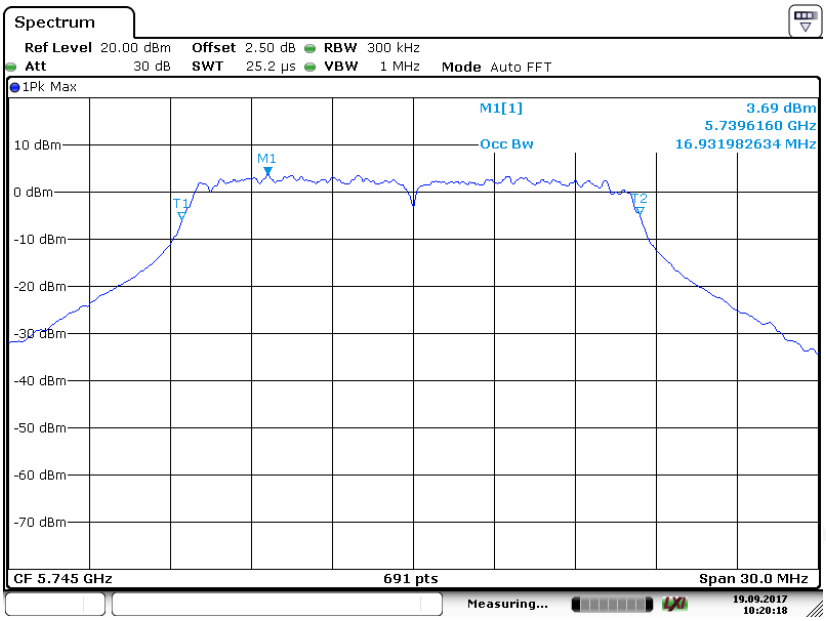
Date:19.SEP.2017 10:05:08

802.11n-HT40 mode, Chain 0: 5795MHz



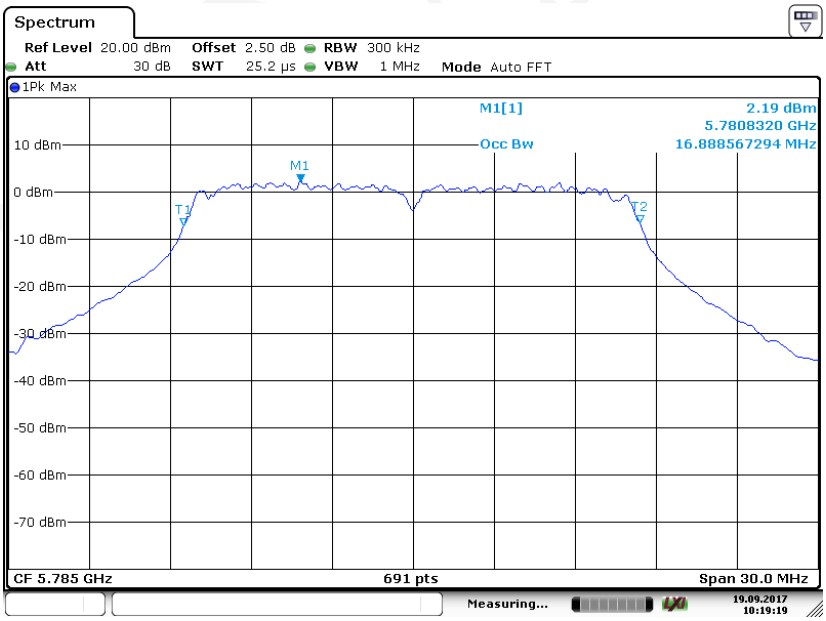
Date:19.SEP.2017 10:07:15

802.11a mode, Chain 1: 5745MHz



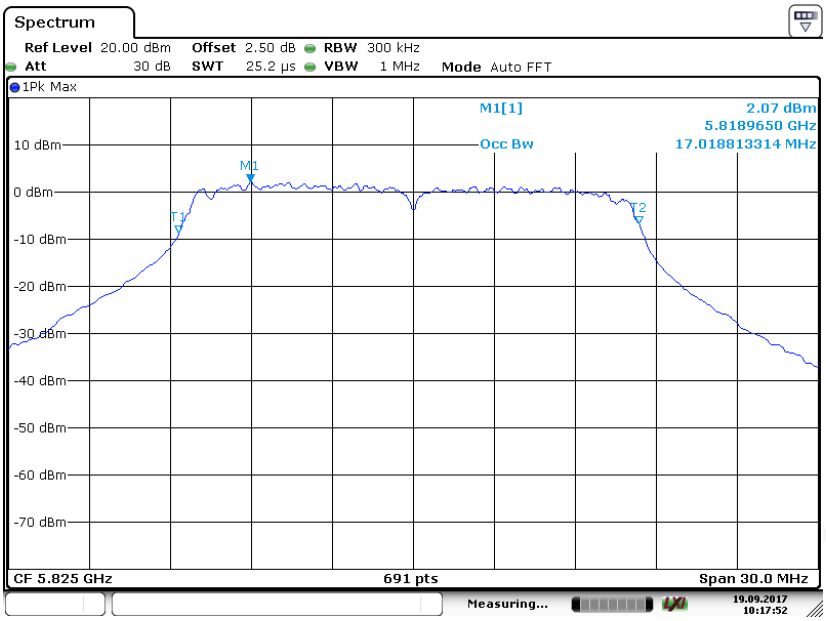
Date:19.SEP.2017 10:20:18

802.11a mode, Chain 1: 5785MHz



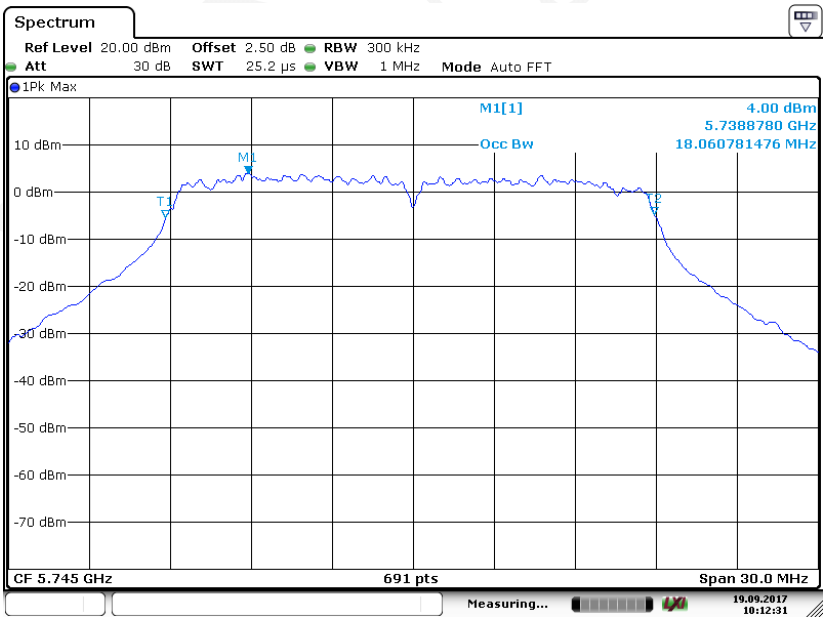
Date:19.SEP.2017 10:19:19

802.11a mode, Chain 1: 5825MHz



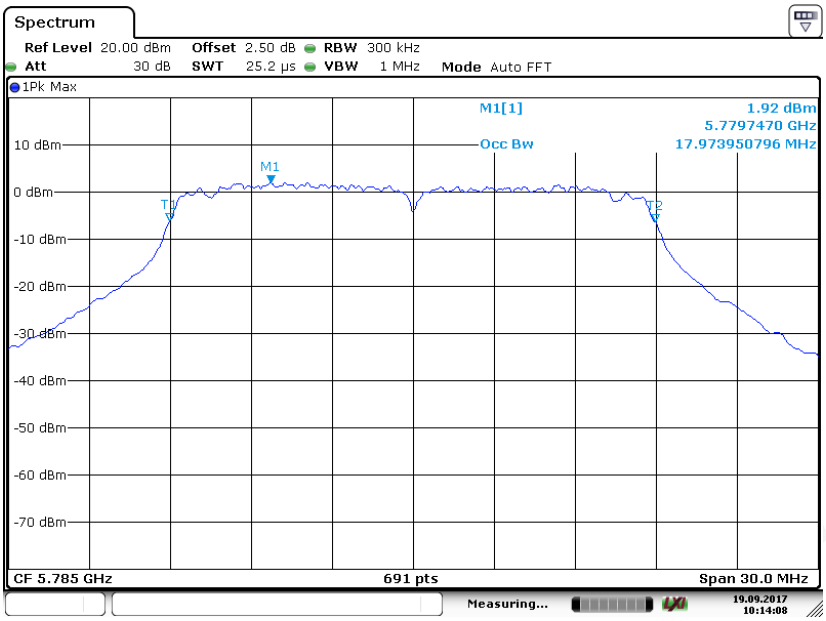
Date:19.SEP.2017 10:17:52

802.11n-HT20 mode, Chain 1: 5745MHz



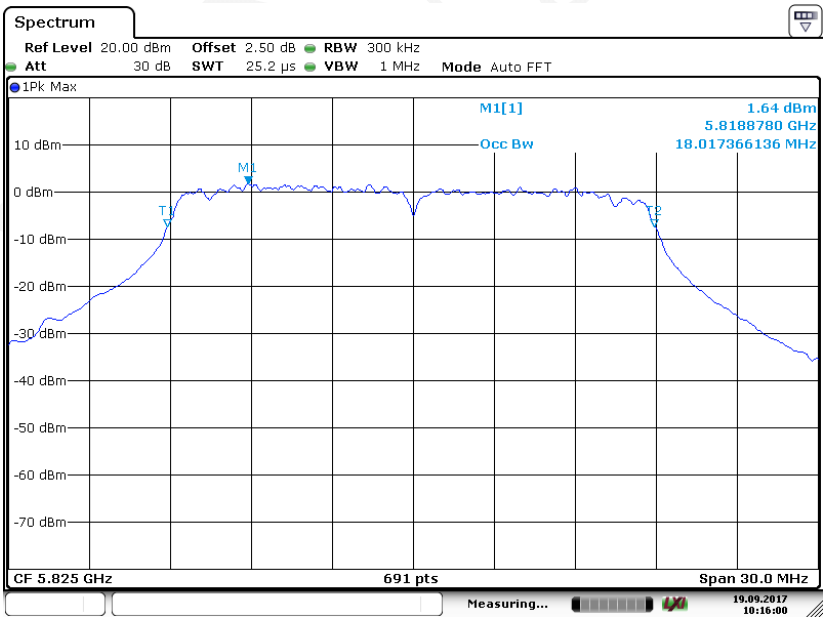
Date:19.SEP.2017 10:12:31

802.11n-HT20 mode, Chain 1: 5785MHz



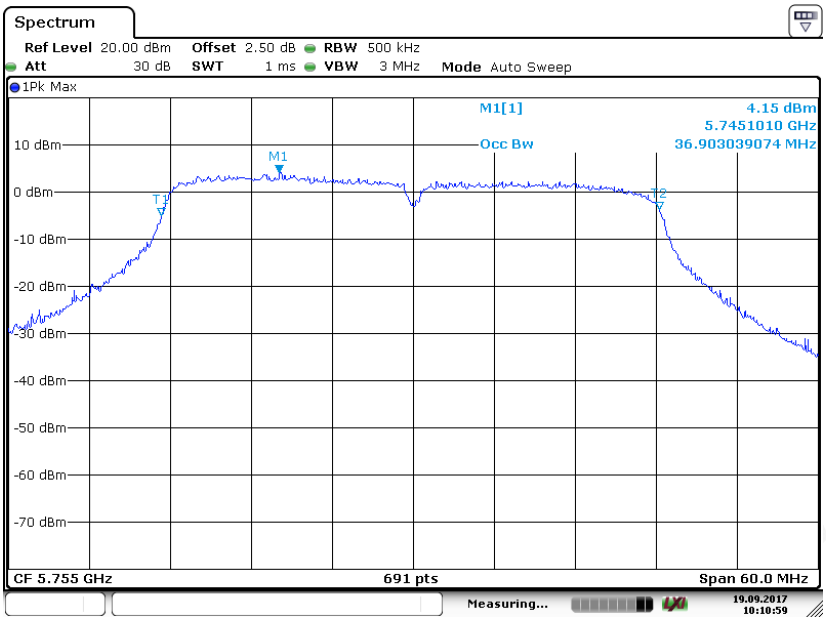
Date:19.SEP.2017 10:14:08

802.11n-HT20 mode, Chain 1: 5825MHz



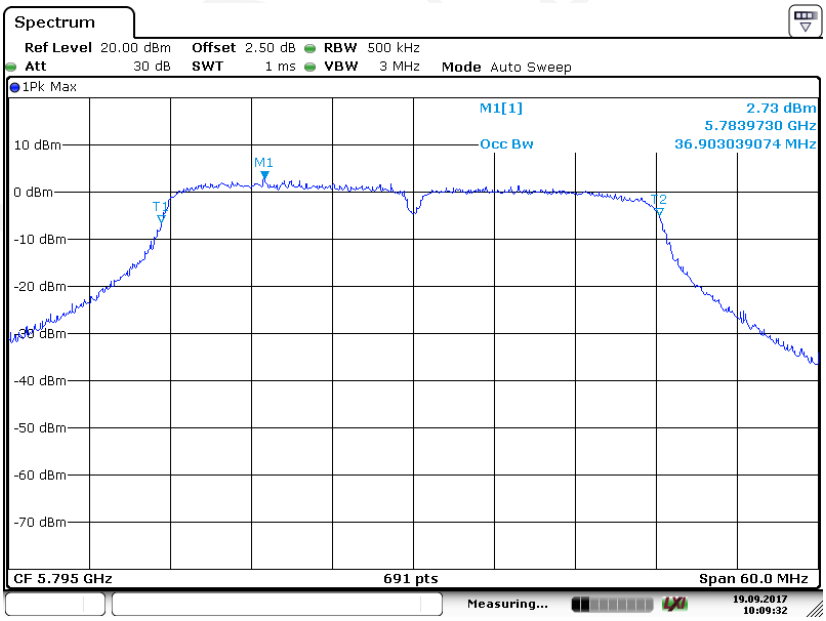
Date:19.SEP.2017 10:16:00

802.11n-HT40 mode, Chain 1: 5755MHz



Date:19.SEP.2017 10:10:59

802.11n-HT40 mode, Chain 1: 5795MHz



Date:19.SEP.2017 10:09:32

FCC §15.407(g)–FREQUENCY STABILITY

Applicable Standard

FCC §15.407(g) Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the users manual.

Test Procedure

According to ANSI C63.10-2013 “American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices”.

Test Data

Environmental Conditions

Temperature:	23.5 °C
Relative Humidity:	50 %
ATM Pressure:	101.2 kPa

The testing was performed byChris Wang on 2017-08-20 to 2017-11-21.

Test Mode: Transmitting(Test was performed at Chain 0 worst case)

Test Result: Pass.

5150-5250MHz:

802.11a:

Temperature (℃)	Voltage (V_{DC})	f_L at Low Test Channel (MHz)	F_H at High Test Channel (MHz)	Limit
-40	52	5171.2001	5248.6403	f_L and f_H Within 5150~5250MHz range
-30		5171.2003	5248.6405	
-20		5171.2000	5248.6401	
-10		5171.2002	5248.6402	
0		5171.2003	5248.6400	
10		5171.1999	5248.6398	
20		5171.1998	5248.6399	
30		5171.2000	5248.6397	
40		5171.1992	5248.6401	
50		5171.1998	5248.6402	
60		5171.2005	5248.6405	
70		5171.1998	5248.6402	
75		5171.2006	5248.6408	
25	48	5171.2000	5248.6401	
25	56	5171.1997	5248.6400	

802.11n-HT20:

Temperature (℃)	Voltage (V_{DC})	f_L at Low Test Channel (MHz)	F_H at High Test Channel (MHz)	Limit
-40	52	5170.7200	5249.1202	f_L and f_H Within 5150~5250MHz range
-30		5170.7205	5249.1203	
-20		5170.7204	5249.1201	
-10		5170.7203	5249.1200	
0		5170.7202	5249.1201	
10		5170.7197	5249.1204	
20		5170.7199	5249.1203	
30		5170.7201	5249.1202	
40		5170.7204	5249.1203	
50		5170.7203	5249.1200	
60		5170.7212	5249.1202	
70		5170.7210	5249.1205	
75		5170.7201	5249.1206	
25	48	5170.7199	5249.1202	
25	56	5170.7197	5249.1204	

802.11n-HT40:

Temperature (℃)	Voltage (V_{DC})	f_L at Low Test Channel (MHz)	F_H at High Test Channel (MHz)	Limit
-40	52	5171.6002	5248.5603	f_L and f_H Within 5150~5250MHz range
-30		5171.6007	5248.5602	
-20		5171.6004	5248.5601	
-10		5171.6000	5248.5607	
0		5171.6003	5248.5605	
10		5171.6002	5248.5602	
20		5171.6001	5248.5606	
30		5171.6004	5248.5604	
40		5171.6005	5248.5603	
50		5171.6008	5248.5607	
60		5171.6009	5248.5606	
70		5171.6001	5248.5607	
75		5171.6005	5248.5602	
25	48	5171.6006	5248.5603	
25	56	5171.6007	5248.5601	

5725-5850MHz:

802.11a:

Temperature (℃)	Voltage (V_{DC})	f_L at Low Test Channel (MHz)	F_H at High Test Channel (MHz)	Limit
-40	52	5735.5603	5833.5601	f_L and f_H Within 5725~5850MHz range
-30		5735.5607	5833.5605	
-20		5735.5602	5833.5602	
-10		5735.5604	5833.5601	
0		5735.5600	5833.5602	
10		5735.5605	5833.5601	
20		5735.5601	5833.5602	
30		5735.5601	5833.5601	
40		5735.5603	5833.5602	
50		5735.5604	5833.5601	
60		5735.5608	5833.5600	
70		5735.5606	5833.5607	
75		5735.5602	5833.5603	
25	48	5735.5605	5833.5602	
25	56	5735.5604	5833.5601	

802.11n-HT20:

Temperature (℃)	Voltage (V_{DC})	f_L at Low Test Channel (MHz)	F_H at High Test Channel (MHz)	Limit
-40	52	5735.4001	5834.0402	f_L and f_H Within 5725~5850MHz range
-30		5735.4005	5834.0403	
-20		5735.4002	5834.0401	
-10		5735.4000	5834.0404	
0		5735.4004	5834.0405	
10		5735.4007	5834.0402	
20		5735.4004	5834.0401	
30		5735.4002	5834.0403	
40		5735.4001	5834.0404	
50		5735.4003	5834.0407	
60		5735.4008	5834.0407	
70		5735.4004	5834.0405	
75		5735.4007	5834.0404	
25	48	5735.4001	5834.0402	
25	56	5735.4002	5834.0400	

802.11n-HT40:

Temperature (℃)	Voltage (V_{DC})	f_L at Low Test Channel (MHz)	F_H at High Test Channel (MHz)	Limit
-40	52	5735.9602	5813.5602	f_L and f_H Within 5725~5850MHz range
-30		5735.9608	5813.5601	
-20		5735.9601	5813.5603	
-10		5735.9608	5813.5602	
0		5735.9601	5813.5600	
10		5735.9602	5813.5604	
20		5735.9605	5813.5605	
30		5735.9603	5813.5607	
40		5735.9601	5813.5605	
50		5735.9602	5813.5606	
60		5735.9603	5813.5604	
70		5735.9605	5813.5606	
75		5735.9609	5813.5607	
25	48	5735.9604	5813.5604	
25	56	5735.9601	5813.5601	

Note: the f_L and f_H determined by 99% Occupied bandwidth low edge at Low test channel and High edge at High test channel.

FCC §15.407(a) (1) – CONDUCTED TRANSMITTER OUTPUT POWER

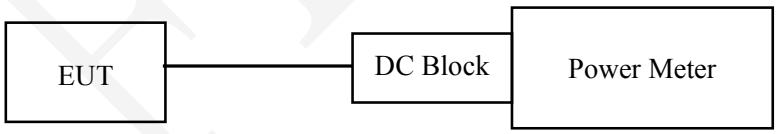
Applicable Standard

According to §15.407(a)(1)
(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).
.

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 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.

Test Procedure

1. Place the EUT on a bench and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to one test equipment.
3. Add a correction factor to the display.



Test Data

Environmental Conditions

Temperature:	23.5 °C
Relative Humidity:	50 %
ATM Pressure:	101.2 kPa

The testing was performed by Chris Wang on 2017-08-20 to 2017-11-21.

Test Mode: Transmitting

Test mode	Band	Channel	Frequency (MHz)	Maximum Conducted Output Power (dBm)			Limit (dBm)	Result
				Chain0	Chain1	Total		
802.11a	5150-5250 MHz	Low	5180	9.67	9.24	/	17	PASS
		Middle	5200	9.26	9.57	/	17	PASS
		High	5240	9.17	9.72	/	17	PASS
	5725-5850 MHz	Low	5745	13.73	13.73	/	17	PASS
		Middle	5785	13.70	13.16	/	17	PASS
		High	5825	13.87	13.26	/	17	PASS
802.11n ht20	5150-5250 MHz	Low	5180	9.30	9.05	12.19	17	PASS
		Middle	5200	9.31	9.43	12.38	17	PASS
		High	5240	9.25	9.33	12.30	17	PASS
	5725-5850 MHz	Low	5745	13.59	13.41	16.51	17	PASS
		Middle	5785	13.54	13.11	16.34	17	PASS
		High	5825	13.68	13.20	16.46	17	PASS
802.11n ht40	5150-5250 MHz	Low	5190	9.11	9.36	12.25	17	PASS
		High	5230	9.02	9.34	12.19	17	PASS
	5725-5850 MHz	Low	5755	13.52	13.65	16.60	17	PASS
		High	5795	13.65	13.29	16.48	17	PASS

Note:

1: The total output power=10Log10(10^(Chain 0/10)+10^(Chain 1/10))
2: The antenna gain is 19dBi, So the limit should be 30dBm-(19dBi-6dBi)=17dBm

Maximum e.i.r.p. at any elevation angle above 30 degrees
NW10 ANT Gain=19dBi

Test mode	Band	Channel	Frequency (MHz)	Maximum Conducted Output Power (dBm)			elevation angle above 30 degrees Max gain (dBi)	elevation angle above 30 degrees Max EIRP (dBm)	Limit (dBm)	Result
				Chain0	Chain1	Total				
802.11a	5150-5250 MHz	Low	5180	9.67	9.24	/	4.8	14.47	21	PASS
		Middle	5200	9.26	9.57	/	4.8	14.37	21	PASS
		High	5240	9.17	9.72	/	4.8	14.52	21	PASS
802.11n ht20	5150-5250 MHz	Low	5180	9.30	9.05	12.19	4.8	16.99	21	PASS
		Middle	5200	9.31	9.43	12.38	4.8	17.18	21	PASS
		High	5240	9.25	9.33	12.30	4.8	17.1	21	PASS
802.11n ht40	5150-5250 MHz	Low	5190	9.11	9.36	12.25	4.8	17.05	21	PASS
		High	5230	9.02	9.34	12.19	4.8	16.99	21	PASS

NW10IN *ANT Gain=18dBi*

Test mode	Band	Channel	Frequency (MHz)	Maximum Conducted Output Power (dBm)			elevation angle above 30 degrees Max gain (dBi)	elevation angle above 30 degrees Max EIRP (dBm)	Limit (dBm)	Result
				Chain0	Chain1	Total				
802.11a	5150-5250 MHz	Low	5180	9.67	9.24	/	-5.0	4.67	21	PASS
		Middle	5200	9.26	9.57	/	-5.0	4.57	21	PASS
		High	5240	9.17	9.72	/	-5.0	4.72	21	PASS
802.11n ht20	5150-5250 MHz	Low	5180	9.30	9.05	12.19	-5.0	7.19	21	PASS
		Middle	5200	9.31	9.43	12.38	-5.0	7.38	21	PASS
		High	5240	9.25	9.33	12.30	-5.0	7.30	21	PASS
802.11n ht40	5150-5250 MHz	Low	5190	9.11	9.36	12.25	-5.0	7.25	21	PASS
		High	5230	9.02	9.34	12.19	-5.0	7.19	21	PASS

NW10/M *ANT Gain=16dBi*

Test mode	Band	Channel	Frequency (MHz)	Maximum Conducted Output Power (dBm)			elevation angle above 30 degrees Max gain (dBi)	elevation angle above 30 degrees Max EIRP (dBm)	Limit (dBm)	Result
				Chain0	Chain1	Total				
802.11a	5150-5250 MHz	Low	5180	9.67	9.24	/	8.5	18.17	21	PASS
		Middle	5200	9.26	9.57	/	8.5	18.07	21	PASS
		High	5240	9.17	9.72	/	8.5	18.22	21	PASS
802.11n ht20	5150-5250 MHz	Low	5180	9.30	9.05	12.19	8.5	20.69	21	PASS
		Middle	5200	9.31	9.43	12.38	8.5	20.88	21	PASS
		High	5240	9.25	9.33	12.30	8.5	20.80	21	PASS
802.11n ht40	5150-5250 MHz	Low	5190	9.11	9.36	12.25	8.5	20.75	21	PASS
		High	5230	9.02	9.34	12.19	8.5	20.69	21	PASS

FCC §15.407(a) (1) (5) - POWER SPECTRAL DENSITY

Applicable Standard

According to §15.407(a)(1)
(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).

According to §15.407(a)(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 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.

Test Procedure

The measurements are base on FCC KDB 789033 D02 General UNII Test Procedyres New Rules v01:Guidelines for Compliance Testing of Unlicensed National Information Infrastructure(U-NII)Devices section F: Maximum power spectral density(PPSD)

Test Data

Environmental Conditions

Temperature:	23.5 °C
Relative Humidity:	50 %
ATM Pressure:	101.2 kPa

The testing was performed by Chris Wang on 2017-08-20 to 2017-11-21.

Test Mode: Transmitting

5150MHz-5250MHz:

Mode	Channel	Frequency (MHz)	PSD (dBm/MHz)			Limit (dBm/MHz)	Result
			Chain0	Chain1	Total		
802.11a	Low	5180	0.26	0.61	/	4	PASS
	Middle	5200	0.64	0.60	/	4	PASS
	High	5240	1.04	0.35	/	4	PASS
802.11n20	Low	5180	-0.52	0.12	2.82	4	PASS
	Middle	5200	-0.10	-0.12	2.90	4	PASS
	High	5240	0.54	-0.04	3.27	4	PASS
802.11n40	Low	5190	-3.64	-2.80	-0.19	4	PASS
	High	5230	-2.82	-2.23	0.50	4	PASS

Note:

1: The total PSD=10Log10(10^(Chain 0/10)+10^(Chain 1/10))
2: The antenna gain is 19dBi, So the limit should be 17dBm/MHz-(19dBi-6dBi)=4dBm/MHz

5725MHz-5850MHz:

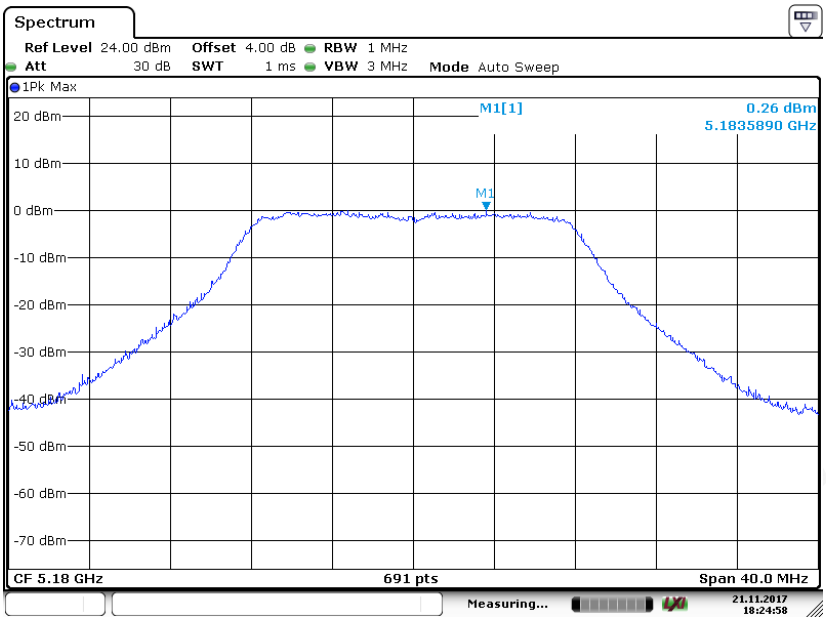
Mode	Channel	Frequency MHz	PSD (dBm/500kHz)			Limit (dBm/500kHz)	Result
			Chain0	Chain1	Total		
802.11a	Low	5745	6.99	6.28	/	17	PASS
	Middle	5785	7.01	6.37	/	17	PASS
	High	5825	7.27	6.29	/	17	PASS
802.11n20	Low	5745	6.65	5.58	9.16	17	PASS
	Middle	5785	5.95	5.33	8.66	17	PASS
	High	5825	6.93	6.06	9.53	17	PASS
802.11n40	Low	5755	3.42	3.83	6.64	17	PASS
	High	5795	3.30	3.31	6.32	17	PASS

Note:

1: The total PSD=10Log10(10^(Chain 0/10)+10^(Chain 1/10))
2: The antenna gain is 19dBi, So the limit should be 30dBm/500kHz-(19dBi-6dBi)=17dBm/500kHz

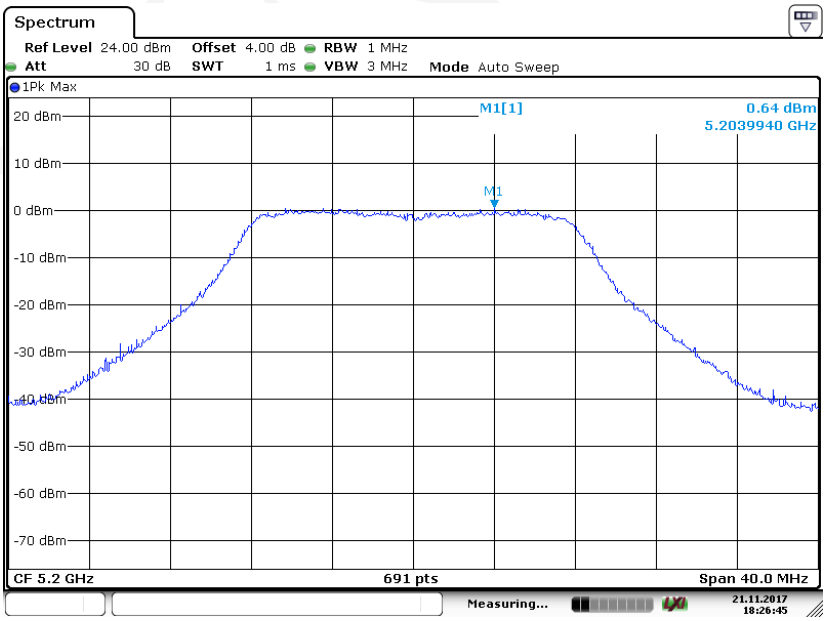
5150MHz-5250MHz Band:

802.11a mode, Chain 0: Power spectral density-5180MHz



Date: 21.NOV.2017 18:24:58

802.11a mode, Chain 0: Power spectral density-5200MHz



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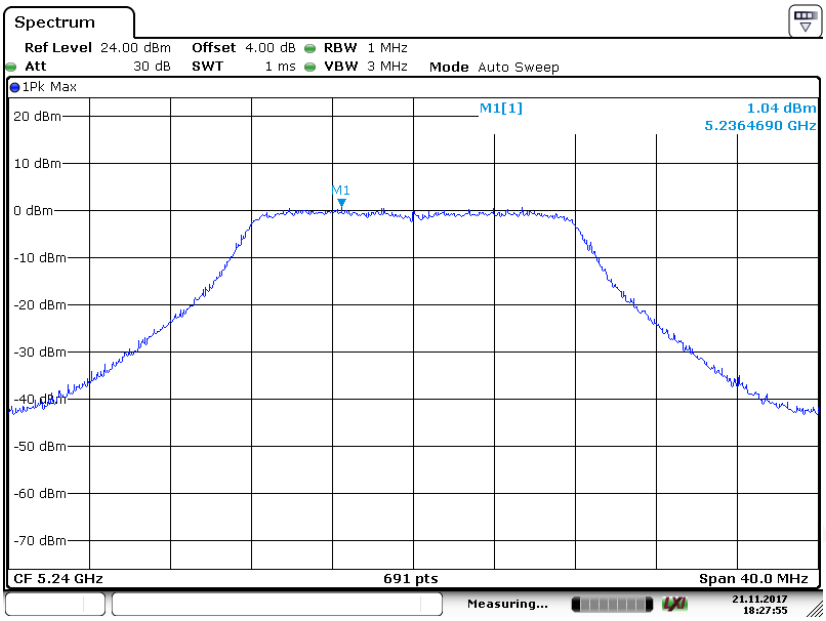
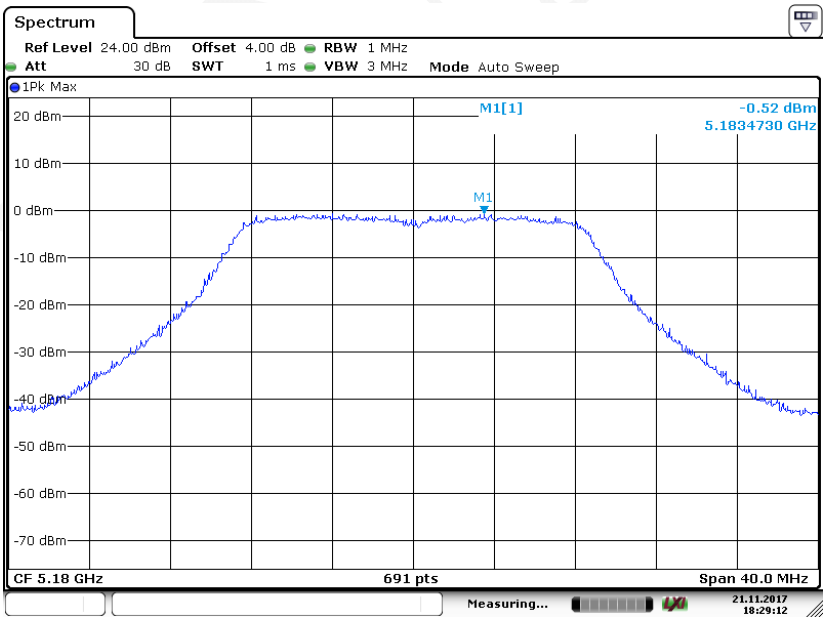
802.11a mode, Chain 0: Power spectral density-5240MHz



Date: 21.NOV.2017 18:27:56

802.11n-HT20 mode, Chain 0: Power spectral density-5180MHz



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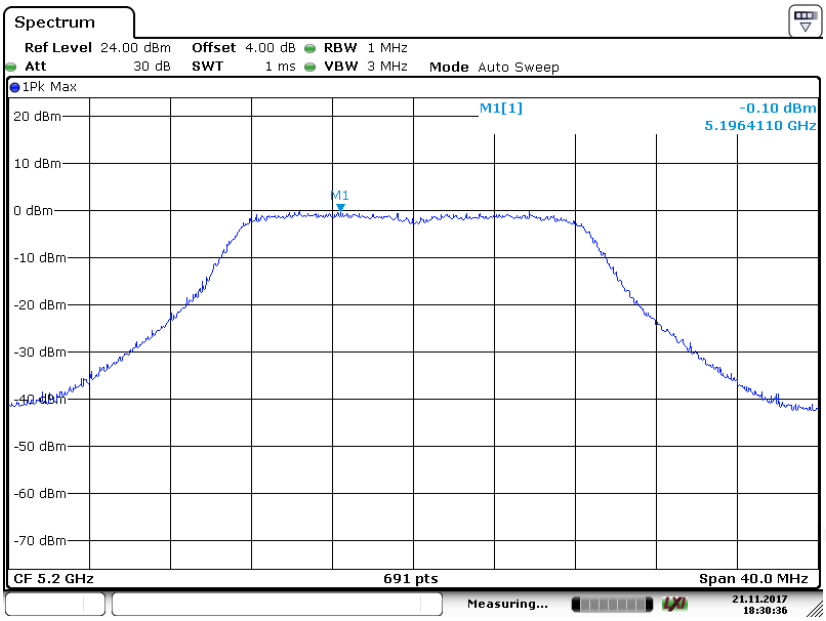
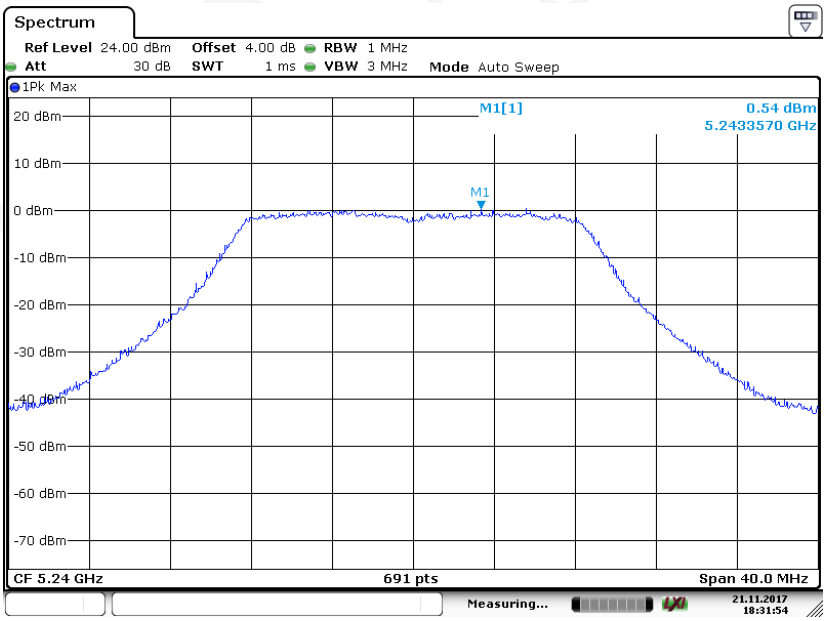
802.11n-HT20 mode, Chain 0: Power spectral density-5200MHz



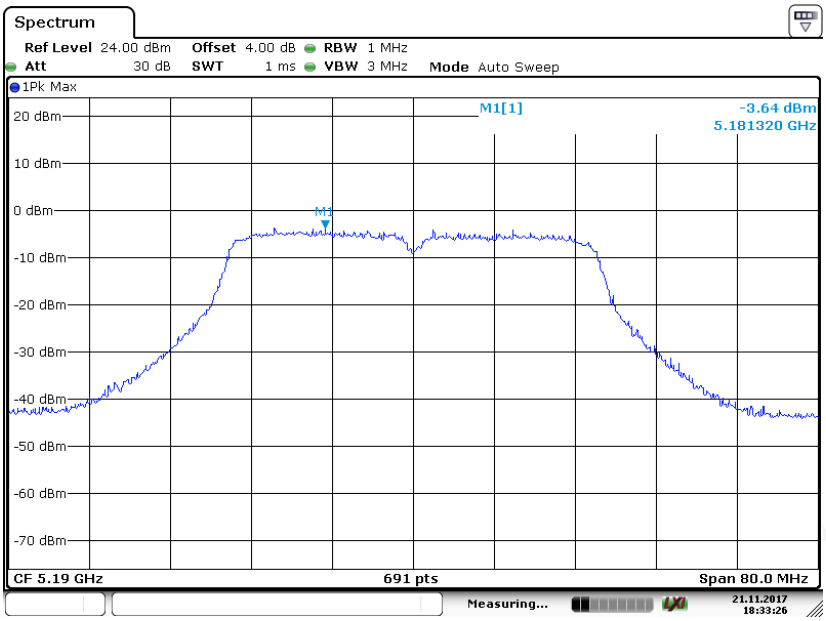
Date: 21.NOV.2017 18:30:36

802.11n-HT20 mode, Chain 0: Power spectral density-5240MHz



Date: 21.NOV.2017 18:31:53

802.11n ht40 mode, Chain 0: Power spectral density-5190MHz



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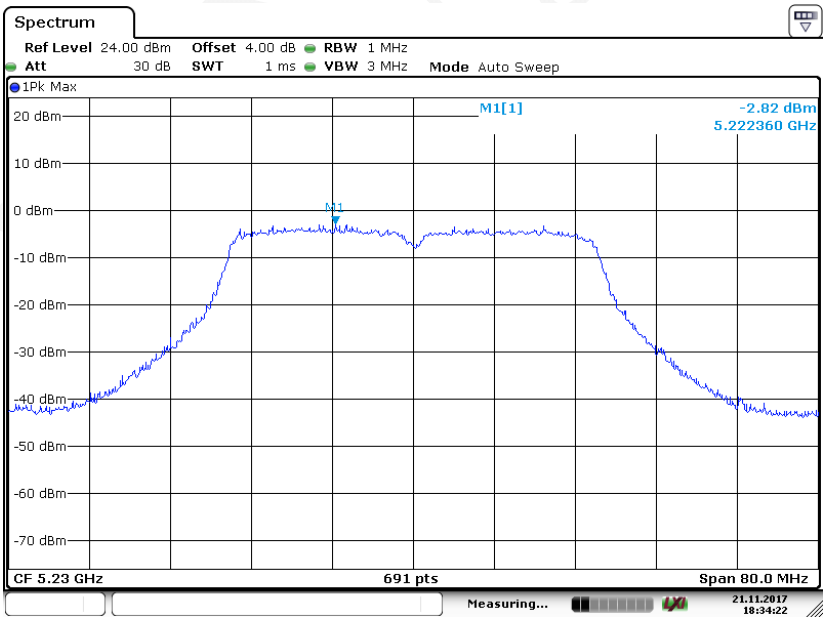
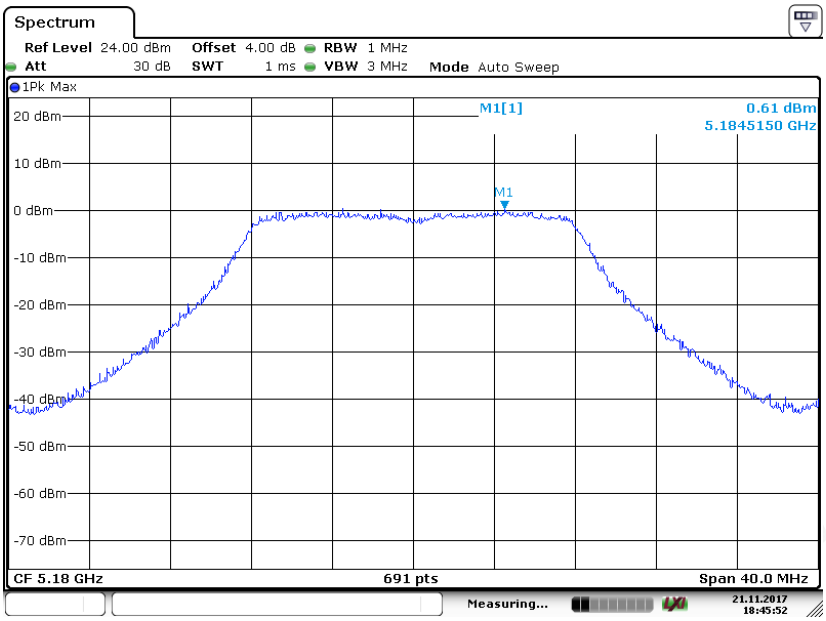
802.11n ht40 mode, Chain 0: Power spectral density-5230MHz



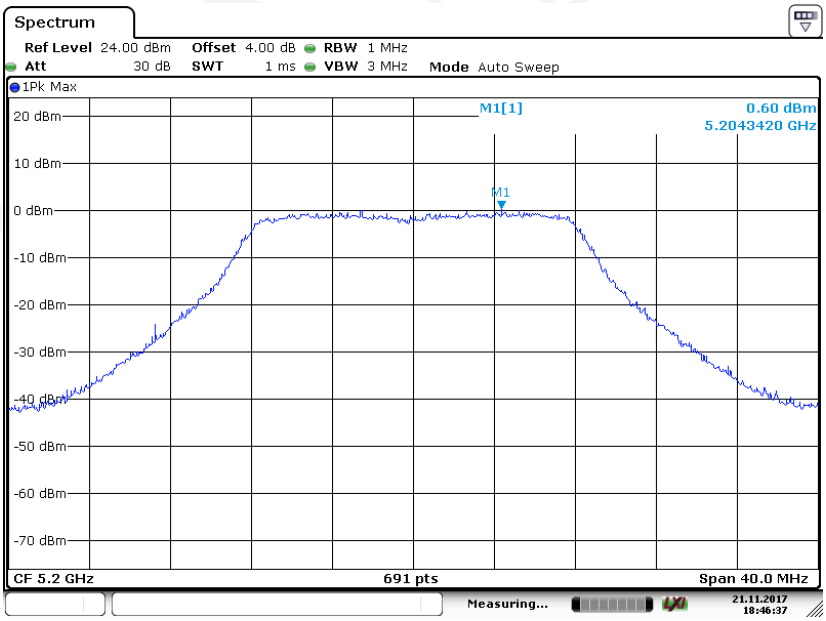
Date: 21.NOV.2017 18:34:22

802.11a mode, Chain 1: Power spectral density-5180MHz



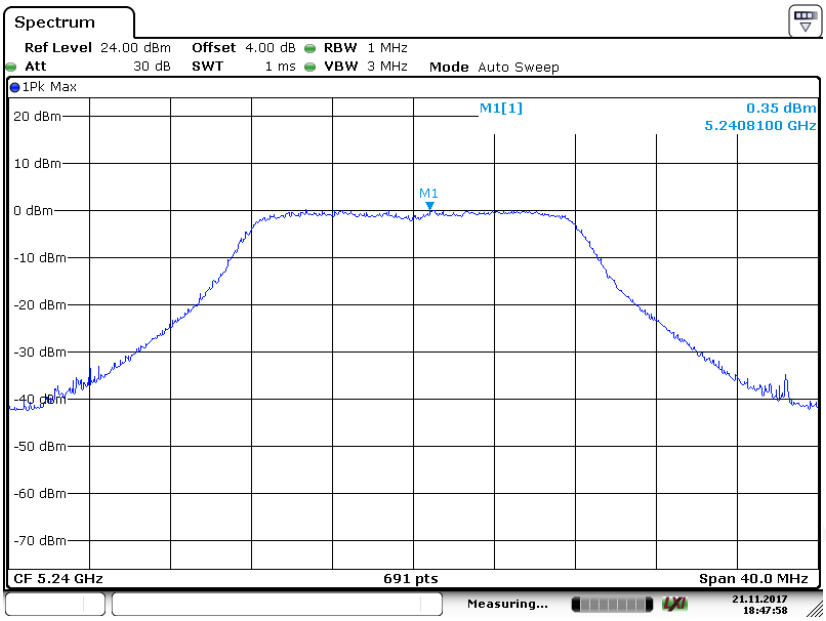
Date: 21.NOV.2017 18:45:52

802.11a mode, Chain 1: Power spectral density-5200MHz



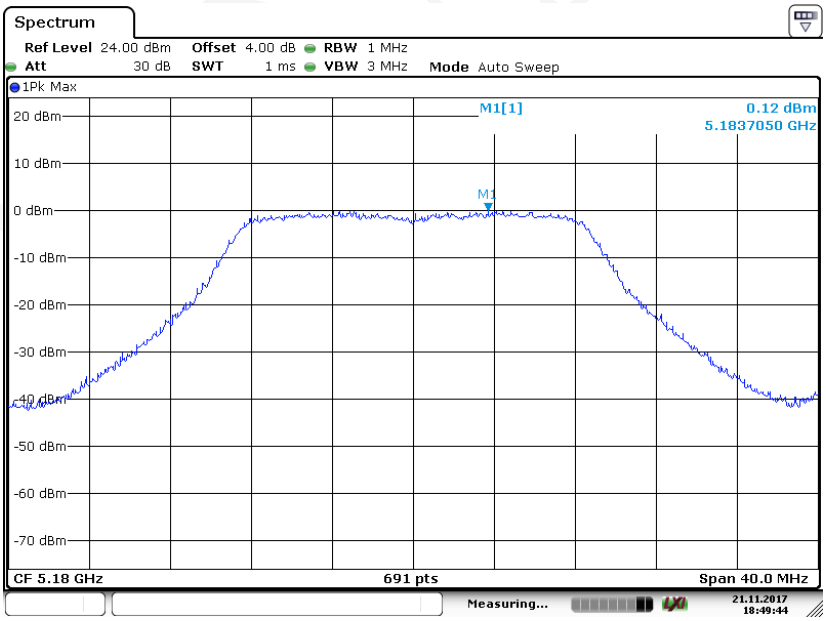
Date: 21.NOV.2017 18:46:37

802.11a mode, Chain 1: Power spectral density-5240MHz



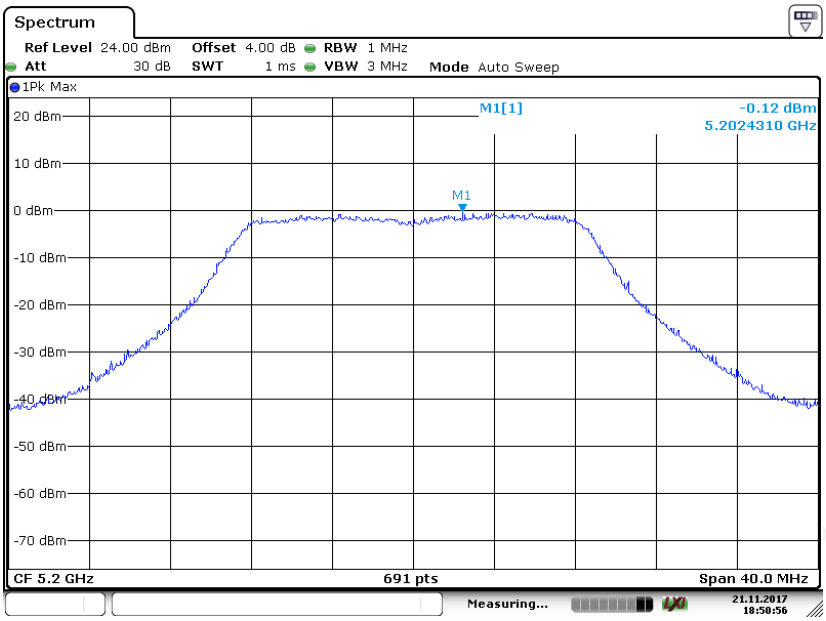
Date: 21.NOV.2017 18:47:58

802.11n-HT20 mode, Chain 1: Power spectral density-5180MHz



Date: 21.NOV.2017 18:49:44

802.11n-HT20 mode, Chain 1: Power spectral density-5200MHz



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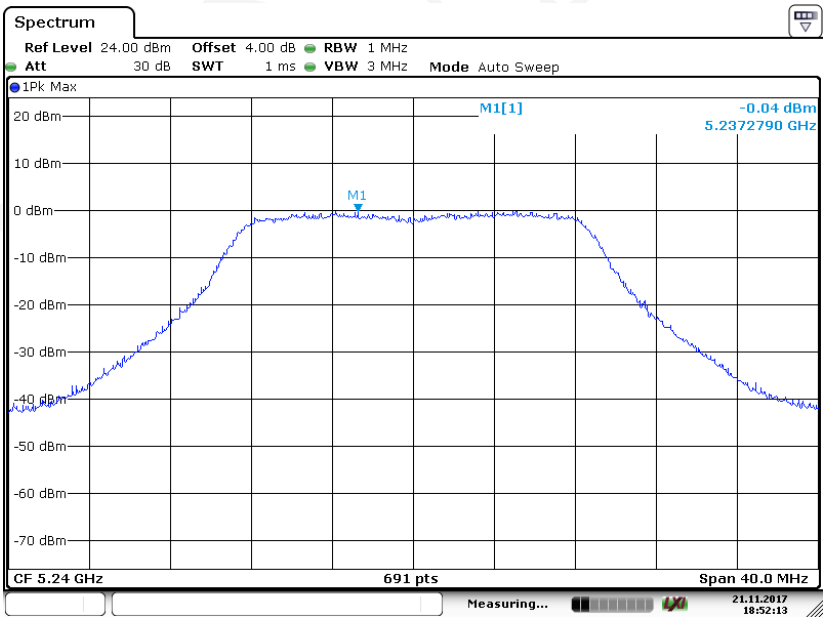
802.11n-HT20 mode, Chain 1: Power spectral density-5240MHz



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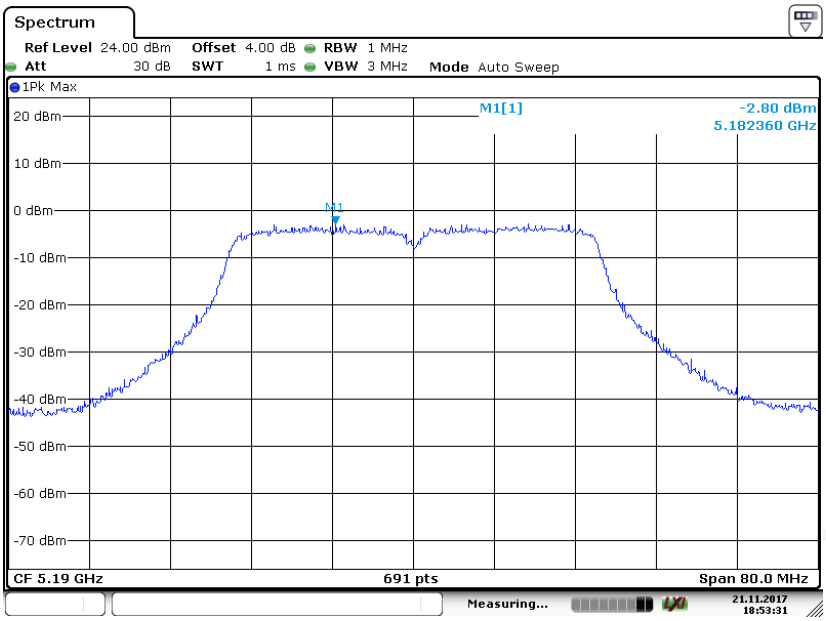
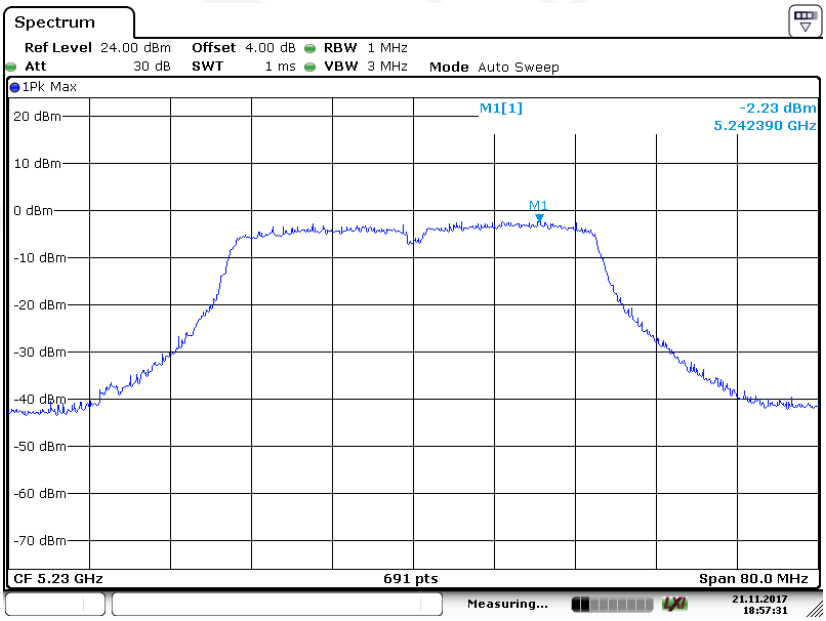
802.11n ht40 mode, Chain 1: Power spectral density-5190MHz



Date: 21.NOV.2017 18:53:30

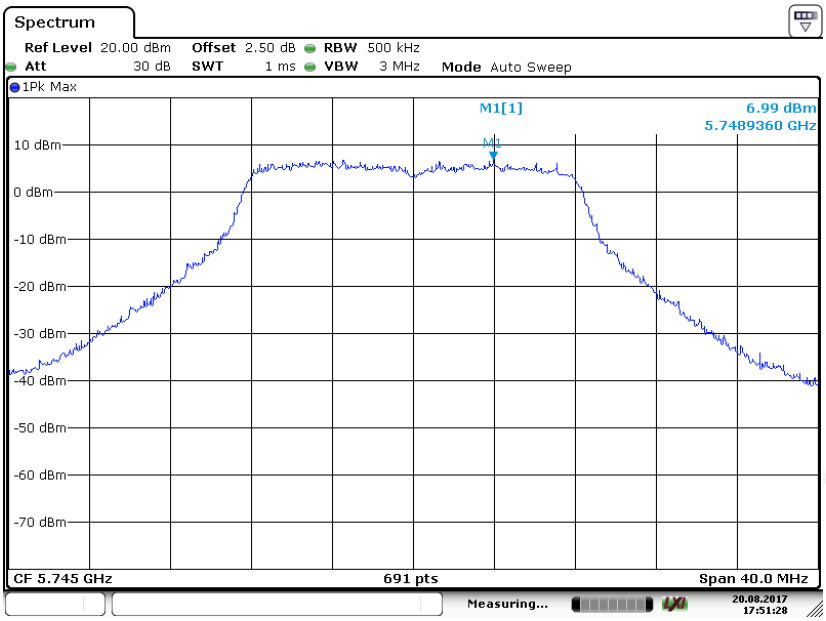
802.11n ht40 mode, Chain 1: Power spectral density-5230MHz



Date: 21.NOV.2017 18:57:31

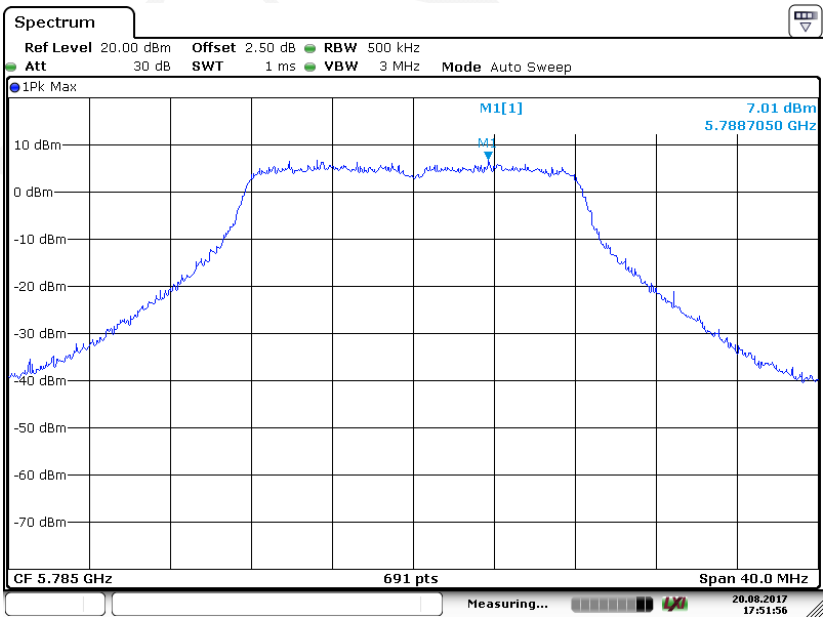
5725-5850 MHz:

802.11a mode, Chain 0: Power spectral density-5745MHz



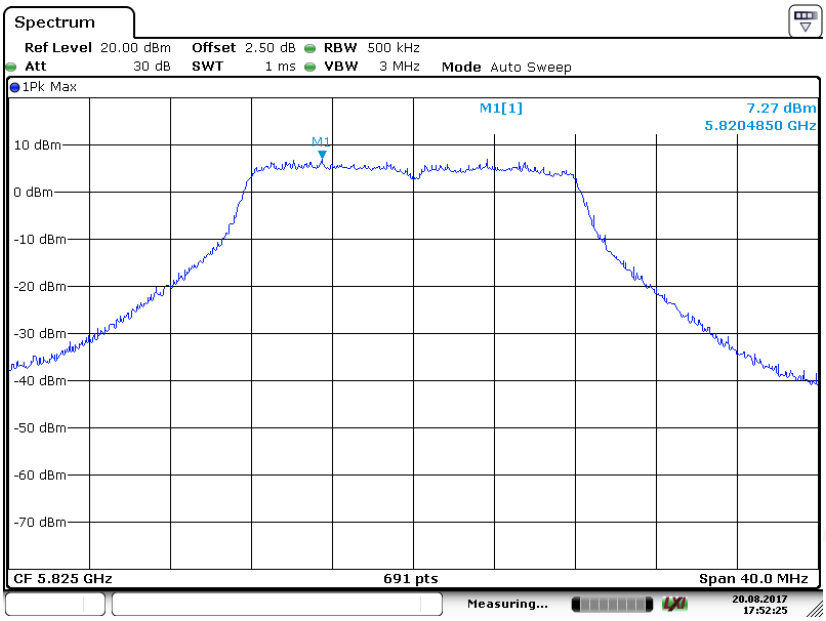
Date: 20.AUG.2017 17:51:28

802.11a mode, Chain 0: Power spectral density-5785MHz



Date: 20.AUG.2017 17:51:56

802.11a mode, Chain 0: Power spectral density-5825MHz



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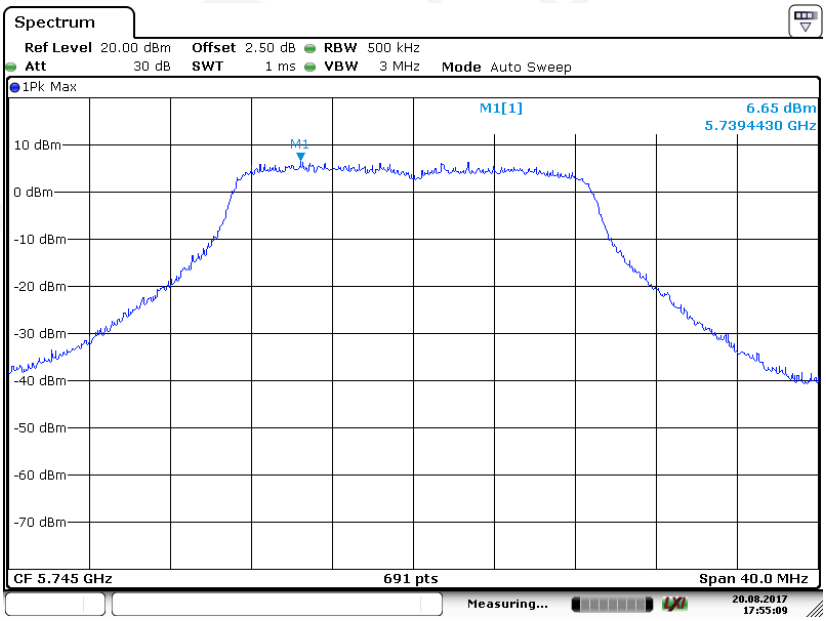
802.11n-HT20 mode, Chain 0: Power spectral density-5745MHz



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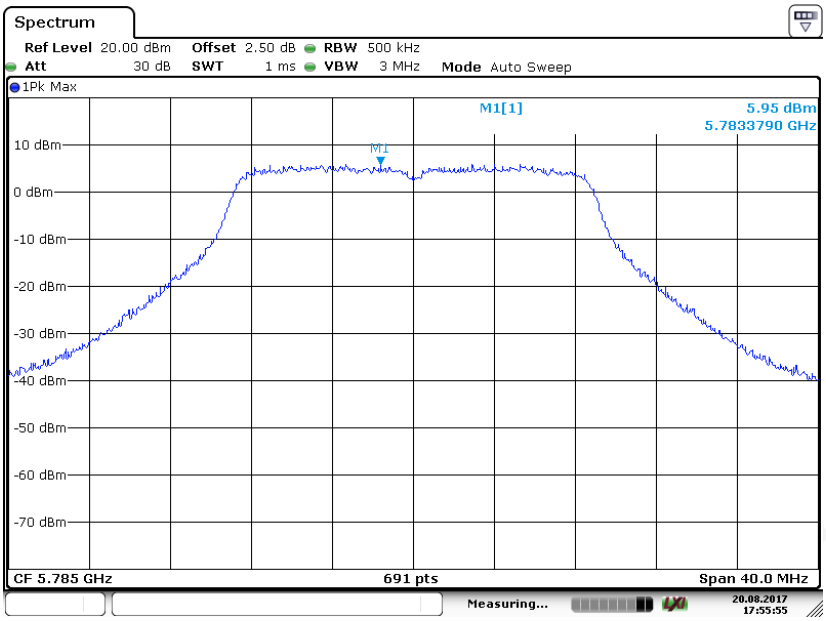
802.11n-HT20 mode, Chain 0: Power spectral density-5785MHz



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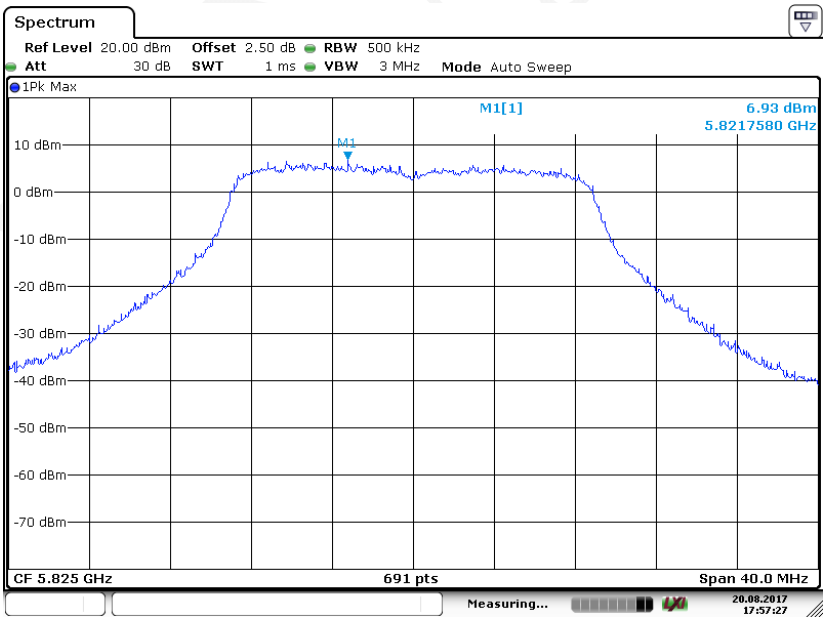
802.11n-HT20 mode, Chain 0: Power spectral density-5825MHz



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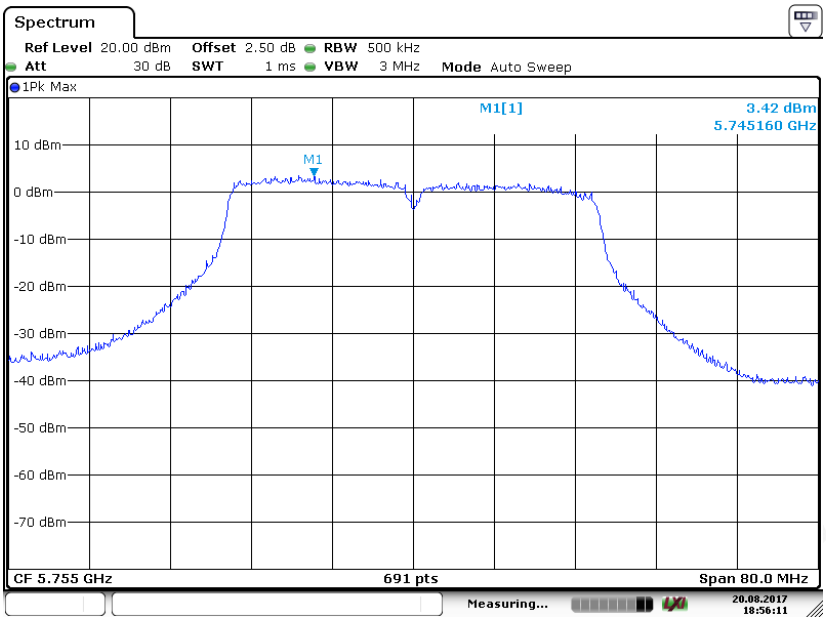
802.11n ht40 mode, Chain 0: Power spectral density-5755MHz



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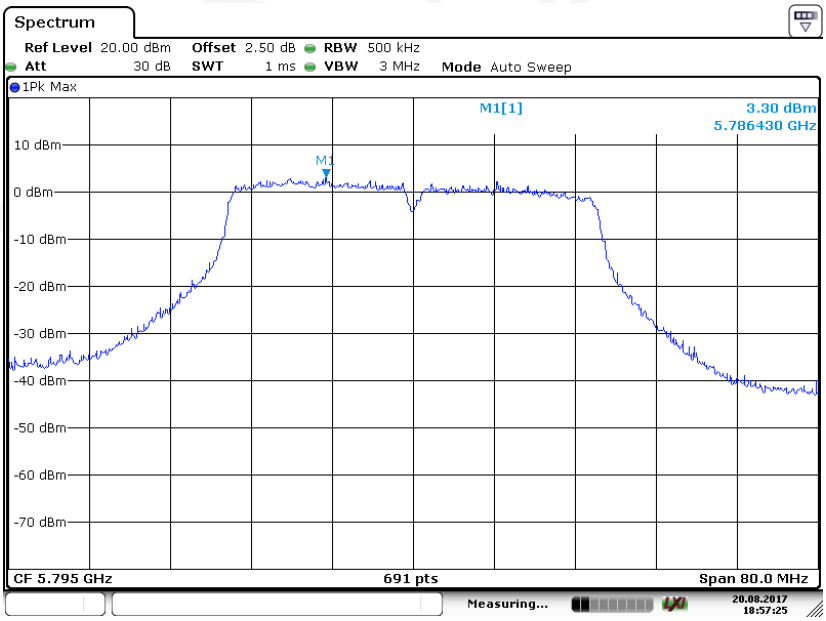
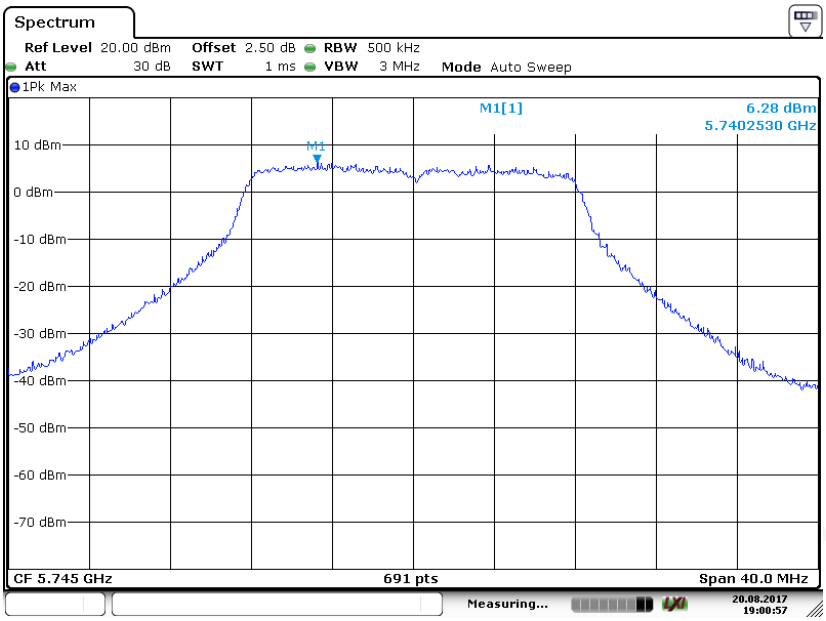
802.11n ht40 mode, Chain 0: Power spectral density-5795MHz



Date: 20.AUG.2017 18:57:25

802.11a mode, Chain 1: Power spectral density-5745MHz



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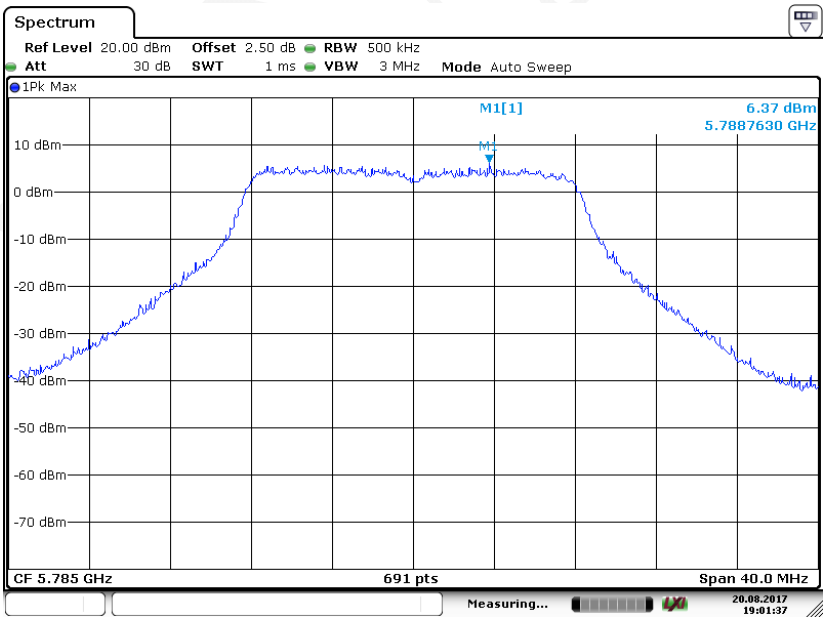
802.11a mode, Chain 1: Power spectral density-5785MHz



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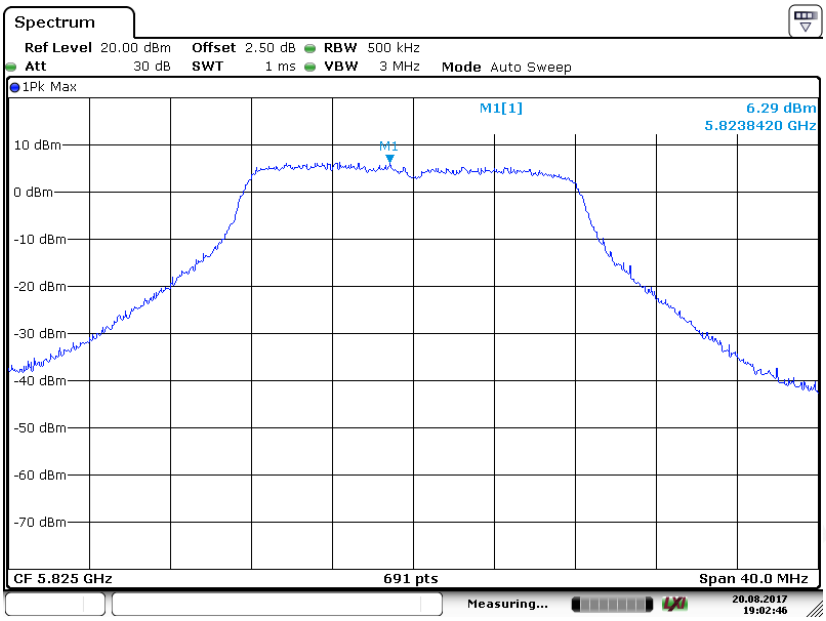
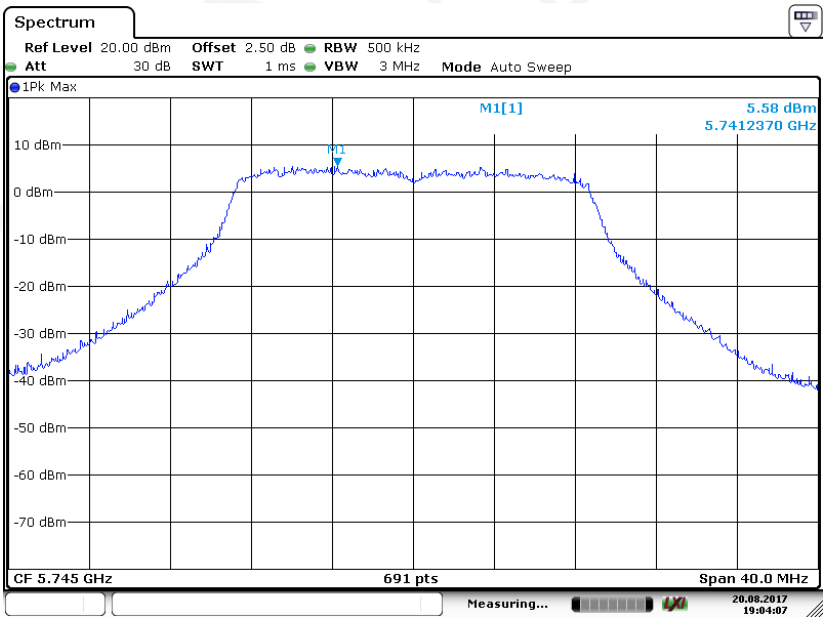
802.11a mode, Chain 1: Power spectral density-5825MHz



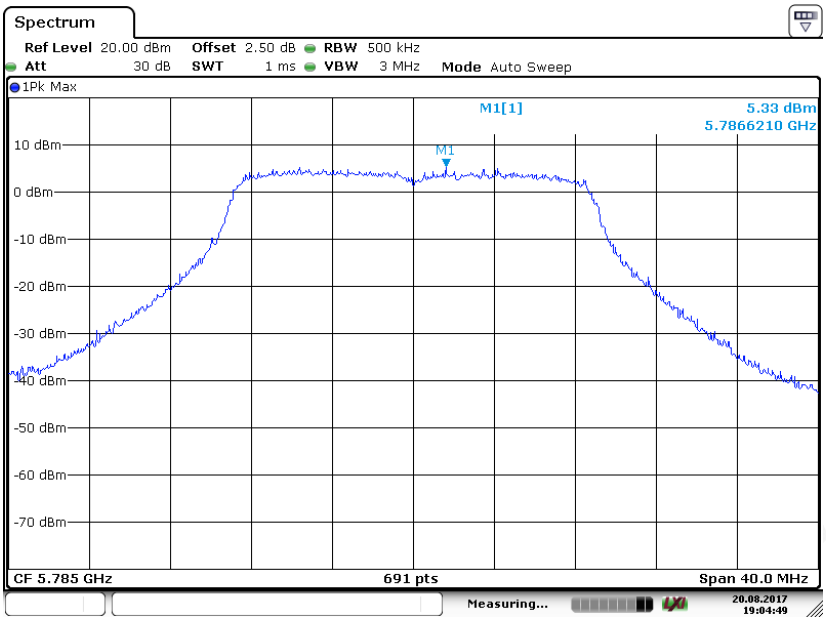
Date: 20.AUG.2017 19:02:46

802.11n-HT20 mode, Chain 1: Power spectral density-5745MHz



Date: 20.AUG.2017 19:04:07

802.11n-HT20 mode, Chain 1: Power spectral density-5785MHz



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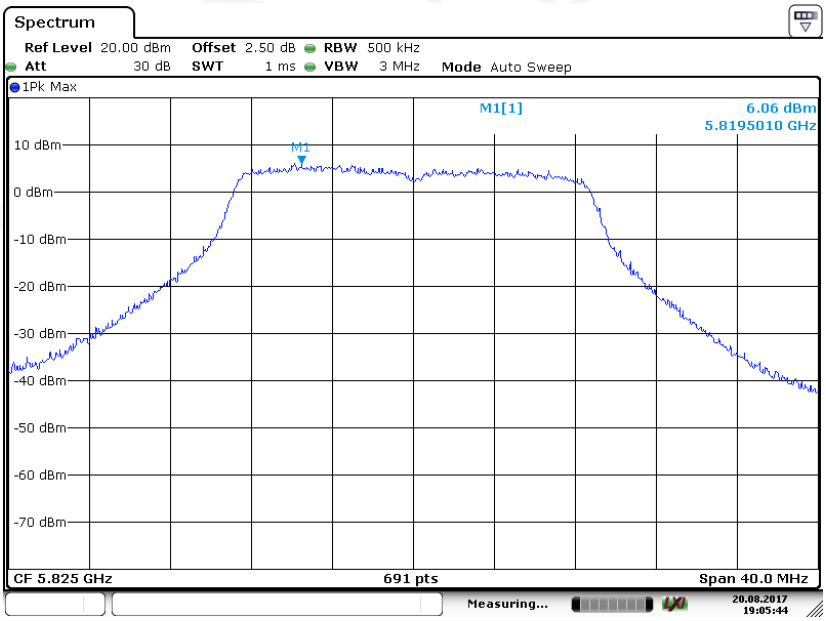
802.11n-HT20 mode, Chain 1: Power spectral density-5825MHz



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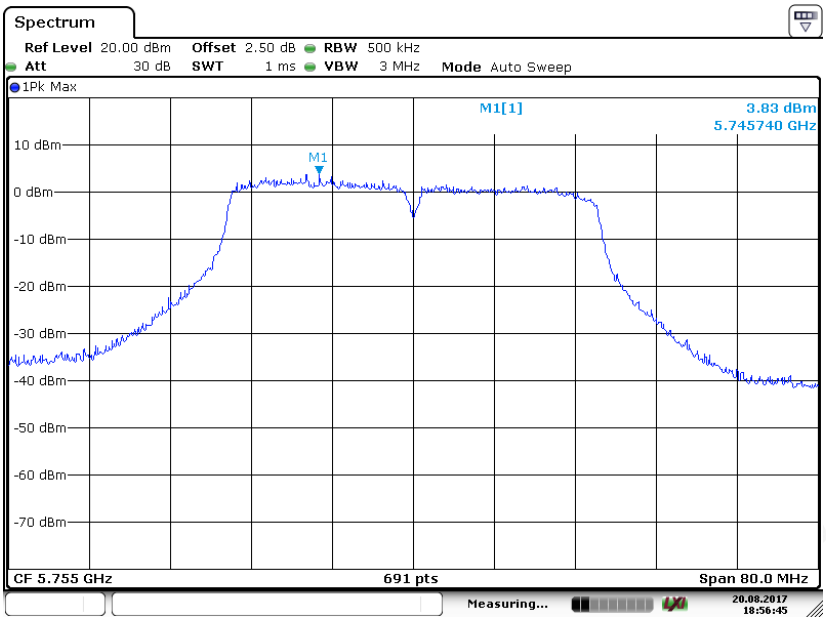
802.11n ht40 mode, Chain 1: Power spectral density-5755MHz



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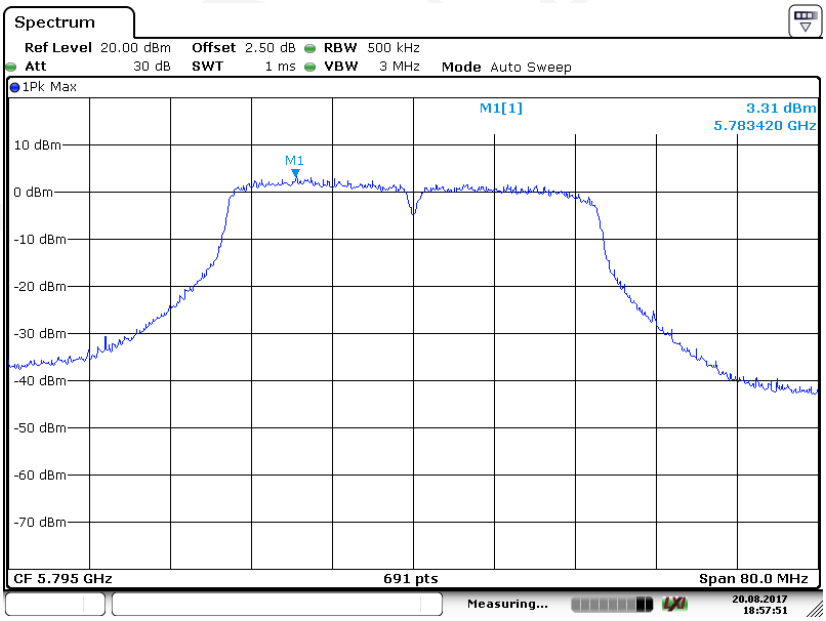
802.11n ht40 mode, Chain 1: Power spectral density-5795MHz



Date: 20.AUG.2017 18:57:51

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