

FCC PART 15.407

TEST REPORT

For

Communication Networks LLC

3 Corporate Drive, Danbury, Connecticut, United States

FCC ID: 2ANZ6NW10

Report Type: CIIPC Report		Product Type: Wireless AP	
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Report Number:	RKSA180104001-00A		
Report Date:	2018-01-12		
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Note: This test report is prepared for the customer shown above and for the device described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.

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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Applicant	Communication Networks LLC
Tested Model	NW10IC
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

**All measurement and test data in this report was gathered from production sample serial number: 20180104001. (Assigned by BACL, Kunshan). The EUT was received on 2018-01-04.*

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.

This is a CIIPC report base on the original report RKS170721003-00A with FCC ID: 2ANZ6NW10 which was granted on 2017-12-27, the difference between the original device and the current one is as follows:

Add the POE module to the EUT.

Related Submittal(s)/Grant(s)

FCC Part 15B JBP and Part 90 TNB submissions 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
Radiated emission	30MHz~1GHz	6.11dB
	1GHz~6GHz	4.45dB
	6GHz~18GHz	5.23dB
	18GHz~40GHz	5.65dB
Temperature		1.0°C
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

Equipment Modifications

No modification was made to the EUT.

Support Equipment List and Details

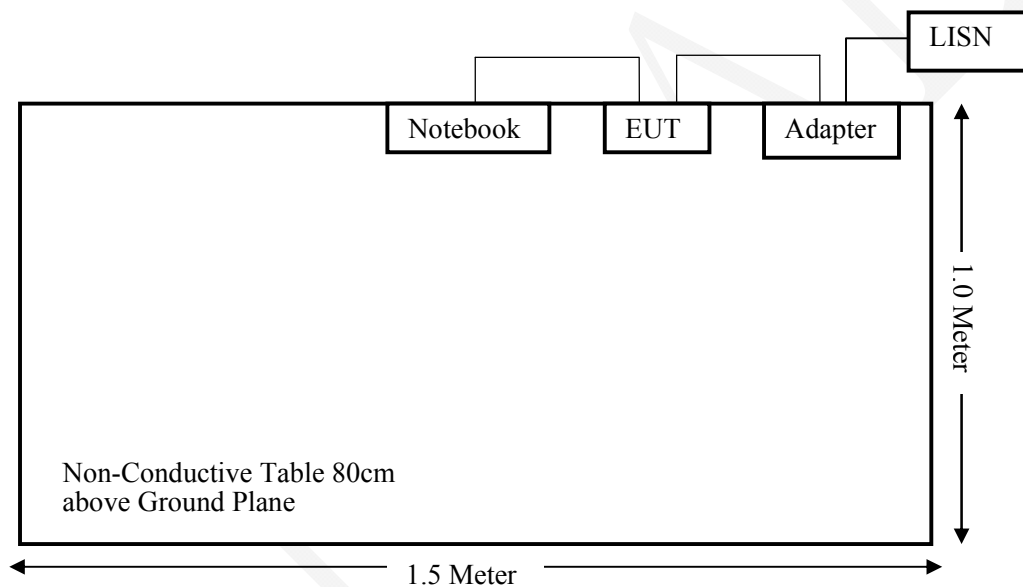
Manufacturer	Description	Model	Serial Number
DELL	Notebook	GX620	D65874152

External I/O Cable

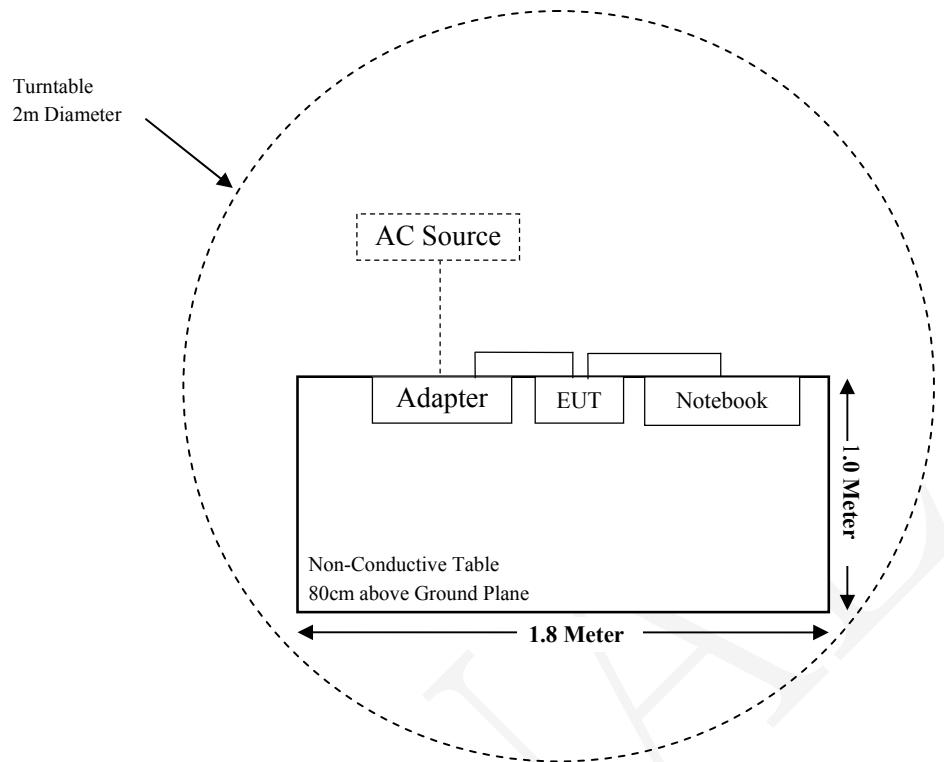
Cable Description	Shielding Type	Length (m)	From Port	To
RJ45 Cable	Un-shielding	1.0	Notebook	EUT

Block Diagram of Test Setup

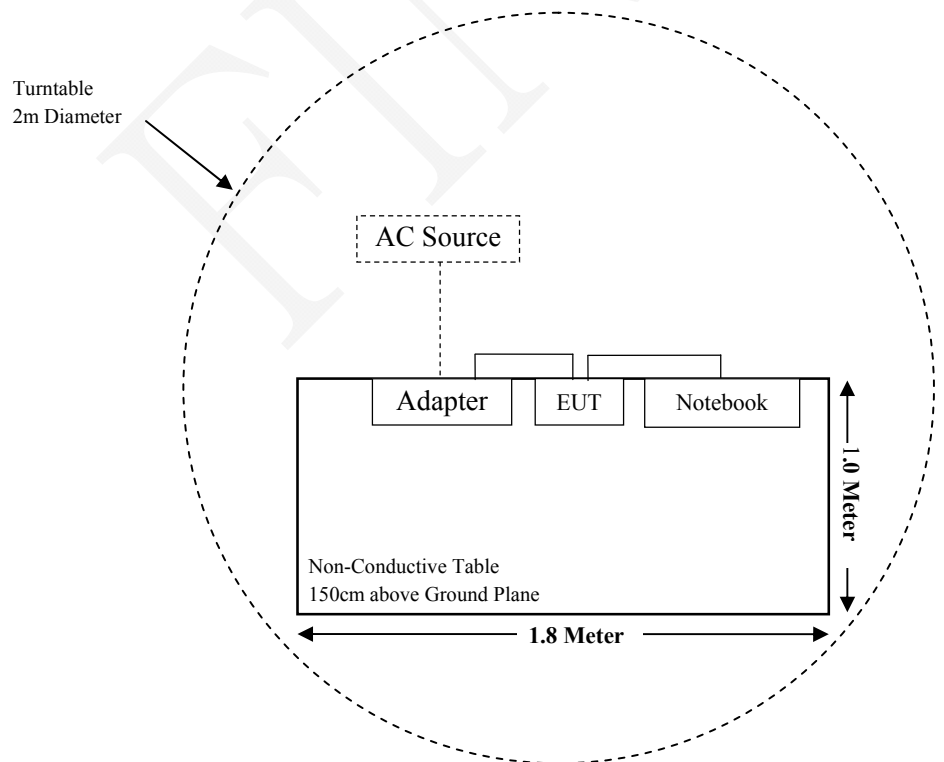
For Conducted Emissions:



For Radiated Emissions(Below 1GHz):



For Radiated Emissions(Above 1GHz):



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§1.1310 & §2.1091	Maximum Permissible Exposure (MPE)	Compliance*
FCC §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 (a)(1)	Conducted Transmitter Output Power	Compliance*
§15.407 (a)(1) (3)	Power Spectral Density	Compliance*
§15.407 (g)	Frequency stability	Compliance*

Compliance*: Please referred to FCC ID: 2ANZ6NW10, granted on 2017-12-27, report No.: RKS170721003-00A, which was tested by Chris Wang, Bay Area Compliance Laboratories Corp. (Kunshan).

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	2017-11-12	2018-11-11
Sunol Sciences	Broadband Antenna	JB3	A090413-1	2016-12-26	2019-12-25
Sonoma Instrument	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	EMI Test Receiver	ESU40	100207	2017-08-27	2018-08-26
ETS-LINDGREN	Horn Antenna	3115	6229	2016-01-11	2019-01-10
ETS-LINDGREN	Horn Antenna	3116	00084159	2016-10-18	2019-10-17
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	Pre-amplifier	AFS42-00101800	2001270	2017-12-12	2018-12-11
Quinstar	Amplifier	QLW-18405536-J0	15964001009	2017-12-12	2018-12-11
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
Conducted Emission Test					
Rohde & Schwarz	EMI Test Receiver	ESCS30	834115/007	2017/11/12	2018/11/11
Rohde & Schwarz	LISN	ESH3-Z5	862770/011	2017-11-12	2018-11-11
Rohde & Schwarz	LISN	ENV216	3560655016	2017-11-12	2018-11-11
BACL	Auto test Software	BACL-EMC	CE001	/	/
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

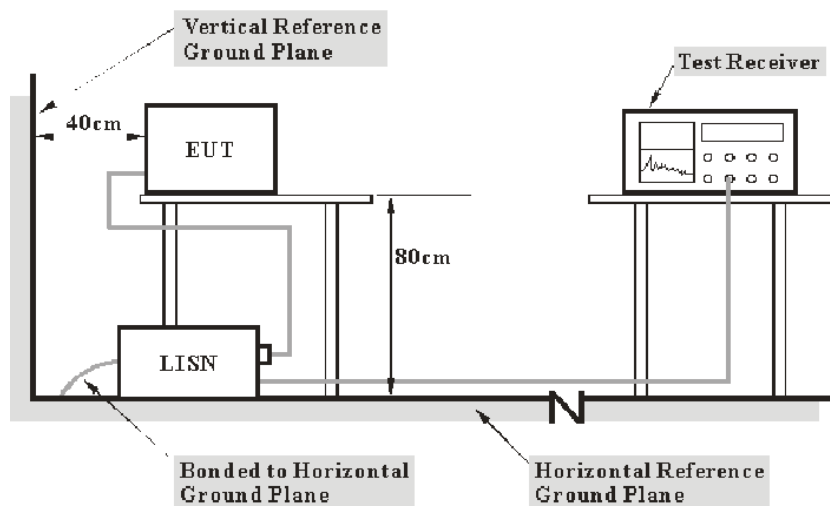
* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Kunshan) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

FCC §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 outlet of the LISN.

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

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

Corrected Factor & Margin Calculation

The Corrected factor is calculated by adding LISN VDF (Voltage Division Factor), Cable Loss and Transient Limiter Attenuation. The basic equation is as follows:

$$\text{Corrected Factor} = \text{LISN VDF} + \text{Cable Loss} + \text{Transient Limiter Attenuation}$$

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

$$\text{Margin} = \text{Limit} - \text{Reading}$$

Test Results Summary

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

Test Data

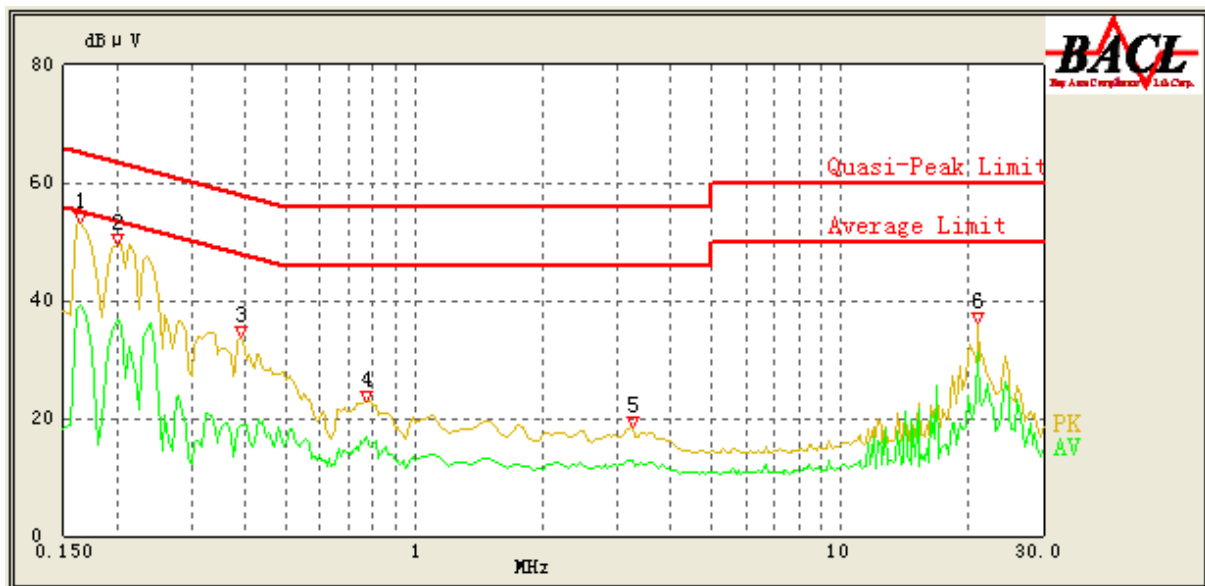
Environmental Conditions

Temperature:	23.2 °C
Relative Humidity:	51 %
ATM Pressure:	101.3 kPa

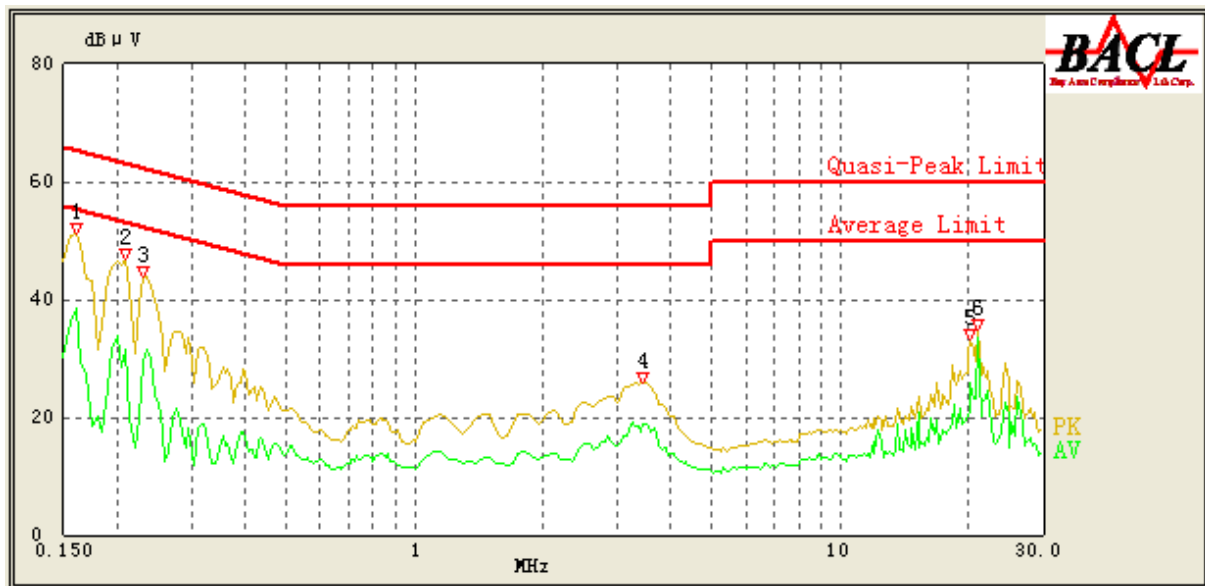
The testing was performed by Chris Wang on 2018-01-11.

Test Mode: Transmitting in 802.11n40 (5150-5250) mode high channel (worst case)

AC 120V/60 Hz, Line



Frequency (MHz)	Reading (dBμV)	Detector (PK/AV/QP)	Bandwidth (kHz)	Line	Corrected Factor (dB)	Limit (dBμV)	Margin (dB)	Comment
0.165	53.19	QP	9.000	L1	16.05	65.57	12.38	Compliance
0.165	39.20	AV	9.000	L1	16.05	55.57	16.37	Compliance
0.200	49.59	QP	9.000	L1	16.01	64.57	14.98	Compliance
0.200	36.81	AV	9.000	L1	16.01	54.57	17.76	Compliance
0.390	33.77	QP	9.000	L1	16.05	59.14	25.37	Compliance
0.390	18.98	AV	9.000	L1	16.05	49.14	30.16	Compliance
0.775	22.98	QP	9.000	L1	15.93	56.00	33.02	Compliance
0.770	16.71	AV	9.000	L1	15.93	46.00	29.29	Compliance
3.250	18.44	QP	9.000	L1	15.85	56.00	37.56	Compliance
3.250	12.67	AV	9.000	L1	15.85	46.00	33.33	Compliance
21.050	36.21	QP	9.000	L1	16.44	60.00	23.79	Compliance
21.050	31.10	AV	9.000	L1	16.44	50.00	18.90	Compliance

AC 120V/60 Hz, Neutral

Frequency (MHz)	Reading (dBμV)	Detector (PK/AV/QP)	Bandwidth (kHz)	Line	Corrected Factor (dB)	Limit (dBμV)	Margin (dB)	Comment
0.160	51.07	QP	9.000	N	16.06	65.71	14.64	Compliance
0.160	38.55	AV	9.000	N	16.06	55.71	17.16	Compliance
0.210	46.89	QP	9.000	N	16.05	64.29	17.40	Compliance
0.210	31.40	AV	9.000	N	16.05	54.29	22.89	Compliance
0.230	43.83	QP	9.000	N	16.06	63.71	19.88	Compliance
0.230	29.43	AV	9.000	N	16.06	53.71	24.28	Compliance
3.450	25.83	QP	9.000	N	15.89	56.00	30.17	Compliance
3.450	18.87	AV	9.000	N	15.89	46.00	27.13	Compliance
20.200	33.04	QP	9.000	N	16.16	60.00	26.96	Compliance
20.200	25.90	AV	9.000	N	16.16	50.00	24.10	Compliance
21.050	34.79	QP	9.000	N	16.18	60.00	25.21	Compliance
21.050	33.56	AV	9.000	N	16.18	50.00	16.44	Compliance

Note:

- 1) Corrected Factor = LISN VDF + Cable Loss + Transient Limiter Attenuation
- 2) Margin = Limit – Reading

§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

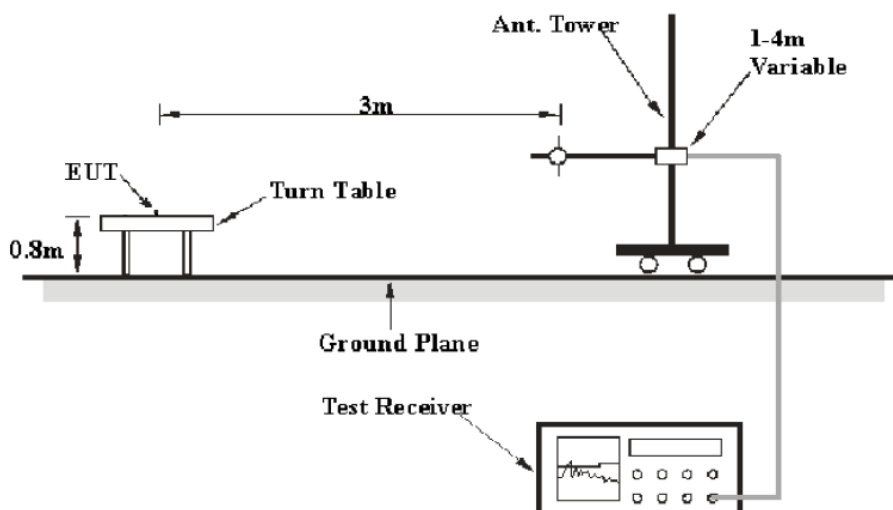
For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of –27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to 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 frequency or frequencies above 1000MHz, the radiated emission limits are based on the use of measurement instrumentation employing an average detector function. Unless otherwise specified, measurements above 1000MHz shall be performed using a minimum resolution bandwidth of 1MHz.

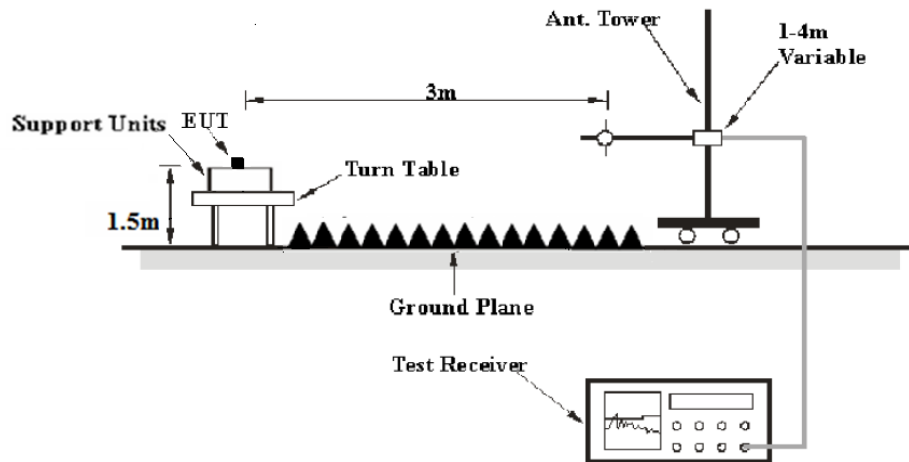
According to KDB 789033 D02 General UNII Test Procedures New Rules v01, emission shall be computed as: $E [dB\mu V/m] = EIRP[dBm] + 95.2$, for $d = 3$ meters.

EUT Setup

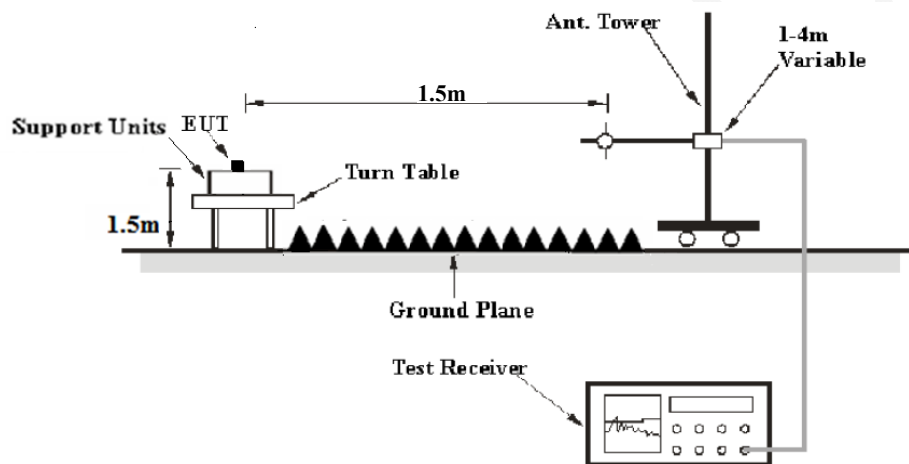
Below 1 GHz:



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 = $20 \log (\text{specific distance [3m]}/\text{test distance [1.5m]})$ dB

Extrapolation result = Corrected Amplitude (dBμV/m) - distance extrapolation factor (6dB)

or Limit line = Specific limits(dBμV/m) + 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:

$$\text{Corrected Amplitude} = \text{Meter Reading} + \text{Antenna factor} + \text{Cable Loss} - \text{Amplifier Gain}$$

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:

$$\text{Margin} = \text{Limit} - \text{Extrapolation result}$$

Test Data

Environmental Conditions

Temperature:	23.2 °C
Relative Humidity:	51 %
ATM Pressure:	101.3 kPa

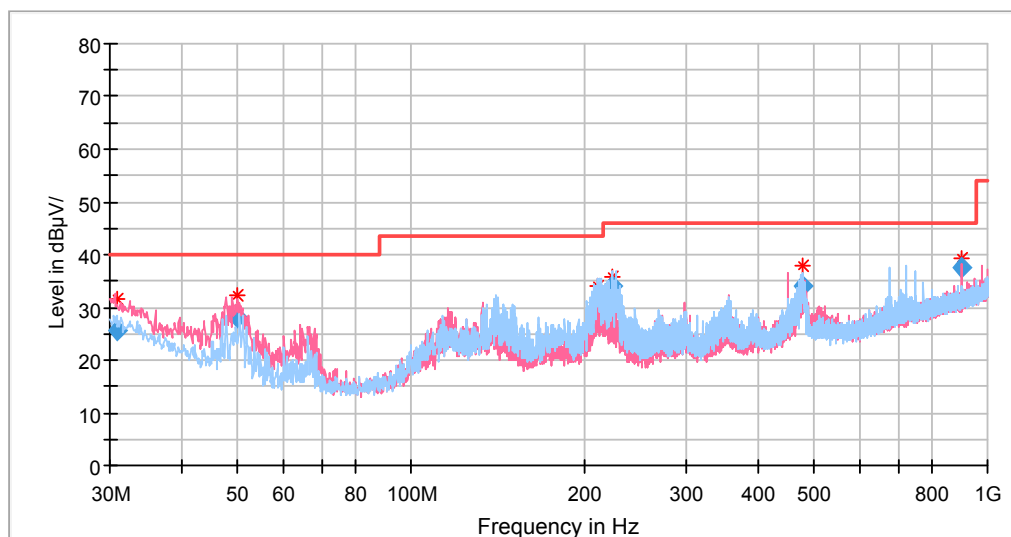
The testing was performed by Chris Wang on 2018-01-11.

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 of channel 5755MHz in Y-axis of orientation was recorded.



Frequency (MHz)	Corrected Amplitude	Rx Antenna		Turntable Degree	Corrected Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	QuasiPeak (dBμV/m)	Height (cm)	Polar (H/V)				
30.865849	25.70	101.0	V	266.0	-5.0	40.00	14.30
49.826130	28.21	101.0	V	69.0	-17.9	40.00	11.79
210.826980	30.92	199.0	H	61.0	-12.7	43.50	12.58
223.435990	33.98	101.0	H	236.0	-12.7	46.00	12.02
477.207890	33.98	199.0	H	140.0	-6.7	46.00	12.02
900.002550	37.41	199.0	V	170.0	0.2	46.00	8.59

1GHz-18GHz (5150-5250MHz Band):**802.11a Mode:**

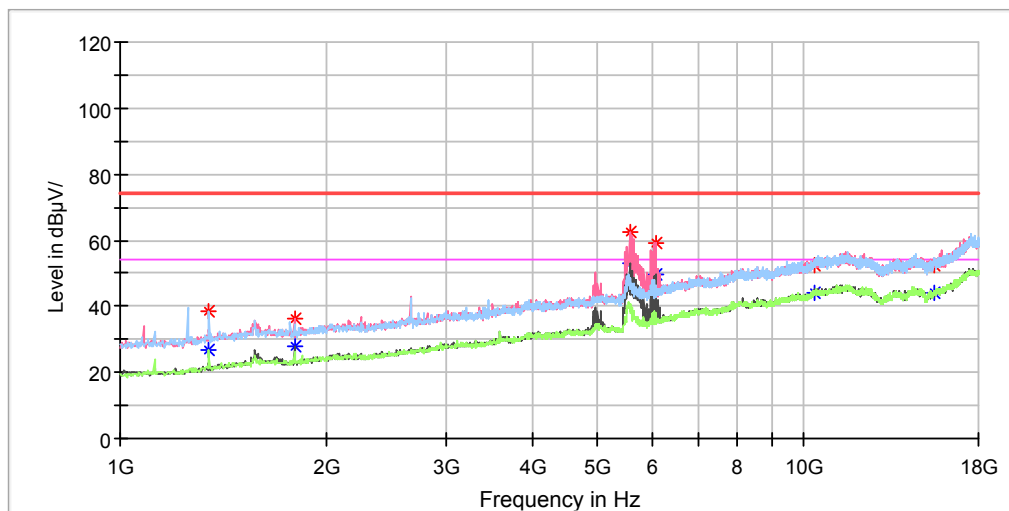
Pre-scan with X,Y and Z axes of orientation, the worst case Chain 1 at vertical in Y-axis of orientation was recorded

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

Low Channel: 5180MHz

Full Spectrum

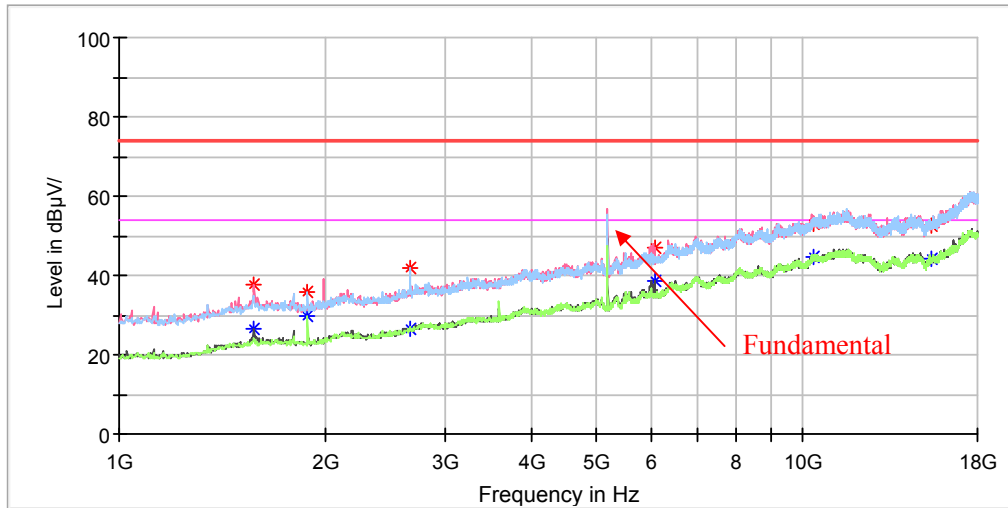


Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Corrected Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
1346.800000	---	27.06	200.0	H	74.0	-9.2	54.00	26.94
1346.800000	38.70	---	200.0	H	74.0	-9.2	74.00	35.30
1799.000000	---	27.65	193.0	V	357.0	-6.8	54.00	26.35
1799.000000	36.49	---	193.0	V	357.0	-6.8	74.00	37.51
5559.400000	---	52.95	165.0	V	345.0	4.2	54.00	1.05
5559.400000	62.66	---	165.0	V	345.0	4.2	74.00	11.34
6079.600000	---	49.89	214.0	V	358.0	6.1	54.00	4.11
6079.600000	59.30	---	214.0	V	358.0	6.1	74.00	14.70
10360.000000	---	43.90	209.0	V	258.0	16.4	54.00	10.10
10360.000000	52.28	---	209.0	V	258.0	16.4	74.00	21.72
15540.000000	52.73	---	177.0	V	235.0	16.2	74.00	21.27
15540.000000	---	43.95	177.0	V	235.0	16.2	54.00	10.05

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

Full Spectrum

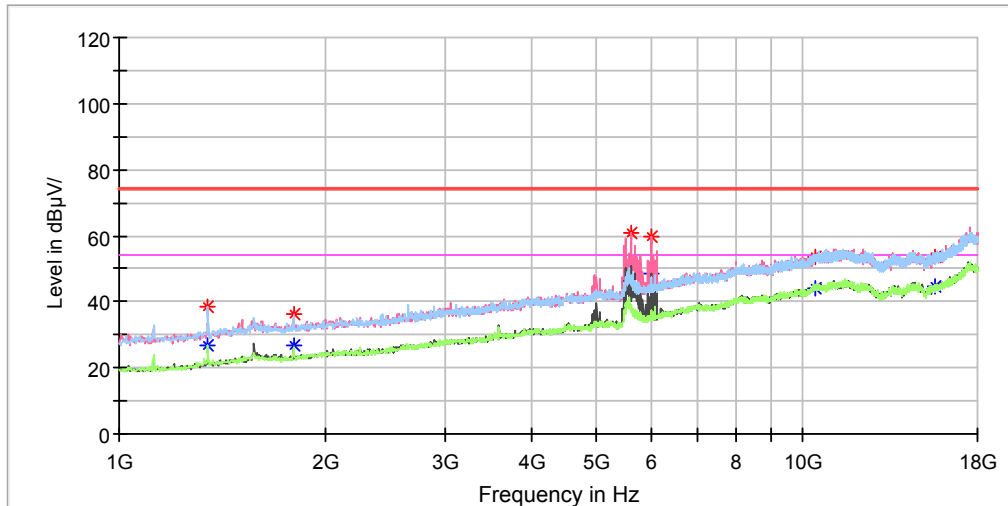


Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Corrected Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
1574.600000	---	26.53	158.0	H	252.0	-7.7	54.00	27.47
1574.600000	37.65	---	158.0	H	252.0	-7.7	74.00	36.35
1887.400000	---	29.54	154.0	V	224.0	-6.4	54.00	24.46
1887.400000	35.84	---	154.0	V	224.0	-6.4	74.00	38.16
2662.600000	---	26.39	201.0	H	54.0	-3.8	54.00	27.61
2662.600000	42.00	---	201.0	H	54.0	-3.8	74.00	32.00
6079.600000	---	38.71	193.0	V	40.0	6.1	54.00	15.29
6079.600000	46.92	---	193.0	V	40.0	6.1	74.00	27.08
10360.000000	---	44.66	169.0	V	91.0	16.4	54.00	9.34
10360.000000	52.94	---	169.0	V	91.0	16.4	74.00	21.06
15540.000000	---	44.09	175.0	V	165.0	16.2	54.00	9.91
15540.000000	52.57	---	175.0	V	165.0	16.2	74.00	21.43

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

Full Spectrum

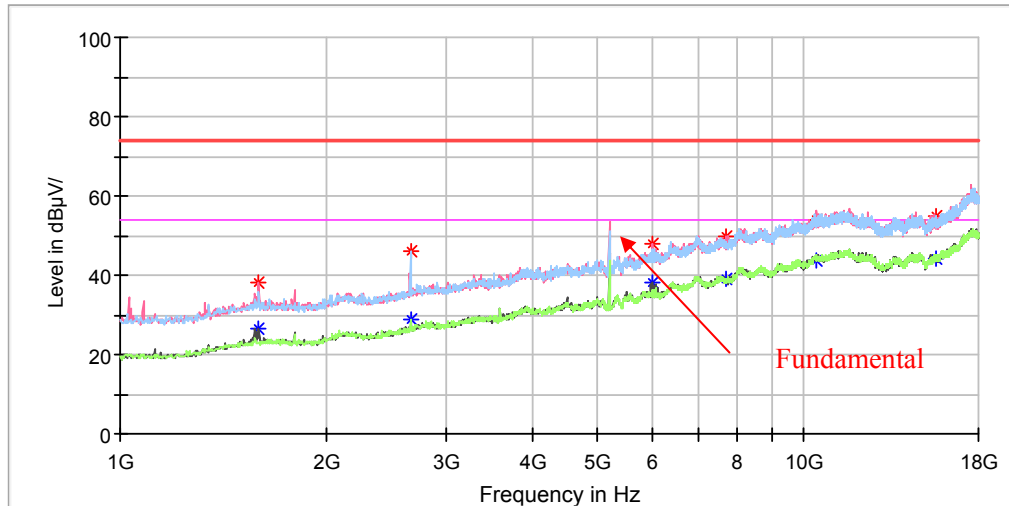


Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Corrected Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
1346.800000	---	26.97	167.0	H	142.0	-9.2	54.00	27.03
1346.800000	38.33	---	167.0	H	142.0	-9.2	74.00	35.67
1799.000000	---	26.98	198.0	V	43.0	-6.8	54.00	27.02
1799.000000	36.17	---	198.0	V	43.0	-6.8	74.00	37.83
5600.200000	---	50.74	202.0	V	342.0	4.4	54.00	3.26
5600.200000	60.80	---	202.0	V	342.0	4.4	74.00	13.20
5998.000000	---	48.69	200.0	V	292.0	5.7	54.00	5.31
5998.000000	59.54	---	200.0	V	292.0	5.7	74.00	14.46
10400.000000	---	44.18	186.0	V	84.0	16.6	54.00	9.82
10400.000000	53.73	---	186.0	V	84.0	16.6	74.00	20.27
15600.000000	53.86	---	155.0	V	227.0	16.4	74.00	20.14
15600.000000	---	44.91	155.0	V	227.0	16.4	54.00	9.09

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

Full Spectrum

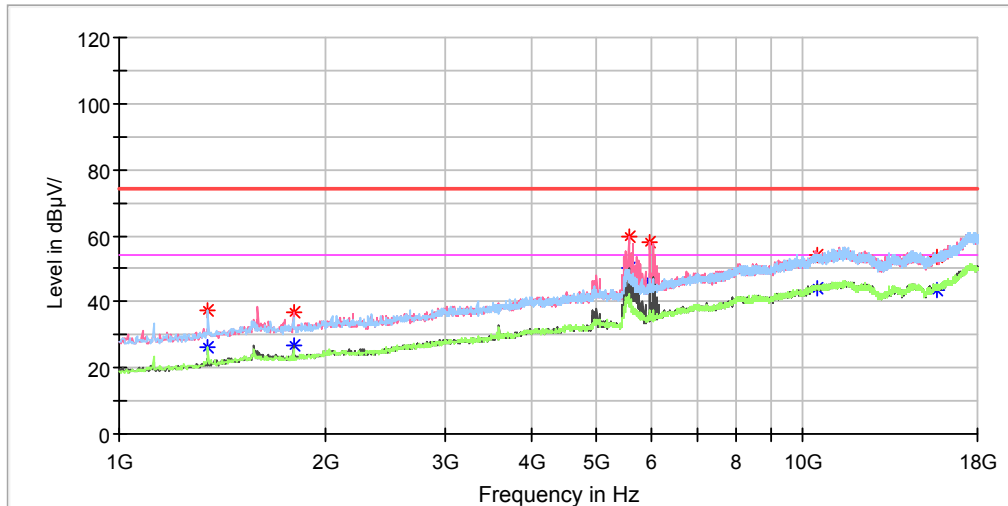


Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Corrected Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
1595.000000	38.15	---	217.0	H	239.0	-7.6	74.00	35.85
1595.000000	---	26.46	217.0	H	239.0	-7.6	54.00	27.54
2659.200000	46.12	---	166.0	V	249.0	-3.8	74.00	27.88
2659.200000	---	28.78	166.0	V	249.0	-3.8	54.00	25.22
5998.000000	47.94	---	164.0	V	94.0	5.7	74.00	26.06
5998.000000	---	37.95	164.0	V	94.0	5.7	54.00	16.05
7701.400000	49.78	---	190.0	V	61.0	11.0	74.00	24.22
7701.400000	---	38.93	190.0	V	61.0	11.0	54.00	15.07
10400.000000	54.15	---	181.0	V	40.0	16.6	74.00	19.85
10400.000000	---	43.74	181.0	V	40.0	16.6	54.00	10.26
15600.000000	---	44.13	154.0	V	118.0	16.4	54.00	9.87
15600.000000	54.80	---	154.0	V	118.0	16.4	74.00	19.20

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

Full Spectrum

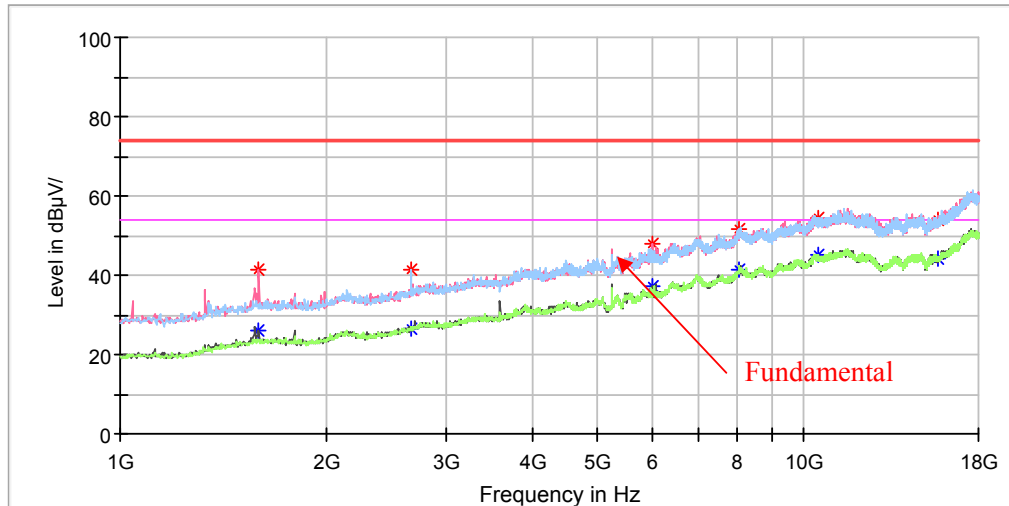


Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Corrected Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
1346.800000	37.58	---	213.0	H	360.0	-9.2	74.00	36.42
1346.800000	---	26.39	213.0	H	360.0	-9.2	54.00	27.61
1799.000000	---	26.92	163.0	V	26.0	-6.8	54.00	27.08
1799.000000	36.65	---	163.0	V	26.0	-6.8	74.00	37.35
5559.400000	---	50.00	156.0	V	17.0	4.2	54.00	4.00
5559.400000	59.53	---	156.0	V	17.0	4.2	74.00	14.47
5960.600000	---	46.35	215.0	V	236.0	5.6	54.00	7.65
5960.600000	58.16	---	215.0	V	236.0	5.6	74.00	15.84
10480.000000	---	43.97	199.0	V	135.0	16.9	54.00	10.03
10480.000000	54.03	---	199.0	V	135.0	16.9	74.00	19.97
15720.000000	53.39	---	155.0	V	60.0	16.8	74.00	20.61
15720.000000	---	43.76	155.0	V	60.0	16.8	54.00	10.24

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

Full Spectrum



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Corrected Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
1595.000000	41.62	---	193.0	H	52.0	-7.6	74.00	32.38
1595.000000	---	25.95	193.0	H	52.0	-7.6	54.00	28.05
2662.600000	---	26.60	166.0	V	5.0	-3.8	54.00	27.40
2662.600000	41.17	---	166.0	V	5.0	-3.8	74.00	32.83
5998.000000	47.89	---	152.0	V	339.0	5.7	74.00	26.11
5998.000000	---	37.28	152.0	V	339.0	5.7	54.00	16.72
8058.400000	51.83	---	171.0	V	66.0	12.1	74.00	22.17
8058.400000	---	41.40	171.0	V	66.0	12.1	54.00	12.60
10480.000000	---	44.89	164.0	V	45.0	16.9	54.00	9.11
10480.000000	54.52	---	164.0	V	45.0	16.9	74.00	19.48
15720.000000	54.18	---	195.0	V	360.0	16.8	74.00	19.82
15720.000000	---	44.31	195.0	V	360.0	16.8	54.00	9.69

802.11n-HT20 Mode:

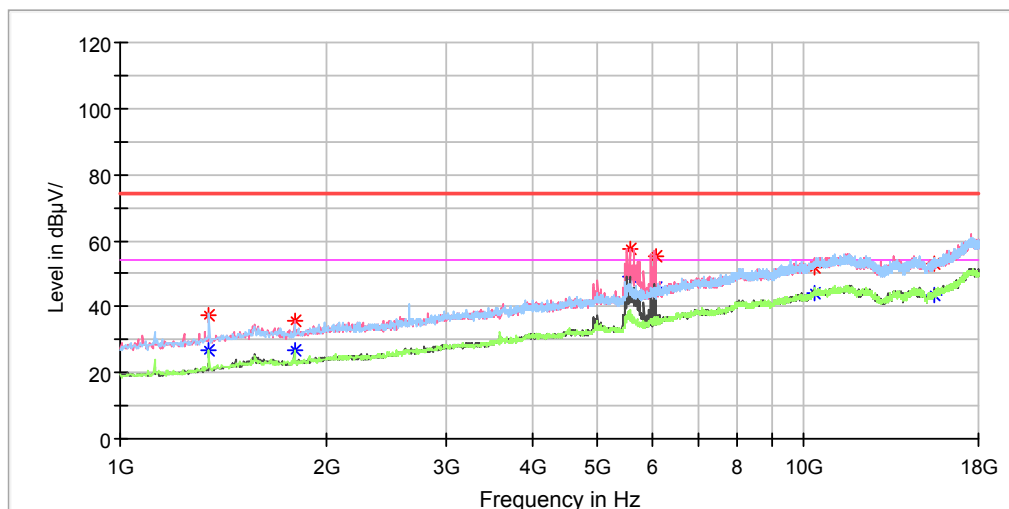
Note:

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

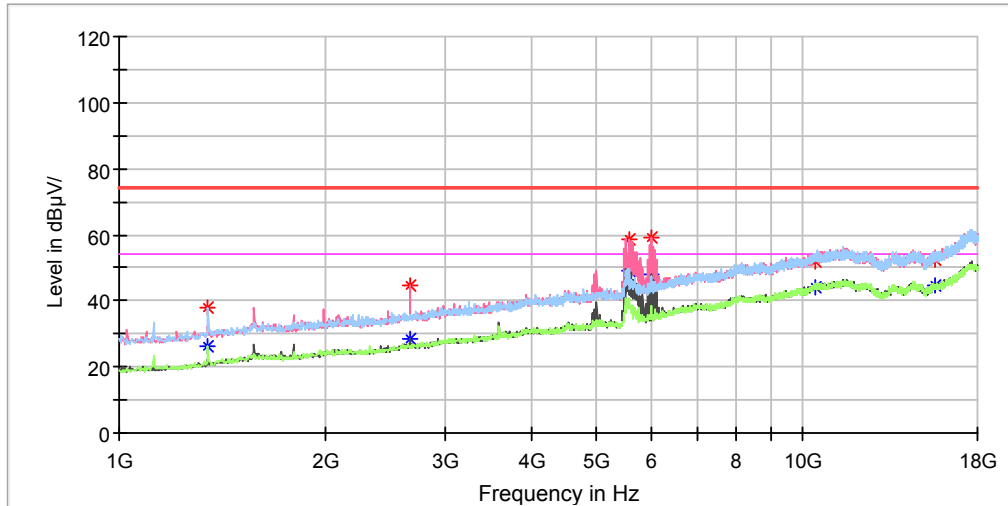
Full Spectrum



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Corrected Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
1346.800000	37.65	---	215.0	H	160.0	-9.2	74.00	36.35
1346.800000	---	26.73	215.0	H	160.0	-9.2	54.00	27.27
1799.000000	35.75	---	161.0	V	351.0	-6.8	74.00	38.25
1799.000000	---	26.78	161.0	V	351.0	-6.8	54.00	27.22
5559.400000	---	49.19	156.0	V	349.0	4.2	54.00	4.81
5559.400000	57.44	---	156.0	V	349.0	4.2	74.00	16.56
6079.600000	---	45.96	206.0	V	81.0	6.1	54.00	8.04
6079.600000	55.08	---	206.0	V	81.0	6.1	74.00	18.92
10360.000000	51.97	---	170.0	V	78.0	16.4	74.00	22.03
10360.000000	---	44.35	170.0	V	78.0	16.4	54.00	9.65
15540.000000	---	43.56	185.0	V	91.0	16.2	54.00	10.44
15540.000000	52.95	---	185.0	V	91.0	16.2	74.00	21.05

Middle Channel: 5200MHz

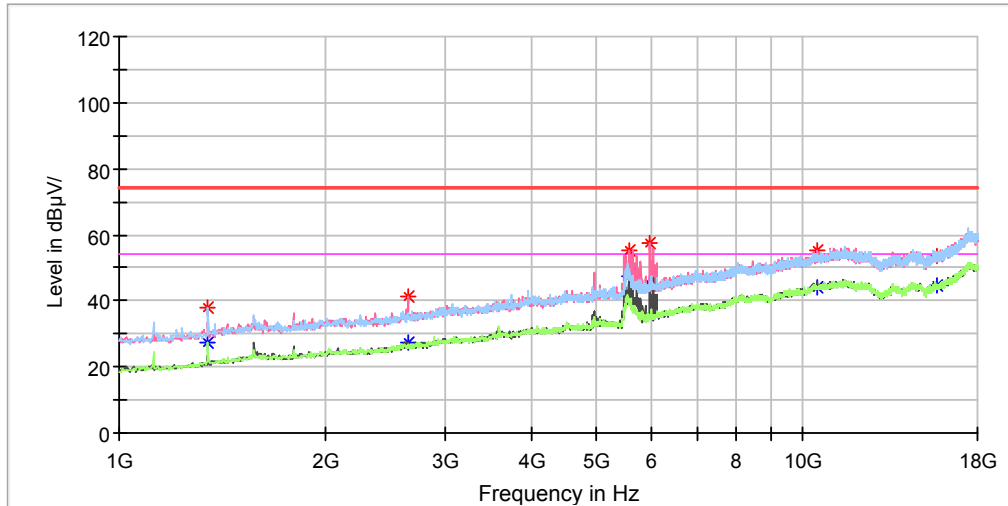
Full Spectrum



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Corrected Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
1346.800000	---	26.16	166.0	H	149.0	-9.2	54.00	27.84
1346.800000	38.19	---	166.0	H	149.0	-9.2	74.00	35.81
2662.600000	44.58	---	158.0	V	201.0	-3.8	74.00	29.42
2662.600000	---	28.24	158.0	V	201.0	-3.8	54.00	25.76
5559.400000	58.34	---	151.0	V	94.0	4.2	74.00	15.66
5559.400000	---	49.29	151.0	V	94.0	4.2	54.00	4.71
5998.000000	58.91	---	213.0	V	341.0	5.7	74.00	15.09
5998.000000	---	47.94	213.0	V	341.0	5.7	54.00	6.06
10400.000000	52.18	---	207.0	V	95.0	16.6	74.00	21.82
10400.000000	---	44.08	207.0	V	95.0	16.6	54.00	9.92
15600.000000	52.64	---	187.0	V	151.0	16.4	74.00	21.36
15600.000000	---	44.78	187.0	V	151.0	16.4	54.00	9.22

High Channel: 5240MHz

Full Spectrum



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Corrected Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
1346.800000	---	27.14	162.0	H	346.0	-9.2	54.00	26.86
1346.800000	37.99	---	162.0	H	346.0	-9.2	74.00	36.01
2652.400000	---	27.51	151.0	V	193.0	-3.8	54.00	26.49
2652.400000	41.36	---	151.0	V	193.0	-3.8	74.00	32.64
5559.400000	---	47.48	150.0	V	309.0	4.2	54.00	6.52
5559.400000	55.45	---	150.0	V	309.0	4.2	74.00	18.55
5960.600000	57.34	---	164.0	V	98.0	5.6	74.00	16.66
5960.600000	---	45.43	164.0	V	98.0	5.6	54.00	8.57
10480.000000	---	44.13	182.0	V	248.0	16.8	54.00	9.87
10480.000000	55.52	---	182.0	V	248.0	16.8	74.00	18.48
15720.000000	53.84	---	204.0	V	23.0	16.8	74.00	20.16
15720.000000	---	44.75	204.0	V	23.0	16.8	54.00	9.25

802.11n-HT40 Mode:

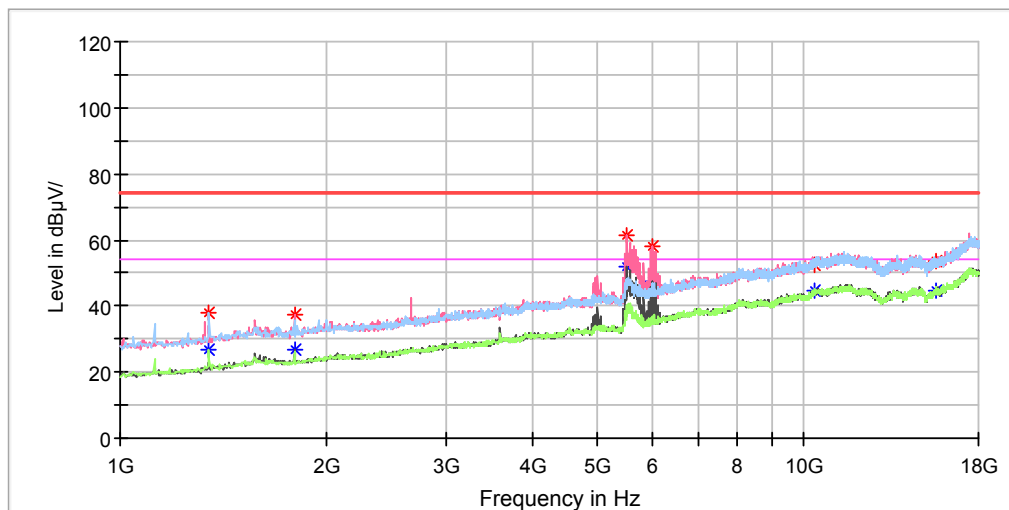
Note:

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

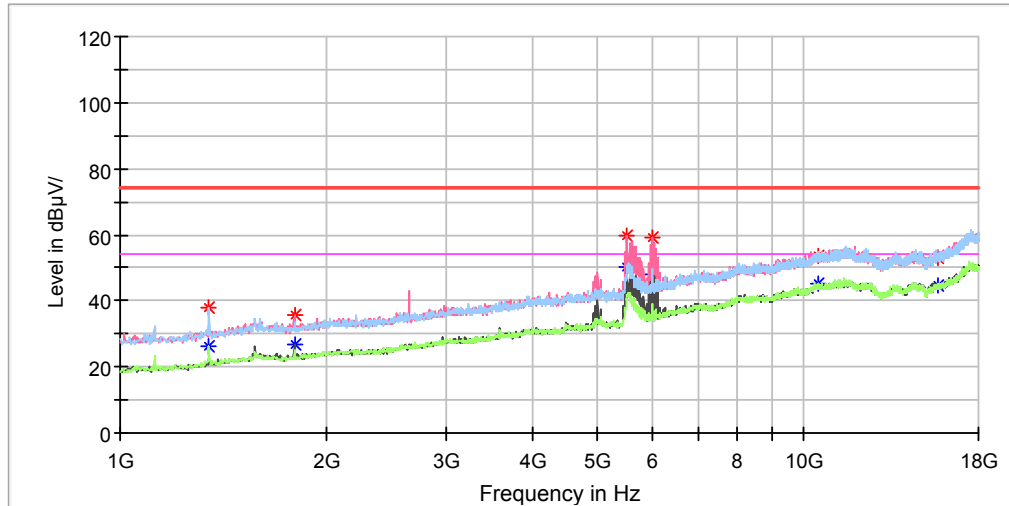
Full Spectrum



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Corrected Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
1346.800000	38.06	---	213.0	H	104.0	-9.2	74.00	35.94
1346.800000	---	26.81	213.0	H	104.0	-9.2	54.00	27.19
1799.000000	37.67	---	185.0	V	20.0	-6.8	74.00	36.33
1799.000000	---	26.77	185.0	V	20.0	-6.8	54.00	27.23
5518.600000	61.23	---	203.0	V	353.0	4.1	74.00	12.77
5518.600000	---	51.77	203.0	V	353.0	4.1	54.00	2.23
5998.000000	57.84	---	159.0	V	171.0	5.7	74.00	16.16
5998.000000	---	47.28	159.0	V	171.0	5.7	54.00	6.72
10380.600000	52.39	---	213.0	V	212.0	16.5	74.00	21.61
10380.600000	---	44.46	213.0	V	212.0	16.5	54.00	9.54
15570.000000	53.51	---	180.0	V	304.0	16.3	74.00	20.49
15570.000000	---	44.47	180.0	V	304.0	16.3	54.00	9.53

High Channel: 5230MHz

Full Spectrum

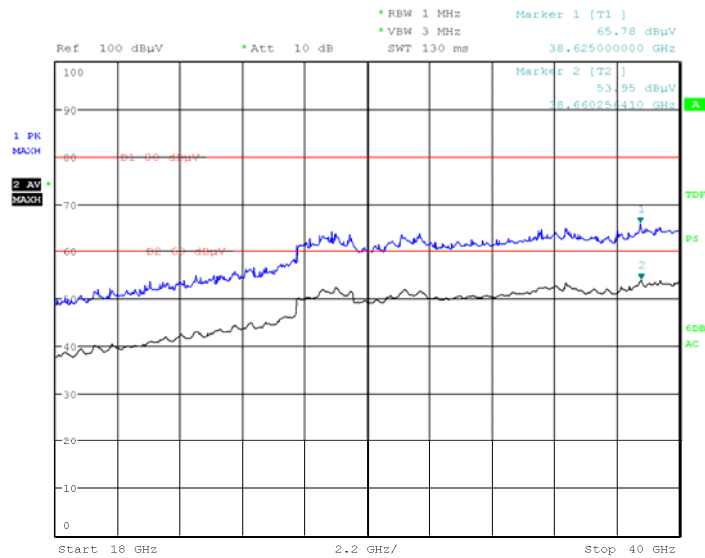


Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Corrected Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
1346.800000	38.14	---	156.0	H	210.0	-9.2	74.00	35.86
1346.800000	---	26.15	156.0	H	210.0	-9.2	54.00	27.85
1799.000000	35.47	---	185.0	V	349.0	-6.8	74.00	38.53
1799.000000	---	26.75	185.0	V	349.0	-6.8	54.00	27.25
5518.600000	59.99	---	195.0	V	75.0	4.1	74.00	14.01
5518.600000	---	50.33	195.0	V	75.0	4.1	54.00	3.67
5998.000000	58.90	---	201.0	V	262.0	5.7	74.00	15.10
5998.000000	---	48.19	201.0	V	262.0	5.7	54.00	5.81
10460.000000	53.50	---	203.0	V	115.0	16.9	74.00	20.50
10460.000000	---	45.09	203.0	V	115.0	16.9	54.00	8.91
15690.000000	52.97	---	164.0	V	21.0	16.8	74.00	21.03
15690.000000	---	44.87	164.0	V	21.0	16.8	54.00	9.13

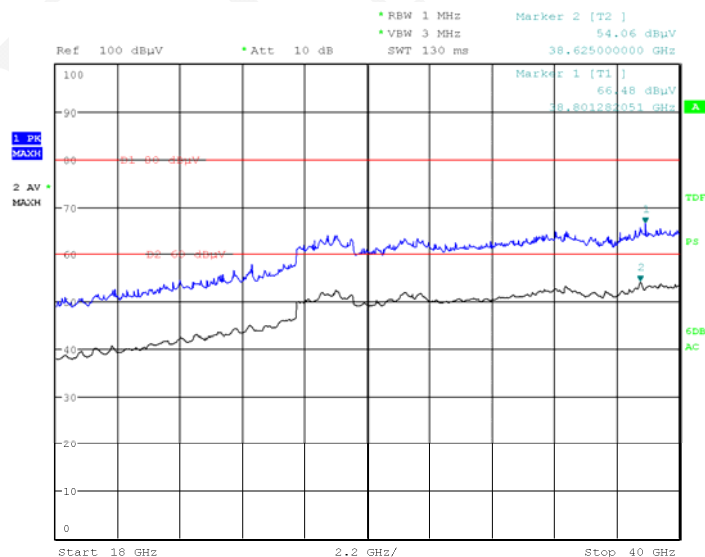
18GHz-40GHz (5150-5250MHz Band):

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 $74\text{dBuV/m}@3\text{m} = 80\text{dBuV/m}@1.5\text{m}$

Horizontal

Date: 11.JAN.2018 11:09:05

Vertical

Date: 11.JAN.2018 11:19:29

1GHz-18GHz (5745-5825 Band):**802.11a Mode:**

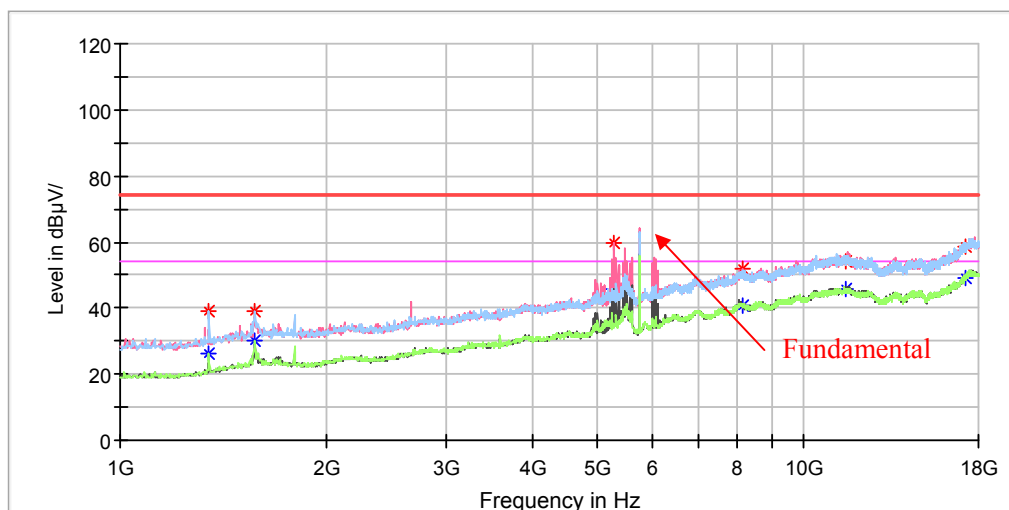
Note:

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

Full Spectrum

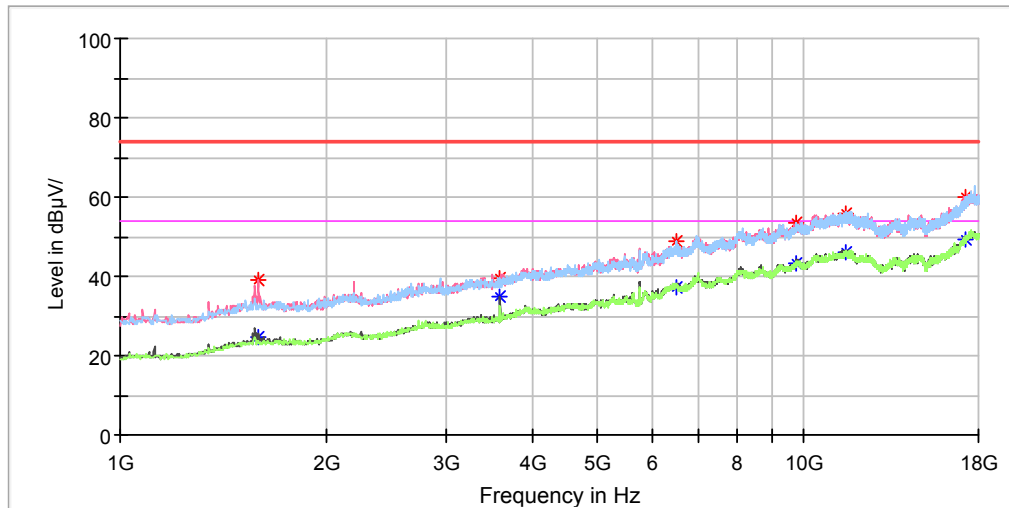


Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Corrected Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
1346.800000	38.82	---	197.0	H	75.0	-9.2	74.00	35.18
1346.800000	---	26.31	197.0	H	75.0	-9.2	54.00	27.69
1574.600000	39.22	---	154.0	H	7.0	-7.7	74.00	34.78
1574.600000	---	30.25	154.0	H	7.0	-7.7	54.00	23.75
5280.600000	59.49	---	170.0	V	92.0	3.5	74.00	14.51
5280.600000	---	45.96	170.0	V	92.0	3.5	54.00	8.04
8112.800000	52.17	---	172.0	V	171.0	12.2	74.00	21.83
8112.800000	---	40.99	172.0	V	171.0	12.2	54.00	13.01
11490.000000	54.32	---	192.0	V	108.0	18.2	74.00	19.68
11490.000000	---	45.64	192.0	V	108.0	18.2	54.00	8.36
17235.000000	58.69	---	177.0	V	165.0	22.3	74.00	15.31
17235.000000	---	49.24	177.0	V	165.0	22.3	54.00	4.76

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

Full Spectrum

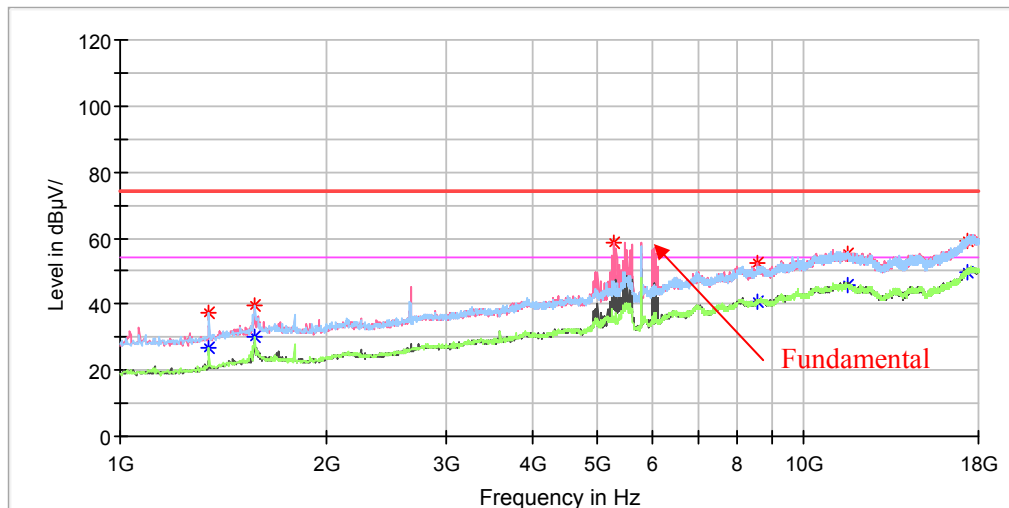


Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Corrected Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
1591.600000	39.09	---	194.0	H	72.0	-7.6	74.00	34.91
1591.600000	---	24.85	194.0	H	72.0	-7.6	54.00	29.15
3597.600000	39.72	---	204.0	H	281.0	-0.6	74.00	34.28
3597.600000	---	34.89	204.0	H	281.0	-0.6	54.00	19.11
6508.000000	---	37.35	153.0	V	226.0	8.3	54.00	16.65
6508.000000	49.02	---	153.0	V	226.0	8.3	74.00	24.98
9761.800000	53.66	---	173.0	V	68.0	14.9	74.00	20.34
9761.800000	---	43.25	173.0	V	68.0	14.9	54.00	10.75
11490.000000	55.64	---	188.0	V	133.0	18.2	74.00	18.36
11490.000000	---	45.99	188.0	V	133.0	18.2	54.00	8.01
17235.000000	59.79	---	209.0	V	169.0	22.3	74.00	14.21
17235.000000	---	49.17	209.0	V	169.0	22.3	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

Middle Channel: 5785MHz

Full Spectrum

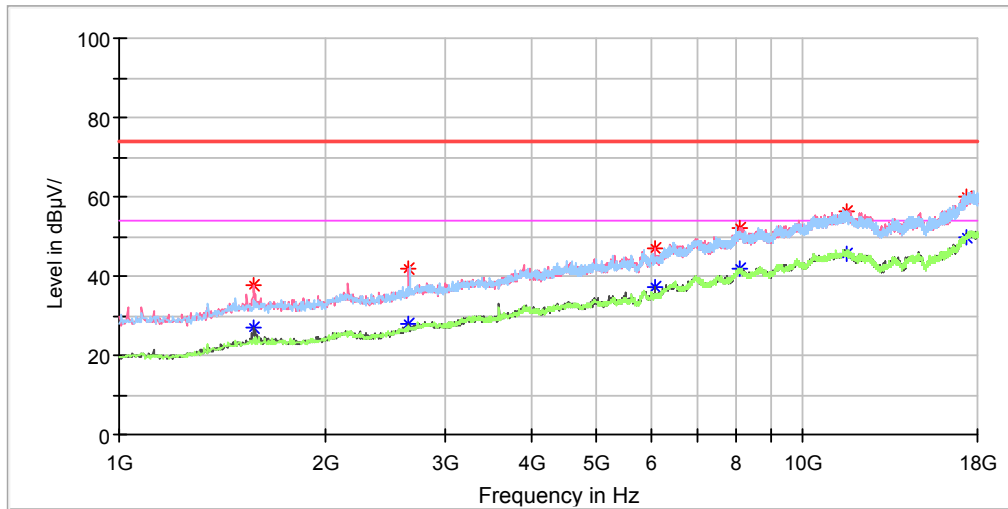


Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Corrected Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
1346.800000	37.57	---	230.0	H	350.0	-9.2	74.00	36.43
1346.800000	---	26.85	230.0	H	350.0	-9.2	54.00	27.15
1574.600000	39.52	---	110.0	H	48.0	-7.7	74.00	34.48
1574.600000	---	30.21	110.0	H	48.0	-7.7	54.00	23.79
5280.600000	58.46	---	165.0	V	182.0	3.5	74.00	15.54
5280.600000	---	46.35	165.0	V	182.0	3.5	54.00	7.65
8565.000000	52.38	---	200.0	V	20.0	12.8	74.00	21.62
8565.000000	---	40.50	200.0	V	20.0	12.8	54.00	13.50
10570.000000	55.10	---	100.0	V	158.0	18.0	74.00	18.90
10570.000000	---	45.69	100.0	V	158.0	18.0	54.00	8.31
17355.000000	59.30	---	150.0	V	298.0	22.9	74.00	14.70
17355.000000	---	49.79	150.0	V	298.0	22.9	54.00	4.21

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

Full Spectrum

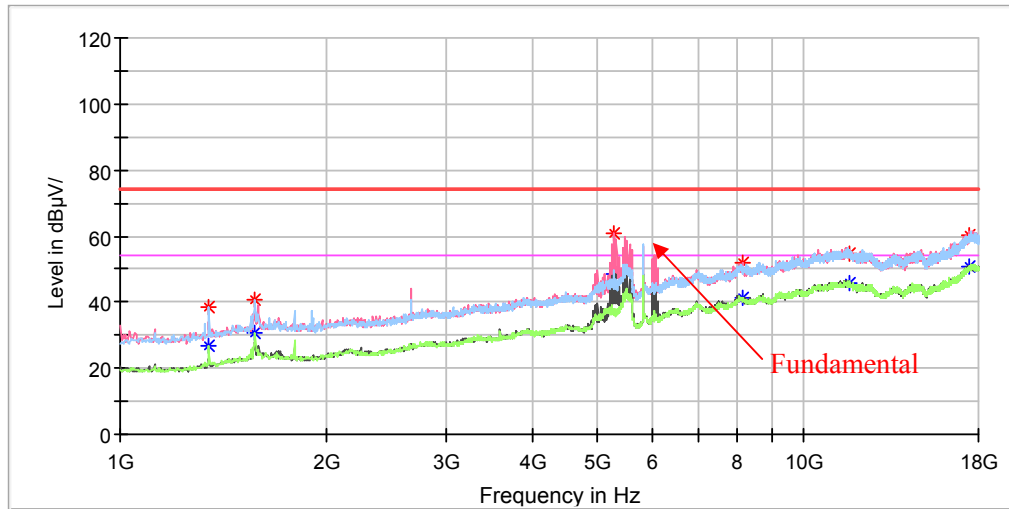


Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Corrected Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1574.600000	37.44	---	215.0	H	131.0	-7.7	74.00	36.56
1574.600000	---	27.07	215.0	H	131.0	-7.7	54.00	26.93
2655.800000	41.65	---	197.0	H	320.0	-3.8	74.00	32.35
2655.800000	---	27.90	197.0	H	320.0	-3.8	54.00	26.10
6079.600000	47.14	---	174.0	V	116.0	6.1	74.00	26.86
6079.600000	---	37.06	174.0	V	116.0	6.1	54.00	16.94
8099.200000	52.29	---	208.0	V	214.0	12.2	74.00	21.71
8099.200000	---	41.95	208.0	V	214.0	12.2	54.00	12.05
10570.000000	56.16	---	180.0	V	329.0	18.0	74.00	17.84
10570.000000	---	45.37	180.0	V	329.0	18.0	54.00	8.63
17355.000000	59.86	---	211.0	V	93.0	22.9	74.00	14.14
17355.000000	---	49.65	211.0	V	93.0	22.9	54.00	4.35

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

Full Spectrum

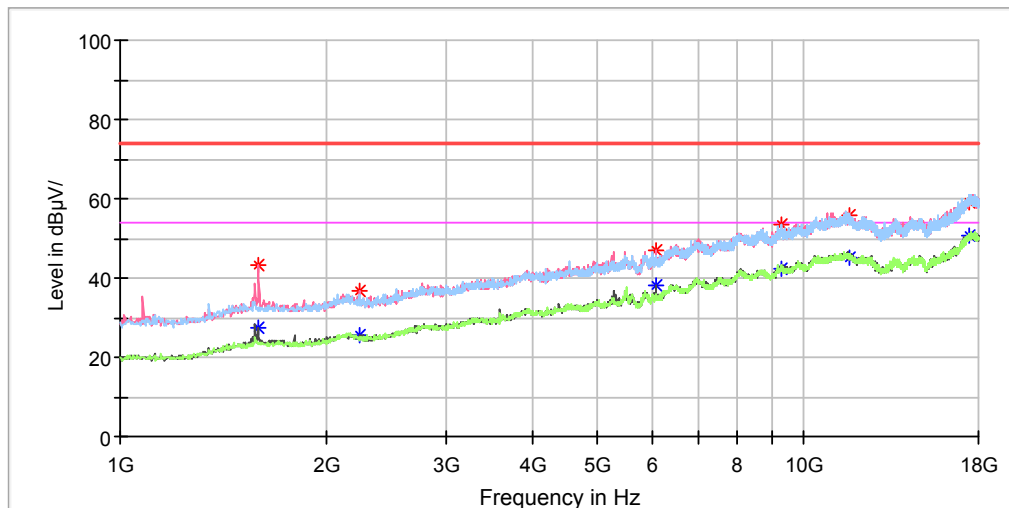


Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Corrected Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
1346.800000	38.46	---	120.0	H	353.0	-9.2	74.00	35.54
1346.800000	---	26.77	120.0	H	353.0	-9.2	54.00	27.23
1574.600000	40.63	---	150.0	H	41.0	-7.7	74.00	33.37
1574.600000	---	30.50	150.0	H	41.0	-7.7	54.00	23.50
5280.600000	61.09	---	241.0	V	158.0	3.5	74.00	12.91
5280.600000	---	48.55	241.0	V	158.0	3.5	54.00	5.45
8119.600000	51.68	---	150.0	V	237.0	12.2	74.00	22.32
8119.600000	---	41.11	150.0	V	237.0	12.2	54.00	12.89
11650.000000	54.93	---	200.0	V	225.0	17.7	74.00	19.07
11650.000000	---	45.58	200.0	V	225.0	17.7	54.00	8.42
17475.000000	---	50.59	100.0	V	22.0	23.5	54.00	3.41
17475.000000	60.53	---	100.0	V	22.0	23.5	74.00	13.47

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

Full Spectrum



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Corrected Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
1591.600000	43.05	---	159.0	H	198.0	-7.6	74.00	30.95
1591.600000	---	27.53	159.0	H	198.0	-7.6	54.00	26.47
2237.600000	36.67	---	179.0	H	159.0	-5.3	74.00	37.33
2237.600000	---	25.46	179.0	H	159.0	-5.3	54.00	28.54
6079.600000	46.79	---	196.0	V	271.0	6.1	74.00	27.21
6079.600000	---	38.14	196.0	V	271.0	6.1	54.00	15.86
9289.200000	53.49	---	203.0	V	179.0	14.0	74.00	20.51
9289.200000	---	42.22	203.0	V	179.0	14.0	54.00	11.78
11650.000000	56.01	---	204.0	V	305.0	17.7	74.00	17.99
11650.000000	---	45.34	204.0	V	305.0	17.7	54.00	8.66
17475.000000	59.28	---	202.0	V	257.0	23.5	74.00	14.72
17475.000000	---	50.65	202.0	V	257.0	23.5	54.00	3.35

802.11n-HT20 Mode:

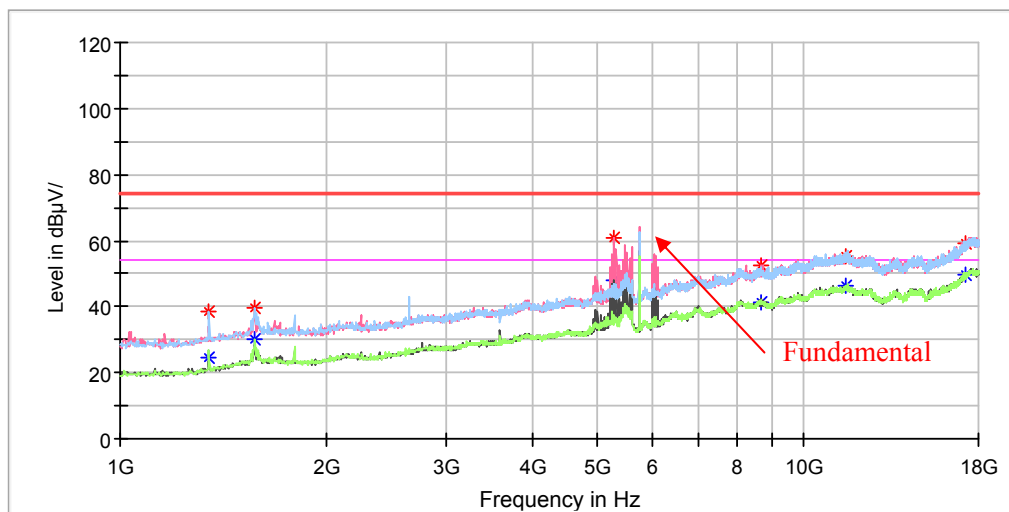
Note:

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

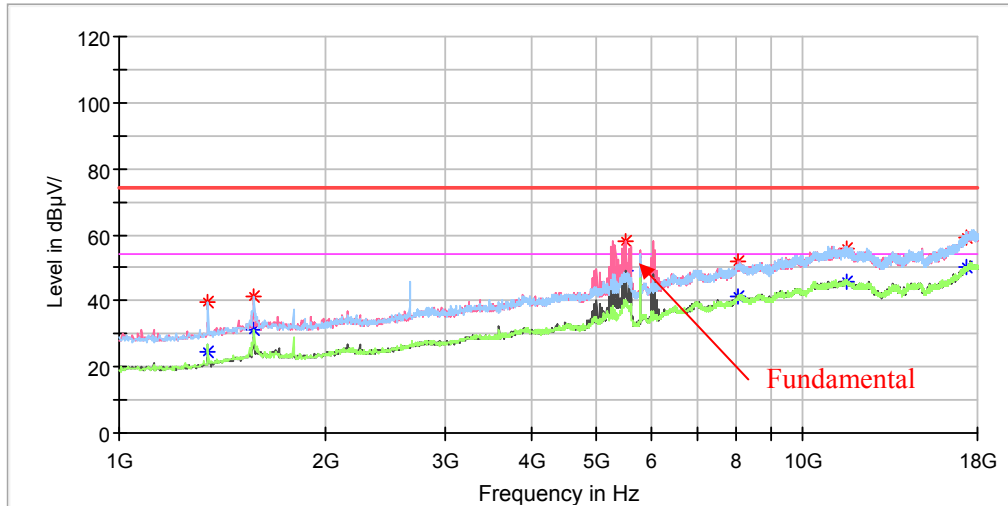
Full Spectrum



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Corrected Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
1350.200000	---	24.81	157.0	H	165.0	-9.2	54.00	29.19
1350.200000	38.29	---	157.0	H	165.0	-9.2	74.00	35.71
1574.600000	39.78	---	163.0	H	169.0	-7.7	74.00	34.22
1574.600000	---	30.27	163.0	H	169.0	-7.7	54.00	23.73
5280.600000	61.01	---	169.0	V	151.0	3.5	74.00	12.99
5280.600000	---	48.08	169.0	V	151.0	3.5	54.00	5.92
8650.000000	52.55	---	172.0	V	257.0	12.8	74.00	21.45
8650.000000	---	41.52	172.0	V	257.0	12.8	54.00	12.48
11490.000000	55.02	---	163.0	V	0.0	18.2	74.00	18.98
11490.000000	---	46.07	163.0	V	0.0	18.2	54.00	7.93
17235.000000	59.02	---	195.0	V	226.0	22.4	74.00	14.98
17235.000000	---	49.56	195.0	V	226.0	22.4	54.00	4.44

Middle Channel: 5785MHz

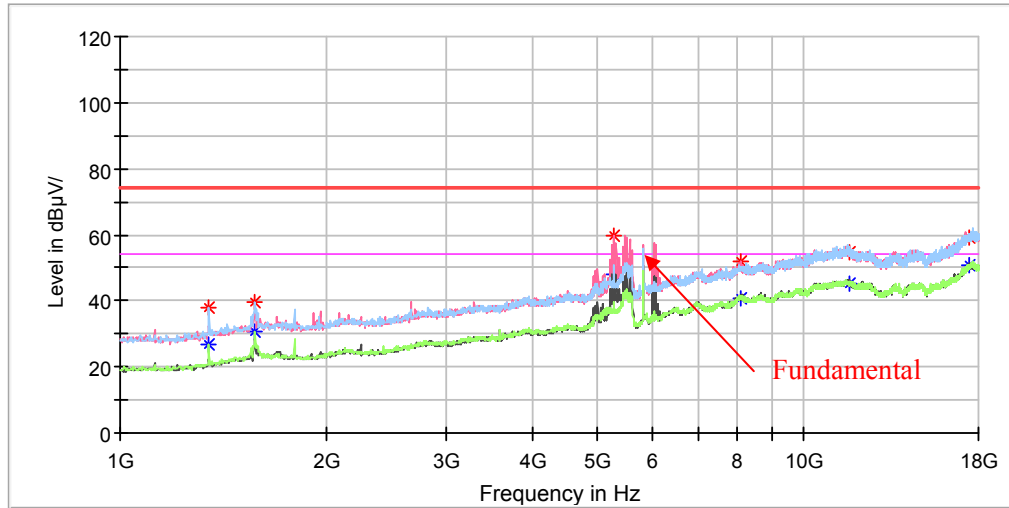
Full Spectrum



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Corrected Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
1350.200000	---	24.42	175.0	H	241.0	-9.2	54.00	29.58
1350.200000	39.56	---	175.0	H	241.0	-9.2	74.00	34.44
1574.600000	41.43	---	200.0	H	201.0	-7.7	74.00	32.57
1574.600000	---	31.40	200.0	H	201.0	-7.7	54.00	22.60
5518.600000	57.78	---	217.0	V	119.0	4.1	74.00	16.22
5518.600000	---	48.97	217.0	V	119.0	4.1	54.00	5.03
8041.400000	51.81	---	173.0	V	334.0	12.1	74.00	22.19
8041.400000	---	41.13	173.0	V	334.0	12.1	54.00	12.87
11570.000000	---	45.58	176.0	V	80.0	18.0	54.00	8.42
11570.000000	55.82	---	176.0	V	80.0	18.0	74.00	18.18
17355.000000	59.43	---	160.0	V	30.0	22.9	74.00	14.57
17355.000000	---	50.22	160.0	V	30.0	22.9	54.00	3.78

High Channel: 5825MHz

Full Spectrum



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Corrected Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
1346.800000	---	26.55	175.0	H	241.0	-9.2	54.00	27.45
1346.800000	38.02	---	175.0	H	241.0	-9.2	74.00	35.98
1574.600000	---	30.45	209.0	H	285.0	-7.7	54.00	23.55
1574.600000	39.43	---	209.0	H	285.0	-7.7	74.00	34.57
5280.600000	---	48.21	173.0	V	301.0	3.5	54.00	5.79
5280.600000	59.84	---	173.0	V	301.0	3.5	74.00	14.16
8068.600000	51.64	---	165.0	V	282.0	12.1	74.00	22.36
8068.600000	---	40.84	165.0	V	282.0	12.1	54.00	13.16
11650.000000	54.69	---	213.0	V	14.0	17.7	74.00	19.31
11650.000000	---	45.04	213.0	V	14.0	17.7	54.00	8.96
17475.000000	---	50.69	171.0	V	116.0	23.6	54.00	3.31
17475.000000	59.33	---	171.0	V	116.0	23.6	74.00	14.67

802.11n-HT40 Mode:

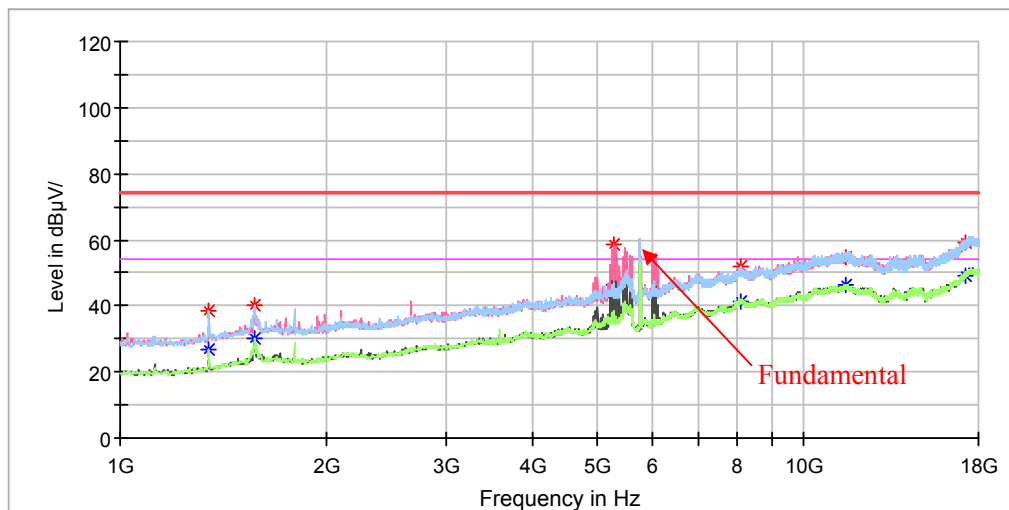
Note:

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

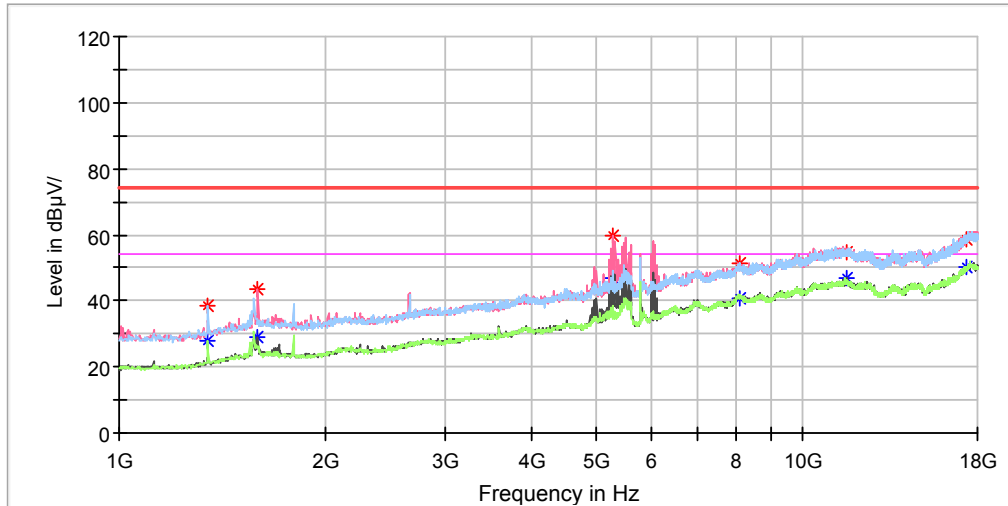
Full Spectrum



Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Corrected Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV /m)	Average (dBµV /m)	Height (cm)	Polar (H/V)				
1346.800000	38.45	---	215.0	H	250.0	-9.2	74.00	35.55
1346.800000	---	26.53	215.0	H	250.0	-9.2	54.00	27.47
1574.600000	40.37	---	164.0	H	353.0	-7.7	74.00	33.63
1574.600000	---	30.24	164.0	H	353.0	-7.7	54.00	23.76
5280.600000	58.69	---	177.0	V	47.0	3.5	74.00	15.31
5280.600000	---	46.25	177.0	V	47.0	3.5	54.00	7.75
8092.400000	51.98	---	218.0	V	3.0	12.2	74.00	22.02
8092.400000	---	41.20	218.0	V	3.0	12.2	54.00	12.80
11510.000000	54.65	---	152.0	V	341.0	18.2	74.00	19.35
11510.000000	---	46.25	152.0	V	341.0	18.2	54.00	7.75
17265.000000	59.14	---	206.0	V	174.0	22.4	74.00	14.86
17265.000000	---	49.24	206.0	V	174.0	22.4	54.00	4.76

High Channel: 5795MHz

Full Spectrum

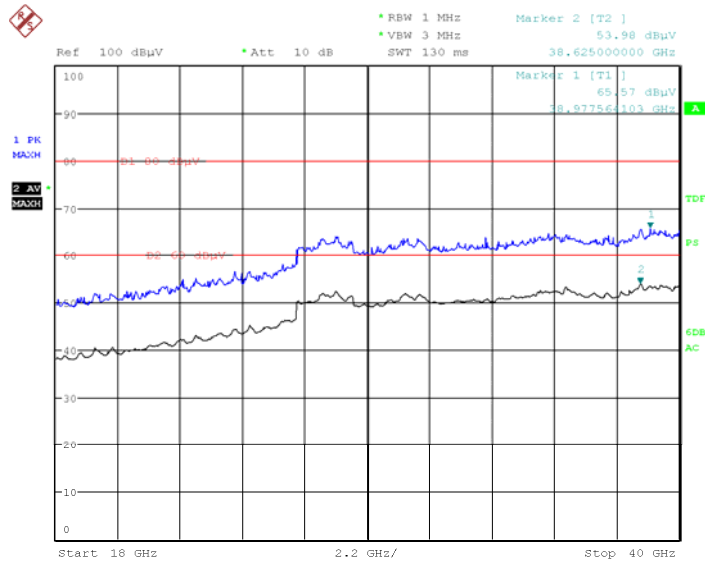


Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Corrected Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV /m)	Average (dBμV /m)	Height (cm)	Polar (H/V)				
1346.800000	38.71	---	157.0	H	16.0	-9.2	74.00	35.29
1346.800000	---	27.74	157.0	H	16.0	-9.2	54.00	26.26
1595.000000	43.80	---	168.0	V	180.0	-7.6	74.00	30.20
1595.000000	---	28.92	168.0	V	180.0	-7.6	54.00	25.08
5280.600000	59.97	---	186.0	V	233.0	3.5	74.00	14.03
5280.600000	---	47.11	186.0	V	233.0	3.5	54.00	6.89
8095.800000	51.56	---	173.0	V	104.0	12.2	74.00	22.44
8095.800000	---	40.88	173.0	V	104.0	12.2	54.00	13.12
11590.000000	54.89	---	190.0	V	275.0	17.9	74.00	19.11
11590.000000	---	46.79	190.0	V	275.0	17.9	54.00	7.21
17385.000000	58.75	---	206.0	V	344.0	23.1	74.00	15.25
17385.000000	---	50.27	206.0	V	344.0	23.1	54.00	3.73

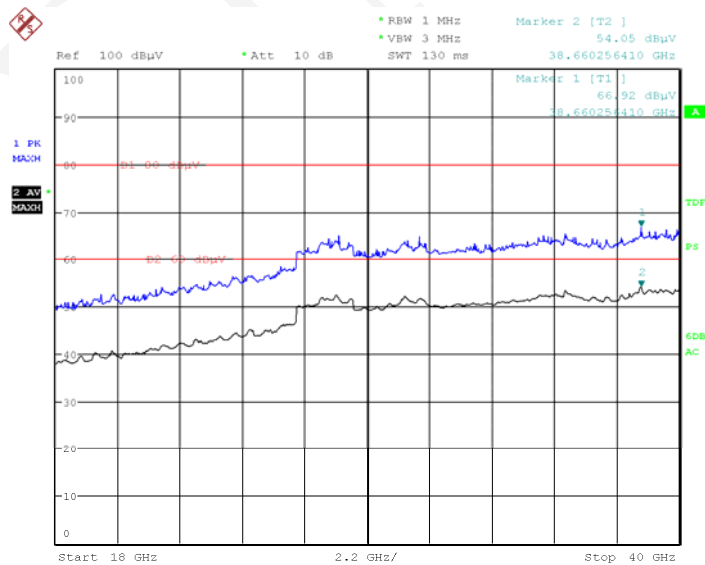
18GHz-40GHz (5725-5850 Band):

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 $74\text{dBuV/m}@3\text{m} = 80\text{dBuV/m}@1.5\text{m}$

Horizontal

Date: 11.JAN.2018 16:12:03

Vertical

Date: 11.JAN.2018 16:28:31

Restricted Bands Emissions Test (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	55.95	---	200.0	V	13.0	13.3	74.00	18.05
5149.950000	---	47.24	200.0	V	13.0	13.3	54.00	6.76
Right Band Edge								
5350.000000	55.33	---	230.0	V	54.0	13.7	74.00	18.67
5350.000000	---	47.76	230.0	V	54.0	13.7	54.00	6.24

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	54.67	---	250.0	V	24.0	13.3	74.00	19.33
5149.950000	---	46.62	250.0	V	24.0	13.3	54.00	7.38
Right Band Edge								
5350.060000	58.58	---	220.0	V	35.0	13.7	74.00	15.42
5350.060000	---	49.79	220.0	V	35.0	13.7	54.00	4.21

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	56.22	---	200.0	V	324.0	13.3	74.00	17.78
5149.950000	---	47.46	200.0	V	324.0	13.3	54.00	6.54
Right Band Edge								
5350.060000	57.05	---	210.0	V	352.0	13.7	74.00	16.95
5350.060000	---	49.67	210.0	V	352.0	13.7	54.00	4.33

Restricted Bands Emissions Test (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	57.67	---	240.0	V	323.0	14.8	74.00	16.33
5725.000000	---	49.25	240.0	V	323.0	14.8	54.00	4.75
Right Band Edge								
5850.010000	57.04	---	230.0	V	315.0	15.2	74.00	16.96
5850.010000	---	48.74	230.0	V	315.0	15.2	54.00	5.26

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	58.76	---	230.0	V	346.0	14.8	74.00	15.24
5725.000000	---	49.77	230.0	V	346.0	14.8	54.00	4.23
Right Band Edge								
5850.010000	58.27	---	200.0	V	323.0	15.2	74.00	15.73
5850.010000	---	49.84	200.0	V	323.0	15.2	54.00	4.16

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	59.42	---	210.0	V	5.0	14.8	74.00	14.58
5725.000000	---	50.35	210.0	V	5.0	14.8	54.00	3.65
Right Band Edge								
5850.020000	58.25	---	220.0	V	14.0	15.2	74.00	15.75
5850.020000	---	47.79	220.0	V	14.0	15.2	54.00	6.21

***** END OF REPORT *****