



TESTING LABORATORY
CERTIFICATE#4323.01



FCC PART 15.247

TEST REPORT

For

Signify (China) Investment Co., Ltd.

Building no.9, Lane 888, Tianlin Road, Minhang District Shanghai, 200233 China

FCC ID: 2AGBW9290024472X

Report Type: CIIPC	Product Type: LED lamp
Test Engineer:	<u>Chao Gao</u> <i>Chao Gao</i>
Report Number:	<u>RDG210407050-00B</u>
Report Date:	<u>2021-04-20</u>
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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Applicant:	Signify (China) Investment Co., Ltd.
Product Type:	LED lamp
Tested Model:	9290030820
Power Supply:	AC 120V
Maximum Output Power:	802.11b :23.85dBm 802.11g: 22.85 dBm 802.11n20:22.94 dBm 802.11n40:21.51 dBm BLE(1Mbps):7.70 dBm
RF Function:	2.4G Wi-Fi, BLE(1Mbps)
Operating Band/Frequency:	2.4G Wi-Fi: 2412-2462 MHz(802.11b/g/n20), 2422~2452MHz(802.11n40) BLE(1Mbps): 2402-2480 MHz
Channel Number:	2.4G Wi-Fi :11(802.11b/g/n20), 7(802.11n40), BLE(1Mbps): 40
Channel Separation:	2.4G Wi-Fi: 5 MHz, BLE(1Mbps): 2 MHz
Modulation Type:	2.4G Wi-Fi: OFDM,DSSS; BLE(1Mbps): GFSK
Antenna Type:	Wi-Fi/ BLE(1Mbps): Ceramic Antenna
*Maximum Antenna Gain:	Wi-Fi/BLE(1Mbps): 3.7dBi

Note: The antenna gain was provided by the applicant.

**All measurement and test data in this report was gathered from production sample serial number: RDG210407050-1 (Assigned by the BACL. The EUT supplied by the applicant was received on 2021-04-07.)*

Objective

This report is prepared on behalf of *Signify (China) Investment Co., Ltd.* in accordance with Part 2-Subpart J, Part 15-Subparts A and C of the Federal Communication Commission's rules.

The tests were performed in order to determine Compliance with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.207, 15.209 and 15.247 rules.

This is a CIIPC report base on the original report RDG210114050-00A with FCC ID: 2AGBW9290024472X grant at 2021-02-24, the differences between the original device and the current one as follows:

1. Shell and lamp cap
2. Power board
3. 3.3V power board
4. LED board

The above differences will affect part of tests, AC Line Conducted Emissions and Spurious Emissions were presented in this report, and other data were referred to the original report.

Related Submittal(s)/Grant(s)

No Related Submittal(s)

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 and FCC KDB 558074 D01 15.247 Meas Guidance v05r02.

All emissions measurement was performed at Bay Area Compliance Laboratories Corp. (Kunshan). The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Measurement Uncertainty

Item		Uncertainty
AC Power Lines Conducted Emissions		3.19dB
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°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), the FCC designation No. CN1185 under the FCC KDB 974614 D01 and CAB identifier CN0004 under the ISED requirement. 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

Test channel list is as below:

For 802.11b, 802.11g and 802.11n-HT20 mode, EUT was tested with Channel 1, 6 and 11;

For 802.11n-HT40 mode, EUT was tested with Channel 3, 6 and 9.

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	7	2442
2	2417	8	2447
3	2422	9	2452
4	2427	10	2457
5	2432	11	2462
6	2437	/	/

For BLE mode, EUT was tested with channel 0, 19 and 39.

Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2402	20	2442
1	2404
...
...
18	2438	38	2478
19	2440	39	2480

Equipment Modifications

No modification was made to the EUT tested.

EUT Exercise Software

RF test software: ESP_RF_test_tool_v1.1.0

Pre-scan with all the data rates, and the worst case was performed as below:

Mode	Data Rate	Channel	*Power Level Setting
802.11b	1 Mbps	Low	0
		Middle	0
		High	0
802.11g	6 Mbps	Low	4
		Middle	4
		High	8
802.11n-HT20	MCS0	Low	4
		Middle	4
		High	8
802.11n-HT40	MCS0	Low	10
		Middle	10
		High	14
BLE	1Mbps	Low	8
		Middle	8
		High	8

Note: The power level setting was declared by the applicant.

Support Equipment List and Details

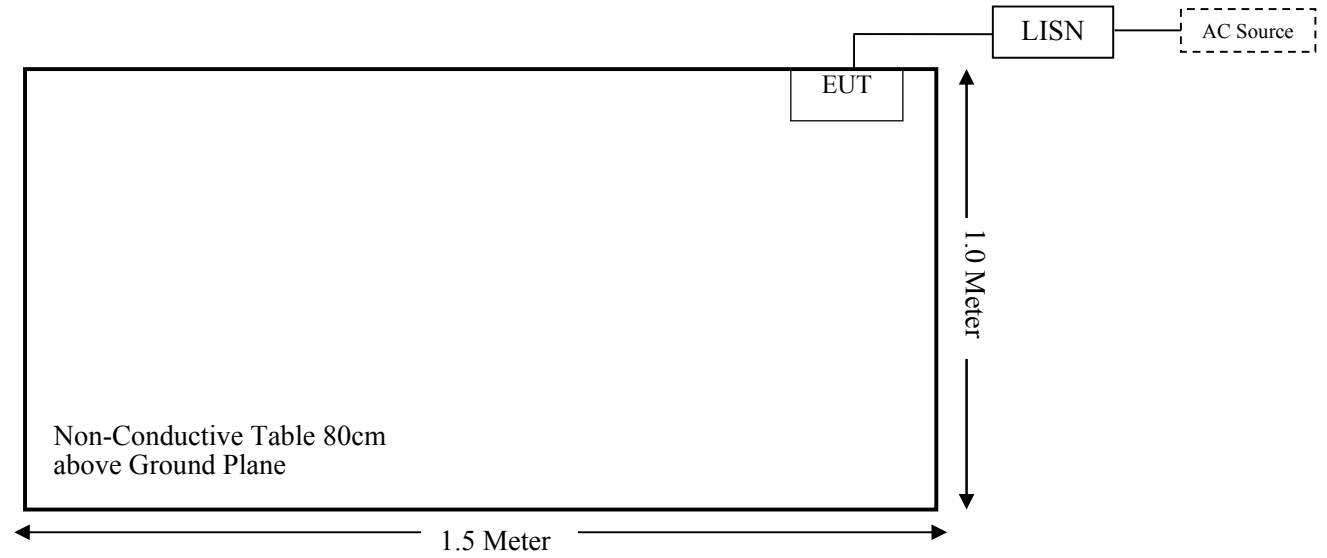
Manufacturer	Description	Model	Serial Number
/	/	/	/

External I/O Cable

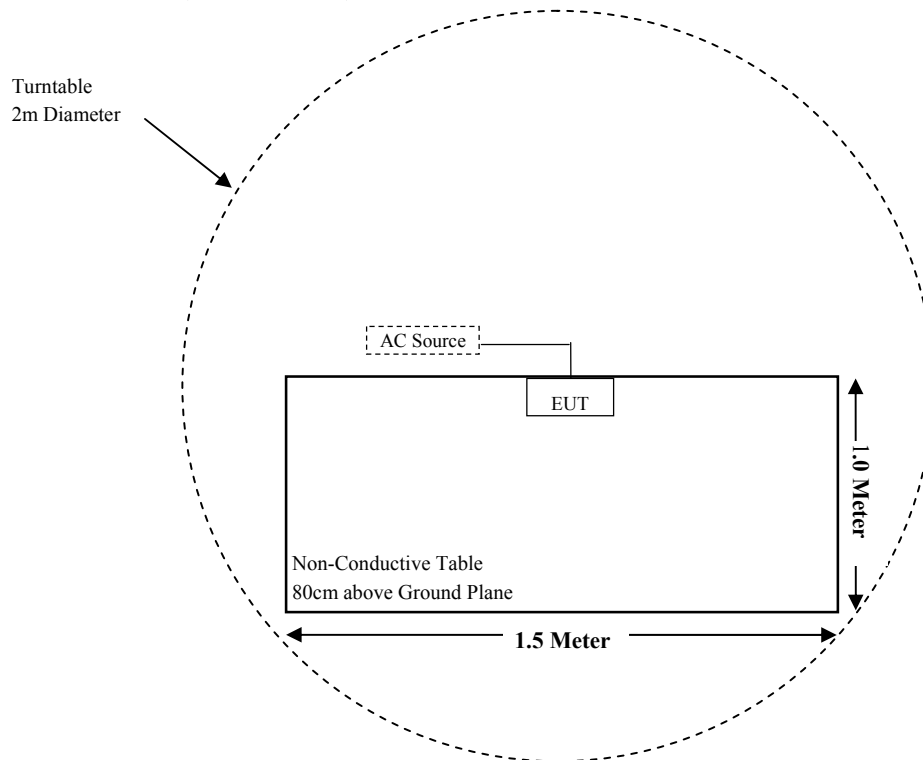
Cable Description	Length(m)	From Port	To Port
Power Cable	1.0	EUT	LISN/AC Source

Block Diagram of Test Setup

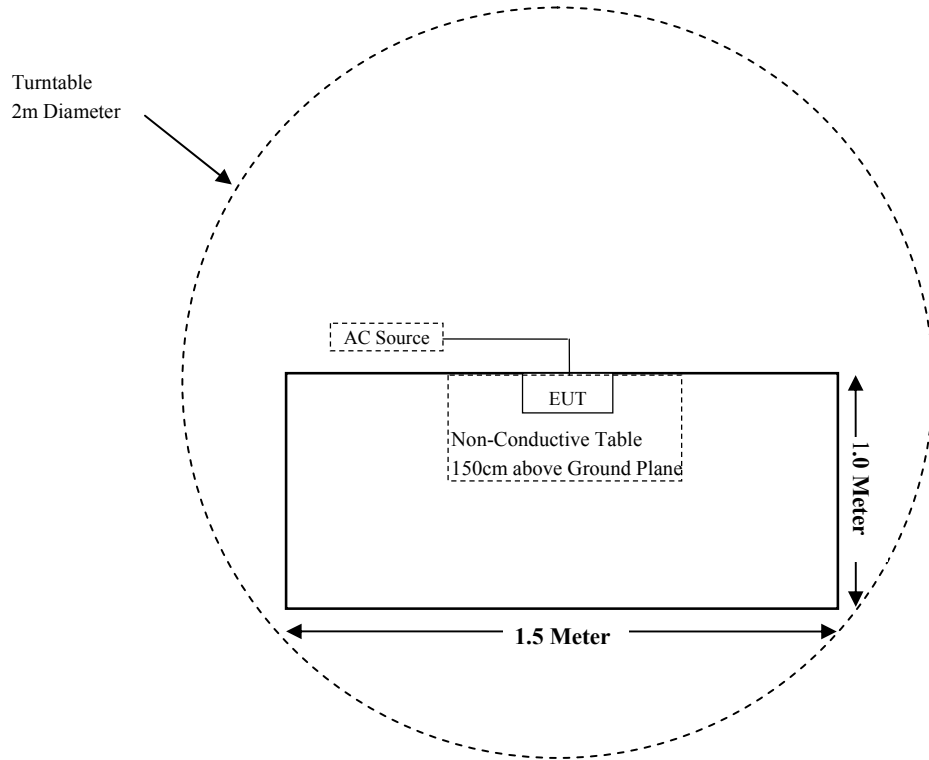
For Conducted Emissions:



For Radiated Emissions (Below 1GHz):



For Radiated Emissions (Above 1GHz):



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§15.247 (I), §1.1310 & §2.1091	MAXIMUM PERMISSIBLE EXPOSURE (MPE)	Compliant
§15.203	Antenna Requirement	Compliant
§15.207 (a)	AC Line Conducted Emissions	Compliant
§15.247(d)	Spurious Emissions at Antenna Port	Compliant (See Note 1)
§15.205, §15.209, §15.247(d)	Spurious Emissions	Compliant
§15.247 (a)(2)	6 dB Emission Bandwidth	Compliant (See Note 1)
§15.247(b)(3)	Maximum Conducted Output Power	Compliant (See Note 1)
§15.247(d)	Band Edge	Compliant (See Note 1)
§15.247(e)	Power Spectral Density	Compliant (See Note 1)

Note 1: For these items, all the test data please refer to the original report RDG210114050-00A with FCC ID: 2AGBW9290024472X

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	2020-11-27	2021-11-26
Sunol Sciences	Hybrid Antenna	JB3	A090314-1	2020-08-05	2023-08-04
Sonoma Instrument	Pre-amplifier	310N	171205	2020-08-14	2021-08-13
Rohde & Schwarz	Auto test Software	EMC32	100361	N/A	N/A
MICRO-COAX	Coaxial Cable	Cable-8	008	2020-08-15	2021-08-14
MICRO-COAX	Coaxial Cable	Cable-9	009	2020-08-15	2021-08-14
MICRO-COAX	Coaxial Cable	Cable-10	010	2020-08-15	2021-08-14
Radiated Emission Test (Chamber 2#)					
Rohde & Schwarz	EMI Test Receiver	ESU40	100207	2021-04-01	2022-03-31
ETS-LINDGREN	Horn Antenna	3115	9207-3900	2020-07-15	2023-07-14
ETS-LINDGREN	Horn Antenna	3116	2516	2020-01-17	2023-01-16
A.H.Systems,inc	Amplifier	PAM-0118P	512	2020-08-14	2021-08-13
EM Electronics Corporation	Amplifier	EM18G40G	060726	2021-03-22	2022-03-21
MICRO-TRONICS	Band Reject Filter	BRM50702	G024	2020-08-05	2021-08-04
Narda	Attenuator	10dB	010	2020-08-15	2021-08-14
Rohde & Schwarz	Auto test Software	EMC32	100361	N/A	N/A
MICRO-COAX	Coaxial Cable	Cable-6	006	2020-08-15	2021-08-14
MICRO-COAX	Coaxial Cable	Cable-11	011	2020-08-15	2021-08-14
MICRO-COAX	Coaxial Cable	Cable-12	012	2020-08-15	2021-08-14
MICRO-COAX	Coaxial Cable	Cable-13	013	2020-08-15	2021-08-14
Conducted Emission Test					
Rohde & Schwarz	EMI Test Receiver	ESR	1316.3003K03-101746-zn	2020-08-05	2021-08-04
Rohde & Schwarz	LISN	ENV216	101115	2020-11-27	2021-11-26
Audix	Test Software	e3	V9	N/A	N/A
Rohde & Schwarz	Pulse limiter	ESH3-Z2	0357.8810.54	2020-08-10	2021-08-09
MICRO-COAX	Coaxial Cable	Cable-15	015	2020-08-15	2021-08-14

* **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 §15.247 (I) & §1.1310 & §2.1091 - MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Applicable Standard

According to subpart 15.247 (i) and subpart 1.1310, 2.1091 systems operating under the provisions of this section shall be operated in a manner that ensures the public is not exposed to RF energy level in excess of the communication guidelines.

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

Calculated Formulary:

Predication of MPE limit at a given distance

S = PG/4πR² = power density (in appropriate units, e.g. mW/cm²);

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:**2.4G WiFi&BLE:**

Mode	Frequency Range (MHz)	Maximum Antenna Gain		Tune-up Conducted Power		Evaluation Distance (cm)	Power Density (mW/cm ²)	MPE Limit (mW/cm ²)
		(dBi)	(numeric)	(dBm)	(mW)			
802.11b	2412-2462	3.7	2.34	24.00	251.19	20	0.1171	1.0
802.11g		3.7	2.34	23.00	199.53	20	0.0931	1.0
802.11n- HT20		3.7	2.34	23.00	199.53	20	0.0931	1.0
802.11n- HT40	2422-2452	3.7	2.34	22.00	158.49	20	0.0739	1.0
BLE	2402-2480	3.7	2.34	8.00	6.31	20	0.0029	1.0

Note: 1. For the above tune up power were declared by the manufacturer.
2. Wi-Fi and BLE can't transmit simultaneously.

Result: The device meet FCC MPE at 20 cm 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 15.247 (b), 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

The EUT has a Ceramic antenna for WIFI&BLE, which the antenna gain is 3.7 dBi, fulfill the requirement of this section. Please refer to the EUT photos.

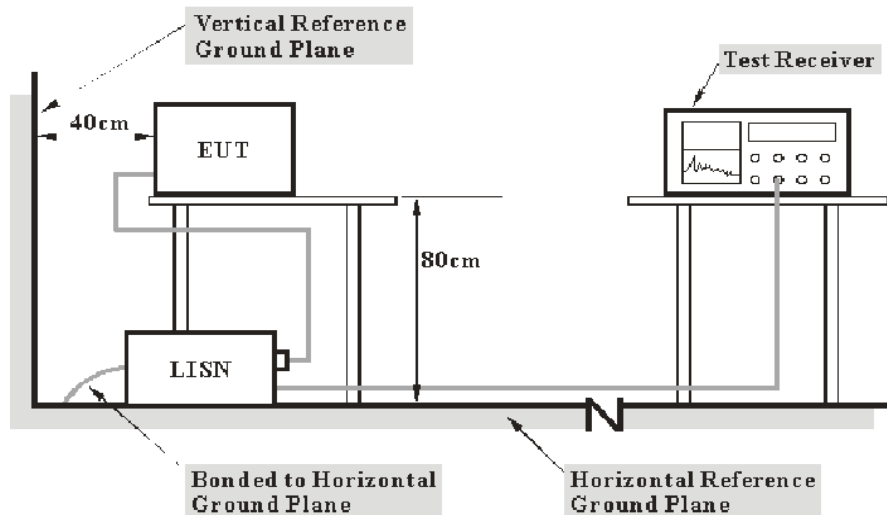
Result: Compliant.

FCC §15.207 (a) – AC LINE CONDUCTED EMISSIONS

Applicable Standard

FCC §15.207(a)

EUT Setup



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

The measurement procedure of EUT setup is according with ANSI C63.10-2013. The related limit was specified in FCC Part 15.207.

The spacing between the peripherals was 10 cm.

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

ANSI C63.10-2013 clause 6.2

During the conducted emission test, the EUT 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.

Factor & Over Limit Calculation

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

$$\text{Factor (dB)} = \text{LISN VDF (dB)} + \text{Cable Loss (dB)} + \text{Transient Limiter Attenuation (dB)}$$

The “**Over Limit**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, an Over Limit of 7 dB means the emission is 7 dB above the limit. The equation for Over Limit calculation is as follows:

$$\text{Over Limit (dB)} = \text{Read level (dB}\mu\text{V)} + \text{Factor (dB)} - \text{Limit (dB}\mu\text{V)}$$

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:	25.5 °C
Relative Humidity:	51%
ATM Pressure:	101.2 kPa

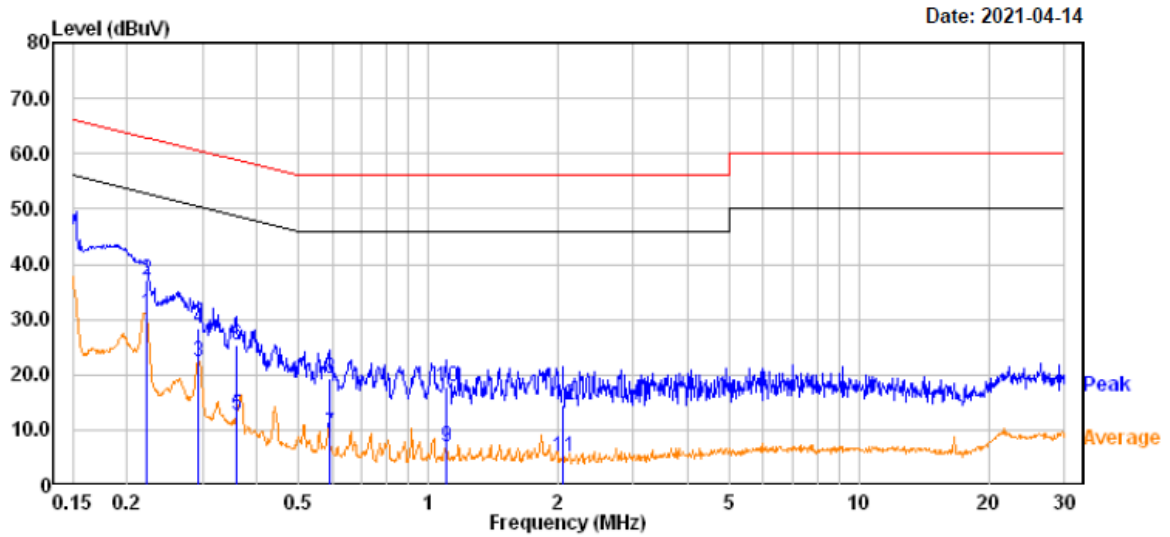
The testing was performed by Chao Gao on 2021-04-14.

Test Result: Compliant.

For Wi-Fi Mode:

EUT operation mode: Transmitting in 802.11b mode high channel (worst case)

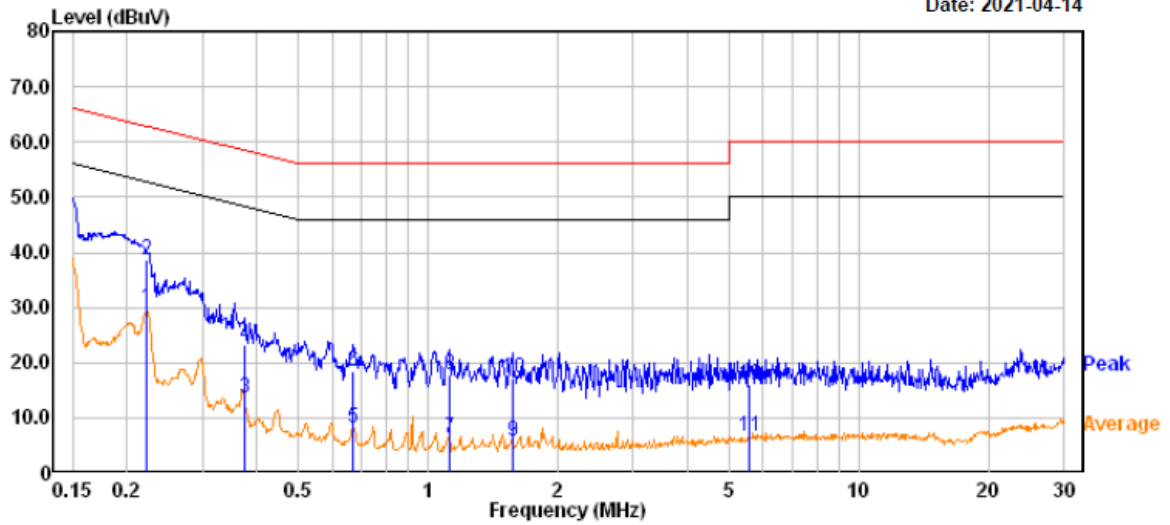
AC 120V/60 Hz, Line



	Read Freq	Read Level	Factor	Limit Level	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dB	
1	0.221	11.42	19.82	31.24	52.77	-21.53 Average
2	0.221	17.20	19.82	37.02	62.77	-25.75 QP
3	0.294	2.38	19.83	22.21	50.41	-28.20 Average
4	0.294	8.60	19.83	28.43	60.41	-31.98 QP
5	0.359	-7.20	19.80	12.60	48.76	-36.16 Average
6	0.359	5.59	19.80	25.39	58.76	-33.37 QP
7	0.591	-10.32	19.75	9.43	46.00	-36.57 Average
8	0.591	-0.50	19.75	19.25	56.00	-36.75 QP
9	1.107	-12.73	19.81	7.08	46.00	-38.92 Average
10	1.107	-2.09	19.81	17.72	56.00	-38.28 QP
11	2.064	-14.56	19.78	5.22	46.00	-40.78 Average
12	2.064	-5.30	19.78	14.48	56.00	-41.52 QP

AC 120V/60 Hz, Neutral

Date: 2021-04-14

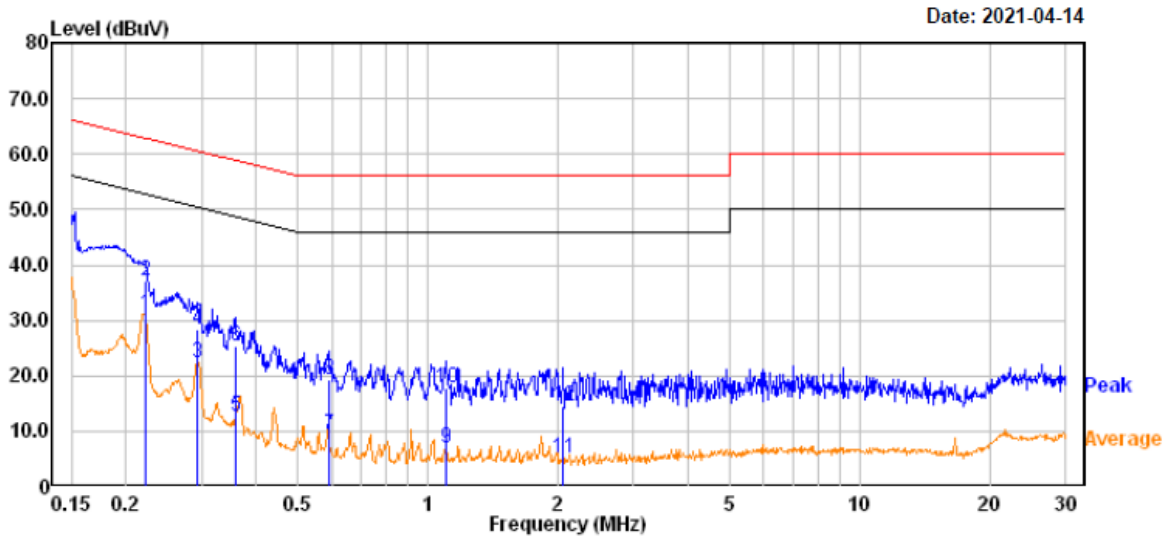


	Read Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.222	10.00	19.82	29.82	52.73	-22.91	Average
2	0.222	18.70	19.82	38.52	62.73	-24.21	QP
3	0.375	-6.20	19.77	13.57	48.38	-34.81	Average
4	0.375	3.40	19.77	23.17	58.38	-35.21	QP
5	0.672	-11.56	19.75	8.19	46.00	-37.81	Average
6	0.672	-1.20	19.75	18.55	56.00	-37.45	QP
7	1.118	-13.41	19.81	6.40	46.00	-39.60	Average
8	1.118	-1.99	19.81	17.82	56.00	-38.18	QP
9	1.569	-13.97	19.85	5.88	46.00	-40.12	Average
10	1.569	-2.71	19.85	17.14	56.00	-38.86	QP
11	5.593	-12.85	19.50	6.65	50.00	-43.35	Average
12	5.593	-3.40	19.50	16.10	60.00	-43.90	QP

For BLE Mode:

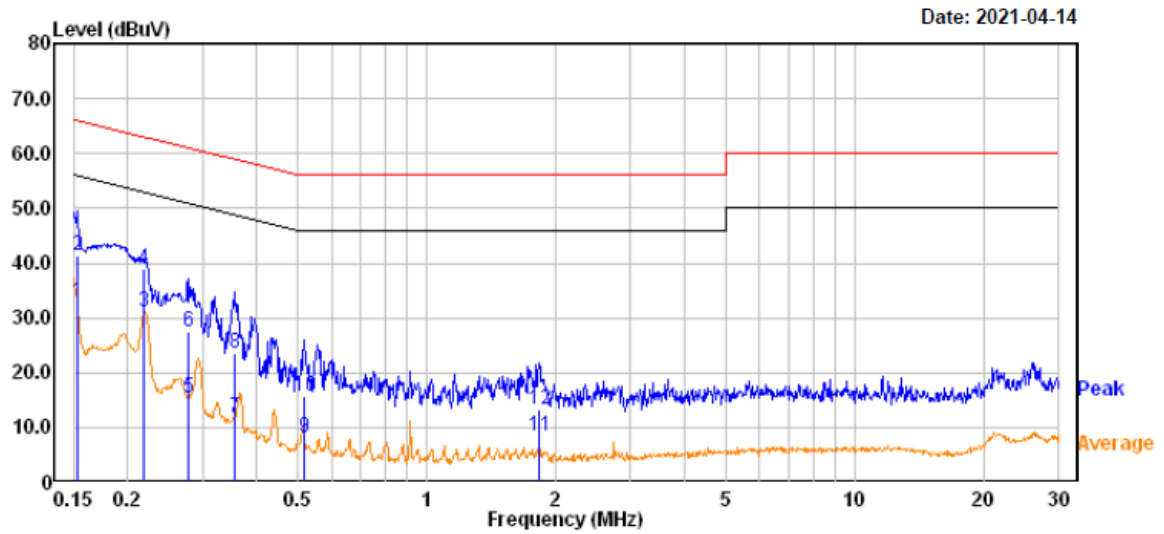
EUT operation mode: Transmitting in BLE mode middle channel (worst case)

AC 120V/60 Hz, Line



	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.221	11.42	19.82	31.24	52.77	-21.53	Average
2	0.221	17.20	19.82	37.02	62.77	-25.75	QP
3	0.294	2.38	19.83	22.21	50.41	-28.20	Average
4	0.294	8.60	19.83	28.43	60.41	-31.98	QP
5	0.359	-7.20	19.80	12.60	48.76	-36.16	Average
6	0.359	5.59	19.80	25.39	58.76	-33.37	QP
7	0.591	-10.32	19.75	9.43	46.00	-36.57	Average
8	0.591	-0.50	19.75	19.25	56.00	-36.75	QP
9	1.107	-12.73	19.81	7.08	46.00	-38.92	Average
10	1.107	-2.09	19.81	17.72	56.00	-38.28	QP
11	2.064	-14.56	19.78	5.22	46.00	-40.78	Average
12	2.064	-5.30	19.78	14.48	56.00	-41.52	QP

AC 120V/60 Hz, Neutral



	Read	Limit	Over				
	Freq	Level	Factor	Level			
	MHz	dBuV	dB	dBuV			
1	0.152	13.00	19.82	32.82	55.88	-23.06	Average
2	0.152	21.60	19.82	41.42	65.88	-24.46	QP
3	0.219	11.40	19.82	31.22	52.85	-21.63	Average
4	0.219	19.00	19.82	38.82	62.85	-24.03	QP
5	0.277	-4.50	19.82	15.32	50.91	-35.59	Average
6	0.277	7.50	19.82	27.32	60.91	-33.59	QP
7	0.357	-7.90	19.80	11.90	48.80	-36.90	Average
8	0.357	3.80	19.80	23.60	58.80	-35.20	QP
9	0.519	-11.50	19.76	8.26	46.00	-37.74	Average
10	0.519	-4.10	19.76	15.66	56.00	-40.34	QP
11	1.831	-11.31	19.84	8.53	46.00	-37.47	Average
12	1.831	-6.51	19.84	13.33	56.00	-42.67	QP

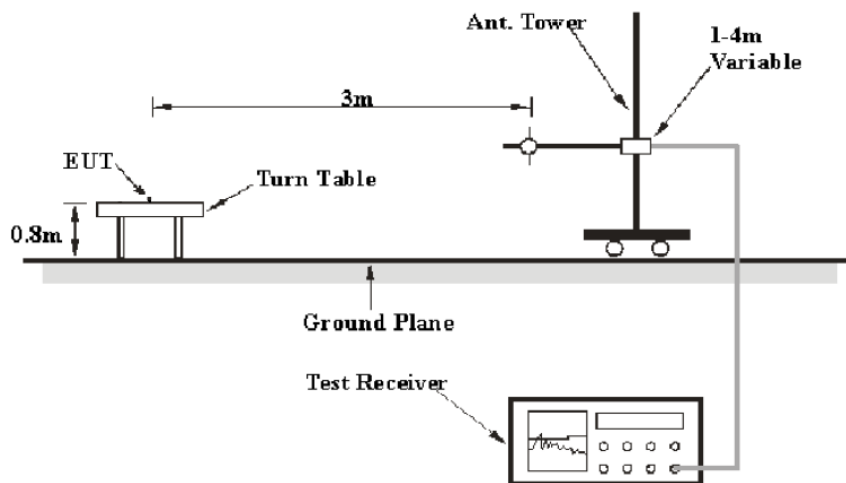
FCC §15.209, §15.205 & §15.247(D) - SPURIOUS EMISSIONS

Applicable Standard

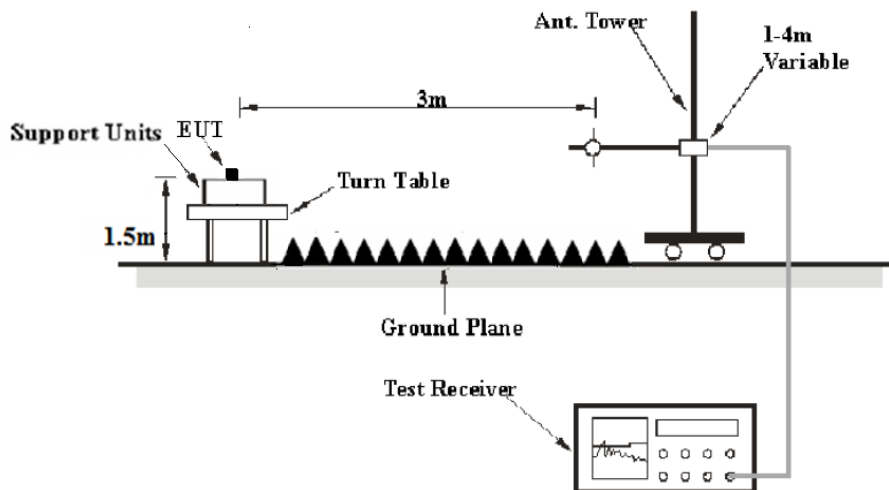
FCC §15.247 (d); §15.209; §15.205;

EUT Setup

Below 1 GHz:



Above 1GHz:



The radiated emission tests were performed in the 3 meters test site, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209, and FCC 15.247 limits.

EMI Test Receiver Setup

The system was investigated from 30 MHz to 25 GHz.

During the radiated emission test, the EMI test receiver Setup was 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	1MHz	AVG.

Test Procedure

According to ANSI C63.10-2013 clause 6.5, 6.6 and 6.7.

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-1 GHz, peak and Average detection mode for frequencies above 1 GHz.

Corrected Amplitude & Margin Calculation

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

$$\text{Corrected Amplitude (dB}\mu\text{V /m)} = \text{Meter Reading (dB}\mu\text{V)} + \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} - \text{Amplifier Gain (dB)}$$

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:

$$\text{Margin (dB)} = \text{Limit (dB}\mu\text{V/m)} - \text{Corrected Amplitude (dB}\mu\text{V /m)}$$

Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Title 47, Part 15, Subpart C, section 15.205, 15.209 and 15.247.

Test Data

Environmental Conditions

Temperature:	23.8-25.5°C
Relative Humidity:	49-53%
ATM Pressure:	101.0-101.7kPa

The testing was performed by Chao Gao from 2021-04-13 to 2021-04-14.

Test Result: Compliant.

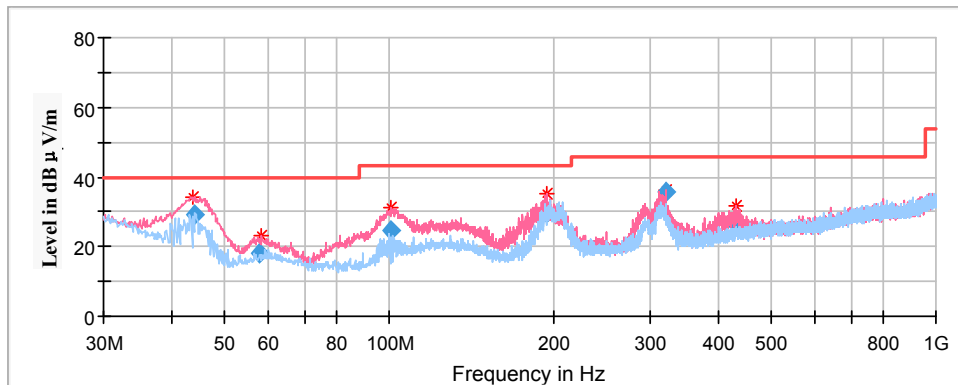
EUT operation mode: Transmitting

For Wi-Fi Mode:

Spurious Emission Test:

30MHz-1GHz:

Pre-Scan with 802.11b, 802.11g, 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 802.11b Mode in Y-axis of orientation** was recorded



Frequency (MHz)	Corrected Amplitude	Rx Antenna		Turntable Degree	Corrected Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	Quasi-peak (dBμV/m)	Height (cm)	Polar (H/V)				
44.078700	29.38	100.0	V	48.0	-13.2	40.00	10.62
57.989450	18.15	100.0	V	224.0	-15.0	40.00	21.85
100.833850	24.82	100.0	V	30.0	-14.4	43.50	18.68
194.154600	29.65	100.0	V	158.0	-12.4	43.50	13.85
319.983200	35.51	100.0	V	0.0	-10.3	46.00	10.49
432.121850	26.04	100.0	V	108.0	-7.3	46.00	19.96

1GHz-18GHz:

802.11b Mode:

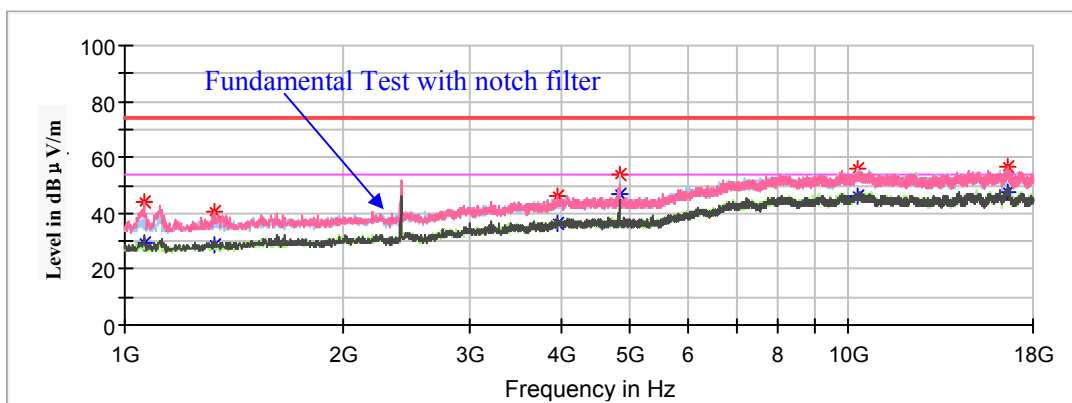
(Pre-scan in the X,Y and Z axes of orientation, the worst case **Y-axis of orientation** was recorded)

Note:

1. This test was performed with the 2.4-2.5GHz notch filter.
2. Corrected Factor (dB/m) = Antenna factor (RX) (dB/m) + Cable Loss (dB) – Amplifier Factor (dB)
 Corrected Amplitude (dBµV/m) = Corrected Factor (dB/m) + Reading (dBµV)
 Margin (dB) = Limit (dBµV/m) – Corrected Amplitude (dBµV/m)

Low Channel: 2412MHz

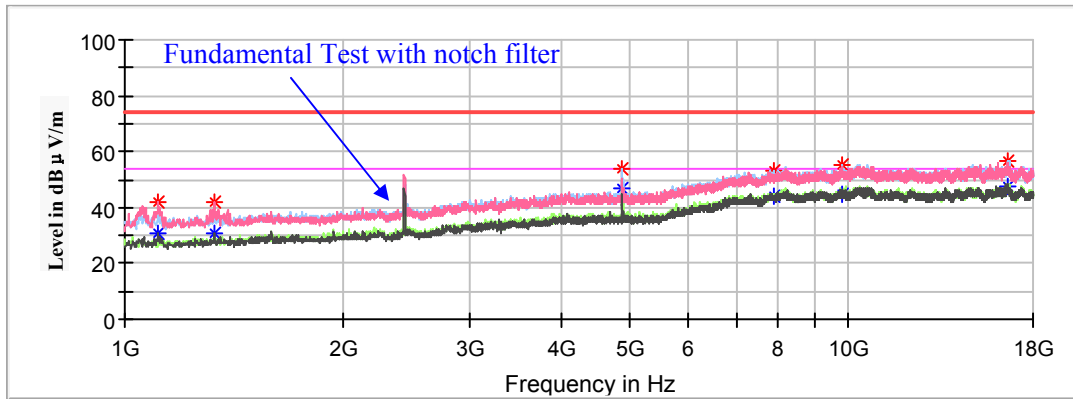
Full Spectrum



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)				
1062.900000	---	29.48	200.0	V	300.0	-12.1	54.00	24.52
1062.900000	44.32	---	200.0	V	300.0	-12.1	74.00	29.68
1333.200000	---	28.75	150.0	V	250.0	-10.4	54.00	25.25
1333.200000	40.79	---	150.0	V	250.0	-10.4	74.00	33.21
3959.700000	---	36.53	200.0	V	180.0	0.2	54.00	17.47
3959.700000	46.34	---	200.0	V	180.0	0.2	74.00	27.66
4824.000000	---	46.68	150.0	H	91.0	1.0	54.00	7.32
4824.000000	53.98	---	150.0	H	91.0	1.0	74.00	20.02
10295.600000	---	46.04	200.0	H	91.0	12.6	54.00	7.96
10295.600000	55.77	---	200.0	H	91.0	12.6	74.00	18.23
16600.900000	---	47.70	200.0	V	331.0	11.9	54.00	6.30
16600.900000	56.77	---	200.0	V	331.0	11.9	74.00	17.23

Middle Channel: 2437MHz

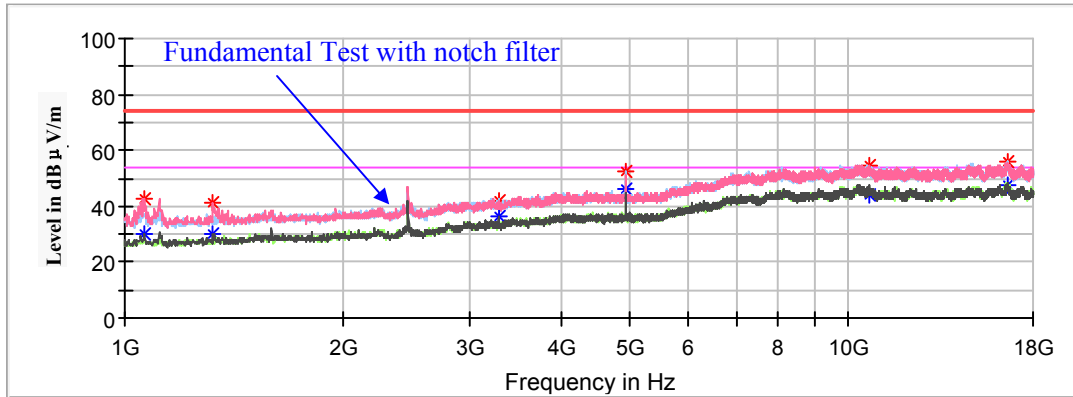
Full Spectrum



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)				
1112.200000	42.12	---	200.0	V	289.0	-11.8	74.00	31.88
1112.200000	---	30.86	200.0	V	289.0	-11.8	54.00	23.14
1329.800000	42.01	---	150.0	V	291.0	-10.5	74.00	31.99
1329.800000	---	30.48	150.0	V	291.0	-10.5	54.00	23.52
4874.000000	54.16	---	150.0	H	82.0	1.1	74.00	19.84
4874.000000	---	47.06	150.0	H	82.0	1.1	54.00	6.94
7866.300000	---	43.82	150.0	H	284.0	10.4	54.00	10.18
7866.300000	53.48	---	150.0	H	284.0	10.4	74.00	20.52
9811.100000	55.01	---	200.0	H	334.0	11.9	74.00	18.99
9811.100000	---	44.92	200.0	H	334.0	11.9	54.00	9.08
16594.100000	---	47.62	150.0	V	207.0	11.9	54.00	6.38
16594.100000	56.94	---	150.0	V	207.0	11.9	74.00	17.06

High Channel: 2462MHz

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)				
1062.900000	42.70	---	200.0	V	310.0	-12.1	74.00	31.30
1062.900000	---	30.10	200.0	V	310.0	-12.1	54.00	23.90
1324.700000	---	30.31	150.0	V	291.0	-10.5	54.00	23.69
1324.700000	40.95	---	150.0	V	291.0	-10.5	74.00	33.05
3281.400000	---	36.40	150.0	V	55.0	-2.4	54.00	17.60
3281.400000	42.03	---	150.0	V	55.0	-2.4	74.00	31.97
4924.000000	52.59	---	200.0	H	133.0	1.1	74.00	21.41
4924.000000	---	46.44	200.0	H	133.0	1.1	54.00	7.56
10661.100000	---	44.26	150.0	H	193.0	12.5	54.00	9.74
10661.100000	54.80	---	150.0	H	193.0	12.5	74.00	19.20
16612.800000	---	47.53	200.0	H	31.0	11.9	54.00	6.47
16612.800000	56.06	---	200.0	H	31.0	11.9	74.00	17.94

802.11g Mode:

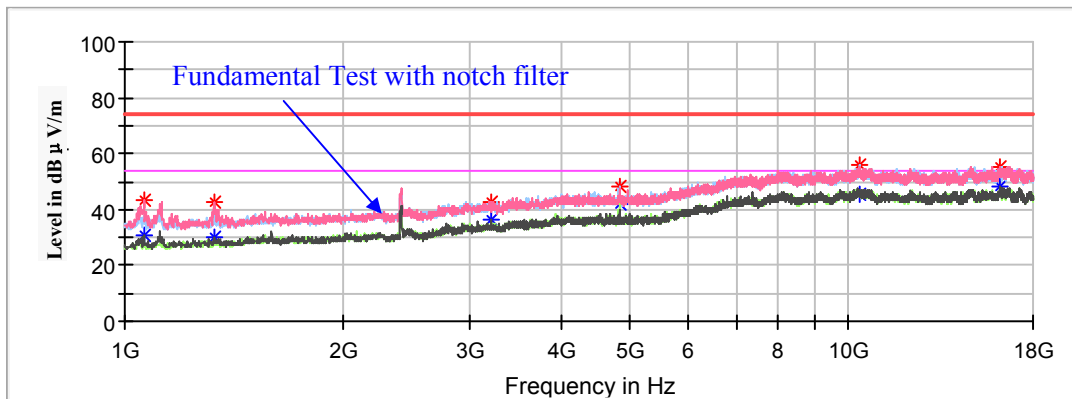
(Pre-scan in the X,Y and Z axes of orientation, the worst case **Y-axis of orientation** was recorded)

Note:

1. This test was performed with the 2.4-2.5GHz notch filter.
2. Corrected Factor (dB/m) = Antenna factor (RX) (dB/m) + Cable Loss (dB) – Amplifier Factor (dB)
 Corrected Amplitude (dBµV/m) = Corrected Factor (dB/m) + Reading (dBµV)
 Margin (dB) = Limit (dBµV/m) – Corrected Amplitude (dBµV/m)

Low Channel: 2412MHz

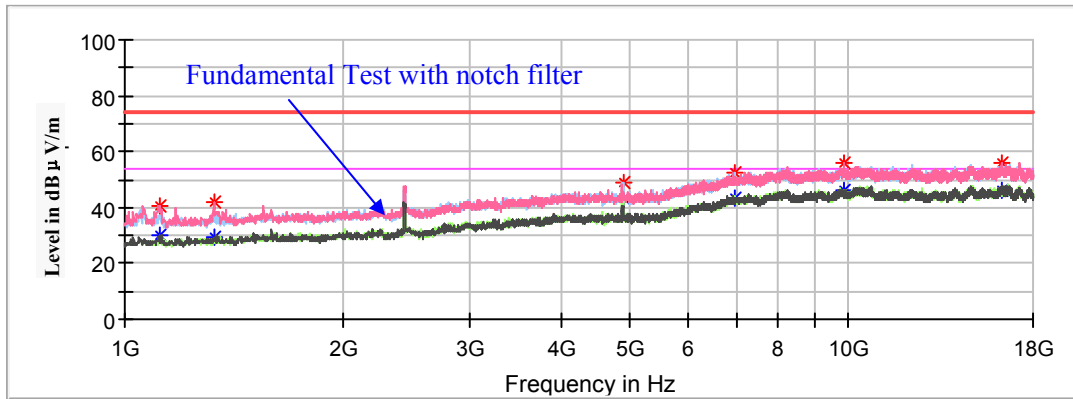
Full Spectrum



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)				
1062.900000	---	30.50	200.0	V	302.0	-12.1	54.00	23.50
1064.600000	43.30	---	200.0	V	302.0	-12.1	74.00	30.70
1326.400000	---	29.77	150.0	V	227.0	-10.5	54.00	24.23
1326.400000	42.39	---	150.0	V	227.0	-10.5	74.00	31.61
3215.100000	---	36.68	150.0	V	111.0	-2.6	54.00	17.32
3215.100000	42.98	---	150.0	V	111.0	-2.6	74.00	31.02
4824.000000	---	42.10	150.0	H	185.0	1.0	54.00	11.90
4824.000000	48.56	---	150.0	H	185.0	1.0	74.00	25.44
10341.500000	55.75	---	150.0	H	268.0	12.7	74.00	18.25
10341.500000	---	45.24	150.0	V	268.0	12.7	54.00	8.76
16232.000000	55.12	---	200.0	V	345.0	12.2	74.00	18.88
16232.000000	---	48.50	200.0	V	345.0	12.2	54.00	5.50

Middle Channel: 2437MHz

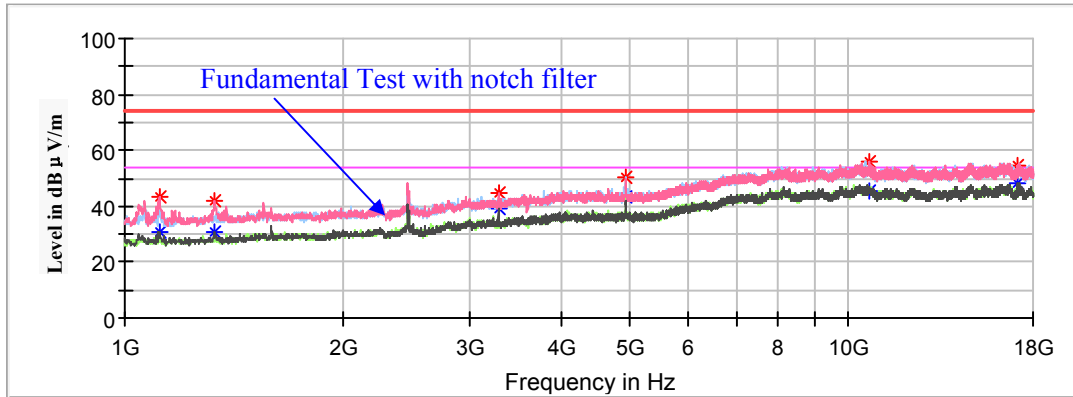
Full Spectrum



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)				
1120.700000	40.84	---	200.0	V	228.0	-11.8	74.00	33.16
1120.700000	---	29.93	200.0	V	228.0	-11.8	54.00	24.07
1326.400000	42.01	---	150.0	V	268.0	-10.5	74.00	31.99
1326.400000	---	29.31	150.0	V	268.0	-10.5	54.00	24.69
4874.000000	48.96	---	150.0	H	167.0	1.1	74.00	25.04
4874.000000	---	43.44	150.0	H	167.0	1.1	54.00	10.56
6975.500000	---	43.46	200.0	H	318.0	8.8	54.00	10.54
6975.500000	52.48	---	200.0	H	318.0	8.8	74.00	21.52
9834.900000	---	46.25	200.0	H	216.0	11.9	54.00	7.75
9834.900000	55.62	---	200.0	H	216.0	11.9	74.00	18.38
16298.300000	---	46.34	200.0	V	197.0	12.1	54.00	7.66
16298.300000	55.86	---	200.0	V	197.0	12.1	74.00	18.14

High Channel: 2462MHz

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)				
1115.600000	---	31.03	200.0	V	227.0	-11.8	54.00	22.97
1115.600000	43.48	---	200.0	V	227.0	-11.8	74.00	30.52
1331.500000	41.69	---	150.0	V	268.0	-10.5	74.00	32.31
1331.500000	---	30.64	150.0	V	278.0	-10.4	54.00	23.36
3281.400000	---	39.16	150.0	V	238.0	-2.4	54.00	14.84
3281.400000	44.88	---	150.0	V	238.0	-2.4	74.00	29.12
4924.000000	---	43.02	200.0	H	115.0	1.1	54.00	10.98
4924.000000	50.25	---	200.0	H	115.0	1.1	74.00	23.75
10661.100000	---	45.76	150.0	H	228.0	12.5	54.00	8.24
10661.100000	55.94	---	150.0	H	228.0	12.5	74.00	18.06
17165.300000	---	48.14	150.0	V	207.0	11.6	54.00	5.86
17165.300000	54.87	---	150.0	V	207.0	11.6	74.00	19.13

802.11n-HT20 Mode:

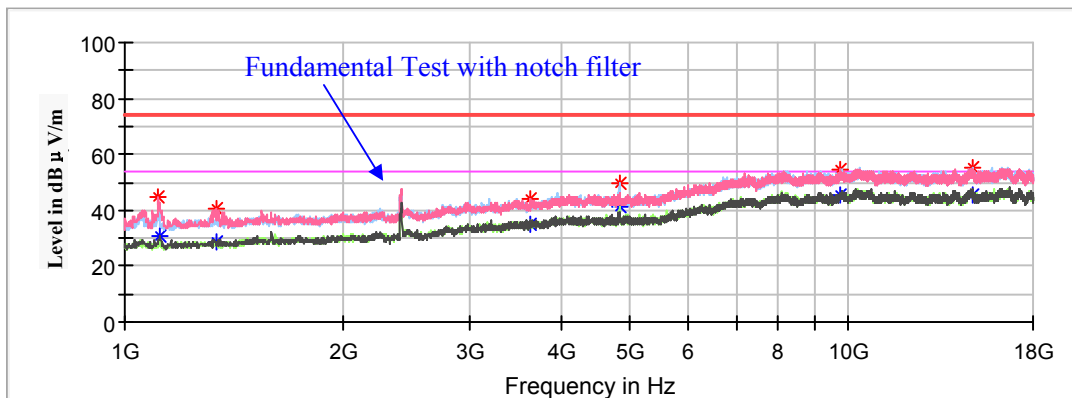
(Pre-scan in the X,Y and Z axes of orientation, the worst case **Y-axis of orientation** was recorded)

Note:

1. This test was performed with the 2.4-2.5GHz notch filter.
2. Corrected Factor (dB/m) = Antenna factor (RX) (dB/m) + Cable Loss (dB) – Amplifier Factor (dB)
 Corrected Amplitude (dBµV/m) = Corrected Factor (dB/m) + Reading (dBµV)
 Margin (dB) = Limit (dBµV/m) – Corrected Amplitude (dBµV/m)

Low Channel: 2412MHz

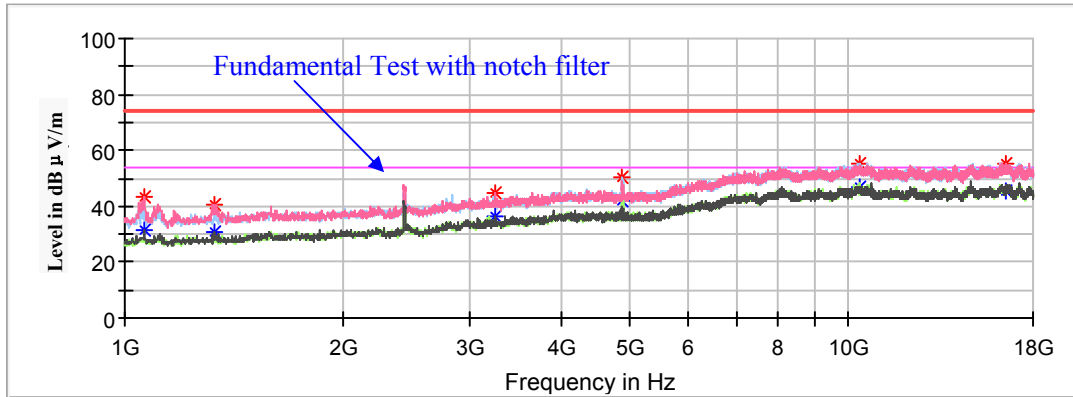
Full Spectrum



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)				
1117.300000	44.50	---	200.0	V	303.0	-11.8	74.00	29.50
1117.300000	---	30.93	200.0	V	303.0	-11.8	54.00	23.07
1334.900000	---	28.80	150.0	V	268.0	-10.4	54.00	25.20
1334.900000	40.23	---	150.0	V	268.0	-10.4	74.00	33.77
3626.500000	---	34.88	150.0	V	356.0	-1.2	54.00	19.12
3624.000000	44.17	---	150.0	V	356.0	-1.2	74.00	29.83
4824.000000	---	41.38	150.0	H	313.0	1.0	54.00	12.62
4826.700000	49.64	---	150.0	H	313.0	1.0	74.00	24.36
9755.000000	---	45.52	200.0	H	94.0	11.9	54.00	8.48
9755.000000	54.43	---	200.0	H	94.0	11.9	74.00	19.57
14817.600000	---	45.79	200.0	H	197.0	11.9	54.00	8.21
14817.600000	55.16	---	200.0	H	197.0	11.9	74.00	18.84

Middle Channel: 2437MHz

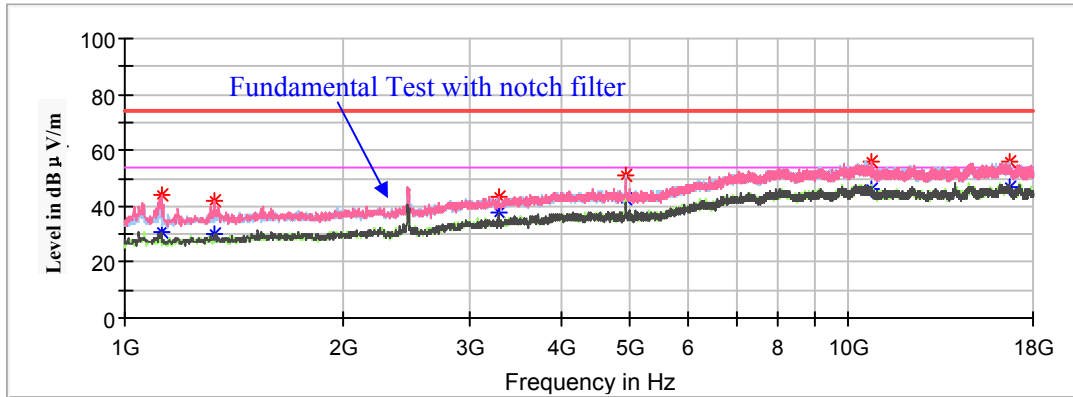
Full Spectrum



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)				
1064.600000	---	31.35	200.0	V	302.0	-12.1	54.00	22.65
1064.600000	43.23	---	200.0	V	302.0	-12.1	74.00	30.77
1331.500000	40.86	---	150.0	V	264.0	-10.5	74.00	33.14
1331.500000	---	30.71	150.0	V	264.0	-10.5	54.00	23.29
3249.100000	---	36.45	150.0	V	234.0	-2.5	54.00	17.55
3249.100000	44.66	---	150.0	V	234.0	-2.5	74.00	29.34
4874.000000	---	42.07	150.0	H	61.0	1.1	54.00	11.93
4874.000000	50.41	---	150.0	H	61.0	1.1	74.00	23.59
10360.200000	55.26	---	150.0	H	81.0	12.7	74.00	18.74
10360.200000	---	46.80	150.0	H	81.0	12.7	54.00	7.20
16487.000000	---	45.51	200.0	V	11.0	11.9	54.00	8.49
16487.000000	55.17	---	200.0	V	11.0	11.9	74.00	18.83

High Channel: 2462MHz

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)				
1122.400000	---	31.00	200.0	V	298.0	-11.7	54.00	23.00
1122.400000	43.72	---	200.0	V	298.0	-11.7	74.00	30.28
1329.800000	---	29.87	200.0	V	309.0	-10.5	54.00	24.13
1329.800000	41.89	---	200.0	V	309.0	-10.5	74.00	32.11
3281.400000	---	37.56	150.0	V	238.0	-2.4	54.00	16.44
3281.400000	43.17	---	150.0	V	238.0	-2.4	74.00	30.83
4924.000000	50.89	---	200.0	H	121.0	1.1	74.00	23.11
4924.000000	---	42.78	200.0	H	121.0	1.1	54.00	11.22
10729.100000	---	46.25	150.0	H	61.0	12.3	54.00	7.75
10729.100000	55.76	---	150.0	H	61.0	12.3	74.00	18.24
16687.600000	---	47.19	200.0	H	0.0	11.9	54.00	6.81
16687.600000	56.08	---	200.0	H	0.0	11.9	74.00	17.92

802.11n-HT40 Mode:

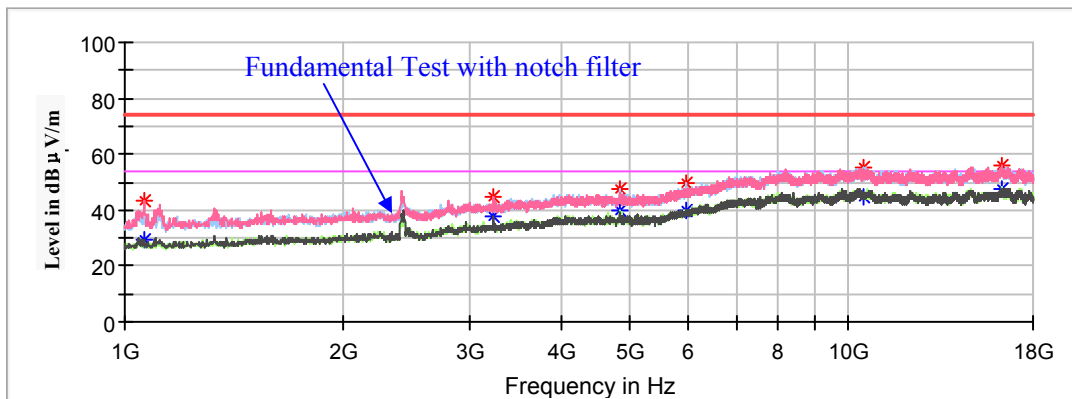
(Pre-scan in the X,Y and Z axes of orientation, the worst case **Y-axis of orientation** was recorded)

Note:

1. This test was performed with the 2.4-2.5GHz notch filter.
2. Corrected Factor (dB/m) = Antenna factor (RX) (dB/m) + Cable Loss (dB) – Amplifier Factor (dB)
 Corrected Amplitude (dBµV/m) = Corrected Factor (dB/m) + Reading (dBµV)
 Margin (dB) = Limit (dBµV/m) – Corrected Amplitude (dBµV/m)

Low Channel: 2422MHz

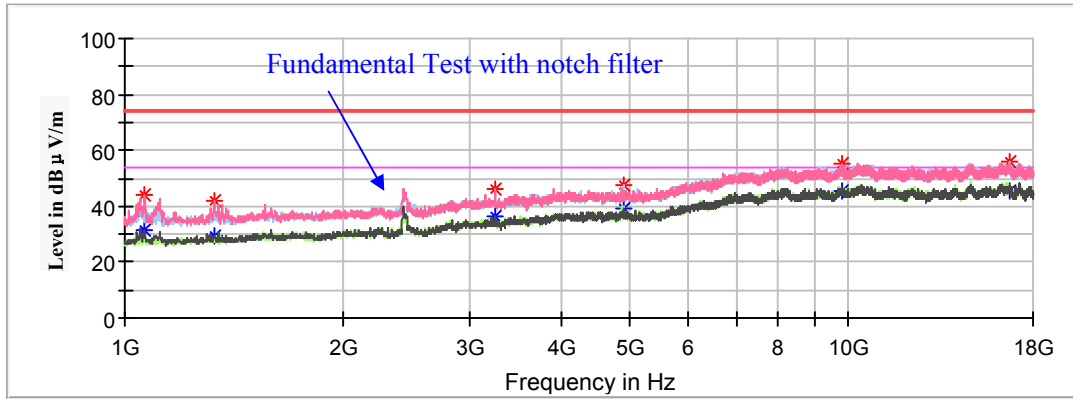
Full Spectrum



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)				
1064.600000	43.53	---	200.0	V	0.0	-12.1	74.00	30.47
1064.600000	---	29.42	200.0	V	0.0	-12.1	54.00	24.58
3228.700000	---	37.54	150.0	V	136.0	-2.5	54.00	16.46
3228.700000	44.67	---	150.0	V	136.0	-2.5	74.00	29.33
4844.000000	---	39.56	150.0	H	324.0	1.0	54.00	14.44
4844.000000	47.33	---	150.0	H	324.0	1.0	74.00	26.67
5962.300000	---	39.68	150.0	V	187.0	4.9	54.00	14.32
5962.300000	49.44	---	150.0	V	187.0	4.9	74.00	24.56
10497.900000	---	44.79	200.0	V	352.0	13.0	54.00	9.21
10497.900000	55.21	---	200.0	V	352.0	13.0	74.00	18.79
16255.800000	---	47.66	200.0	V	166.0	12.2	54.00	6.34
16255.800000	55.68	---	200.0	V	166.0	12.2	74.00	18.32

Middle Channel: 2437MHz

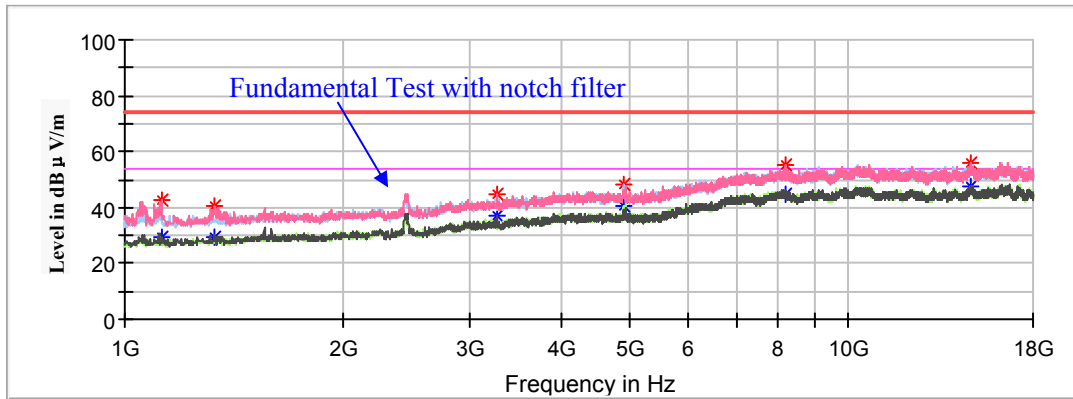
Full Spectrum



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)				
1066.300000	---	31.24	200.0	V	302.0	-12.1	54.00	22.76
1066.300000	44.39	---	200.0	V	302.0	-12.1	74.00	29.61
1328.100000	---	29.18	150.0	V	248.0	-10.5	54.00	24.82
1328.100000	41.70	---	150.0	V	248.0	-10.5	74.00	32.30
3247.400000	46.30	---	150.0	V	146.0	-2.5	74.00	27.70
3247.400000	---	36.48	150.0	V	146.0	-2.5	54.00	17.52
4874.000000	---	39.36	150.0	H	167.0	1.1	54.00	14.64
4874.000000	47.44	---	150.0	H	167.0	1.1	74.00	26.56
9773.700000	---	45.20	150.0	V	238.0	11.9	54.00	8.80
9773.700000	55.43	---	150.0	V	238.0	11.9	74.00	18.57
16692.700000	---	45.40	150.0	V	356.0	11.9	54.00	8.60
16692.700000	55.60	---	150.0	V	356.0	11.9	74.00	18.40

High Channel: 2452MHz

Full Spectrum

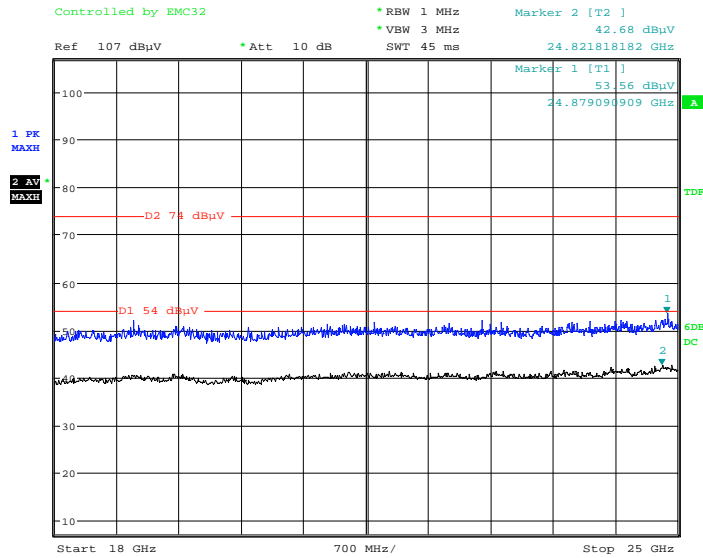


Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Corrected Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1124.100000	---	29.45	200.0	V	234.0	-11.7	54.00	24.55
1124.100000	42.33	---	200.0	V	234.0	-11.7	74.00	31.67
1333.200000	---	29.46	200.0	V	203.0	-10.4	54.00	24.54
1333.200000	40.73	---	200.0	V	203.0	-10.4	74.00	33.27
3267.800000	---	37.38	150.0	V	234.0	-2.4	54.00	16.62
3267.800000	44.63	---	150.0	V	234.0	-2.4	74.00	29.37
4904.000000	---	40.88	150.0	H	174.0	1.1	54.00	13.12
4904.000000	47.97	---	150.0	H	174.0	1.1	74.00	26.03
8167.200000	---	44.80	150.0	V	299.0	10.8	54.00	9.20
8167.200000	55.00	---	150.0	V	299.0	10.8	74.00	19.00
14719.000000	---	47.27	200.0	H	309.0	11.8	54.00	6.73
14719.000000	55.86	---	200.0	H	309.0	11.8	74.00	18.14

18GHz-25GHz:

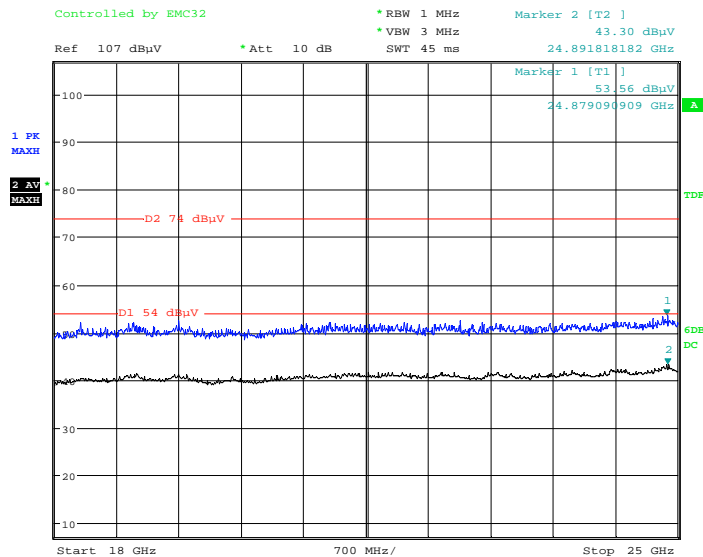
Pre-scan with 802.11b, 802.11g, 802.11n-HT20 and 802.11n-HT40 modes of operation in the X,Y and Z axes of orientation, the worst case **high channel of 802.11b Mode in Y-axis of orientation** was recorded

Horizontal



Date: 13.APR.2021 16:15:21

Vertical



Date: 13.APR.2021 16:26:18

Restricted Bands Emissions Test:

Note:

1. Corrected Factor (dB/m) = Antenna factor (RX) (dB/m) + Cable Loss (dB) – Amplifier Factor (dB)

Corrected Amplitude (dBµV/m) = Corrected Factor (dB/m) + Reading (dBµV)

Margin (dB) = Limit (dBµV/m) – Corrected Amplitude (dBµV/m)

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

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)				
Low Channel: 2412MHz								
2390.00	---	46.44	150.0	V	229.0	3.7	54.00	7.56
2390.00	52.55	---	150.0	V	229.0	3.7	74.00	21.45
High Channel: 2462MHz								
2483.50	---	45.88	150.0	V	319.0	4.1	54.00	8.12
2483.50	52.68	---	150.0	V	319.0	4.1	74.00	21.32

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

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)				
Low Channel: 2412MHz								
2390.00	53.68	---	200.0	H	53.0	3.8	74.00	20.32
2390.00	---	47.22	200.0	H	53.0	3.8	54.00	6.78
High Channel: 2462MHz								
2483.50	53.57	---	200.0	V	225.0	4.1	74.00	20.43
2483.50	---	46.08	200.0	V	225.0	4.1	54.00	7.92

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

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)				
Low Channel: 2412MHz								
2390.00	57.43	---	150.0	V	259.0	3.8	74.00	16.57
2390.00	---	47.64	150.0	V	259.0	3.8	54.00	6.36
High Channel: 2462MHz								
2483.50	53.89	---	150.0	H	303.0	4.1	74.00	20.11
2483.50	---	47.26	150.0	H	303.0	4.1	54.00	6.74

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

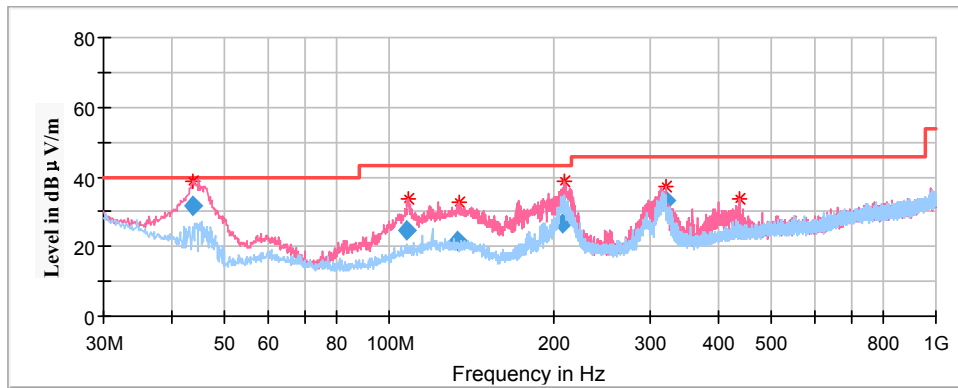
Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Corrected Factor (dB/m)	Limit (dBµV/m)	Margin (dB)
	MaxPeak (dBµV/m)	Average (dBµV/m)	Height (cm)	Polar (H/V)				
Low Channel: 2422MHz								
2390.00	---	51.18	200.0	V	250.0	3.8	54.00	2.82
2390.00	57.46	---	200.0	V	250.0	3.8	74.00	16.54
High Channel: 2452MHz								
2483.50	55.35	---	200.0	V	137.0	4.1	74.00	18.65
2483.50	---	49.06	200.0	V	137.0	4.1	54.00	4.94

For BLE Mode:

Spurious Emission Test:

30MHz-1GHz

(Pre-scan with low, middle and high channels of operation in the X,Y and Z axes of orientation, the worst case **high** channel of operation in the **Y-axis** of orientation was recorded)



Frequency (MHz)	Corrected Amplitude	Rx Antenna		Turntable Degree	Corrected Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	Quasi-peak (dBμV/m)	Height (cm)	Polar (H/V)				
43.725350	31.93	100.0	V	185.0	-13.0	40.00	8.07
107.447850	24.75	100.0	V	39.0	-13.2	43.50	18.75
133.503650	21.74	100.0	V	173.0	-11.4	43.50	21.76
207.624050	26.55	100.0	V	143.0	-12.0	43.50	16.95
319.997000	33.39	100.0	V	259.0	-10.3	46.00	12.61
438.471000	24.99	100.0	V	101.0	-7.1	46.00	21.01

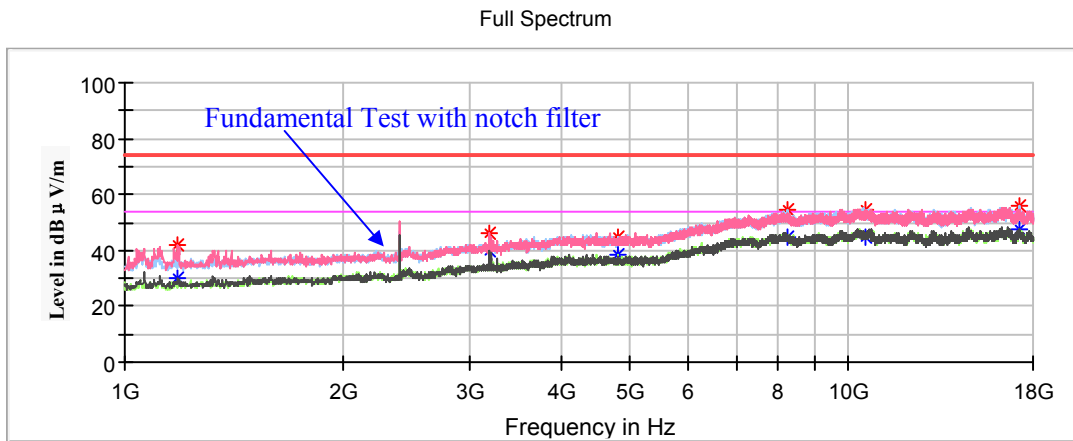
1GHz-18GHz:

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

Note:

1. This test was performed with the 2.4-2.5GHz notch filter.
2. Corrected Factor (dB/m) = Antenna factor (RX) (dB/m) + Cable Loss (dB) – Amplifier Factor (dB)
 Corrected Amplitude (dBµV/m) = Corrected Factor (dB/m) + Reading (dBµV)
 Margin (dB) = Limit (dBµV/m) – Corrected Amplitude (dBµV/m)

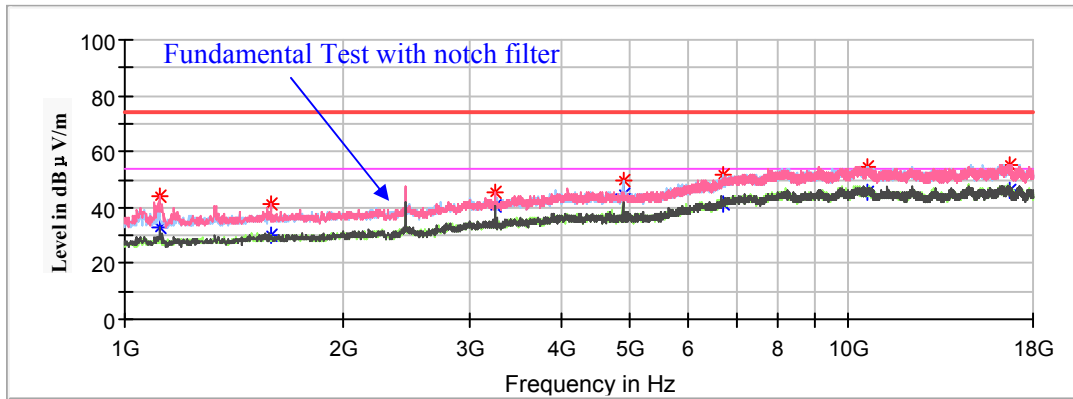
Low Channel: 2402MHz



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)				
1185.300000	---	30.02	150.0	V	291.0	-11.4	54.00	23.98
1185.300000	41.62	---	150.0	V	291.0	-11.4	74.00	32.38
3194.700000	---	40.03	150.0	V	142.0	-2.6	54.00	13.97
3194.700000	46.43	---	150.0	V	142.0	-2.6	74.00	27.57
4804.000000	---	38.61	150.0	H	316.0	1.0	54.00	15.39
4804.000000	44.75	---	150.0	H	316.0	1.0	74.00	29.25
8242.000000	---	44.98	150.0	H	47.0	10.8	54.00	9.02
8242.000000	54.63	---	150.0	H	47.0	10.8	74.00	19.37
10555.700000	---	45.10	200.0	V	287.0	12.8	54.00	8.90
10555.700000	54.87	---	200.0	V	287.0	12.8	74.00	19.13
17229.900000	---	47.49	150.0	H	194.0	11.5	54.00	6.51
17229.900000	55.67	---	150.0	H	194.0	11.5	74.00	18.33

Middle Channel: 2440MHz

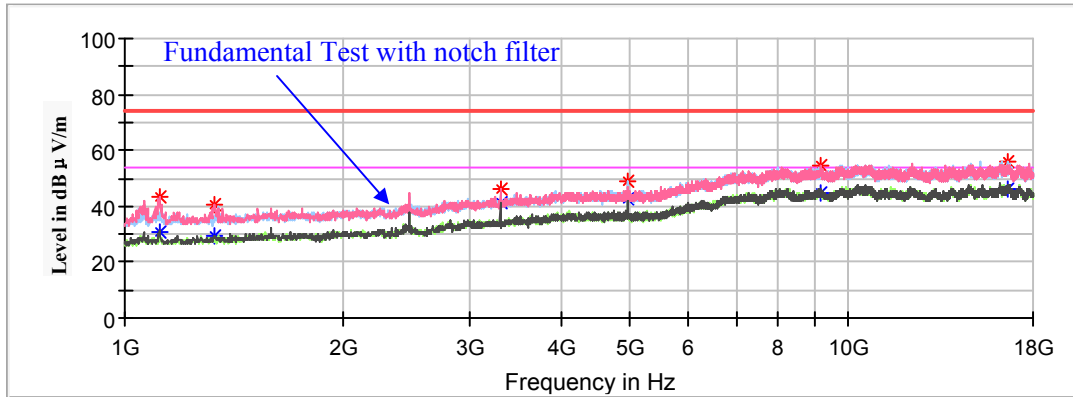
Full Spectrum



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)				
1119.000000	---	33.09	200.0	V	288.0	-11.8	54.00	20.91
1119.000000	43.93	---	200.0	V	288.0	-11.8	74.00	30.07
1595.000000	---	29.87	200.0	H	0.0	-9.1	54.00	24.13
1595.000000	41.03	---	200.0	H	0.0	-9.1	74.00	32.97
3252.500000	---	40.72	150.0	V	136.0	-2.5	54.00	13.28
3252.500000	45.79	---	150.0	V	136.0	-2.5	74.00	28.21
4880.000000	49.96	---	150.0	H	156.0	1.1	74.00	24.04
4880.000000	---	44.89	150.0	H	156.0	1.1	54.00	9.11
6713.700000	---	41.50	200.0	V	329.0	7.7	54.00	12.50
6713.700000	51.58	---	200.0	V	329.0	7.7	74.00	22.42
10625.400000	---	45.52	200.0	H	197.0	12.6	54.00	8.48
10625.400000	54.75	---	200.0	H	197.0	12.6	74.00	19.25

High Channel: 2480MHz

Full Spectrum

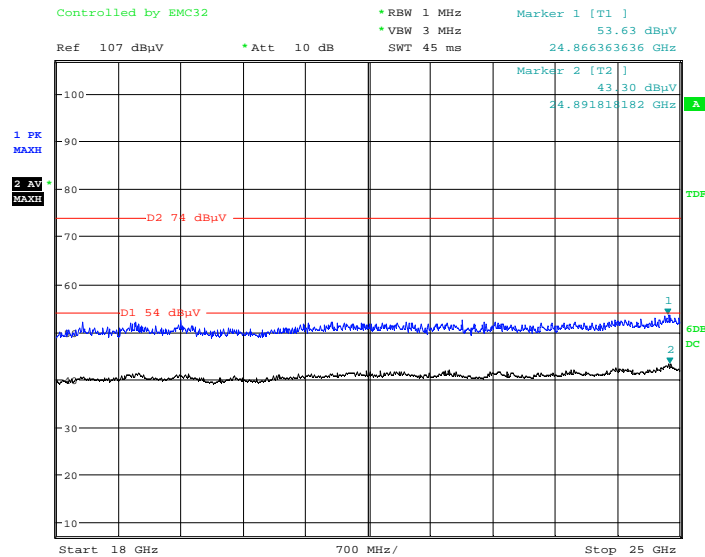


Frequency (MHz)	Corrected Amplitude		Rx Antenna		Turntable Degree	Corrected Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
	MaxPeak (dBμV/m)	Average (dBμV/m)	Height (cm)	Polar (H/V)				
1117.300000	---	31.12	200.0	V	238.0	-11.8	54.00	22.88
1117.300000	43.16	---	200.0	V	238.0	-11.8	74.00	30.84
1331.500000	---	29.51	150.0	V	281.0	-10.4	54.00	24.49
1331.500000	40.50	---	150.0	V	281.0	-10.4	74.00	33.50
3305.200000	---	41.25	150.0	V	136.0	-2.3	54.00	12.75
3305.200000	45.99	---	150.0	V	136.0	-2.3	74.00	28.01
4960.000000	---	42.59	200.0	H	129.0	1.1	54.00	11.41
4960.000000	48.88	---	200.0	H	129.0	1.1	74.00	25.12
9178.700000	---	44.52	150.0	H	238.0	11.1	54.00	9.48
9178.700000	54.66	---	150.0	H	238.0	11.1	74.00	19.34
16636.600000	---	46.40	200.0	H	321.0	11.9	54.00	7.60
16636.600000	56.09	---	200.0	H	321.0	11.9	74.00	17.91

18GHz-25GHz:

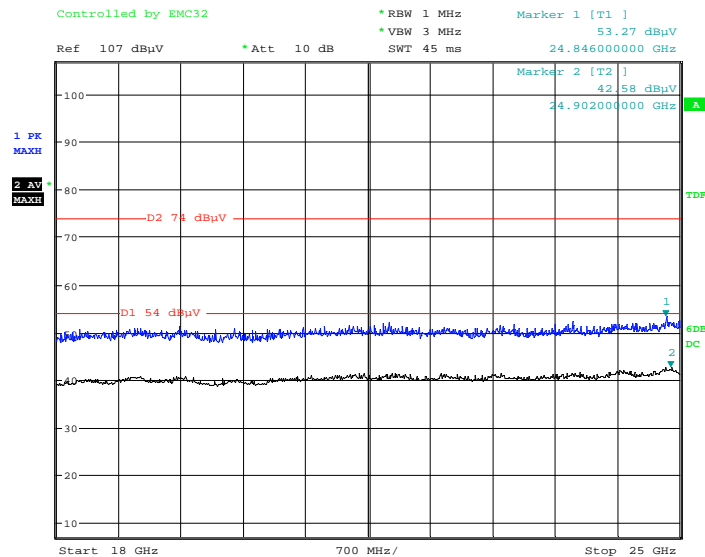
(Pre-scan with low, middle and high channels of operation in the X,Y and Z axes of orientation, the worst case low channel of operation in Y-axis of orientation was recorded)

Horizontal



Date: 13.APR.2021 16:36:27

Vertical



Date: 13.APR.2021 16:37:47

Restricted Bands Emissions Test:

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

Note:

1. Corrected Factor (dB/m) = Antenna factor (RX) (dB/m) + Cable Loss (dB) – Amplifier Factor (dB)

Corrected Amplitude (dBµV/m) = Corrected Factor (dB/m) + Reading (dBµV)

Margin (dB) = Limit (dBµV/m) – Corrected Amplitude (dBµV/m)

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)				
Low Channel: 2402MHz								
2390.00	53.92	---	150.0	V	244.0	3.8	74.00	20.08
2390.00	---	46.37	150.0	V	244.0	3.8	54.00	7.63
High Channel: 2480MHz								
2483.50	52.89	---	200.0	H	353.0	4.1	74.00	21.11
2483.50	---	46.26	200.0	H	353.0	4.1	54.00	7.74

Declarations

1: BACL is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with an asterisk '*'. Customer model name, addresses, names, trademarks etc. are not considered data.

2: Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

3: Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

4: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.

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