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Prüfbericht - Nr.: *Test Report No.:*	**19660247 001**		**Seite 1 von 22** *Page 1 of 22*
Auftraggeber: *Client:*	**Bot Home Automation, Inc. 1523, 26th Street, Santa Monica, CA 90404 , USA**		
Gegenstand der Prüfung: *Test item:*	**Wi Fi enabled Doorbell Chime and repeater**		
Bezeichnung: *Identification:*	**Chime Pro**	**Serien-Nr.:** *Serial No.*	**BHC1LH1635000199**
Wareneingangs-Nr.: *Receipt No.:*	**1803168112**	**Eingangsdatum:** *Date of receipt:*	**29.09.2016**
Prüfort: *Testing location:*	**Refer Page 4 of 22 for test facilities**		
Prüfgrundlage: *Test specification:*	**FCC Part 15 Subpart C ANSI C63.10-2013**		
Prüfergebnis: *Test Result:*	**Der Prüfgegenstand entspricht oben genannter Prüfgrundlage(n).** *The test items passed the test specification(s).*		
Prüflaboratorium: *Testing Laboratory:*	**TÜV Rheinland (India) Pvt. Ltd.** 82/A, 3rd Main, West Wing, Electronic City Phase 1 Hosur Road, Bangalore – 560 100. India **FCC Registration No.: 176555**		

geprüft / *tested by:*

Datum / *Date*	Name/Stellung / *Name/Position*	Unterschrift / *Signature*
04.10.2016	Santhosh S K Engineer	Santhosh S K

kontrolliert / *reviewed by:*

Datum / *Date*	Name/Stellung / *Name/Position*	Unterschrift / *Signature*
10.10.2016	Saibaba Siddapur Assistant Manager	Saibaba

Sonstiges / *Other Aspects:* **FCC ID:2AEUPBHACP001**

Abkürzungen:				*Abbreviations:*			
	P(ass)	=	*entspricht Prüfgrundlage*		*P(ass)*	=	*passed*
	F(ail)	=	*entspricht nicht Prüfgrundlage*		*F(ail)*	=	*failed*
	N/A	=	*nicht anwendbar*		*N/A*	=	*not applicable*
	N/T	=	*nicht getestet*		*N/T*	=	*not tested*

Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.

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Test Result Summary

FCC Rules	Test Item	Result
FCC 15.209 / FCC 15.205	Spurious Radiated Emissions and Restricted Bands of Operation	Pass
FCC 15.207	Conducted emission test on a.c Power line	Pass

Note: Product is integrated with certified radio module with FCC ID: Z64-WL18SBMOD, and hence antenna port measurements are excluded in this report.

Content

List of Test and Measurement Instruments

Equipment	Manufacturer	Model Name	Serial Number	Calibration Due Date	Periodicity	Used for Test Items
EMI Test Receiver	Rohde & Schwarz	ESU 40	100288	23.11.2016	Yearly	Spurious Radiated Emissions
Broadband Antenna	Frankonia	ALX-4000	ALX-4000-814	20.01.2017	Yearly	
Active Loop Antenna	Frankonia	LAX-10	LAX-10-800	22.12.2016	Yearly	
Broadband Horn Antenna	Frankonia	HAX-18	HAX18-802	14.03.2017	Yearly	
Emission Horn Antenna	ETS Lindgren	116706	00107323	02.11.2016	Yearly	
Anechoic Chamber	Frankonia	-	-	-	-	
LISN	Rohde & Schwarz	ENV216	100022	03.02.2017	Yearly	Conducted Emission Test on AC Power Lines
EMI Receiver	Rohde & Schwarz	ESR7	101133	19.11.2016	Yearly	

Testing Facilities:

TUV Rheinland (India) Private Limited
108 , Beside ISBR Business School,
Electronic city Phase I
Bangalore – 560 100.

General Product Information

Product Function and Intended Use

The product is a Wi-Fi enabled chime and repeater in a direct plug-in type thermoplastic enclosure, housing a small switching power supply having SELV output, logic /processor Section, Wi-Fi and BLE module, speaker, and non-polarized, detachable plug.

Ratings and System Details

Operating Frequency Range	2400MHz – 2483.50MHz
No. of channel	11 – Wi-Fi, 40 - BLE
Channel Spacing	5MHz – Wi-Fi, 2MHz – BLE
Data Rate	802.11b: 1,2, 5.5,11 Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11n SISO: MCS0 – MCS7 802.11n MIMO: MCS8 -- MCS15 BLE: 1Mbps
Number of antenna	Two
Antenna Gain and Antenna type	External Antenna (dipole), 2.0 dBi
Supply Voltage to Module	100-240 VAC , 50/60 Hz
Dimension	Height : 125.20mm; Width:48.00mm Depth : 046.50mm
Environmental	Temperature: 0 - 50º C Humidity: 10-85% RH (Non Condensing)

Test Conditions:

Supply Voltage: 120VAC, 60Hz

Environmental conditions:

Temperature: +25.3 º C RH: 62.3%

Operation Description

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The product is a Wi-Fi enabled chime and Wi-Fi extender which improves Wi-Fi signal to other ring devices and helps in improving the performance in terms of Video Quality.

2.4GHz, 2X2 MIMO repeater

- Up to 8 Downstream Ports to connect to the RING Device.
- Upstream Security will be same as that of the router and downstream security is WPA2.
- Act as Station and Access Point.
- BLE connectivity and Sound indication.

Test Set-up and Operation Mode

Principle of Configuration Selection

Transmission was enabled with continuous transmission on low, mid and high channel.

Test Operation and Test Software

Tera Term was used to enable the continuous transmission, changing channels (low/mid/high) and data rates on the EUT for the tests in this report.

Special Accessories and Auxiliary Equipment

- USB to UART serial cable and laptop was used to configure the EUT in Test Mode.

Countermeasures to achieve EMC Compliance

- None

Test Modes – Data Rates and Modulations

For Radiated spurious emissions, the tests were performed for all data rates and only worst case results are reported in this report.

Note: 1Mbps tested with 14.5dB power setting & other data rates tested with power setting mentioned in module data sheet. In Product, Only WLAN with 20MHz channels & Bluetooth 4.0 were enabled & same was tested.

Test Methodology

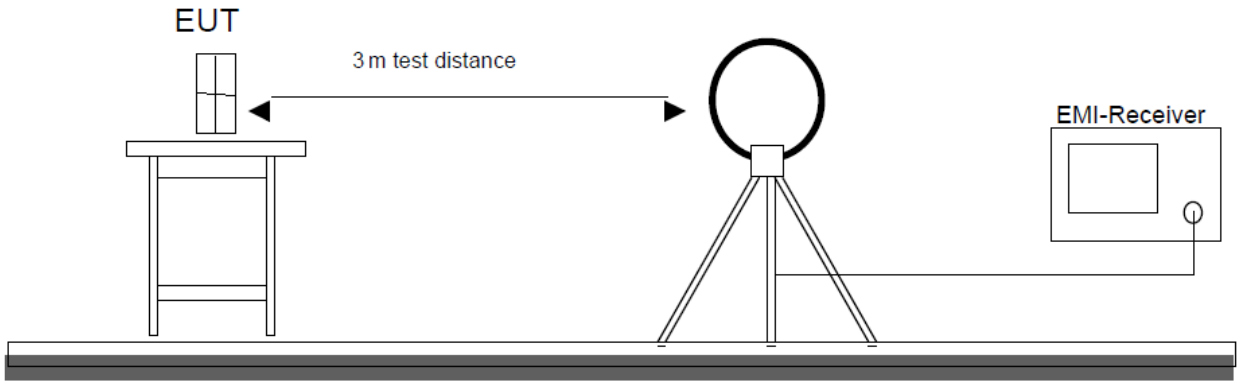
Radiated Emission Test

The radiated emission measurement was performed according to the procedures in ANSI C63.10-2013. The equipment under test (EUT) was placed at the middle of the 80 cm high turntable for below 1GHz & 1.5m height for above 1GHz measurement, and the EUT is 3 meters far from the measuring antenna. The turntable was rotated 360° for obtaining the maximum emission. The height of the measuring antennas was scanned between 1m and 4m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations. Repeat the measurement steps until the maximum emissions were obtained. The measurement above 1000MHz was performed by horn antenna. The measurement below 30MHz was performed by loop antenna.

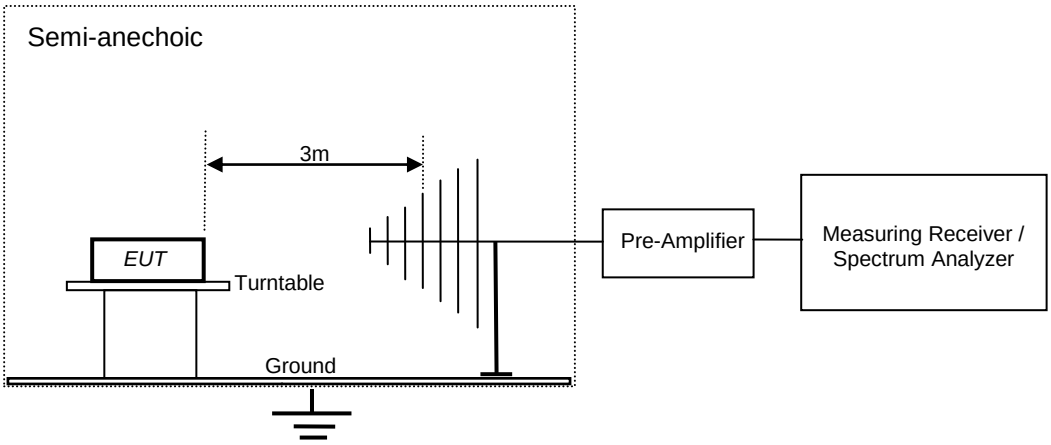
The EUT was rotated around the X-, Y-, and Z-Axis and the results from worst case axis are recorded.

Test Setup Configuration

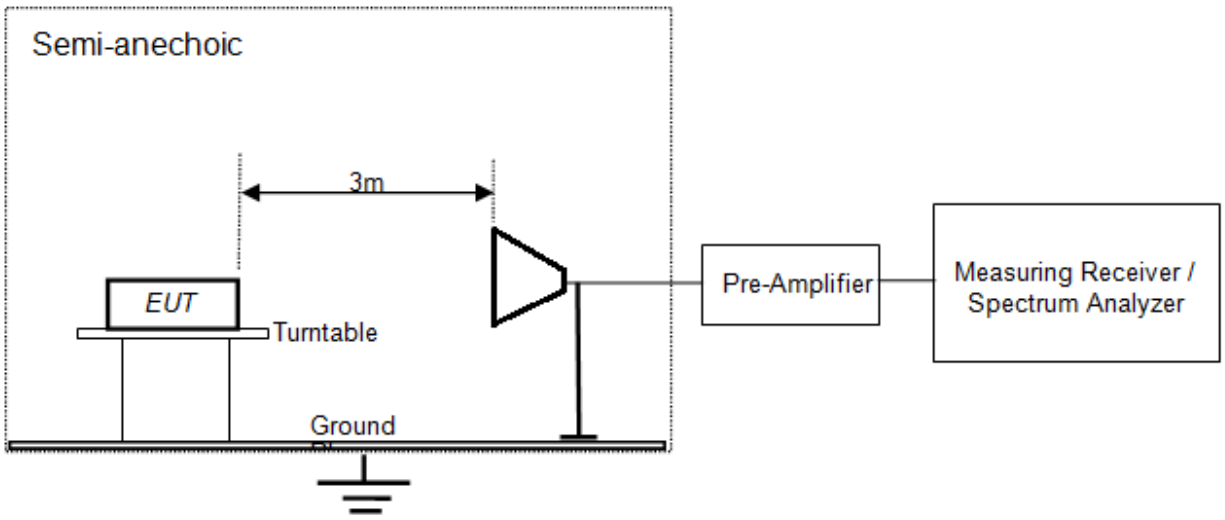
Frequency Range 9 kHz -30 MHz



Frequency Range 30MHz -1GHz

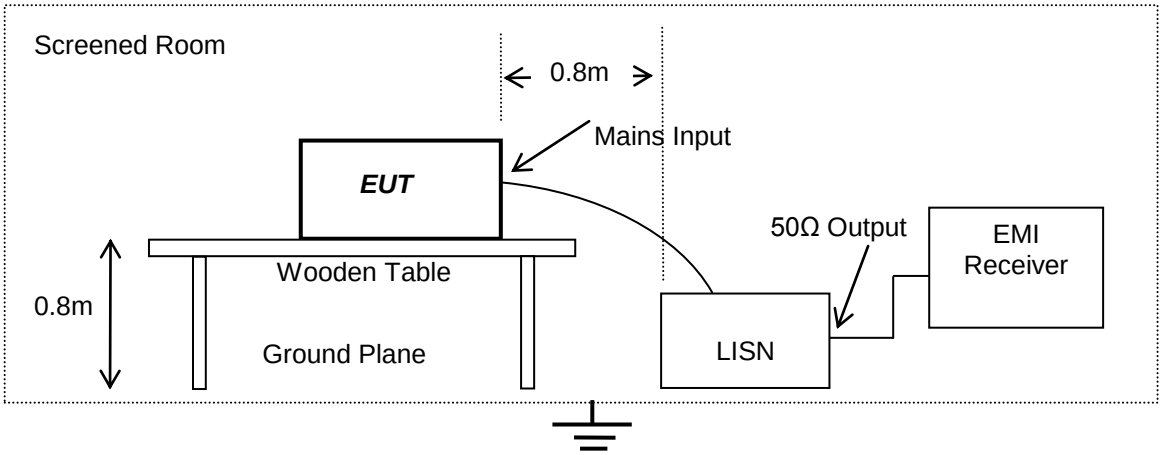


Frequency above 1GHz



Conducted Emission Test on A.C. mains line

The equipment under test (EUT) was placed on a wooden table 80cm above the ground plane, the LISN was place 80cm away from the EUT. The test was performed in accordance with ANSI C63.10 - 2013, with the following: an initial measurement was performed in peak and average detection mode on the live and neutral lines. The pre-scan was performed by peak detection on both live and neutral conductors. Any emissions recorded within 20dB of the relevant limit line were re-measured using quasi-peak and average detections, the 6 worst cases was recorded in the table of results.



Test Results

Radiated Spurious Emissions and Restricted Bands of Operation **FCC Section 15.209 and 15.205**

Results **Pass**

Test Specification	FCC Part 15 Section 15.209 &15.205
Test Method	ANSI C63.10-2013
Measurement Location	Semi Anechoic Chamber
Measuring Distance	3m
Detection	QP for frequency below 1GHz, Average for frequency above 1GHz
Requirement	As per the limits mentioned in the bellow table

Limit for Radiated Emission of Section 15.209:

Frequency (MHz)	Field strength (µV/m)	Field strength (dBµV/m)	Distance of Measurement (m)
0.009 – 0.490	2400/F(kHz)	48.50 – 13.80	300*
0.490 – 1.705	24000/F(kHz)	33.80 – 23.00	30*
1.705 -30	30	29.54	30*
30-88	100	40.0	3
88-216	150	43.5	3
216-960	200	46.0	3
Above 960	500	54.0	3

Remark: * The limit shows in the table above of frequency range 0.009 – 0.490, 0.490 – 1.705 MHz and 1.705-30MHz is at 300 meter, 30 meter and 30 meter range respectively, which corresponds to 88.50 – 53.80, 53.80 – 43.00 and 49.5dBµV/m at 3m range by extrapolation calculation and the measurement of loop antenna.

The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz Radiated emission limits in these three bands are based on measurements employing an average detector.

Test results:

Frequency Range: 9 kHz – 30MHz

No emissions found in this frequency range.

Frequency range: 30MHz -1GHz

No emissions found in this frequency range.

Frequency range: Above 1GHz

Wi-Fi Test Results:

Mode: 802.11 b						
Data Rate	**Channel**	**Polarization**	**Frequency (MHz)**	**Emission Level (dBµV/m)**	**Limit (dBµV/m)**	**Margin (dB)**
1Mbps	Low	Vertical	2390(Pk)	56.53	74	-17.47
			2390(Av)	43.72	54	-10.28
			2412(Pk)	104.90	*	-
			2412(Av)	102.16	*	-
			4824(Pk)	55.52	74	-18.48
			4824(Av)	50.90	54	-3.10
		Horizontal	2390(Pk)	47.79	74	-26.21
			2390(Av)	34.48	54	-19.52
			2412(Pk)	94.03	*	-
			2412(Av)	91.44	*	-
			4824(Pk)	53.20	74	-20.80
			4824(Av)	47.33	54	-6.67
	Mid	Vertical	2442(Pk)	105.20	*	-
			2442(Av)	102.76	*	-
			4884(Pk)	55.86	74	-18.14
			4884(Av)	52.00	54	-2.00
		Horizontal	2442(Pk)	94.71	*	-
			2442(Av)	92.25	*	-
			4884(Pk)	53.36	74	-20.64
			4884(Av)	47.42	54	-6.58
	High	Vertical	2483.5(Pk)	52.16	74	-21.84
			2483.5(Av)	42.54	54	-11.46
			2462(Pk)	104.87	*	-
			2462(Av)	102.10	*	-
			4924(Pk)	56.64	74	-17.36
			4924(Av)	53.14	54	-0.86
		Horizontal	2483.5(Pk)	45.46	74	-28.54
			2483.5(Av)	33.20	54	-20.80
			2462(Pk)	94.52	*	-
			2462(Av)	92.26	*	-
			4924(Pk)	54.01	74	-19.99
			4924(Av)	47.72	54	-6.28
11Mbps	Low	Vertical	2390(Pk)	59.30	74	-14.70
			2390(Av)	48.75	54	-5.25
			2412(Pk)	110.41	*	-

			2412(Av)	103.30	*	-
			4824(Pk)	56.71	74	-17.29
			4824(Av)	42.71	54	-11.29
		Horizontal	2390(Pk)	48.06	74	-25.94
			2390(Av)	38.35	54	-15.65
			2412(Pk)	100.06	*	-
			2412(Av)	92.25	*	-
			4824(Pk)	54.43	74	-19.57
			4824(Av)	40.95	54	-13.05
	Mid	Vertical	2442(Pk)	111.07	*	-
			2442(Av)	103.27	*	-
			4884(Pk)	57.69	74	-16.31
			4884(Av)	44.04	54	-9.96
		Horizontal	2442(Pk)	100.80	*	-
			2442(Av)	93.05	*	-
			4884(Pk)	54.50	74	-19.50
			4884(Av)	41.27	54	-12.73
	High	Vertical	2483.5(Pk)	51.64	74	-22.36
			2483.5(Av)	38.85	54	-15.15
			2462(Pk)	111.02	*	-
			2462(Av)	103.29	*	-
			4924(Pk)	58.39	74	-15.61
			4924(Av)	44.93	54	-9.07
		Horizontal	2483.5(Pk)	46.91	74	-27.09
			2483.5(Av)	34.79	54	-19.21
			2462(Pk)	100.73	*	-
			2462(Av)	93.04	*	-
			4924(Pk)	54.93	74	-19.07
			4924(Av)	41.38	54	-12.62

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Mode: 802.11 g						
Data Rate	**Channel**	**Polarization**	**Frequency (MHz)**	**Measured Emission Level (dBµV/m)**	**Limit (dBµV/m)**	**Margin (dB)**
6Mbps	Low	Vertical	2390(Pk)	72.11	74	-1.89
			2390(Av)	50.45	54	-3.55
			2412(Pk)	107.73	*	-
			2412(Av)	98.70	*	-
			4824(Pk)	52.97	74	-21.03
			4824(Av)	39.30	54	-14.70
		Horizontal	2390(Pk)	56.07	74	-17.93
			2390(Av)	36.67	54	-17.33
			2412(Pk)	93.86	*	-
			2412(Av)	84.58	*	-
			4824(Pk)	51.16	74	-22.84
			4824(Av)	38.05	54	-15.95
	Mid	Vertical	2442(Pk)	109.89	*	-
			2442(Av)	101.14	*	-
			4884(Pk)	55.14	74	-18.86
			4884(Av)	41.17	54	-12.83

		Horizontal	2442(Pk)	96.72	*	-
			2442(Av)	87.22	*	-
			4884(Pk)	52.65	74	-21.35
			4884(Av)	39.33	54	-14.67
	High	Vertical	2483.5(Pk)	72.32	74	-1.68
			2483.5(Av)	49.44	54	-4.56
			2462(Pk)	106.49	*	-
			2462(Av)	97.50	*	-
			4924(Pk)	55.18	74	-18.82
			4924(Av)	40.47	54	-13.53
		Horizontal	2483.5(Pk)	60.75	74	-13.25
			2483.5(Av)	39.32	54	-14.68
			2462(Pk)	92.42	*	-
			2462(Av)	92.42	*	-
			4924(Pk)	52.08	74	-21.92
			4924(Av)	38.33	54	-15.67
24Mbps	Low	Vertical	2390(Pk)	72.47	74	-1.53
			2390(Av)	52.14	54	-1.86
			2412(Pk)	108.76	*	-
			2412(Av)	98.22	*	-
			4824(Pk)	52.09	74	-21.91
			4824(Av)	38.99	54	-15.01
		Horizontal	2390(Pk)	56.86	74	-17.14
			2390(Av)	38.33	54	-15.67
			2412(Pk)	94.65	*	-
			2412(Av)	84.25	*	-
			4824(Pk)	51.22	74	-22.78
			4824(Av)	37.76	54	-16.24
	Mid	Vertical	2442(Pk)	110.95	*	-
			2442(Av)	100.11	*	-
			4884(Pk)	53.66	74	-20.34
			4884(Av)	40.56	54	-13.44
		Horizontal	2442(Pk)	96.20	*	-
			2442(Av)	86.22	*	-
			4884(Pk)	52.22	74	-21.78
			4884(Av)	38.67	54	-15.33
	High	Vertical	2483.5(Pk)	72.10	74	-1.90
			2483.5(Av)	51.52	54	-2.48
			2462(Pk)	107.76	*	-
			2462(Av)	97.59	*	-
			4924(Pk)	53.73	74	-20.27
			4924(Av)	39.87	54	-14.13
		Horizontal	2483.5(Pk)	61.34	74	-12.66
			2483.5(Av)	41.31	54	-12.69
			2462(Pk)	93.82	*	-
			2462(Av)	84.10	*	-
			4924(Pk)	51.49	74	-22.51
			4924(Av)	38.07	54	-15.93
54Mbps	Low	Vertical	2390(Pk)	70.35	74	-3.65
			2390(Av)	47.74	54	-6.26
			2412(Pk)	108.47	*	-

			2412(Av)	95.07	*	-
			4824(Pk)	52.23	74	-21.77
			4824(Av)	38.35	54	-15.65
		Horizontal	2390(Pk)	57.91	74	-16.09
			2390(Av)	34.92	54	-19.08
			2412(Pk)	94.13	*	-
			2412(Av)	81.44	*	-
			4824(Pk)	50.93	74	-23.07
			4824(Av)	37.24	54	-16.76
	Mid	Vertical	2442(Pk)	108.73	*	-
			2442(Av)	94.99	*	-
			4884(Pk)	52.74	74	-21.26
			4884(Av)	38.72	54	-15.28
		Horizontal	2442(Pk)	94.66	*	-
			2442(Av)	80.71	*	-
			4884(Pk)	52.01	74	-21.99
			4884(Av)	37.79	54	-16.21
	High	Vertical	2483.5(Pk)	70.73	74	-3.27
			2483.5(Av)	46.26	54	-7.74
			2462(Pk)	107.15	*	-
			2462(Av)	94.36	*	-
			4924(Pk)	52.97	74	-21.03
			4924(Av)	39.20	54	-14.80
		Horizontal	2483.5(Pk)	59.20	74	-14.80
			2483.5(Av)	36.80	54	-17.20
			2462(Pk)	93.40	*	-
			2462(Av)	80.36	*	-
			4924(Pk)	51.25	74	-22.75
			4924(Av)	37.88	54	-16.12

Mode: 802.11 n						
Data Rate	**Channel**	**Polarization**	**Frequency (MHz)**	**Measured Emission Level (dBµV/m)**	**Limit (dBµV/m)**	**Margin (dB)**
MCS0	Low	Vertical	2390(Pk)	73.09	74	-0.91
			2390(Av)	52.73	54	-1.27
			2412(Pk)	108.07	*	-
			2412(Av)	98.74	*	-
			4824(Pk)	52.42	74	-21.58
			4824(Av)	38.97	54	-15.03
		Horizontal	2390(Pk)	57.87	74	-16.13
			2390(Av)	38.97	54	-15.03
			2412(Pk)	93.85	*	-
			2412(Av)	84.61	*	-
			4824(Pk)	51.23	74	-22.77
			4824(Av)	37.81	54	-16.19
	Mid	Vertical	2442(Pk)	109.16	*	-
			2442(Av)	100.42	*	-
			4884(Pk)	54.74	74	-19.26
			4884(Av)	41.09	54	-12.91

		Horizontal	2442(Pk)	95.56	*	-
			2442(Av)	86.43	*	-
			4884(Pk)	51.70	74	-22.30
			4884(Av)	38.85	54	-15.15
	High	Vertical	2483.5(Pk)	72.90	74	-1.10
			2483.5(Av)	51.81	54	-2.19
			2462(Pk)	107.42	*	-
			2462(Av)	97.77	*	-
			4924(Pk)	53.80	74	-20.20
			4924(Av)	40.33	54	-13.67
		Horizontal	2483.5(Pk)	61.04	74	-12.96
			2483.5(Av)	40.68	54	-13.32
			2462(Pk)	93.41	*	-
			2462(Av)	84.26	*	-
			4924(Pk)	51.48	74	-22.52
			4924(Av)	38.16	54	-15.84
MCS4	Low	Vertical	2390(Pk)	71.36	74	-2.64
			2390(Av)	51.47	54	-2.53
			2412(Pk)	107.91	*	-
			2412(Av)	97.87	*	-
			4824(Pk)	51.84	74	-22.16
			4824(Av)	38.39	54	-15.61
		Horizontal	2390(Pk)	56.42	74	-17.58
			2390(Av)	37.64	54	-16.36
			2412(Pk)	94.01	*	-
			2412(Av)	83.54	*	-
			4824(Pk)	50.63	74	-23.37
			4824(Av)	37.56	54	-16.44
	Mid	Vertical	2442(Pk)	109.61	*	-
			2442(Av)	98.25	*	-
			4884(Pk)	53.48	74	-20.52
			4884(Av)	39.56	54	-14.44
		Horizontal	2442(Pk)	95.78	*	-
			2442(Av)	84.29	*	-
			4884(Pk)	51.04	74	-22.96
			4884(Av)	38.07	54	-15.93
	High	Vertical	2483.5(Pk)	70.93	74	-3.07
			2483.5(Av)	49.54	54	-4.46
			2462(Pk)	108.24	*	-
			2462(Av)	96.40	*	-
			4924(Pk)	52.99	74	-21.01
			4924(Av)	39.74	54	-14.26
		Horizontal	2483.5(Pk)	59.18	74	-14.82
			2483.5(Av)	40.66	54	-13.34
			2462(Pk)	94.21	*	-
			2462(Av)	83.12	*	-
			4924(Pk)	51.44	74	-22.56
			4924(Av)	38.09	54	-15.91
MCS7	Low	Vertical	2390(Pk)	71.58	74	-2.42
			2390(Av)	44.48	54	-9.52
			2412(Pk)	106.91	*	-

			2412(Av)	93.57	*	-
			4824(Pk)	50.77	74	-23.23
			4824(Av)	37.86	54	-16.14
		Horizontal	2390(Pk)	56.02	74	-17.98
			2390(Av)	32.13	54	-21.87
			2412(Pk)	94.23	*	-
			2412(Av)	79.60	*	-
			4824(Pk)	51.35	74	-22.65
			4824(Av)	37.08	54	-16.92
	Mid	Vertical	2442(Pk)	106.88	*	-
			2442(Av)	93.87	*	-
			4884(Pk)	51.72	74	-22.28
			4884(Av)	38.29	54	-15.71
		Horizontal	2442(Pk)	93.33	*	-
			2442(Av)	79.46	*	-
			4884(Pk)	51.38	74	-22.62
			4884(Av)	37.30	54	-16.70
	High	Vertical	2483.5(Pk)	71.42	74	-2.58
			2483.5(Av)	42.88	54	-11.12
			2462(Pk)	106.13	*	-
			2462(Av)	93.23	*	-
			4924(Pk)	52.34	74	-21.66
			4924(Av)	38.53	54	-15.47
		Horizontal	2483.5(Pk)	59.34	74	-14.66
			2483.5(Av)	33.93	54	-20.07
			2462(Pk)	92.54	*	-
			2462(Av)	79.56	*	-
			4924(Pk)	51.12	74	-22.88
			4924(Av)	37.28	54	-16.72
MCS8	Low	Vertical	2390(Pk)	72.10	74	-1.90
			2390(Av)	52.89	54	-1.11
			2412(Pk)	111.04	*	-
			2412(Av)	100.57	*	-
			4824(Pk)	51.65	74	-22.35
			4824(Av)	39.11	54	-14.89
		Horizontal	2390(Pk)	62.73	74	-11.27
			2390(Av)	42.26	54	-11.74
			2412(Pk)	101.42	*	-
			2412(Av)	91.03	*	-
			4824(Pk)	50.79	74	-23.21
			4824(Av)	37.82	54	-16.18
	Mid	Vertical	2442(Pk)	111.06	*	-
			2442(Av)	100.96	*	-
			4884(Pk)	53.77	74	-20.23
			4884(Av)	40.39	54	-13.61
		Horizontal	2442(Pk)	101.93	*	-
			2442(Av)	91.97	*	-
			4884(Pk)	50.86	74	-23.14
			4884(Av)	38.36	54	-15.64
	High	Vertical	2483.5(Pk)	70.78	74	-3.22
			2483.5(Av)	52.33	54	-1.67

			2462(Pk)	110.69	*	-
			2462(Av)	99.21	*	-
			4924(Pk)	52.76	74	-21.24
			4924(Av)	40.07	54	-13.93
		Horizontal	2483.5(Pk)	63.70	74	-10.30
			2483.5(Av)	43.89	54	-10.11
			2462(Pk)	100.74	*	-
			2462(Av)	90.44	*	-
			4924(Pk)	51.41	74	-22.59
			4924(Av)	38.13	54	-15.87
MCS12	Low	Vertical	2390(Pk)	71.38	74	-2.62
			2390(Av)	51.33	54	-2.67
			2412(Pk)	110.93	*	-
			2412(Av)	97.58	*	-
			4824(Pk)	51.71	74	-22.29
			4824(Av)	38.24	54	-15.76
		Horizontal	2390(Pk)	62.54	74	-11.46
			2390(Av)	42.28	54	-11.72
			2412(Pk)	101.18	*	-
			2412(Av)	88.82	*	-
			4824(Pk)	50.06	74	-23.94
			4824(Av)	37.38	54	-16.62
	Mid	Vertical	2442(Pk)	111.88	*	-
			2442(Av)	98.41	*	-
			4884(Pk)	53.37	74	-20.63
			4884(Av)	39.45	54	-14.55
		Horizontal	2442(Pk)	102.37	*	-
			2442(Av)	89.93	*	-
			4884(Pk)	51.54	74	-22.46
			4884(Av)	38.06	54	-15.94
	High	Vertical	2483.5(Pk)	70.53	74	-3.47
			2483.5(Av)	50.16	54	-3.84
			2462(Pk)	110.29	*	-
			2462(Av)	96.63	*	-
			4924(Pk)	52.23	74	-21.77
			4924(Av)	39.37	54	-14.63
		Horizontal	2483.5(Pk)	61.66	74	-12.34
			2483.5(Av)	42.25	54	-11.75
			2462(Pk)	101.26	*	-
			2462(Av)	87.92	*	-
			4924(Pk)	50.79	74	-23.21
			4924(Av)	37.83	54	-16.17
MCS15	Low	Vertical	2390(Pk)	63.71	74	-10.29
			2390(Av)	40.54	54	-13.46
			2412(Pk)	106.62	*	-
			2412(Av)	92.13	*	-
			4824(Pk)	49.72	74	-24.28
			4824(Av)	36.77	54	-17.23
		Horizontal	2390(Pk)	49.21	74	-24.79
			2390(Av)	33.25	54	-20.75
			2412(Pk)	97.35	*	-

			2412(Av)	82.76	*	-
			4824(Pk)	48.82	74	-25.18
			4824(Av)	36.68	54	-17.32
	Mid	Vertical	2442(Pk)	106.52	*	-
			2442(Av)	90.89	*	-
			4884(Pk)	50.89	74	-23.11
			4884(Av)	37.30	54	-16.70
		Horizontal	2442(Pk)	97.24	*	-
			2442(Av)	82.45	*	-
			4884(Pk)	49.34	74	-24.66
			4884(Av)	37.03	54	-16.97
	High	Vertical	2483.5(Pk)	59.18	74	-14.82
			2483.5(Av)	37.44	54	-16.56
			2462(Pk)	105.99	*	-
			2462(Av)	90.81	*	-
			4924(Pk)	49.99	74	-24.01
			4924(Av)	37.43	54	-16.57
		Horizontal	2483.5(Pk)	51.92	74	-22.08
			2483.5(Av)	31.27	54	-22.73
			2462(Pk)	97.37	*	-
			2462(Av)	81.97	*	-
			4924(Pk)	50.65	74	-23.35
			4924(Av)	37.15	54	-16.85

Bluetooth LE

Channel	Polarization	Frequency (MHz)	Measured Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)
Low	Vertical	2390(Pk)	55.58	74	-18.42
		2390(Av)	41.73	54	-12.27
		2402(Pk)	106.70	*	-
		2402(Av)	105.84	*	-
		4804(Pk)	51.45	74	-22.55
		4804(Av)	42.02	54	-11.98
		7206(Pk)	58.53	74	-15.47
		7206(Av)	46.65	54	-7.35
	Horizontal	2390(pk)	47.80	74	-26.20
		2390(Av)	31.85	54	-22.15
		2402(Pk)	94.17	*	-
		2402(Av)	93.18	*	-
		4804(Pk)	50.49	74	-23.51
		4804(Av)	37.33	54	-16.67
		7206(Pk)	59.84	74	-14.16
		7206(Av)	48.85	54	-5.15
Mid	Vertical	2440(Pk)	107.95	*	-
		2440(Av)	107.10	*	-
		4880(Pk)	53.50	74	-20.50

		4880(Av)	44.70	54	-9.30
		7320(Pk)	59.18	74	-14.82
		7320(Av)	47.91	54	-6.09
	Horizontal	2440(Pk)	93.56	*	-
		2440(Av)	92.43	*	-
		4880(Pk)	51.04	74	-22.96
		4880(Av)	38.12	54	-15.88
		7320(Pk)	59.74	74	-14.26
		7320(Av)	48.77	54	-5.23
High	Vertical	2483.5(Pk)	54.62	74	-19.38
		2483.5(Av)	43.09	54	-10.91
		2480(Pk)	106.47	*	-
		2480(Av)	105.60	*	-
		4960(Pk)	55.03	74	-18.97
		4960(Av)	48.10	54	-5.90
		7440(Pk)	59.68	74	-14.32
		7440(Av)	47.98	54	-6.02
	Horizontal	2483.5(Pk)	44.23	74	-29.77
		2483.5(Av)	32.45	54	-21.55
		2480(Pk)	95.41	*	-
		2480(Av)	94.48	*	-
		4960(Pk)	51.26	74	-22.74
		4960(Av)	40.28	54	-13.72
		7440(Pk)	60.21	74	-13.79
		7440(Av)	48.26	54	-5.74

Result **Pass**

Test Specification	:	FCC Part 15 Section 15.207
Test Method	:	ANSI C63.10-2013
Testing Location	:	Screened room
Measurement Bandwidth	:	9kHz
Frequency Range	:	150kHz – 30MHz
Supply Voltage	:	120VAC,60Hz

Limit of section 15.207

Frequency of emission (MHz)	QP Limit (dBµV)	AV Limit (dBµV/m)
0.15 – 0.5	66 – 56*	56 – 46*
0.5 – 5	56	46
5 – 30	60	50

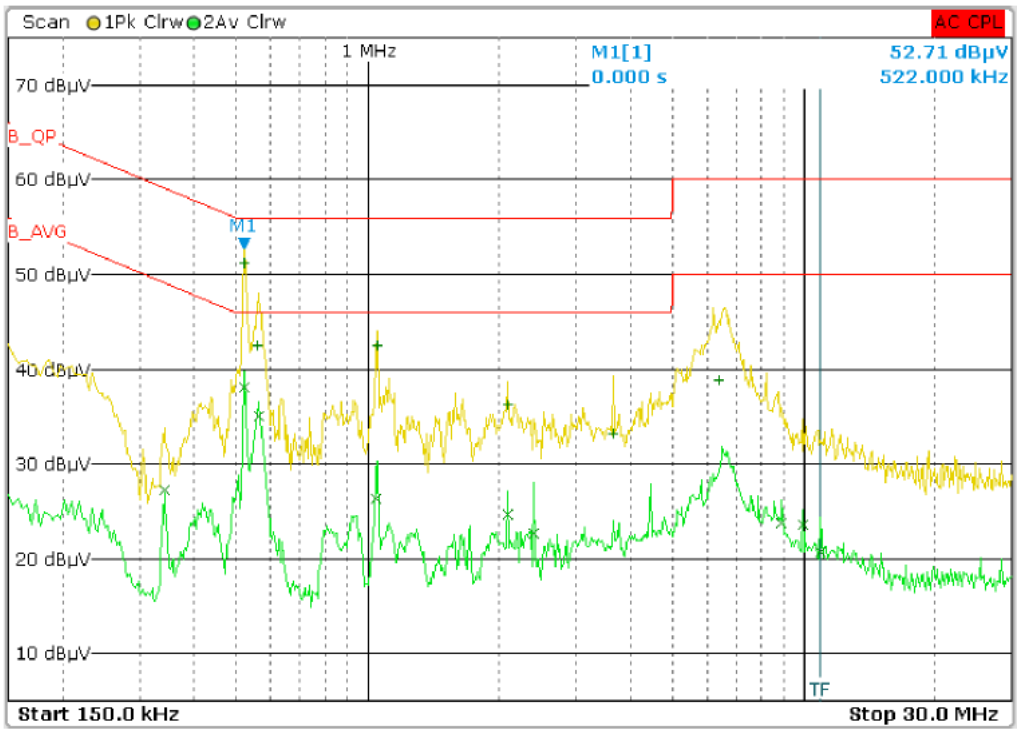
* Decreases with the logarithm of the frequency

Test Result:

Line Graph

Trace	Frequency	Level (dBµV)	Phase	Detector	Delta Limit/dB
1	522.000000000 kHz	51.29		Quasi Peak	-4.71
2	526.000000000 kHz	34.82		Average	-11.18
1	566.000000000 kHz	42.94		Quasi Peak	-13.06
1	1.046000000 MHz	42.65		Quasi Peak	-13.35
2	1.046000000 MHz	28.90		Average	-17.10
2	566.000000000 kHz	28.60		Average	-17.40
2	4.450000000 MHz	26.47		Average	-19.53
1	2.090000000 MHz	36.17		Quasi Peak	-19.83
2	6.502000000 MHz	30.03		Average	-19.97
1	6.606000000 MHz	39.92		Quasi Peak	-20.08
2	1.710000000 MHz	25.06		Average	-20.94
1	1.710000000 MHz	34.79		Quasi Peak	-21.21
2	2.846000000 MHz	24.07		Average	-21.93
1	2.394000000 MHz	33.68		Quasi Peak	-22.32
2	2.398000000 MHz	23.16		Average	-22.84
2	17.086000000 MHz	24.86		Average	-25.14
2	9.926000000 MHz	20.93		Average	-29.07
2	10.954000000 MHz	20.11		Average	-29.89

Line: Table



Neutral Graph

Trace	Frequency	Level (dBµV)	Phase	Detector	Delta Limit/dB
1	522.000000000 kHz	51.25		Quasi Peak	-4.75
2	522.000000000 kHz	38.09		Average	-7.91
2	566.000000000 kHz	35.05		Average	-10.95
1	558.000000000 kHz	42.53		Quasi Peak	-13.47
1	1.046000000 MHz	42.46		Quasi Peak	-13.54
2	1.042000000 MHz	26.33		Average	-19.67
1	2.090000000 MHz	36.31		Quasi Peak	-19.69
1	6.370000000 MHz	38.92		Quasi Peak	-21.08
2	2.090000000 MHz	24.63		Average	-21.37
2	342.000000000 kHz	27.23		Average	-21.92
1	3.658000000 MHz	33.26		Quasi Peak	-22.74
2	2.398000000 MHz	22.67		Average	-23.33
2	8.902000000 MHz	23.73		Average	-26.27
2	9.934000000 MHz	23.58		Average	-26.42
2	10.954000000 MHz	20.70		Average	-29.30

Neutral: Table

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