AUDIX Technology Corp.
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FCC 15.247 DTS
(Class II Permissive Change)
2.4 GHz Report

for

VoxMicro LTD.

20955 Pathfinder Rd., STE100, Diamond Bar, CA 91765 United States

Brand	**:**	**AIRETOS**
Product Name	**:**	**PCIE 802.11a/b/g/n 2.4GHz/5GHz + USB BT 4.0 card**
Model Name	**:**	**AEH-AR9462**
FCC ID	**:**	**2AE3B-AEH-AR9462**

Prepared by: **:** **AUDIX Technology Corporation, EMC Department**

Testing Laboratory
1724

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AUDIX Technology Corp.
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TEST REPORT CERTIFICATION
(Class II Permissive Change)

Applicant	:	VoxMicro LTD.
Product Name	:	PCIE 802.11a/b/g/n 2.4GHz/5GHz + USB BT 4.0 card
Model No.	:	AEH-AR9462
Serial No.	:	N/A
Brand	:	AIRETOS

Applicable Standards:

47 CFR FCC Rules and Regulations Part 15 Subpart C, Oct. 2015
ANSI C63.10:2013
KDB 558074 D01 DTS Meas Guidance v03r05

AUDIX Technology Corp. tested the equipment mentioned in accordance with the requirements set forth in the above standards. Test results indicate that the equipment tested is capable of demonstrating compliance with the requirements as documented within this report. ***AUDIX Technology Corp.*** does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens and samples.

Date of Test: 2016. 06. 06 ~ 08 Date of Report: 2016. 06. 23

Producer: Sabrina Wang
(Sabrina Wang/Administrator)

Signatory: Ben Cheng
(Ben Cheng/Manager)

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1. REPORT HISTORY

Edition No.	Date of Rev.	Revision Summary	Report No.
0	2016. 06. 23	Original Report.	EM-F160362

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2. SUMMARY OF TEST RESULTS

Rule	Description	Results
15.207	Conducted Emission	**PASS**
15.247(d)/15.205	Radiated Band Edge and Radiated Spurious Emission	**PASS**
15.247(b)(3)	Maximum Peak Output Power	**PASS**
15.203	Antenna Requirement	**PASS**

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3. GENERAL INFORMATION

3.1. Description of EUT

Product	PCIE 802.11a/b/g/n 2.4GHz/5GHz + USB BT 4.0 card
Model Number	AEH-AR9462
Serial Number	N/A
Brand Name	AIRETOS
Applicant	VoxMicro LTD. 20955 Pathfinder Rd., STE100, Diamond Bar, CA 91765 United States
RF Features	WLAN: 802.11a/b/g/n Bluetooth: BT and BLE
Transmit Type	2.4 GHz: 802.11b 2T2R; 802.11g 2T2R; 802.11n-HT20 2T2R; 802.11n-HT40 2T2R; BT 1T1R; BLE 1T1R UNII Bands: 802.11a 2T2R; 802.11n-HT20 2T2R; 802.11n-HT40 2T2R
Date of Receipt of Sample	2016. 06. 06
Information for Class II Change Permissive:	The difference with original FCC ID: 2AE3B-AEH-AR9462 is to add antenna type.

3.2. Antenna Information

No.	Antenna Part Number	Brand	Antenna Type	Frequency (MHz)	Max Gain (dBi)	Directional Gain (2T2R)(dBi)
1	WAND2DBI-SMA	OxfordTec	Omni	2.4GHz	2.0	**5.01**
				5GHz	3.0	**6.01**

Note 1. Directional gain = $10\log[(10^{2.0/20}+10^{2.0/20})^2/2]=5.01$dBi

Note 2. Directional gain = $10\log[(10^{3.0/20}+10^{3.0/20})^2/2]=6.01$dBi

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3.3. EUT Specifications Assessed in Current Report

Mode	Fundamental Range (MHz)	Channel Number	Modulation	Data Rate (Mbps)
802.11b	2412-2462	11	DSSS (DBPSK/DQPSK/CCK)	Up to 11
802.11g		11	OFDM (BPSK/QPSK/16QAM/64QAM)	Up to 54
802.11n-HT20				MCS0~15
802.11n-HT40	2412-2452	7		
BLE	2402-2480	40	GFSK	1

Channel List			
802.11 b/g/n-HT20		802.11n-HT40	
Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)
1	2412		
2	2417		
3	2422	3	2422
4	2427	4	2427
5	2432	5	2432
6	2437	6	2437
7	2442	7	2442
8	2447	8	2447
9	2452	9	2452
10	2457		
11	2462		

Channel List							
BLE							
Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)
37	2402	09	2422	18	2442	28	2462
00	2404	10	2424	19	2444	29	2464
01	2406	38	2426	20	2446	30	2466
02	2408	11	2428	21	2448	31	2468
03	2410	12	2430	22	2450	32	2470
04	2412	13	2432	23	2452	33	2472
05	2414	14	2434	24	2454	34	2474
06	2416	15	2436	25	2456	35	2476
07	2418	16	2438	26	2458	36	2478
08	2420	17	2440	27	2460	39	2480

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3.4. Data Rate Relative to Output Power

802.11b			
Channel	Modulation	Date Rate (Mbps)	Power (dBm)
1	DBPSK	1	**21.73**
1	DQPSK	2	**21.65**
1	CCK	5.5	**21.54**
1	CCK	11	**21.38**

802.11g			
Channel	Modulation	Date Rate (Mbps)	Power (dBm)
1	BPSK	6	**24.91**
1	BPSK	9	**24.74**
1	QPSK	12	**24.71**
1	QPSK	18	**24.62**
1	16-QAM	24	**24.61**
1	16-QAM	36	**24.58**
1	64-QAM	48	**24.53**
1	64-QAM	54	**24.42**

802.11n-HT20				802.11n-HT40			
Channel	Modulation	Date Rate	Power (dBm)	Channel	Modulation	Date Rate	Power (dBm)
1	BPSK	MCS8	**23.69**	3	BPSK	MCS8	**20.03**
1	QPSK	MCS9	**23.65**	3	QPSK	MCS9	**19.95**
1	QPSK	MCS10	**23.57**	3	QPSK	MCS10	**19.86**
1	16-QAM	MCS11	**23.51**	3	16-QAM	MCS11	**19.81**
1	16-QAM	MCS12	**23.42**	3	16-QAM	MCS12	**19.77**
1	64-QAM	MCS13	**23.39**	3	64-QAM	MCS13	**19.71**
1	64-QAM	MCS14	**23.34**	3	64-QAM	MCS14	**19.65**
1	64-QAM	MCS15	**23.25**	3	64-QAM	MCS15	**19.58**

Note: Above results are assessed in average power.

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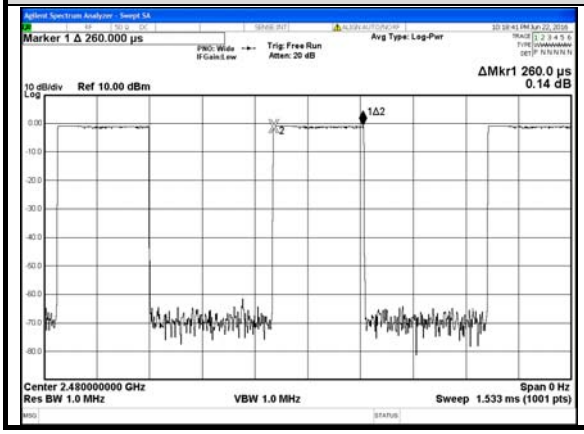
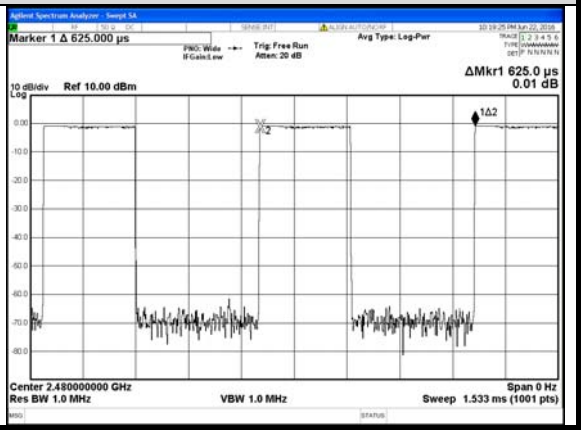
3.5. Test Configuration

Mode	Duty Cycle (x)	T (ms)	Duty Cycle Factor (dB)
802.11b	1	N/A	N/A
802.11g	1	N/A	N/A
802.11n-HT20	1	N/A	N/A
802.11n-HT40	1	N/A	N/A
BLE	0.416	0.260	N/A

BLE Mode		
TX_{on}	TX_{on+off}	Duty Cycle (x)=TX_{on}/TX_{on+off}
0.260	0.625	0.416
TX_{on}		TX_{on+off}
		

Note: When duty cycle is less than 98% (0.98) that duty cycle factor 10log(1/x) is needed to add in conducted test items measured in average detector.

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AC Conduction	
Test Case	Normal operation

Item		Mode	Data Rate	Test Channel
Radiated Test Case	Radiated Band Edge Note1	802.11b	1Mbps	1/11
		802.11g	6Mbps	1/11
		802.11n-HT20	MCS8	1/11
		802.11n-HT40	MCS8	3/9
		BLE	N/A	37/39
	Radiated Spurious Emission Note1 & 2	802.11b	1Mbps	1/6/11
		802.11g	6Mbps	1/6/11
		802.11n-HT20	MCS8	1/6/11
		802.11n-HT40	MCS8	3/6/9
		BLE	N/A	37/17/39
Conducted Test Case	Peak Output Power	802.11b	1Mbps	1/6/11
		802.11g	6Mbps	1/6/11
		802.11n-HT20	MCS8	1/6/11
		802.11n-HT40	MCS8	3/6/9
		BLE	N/A	37/17/39

Note 1:

■Mobile Device

□Portable Device, and 3 axis were assessed. The worst scenario for Radiated Spurious Emission as follow:

■ Lie

□ Side

□ Stand

Note 2: Low, mid, and high channels were measured, only the worst channel of each modulation was presented in this report.

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3.6. Tested Supporting System List

3.6.1. Support Peripheral Unit

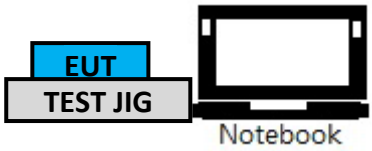
No.	Product	Brand	Model No.	Serial No.	FCC ID
1.	Notebook PC	IBM	2652	99NXMML	ANOVNCBDC80211B
2.	Test Jig	N/A	N/A	N/A	N/A

3.6.2. Cable Lists

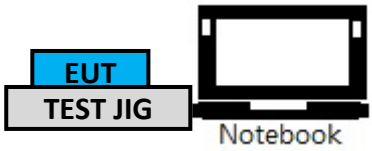
No.	Cable Description Of The Above Support Units
1.	AC Adapter: IBM, M/N 02K6747 AC Power Cord: Unshielded, Detachable, 1.8m DC Power Cord: Unshielded, Undetachable, 1.8m

3.7. Setup Configuration

3.7.1. EUT Configuration for Power Line & Radiated Emission



3.7.2. EUT Configuration for Conducted Test Items



3.8. Operating Condition of EUT

Test program “artgui” is used for enabling EUT WLAN function under continues transmitting and choosing data rate/ channel.

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3.9. Description of Test Facility

Test Firm Name	:	**AUDIX Technology Corporation** **EMC Department** No. 53-11, Dingfu, Linkou Dist., New Taipei City 244, Taiwan
Test Location & Facility	:	**No. 8 Shielded Room &** **Semi Anechoic Chamber &** **Fully Anechoic Chamber** No. 53-11, Dingfu, Linkou Dist., New Taipei City 244, Taiwan
NVLAP Lab. Code	:	200077-0
TAF Accreditation No	:	1724
FCC OET Designation	:	TW1004 & TW1090

3.10. Measurement Uncertainty

Test Item	Frequency Range	Uncertainty
Conduction Test	150kHz~30MHz	±3.50dB
Radiation Test (Distance: 3m)	30MHz~1000MHz	± 3.68dB
	Above 1GHz	± 5.82dB

Remark：Uncertainty = $ku_c(y)$

Test Item	Uncertainty
Maximum peak output power	± 0.33dB

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4. MEASUREMENT EQUIPMENT LIST

4.1. Conducted Emission Measurement

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Test Receiver	R&S	ESR3	101774	2016. 02. 04	1 Year
2.	A.M.N.	R&S	ENV4200	825358/003	2016. 04. 21	1 Year
3.	L.I.S.N.	Kyoritsu	KNW-407	8-855-9	2015. 12. 23	1 Year
4.	Pulse Limiter	R&S	ESH3-Z2	100354	2016. 01. 17	1 Year
5.	Test Software	Audix	e3	V.6.120424	N.C.R.	N.C.R.

4.2. Radiated Emission Measurement

4.2.1. Frequency Range 9kHz~1000MHz

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Spectrum Analyzer	Agilent	N9010A-526	MY53400071	2015. 09. 14	1 Year
2.	Test Receiver	R & S	ESCS30	100338	2015. 06. 24	1 Year
3.	Amplifier	HP	8447D	2944A06305	2016. 02. 23	1 Year
4.	Bilog Antenna	CHASE	CBL6112D	33821	2016. 01. 30	1 Year
5.	Loop Antenna	R&S	HFH2-Z2	891847/27	2015. 12. 24	1 Year
6.	Test Software	Audix	e3	V.6.110601	N.C.R.	N.C.R.

4.2.2. Frequency Range Above 1GHz

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Spectrum Analyzer	Agilent	E4446A	US44300366	2015. 08. 20	1 Year
2.	Amplifier	Sonoma	310N	187161	2015. 06. 17	1 Year
3.	Microwave Amplifier	Keysight	83051A	MY53010042	2015. 08. 13	1 Year
4.	2.4GHz Notch Filter	K&L	7NSL10-244 1.5E130.5-00	1	2015. 07. 28	1 Year
5.	Horn Antenna	ETS-Lindgren	3117	00135902	2016. 03. 05	1 Year
6.	Horn Antenna	EMCO	3116	2653	2015. 10. 20	1 Year
7.	Test Software	Audix	e3	V.6.110601	N.C.R.	N.C.R.

4.3. RF Conducted Measurement

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Power Meter	Anritsu	ML2495A	1145008	2015. 10. 23	1 Year
2.	Power Sensor	Anritsu	MA2411B	1126096	2015. 10. 23	1 Year

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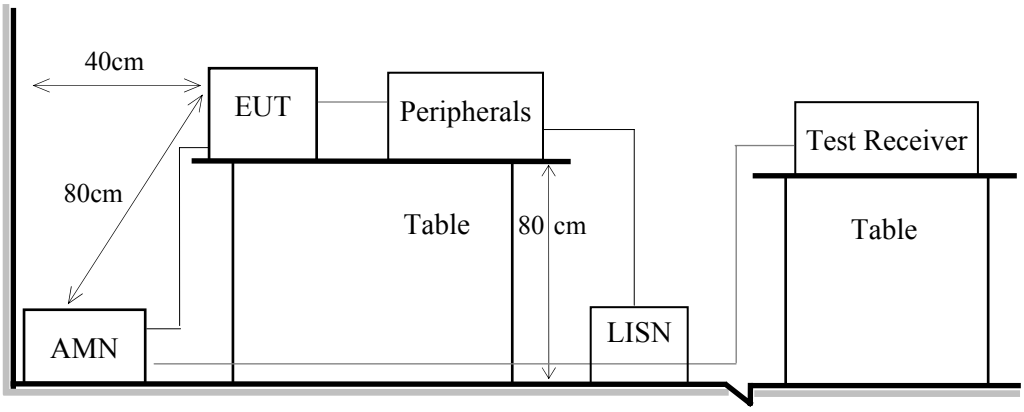
5. CONDUCTED EMISSION MEASUREMET

5.1. Block Diagram of Test Setup

Shielded Room Setup Diagram



5.2. Power Line Conducted Emission Limit

Frequency	Conducted Limit	
	Quasi-Peak Level	Average Level
150kHz ~ 500kHz	66 ~ 56 dBμV	56 ~ 46 dBμV
500kHz ~ 5MHz	56 dBμV	46 dBμV
5MHz ~ 30MHz	60 dBμV	50 dBμV

Remark 1.: If the average limit is met when using a Quasi-Peak detector, the measurement using the average detector is not required.
2.: The lower limit applies to the band edges.

5.3. Test Procedure

5.3.1. To set up the EUT as indicated in ANSI C 63.10. The EUT was placed on the table which has 80 cm height to the ground and 40 cm distance to the conducting wall.

5.3.2. Power supplier of the EUT was connected to the AC mains through an Artificial Mains Network (A.M.N.).

5.3.3. The AC power supplies to all peripheral devices must be provided through line impedance stabilization network (L.I.S.N.)

5.3.4. Checking frequency range from 150 kHz to 30 MHz and record the emission which does not have 20 dB below limit.

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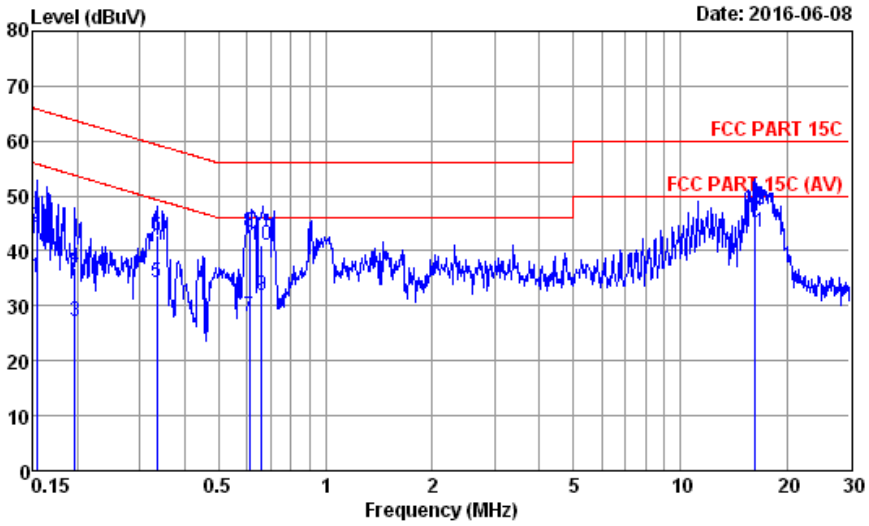
5.4. Conducted Emission Measurement Results

PASSED.

Test Date	2016/06/08	Temp./Hum.	24℃/54%
Test Voltage	AC 120V, 60Hz	Test Mode	Operation



Site no. : No.8 Shielded Room
Data no. : 2
Condition : ENV4200 100169
Phase : NEUTRAL
Limit : FCC PART 15C
Env. / Ins. : 26°C / 57% ESR3 (1774)
Engineer : Tim
EUT : AZH-AR9462
Power Rating : 120Vac / 60Hz
Test Mode : Operation

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Pulse Att. (dB)	Reading (dBµV)	Emission Level (dBµV)	Limits (dBµV)	Margin (dB)	Remark
1	0.153	11.49	0.02	9.86	13.86	35.23	55.82	20.59	Average
2	0.153	11.49	0.02	9.86	22.98	44.35	65.82	21.47	QP
3	0.197	11.30	0.02	9.86	6.11	27.29	53.76	26.47	Average
4	0.197	11.30	0.02	9.86	15.78	36.96	63.76	26.80	QP
5	0.336	11.11	0.03	9.86	13.26	34.26	49.31	15.05	Average
6	0.336	11.11	0.03	9.86	21.74	42.74	59.31	16.57	QP
7	0.610	11.04	0.04	9.86	7.06	28.00	46.00	18.00	Average
8	0.610	11.04	0.04	9.86	22.47	43.41	56.00	12.59	QP
9	0.661	11.04	0.04	9.86	11.07	32.01	46.00	13.99	Average
10	0.661	11.04	0.04	9.86	20.16	41.10	56.00	14.90	QP
11	16.226	13.65	0.25	9.91	19.73	43.54	50.00	6.46	Average
12	16.226	13.65	0.25	9.91	23.62	47.43	60.00	12.57	QP

Remarks: 1. Emission Level= AMN Factor + Cable Loss + Pulse Att. + Reading.

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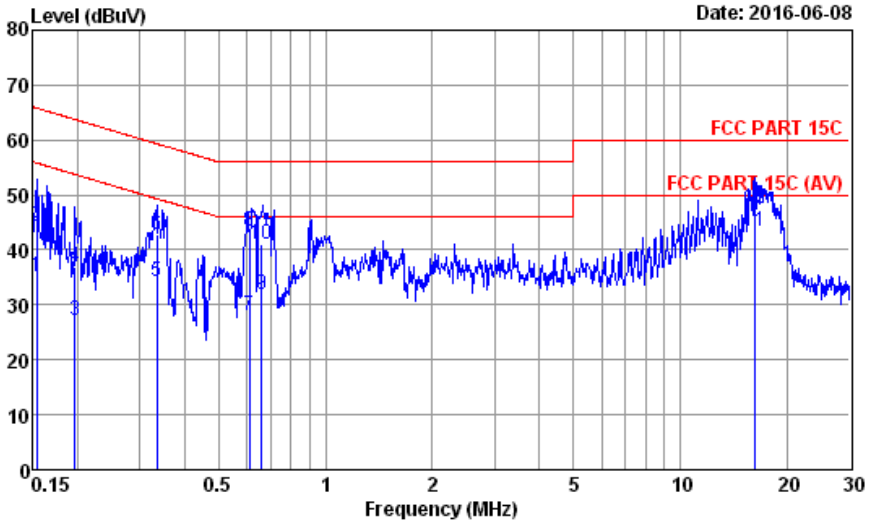
Test Date	2016/06/08	Temp./Hum.	24℃/54%
Test Voltage	AC 120V, 60Hz	Test Mode	Operation



Site no. : No.8 Shielded Room
Data no. : 2
Condition : ENV4200 100169
Phase : NEUTRAL
Limit : FCC PART 15C
Env. / Ins. : 26*C / 57% ESR3 (1774)
Engineer : Tim
EUT : AZH-AR9462
Power Rating : 120Vac / 60Hz
Test Mode : Operation

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Pulse Att. (dB)	Reading (dBµV)	Emission Level (dBµV)	Limits (dBµV)	Margin (dB)	Remark
1	0.153	11.49	0.02	9.86	13.86	35.23	55.82	20.59	Average
2	0.153	11.49	0.02	9.86	22.98	44.35	65.82	21.47	QP
3	0.197	11.30	0.02	9.86	6.11	27.29	53.76	26.47	Average
4	0.197	11.30	0.02	9.86	15.78	36.96	63.76	26.80	QP
5	0.336	11.11	0.03	9.86	13.26	34.26	49.31	15.05	Average
6	0.336	11.11	0.03	9.86	21.74	42.74	59.31	16.57	QP
7	0.610	11.04	0.04	9.86	7.06	28.00	46.00	18.00	Average
8	0.610	11.04	0.04	9.86	22.47	43.41	56.00	12.59	QP
9	0.661	11.04	0.04	9.86	11.07	32.01	46.00	13.99	Average
10	0.661	11.04	0.04	9.86	20.16	41.10	56.00	14.90	QP
11	16.226	13.65	0.25	9.91	19.73	43.54	50.00	6.46	Average
12	16.226	13.65	0.25	9.91	23.62	47.43	60.00	12.57	QP

Remarks: 1. Emission Level= AMN Factor + Cable Loss + Pulse Att. + Reading.

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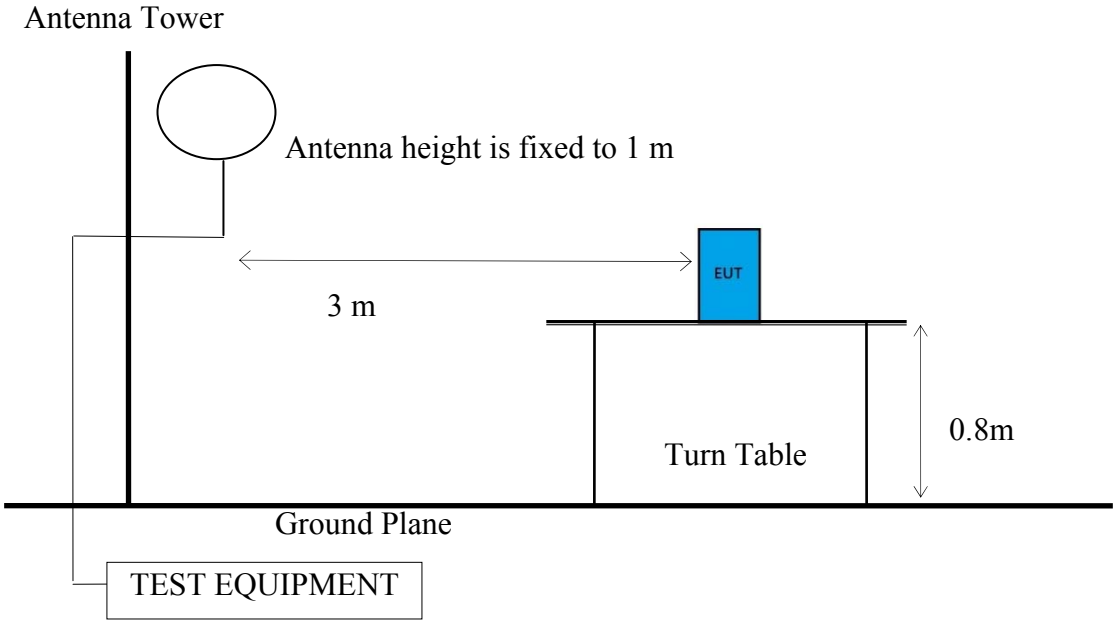
6. RADIATED EMISSION MEASUREMENT

6.1. Block Diagram of Test Setup

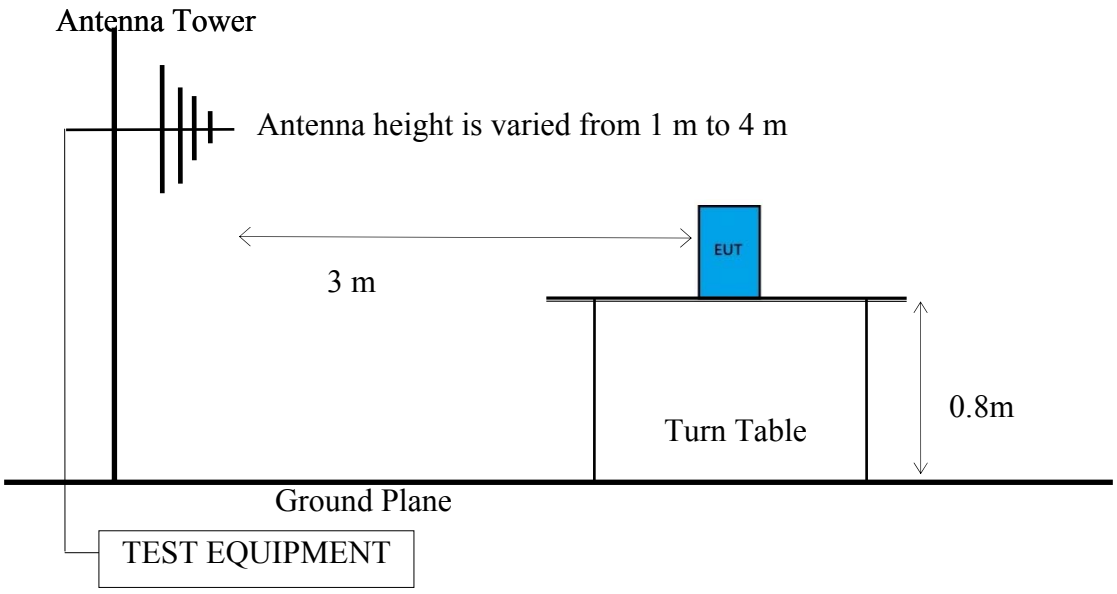
6.1.1. Block Diagram of connection between EUT and simulators

Indicated as section 3.7

6.1.2. Semi Anechoic Chamber (3m) Setup Diagram for 9kHz-30MHz



6.1.3. Semi Anechoic Chamber (3m) Setup Diagram for 30-1000 MHz



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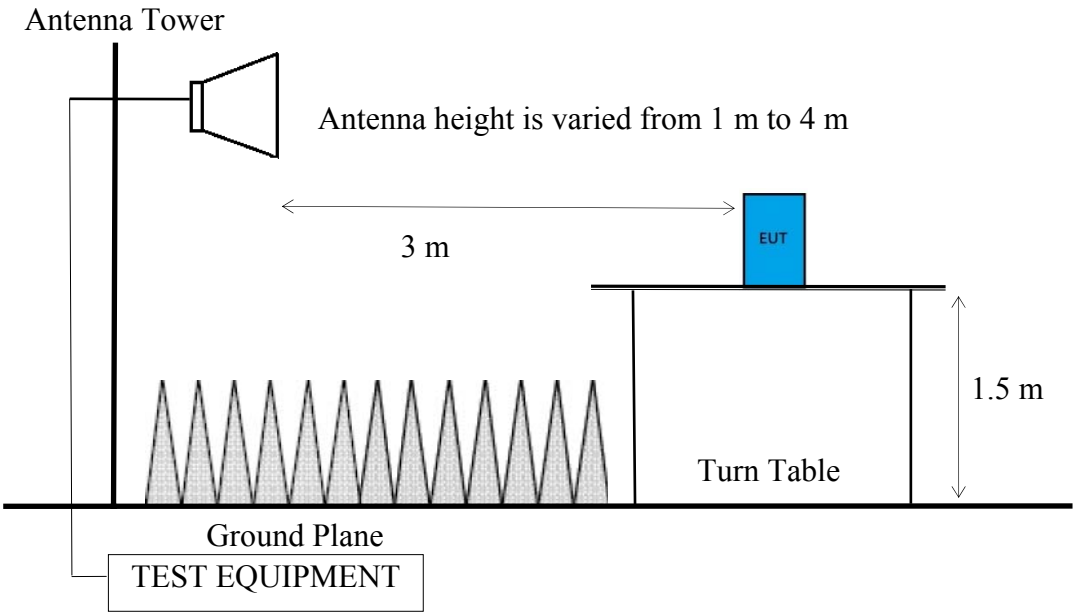
6.1.4. Fully Anechoic Chamber (3m) Setup Diagram for above 1GHz



6.2. Radiated Emission Limits

In any 100kHz bandwidth outside the frequency band, the radio frequency power produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level. In addition, radiated emissions which fall in restricted bands, as defined in Section 15.205 Section 8.10 table 6, must also comply with the radiated emission limits specified as below.

Frequency (MHz)	Distance (m)	Limits	
		dBμV/m	μV/m
0.009 - 0.490	300	67.6	2400/kHz
0.490 - 1.705	30	87.6	24000/kHz
1.705 - 30	30	29.5	30
30 - 88	3	40.0	100
88- 216	3	43.5	150
216- 960	3	46.0	200
Above 960	3	54.0	500
Above 1000	3	74.0 dBμV/m (Peak) 54.0 dBμV/m (Average)	

Remark：(1) dBμV/m = 20 log (μV/m)
(2) The tighter limit applies to the edge between two frequency bands.
(3) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.
(4) Fundamental and emission fall within operation band are exempted from this section.
(5) Pursuant to ANSI C63.10: 6.6.4.3, if the maximized peak measured value complies with the average limit, then it is unnecessary to perform an average measurement.

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6.3. Test Procedure

Frequency Range 9kHz~30MHz:
The EUT setup on the turn table which has 0.8 m height to the ground. The turn table rotated 360 degrees and antenna fixed to 1 m to find the maximum emission level. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10-2013 regulation.

(1) RBW = 9kHz with peak and average detector.
(2) Detector: average and peak (9kHz-490kHz)
Q.P. (490kHz-30MHz)

Frequency Range 30MHz ~ 40GHz:
The EUT setup on the turn find table which has 80 cm (for 30-1000 MHz) and 1.5m (for above 1GHz) height to the ground. The turn table rotated 360 degrees and antenna varied from 1 m to 4 m to find the maximum emission level. Both horizontal and vertical polarization are required. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10-2013 regulation.

Frequency below 1 GHz:
Spectrum Analyzer is used for pre-testing with following setting:

(1) RBW = 120KHz
(2) VBW ≥ 3 x RBW.
(3) Detector = Peak.
(4) Sweep time = auto.
(5) Trace mode = max hold.
(6) Allow sweeps to continue until the trace stabilizes.
(7) When peak-detected value is lower than limit that the measurement using the Q.P. detector is not required. Otherwise using Q.P. for finally measurement.

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Frequency above 1GHz to 10th harmonic:

Peak Detector:

(1) RBW = 1MHz
(2) VBW ≥ 3 x RBW.
(3) Detector = Peak.
(4) Sweep time = auto.
(5) Trace mode = max hold.
(6) Allow sweeps to continue until the trace stabilizes.
(7) When peak-detected value is lower than limit that the measurement using the average detector is not required. Otherwise using average for finally measurement.

Average Detector:

■**Option 1:**

(1) RBW = 1MHz
(2) VBW ≥ 1/ T.

Modulation Type	T (ms)	1/ T (kHz)	VBW Setting
802.11b	N/A	N/A	10 Hz
802.11g	N/A	N/A	10 Hz
802.11n-HT20	N/A	N/A	10 Hz
802.11n-HT40	N/A	N/A	10 Hz
BLE	0.260	3.85	4 kHz

N/A: 1/ T is not implemented when duty cycle presented in section 3.5 is ≥98 %.

(1) Detector = Peak.
(2) Sweep time = auto.
(3) Trace mode = max hold.
(4) Allow sweeps to continue until the trace stabilizes.

□**Option 2:**

Average Emission Level= Peak Emission Level+ D.C.C.F.

6.4. Measurement Result Explanation

■Peak Emission Level=Antenna Factor + Cable Loss + Meter Reading
■Average Emission Level l=Antenna Factor + Cable Loss + Meter Reading
□Average Emission Level= Peak Emission Level+ DCCF
Duty Cycle Correction Factor (DCCF)= 20log (TX_{on}/TX_{on+off}) presented in section 3.5
□EPR= Peak Emission Level-95.2dB-2.14dB

6.5. Test Results

PASSED.

Test Date	2016/06/06	Temp./Hum.	26℃/43%
Test Voltage	DC 3.3V		

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6.5.1. Emissions within Restricted Frequency Bands

6.5.1.1. Frequency 9kHz~30MHz

The emissions (9kHz~30MHz) not reported for there is no emission be found.

6.5.1.2. Frequency 30MHz~1000MHz

Mode	802.11g	Frequency	TX 2437MHz

Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
99.84	10.90	3.22	20.06	34.18	43.50	9.32	Peak
218.18	10.49	4.12	18.99	33.60	46.00	12.40	Peak
299.66	13.12	4.65	26.83	44.60	46.00	1.40	Peak
332.64	13.99	5.01	12.30	31.30	46.00	14.70	Peak
580.96	18.08	6.49	3.51	28.08	46.00	17.92	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
99.84	10.90	3.22	18.18	32.30	43.50	11.20	Peak
221.09	10.69	4.14	18.98	33.81	46.00	12.19	Peak
298.69	13.10	4.65	21.62	39.37	46.00	6.63	Peak
451.95	16.33	6.09	4.58	27.00	46.00	19.00	Peak
972.84	20.95	7.96	3.08	31.99	54.00	22.01	Peak

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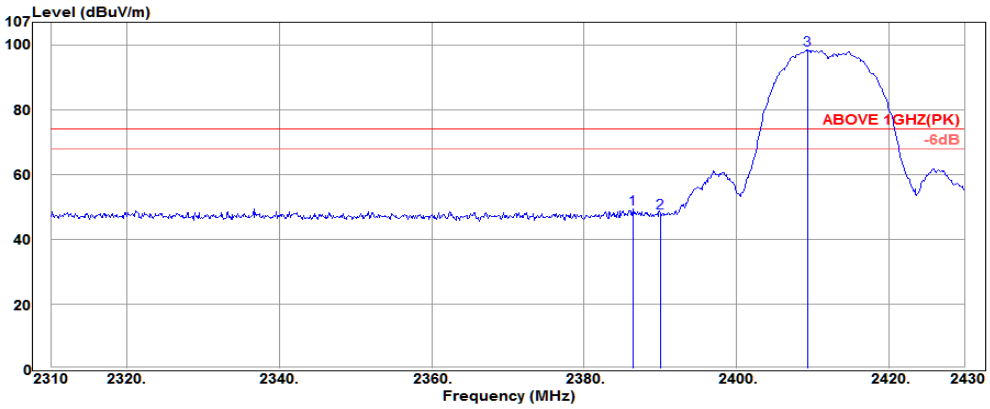
6.5.2. Frequency Above 1 GHz to 10th harmonics

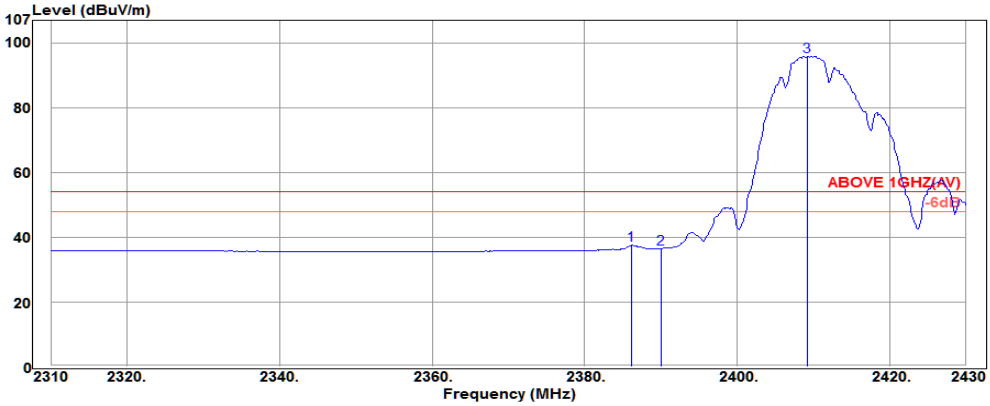
Band Edge:

Mode	802.11b	Frequency	TX 2412MHz



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2386.44	32.16	5.72	11.44	49.32	74.00	24.68	Peak
2390.04	32.16	5.72	10.20	48.08	74.00	25.92	Peak
2409.36	32.18	5.74	60.65	98.57	---	---	Peak



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2386.20	32.16	5.72	-0.33	37.55	54.00	16.45	Average
2390.04	32.16	5.72	-1.38	36.50	54.00	17.50	Average
2409.24	32.18	5.74	58.06	95.98	---	---	Average

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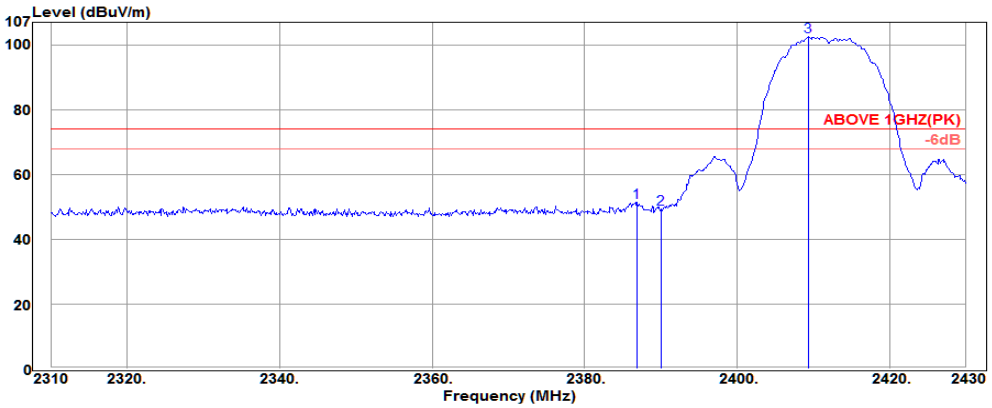
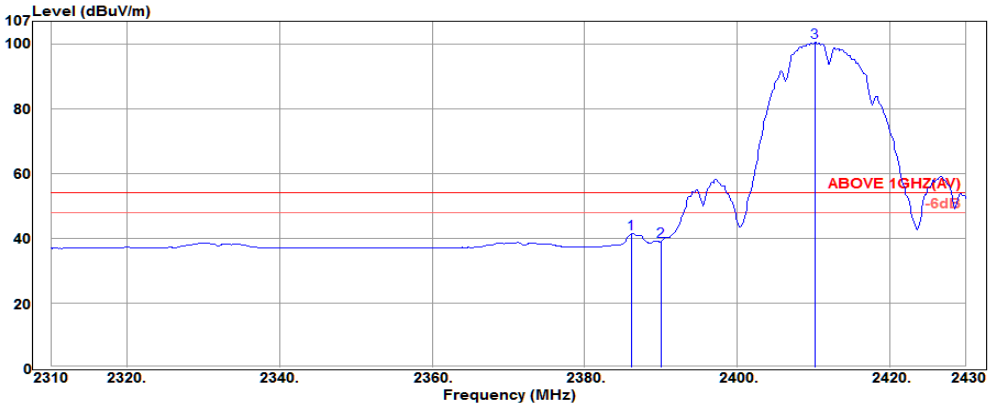
Mode	802.11b	Frequency	TX 2412MHz



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2386.92	32.16	5.72	13.51	51.39	74.00	22.61	Peak
2390.04	32.16	5.72	11.41	49.29	74.00	24.71	Peak
2409.36	32.18	5.74	64.55	102.47	---	---	Peak



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2386.20	32.16	5.72	3.58	41.46	54.00	12.54	Average
2390.04	32.16	5.72	1.21	39.09	54.00	14.91	Average
2410.20	32.18	5.74	62.56	100.48	---	---	Average

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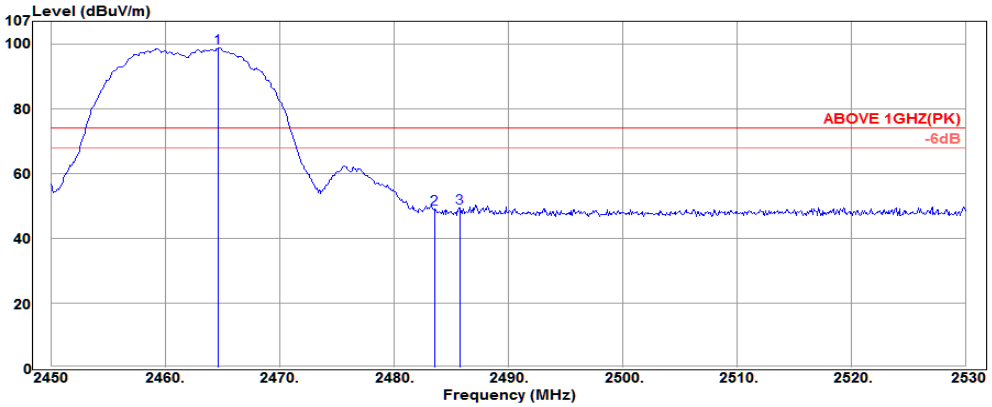
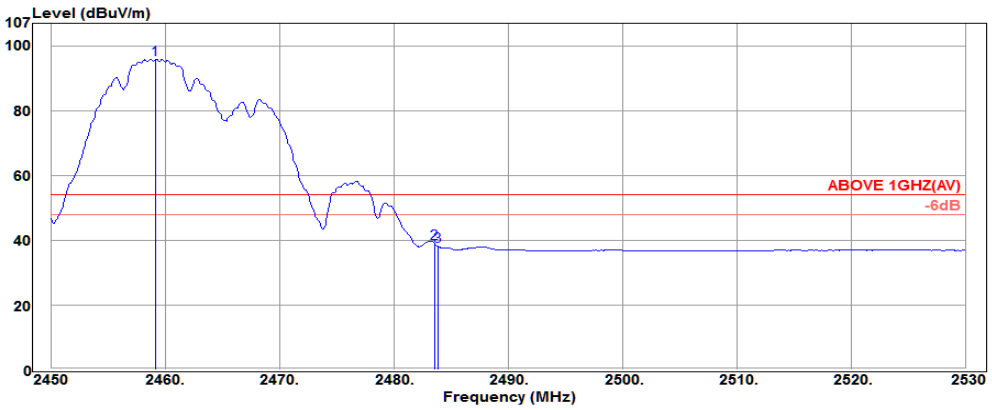
Mode	802.11b	Frequency	TX 2462MHz



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBµV)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Detector
2464.64	32.25	5.80	60.68	98.73	---	---	Peak
2483.52	32.28	5.82	10.89	48.99	74.00	25.01	Peak
2485.76	32.28	5.82	11.42	49.52	74.00	24.48	Peak



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBµV)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Detector
2459.20	32.25	5.80	57.88	95.93	---	---	Average
2483.52	32.28	5.82	1.07	39.17	54.00	14.83	Average
2483.84	32.28	5.82	0.05	38.15	54.00	15.85	Average

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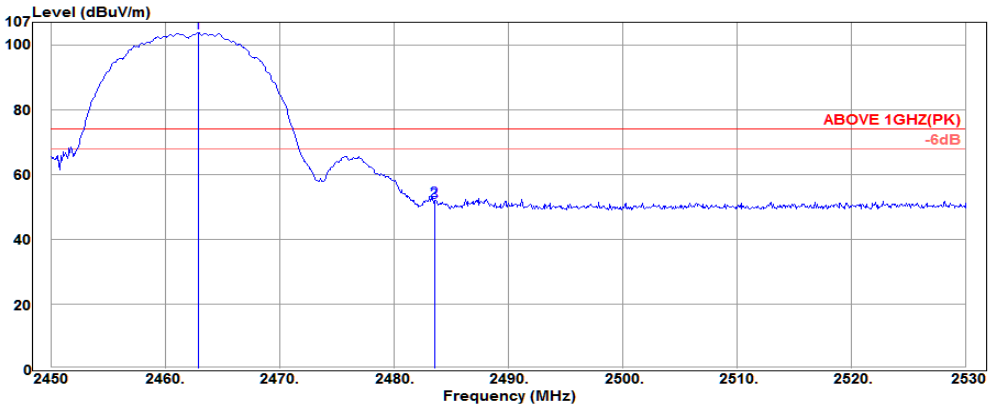
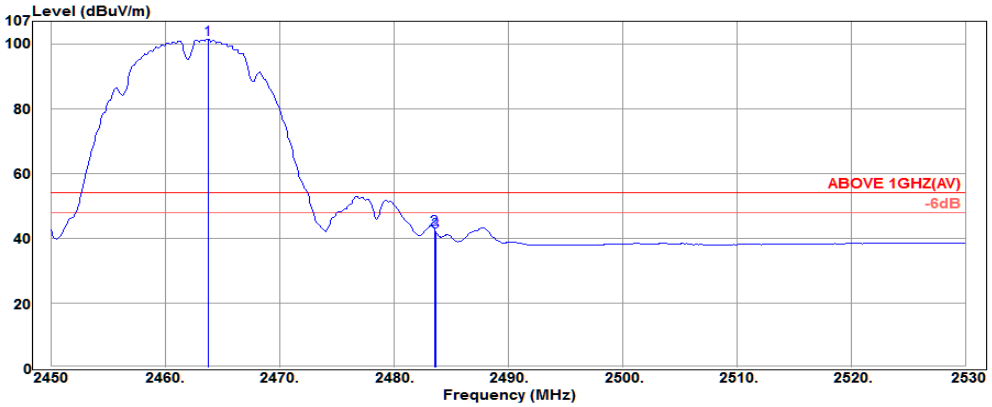


Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2462.88	32.25	5.80	65.83	103.88	---	---	Peak
2483.52	32.28	5.82	13.84	51.94	74.00	22.06	Peak
2483.60	32.28	5.82	13.29	51.39	74.00	22.61	Peak



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2463.76	32.25	5.80	63.37	101.42	---	---	Average
2483.52	32.28	5.82	4.88	42.98	54.00	11.02	Average
2483.68	32.28	5.82	3.89	41.99	54.00	12.01	Average

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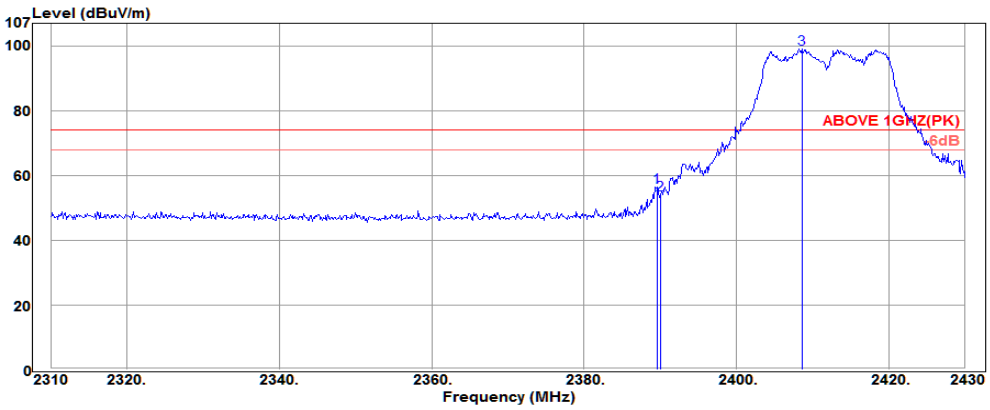
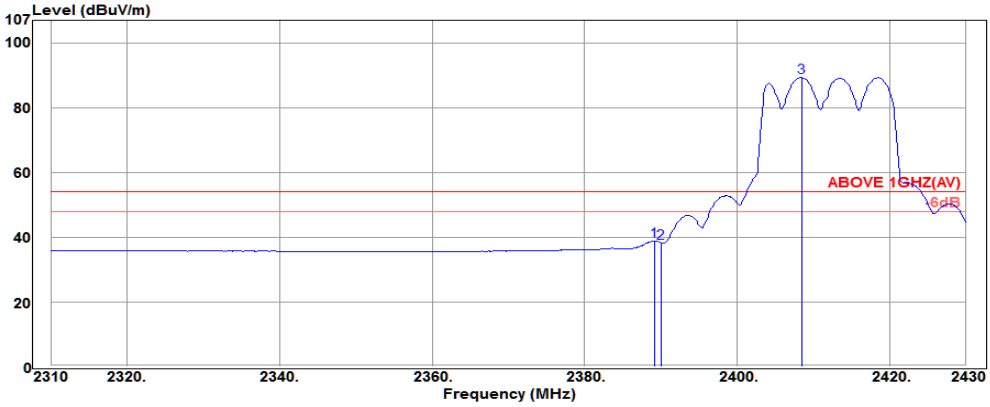
Mode	802.11g	Frequency	TX 2412MHz



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBµV)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Detector
2389.56	32.16	5.72	18.63	56.51	74.00	17.49	Peak
2390.04	32.16	5.72	16.29	54.17	74.00	19.83	Peak
2408.64	32.18	5.74	61.20	99.12	---	---	Peak



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBµV)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Detector
2389.20	32.16	5.72	0.91	38.79	54.00	15.21	Average
2390.04	32.16	5.72	0.44	38.32	54.00	15.68	Average
2408.40	32.18	5.74	51.40	89.32	---	---	Average

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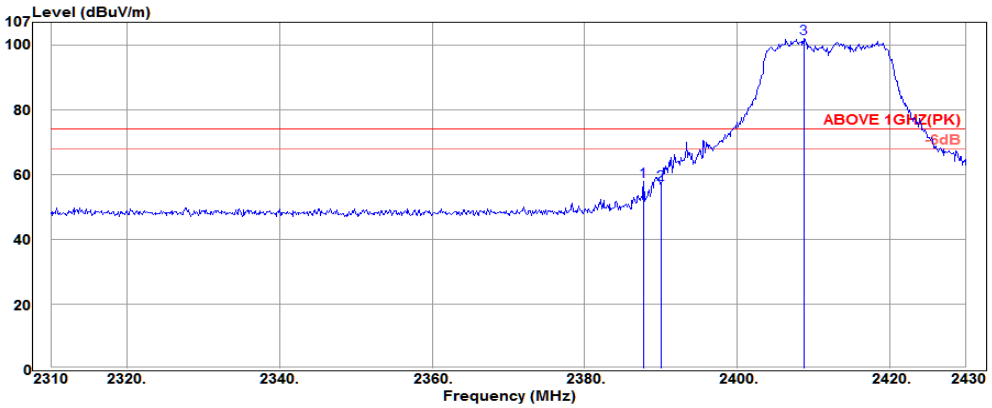
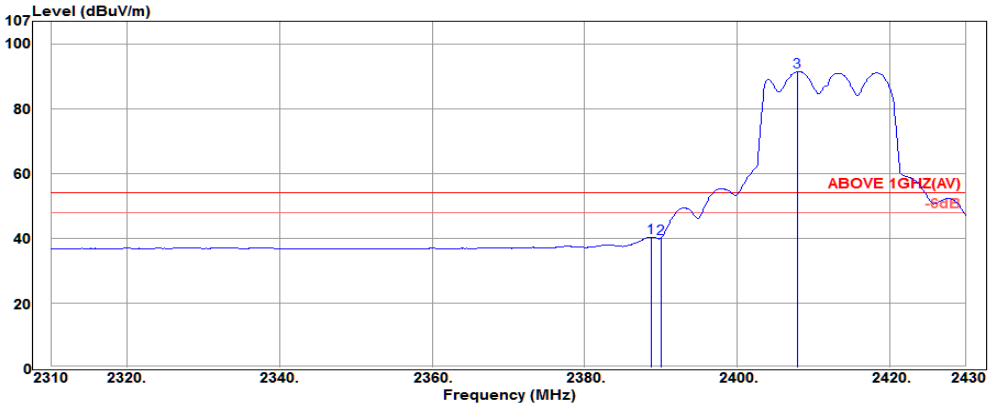
Mode	802.11g	Frequency	TX 2412MHz



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBµV)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Detector
2387.76	32.16	5.72	20.14	58.02	74.00	15.98	Peak
2390.04	32.16	5.72	19.29	57.17	74.00	16.83	Peak
2408.76	32.18	5.74	64.07	101.99	---	---	Peak



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBµV)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Detector
2388.72	32.16	5.72	2.54	40.42	54.00	13.58	Average
2390.04	32.16	5.72	2.24	40.12	54.00	13.88	Average
2407.92	32.18	5.74	53.54	91.46	---	---	Average

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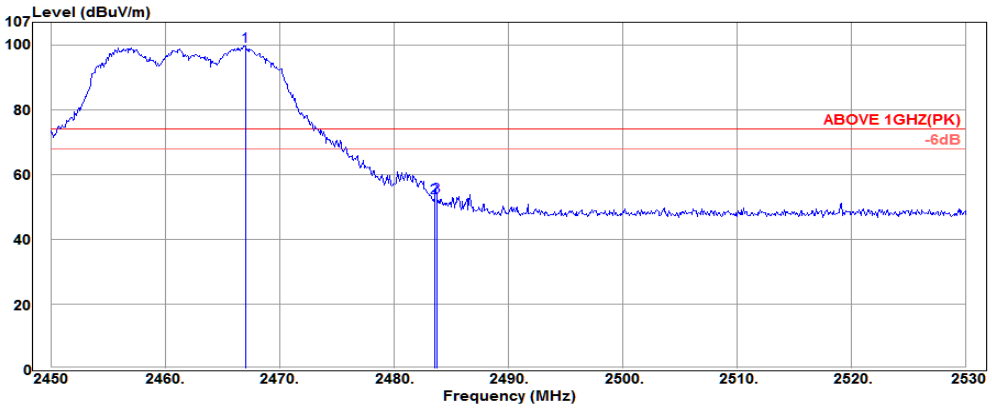
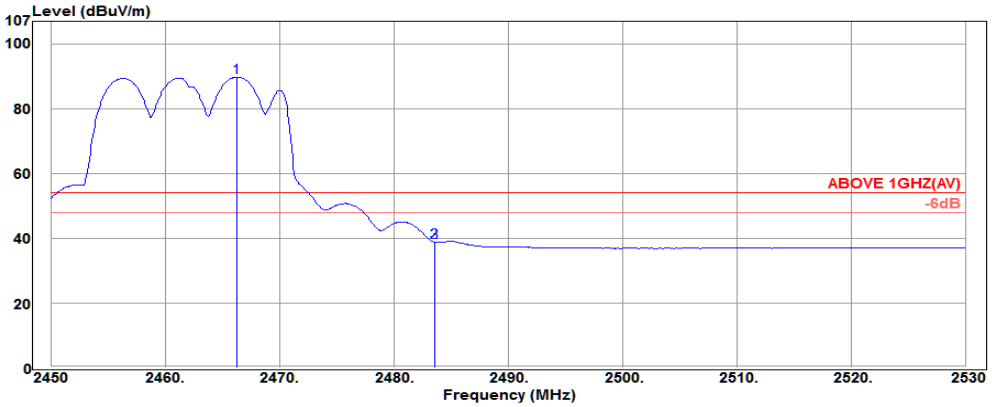
Mode	802.11g	Frequency	TX 2462MHz



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2467.04	32.25	5.80	61.74	99.79	---	---	Peak
2483.52	32.28	5.82	14.88	52.98	74.00	21.02	Peak
2483.76	32.28	5.82	15.02	53.12	74.00	20.88	Peak



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2466.24	32.25	5.80	51.75	89.80	---	---	Average
2483.52	32.28	5.82	0.75	38.85	54.00	15.15	Average
2483.60	32.28	5.82	0.64	38.74	54.00	15.26	Average

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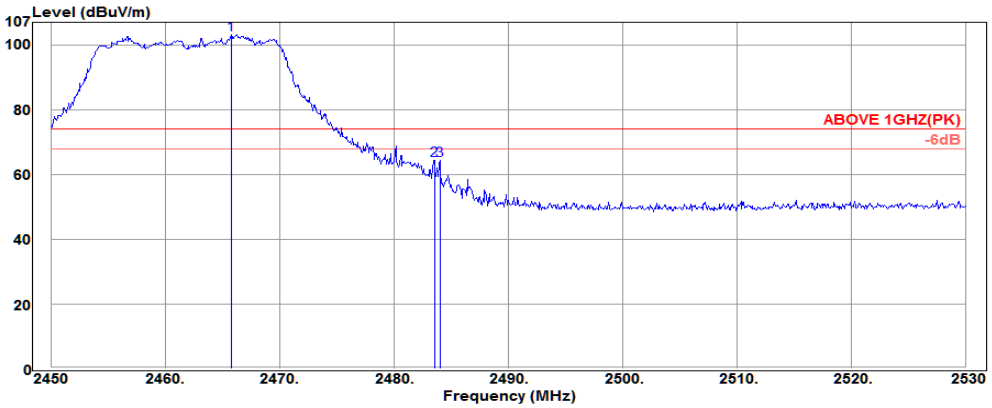
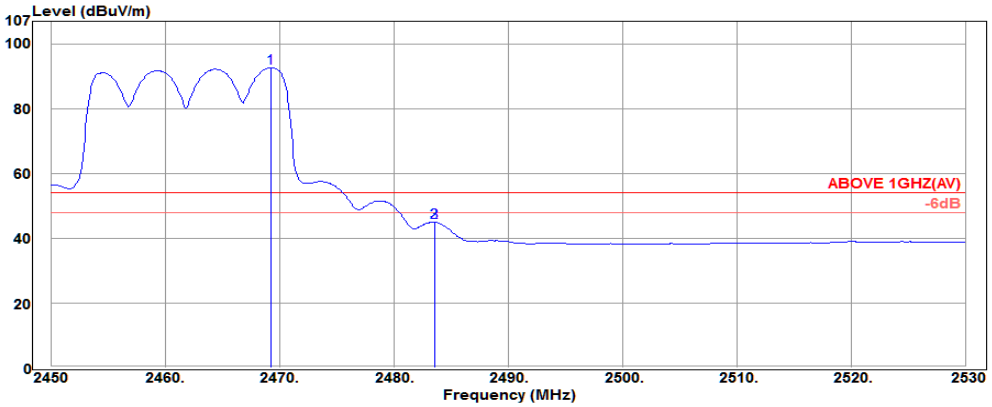
Mode	802.11g	Frequency	TX 2462MHz



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2465.76	32.25	5.80	65.10	103.15	---	---	Peak
2483.52	32.28	5.82	26.20	64.30	74.00	9.70	Peak
2484.00	32.28	5.82	26.31	64.41	74.00	9.59	Peak



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2469.28	32.25	5.80	54.57	92.62	---	---	Average
2483.52	32.28	5.82	6.86	44.96	54.00	9.04	Average
2483.60	32.28	5.82	6.83	44.93	54.00	9.07	Average

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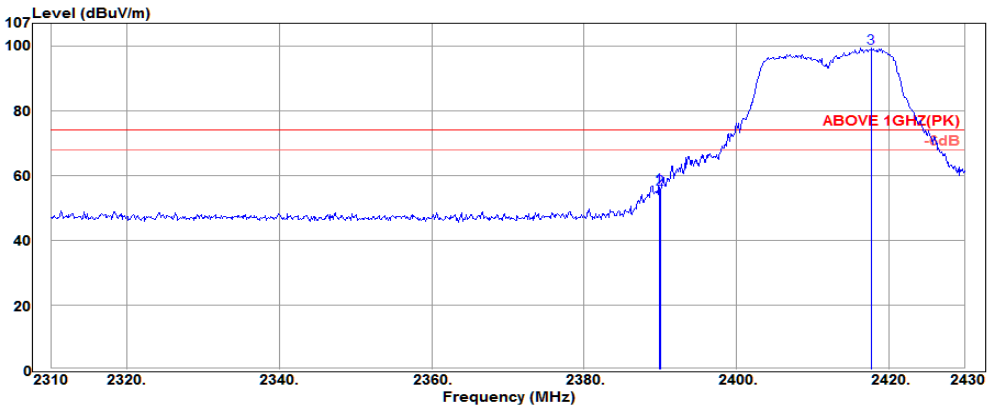
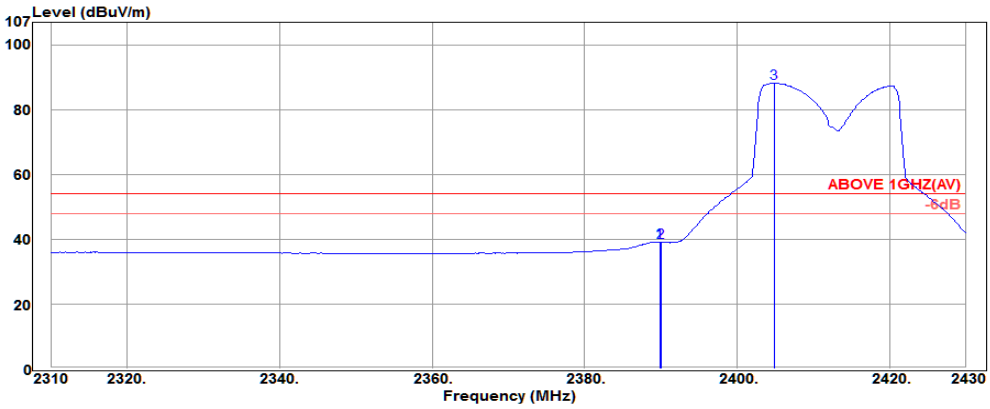
Mode	802.11n-HT20	Frequency	TX 2412MHz



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2389.92	32.16	5.72	18.61	56.49	74.00	17.51	Peak
2390.04	32.16	5.72	17.91	55.79	74.00	18.21	Peak
2417.76	32.18	5.74	61.50	99.42	---	---	Peak



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2389.92	32.16	5.72	1.31	39.19	54.00	14.81	Average
2390.04	32.16	5.72	1.27	39.15	54.00	14.85	Average
2404.80	32.18	5.74	50.24	88.16	---	---	Average

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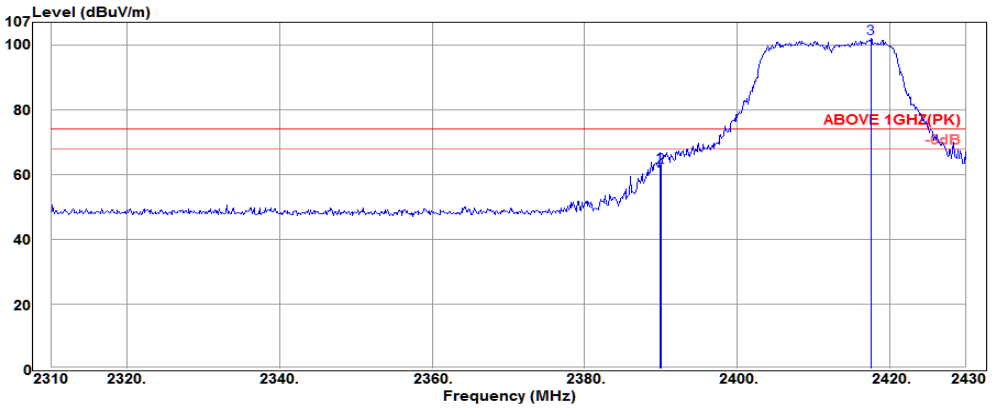
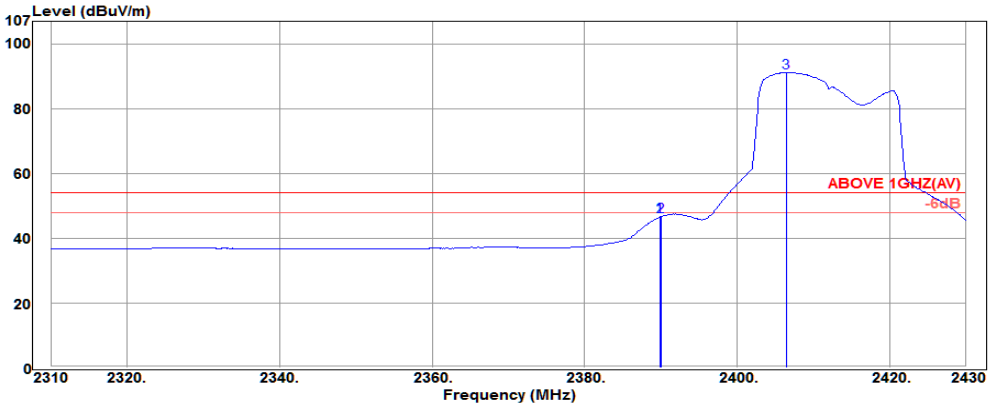
Mode	802.11n-HT20	Frequency	TX 2412MHz



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2389.92	32.16	5.72	24.88	62.76	74.00	11.24	Peak
2390.04	32.16	5.72	24.58	62.46	74.00	11.54	Peak
2417.52	32.18	5.74	63.96	101.88	---	---	Peak



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2389.92	32.16	5.72	8.74	46.62	54.00	7.38	Average
2390.04	32.16	5.72	8.84	46.72	54.00	7.28	Average
2406.48	32.18	5.74	53.30	91.22	---	---	Average

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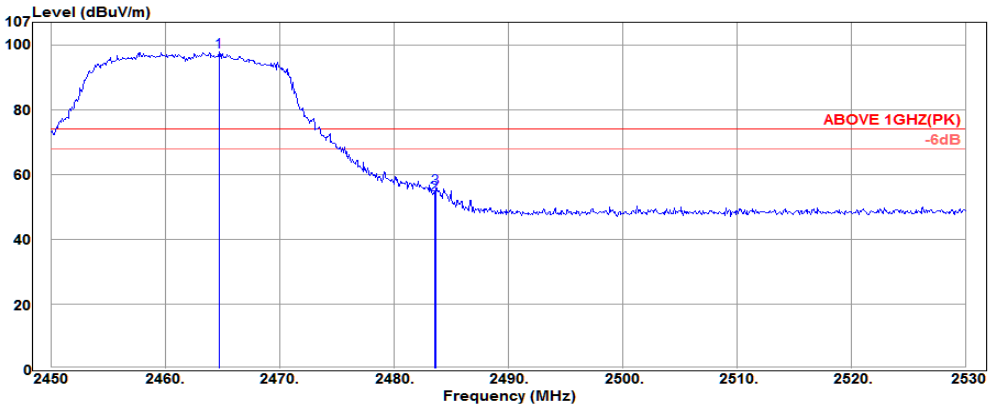
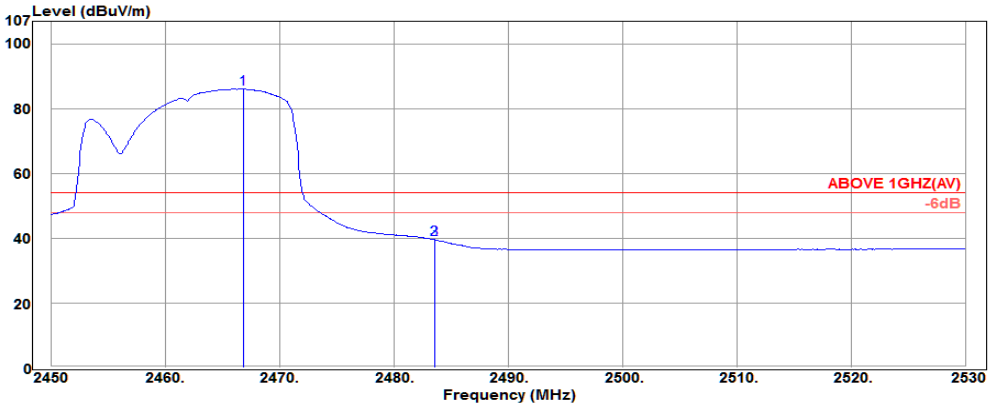
Mode	802.11n-HT20	Frequency	TX 2462MHz



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2464.72	32.25	5.80	59.85	97.90	---	---	Peak
2483.52	32.28	5.82	15.60	53.70	74.00	20.30	Peak
2483.68	32.28	5.82	17.69	55.79	74.00	18.21	Peak



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2466.88	32.25	5.80	48.04	86.09	---	---	Average
2483.52	32.28	5.82	1.51	39.61	54.00	14.39	Average
2483.60	32.28	5.82	1.47	39.57	54.00	14.43	Average

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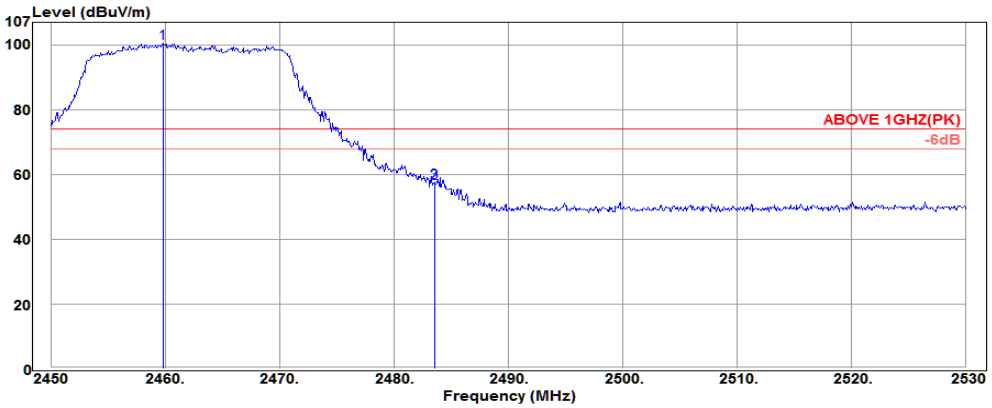
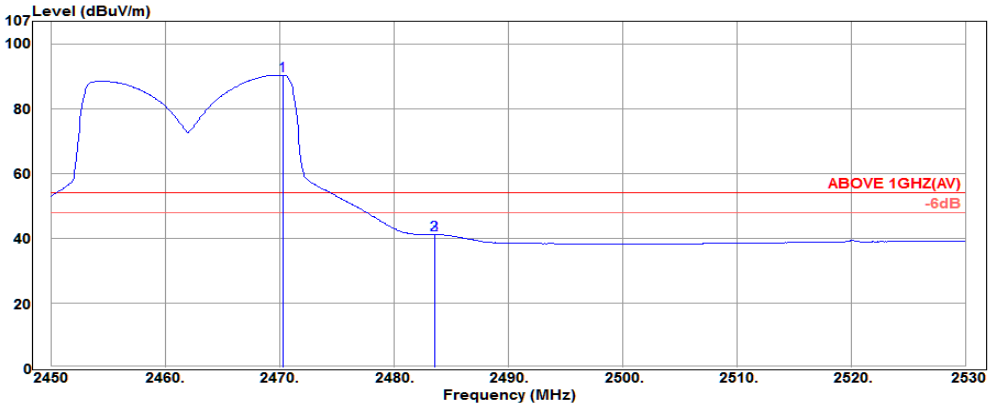
Mode	802.11n-HT20	Frequency	TX 2462MHz



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2459.84	32.25	5.80	62.57	100.62	---	---	Peak
2483.52	32.28	5.82	19.22	57.32	74.00	16.68	Peak
2483.60	32.28	5.82	19.43	57.53	74.00	16.47	Peak



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2470.32	32.25	5.80	52.33	90.38	---	---	Average
2483.52	32.28	5.82	3.08	41.18	54.00	12.82	Average
2483.60	32.28	5.82	3.07	41.17	54.00	12.83	Average

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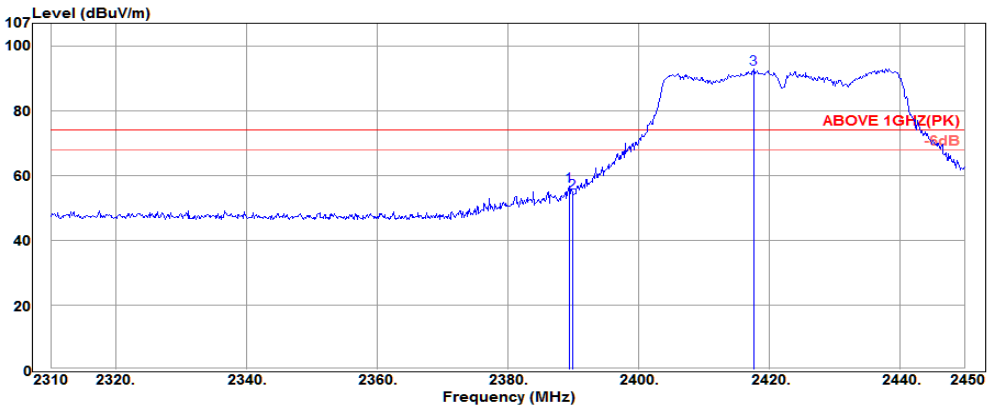
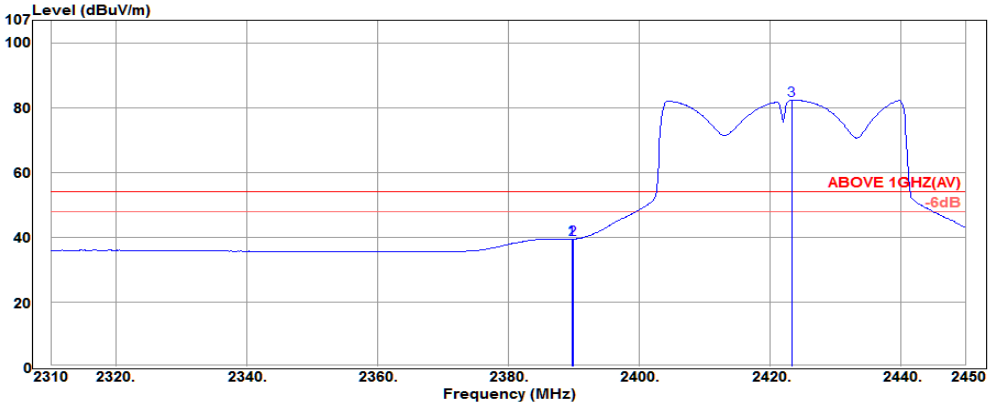
Mode	802.11n-HT40	Frequency	TX 2422MHz



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2389.38	32.16	5.72	18.74	56.62	74.00	17.38	Peak
2389.94	32.16	5.72	16.93	54.81	74.00	19.19	Peak
2417.66	32.18	5.74	54.93	92.85	---	---	Peak



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2389.80	32.16	5.72	1.57	39.45	54.00	14.55	Average
2389.94	32.16	5.72	1.54	39.42	54.00	14.58	Average
2423.40	32.20	5.76	44.35	82.31	---	---	Average

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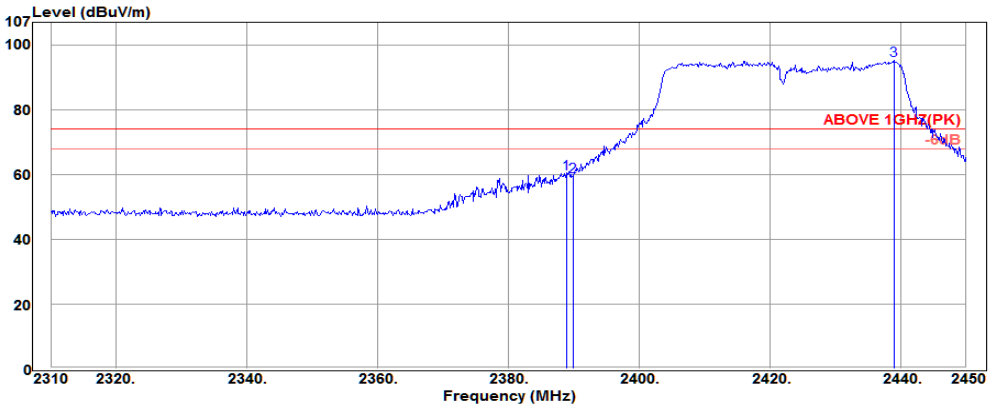
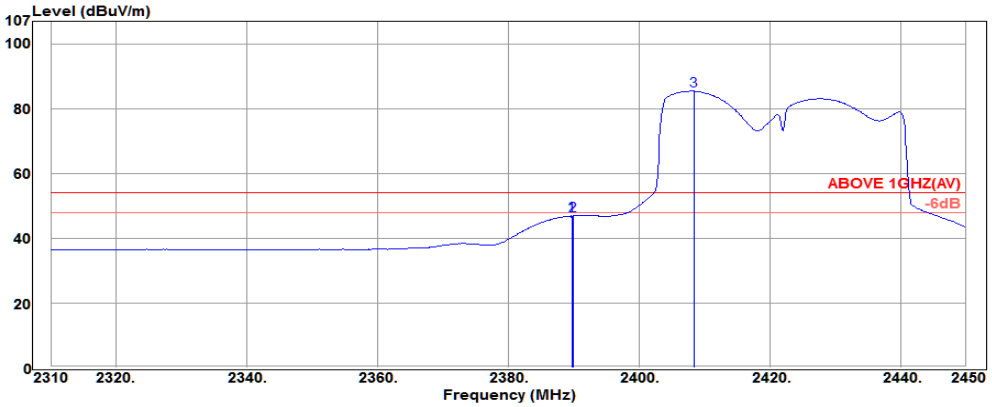
Mode	802.11n-HT40	Frequency	TX 2422MHz



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2388.96	32.16	5.72	22.36	60.24	74.00	13.76	Peak
2389.94	32.16	5.72	21.55	59.43	74.00	14.57	Peak
2438.94	32.23	5.78	57.18	95.19	---	---	Peak



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2389.80	32.16	5.72	9.05	46.93	54.00	7.07	Average
2389.94	32.16	5.72	9.03	46.91	54.00	7.09	Average
2408.42	32.18	5.74	47.52	85.44	---	---	Average

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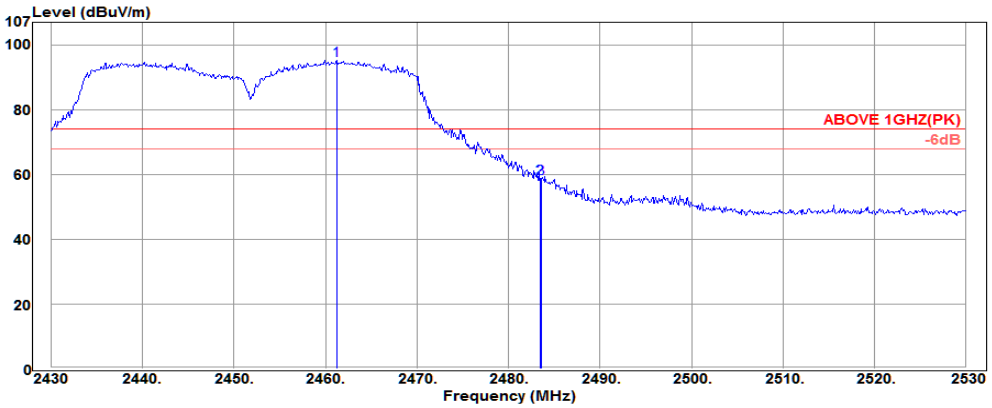
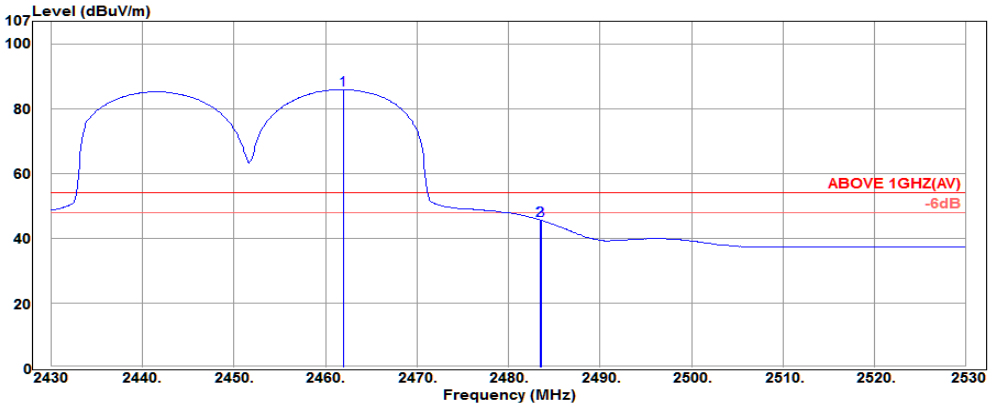
Mode	802.11n-HT40	Frequency	TX 2452MHz



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2461.30	32.25	5.80	57.28	95.33	---	---	Peak
2483.50	32.28	5.82	20.83	58.93	74.00	15.07	Peak
2483.60	32.28	5.82	20.82	58.92	74.00	15.08	Peak



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2462.00	32.25	5.80	47.90	85.95	---	---	Average
2483.50	32.28	5.82	7.59	45.69	54.00	8.31	Average
2483.60	32.28	5.82	7.50	45.60	54.00	8.40	Average

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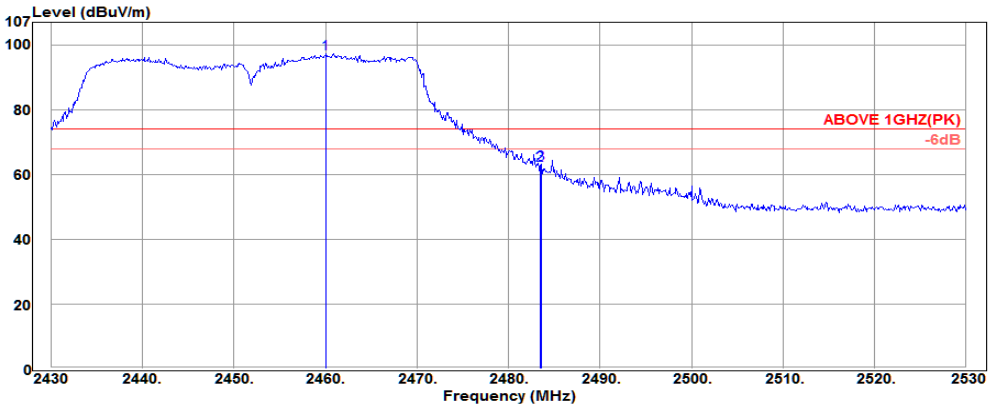
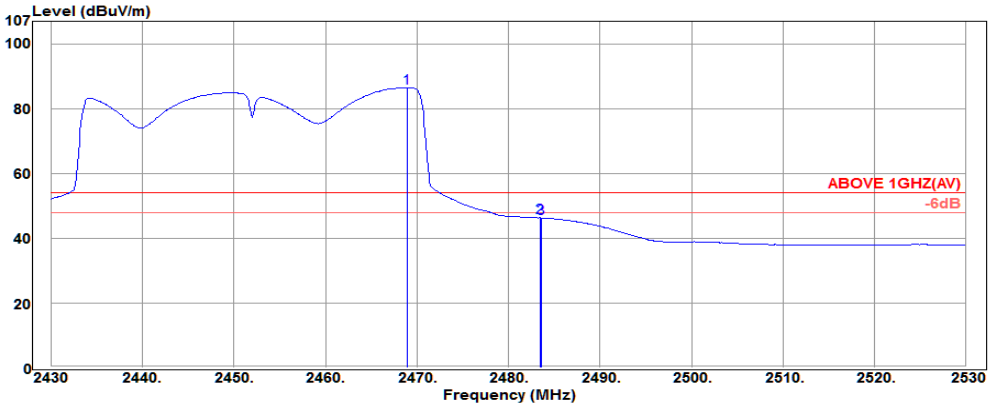
Mode	802.11n-HT40	Frequency	TX 2452MHz



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2460.10	32.25	5.80	59.36	97.41	---	---	Peak
2483.50	32.28	5.82	24.81	62.91	74.00	11.09	Peak
2483.60	32.28	5.82	25.08	63.18	74.00	10.82	Peak



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2468.90	32.25	5.80	48.43	86.48	---	---	Average
2483.50	32.28	5.82	8.23	46.33	54.00	7.67	Average
2483.60	32.28	5.82	8.20	46.30	54.00	7.70	Average

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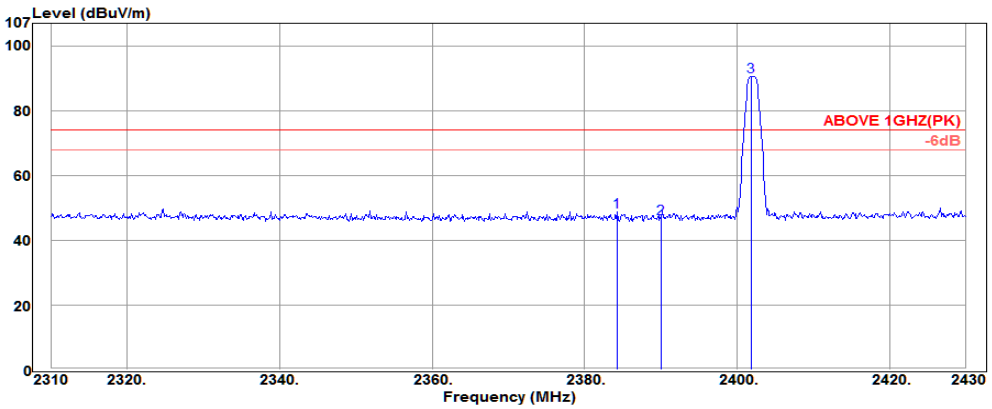
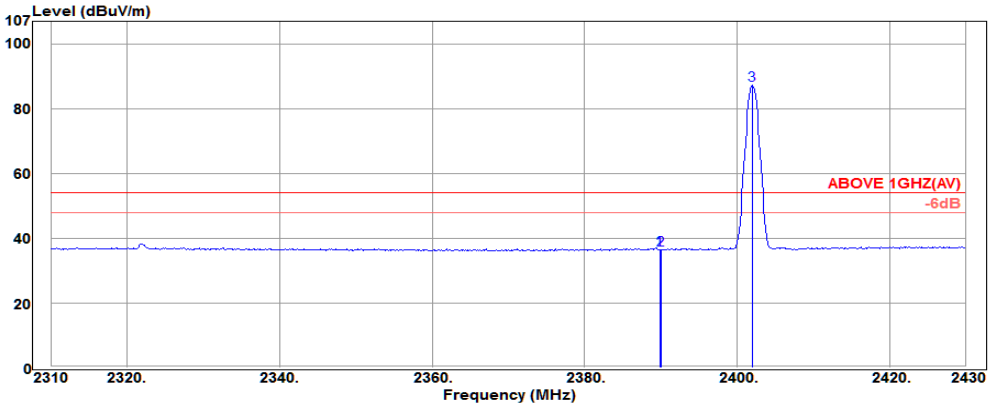
Mode	BLE	Frequency	TX 2402MHz



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2384.28	32.13	5.71	11.01	48.85	74.00	25.15	Peak
2390.04	32.16	5.72	8.86	46.74	74.00	27.26	Peak
2401.80	32.16	5.72	52.70	90.58	---	---	Peak



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2389.92	32.16	5.72	-1.32	36.56	54.00	17.44	Average
2390.04	32.16	5.72	-1.30	36.58	54.00	17.42	Average
2401.92	32.16	5.72	49.48	87.36	---	---	Average

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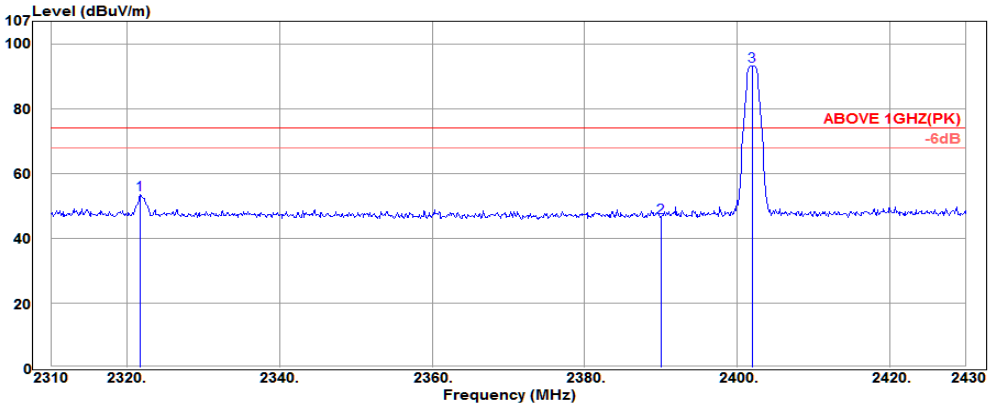
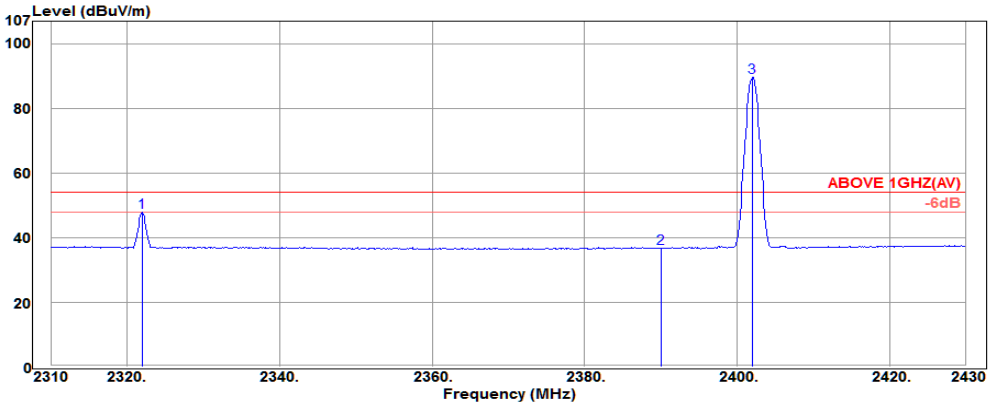
Mode	BLE	Frequency	TX 2402MHz



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBµV)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Detector
2321.76	32.06	5.67	15.68	53.41	74.00	20.59	Peak
2390.04	32.16	5.72	8.71	46.59	74.00	27.41	Peak
2402.04	32.16	5.72	55.44	93.32	---	---	Peak



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBµV)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Detector
2322.00	32.06	5.67	10.13	47.86	54.00	6.14	Average
2390.04	32.16	5.72	-1.05	36.83	54.00	17.17	Average
2402.04	32.16	5.72	51.86	89.74	---	---	Average

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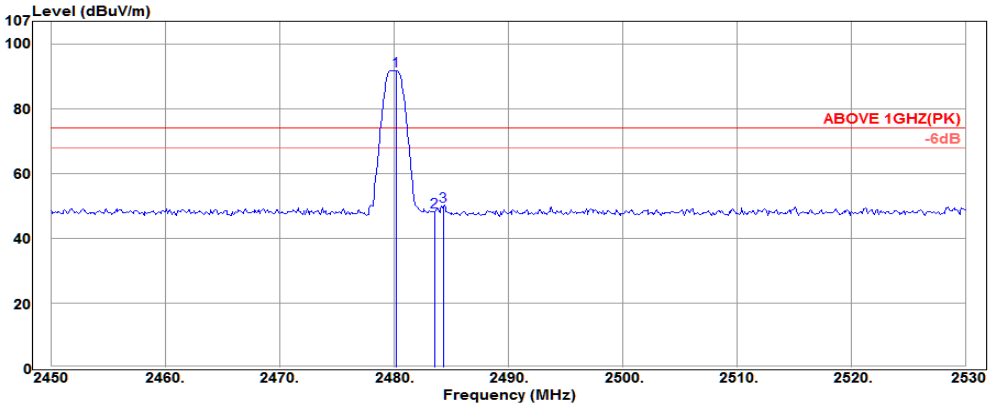
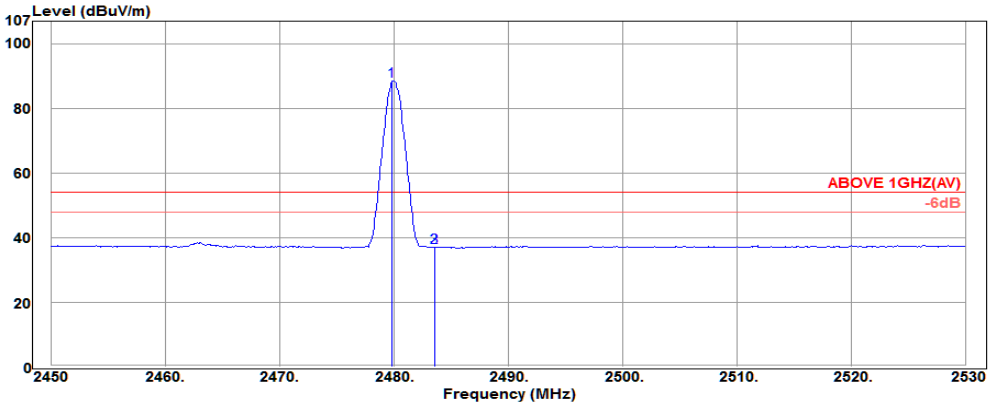
Mode	BLE	Frequency	TX 2480MHz



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBµV)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Detector
2480.24	32.28	5.82	53.74	91.84	---	---	Peak
2483.52	32.28	5.82	10.02	48.12	74.00	25.88	Peak
2484.32	32.28	5.82	11.78	49.88	74.00	24.12	Peak



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBµV)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Detector
2479.84	32.28	5.82	50.31	88.41	---	---	Average
2483.52	32.28	5.82	-1.15	36.95	54.00	17.05	Average
2483.60	32.28	5.82	-1.12	36.98	54.00	17.02	Average

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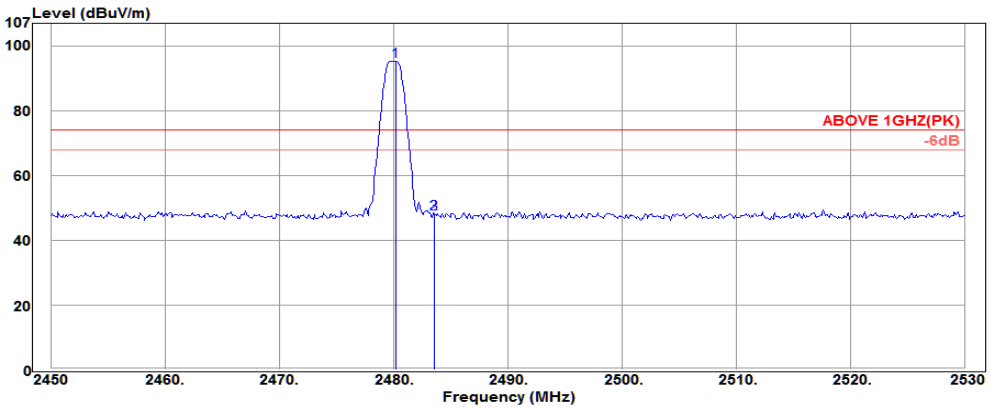
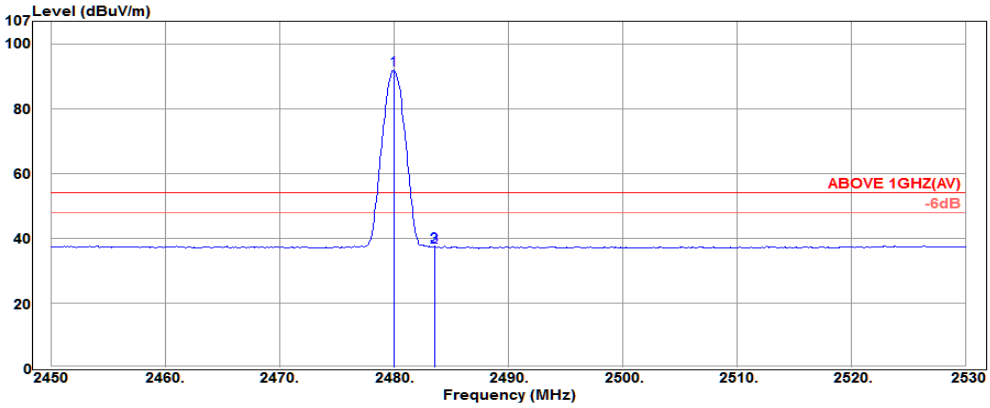
Mode	BLE	Frequency	TX 2480MHz



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBµV)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Detector
2480.24	32.28	5.82	57.20	95.30	---	---	Peak
2483.52	32.28	5.82	10.15	48.25	74.00	25.75	Peak
2483.60	32.28	5.82	10.04	48.14	74.00	25.86	Peak



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBµV)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Detector
2480.00	32.28	5.82	53.80	91.90	---	---	Average
2483.52	32.28	5.82	-0.71	37.39	54.00	16.61	Average
2483.60	32.28	5.82	-0.59	37.51	54.00	16.49	Average

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6.5.3. Emissions outside the frequency band:

The emissions (up to 25GHz) not reported for there is no emission be found.

Mode	802.11b	Frequency	TX 2412MHz

Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2354.00	32.11	5.69	4.76	42.56	54.00	11.44	Peak
3250.00	32.85	6.57	5.10	44.52	54.00	9.48	Peak
4875.00	34.25	8.35	6.73	49.33	54.00	4.67	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2354.00	32.11	5.69	8.32	46.12	54.00	7.88	Peak
3250.00	32.85	6.57	8.59	48.01	54.00	5.99	Peak
4875.00	34.25	8.35	7.42	50.02	54.00	3.98	Peak

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Mode	802.11g	Frequency	TX 2437MHz

Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2360.00	32.11	5.69	4.60	42.40	54.00	11.60	Peak
3250.00	32.85	6.57	4.44	43.86	54.00	10.14	Peak
4875.00	34.25	8.35	3.20	45.80	54.00	8.20	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2354.00	32.11	5.69	9.79	47.59	54.00	6.41	Peak
3250.00	32.85	6.57	8.63	48.05	54.00	5.95	Peak
4875.00	34.25	8.35	2.79	45.39	54.00	8.61	Peak

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Mode	802.11n-HT20	Frequency	TX 2437MHz

Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2366.00	32.11	5.69	4.69	42.49	54.00	11.51	Peak
3250.00	32.85	6.57	6.80	46.22	54.00	7.78	Peak
4875.00	34.25	8.35	1.94	44.54	54.00	9.46	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2346.00	32.08	5.68	9.57	47.33	54.00	6.67	Peak
3250.00	32.85	6.57	8.94	48.36	54.00	5.64	Peak
4875.00	34.25	8.35	4.90	47.50	54.00	6.50	Peak

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Mode	802.11n-HT40	Frequency	TX 2437MHz

Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2364.00	32.11	5.69	4.84	42.64	54.00	11.36	Peak
3250.00	32.85	6.57	6.63	46.05	54.00	7.95	Peak
4875.00	34.25	8.35	0.66	43.26	54.00	10.74	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2366.00	32.11	5.69	11.45	49.25	54.00	4.75	Peak
3250.00	32.85	6.57	9.35	48.77	54.00	5.23	Peak
4875.00	34.25	8.35	0.35	42.95	54.00	11.05	Peak

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Mode	BLE	Frequency	TX 2402MHz

Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4805.00	34.22	7.86	-0.29	41.79	54.00	12.21	Peak
7205.00	35.80	9.22	-1.59	43.43	54.00	10.57	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4805.00	34.22	7.86	-0.57	41.51	54.00	12.49	Peak
7205.00	35.80	9.22	-1.62	43.40	54.00	10.60	Peak

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Mode	BLE	Frequency	TX 2440MHz

Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4880.00	34.25	8.35	0.02	42.62	54.00	11.38	Peak
7320.00	35.80	9.89	-2.39	43.30	54.00	10.70	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4880.00	34.25	8.35	0.51	43.11	54.00	10.89	Peak
7320.00	35.80	9.89	-1.63	44.06	54.00	9.94	Peak

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Mode	BLE	Frequency	TX 2480MHz

Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2560.00	32.38	5.95	4.37	42.70	54.00	11.30	Peak
4960.00	34.29	8.68	-1.01	41.96	54.00	12.04	Peak
7440.00	35.80	10.40	-1.62	44.58	54.00	9.42	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2560.00	32.38	5.95	9.05	47.38	54.00	6.62	Peak
4960.00	34.29	8.68	-1.30	41.67	54.00	12.33	Peak
7440.00	35.80	10.40	-0.82	45.38	54.00	8.62	Peak

6.5.4. Emissions in Non-restricted Frequency Bands

Pursuant to KDB 558074 D01 v03r05 that emission levels below the 15.209 Section 8.9 table 4 general radiated emissions limits is not required.

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7. MAXIMUM PEAK OUTPUT POWER MEASUREMENT

7.1. Block Diagram of Test Setup

7.2. Specification Limits

The Limits of maximum Peak Output Power for digital modulation in 2400-2483.5MHz is : 1Watt. (30dBm), and E.I.R.P.: 4Watt (36dBm)

7.3. Test Procedure

Following measurement procedure is reference to KDB 558074 D01 DTS Meas Guidance v03r05:

■PKPM1 Peak power meter method:

EUT is connected to power sensor and record the maximum output power.

□Method AVGPM (Measurement using an RF average power meter):

EUT is connected to power sensor and record the maximum average output power and duty cycle factor is added when duty cycle presented in section 3.5 is < 98%.

□Method AVGSA-2 (Spectrum channel power)

(1) Set span to at least 1.5 times the OBW
(2) Set RBW = 1 -5% of OBW
(3) Set the video bandwidth (VBW) ≥ 3 × RBW.
(4) Detector = RMS.
(5) Trace mode = trace average at least 100 traces
(6) Sweep = auto couple.
(7) Compute power by integrating the spectrum across the OBW of the signal using the instrument's band power measurement function with band limits set equal to the OBW band edges.
(8) Duty cycle factor is added when duty cycle presented in section 3.5 is < 98%.

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7.4. Test Results

Test Date	2016/06/06	Temp./Hum.	25℃/58%
Cable Loss	---	Test Voltage	DC 3.3V

A.1.1 Peak Output Power

Modulation Type	Centre Frequency (MHz)	Output Power (dBm)		Total Output Power		Limit
		Chain 0	Chain 1	(dBm)	(W)	
802.11b	2412	18.68	18.76	21.73	0.148936	< 30 dBm (1 W)
	2437	18.34	18.59	21.48	0.140605	
	2462	18.42	18.64	21.54	0.142561	
802.11g	2412	21.79	22.00	24.91	0.309742	
	2437	24.11	23.00	26.60	0.457088	
	2462	22.01	21.33	24.69	0.294442	
802.11n-HT20	2412	20.71	20.65	23.69	0.233884	
	2437	22.81	23.65	26.26	0.422669	
	2462	19.62	19.83	22.74	0.187932	
802.11n-HT40	2422	16.96	17.07	20.03	0.100693	
	2437	21.62	21.87	24.76	0.299226	
	2452	18.92	19.17	22.06	0.160694	
BLE	2402	3.34	---	3.34	0.002158	
	2440	3.71	---	3.71	0.002350	
	2480	3.92	---	3.92	0.002466	

Note 1: The results have been included cable loss.

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A.1.2 Average Output Power (Reporting only)

Modulation Type	Centre Frequency (MHz)	Output Power (dBm)		Total Output Power		Limit
		Chain 0	Chain 1	(dBm)	(W)	
802.11b	2412	16.58	16.69	19.65	0.092257	< 30 dBm (1 W)
	2437	16.22	16.51	19.38	0.086696	
	2462	16.32	16.5	19.42	0.087498	
802.11g	2412	12.52	12.56	15.55	0.035892	
	2437	15.34	15.62	18.49	0.070632	
	2462	12.2	12.5	15.36	0.034356	
802.11n-HT20	2412	11.61	11.79	14.71	0.029580	
	2437	15.31	16.31	18.85	0.076736	
	2462	10.23	10.71	13.49	0.022336	
802.11n-HT40	2422	7.69	7.71	10.71	0.011776	
	2437	12.82	13.01	15.93	0.039174	
	2452	9.34	10.11	12.75	0.018836	

Modulation Type	Centre Frequency (MHz)	Output Power (dBm)		Total Output Power		Limit
		Chain 0	10log(1/X)	(dBm)	(W)	
BLE	2402	-0.96	3.81	2.85	0.001928	< 30 dBm (1 W)
	2440	-0.44		3.37	0.002173	
	2480	-0.38		3.43	0.002203	

Note 1: The results have been included cable loss.

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8. DEVIATION TO TEST SPECIFICATIONS

【NONE】