



Spectrum Research & Testing Lab., Inc.

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

Reference No.: A18040201
Report No.: FCCA18040201
FCC ID : 2AIFK-LVSDSM010
Page: 1 of 103
Date: May. 02, 2018

Product Name: Live View Plus
Model No.: LVS-DSM-010
Live View Golf, Inc.
Applicant: 10061 Bubb Road, #200, Cupertino, CA 95014, United States
Date of Receipt: Apr. 04, 2018
Finished date of Test: Apr. 26, 2018
Applicable Standards: 47 CFR Part 15, Subpart C, 15.247
ANSI C63.10: 2013
FCC publication KDB 558074 D01 DTS Meas Guidance v04
Measurement on Digital Transmission Systems (DTS)
Operating under Section 15.247 Apr 5, 2017

We, **Spectrum Research & Testing Laboratory Inc.**, hereby certify that one sample of the above was tested in our laboratory with positive results according to the above-mentioned standards. The records in the report are an accurate account of the results. Details of the results are given in the subsequent pages of this report.

Tested By : Richard Lin , Date: 5/2/2018
(Richard Lin)

Approved By : J Johnson , Date: 5/2/2018
(Johnson Ho, Director)



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Revisions History

Report No.	Issue Date	Revisions
FCCA18040201	May. 02, 2018	Initial issue



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1. DOCUMENT POLICY AND TEST STATEMENT

1.1 DOCUMENT POLICY

- The report shall not be reproduced except in full, without the written approval of SRT Lab, Inc.
- FCC Registered Test Site Number : TW1016

1.2 TEST STATEMENT

- The test results in the report apply only to the unit tested by SRT Lab.
- There was no deviation from the requirements of test standards during the test.
- DC power source, DC 3.7V of charge battery or DC 5.0V from PC USB Port, was used during the test.

1.3 EUT MODIFICATION

- No modification in SRT Lab.

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2. DESCRIPTION OF EUT AND TEST MODE**2.1 GENERAL DESCRIPTION OF EUT**

PRODUCT	Live View Plus
MODEL NO.	LVS-DSM-010
POWER SUPPLY	DC power source, DC 3.7V of charge battery or DC 5.0V from PC USB Port
CABLE	NA
FREQUENCY BAND	2.4 GHz ~ 2.4835 GHz
CARRIER FREQUENCY	2.412 GHz ~ 2.462 GHz
NUMBER OF CHANNEL	802.11b/g/n - HT20 : 11 ch
RATED RF OUTPUT POWER	802.11b : 6.70 dBm (4.68 mW) 802.11g : 5.43 dBm (3.49 mW) 802.11n - HT20 : 3.50 dBm (2.24 mW)
MODULATION TYPE	IEEE802.11b DSSS(BPSK/QPSK/CCK) IEEE802.11g OFDM(BPSK/16-QAM/64-QAM) IEEE802.11n SISO-OFDM(BPSK/QPSK/16-QAM/64-QAM)
MODE OF OPERATION	Duplex
BIT RATE OF TRANSMISSION	802.11b : 1, 2, 5.5, 11 Mbps 802.11g : 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11n - HT20 : MCS0 ~ MCS7 (Max. 72.2 Mbps)
ANTENNA TYPE	Printed Antenna
ANTENNA GAIN	3.0 dBi

NOTE:

For more detailed information, please refer to the EUT's specification or user's manual provided by manufacturer.

2.2 DESCRIPTION OF EUT INTERNAL DEVICE

DEVICE	BRAND / MAKER	MODEL #	FCC ID / DOC	REMARK
Micro USB Cable	N/A	N/A	N/A	0.6m unshielded power cable
Lithium-ion Battery	YJ POWER GROUP LIMITED.	PL804050P	N/A	DC 3.7V, 1800mAh

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2.3 DESCRIPTION OF TEST MODE

There are test modes for each test configuration as below:

Mode		Channel	Frequency (MHz)
01	802.11b	CH01	2412
02		CH06	2437
03		CH11	2462
04	802.11g	CH01	2412
05		CH06	2437
06		CH11	2462
07	802.11n - HT20	CH01	2412
08		CH06	2437
09		CH11	2462

NOTE:

1. Below 1 GHz were pre-tested in chamber and chosen the worst case for conducted and radiated emission test.
2. Above 1 GHz were tested individually.
3. The axis X,Y and Z we evaluate in chamber, the X axis is worst case.

2.4 EUT OPERATING CONDITION

1. For use customer provided continuous transmission EUT.
2. Turn on the power of all equipment and EUT.
3. Open the hyperterminal and enter the continuous transmission instruction.

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2.5 DESCRIPTION OF SUPPORT UNIT

The EUT was configured by the requirement of ANSI C63.10:2013. All interface ports were connected to the appropriate support units via specific cables. The support units and cables are listed below.

NO	DEVICE	BRAND	MODEL #	FCC ID/DOC	CABLE
1	PC	ASUS	M32AA1	R31018	1.5m unshielded power cable.
2	LCD Monitor	ViewSonic	VS10866	R31374	1.8m unshielded power cable. 1.5m shielded data cable.
3	Keyboard	ASUS	PK1100U	D41108	1.8m unshielded data cable.
4	Mouse	ASUS	MOBTUO	R41108	1.5m unshielded data cable.
5	Printer	HP	C8991A	R33001	1.5m unshielded power cable. 1.5m shielded data cable.
6	USB 2.0 HDD	TERASYS	F12-U	4912A002	1.5m unshielded power cable.

NOTE: For the actual test configuration, please refer to the photos of testing.

2.6 CHANNEL AND FREQUENCY TABLE

802.11a/b/n - HT20			
Channel	Frequency	Channel	Frequency
CH01	2412 MHz	CH07	2442 MHz
CH02	2417 MHz	CH08	2447 MHz
CH03	2422 MHz	CH09	2452 MHz
CH04	2427 MHz	CH10	2457 MHz
CH05	2432 MHz	CH11	2462 MHz
CH06	2437 MHz	--	--



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3. DESCRIPTION OF APPLIED STANDARDS

The EUT is a wireless product. According to the specifications provided by the applicant, it must comply with the requirements of the following standards:

47 CFR Part 15, Subpart C, 15.247

ANSI C63.10: 2013

FCC publication KDB 558074 D01 DTS Meas Guidance v04 Measurement on
Digital Transmission Systems (DTS) Operating under Section 15.247 Apr 5, 2017

All tests have been performed and recorded as the above standards.

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3.1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

STANDARD SECTION	TEST TYPE AND LIMIT RESULTS	RESULTS
15.203 15.247(c)(1)(i)	Antenna requirement	PASS
15.207	AC Power Line Conducted Emission	PASS
15.247(a)(2)	6 dB Bandwidth	PASS
15.247(b)	Maximum Peak Conducted Output Power	PASS
15.247(d)	Band Edge Measurement:	PASS
15.247(d)	Transmitter Radiated Emissions Limit: Table 15.209	PASS
15.247(e)	Power Density: Limit: 8dBm/3kHz	PASS

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4. TECHNICAL CHARACTERISTICS TEST

4.1 CONDUCTED EMISSION TEST

4.1.1 LIMIT

Frequency (MHz)	Class A (dBμV)		Class B (dBμV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 - 0.5	79	66	66 - 56	56 - 46
0.50 - 5.0	73	60	56	46
5.0 - 30.0	73	60	60	50

NOTE:

1. The lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.

4.1.2 TEST EQUIPMENT

The following test equipment was used for the test:

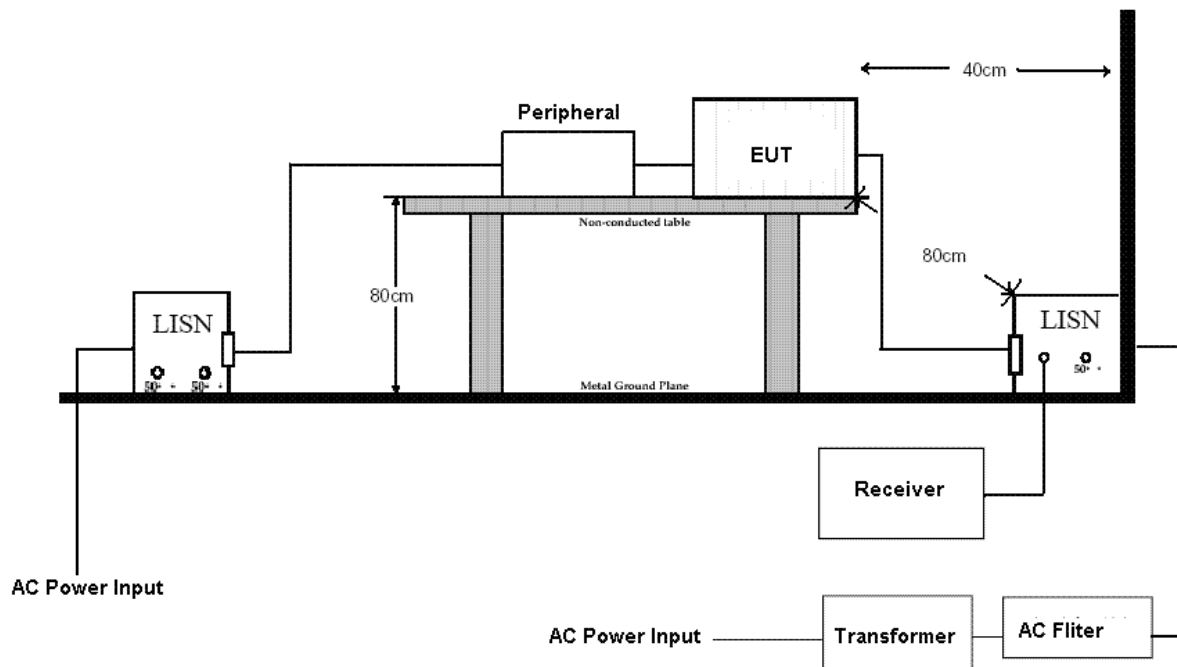
EQUIPMENT/FACILITIES	SPECIFICATIONS	MANUFACTURER	MODEL#/SERIAL#	DUE DATE OF CAL. & CAL. CENTER
EMI TEST RECEIVER	9 kHz ~ 2.75 GHz	ROHDE & SCHWARZ	ESCS30 / 100376	JAN. 01, 2019 ETC
EMI TEST RECEIVER	9 kHz ~ 30 MHz	ROHDE & SCHWARZ	ESHS30 / 826003/008	JAN. 14, 2019 ETC
LISN	50 μH, 50 ohm	SOLAR	9252-50-R-24-BNC/ 951315	OCT. 30, 2018 ETC
LISN	50 μH, 50 ohm	SCHWARZBECK	NSLK 8127/ 8127-808	DEC. 07, 2018 ETC
50Ω BNC TYPE TERMINATOR	50 ohm	N/A	11593A/ L1TEQU005	NOV. 08, 2018 ETC
50Ω BNC TYPE TERMINATOR	50 ohm	N/A	B00-CD-357/ L1TEQU009	MAY 17, 2018 ETC
COAXIAL CABLE	5 m	HUBER+SUHNER	RG214/U / #5M (L1TCAB013)	MAY 08, 2018 ETC
FILTER	2 LINE, 30 A	FIL.COIL	FC-943 / 771	NCR
GROUND PLANE	2 m (H) x 3 m (W)	SRT	N/A	NCR
GROUND PLANE	2.5 m (H) x 3 m (W)	SRT	N/A	NCR
PULSE LIMITER	9 kHz ~ 30 MHz Insertion Loss= 10dB±0.3dB	ROHDE & SCHWARZ	ESH3Z2/ L1TTES009	MAR. 25, 2019 ETC
THERMO-HYGR O	15 - 40 °C, 0- 100% RH	TOP	20-A / 6644	SEP. 17, 2018 ETC

NOTE:

The calibration interval of the above test equipment is one year and the calibrations are traceable to NML/ROC and NIST/USA.



4.1.3 TEST SETUP



NOTE :

1. The EUT was put on a wooden table with 0.8m heights above ground plane, and 0.4m away from reference ground plane (> 2mx2m).
2. For the actual test configuration, please refer to the photos of testing.

4.1.4 TEST PROCEDURE

The EUT was tested according to the requirement of ANSI C63.10:2013 and CISPR22:2003. The frequency spectrum from 0.15 MHz to 30 MHz was investigated. The LISN used was 50 ohm/50μH as specified. All readings were quasi-peak and average values with 10 kHz resolution bandwidth of the test receiver. The EUT system was operated in all typical methods by users. Both lines of the power mains of EUT were measured and the cables connected to EUT and support units were moved to find the maximum emission levels for each frequency. First, find the margin or higher points at least 6 points by software, then use manual to find the maximum data. The procedure is referred on the test procedure of SRT LAB.

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4.1.5 TEST RESULT

Temperature: 26 °C

Humidity: 72 %RH

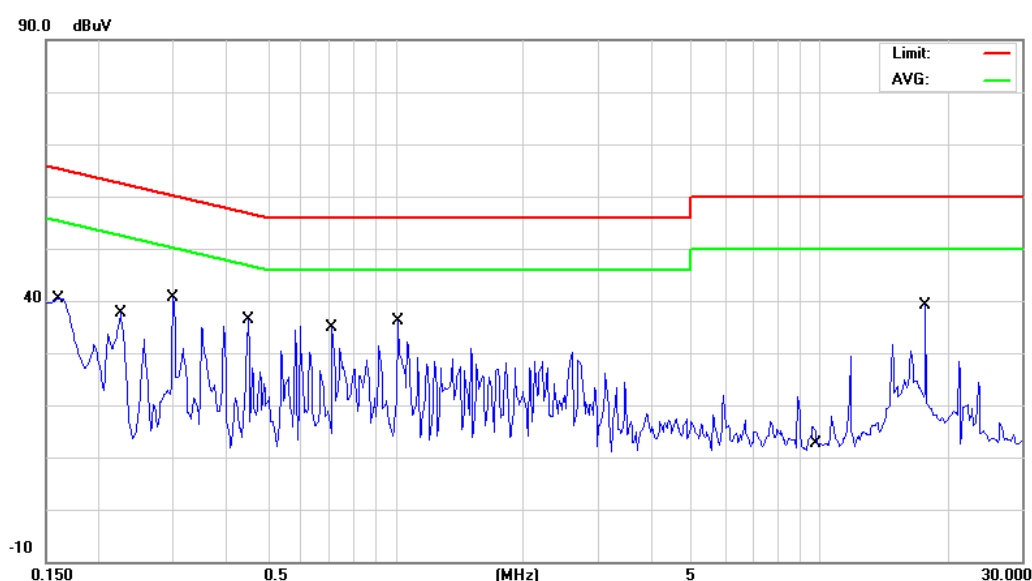
Frequency Range: 0.15 – 30 MHz

Tested Mode: 802.11b_CH01

Receiver Detector: Q.P. and AV.

Tested Date: Apr. 19, 2018

Power Line Measured : Line



Mk.	No.	Frequency (MHz)	Reading (dBuV)	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Comment
	1	0.1600	35.58	-0.09	35.49	65.46	-29.97	QP	
	2	0.1600	34.32	-0.09	34.23	55.46	-21.23	AVG	
	3	0.2250	37.02	-0.09	36.93	62.63	-25.70	QP	
*	4	0.2250	34.78	-0.09	34.69	52.63	-17.94	AVG	
	5	0.3000	21.14	-0.09	21.05	60.24	-39.19	QP	
	6	0.3000	4.52	-0.09	4.43	50.24	-45.81	AVG	
	7	0.4500	21.26	-0.09	21.17	56.88	-35.71	QP	
	8	0.4500	9.48	-0.09	9.39	46.88	-37.49	AVG	
	9	0.7100	20.32	-0.08	20.24	56.00	-35.76	QP	
	10	0.7100	7.87	-0.08	7.79	46.00	-38.21	AVG	
	11	1.0150	21.90	-0.07	21.83	56.00	-34.17	QP	
	12	1.0150	3.50	-0.07	3.43	46.00	-42.57	AVG	
	13	10.0000	2.20	0.22	2.42	60.00	-57.58	QP	
	14	10.0000	-0.55	0.22	-0.33	50.00	-50.33	AVG	
	15	17.7950	36.74	0.42	37.16	60.00	-22.84	QP	
	16	17.7950	29.99	0.42	30.41	50.00	-19.59	AVG	

NOTE :

1. Measurement uncertainty is 2.92 dB.
2. Result = Reading + Correction factor.
3. Corrected Factor = Cable loss + Insertion loss of LISN
Difference of Pulse Limiter Factor between EMI Test Receiver corrected 10dB insertion loss.
4. Margin = Result – Limit.

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Temperature: 26 °C

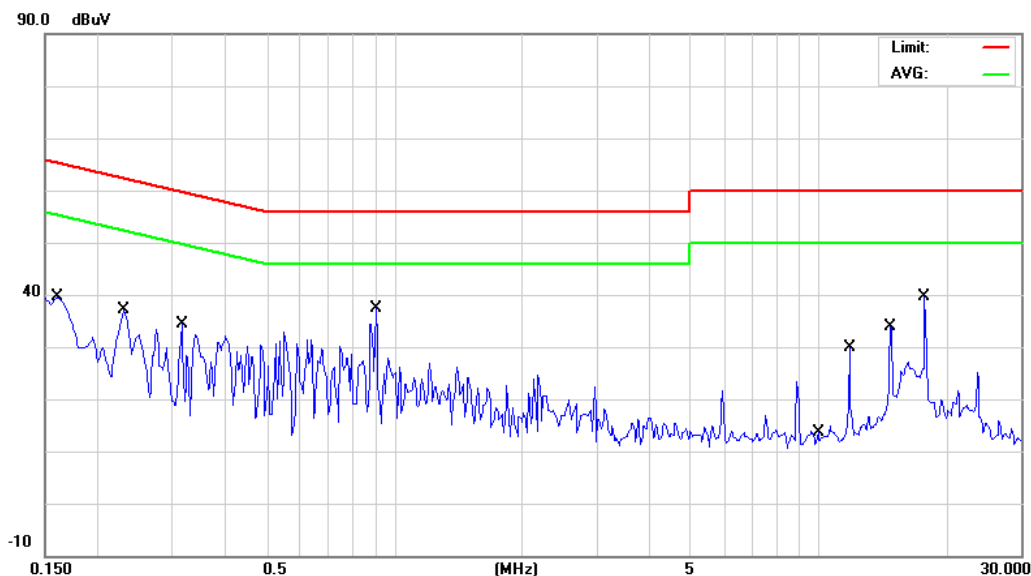
Humidity: 72 %RH

Frequency Range: 0.15 – 30 MHz

Tested Mode: 802.11b_CH01

Receiver Detector: Q.P. and AV.

Tested Date: Apr. 19, 2018

Power Line Measured : Neutral

Mk.	No.	Frequency (MHz)	Reading (dBuV)	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Comment
	1	0.1600	34.78	-0.08	34.70	65.46	-30.76	QP	
	2	0.1600	33.82	-0.08	33.74	55.46	-21.72	AVG	
	3	0.2300	27.34	-0.08	27.26	62.45	-35.19	QP	
	4	0.2300	22.15	-0.08	22.07	52.45	-30.38	AVG	
	5	0.3150	9.12	-0.08	9.04	59.84	-50.80	QP	
	6	0.3150	4.85	-0.08	4.77	49.84	-45.07	AVG	
	7	0.9050	9.08	-0.06	9.02	56.00	-46.98	QP	
	8	0.9050	3.96	-0.06	3.90	46.00	-42.10	AVG	
	9	10.0000	2.02	0.22	2.24	60.00	-57.76	QP	
	10	10.0000	-0.70	0.22	-0.48	50.00	-50.48	AVG	
	11	11.8600	28.66	0.26	28.92	60.00	-31.08	QP	
	12	11.8600	27.39	0.26	27.65	50.00	-22.35	AVG	
	13	14.8250	31.42	0.34	31.76	60.00	-28.24	QP	
	14	14.8250	27.91	0.34	28.25	50.00	-21.75	AVG	
	15	17.7900	38.42	0.41	38.83	60.00	-21.17	QP	
*	16	17.7900	35.41	0.41	35.82	50.00	-14.18	AVG	

NOTE :

1. Measurement uncertainty is 2.92 dB.
2. Result = Reading + Correction factor.
3. Corrected Factor = Cable loss + Insertion loss of LISN
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4. Margin = Result – Limit.

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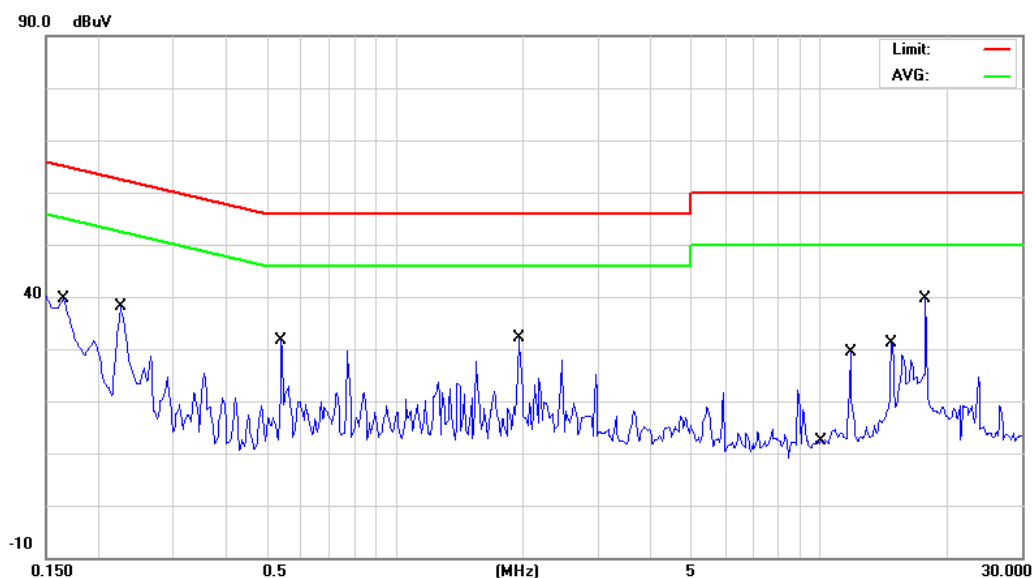
Humidity: 72 %RH

Frequency Range: 0.15 – 30 MHz

Tested Mode: 802.11b_CH06

Receiver Detector: Q.P. and AV.

Tested Date: Apr. 19, 2018

Power Line Measured : Line

Mk.	No.	Frequency (MHz)	Reading (dBuV)	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Comment
	1	0.1650	33.96	-0.09	33.87	65.21	-31.34	QP	
	2	0.1650	30.83	-0.09	30.74	55.21	-24.47	AVG	
	3	0.2250	36.84	-0.09	36.75	62.63	-25.88	QP	
	4	0.2250	34.52	-0.09	34.43	52.63	-18.20	AVG	
	5	0.5400	6.42	-0.09	6.33	56.00	-49.67	QP	
	6	0.5400	1.68	-0.09	1.59	46.00	-44.41	AVG	
	7	1.9550	12.82	-0.02	12.80	56.00	-43.20	QP	
	8	1.9550	2.02	-0.02	2.00	46.00	-44.00	AVG	
	9	10.0000	1.98	0.22	2.20	60.00	-57.80	QP	
	10	10.0000	-0.48	0.22	-0.26	50.00	-50.26	AVG	
	11	11.8600	28.04	0.26	28.30	60.00	-31.70	QP	
	12	11.8600	26.80	0.26	27.06	50.00	-22.94	AVG	
	13	14.8200	29.06	0.35	29.41	60.00	-30.59	QP	
	14	14.8200	25.93	0.35	26.28	50.00	-23.72	AVG	
	15	17.7900	37.72	0.42	38.14	60.00	-21.86	QP	
*	16	17.7900	34.45	0.42	34.87	50.00	-15.13	AVG	

NOTE :

1. Measurement uncertainty is 2.92 dB.
2. Result = Reading + Correction factor.
3. Corrected Factor = Cable loss + Insertion loss of LISN
Difference of Pulse Limiter Factor between EMI Test Receiver corrected 10dB insertion loss.
4. Margin = Result – Limit.

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Temperature: 26 °C

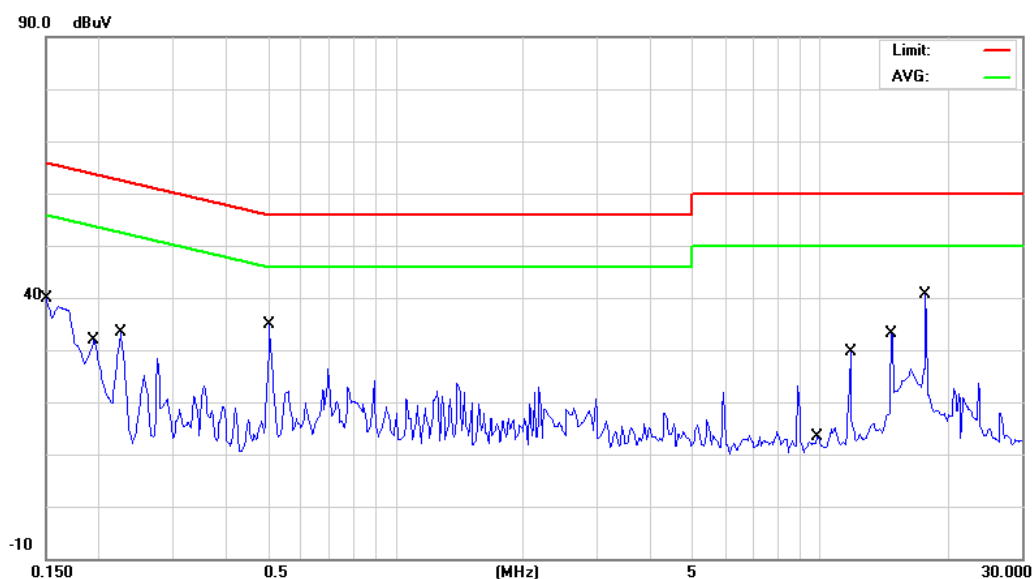
Humidity: 72 %RH

Frequency Range: 0.15 – 30 MHz

Tested Mode: 802.11b_CH06

Receiver Detector: Q.P. and AV.

Tested Date: Apr. 19, 2018

Power Line Measured : Neutral

Mk.	No.	Frequency (MHz)	Reading (dBuV)	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Comment
	1	0.1500	33.00	-0.08	32.92	66.00	-33.08	QP	
	2	0.1500	9.76	-0.08	9.68	56.00	-46.32	AVG	
	3	0.1950	27.96	-0.08	27.88	63.82	-35.94	QP	
	4	0.1950	24.52	-0.08	24.44	53.82	-29.38	AVG	
	5	0.2250	32.14	-0.08	32.06	62.63	-30.57	QP	
*	6	0.2250	29.17	-0.08	29.09	52.63	-23.54	AVG	
	7	0.5050	20.76	-0.08	20.68	56.00	-35.32	QP	
	8	0.5050	9.66	-0.08	9.58	46.00	-36.42	AVG	
	9	10.0000	2.24	0.22	2.46	60.00	-57.54	QP	
	10	10.0000	-0.48	0.22	-0.26	50.00	-50.26	AVG	
	11	11.8600	28.02	0.26	28.28	60.00	-31.72	QP	
	12	11.8600	25.10	0.26	25.36	50.00	-24.64	AVG	
	13	14.8250	31.38	0.34	31.72	60.00	-28.28	QP	
	14	14.8250	26.10	0.34	26.44	50.00	-23.56	AVG	
	15	17.7950	36.04	0.41	36.45	60.00	-23.55	QP	
	16	17.7950	25.70	0.41	26.11	50.00	-23.89	AVG	

NOTE :

1. Measurement uncertainty is 2.92 dB.
2. Result = Reading + Correction factor.
3. Corrected Factor = Cable loss + Insertion loss of LISN
Difference of Pulse Limiter Factor between EMI Test Receiver corrected 10dB insertion loss.
4. Margin = Result – Limit.

**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

Reference No.: A18040201
Report No.: FCCA18040201
FCC ID : 2AIFK-LVSDSM010
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Date: May. 02, 2018

Temperature: 26 °C

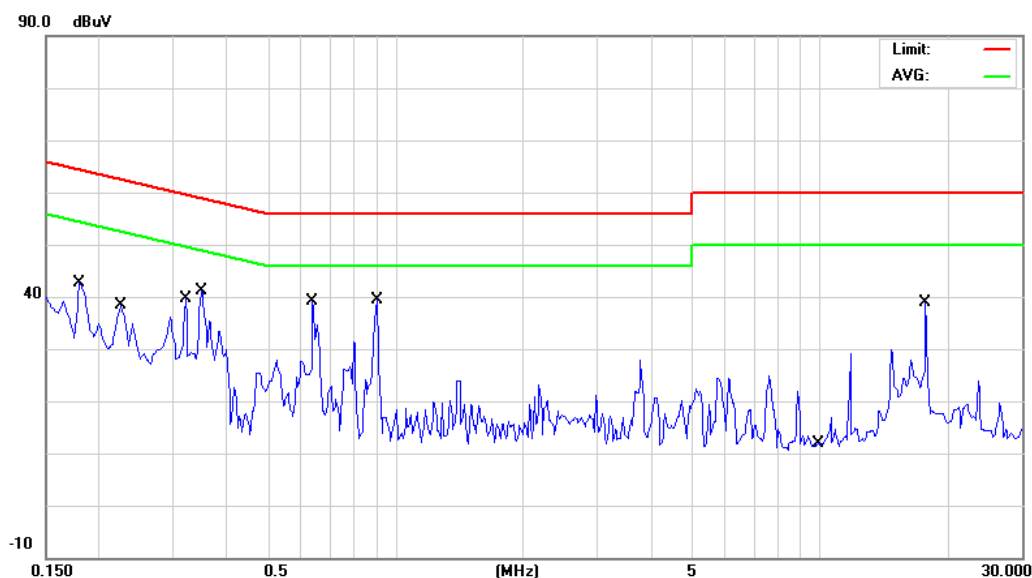
Humidity: 72 %RH

Frequency Range: 0.15 – 30 MHz

Tested Mode: 802.11b_CH11

Receiver Detector: Q.P. and AV.

Tested Date: Apr. 19, 2018

Power Line Measured : Line

Mk.	No.	Frequency (MHz)	Reading (dBuV)	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Comment
	1	0.1800	23.30	-0.09	23.21	64.49	-41.28	QP	
	2	0.1800	5.62	-0.09	5.53	54.49	-48.96	AVG	
	3	0.2250	36.48	-0.09	36.39	62.63	-26.24	QP	
*	4	0.2250	34.32	-0.09	34.23	52.63	-18.40	AVG	
	5	0.3200	11.36	-0.09	11.27	59.71	-48.44	QP	
	6	0.3200	8.32	-0.09	8.23	49.71	-41.48	AVG	
	7	0.3500	18.92	-0.09	18.83	58.96	-40.13	QP	
	8	0.3500	17.88	-0.09	17.79	48.96	-31.17	AVG	
	9	0.6400	7.30	-0.09	7.21	56.00	-48.79	QP	
	10	0.6400	3.31	-0.09	3.22	46.00	-42.78	AVG	
	11	0.9050	7.14	-0.07	7.07	56.00	-48.93	QP	
	12	0.9050	2.92	-0.07	2.85	46.00	-43.15	AVG	
	13	10.0000	1.54	0.22	1.76	60.00	-58.24	QP	
	14	10.0000	-0.55	0.22	-0.33	50.00	-50.33	AVG	
	15	17.7850	36.04	0.42	36.46	60.00	-23.54	QP	
	16	17.7850	30.93	0.42	31.35	50.00	-18.65	AVG	

NOTE :

1. Measurement uncertainty is 2.92 dB.
2. Result = Reading + Correction factor.
3. Corrected Factor = Cable loss + Insertion loss of LISN
Difference of Pulse Limiter Factor between EMI Test Receiver corrected 10dB insertion loss.
4. Margin = Result – Limit.

**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

Reference No.: A18040201
Report No.: FCCA18040201
FCC ID : 2AIFK-LVSDSM010
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Date: May. 02, 2018

Temperature: 26 °C

Humidity: 72 %RH

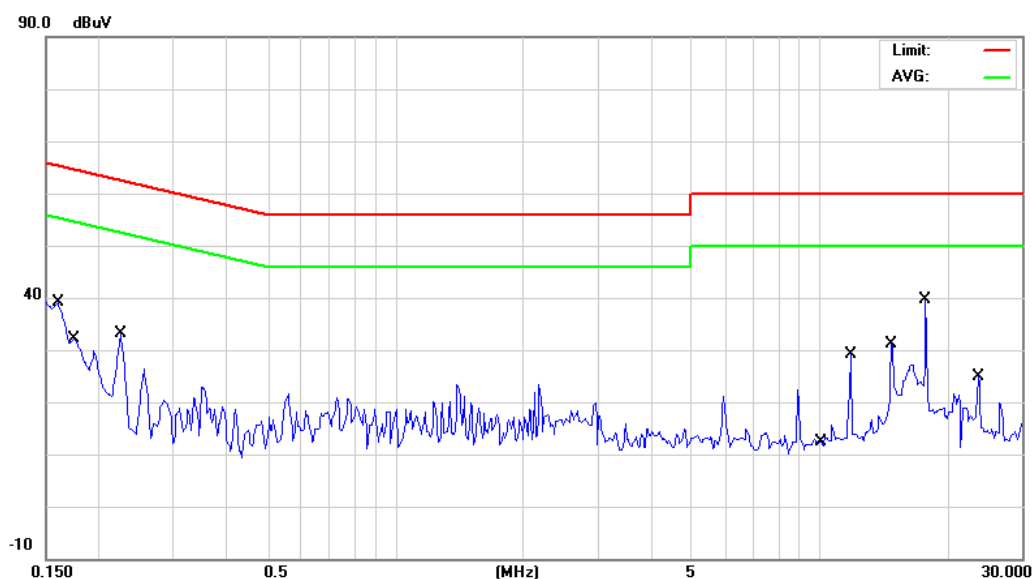
Frequency Range: 0.15 – 30 MHz

Tested Mode: 802.11b_CH11

Receiver Detector: Q.P. and AV.

Tested Date: Apr. 19, 2018

Power Line Measured : Neutral



Mk.	No.	Frequency (MHz)	Reading (dBuV)	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Comment
	1	0.1600	35.30	-0.08	35.22	65.46	-30.24	QP	
*	2	0.1600	33.15	-0.08	33.07	55.46	-22.39	AVG	
	3	0.1750	24.50	-0.08	24.42	64.72	-40.30	QP	
	4	0.1750	13.89	-0.08	13.81	54.72	-40.91	AVG	
	5	0.2250	32.16	-0.08	32.08	62.63	-30.55	QP	
	6	0.2250	29.40	-0.08	29.32	52.63	-23.31	AVG	
	7	10.0000	2.08	0.22	2.30	60.00	-57.70	QP	
	8	10.0000	-0.55	0.22	-0.33	50.00	-50.33	AVG	
	9	11.8600	26.10	0.26	26.36	60.00	-33.64	QP	
	10	11.8600	13.84	0.26	14.10	50.00	-35.90	AVG	
	11	14.8250	25.70	0.34	26.04	60.00	-33.96	QP	
	12	14.8250	16.31	0.34	16.65	50.00	-33.35	AVG	
	13	17.7900	33.08	0.41	33.49	60.00	-26.51	QP	
	14	17.7900	25.22	0.41	25.63	50.00	-24.37	AVG	
	15	23.7150	22.62	0.51	23.13	60.00	-36.87	QP	
	16	23.7150	14.39	0.51	14.90	50.00	-35.10	AVG	

NOTE :

1. Measurement uncertainty is 2.92 dB.
2. Result = Reading + Correction factor.
3. Corrected Factor = Cable loss + Insertion loss of LISN
Difference of Pulse Limiter Factor between EMI Test Receiver corrected 10dB insertion loss.
4. Margin = Result – Limit.

**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

Reference No.: A18040201
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Date: May. 02, 2018

Temperature: 26 °C

Humidity: 72 %RH

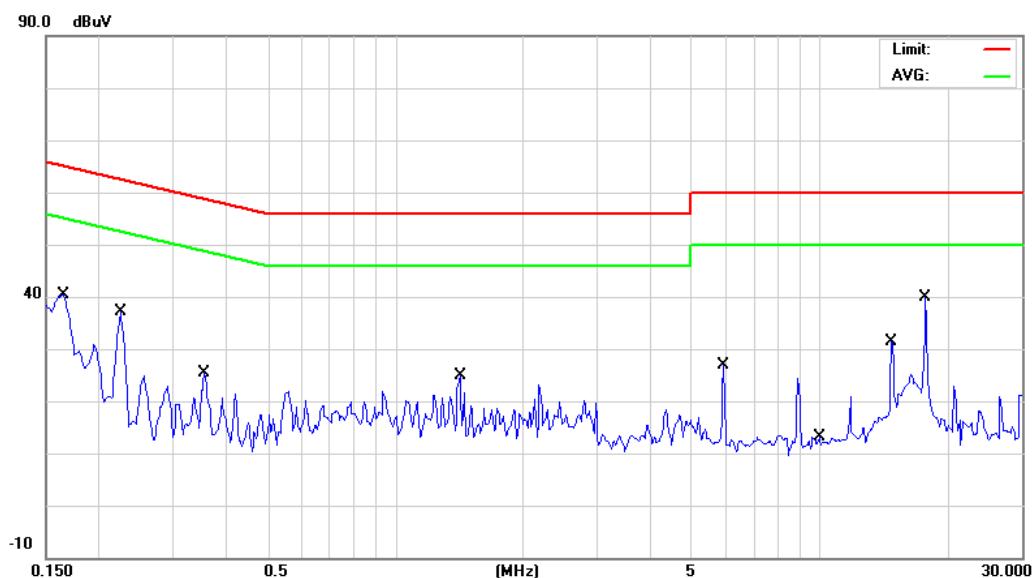
Frequency Range: 0.15 – 30 MHz

Tested Mode: 802.11g_CH01

Receiver Detector: Q.P. and AV.

Tested Date: Apr. 19, 2018

Power Line Measured : Line



Mk.	No.	Frequency (MHz)	Reading (dBuV)	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Comment
	1	0.1650	33.90	-0.09	33.81	65.21	-31.40	QP	
	2	0.1650	30.73	-0.09	30.64	55.21	-24.57	AVG	
	3	0.2250	36.38	-0.09	36.29	62.63	-26.34	QP	
*	4	0.2250	34.32	-0.09	34.23	52.63	-18.40	AVG	
	5	0.3550	23.64	-0.09	23.55	58.84	-35.29	QP	
	6	0.3550	22.91	-0.09	22.82	48.84	-26.02	AVG	
	7	1.4200	20.38	-0.05	20.33	56.00	-35.67	QP	
	8	1.4200	17.66	-0.05	17.61	46.00	-28.39	AVG	
	9	5.9300	25.18	0.10	25.28	60.00	-34.72	QP	
	10	5.9300	23.97	0.10	24.07	50.00	-25.93	AVG	
	11	10.0000	1.92	0.22	2.14	60.00	-57.86	QP	
	12	10.0000	-0.33	0.22	-0.11	50.00	-50.11	AVG	
	13	14.8250	31.84	0.35	32.19	60.00	-27.81	QP	
	14	14.8250	19.80	0.35	20.15	50.00	-29.85	AVG	
	15	17.7900	38.46	0.42	38.88	60.00	-21.12	QP	
	16	17.7900	30.06	0.42	30.48	50.00	-19.52	AVG	

NOTE :

1. Measurement uncertainty is 2.92 dB.
2. Result = Reading + Correction factor.
3. Corrected Factor = Cable loss + Insertion loss of LISN
Difference of Pulse Limiter Factor between EMI Test Receiver corrected 10dB insertion loss.
4. Margin = Result – Limit.

**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

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Temperature: 26 °C

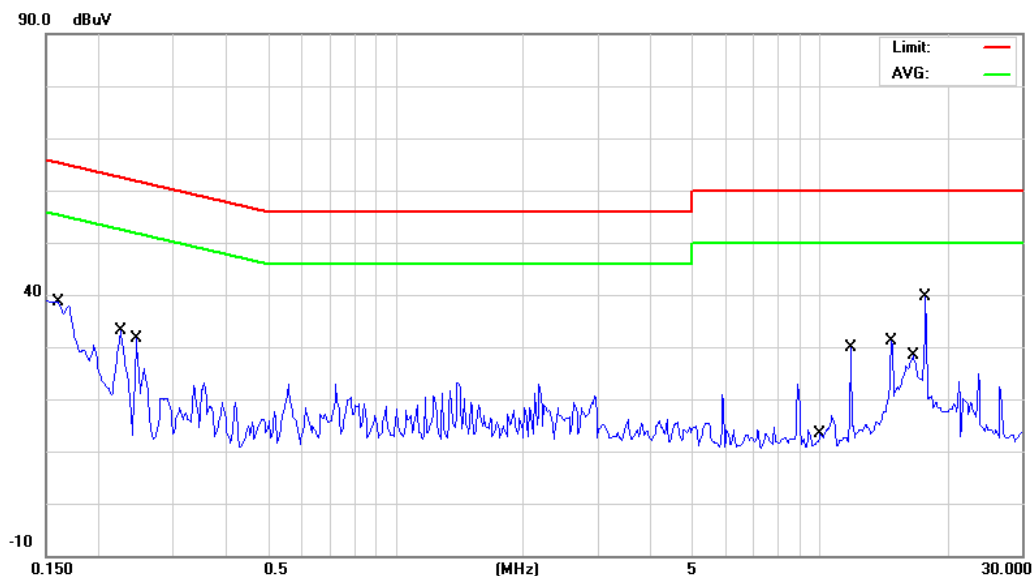
Humidity: 72 %RH

Frequency Range: 0.15 – 30 MHz

Tested Mode: 802.11g_CH01

Receiver Detector: Q.P. and AV.

Tested Date: Apr. 19, 2018

Power Line Measured : Neutral

Mk.	No.	Frequency (MHz)	Reading (dBuV)	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Comment
	1	0.1600	34.36	-0.08	34.28	65.46	-31.18	QP	
	2	0.1600	33.22	-0.08	33.14	55.46	-22.32	AVG	
	3	0.2250	32.64	-0.08	32.56	62.63	-30.07	QP	
	4	0.2250	29.40	-0.08	29.32	52.63	-23.31	AVG	
	5	0.2450	15.62	-0.08	15.54	61.92	-46.38	QP	
	6	0.2450	4.44	-0.08	4.36	51.92	-47.56	AVG	
	7	10.0000	2.00	0.22	2.22	60.00	-57.78	QP	
	8	10.0000	-0.40	0.22	-0.18	50.00	-50.18	AVG	
	9	11.8550	29.86	0.26	30.12	60.00	-29.88	QP	
	10	11.8550	25.93	0.26	26.19	50.00	-23.81	AVG	
	11	14.8200	32.32	0.34	32.66	60.00	-27.34	QP	
	12	14.8200	23.68	0.34	24.02	50.00	-25.98	AVG	
	13	16.5950	22.00	0.38	22.38	60.00	-37.62	QP	
	14	16.5950	16.39	0.38	16.77	50.00	-33.23	AVG	
	15	17.7850	37.76	0.41	38.17	60.00	-21.83	QP	
*	16	17.7850	31.70	0.41	32.11	50.00	-17.89	AVG	

NOTE :

1. Measurement uncertainty is 2.92 dB.
2. Result = Reading + Correction factor.
3. Corrected Factor = Cable loss + Insertion loss of LISN
Difference of Pulse Limiter Factor between EMI Test Receiver corrected 10dB insertion loss.
4. Margin = Result – Limit.

**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

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Temperature: 26 °C

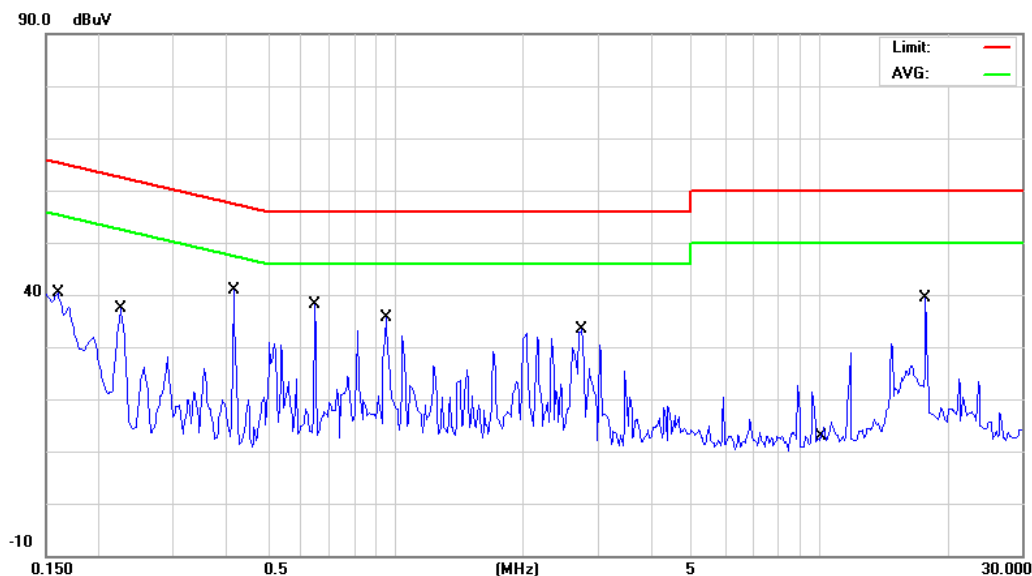
Humidity: 72 %RH

Frequency Range: 0.15 – 30 MHz

Tested Mode: 802.11g_CH06

Receiver Detector: Q.P. and AV.

Tested Date: Apr. 19, 2018

Power Line Measured : Line

Mk.	No.	Frequency (MHz)	Reading (dBuV)	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Comment
	1	0.1600	34.18	-0.09	34.09	65.46	-31.37	QP	
	2	0.1600	32.75	-0.09	32.66	55.46	-22.80	AVG	
	3	0.2250	36.76	-0.09	36.67	62.63	-25.96	QP	
*	4	0.2250	34.52	-0.09	34.43	52.63	-18.20	AVG	
	5	0.4150	15.86	-0.09	15.77	57.55	-41.78	QP	
	6	0.4150	13.89	-0.09	13.80	47.55	-33.75	AVG	
	7	0.6450	11.30	-0.09	11.21	56.00	-44.79	QP	
	8	0.6450	7.53	-0.09	7.44	46.00	-38.56	AVG	
	9	0.9500	16.36	-0.07	16.29	56.00	-39.71	QP	
	10	0.9500	6.39	-0.07	6.32	46.00	-39.68	AVG	
	11	2.7600	13.48	0.00	13.48	56.00	-42.52	QP	
	12	2.7600	0.64	0.00	0.64	46.00	-45.36	AVG	
	13	10.0000	2.08	0.22	2.30	60.00	-57.70	QP	
	14	10.0000	-0.40	0.22	-0.18	50.00	-50.18	AVG	
	15	17.7800	35.62	0.42	36.04	60.00	-23.96	QP	
	16	17.7800	26.59	0.42	27.01	50.00	-22.99	AVG	

NOTE :

1. Measurement uncertainty is 2.92 dB.
2. Result = Reading + Correction factor.
3. Corrected Factor = Cable loss + Insertion loss of LISN
Difference of Pulse Limiter Factor between EMI Test Receiver corrected 10dB insertion loss.
4. Margin = Result – Limit.

**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

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Temperature: 26 °C

Humidity: 72 %RH

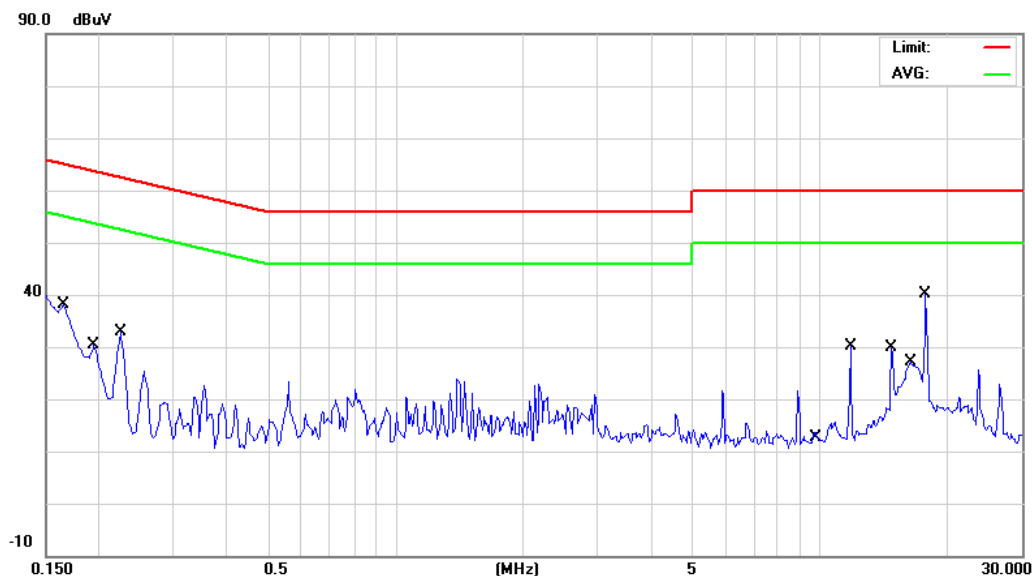
Frequency Range: 0.15 – 30 MHz

Tested Mode: 802.11g_CH06

Receiver Detector: Q.P. and AV.

Tested Date: Apr. 19, 2018

Power Line Measured : Neutral



Mk.	No.	Frequency (MHz)	Reading (dBuV)	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Comment
	1	0.1650	32.48	-0.08	32.40	65.21	-32.81	QP	
	2	0.1650	29.62	-0.08	29.54	55.21	-25.67	AVG	
	3	0.1950	28.26	-0.08	28.18	63.82	-35.64	QP	
	4	0.1950	24.91	-0.08	24.83	53.82	-28.99	AVG	
	5	0.2250	32.08	-0.08	32.00	62.63	-30.63	QP	
	6	0.2250	28.43	-0.08	28.35	52.63	-24.28	AVG	
	7	10.0000	1.98	0.22	2.20	60.00	-57.80	QP	
	8	10.0000	-0.33	0.22	-0.11	50.00	-50.11	AVG	
	9	11.8400	28.22	0.26	28.48	60.00	-31.52	QP	
	10	11.8400	26.38	0.26	26.64	50.00	-23.36	AVG	
	11	14.8100	28.36	0.34	28.70	60.00	-31.30	QP	
	12	14.8100	20.19	0.34	20.53	50.00	-29.47	AVG	
	13	16.4850	22.28	0.38	22.66	60.00	-37.34	QP	
	14	16.4850	16.97	0.38	17.35	50.00	-32.65	AVG	
	15	17.7650	38.64	0.41	39.05	60.00	-20.95	QP	
*	16	17.7650	36.59	0.41	37.00	50.00	-13.00	AVG	

NOTE :

1. Measurement uncertainty is 2.92 dB.
2. Result = Reading + Correction factor.
3. Corrected Factor = Cable loss + Insertion loss of LISN
Difference of Pulse Limiter Factor between EMI Test Receiver corrected 10dB insertion loss.
4. Margin = Result – Limit.

**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

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Temperature: 26 °C

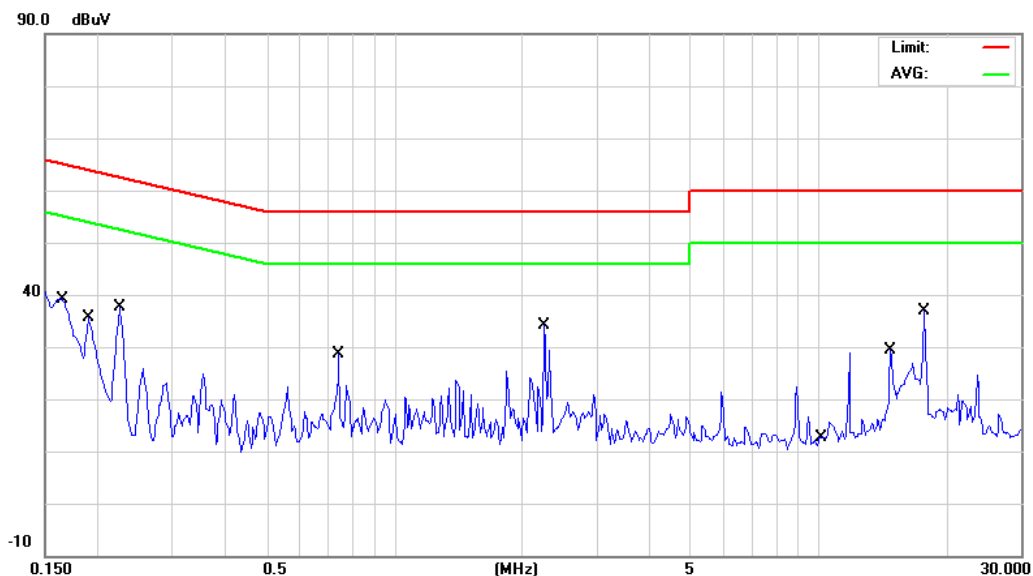
Humidity: 72 %RH

Frequency Range: 0.15 – 30 MHz

Tested Mode: 802.11g_CH11

Receiver Detector: Q.P. and AV.

Tested Date: Apr. 19, 2018

Power Line Measured : Line

Mk.	No.	Frequency (MHz)	Reading (dBuV)	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Comment
	1	0.1650	33.52	-0.09	33.43	65.21	-31.78	QP	
	2	0.1650	30.36	-0.09	30.27	55.21	-24.94	AVG	
	3	0.1900	23.60	-0.09	23.51	64.04	-40.53	QP	
	4	0.1900	20.52	-0.09	20.43	54.04	-33.61	AVG	
	5	0.2250	36.68	-0.09	36.59	62.63	-26.04	QP	
*	6	0.2250	34.65	-0.09	34.56	52.63	-18.07	AVG	
	7	0.7400	8.82	-0.08	8.74	56.00	-47.26	QP	
	8	0.7400	4.69	-0.08	4.61	46.00	-41.39	AVG	
	9	2.2500	5.16	-0.02	5.14	56.00	-50.86	QP	
	10	2.2500	1.14	-0.02	1.12	46.00	-44.88	AVG	
	11	10.0000	2.10	0.22	2.32	60.00	-57.68	QP	
	12	10.0000	-0.26	0.22	-0.04	50.00	-50.04	AVG	
	13	14.7950	19.98	0.35	20.33	60.00	-39.67	QP	
	14	14.7950	8.32	0.35	8.67	50.00	-41.33	AVG	
	15	17.7350	26.10	0.42	26.52	60.00	-33.48	QP	
	16	17.7350	10.87	0.42	11.29	50.00	-38.71	AVG	

NOTE :

1. Measurement uncertainty is 2.92 dB.
2. Result = Reading + Correction factor.
3. Corrected Factor = Cable loss + Insertion loss of LISN
Difference of Pulse Limiter Factor between EMI Test Receiver corrected 10dB insertion loss.
4. Margin = Result – Limit.

**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

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Date: May. 02, 2018

Temperature: 26 °C

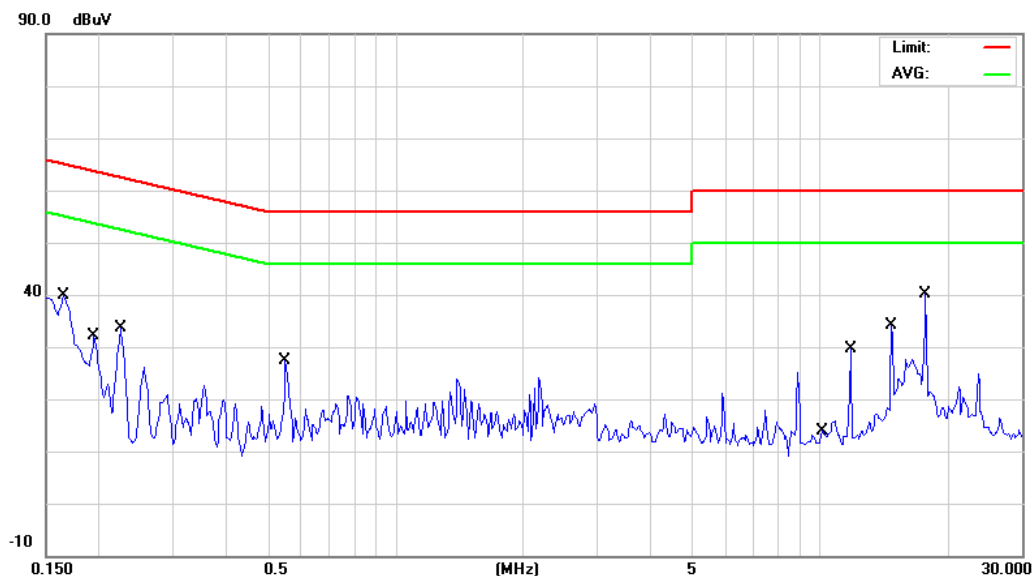
Humidity: 72 %RH

Frequency Range: 0.15 – 30 MHz

Tested Mode: 802.11g_CH11

Receiver Detector: Q.P. and AV.

Tested Date: Apr. 19, 2018

Power Line Measured : Neutral

Mk.	No.	Frequency (MHz)	Reading (dBuV)	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Comment
	1	0.1650	32.82	-0.08	32.74	65.21	-32.47	QP	
	2	0.1650	29.70	-0.08	29.62	55.21	-25.59	AVG	
	3	0.1950	28.52	-0.08	28.44	63.82	-35.38	QP	
	4	0.1950	25.04	-0.08	24.96	53.82	-28.86	AVG	
	5	0.2250	32.16	-0.08	32.08	62.63	-30.55	QP	
	6	0.2250	28.93	-0.08	28.85	52.63	-23.78	AVG	
	7	0.5500	14.44	-0.08	14.36	56.00	-41.64	QP	
	8	0.5500	10.29	-0.08	10.21	46.00	-35.79	AVG	
	9	10.0000	2.34	0.22	2.56	60.00	-57.44	QP	
	10	10.0000	-0.26	0.22	-0.04	50.00	-50.04	AVG	
	11	11.8500	28.10	0.26	28.36	60.00	-31.64	QP	
	12	11.8500	23.68	0.26	23.94	50.00	-26.06	AVG	
	13	14.8100	30.94	0.34	31.28	60.00	-28.72	QP	
	14	14.8100	26.85	0.34	27.19	50.00	-22.81	AVG	
	15	17.7700	38.66	0.41	39.07	60.00	-20.93	QP	
*	16	17.7700	35.93	0.41	36.34	50.00	-13.66	AVG	

NOTE :

1. Measurement uncertainty is 2.92 dB.
2. Result = Reading + Correction factor.
3. Corrected Factor = Cable loss + Insertion loss of LISN
Difference of Pulse Limiter Factor between EMI Test Receiver corrected 10dB insertion loss.
4. Margin = Result – Limit.

**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

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Report No.: FCCA18040201
FCC ID : 2AIFK-LVSDSM010
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Temperature: 26 °C

Humidity: 72 %RH

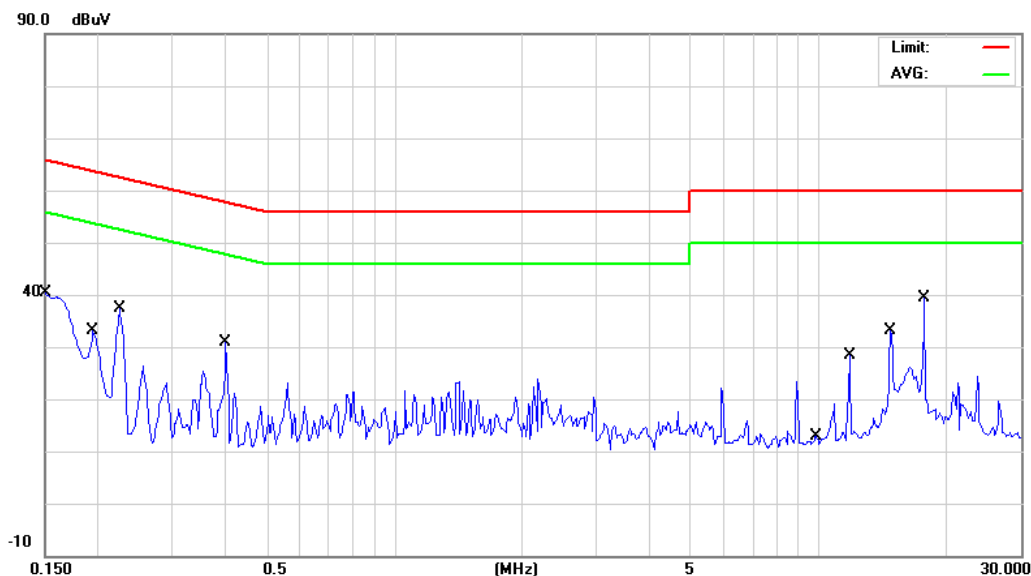
Frequency Range: 0.15 – 30 MHz

Tested Mode: 802.11n - HT20_CH01

Receiver Detector: Q.P. and AV.

Tested Date: Apr. 19, 2018

Power Line Measured : Line



Mk.	No.	Frequency (MHz)	Reading (dBuV)	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Comment
	1	0.1500	33.14	-0.09	33.05	66.00	-32.95	QP	
	2	0.1500	12.41	-0.09	12.32	56.00	-43.68	AVG	
	3	0.1950	29.12	-0.09	29.03	63.82	-34.79	QP	
	4	0.1950	25.88	-0.09	25.79	53.82	-28.03	AVG	
	5	0.2250	36.72	-0.09	36.63	62.63	-26.00	QP	
	6	0.2250	34.72	-0.09	34.63	52.63	-18.00	AVG	
	7	0.4000	6.24	-0.09	6.15	57.85	-51.70	QP	
	8	0.4000	2.77	-0.09	2.68	47.85	-45.17	AVG	
	9	10.0000	2.00	0.22	2.22	60.00	-57.78	QP	
	10	10.0000	-0.40	0.22	-0.18	50.00	-50.18	AVG	
	11	11.8450	27.88	0.26	28.14	60.00	-31.86	QP	
	12	11.8450	26.85	0.26	27.11	50.00	-22.89	AVG	
	13	14.8050	30.28	0.35	30.63	60.00	-29.37	QP	
	14	14.8050	26.16	0.35	26.51	50.00	-23.49	AVG	
	15	17.7650	37.72	0.42	38.14	60.00	-21.86	QP	
*	16	17.7650	34.78	0.42	35.20	50.00	-14.80	AVG	

NOTE :

1. Measurement uncertainty is 2.92 dB.
2. Result = Reading + Correction factor.
3. Corrected Factor = Cable loss + Insertion loss of LISN
Difference of Pulse Limiter Factor between EMI Test Receiver corrected 10dB insertion loss.
4. Margin = Result – Limit.

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Temperature: 26 °C

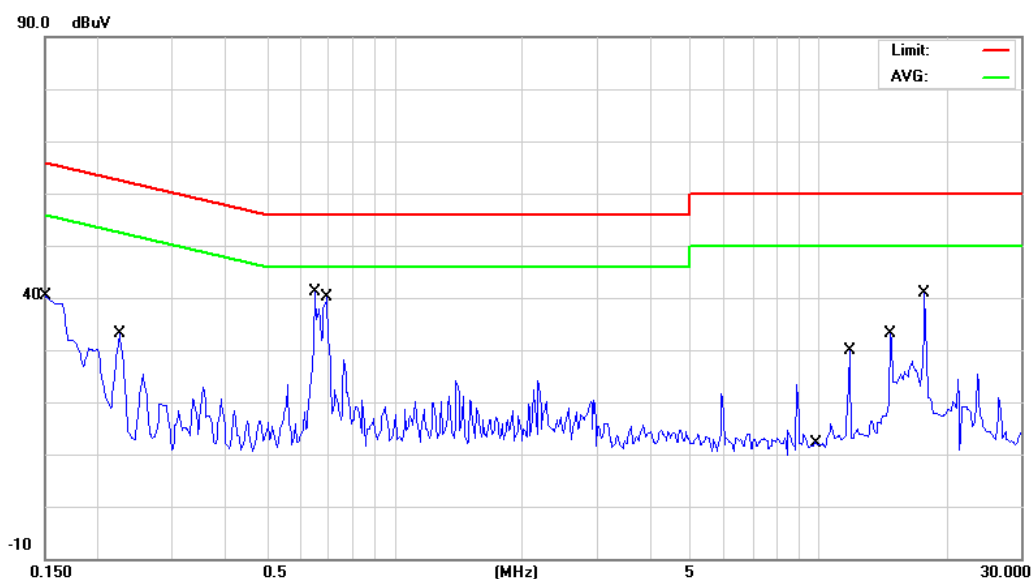
Humidity: 72 %RH

Frequency Range: 0.15 – 30 MHz

Tested Mode: 802.11n - HT20_CH01

Receiver Detector: Q.P. and AV.

Tested Date: Apr. 19, 2018

Power Line Measured : Neutral

Mk.	No.	Frequency (MHz)	Reading (dBuV)	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Comment
	1	0.1500	32.86	-0.08	32.78	66.00	-33.22	QP	
	2	0.1500	10.37	-0.08	10.29	56.00	-45.71	AVG	
	3	0.2250	32.20	-0.08	32.12	62.63	-30.51	QP	
	4	0.2250	29.09	-0.08	29.01	52.63	-23.62	AVG	
	5	0.6500	6.08	-0.08	6.00	56.00	-50.00	QP	
	6	0.6500	1.91	-0.08	1.83	46.00	-44.17	AVG	
	7	0.6950	18.14	-0.08	18.06	56.00	-37.94	QP	
	8	0.6950	5.98	-0.08	5.90	46.00	-40.10	AVG	
	9	10.0000	1.94	0.22	2.16	60.00	-57.84	QP	
	10	10.0000	-0.26	0.22	-0.04	50.00	-50.04	AVG	
	11	11.8450	28.38	0.26	28.64	60.00	-31.36	QP	
	12	11.8450	27.10	0.26	27.36	50.00	-22.64	AVG	
	13	14.8100	31.28	0.34	31.62	60.00	-28.38	QP	
	14	14.8100	27.63	0.34	27.97	50.00	-22.03	AVG	
	15	17.7650	37.84	0.41	38.25	60.00	-21.75	QP	
*	16	17.7650	33.45	0.41	33.86	50.00	-16.14	AVG	

NOTE :

1. Measurement uncertainty is 2.92 dB.
2. Result = Reading + Correction factor.
3. Corrected Factor = Cable loss + Insertion loss of LISN
Difference of Pulse Limiter Factor between EMI Test Receiver corrected 10dB insertion loss.
4. Margin = Result – Limit.

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Temperature: 26 °C

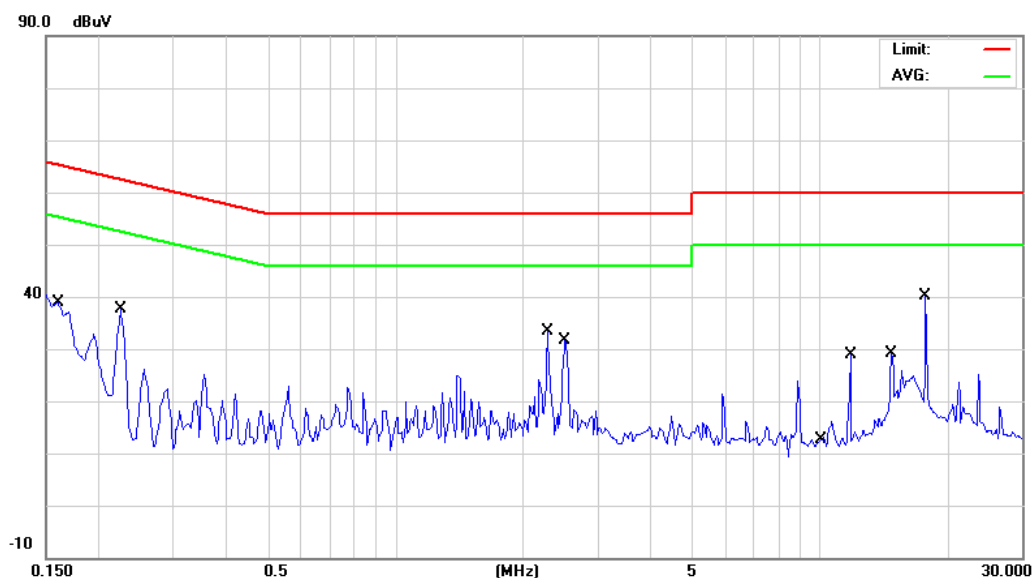
Humidity: 72 %RH

Frequency Range: 0.15 – 30 MHz

Tested Mode: 802.11n - HT20_CH06

Receiver Detector: Q.P. and AV.

Tested Date: Apr. 19, 2018

Power Line Measured : Line

Mk.	No.	Frequency (MHz)	Reading (dBuV)	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Comment
	1	0.1600	35.28	-0.09	35.19	65.46	-30.27	QP	
	2	0.1600	33.75	-0.09	33.66	55.46	-21.80	AVG	
	3	0.2250	36.70	-0.09	36.61	62.63	-26.02	QP	
	4	0.2250	34.72	-0.09	34.63	52.63	-18.00	AVG	
	5	2.2950	20.86	-0.02	20.84	56.00	-35.16	QP	
	6	2.2950	5.91	-0.02	5.89	46.00	-40.11	AVG	
	7	2.5100	4.86	0.00	4.86	56.00	-51.14	QP	
	8	2.5100	0.83	0.00	0.83	46.00	-45.17	AVG	
	9	10.0000	2.24	0.22	2.46	60.00	-57.54	QP	
	10	10.0000	-0.26	0.22	-0.04	50.00	-50.04	AVG	
	11	11.8500	27.08	0.26	27.34	60.00	-32.66	QP	
	12	11.8500	22.99	0.26	23.25	50.00	-26.75	AVG	
	13	14.8100	29.40	0.35	29.75	60.00	-30.25	QP	
	14	14.8100	24.52	0.35	24.87	50.00	-25.13	AVG	
	15	17.7700	37.70	0.42	38.12	60.00	-21.88	QP	
*	16	17.7700	34.45	0.42	34.87	50.00	-15.13	AVG	

NOTE :

1. Measurement uncertainty is 2.92 dB.
2. Result = Reading + Correction factor.
3. Corrected Factor = Cable loss + Insertion loss of LISN
Difference of Pulse Limiter Factor between EMI Test Receiver corrected 10dB insertion loss.
4. Margin = Result – Limit.

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Temperature: 26 °C

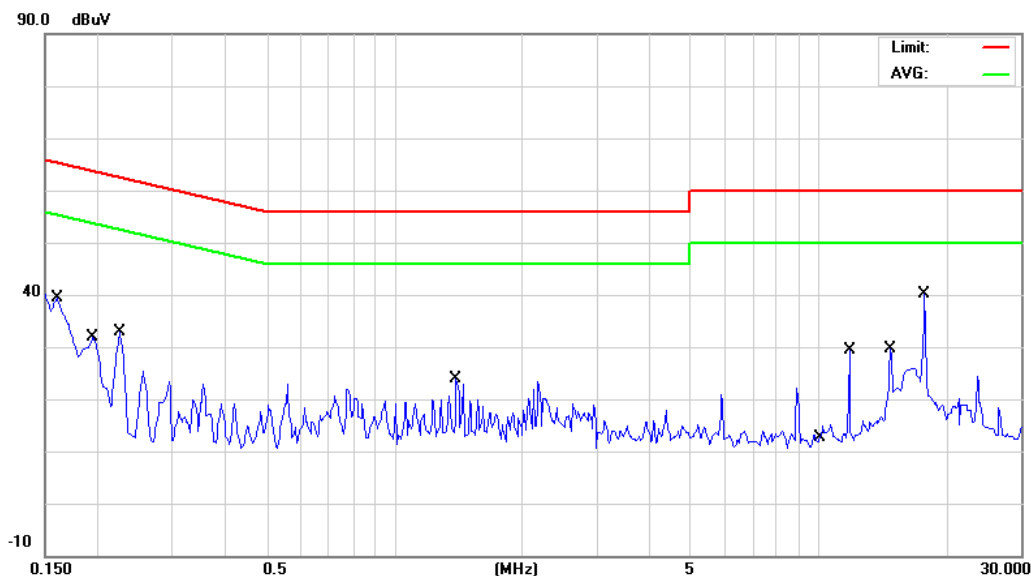
Humidity: 72 %RH

Frequency Range: 0.15 – 30 MHz

Tested Mode: 802.11n - HT20_CH06

Receiver Detector: Q.P. and AV.

Tested Date: Apr. 19, 2018

Power Line Measured : Neutral

Mk.	No.	Frequency (MHz)	Reading (dBuV)	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Comment
	1	0.1600	34.48	-0.08	34.40	65.46	-31.06	QP	
	2	0.1600	33.90	-0.08	33.82	55.46	-21.64	AVG	
	3	0.1950	29.54	-0.08	29.46	63.82	-34.36	QP	
	4	0.1950	25.04	-0.08	24.96	53.82	-28.86	AVG	
	5	0.2250	32.14	-0.08	32.06	62.63	-30.57	QP	
	6	0.2250	29.01	-0.08	28.93	52.63	-23.70	AVG	
	7	1.4000	21.54	-0.04	21.50	56.00	-34.50	QP	
	8	1.4000	10.20	-0.04	10.16	46.00	-35.84	AVG	
	9	10.0000	2.14	0.22	2.36	60.00	-57.64	QP	
	10	10.0000	-0.40	0.22	-0.18	50.00	-50.18	AVG	
	11	11.8400	28.22	0.26	28.48	60.00	-31.52	QP	
	12	11.8400	21.61	0.26	21.87	50.00	-28.13	AVG	
	13	14.8050	31.48	0.34	31.82	60.00	-28.18	QP	
	14	14.8050	27.00	0.34	27.34	50.00	-22.66	AVG	
	15	17.7700	38.50	0.41	38.91	60.00	-21.09	QP	
*	16	17.7700	36.21	0.41	36.62	50.00	-13.38	AVG	

NOTE :

1. Measurement uncertainty is 2.92 dB.
2. Result = Reading + Correction factor.
3. Corrected Factor = Cable loss + Insertion loss of LISN
Difference of Pulse Limiter Factor between EMI Test Receiver corrected 10dB insertion loss.
4. Margin = Result – Limit.

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Temperature: 26 °C

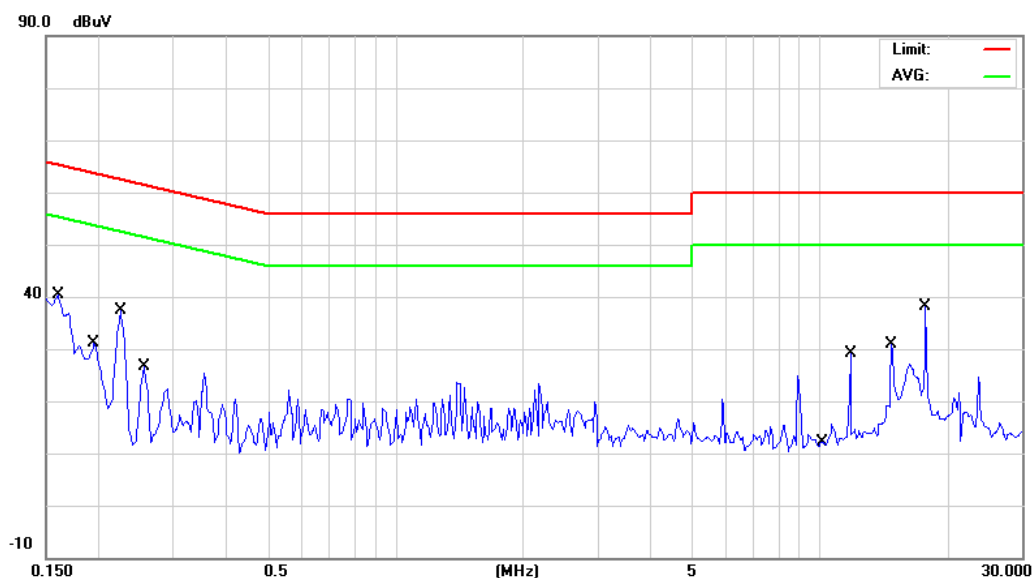
Humidity: 72 %RH

Frequency Range: 0.15 – 30 MHz

Tested Mode: 802.11n - HT20_CH11

Receiver Detector: Q.P. and AV.

Tested Date: Apr. 19, 2018

Power Line Measured : Line

Mk.	No.	Frequency (MHz)	Reading (dBuV)	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Comment
	1	0.1600	35.14	-0.09	35.05	65.46	-30.41	QP	
	2	0.1600	33.75	-0.09	33.66	55.46	-21.80	AVG	
	3	0.1950	29.00	-0.09	28.91	63.82	-34.91	QP	
	4	0.1950	25.88	-0.09	25.79	53.82	-28.03	AVG	
	5	0.2250	36.70	-0.09	36.61	62.63	-26.02	QP	
	6	0.2250	34.59	-0.09	34.50	52.63	-18.13	AVG	
	7	0.2550	24.22	-0.09	24.13	61.59	-37.46	QP	
	8	0.2550	21.23	-0.09	21.14	51.59	-30.45	AVG	
	9	10.0000	1.70	0.22	1.92	60.00	-58.08	QP	
	10	10.0000	-0.40	0.22	-0.18	50.00	-50.18	AVG	
	11	11.8500	26.00	0.26	26.26	60.00	-33.74	QP	
	12	11.8500	16.64	0.26	16.90	50.00	-33.10	AVG	
	13	14.8100	29.60	0.35	29.95	60.00	-30.05	QP	
	14	14.8100	22.58	0.35	22.93	50.00	-27.07	AVG	
	15	17.7700	37.40	0.42	37.82	60.00	-22.18	QP	
*	16	17.7700	31.67	0.42	32.09	50.00	-17.91	AVG	

NOTE :

1. Measurement uncertainty is 2.92 dB.
2. Result = Reading + Correction factor.
3. Corrected Factor = Cable loss + Insertion loss of LISN
Difference of Pulse Limiter Factor between EMI Test Receiver corrected 10dB insertion loss.
4. Margin = Result – Limit.

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Temperature: 26 °C

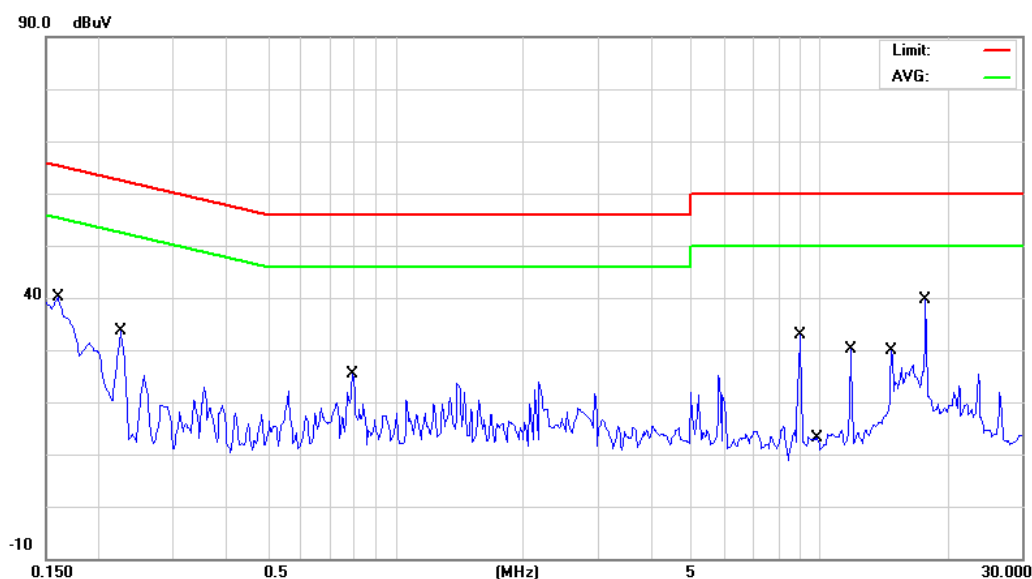
Humidity: 72 %RH

Frequency Range: 0.15 – 30 MHz

Tested Mode: 802.11n - HT20_CH11

Receiver Detector: Q.P. and AV.

Tested Date: Apr. 19, 2018

Power Line Measured : Neutral

Mk.	No.	Frequency (MHz)	Reading (dBuV)	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Comment
	1	0.1600	34.54	-0.08	34.46	65.46	-31.00	QP	
	2	0.1600	33.82	-0.08	33.74	55.46	-21.72	AVG	
	3	0.2250	32.10	-0.08	32.02	62.63	-30.61	QP	
	4	0.2250	29.09	-0.08	29.01	52.63	-23.62	AVG	
	5	0.7950	9.96	-0.06	9.90	56.00	-46.10	QP	
	6	0.7950	1.80	-0.06	1.74	46.00	-44.26	AVG	
	7	8.9950	2.50	0.18	2.68	60.00	-57.32	QP	
	8	8.9950	-0.40	0.18	-0.22	50.00	-50.22	AVG	
	9	10.0000	10.10	0.22	10.32	60.00	-49.68	QP	
	10	10.0000	-0.33	0.22	-0.11	50.00	-50.11	AVG	
	11	11.8450	28.46	0.26	28.72	60.00	-31.28	QP	
	12	11.8450	26.10	0.26	26.36	50.00	-23.64	AVG	
	13	14.8100	26.42	0.34	26.76	60.00	-33.24	QP	
	14	14.8100	14.55	0.34	14.89	50.00	-35.11	AVG	
	15	17.7600	37.36	0.41	37.77	60.00	-22.23	QP	
*	16	17.7600	32.83	0.41	33.24	50.00	-16.76	AVG	

NOTE :

1. Measurement uncertainty is 2.92 dB.
2. Result = Reading + Correction factor.
3. Corrected Factor = Cable loss + Insertion loss of LISN
Difference of Pulse Limiter Factor between EMI Test Receiver corrected 10dB insertion loss.
4. Margin = Result – Limit.

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4.2 RADIATED EMISSION TEST**4.2.1 LIMIT**

FCC Part15, Subpart C Section 15.209 limit of radiated emission for frequency below 1000MHz. The emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

FREQUENCY (MHz)	FIELD STRENGTH (microvolts/meter)	DISTANCE (m)	FIELD STRENGTH (dB μ V/m)
0.009 - 0.490	2400/F(kHz)	300	67.6-20log(kHz)
0.490 - 1.705	24000/F(kHz)	30	87.6-20log(kHz)
1.705 - 30	30	30	30
30 - 88	100	3	40.0
88 - 216	150	3	43.5
216 - 960	200	3	46.0
Above 960	500	3	54.0

NOTE:

1. 30 dB μ V (in 30m) = 70 dB μ V (in 3m).
2. In the emission tables above, the tighter limit applies at the band edges.
3. Distance refers to the distance between measuring instrument, antenna, and the closest point of any part of the device or system.

FCC Part 15, Section 15.35(b) limit of radiated emission for frequency above 1000 MHz

FREQUENCY (MHz)	Class A (dB μ V/m) (at 3m)		Class B (dB μ V/m) (at 3m)	
	PEAK	AVERAGE	PEAK	AVERAGE
Above 1000	80.0	60.0	74.0	54.0

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4.2.2 TEST EQUIPMENT

The following test equipment was used during the radiated emission test:

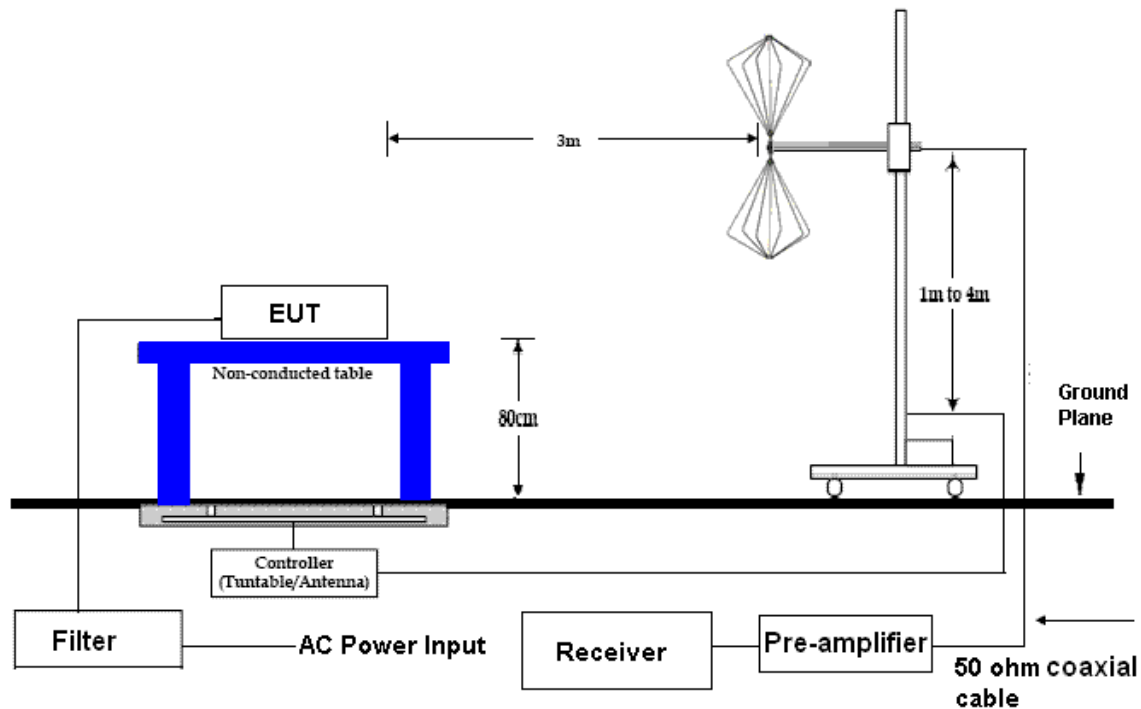
EQUIPMENT/ FACILITIES	SPECIFICATIONS	MANUFACTURER	MODEL#/ SERIAL#	DUE DATE OF CAL. & CAL. CENTER
EMI TEST RECEIVER	9 kHz ~ 2.75 GHz	ROHDE & SCHWARZ	ESCS30 / 100376	JAN. 01, 2019 ETC
SPECTRUM ANALYZER	9 kHz ~ 40GHz	ROHDE & SCHWARZ	FSP40 / 100093	JAN. 01, 2019 ETC
BICONICAL ANTENNA	30 MHz ~ 200 MHz	EMCO	3110/ 11966C	MAY 14, 2018 ETC
LOG PERIODIC ANTENNA	200 MHz ~ 1 GHz	EMCO	3146/ 9002-2686	DEC. 24, 2018 ETC
HORN ANTENNA	1 GHz ~ 18 GHz	EMCO	3115/ 9602-4681	NOV. 28, 2018 ETC
HORN ANTENNA	18 ~ 40 GHZ	ETS-LINDGREN	3116 /00032255	Jan. 17, 2019 ETC
PRE-AMPLIFIER	0.1 MHz ~ 1.3 GHz	HP	8447D / 2944A06746	DEC. 14, 2018 ETC
PRE-AMPLIFIER	1 GHz ~ 26.5 GHz	AGILENT	8449B/ 3008A01995	DEC. 27, 2018 ETC
OPEN AREA TEST SITE	3 – 10 M MEASUREMENT	SRT	A02 / SRT002	MAR. 09, 2019 SRT
ANECHOIC CHAMBER	3 M MEASUREMENT	SRT	A01 / SRT001	SEP. 13, 2018 SRT
COAXIAL CABLE	30 M	TIMES	LMR-400 / #30M(L1TCAB014)	MAY 08, 2018 ETC
K-TYPE CABLE	UP TO 40 GHz 3 m	HUBER+SUHNE R	SF102-46/2*11SK 252 /MY2611/2	MAR. 05, 2019 ETC
K-TYPE CABLE	UP TO 40 GHz, 1 m	HUBER+SUHNE R	SF102/2*11SK252 /MY3331/2	SEP. 28, 2018 ETC
FILTER	2 LINE, 30 A	FIL.COIL	FC-943/ 869	NCR
THERMO-HYGR O	15 – 40 °C, 0- 100% RH	TOP	20-A / 7685	SEP. 17, 2018 ETC

NOTE: The calibration interval of the above test equipment is one year and the calibrations are traceable to NML/ROC and NIST/USA.

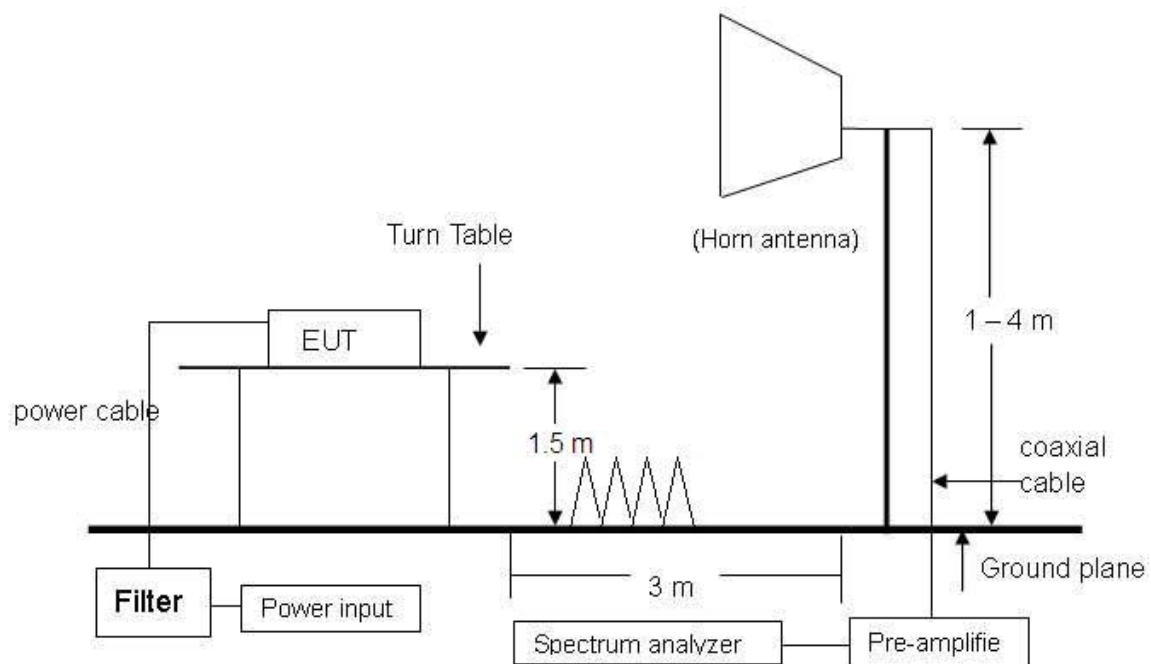


4.2.3 TEST SET-UP

30 MHz ~ 1 GHz



Above 1 GHz



NOTE: The EUT system was put on a wooden table with 1.5m heights above a ground plane.
For the actual test configuration, please refer to the photos of testing.

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4.2.4 TEST PROCEDURE

The EUT was tested according to the requirement of ANSI C63.10:2013 and CISPR 22:2003. When the frequency spectrum measured started from 30 MHz to 1 GHz, then use antenna is a BICONICAL ANTENNA & LOG PERIODIC ANTENNA. The measurements were made at an open area test site with 3 meter measurement distance under 1 GHz and with 3m distance above 1GHz. The frequency spectrum measured started from 30 MHz to 1 GHz, all readings were quasi-peak values with 120 kHz resolution bandwidth of the test receiver. Above 1 GHz, the measurements were made at an open area test site with 3 meter measurement distance and all readings were peak or average values with 1 MHz resolution bandwidth of the test receiver. The EUT system was operated in all typical methods by users. The cables connected to EUT and support units were moved to find the maximum emission levels for each frequency. First, find the margin or higher points at least 6 points by software, then use manual to find the maximum data. The procedure is referred on the test procedure of SRT LAB.

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4.2.5 TEST RESULT

Temperature:	24 °C	Humidity:	65 %RH
Frequency Range:	30 M – 1 GHz	Tested Mode:	802.11b_CH01
Detector Type:	Quasi-peak	IF Bandwidth:	120 kHz
Tested By:	Richard	Tested Date:	Apr. 24, 2018

Antenna Polarization : Horizontal

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Pre-Amp (dB)	Reading Data (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	AZ(°)	EL(m)
70.34	2.25	6.70	28.20	45.23	25.98	40	-14.02	152	3.58
94.98	2.39	8.84	28.12	46.78	29.89	44	-13.61	276	3.44
142.25	2.74	14.40	27.89	41.92	31.17	44	-12.33	355	3.31
333.79	3.98	15.47	27.51	38.41	30.35	46	-15.65	274	3.02
358.12	4.17	15.65	27.67	40.46	32.60	46	-13.40	102	2.78
621.08	5.66	20.44	28.52	33.35	30.93	46	-15.07	98	2.15

Antenna Polarization : Vertical

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Pre-Amp (dB)	Reading Data (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	AZ(°)	EL(m)
70.03	2.25	6.70	28.20	45.28	26.03	40	-13.97	67	1.13
94.45	2.39	8.84	28.12	49.47	32.58	44	-10.92	133	1.22
142.17	2.74	14.40	27.89	37.67	26.92	44	-16.58	305	1.37
479.93	4.87	18.21	28.36	35.25	29.97	46	-16.03	246	2.28
499.88	4.98	19.03	28.46	32.50	28.05	46	-17.95	197	2.46
525.64	5.14	18.80	28.49	33.65	29.10	46	-16.91	35	2.51

NOTE :

1. Measurement uncertainty is 4.20 dB.
2. "**": Measurement does not apply for this frequency.
3. Emission Level = Reading Value + Ant. Factor + Cable Loss – Pre-Amplifier.
4. The field strength of other emission frequencies were very low against the limit.

**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

Reference No.: A18040201
Report No.: FCCA18040201
FCC ID : 2AIFK-LVSDSM010
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Date: May. 02, 2018

Temperature:	24 °C	Humidity:	65 %RH
Frequency Range:	30 M – 1 GHz	Tested Mode:	802.11b_CH06
Detector Type:	Quasi-peak	IF Bandwidth:	120 kHz
Tested By:	Richard	Tested Date:	Apr. 24, 2018

Antenna Polarization : Horizontal

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Pre-Amp (dB)	Reading Data (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	AZ(°)	EL(m)
70.07	2.25	6.70	28.20	44.57	25.32	40	-14.68	127	3.65
94.58	2.39	8.84	28.12	46.45	29.56	44	-13.94	82	3.31
142.96	2.74	14.40	27.89	43.33	32.58	44	-10.92	199	3.24
334.83	3.99	15.47	27.51	38.69	30.63	46	-15.37	341	3.01
358.01	4.17	15.65	27.67	38.35	30.49	46	-15.51	295	2.79
695.62	6.07	21.61	28.40	31.69	30.98	46	-15.03	207	1.95

Antenna Polarization : Vertical

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Pre-Amp (dB)	Reading Data (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	AZ(°)	EL(m)
70.25	2.25	6.70	28.20	45.91	26.66	40	-13.34	112	1.15
94.58	2.39	8.84	28.12	48.70	31.81	44	-11.69	50	1.22
142.31	2.74	14.40	27.89	38.68	27.93	44	-15.57	139	1.37
478.92	4.87	18.19	28.36	33.50	28.20	46	-17.80	244	2.19
499.44	4.98	19.03	28.46	32.73	28.28	46	-17.72	315	2.45
527.85	5.15	18.82	28.49	32.87	28.35	46	-17.65	82	2.57

NOTE :

1. Measurement uncertainty is 4.20 dB.
2. "**": Measurement does not apply for this frequency.
3. Emission Level = Reading Value + Ant. Factor + Cable Loss – Pre-Amplifier.
4. The field strength of other emission frequencies were very low against the limit.

**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

Reference No.: A18040201
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Temperature:	24 °C	Humidity:	65 %RH
Frequency Range:	30 M – 1 GHz	Tested Mode:	802.11b_CH11
Detector Type:	Quasi-peak	IF Bandwidth:	120 kHz
Tested By:	Richard	Tested Date:	Apr. 24, 2018

Antenna Polarization : Horizontal

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Pre-Amp (dB)	Reading Data (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	AZ(°)	EL(m)
70.42	2.25	6.70	28.20	45.03	25.78	40	-14.22	250	3.57
94.27	2.39	8.84	28.12	46.25	29.36	44	-14.14	177	3.43
142.06	2.74	14.40	27.89	43.37	32.62	44	-10.88	329	3.29
333.98	3.98	15.47	27.51	39.53	31.47	46	-14.53	270	3.01
434.51	4.64	17.48	28.13	39.42	33.41	46	-12.59	142	2.74
621.08	5.66	20.44	28.52	33.44	31.02	46	-14.98	81	2.08

Antenna Polarization : Vertical

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Pre-Amp (dB)	Reading Data (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	AZ(°)	EL(m)
70.81	2.25	6.70	28.20	45.90	26.65	40	-13.35	165	1.14
94.63	2.39	8.84	28.12	48.85	31.96	44	-11.54	22	1.25
142.50	2.74	14.40	27.89	37.98	27.23	44	-16.27	344	1.39
479.48	4.87	18.21	28.36	34.94	29.66	46	-16.34	109	2.22
499.95	4.98	19.03	28.46	33.55	29.10	46	-16.90	51	2.46
745.67	6.38	22.03	28.26	32.86	33.01	46	-12.99	224	3.20

NOTE :

1. Measurement uncertainty is 4.20 dB.
2. "**": Measurement does not apply for this frequency.
3. Emission Level = Reading Value + Ant. Factor + Cable Loss – Pre-Amplifier.
4. The field strength of other emission frequencies were very low against the limit.

**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

Reference No.: A18040201
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Temperature:	24 °C	Humidity:	65 %RH
Frequency Range:	30 M – 1 GHz	Tested Mode:	802.11g_CH01
Detector Type:	Quasi-peak	IF Bandwidth:	120 kHz
Tested By:	Richard	Tested Date:	Apr. 24, 2018

Antenna Polarization : Horizontal

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Pre-Amp (dB)	Reading Data (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	AZ(°)	EL(m)
70.56	2.25	6.70	28.20	44.92	25.67	40	-14.33	156	3.62
94.12	2.39	8.84	28.12	46.48	29.59	44	-13.91	357	3.50
142.40	2.74	14.40	27.89	42.60	31.85	44	-11.65	44	3.34
335.83	4.00	15.47	27.52	38.49	30.44	46	-15.57	270	3.01
358.97	4.17	15.65	27.67	38.62	30.76	46	-15.24	128	2.84
623.16	5.67	20.47	28.51	32.67	30.30	46	-15.70	56	2.15

Antenna Polarization : Vertical

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Pre-Amp (dB)	Reading Data (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	AZ(°)	EL(m)
70.31	2.25	6.70	28.20	44.44	25.19	40	-14.81	179	1.12
94.05	2.39	8.84	28.12	48.44	31.55	44	-11.95	62	1.26
142.20	2.74	14.40	27.89	38.43	27.68	44	-15.82	193	1.39
358.94	4.17	15.65	27.67	35.90	28.04	46	-17.96	274	1.98
479.68	4.87	18.21	28.36	37.01	31.73	46	-14.27	116	2.23
499.37	4.98	19.03	28.46	33.67	29.22	46	-16.78	73	2.46

NOTE :

1. Measurement uncertainty is 4.20 dB.
2. "**": Measurement does not apply for this frequency.
3. Emission Level = Reading Value + Ant. Factor + Cable Loss – Pre-Amplifier.
4. The field strength of other emission frequencies were very low against the limit.

**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

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Temperature:	24 °C	Humidity:	65 %RH
Frequency Range:	30 M – 1 GHz	Tested Mode:	802.11g_CH06
Detector Type:	Quasi-peak	IF Bandwidth:	120 kHz
Tested By:	Richard	Tested Date:	Apr. 24, 2018

Antenna Polarization : Horizontal

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Pre-Amp (dB)	Reading Data (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	AZ(°)	EL(m)
70.14	2.25	6.70	28.20	45.41	26.16	40	-13.84	255	3.63
94.35	2.39	8.84	28.12	46.00	29.11	44	-14.39	329	3.50
142.22	2.74	14.40	27.89	43.26	32.51	44	-10.99	68	3.41
335.44	4.00	15.47	27.52	39.74	31.69	46	-14.32	274	3.02
357.71	4.16	15.59	27.67	38.68	30.77	46	-15.23	102	2.85
623.60	5.67	20.47	28.51	33.02	30.65	46	-15.35	99	2.14

Antenna Polarization : Vertical

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Pre-Amp (dB)	Reading Data (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	AZ(°)	EL(m)
70.22	2.25	6.70	28.20	45.44	26.19	40	-13.81	165	1.16
94.61	2.39	8.84	28.12	49.41	32.52	44	-10.98	288	1.22
142.03	2.74	14.40	27.89	38.89	28.14	44	-15.36	41	1.38
358.75	4.17	15.65	27.67	34.84	26.98	46	-19.02	170	2.04
479.17	4.87	18.21	28.36	34.73	29.45	46	-16.55	198	2.31
499.34	4.98	19.03	28.46	31.62	27.17	46	-18.83	322	2.42

NOTE :

1. Measurement uncertainty is 4.20 dB.
2. "**": Measurement does not apply for this frequency.
3. Emission Level = Reading Value + Ant. Factor + Cable Loss – Pre-Amplifier.
4. The field strength of other emission frequencies were very low against the limit.

**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

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Temperature:	24 °C	Humidity:	65 %RH
Frequency Range:	30 M – 1 GHz	Tested Mode:	802.11g_CH11
Detector Type:	Quasi-peak	IF Bandwidth:	120 kHz
Tested By:	Richard	Tested Date:	Apr. 24, 2018

Antenna Polarization : Horizontal

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Pre-Amp (dB)	Reading Data (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	AZ(°)	EL(m)
70.69	2.25	6.70	28.20	44.01	24.76	40	-15.24	326	3.67
94.02	2.39	8.84	28.12	47.03	30.14	44	-13.36	109	3.51
142.37	2.74	14.40	27.89	42.56	31.81	44	-11.69	47	3.41
190.58	3.00	16.80	27.64	40.67	32.83	44	-10.67	115	3.29
333.91	3.98	15.47	27.51	39.25	31.19	46	-14.81	83	3.04
358.18	4.17	15.65	27.67	38.83	30.97	46	-15.03	276	2.79

Antenna Polarization : Vertical

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Pre-Amp (dB)	Reading Data (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	AZ(°)	EL(m)
70.01	2.25	6.70	28.20	45.51	26.26	40	-13.74	119	1.13
94.42	2.39	8.84	28.12	49.37	32.48	44	-11.02	309	1.25
142.75	2.74	14.40	27.89	38.86	28.11	44	-15.39	68	1.33
479.13	4.87	18.21	28.36	36.51	31.23	46	-14.77	189	2.29
526.28	5.14	18.81	28.49	33.74	29.20	46	-16.80	257	2.47
966.49	7.73	24.68	27.39	31.47	36.49	54	-17.51	331	3.58

NOTE :

1. Measurement uncertainty is 4.20 dB.
2. "**": Measurement does not apply for this frequency.
3. Emission Level = Reading Value + Ant. Factor + Cable Loss – Pre-Amplifier.
4. The field strength of other emission frequencies were very low against the limit.

**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

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Temperature:	24 °C	Humidity:	65 %RH
Frequency Range:	30 M – 1 GHz	Tested Mode:	802.11n - HT20_CH01
Detector Type:	Quasi-peak	IF Bandwidth:	120 kHz
Tested By:	Richard	Tested Date:	Apr. 24, 2018

Antenna Polarization : Horizontal

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Pre-Amp (dB)	Reading Data (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	AZ(°)	EL(m)
94.62	2.39	8.84	28.12	46.25	29.36	44	-14.14	119	3.60
142.91	2.74	14.40	27.89	42.90	32.15	44	-11.35	350	3.42
333.05	3.98	15.47	27.51	39.18	31.12	46	-14.88	276	3.07
358.38	4.17	15.65	27.67	38.57	30.71	46	-15.29	84	2.96
383.99	4.35	16.36	27.84	37.90	30.77	46	-15.23	136	2.77
479.27	4.87	18.21	28.36	35.89	30.61	46	-15.39	325	2.62

Antenna Polarization : Vertical

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Pre-Amp (dB)	Reading Data (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	AZ(°)	EL(m)
70.54	2.25	6.70	28.20	45.59	26.34	40	-13.66	69	1.14
94.81	2.39	8.84	28.12	49.12	32.23	44	-11.27	124	1.23
142.29	2.74	14.40	27.89	38.39	27.64	44	-15.86	268	1.36
209.33	3.13	12.04	27.56	42.68	30.29	44	-13.21	70	1.52
479.67	4.87	18.21	28.36	35.94	30.66	46	-15.34	185	2.30
525.45	5.14	18.80	28.49	33.39	28.84	46	-17.17	302	2.54

NOTE :

1. Measurement uncertainty is 4.20 dB.
2. "**": Measurement does not apply for this frequency.
3. Emission Level = Reading Value + Ant. Factor + Cable Loss – Pre-Amplifier.
4. The field strength of other emission frequencies were very low against the limit.

**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

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Temperature:	24 °C	Humidity:	65 %RH
Frequency Range:	30 M – 1 GHz	Tested Mode:	802.11n - HT20_CH06
Detector Type:	Quasi-peak	IF Bandwidth:	120 kHz
Tested By:	Richard	Tested Date:	Apr. 24, 2018

Antenna Polarization : Horizontal

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Pre-Amp (dB)	Reading Data (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	AZ(°)	EL(m)
70.98	2.25	6.70	28.20	44.51	25.26	40	-14.74	63	3.65
94.56	2.39	8.84	28.12	46.94	30.05	44	-13.45	156	3.48
142.02	2.74	14.40	27.89	42.89	32.14	44	-11.36	227	3.31
334.83	3.99	15.47	27.51	39.79	31.73	46	-14.27	43	3.02
383.57	4.35	16.36	27.84	38.11	30.98	46	-15.02	179	2.89
623.92	5.67	20.47	28.51	33.08	30.71	46	-15.29	326	2.15

Antenna Polarization : Vertical

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Pre-Amp (dB)	Reading Data (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	AZ(°)	EL(m)
70.28	2.25	6.70	28.20	45.36	26.11	40	-13.89	93	1.14
94.94	2.39	8.84	28.12	49.19	32.30	44	-11.20	257	1.25
142.81	2.74	14.40	27.89	39.50	28.75	44	-14.75	84	1.39
478.55	4.87	18.19	28.36	35.44	30.14	46	-15.86	180	2.18
503.14	5.01	18.96	28.47	34.84	30.33	46	-15.67	90	2.45
527.73	5.15	18.82	28.49	33.30	28.78	46	-17.22	234	2.57

NOTE :

1. Measurement uncertainty is 4.20 dB.
2. "**": Measurement does not apply for this frequency.
3. Emission Level = Reading Value + Ant. Factor + Cable Loss – Pre-Amplifier.
4. The field strength of other emission frequencies were very low against the limit.

**Spectrum Research & Testing Lab., Inc.**

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TEST REPORT

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Temperature:	24 °C	Humidity:	65 %RH
Frequency Range:	30 M – 1 GHz	Tested Mode:	802.11n - HT20_CH11
Detector Type:	Quasi-peak	IF Bandwidth:	120 kHz
Tested By:	Richard	Tested Date:	Apr. 24, 2018

Antenna Polarization : Horizontal

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Pre-Amp (dB)	Reading Data (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	AZ(°)	EL(m)
70.31	2.25	6.70	28.20	43.93	24.68	40	-15.32	81	3.62
94.05	2.39	8.84	28.12	45.88	28.99	44	-14.51	350	3.50
142.84	2.74	14.40	27.89	43.27	32.52	44	-10.98	248	3.39
334.24	3.99	15.47	27.51	39.71	31.65	46	-14.35	291	3.02
358.11	4.17	15.65	27.67	38.19	30.33	46	-15.67	64	2.88
383.93	4.35	16.36	27.84	37.73	30.60	46	-15.40	270	2.45

Antenna Polarization : Vertical

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Pre-Amp (dB)	Reading Data (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	AZ(°)	EL(m)
70.66	2.25	6.70	28.20	45.71	26.46	40	-13.54	99	1.17
94.21	2.39	8.84	28.12	49.89	33.00	44	-10.50	203	1.25
142.08	2.74	14.40	27.89	39.92	29.17	44	-14.33	165	1.39
478.98	4.87	18.19	28.36	35.62	30.32	46	-15.68	294	2.01
499.25	4.98	19.03	28.46	32.64	28.19	46	-17.81	73	2.33
527.43	5.15	18.82	28.49	33.18	28.66	46	-17.34	135	2.55

NOTE :

1. Measurement uncertainty is 4.20 dB.
2. "**": Measurement does not apply for this frequency.
3. Emission Level = Reading Value + Ant. Factor + Cable Loss – Pre-Amplifier.
4. The field strength of other emission frequencies were very low against the limit.

**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

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Temperature:	21 °C	Humidity:	67 %RH
Frequency Range:	1 GHz – 25 GHz	Tested Mode:	802.11b_CH01
Detector Type:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Apr. 25, 2018

Antenna Polarization : Horizontal

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBμV)		Emission Level (dBμV/m)		Limit (dBμV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
1879.31	-31.76	27.49	44.92	34.45	40.65	30.18	74	54	-33.35	-23.82	320	2.26
1957.65	-31.64	27.75	45.37	34.81	41.49	30.93	74	54	-32.51	-23.07	145	2.20
3624.44	-29.96	31.40	42.69	32.19	44.12	33.62	74	54	-29.88	-20.38	102	1.76
4127.87	-29.51	32.60	42.88	32.33	45.97	35.42	74	54	-28.03	-18.58	81	1.53
4506.16	-29.12	32.62	42.97	32.48	46.46	35.97	74	54	-27.54	-18.03	169	1.48
5098.29	-28.40	33.98	41.63	31.12	47.20	36.69	74	54	-26.80	-17.31	305	1.29

Antenna Polarization : Vertical

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBμV)		Emission Level (dBμV/m)		Limit (dBμV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
1588.62	-32.22	26.50	45.30	34.86	39.58	29.14	74	54	-34.42	-24.86	42	1.11
1876.93	-31.77	27.48	44.83	34.35	40.54	30.06	74	54	-33.46	-23.94	288	1.25
3087.51	-30.70	30.50	42.93	32.47	42.74	32.28	74	54	-31.26	-21.72	119	1.63
3589.77	-29.99	31.28	43.24	32.77	44.53	34.06	74	54	-29.47	-19.94	57	1.76
5081.42	-28.40	33.96	41.54	31.02	47.10	36.58	74	54	-26.90	-17.42	294	2.19
5482.97	-28.42	34.29	41.56	31.09	47.43	36.96	74	54	-26.57	-17.04	339	2.35

NOTE:

1. Measurement uncertainty is 4.04 dB.
2. Emission Level = Reading Value + Ant. Factor + Correct Factor (incl.: Cable Loss and Pre-Amplifier Gain)
3. The field strength of other emission frequencies were very low against the limit.
4. (F): The field strength of fundamental frequency.

**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

Reference No.: A18040201
Report No.: FCCA18040201
FCC ID : 2AIFK-LVSDSM010
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Date: May. 02, 2018

Temperature:	21 °C	Humidity:	67 %RH
Frequency Range:	1 GHz – 25 GHz	Tested Mode:	802.11b_CH01 (Fundamental and Harmonics)
Detector:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Apr. 25, 2018

Antenna Polarization : Horizontal

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBμV)		Emission Level (dBμV/m)		Limit (dBμV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
2412.00 (F)	-31.28	28.39	99.35	86.31	96.46	83.42	--	--	--	--	117	1.52
4824.00	-28.66	33.44	45.07	34.52	49.86	39.31	74	54	-24.14	-14.69	352	1.59
7236.00	-27.69	35.87	41.32	30.84	49.50	39.02	74	54	-24.50	-14.98	267	1.43
9648.00	-27.14	37.79	40.35	29.83	51.00	40.48	74	54	-23.00	-13.52	82	1.48
12060.00	-25.88	39.29	35.88	25.37	49.29	38.78	74	54	-24.71	-15.22	135	1.51
14472.00	-23.61	42.37	30.91	20.42	49.67	39.18	74	54	-24.33	-14.82	294	1.62

Antenna Polarization : Vertical

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBμV)		Emission Level (dBμV/m)		Limit (dBμV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
2412.00 (F)	-31.28	28.39	98.78	85.42	95.89	82.53	--	--	--	--	15	1.60
4824.00	-28.66	33.44	44.23	33.79	49.02	38.58	74	54	-24.98	-15.42	221	1.57
7236.00	-27.69	35.87	41.02	30.51	49.20	38.69	74	54	-24.80	-15.31	186	1.53
9648.00	-27.14	37.79	40.14	29.68	50.79	40.33	74	54	-23.21	-13.67	30	1.47
12060.00	-25.88	39.29	35.28	24.75	48.69	38.16	74	54	-25.31	-15.84	315	1.63
14472.00	-23.61	42.37	30.93	20.44	49.69	39.20	74	54	-24.31	-14.80	167	1.54

NOTE:

1. Measurement uncertainty is 4.04 dB.
2. Emission Level = Reading Value + Ant. Factor + Correct Factor (incl.: Cable Loss and Pre-Amplifier Gain)
3. The field strength of other emission frequencies were very low against the limit.
4. (F): The field strength of fundamental frequency.

**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORTReference No.: A18040201
Report No.: FCCA18040201
FCC ID : 2AIFK-LVSDSM010
Page: 46 of 103
Date: May. 02, 2018

Temperature: 21 °C

Humidity: 67 %RH

Frequency Range: 1 GHz – 25 GHz

Tested Mode: 802.11b_CH06

Detector Type: PK. and AV.

IF Bandwidth: 1 MHz

Tested By: Richard Lin

Tested Date: Apr. 25, 2018

Antenna Polarization : Horizontal

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBμV)		Emission Level (dBμV/m)		Limit (dBμV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
1749.63	-31.97	27.05	46.16	35.67	41.24	30.75	74	54	-32.76	-23.25	320	2.29
2296.82	-31.36	28.26	44.61	34.13	41.50	31.02	74	54	-32.50	-22.98	121	2.13
2867.15	-30.93	29.89	43.70	33.28	42.66	32.24	74	54	-31.34	-21.76	217	1.95
3818.44	-29.80	32.02	42.54	32.01	44.76	34.23	74	54	-29.24	-19.77	136	1.64
4251.98	-29.38	32.60	42.43	31.97	45.65	35.19	74	54	-28.35	-18.81	200	1.53
5302.75	-28.41	34.14	41.10	30.65	46.83	36.38	74	54	-27.17	-17.62	29	1.20

Antenna Polarization : Vertical

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBμV)		Emission Level (dBμV/m)		Limit (dBμV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
1592.54	-32.21	26.51	45.72	35.26	40.02	29.56	74	54	-33.98	-24.44	140	1.12
2154.07	-31.46	28.08	43.98	33.48	40.60	30.10	74	54	-33.40	-23.90	330	1.36
2743.42	-31.03	29.42	44.89	34.35	43.28	32.74	74	54	-30.72	-21.26	119	1.54
3661.98	-29.93	31.52	42.61	32.14	44.19	33.72	74	54	-29.81	-20.28	256	1.83
4098.37	-29.54	32.60	42.31	31.80	45.37	34.86	74	54	-28.63	-19.14	72	1.96
5610.15	-28.40	34.30	40.88	30.36	46.78	36.26	74	54	-27.22	-17.74	188	2.35

NOTE:

1. Measurement uncertainty is 4.04 dB.
2. Emission Level = Reading Value + Ant. Factor + Correct Factor (incl.: Cable Loss and Pre-Amplifier Gain)
3. The field strength of other emission frequencies were very low against the limit.
4. (F): The field strength of fundamental frequency.

**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

Reference No.: A18040201
Report No.: FCCA18040201
FCC ID : 2AIFK-LVSDSM010
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Date: May. 02, 2018

Temperature:	21 °C	Humidity:	67 %RH
Frequency Range:	1 GHz – 25 GHz	Tested Mode:	802.11b_CH06 (Fundamental and Harmonics)
Detector:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Apr. 25, 2018

Antenna Polarization : Horizontal

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBμV)		Emission Level (dBμV/m)		Limit (dBμV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
2437.00 (F)	-31.26	28.42	97.51	84.39	94.67	81.55	--	--	--	--	155	1.54
4874.00	-28.58	33.57	42.68	32.11	47.67	37.10	74	54	-26.33	-16.90	218	1.55
7311.00	-27.64	36.05	39.68	29.17	48.09	37.58	74	54	-25.91	-16.42	196	1.63
9748.00	-27.10	37.85	39.94	29.45	50.69	40.20	74	54	-23.31	-13.80	20	1.60
12185.00	-25.58	39.26	36.31	25.85	50.00	39.54	74	54	-24.00	-14.46	137	1.57
14622.00	-23.64	41.86	29.73	19.29	47.95	37.51	74	54	-26.05	-16.49	329	1.59

Antenna Polarization : Vertical

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBμV)		Emission Level (dBμV/m)		Limit (dBμV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
2437.00 (F)	-31.26	28.42	97.04	84.02	94.20	81.18	--	--	--	--	304	1.46
4874.00	-28.58	33.57	40.36	29.87	45.35	34.86	74	54	-28.65	-19.14	257	1.49
7311.00	-27.64	36.05	39.52	29.06	47.93	37.47	74	54	-26.07	-16.53	299	1.53
9748.00	-27.10	37.85	39.44	28.96	50.19	39.71	74	54	-23.81	-14.29	142	1.52
12185.00	-25.58	39.26	36.12	25.65	49.81	39.34	74	54	-24.19	-14.66	87	1.49
14622.00	-23.64	41.86	30.03	19.55	48.25	37.77	74	54	-25.75	-16.23	93	1.55

NOTE:

1. Measurement uncertainty is 4.04 dB.
2. Emission Level = Reading Value + Ant. Factor + Correct Factor (incl.: Cable Loss and Pre-Amplifier Gain)
3. The field strength of other emission frequencies were very low against the limit.
4. (F): The field strength of fundamental frequency.

**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

Reference No.: A18040201
Report No.: FCCA18040201
FCC ID : 2AIFK-LVSDSM010
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Date: May. 02, 2018

Temperature:	21 °C	Humidity:	67 %RH
Frequency Range:	1 GHz – 25 GHz	Tested Mode:	802.11b_CH11
Detector Type:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Apr. 25, 2018

Antenna Polarization : Horizontal

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBμV)		Emission Level (dBμV/m)		Limit (dBμV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
1597.34	-32.21	26.53	44.80	34.32	39.12	28.64	74	54	-34.88	-25.36	327	2.34
2199.80	-31.43	28.14	44.32	33.81	41.03	30.52	74	54	-32.97	-23.48	224	2.15
3096.95	-30.68	30.52	43.53	33.04	43.36	32.87	74	54	-30.64	-21.13	215	1.88
3702.17	-29.90	31.65	42.20	31.76	43.95	33.51	74	54	-30.05	-20.49	345	1.67
4118.48	-29.52	32.60	42.01	31.58	45.09	34.66	74	54	-28.91	-19.34	102	1.51
5622.52	-28.40	34.30	40.96	30.43	46.86	36.33	74	54	-27.14	-17.67	69	1.13

Antenna Polarization : Vertical

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBμV)		Emission Level (dBμV/m)		Limit (dBμV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
1782.12	-31.91	27.16	44.41	33.96	39.65	29.20	74	54	-34.35	-24.80	135	1.24
2173.06	-31.45	28.11	44.16	33.67	40.82	30.33	74	54	-33.18	-23.67	300	1.39
3756.93	-29.85	31.82	43.00	32.55	44.97	34.52	74	54	-29.03	-19.48	257	1.84
4251.47	-29.38	32.60	42.67	32.17	45.89	35.39	74	54	-28.11	-18.61	74	1.99
5529.85	-28.41	34.30	41.29	30.65	47.18	36.54	74	54	-26.82	-17.46	168	2.30
5674.52	-28.39	34.30	41.14	30.69	47.05	36.60	74	54	-26.95	-17.40	280	2.44

NOTE:

1. Measurement uncertainty is 4.04 dB.
2. Emission Level = Reading Value + Ant. Factor + Correct Factor (incl.: Cable Loss and Pre-Amplifier Gain)
3. The field strength of other emission frequencies were very low against the limit.
4. (F): The field strength of fundamental frequency.

**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

Reference No.: A18040201
Report No.: FCCA18040201
FCC ID : 2AIFK-LVSDSM010
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Date: May. 02, 2018

Temperature:	21 °C	Humidity:	67 %RH
Frequency Range:	1 GHz – 25 GHz	Tested Mode:	802.11b_CH11 (Fundamental and Harmonics)
Detector:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Apr. 25, 2018

Antenna Polarization : Horizontal

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBμV)		Emission Level (dBμV/m)		Limit (dBμV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
2462.00 (F)	-31.25	28.45	97.12	84.39	94.33	81.60	--	--	--	--	192	1.63
4924.00	-28.51	33.70	42.96	32.45	48.15	37.64	74	54	-25.85	-16.36	251	1.60
7386.00	-27.59	36.23	40.24	29.75	48.87	38.38	74	54	-25.13	-15.62	133	1.57
9848.00	-27.05	37.91	39.71	29.23	50.57	40.09	74	54	-23.43	-13.91	40	1.59
12310.00	-25.28	39.24	34.12	23.66	48.08	37.62	74	54	-25.92	-16.38	107	1.65
14772.00	-23.68	41.20	29.45	18.97	46.98	36.50	74	54	-27.02	-17.50	342	1.43

Antenna Polarization : Vertical

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBμV)		Emission Level (dBμV/m)		Limit (dBμV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
2462.00 (F)	-31.25	28.45	95.38	82.91	92.59	80.12	--	--	--	--	298	1.48
4924.00	-28.51	33.70	43.79	33.27	48.98	38.46	74	54	-25.02	-15.54	51	1.53
7386.00	-27.59	36.23	40.25	29.76	48.88	38.39	74	54	-25.12	-15.61	99	1.50
9848.00	-27.05	37.91	39.46	28.97	50.32	39.83	74	54	-23.68	-14.17	178	1.59
12310.00	-25.28	39.24	34.03	23.50	47.99	37.46	74	54	-26.01	-16.54	262	1.54
14772.00	-23.68	41.20	29.48	18.91	47.01	36.44	74	54	-26.99	-17.56	29	1.48

NOTE:

1. Measurement uncertainty is 4.04 dB.
2. Emission Level = Reading Value + Ant. Factor + Correct Factor (incl.: Cable Loss and Pre-Amplifier Gain)
3. The field strength of other emission frequencies were very low against the limit.
4. (F): The field strength of fundamental frequency.

**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORTReference No.: A18040201
Report No.: FCCA18040201
FCC ID : 2AIFK-LVSDSM010
Page: 50 of 103
Date: May. 02, 2018

Temperature: 21 °C

Humidity: 67 %RH

Frequency Range: 1 GHz – 25 GHz

Tested Mode: 802.11g_CH01

Detector Type: PK. and AV.

IF Bandwidth: 1 MHz

Tested By: Richard Lin

Tested Date: Apr. 25, 2018

Antenna Polarization : Horizontal

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBμV)		Emission Level (dBμV/m)		Limit (dBμV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
1588.40	-32.22	26.50	45.13	34.67	39.41	28.95	74	54	-34.59	-25.05	230	2.34
1876.13	-31.77	27.48	45.30	34.88	41.01	30.59	74	54	-32.99	-23.41	315	2.21
3194.87	-30.54	30.63	42.84	32.36	42.94	32.46	74	54	-31.06	-21.54	105	1.85
3762.92	-29.84	31.84	42.76	32.29	44.75	34.28	74	54	-29.25	-19.72	75	1.69
4088.55	-29.55	32.60	42.71	32.21	45.76	35.26	74	54	-28.24	-18.74	142	1.54
5053.67	-28.40	33.94	42.09	31.57	47.63	37.11	74	54	-26.37	-16.89	92	1.29

Antenna Polarization : Vertical

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBμV)		Emission Level (dBμV/m)		Limit (dBμV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
1598.26	-32.21	26.53	45.15	34.64	39.48	28.97	74	54	-34.52	-25.03	140	1.13
1791.87	-31.90	27.19	44.04	33.59	39.33	28.88	74	54	-34.67	-25.12	289	1.25
3042.15	-30.77	30.45	42.60	32.13	42.28	31.81	74	54	-31.72	-22.19	61	1.62
3574.31	-30.01	31.24	42.89	32.36	44.12	33.59	74	54	-29.88	-20.41	133	1.79
4136.96	-29.50	32.60	41.56	31.04	44.66	34.14	74	54	-29.34	-19.86	300	1.95
5588.47	-28.40	34.30	41.88	31.38	47.78	37.28	74	54	-26.22	-16.72	258	2.36

NOTE:

1. Measurement uncertainty is 4.04 dB.
2. Emission Level = Reading Value + Ant. Factor + Correct Factor (incl.: Cable Loss and Pre-Amplifier Gain)
3. The field strength of other emission frequencies were very low against the limit.
4. (F): The field strength of fundamental frequency.

**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

Reference No.: A18040201
Report No.: FCCA18040201
FCC ID : 2AIFK-LVSDSM010
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Date: May. 02, 2018

Temperature:	21 °C	Humidity:	67 %RH
			802.11g_CH01
Frequency Range:	1 GHz – 25 GHz	Tested Mode:	(Fundamental and Harmonics)
Detector:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Apr. 25, 2018

Antenna Polarization : Horizontal

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBμV)		Emission Level (dBμV/m)		Limit (dBμV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
2412.00 (F)	-31.28	28.39	99.65	86.39	96.76	83.50	--	--	--	--	86	1.50
4824.00	-28.66	33.44	44.48	34.02	49.27	38.81	74	54	-24.73	-15.19	167	1.67
7236.00	-27.69	35.87	39.67	29.19	47.85	37.37	74	54	-26.15	-16.63	194	1.50
9648.00	-27.14	37.79	40.02	29.58	50.67	40.23	74	54	-23.33	-13.77	72	1.52
12060.00	-25.88	39.29	34.98	24.46	48.39	37.87	74	54	-25.61	-16.13	177	1.68
14472.00	-23.61	42.37	30.77	20.26	49.53	39.02	74	54	-24.47	-14.98	352	1.52

Antenna Polarization : Vertical

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBμV)		Emission Level (dBμV/m)		Limit (dBμV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
2412.00 (F)	-31.28	28.39	97.41	85.17	94.52	82.28	--	--	--	--	54	1.64
4824.00	-28.66	33.44	42.58	32.06	47.37	36.85	74	54	-26.63	-17.15	172	1.45
7236.00	-27.69	35.87	39.89	29.42	48.07	37.60	74	54	-25.93	-16.40	309	1.54
9648.00	-27.14	37.79	39.95	29.44	50.60	40.09	74	54	-23.40	-13.91	337	1.54
12060.00	-25.88	39.29	34.72	24.25	48.13	37.66	74	54	-25.87	-16.34	50	1.54
14472.00	-23.61	42.37	30.85	20.32	49.61	39.08	74	54	-24.39	-14.92	258	1.50

NOTE:

1. Measurement uncertainty is 4.04 dB.
2. Emission Level = Reading Value + Ant. Factor + Correct Factor (incl.: Cable Loss and Pre-Amplifier Gain)
3. The field strength of other emission frequencies were very low against the limit.
4. (F): The field strength of fundamental frequency.


Spectrum Research & Testing Lab., Inc.

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

Reference No.: A18040201
Report No.: FCCA18040201
FCC ID : 2AIFK-LVSDSM010
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Date: May. 02, 2018

Temperature:	21 °C	Humidity:	67 %RH
Frequency Range:	1 GHz – 25 GHz	Tested Mode:	802.11g_CH06
Detector Type:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Apr. 25, 2018

Antenna Polarization : Horizontal

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBμV)		Emission Level (dBμV/m)		Limit (dBμV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
1788.46	-31.90	27.18	43.77	33.29	39.04	28.56	74	54	-34.96	-25.44	159	2.28
3024.02	-30.79	30.43	43.11	32.67	42.75	32.31	74	54	-31.25	-21.69	214	1.88
3669.33	-29.92	31.54	42.57	32.01	44.19	33.63	74	54	-29.81	-20.37	108	1.71
4051.98	-29.59	32.60	42.26	31.78	45.27	34.79	74	54	-28.73	-19.21	335	1.59
4247.45	-29.39	32.60	42.45	31.96	45.66	35.17	74	54	-28.34	-18.83	70	1.43
5579.26	-28.41	34.30	41.31	30.88	47.20	36.77	74	54	-26.80	-17.23	129	1.16

Antenna Polarization : Vertical

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBμV)		Emission Level (dBμV/m)		Limit (dBμV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
1691.37	-32.06	26.85	43.88	33.34	38.67	28.13	74	54	-35.33	-25.87	235	1.22
2268.62	-31.38	28.22	44.19	33.68	41.03	30.52	74	54	-32.97	-23.48	38	1.39
3127.99	-30.64	30.55	42.96	32.42	42.88	32.34	74	54	-31.12	-21.66	114	1.62
3659.03	-29.93	31.51	42.55	31.06	44.13	32.64	74	54	-29.87	-21.36	109	1.81
4112.52	-29.53	32.60	43.00	32.55	46.07	35.62	74	54	-27.93	-18.38	296	1.96
5588.41	-28.40	34.30	41.58	31.08	47.48	36.98	74	54	-26.52	-17.02	314	2.35

NOTE:

1. Measurement uncertainty is 4.04 dB.
2. Emission Level = Reading Value + Ant. Factor + Correct Factor (incl.: Cable Loss and Pre-Amplifier Gain)
3. The field strength of other emission frequencies were very low against the limit.
4. (F): The field strength of fundamental frequency.

**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

Reference No.: A18040201
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FCC ID : 2AIFK-LVSDSM010
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Date: May. 02, 2018

Temperature:	21 °C	Humidity:	67 %RH
Frequency Range:	1 GHz – 25 GHz	Tested Mode:	802.11g_CH06 (Fundamental and Harmonics)
Detector:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Apr. 25, 2018

Antenna Polarization : Horizontal

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBμV)		Emission Level (dBμV/m)		Limit (dBμV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
2437.00 (F)	-31.26	28.42	96.93	84.15	94.09	81.31	--	--	--	--	61	1.69
4874.00	-28.58	33.57	40.37	29.86	45.36	34.85	74	54	-28.64	-19.15	108	1.59
7311.00	-27.64	36.05	39.42	28.98	47.83	37.39	74	54	-26.17	-16.61	79	1.46
9748.00	-27.10	37.85	39.97	29.42	50.72	40.17	74	54	-23.28	-13.83	40	1.49
12185.00	-25.58	39.26	36.41	25.93	50.10	39.62	74	54	-23.90	-14.38	36	1.56
14622.00	-23.64	41.86	29.84	19.39	48.06	37.61	74	54	-25.94	-16.39	210	1.52

Antenna Polarization : Vertical

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBμV)		Emission Level (dBμV/m)		Limit (dBμV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
2437.00 (F0)	-31.26	28.42	96.48	83.71	93.64	80.87	--	--	--	--	354	1.44
4874.00	-28.58	33.57	40.79	30.25	45.78	35.24	74	54	-28.22	-18.76	98	1.60
7311.00	-27.64	36.05	39.47	28.91	47.88	37.32	74	54	-26.12	-16.68	223	1.65
9748.00	-27.10	37.85	39.81	29.33	50.56	40.08	74	54	-23.44	-13.92	87	1.49
12185.00	-25.58	39.26	36.02	25.56	49.71	39.25	74	54	-24.29	-14.75	2	1.65
14622.00	-23.64	41.86	29.65	19.15	47.87	37.37	74	54	-26.13	-16.63	338	1.55

NOTE:

1. Measurement uncertainty is 4.04 dB.
2. Emission Level = Reading Value + Ant. Factor + Correct Factor (incl.: Cable Loss and Pre-Amplifier Gain)
3. The field strength of other emission frequencies were very low against the limit.
4. (F): The field strength of fundamental frequency.

**Spectrum Research & Testing Lab., Inc.**

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TEST REPORT

Reference No.: A18040201
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FCC ID : 2AIFK-LVSDSM010
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Date: May. 02, 2018

Temperature:	21 °C	Humidity:	67 %RH
Frequency Range:	1 GHz – 25 GHz	Tested Mode:	802.11g_CH11
Detector Type:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Apr. 25, 2018

Antenna Polarization : Horizontal

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBμV)		Emission Level (dBμV/m)		Limit (dBμV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
1827.04	-31.84	27.31	44.65	34.18	40.12	29.65	74	54	-33.88	-24.35	226	2.26
2169.51	-31.45	28.10	43.84	33.35	40.49	30.00	74	54	-33.51	-24.00	172	2.17
3456.27	-30.14	30.95	42.22	31.76	43.03	32.57	74	54	-30.97	-21.43	109	1.88
3961.92	-29.67	32.48	41.96	31.47	44.76	34.27	74	54	-29.24	-19.73	52	1.69
4273.83	-29.36	32.60	42.71	32.29	45.95	35.53	74	54	-28.05	-18.47	307	1.51
5392.40	-28.42	34.21	40.80	30.31	46.60	36.11	74	54	-27.40	-17.89	43	1.19

Antenna Polarization : Vertical

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBμV)		Emission Level (dBμV/m)		Limit (dBμV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
1788.58	-31.90	27.18	43.79	33.26	39.06	28.53	74	54	-34.94	-25.47	136	1.25
2201.74	-31.43	28.14	43.77	33.21	40.48	29.92	74	54	-33.52	-24.08	331	1.34
3349.18	-30.30	30.82	42.81	32.38	43.33	32.90	74	54	-30.67	-21.10	155	1.71
3457.45	-30.14	30.95	42.54	32.09	43.35	32.90	74	54	-30.65	-21.10	189	1.83
4342.03	-29.29	32.60	42.03	31.55	45.34	34.86	74	54	-28.66	-19.14	99	2.02
5539.62	-28.41	34.30	41.82	31.34	47.71	37.23	74	54	-26.29	-16.77	180	2.38

NOTE:

1. Measurement uncertainty is 4.04 dB.
2. Emission Level = Reading Value + Ant. Factor + Correct Factor (incl.: Cable Loss and Pre-Amplifier Gain)
3. The field strength of other emission frequencies were very low against the limit.
4. (F): The field strength of fundamental frequency.

**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

Reference No.: A18040201
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Temperature:	21 °C	Humidity:	67 %RH
			802.11g_CH11
Frequency Range:	1 GHz – 25 GHz	Tested Mode:	(Fundamental and Harmonics)
Detector:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Apr. 25, 2018

Antenna Polarization : Horizontal

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBμV)		Emission Level (dBμV/m)		Limit (dBμV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
2462.00 (F)	-31.25	28.45	95.82	82.39	93.03	79.60	--	--	--	--	48	1.42
4924.00	-28.51	33.70	42.54	32.01	47.73	37.20	74	54	-26.27	-16.80	49	1.65
7386.00	-27.59	36.23	40.03	29.50	48.66	38.13	74	54	-25.34	-15.87	346	1.60
9848.00	-27.05	37.91	39.45	28.93	50.31	39.79	74	54	-23.69	-14.21	120	1.65
12310.00	-25.28	39.24	34.62	24.13	48.58	38.09	74	54	-25.42	-15.91	166	1.45
14772.00	-23.68	41.20	29.27	18.79	46.80	36.32	74	54	-27.20	-17.68	321	1.43

Antenna Polarization : Vertical

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBμV)		Emission Level (dBμV/m)		Limit (dBμV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
2462.00 (F)	-31.25	28.45	98.71	86.04	95.92	83.25	--	--	--	--	233	1.62
4924.00	-28.51	33.70	43.52	33.05	48.71	38.24	74	54	-25.29	-15.76	112	1.58
7386.00	-27.59	36.23	39.98	29.51	48.61	38.14	74	54	-25.39	-15.86	31	1.68
9848.00	-27.05	37.91	39.26	28.74	50.12	39.60	74	54	-23.88	-14.40	357	1.52
12310.00	-25.28	39.24	33.93	23.41	47.89	37.37	74	54	-26.11	-16.63	250	1.45
14772.00	-23.68	41.20	29.24	18.75	46.77	36.28	74	54	-27.23	-17.72	210	1.51

NOTE:

1. Measurement uncertainty is 4.04 dB.
2. Emission Level = Reading Value + Ant. Factor + Correct Factor (incl.: Cable Loss and Pre-Amplifier Gain)
3. The field strength of other emission frequencies were very low against the limit.
4. (F): The field strength of fundamental frequency.

**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

Reference No.: A18040201
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FCC ID : 2AIFK-LVSDSM010
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Date: May. 02, 2018

Temperature:	21 °C	Humidity:	67 %RH
Frequency Range:	1 GHz – 25 GHz	Tested Mode:	802.11n - HT20_CH01
Detector Type:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Apr. 25, 2018

Antenna Polarization : Horizontal

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBμV)		Emission Level (dBμV/m)		Limit (dBμV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
1837.26	-31.83	27.35	43.59	33.04	39.11	28.56	74	54	-34.89	-25.44	319	2.26
3298.51	-30.38	30.76	42.37	31.86	42.75	32.24	74	54	-31.25	-21.76	210	1.84
3661.33	-29.93	31.52	41.78	31.29	43.36	32.87	74	54	-30.64	-21.13	107	1.72
4146.04	-29.49	32.60	42.29	31.73	45.40	34.84	74	54	-28.60	-19.16	51	1.55
5139.91	-28.41	34.01	41.26	30.70	46.87	36.31	74	54	-27.13	-17.69	200	1.26
5582.47	-28.41	34.30	41.35	30.85	47.24	36.74	74	54	-26.76	-17.26	271	1.14

Antenna Polarization : Vertical

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBμV)		Emission Level (dBμV/m)		Limit (dBμV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
1924.62	-31.69	27.64	43.73	33.27	39.68	29.22	74	54	-34.32	-24.78	84	1.26
3077.79	-30.71	30.49	42.30	31.82	42.08	31.60	74	54	-31.92	-22.40	334	1.60
3612.01	-29.97	31.36	42.66	32.19	44.04	33.57	74	54	-29.96	-20.43	195	1.73
4398.35	-29.23	32.60	41.28	30.77	44.65	34.14	74	54	-29.35	-19.86	93	2.00
4673.98	-28.88	33.05	42.05	31.54	46.22	35.71	74	54	-27.78	-18.29	134	2.15
5474.66	-28.42	34.28	41.27	30.78	47.13	36.64	74	54	-26.87	-17.36	275	2.37

NOTE:

1. Measurement uncertainty is 4.04 dB.
2. Emission Level = Reading Value + Ant. Factor + Correct Factor (incl.: Cable Loss and Pre-Amplifier Gain)
3. The field strength of other emission frequencies were very low against the limit.
4. (F): The field strength of fundamental frequency.

**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

Reference No.: A18040201
Report No.: FCCA18040201
FCC ID : 2AIFK-LVSDSM010
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Date: May. 02, 2018

Temperature:	21 °C	Humidity:	67 %RH
Frequency Range:	1 GHz – 25 GHz	Tested Mode:	802.11n - HT20_CH01 (Fundamental and Harmonics)
Detector:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Apr. 25, 2018

Antenna Polarization : Horizontal

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBμV)		Emission Level (dBμV/m)		Limit (dBμV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
2412.00 (F)	-31.28	28.39	96.53	84.09	93.64	81.20	--	--	--	--	289	1.58
4824.00	-28.66	33.44	43.30	32.88	48.09	37.67	74	54	-25.91	-16.33	53	1.66
7236.00	-27.69	35.87	39.32	28.85	47.50	37.03	74	54	-26.50	-16.97	136	1.42
9648.00	-27.14	37.79	39.88	29.34	50.53	39.99	74	54	-23.47	-14.01	26	1.42
12060.00	-25.88	39.29	35.46	24.92	48.87	38.33	74	54	-25.13	-15.67	154	1.58
14472.00	-23.61	42.37	30.97	20.45	49.73	39.21	74	54	-24.27	-14.79	345	1.64

Antenna Polarization : Vertical

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBμV)		Emission Level (dBμV/m)		Limit (dBμV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
2412.00 (F)	-31.28	28.39	98.21	85.37	95.32	82.48	--	--	--	--	208	1.44
4824.00	-28.66	33.44	43.03	32.51	47.82	37.30	74	54	-26.18	-16.70	282	1.64
7236.00	-27.69	35.87	39.70	29.24	47.88	37.42	74	54	-26.12	-16.58	215	1.61
9648.00	-27.14	37.79	39.66	29.15	50.31	39.80	74	54	-23.69	-14.20	125	1.54
12060.00	-25.88	39.29	34.75	24.21	48.16	37.62	74	54	-25.84	-16.38	145	1.67
14472.00	-23.61	42.37	30.31	19.85	49.07	38.61	74	54	-24.93	-15.39	11	1.53

NOTE:

1. Measurement uncertainty is 4.04 dB.
2. Emission Level = Reading Value + Ant. Factor + Correct Factor (incl.: Cable Loss and Pre-Amplifier Gain)
3. The field strength of other emission frequencies were very low against the limit.
4. (F): The field strength of fundamental frequency.

**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

Reference No.: A18040201
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FCC ID : 2AIFK-LVSDSM010
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Date: May. 02, 2018

Temperature:	21 °C	Humidity:	67 %RH
Frequency Range:	1 GHz – 25 GHz	Tested Mode:	802.11n - HT20_CH06
Detector Type:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Apr. 25, 2018

Antenna Polarization : Horizontal

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBμV)		Emission Level (dBμV/m)		Limit (dBμV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
1918.93	-31.70	27.62	44.60	34.15	40.52	30.07	74	54	-33.48	-23.93	335	2.22
2316.15	-31.35	28.28	44.68	34.17	41.61	31.10	74	54	-32.39	-22.90	201	2.11
2941.88	-30.88	30.18	43.09	32.55	42.39	31.85	74	54	-31.61	-22.15	185	1.92
3698.50	-29.90	31.63	42.92	32.43	44.65	34.16	74	54	-29.35	-19.84	241	1.69
4129.64	-29.51	32.60	42.66	32.12	45.75	35.21	74	54	-28.25	-18.79	71	1.56
5112.30	-28.40	33.99	41.39	30.88	46.98	36.47	74	54	-27.02	-17.53	90	1.27

Antenna Polarization : Vertical

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBμV)		Emission Level (dBμV/m)		Limit (dBμV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
1996.77	-31.58	27.89	42.71	32.26	39.02	28.57	74	54	-34.98	-25.43	33	1.30
2174.35	-31.45	28.11	44.94	34.46	41.60	31.12	74	54	-32.40	-22.88	33	1.35
2958.70	-30.86	30.24	42.95	32.41	42.33	31.79	74	54	-31.67	-22.21	113	1.59
3659.96	-29.93	31.51	43.05	32.57	44.63	34.15	74	54	-29.37	-19.85	107	1.80
4112.25	-29.53	32.60	42.52	32.02	45.59	35.09	74	54	-28.41	-18.91	201	1.93
5617.31	-28.40	34.30	41.32	30.88	47.22	36.78	74	54	-26.78	-17.22	285	2.39

NOTE:

1. Measurement uncertainty is 4.04 dB.
2. Emission Level = Reading Value + Ant. Factor + Correct Factor (incl.: Cable Loss and Pre-Amplifier Gain)
3. The field strength of other emission frequencies were very low against the limit.
4. (F): The field strength of fundamental frequency.

**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

Reference No.: A18040201
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FCC ID : 2AIFK-LVSDSM010
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Date: May. 02, 2018

Temperature:	21 °C	Humidity:	67 %RH
Frequency Range:	1 GHz – 25 GHz	Tested Mode:	802.11n - HT20_CH06 (Fundamental and Harmonics)
Detector:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Apr. 25, 2018

Antenna Polarization : Horizontal

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBμV)		Emission Level (dBμV/m)		Limit (dBμV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
2437.00 (F)	-31.26	28.42	97.44	84.69	94.60	81.85	--	--	--	--	253	1.62
4874.00	-28.58	33.57	41.06	30.52	46.05	35.51	74	54	-27.95	-18.49	219	1.56
7311.00	-27.64	36.05	38.91	28.46	47.32	36.87	74	54	-26.68	-17.13	7	1.48
9748.00	-27.10	37.85	39.34	28.85	50.09	39.60	74	54	-23.91	-14.40	110	1.58
12185.00	-25.58	39.26	35.98	25.40	49.67	39.09	74	54	-24.33	-14.91	181	1.56
14622.00	-23.64	41.86	29.65	19.15	47.87	37.37	74	54	-26.13	-16.63	337	1.50

Antenna Polarization : Vertical

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBμV)		Emission Level (dBμV/m)		Limit (dBμV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
2437.00 (F)	-31.26	28.42	97.53	84.27	94.69	81.43	--	--	--	--	284	1.69
4874.00	-28.58	33.57	40.98	30.46	45.97	35.45	74	54	-28.03	-18.55	170	1.56
7311.00	-27.64	36.05	38.93	28.45	47.34	36.86	74	54	-26.66	-17.14	227	1.68
9748.00	-27.10	37.85	39.55	29.06	50.30	39.81	74	54	-23.70	-14.19	179	1.69
12185.00	-25.58	39.26	35.32	24.81	49.01	38.50	74	54	-24.99	-15.50	86	1.43
14622.00	-23.64	41.86	29.67	19.10	47.89	37.32	74	54	-26.11	-16.68	133	1.55

NOTE:

1. Measurement uncertainty is 4.04 dB.
2. Emission Level = Reading Value + Ant. Factor + Correct Factor (incl.: Cable Loss and Pre-Amplifier Gain)
3. The field strength of other emission frequencies were very low against the limit.
4. (F): The field strength of fundamental frequency.

**Spectrum Research & Testing Lab., Inc.**

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

Reference No.: A18040201
Report No.: FCCA18040201
FCC ID : 2AIFK-LVSDSM010
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Date: May. 02, 2018

Temperature:	21 °C	Humidity:	67 %RH
Frequency Range:	1 GHz – 25 GHz	Tested Mode:	802.11n - HT20_CH11
Detector Type:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Apr. 25, 2018

Antenna Polarization : Horizontal

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBμV)		Emission Level (dBμV/m)		Limit (dBμV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
1676.14	-32.08	26.80	44.92	34.43	39.64	29.15	74	54	-34.36	-24.85	320	2.33
3024.96	-30.79	30.43	42.99	32.48	42.63	32.12	74	54	-31.37	-21.88	214	1.88
3341.83	-30.31	30.81	42.58	32.01	43.08	32.51	74	54	-30.92	-21.49	105	1.69
3658.02	-29.93	31.51	43.09	32.57	44.66	34.14	74	54	-29.34	-19.86	77	1.61
4123.75	-29.51	32.60	42.26	31.78	45.35	34.87	74	54	-28.65	-19.13	203	1.52
5598.31	-28.40	34.30	40.79	30.36	46.69	36.26	74	54	-27.31	-17.74	56	1.15

Antenna Polarization : Vertical

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBμV)		Emission Level (dBμV/m)		Limit (dBμV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
1828.84	-31.84	27.32	44.91	34.49	40.38	29.96	74	54	-33.62	-24.04	134	1.26
2861.33	-30.94	29.87	43.52	32.06	42.45	30.99	74	54	-31.55	-23.01	315	1.57
3249.50	-30.45	30.70	42.88	32.35	43.13	32.60	74	54	-30.87	-21.40	90	1.62
3753.97	-29.85	31.81	42.14	31.69	44.10	33.65	74	54	-29.90	-20.35	202	1.88
4070.21	-29.57	32.60	42.29	31.75	45.32	34.78	74	54	-28.68	-19.22	188	1.93
5617.34	-28.40	34.30	41.11	30.60	47.01	36.50	74	54	-26.99	-17.50	294	2.35

NOTE:

1. Measurement uncertainty is 4.04 dB.
2. Emission Level = Reading Value + Ant. Factor + Correct Factor (incl.: Cable Loss and Pre-Amplifier Gain)
3. The field strength of other emission frequencies were very low against the limit.
4. (F): The field strength of fundamental frequency.

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TEST REPORT

Reference No.: A18040201
Report No.: FCCA18040201
FCC ID : 2AIFK-LVSDSM010
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Temperature:	21 °C	Humidity:	67 %RH
Frequency Range:	1 GHz – 25 GHz	Tested Mode:	802.11n - HT20_CH11 (Fundamental and Harmonics)
Detector:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Apr. 25, 2018

Antenna Polarization : Horizontal

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBμV)		Emission Level (dBμV/m)		Limit (dBμV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
2462.00 (F)	-31.25	28.45	98.02	85.26	95.23	82.47	--	--	--	--	3	1.63
4924.00	-28.51	33.70	42.73	32.18	47.92	37.37	74	54	-26.08	-16.63	181	1.62
7386.00	-27.59	36.23	40.22	29.74	48.85	38.37	74	54	-25.15	-15.63	116	1.50
9848.00	-27.05	37.91	39.35	28.81	50.21	39.67	74	54	-23.79	-14.33	56	1.69
12310.00	-25.28	39.24	33.97	23.45	47.93	37.41	74	54	-26.07	-16.59	161	1.58
14772.00	-23.68	41.20	29.31	18.82	46.84	36.35	74	54	-27.16	-17.65	248	1.42

Antenna Polarization : Vertical

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBμV)		Emission Level (dBμV/m)		Limit (dBμV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
2462.00 (F)	-31.25	28.45	96.76	83.99	93.97	81.20	--	--	--	--	226	1.65
4924.00	-28.51	33.70	42.22	31.79	47.41	36.98	74	54	-26.59	-17.02	322	1.47
7386.00	-27.59	36.23	40.25	29.76	48.88	38.39	74	54	-25.12	-15.61	96	1.50
9848.00	-27.05	37.91	39.40	28.94	50.26	39.80	74	54	-23.74	-14.20	133	1.53
12310.00	-25.28	39.24	33.57	23.06	47.53	37.02	74	54	-26.47	-16.98	254	1.45
14772.00	-23.68	41.20	29.36	18.87	46.89	36.40	74	54	-27.11	-17.60	176	1.55

NOTE:

1. Measurement uncertainty is 4.04 dB.
2. Emission Level = Reading Value + Ant. Factor + Correct Factor (incl.: Cable Loss and Pre-Amplifier Gain)
3. The field strength of other emission frequencies were very low against the limit.
4. (F): The field strength of fundamental frequency.

**Spectrum Research & Testing Lab., Inc.**

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TEST REPORT

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4.3 BANDWIDTH TEST**4.3.1 LIMIT**

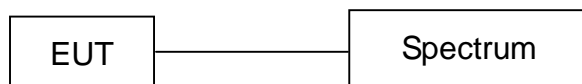
FCC Part15, Subpart C Section 15.247 (a)(2). The minimum 6dB bandwidth shall be at least 500 kHz.

4.3.2 TEST EQUIPMENT

The following test equipment was used during the test :

EQUIPMENT/ FACILITIES	SPECIFICATIONS	MANUFACTURER	MODEL#/ SERIAL#	DUE DATE OF CAL. & CAL. CENTER
EMI TEST RECEIVER (INCLUDE SPECTRUM ANALYZER)	9 KHz ~ 6 GHz	ROHDE & SCHWARZ	ESL /100176	MAY 21, 2018 ETC

NOTE: The calibration interval of the above test equipment is one year and the calibrations are traceable to NML/ROC and NIST/USA.

4.3.3 TEST SET-UP

The EUT was connected to a spectrum through a 50Ω RF cable.

4.3.4 TEST PROCEDURE

The EUT was operated in continuous transmission mode or any specific channel.
Printed out the test result from the spectrum by hard copy function.

4.3.5 EUT OPERATING CONDITION

1. Set the EUT under continuous transmission condition.
2. The EUT was set to the highest available power level.



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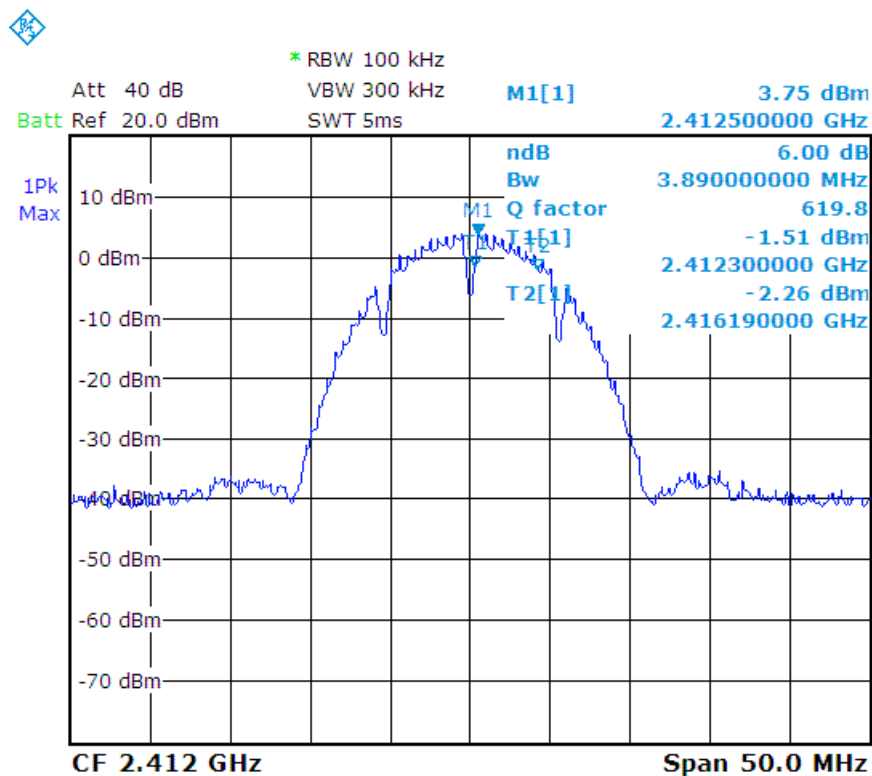
4.3.6 TEST RESULT

6dB Bandwidth :

Temperature:	23°C	Humidity:	62 %RH
Detector:	Peak	Test Mode:	802.11b
RBW:	100 kHz	VBW:	300 kHz
Tested By:	Richard Lin	Tested Date:	Apr. 26, 2018

Channel Number	Channel Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)
CH01	2412	3.89	0.5
CH06	2437	3.89	0.5
CH11	2462	3.89	0.5

b_CH01 :





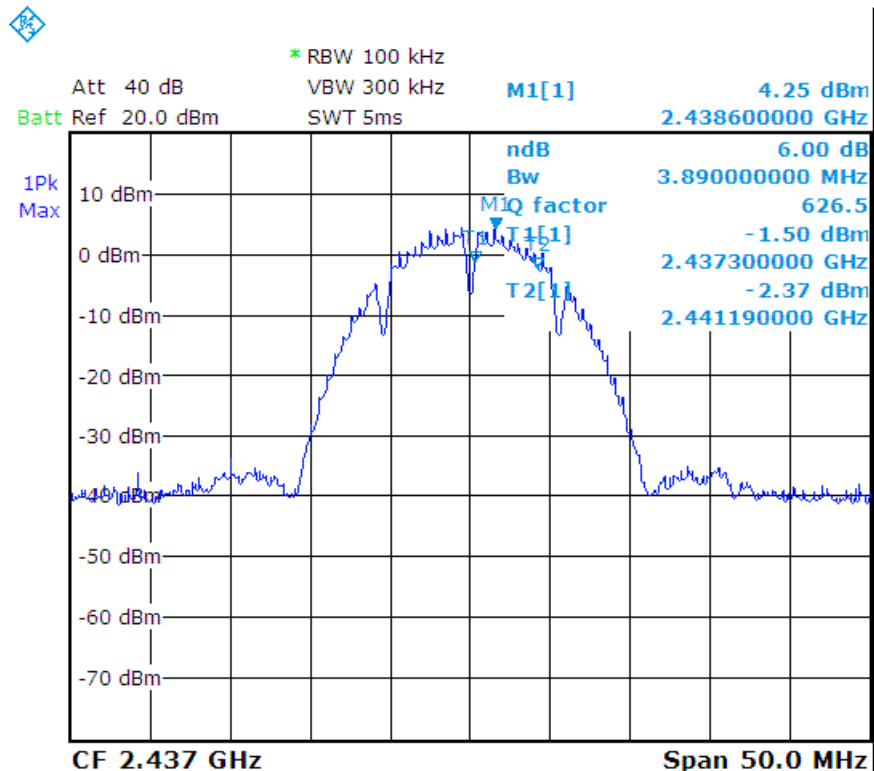
Spectrum Research & Testing Lab., Inc.

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

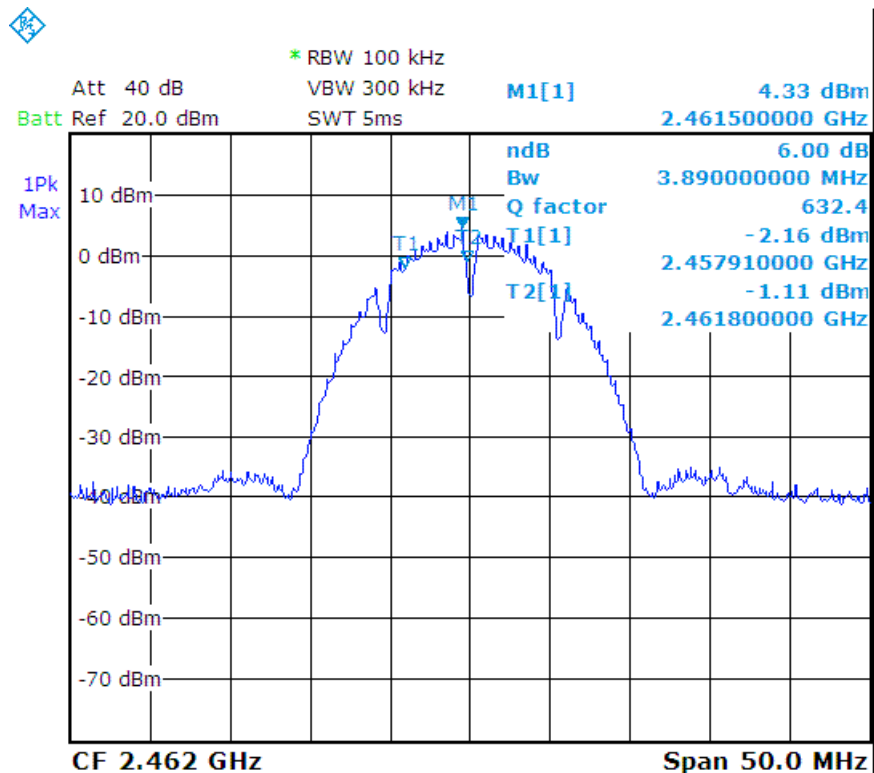
TEST REPORT

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b_CH06 :



b_CH11 :



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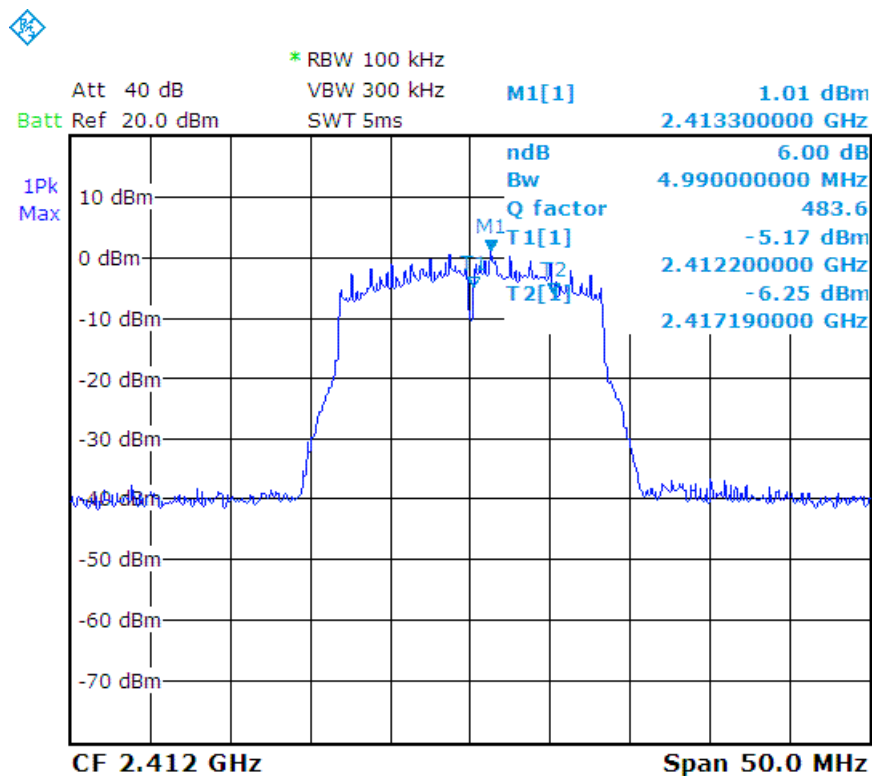
TEST REPORT

Reference No.: A18040201
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Temperature:	23°C	Humidity:	62 %RH
Detector:	Peak	Test Mode:	802.11g
RBW:	100 kHz	VBW:	300 kHz
Tested By:	Richard Lin	Tested Date:	Apr. 26, 2018

Channel Number	Channel Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)
CH01	2412	4.99	0.5
CH06	2437	5.29	0.5
CH11	2462	4.99	0.5

g_CH01 :





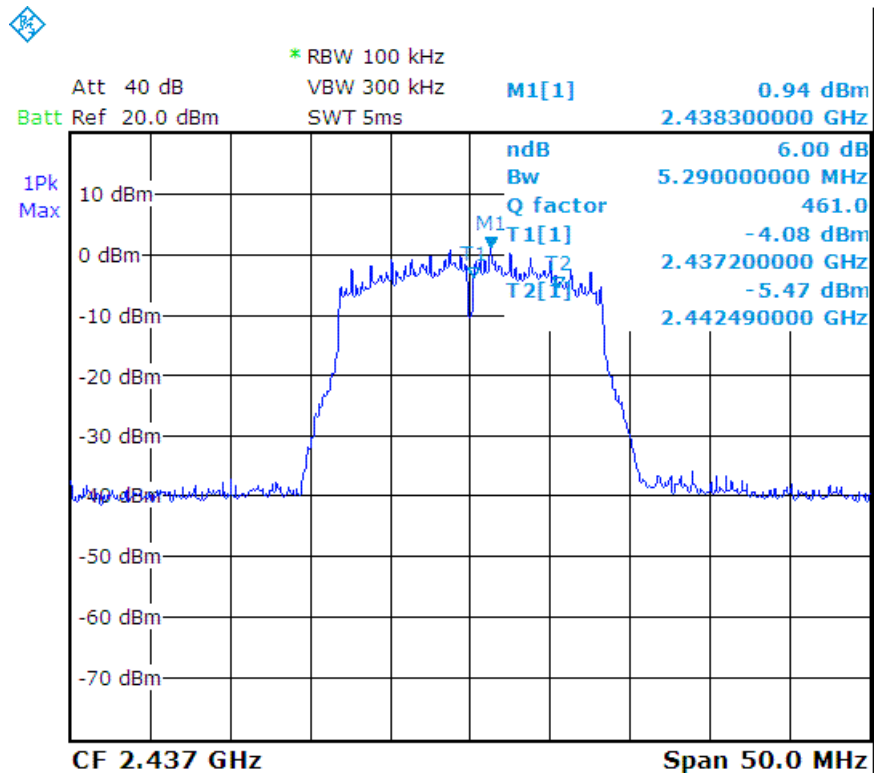
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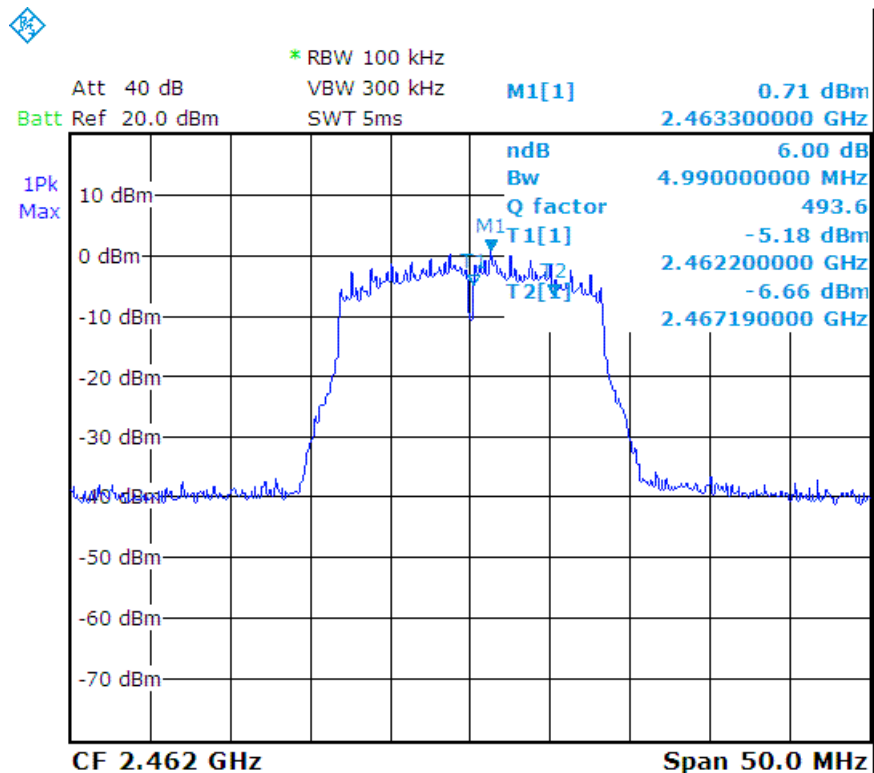
TEST REPORT

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g_CH06 :



g_CH11 :



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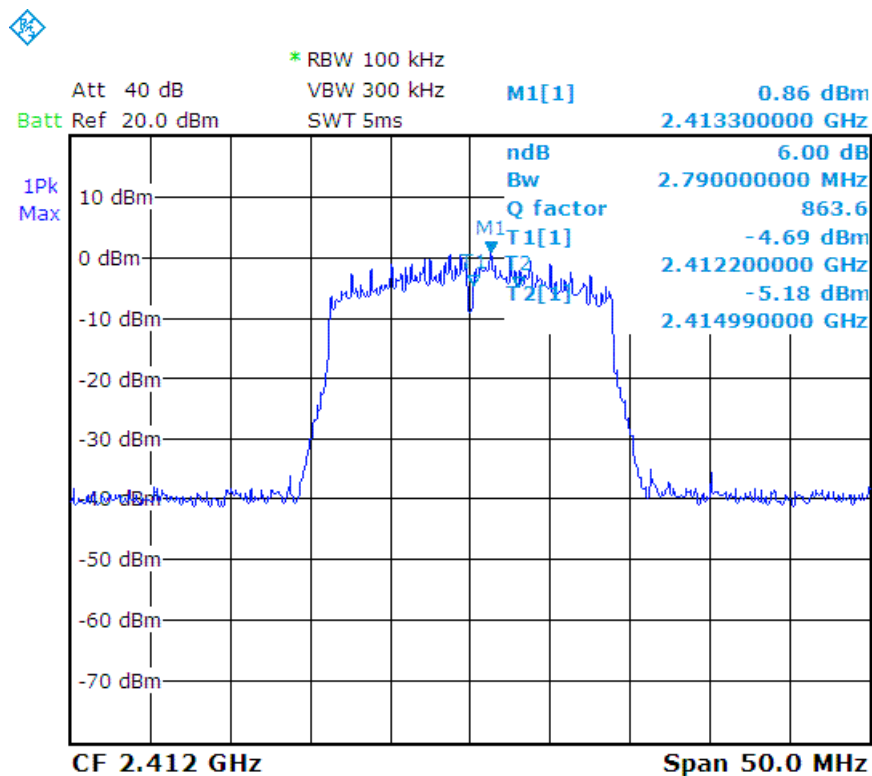
TEST REPORT

Reference No.: A18040201
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FCC ID : 2AIFK-LVSDSM010
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Temperature:	23°C	Humidity:	62 %RH
Detector:	Peak	Test Mode:	802.11n - HT20
RBW:	100 kHz	VBW:	300 kHz
Tested By:	Richard Lin	Tested Date:	Apr. 26, 2018

Channel Number	Channel Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)
CH01	2412	2.79	0.5
CH06	2437	3.79	0.5
CH11	2462	3.79	0.5

n - HT20_CH01 :





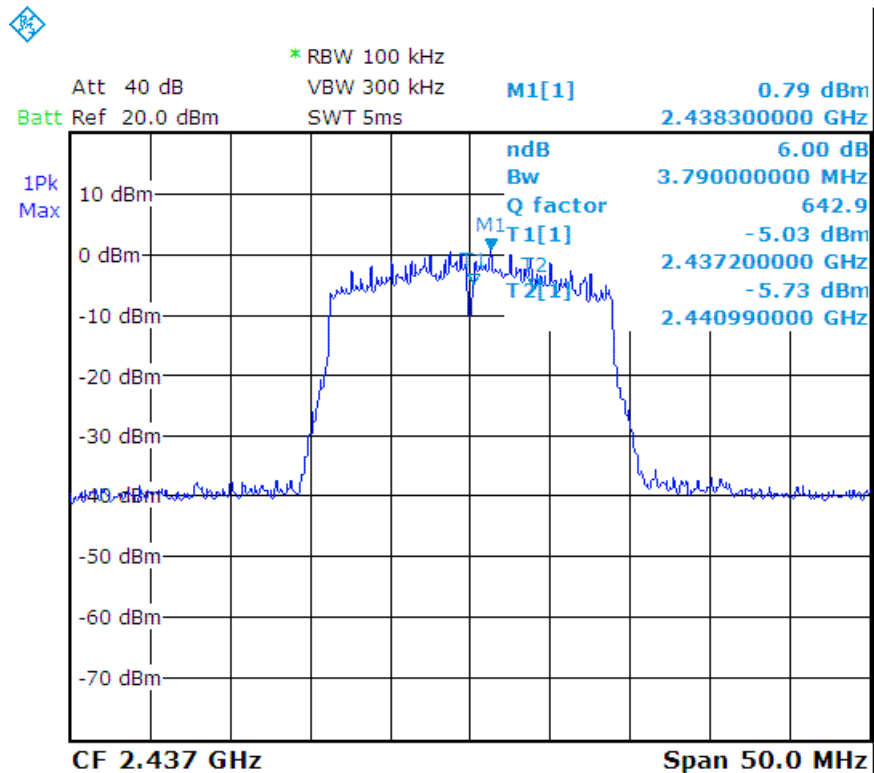
Spectrum Research & Testing Lab., Inc.

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

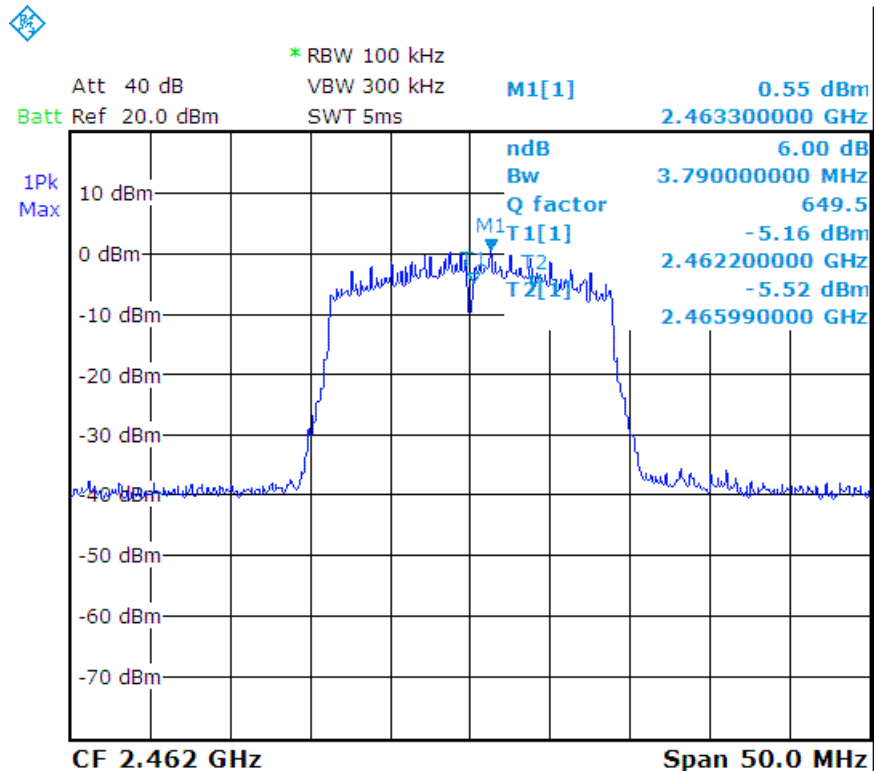
TEST REPORT

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n - HT20_CH06 :



n - HT20_CH11 :





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TEST REPORT

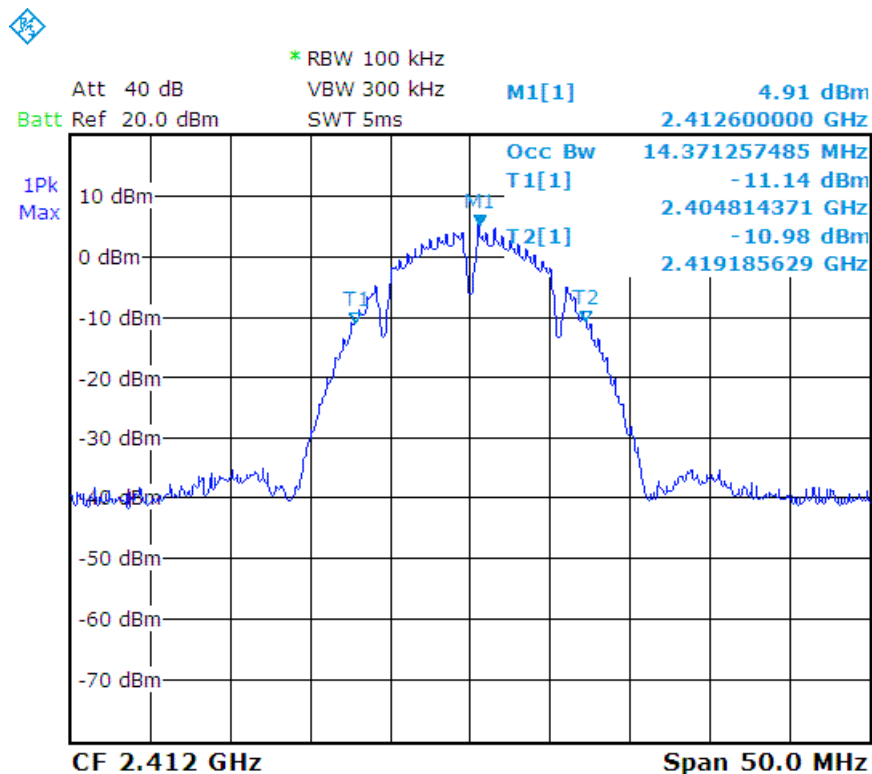
Reference No.: A18040201
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99% Bandwidth :

Temperature:	23 °C	Humidity:	62 %RH
Detector:	Peak	Test Mode:	802.11b
RBW:	100 kHz	VBW:	300 kHz
Tested By:	Richard Lin	Tested Date:	Apr. 26, 2018

Channel Number	Channel Frequency (MHz)	99% Bandwidth (MHz)
CH01	2412	14.37
CH06	2437	14.47
CH11	2462	14.57

b_CH01 :





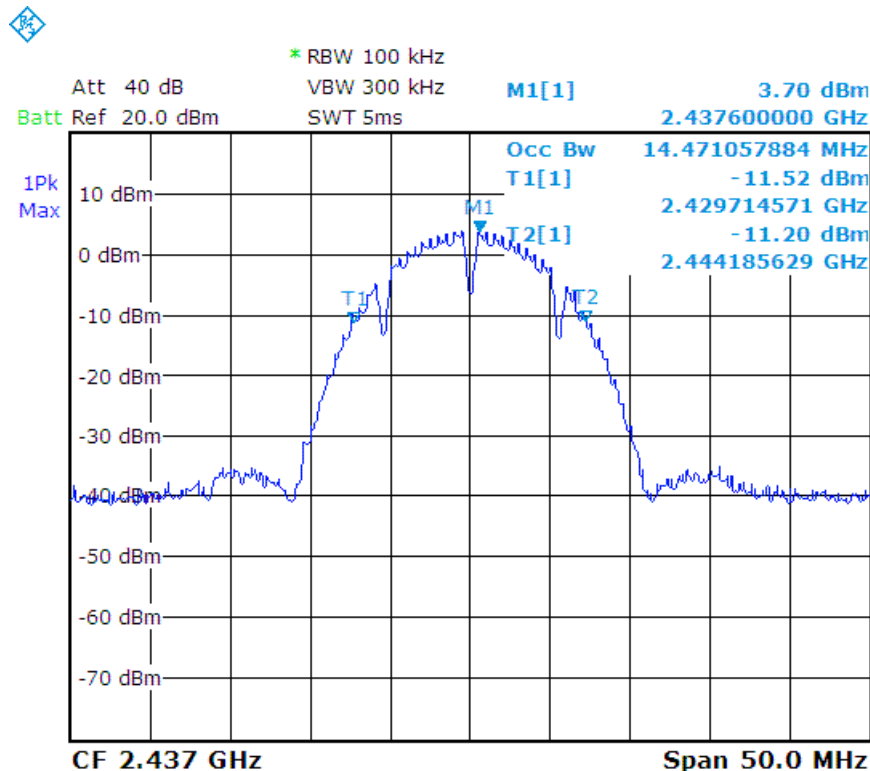
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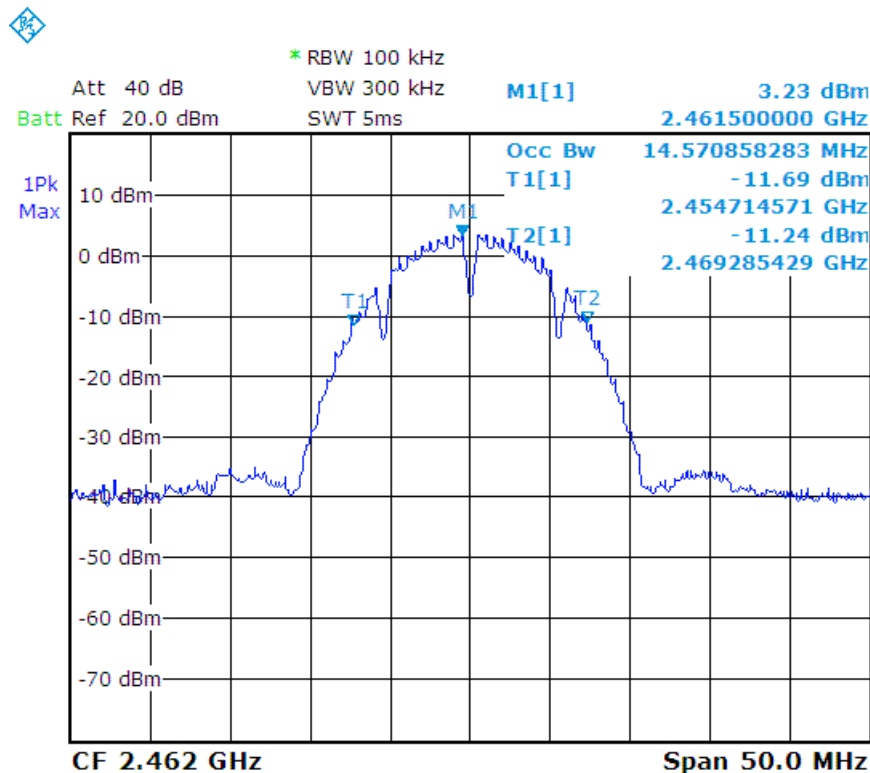
TEST REPORT

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b_CH06 :



b_CH11 :



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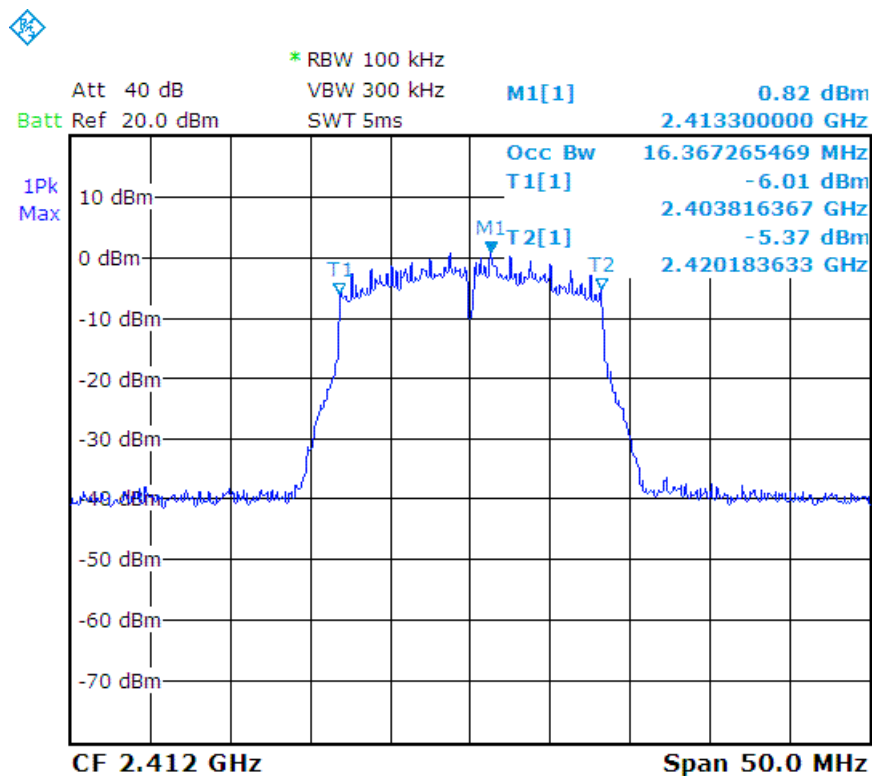
TEST REPORT

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Date: May. 02, 2018

Temperature:	23 °C	Humidity:	62 %RH
Detector:	Peak	Test Mode:	802.11g
RBW:	100 kHz	VBW:	300 kHz
Tested By:	Richard Lin	Tested Date:	Apr. 26, 2018

Channel Number	Channel Frequency (MHz)	99% Bandwidth (MHz)
CH01	2412	16.37
CH06	2437	16.37
CH11	2462	16.37

g_CH01 :





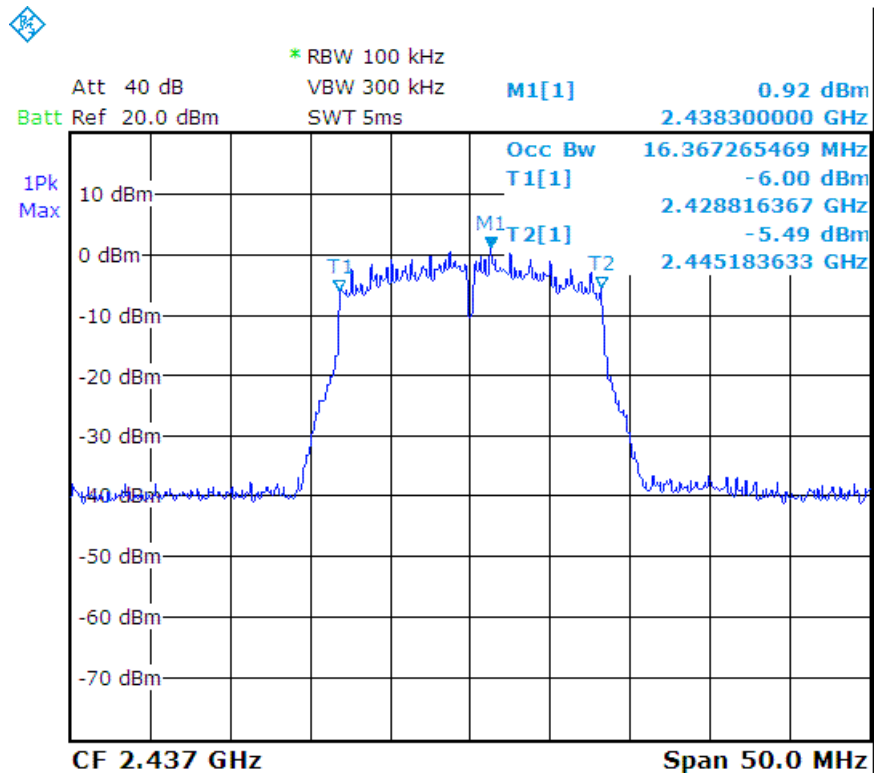
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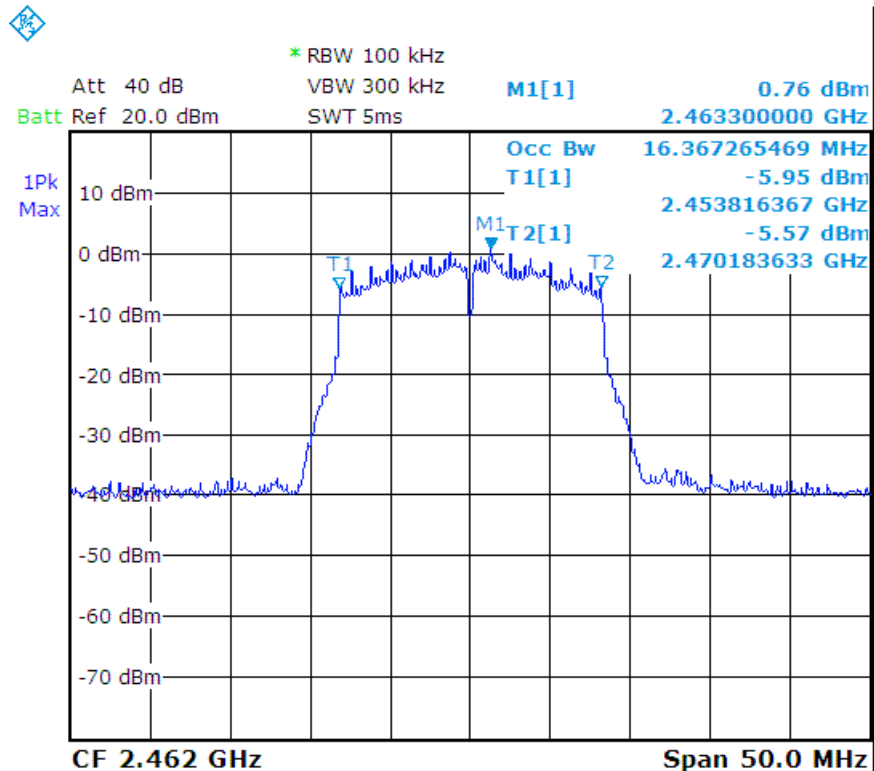
TEST REPORT

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g_CH06 :



g_CH11 :



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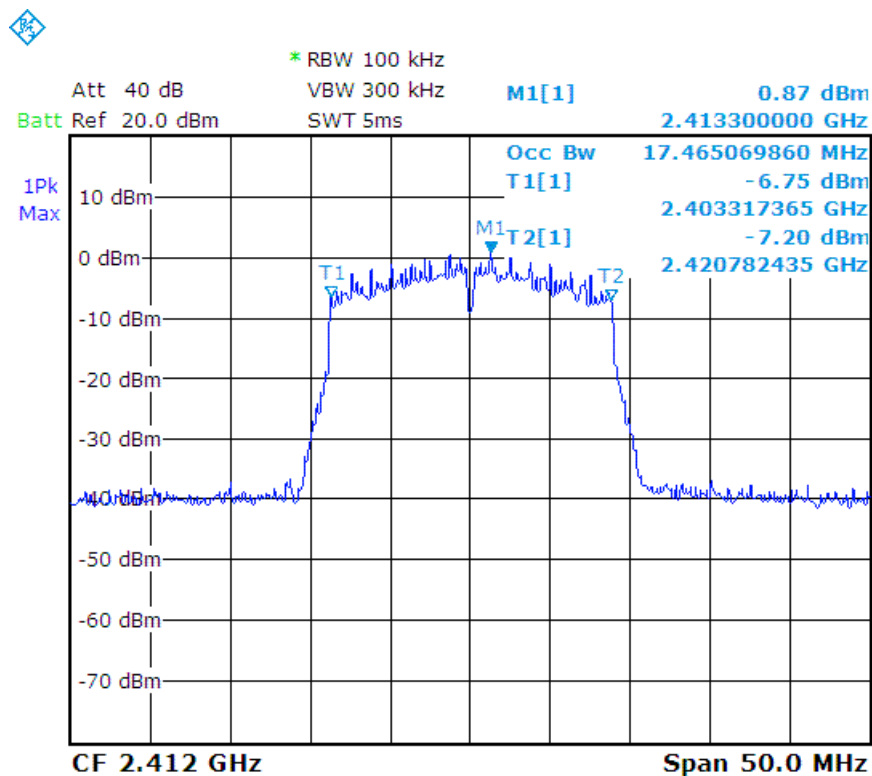
TEST REPORT

Reference No.: A18040201
Report No.: FCCA18040201
FCC ID : 2AIFK-LVSDSM010
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Date: May. 02, 2018

Temperature:	23 °C	Humidity:	62 %RH
Detector:	Peak	Test Mode:	802.11n - HT20
RBW:	100 kHz	VBW:	300 kHz
Tested By:	Richard Lin	Tested Date:	Apr. 26, 2018

Channel Number	Channel Frequency (MHz)	99% Bandwidth (MHz)
CH01	2412	17.47
CH06	2437	17.56
CH11	2462	17.56

n - HT20_CH01 :





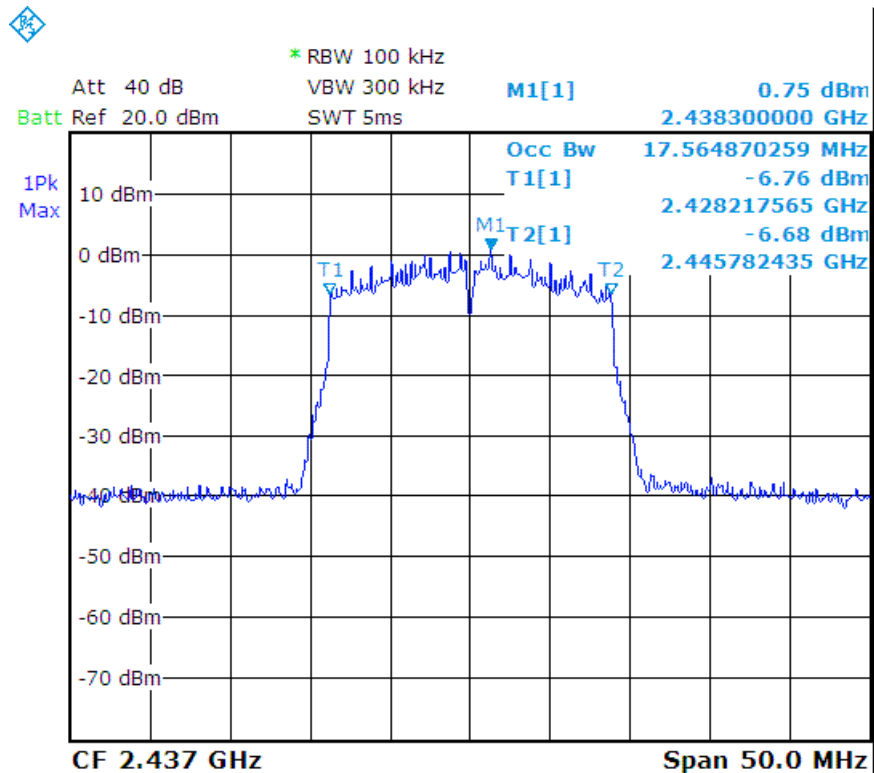
Spectrum Research & Testing Lab., Inc.

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

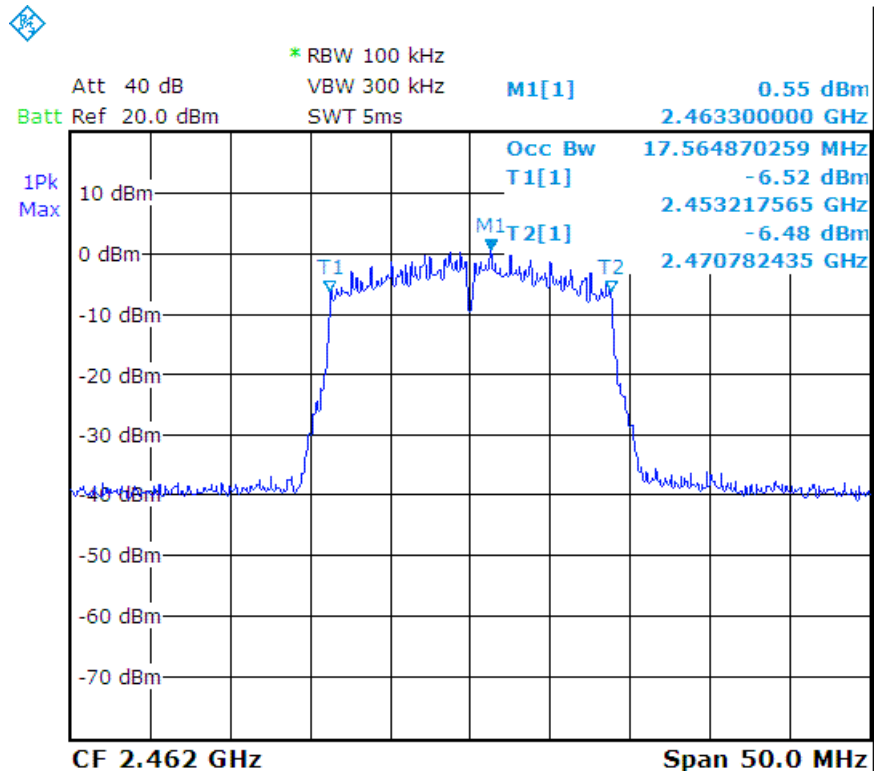
TEST REPORT

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n - HT20_CH06 :



n - HT20_CH11 :



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4.4 PEAK CONDUCTED OUTPUT POWER TEST

4.4.1 LIMIT

FCC Part15, Subpart C Section 15.247(b).

The maximum peak conducted output power of the intentional radiator shall not exceed the following:

For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt.

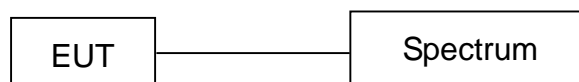
4.4.2 TEST EQUIPMENT

The following test equipment was used during the test :

Equipment/ Facilities	Specifications	Manufacturer	Model#/ Serial#	Due Date of Cal. & Cal. Center
EMI TEST RECEIVER (INCLUDE SPECTRUM ANALYZER)	9 KHz ~ 6 GHz	ROHDE & SCHWARZ	ESL /100176	MAY 21, 2018 ETC

NOTE: The calibration interval of the above test equipment is one year and the calibrations are traceable to NML/ROC and NIST/USA.

4.4.3 TEST SET-UP



The EUT was connected to a spectrum through a 50Ω RF cable.

4.4.4 TEST PROCEDURE

The EUT was operating in continuous transmission mode or could control its channel. Printed out the test result from the spectrum by hard copy function.

4.4.5 EUT OPERATING CONDITION

1. Set the EUT under continuous transmission condition.
2. The EUT was set to the highest available power level.

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TEST REPORT

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4.4.6 TEST RESULT

Temperature: 23 °C

Humidity: 62 %RH

Detector: RMS

Test Mode: 802.11b

RBW: 300 kHz

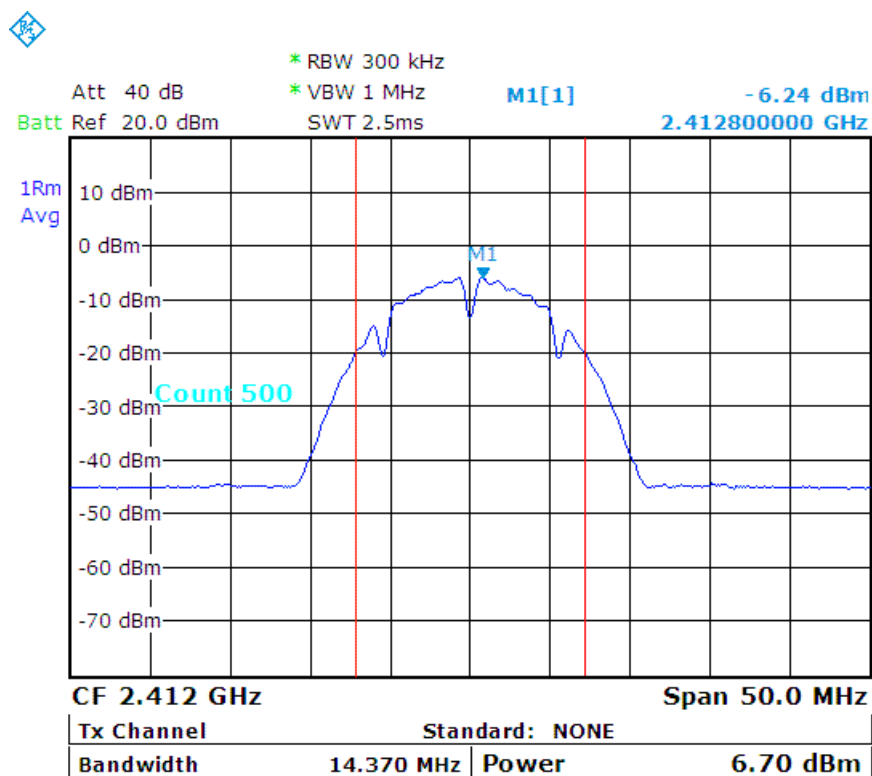
VBW: 1 MHz

Tested By: Richard Lin

Tested Date: Apr. 26, 2018

Channel Number	Channel Frequency (MHz)	99% Bandwidth (MHz)	Peak Conducted Output Power		Limit (dBm)
			(dBm)	(mW)	
CH01	2412	14.37	6.70	4.68	30
CH06	2437	14.47	6.47	4.44	30
CH11	2462	14.57	6.25	4.12	30

b_CH01 :





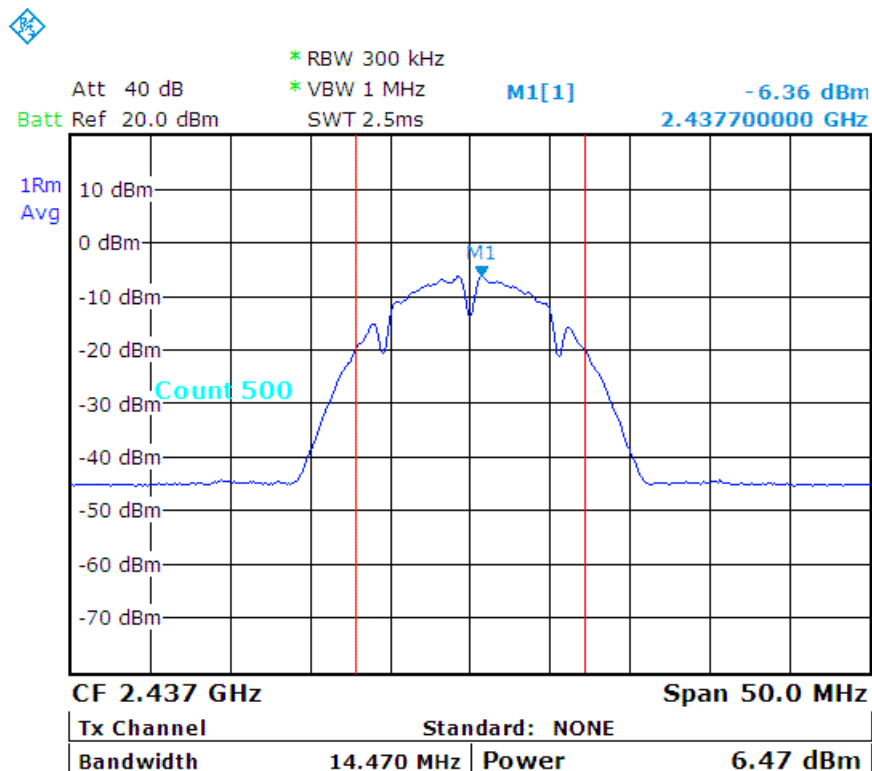
Spectrum Research & Testing Lab., Inc.

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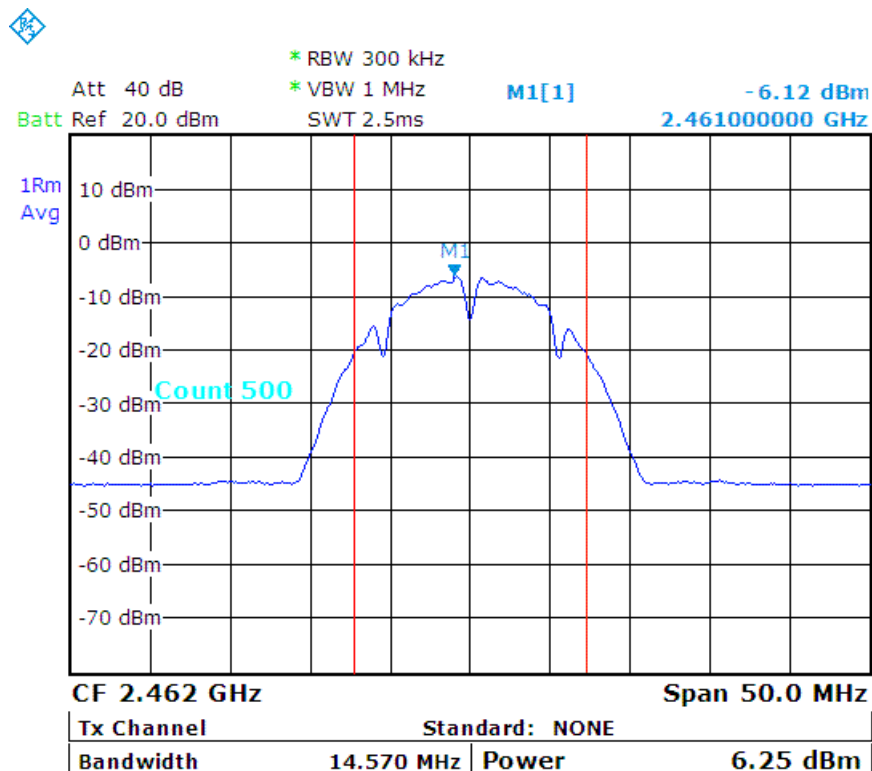
TEST REPORT

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b_CH06 :



b_CH11 :



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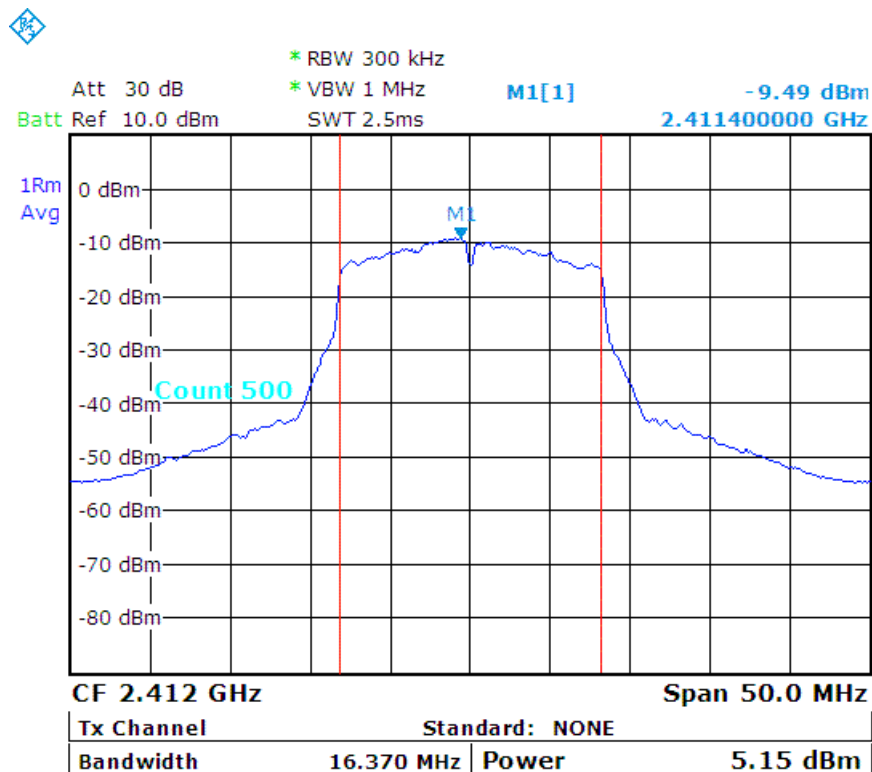
TEST REPORT

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Temperature:	23 °C	Humidity:	62 %RH
Detector:	RMS	Test Mode:	802.11g
RBW:	300 kHz	VBW:	1 MHz
Tested By:	Richard Lin	Tested Date:	Apr. 26, 2018

Channel Number	Channel Frequency (MHz)	99% Bandwidth (MHz)	Peak Conducted Output Power		Limit (dBm)
			(dBm)	(mW)	
CH01	2412	16.37	5.15	3.27	30
CH06	2437	16.37	5.43	3.49	30
CH11	2462	16.37	4.97	3.14	30

g_CH01 :





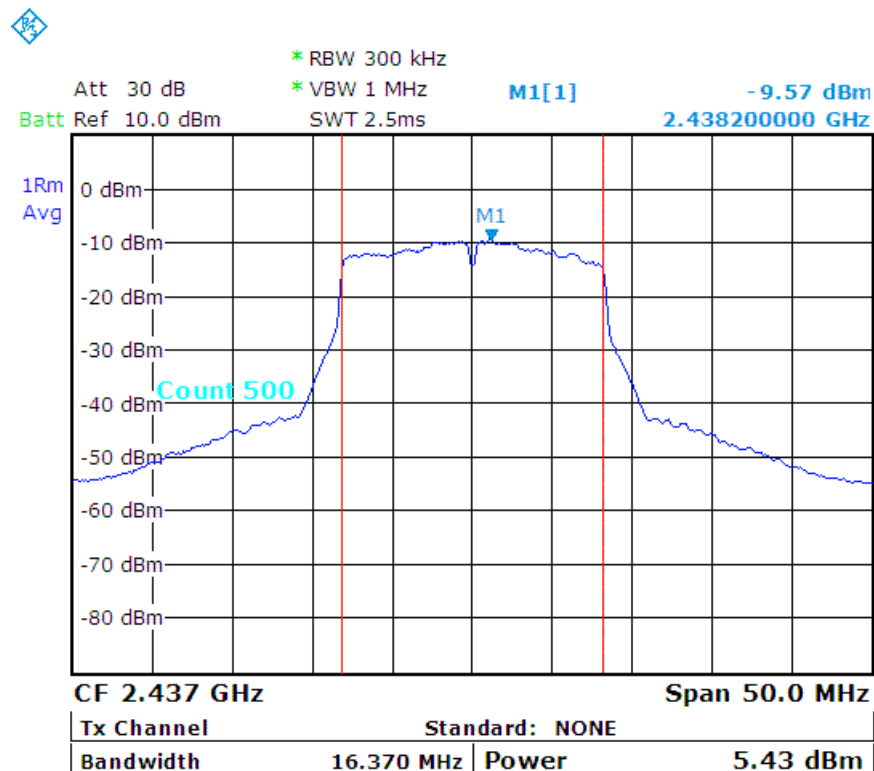
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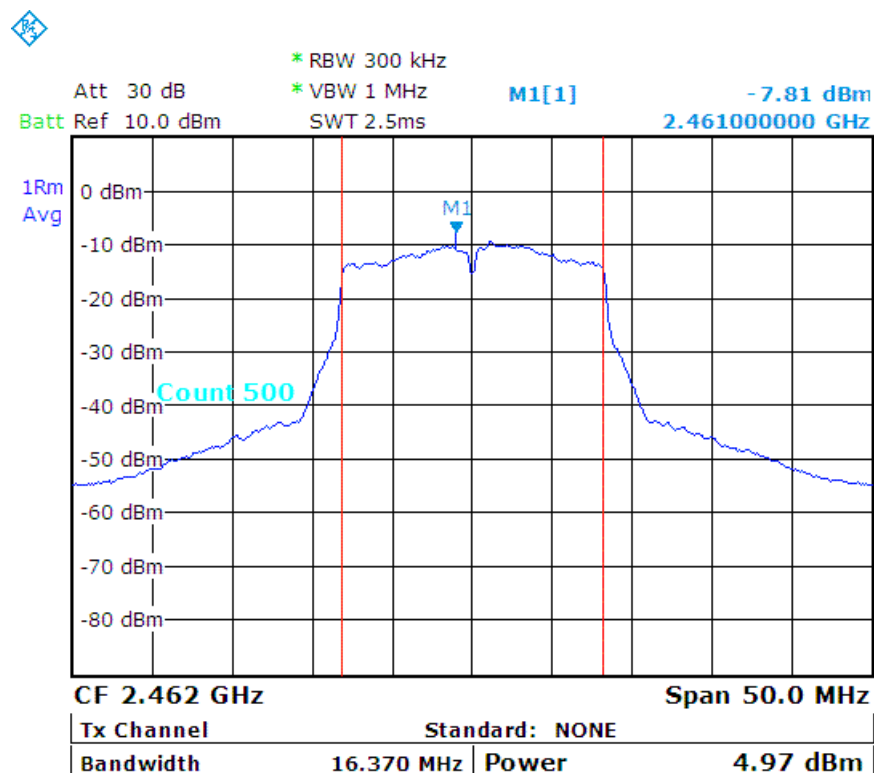
TEST REPORT

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g_CH06 :



g_CH11 :



Temperature: 23 °C

Humidity: 62 %RH

Detector: RMS

Test Mode: 802.11n - HT20

RBW: 300 kHz

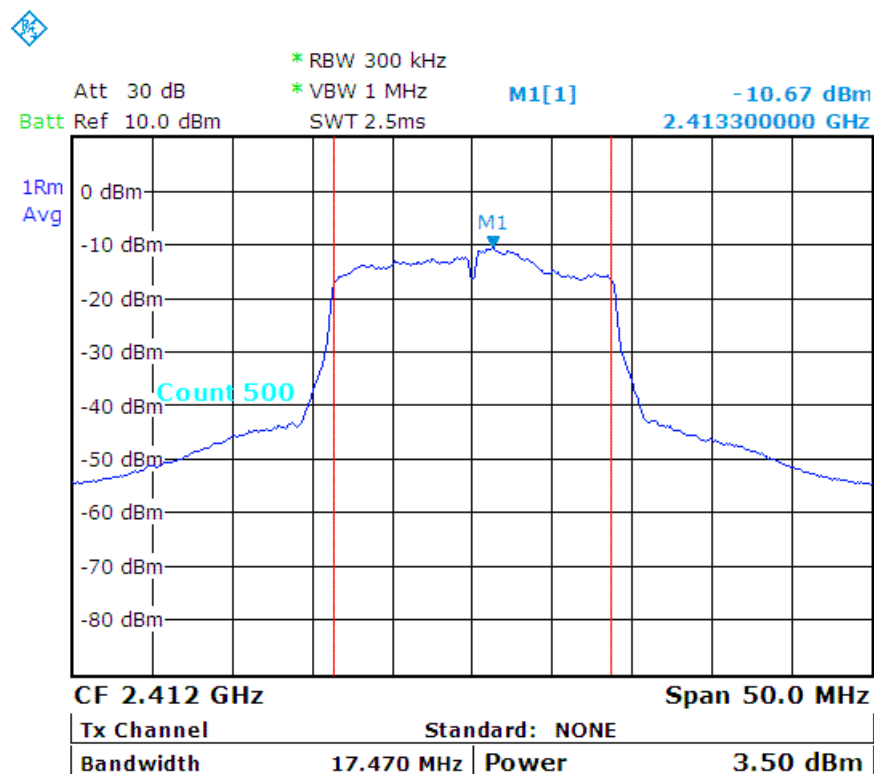
VBW: 1 MHz

Tested By: Richard Lin

Tested Date: Apr. 26, 2018

Channel Number	Channel Frequency (MHz)	99% Bandwidth (MHz)	Peak Conducted Output Power		Limit (dBm)
			(dBm)	(mW)	
CH01	2412	17.47	3.50	2.24	30
CH06	2437	17.56	3.35	2.16	30
CH11	2462	17.56	3.20	2.09	30

n - HT20_CH01 :





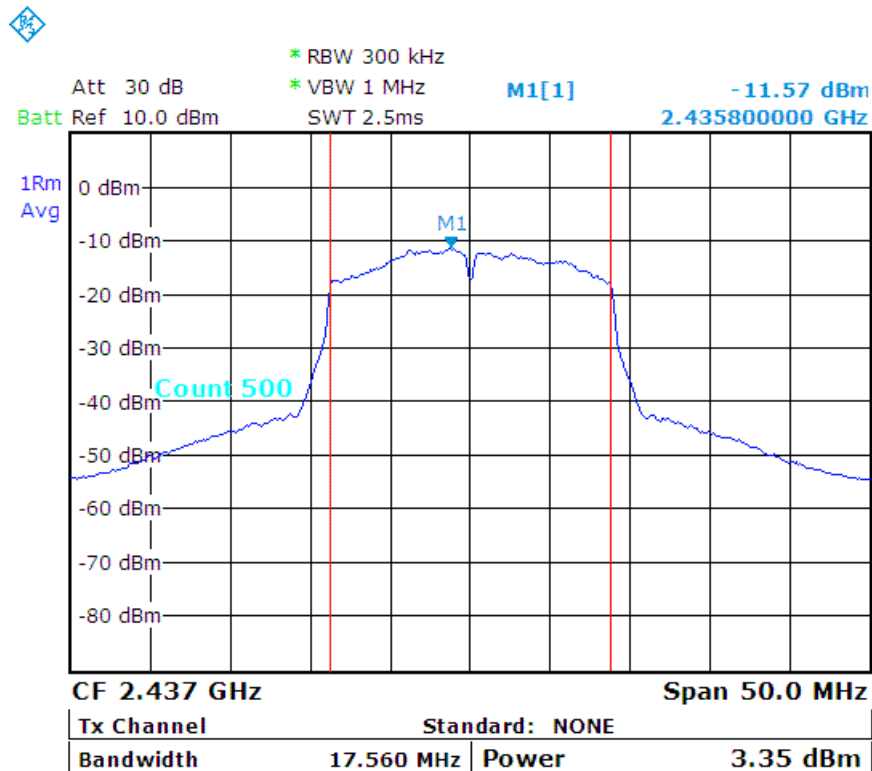
Spectrum Research & Testing Lab., Inc.

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

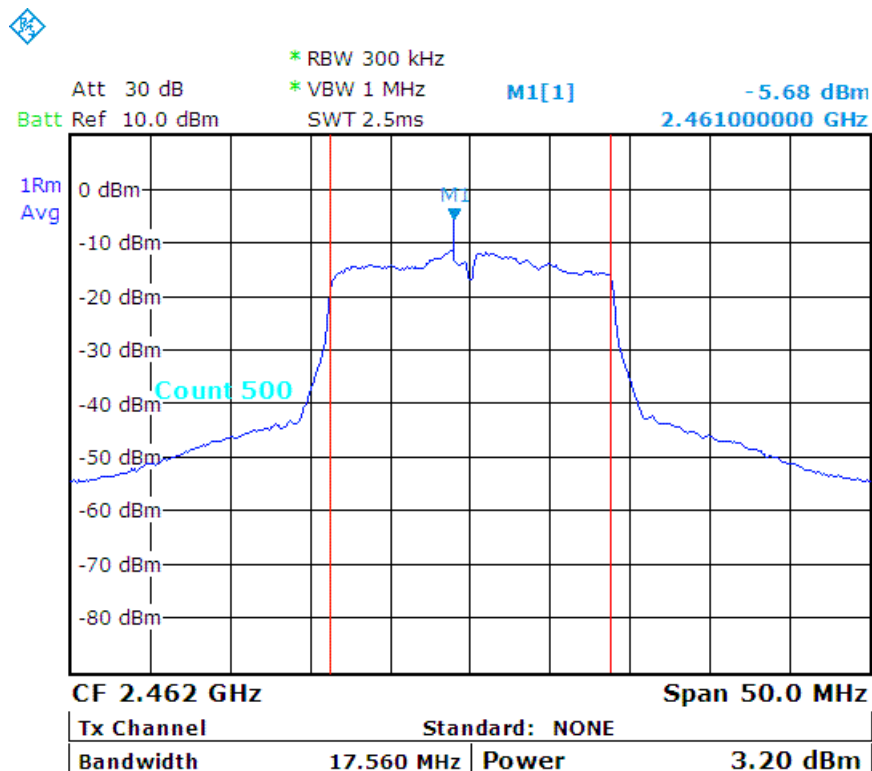
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n - HT20_CH06 :



n - HT20_CH11 :



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4.5 BAND EDGE TEST**4.5.1 LIMIT**

FCC Part15, Subpart C Section 15.247(d).

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

OPERATING FREQUENCY RANGE (MHz)	SPURIOUS EMISSION FREQUENCY (MHz)	LIMIT	
		Peak power ration to emission(dBc)	Emission level(dBuV/m)
2400 - 2483.5	< 2400	> 20	N/A
	> 2483.5-2500	N/A	54

NOTE:

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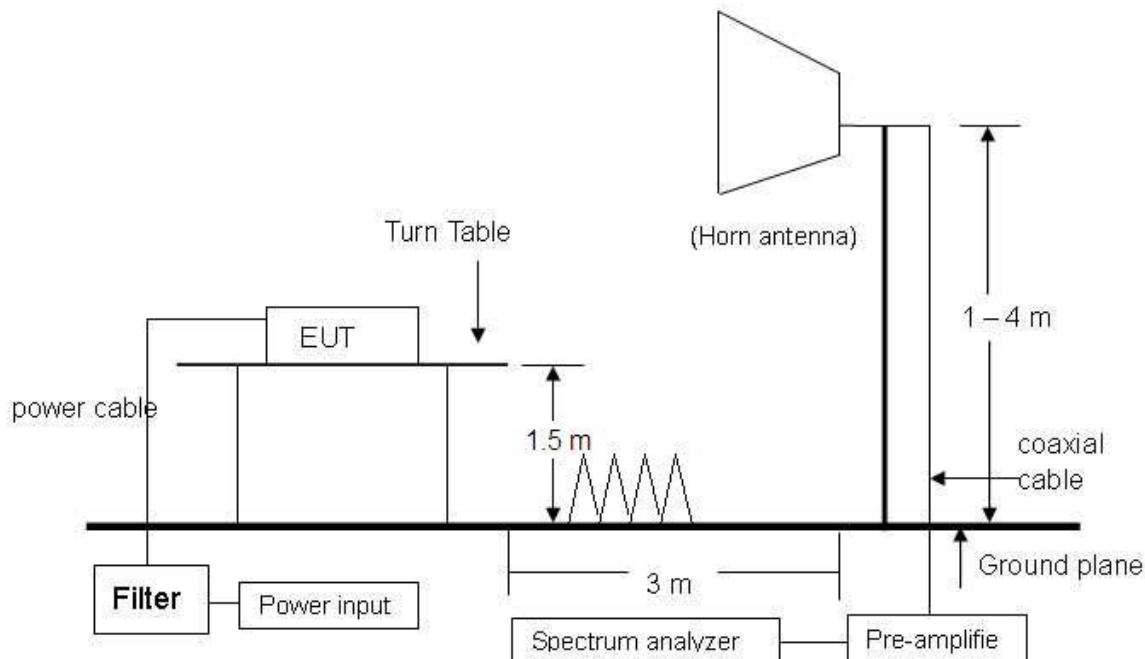
4.5.2 TEST EQUIPMENT

The following test equipment was used during the test:

EQUIPMENT/ FACILITIES	SPECIFICATIONS	MANUFACTURER	MODEL#/ SERIAL#	DUE DATE OF CAL. & CAL. CENTER
SPECTRUM ANALYZER	9 kHz ~ 40GHz	ROHDE & SCHWARZ	FSP40 / 100093	JAN. 01, 2019 ETC
HORN ANTENNA	1 GHz ~ 18 GHz	EMCO	3115/ 9602-4681	NOV. 28, 2018 ETC
PRE-AMPLIFIER	1 GHz ~ 26.5 GHz	AGILENT	8449B/ 3008A01995	DEC. 27, 2018 ETC
OPEN AREA TEST SITE	3 – 10 M MEASUREMENT	SRT	A02 / SRT002	MAR. 09, 2019 SRT
ANECHOIC CHAMBER	3 M MEASUREMENT	SRT	A01 / SRT001	SEP. 13, 2018 SRT
K-TYPE CABLE	UP TO 40 GHz 3 m	HUBER+SUHNER	SF102-46/2*11SK 252 /MY2611/2	MAR. 05, 2019 ETC
K-TYPE CABLE	UP TO 40 GHz, 1 m	HUBER+SUHNER	SF102/2*11SK252 /MY3331/2	SEP. 28, 2018 ETC
FILTER	2 LINE, 30 A	FIL.COIL	FC-943/ 869	NCR
THERMO-HYGR O	15 – 40 °C, 0- 100% RH	TOP	20-A / 7685	SEP. 17, 2018 ETC

NOTE: The calibration interval of the above test equipment is one year and the calibrations are traceable to NML/ROC and NIST/USA.

4.5.3 TEST SETUP



NOTE: The EUT system was put on a wooden table with 1.5m heights above a ground plane. For the actual test configuration, please refer to the photos of testing.

4.5.4 TEST PROCEDURE

The EUT was tested according to the requirement of ANSI C63.10:2013 and CISPR 22:2003. When the frequency spectrum measured started from 30 MHz to 1 GHz, then use antenna is a BICONICAL ANTENNA & LOG PERIODIC ANTENNA. The measurements were made at an open area test site with 3 meter measurement distance under 1 GHz and with 3m distance above 1GHz. The frequency spectrum measured started from 30 MHz to 1 GHz, all readings were quasi-peak values with 120 kHz resolution bandwidth of the test receiver. Above 1 GHz, the measurements were made at an open area test site with 3 meter measurement distance and all readings were peak or average values with 1 MHz resolution bandwidth of the test receiver. The EUT system was operated in all typical methods by users. The cables connected to EUT and support units were moved to find the maximum emission levels for each frequency. First, find the margin or higher points at least 6 points by software, then use manual to find the maximum data. The procedure is referred on the test procedure of SRT LAB.



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4.5.5 EUT OPERATING CONDITION

1. Set the EUT under continuous transmission condition.
2. The EUT was set to the highest available power level.

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4.5.6 TEST RESULT

Below 2400MHz (b_CH01)

Temperature:	21 °C	Humidity:	67 %RH
Frequency Range:	2.30 GHz – 2.43 GHz	Tested Mode:	802.11b
Detector Type:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Apr. 25, 2018

Frequency (MHz)	Correct Factor (dB)	Ant. Fac. (dB/m)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Over Limit (dB)	
				PK	AV	PK	AV	PK	AV	PK	AV
2396.83	-31.29	28.38	H	50.35	39.81	47.43	36.89	74.00	54.00	-26.57	-17.11
2397.86	-31.29	28.38	V	55.49	44.96	52.57	42.04	74.00	54.00	-21.43	-11.96
2400.00	-31.29	28.38	H	43.31	32.85	40.40	29.94	74.00	54.00	-33.60	-24.06
2400.00	-31.29	28.38	V	50.50	40.02	47.59	37.11	74.00	54.00	-26.41	-16.89

Above 2483.5MHz (b_CH11)

Temperature:	21 °C	Humidity:	67 %RH
Frequency Range:	2.44 GHz – 2.60 GHz	Tested Mode:	802.11b
Detector Type:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Apr. 25, 2018

Frequency (MHz)	Correct Factor (dB)	Ant. Fac. (dB/m)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Over Limit (dB)	
				PK	AV	PK	AV	PK	AV	PK	AV
2483.50	-31.23	28.48	H	32.42	21.93	29.67	19.18	74.00	54.00	-44.33	-34.82
2483.50	-31.23	28.48	V	32.77	22.27	30.02	19.52	74.00	54.00	-43.98	-34.48
2509.15	-31.21	28.53	H	35.76	25.29	33.08	22.61	74.00	54.00	-40.92	-31.39
2497.90	-31.22	28.50	V	37.05	26.55	34.32	23.82	74.00	54.00	-39.68	-30.18



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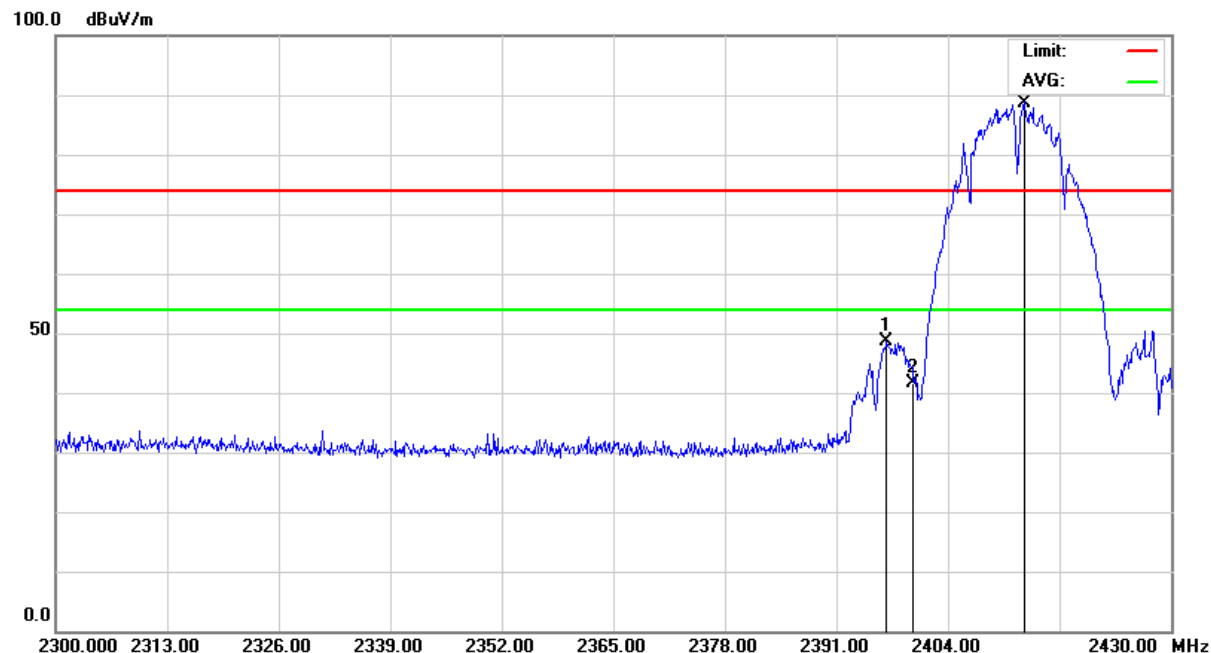
No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

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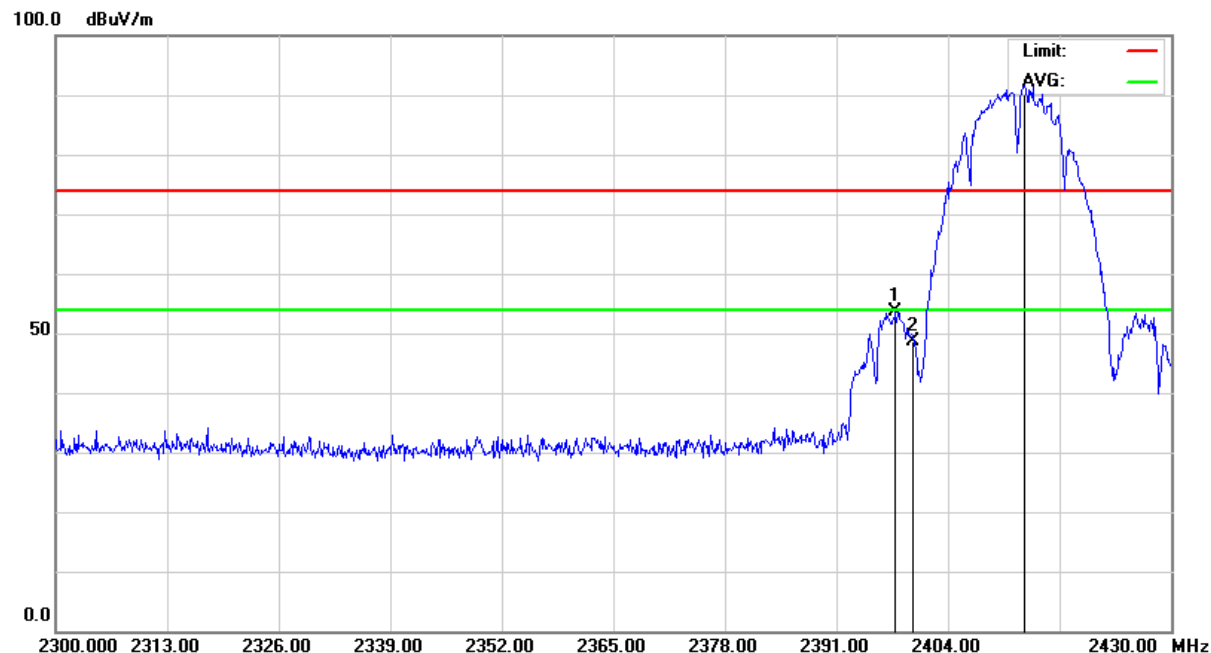
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Below 2400MHz (b_CH01)

Antenna Polarization : Horizontal



Antenna Polarization : Vertical





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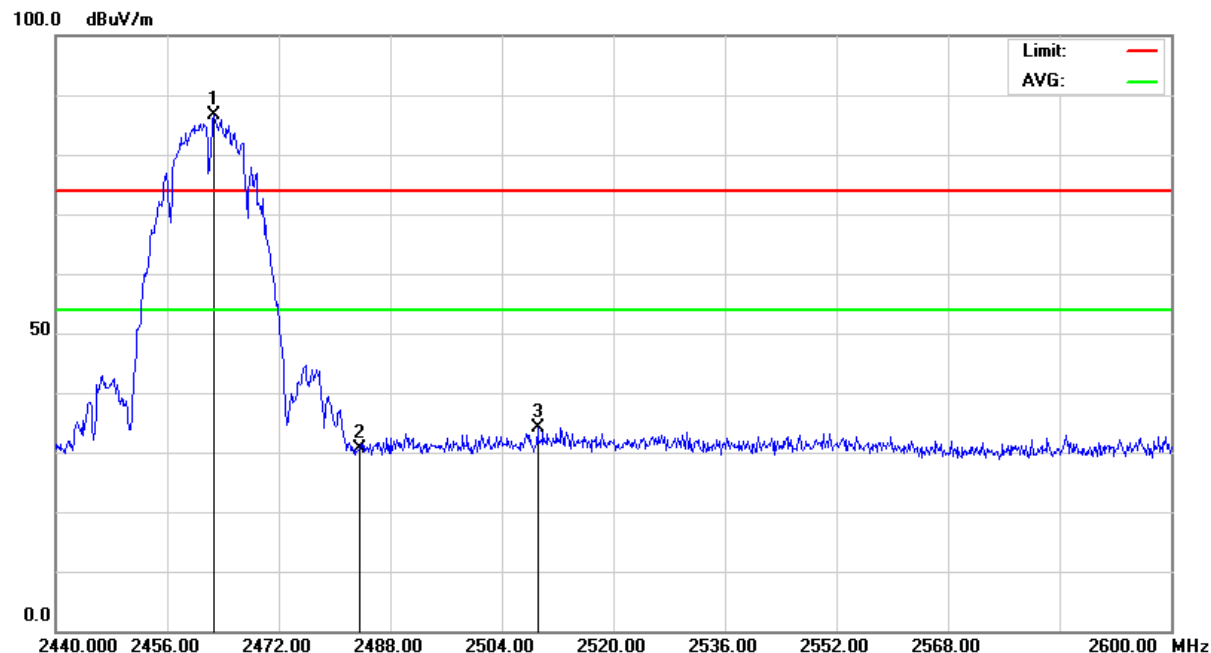
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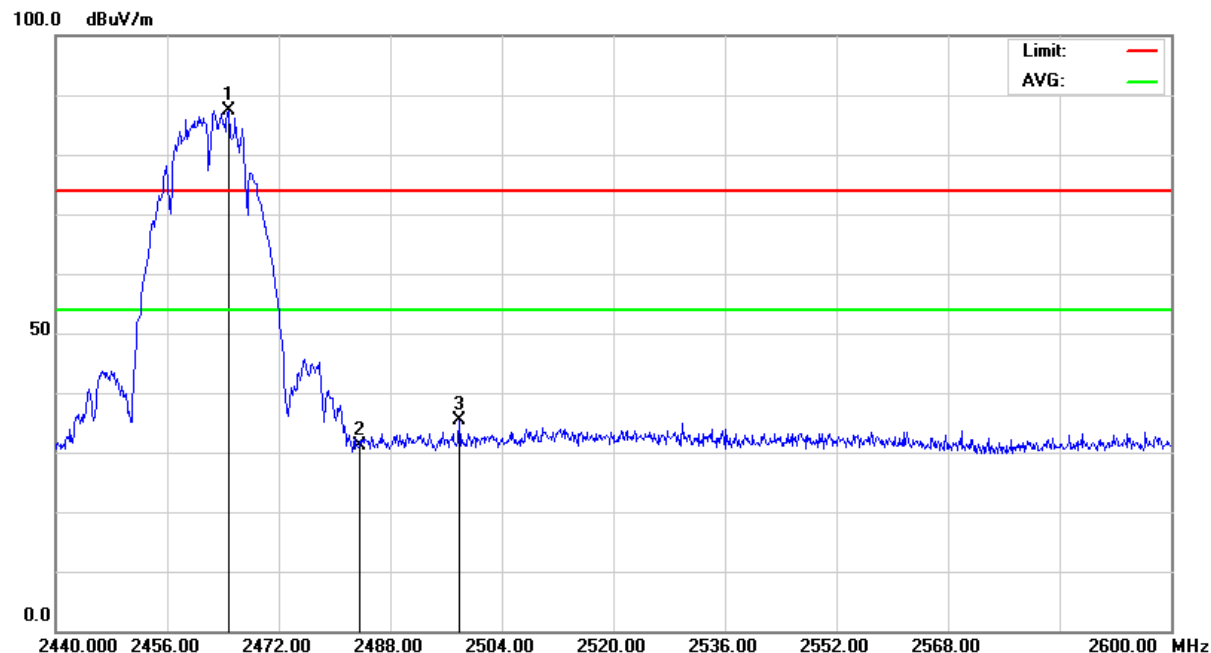
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Above 2483.5MHz (b_CH11)

Antenna Polarization : Horizontal



Antenna Polarization : Vertical



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Below 2400MHz (g_CH01)

Temperature:	21 °C	Humidity:	67 %RH
Frequency Range:	2.30 GHz – 2.43 GHz	Tested Mode:	802.11g
Detector Type:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Apr. 25, 2018

Frequency (MHz)	Correct Factor (dB)	Ant. Fac. (dB/m)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Over Limit (dB)	
				PK	AV	PK	AV	PK	AV	PK	AV
2398.53	-31.29	28.38	H	54.64	44.13	51.73	41.22	74.00	54.00	-22.27	-12.78
2398.96	-31.29	28.38	V	60.13	49.67	57.22	46.76	74.00	54.00	-16.78	-7.24
2400.00	-31.29	28.38	H	53.46	42.97	50.55	40.06	74.00	54.00	-23.45	-13.94
2400.00	-31.29	28.38	V	60.38	49.84	57.47	46.93	74.00	54.00	-16.53	-7.07

Above 2483.5MHz (g_CH11)

Temperature:	21 °C	Humidity:	67 %RH
Frequency Range:	2.44 GHz – 2.60 GHz	Tested Mode:	802.11g
Detector Type:	PK. and AV.	IF Bandwidth:	1 MHz
Tested By:	Richard Lin	Tested Date:	Apr. 25, 2018

Frequency (MHz)	Correct Factor (dB)	Ant. Fac. (dB/m)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Over Limit (dB)	
				PK	AV	PK	AV	PK	AV	PK	AV
2483.50	-31.23	28.48	H	37.33	26.80	34.58	24.05	74.00	54.00	-39.42	-29.95
2483.50	-31.23	28.48	V	39.78	29.25	37.03	26.50	74.00	54.00	-36.97	-27.50
2484.18	-31.23	28.48	H	38.85	28.31	36.10	25.56	74.00	54.00	-37.90	-28.44
2484.43	-31.23	28.48	V	39.34	28.88	36.59	26.13	74.00	54.00	-37.41	-27.87



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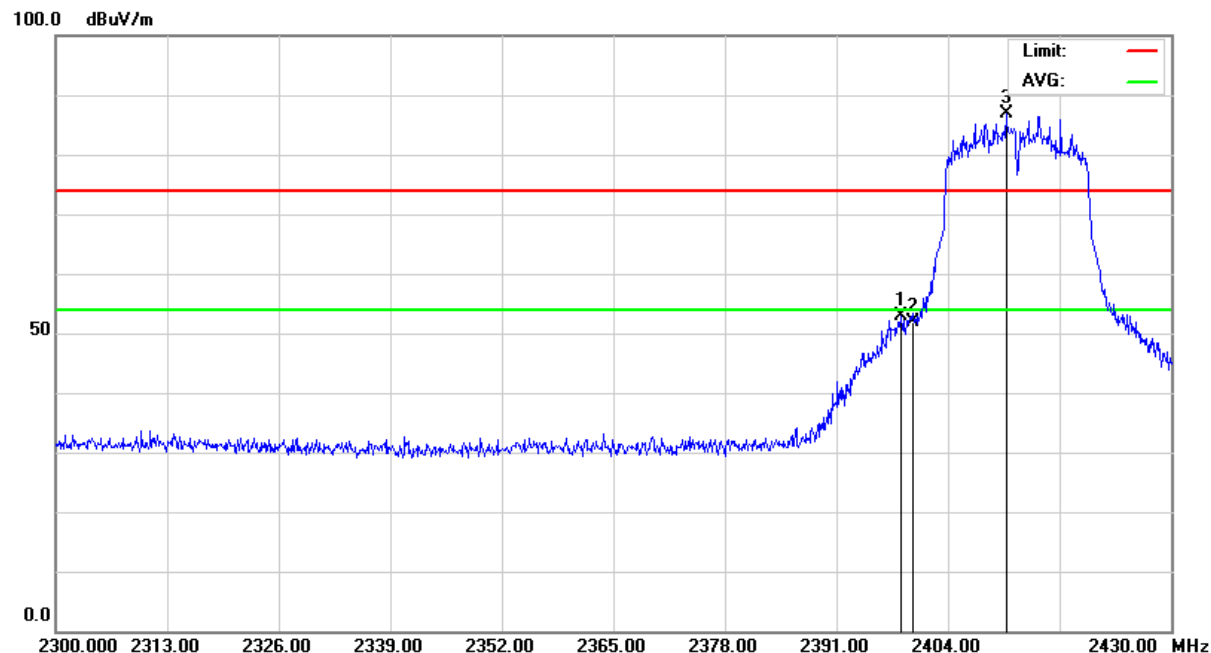
No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

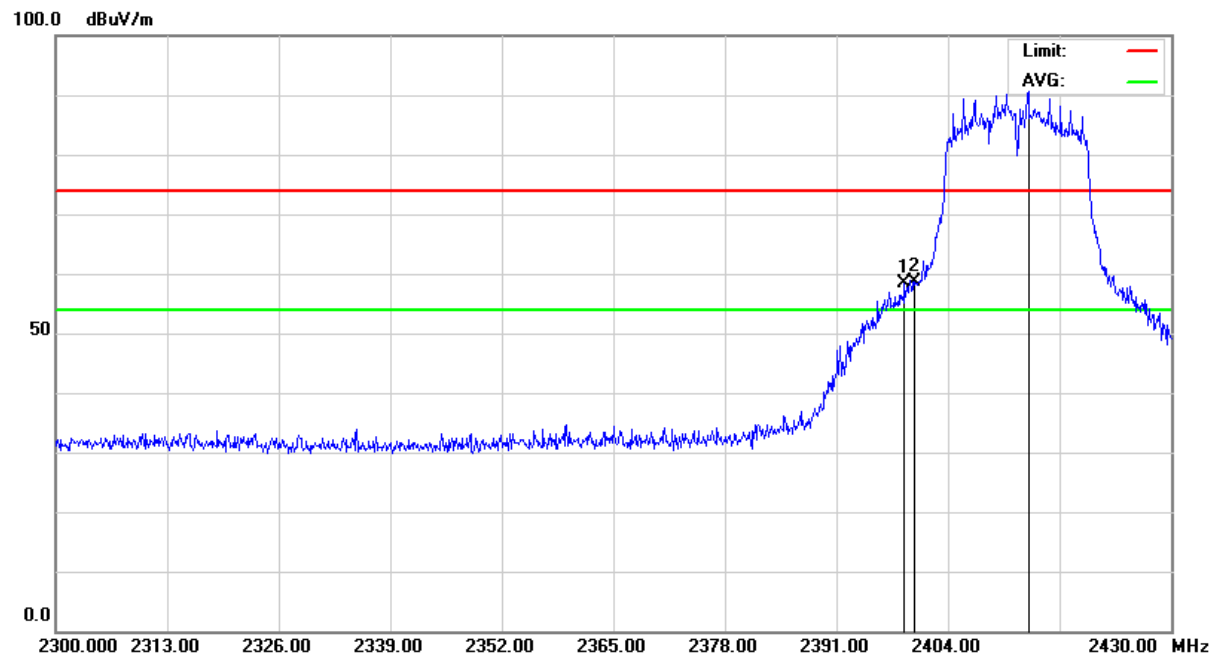
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Below 2400MHz (g_CH01)

Antenna Polarization : Horizontal



Antenna Polarization : Vertical





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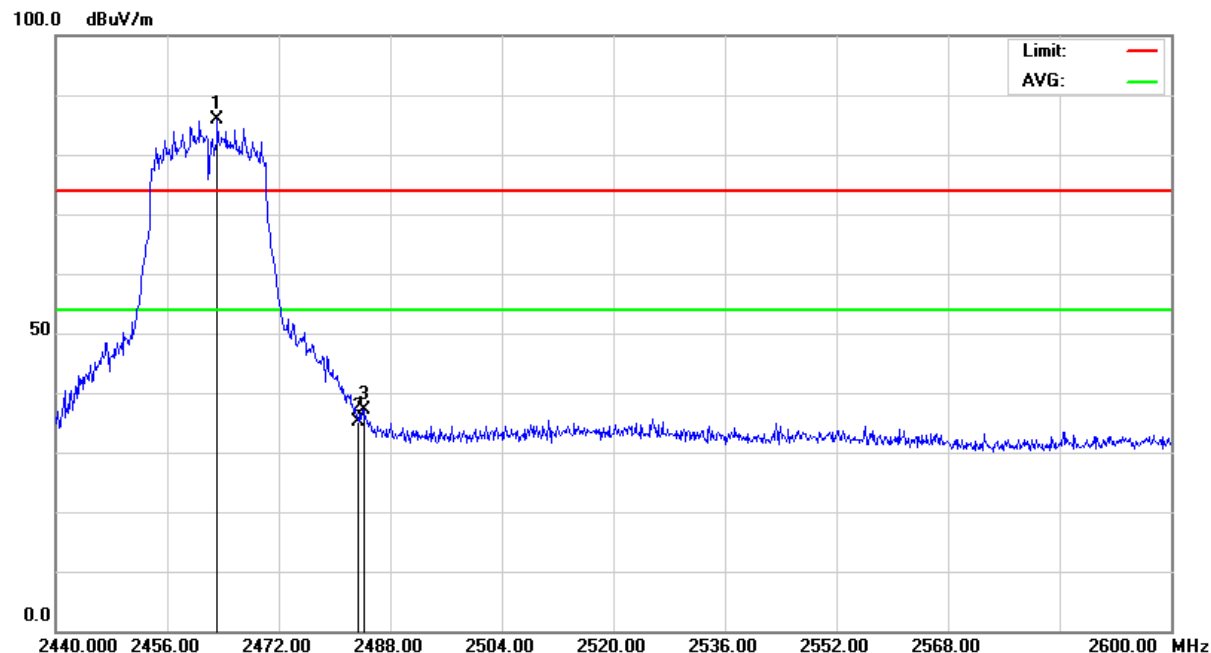
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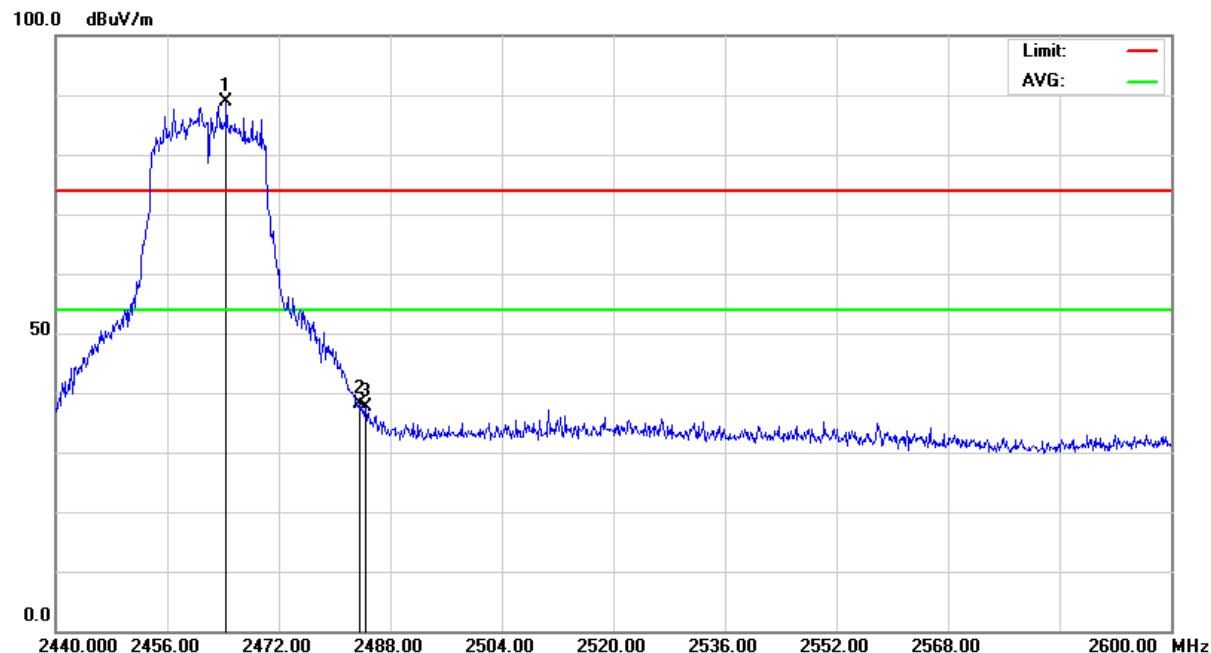
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Above 2483.5MHz (g_CH11)

Antenna Polarization : Horizontal



Antenna Polarization : Vertical



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Below 2400MHz (n - HT20_CH01)

Temperature: 21 °C

Humidity: 67 %RH

Frequency Range: 2.30 GHz – 2.43 GHz

Tested Mode: 802.11n - HT20

Detector Type: PK. and AV.

IF Bandwidth: 1 MHz

Tested By: Richard Lin

Tested Date: Apr. 25, 2018

Frequency (MHz)	Correct Factor (dB)	Ant. Fac. (dB/m)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Over Limit (dB)	
				PK	AV	PK	AV	PK	AV	PK	AV
2398.46	-31.29	28.38	H	54.94	44.42	52.03	41.51	74.00	54.00	-21.97	-12.49
2398.51	-31.29	28.38	V	55.79	45.28	52.88	42.37	74.00	54.00	-21.12	-11.63
2400.00	-31.29	28.38	H	53.67	43.19	50.76	40.28	74.00	54.00	-23.24	-13.72
2400.00	-31.29	28.38	V	54.71	44.23	51.80	41.32	74.00	54.00	-22.20	-12.68

Above 2483.5MHz (n - HT20_CH11)

Temperature: 21 °C

Humidity: 67 %RH

Frequency Range: 2.44 GHz – 2.60 GHz

Tested Mode: 802.11n - HT20

Detector Type: PK. and AV.

IF Bandwidth: 1 MHz

Tested By: Richard Lin

Tested Date: Apr. 25, 2018

Frequency (MHz)	Correct Factor (dB)	Ant. Fac. (dB/m)	Ant. Pol. (H/V)	Reading (dBuV)		Emission (dBuV/m)		Limit Line (dBuV/m)		Over Limit (dB)	
				PK	AV	PK	AV	PK	AV	PK	AV
2483.50	-31.23	28.48	H	43.71	33.16	40.96	30.41	74.00	54.00	-33.04	-23.59
2483.50	-31.23	28.48	V	39.76	29.28	37.01	26.53	74.00	54.00	-36.99	-27.47
2484.17	-31.23	28.48	H	41.54	31.04	38.79	28.29	74.00	54.00	-35.21	-25.71
2484.15	-31.23	28.48	V	40.02	29.55	37.27	26.80	74.00	54.00	-36.73	-27.20



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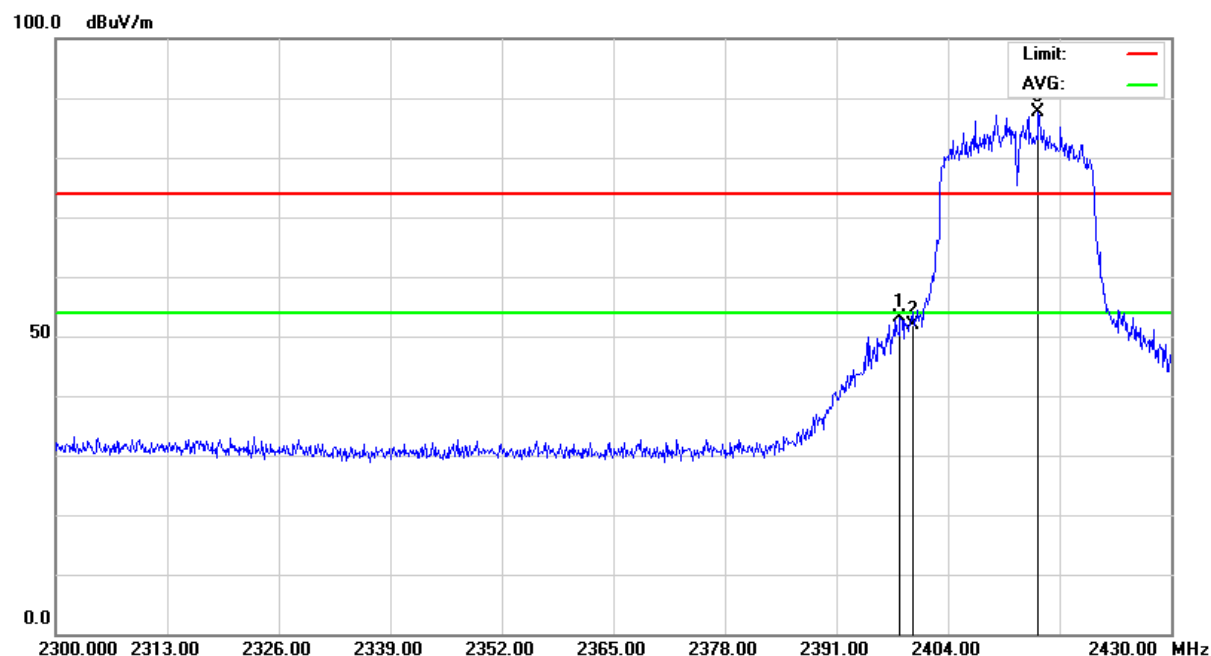
No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

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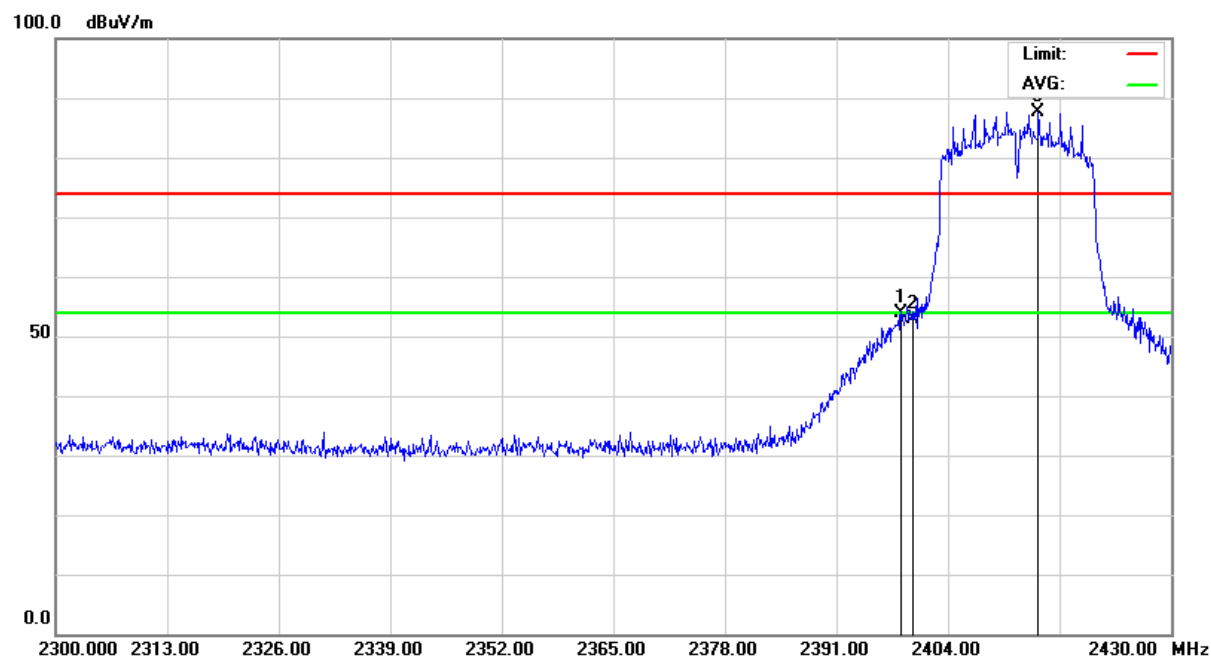
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Below 2400MHz (n - HT20_CH01)

Antenna Polarization : Horizontal



Antenna Polarization : Vertical





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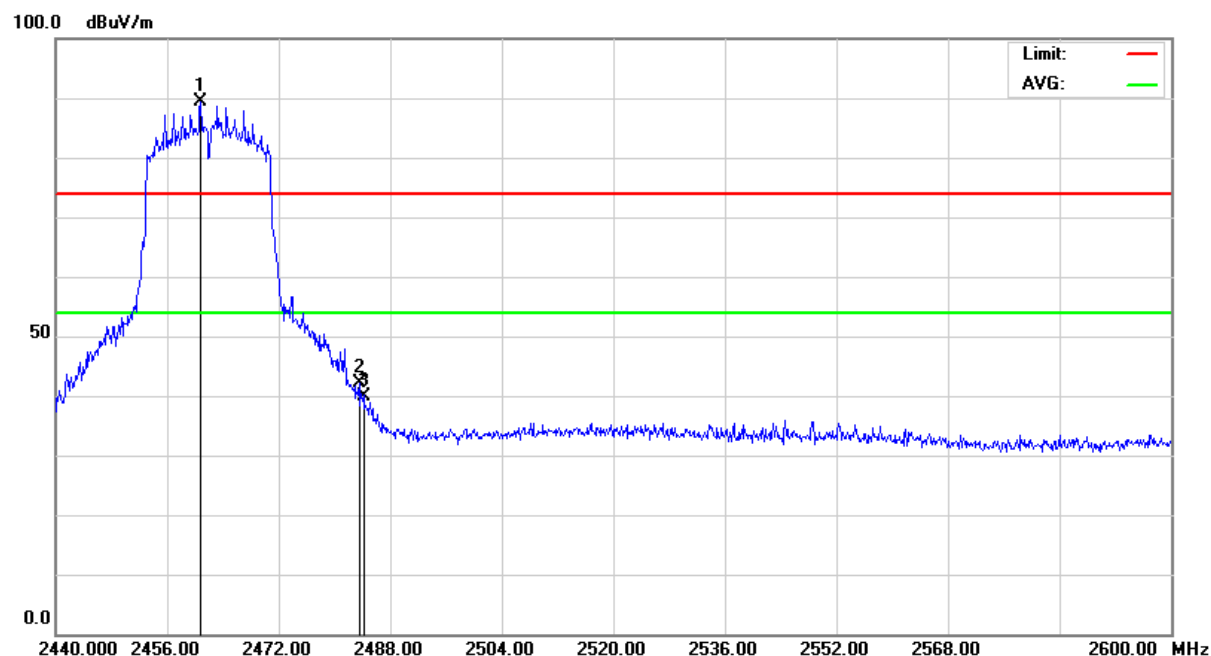
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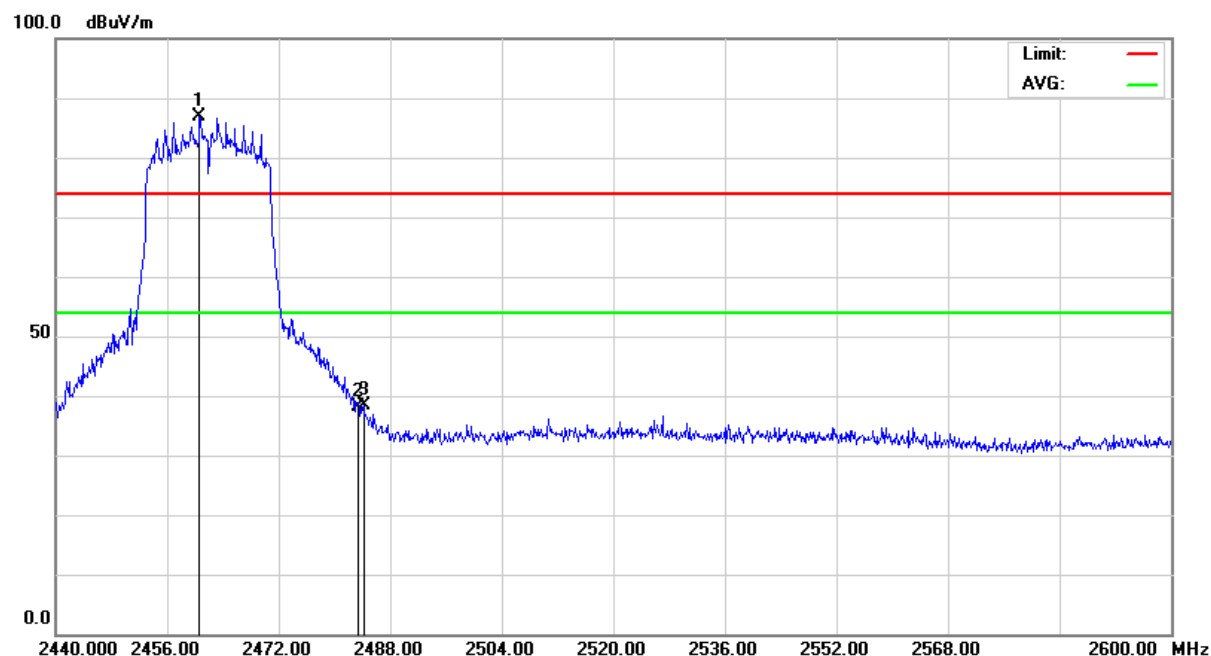
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Above 2483.5MHz (n - HT20_CH11)

Antenna Polarization : Horizontal



Antenna Polarization : Vertical





4.6 POWER SPECTRAL DENSITY TEST

4.6.1 LIMIT

FCC Part15, Subpart C Section 15.247(e).

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

FREQUENCY RANGE	Limit
2.40 - 2.4835 GHz	8 dBm / 3 kHz

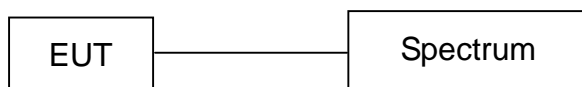
4.6.2 TEST EQUIPMENT

The following test equipment was used during the radiated emission test:

EQUIPMENT/FACILITIES	SPECIFICATIONS	MANUFACTURER	MODEL#/SERIAL#	DUE DATE OF CAL. & CAL. CENTER
EMI TEST RECEIVER (INCLUDE SPECTRUM ANALYZER)	9 KHz ~ 6 GHz	ROHDE & SCHWARZ	ESL /100176	MAY 21, 2018 ETC

NOTE: The calibration interval of the above test equipment is one year and the calibrations are traceable to NML/ROC and NIST/USA.

4.6.3 TEST SET-UP



The EUT was connected to a spectrum through a 50Ω RF cable.

4.6.4 TEST PROCEDURE

The EUT was operating in transmitter mode and could be controlled its channel. Printed out the test result from the spectrum by hard copy function.

4.6.5 EUT OPERATING CONDITION

1. Set the EUT under continuous transmission condition.
2. The EUT was set to the highest available power level.

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TEST REPORT

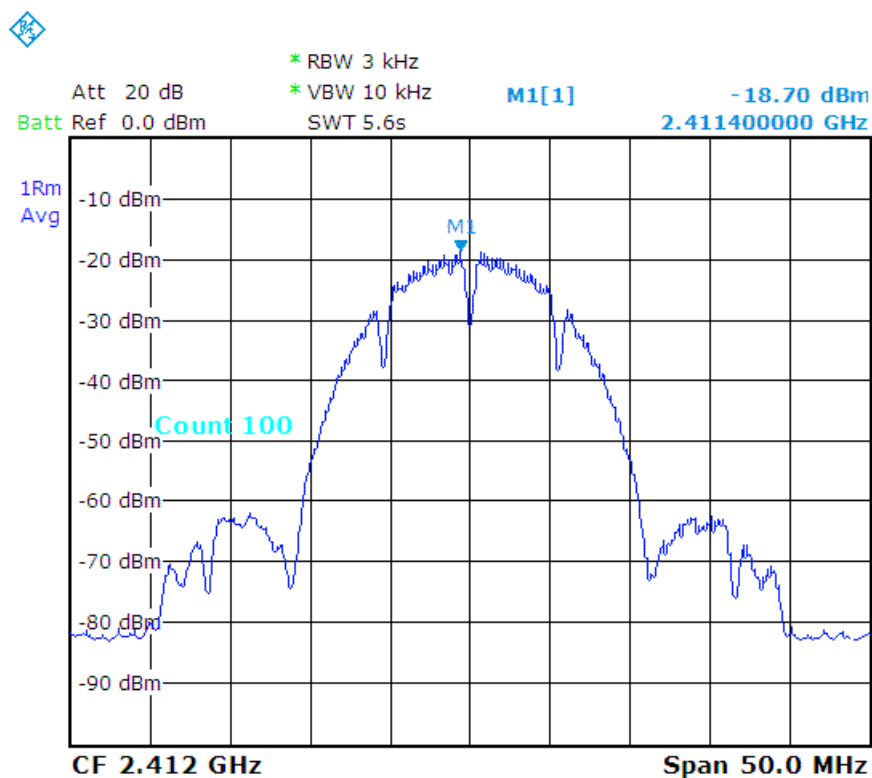
Reference No.: A18040201
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4.6.6 TEST RESULT

Temperature:	23 °C	Humidity:	62 %RH
Detector:	RMS	Test Mode:	802.11b
RBW:	3 kHz	VBW:	10 kHz
Tested By:	Richard Lin	Tested Date:	Apr. 26, 2018

Channel Number	Channel Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Maximum Limit (dBm/3kHz)
CH01	2412	-18.70	8
CH06	2437	-18.61	8
CH11	2462	-18.81	8

b_CH01 :





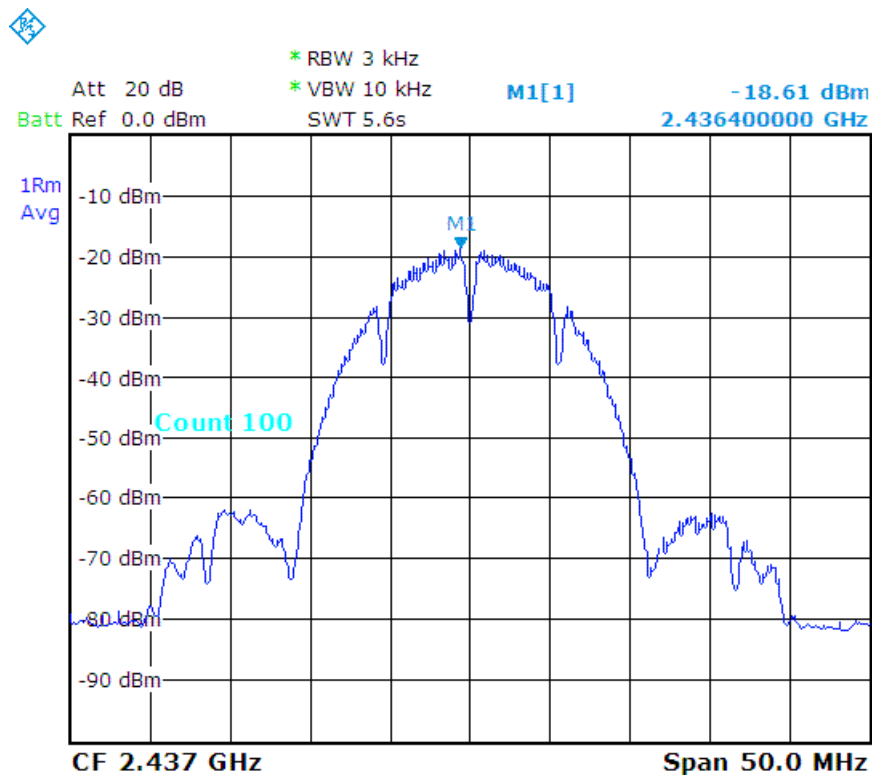
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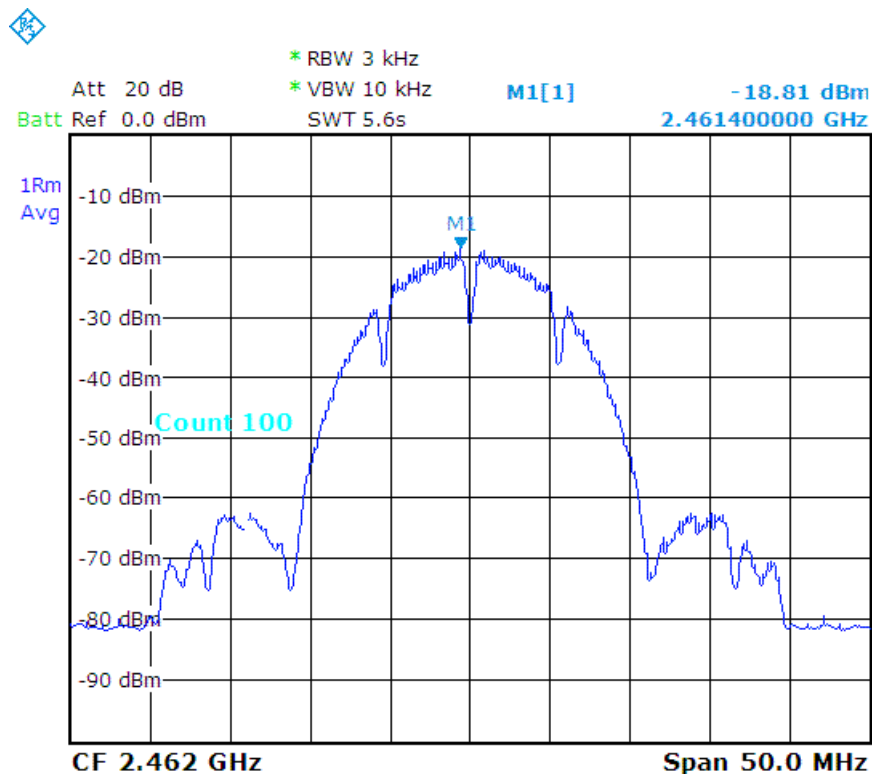
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b_CH06 :



b_CH11 :



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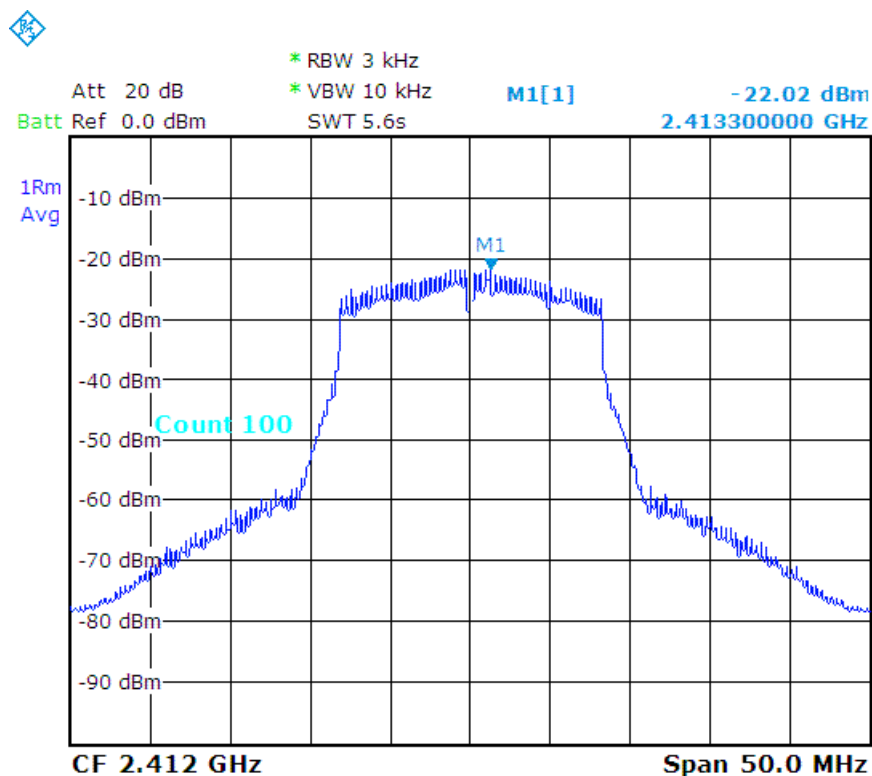
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Temperature:	23 °C	Humidity:	62 %RH
Detector:	RMS	Test Mode:	802.11g
RBW:	3 kHz	VBW:	10 kHz
Tested By:	Richard Lin	Tested Date:	Apr. 26, 2018

Channel Number	Channel Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Maximum Limit (dBm/3kHz)
CH01	2412	-22.02	8
CH06	2437	-22.17	8
CH11	2462	-22.49	8

g_CH01 :





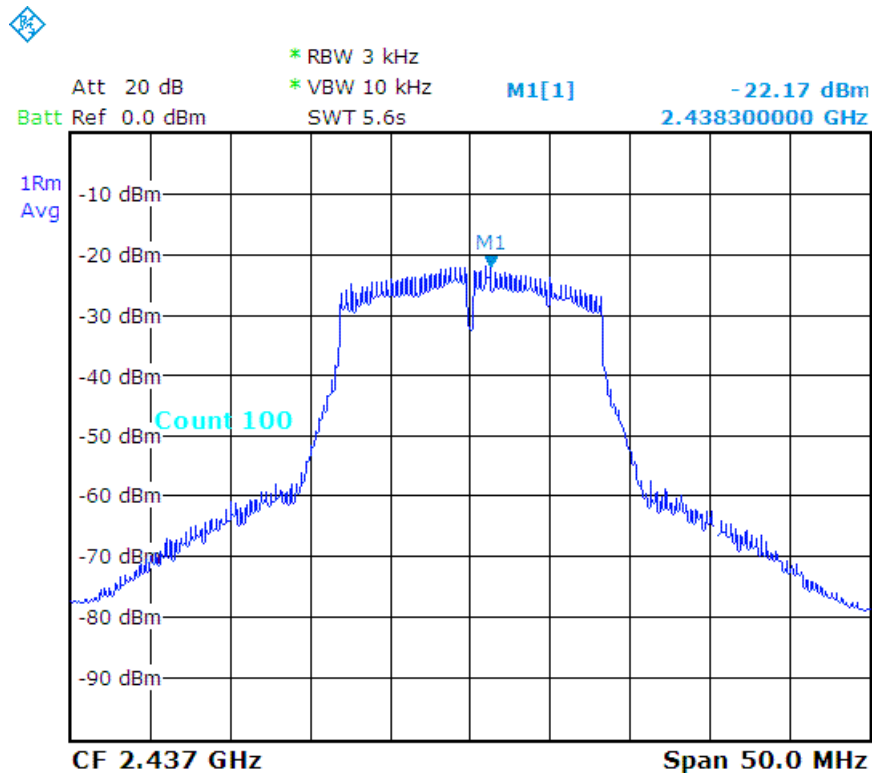
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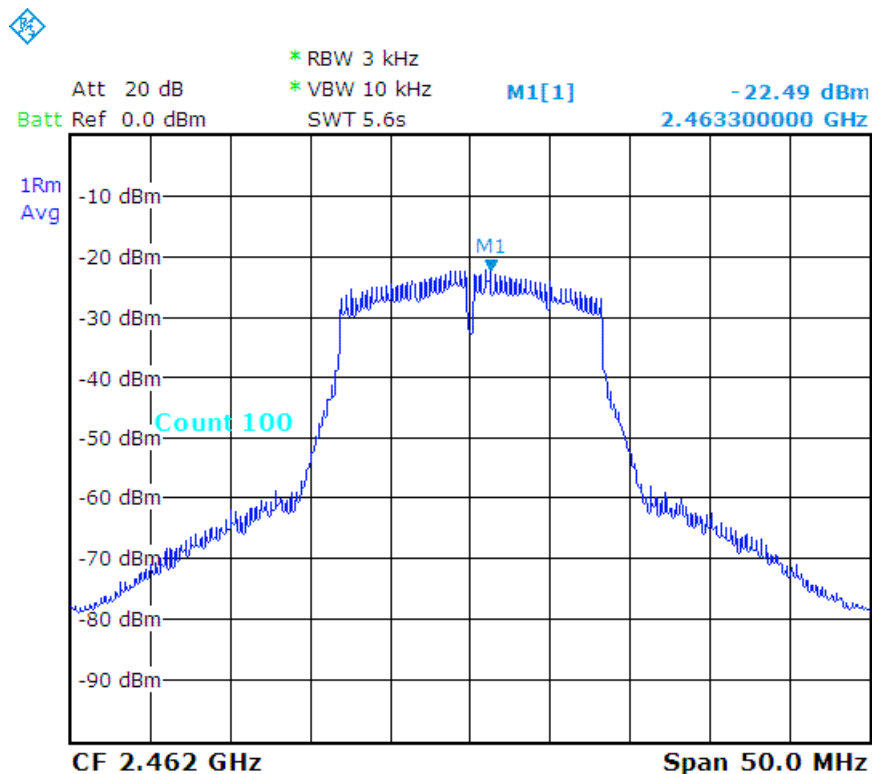
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g_CH06 :



g_CH11 :



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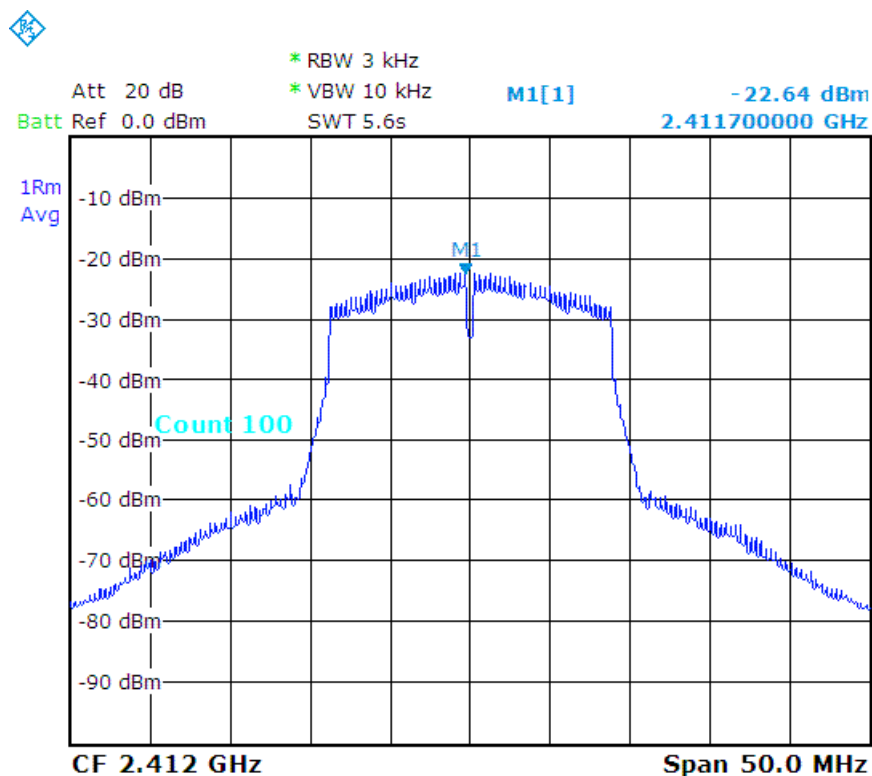
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Temperature:	23 °C	Humidity:	62 %RH
Detector:	RMS	Test Mode:	802.11n - HT20
RBW:	3 kHz	VBW:	10 kHz
Tested By:	Richard Lin	Tested Date:	Apr. 26, 2018

Channel Number	Channel Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Maximum Limit (dBm/3kHz)
CH01	2412	-22.64	8
CH06	2437	-22.87	8
CH11	2462	-23.11	8

n - HT20_CH01 :





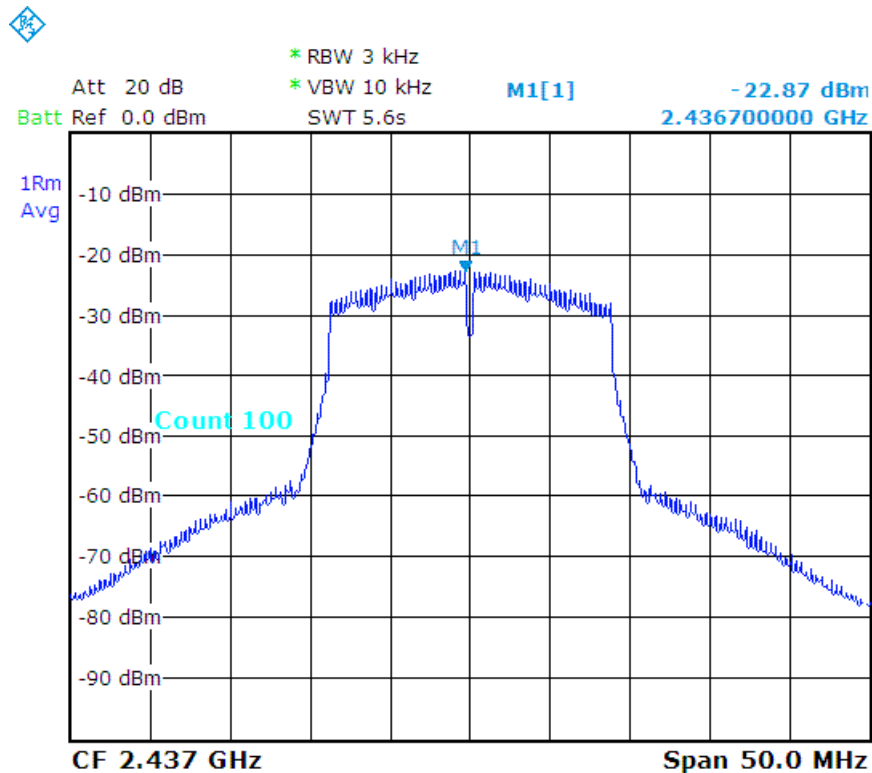
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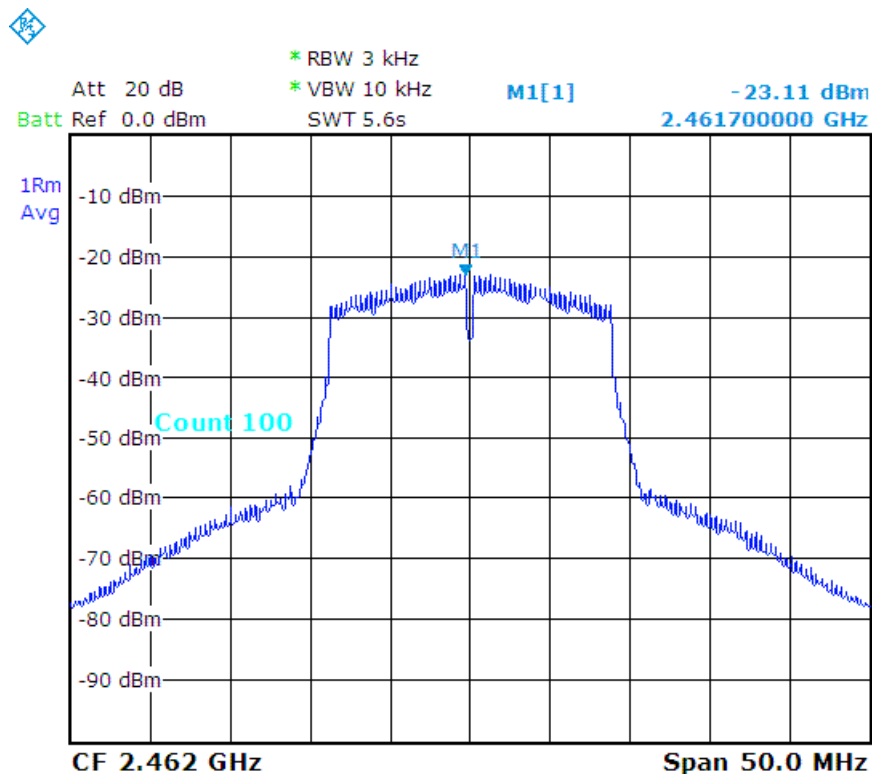
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n - HT20_CH06 :



n - HT20_CH11 :





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5. Antenna application

5.1 Antenna requirement

The EUT's antenna is met the requirement of FCC Part 15C section 15.203 and 15.204.

FCC Part 15C section 15.247 requirement:

Systems operating in the 2400-2483.5 MHz band that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6 dBi provided the maximum peak output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

5.2 Result

The EUT's antenna used a Printed Antenna. Gain of 3.0 dBi that meet the requirement.

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6. TERMS OF ABBREVIATION

AV.	Average detection
AZ(°)	Turn table azimuth
Correct.	Correction
EL(m)	Antenna height (meter)
EUT	Equipment Under Test
Horiz.	Horizontal direction
LISN	Line Impedance Stabilization Network
NSA	Normalized Site Attenuation
Q.P.	Quasi-peak detection
SRT Lab	Spectrum Research & Testing Laboratory, Inc.
Vert.	Vertical direction