

Report No.: KSCR220400042201

Page: 1 of 70

# TEST REPORT

**Application No.:** KSCR2204000422AT **FCC ID:** 2AAGE-TAB10RK66

Applicant: Chengdu Vantron Technology Co., Ltd.

Address of Applicant: No.5 GaoPeng Road, Hi-Tech Zone, Chengdu, SiChuan, P.R. China

Manufacturer: Chengdu Vantron Technology Co., Ltd.

Address of Manufacturer: No.5 GaoPeng Road, Hi-Tech Zone, Chengdu, SiChuan, P.R. China

Factory: Chengdu Vantron Technology Co., Ltd.

Address of Factory: No.5 GaoPeng Road, Hi-Tech Zone, Chengdu, SiChuan, P.R. China

**Equipment Under Test (EUT):** 

EUT Name: Tablet

Model No.: M10 Lite

Trade Mark: Vantron

Standard(s): 47 CFR Part 15, Subpart C 15.247

**Date of Receipt:** 2022-04-02

**Date of Test:** 2022-04-15 to 2022-06-15

**Date of Issue:** 2022-08-10

Test Result: Pass\*



Tom fin



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<sup>\*</sup> In the configuration tested, the EUT complied with the standards specified above.



Report No.: KSCR220400042201

Page: 2 of 70

	Revision Record			
Version	Chapter	Date	Modifier	Remark
01		2022-08-10		Original

Authorized for issue by:			
	Paun. Liu		
	Pawn.Liu/Project Engineer	_	
	Eric fri		
	Eric Lin /Reviewer	_	



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Report No.: KSCR220400042201

Page: 3 of 70

# 2 Test Summary

Radio Spectrum Technical Requirement				
Item	Standard	Method	Requirement	Result
Antenna Requirement	47 CFR Part 15, Subpart C 15.247	N/A	47 CFR Part 15, Subpart C 15.203 & 15.247(b)(4)	Pass

Radio Spectrum Matter Part				
Item	Standard	Method	Requirement	Result
Conducted Emissions at AC Power Line (150kHz-30MHz)		ANSI C63.10 (2013) Section 6.2	47 CFR Part 15, Subpart C 15.207	Pass
Conducted Peak Output Power		ANSI C63.10 (2013) Section 11.9.2	47 CFR Part 15, Subpart C 15.247(b)(3)	Pass
Minimum 6dB Bandwidth		ANSI C63.10 (2013) Section 11.8.1	47 CFR Part 15, Subpart C 15.247a(2)	Pass
Power Spectrum Density		ANSI C63.10 (2013) Section 11.10.2	47 CFR Part 15, Subpart C 15.247(e)	Pass
Conducted Band Edges Measurement	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 11.13.3.2	47 CFR Part 15, Subpart C 15.247(d)	Pass
Conducted Spurious Emissions		ANSI C63.10 (2013) Section 11.11	47 CFR Part 15, Subpart C 15.247(d)	Pass
Radiated Emissions which fall in the restricted bands		ANSI C63.10 (2013) Section 6.10.5	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass
Radiated Spurious Emissions Below 1GHz		ANSI C63.10 (2013) Section 6.4,6.5	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass
Radiated Spurious Emissions Above 1GHz		ANSI C63.10 (2013) Section 6.6	47 CFR Part 15, Subpart C 15.205 & 15.209	Pass

Remark: This report use the reference data documented in the test report no KSCR220400042001. So the data of worse case have test in this report.



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Report No.: KSCR220400042201

Page: 4 of 70

## 3 Contents

		Page
1	COVER PAGE	1
2	2 TEST SUMMARY	3
_		
3	CONTENTS	4
4	GENERAL INFORMATION	6
	4.1 DETAILS OF E.U.T	
	4.2 Power level setting using in test:	_
	4.3 ENVIRONMENT PARAMETER	
	4.4 DESCRIPTION OF SUPPORT UNITS	
	4.5 MEASUREMENT UNCERTAINTY	6
	4.6 TEST LOCATION	8
	4.7 Test Facility	
	4.8 DEVIATION FROM STANDARDS	
	4.9 ABNORMALITIES FROM STANDARD CONDITIONS	8
5	EQUIPMENT LIST	9
6	RADIO SPECTRUM TECHNICAL REQUIREMENT	10
	6.1 ANTENNA REQUIREMENT	10
	6.1.1 Test Requirement:	
	6.1.2 Conclusion	
7	RADIO SPECTRUM MATTER TEST RESULTS	11
	7.1 CONDUCTED EMISSIONS AT AC POWER LINE (150kHz-30MHz)	11
	7.1.1 E.U.T. Operation	11
	7.1.2 Test Mode Description	
	7.1.3 Test Setup Diagram	
	7.1.4 Measurement Procedure and Data	
	7.2 CONDUCTED PEAK OUTPUT POWER	
	7.2.1 E.U.T. Operation	
	7.2.2 Test Mode Description	
	7.2.3 Test Setup Diagram7.2.4 Measurement Procedure and Data	
	7.3 MINIMUM 6DB BANDWIDTH	
	7.3.1 E.U.T. Operation	
	7.3.2 Test Mode Description	
	7.3.3 Test Setup Diagram	
	7.3.4 Measurement Procedure and Data	
	7.4 POWER SPECTRUM DENSITY	
	7.4.1 E.U.T. Operation	
	7.4.2 Test Mode Description	18
	7.4.3 Test Setup Diagram	18



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Report No.: KSCR220400042201

Page: 5 of 70

7.4.4	Measurement Procedure and Data	18
7.5	CONDUCTED BAND EDGES MEASUREMENT	19
7.5.1	E.U.T. Operation	19
7.5.2	Test Mode Description	19
7.5.3	Test Setup Diagram	20
7.5.4	Measurement Procedure and Data	20
7.6	CONDUCTED SPURIOUS EMISSIONS	21
7.6.1	E.U.T. Operation	21
7.6.2	Test Mode Description	21
7.6.3	Test Setup Diagram	22
7.6.4	Measurement Procedure and Data	22
7.7	RADIATED EMISSIONS WHICH FALL IN THE RESTRICTED BANDS	23
7.7.1	E.U.T. Operation	23
7.7.2	Test Mode Description	23
7.7.3	Test Setup Diagram	
7.7.4		
7.8	RADIATED SPURIOUS EMISSIONS BELOW 1GHZ	
7.8.1	E.U.T. Operation	34
7.8.2	Test Mode Description	34
7.8.3	Test Setup Diagram	
7.8.4	Measurement Procedure and Data	
7.9	RADIATED SPURIOUS EMISSIONS ABOVE 1GHZ	
7.9.1	E.U.T. Operation	39
7.9.2	Test Mode Description	
7.9.3	Test Setup Diagram	39
7.9.4	Measurement Procedure and Data	40
8 TEST	SETUP PHOTO	47
9 EUT (	CONSTRUCTIONAL DETAILS (EUT PHOTOS)	48
10 APPE	NDIX	49



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Report No.: KSCR220400042201

Page: 6 of 70

## **General Information**

#### 4.1 Details of E.U.T.

Power supply:	DC 3.8V by Battery
	Battery Model:GSP27103107
	Battery:8000mAh,3.8V,30.4Wh
Operation Frequency:	802.11b/g/n(HT20): 2412MHz to 2462MHz
Modulation Type:	802.11b: DSSS (CCK, DQPSK, DBPSK);802.11g/n: OFDM (64QAM, 16QAM, QPSK, BPSK)
Number of Channels:	802.11b/g/n(HT20):11
Channel Spacing:	5MHz
Antenna Type:	PIFA Antenna
Antenna Gain:	4 dBi (Provided by manufacturer)
Test Voltage:	AC 120V/60Hz

4.2 Power level setting using in test:

<u> </u>			
Oh ann al	802.11b	802.11g	802.11n(HT20)
Channel	Ant 1	Ant 1	Ant 1
11	Default	Default	Default

### 4.3 Environment Parameter

Environment Parameter		Selected Values During Tests	
Relative Humidity	Ar	mbient	
Value	Te	emperature(°C)	Voltage(V)
NTNV	25	5	AC 120
Note:			
NV:Normal Voltage	LV:Low Extreme Test Voltag	e HV:High Ex	treme Test Voltage
NT:Normal Temperature	LT:Low Extreme Test Tempe	erature HT:High Ex	treme Test Temperature

## 4.4 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Adapter	Mingxin	MX15U-050300UU	/

### 4.5 Measurement Uncertainty

I		•	
	No.	Item	Measurement Uncertainty



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Report No.: KSCR220400042201

Page: 7 of 70

1	Radio Frequency	8.4 x 10 <sup>-8</sup>
2	Timeout	2s
3	Duty Cycle	0.37%
4	Occupied Bandwidth	3%
5	RF Conducted Power	0.6dB
6	RF Power Density	2.9dB
7	Conducted Spurious Emissions	0.75dB
8	DE Dadieted Dower	5.2dB (Below 1GHz)
0	RF Radiated Power	5.9dB (Above 1GHz)
		4.2dB (Below 30MHz)
9	Padiated Spurious Emission Test	4.5dB (30MHz-1GHz)
9	Radiated Spurious Emission Test	5.1dB (1GHz-18GHz)
		5.4dB (Above 18GHz)
10	Temperature Test	1°C
11	Humidity Test	3%
12	Supply Voltages	1.5%
13	Time	3%

Note: The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.



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Report No.: KSCR220400042201

Page: 8 of 70

#### 4.6 Test Location

All tests were performed at:

Compliance Certification Services (Kunshan) Inc.

No.10 Weiye Rd, Innovation park, Eco&Tec, Development Zone, Kunshan City, Jiangsu, China.

Tel: +86 512 5735 5888 Fax: +86 512 5737 0818

No tests were sub-contracted.

Note:

1.SGS is not responsible for wrong test results due to incorrect information (e.g., max. internal working frequency, antenna gain, cable loss, etc) is provided by the applicant. (If applicable).

2.SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (If applicable).

### 4.7 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

#### A2LA (Certificate No. 2541.01)

Compliance Certification Services (Kunshan) Inc. is accredited by the American Association for Laboratory Accreditation (A2LA). Certificate No. 2541.01.

#### FCC (Designation Number: CN1172)

Compliance Certification Services (Kunshan) Inc. has been recognized as an accredited testing laboratory.

Designation Number: CN1172.

#### • ISED (CAB identifier: CN0072)

Compliance Certification Services (Kunshan) Inc. has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory.

Company Number: 2324E

#### • VCCI (Member No.: 1938)

The 3m and 10m Semi-anechoic chamber and Shielded Room of Compliance Certification Services (Kunshan) Inc. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-20134, R-11600, C-11707, T-11499, G-10216 respectively.

#### 4.8 Deviation from Standards

None

### 4.9 Abnormalities from Standard Conditions

None



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Report No.: KSCR220400042201

Page: 9 of 70

# 5 Equipment List

Item	Equipment	Manufacturer	Model	Inventory No	Cal Date	Cal. Due Date
Condu	cted Emission at Mains Ter	minals (150kHz-30N	MHz)			
1	EMI Test Receive	R&S	ESCI	KS301101	01/22/2022	01/21/2023
2	LISN	R&S	ENV216	KS301197	01/22/2022	01/21/2023
3	LISN	Schwarzbeck	NNLK 8129	KS301091	01/22/2022	01/21/2023
4	Pulse Limiter	R&S	ESH3-Z2	KUS1902E001	01/22/2022	01/21/2023
5	CE test Cable	Thermax	/	CZ301102	11/14/2021	11/13/2022
6	Test Software	Farad	EZ-EMC	/	N.C.R	N.C.R
RF Co	nducted Test					
1	Spectrum Analyzer	Keysight	N9020A	KUS1911E004-2	10/11/2021	10/10/2022
2	Spectrum Analyzer	Keysight	N9020A	KUS2001M001-2	09/17/2021	09/16/2022
3	Spectrum Analyzer	Keysight	N9030B	KSEM021-1	01/22/2022	01/21/2023
4	Signal Generator	R&S	SMW200A	KSEM020-1	10/12/2021	10/11/2022
5	Signal Generator	Agilent	N5182A	KUS2001M001- 1	08/27/2021	08/26/2022
6	Radio Communication Test Station	Anritsu	MT8000A	KSEM001-1	09/23/2021	09/22/2022
7	Radio Communication Analyzer	Anritsu	MT8821C	KSEM002-1	04/01/2022	03/31/2023
8	Universal Radio Communication Tester	R&S	CMW500	KUS1911E004-1	10/12/2021	10/11/2022
9	Switcher	CCSRF	FY562	KUS2001M001-3	10/12/2021	10/11/2022
10	AC Power Source	EXTECH	6605	KS301178	N.C.R	N.C.R
11	DC Power Supply	Aglient	E3632A	KS301180	N.C.R	N.C.R
12	Conducted Test Cable	Thermax	RF01-RF04	CZ301111- CZ301120	01/16/2022	01/15/2023
13	Temp. / Humidity Chamber	TERCHY	MHK-120AK	KS301190	04/01/2021	03/31/2023
14	Temperature & Humidity Recorder	Renke Control	RS-WS-N01-6J	KSEM024-5	04/01/2021	03/31/2023
15	Software	BST	TST-PASS	/	N/A	N/A
RF Ra	diated Test					
1	Spectrum Analyzer	R&S	FSV40	KUS1806E003	10/11/2021	10/10/2022
2	Universal Radio Communication Tester	R&S	CMW500	KSEM009-1	04/01/2022	03/31/2023
3	Signal Generator	Agilent	E8257C	KS301066	10/18/2021	10/17/2022
4	Loop Antenna	COM-POWER	AL-130R	KUS1806E001	04/13/2021	04/12/2023
5	Bilog Antenna	TESEQ	CBL 6112D	KUS1806E005	06/29/2021	06/28/2023
6	Bilog Antenna	SCHWARZBECK	VULB9160	CZ301016	04/13/2021	04/12/2024
7	Horn-antenna(1-18GHz)	Schwarzbeck	BBHA9120D	KS301079	10/26/2020	10/25/2022
8	Horn-antenna(1-18GHz)	ETS-LINDGREN	3117	KS301186	02/22/2021	02/21/2023
9	Horn Antenna(18-40GHz)	Schwarzbeck	BBHA9170	CZ301058	03/22/2022	03/21/2023
10	Amplifier(30MHz~18GHz)	PANSHAN TECHNOLOGY	LNA:1~18G	KSEM010-1	01/22/2022	01/21/2023
11	Amplifier(18~40GHz)	COM-POWER	PAM-840A	KUS1710E001	01/22/2022	01/21/2023
12	RE Test Cable	REBES MICROWAVE	/	CZ301097	11/14/2021	11/13/2022
13	Temperature & Humidity Recorder	Renke Control	RS-WS-N01-6J	KSEM024-4	01/04/2022	31/03/2023
14	Software	Faratronic	EZ_EMC-v 3A1	/	N/A	N/A



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Report No.: KSCR220400042201

Page: 10 of 70

# 6 Radio Spectrum Technical Requirement

### 6.1 Antenna Requirement

### 6.1.1 Test Requirement:

47 CFR Part 15, Subpart C 15.203 & 15.247(b)(4)

#### 6.1.2 Conclusion

#### Standard Requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

### 15.247(b) (4) requirement:

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

### **EUT Antenna:**

The antenna is PIFA Antenna and no consideration of replacement. The best case gain of the antenna is 4dBi.

Antenna location: Refer to internal photo.



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Report No.: KSCR220400042201

Page: 11 of 70

# 7 Radio Spectrum Matter Test Results

## 7.1 Conducted Emissions at AC Power Line (150kHz-30MHz)

Test Requirement 47 CFR Part 15, Subpart C 15.207 Test Method: ANSI C63.10 (2013) Section 6.2

#### Limit:

Frequency of	Conducted limit(dBµV)					
emission(MHz)	Quasi-peak	Average				
0.15-0.5	66 to 56*	56 to 46*				
0.5-5	56	46				
5-30	60	50				
*Decreases with the logarithm of the frequency.						
Detector: Peak for pre-scan (9k	Hz resolution bandwidth) 0.15M	to 30MHz				

#### 7.1.1 E.U.T. Operation

Operating Environment:

Temperature: 24 °C Humidity: 48 % RH Atmospheric Pressure: 1010 mbar

### 7.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Charge + TX mode_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20);. Only the data of worst case is recorded in the report.



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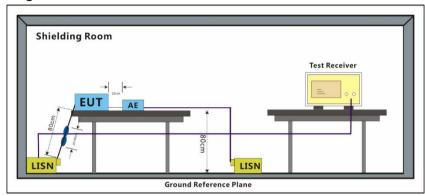
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Report No.: KSCR220400042201

Page: 12 of 70

### 7.1.3 Test Setup Diagram



#### 7.1.4 Measurement Procedure and Data

- 1) The mains terminal disturbance voltage test was conducted in a shielded room.
- 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a  $50 \text{ohm}/50 \mu\text{H} + 5 \text{ohm}$  linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.
- 3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane.
- 4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.
- 5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.

Remark: Level=Read Level+ Cable Loss+ LISN Factor



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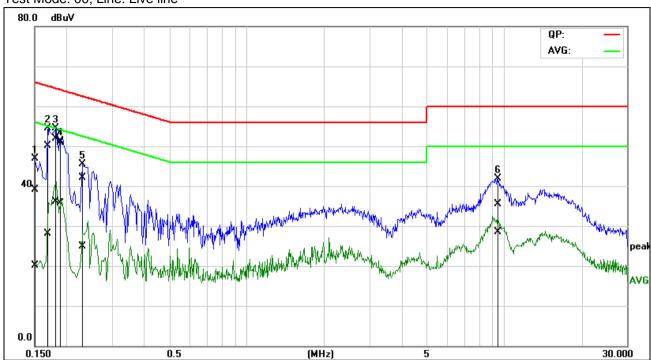
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Report No.: KSCR220400042201

Page: 13 of 70

Test Mode: 00; Line: Live line



Frequency	QuasiPeak	Average	Correction	QuasiPeak	Average	QuasiPeak	Average	QuasiPeak	Average	Remark
	reading	reading	factor	result	result	limit	limit	margin	margin	
(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)	
0.1500	19.53	0.52	19.50	39.03	20.02	66.00	56.00	-26.97	-35.98	Pass
0.1695	30.69	8.58	19.50	50.19	28.08	64.98	54.98	-14.79	-26.90	Pass
0.1792	32.38	16.62	19.50	51.88	36.12	64.52	54.52	-12.64	-18.40	Pass
0.1860	31.46	16.29	19.50	50.96	35.79	64.21	54.21	-13.25	-18.42	Pass
0.2310	22.52	5.31	19.50	42.02	24.81	62.41	52.41	-20.39	-27.60	Pass
9.5405	15.44	8.43	20.03	35.47	28.46	60.00	50.00	-24.53	-21.54	Pass
	(MHz) 0.1500 0.1695 0.1792 0.1860 0.2310	reading (MHz) (dBuV) 0.1500 19.53 0.1695 30.69 0.1792 32.38 0.1860 31.46 0.2310 22.52	reading         reading           (MHz)         (dBuV)         (dBuV)           0.1500         19.53         0.52           0.1695         30.69         8.58           0.1792         32.38         16.62           0.1860         31.46         16.29           0.2310         22.52         5.31	reading         reading         factor           (MHz)         (dBuV)         (dBuV)         (dB)           0.1500         19.53         0.52         19.50           0.1695         30.69         8.58         19.50           0.1792         32.38         16.62         19.50           0.1860         31.46         16.29         19.50           0.2310         22.52         5.31         19.50	reading         reading         factor         result           (MHz)         (dBuV)         (dBuV)         (dB)         (dBuV)           0.1500         19.53         0.52         19.50         39.03           0.1695         30.69         8.58         19.50         50.19           0.1792         32.38         16.62         19.50         51.88           0.1860         31.46         16.29         19.50         50.96           0.2310         22.52         5.31         19.50         42.02	reading         reading         factor         result         result           (MHz)         (dBuV)         (dBuV)         (dB)         (dBuV)         (dBuV)           0.1500         19.53         0.52         19.50         39.03         20.02           0.1695         30.69         8.58         19.50         50.19         28.08           0.1792         32.38         16.62         19.50         51.88         36.12           0.1860         31.46         16.29         19.50         50.96         35.79           0.2310         22.52         5.31         19.50         42.02         24.81	reading         reading         factor         result         result         limit           (MHz)         (dBuV)         (dBuV)         (dBuV)         (dBuV)         (dBuV)         (dBuV)           0.1500         19.53         0.52         19.50         39.03         20.02         66.00           0.1695         30.69         8.58         19.50         50.19         28.08         64.98           0.1792         32.38         16.62         19.50         51.88         36.12         64.52           0.1860         31.46         16.29         19.50         50.96         35.79         64.21           0.2310         22.52         5.31         19.50         42.02         24.81         62.41	reading         reading         factor         result         result         limit         limit           (MHz)         (dBuV)         (dBuV)	reading         reading         factor         result         result         limit         limit         margin           (MHz)         (dBuV)         (dBuV)	reading         reading         factor         result         result         limit         limit         margin         margin           (MHz)         (dBuV)         (dBuV)         (dBuV)         (dBuV)         (dBuV)         (dBuV)         (dBuV)         (dBuV)         (dB)         (dB)           0.1500         19.53         0.52         19.50         39.03         20.02         66.00         56.00         -26.97         -35.98           0.1695         30.69         8.58         19.50         50.19         28.08         64.98         54.98         -14.79         -26.90           0.1792         32.38         16.62         19.50         51.88         36.12         64.52         54.52         -12.64         -18.40           0.1860         31.46         16.29         19.50         50.96         35.79         64.21         54.21         -13.25         -18.42           0.2310         22.52         5.31         19.50         42.02         24.81         62.41         52.41         -20.39         -27.60



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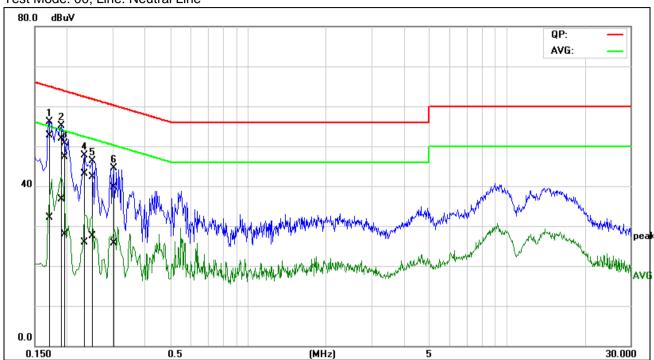
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Report No.: KSCR220400042201

Page: 14 of 70

Test Mode: 00; Line: Neutral Line



No.	Frequency	QuasiPeak	Average	Correction	QuasiPeak	Average	QuasiPeak	Average	QuasiPeak	Average	Remark
		reading	reading	factor	result	result	limit	limit	margin	margin	
	(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)	
1*	0.1714	33.27	12.54	19.48	52.75	32.02	64.89	54.89	-12.14	-22.87	Pass
2	0.1869	32.33	17.31	19.49	51.82	36.80	64.17	54.17	-12.35	-17.37	Pass
3	0.1974	27.74	8.50	19.49	47.23	27.99	63.72	53.72	-16.49	-25.73	Pass
4	0.2310	23.56	6.32	19.49	43.05	25.81	62.41	52.41	-19.36	-26.60	Pass
5	0.2484	22.89	7.92	19.49	42.38	27.41	61.81	51.81	-19.43	-24.40	Pass
6	0.2984	20.28	6.24	19.50	39.78	25.74	60.29	50.29	-20.51	-24.55	Pass



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Report No.: KSCR220400042201

Page: 15 of 70

### 7.2 Conducted Peak Output Power

Test Requirement 47 CFR Part 15, Subpart C 15.247(b)(3)
Test Method: ANSI C63.10 (2013) Section 11.9.2

Limit:

Frequency range(MHz)	Output power of the intentional radiator(watt)
	1 for ≥50 hopping channels
902-928	0.25 for 25≤ hopping channels <50
	1 for digital modulation
	1 for ≥75 non-overlapping hopping channels
2400-2483.5	0.125 for all other frequency hopping systems
	1 for digital modulation
5725-5850	1 for frequency hopping systems and digital modulation

### 7.2.1 E.U.T. Operation

Operating Environment:

Temperature: 24 °C Humidity: 48 % RH Atmospheric Pressure: 1010 mbar

### 7.2.2 Test Mode Description

	· · · · · · · · · · · · · · · · · ·						
Pre-scan / Final test	Mode Code	Description					
Final test	00	Charge + TX mode_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6.5Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20). Only the data of worst case is recorded in the report.					



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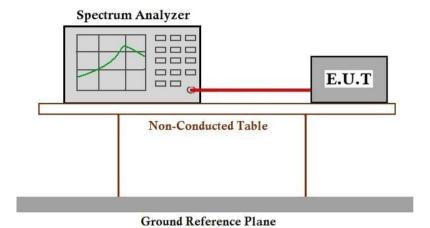
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Report No.: KSCR220400042201

Page: 16 of 70

#### 7.2.3 Test Setup Diagram



#### 7.2.4 Measurement Procedure and Data

Note: Since the verify power the same operating range bandwidth and smaller power can be covered by the higher power.

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Report No.: KSCR220400042201

Page: 17 of 70

#### 7.3 Minimum 6dB Bandwidth

Test Requirement 47 CFR Part 15, Subpart C 15.247a(2)
Test Method: ANSI C63.10 (2013) Section 11.8.1

Limit:

≥500 kHz

#### 7.3.1 E.U.T. Operation

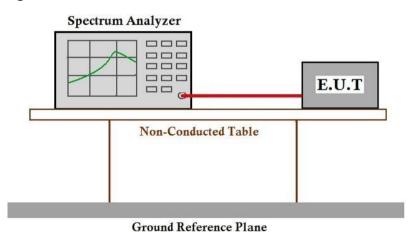
Operating Environment:

Temperature: 24 °C Humidity: 48 % RH Atmospheric Pressure: 1010 mbar

#### 7.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Charge + TX mode_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20);. Only the data of worst case is recorded in the report.

### 7.3.3 Test Setup Diagram



#### 7.3.4 Measurement Procedure and Data

Please Refer to Appendix A for KSCR220400042201



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Report No.: KSCR220400042201

Page: 18 of 70

### 7.4 Power Spectrum Density

Test Requirement 47 CFR Part 15, Subpart C 15.247(e)
Test Method: ANSI C63.10 (2013) Section 11.10.2

Limit:

≤8dBm in any 3 kHz band during any time interval of continuous transmission

#### 7.4.1 E.U.T. Operation

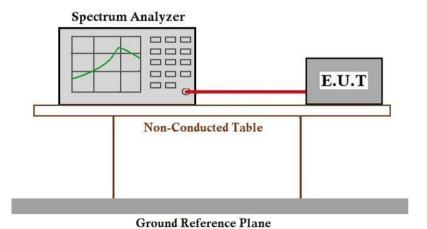
Operating Environment:

Temperature: 24 °C Humidity: 48 % RH Atmospheric Pressure: 1010 mbar

#### 7.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Charge + TX mode_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6.5Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20);Only the data of worst case is recorded in the report.

### 7.4.3 Test Setup Diagram



#### 7.4.4 Measurement Procedure and Data

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Report No.: KSCR220400042201

Page: 19 of 70

## 7.5 Conducted Band Edges Measurement

Test Requirement 47 CFR Part 15, Subpart C 15.247(d)
Test Method: ANSI C63.10 (2013) Section 11.13.3.2

#### Limit:

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated 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, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c).

### 7.5.1 E.U.T. Operation

Operating Environment:

Temperature: 24 °C Humidity: 48 % RH Atmospheric Pressure: 1010 mbar

#### 7.5.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description					
Final test	00	Charge + TX mode_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20). Only the data of worst case is recorded in the report.					



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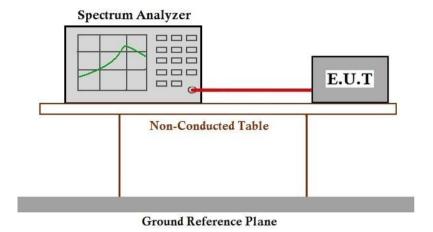
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Report No.: KSCR220400042201

Page: 20 of 70

### 7.5.3 Test Setup Diagram



7.5.4 Measurement Procedure and Data

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Report No.: KSCR220400042201

Page: 21 of 70

### 7.6 Conducted Spurious Emissions

Test Requirement 47 CFR Part 15, Subpart C 15.247(d)
Test Method: ANSI C63.10 (2013) Section 11.11

#### Limit:

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated 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, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c).

### 7.6.1 E.U.T. Operation

Operating Environment:

Temperature: 24 °C Humidity: 48 % RH Atmospheric Pressure: 1010 mbar

### 7.6.2 Test Mode Description

	7.0.2 Test mode bescription							
Pre-scan / Final test	Mode Code	Description						
Final test	00	Charge + TX mode_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6.5Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20). Only the data of worst case is recorded in the report.						



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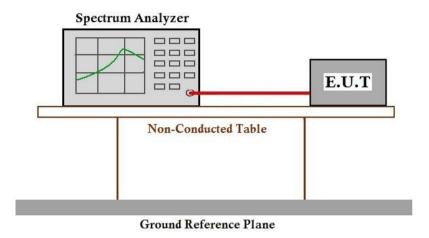
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Report No.: KSCR220400042201

Page: 22 of 70

#### 7.6.3 Test Setup Diagram



#### 7.6.4 Measurement Procedure and Data

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Report No.: KSCR220400042201

Page: 23 of 70

#### 7.7 Radiated Emissions which fall in the restricted bands

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209

Test Method: ANSI C63.10 (2013) Section 6.10.5

#### Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

### 7.7.1 E.U.T. Operation

Operating Environment:

Temperature: 24 °C Humidity: 48 % RH Atmospheric Pressure: 1010 mbar

### 7.7.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description					
Final test	00	Charge + TX mode_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20). Only the data of worst case is recorded in the report.					



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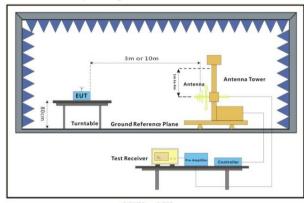
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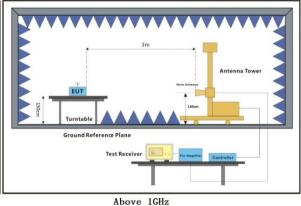


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Page: 24 of 70

### 7.7.3 Test Setup Diagram





30MHz-1GHz



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Report No.: KSCR220400042201

Page: 25 of 70

#### 7.7.4 Measurement Procedure and Data

- a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- d. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- e. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- g. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
- h. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- j. Repeat above procedures until all frequencies measured was complete.
- Remark 1: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
- Remark 2: For frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.



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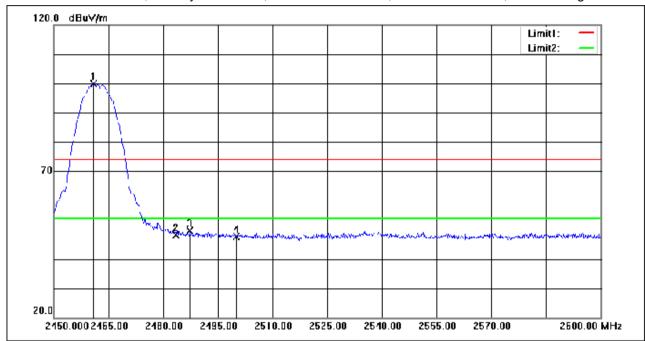
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Report No.: KSCR220400042201

Page: 26 of 70

Test Mode: 00; Polarity: Horizontal; Modulation:802.11b; Bandwidth:20MHz; Channel:High



No.	Frequency	Reading	Correction	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2460.800	113.74	-13.78	99.96	74.00	25.96	peak
2	2483.500	61.84	-13.71	48.13	74.00	-25.87	peak
3	2487.350	63.25	-13.70	49.55	74.00	-24.45	peak
4	2500.000	61.25	-13.64	47.61	74.00	-26.39	peak



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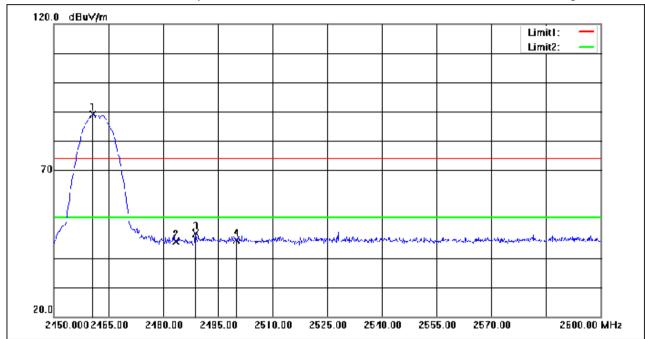
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Report No.: KSCR220400042201

Page: 27 of 70

Test Mode: 00; Polarity: Vertical; Modulation:802.11b; Bandwidth:20MHz; Channel:High



No.	Frequency	Reading	Correction	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2460.650	102.90	-13.78	89.12	74.00	15.12	peak
2	2483.500	59.24	-13.71	45.53	74.00	-28.47	peak
3	2488.850	62.16	-13.68	48.48	74.00	-25.52	peak
4	2500.000	59.80	-13.64	46.16	74.00	-27.84	peak



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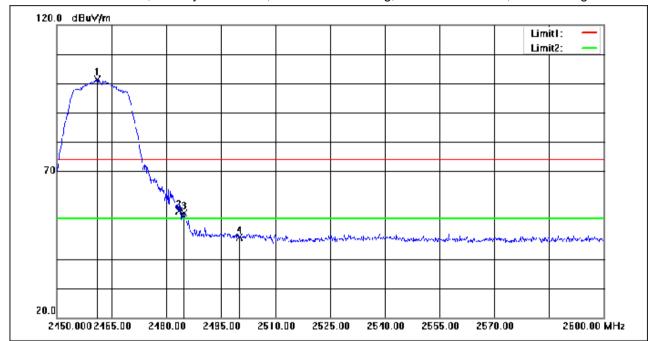
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Report No.: KSCR220400042201

Page: 28 of 70

Test Mode: 00; Polarity: Horizontal; Modulation:802.11g; Bandwidth:20MHz; Channel:High



No.	Frequency	Reading	Correction	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2461.100	115.28	-13.78	101.50	74.00	27.50	peak
2	2483.500	70.09	-13.71	56.38	74.00	-17.62	peak
3	2484.950	69.24	-13.70	55.54	74.00	-18.46	peak
4	2500.000	61.03	-13.64	47.39	74.00	-26.61	peak



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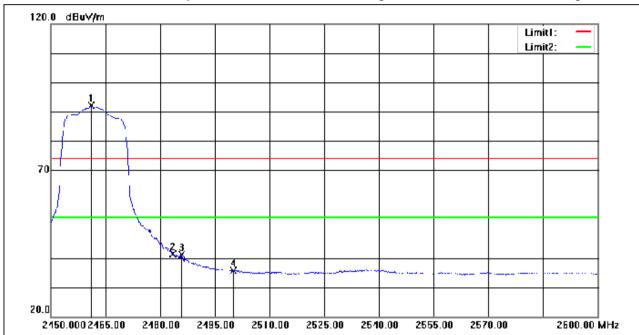
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Report No.: KSCR220400042201

Page: 29 of 70

Test Mode: 00; Polarity: Horizontal; Modulation:802.11g; Bandwidth:20MHz; Channel:High



No.	Frequency	Reading	Correction	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2461.100	105.89	-13.78	92.11	54.00	38.11	AVG
2	2483.500	55.09	-13.71	41.38	54.00	-12.62	AVG
3	2485.850	54.77	-13.70	41.07	54.00	-12.93	AVG
4	2500.000	49.19	-13.64	35.55	54.00	-18.45	AVG



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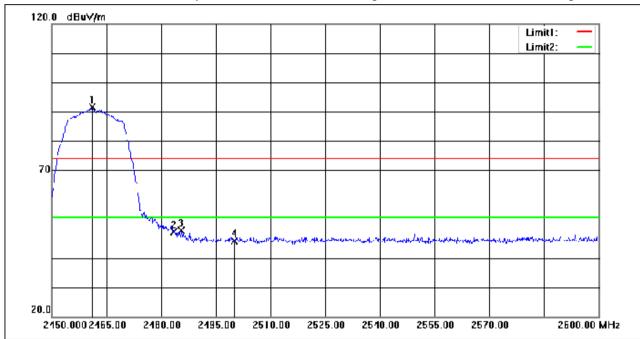
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Report No.: KSCR220400042201

Page: 30 of 70

Test Mode: 00; Polarity: Vertical; Modulation:802.11g; Bandwidth:20MHz; Channel:High



No.	Frequency	Reading	Correction	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2461.100	105.30	-13.78	91.52	74.00	17.52	peak
2	2483.500	62.47	-13.71	48.76	74.00	-25.24	peak
3	2485.550	63.04	-13.70	49.34	74.00	-24.66	peak
4	2500.000	59.58	-13.64	45.94	74.00	-28.06	peak



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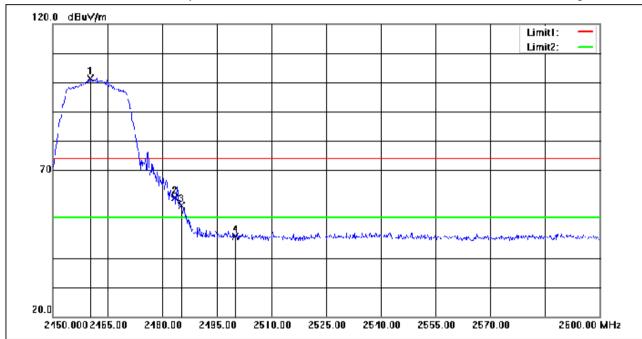
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Report No.: KSCR220400042201

Page: 31 of 70

Test Mode: 00; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High



No.	Frequency	Reading	Correction	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2460.350	115.20	-13.78	101.42	74.00	27.42	peak
2	2483.500	74.46	-13.71	60.75	74.00	-13.25	peak
3	2485.250	71.47	-13.70	57.77	74.00	-16.23	peak
4	2500.000	60.90	-13.64	47.26	74.00	-26.74	peak



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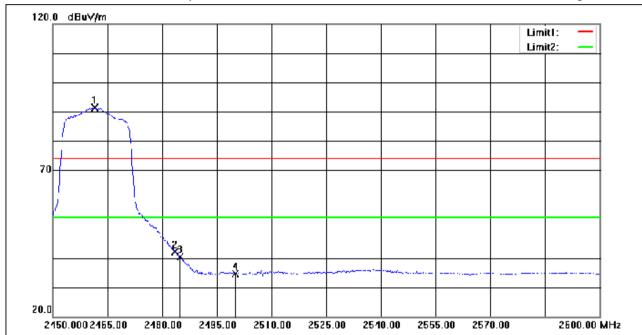
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Report No.: KSCR220400042201

Page: 32 of 70

Test Mode: 00; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High



No.	Frequency	Reading	Correction	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2461.400	105.22	-13.78	91.44	54.00	37.44	AVG
2	2483.500	55.79	-13.71	42.08	54.00	-11.92	AVG
3	2484.950	54.16	-13.70	40.46	54.00	-13.54	AVG
4	2500.000	48.27	-13.64	34.63	54.00	-19.37	AVG



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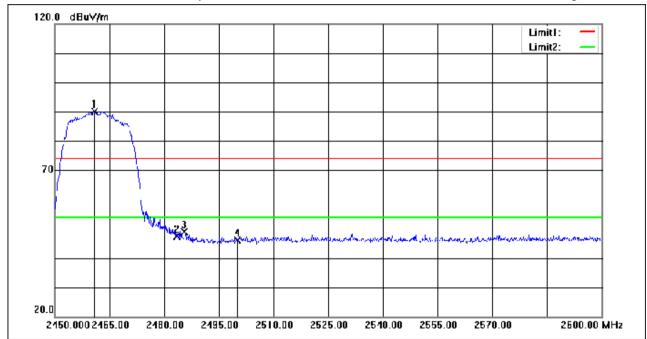
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Report No.: KSCR220400042201

Page: 33 of 70

Test Mode: 00; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High



No.	Frequency	Reading	Correction	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2460.950	103.80	-13.78	90.02	74.00	16.02	peak
2	2483.500	61.06	-13.71	47.35	74.00	-26.65	peak
3	2485.550	62.52	-13.70	48.82	74.00	-25.18	peak
4	2500.000	59.76	-13.64	46.12	74.00	-27.88	peak



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Report No.: KSCR220400042201

Page: 34 of 70

### 7.8 Radiated Spurious Emissions Below 1GHz

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209

Test Method: ANSI C63.10 (2013) Section 6.4,6.5

#### Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
960-1000	500	3

### 7.8.1 E.U.T. Operation

Operating Environment:

Temperature: 24 °C Humidity: 48 % RH Atmospheric Pressure: 1010 mbar

### 7.8.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Charge + TX mode_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20).Only the data of worst case is recorded in the report.



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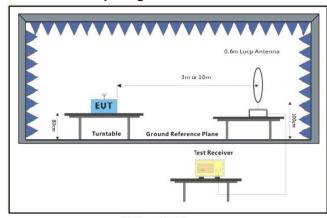
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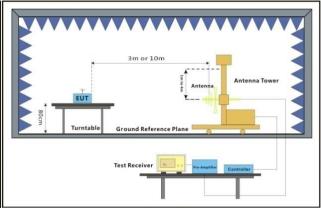


Report No.: KSCR220400042201

Page: 35 of 70

### 7.8.3 Test Setup Diagram





Below 30MHz 30MHz-1GHz



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Report No.: KSCR220400042201

Page: 36 of 70

#### 7.8.4 Measurement Procedure and Data

- a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using quasi-peak method as specified and then reported in a data sheet.
- g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- i. Repeat above procedures until all frequencies measured was complete. Remark:
- 1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
- 2. Scan from 9kHz to 30MHz, the disturbance below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
- 3. The disturbance below 1GHz was very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.



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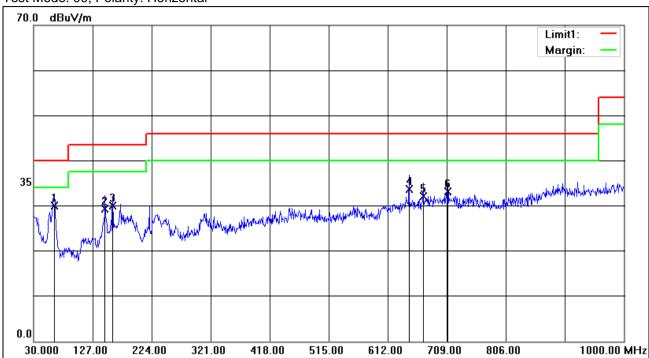
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Report No.: KSCR220400042201

Page: 37 of 70

Test Mode: 00; Polarity: Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	63.9500	15.31	14.78	30.09	40.00	-9.91	QP
2	147.3700	11.40	17.92	29.32	43.50	-14.18	QP
3	159.9800	12.57	17.46	30.03	43.50	-13.47	QP
4	646.9200	5.97	27.78	33.75	46.00	-12.25	QP
5	670.2000	4.73	27.43	32.16	46.00	-13.84	QP
6	710.9400	30.70	2.45	33.15	46.00	-12.85	QP



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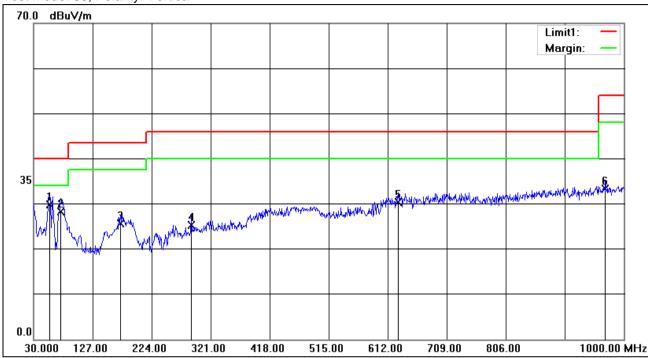
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Report No.: KSCR220400042201

Page: 38 of 70

Test Mode: 00; Polarity: Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	56.1900	14.15	15.74	29.89	40.00	-10.11	QP
2	74.6200	13.09	15.13	28.22	40.00	-11.78	QP
3	172.5900	8.76	16.86	25.62	43.50	-17.88	QP
4	288.9900	4.90	20.46	25.36	46.00	-20.64	QP
5	629.4600	2.85	27.53	30.38	46.00	-15.62	QP
6	969.9300	30.82	2.52	33.34	54.00	-20.66	QP



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Report No.: KSCR220400042201

Page: 39 of 70

#### 7.9 Radiated Spurious Emissions Above 1GHz

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209

Test Method: ANSI C63.10 (2013) Section 6.6

#### Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)	
Above 1000	500	3	

#### 7.9.1 E.U.T. Operation

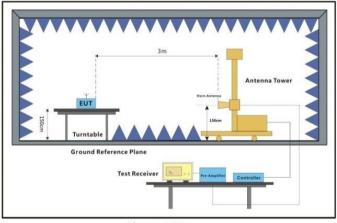
Operating Environment:

Temperature: 24 °C Humidity: 48 % RH Atmospheric Pressure: 1010 mbar

#### 7.9.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Charge + TX mode_Keep the EUT in charging and continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20). Only the data of worst case is recorded in the report.

#### 7.9.3 Test Setup Diagram



Above 1GHz



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Report No.: KSCR220400042201

Page: 40 of 70

#### 7.9.4 Measurement Procedure and Data

- a. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak or average method as specified and then reported in a data sheet.
- g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- i. Repeat above procedures until all frequencies measured was complete. Remark:
- 1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
- 2. Scan from 1GHz to 25GHz, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
- 3. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.



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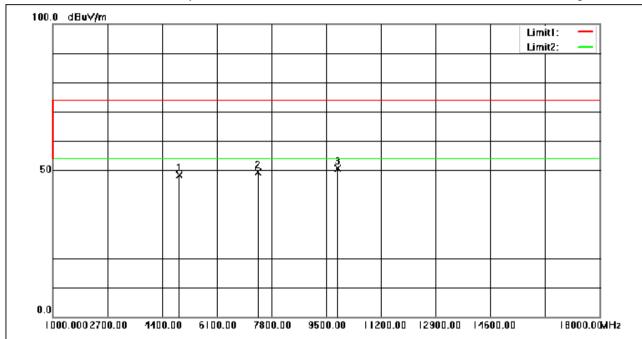
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Report No.: KSCR220400042201

Page: 41 of 70

Test Mode: 00; Polarity: Horizontal; Modulation:802.11b; Bandwidth:20MHz; Channel:High



No.	Frequency	Reading	Correction	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4924.000	56.87	-8.44	48.43	74.00	-25.57	peak
2	7386.000	55.18	-5.69	49.49	74.00	-24.51	peak
3	9848.000	52.02	-1.27	50.75	74.00	-23.25	peak



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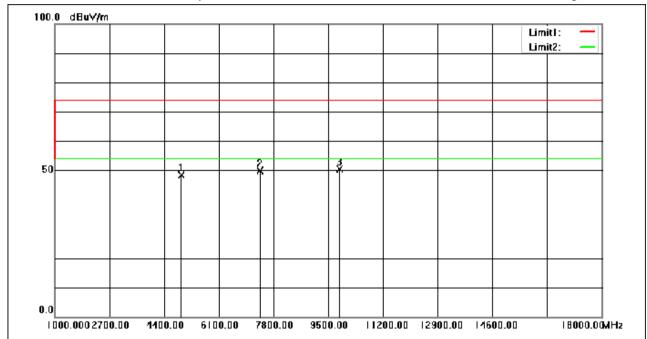
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Report No.: KSCR220400042201

Page: 42 of 70

Test Mode: 00; Polarity: Vertical; Modulation:802.11b; Bandwidth:20MHz; Channel:High



No.	Frequency	Reading	Correction	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4924.000	56.82	-8.44	48.38	74.00	-25.62	peak
2	7386.000	55.65	-5.69	49.96	74.00	-24.04	peak
3	9848.000	51.69	-1.27	50.42	74.00	-23.58	peak



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Report No.: KSCR220400042201

Page: 43 of 70

Test Mode: 00; Polarity: Horizontal; Modulation:802.11g; Bandwidth:20MHz; Channel:High



No.	Frequency	Reading	Correction	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4924.000	56.88	-8.44	48.44	74.00	-25.56	peak
2	7386.000	55.46	-5.69	49.77	74.00	-24.23	peak
3	9848.000	51.60	-1.27	50.33	74.00	-23.67	peak



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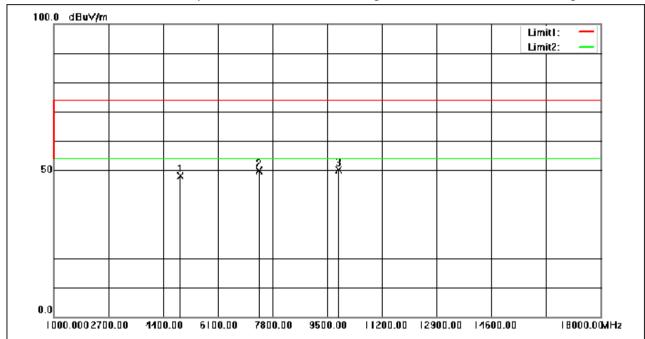
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Report No.: KSCR220400042201

Page: 44 of 70

Test Mode: 00; Polarity: Vertical; Modulation:802.11g; Bandwidth:20MHz; Channel:High



No.	Frequency	Reading	Correction	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4924.000	56.63	-8.44	48.19	74.00	-25.81	peak
2	7386.000	55.49	-5.69	49.80	74.00	-24.20	peak
3	9848.000	51.28	-1.27	50.01	74.00	-23.99	peak



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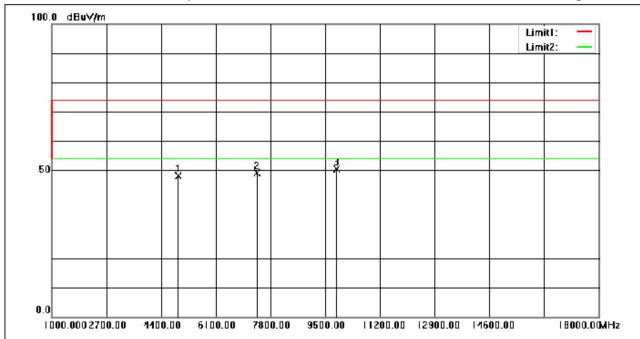
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Report No.: KSCR220400042201

Page: 45 of 70

Test Mode: 00; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High



No.	Frequency	Reading	Correction	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4924.000	56.66	-8.44	48.22	74.00	-25.78	peak
2	7386.000	54.89	-5.69	49.20	74.00	-24.80	peak
3	9848.000	51.53	-1.27	50.26	74.00	-23.74	peak



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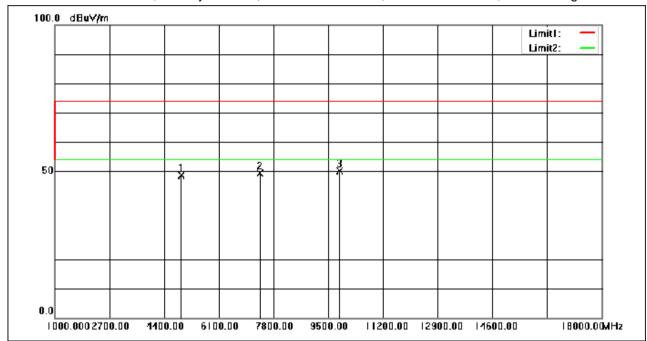
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Report No.: KSCR220400042201

Page: 46 of 70

Test Mode: 00; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High



No.	Frequency	Reading	Correction	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4924.000	56.97	-8.44	48.53	74.00	-25.47	peak
2	7386.000	55.17	-5.69	49.48	74.00	-24.52	peak
3	9848.000	51.42	-1.27	50.15	74.00	-23.85	peak



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Report No.: KSCR220400042201

Page: 47 of 70

## 8 Test Setup Photo

Refer to Appendix - Test Setup Photo for KSCR2204000422AT



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Report No.: KSCR220400042201

Page: 48 of 70

# 9 EUT Constructional Details (EUT Photos)

Refer to Appendix - Photographs of EUT Constructional Details for KSCR2204000422AT



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Report No.: KSCR220400042201

Page: 49 of 70

# 10 Appendix

## Appendix A for KSCR220400042201

1. Duty Cycle

1.1 Ant1

#### 1.1.1 Test Result

	Ant1										
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)				
802.11b	SISO	2462	8.416	8.453	99.56	0.02	0.04				
802.11g	SISO	2462	1.397	1.439	97.08	0.13	0.03				
802.11n (HT20)	SISO	2462	1.309	1.351	96.89	0.14	0.03				



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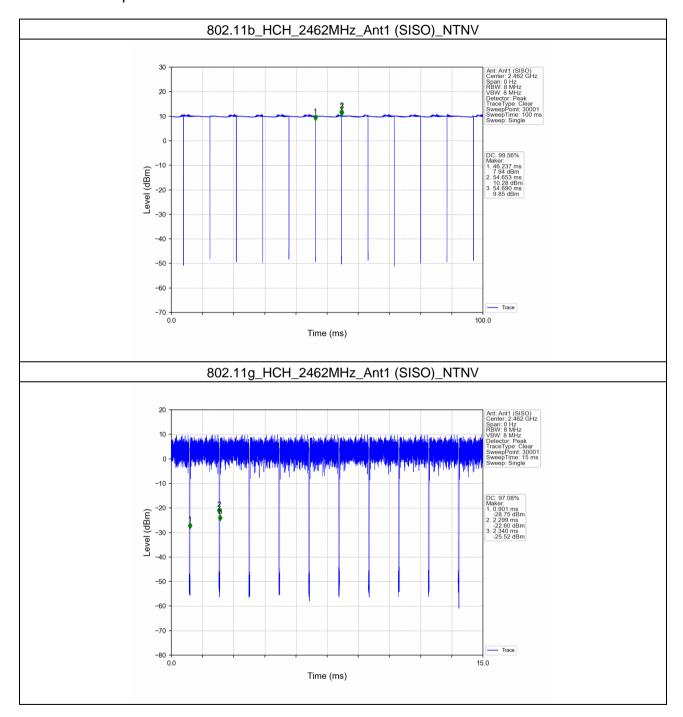
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Page: 50 of 70

#### 1.1.2 Test Graph





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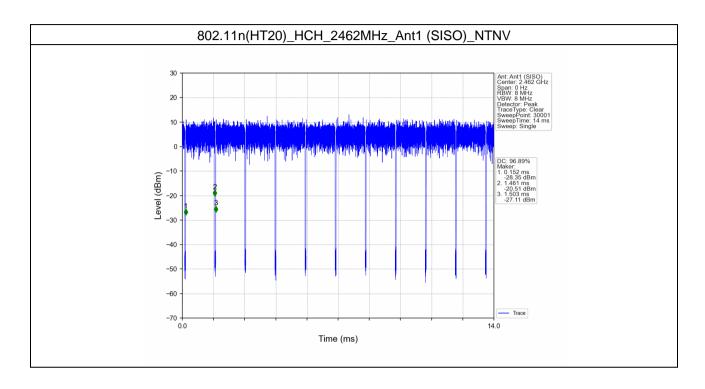
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Report No.: KSCR220400042201

Page: 51 of 70





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Report No.: KSCR220400042201

Page: 52 of 70

#### 2. Bandwidth

2.1 OBW

#### 2.1.1 Test Result

Mode	TX	Frequency	ANT	99% Occupied Bandwidth (MHz)	Vardiat	
Mode	Mode Type		AINT	Result	Verdict	
802.11b	SISO	2462	1	10.316	Pass	
802.11g	SISO	2462	1	17.641	Pass	
802.11n (HT20)	SISO	2462	1	18.587	Pass	



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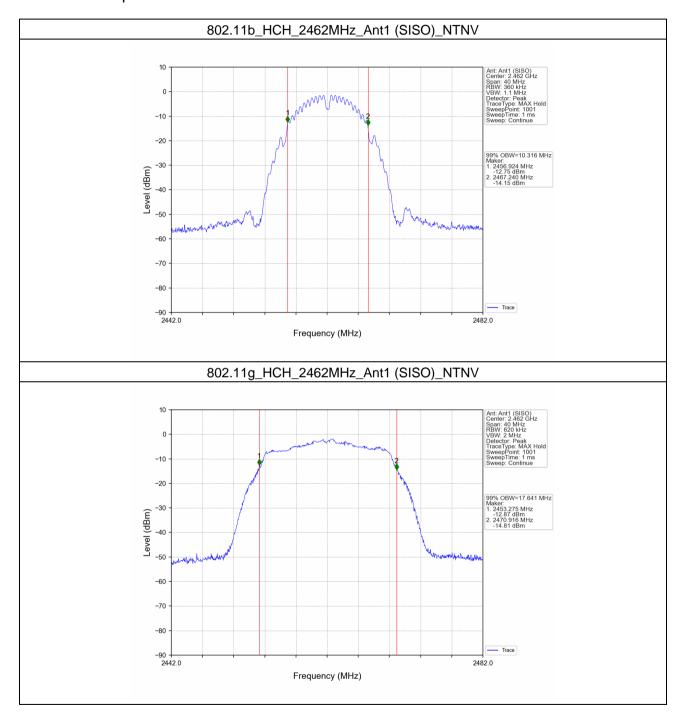
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Page: 53 of 70

#### 2.1.2 Test Graph





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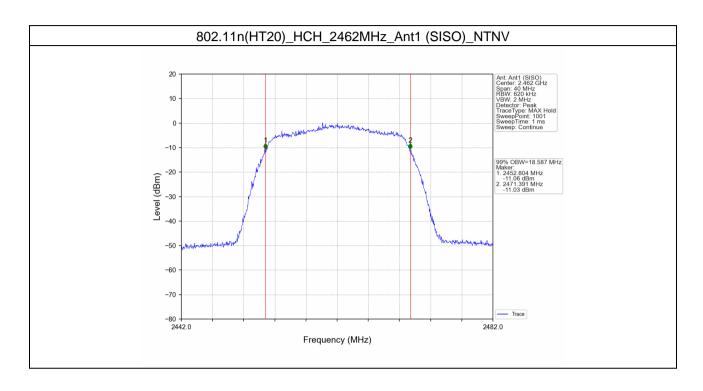
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Report No.: KSCR220400042201

Page: 55 of 70

#### 2.2 6dB BW

#### 2.2.1 Test Result

Mode	TX	Frequency	ANT	6dB Bandwidth (MHz)		\/a rdiat
Mode	Type (MHz	(MHz)		Result	Limit	Verdict
802.11b	SISO	2462	1	7.710	>=0.5	Pass
802.11g	SISO	2462	1	16.001	>=0.5	Pass
802.11n (HT20)	SISO	2462	1	16.903	>=0.5	Pass



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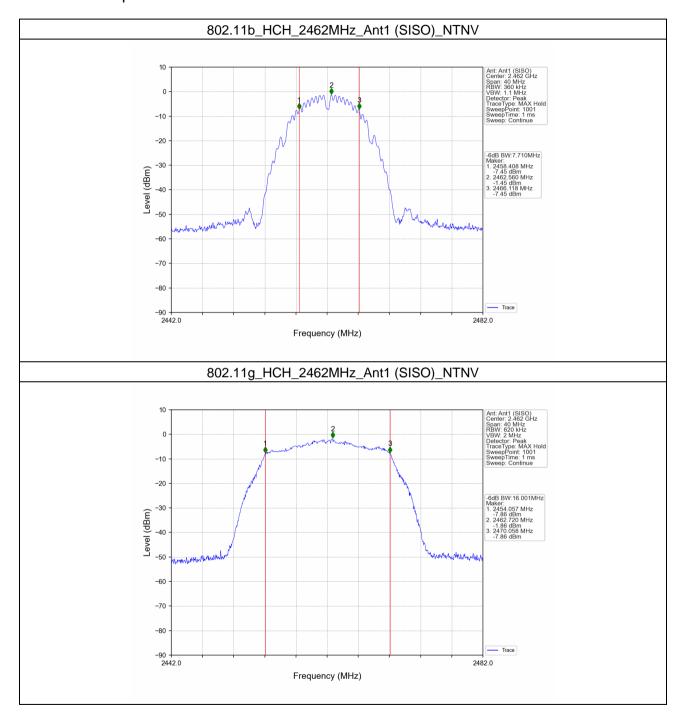
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Page: 56 of 70

#### 2.2.2 Test Graph





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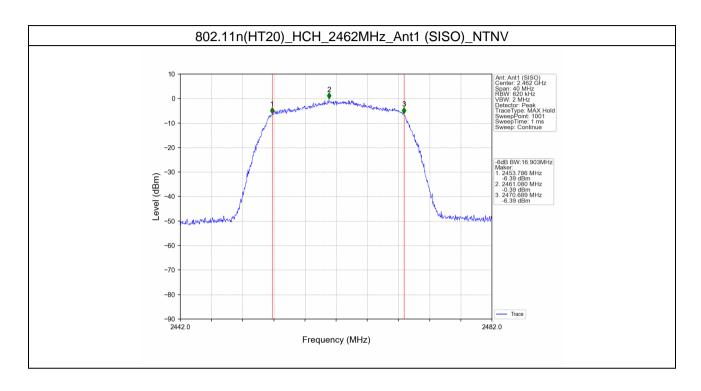
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Page: 57 of 70





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Report No.: KSCR220400042201

Page: 58 of 70

## 3. Maximum Conducted Output Power

3.1 Power

#### 3.1.1 Test Result

Mode	Made TX Frequency Maximum Average Conducted Output Power (dBm)								
Mode	Type	(MHz)	ANT1	Limit	Verdict				
802.11b SISO 2462 11.63 <=30 Pass									
802.11g	802.11g SISO 2462 11.53 <=30 Pass								
802.11n (HT20) SISO 2462 11.26 <=30 Pass									
Note1: Antenna Gain: Ant1: 4.00dBi;									



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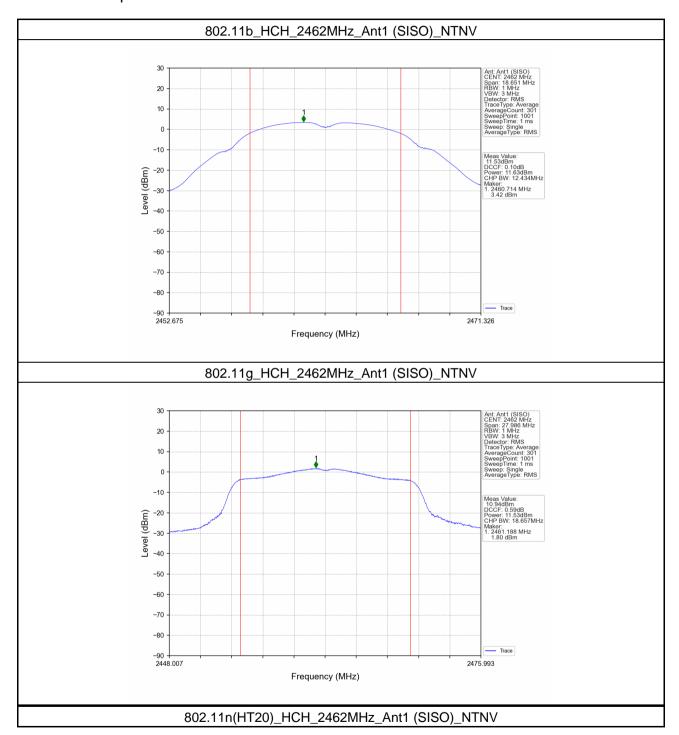
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Page: 59 of 70

#### 3.1.2 Test Graph





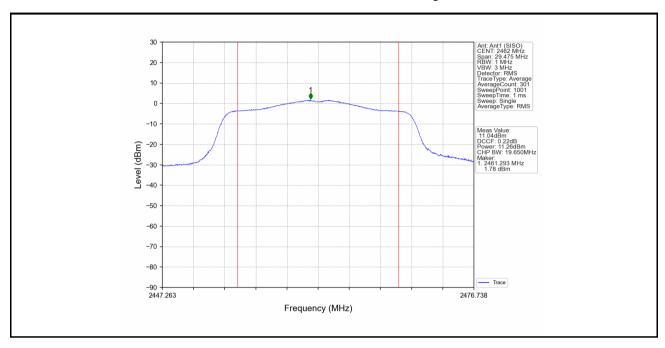
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Page: 60 of 70





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Report No.: KSCR220400042201

Page: 61 of 70

## 4. Maximum Power Spectral Density

#### 4.1 PSD

#### 4.1.1 Test Result

Mode         TX         Tope         (MHz)         ANT1         Limit         Verdict           802.11b         SISO         2462         -10.89         <=8         Pass           802.11g         SISO         2462         -12.12         <=8         Pass           802.11n         SISO         2462         -12.65         <=8         Pass	Mada	TX	Frequency	Maximum PS	Vardiet			
802.11g SISO 2462 -12.12 <=8 Pass 802.11n SISO 2462 -12.65 <=8 Pass	iviode	Type	(MHz)	ANT1	Limit	verdict		
802.11n SISO 2462 -12.65	802.11b SISO 2462 -10.89 <=8 Pass							
23 - 1	802.11g SISO 2462 -12.12 <=8 Pass							
(HT20)   3130   2402   12.03   <=0   1 ass								



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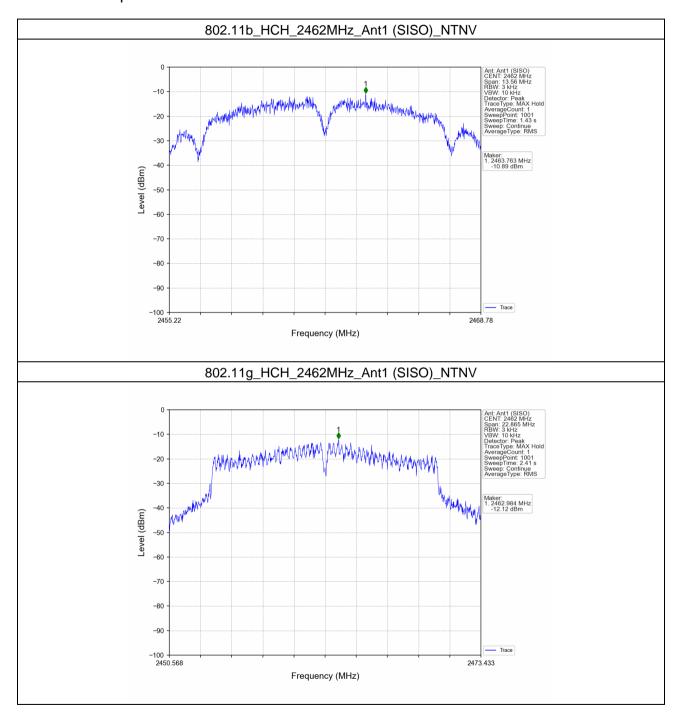
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Report No.: KSCR220400042201

Page: 62 of 70

#### 4.1.2 Test Graph





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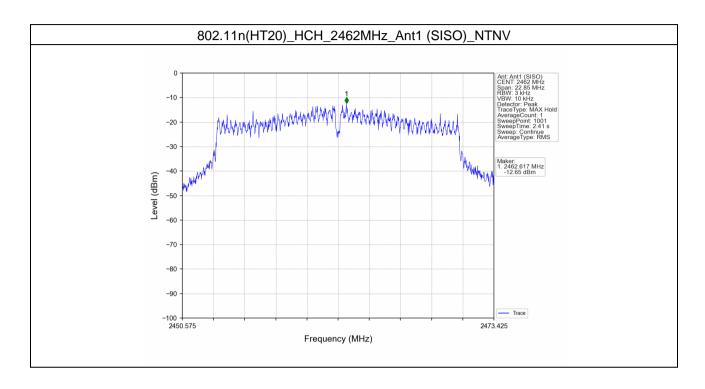
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Report No.: KSCR220400042201

Page: 63 of 70





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Report No.: KSCR220400042201

Page: 64 of 70

#### 5. Unwanted Emissions InStandard Non-restricted Frequency Bands

#### 5.1 Ref

#### 5.1.1 Test Result

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)
802.11b	SISO	2462	1	3.32
802.11g	SISO	2462	1	0.37
802.11n (HT20)	SISO	2462	1	0.29

Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.

Note2: RBW = 1MHz was used during the pre-test. The final test will be performed at RBW=100kHz while the margin is less than 3dB.



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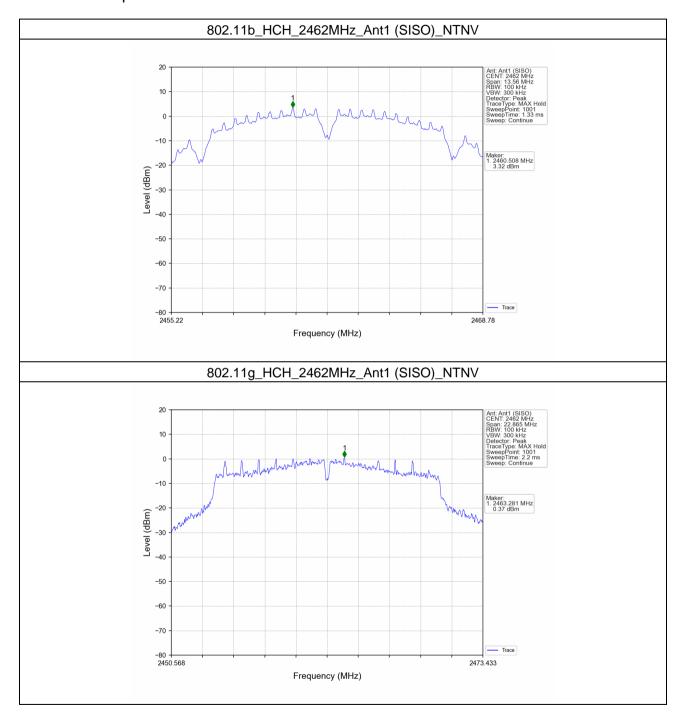
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Page: 65 of 70

#### 5.1.2 Test Graph





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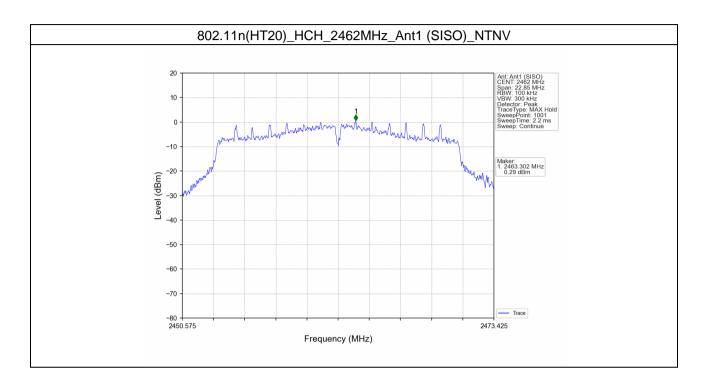
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Page: 66 of 70





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Report No.: KSCR220400042201

Page: 67 of 70

#### 5.2 CSE

#### 5.2.1 Test Result

Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11b	SISO	2462	1	3.32	-26.68	Pass
802.11g	SISO	2462	1	0.37	-29.63	Pass
802.11n (HT20)	SISO	2462	1	0.29	-29.71	Pass

Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.

Note2: RBW = 1MHz was used during the pre-test. The final test will be performed at RBW=100kHz while the margin is less than 3dB.



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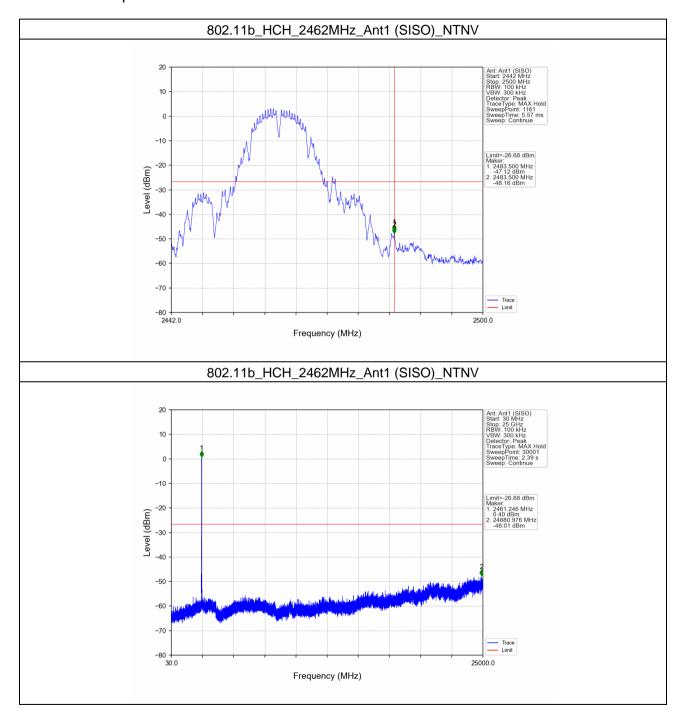
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Page: 68 of 70

#### 5.2.2 Test Graph





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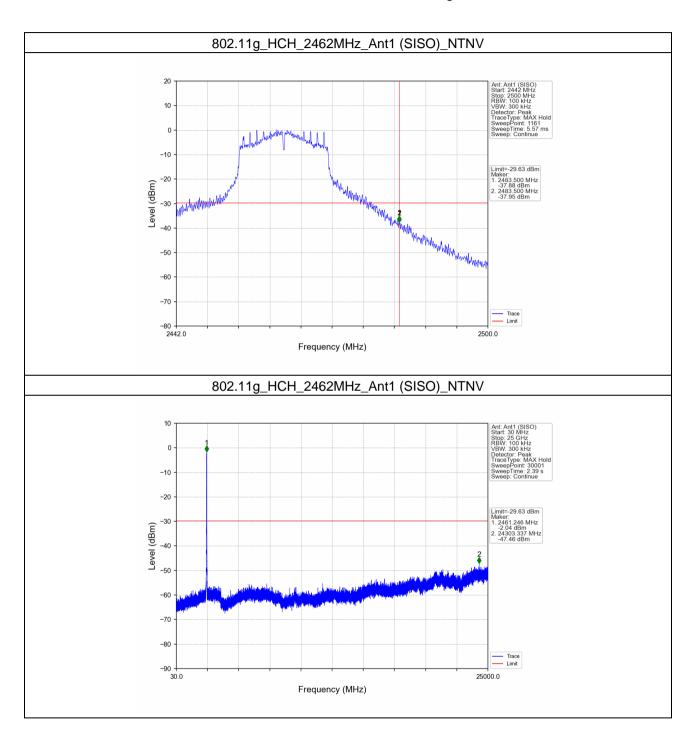
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Page: 69 of 70





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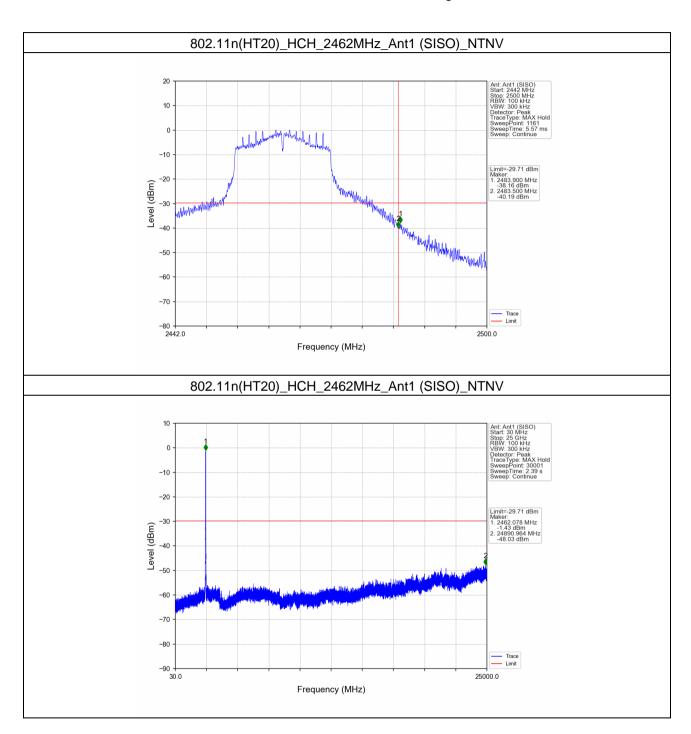
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