

TEST REPORT



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Report No.:
CTK-2017-01216
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1. Client

- Name : TO21 COMMS Co.,Ltd.
- Address : 2-504, Ace high-end tower, 61, Digital-ro-26-gil, Guro-gu, Seoul
152-724, Korea
- Date of Receipt : 2017-05-19

2. Manufacturer

- Name : TO21 COMMS Co.,Ltd.
- Address : 2-504, Ace high-end tower, 61, Digital-ro-26-gil, Guro-gu, Seoul
152-724, Korea

3. Use of Report : For FCC Certification

4. Test Sample / Model: Pocket Theater / RTSB7000L

5. Date of Test : 2017-05-29 to 2017-06-01

6. Test Standard(method) used : FCC 47 CFR part 15 subpart E 15.407

7. Testing Environment: Temp.: (24 ± 5) °C, Humidity: (61 ± 3) % R.H.

8. Test Results : Compliance

The results shown in this test report refer only to the sample(s) tested unless otherwise stated. This Test Report cannot be reproduced, except in full.

Affirmation	Tested by  Ji-hye, Kim: (Signature)	Technical Manager  Won-Jae, Hwang: (Signature)
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2017-06-13

Republic of KOREA **CTK Co., Ltd.**



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REPORT REVISION HISTORY

Date	Revision	Page No
2017-06-13	Issued (CTK-2017-01216)	all

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1.0 General Product Description

FCC ID	2AMJ7-RTSB7000L			
Equipment model name	RTSB7000L			
Serial number	Prototype			
EUT condition	Pre-production, not damaged			
Frequency Range	UNII 1 : 5180 MHz – 5240 MHz (20 MHz_BW) UNII 3 : 5745 MHz – 5825 MHz (20 MHz_BW)			
RF output power :				
Band	Mode	Channel Bandwidth (MHz)	Frequency Range (MHz)	RF output power (dBm)
UNII 1	802.11n	20	5180 – 5240	11.16
UNII 3			5745 – 5825	12.67
Transfer Rate		802.11n : up to 72.2 Mbps		
Type of Modulation		802.11n : OFDM		
Power Source		DC 3.7 V		
Duty Cycle		802.11n_HT20 : 98.1 %		
Antenna Type		PCB antenna		
Antenna Gain		0 dBi		
Hardware Rev		1.2		
Software Rev		1.0.0		
Firmware Rev		2.2		

1.1 Tested Frequency

Test Item	Modulation	Data Rate
6 dB Bandwidth Maximum Output Power Conducted Spurious emission Band Edge Power Spectral Density Radiated Emissions Above 1GHz	802.11n	MCS 0
Radiated Emissions Below 1GHz AC Conducted Emissions	Nomal Mode	Auto

1.2 EUT Operation Test Setup

For WLAN function, the engineering test program was provided and enabled to make EUT continuous transmit/receive.

1.3 Tested Frequency

802.11n_HT20

Frequency (MHz)	LOW	MID	HIGH
UNII 1	5180	5200	5240
UNII 3	5745	5785	5825

1.4 Device Modifications

The following modifications were necessary for compliance:

	 Core penetration:EMI-5525 _Taejin INT
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1.5 Peripheral Devices

Device	Manufacturer	Model No.	Serial No.
Note Computer	HP	ProBook 650 G1	5CG5114KD2
AC ADAPTER	HP	PPP012D-S	-
AC / DC ADAPTER	TIANJIN E&P ELECTRONICS Inc.	ETA-U90KWK	DK3D314TS/B-E

1.6 Calibration Details of Equipment Used for Measurement

Test equipment and test accessories are calibrated on regular basis. The maximum time between calibrations is one year or what is recommended by the manufacturer, whichever is less. All test equipment calibrations are traceable to the Korea Research Institute of Standards and Science (KRISS), therefore, all test data recorded in this report is traceable to KRISS.

1.7 Test Facility

The measurement facility is located at (Ho-dong), 113, Yejik-ro, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea. The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 and CISPR Publication 22.

1.8 Laboratory Accreditations and Listings

Country	Agency	Scope of Accreditation	Registration Number	Logo
USA	FCC	FCC Part 15 & 18 EMI (Electromagnetic Interference / Emission)	805871	
CANADA	ISED	ISED EMI (3/10m test site)	8737A-2	
JAPAN	VCCI	VCCI V-3 EMI (Electromagnetic Interference / Emission)	C-986 T-1843 R-3627 G-387	
KOREA	MSIP	EMI (Electromagnetic Interference / Emission) EMS (Electromagnetic Susceptibility / Immunity)	KR0025	

2.0 Summary of tests

FCC Part Section(s)	Parameter	Limit	Test Condition	Status (note 1)
15.407(e)	6 dB Bandwidth	> 500 kHz	Conducted	C
15.407(a)	26 dB Bandwidth and 99% Bandwidth	NA		C
15.407(a)(1)	Conducted Output Power	< 250 mW (5150 – 5250 MHz) < 1 W (5725 – 5850 MHz)		C
15.407(a)(1)	Power Spectral Density	< 11 dBm/MHz (5150 – 5250 MHz) < 30 dBm/500kHz (5725 – 5850 MHz)		C
15.407(g)	Frequency Stability	NA		C
15.407 (b)	Undesirable emission	< -27 dBm/MHz EIRP (5150 – 5250 MHz) < -17 dBm/MHz EIRP (5850 – 5860 MHz) < -27 dBm/MHz EIRP outside (5715 - 5850 MHz)	Radiated	C
15.205, 15.407 (b)(5),(6)	Radiated Spurious Emission	15.209(a)		C
15.207	AC Conducted Emissions	15.207(a)	Line Conducted	C

Note 1: C=Complies NC=Not Complies NT=Not Tested NA=Not Applicable

Note 2: The data in this test report are traceable to the national or international standards.

The sample was tested according to the following specification:
- FCC Part 15.407, ANSI C63.10-2013

The tests were performed according to the method of measurements prescribed in
KDB No.789033.

2.1 Technical Characteristic Test

2.1.1 ON Time, Duty Cycle

Procedure:

KDB 789033 Zero-Span Spectrum Analyzer Method.

Test Data:

	ON Time (ms)	Period (ms)	TX OFF (ms)	Duty Cycle (linear)	Duty Cycle (%)
802.11n_HT20	1.335	1.362	0.027	0.981	98.1



Duty Cycle_802.11n_HT20

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2.1.2 6dB Bandwidth

Test Procedures(ANSI C63.10-2013 6.9.2)

Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

Test Settings :

Center frequency = the highest, middle and the lowest channels

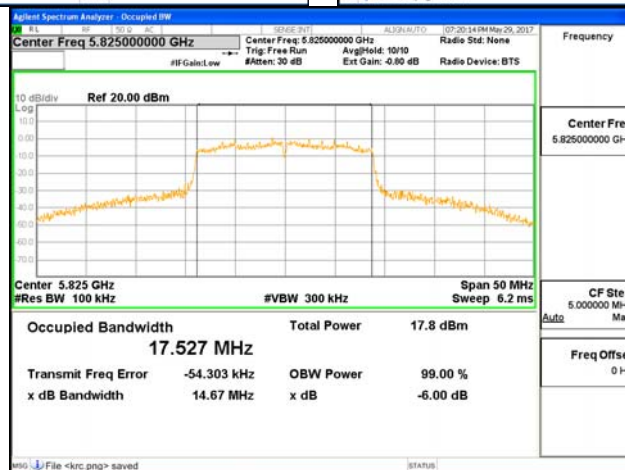
- a) RBW = 100 kHz
- b) VBW $\geq 3 \times$ RBW
- c) Detector = peak
- d) Trace mode = Max hold
- e) Sweep = auto couple
- f) Allow trace to fully stabilize
- g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

Minimum Standard:

6 dB Bandwidth > 500kHz

Test Data:

	6 dB Bandwidth (MHz)
Mode	802.11n_HT20
Frequency	
5745 MHz	15.05
5785 MHz	16.05
5825 MHz	14.67
Measurement uncertainty	± 3 dB



802.11n_HT20

2.1.3 26 dB Bandwidth and 99 % Bandwidth

Test Procedures(ANSI C63.10-2013 6.9.2)

Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 26 dB relative to the maximum level measured in the fundamental emission.

Test Procedures(ANSI C63.10-2013 6.9.3)

The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission.

Use the 99% power bandwidth function of the instrument and report the measured bandwidth.

Test Settings :

Center frequency = the highest, middle and the lowest channels

- a) RBW = approximately 1 % of the emission bandwidth
- b) VBW $\geq$ RBW
- c) Detector = peak
- d) Trace mode = Max hold
- e) Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

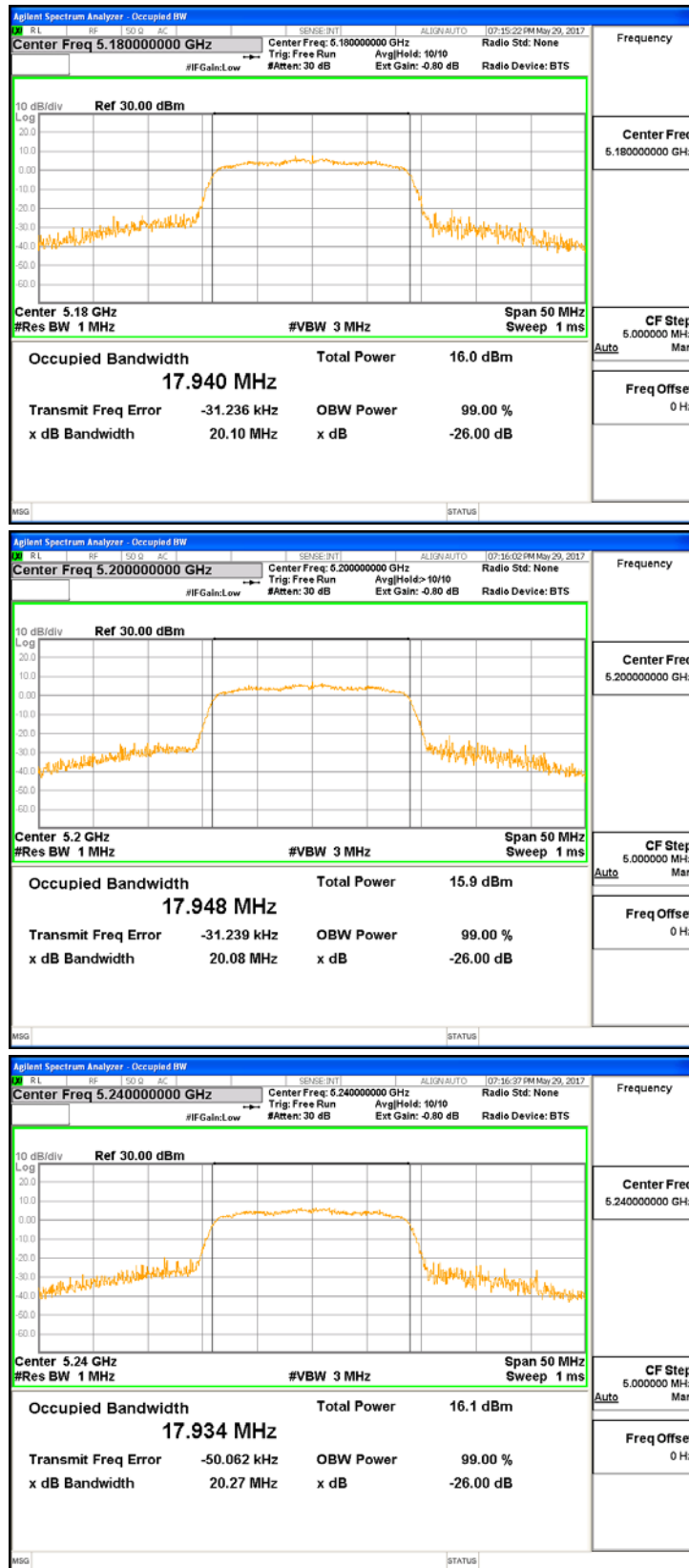
Minimum Standard:

NA

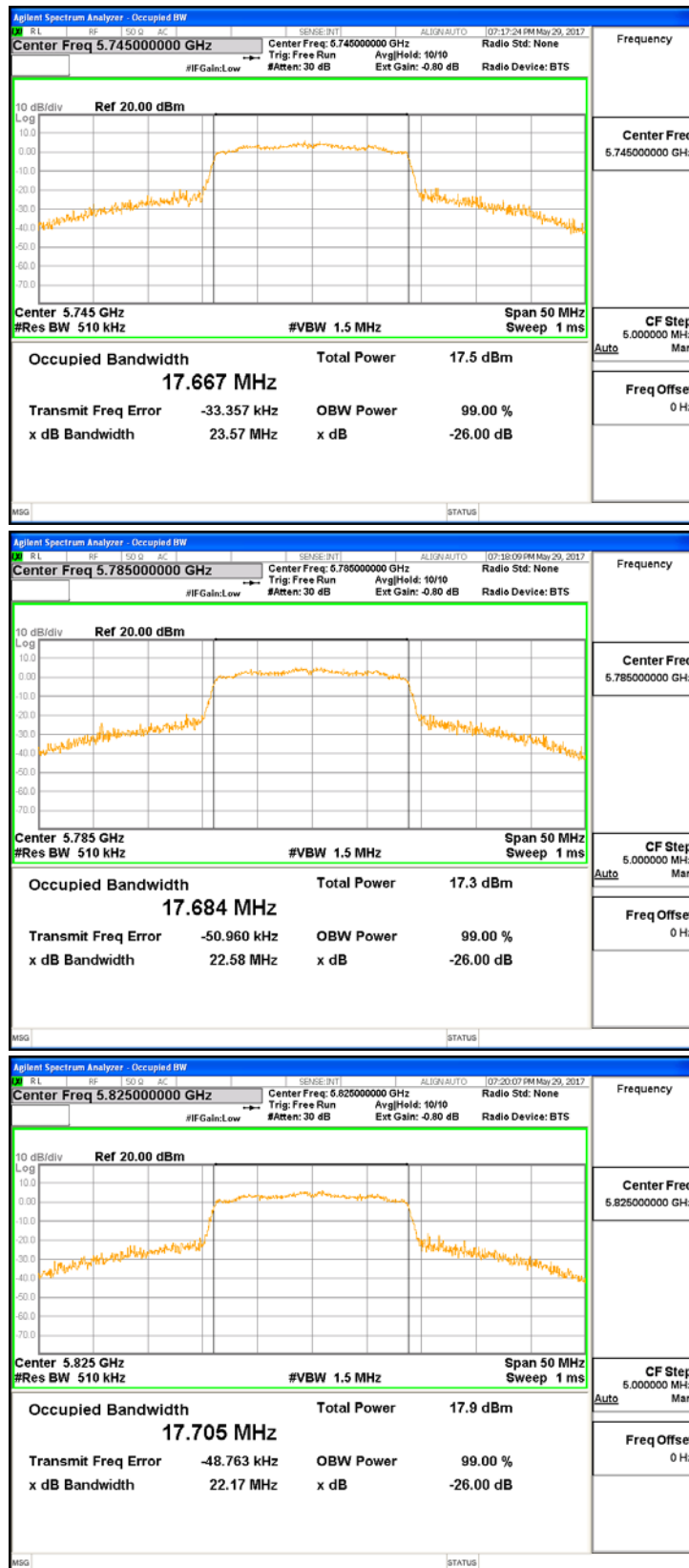
Test Data:

	26 dB Bandwidth and 99% Bandwidth (MHz)	
Mode	802.11n_HT20	
Frequency	26 dB	99 %
5180 MHz	20.10	17.94
5200 MHz	20.08	17.95
5240 MHz	20.27	17.93
5745 MHz	23.57	17.67
5785 MHz	22.58	17.68
5825 MHz	22.17	17.71
Measurement uncertainty	± 3 dB	

See next pages for actual measured spectrum plots.



802.11n_HT20_UNII-1



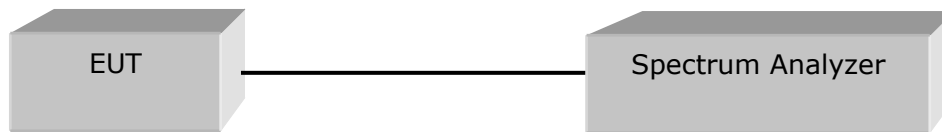
802.11n_HT20_UNII-3

2.1.4 OUTPUT POWER

Test Procedures

Maximum Conducted Output Power(KDB 789033, Method SA-1)

The transmitter output is connected to a spectrum analyzer and the analyzer's internal channel power integration function is used to integrate the power over a bandwidth greater than or equal to the 99% bandwidth.



Test Settings :

Center frequency = the highest, middle and the lowest channels

- a) RBW = 1 MHz
- b) VBW $\geq 3 \times$ RBW
- c) Sweep time = auto
- d) Detector = power averaging (rms)
- e) Trace mode = Average at least 100

Limit

Band	Mode	ANT Gain (dBi)	Limit (dBm)
UNII 1	802.11n	0	24
UNII 3			30

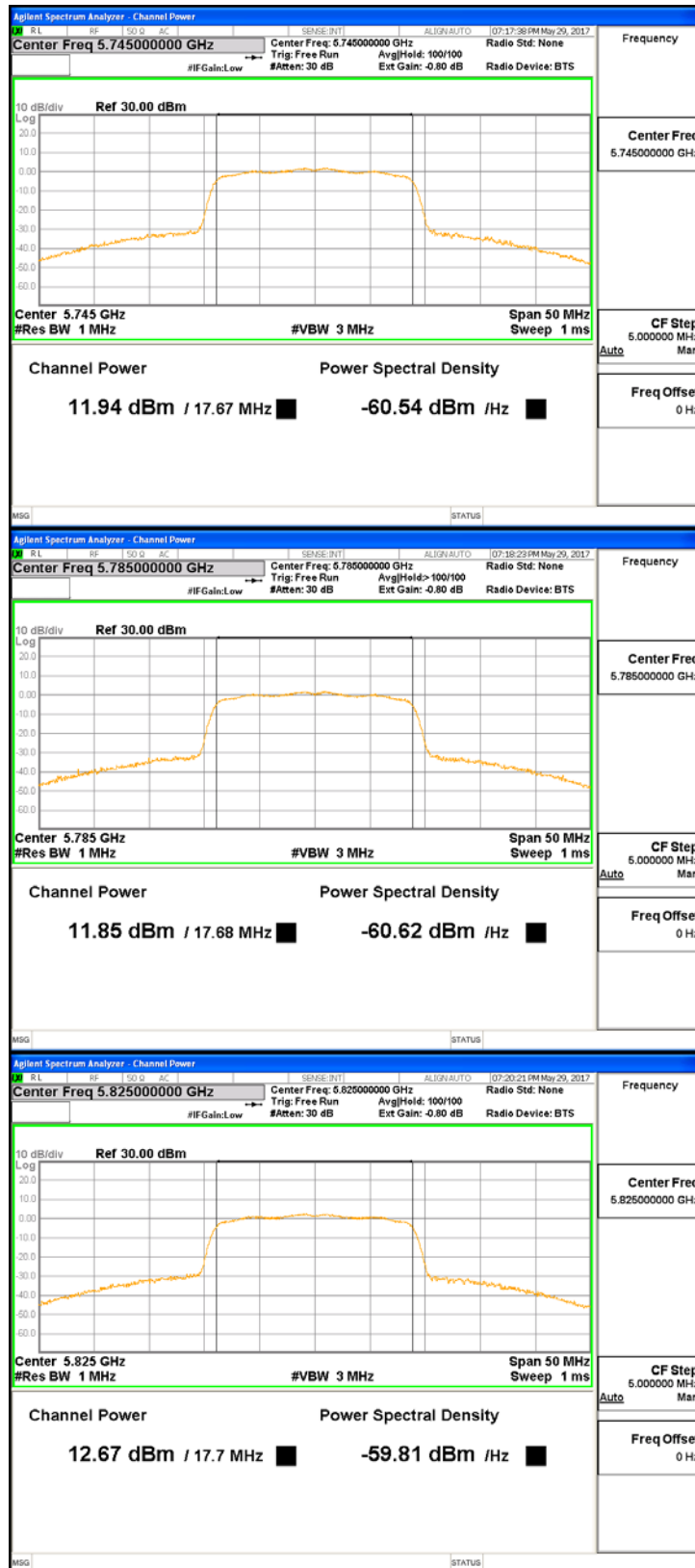
Test Data

	Measured Output Power (dBm)
Mode	802.11n_HT20
Frequency	
5180 MHz	11.16
5200 MHz	11.08
5240 MHz	11.09
5745 MHz	11.94
5785 MHz	11.85
5825 MHz	12.67
Measurement uncertainty	± 3 dB

See next pages for actual measured spectrum plots.



802.11n_HT20_UNII-1



802.11n_HT20_UNII-3

2.1.5 Power Spectral Density

Procedures

Maximum Power Spectral Density (KDB 789033, Method SA-1)

The peak power density is measured with a spectrum analyzer connected to the antenna terminal while the EUT is operating in transmission mode at the appropriate frequencies.

Test Settings :

Center frequency = the highest, middle and the lowest channels

- a) RBW = 1 MHz, 500 KHz (UNII 3)
- b) VBW = 3 MHz, 1.5 MHz (UNII 3)
- c) Sweep time = auto
- d) Detector = power averaging (rms)
- e) Trace mode = Average at least 100

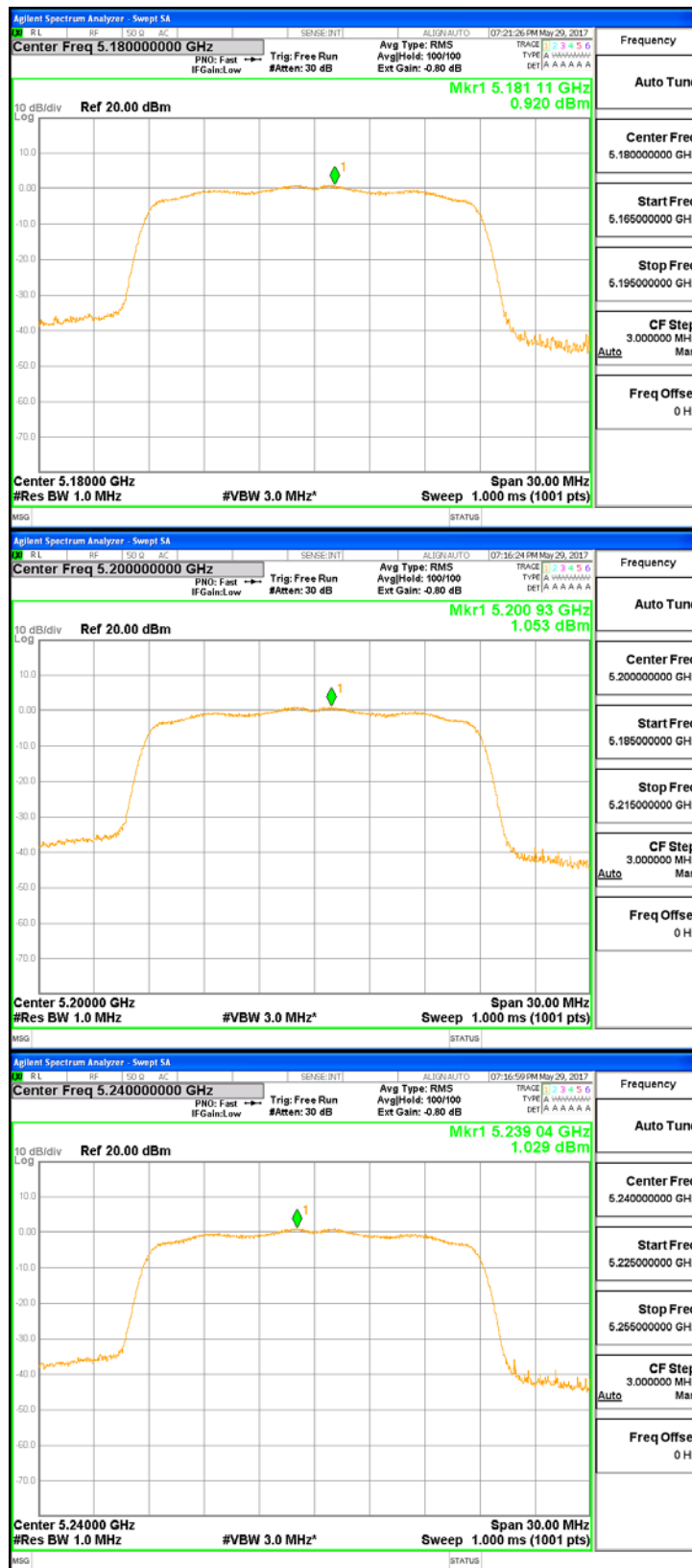
Limit

Band	Mode	ANT Gain (dBi)	Limit (dBm)
UNII 1	802.11n	0	11
UNII 3			30/500KHz

Test Data

	Measured Power Density (dBm)
Mode	802.11n_HT20
Frequency	
5180 MHz	0.920
5200 MHz	1.053
5240 MHz	1.029
5745 MHz	-0.792
5785 MHz	-0.765
5825 MHz	-0.023
Measurement uncertainty	± 3 dB

See next pages for actual measured spectrum plots.



802.11n_UNII-1



802.11n_HT20_UNII-3

2.1.6 Frequency Stability

Procedure:

The EUT was placed inside of an environmental chamber as the temperature in the chamber was varied between -10℃ and +50℃ (Declaration by the Manufacturer). The temperature was incremented by 10℃ intervals and the unit was allowed to stabilize at each temperature before each measurement. The center frequency of the transmitting channel was evaluated at each temperature and the frequency deviation from the channel's center frequency was recorded.

Data for the worst case channel is shown below.

Temperature (℃)	-10	0	10	20
Frequency	Mesured Frequency Error (kHz)			
5180 MHz	-25.418	-24.213	-40.721	-48.664
5200 MHz	-23.752	-28.236	-43.515	-50.776
5240 MHz	-24.101	-30.519	-45.539	-52.108
5745 MHz	-26.625	-35.296	-50.959	-57.817
5785 MHz	-26.964	-36.573	-51.822	-58.511
5825 MHz	-27.526	-37.652	-52.452	-59.149

Temperature (℃)	30	40	50
Frequency	Mesured Frequency Error (kHz)		
5180 MHz	-54.091	-51.491	-32.891
5200 MHz	-54.146	-49.869	-29.382
5240 MHz	-54.487	-48.977	-27.202
5745 MHz	-59.738	-52.626	-28.316
5785 MHz	-59.986	-52.189	-27.123
5825 MHz	-60.365	-51.767	-25.680

Note :

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature range as tested.

2.1.7 Unwanted Emissions

Test Location

- ☒ 10 m SAC (test distance : ☐ 10 m, ☒ 3 m)
☒ 3 m SAC (test distance : 3 m)

Test Procedures

- 1) In the frequency range of 9 kHz to 30 MHz, magnetic field is measured with Loop Antenna. The Test Antenna is positioned with its plane vertical at 1m distance from the EUT. The center of the Loop Test Antenna is 1m above the ground. During the measurement the Loop Test Antenna rotates about its vertical axis for maximum response at each azimuth about the EUT.
- 2) In the frequency range above 30 MHz, Bi-Log Test Antenna(30 MHz to 1 GHz) and Horn Test Antenna(above 1 GHz) are used. Test Antenna is 3m away from the EUT. Test Antenna height is carried from 1m to 4m above the ground to determine the maximum value of the field strength. The emissions levels at both horizontal and vertical polarizations should be tested.

Test Settings:

Frequency Range = 9 kHz ~ 40 GHz

- a) RBW = 1 MHz for $f \geq 1$ GHz, 120 kHz for $f < 1$ GHz, 9 kHz for $f < 30$ MHz
- b) VBW $\geq$ RBW
- c) Sweep time = auto

Limit

- 15.209(a)

Frequency(MHz)	Field Strength uV/m@3m	Field Strength dBuV/m@3m	Measurement Distance (meters)
0.009-0.490	2400/F(kHz)	-	300
0.490-1.705	24000/F(kHz)	-	30
1.705-30	30	-	30
30-88	100**	40	3
88-216	150**	43.5	3
216-960	200**	46	3
Above 960	500	54	3

** Except as provided in 15.209(g).fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72MHz, 76-88MHz, 174-216MHz, 470-806MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g.15.231 and 15.241.

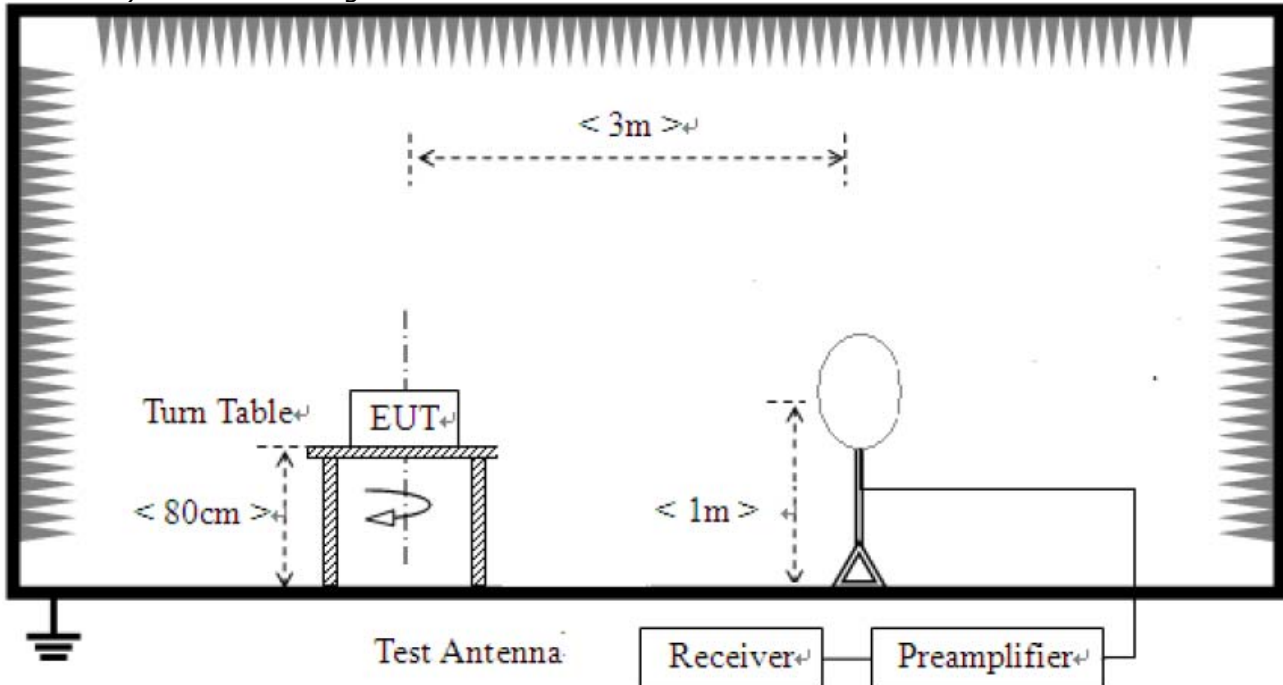
- 15.407, KDB 789033

E.I.R.P -27 dBm/MHz

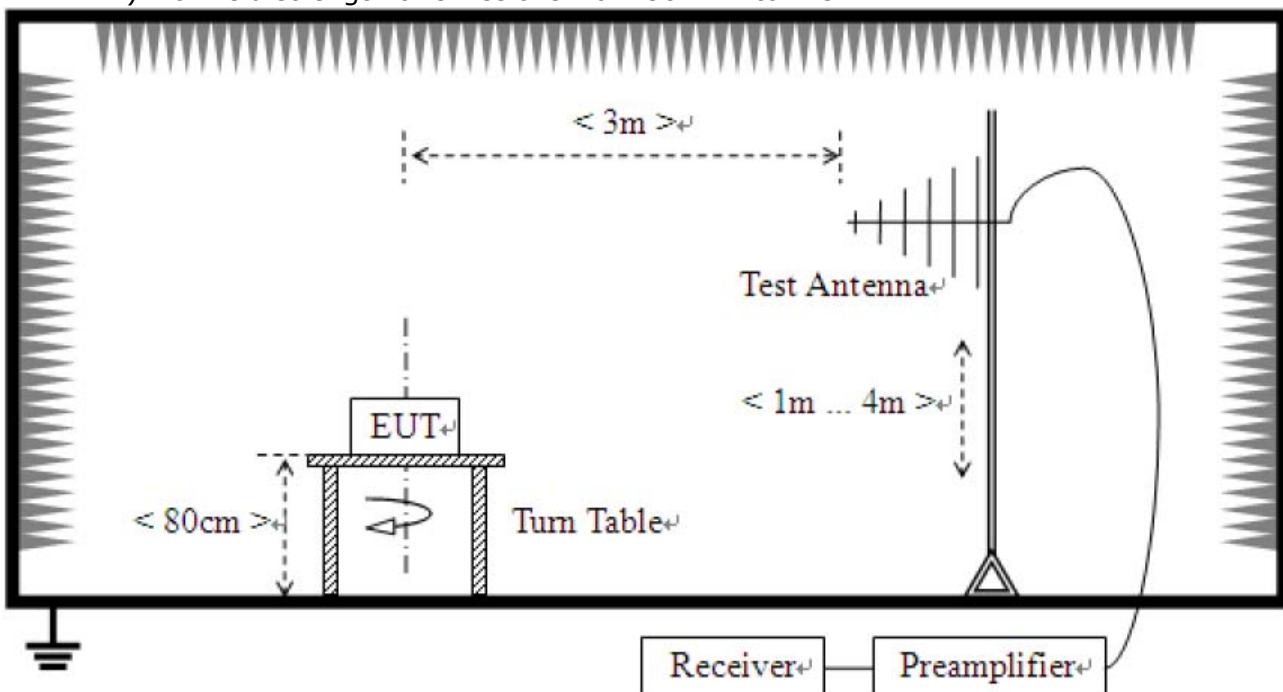
$E[\text{dBuV/m}] = \text{EIRP}[\text{dBm}] + 95.2$, for $d = 3\text{m}$

Test Setup:

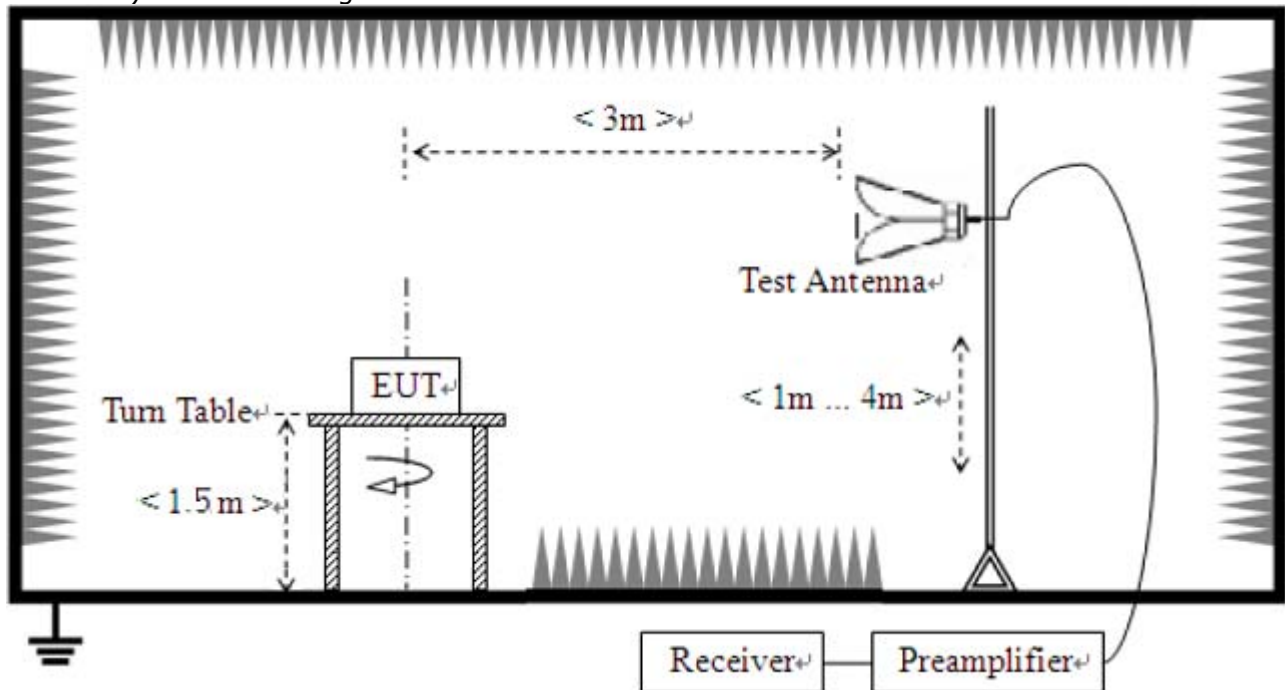
- 1) For field strength of emissions from 9 kHz to 30 MHz



- 2) For field strength of emissions from 30 MHz to 1 GHz



3) For field strength of emissions above 1 GHz



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Test Results

1) 9 kHz to 30 MHz

EUT	Pocket Theater	Measurement Detail	
Model	RTSB7000L	Frequency Range	9 kHz – 30 MHz
Test mode	802.11n_HT20	Detector function	Quasi-Peak

The requirements are:

☒ Complies

Frequency (MHz)	Measured Data (dBuV/m)	Margin (dB)	Remark
-	-	-	See note

Note :

The amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.

Distance extrapolation factor = $40 \log (\text{specific distance} / \text{test distance})$ (dB)

2) 30 MHz to 1 GHz

Test mode : 802.11n(Worst Case)

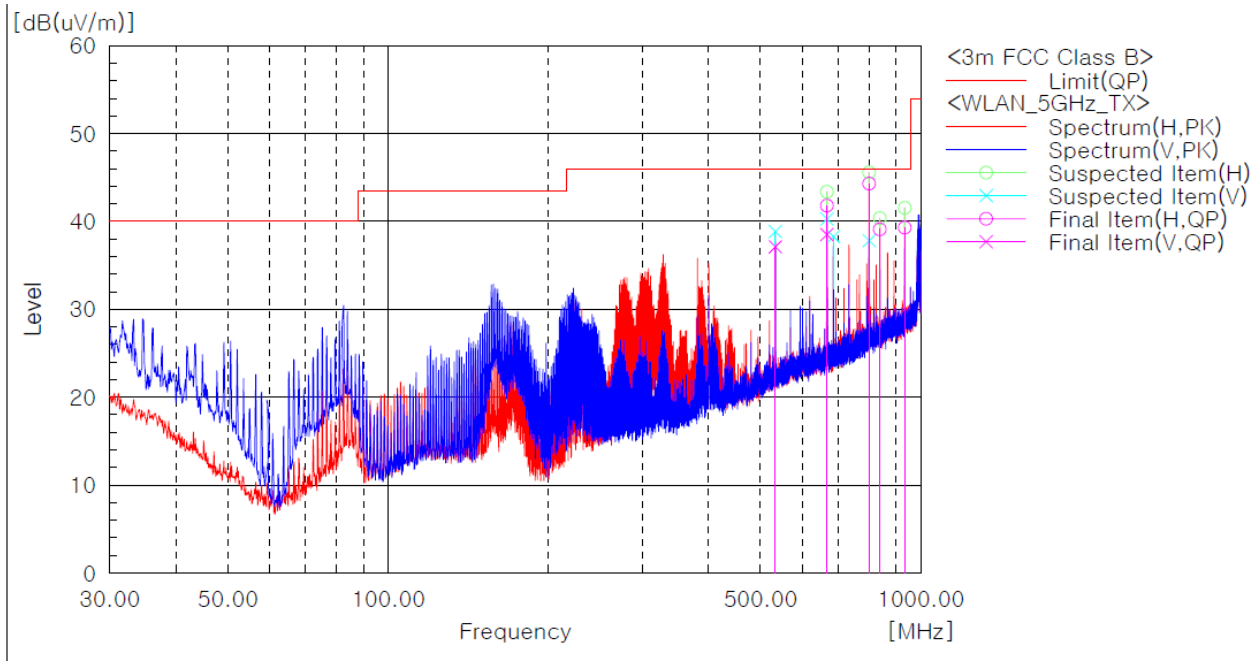
EUT	Pocket Theater	Measurement Detail	
Model	RTSB7000L	Frequency Range	Below 1000MHz
Configuration	802.11n	Detector function	Quasi-Peak

The requirements are:

☒ Complies

Frequency (MHz)	Measured Data (dBuV/m)	Margin (dB)	Remark
800.059	44.3	1.7	Quasi-peak

Test Data



Final Result

No.	Frequency [MHz]	(P)	Reading QP [dB(uV)]	c.f [dB(1/m)]	Result QP [dB(uV/m)]	Limit QP [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]
1	533.309	V	39.2	-2.1	37.1	46.0	8.9	101.0	143.0
2	666.684	H	41.9	-0.1	41.8	46.0	4.2	101.0	322.0
3	666.805	V	38.6	-0.1	38.5	46.0	7.5	101.0	357.0
4	800.059	H	41.7	2.6	44.3	46.0	1.7	199.0	0.0
5	838.131	H	35.7	3.4	39.1	46.0	6.9	101.0	34.0
6	933.434	H	33.9	5.4	39.3	46.0	6.7	101.0	0.0

Remark :

1. The field strength of spurious emission was measured in the following position: EUT and antenna stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in stand-up position(Z axis) and the worst case was recorded.

3) above 1 GHz

Test mode : 802.11n

EUT	Pocket Theater	Measurement Detail	
Model	RTSB7000L	Frequency Range	1-40GHz
Mode	802.11n	Detector function	Average / Peak

Remarks

We have tested three mode (X, Y, Z). The worst mode (Z axis) for final test.

The requirements are:

☒ Complies

Frequency (MHz)	Measured Data (dBuV/m)	Margin (dB)	Remark
1200.00	36.51	17.49	Average

Ch.36(5180 MHz)

Frequency [MHz]	(P)	Limit AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Level AV [dB(uV/m)]	Level PK [dB(uV/m)]	Margin AV [dB]	Margin PK [dB]
1200.00	H	54.00	74.00	36.08	52.42	17.92	21.58

Ch.40(5200 MHz)

Frequency [MHz]	(P)	Limit AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Level AV [dB(uV/m)]	Level PK [dB(uV/m)]	Margin AV [dB]	Margin PK [dB]
1200.00	H	54.00	74.00	35.12	50.74	18.88	23.26

Ch.48(5240 MHz)

Frequency [MHz]	(P)	Limit AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Level AV [dB(uV/m)]	Level PK [dB(uV/m)]	Margin AV [dB]	Margin PK [dB]
1200.00	H	54.00	74.00	35.98	49.72	18.02	24.28

Ch.149(5745 MHz)

Frequency [MHz]	(P)	Limit AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Level AV [dB(uV/m)]	Level PK [dB(uV/m)]	Margin AV [dB]	Margin PK [dB]
1200.00	H	54.00	74.00	36.51	51.48	17.49	22.52

Ch.157(5785 MHz)

Frequency [MHz]	(P)	Limit AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Level AV [dB(uV/m)]	Level PK [dB(uV/m)]	Margin AV [dB]	Margin PK [dB]
1200.00	H	54.00	74.00	35.04	50.61	18.96	23.39

Ch.165(5825 MHz)

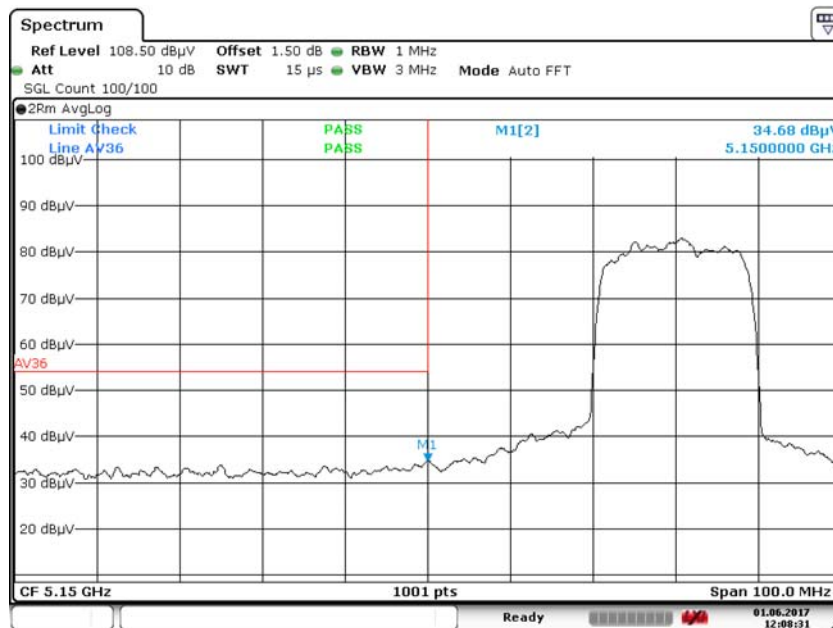
Frequency [MHz]	(P)	Limit AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Level AV [dB(uV/m)]	Level PK [dB(uV/m)]	Margin AV [dB]	Margin PK [dB]
1200.00	H	54.00	74.00	35.90	51.72	18.10	22.28

Restricted band edge test data

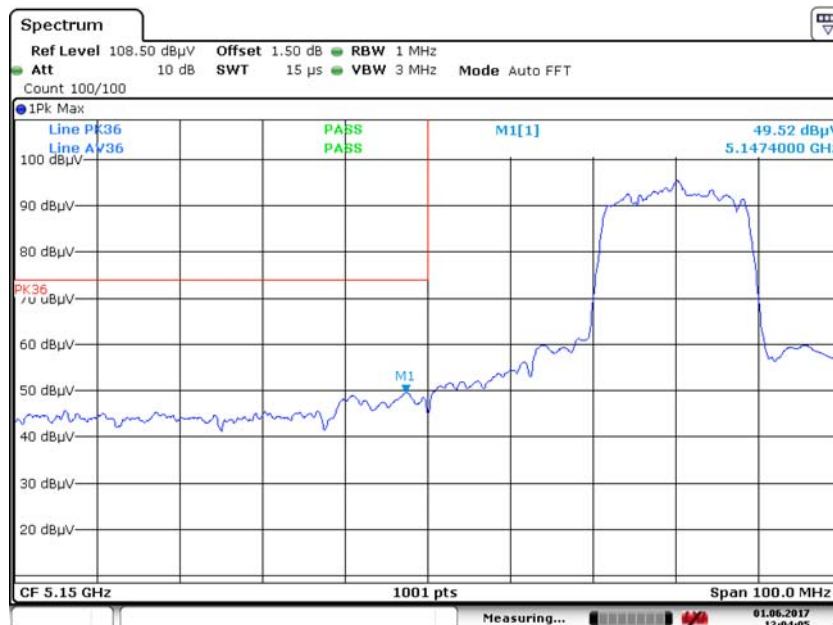
Measured frequency range : 4500-5150MHz, 5850-6250MHz

Frequency [MHz]	(P)	Limit AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Level AV [dB(uV/m)]	Level PK [dB(uV/m)]	Margin AV [dB]	Margin PK [dB]
5150.00	H	54.00	74.00	34.68	49.52	19.32	24.48
5150.00	V	54.00	74.00	36.19	53.53	17.81	20.47
5850.00	H	-	68.20	-	47.57	-	20.63
5850.00	V	-	68.20	-	47.45	-	20.75

Worst Case Mode :	802.11n
Worst Case Transfer Rate :	MCS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5180 MHz
Channel :	36

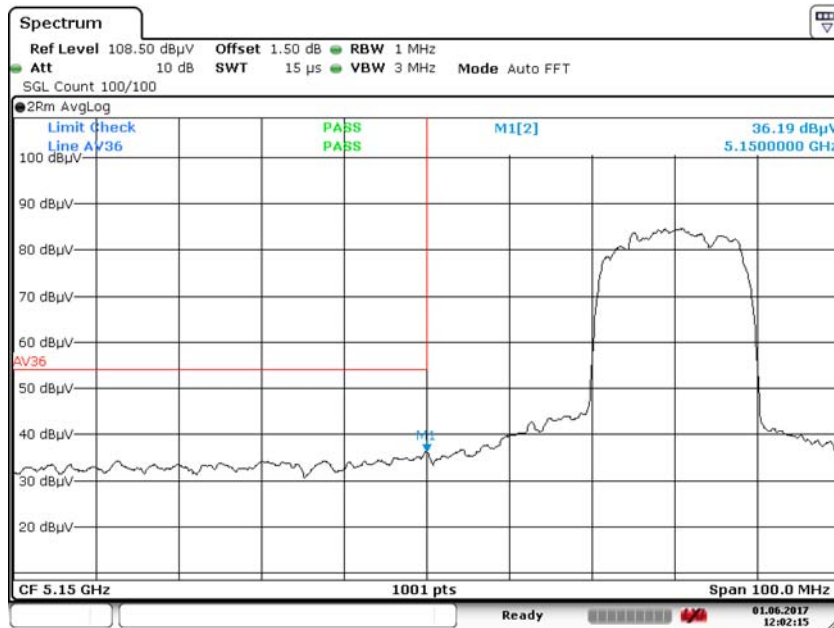


Radiated Restricted Lower Band Edge Plot_Average (Antenna-Horizontal)

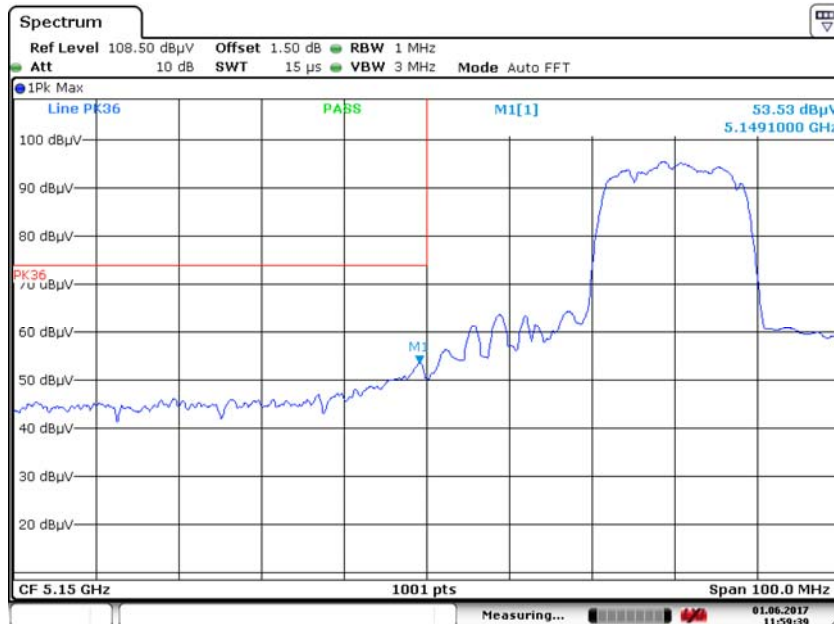


Radiated Restricted Lower Band Edge Plot_Peak (Antenna- Horizontal)

Worst Case Mode :	802.11n
Worst Case Transfer Rate :	MCS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5180 MHz
Channel :	36

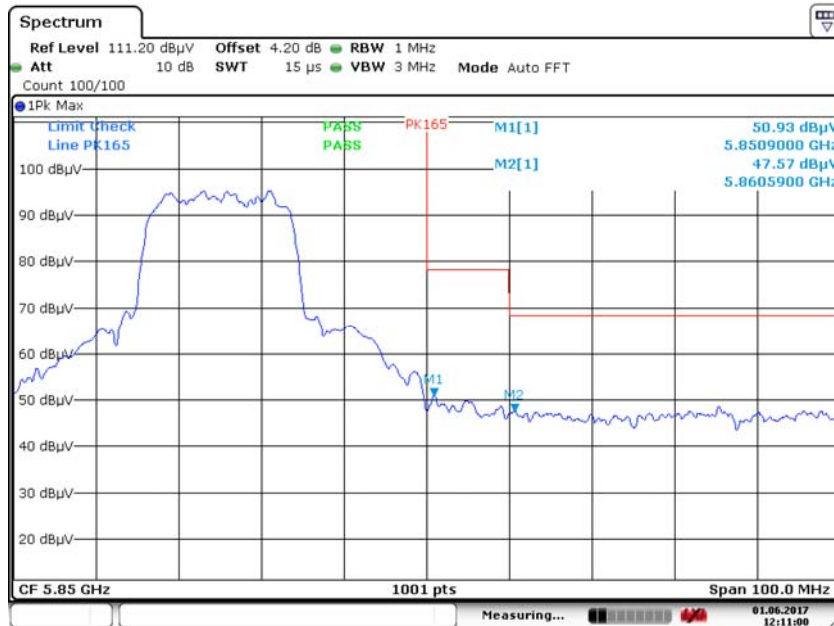


Radiated Restricted Lower Band Edge Plot_Average (Antenna- Vertical)

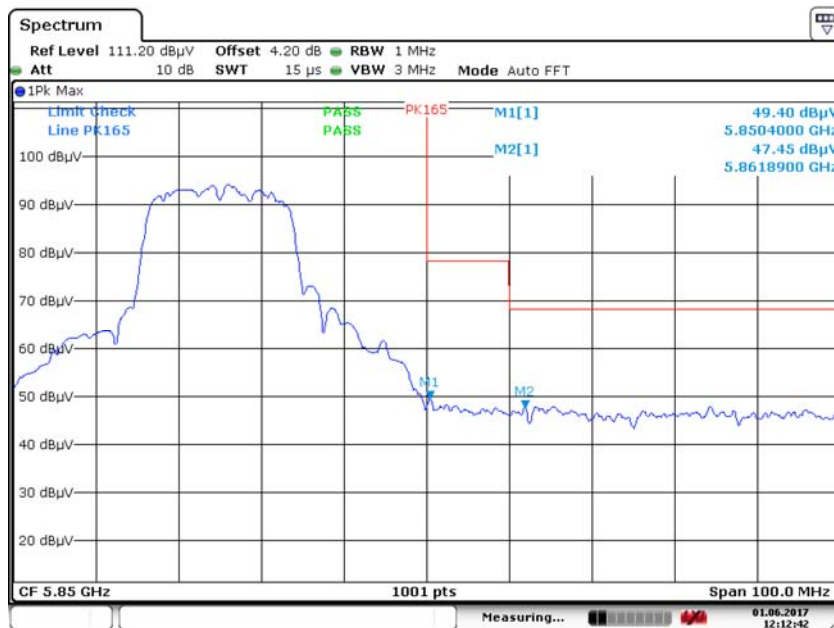


Radiated Restricted Lower Band Edge Plot_Peak (Antenna-Vertical)

Worst Case Mode :	802.11a
Worst Case Transfer Rate :	MCS 0
Distance of Measurements :	3 Meters
Operating Frequency :	5825 MHz
Channel :	165



Radiated Restricted Upper Band Edge Plot (Antenna-Horizontal)



Radiated Restricted Upper Band Edge Plot (Antenna-Vertical)

2.1.8 AC Conducted Emissions

Test Location
 Shielded Room

Frequency Range of Measurement
 150 kHz to 30 MHz

Instrument Settings
 IF Band Width: 9 kHz

Test Procedures

The EUT was placed on a non-metallic table 0.8m above the metallic, grounded floor and 0.4m from the reference ground plane wall. The distance to other metallic surfaces was at least 0.8m.
 Amplitude measurements were performed with a quasi-peak detector and an average detector.

Limit

- 15.207(a)

Frequency (MHz)	Conducted Limit (dBuV)	
	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.

Test Results
 The requirements are:

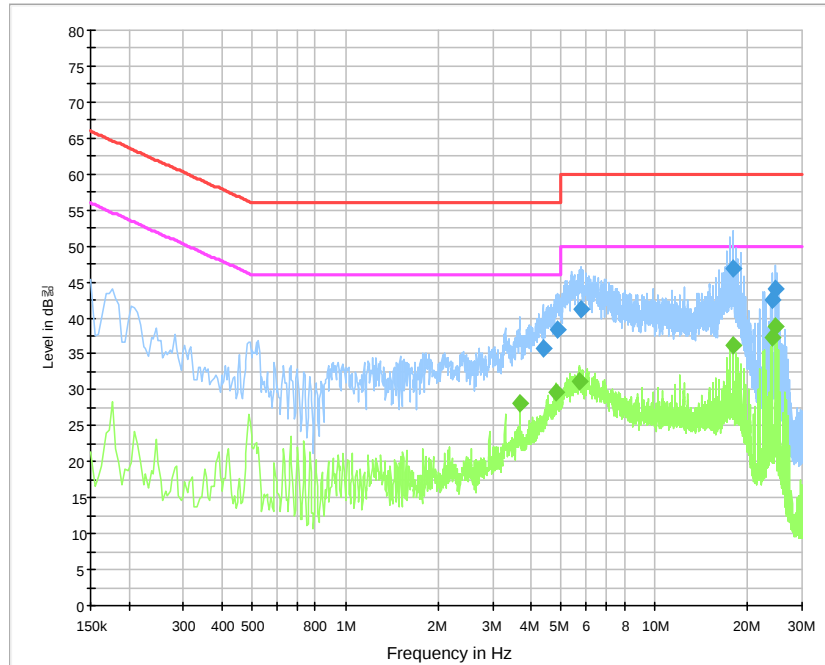
☒ Complies

Frequency (MHz)	Measured Data (dBuV/m)	Margin (dB)	Remark
24.513 000	38.9	11.1	Average

Test Data

[LINE]

Class B_L1



Final Result 1

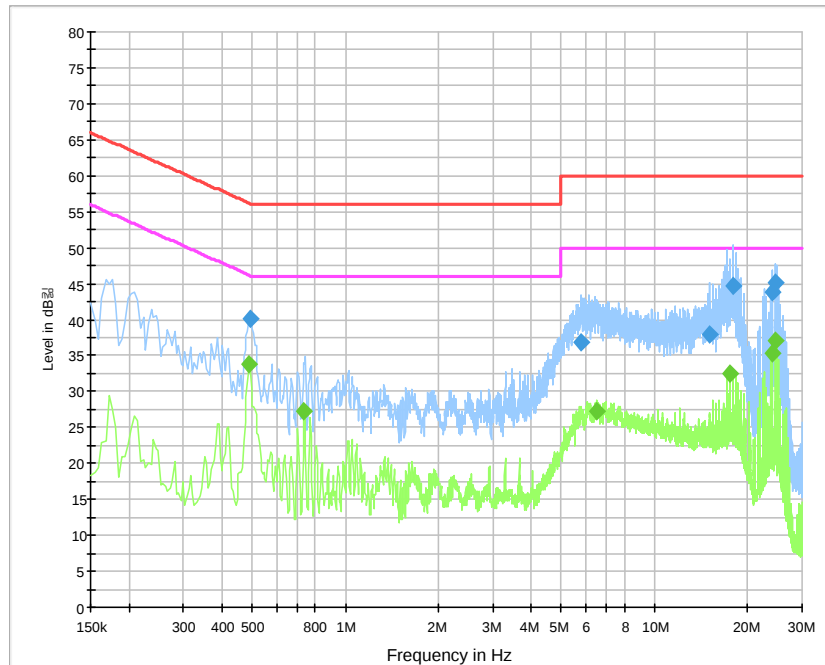
Frequency (MHz)	QuasiPeak (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
4.348500	35.8	1000.0	9.000	On	L1	9.8	20.2	56.0
4.884000	38.4	1000.0	9.000	On	L1	9.8	17.6	56.0
5.797500	41.2	1000.0	9.000	On	L1	9.8	18.8	60.0
17.925000	46.9	1000.0	9.000	On	L1	9.9	13.1	60.0
24.148500	42.5	1000.0	9.000	On	L1	10.0	17.5	60.0
24.513000	44.1	1000.0	9.000	On	L1	10.0	15.9	60.0

Final Result 2

Frequency (MHz)	CAverage (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
3.655500	28.2	1000.0	9.000	On	L1	9.8	17.8	46.0
4.825500	29.7	1000.0	9.000	On	L1	9.8	16.3	46.0
5.734500	31.2	1000.0	9.000	On	L1	9.8	18.8	50.0
17.929500	36.2	1000.0	9.000	On	L1	9.9	13.8	50.0
24.153000	37.4	1000.0	9.000	On	L1	10.0	12.6	50.0
24.513000	38.9	1000.0	9.000	On	L1	10.0	11.1	50.0

[NEUTRAL]

Class B_N



Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.492000	40.0	1000.0	9.000	On	N	9.9	16.1	56.1
5.802000	36.9	1000.0	9.000	On	N	9.8	23.1	60.0
15.000000	38.0	1000.0	9.000	On	N	10.0	22.0	60.0
17.934000	44.7	1000.0	9.000	On	N	10.0	15.3	60.0
24.148500	43.8	1000.0	9.000	On	N	10.1	16.2	60.0
24.513000	45.1	1000.0	9.000	On	N	10.1	14.9	60.0

Final Result 2

Frequency (MHz)	CAverage (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.487500	33.8	1000.0	9.000	On	N	9.9	12.4	46.2
0.735000	27.3	1000.0	9.000	On	N	9.8	18.7	46.0
6.504000	27.2	1000.0	9.000	On	N	9.8	22.8	50.0
17.560500	32.6	1000.0	9.000	On	N	10.0	17.4	50.0
24.153000	35.3	1000.0	9.000	On	N	10.1	14.7	50.0
24.513000	37.1	1000.0	9.000	On	N	10.1	12.9	50.0

APPENDIX A – Test Equipment Used For Tests

	Name of Equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	Signal Analyzer	Rohde & Schwarz	FSV30	100925	2017-02-02	2018-02-02
2	Signal Generator	Rohde & Schwarz	SMB100A	175528	2016-11-01	2017-11-01
3	EMI Test Receiver	Rohde & Schwarz	ESCI7	100814	2016-11-01	2017-11-01
4	Bilog Antenna	Schaffner	CBL6111C	2551	2016-05-13	2018-05-13
5	Active Loop Antenna	SCHWARZBECK	FMZB 1513	1513-126	2016-05-25	2018-05-25
6	6dB Attenuator	R&S	DNF	272.4110.50-2	2016-11-01	2017-11-01
7	6dB Attenuator	R&S	DNF	272.4110.50-1	2017-02-03	2018-02-03
8	AMPLIFIER	SONOMA	310	291721	2017-02-02	2018-02-02
9	EMI Test Receiver	Rohde & Schwarz	ESU40	100336	2017-05-12	2018-05-12
10	LISN	Rohde & Schwarz	ENV216	101760	2017-02-03	2018-02-03
11	Preamplifier	Agilent	8449B	3008A02011	2016-12-01	2017-12-01
12	Horn Antenna	ETS-Lindgren	3115	00078894	2015-09-02	2017-09-02
13	Horn Antenna	ETS-Lindgren	3116	00062504	2015-09-04	2017-09-04
14	Horn Antenna	ETS-Lindgren	3117	00154525	2015-09-02	2017-09-02
15	Band Reject Filter	Micro Tronics	BRM50702	G233	2017-02-03	2018-02-03
16	Band Reject Filter	Micro Tronics	BRM50716	G184	2017-02-03	2018-02-03
17	Temp&Humi Chamber	ESPEC CORP.	SH-241	92000872	2017-02-02	2018-02-02