



시험 성적서

TEST REPORT

페이지(page) : (1) / (총(Total) 38)

성적서 번호 Report No.		ICRT-TR-E230926-0A	
신청자 Client	기관명 Name	POSBANK Co.,LTD.	
	주 소 Address	ROOM 805-808, NEW T CASTLE B/D, 108, Gasan digital 2-ro, Geumcheon-gu, Seoul, Republic of Korea	
시험대상품목 Sample description		POS SYSTEM	
모델명 Type designation		ACT 1560	
정 격 Ratings		DC 12 V	
시험장소 Place of test		☒ 고정시험(Inside test) ☐ 현장시험(Field test) 주소지(Address): 112, 113 Hwanggeum 3-ro 7beon-gil, Hagun-ri, Yangchon-eup, Gimpo-si, Gyeonggi-do, Korea	
시험기간 Date of test		06. Apr. 2023 ~ 25. Apr. 2023	
시험방법/항목 Test Method/Item		FCC Part 15 Subpart E §15.407	
시험결과 Test Results		Refer to 3. Test Summary	
확 인 Affirmation	작성자 Tested by	기술책임자 Technical Manager	
	성 명 Name Eun-Hye, Gwak (Signature)	성 명 Name Tae-Yang, Yoon (Signature)	
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2023. 04. 25 주식회사 아이씨알 대표이사 The head of INTERNATIONAL CERTIFICATION REGISTRAR			

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Revision History

Issued Report No.	Issued Date	Revisions	Effect Section
ICRT-TR-E230926-0A	2023.04.25	Initial Issue	All



1. Applicant & Manufacturer & Test Laboratory Information

1.1 Applicant information

Applicant	POSBANK CO.,LTD
Address	ROOM 805-808, NEW T CASTLE B/D, 108, Gasan digital 2-ro, Geumcheon-gu, Seoul, Republic of Korea
Contact Person	Sungho Jang
Telephone No.	+82-10-7383-3797
Fax No.	-
E-mail	insa@posbank.com

1.2 Manufacturer Information

Manufacturer	POSBANK CO.,LTD
Address	ROOM 805-808, NEW T CASTLE B/D, 108, Gasan digital 2-ro, Geumcheon-gu, Seoul, Republic of Korea

1.3 Test Laboratory Information

Conducted tests were performed at	
Laboratory	ICR Co., Ltd.
Address	112, Hwanggeum 3-ro 7beon-gil, Hagun-ri, Yangchon-eup, Gimpo-si, Gyeonggi-do, Korea
Telephone No.	+82-2-6351-9002
Fax No.	+82-2-6351-9007
RRA No.	KR0165
KOLAS No.	KT652



2. Equipment under Test(EUT) Information

2.1 General Information

Product Name	POS SYSTEM
Brand Name	-
Model Name	ACT 1560
Additional Model Name	ACT A-1560, ACT-1560
FCC ID	2BASH-ACT1560
Power Supply	DC 12 V

2.2 Additional Information

Equipment Class	NII – National Information Infrastructure	
Device Type	Stand-alone	
Operating Frequency	5 180 MHz ~ 5 240 MHz / 5 745 MHz ~ 5 825 MHz	
RF Output Power	802.11n(HT20)	14.04 dBm
	802.11n(HT40)	14.02 dBm
Number of Channel	802.11n(HT20)	9
	802.11n(HT40)	4
Modulation Type	OFDM	
Antenna Type	Dipole Antenna	
Antenna Gain	2.61 dBi	
Antenna Operating Mode	Single Antenna Equipment with only one antenna	

2.3 Mode of operation during the test

- The EUT is continuous transmission mode during the test with set to each of the Low Channel, Middle Channel, and High Channel at the worst case data rate. The worst case data rate for each modulation is determined 6.5 Mbps for HT20, 65 Mbps for HT40.

2.4 Modifications of EUT

- None

2.5 Reason of Additional Model Name

- Same electrical specifications, structure and circuit as the basic model.



2.6 Frequency/Channel Operations

- This device contains the following capabilities:
- 5 GHz WIFI: WLAN 802.11n(HT20/HT40)

802.11n(HT20)			
UNII-1		UNII-3	
Ch	Frequency(MHz)	Ch	Frequency(MHz)
36	5 180	149	5 745
44	5 220	157	5 785
48	5 240	165	5 825

802.11n(HT40)			
UNII-1		UNII-3	
Ch	Frequency(MHz)	Ch	Frequency(MHz)
38	5 190	151	5 755
46	5 230	159	5 795



3. Test Summary

3.1 Test standards and results

FCC Part 15 Subpart C			
Clause	Test items	Applied	Results
§15.407(a)	Maximum conducted output power	☒	PASS
§15.407(a)	Maximum power spectral density	☒	PASS
§15.407(a)	26 dB bandwidth	☒	PASS
§15.407(e)	6 dB bandwidth	☒	PASS
15.407(d),15.205(a), 15.209(a)	Radiated Spurious Emission	☒	PASS(Note1)
§15.207	Power Line Conducted Emission	☒	PASS
§15.203	Antenna Requirement	☒	PASS

- Note1: 30M ~ 1GHz data of Radiated Emissions data is the worst case data.

3.2 Purpose of the test

- To determine whether the equipment under test fulfills the requirements of the standards stated in FCC Part 15 Subpart E Section 15.407.

3.3 Test Methodology

Both conducted and radiated testing was performed according to the procedures in ANSI C63.10: 2013.

Radiated testing was performed at a distance of 3 m from EUT to the antenna.

3.4 Configuration of Test System

3.4.1 Radiated emission test

Preliminary radiated emissions test were conducted using the procedure in ANSI C63.10: 2013 to determine the worse operating conditions. Final radiated emission tests were conducted at 3 m Semi Anechoic Chamber. The turntable was rotated through 360 degrees and the EUT was tested by positioned three orthogonal planes to obtain the highest reading on the field strength meter. Once maximum reading was determined, the search antenna was raised and lowered in both vertical and horizontal polarization.



3.4.2 AC power line conducted emission test

The EUT was connected to LISN. All supporting equipment were connected to another LISN. Preliminary Power line Conducted Emission test was performed by using the procedure in ANSI C63.10: 2013 to determine the worse operating conditions.

3.5 Antenna requirement

According to §15.203, 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 shall be considered sufficient to comply with the provisions of this Section.

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.

And according to §15.247(b)(4), 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.

3.5.1 Result: Pass

The transmitter has a **Dipole Antenna**. The directional gain of the antenna is **2.61 dBi**.



4. Used equipment on test

	Description	Model Name	Manufacturer	Serial Number	Next Cal. (cycle)
☒	SIGNAL GENERATOR	SMB100A	R&S	180607	2024-03-02
☒	SPECTRUM ANALYZER	FSV40-N	R&S	101303	2024-03-03
☒	HIGH PASS FILTER	WT-A1699-HS	WT MICROWAVE	WT171201-6-5	2024-03-02
☒	DC POWER SUPPLY	XDL 35-5P	SORENSEN	J00385373	2024-03-03
☒	ATTENUATOR	PFA40K2-10	PSATEK	-	2024-03-07
☒	LOOP ANTENNA	HFH2-Z2	R&S	100271	2025-03-08
☒	BI-Log ANTENNA	VULB9162	SCHWARZBECK	120	2024-12-26
☒	SIGNAL CONDITIONING UNIT	SCU08	R&S	100746	2024-04-03
☒	EMI TEST RECEIVER	ESR26	R&S	101461	2024-04-04
☒	DOUBLE RIDGED HORN ANTENNA	HF907	R&S	102556	2023-08-22
☒	SIGNAL CONDITIONING UNIT	SCU18	R&S	102342	2024-04-03
☒	EMI TEST RECEIVER	ESR26	R&S	101462	2024-04-04
☒	HORN ANTENNA	LB-42-10-C-KF	A-INFOMW	J202024625	2024-03-07
☒	HORN ANTENNA	LB-28-10-C-KF	A-INFOMW	J202024626	2024-03-07
☒	RF PRE AMPLIFIER	AMF-4D-260400-45-6P	MITEQ	779918	2024-03-07
☒	PREAMPLIFIER	AMF-4F-18265-35-8P-1	MITEQ	771846	2024-03-07
☒	TWO LINE V-NETWORK	ENV216	R&S	102193	2024-04-03
☒	EMI TEST RECEIVER	ESR3	R&S	102119	2024-04-04

※ All test equipment used is calibration on a regular basis.



5. Duty Cycle

5.1 Operating environment

Temperature : 23.8 °C
Relative humidity : 46.7 %

5.2 Measurement method

Standard : -

5.3 Test Procedure

- KDB 789033(B)

Spectrum Analyzer

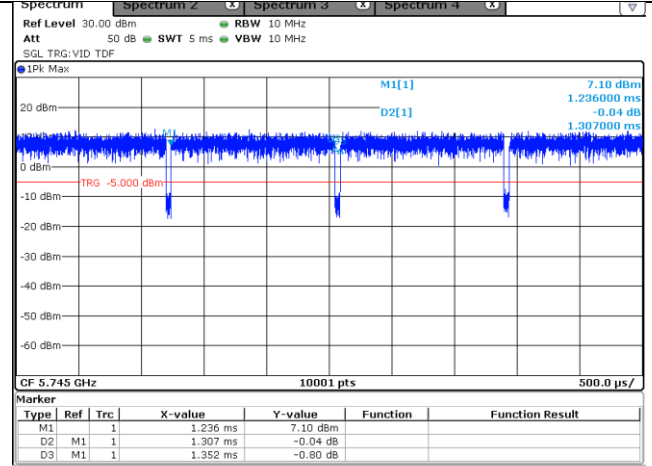
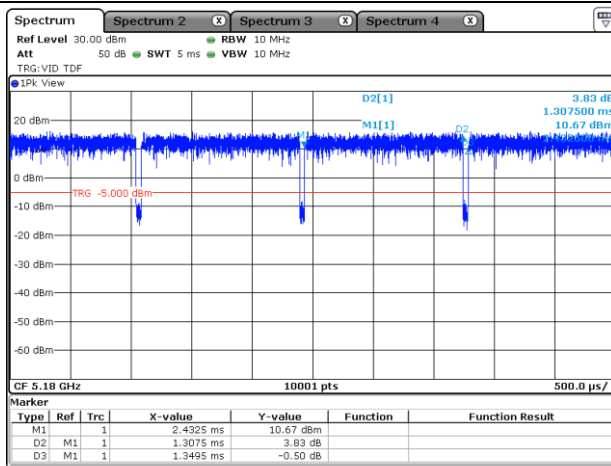
EUT

5.3.1 Measured Results for 802.11n

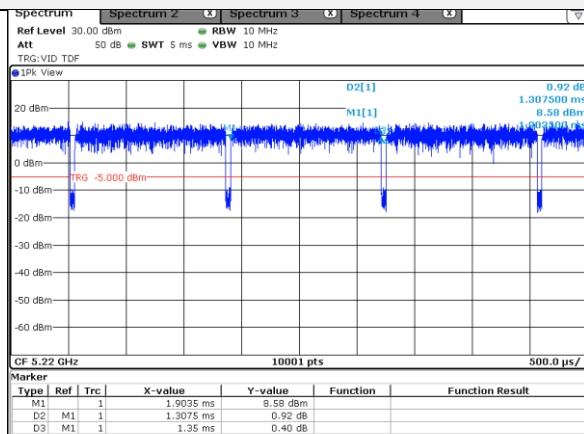
Modulation Type	Band	Frequency (MHz)	On time (ms)	Period (ms)	Duty Cycle (%)
802.11n(HT20)	UNII 1	5 180	1.3075	1.3495	96.89
		5 220	1.3075	1.3500	96.85
		5 240	1.3035	1.3505	96.52
	UNII 3	5 745	1.3070	1.3520	96.67
		5 785	1.3055	1.3480	96.85
		5 825	1.3075	1.3495	96.89
802.11n(HT40)	UNII 1	5 190	0.6478	0.6900	93.88
		5 230	0.6475	0.6898	93.87
	UNII 3	5 755	0.6478	0.6893	93.98
		5 795	0.6475	0.6895	93.91



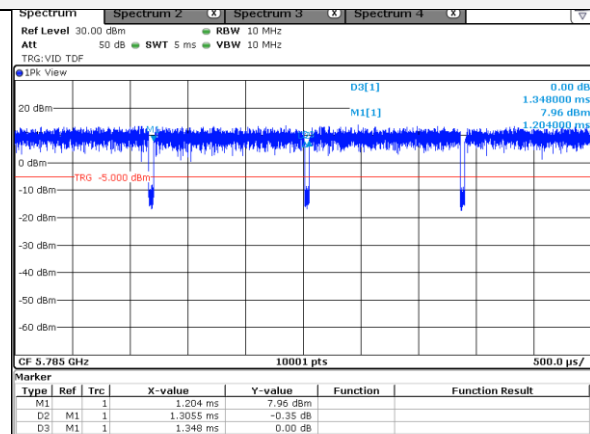
5.3.1.1 Measured Graph for 802.11n20/40 Test Data



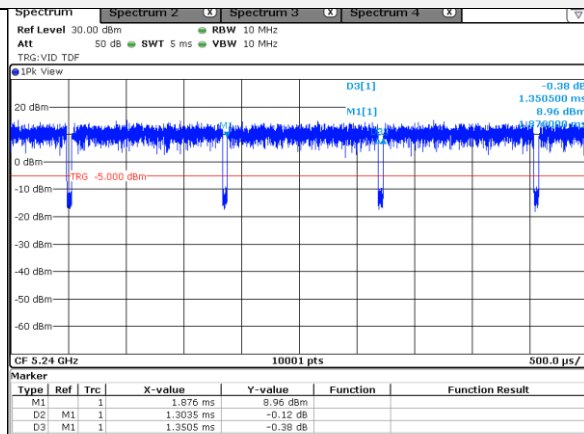
UNII-1 / 802.11n20 / 5 180 MHz



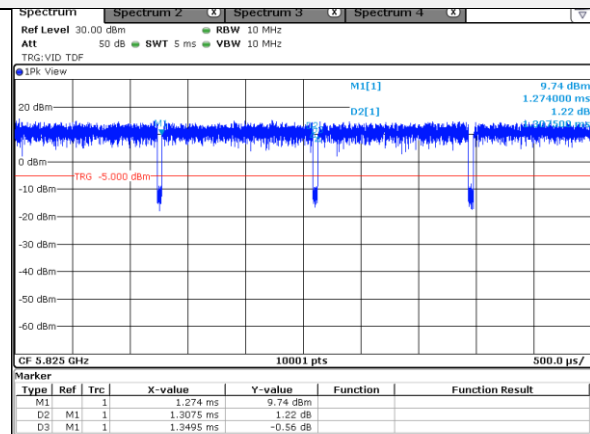
UNII-3 / 802.11n20 / 5 745 MHz



UNII-1 / 802.11n20 / 5 220 MHz

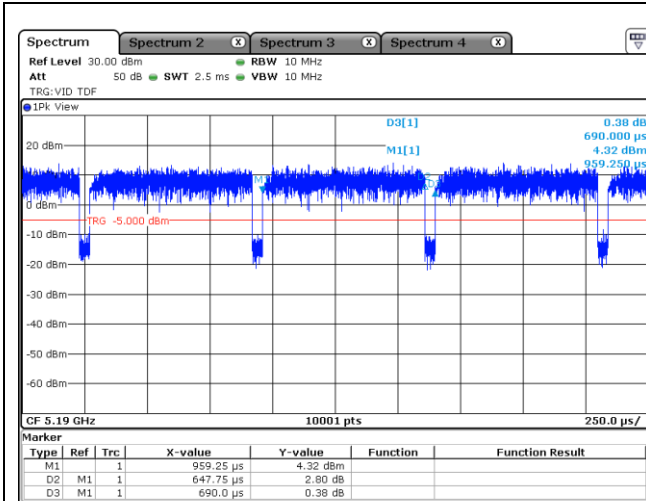


UNII-3 / 802.11n20 / 5 785 MHz

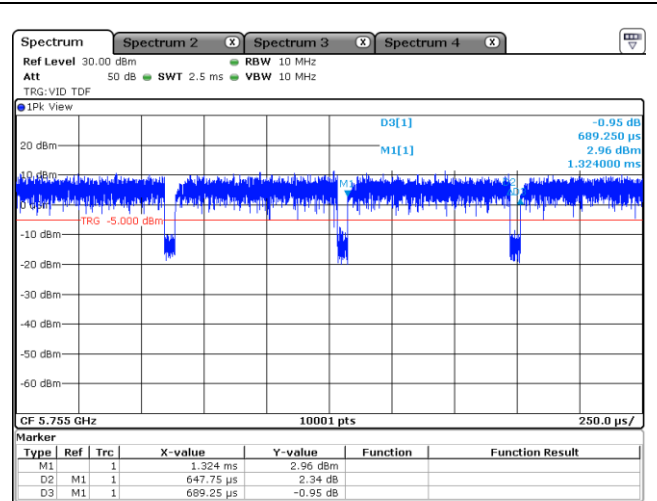


UNII-1 / 802.11n20 / 5 240 MHz

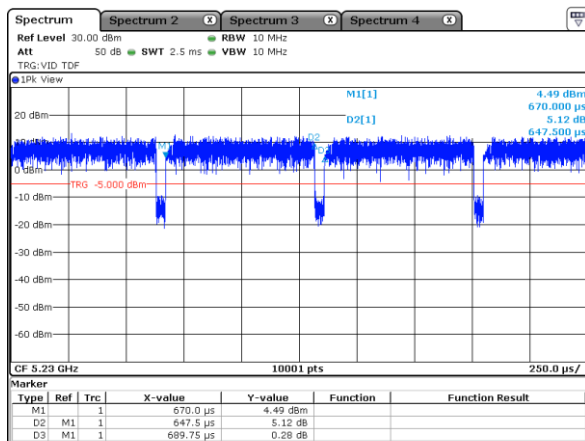
UNII-3 / 802.11n20 / 5 825 MHz



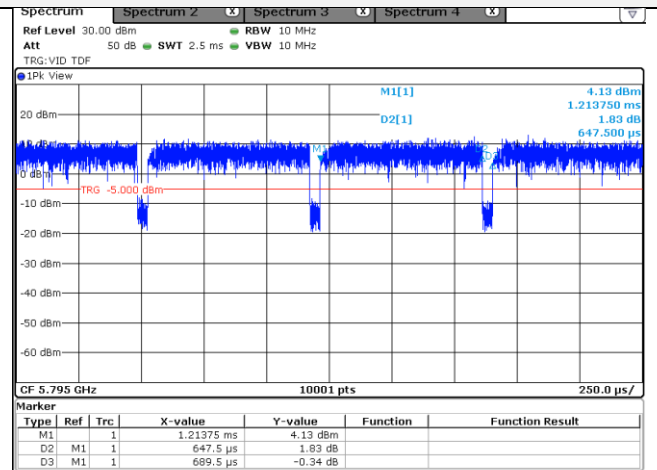
UNII-1 / 802.11n40 / 5 190 MHz



UNII-3 / 802.11n40 / 5 755 MHz



UNII-1 / 802.11n40 / 5 230 MHz



UNII-3 / 802.11n40 / 5 795 MHz



6. Maximum conducted output power

6.1 Operating environment

Temperature : 23.8 °C

Relative humidity : 46.7 %

6.2 Measurement method

Standard : §15.407(a)

6.3 Test Procedure

- ANSI C63.10-2013-Section 12.3.3.2
- KDB 789033 D02 v02r01 - Section E.2.d) or e)

Spectrum Analyzer

EUT

6.3.1 Measured Results for 802.11n

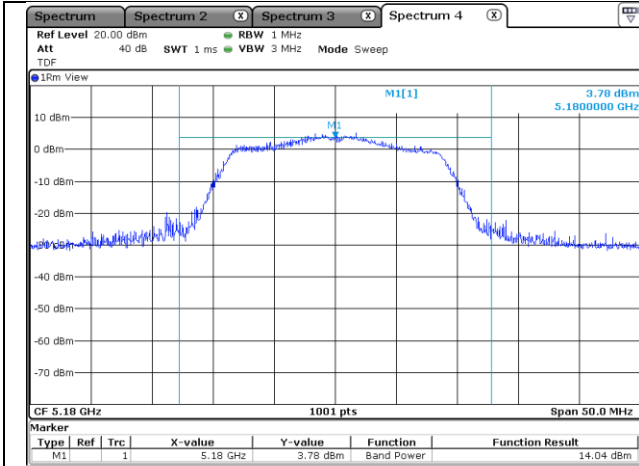
Modulation Type	Band	Frequency (MHz)	Reading Value (dBm)	DCCF (dB)	Result (dBm)	Limit (dBm)
802.11n(HT20)	UNII 1	5 180	14.04	0.14	14.18	23.98
		5 220	13.56	0.14	13.70	
		5 240	13.26	0.15	13.41	
	UNII 3	5 745	11.00	0.15	11.15	30.00
		5 785	12.44	0.14	12.58	
		5 825	13.51	0.14	13.65	
802.11n(HT40)	UNII 1	5 190	14.02	0.27	14.29	23.98
		5 230	12.73	0.27	13.00	
	UNII 3	5 755	11.29	0.27	11.56	30.00
		5 795	12.65	0.27	12.92	

**Result(dBm) = Reading (dBm) + DCCF (dB)

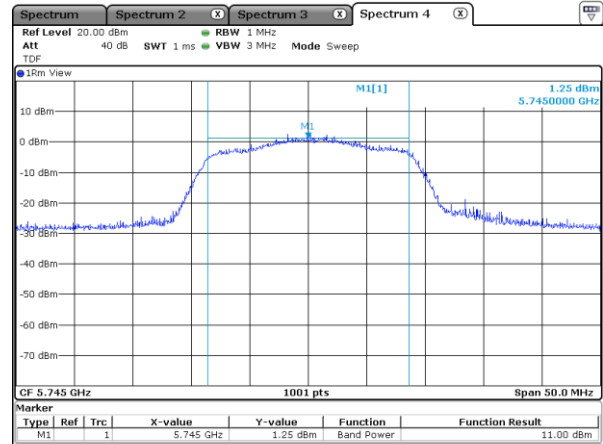
**DCCF (dB) = 10log(1/Duty Cycle)



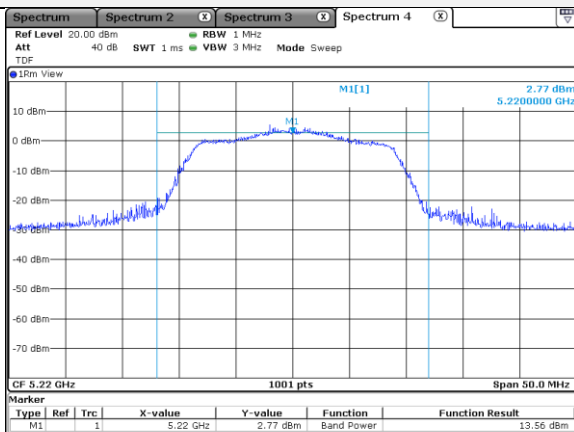
6.3.1.1 Measured Graph for 802.11n Test Data



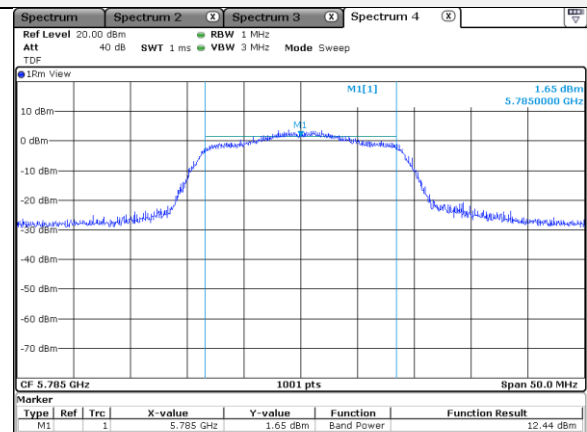
UNII-1 / 802.11n20 / 5 180 MHz



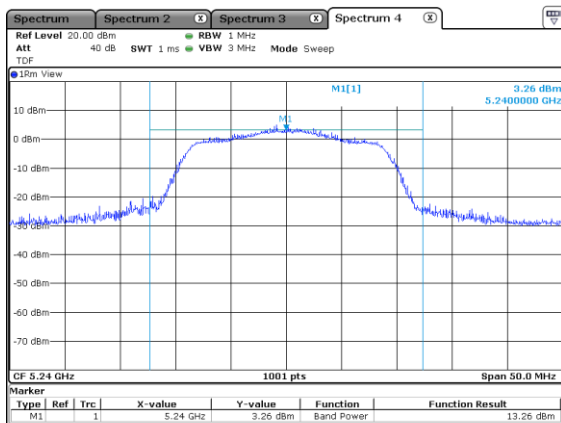
UNII-3 / 802.11n20 / 5 745 MHz



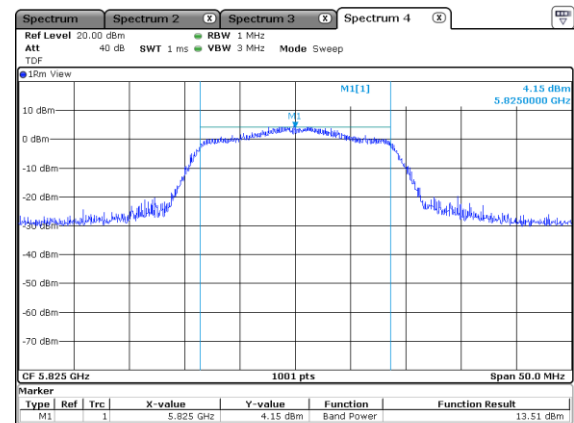
UNII-1 / 802.11n20 / 5 220 MHz



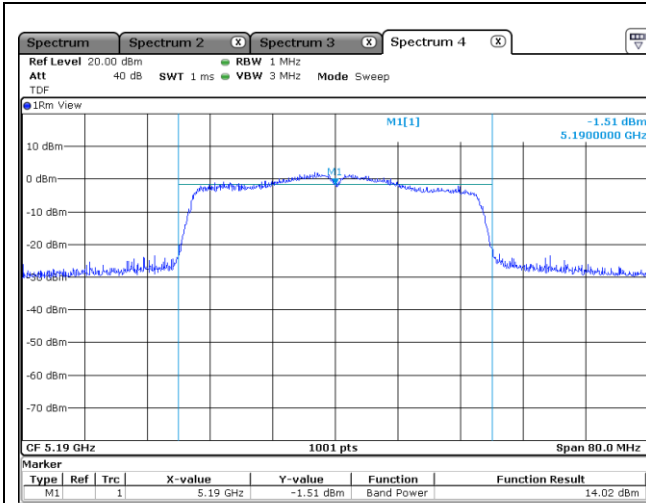
UNII-3 / 802.11n20 / 5 785 MHz



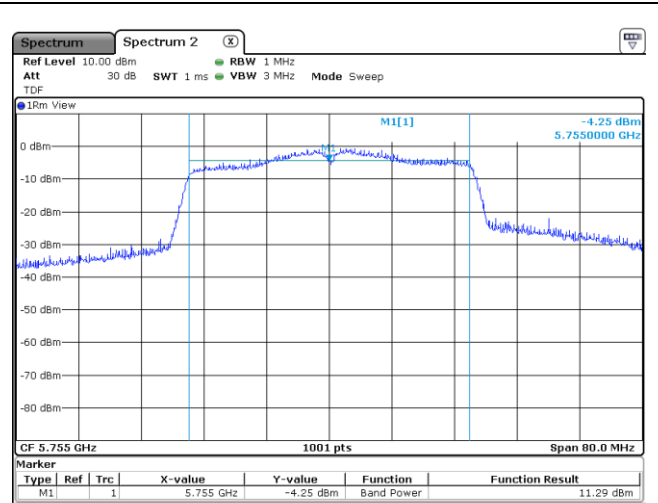
UNII-1 / 802.11n20 / 5 240 MHz



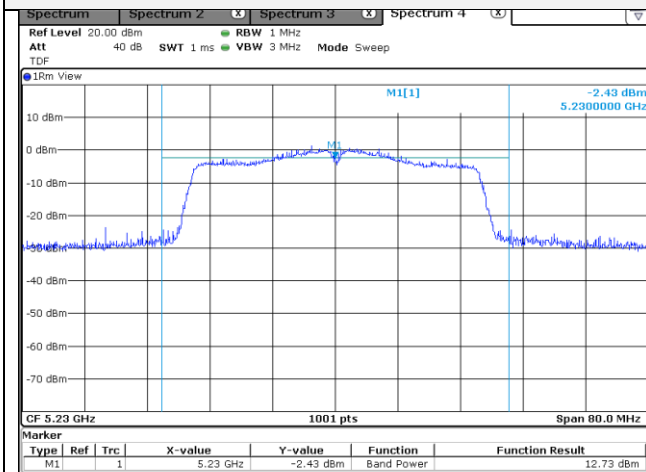
UNII-3 / 802.11n20 / 5 825 MHz



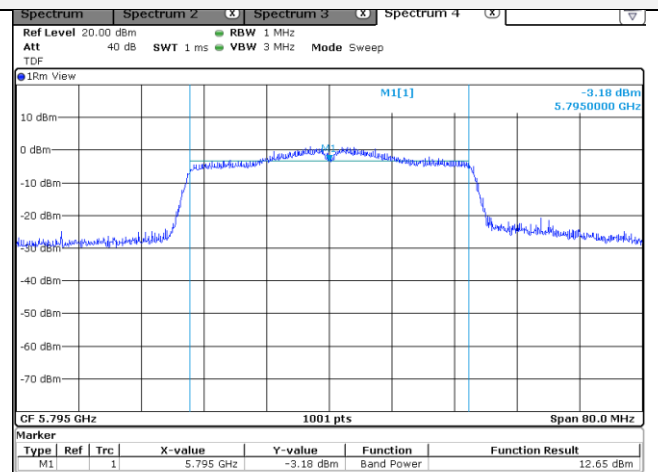
UNII-1 / 802.11n40 / 5 190 MHz



UNII-3 / 802.11n40 / 5 755 MHz



UNII-1 / 802.11n40 / 5 230 MHz



UNII-3 / 802.11n40 / 5 795 MHz



7. Maximum Power Spectral Density

7.1 Operating environment

Temperature : 23.8 °C

Relative humidity : 46.7 %

7.2 Measurement method

Standard : §15.407(a)

7.3 Test Procedure

- KDB 789033 D02 v02r01 - Section F
- KDB 662911 D01 v02r01 - Section E). 2)
- ANSI C63.10-2013

Spectrum Analyzer

EUT

7.3.1 Measured Results for 802.11n

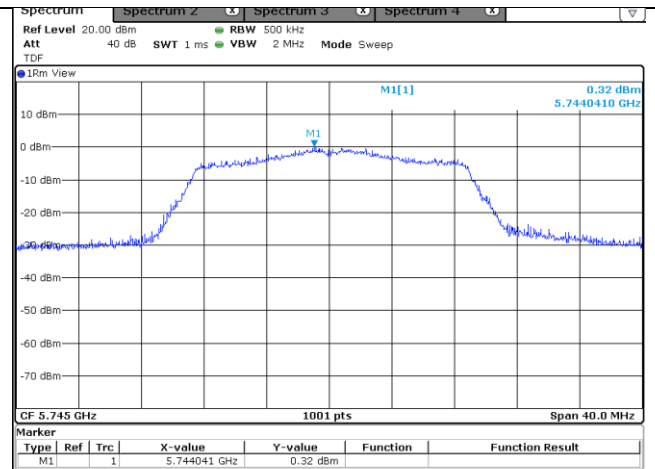
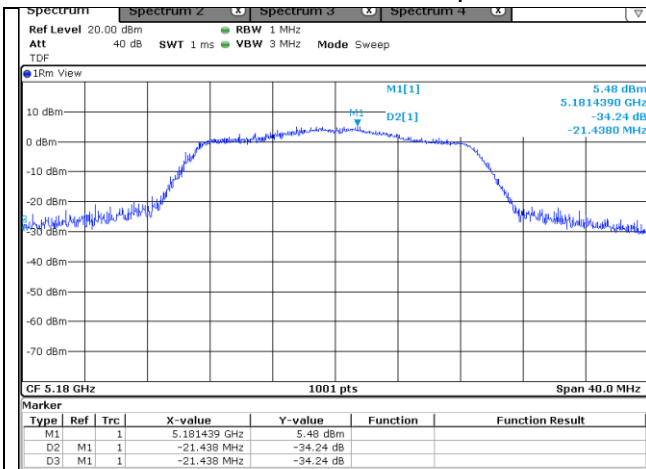
Modulation Type	Band	Frequency (MHz)	Reading Value (dBm)	DCCF (dB)	Result (dBm)	Limit (dBm)
802.11n(HT20)	UNII 1	5 180	5.48	0.14	5.62	11.00
		5 220	4.60	0.14	4.74	
		5 240	3.92	0.15	4.07	
	UNII 3	5 745	0.32	0.15	0.47	30.00
		5 785	1.36	0.14	1.50	
		5 825	2.81	0.14	2.95	
802.11n(HT40)	UNII 1	5 190	1.72	0.27	1.99	11.00
		5 230	0.82	0.27	1.09	
	UNII 3	5 755	-2.85	0.27	-2.58	30.00
		5 795	-0.82	0.27	-0.55	

**Result(dBm) = Reading (dBm) + DCCF (dB)

**DCCF (dB) = 10log(1/Duty Cycle)

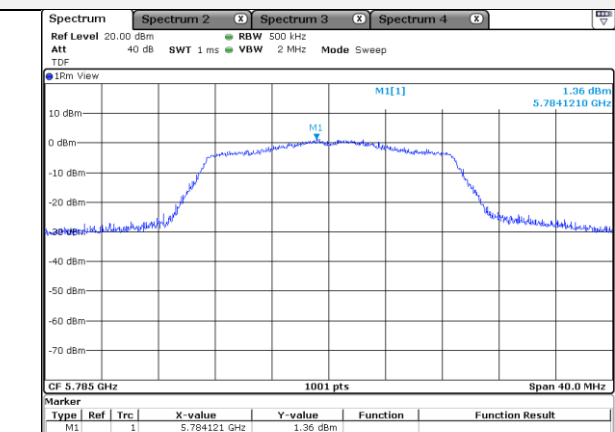
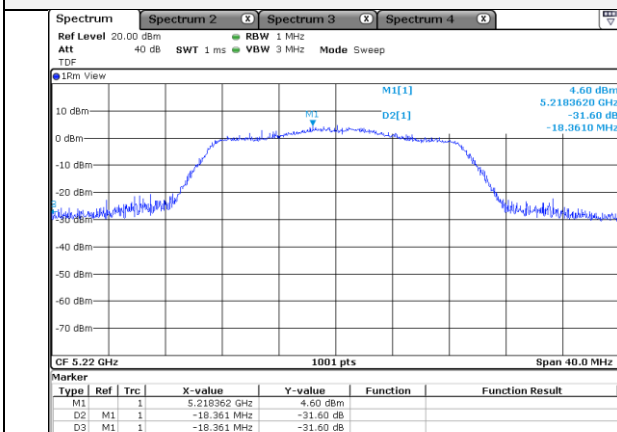


7.3.1.1 Measured Graph for 802.11a Test Data



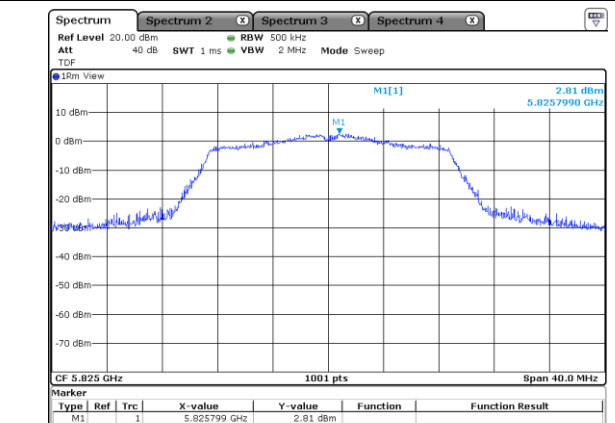
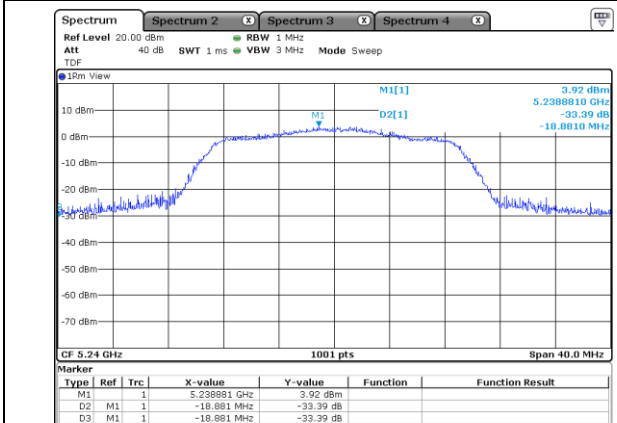
UNII-1 / 802.11n20 / 5 180 MHz

UNII-3 / 802.11n20 / 5 745 MHz



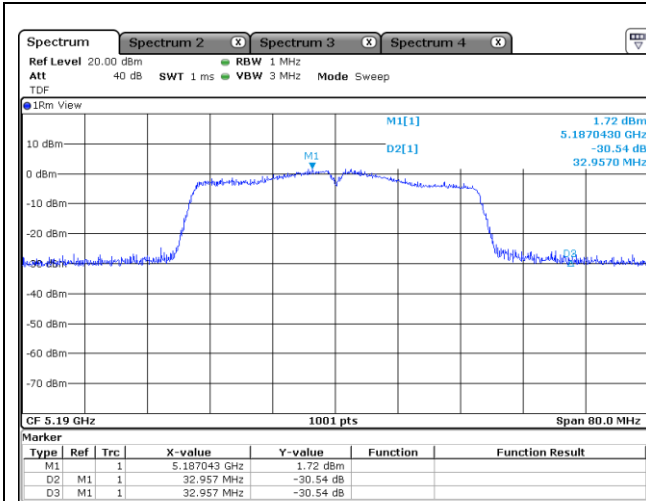
UNII-1 / 802.11n20 / 5 220 MHz

UNII-3 / 802.11n20 / 5 785 MHz

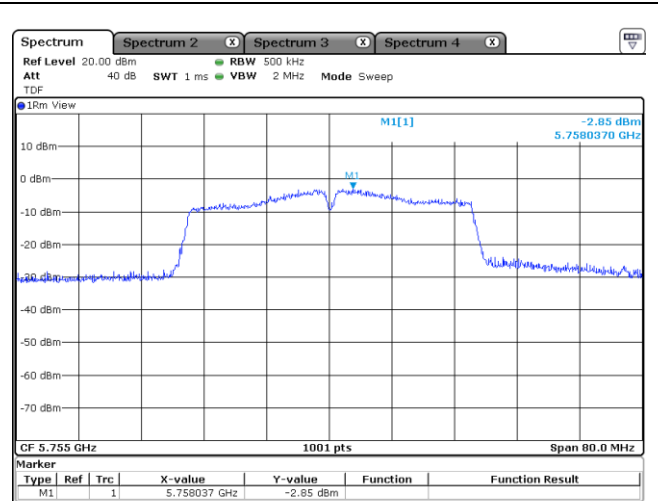


UNII-1 / 802.11n20 / 5 240 MHz

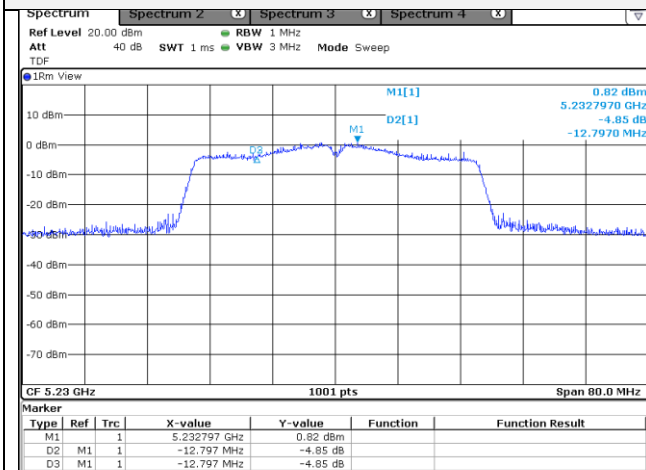
UNII-3 / 802.11n20 / 5 825 MHz



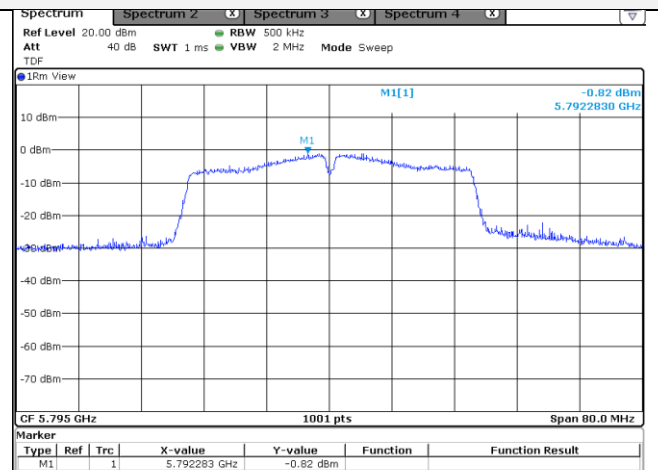
UNII-1 / 802.11n40 / 5 190 MHz



UNII-3 / 802.11n40 / 5 755 MHz



UNII-1 / 802.11n40 / 5 230 MHz



UNII-3 / 802.11n40 / 5 795 MHz



8. 26 dB Bandwidth & 99% Bandwidth

8.1 Operating environment

Temperature : 23.8 °C

Relative humidity : 46.7 %

8.2 Measurement method

Standard : §15.407(a)

8.3 Test Procedure

- ANSI C63.10-2013 Section 12.4
- KDB 789033 D02 v02r01 - Section C.1 (26 dB bandwidth)
- KDB 789033 D02 v02r01 - Section D (99% bandwidth)

Spectrum Analyzer

EUT

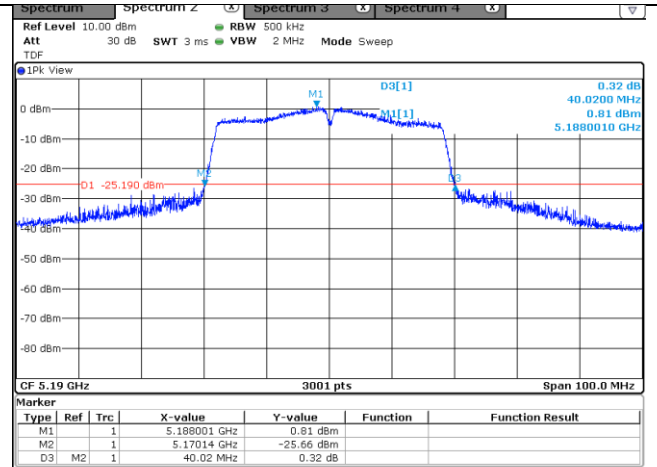
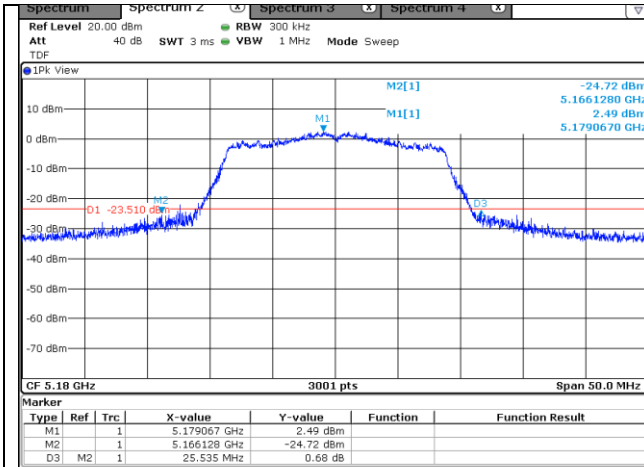
8.3.1 Measured Results for 802.11n20

- 26 dB Bandwidth/ 99 % Bandwidth

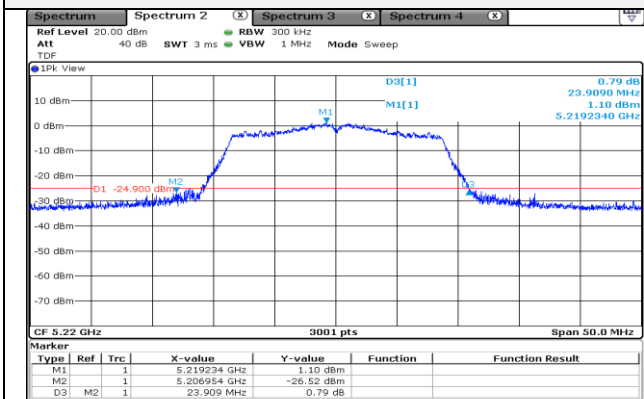
Modulation Type	Band	Frequency (MHz)	26 dB Bandwidth Measured Bandwidth (MHz)	99 % Bandwidth Measured Bandwidth (MHz)
802.11n(HT20)	UNII 1	5 180	25.535	17.94
		5 200	23.909	17.98
		5 240	24.652	17.94
802.11n(HT40)	UNII 1	5 190	40.02	36.28
		5 230	44.29	36.28



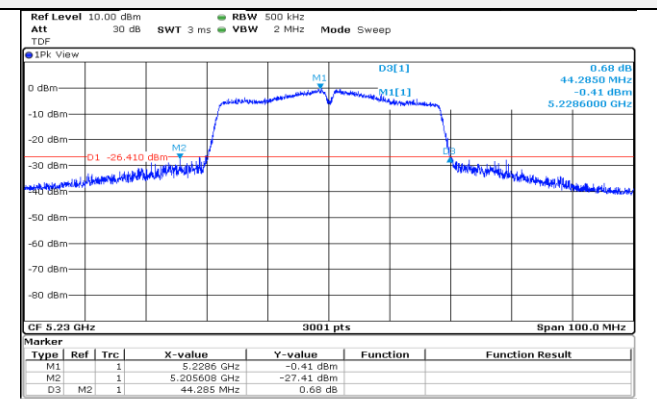
8.3.1.1 Measured Graph for 26 dB Bandwidth



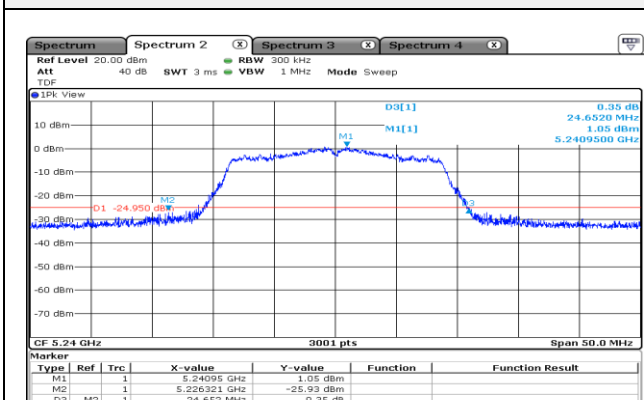
UNII-1 / 802.11n20 / 5 180 MHz



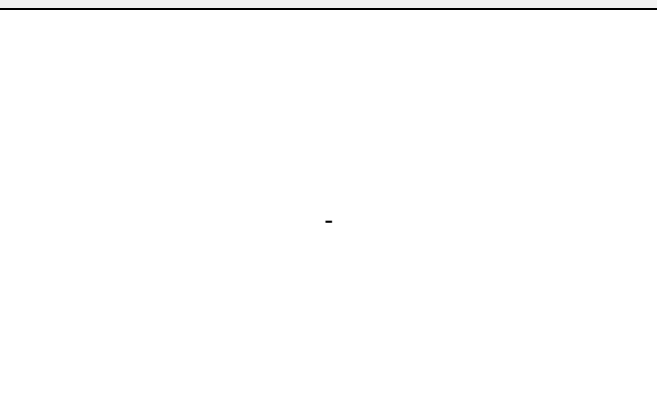
UNII-1 / 802.11n40 / 5 190 MHz



UNII-1 / 802.11n20 / 5 220 MHz



UNII-1 / 802.11n40 / 5 230 MHz

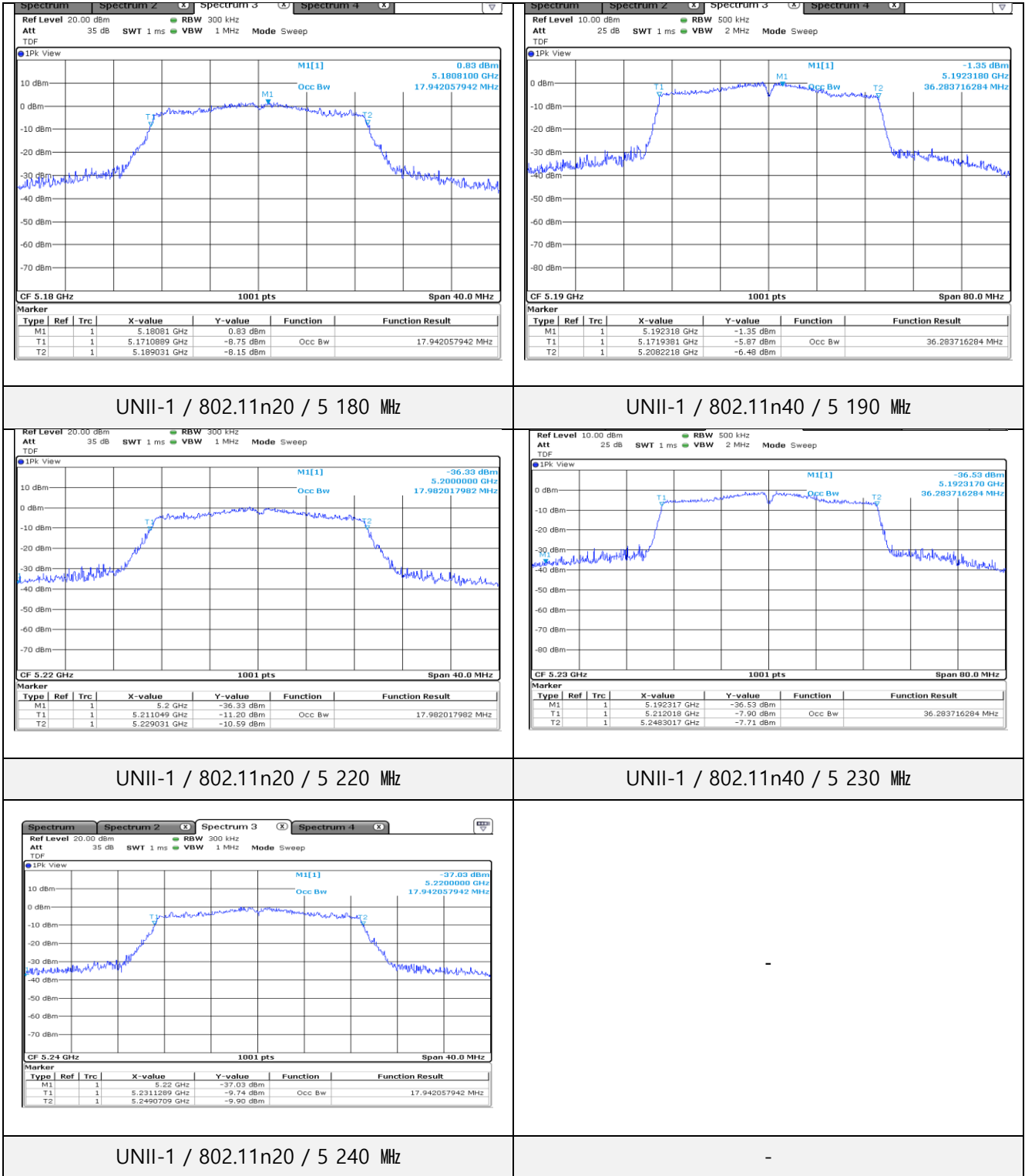


UNII-1 / 802.11n20 / 5 240 MHz





8.3.1.2 Measured Graph for 99 % Bandwidth





9. 6 dB Bandwidth/99 % Bandwidth

9.1 Operating environment

Temperature : 23.8 °C

Relative humidity : 46.7 %

9.2 Measurement method

Standard : §15.407(a)

9.3 Test Procedure

- ANSI C63.10-2013 Section 6.9.2
- KDB 789033 D02 v02r01 - Section C.2
- KDB 789033 D02 v02r01 - Section D (99% bandwidth)

Spectrum Analyzer

EUT

9.3.1 Measured Results for 802.11n20_6dB Bandwidth

Modulation Type	Band	Frequency (MHz)	Measured Bandwidth (MHz)	Limit (MHz)
802.11n(HT20)	UNII 3	5 745	17.161	at least 0.5
		5 785	16.894	
		5 825	17.244	
802.11n(HT40)	UNII 3	5 755	35.748	
		5 795	35.695	

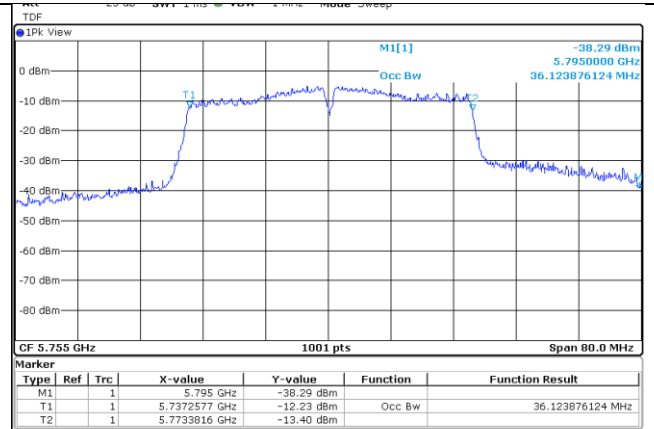
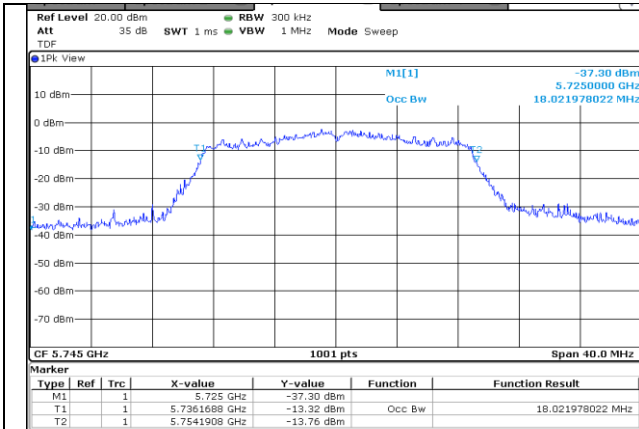
9.3.2 Measured Results for 802.11n20_99 % Bandwidth

Modulation Type	Band	Frequency (MHz)	Measured Bandwidth (MHz)	Limit (MHz)
802.11n(HT20)	UNII 3	5 745	18.02	-
		5 785	17.98	
		5 825	17.98	
802.11n(HT40)	UNII 3	5 755	36.12	
		5 795	36.04	

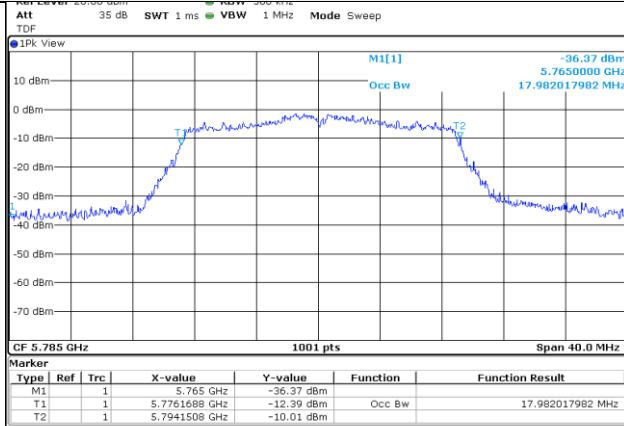
페이지(page) : (23)/(총(Total) 38)



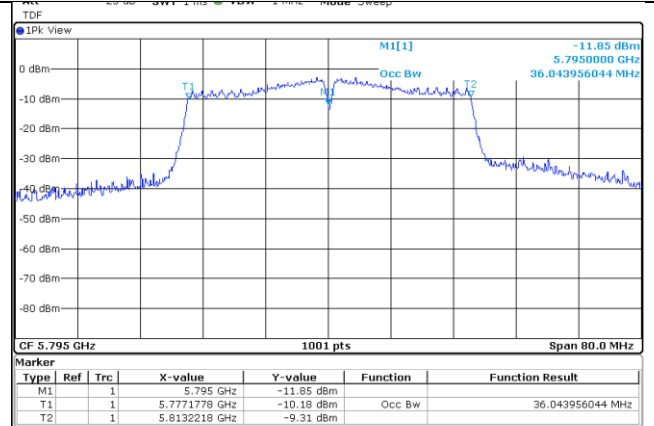
9.3.2.2 Measured Graph for Test Data_802.11n20_99% Bandwidth



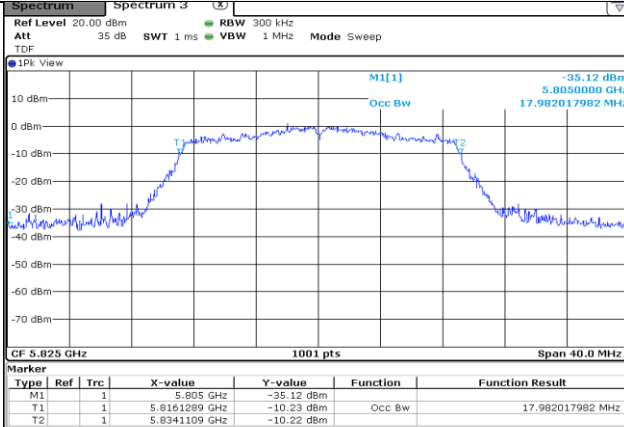
UNII-3 / 802.11n20 / 5 745 MHz



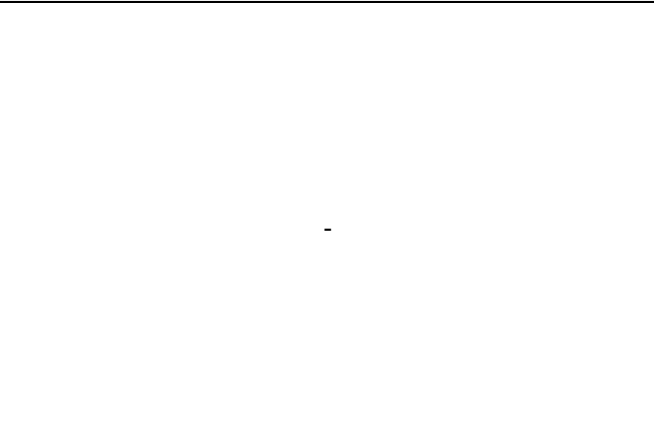
UNII-3 / 802.11n40 / 5 755 MHz



UNII-3 / 802.11n20 / 5 785 MHz



UNII-3 / 802.11n40 / 5 795 MHz



UNII-3 / 802.11n20 / 5 825 MHz



10. Radiated Spurious Emission

10.1 Operating environment

Temperature : 23.9 °C

Relative humidity : 47.8 %

10.2 Measurement method

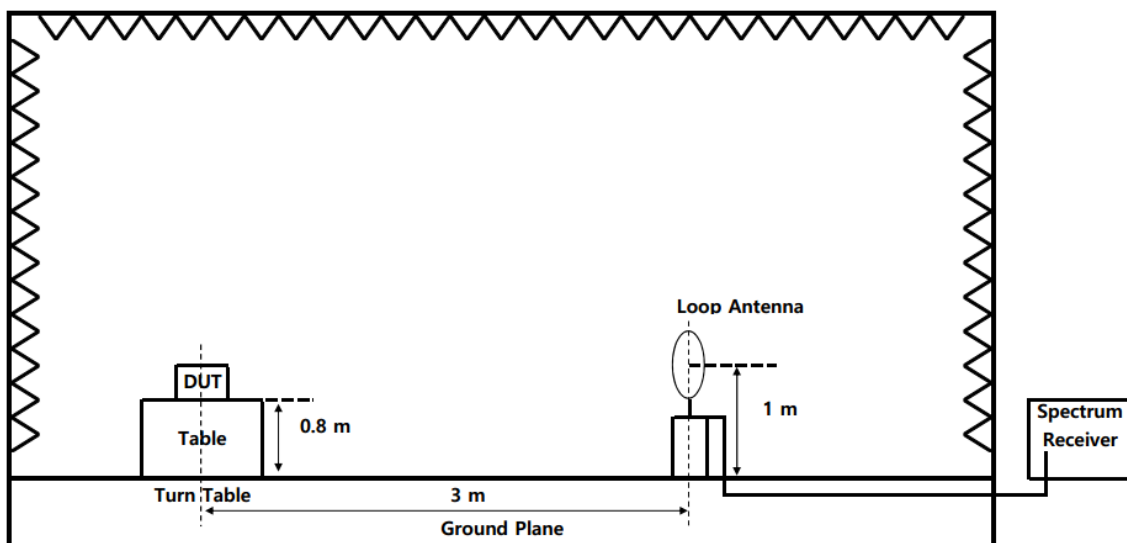
Standard : §15.407 (b), §15.209, §15.205

10.3 Test setup

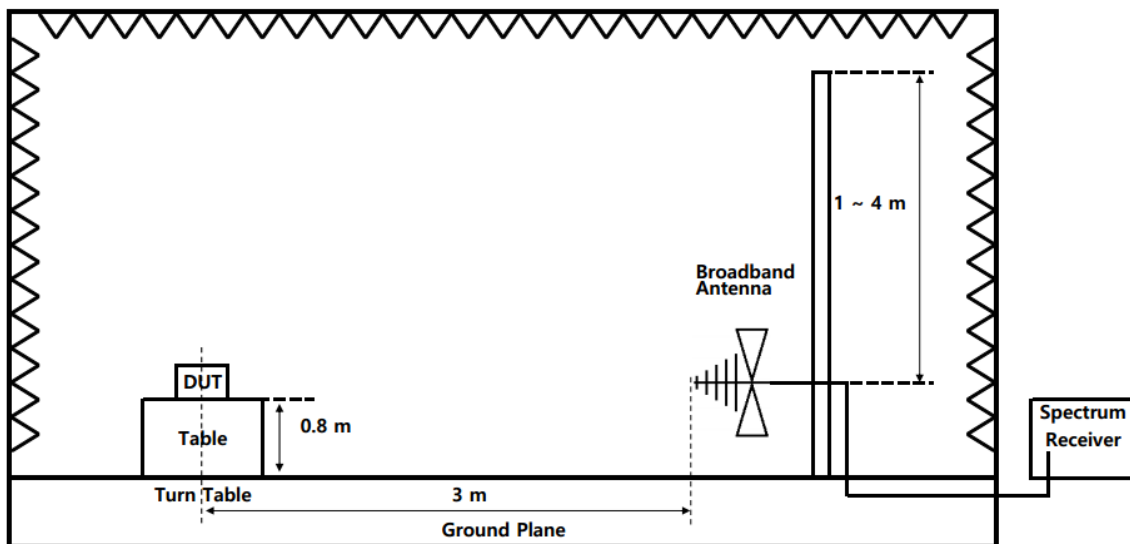
The radiated emissions measurements were performed on the 3 m, Semi-Anechoic Chamber. The EUT was placed on a non-conductive turntable above the ground plane.

The frequency spectrum from 9 kHz to 26.5 GHz was scanned and maximum emission levels at each frequency recorded. The system was rotated 360°, and the antenna was varied in the height between 1.0 m and 4.0 m in order to determine the maximum emission levels. This procedure was performed for horizontal and vertical polarization of the receiving antenna.

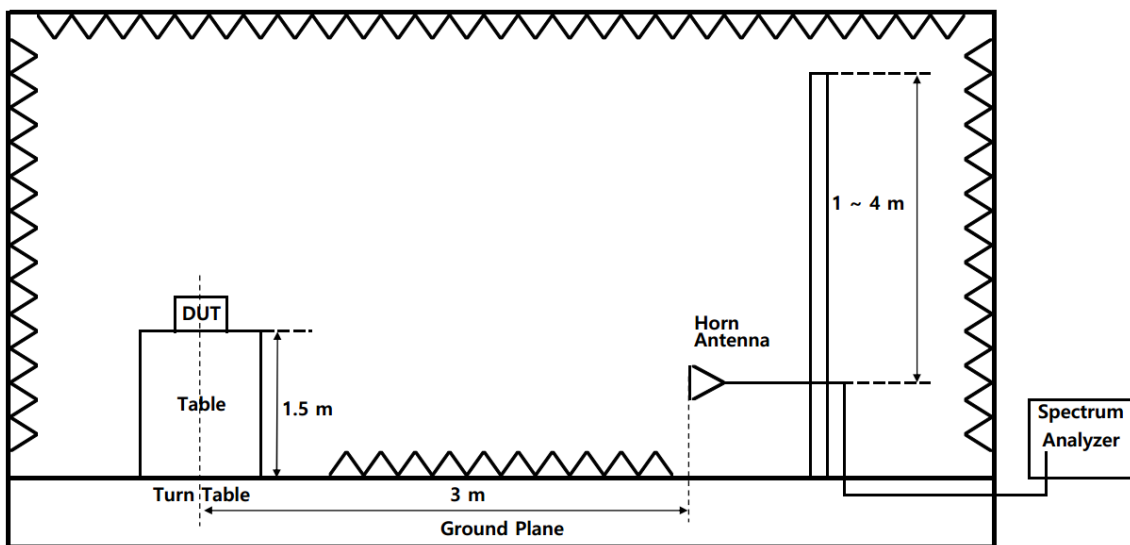
10.3.1 Below 30 MHz



10.3.2 30 MHz to 1 GHz



10.3.3 Above 1 GHz





10.3.1 Radiated Emissions data for 802.11n20/40

10.3.1.1 Unwanted Emissions data (9 KHz ~ 30 MHz) : 802.11n (Worst case)

Frequency (MHz)	Reading (dBμV)	Detector	Ant. Pol. (H/V)	Corr. Factor (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
Low CH							
It was not found any emissions peaks found from the EUT.							
Mid CH							
It was not found any emissions peaks found from the EUT.							
High CH							
It was not found any emissions peaks found from the EUT.							

※ Ant. Pol. : Antenna Polarization

※ Corr. Factor. : Antenna Factor + Cable Loss - Amplifier Gain

※ Result = Reading + Corr. Factor

※ Margin = Limit – Result



10.3.1.2 Unwanted Emissions data (30 MHz ~ 1 GHz) : 802.11n (Worst case UNII-1)

Frequency (MHz)	Reading (dB μ V)	Ant. Pol. (H/V)	Corr. Factor (dB)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
31.552	57.29	V	-27.00	30.39	40.00	9.61
36.693	54.01	V	-25.50	28.51	40.00	11.49
41.640	51.07	V	-23.80	27.27	40.00	12.73
123.799	48.75	V	-27.20	21.55	43.50	21.95
168.031	55.26	V	-27.50	27.76	43.50	15.74
856.052	37.64	H	-10.60	27.04	46.00	18.96

10.3.1.3 Unwanted Emissions data (30 MHz ~ 1 GHz) : 802.11n (Worst case UNII-3)

Frequency (MHz)	Reading (dB μ V)	Ant. Pol. (H/V)	Corr. Factor (dB)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
32.037	56.40	V	-27.10	29.30	40.00	10.70
36.111	50.67	V	-25.70	24.97	40.00	15.03
40.185	50.84	V	-24.20	26.64	40.00	13.36
57.839	45.78	V	-23.80	21.98	40.00	18.02
125.157	49.03	V	-27.30	21.73	43.50	21.77
168.031	55.34	V	-27.50	27.84	43.50	15.66



10.3.1.4 Unwanted Emissions data (1 GHz ~ 18 GHz) : 802.11n20 _ UNII-1

Frequency (MHz)	Reading (dBμV)	Detector	Ant. Pol. (H/V)	Corr. Factor (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
Low CH							
5 148.115	59.87	Peak	H	-0.90	58.97	73.98	15.01
5 149.740	38.14	Average	H		37.24	53.98	16.74
10 385.700	38.37	Peak	H	7.00	45.37	68.18	28.61
15 557.100	37.81	Peak	V	12.80	50.61	73.98	23.37
	24.34	Average	V		37.14	53.98	16.84
Mid CH							
10 497.900	37.67	Peak	V	7.20	44.87	68.18	29.11
15 599.600	38.20	Peak	H	12.80	51.00	73.98	22.98
	24.89	Average	H		37.69	53.98	16.29
High CH							
5 136.220	43.72	Peak	V	-0.80	42.92	73.98	31.06
	34.98	Average	V		34.18	53.98	19.80
10 480.900	38.07	Peak	V	7.30	45.37	68.18	28.61
15 730.500	37.86	Peak	H	12.80	50.66	73.98	23.32
	24.34	Average	H		37.14	53.98	16.84



10.3.1.5 Unwanted Emissions data(1 GHz ~ 18 GHz) : 802.11n(HT40)_UNII-1

Frequency (MHz)	Reading (dBμV)	Detector	Ant. Pol. (H/V)	Corr. Factor (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
Low CH							
5 147.660	57.81	Peak	H	-0.90	56.91	73.98	17.07
	43.51	Average	H		42.61	53.98	11.37
10 370.400	38.17	Peak	V	6.90	45.07	68.18	28.91
15 579.200	38.09	Peak	H	12.80	50.89	73.98	23.09
	24.43	Average	H		37.23	53.98	16.75
High CH							
5 000.175	44.96	Peak	V	-1.00	43.96	73.98	30.02
	36.45	Average	V		35.45	53.98	18.53
10 457.100	38.66	Peak	H	7.30	45.96	68.18	28.02
15 662.500	38.12	Peak	H	12.90	51.02	73.98	22.96
	24.31	Average	H		37.21	53.98	16.77



10.3.1.6 Unwanted Emissions data (1 GHz ~ 18 GHz) : 802.11n20_UNII-3

Frequency (MHz)	Reading (dBμV)	Detector	Ant. Pol. (H/V)	Corr. Factor (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
Low CH							
11 492.400	36.42	Peak	H	7.30	43.72	73.98	30.26
	23.07	Average	H		30.37	53.98	23.61
17 250.300	37.90	Peak	H	15.40	53.30	68.18	20.68
Mid CH							
11 592.700	37.08	Peak	H	7.30	44.38	73.98	29.60
	23.35	Average	H		30.65	53.98	23.33
17 374.400	37.87	Peak	H	15.50	53.37	68.18	20.61
High CH							
11 667.500	37.15	Peak	V	7.60	44.75	73.98	29.23
	23.50	Average	V		31.10	53.98	22.88
17 481.500	36.40	Peak	V	15.40	51.80	68.18	22.18



10.3.1.7 Unwanted Emissions data(1 GHz ~ 18 GHz) : 802.11n(HT40)_UNII-3

Frequency (MHz)	Reading (dBμV)	Detector	Ant. Pol. (H/V)	Corr. Factor (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
Low CH							
11 529.800	36.70	Peak	H	7.20	43.90	73.98	30.08
	23.00	Average	H		30.20	53.98	23.78
17 257.100	37.61	Peak	H	15.40	53.01	68.18	20.97
High CH							
11 608.000	36.94	Peak	V	7.30	44.24	73.98	29.74
	23.66	Average	V		30.96	53.98	23.02
17 381.200	37.60	Peak	H	15.50	53.10	68.18	20.88



10.3.1.8 Unwanted Emissions data(18 GHz ~ 26.5 GHz) : 802.11n(HT20/40)

Frequency (MHz)	Reading (dBμV)	Detector	Ant. Pol. (H/V)	Corr. Factor (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
It was not found any emissions peaks found from the EUT.							

10.3.1.9 Unwanted Emissions data(26.5 GHz ~ 40 GHz) : 802.11n(HT20/40)

Frequency (MHz)	Reading (dBμV)	Detector	Ant. Pol. (H/V)	Corr. Factor (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
It was not found any emissions peaks found from the EUT.							



10.3.1.10 Unwanted Emissions data_Bandedge band: 802.11n(HT20)_UNII-1

Frequency (MHz)	Reading (dBμV)	Detector	Ant. Pol. (H/V)	Corr. Factor (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
Low CH							
5 150.000	56.76	Peak	H	-0.90	55.86	68.18	12.32
5 250.000	40.71	Peak	V	-0.70	40.01	68.18	28.17
High CH							
5 180.044	40.84	Peak	V	-0.90	39.94	68.18	28.24
5 250.056	66.19	Peak	H	-0.70	65.49	68.18	2.69

10.3.1.11 Unwanted Emissions data_Bandedge band: 802.11n(HT40)_UNII-1

Frequency (MHz)	Reading (dBμV)	Detector	Ant. Pol. (H/V)	Corr. Factor (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
Low CH							
5 150.000	58.81	Peak	H	-0.90	57.91	68.18	10.27
5 250.000	46.30	Peak	H	-0.70	45.60	68.18	22.58
High CH							
5 180.044	44.81	Peak	H	-0.90	43.91	68.18	24.27
5 250.056	63.68	Peak	H	-0.70	62.98	68.18	5.20



10.3.1.12 Unwanted Emissions data_ Bandedge band: 802.11n(HT20)_UNII-3

Frequency (MHz)	Reading (dBμV)	Detector	Ant. Pol. (H/V)	Corr. Factor (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
Low CH							
5 725.125	51.92	Peak	H	0.20	52.12	-	-
5 850.005	40.80	Peak	H	0.80	41.60	122.19	80.59
High CH							
5 724.950	40.55	Peak	V	0.20	40.75	122.09	81.34
5 850.005	40.81	Peak	V	0.80	41.61	122.19	80.58

10.3.1.13 Unwanted Emissions data_ Bandedge band: 802.11n(HT40)_UNII-3

Frequency (MHz)	Reading (dBμV)	Detector	Ant. Pol. (H/V)	Corr. Factor (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
Low CH							
5 725.055	56.21	Peak	H	0.20	56.41	-	-
5 850.040	40.32	Peak	V	0.80	41.12	122.11	80.99
High CH							
5 725.090	42.53	Peak	H	0.20	42.73	-	-
5 850.005	45.37	Peak	H	0.80	46.17	122.19	76.02



11. Power Line Conducted Emission

11.1 Operating environment

Temperature : 24.5 °C

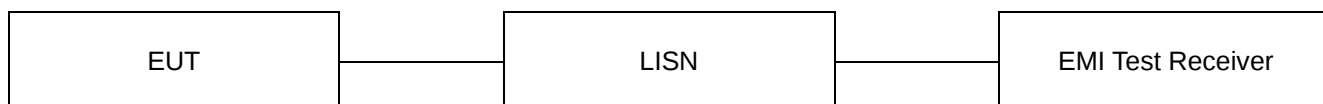
Relative humidity : 44.6 %

11.2 Measurement method

Standard : §15.207

11.3 Test setup

The EUT was placed on a wooden table, 0.8 m height above the floor. Power was fed to the EUT through a 50 Ω / 50 μ H + 5 Ω Artificial Mains Network (AMN). The ground plane was electrically bonded to the reference ground system and all power lines were filtered from ambient.



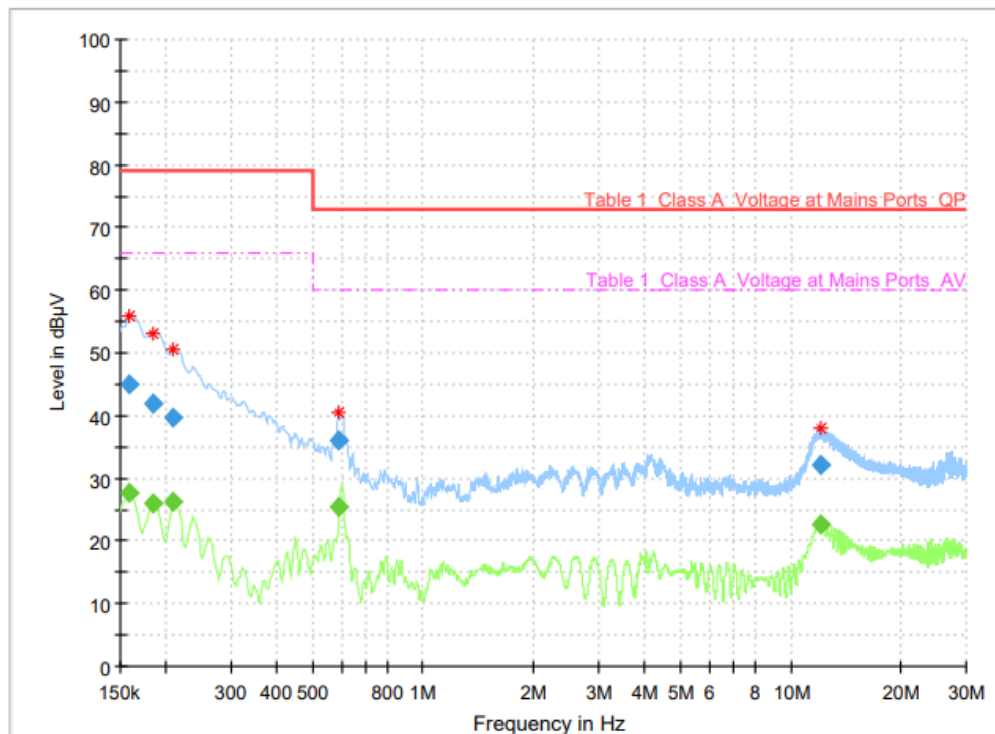


11.4 Test data

Operating mode : Transmit mode

Test Result : Pass

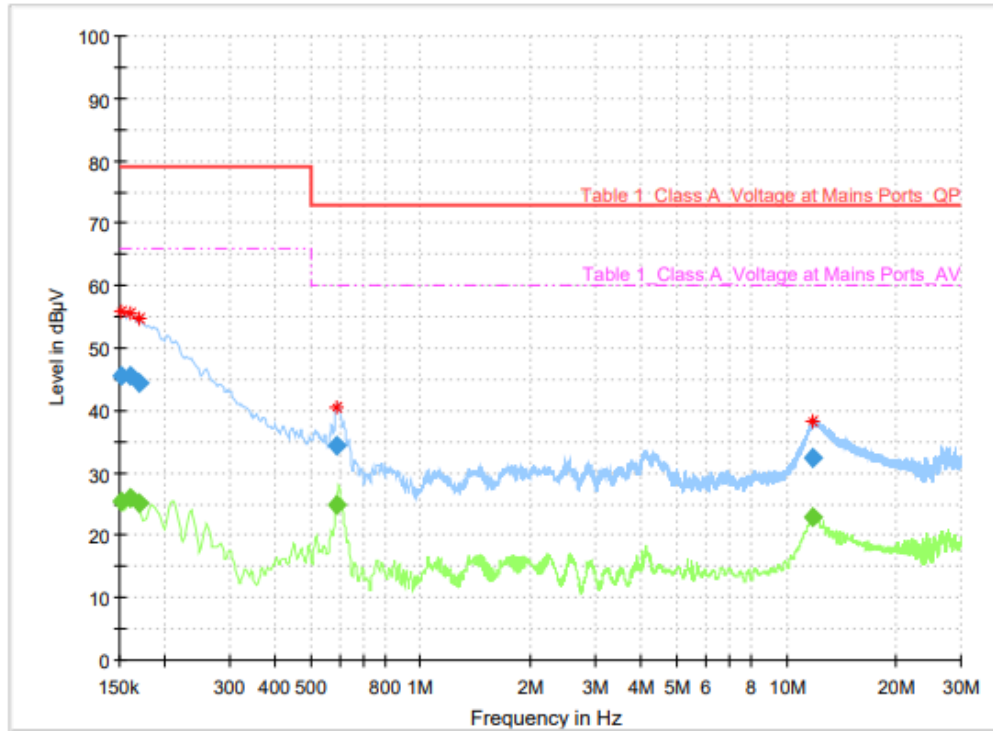
11.4.1 Measured Results & Graph



Final Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.159000	---	27.69	66.00	38.31	5000.0	9.000	L1	9.9
0.159000	45.10	---	79.00	33.90	5000.0	9.000	L1	9.9
0.183750	---	26.07	66.00	39.93	5000.0	9.000	L1	9.9
0.183750	41.92	---	79.00	37.08	5000.0	9.000	L1	9.9
0.208500	---	26.21	66.00	39.79	5000.0	9.000	L1	9.8
0.208500	39.70	---	79.00	39.30	5000.0	9.000	L1	9.8
0.588750	---	25.45	60.00	34.55	5000.0	9.000	L1	9.9
0.588750	35.90	---	73.00	37.10	5000.0	9.000	L1	9.9
12.108750	---	22.66	60.00	37.34	5000.0	9.000	L1	9.9
12.108750	32.08	---	73.00	40.92	5000.0	9.000	L1	9.9

Live line



Final Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.152250	---	25.34	66.00	40.66	5000.0	9.000	N	9.8
0.152250	45.43	---	79.00	33.57	5000.0	9.000	N	9.8
0.161250	---	26.01	66.00	39.99	5000.0	9.000	N	9.9
0.161250	45.64	---	79.00	33.36	5000.0	9.000	N	9.9
0.170250	---	25.16	66.00	40.84	5000.0	9.000	N	10.0
0.170250	44.51	---	79.00	34.49	5000.0	9.000	N	10.0
0.586500	---	24.95	60.00	35.05	5000.0	9.000	N	9.9
0.586500	34.44	---	73.00	38.56	5000.0	9.000	N	9.9
11.746500	---	22.83	60.00	37.17	5000.0	9.000	N	9.9
11.746500	32.31	---	73.00	40.69	5000.0	9.000	N	9.9

Neutral line

- END -