verify No.816338193058

cert.qnqkorea.com:8080 위변조방지/진위확인

TEST REPORT

Eurofins KCTL Co.,Ltd.
65, Sinwon-ro, Yeongtong-gu,
Suwon-si, Gyeonggi-do, 16677, Korea
TEL: 82-70-5008-1021 FAX: 82-505-299-8311
www.kctl.co.kr

eurofins | KCTL

1. Client

- Name : Samsung Electronics Co., Ltd.
- Address : 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea
- Date of Receipt : 2024-05-02

2. Use of Report : Certification

3. Name of Product / Model : Smart Wearable / SM-R866U

4. Derivative Model : SM-R866F

5. Manufacturer / Country of Origin : Samsung Electronics Co., Ltd. / Vietnam

6. FCC ID : A3LSMR866

7. Date of Test : 2024-05-03 to 2024-05-14

8. Location of Test : ■ Permanent Testing Lab ☐ On Site Testing
(Address:65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea)

9. Test method used : FCC Part 15 Subpart E, 15.407

10. Test Result : Refer to the test result in the test report

Affirmation	Tested by Name : Kwonse Kim (Signature)	Technical Manager Name : Harim Lee (Signature)

2024-06-14

Eurofins KCTL Co.,Ltd.

As a test result of the sample which was submitted from the client, this report does not guarantee the whole product quality. This test report should not be used and copied without a written agreement by Eurofins KCTL Co.,Ltd.

REPORT REVISION HISTORY

Date	Revision	Page No
2024-05-17	Originally issued	-
2024-06-14	Added the derivative model and updated the accessory information	1,4

This report shall not be reproduced except in full, without the written approval of Eurofins KCTL Co.,Ltd. This document may be altered or revised by Eurofins KCTL Co.,Ltd. personnel only, and shall be noted in the revision section of the document. Any alteration of this document not carried out by Eurofins KCTL Co.,Ltd. will constitute fraud and shall nullify the document. This test report is a general report that does not use the KOLAS accreditation mark and is not related to KS Q ISO/IEC 17025 and KOLAS accreditation.

Note. The report No. KR24-SRF0083 is superseded by the report No. KR24-SRF0083-A.

General remarks for test reports

Statement concerning the uncertainty of the measurement systems used for the tests

(may be required by the product standard or client)

☐ **Internal procedure used for type testing through which traceability of the measuring uncertainty has been established:**

Procedure number, issue date and title:

Calculations leading to the reported values are on file with the testing laboratory that conducted the testing.

☒ **Statement not required by the standard or client used for type testing**

CONTENTS

1. General information 4
2. Device information 4
2.1. Accessory information 4
2.2. Frequency/channel operations 5
2.3. Simultaneous Tx Condition 5
2.4. Duty Cycle Factor 6
3. Antenna requirement 7
4. Summary of tests 8
5. Measurement uncertainty 9
6. Measurement results explanation example 10
7. Test results 11
7.1. Maximum conducted output power 11
7.2. Maximum Power Spectral Density 15
7.3. 26 dB Bandwidth 19
7.4. 6 dB Bandwidth 23
7.5. Straddle channel 26
7.6. DFS (Dynamic Frequency Selection) 30
7.7. Spurious Emission, Band Edge and Restricted bands 39
7.8. AC Conducted emission 72
8. Measurement equipment 74

1. General information

Client	:	Samsung Electronics Co., Ltd.
Address	:	129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea
Manufacturer	:	Samsung Electronics Co., Ltd.
Address	:	129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea
Factory 1	:	AG TECH CO.,LTD
Address 1	:	Lot G3, Que Vo Industrial Park(Expanded Area), Nam son Ward, Bac Ninh Province, Vietnam
Factory 2	:	ALMUS VINA
Address 2	:	Lot CN07A, Phu Ha Industrial Park, Ha Thach Commune, Phu Tho Town, Phu Tho Province, Vietnam
Laboratory	:	Eurofins KCTL Co.,Ltd.
Address	:	65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea
Accreditations	:	FCC Site Designation No: KR0040, FCC Site Registration No: 687132 VCCI Registration No. : R-20080, G-20078, C-20059, T-20056 CAB Identifier: KR0040 ISED Number: 8035A KOLAS No.: KT231

2. Device information

Equipment under test	:	Smart Wearable		
Model	:	SM-R866U		
Derivative model	:	SM-R866F		
Modulation technique	:	WIFI(802.11a/n)	: OFDM	
Number of channels	:	UNII 1	: 4 ch (20 ㎒)	
		UNII 2A	: 4 ch (20 ㎒)	
		UNII 2C	: 12 ch (20 ㎒)	
		UNII 3	: 5 ch (20 ㎒)	
Power source	:	DC 3.88 V		
Antenna specification	:	LDS Antenna		
Antenna gain	:	UNII 1	: -5.4 ㏈i	
		UNII 2A	: -6.5 ㏈i	
		UNII 2C	: -8.9 ㏈i	
		UNII 3	: -8.4 ㏈i	
Frequency range	:	UNII-1	: 5 180 ㎒ ~ 5 240 ㎒	(802.11a/n_HT20)
		UNII-2A	: 5 260 ㎒ ~ 5 320 ㎒	(802.11a/n_HT20)
		UNII-2C	: 5 500 ㎒ ~ 5 720 ㎒	(802.11a/n_HT20)
		UNII-3	: 5 745 ㎒ ~ 5 825 ㎒	(802.11a/n_HT20)
Software version	:	R866U.001		
Hardware version	:	REV1.0		
Test device serial No.	:	Conducted	: R3AX400M34N	
		Radiated	: R3AX400M3JZ, R3AX400LZ6V	
Operation temperature	:	-30 ℃ ~ 50 ℃		

Note.

1. The product equality letter includes detailed information about the differences between SM-R866U and SM-R866F model.

2.1. Accessory information

Equipment	Manufacturer	Model	Serial No.	Power source	FCC ID & IC
Wireless charger	SAMSUNG	EP-OR825	-	5.0 V, 1.0 A	FCC ID : A3LEPOR825 IC : 649E-EPOR825
Wireless charger	SAMSUNG	EP-OR900	-	5.0 V, 2.0 A	FCC ID : A3LEP-OR900 IC : 649E-EPOR900

2.2. Frequency/channel operations

This device contains the following capabilities:
WLAN (11a/n)

UNII 1

Ch.	Frequency (MHz)
36	5 180
40	5 200
48	5 240

UNII 2A

Ch.	Frequency (MHz)
52	5 260
56	5 280
64	5 320

UNII 2C

Ch.	Frequency (MHz)
100	5 500
120	5 600
140	5 700
144	5 720

UNII 3

Ch.	Frequency (MHz)
149	5 745
157	5 785
165	5 825

Table 2.2-1. 802.11a/n HT20 mode

Notes:

1. The device supports DFS bands between UNII 2A and UNII 2C and operates as a slave device controlled by master

2.3. Simultaneous Tx Condition

The device supports simultaneous transmission operation, which allows for two channels to operate independent of one another in the Bluetooth low energy, 5 GHz bands simultaneously.

Simultaneous Tx condition – not RSDB

Mode	# of TX	WLAN 5 GHz	Bluetooth low energy
Bluetooth low energy + 5G WLAN	2	O	O

Notes.

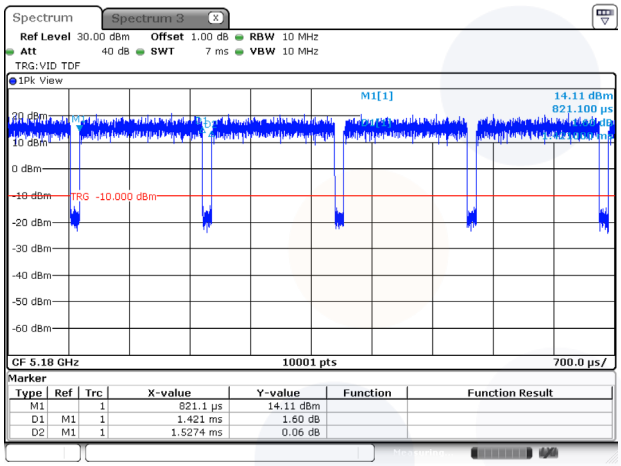
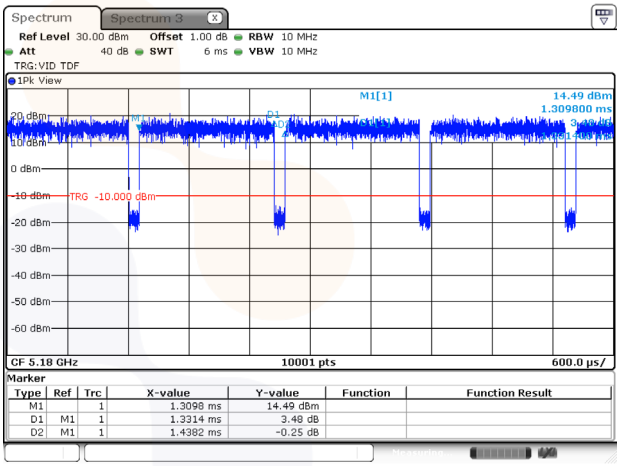
Simultaneous condition was performed as a worst case which is configured as a combination of lowest margin for each mode during radiated spurious emission.

2.4. Duty Cycle Factor

Test mode	Period (ms)	T_{on} time (ms)	Duty cycle		Duty cycle factor (dB)
			(Linear)	(%)	
802.11a	1.527	1.421	0.930 6	93.06	0.31
802.11n_HT20	1.438	1.331	0.925 6	92.56	0.34

Notes.

1. Duty cycle (Linear) = T_{on} time / Period
2. DCF(Duty cycle factor) = 10log(1/duty cycle)
3. DCF is not compensated to average result if duty cycle is more than 98%

802.11a	802.11n_HT20
	

3. Antenna requirement

Requirement of FCC part section 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 transmitter has permanently attached LDS Antenna (Internal antenna) on board.
- The E.U.T Complies with the requirement of §15.203, §15.407.

4. Summary of tests

FCC Part section(s)	Parameter	Test Condition	Test results
15.407(a)	Maximum conducted output power	Conducted	Pass
15.407(a)	Maximum power spectral density		Pass
15.407(a)	26 dB Channel Bandwidth		Pass
15.407(e)	6 dB Channel Bandwidth		Pass
15.207(a)	AC Conducted Emissions		Pass
15.407(h)	DFS -Channel closing transmission time -Channel move time -Non occupied period		Pass
15.407(b) 15.205(a) 15.209(a)	Spurious emission	Radiated	Pass
	Band-edge, restricted band		Pass

Notes:

1. All modes of operation and data rates were investigated. The test results shown in the following sections represent the worst case emissions.
2. According to exploratory test no any obvious emission were detected from 9 kHz to 30 MHz. Although these tests were performed other than open field site, adequate comparison measurements were confirmed against 30 m open field site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field based on KDB 414788.
3. The fundamental of the EUT was investigated in three orthogonal orientations X, Y and Z and all of the radiated tests have been performed with the accessories as below. It was determined that below orientation was worst case orientation for each band.
4. All configurations have been performed (Stand-alone, Stand-alone with TA and Strap).

Band	Strap	With charger	Without charger		
		X-axis	X-axis	Y-axis	Z-axis
UNII-1	With strap	O	-	-	-
	Without strap	-	-	-	-
UNII-2A	With strap	O	-	-	-
	Without strap	-	-	-	-
UNII-2C	With strap	O	-	-	-
	Without strap	-	-	-	-
UNII-3	With strap	O	-	-	-
	Without strap	-	-	-	-

5. The device does not support radar detection feature.
6. The test procedure(s) in this report were performed in accordance as following.
   - ANSI C63.10-2013
   - KDB 789033 D02 v02r01
   - KDB 905462 D02 UNII DFS compliance procedure new rules.
   - KDB 905462 D03 UNII client without radar detection new rules.
7. Based on the baseline scan, the worst-case data rates were:
   - 802.11a mode: 6Mbps, 802.11n HT20 mode: MCS0

5. Measurement uncertainty

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.10-2013.

All measurement uncertainty values are shown with a coverage factor of *k*=2 to indicated a 95 % level of confidence. The measurement data shown herein meets of exceeds the U_{CISPR} measurement uncertainty values specified in CISPR 16-4-2 and thus, can be compared directly to specified limits to determine compliance.

Parameter	Expanded uncertainty (±)	
Conducted RF power	0.9 dB	
Conducted spurious emissions	1.9 dB	
Radiated spurious emissions	9 kHz ~ 30 MHz:	2.3 dB
	30 MHz ~ 1 000 MHz	2.5 dB
	1 000 MHz ~ 18 000 MHz	4.7 dB
	Above 18 000 MHz	4.8 dB
Conducted emissions	9 kHz ~ 150 kHz	2.8 dB
	150 kHz ~ 30 MHz	2.8 dB

6. Measurement results explanation example

The offset level is set in the spectrum analyzer to compensate the RF cable loss factor between EUT conducted output port and spectrum analyzer.
With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

Frequency (㎒)	Factor(㏈)	Frequency (㎒)	Factor(㏈)
30	9.74	9 000	12.81
50	10.14	10 000	12.69
100	10.19	11 000	13.21
200	10.23	12 000	12.34
300	10.40	13 000	13.31
400	10.41	14 000	13.71
500	10.47	15 000	12.91
600	10.43	16 000	14.63
700	10.50	17 000	12.93
800	10.49	18 000	13.78
900	10.65	19 000	14.55
1 000	10.68	20 000	14.46
2 000	11.12	21 000	14.59
3 000	11.44	22 000	14.57
4 000	11.69	23 000	15.06
5 000	12.03	24 000	14.77
6 000	12.31	25 000	14.68
7 000	12.11	26 000	15.25
8 000	12.36	26 500	15.09

Notes:
Offset(㏈) = RF cable loss(㏈) + Attenuator(㏈)

7. Test results

7.1. Maximum conducted output power

Test setup

EUT — Attenuator — Spectrum analyzer

Limit

According to §15.407(a),

Band	EUT category		Conducted output power limit
UNII-1		Outdoor access point	1 W (30 dBm)
		Indoor access point	
		Fixed point-to-point access point	
	√	Client device	250 mW (23.98 dBm)
UNII-2A	√		250 mW or 11 dBm + 10logB[1)]
UNII-2C	√		250 mW or 11 dBm + 10logB[1)]
UNII-3	√		1 W (30 dBm)

Note:

1) Limit B is the 26 dB emission bandwidth.

Test procedure

ANSI C63.10-2013-Section 12.3.2.4 or 12.3.3.1
KDB 789033 D02 v02r01 - Section E.2.d)

Test settings
Used test method is Section E.2.d)

◆ **KDB 789033 D02 v02r01**

Section E.2.d)
Method SA-2 (trace averaging across on and off times of the EUT transmissions, followed by duty cycle correction):

(i) Measure the duty cycle, x, of the transmitter output signal as described in II.B..
(ii) Set span to encompass the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.
(iii) Set RBW = 1 ㎒
(iv) Set RBW ≥ 3 ㎒
(v) Number of points in sweep ≥ 2×span/RBW. (This ensures that bin-to-bin spacing is ≤ RBW/2, so that narrowband signals are not lost between frequency bins.)
(vi) Sweep time = auto.
(vii) Detector = power averaging (rms), if available. Otherwise use sample detector mode.
(viii) Do not use sweep triggering. Allow the sweep to "free run."
(ix) Trace average at least 100 traces in power averaging (rms) mode; however, the number of traces to be averaged shall be increased above 100 as needed to ensure that the average accurately represents the true average over the on and off periods of the transmitter.
(x) Compute power by integrating the spectrum across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal using the instrument's band power measurement function with band limits set equal to the EBW (or occupied bandwidth) band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at 1 ㎒ intervals extending across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.
(xi) Add 10 log (1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times (because the measurement represents an average over both the on and off times of the transmission). For example, add 10 log(1/0,25) = 6 ㏈ if the duty cycle is 25%.

Test results

Conducted Output Power

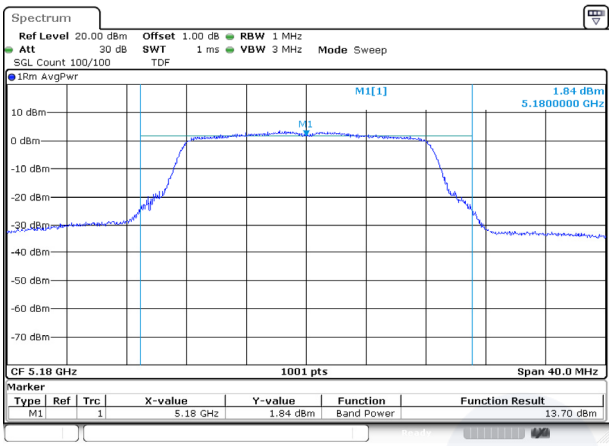
Test mode	Band	Frequency (MHz)	Measured output power			Limit (dBm)
			Reading (dBm)	DCF (dB)	Result (dBm)	
802.11a	UNII 1	5 180	13.70	0.31	14.01	23.98
		5 200	13.24		13.55	
		5 240	13.41		13.72	
	UNII 2A	5 260	13.56		13.87	23.98
		5 280	13.82		14.13	
		5 320	14.28		14.59	
	UNII 2C	5 500	13.76		14.07	23.98
		5 600	13.23		13.54	
		5 700	13.55		13.86	
	UNII 3	5 745	13.75		14.06	30.00
		5 785	13.44		13.75	
		5 825	13.10		13.41	
802.11n HT20	UNII 1	5 180	13.47	0.34	13.81	23.98
		5 200	13.10		13.44	
		5 240	13.40		13.74	
	UNII 2A	5 260	13.49		13.83	23.98
		5 280	13.74		14.08	
		5 320	14.00		14.34	
	UNII 2C	5 500	13.53		13.87	23.98
		5 600	13.16		13.50	
		5 700	13.75		14.09	
	UNII 3	5 745	13.67		14.01	30.00
		5 785	13.37		13.71	
		5 825	13.05		13.39	

Note:

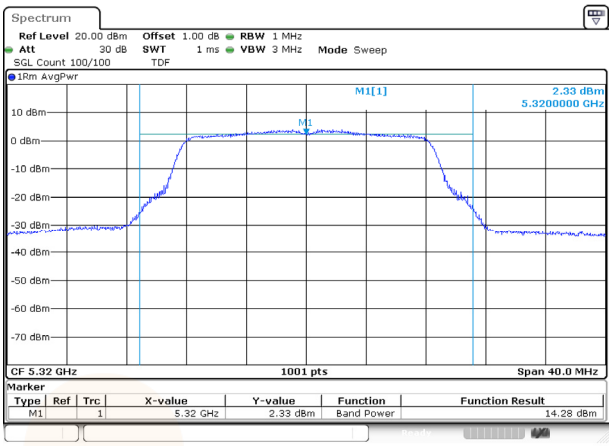
1. Result (dBm) = Reading (dBm) + D.C.F (dB)

In order to simplify the report, attached plots were the worst case per bandwidth

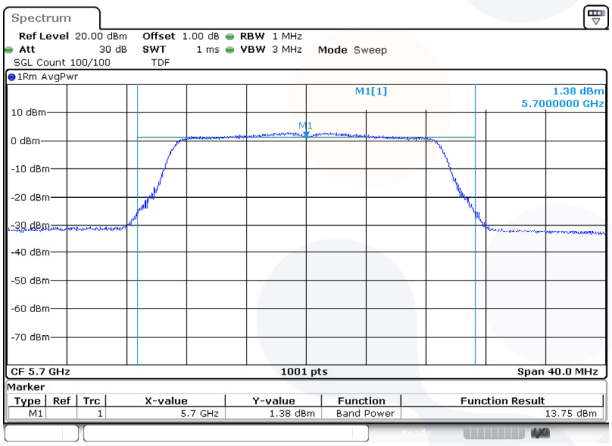
UNII 1 / 802.11a / Low ch.



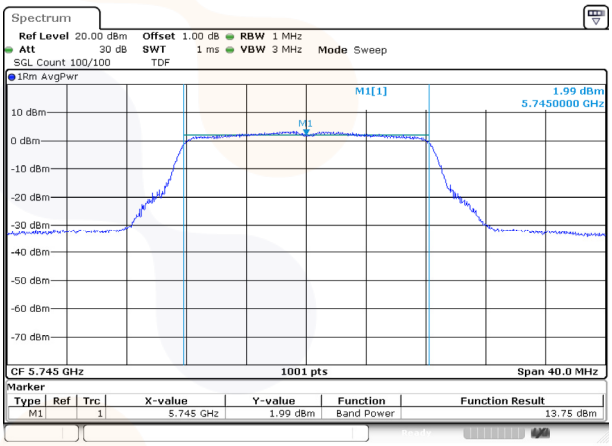
UNII 2A / 802.11a / High ch.



UNII 2C / 802.11n HT20 / High ch.



UNII 3 / 802.11a / Low ch.



7.2. Maximum Power Spectral Density

Test setup

EUT	—	Attenuator	—	Spectrum analyzer

Limit

According to §15.407(a),

Band	EUT category		Limit
UNII-1		Outdoor access point	17dBm/MHz
		Indoor access point	
		Fixed point-to-point access point	
	√	Client device	11 dBm /MHz
UNII-2A	√		11 dBm /MHz
UNII-2C	√		11 dBm /MHz
UNII-3	√		30 dBm /500 kHz

Notes:

If transmitting antennas of directional gain greater than 6 dBi are used, both the peak transmit power And the peak power spectral density shall be reduced by the amount in dB that the directional gain if the antenna exceed 6 dBi

Test procedure

ANSI C63.10-2013 Section 12.3.2.2
KDB 789033 D02 v02r01 - Section F

Test settings

Section F

The rules requires "maximum power spectral density" measurements where the intent is to measure the maximum value of the time average of the power spectral density measured during a period of continuous transmission. Refer to III.A for additional guidance for devices that use channel aggregation.

1. Create an average power spectrum for the EUT operating mode being tested by following the instructions in II.E.2. for measuring maximum conducted output power using a spectrum analyzer or EMI receiver: select the appropriate test method (SA-1, SA-2, SA-3, or alternatives to each) and apply it up to, but not including, the step labeled, "Compute power…." (This procedure is required even if the maximum conducted output power measurement was performed using a power meter, method PM.)
2. Search function on the instrument to find the peak of the spectrum and record its value.
3. Adjustments to the peak value of the spectrum, if applicable:

   a) If Method SA-2 or SA-2 Alternative was used, add 10 log (1/x), where x is the duty cycle, to the peak of the spectrum.
   b) If Method SA-3 Alternative was used and the linear mode was used in II.E.2.g) (viii), add 1 dB to the final result to compensate for the difference between linear averaging and power averaging.
4. The result is the Maximum PSD over 1MHz reference bandwidth
5. For devices operating in the bands 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.47-5.725 GHz, the preceding procedures make use of 1 MHz RBW to satisfy directly the 1 MHz reference bandwidth specified in Section 15.407(a)(5). For devices operating in the band 5.725-5.85 GHz, the rules

specify a measurement bandwidth of 500 ㎑. Many spectrum analyzers do not have 500 ㎑ RBW, thus a narrower RBW may need to be used. The rules permit the use of RBWs less than 1㎒, or 500 ㎑, "provided that the measured power is integrated over the full reference bandwidth" to show the total power over the specified measurement bandwidth(i.e., 1 ㎒, or 500 ㎑). If measurements are performed using a reduced resolution bandwidth (< 1 ㎒, or < 500 ㎑) and integrated over 1 ㎒, or 500 ㎑ bandwidth, the following adjustments to the procedures apply:

a) Set RBW≥1/T, where T is defined in II.B.I.a).
b) Set VBW≥3 RBW.
c) If measurement bandwidth of Maximum PSD is specified in 500 ㎑, add 10 log (500 ㎑ /RBW) to the measured result, whereas RBW (<500 ㎑) is the reduced resolution bandwidth of the spectrum analyzer set during measurement.
d) If measurement bandwidth of Maximum PSD is specified in 1 ㎒, add 10 log (1㎒/RBW) to the measured result, whereas RBW (< 1 ㎒) is the reduced resolution bandwidth of spectrum analyzer set during measurement.
e) Care must be taken to ensure that the measurements are performed during a period of continuous transmission or are corrected upward for duty cycle.

Note:

1. As a practical matter, it is recommended to use reduced RBW of 100 ㎑ for the II.F.5.c) and II.F.5.d), since RBW=100 ㎑ is available on nearly all spectrum analyzers.
2. Method SA-2 is used.

Test results

Power spectral density

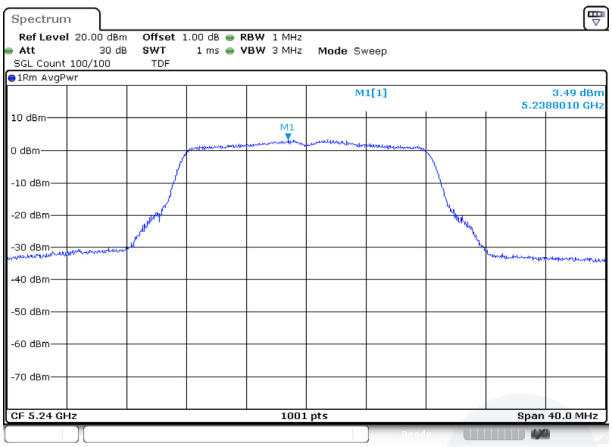
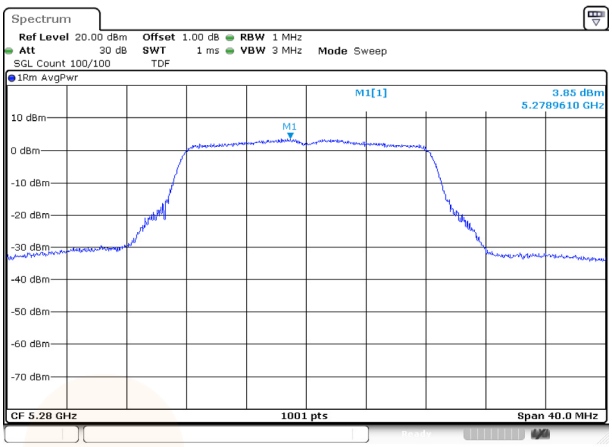
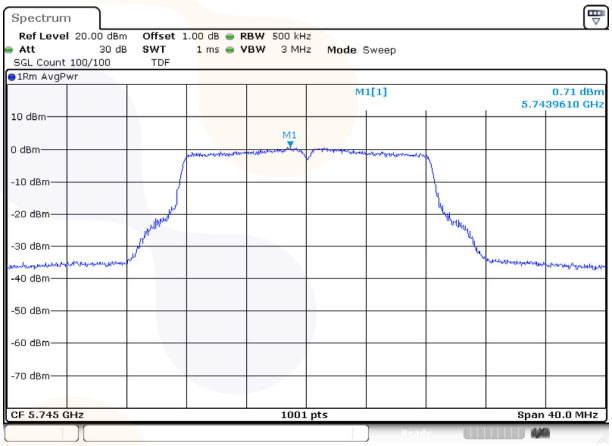
Test mode	Band	Frequency (㎒)	Measured PSD (dBm/㎒)	DCF (dB)	Maximum PSD (dB m/㎒)	Limit (dBm/㎒)
802.11a	UNII 1	5 180	3.29	0.31	3.60	11.00
		5 200	2.68		2.99	
		5 240	3.49		3.80	
	UNII 2A	5 260	3.48		3.79	11.00
		5 280	3.85		4.16	
		5 320	3.81		4.12	
	UNII 2C	5 500	3.27		3.58	11.00
		5 600	3.18		3.49	
		5 700	3.50		3.81	
802.11n HT20	UNII 1	5 180	2.92	0.34	3.26	11.00
		5 200	2.53		2.87	
		5 240	2.67		3.01	
	UNII 2A	5 260	2.62		2.96	11.00
		5 280	2.82		3.16	
		5 320	3.67		4.01	
	UNII 2C	5 500	3.00		3.34	11.00
		5 600	2.26		2.60	
		5 700	2.69		3.03	

Test mode	Band	Frequency (㎒)	Measured PSD (dBm /500 ㎑)	DCF (dB)	Maximum PSD (dB m /500 ㎑)	Limit (dBm /500 ㎑)
802.11a	UNII 1	5 745	0.71	0.31	1.02	30.00
		5 785	0.34		0.65	
		5 825	0.52		0.83	
802.11n HT20	UNII 1	5 745	-0.40	0.34	-0.06	30.00
		5 785	-0.18		0.16	
		5 825	-0.74		-0.40	

Notes:

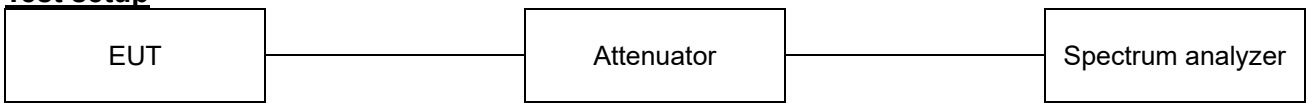
1. Maximum PSD(dB m/500 ㎑) = Reading (dB m/500 ㎑) + D.C.F(dB)

In order to simplify the report, attached plots were the worst case per bandwidth

UNII 1 / 802.11a / High ch.	UNII 2A / 802.11a / Mid ch.
	
UNII 2C / 802.11a / High ch.	**UNII 3 / 802.11a / Low ch.**
	

7.3. 26 dB Bandwidth

Test setup



Limit

N/A

Test procedure

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

Test settings

1. 26 dB Bandwidth

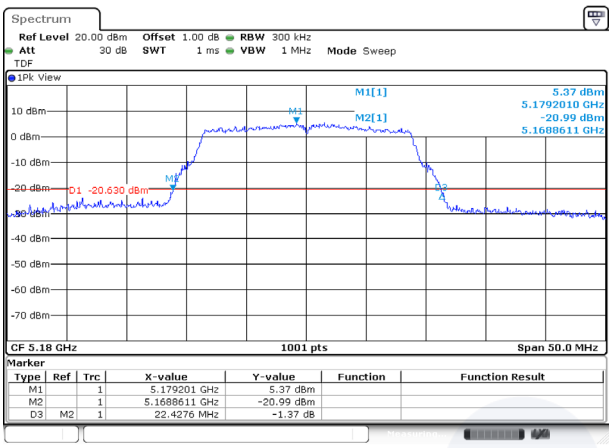
a. Set RBW = approximately 1% of the emission bandwidth.
b. Set the VBW > RBW.
c. Detector = Peak.
d. Trace mode = max hold.
e. Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement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

Test results

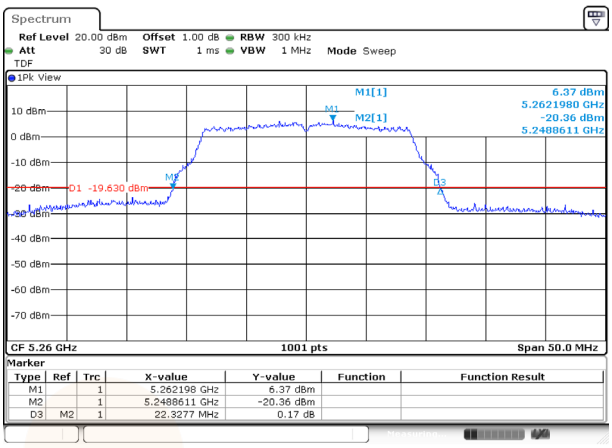
Test mode	Band	Frequency(㎒)	26 ㏈ bandwidth (㎒)
802.11a	UNII 1	5 180	22.18
		5 200	22.18
		5 240	22.28
	UNII 2A	5 260	22.18
		5 280	22.23
		5 320	22.23
	UNII 2C	5 500	22.13
		5 600	22.18
		5 700	22.18
802.11n HT20	UNII 1	5 180	22.43
		5 200	22.48
		5 240	22.48
	UNII 2A	5 260	22.33
		5 280	22.43
		5 320	22.63
	UNII 2C	5 500	22.43
		5 600	22.48
		5 700	22.58

In order to simplify the report, only n mode test plots are attached

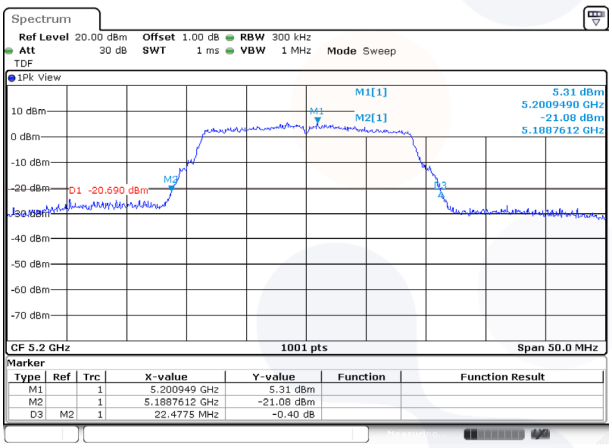
UNII 1 / 802.11n HT20 / Low ch.



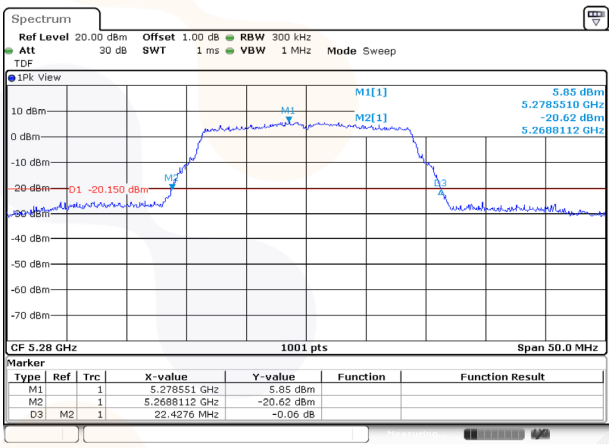
UNII 2A / 802.11n HT20 / Low ch.



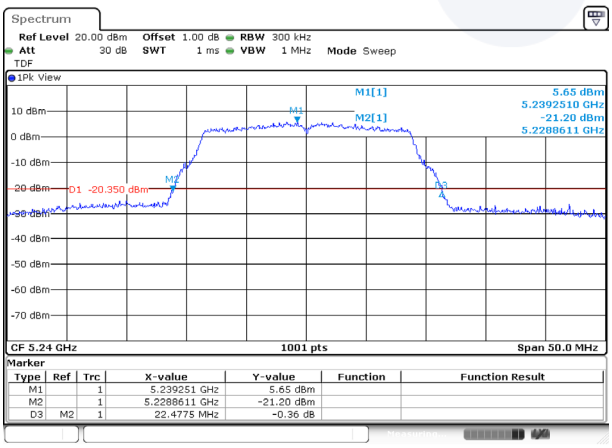
UNII 1 / 802.11n HT20 / Mid ch.



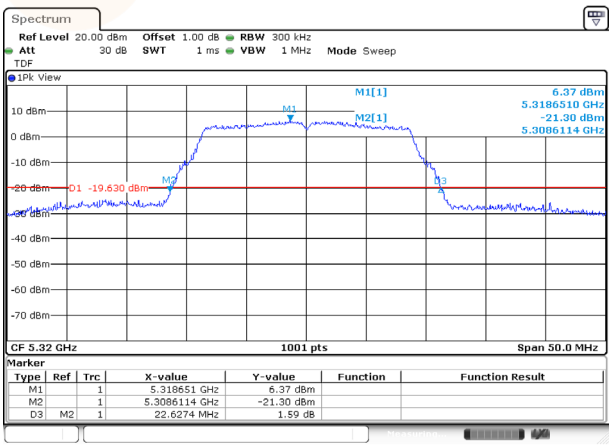
UNII 2A / 802.11n HT20 / Mid ch.



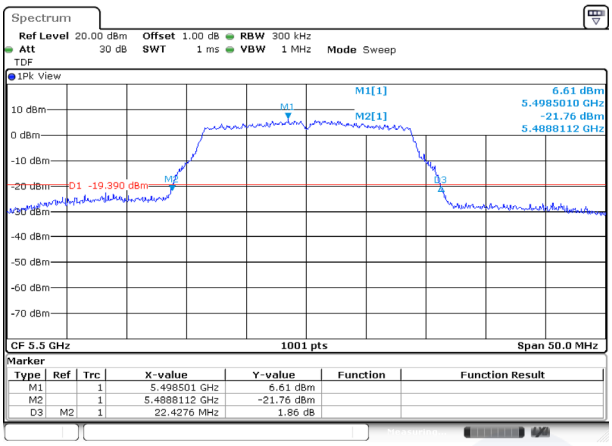
UNII 1 / 802.11n HT20 / High ch.



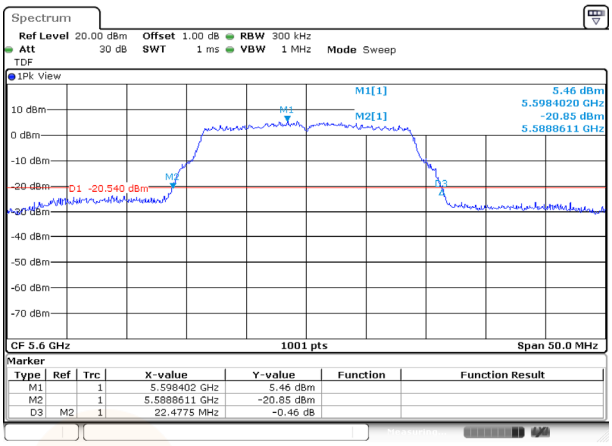
UNII 2A / 802.11n HT20 / High ch.



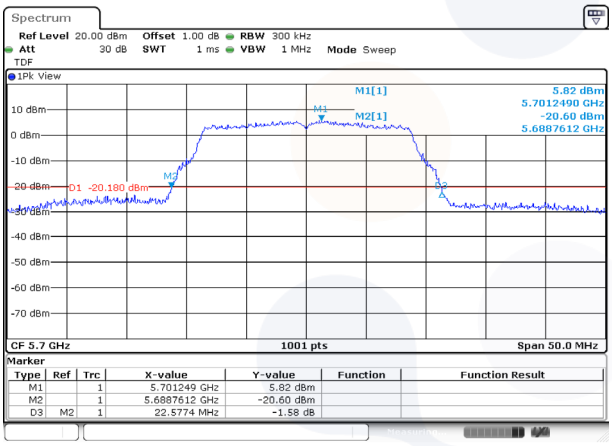
UNII 2C / 802.11n HT20 / Low ch.



UNII 2C / 802.11n HT20 / Mid ch.



UNII 2C / 802.11n HT20 / High ch.

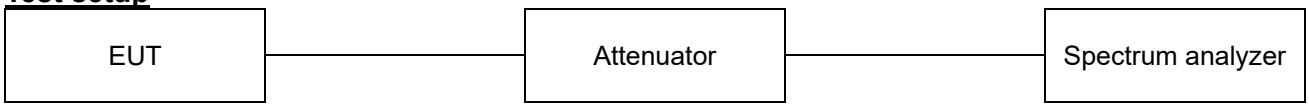


-

Blank

7.4. 6 dB Bandwidth

Test setup



Limit

According to §15.407(e),

Within the 5.725-5.850 ㎓ bands, the minimum 6 ㏈ bandwidth of U-NII devices shall be at least 500㎑.

Test procedure

ANSI C63.10-2013 Section 6.9.2
KDB 789033 D02 v02r01 - Section C.2

Test settings

Minimum Emission Bandwidth for the band 5.725−5.85 ㎓.

Section 15.407(e) specifies the minimum 6 ㏈ emission bandwidth of at least 500 ㎑ for the 5.725−5.85 ㎓ band. The following procedure shall be used for measuring this Bandwidth:

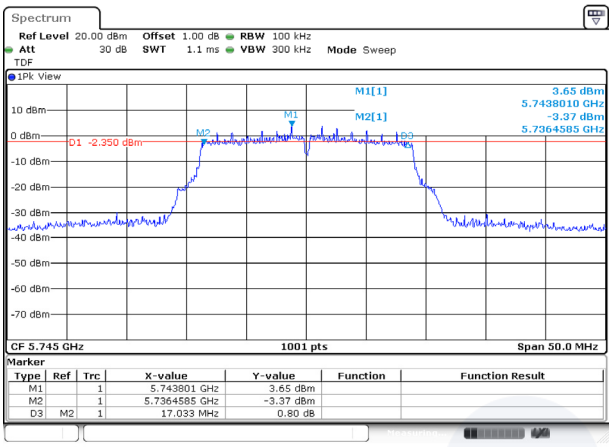
1. Set RBW = 100 ㎑.
2. Set the video bandwidth (VBW) ≥ 3 RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 ㏈ relative to the maximum level measured in the fundamental emission.

Test results

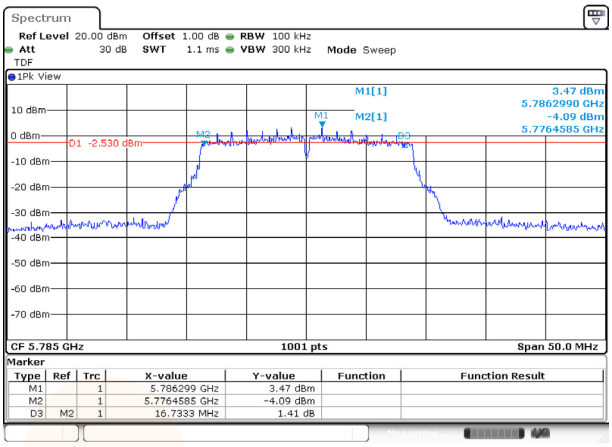
Test mode	Band	Frequency (MHz)	6dB bandwidth (MHz)	Limit (MHz)
802.11a	UNII 3	5 745	16.38	0.50
		5 785	16.38	
		5 825	16.38	
802.11n HT20	UNII 3	5 745	17.03	
		5 785	16.73	
		5 825	17.13	

In order to simplify the report, only n mode test plots are attached

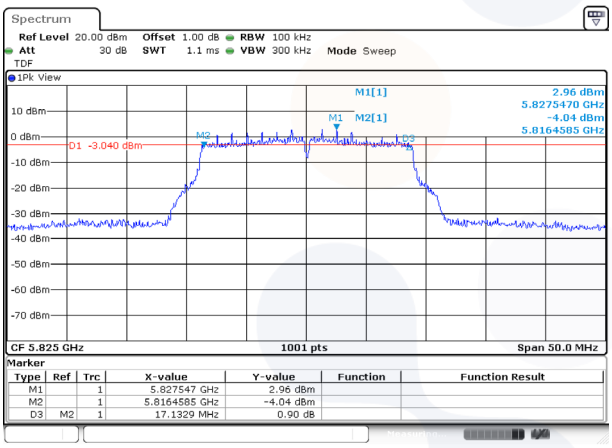
UNII 3 / 802.11n 20 / Low ch.



UNII 3 / 802.11n 20 / Mid ch.



UNII 3 / 802.11n 20 / High ch.



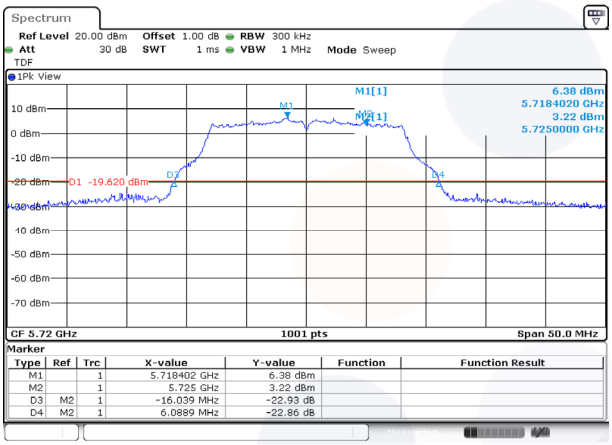
Blank

7.5. Straddle channel

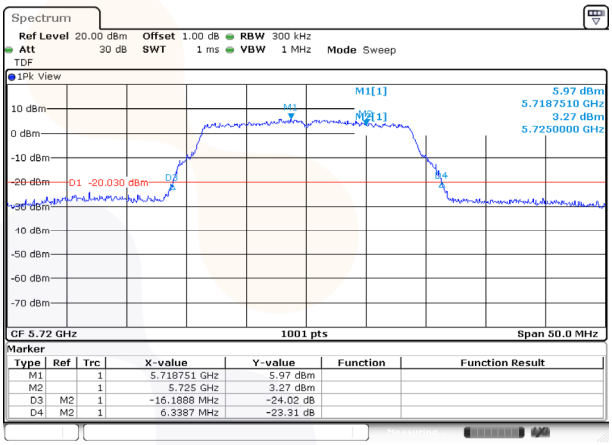
26dB bandwidth

Test mode	Band	Frequency (MHz)	26dB Bandwidth (MHz)
802.11a	UNII 2C	5 720	16.04
802.11n HT20			16.19
802.11a	UNII 3	5 720	6.09
802.11n HT20			6.34

802.11a

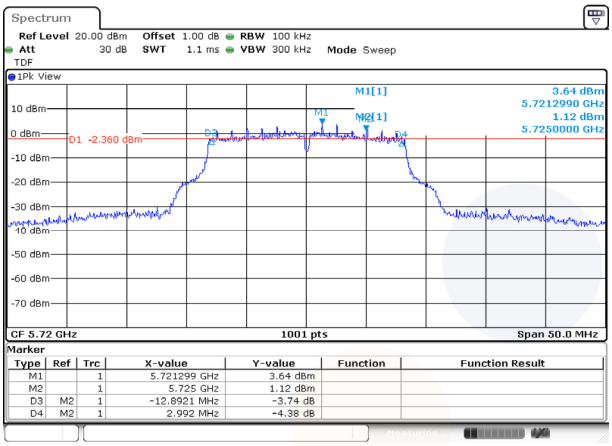
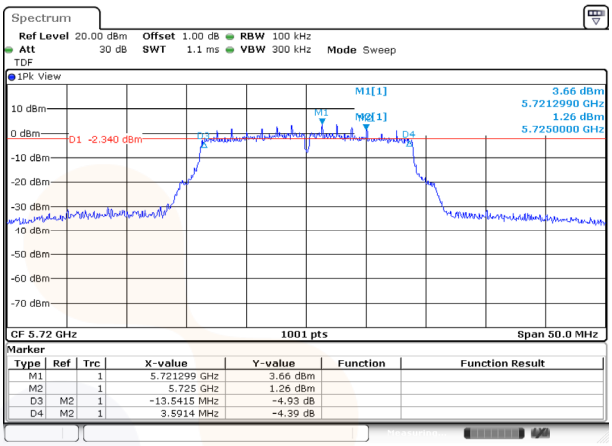


802.11n HT20



6dB bandwidth

Test mode	Band	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)
802.11a	UNII 3	5 720	2.99	0.50
802.11n HT20			3.59	0.50

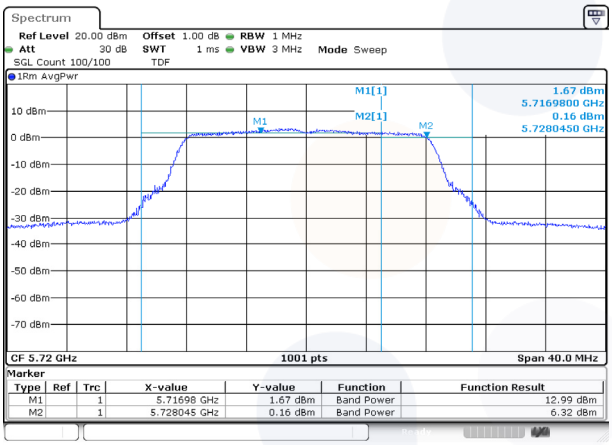
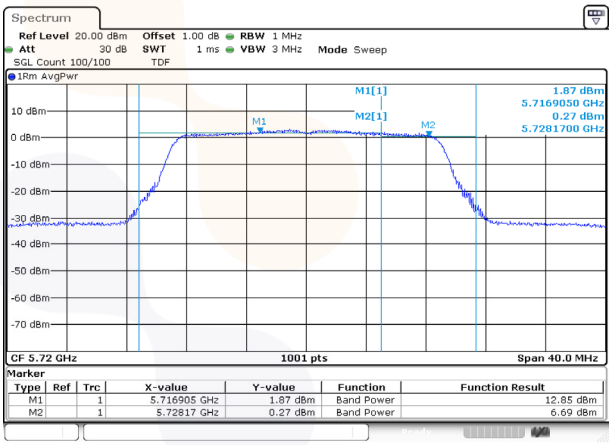
802.11a	802.11n HT20
	

Output Power

Conducted output power

Test mode	Band	Frequency (MHz)	Measured output power			Limit (dBm)
			Reading (dBm)	DCF (dB)	Result (dBm)	
802.11a	UNII 2C	5 720	12.99	0.31	13.30	23.05
802.11n HT20			12.85	0.34	13.19	23.09
802.11a	UNII 3	5 720	6.32	0.31	6.63	30.00
802.11n HT20			6.69	0.34	7.03	30.00

Notes:

1. Result (dBm) = Reading (dBm) + D.C.F (dB)

802.11a	802.11n HT20