TEST REPORT

of

FCC Part 15 Subpart E §15.407

FCC ID: A3LATKM102000

Equipment Under Test	:	ARTIK-1020
Model Name	:	ATKM102000
Variant Model Name	:	ATKM102001, ATKM102002
Applicant	:	Samsung Electronics Co., Ltd.
Manufacturer	:	Samsung Electro-Mechanics Co., Ltd.
Date of Test(s)	:	2016.04.01 ~ 2016.06.05
Date of Issue	:	2016.06.07

In the configuration tested, the EUT complied with the standards specified above.

Tested By: **Date:** **2016.06.07**

Jungmin Yang

Approved By: **Date:** **2016.06.07**

Hyunchae You

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1. General information

1.1. Testing laboratory

SGS Korea Co., Ltd. (Gunpo Laboratory)
- Wireless Div. 2FL, 10-2, LS-ro 182beon-gil, Gunpo-si, Gyeonggi-do, Korea, 15807

All SGS services are rendered in accordance with the applicable SGS conditions of service available on request and accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx.

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1.2. Details of applicant

Applicant : Samsung Electronics Co., Ltd.
Address : 1, Samsung-ro, Giheung-gu, Yongin-si, Gyeonggi-do, 17113 Korea
Contact Person : Lee, Jae-Hyuk
Phone No. : +82 10 8848 6628

1.3. Description of EUT

Kind of Product		ARTIK-1020
Model Name		ATKM102000
Variant Model Name		ATKM102001, ATKM102002
Power Supply		DC 4.2 V
Frequency Range		2 402 ㎒ ~ 2 480 ㎒ (Bluetooth, Bluetooth Low Energy), 2 405 ㎒ ~ 2 475 ㎒ (Zigbee), 2 412 ㎒ ~ 2 462 ㎒ (11b/g/n_HT20), 2 422 ㎒ ~ 2 452 ㎒ (11n_HT40), 5 745 ㎒ ~ 5 825 ㎒ (Band 3: 11a/n_HT20, 11ac_VHT20), 5 755 ㎒ ~ 5 795 ㎒ (Band 3: 11n_HT40, 11ac_VHT40), 5 775 ㎒ (Band 3: 11ac_VHT80), 5 180 ㎒ ~ 5 220 ㎒ (Band 1: 11a/n_HT20, 11ac_VHT20), 5 190 ㎒ (Band 1: 11n_HT40, 11ac_VHT40), 5 260 ㎒ ~ 5 320 ㎒ (Band 2A: 11a/n_HT20, 11ac_VHT20), 5 270 ㎒ ~ 5 310 ㎒ (Band 2A: 11n_HT40, 11ac_VHT40), 5 290 ㎒ (Band 2A: 11ac_VHT80), 5 500 ㎒ ~ 5 720 ㎒ (Band 2C: 11a/n_HT20, 11ac_VHT20), 5 510 ㎒ ~ 5 710 ㎒ (Band 2C: 11n_HT40, 11ac_VHT40), 5 530 ㎒ ~ 5 690 ㎒ (Band 2C: 11ac_VHT80)
Modulation Technique		DSSS, OFDM, GFSK, π/4DQPSK, 8DPSK
Number of Channels		79 channel (Bluetooth), 40 channel (Bluetooth Low Energy), 15 channel (Zigbee), 11 channel (11b/g/n_HT20), 7 channel (11n_HT40), 5 channel (Band 3: 11a/n_HT20, 11ac_VHT20), 2 channel (Band 3: 11n_HT40, 11ac_VHT40), 1 channel (Band 3: 11ac_VHT80), 3 channel (Band 1: 11a/n_HT20, 11ac_VHT20), 1 channel (Band 1: 11n_HT40, 11ac_VHT40), 4 channel (Band 2A: 11a/n_HT20, 11ac_VHT20), 2 channel (Band 2A: 11n_HT40, 11ac_VHT40), 1 channel (Band 2A: 11ac_VHT80), 9 channel (Band 2C: 11a/n_HT20, 11ac_VHT20), 4 channel (Band 2C: 11n_HT40, 11ac_VHT40), 2 channel (Band 2C: 11ac_VHT80)
Antenna Type		Dipole antenna
Antenna Gain	**Port#1**	2 402 ㎒ ~ 2 480 ㎒: 2.7 ㏈i, 2 412 ㎒ ~ 2 462 ㎒ (MIMO): 2.7 ㏈i, 5 180 ㎒ ~ 5 320 ㎒ (MIMO): 2.7 ㏈i, 5 500 ㎒ ~ 5 720 ㎒ (MIMO): 2.7 ㏈i, 5 745 ㎒ ~ 5 825 ㎒ (MIMO): 2.7 ㏈i
	Port#2	2 412 ㎒ ~ 2 462 ㎒ (MIMO): 2.7 ㏈i, 5 180 ㎒ ~ 5 320 ㎒ (MIMO): 2.7 ㏈i, 5 500 ㎒ ~ 5 720 ㎒ (MIMO): 2.7 ㏈i, 5 745 ㎒ ~ 5 825 ㎒ (MIMO): 2.7 ㏈i
	Port#3	2 405 ㎒ ~ 2 475 ㎒: 2.7 ㏈i
H/W Version		V0.5_R04
S/W Version		1020GC0F-3AF-01Q0

1.4. Declaration by the manufacturer

- The EUT is a slave without radar detection and TPC.
- EUT is not supported TDWR(5.6-5.65 ㎓) band.

1.5. Test equipment list

Equipment	Manufacturer	Model	S/N	Cal Date	Cal Interval	Cal Due.
Signal Generator	Agilent	E8257D	MY51501169	Jul. 13, 2015	Annual	Jul. 13, 2016
Signal Generator	R&S	SMBV100A	255834	Jun. 22, 2015	Annual	Jun. 22, 2016
Spectrum Analyzer	R&S	FSV30	103100	Jun. 22, 2015	Annual	Jun. 22, 2016
Spectrum Analyzer	Agilent	N9030A	MY53120526	Jun. 23, 2015	Annual	Jun. 23, 2016
Power Meter	Anritsu	ML2495A	1223004	Jun. 08, 2015	Annual	Jun. 08, 2016
Power Sensor	Anritsu	MA2411B	1207272	Jun. 08, 2015	Annual	Jun. 08, 2016
Attenuator	MCLI	FAS-23-20	23834	Jun. 08, 2015	Annual	Jun. 08, 2016
Low Pass Filter	Mini-Circuits	NLP-1200+	V 8979400903-2	Feb. 29, 2016	Annual	Feb. 29, 2017
High Pass Filter	Wainwright Instrument GmbH	WHNX6.0/18G-10SS	51	Jun. 23, 2015	Annual	Jun. 23, 2016
High Pass Filter	Wainwright Instrument GmbH	WHK7.5/26.5G-6SS	15	Jun. 23, 2015	Annual	Jun. 23, 2016
DC Power Supply	Agilent	U8002A	MY53150029	Jun. 22, 2015	Annual	Jun. 22, 2016
Preamplifier	H.P.	8447F	2944A03909	Aug. 27, 2015	Annual	Aug. 27, 2016
Preamplifier	R&S	SCU-18	10117	Apr. 07, 2016	Annual	Apr. 07, 2017
Preamplifier	MITEQ Inc.	JS44-18004000-35-8P	1546891	May 12, 2016	Annual	May 12, 2017
Loop Antenna	R&S	HFH2-Z2	100118	Jun. 04, 2015	Biennial	Jun. 04, 2017
Bilog Antenna	Schwarzbeck Mess-Elektronik	VULB9163	396	Jun. 18, 2015	Biennial	Jun. 18, 2017
Horn Antenna	R&S	HF906	100608	Oct. 16, 2014	Biennial	Oct. 16, 2016
Horn Antenna	Schwarzbeck Mess-Elektronik	BBHA9170	BBHA9170223	Sep. 01, 2014	Biennial	Sep. 01, 2016
Antenna Master	INN-CO	MM4000	N/A	N.C.R.	N/A	N.C.R.
Turn Table	INN-CO	DS 1200 S	N/A	N.C.R.	N/A	N.C.R.
Test Receiver	R&S	ESU26	100109	Mar. 07, 2016	Annual	Mar. 07, 2017
Anechoic Chamber	SY Corporation	L × W × H (9.6 m × 6.4 m × 6.6 m)	N/A	N.C.R.	N/A	N.C.R.
Test Receiver	R&S	ESCI 7	100911	Dec. 22, 2015	Annual	Dec. 22, 2016
Artificial Mains Networks	R&S	ESH2-Z5	100280	Mar. 25, 2016	Annual	Mar. 25, 2017
Shield Room	SY Corporation	L × W × H (6.5 m × 3.5 m × 3.5 m)	N/A	N.C.R.	N/A	N.C.R.

▶ Support equipment

Description	Manufacturer	Model	Serial Number / FCC ID
N/A	-	-	-

1.6. Summary of test result

The EUT has been tested according to the following specifications:

APPLIED STANDARD : FCC Part 15 Subpart E		
Standard section	**Test Item**	**Result**
15.205(a) 15.209(a) 15.407(b)(1) 15.407(b)(2) 15.407(b)(3) 15.407(b)(4)	Transmitter radiated spurious emissions	Complied
15.407(a)	26 dB Bandwidth	Complied
15.407(e)	6 dB Bandwidth	Complied
15.407(a)(1) 15.407(a)(2) 15.407(a)(3)	Maximum Conducted Output Power	Complied
15.407(a)(1) 15.407(a)(2) 15.407(a)(3)	Peak power spectral density	Complied
15.207	AC Power Line Conducted Emission	Complied

1.7. Test Procedure(s)

The measurement procedures described in the American National Standard for Testing Unlicensed Wireless Devices (ANSI C63.10-2009) and the guidance provided in KDB 789033_v01r02 were used in the measurement of the DUT.

1.8. Sample calculation

Where relevant, the following sample calculation is provided:

1.8.1. Conducted test

Offset value (dB) = Attenuator (dB) + Cable loss (dB)

1.8.2. Radiation test

Field strength level ($dB\mu V/m$) = Measured level ($dB\mu V$) + Antenna factor (dB) + Cable loss (dB) - Amplifier gain (dB)

1.9. Test report revision

Revision	Report number	Date of Issue	Description
0	F690501/RF-RTL009774	2016.04.29	Initial
1	F690501/RF-RTL009774-1	2016.06.07	Add DFS band test result

1.10. Information of variant models

Model		Information
Basic Model	ATKM102000	**H/W** - PCB Layout and Out-line are the exactly same between both models. (PCB : Common used for both models) - PMIC, RF TRCV and Memory are the exactly same between both models. - Main Chip has perfectly same specifications except security features. (Main Chip does not support security features) **S/W** - ATKM102000, ATKM102001, ATKM102002 has same FW. - User can update FW if they need.
Variant Model	ATKM102001	**H/W** - Same to main model except security features. (Main Chip support Secure Boot) **S/W** - Same to main model.
	ATKM102002	**H/W** - Same to main model except security features. (Main Chip support Secure Boot & Secure JTAG) **S/W** - Same to main model.

1.11. Duty Cycle of EUT

Regarding to KDB789033 v01r02, B, the maximum duty cycles of all modes were investigated and set the spectrum analyzer as below
Set RBW ≥ OBW if possible; otherwise, set RBW to the largest available value, Set VBW ≥ RBW. Set detector = peak or average. The zero-span measurement method shall not be used unless both RBW and VBW are > 50/T and the number of sweep points across duration T exceeds 100.

Mode	Data Rate (Mbps)									
11a	**6**	**9**	**12**	**18**	**24**	**36**	**48**	**54**	**-**	**-**
Duty Cycle (%)	98	97	96	94	93	90	87	86	-	-
Correction factor (dB)	0.09	0.13	0.18	0.27	0.32	0.46	0.60	0.66	-	-
11n_HT20	**MCS8**	**MCS9**	**MCS10**	**MCS11**	**MCS12**	**MCS13**	**MCS14**	**MCS15**	**-**	**-**
Duty Cycle (%)	97	95	93	91	88	86	86	84	-	-
Correction factor (dB)	0.13	0.22	0.32	0.41	0.56	0.66	0.66	0.76	-	-
11n_HT40	**MCS8**	**MCS9**	**MCS10**	**MCS11**	**MCS12**	**MCS13**	**MCS14**	**MCS15**	**-**	**-**
Duty Cycle (%)	95	91	89	86	83	81	78	79	-	-
Correction factor (dB)	0.22	0.41	0.51	0.66	0.81	0.92	1.08	1.02	-	-
11ac_VHT80	**MCS0**	**MCS1**	**MCS2**	**MCS3**	**MCS4**	**MCS5**	**MCS6**	**MCS7**	**MCS8**	**MCS9**
Duty Cycle (%)	91	86	83	82	79	77	77	75	75	75
Correction factor (dB)	0.41	0.66	0.81	0.86	1.02	1.14	1.14	1.25	1.25	1.25

Remark:

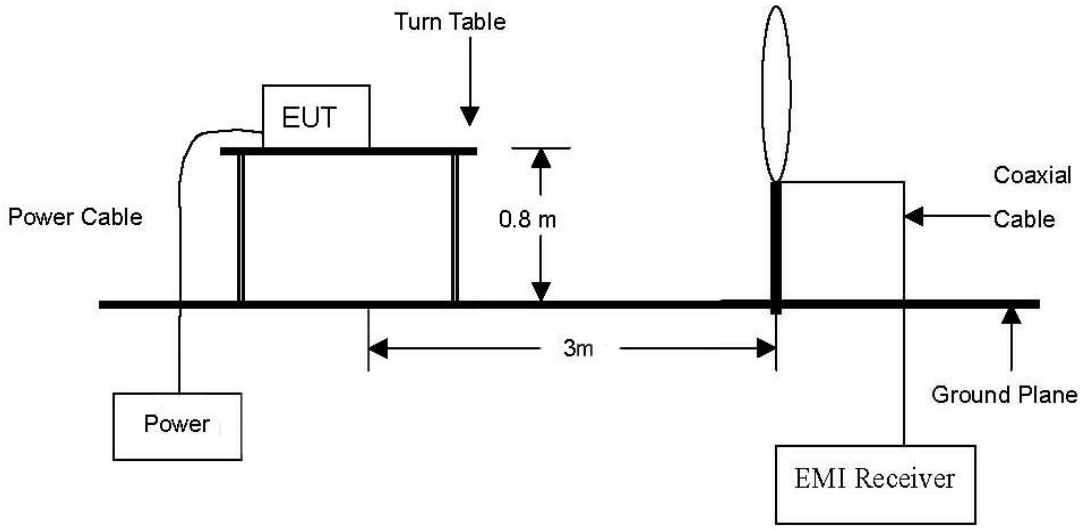
1. As measured duty cycles of EUT, all of mode and data rate keep constant period and are converted to log scale (power averaging) to compensate correction factor to result of average test items.
2. Duty cycle (%) = (Tx on time / Tx on + off time) x 100
3. Correction factor (dB) = 10 log (1 / Duty cycle)

2. Transmitter radiated spurious emissions

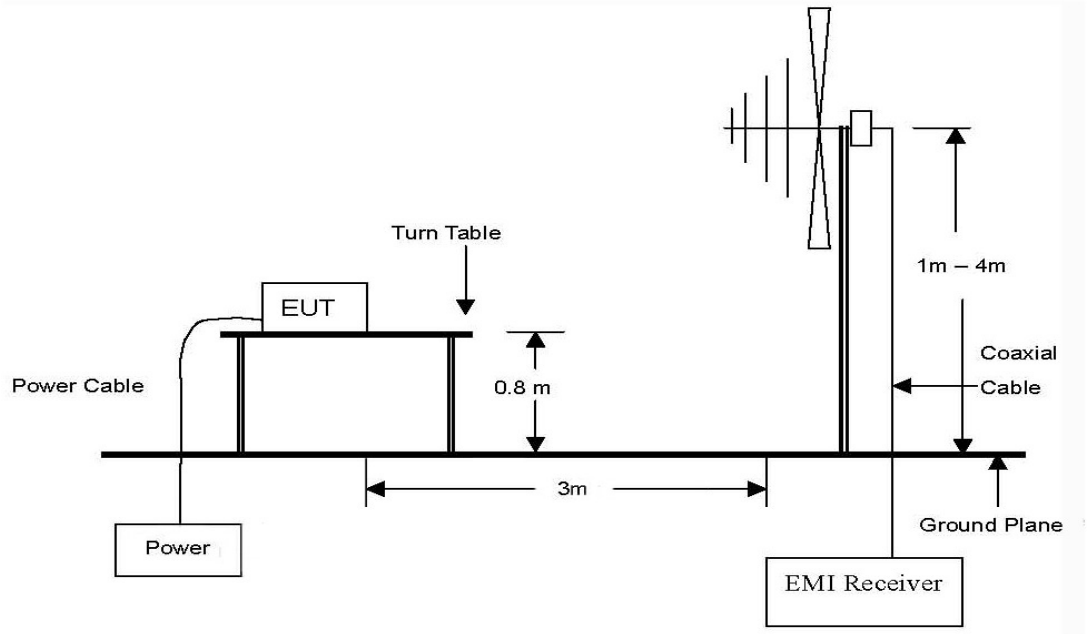
2.1. Test setup

2.1.1. Transmitter Radiated Spurious Emissions

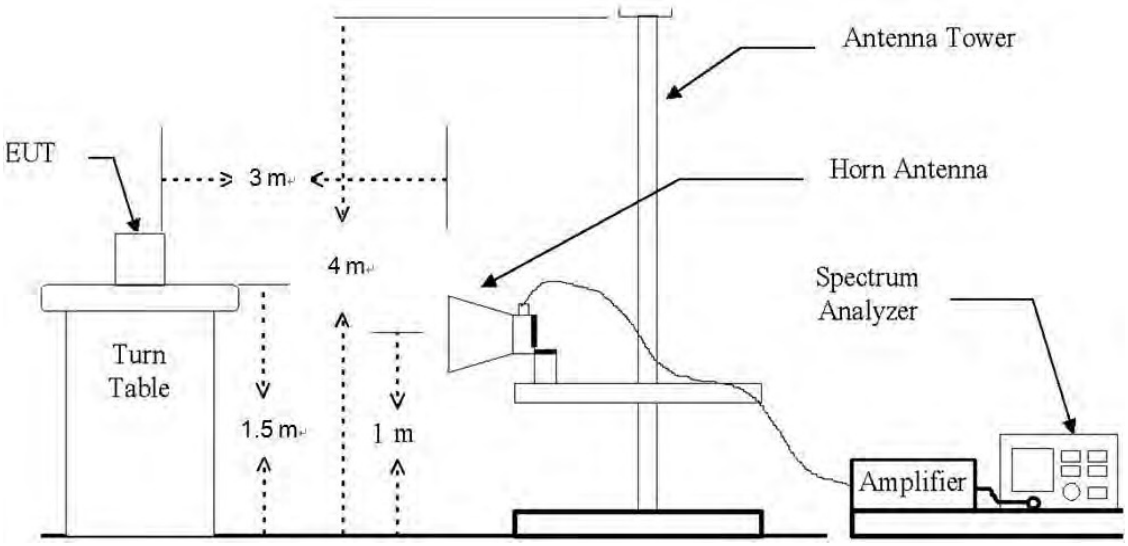
The diagram below shows the test setup that is utilized to make the measurements for emission from 9 ㎑ to 30 ㎒ Emissions.



The diagram below shows the test setup that is utilized to make the measurements for emission from 30 ㎒ to 1 ㎓ Emissions.



The diagram below shows the test setup that is utilized to make the measurements for emission. The spurious emissions were investigated form 1 ㎓ to the 10th harmonic of the highest fundamental frequency or 40 ㎓, whichever is lower.



2.2. Limit

For transmitters operating in the 5.15-5.25 ㎓ band: all emissions outside of the 5.15-5.35 ㎓ band shall not exceed an EIRP of -27 ㏈ m/㎒.
For transmitters operating in the 5.25-5.35 ㎓ band: all emissions outside of the 5.15-5.35 ㎓ band shall not exceed an EIRP of -27 ㏈ m/㎒.
For transmitters operating in the 5.47-5.725 ㎓ band: all emissions outside of the 5.47-5.725 ㎓ band shall not exceed an EIRP of -27 ㏈ m/㎒.
For transmitters operating in the 5.725-5.85 ㎓ band: All emissions within the frequency range from the band edge to 10 ㎒ above or below the band edge shall not exceed an e.i.r.p. of -17 ㏈ m/㎒; for frequencies 10 ㎒ or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of -27 ㏈ m/㎒.

According to § 15.209(a), Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table：

Frequency (㎒)	Distance (Meters)	Field Strength (㏈㎶/m)	Field Strength (㎶/m)
0.009 - 0.490	300	20 log (2 400/F(㎑))	2 400/F(㎑)
0.490 - 1.705	30	20 log (24 000/F(㎑))	24 000/F(㎑)
1.705 - 30.0	30	29.54	30
30 - 88	3	40.0	100**
88 - 216	3	43.5	150**
216 - 960	3	46.0	200**
Above 960	3	54.0	500

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

2.3. Test procedures

Radiated spurious emissions from the EUT were measured according to the dictates in section G of KDB 789033_v01r02 and ANSI C63.10-2009.

Remark:
Testing for radiated emissions above 1 ㎓ was performed with the EUT elevated at 1.5 m instead of 0.8 m. 1.5 m is the required height in ANSI C63.10:2013 as referenced by RSS-GEN issue 4. This test height has been permitted by FCC as discussed in FCC-TCB conference call in December 2014.

2.3.1. Test Procedures for emission below 30 ㎒

1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter anechoic chamber test site. The table was rotated 360 degrees to determine the position of the highest radiation.
2. Then antenna is a loop antenna is fixed at one meter above the ground to determine the maximum value of the field strength. Both parallel and perpendicular of the antenna are set to make the measurement.
3. For each suspected emission, the EUT was arranged to its worst case and then the table was turned from 0 degrees to 360 degrees to find the maximum reading.
4. The test-receiver system was set to average or quasi peak detect function and Specified Bandwidth with Maximum Hold Mode.

2.3.2. Test Procedures for emission from above 30 ㎒

1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter anechoic chamber test site below 1 ㎓ and 1.5 meters above the ground at a 3 meter anechoic chamber test site above 1 ㎓. The table was rotated 360 degrees to determine the position of the highest radiation.
2. During performing radiated emission below 1 ㎓, the EUT was set 3 meters away from the interference receiving antenna, which was mounted on the top of a variable-height antenna tower. During performing radiated emission above 1 ㎓, the EUT was set 3 meter away from the interference-receiving antenna.
3. The antenna is a bi-log antenna, a horn antenna and its 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.
4. 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 and the table was turned from 0 degrees to 360 degrees to find the maximum reading.
5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
6. If the emission level of the EUT in peak mode was 10 ㏈ 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 10 ㏈ margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

NOTE;

All data rates and modes were investigated for radiated spurious emissions. Only the radiated emissions of the configuration that produced the worst case emissions are reported in this section.

- The measurements for below 1 ㎓ refer to section II.G.4.
Compliance shall be demonstrated using CISPR quasi-peak detection; however, peak detection is permitted as an alternative to quasi-peak detection.

- The measurements for above 1 ㎓ II.G.5.
Peak emission levels are measured by setting the analyzer as follows:
Set to RBW = 1 ㎒, VBW ≥ 3 ㎒, Detector = Peak, Sweep time = auto, Trace mode= Max hold

- The measurements for above 1 ㎓ II.G.6.
Average emission levels are measured by setting the analyzer as follows:
Set to RBW = 1 ㎒, VBW ≥ 3 ㎒, Detector = power averaging (rms), Averaging type = power averaging (rms), Sweep time = auto, Perform a trace average of at least 100 traces If the transmission is continuous, If the transmission is not continuous, the number of traces shall be increased by a factor of 1/x, where x is the duty cycle. For example, with 50% duty cycle, at least 200 traces shall be averaged.

If tests are performed with the EUT transmitting at a duty cycle less than 98%, a correction factor shall be added to the measurement results prior to comparing to the emission limit in order to compute the emission level that would have been measured had the test been performed at 100% duty cycle. The correction factor is computed as follows:

- If power averaging (rms) mode was used in step (iv) above, the correction factor is 10 log (1/x), where x is the duty cycle. For example, if the transmit duty cycle was 50%, then 3 dB must be added to the measured emission levels.

- If a specific emission is demonstrated to be continuous (100% duty cycle) rather than turning on and off with the transmit cycle, no duty cycle correction is required for that emission.

- To get a maximum emission level from the EUT, the EUT is manipulated through three orthogonal planes (X, Y, Z). Worst orthogonal plan of EUT is **Z – axis** during radiation test.

2.4. Test result

Ambient temperature : (23 ± 1) ℃
Relative humidity : 47 % R.H.

2.4.1. Radiated Spurious Emission below 1 000 ㎒

The frequency spectrum from 9 ㎑ to 1 000 ㎒ was investigated. All reading values are peak values.

Radiated Emissions			Ant.	Correction Factors		Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP + CL (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
47.26	36.20	Peak	H	15.97	-27.06	25.11	40.00	14.89
47.99	42.20	Peak	V	14.59	-27.06	29.73	40.00	10.27
53.97	39.70	Peak	V	13.86	-26.99	26.57	40.00	13.43
75.63	40.20	Peak	V	9.96	-26.81	23.35	40.00	16.65
101.42	39.70	Peak	V	11.98	-26.62	25.06	43.50	18.44
203.99	38.90	Peak	H	11.53	-25.79	24.64	43.50	18.86
Above 300.00	Not detected	-	-	-	-	-	-	-

Remark:

1. Spurious emissions for all channels and modes were investigated and almost the same below 1 ㎓.
2. Reported spurious emissions are in **11n_HT20 (Band 1) / MCS8 / High channel** as worst case among other modes.
3. Radiated spurious emission measurement as below.
   (Actual = Reading + AF + AMP + CL)
4. According to §15.31(o), emission levels are not report much lower than the limits by over 20 ㏈.

2.4.2. Radiated Spurious Emission above 1 000 ㎒

802.11a (Band 1)_6 Mbps - ANT1

A. Low Channel (5 180 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*4 500.00	17.43	Peak	H	31.84	7.42	-	56.69	74.00	17.31
*4 500.00	8.58	Average	H	31.84	7.42	-	47.84	54.00	6.16
*4 868.29	20.34	Peak	H	32.83	7.57	-	60.74	74.00	13.26
*5 149.34	9.39	Average	H	33.38	7.49	-	50.26	54.00	3.74
*5 150.00	17.85	Peak	H	33.38	7.49	-	58.72	74.00	15.28
*5 150.00	9.14	Average	H	33.38	7.49	-	50.01	54.00	3.99

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

B. Middle Channel (5 200 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

C. High Channel (5 220 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

802.11a (Band 2A)_6 Mbps - ANT1

A. Low Channel (5 260 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

B. Middle Channel (5 280 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

C. High Channel (5 320 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*5 350.00	16.62	Peak	H	33.66	8.27	-	58.55	74.00	15.45
*5 350.00	7.99	Average	H	33.66	8.27	-	49.92	54.00	4.08
*5 367.40	19.00	Peak	H	33.68	8.39	-	61.07	74.00	12.93
*5 353.45	8.79	Average	H	33.66	8.29	-	50.74	54.00	3.26
*5 460.00	16.24	Peak	H	33.81	8.29	-	58.34	74.00	15.66
*5 460.00	7.02	Average	H	33.81	8.29	-	49.12	54.00	4.88

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*10 639.07	36.49	Peak	H	37.83	-26.51	-	47.81	74.00	26.19
*10 639.07	25.83	Average	H	37.83	-26.51	-	37.15	54.00	16.85
Above 10 700.00	Not detected	-	-	-	-	-	-	-	-

802.11a (Band 2C)_6 Mbps - ANT1

A. Low Channel (5 500 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*5 350.00	17.07	Peak	H	33.66	8.27	-	59.00	74.00	15.00
*5 350.00	7.62	Average	H	33.66	8.27	-	49.55	54.00	4.45
*5 431.53	19.49	Peak	H	33.77	8.41	-	61.67	74.00	12.33
*5 380.65	8.38	Average	H	33.70	8.48	-	50.56	54.00	3.44
*5 460.00	16.12	Peak	H	33.81	8.29	-	58.22	74.00	15.78
*5 460.00	7.61	Average	H	33.81	8.29	-	49.71	54.00	4.29

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*10 998.58	36.88	Peak	H	38.08	-27.55	-	47.41	74.00	26.59
*11 000.42	25.82	Average	H	38.08	-27.55	-	36.35	54.00	17.65
Above 11 100.00	Not detected	-	-	-	-	-	-	-	-

B. Middle Channel (5 580 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*11 157.62	35.91	Peak	H	38.20	-27.10	-	47.01	74.00	26.99
*11 161.91	24.87	Average	H	38.20	-27.07	-	36.00	54.00	18.00
Above 11 200.00	Not detected	-	-	-	-	-	-	-	-

C. High Channel (5 720 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*11 439.83	35.03	Peak	H	38.41	-25.91	-	47.53	74.00	26.47
*11 441.18	24.84	Average	H	38.41	-25.92	-	37.33	54.00	16.67
Above 11 500.00	Not detected	-	-	-	-	-	-	-	-

802.11a (Band 3)_6 Mbps - ANT1

A. Low Channel (5 745 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
5 707.68	18.46	Peak	H	34.20	7.85	-	60.51	68.23	7.72
5 716.55	19.22	Peak	H	34.22	7.91	-	61.35	78.23	16.88

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
*11 492.45	35.75	Peak	H	38.44	-26.05	-	48.14	74.00	25.86
*11 490.39	25.78	Average	H	38.44	-26.05	-	38.17	54.00	15.83
Above 11 500.00	Not detected	-	-	-	-	-	-	-	-

B. Middle Channel (5 785 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
*11 570.97	35.50	Peak	H	38.43	-26.17	-	47.76	74.00	26.24
*11 571.38	25.31	Average	H	38.43	-26.17	-	37.57	54.00	16.43
Above 11 600.00	Not detected	-	-	-	-	-	-	-	-

C. High Channel (5 825 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
5 858.96	19.15	Peak	H	34.45	8.23	-	61.83	78.23	16.40
5 866.72	20.03	Peak	H	34.46	8.24	-	62.73	68.23	5.50

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
*11 650.94	36.26	Peak	H	38.40	-26.04	-	48.62	74.00	25.38
*11 651.55	25.64	Average	H	38.40	-26.04	-	38.00	54.00	16.00
Above 11 700.00	Not detected	-	-	-	-	-	-	-	-

802.11a (Band 1)_6 Mbps - ANT2

A. Low Channel (5 180 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*4 500.00	17.34	Peak	H	31.84	7.42	-	56.60	74.00	17.40
*4 500.00	8.11	Average	H	31.84	7.42	-	47.37	54.00	6.63
*5 040.57	19.84	Peak	H	33.24	7.34	-	60.42	74.00	13.58
*5 146.42	9.39	Average	H	33.38	7.49	-	50.26	54.00	3.74
*5 150.00	18.06	Peak	H	33.38	7.49	-	58.93	74.00	15.07
*5 150.00	9.36	Average	H	33.38	7.49	-	50.23	54.00	3.77

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

B. Middle Channel (5 200 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

C. High Channel (5 220 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

802.11a (Band 2A)_6 Mbps - ANT2

A. Low Channel (5 260 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

B. Middle Channel (5 280 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

C. High Channel (5 320 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
*5 350.00	16.58	Peak	H	33.66	8.27	-	58.51	74.00	15.49
*5 350.00	7.94	Average	H	33.66	8.27	-	49.87	54.00	4.13
*5 378.95	19.57	Peak	H	33.70	8.47	-	61.74	74.00	12.26
*5 364.55	8.35	Average	H	33.68	8.37	-	50.40	54.00	3.60
*5 460.00	15.55	Peak	H	33.81	8.29	-	57.65	74.00	16.35
*5 460.00	7.66	Average	H	33.81	8.29	-	49.76	54.00	4.24

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
*10 638.01	36.33	Peak	H	37.83	-26.51	-	47.65	74.00	26.35
*10 638.40	25.76	Average	H	37.83	-26.51	-	37.08	54.00	16.92
Above 10 700.00	Not detected	-	-	-	-	-	-	-	-

802.11a (Band 2C)_6 Mbps - ANT2

A. Low Channel (5 500 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*5 350.00	16.57	Peak	H	33.66	8.27	-	58.50	74.00	15.50
*5 350.00	7.29	Average	H	33.66	8.27	-	49.22	54.00	4.78
*5 378.95	19.26	Peak	H	33.70	8.47	-	61.43	74.00	12.57
*5 454.95	8.66	Average	H	33.80	8.29	-	50.75	54.00	3.25
*5 460.00	18.59	Peak	H	33.81	8.29	-	60.69	74.00	13.31
*5 460.00	8.03	Average	H	33.81	8.29	-	50.13	54.00	3.87

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*11 001.17	36.71	Peak	H	38.08	-27.55	-	47.24	74.00	26.76
*11 000.26	25.94	Average	H	38.08	-27.55	-	36.47	54.00	17.53
Above 11 100.00	Not detected	-	-	-	-	-	-	-	-

B. Middle Channel (5 580 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*11 157.09	35.29	Peak	H	38.20	-27.10	-	46.39	74.00	27.61
*11 160.43	24.95	Average	H	38.20	-27.08	-	36.07	54.00	17.93
Above 11 200.00	Not detected	-	-	-	-	-	-	-	-

C. High Channel (5 720 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*11 439.38	35.24	Peak	H	38.41	-25.90	-	47.75	74.00	26.25
*11 442.04	24.86	Average	H	38.41	-25.92	-	37.35	54.00	16.65
Above 11 500.00	Not detected	-	-	-	-	-	-	-	-

802.11a (Band 3)_6 Mbps - ANT2

A. Low Channel (5 745 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
5 713.54	18.42	Peak	H	34.21	7.89	-	60.52	68.23	7.71
5 720.95	19.02	Peak	H	34.22	7.94	-	61.18	78.23	17.05

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
*11 489.73	36.03	Peak	H	38.44	-26.05	-	48.42	74.00	25.58
*11 489.74	25.92	Average	H	38.44	-26.05	-	38.31	54.00	15.69
Above 11 500.00	Not detected	-	-	-	-	-	-	-	-

B. Middle Channel (5 785 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
*11 570.16	36.16	Peak	H	38.43	-26.16	-	48.43	74.00	25.57
*11 570.90	25.35	Average	H	38.43	-26.17	-	37.61	54.00	16.39
Above 11 600.00	Not detected	-	-	-	-	-	-	-	-

C. High Channel (5 825 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
5 859.92	19.60	Peak	H	34.45	8.23	-	62.28	78.23	15.95
5 860.78	19.11	Peak	H	34.45	8.24	-	61.80	68.23	6.43

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
*11 652.97	35.70	Peak	H	38.40	-26.03	-	48.07	74.00	25.93
*11 650.73	25.73	Average	H	38.40	-26.04	-	38.09	54.00	15.91
Above 11 700.00	Not detected	-	-	-	-	-	-	-	-

802.11n_HT20 (Band 1)_MCS8 - ANT1+2

A. Low Channel (5 180 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*4 500.00	18.33	Peak	H	31.84	7.42	-	57.59	74.00	16.41
*4 500.00	8.36	Average	H	31.84	7.42	0.13	47.75	54.00	6.25
*5 147.88	19.85	Peak	H	33.38	7.49	-	60.72	74.00	13.28
*5 149.34	9.70	Average	H	33.38	7.49	0.13	50.70	54.00	3.30
*5 150.00	19.97	Peak	H	33.38	7.49	-	60.84	74.00	13.16
*5 150.00	9.50	Average	H	33.38	7.49	0.13	50.50	54.00	3.50

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

B. Middle Channel (5 200 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

C. High Channel (5 220 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

802.11n_HT20 (Band 2A)_MCS8 - ANT1+2

A. Low Channel (5 260 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

B. Middle Channel (5 280 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

C. High Channel (5 320 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*5 350.00	18.86	Peak	H	33.66	8.27	-	60.79	74.00	13.21
*5 350.00	8.35	Average	H	33.66	8.27	0.13	50.41	54.00	3.59
*5 351.02	19.33	Peak	H	33.66	8.28	-	61.27	74.00	12.73
*5 352.37	8.56	Average	H	33.66	8.29	0.13	50.64	54.00	3.36
*5 460.00	15.85	Peak	H	33.81	8.29	-	57.95	74.00	16.05
*5 460.00	7.50	Average	H	33.81	8.29	0.13	49.73	54.00	4.27

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*10 639.07	36.21	Peak	H	37.83	-26.51	-	47.53	74.00	26.47
*10 640.71	25.93	Average	H	37.84	-26.51	0.13	37.39	54.00	16.61
Above 10 700.00	Not detected	-	-	-	-	-	-	-	-

802.11n_HT20 (Band 2C)_MCS8 - ANT1+2

A. Low Channel (5 500 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*5 350.00	17.05	Peak	H	33.66	8.27	-	58.98	74.00	15.02
*5 350.00	7.31	Average	H	33.66	8.27	0.13	49.37	54.00	4.63
*5 385.33	19.95	Peak	H	33.70	8.52	-	62.17	74.00	11.83
*5 413.65	8.34	Average	H	33.74	8.53	0.13	50.74	54.00	3.26
*5 460.00	17.57	Peak	H	33.81	8.29	-	59.67	74.00	14.33
*5 460.00	7.23	Average	H	33.81	8.29	0.13	49.46	54.00	4.54

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*10 998.94	36.69	Peak	H	38.08	-27.55	-	47.22	74.00	26.78
*11 001.04	25.86	Average	H	38.08	-27.55	0.13	36.52	54.00	17.48
Above 11 100.00	Not detected	-	-	-	-	-	-	-	-

B. Middle Channel (5 580 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*11 163.14	35.61	Peak	H	38.20	-27.06	-	46.75	74.00	27.25
*11 160.62	24.88	Average	H	38.20	-27.08	0.13	36.13	54.00	17.87
Above 11 200.00	Not detected	-	-	-	-	-	-	-	-

C. High Channel (5 720 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*11 440.21	36.12	Peak	H	38.41	-25.91	-	48.62	74.00	25.38
*11 443.07	24.84	Average	H	38.41	-25.93	0.13	37.45	54.00	16.55
Above 11 500.00	Not detected	-	-	-	-	-	-	-	-

802.11n_HT20 (Band 3)_MCS8 - ANT1+2

A. Low Channel (5 745 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
5 706.79	18.84	Peak	H	34.20	7.85	-	60.89	68.23	7.34
5 724.68	20.04	Peak	H	34.23	7.97	-	62.24	78.23	15.99

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*11 491.81	36.19	Peak	H	38.44	-26.05	-	48.58	74.00	25.42
*11 490.31	25.94	Average	H	38.44	-26.05	0.13	38.46	54.00	15.54
Above 11 500.00	Not detected	-	-	-	-	-	-	-	-

B. Middle Channel (5 785 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*11 568.06	35.25	Peak	H	38.43	-26.16	-	47.52	74.00	26.48
*11 570.74	25.37	Average	H	38.43	-26.17	0.13	37.76	54.00	16.24
Above 11 600.00	Not detected	-	-	-	-	-	-	-	-

C. High Channel (5 825 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
5 853.24	18.93	Peak	H	34.44	8.22	-	61.59	78.23	16.64
5 861.55	18.92	Peak	H	34.45	8.24	-	61.61	68.23	6.62

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*11 647.39	36.27	Peak	H	38.41	-26.05	-	48.63	74.00	25.37
*11 648.03	25.56	Average	H	38.41	-26.04	0.13	38.06	54.00	15.94
Above 11 700.00	Not detected	-	-	-	-	-	-	-	-

802.11n_HT40 (Band 1)_MCS8 - ANT1+2

A. Low Channel (5 190 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
*4 500.00	15.33	Peak	H	31.84	7.42	-	54.59	74.00	19.41
*4 500.00	5.55	Average	H	31.84	7.42	0.22	45.03	54.00	8.97
*5 147.15	20.61	Peak	H	33.38	7.49	-	61.48	74.00	12.52
*5 148.61	10.45	Average	H	33.38	7.49	0.22	51.54	54.00	2.46
*5 150.00	19.14	Peak	H	33.38	7.49	-	60.01	74.00	13.99
*5 150.00	10.38	Average	H	33.38	7.49	0.22	51.47	54.00	2.53

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

802. 11n_HT40 (Band 2A)_MCS8 - ANT1+2

A. Low Channel (5 270 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

B. High Channel (5 310 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*5 350.00	16.64	Peak	H	33.66	8.27	-	58.57	74.00	15.43
*5 350.00	6.38	Average	H	33.66	8.27	0.22	48.53	54.00	5.47
*5 355.77	18.35	Peak	H	33.66	8.31	-	60.32	74.00	13.68
*5 352.73	6.84	Average	H	33.66	8.29	0.22	49.01	54.00	4.99
*5 460.00	16.18	Peak	H	33.81	8.29	-	58.28	74.00	15.72
*5 460.00	5.85	Average	H	33.81	8.29	0.22	48.17	54.00	5.83

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*10 618.53	37.03	Peak	H	37.82	-26.53	-	48.32	74.00	25.68
*10 618.92	26.25	Average	H	37.82	-26.52	0.22	37.77	54.00	16.23
Above 10 700.00	Not detected	-	-	-	-	-	-	-	-

802. 11n_HT40 (Band 2C)_MCS8 - ANT1+2

A. Low Channel (5 510 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*5 350.00	13.86	Peak	H	33.66	8.27	-	55.79	74.00	18.21
*5 350.00	5.33	Average	H	33.66	8.27	0.22	47.48	54.00	6.52
*5 459.79	18.64	Peak	H	33.81	8.29	-	60.74	74.00	13.26
*5 459.45	6.54	Average	H	33.80	8.29	0.22	48.85	54.00	5.15
*5 460.00	18.55	Peak	H	33.81	8.29	-	60.65	74.00	13.35
*5 460.00	6.51	Average	H	33.81	8.29	0.22	48.83	54.00	5.17

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*11 018.03	36.15	Peak	H	38.09	-27.53	-	46.71	74.00	27.29
*11 022.41	25.38	Average	H	38.10	-27.54	0.22	36.16	54.00	17.84
Above 11 100.00	Not detected	-	-	-	-	-	-	-	-

B. Middle Channel (5 550 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*11 103.43	37.37	Peak	H	38.16	-27.47	-	48.06	74.00	25.94
*11 098.69	26.15	Average	H	38.15	-27.49	0.22	37.03	54.00	16.97
Above 11 200.00	Not detected	-	-	-	-	-	-	-	-

C. High Channel (5 710 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*11 418.14	36.93	Peak	H	38.39	-25.79	-	49.53	74.00	24.47
*11 417.99	25.42	Average	H	38.39	-25.79	0.22	38.24	54.00	15.76
Above 11 500.00	Not detected	-	-	-	-	-	-	-	-

802.11n_HT40 (Band 3)_MCS8 - ANT1+2

A. Low Channel (5 755 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
5 713.51	17.41	Peak	H	34.21	7.89	-	59.51	68.23	8.72
5 717.78	18.10	Peak	H	34.22	7.92	-	60.24	78.23	17.99

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*11 509.67	36.56	Peak	H	38.45	-26.08	-	48.93	74.00	25.07
*11 508.09	25.86	Average	H	38.45	-26.07	0.22	38.46	54.00	15.54
Above 11 600.00	Not detected	-	-	-	-	-	-	-	-

B. High Channel (5 795 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
5 855.97	17.15	Peak	H	34.44	8.23	-	59.82	78.23	18.41
5 868.14	16.68	Peak	H	34.46	8.25	-	59.39	68.23	8.84

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*11 591.48	35.61	Peak	H	38.42	-26.20	-	47.83	74.00	26.17
*11 592.69	25.35	Average	H	38.42	-26.20	0.22	37.79	54.00	16.21
Above 11 600.00	Not detected	-	-	-	-	-	-	-	-

802.11ac_VHT80 (Band 2A)_MCS0 - ANT1+2

A. Middle Channel (5 290 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*4 500.00	15.95	Peak	H	31.84	7.54	-	55.33	74.00	18.67
*4 500.00	6.01	Average	H	31.84	7.54	0.41	45.80	54.00	8.20
*5 054.80	17.76	Peak	H	33.25	7.97	-	58.98	74.00	15.02
*4 998.52	6.59	Average	H	33.18	7.72	0.41	47.90	54.00	6.10
*5 150.00	14.72	Peak	H	33.38	8.11	-	56.21	74.00	17.79
*5 150.00	6.15	Average	H	33.38	8.11	0.41	48.05	54.00	5.95

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*5 350.00	16.45	Peak	H	33.66	8.27	-	58.38	74.00	15.62
*5 350.00	5.98	Average	H	33.66	8.27	0.41	48.32	54.00	5.68
*5 371.24	18.71	Peak	H	33.68	8.42	-	60.81	74.00	13.19
*5 362.40	7.21	Average	H	33.67	8.36	0.41	49.65	54.00	4.35
*5 460.00	14.22	Peak	H	33.81	8.29	-	56.32	74.00	17.68
*5 460.00	5.38	Average	H	33.81	8.29	0.41	47.89	54.00	6.11

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

802.11ac_VHT80 (Band 2C)_MCS0 - ANT1+2

A. Low Channel (5 530 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*5 350.00	13.77	Peak	H	33.66	8.27	-	55.70	74.00	18.30
*5 350.00	5.64	Average	H	33.66	8.27	0.41	47.98	54.00	6.02
*5 442.76	20.76	Peak	H	33.78	8.34	-	62.88	74.00	11.12
*5 458.93	9.24	Average	H	33.80	8.29	0.41	51.74	54.00	2.26
*5 460.00	19.10	Peak	H	33.81	8.29	-	61.20	74.00	12.80
*5 460.00	8.70	Average	H	33.81	8.29	0.41	51.21	54.00	2.79

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*11 060.65	36.23	Peak	H	38.12	-27.52	-	46.83	74.00	27.17
*11 058.07	25.26	Average	H	38.12	-27.52	0.41	36.27	54.00	17.73
Above 11 100.00	Not detected	-	-	-	-	-	-	-	-

B. High Channel (5 690 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*11 384.09	36.10	Peak	H	38.36	-25.70	-	48.76	74.00	25.24
*11 382.21	25.10	Average	H	38.36	-25.70	0.41	38.17	54.00	15.83
Above 11 400.00	Not detected	-	-	-	-	-	-	-	-

802.11ac_VHT80 (Band 3)_MCS0 - ANT1+2

A. Middle Channel (5 775 ㎒)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
5 712.04	17.68	Peak	H	34.21	7.88	-	59.77	68.23	8.46
5 721.95	18.02	Peak	H	34.22	7.95	-	60.19	78.23	18.04
5 859.57	16.84	Peak	H	34.45	8.23	-	59.52	78.23	18.71
5 867.87	17.61	Peak	H	34.46	8.25	-	60.32	68.23	7.91

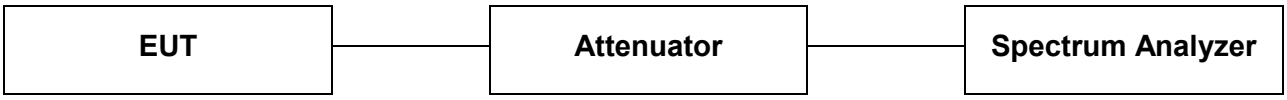
Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (㎒)	Reading (dB㎶)	Detect Mode	Pol.	AF (dB/m)	AMP+ CL (dB)	Duty (dB)	Actual (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
*11 548.86	35.42	Peak	H	38.44	-25.87	-	48.99	74.00	25.01
*11 548.27	25.19	Average	H	38.44	-25.87	0.41	37.65	54.00	16.35
Above 11 600.00	Not detected	-	-	-	-	-	-	-	-

Remark:

1. "*" means the restricted band.
2. Radiated emissions measured in frequency above 1 000 ㎒ were made with an instrument using Peak / average detector mode if frequency was in restricted band. Otherwise the frequency was out of restricted band, only peak detector should be used.
3. Band edge measurement.
   (Actual = Reading + AF + CL + Duty cycle)
4. Radiated spurious emission measurement.
   (Actual = Reading + AF + AMP + CL + Duty cycle)
5. If frequency was out of restricted band, the calculation method for peak limit is same as below.
   68.23 dB㎶/m = EIRP - 20 log(d) + 104.77 = -27 - 20 log (3) + 104.77
6. In case of the frequency between 5 715 ㎒ ~ 5 725 ㎒ and 5 850 ㎒ ~ 5 860 ㎒ the limit is determined as 78.23 dB㎶/m.
   78.23 dB㎶/m = EIRP - 20 log(d) + 104.77 = -17 - 20 log (3) + 104.77
7. According to § 15.31(o), Emission levels are not reported much lower than the limits by over 20 dB.

3. 26 dB Bandwidth

3.1. Test setup



3.2. Test procedure

All data rates and modes were investigated for this test. The full data for the worst case data rate are reported in this section.

1. This measurement settings are specified in section C.1 of KDB 789033_v01r02.
2. Set RBW : approximately 1 % of the emission bandwidth.
3. Set the VBW > RBW.
4. Detector = Peak.
5. Trace mode = max hold.
6. Measure the maximum width of the emission that is 26 dB down from the peak 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 %.
7. In case of band crossing channels 138, 142 and 144, the measurement is complied with section D of KDB 644545_D03 v01.

3.4. Test result

Ambient temperature : (23 ± 1) ℃
Relative humidity : 47 % R.H.

Mode	Band	Frequency (㎒)	Ch.	Data Rate (Mbps)	26 ㏈ Bandwidth (㎒)
11a	U-NII 1	5 180	36	6	21.88
		5 200	40	6	21.94
		5 220	44	6	22.00
	U-NII 2A	5 260	52	6	21.36
		5 280	56	6	21.48
		5 320	64	6	21.59
	U-NII 2C	5 500	100	6	21.59
		5 580	116	6	21.59
		5 720	144	6	21.48
	U-NII 3	5 745	149	6	21.88
		5 785	157	6	21.82
		5 825	165	6	22.29

Mode	Band	Frequency (㎒)	Ch.	Data Rate (Mbps)	26 ㏈ Bandwidth (㎒)
11n_HT20	U-NII 1	5 180	36	MCS8	22.11
		5 200	40	MCS8	22.06
		5 220	44	MCS8	21.94
	U-NII 2A	5 260	52	MCS8	21.48
		5 280	56	MCS8	21.59
		5 320	64	MCS8	21.71
	U-NII 2C	5 500	100	MCS8	21.88
		5 580	116	MCS8	21.77
		5 720	144	MCS8	21.48
	U-NII 3	5 745	149	MCS8	22.06
		5 785	157	MCS8	22.17
		5 825	165	MCS8	22.40

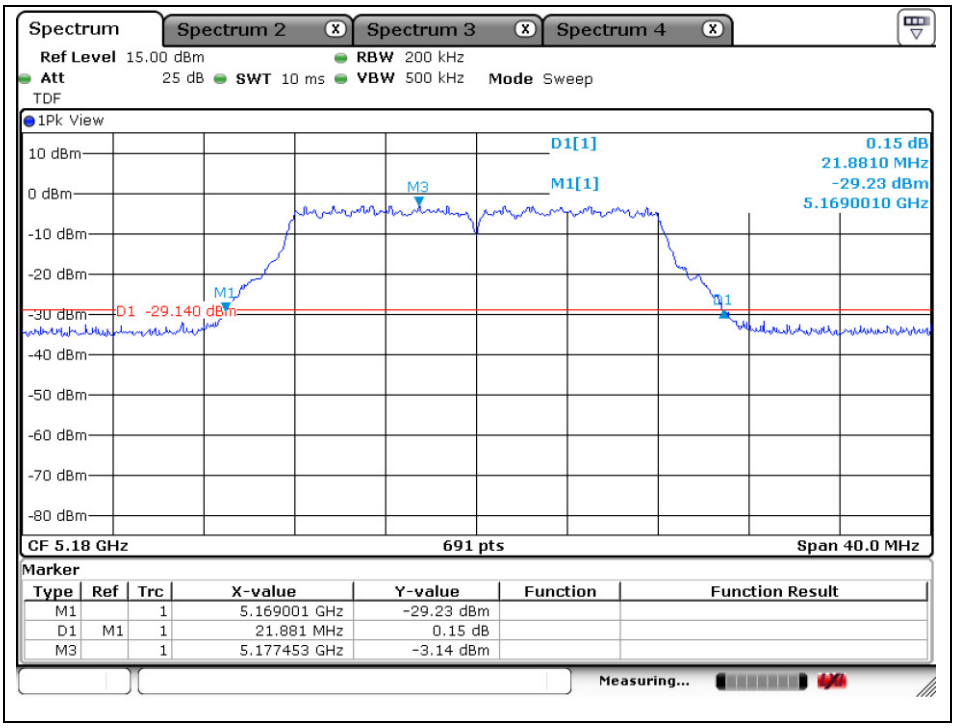
Mode	Band	Frequency (㎒)	Ch.	Data Rate (Mbps)	26 ㏈ Bandwidth (㎒)
11n_HT40	U-NII 1	5 190	38	MCS8	40.68
	U-NII 2A	5 270	54	MCS8	40.29
		5 310	62	MCS8	40.41
	U-NII 2C	5 510	102	MCS8	40.41
		5 550	110	MCS8	40.41
		5 710	142	MCS8	41.04
	U-NII 3	5 755	151	MCS8	40.75
		5 795	159	MCS8	40.81

Mode	Band	Frequency (㎒)	Ch.	Data Rate (Mbps)	26 ㏈ Bandwidth (㎒)
11ac_VHT80	**U-NII 2A**	5 290	58	MCS0	82.89
	U-NII 2C	5 530	106	MCS0	82.66
		5 690	138	MCS0	83.59
	U-NII 3	5 775	155	MCS0	83.21

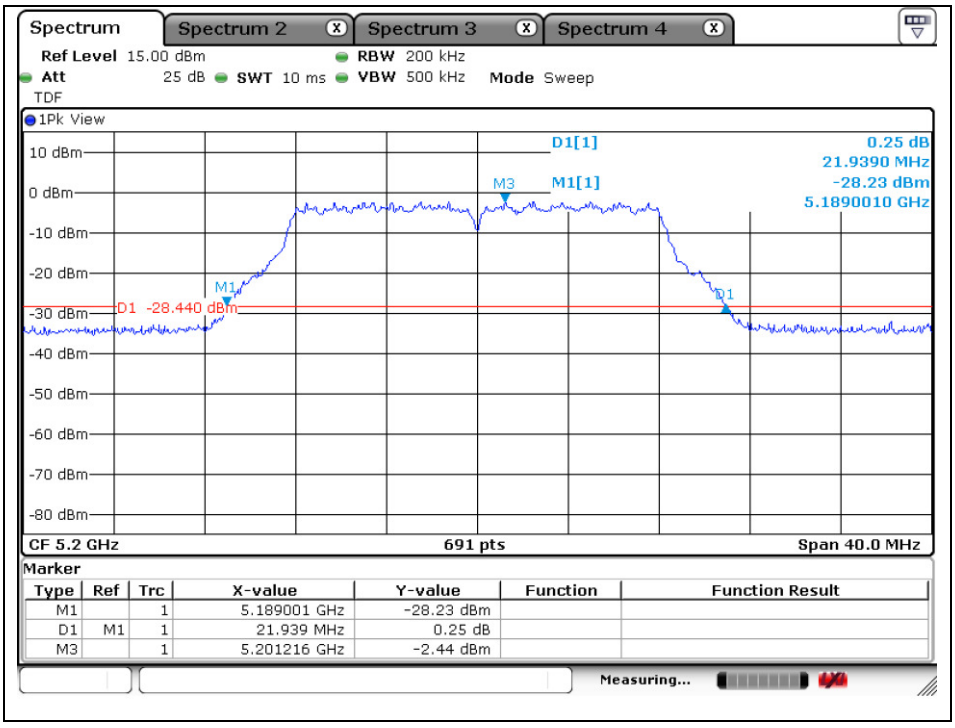
Band	Mode	Frequency (㎒)	Ch.	Data Rate (Mbps)	26 ㏈ Bandwidth (㎒)
U-NII 2C (Band-crossing channel)	11a	5 720	144	6	15.48
	11n_HT20	5 720	144	MCS8	15.48
	11n_HT40	5 710	142	MCS8	34.93
	11ac_VHT80	5 690	138	MCS0	75.68

802.11a (Band 1)

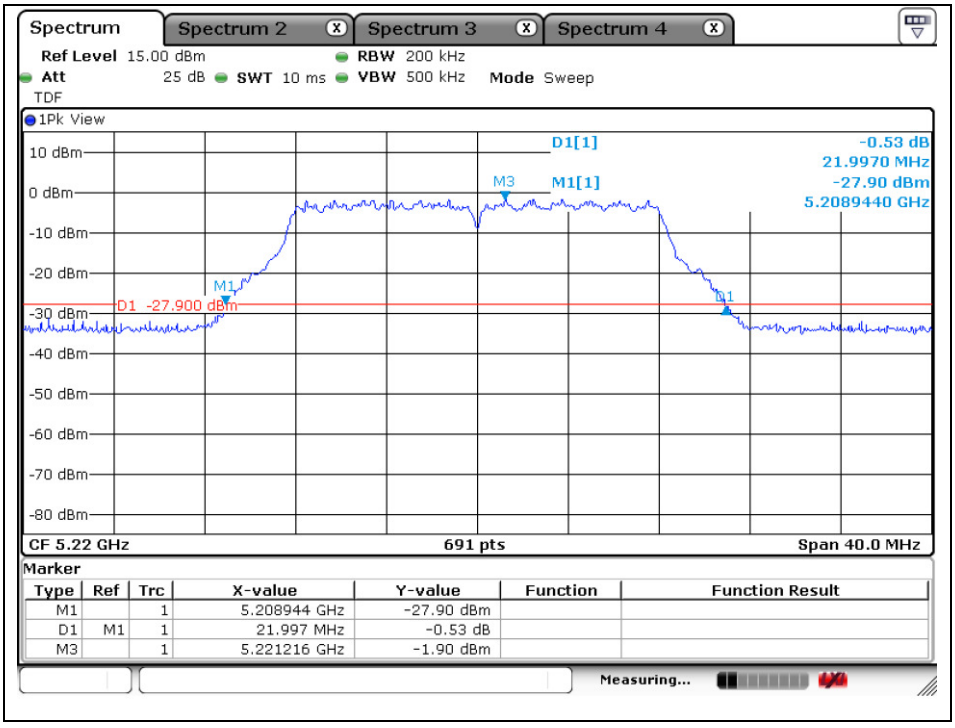
Low Channel (5 180 ㎒)



Middle Channel (5 200 ㎒)

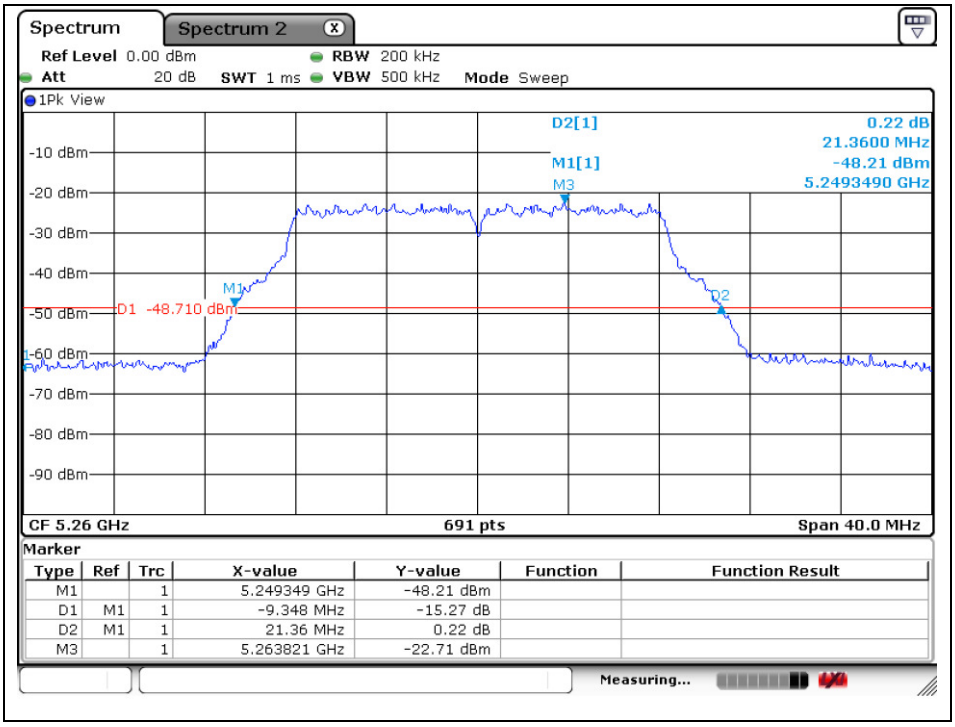


High Channel (5 220 ㎒)

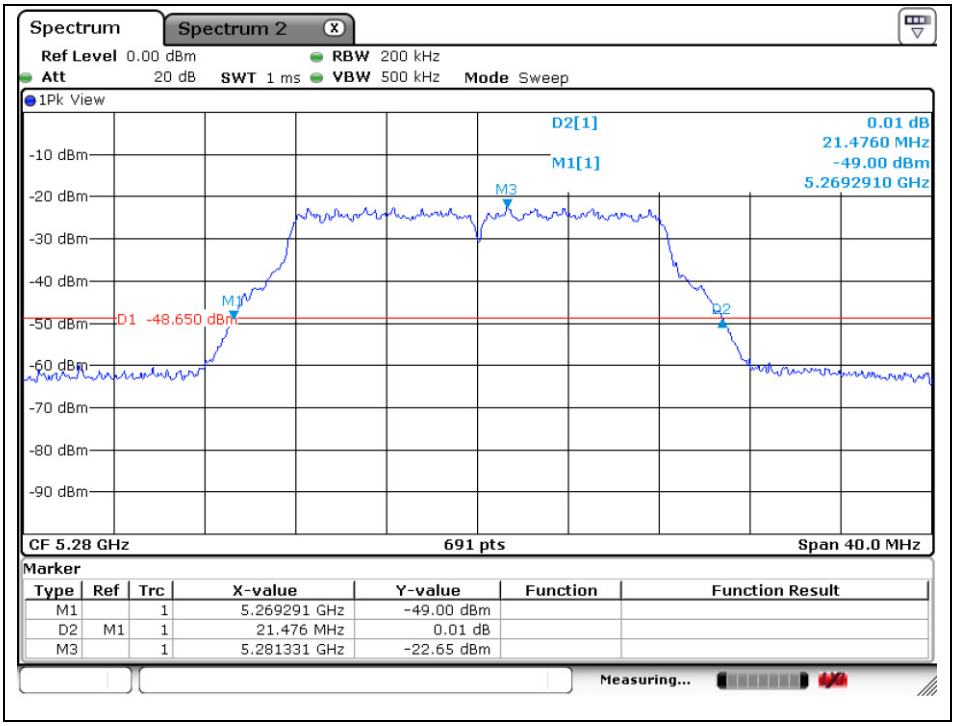


802.11a (Band 2A)

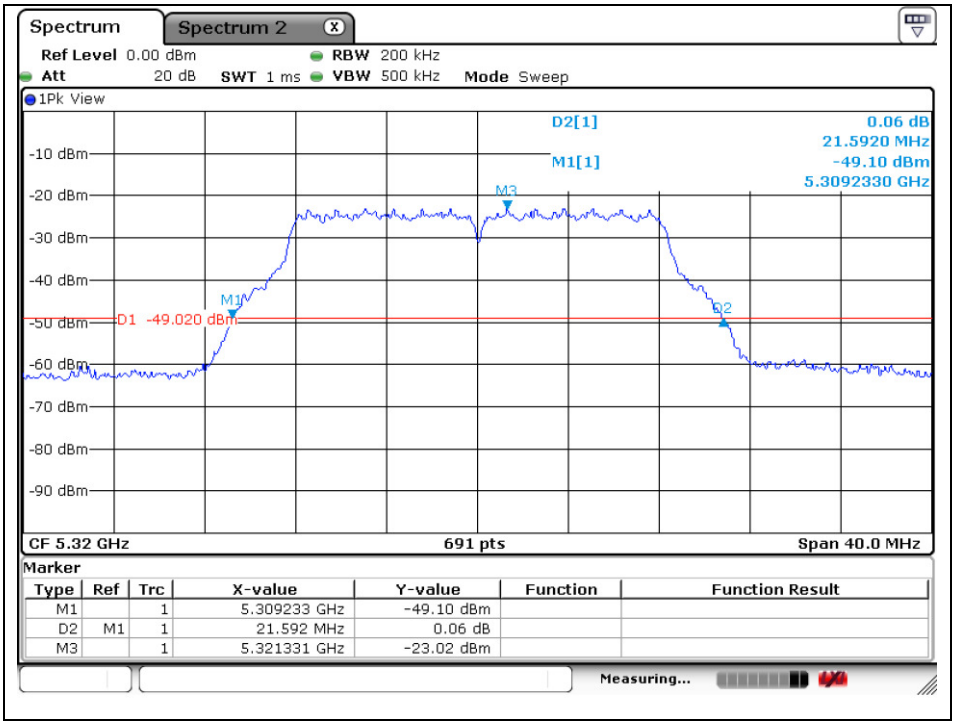
Low Channel (5 260 ㎒)



Middle Channel (5 280 ㎒)

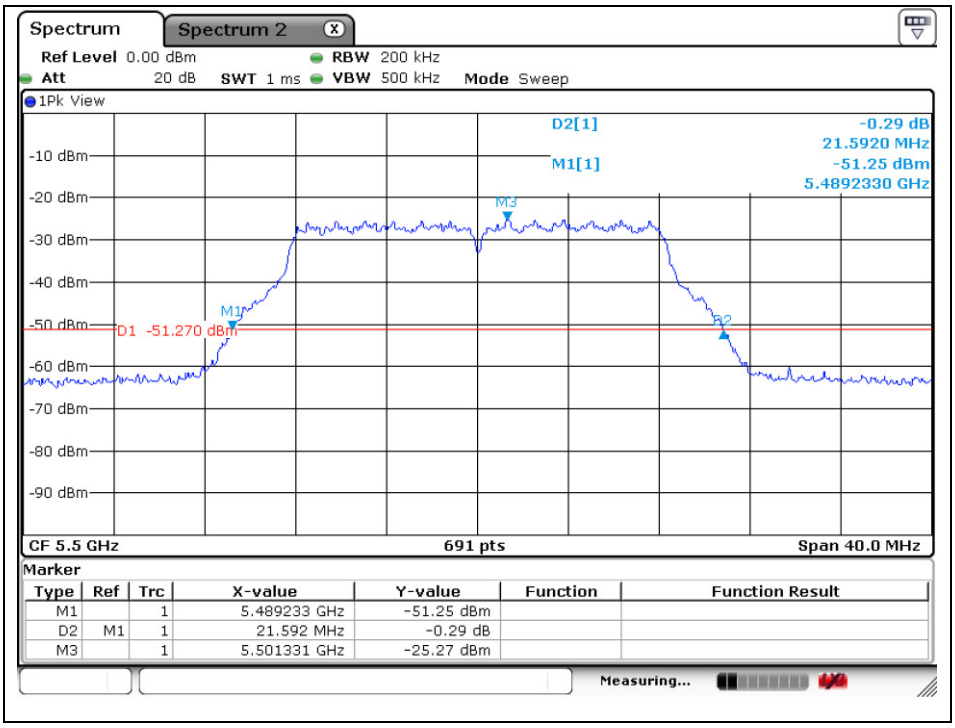


High Channel (5 320 ㎒)

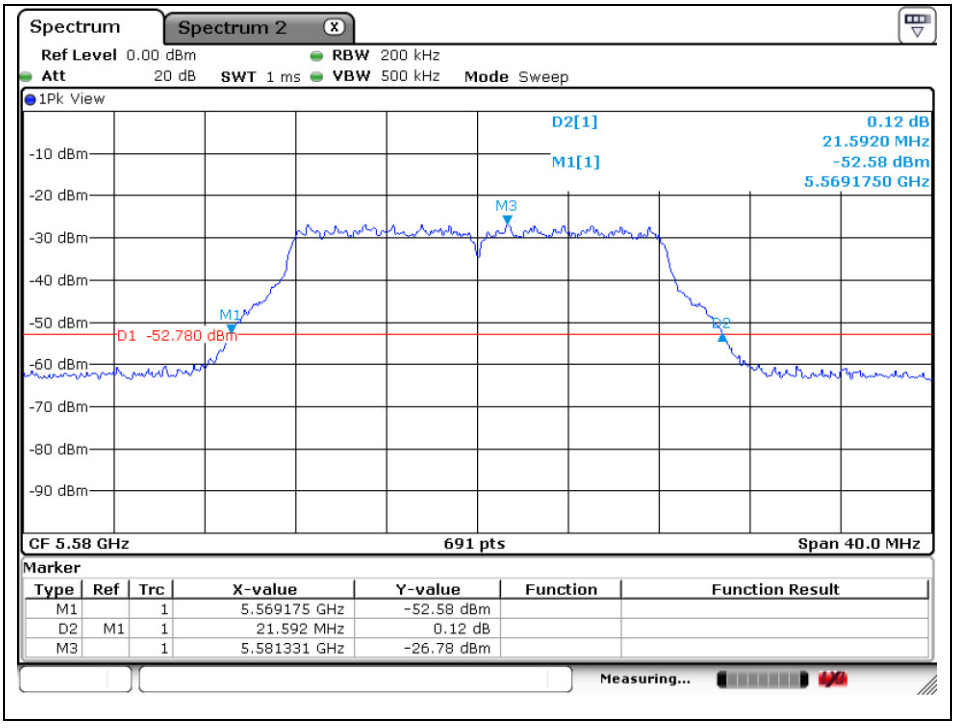


802.11a (Band 2C)

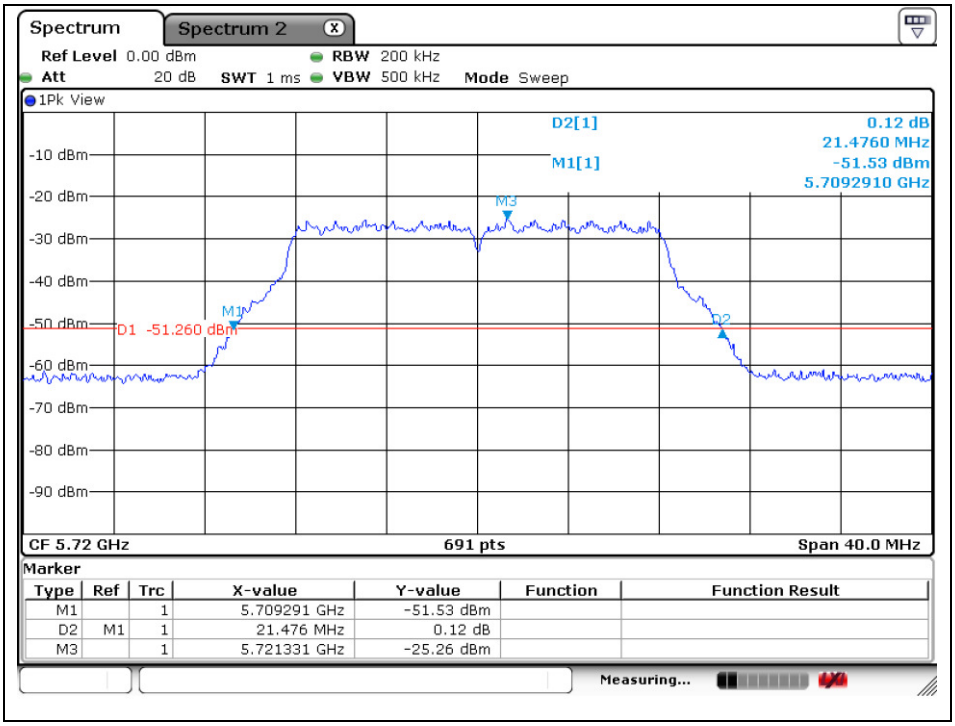
Low Channel (5 500 ㎒)



Middle Channel (5 580 ㎒)

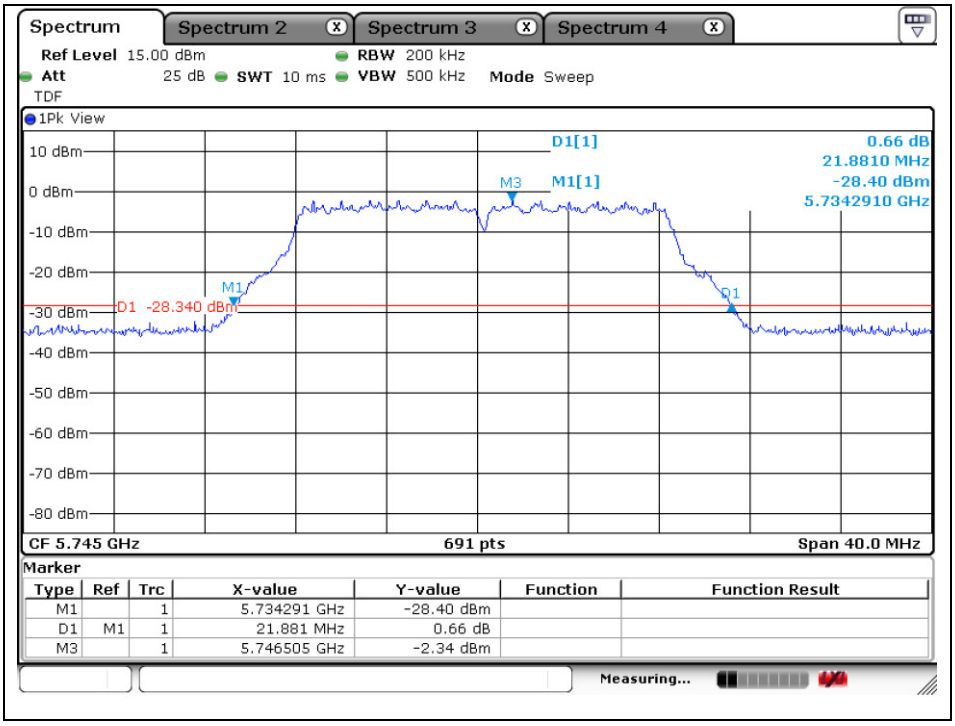


High Channel (5 720 ㎒)

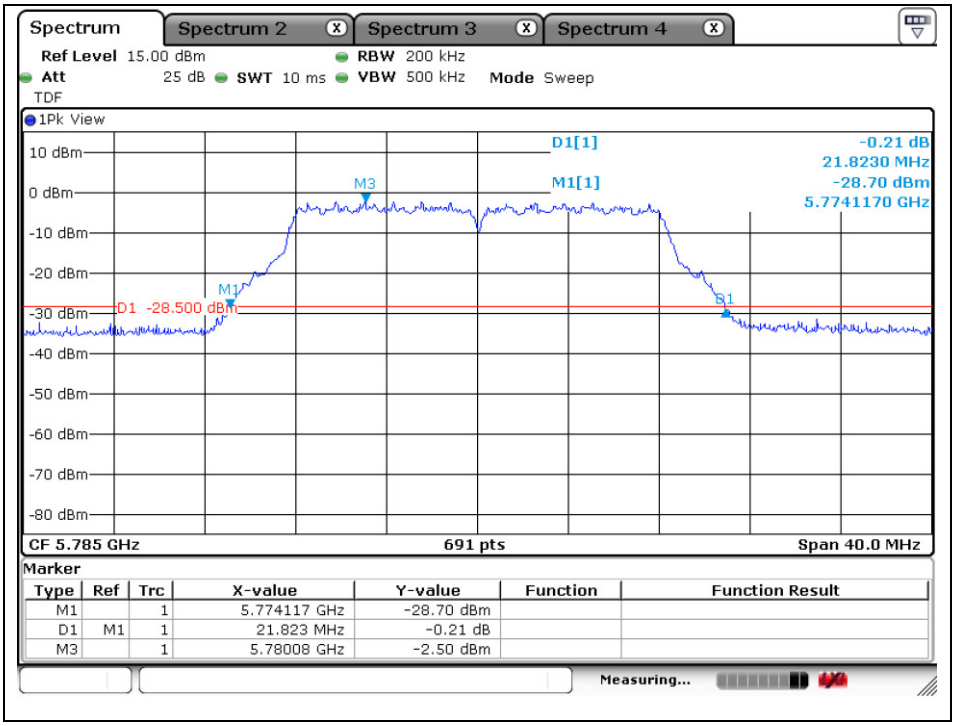


802.11a (Band 3)

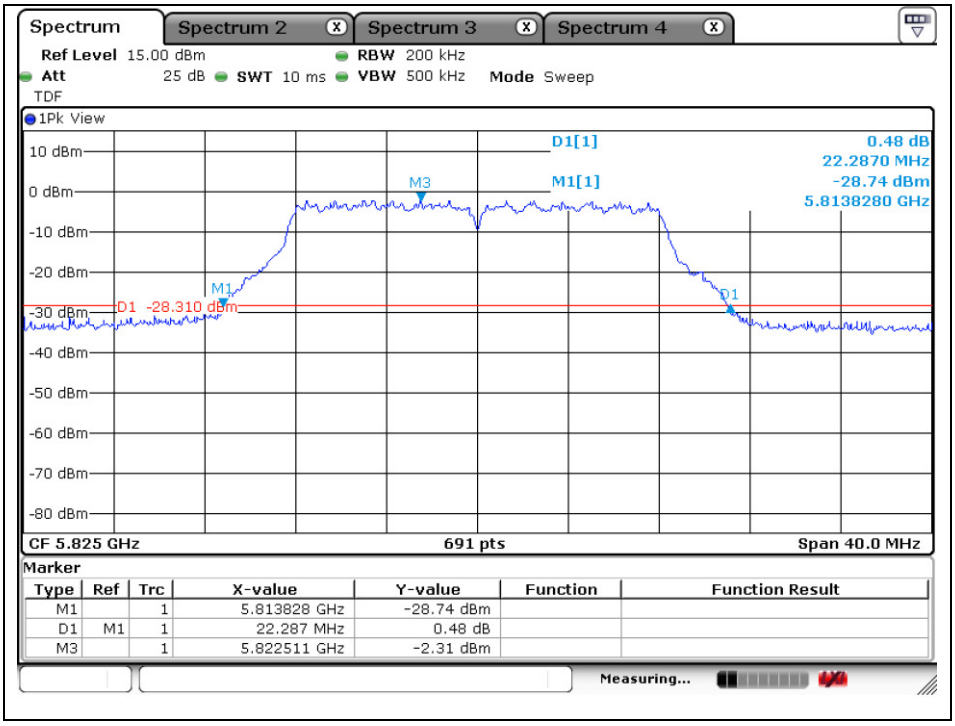
Low Channel (5 745 ㎒)



Middle Channel (5 785 ㎒)

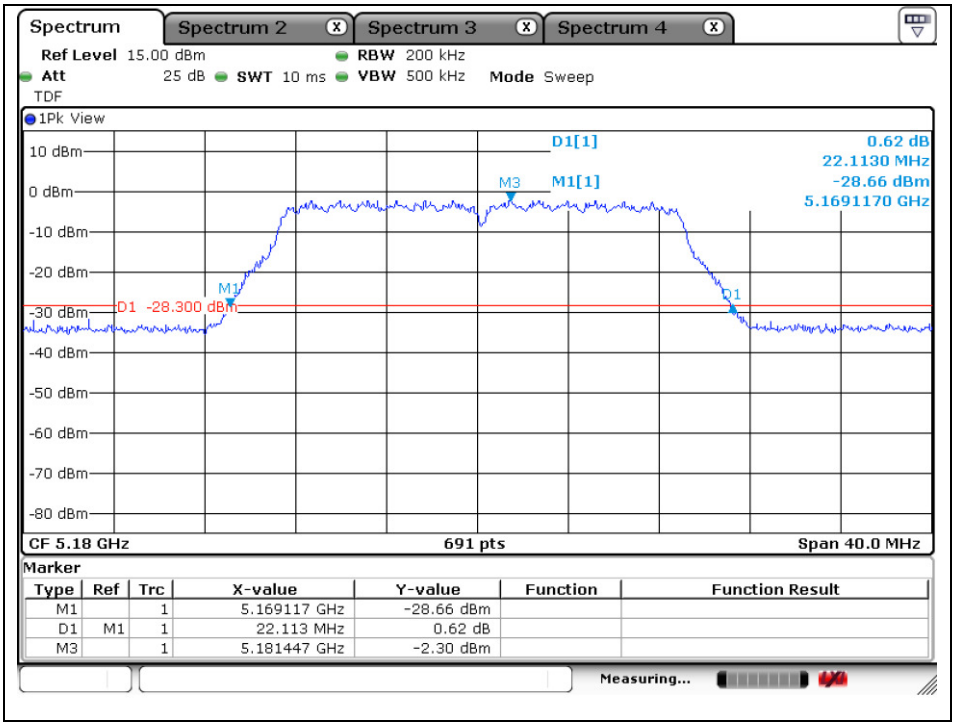


High Channel (5 825 ㎒)

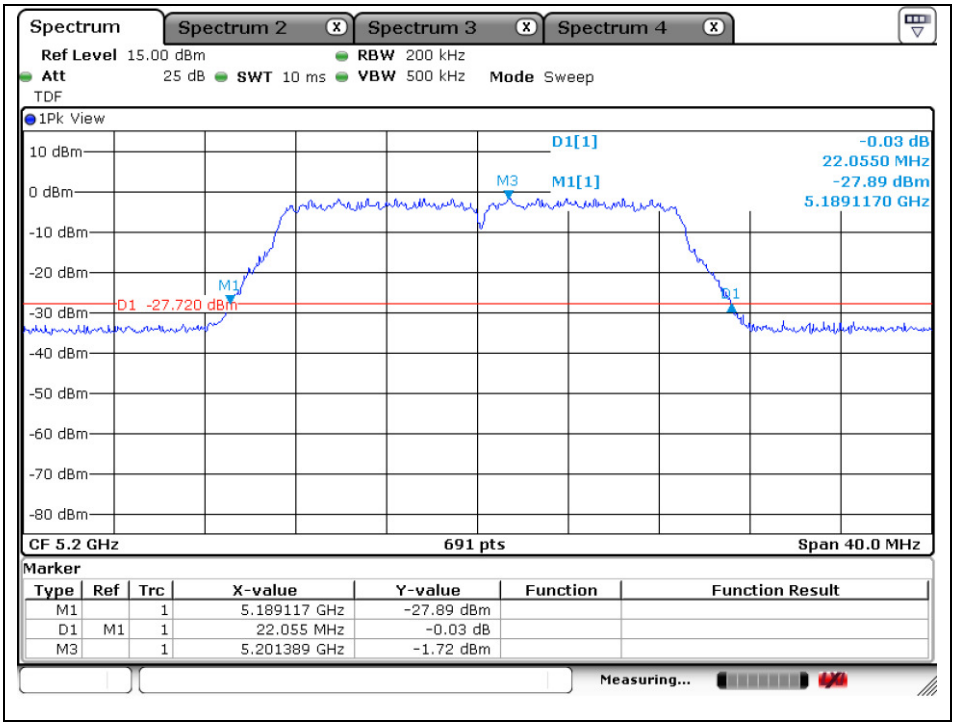


802.11n-HT20 (Band 1)

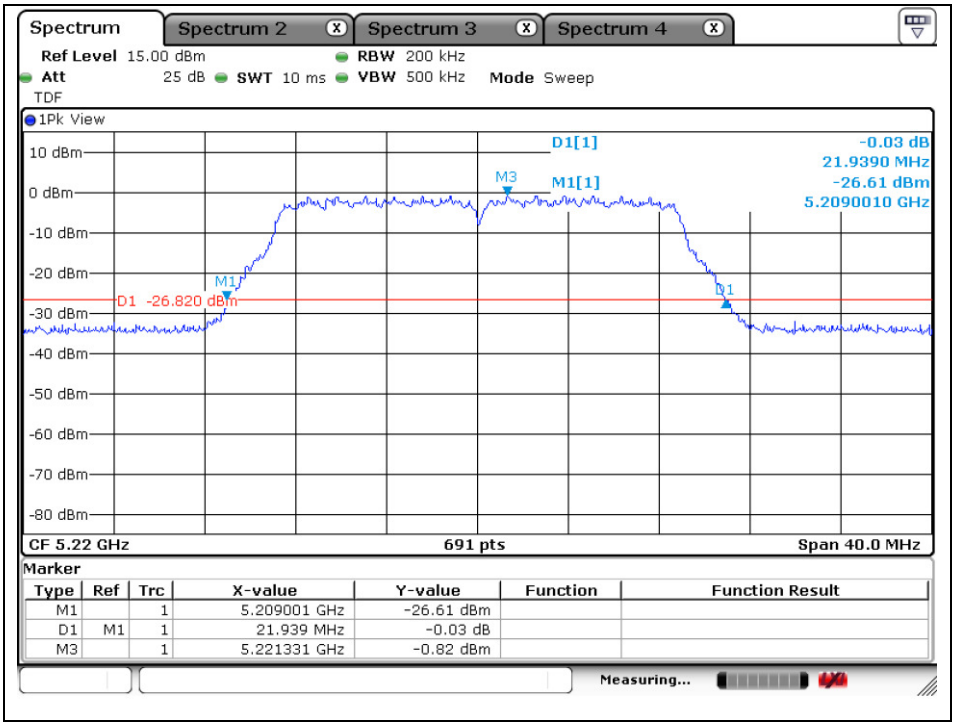
Low Channel (5 180 ㎒)



Middle Channel (5 200 ㎒)

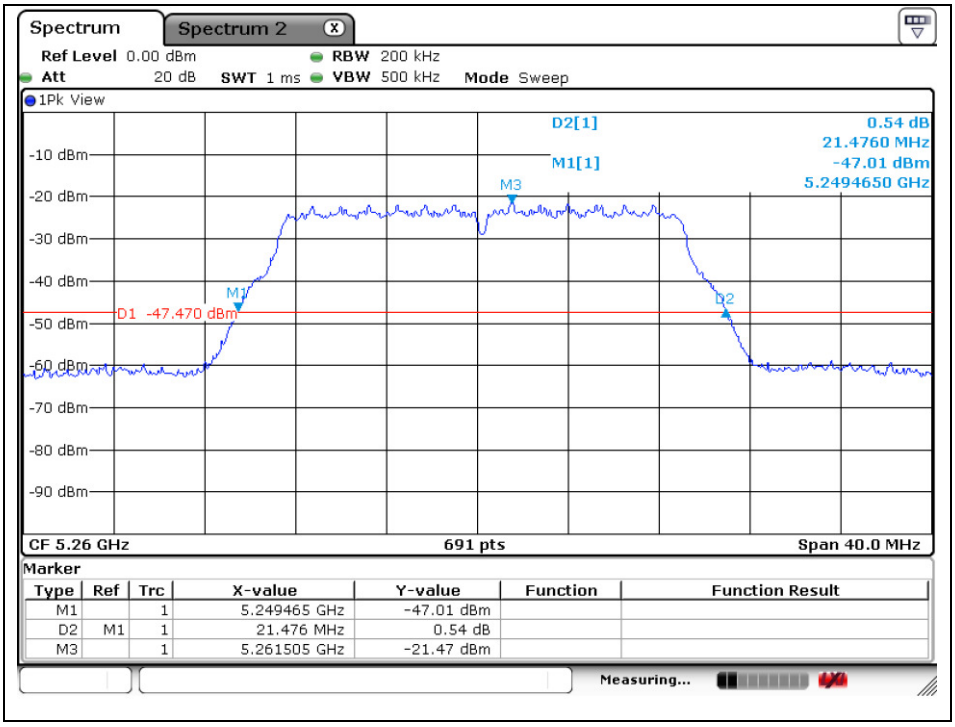


High Channel (5 220 ㎒)

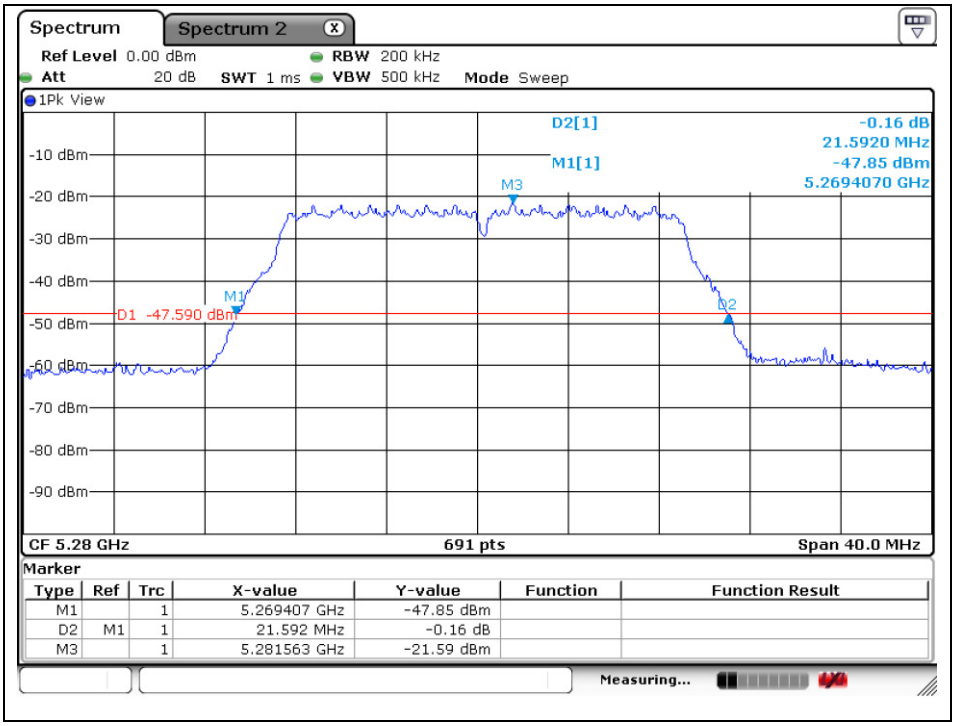


802.11n_HT20 (Band 2A)

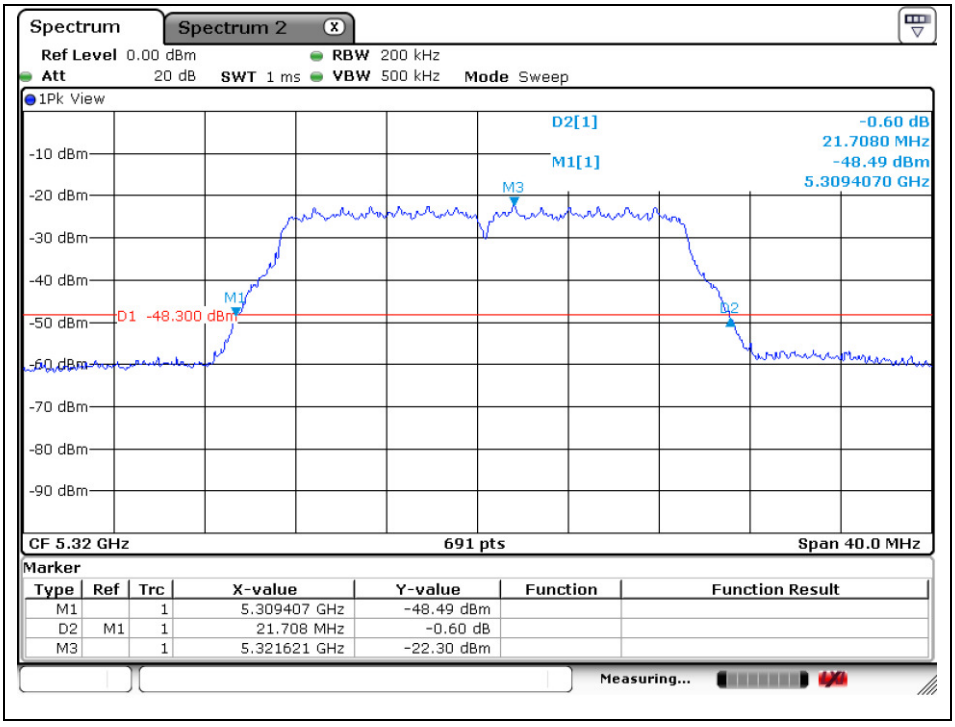
Low Channel (5 260 ㎒)



Middle Channel (5 280 ㎒)

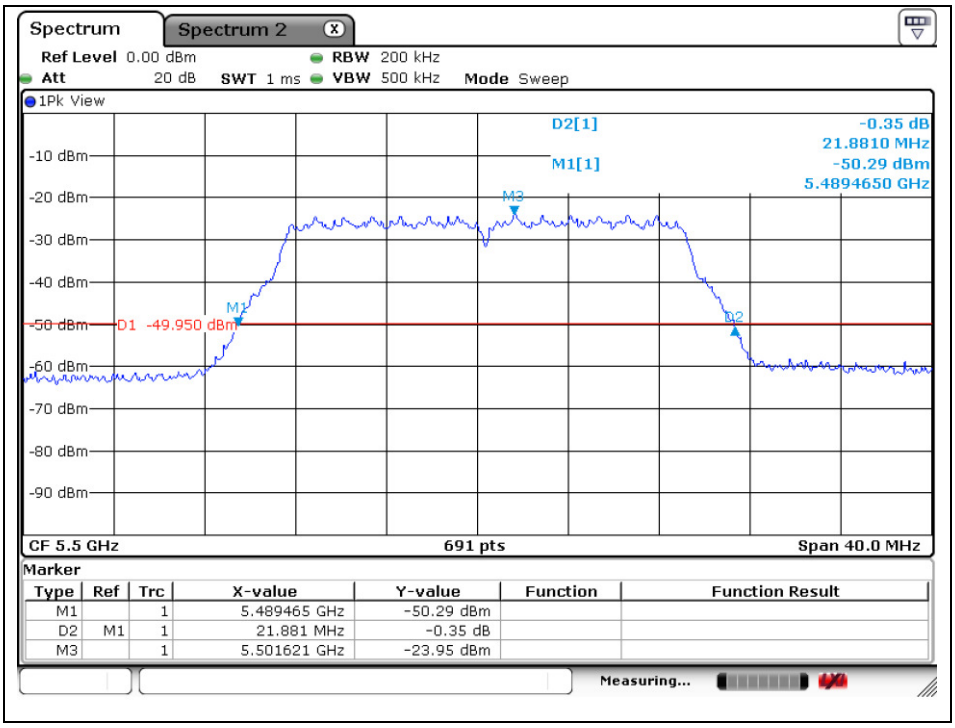


High Channel (5 320 ㎒)

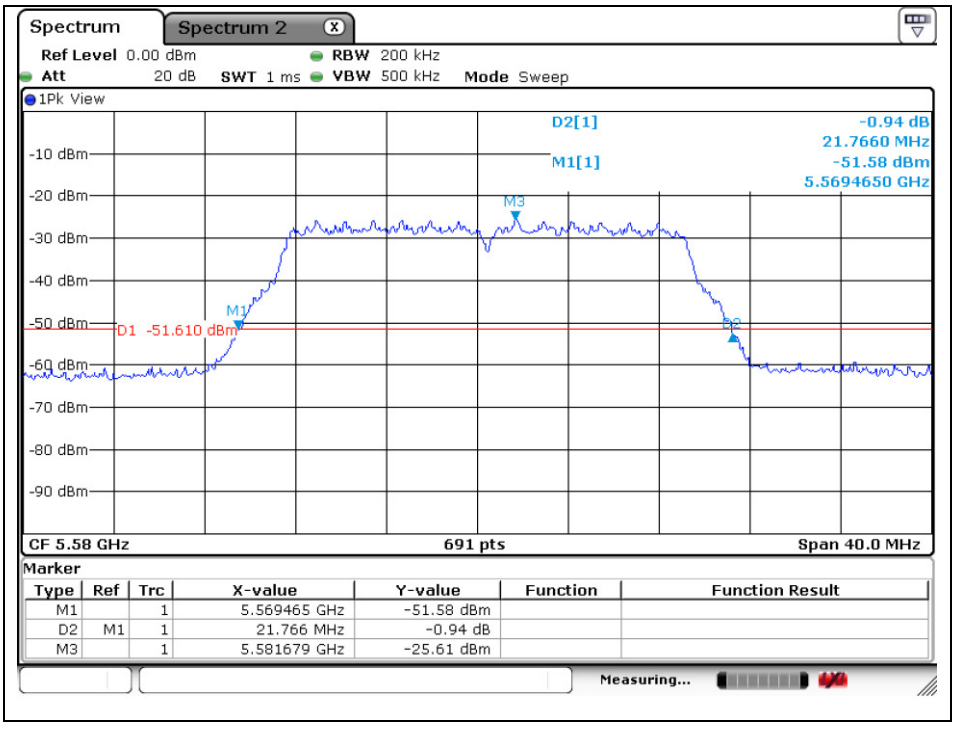


802.11n_HT20 (Band 2C)

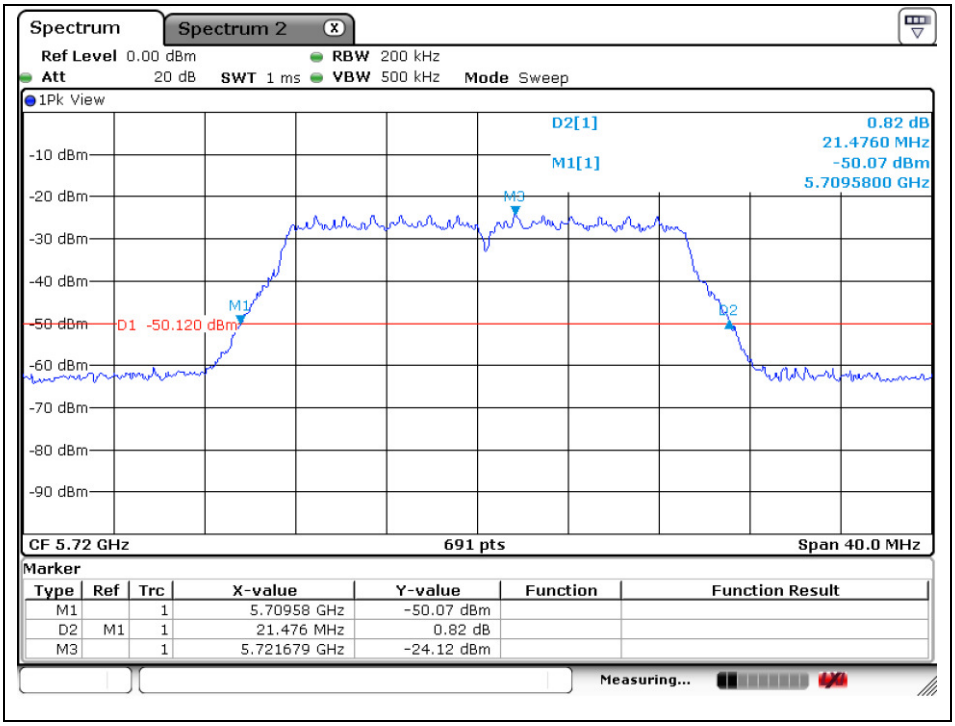
Low Channel (5 500 ㎒)



Middle Channel (5 580 ㎒)

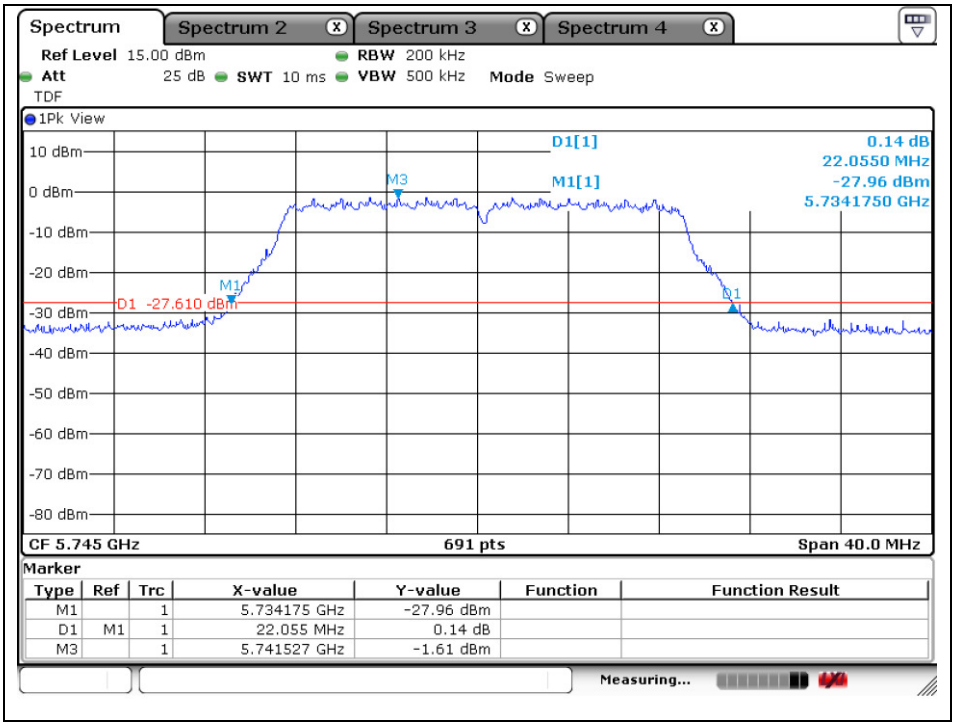


High Channel (5 720 ㎒)

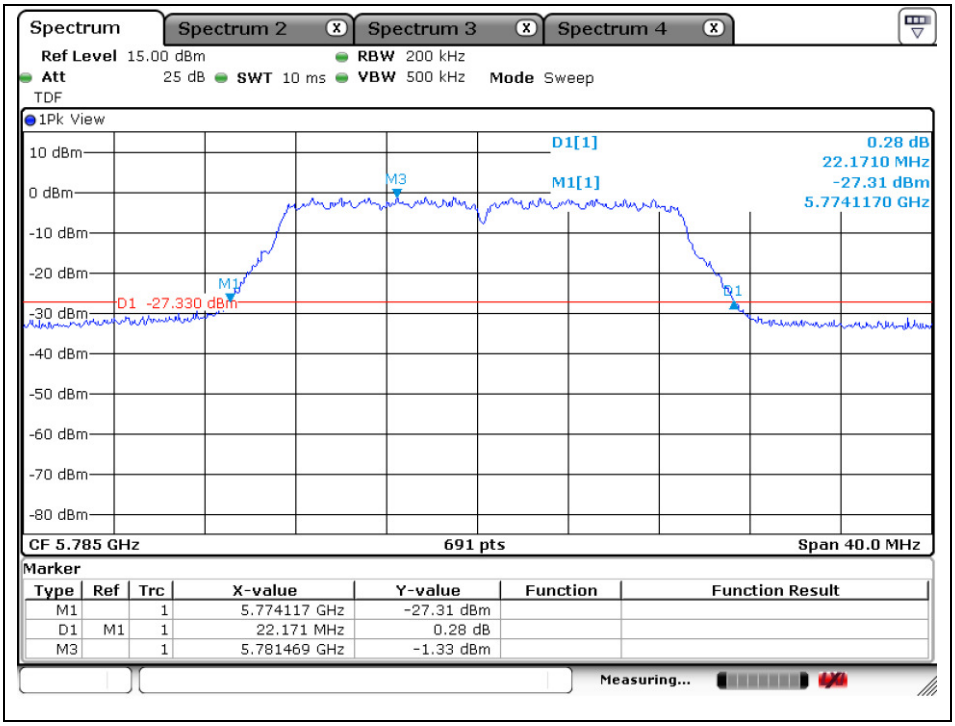


802.11n_HT20 (Band 3)

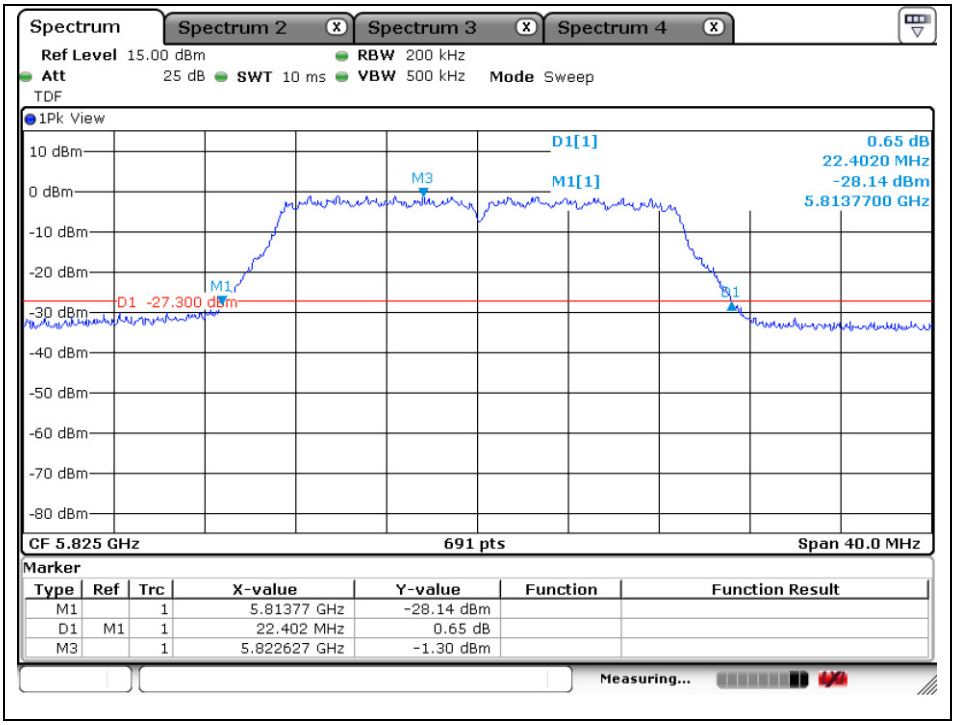
Low Channel (5 745 ㎒)



Middle Channel (5 785 ㎒)

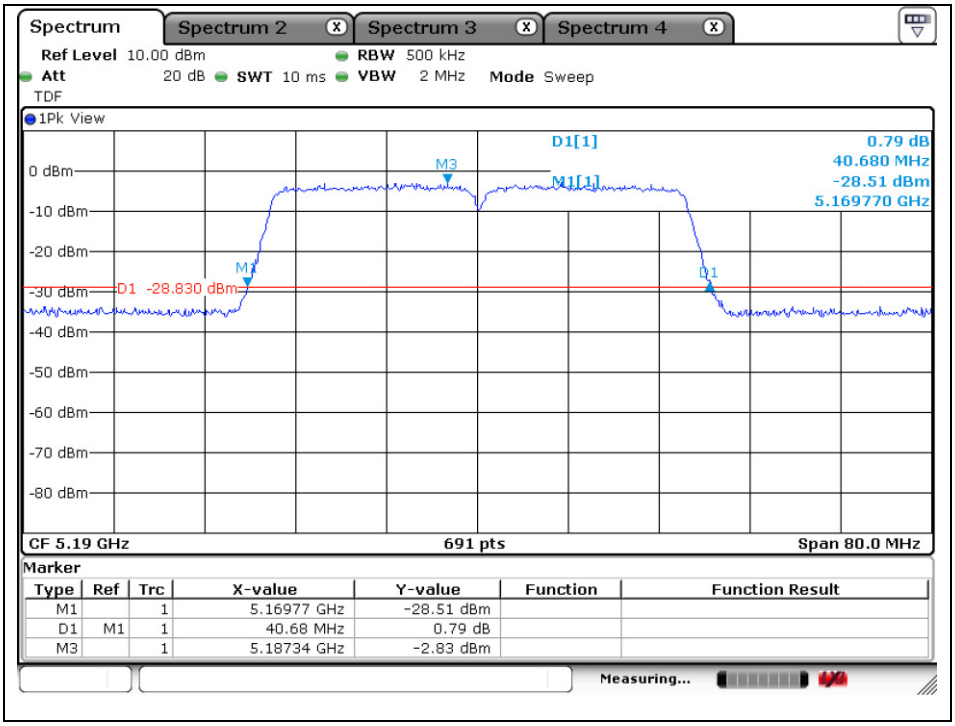


High Channel (5 825 ㎒)



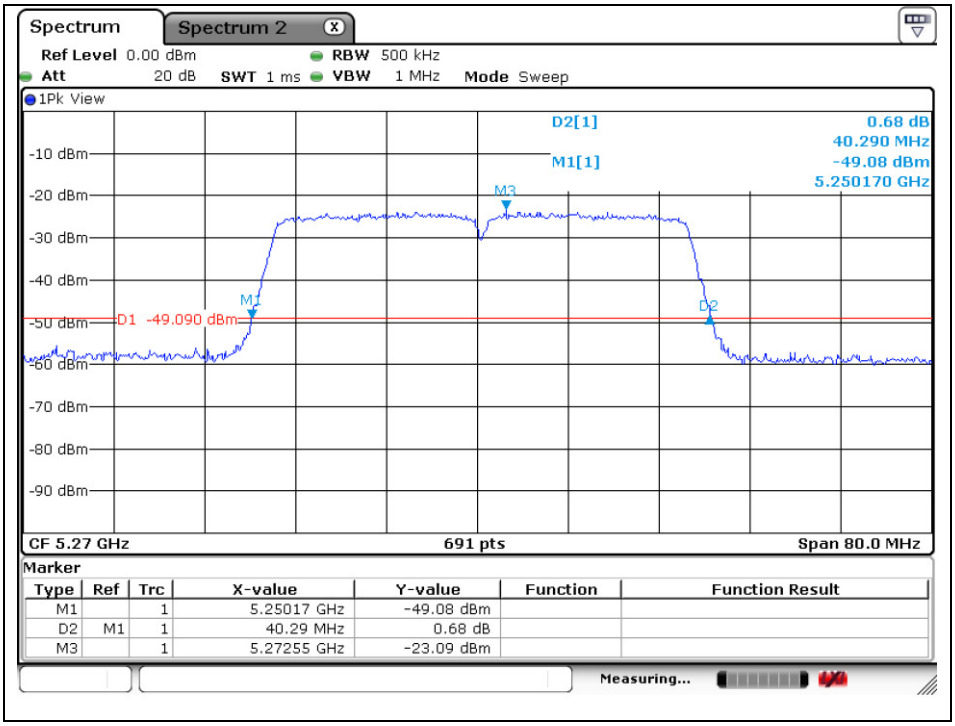
802.11n-HT40 (Band 1)

Low Channel (5 190 ㎒)

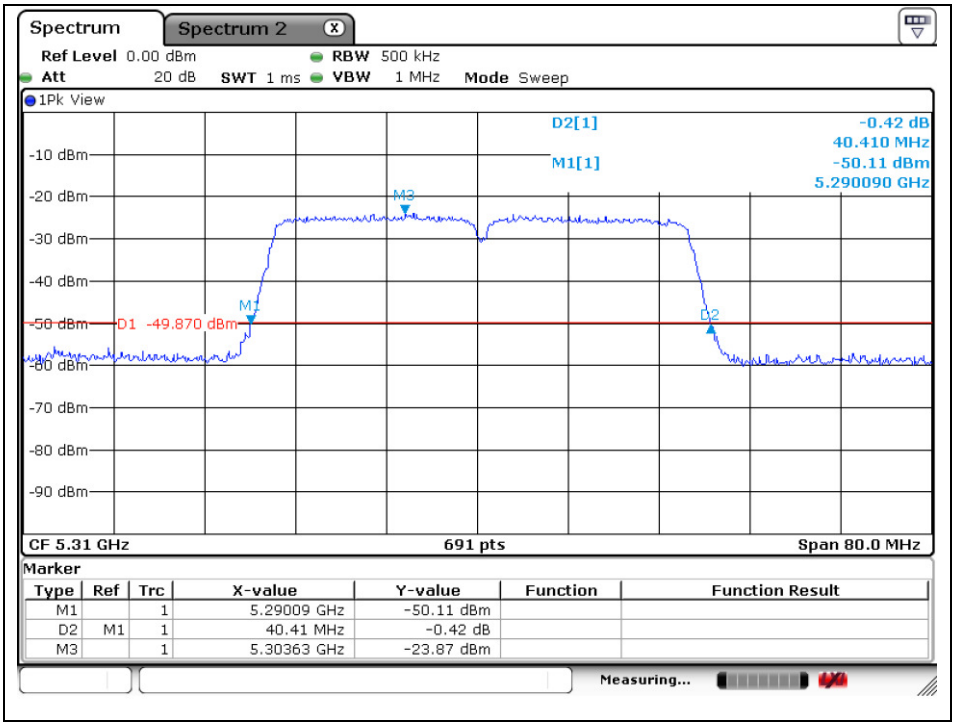


802.11n_HT40 (Band 2A)

Low Channel (5 270 ㎒)

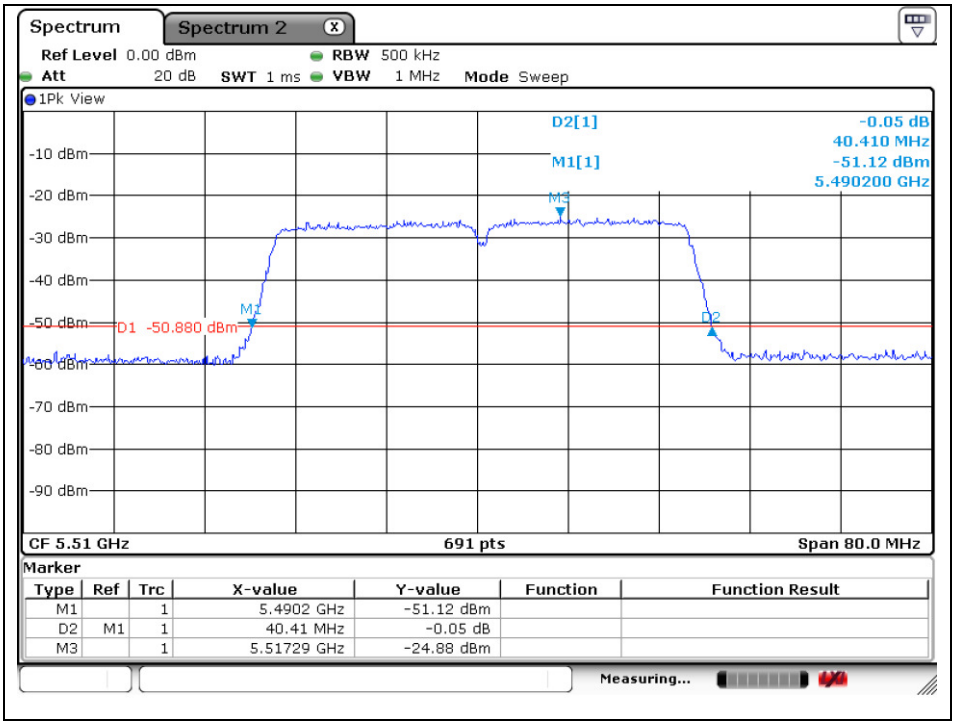


High Channel (5 310 ㎒)

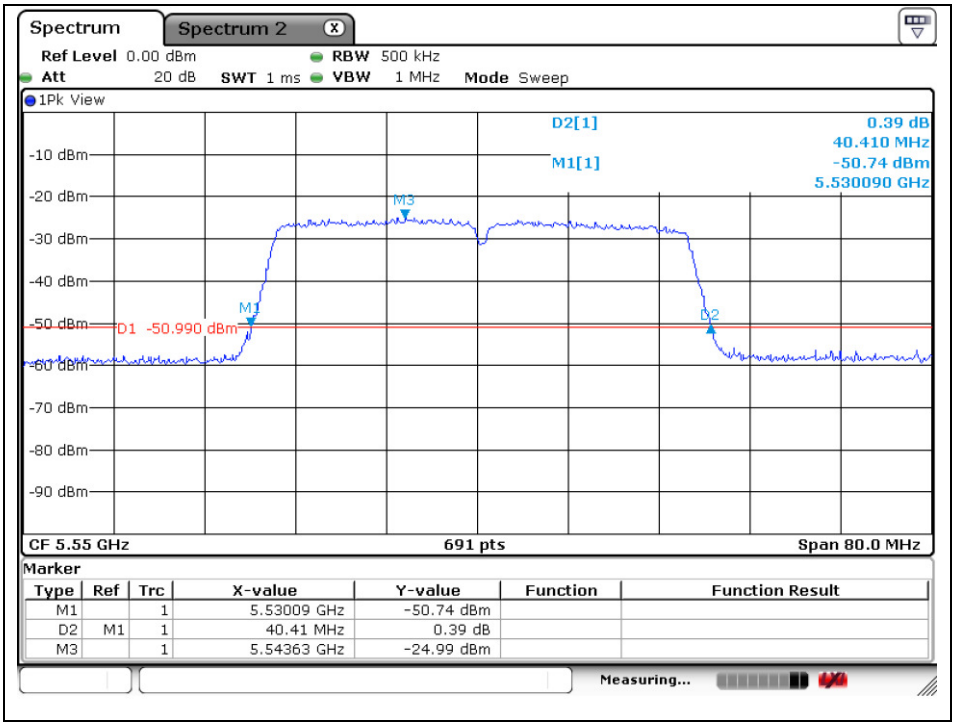


802.11n_HT40 (Band 2C)

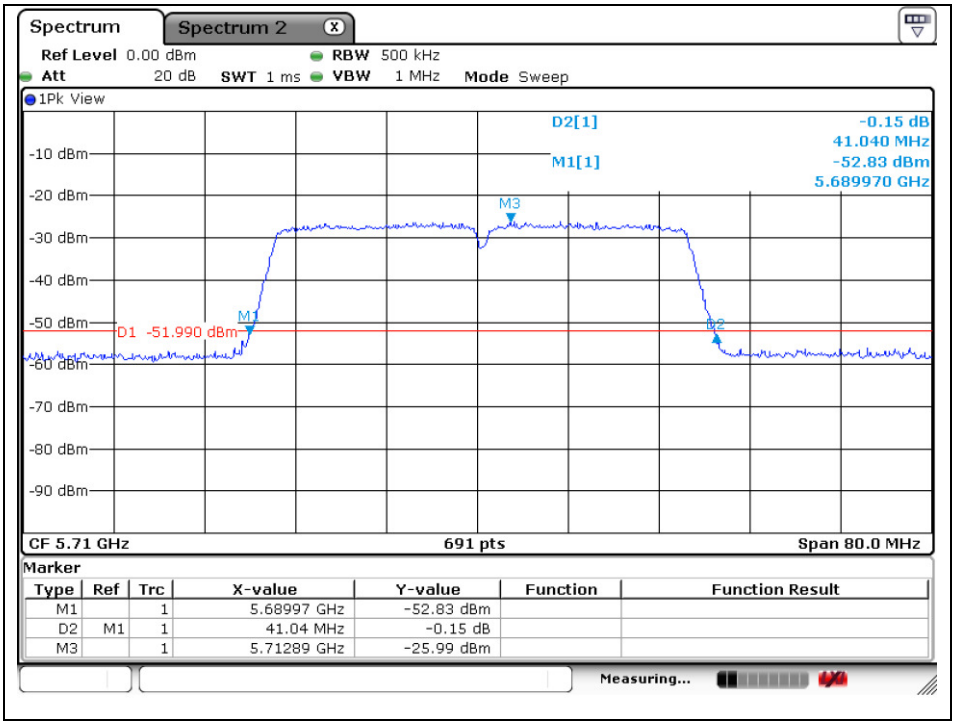
Low Channel (5 510 ㎒)



Middle Channel (5 550 ㎒)

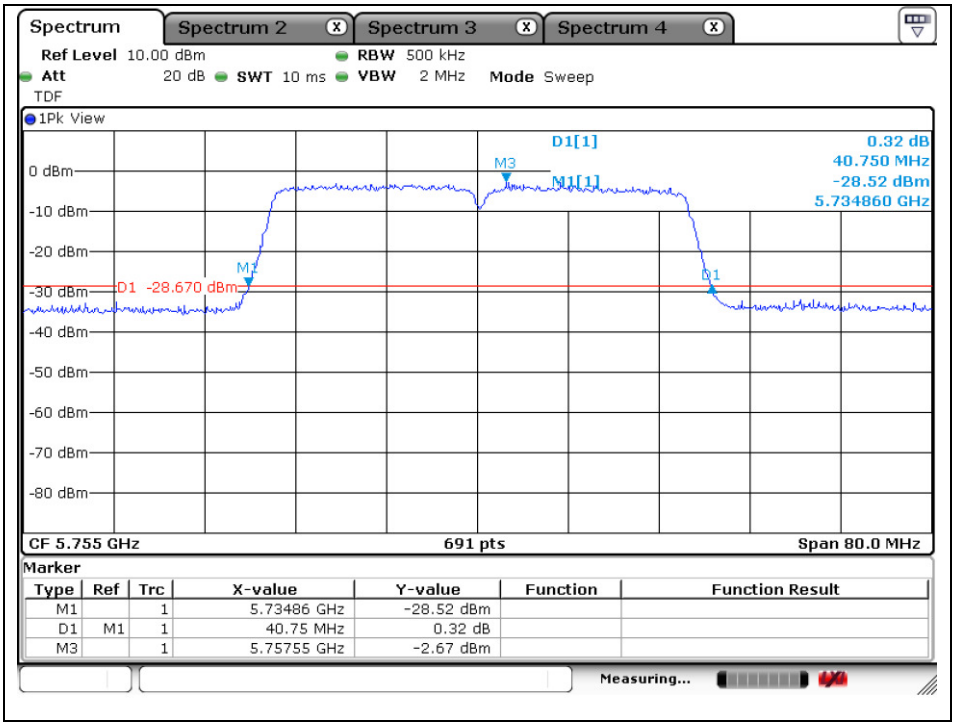


High Channel (5 710 ㎒)

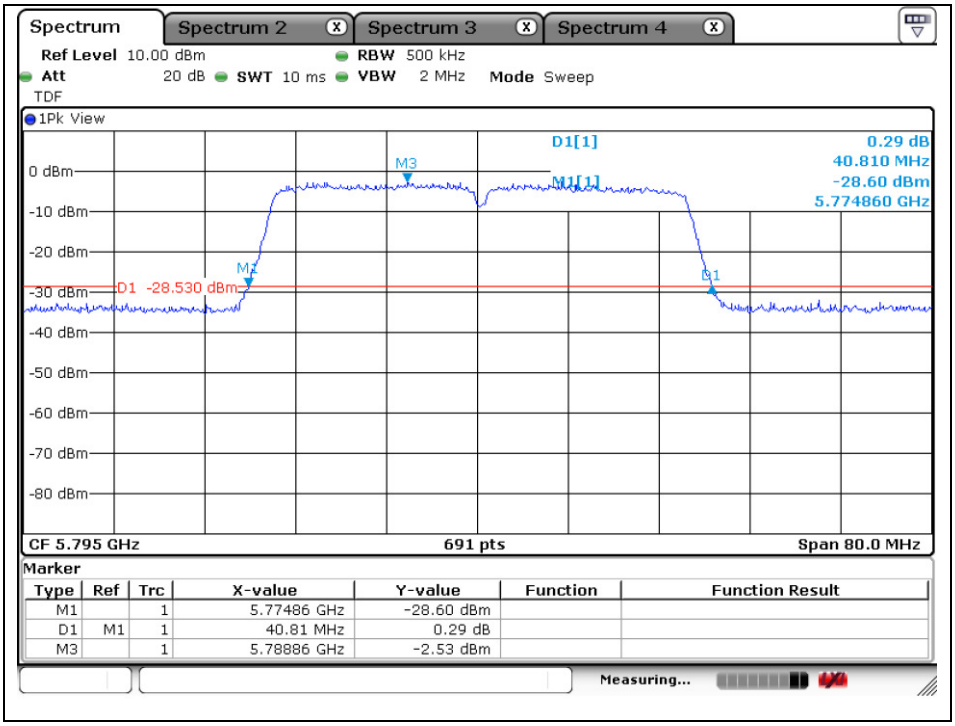


802.11n_HT40 (Band 3)

Low Channel (5 755 ㎒)

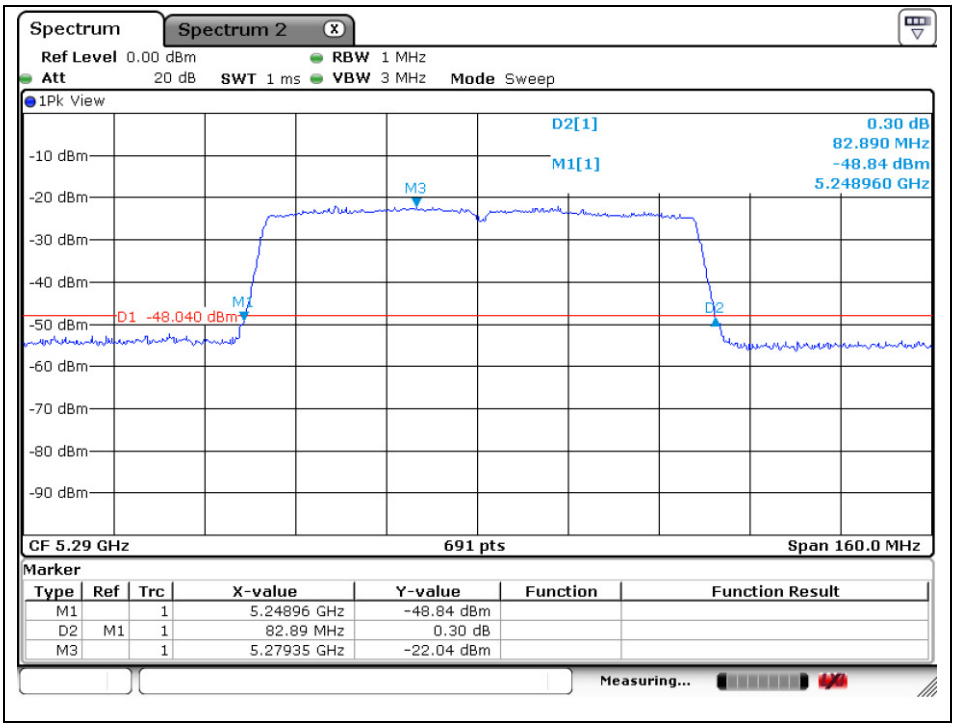


High Channel (5 795 ㎒)



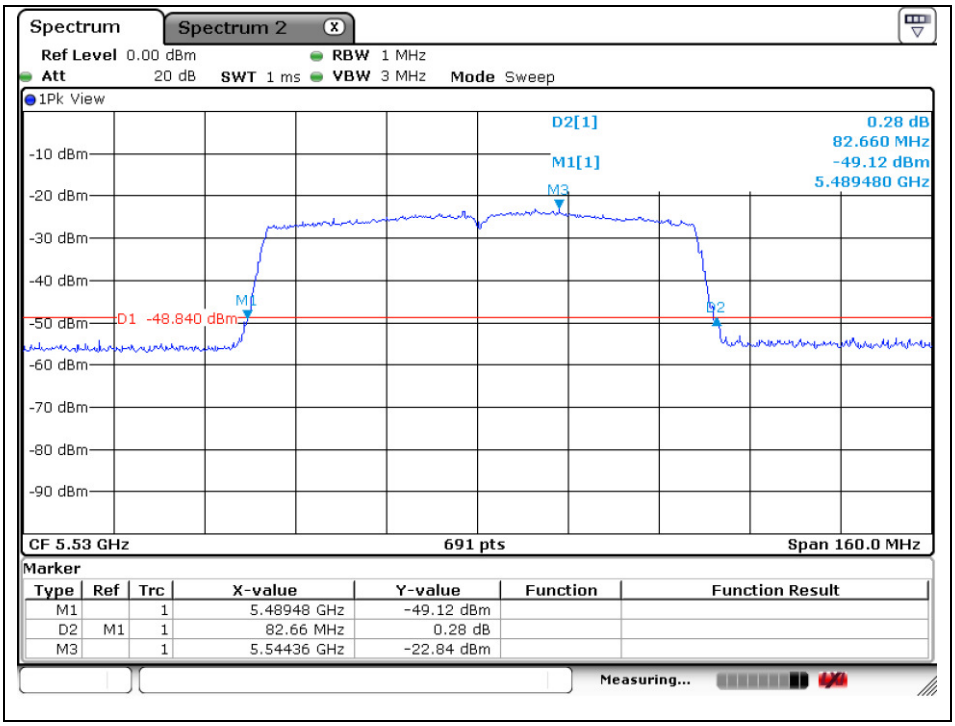
802.11ac_VHT80 (Band 2A)

Middle Channel (5 290 ㎒)

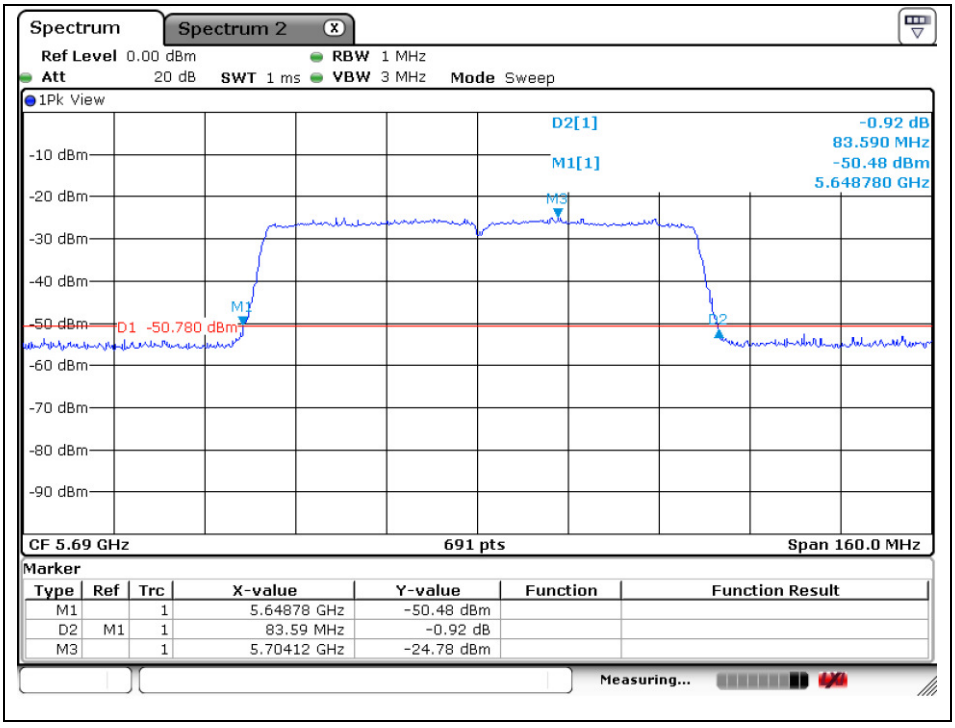


802.11ac_VHT80 (Band 2C)

Low Channel (5 530 ㎒)

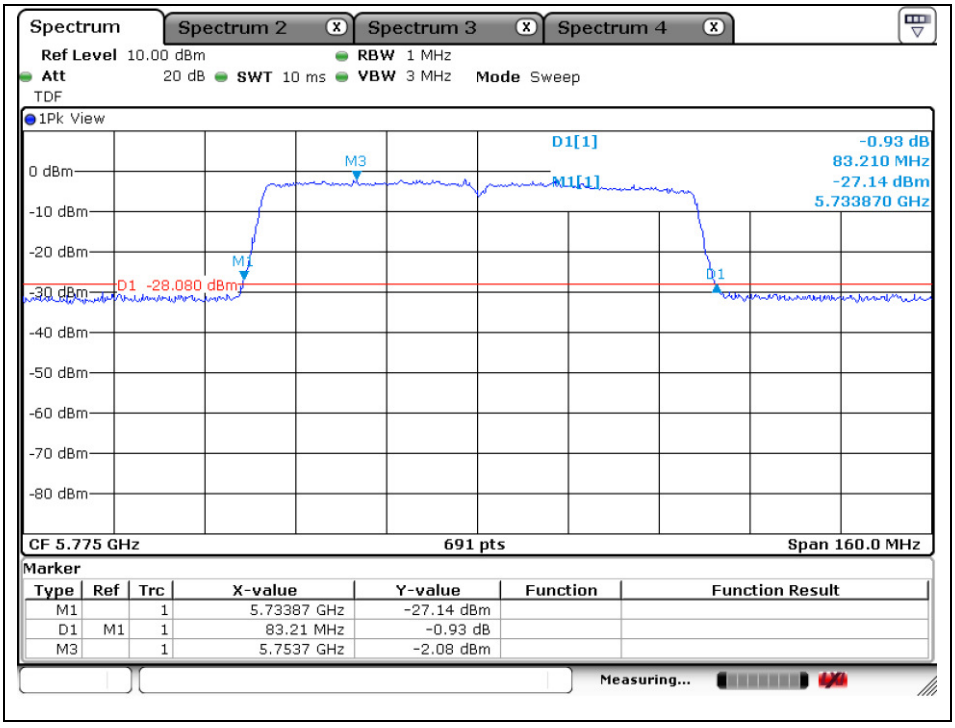


High Channel (5 690 ㎒)



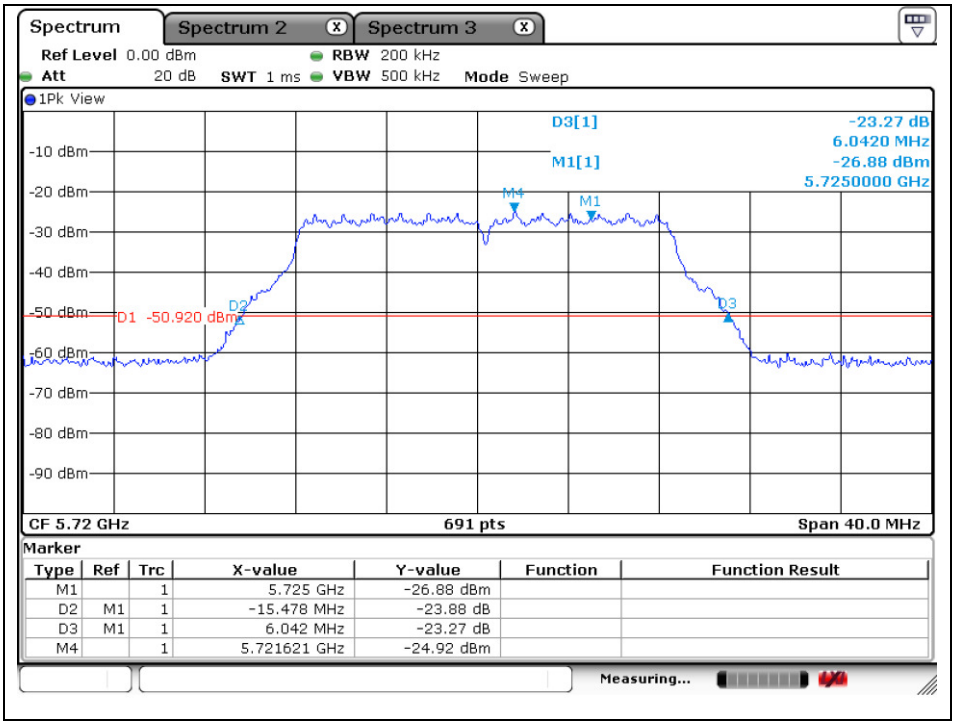
802. 11ac_VHT80 (Band 3)

Middle Channel (5 775 ㎒)

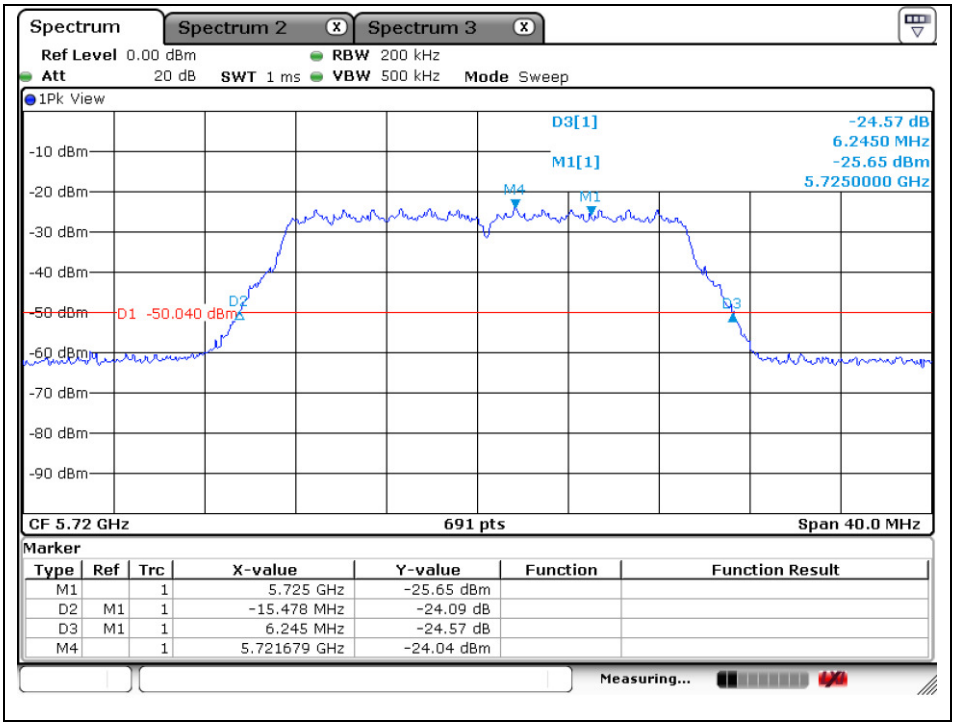


Band-crossing channels

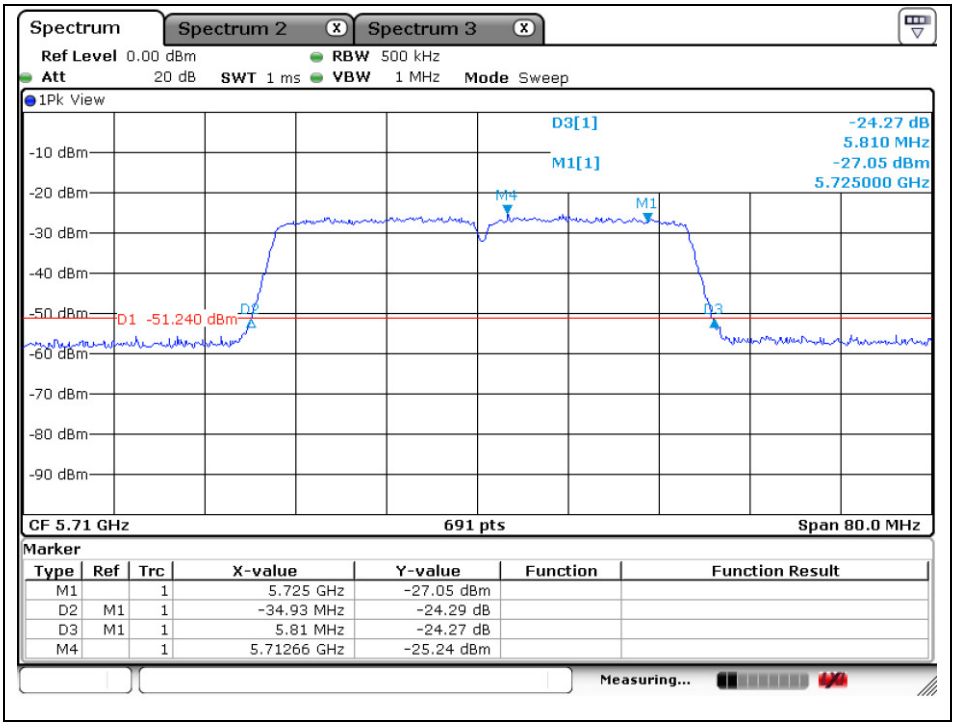
802.11a (5 720 ㎒)



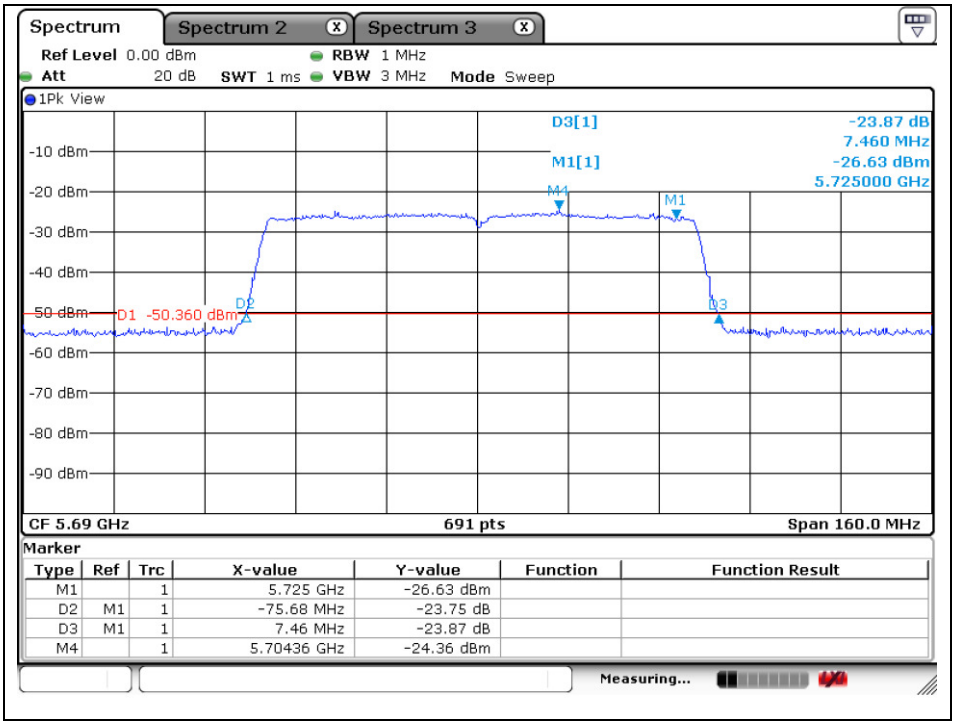
802.11n_HT20 (5 720 ㎒)



802.11n_HT40 (5 710 ㎒)

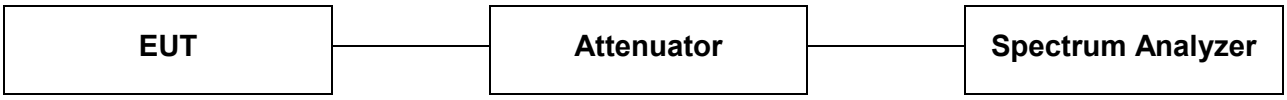


802.11ac_VHT80 (5 690 ㎒)



4. 6 dB bandwidth

4.1. Test setup



4.2. Limit

Within the 5.725-5.85 ㎓ band, the minimum 6 ㏈ bandwidth of U-NII devices shall be at least 500 ㎑.

4.3. Test procedure

All data rates and modes were investigated for this test. The full data for the worst case data rate are reported in this section.

1. This measurement settings are specified in section C.2 of KDB 789033_v01r02.
2. Set RBW : 100 ㎑.
3. Set the video bandwidth (VBW) ≥ 3 x RBW.
4. Detector = Peak.
5. Trace mode = max hold.
6. Sweep = auto couple.
7. Allow the trace to stabilize.
8. 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.
9. In case of band crossing channels 138, 142 and 144, the measurement is complied with section D of KDB 644545_D03 v01.

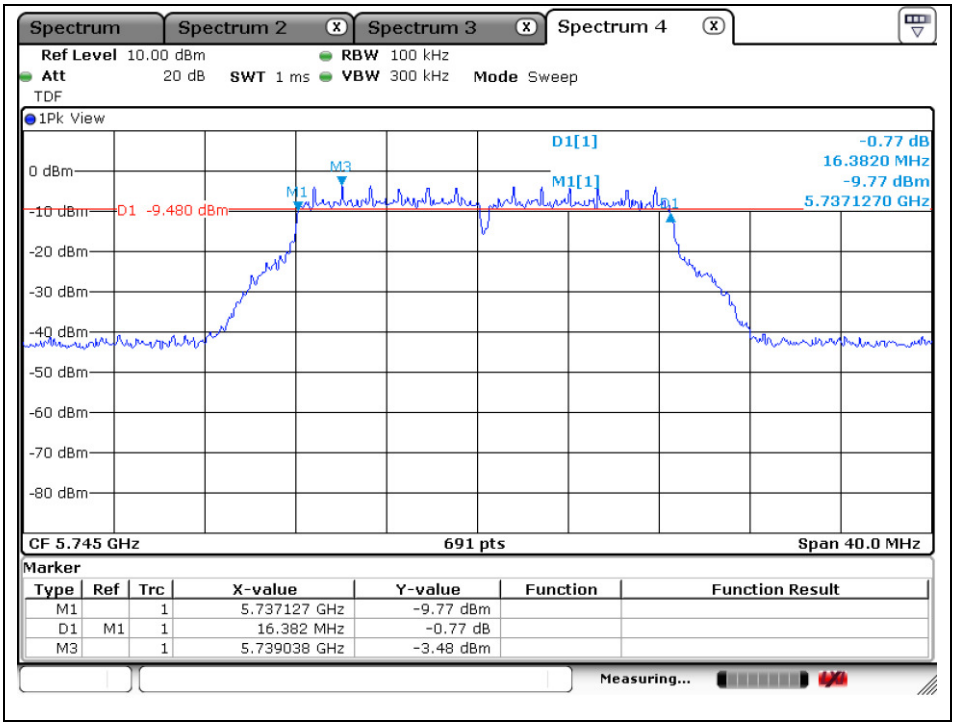
4.4. Test result

Ambient temperature : (23 ± 1) ℃
Relative humidity : 47 % R.H.

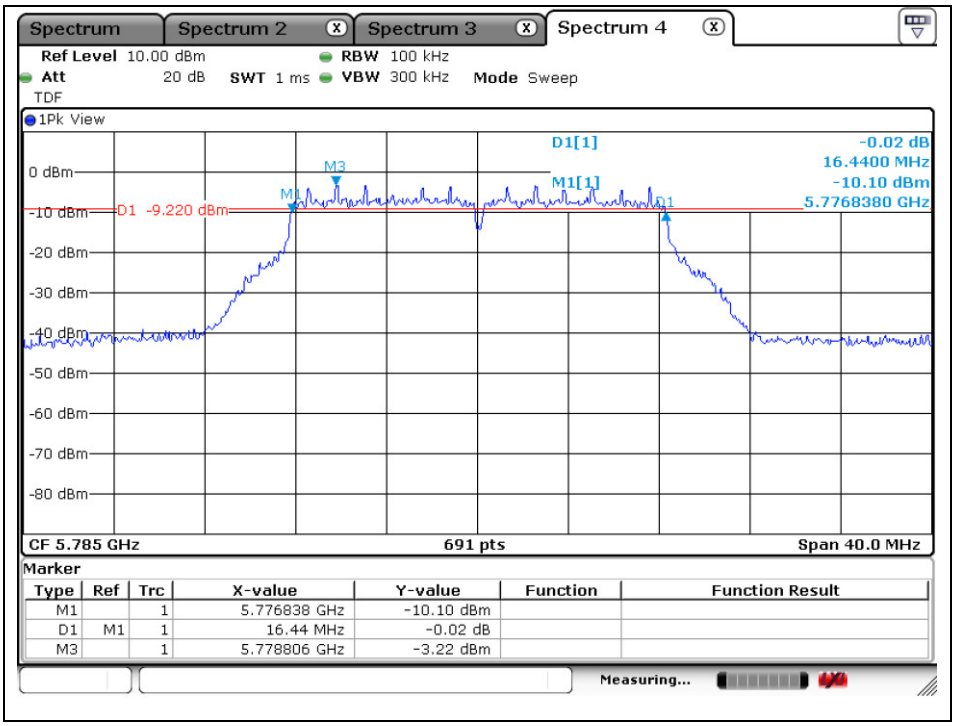
Band	Mode	Frequency (㎒)	Ch.	Data Rate (Mbps)	6 ㏈ Bandwidth (㎒)	Minimum Bandwidth (㎑)
U-NII 3	11a	5 745	149	6	16.38	500
		5 785	157	6	16.44	
		5 825	165	6	16.44	
	11n_HT20	5 745	149	MCS8	17.60	
		5 785	157	MCS8	17.66	
		5 825	165	MCS8	17.54	
	11n_HT40	5 755	151	MCS8	36.35	
		5 795	159	MCS8	36.47	
	11ac_VHT80	5 775	155	MCS0	75.95	
U-NII 3 (Band-Crossing channels)	11a	5 720	144	6	3.51	
	11n_HT20	5 720	144	MCS8	4.15	
	11n_HT40	5 710	142	MCS8	3.57	
	11ac_VHT80	5 690	138	MCS0	3.34	

802.11a (Band 3)

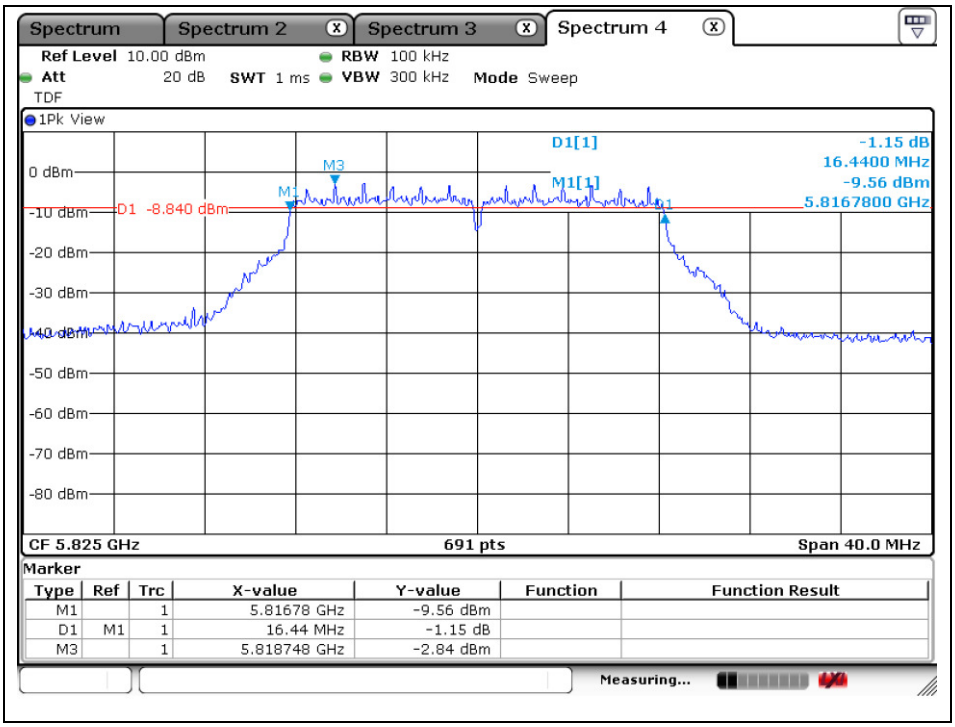
Low Channel (5 745 ㎒)



Middle Channel (5 785 ㎒)

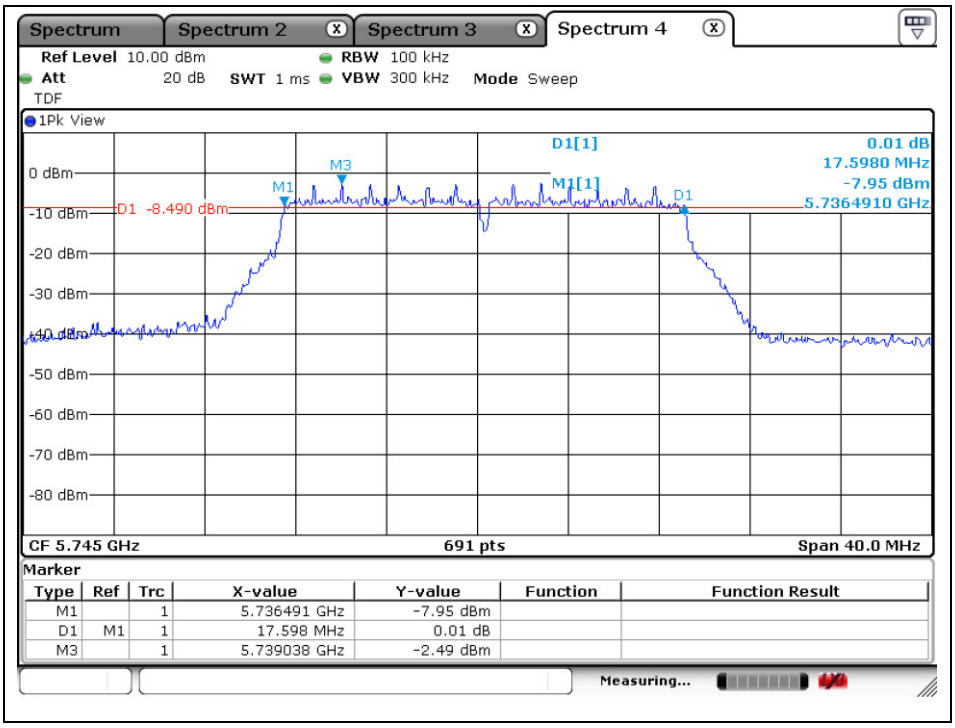


High Channel (5 825 ㎒)

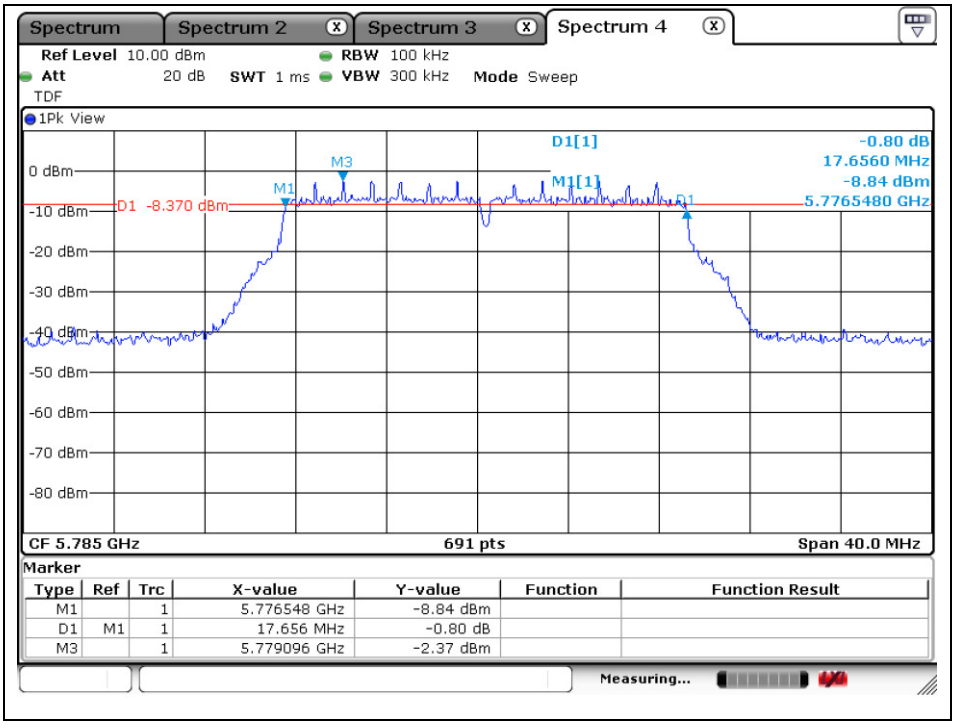


802.11n_HT20 (Band 3)

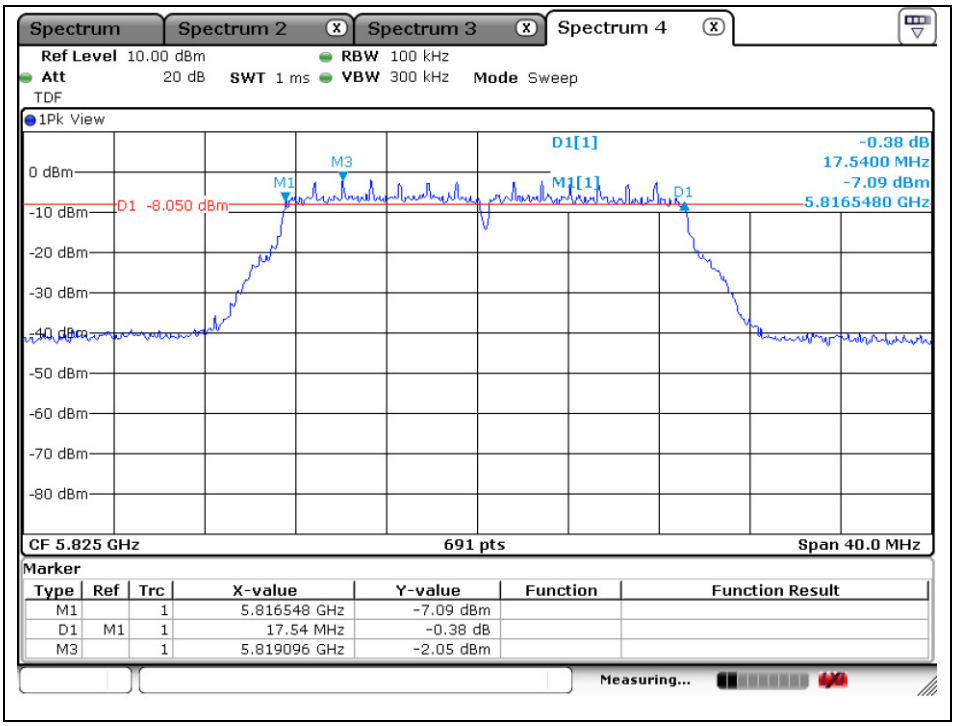
Low Channel (5 745 ㎒)



Middle Channel (5 785 ㎒)

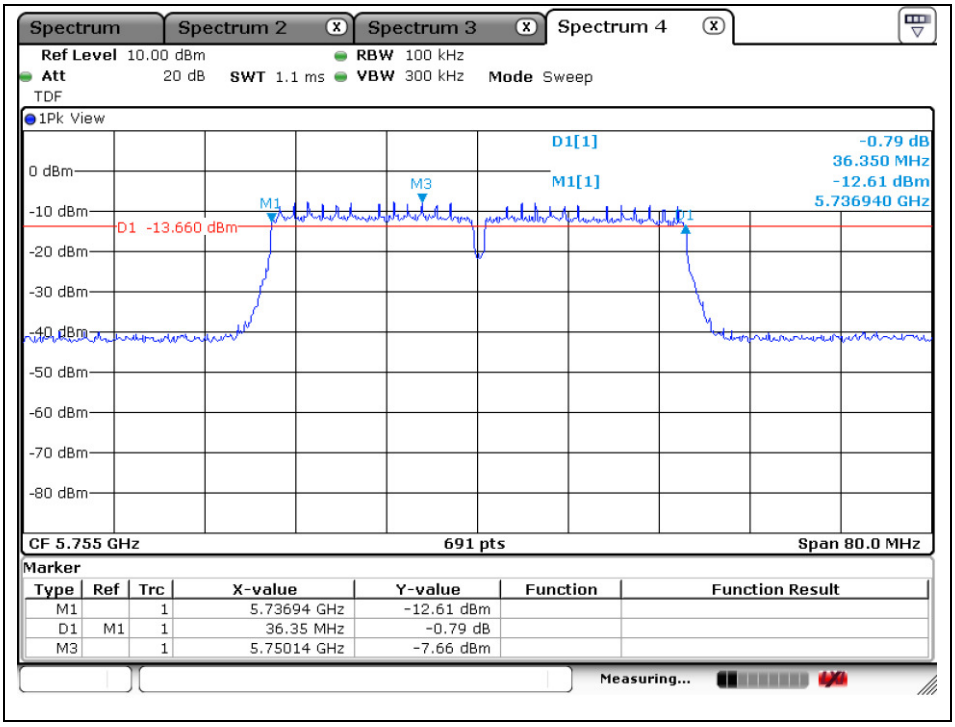


High Channel (5 825 ㎒)

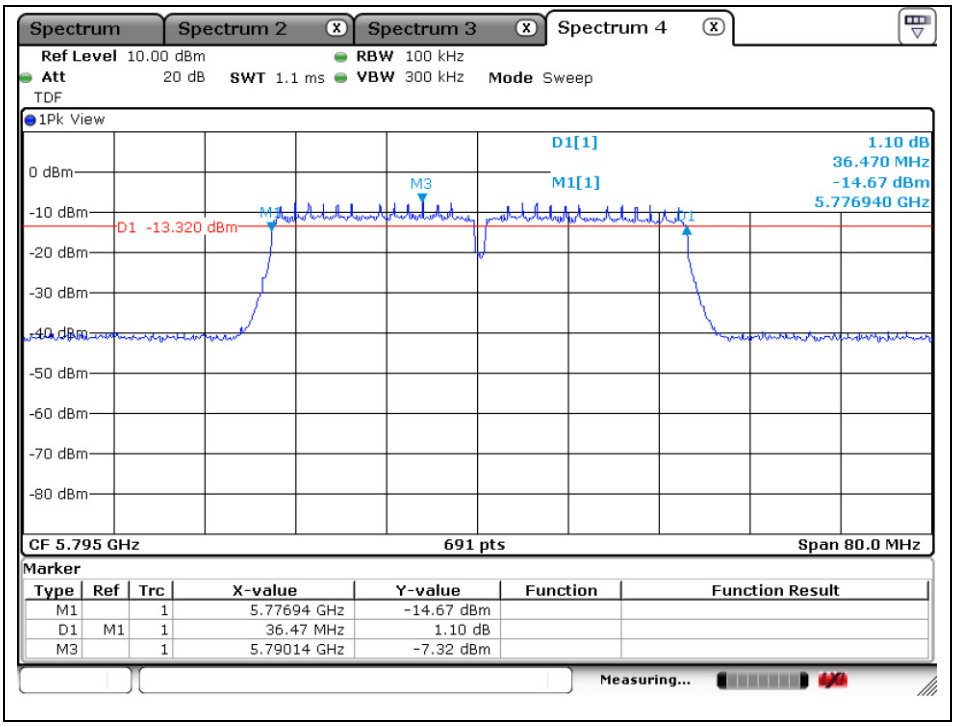


802.11n_HT40 (Band 3)

Low Channel (5 755 ㎒)

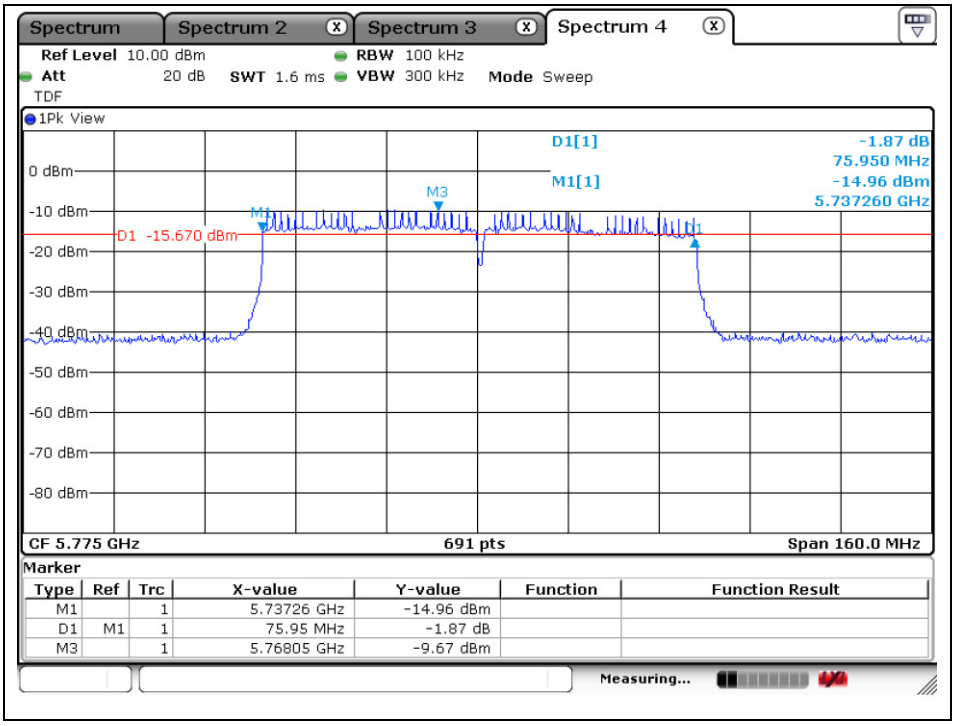


High Channel (5 795 ㎒)



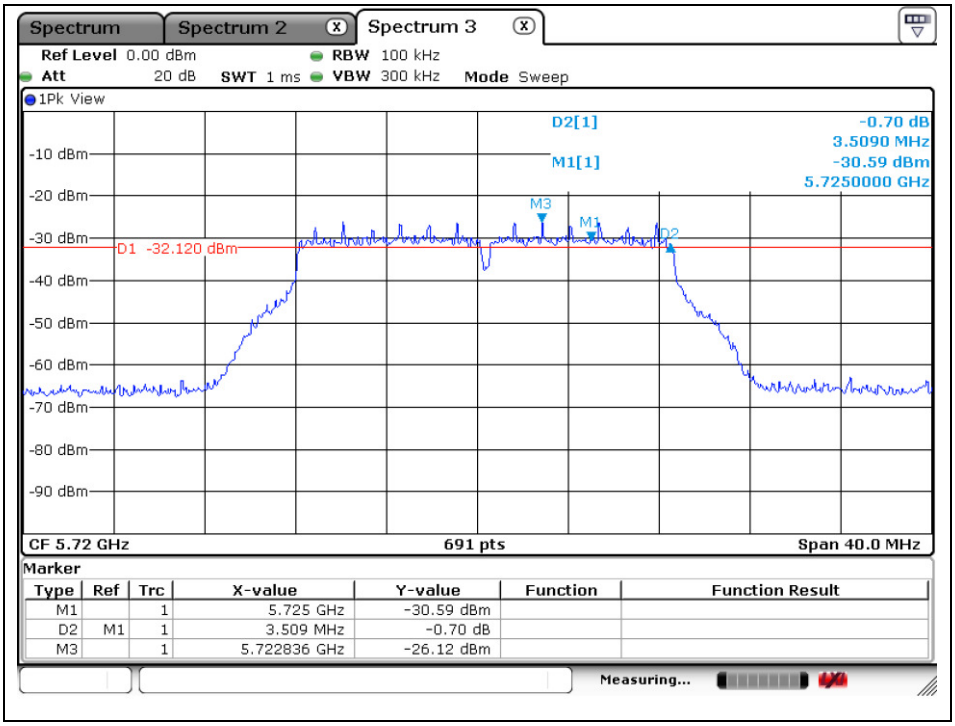
802.11ac_VHT80 (Band 3)

Middle Channel (5 775 ㎒)

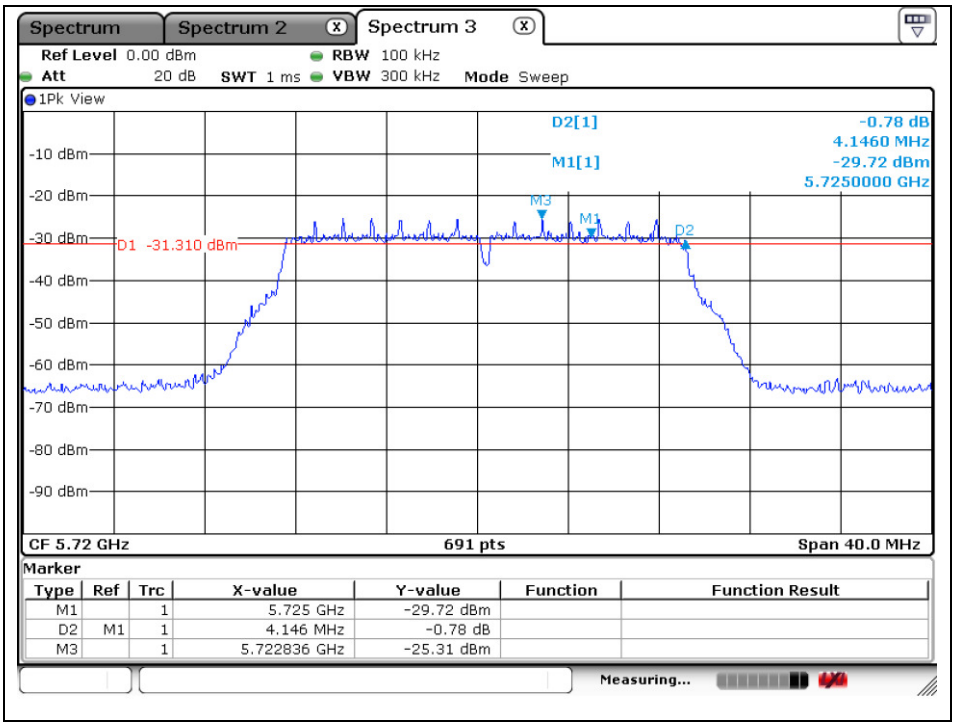


Band-crossing channels

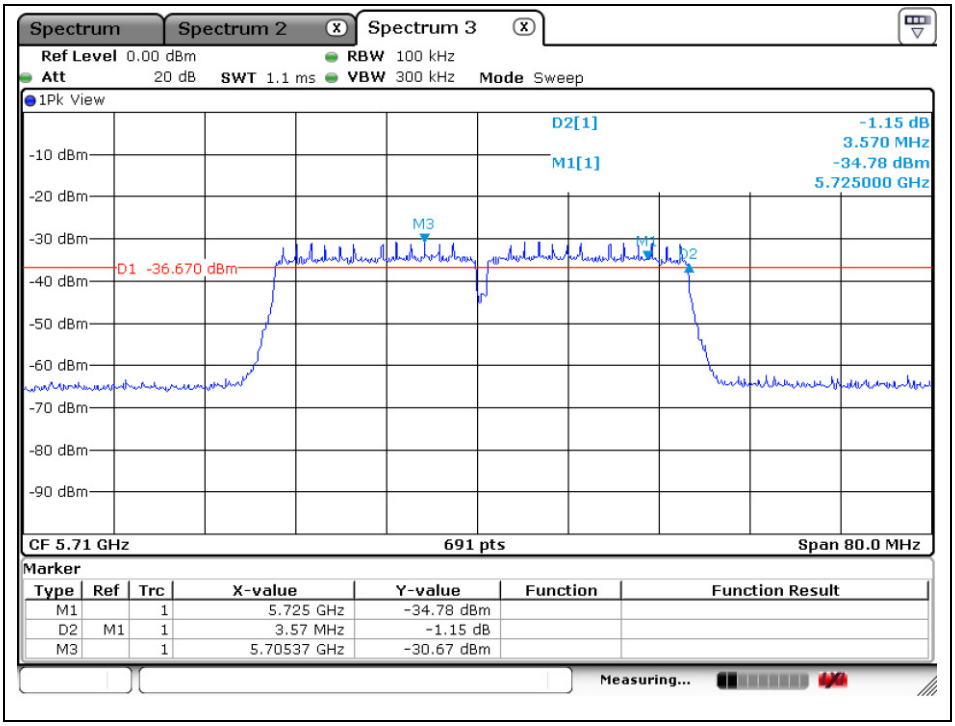
802.11a (5 720 ㎒)



802.11n_HT20 (5 720 ㎒)



802.11n_HT40 (5 710 ㎒)



802.11ac_VHT80 (5 690 ㎒)