FCC Part 15
EMI TEST REPORT

of

E.U.T. : Intelligent Gateway

FCC ID. : D6XIG6600

Model No. : IG6600

for

APPLICANT : TECOM CO., LTD.

ADDRESS : 23, R&D Road 2 Science-Based Industrial Park
Hsin-Chu Taiwan R.O.C.

Test Performed by

ELECTRONICS TESTING CENTER, TAIWAN
NO.34, LIN 5, DINGFU TSUEN, LINKOU SHIANG
TAIPEI COUNTY, TAIWAN, 24442, R.O.C.
Tel : (02)26023052 Fax : (02)26010910
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Report Number : 10-05-RBF-075-01

TEST REPORT CERTIFICATION

Applicant : TECOM CO., LTD.

23, R&D Road 2 Science-Based Industrial Park Hsin-Chu Taiwan R.O.C.

Manufacturer : TECOM CO., LTD.

23, R&D Road 2 Science-Based Industrial Park Hsin-Chu Taiwan R.O.C.

Description of EUT

a) Type of EUT : Intelligent Gateway

b) Trade Name : TECOM

c) Model No. : IG6600

d) Power Supply : Adaptor Model No.: LTE18W-S2

I/P: 100-240Vac, 50/60Hz, 0.5A;

O/P: 12Vdc, 1.5A

Regulation Applied : FCC Rules and Regulations Part 15 Subpart C (2008)

I HEREBY CERTIFY THAT: The data shown in this report were made in accordance with the procedures given in ANSI C63.4, and the energy emitted by the device was founded to be within the limits applicable. I assume full responsibility for accuracy and completeness of these data.

Note: 1. The result of the testing report relate only to the item tested.

2. The testing report shall not be reproduced expect in full, without the written approval of ETC.

Date Test Item Received	:	May 12, 2010
Date Test Campaign Completed	:	Jun. 03, 2010
Date of Issue	:	Jun. 17, 2010

Test Engineer : _____
(Falcon Shi, Engineer)

Check By : _____
(Charles Wang, Supervisor)

Approve & Authorized Signer : _____
Will Yauo, Manager
EMC Dept. II of ELECTRONICS
TESTING CENTER, TAIWAN

Table of Contents Page

1 GENERAL INFORMATION

1.1 Product Description

a) Type of EUT : Intelligent Gateway
b) Trade Name : TECOM
c) Model No. : IG6600
d) Power Supply : Adaptor Model No.: LTE18W-S2
I/P: 100-240Vac, 50/60Hz, 0.5A;
O/P: 12Vdc, 1.5A

1.2 Characteristics of Device

GENERAL DESCRIPTION OF EUT

PRODUCT	Intelligent Gateway
MODEL NO.	IG6600
FCC ID	D6XIG6600
POWER SUPPLY	Adaptor Model No.: LTE18W-S2 I/P: 100-240Vac, 50/60Hz, 0.5A; O/P: 12Vdc, 1.5A
MODULATION TYPE	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
MODULATION TECHNOLOGY	DSSS, OFDM
TRANSFER RATE	802.11b: 11 / 5.5 / 2 / 1Mbps 802.11g: 54 / 48 / 36 / 24 / 18 / 12 / 9 / 6Mbps Draft 802.11n (20MHz) (800ns GI): 130 / 117 / 104 / 78 / 65 / 58.5 / 52 / 39 / 26 / 19.5 / 13 / 6.5Mbps. Draft 802.11n (40MHz) (400ns GI): 270 / 243 / 216 / 162 / 135 / 121.5 / 108 / 81 / 54 / 40.5 / 27 / 13.5Mbps.
FREQUENCY RANGE	For 15.247 802.11b & 802.11g: 2412 ~ 2462MHz
NUMBER OF CHANNEL	**For 15.247(2.4GHz)** 11 for 802.11b, 802.11g, draft 802.11n (20MHz) 7 for draft 802.11n (40MHz)

EUT is a 2x2 802.11bgn gateway, operating in 2400 ~ 2483.5MHz band:
Eleven channels are provided for 802.11b, 802.11g, draft 802.11n (20MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
1	2412MHz	7	2442MHz
2	2417MHz	8	2447MHz
3	2422MHz	9	2452MHz
4	2427MHz	10	2457MHz
5	2432MHz	11	2462MHz
6	2437MHz		

Seven channels are provided for draft 802.11n (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
1	2422MHz	5	2442MHz
2	2427MHz	6	2447MHz
3	2432MHz	7	2452MHz
4	2437MHz		

POWER LINE CONDUCTED EMISSION TEST:

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

RADIATED EMISSION TEST (BELOW 1 GHz):

- ?Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT withantenna diversity architecture).

RADIATED EMISSION TEST (ABOVE 1 GHz):

- ?Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6
For 2.4 GHzDraft 802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	6.5
For 2.4 GHzDraft 802.11n (40MHz)	1 to 7	1, 4, 7	OFDM	BPSK	13.5

CONDUCTED OUT-BAND EMISSION MEASUREMENT:

- ?Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11b	1 to 11	1, 11	DSSS	DBPSK	1
802.11g	1 to 11	1, 11	OFDM	BPSK	6
For 2.4 GHz Draft 802.11n (20MHz)	1 to 11	1, 11	OFDM	BPSK	6.5

For 2.4 GHz Draft 802.11n (40MHz)	1 to 7	1, 7	OFDM	BPSK	13.5

ANTENNA PORT CONDUCTEDMEASUREMENT:

- ?Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6
For 2.4 GHzDraft 802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	6.5
For 2.4 GHzDraft 802.11n (40MHz)	1 to 7	1, 4, 7	OFDM	BPSK	13.5

1.3 Test Methodology

Both conducted and radiated emissions were performed according to the procedures illustrated in ANSI C63.4 (2003). Other required measurements were illustrated in separate sections of this test report for details.

1.4 Test Facility

The open area test site and conducted measurement facility used to collect the radiated data is located on the roof top of Building at NO.34, LIN 5, DINGFU TSUEN, LINKOU SHIANG TAIPEI COUNTY, TAIWAN, 24442, R.O.C.
This site has been fully described in a report submitted to your office, and accepted in a letter dated Aug. 05, 2009

2 PROVISIONS APPLICABLE

2.1 Definition

Unintentional radiator:

A device that intentionally generates and radio frequency energy for use within the device, or that sends radio frequency signals by conduction to associated equipment via connecting wiring, but which is not intended to emit RF energy by radiation or induction.

Class A Digital Device:

A digital device which is marketed for use in commercial or business environment; exclusive of a device which is market for use by the general public, or which is intended to be used in the home.

Class B Digital Device :

A digital device which is marketed for use in a residential environment notwithstanding use in a commercial, business of industrial environment. Example of such devices that are marketed for the general public.

Note : A manufacturer may also qualify a device intended to be marketed in a commercial, business, or industrial environment as a Class B digital device, and in fact is encouraged to do so, provided the device complies with the technical specifications for a Class B Digital Device. In the event that a particular type of device has been found to repeatedly cause harmful interference to radio communications, the Commission may classify such a digital device as a Class B Digital Device, Regardless of its intended use.

Intentional radiator:

A device that intentionally generates and emits radio frequency energy by radiation or induction.

2.2 Requirement for Compliance

(1) Conducted Emission Requirement

Except for Class A digital devices, for equpment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150kHz to 30MHz shall not exceed the limits in the following table, as measured using a 50μH/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the band edges.

Frequency MHz	Quasi Peak dBμV	Average dBμV
0.15 - 0.5	66-56*	56-46*
0.5 - 5.0	56	46
5.0 - 30.0	60	50

* Decreases with the logarithm of the frequency

(2) Radiated Emission Requirement

For unintentional device, according to §15.109(a), except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

Frequency MHz	Distance Meters	Radiated dBμV/m	Radiated μV/m
30 - 88	3	40.0	100
88 - 216	3	43.5	150
216 - 960	3	46.0	200
Above 960	3	54.0	500

For intentional device, according to §15.209(a), the general requirement of field strength of radiated emissions from intentional radiators at a distance of 3 meters shall not exceed the above table.

(3) Antenna Requirement

For intentional device, according to §15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

(4) Bandwidth Requirement

For direct sequence system, according to 15.247(a)(2), the minimum 6dB bandwidth shall be at least 500 kHz.

(5) Output Power Requirement

For direct sequence system, according to 15.247(b), the maximum peak output power of the transmitter shall not exceed 1 Watt. If transmitting antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(6) 100 kHz Bandwidth of Frequency Band Edges Requirement

According to 15.247(c), if any 100 kHz bandwidth outside these frequency bands, the radio frequency power that is produced by the modulation products of the spreading sequence, the information sequence and the carrier frequency shall be either at least 20 dB below that in any 100 kHz bandwidth within the band that contains the highest level of the desired power or shall not exceed the general levels specified in §15.209(a), whichever results in the lesser attenuation.

(7) Power Density Requirement

According to 15.247(d), for direct sequence systems, the transmitted power density averaged over any 1 second interval shall not be greater than 8 dBm in any 3 kHz bandwidth within these bands.

2.3 Restricted Bands of Operation

Only spurious emissions are permitted in any of the frequency bands listed below :

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42-16.423	399.9-410	4.5-5.15
0.495 - 0.505 **	16.69475 - 16.69525	608-614	5.35-5.46
2.1735 - 2.1905	16.80425 - 16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475 - 156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2655-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3360-4400	Above 38.6
13.36-13.41			

** : Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz

2.4 Labeling Requirement

The device shall bear the following statement in a conspicuous location on the device :

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions : (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

2.5 User Information

The users manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

For a Class B digital device or peripheral, the instructions furnished the user shall include the following or similar statement, placed in a prominent location in the text of the manual.

The Federal Communications Commission Radio Frequency Interference Statement includes the following paragraph.

This equipment has been tested and found to comply with the limits for a Class B Digital Device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-- Reorient or relocate the receiving antenna.

-- Increase the separation between the equipment and receiver.

-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-- Consult the dealer or an experienced radio / TV technician for help.

3. SYSTEM TEST CONFIGURATION

3.1 Justification

For both radiated and conducted emissions below 1 GHz, the system was configured for testing in a typical fashion as a customer would normally use it. The peripherals other than EUT were connected in normally standing by situation. Measurement was performed under the condition that a computer program was exercised to simulate data communication of EUT, and the transmission rate was set to maximum allowed by EUT. Three highest emissions were verified with varying placement of the cables connected to EUT to maximize the emission from EUT.

For conducted and radiated spurious emissions, whichever RF channel is operated, the digital circuits function identically. As the reason, measurement of radiated emissions from digital circuits is only performed with channel 7 by transmitting mode.

3.2 Devices for Tested System

Device	Manufacture	Model	Cable Description
Intelligent Gateway *	TECOM CO., LTD.	IG6600	1.8m Unshielded AC Adaptor Power Cord RJ-11 Unshielded Cable 2m * 7 RJ-45 Unshielded Cable 2m * 2

Remark "*" means equipment under test.

4 RADIATED EMISSION MEASUREMENT

4.1 Applicable Standard

For unintentional radiator, the radiated emission shall comply with §15.109(a).
For intentional radiators, according to §15.247 (a), operation under this provision is limited to frequency hopping and direct sequence spread spectrum, and the out band emission shall be comply with §15.247 (c)

4.2 Measurement Procedure

1. Setup the configuration per figure 1 and 2 for frequencies measured below and above 1 GHz respectively.

2. For emission frequencies measured below 1 GHz, a pre-scan is performed in a shielded chamber to determine the accurate frequencies of higher emissions will be checked on a open test site. As the same purpose, for emission frequencies measured above 1 GHz, a pre-scan also be performed with a 1 meter measuring distance before final test.

3. For emission frequencies measured below and above 1 GHz, set the spectrum analyzer on a 100 kHz and 1 MHz resolution bandwidth respectively for each frequency measured in step 2.

4. The search antenna is to be raised and lowered over a range from 1 to 4 meters in horizontally polarized orientation. Position the highness when the highest value is indicated on spectrum analyzer, then change the orientation of EUT on test table over a range from 0° to 360° with a speed as slow as possible, and keep the azimuth that highest emission is indicated on the spectrum analyzer. Vary the antenna position again and record the highest value as a final reading. A RF test receiver is also used to confirm emissions measured.

5. Repeat step 4 until all frequencies need to be measured were complete.

6. Repeat step 5 with search antenna in vertical polarized orientations.

7. Check the three frequencies of highest emission with varying the placement of cables associated with EUT to obtain the worse case and record the result.

Figure 1 : Frequencies measured below 1 GHz configuration

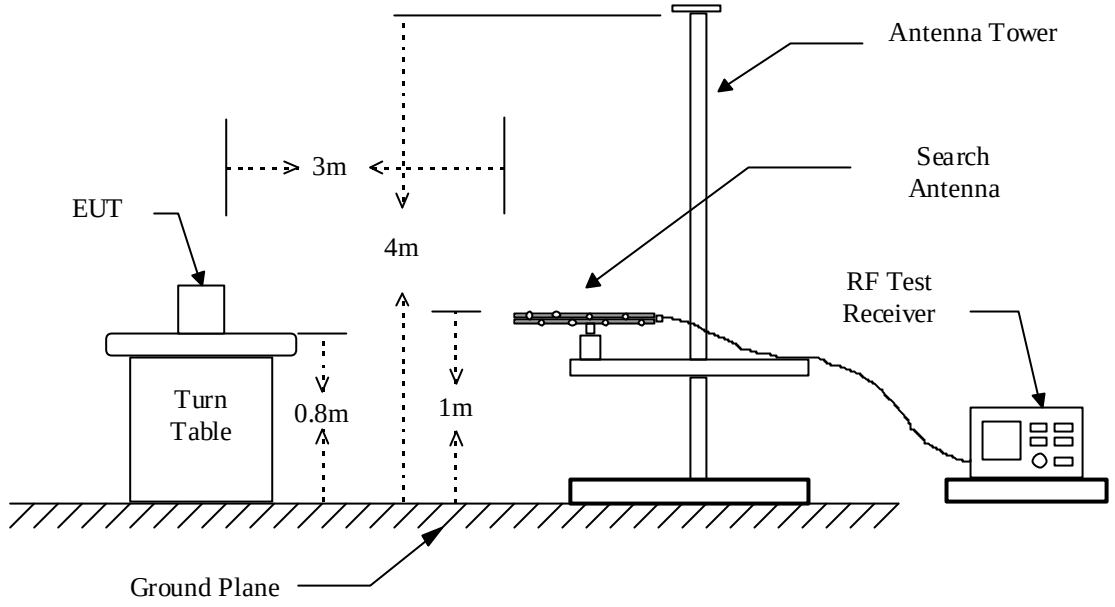
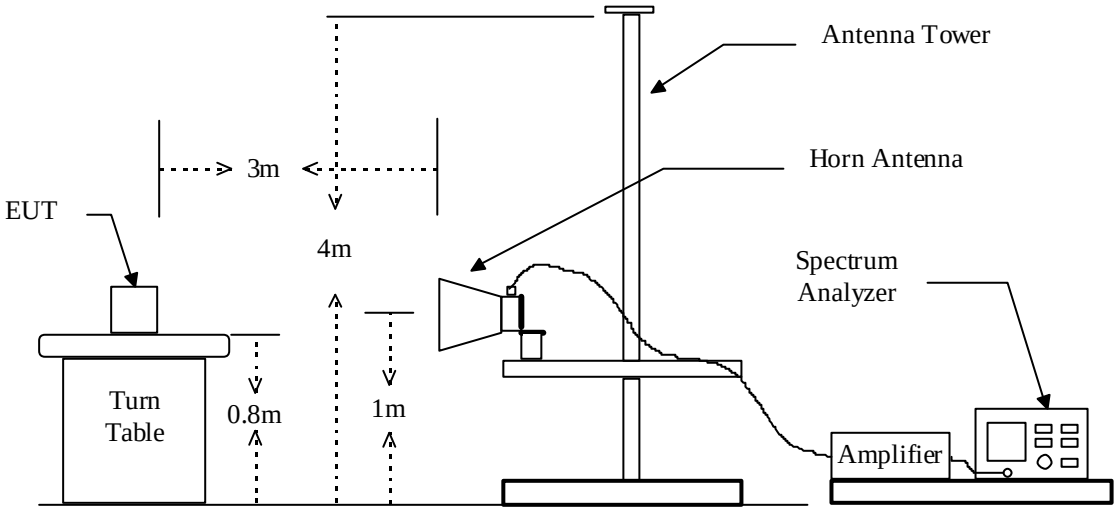


Figure 2 : Frequencies measured above 1 GHz configuration



4.3 Measuring Instrument

The following instrument are used for radiated emissions measurement:

Equipment	Manufacturer	Model No.	Calibration Date	Next Cal. Date
Spectrum	Rohde & Schwarz	FSP40	2009/09/10	2010/09/09
EMI Test Receiver	Rohde & Schwarz	ESCI	2010/02/03	2011/02/02
Test Receiver	Rohde & Schwarz	ESVS30	2010/05/14	2011/05/13
Double Ridged Antenna	EMCO	3115	2010/05/11	2011/05/10
Log-periodic Antenna	EMCO	3146	2009/09/11	2010/09/10
Biconical Antenna	EMCO	3110B	2009/09/22	2010/09/21
Amplifier	HP	8449B	2009/12/16	2010/12/15
Amplifier	HP	8447D	2010/05/10	2011/05/09
Amplifier	HP	83051A	2010/05/13	2011/05/12

Measuring instrument setup in measured frequency band when specified detector function is used :

Frequency Band (MHz)	Instrument	Function	Resolution bandwidth	Video Bandwidth
30 to 1000	RF Test Receiver	Quasi-Peak	120 kHz	N/A
	Spectrum Analyzer	Peak	100 kHz	100 kHz
Above 1000	Spectrum Analyzer	Peak	1 MHz	1 MHz
	Spectrum Analyzer	Average	1 MHz	10 Hz

4.4 Radiated Emission Data

4.4.1 RF Portion

A. Channel Low(802.11b) @1 Mbps

Operation Mode : Transmitting

Fundamental Frequency : 2412.000 MHz

Test Date : Jun. 03, 2010 Temperature : 23 °C Humidity : 68 %

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m		Margin	Table	Ant.
	H		V		(dB)	(dBuV/m)		(dBuV/m)		(dB)	Deg.	High
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave		(Deg.)	(m)
4823.840	50.0	***	53.4	***	-1.3	52.1	***	74.0	54.0	-1.9	69	1.5
7235.680	---	---	---	---	---	---	---	74.0	54.0	---	---	---
9647.520	---	---	---	---	---	---	---	74.0	54.0	---	---	---
12059.360	---	---	---	---	---	---	---	74.0	54.0	---	---	---
14471.200	---	---	---	---	---	---	---	74.0	54.0	---	---	---
16883.040	---	---	---	---	---	---	---	74.0	54.0	---	---	---
19294.880	---	---	---	---	---	---	---	74.0	54.0	---	---	---
21706.720	---	---	---	---	---	---	---	74.0	54.0	---	---	---
24118.560	---	---	---	---	---	---	---	74.0	54.0	---	---	---

Operation Mode : Receiving

Fundamental Frequency : Local Frequency : 2412.000 MHz

Test Date : Jun. 03, 2010 Temperature : 23 °C Humidity : 68 %

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m		Margin	Table	Ant.
	H		V		(dB)	(dBuV/m)		(dBuV/m)		(dB)	Deg.	High
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave		(Deg.)	(m)
* 2412.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 4824.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 7236.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 9648.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 12060.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---

Note :

1. *Item of margin shown in above table refer to average limit.*
2. *It is considered that the results of average comply with average limit when measuring data with a peak function detector meet the average limit. Mark "***" means that Peak result is meet average limit.*
3. *Remark "---" means that the emissions level is too low to be measured.*
4. *Remark "*" means the local oscillator frequency and its harmonics.*
5. *Item "Margin" referred to Average limit while there is only peak result.*

6. The expanded uncertainty of the radiated emission tests is 3.53 dB.

B. Channel Middle(802.11b) @1 Mbps

Operation Mode : Transmitting

Fundamental Frequency : 2437.000 MHz

Test Date : Jun. 03, 2010 Temperature : 23 °C Humidity : 68 %

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m		Margin	Table	Ant.
	H		V		(dB)	(dBuV/m)		(dBuV/m)		(dB)	Deg. (Deg.)	High
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave			(m)
4874.028	53.6	***	51.1	***	-1.1	52.5	***	74.0	54.0	-1.5	86	1.5
7311.056	---	---	---	---	---	---	---	74.0	54.0	---	---	---
9748.084	---	---	---	---	---	---	---	74.0	54.0	---	---	---
12185.112	---	---	---	---	---	---	---	74.0	54.0	---	---	---
14622.140	---	---	---	---	---	---	---	74.0	54.0	---	---	---
17059.168	---	---	---	---	---	---	---	74.0	54.0	---	---	---
19496.196	---	---	---	---	---	---	---	74.0	54.0	---	---	---
21933.224	---	---	---	---	---	---	---	74.0	54.0	---	---	---
24370.252	---	---	---	---	---	---	---	74.0	54.0	---	---	---

Operation Mode : Receiving

Fundamental Frequency : Local Frequency : 2437.000 MHz

Test Date : Jun. 03, 2010 Temperature : 23 °C Humidity : 68 %

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m		Margin	Table	Ant.
	H		V		(dB)	(dBuV/m)		(dBuV/m)		(dB)	Deg. (Deg.)	High
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave			(m)
* 2437.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 4874.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 7311.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 9748.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 12185.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---

Note :

1. *Item of margin shown in above table refer to average limit.*
2. *It is considered that the results of average comply with average limit when measuring data with a peak function detector meet the average limit. Mark "***" means that Peak result is meet average limit.*
3. *Remark "---" means that the emissions level is too low to be measured.*
4. *Remark "*" means the local oscillator frequency and its harmonics.*
5. *Item "Margin" referred to Average limit while there is only peak result.*
6. *The expanded uncertainty of the radiated emission tests is 3.53 dB.*

C. Channel High(802.11b) @1 Mbps

Operation Mode : Transmitting

Fundamental Frequency : 2462.000 MHz

Test Date : Jun. 03, 2010 Temperature : 23 °C Humidity : 68 %

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m		Margin	Table	Ant.
	H		V		(dB)	(dBuV/m)		(dBuV/m)		(dB)	Deg. (Deg.)	High
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave			(m)
4923.964	53.6	***	50.8	***	-0.9	52.7	***	74.0	54.0	-1.3	33	1.4
7385.928	---	---	---	---	---	---	---	74.0	54.0	---	---	---
9847.892	---	---	---	---	---	---	---	74.0	54.0	---	---	---
12309.856	---	---	---	---	---	---	---	74.0	54.0	---	---	---
14771.820	---	---	---	---	---	---	---	74.0	54.0	---	---	---
17233.784	---	---	---	---	---	---	---	74.0	54.0	---	---	---
19695.748	---	---	---	---	---	---	---	74.0	54.0	---	---	---
22157.712	---	---	---	---	---	---	---	74.0	54.0	---	---	---
24619.676	---	---	---	---	---	---	---	74.0	54.0	---	---	---

Operation Mode : Receiving

Fundamental Frequency : Local Frequency : 2462.000 MHz

Test Date : Jun. 03, 2010 Temperature : 23 °C Humidity : 68 %

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m		Margin	Table	Ant.
	H		V		(dB)	(dBuV/m)		(dBuV/m)		(dB)	Deg. (Deg.)	High
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave			(m)
* 2462.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 4924.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 7386.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 9848.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 12310.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---

Note :

1. *Item of margin shown in above table refer to average limit.*
2. *It is considered that the results of average comply with average limit when measuring data with a peak function detector meet the average limit. Mark "***" means that Peak result is meet average limit.*
3. *Remark "---" means that the emissions level is too low to be measured.*
4. *Remark "*" means the local oscillator frequency and its harmonics.*
5. *Item "Margin" referred to Average limit while there is only peak result.*
6. *The expanded uncertainty of the radiated emission tests is 3.53 dB.*

D. Channel Low(802.11g) @6 Mbps

Operation Mode : Transmitting

Fundamental Frequency : 2412.000 MHz

Test Date : Jun. 03, 2010 Temperature : 23 °C Humidity : 68 %

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m		Margin	Table	Ant.
	H		V		(dB)	(dBuV/m)		(dBuV/m)		(dB)	Deg. (Deg.)	High
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave			(m)
4823.785	49.7	***	53.9	***	-1.3	52.6	***	74.0	54.0	-1.4	97	1.6
7235.570	---	---	---	---	---	---	---	74.0	54.0	---	---	---
9647.355	---	---	---	---	---	---	---	74.0	54.0	---	---	---
12059.140	---	---	---	---	---	---	---	74.0	54.0	---	---	---
14470.925	---	---	---	---	---	---	---	74.0	54.0	---	---	---
16882.710	---	---	---	---	---	---	---	74.0	54.0	---	---	---
19294.495	---	---	---	---	---	---	---	74.0	54.0	---	---	---
21706.280	---	---	---	---	---	---	---	74.0	54.0	---	---	---
24118.065	---	---	---	---	---	---	---	74.0	54.0	---	---	---

Operation Mode : Receiving

Fundamental Frequency : Local Frequency : 2412.000 MHz

Test Date : Jun. 03, 2010 Temperature : 23 °C Humidity : 68 %

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m		Margin	Table	Ant.
	H		V		(dB)	(dBuV/m)		(dBuV/m)		(dB)	Deg. (Deg.)	High
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave			(m)
* 2412.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 4824.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 7236.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 9648.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 12060.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---

Note :

1. *Item of margin shown in above table refer to average limit.*
2. *It is considered that the results of average comply with average limit when measuring data with a peak function detector meet the average limit. Mark "***" means that Peak result is meet average limit.*
3. *Remark "---" means that the emissions level is too low to be measured.*
4. *Remark "*" means the local oscillator frequency and its harmonics.*
5. *Item "Margin" referred to Average limit while there is only peak result.*
6. *The expanded uncertainty of the radiated emission tests is 3.53 dB.*

E. Channel Middle(802.11g) @6 Mbps

Operation Mode : Transmitting

Fundamental Frequency : 2437.000 MHz

Test Date : Jun. 03, 2010 Temperature : 23 °C Humidity : 68 %

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m		Margin	Table	Ant.
	H		V		(dB)	(dBuV/m)		(dBuV/m)		(dB)	Deg. (Deg.)	High
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave			(m)
4874.111	50.2	***	53.6	***	-1.1	52.5	***	74.0	54.0	-1.5	77	1.5
7311.222	---	---	---	---	---	---	---	74.0	54.0	---	---	---
9748.333	---	---	---	---	---	---	---	74.0	54.0	---	---	---
12185.444	---	---	---	---	---	---	---	74.0	54.0	---	---	---
14622.555	---	---	---	---	---	---	---	74.0	54.0	---	---	---
17059.666	---	---	---	---	---	---	---	74.0	54.0	---	---	---
19496.777	---	---	---	---	---	---	---	74.0	54.0	---	---	---
21933.888	---	---	---	---	---	---	---	74.0	54.0	---	---	---
24370.999	---	---	---	---	---	---	---	74.0	54.0	---	---	---

Operation Mode : Receiving

Fundamental Frequency : Local Frequency : 2437.000 MHz

Test Date : Jun. 03, 2010 Temperature : 23 °C Humidity : 68 %

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m		Margin	Table	Ant.
	H		V		(dB)	(dBuV/m)		(dBuV/m)		(dB)	Deg. (Deg.)	High
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave			(m)
* 2437.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 4874.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 7311.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 9748.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 12185.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---

Note :

1. *Item of margin shown in above table refer to average limit.*
2. *It is considered that the results of average comply with average limit when measuring data with a peak function detector meet the average limit. Mark "***" means that Peak result is meet average limit.*
3. *Remark "---" means that the emissions level is too low to be measured.*
4. *Remark "*" means the local oscillator frequency and its harmonics.*
5. *Item "Margin" referred to Average limit while there is only peak result.*
6. *The expanded uncertainty of the radiated emission tests is 3.53 dB.*

F. Channel High(802.11g) @6 Mbps

Operation Mode : Transmitting

Fundamental Frequency : 2462.000 MHz

Test Date : Jun. 03, 2010 Temperature : 23 °C Humidity : 68 %

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m		Margin	Table	Ant.
	H		V		(dB)	(dBuV/m)		(dBuV/m)		(dB)	Deg. (Deg.)	High
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave			(m)
4924.216	49.8	***	52.6	***	-0.9	51.7	***	74.0	54.0	-2.3	77	1.6
7386.432	---	---	---	---	---	---	---	74.0	54.0	---	---	---
9848.648	---	---	---	---	---	---	---	74.0	54.0	---	---	---
12310.864	---	---	---	---	---	---	---	74.0	54.0	---	---	---
14773.080	---	---	---	---	---	---	---	74.0	54.0	---	---	---
17235.296	---	---	---	---	---	---	---	74.0	54.0	---	---	---
19697.512	---	---	---	---	---	---	---	74.0	54.0	---	---	---
22159.728	---	---	---	---	---	---	---	74.0	54.0	---	---	---
24621.944	---	---	---	---	---	---	---	74.0	54.0	---	---	---

Operation Mode : Receiving

Fundamental Frequency : Local Frequency : 2462.000 MHz

Test Date : Jun. 03, 2010 Temperature : 23 °C Humidity : 68 %

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m		Margin	Table	Ant.
	H		V		(dB)	(dBuV/m)		(dBuV/m)		(dB)	Deg. (Deg.)	High
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave			(m)
* 2462.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 4924.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 7386.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 9848.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 12310.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---

Note :

1. *Item of margin shown in above table refer to average limit.*
2. *It is considered that the results of average comply with average limit when measuring data with a peak function detector meet the average limit. Mark "***" means that Peak result is meet average limit.*
3. *Remark "---" means that the emissions level is too low to be measured.*
4. *Remark "*" means the local oscillator frequency and its harmonics.*
5. *Item "Margin" referred to Average limit while there is only peak result.*
6. *The expanded uncertainty of the radiated emission tests is 3.53 dB.*

G. Channel Low(802.11n HT-20) @6.5 Mbps

Operation Mode : Transmitting

Fundamental Frequency : 2412.000 MHz

Test Date : Jun. 03, 2010 Temperature : 23 °C Humidity : 68 %

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m		Margin	Table	Ant.
	H		V		(dB)	(dBuV/m)		(dBuV/m)		(dB)	Deg.	High
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave		(Deg.)	(m)
4824.658	53.0	***	57.5	***	-1.3	56.2	***	74.0	54.0	2.2	83	1.6
7386.432	---	---	---	---	---	---	---	74.0	54.0	---	---	---
9848.648	---	---	---	---	---	---	---	74.0	54.0	---	---	---
12310.864	---	---	---	---	---	---	---	74.0	54.0	---	---	---
14773.080	---	---	---	---	---	---	---	74.0	54.0	---	---	---
17235.296	---	---	---	---	---	---	---	74.0	54.0	---	---	---
19697.512	---	---	---	---	---	---	---	74.0	54.0	---	---	---
22159.728	---	---	---	---	---	---	---	74.0	54.0	---	---	---
24621.944	---	---	---	---	---	---	---	74.0	54.0	---	---	---

Operation Mode : Receiving

Fundamental Frequency : Local Frequency : 2412.000 MHz

Test Date : Jun. 03, 2010 Temperature : 23 °C Humidity : 68 %

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m		Margin	Table	Ant.
	H		V		(dB)	(dBuV/m)		(dBuV/m)		(dB)	Deg.	High
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave		(Deg.)	(m)
* 2412.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 4824.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 7236.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 9648.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 12060.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---

Note :

1. *Item of margin shown in above table refer to average limit.*
2. *It is considered that the results of average comply with average limit when measuring data with a peak function detector meet the average limit. Mark "***" means that Peak result is meet average limit.*
3. *Remark "---" means that the emissions level is too low to be measured.*
4. *Remark "*" means the local oscillator frequency and its harmonics.*
5. *Item "Margin" referred to Average limit while there is only peak result.*
6. *The expanded uncertainty of the radiated emission tests is 3.53 dB.*

H. Channel Middle(802.11n HT-20) @6.5 Mbps

Operation Mode : Transmitting

Fundamental Frequency : 2437.000 MHz

Test Date : Jun. 03, 2010 Temperature : 23 °C Humidity : 68 %

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m		Margin	Table	Ant.
	H		V		(dB)	(dBuV/m)		(dBuV/m)		(dB)	Deg. (Deg.)	High
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave			(m)
4873.864	52.6	***	49.1	***	-1.1	54.1	48.0	74.0	54.0	-6.0	102	1.5
7310.728	---	---	---	---	---	---	---	74.0	54.0	---	---	---
9747.592	---	---	---	---	---	---	---	74.0	54.0	---	---	---
12184.456	---	---	---	---	---	---	---	74.0	54.0	---	---	---
14621.320	---	---	---	---	---	---	---	74.0	54.0	---	---	---
17058.184	---	---	---	---	---	---	---	74.0	54.0	---	---	---
19495.048	---	---	---	---	---	---	---	74.0	54.0	---	---	---
21931.912	---	---	---	---	---	---	---	74.0	54.0	---	---	---
24368.776	---	---	---	---	---	---	---	74.0	54.0	---	---	---

Operation Mode : Receiving

Fundamental Frequency : Local Frequency : 2437.000 MHz

Test Date : Jun. 03, 2010 Temperature : 23 °C Humidity : 68 %

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m		Margin	Table	Ant.
	H		V		(dB)	(dBuV/m)		(dBuV/m)		(dB)	Deg. (Deg.)	High
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave			(m)
* 2437.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 4874.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 7311.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 9748.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 12185.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---

Note :

1. *Item of margin shown in above table refer to average limit.*
2. *It is considered that the results of average comply with average limit when measuring data with a peak function detector meet the average limit. Mark "***" means that Peak result is meet average limit.*
3. *Remark "---" means that the emissions level is too low to be measured.*
4. *Remark "*" means the local oscillator frequency and its harmonics.*
5. *Item "Margin" referred to Average limit while there is only peak result.*
6. *The expanded uncertainty of the radiated emission tests is 3.53 dB.*

I. Channel High(802.11n HT-20) @6.5 Mbps

Operation Mode : Transmitting

Fundamental Frequency : 2462.000 MHz

Test Date : Jun. 03, 2010 Temperature : 23 °C Humidity : 68 %

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m		Margin	Table	Ant.
	H		V		(dB)	(dBuV/m)		(dBuV/m)		(dB)	Deg. (Deg.)	High
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave			(m)
4924.537	52.1	***	55.3	49.8	-0.9	54.4	48.9	74.0	54.0	-5.1	67	1.6
7387.074	---	---	---	---	---	---	---	74.0	54.0	---		
9849.611	---	---	---	---	---	---	---	74.0	54.0	---	---	---
12312.148	---	---	---	---	---	---	---	74.0	54.0	---	---	---
14774.685	---	---	---	---	---	---	---	74.0	54.0	---	---	---
17237.222	---	---	---	---	---	---	---	74.0	54.0	---	---	---
19699.759	---	---	---	---	---	---	---	74.0	54.0	---	---	---
22162.296	---	---	---	---	---	---	---	74.0	54.0	---	---	---
24624.833	---	---	---	---	---	---	---	74.0	54.0	---	---	---

Operation Mode : Receiving

Fundamental Frequency : Local Frequency : 2462.000 MHz

Test Date : Jun. 03, 2010 Temperature : 23 °C Humidity : 68 %

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m		Margin	Table	Ant.
	H		V		(dB)	(dBuV/m)		(dBuV/m)		(dB)	Deg. (Deg.)	High
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave			(m)
* 2462.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 4924.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 7386.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 9848.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 12310.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---

Note :

1. *Item of margin shown in above table refer to average limit.*
2. *It is considered that the results of average comply with average limit when measuring data with a peak function detector meet the average limit. Mark "***" means that Peak result is meet average limit.*
3. *Remark "---" means that the emissions level is too low to be measured.*
4. *Remark "*" means the local oscillator frequency and its harmonics.*
5. *Item "Margin" referred to Average limit while there is only peak result.*
6. *The expanded uncertainty of the radiated emission tests is 3.53 dB.*

J. Channel Low(802.11n HT-40) @13.5 Mbps

Operation Mode : Transmitting

Fundamental Frequency : 2422 MHz

Test Date : Jun. 03, 2010 Temperature : 23 °C Humidity : 68 %

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m		Margin	Table	Ant.
	H		V		(dB)	(dBuV/m)		(dBuV/m)		(dB)	Deg. (Deg.)	High
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave			(m)
4843.744	50.9	***	48.3	53.0	-1.2	51.8	***	74.0	54.0	-2.2	63	1.4
7265.488	---	---	---	---	---	---	---	74.0	54.0	---	---	---
9687.232	---	---	---	---	---	---	---	74.0	54.0	---	---	---
12108.976	---	---	---	---	---	---	---	74.0	54.0	---	---	---
14530.720	---	---	---	---	---	---	---	74.0	54.0	---	---	---
16952.464	---	---	---	---	---	---	---	74.0	54.0	---	---	---
19374.208	---	---	---	---	---	---	---	74.0	54.0	---	---	---
21795.952	---	---	---	---	---	---	---	74.0	54.0	---	---	---
24217.696	---	---	---	---	---	---	---	74.0	54.0	---	---	---

Operation Mode : Receiving

Fundamental Frequency : Local Frequency : 2422.000 MHz

Test Date : Jun. 03, 2010 Temperature : 23 °C Humidity : 68 %

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m		Margin	Table	Ant.
	H		V		(dB)	(dBuV/m)		(dBuV/m)		(dB)	Deg. (Deg.)	High
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave			(m)
* 2422.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 4844.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 7266.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 9688.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 12110.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---

Note :

1. *Item of margin shown in above table refer to average limit.*
2. *It is considered that the results of average comply with average limit when measuring data with a peak function detector meet the average limit. Mark "***" means that Peak result is meet average limit.*
3. *Remark "---" means that the emissions level is too low to be measured.*
4. *Remark "*" means the local oscillator frequency and its harmonics.*
5. *Item "Margin" referred to Average limit while there is only peak result.*
6. *The expanded uncertainty of the radiated emission tests is 3.53 dB.*

K. Channel Middle(802.11n HT-40) @13.5 Mbps

Operation Mode : Transmitting

Fundamental Frequency : 2437.000 MHz

Test Date : Jun. 03, 2010 Temperature : 23 °C Humidity : 68 %

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m		Margin	Table	Ant.
	H		V		(dB)	(dBuV/m)		(dBuV/m)		(dB)	Deg. (Deg.)	High
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave			(m)
4873.854	50.2	***	53.0	***	-1.1	51.9	***	74.0	54.0	-2.1	61	1.5
7310.708	---	---	---	---	---	---	---	74.0	54.0	---	---	---
9747.562	---	---	---	---	---	---	---	74.0	54.0	---	---	---
12184.416	---	---	---	---	---	---	---	74.0	54.0	---	---	---
14621.270	---	---	---	---	---	---	---	74.0	54.0	---	---	---
17058.124	---	---	---	---	---	---	---	74.0	54.0	---	---	---
19494.978	---	---	---	---	---	---	---	74.0	54.0	---	---	---
21931.832	---	---	---	---	---	---	---	74.0	54.0	---	---	---
24368.686	---	---	---	---	---	---	---	74.0	54.0	---	---	---

Operation Mode : Receiving

Fundamental Frequency : Local Frequency : 2437.000 MHz

Test Date : Jun. 03, 2010 Temperature : 23 °C Humidity : 68 %

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m		Margin	Table	Ant.
	H		V		(dB)	(dBuV/m)		(dBuV/m)		(dB)	Deg. (Deg.)	High
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave			(m)
* 2437.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 4874.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 7311.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 9748.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 12185.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---

Note :

1. *Item of margin shown in above table refer to average limit.*
2. *It is considered that the results of average comply with average limit when measuring data with a peak function detector meet the average limit. Mark "***" means that Peak result is meet average limit.*
3. *Remark "---" means that the emissions level is too low to be measured.*
4. *Remark "*" means the local oscillator frequency and its harmonics.*
5. *Item "Margin" referred to Average limit while there is only peak result.*
6. *The expanded uncertainty of the radiated emission tests is 3.53 dB.*

L. Channel High(802.11n HT-40) @13.5 Mbps

Operation Mode : Transmitting

Fundamental Frequency : 2452.000 MHz

Test Date : Jun. 03, 2010 Temperature : 23 °C Humidity : 68 %

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m		Margin	Table	Ant.
	H		V		(dB)	(dBuV/m)		(dBuV/m)		(dB)	Deg. (Deg.)	High
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave			(m)
4901.317	49.6	***	52.4	***	-1.0	51.4	***	74.0	54.0	-2.6	77	1.6
7310.708	---	---	---	---	---	---	---	74.0	54.0	---	---	---
9747.562	---	---	---	---	---	---	---	74.0	54.0	---	---	---
12184.416	---	---	---	---	---	---	---	74.0	54.0	---	---	---
14621.270	---	---	---	---	---	---	---	74.0	54.0	---	---	---
17058.124	---	---	---	---	---	---	---	74.0	54.0	---	---	---
19494.978	---	---	---	---	---	---	---	74.0	54.0	---	---	---
21931.832	---	---	---	---	---	---	---	74.0	54.0	---	---	---
24368.686	---	---	---	---	---	---	---	74.0	54.0	---	---	---

Operation Mode : Receiving

Fundamental Frequency : Local Frequency : 2452.000 MHz

Test Date : Jun. 03, 2010 Temperature : 23 °C Humidity : 68 %

Frequency	Reading (dBuV)				Factor	Result @3m		Limit @3m		Margin	Table	Ant.
	H		V		(dB)	(dBuV/m)		(dBuV/m)		(dB)	Deg. (Deg.)	High
(MHz)	Peak	Ave	Peak	Ave	Corr.	Peak	Ave	Peak	Ave			(m)
* 2452.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 4904.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 7356.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 9808.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---
* 12260.000	---	---	---	---	---	---	---	74.0	54.0	---	---	---

Note :

1. *Item of margin shown in above table refer to average limit.*
2. *It is considered that the results of average comply with average limit when measuring data with a peak function detector meet the average limit. Mark "***" means that Peak result is meet average limit.*
3. *Remark "---" means that the emissions level is too low to be measured.*
4. *Remark "*" means the local oscillator frequency and its harmonics.*
5. *Item "Margin" referred to Average limit while there is only peak result.*
6. *The expanded uncertainty of the radiated emission tests is 3.53 dB.*

4.4.2 Radiated Eimssion of Restricted bands

Mode: 802.11b

Test Date : Jun. 03, 2010 Temperature : 23 °C Humidity : 68 %

Operation Mode : CH 01 Restricted Frequency band: 2310MHz – 2390MHz

Frequency (MHz)	Reading (dBuV) H Peak	H Ave	V Peak	V Ave	Factor (dB) Corr.	Result @3m (dBuV/m) Peak	Result @3m (dBuV/m) Ave	Limit @3m (dBuV/m) Peak	Limit @3m (dBuV/m) Ave.	Margin (dB)	Table Deg. (Deg.)	Ant. High (m)
2332.051	23.6	---	28.7	19.0	30.0	58.7	49.0	74.0	54.0	-5.0	77	1.6
2370.128	24.0	17.2	27.8	18.6	30.1	57.9	48.7	74.0	54.0	-5.3	32	1.6

Operation Mode : CH 11 Restricted Frequency band: 2483.5MHz – 2500MHz

Frequency (MHz)	Reading (dBuV) H Peak	H Ave	V Peak	V Ave	Factor (dB) Corr.	Result @3m (dBuV/m) Peak	Result @3m (dBuV/m) Ave	Limit @3m (dBuV/m) Peak	Limit @3m (dBuV/m) Ave.	Margin (dB)	Table Deg. (Deg.)	Ant. High (m)
2491.833	24.6	18.0	30.1	22.2	30.4	60.5	52.6	74.0	54.0	-1.4	96	1.6
2492.723	24.8	18.1	30.0	21.8	30.4	60.4	52.2	74.0	54.0	-1.8	58	1.5

Note :

1. *Item of margin shown in above table refer to average limit.*
2. *It is considered that the results of average comply with average limit when measuring data with a peak function detector meet the average limit. Mark "***" means that Peak result is meet average limit.*
3. *Remark "---" means that the emissions level is too low to be measured.*
4. *Item "Margin" referred to Average limit while there is only peak result.*
5. *The expanded uncertainty of the radiated emission tests is 3.53 dB.*

Mode: 802.11g

Test Date : Jun. 03, 2010 Temperature : 23 ℃ Humidity : 68 %

Operation Mode : CH 01 **Restricted Frequency band: 2310MHz – 2390MHz**

Frequency (MHz)	Reading (dBuV) H Peak	H Ave	V Peak	V Ave	Factor (dB) Corr.	Result @3m (dBuV/m) Peak	Result @3m (dBuV/m) Ave	Limit @3m (dBuV/m) Peak	Limit @3m (dBuV/m) Ave.	Margin (dB)	Table Deg. (Deg.)	Ant. High (m)
2386.558	26.1	18.9	38.6	19.4	30.2	68.8	49.6	74.0	54.0	-4.4	63	1.4
2389.567	24.8	18.0	40.3	20.5	30.2	70.5	50.7	74.0	54.0	-3.3	58	1.4

Operation Mode : CH 11 **Restricted Frequency band: 2483.5MHz – 2500MHz**

Frequency (MHz)	Reading (dBuV) H Peak	H Ave	V Peak	V Ave	Factor (dB) Corr.	Result @3m (dBuV/m) Peak	Result @3m (dBuV/m) Ave	Limit @3m (dBuV/m) Peak	Limit @3m (dBuV/m) Ave.	Margin (dB)	Table Deg. (Deg.)	Ant. High (m)
2487.562	24.5	18.5	28.6	19.7	30.4	59.0	50.1	74.0	54.0	-3.9	63	1.3
2492.764	23.9	18.3	31.4	20.4	30.4	61.8	50.8	74.0	54.0	-3.2	59	1.4

Note :

1. *Item of margin shown in above table refer to average limit.*
2. *It is considered that the results of average comply with average limit when measuring data with a peak function detector meet the average limit. Mark "***" means that Peak result is meet average limit.*
3. *Remark "---" means that the emissions level is too low to be measured.*
4. *Item "Margin" referred to Average limit while there is only peak result.*
5. *The expanded uncertainty of the radiated emission tests is 3.53 dB.*

Mode: 802.11n HT-20

Test Date : Jun. 03, 2010 Temperature : 23 °C Humidity : 68 %

Operation Mode : CH 01 Restricted Frequency band: 2310MHz – 2390MHz

Frequency (MHz)	Reading (dBuV) H Peak	H Ave	V Peak	V Ave	Factor (dB) Corr.	Result @3m (dBuV/m) Peak	Result @3m (dBuV/m) Ave	Limit @3m (dBuV/m) Peak	Limit @3m (dBuV/m) Ave.	Margin (dB)	Table Deg. (Deg.)	Ant. High (m)
2388.944	31.4	19.8	40.5	20.6	30.2	70.7	50.8	74.0	54.0	-3.2	57	1.5
2389.474	30.6	19.4	40.2	20.3	30.2	70.4	50.5	74.0	54.0	-3.5	62	1.4

Operation Mode : CH 11 Restricted Frequency band: 2483.5MHz – 2500MHz

Frequency (MHz)	Reading (dBuV) H Peak	H Ave	V Peak	V Ave	Factor (dB) Corr.	Result @3m (dBuV/m) Peak	Result @3m (dBuV/m) Ave	Limit @3m (dBuV/m) Peak	Limit @3m (dBuV/m) Ave.	Margin (dB)	Table Deg. (Deg.)	Ant. High (m)
2492.014	26.8	19.2	32.2	20.5	30.4	62.6	50.9	74.0	54.0	-3.1	49	1.5
2496.523	25.4	18.7	30.6	19.8	30.4	61.0	50.2	74.0	54.0	-3.8	58	1.5

Note :

1. *Item of margin shown in above table refer to average limit.*
2. *It is considered that the results of average comply with average limit when measuring data with a peak function detector meet the average limit. Mark "***" means that Peak result is meet average limit.*
3. *Remark "---" means that the emissions level is too low to be measured.*
4. *Item "Margin" referred to Average limit while there is only peak result.*
5. *The expanded uncertainty of the radiated emission tests is 3.53 dB.*

Mode: 802.11n HT-40

Test Date : Jun. 03, 2010 Temperature : 23 ℃ Humidity : 68 %

Operation Mode : CH 01 **Restricted Frequency band: 2310MHz – 2390MHz**

Frequency	Reading (dBuV)				Factor	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin	Table	Ant.
	H		V		(dB)	Peak	Ave	Peak	Ave.	(dB)	Deg. (Deg.)	High
(MHz)	Peak	Ave	Peak	Ave	Corr.							(m)
2384.231	36.2	19.8	41.8	20.5	30.2	72.0	50.7	74.0	54.0	-2.0	58	1.6
2385.691	35.4	19.2	37.9	19.8	30.2	68.1	50.0	74.0	54.0	-4.0	69	1.4

Operation Mode : CH 9 **Restricted Frequency band: 2483.5MHz – 2500MHz**

Frequency	Reading (dBuV)				Factor	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin	Table	Ant.
	H		V		(dB)	Peak	Ave	Peak	Ave.	(dB)	Deg. (Deg.)	High
(MHz)	Peak	Ave	Peak	Ave	Corr.							(m)
2490.322	26.8	18.9	32.5	20.1	30.4	62.9	50.5	74.0	54.0	-3.5	63	1.5
2491.164	24.3	18.6	31.8	19.7	30.4	62.2	50.1	74.0	54.0	-3.9	54	1.5

Note :

1. *Item of margin shown in above table refer to average limit.*
2. *It is considered that the results of average comply with average limit when measuring data with a peak function detector meet the average limit. Mark "***" means that Peak result is meet average limit.*
3. *Remark "---" means that the emissions level is too low to be measured.*
4. *Item "Margin" referred to Average limit while there is only peak result.*
5. *The expanded uncertainty of the radiated emission tests is 3.53 dB.*

4.4.3 Other Emission

a) Emission frequencies below 1 GHz

Operation Mode : All Link +802.11b(Worst case)

Test Date : May 13, 2010 Temperature : 23 °C Humidity : 68 %

Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result @3m (dBuV/m)	Limit @3m (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (m)
40.97	V	24.3	12.5	36.8	40.0	-3.2	65	1.0
55.30	V	24.4	11.1	35.5	40.0	-4.5	34	1.0
59.41	V	24.9	10.8	35.7	40.0	-4.3	28	1.0
71.68	V	26.7	10.3	37.0	40.0	-3.0	18	1.0
250.00	V	22.0	20.3	42.3	46.0	-3.7	188	1.2
262.14	H	20.8	21.0	41.8	46.0	-4.2	18	2.1

Note :

1. Remark "---" means that the emissions level is too low to be measured.

2. The expanded uncertainty of the radiated emission tests is 3.53 dB.

b) Emission frequencies above 1 GHz

Radiated emission frequencies above 1 GHz to 25 GHz were too low to be measured with a pre-amplifier of 35 dB.

4.5 Field Strength Calculation

The field strength is calculated by adding the Antenna Factor, High Pass Filter Loss(if used) and Cable Loss, and subtracting the Amplifier Gain (if any) from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

where

Corrected Factor = Antenna FACTOR + Cable Loss + High Pass Filter Loss - Amplifier Gain

4.6 Photos of Radiation Measuring Setup

5 CONDUCTED EMISSION MEASUREMENT

5.1 Standard Applicable

For unintentional and intentional device, Line Conducted Emission Limits are in accordance to § 15.107(a) and §15.207(a) respectively. Both Limits are identical specification.

5.2 Measurement Procedure

1. Setup the configuration per figure 3.

2. A preliminary scan with a spectrum monitor is performed to identify the frequency of emission that has the highest amplitude relative to the limit by operating the EUT in selected modes of operation, typical cable positions, and with a typical system configuration.

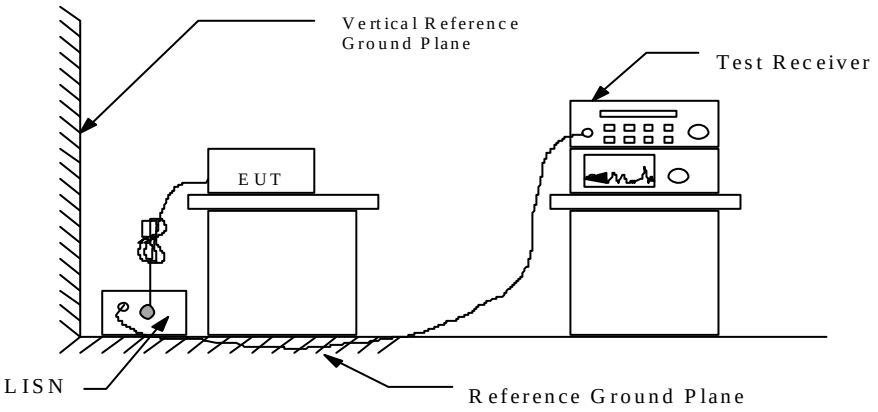
3. Record the 6 or 8 highest emissions relative to the limit.

4. Measure each frequency obtained from step 3 by a test receiver set on quasi peak detector function, and then record the accuracy frequency and emission level. If all emissions measured in the specified band are attenuated more than 20 dB from the limit, this step would be ignored, and the peak detector function would be used.

5. Confirm the highest three emissions with variation of the EUT cable configuration and record the final data.

6. Repeat all above procedures on measuring each operation mode of EUT.

Figure 3 : Conducted emissions measurement configuration



5.3 Conducted Emission Data

Operation Mode : All Link +802.11b(Worst case)

Test Date : May 13, 2010 Temperature : 23 ℃ Humidity : 68 %

Mode: All Link +802.11b(Worst case) N1

Frequency (MHz)	**Meter Reading** (dBμV)		**Factor** (dB)	**Result** (dBμV)		**Limit** (dBμV)		**Margin** (dBμV)	
	Q.P	AVG		Q.P	AVG	Q.P	AVG	Q.P	AVG
0.185	53.4	38.7	0.4	53.8	39.1	64.3	54.3	-10.5	-15.1
0.197	56.6	47.5	0.4	57.0	47.9	63.7	53.7	-6.7	-5.9
0.252	49.8	37.4	0.4	50.2	37.8	61.7	51.7	-11.5	-14.0
0.267	48.5	36.0	0.4	48.9	36.4	61.2	51.2	-12.3	-14.8
0.334	41.2	26.3	0.4	41.6	26.7	59.4	49.4	-17.8	-22.6
0.443	39.6	30.7	0.4	40.0	31.1	57.0	47.0	-17.0	-15.9

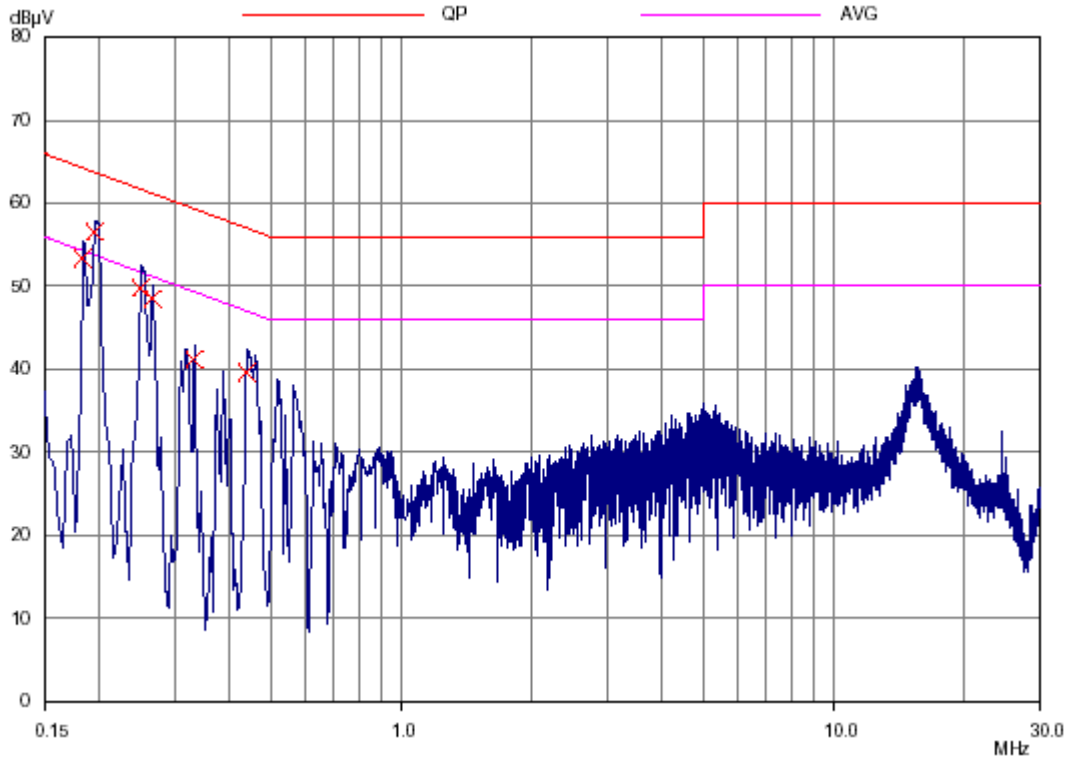
Mode: All Link +802.11b(Worst case) L1

Frequency (MHz)	**Meter Reading** (dBμV)		**Factor** (dB)	**Result** (dBμV)		**Limit** (dBμV)		**Margin** (dBμV)	
	Q.P	AVG		Q.P	AVG	Q.P	AVG	Q.P	AVG
0.189	57.1	36.2	0.3	57.4	36.5	64.1	54.1	-6.7	-17.6
0.205	43.9	44.8	0.3	44.2	45.1	63.4	53.4	-19.2	-8.3
0.263	41.1	----	0.3	41.4	----	61.3	51.3	-19.9	----
0.330	38.0	----	0.3	38.3	----	59.5	49.5	-21.2	----
0.455	24.5	----	0.4	24.9	----	56.8	46.8	-31.9	----
15.180	34.0	----	1.1	35.1	----	60.0	50.0	-24.9	----

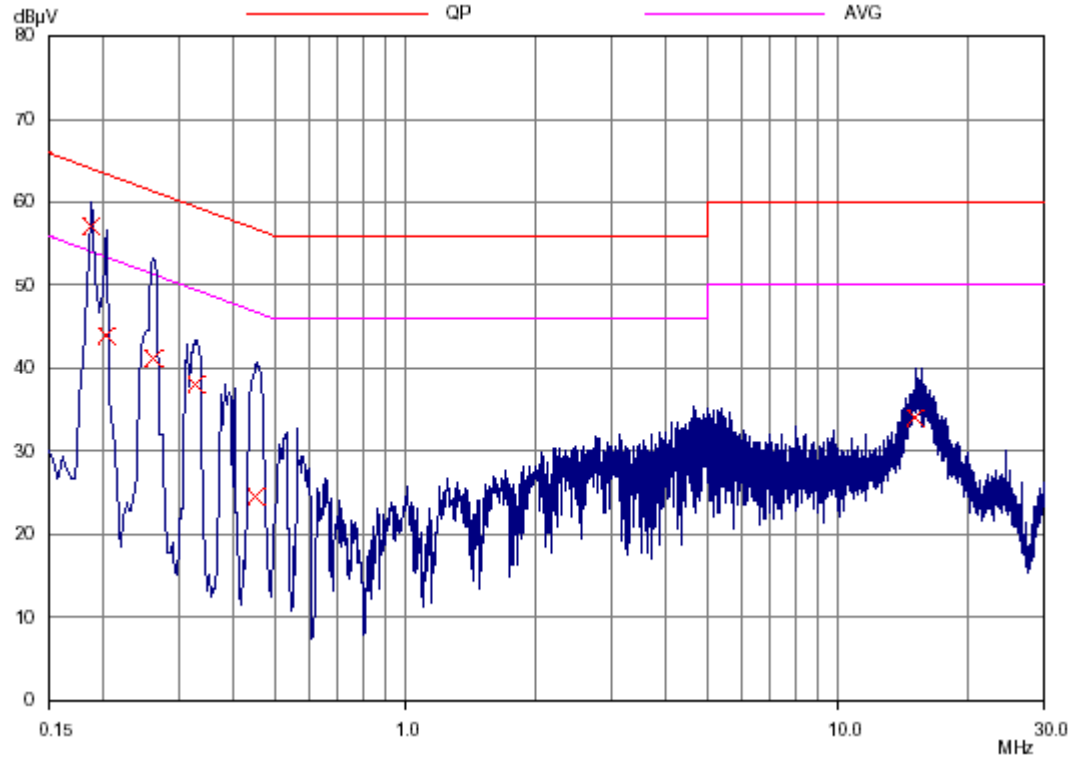
Note : The expanded uncertainty of the conducted emission tests is 2.45 dB

.

Mode: All Link +802.11b(Worst case) N1



Mode: All Link +802.11b(Worst case) L1



5.4 Result Data Calculation

The result data is calculated by adding the LISN Factor to the measured reading. The basic equation with a sample calculation is as follows:

RESULT = READING + LISN FACTOR

Assume a receiver reading of 22.5 dBμV is obtained, and LISN Factor is 0.1 dB, then the total of disturbance voltage is 22.6 dBμV.

RESULT = 22.5 + 0.1 = 22.6 dBμV
Level in μV = Common Antilogarithm[(22.6 dBμV)/20]
= 13.48 μV

5.5 Conducted Measurement Equipment

The following test equipment are used during the conducted test .

Equipment	Manufacturer	Model No.	Calibration Date	Next Cal. Date
EMI Test Receiver	Rohde & Schwarz	ESCI	2010/02/03	2011/02/02
LISN	EMCO	3625/2	2010/02/08	2011/02/07
LISN	Rohde & Schwarz	ESH2-Z5	2009/07/16	2010/07/15

5.6 Photos of Conduction Measuring Setup

6 ANTENNA REQUIREMENT

6.1 Standard Applicable

For intentional device, according to §15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.
And according to §15.247 (b), if transmitting antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

6.2 Antenna Construction and Directional Gain

Please see photos submitted in Exhibit B.

The antenna gain is 5 +10log(2)=5+3=8 dBi so the power should be reduced by 2dB. The maximum peak output power limit is 28dBm.

Please see constraction Photos of Exhibit B for details.

7 EMISSION BANDWIDTH MEASUREMENT

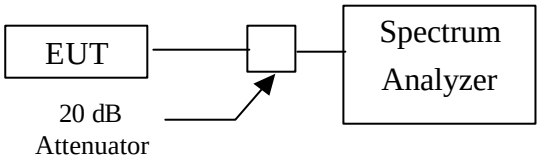
7.1 Standard Applicable

According to 15.247(a)(2), for direct sequence system, the minimum 6dB bandwidth shall be at least 500 kHz.

7.2 Measurement Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT as shown in figure 4 without connection to measurement instrument. Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
3. Measure the frequency difference of two frequencies that were attenuated 6 dB from the reference level. Record the frequency difference as the emission bandwidth.
4. Repeat above procedures until all frequencies measured were complete.

Figure 4: Emission bandwidth measurement configuration.



7.3 Measurement Equipment

Equipment	Manufacturer	Model No.	Calibration Date	Next Cal. Date
Spectrum Analyzer	Rohde & Schwarz	FSP40	2009/09/10	2010/09/09

7.4 Measurement Data

Test Date : Jun. 03, 2010 Temperature : 23 °C Humidity : 68 %

A 802.11b @1 Mbps

a) Channel Low: 6 dB Emission Bandwidth is 8.100 MHz
b) Channel Mid: 6 dB Emission Bandwidth is 8.100 MHz
c) Channel High: 6 dB Emission Bandwidth is 8.100 MHz

B 802.11g @6 Mbps

a) Channel Low: 6 dB Emission Bandwidth is 14.400 MHz
b) Channel Mid: 6 dB Emission Bandwidth is 13.800 MHz
c) Channel High: 6 dB Emission Bandwidth is 13.400 MHz

C 802.11n HT-20-Antenna 1 @6.5 Mbps

a) Channel Low: 6 dB Emission Bandwidth is 15.120 MHz
b) Channel Mid: 6 dB Emission Bandwidth is 14.400 MHz
c) Channel High: 6 dB Emission Bandwidth is 14.000 MHz

D 802.11n HT-20-Antenna 2 @6.5 Mbps

a) Channel Low: 6 dB Emission Bandwidth is 17.200 MHz
b) Channel Mid: 6 dB Emission Bandwidth is 15.100 MHz
c) Channel High: 6 dB Emission Bandwidth is 15.800 MHz

E 802.11n HT-40-Antenna 1 @13.5 Mbps

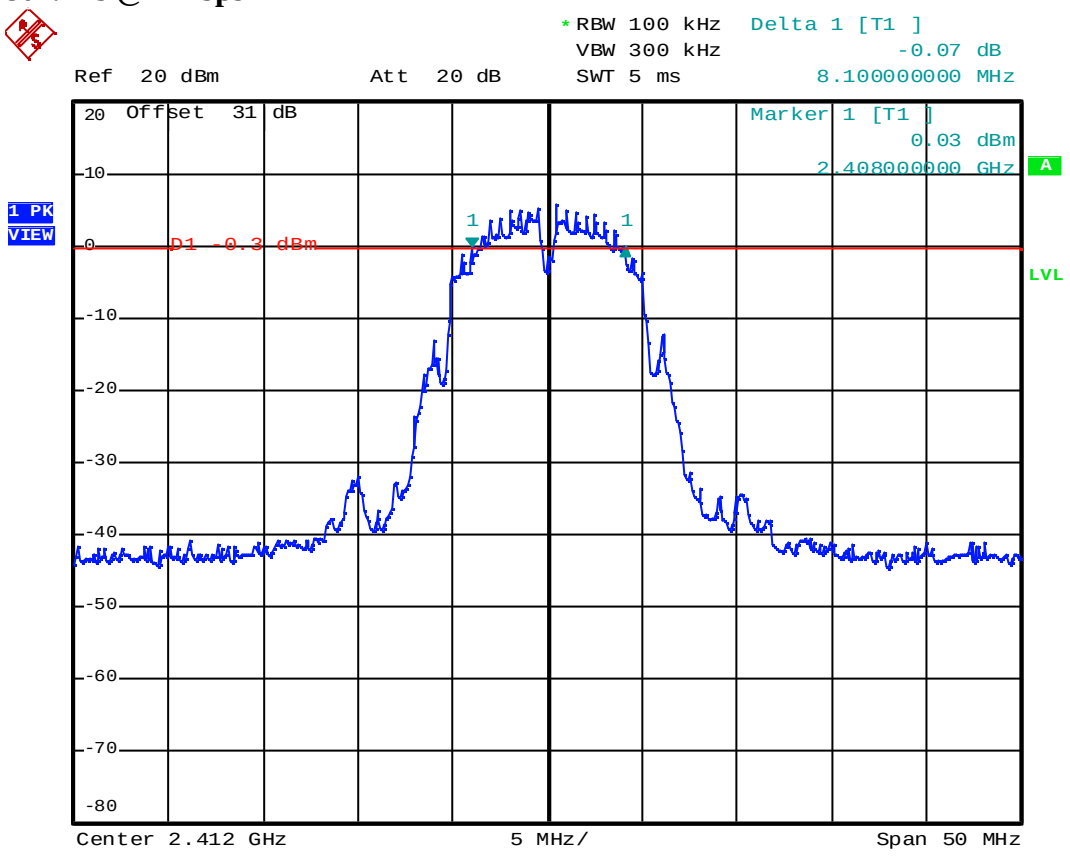
a) Channel Low: 6 dB Emission Bandwidth is 35.700 MHz
b) Channel Mid: 6 dB Emission Bandwidth is 35.700 MHz
c) Channel High: 6 dB Emission Bandwidth is 36.000 MHz

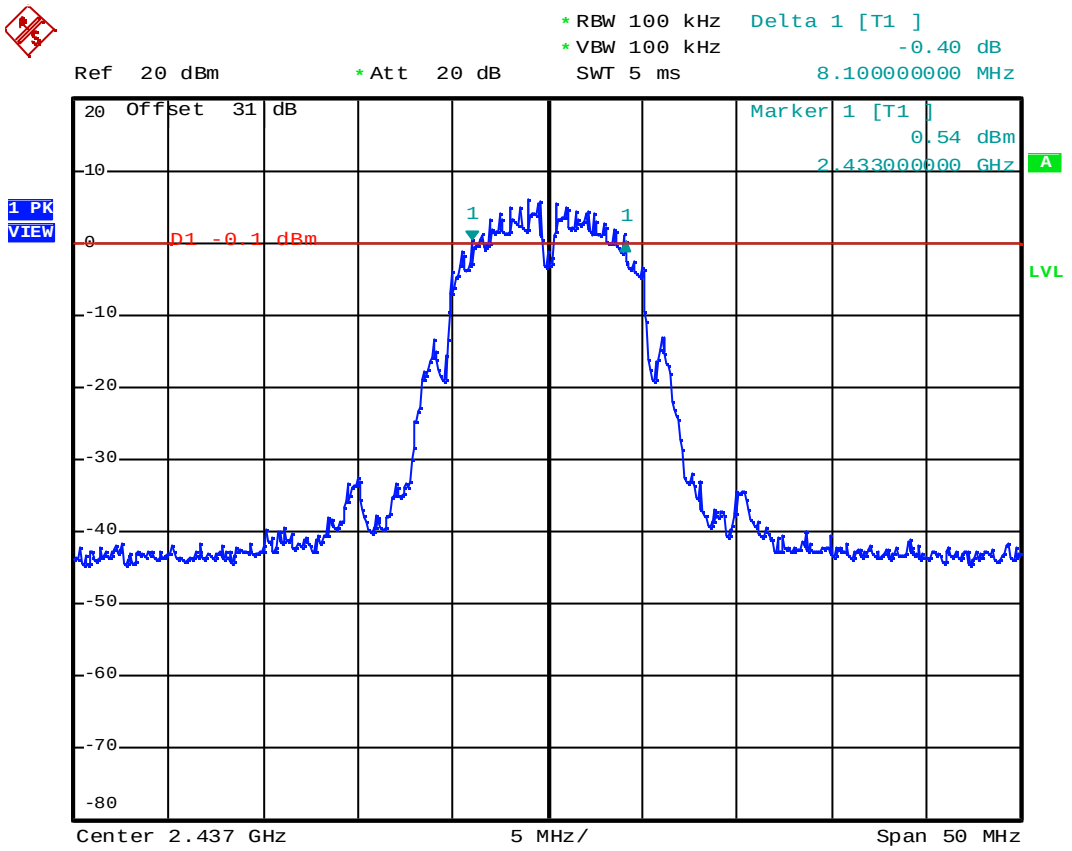
F 802.11n HT-40-Antenna 2 @13.5 Mbps

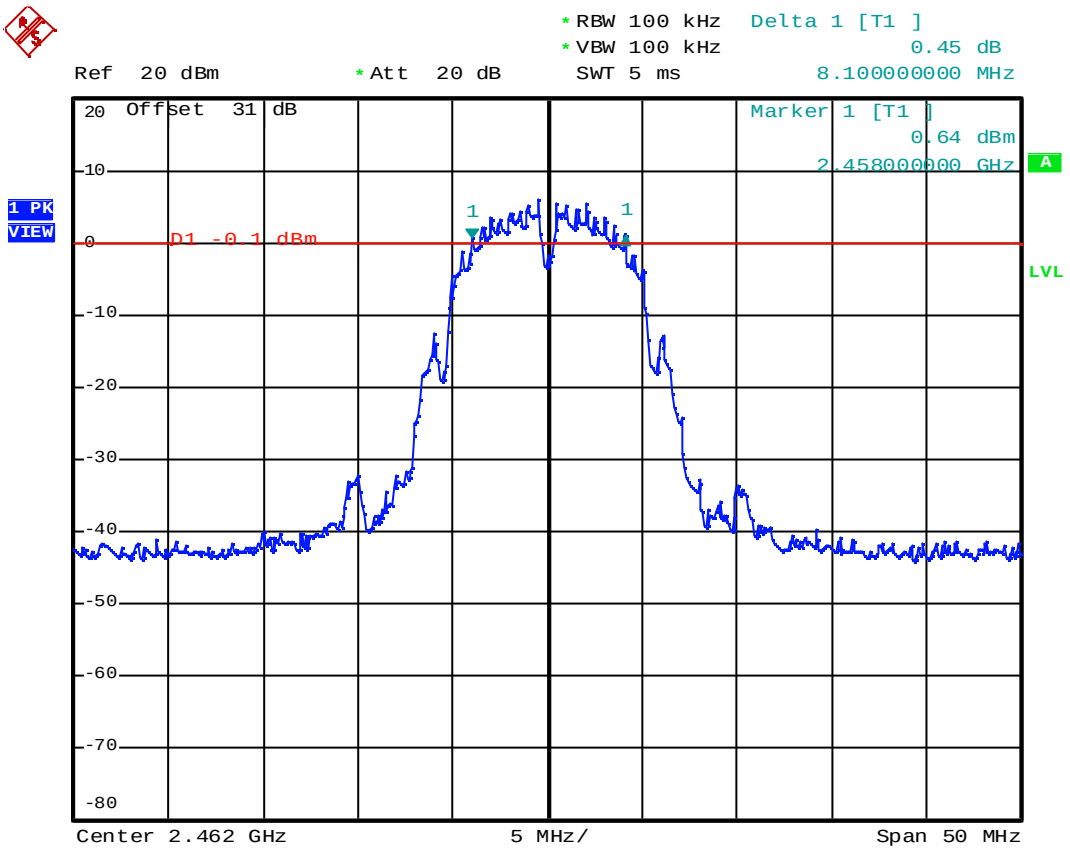
a) Channel Low: 6 dB Emission Bandwidth is 36.400 MHz
b) Channel Mid: 6 dB Emission Bandwidth is 36.400 MHz
c) Channel High: 6 dB Emission Bandwidth is 36.400 MHz

Note : The expanded uncertainty of the emission bandwidth tests is 1500Hz.

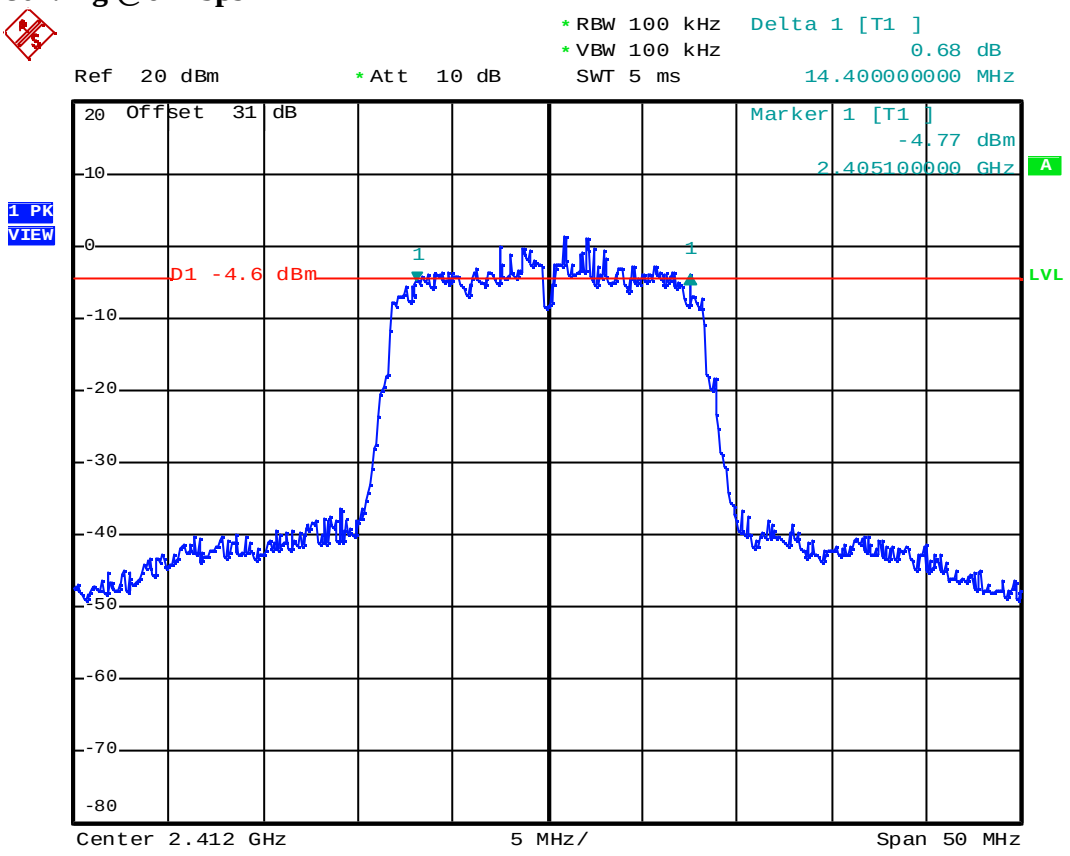
802.11b @1 Mbps

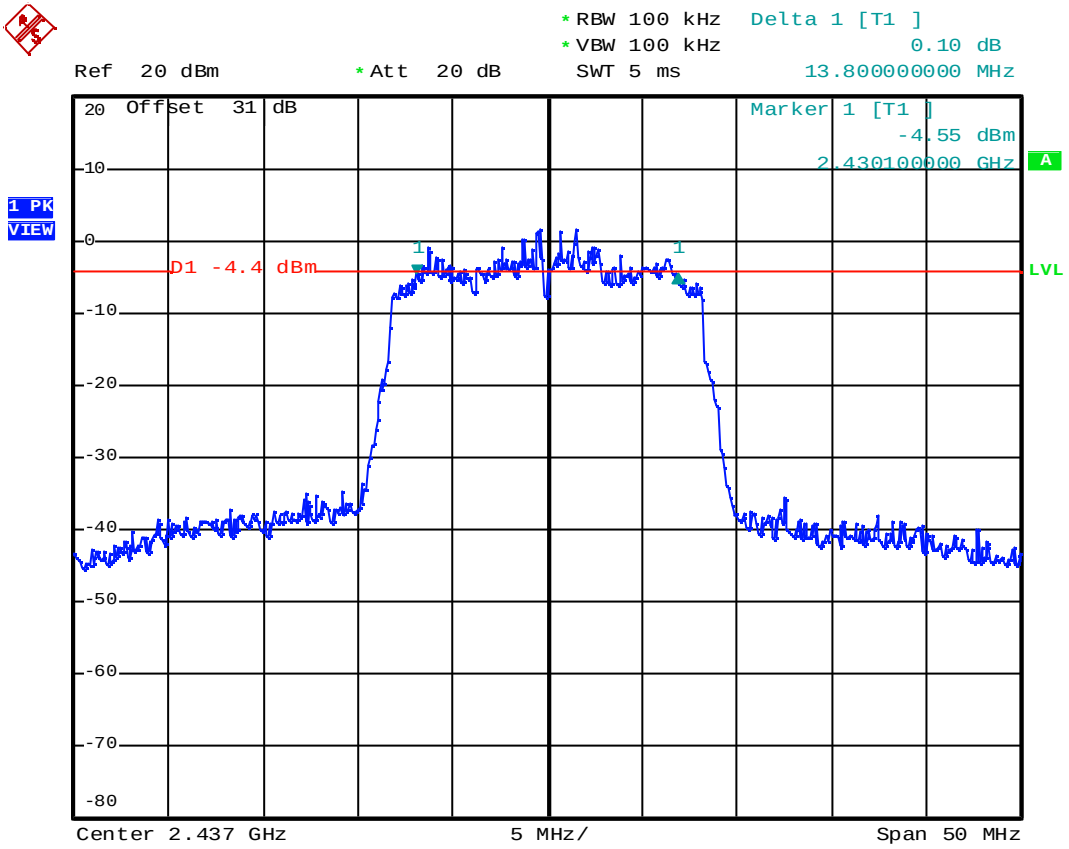


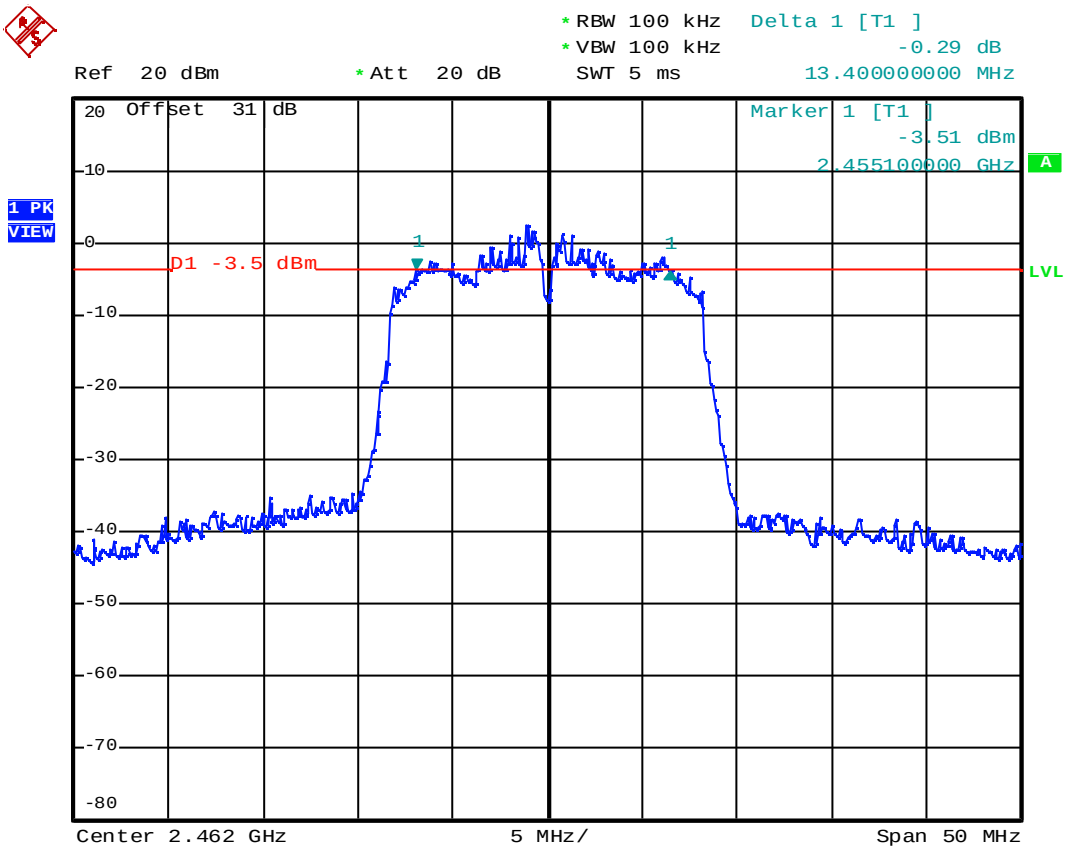

*RBW 100 kHz
*VBW 100 kHz
SWT 5 ms
Delta 1 [T1]
-0.40 dB
8.100000000 MHz
Ref 20 dBm
*Att 20 dB
Offset 31 dB
Marker 1 [T1]
0.54 dBm
2.433000000 GHz
1 PK
VIEW
A
LVL
D1 -0.1 dBm
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 2.437 GHz
5 MHz/
Span 50 MHz


*RBW 100 kHz
*VBW 100 kHz
SWT 5 ms
Delta 1 [T1]
0.45 dB
8.100000000 MHz
Ref 20 dBm
*Att 20 dB
Offset 31 dB
Marker 1 [T1]
0.64 dBm
2.458000000 GHz
1 PK
VIEW
A
LVL
D1 -0.1 dBm
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 2.462 GHz
5 MHz/
Span 50 MHz

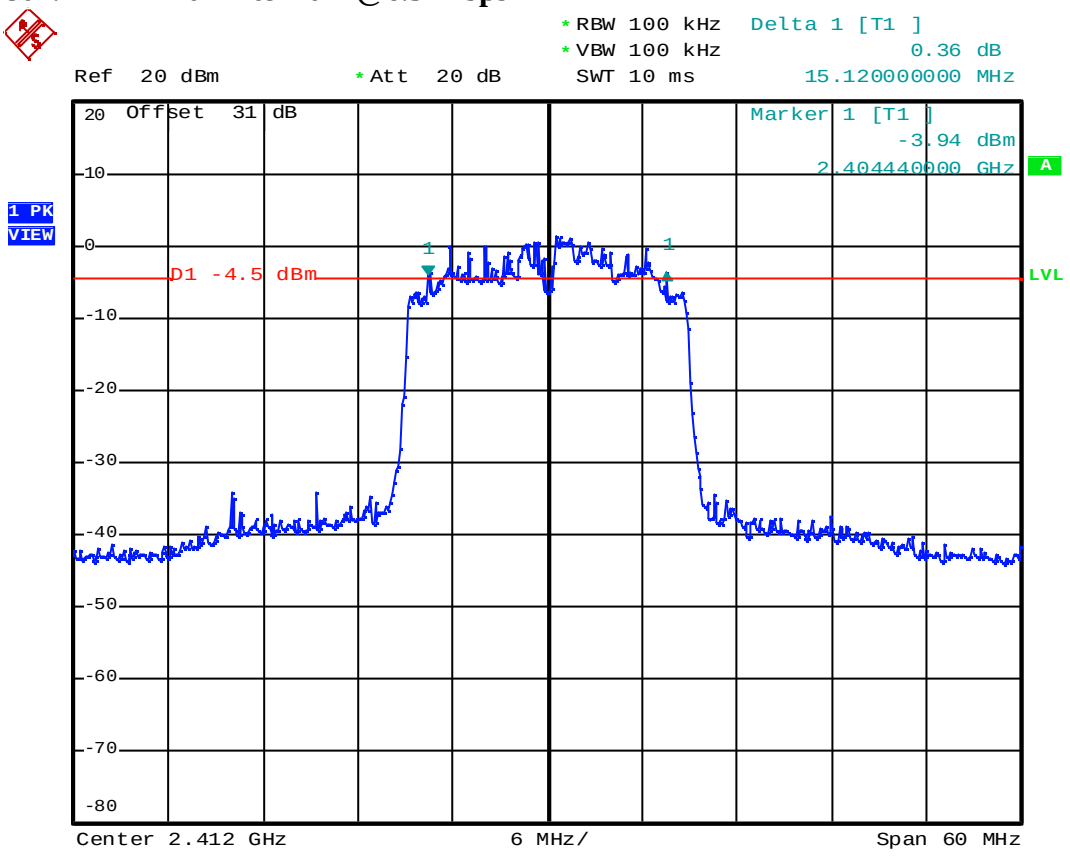
802.11g @6 Mbps

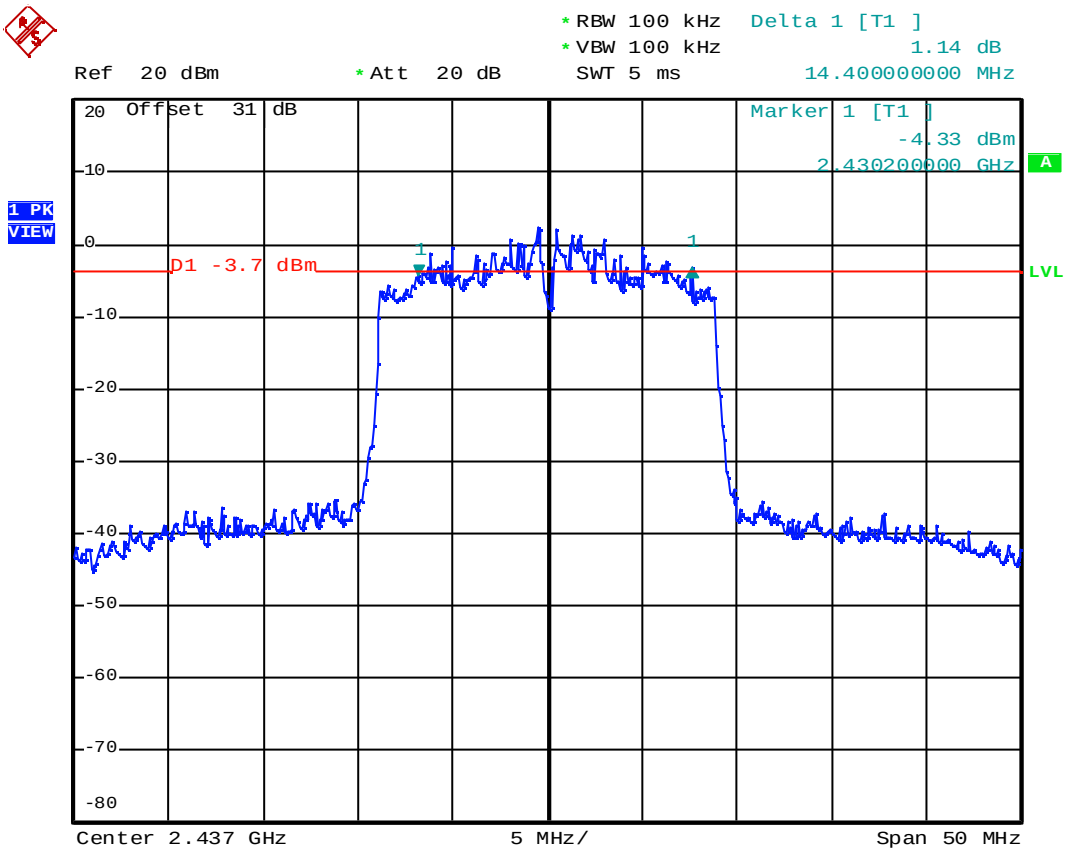


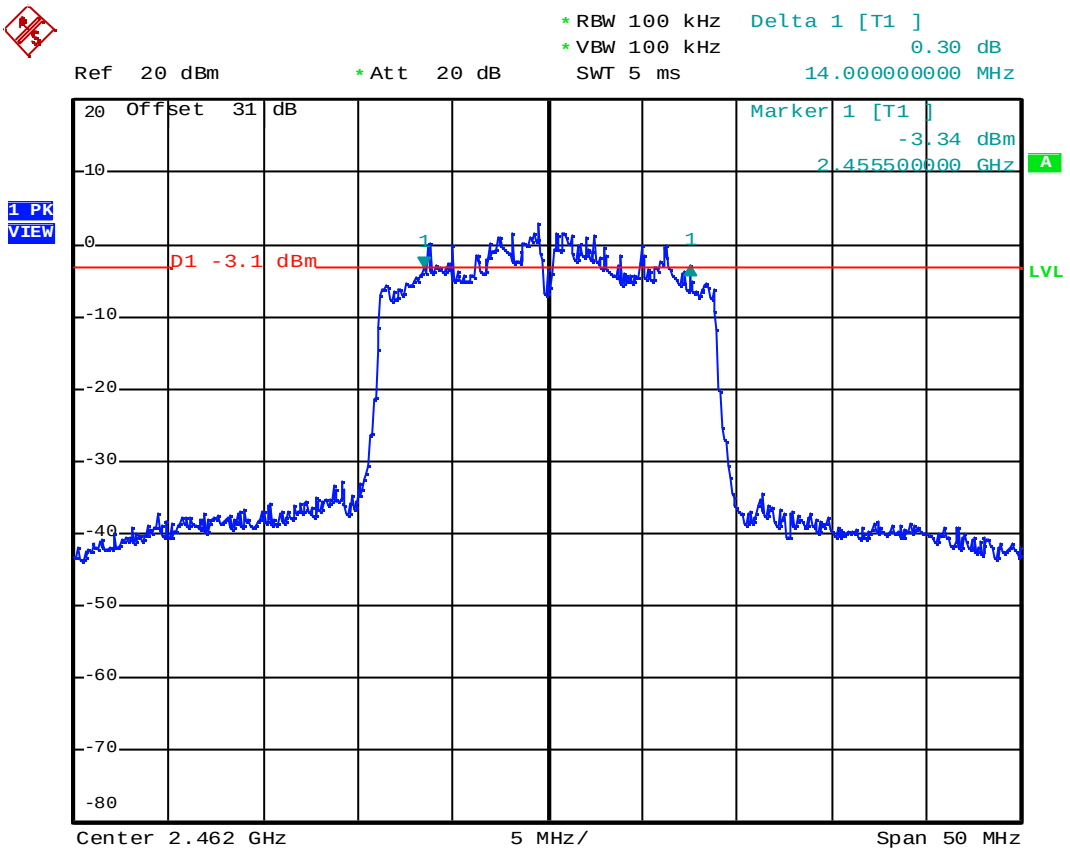

*RBW 100 kHz
*VBW 100 kHz
Ref 20 dBm
*Att 20 dB
SWT 5 ms
Delta 1 [T1]
0.10 dB
13.800000000 MHz
Marker 1 [T1]
-4.55 dBm
2.430100000 GHz
20 Offset 31 dB
1 PK
VIEW
A
LVL
D1 -4.4 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 2.437 GHz
5 MHz/
Span 50 MHz


*RBW 100 kHz
*VBW 100 kHz
Ref 20 dBm
*Att 20 dB
SWT 5 ms
Delta 1 [T1]
-0.29 dB
13.400000000 MHz
Marker 1 [T1]
-3.51 dBm
2.455100000 GHz
20 Offset 31 dB
1 PK
VIEW
A
LVL
D1 -3.5 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 2.462 GHz
5 MHz/
Span 50 MHz

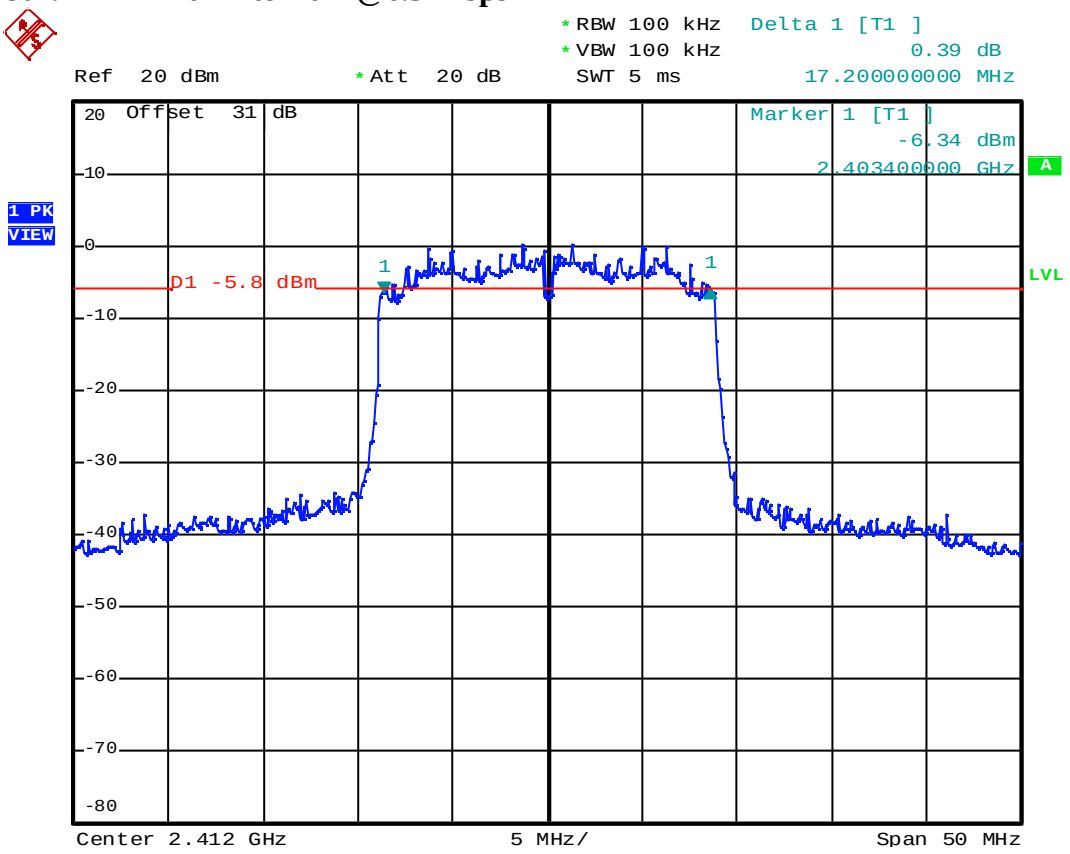
802.11n HT-20-Antenna 1 @6.5 Mbps

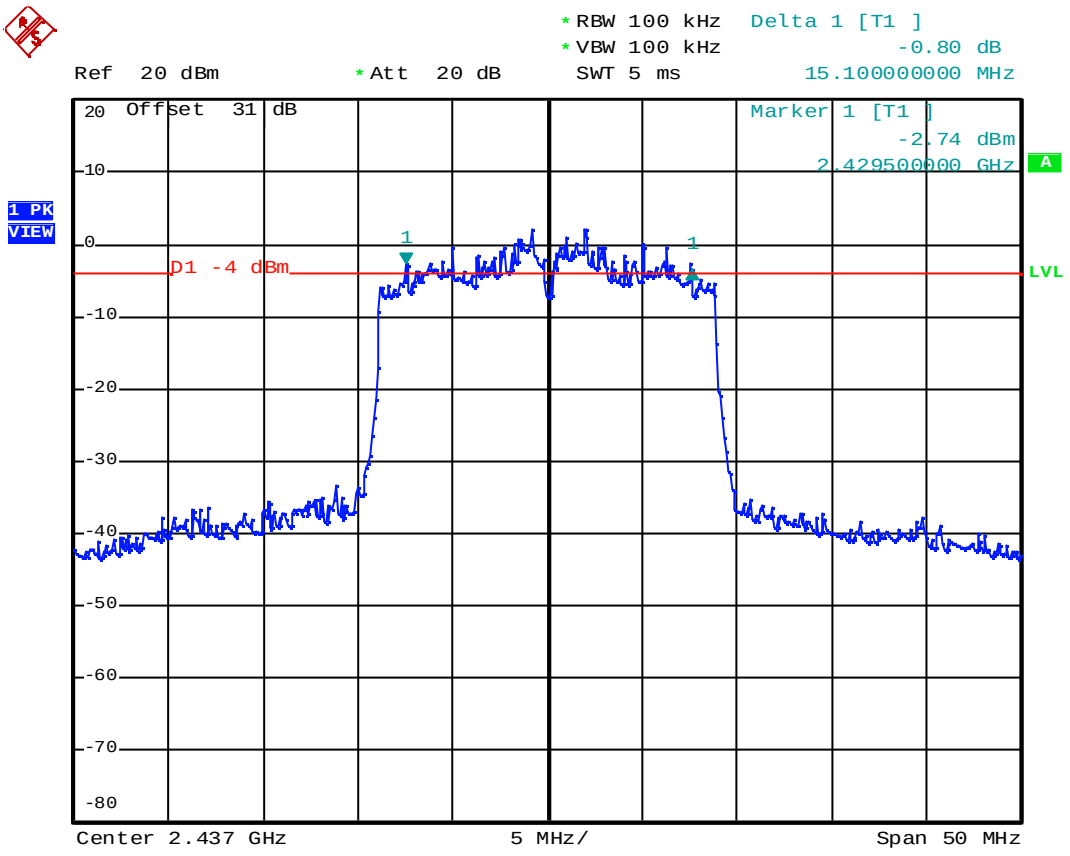


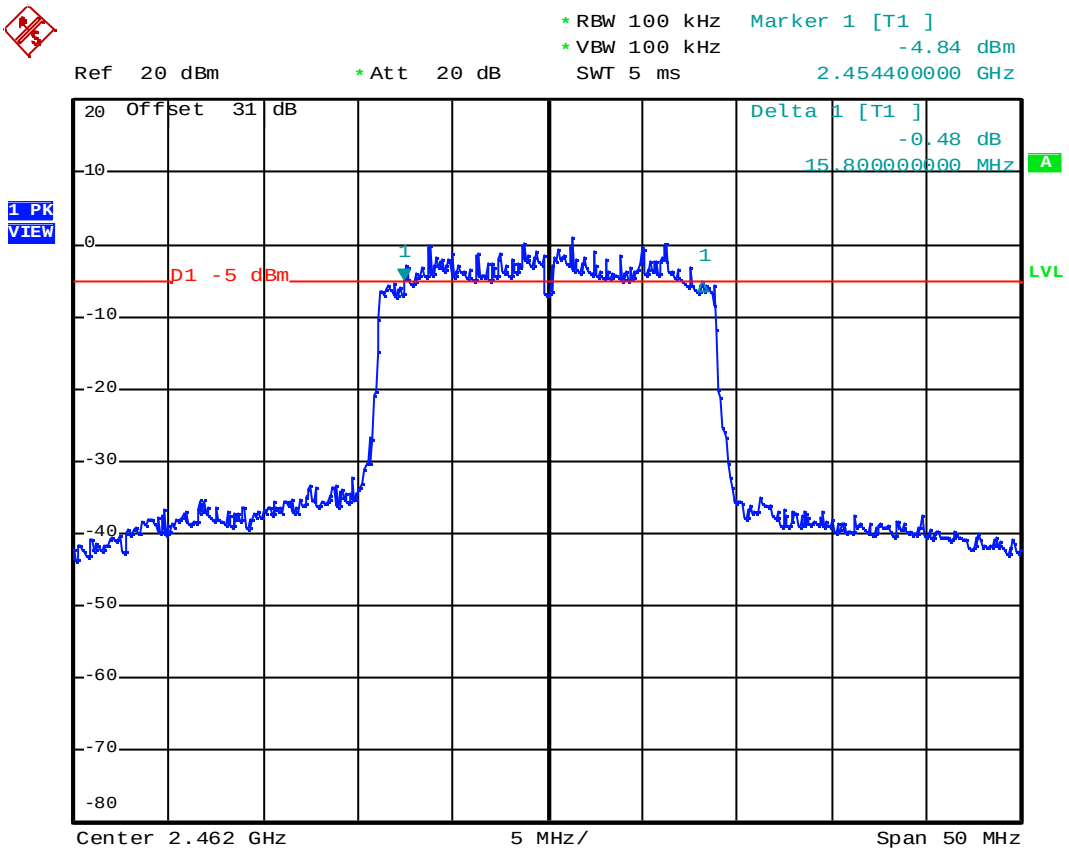

*RBW 100 kHz
*VBW 100 kHz
SWT 5 ms
Delta 1 [T1]
1.14 dB
14.400000000 MHz
Ref 20 dBm
*Att 20 dB
Offset 31 dB
Marker 1 [T1]
-4.33 dBm
2.430200000 GHz
1 PK
VIEW
A
LVL
D1 -3.7 dBm
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 2.437 GHz
5 MHz/
Span 50 MHz


*RBW 100 kHz
*VBW 100 kHz
Ref 20 dBm
*Att 20 dB
SWT 5 ms
Delta 1 [T1]
0.30 dB
14.000000000 MHz
Marker 1 [T1]
-3.34 dBm
2.455500000 GHz
20 Offset 31 dB
1 PK
VIEW
A
LVL
D1 -3.1 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 2.462 GHz
5 MHz/
Span 50 MHz

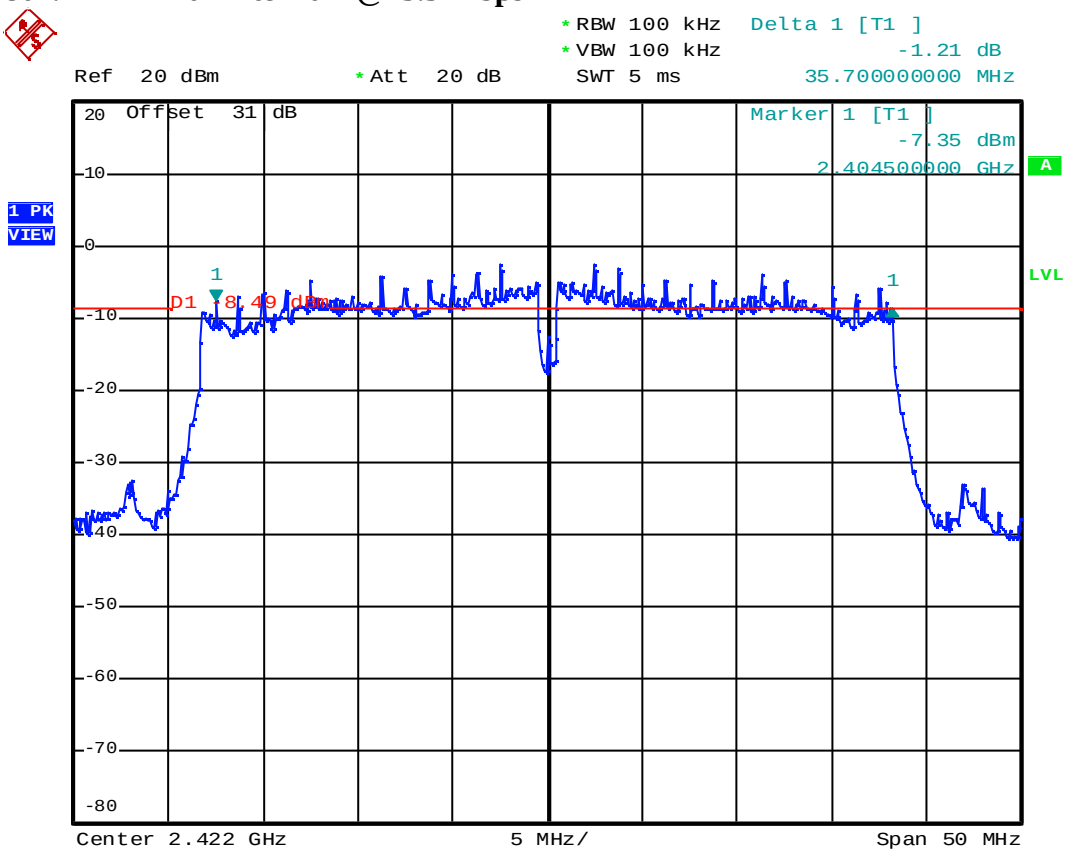
802.11n HT-20-Antenna 2 @6.5 Mbps

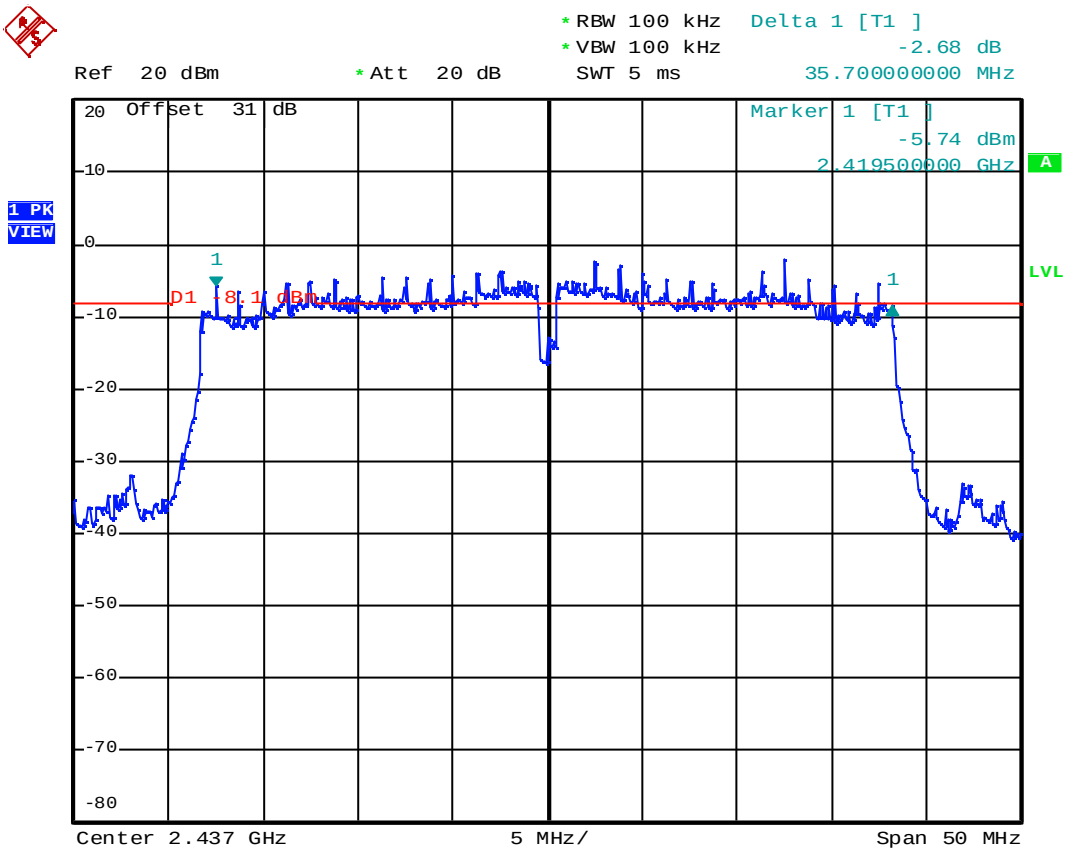


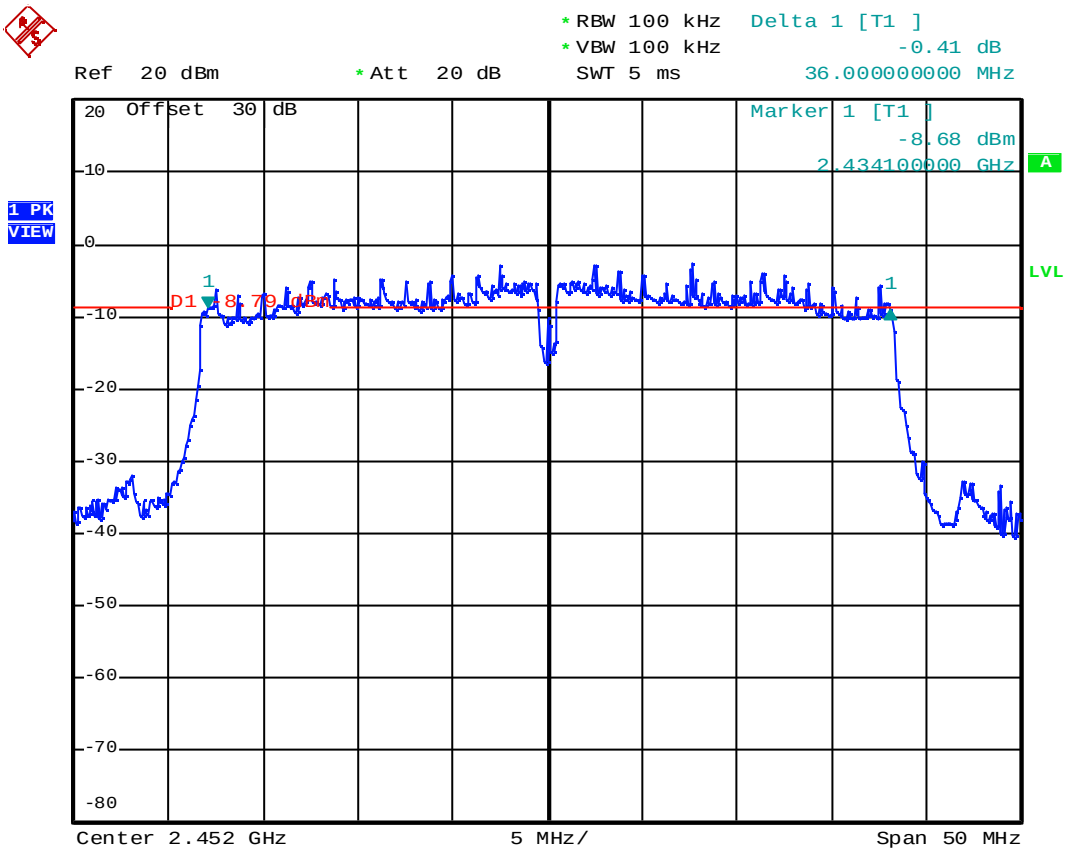

*RBW 100 kHz
*VBW 100 kHz
Ref 20 dBm
*Att 20 dB
SWT 5 ms
Delta 1 [T1]
-0.80 dB
15.100000000 MHz
Marker 1 [T1]
-2.74 dBm
2.429500000 GHz
20 Offset 31 dB
1 PK VIEW
A
LVL
D1 -4 dBm
Center 2.437 GHz
5 MHz/
Span 50 MHz


*RBW 100 kHz
*VBW 100 kHz
SWT 5 ms
Marker 1 [T1]
-4.84 dBm
2.454400000 GHz
Ref 20 dBm
*Att 20 dB
Offset 31 dB
Delta 1 [T1]
-0.48 dB
15.800000000 MHz
1 PK
VIEW
A
LVL
D1 -5 dBm
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 2.462 GHz
5 MHz/
Span 50 MHz

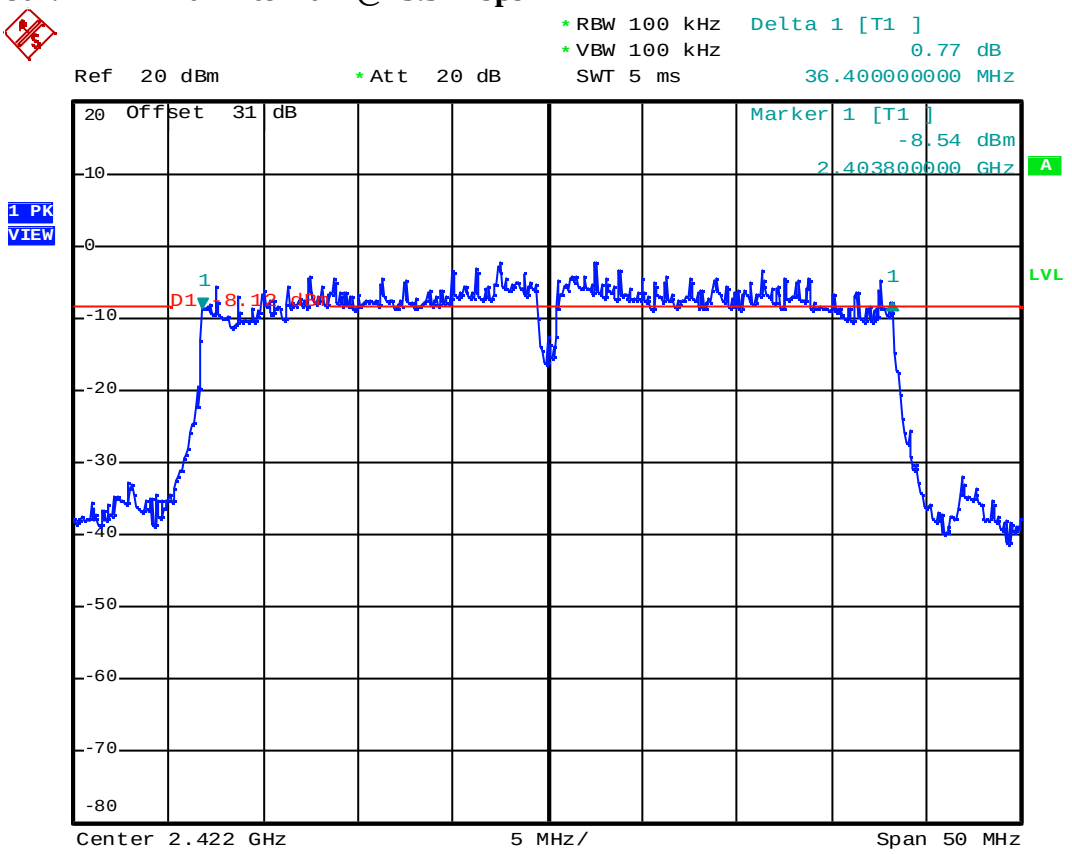
802.11n HT-40-Antenna 1 @13.5 Mbps

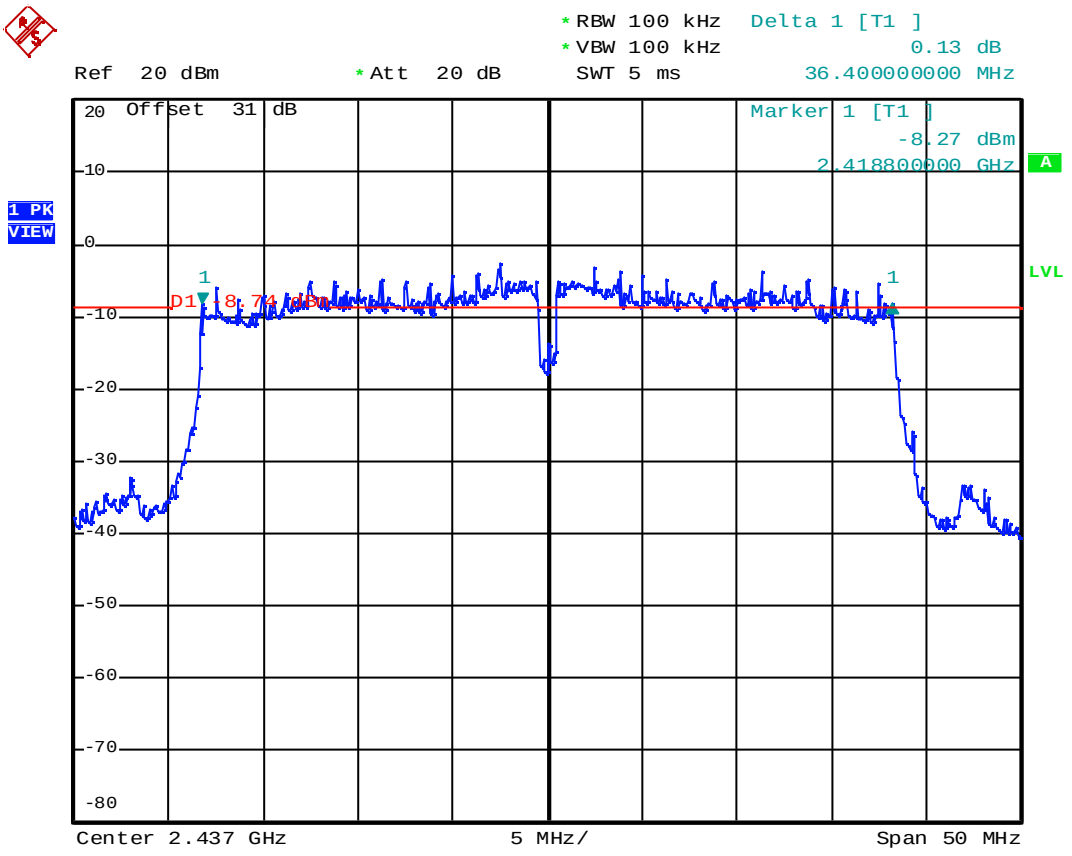


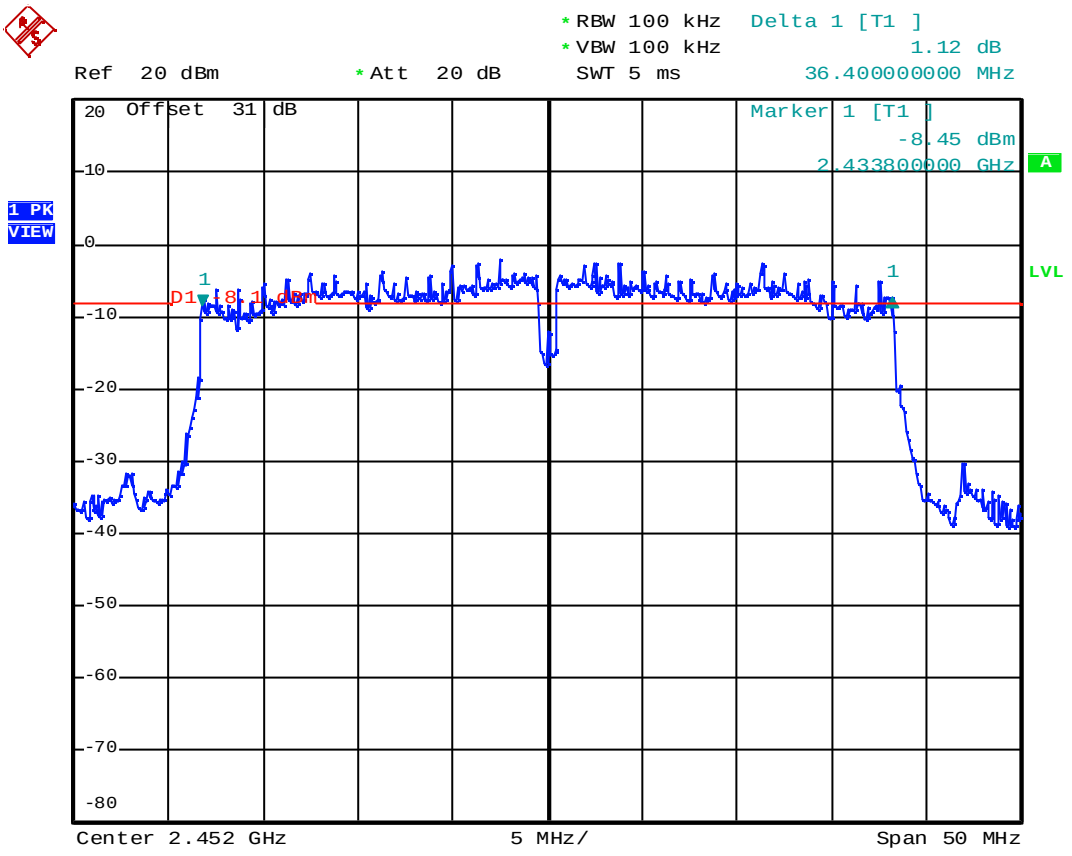

*RBW 100 kHz
*VBW 100 kHz
SWT 5 ms
Delta 1 [T1]
-2.68 dB
35.700000000 MHz
Ref 20 dBm
*Att 20 dB
Offset 31 dB
Marker 1 [T1]
-5.74 dBm
2.419500000 GHz
1 PK
VIEW
A
LVL
D1 -8.1 dBm
Center 2.437 GHz
5 MHz/
Span 50 MHz


*RBW 100 kHz
*VBW 100 kHz
Ref 20 dBm
*Att 20 dB
SWT 5 ms
Delta 1 [T1]
-0.41 dB
36.000000000 MHz
Marker 1 [T1]
-8.68 dBm
2.434100000 GHz
20 Offset 30 dB
-10
0
-10
-20
-30
-40
-50
-60
-70
-80
D1 -8.79 dBm
1 PK
VIEW
A
LVL
Center 2.452 GHz
5 MHz/
Span 50 MHz

802.11n HT-40-Antenna 2 @13.5 Mbps




*RBW 100 kHz
*VBW 100 kHz
Ref 20 dBm
*Att 20 dB
SWT 5 ms
Delta 1 [T1]
0.13 dB
36.400000000 MHz
Marker 1 [T1]
-8.27 dBm
2.418800000 GHz
20 Offset 31 dB
1 PK VIEW
A
LVL
D1 -8.74 dBm
Center 2.437 GHz
5 MHz/
Span 50 MHz


*RBW 100 kHz
*VBW 100 kHz
Ref 20 dBm
*Att 20 dB
SWT 5 ms
Delta 1 [T1]
1.12 dB
36.400000000 MHz
Marker 1 [T1]
-8.45 dBm
2.433800000 GHz
20 Offset 31 dB
1 PK VIEW
A
LVL
D1 18.1 dBm
Center 2.452 GHz
5 MHz/
Span 50 MHz

8 OUTPUT POWER MEASUREMENT

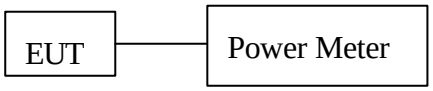
8.1 Standard Applicable

For direct sequence system, according to 15.247(b), the maximum peak output power of the transmitter shall not exceed 1 Watt. If transmitting antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

8.2 Measurement Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT as shown in figure 5 without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range and make sure the instrument is operated in its linear range.
3. Set RBW of spectrum analyzer to 1 MHz and VBW to 1 MHz.
4. Use channel power function and record the level displayed.
5. Repeat above procedures until all frequencies measured were complete.

Figure 5: Output power and measurement configuration.



8.3 Measurement Equipment

Equipment	Manufacturer	Model No.	Calibration Date	Next Cal. Date
POWER METER+SENSOR	ANRITSU	ML2487A+ MA2491A	2009/12/15	2010/12/14

8.4 Measurement Data

Test Date : Jun. 03, 2010 Temperature : 23 °C Humidity : 68 %

The antenna gain is 5 +10log(2)=5+3=8 dBi so the power should be reduced by 2dB. The maximum peak output power limit is 28dBm.

A 802.11b @1 Mbps

a)	Channel Low:	Output Peak Power is	17.4	dBm	**54.954**	mW
b)	Channel Mid:	Output Peak Power is	17.4	dBm	**54.954**	mW
c)	Channel High:	Output Peak Power is	17.7	dBm	**58.884**	mW

B 802.11g @6 Mbps

a)	Channel Low:	Output Peak Power is	20.0	dBm	**100.00**	mW
b)	Channel Mid:	Output Peak Power is	20.1	dBm	**102.32**	mW
c)	Channel High:	Output Peak Power is	20.3	dBm	**107.15**	mW

C.1 802.11n HT-20-Antenna 1 @6.5 Mbps

a)	Channel Low:	Output Peak Power is	19.9	dBm	**97.723**	mW
b)	Channel Mid:	Output Peak Power is	20.1	dBm	**102.329**	mW
c)	Channel High:	Output Peak Power is	20.2	dBm	**104.713**	mW

C.2 802.11n HT-20-Antenna 2 @6.5 Mbps

a)	Channel Low:	Output Peak Power is	19.9	dBm	**97.724**	mW
b)	Channel Mid:	Output Peak Power is	19.9	dBm	**97.724**	mW
c)	Channel High:	Output Peak Power is	19.1	dBm	**81.283**	mW

C.3 802.11n 20M Combined peak out power @6.5 Mbps

a) Channel Low Output Peak Power is 97.72 + 97.72 =195.447 mW(25.660 dBm)。
b) Channel Middle Output Peak Power is 102.33+ 97.72 =200.053 mW (25.662dBm)。
c) Channel High Output Peak Power is 104.71+ 81.283 =185.996 mW (25.762 dBm)

D.1 802.11n HT-40-Antenna 1 @13.5 Mbps

a)	Channel Low:	Output Peak Power is	20.1	dBm	**102.329**	mW
b)	Channel Mid:	Output Peak Power is	20.2	dBm	**104.713**	mW
c)	Channel High:	Output Peak Power is	19.8	dBm	**95.499**	mW

D.2 802.11n HT-40-Antenna 2 @13.5 Mbps

a)	Channel Low:	Output Peak Power is	19.6	dBm	**91.201**	mW
b)	Channel Mid:	Output Peak Power is	19.5	dBm	**89.125**	mW
c)	Channel High:	Output Peak Power is	19.5	dBm	**89.125**	mW

D.3 802.11n HT-40 Combined peak out power @13.5 Mbps

a) Channel Low Output Peak Power is 102.33 + 91.20 =193.53 mW(24.010 dBm)。

b) Channel Middle Output Peak Power is 104.71+ 89.13 =193.838 mW (24.060 dBm)。

c) Channel High Output Peak Power is 95.499+ 89.125 =184.624mW (24.310 dBm)

Note : The expanded uncertainty of the output power tests is 2dB.

9 100 kHz BANDWIDTH OF BAND EDGES MEASUREMENT

9.1 Standard Applicable

According to 15.247(c), if any 100 kHz bandwidth outside these frequency bands, the radio frequency power that is produced by the modulation products of the spreading sequence, the information sequence and the carrier frequency shall be either at least 20 dB below that in any 100 kHz bandwidth within the band that contains the highest level of the desired power or shall not exceed the general levels specified in §15.209(a), whichever results in the lesser attenuation.

9.2 Measurement Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT as shown in figure 5 without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range and make sure the instrument is operated in its linear range.
3. Set both RBW of spectrum analyzer to 100kHz and VBW to 1 MHz with a convenient frequency span including 100kHz bandwidth from band edge.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.

9.3 Measurement Equipment

Equipment	Manufacturer	Model No.	Calibration Date	Next Cal. Date
Spectrum Analyzer	Rohde & Schwarz	FSP40	2009/09/10	2010/09/09

9.4 Measurement Data

Test Date : Jun. 03, 2010 Temperature : 23 ℃ Humidity : 68 %

A 802.11b @1 Mbps

a) Lower Band Edge : All emissions in this 100kHz bandwidth are attenuated more than 20dB from the carrier.
b) Upper Band Edge : All emissions in this 100kHz bandwidth are attenuated more than 20dB from the carrier.

B 802.11g @6 Mbps

a) Lower Band Edge : All emissions in this 100kHz bandwidth are attenuated more than 20dB from the carrier.
b) Upper Band Edge : All emissions in this 100kHz bandwidth are attenuated more than 20dB from the carrier.

C 802.11n HT-20-Antenna 1 @6.5 Mbps

a) Lower Band Edge : All emissions in this 100kHz bandwidth are attenuated more than 20dB from the carrier.
b) Upper Band Edge : All emissions in this 100kHz bandwidth are attenuated more than 20dB from the carrier.

D 802.11n HT-20-Antenna 2 @6.5 Mbps

a) Lower Band Edge : All emissions in this 100kHz bandwidth are attenuated more than 20dB from the carrier.
b) Upper Band Edge : All emissions in this 100kHz bandwidth are attenuated more than 20dB from the carrier.

E 802.11n HT-40-Antenna 1 @13.5 Mbps

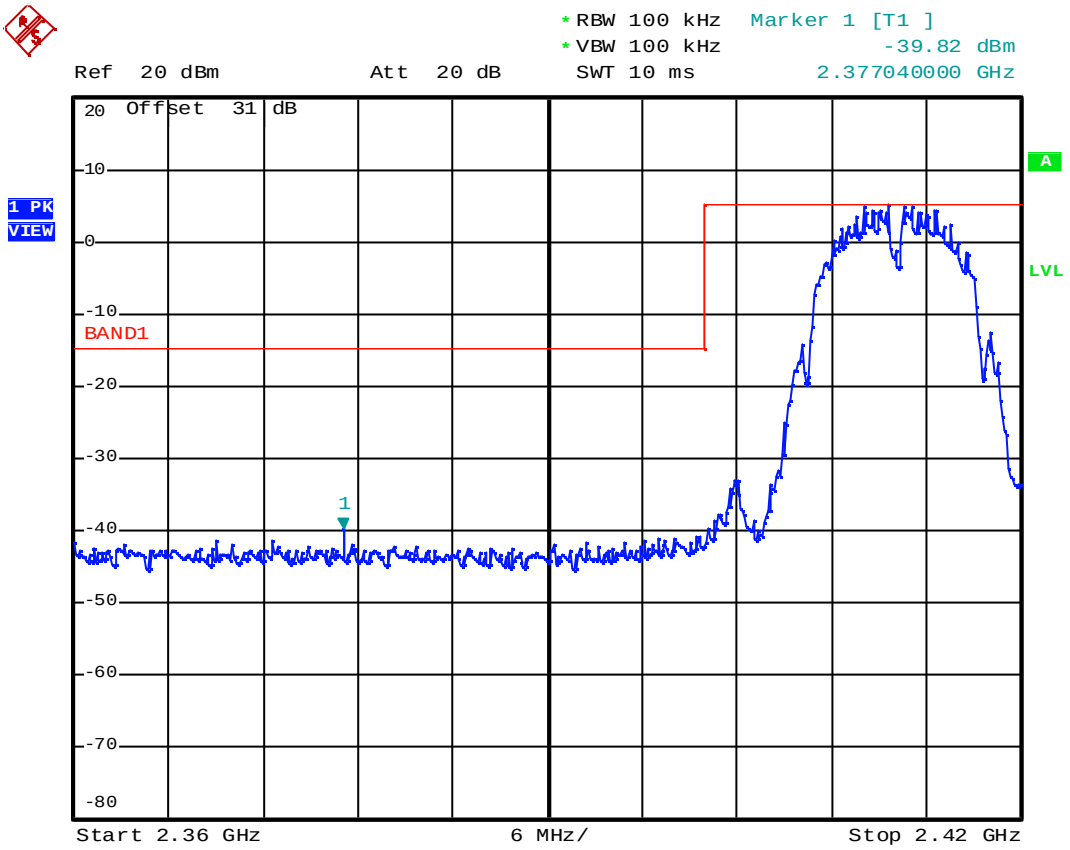
a) Lower Band Edge : All emissions in this 100kHz bandwidth are attenuated more than 20dB from the carrier.
b) Upper Band Edge : All emissions in this 100kHz bandwidth are attenuated more than 20dB from the carrier.

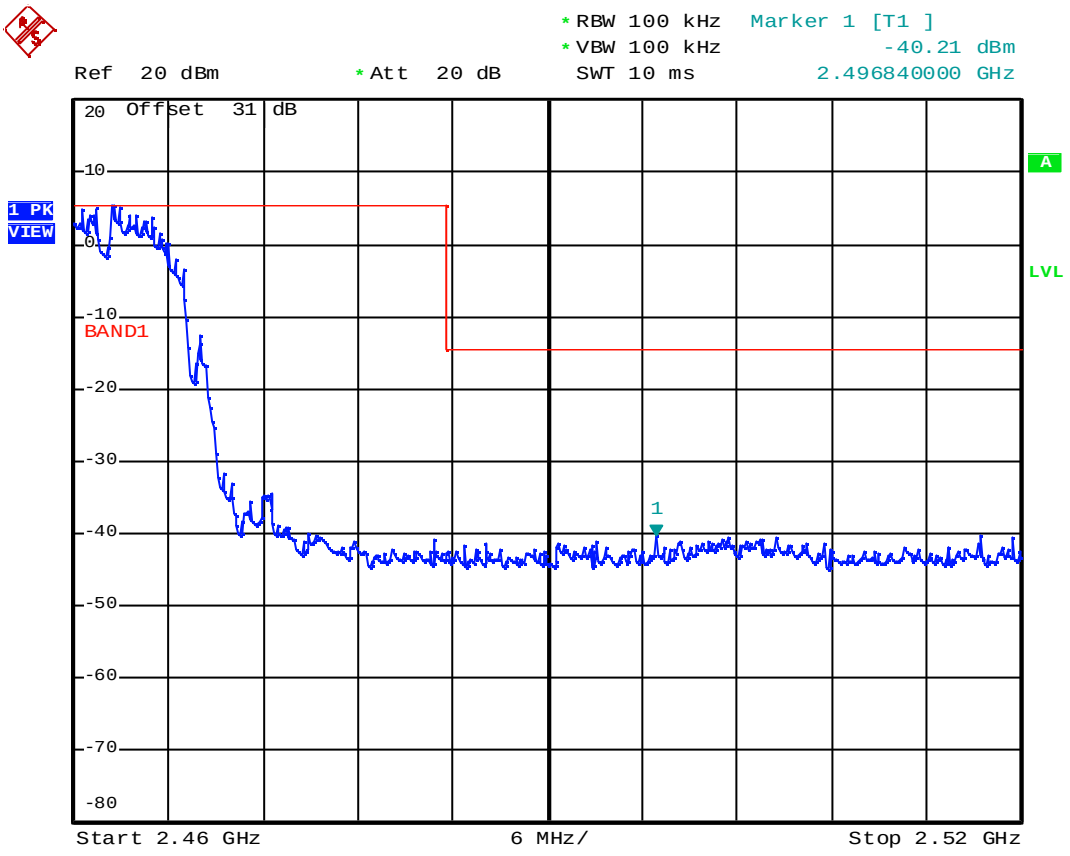
E 802.11n HT-40-Antenna 2 @13.5 Mbps

a) Lower Band Edge : All emissions in this 100kHz bandwidth are attenuated more than 20dB from the carrier.
b) Upper Band Edge : All emissions in this 100kHz bandwidth are attenuated more than 20dB from the carrier.

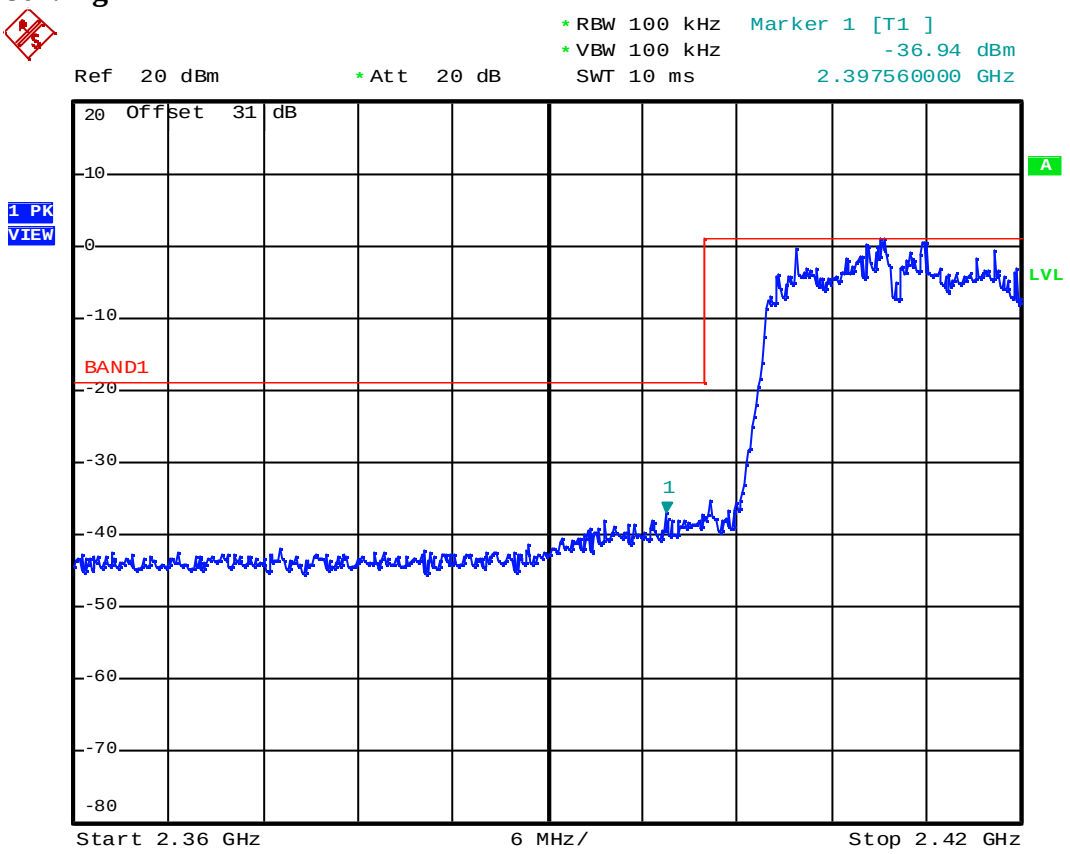
Note : The expanded uncertainty of the 100 khz bandwidth of band edges tests is 2dB.

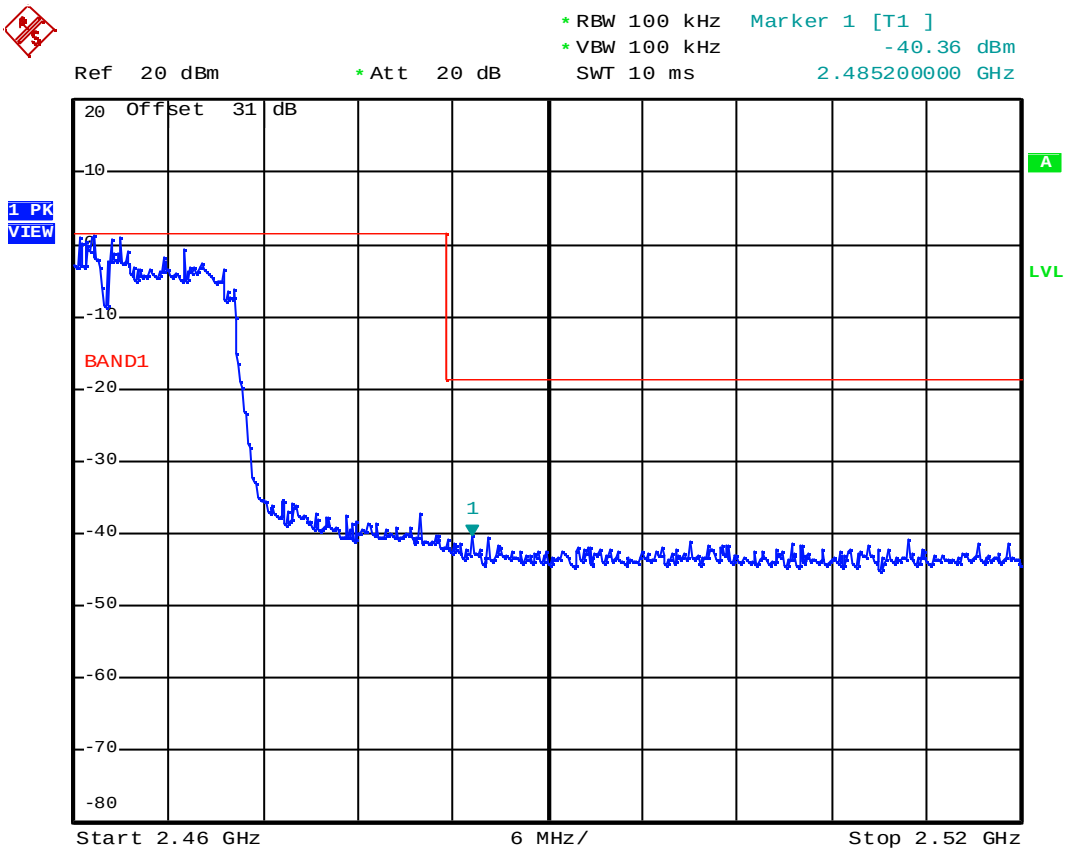
802.11b


*RBW 100 kHz
*VBW 100 kHz
SWT 10 ms
Marker 1 [T1]
-39.82 dBm
2.377040000 GHz
Ref 20 dBm
Att 20 dB
Offset 31 dB
1 PK
VIEW
A
LVL
BAND1
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Start 2.36 GHz
6 MHz/
Stop 2.42 GHz

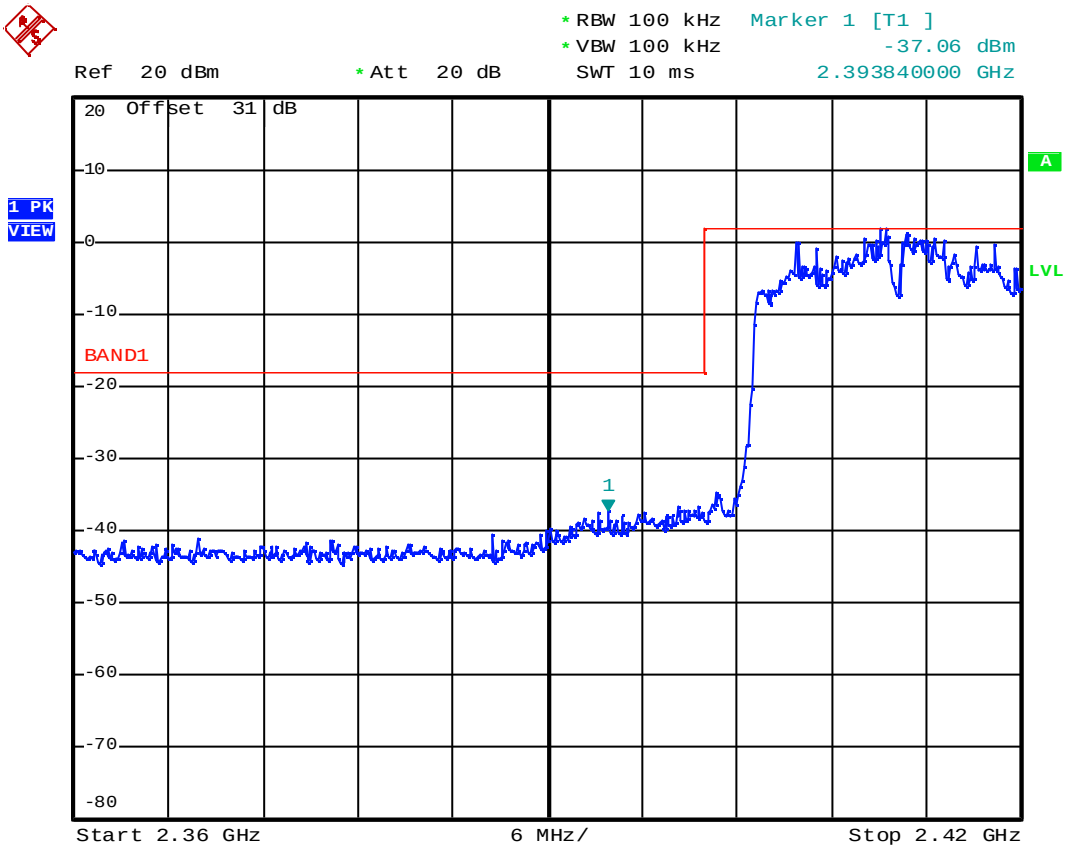

*RBW 100 kHz
*VBW 100 kHz
Marker 1 [T1]
-40.21 dBm
2.496840000 GHz
Ref 20 dBm
*Att 20 dB
SWT 10 ms
20 Offset 31 dB
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1 PK
VIEW
BAND1
A
LVL
1
Start 2.46 GHz
6 MHz/
Stop 2.52 GHz

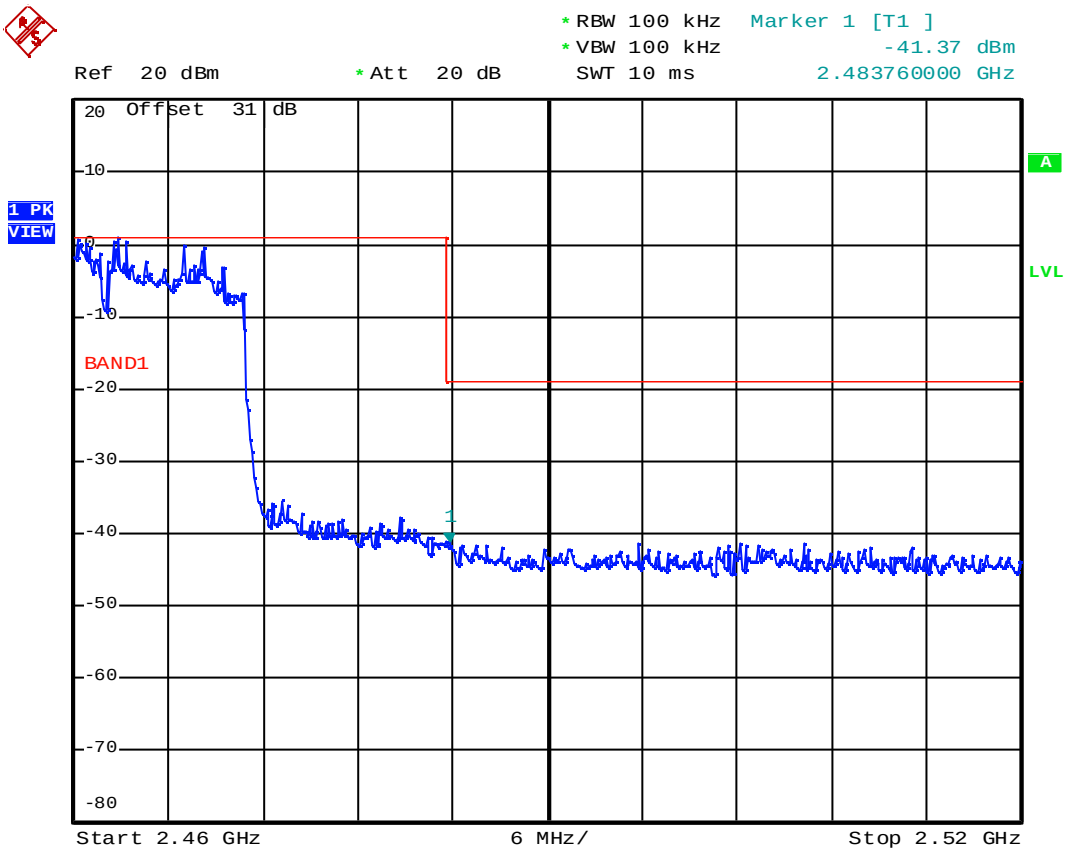
802.11g


*RBW 100 kHz
*VBW 100 kHz
SWT 10 ms
Marker 1 [T1]
-36.94 dBm
2.397560000 GHz
Ref 20 dBm
*Att 20 dB
Offset 31 dB
1 PK
VIEW
A
LVL
BAND1
1
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Start 2.36 GHz
6 MHz/
Stop 2.42 GHz

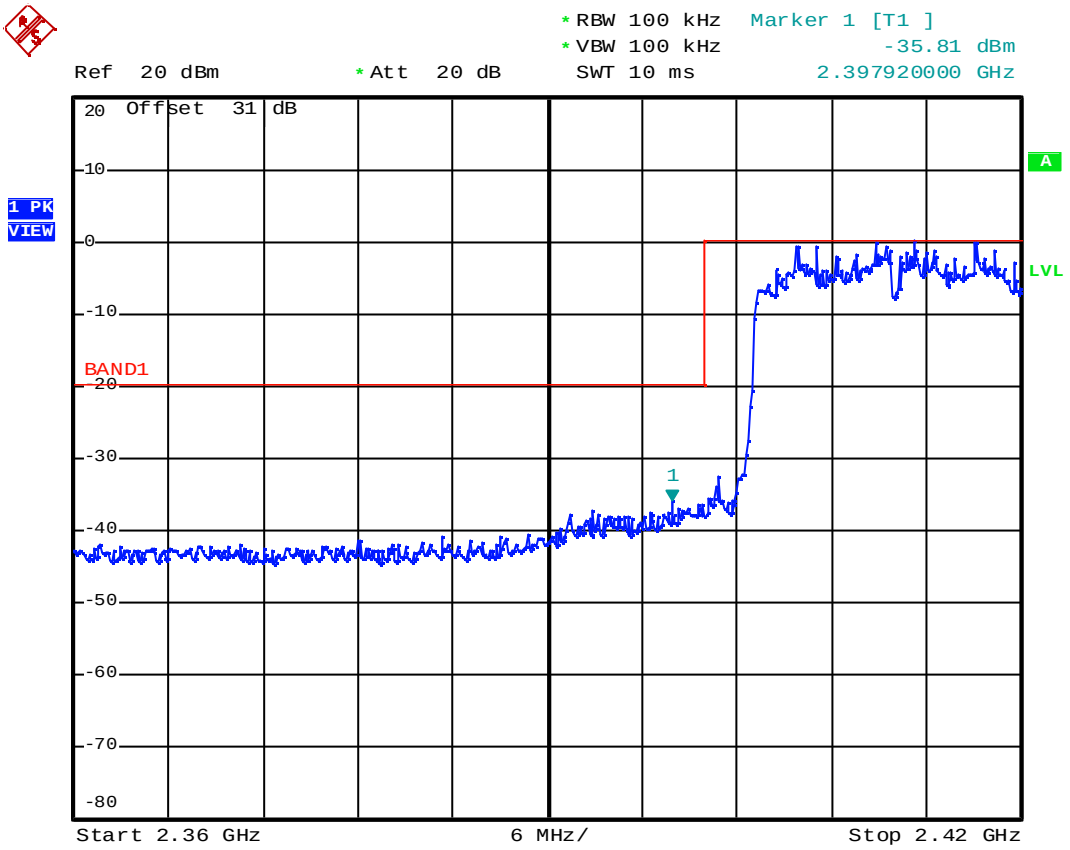

*RBW 100 kHz
*VBW 100 kHz
SWT 10 ms
Marker 1 [T1]
-40.36 dBm
2.485200000 GHz
Ref 20 dBm
*Att 20 dB
20 Offset 31 dB
1 PK
VIEW
A
LVL
BAND1
1
Start 2.46 GHz
6 MHz/
Stop 2.52 GHz

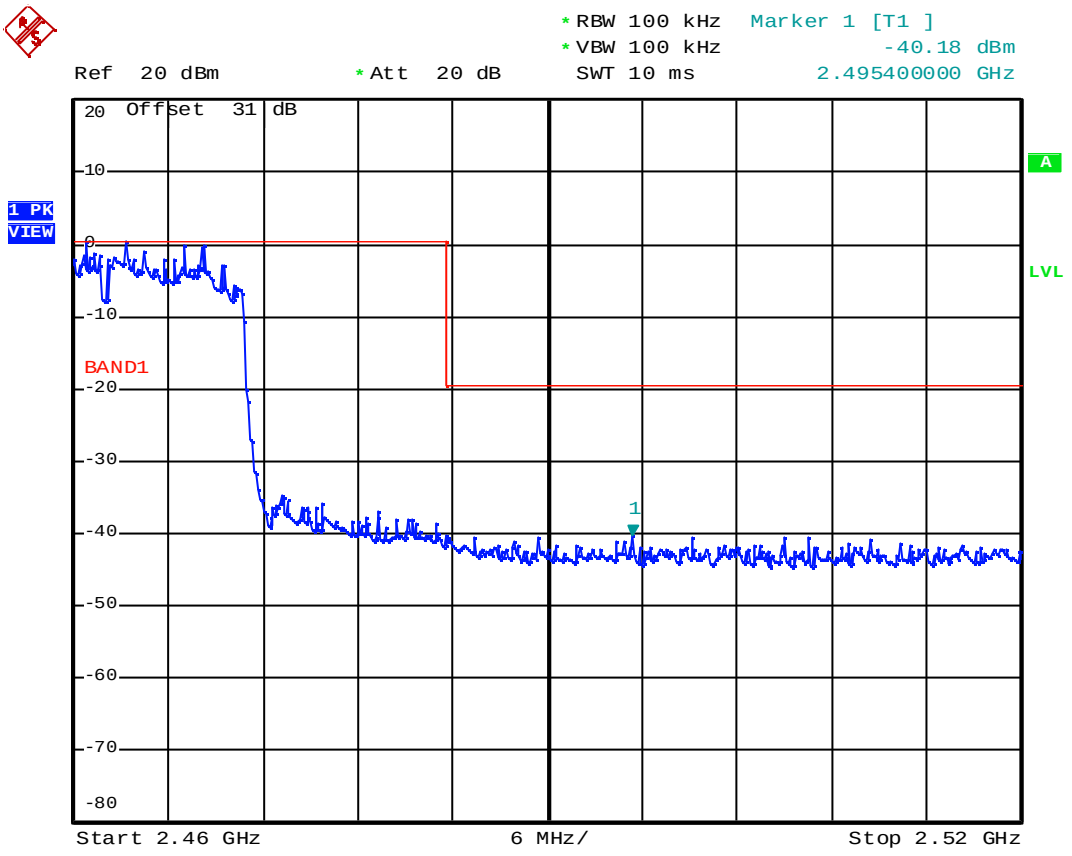
802.11n 20M-Antenna 1



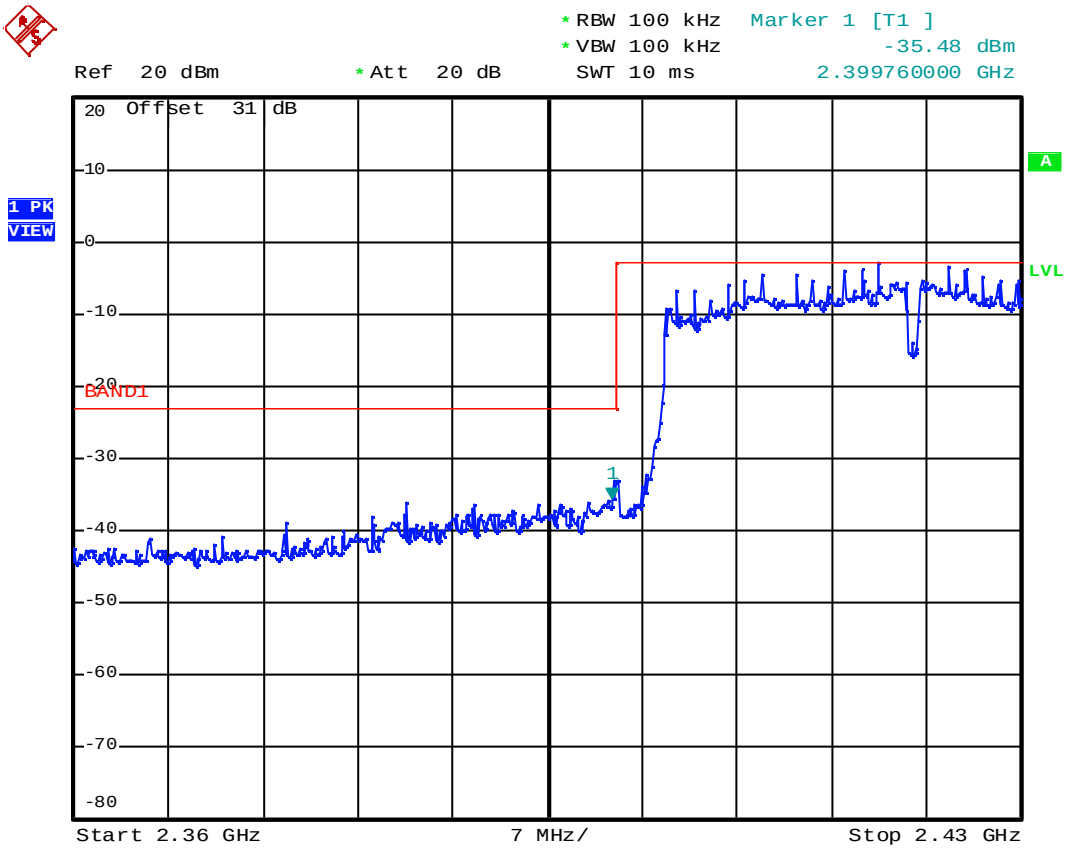

*RBW 100 kHz
*VBW 100 kHz
SWT 10 ms
Marker 1 [T1]
-41.37 dBm
2.483760000 GHz
Ref 20 dBm
*Att 20 dB
Offset 31 dB
1 PK
VIEW
A
LVL
BAND1
Start 2.46 GHz
6 MHz/
Stop 2.52 GHz

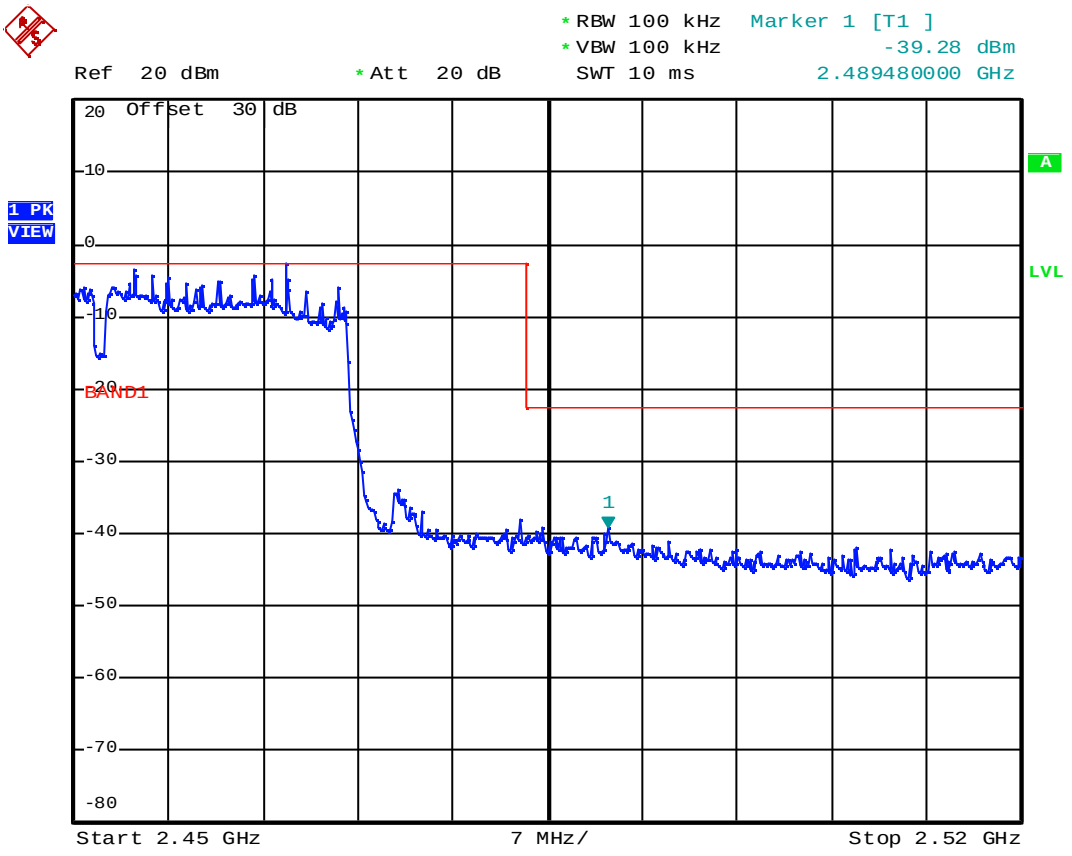
802.11n 20M-Antenna 2



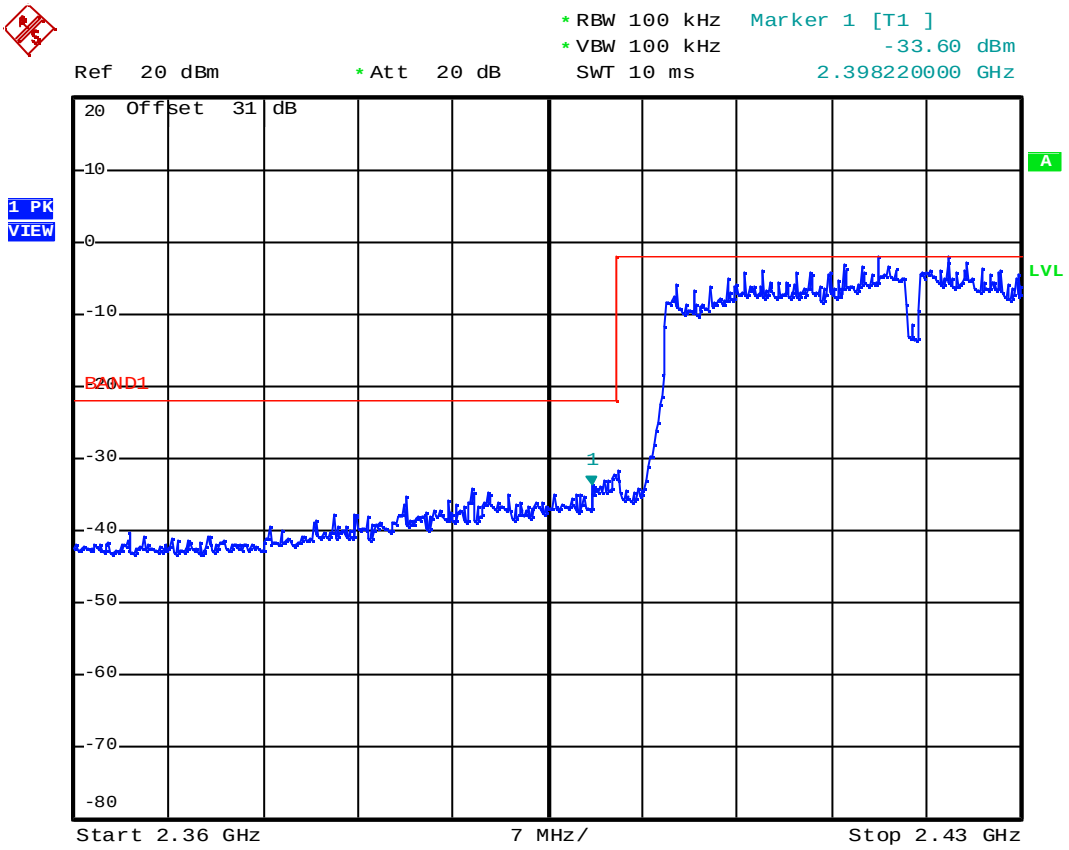

*RBW 100 kHz
*VBW 100 kHz
SWT 10 ms
Marker 1 [T1]
-40.18 dBm
2.495400000 GHz
Ref 20 dBm
*Att 20 dB
20 Offset 31 dB
1 PK
VIEW
A
LVL
BAND1
1
Start 2.46 GHz
6 MHz/
Stop 2.52 GHz

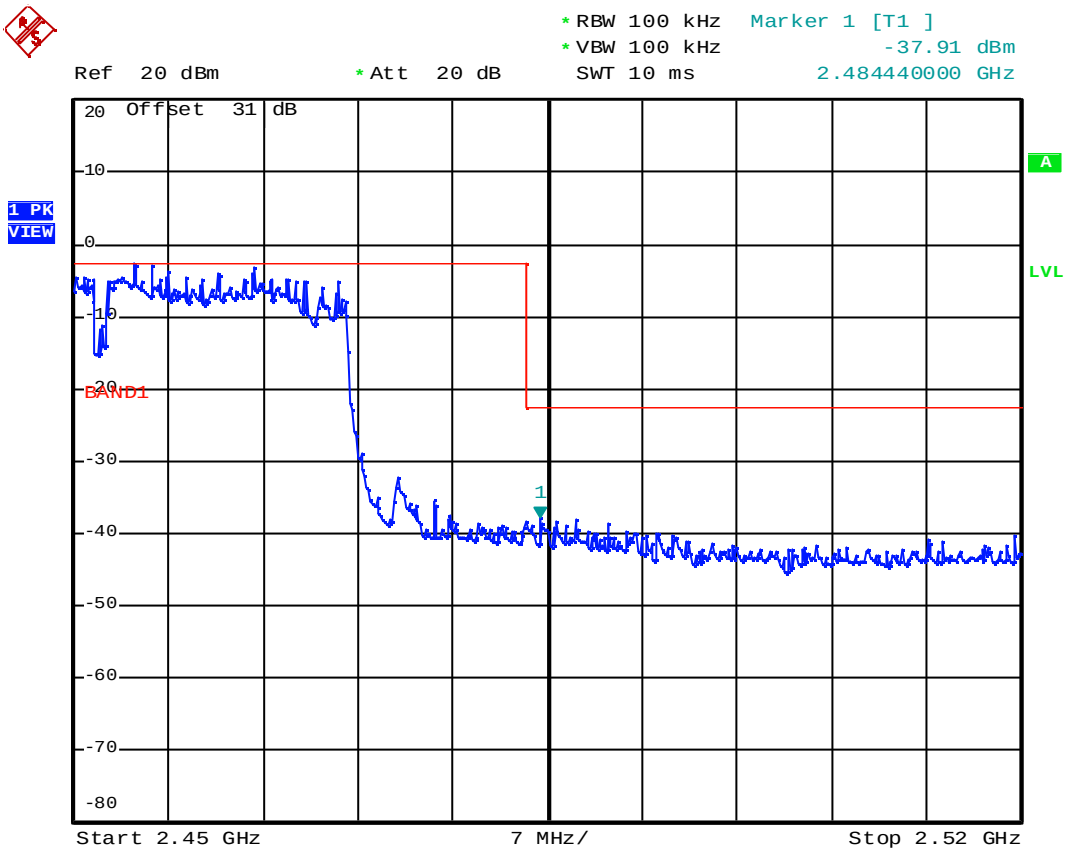
802.11n 40M-Antenna 1




*RBW 100 kHz
*VBW 100 kHz
SWT 10 ms
Marker 1 [T1]
-39.28 dBm
2.489480000 GHz
Ref 20 dBm
*Att 20 dB
20 Offset 30 dB
1 PK
VIEW
A
LVL
BAND1
1
Start 2.45 GHz
7 MHz/
Stop 2.52 GHz

802.11n 40M-Antenna 2




*RBW 100 kHz
Marker 1 [T1]
*VBW 100 kHz
-37.91 dBm
Ref 20 dBm
*Att 20 dB
SWT 10 ms
2.484440000 GHz
20 Offset 31 dB
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1 PK
VIEW
A
LVL
BAND1
1
Start 2.45 GHz
7 MHz/
Stop 2.52 GHz

10 POWER DENSITY MEASUREMENT

10.1 Standard Applicable

According to 15.247(d), for direct sequence systems, the transmitted power density averaged over any 1 second interval shall not be greater than 8 dBm in any 3 kHz bandwidth within these bands.

10.2 Measurement Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT as shown in figure 4 without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set EUT to any one measured frequency within its operating range and make sure the instrument is operated in its linear range.
3. Adjust the center frequency of spectrum analyzer on highest level appearing on spectral display within a 300 kHz frequency span.
4. Set the spectrum analyzer on a 3 kHz resolution bandwidth and 300 kHz video bandwidth as well as max hold function.
5. Repeat above procedures until all measured frequencies were complete.

10.3 Measurement Equipment

Equipment	Manufacturer	Model No.	Calibration Date	Next Cal. Date
Spectrum Analyzer	Rohde & Schwarz	FSP40	2009/09/10	2010/09/09

10.4 Measurement Data

Test Date : Jun. 03, 2010 Temperature : 23 °C Humidity : 68 %

A 802.11b @1 Mbps

a)	Channel Low:	Maximun Power Density of 3 kHz Bandwidth is	-7.20	dBm
b)	Channel Mid:	Maximun Power Density of 3 kHz Bandwidth is	-7.35	dBm
c)	Channel High:	Maximun Power Density of 3 kHz Bandwidth is	-6.60	dBm

B 802.11g @6 Mbps

a)	Channel Low:	Maximun Power Density of 3 kHz Bandwidth is	-10.32	dBm
b)	Channel Mid:	Maximun Power Density of 3 kHz Bandwidth is	-9.74	dBm
c)	Channel High:	Maximun Power Density of 3 kHz Bandwidth is	-9.34	dBm

C 802.11n HT-20-Antenna 1 @6.5 Mbps

a)	Channel Low:	Maximun Power Density of 3 kHz Bandwidth is	-9.85	dBm
b)	Channel Mid:	Maximun Power Density of 3 kHz Bandwidth is	-9.98	dBm
c)	Channel High:	Maximun Power Density of 3 kHz Bandwidth is	-8.53	dBm

D 802.11n HT-20-Antenna 2 @6.5 Mbps

a)	Channel Low:	Maximun Power Density of 3 kHz Bandwidth is	-12.50	dBm
b)	Channel Mid:	Maximun Power Density of 3 kHz Bandwidth is	-10.50	dBm
c)	Channel High:	Maximun Power Density of 3 kHz Bandwidth is	-11.59	dBm

E 802.11n HT-20 Combined @6.5 Mbps

a)	Channel Low:	Maximun Power Density of 3 kHz Bandwidth is	-10.38	dBm
b)	Channel Mid:	Maximun Power Density of 3 kHz Bandwidth is	-9.25	dBm
c)	Channel High:	Maximun Power Density of 3 kHz Bandwidth is	-8.66	dBm

F 802.11n HT-40-Antenna 1 @13.5 Mbps

a)	Channel Low:	Maximun Power Density of 3 kHz Bandwidth is	-16.19	dBm
b)	Channel Mid:	Maximun Power Density of 3 kHz Bandwidth is	-15.75	dBm
c)	Channel High:	Maximun Power Density of 3 kHz Bandwidth is	-16.69	dBm

G 802.11n HT-40-Antenna 2 @13.5 Mbps

a)	Channel Low:	Maximun Power Density of 3 kHz Bandwidth is	-15.25	dBm
b)	Channel Mid:	Maximun Power Density of 3 kHz Bandwidth is	-14.67	dBm
c)	Channel High:	Maximun Power Density of 3 kHz Bandwidth is	-15.77	dBm

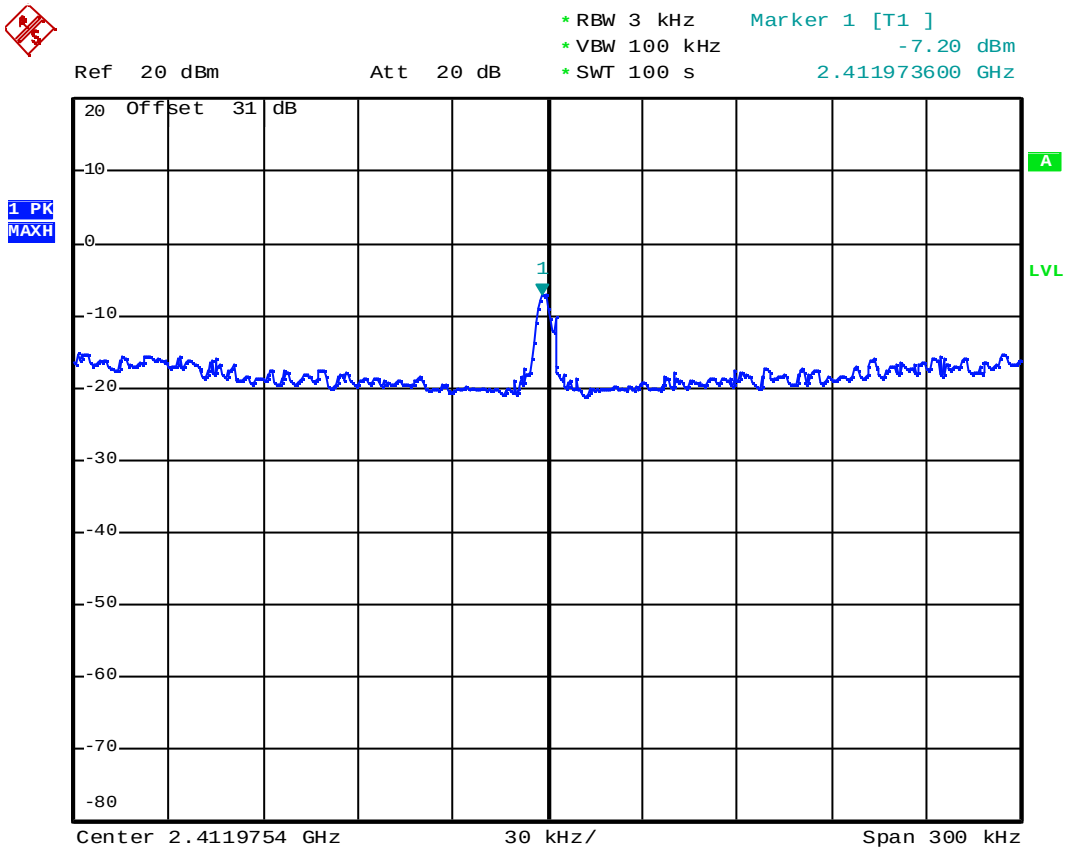
Note : The expanded uncertainty of the power density tests is 2dB.

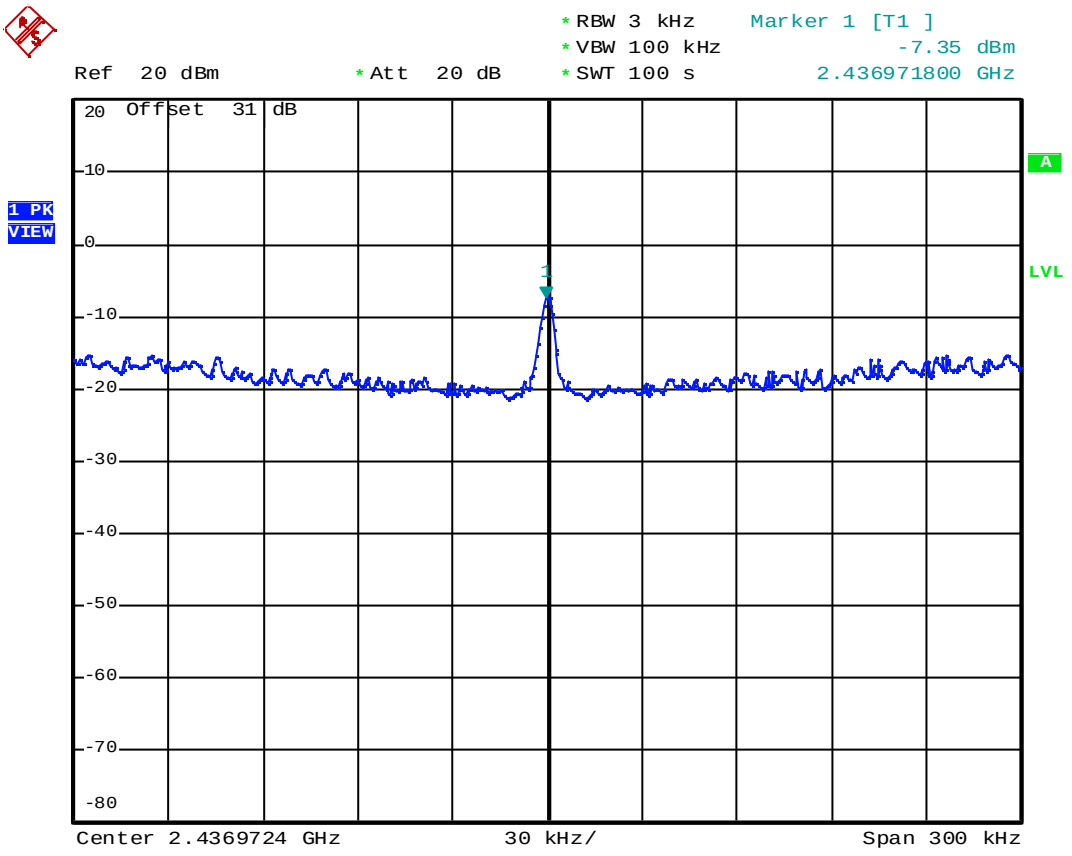
H 802.11n HT-40-Combined@13.5 Mbps

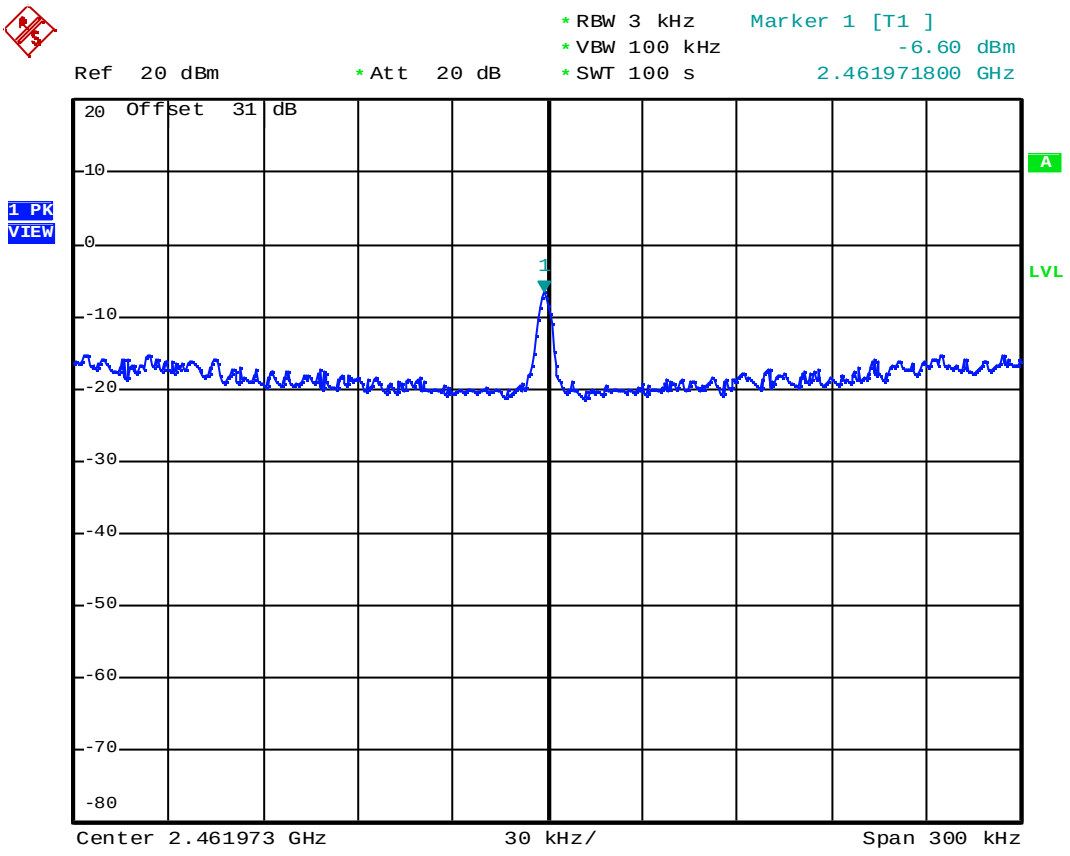
a)	Channel Low:	Maximun Power Density of 3 kHz Bandwidth is	-10.56	dBm
b)	Channel Mid:	Maximun Power Density of 3 kHz Bandwidth is	-9.26	dBm
c)	Channel High:	Maximun Power Density of 3 kHz Bandwidth is	-12.64	dBm

Note : The expanded uncertainty of the power density tests is 2dB.

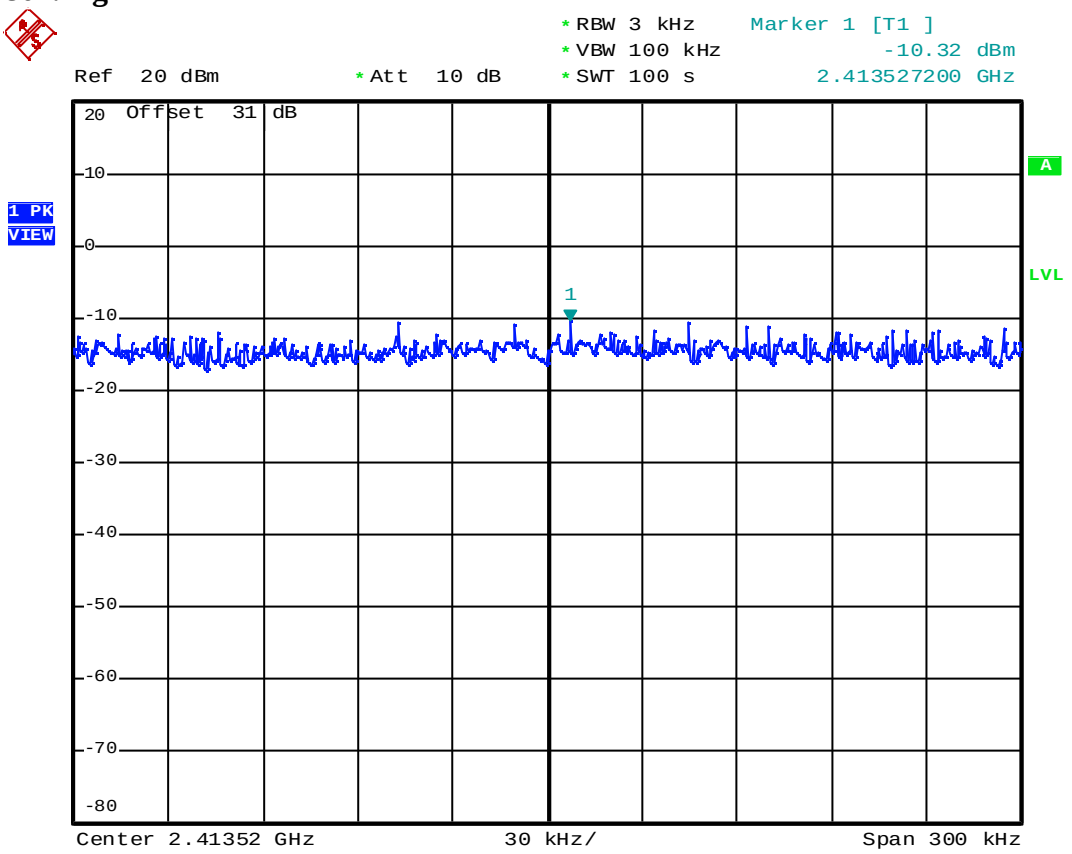
802.11b

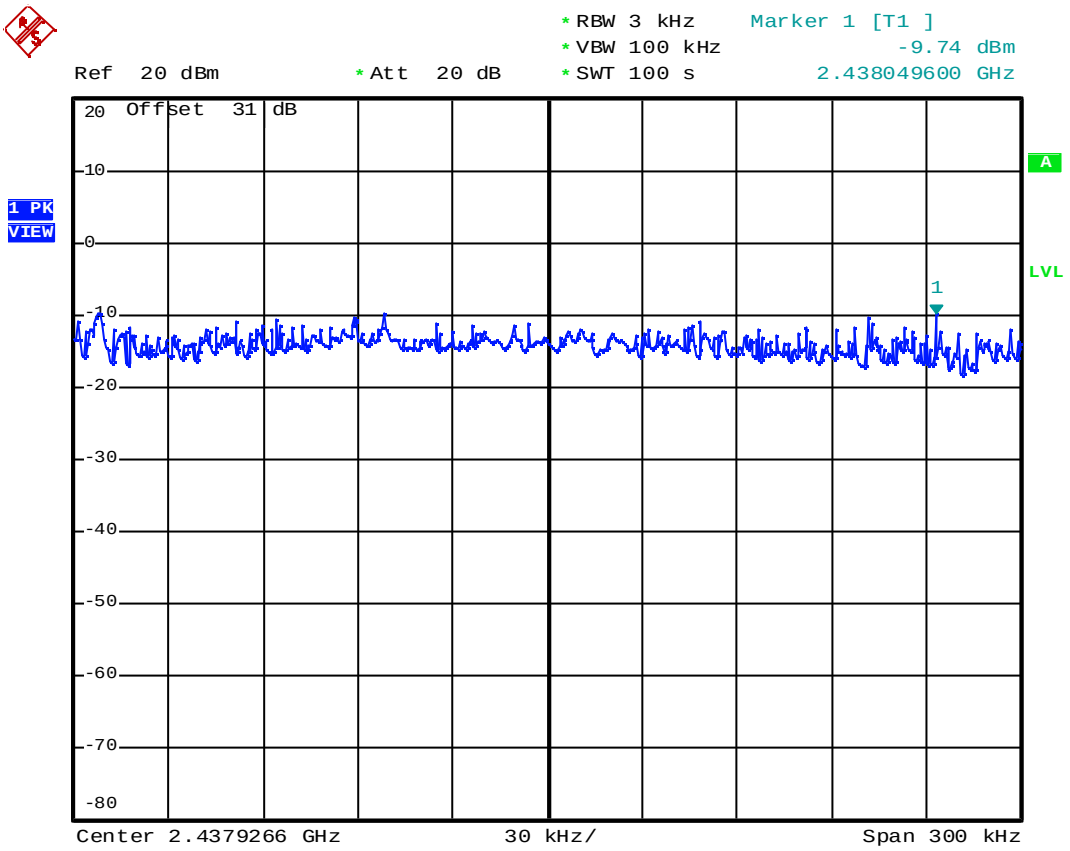

*RBW 3 kHz
*VBW 100 kHz
*SWT 100 s
Marker 1 [T1]
-7.20 dBm
2.411973600 GHz
Ref 20 dBm
Att 20 dB
Offset 31 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1 PK
MAXH
A
LVL
Center 2.4119754 GHz
30 kHz/
Span 300 kHz

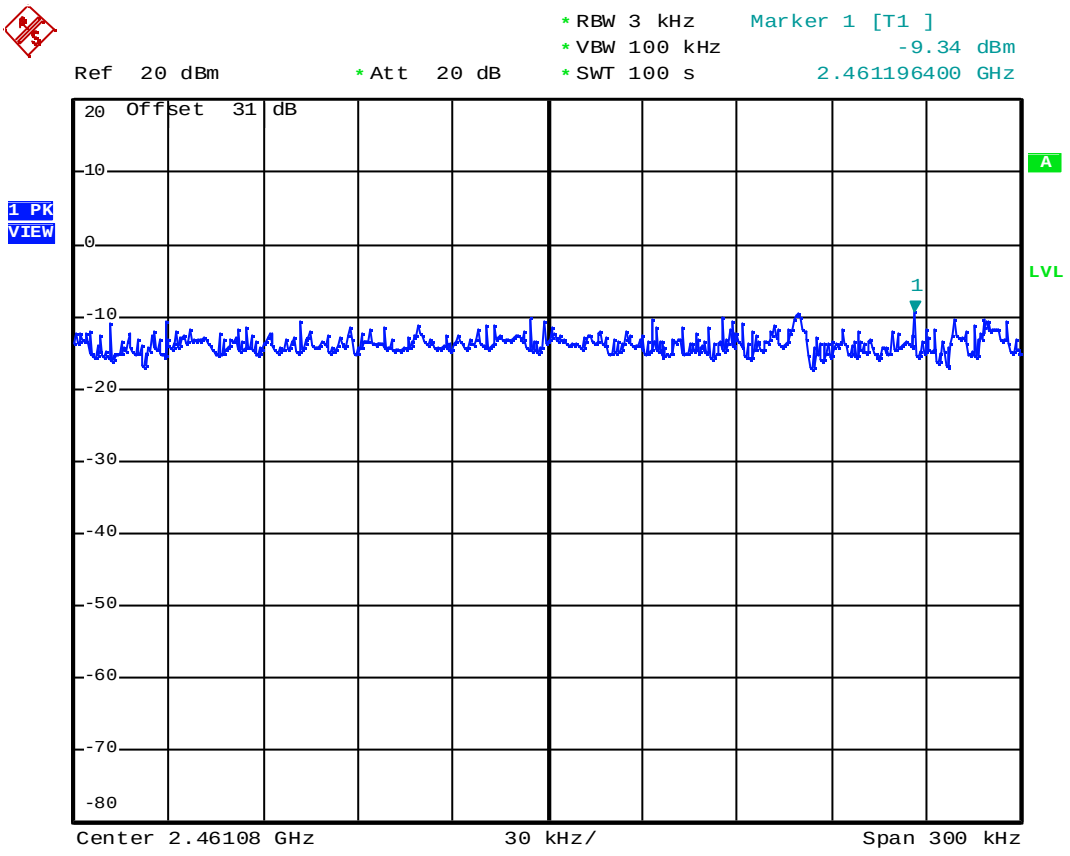

*RBW 3 kHz
*VBW 100 kHz
*SWT 100 s
Marker 1 [T1]
-7.35 dBm
2.436971800 GHz
Ref 20 dBm
*Att 20 dB
Offset 31 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1 PK
VIEW
A
LVL
Center 2.4369724 GHz
30 kHz/
Span 300 kHz


*RBW 3 kHz
*VBW 100 kHz
*SWT 100 s
Marker 1 [T1]
-6.60 dBm
2.461971800 GHz
Ref 20 dBm
*Att 20 dB
20 Offset 31 dB
1 PK
VIEW
A
LVL
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 2.461973 GHz
30 kHz/
Span 300 kHz

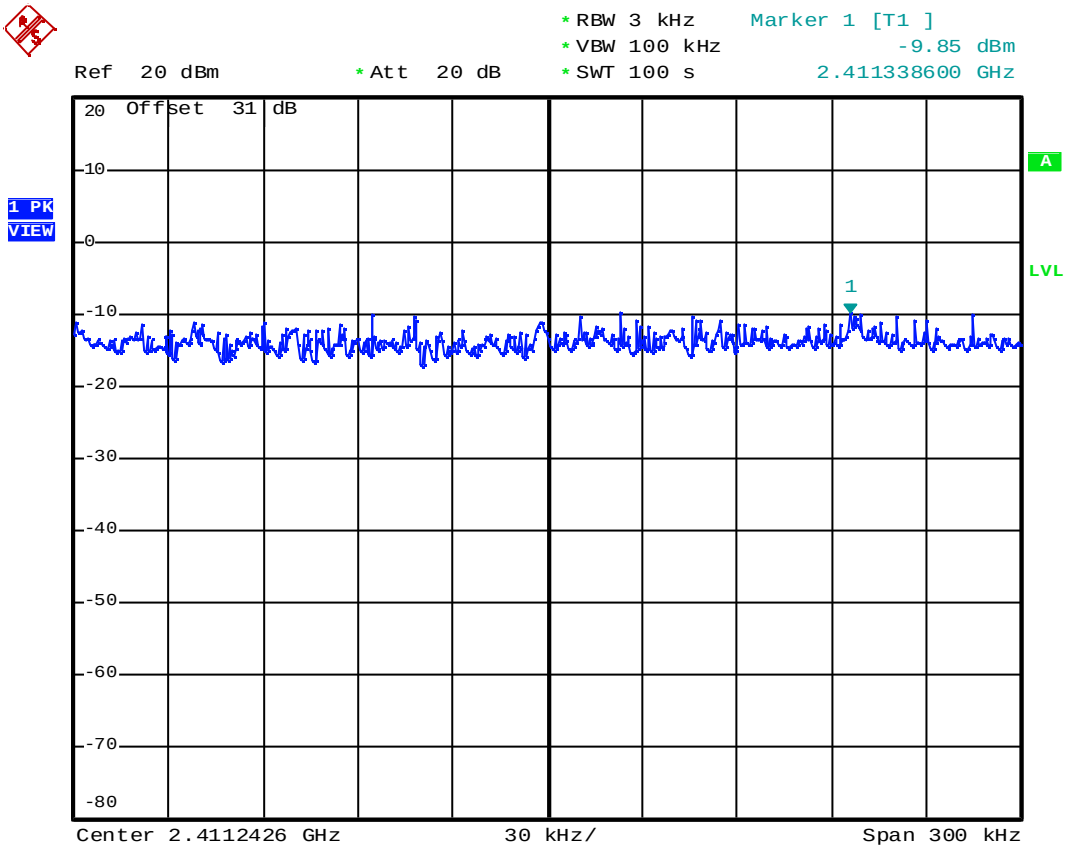
802.11g

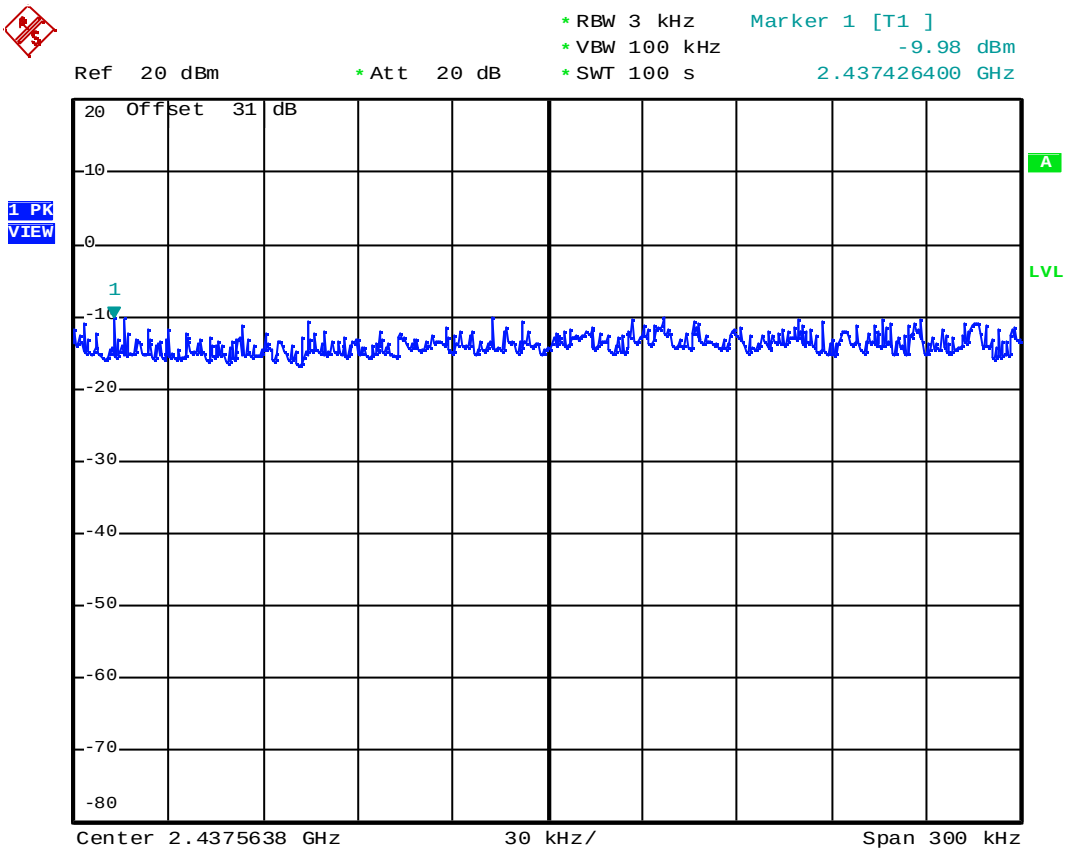

*RBW 3 kHz
*VBW 100 kHz
*SWT 100 s
Marker 1 [T1]
-10.32 dBm
2.413527200 GHz
Ref 20 dBm
*Att 10 dB
Offset 31 dB
1 PK
VIEW
A
LVL
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 2.41352 GHz
30 kHz/
Span 300 kHz

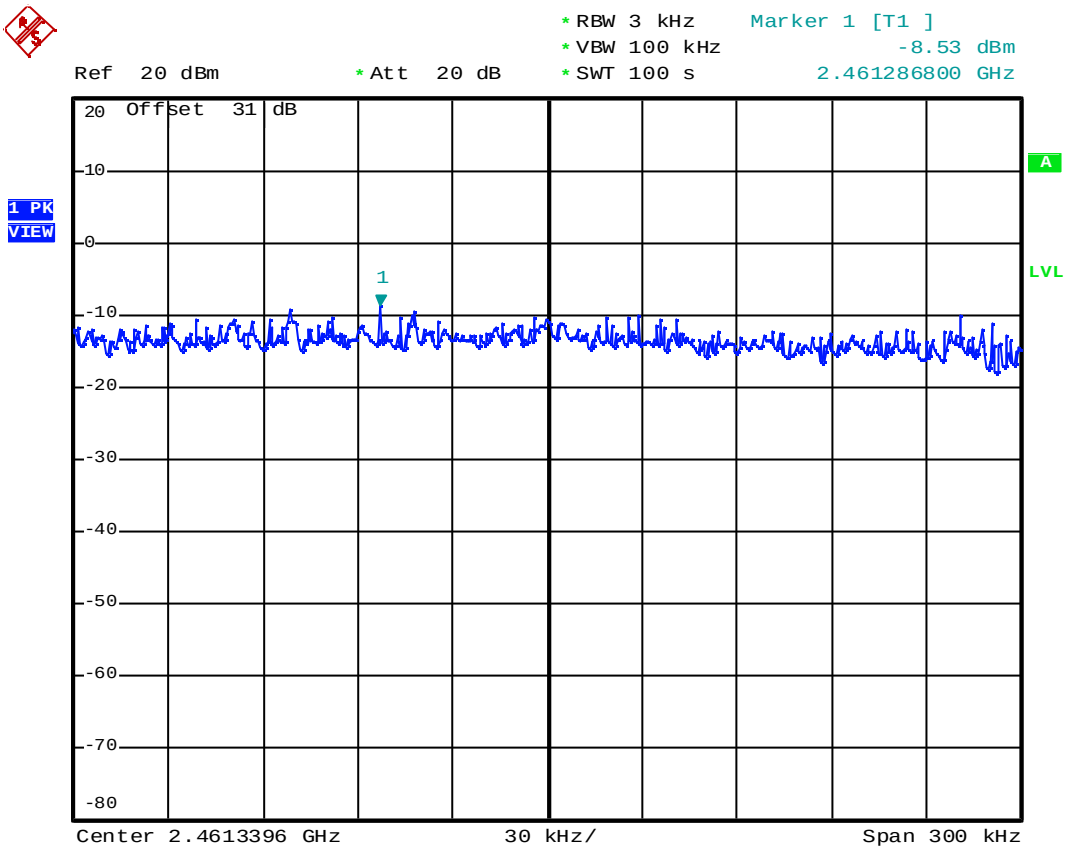

*RBW 3 kHz
*VBW 100 kHz
*SWT 100 s
Marker 1 [T1]
-9.74 dBm
2.438049600 GHz
Ref 20 dBm
*Att 20 dB
Offset 31 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1 PK
VIEW
A
LVL
1
Center 2.4379266 GHz
30 kHz/
Span 300 kHz


*RBW 3 kHz
*VBW 100 kHz
*SWT 100 s
Marker 1 [T1]
-9.34 dBm
2.461196400 GHz
Ref 20 dBm
*Att 20 dB
Offset 31 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1 PK
VIEW
A
LVL
1
Center 2.46108 GHz
30 kHz/
Span 300 kHz

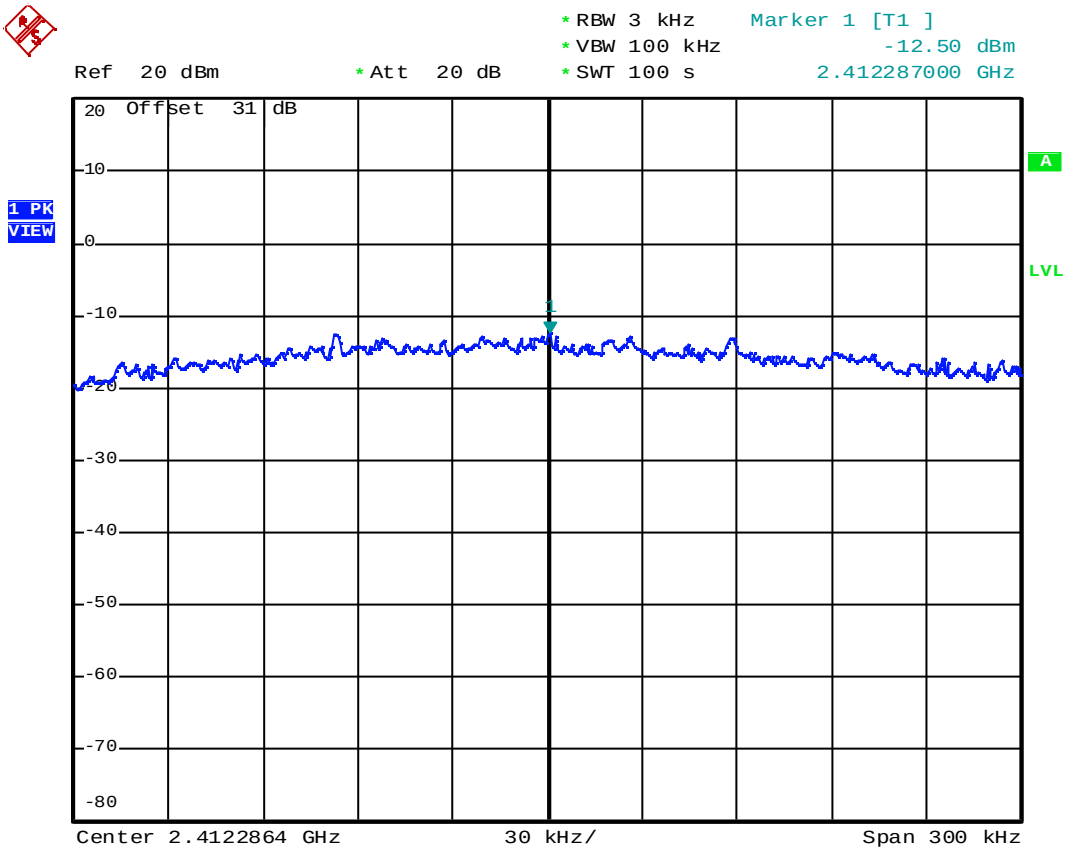
802.11n 20M-Antenna 1

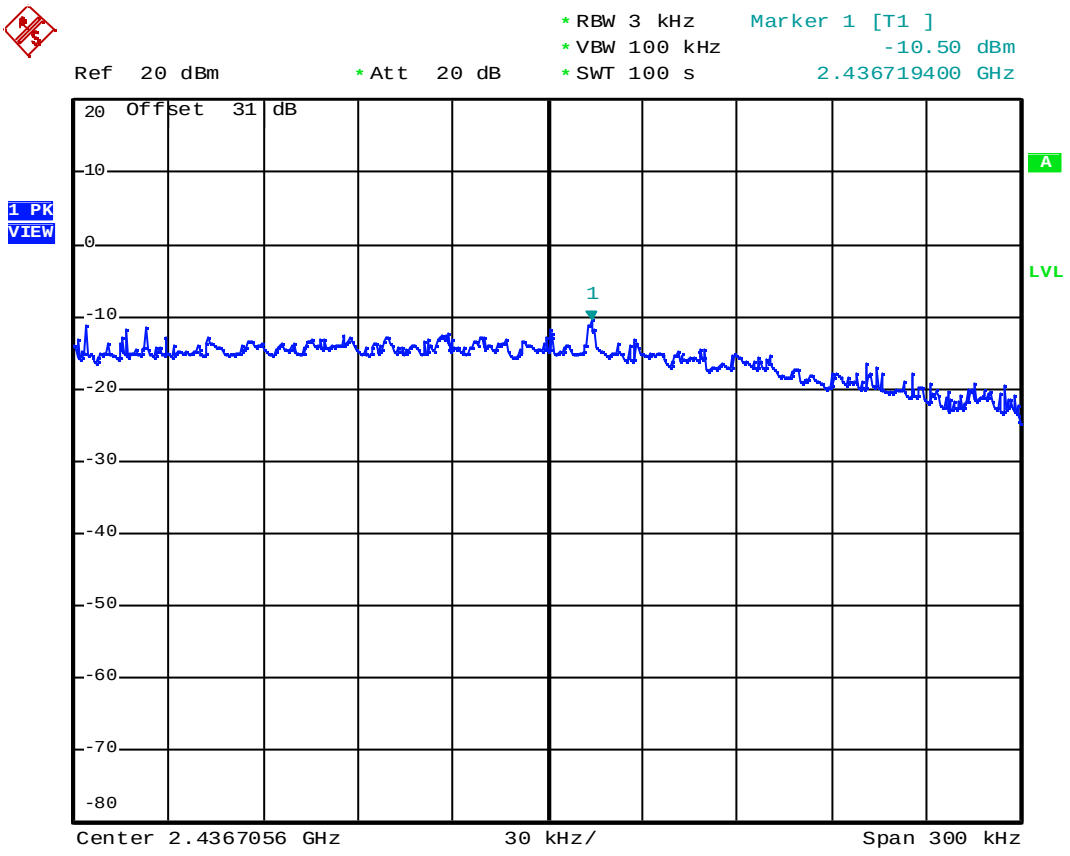


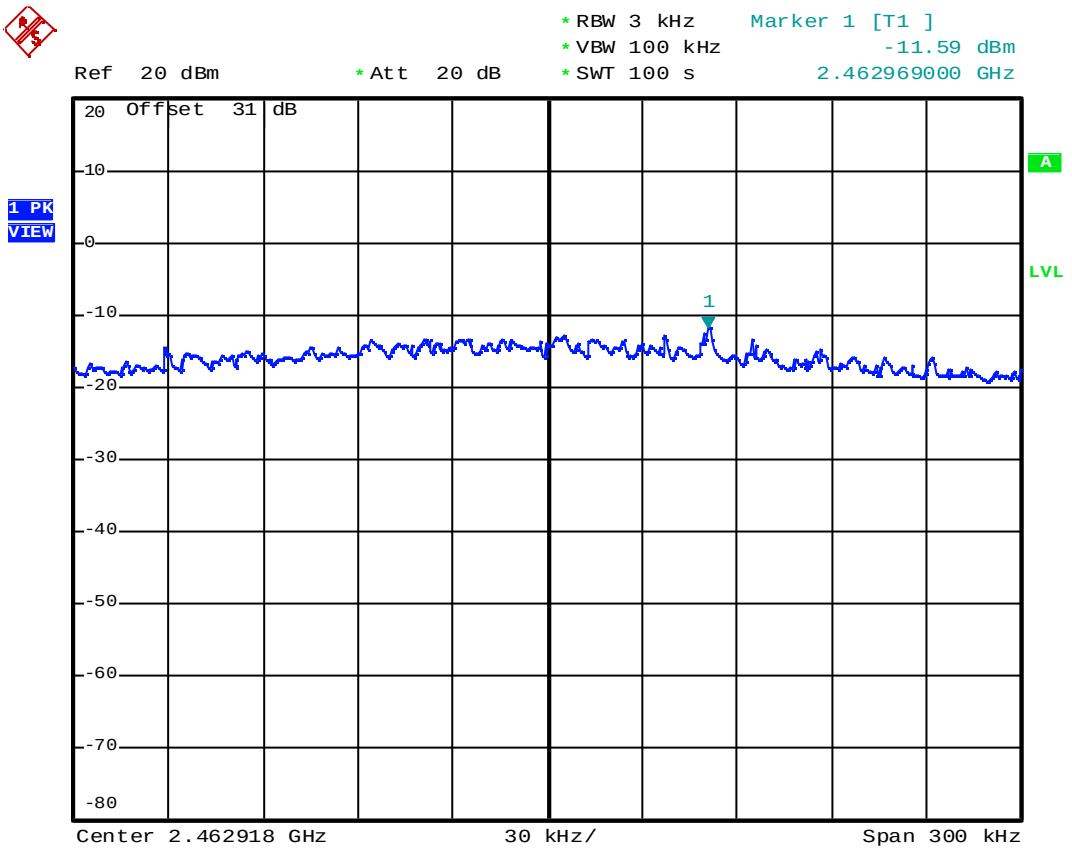

*RBW 3 kHz
*VBW 100 kHz
*SWT 100 s
Marker 1 [T1]
-9.98 dBm
2.437426400 GHz
Ref 20 dBm
*Att 20 dB
Offset 31 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
1 PK
VIEW
A
LVL
Center 2.4375638 GHz
30 kHz/
Span 300 kHz


*RBW 3 kHz
*VBW 100 kHz
*SWT 100 s
Marker 1 [T1]
-8.53 dBm
2.461286800 GHz
Ref 20 dBm
*Att 20 dB
Offset 31 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
1 PK
VIEW
A
LVL
Center 2.4613396 GHz
30 kHz/
Span 300 kHz

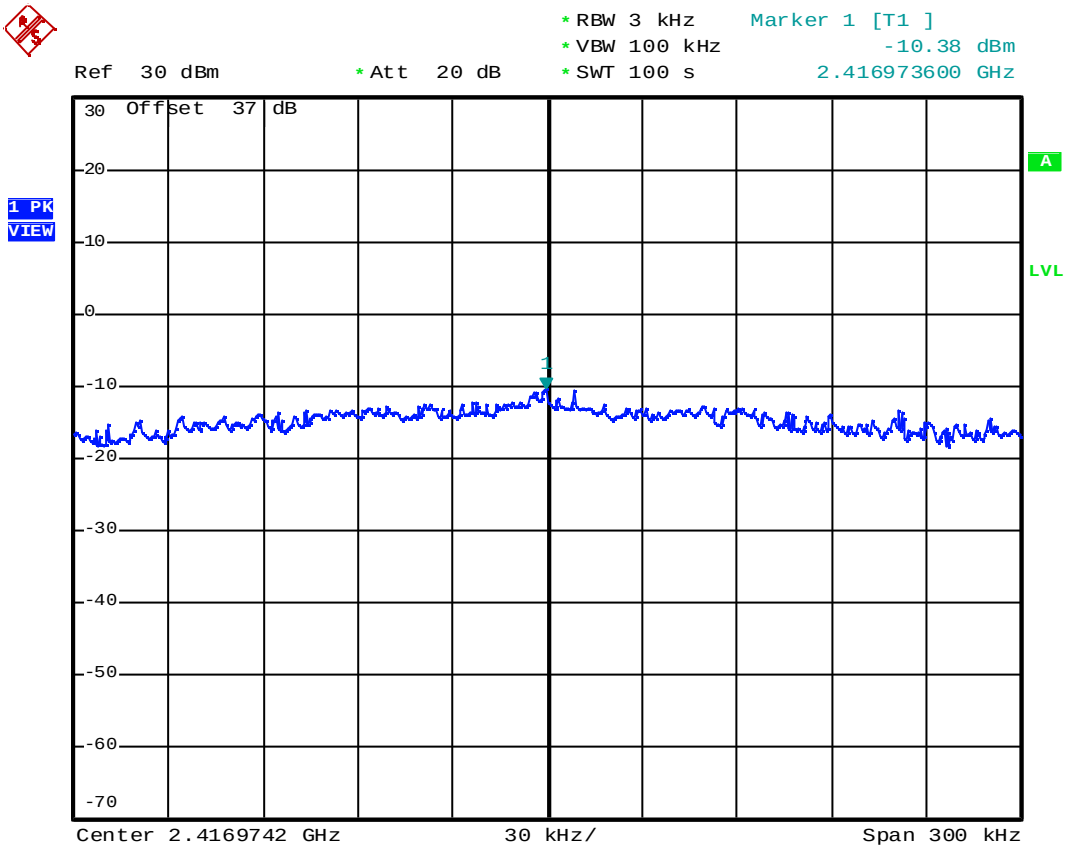
802.11n 20M-Antenna 2

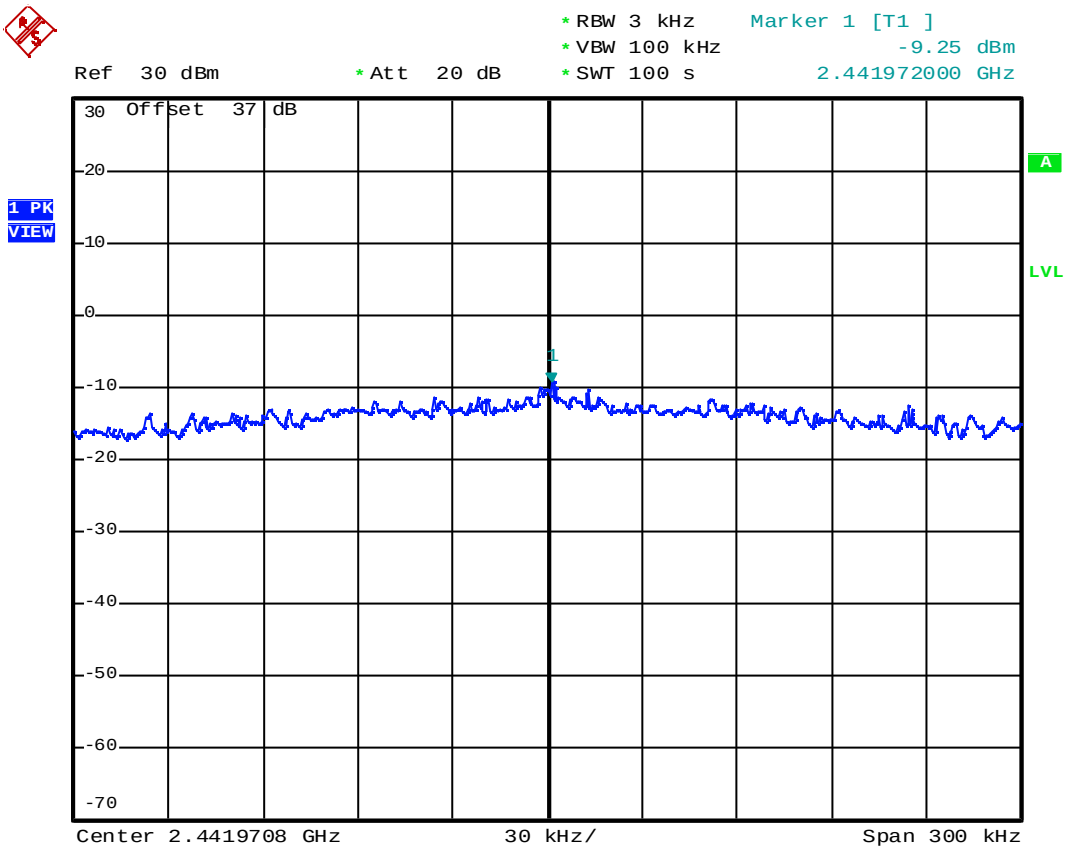


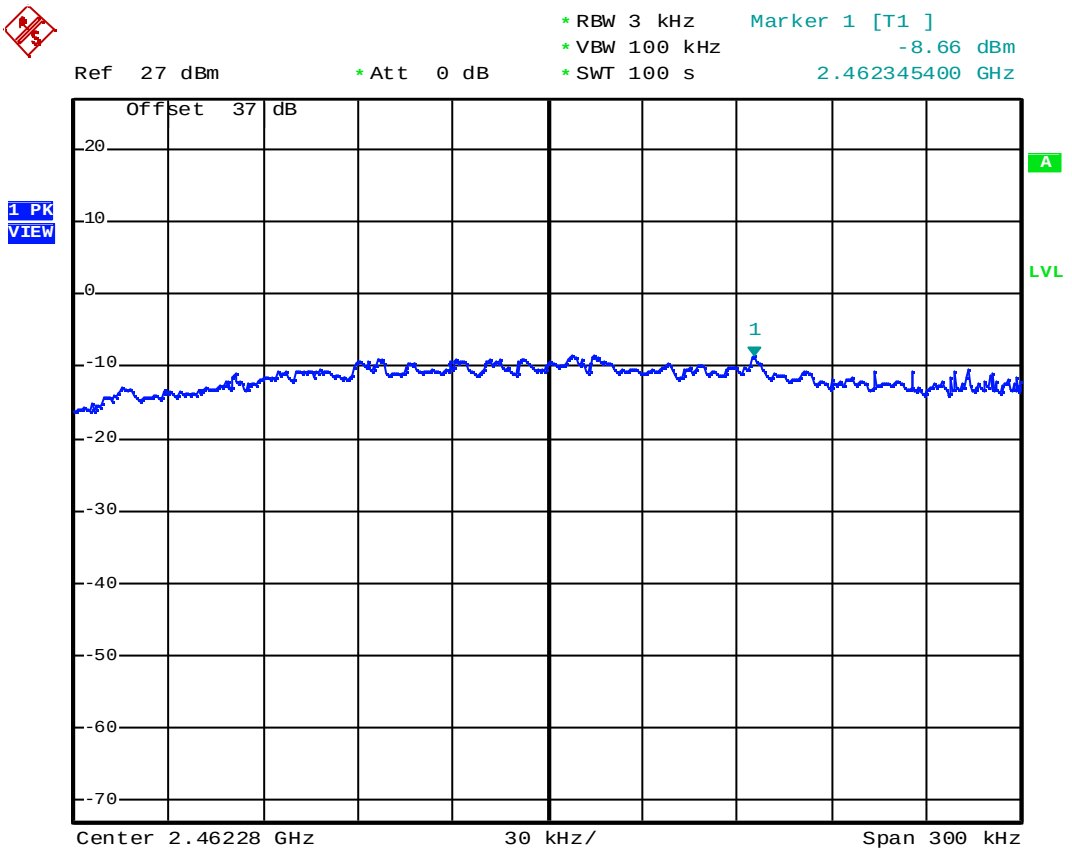

*RBW 3 kHz
*VBW 100 kHz
*SWT 100 s
Marker 1 [T1]
-10.50 dBm
2.436719400 GHz
Ref 20 dBm
*Att 20 dB
Offset 31 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1 PK
VIEW
A
LVL
1
Center 2.4367056 GHz
30 kHz/
Span 300 kHz


*RBW 3 kHz
*VBW 100 kHz
*SWT 100 s
Marker 1 [T1]
-11.59 dBm
2.462969000 GHz
Ref 20 dBm
*Att 20 dB
20 Offset 31 dB
1 PK
VIEW
A
LVL
1
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 2.462918 GHz
30 kHz/
Span 300 kHz

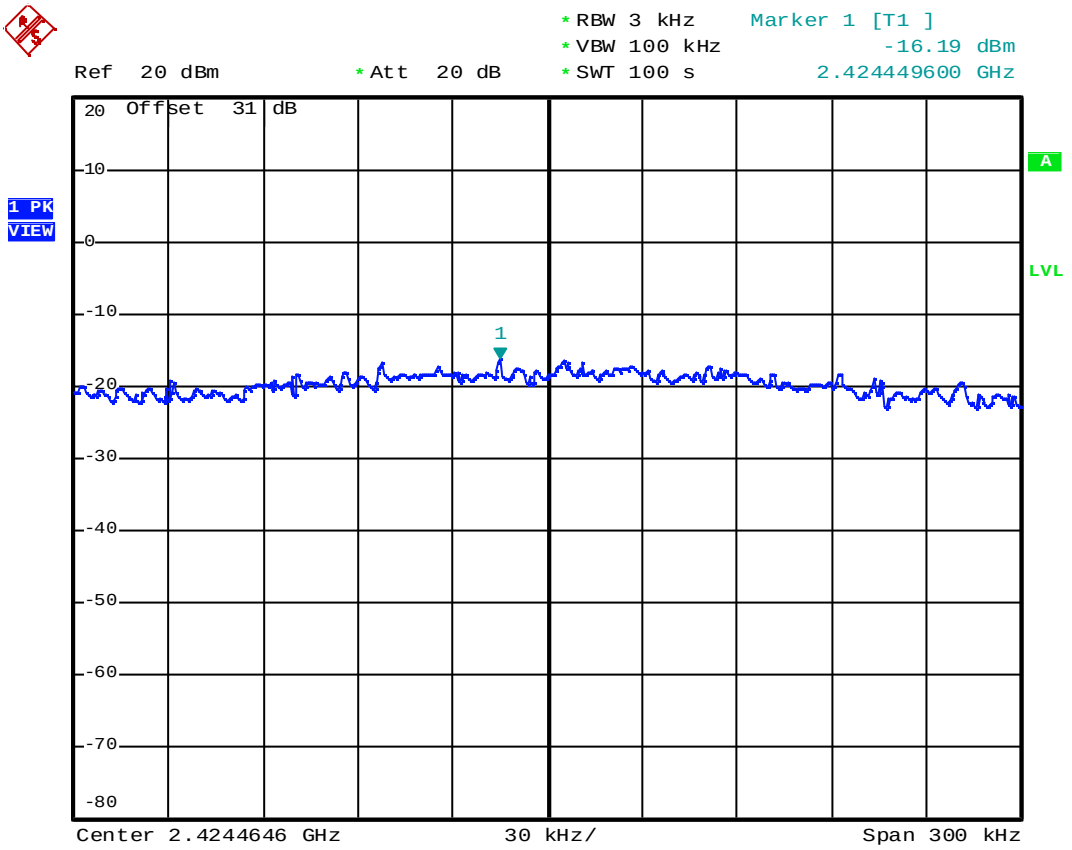
802.11n 20M Combined

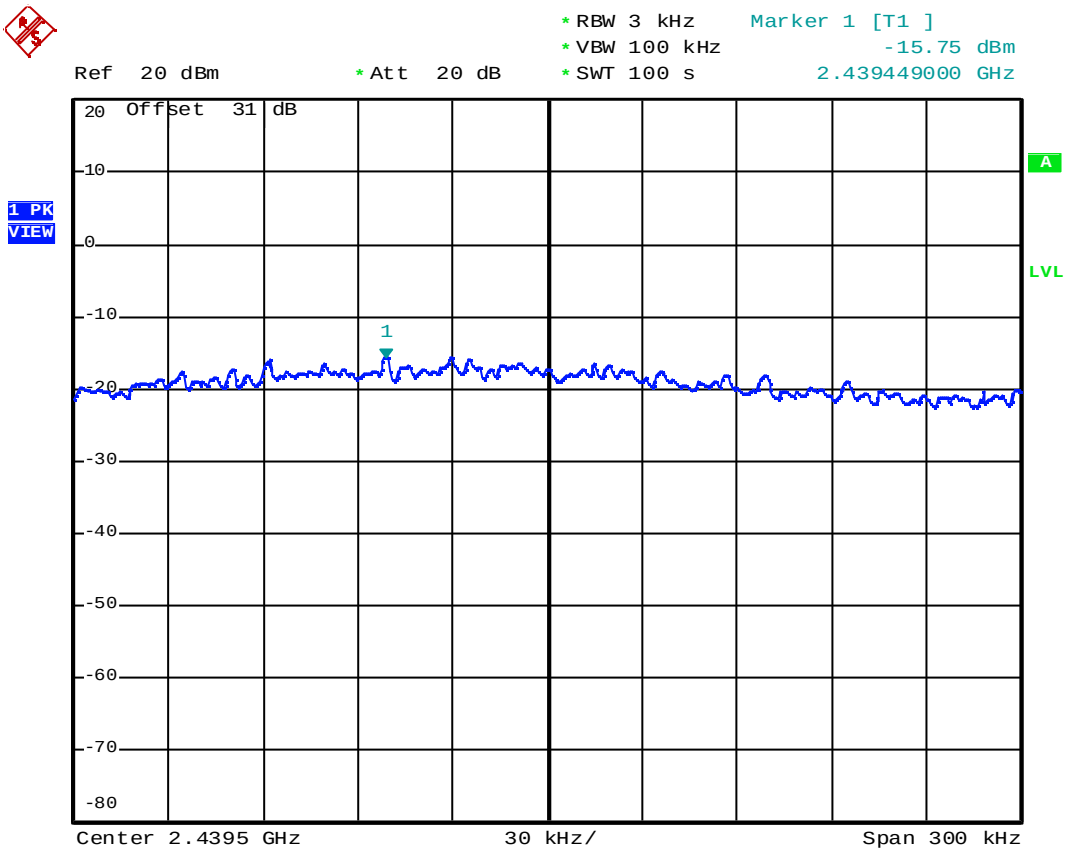


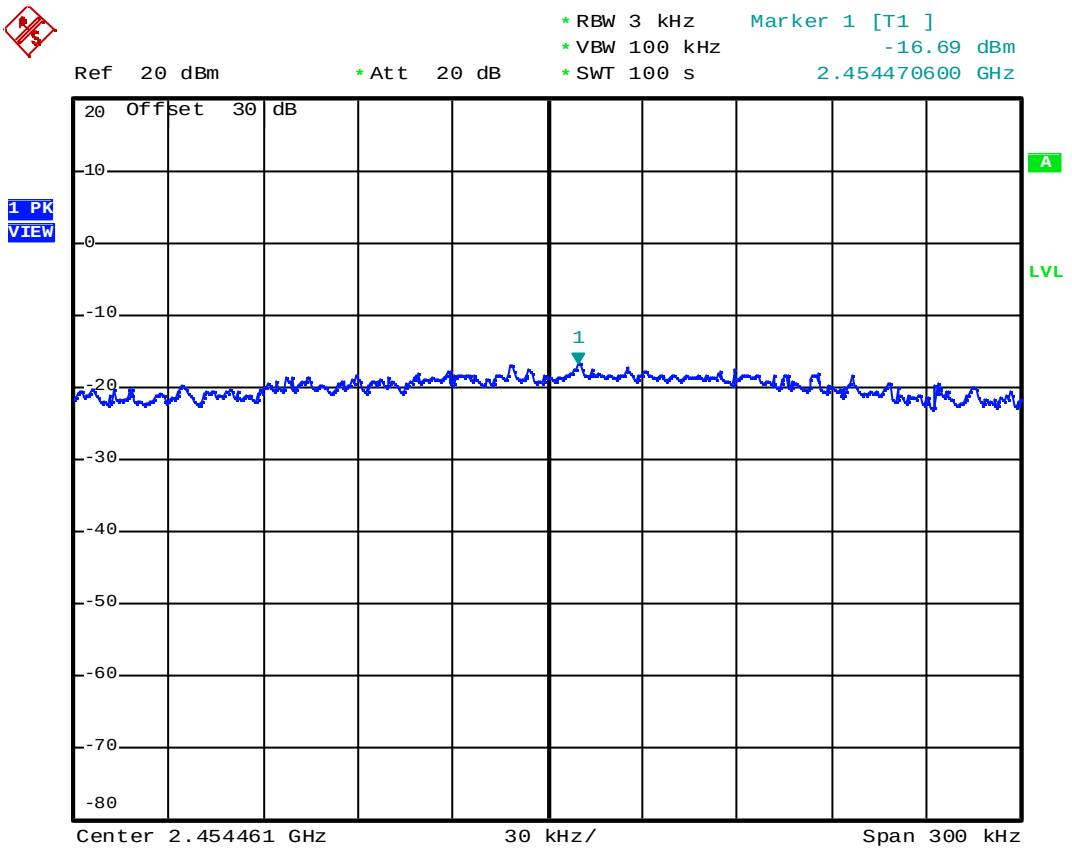

*RBW 3 kHz
Marker 1 [T1]
*VBW 100 kHz
-9.25 dBm
Ref 30 dBm
*Att 20 dB
*SWT 100 s
2.441972000 GHz
30 Offset 37 dB
1 PK
VIEW
A
LVL
20
10
0
-10
-20
-30
-40
-50
-60
-70
Center 2.4419708 GHz
30 kHz/
Span 300 kHz


*RBW 3 kHz
*VBW 100 kHz
*SWT 100 s
Marker 1 [T1]
-8.66 dBm
2.462345400 GHz
Ref 27 dBm
*Att 0 dB
Offset 37 dB
1 PK
VIEW
A
LVL
20
10
0
-10
-20
-30
-40
-50
-60
-70
1
Center 2.46228 GHz
30 kHz/
Span 300 kHz

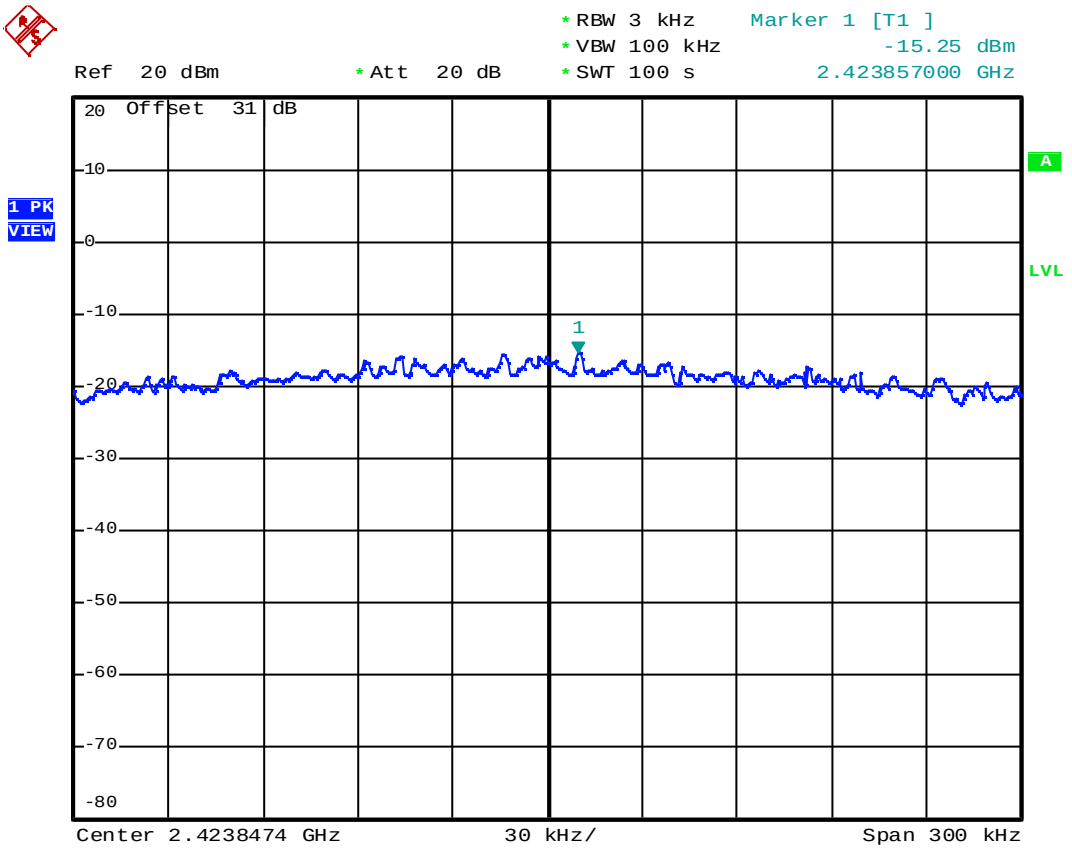
802.11n 40M-Antenna 1

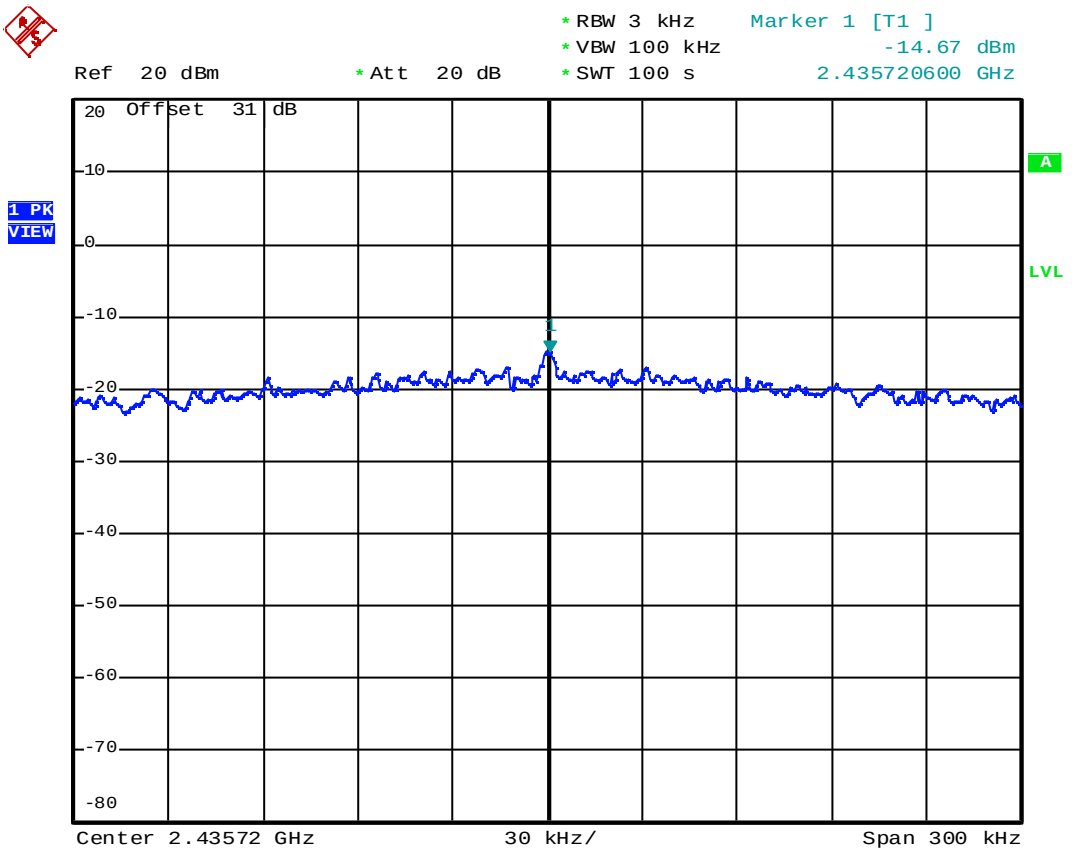


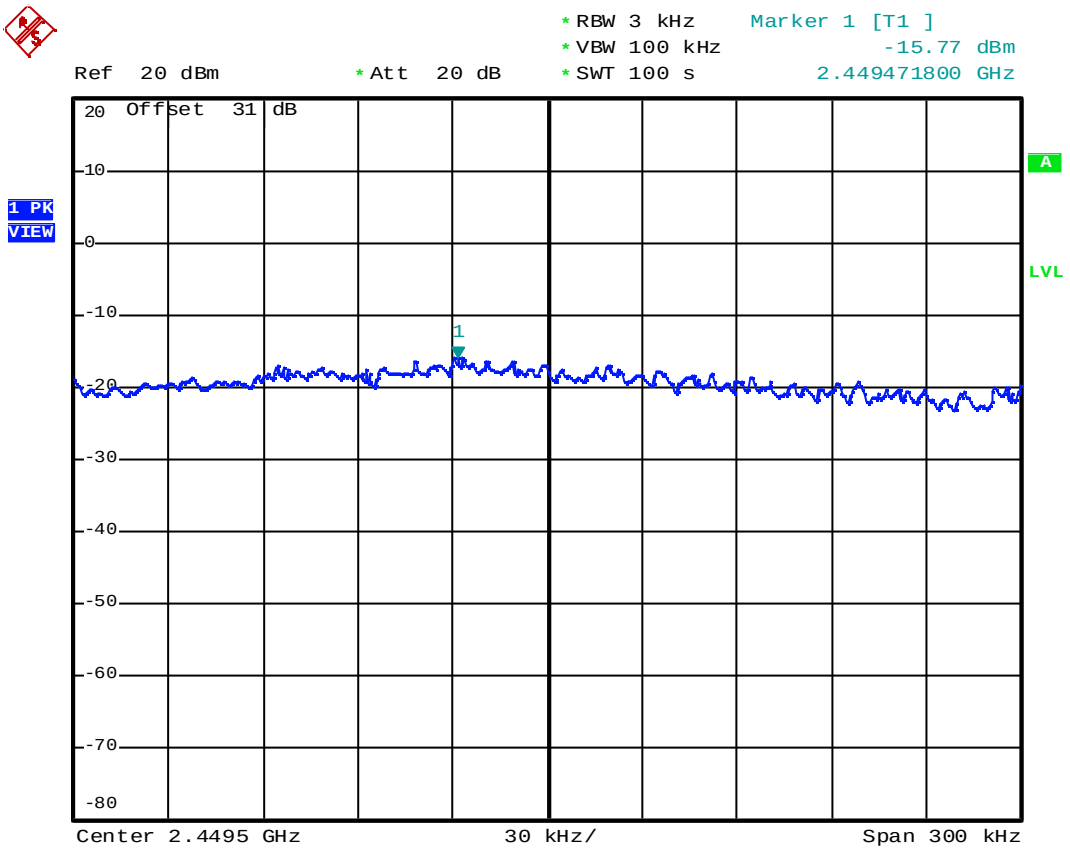

*RBW 3 kHz
*VBW 100 kHz
*SWT 100 s
Marker 1 [T1]
-15.75 dBm
2.439449000 GHz
Ref 20 dBm
*Att 20 dB
Offset 31 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
1 PK
VIEW
A
LVL
Center 2.4395 GHz
30 kHz/
Span 300 kHz


*RBW 3 kHz
*VBW 100 kHz
*SWT 100 s
Marker 1 [T1]
-16.69 dBm
2.454470600 GHz
Ref 20 dBm
*Att 20 dB
Offset 30 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1 PK
VIEW
A
LVL
1
Center 2.454461 GHz
30 kHz/
Span 300 kHz

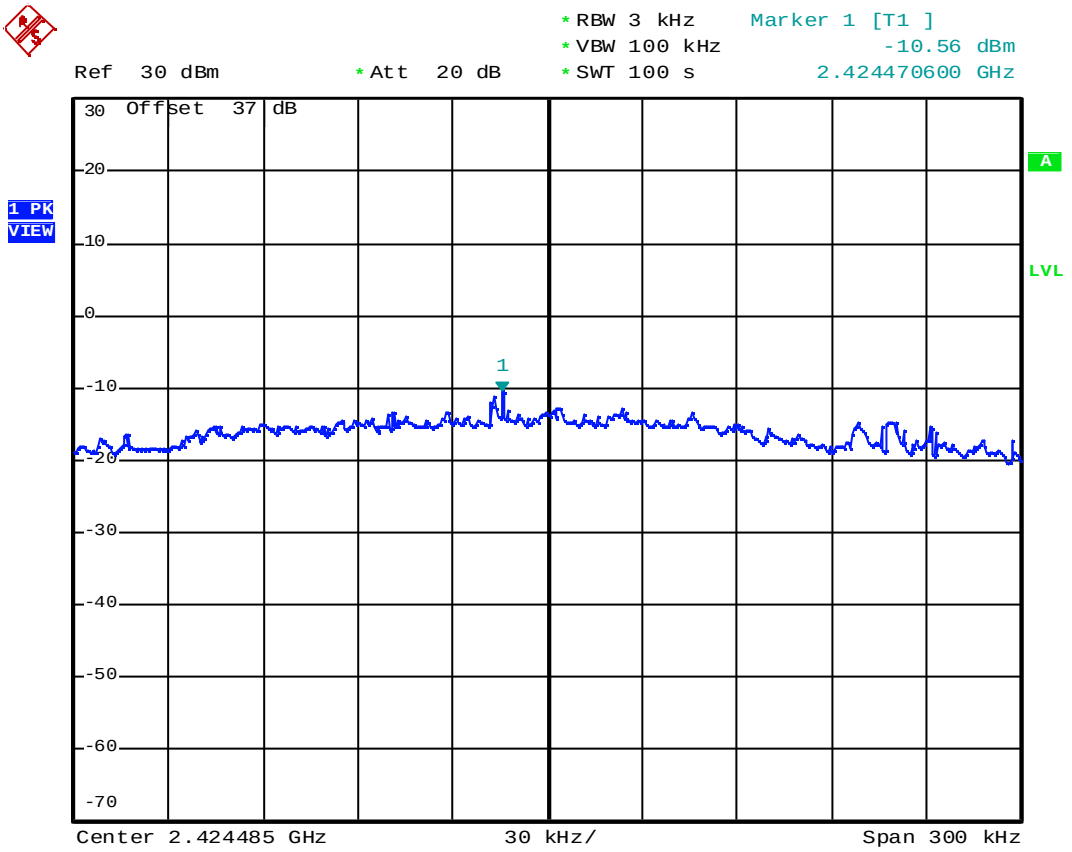
802.11n 40M-Antenna 2

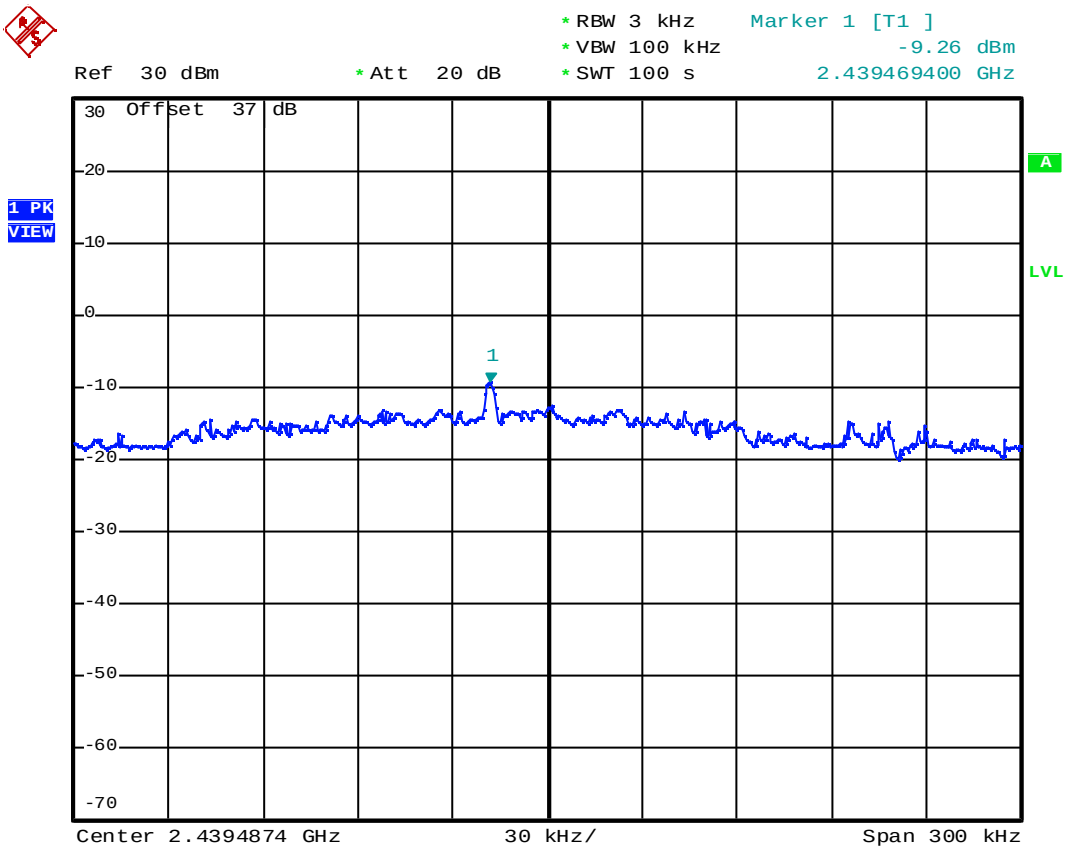


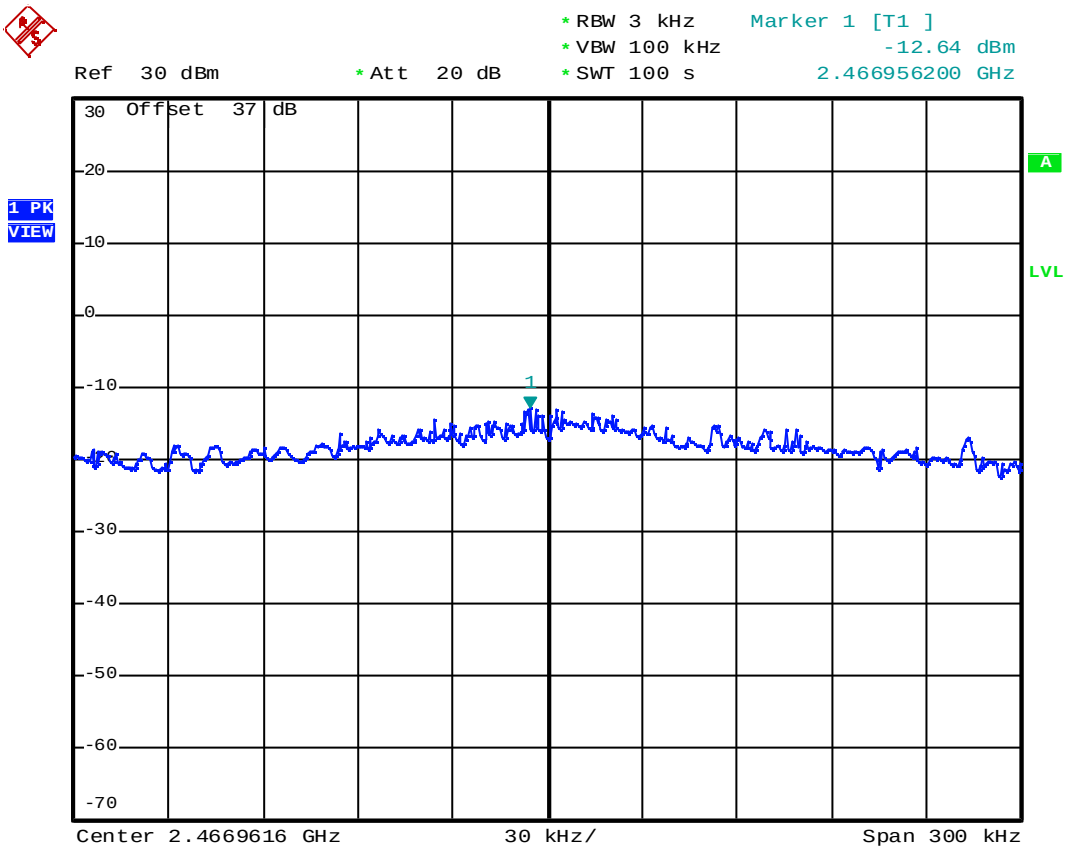

*RBW 3 kHz
*VBW 100 kHz
*SWT 100 s
Marker 1 [T1]
-14.67 dBm
2.435720600 GHz
Ref 20 dBm
*Att 20 dB
Offset 31 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1 PK
VIEW
A
LVL
Center 2.43572 GHz
30 kHz/
Span 300 kHz


*RBW 3 kHz
Marker 1 [T1]
*VBW 100 kHz
-15.77 dBm
Ref 20 dBm
*Att 20 dB
*SWT 100 s
2.449471800 GHz
20 Offset 31 dB
1 PK
VIEW
A
LVL
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Center 2.4495 GHz
30 kHz/
Span 300 kHz

802.11n 40M Combined




*RBW 3 kHz
Marker 1 [T1]
*VBW 100 kHz
-9.26 dBm
Ref 30 dBm
*Att 20 dB
*SWT 100 s
2.439469400 GHz
30 Offset 37 dB
1 PK
VIEW
A
LVL
1
20
10
0
-10
-20
-30
-40
-50
-60
-70
Center 2.4394874 GHz
30 kHz/
Span 300 kHz


*RBW 3 kHz
*VBW 100 kHz
*SWT 100 s
Marker 1 [T1]
-12.64 dBm
2.466956200 GHz
Ref 30 dBm
*Att 20 dB
30 Offset 37 dB
1 PK
VIEW
A
LVL
20
10
0
-10
-30
-40
-50
-60
-70
Center 2.4669616 GHz
30 kHz/
Span 300 kHz

11. OUT-OF-BAND CONDUCTED EMISSION MEASUREMENT

11.1 Standard Applicable

According to 15.247(c), in any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required.

11.2 Measurement Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT as shown in figure 4 without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range and make sure the instrument is operated in its linear range.
3. Use the following spectrum analyzer settings:
   Span = wide enough to capture the peak level of the in-band emission and all spurious emissions (e.g., harmonics) from the lowest frequency generated in the EUT up through the 10th harmonic. Typically, several plots are required to cover this entire span.
   RBW = 100 kHz
   VBW ≥ RBW
   Sweep = auto
   Detector function = peak
   Trace = max hold.
4. Allow the trace to stabilize. Set the marker on the peak of any spurious emission recorded. Plot the result on the screen of spectrum analyzer.
5. Repeat above procedures until all measured frequencies were complete.

11.3 Measurement Equipment

Equipment	Manufacturer	Model No.	Calibration Date	Next Cal. Date
Spectrum Analyzer	Rohde & Schwarz	FSP40	2009/09/10	2010/09/09

11.4 Measurement Data

Test Date : Jun. 03, 2010 Temperature : 23 °C Humidity : 68 %

A 802.11b

Model : Channel Low

a) 1 GHz to 3 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.
b) 3 GHz to 25 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.

Model : Channel Mid

a) 1 GHz to 3 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.
b) 3 GHz to 25 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.

Model : Channel High

a) 1 GHz to 3 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.
b) 3 GHz to 25 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.

Test Date : Jun. 03, 2010 Temperature : 23 °C Humidity : 68 %

B 802.11g

Model : Channel Low

a) 1 GHz to 3 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.
b) 3 GHz to 25 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.

Model : Channel Mid

a) 1 GHz to 3 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.
b) 3 GHz to 25 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.

Model : Channel High

a) 1 GHz to 3 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.
b) 3 GHz to 25 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.

Test Date : Jun. 03, 2010 Temperature : 23 °C Humidity : 68 %

C 802.11n HT-20-Antenna 1

Model : Channel Low

a) 1 GHz to 3 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.
b) 3 GHz to 25 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.

Model : Channel Mid

a) 1 GHz to 3 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.
b) 3 GHz to 25 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.

Model : Channel High

a) 1 GHz to 3 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.
b) 3 GHz to 25 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.

Test Date : Jun. 03, 2010 Temperature : 23 °C Humidity : 68 %

D 802.11n HT-20-Antenna 2

Model : Channel Low

a) 1 GHz to 3 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.
b) 3 GHz to 25 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.

Model : Channel Mid

a) 1 GHz to 3 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.
b) 3 GHz to 25 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.

Model : Channel High

a) 1 GHz to 3 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.
b) 3 GHz to 25 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.

Test Date : Jun. 03, 2010 Temperature : 23 °C Humidity : 68 %

E 802.11n HT-20 Combined

Model : Channel Low

a) 1 GHz to 3 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.
b) 3 GHz to 25 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.

Model : Channel Mid

a) 1 GHz to 3 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.
b) 3 GHz to 25 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.

Model : Channel High

a) 1 GHz to 3 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.
b) 3 GHz to 25 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.

Test Date : Jun. 03, 2010 Temperature : 23 °C Humidity : 68 %

F 802.11n HT-40-Antenna 1

Model : Channel Low

a) 1 GHz to 3 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.
b) 3 GHz to 25 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.

Model : Channel Mid

a) 1 GHz to 3 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.
b) 3 GHz to 25 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.

Model : Channel High

a) 1 GHz to 3 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.
b) 3 GHz to 25 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.

Test Date : Jun. 03, 2010 Temperature : 23 °C Humidity : 68 %

G 802.11n HT-40-Antenna 2

Model : Channel Low

c) 1 GHz to 3 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.
d) 3 GHz to 25 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.

Model : Channel Mid

c) 1 GHz to 3 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.
d) 3 GHz to 25 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.

Model : Channel High

c) 1 GHz to 3 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.
d) 3 GHz to 25 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.

Test Date : Jun. 03, 2010 Temperature : 23 °C Humidity : 68 %

H 802.11n HT-40 Combined

Model : Channel Low

e) 1 GHz to 3 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.
f) 3 GHz to 25 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.

Model : Channel Mid

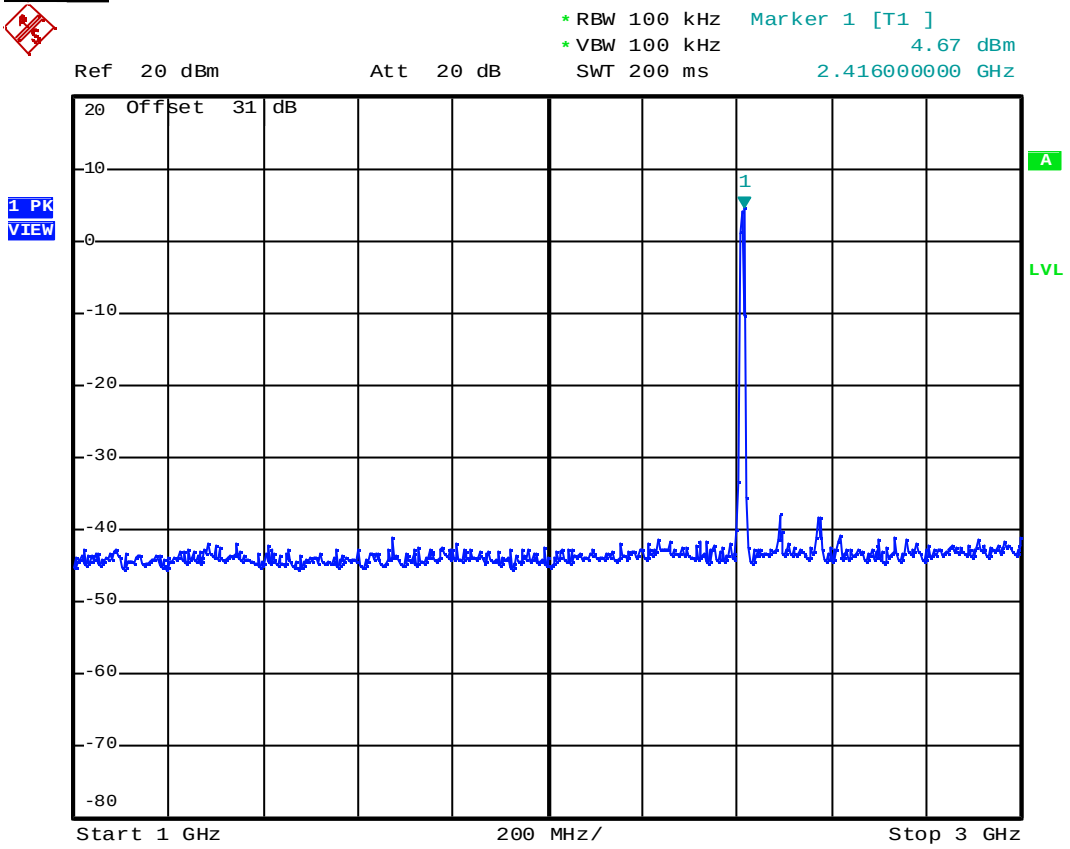
e) 1 GHz to 3 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.
f) 3 GHz to 25 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.

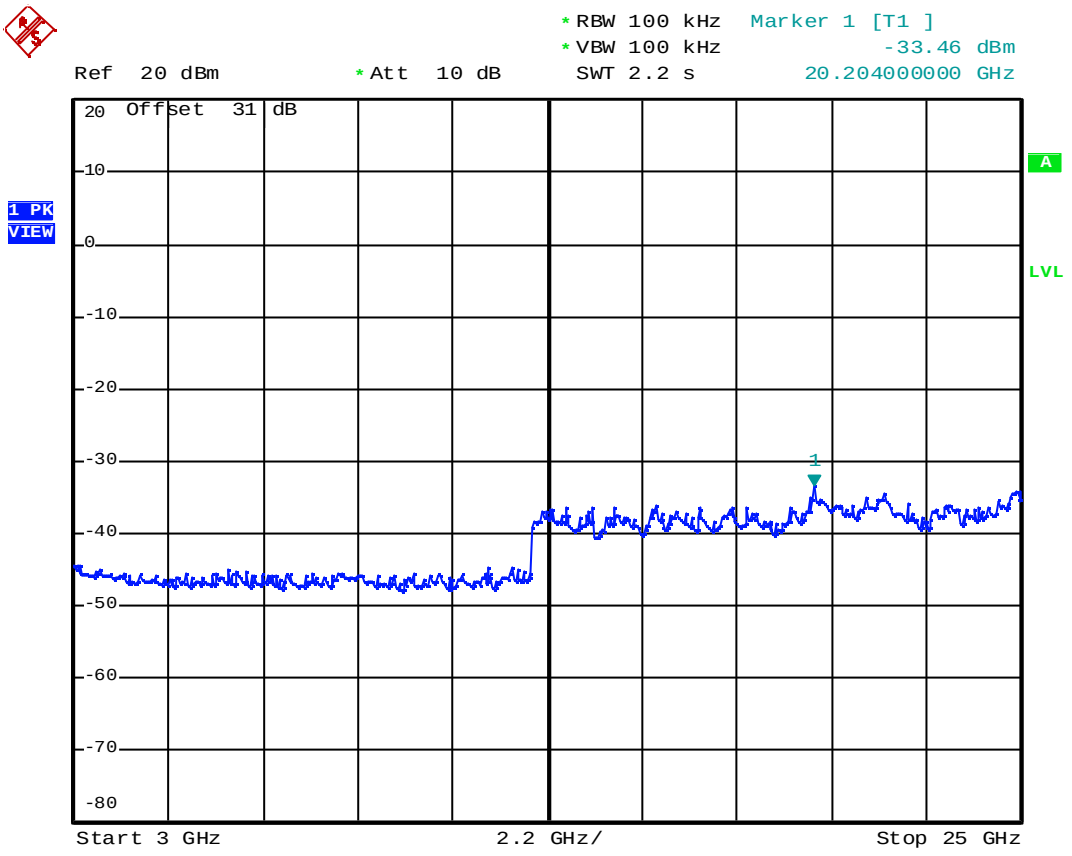
Model : Channel High

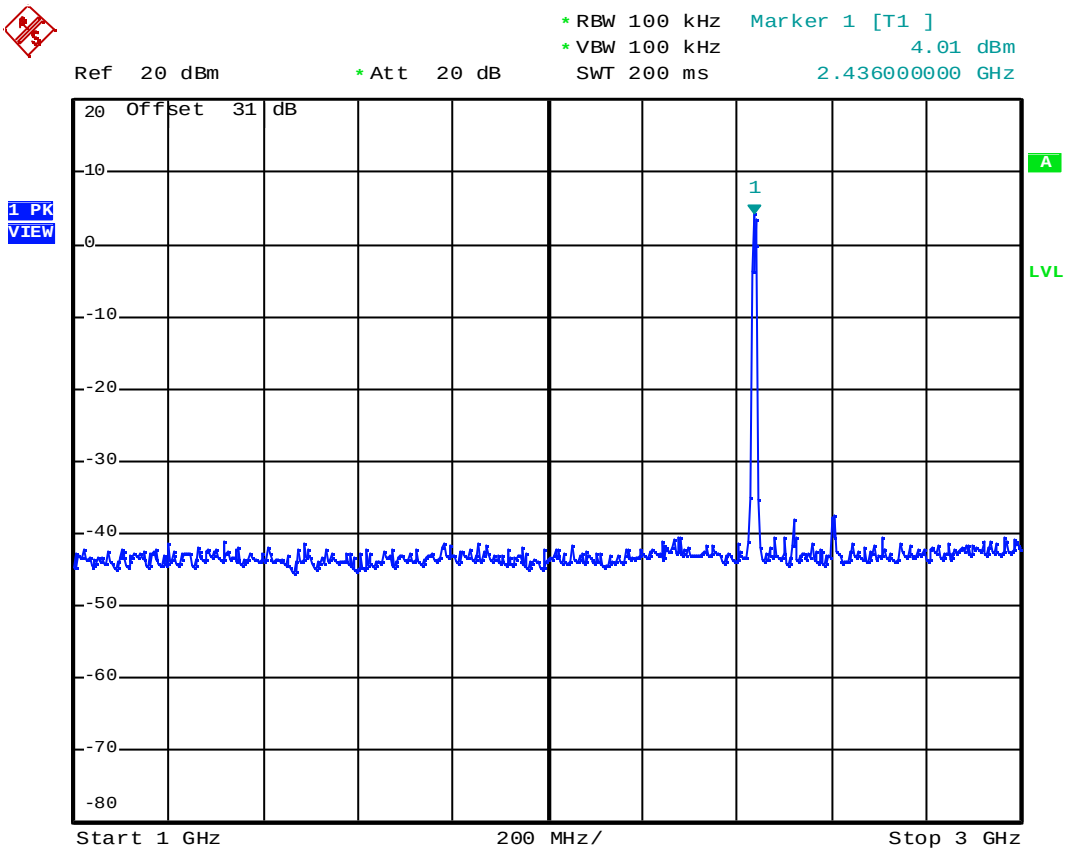
e) 1 GHz to 3 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.
f) 3 GHz to 25 GHz frequency band: All emissions are attenuated more than 20dB from the carrier.

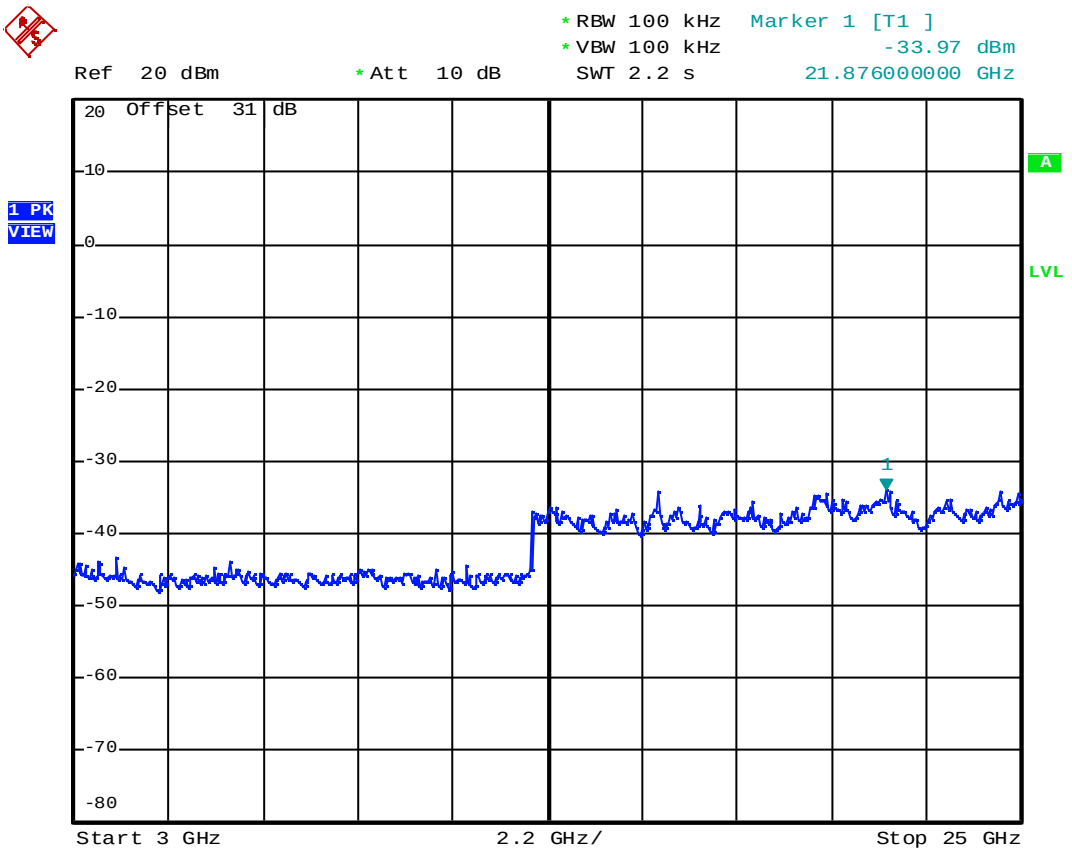
Note : The expanded uncertainty of the out-of-band conducted emission tests is 2dB.

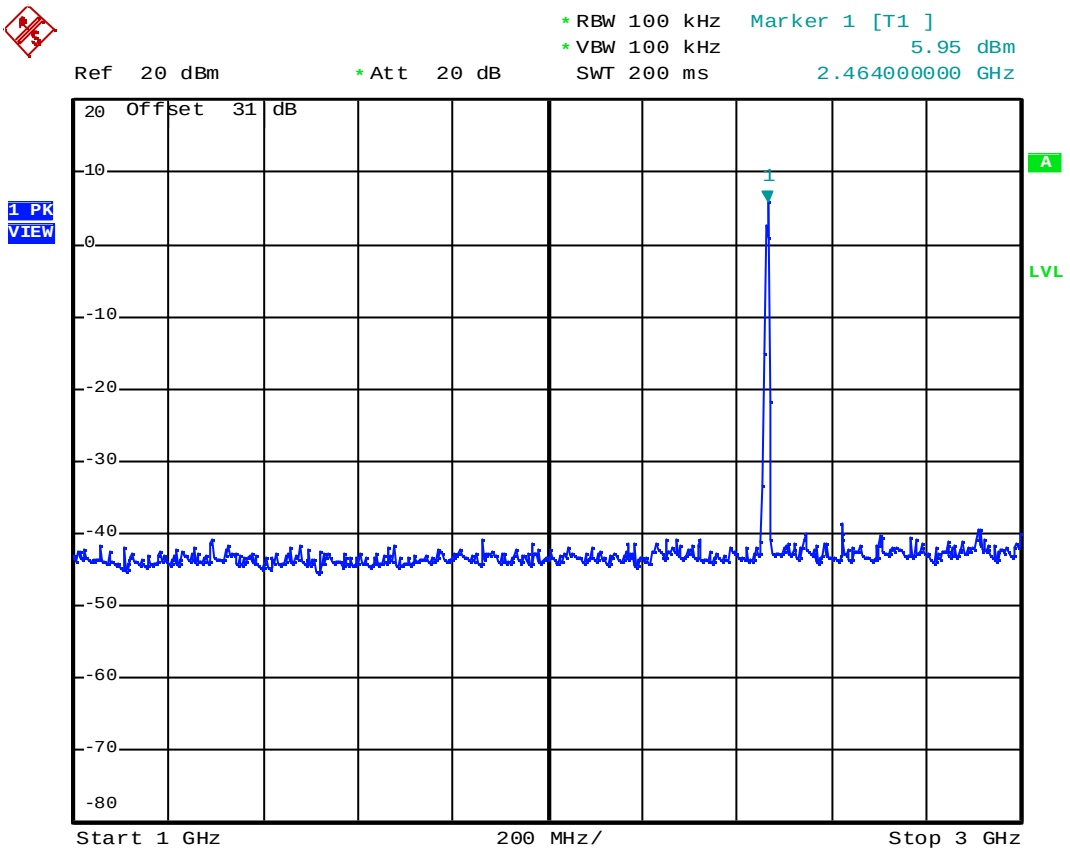
802.11b

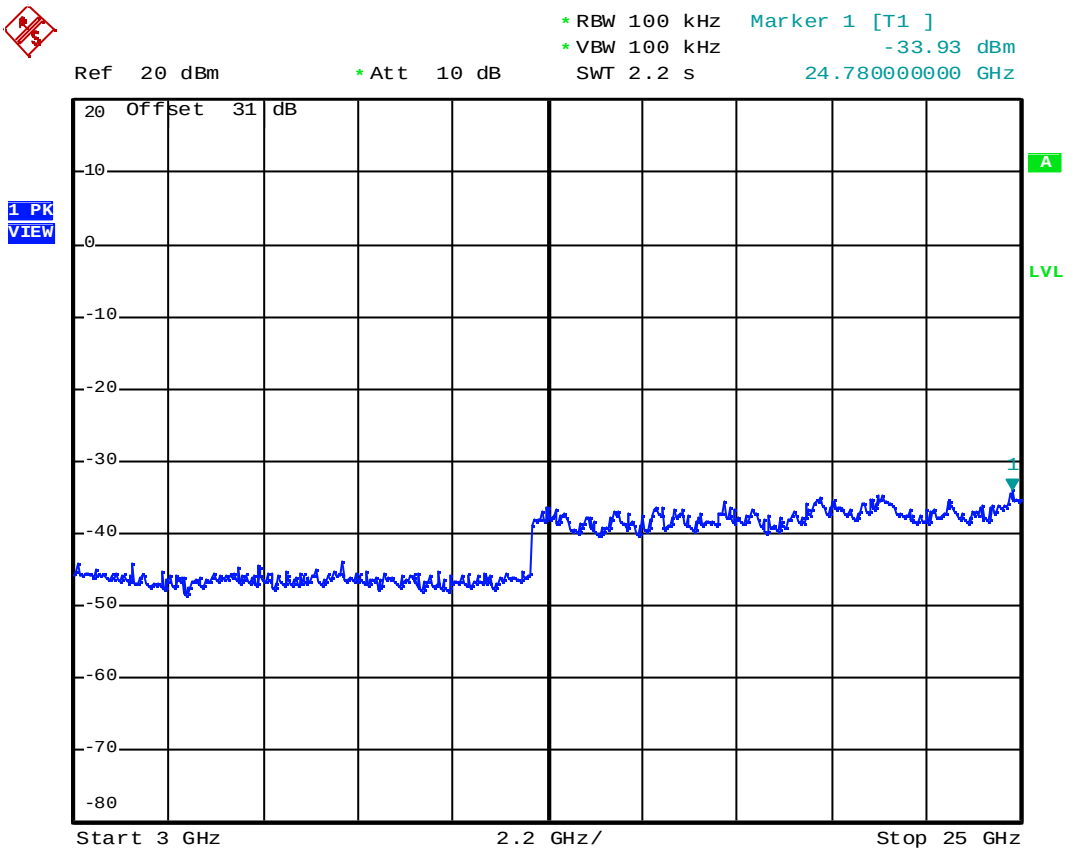

RBW 100 kHz
VBW 100 kHz
SWT 200 ms
Marker 1 [T1]
4.67 dBm
2.416000000 GHz
Ref 20 dBm
Att 20 dB
Offset 31 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1 PK
VIEW
A
LVL
1
Start 1 GHz
200 MHz/
Stop 3 GHz


*RBW 100 kHz
*VBW 100 kHz
SWT 2.2 s
Marker 1 [T1]
-33.46 dBm
20.204000000 GHz
Ref 20 dBm
*Att 10 dB
Offset 31 dB
1 PK
VIEW
A
LVL
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 3 GHz
2.2 GHz/
Stop 25 GHz

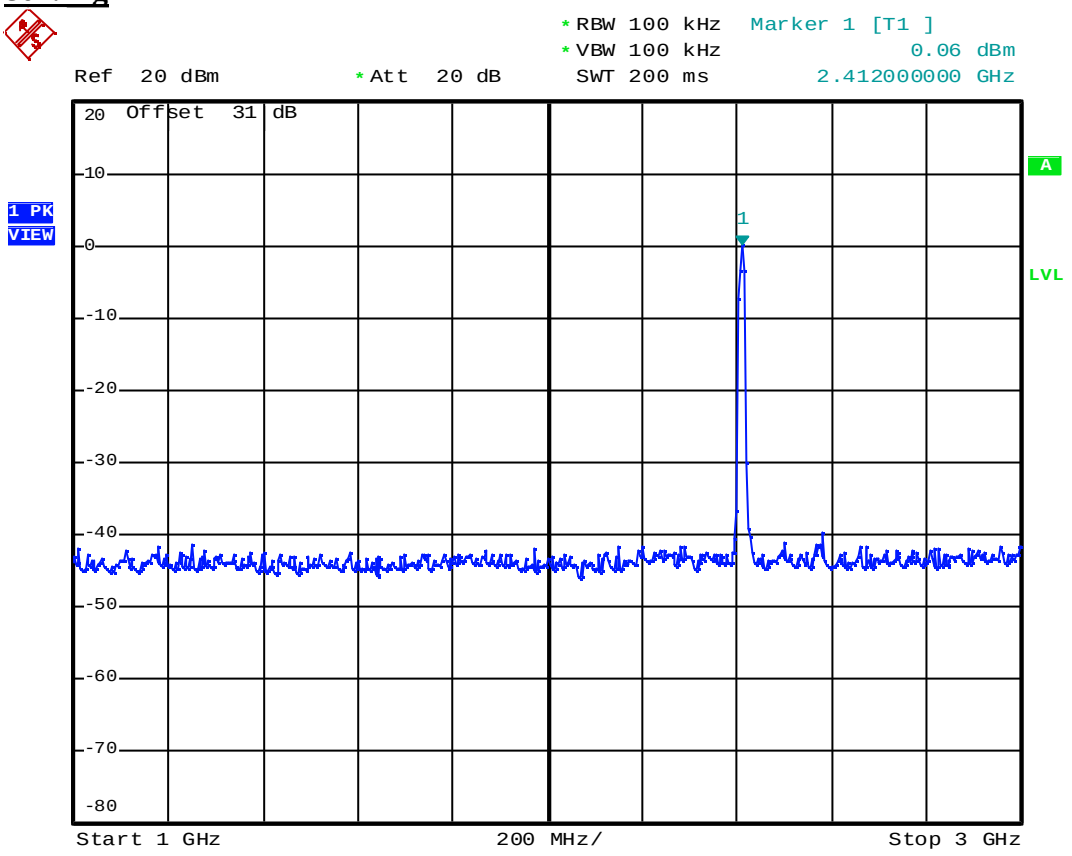

*RBW 100 kHz
*VBW 100 kHz
SWT 200 ms
Marker 1 [T1]
4.01 dBm
2.436000000 GHz
Ref 20 dBm
*Att 20 dB
20 Offset 31 dB
1 PK
VIEW
A
LVL
1
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Start 1 GHz
200 MHz/
Stop 3 GHz

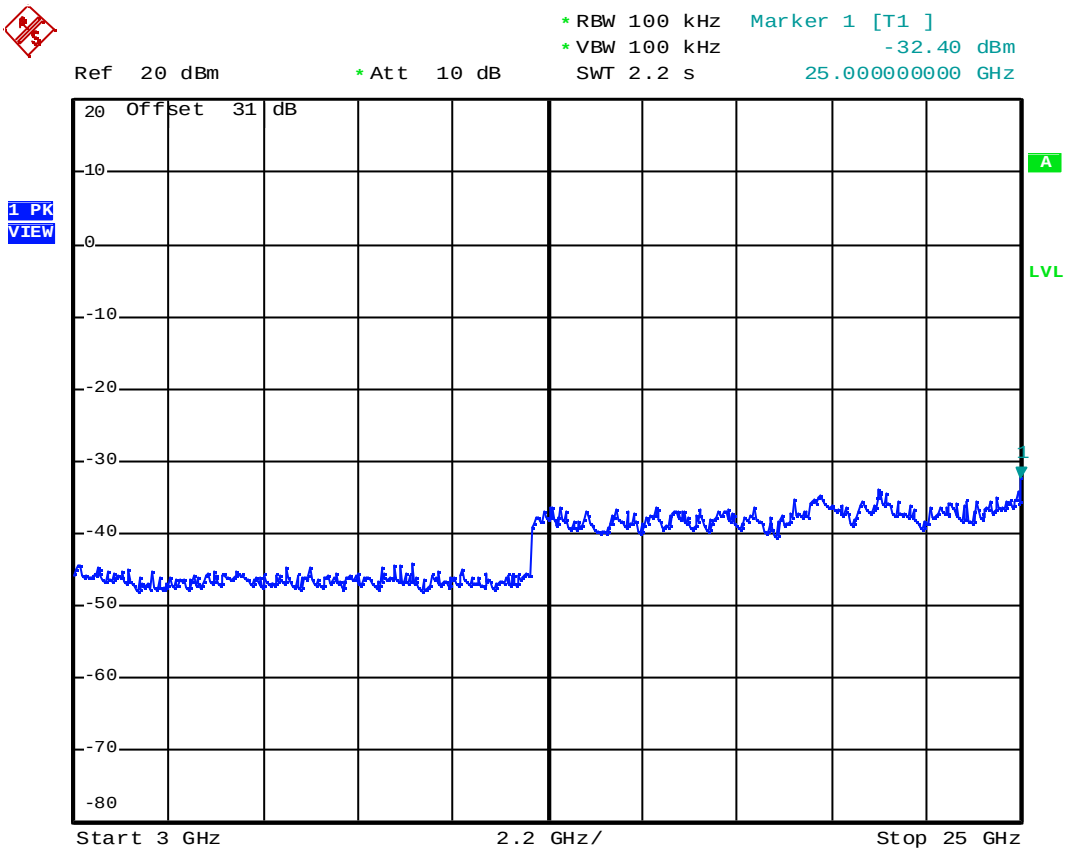

*RBW 100 kHz
*VBW 100 kHz
SWT 2.2 s
Marker 1 [T1]
-33.97 dBm
21.876000000 GHz
Ref 20 dBm
*Att 10 dB
Offset 31 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1 PK
VIEW
A
LVL
1
Start 3 GHz
2.2 GHz/
Stop 25 GHz

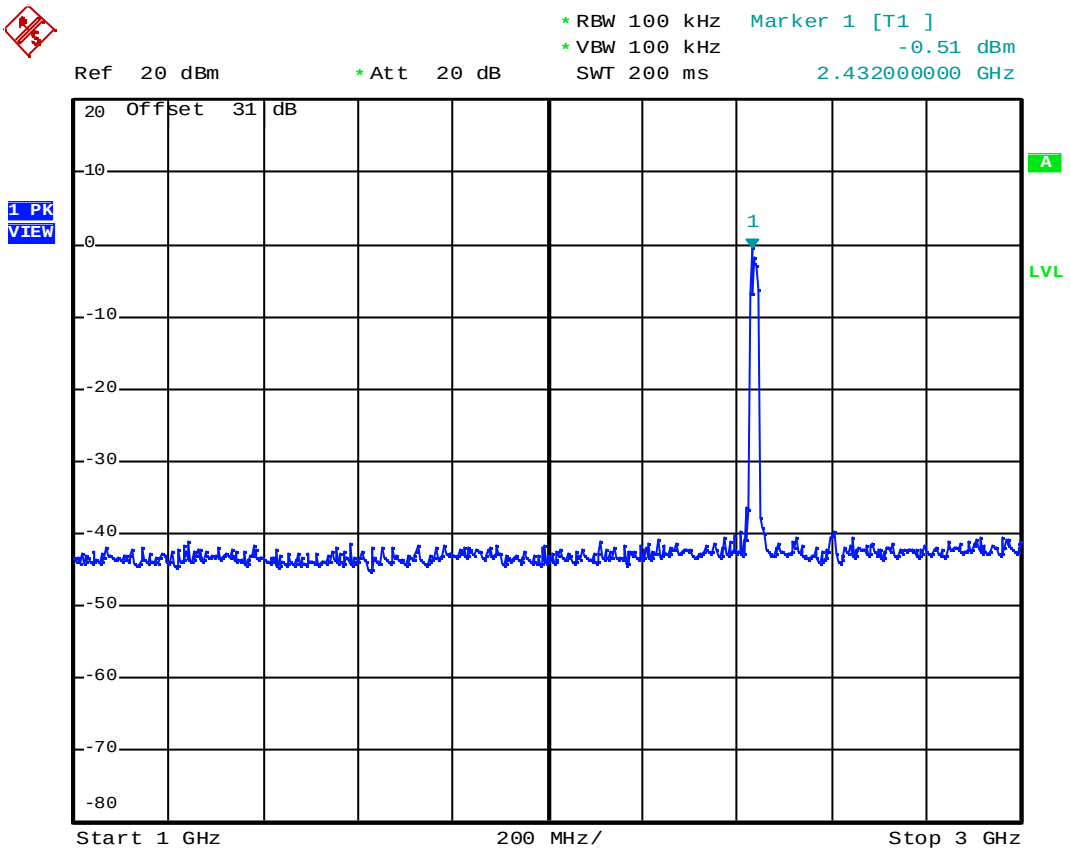

*RBW 100 kHz
*VBW 100 kHz
SWT 200 ms
Marker 1 [T1]
5.95 dBm
2.464000000 GHz
Ref 20 dBm
*Att 20 dB
20 Offset 31 dB
1 PK
VIEW
A
LVL
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Start 1 GHz
200 MHz/
Stop 3 GHz

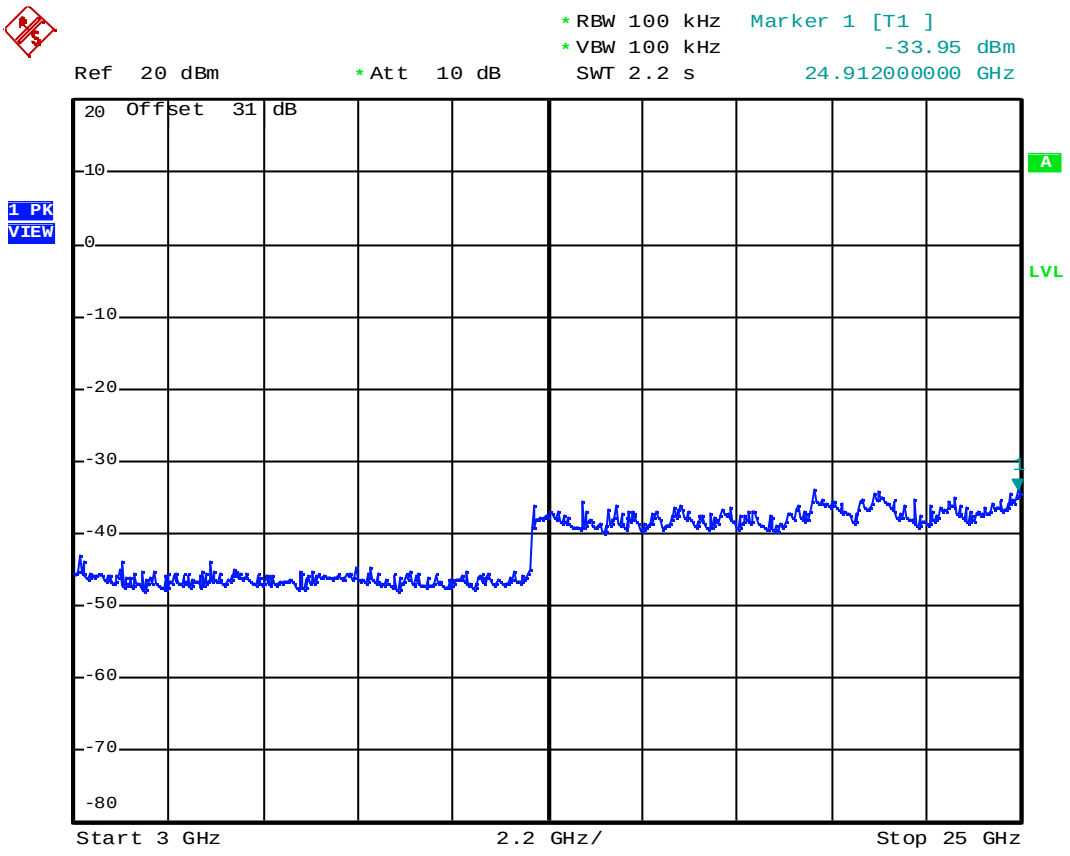

*RBW 100 kHz
*VBW 100 kHz
Marker 1 [T1]
-33.93 dBm
24.780000000 GHz
Ref 20 dBm
*Att 10 dB
SWT 2.2 s
20 Offset 31 dB
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1 PK
VIEW
A
LVL
Start 3 GHz
2.2 GHz/
Stop 25 GHz

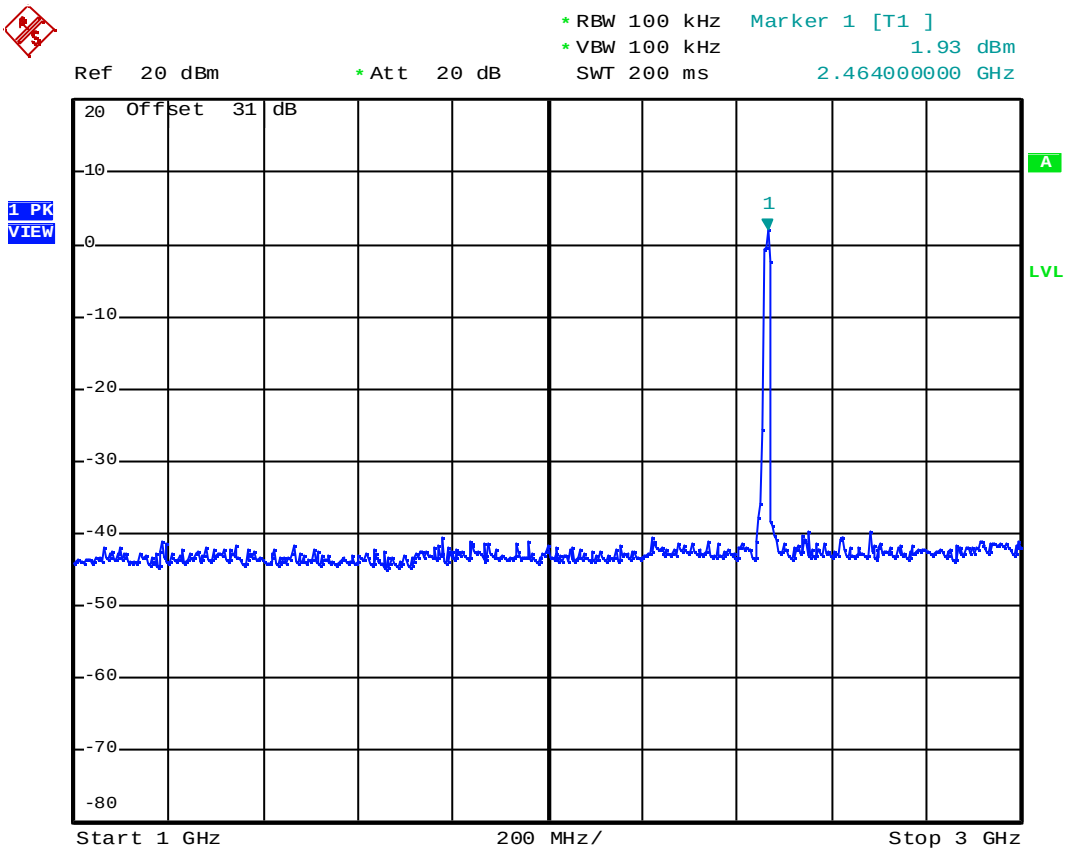
802.11g

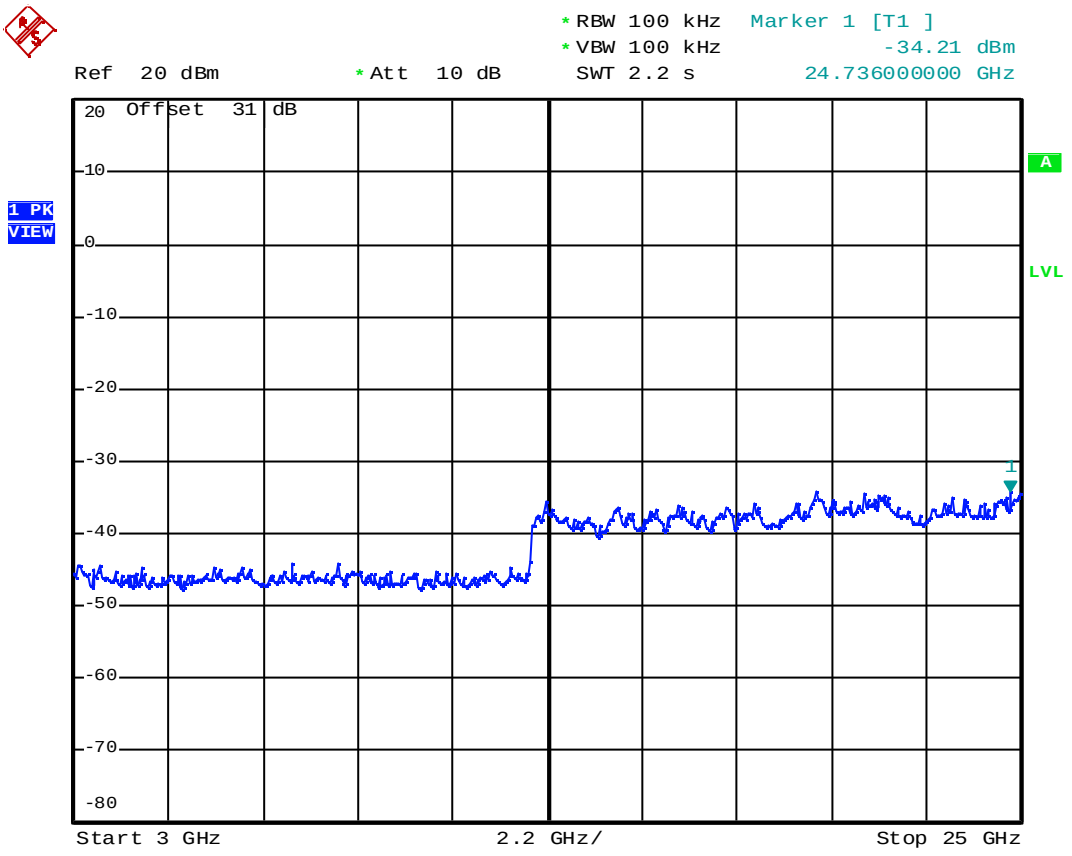

*RBW 100 kHz
Marker 1 [T1]
*VBW 100 kHz
0.06 dBm
Ref 20 dBm
*Att 20 dB
SWT 200 ms
2.412000000 GHz
20 Offset 31 dB
1 PK
VIEW
A
LVL
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Start 1 GHz
200 MHz/
Stop 3 GHz


*RBW 100 kHz
*VBW 100 kHz
Marker 1 [T1]
-32.40 dBm
25.000000000 GHz
Ref 20 dBm
*Att 10 dB
SWT 2.2 s
20 Offset 31 dB
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1 PK
VIEW
A
LVL
1
Start 3 GHz
2.2 GHz/
Stop 25 GHz

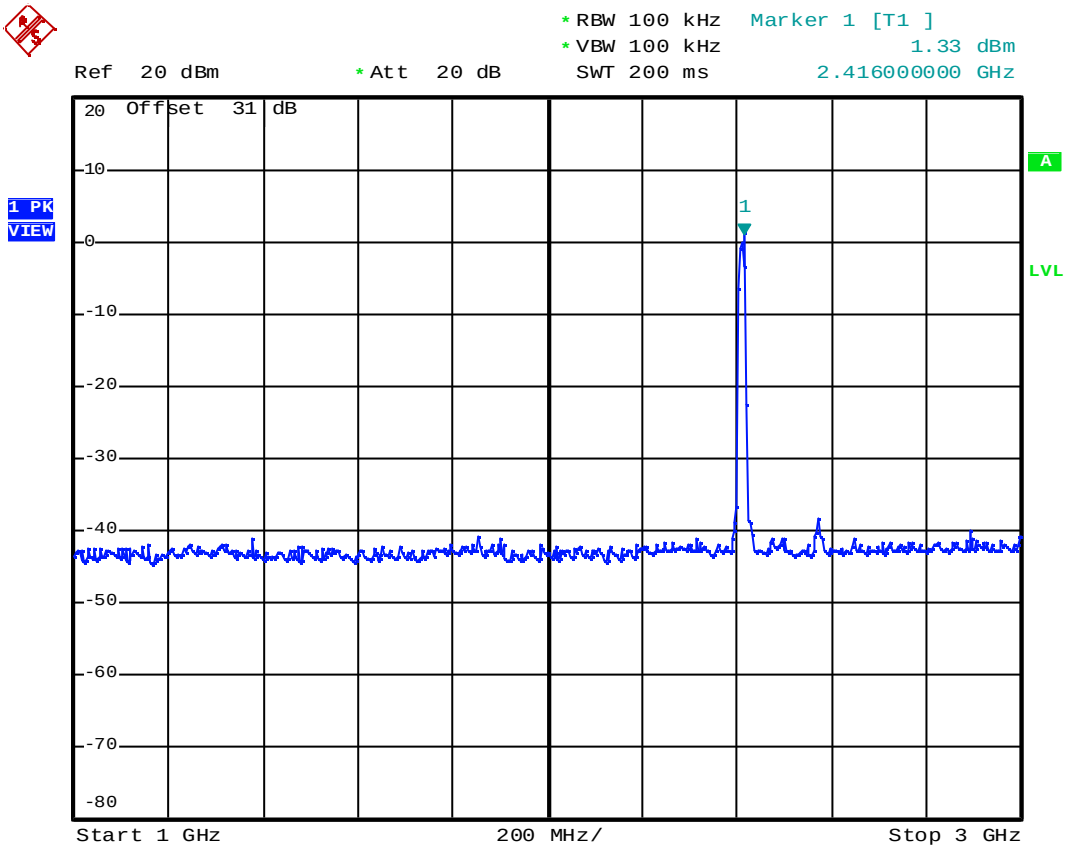

*RBW 100 kHz
*VBW 100 kHz
SWT 200 ms
Marker 1 [T1]
-0.51 dBm
2.432000000 GHz
Ref 20 dBm
*Att 20 dB
Offset 31 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1 PK
VIEW
A
LVL
1
Start 1 GHz
200 MHz/
Stop 3 GHz

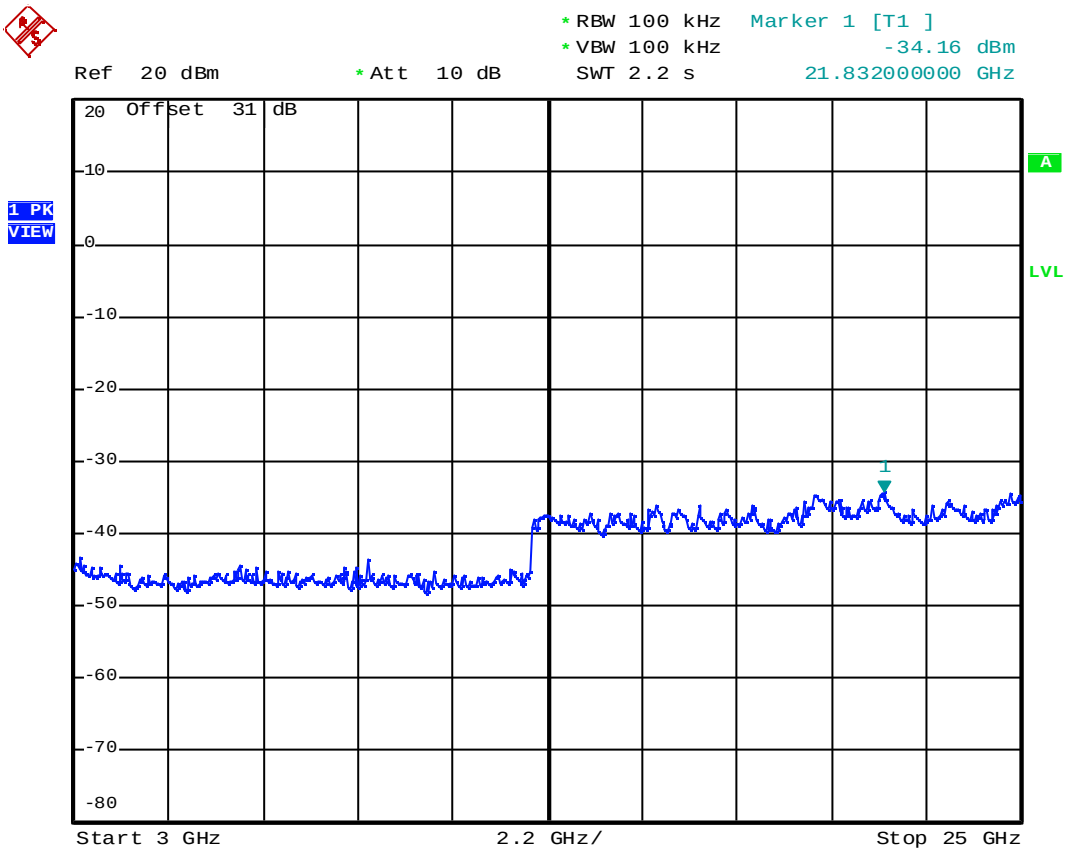

*RBW 100 kHz
*VBW 100 kHz
Marker 1 [T1]
-33.95 dBm
24.912000000 GHz
Ref 20 dBm
*Att 10 dB
SWT 2.2 s
20 Offset 31 dB
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1 PK
VIEW
A
LVL
Start 3 GHz
2.2 GHz/
Stop 25 GHz

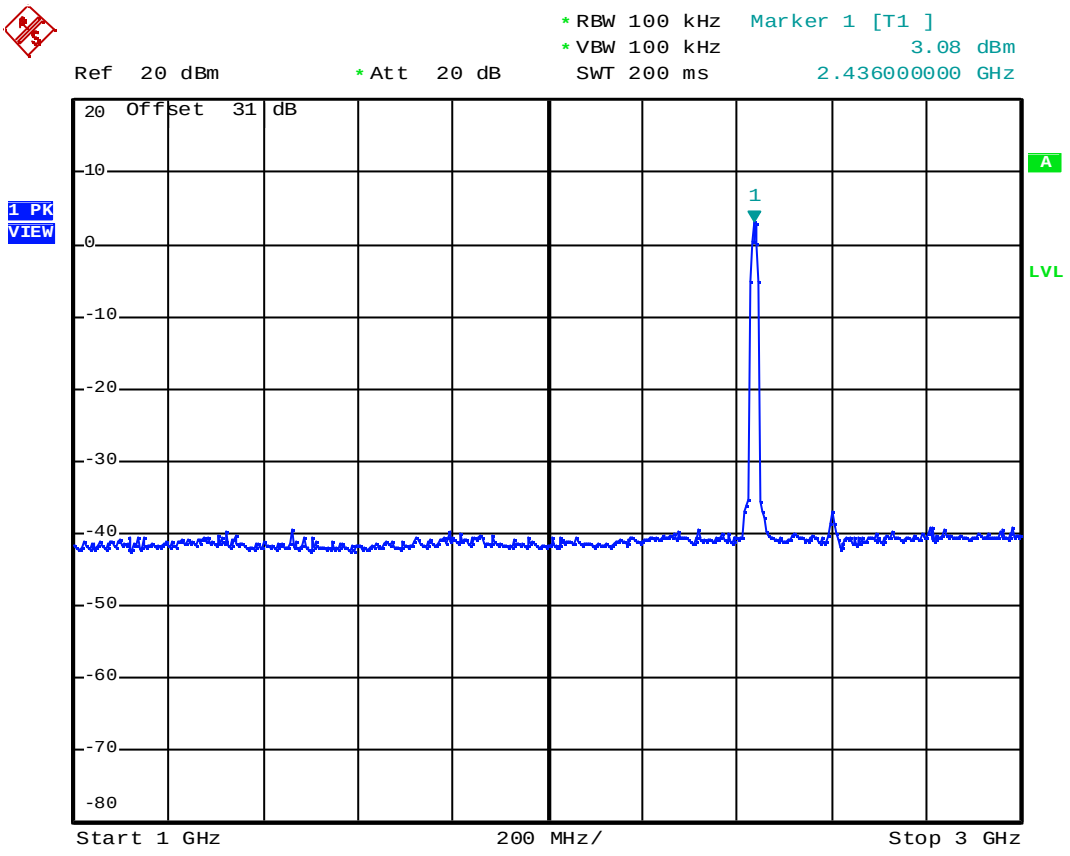

*RBW 100 kHz
Marker 1 [T1]
*VBW 100 kHz
1.93 dBm
Ref 20 dBm
*Att 20 dB
SWT 200 ms
2.464000000 GHz
20 Offset 31 dB
-10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
1 PK
VIEW
A
LVL
Start 1 GHz
200 MHz/
Stop 3 GHz

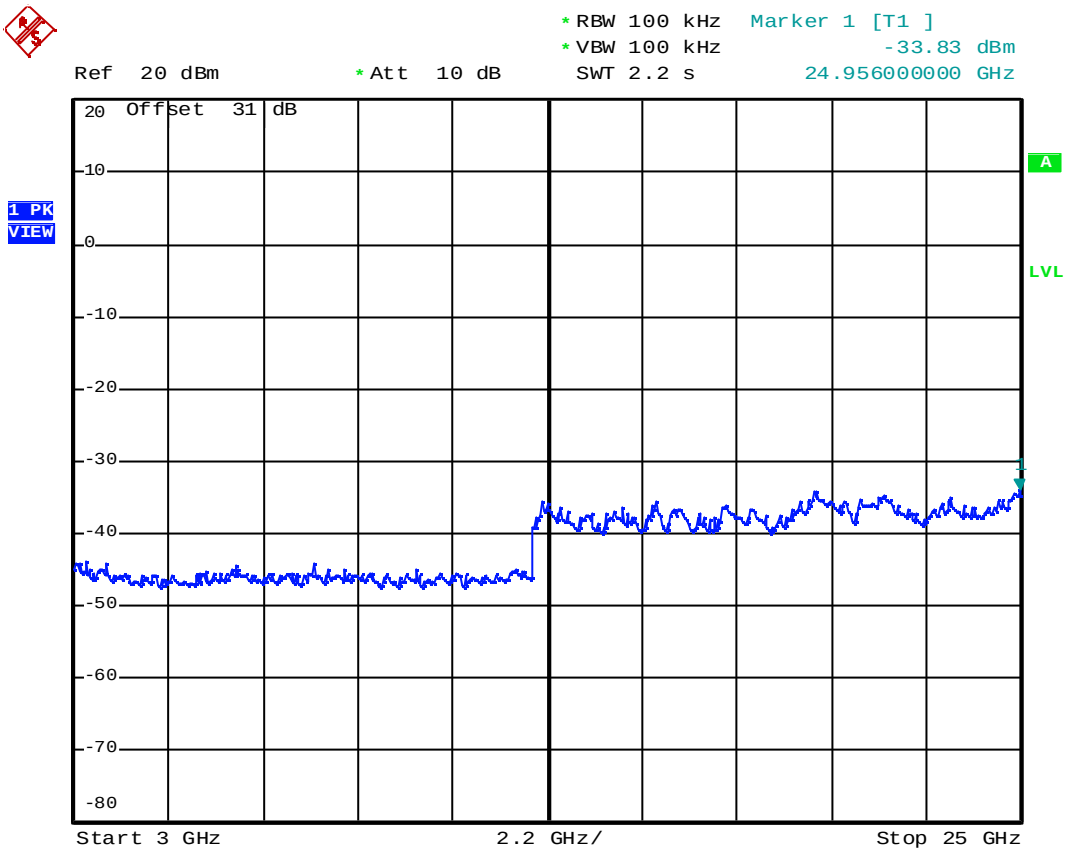

*RBW 100 kHz
*VBW 100 kHz
SWT 2.2 s
Marker 1 [T1]
-34.21 dBm
24.736000000 GHz
Ref 20 dBm
*Att 10 dB
Offset 31 dB
1 PK
VIEW
A
LVL
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Start 3 GHz
2.2 GHz/
Stop 25 GHz

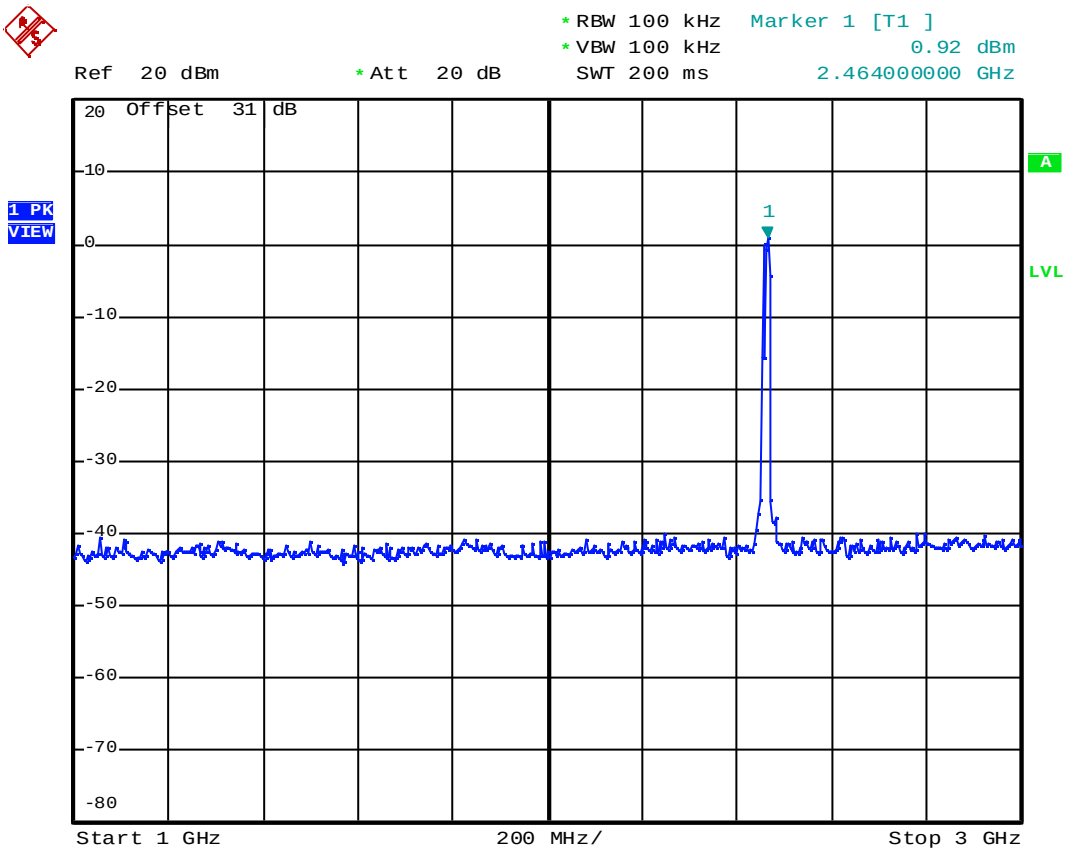
802.11n 20M-Antenna 1

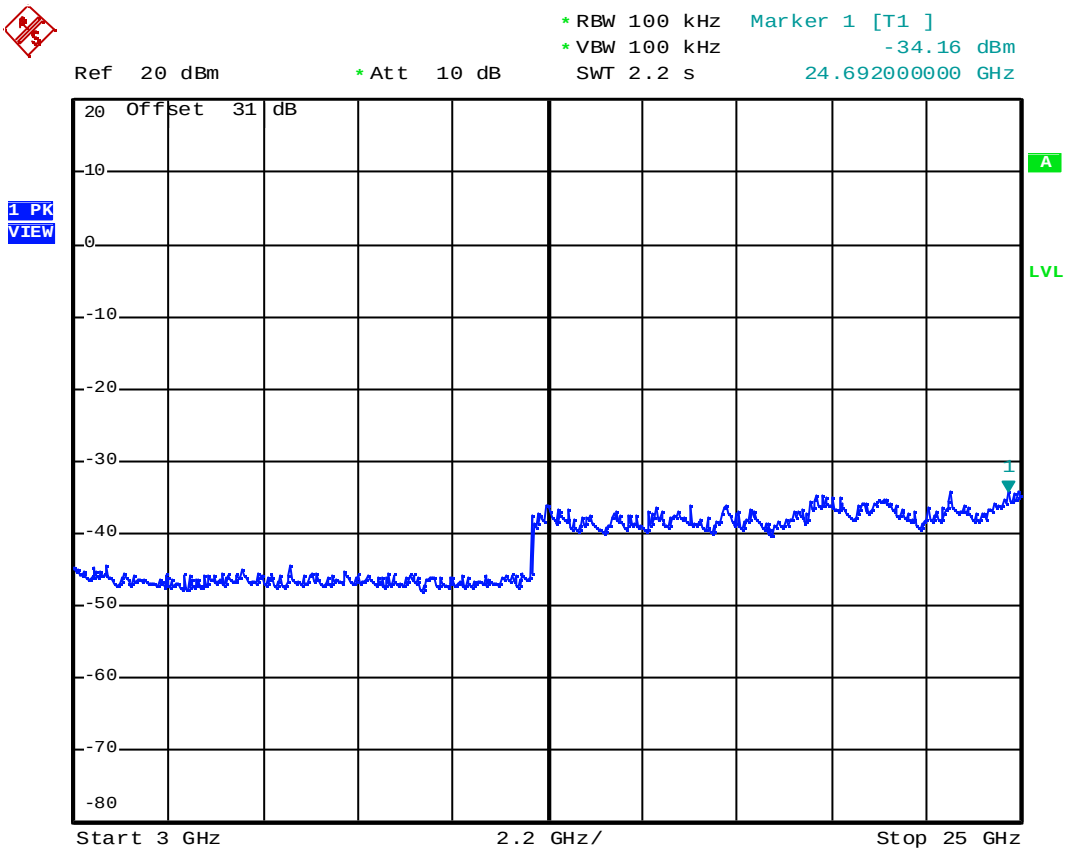



*RBW 100 kHz
Marker 1 [T1]
*VBW 100 kHz
-34.16 dBm
Ref 20 dBm
*Att 10 dB
SWT 2.2 s
21.832000000 GHz
20 Offset 31 dB
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1 PK
VIEW
A
LVL
1
Start 3 GHz
2.2 GHz/
Stop 25 GHz

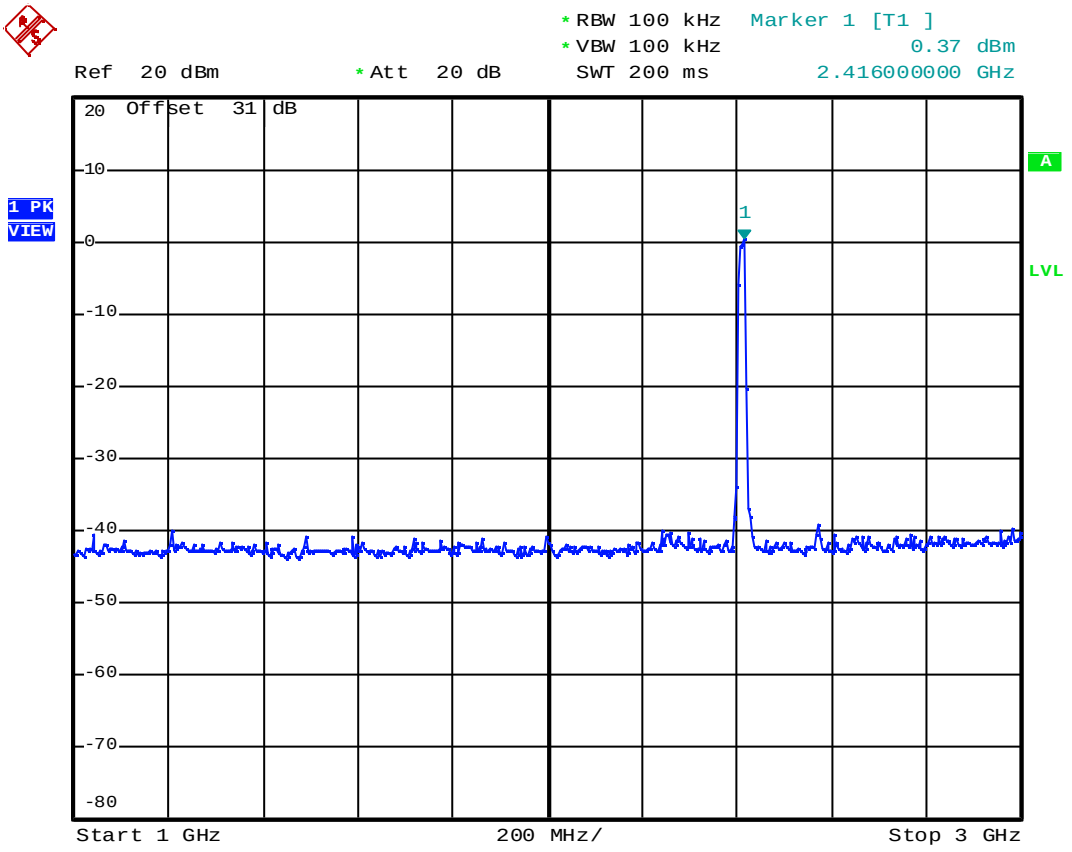

*RBW 100 kHz
*VBW 100 kHz
SWT 200 ms
Marker 1 [T1]
3.08 dBm
2.436000000 GHz
Ref 20 dBm
*Att 20 dB
20 Offset 31 dB
1 PK
VIEW
A
LVL
1
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Start 1 GHz
200 MHz/
Stop 3 GHz

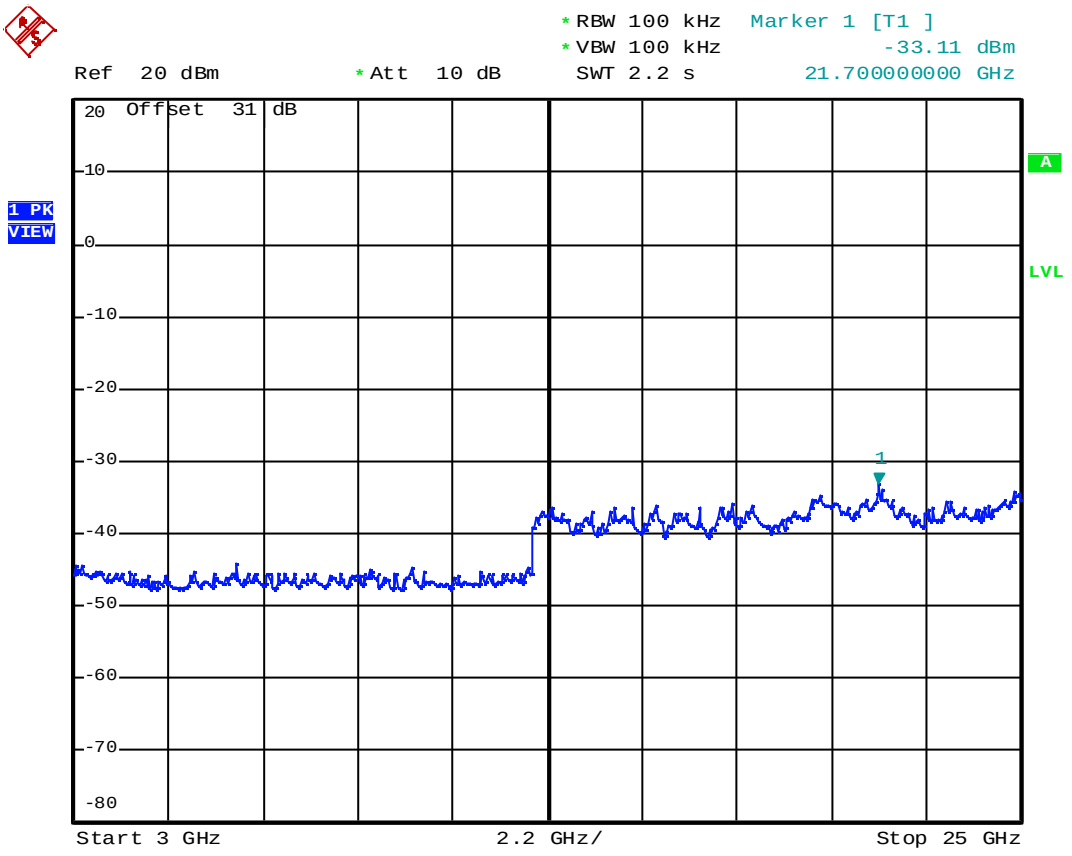

*RBW 100 kHz
*VBW 100 kHz
SWT 2.2 s
Marker 1 [T1]
-33.83 dBm
24.956000000 GHz
Ref 20 dBm
*Att 10 dB
Offset 31 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1 PK
VIEW
A
LVL
Start 3 GHz
2.2 GHz/
Stop 25 GHz

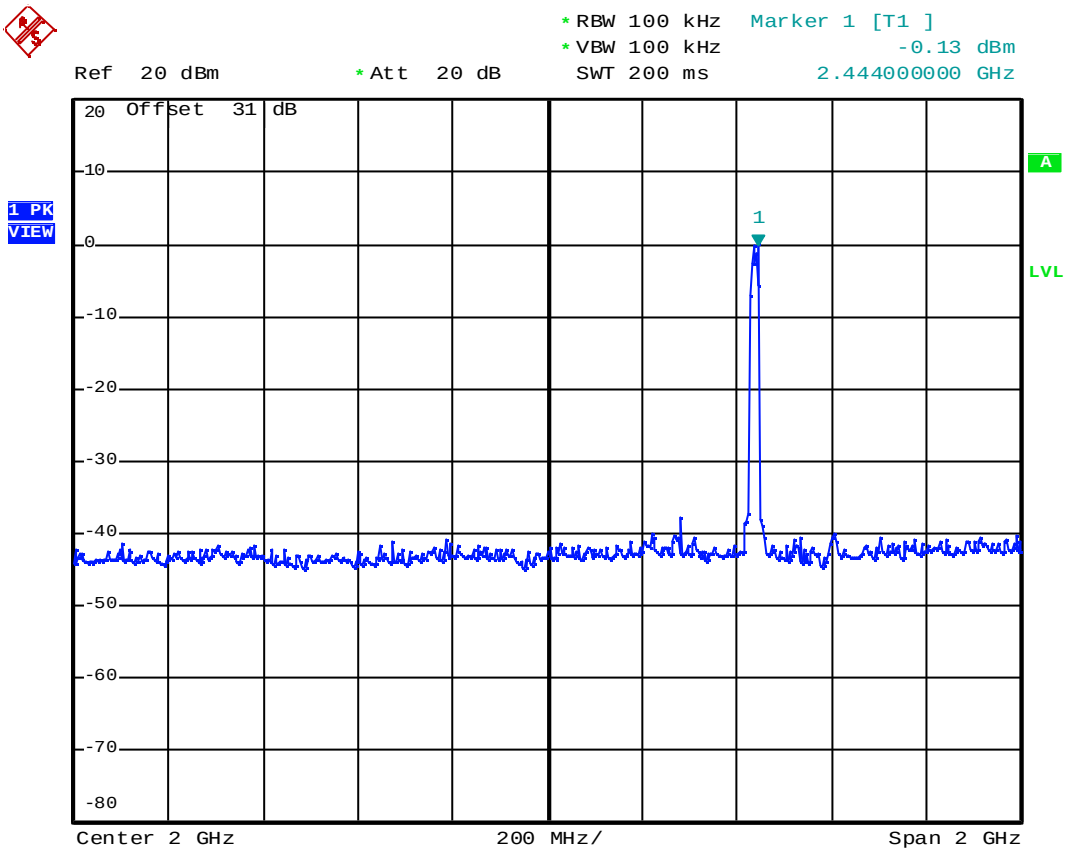

*RBW 100 kHz
*VBW 100 kHz
SWT 200 ms
Marker 1 [T1]
0.92 dBm
2.464000000 GHz
Ref 20 dBm
*Att 20 dB
20 Offset 31 dB
1 PK
VIEW
A
LVL
1
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Start 1 GHz
200 MHz/
Stop 3 GHz

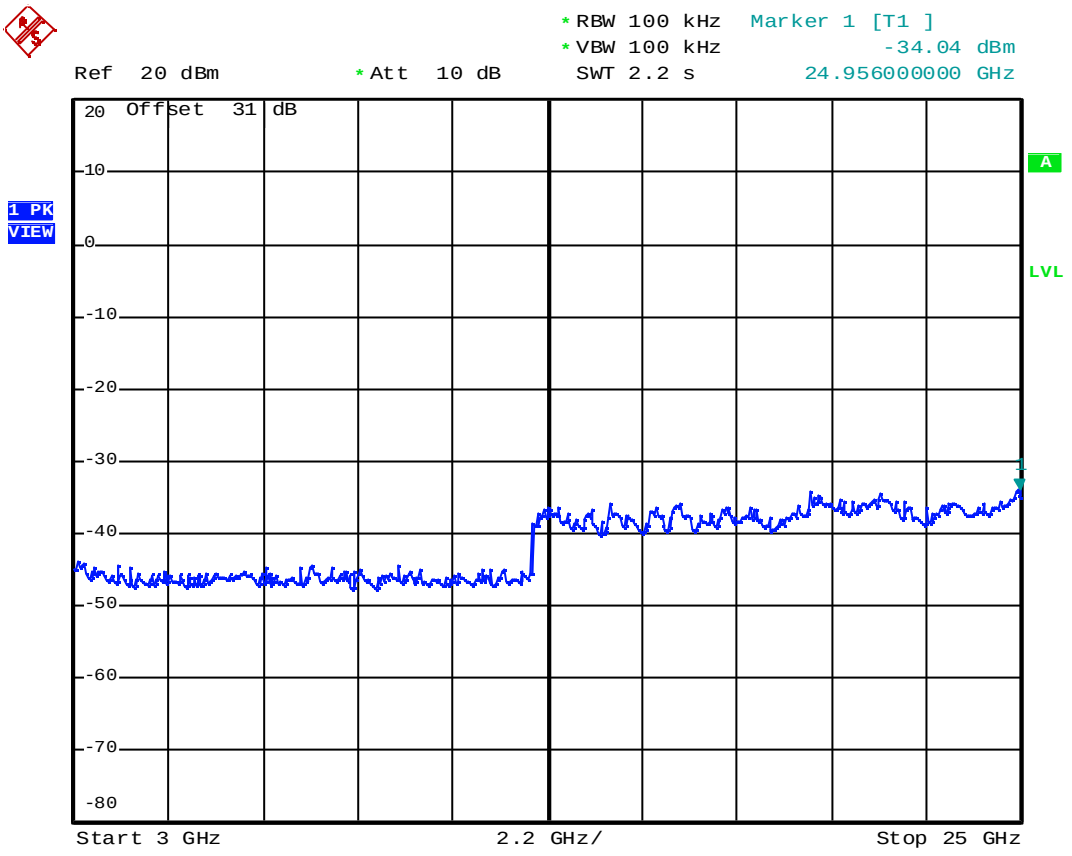

*RBW 100 kHz
*VBW 100 kHz
Marker 1 [T1]
-34.16 dBm
24.692000000 GHz
Ref 20 dBm
*Att 10 dB
SWT 2.2 s
20 Offset 31 dB
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1 PK
VIEW
A
LVL
Start 3 GHz
2.2 GHz/
Stop 25 GHz

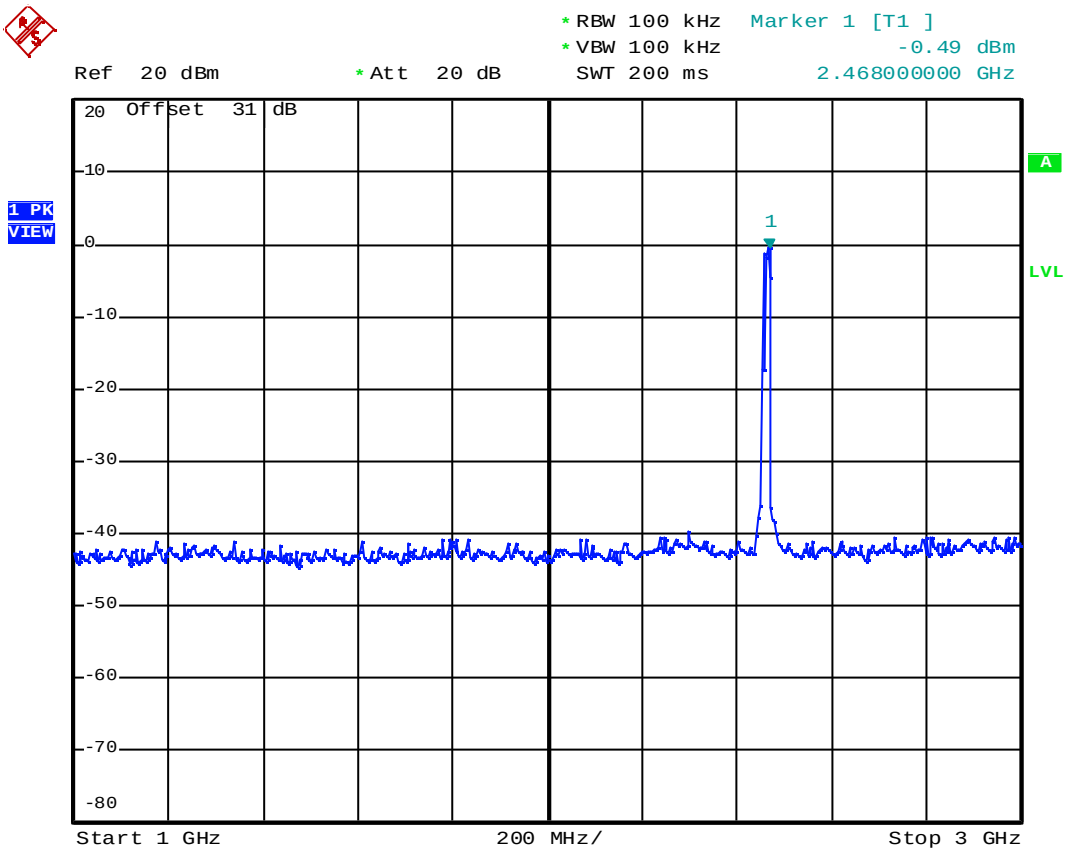
802.11n 20M-Antenna 2

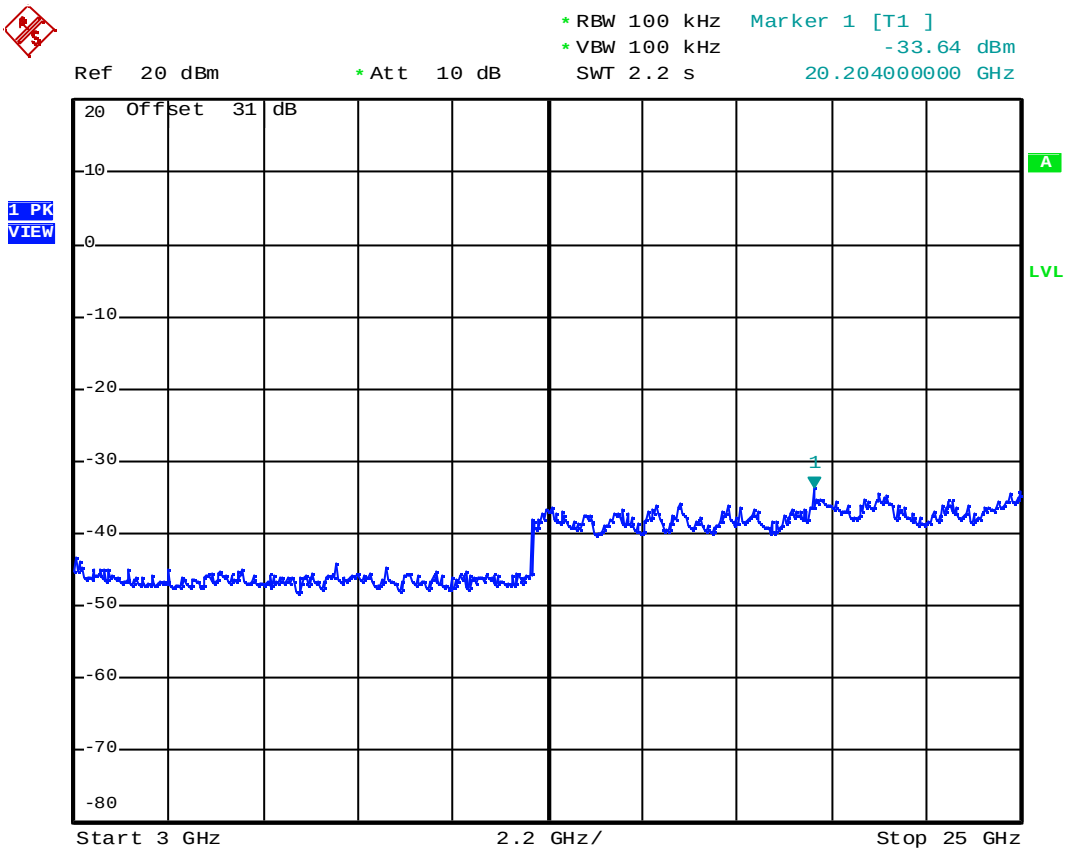



*RBW 100 kHz
*VBW 100 kHz
Marker 1 [T1]
-33.11 dBm
21.700000000 GHz
Ref 20 dBm
*Att 10 dB
SWT 2.2 s
20 Offset 31 dB
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1 PK
VIEW
A
LVL
1
Start 3 GHz
2.2 GHz/
Stop 25 GHz

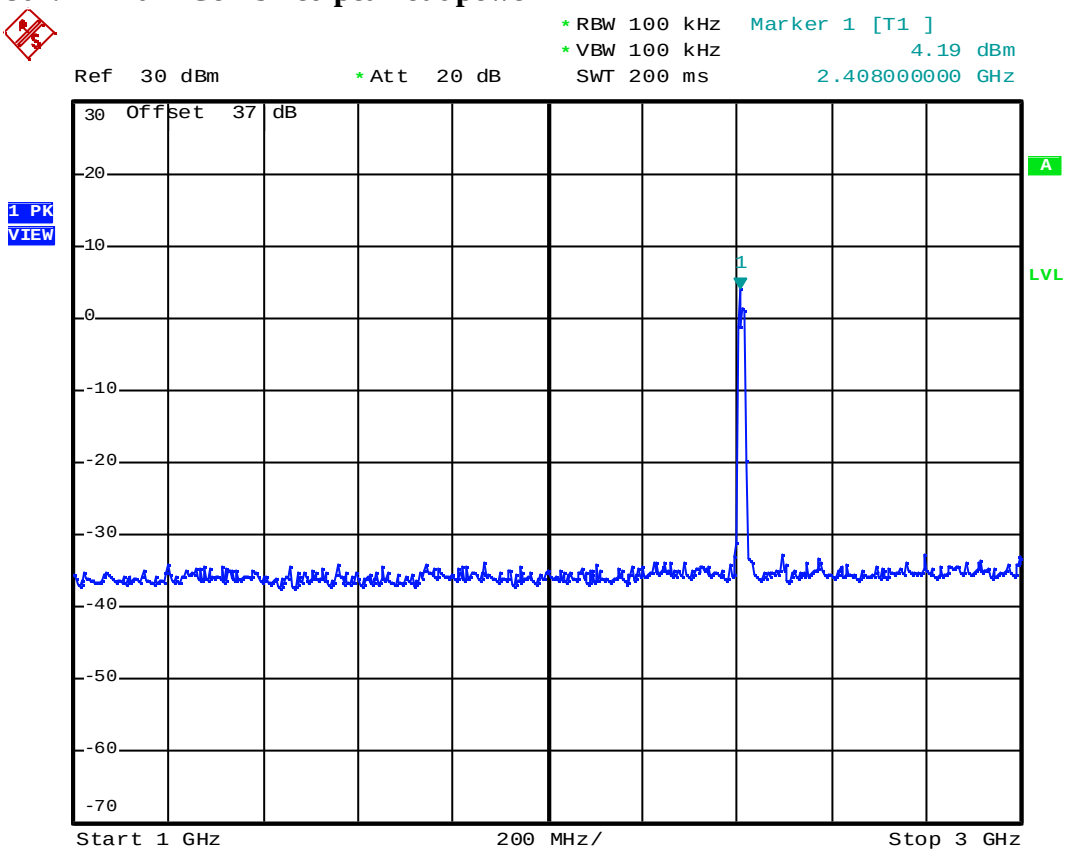

*RBW 100 kHz
*VBW 100 kHz
SWT 200 ms
Marker 1 [T1]
-0.13 dBm
2.444000000 GHz
Ref 20 dBm
*Att 20 dB
Offset 31 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1 PK
VIEW
A
LVL
1
Center 2 GHz
200 MHz/
Span 2 GHz

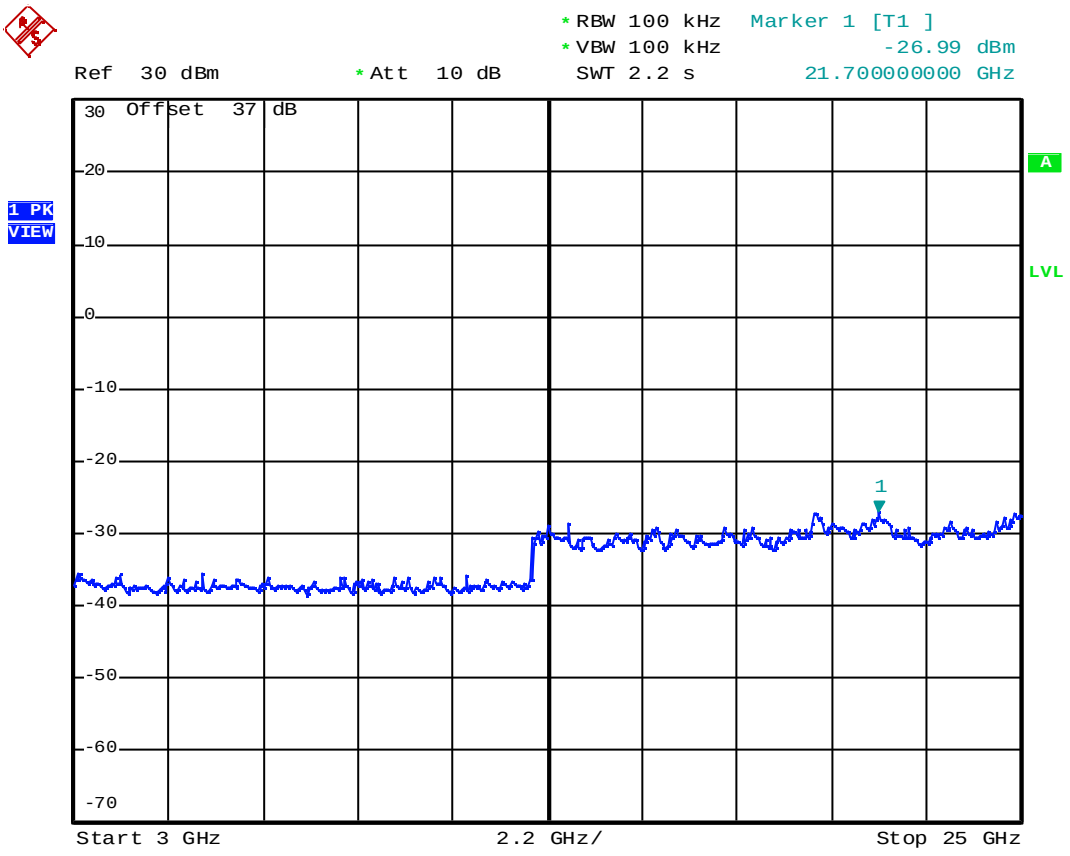

*RBW 100 kHz
*VBW 100 kHz
Marker 1 [T1]
-34.04 dBm
24.956000000 GHz
Ref 20 dBm
*Att 10 dB
SWT 2.2 s
20 Offset 31 dB
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1 PK
VIEW
A
LVL
Start 3 GHz
2.2 GHz/
Stop 25 GHz

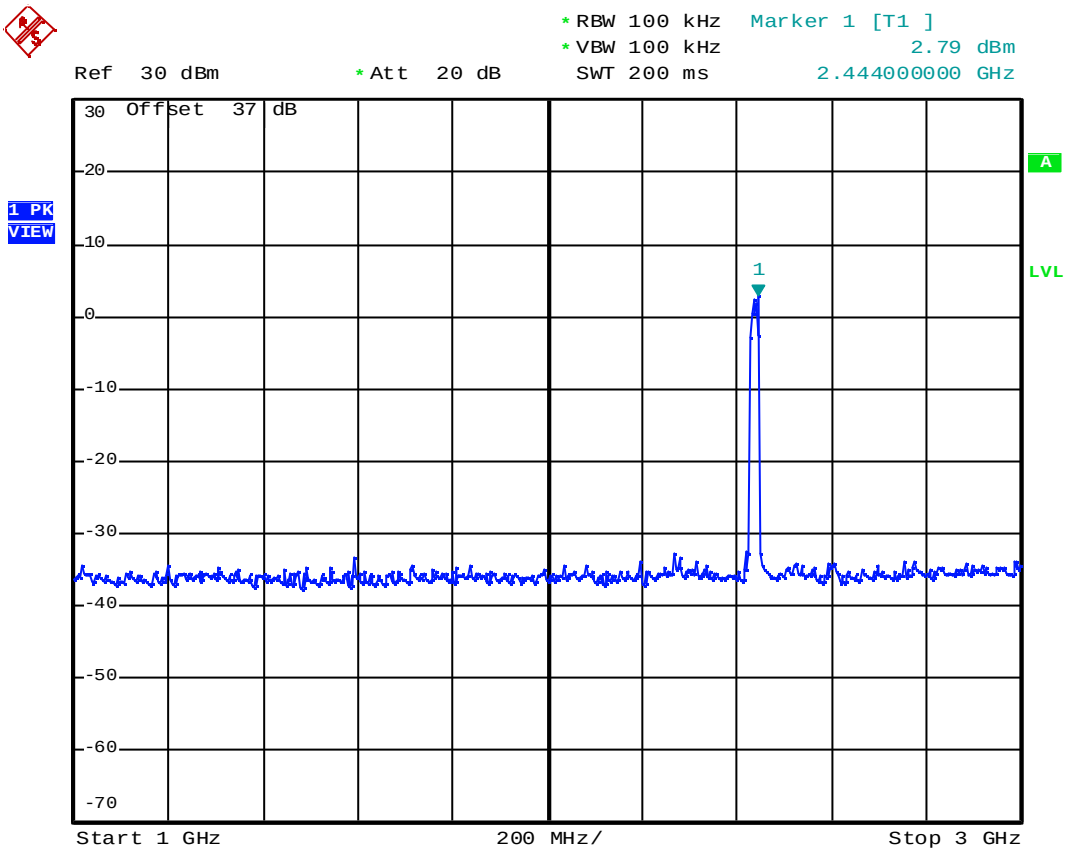

*RBW 100 kHz
Marker 1 [T1]
*VBW 100 kHz
-0.49 dBm
Ref 20 dBm
*Att 20 dB
SWT 200 ms
2.468000000 GHz
20 Offset 31 dB
1 PK
VIEW
A
LVL
1
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Start 1 GHz
200 MHz/
Stop 3 GHz

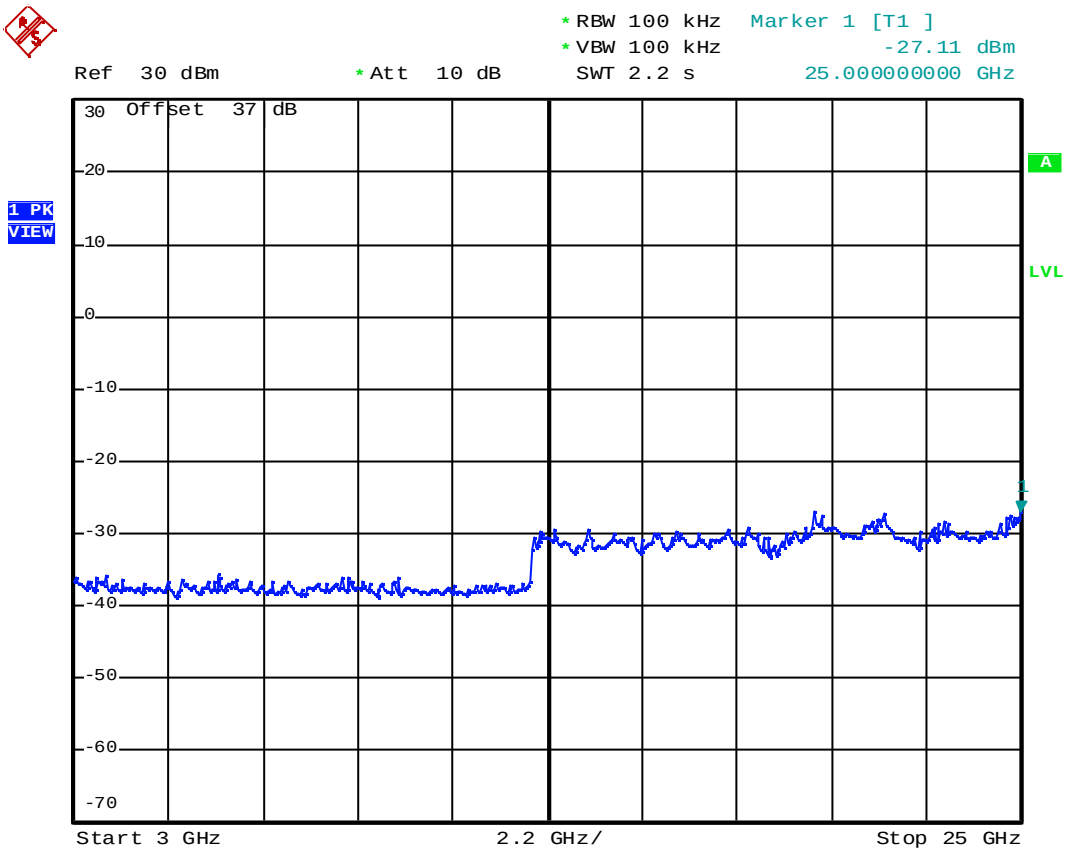

*RBW 100 kHz
Marker 1 [T1]
*VBW 100 kHz
-33.64 dBm
Ref 20 dBm
*Att 10 dB
SWT 2.2 s
20.204000000 GHz
20 Offset 31 dB
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1 PK
VIEW
A
LVL
1
Start 3 GHz
2.2 GHz/
Stop 25 GHz

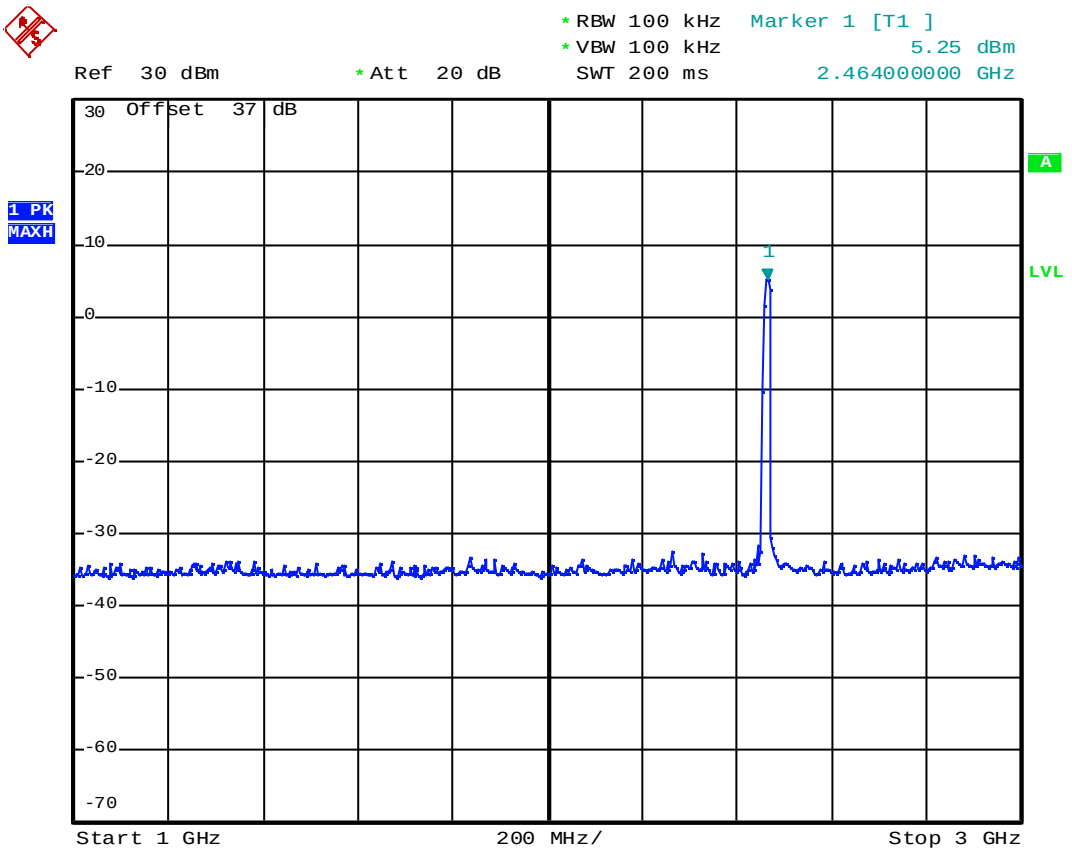
802.11n 20M Combined peak out power

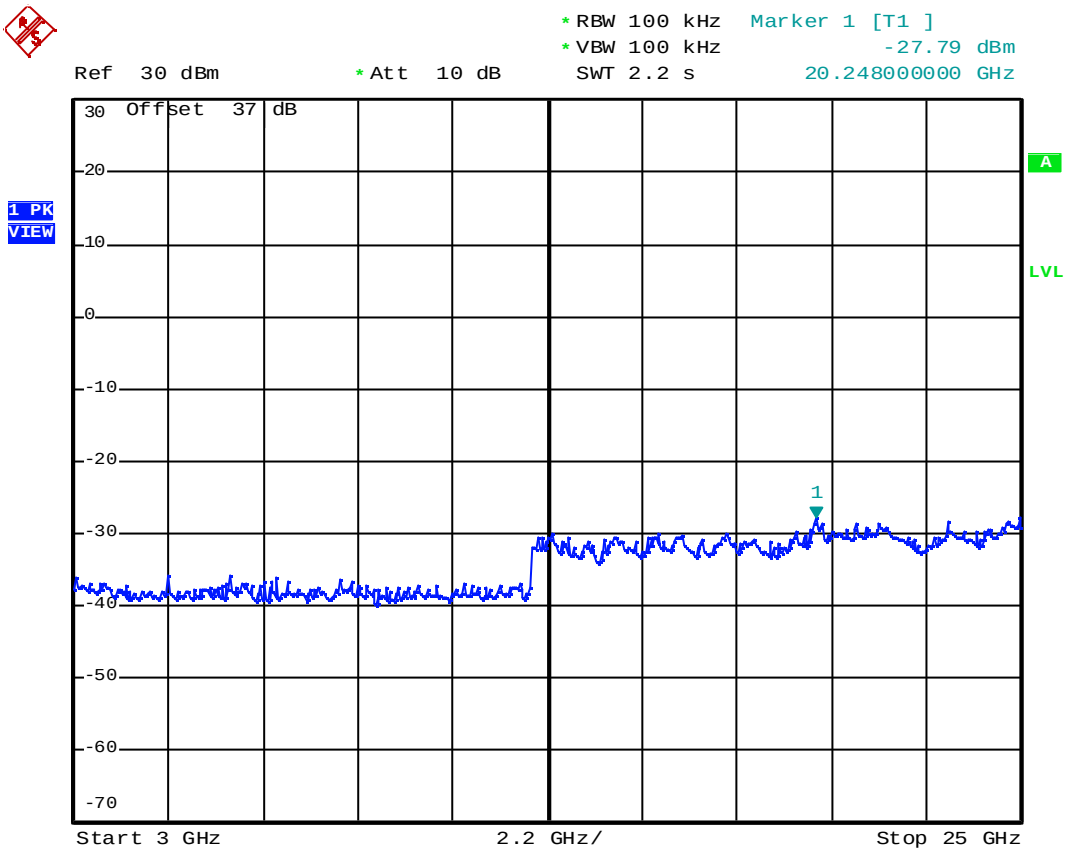



*RBW 100 kHz
*VBW 100 kHz
SWT 2.2 s
Marker 1 [T1]
-26.99 dBm
21.700000000 GHz
Ref 30 dBm
*Att 10 dB
Offset 37 dB
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
1 PK
VIEW
A
LVL
1
Start 3 GHz
2.2 GHz/
Stop 25 GHz

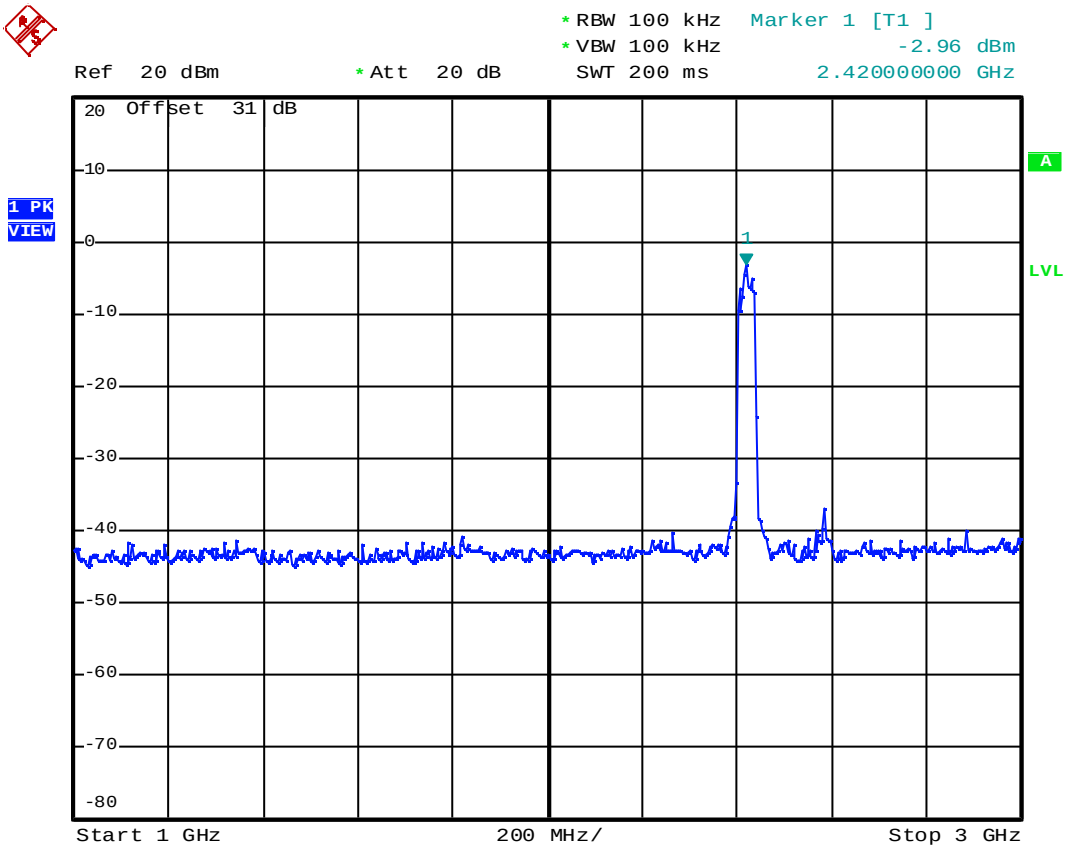

*RBW 100 kHz
Marker 1 [T1]
*VBW 100 kHz
2.79 dBm
Ref 30 dBm
*Att 20 dB
SWT 200 ms
2.444000000 GHz
30 Offset 37 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
1 PK
VIEW
A
LVL
1
Start 1 GHz
200 MHz/
Stop 3 GHz

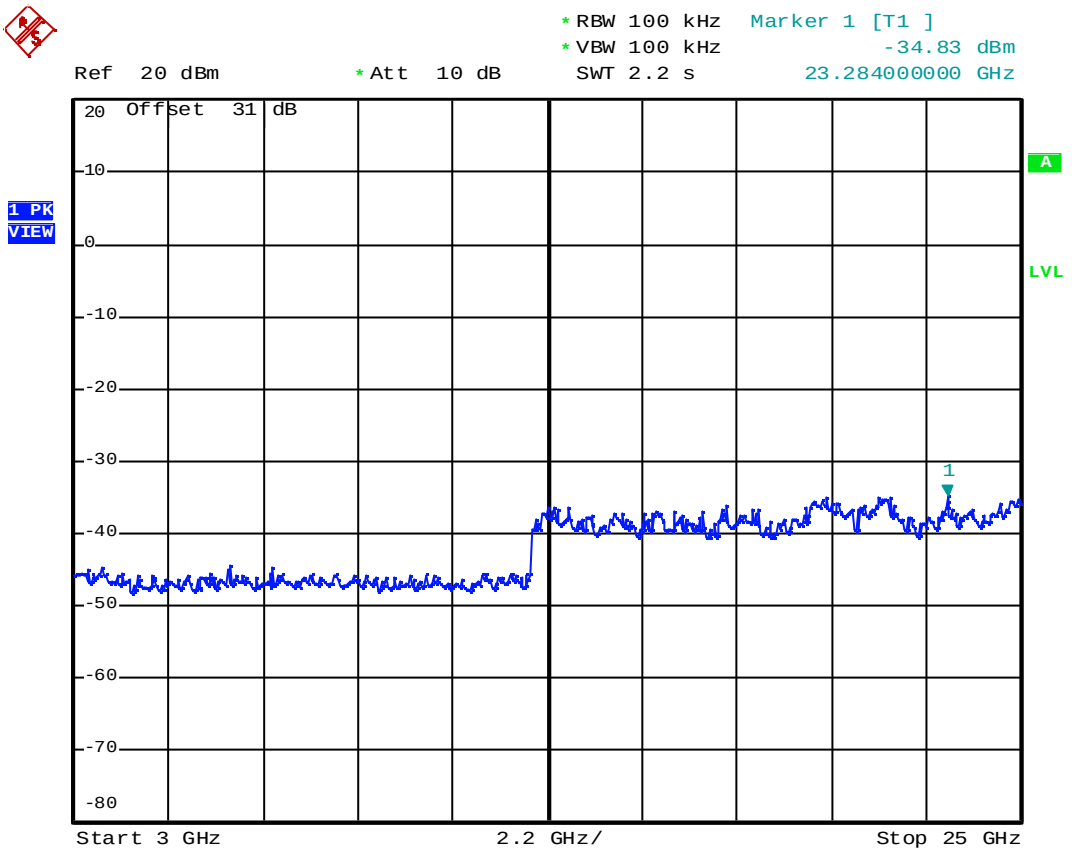

*RBW 100 kHz
*VBW 100 kHz
Marker 1 [T1]
-27.11 dBm
SWT 2.2 s
25.000000000 GHz
Ref 30 dBm
*Att 10 dB
Offset 37 dB
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
1 PK
VIEW
A
LVL
1
Start 3 GHz
2.2 GHz/
Stop 25 GHz

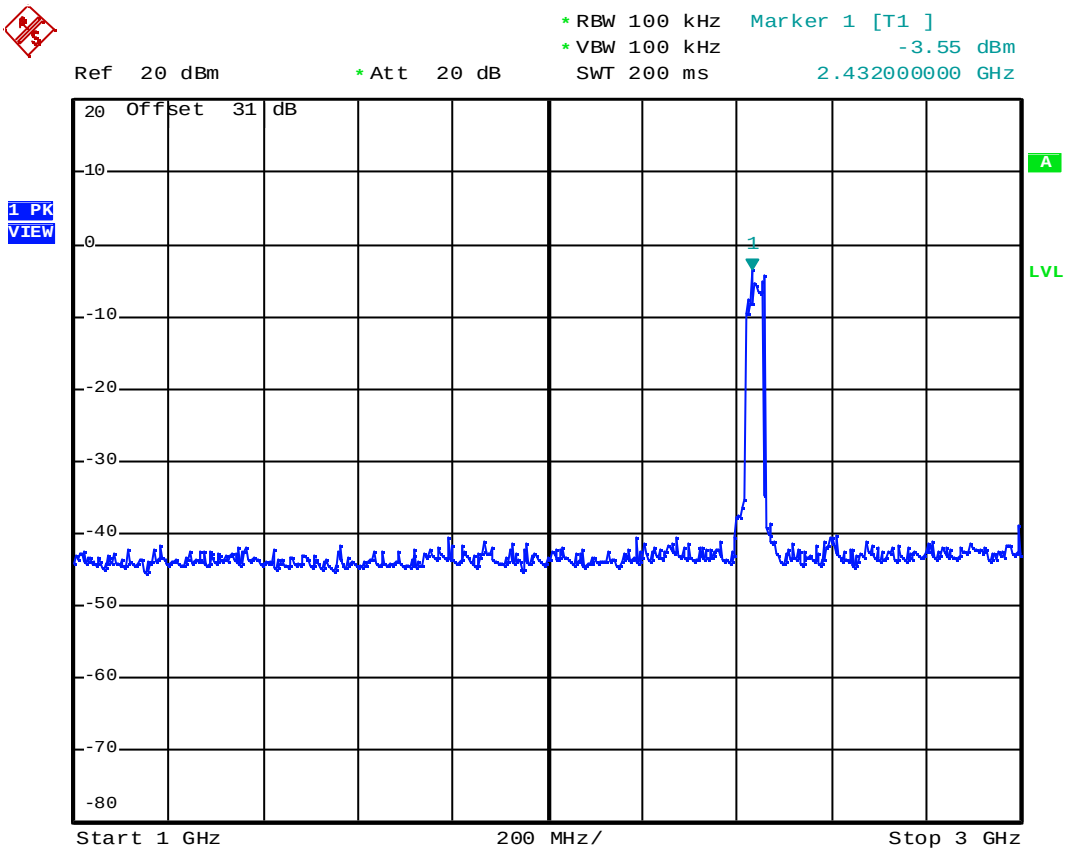

*RBW 100 kHz
*VBW 100 kHz
SWT 200 ms
Marker 1 [T1]
5.25 dBm
2.464000000 GHz
Ref 30 dBm
*Att 20 dB
Offset 37 dB
1 PK
MAXH
A
LVL
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
Start 1 GHz
200 MHz/
Stop 3 GHz

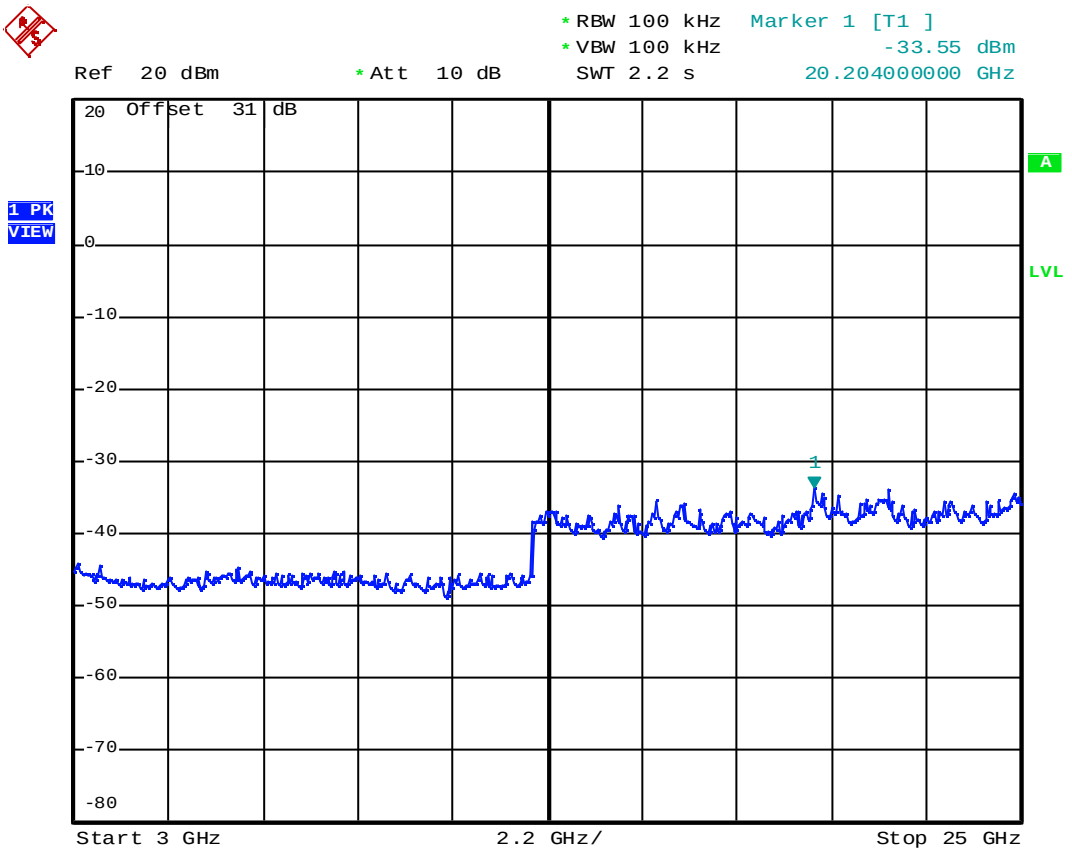

*RBW 100 kHz
Marker 1 [T1]
*VBW 100 kHz
-27.79 dBm
Ref 30 dBm
*Att 10 dB
SWT 2.2 s
20.248000000 GHz
30 Offset 37 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
1 PK
VIEW
A
LVL
1
Start 3 GHz
2.2 GHz/
Stop 25 GHz

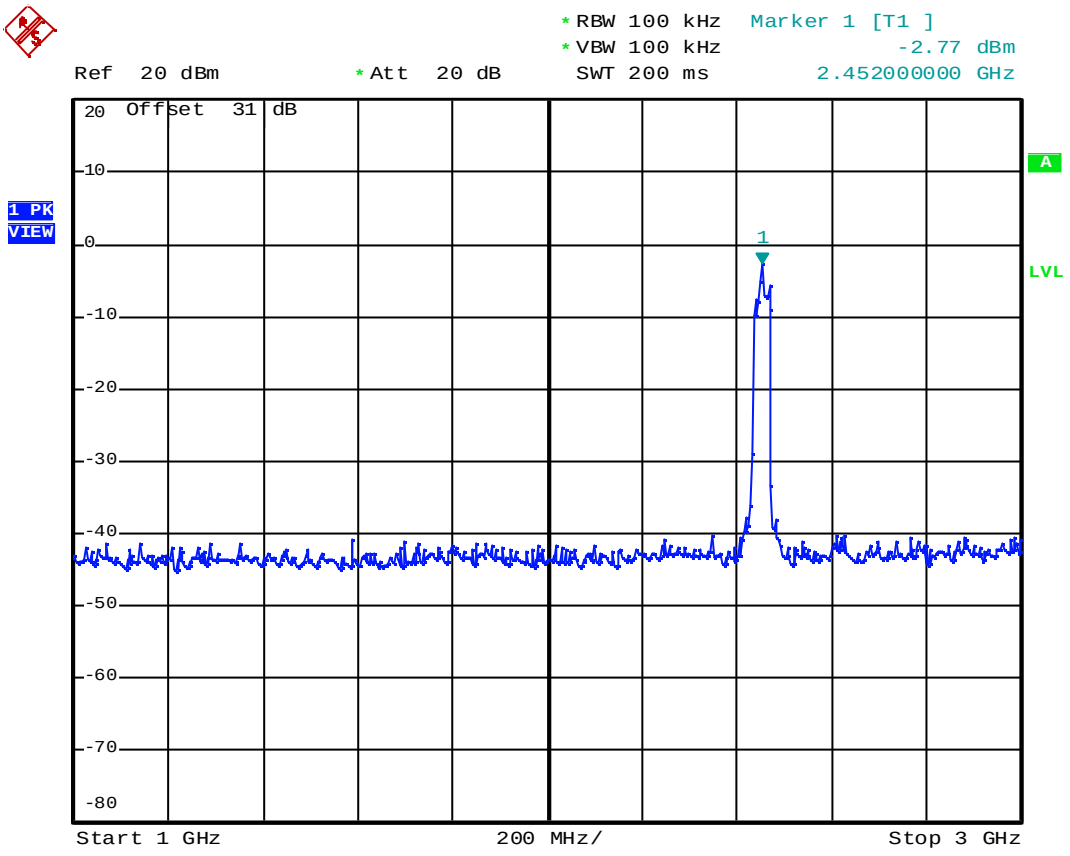
802.11n 40M-Antenna 1

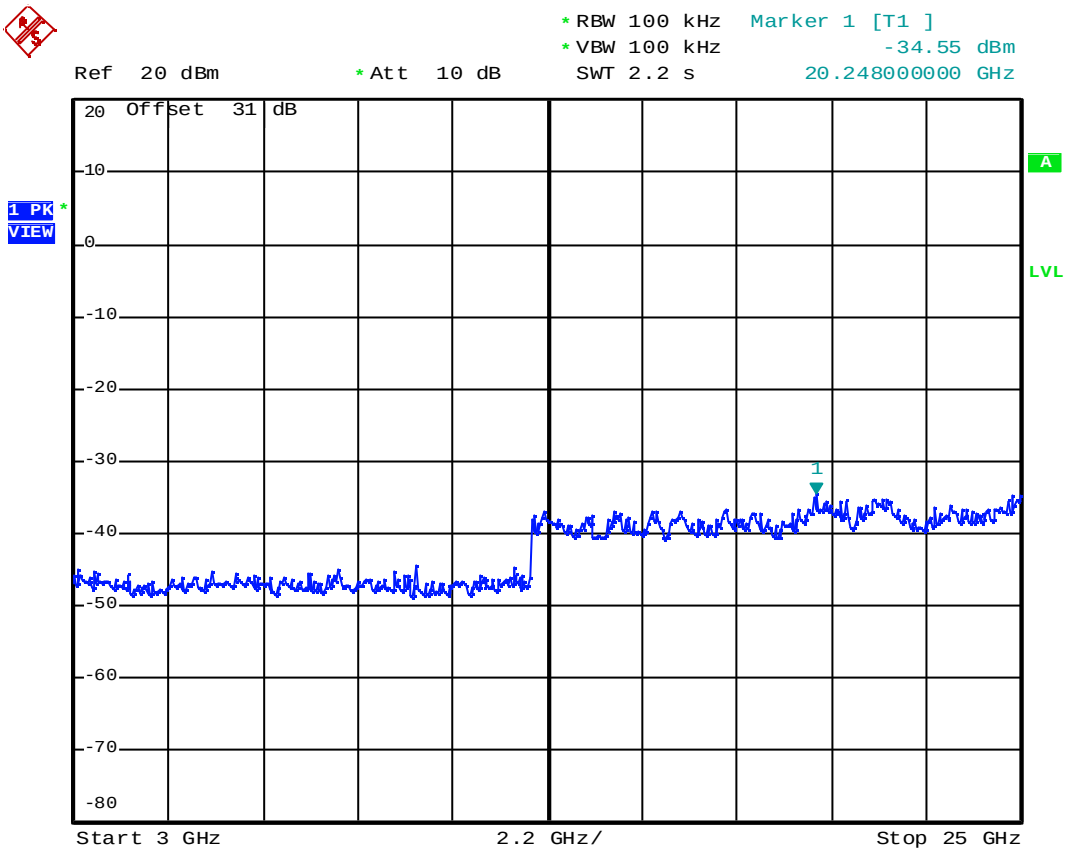



*RBW 100 kHz
*VBW 100 kHz
Marker 1 [T1]
-34.83 dBm
23.284000000 GHz
Ref 20 dBm
*Att 10 dB
SWT 2.2 s
20 Offset 31 dB
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1 PK
VIEW
A
LVL
1
Start 3 GHz
2.2 GHz/
Stop 25 GHz

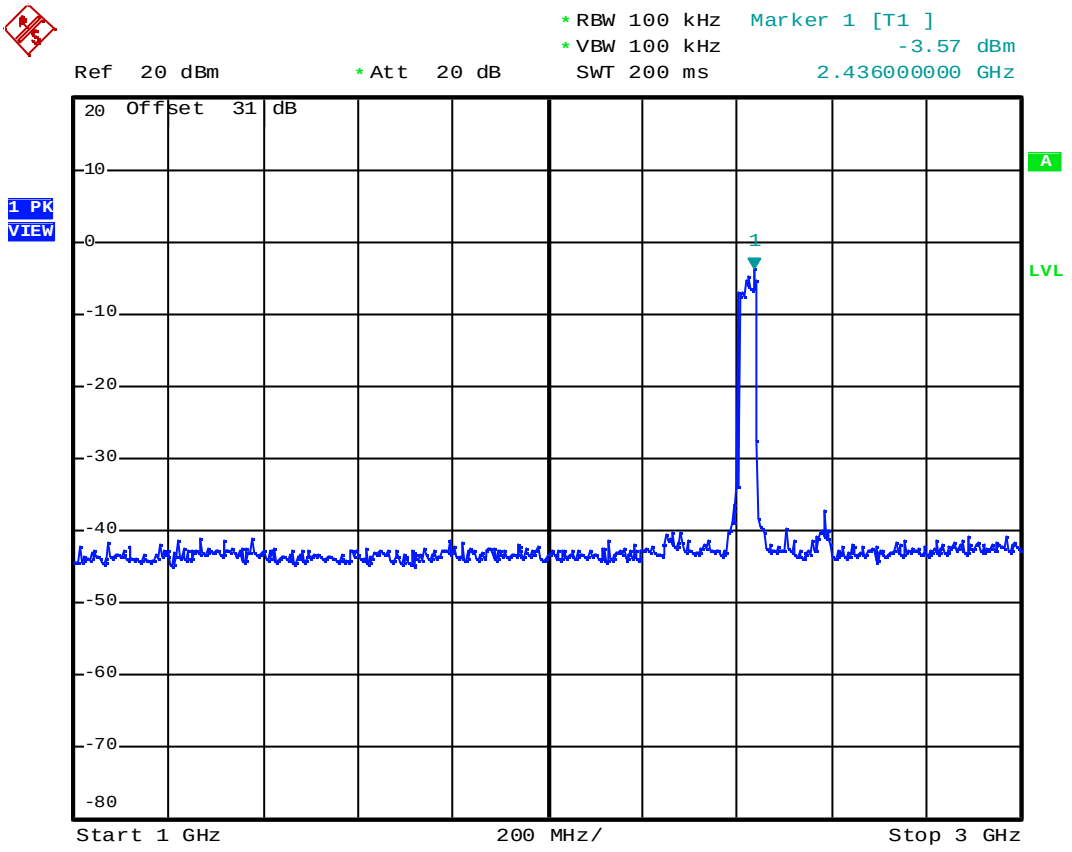

*RBW 100 kHz
Marker 1 [T1]
*VBW 100 kHz
-3.55 dBm
Ref 20 dBm
*Att 20 dB
SWT 200 ms
2.432000000 GHz
20 Offset 31 dB
1 PK
VIEW
A
LVL
1
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Start 1 GHz
200 MHz/
Stop 3 GHz

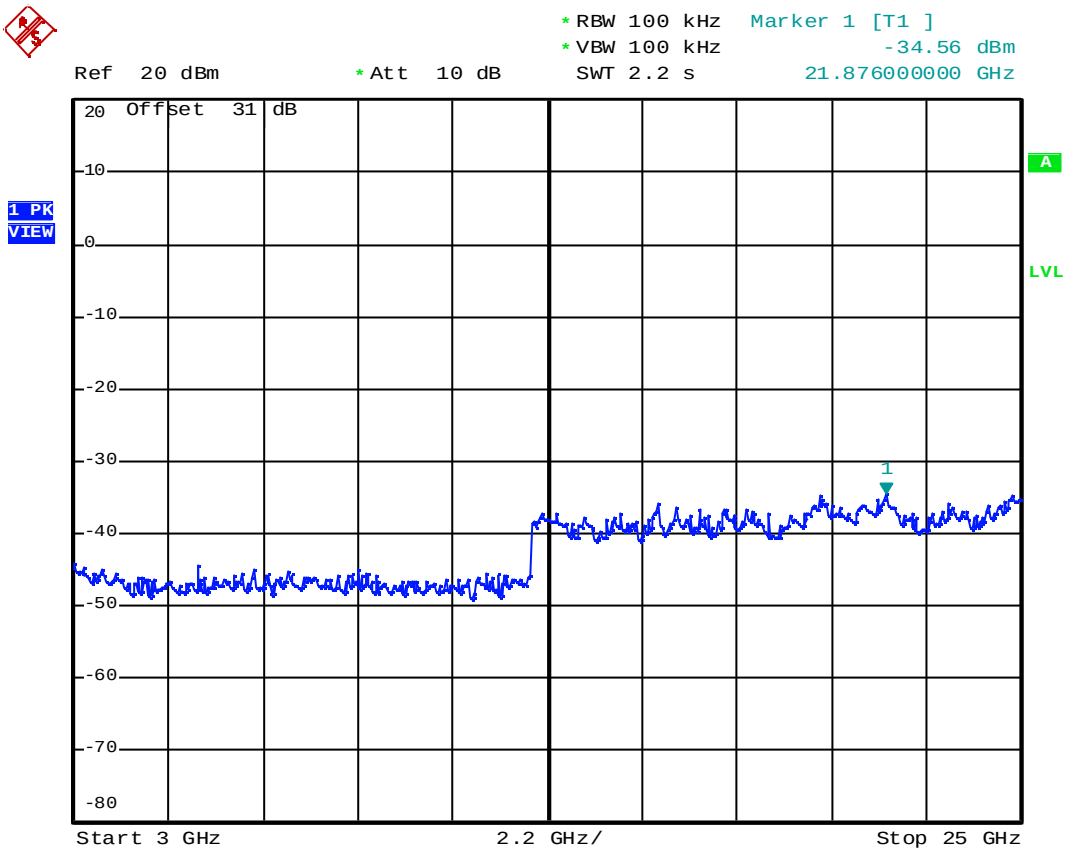

*RBW 100 kHz
Marker 1 [T1]
*VBW 100 kHz
-33.55 dBm
Ref 20 dBm
*Att 10 dB
SWT 2.2 s
20.204000000 GHz
20 Offset 31 dB
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1 PK
VIEW
A
LVL
1
Start 3 GHz
2.2 GHz/
Stop 25 GHz

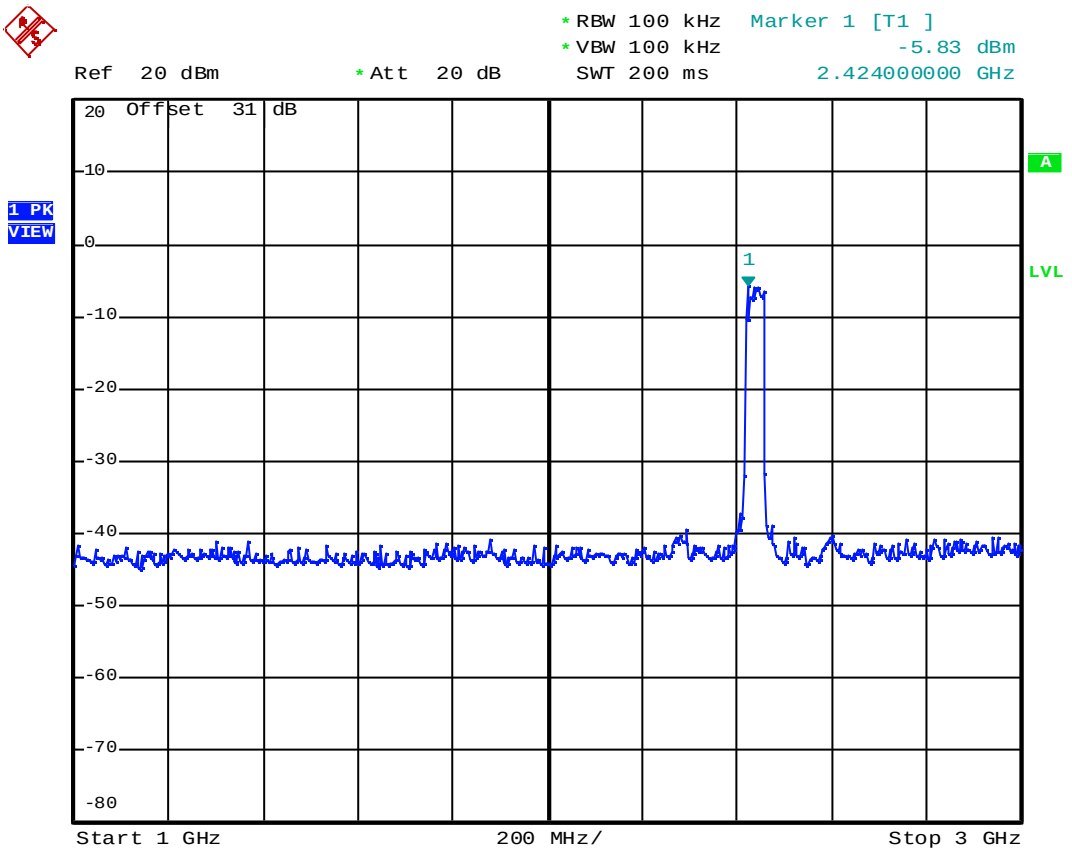

*RBW 100 kHz
Marker 1 [T1]
*VBW 100 kHz
-2.77 dBm
Ref 20 dBm
*Att 20 dB
SWT 200 ms
2.452000000 GHz
20 Offset 31 dB
-10
0
-10
-20
-30
-40
-50
-60
-70
-80
1 PK
VIEW
A
LVL
1
Start 1 GHz
200 MHz/
Stop 3 GHz

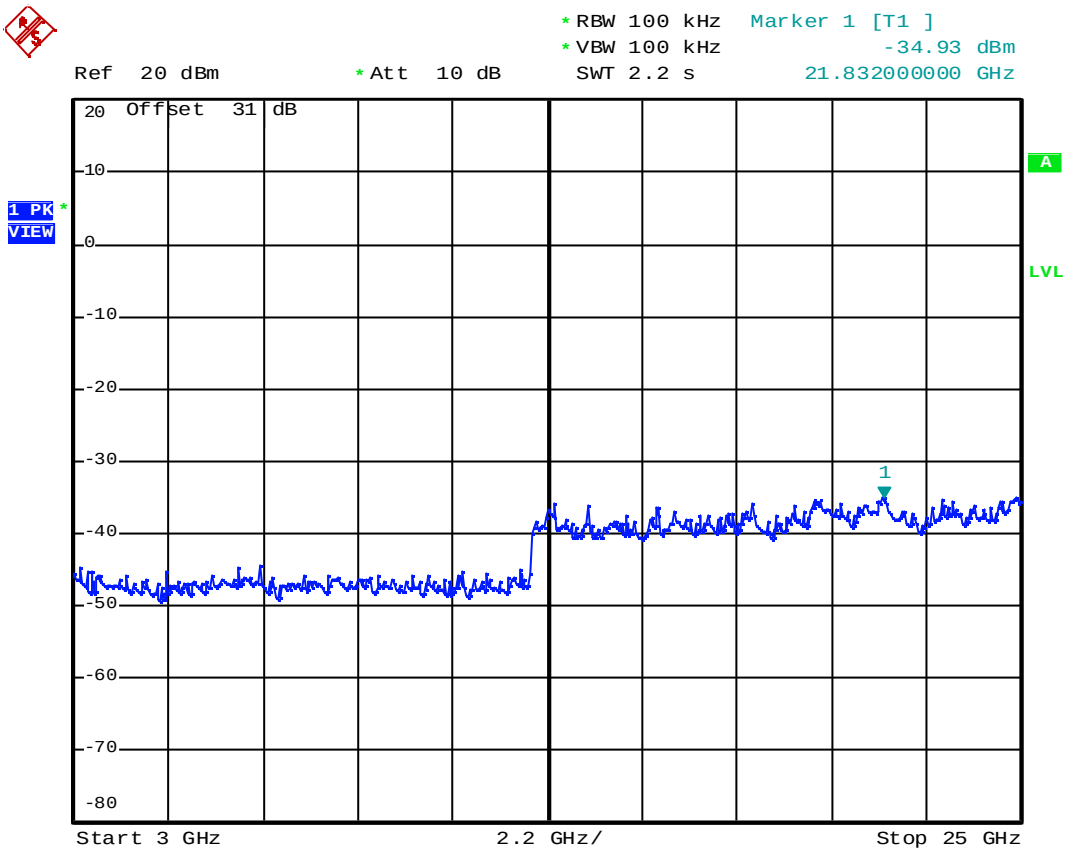

*RBW 100 kHz
*VBW 100 kHz
SWT 2.2 s
Marker 1 [T1]
-34.55 dBm
20.248000000 GHz
Ref 20 dBm
*Att 10 dB
Offset 31 dB
1 PK
VIEW
A
LVL
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Start 3 GHz
2.2 GHz/
Stop 25 GHz

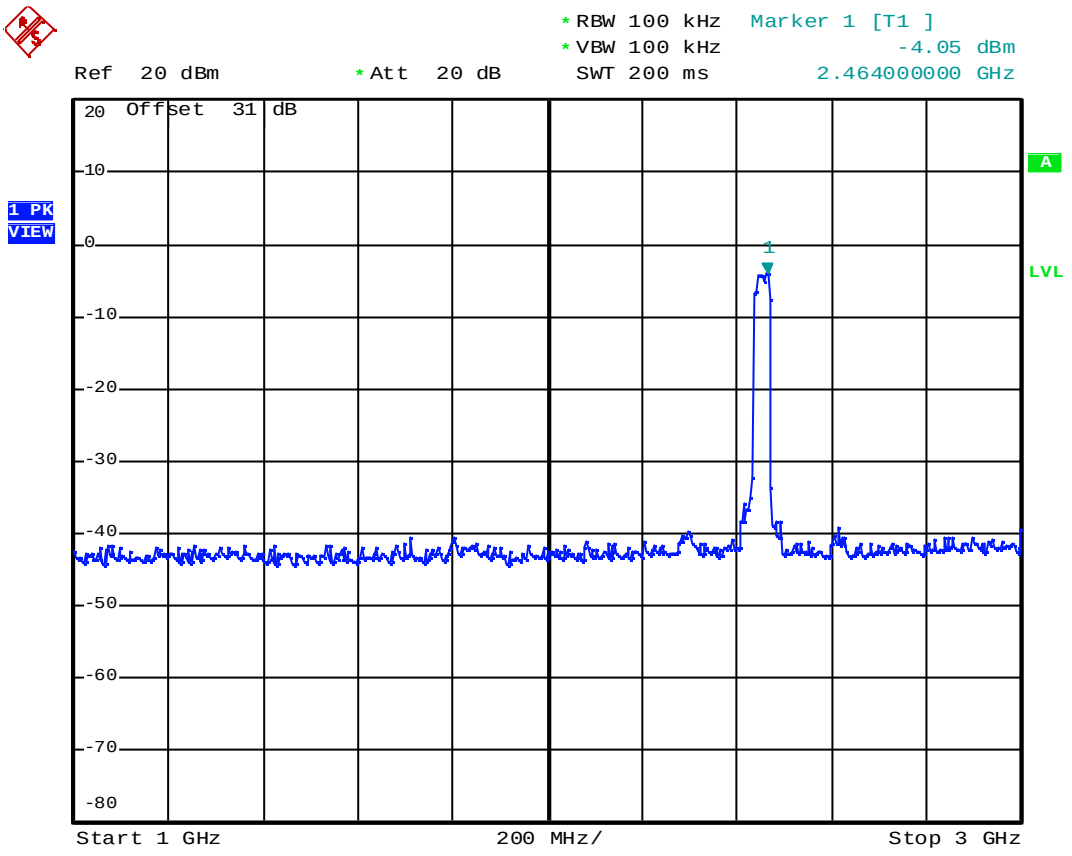
802.11n 40M-Antenna 2

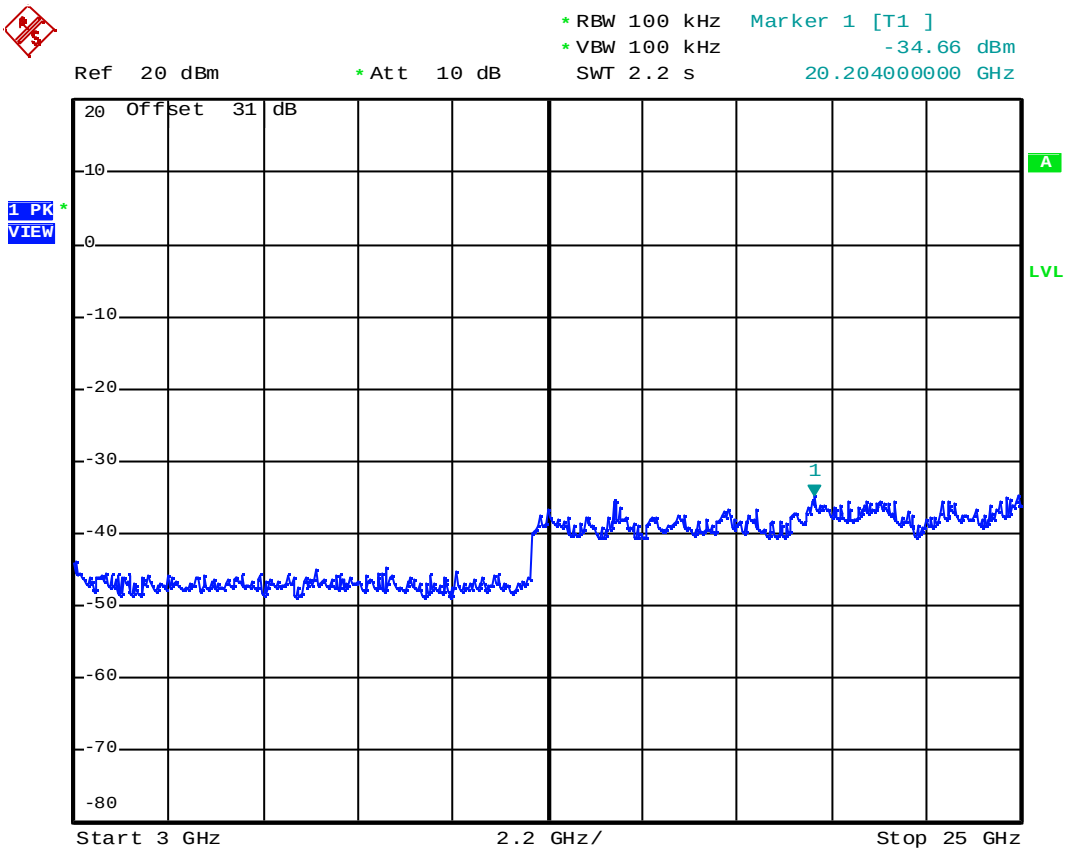



*RBW 100 kHz
*VBW 100 kHz
Marker 1 [T1]
-34.56 dBm
21.876000000 GHz
Ref 20 dBm
*Att 10 dB
SWT 2.2 s
20 Offset 31 dB
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1 PK
VIEW
A
LVL
1
Start 3 GHz
2.2 GHz/
Stop 25 GHz

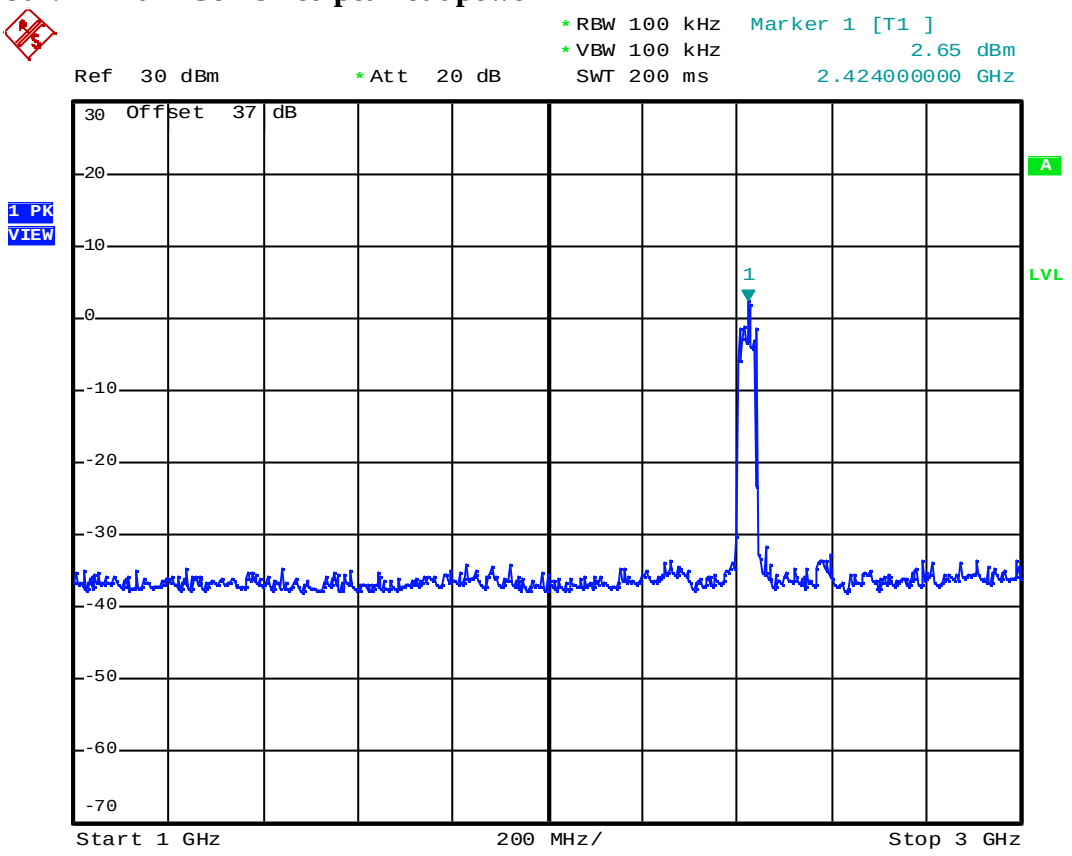

*RBW 100 kHz
*VBW 100 kHz
SWT 200 ms
Marker 1 [T1]
-5.83 dBm
2.424000000 GHz
Ref 20 dBm
*Att 20 dB
20 Offset 31 dB
1 PK
VIEW
A
LVL
1
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Start 1 GHz
200 MHz/
Stop 3 GHz

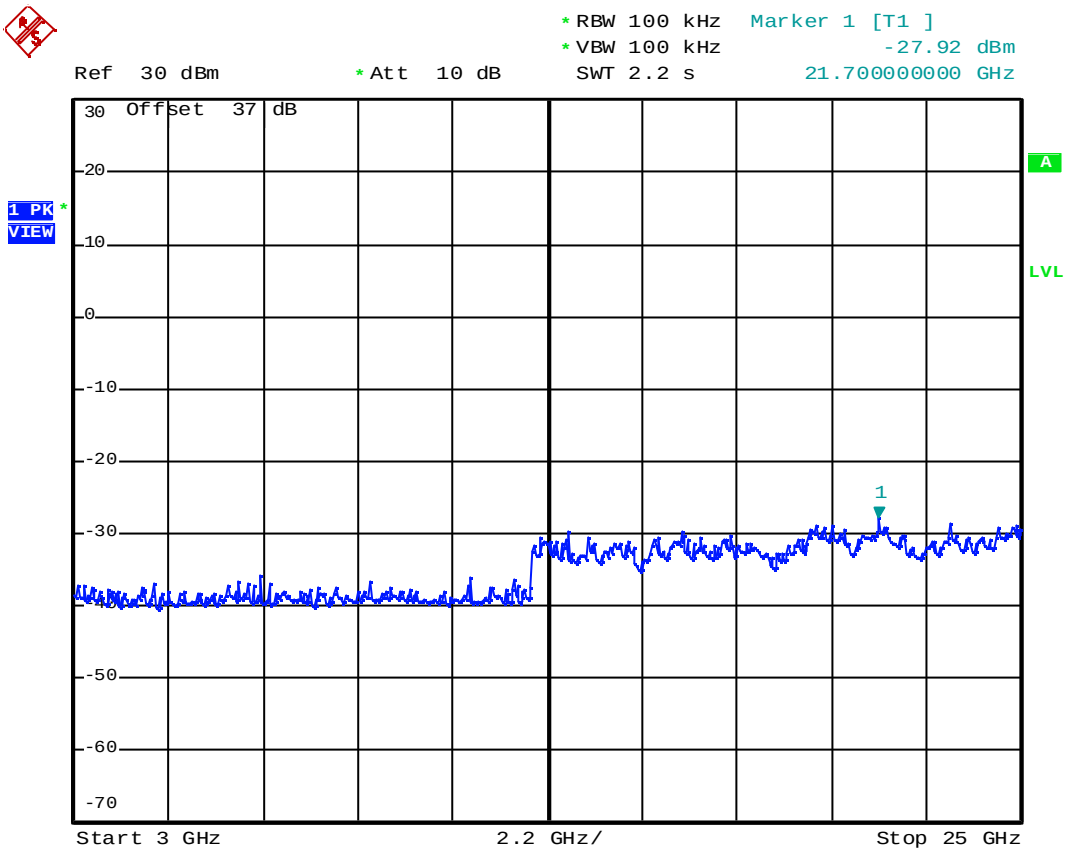

*RBW 100 kHz
*VBW 100 kHz
SWT 2.2 s
Marker 1 [T1]
-34.93 dBm
21.832000000 GHz
Ref 20 dBm
*Att 10 dB
Offset 31 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1 PK
VIEW
A
LVL
1
Start 3 GHz
2.2 GHz/
Stop 25 GHz

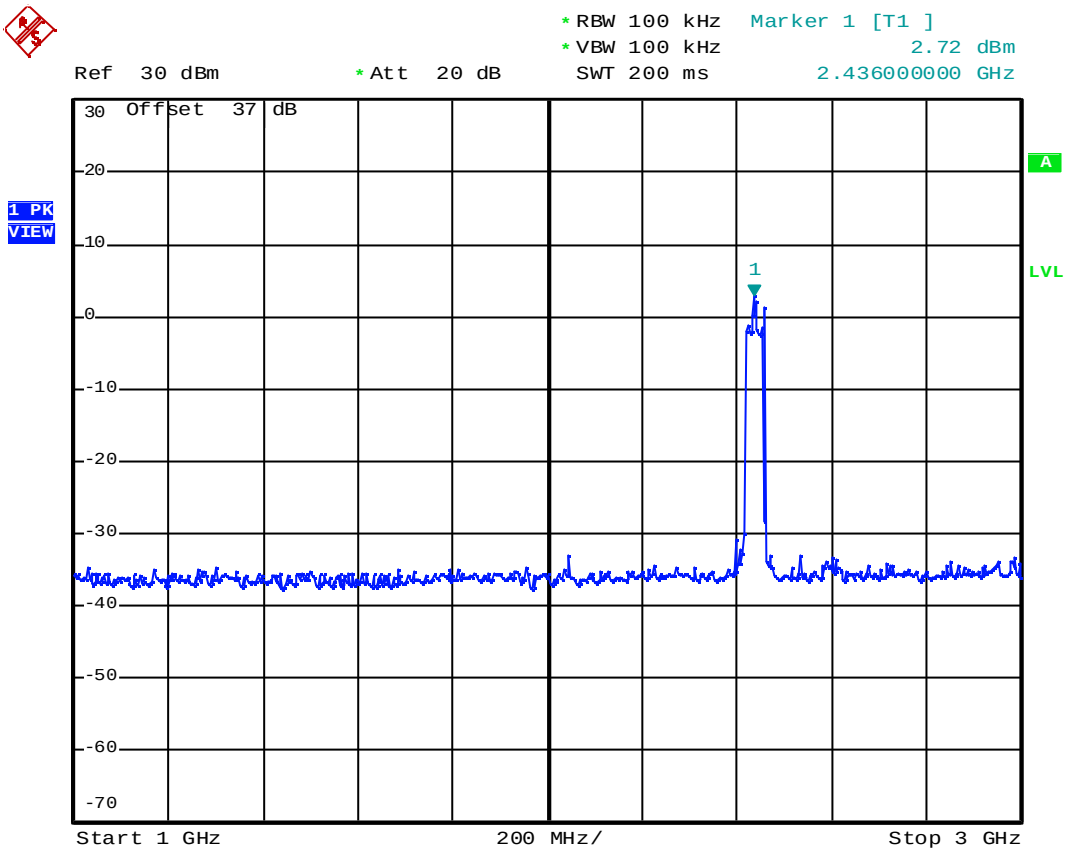

*RBW 100 kHz
*VBW 100 kHz
SWT 200 ms
Marker 1 [T1]
-4.05 dBm
2.464000000 GHz
Ref 20 dBm
*Att 20 dB
Offset 31 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1 PK
VIEW
A
LVL
1
Start 1 GHz
200 MHz/
Stop 3 GHz

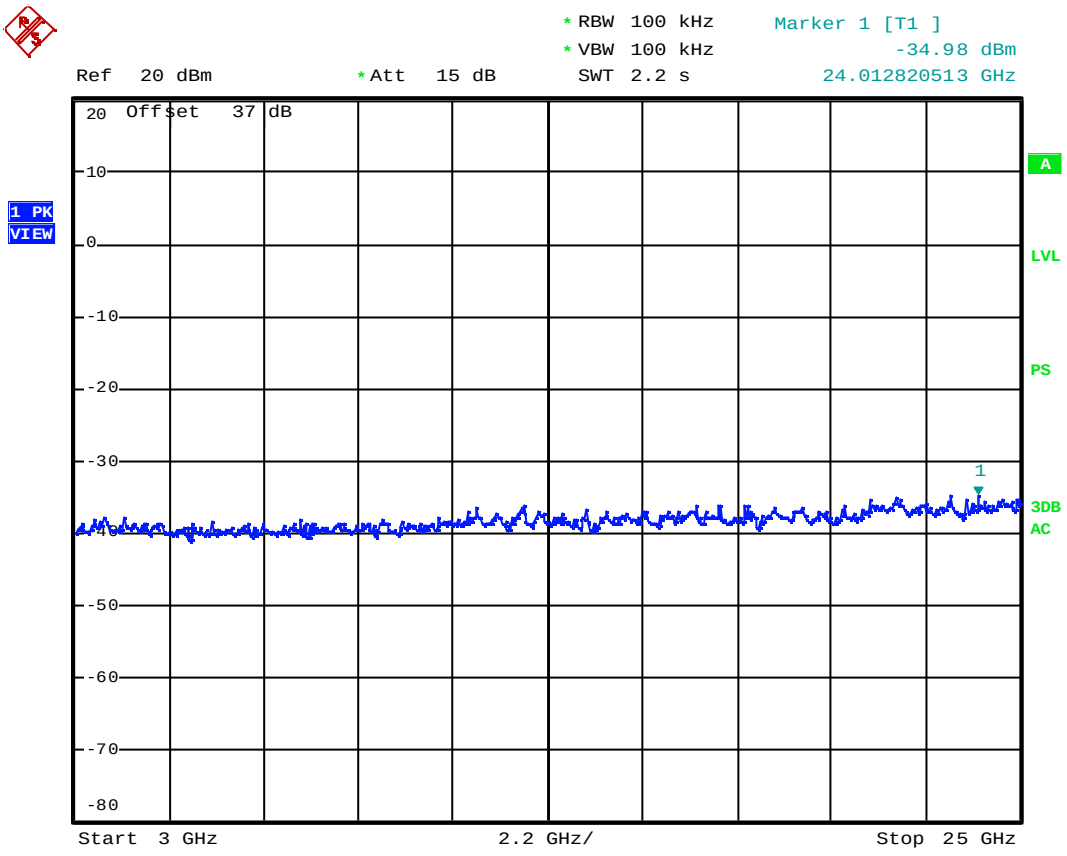

*RBW 100 kHz
*VBW 100 kHz
SWT 2.2 s
Marker 1 [T1]
-34.66 dBm
20.204000000 GHz
Ref 20 dBm
*Att 10 dB
Offset 31 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1 PK
VIEW
A
LVL
1
Start 3 GHz
2.2 GHz/
Stop 25 GHz

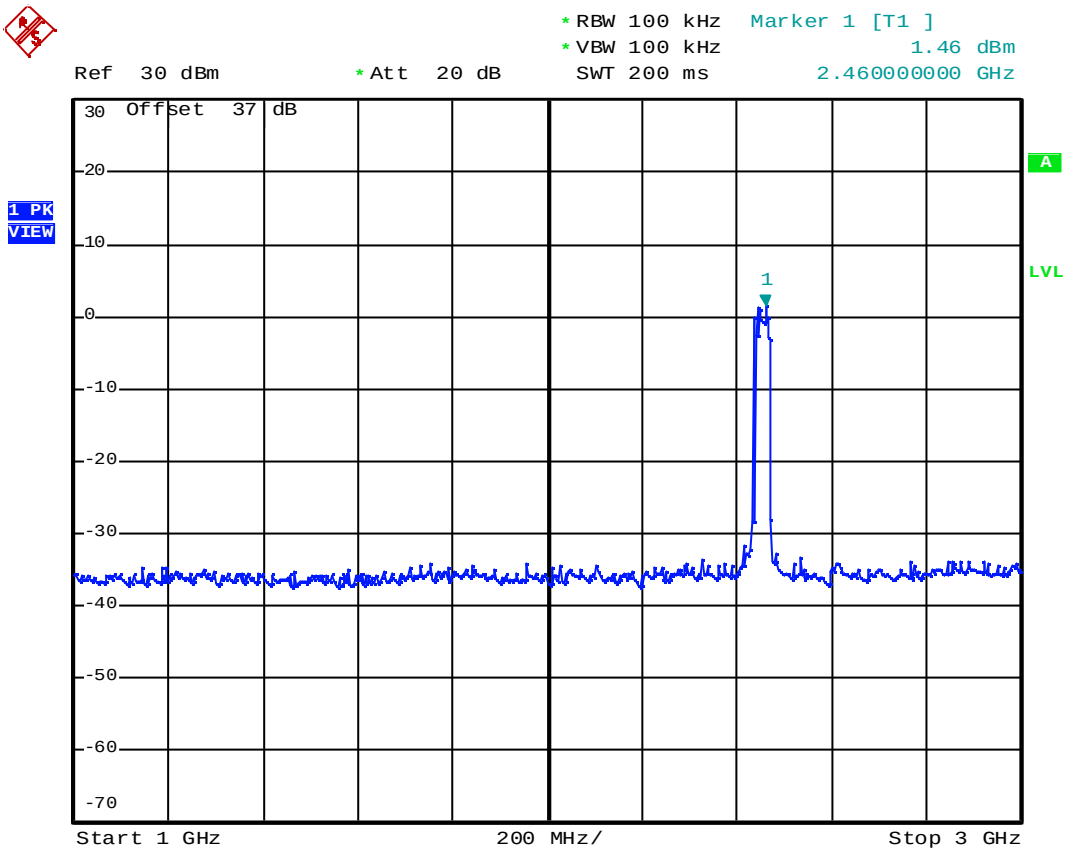
802.11n 40M Combined peak out power

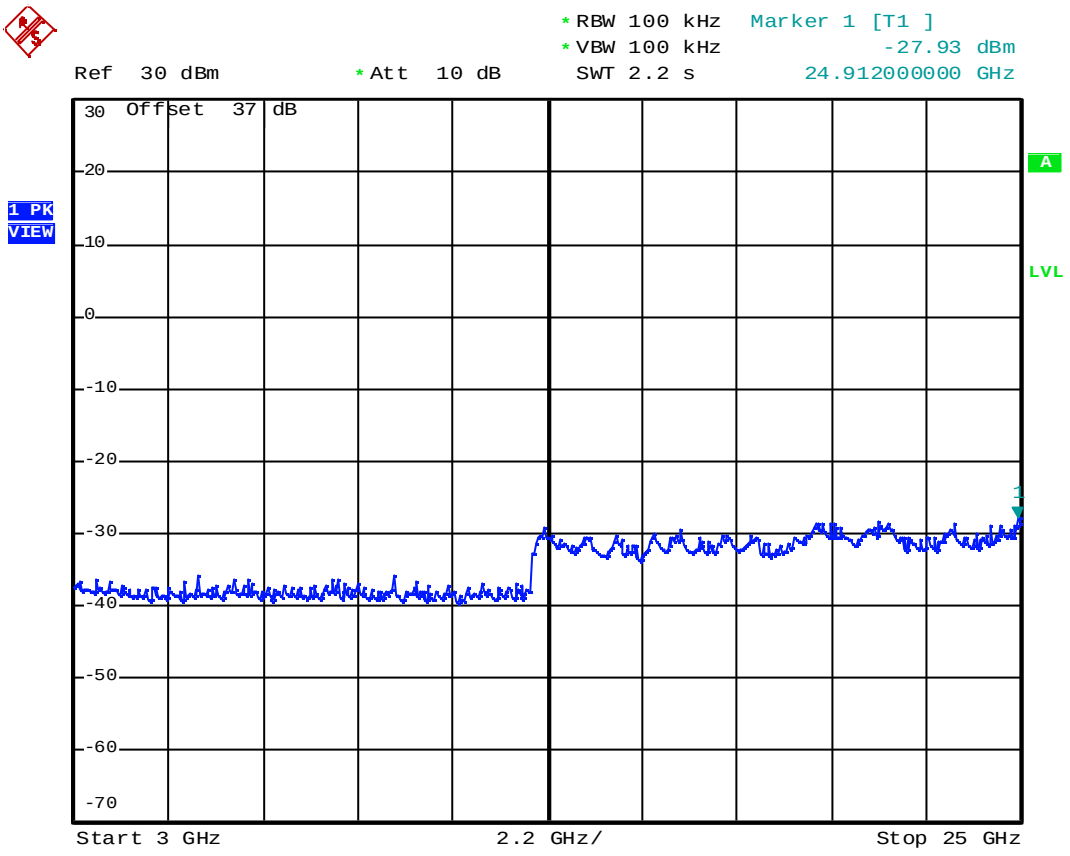



*RBW 100 kHz
Marker 1 [T1]
*VBW 100 kHz
-27.92 dBm
Ref 30 dBm
*Att 10 dB
SWT 2.2 s
21.700000000 GHz
30 Offset 37 dB
20
10
0
-10
-20
-30
-50
-60
-70
1 PK
VIEW
A
LVL
1
Start 3 GHz
2.2 GHz/
Stop 25 GHz


*RBW 100 kHz
Marker 1 [T1]
*VBW 100 kHz
2.72 dBm
Ref 30 dBm
*Att 20 dB
SWT 200 ms
2.436000000 GHz
30 Offset 37 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
1
1 PK
VIEW
A
LVL
Start 1 GHz
200 MHz/
Stop 3 GHz


* RBW 100 kHz
* VBW 100 kHz
SWT 2.2 s
Marker 1 [T1]
-34.98 dBm
24.012820513 GHz
Ref 20 dBm
* Att 15 dB
Offset 37 dB
1 PK
VIEW
A
LVL
PS
3DB
AC
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Start 3 GHz
2.2 GHz/
Stop 25 GHz


*RBW 100 kHz
Marker 1 [T1]
*VBW 100 kHz
1.46 dBm
Ref 30 dBm
*Att 20 dB
SWT 200 ms
2.460000000 GHz
30 Offset 37 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
1 PK
VIEW
A
LVL
1
Start 1 GHz
200 MHz/
Stop 3 GHz


*RBW 100 kHz
Marker 1 [T1]
*VBW 100 kHz
-27.93 dBm
Ref 30 dBm
*Att 10 dB
SWT 2.2 s
24.912000000 GHz
30 Offset 37 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
1 PK
VIEW
A
LVL
Start 3 GHz
2.2 GHz/
Stop 25 GHz