FCC PART 15.247

TEST REPORT

For

Chengdu Vantron Technology, Ltd.

No.5 GaoPeng Road, Hi-Tech Zone, Chengdu, SiChuan, P.R. China 610045

FCC ID: 2AAGETAB185-SKLU

Report Type:	**Product Name:**
Original Report	Embedded Computer

Report Number:	RSC180208001-0C
Report Date:	2018-07-30
Reviewed By:	Sula Huang Engineering Director
Test Laboratory:	Bay Area Compliance Laboratories Corp. (Chengdu) No.5040, Huilongwan Plaza, No. 1, Shawan Road, Jinniu District, Chengdu, Sichuan, China Tel: +86-28-65525123 Fax: +86-28-65525125 www.baclcorp.com

Note: This test report is prepared for the customer shown above and for the device described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Chengdu). This report must not be used by the customer to claim product certification, approval, or endorsement by A2LA* or any agency of the Federal Government. * This report may contain data that are not covered by the A2LA accreditation and are marked with an asterisk "*".

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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The ***Chengdu Vantron Technology, Ltd.***'s product, model number: **VT-TAB185-SKLU (FCC ID: 2AAGETAB185-SKLU)** or the "EUT" as referred to in this report was the **Embedded Computer**.

Mechanical Description of EUT

The EUT was measured approximately: 471.86 mm (L) x 283.86 mm (W) x 18.01 mm (H).
The EUT has two power input ports, details see EUT external picture.

Rated input voltage: DC15.2V from rechargeable Li-ion battery or DC19V from adapter.

Switching Power Adapter Information
Manufacturer: FSP Group Inc.
Model: FSP065-REBN2
Input: AC 100-240V; 50/60Hz
Output: DC 19V, 3.42A

**All measurement and test data in this report was gathered from final production sample, serial number: 180208001/01 (assigned by the BACL, Chengdu). It may have deviation from any other sample. The EUT supplied by the applicant was received on 2018-02-02, and EUT conformed to test requirement.*

Objective

This report is prepared on behalf of ***Chengdu Vantron Technology, Ltd.*** in accordance with Part 2, Subpart J, Part 15, Subparts A and C of the Federal Communications Commission's rules.

The tests were performed in order to determine the compliance of the EUT with FCC Part 15-Subpart C, section 15.203, 15.205, 15.207, 15.209 and 15.247 rules.

Related Submittal(s)/Grant(s)

FCC Part 15B JBC submissions with FCC ID: 2AAGETAB185-SKLU
FCC Part 15.247 DSS submissions with FCC ID: 2AAGETAB185-SKLU
FCC Part 15.407 NII submissions with FCC ID: 2AAGETAB185-SKLU

Measurement Uncertainty

Item			Uncertainty
AC power line conducted emission			2.71 dB
Radiated Emission(Field Strength)	30MHz-200MHz	H	4.57 dB
		V	4.81 dB
	200MHz-1GHz	H	5.69 dB
		V	6.07 dB
	1GHz-6GHz		5.49 dB
	6GHz-18GHz		5.57 dB
	18GHz-40GHz		5.48 dB
Conducted RF Power			±0.61dB
Power Spectrum Density			±0.61dB
Occupied Bandwidth			±5%
Conducted Emission			±1.5dB
Humidity			±5%
Temperature			±1℃

Test Methodology

All measurements contained in this report were conducted with:

1. ANSI C63.10-2013 American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.

2. KDB558074 D01 DTS Meas Guidance v04.

Test Facility

The test site used by Bay Area Compliance Laboratories Corp. (Chengdu) to collect test data is located No.5040, Huilongwan Plaza, No. 1, Shawan Road, Jinniu District, Chengdu, Sichuan, China.

Bay Area Compliance Laboratories Corp. (Chengdu) lab is accredited to ISO/IEC 17025 by A2LA (Lab code: 4324.01) and the FCC designation No. CN1186 under the FCC KDB 974614 D01. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2014.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured in testing mode, which was provided by manufacturer.

For Wi-Fi mode, 802.11b, 802.11g, and 802.11n-HT20 mode, 11 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	7	2442
2	2417	8	2447
3	2422	9	2452
4	2427	10	2457
5	2432	11	2462
6	2437	-	-

For 802.11b, 802.11g, and 802.11n HT20 modes were tested with Channel 1, 6 and 11.

For 802.11n-HT40 mode, 7 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
3	2422	7	2442
4	2427	8	2447
5	2432	9	2452
6	2437	-	-

802.11n HT40 was tested with Channel 3, 6 and 9.

802.11b/g supports SISO, 802.11n supports SISO and MIMO mode. For Radiated Emission, according to pretest, the worst case for 802.11b/g is Antenna 1, the worst case for 802.11n is MIMO mode. So 802.11b/g Antenna 1 & 802.11n MIMO mode test data were recorded in the report.

For Bluetooth LE mode, 40 channels are provided for testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2402	20	2442
1	2404	…	…
…	…	…	…
…	…	…	…
..	…	38	2478
19	2440	39	2480

EUT was tested with channel 0, 19 and 39.

Equipment Modifications

No modification was made to the EUT tested.

EUT Exercise Software

The worst condition (maximum power with maximum duty cycle) was setting by the software as following table:

For 7265NGW Module

Test Mode	Test Software Version	DRTU		
802.11b	Test Frequency	2412MHz	2437MHz	2462MHz
	Data Rate	CCK 1M	CCK 1M	CCK 1M
	Power Level Setting Antenna 1	12	12	12
	Power Level Setting Antenna 2	12	12	12
802.11g	Test Frequency	2412MHz	2437MHz	2462MHz
	Data Rate	OFDM 6M	OFDM 6M	OFDM 6M
	Power Level Setting Antenna 1	13	13	13
	Power Level Setting Antenna 2	13	13	13
802.11n-HT20	Test Frequency	2412MHz	2437MHz	2462MHz
	Data Rate	HT0	HT0	HT0
	Power Level Setting Antenna 1	10	10	10
	Power Level Setting Antenna 2	10	10	10
802.11n-HT40	Test Frequency	2422MHz	2437MHz	2452MHz
	Data Rate	HT0	HT0	HT0
	Power Level Setting Antenna 1	11	11	11
	Power Level Setting Antenna 2	11	11	11
BLE	Test Frequency	2402MHz	2440MHz	2480MHz
	Data Rate	Default	Default	Default
	Power Level Setting	Default	Default	Default

For 8265NGW Module

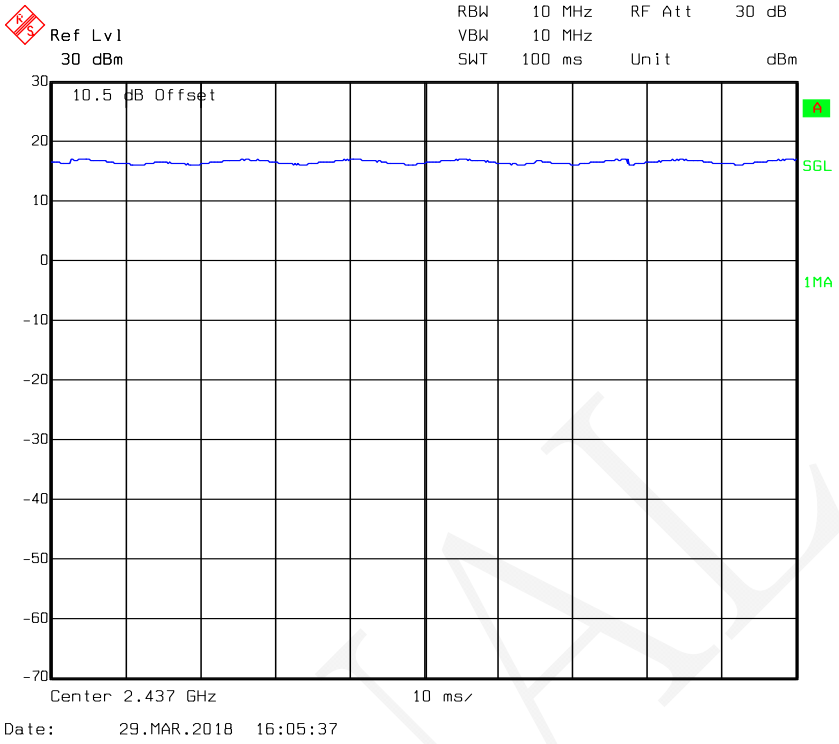
Test Mode	Test Software Version	DRTU		
802.11b	Test Frequency	2412MHz	2437MHz	2462MHz
	Data Rate	CCK 1M	CCK 1M	CCK 1M
	Power Level Setting Antenna 1	16	16	16
	Power Level Setting Antenna 2	16	16	16
802.11g	Test Frequency	2412MHz	2437MHz	2462MHz
	Data Rate	OFDM 6M	OFDM 6M	OFDM 6M
	Power Level Setting Antenna 1	16	16	16
	Power Level Setting Antenna 2	16	16	16
802.11n-HT20	Test Frequency	2412MHz	2437MHz	2462MHz
	Data Rate	HT0	HT0	HT0
	Power Level Setting Antenna 1	15	15	15
	Power Level Setting Antenna 2	15	15	15
802.11n-HT40	Test Frequency	2422MHz	2437MHz	2452MHz
	Data Rate	HT0	HT0	HT0
	Power Level Setting Antenna 1	15	15	15
	Power Level Setting Antenna 2	15	15	15
BLE	Test Frequency	2402MHz	2440MHz	2480MHz
	Data Rate	Default	Default	Default
	Power Level Setting	Default	Default	Default

For 7265NGW Module

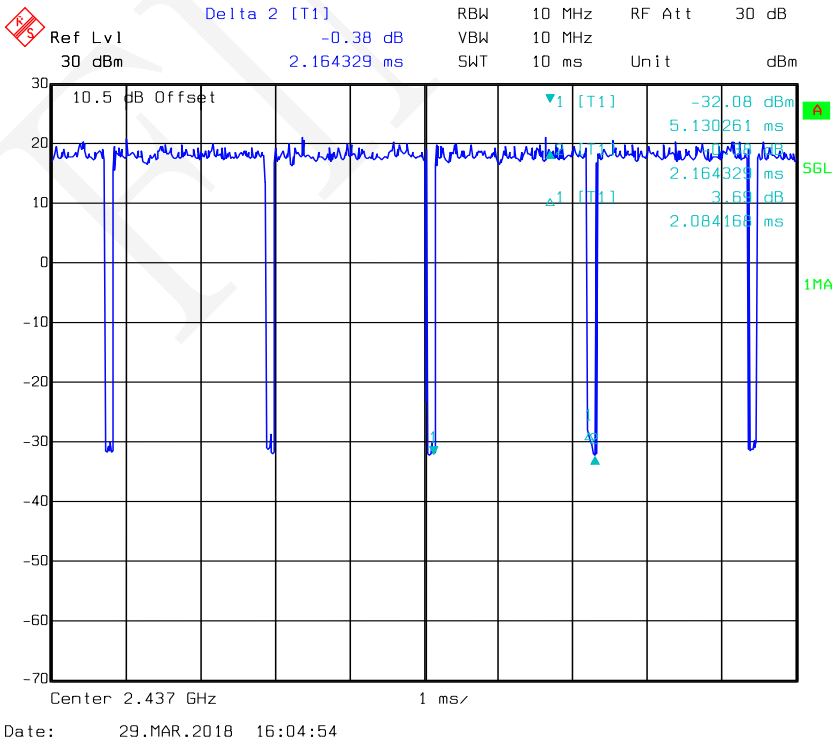
Duty Cycle information is below:

Mode	T_{on} (ms)	T_{on+off} (ms)	Duty Cycle (%)
802.11b	100	100	100
802.11g	2.08	2.16	96.30
802.11n-HT20	0.96	0.99	96.97
802.11n-HT40	0.97	1.00	97.00
BLE	100	100	100

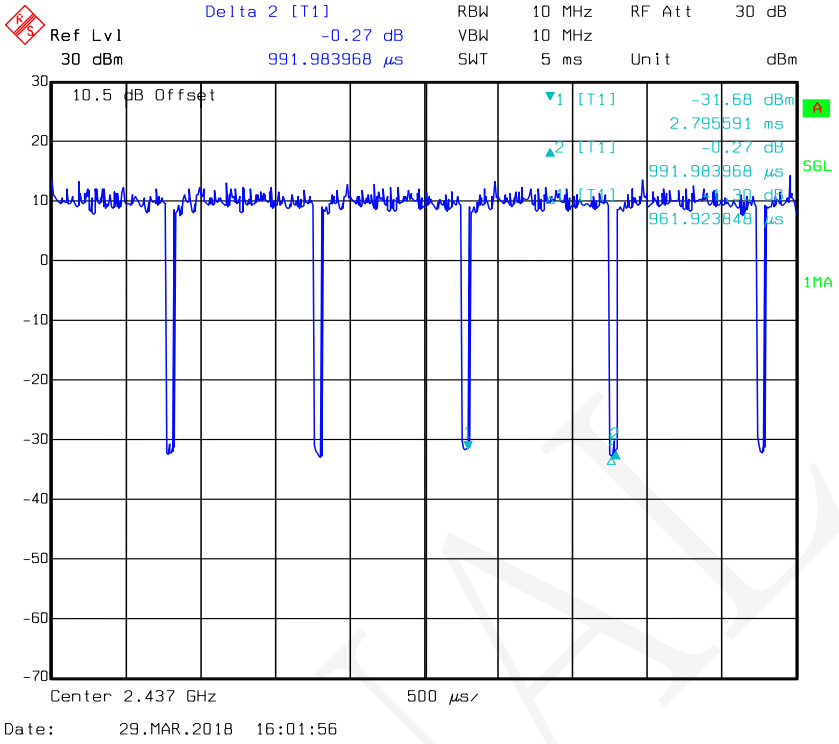
802.11b



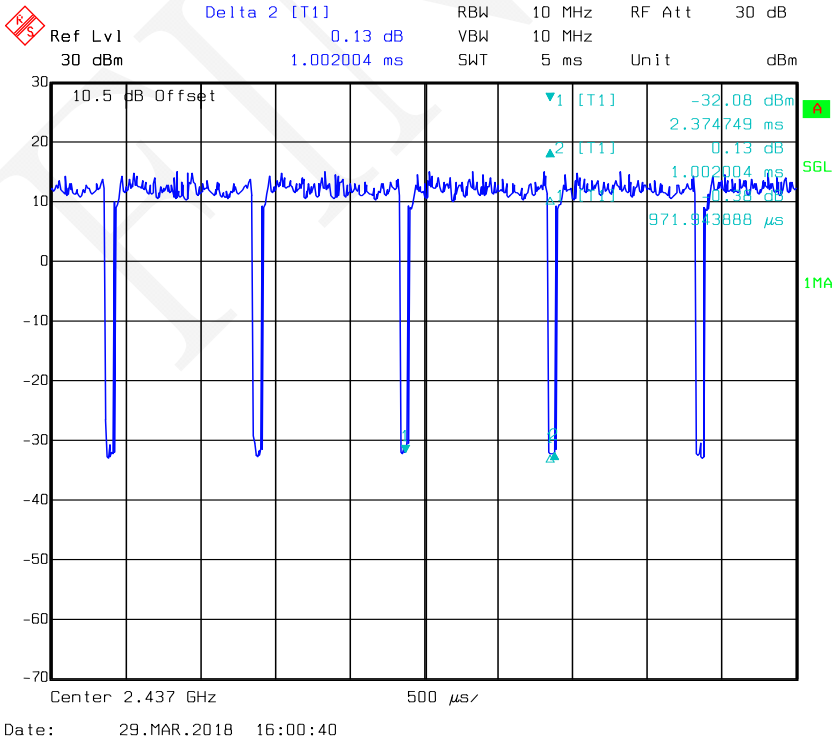
802.11g



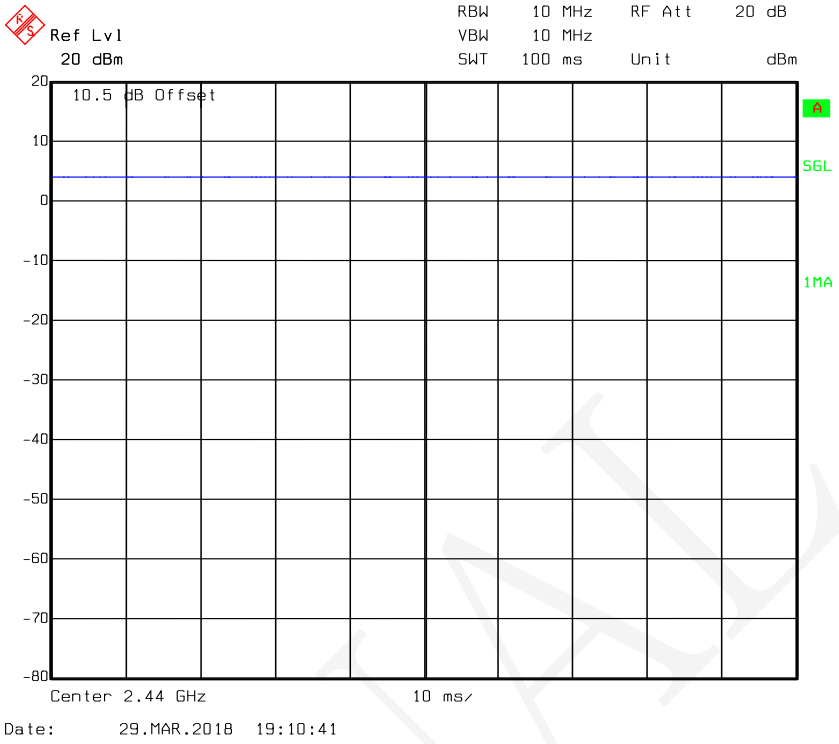
802.11n-HT20



802.11n-HT40



Bluetooth LE mode

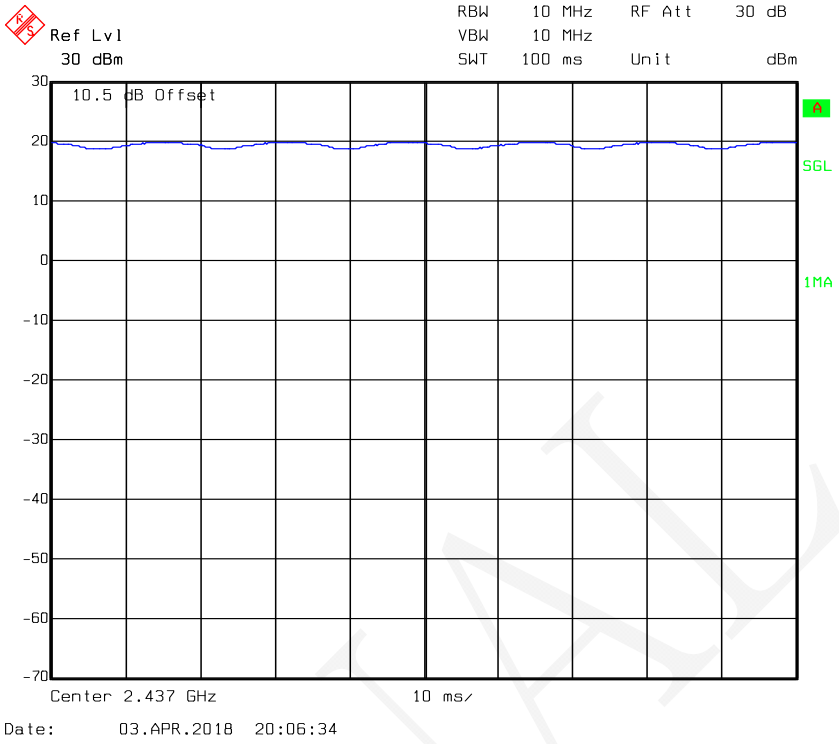


For 8265NGW Module

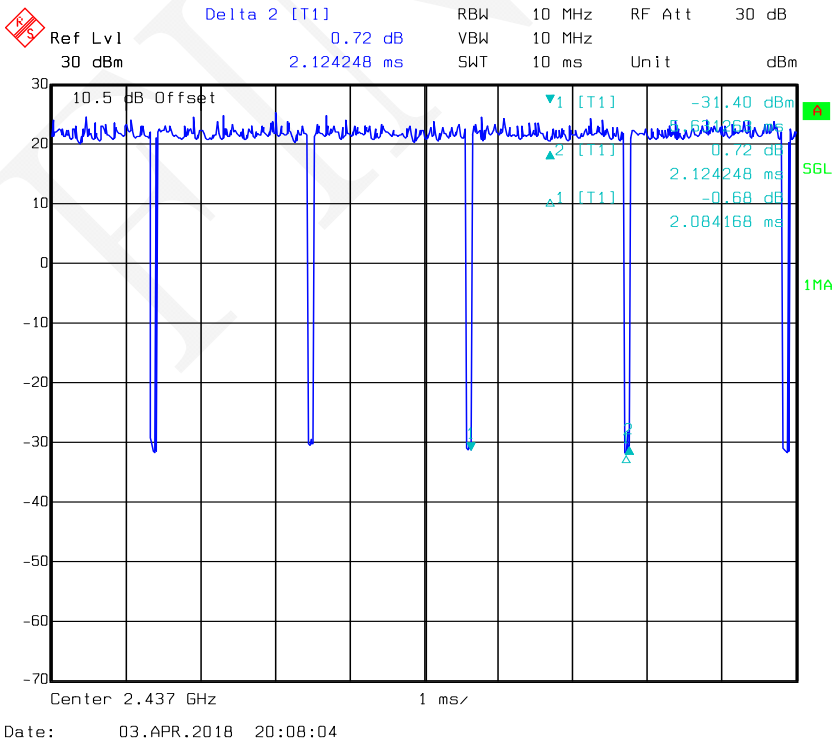
Duty Cycle information is below:

Mode	T_{on} (ms)	T_{on+off} (ms)	Duty Cycle (%)
802.11b	100	100	100
802.11g	2.08	2.12	98.11
802.11n-HT20	1.94	1.98	97.98
802.11n-HT40	0.96	0.99	96.97
BLE	100	100	100

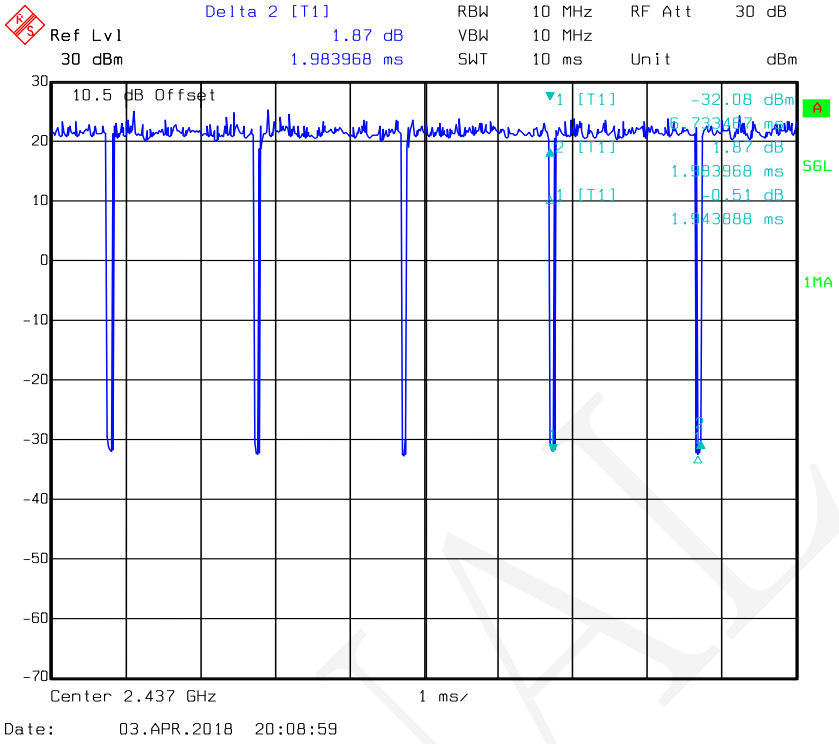
802.11b



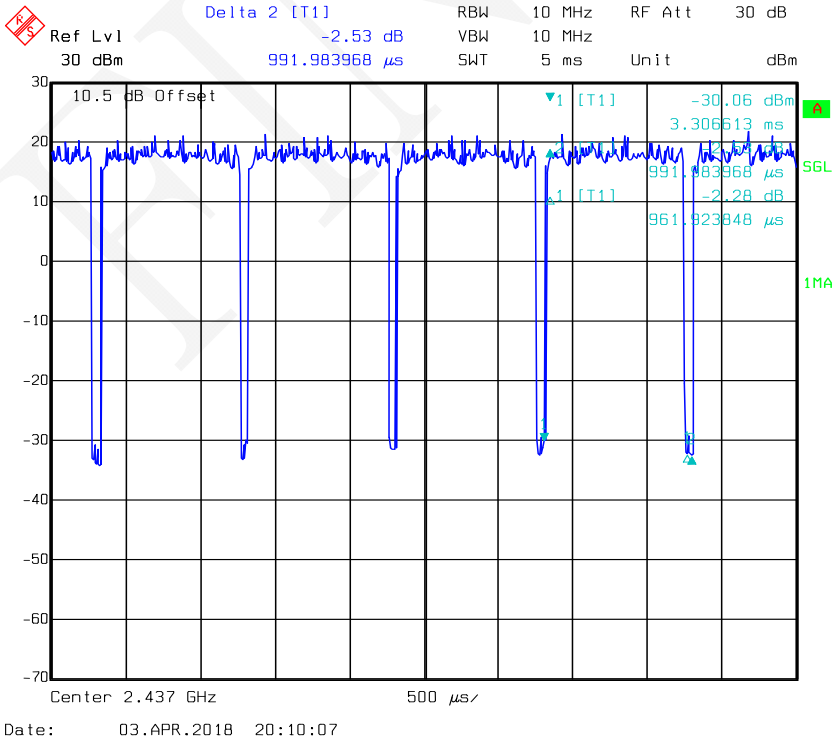
802.11g



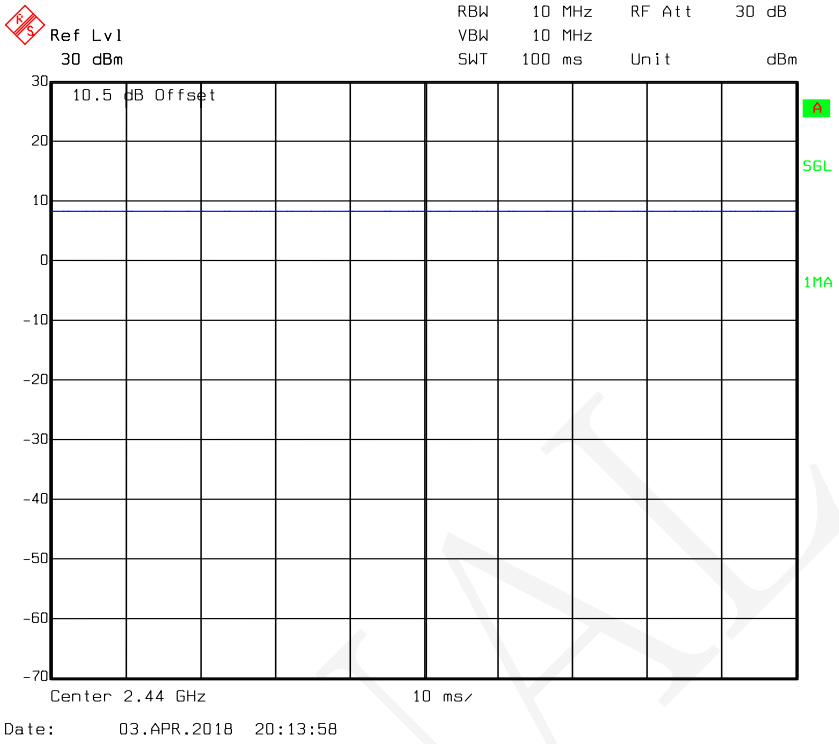
802.11n-HT20



802.11n-HT40



Bluetooth LE mode



Support Equipment List and Details

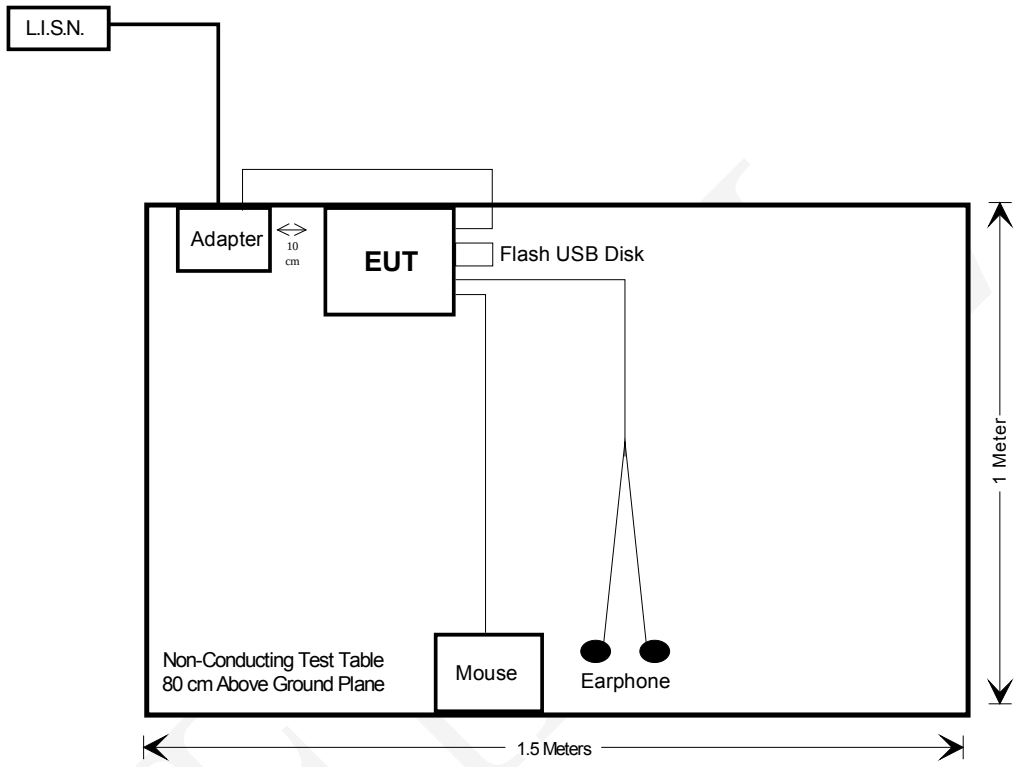
Manufacturer	Description	Model	Serial Number
Kingston	Flash USB Disk	DTSE9	7869951
HUAWEI	Earphone	P9	None
Logitech	Mouse	M-U0004	810-U01808

External I/O Cable

Cable Description	Length (m)	From	To
Unshielded Power Cable	1.2	Adapter	EUT
Unshielded Earphone Cable	1.0	EUT	Earphone
Unshielded USB Cable	1.8	EUT	Mouse

Block Diagram of Test Setup

Conducted Emissions



SUMMARY OF TEST RESULTS

For 7265NGW Module and 8265NGW Module

FCC Rules	Description of Test	Result
FCC §15.247 & §1.1310 & §2.1091	Maximum Permissible Exposure (MPE)	Compliance
§15.203	Antenna Requirement	Compliance
§15.207 (a)	AC Line Conducted Emissions	Compliance
§15.205, §15.209, §15.247(d)	Spurious Emissions	Compliance
§15.247 (a)(2)	6 dB Emission Bandwidth	Compliance
§15.247(b)(3)	Maximum conducted output power	Compliance
§15.247(d)	100 kHz Bandwidth of Frequency Band Edge	Compliance
§15.247(e)	Power Spectral Density	Compliance

TEST EQUIPMENTS LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Conducted Emission					
Rohde & Schwarz	EMI Test Receiver	ESCS 30	836858/0016	2017-12-02	2018-12-01
Rohde & Schwarz	L.I.S.N.	ENV216	100018	2017-05-20	2018-05-19
Rohde & Schwarz	RF Limiter	ESH3Z2	DE14781	2017-11-10	2018-11-09
Unknown	Conducted Cable	L-E003	000003	2017-11-10	2018-11-09
Rohde & Schwarz	EMC32	EMC32	V 8.52.0	N/A	N/A
Radiated Emission					
EMCT	Semi-Anechoic Chamber	966	001	2017-05-18	2020-05-17
Sonoma	Pre-Amplifier	310N	186684	2017-08-18	2018-08-17
Rohde & Schwarz	EMI Test Receiver	ESIB 40	100215	2017-09-12	2018-09-11
Rohde & Schwarz	EMI Test Receiver	ESCI	100028	2017-05-20	2018-05-19
A.H. Systems, Inc	Amplifier	PAM-0118P	467	2017-08-10	2018-08-09
EM Electronics	RF Pre-Amplifier	EM18G40	060725	2018-03-28	2019-03-27
SUNOL SCIENCES	Broadband Antenna	JB3	A121808	2017-05-19	2020-05-18
ETS	Horn Antenna	3115	003-6076	2017-05-19	2020-05-18
A.H. Systems, Inc	Horn Antenna	SAS-574	510	2017-05-19	2020-05-18
INMET	Attenuator	18N-6dB	64671	2017-11-10	2018-11-09
Sinoscite.,Co Ltd	Reject Band Filter	BSF5150-5850MN	0899V2	2017-11-10	2018-11-09
Unknown	RF Cable (below 1GHz)	L-E005	000005	2017-11-10	2018-11-09
Unknown	RF Cable (below 1GHz)	T-E128	000128	2017-11-10	2018-11-09
Unknown	RF Cable (below 1GHz)	T-E129	000129	2017-11-10	2018-11-09
Unknown	RF Cable (above 1GHz)	T-E069	000069	2017-11-10	2018-11-09
Micro-coax	RF Cable (above 1GHz)	T-E209	MFR 64639 2310	2018-03-14	2019-03-13
Rohde & Schwarz	EMC32	EMC32	V 8.52.0	N/A	N/A

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
RF Conducted Test					
Rohde & Schwarz	Spectrum Analyzer	FSEM30	100018	2017-05-18	2018-05-17
WEINSCHEL ENGINEERING	Attenuator	1A10dB	AA4135	2017-11-10	2018-11-09
Agilent	USB Wideband Power Sensor	U2021XA	MY53320008	2018-01-19	2019-01-18
E-Microwave	DC Block	EMDCB-00036	OE01304225	2017-12-09	2018-12-08
Unknown	RF Cable	No	000007	Each Time	/

*** Statement of Traceability:** BACL (Chengdu) attested that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

FCC §15.247 & §1.1310 & §2.1091- MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Applicable Standard

According to subpart 15.247 and subpart §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

Limits for Maximum Permissible Exposure (MPE) (§1.1310, §2.1091)

(B) Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	**Electric Field Strength (V/m)**	**Magnetic Field Strength (A/m)**	**Power Density (mW/cm^2)**	**Averaging Time (minutes)**
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f²)	30
30–300	27.5	0.073	0.2	30
300–1500	/	/	f/1500	30
1500–100,000	/	/	1.0	30

f = frequency in MHz; * = Plane-wave equivalent power density;

According to §1.1310 and §2.1091 RF exposure is calculated.

Per 447498 D01 General RF Exposure Guidance v06**,** simultaneous transmission MPE test exclusion applies when the sum of the MPE for all simultaneous transmitting antennas incorporated in a host device, based on the calculated/estimated, numerically modeled or measured field strengths or power density, is ≤ 1.0.

Calculated Formulary:

Predication of MPE limit at a given distance

$$S = PG/4\pi R^2$$

Where:
S = power density (in appropriate units, e.g. mW/cm^2);
P = power input to the antenna (in appropriate units, e.g., mW);
G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;
R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

For simultaneously transmit system, the calculated power density should comply with:

$$\sum_i \frac{S_i}{S_{Limit,i}} \le 1$$

Calculated Data:

MPE evaluation for single transmission:

Mode	Frequency Range (MHz)	Antenna Gain		Tune-up Conducted Power		Evaluation Distance (cm)	Power Density (mW/cm^2)	MPE Limit (mW/cm^2)
		(dBi)	(numeric)	(dBm)	(mW)			
7265NGW WLAN Module								
WLAN	2412-2462	3.70	2.34	16.00	39.81	20	0.019	1.00
	5150-5250	3.70	2.34	15.50	35.48	20	0.017	1.00
	5725-5850	3.70	2.34	16.00	39.81	20	0.019	1.00
BT 3.0	2402-2480	3.70	2.34	5.50	3.55	20	0.002	1.00
BLE	2402-2480	3.70	2.34	3.00	2.00	20	0.001	1.00
8265NGW WLAN Module								
WLAN	2412-2462	3.70	2.34	15.00	31.62	20	0.015	1.00
	5150-5250	3.70	2.34	15.00	31.62	20	0.015	1.00
	5725-5850	3.70	2.34	15.50	35.48	20	0.017	1.00
BT 3.0	2402-2480	3.70	2.34	9.0	7.94	20	0.004	1.00
BLE	2402-2480	3.70	2.34	4.50	2.82	20	0.001	1.00
LTE Module (FCC ID: RI7LN940A)								
WCDMA Band 5	824-849	3.0	2.0	24	251.19	20	0.100	0.549
LTE Band 5	824-849	3.0	2.0	24	251.19	20	0.100	0.549
WCDMA Band 2	1850-1910	3.0	2.0	25	316.23	20	0.126	1.00
LTE Band 2	1850-1910	3.0	2.0	25	316.23	20	0.126	1.00
LTE Band 25	1850-1915	3.0	2.0	25	316.23	20	0.126	1.00
WCDMA Band 4	1710-1755	3.0	2.0	25	316.23	20	0.126	1.00
LTE Band 4	1710-1755	3.0	2.0	25	316.23	20	0.126	1.00
LTE Band 7	2500-2570	3.0	2.0	25	316.23	20	0.126	1.00
LTE Band 12	699-716	3.0	2.0	24	251.19	20	0.100	0.466
LTE Band 13	777-787	3.0	2.0	24	251.19	20	0.100	0.518
LTE Band 17	704-716	3.0	2.0	24	251.19	20	0.100	0.469
LTE Band 30	2305-2315	3.0	2.0	25	316.23	20	0.126	1.00
LTE Band 38	2570-2620	3.0	2.0	25	316.23	20	0.126	1.00
LTE Band 41	2496-2690	3.0	2.0	25	316.23	20	0.126	1.00
LTE Band 66	1710-1780	3.0	2.0	25	316.23	20	0.126	1.00
LTE Band 26	814-849	3.0	2.0	24	251.19	20	0.100	0.543

MPE evaluation for simultaneous transmission:

Note: 1. Two Wi-Fi module can transmit simultaneously.
2. The Wi-Fi(2.4G) or Wi-Fi(5G) and Bluetooth can not transmit simultaneously.
3. Wi-Fi or Bluetooth and WCDMA/LTE can transmit at the same time, MPE evaluation is as below formula:

PD1/Limit1+PD2/Limit2+……＜1, PD (Power Density)

The worst case is as below:

Max MPE of Wi-Fi(7265NGW) + Max MPE of Wi-Fi(8265NGW) +Max MPE of LTE
= 0.019/1.0+0.017/1.0+0.10/0.466 =0.251＜1.0

Result: MPE evaluation of single and simultaneous transmission meet the requirement of standard.

FCC §15.203 - ANTENNA REQUIREMENT

Applicable Standard

According to § 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

a. Antenna must be permanently attached to the unit.
b. Antenna must use a unique type of connector to attach to the EUT.
Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

Antenna Connector Construction

The EUT has six built-in antennas (two 2.4G/5G Wi-Fi/Bluetooth antennas, antenna gain is 3.7dBi; two 2.4G/5G Wi-Fi antennas, antenna gain is 3.7dBi; one LTE main antenna and one LTE diversity antenna, antenna gain is 3dBi), which connected to the main board with IPEX socket, fulfill the requirement of this section. Please refer to the EUT internal photo and below table for detail.

Antenna Information:

Module	Antenna	RF	Manufacturer	Model	Antenna Gain(Max)
7265NGW	1	2.4G /5G Wi-Fi/ BT3.0/BLE	Dongguan Fange Electronics	34.WF24581201	3.7dBi
	2	2.4G /5G Wi-Fi			
8265NGW	1	2.4G /5G Wi-Fi	Dongguan Fange Electronics	34.WF24581201	3.7dBi
	2	2.4G /5G Wi-Fi/ BT3.0/BLE			
LTE	Main	4G	Jinchang Electron	JCG142	3dBi
	Diversity	4G			

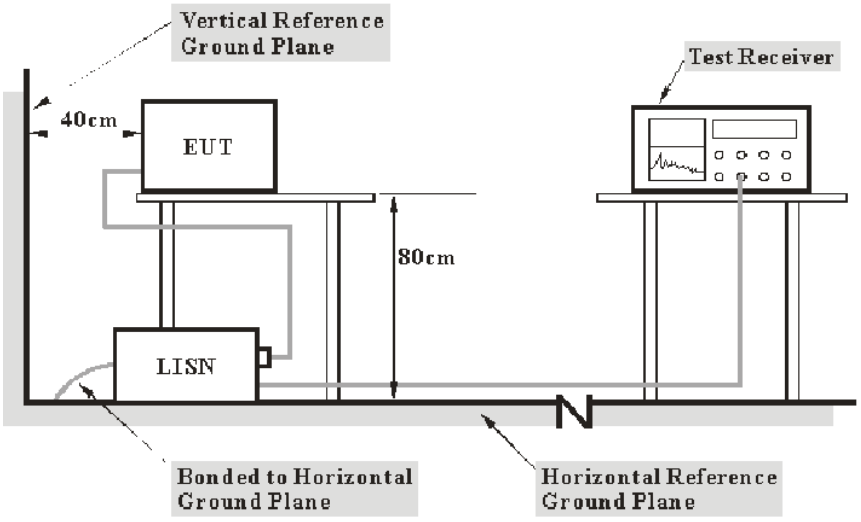
Result: Compliance.

FCC §15.207 (a) – AC LINE CONDUCTED EMISSIONS

Applicable Standard

FCC§15.207

EUT Setup



Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The spacing between the peripherals was 10 cm.

The adapter was connected to AC 120V/60Hz.

EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

Frequency Range	IF B/W
150 kHz – 30 MHz	9 kHz

Test Procedure

During the conducted emission test, the adapter was connected to the first L.I.S.N.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All data was recorded in the Quasi-peak and average detection mode.

Corrected Amplitude & Margin Calculation

The basic equation is as follows:

$V_C = V_R + A_C + VDF$
$C_f = A_C + VDF$

Herein,
V_C (cord. Reading): corrected voltage amplitude
V_R: reading voltage amplitude
A_c: attenuation caused by cable loss
VDF: voltage division factor of AMN
C_f: Correction Factor

The "**Margin**" column of the following data tables indicates the degree of compliance within the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

Margin = Limit – Corrected Amplitude

Test Data

Environmental Conditions

Temperature:	23 °C
Relative Humidity:	46 %
ATM Pressure:	95.9 kPa

The testing was performed by Tom Tang on 2018-03-28.

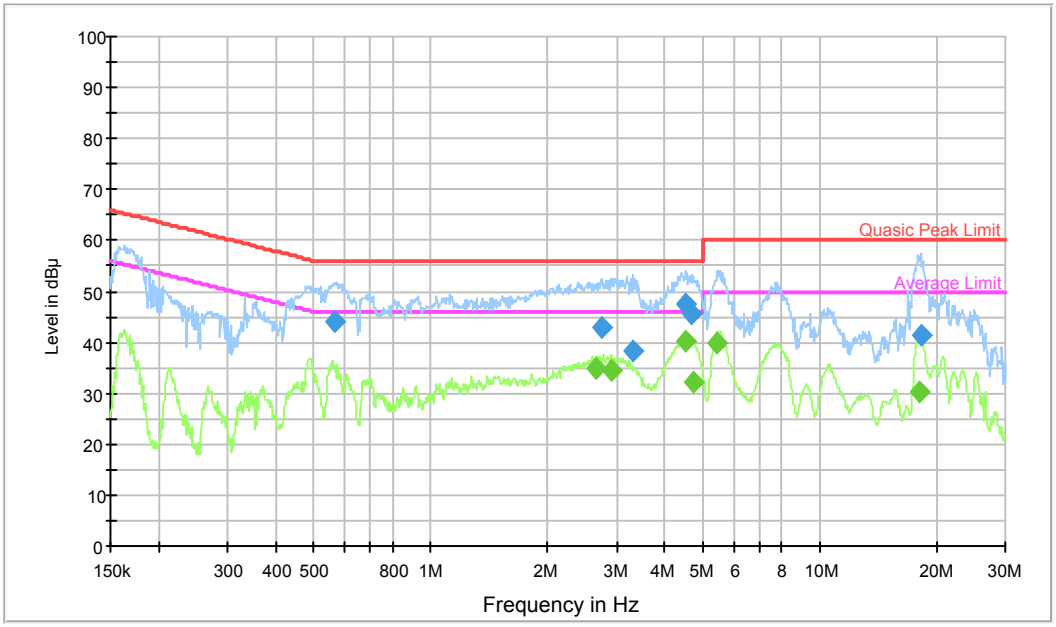
Test Mode: Transmitting

For 7265NGW Module

Wi-Fi Mode
802.11n20-Low channel - Worst Case

DC Input 1

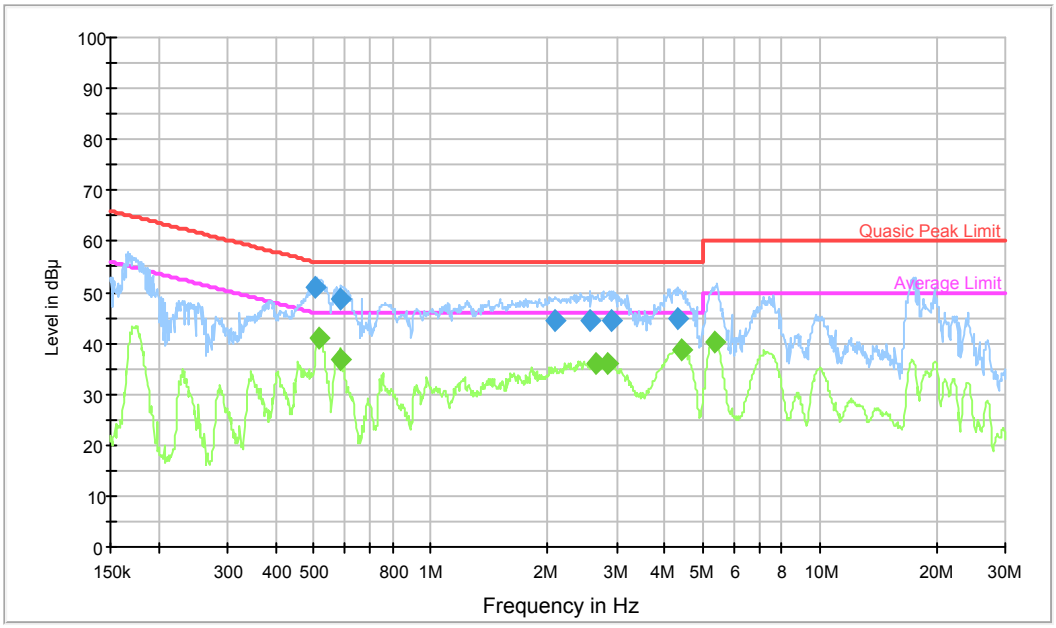
AC120 V, 60 Hz, Line:



Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corrected Factor (dB)	Margin (dB)	Limit (dBµV)
0.564526	43.9	200.0	9.000	L1	19.8	12.1	56.0
2.743055	43.1	200.0	9.000	L1	19.9	12.9	56.0
3.309169	38.2	200.0	9.000	L1	19.9	17.8	56.0
4.536097	47.4	200.0	9.000	L1	20.0	8.6	56.0
4.702033	45.8	200.0	9.000	L1	20.0	10.2	56.0
18.197610	41.5	200.0	9.000	L1	20.1	18.5	60.0

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corrected Factor (dB)	Margin (dB)	Limit (dBµV)
2.656836	34.9	200.0	9.000	L1	19.9	11.1	46.0
2.900724	34.4	200.0	9.000	L1	19.9	11.6	46.0
4.518024	40.1	200.0	9.000	L1	20.0	5.9	46.0
4.758684	32.2	200.0	9.000	L1	20.0	13.8	46.0
5.450459	39.8	200.0	9.000	L1	20.0	10.2	50.0
17.980974	30.2	200.0	9.000	L1	20.1	19.8	50.0

AC120 V, 60 Hz, Neutral:

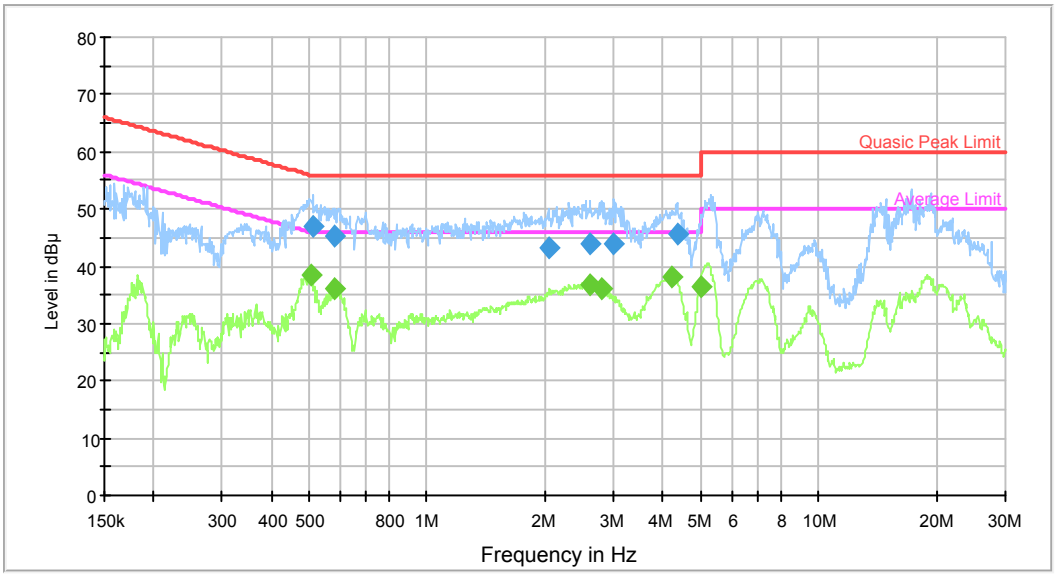


Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corrected Factor (dB)	Margin (dB)	Limit (dBµV)
0.506844	50.9	200.0	9.000	N	19.5	5.1	56.0
0.587518	48.5	200.0	9.000	N	19.5	7.5	56.0
2.090942	44.4	200.0	9.000	N	19.5	11.6	56.0
2.563075	44.6	200.0	9.000	N	19.6	11.4	56.0
2.900724	44.6	200.0	9.000	N	19.6	11.4	56.0
4.289536	44.9	200.0	9.000	N	19.7	11.1	56.0

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corrected Factor (dB)	Margin (dB)	Limit (dBµV)
0.515002	40.8	200.0	9.000	N	19.5	5.2	46.0
0.582846	36.8	200.0	9.000	N	19.5	9.2	46.0
2.656836	35.9	200.0	9.000	N	19.6	10.1	46.0
2.854773	35.9	200.0	9.000	N	19.6	10.1	46.0
4.393520	38.6	200.0	9.000	N	19.7	7.4	46.0
5.364117	40.3	200.0	9.000	N	19.7	9.7	50.0

DC Input 2

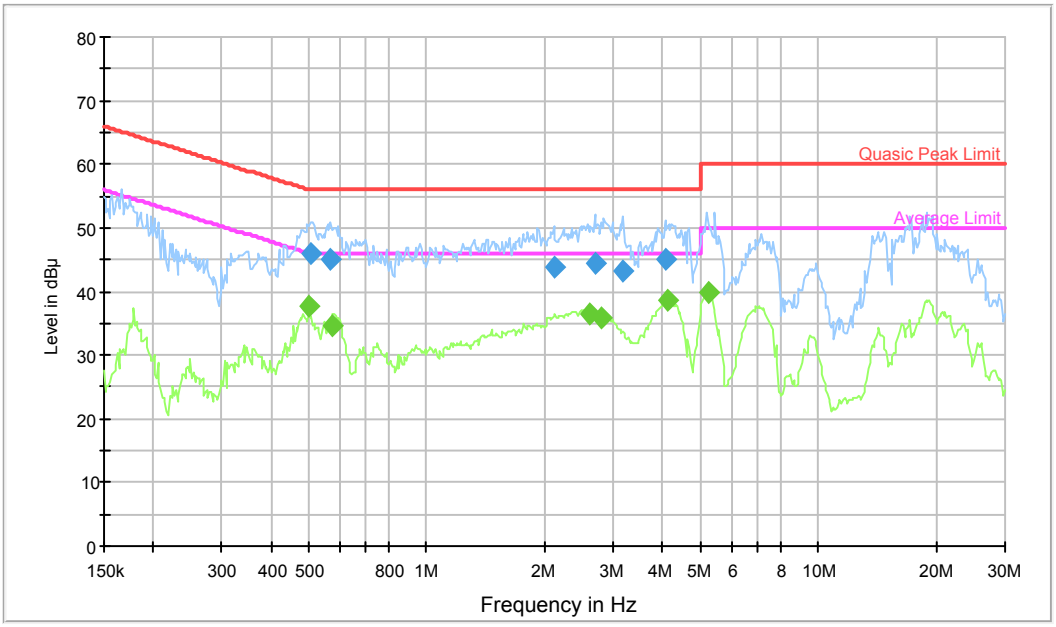
AC120 V, 60 Hz, Line:



Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corrected Factor (dB)	Margin (dB)	Limit (dBµV)
0.510906	47.0	200.0	9.000	L1	19.7	9.0	56.0
0.578211	45.2	200.0	9.000	L1	19.7	10.8	56.0
2.041455	43.4	200.0	9.000	L1	19.7	12.6	56.0
2.604331	43.9	200.0	9.000	L1	19.7	12.1	56.0
3.006837	44.0	200.0	9.000	L1	19.7	12.0	56.0
4.358581	45.5	200.0	9.000	L1	19.8	10.5	56.0

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corrected Factor (dB)	Margin (dB)	Limit (dBµV)
0.506844	38.3	200.0	9.000	L1	19.7	7.7	46.0
0.578211	36.0	200.0	9.000	L1	19.7	10.0	46.0
2.614748	36.7	200.0	9.000	L1	19.7	9.3	46.0
2.798356	36.0	200.0	9.000	L1	19.7	10.0	46.0
4.238471	38.1	200.0	9.000	L1	19.8	7.9	46.0
4.992193	36.5	200.0	9.000	L1	19.8	9.5	46.0

AC120 V, 60 Hz, Neutral:



Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corrected Factor (dB)	Margin (dB)	Limit (dBµV)
0.507637	46.0	200.0	9.000	N	19.7	10.0	56.0
0.567545	45.1	200.0	9.000	N	19.7	10.9	56.0
2.113432	43.8	200.0	9.000	N	19.7	12.2	56.0
2.684134	44.5	200.0	9.000	N	19.7	11.5	56.0
3.173039	43.1	200.0	9.000	N	19.7	12.9	56.0
4.062112	45.1	200.0	9.000	N	19.8	10.9	56.0

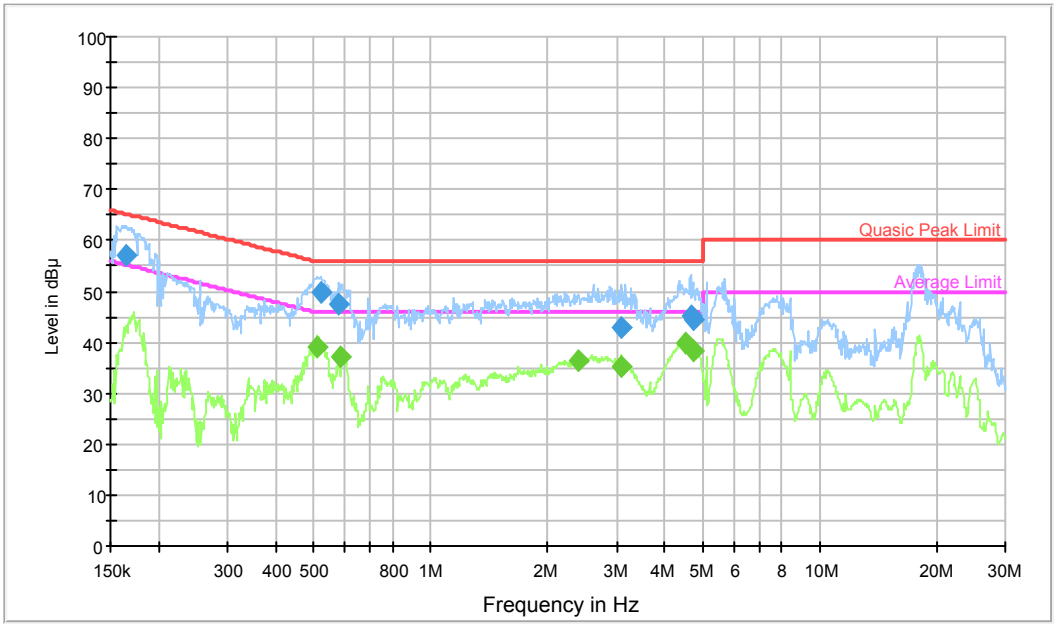
Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corrected Factor (dB)	Margin (dB)	Limit (dBµV)
0.499611	37.6	200.0	9.000	N	19.7	8.4	46.0
0.576662	34.6	200.0	9.000	N	19.7	11.4	46.0
2.620732	36.6	200.0	9.000	N	19.7	9.4	46.0
2.793231	35.8	200.0	9.000	N	19.7	10.2	46.0
4.127365	38.6	200.0	9.000	N	19.8	7.4	46.0
5.241902	39.9	200.0	9.000	N	19.8	10.1	50.0

BLE Mode

Low channel-worst case

DC Input 1

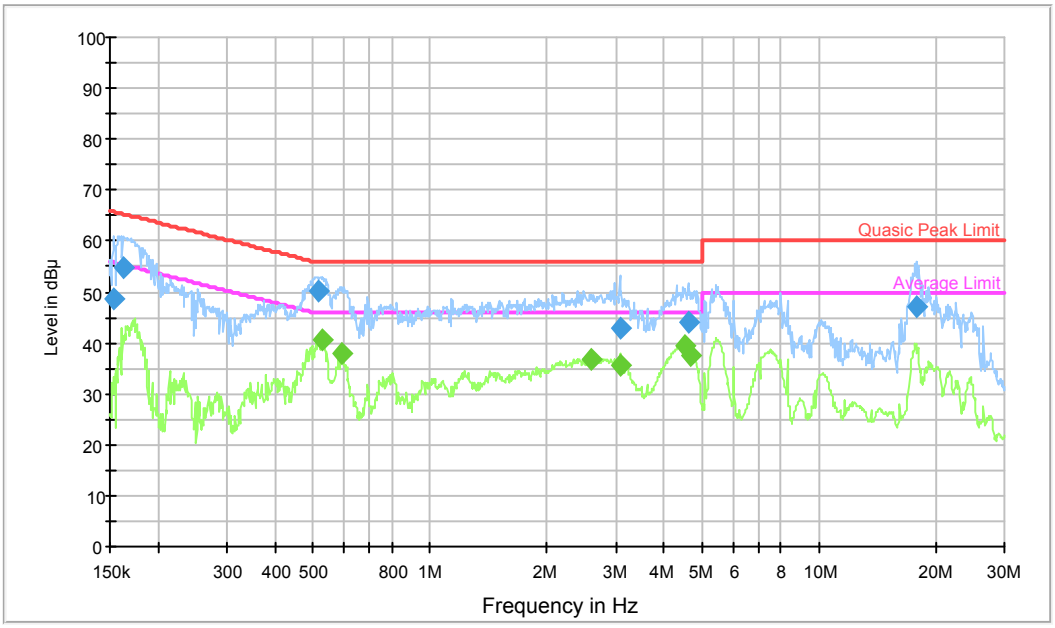
AC120 V, 60 Hz, Line:



Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corrected Factor (dB)	Margin (dB)	Limit (dBµV)
0.165082	57.0	200.0	9.000	L1	19.6	8.2	65.2
0.519130	49.8	200.0	9.000	L1	19.8	6.2	56.0
0.580524	47.3	200.0	9.000	L1	19.8	8.7	56.0
3.104414	42.8	200.0	9.000	L1	19.9	13.2	56.0
4.664642	45.4	200.0	9.000	L1	20.0	10.6	56.0
4.739725	44.4	200.0	9.000	L1	20.0	11.6	56.0

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corrected Factor (dB)	Margin (dB)	Limit (dBµV)
0.510906	39.1	200.0	9.000	L1	19.8	6.9	46.0
0.582846	37.3	200.0	9.000	L1	19.8	8.7	46.0
2.385363	36.2	200.0	9.000	L1	19.8	9.8	46.0
3.104414	35.2	200.0	9.000	L1	19.9	10.8	46.0
4.518024	39.8	200.0	9.000	L1	20.0	6.2	46.0
4.739725	38.1	200.0	9.000	L1	20.0	7.9	46.0

AC120 V, 60 Hz, Neutral:

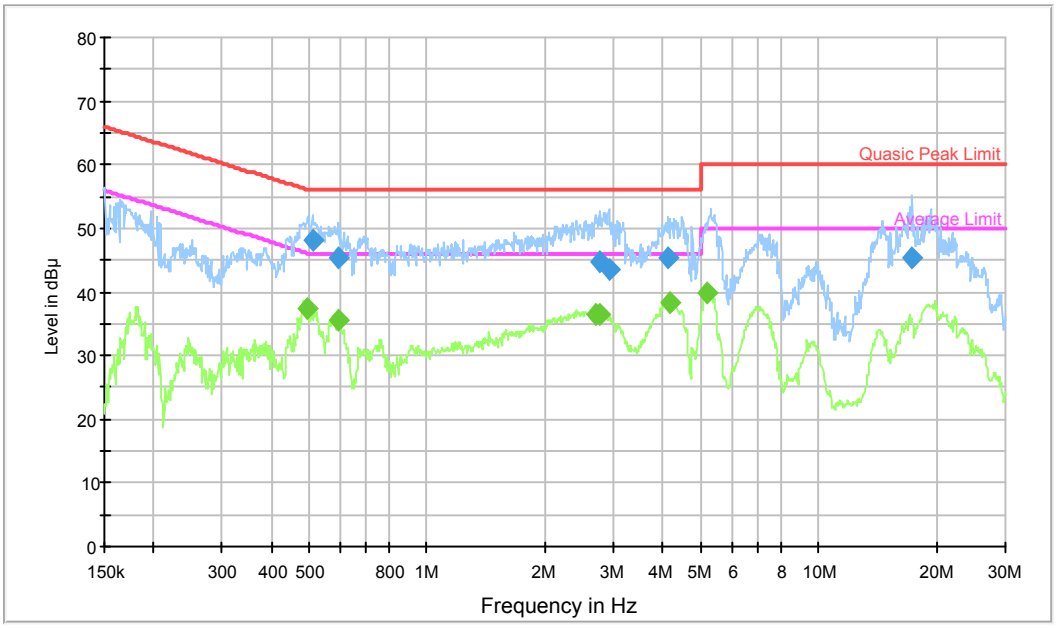


Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.153636	48.5	200.0	9.000	N	19.5	17.3	65.8
0.162467	55.0	200.0	9.000	N	19.5	10.3	65.3
0.512950	50.1	200.0	9.000	N	19.5	5.9	56.0
3.079726	43.1	200.0	9.000	N	19.6	12.9	56.0
4.609111	44.2	200.0	9.000	N	19.7	11.8	56.0
17.837984	47.1	200.0	9.000	N	19.9	12.9	60.0

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.529596	40.7	200.0	9.000	N	19.5	5.3	46.0
0.594597	37.8	200.0	9.000	N	19.5	8.2	46.0
2.604331	36.7	200.0	9.000	N	19.6	9.3	46.0
3.079726	35.5	200.0	9.000	N	19.6	10.5	46.0
4.500024	39.3	200.0	9.000	N	19.7	6.7	46.0
4.702033	37.5	200.0	9.000	N	19.7	8.5	46.0

DC Input 2

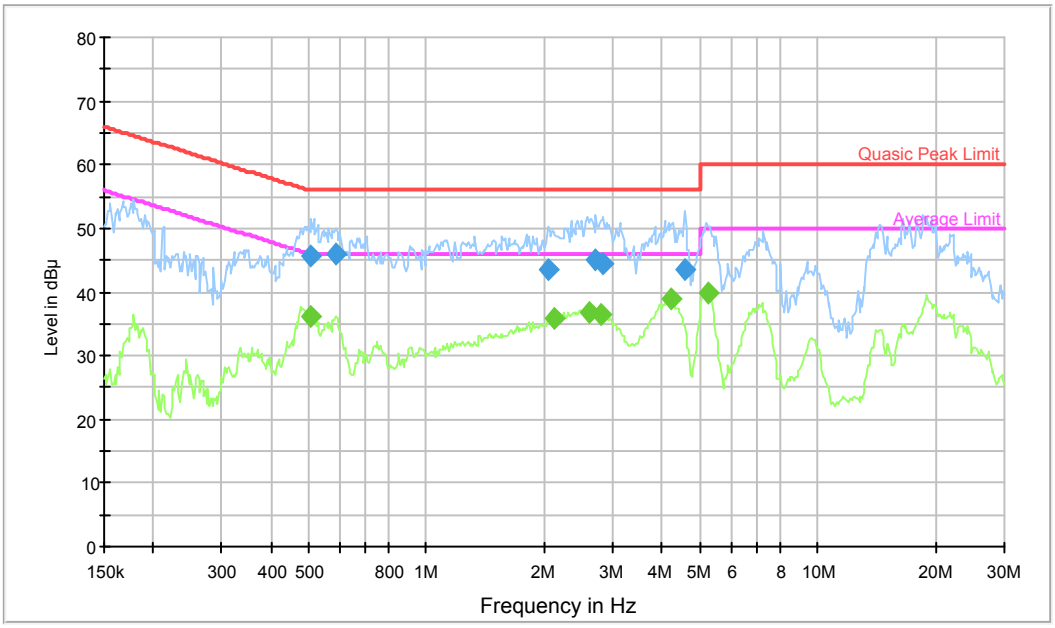
AC120 V, 60 Hz, Line:



Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corrected Factor (dB)	Margin (dB)	Limit (dBµV)
0.508871	48.3	200.0	9.000	L1	19.7	7.7	56.0
0.594597	45.4	200.0	9.000	L1	19.7	10.6	56.0
2.754027	44.8	200.0	9.000	L1	19.7	11.2	56.0
2.912327	43.5	200.0	9.000	L1	19.7	12.5	56.0
4.138156	45.3	200.0	9.000	L1	19.8	10.7	56.0
17.346417	45.3	200.0	9.000	L1	20.1	14.7	60.0

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corrected Factor (dB)	Margin (dB)	Limit (dBµV)
0.494848	37.3	200.0	9.000	L1	19.7	8.8	46.1
0.594597	35.5	200.0	9.000	L1	19.7	10.5	46.0
2.699601	36.4	200.0	9.000	L1	19.7	9.6	46.0
2.776103	36.3	200.0	9.000	L1	19.7	9.7	46.0
4.188013	38.4	200.0	9.000	L1	19.8	7.6	46.0
5.216296	39.9	200.0	9.000	L1	19.8	10.1	50.0

AC120 V, 60 Hz, Neutral:



Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.507637	45.6	200.0	9.000	N	19.7	10.4	56.0
0.585926	46.0	200.0	9.000	N	19.7	10.0	56.0
2.047133	43.6	200.0	9.000	N	19.7	12.4	56.0
2.705607	45.2	200.0	9.000	N	19.7	10.8	56.0
2.838101	44.5	200.0	9.000	N	19.7	11.5	56.0
4.577832	43.5	200.0	9.000	N	19.8	12.5	56.0

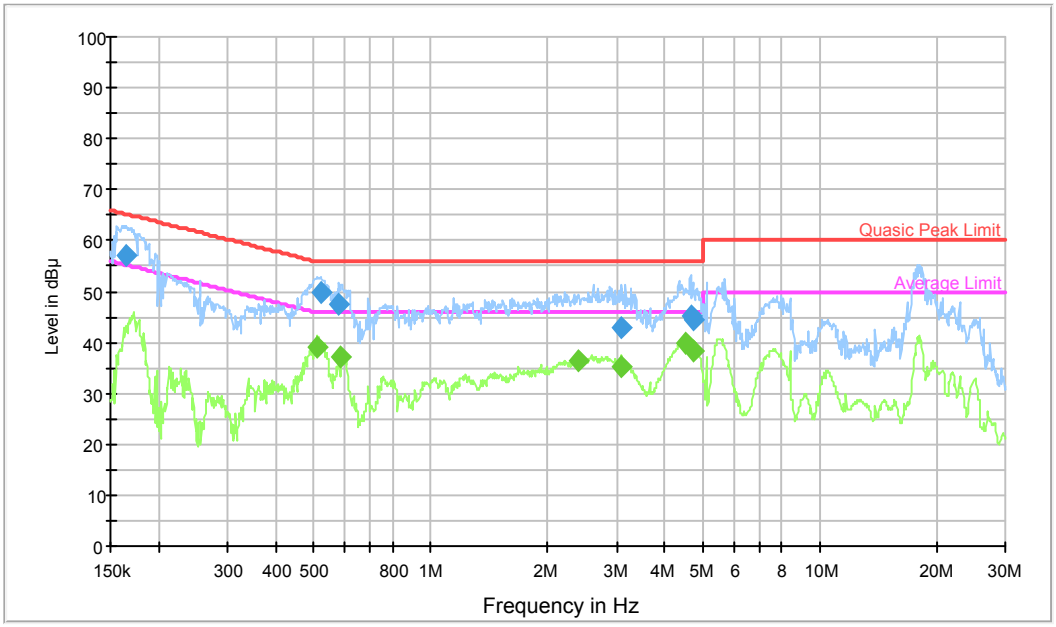
Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.507637	36.1	200.0	9.000	N	19.7	9.9	46.0
2.113432	35.9	200.0	9.000	N	19.7	10.1	46.0
2.620732	36.9	200.0	9.000	N	19.7	9.1	46.0
2.793231	36.4	200.0	9.000	N	19.7	9.6	46.0
4.227217	38.8	200.0	9.000	N	19.8	7.2	46.0
5.241902	39.9	200.0	9.000	N	19.8	10.1	50.0

For 8265NGW Module

Wi-Fi Mode
802.11n20-Low channel - Worst Case

DC Input 1

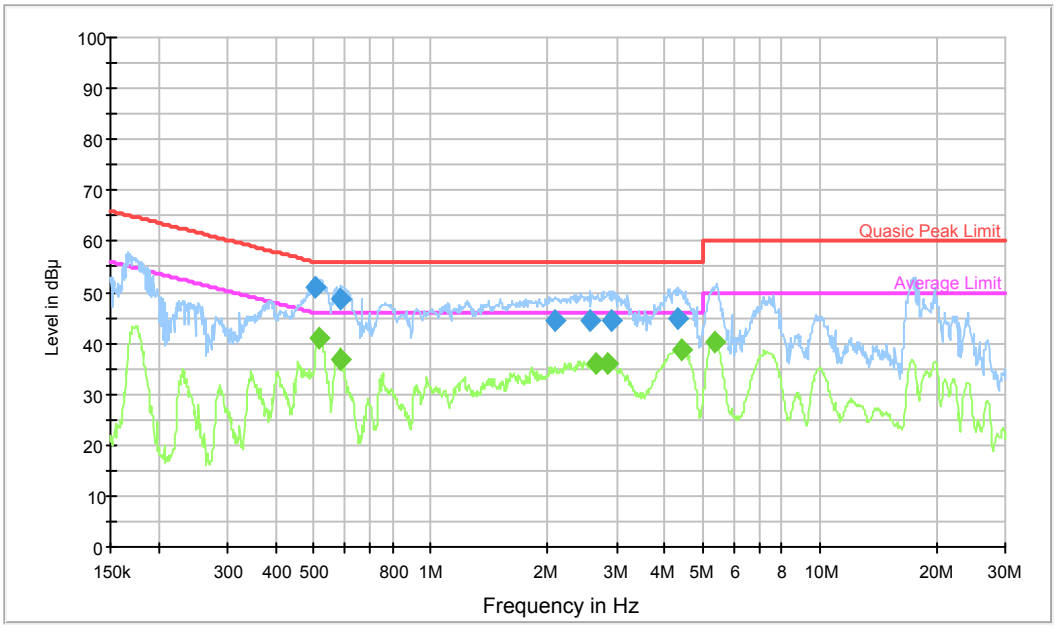
AC120 V, 60 Hz, Line:



Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corrected Factor (dB)	Margin (dB)	Limit (dBµV)
0.166082	57.1	200.0	9.000	L1	19.6	8.1	65.2
0.519130	49.8	200.0	9.000	L1	19.8	6.2	56.0
0.580524	47.3	200.0	9.000	L1	19.8	8.7	56.0
3.104414	42.8	200.0	9.000	L1	19.9	13.2	56.0
4.654643	45.6	200.0	9.000	L1	20.0	10.4	56.0
4.739725	44.5	200.0	9.000	L1	20.0	11.5	56.0

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corrected Factor (dB)	Margin (dB)	Limit (dBµV)
0.511906	39.2	200.0	9.000	L1	19.8	6.8	46.0
0.582846	37.4	200.0	9.000	L1	19.8	8.6	46.0
2.385363	36.3	200.0	9.000	L1	19.8	9.7	46.0
3.124413	35.2	200.0	9.000	L1	19.9	10.8	46.0
4.518024	39.7	200.0	9.000	L1	20.0	6.3	46.0
4.749728	38.1	200.0	9.000	L1	20.0	7.9	46.0

AC120 V, 60 Hz, Neutral:

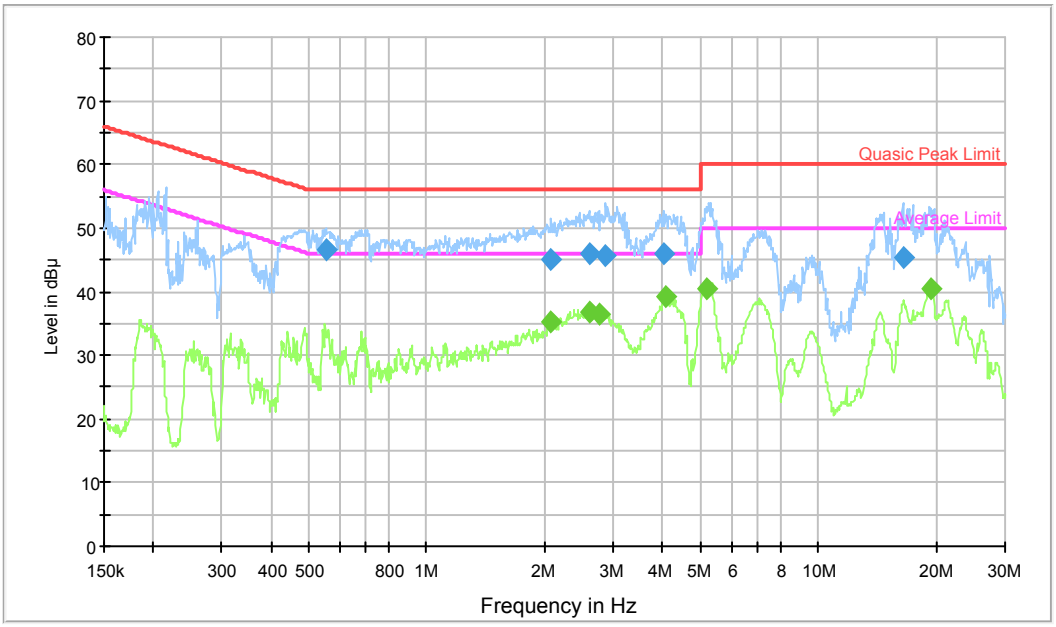


Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corrected Factor (dB)	Margin (dB)	Limit (dBµV)
0.516844	50.7	200.0	9.000	N	19.5	5.3	56.0
0.587518	48.5	200.0	9.000	N	19.5	7.5	56.0
2.093942	44.4	200.0	9.000	N	19.5	11.6	56.0
2.563075	44.5	200.0	9.000	N	19.6	11.5	56.0
2.900724	44.6	200.0	9.000	N	19.6	11.4	56.0
4.299436	44.9	200.0	9.000	N	19.7	11.1	56.0

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corrected Factor (dB)	Margin (dB)	Limit (dBµV)
0.516002	40.6	200.0	9.000	N	19.5	5.4	46.0
0.582846	36.8	200.0	9.000	N	19.5	9.2	46.0
2.656836	35.9	200.0	9.000	N	19.6	10.1	46.0
2.864773	35.8	200.0	9.000	N	19.6	10.2	46.0
4.403520	38.6	200.0	9.000	N	19.7	7.4	46.0
5.354117	40.3	200.0	9.000	N	19.7	9.7	50.0

DC Input 2

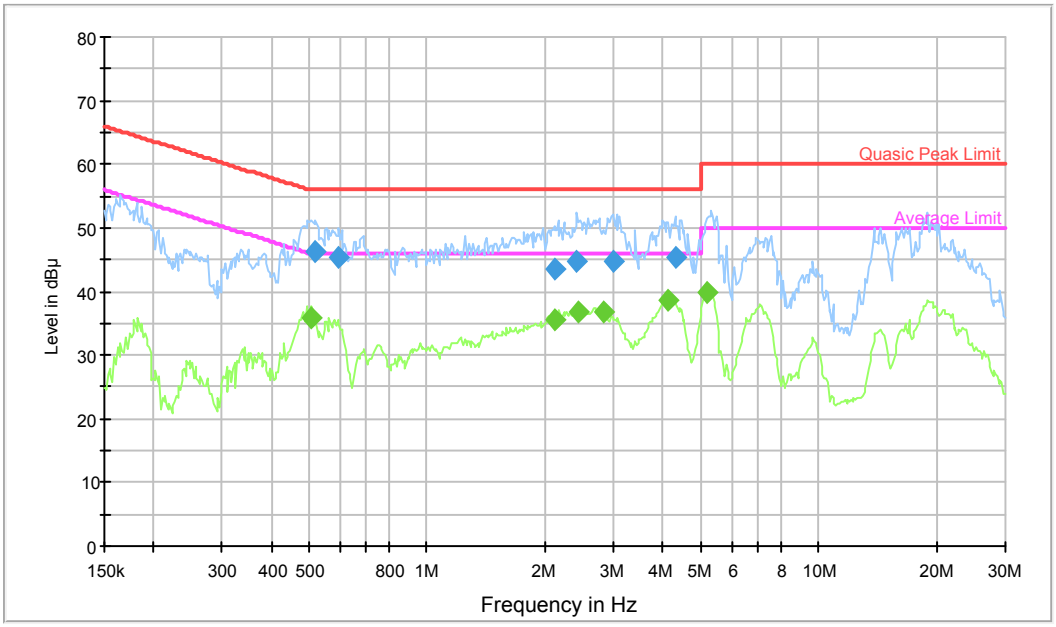
AC120 V, 60 Hz, Line:



Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corrected Factor (dB)	Margin (dB)	Limit (dBµV)
0.553370	46.5	200.0	9.000	L1	19.7	9.5	56.0
2.082612	44.9	200.0	9.000	L1	19.7	11.1	56.0
2.593955	46.0	200.0	9.000	L1	19.7	10.0	56.0
2.866192	45.8	200.0	9.000	L1	19.7	10.2	56.0
4.024120	45.8	200.0	9.000	L1	19.8	10.2	56.0
16.469163	45.3	200.0	9.000	L1	20.1	14.7	60.0

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corrected Factor (dB)	Margin (dB)	Limit (dBµV)
2.066050	35.1	200.0	9.000	L1	19.7	10.9	46.0
2.604331	36.8	200.0	9.000	L1	19.7	9.2	46.0
2.765043	36.6	200.0	9.000	L1	19.7	9.4	46.0
4.088893	39.2	200.0	9.000	L1	19.8	6.8	46.0
5.216296	40.6	200.0	9.000	L1	19.8	9.4	50.0
19.320575	40.6	200.0	9.000	L1	20.1	9.4	50.0

AC120 V, 60 Hz, Neutral:



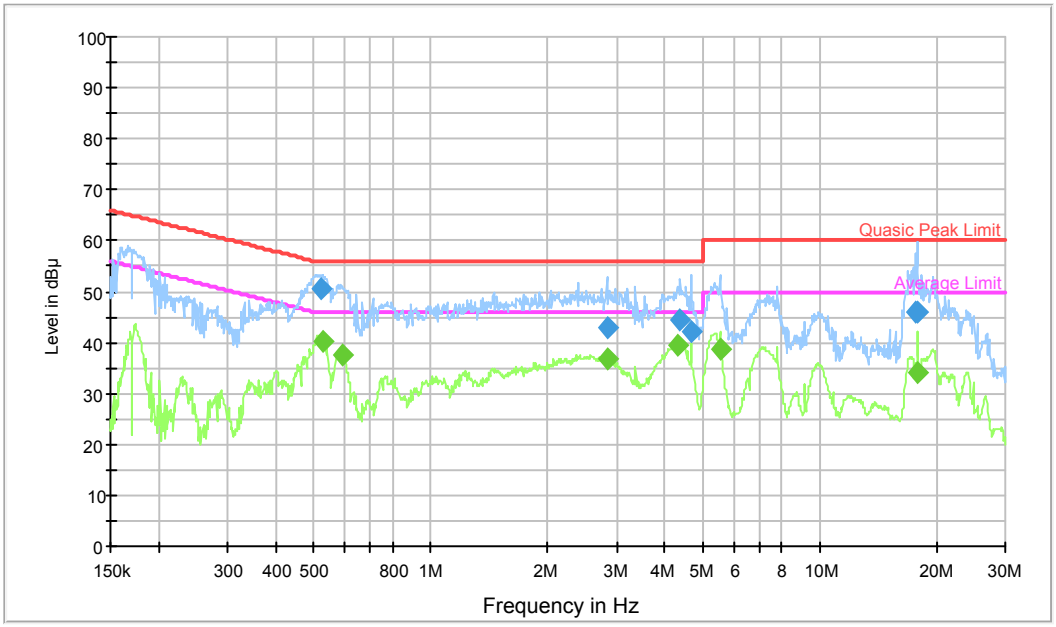
Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corrected Factor (dB)	Margin (dB)	Limit (dBµV)
0.519918	46.1	200.0	9.000	N	19.7	9.9	56.0
0.595338	45.5	200.0	9.000	N	19.7	10.5	56.0
2.113432	43.5	200.0	9.000	N	19.7	12.5	56.0
2.420011	44.9	200.0	9.000	N	19.7	11.1	56.0
2.977084	44.8	200.0	9.000	N	19.7	11.2	56.0
4.295123	45.3	200.0	9.000	N	19.8	10.7	56.0

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corrected Factor (dB)	Margin (dB)	Limit (dBµV)
0.507637	35.9	200.0	9.000	N	19.7	10.1	46.0
2.113432	35.7	200.0	9.000	N	19.7	10.3	46.0
2.439371	36.8	200.0	9.000	N	19.7	9.2	46.0
2.815577	36.6	200.0	9.000	N	19.7	9.4	46.0
4.127365	38.6	200.0	9.000	N	19.8	7.4	46.0
5.200299	39.9	200.0	9.000	N	19.8	10.1	50.0

BLE Mode
Low channel - worst case

DC Input 1

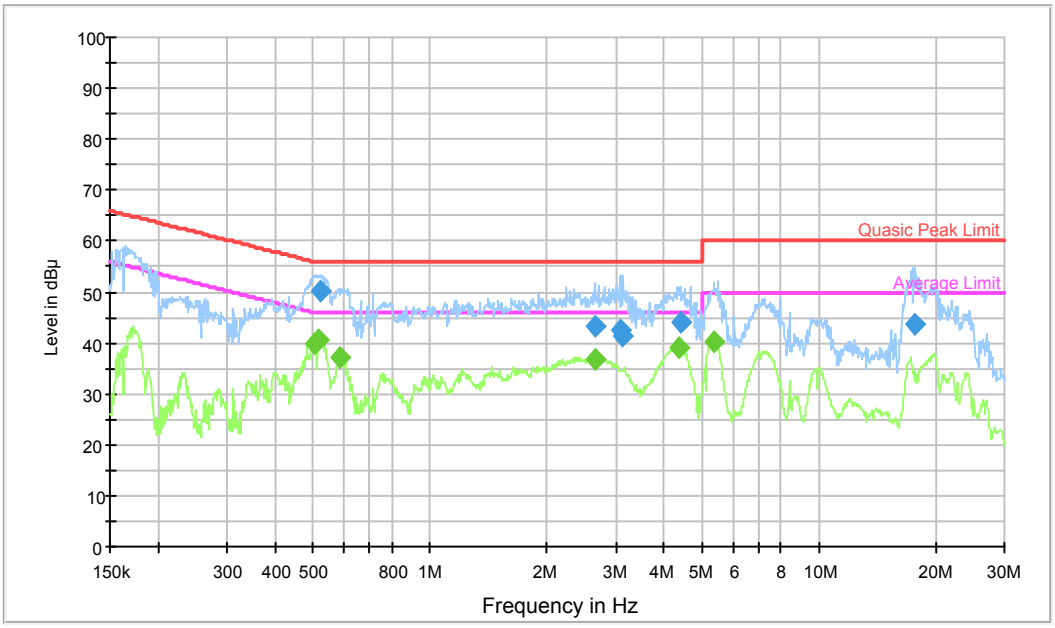
AC120 V, 60 Hz, Line:



Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corrected Factor (dB)	Margin (dB)	Limit (dBµV)
0.519130	50.5	200.0	9.000	L1	19.8	5.5	56.0
2.832071	43.0	200.0	9.000	L1	19.9	13.0	56.0
4.376016	44.6	200.0	9.000	L1	20.0	11.4	56.0
4.683300	42.0	200.0	9.000	L1	20.0	14.0	56.0
17.625630	45.9	200.0	9.000	L1	20.1	14.1	60.0
17.837984	45.9	200.0	9.000	L1	20.1	14.1	60.0

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corrected Factor (dB)	Margin (dB)	Limit (dBµV)
0.529596	40.3	200.0	9.000	L1	19.8	5.7	46.0
0.589868	37.6	200.0	9.000	L1	19.8	8.4	46.0
2.832071	36.9	200.0	9.000	L1	19.9	9.1	46.0
4.323921	39.5	200.0	9.000	L1	19.9	6.5	46.0
5.538191	38.8	200.0	9.000	L1	20.0	11.2	50.0
17.837984	33.9	200.0	9.000	L1	20.1	16.1	50.0

AC120 V, 60 Hz, Neutral:

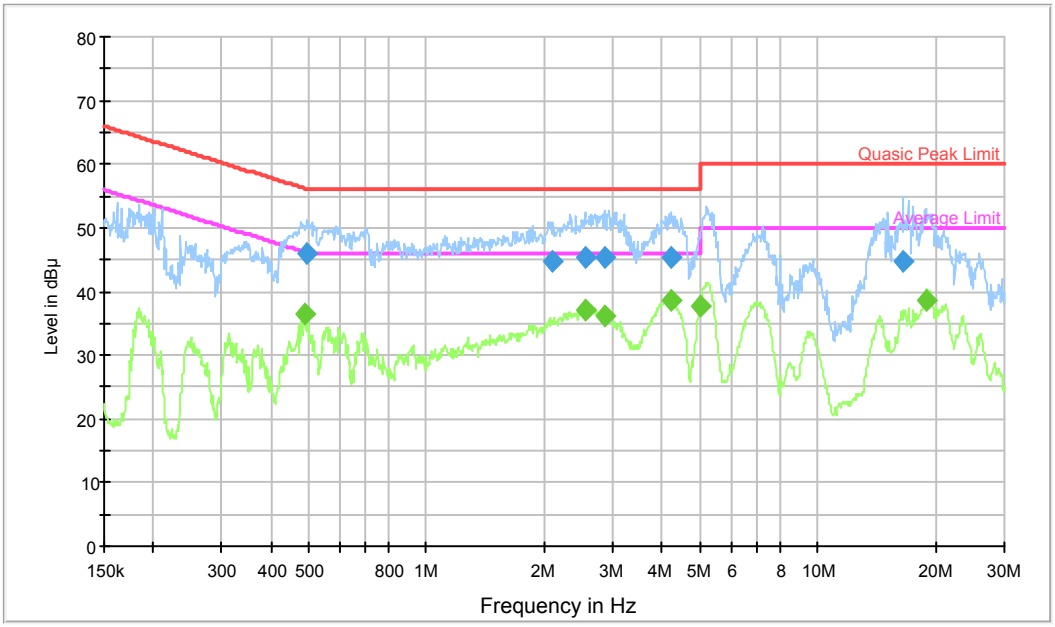


Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corrected Factor (dB)	Margin (dB)	Limit (dBµV)
0.521207	50.2	200.0	9.000	N	19.5	5.8	56.0
2.646251	43.5	200.0	9.000	N	19.6	12.5	56.0
3.079726	42.5	200.0	9.000	N	19.6	13.5	56.0
3.129299	41.5	200.0	9.000	N	19.6	14.5	56.0
4.411094	44.2	200.0	9.000	N	19.7	11.8	56.0
17.696132	43.8	200.0	9.000	N	19.9	16.2	60.0

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corrected Factor (dB)	Margin (dB)	Limit (dBµV)
0.504824	39.7	200.0	9.000	N	19.5	6.3	46.0
0.515002	40.5	200.0	9.000	N	19.5	5.5	46.0
0.585177	37.1	200.0	9.000	N	19.5	8.9	46.0
2.646251	36.6	200.0	9.000	N	19.6	9.4	46.0
4.341217	39.0	200.0	9.000	N	19.7	7.0	46.0
5.342746	40.4	200.0	9.000	N	19.7	9.6	50.0

DC Input 2

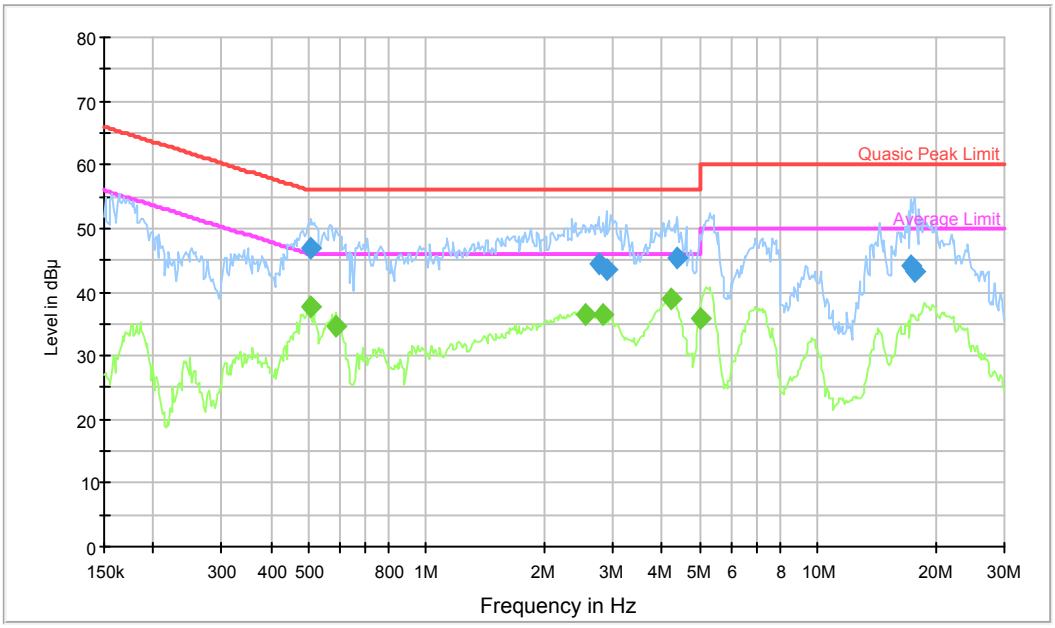
AC120 V, 60 Hz, Line:



Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corrected Factor (dB)	Margin (dB)	Limit (dBµV)
0.494848	46.1	200.0	9.000	L1	19.7	10.0	56.1
2.107703	44.6	200.0	9.000	L1	19.7	11.4	56.0
2.552864	45.3	200.0	9.000	L1	19.7	10.7	56.0
2.843400	45.5	200.0	9.000	L1	19.7	10.5	56.0
4.221584	45.3	200.0	9.000	L1	19.8	10.7	56.0
16.535040	44.9	200.0	9.000	L1	20.1	15.1	60.0

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corrected Factor (dB)	Margin (dB)	Limit (dBµV)
0.488957	36.5	200.0	9.000	L1	19.7	9.6	46.2
2.552864	36.9	200.0	9.000	L1	19.7	9.1	46.0
2.854773	36.2	200.0	9.000	L1	19.7	9.8	46.0
4.238471	38.6	200.0	9.000	L1	19.8	7.4	46.0
4.992193	37.6	200.0	9.000	L1	19.8	8.4	46.0
19.014512	38.8	200.0	9.000	L1	20.1	11.2	50.0

AC120 V, 60 Hz, Neutral:



Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corrected Factor (dB)	Margin (dB)	Limit (dBµV)
0.507637	46.8	200.0	9.000	N	19.7	9.2	56.0
2.749070	44.3	200.0	9.000	N	19.7	11.7	56.0
2.883693	43.7	200.0	9.000	N	19.7	12.3	56.0
4.364119	45.4	200.0	9.000	N	19.8	10.6	56.0
17.320829	44.2	200.0	9.000	N	20.1	15.8	60.0
17.739864	43.1	200.0	9.000	N	20.1	16.9	60.0

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corrected Factor (dB)	Margin (dB)	Limit (dBµV)
0.503608	37.6	200.0	9.000	N	19.7	8.4	46.0
0.585926	34.7	200.0	9.000	N	19.7	11.3	46.0
2.538519	36.5	200.0	9.000	N	19.7	9.5	46.0
2.815577	36.5	200.0	9.000	N	19.7	9.5	46.0
4.227217	38.8	200.0	9.000	N	19.8	7.2	46.0
4.997188	35.9	200.0	9.000	N	19.8	10.1	46.0

Note:
1) Correction Factor =LISN VDF (Voltage Division Factor) + Cable Loss + Transient Limiter Attenuation
The corrected factor has been input into the transducer of the test software.
2) Corrected Amplitude = Reading + Correction Factor
3) Margin = Limit – Corrected Amplitude

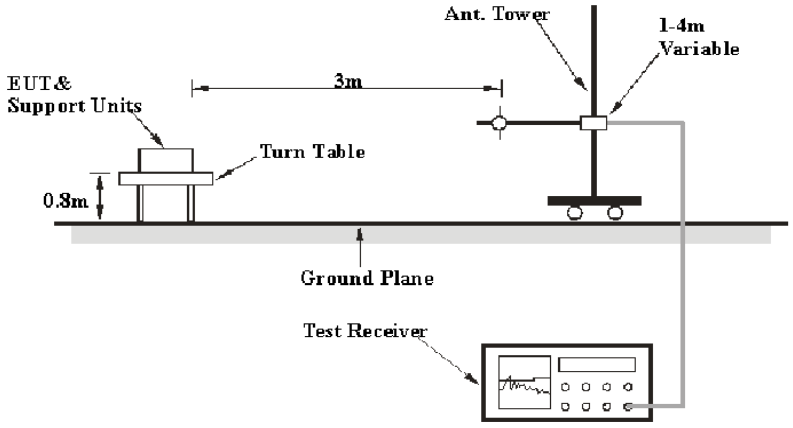
FCC §15.209, §15.205 & §15.247(d) - SPURIOUS EMISSIONS

Applicable Standard

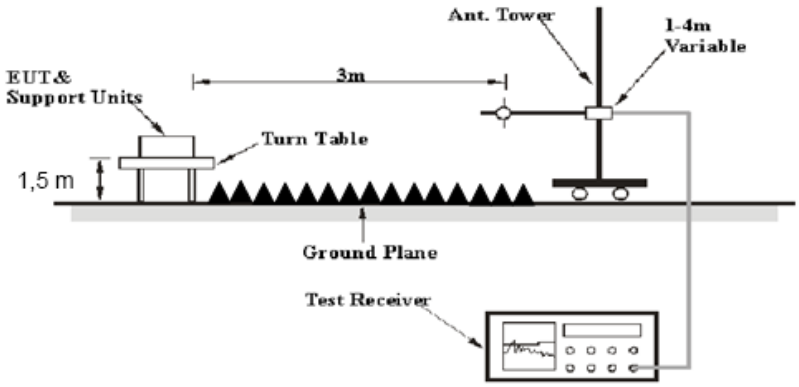
FCC §15.247 (d); §15.209; §15.205;

EUT Setup

Below 1GHz:



Above 1GHz:



The radiated emission tests were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209, and FCC 15.247 limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

The adapter was connected to AC 120V/60Hz.

EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 30 MHz to 25 GHz.

During the radiated emission test, the EMI test receiver Setup was set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Measurement
30 MHz – 1000 MHz	120 kHz	300 kHz	120 kHz	QP

Frequency Range	RBW	Video B/W	Duty Cycle	Measurement
Above 1 GHz	1MHz	3 MHz	Any	PK
	1MHz	10Hz	>98%	AV
	1MHz	1/T	<98%	AV

Note: T is Transmission Duration

Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

Data was recorded in Quasi-peak detection mode for frequency range of 30 MHz-1 GHz, peak and Average detection modes for frequencies above 1 GHz.

Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Loss and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

Corrected Amplitude = Meter Reading + Antenna Loss + Cable Loss - Amplifier Gain

The "**Margin**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

Margin = Limit –Corrected Amplitude

Test Data

Environmental Conditions

Temperature:	24 ~ 28 °C
Relative Humidity:	40 ~ 52 %
ATM Pressure:	94.8 ~ 95.4 kPa

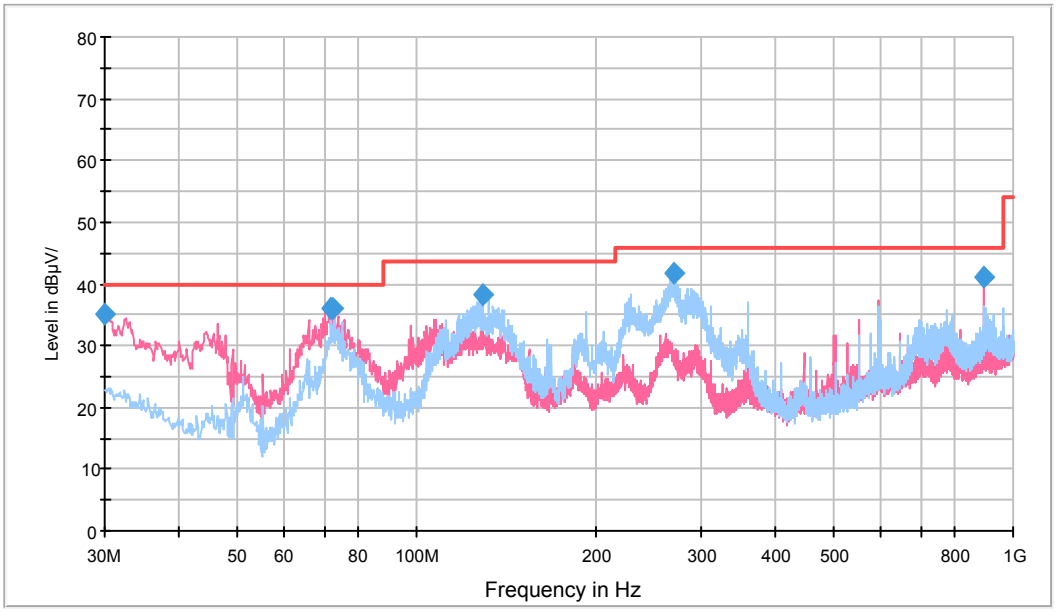
** The testing was performed by Tom Tang on 2018-04-03 to 2018-04-04.*
Test Mode: Transmitting

For 7265NGW Module

Wi-Fi Mode

30 MHz to 1 GHz
802.11n20-Low channel - Worst Case

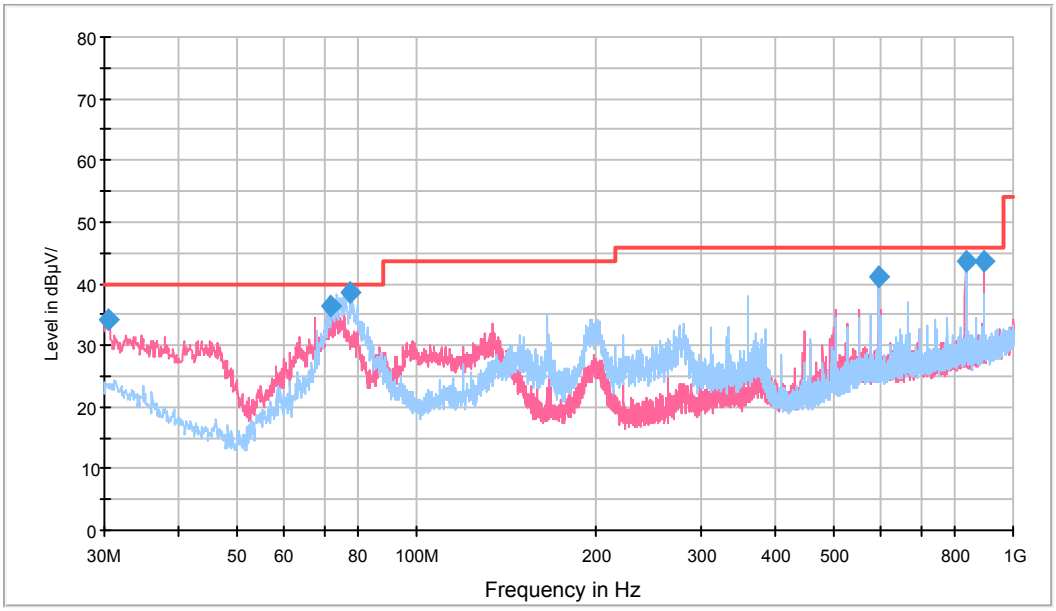
DC Input 1



Frequency (MHz)	QuasicPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corrected Factor (dB/m)	Margin (dB)	Limit (dBµV/m)
30.000000	35.2	100.0	V	253.0	-4.8	*4.8	40.0
71.952500	36.0	110.0	V	38.0	-16.6	*4.0	40.0
72.195000	36.0	105.0	V	30.0	-16.6	*4.0	40.0
129.182500	38.4	110.0	H	277.0	-10.8	5.1	43.5
270.560000	41.7	100.0	H	85.0	-11.5	*4.3	46.0
890.996250	41.2	100.0	V	194.0	-0.2	*4.8	46.0

**Within measurement uncertainty!*

DC Input 2



Frequency (MHz)	QuasicPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corrected Factor (dB/m)	Margin (dB)	Limit (dBµV/m)
30.485000	34.3	100.0	V	0.0	-5.1	5.7	40.0
72.001000	36.4	100.0	H	4.0	-16.6	*3.6	40.0
77.433000	38.4	100.0	H	327.0	-16.6	*1.6	40.0
593.958000	41.2	100.0	V	0.0	-4.4	*4.8	46.0
831.705000	43.6	100.0	V	348.0	-1.4	*2.4	46.0
891.069000	43.6	100.0	V	15.0	-0.2	*2.4	46.0

**Within measurement uncertainty!*

Above 1 GHz

802.11b Mode (SISO)-ANT 1

Frequency	Receiver		Rx Antenna		Cable loss	Amplifier Gain	Corrected Amplitude	Limit	Margin
	Reading	Measurement	Polar	Factor					
MHz	dBµV	PK/AV	H/V	(dB/m)	dB	dB	dBµV/m	dBµV/m	dB
Frequency: 2412MHz									
2412	69.44	PK	H	28.74	3.07	0.00	101.25	N/A	N/A
2412	65.18	AV	H	28.74	3.07	0.00	96.99	N/A	N/A
2412	66.81	PK	V	28.74	3.07	0.00	98.62	N/A	N/A
2412	62.57	AV	V	28.74	3.07	0.00	94.38	N/A	N/A
2390	29.32	PK	H	28.67	3.06	0.00	61.05	74.00	12.95
2390	15.41	AV	H	28.67	3.06	0.00	47.14	54.00	6.86
4824	52.52	PK	H	33.91	4.36	44.72	46.07	74.00	27.93
4824	37.36	AV	H	33.91	4.36	44.72	30.91	54.00	23.09
7236	50.43	PK	H	36.43	5.42	44.00	48.28	74.00	25.72
7236	34.61	AV	H	36.43	5.42	44.00	32.46	54.00	21.54
Frequency: 2437MHz									
2437	68.78	PK	H	28.81	3.09	0.00	100.68	N/A	N/A
2437	64.33	AV	H	28.81	3.09	0.00	96.23	N/A	N/A
2437	66.01	PK	V	28.81	3.09	0.00	97.91	N/A	N/A
2437	61.63	AV	V	28.81	3.09	0.00	93.53	N/A	N/A
4874	52.34	PK	H	34.05	4.39	44.72	46.06	74.00	27.94
4874	37.28	AV	H	34.05	4.39	44.72	31.00	54.00	23.00
7311	50.76	PK	H	36.54	5.44	44.20	48.54	74.00	25.46
7311	35.23	AV	H	36.54	5.44	44.20	33.01	54.00	20.99
Frequency: 2462MHz									
2462	67.93	PK	H	28.89	3.10	0.00	99.92	N/A	N/A
2462	63.15	AV	H	28.89	3.10	0.00	95.14	N/A	N/A
2462	64.86	PK	V	28.89	3.10	0.00	96.85	N/A	N/A
2462	60.52	AV	V	28.89	3.10	0.00	92.51	N/A	N/A
2483.5	28.59	PK	H	28.95	3.12	0.00	60.66	74.00	13.34
2483.5	13.48	AV	H	28.95	3.12	0.00	45.55	54.00	8.45
4924	52.06	PK	H	34.19	4.42	44.71	45.96	74.00	28.04
4924	37.10	AV	H	34.19	4.42	44.71	31.00	54.00	23.00
7386	50.27	PK	H	36.64	5.46	44.40	47.97	74.00	26.03
7386	35.49	AV	H	36.64	5.46	44.40	33.19	54.00	20.81

802.11g Mode (SISO)-ANT 1

Frequency	Receiver		Rx Antenna		Cable loss	Amplifier Gain	Corrected Amplitude	Limit	Margin
	Reading	Measurement	Polar	Factor					
MHz	dBµV	PK/AV	H/V	(dB/m)	dB	dB	dBµV/m	dBµV/m	dB
Frequency: 2412MHz									
2412	72.65	PK	H	28.74	3.07	0.00	104.46	N/A	N/A
2412	63.06	AV	H	28.74	3.07	0.00	94.87	N/A	N/A
2412	69.75	PK	V	28.74	3.07	0.00	101.56	N/A	N/A
2412	59.77	AV	V	28.74	3.07	0.00	91.58	N/A	N/A
2390	31.19	PK	H	28.67	3.06	0.00	62.92	74.00	11.08
2390	18.34	AV	H	28.67	3.06	0.00	50.07	54.00	*3.93
4824	53.31	PK	H	33.91	4.36	44.72	46.86	74.00	27.14
4824	37.60	AV	H	33.91	4.36	44.72	31.15	54.00	22.85
7236	50.46	PK	H	36.43	5.42	44.00	48.31	74.00	25.69
7236	35.49	AV	H	36.43	5.42	44.00	33.34	54.00	20.66
Frequency: 2437MHz									
2437	71.37	PK	H	28.81	3.09	0.00	103.27	N/A	N/A
2437	62.07	AV	H	28.81	3.09	0.00	93.97	N/A	N/A
2437	68.89	PK	V	28.81	3.09	0.00	100.79	N/A	N/A
2437	58.94	AV	V	28.81	3.09	0.00	90.84	N/A	N/A
4874	52.99	PK	H	34.05	4.39	44.72	46.71	74.00	27.29
4874	37.18	AV	H	34.05	4.39	44.72	30.90	54.00	23.10
7311	50.67	PK	H	36.54	5.44	44.20	48.45	74.00	25.55
7311	35.07	AV	H	36.54	5.44	44.20	32.85	54.00	21.15
Frequency: 2462MHz									
2462	70.67	PK	H	28.89	3.10	0.00	102.66	N/A	N/A
2462	61.27	AV	H	28.89	3.10	0.00	93.26	N/A	N/A
2462	68.23	PK	V	28.89	3.10	0.00	100.22	N/A	N/A
2462	58.35	AV	V	28.89	3.10	0.00	90.34	N/A	N/A
2483.5	29.64	PK	H	28.95	3.12	0.00	61.71	74.00	12.29
2483.5	15.41	AV	H	28.95	3.12	0.00	47.48	54.00	6.52
4924	53.00	PK	H	34.19	4.42	44.71	46.90	74.00	27.10
4924	37.18	AV	H	34.19	4.42	44.71	31.08	54.00	22.92
7386	50.59	PK	H	36.64	5.46	44.40	48.29	74.00	25.71
7386	35.40	AV	H	36.64	5.46	44.40	33.10	54.00	20.90

**Within measurement uncertainty!*

802.11n-HT20 Mode (MIMO)

Frequency	Receiver		Rx Antenna		Cable loss	Amplifier Gain	Corrected Amplitude	Limit	Margin
	Reading	Measurement	Polar	Factor					
MHz	dBµV	PK/AV	H/V	(dB/m)	dB	dB	dBµV/m	dBµV/m	dB
Frequency: 2412MHz									
2412	72.86	PK	H	28.74	3.07	0.00	104.67	N/A	N/A
2412	61.32	AV	H	28.74	3.07	0.00	93.13	N/A	N/A
2412	70.37	PK	V	28.74	3.07	0.00	102.18	N/A	N/A
2412	58.62	AV	V	28.74	3.07	0.00	90.43	N/A	N/A
2390	30.89	PK	H	28.67	3.06	0.00	62.62	74.00	11.38
2390	15.18	AV	H	28.67	3.06	0.00	46.91	54.00	7.09
4824	53.16	PK	H	33.91	4.36	44.72	46.71	74.00	27.29
4824	37.07	AV	H	33.91	4.36	44.72	30.62	54.00	23.38
7236	50.72	PK	H	36.43	5.42	44.00	48.57	74.00	25.43
7236	35.17	AV	H	36.43	5.42	44.00	33.02	54.00	20.98
Frequency: 2437MHz									
2437	71.69	PK	H	28.81	3.09	0.00	103.59	N/A	N/A
2437	60.99	AV	H	28.81	3.09	0.00	92.89	N/A	N/A
2437	70.25	PK	V	28.81	3.09	0.00	102.15	N/A	N/A
2437	58.56	AV	V	28.81	3.09	0.00	90.46	N/A	N/A
4874	52.96	PK	H	34.05	4.39	44.72	46.68	74.00	27.32
4874	37.10	AV	H	34.05	4.39	44.72	30.82	54.00	23.18
7311	50.47	PK	H	36.54	5.44	44.20	48.25	74.00	25.75
7311	35.31	AV	H	36.54	5.44	44.20	33.09	54.00	20.91
Frequency: 2462MHz									
2462	70.95	PK	H	28.89	3.10	0.00	102.94	N/A	N/A
2462	60.88	AV	H	28.89	3.10	0.00	92.87	N/A	N/A
2462	70.33	PK	V	28.89	3.10	0.00	102.32	N/A	N/A
2462	58.75	AV	V	28.89	3.10	0.00	90.74	N/A	N/A
2483.5	31.33	PK	H	28.95	3.12	0.00	63.40	74.00	10.60
2483.5	15.73	AV	H	28.95	3.12	0.00	47.80	54.00	6.20
4924	52.79	PK	H	34.19	4.42	44.71	46.69	74.00	27.31
4924	37.17	AV	H	34.19	4.42	44.71	31.07	54.00	22.93
7386	50.56	PK	H	36.64	5.46	44.40	48.26	74.00	25.74
7386	35.19	AV	H	36.64	5.46	44.40	32.89	54.00	21.11

802.11n-HT40 Mode (MIMO)

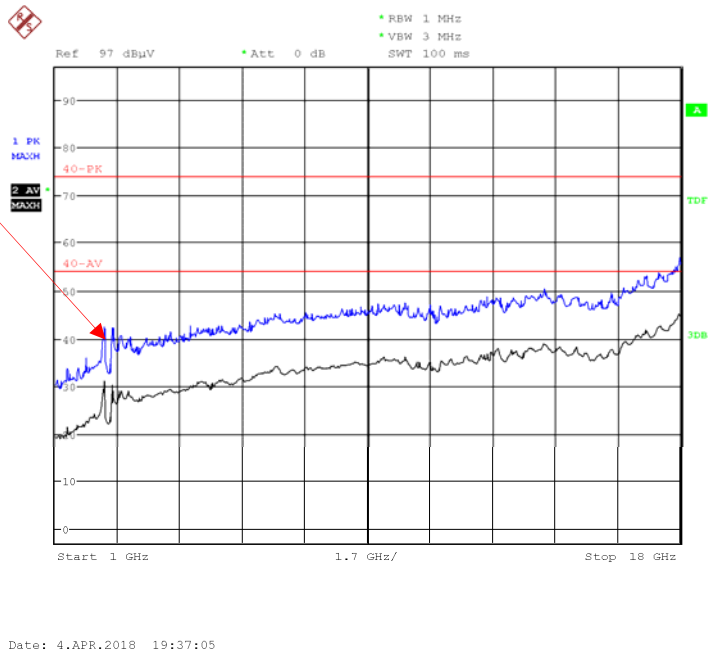
Frequency	Receiver		Rx Antenna		Cable loss	Amplifier Gain	Corrected Amplitude	Limit	Margin
	Reading	Measurement	Polar	Factor					
MHz	dBμV	PK/AV	H/V	(dB/m)	dB	dB	dBμV/m	dBμV/m	dB
Frequency: 2422MHz									
2422	69.98	PK	H	28.77	3.08	0.00	101.83	N/A	N/A
2422	59.23	AV	H	28.77	3.08	0.00	91.08	N/A	N/A
2422	67.23	PK	V	28.77	3.08	0.00	99.08	N/A	N/A
2422	55.06	AV	V	28.77	3.08	0.00	86.91	N/A	N/A
2390	30.81	PK	H	28.67	3.06	0.00	62.54	74.00	11.46
2390	17.02	AV	H	28.67	3.06	0.00	48.75	54.00	*5.25
4844	52.06	PK	H	33.96	4.38	44.72	45.68	74.00	28.32
4844	36.92	AV	H	33.96	4.38	44.72	30.54	54.00	23.46
7266	50.16	PK	H	36.47	5.43	44.08	47.98	74.00	26.02
7266	35.29	AV	H	36.47	5.43	44.08	33.11	54.00	20.89
Frequency: 2437MHz									
2437	69.68	PK	H	28.81	3.09	0.00	101.58	N/A	N/A
2437	58.43	AV	H	28.81	3.09	0.00	90.33	N/A	N/A
2437	67.37	PK	V	28.81	3.09	0.00	99.27	N/A	N/A
2437	54.69	AV	V	28.81	3.09	0.00	86.59	N/A	N/A
4874	51.74	PK	H	34.05	4.39	44.72	45.46	74.00	28.54
4874	36.72	AV	H	34.05	4.39	44.72	30.44	54.00	23.56
7311	50.13	PK	H	36.54	5.44	44.20	47.91	74.00	26.09
7311	34.96	AV	H	36.54	5.44	44.20	32.74	54.00	21.26
Frequency: 2452MHz									
2452	69.54	PK	H	28.86	3.10	0.00	101.50	N/A	N/A
2452	57.93	AV	H	28.86	3.10	0.00	89.89	N/A	N/A
2452	67.86	PK	V	28.86	3.10	0.00	99.82	N/A	N/A
2452	54.59	AV	V	28.86	3.10	0.00	86.55	N/A	N/A
2483.5	33.48	PK	H	28.95	3.12	0.00	65.55	74.00	8.45
2483.5	17.89	AV	H	28.95	3.12	0.00	49.96	54.00	*4.04
4904	51.91	PK	H	34.13	4.41	44.71	45.74	74.00	28.26
4904	36.70	AV	H	34.13	4.41	44.71	30.53	54.00	23.47
7356	49.97	PK	H	36.60	5.45	44.32	47.70	74.00	26.30
7356	35.12	AV	H	36.60	5.45	44.32	32.85	54.00	21.15

**Within measurement uncertainty!*

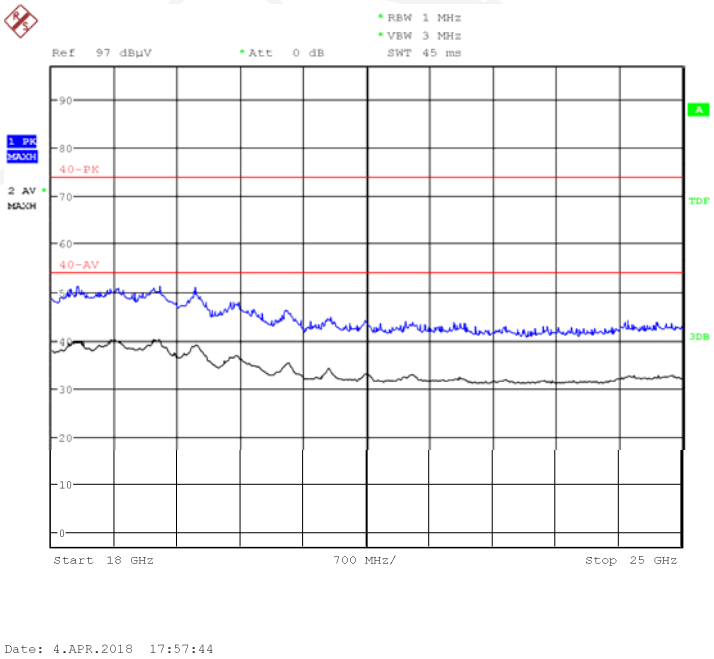
Please refer to the below pre-scan plot of worst case:

802.11g Mode: High Channel_Horizontal_1GHz-18GHz

Fundamental with Reject Band Filter

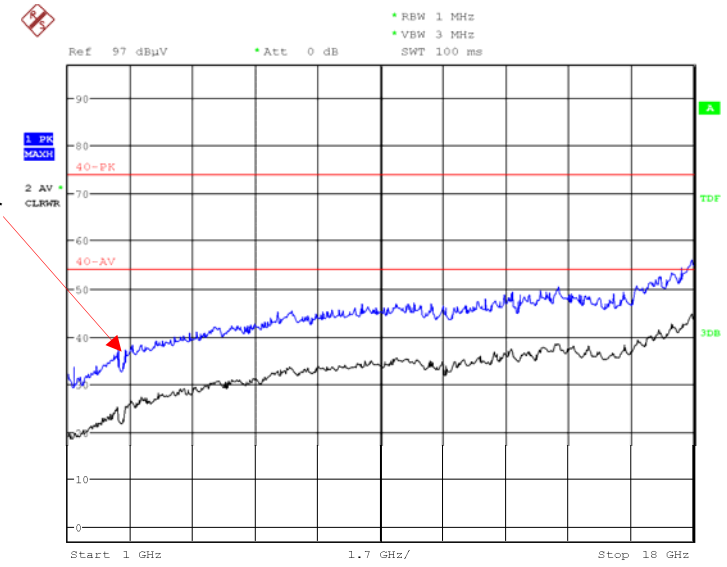


802.11g Mode: High Channel_Horizontal_18GHz-25GHz



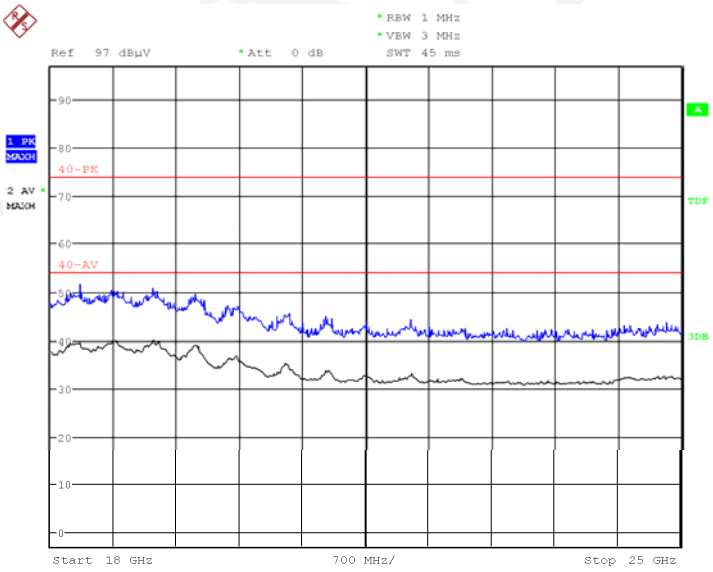
802.11g Mode: High Channel_Vertical_1GHz-18GHz

Fundamental with Reject Band Filter



Date: 4.APR.2018 19:34:53

802.11g Mode: High Channel_Vertical_18GHz-25GHz

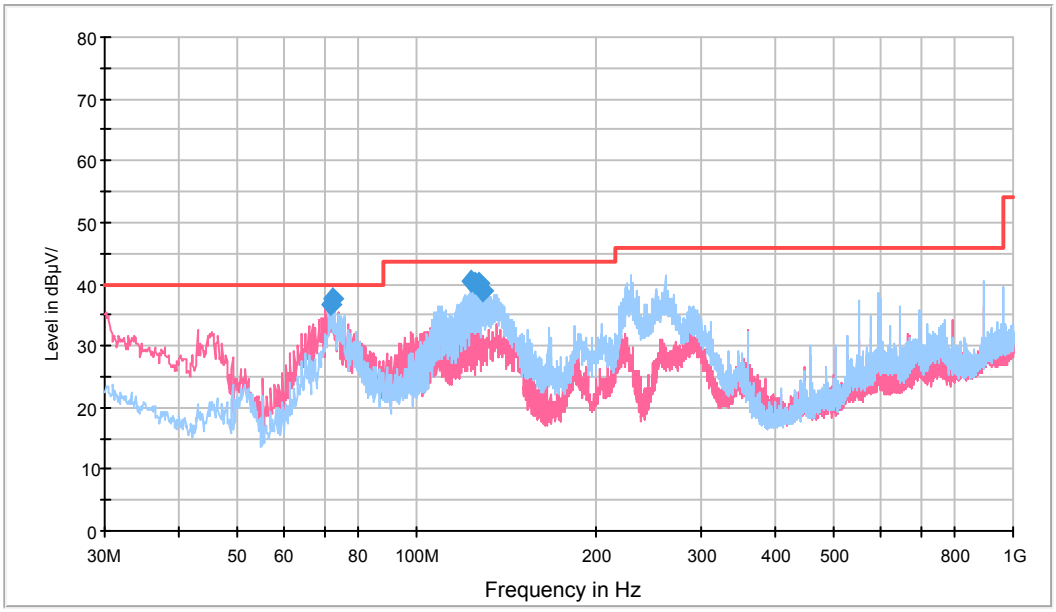


Date: 4.APR.2018 17:58:00

BLE Mode

30 MHz to 1 GHz
Low channel-worst case

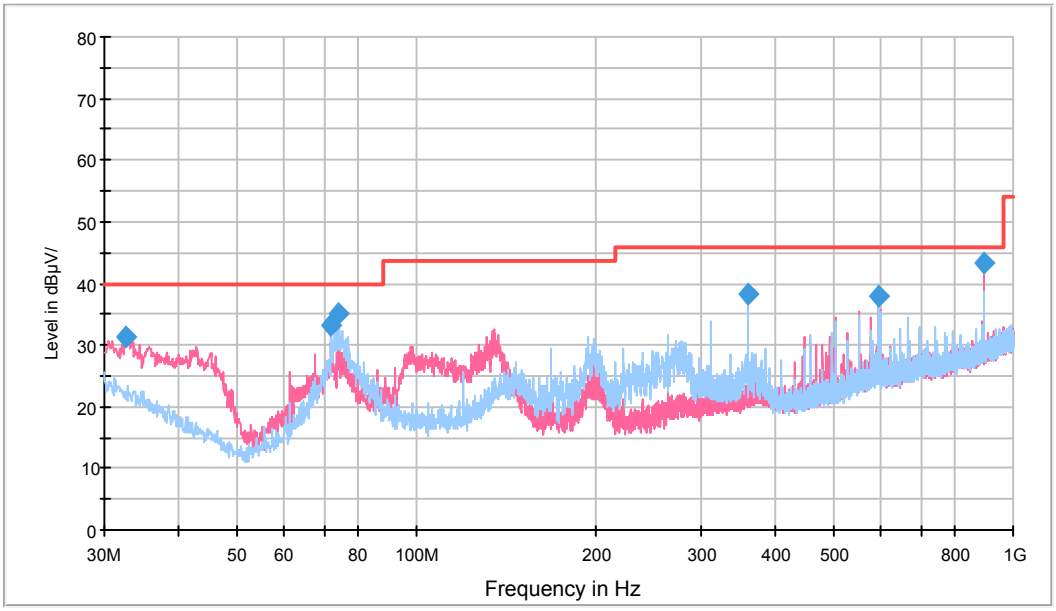
DC Input 1



Frequency (MHz)	QuasicPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corrected Factor (dB/m)	Margin (dB)	Limit (dBµV/m)
72.073750	36.6	150.0	V	61.0	-16.6	*3.4	40.0
72.195000	37.5	150.0	V	90.0	-16.6	*2.5	40.0
123.847500	40.4	150.0	H	262.0	-11.6	*3.1	43.5
125.666250	40.2	150.0	H	270.0	-11.3	*3.3	43.5
127.363750	40.2	150.0	H	270.0	-11.0	*3.3	43.5
129.182500	39.0	150.0	H	278.0	-10.8	*4.5	43.5

**Within measurement uncertainty!*

DC Input 2



Frequency (MHz)	QuasicPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corrected Factor (dB/m)	Margin (dB)	Limit (dBµV/m)
32.522000	31.5	100.0	V	343.0	-6.6	8.5	40.0
72.001000	33.1	100.0	H	336.0	-16.6	6.9	40.0
74.232000	35.1	100.0	H	336.0	-16.6	4.9	40.0
359.994000	38.2	100.0	H	199.0	-9.6	7.8	46.0
593.958000	37.9	100.0	H	45.0	-4.4	8.1	46.0
891.069000	43.4	100.0	V	6.0	-0.2	*2.6	46.0

**Within measurement uncertainty!*

Above 1 GHz

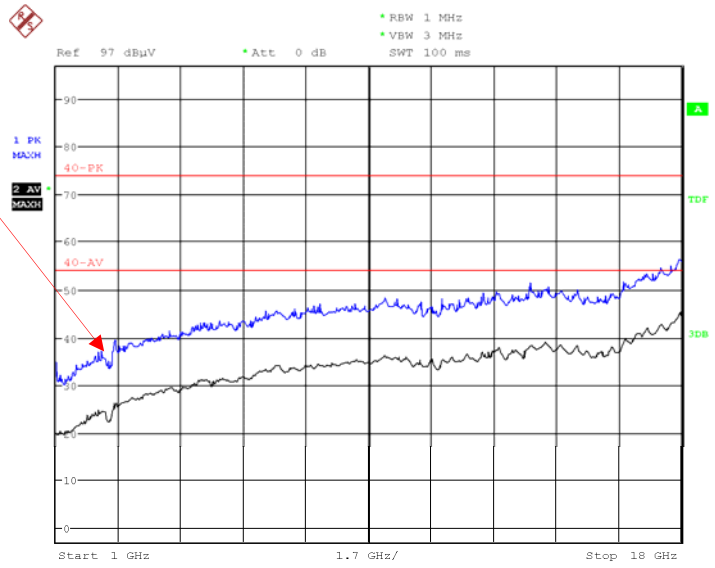
Frequency	Receiver		Rx Antenna		Cable loss	Amplifier Gain	Corrected Amplitude	Limit	Margin
	Reading	Measurement	Polar	Factor					
MHz	dBµV	PK/AV	H/V	(dB/m)	dB	dB	dBµV/m	dBµV/m	dB
frequency: 2402MHz									
2402	63.03	PK	H	28.71	3.06	0.00	94.80	N/A	N/A
2402	58.17	AV	H	28.71	3.06	0.00	89.94	N/A	N/A
2402	59.98	PK	V	28.71	3.06	0.00	91.75	N/A	N/A
2402	55.38	AV	V	28.71	3.06	0.00	87.15	N/A	N/A
2390	29.25	PK	H	28.67	3.06	0.00	60.98	74.00	13.02
2390	15.41	AV	H	28.67	3.06	0.00	47.14	54.00	6.86
4804	52.42	PK	H	33.85	4.35	44.73	45.89	74.00	28.11
4804	36.91	AV	H	33.85	4.35	44.73	30.38	54.00	23.62
7206	50.03	PK	H	36.39	5.41	43.92	47.91	74.00	26.09
7206	34.90	AV	H	36.39	5.41	43.92	32.78	54.00	21.22
frequency: 2440MHz									
2440	63.99	PK	H	28.82	3.09	0.00	95.90	N/A	N/A
2440	58.86	AV	H	28.82	3.09	0.00	90.77	N/A	N/A
2440	60.22	PK	V	28.82	3.09	0.00	92.13	N/A	N/A
2440	55.91	AV	V	28.82	3.09	0.00	87.82	N/A	N/A
4880	52.34	PK	H	34.06	4.40	44.72	46.08	74.00	27.92
4880	36.83	AV	H	34.06	4.40	44.72	30.57	54.00	23.43
7320	50.29	PK	H	36.55	5.44	44.22	48.06	74.00	25.94
7320	35.23	AV	H	36.55	5.44	44.22	33.00	54.00	21.00
frequency: 2480MHz									
2480	64.58	PK	H	28.94	3.12	0.00	96.64	N/A	N/A
2480	59.15	AV	H	28.94	3.12	0.00	91.21	N/A	N/A
2480	60.28	PK	V	28.94	3.12	0.00	92.34	N/A	N/A
2480	56.04	AV	V	28.94	3.12	0.00	88.10	N/A	N/A
2483.5	28.76	PK	H	28.95	3.12	0.00	60.83	74.00	13.17
2483.5	15.69	AV	H	28.95	3.12	0.00	47.76	54.00	6.24
4960	52.10	PK	H	34.29	4.44	44.71	46.12	74.00	27.88
4960	36.59	AV	H	34.29	4.44	44.71	30.61	54.00	23.39
7440	50.26	PK	H	36.72	5.48	44.54	47.92	74.00	26.08
7440	35.27	AV	H	36.72	5.48	44.54	32.93	54.00	21.07

Note:
Corrected Amplitude = Corrected Factor + Reading
Corrected Factor=Antenna factor (RX) + Cable Loss – Amplifier Factor
Margin = Limit- Corr. Amplitude
Spurious emissions more than 20 dB below the limit were not reported.

Please refer to the below pre-scan plot of worst case:

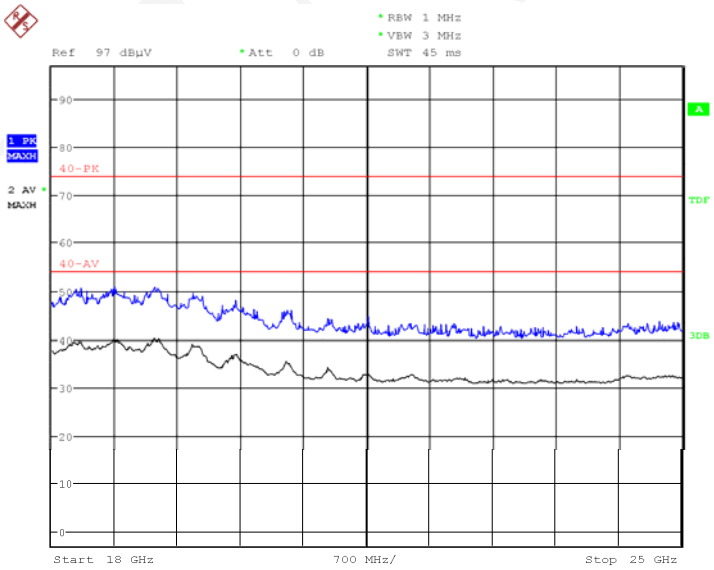
High Channel_Horizontal_1GHz-18GHz

Fundamental with Reject Band Filter



Date: 3.APR.2018 10:15:46

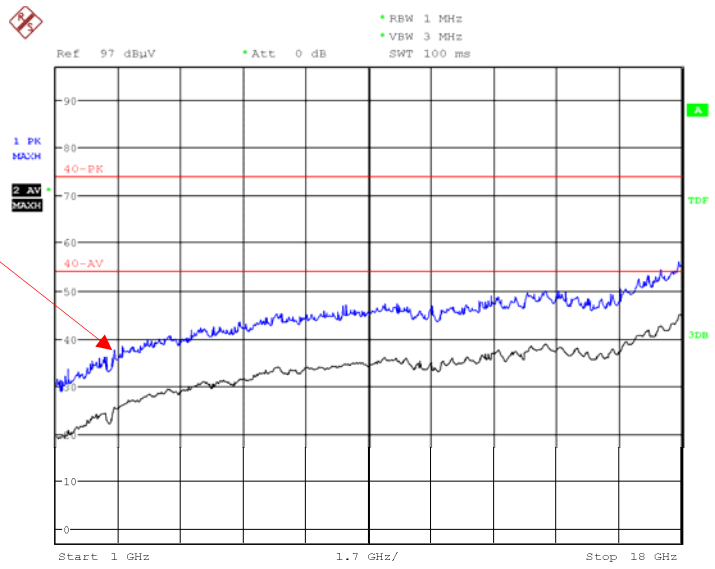
High Channel_Horizontal_18GHz-25GHz



Date: 3.APR.2018 11:18:35

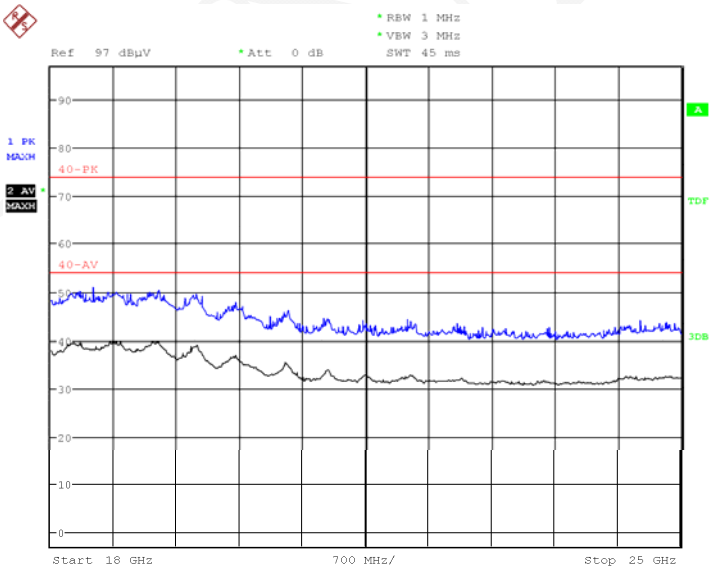
High Channel_Vertical_1GHz-18GHz

Fundamental with Reject Band Filter



Date: 3.APR.2018 10:16:41

High Channel_Vertical_18GHz-25GHz



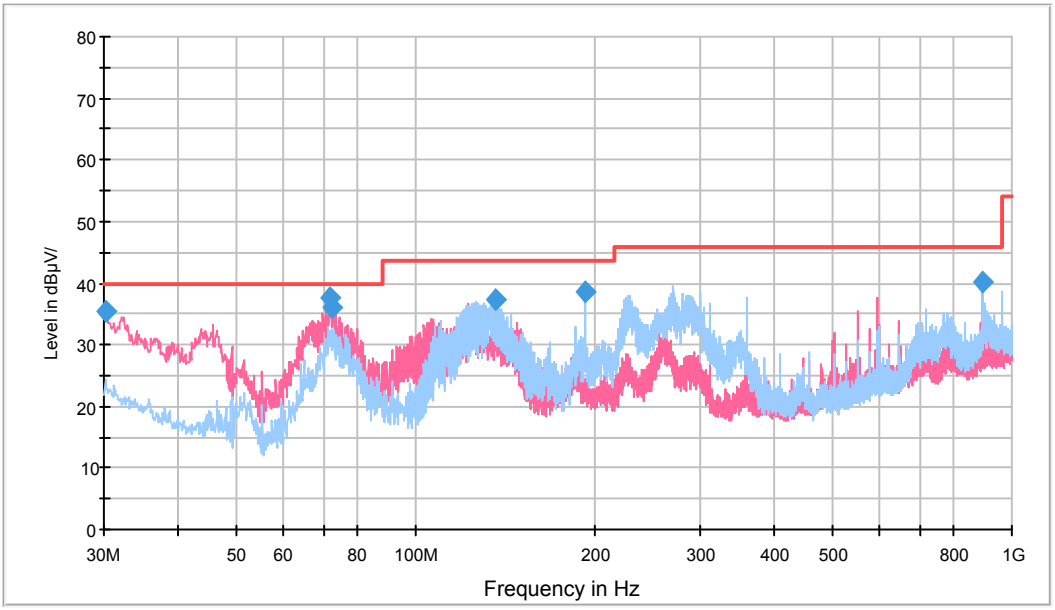
Date: 3.APR.2018 11:20:01

For 8265NGW Module

Wi-Fi Mode

30 MHz to 1 GHz
802.11n20-Low channel - Worst Case

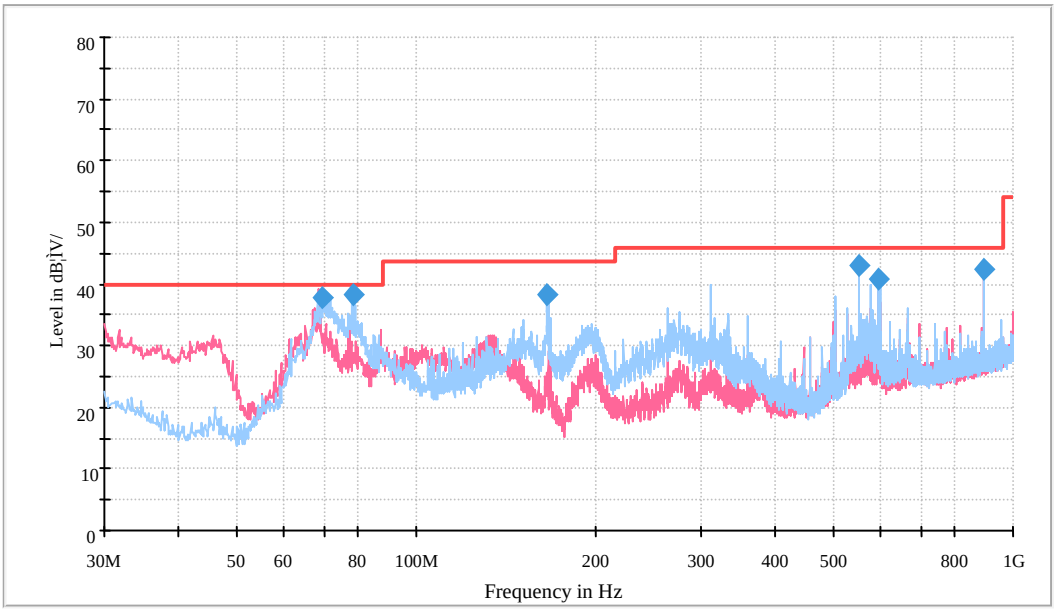
DC Input 1



Frequency (MHz)	QuasicPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corrected Factor (dB/m)	Margin (dB)	Limit (dBµV/m)
30.242500	35.4	100.0	V	143.0	-4.9	*4.6	40.0
71.710000	37.5	100.0	V	90.0	-16.6	*2.5	40.0
72.558750	36.1	105.0	V	31.0	-16.6	*3.9	40.0
136.336250	37.2	100.0	H	262.0	-10.7	6.3	43.5
191.990000	38.6	115.0	H	255.0	-13.2	*4.9	43.5
891.117500	40.1	100.0	V	194.0	-0.2	5.9	46.0

**Within measurement uncertainty!*

DC Input 2



Frequency (MHz)	QuasicPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corrected Factor (dB/m)	Margin (dB)	Limit (dBµV/m)
69.436250	38.00	290.0	H	337.0	-16.7	*2.0	40.0
78.257500	38.3	150.0	H	337.0	-16.6	*1.7	40.0
165.921250	38.3	100.0	H	85.0	-12.1	5.2	43.5
551.981250	43.1	150.0	H	39.0	-5.2	*2.9	46.0
594.055000	40.9	100.0	H	47.0	-4.4	5.1	46.0
890.996250	42.5	150.0	H	0.0	-0.2	*3.5	46.0

**Within measurement uncertainty!*

Above 1 GHz

802.11b Mode (SISO)-ANT 1

Frequency	Receiver		Rx Antenna		Cable loss	Amplifier Gain	Corrected Amplitude	Limit	Margin
	Reading	Measurement	Polar	Factor					
MHz	dBµV	PK/AV	H/V	(dB/m)	dB	dB	dBµV/m	dBµV/m	dB
Frequency: 2412MHz									
2412	69.70	PK	H	28.74	3.07	0.00	101.51	N/A	N/A
2412	65.44	AV	H	28.74	3.07	0.00	97.25	N/A	N/A
2412	66.92	PK	V	28.74	3.07	0.00	98.73	N/A	N/A
2412	62.60	AV	V	28.74	3.07	0.00	94.41	N/A	N/A
2390	29.47	PK	H	28.67	3.06	0.00	61.20	74.00	12.80
2390	15.55	AV	H	28.67	3.06	0.00	47.28	54.00	6.72
4824	52.82	PK	H	33.91	4.36	44.72	46.37	74.00	27.63
4824	37.40	AV	H	33.91	4.36	44.72	30.95	54.00	23.05
7236	50.74	PK	H	36.43	5.42	44.00	48.59	74.00	25.41
7236	34.69	AV	H	36.43	5.42	44.00	32.54	54.00	21.46
Frequency: 2437MHz									
2437	69.05	PK	H	28.81	3.09	0.00	100.95	N/A	N/A
2437	64.38	AV	H	28.81	3.09	0.00	96.28	N/A	N/A
2437	66.02	PK	V	28.81	3.09	0.00	97.92	N/A	N/A
2437	61.70	AV	V	28.81	3.09	0.00	93.60	N/A	N/A
4874	52.55	PK	H	34.05	4.39	44.72	46.27	74.00	27.73
4874	37.45	AV	H	34.05	4.39	44.72	31.17	54.00	22.83
7311	51.01	PK	H	36.54	5.44	44.20	48.79	74.00	25.21
7311	35.50	AV	H	36.54	5.44	44.20	33.28	54.00	20.72
Frequency: 2462MHz									
2462	68.14	PK	H	28.89	3.10	0.00	100.13	N/A	N/A
2462	63.19	AV	H	28.89	3.10	0.00	95.18	N/A	N/A
2462	64.86	PK	V	28.89	3.10	0.00	96.85	N/A	N/A
2462	60.61	AV	V	28.89	3.10	0.00	92.60	N/A	N/A
2483.5	28.65	PK	H	28.95	3.12	0.00	60.72	74.00	13.28
2483.5	13.58	AV	H	28.95	3.12	0.00	45.65	54.00	8.35
4924	52.12	PK	H	34.19	4.42	44.71	46.02	74.00	27.98
4924	37.35	AV	H	34.19	4.42	44.71	31.25	54.00	22.75
7386	50.46	PK	H	36.64	5.46	44.40	48.16	74.00	25.84
7386	35.72	AV	H	36.64	5.46	44.40	33.42	54.00	20.58

802.11g Mode (SISO)-ANT 1

Frequency	Receiver		Rx Antenna		Cable loss	Amplifier Gain	Corrected Amplitude	Limit	Margin
	Reading	Measurement	Polar	Factor					
MHz	dBµV	PK/AV	H/V	(dB/m)	dB	dB	dBµV/m	dBµV/m	dB
Frequency: 2412MHz									
2412	72.44	PK	H	28.74	3.07	0.00	104.25	N/A	N/A
2412	62.87	AV	H	28.74	3.07	0.00	94.68	N/A	N/A
2412	69.65	PK	V	28.74	3.07	0.00	101.46	N/A	N/A
2412	59.69	AV	V	28.74	3.07	0.00	91.50	N/A	N/A
2390	31.16	PK	H	28.67	3.06	0.00	62.89	74.00	11.11
2390	18.10	AV	H	28.67	3.06	0.00	49.83	54.00	*4.17
4824	53.30	PK	H	33.91	4.36	44.72	46.85	74.00	27.15
4824	37.44	AV	H	33.91	4.36	44.72	30.99	54.00	23.01
7236	50.29	PK	H	36.43	5.42	44.00	48.14	74.00	25.86
7236	35.39	AV	H	36.43	5.42	44.00	33.24	54.00	20.76
Frequency: 2437MHz									
2437	71.64	PK	H	28.81	3.09	0.00	103.54	N/A	N/A
2437	62.33	AV	H	28.81	3.09	0.00	94.23	N/A	N/A
2437	69.17	PK	V	28.81	3.09	0.00	101.07	N/A	N/A
2437	59.08	AV	V	28.81	3.09	0.00	90.98	N/A	N/A
4874	53.04	PK	H	34.05	4.39	44.72	46.76	74.00	27.24
4874	37.31	AV	H	34.05	4.39	44.72	31.03	54.00	22.97
7311	50.78	PK	H	36.54	5.44	44.20	48.56	74.00	25.44
7311	35.26	AV	H	36.54	5.44	44.20	33.04	54.00	20.96
Frequency: 2462MHz									
2462	70.90	PK	H	28.89	3.10	0.00	102.89	N/A	N/A
2462	61.44	AV	H	28.89	3.10	0.00	93.43	N/A	N/A
2462	68.26	PK	V	28.89	3.10	0.00	100.25	N/A	N/A
2462	58.53	AV	V	28.89	3.10	0.00	90.52	N/A	N/A
2483.5	29.68	PK	H	28.95	3.12	0.00	61.75	74.00	12.25
2483.5	15.47	AV	H	28.95	3.12	0.00	47.54	54.00	6.46
4924	53.09	PK	H	34.19	4.42	44.71	46.99	74.00	27.01
4924	37.41	AV	H	34.19	4.42	44.71	31.31	54.00	22.69
7386	50.71	PK	H	36.64	5.46	44.40	48.41	74.00	25.59
7386	35.53	AV	H	36.64	5.46	44.40	33.23	54.00	20.77

**Within measurement uncertainty!*

802.11n-HT20 Mode (MIMO)

Frequency	Receiver		Rx Antenna		Cable loss	Amplifier Gain	Corrected Amplitude	Limit	Margin
	Reading	Measurement	Polar	Factor					
MHz	dBµV	PK/AV	H/V	(dB/m)	dB	dB	dBµV/m	dBµV/m	dB
Frequency: 2412MHz									
2412	72.72	PK	H	28.74	3.07	0.00	104.53	N/A	N/A
2412	61.21	AV	H	28.74	3.07	0.00	93.02	N/A	N/A
2412	70.21	PK	V	28.74	3.07	0.00	102.02	N/A	N/A
2412	58.61	AV	V	28.74	3.07	0.00	90.42	N/A	N/A
2390	30.67	PK	H	28.67	3.06	0.00	62.40	74.00	11.60
2390	15.01	AV	H	28.67	3.06	0.00	46.74	54.00	7.26
4824	53.01	PK	H	33.91	4.36	44.72	46.56	74.00	27.44
4824	36.85	AV	H	33.91	4.36	44.72	30.40	54.00	23.60
7236	50.58	PK	H	36.43	5.42	44.00	48.43	74.00	25.57
7236	35.15	AV	H	36.43	5.42	44.00	33.00	54.00	21.00
Frequency: 2437MHz									
2437	71.83	PK	H	28.81	3.09	0.00	103.73	N/A	N/A
2437	61.08	AV	H	28.81	3.09	0.00	92.98	N/A	N/A
2437	70.29	PK	V	28.81	3.09	0.00	102.19	N/A	N/A
2437	58.78	AV	V	28.81	3.09	0.00	90.68	N/A	N/A
4874	53.18	PK	H	34.05	4.39	44.72	46.90	74.00	27.10
4874	37.35	AV	H	34.05	4.39	44.72	31.07	54.00	22.93
7311	50.62	PK	H	36.54	5.44	44.20	48.40	74.00	25.60
7311	35.38	AV	H	36.54	5.44	44.20	33.16	54.00	20.84
Frequency: 2462MHz									
2462	70.72	PK	H	28.89	3.10	0.00	102.71	N/A	N/A
2462	60.67	AV	H	28.89	3.10	0.00	92.66	N/A	N/A
2462	70.06	PK	V	28.89	3.10	0.00	102.05	N/A	N/A
2462	58.73	AV	V	28.89	3.10	0.00	90.72	N/A	N/A
2483.5	31.08	PK	H	28.95	3.12	0.00	63.15	74.00	10.85
2483.5	15.71	AV	H	28.95	3.12	0.00	47.78	54.00	6.22
4924	52.79	PK	H	34.19	4.42	44.71	46.69	74.00	27.31
4924	37.13	AV	H	34.19	4.42	44.71	31.03	54.00	22.97
7386	50.31	PK	H	36.64	5.46	44.40	48.01	74.00	25.99
7386	34.99	AV	H	36.64	5.46	44.40	32.69	54.00	21.31

802.11n-HT40 Mode (MIMO)

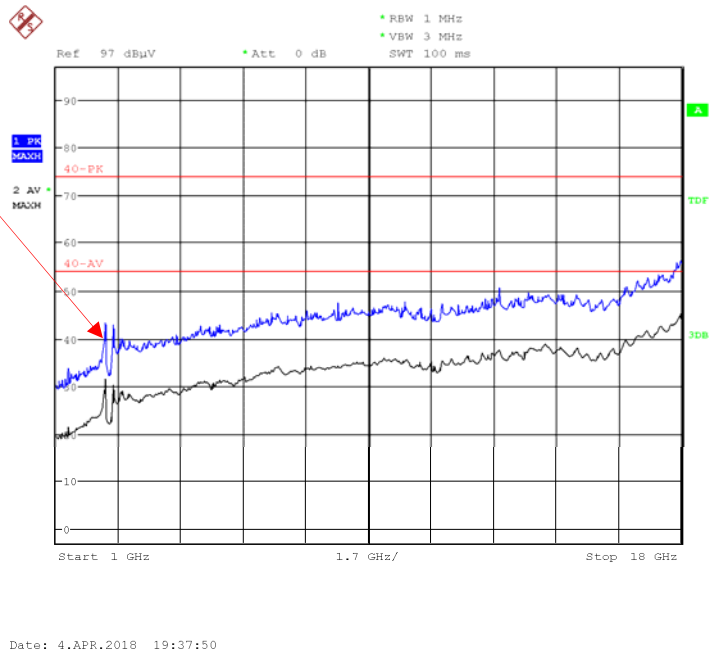
Frequency	Receiver		Rx Antenna		Cable loss	Amplifier Gain	Corrected Amplitude	Limit	Margin
	Reading	Measurement	Polar	Factor					
MHz	dBµV	PK/AV	H/V	(dB/m)	dB	dB	dBµV/m	dBµV/m	dB
Frequency: 2422MHz									
2422	70.18	PK	H	28.77	3.08	0.00	102.03	N/A	N/A
2422	59.53	AV	H	28.77	3.08	0.00	91.38	N/A	N/A
2422	67.54	PK	V	28.77	3.08	0.00	99.39	N/A	N/A
2422	55.20	AV	V	28.77	3.08	0.00	87.05	N/A	N/A
2390	30.98	PK	H	28.67	3.06	0.00	62.71	74.00	11.29
2390	17.03	AV	H	28.67	3.06	0.00	48.76	54.00	*5.24
4844	52.31	PK	H	33.96	4.38	44.72	45.93	74.00	28.07
4844	36.94	AV	H	33.96	4.38	44.72	30.56	54.00	23.44
7266	50.31	PK	H	36.47	5.43	44.08	48.13	74.00	25.87
7266	35.41	AV	H	36.47	5.43	44.08	33.23	54.00	20.77
Frequency: 2437MHz									
2437	69.84	PK	H	28.81	3.09	0.00	101.74	N/A	N/A
2437	58.46	AV	H	28.81	3.09	0.00	90.36	N/A	N/A
2437	67.62	PK	V	28.81	3.09	0.00	99.52	N/A	N/A
2437	54.83	AV	V	28.81	3.09	0.00	86.73	N/A	N/A
4874	51.97	PK	H	34.05	4.39	44.72	45.69	74.00	28.31
4874	37.00	AV	H	34.05	4.39	44.72	30.72	54.00	23.28
7311	50.14	PK	H	36.54	5.44	44.20	47.92	74.00	26.08
7311	35.28	AV	H	36.54	5.44	44.20	33.06	54.00	20.94
Frequency: 2452MHz									
2452	69.66	PK	H	28.86	3.10	0.00	101.62	N/A	N/A
2452	58.06	AV	H	28.86	3.10	0.00	90.02	N/A	N/A
2452	67.92	PK	V	28.86	3.10	0.00	99.88	N/A	N/A
2452	54.65	AV	V	28.86	3.10	0.00	86.61	N/A	N/A
2483.5	33.55	PK	H	28.95	3.12	0.00	65.62	74.00	8.38
2483.5	18.02	AV	H	28.95	3.12	0.00	50.09	54.00	*3.91
4904	51.99	PK	H	34.13	4.41	44.71	45.82	74.00	28.18
4904	36.71	AV	H	34.13	4.41	44.71	30.54	54.00	23.46
7356	50.12	PK	H	36.60	5.45	44.32	47.85	74.00	26.15
7356	35.15	AV	H	36.60	5.45	44.32	32.88	54.00	21.12

**Within measurement uncertainty!*

Please refer to the below pre-scan plot of worst case:

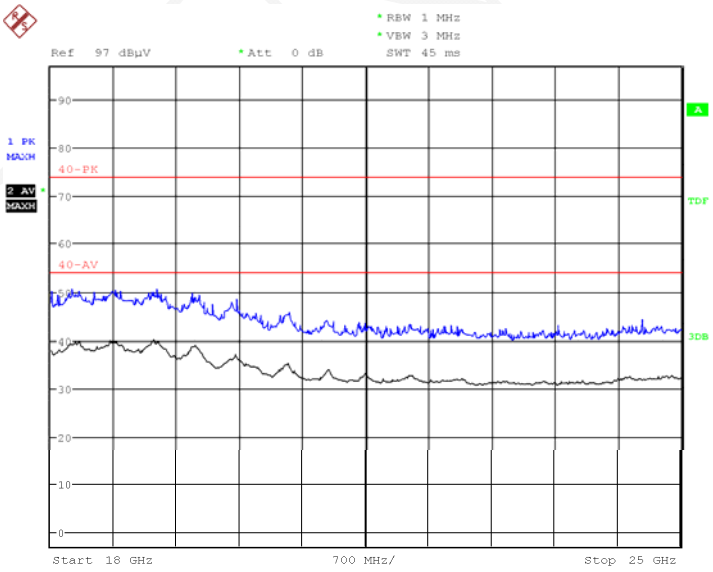
802.11n-HT40 Mode: High Channel_Horizontal_1GHz-18GHz

Fundamental with Reject Band Filter



Date: 4.APR.2018 19:37:50

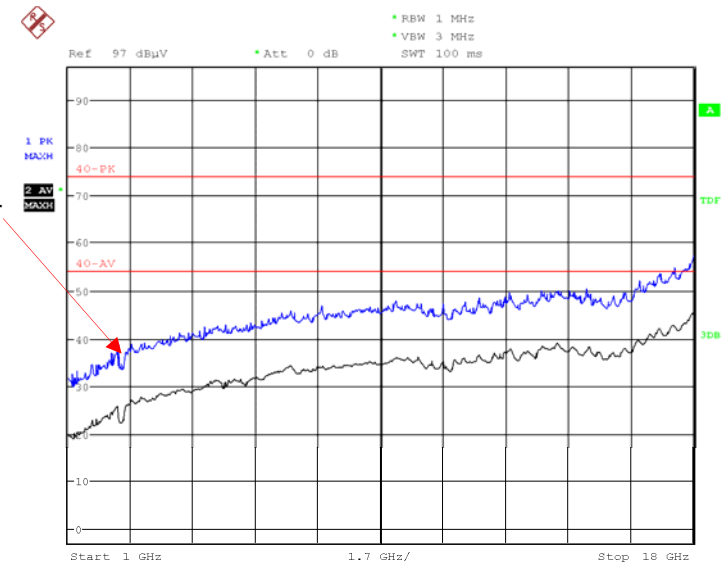
802.11n-HT40 Mode: High Channel_Horizontal_18GHz-25GHz



Date: 4.APR.2018 18:00:18

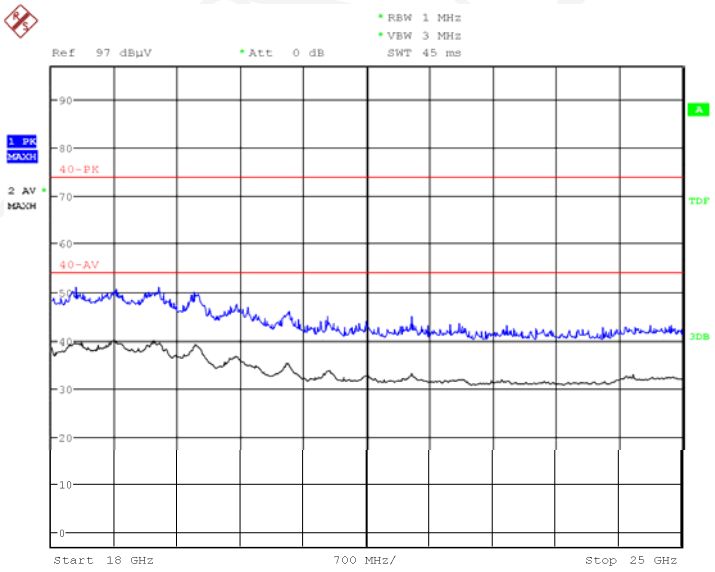
802.11n-HT40 Mode: High Channel_Vertical_1GHz-18GHz

Fundamental with Reject Band Filter



Date: 4.APR.2018 19:33:36

802.11n-HT40 Mode: High Channel_Vertical_18GHz-25GHz

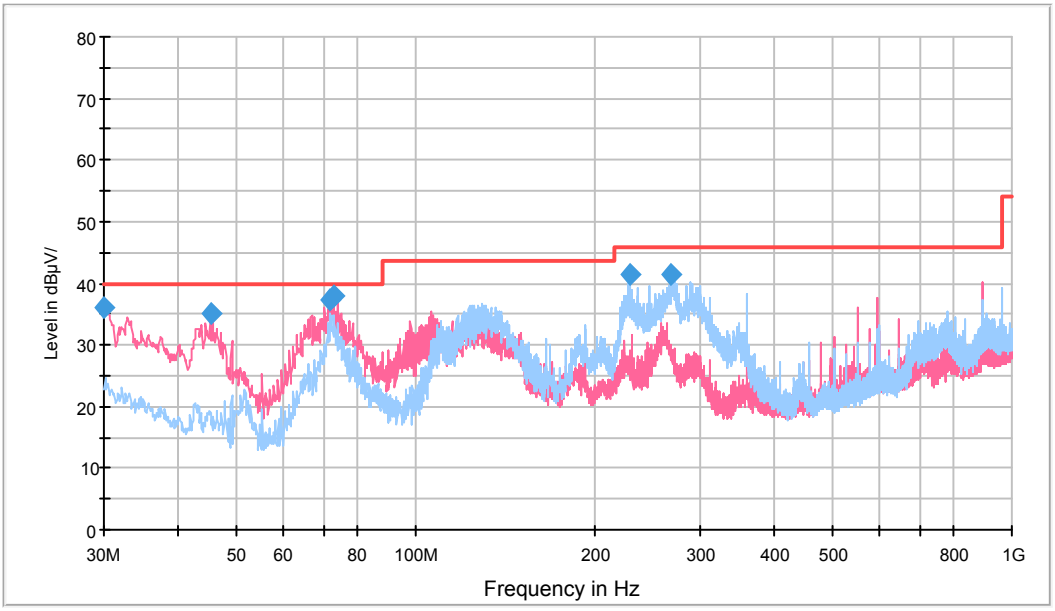


Date: 4.APR.2018 18:00:37

BLE Mode

30 MHz to 1 GHz
Low channel - worst case

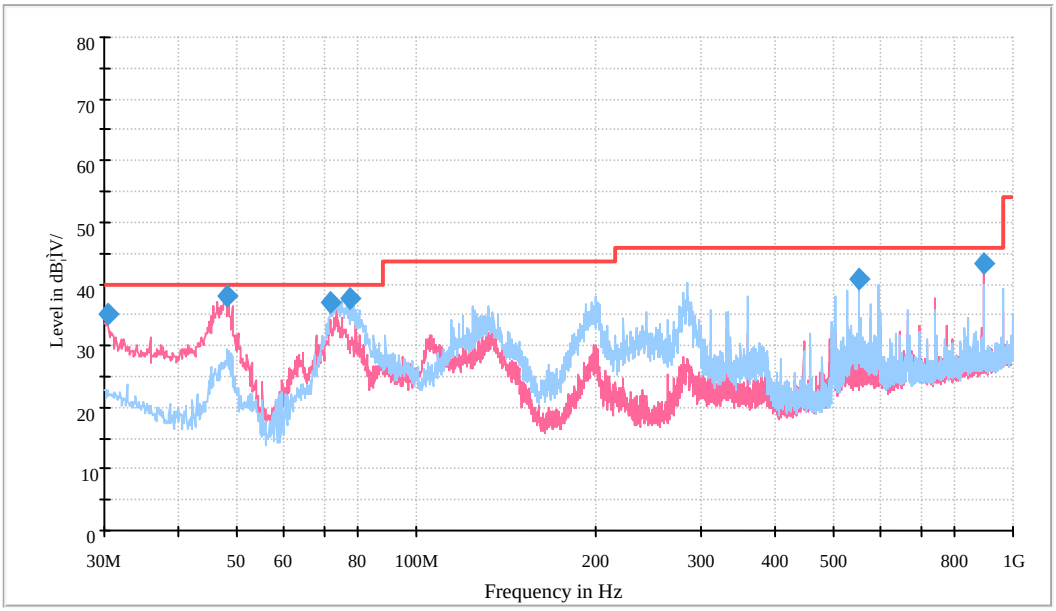
DC Input 1



Frequency (MHz)	QuasicPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corrected Factor (dB/m)	Margin (dB)	Limit (dBµV/m)
30.000000	36.2	100.0	V	175.0	-4.8	*3.8	40.0
45.277500	35.0	105.0	V	175.0	-14.4	5.0	40.0
71.952500	37.4	100.0	V	46.0	-16.6	*2.6	40.0
72.801250	38.0	100.0	V	46.0	-16.6	*2.0	40.0
228.001250	41.4	110.0	H	0.0	-13.4	*4.6	46.0
267.286250	41.5	100.0	H	78.0	-11.7	*4.5	46.0

**Within measurement uncertainty!*

DC Input 2



Frequency (MHz)	QuasicPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corrected Factor (dB/m)	Margin (dB)	Limit (dBµV/m)
30.363750	35.0	100.0	V	0.0	-5.0	5.0	40.0
48.066250	38.3	100.0	V	304.0	-15.9	*1.7	40.0
71.952500	36.9	150.0	H	318.0	-16.6	*3.1	40.0
77.287500	37.7	100.0	H	312.0	-16.6	*2.3	40.0
551.981250	40.9	150.0	H	77.0	-5.2	5.1	46.0
890.996250	43.3	100.0	V	16.0	-0.2	*2.7	46.0

**Within measurement uncertainty!*

Above 1 GHz

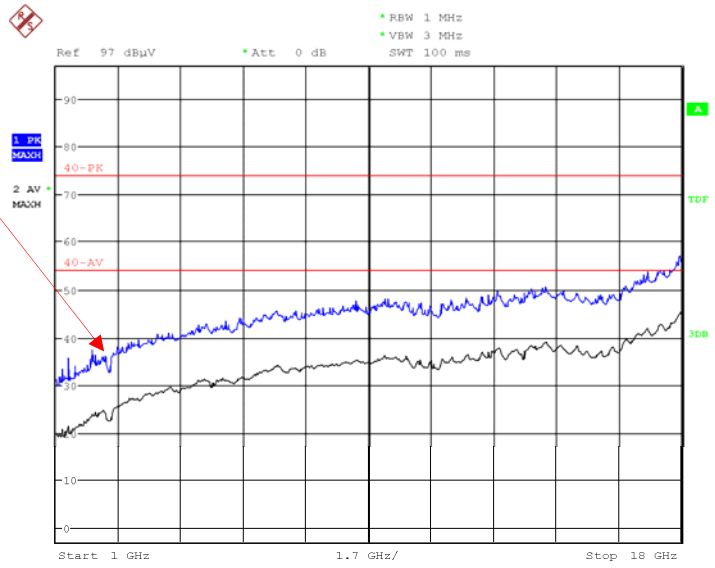
Frequency	Receiver		Rx Antenna		Cable loss	Amplifier Gain	Corrected Amplitude	Limit	Margin
	Reading	Measurement	Polar	Factor					
MHz	dBµV	PK/AV	H/V	(dB/m)	dB	dB	dBµV/m	dBµV/m	dB
frequency: 2402MHz									
2402	63.26	PK	H	28.71	3.06	0.00	95.03	N/A	N/A
2402	58.17	AV	H	28.71	3.06	0.00	89.94	N/A	N/A
2402	60.15	PK	V	28.71	3.06	0.00	91.92	N/A	N/A
2402	55.55	AV	V	28.71	3.06	0.00	87.32	N/A	N/A
2390	29.38	PK	H	28.67	3.06	0.00	61.11	74.00	12.89
2390	15.44	AV	H	28.67	3.06	0.00	47.17	54.00	6.83
4804	52.67	PK	H	33.85	4.35	44.73	46.14	74.00	27.86
4804	37.15	AV	H	33.85	4.35	44.73	30.62	54.00	23.38
7206	50.11	PK	H	36.39	5.41	43.92	47.99	74.00	26.01
7206	35.13	AV	H	36.39	5.41	43.92	33.01	54.00	20.99
frequency: 2440MHz									
2440	64.25	PK	H	28.82	3.09	0.00	96.16	N/A	N/A
2440	59.17	AV	H	28.82	3.09	0.00	91.08	N/A	N/A
2440	60.46	PK	V	28.82	3.09	0.00	92.37	N/A	N/A
2440	56.03	AV	V	28.82	3.09	0.00	87.94	N/A	N/A
4880	52.35	PK	H	34.06	4.40	44.72	46.09	74.00	27.91
4880	36.84	AV	H	34.06	4.40	44.72	30.58	54.00	23.42
7320	50.58	PK	H	36.55	5.44	44.22	48.35	74.00	25.65
7320	35.53	AV	H	36.55	5.44	44.22	33.30	54.00	20.70
frequency: 2480MHz									
2480	64.17	PK	H	28.94	3.12	0.00	96.23	N/A	N/A
2480	58.84	AV	H	28.94	3.12	0.00	90.90	N/A	N/A
2480	60.16	PK	V	28.94	3.12	0.00	92.22	N/A	N/A
2480	55.74	AV	V	28.94	3.12	0.00	87.80	N/A	N/A
2483.5	28.45	PK	H	28.95	3.12	0.00	60.52	74.00	13.48
2483.5	15.45	AV	H	28.95	3.12	0.00	47.52	54.00	6.48
4960	51.83	PK	H	34.29	4.44	44.71	45.85	74.00	28.15
4960	36.27	AV	H	34.29	4.44	44.71	30.29	54.00	23.71
7440	49.90	PK	H	36.72	5.48	44.54	47.56	74.00	26.44
7440	35.17	AV	H	36.72	5.48	44.54	32.83	54.00	21.17

Note:
Corrected Amplitude = Corrected Factor + Reading
Corrected Factor=Antenna factor (RX) + Cable Loss – Amplifier Factor
Margin = Limit- Corr. Amplitude
Spurious emissions more than 20 dB below the limit were not reported.

Please refer to the below pre-scan plot of worst case:

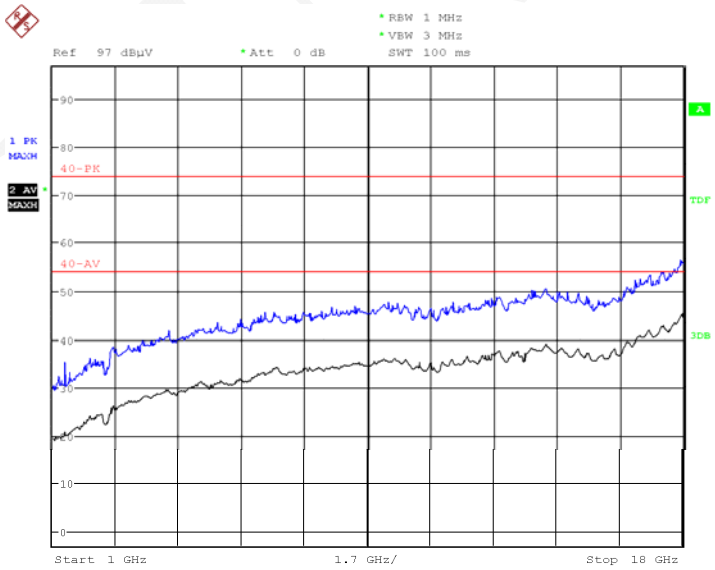
High Channel_Horizontal_1GHz-18GHz

Fundamental with Reject Band Filter



Date: 3.APR.2018 10:20:48

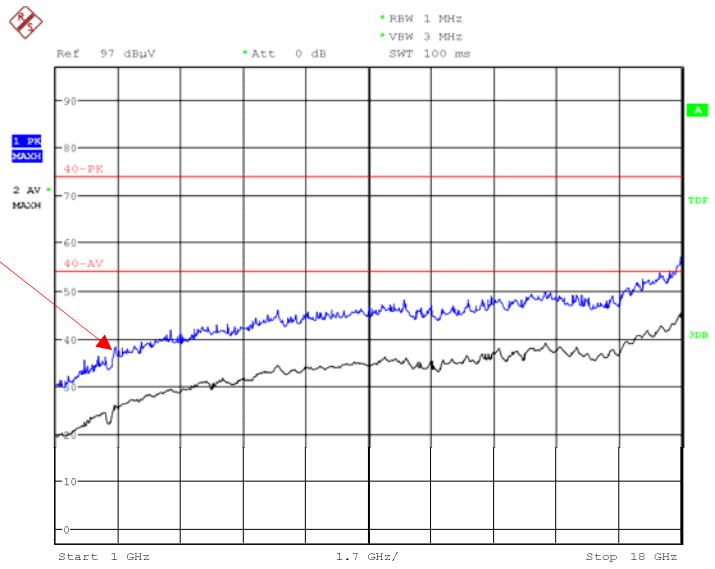
High Channel_Horizontal_18GHz-25GHz



Date: 3.APR.2018 10:17:22

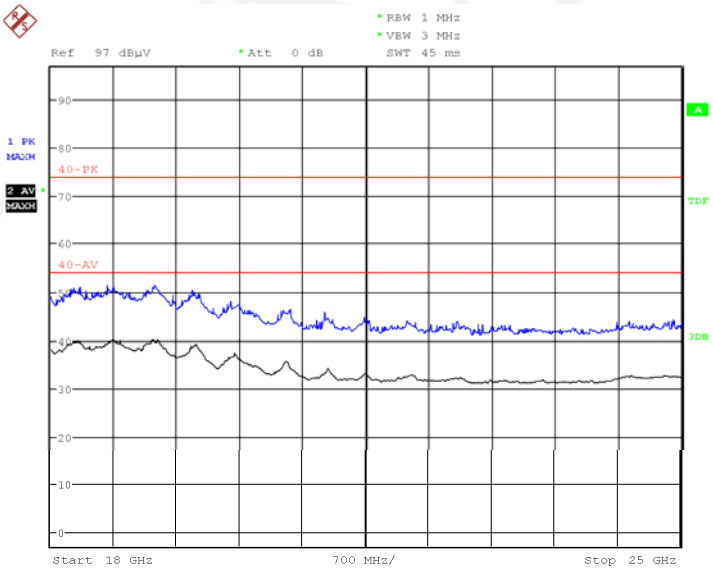
High Channel_Vertical_1GHz-18GHz

Fundamental with Reject Band Filter



Date: 3.APR.2018 10:16:08

High Channel_Vertical_18GHz-25GHz



Date: 3.APR.2018 11:24:56

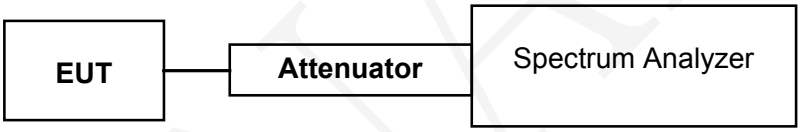
FCC §15.247(a) (2) – 6 dB EMISSION BANDWIDTH

Applicable Standard

Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

Test Procedure

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



Test Data

Environmental Conditions

Temperature:	23 ~ 27 °C
Relative Humidity:	42 ~ 50 %
ATM Pressure:	95.0 ~ 95.5 kPa

** The testing was performed by Tom Tang from 2018-03-29 to 2018-04-03.*

Test Mode: Transmitting

Test Result: Compliance. Please refer to the following table and plots.

For 7265NGW Module

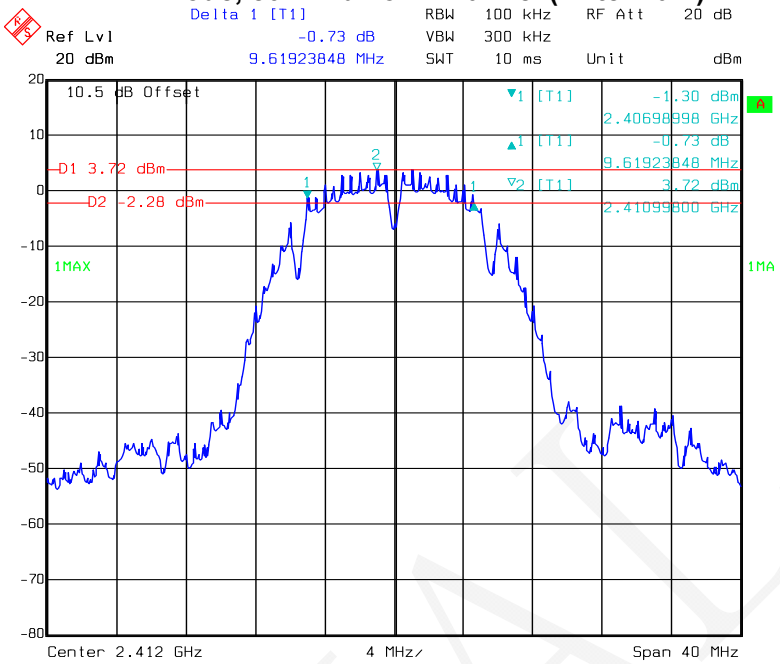
Wi-Fi mode

Mode	Channel	Frequency (MHz)	6dB Emission Bandwidth (MHz)		Limit (MHz)
			Antenna 1	Antenna 2	
802.11b	Low	2412	9.62	10.10	≥0.50
	Middle	2437	10.10	10.10	≥0.50
	High	2462	10.10	10.10	≥0.50
802.11g	Low	2412	15.23	15.23	≥0.50
	Middle	2437	15.47	15.23	≥0.50
	High	2462	15.31	15.15	≥0.50
802.11n-HT20	Low	2412	15.55	15.39	≥0.50
	Middle	2437	15.55	15.23	≥0.50
	High	2462	15.23	15.23	≥0.50
802.11n-HT40	Low	2422	35.43	35.43	≥0.50
	Middle	2437	35.43	35.43	≥0.50
	High	2452	35.43	35.43	≥0.50

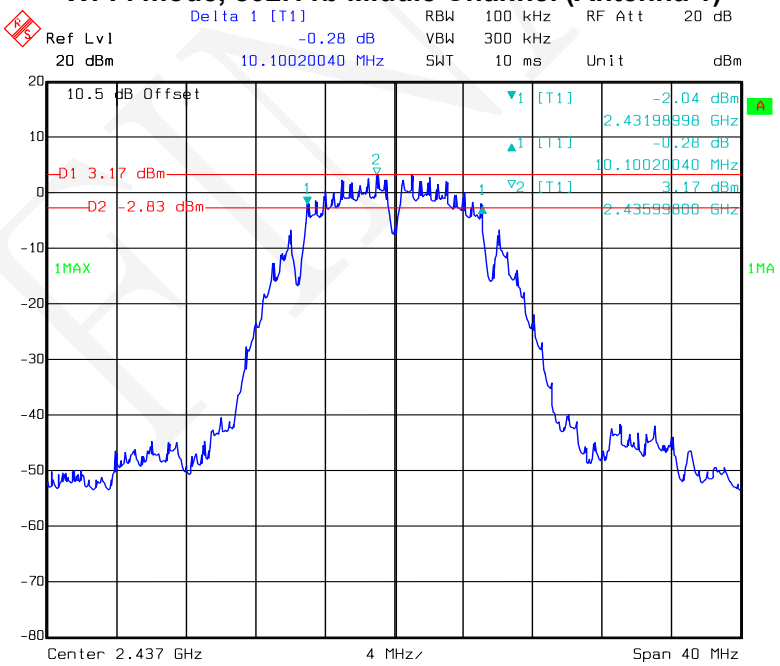
BLE mode

Mode	Channel	Frequency (MHz)	6dB Emission Bandwidth (MHz)	Limit (MHz)
BLE	Low	2402	0.71	≥0.50
	Middle	2440	0.71	≥0.50
	High	2480	0.71	≥0.50

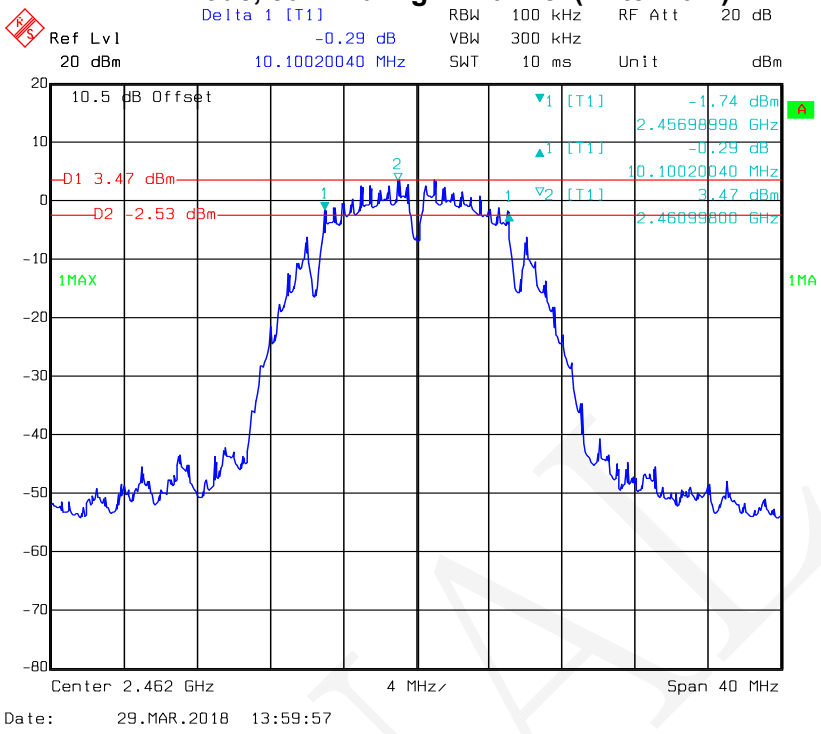
Wi-Fi mode, 802.11b Low Channel (Antenna 1)



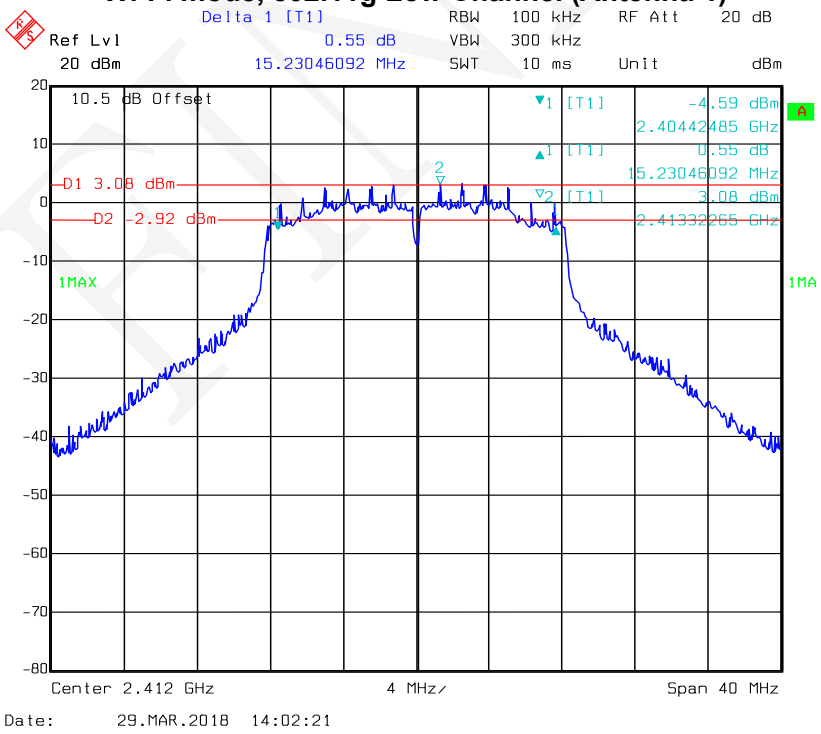
Wi-Fi mode, 802.11b Middle Channel (Antenna 1)



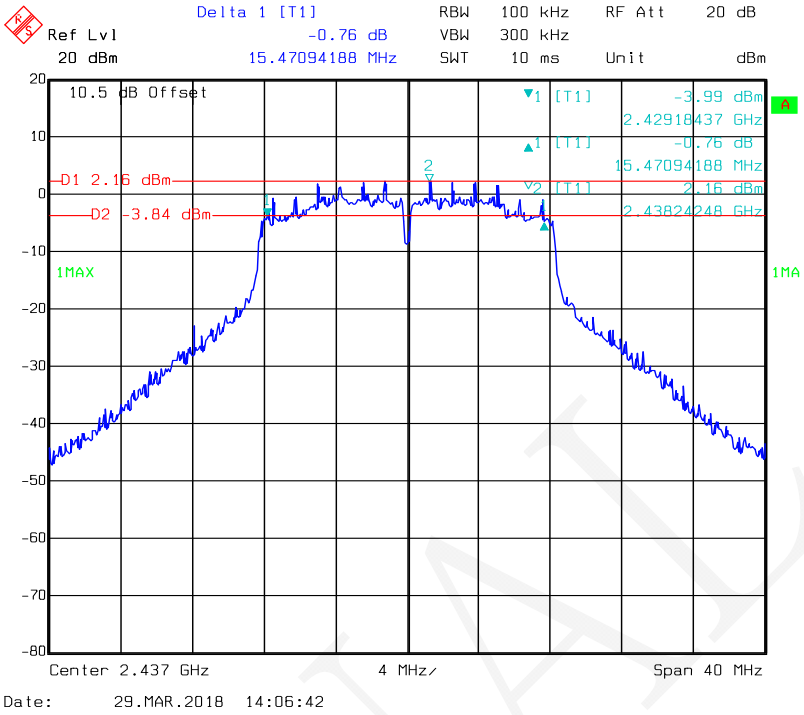
Wi-Fi mode, 802.11b High Channel (Antenna 1)



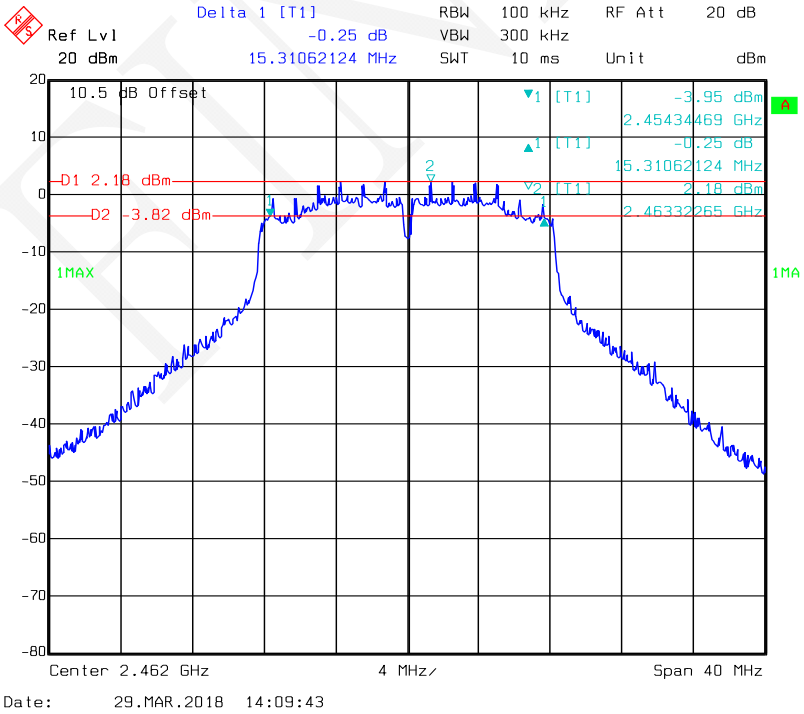
Wi-Fi mode, 802.11g Low Channel (Antenna 1)



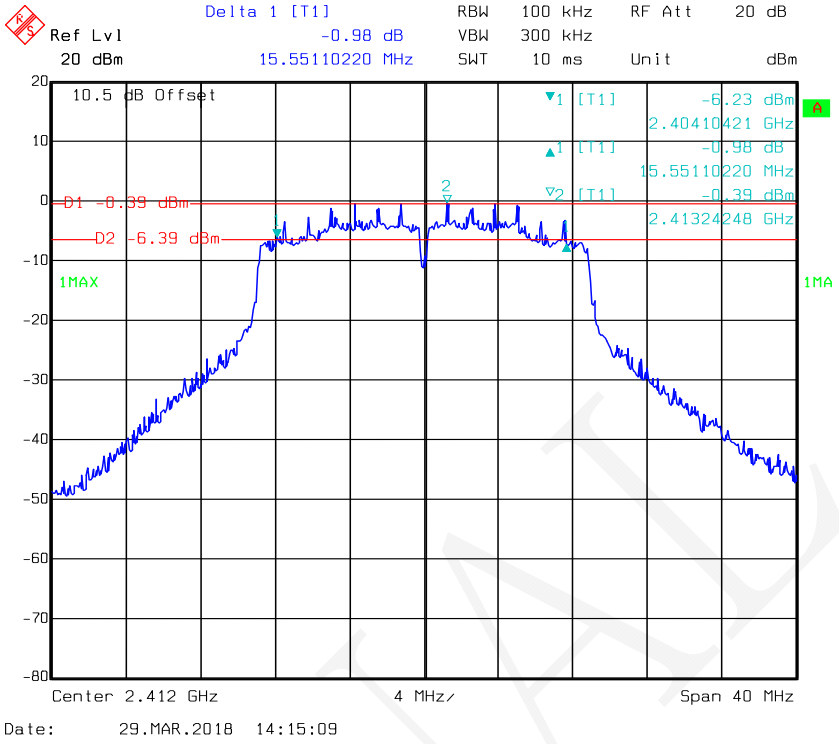
Wi-Fi mode, 802.11g Middle Channel (Antenna 1)



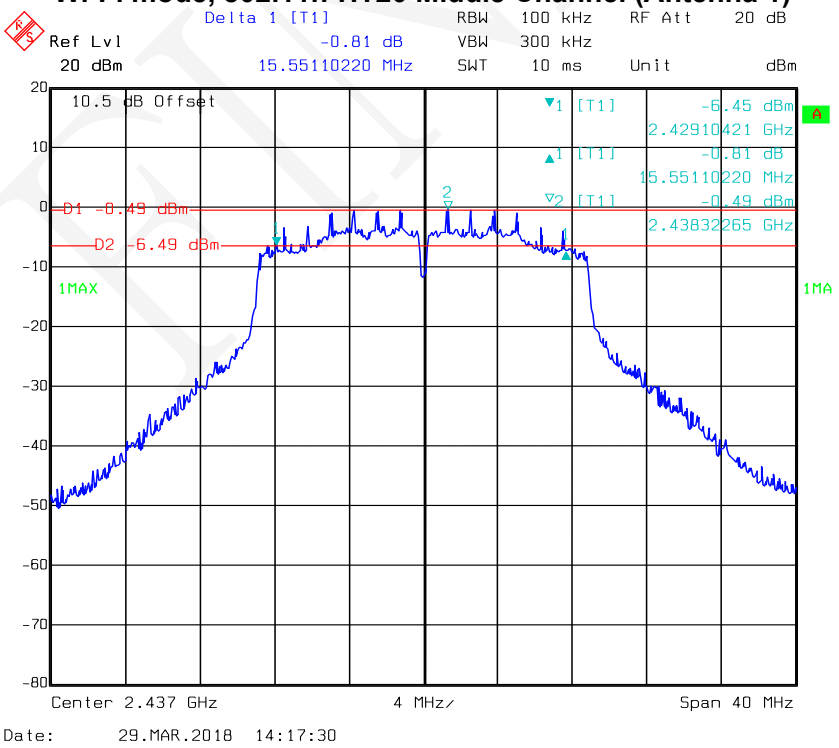
Wi-Fi mode, 802.11g High Channel (Antenna 1)



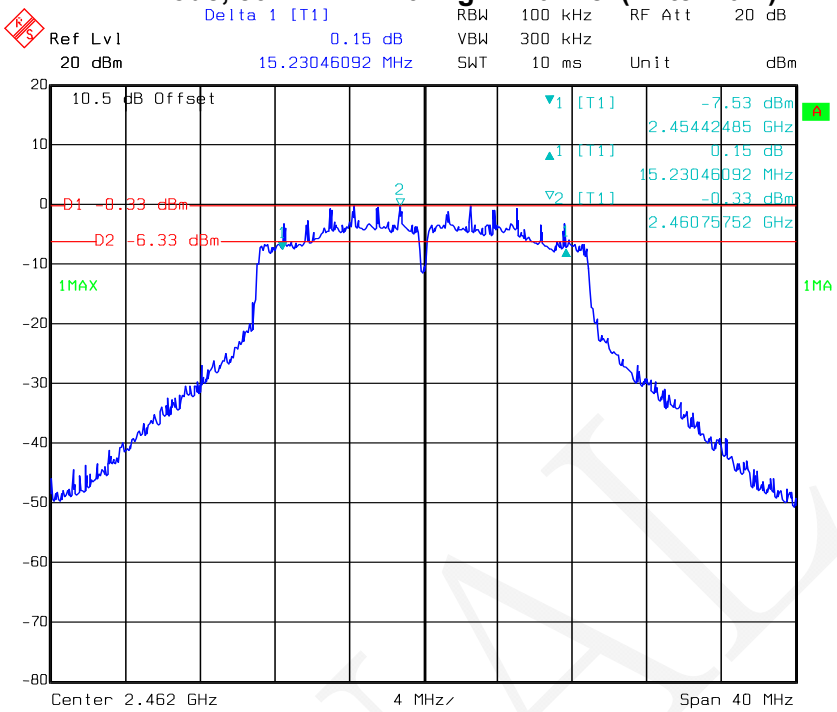
Wi-Fi mode, 802.11n-HT20 Low Channel (Antenna 1)



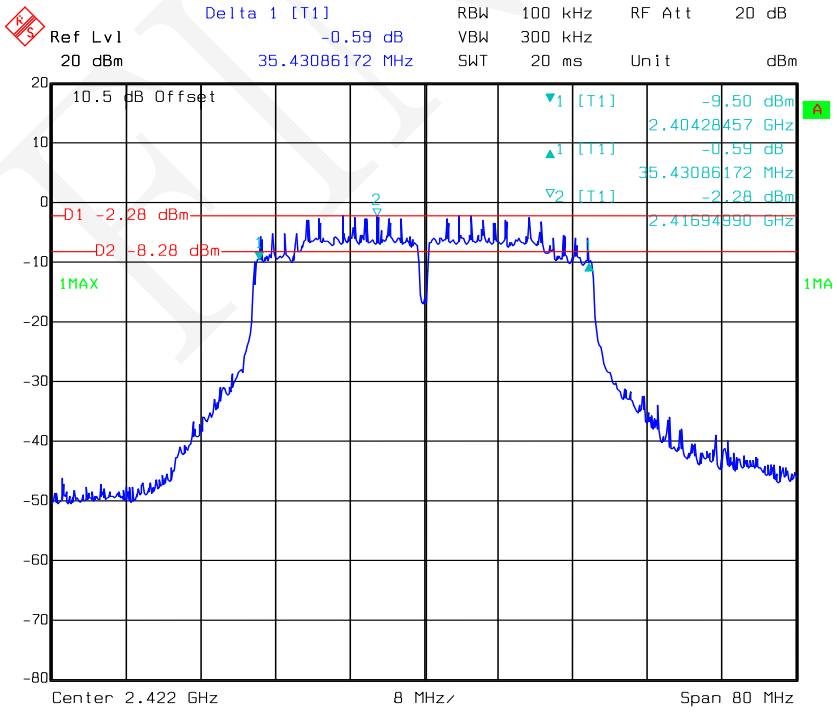
Wi-Fi mode, 802.11n-HT20 Middle Channel (Antenna 1)



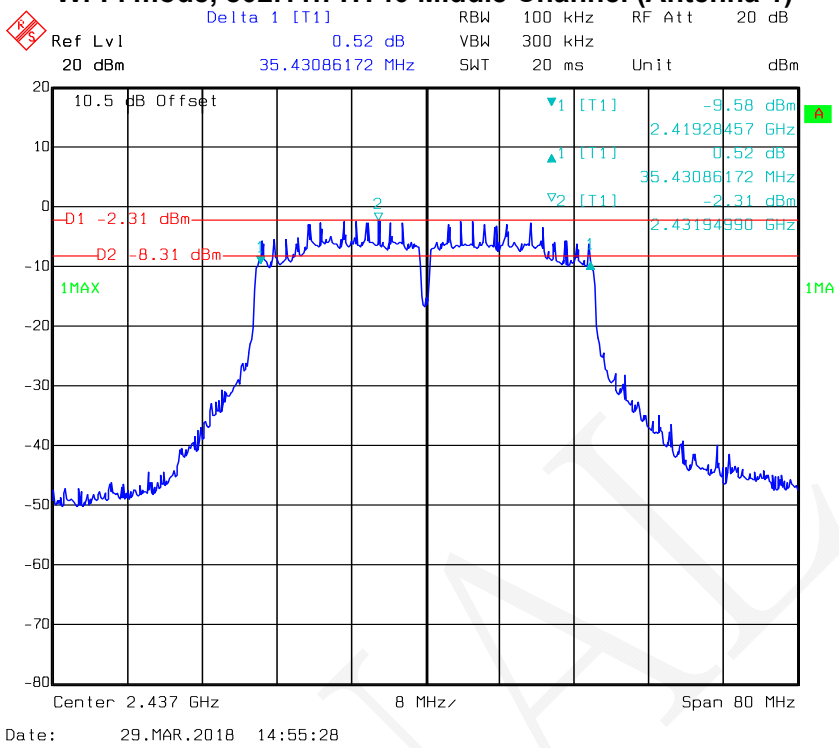
Wi-Fi mode, 802.11n-HT20 High Channel (Antenna 1)



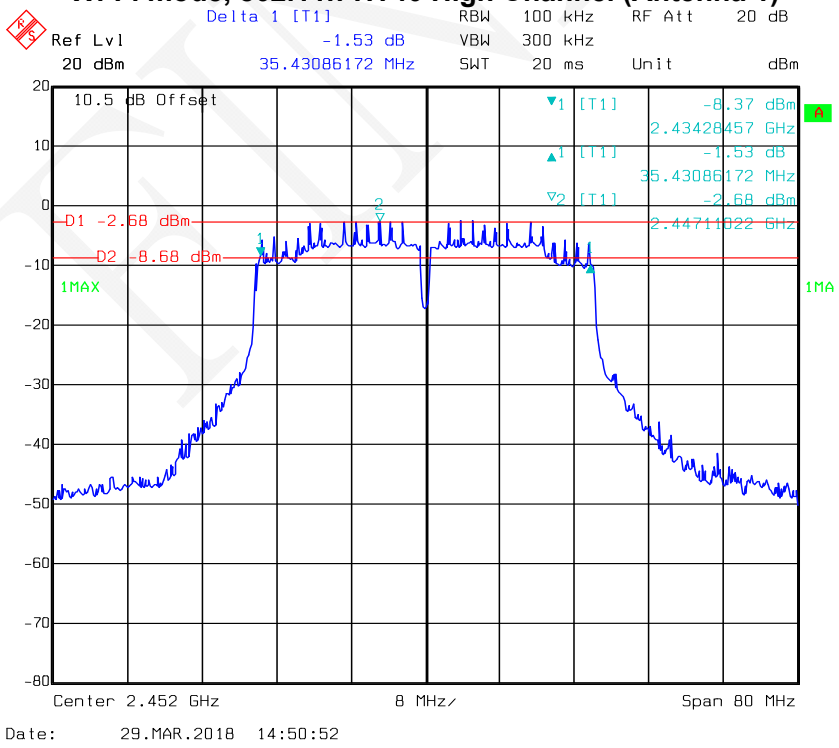
Wi-Fi mode, 802.11n-HT40 Low Channel (Antenna 1)



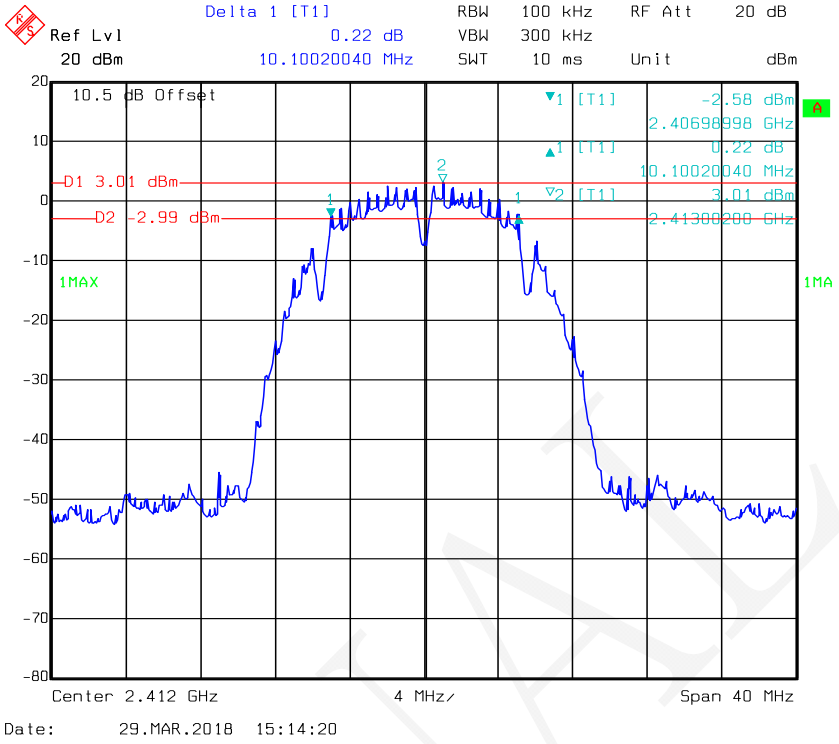
Wi-Fi mode, 802.11n-HT40 Middle Channel (Antenna 1)



Wi-Fi mode, 802.11n-HT40 High Channel (Antenna 1)

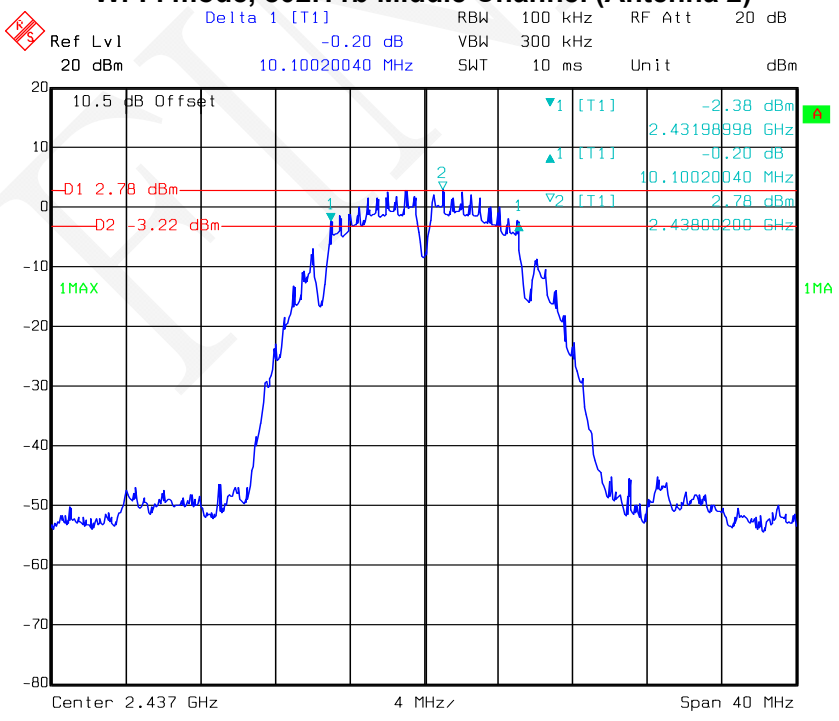


Wi-Fi mode, 802.11b Low Channel (Antenna 2)



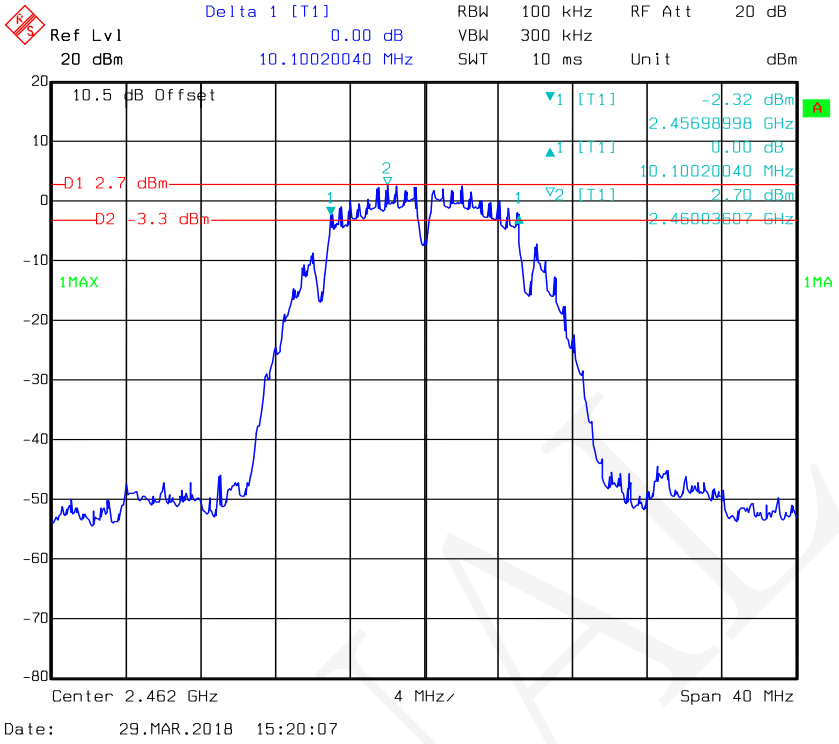
Date: 29.MAR.2018 15:14:20

Wi-Fi mode, 802.11b Middle Channel (Antenna 2)

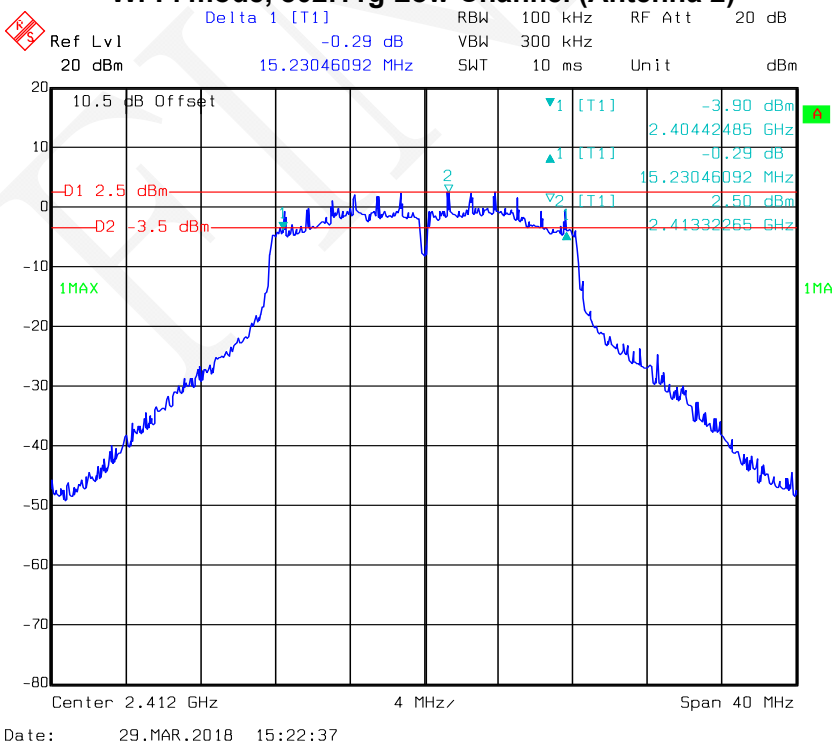


Date: 29.MAR.2018 15:18:26

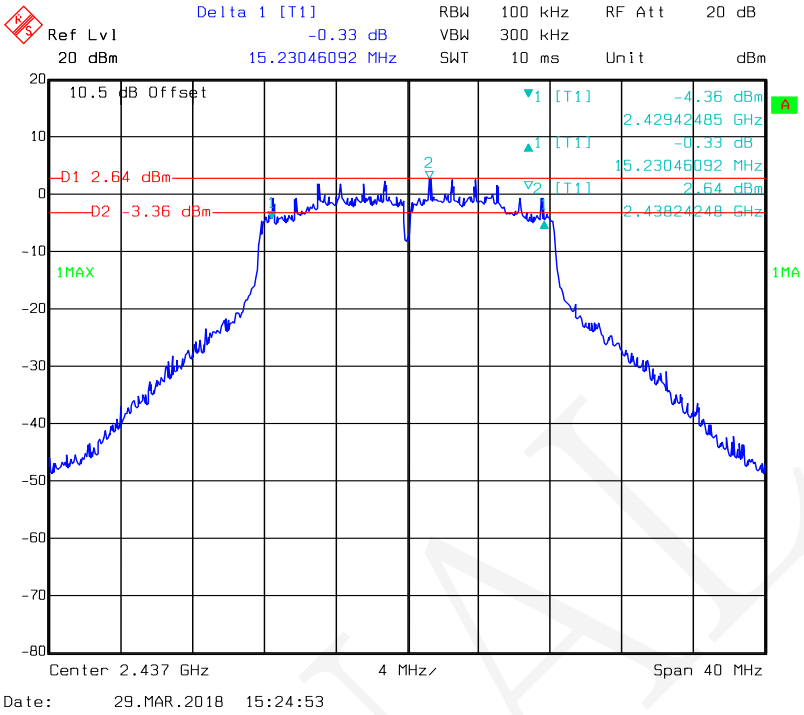
Wi-Fi mode, 802.11b High Channel (Antenna 2)



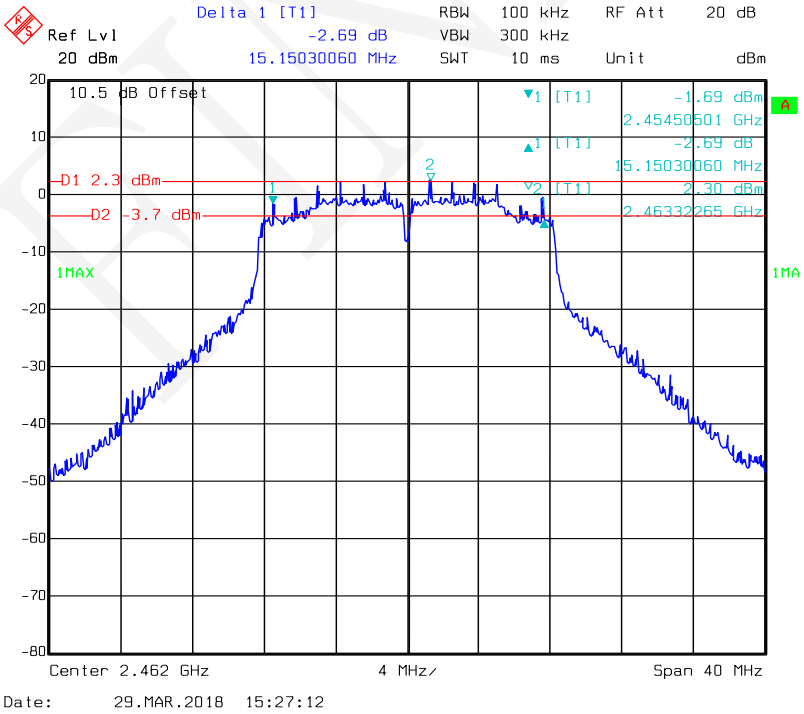
Wi-Fi mode, 802.11g Low Channel (Antenna 2)



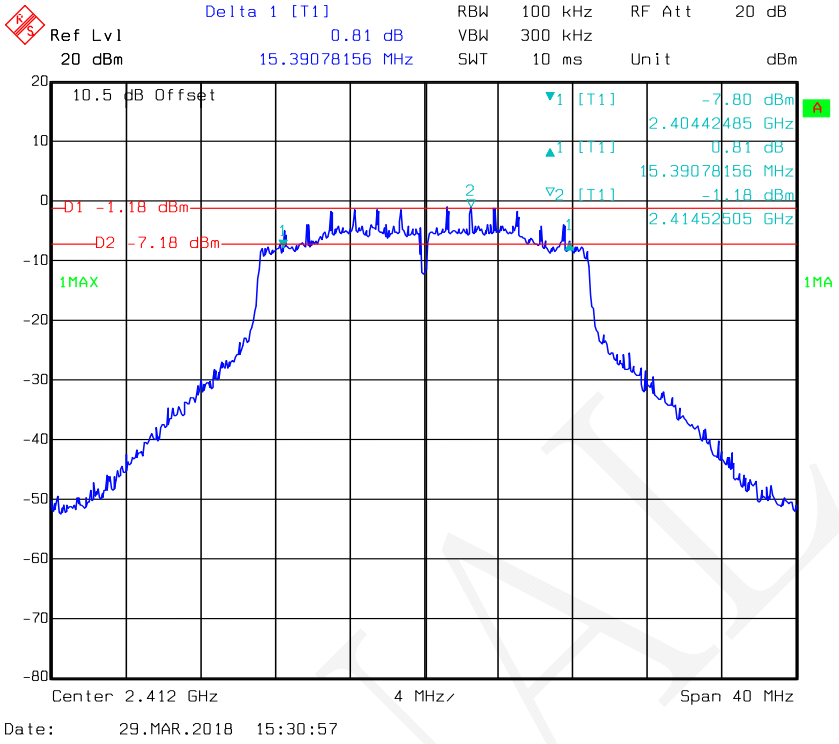
Wi-Fi mode, 802.11g Middle Channel (Antenna 2)



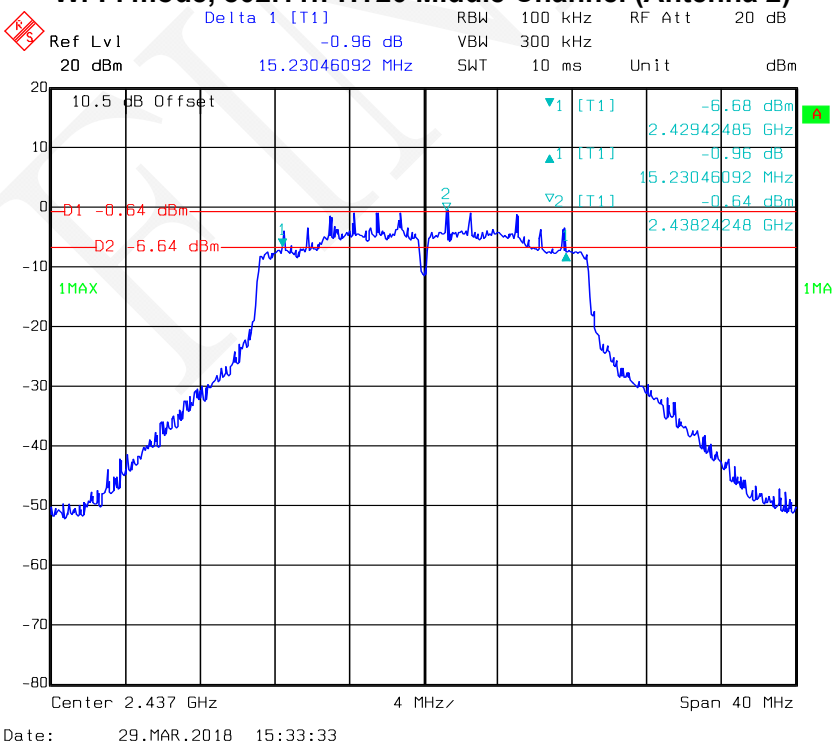
Wi-Fi mode, 802.11g High Channel (Antenna 2)



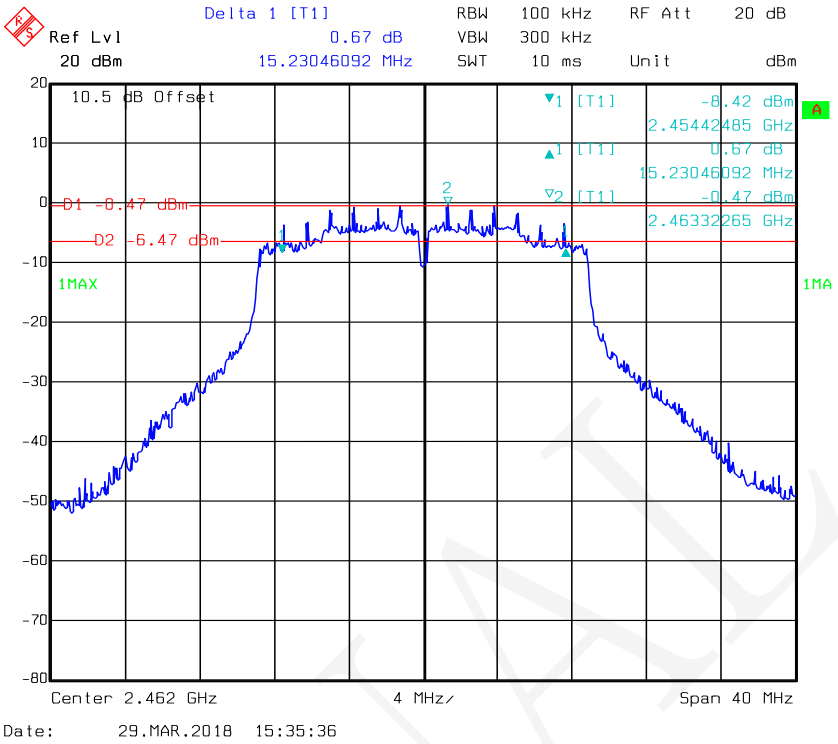
Wi-Fi mode, 802.11n-HT20 Low Channel (Antenna 2)



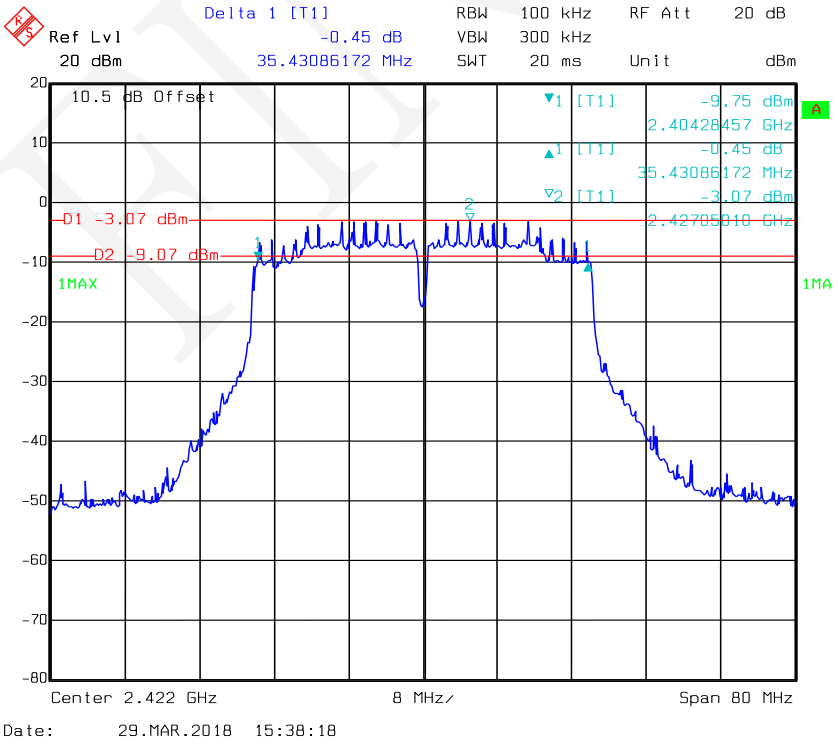
Wi-Fi mode, 802.11n-HT20 Middle Channel (Antenna 2)



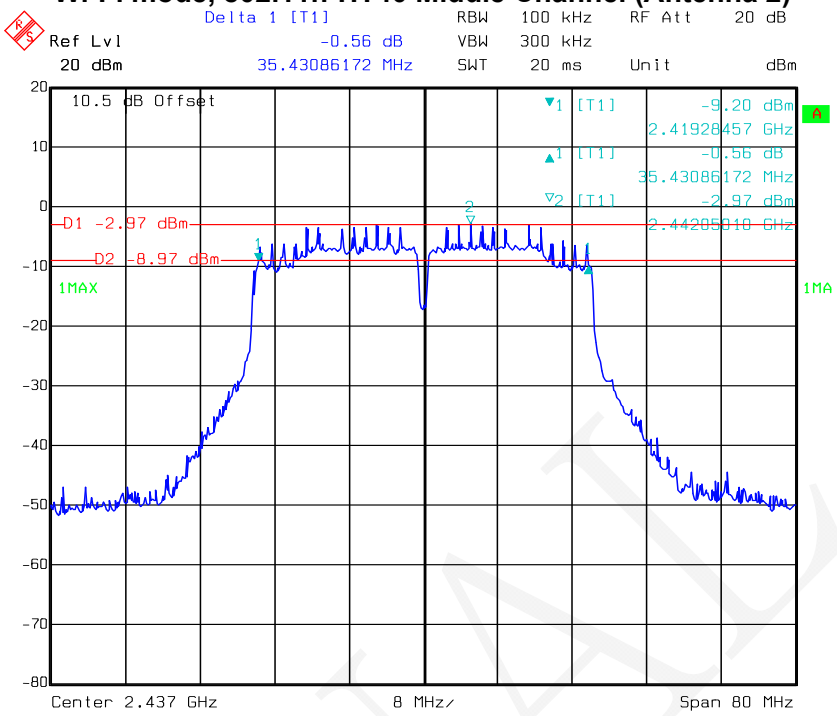
Wi-Fi mode, 802.11n-HT20 High Channel (Antenna 2)



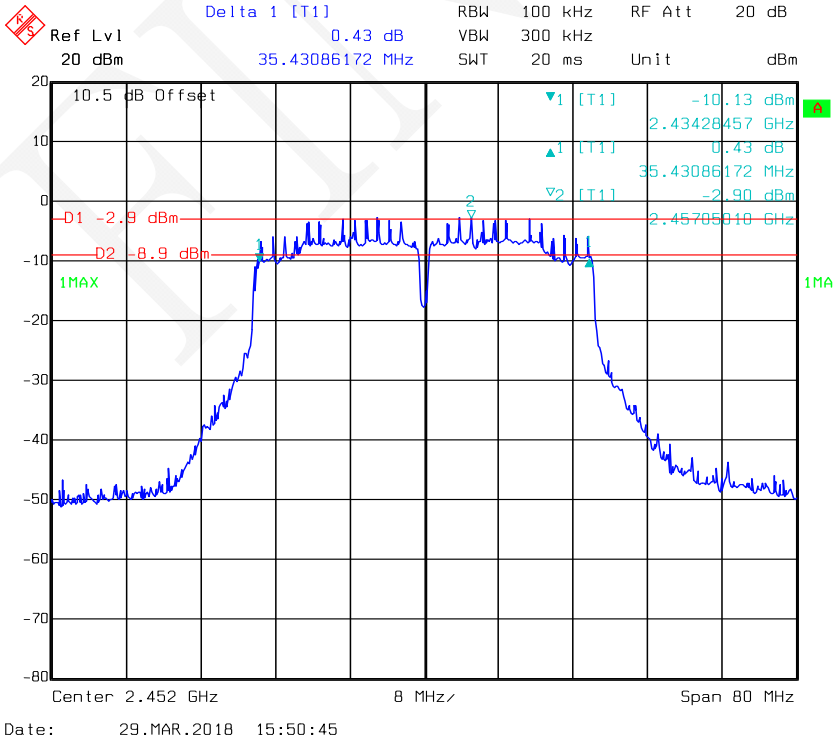
Wi-Fi mode, 802.11n-HT40 Low Channel (Antenna 2)



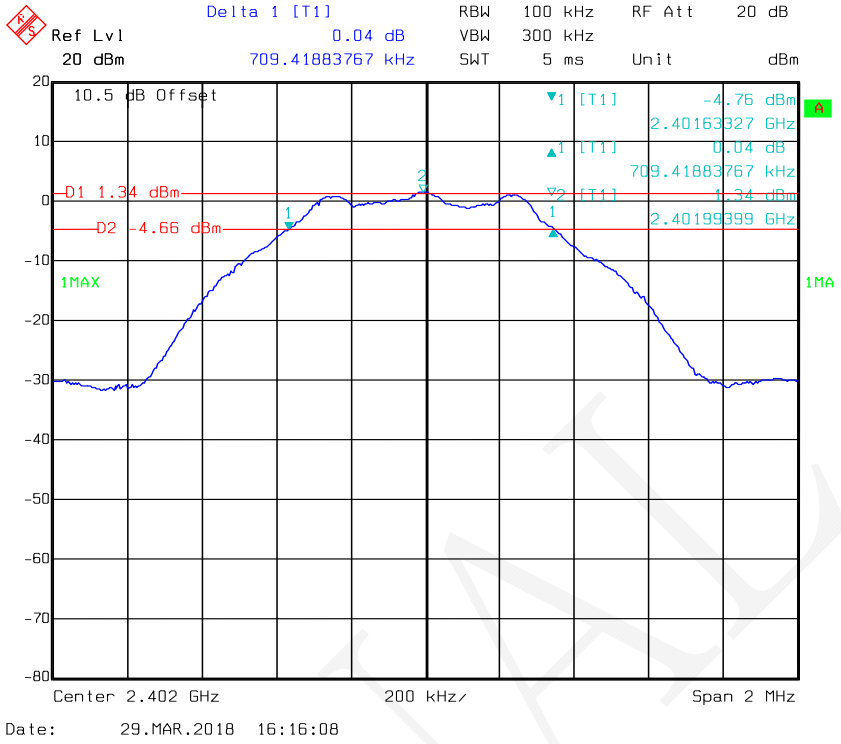
Wi-Fi mode, 802.11n-HT40 Middle Channel (Antenna 2)



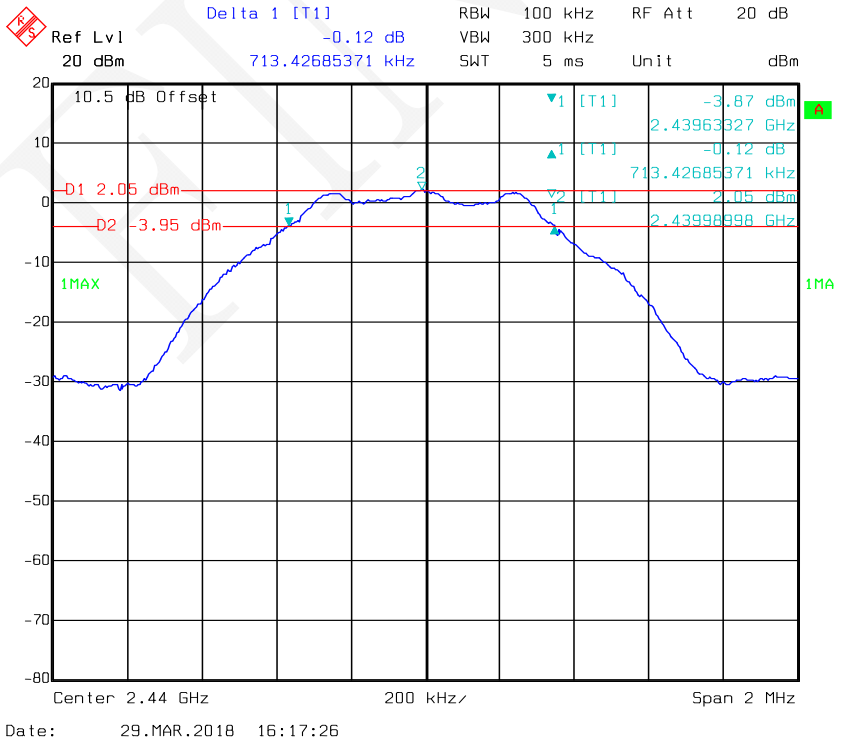
Wi-Fi mode, 802.11n-HT40 High Channel (Antenna 2)



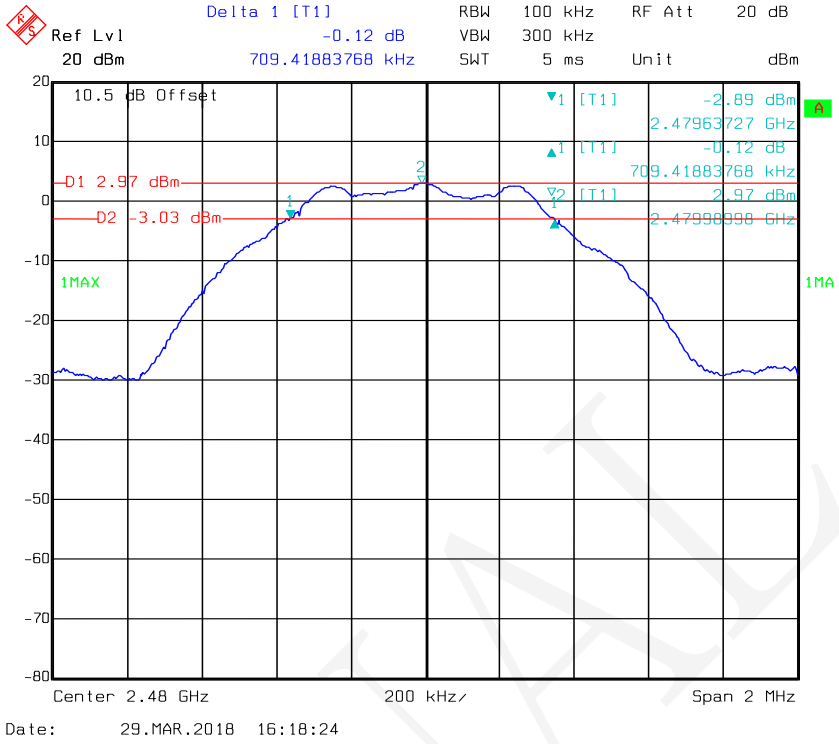
BLE mode, Low Channel



BLE mode, Middle Channel



BLE mode, High Channel



For 8265NGW Module

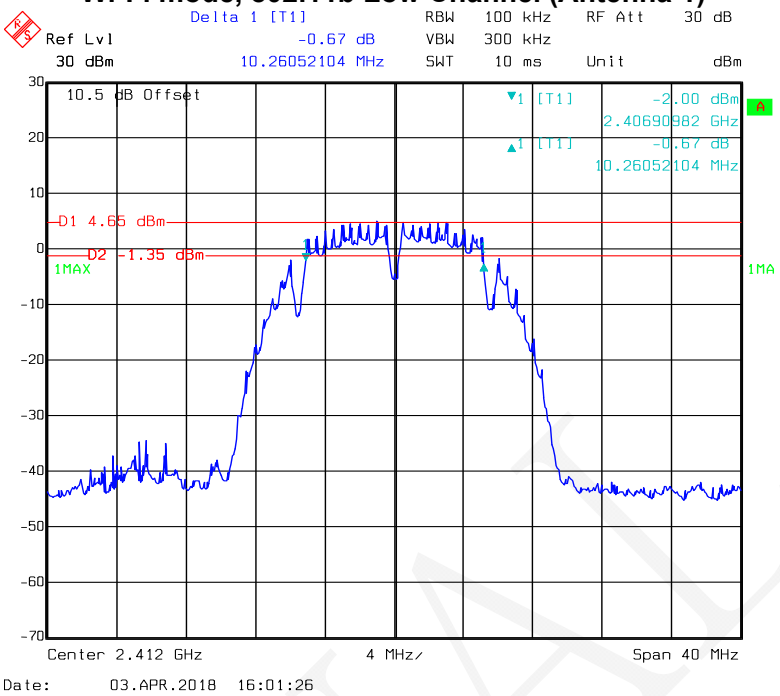
Wi-Fi mode

Mode	Channel	Frequency (MHz)	6dB Emission Bandwidth (MHz)		Limit (MHz)
			Antenna 1	Antenna 2	
802.11b	Low	2412	10.26	10.26	≥0.50
	Middle	2437	10.18	10.26	≥0.50
	High	2462	10.18	10.18	≥0.50
802.11g	Low	2412	15.39	15.39	≥0.50
	Middle	2437	15.55	15.71	≥0.50
	High	2462	15.47	15.71	≥0.50
802.11n-HT20	Low	2412	15.23	15.23	≥0.50
	Middle	2437	14.99	15.23	≥0.50
	High	2462	15.39	15.39	≥0.50
802.11n-HT40	Low	2422	35.11	35.27	≥0.50
	Middle	2437	35.27	35.27	≥0.50
	High	2452	35.11	35.59	≥0.50

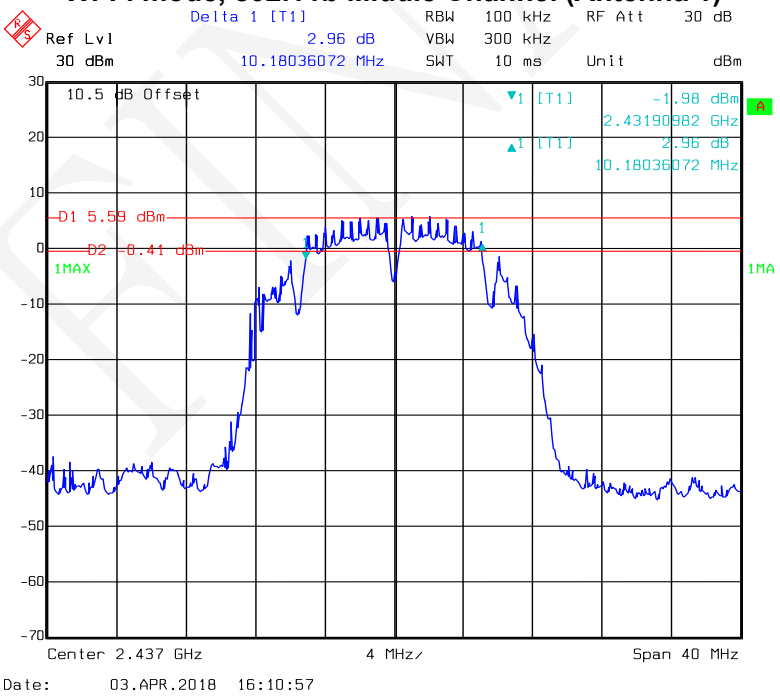
BLE mode

Mode	Channel	Frequency (MHz)	6dB Emission Bandwidth (MHz)	Limit (MHz)
BLE	Low	2402	0.68	≥0.50
	Middle	2440	0.69	≥0.50
	High	2480	0.69	≥0.50

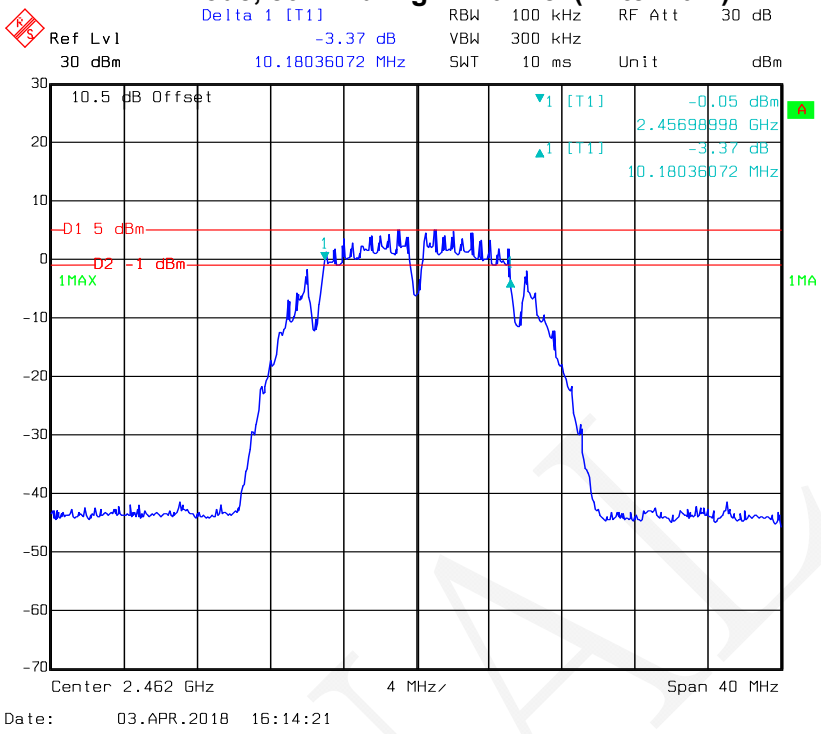
Wi-Fi mode, 802.11b Low Channel (Antenna 1)



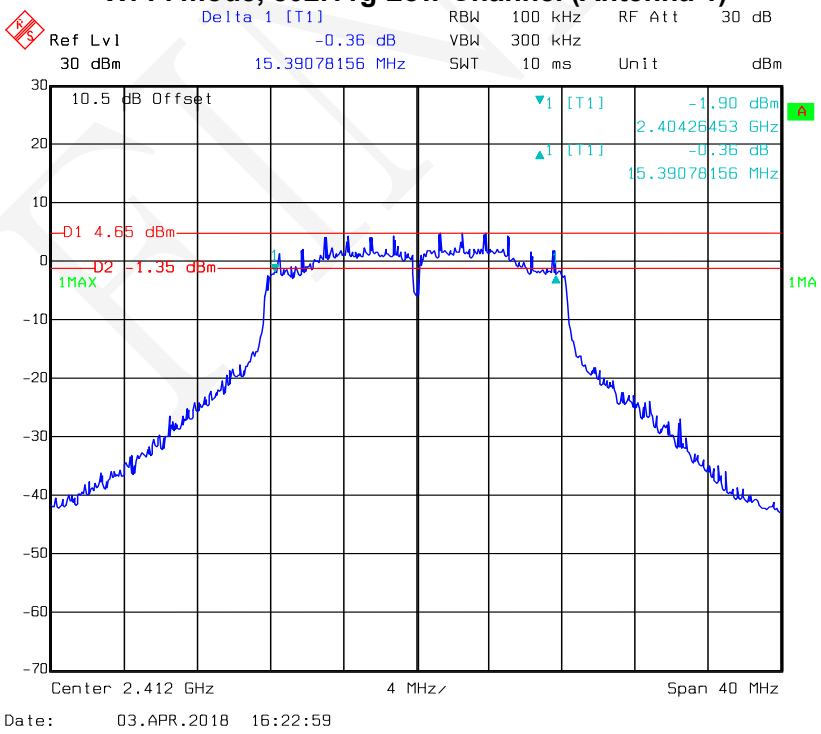
Wi-Fi mode, 802.11b Middle Channel (Antenna 1)



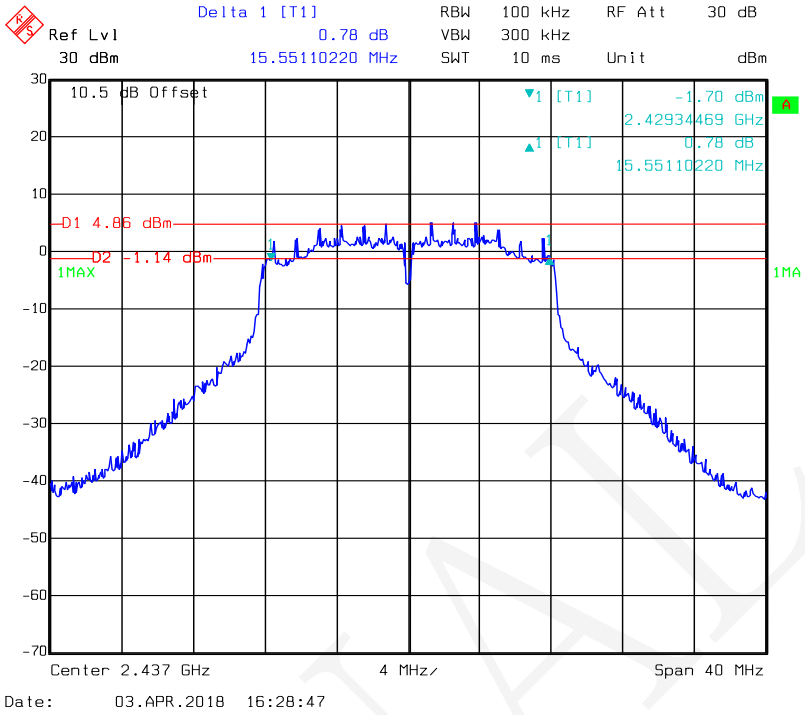
Wi-Fi mode, 802.11b High Channel (Antenna 1)



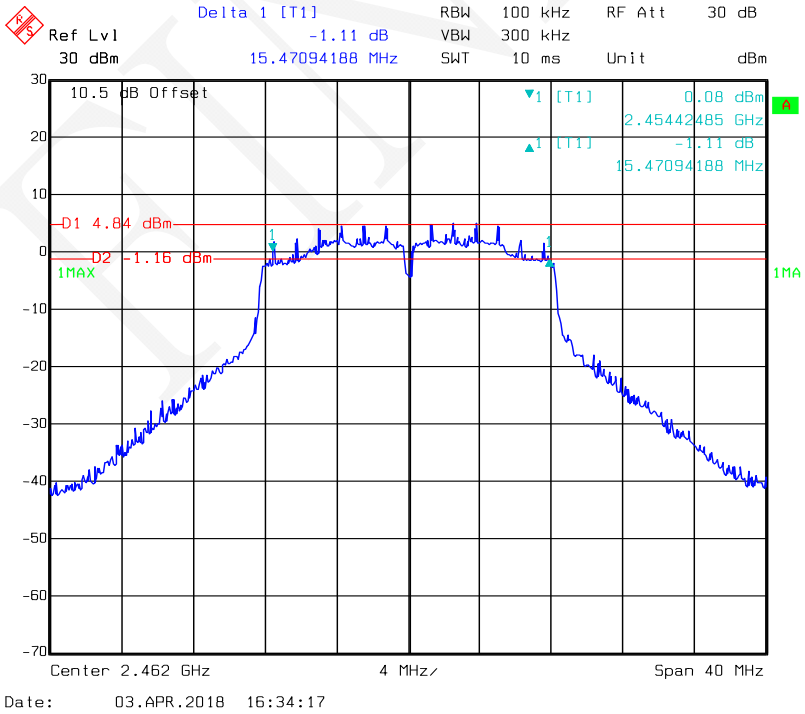
Wi-Fi mode, 802.11g Low Channel (Antenna 1)



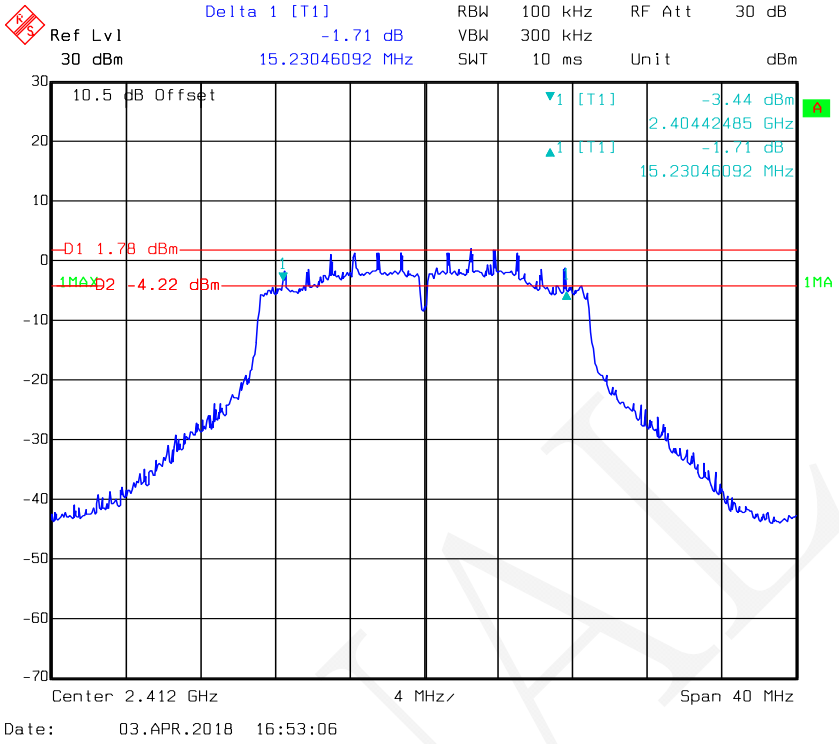
Wi-Fi mode, 802.11g Middle Channel (Antenna 1)



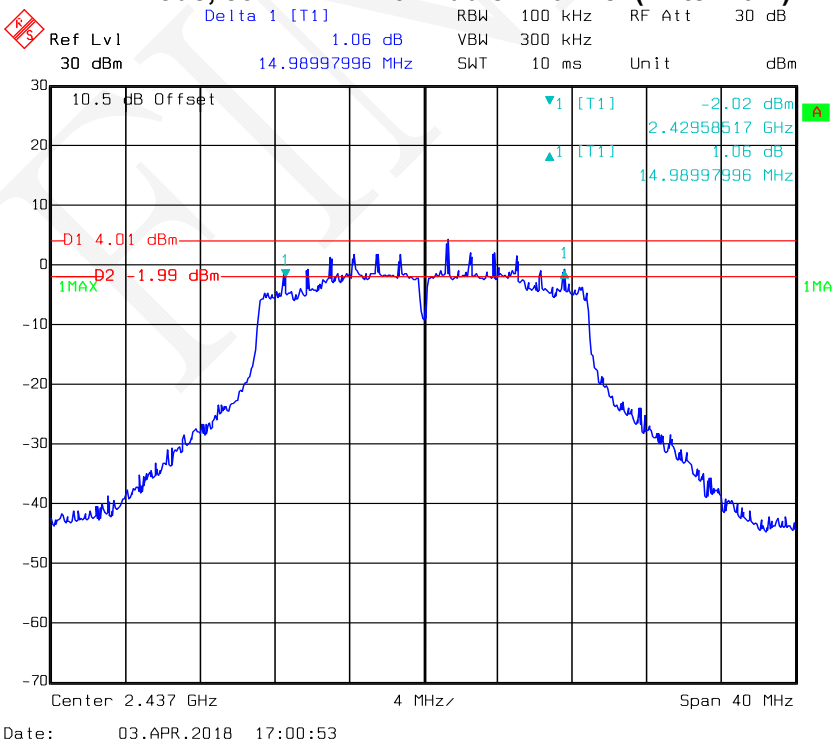
Wi-Fi mode, 802.11g High Channel (Antenna 1)



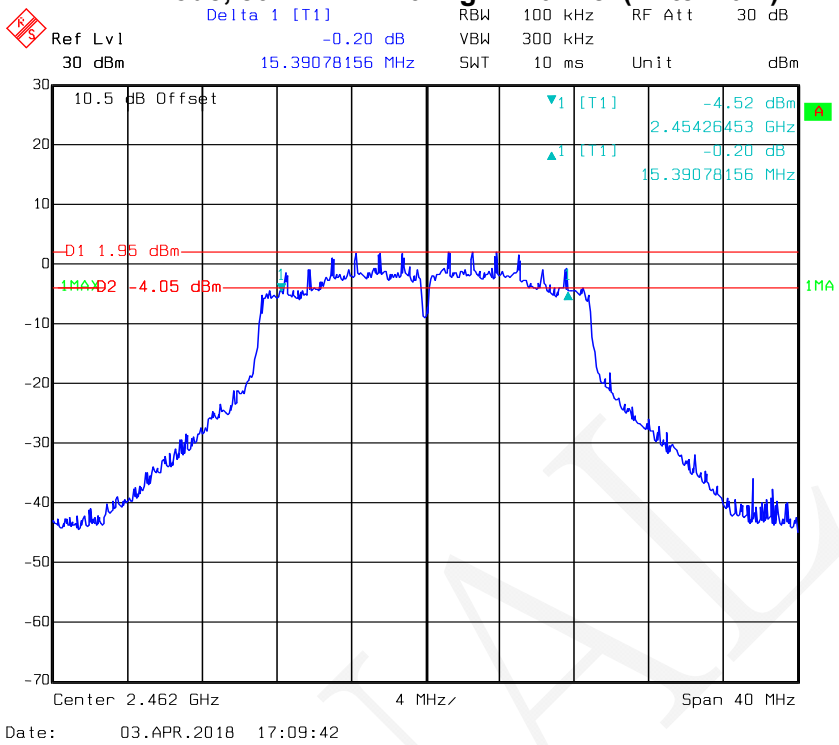
Wi-Fi mode, 802.11n-HT20 Low Channel (Antenna 1)



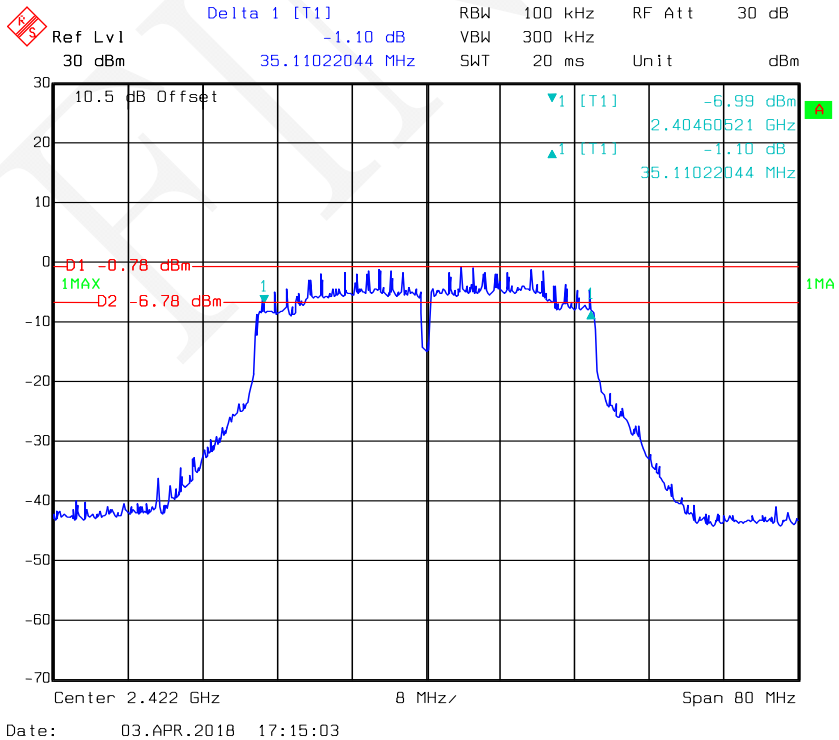
Wi-Fi mode, 802.11n-HT20 Middle Channel (Antenna 1)



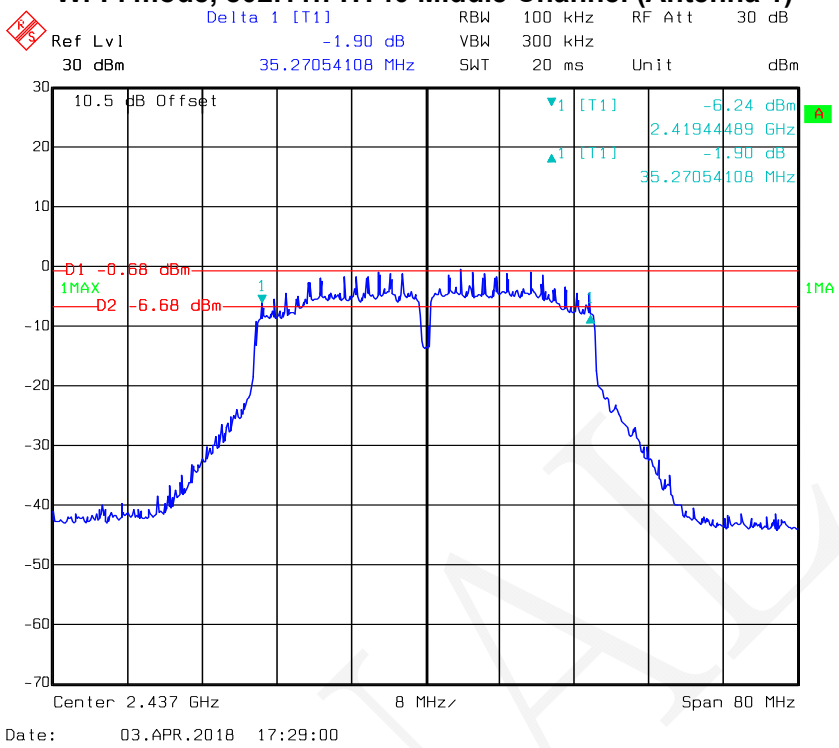
Wi-Fi mode, 802.11n-HT20 High Channel (Antenna 1)



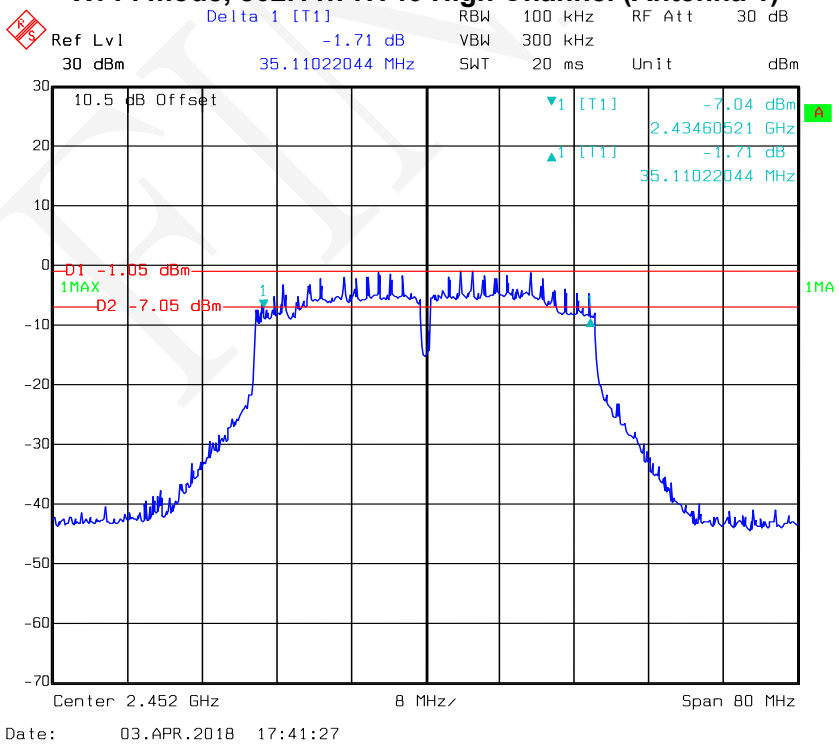
Wi-Fi mode, 802.11n-HT40 Low Channel (Antenna 1)



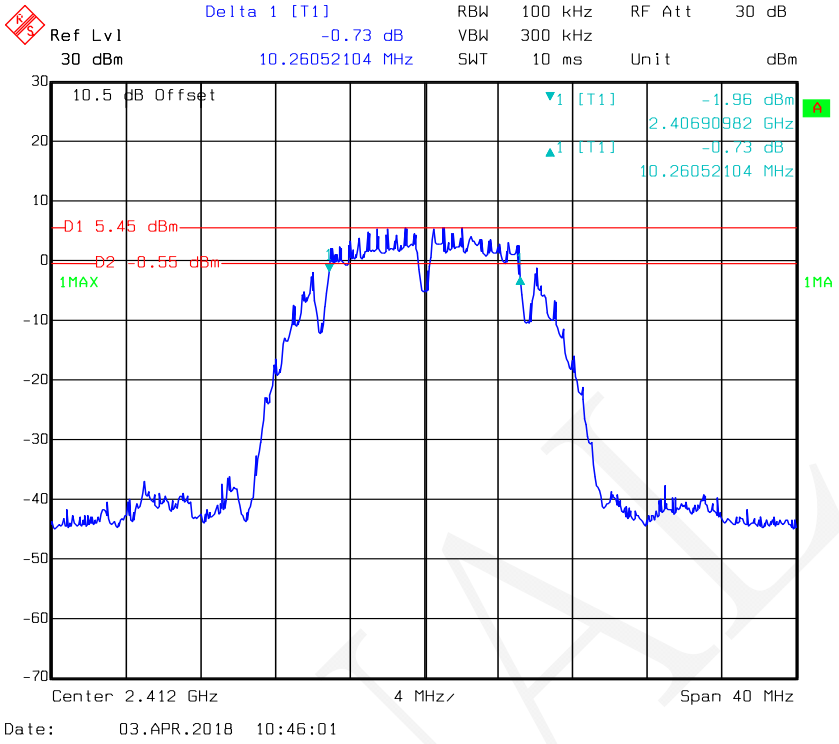
Wi-Fi mode, 802.11n-HT40 Middle Channel (Antenna 1)



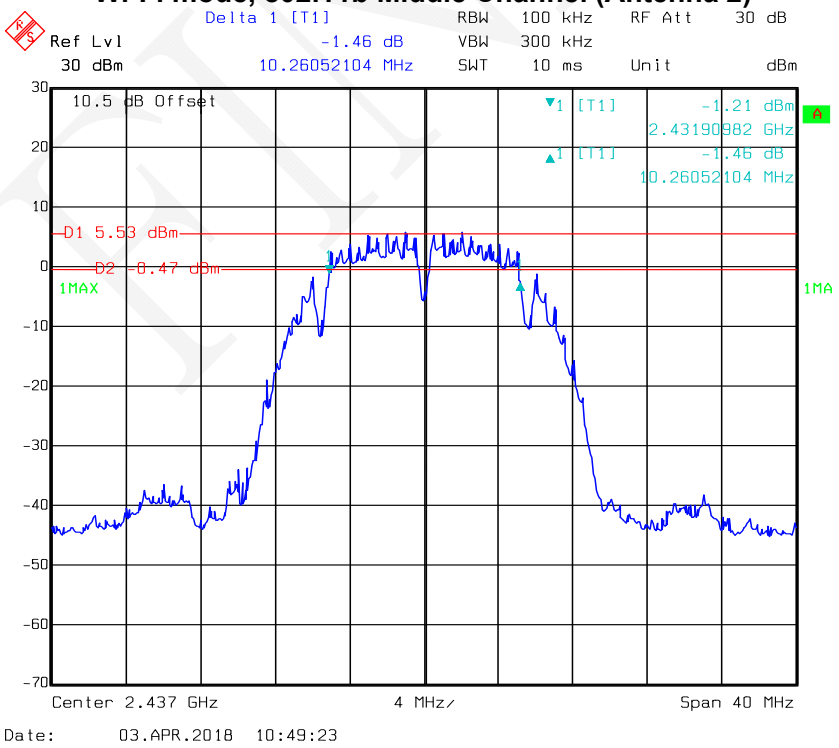
Wi-Fi mode, 802.11n-HT40 High Channel (Antenna 1)



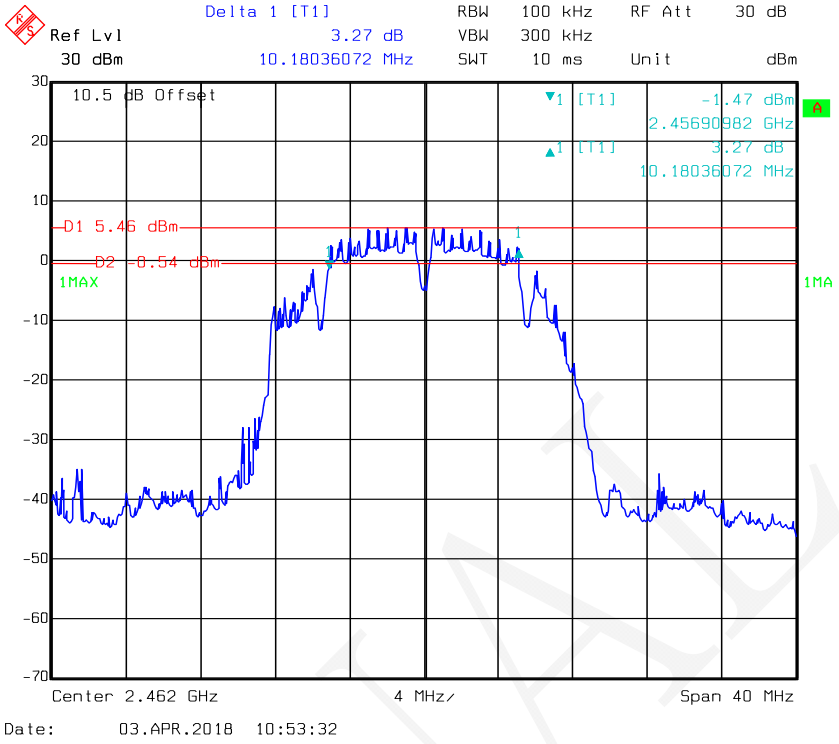
Wi-Fi mode, 802.11b Low Channel (Antenna 2)



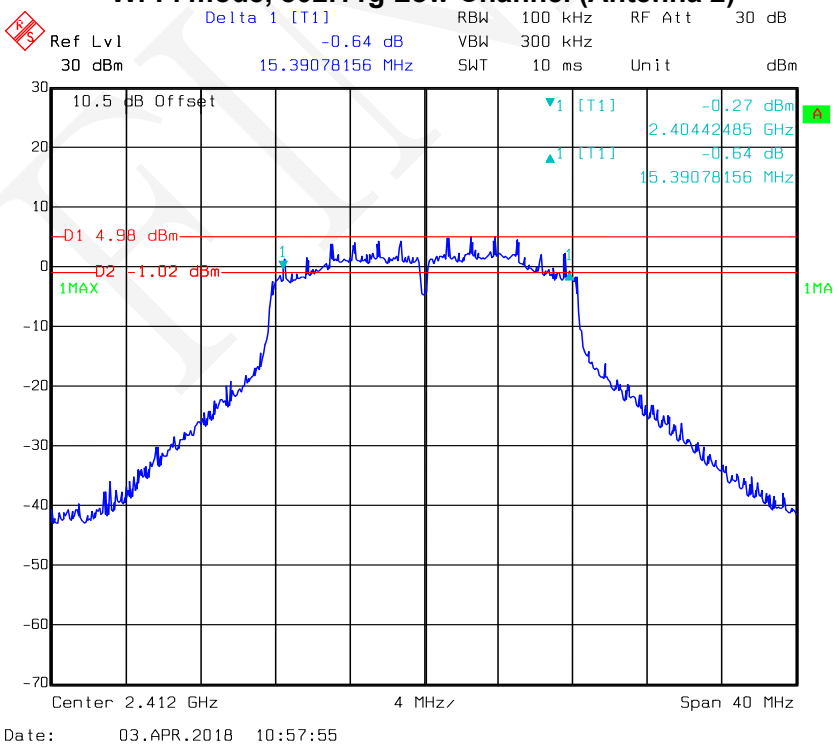
Wi-Fi mode, 802.11b Middle Channel (Antenna 2)



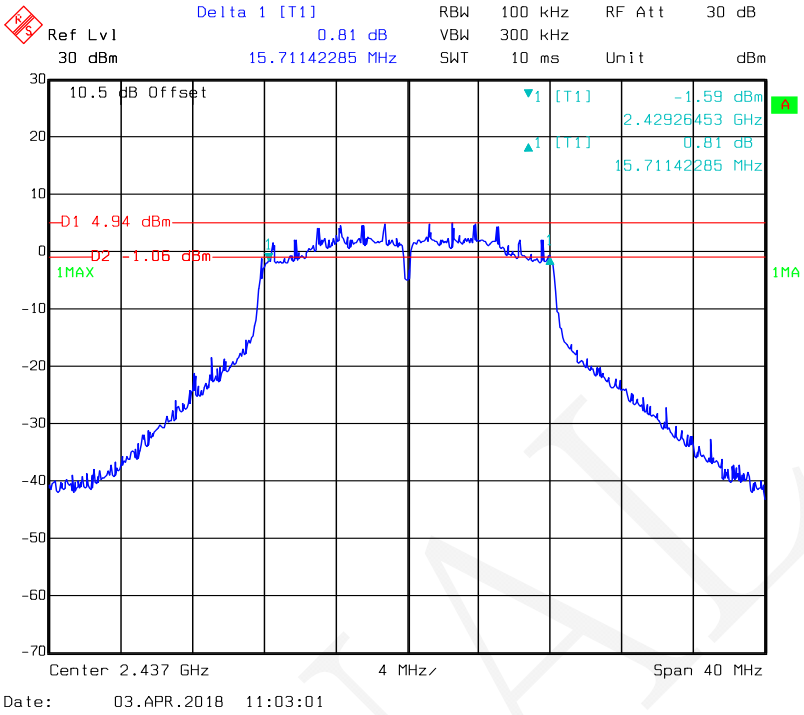
Wi-Fi mode, 802.11b High Channel (Antenna 2)



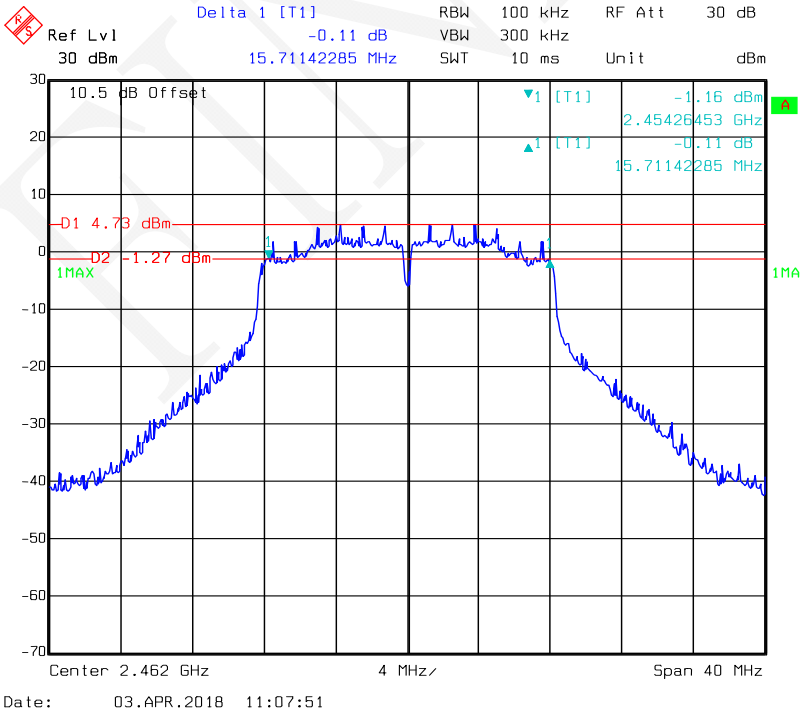
Wi-Fi mode, 802.11g Low Channel (Antenna 2)



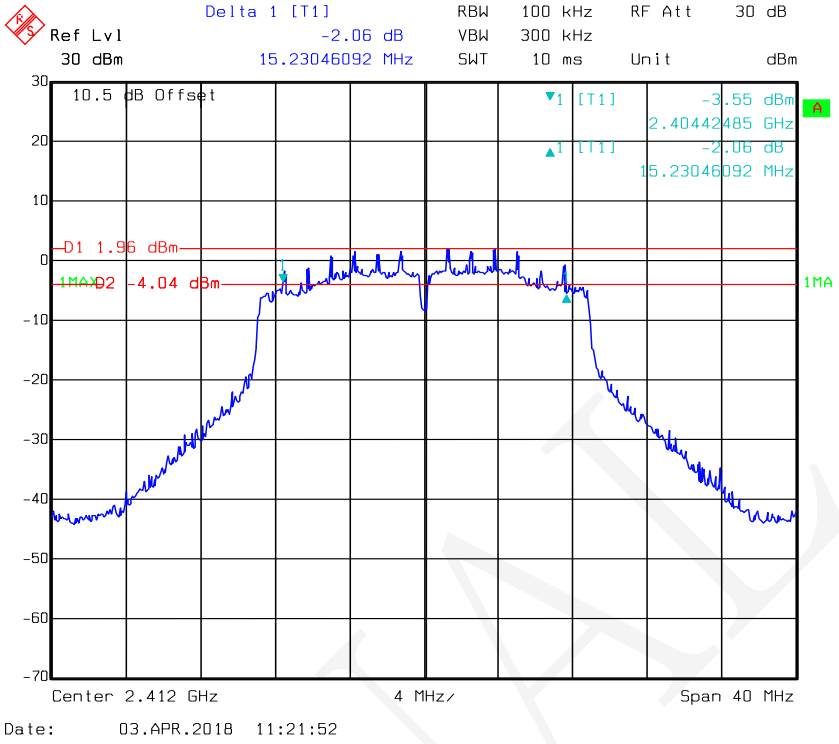
Wi-Fi mode, 802.11g Middle Channel (Antenna 2)



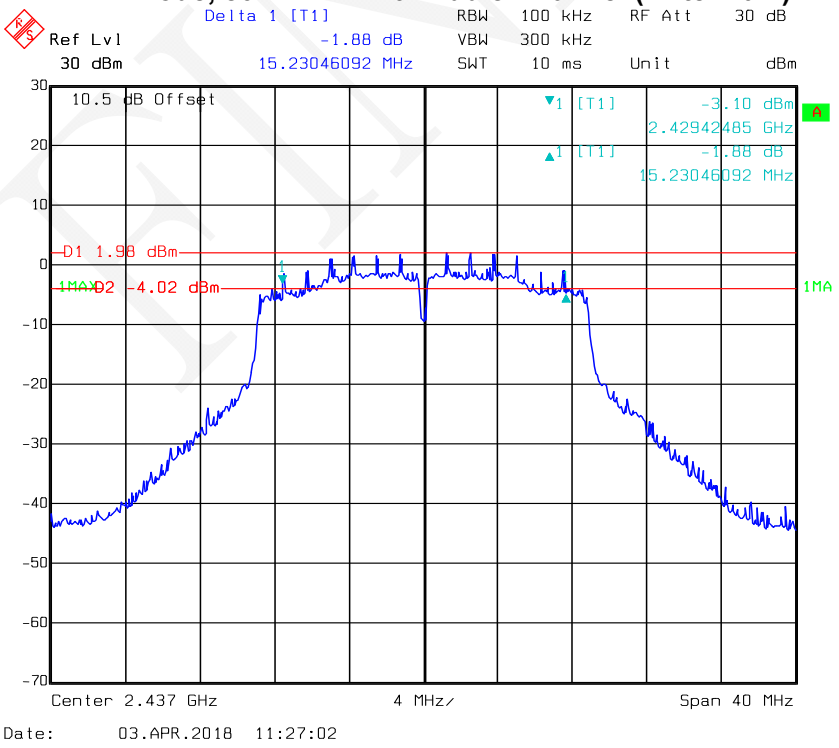
Wi-Fi mode, 802.11g High Channel (Antenna 2)



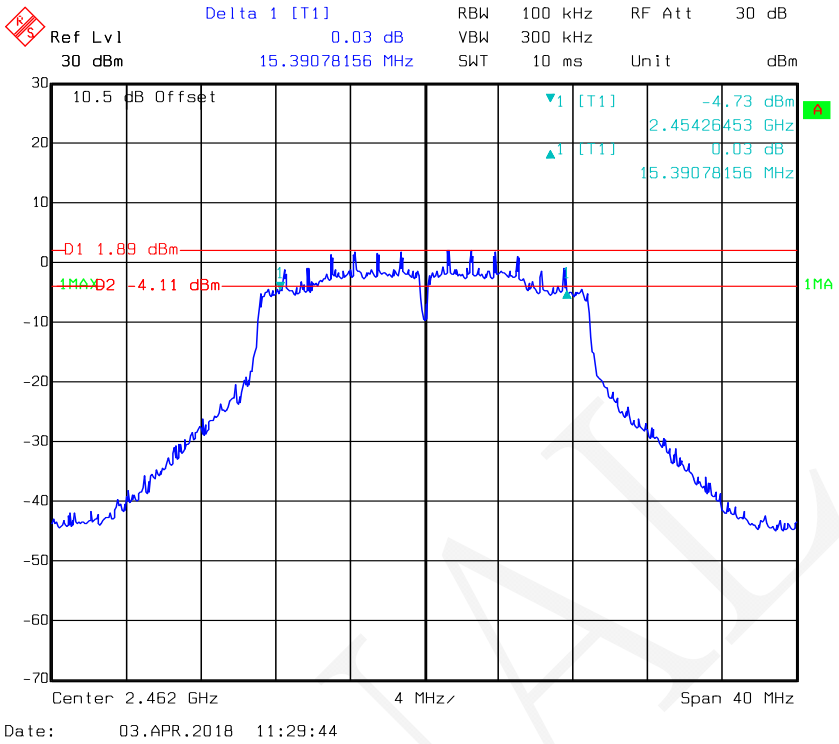
Wi-Fi mode, 802.11n-HT20 Low Channel (Antenna 2)



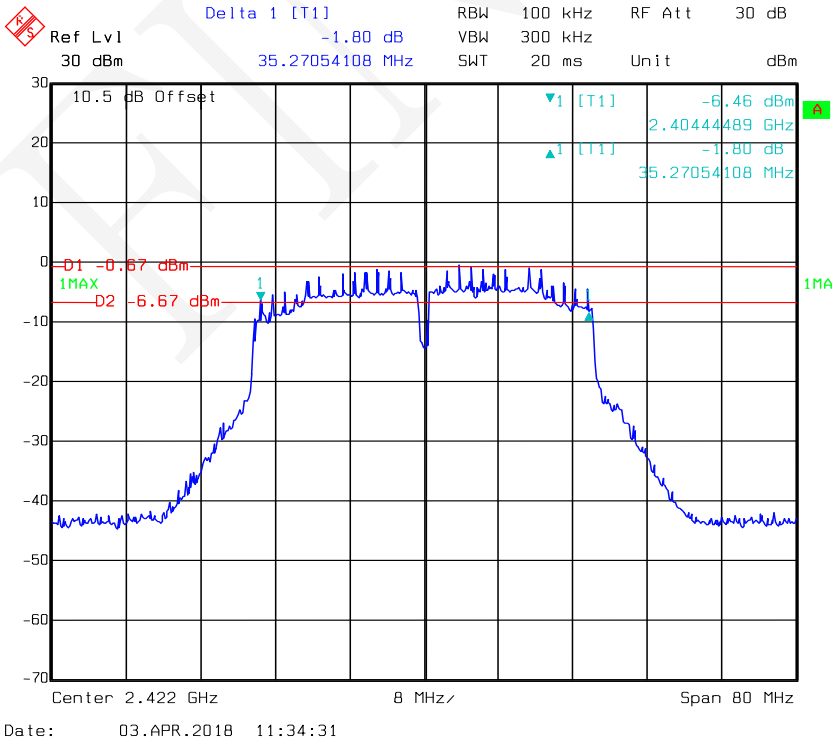
Wi-Fi mode, 802.11n-HT20 Middle Channel (Antenna 2)



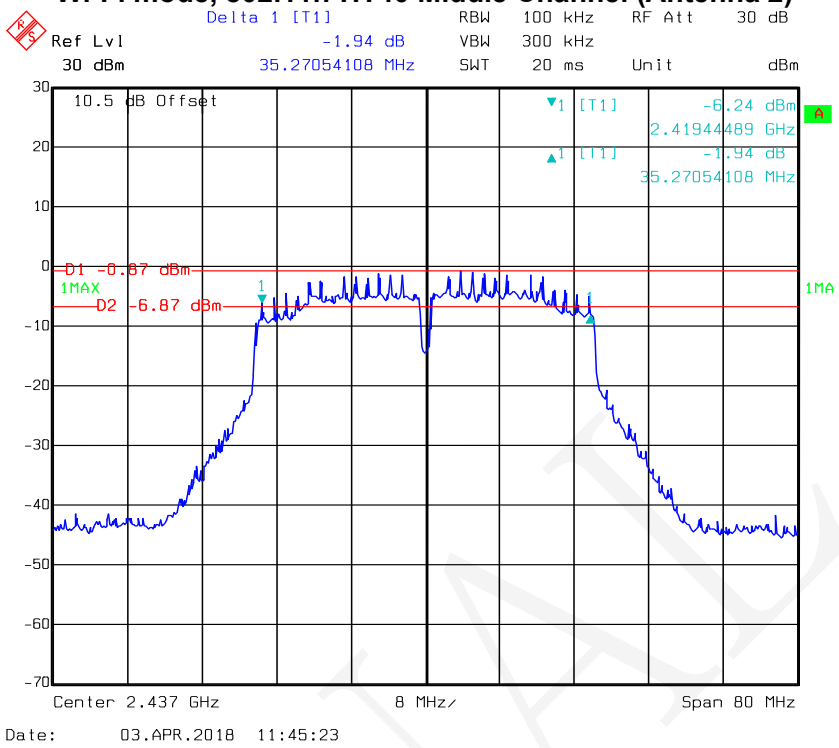
Wi-Fi mode, 802.11n-HT20 High Channel (Antenna 2)



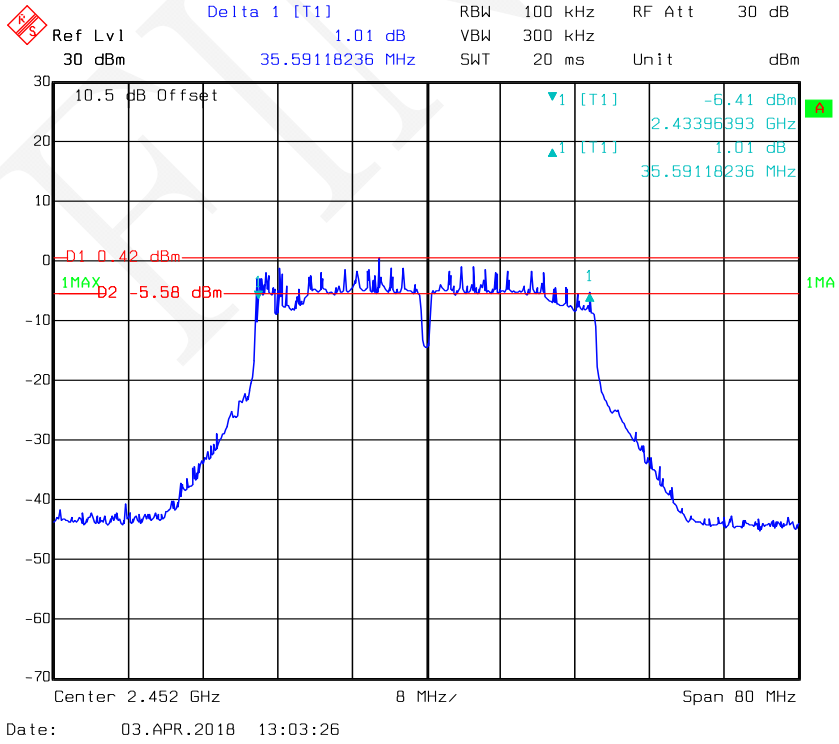
Wi-Fi mode, 802.11n-HT40 Low Channel (Antenna 2)



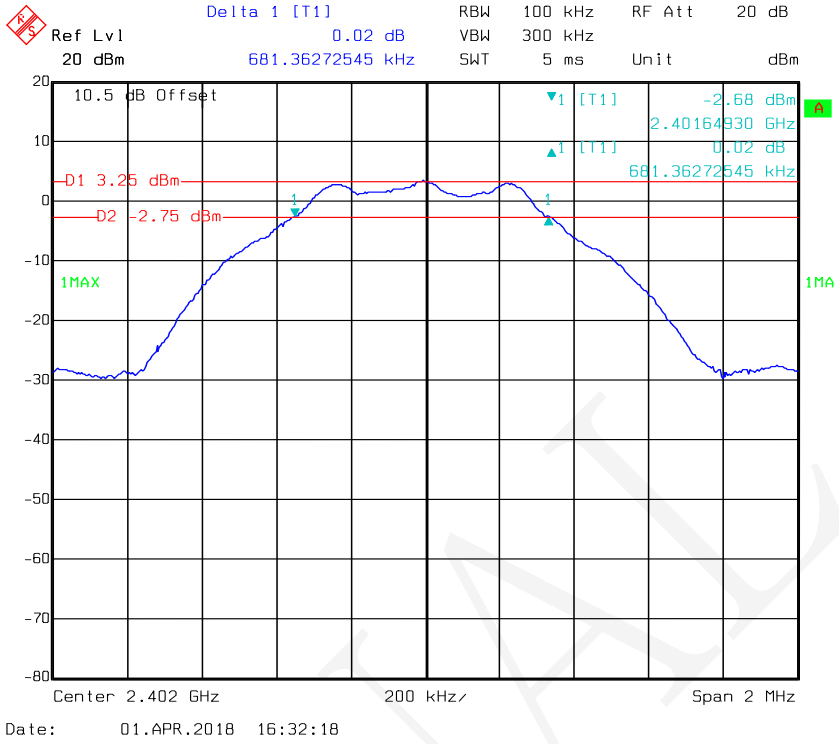
Wi-Fi mode, 802.11n-HT40 Middle Channel (Antenna 2)



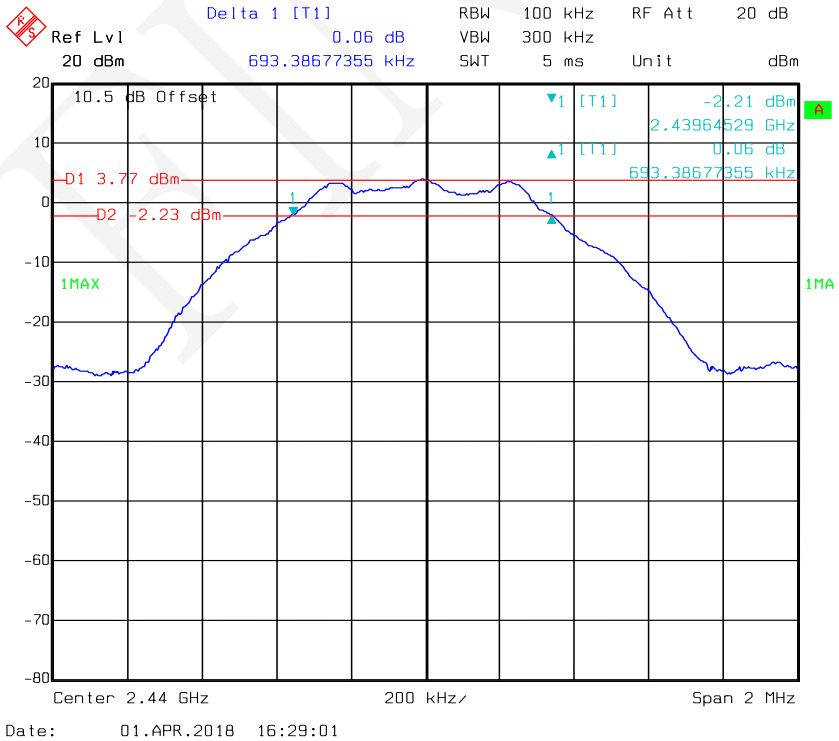
Wi-Fi mode, 802.11n-HT40 High Channel (Antenna 2)



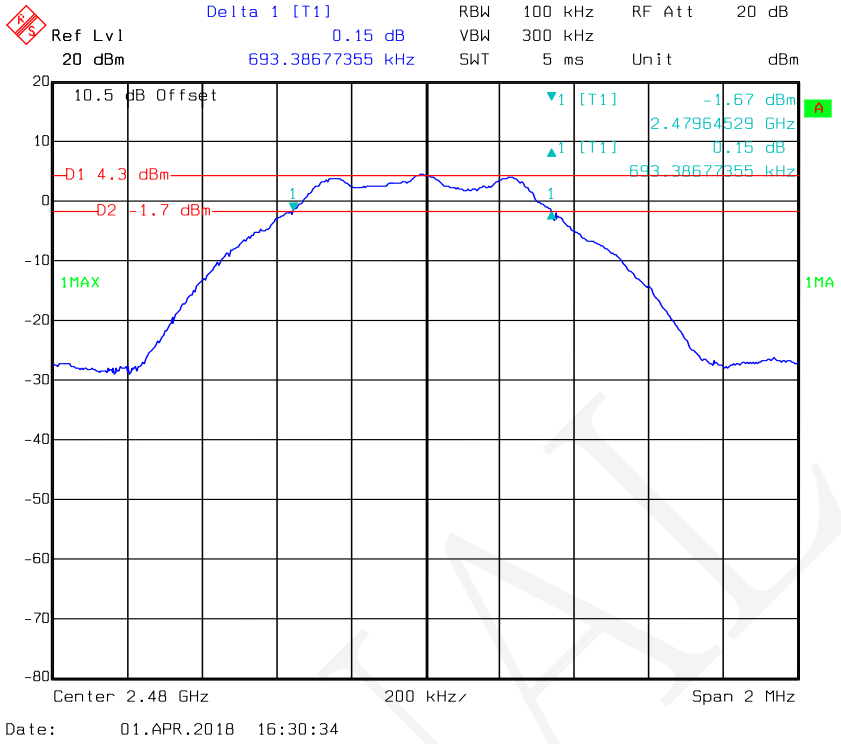
BLE mode, Low Channel



BLE mode, Middle Channel



BLE mode, High Channel



FCC §15.247(b) (3) - MAXIMUM CONDUCTED OUTPUT POWER

Applicable Standard

According to FCC §15.247(b) (3), for systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.

Test Procedure

1. Place the EUT on a bench and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to test equipment.
3. Add a correction factor to the display.

Test Data

Environmental Conditions

Temperature:	21 °C
Relative Humidity:	55 %
ATM Pressure:	95.8 kPa

** The testing was performed by Tom Tang on 2018-03-29.*

Test Mode: Transmitting

Test Result: Compliance. Please refer to the following table.

For 7265NGW Module

Wi-Fi mode

Mode	Channel	Frequency (MHz)	Max Peak Conducted Output Power (dBm)		Total (dBm)	Limit (dBm)
			Antenna 1	Antenna 2		
802.11b	Low	2412	16.37	15.85	/	30
	Middle	2437	15.73	15.39	/	30
	High	2462	16.01	16.03	/	30
802.11g	Low	2412	20.16	19.61	/	30
	Middle	2437	19.98	19.78	/	30
	High	2462	19.86	19.51	/	30
802.11n-HT20	Low	2412	16.85	16.80	19.84	30
	Middle	2437	16.73	16.50	19.63	30
	High	2462	17.07	16.70	19.90	30
802.11n-HT40	Low	2422	19.14	18.67	21.92	30
	Middle	2437	18.93	18.80	21.88	30
	High	2452	18.85	18.88	21.88	30

Mode	Channel	Frequency (MHz)	Max Conducted Average Output Power (dBm)		Total (dBm)	Limit (dBm)
			Antenna 1	Antenna 2		
802.11b	Low	2412	14.76	13.83	/	30
	Middle	2437	14.09	13.83	/	30
	High	2462	14.55	14.53	/	30
802.11g	Low	2412	15.54	14.99	/	30
	Middle	2437	15.30	15.20	/	30
	High	2462	15.22	14.92	/	30
802.11n-HT20	Low	2412	12.33	12.25	15.30	30
	Middle	2437	12.13	11.86	15.01	30
	High	2462	12.45	12.09	15.28	30
802.11n-HT40	Low	2422	12.03	11.64	14.85	30
	Middle	2437	11.90	11.76	14.84	30
	High	2452	11.76	11.82	14.80	30

Note:
1. The max antenna gain is 3.7dBi
2. The device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power measurements on IEEE 802.11 devices:

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

So:

Directional gain = G_{ANT} + Array Gain = 3.7dBi < 6.0dBi.

No power limit was reduced in MIMO mode.

BLE mode

Mode	Channel	Frequency (MHz)	Max Peak Conducted Output Power (dBm)	Limit (dBm)
BLE	Low	2402	1.36	30
	Middle	2440	1.99	30
	High	2480	2.89	30

For 8265NGW Module

Wi-Fi mode

Mode	Channel	Frequency (MHz)	Max Peak Conducted Output Power (dBm)		Total (dBm)	Limit (dBm)
			Antenna 1	Antenna 2		
802.11b	Low	2412	18.96	17.59	/	30
	Middle	2437	17.75	18.22	/	30
	High	2462	17.68	17.71	/	30
802.11g	Low	2412	22.91	23.12	/	30
	Middle	2437	23.29	23.31	/	30
	High	2462	23.17	23.26	/	30
802.11n-HT20	Low	2412	19.62	19.71	22.68	30
	Middle	2437	19.94	19.93	22.95	30
	High	2462	19.97	19.89	22.94	30
802.11n-HT40	Low	2422	21.60	20.41	24.06	30
	Middle	2437	20.49	20.29	23.40	30
	High	2452	19.91	20.36	23.15	30

Mode	Channel	Frequency (MHz)	Max Conducted Average Output Power (dBm)		Total (dBm)	Limit (dBm)
			Antenna 1	Antenna 2		
802.11b	Low	2412	12.98	13.25	/	30
	Middle	2437	13.15	14.02	/	30
	High	2462	13.03	12.92	/	30
802.11g	Low	2412	13.34	14.00	/	30
	Middle	2437	14.16	14.63	/	30
	High	2462	14.04	13.49	/	30
802.11n-HT20	Low	2412	10.67	10.71	13.70	30
	Middle	2437	11.04	11.44	14.25	30
	High	2462	10.95	11.36	14.17	30
802.11n-HT40	Low	2422	9.95	10.49	13.24	30
	Middle	2437	10.65	10.21	13.45	30
	High	2452	10.28	9.94	13.12	30

Note:
1. The max antenna gain is 3.7dBi
2. The device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power measurements on IEEE 802.11 devices:

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

So:

Directional gain = G_{ANT} + Array Gain = 3.7 dBi < 6.0dBi.

No power limit was reduced in MIMO mode.

BLE mode

Mode	Channel	Frequency (MHz)	Max Peak Conducted Output Power (dBm)	Limit (dBm)
BLE	Low	2402	3.27	30
	Middle	2440	3.52	30
	High	2480	4.15	30

FCC §15.247(d) – 100 kHz BANDWIDTH OF FREQUENCY BAND EDGE

Applicable Standard

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, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

Test 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 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 to 100 kHz and VBW of spectrum analyzer to 300 kHz with a convenient frequency span including 100 kHz 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.

Test Data

Environmental Conditions

Temperature:	23 ~ 27 °C
Relative Humidity:	42 ~ 50 %
ATM Pressure:	95.0 ~ 95.5 kPa

** The testing was performed by Tom Tang from 2018-03-29 to 2018-04-03.*

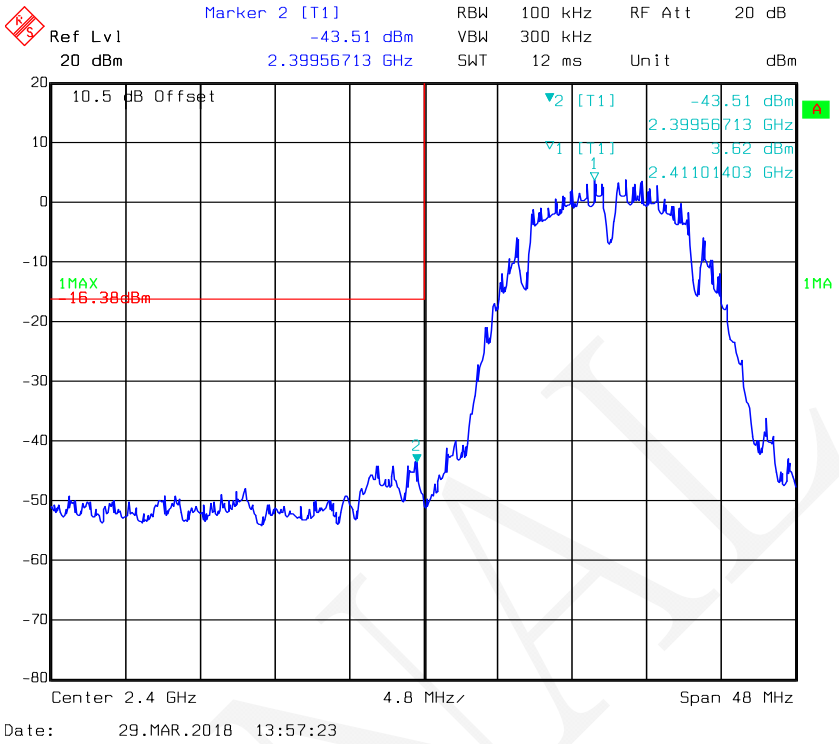
Test mode: Transmitting

Test Result: Compliance. Please refer to following plots.

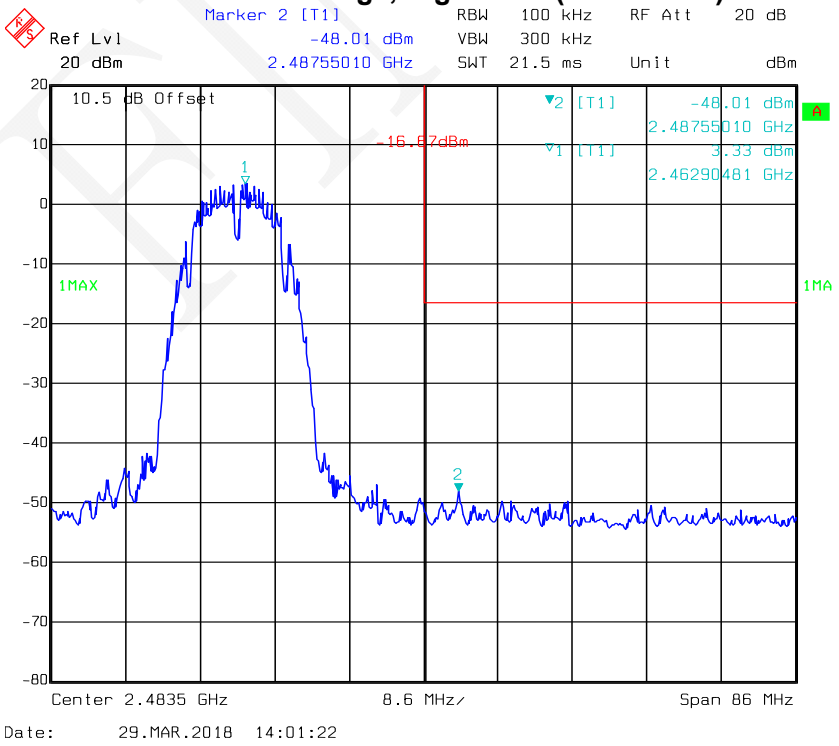
For 7265NGW Module

Wi-Fi mode

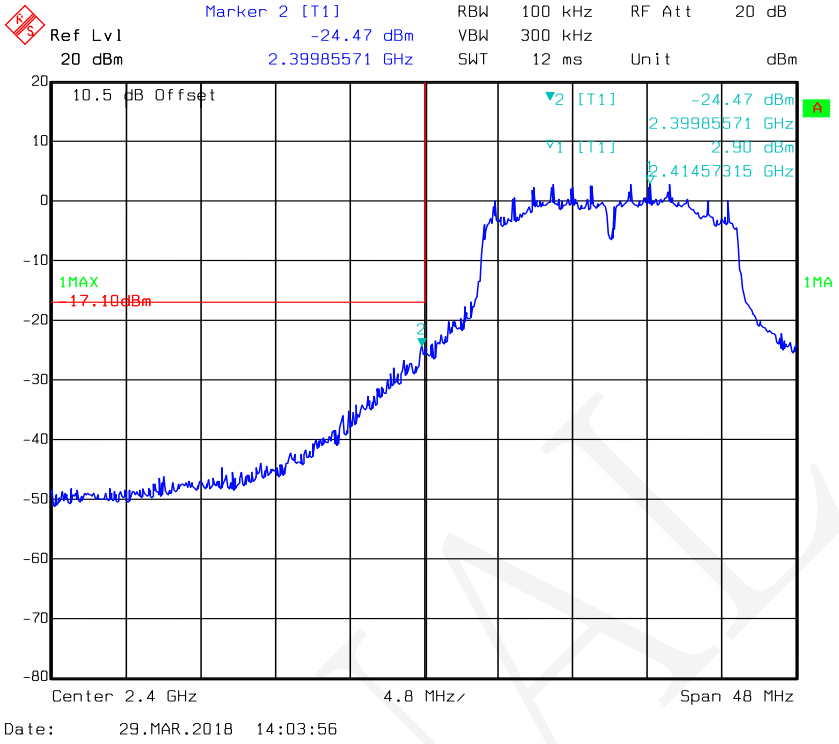
802.11b: Band Edge, Left Side (Antenna 1)



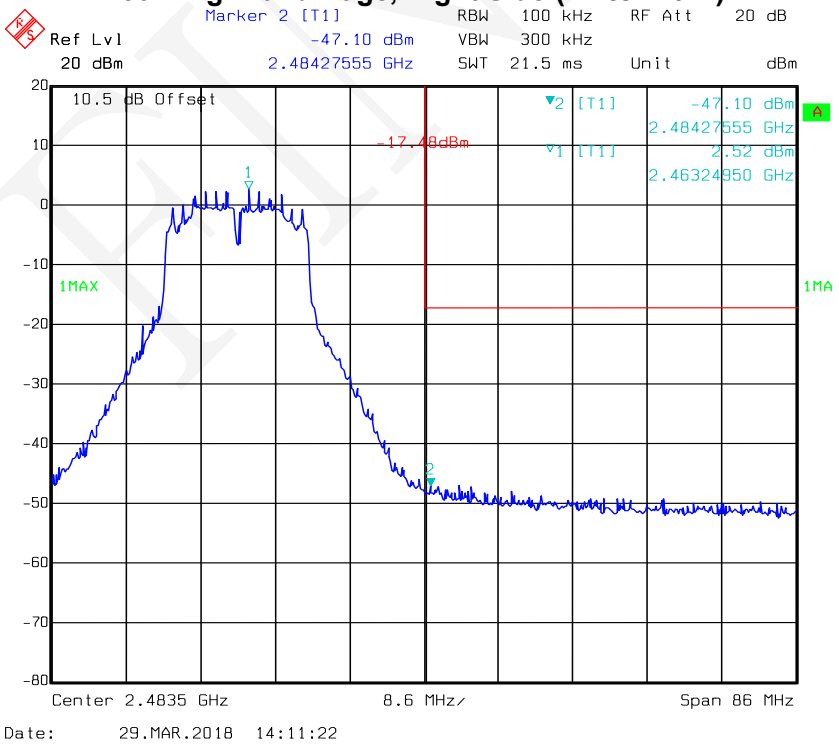
802.11b: Band Edge, Right Side (Antenna 1)



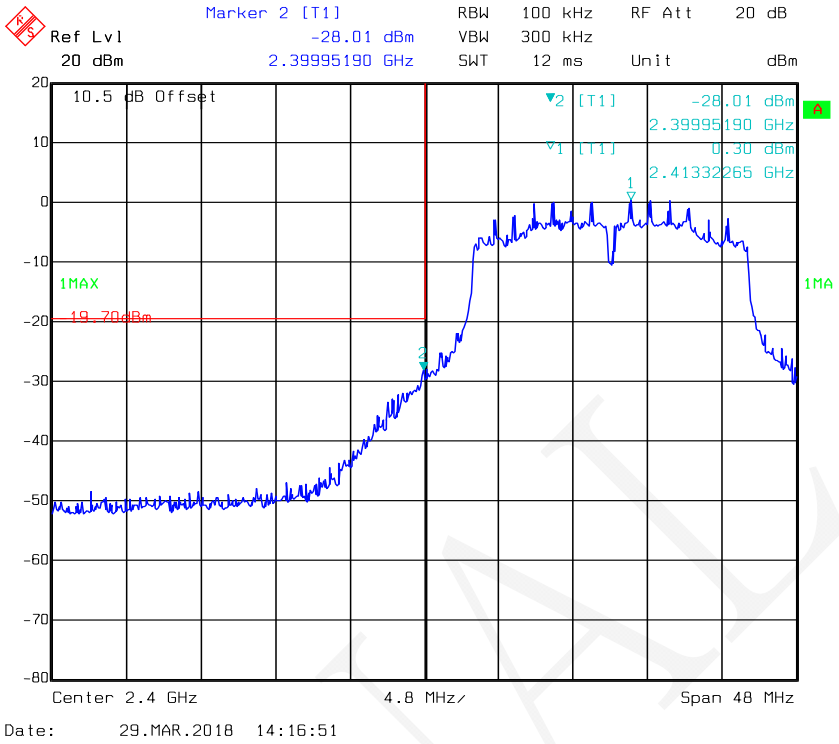
802.11g: Band Edge, Left Side (Antenna 1)



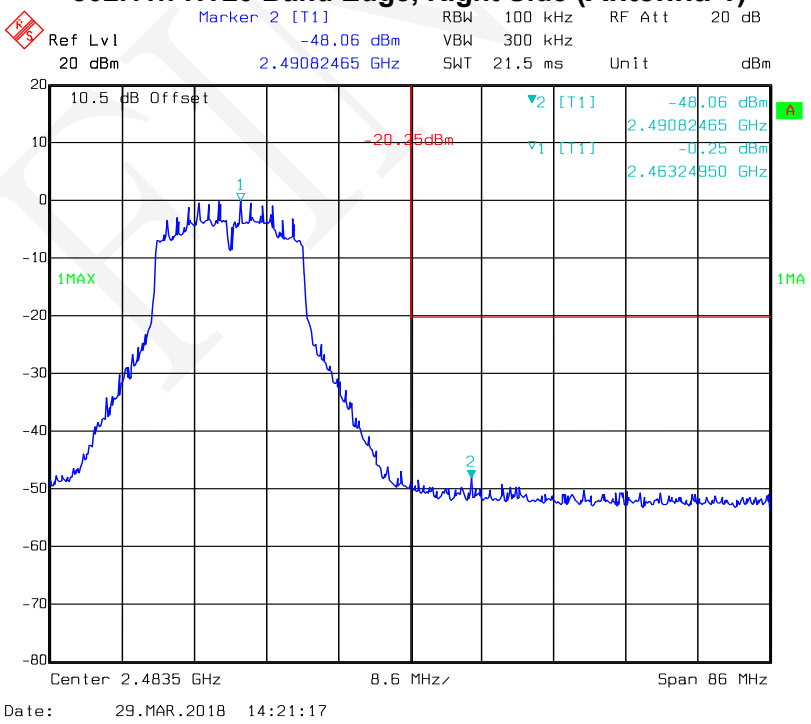
802.11g: Band Edge, Right Side (Antenna 1)



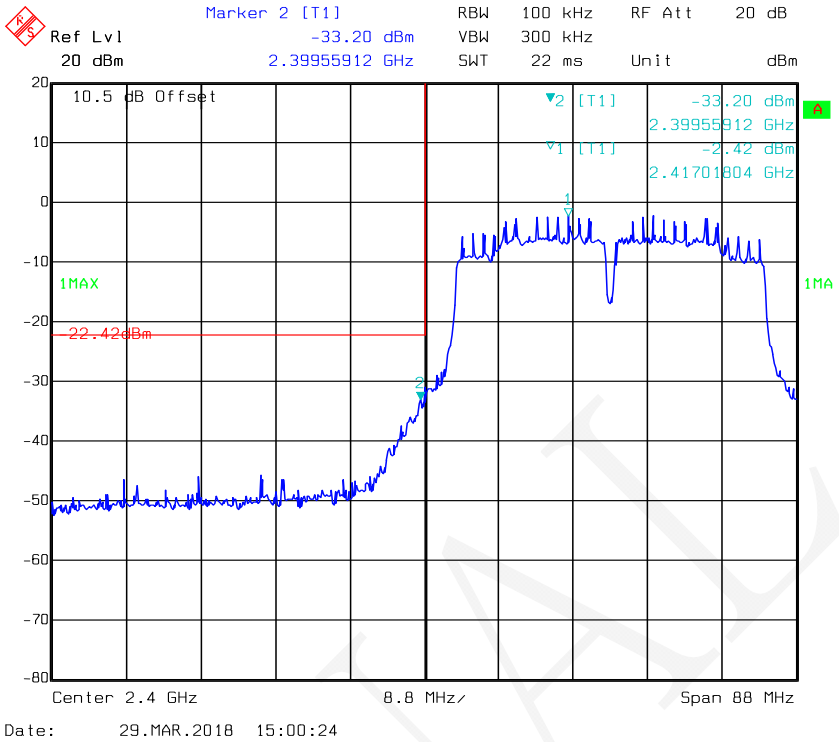
802.11n-HT20 Band Edge, Left Side (Antenna 1)



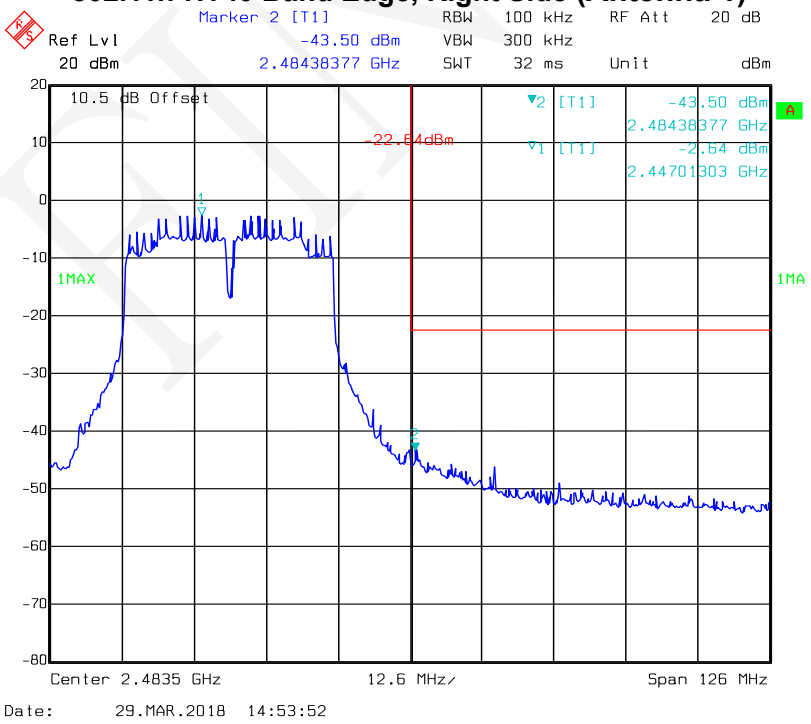
802.11n-HT20 Band Edge, Right Side (Antenna 1)



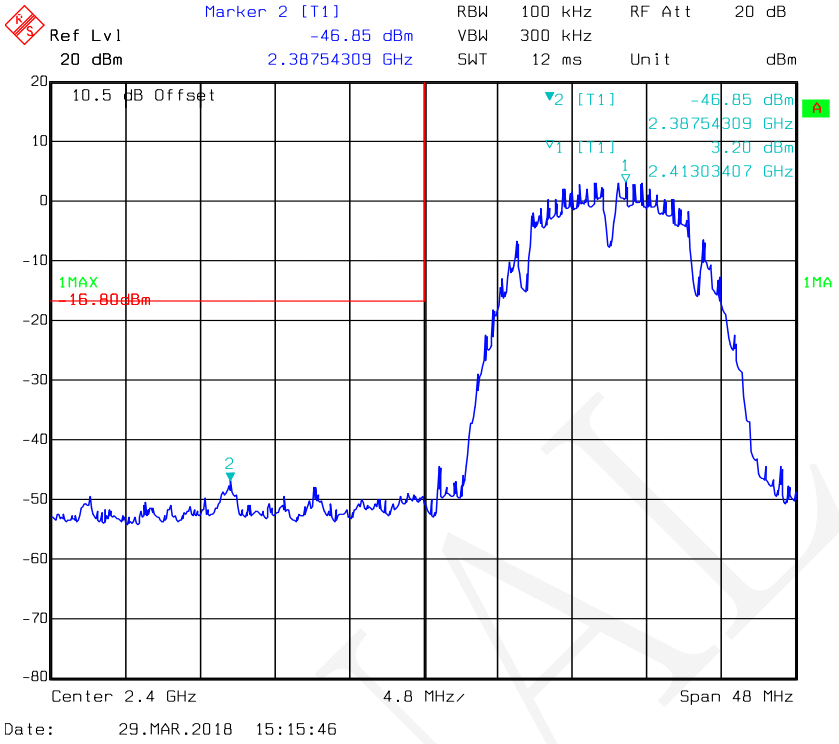
802.11n-HT40 Band Edge, Left Side (Antenna 1)



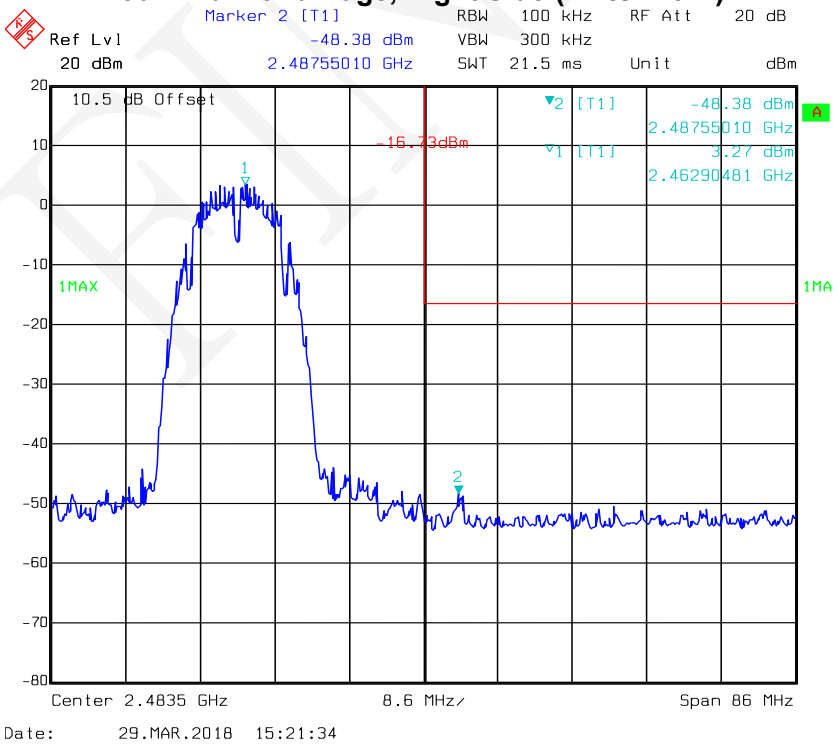
802.11n-HT40 Band Edge, Right Side (Antenna 1)



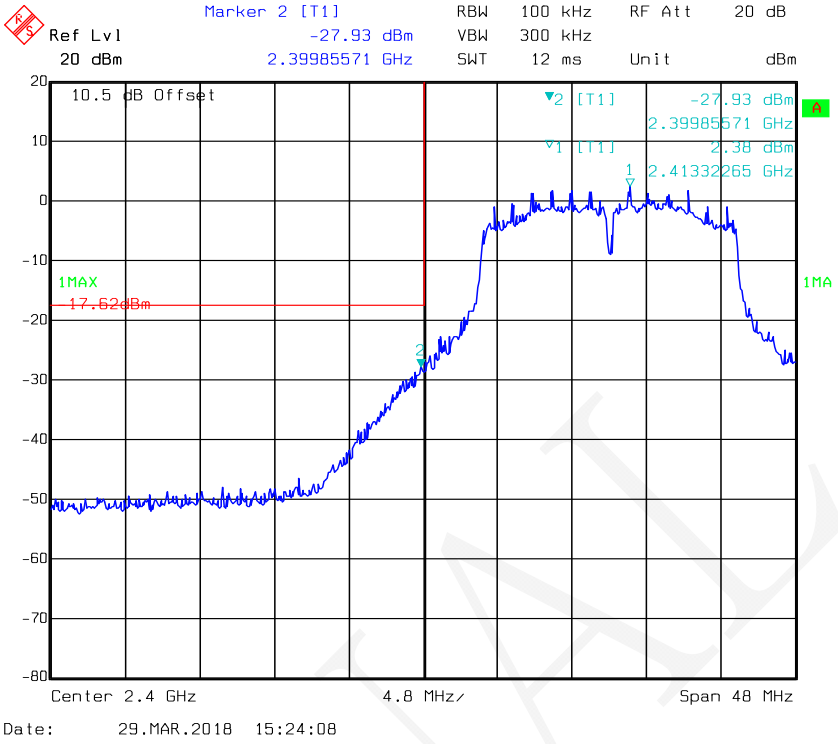
802.11b: Band Edge, Left Side (Antenna 2)



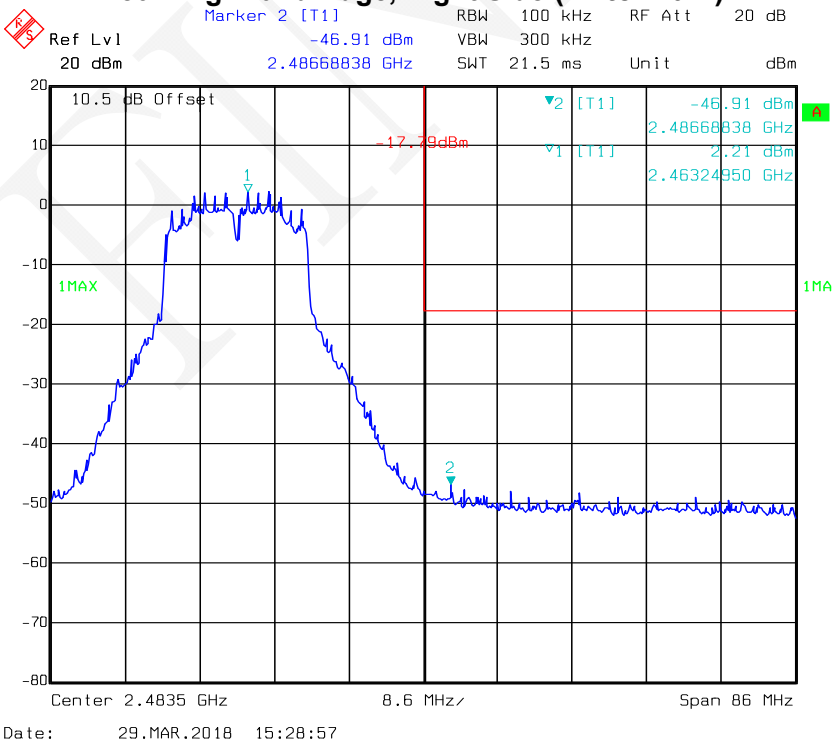
802.11b: Band Edge, Right Side (Antenna 2)



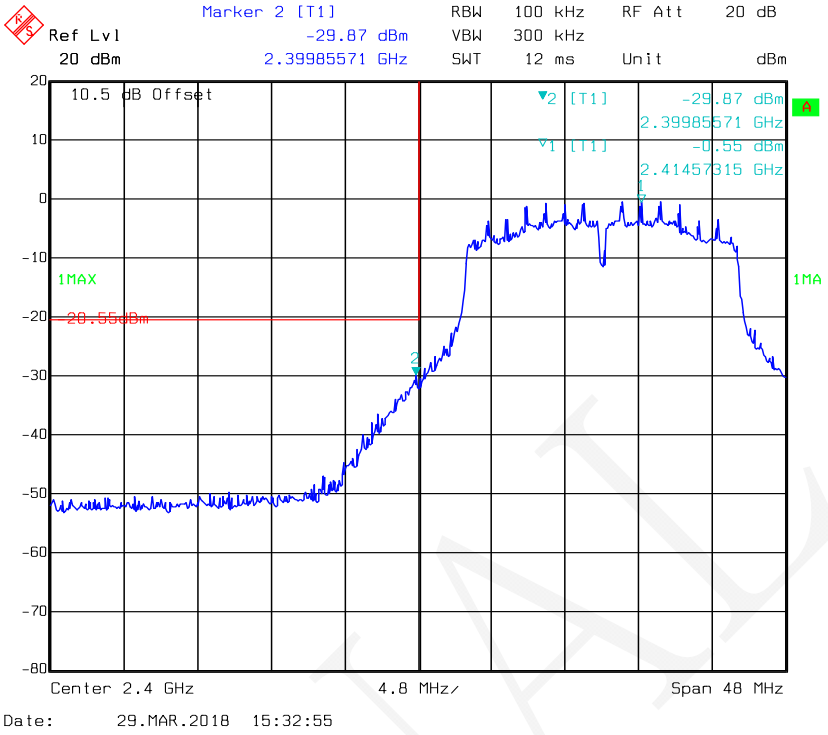
802.11g: Band Edge, Left Side (Antenna 2)



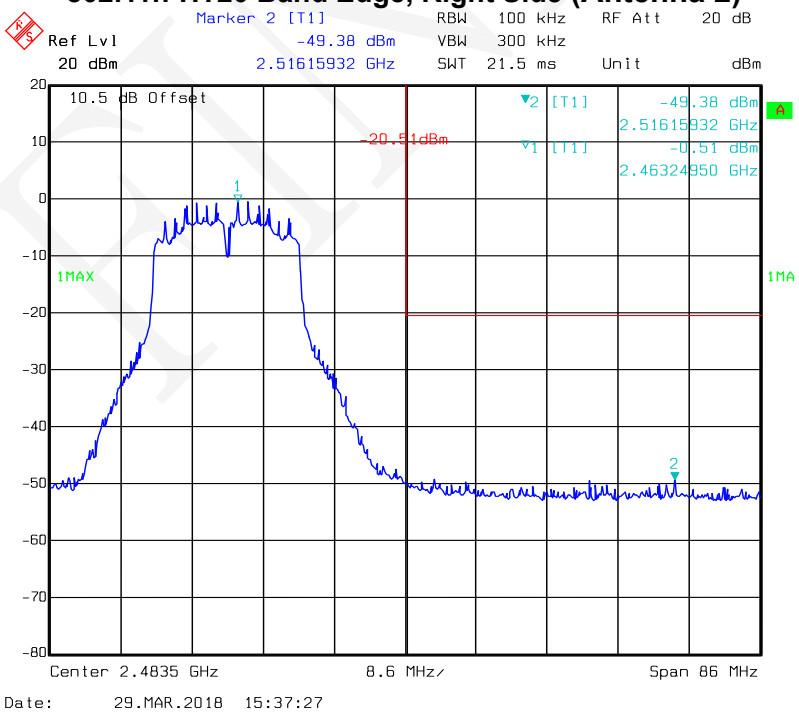
802.11g: Band Edge, Right Side (Antenna 2)



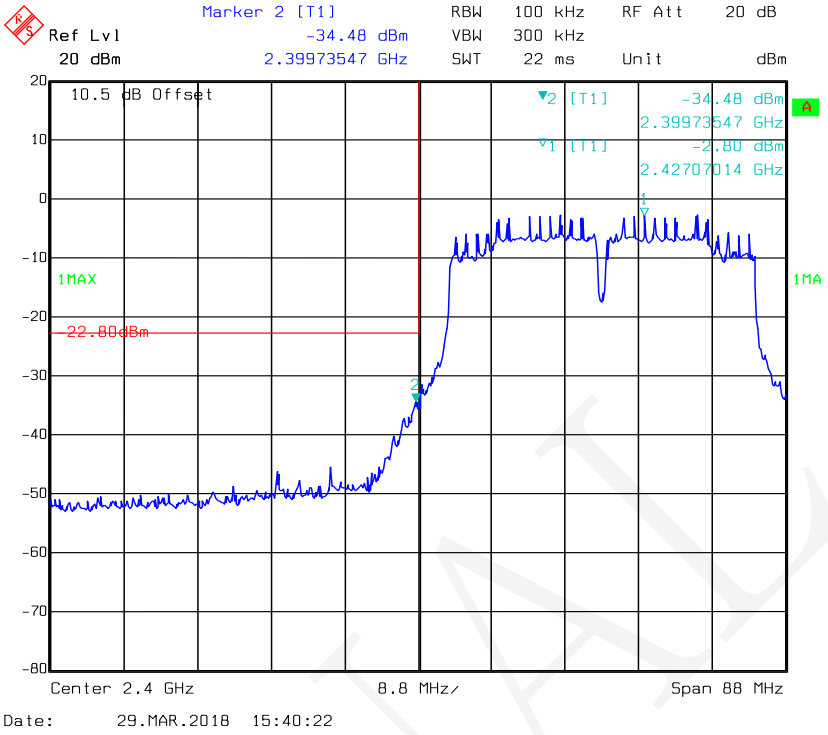
802.11n-HT20 Band Edge, Left Side (Antenna 2)



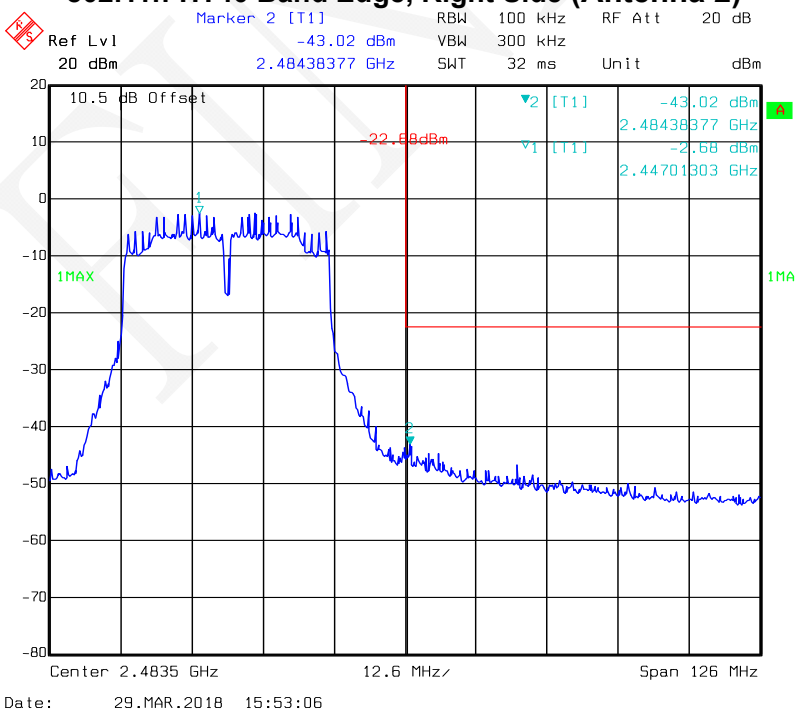
802.11n-HT20 Band Edge, Right Side (Antenna 2)



802.11n-HT40 Band Edge, Left Side (Antenna 2)

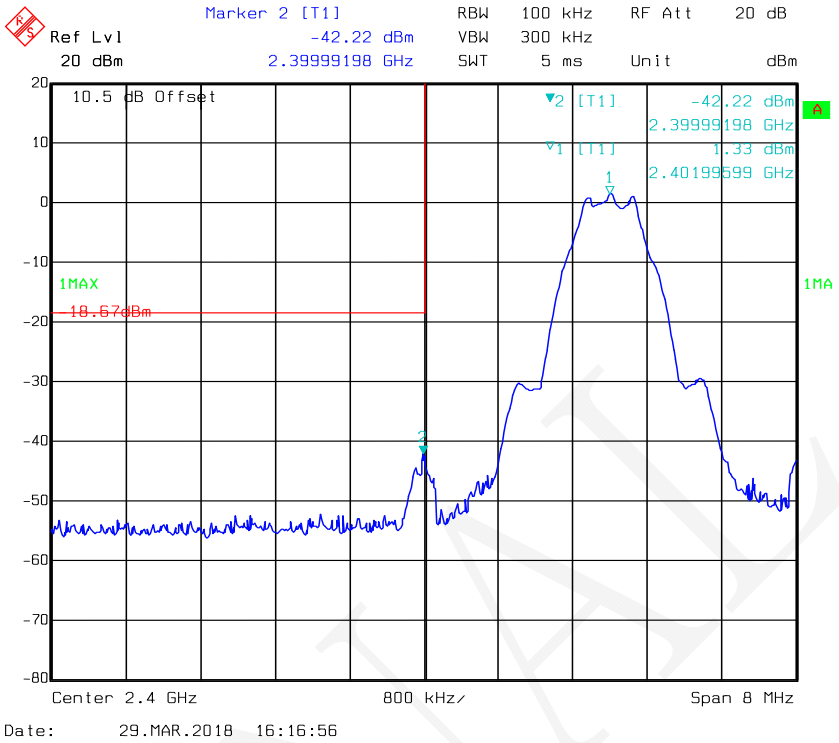


802.11n-HT40 Band Edge, Right Side (Antenna 2)

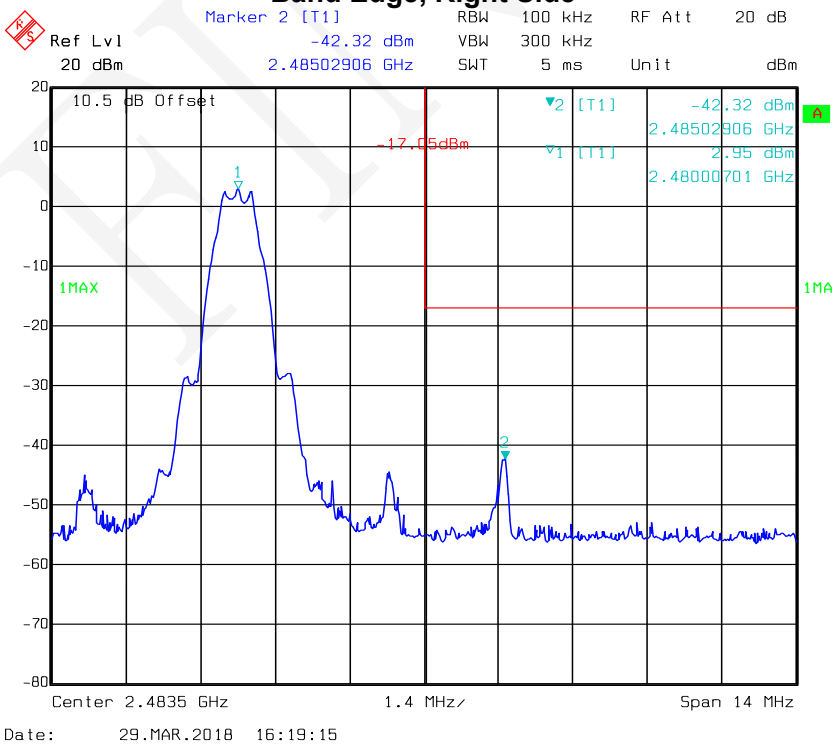


BLE mode

Band Edge, Left Side



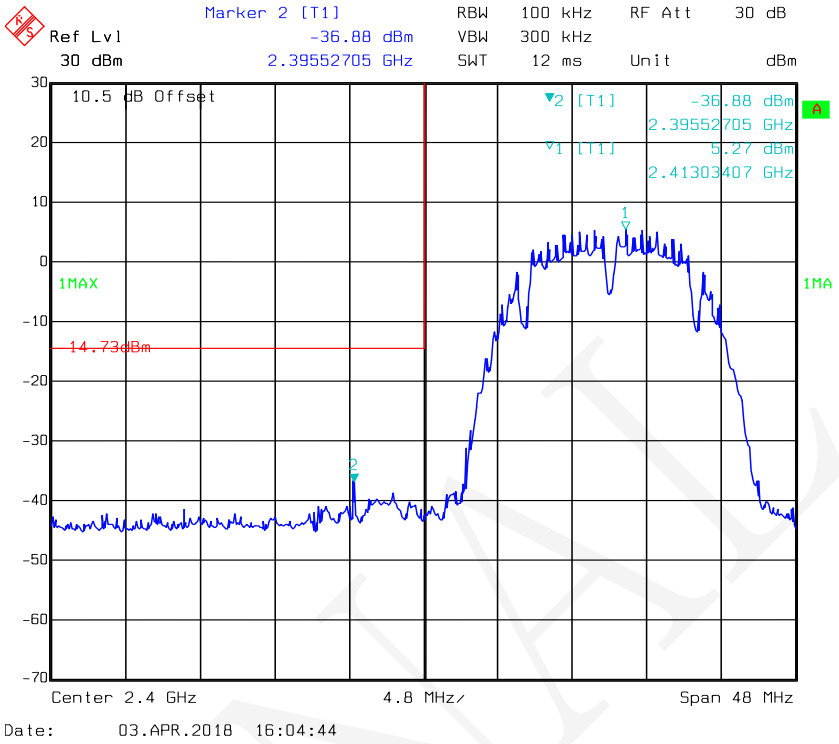
Band Edge, Right Side



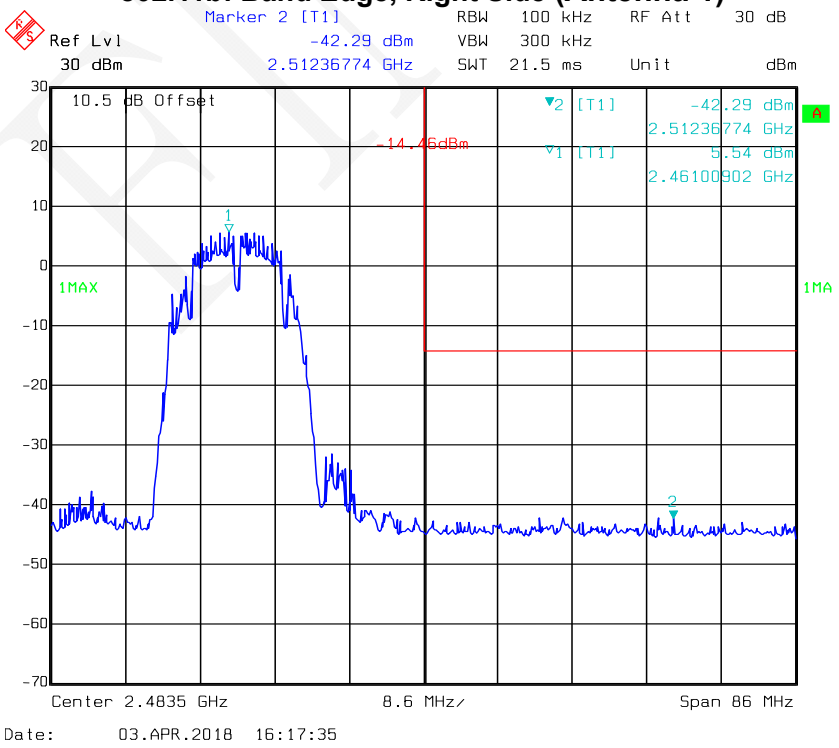
For 8265NGW Module

Wi-Fi mode

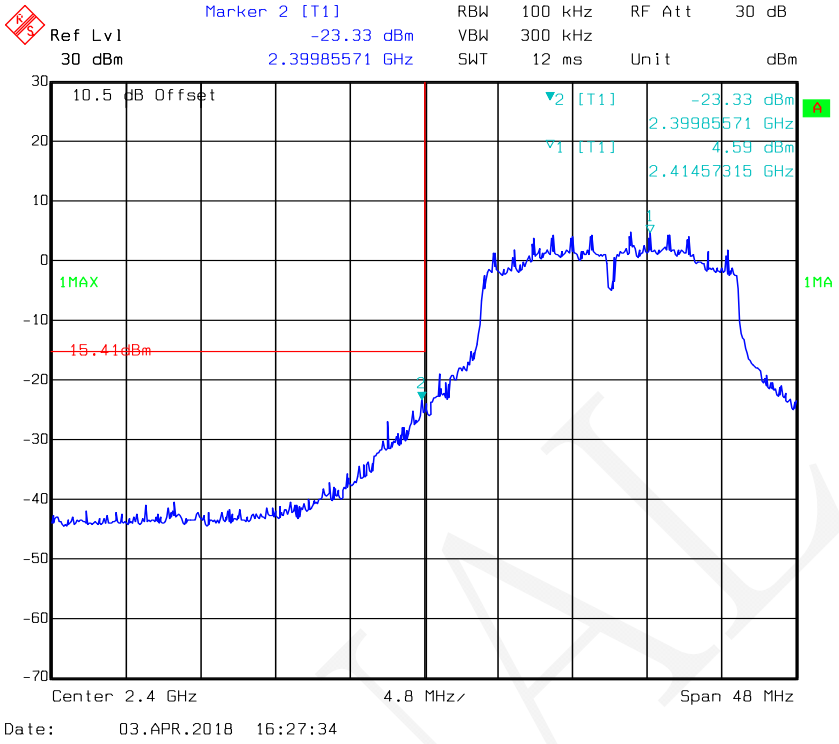
802.11b: Band Edge, Left Side (Antenna 1)



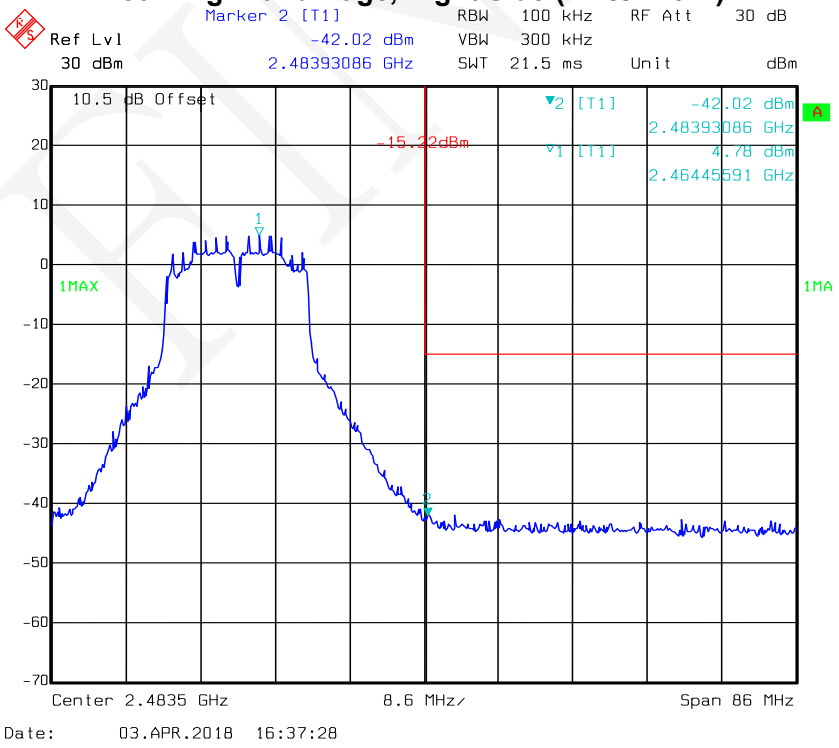
802.11b: Band Edge, Right Side (Antenna 1)



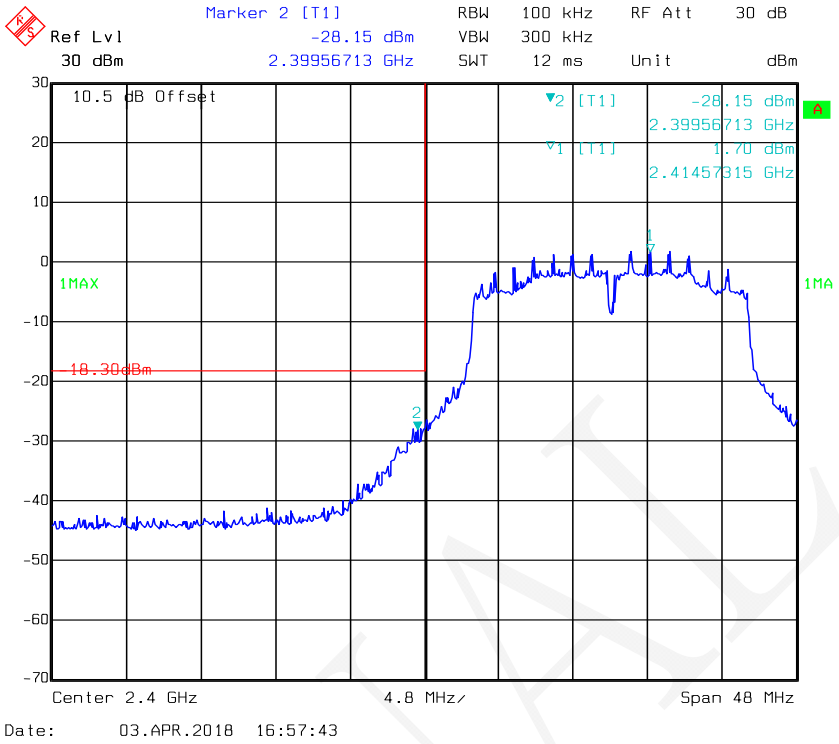
802.11g: Band Edge, Left Side (Antenna 1)



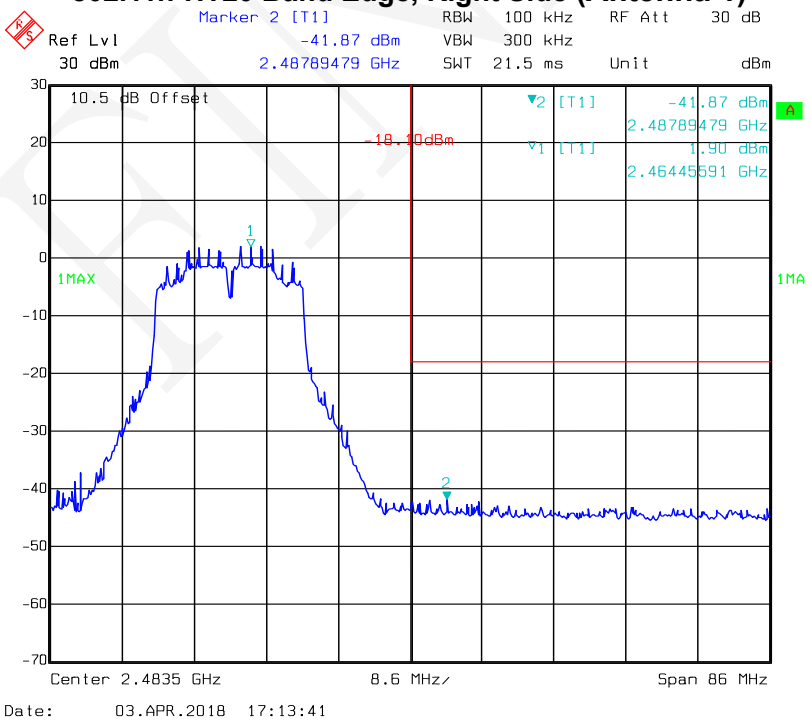
802.11g: Band Edge, Right Side (Antenna 1)



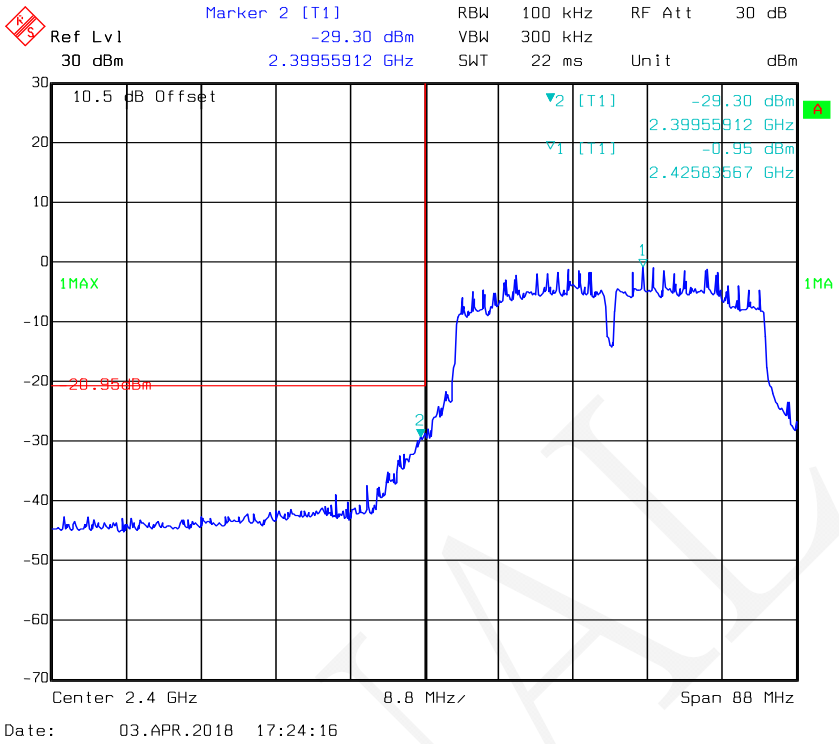
802.11n-HT20 Band Edge, Left Side (Antenna 1)



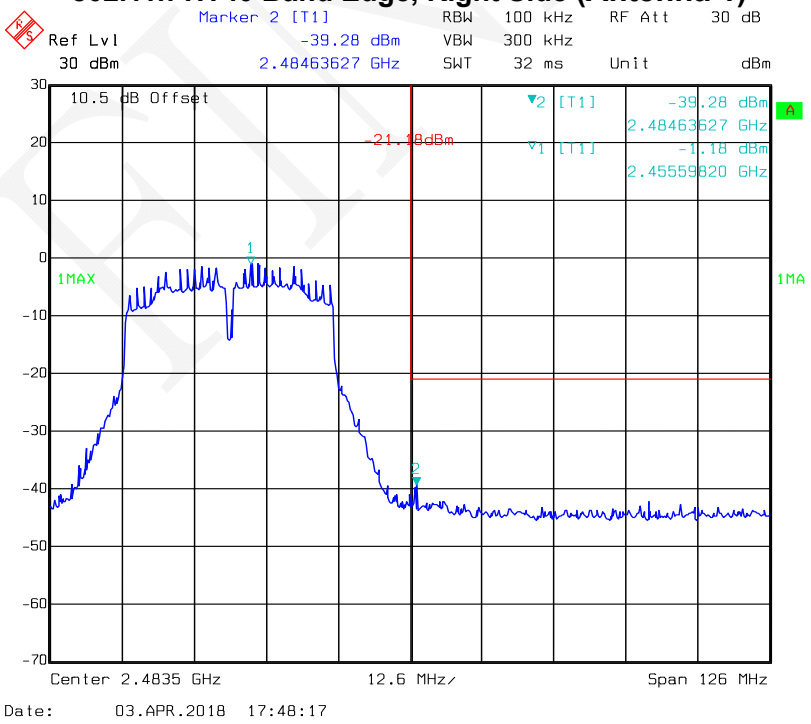
802.11n-HT20 Band Edge, Right Side (Antenna 1)



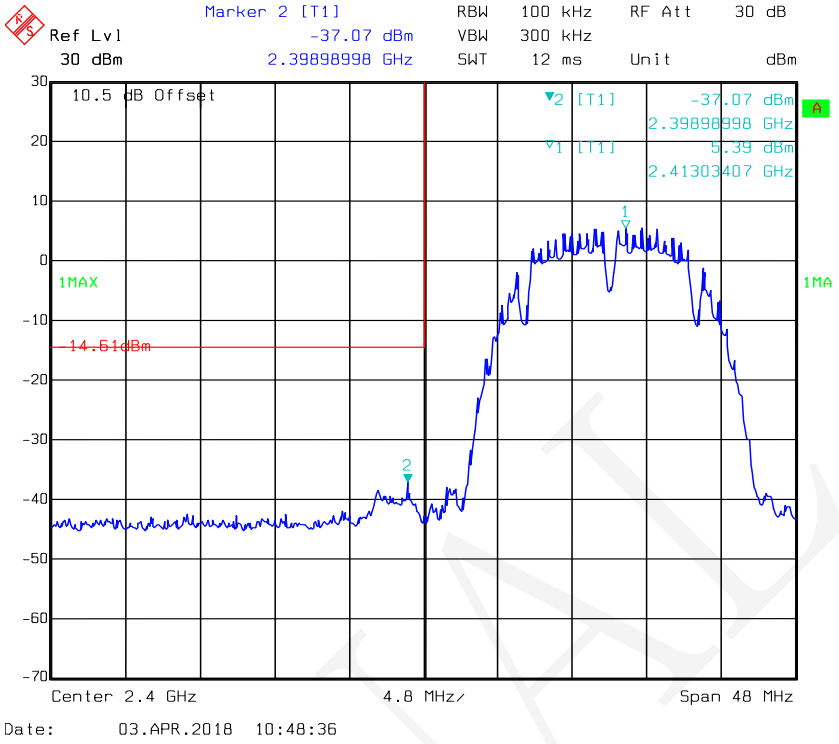
802.11n-HT40 Band Edge, Left Side (Antenna 1)



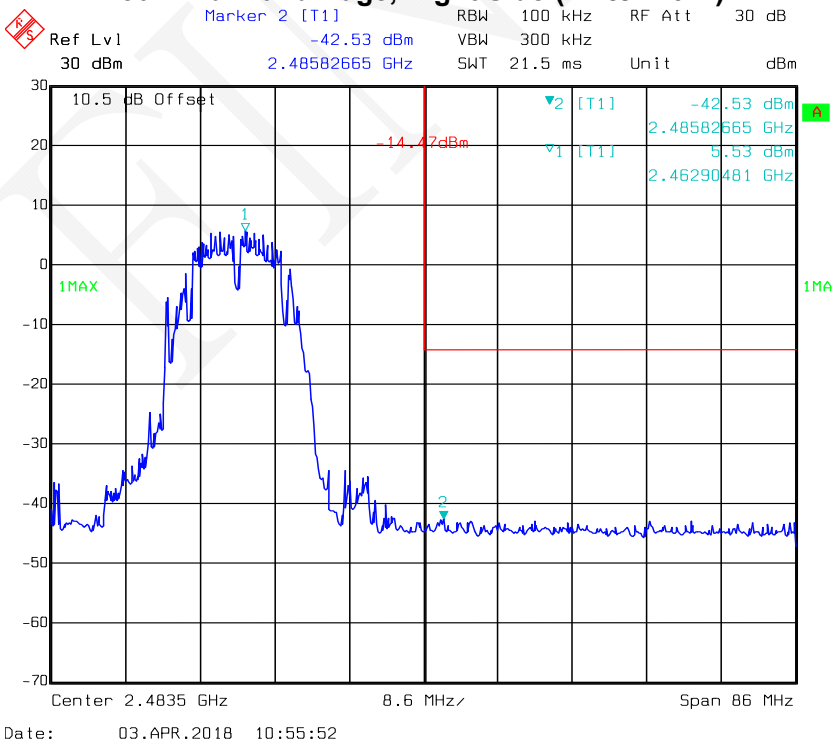
802.11n-HT40 Band Edge, Right Side (Antenna 1)



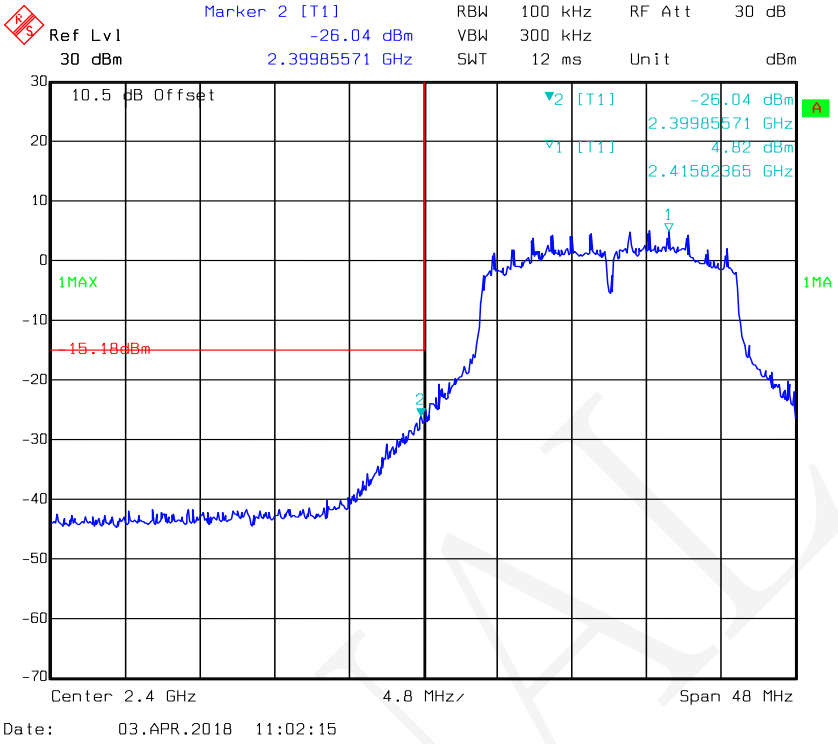
802.11b: Band Edge, Left Side (Antenna 2)



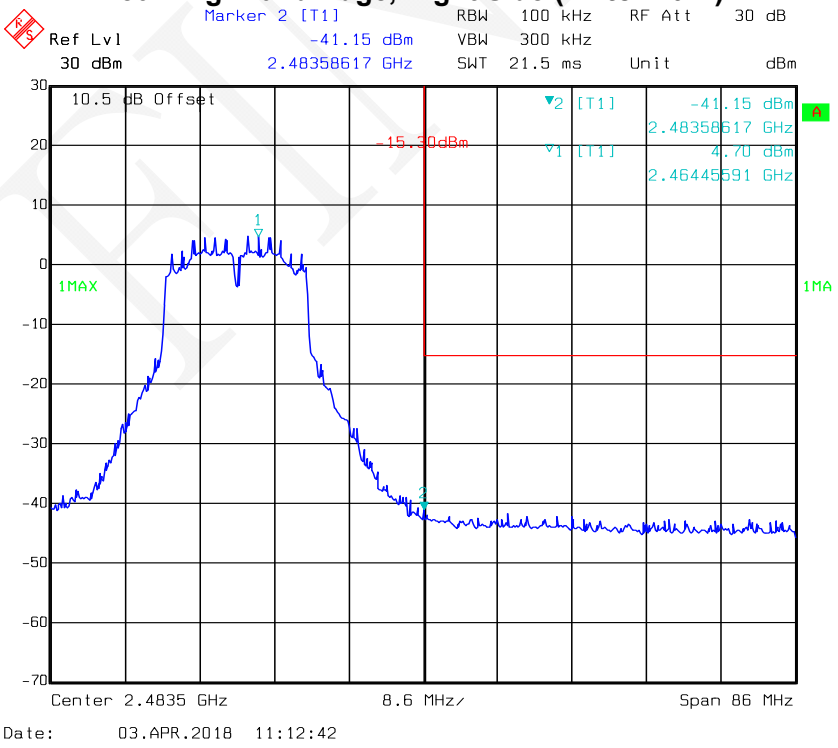
802.11b: Band Edge, Right Side (Antenna 2)



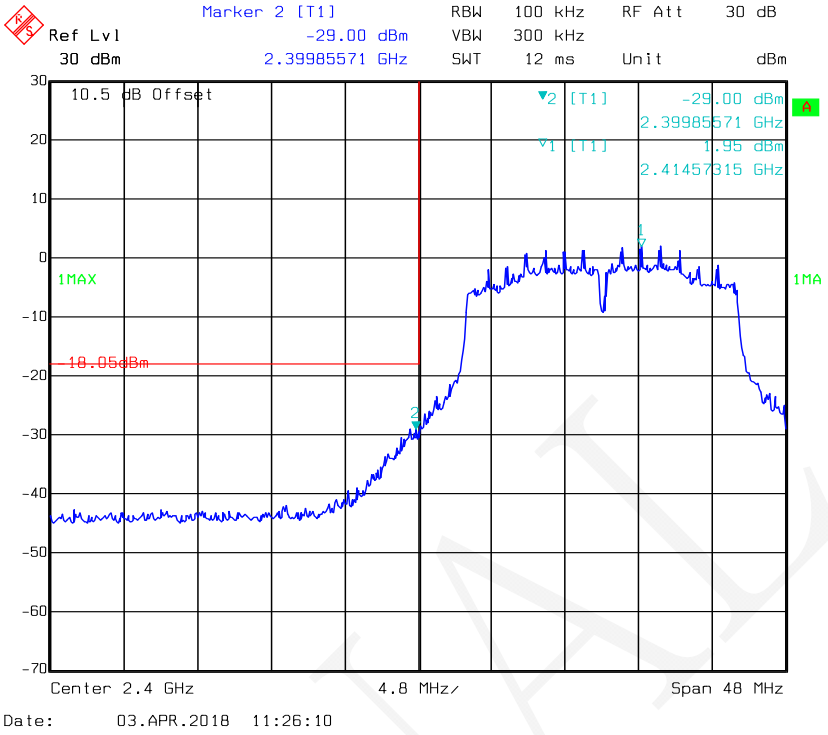
802.11g: Band Edge, Left Side (Antenna 2)



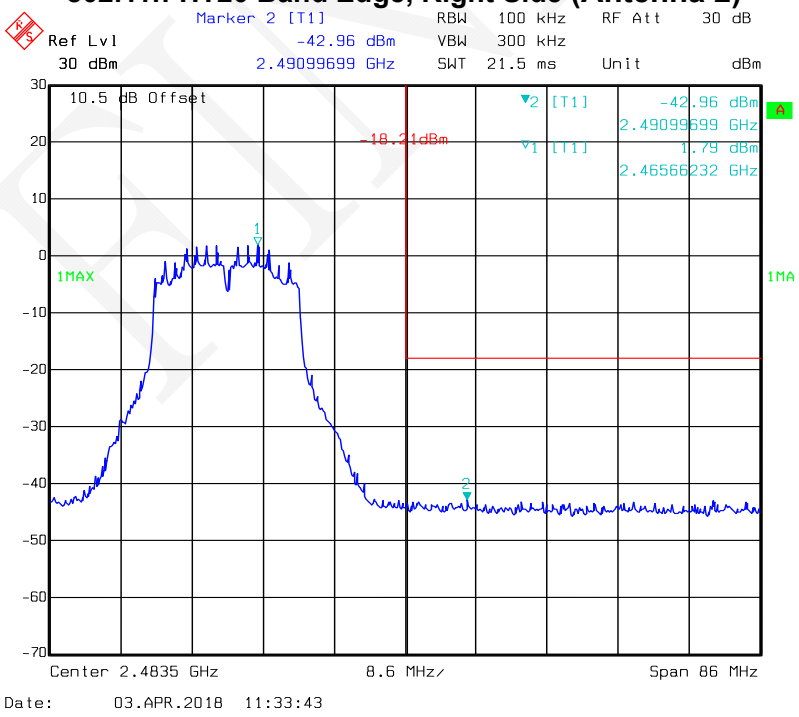
802.11g: Band Edge, Right Side (Antenna 2)



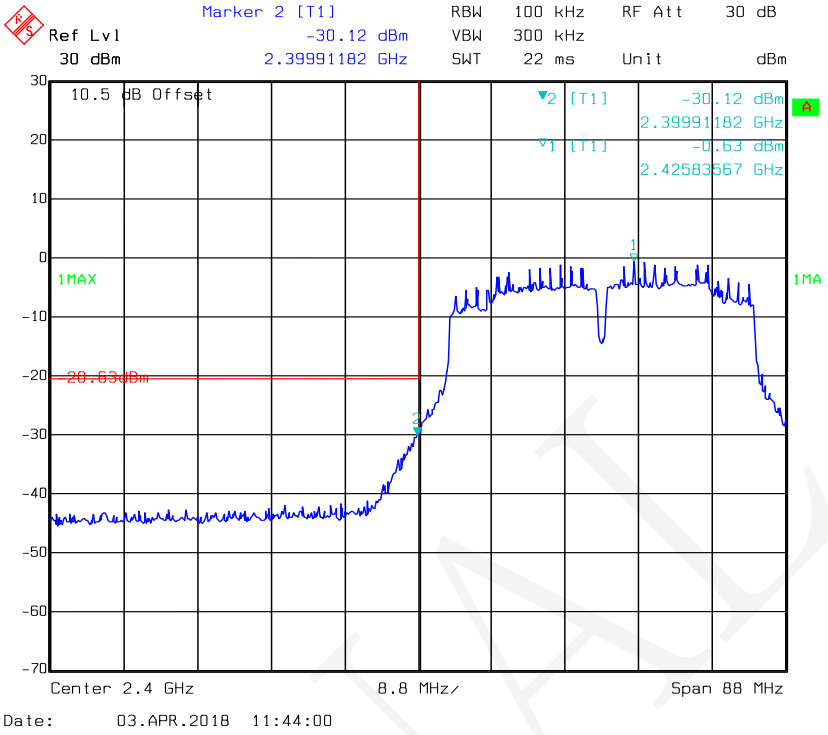
802.11n-HT20 Band Edge, Left Side (Antenna 2)



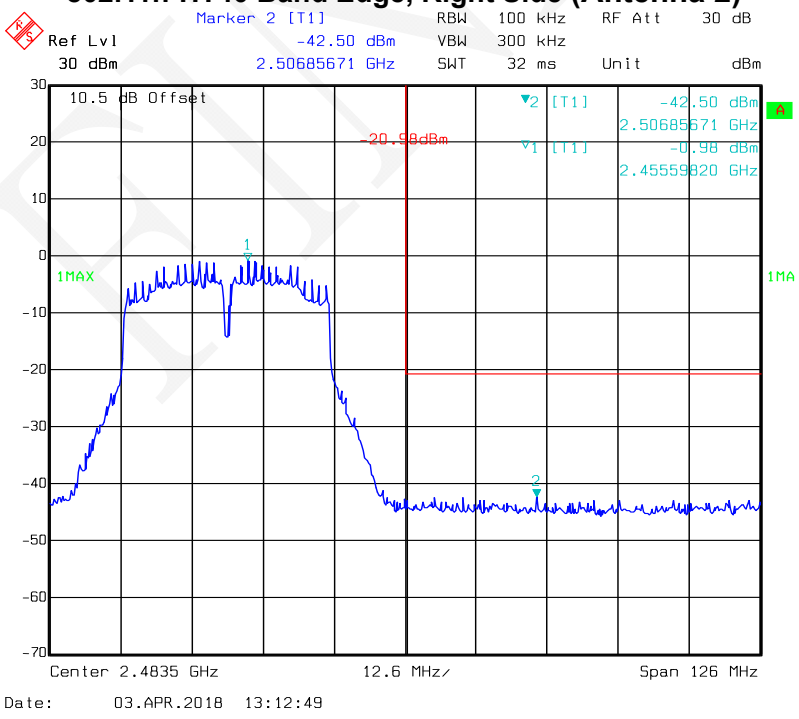
802.11n-HT20 Band Edge, Right Side (Antenna 2)



802.11n-HT40 Band Edge, Left Side (Antenna 2)

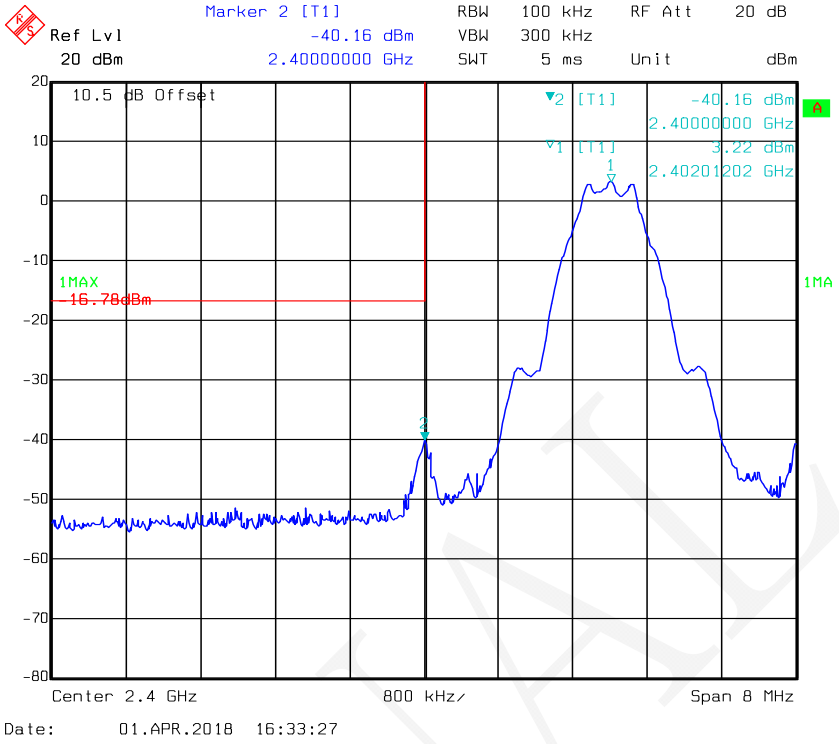


802.11n-HT40 Band Edge, Right Side (Antenna 2)

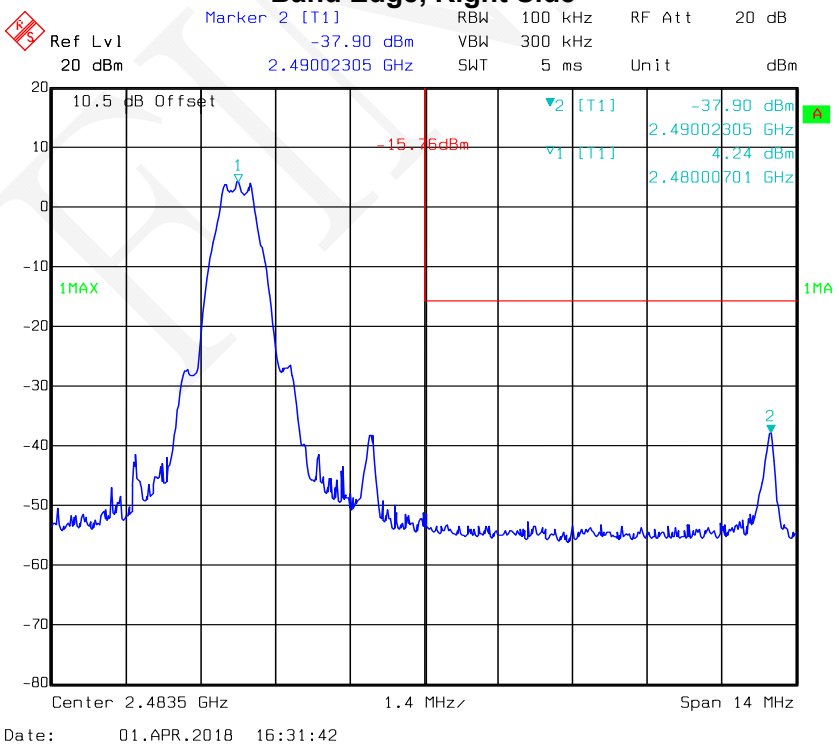


BLE mode

Band Edge, Left Side



Band Edge, Right Side



FCC §15.247(e) - POWER SPECTRAL DENSITY

Applicable Standard

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

Test Procedure

a) Set analyzer center frequency to DTS channel center frequency.
b) Set the span to 1.5 times the DTS bandwidth.
c) Set the RBW to: 3 kHz ≤ RBW ≤ 100 kHz.
d) Set the VBW ≥ 3×RBW.
e) Detector = peak.
f) Sweep time = auto couple.
g) Trace mode = max hold.
h) Allow trace to fully stabilize.
i) Use the peak marker function to determine the maximum amplitude level within the RBW.
j) If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

Test Data

Environmental Conditions

Temperature:	23 ~ 27 °C
Relative Humidity:	42 ~ 50 %
ATM Pressure:	95.0 ~ 95.5 kPa

** The testing was performed by Tom Tang from 2018-03-29 to 2018-04-03.*

Test Mode: Transmitting

Test Result: Compliance. Please refer to the following table and plots

For 7265NGW Module

Wi-Fi mode

Mode	Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)		Total (dBm/3kHz)	Limit (dBm/3kHz)
			Antenna 1	Antenna 2		
802.11b	Low	2412	-9.38	-10.65	/	8
	Middle	2437	-10.14	-11.06	/	8
	High	2462	-10.71	-10.21	/	8
802.11g	Low	2412	-11.60	-12.43	/	8
	Middle	2437	-11.75	-11.81	/	8
	High	2462	-11.99	-11.13	/	8
802.11n-HT20	Low	2412	-14.12	-14.11	-11.10	7.3
	Middle	2437	-15.09	-14.85	-11.96	7.3
	High	2462	-15.73	-15.06	-12.37	7.3
802.11n-HT40	Low	2422	-17.10	-17.75	-14.40	7.3
	Middle	2437	-16.84	-17.44	-14.12	7.3
	High	2452	-17.48	-16.68	-14.05	7.3

Note:
1. The max antenna gain is 3.7dBi
2. The device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power spectral density (PSD) measurements on the devices:

Array Gain = 10 log(N_{ANT}/N_{SS}) dB.

So:

Directional gain = G_{ANT} + Array Gain = 3.7+10*log(2) =6.7dBi＞6dBi

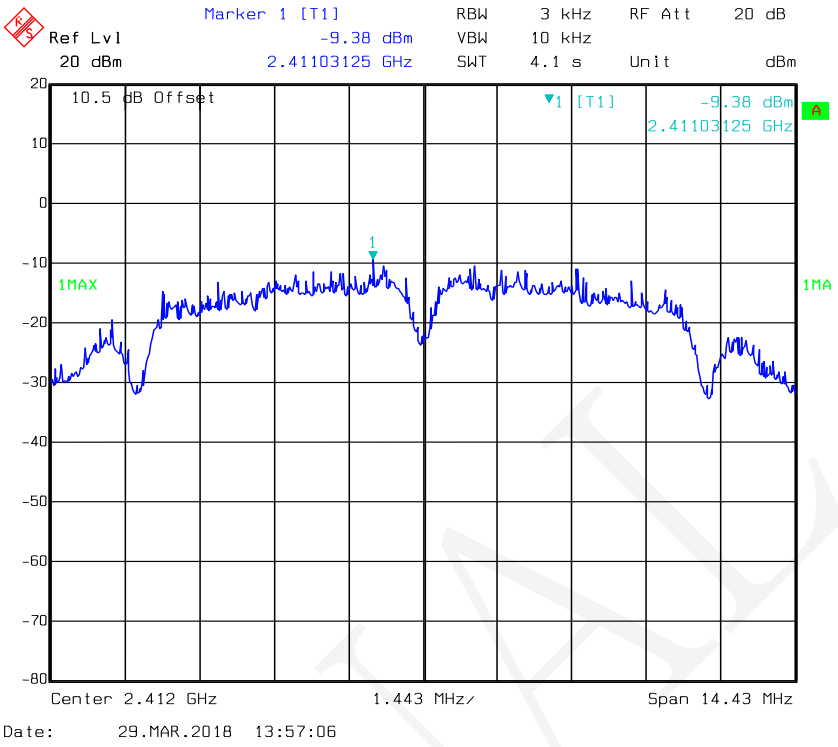
Power density Limit was reduced 0.7dB in MIMO mode.

BLE mode

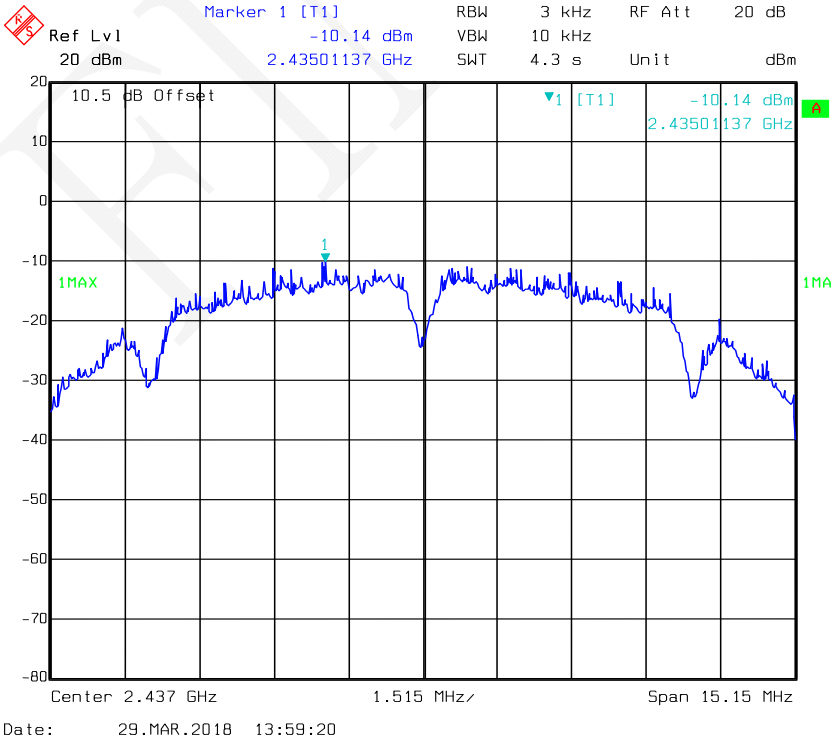
Mode	Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)
BLE	Low	2402	-13.94	8
	Middle	2440	-13.36	8
	High	2480	-12.36	8

Wi-Fi mode

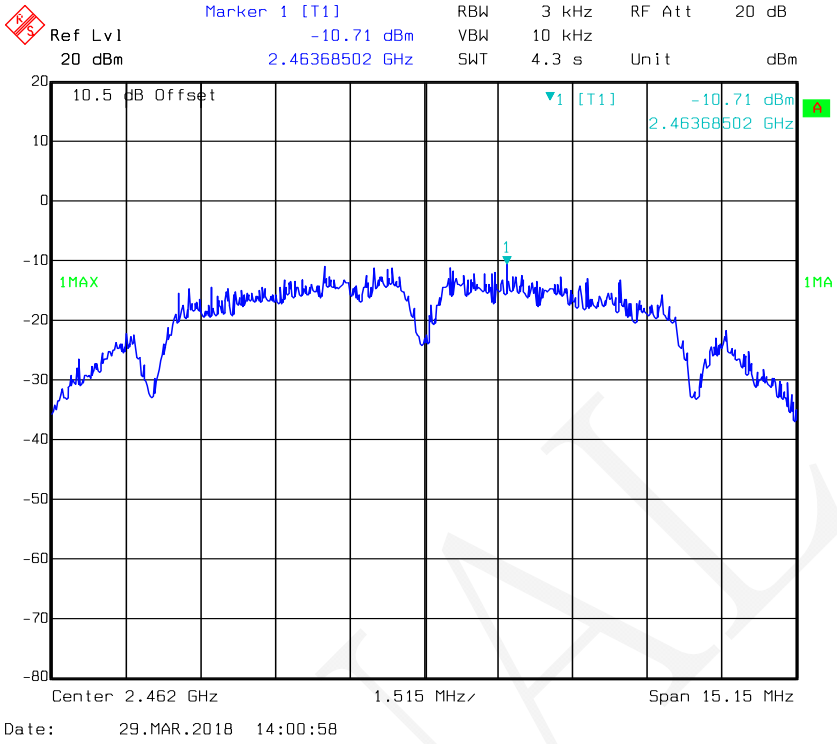
Power Spectral Density, 802.11b Low Channel (Antenna 1)



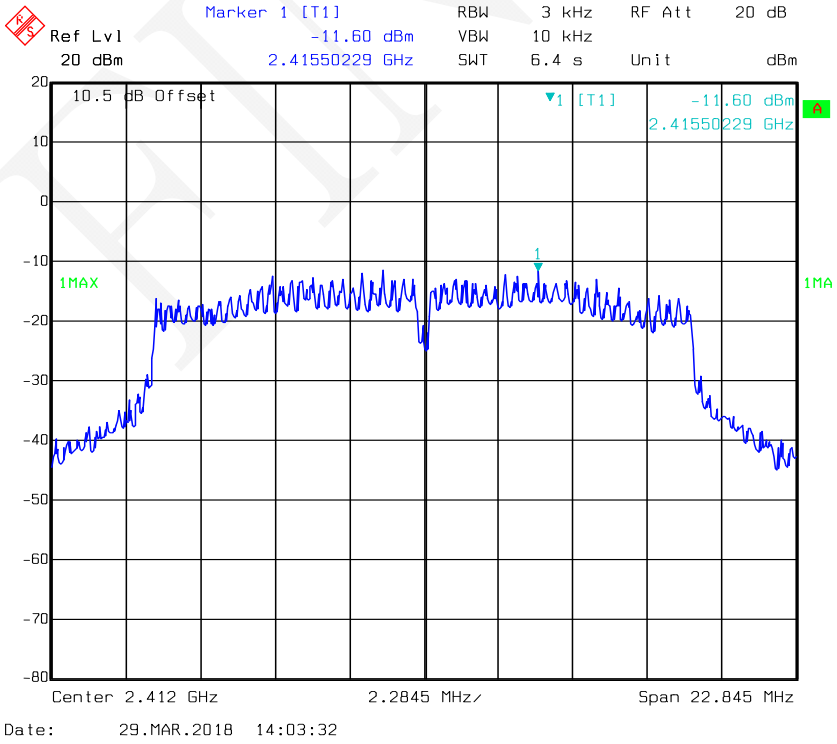
Power Spectral Density, 802.11b Middle Channel (Antenna 1)



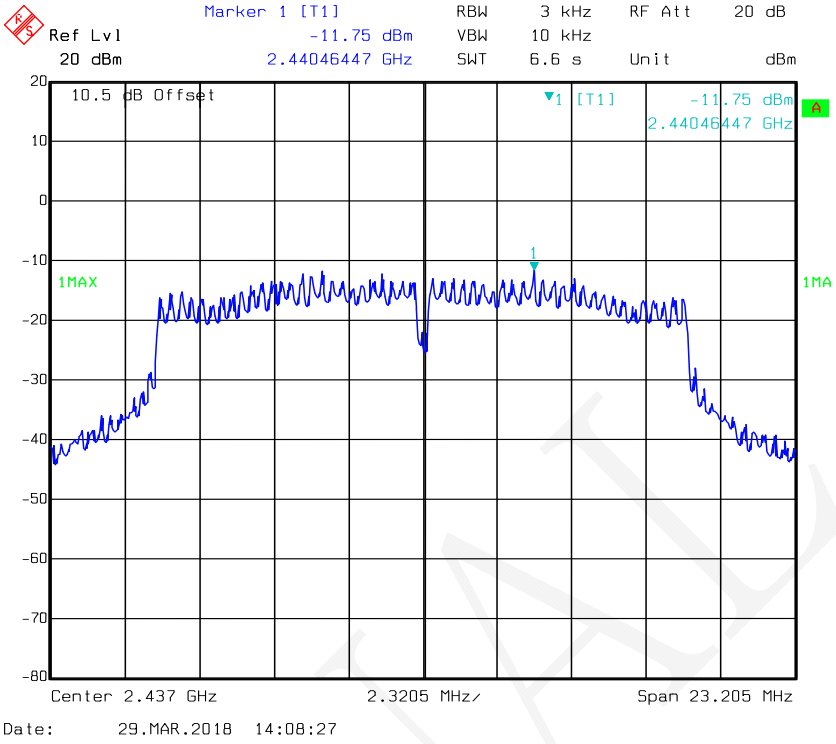
Power Spectral Density, 802.11b High Channel (Antenna 1)



Power Spectral Density, 802.11g Low Channel (Antenna 1)

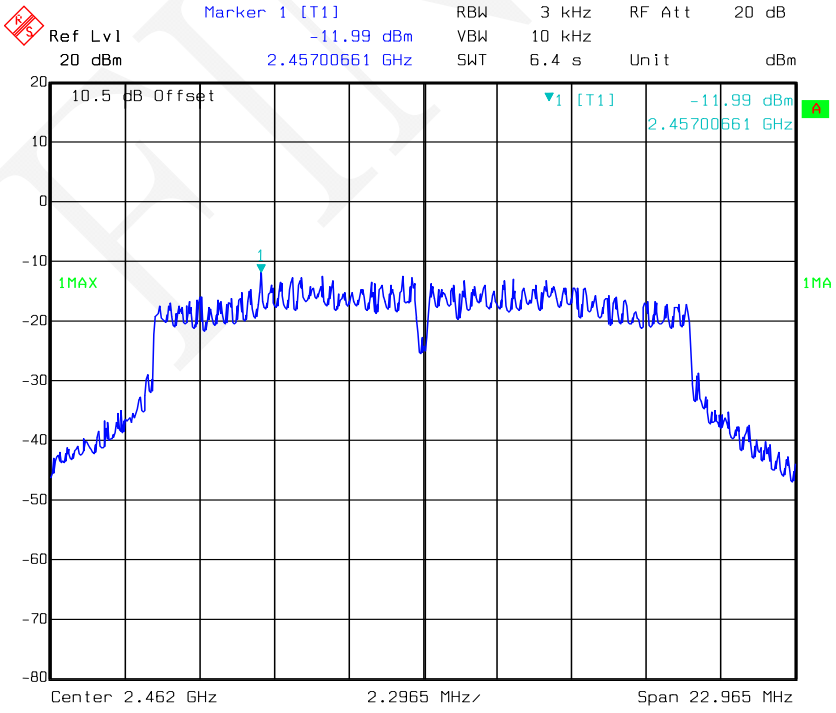


Power Spectral Density, 802.11g Middle Channel (Antenna 1)



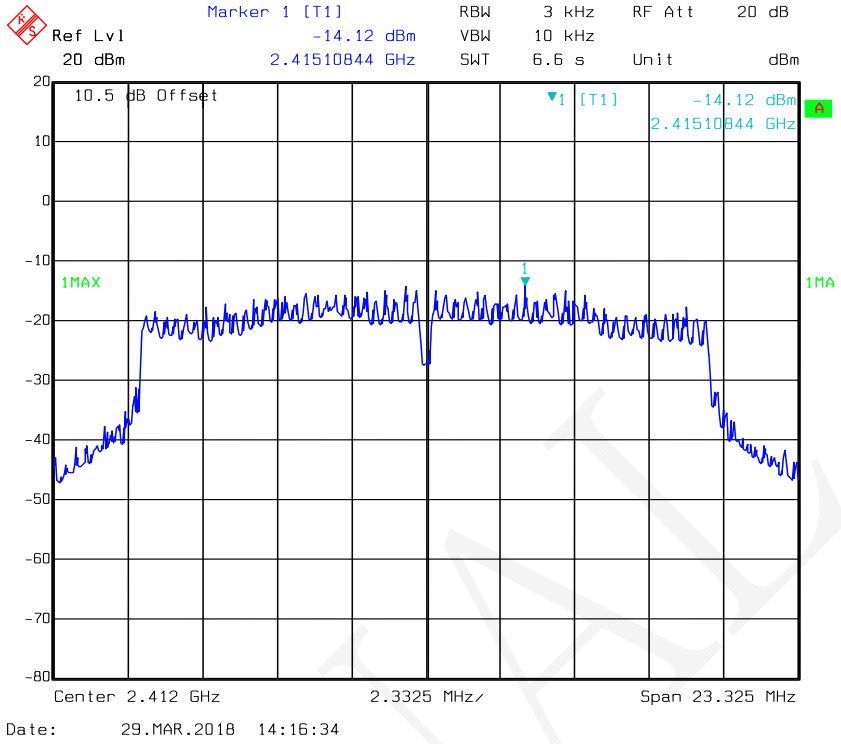
Date: 29.MAR.2018 14:08:27

Power Spectral Density, 802.11g High Channel (Antenna 1)

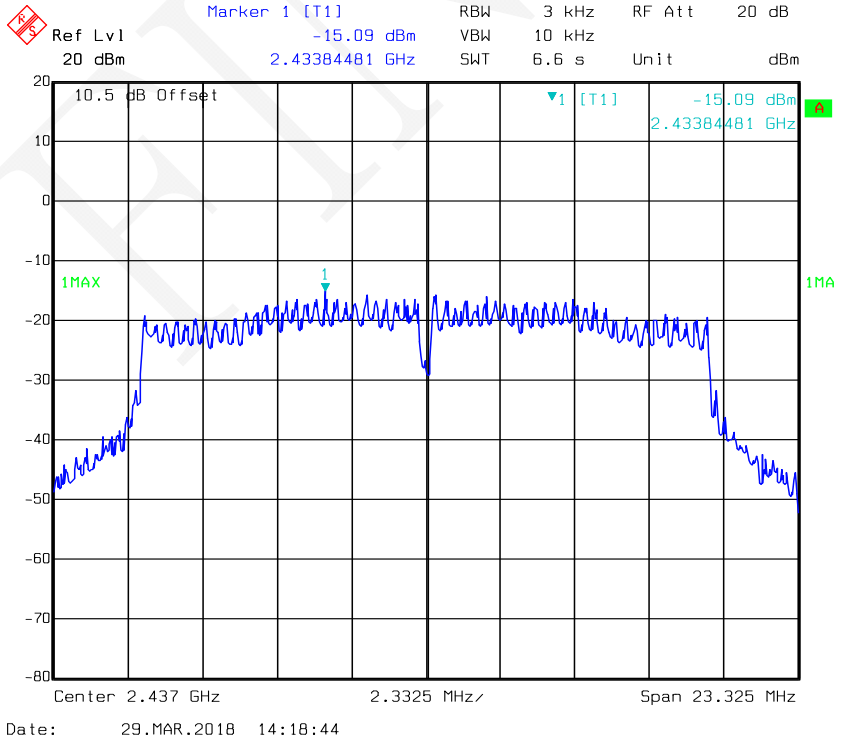


Date: 29.MAR.2018 14:10:57

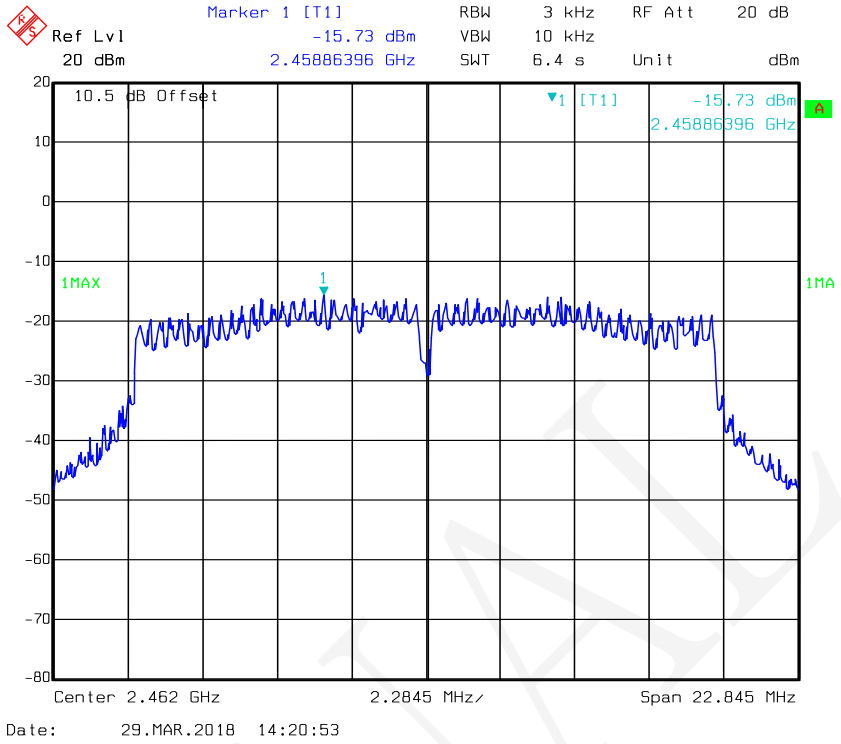
Power Spectral Density, 802.11n-HT20 Low Channel (Antenna 1)



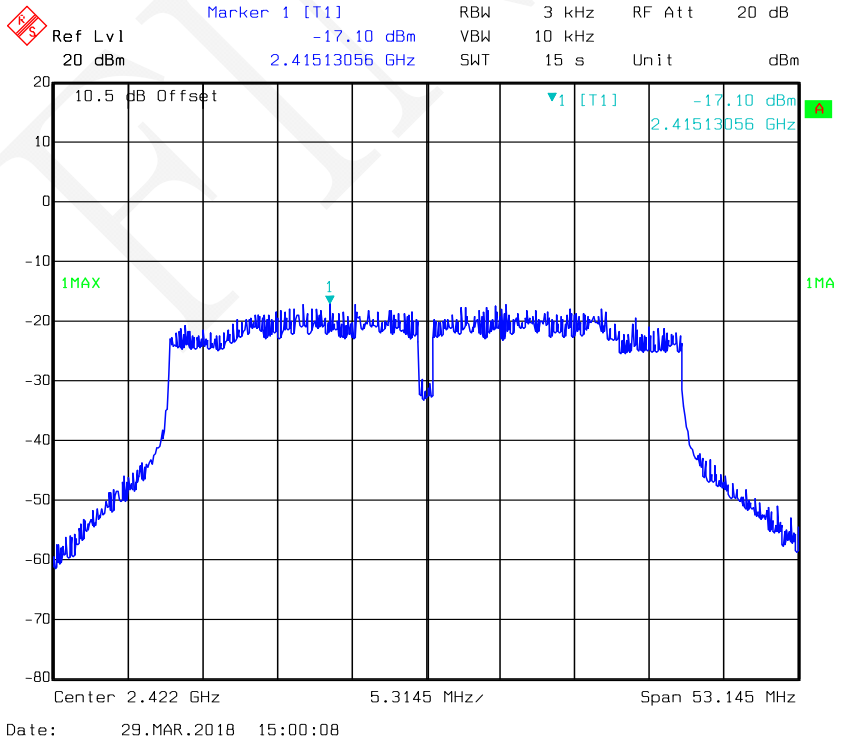
Power Spectral Density, 802.11n-HT20 Middle Channel (Antenna 1)



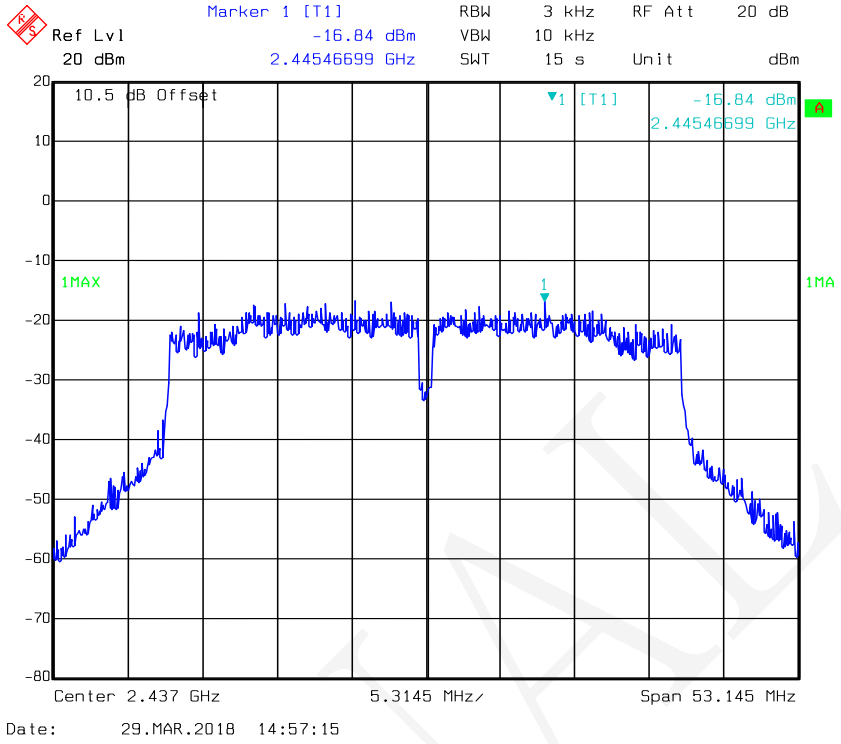
Power Spectral Density, 802.11n-HT20 High Channel (Antenna 1)



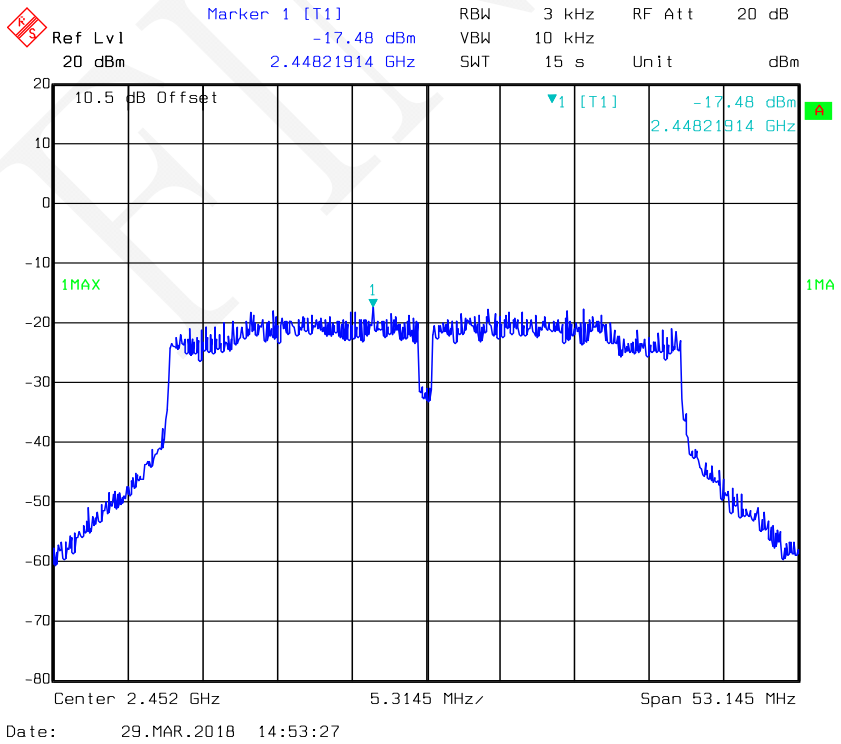
Power Spectral Density, 802.11n-HT40 Low Channel (Antenna 1)



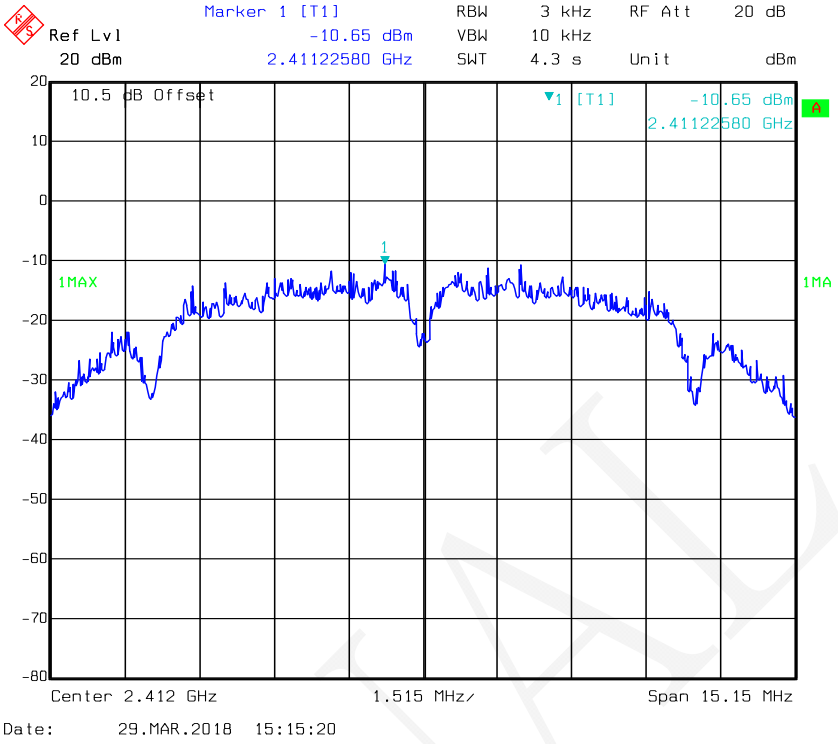
Power Spectral Density, 802.11n-HT40 Middle Channel (Antenna 1)



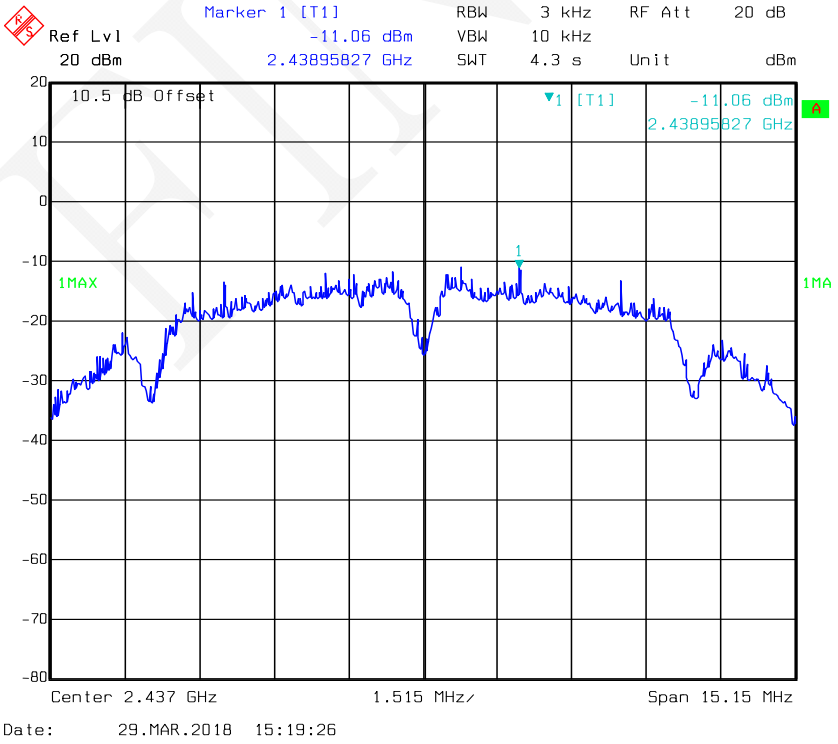
Power Spectral Density, 802.11n-HT40 High Channel (Antenna 1)



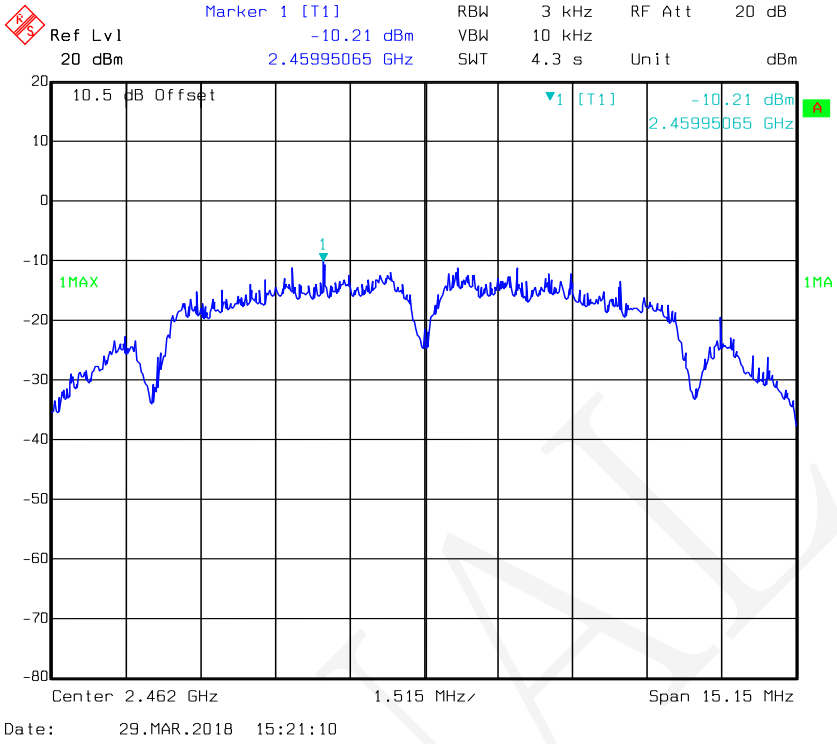
Power Spectral Density, 802.11b Low Channel (Antenna 2)



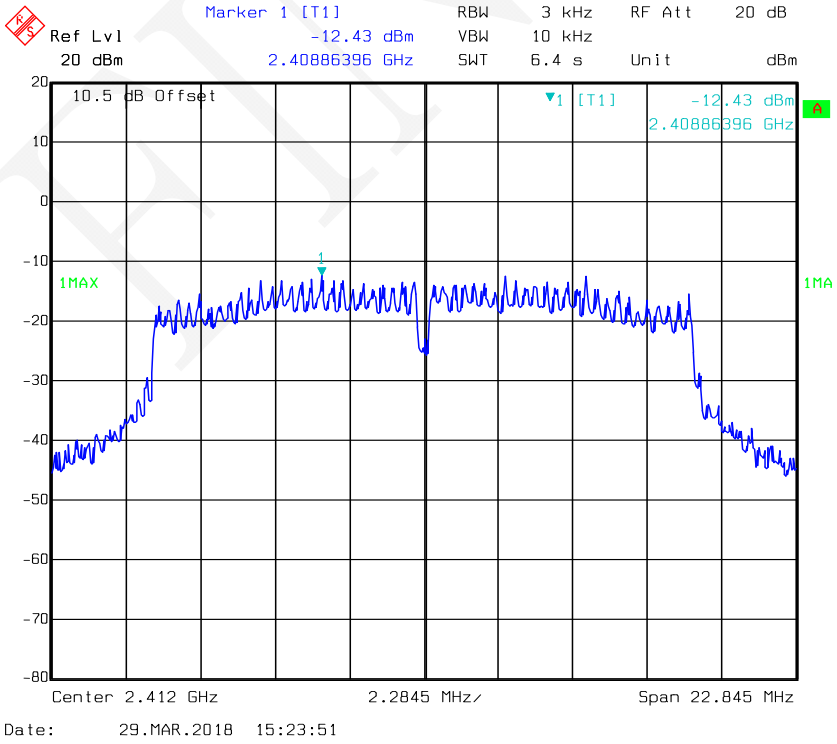
Power Spectral Density, 802.11b Middle Channel (Antenna 2)



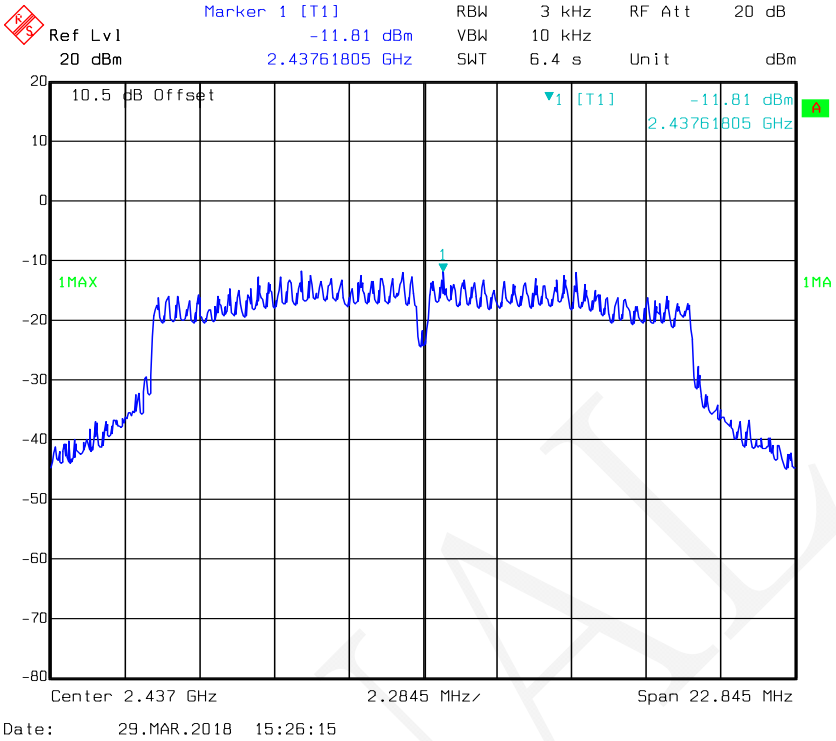
Power Spectral Density, 802.11b High Channel (Antenna 2)



Power Spectral Density, 802.11g Low Channel (Antenna 2)



Power Spectral Density, 802.11g Middle Channel (Antenna 2)



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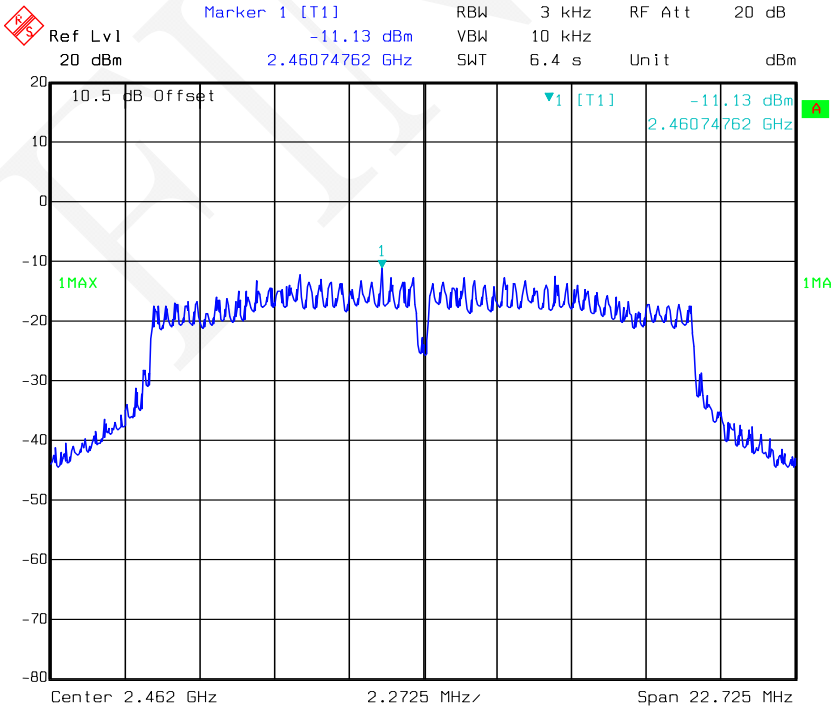
Power Spectral Density, 802.11g High Channel (Antenna 2)



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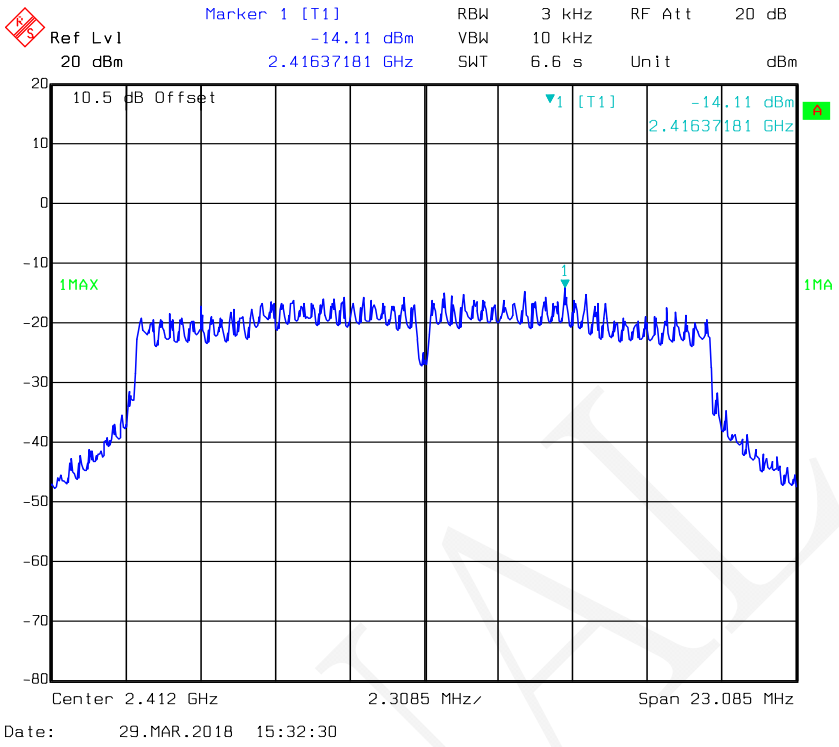
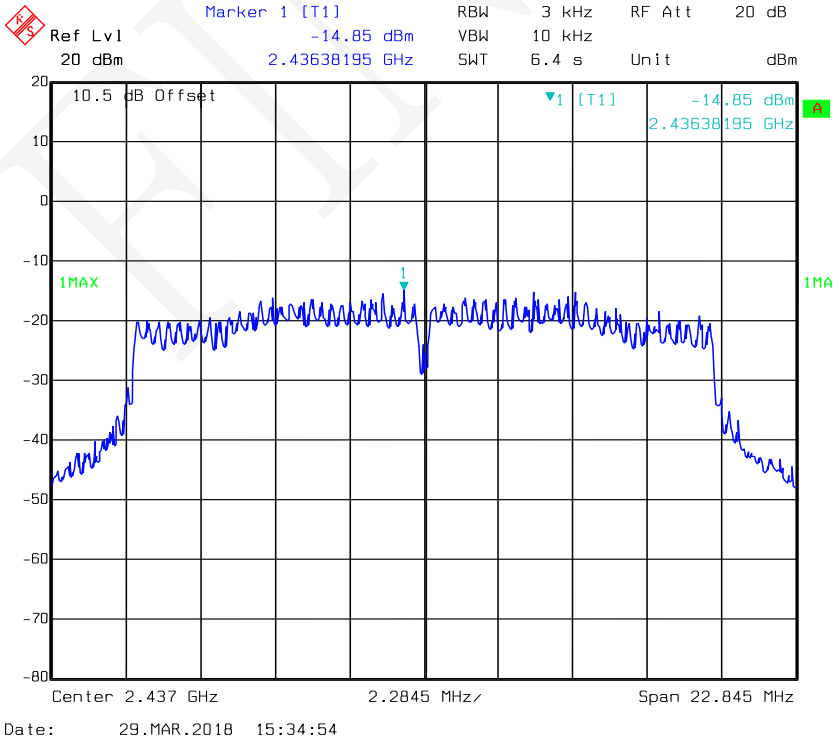
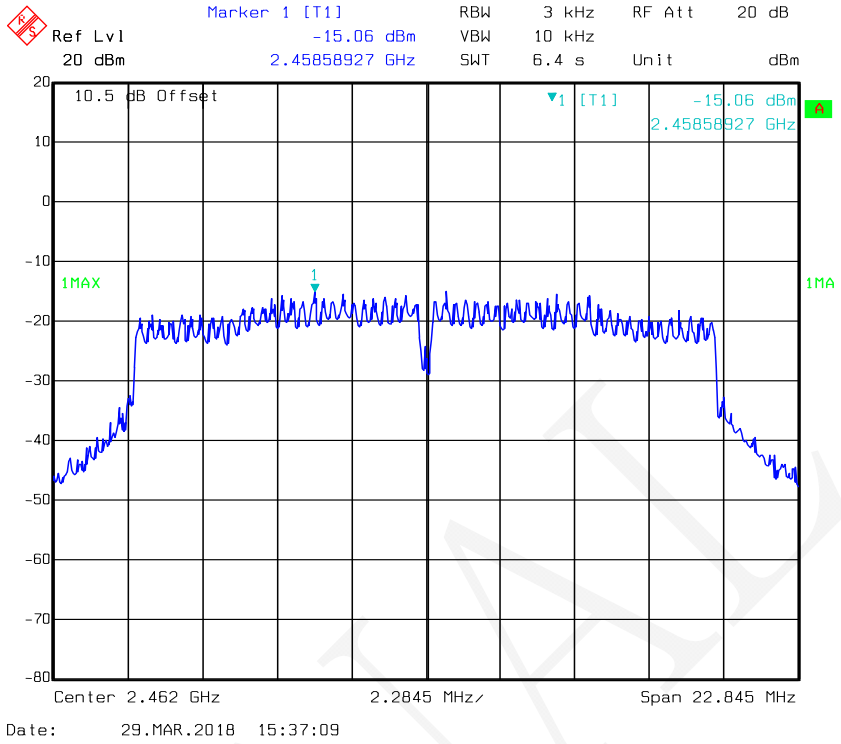
Power Spectral Density, 802.11n-HT20 Low Channel (Antenna 2)



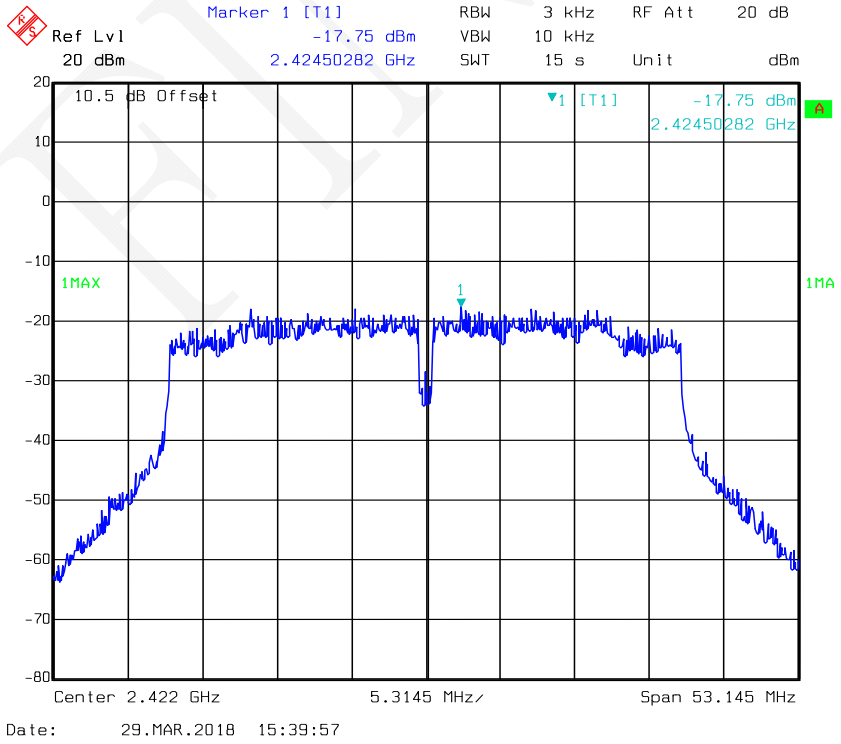
Power Spectral Density, 802.11n-HT20 Middle Channel (Antenna 2)



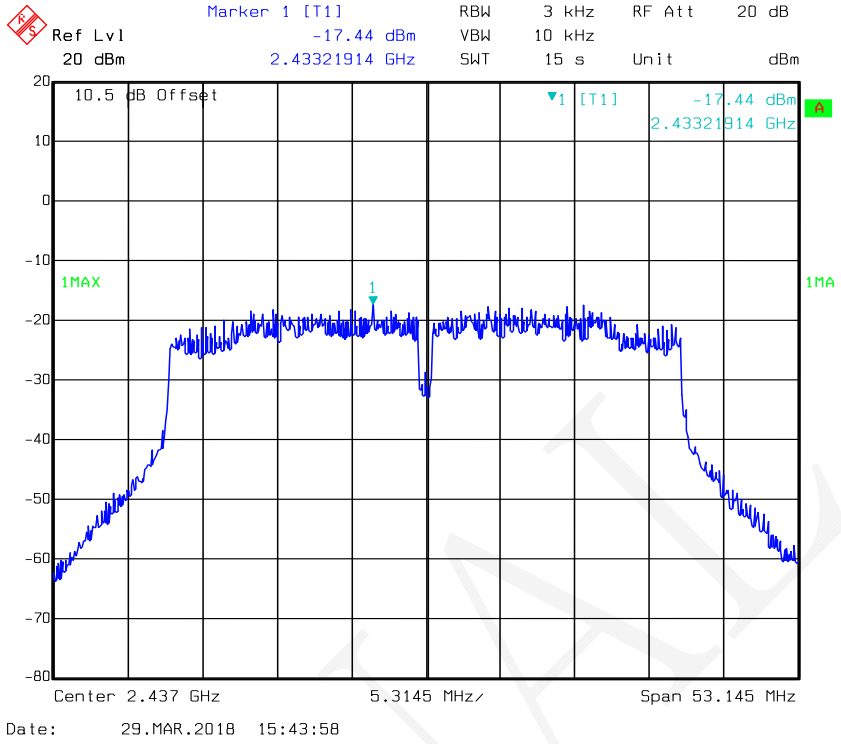
Power Spectral Density, 802.11n-HT20 High Channel (Antenna 2)



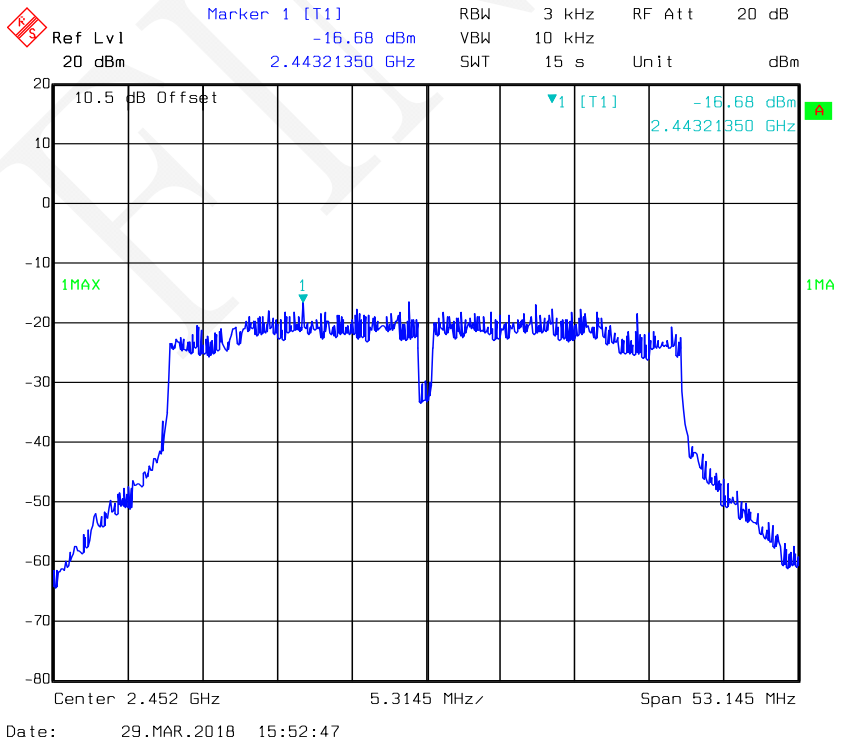
Power Spectral Density, 802.11n-HT40 Low Channel (Antenna 2)



Power Spectral Density, 802.11n-HT40 Middle Channel (Antenna 2)

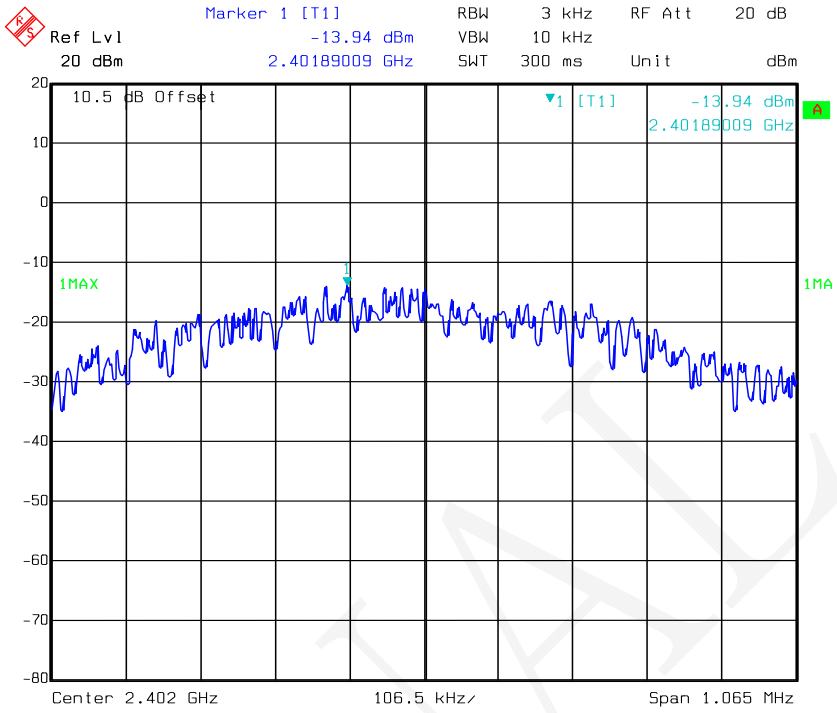


Power Spectral Density, 802.11n-HT40 High Channel (Antenna 2)



BLE mode

Power Spectral Density, Low Channel



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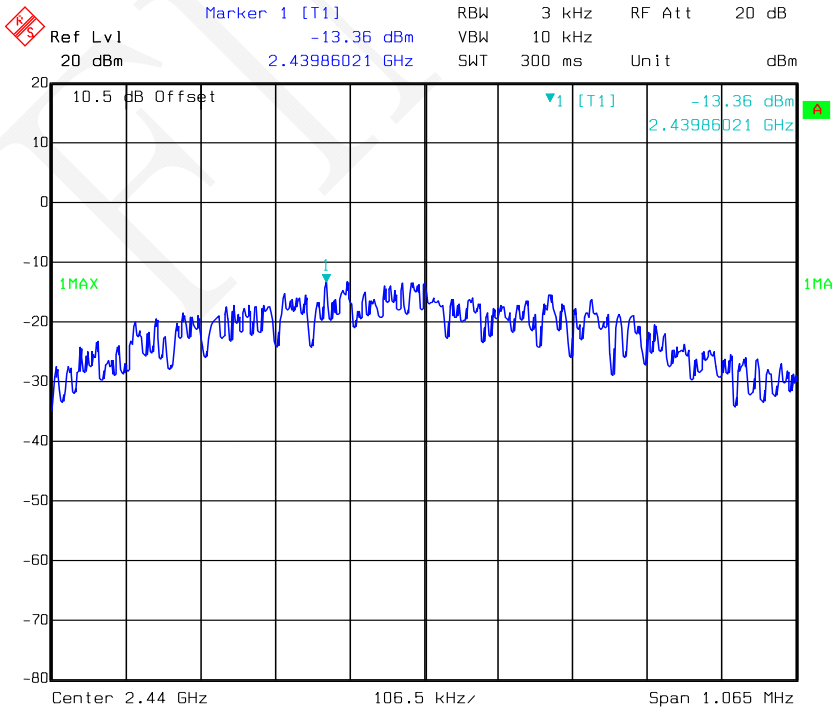
Power Spectral Density, Middle Channel



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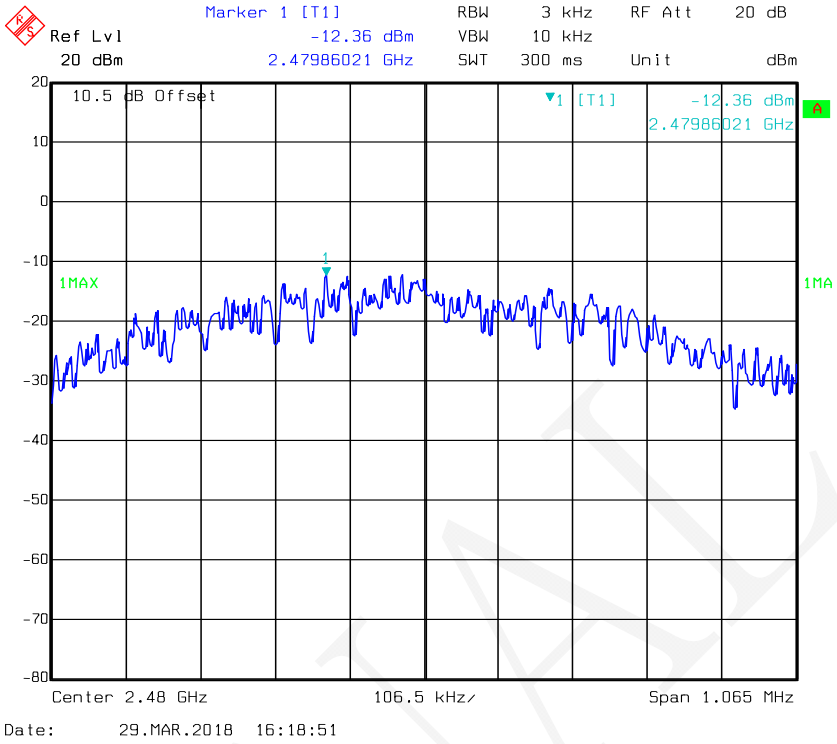
Power Spectral Density, High Channel



For 8265NGW Module

Wi-Fi mode

Mode	Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)		Total (dBm/3kHz)	Limit (dBm/3kHz)
			Antenna 1	Antenna 2		
802.11b	Low	2412	-7.78	-7.52	/	8
	Middle	2437	-7.47	-7.31	/	8
	High	2462	-7.46	-7.28	/	8
802.11g	Low	2412	-9.34	-9.26	/	8
	Middle	2437	-8.83	-9.08	/	8
	High	2462	-9.23	-8.69	/	8
802.11n-HT20	Low	2412	-12.01	-12.57	-9.27	7.3
	Middle	2437	-12.13	-11.98	-9.04	7.3
	High	2462	-11.34	-11.84	-8.57	7.3
802.11n-HT40	Low	2422	-13.58	-13.95	-10.75	7.3
	Middle	2437	-14.13	-14.95	-11.51	7.3
	High	2452	-14.35	-12.54	-10.34	7.3

Note:
1. The max antenna gain is 3.7dBi
2. The device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power spectral density (PSD) measurements on the devices:

Array Gain = 10 log(N_{ANT}/N_{SS}) dB.

So:

Directional gain = G_{ANT} + Array Gain = 3.7+10*log(2) =6.7dBi＞6dBi

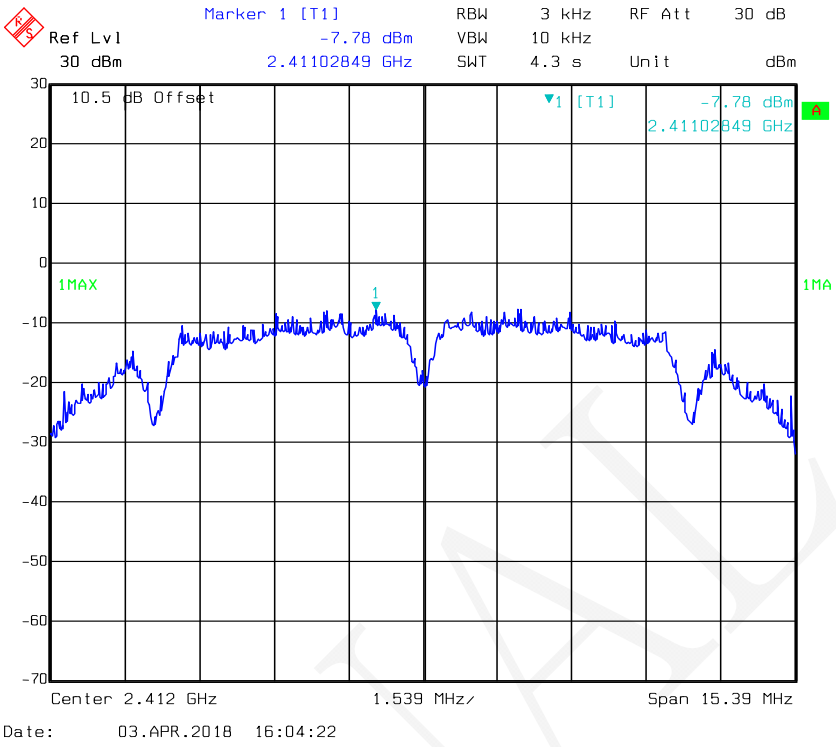
Power density Limit was reduced 0.7dB in MIMO mode.

BLE mode

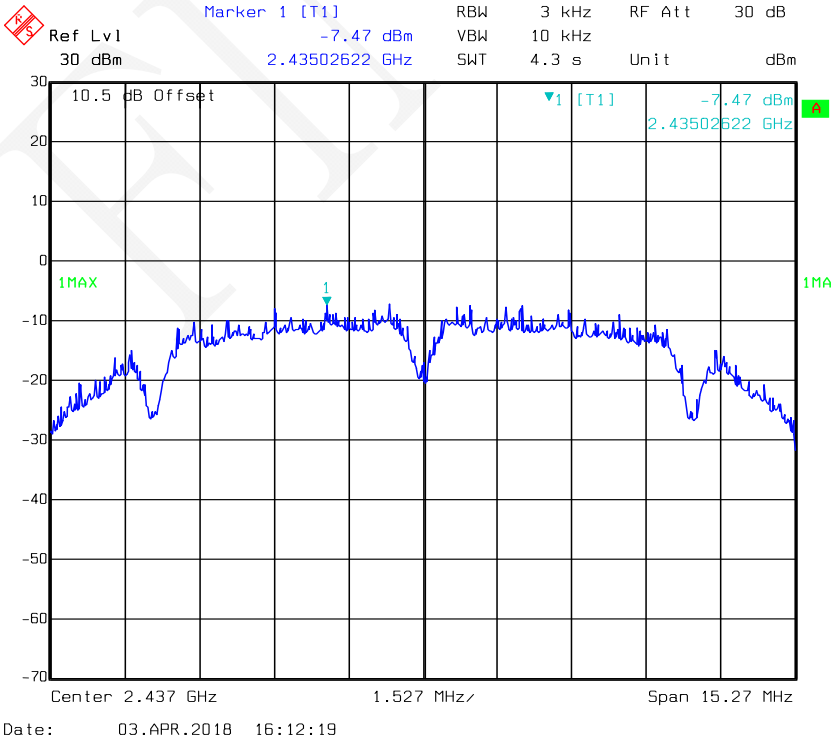
Mode	Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)
BLE	Low	2402	-11.52	8
	Middle	2440	-11.01	8
	High	2480	-10.43	8

Wi-Fi mode

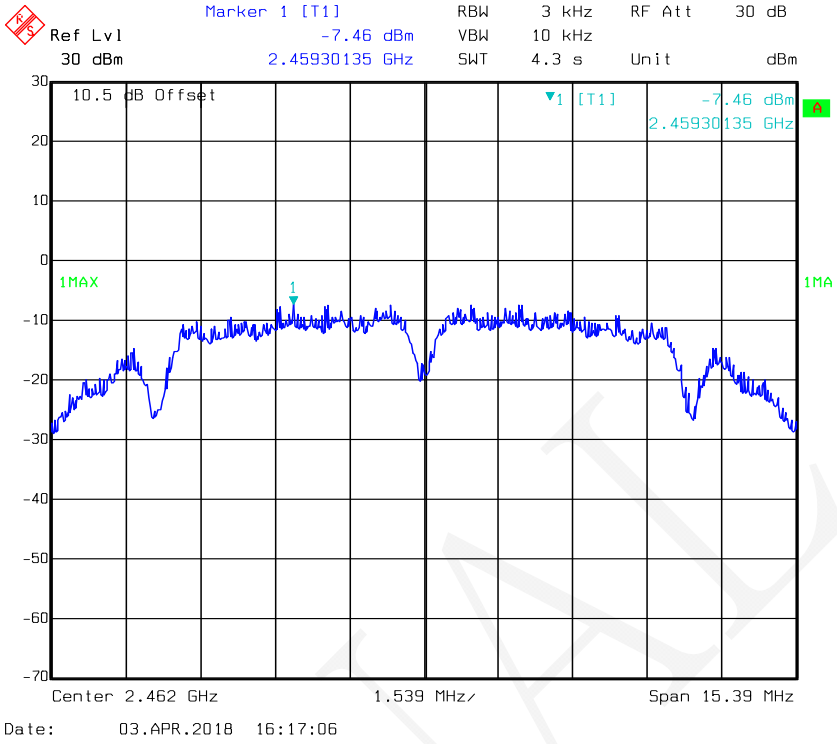
Power Spectral Density, 802.11b Low Channel (Antenna 1)



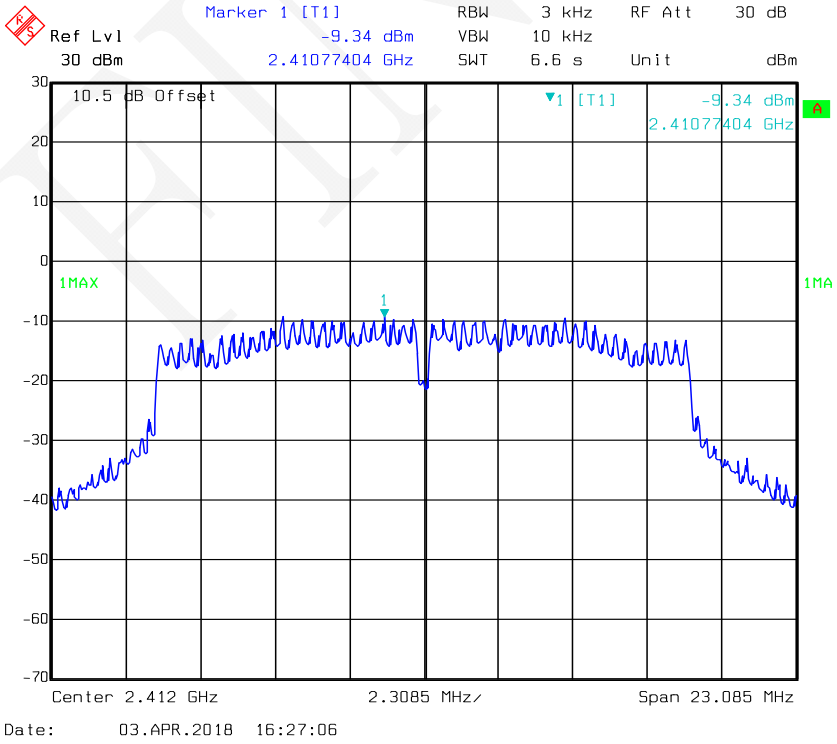
Power Spectral Density, 802.11b Middle Channel (Antenna 1)



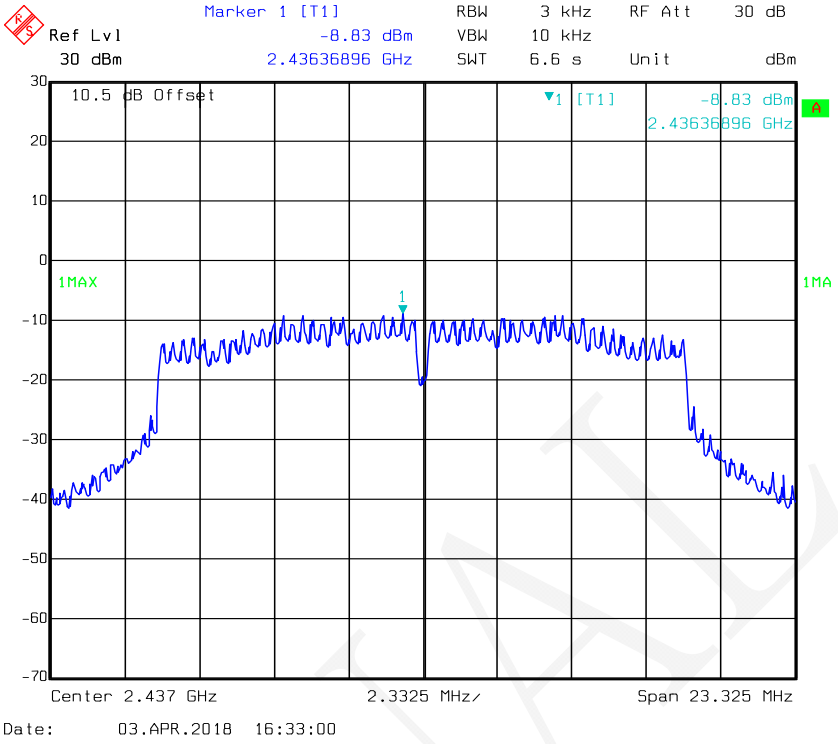
Power Spectral Density, 802.11b High Channel (Antenna 1)



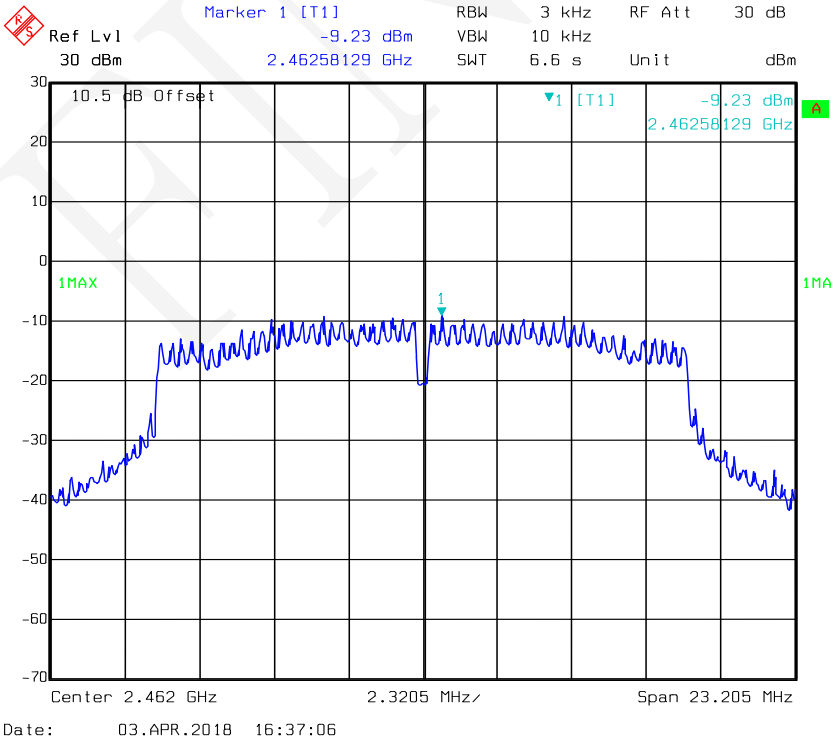
Power Spectral Density, 802.11g Low Channel (Antenna 1)



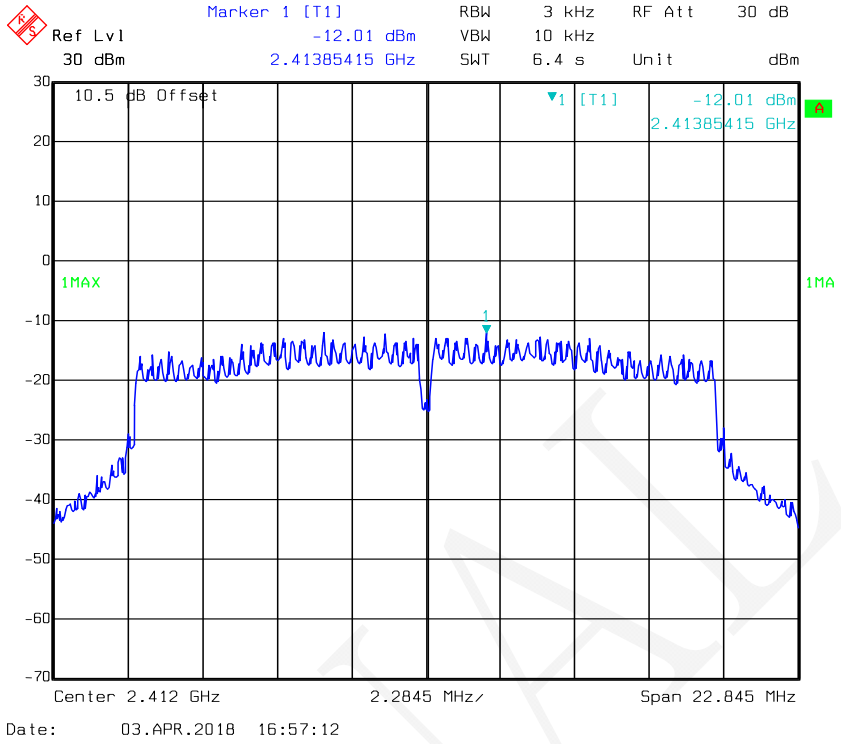
Power Spectral Density, 802.11g Middle Channel (Antenna 1)



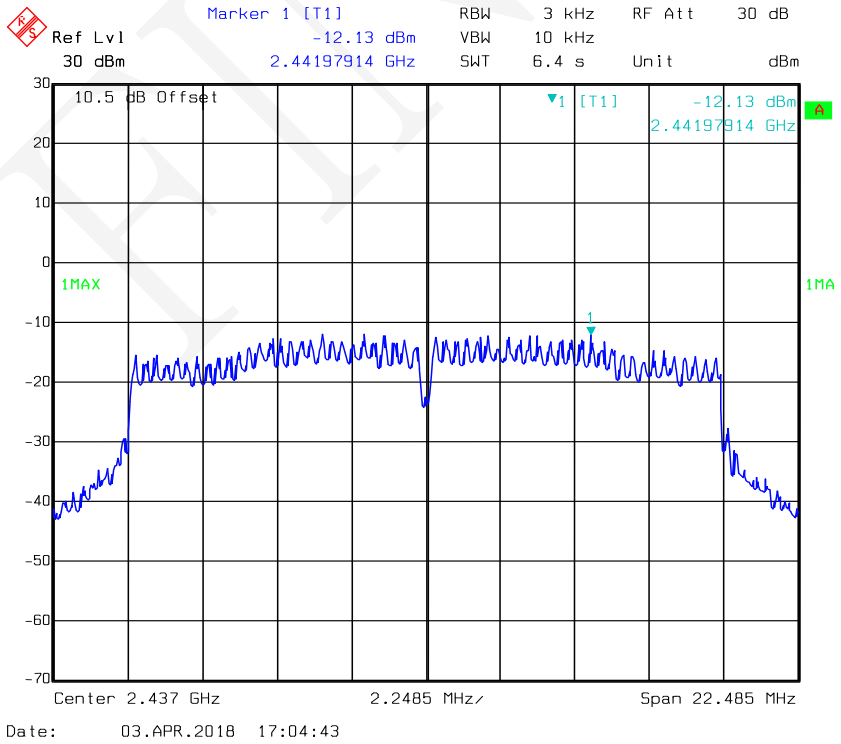
Power Spectral Density, 802.11g High Channel (Antenna 1)



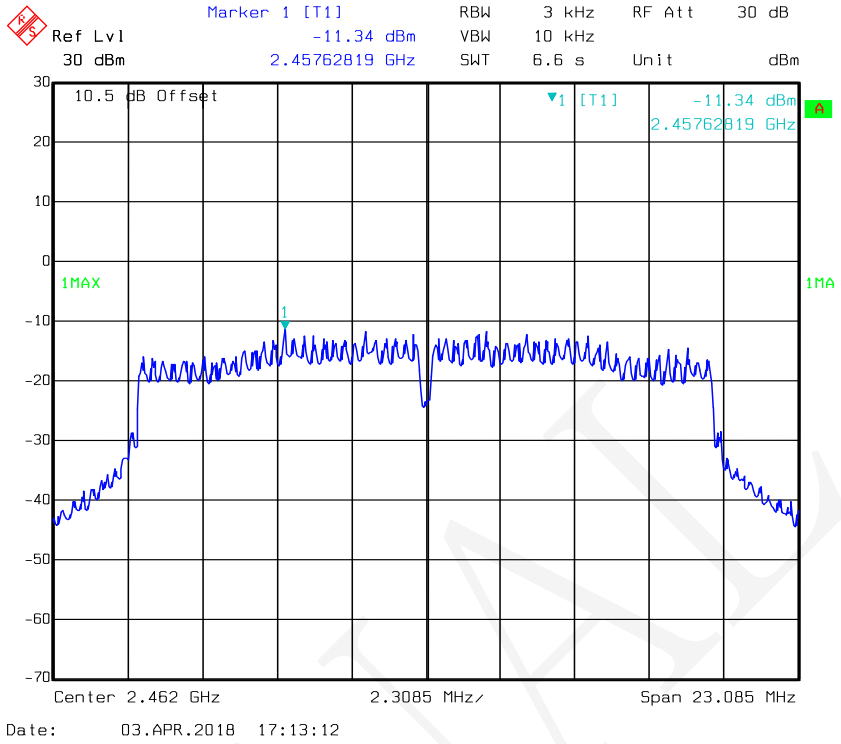
Power Spectral Density, 802.11n-HT20 Low Channel (Antenna 1)



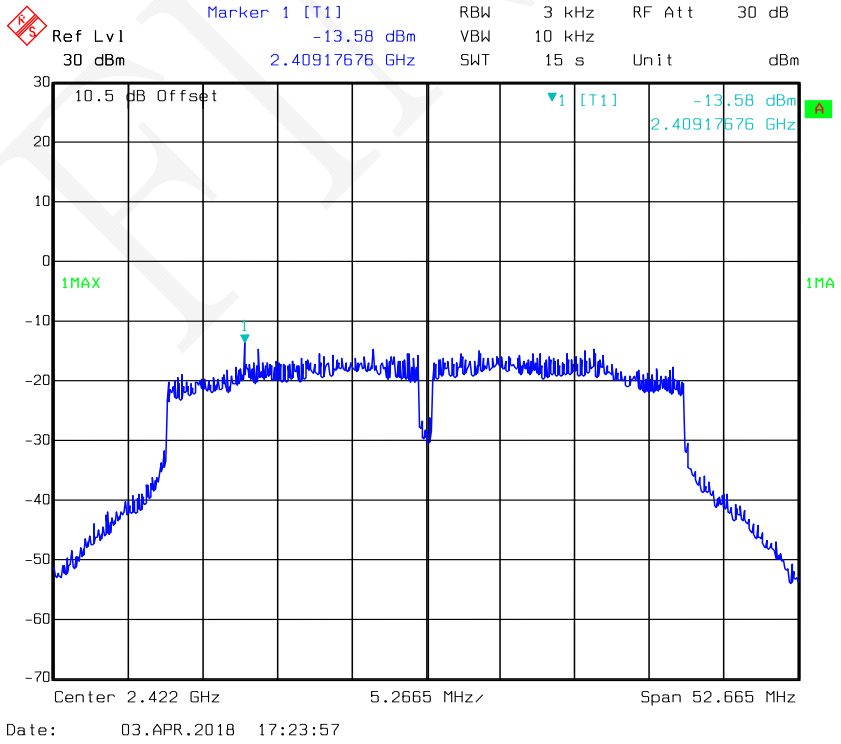
Power Spectral Density, 802.11n-HT20 Middle Channel (Antenna 1)



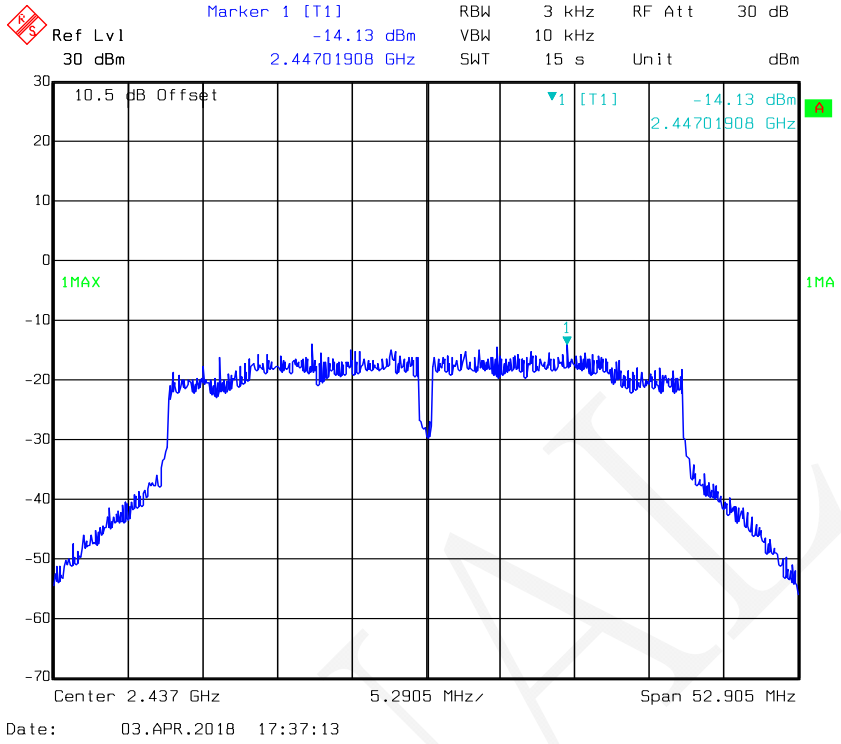
Power Spectral Density, 802.11n-HT20 High Channel (Antenna 1)



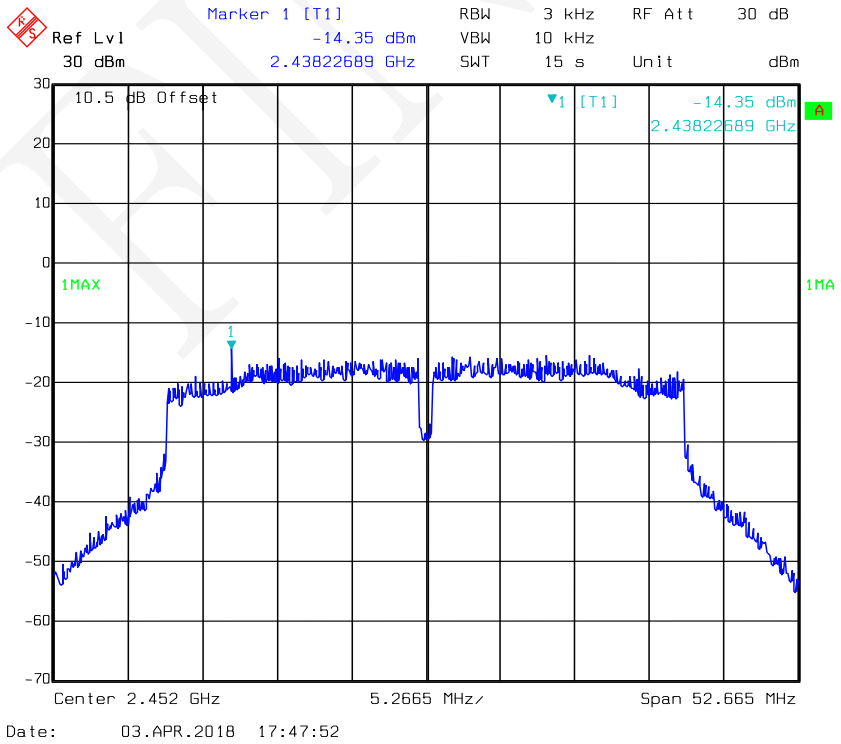
Power Spectral Density, 802.11n-HT40 Low Channel (Antenna 1)



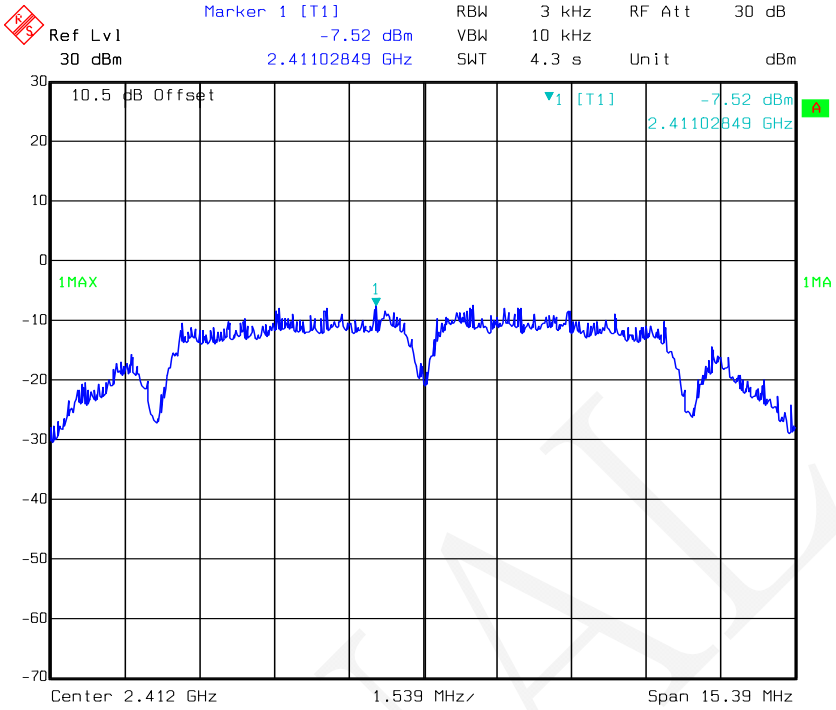
Power Spectral Density, 802.11n-HT40 Middle Channel (Antenna 1)



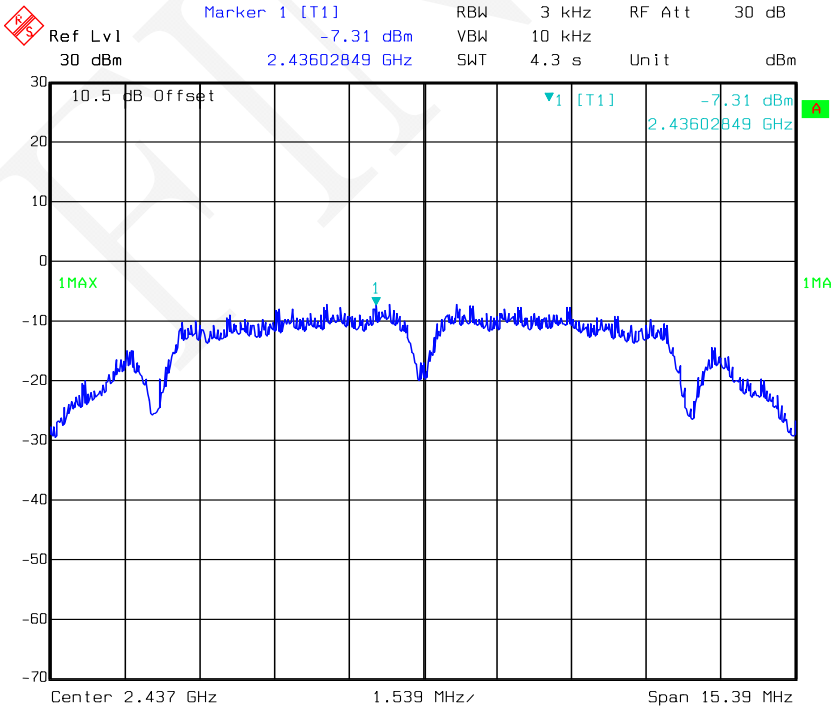
Power Spectral Density, 802.11n-HT40 High Channel (Antenna 1)



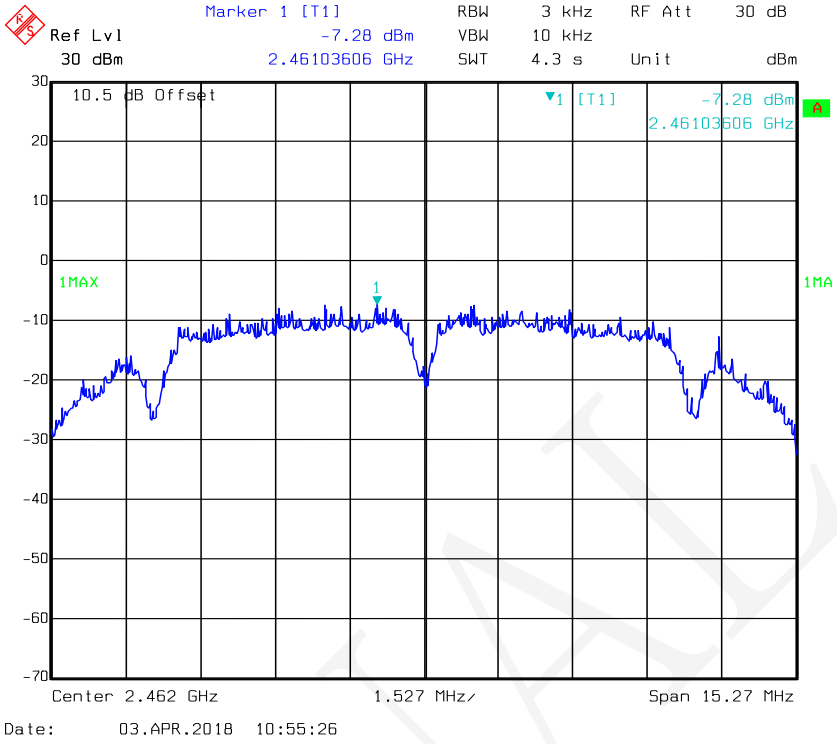
Power Spectral Density, 802.11b Low Channel (Antenna 2)



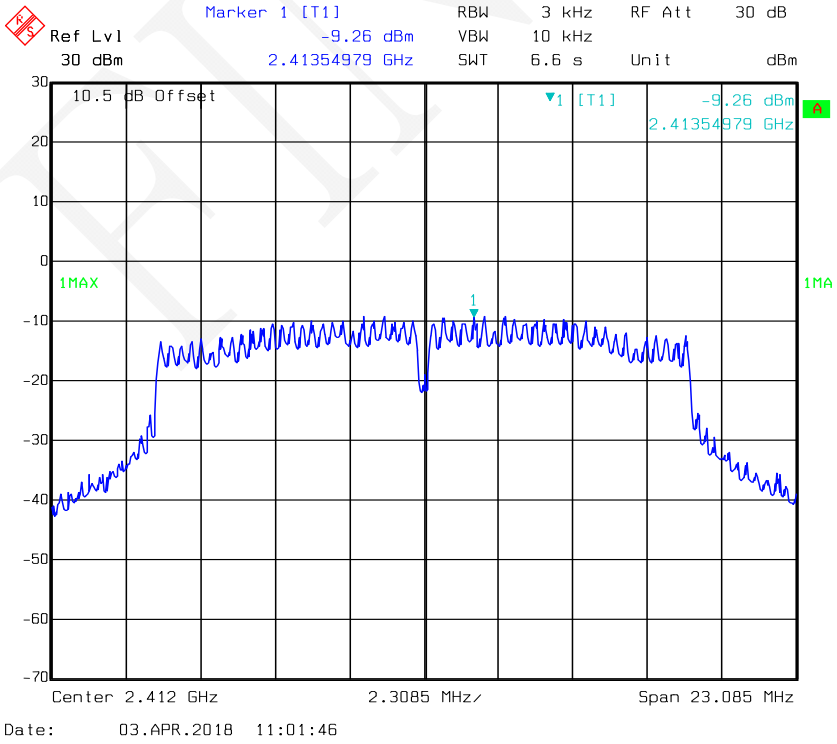
Power Spectral Density, 802.11b Middle Channel (Antenna 2)



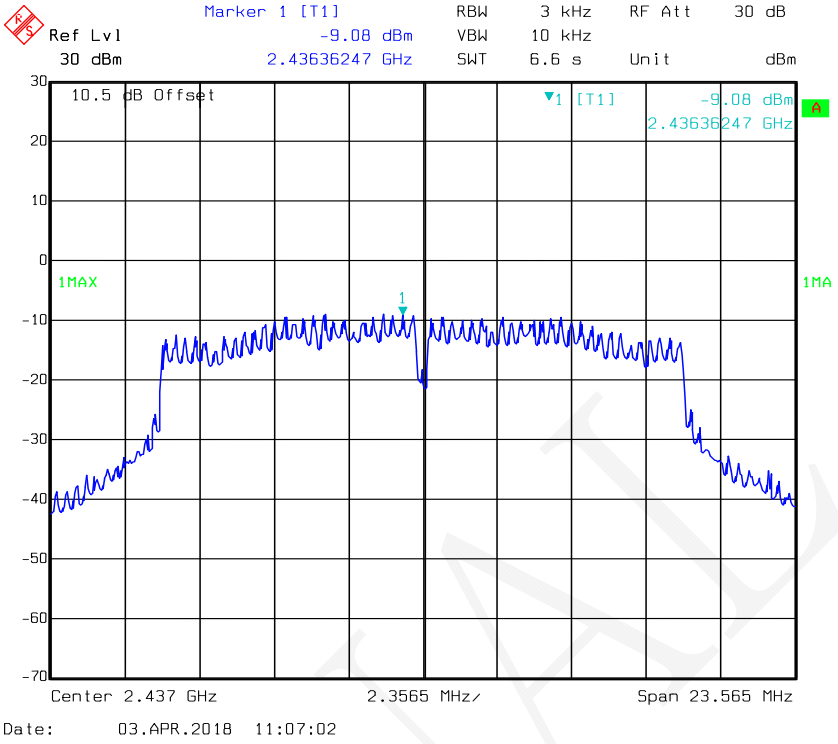
Power Spectral Density, 802.11b High Channel (Antenna 2)



Power Spectral Density, 802.11g Low Channel (Antenna 2)



Power Spectral Density, 802.11g Middle Channel (Antenna 2)



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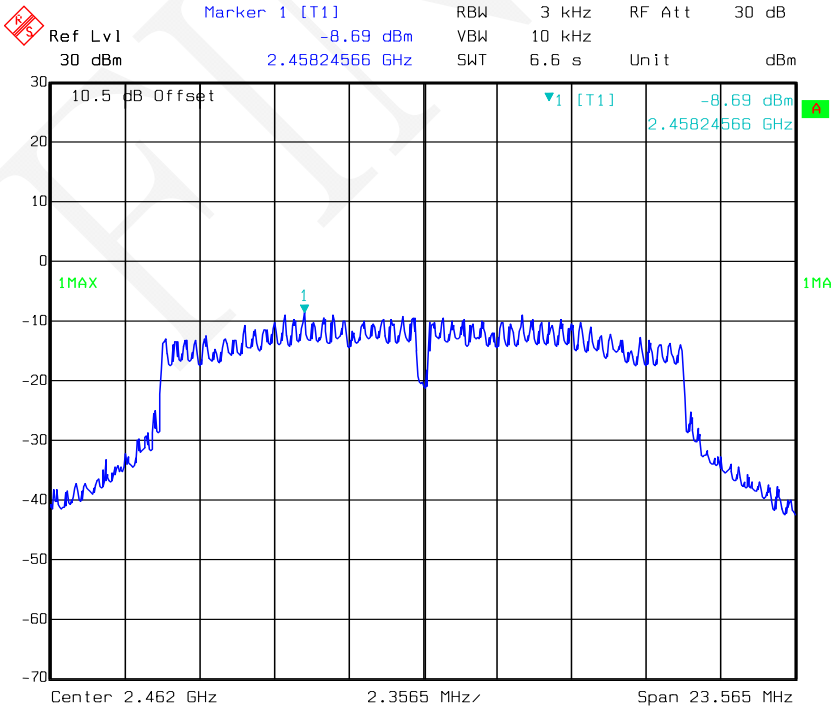
Power Spectral Density, 802.11g High Channel (Antenna 2)



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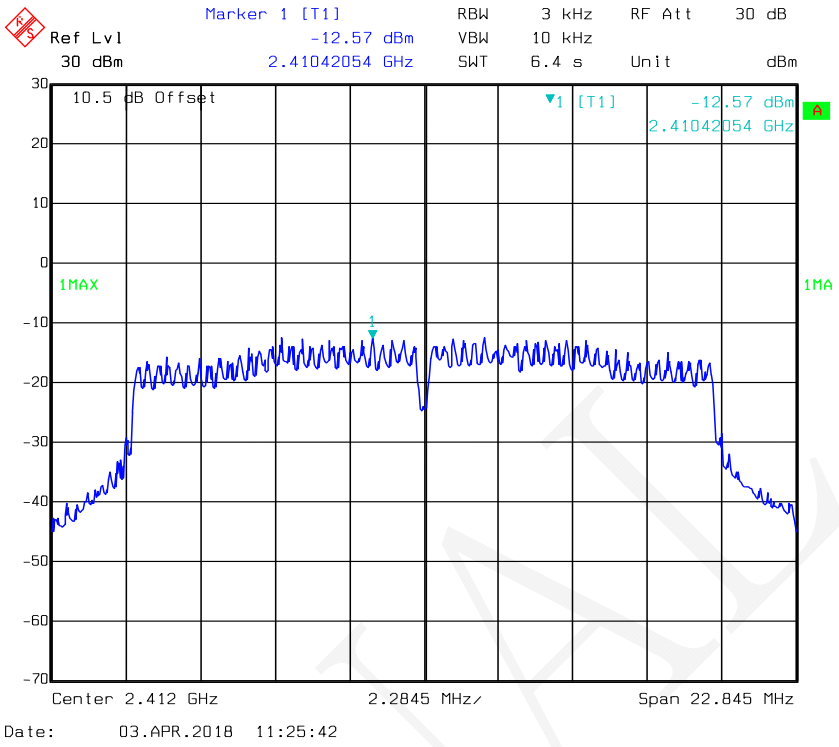
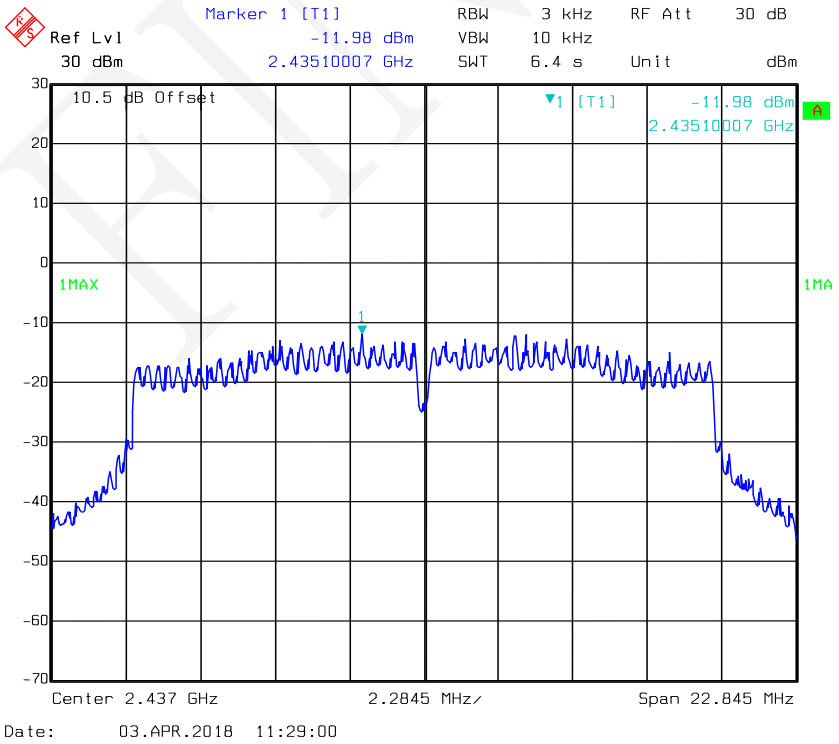
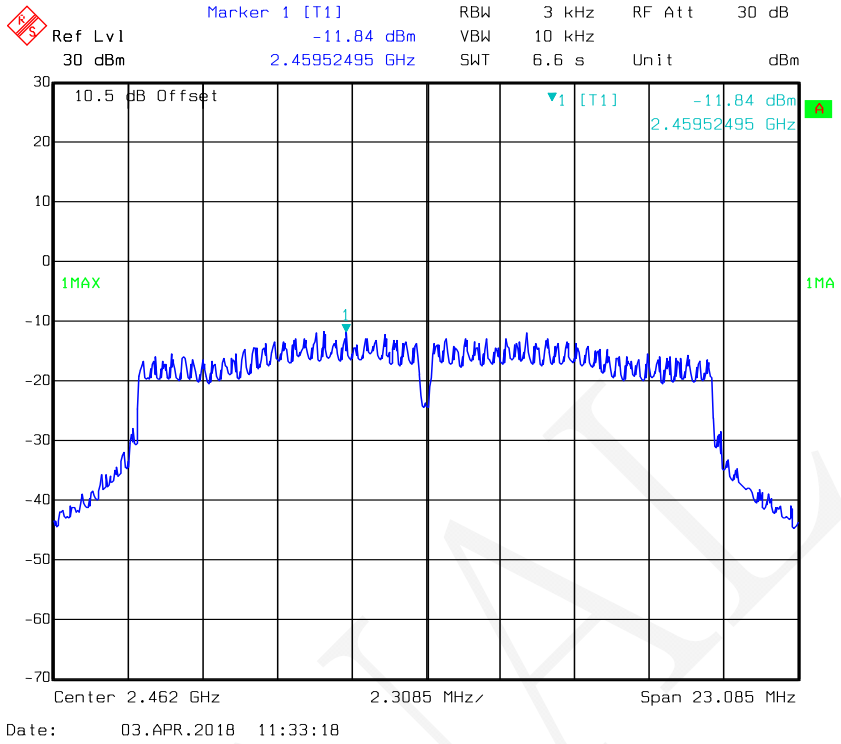
Power Spectral Density, 802.11n-HT20 Low Channel (Antenna 2)



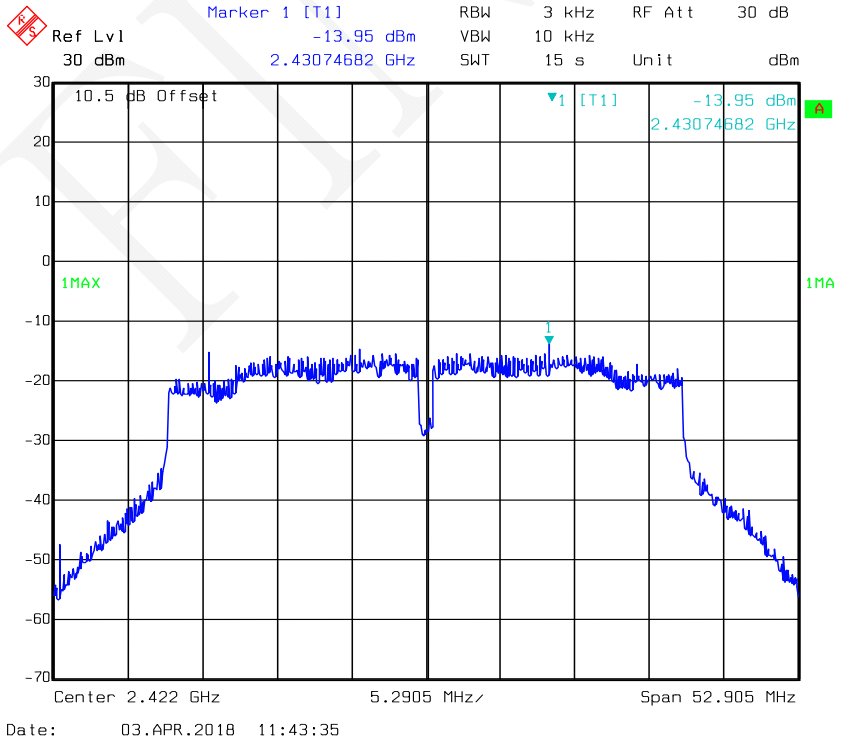
Power Spectral Density, 802.11n-HT20 Middle Channel (Antenna 2)



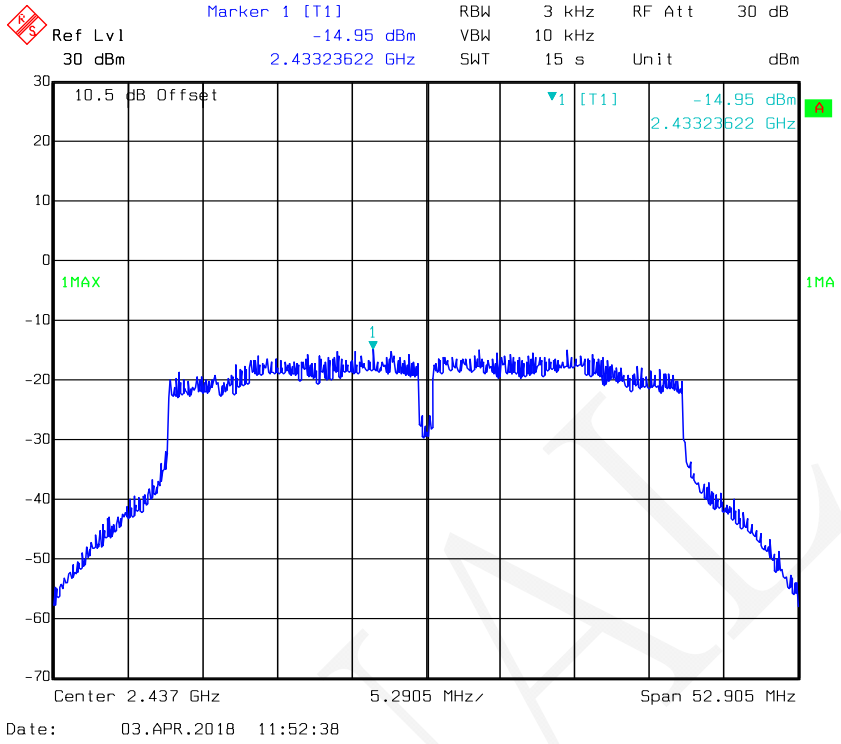
Power Spectral Density, 802.11n-HT20 High Channel (Antenna 2)



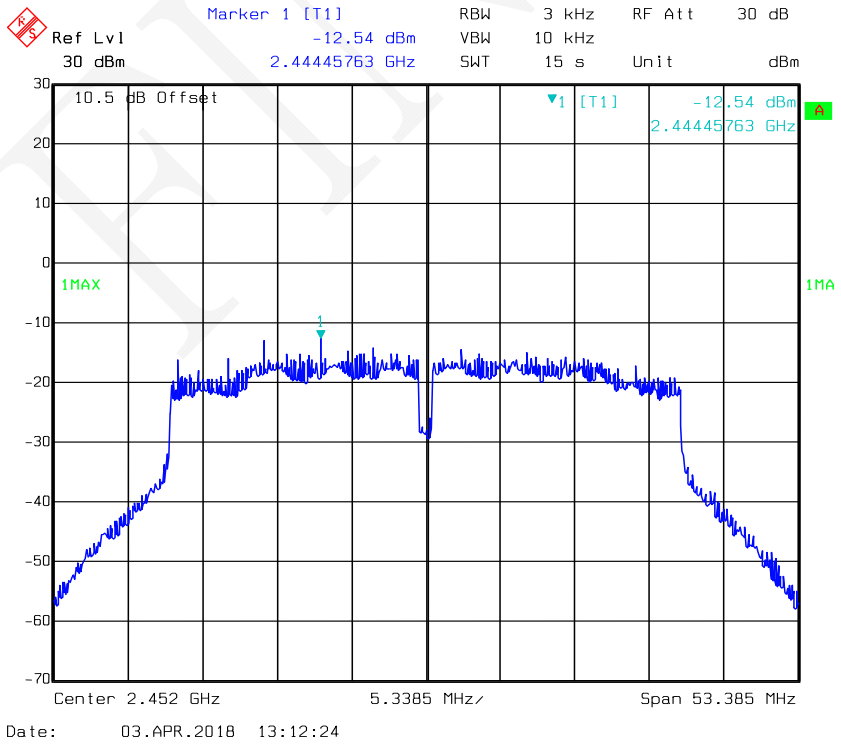
Power Spectral Density, 802.11n-HT40 Low Channel (Antenna 2)



Power Spectral Density, 802.11n-HT40 Middle Channel (Antenna 2)

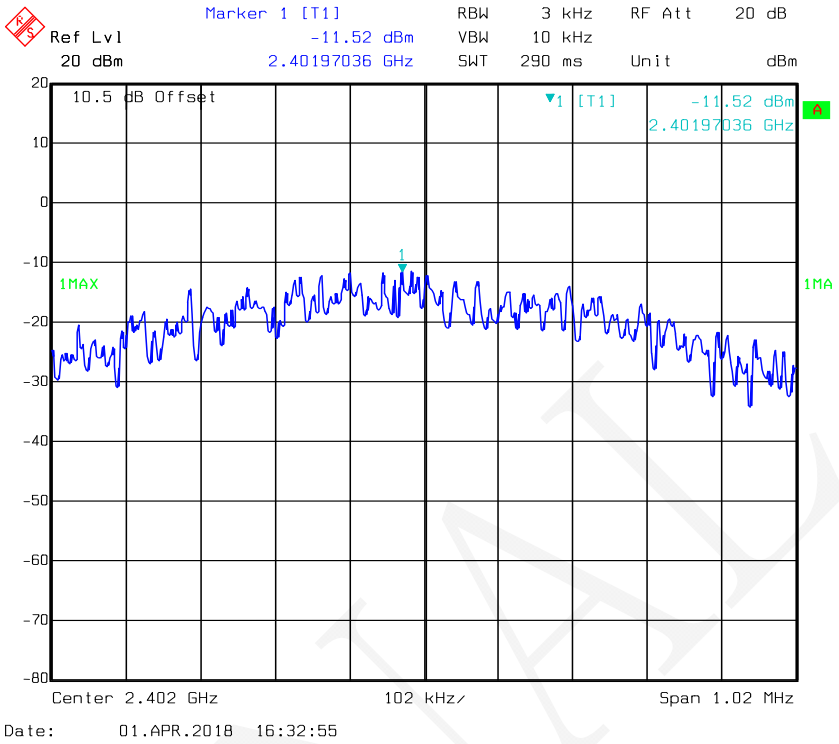


Power Spectral Density, 802.11n-HT40 High Channel (Antenna 2)

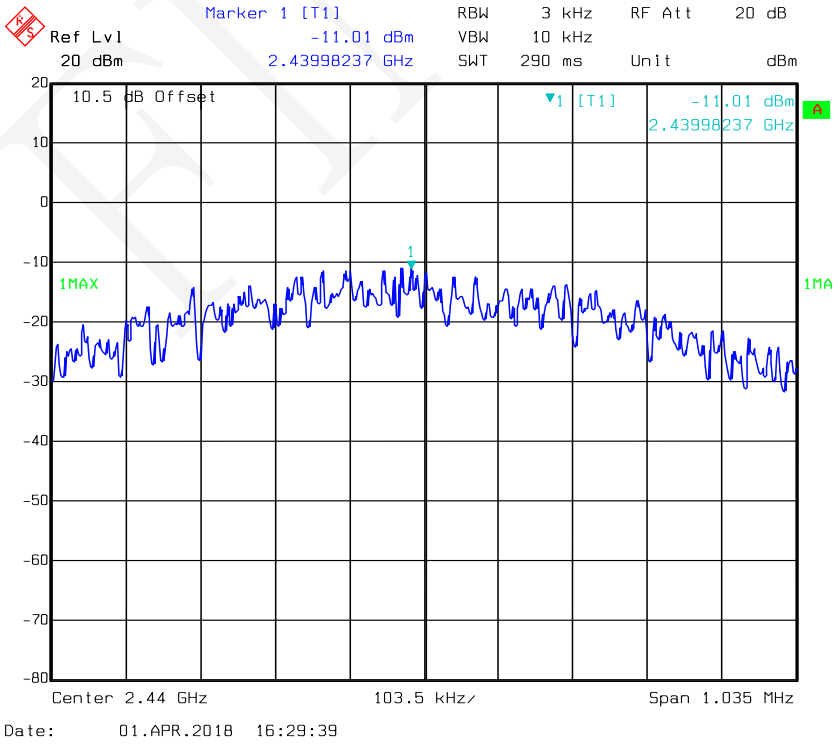


BLE mode

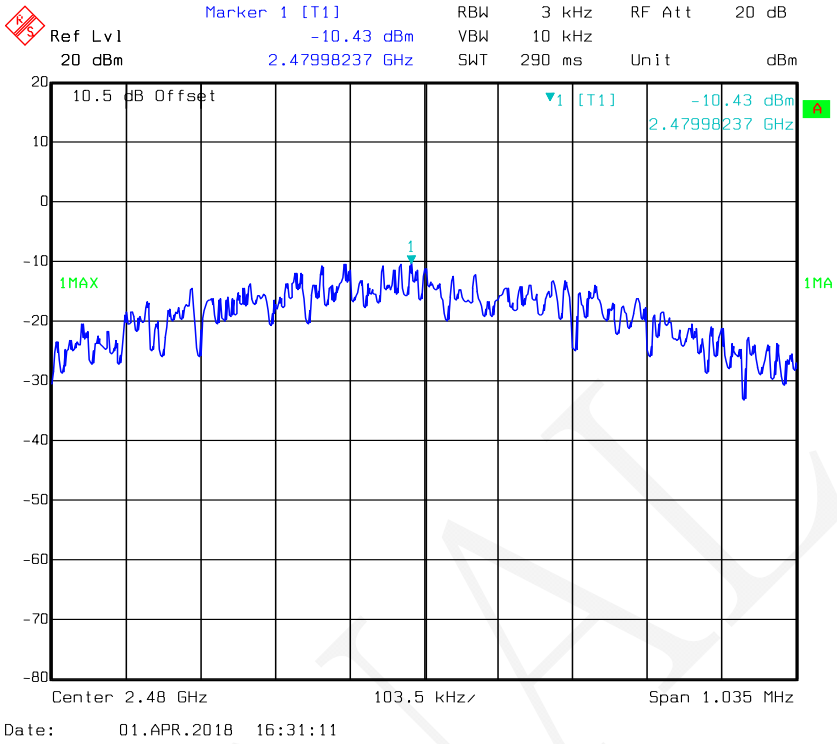
Power Spectral Density, Low Channel



Power Spectral Density, Middle Channel



Power Spectral Density, High Channel



******* END OF REPORT *******