



FCC RADIO TEST REPORT

Applicant : D-Link Corporation
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Fax : 886-2-55509988
Equipment : Business Cloud Access Point
Model No. : DBA-1510P
Trade Name : D-Link
FCC ID : KA2BA1510PA1

I HEREBY CERTIFY THAT :

The sample was received on Dec. 01, 2016 and the testing was carried out on Jan. 12, 2017 at CerpPASS Technology Corp. The test result refers exclusively to the test presented test model / sample. Without written approval of CerpPASS Technology Corp., the test report shall not be reproduced except in full.

Approved by:

Ray Chou / Assistant Manager

Tested by:

Dian Chen / Engineer

Laboratory Accreditation:

CerpPASS Technology Corporation Test Laboratory





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History of this test report

Report No.	Issue Date	Description
TEF11610044	Jan. 17, 2017	Original



1. Summary of Test Procedure and Test Results

1.1 Applicable Standards

ANSI C63.4:2014

ANSI C63.10:2013

FCC Rules and Regulations Part 15 Subpart C §15.247

KDB558074

KDB662911

FCC Rule	Description of Test	Result
15.203	. Antenna Requirement	Pass
15.207	. AC Power Line Conducted Emission	Pass
15.209 15.205	. Radiated Spurious Emission	Pass
15.247(d)	. Conducted Spurious Emission	Pass
15.247(a)(2)	. 6dB Bandwidth	Pass
15.247(b)	. Maximum Peak and Average Output Power	Pass
15.247(e)	. Power Spectral Density	Pass

This EUT has been also tested and compiled with the requirement of FCC Part 15, Subpart B, recorded in a separate test report.



2. Test Configuration of Equipment under Test

2.1 Feature of Equipment under Test

Equipment	Business Cloud Access Point
Model No.	DBA-1510P
Brand Name	D-Link
Modulation Type	DSSS, OFDM
Frequency Range	802.11b/g/n: 2412-2462MHz 802.11a/an/ac: 5150-5250MHz, 5725-5850MHz
Data Rate	802.11b: 1, 2, 5.5, 11Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps 802.11n: 6.5Mbps to 450Mbps (MCS0 – MCS23, HT20/40) 802.11a: 6, 9, 12, 18, 24, 36, 48, 54Mbps 802.11ac: 13Mbps to 1300Mbps (MCS0 – MCS9, VHT 20/40/80)
Antenna Type	802.11b/g/n: PIFA Antenna 802.11a/an/ac: Dipole Antenna
Antenna Gain	802.11b/g/n: Antenna 1: 3.0 dBi Antenna 2: 3.0 dBi Antenna 3: 3.0 dBi 802.11a/an/ac: Antenna 1: 5.0 dBi Antenna 2: 5.0 dBi Antenna 3: 5.0 dBi
Product Description	Please refer to User's Manual.
AC ADAPTER	Adapter Brand: D-Link Model No.: AMS115-1202000FU I/P: AC 100-240V~, 50/60Hz, 0.8A ; O/P: DC 12V, 2.0A
Connecting I/O Port(s)	Please refer to User's Manual.
Memo	A1

Note: For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

2.2 Description of Main Source and Second Source

Component Position	Main Source	Second Source
C857,C859	√	x
T13	√	x
R922	√	x
D36,D37	√	x
R915	√	x
Q8	√	x
R906,R908	0Ω	100Ω
C844	39pF	330pF
R918	0KΩ	10KΩ
Q5	N-Channel Shielded Gate Power Trench	DIODE



2.3 Carrier Frequency of Channels

802.11b, 802.11g, 802.11n HT 20 (2412MHz~2462MHz)

Channel	Frequency(MHz)	Channel	Frequency(MHz)
*01	2412	07	2442
02	2417	08	2447
03	2422	09	2452
04	2427	10	2457
05	2432	*11	2462
*06	2437	---	---

802.11n HT40 (2422MHz~2452MHz)

Channel	Frequency(MHz)	Channel	Frequency(MHz)
---	---	07	2442
---	---	08	2447
*03	2422	*09	2452
04	2427	---	---
05	2432	---	---
*06	2437	---	---

Note: Channels remarked * are selected to perform test.



2.4 Test Mode and Test Software

- a. During testing, the interface cables and equipment positions were varied according to ANSI C63.4.
- b. The complete test system included Notebook and EUT for RF test.
- c. An executive program, "Art2 Ver 4.9.575.5" under WIN 7 was executed to transmit and receive data via WLAN.
- d. The following conducted test modes were performed for the test:
 - Test Mode 1: Main Source, Power by Adapter, 802.11b (1Mbps)
 - Test Mode 2: Main Source, Power by Adapter, 802.11g (6Mbps)
 - Test Mode 3: Main Source, Power by Adapter, 802.11n HT20 (6.5Mbps)
 - Test Mode 4: Main Source, Power by Adapter, 802.11n HT40 (13.5Mbps)
 - Test Mode 5: Second Source, Power by Adapter, 802.11b (1Mbps)
 - Test Mode 6: Second Source, Power by Adapter, 802.11g (6Mbps)
 - Test Mode 7: Second Source, Power by Adapter, 802.11n HT20 (6.5Mbps)
 - Test Mode 8: Second Source, Power by Adapter, 802.11n HT40 (13.5Mbps)

The "Test Mode 2、6" generated the worst case, these were reported as the final data.
- e. The following radiated(below 1GHz) test modes were performed for the test:
 - Test Mode 1: Main Source, Power by Adapter, 802.11b (1Mbps)
 - Test Mode 2: Main Source, Power by Adapter, 802.11g (6Mbps)
 - Test Mode 3: Main Source, Power by Adapter, 802.11n HT20 (6.5Mbps)
 - Test Mode 4: Main Source, Power by Adapter, 802.11n HT40 (13.5Mbps)
 - Test Mode 5: Main Source, Power by PoE, 802.11b (1Mbps)
 - Test Mode 6: Main Source, Power by PoE, 802.11g (6Mbps)
 - Test Mode 7: Main Source, Power by PoE, 802.11n HT20 (6.5Mbps)
 - Test Mode 8: Main Source, Power by PoE, 802.11n HT40 (13.5Mbps)
 - Test Mode 9: Second Source, Power by Adapter, 802.11b (1Mbps)
 - Test Mode 10: Second Source, Power by Adapter, 802.11g (6Mbps)
 - Test Mode 11: Second Source, Power by Adapter, 802.11n HT20 (6.5Mbps)
 - Test Mode 12: Second Source, Power by Adapter, 802.11n HT40 (13.5Mbps)
 - Test Mode 13: Second Source, Power by PoE, 802.11b (1Mbps)
 - Test Mode 14: Second Source, Power by PoE, 802.11g (6Mbps)
 - Test Mode 15: Second Source, Power by PoE, 802.11n HT20 (6.5Mbps)
 - Test Mode 16: Second Source, Power by PoE, 802.11n HT40 (13.5Mbps)

The "Test Mode 2、6、10、14" generated the worst case, these were reported as the final data.
- f. The following radiated(above 1GHz) test modes were performed for the test:
 - Test Mode 1: Main Source, Power by Adapter, 802.11b (1Mbps)
 - Test Mode 2: Main Source, Power by Adapter, 802.11g (6Mbps)
 - Test Mode 3: Main Source, Power by Adapter, 802.11n HT20 (6.5Mbps)
 - Test Mode 4: Main Source, Power by Adapter, 802.11n HT40 (13.5Mbps)

The "Test Mode 1~4" were reported as the final data.

* Radiated (above 1GHz) use POE adapter didn't effect test value.

2.5 Description of Test System

Device	Manufacturer	Model No.	Description
Notebook	DELL	Vostro 3560	Power Cable, Unshielding, 1.8m

Use Cable:

Cable	Quantity	Description
Network	1	Unshielding, 5.0m
RS232 to COM	1	Unshielding, 1.2m



2.6 General Information of Test

Test Site	CerpPASS Technology Corporation Test Laboratory Address: No.10, Ln. 2, Lianfu St., Luzhu Dist., Taoyuan City 33848, Taiwan (R.O.C.) Tel:+886-3-3226-888 Fax:+886-3-3226-881 Address: No.68-1, Shihbachongsi, Shihding Township, New Taipei City 223, Taiwan, R.O.C. Tel: +886-2-2663-8582	
	FCC	TW1079, TW1061, 390316, 228391, 641184
	IC	4934E-1, 4934E-2
	VCCI	T-2205 for Telecommunication Test C-4663 for Conducted emission test R-4218, R-4399 for Radiated emission test G-812, G-813 for radiated disturbance above 1GHz
Frequency Range Investigated:	Conducted: from 150kHz to 30 MHz Radiation: from 30 MHz to 25,000MHz	
Test Distance:	The test distance of radiated emission from antenna to EUT is 3 M.	

2.7 Measurement Uncertainty

Measurement Item	Measurement Frequency	Polarization	Uncertainty
Conducted Emission	9 kHz ~ 30 MHz	Line / Neutral	±2.9076 dB
Radiated Emission	9 kHz ~ 25,000 MHz	Vertical / Horizontal	±0.948 dB
Spurious Emission (Conducted)	-	-	±4.011 dB
Maximum Peak and Average Output Power	-	-	±0.322 dB
Power Spectral Density	-	-	±0.322 dB
Bandwidth	-	-	74.224Hz



3. Test Equipment and Ancillaries Used for Tests

Instrument	Model No.	Manufacturer	Serial No.	Calibration Date	Valid Date
EMI Receiver	R&S	ESCI3	100443	2016/03/28	2017/03/27
LISN	Schwarzbeck	NSLK 8127	8127-740	2016/08/30	2017/08/29
LISN	Schwarzbeck	NSLK 8127	8127-516	2016/09/06	2017/09/05
Pulse Limiter	R&S	ESH3-Z2	101934	2016/03/09	2017/03/08
Bilog Antenna	Schwarzbeck	VULB9168	369	2016/03/22	2017/03/21
Active Loop Antenna	EMCO	6507	40855	2016/05/11	2017/05/10
Horn Antenna	EMCO	3115	31601	2016/09/05	2017/09/04
Horn Antenna	EMCO	3116	31970	2016/03/18	2017/03/17
EXA Signal Analyzer	KEYSIGHT	N9010A	MY54200207	2016/03/16	2017/03/15
Preamplifier	EM	EM330	60660	2016/03/16	2017/03/15
Preamplifier	EMC INSTRUMENTS	EMC051845S E	980333	2016/09/13	2017/09/12
Preamplifier	Agilent	8449B	3008A01954	2016/03/04	2017/03/03
Preamplifier	MITEQ	AMF-7D-0010 100-30-10P	1860212	2016/03/16	2017/03/15
Preamplifier	EMC INSTRUMENTS	EMC184045	980065	2016/11/04	2017/11/03
MXG MW Analog Signal Generator	KEYSIGHT	N5183A	MY50142931	2016/03/18	2017/03/17
Spectrum Analyzer	R&S	FSP40	100219	2016/09/01	2017/08/31
Bluetooth Tester	R&S	CBT	101133	2016/03/18	2017/03/17
Attenuator	KEYSIGHT	8491B	MY39250703	2016/03/07	2017/03/06
Rotary Attenuator	Agilent	8494B	MY42154466	2016/03/08	2017/03/07
Rotary Attenuator	Agilent	8495B	MY42146680	2016/03/08	2017/03/07
Temp & Humi chamber	T-MACHINE	TMJ-9712	T-12-040111	2016/09/05	2017/09/04
Series Power Meter	Anritsu	ML2495A	1224005	2016/03/03	2017/03/02
Power Sensor	Anritsu	MA2411B	1207295	2016/03/03	2017/03/02
Cable	HUBER SUHNER	SUCOFLEX 102	28422/2	2016/03/15	2017/03/14
Cable	HUBER SUHNER	SUCOFLEX 102	28418/2	2016/03/16	2017/03/15
Cable	HUBER SUHNER	SUCOFLEX 102	28417/2	2016/03/04	2017/03/03
Software	Farad	Ez-EMC	ver.ct3a1	N/A	N/A
Software	AUDIX	E3	V8.2014-8-6	N/A	N/A
Software	Keysight	N7607B Signal Studio	v2.0.0.1	N/A	N/A
Software	Keysight	Inservice MonitorUtility	N/A	N/A	N/A



4. Antenna Requirements

4.1 Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

4.2 Antenna Construction and Directional Gain

Antenna Type	Antenna Gain
PIFA Antenna	Antenna 1: 3.0 dBi
	Antenna 2: 3.0 dBi
	Antenna 3: 3.0 dBi

For Power directional gain= $G_{ant}= 3.0 \text{ dBi}$

For PSD directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / NANT]$
= 7.77 (dBi)



5. Test of AC Power Line Conducted Emission

5.1 Test Limit

Conducted Emissions were measured from 150 kHz to 30 MHz with a bandwidth of 9 KHz, according to the methods defined in ANSI C63.4-2014. The EUT was placed on a nonmetallic stand in a shielded room 0.8 meters above the ground plane. The interface cables and equipment positioning were varied within limits of reasonable applications to determine the position produced maximum conducted emissions.

Frequency (MHz)	Quasi Peak (dB μ V)	Average (dB μ V)
0.15 – 0.5	66-56*	56-46*
0.5 – 5.0	56	46
5.0 – 30.0	60	50

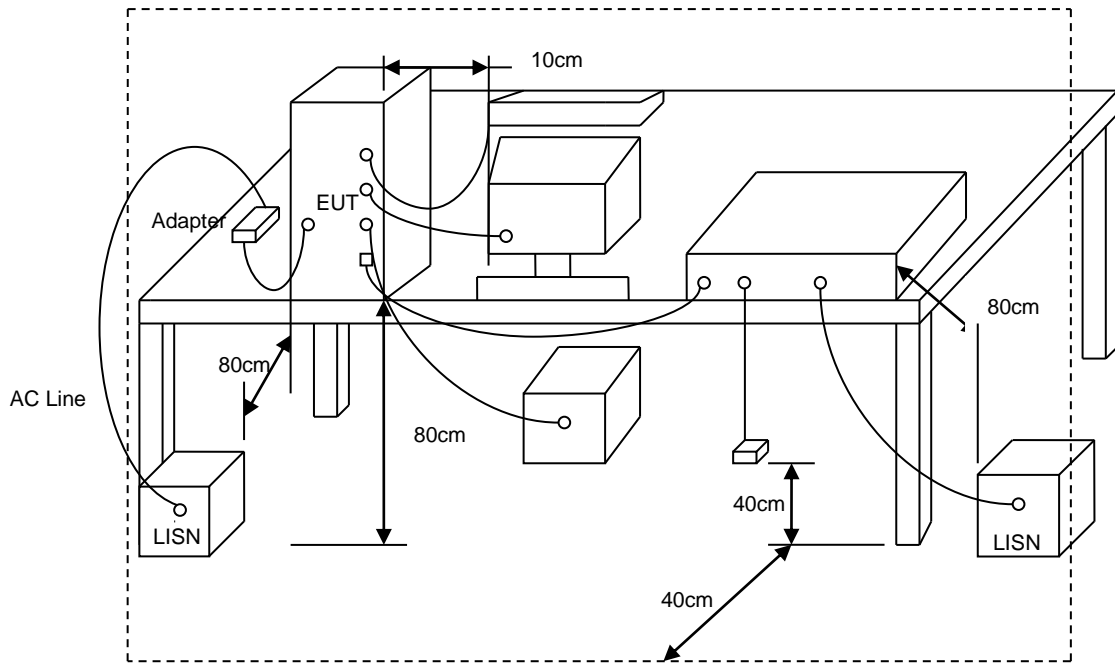
*Decreases with the logarithm of the frequency.

5.2 Test Procedures

- a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- b. Connect EUT to the power mains through a line impedance stabilization network (LISN).
- c. All the support units are connecting to the other LISN.
- d. The LISN provides 50 ohm coupling impedance for the measuring instrument.
- e. The FCC states that a 50 ohm, 50 micro-Henry LISN should be used.
- f. Both sides of AC line were checked for maximum conducted interference.
- g. The frequency range from 150 kHz to 30 MHz was searched.
- h. Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.



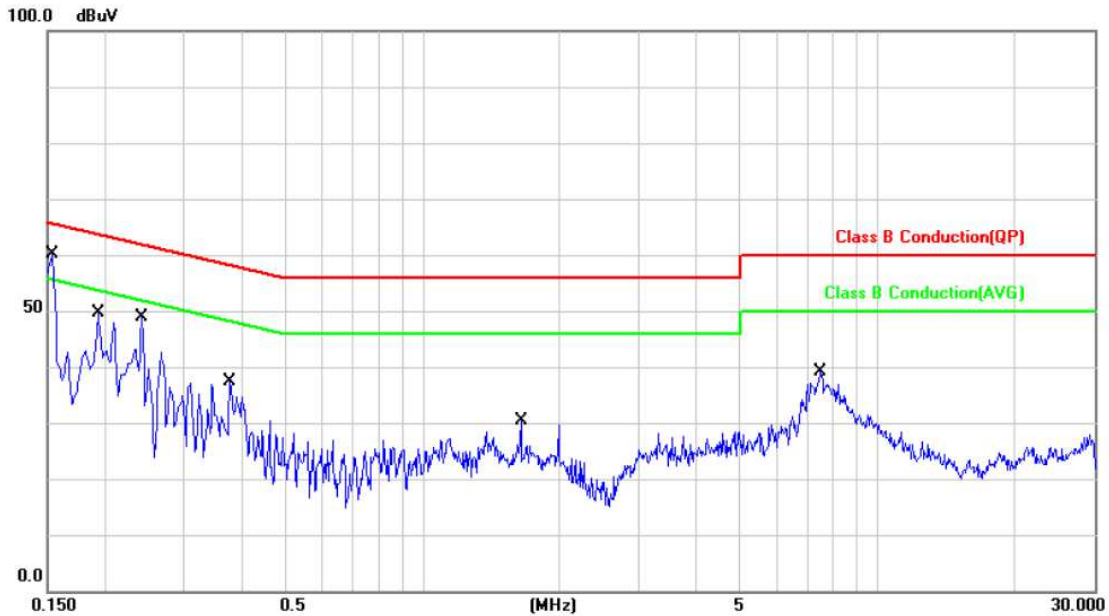
5.3 Typical Test Setup





5.4 Test Result and Data

Power	: AC 120V	Pol/Phase	: LINE
Test Mode	: Mode 2	Temperature	: 21 °C
Test date	: Dec. 09, 2016	Humidity	: 57 %

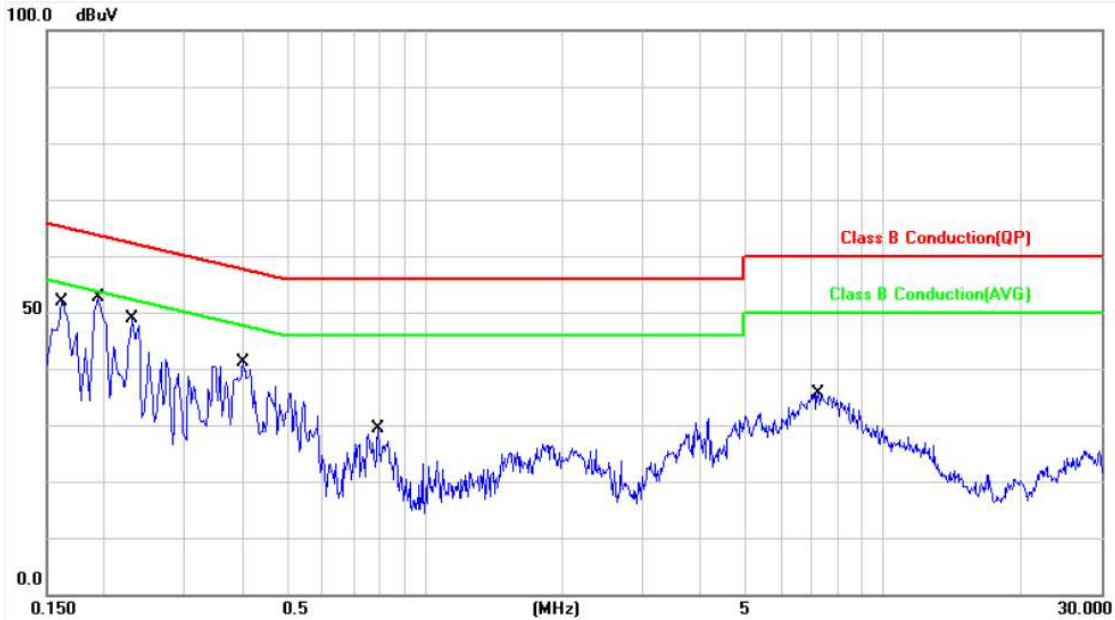


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1539	9.98	49.00	58.98	65.78	-6.80	QP	P
2	0.1539	9.98	36.78	46.76	55.78	-9.02	AVG	P
3	0.1940	9.97	42.58	52.55	63.86	-11.31	QP	P
4	0.1940	9.97	31.73	41.70	53.86	-12.16	AVG	P
5	0.2420	9.97	30.59	40.56	62.02	-21.46	QP	P
6	0.2420	9.97	16.01	25.98	52.02	-26.04	AVG	P
7	0.3780	9.97	20.96	30.93	58.32	-27.39	QP	P
8	0.3780	9.97	11.76	21.73	48.32	-26.59	AVG	P
9	1.6460	10.06	12.82	22.88	56.00	-33.12	QP	P
10	1.6460	10.06	7.58	17.64	46.00	-28.36	AVG	P
11	7.5060	10.22	23.83	34.05	60.00	-25.95	QP	P
12	7.5060	10.22	18.92	29.14	50.00	-20.86	AVG	P

Note: Level = Reading + Factor
 Margin = Level – Limit
 Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss+ Attenuator



Power	: AC 120V	Pol/Phase	: NEUTRAL
Test Mode	: Mode 2	Temperature	: 21 °C
Test date	: Dec. 09, 2016	Humidity	: 57 %

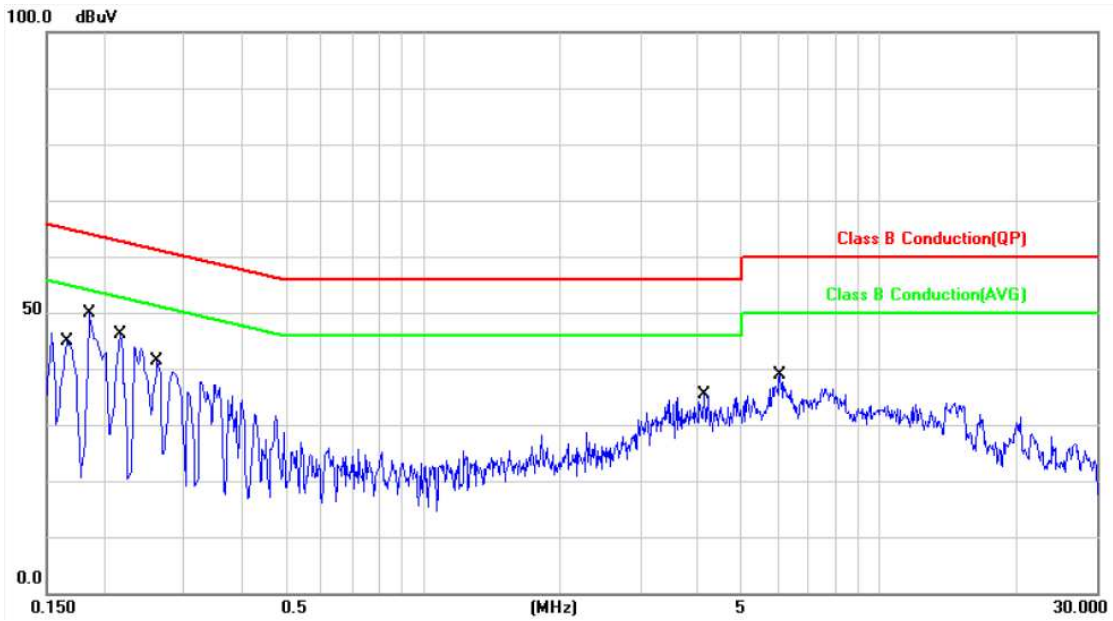


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1620	9.98	40.79	50.77	65.36	-14.59	QP	P
2	0.1620	9.98	27.64	37.62	55.36	-17.74	AVG	P
3	0.1940	9.98	41.96	51.94	63.86	-11.92	QP	P
4	0.1940	9.98	35.05	45.03	53.86	-8.83	AVG	P
5	0.2300	9.97	37.76	47.73	62.45	-14.72	QP	P
6	0.2300	9.97	32.18	42.15	52.45	-10.30	AVG	P
7	0.4020	9.94	28.45	38.39	57.81	-19.42	QP	P
8	0.4020	9.94	20.62	30.56	47.81	-17.25	AVG	P
9	0.7940	9.97	15.69	25.66	56.00	-30.34	QP	P
10	0.7940	9.97	11.55	21.52	46.00	-24.48	AVG	P
11	7.2260	10.24	19.44	29.68	60.00	-30.32	QP	P
12	7.2260	10.24	13.80	24.04	50.00	-25.96	AVG	P

Note: Level = Reading + Factor
Margin = Level – Limit
Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss+ Attenuator



Power	: AC 120V	Pol/Phase	: LINE
Test Mode	: Mode 6	Temperature	: 23 °C
Test date	: Dec. 16, 2016	Humidity	: 48 %

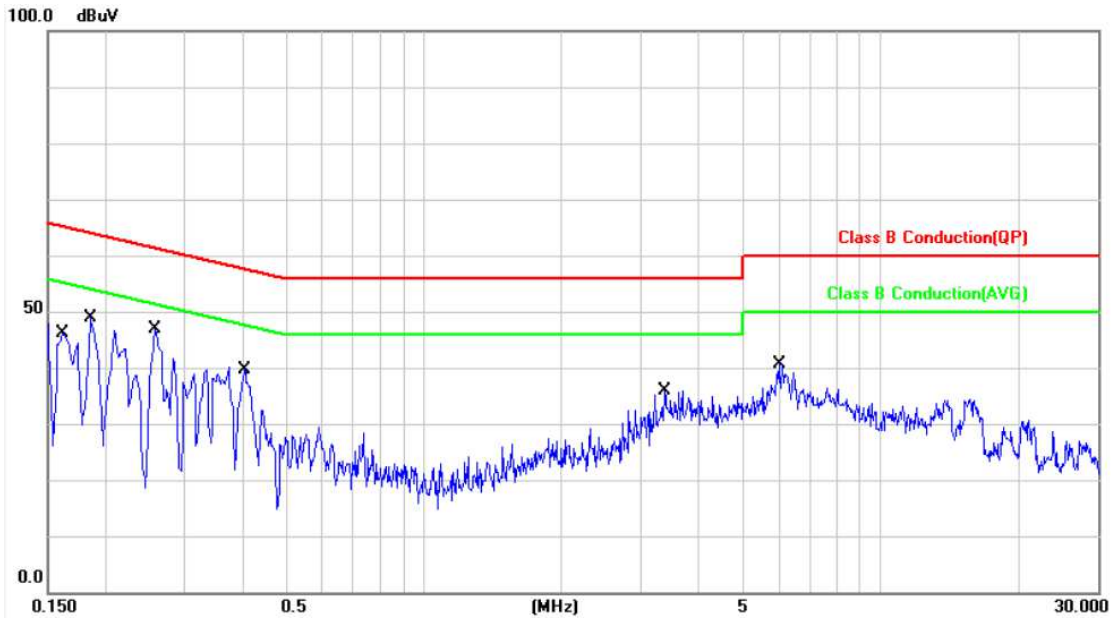


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1660	9.98	33.65	43.63	65.15	-21.52	QP	P
2	0.1660	9.98	21.54	31.52	55.15	-23.63	AVG	P
3	0.1860	9.97	38.69	48.66	64.21	-15.55	QP	P
4	0.1860	9.97	27.77	37.74	54.21	-16.47	AVG	P
5	0.2180	9.97	35.50	45.47	62.89	-17.42	QP	P
6	0.2180	9.97	24.98	34.95	52.89	-17.94	AVG	P
7	0.2620	9.97	28.93	38.90	61.36	-22.46	QP	P
8	0.2620	9.97	19.67	29.64	51.36	-21.72	AVG	P
9	4.1500	10.15	17.78	27.93	56.00	-28.07	QP	P
10	4.1500	10.15	11.99	22.14	46.00	-23.86	AVG	P
11	6.0660	10.20	23.45	33.65	60.00	-26.35	QP	P
12	6.0660	10.20	15.85	26.05	50.00	-23.95	AVG	P

Note: Level = Reading + Factor
 Margin = Level - Limit
 Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss+ Attenuator



Power	: AC 120V	Pol/Phase	: NEUTRAL
Test Mode	: Mode 6	Temperature	: 23 °C
Test date	: Dec. 16, 2016	Humidity	: 48 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1620	9.98	36.85	46.83	65.36	-18.53	QP	P
2	0.1620	9.98	22.94	32.92	55.36	-22.44	AVG	P
3	0.1860	9.98	38.60	48.58	64.21	-15.63	QP	P
4	0.1860	9.98	29.05	39.03	54.21	-15.18	AVG	P
5	0.2580	9.97	35.20	45.17	61.49	-16.32	QP	P
6	0.2580	9.97	26.09	36.06	51.49	-15.43	AVG	P
7	0.4060	9.94	28.65	38.59	57.73	-19.14	QP	P
8	0.4060	9.94	22.92	32.86	47.73	-14.87	AVG	P
9	3.3700	10.11	19.06	29.17	56.00	-26.83	QP	P
10	3.3700	10.11	12.19	22.30	46.00	-23.70	AVG	P
11	5.9940	10.21	24.25	34.46	60.00	-25.54	QP	P
12	5.9940	10.21	16.59	26.80	50.00	-23.20	AVG	P

Note: Level = Reading + Factor
Margin = Level – Limit
Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss+ Attenuator



6. Test of Radiated Spurious Emission

6.1 Test Limit

In any 100kHz 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 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. If the transmitter measurement is based on the maximum conducted output power, the attenuation required under this paragraph shall be 30dB instead of 20dB. In addition, radiated emissions which fall in section 15.205(a) the restricted bands must also comply with the radiated emission limit specified in section 15.209(a).

Frequency (MHz)	Field Strength (microvolt/meter)	Measurement Distance (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

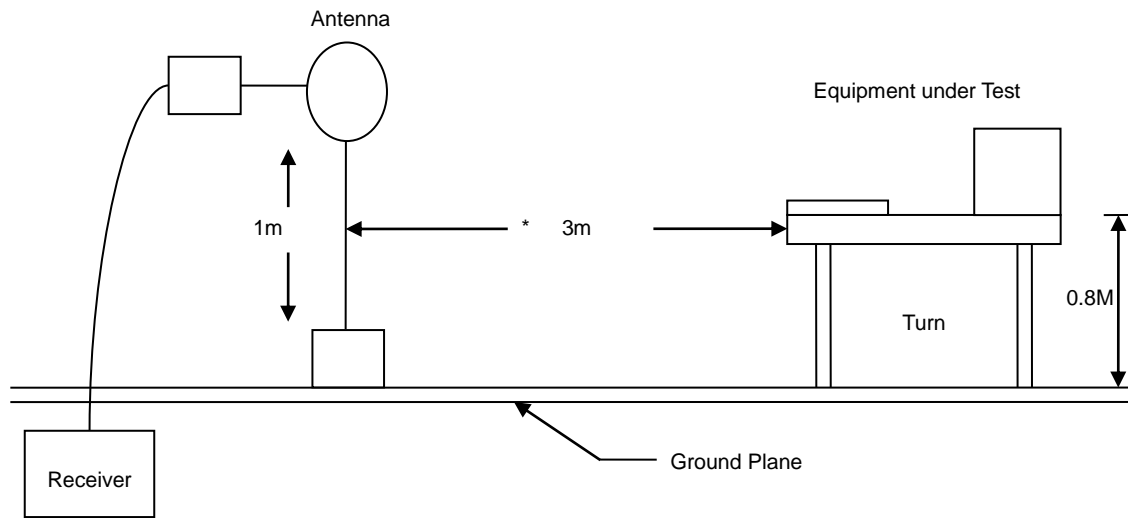
6.2 Test Procedures

- The EUT was placed on a rotatable table top 0.8 meter above ground.
- The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
- The table was rotated 360 degrees to determine the position of the highest radiation.
- The antenna is a broadband antenna and its height is varied between one meter and four meters above ground to find the maximum value of the field strength both horizontal polarization and vertical polarization of the antenna are set to make the measurement.
- For each suspected emission the EUT was arranged to its worst case and then tune the antenna tower (from 1 M to 4 M) and turn table (from 0 degree to 360 degrees) to find the maximum reading.
- Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
- If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method and reported.
- For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
- "Cone of radiation" has been considered to be 3dB bandwidth of the measurement antenna.

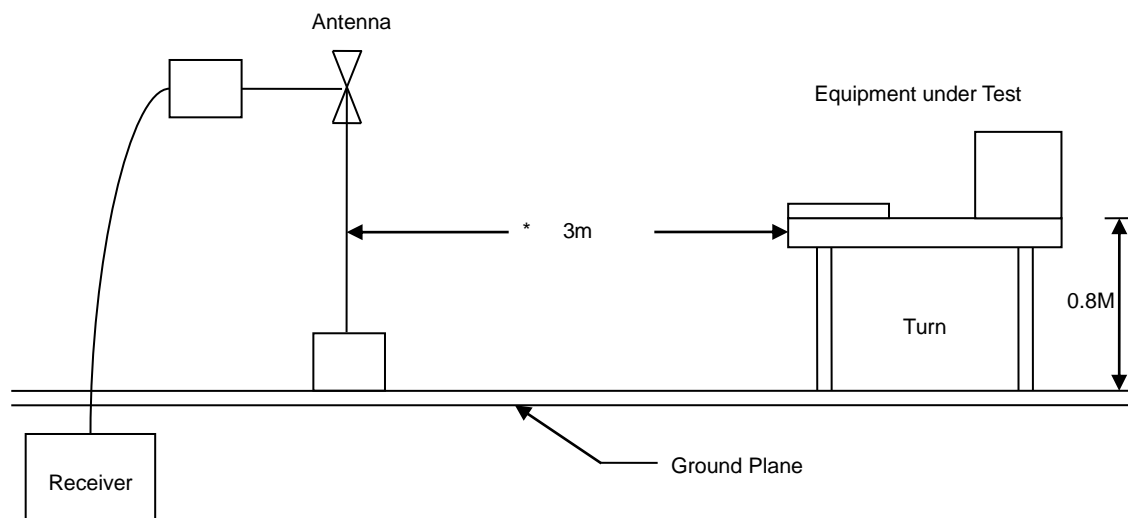


6.3 Typical Test Setup

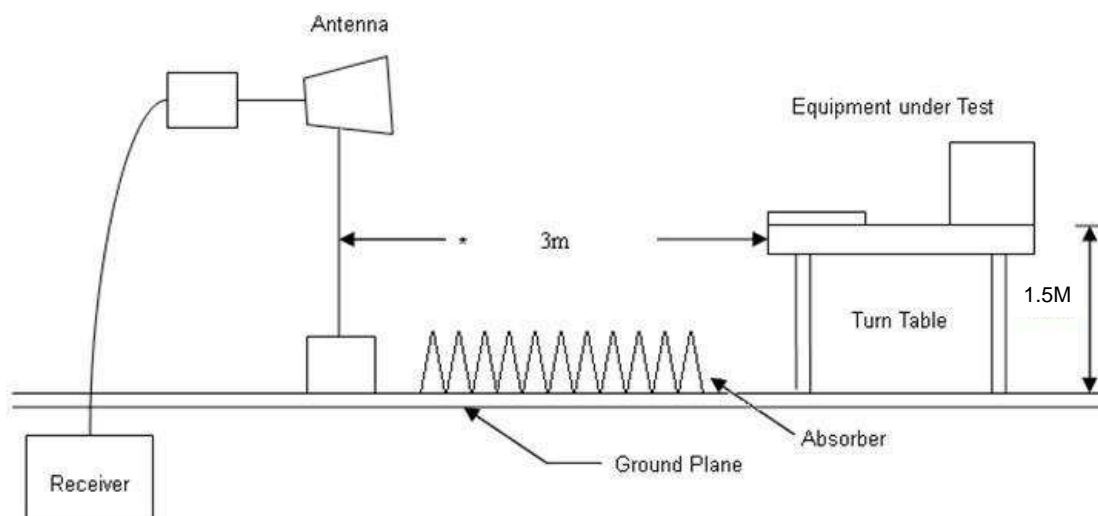
Below 30MHz test setup



30MHz- 1GHz Test Setup



Above 1GHz Test Setup



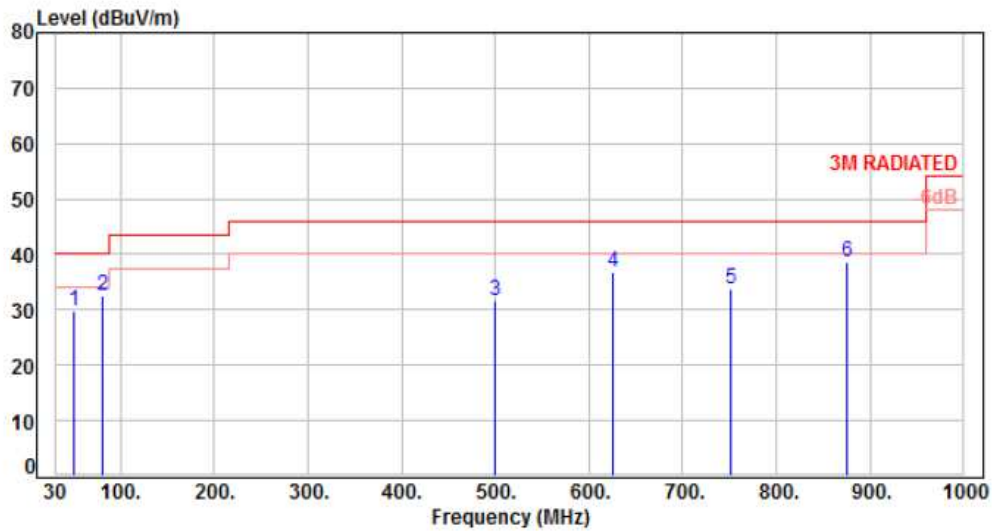


6.4 Test Result and Data (9KHz ~ 30MHz)

The 9kHz - 30MHz spurious emission is under limit 20dB more.

6.5 Test Result and Data (30MHz ~ 1GHz)

Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Mode 2	Temperature	: 24 °C
Test Date	: Jan. 12, 2017	Humidity	: 62 %

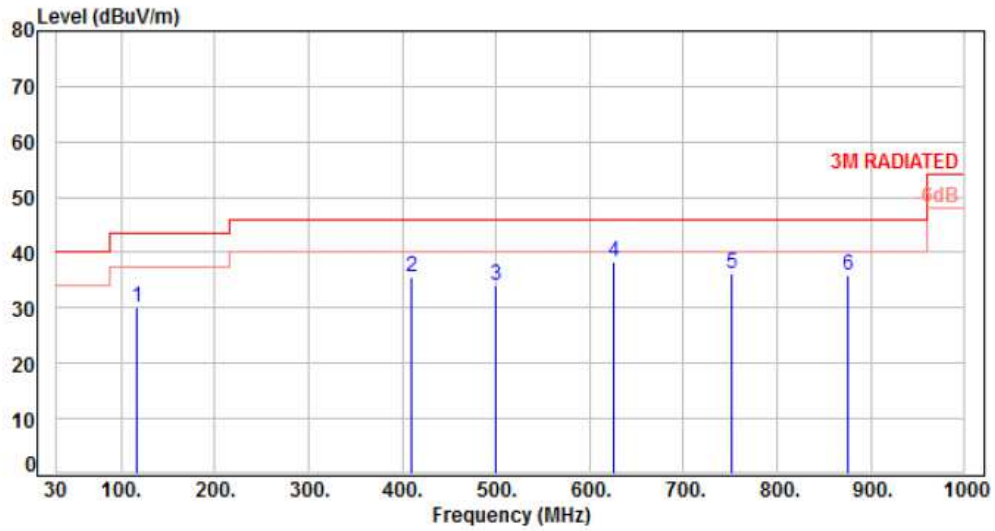


No.	Frequency (MHz)	Factor (dB)	Reading (dBUV)	Level (dBUV)	Limit (dBUV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	50.37	-9.76	39.66	29.90	40.00	-10.10	QP	105	336	P
2	81.41	-15.08	47.60	32.52	40.00	-7.48	Peak	300	0	P
3	500.45	-4.17	35.86	31.69	46.00	-14.31	Peak	300	0	P
4	625.58	-1.70	38.56	36.86	46.00	-9.14	Peak	300	0	P
5	750.71	0.39	33.49	33.88	46.00	-12.12	Peak	300	0	P
6	875.84	1.87	36.76	38.63	46.00	-7.37	Peak	300	0	P

Note: Level = Reading + Factor
 Margin = Level – Limit
 Factor = Antenna Factor + Cable Loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 2	Temperature	: 24 °C
Test Date	: Jan. 12, 2017	Humidity	: 62 %

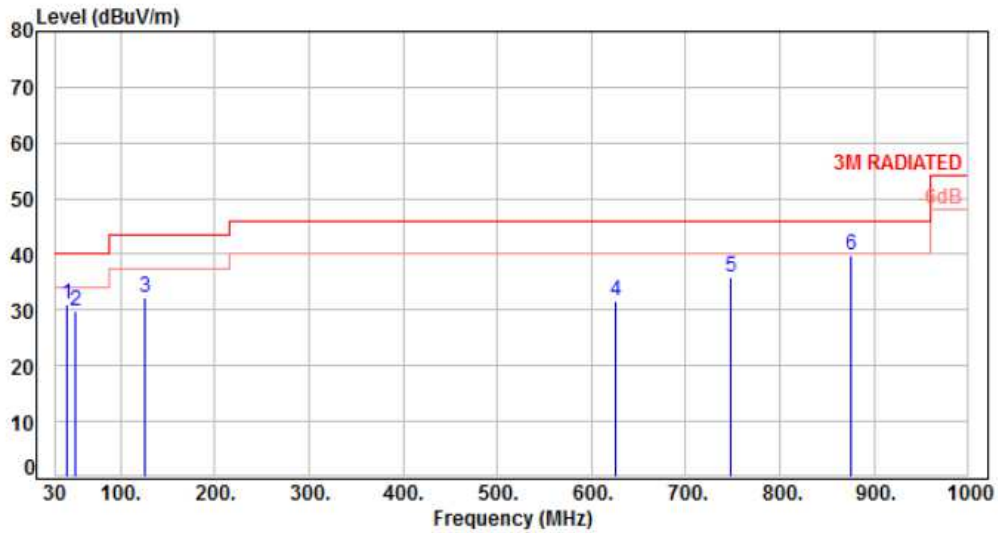


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	117.30	-12.58	42.57	29.99	43.50	-13.51	Peak	100	0	P
2	410.24	-6.09	41.59	35.50	46.00	-10.50	Peak	100	0	P
3	500.45	-4.17	38.23	34.06	46.00	-11.94	Peak	100	0	P
4	625.58	-1.70	40.17	38.47	46.00	-7.53	Peak	100	0	P
5	750.71	0.39	35.91	36.30	46.00	-9.70	Peak	100	0	P
6	875.84	1.87	34.00	35.87	46.00	-10.13	Peak	100	0	P

Note: Level = Reading + Factor
 Margin = Level – Limit
 Factor = Antenna Factor + Cable Loss - Amplifier Factor



Power	: PoE	Pol/Phase	: VERTICAL
Test Mode	: Mode 6	Temperature	: 24 °C
Test Date	: Jan. 12, 2017	Humidity	: 62 %

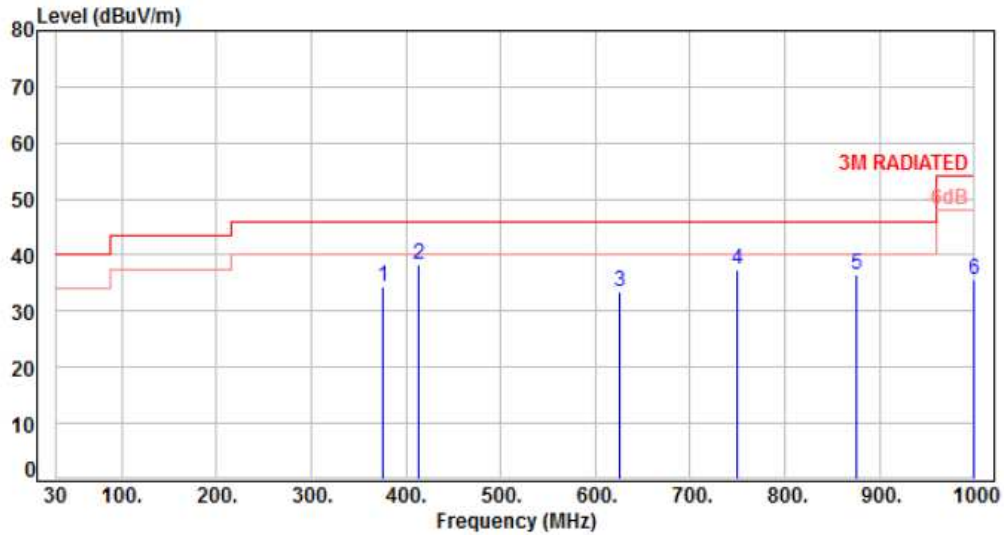


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	43.58	-9.87	41.01	31.14	40.00	-8.86	Peak	100	320	P
2	51.34	-9.83	39.62	29.79	40.00	-10.21	QP	100	320	P
3	125.06	-12.00	44.22	32.22	43.50	-11.28	Peak	200	0	P
4	625.58	-1.70	33.22	31.52	46.00	-14.48	Peak	100	0	P
5	747.80	0.35	35.50	35.85	46.00	-10.15	Peak	200	0	P
6	875.84	1.87	38.00	39.87	46.00	-6.13	Peak	200	0	P

Note: Level = Reading + Factor
 Margin = Level – Limit
 Factor = Antenna Factor + Cable Loss - Amplifier Factor



Power	: PoE	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 6	Temperature	: 24 °C
Test Date	: Jan. 12, 2017	Humidity	: 62 %

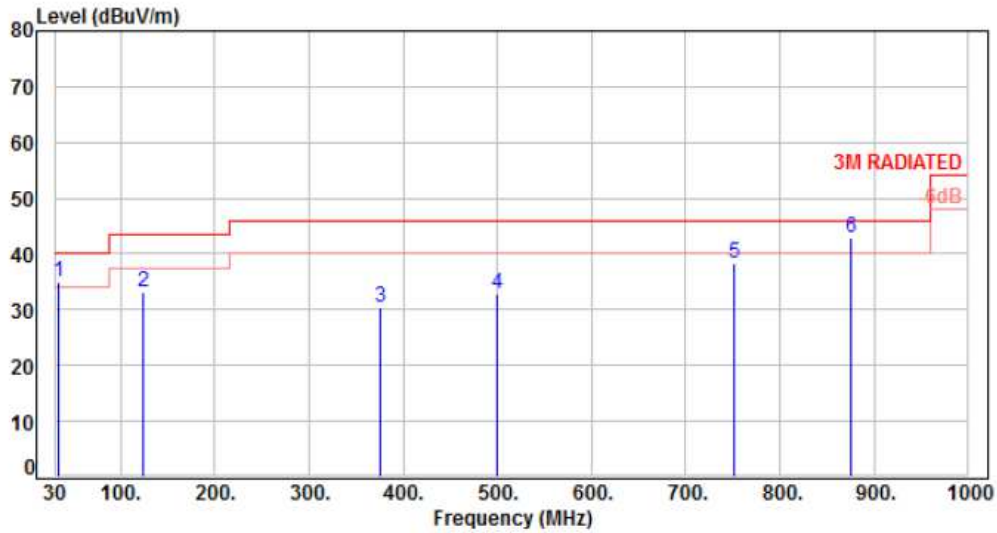


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	375.32	-7.06	41.32	34.26	46.00	-11.74	Peak	200	0	P
2	414.12	-5.98	44.18	38.20	46.00	-7.80	Peak	200	0	P
3	625.58	-1.70	35.05	33.35	46.00	-12.65	Peak	200	0	P
4	749.74	0.38	36.90	37.28	46.00	-8.72	Peak	200	0	P
5	875.84	1.87	34.76	36.63	46.00	-9.37	Peak	200	0	P
6	1000.00	3.44	32.22	35.66	54.00	-18.34	Peak	200	0	P

Note: Level = Reading + Factor
 Margin = Level – Limit
 Factor = Antenna Factor + Cable Loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Mode 10	Temperature	: 24 °C
Test Date	: Jan. 12, 2017	Humidity	: 66 %

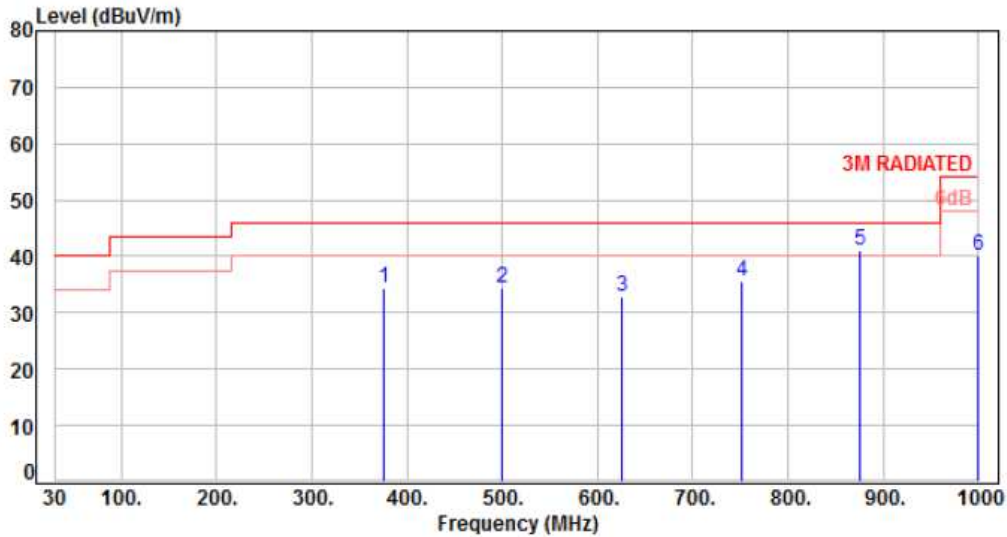


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	34.85	-10.56	45.48	34.92	40.00	-5.08	Peak	300	0	P
2	123.12	-12.16	45.29	33.13	43.50	-10.37	Peak	300	0	P
3	375.32	-7.06	37.44	30.38	46.00	-15.62	Peak	300	0	P
4	500.45	-4.17	36.94	32.77	46.00	-13.23	Peak	300	0	P
5	750.71	0.39	37.83	38.22	46.00	-7.78	Peak	300	0	P
6	875.84	1.87	40.91	42.78	46.00	-3.22	Peak	300	0	P

Note: Level = Reading + Factor
 Margin = Level – Limit
 Factor = Antenna Factor + Cable Loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 10	Temperature	: 24 °C
Test Date	: Jan. 12, 2017	Humidity	: 66 %

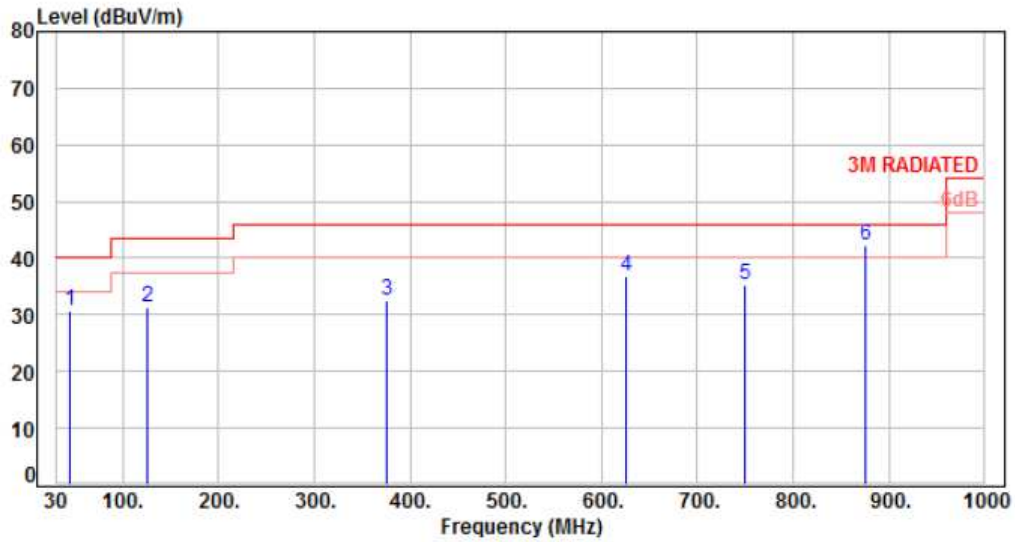


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	375.32	-7.06	41.33	34.27	46.00	-11.73	Peak	100	0	P
2	500.45	-4.17	38.43	34.26	46.00	-11.74	Peak	100	0	P
3	625.58	-1.70	34.49	32.79	46.00	-13.21	Peak	100	0	P
4	750.71	0.39	35.10	35.49	46.00	-10.51	Peak	100	0	P
5	875.84	1.87	39.13	41.00	46.00	-5.00	Peak	100	0	P
6	1000.00	3.44	36.71	40.15	54.00	-13.85	Peak	100	0	P

Note: Level = Reading + Factor
 Margin = Level – Limit
 Factor = Antenna Factor + Cable Loss - Amplifier Factor



Power	: PoE	Pol/Phase	: VERTICAL
Test Mode	: Mode 14	Temperature	: 24 °C
Test Date	: Jan. 12, 2017	Humidity	: 66 %

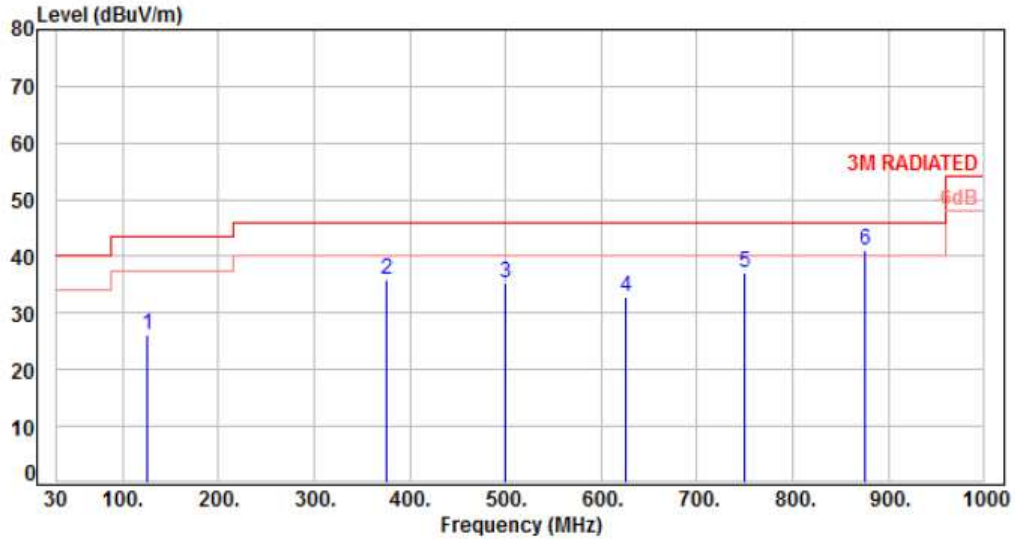


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	45.52	-9.76	40.50	30.74	40.00	-9.26	QP	105	229	P
2	125.06	-12.00	43.22	31.22	43.50	-12.28	Peak	200	0	P
3	375.32	-7.06	39.46	32.40	46.00	-13.60	Peak	200	0	P
4	625.58	-1.70	38.48	36.78	46.00	-9.22	Peak	200	0	P
5	749.74	0.38	34.90	35.28	46.00	-10.72	Peak	200	0	P
6	875.84	1.87	40.50	42.37	46.00	-3.63	Peak	200	0	P

Note: Level = Reading + Factor
 Margin = Level – Limit
 Factor = Antenna Factor + Cable Loss - Amplifier Factor



Power	: PoE	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 14	Temperature	: 24 °C
Test Date	: Jan. 12, 2017	Humidity	: 66 %



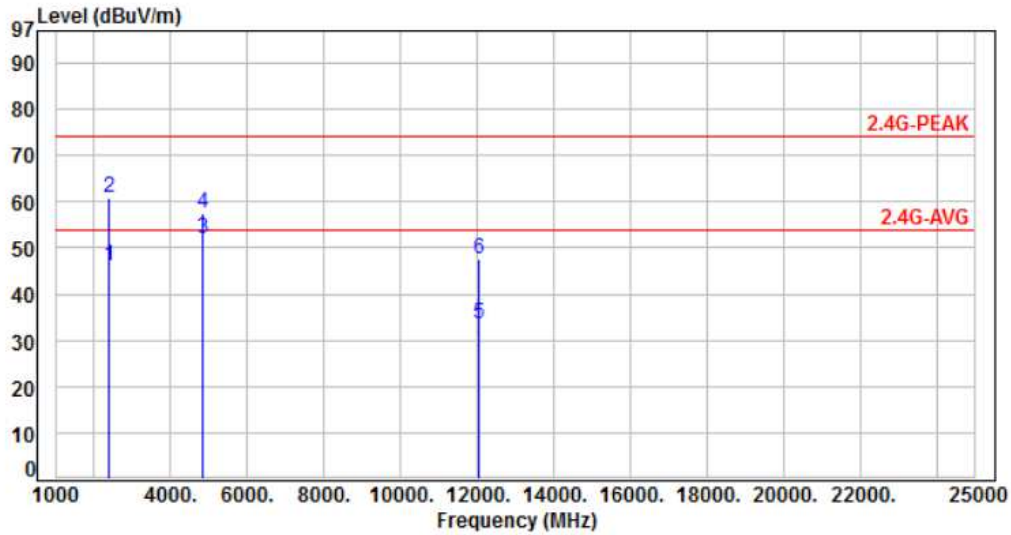
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	125.06	-12.00	38.07	26.07	43.50	-17.43	Peak	100	0	P
2	375.32	-7.06	42.99	35.93	46.00	-10.07	Peak	100	0	P
3	499.48	-4.19	39.56	35.37	46.00	-10.63	Peak	100	0	P
4	625.58	-1.70	34.45	32.75	46.00	-13.25	Peak	100	0	P
5	749.74	0.38	36.87	37.25	46.00	-8.75	Peak	100	0	P
6	875.84	1.87	39.16	41.03	46.00	-4.97	Peak	100	0	P

Note: Level = Reading + Factor
Margin = Level – Limit
Factor = Antenna Factor + Cable Loss - Amplifier Factor



6.6 Test Result and Data (1GHz ~ 25GHz)

Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, CH 01	Temperature	: 25 °C
Test Date	: Dec. 01, 2016	Humidity	: 63 %

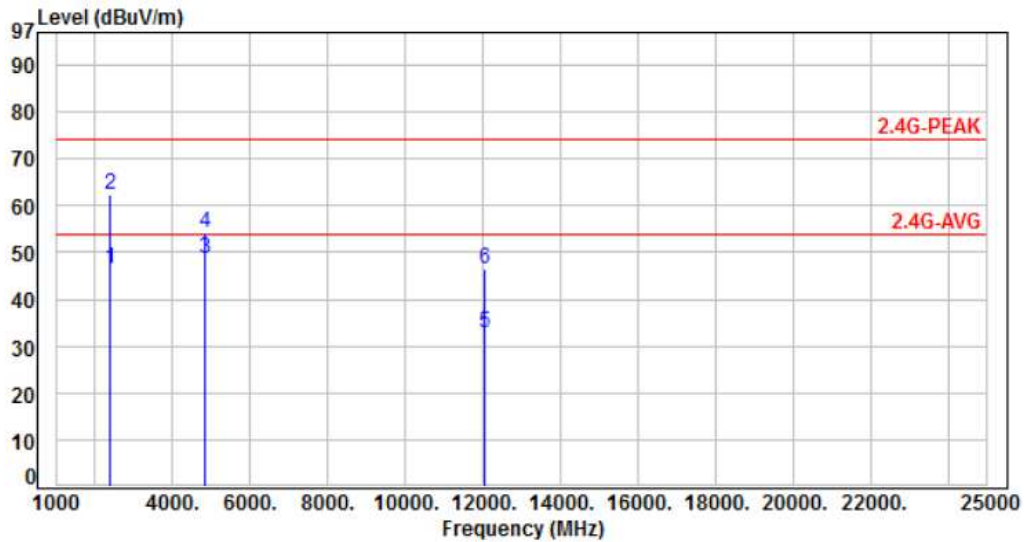


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-15.75	61.97	46.22	54.00	-7.78	Average	161	10	P
2	2390.00	-15.75	76.49	60.74	74.00	-13.26	Peak	161	10	P
3	4824.00	-7.58	59.68	52.10	54.00	-1.90	Average	150	331	P
4	4824.00	-7.58	65.07	57.49	74.00	-16.51	Peak	150	331	P
5	12060.00	2.28	31.43	33.71	54.00	-20.29	Average	148	322	P
6	12060.00	2.28	45.18	47.46	74.00	-26.54	Peak	148	322	P

Note: Level = Reading + Factor
 Margin = Level – Limit
 Factor = Antenna Factor + Cable Loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, CH 01	Temperature	: 25 °C
Test Date	: Dec. 01, 2016	Humidity	: 63 %

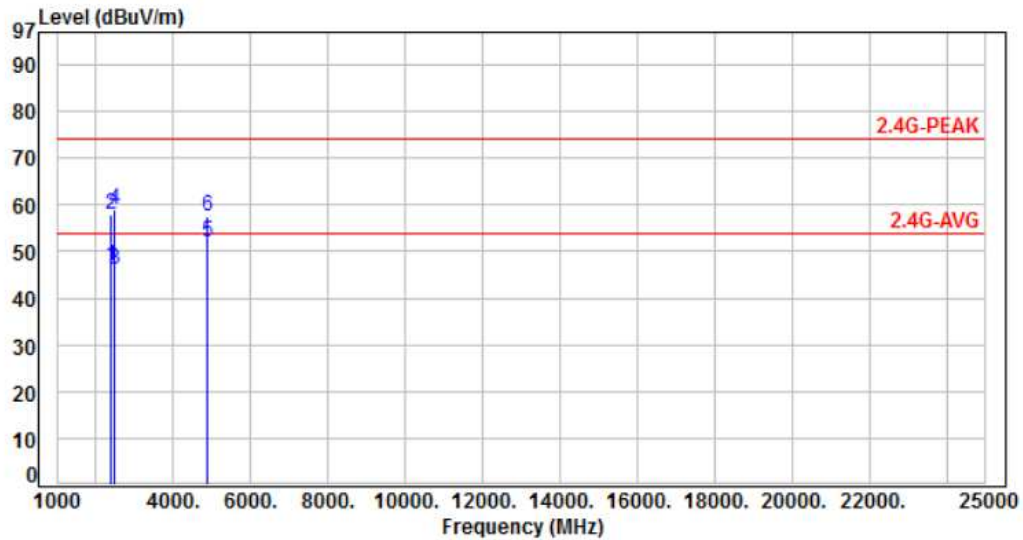


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-15.75	62.24	46.49	54.00	-7.51	Average	224	302	P
2	2390.00	-15.75	78.08	62.33	74.00	-11.67	Peak	224	302	P
3	4824.00	-7.58	56.25	48.67	54.00	-5.33	Average	165	347	P
4	4824.00	-7.58	61.86	54.28	74.00	-19.72	Peak	165	347	P
5	12060.00	2.28	30.72	33.00	54.00	-21.00	Average	158	351	P
6	12060.00	2.28	44.13	46.41	74.00	-27.59	Peak	158	351	P

Note: Level = Reading + Factor
 Margin = Level – Limit
 Factor = Antenna Factor + Cable Loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, CH 06	Temperature	: 25 °C
Test Date	: Dec. 01, 2016	Humidity	: 63 %

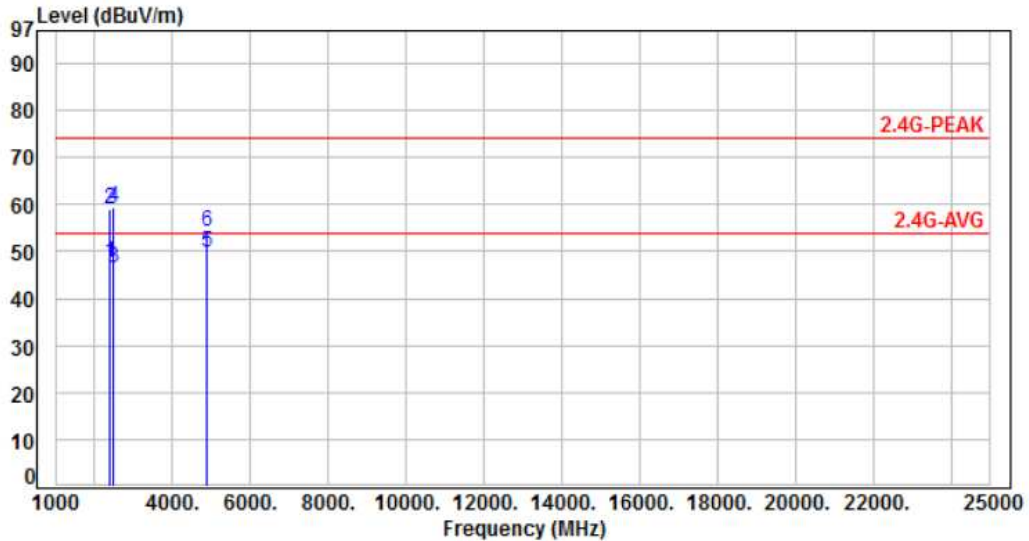


No.	Frequency (MHz)	Factor (dB)	Reading (dBUV)	Level (dBUV)	Limit (dBUV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-15.75	62.49	46.74	54.00	-7.26	Average	118	67	P
2	2390.00	-15.75	73.77	58.02	74.00	-15.98	Peak	118	67	P
3	2483.50	-15.48	61.46	45.98	54.00	-8.02	Average	163	312	P
4	2483.50	-15.48	74.40	58.92	74.00	-15.08	Peak	163	312	P
5	4874.00	-7.39	59.43	52.04	54.00	-1.96	Average	105	117	P
6	4874.00	-7.39	65.10	57.71	74.00	-16.29	Peak	105	117	P

Note: Level = Reading + Factor
 Margin = Level – Limit
 Factor = Antenna Factor + Cable Loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, CH 06	Temperature	: 25 °C
Test Date	: Dec. 01, 2016	Humidity	: 63 %

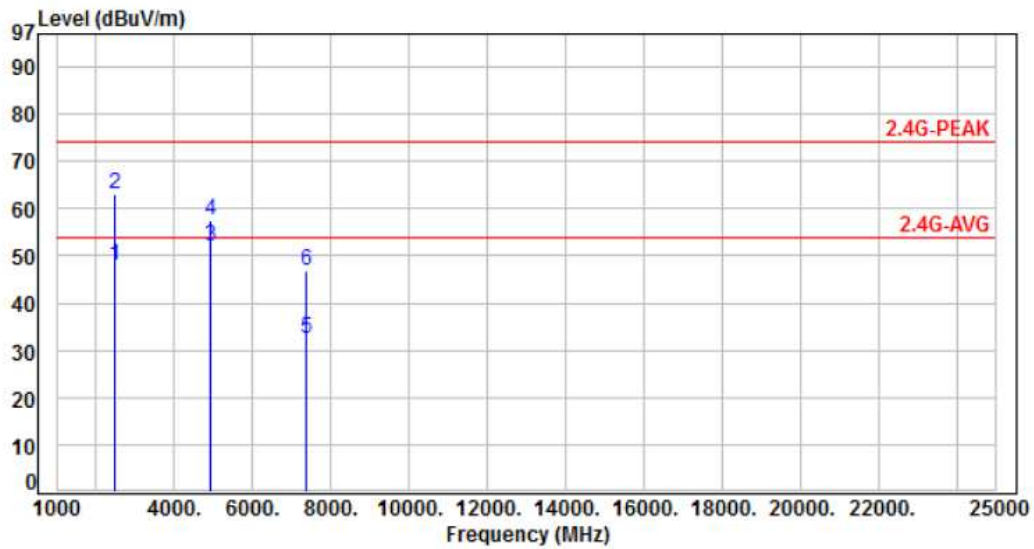


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-15.75	63.30	47.55	54.00	-6.45	Average	107	15	P
2	2390.00	-15.75	74.87	59.12	74.00	-14.88	Peak	107	15	P
3	2483.50	-15.48	62.01	46.53	54.00	-7.47	Average	107	15	P
4	2483.50	-15.48	74.70	59.22	74.00	-14.78	Peak	107	15	P
5	4874.00	-7.39	57.01	49.62	54.00	-4.38	Average	122	329	P
6	4874.00	-7.39	61.60	54.21	74.00	-19.79	Peak	122	329	P

Note: Level = Reading + Factor
 Margin = Level – Limit
 Factor = Antenna Factor + Cable Loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, CH 11	Temperature	: 25 °C
Test Date	: Dec. 01, 2016	Humidity	: 63 %

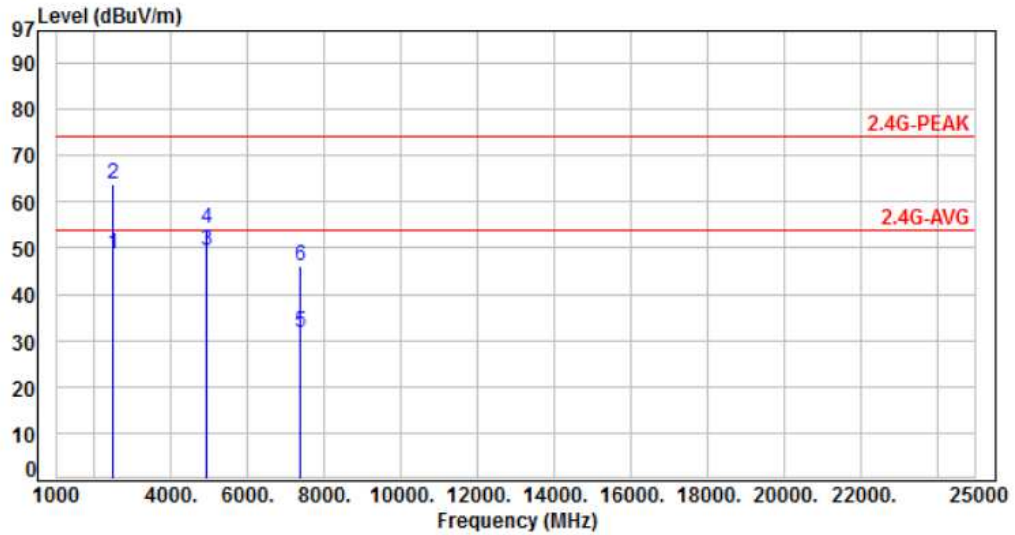


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2483.50	-15.48	63.41	47.93	54.00	-6.07	Average	108	257	P
2	2483.50	-15.48	78.40	62.92	74.00	-11.08	Peak	108	257	P
3	4924.00	-7.19	59.32	52.13	54.00	-1.87	Average	111	227	P
4	4924.00	-7.19	64.72	57.53	74.00	-16.47	Peak	111	227	P
5	7386.00	-3.39	35.82	32.43	54.00	-21.57	Average	131	82	P
6	7386.00	-3.39	50.22	46.83	74.00	-27.17	Peak	131	82	P

Note: Level = Reading + Factor
 Margin = Level – Limit
 Factor = Antenna Factor + Cable Loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, CH 11	Temperature	: 25 °C
Test Date	: Dec. 01, 2016	Humidity	: 63 %

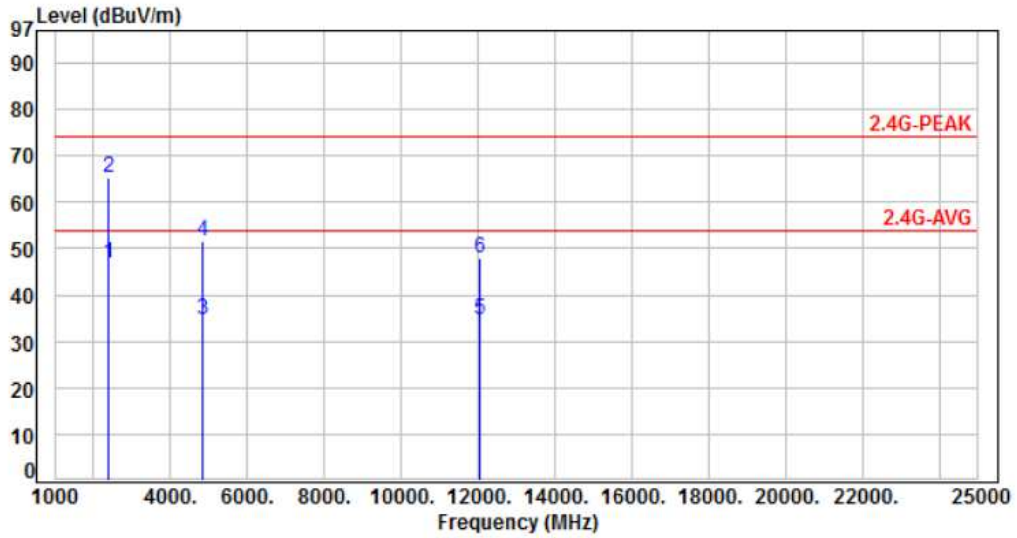


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2483.50	-15.48	64.09	48.61	54.00	-5.39	Average	139	329	P
2	2483.50	-15.48	79.30	63.82	74.00	-10.18	Peak	139	329	P
3	4924.00	-7.19	56.70	49.51	54.00	-4.49	Average	103	329	P
4	4924.00	-7.19	61.31	54.12	74.00	-19.88	Peak	103	329	P
5	7386.00	-3.39	35.02	31.63	54.00	-22.37	Average	112	331	P
6	7386.00	-3.39	49.31	45.92	74.00	-28.08	Peak	112	331	P

Note: Level = Reading + Factor
 Margin = Level – Limit
 Factor = Antenna Factor + Cable Loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Mode 2, CH 01	Temperature	: 25 °C
Test Date	: Dec. 01, 2016	Humidity	: 63 %

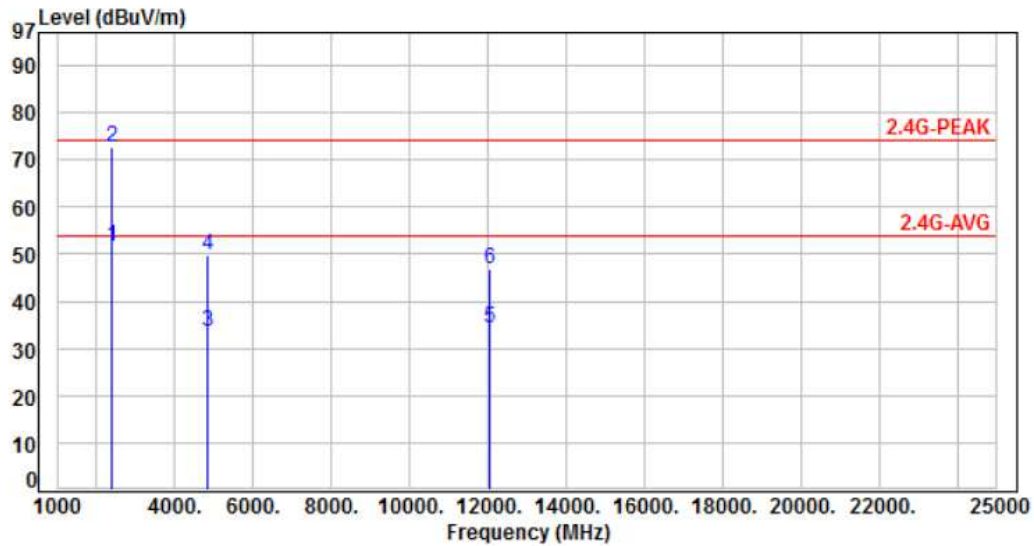


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-15.75	62.44	46.69	54.00	-7.31	Average	115	339	P
2	2390.00	-15.75	80.98	65.23	74.00	-8.77	Peak	115	339	P
3	4824.00	-7.58	42.20	34.62	54.00	-19.38	Average	149	329	P
4	4824.00	-7.58	59.31	51.73	74.00	-22.27	Peak	149	329	P
5	12060.00	2.28	32.21	34.49	54.00	-19.51	Average	141	302	P
6	12060.00	2.28	45.57	47.85	74.00	-26.15	Peak	141	302	P

Note: Level = Reading + Factor
 Margin = Level – Limit
 Factor = Antenna Factor + Cable Loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 2, CH 01	Temperature	: 25 °C
Test Date	: Dec. 01, 2016	Humidity	: 63 %

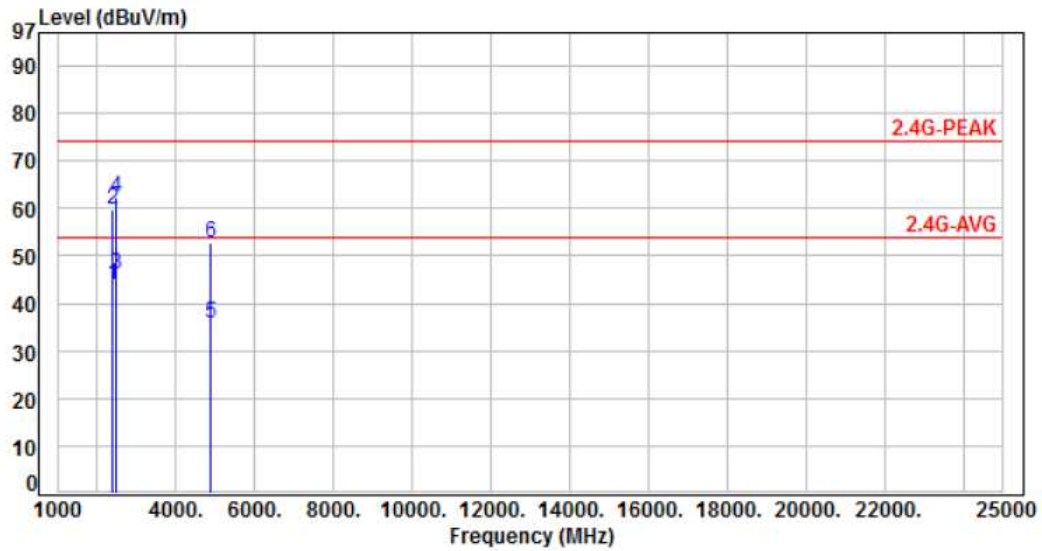


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-15.75	67.21	51.46	54.00	-2.54	Average	151	273	P
2	2390.00	-15.75	88.26	72.51	74.00	-1.49	Peak	151	273	P
3	4824.00	-7.58	41.22	33.64	54.00	-20.36	Average	194	259	P
4	4824.00	-7.58	57.55	49.97	74.00	-24.03	Peak	194	259	P
5	12060.00	2.28	32.00	34.28	54.00	-19.72	Average	188	251	P
6	12060.00	2.28	44.69	46.97	74.00	-27.03	Peak	188	251	P

Note: Level = Reading + Factor
Margin = Level – Limit
Factor = Antenna Factor + Cable Loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Mode 2, CH 06	Temperature	: 25 °C
Test Date	: Dec. 01, 2016	Humidity	: 63 %

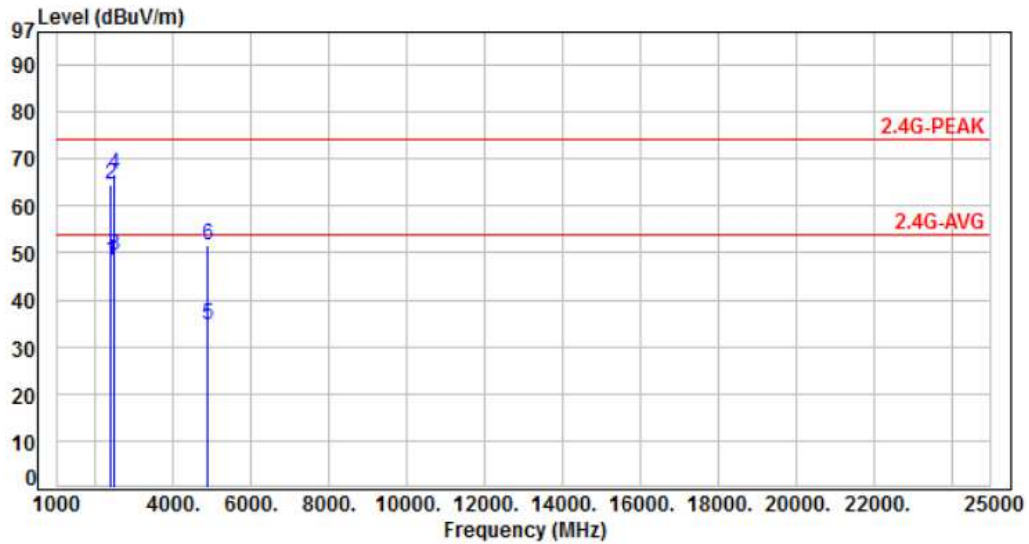


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-15.75	59.57	43.82	54.00	-10.18	Average	161	277	P
2	2390.00	-15.75	75.43	59.68	74.00	-14.32	Peak	161	277	P
3	2483.50	-15.48	61.44	45.96	54.00	-8.04	Average	135	28	P
4	2483.50	-15.48	77.66	62.18	74.00	-11.82	Peak	135	28	P
5	4874.00	-7.39	43.32	35.93	54.00	-18.07	Average	122	88	P
6	4874.00	-7.39	60.27	52.88	74.00	-21.12	Peak	122	88	P

Note: Level = Reading + Factor
 Margin = Level – Limit
 Factor = Antenna Factor + Cable Loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 2, CH 06	Temperature	: 25 °C
Test Date	: Dec. 01, 2016	Humidity	: 63 %

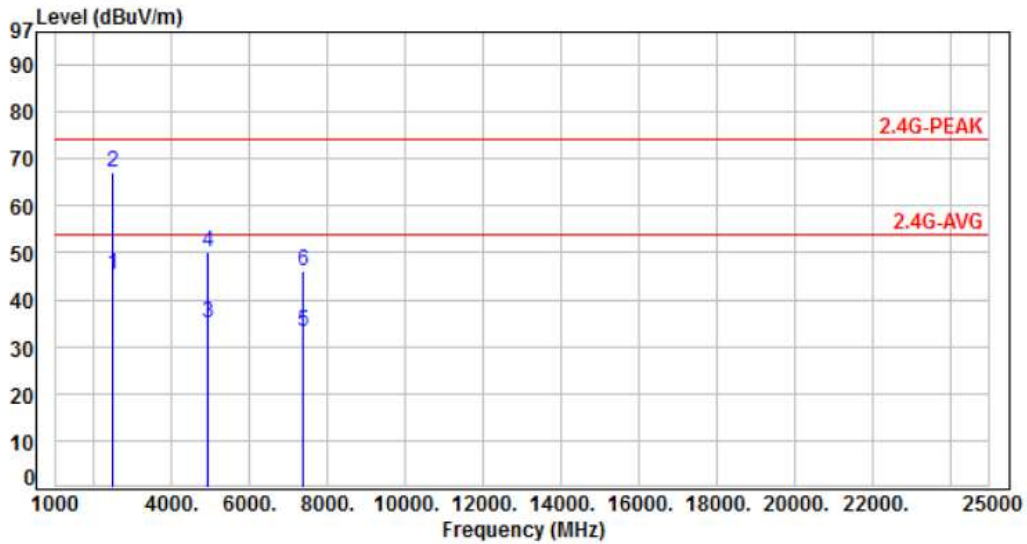


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-15.75	64.07	48.32	54.00	-5.68	Average	205	273	P
2	2390.00	-15.75	80.32	64.57	74.00	-9.43	Peak	205	273	P
3	2483.50	-15.48	65.05	49.57	54.00	-4.43	Average	258	285	P
4	2483.50	-15.48	82.08	66.60	74.00	-7.40	Peak	258	285	P
5	4874.00	-7.39	42.07	34.68	54.00	-19.32	Average	166	260	P
6	4874.00	-7.39	59.17	51.78	74.00	-22.22	Peak	166	260	P

Note: Level = Reading + Factor
 Margin = Level – Limit
 Factor = Antenna Factor + Cable Loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Mode 2, CH 11	Temperature	: 25 °C
Test Date	: Dec. 01, 2016	Humidity	: 63 %

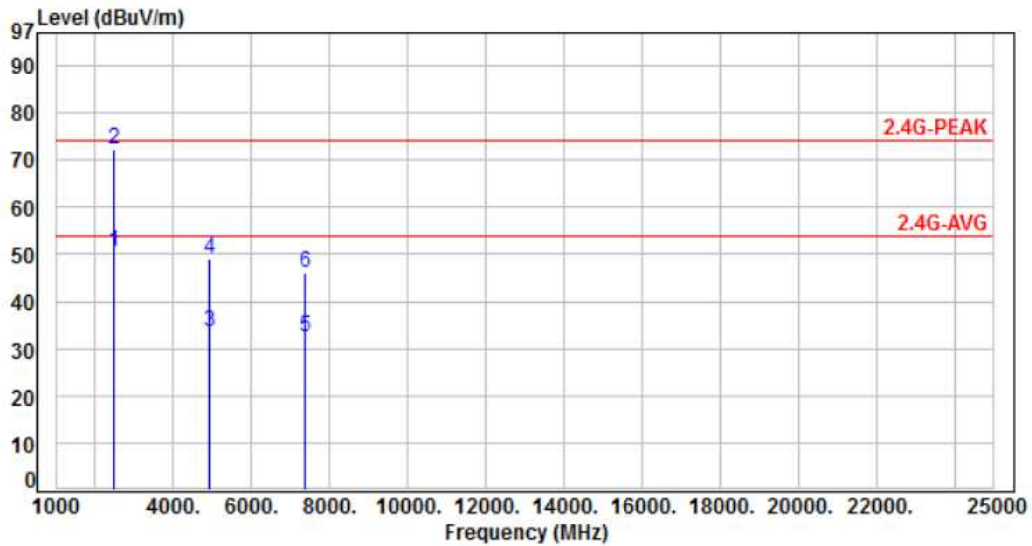


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2483.50	-15.48	60.91	45.43	54.00	-8.57	Average	124	67	P
2	2483.50	-15.48	82.59	67.11	74.00	-6.89	Peak	124	67	P
3	4924.00	-7.19	42.12	34.93	54.00	-19.07	Average	201	188	P
4	4924.00	-7.19	57.34	50.15	74.00	-23.85	Peak	201	188	P
5	7386.00	-3.39	36.40	33.01	54.00	-20.99	Average	133	91	P
6	7386.00	-3.39	49.65	46.26	74.00	-27.74	Peak	133	91	P

Note: Level = Reading + Factor
 Margin = Level – Limit
 Factor = Antenna Factor + Cable Loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 2, CH 11	Temperature	: 25 °C
Test Date	: Dec. 01, 2016	Humidity	: 63 %

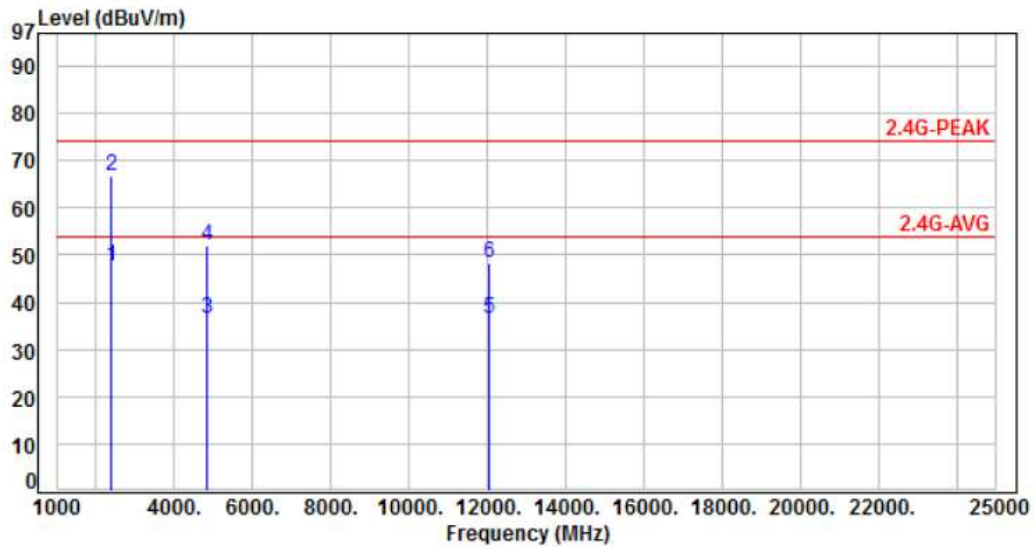


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2483.50	-15.48	66.07	50.59	54.00	-3.41	Average	252	274	P
2	2483.50	-15.48	87.79	72.31	74.00	-1.69	Peak	252	274	P
3	4924.00	-7.19	40.89	33.70	54.00	-20.30	Average	188	241	P
4	4924.00	-7.19	56.22	49.03	74.00	-24.97	Peak	188	241	P
5	7386.00	-3.39	35.70	32.31	54.00	-21.69	Average	182	256	P
6	7386.00	-3.39	49.35	45.96	74.00	-28.04	Peak	182	256	P

Note: Level = Reading + Factor
 Margin = Level – Limit
 Factor = Antenna Factor + Cable Loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Mode 3, CH 01	Temperature	: 25 °C
Test Date	: Dec. 01, 2016	Humidity	: 63 %

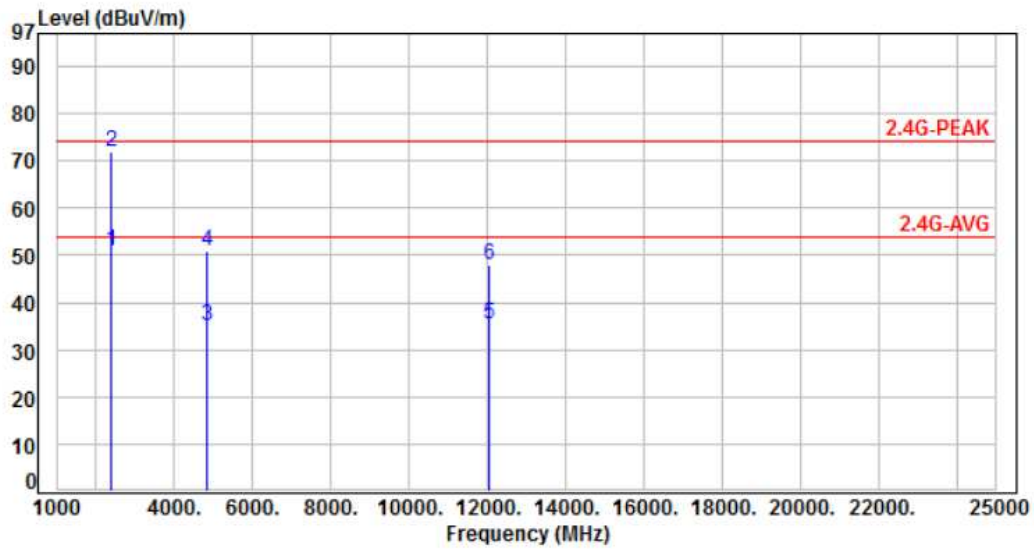


No.	Frequency (MHz)	Factor (dB)	Reading (dBUV)	Level (dBUV)	Limit (dBUV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-15.75	63.26	47.51	54.00	-6.49	Average	136	322	P
2	2390.00	-15.75	82.43	66.68	74.00	-7.32	Peak	136	322	P
3	4824.00	-7.58	43.95	36.37	54.00	-17.63	Average	155	331	P
4	4824.00	-7.58	59.72	52.14	74.00	-21.86	Peak	155	331	P
5	12060.00	2.28	34.15	36.43	54.00	-17.57	Average	138	289	P
6	12060.00	2.28	46.17	48.45	74.00	-25.55	Peak	138	239	P

Note: Level = Reading + Factor
 Margin = Level – Limit
 Factor = Antenna Factor + Cable Loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 3, CH 01	Temperature	: 25 °C
Test Date	: Dec. 01, 2016	Humidity	: 63 %

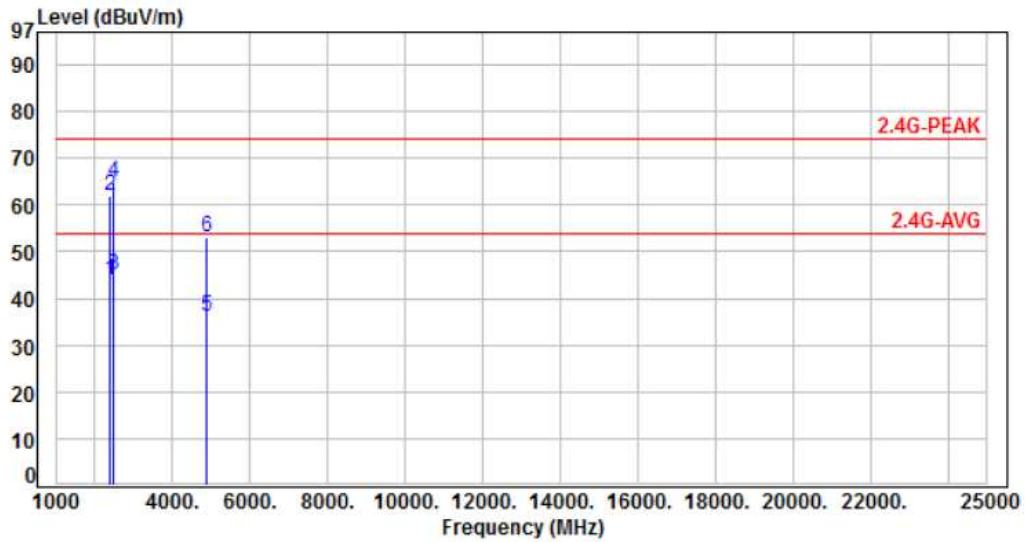


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-15.75	66.76	51.01	54.00	-2.99	Average	124	299	P
2	2390.00	-15.75	87.84	72.09	74.00	-1.91	Peak	124	299	P
3	4824.00	-7.58	42.78	35.20	54.00	-18.80	Average	188	247	P
4	4824.00	-7.58	58.39	50.81	74.00	-23.19	Peak	188	247	P
5	12060.00	2.28	33.12	35.40	54.00	-18.60	Average	179	235	P
6	12060.00	2.28	45.67	47.95	74.00	-26.05	Peak	179	235	P

Note: Level = Reading + Factor
 Margin = Level – Limit
 Factor = Antenna Factor + Cable Loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Mode 3, CH 06	Temperature	: 25 °C
Test Date	: Dec. 01, 2016	Humidity	: 63 %

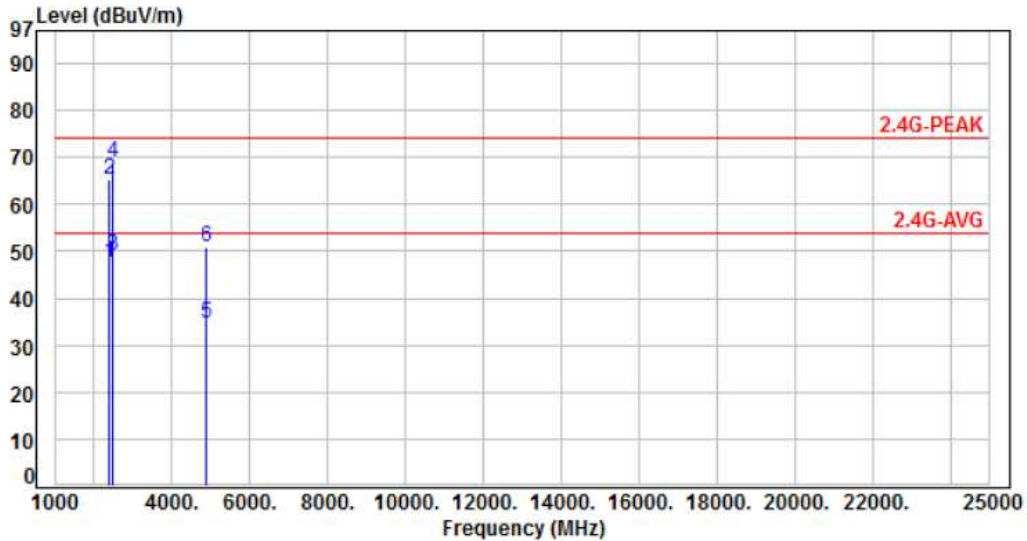


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-15.75	59.71	43.96	54.00	-10.04	Average	155	147	P
2	2390.00	-15.75	77.54	61.79	74.00	-12.21	Peak	155	147	P
3	2483.50	-15.48	60.30	44.82	54.00	-9.18	Average	103	91	P
4	2483.50	-15.48	80.49	65.01	74.00	-8.99	Peak	103	91	P
5	4874.00	-7.39	43.61	36.22	54.00	-17.78	Average	172	301	P
6	4874.00	-7.39	60.38	52.99	74.00	-21.01	Peak	172	301	P

Note: Level = Reading + Factor
 Margin = Level – Limit
 Factor = Antenna Factor + Cable Loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 3, CH 06	Temperature	: 25 °C
Test Date	: Dec. 01, 2016	Humidity	: 63 %

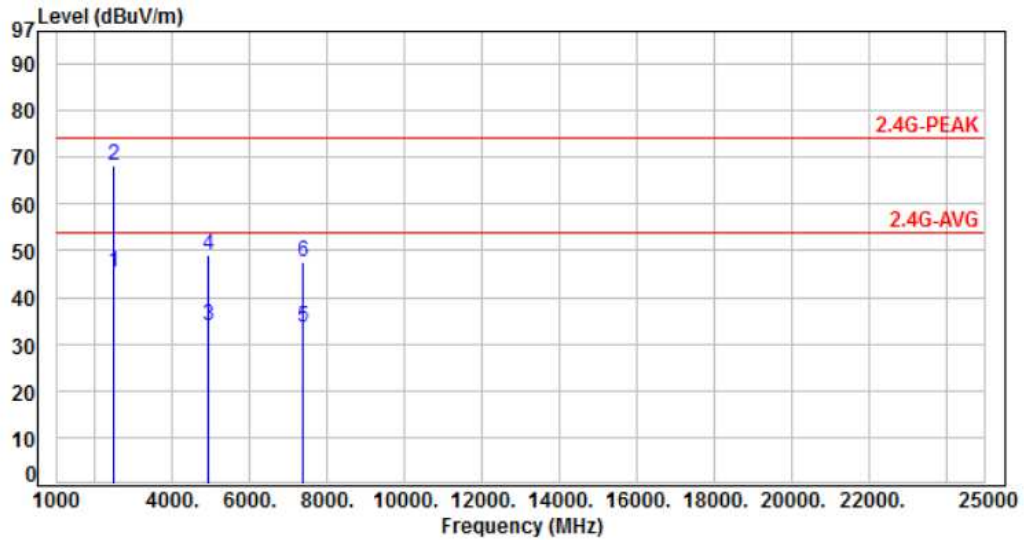


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-15.75	63.41	47.66	54.00	-6.34	Average	181	289	P
2	2390.00	-15.75	81.12	65.37	74.00	-8.63	Peak	181	289	P
3	2483.50	-15.48	64.46	48.98	54.00	-5.02	Average	262	285	P
4	2483.50	-15.48	84.52	69.04	74.00	-4.96	Peak	262	285	P
5	4874.00	-7.39	41.94	34.55	54.00	-19.45	Average	156	249	P
6	4874.00	-7.39	58.35	50.96	74.00	-23.04	Peak	156	249	P

Note: Level = Reading + Factor
Margin = Level – Limit
Factor = Antenna Factor + Cable Loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Mode 3, CH 11	Temperature	: 25 °C
Test Date	: Dec. 01, 2016	Humidity	: 63 %

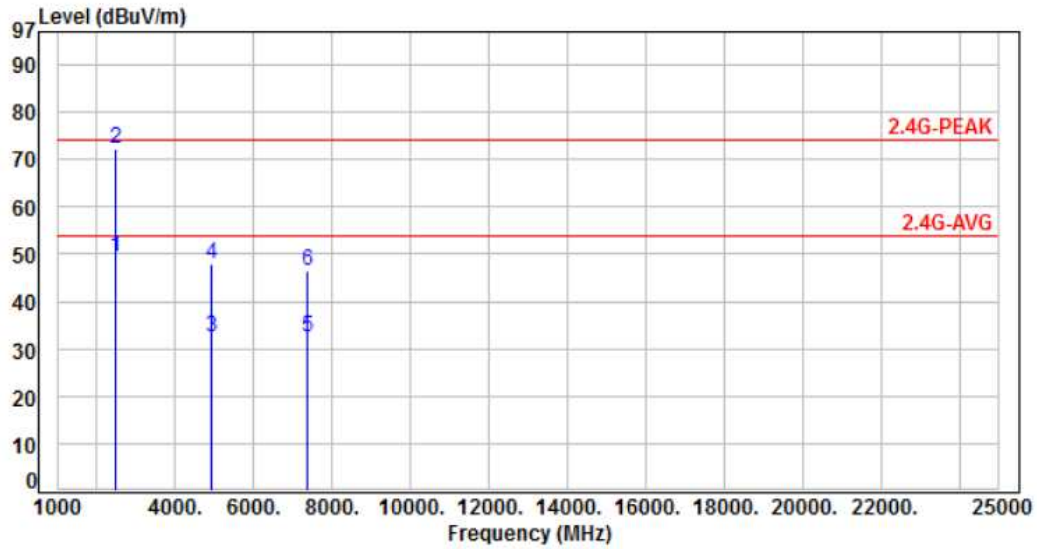


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2483.50	-15.48	60.97	45.49	54.00	-8.51	Average	117	90	P
2	2483.50	-15.48	83.75	68.27	74.00	-5.73	Peak	117	90	P
3	4924.00	-7.19	41.05	33.86	54.00	-20.14	Average	133	233	P
4	4924.00	-7.19	56.15	48.96	74.00	-25.04	Peak	133	233	P
5	7386.00	-3.39	37.12	33.73	54.00	-20.27	Average	141	66	P
6	7386.00	-3.39	50.84	47.45	74.00	-26.55	Peak	141	66	P

Note: Level = Reading + Factor
 Margin = Level – Limit
 Factor = Antenna Factor + Cable Loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 3, CH 11	Temperature	: 25 °C
Test Date	: Dec. 01, 2016	Humidity	: 63 %

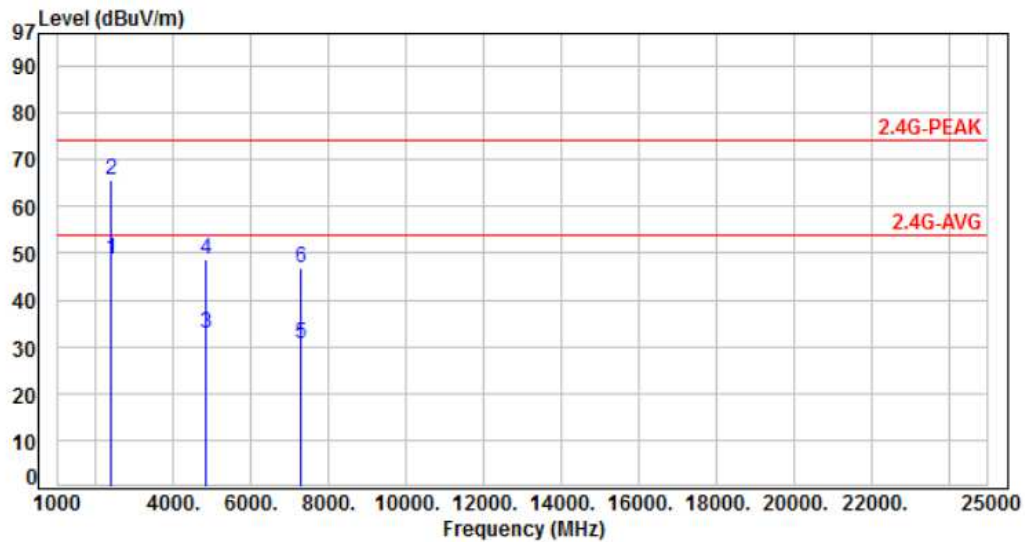


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2483.50	-15.48	64.84	49.36	54.00	-4.64	Average	262	282	P
2	2483.50	-15.48	87.61	72.13	74.00	-1.87	Peak	262	282	P
3	4924.00	-7.19	39.56	32.37	54.00	-21.63	Average	173	238	P
4	4924.00	-7.19	55.01	47.82	74.00	-26.18	Peak	173	238	P
5	7386.00	-3.39	35.96	32.57	54.00	-21.43	Average	178	244	P
6	7386.00	-3.39	49.73	46.34	74.00	-27.66	Peak	178	244	P

Note: Level = Reading + Factor
 Margin = Level – Limit
 Factor = Antenna Factor + Cable Loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Mode 4, CH 03	Temperature	: 25 °C
Test Date	: Dec. 01, 2016	Humidity	: 63 %

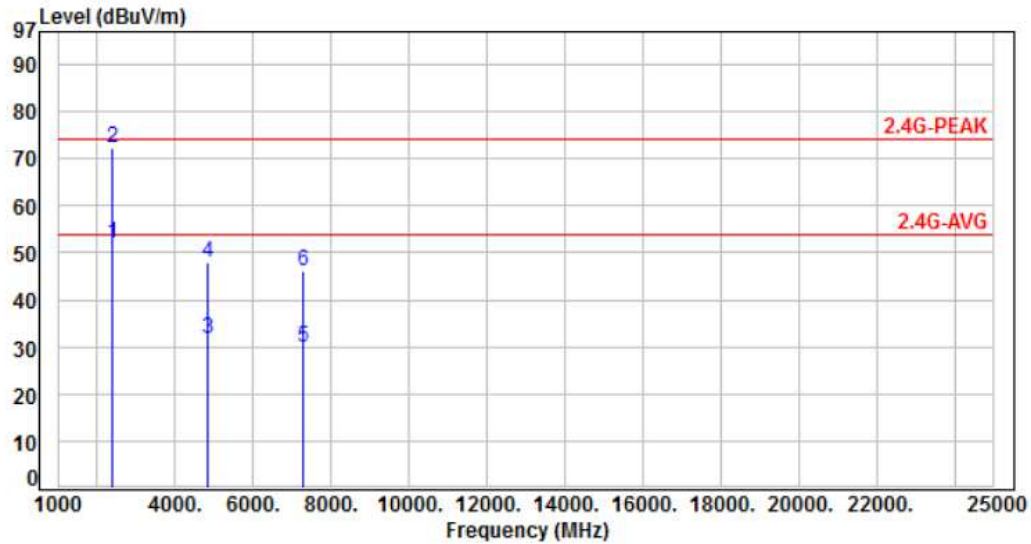


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-15.75	64.35	48.60	54.00	-5.40	Average	140	8	P
2	2390.00	-15.75	81.26	65.51	74.00	-8.49	Peak	140	8	P
3	4844.00	-7.50	40.21	32.71	54.00	-21.29	Average	137	255	P
4	4844.00	-7.50	56.35	48.85	74.00	-25.15	Peak	137	255	P
5	7266.00	-3.57	34.29	30.72	54.00	-23.28	Average	151	267	P
6	7266.00	-3.57	50.37	46.80	74.00	-27.20	Peak	151	267	P

Note: Level = Reading + Factor
 Margin = Level – Limit
 Factor = Antenna Factor + Cable Loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 4, CH 03	Temperature	: 25 °C
Test Date	: Dec. 01, 2016	Humidity	: 63 %

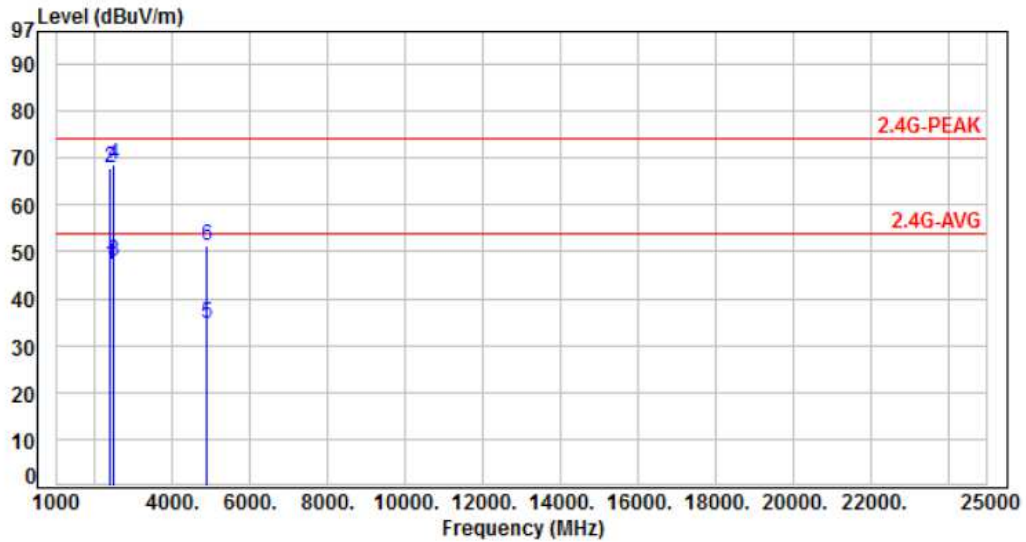


No.	Frequency (MHz)	Factor (dB)	Reading (dBUV)	Level (dBUV)	Limit (dBUV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-15.75	67.91	52.16	54.00	-1.84	Average	189	297	P
2	2390.00	-15.75	87.92	72.17	74.00	-1.83	Peak	189	297	P
3	4844.00	-7.50	39.34	31.84	54.00	-22.16	Average	108	313	P
4	4844.00	-7.50	55.28	47.78	74.00	-26.22	Peak	108	313	P
5	7266.00	-3.57	33.27	29.70	54.00	-24.30	Average	114	297	P
6	7266.00	-3.57	49.55	45.98	74.00	-28.02	Peak	114	297	P

Note: Level = Reading + Factor
 Margin = Level – Limit
 Factor = Antenna Factor + Cable Loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Mode 4, CH 06	Temperature	: 25 °C
Test Date	: Dec. 01, 2016	Humidity	: 63 %

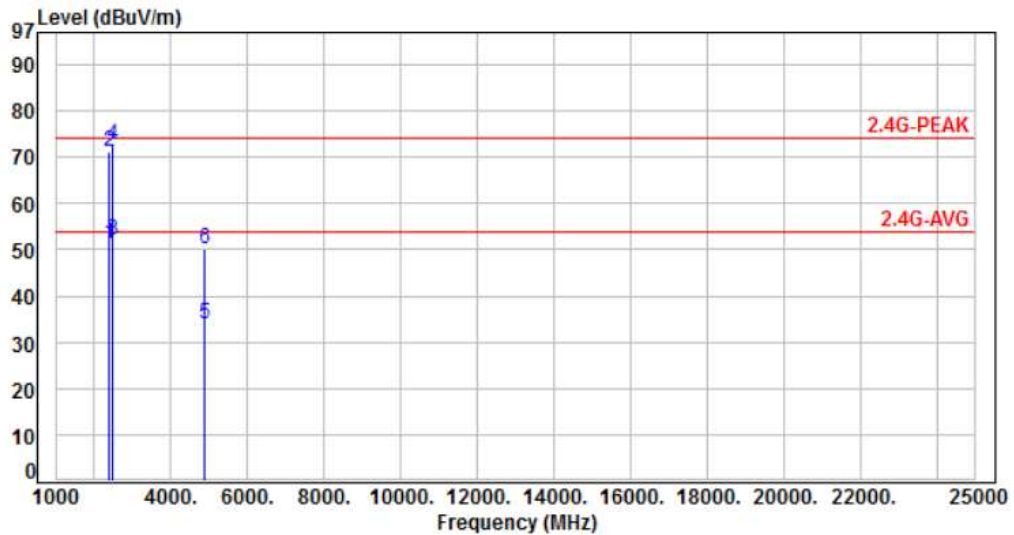


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-15.75	63.11	47.36	54.00	-6.64	Average	112	95	P
2	2390.00	-15.75	83.51	67.76	74.00	-6.24	Peak	112	95	P
3	2483.50	-15.48	63.60	48.12	54.00	-5.88	Average	120	300	P
4	2483.50	-15.48	83.90	68.42	74.00	-5.58	Peak	120	300	P
5	4874.00	-7.39	42.21	34.82	54.00	-19.18	Average	171	155	P
6	4874.00	-7.39	58.79	51.40	74.00	-22.60	Peak	171	155	P

Note: Level = Reading + Factor
 Margin = Level – Limit
 Factor = Antenna Factor + Cable Loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 4, CH 06	Temperature	: 25 °C
Test Date	: Dec. 01, 2016	Humidity	: 63 %

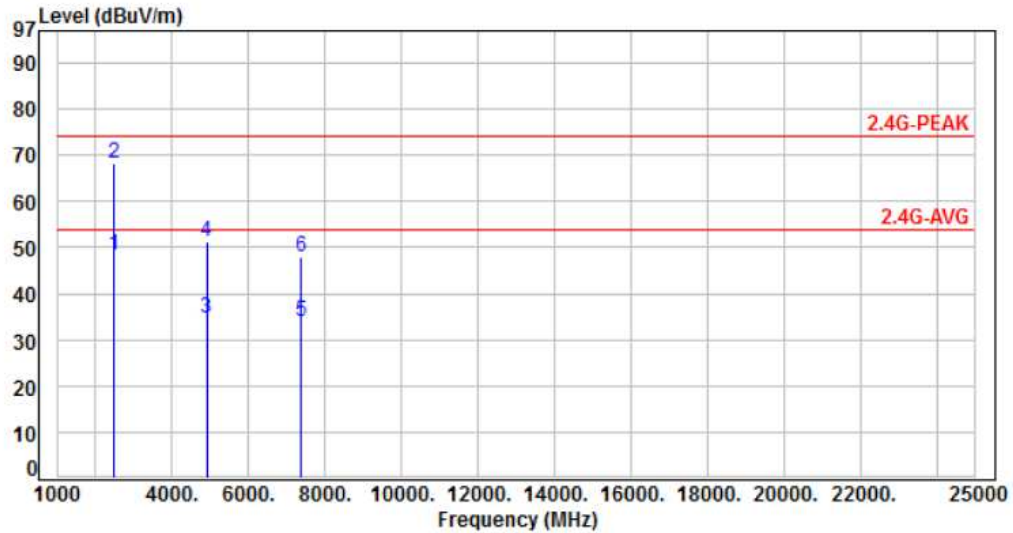


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-15.75	66.88	51.13	54.00	-2.87	Average	149	274	P
2	2390.00	-15.75	87.11	71.36	74.00	-2.64	Peak	149	274	P
3	2483.50	-15.48	67.50	52.02	54.00	-1.98	Average	153	274	P
4	2483.50	-15.48	88.02	72.54	74.00	-1.46	Peak	153	274	P
5	4874.00	-7.39	41.32	33.93	54.00	-20.07	Average	121	308	P
6	4874.00	-7.39	57.67	50.28	74.00	-23.72	Peak	121	308	P

Note: Level = Reading + Factor
 Margin = Level – Limit
 Factor = Antenna Factor + Cable Loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode	: Mode 4, CH 09	Temperature	: 25 °C
Test Date	: Dec. 01, 2016	Humidity	: 63 %

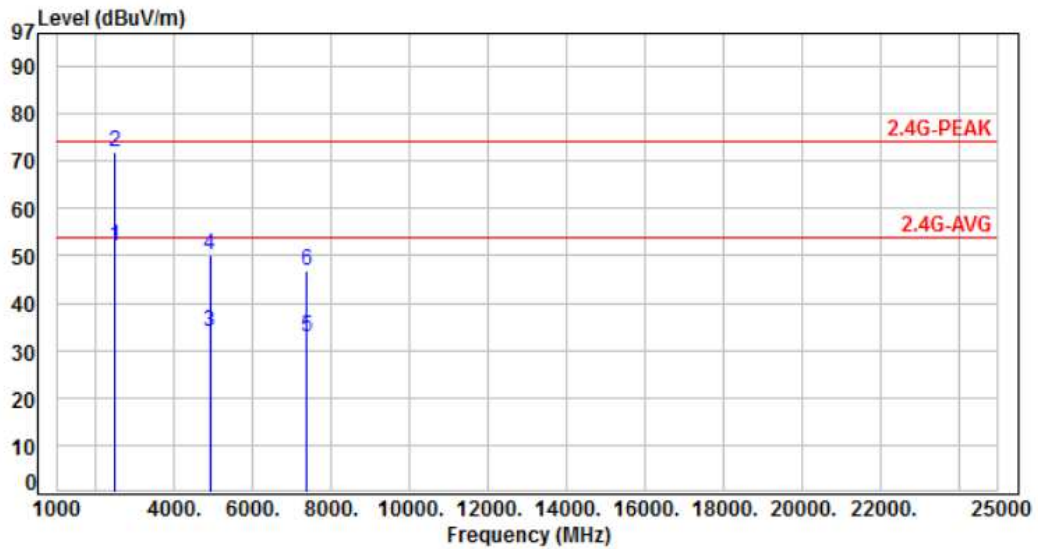


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2483.50	-15.48	63.69	48.21	54.00	-5.79	Average	150	221	P
2	2483.50	-15.48	83.76	68.28	74.00	-5.72	Peak	150	221	P
3	4904.00	-7.26	42.05	34.79	54.00	-19.21	Average	115	299	P
4	4904.00	-7.26	58.50	51.24	74.00	-22.76	Peak	115	299	P
5	7356.00	-3.42	37.53	34.11	54.00	-19.89	Average	166	15	P
6	7356.00	-3.42	51.31	47.89	74.00	-26.11	Peak	166	15	P

Note: Level = Reading + Factor
 Margin = Level – Limit
 Factor = Antenna Factor + Cable Loss - Amplifier Factor



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 4, CH 09	Temperature	: 25 °C
Test Date	: Dec. 01, 2016	Humidity	: 63 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2483.50	-15.48	67.59	52.11	54.00	-1.89	Average	260	274	P
2	2483.50	-15.48	87.53	72.05	74.00	-1.95	Peak	260	274	P
3	4904.00	-7.26	41.22	33.96	54.00	-20.04	Average	131	324	P
4	4904.00	-7.26	57.30	50.04	74.00	-23.96	Peak	131	324	P
5	7356.00	-3.42	36.43	33.01	54.00	-20.99	Average	124	311	P
6	7356.00	-3.42	50.18	46.76	74.00	-27.24	Peak	124	311	P

Note: Level = Reading + Fator
 Margin = Level – Limit
 Factor = Antenna Factor + Cable Loss - Amplifier Factor



6.7 Restricted Bands of Operation

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

MHz	MHz	MHz	GHz
0.09000 – 0.11000	16.42000 – 16.42300	399.9 – 410.0	4.500 – 5.250
0.49500 – 0.505**	16.69475 – 16.69525	608.0 – 614.0	5.350 – 5.460
2.17350 – 2.19050	16.80425 – 16.80475	960.0 – 1240.0	7.250 – 7.750
4.12500 – 4.12800	25.50000 – 25.67000	1300.0 – 1427.0	8.025 – 8.500
4.17725 – 4.17775	37.50000 – 38.25000	1435.0 – 1626.5	9.000 – 9.200
4.20725 – 4.20775	73.00000 – 74.60000	1645.5 – 1646.5	9.300 – 9.500
6.21500 – 6.21800	74.80000 – 75.20000	1660.0 – 1710.0	10.600 – 12.700
6.26775 – 6.26825	108.00000 – 121.94000	1718.8 – 1722.2	13.250 – 13.400
6.31175 – 6.31225	123.00000 – 138.00000	2200.0 – 2300.0	14.470 – 14.500
8.29100 – 8.29400	149.90000 – 150.05000	2310.0 – 2390.0	15.350 – 16.200
8.36200 – 8.36600	156.52475 – 156.52525	2483.5 – 2500.0	17.700 – 21.400
8.37625 – 8.38675	156.70000 – 156.90000	2655.0 – 2900.0	22.010 – 23.120
8.41425 – 8.41475	162.01250 – 167.17000	3260.0 – 3267.0	23.600 – 24.000
12.29000 – 12.29300	167.72000 – 173.20000	3332.0 – 3339.0	31.200 – 31.800
12.51975 – 12.52025	240.00000 – 285.00000	3345.8 – 3358.0	36.430 – 36.500
12.57675 – 12.57725	322.00000 – 335.40000	3600.0 – 4400.0	Above 38.6
13.36000 – 13.41000			

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



7. Test of Conducted Spurious Emission

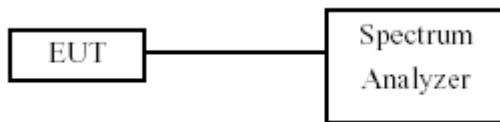
7.1 Test Limit

Below -20dB of the highest emission level of operating band (In 100 kHz Resolution Bandwidth)

7.2 Test Procedure

- a. The transmitter output was connected to the spectrum analyzer via a low lose cable.
- b. Set RBW of spectrum analyzer to 100 KHz and VBW of spectrum analyzer to 300 KHz with convenient frequency span including 100 KHz bandwidth from band edge.
- c. Peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20dB relative to the maximum measured in-band peak PSD level.
- d. The band edges was measured and recorded.

7.3 Test Setup Layout



7.4 Test Result and Data

Test Result	: PASS	Temperature	: 23°C
Test Date	: Dec. 07, 2016	Humidity	: 64%

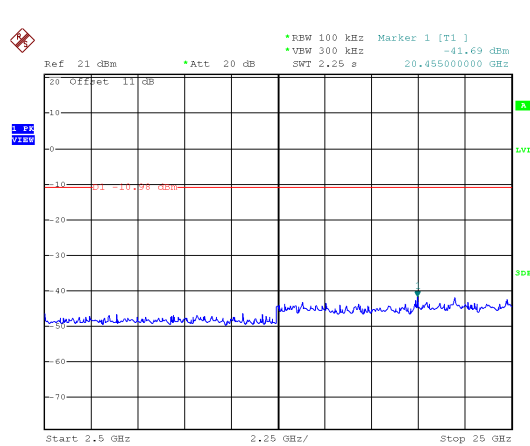
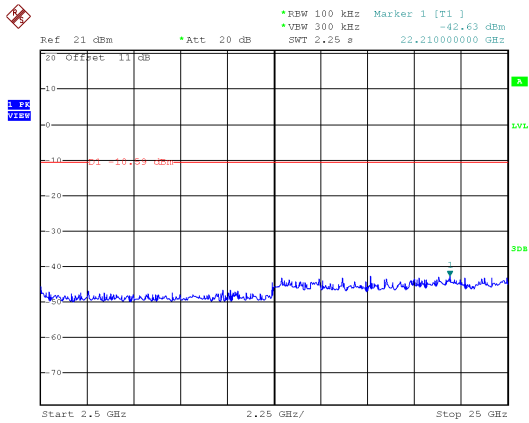
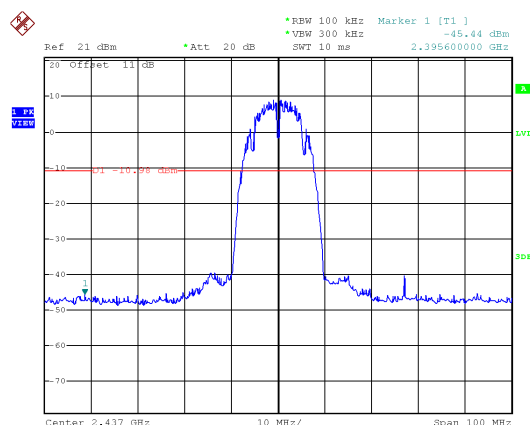
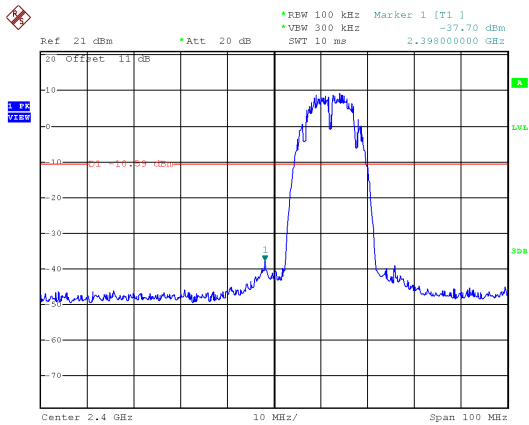
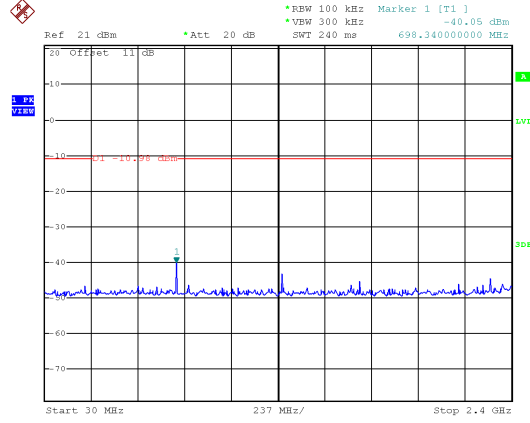
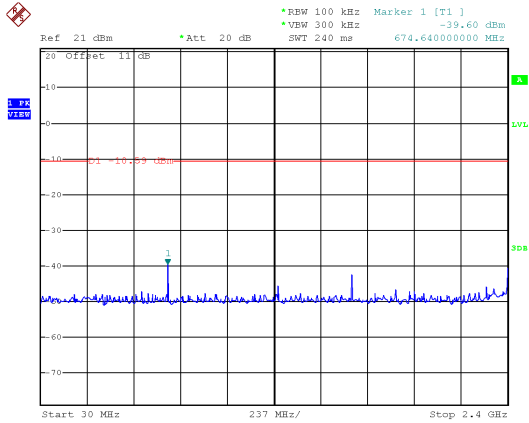
Note: Test plots refers to the following pages.



Antenna 1

Modulation Type: 802.11b, CH 01

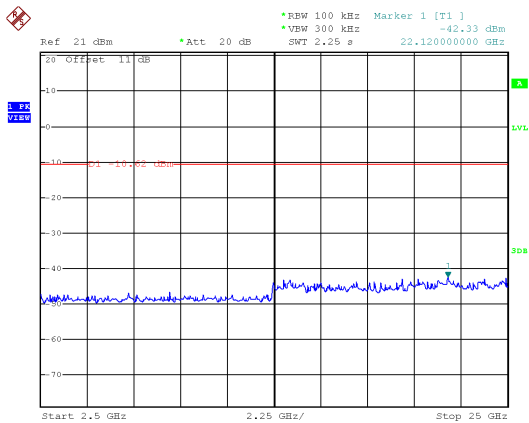
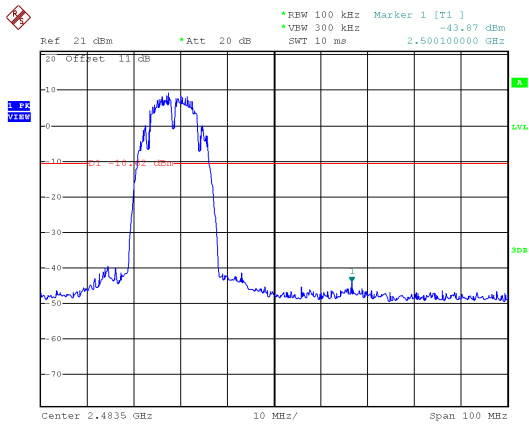
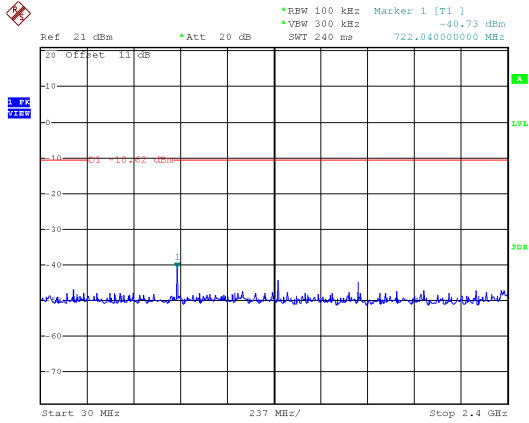
Modulation Type: 802.11b, CH 06





Antenna 1

Modulation Type: 802.11b, CH 11

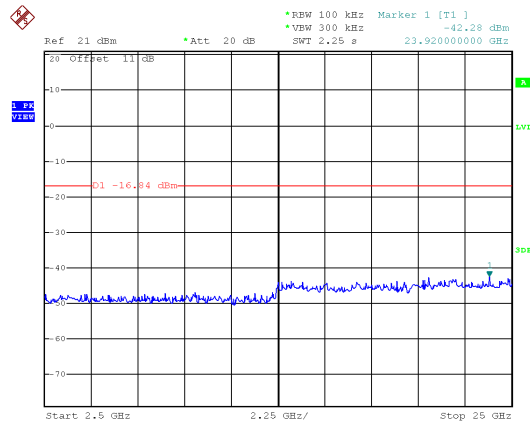
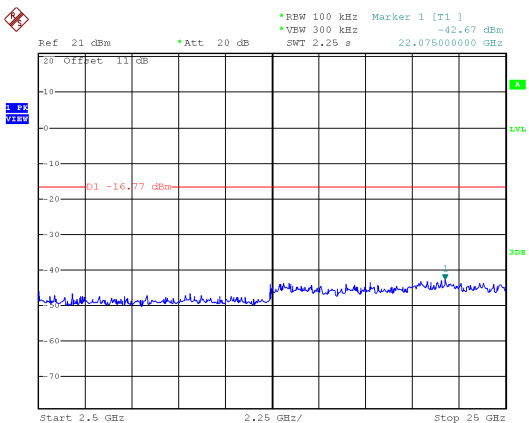
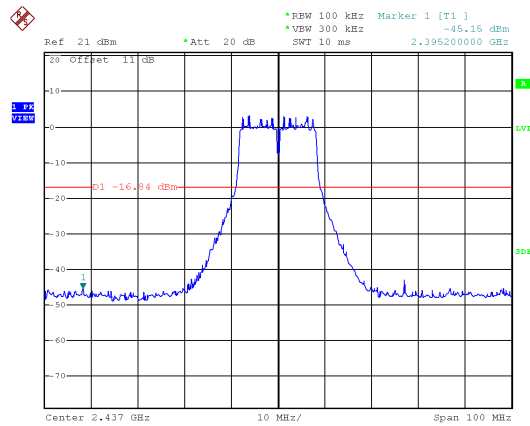
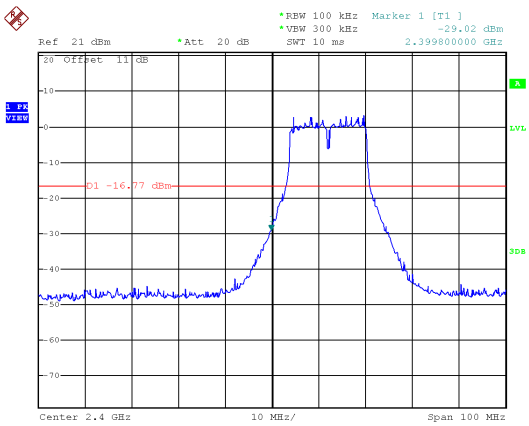
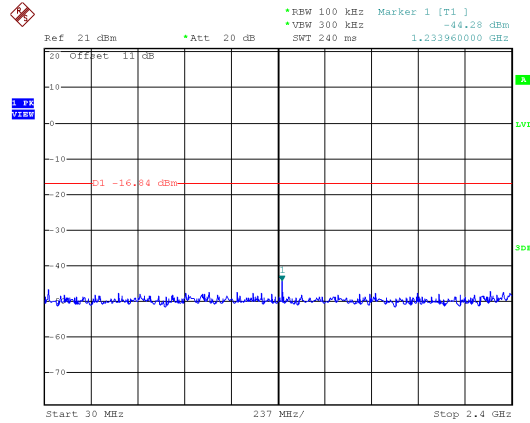
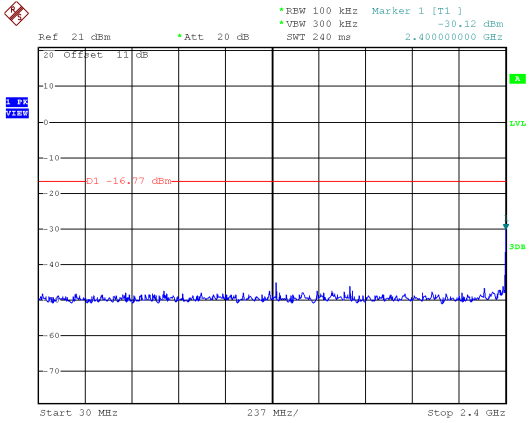




Antenna 1

Modulation Type: 802.11g, CH 01

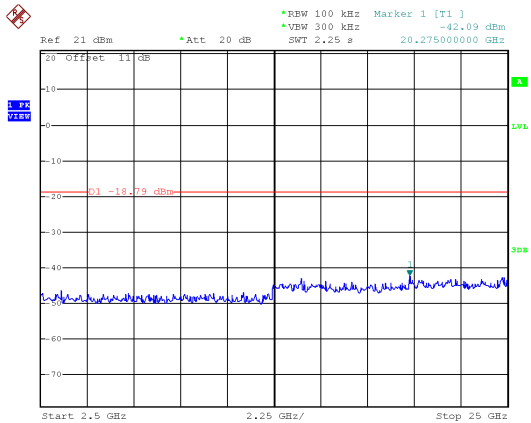
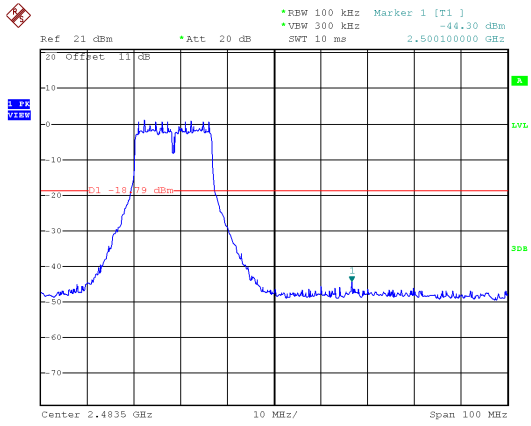
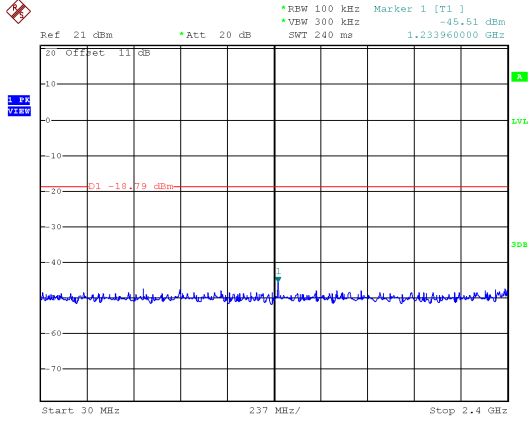
Modulation Type: 802.11g, CH 06





Antenna 1

Modulation Type: 802.11g, CH 11

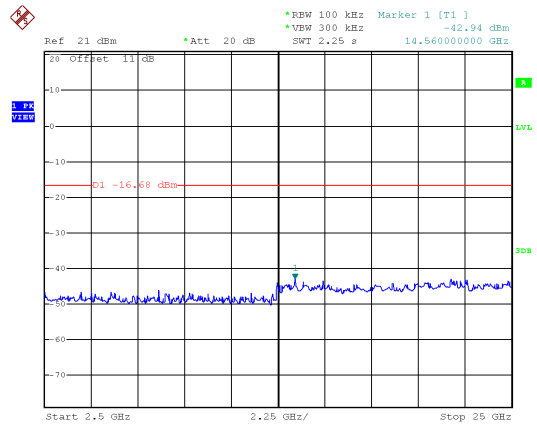
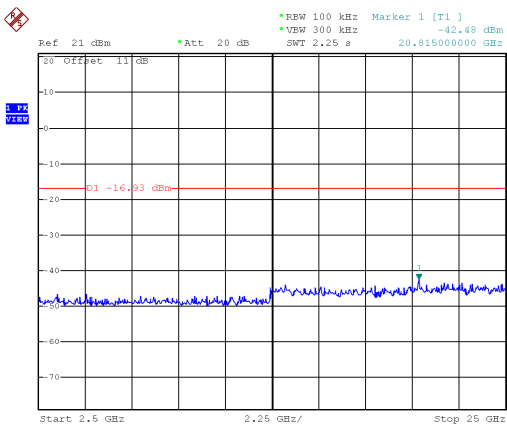
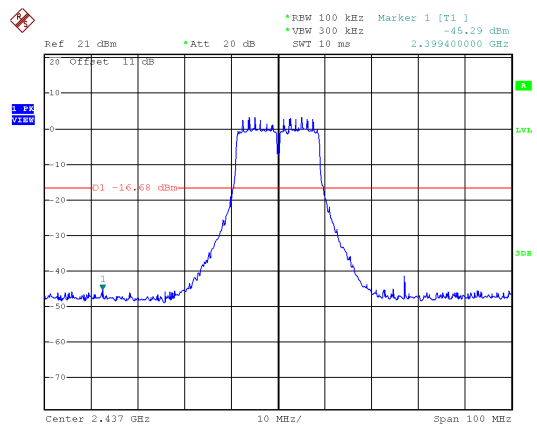
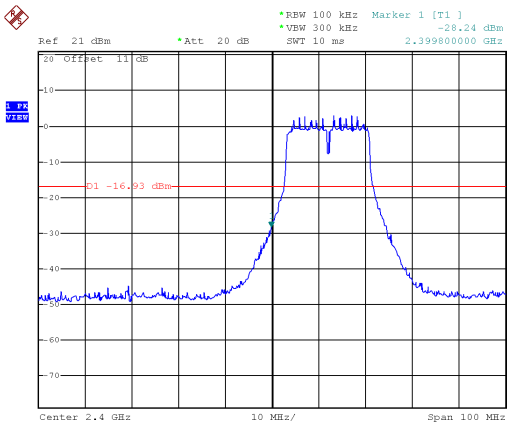
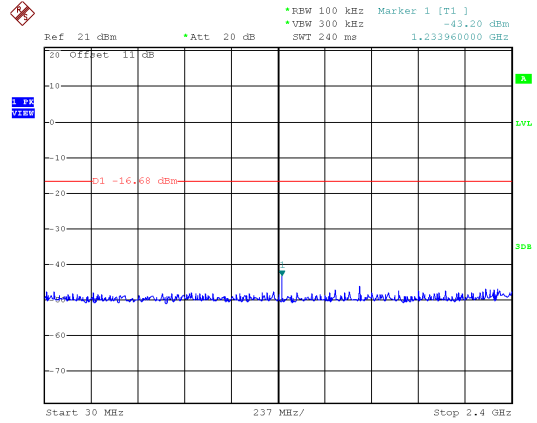
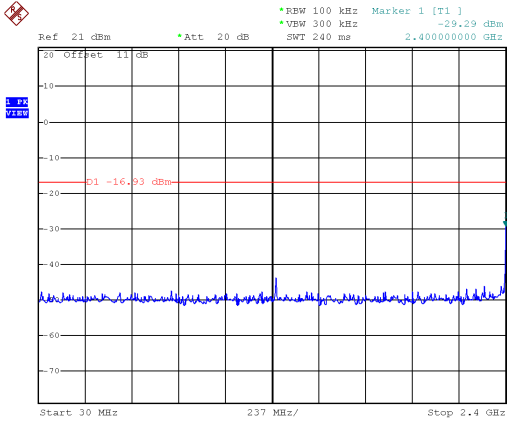




Antenna 1

Modulation Type: 802.11n HT20, CH 01

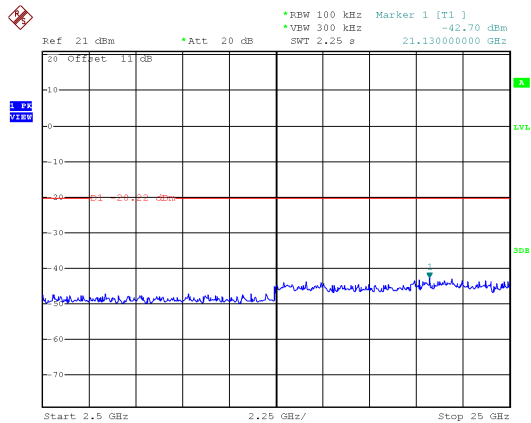
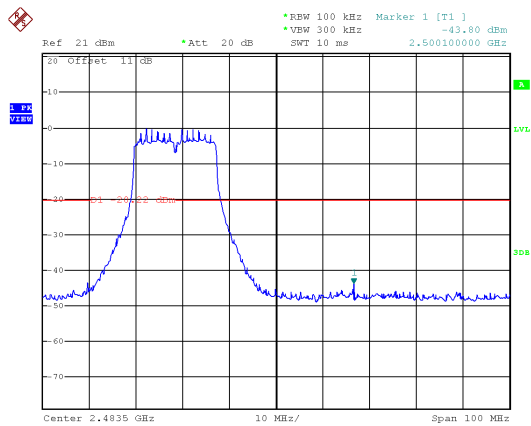
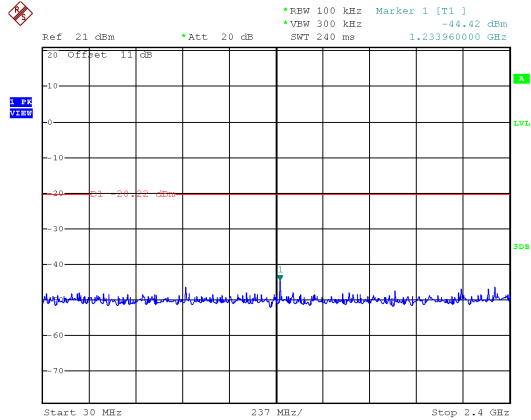
Modulation Type: 802.11n HT20, CH 06





Antenna 1

Modulation Type: 802.11n HT20, CH 11

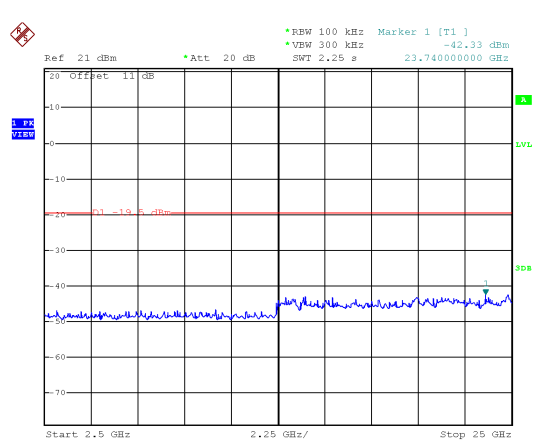
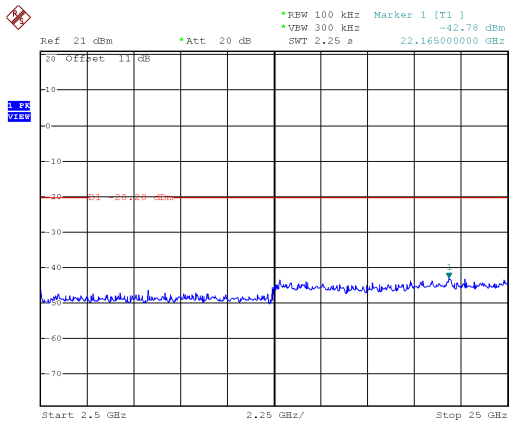
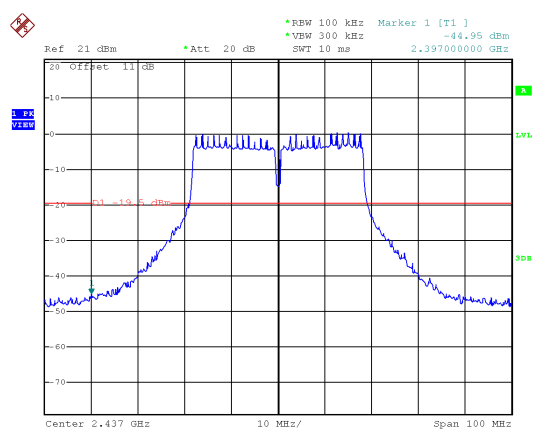
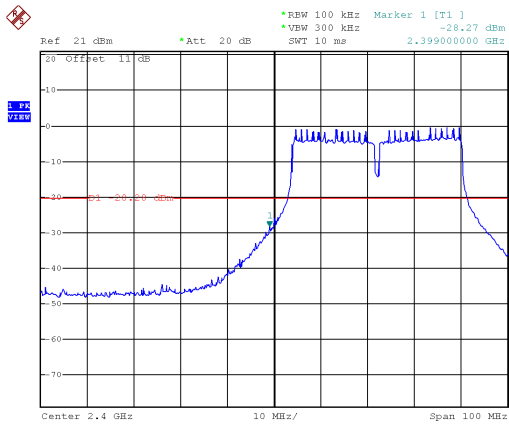
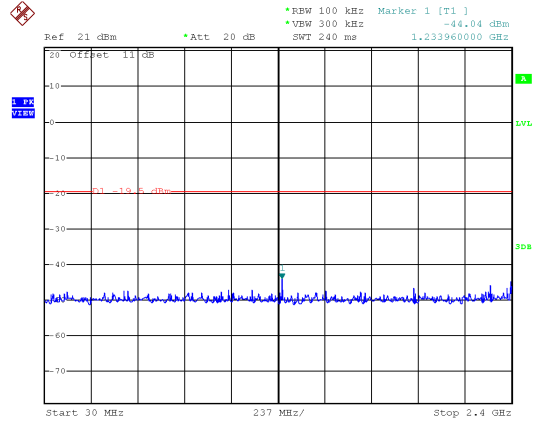
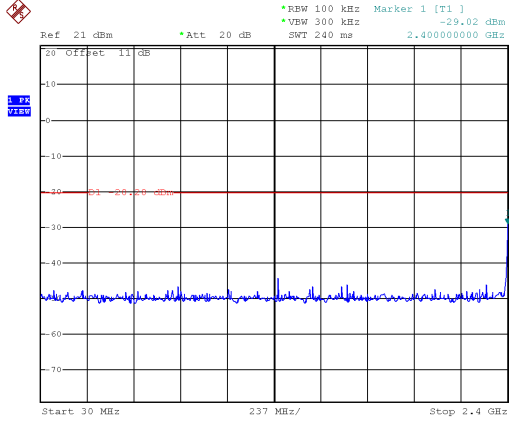




Antenna 1

Modulation Type: 802.11n HT40, CH 03

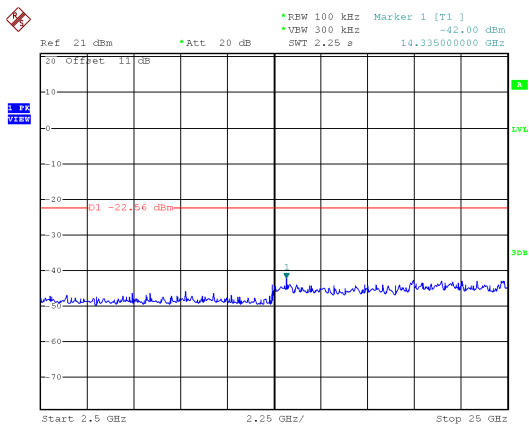
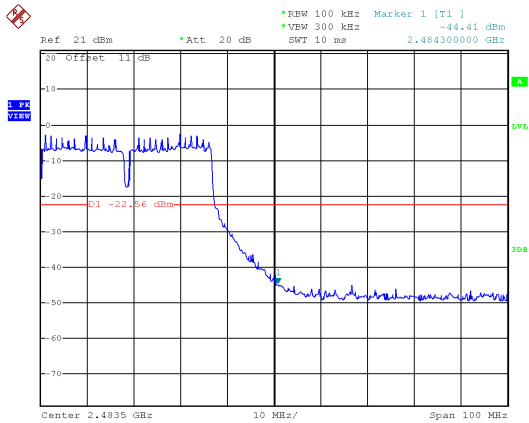
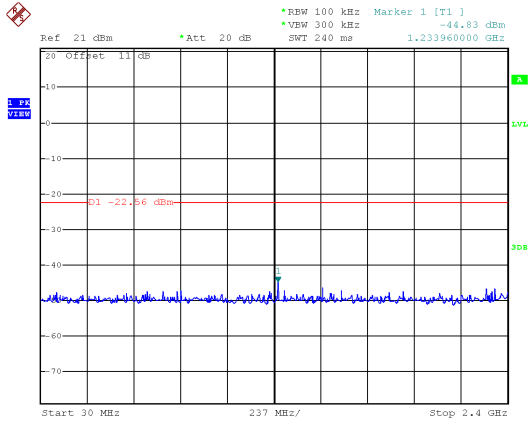
Modulation Type: 802.11n HT40, CH 06





Antenna 1

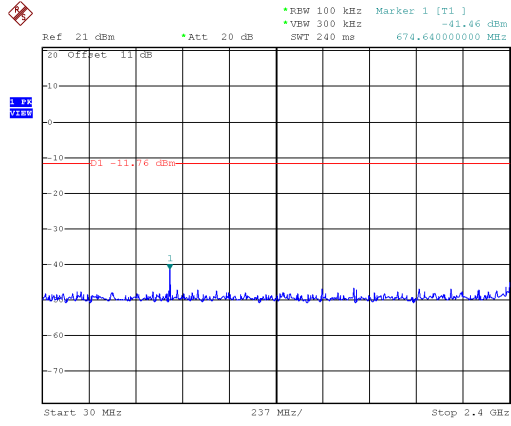
Modulation Type: 802.11n HT40, CH 09



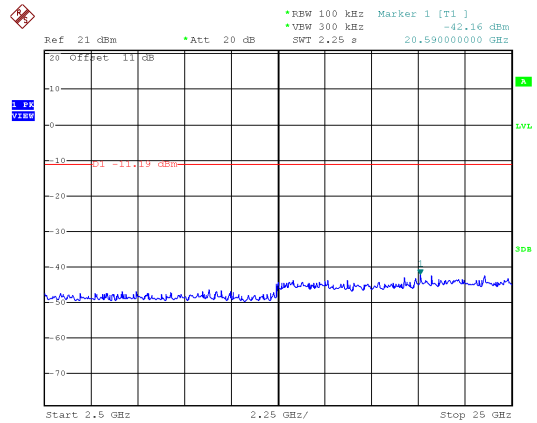
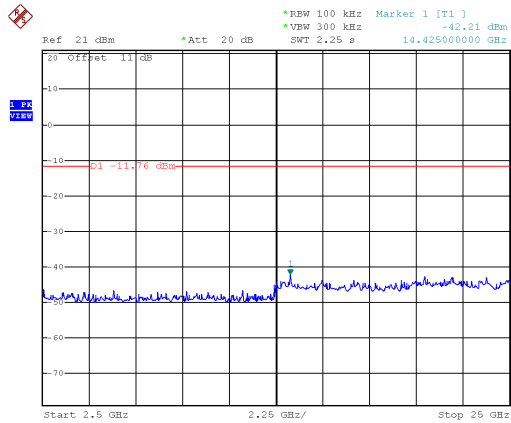
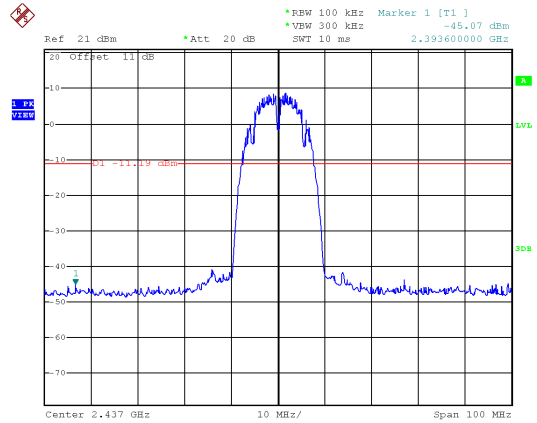
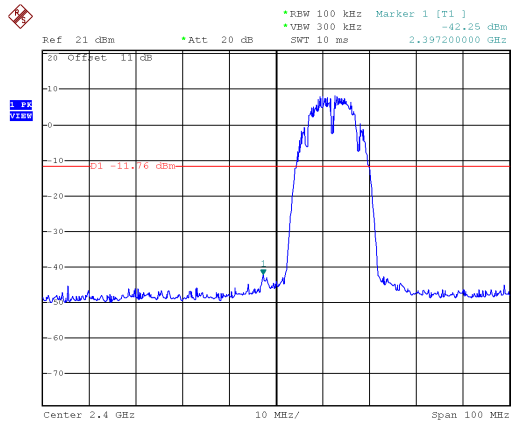
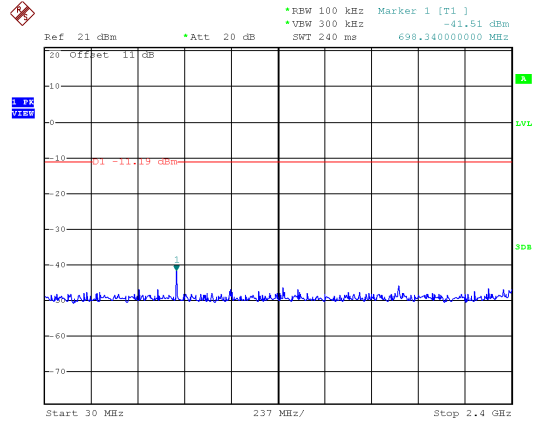


Antenna 2

Modulation Type: 802.11b, CH 01



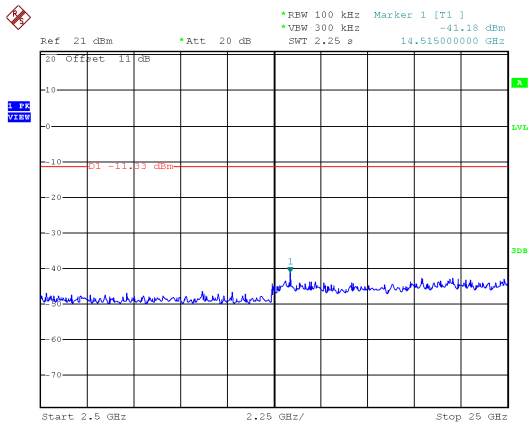
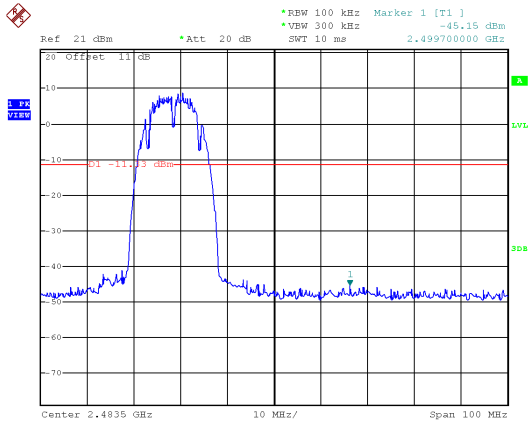
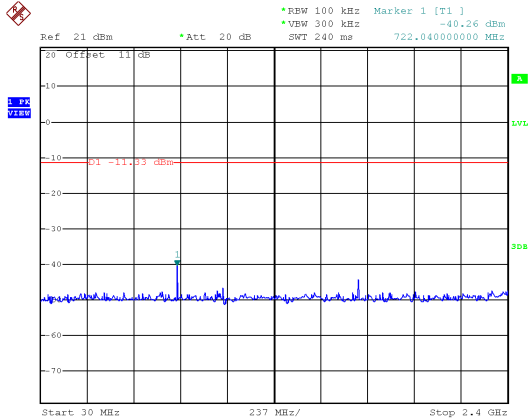
Modulation Type: 802.11b, CH 06





Antenna 2

Modulation Type: 802.11b, CH 11

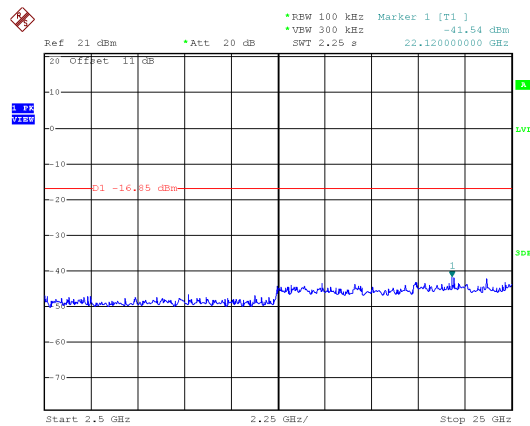
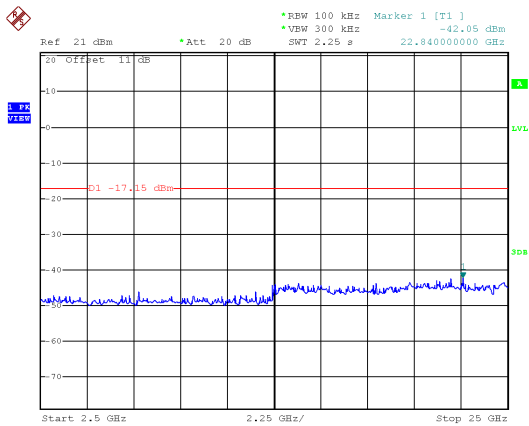
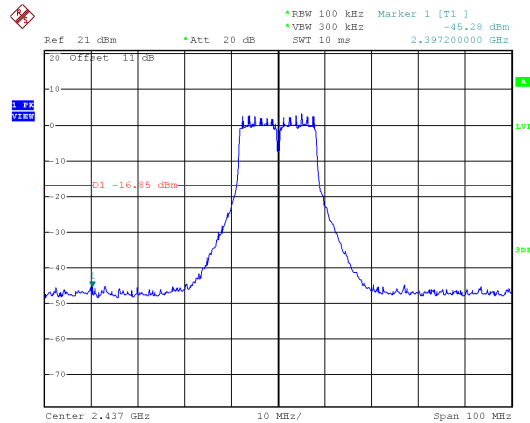
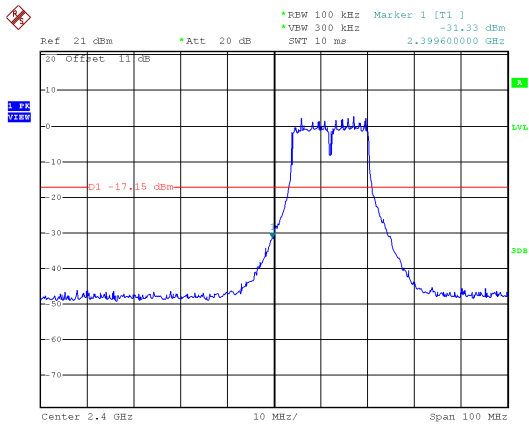
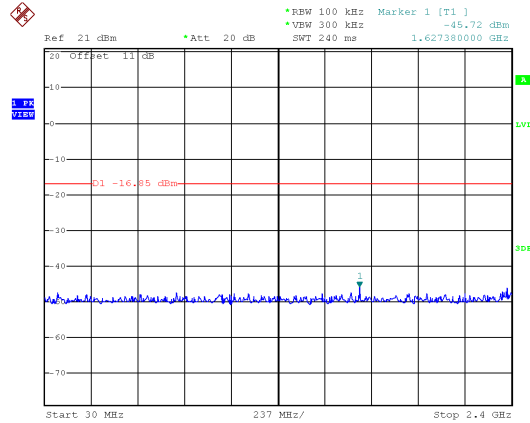
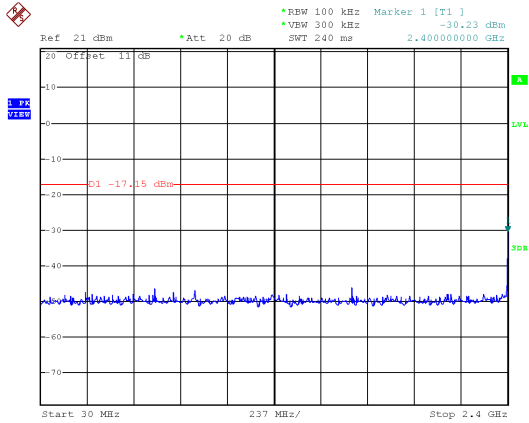




Antenna 2

Modulation Type: 802.11g, CH 01

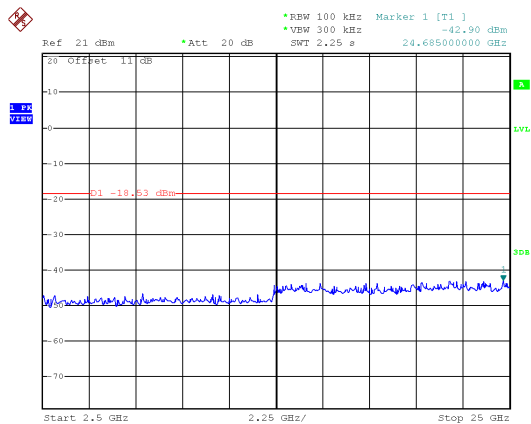
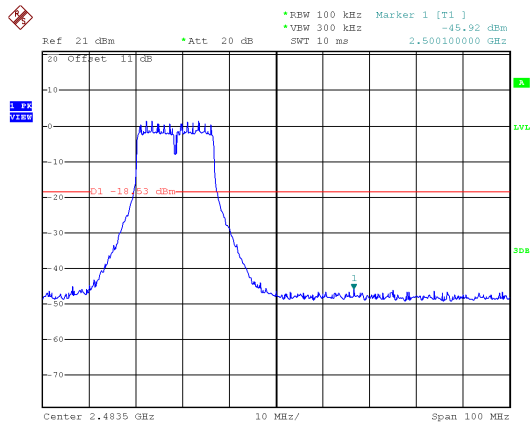
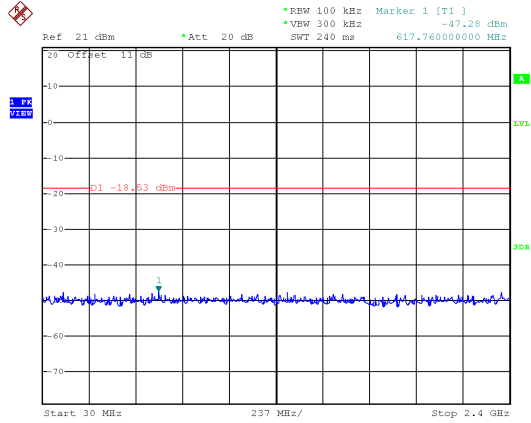
Modulation Type: 802.11g, CH 06





Antenna 2

Modulation Type: 802.11g, CH 11

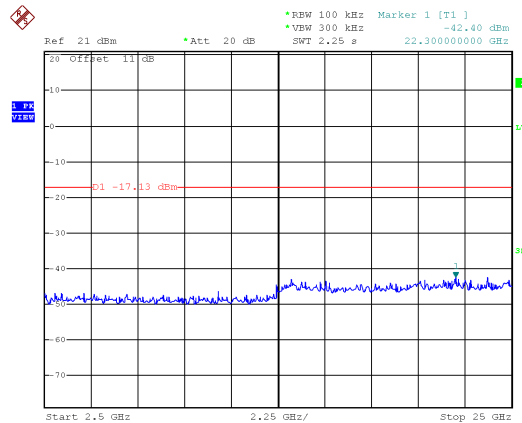
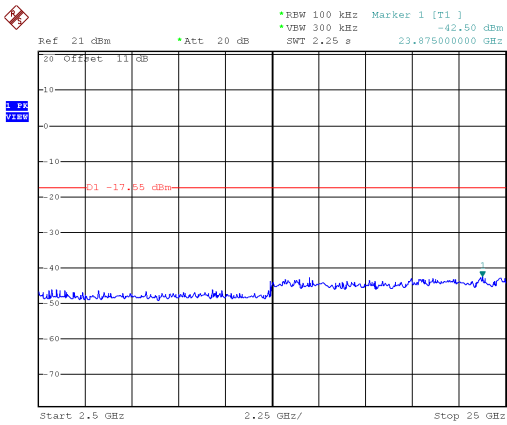
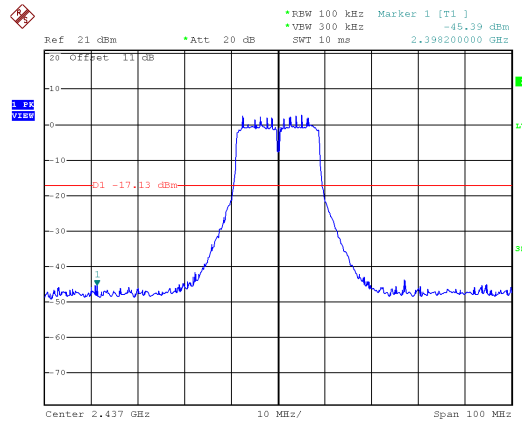
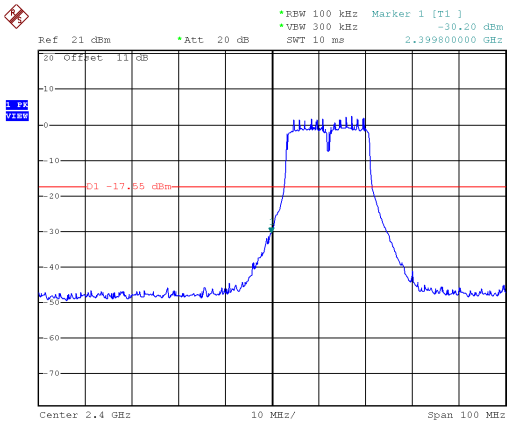
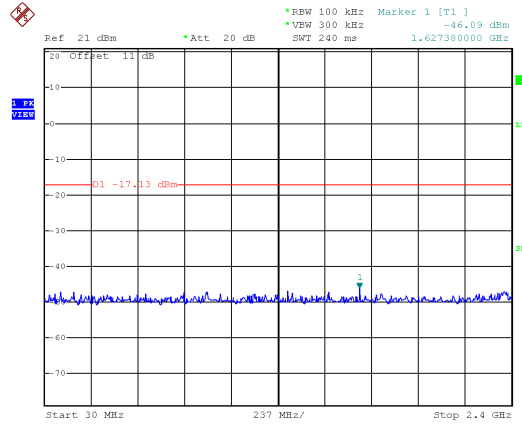
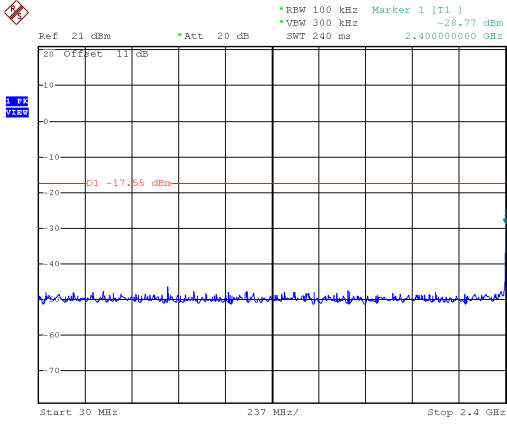




Antenna 2

Modulation Type: 802.11n HT20, CH 01

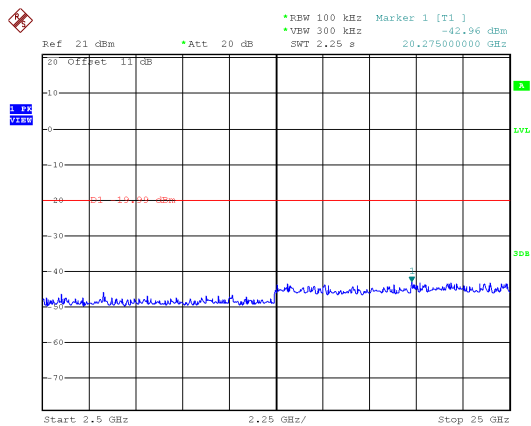
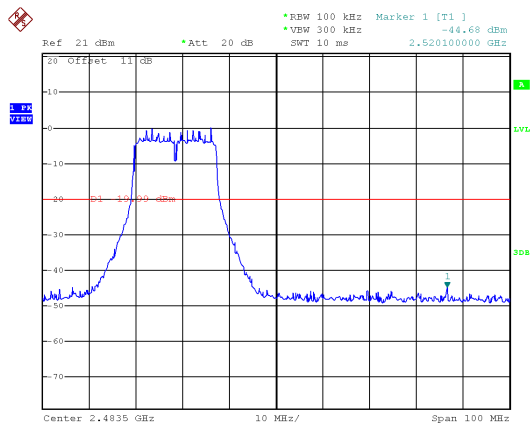
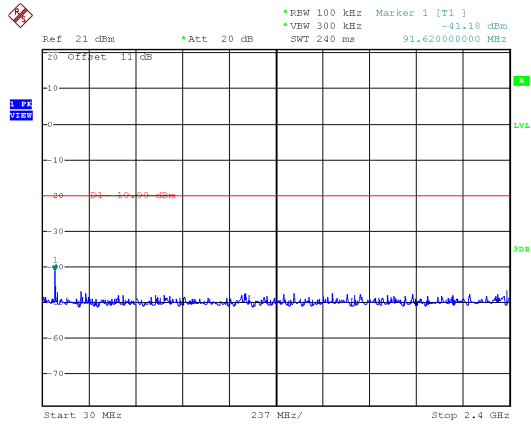
Modulation Type: 802.11n HT20, CH 06





Antenna 2

Modulation Type: 802.11n HT20, CH 11

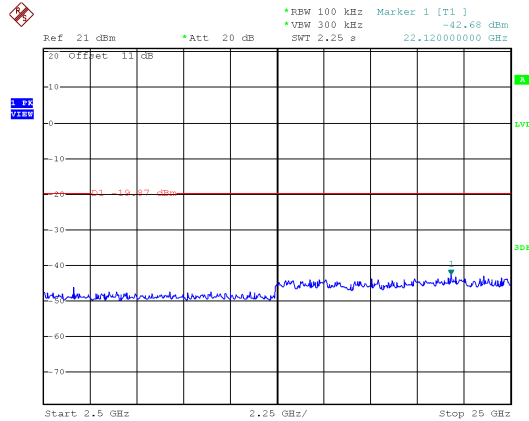
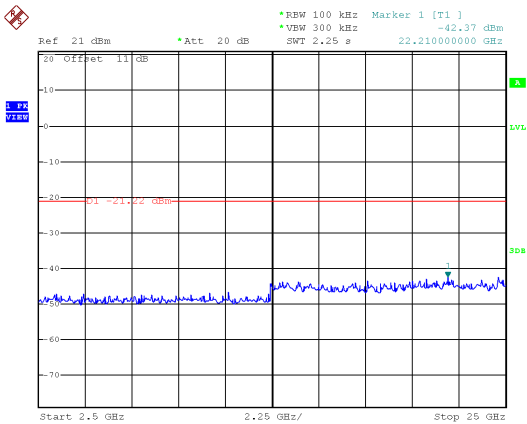
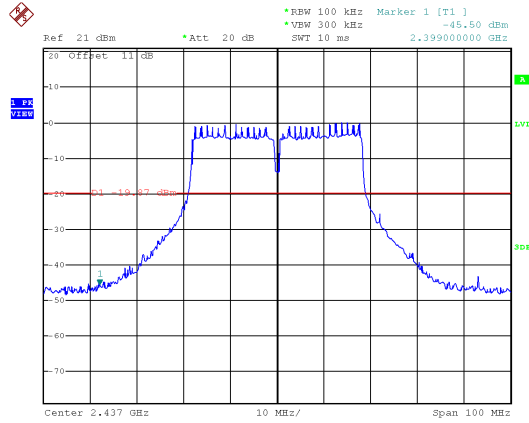
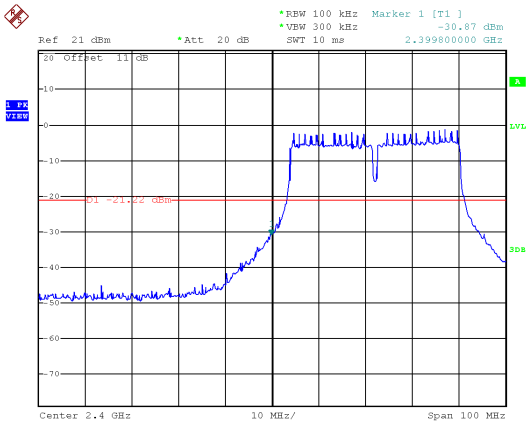
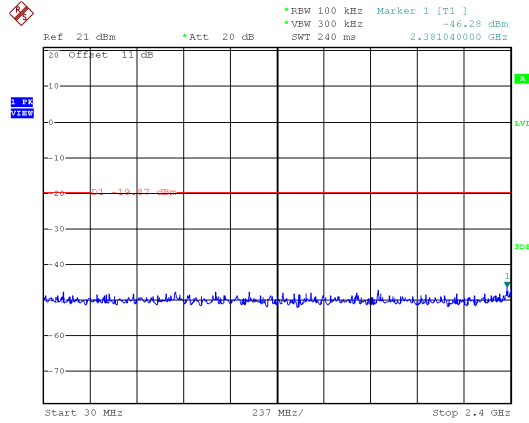
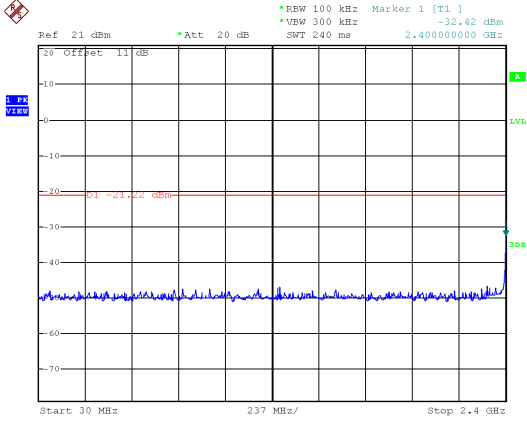




Antenna 2

Modulation Type: 802.11n HT40, CH 03

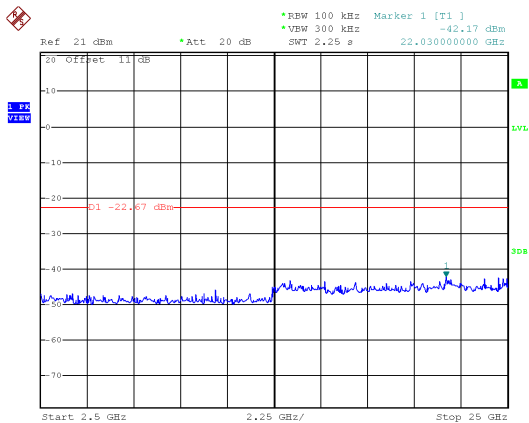
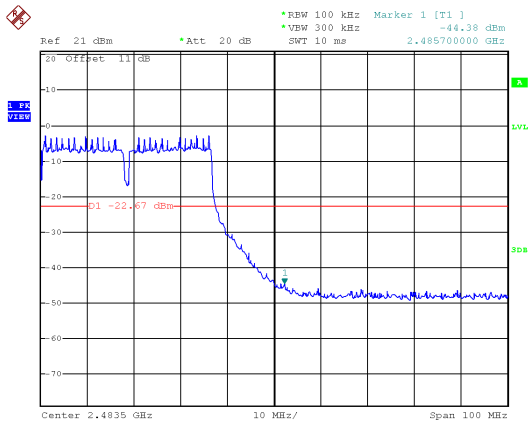
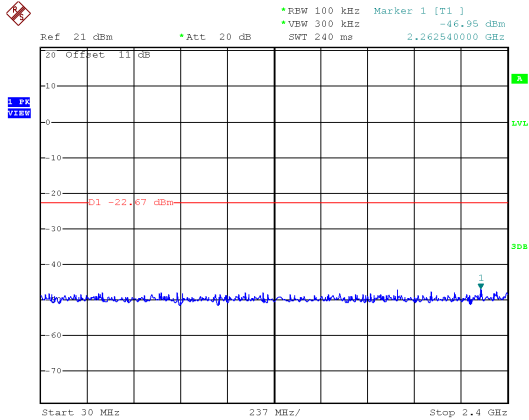
Modulation Type: 802.11n HT40, CH 06





Antenna 2

Modulation Type: 802.11n HT40, CH 09

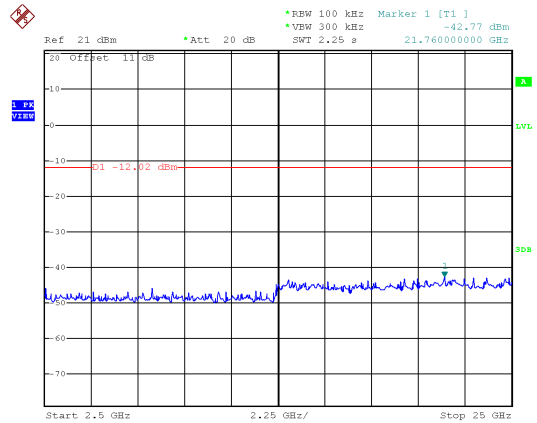
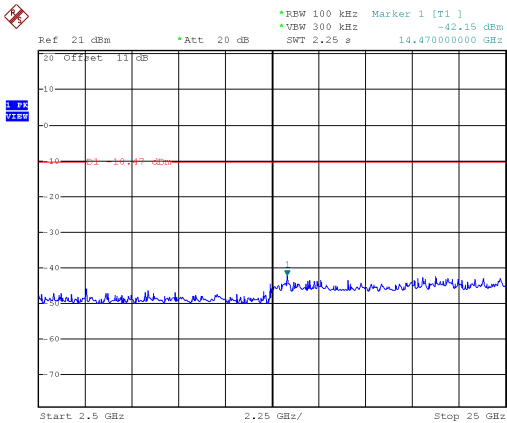
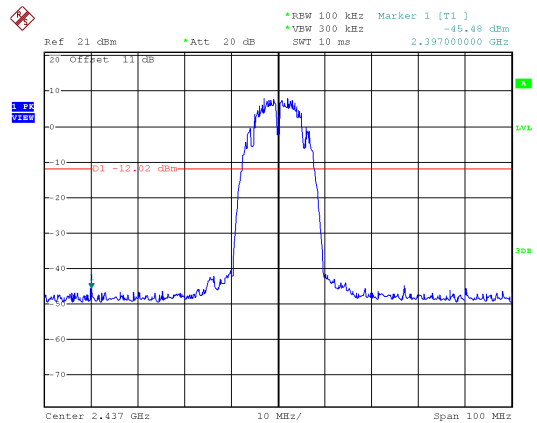
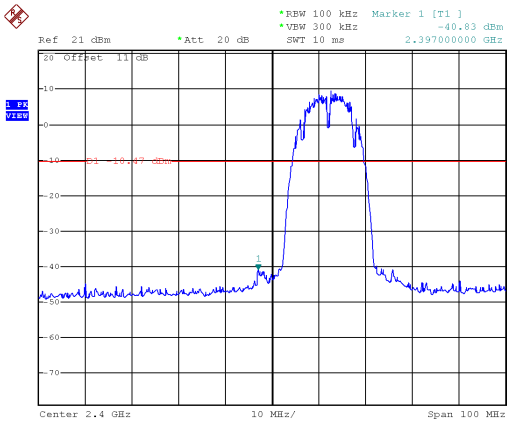
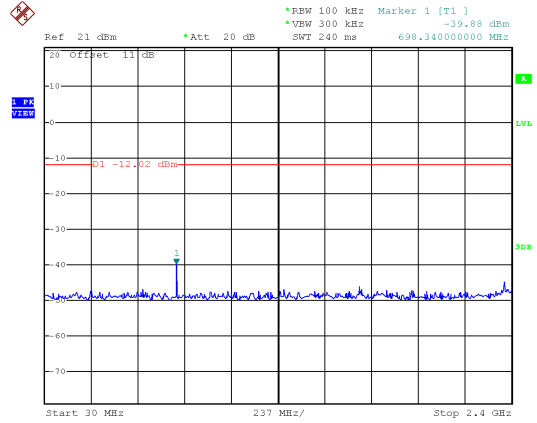
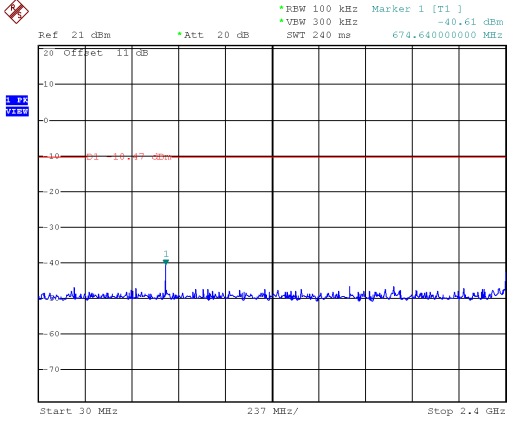




Antenna 3

Modulation Type: 802.11b, CH 01

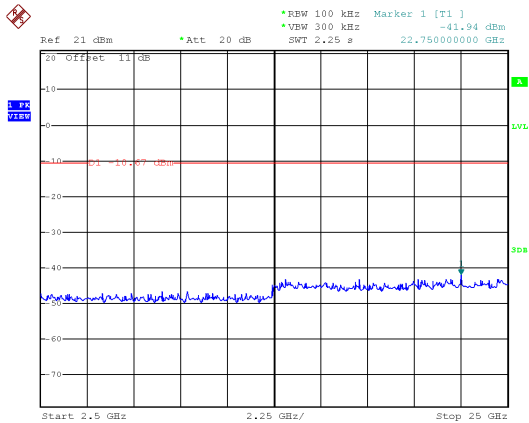
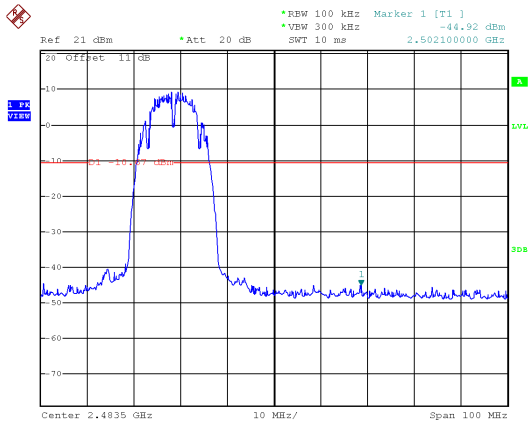
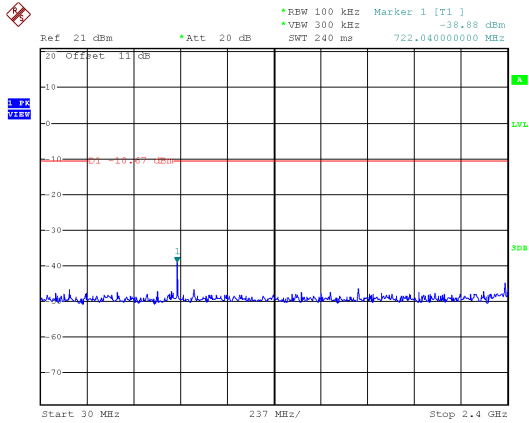
Modulation Type: 802.11b, CH 06





Antenna 3

Modulation Type: 802.11b, CH 11

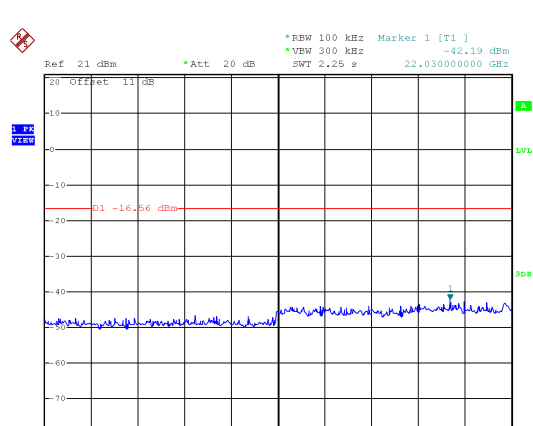
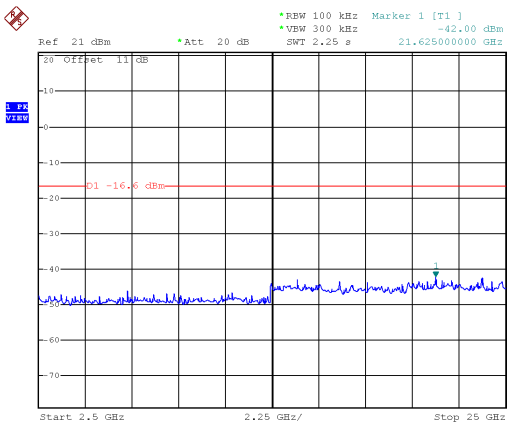
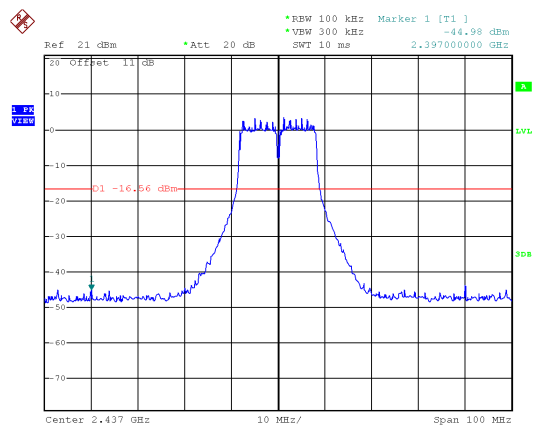
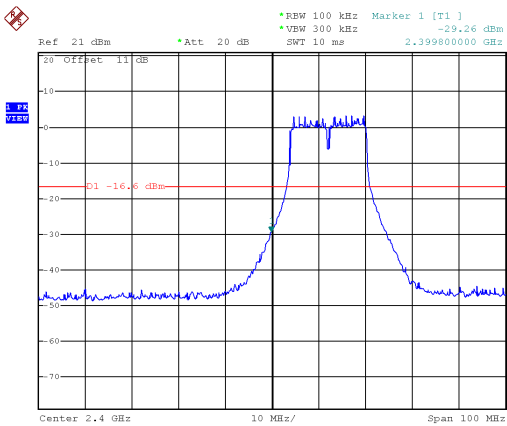
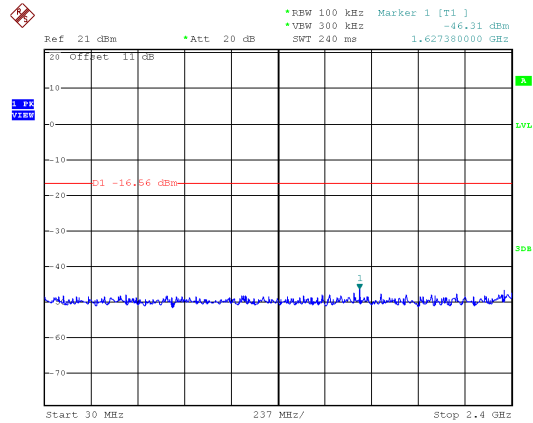
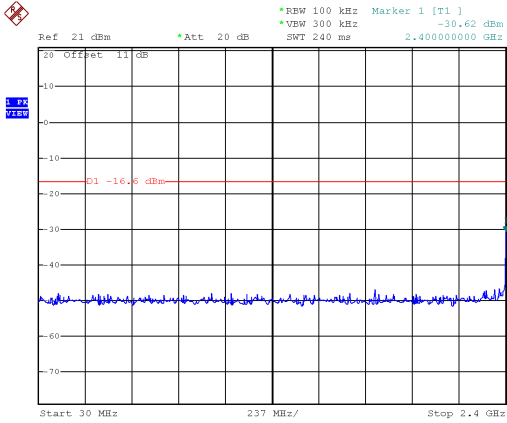




Antenna 3

Modulation Type: 802.11g, CH 01

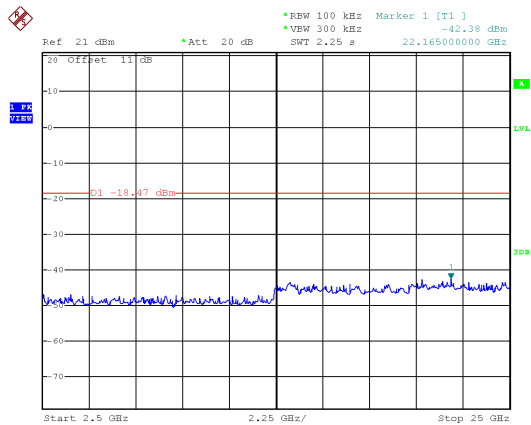
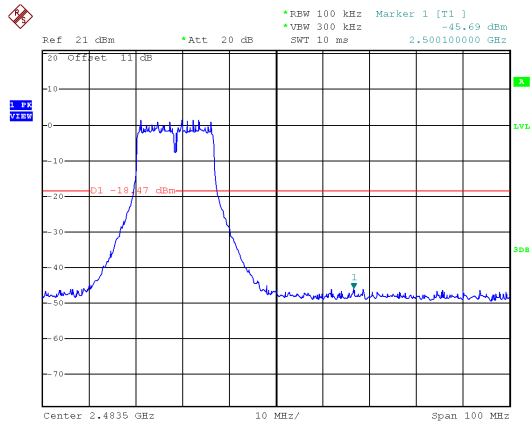
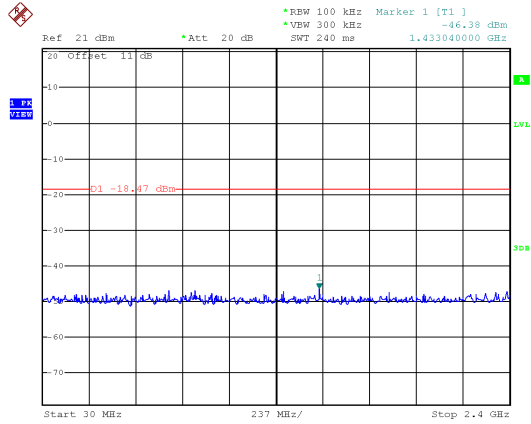
Modulation Type: 802.11g, CH 06





Antenna 3

Modulation Type: 802.11g, CH 11

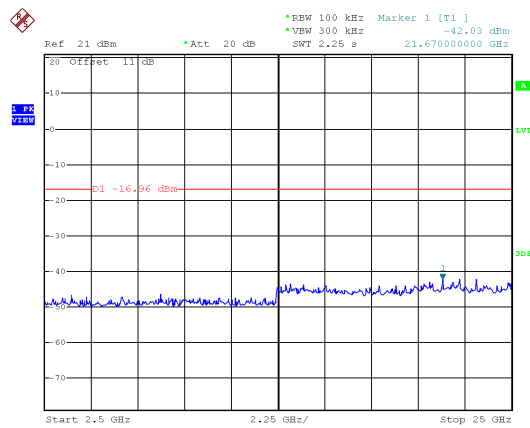
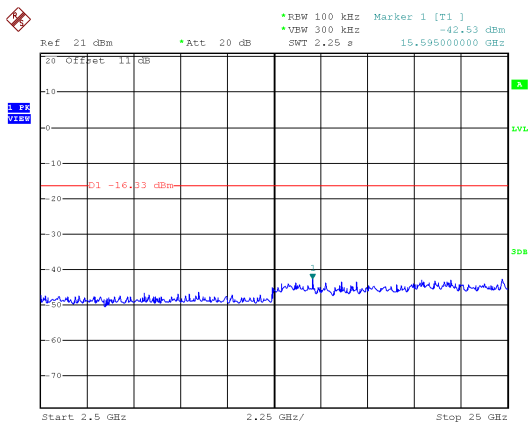
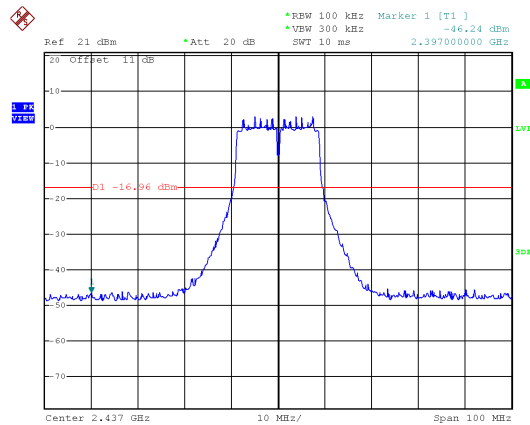
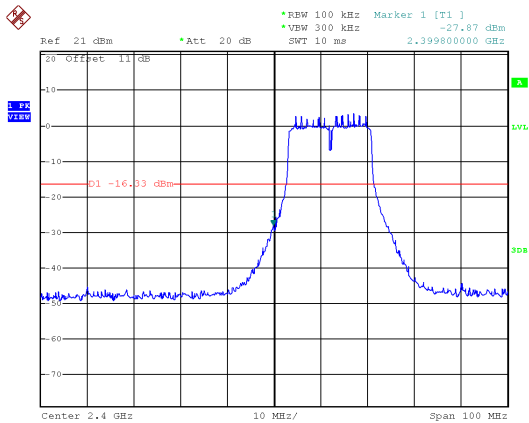
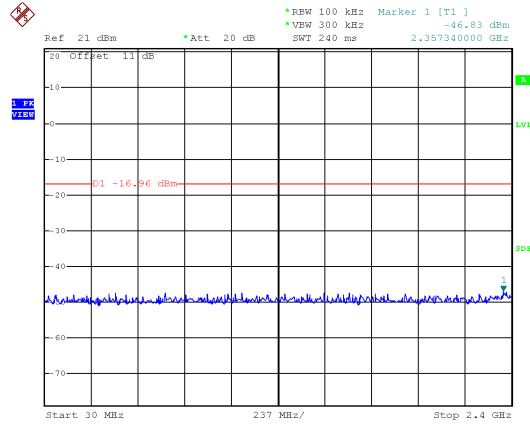
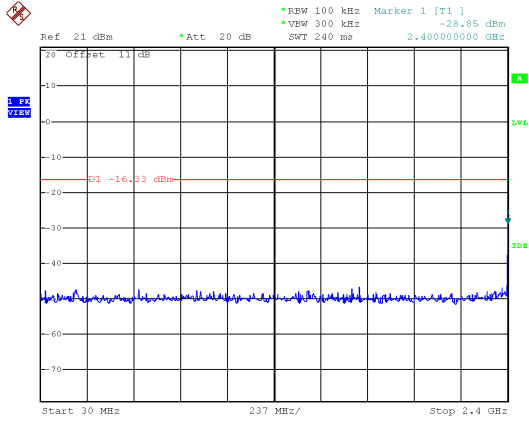




Antenna 3

Modulation Type: 802.11n HT20, CH 01

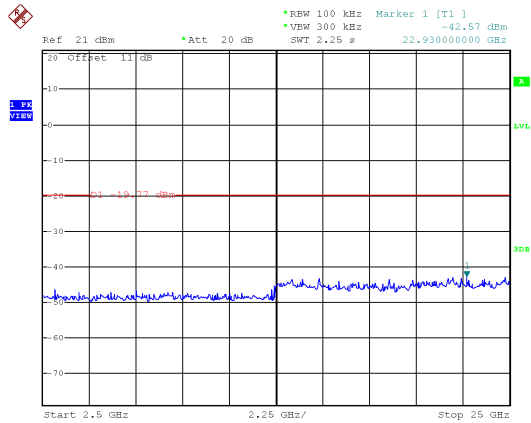
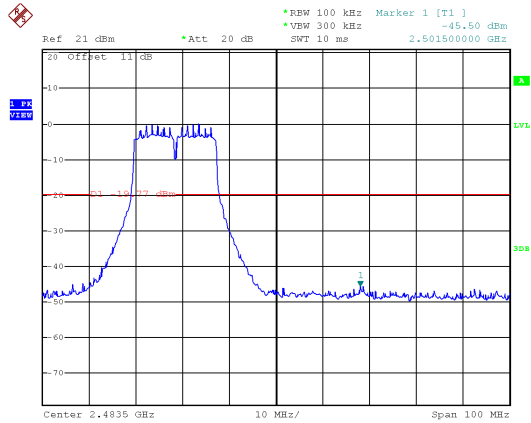
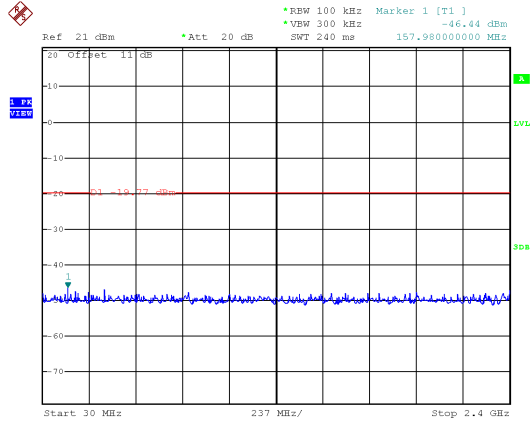
Modulation Type: 802.11n HT20, CH 06





Antenna 3

Modulation Type: 802.11n HT20, CH 11

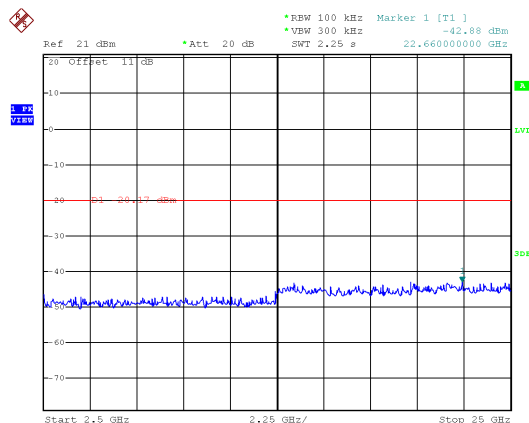
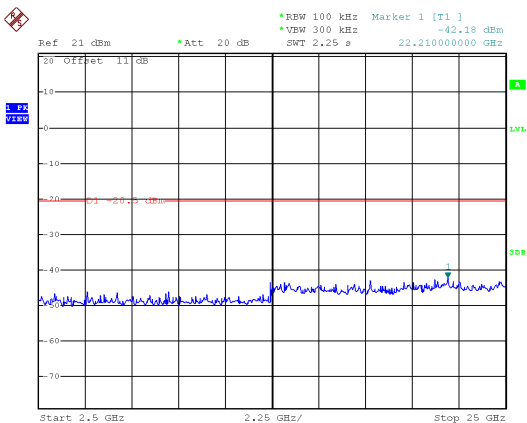
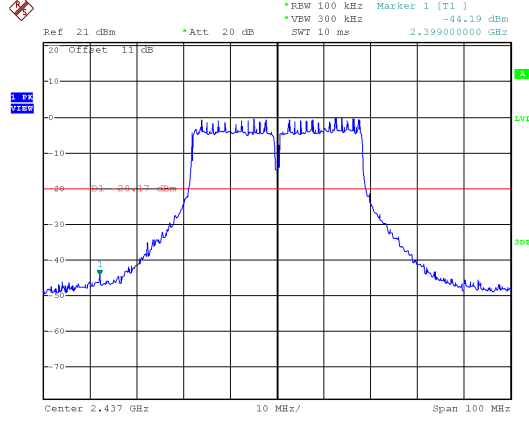
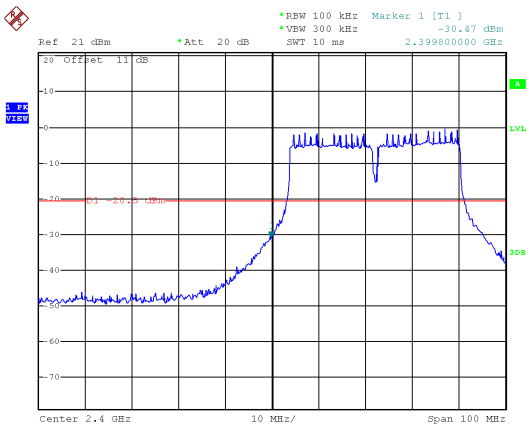
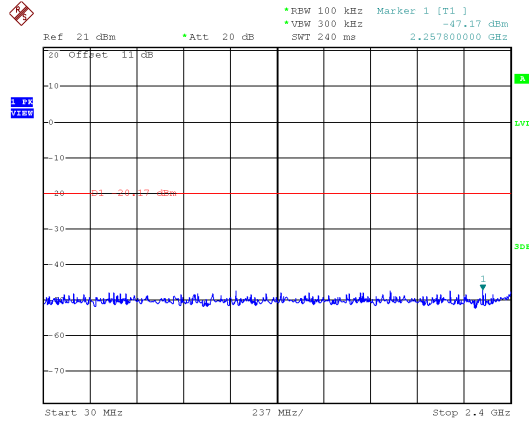
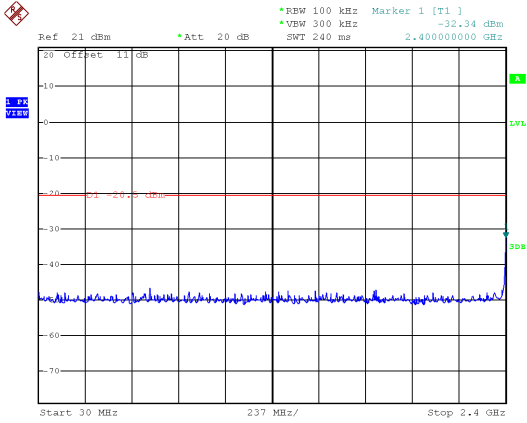




Antenna 3

Modulation Type: 802.11n HT40, CH 03

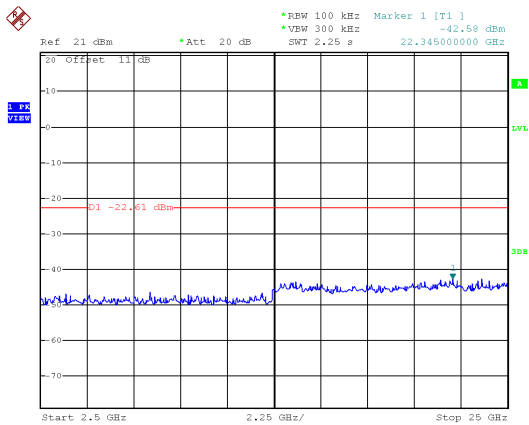
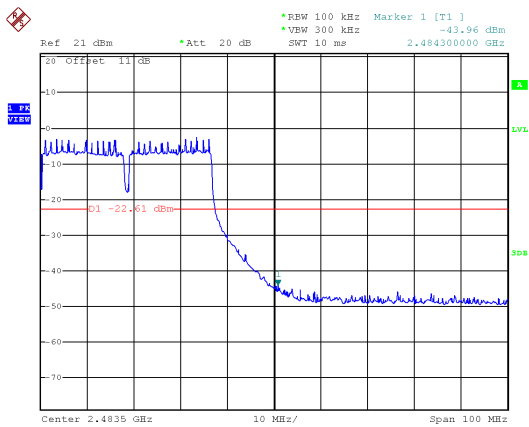
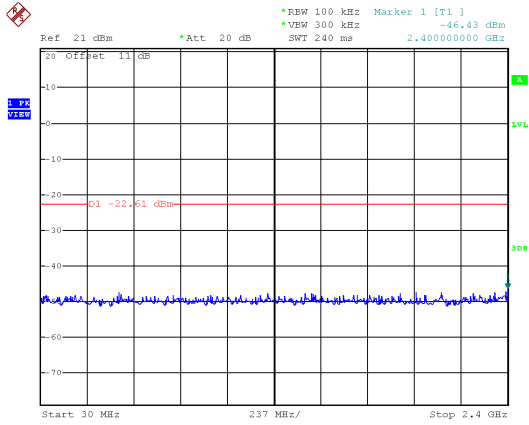
Modulation Type: 802.11n HT40, CH 06





Antenna 3

Modulation Type: 802.11n HT40, CH 09





8. 6dB Bandwidth Measurement Data

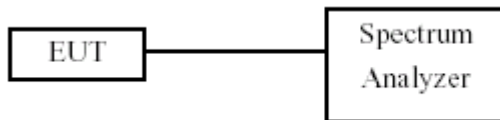
8.1 Test Limit

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

8.2 Test Procedures

- j. The transmitter output was connected to the spectrum analyzer.
- k. Set RBW of spectrum analyzer to 1~5% of the emission bandwidth and VBW ≥ 3x RBW.
- l. The 6 dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6 dB.
- m. The 6dB Bandwidth was measured and recorded.

8.3 Test Setup Layout



8.4 Test Result and Data

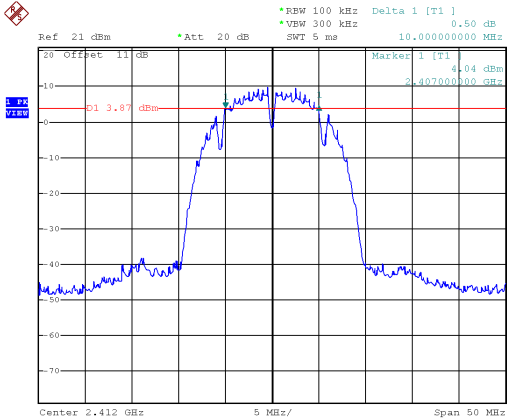
Test Date : Dec. 07, 2016
 Temperature : 23°C
 Humidity : 64%

Modulation Type	Channel	Frequency (MHz)	6dB Bandwidth (MHz)			Limits (MHz)
			ANT 1	ANT 2	ANT 3	
IEEE 802.11b (1Mbps)	01	2412	10.00	10.10	10.00	0.5
	06	2437	9.80	10.10	10.10	0.5
	11	2462	9.80	10.00	9.90	0.5
IEEE 802.11g (6Mbps)	01	2412	16.40	16.40	16.40	0.5
	06	2437	16.40	16.40	16.40	0.5
	11	2462	16.40	16.40	16.40	0.5
IEEE 802.11n HT20 (6.5Mbps)	01	2412	17.60	17.60	17.60	0.5
	06	2437	17.60	17.60	17.60	0.5
	11	2462	17.50	17.60	17.60	0.5
IEEE 802.11n HT40 (13.5Mbps)	03	2422	36.40	36.00	36.40	0.5
	06	2437	36.40	36.40	36.40	0.5
	09	2452	36.40	36.40	36.40	0.5

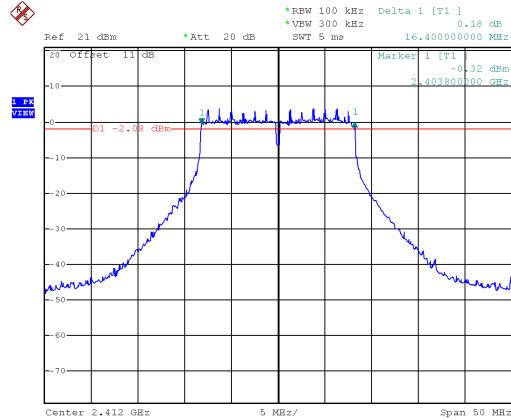


Antenna 1

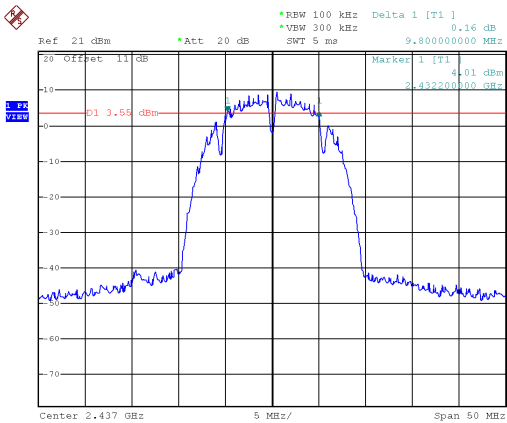
Modulation Type: 802.11b
CH01



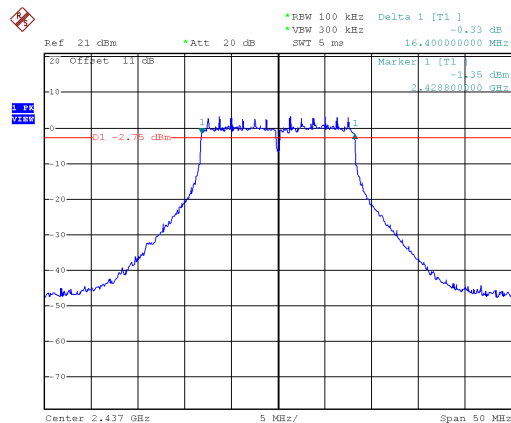
Modulation Type: 802.11g
CH01



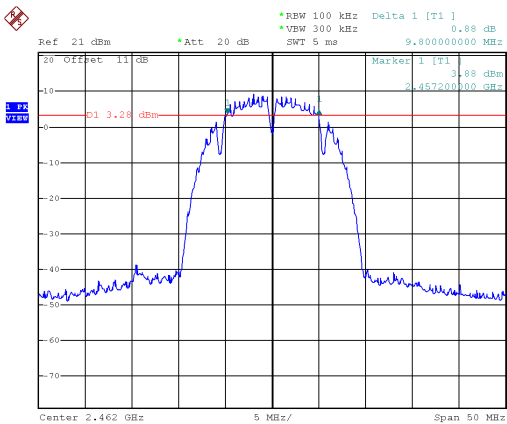
CH06



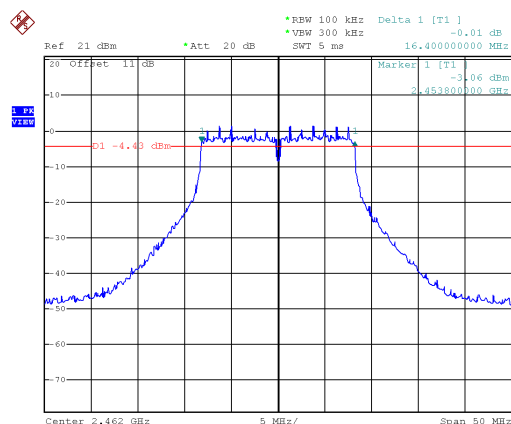
CH06



CH11



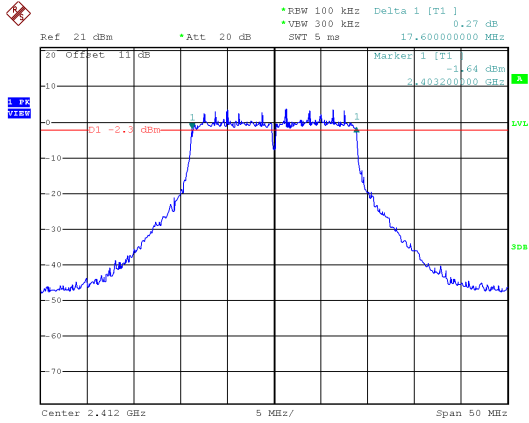
CH11



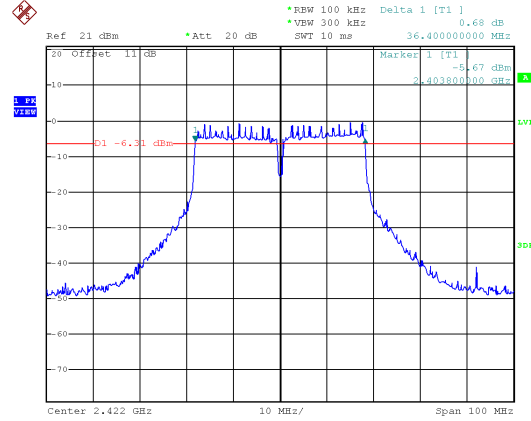


Antenna 1

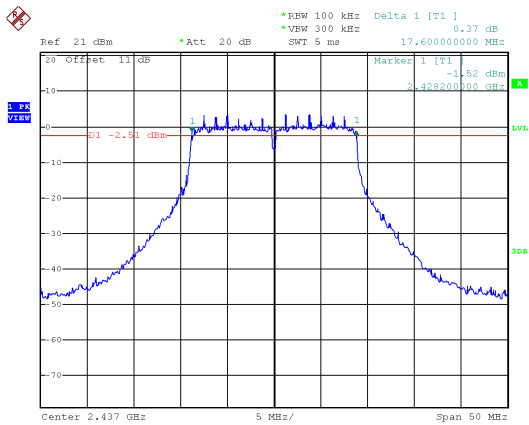
Modulation Type: 802.11n HT20
CH01



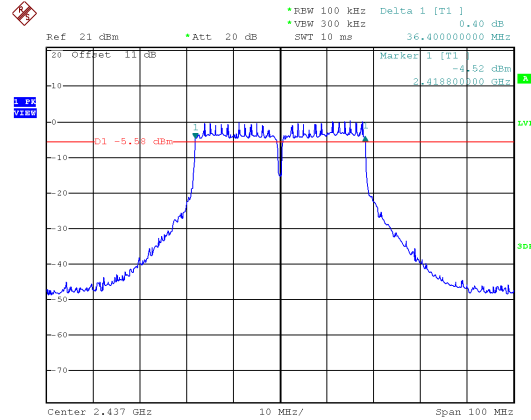
Modulation Type: 802.11n HT40
CH03



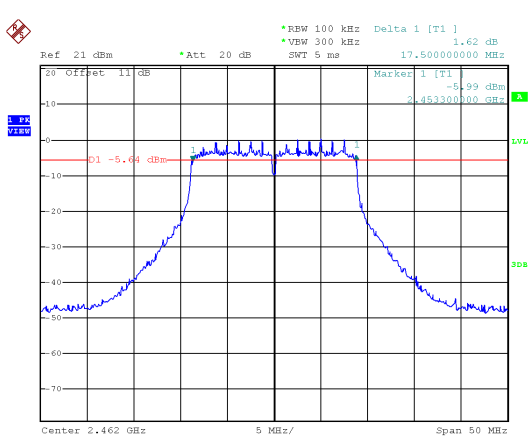
CH06



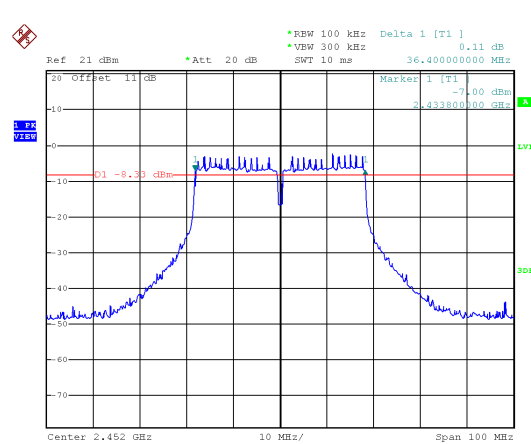
CH06



CH11



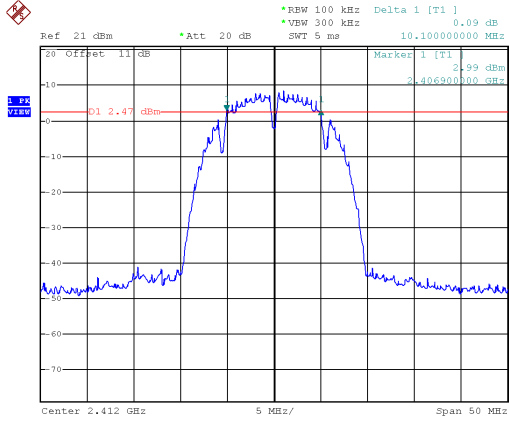
CH09



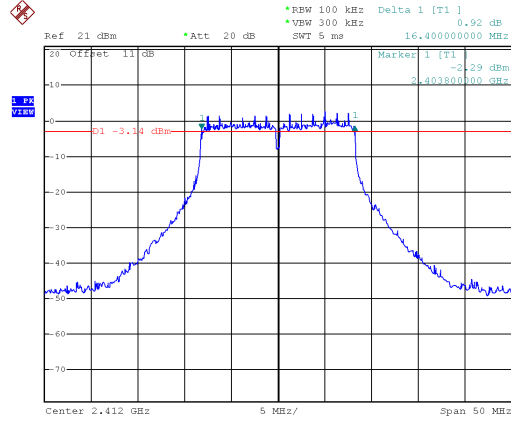


Antenna 2

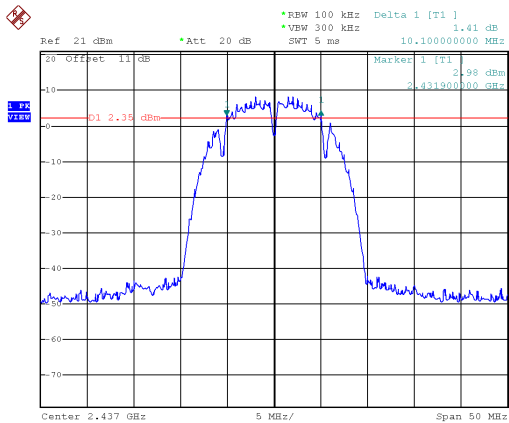
Modulation Type: 802.11b
CH01



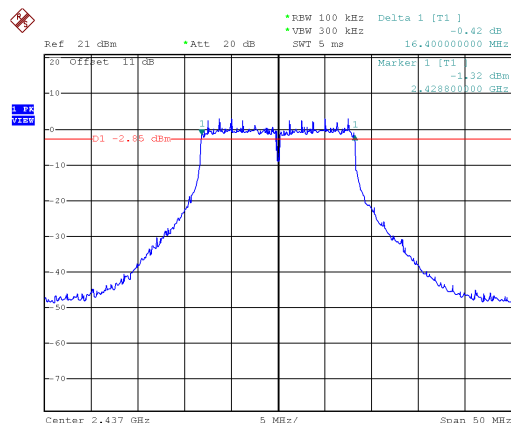
Modulation Type: 802.11g
CH01



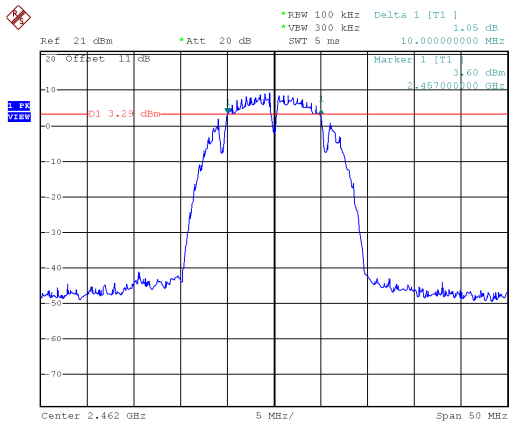
CH06



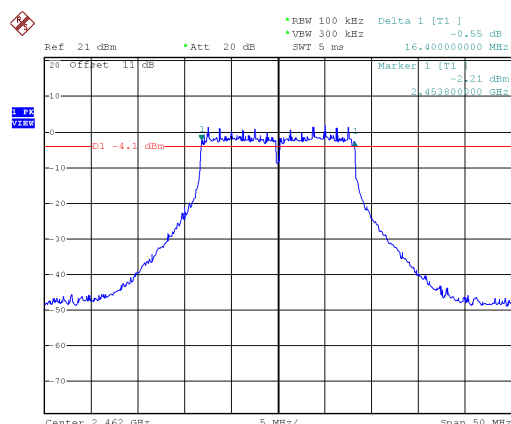
CH06



CH11



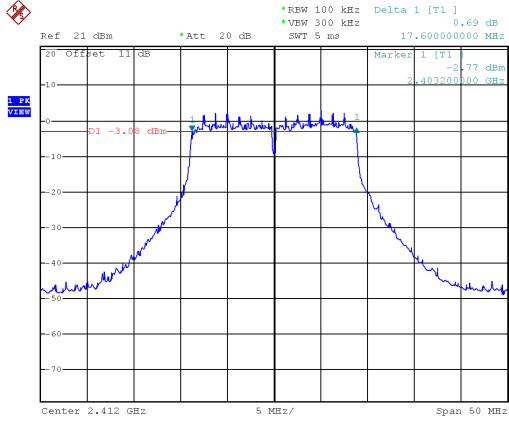
CH11



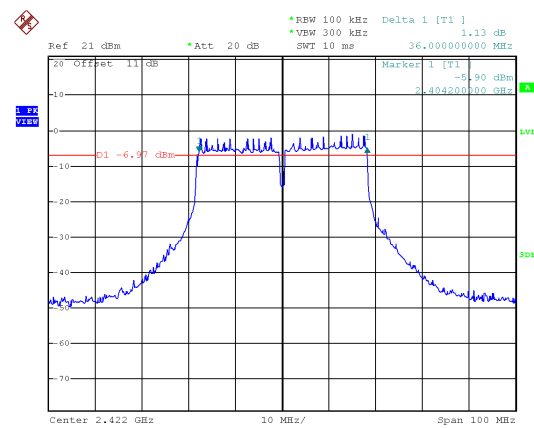


Antenna 2

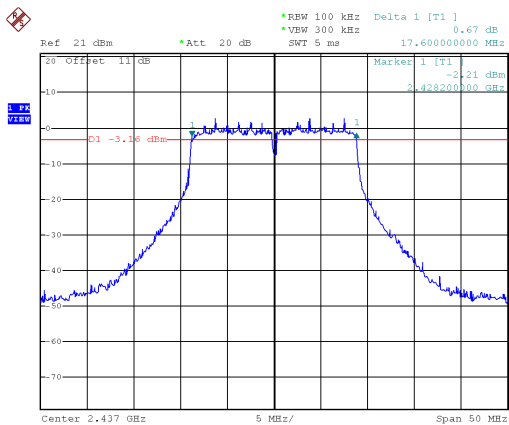
Modulation Type: 802.11n HT20
CH01



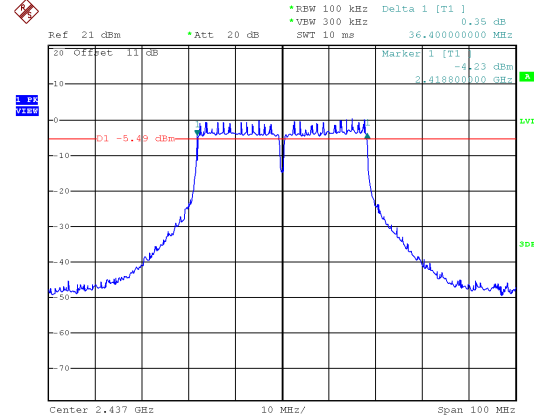
Modulation Type: 802.11n HT40
CH03



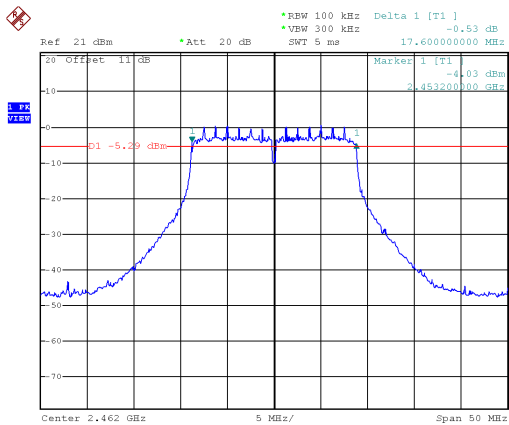
CH06



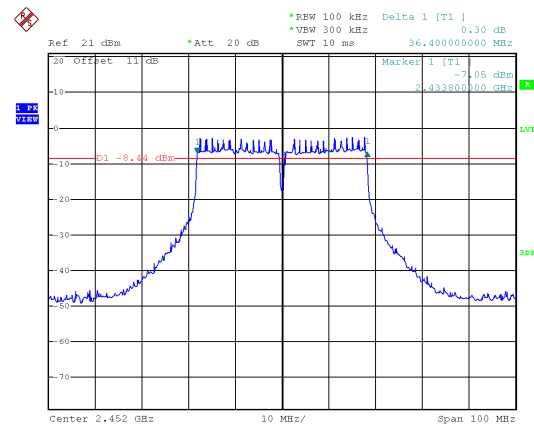
CH06



CH11



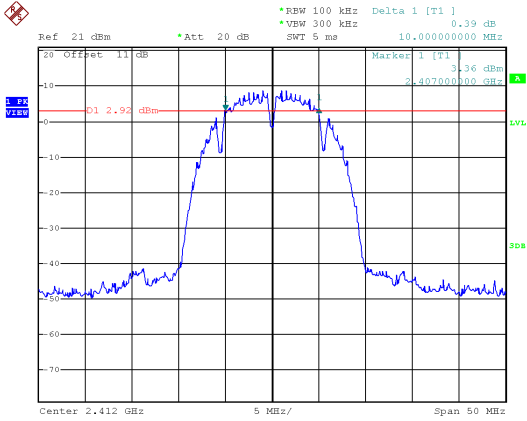
CH09



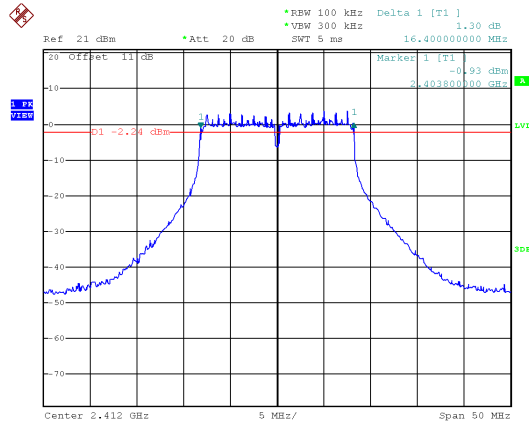


Antenna 3

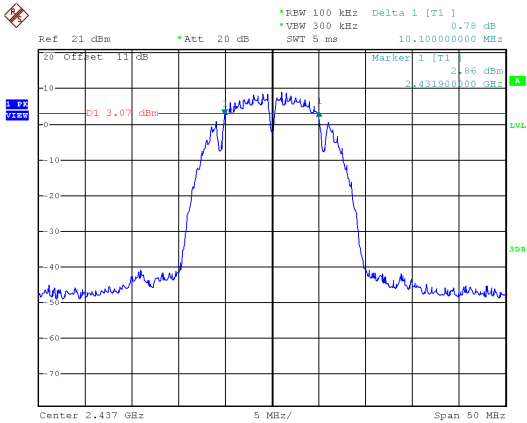
Modulation Type: 802.11b
CH01



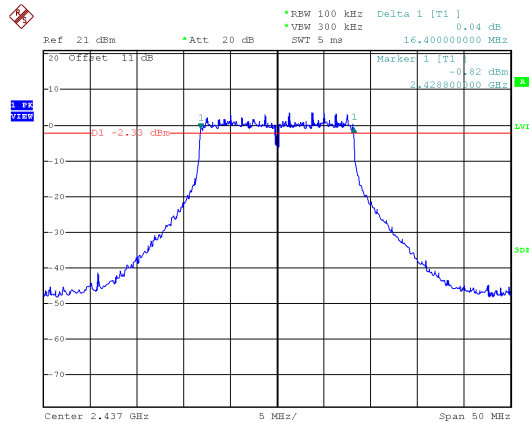
Modulation Type: 802.11g
CH01



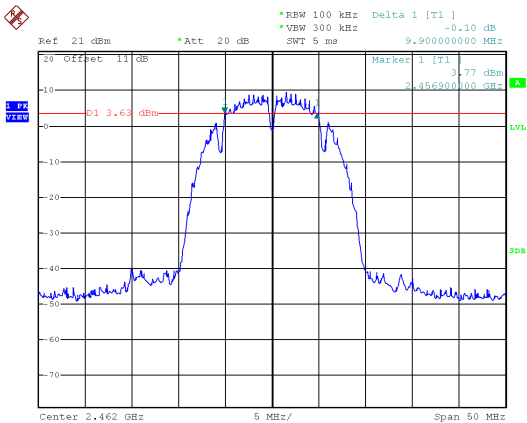
CH06



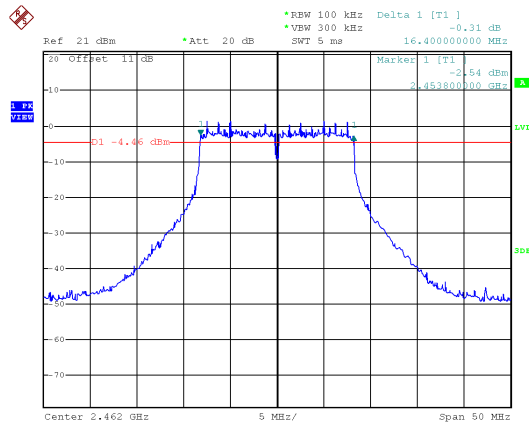
CH06



CH11



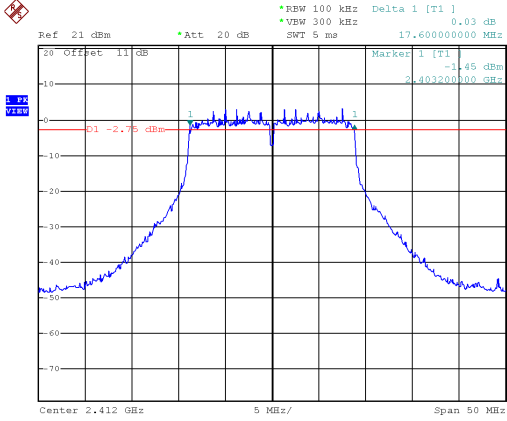
CH11



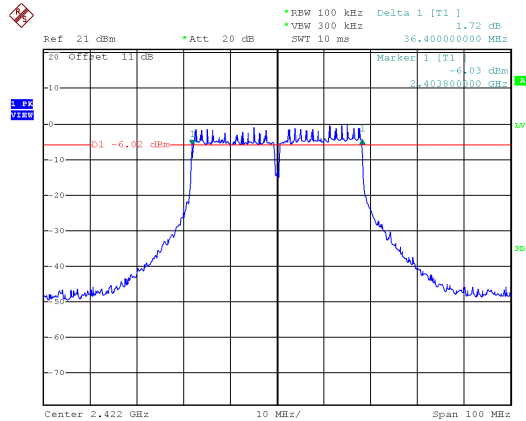


Antenna 3

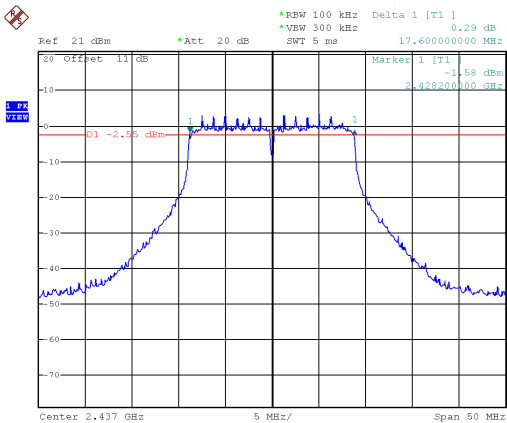
Modulation Type: 802.11n HT20
CH01



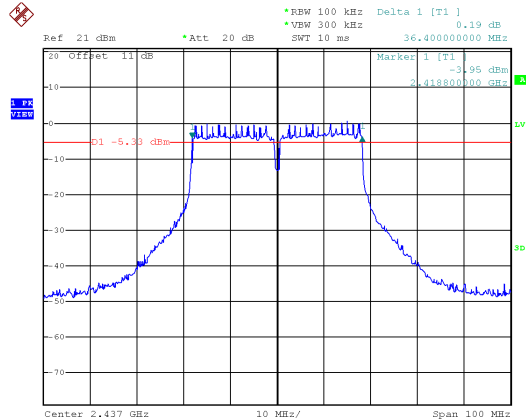
Modulation Type: 802.11n HT40
CH03



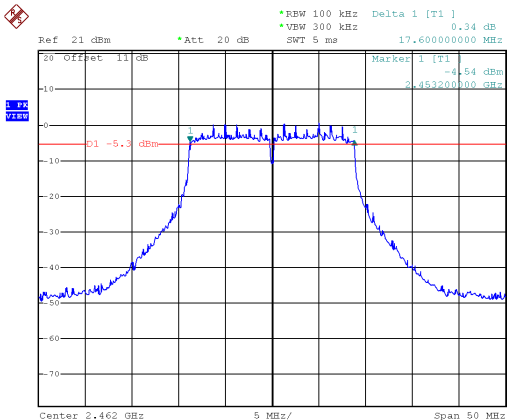
CH06



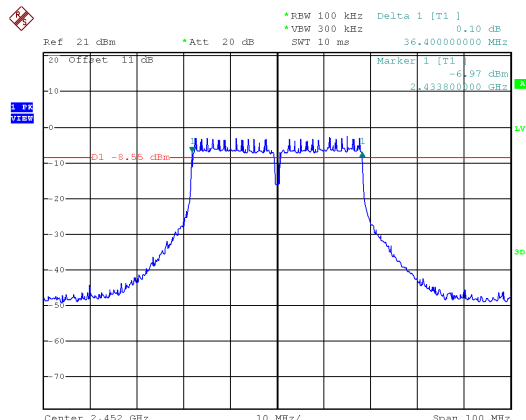
CH06



CH11



CH09





9. Maximum Peak and Average Output Power

9.1 Test Limit

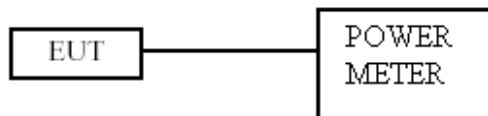
The Maximum Peak Output Power Measurement is 30dBm.

If transmitting antennas of directional gain greater than 6 dBi are used, the peak output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi

9.2 Test Procedures

The antenna port (RF output) of the EUT was connected to the input (RF input) of a power meter. Power was read directly from the meter and cable loss connection was added to the reading to obtain power at the EUT antenna terminal. The EUT Output Power was set to maximum to produce the worse case test result.

9.3 Test Setup Layout





9.4 Test Result and Data

Test Date : Dec. 07, 2016
 Temperature : 23°C
 Humidity : 64%

Modulation Type	Channel	Frequency (MHz)	Peak Power Output (dBm)				Peak Power Output (mW)	Power Limit (dBm)
			ANT 1	ANT 2	ANT 3	1+2+3	ANT 1+2+3	
IEEE 802.11b (1Mbps)	01	2412	21.35	20.43	21.21	25.79	378.996	30.00
	06	2437	21.03	20.53	20.81	25.57	360.248	30.00
	11	2462	21.07	21.21	21.33	25.98	395.899	30.00
IEEE 802.11g (6Mbps)	01	2412	25.34	24.22	25.12	29.69	931.308	30.00
	06	2437	25.23	24.73	25.21	29.83	962.487	30.00
	11	2462	23.47	23.52	23.49	28.26	670.594	30.00
IEEE 802.11n HT20 (6.5Mbps)	01	2412	24.93	24.05	24.92	29.42	875.725	30.00
	06	2437	25.12	24.79	24.91	29.71	936.130	30.00
	11	2462	21.92	22.13	22.11	26.83	481.457	30.00
IEEE 802.11n HT40 (13.5Mbps)	03	2422	22.75	21.93	22.37	27.13	516.904	30.00
	06	2437	24.43	24.21	24.25	29.07	807.038	30.00
	09	2452	21.78	21.63	21.34	26.36	432.351	30.00

Modulation Type	Channel	Frequency (MHz)	Avg. Power Output (dBm)				Avg. Power Output (mW)	Power Limit (dBm)
			ANT 1	ANT 2	ANT 3	1+2+3	ANT 1+2+3	
IEEE 802.11b (1Mbps)	01	2412	18.94	17.96	18.72	23.33	215.333	N/A
	06	2437	18.66	18.19	18.43	23.20	209.031	N/A
	11	2462	18.65	18.84	18.91	23.57	227.646	N/A
IEEE 802.11g (6Mbps)	01	2412	15.42	14.32	15.14	19.76	94.532	N/A
	06	2437	15.41	14.93	15.26	19.98	99.445	N/A
	11	2462	13.45	13.61	13.49	18.29	67.428	N/A
IEEE 802.11n HT20 (6.5Mbps)	01	2412	15.12	14.01	14.94	19.49	88.874	N/A
	06	2437	15.23	14.95	15.11	19.87	97.037	N/A
	11	2462	11.93	12.09	12	16.78	47.625	N/A
IEEE 802.11n HT40 (13.5Mbps)	03	2422	13.06	12.19	12.59	17.40	54.943	N/A
	06	2437	14.72	14.49	14.45	19.33	85.629	N/A
	09	2452	12.07	11.75	11.54	16.56	45.325	N/A

Note: Average power is for reference only.



10. Power Spectral Density

10.1 Test Limit

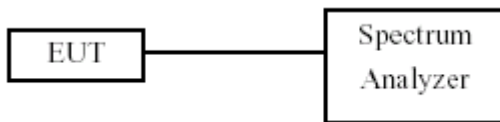
The Maximum of Power Spectral Density Measurement is 8dBm.

If transmitting antennas of directional gain greater than 6 dBi are used, the power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi

10.2 Test Procedures

- a. The transmitter output was connected to spectrum analyzer.
- b. The spectrum analyzer’s resolution bandwidth were set at 3kHz RBW and 30KHz VBW as that of the fundamental frequency. Set the sweep time=auto couple.
- c. The power spectral density was measured and recorded.

10.3 Test Setup Layout



10.4 Test Result and Data

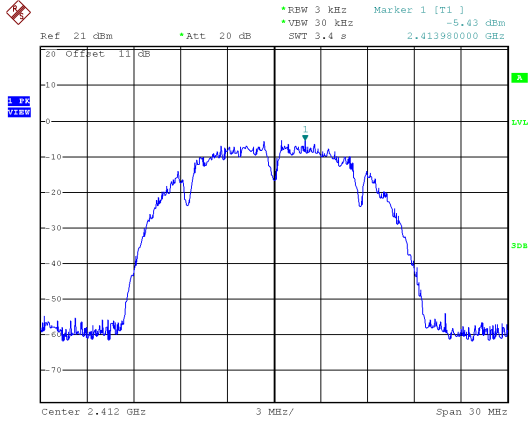
Test Date : Dec. 07, 2016
 Temperature : 23°C
 Humidity : 64%

Modulation Type	Channel	Frequency (MHz)	Maximum Power Density of 3 kHz Bandwidth (dBm)			Sum chain (dBm)	Duty Cycle CF(dB)	Total PSD (dBm)	Limit (dBm)
			ANT1	ANT 2	ANT 3				
IEEE 802.11b (1Mbps)	01	2412	-5.43	-6.36	-4.48	-0.58	0.00	-0.58	8.00
	06	2437	-4.83	-5.88	-6.31	-0.86	0.00	-0.86	8.00
	11	2462	-6.07	-5.82	-4.53	-0.65	0.00	-0.65	8.00
IEEE 802.11g (6Mbps)	01	2412	-10.54	-12.19	-10.41	-6.20	0.00	-6.20	8.00
	06	2437	-12.05	-12.29	-11.36	-7.11	0.00	-7.11	8.00
	11	2462	-12.84	-11.79	-11.33	-7.17	0.00	-7.17	8.00
IEEE 802.11n HT20 (6.5Mbps)	01	2412	-9.24	-11.54	-13.38	-6.29	0.00	-6.29	8.00
	06	2437	-10.36	-13.51	-10.91	-6.62	0.00	-6.62	8.00
	11	2462	-13.89	-13.99	-14.24	-9.27	0.00	-9.27	8.00
IEEE 802.11n HT40 (13.5Mbps)	03	2422	-15.04	-16.49	-16.42	-11.16	0.00	-11.16	8.00
	06	2437	-13.02	-14.59	-14.89	-9.32	0.00	-9.32	8.00
	09	2452	-17.22	-15.82	-16.86	-11.82	0.00	-11.82	8.00

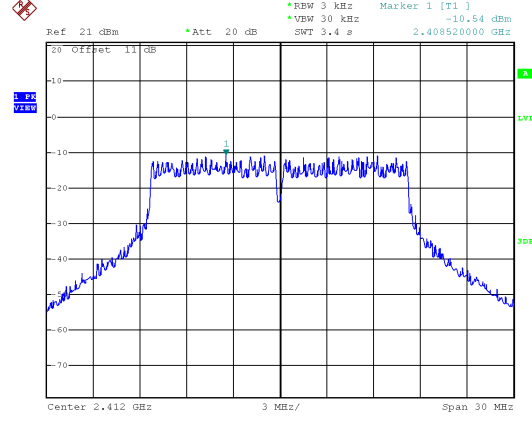


Antenna 1

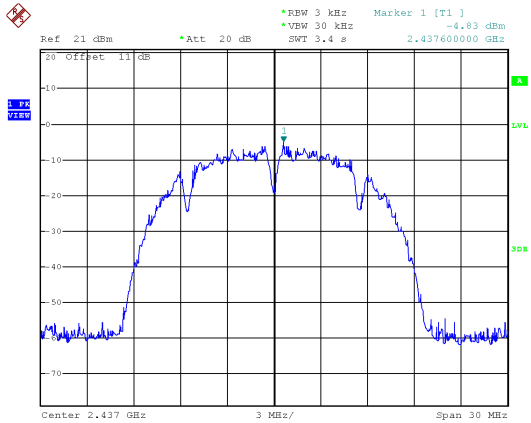
Modulation Type: 802.11b
CH01



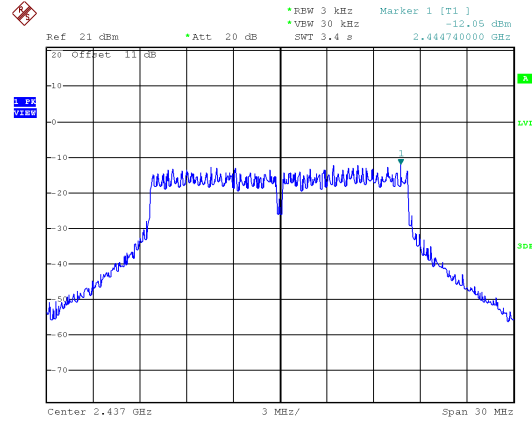
Modulation Type: 802.11b
CH01



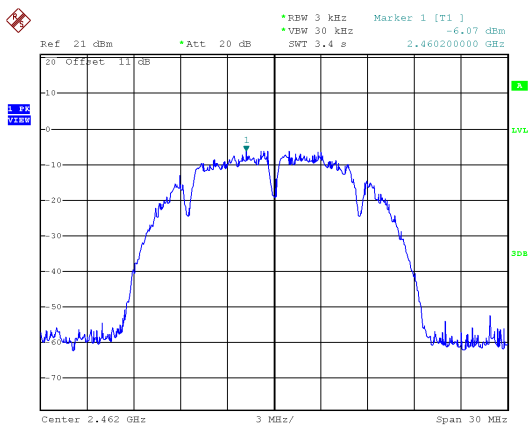
CH06



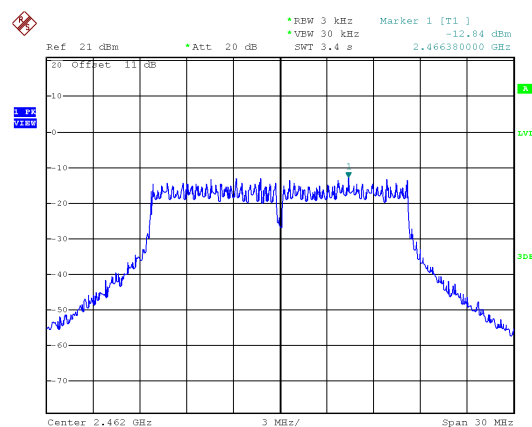
CH06



CH11



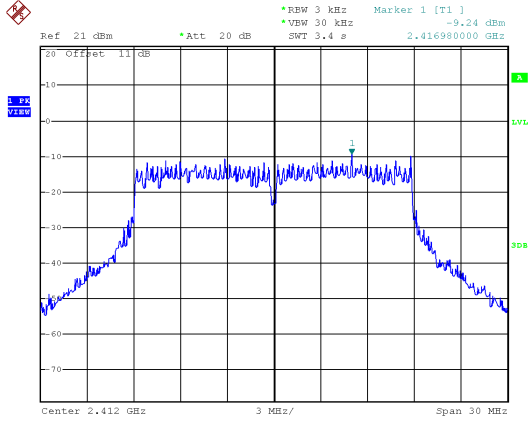
CH11



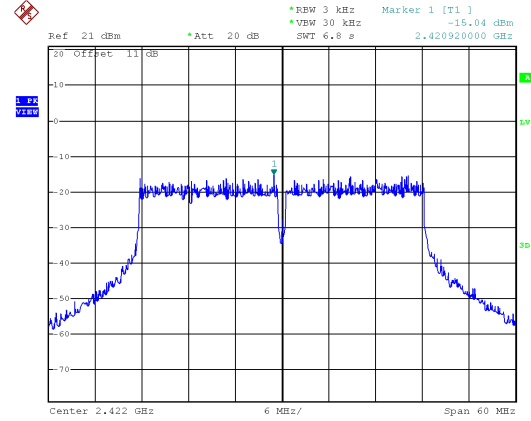


Antenna 1

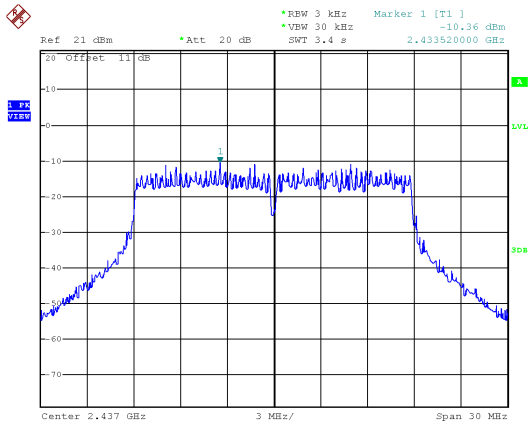
Modulation Type: 802.11n HT20
CH01



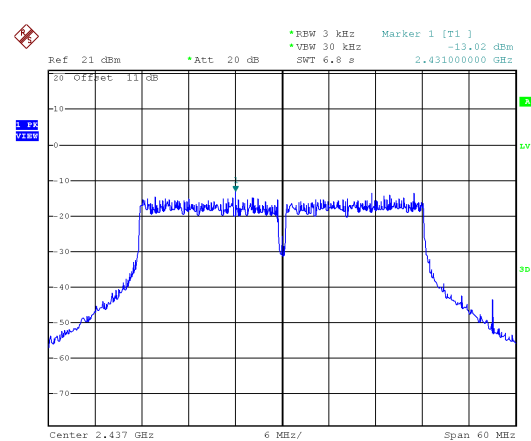
Modulation Type: 802.11n HT40
CH03



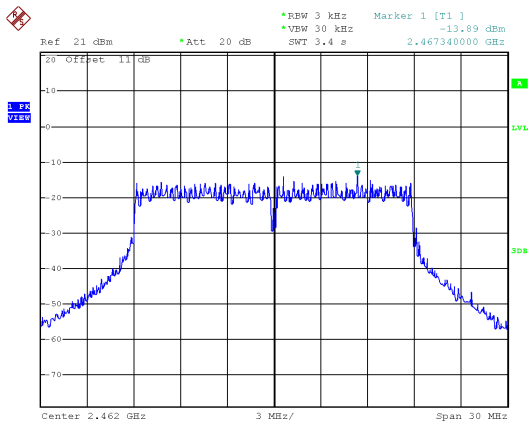
CH06



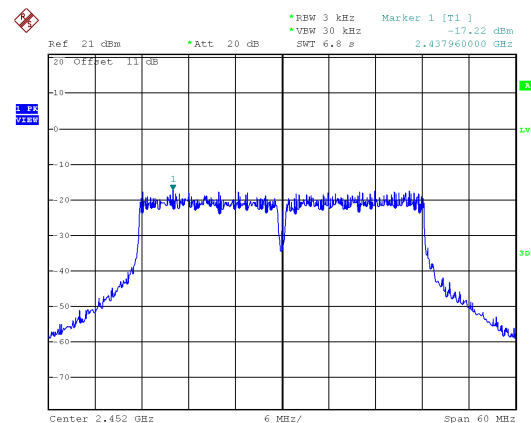
CH06



CH11



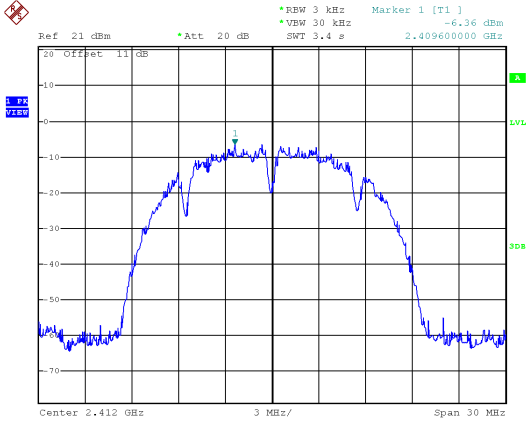
CH09



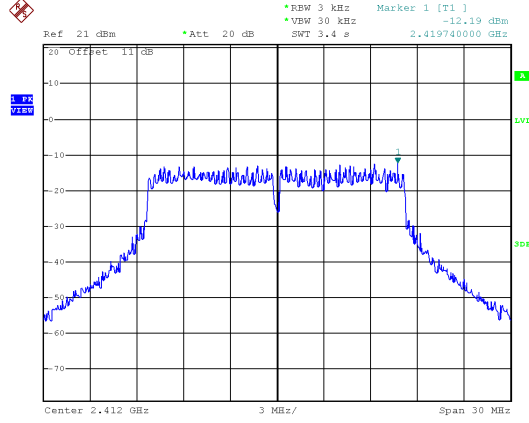


Antenna 2

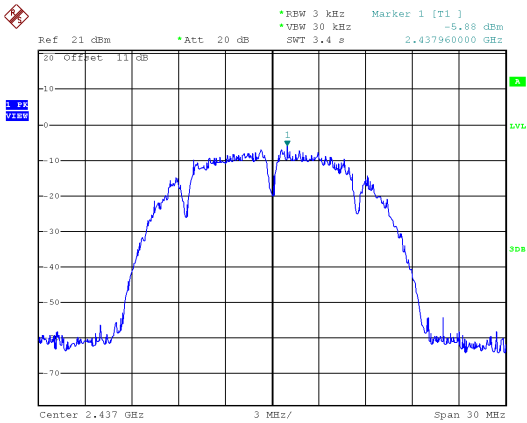
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CH01



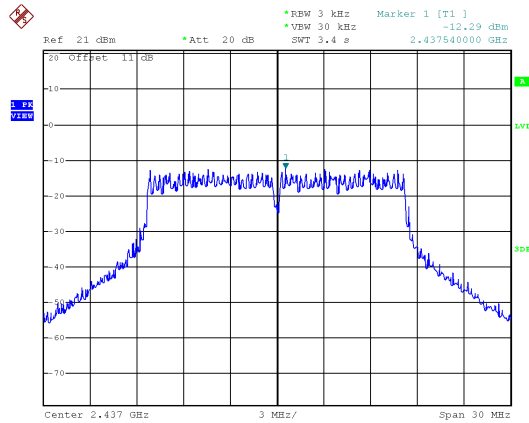
Modulation Type: 802.11g
CH01



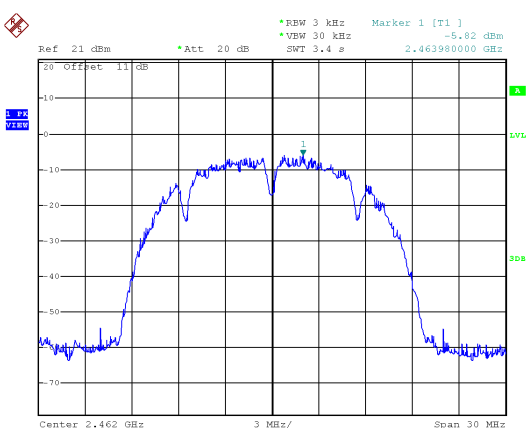
CH06



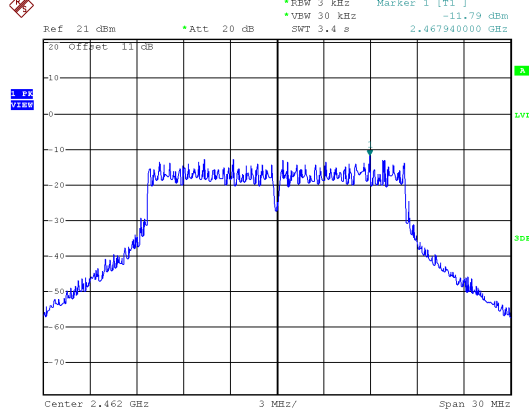
CH06



CH11



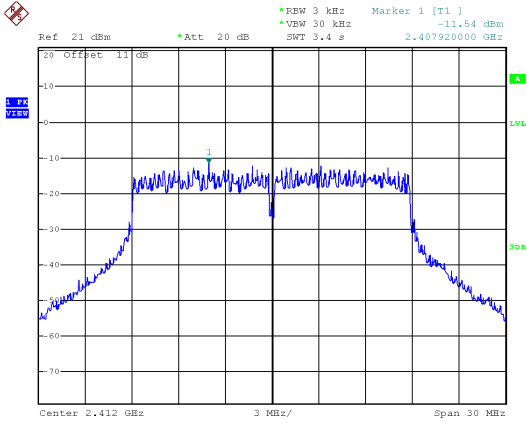
CH11



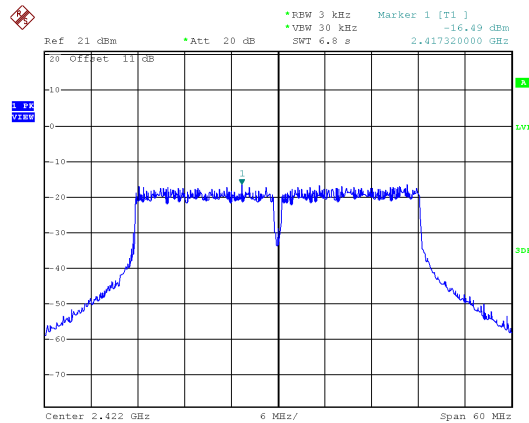


Antenna 2

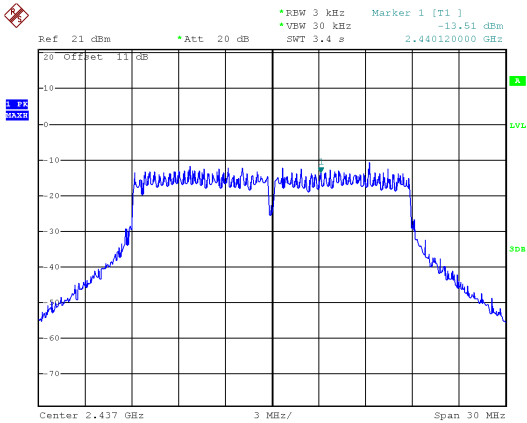
Modulation Type: 802.11n HT20
CH01



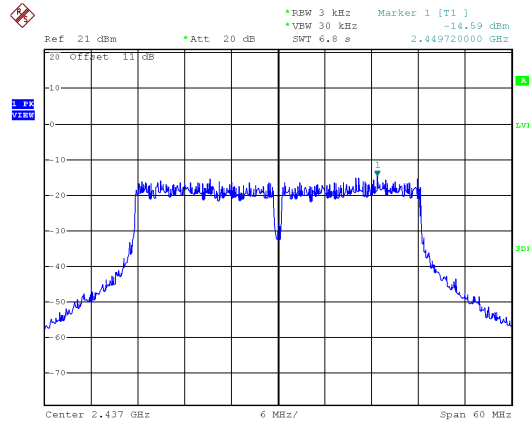
Modulation Type: 802.11n HT40
CH03



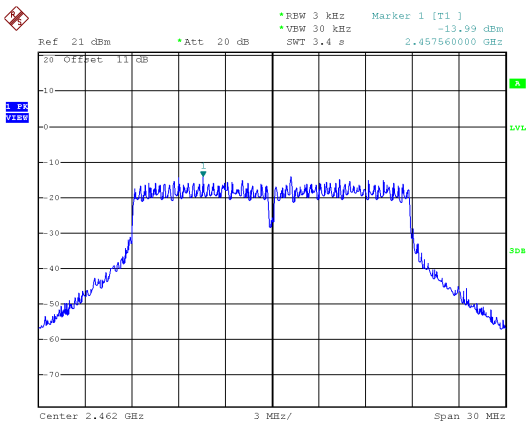
CH06



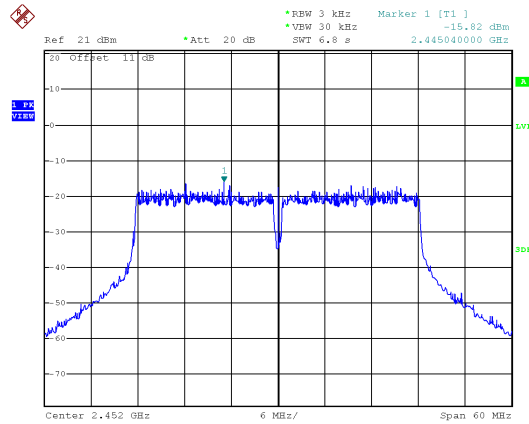
CH06



CH11



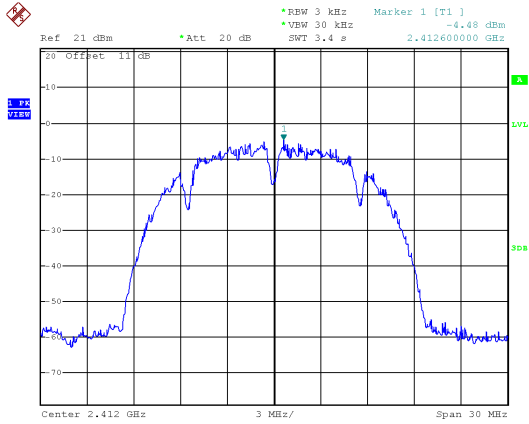
CH09



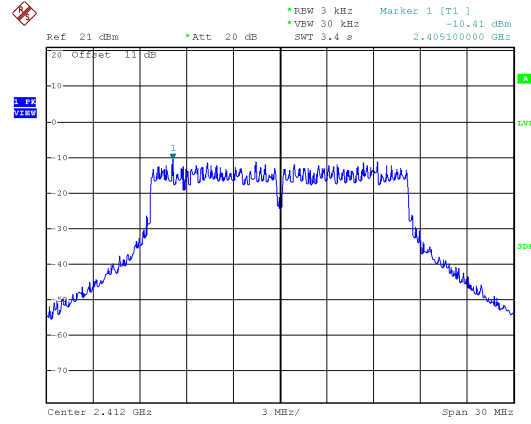


Antenna 3

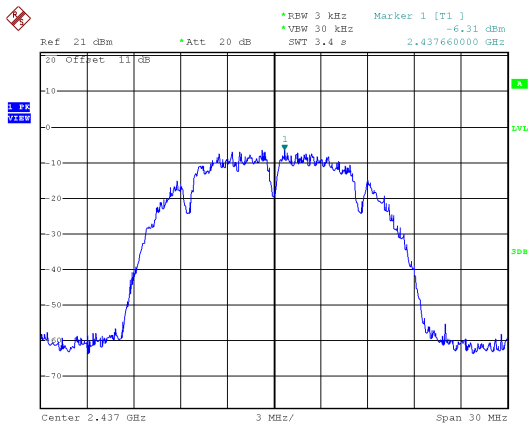
Modulation Type: 802.11b
CH01



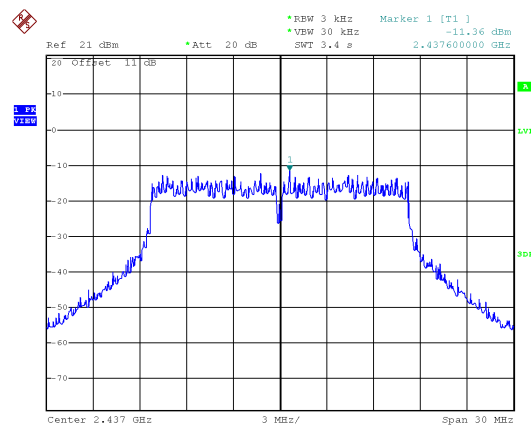
Modulation Type: 802.11g
CH01



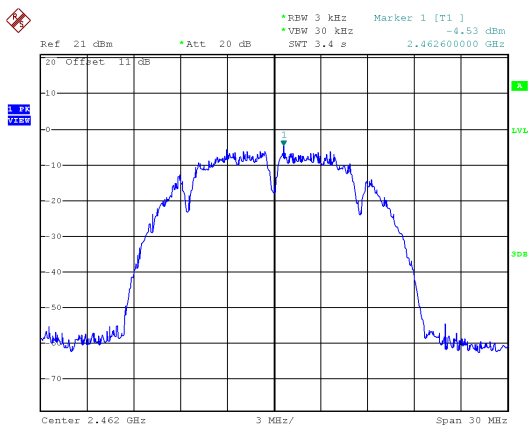
CH06



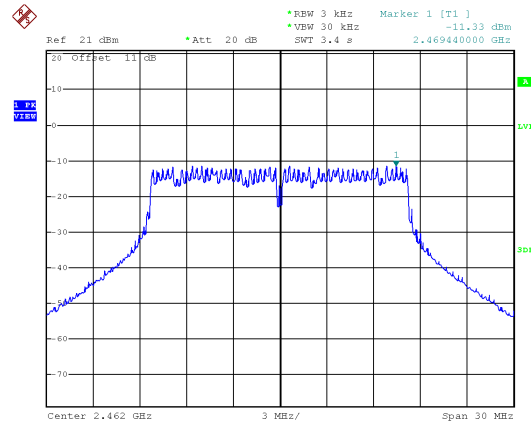
CH06



CH11



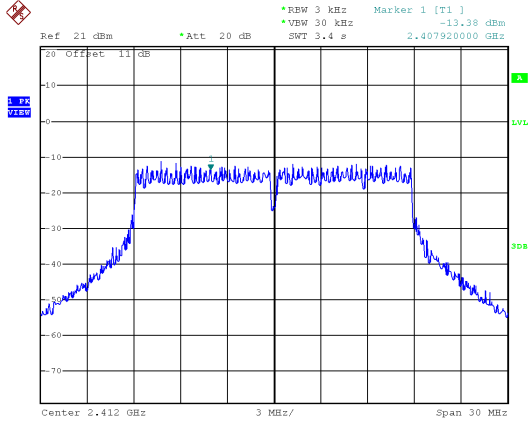
CH11



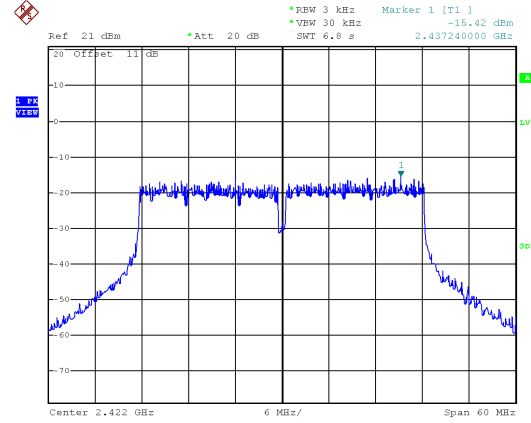


Antenna 3

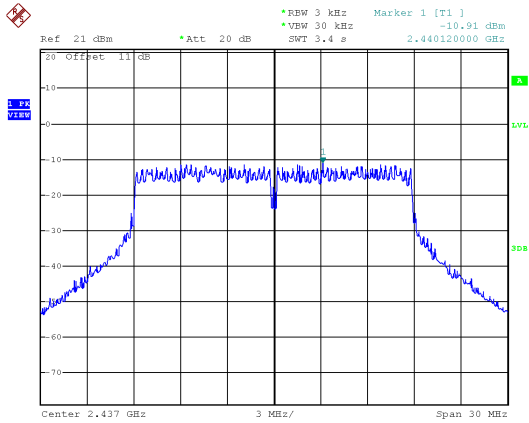
Modulation Type: 802.11n HT20
CH01



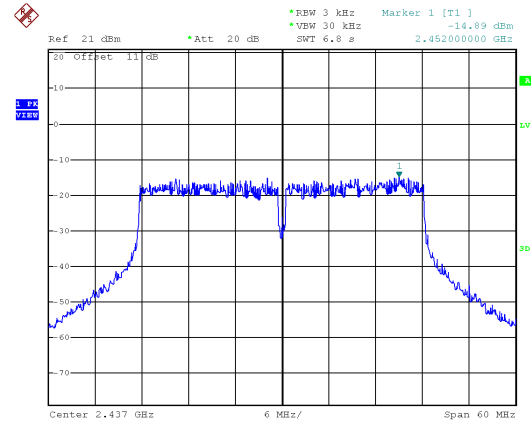
Modulation Type: 802.11n HT40
CH03



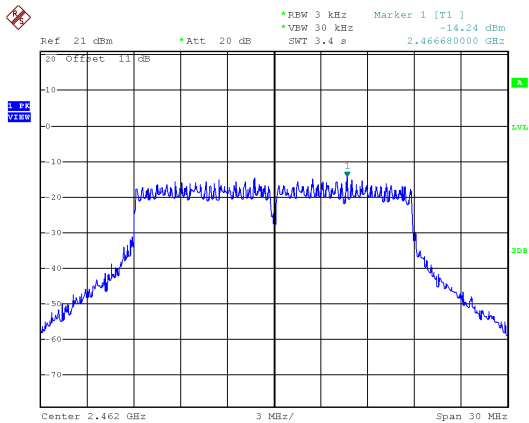
CH06



CH06



CH11



CH09

