FCC RADIO TEST REPORT

Applicant	:	LAERDAL MEDICAL AS
Address	:	P.O. Box 377 Tanke Svilandsgate 30 4002 Stavanger, Norway
Equipment	:	Laerdal CPU module
Model No.	:	20-11480
Trade Name	:	LAERDAL MEDICAL AS
FCC ID.	:	QHQ-2011480

I HEREBY CERTIFY THAT :

The sample was received on Aug. 22, 2017 and the testing was carried out on Sep. 07, 2017 at Cerpass Technology Corp. The test result refers exclusively to the test presented test model / sample. Without written approval of Cerpass Technology Corp., the test report shall not be reproduced except in full.

Approved by:

Mark Liao / Assistant Manager

Tested by:

Spree Yei / Engineer

Laboratory Accreditation:

Cerpass Technology Corporation Test Laboratory

Contents

History of this test report

Report No.	Issue Date	Description
TEFI1707220	Sep. 20, 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

Modulation Type	DSSS, OFDM, FHSS, GFSK
Frequency Range	802.11b/g/n: 2412-2462MHz 802.11a/an: 5150-5250MHz, 5250-5350MHz, 5470-5725MHz, 5725-5850MHz BLE: 2402-2480MHz
Data Rate	WLAN: 802.11b: 1, 2, 5.5, 11Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps 802.11n: MCS0 – MCS15, HT20 802.11a: 6, 9, 12, 18, 24, 36, 48, 54Mbps 802.11an: MCS0 – MCS9, HT20/40 BLE: GFSK: 1Mbps
Antenna Type	PIFA Antenna
Antenna Gain	2.4G: 1TX: ANT B: 1.1dBi 2TX: ANT A: 0.9dBi, ANT B: 1.1dBi 5G: 1TX: ANT A: 5.8dBi 2TX: ANT A: 5.8dBi, ANT B: 5.1dBi BLE: ANT B: 1.1dBi

2.2 Carrier Frequency of Channels

802.11b, 802.11g, 802.11n HT20 (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**	---	---

Note: Channels remarked * are selected to perform test.

2.3 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 remote workstation and EUT for RF test. The remote workstation included Notebook and AP.
c. An executive program,"wl command" under WIN 7 was executed to transmit and receive data via WLAN.
d. The following test modes were performed for the test:

Test Mode	Operating Description
1	802.11b (1Mbps), 1TX
2	802.11g (6Mbps), 1TX
3	802.11n HT20 (6.5Mbps), 1TX
4	802.11g (6Mbps), 2TX
5	802.11n HT20 (6.5Mbps), 2TX
For conduction test, caused "Test Mode 4" generated the worst case, it was reported as the final data. For radiation test (below 1GHz), caused "Test Mode 4" generated the worst case, it was reported as the final data. For radiation test (above 1GHz), caused "Test Mode 1~5" generated the worst case, they were reported as the final data.	

2.4 Description of Test System

Device	Manufacturer	Model No.	Description
Remote workstation			
Notebook	DELL	LatitudeE5450/5450	Power Cable, Unshielding, 1.8m
AP	D-Link	DIR-868L	Power Cable, Unshielding, 1.8m

2.5 General Information of Test

Test Site	**Cerpass 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-4399, R-4218 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.	

2.6 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	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date
EMI Receiver	R&S	ESCI3	100443	2017/03/07	2018/03/06
LISN	Schwarzbeck	NSLK 8127	8127-568	2017/02/15	2018/02/14
Pulse Limiter	R&S	ESH3-Z2	101934	2017/02/14	2018/02/13
Bilog Antenna	Schwarzbeck	VULB9168	369	2017/03/15	2018/03/14
Active Loop Antenna	EMCO	6507	40855	2017/05/15	2018/05/14
Horn Antenna	EMCO	3115	31589	2017/02/18	2018/02/17
Horn Anrenna	EMCO	3116	31970	2017/03/29	2018/03/28
EXA Signal Analyzer	KEYSIGHT	N9010A	MY54200207	2017/03/17	2018/03/16
Preamplifier	EM	EM330	60660	2017/02/25	2018/02/24
Preamplifier	EMC INSTRUMENTS	EMC051845SE	980333	2017/09/20	2018/09/19
Preamplifier	Agilent	8449B	3008A01954	2017/02/09	2018/02/08
Preamplifier	EMC INSTRUMENTS	EMC184045	980065	2016/11/04	2017/11/03
MXG MW Analog Signal Generator	KEYSIGHT	N5183A	MY50142931	2017/03/17	2018/03/16
Spectrum Analyzer	R&S	FSP40	100219	2017/07/01	2018/06/30
BLUETOOTH TESTER	R&S	CBT	101133	2017/03/10	2018/03/09
Attenuator	KEYSIGHT	8491B	MY39250703	2017/03/07	2018/03/06
Rotary Attenuator	Agilent	8495B	MY42146680	2017/03/13	2018/03/12
Temp & Humi chamber	T-MACHINE	TMJ-9712	T-12-040111	2017/09/04	2018/09/03
Series Power Meter	Anritsu	ML2495A	1224005	2017/03/01	2018/02/28
Power Sensor	Anritsu	MA2411B	1207295	2017/03/01	2018/02/28
Cable	HUBER SUHNER	SUCOFLEX 102	28422/2	2017/02/25	2018/02/24
Cable	HUBER SUHNER	SUCOFLEX 102	28418/2	2017/02/25	2018/02/24
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	Dual band and PIFA Type Antenna
Antenna Gain	1TX: ANT B: 1.1dBi 2TX: ANT A: 0.9dBi, ANT B: 1.1dBi

2412-2462MHz	
1TX	For Power directional gain= G_{ant}= 1.1 dBi For PSD directional gain = 1.1 (dBi)
2TX	For Power directional gain= G_{ant}= 1.1 dBi For PSD directional gain = 10 log[$(10^{G1/20} + 10^{G2/20})^2$ /NANT] = 4.01 (dBi)

5150-5250MHz, 5250-5350MHz, 5470-5725MHz, 5725-5850MHz	
1TX	For Power directional gain= G_{ant}= 5.8 dBi For PSD directional gain = 5.8 (dBi)
2TX	For Power directional gain= G_{ant}= 5.8 dBi For PSD directional gain = 10 log[$(10^{G1/20} + 10^{G2/20})^2$ /NANT] = 8.47 (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.

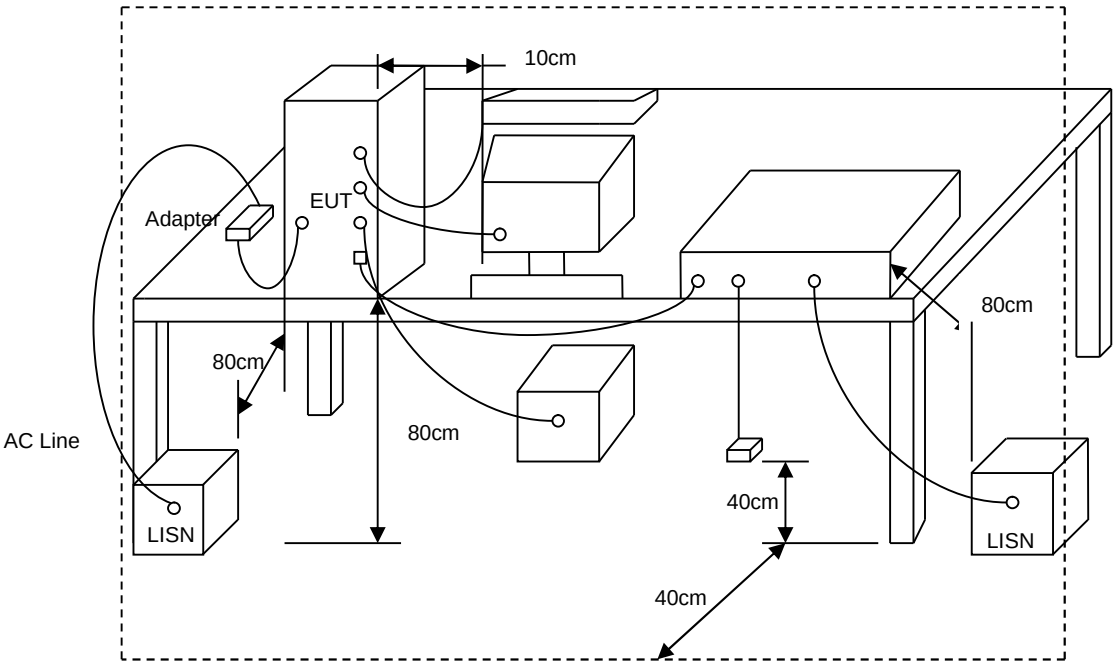
Frequency (MHz)	Quasi Peak (dB μ V)	Average (dB μ V)
0.15 – 0.5	66-56*	56-46*
0.5 – 5.0	56	46
5.0 – 30.0	60	50

*Decreases with the logarithm of the frequency.

5.2 Test Procedures

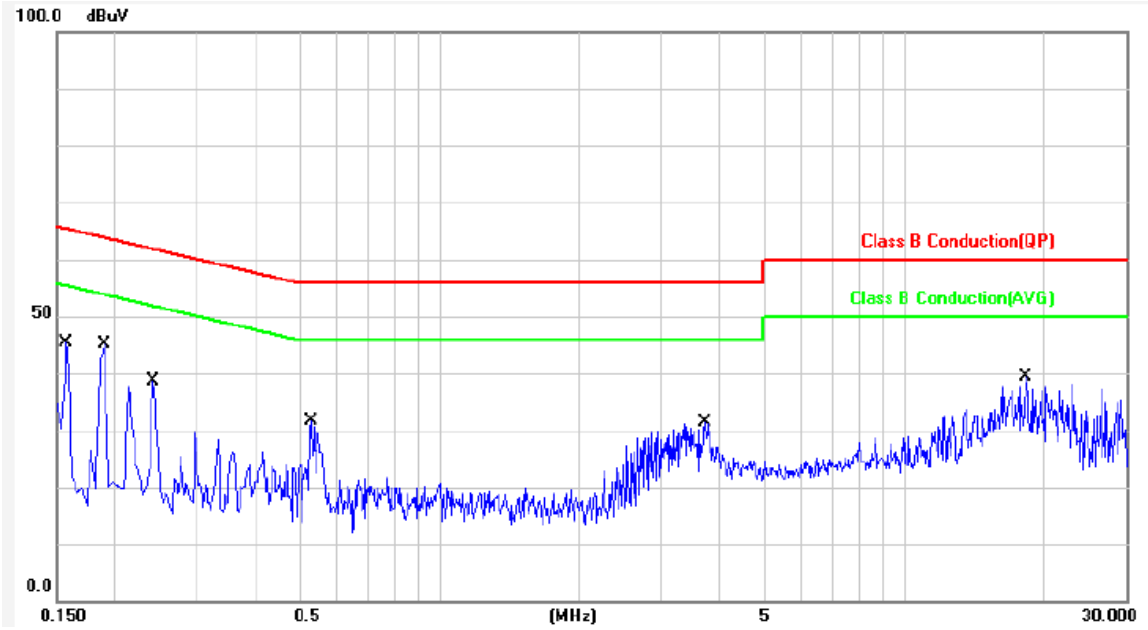
a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
b. Connect EUT to the power mains through a line impedance stabilization network (LISN).
c. All the support units are connecting to the other LISN.
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

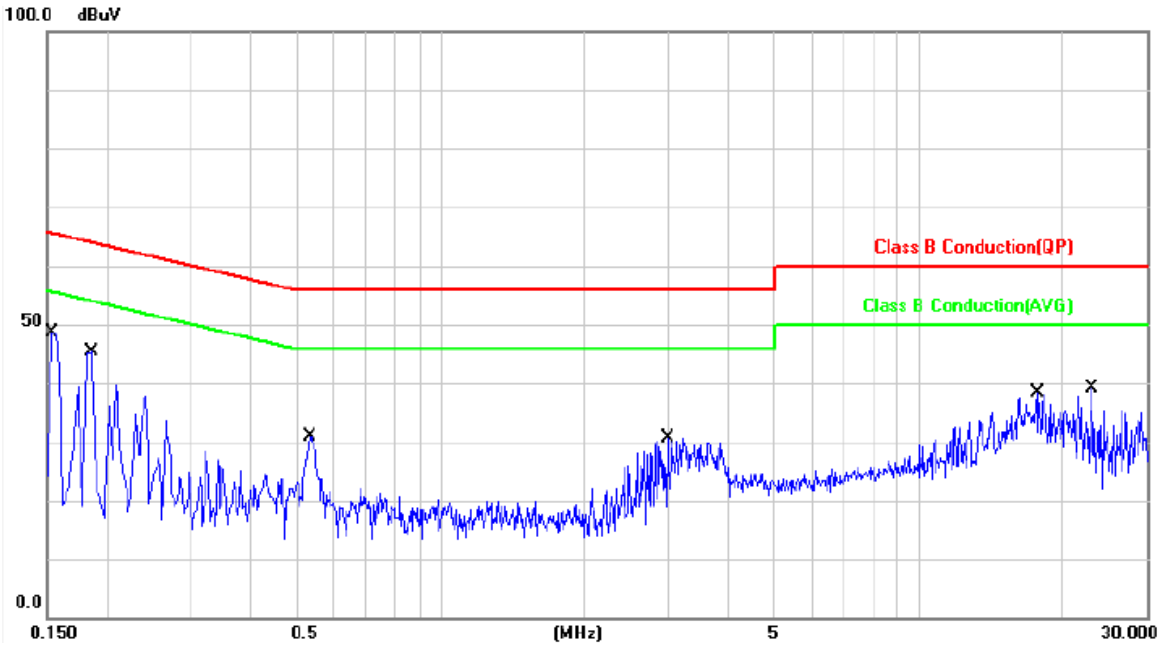
Power	:	AC 120V	Pol/Phase	:	LINE
Test Mode	:	Mode 4	Temperature	:	22 °C
Test Date	:	Sep. 07, 2017	Humidity	:	64 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1580	9.91	36.71	46.62	65.56	-18.94	QP	P
2	0.1580	9.91	16.65	26.56	55.56	-29.00	AVG	P
3	0.1900	9.91	31.83	41.74	64.03	-22.29	QP	P
4	0.1900	9.91	12.28	22.19	54.03	-31.84	AVG	P
5	0.2420	9.91	24.82	34.73	62.02	-27.29	QP	P
6	0.2420	9.91	7.75	17.66	52.02	-34.36	AVG	P
7	0.5299	9.93	18.61	28.54	56.00	-27.46	QP	P
8	0.5299	9.93	11.90	21.83	46.00	-24.17	AVG	P
9	3.7260	10.12	16.78	26.90	56.00	-29.10	QP	P
10	3.7260	10.12	7.08	17.20	46.00	-28.80	AVG	P
11	18.3060	10.56	24.66	35.22	60.00	-24.78	QP	P
12	18.3060	10.56	20.58	31.14	50.00	-18.86	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 4	Temperature	:	22 °C
Test Date	:	Sep. 07, 2017	Humidity	:	64 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1539	9.88	37.13	47.01	65.78	-18.77	QP	P
2	0.1539	9.88	17.01	26.89	55.78	-28.89	AVG	P
3	0.1860	9.88	32.99	42.87	64.21	-21.34	QP	P
4	0.1860	9.88	13.98	23.86	54.21	-30.35	AVG	P
5	0.5340	9.89	19.40	29.29	56.00	-26.71	QP	P
6	0.5340	9.89	12.16	22.05	46.00	-23.95	AVG	P
7	2.9900	10.04	14.29	24.33	56.00	-31.67	QP	P
8	2.9900	10.04	3.71	13.75	46.00	-32.25	AVG	P
9	17.6940	10.57	26.89	37.46	60.00	-22.54	QP	P
10	17.6940	10.57	23.38	33.95	50.00	-16.05	AVG	P
11	23.1299	10.70	25.83	36.53	60.00	-23.47	QP	P
12	23.1299	10.70	22.04	32.74	50.00	-17.26	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

a. The EUT was placed on a rotatable table top 0.8 meter above ground.

b. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.

c. The table was rotated 360 degrees to determine the position of the highest radiation.

d. 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.

e. 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.

f. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.

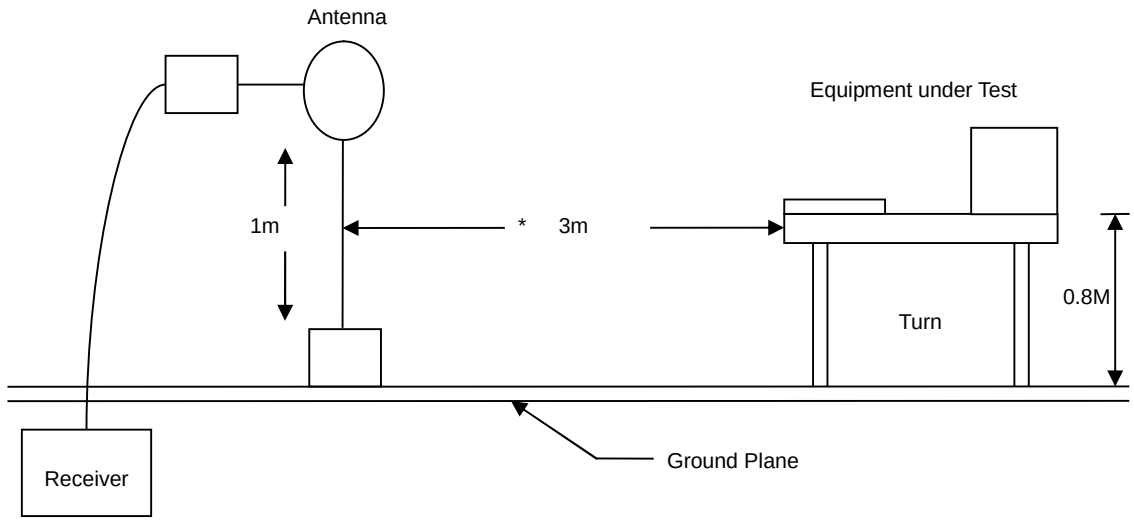
g. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method and reported.

h. 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.

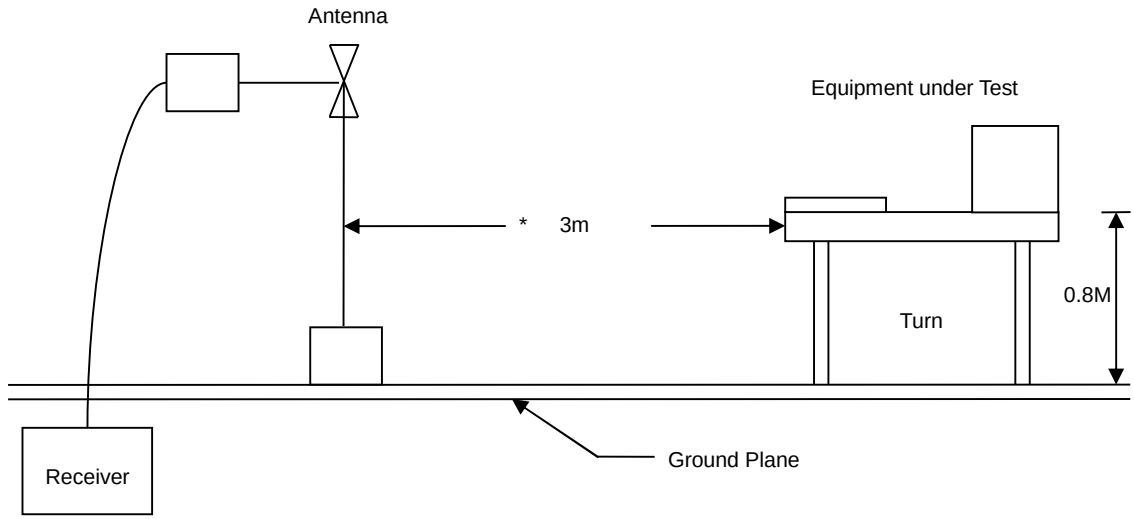
i. “Cone of radiation” has been considered to be 3dB bandwidth of the measurement antenna.

6.3 Typical Test Setup

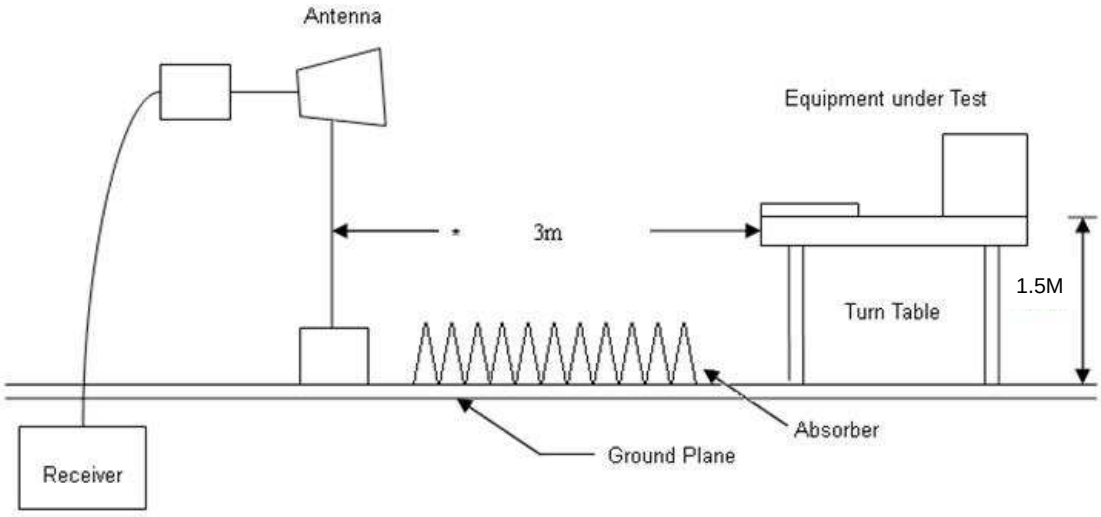
Below 30MHz test setup



30MHz- 1GHz Test Setup



Above 1GHz Test Setup

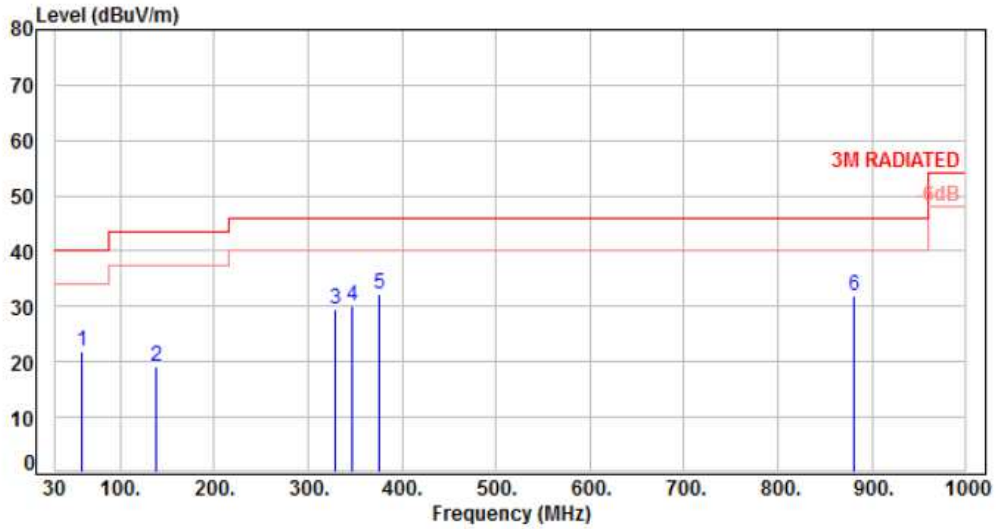


6.4 Test Result and Data (9KHz ~ 30MHz)

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

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

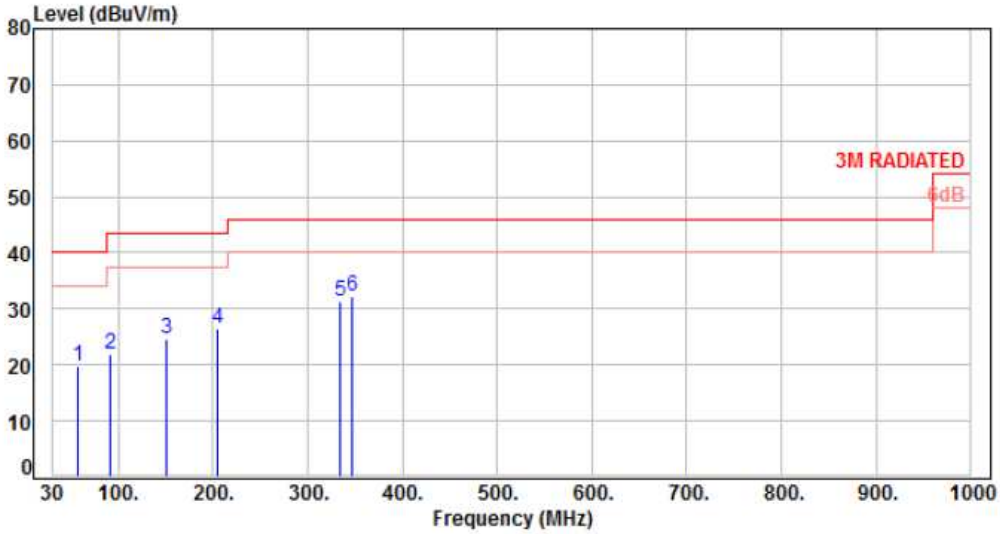
Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	Mode 4	Temperature	:	24 °C
Test Date	:	Sep. 06, 2017	Humidity	:	63 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	59.10	-10.35	32.24	21.89	40.00	-18.11	Peak	100	0	P
2	138.64	-10.52	29.58	19.06	43.50	-24.44	Peak	100	0	P
3	328.76	-8.11	37.58	29.47	46.00	-16.53	Peak	100	0	P
4	346.22	-7.64	37.65	30.01	46.00	-15.99	Peak	100	0	P
5	375.32	-6.84	38.97	32.13	46.00	-13.87	Peak	100	0	P
6	881.66	2.67	29.25	31.92	46.00	-14.08	Peak	100	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 4	Temperature	:	24 °C
Test Date	:	Sep. 06, 2017	Humidity	:	63 %

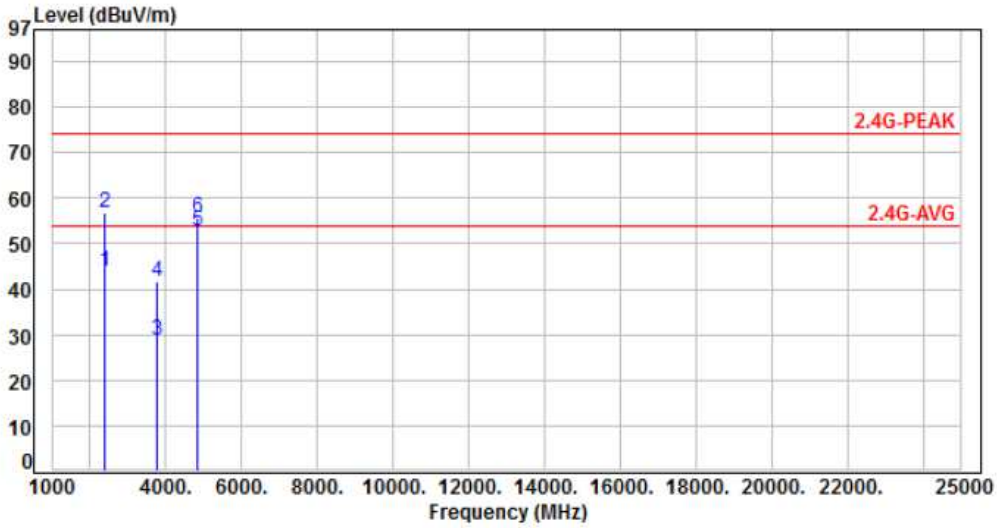


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	57.16	-10.23	30.01	19.78	40.00	-20.22	Peak	100	0	P
2	92.08	-15.80	37.75	21.95	43.50	-21.55	Peak	100	0	P
3	150.28	-9.94	34.45	24.51	43.50	-18.99	Peak	100	0	P
4	204.60	-12.48	39.07	26.59	43.50	-16.91	Peak	100	0	P
5	334.58	-7.96	39.34	31.38	46.00	-14.62	Peak	100	0	P
6	346.22	-7.64	39.90	32.26	46.00	-13.74	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)

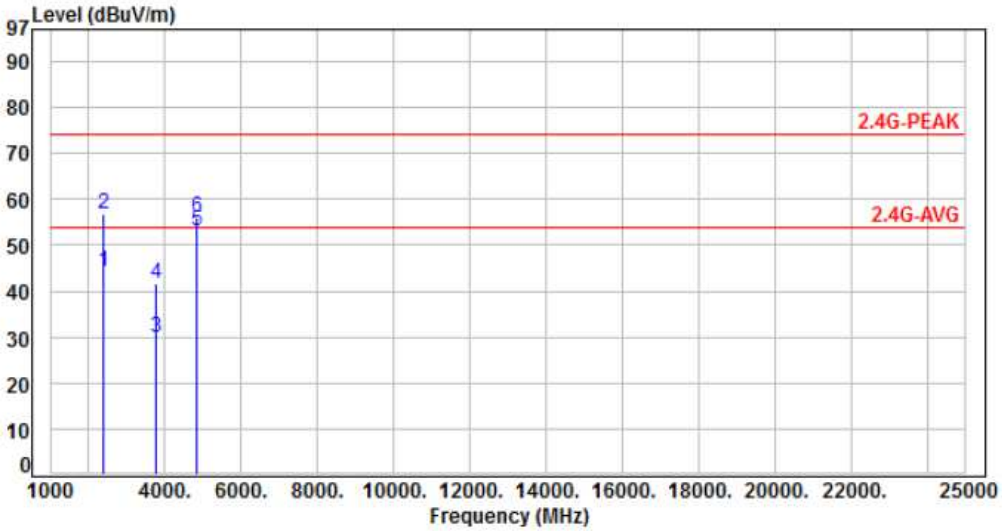
Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	Mode 1, CH01	Temperature	:	24 °C
Test Date	:	Aug. 22, 2017	Humidity	:	63 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-19.03	62.74	43.71	54.00	-10.29	Average	143	190	P
2	2390.00	-19.03	75.78	56.75	74.00	-17.25	Peak	143	190	P
3	3750.00	-14.83	43.68	28.85	54.00	-25.15	Average	144	65	P
4	3750.00	-14.83	56.51	41.68	74.00	-32.32	Peak	144	65	P
5	4824.00	-13.33	65.96	52.63	54.00	-1.37	Average	128	201	P
6	4824.00	-13.33	68.98	55.65	74.00	-18.35	Peak	128	201	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

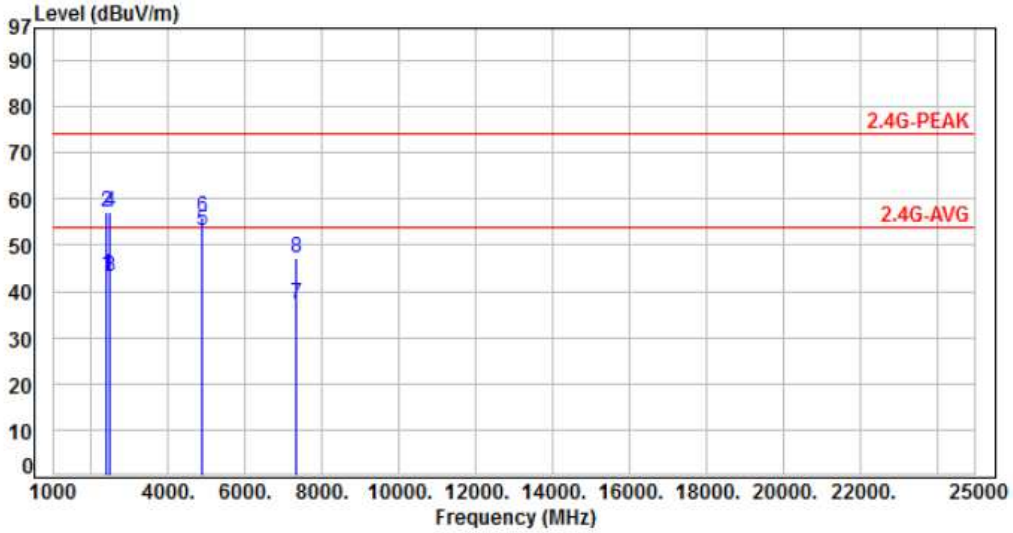
Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode	:	Mode 1, CH01	Temperature	:	24 °C
Test Date	:	Aug. 22, 2017	Humidity	:	63 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-19.03	63.22	44.19	54.00	-9.81	Average	126	102	P
2	2390.00	-19.03	75.77	56.74	74.00	-17.26	Peak	126	102	P
3	3750.00	-14.83	44.78	29.95	54.00	-24.05	Average	142	188	P
4	3750.00	-14.83	56.66	41.83	74.00	-32.17	Peak	142	188	P
5	4824.00	-13.33	66.50	53.17	54.00	-0.83	Average	245	12	P
6	4824.00	-13.33	69.44	56.11	74.00	-17.89	Peak	245	12	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

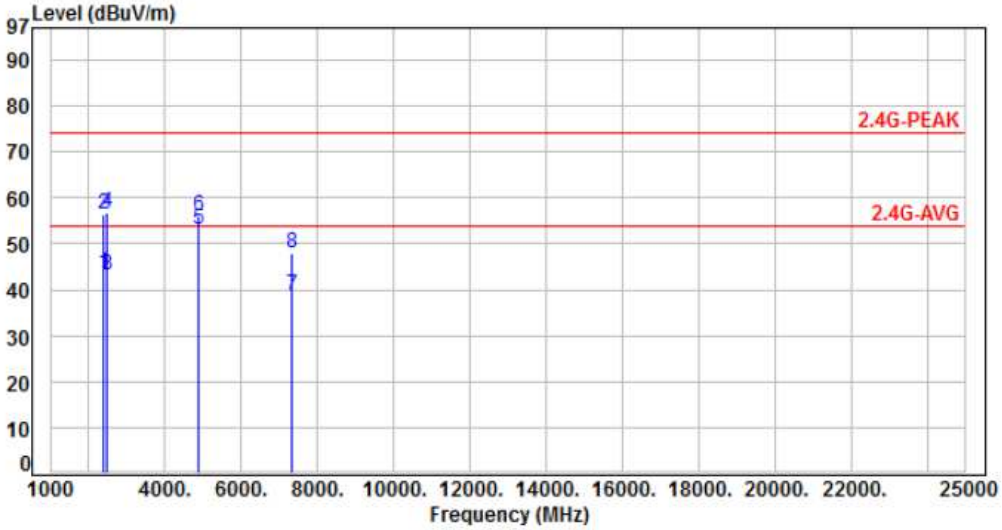
Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	Mode 1, CH06	Temperature	:	24 °C
Test Date	:	Aug. 22, 2017	Humidity	:	63 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-19.03	62.63	43.60	54.00	-10.40	Average	138	186	P
2	2390.00	-19.03	76.12	57.09	74.00	-16.91	Peak	138	186	P
3	2483.50	-18.81	61.96	43.15	54.00	-10.85	Average	138	186	P
4	2483.50	-18.81	75.88	57.07	74.00	-16.93	Peak	138	186	P
5	4874.00	-13.24	66.18	52.94	54.00	-1.06	Average	119	208	P
6	4874.00	-13.24	69.15	55.91	74.00	-18.09	Peak	119	208	P
7	7311.00	-10.19	47.59	37.40	54.00	-16.60	Average	174	244	P
8	7311.00	-10.19	57.43	47.24	74.00	-26.76	Peak	174	244	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

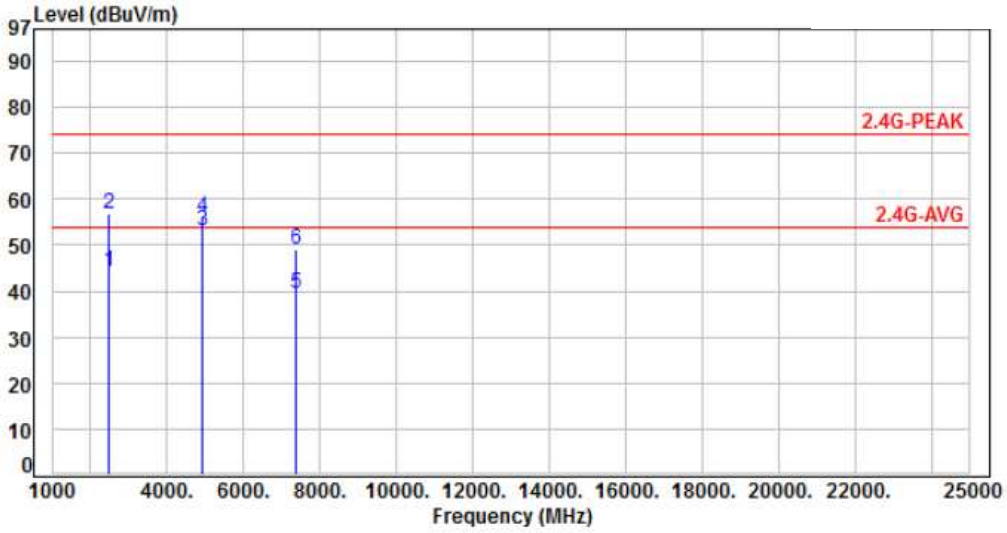
Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode	:	Mode 1, CH06	Temperature	:	24 °C
Test Date	:	Aug. 22, 2017	Humidity	:	63 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-19.03	62.71	43.68	54.00	-10.32	Average	118	104	P
2	2390.00	-19.03	75.64	56.61	74.00	-17.39	Peak	118	104	P
3	2483.50	-18.81	62.02	43.21	54.00	-10.79	Average	118	104	P
4	2483.50	-18.81	75.67	56.86	74.00	-17.14	Peak	118	104	P
5	4874.00	-13.24	66.37	53.13	54.00	-0.87	Average	240	14	P
6	4874.00	-13.24	69.37	56.13	74.00	-17.87	Peak	240	14	P
7	7311.00	-10.19	48.93	38.74	54.00	-15.26	Average	109	234	P
8	7311.00	-10.19	58.02	47.83	74.00	-26.17	Peak	109	234	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

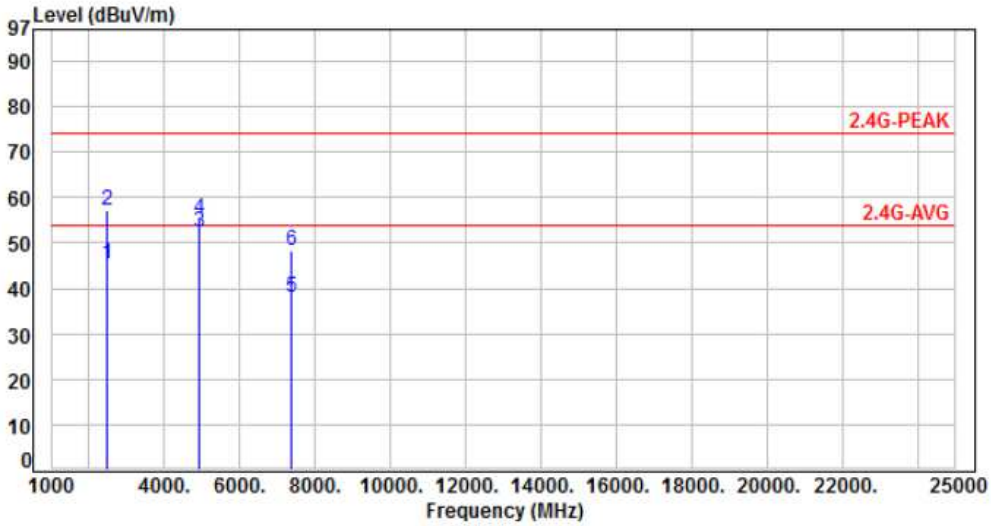
Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	Mode 1, CH11	Temperature	:	24 °C
Test Date	:	Aug. 22, 2017	Humidity	:	63 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2483.50	-18.81	63.18	44.37	54.00	-9.63	Average	101	198	P
2	2483.50	-18.81	75.52	56.71	74.00	-17.29	Peak	101	198	P
3	4924.00	-13.14	66.21	53.07	54.00	-0.93	Average	118	208	P
4	4924.00	-13.14	69.34	56.20	74.00	-17.80	Peak	118	208	P
5	7386.00	-10.01	49.53	39.52	54.00	-14.48	Average	175	234	P
6	7386.00	-10.01	59.19	49.18	74.00	-24.82	Peak	175	234	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

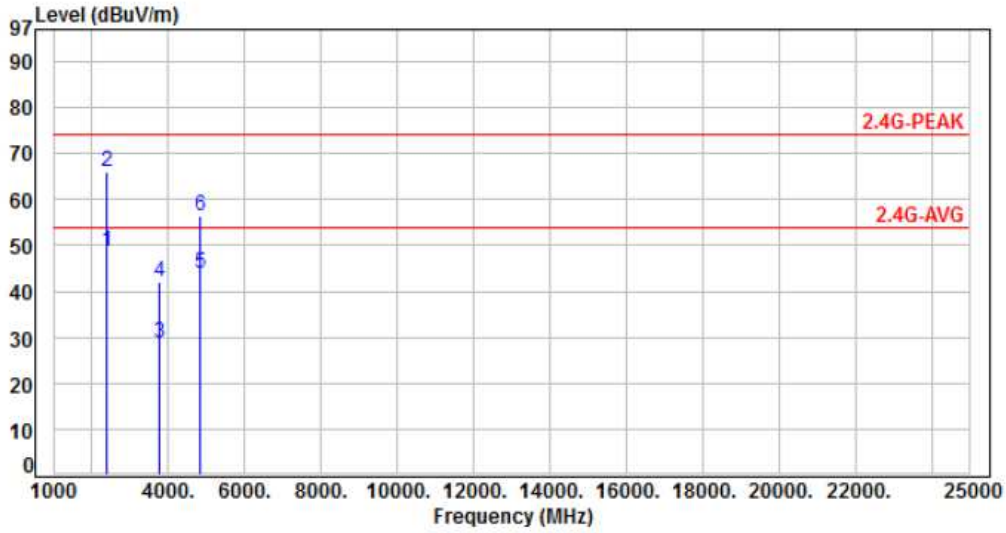
Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode	:	Mode 1, CH11	Temperature	:	24 °C
Test Date	:	Aug. 22, 2017	Humidity	:	63 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2483.50	-18.81	64.35	45.54	54.00	-8.46	Average	144	114	P
2	2483.50	-18.81	75.88	57.07	74.00	-16.93	Peak	144	114	P
3	4924.00	-13.14	65.33	52.19	54.00	-1.81	Average	254	12	P
4	4924.00	-13.14	68.53	55.39	74.00	-18.61	Peak	254	12	P
5	7386.00	-10.01	48.18	38.17	54.00	-15.83	Average	163	226	P
6	7386.00	-10.01	58.38	48.37	74.00	-25.63	Peak	163	226	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

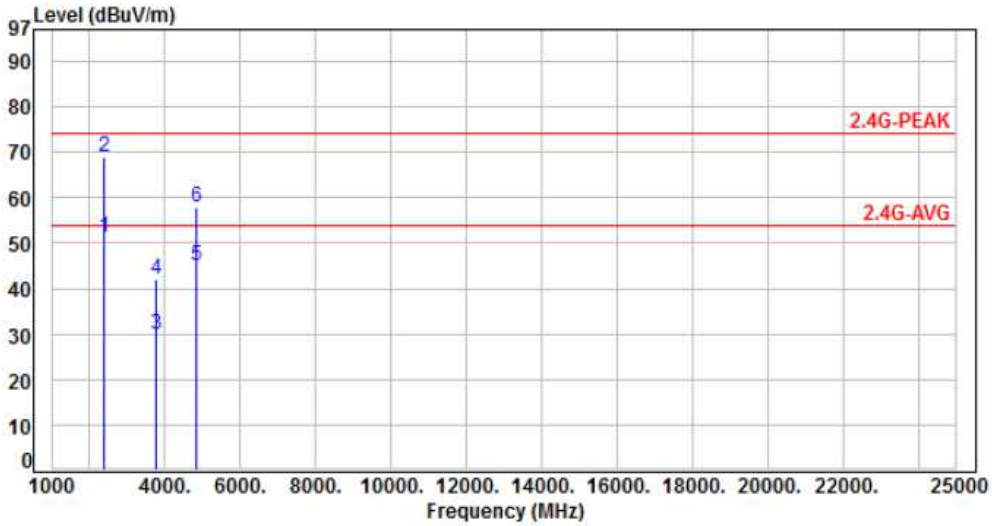
Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	Mode 2, CH01	Temperature	:	24 °C
Test Date	:	Aug. 22, 2017	Humidity	:	63 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-19.03	67.84	48.81	54.00	-5.19	Average	144	192	P
2	2390.00	-19.03	84.91	65.88	74.00	-8.12	Peak	144	192	P
3	3750.00	-14.83	43.62	28.79	54.00	-25.21	Average	153	72	P
4	3750.00	-14.83	56.75	41.92	74.00	-32.08	Peak	153	72	P
5	4824.00	-13.33	57.24	43.91	54.00	-10.09	Average	112	209	P
6	4824.00	-13.33	69.58	56.25	74.00	-17.75	Peak	112	209	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

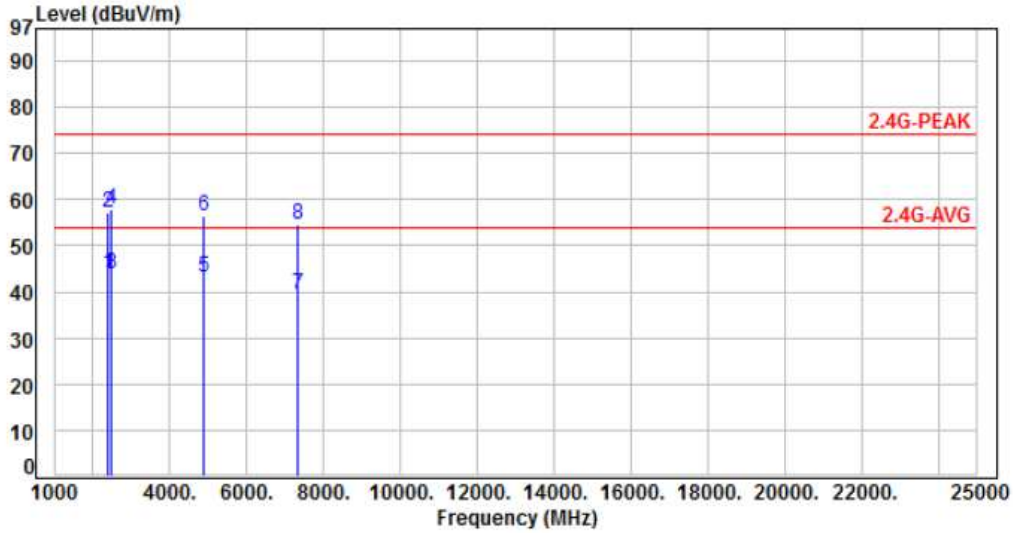
Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode	:	Mode 2, CH01	Temperature	:	24 °C
Test Date	:	Aug. 22, 2017	Humidity	:	63 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-19.03	70.46	51.43	54.00	-2.57	Average	127	103	P
2	2390.00	-19.03	87.85	68.82	74.00	-5.18	Peak	127	103	P
3	3750.00	-14.83	44.79	29.96	54.00	-24.04	Average	137	192	P
4	3750.00	-14.83	56.72	41.89	74.00	-32.11	Peak	137	192	P
5	4824.00	-13.33	58.33	45.00	54.00	-9.00	Average	221	15	P
6	4824.00	-13.33	71.18	57.85	74.00	-16.15	Peak	221	15	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

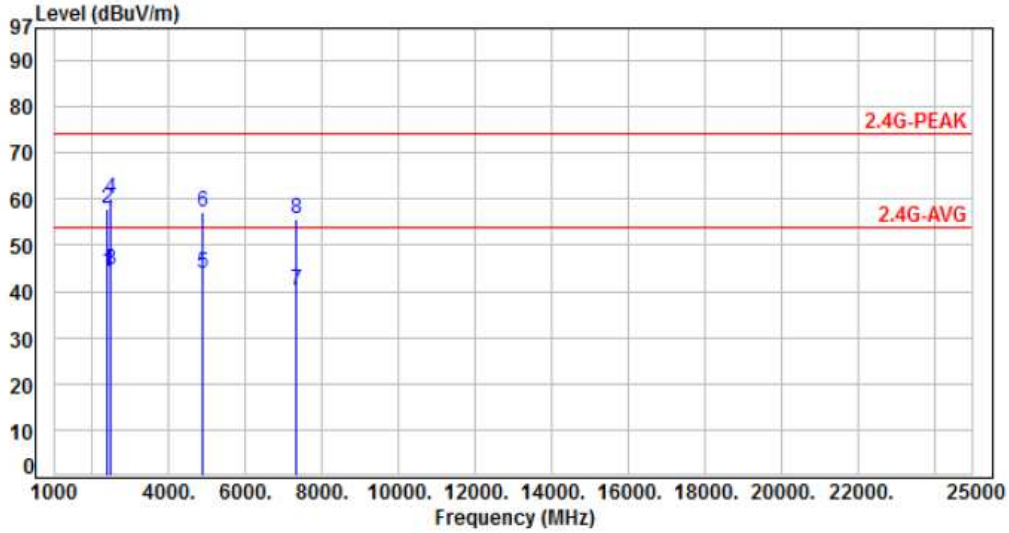
Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	Mode 2, CH06	Temperature	:	24 °C
Test Date	:	Aug. 22, 2017	Humidity	:	63 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-19.03	62.98	43.95	54.00	-10.05	Average	156	187	P
2	2390.00	-19.03	76.34	57.31	74.00	-16.69	Peak	156	187	P
3	2483.50	-18.81	62.75	43.94	54.00	-10.06	Average	156	187	P
4	2483.50	-18.81	76.79	57.98	74.00	-16.02	Peak	156	187	P
5	4874.00	-13.24	56.36	43.12	54.00	-10.88	Average	112	209	P
6	4874.00	-13.24	69.53	56.29	74.00	-17.71	Peak	112	209	P
7	7311.00	-10.19	49.57	39.38	54.00	-14.62	Average	192	247	P
8	7311.00	-10.19	64.72	54.53	74.00	-19.47	Peak	192	247	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

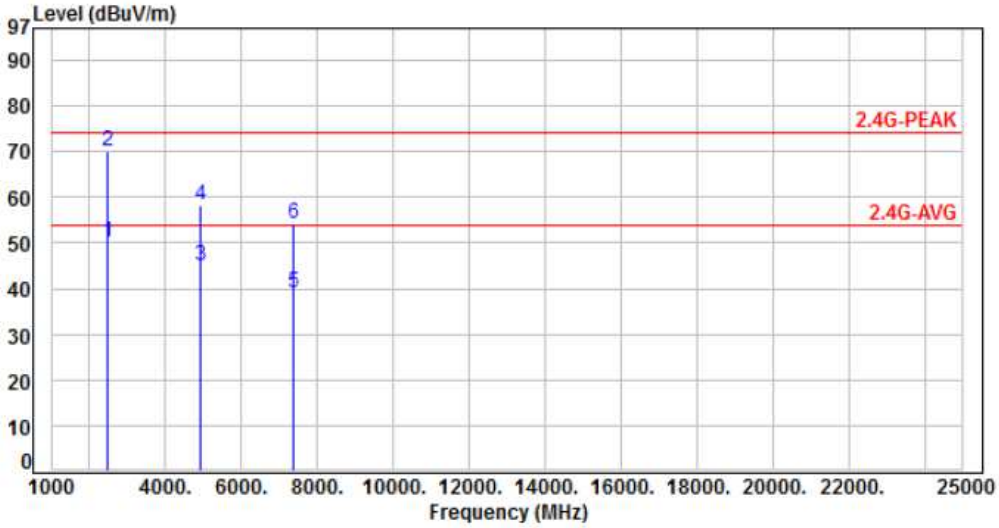
Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode	:	Mode 2, CH06	Temperature	:	24 °C
Test Date	:	Aug. 22, 2017	Humidity	:	63 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-19.03	63.46	44.43	54.00	-9.57	Average	120	111	P
2	2390.00	-19.03	77.05	58.02	74.00	-15.98	Peak	120	111	P
3	2483.50	-18.81	63.45	44.64	54.00	-9.36	Average	120	111	P
4	2483.50	-18.81	78.89	60.08	74.00	-13.92	Peak	120	111	P
5	4874.00	-13.24	57.05	43.81	54.00	-10.19	Average	189	14	P
6	4874.00	-13.24	70.40	57.16	74.00	-16.84	Peak	189	14	P
7	7311.00	-10.19	50.48	40.29	54.00	-13.71	Average	209	215	P
8	7311.00	-10.19	65.75	55.56	74.00	-18.44	Peak	209	215	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

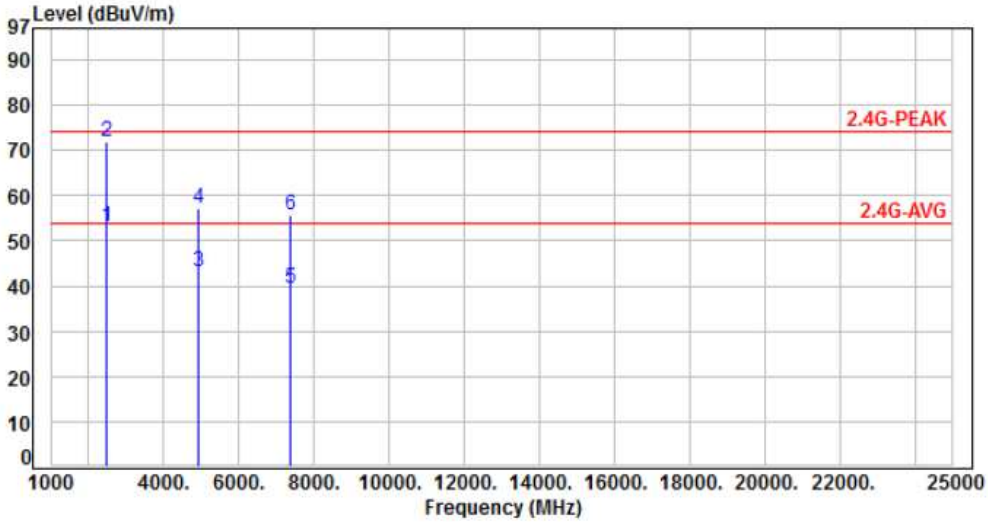
Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	Mode 2, CH11	Temperature	:	24 °C
Test Date	:	Aug. 22, 2017	Humidity	:	63 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2483.50	-18.81	68.97	50.16	54.00	-3.84	Average	101	200	P
2	2483.50	-18.81	88.82	70.01	74.00	-3.99	Peak	101	200	P
3	4924.00	-13.14	58.05	44.91	54.00	-9.09	Average	108	205	P
4	4924.00	-13.14	71.29	58.15	74.00	-15.85	Peak	108	205	P
5	7386.00	-10.01	49.07	39.06	54.00	-14.94	Average	183	236	P
6	7386.00	-10.01	64.12	54.11	74.00	-19.89	Peak	183	236	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

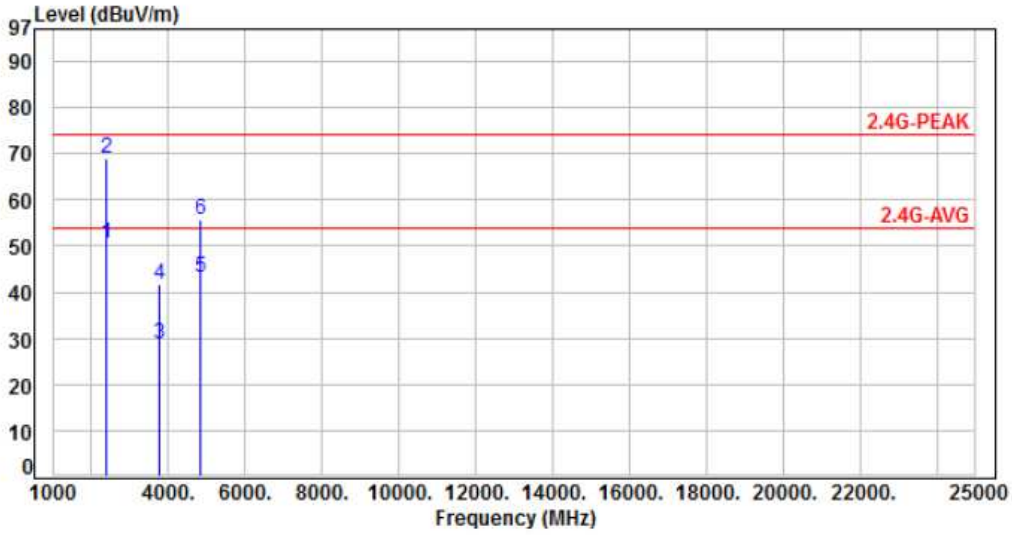
Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode	:	Mode 2, CH11	Temperature	:	24 °C
Test Date	:	Aug. 22, 2017	Humidity	:	63 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2483.50	-18.81	71.91	53.10	54.00	-0.90	Average	115	106	P
2	2483.50	-18.81	90.78	71.97	74.00	-2.03	Peak	115	106	P
3	4924.00	-13.14	56.18	43.04	54.00	-10.96	Average	101	17	P
4	4924.00	-13.14	70.17	57.03	74.00	-16.97	Peak	101	17	P
5	7386.00	-10.01	49.39	39.38	54.00	-14.62	Average	129	232	P
6	7386.00	-10.01	65.68	55.67	74.00	-18.33	Peak	129	232	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

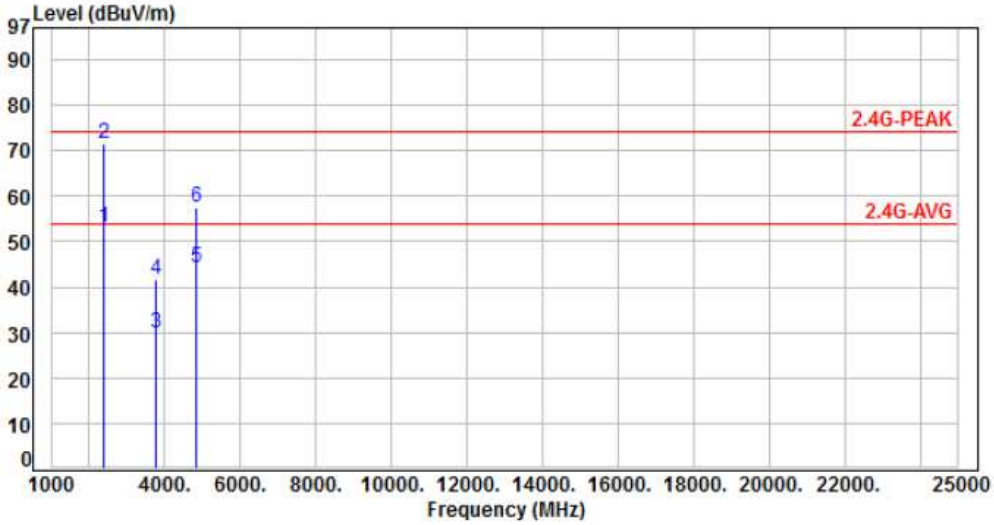
Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	Mode 3, CH01	Temperature	:	24 °C
Test Date	:	Aug. 22, 2017	Humidity	:	63 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-19.03	69.54	50.51	54.00	-3.49	Average	123	203	P
2	2390.00	-19.03	87.82	68.79	74.00	-5.21	Peak	123	203	P
3	3750.00	-14.83	43.56	28.73	54.00	-25.27	Average	149	68	P
4	3750.00	-14.83	56.58	41.75	74.00	-32.25	Peak	149	68	P
5	4824.00	-13.33	56.31	42.98	54.00	-11.02	Average	115	213	P
6	4824.00	-13.33	68.88	55.55	74.00	-18.45	Peak	115	213	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

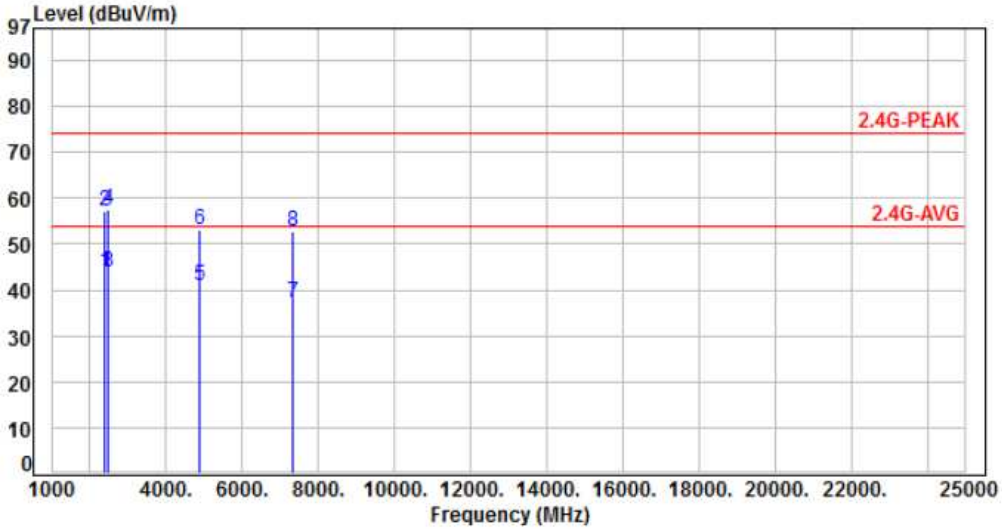
Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode	:	Mode 3, CH01	Temperature	:	24 °C
Test Date	:	Aug. 22, 2017	Humidity	:	63 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-19.03	72.17	53.14	54.00	-0.86	Average	128	101	P
2	2390.00	-19.03	90.56	71.53	74.00	-2.47	Peak	128	101	P
3	3750.00	-14.83	44.68	29.85	54.00	-24.15	Average	141	188	P
4	3750.00	-14.83	56.59	41.76	74.00	-32.24	Peak	141	188	P
5	4824.00	-13.33	57.42	44.09	54.00	-9.91	Average	216	14	P
6	4824.00	-13.33	70.83	57.50	74.00	-16.50	Peak	216	14	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

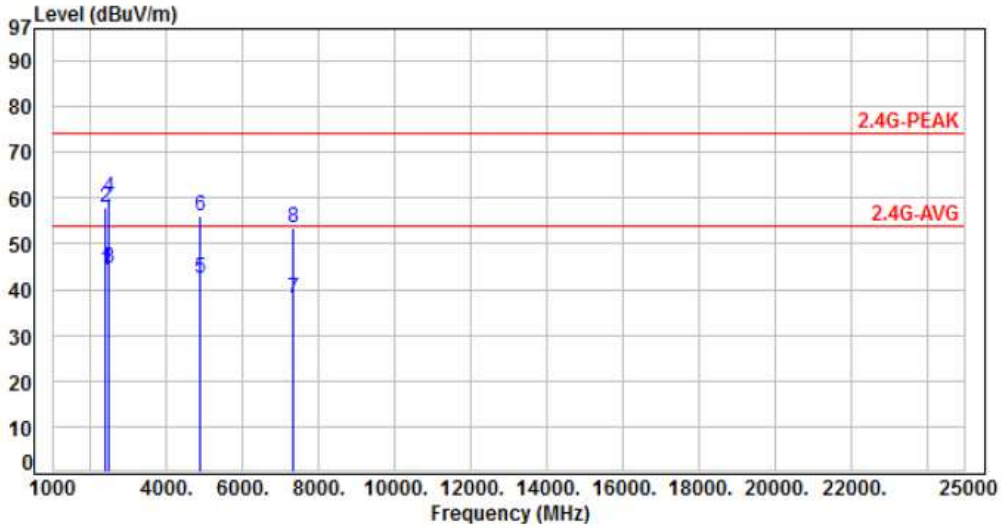
Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	Mode 3, CH06	Temperature	:	24 °C
Test Date	:	Aug. 22, 2017	Humidity	:	63 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-19.03	62.86	43.83	54.00	-10.17	Average	151	194	P
2	2390.00	-19.03	76.21	57.18	74.00	-16.82	Peak	151	194	P
3	2483.50	-18.81	62.58	43.77	54.00	-10.23	Average	151	194	P
4	2483.50	-18.81	76.36	57.55	74.00	-16.45	Peak	151	194	P
5	4874.00	-13.24	54.13	40.89	54.00	-13.11	Average	118	216	P
6	4874.00	-13.24	66.48	53.24	74.00	-20.76	Peak	118	216	P
7	7311.00	-10.19	47.29	37.10	54.00	-16.90	Average	188	251	P
8	7311.00	-10.19	63.03	52.84	74.00	-21.16	Peak	188	251	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

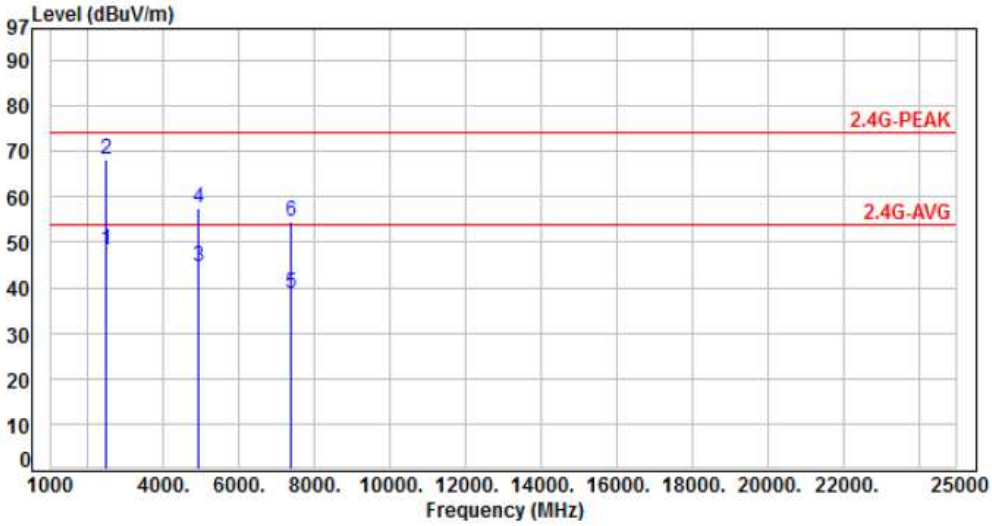
Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode	:	Mode 3, CH06	Temperature	:	24 °C
Test Date	:	Aug. 22, 2017	Humidity	:	63 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-19.03	63.41	44.38	54.00	-9.62	Average	118	107	P
2	2390.00	-19.03	76.92	57.89	74.00	-16.11	Peak	118	107	P
3	2483.50	-18.81	63.39	44.58	54.00	-9.42	Average	118	107	P
4	2483.50	-18.81	78.76	59.95	74.00	-14.05	Peak	118	107	P
5	4874.00	-13.24	55.73	42.49	54.00	-11.51	Average	184	16	P
6	4874.00	-13.24	69.14	55.90	74.00	-18.10	Peak	184	16	P
7	7311.00	-10.19	48.11	37.92	54.00	-16.08	Average	203	224	P
8	7311.00	-10.19	63.81	53.62	74.00	-20.38	Peak	203	224	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

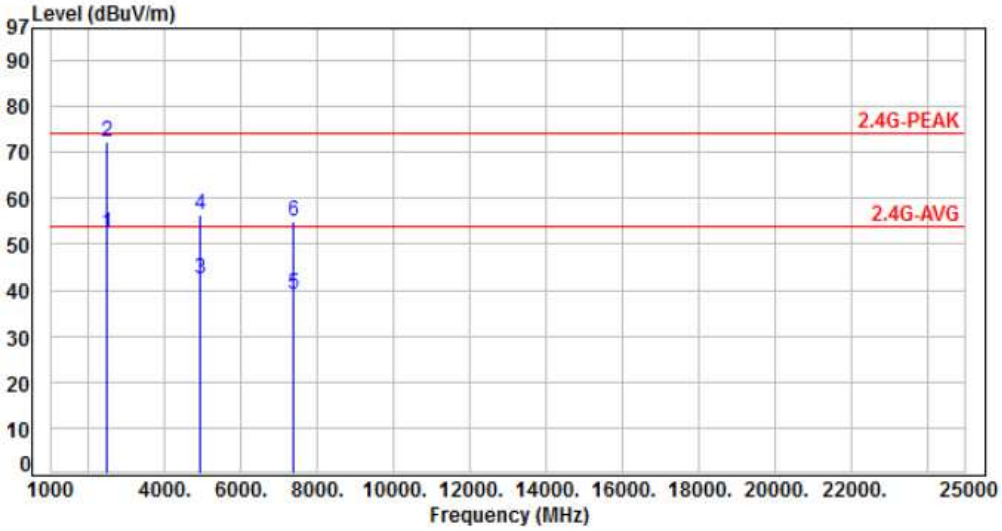
Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	Mode 3, CH11	Temperature	:	24 °C
Test Date	:	Aug. 22, 2017	Humidity	:	63 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2483.50	-18.81	67.13	48.32	54.00	-5.68	Average	101	190	P
2	2483.50	-18.81	87.02	68.21	74.00	-5.79	Peak	101	190	P
3	4924.00	-13.14	57.85	44.71	54.00	-9.29	Average	106	212	P
4	4924.00	-13.14	70.66	57.52	74.00	-16.48	Peak	106	212	P
5	7386.00	-10.01	48.79	38.78	54.00	-15.22	Average	177	225	P
6	7386.00	-10.01	64.74	54.73	74.00	-19.27	Peak	177	225	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

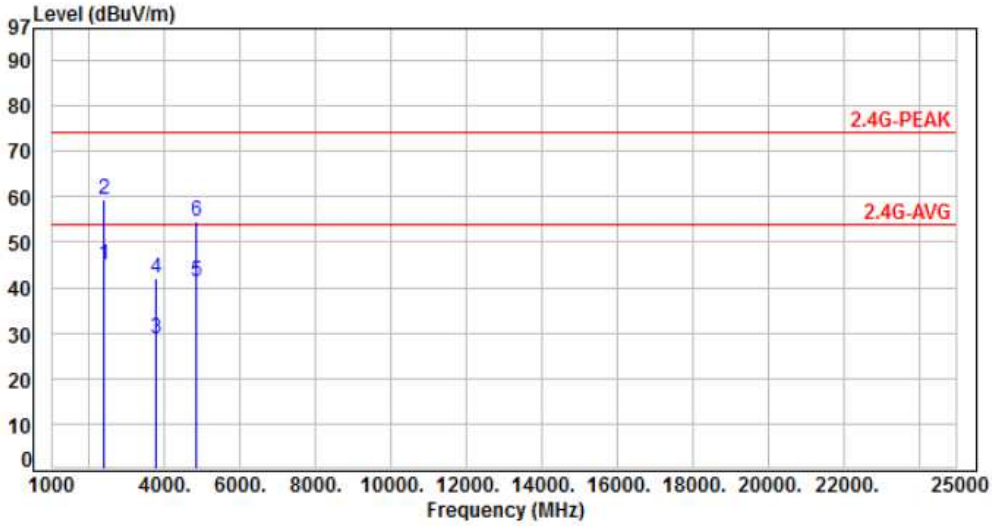
Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode	:	Mode 3, CH11	Temperature	:	24 °C
Test Date	:	Aug. 22, 2017	Humidity	:	63 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2483.50	-18.81	71.22	52.41	54.00	-1.59	Average	110	116	P
2	2483.50	-18.81	91.09	72.28	74.00	-1.72	Peak	110	116	P
3	4924.00	-13.14	55.73	42.59	54.00	-11.41	Average	103	15	P
4	4924.00	-13.14	69.54	56.40	74.00	-17.60	Peak	103	15	P
5	7386.00	-10.01	48.97	38.96	54.00	-15.04	Average	131	245	P
6	7386.00	-10.01	65.12	55.11	74.00	-18.89	Peak	131	245	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

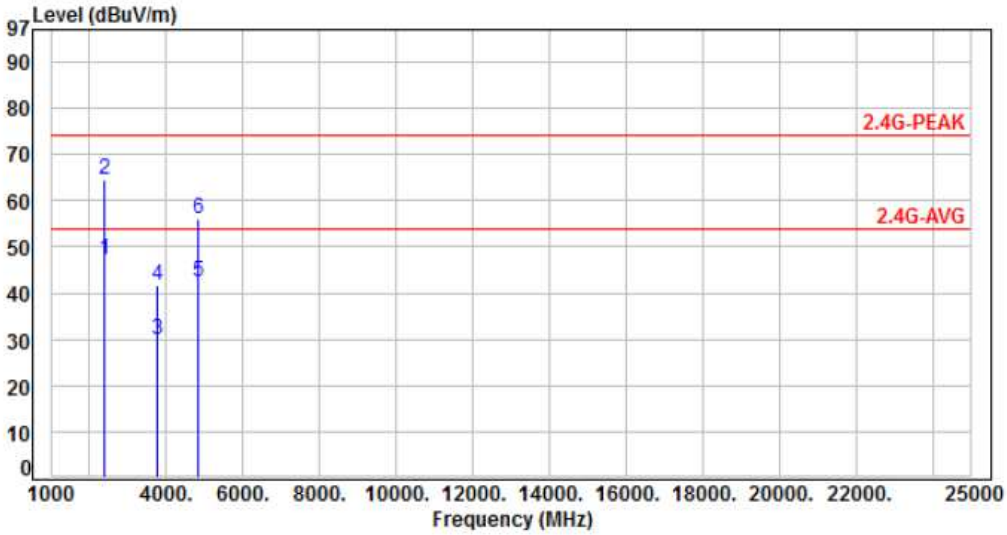
Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	Mode 4, CH01	Temperature	:	24 °C
Test Date	:	Aug. 22, 2017	Humidity	:	63 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-19.03	64.04	45.01	54.00	-8.99	Average	142	193	P
2	2390.00	-19.03	78.39	59.36	74.00	-14.64	Peak	142	193	P
3	3750.00	-14.83	43.76	28.93	54.00	-25.07	Average	148	79	P
4	3750.00	-14.83	56.94	42.11	74.00	-31.89	Peak	148	79	P
5	4824.00	-13.33	54.47	41.14	54.00	-12.86	Average	115	213	P
6	4824.00	-13.33	67.74	54.41	74.00	-19.59	Peak	115	213	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

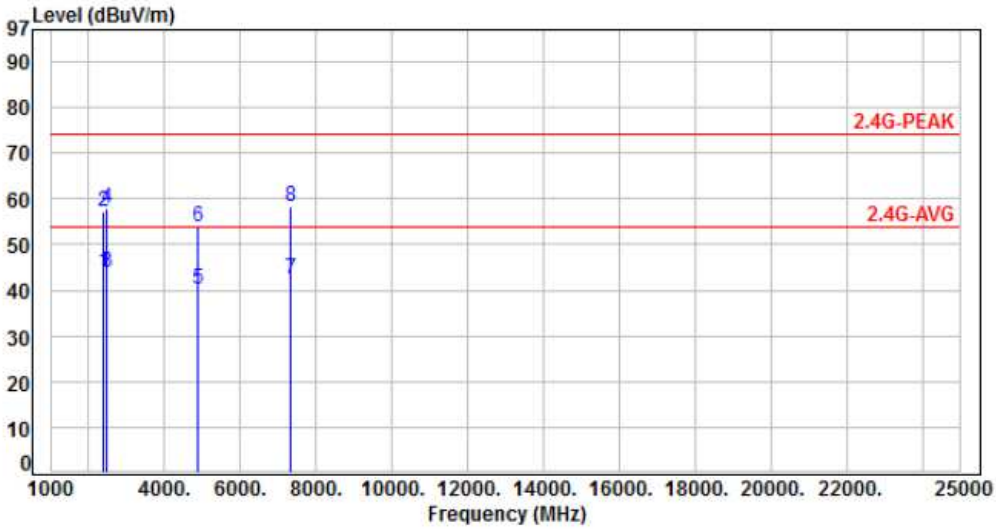
Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode	:	Mode 4, CH01	Temperature	:	24 °C
Test Date	:	Aug. 22, 2017	Humidity	:	63 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-19.03	66.14	47.11	54.00	-6.89	Average	150	112	P
2	2390.00	-19.03	83.49	64.46	74.00	-9.54	Peak	150	112	P
3	3750.00	-14.83	44.83	30.00	54.00	-24.00	Average	143	188	P
4	3750.00	-14.83	56.64	41.81	74.00	-32.19	Peak	143	188	P
5	4824.00	-13.33	55.79	42.46	54.00	-11.54	Average	248	12	P
6	4824.00	-13.33	69.26	55.93	74.00	-18.07	Peak	248	12	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

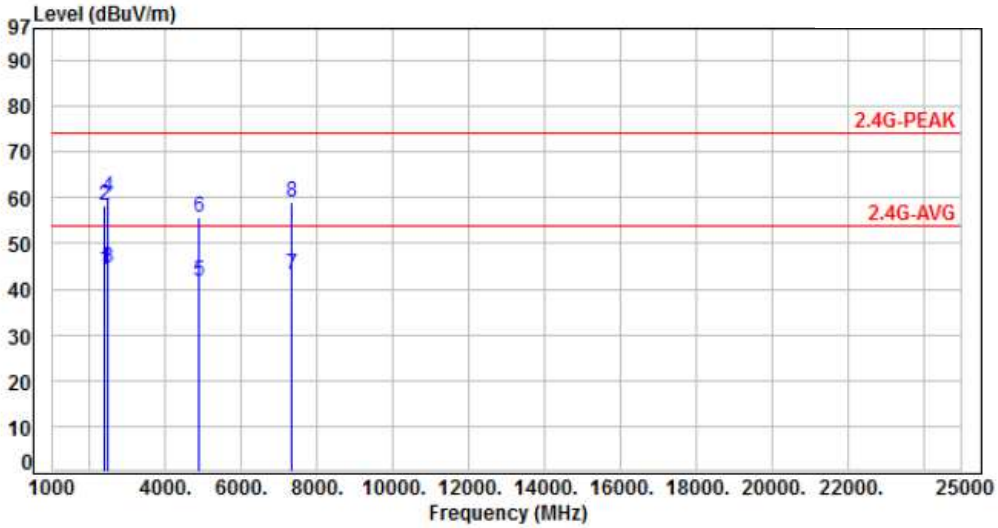
Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	Mode 4, CH06	Temperature	:	24 °C
Test Date	:	Aug. 22, 2017	Humidity	:	63 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-19.03	62.74	43.71	54.00	-10.29	Average	148	181	P
2	2390.00	-19.03	76.15	57.12	74.00	-16.88	Peak	148	181	P
3	2483.50	-18.81	62.63	43.82	54.00	-10.18	Average	148	181	P
4	2483.50	-18.81	76.86	58.05	74.00	-15.95	Peak	148	181	P
5	4874.00	-13.24	53.36	40.12	54.00	-13.88	Average	118	211	P
6	4874.00	-13.24	67.17	53.93	74.00	-20.07	Peak	118	211	P
7	7311.00	-10.19	52.45	42.26	54.00	-11.74	Average	141	214	P
8	7311.00	-10.19	68.31	58.12	74.00	-15.88	Peak	141	214	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

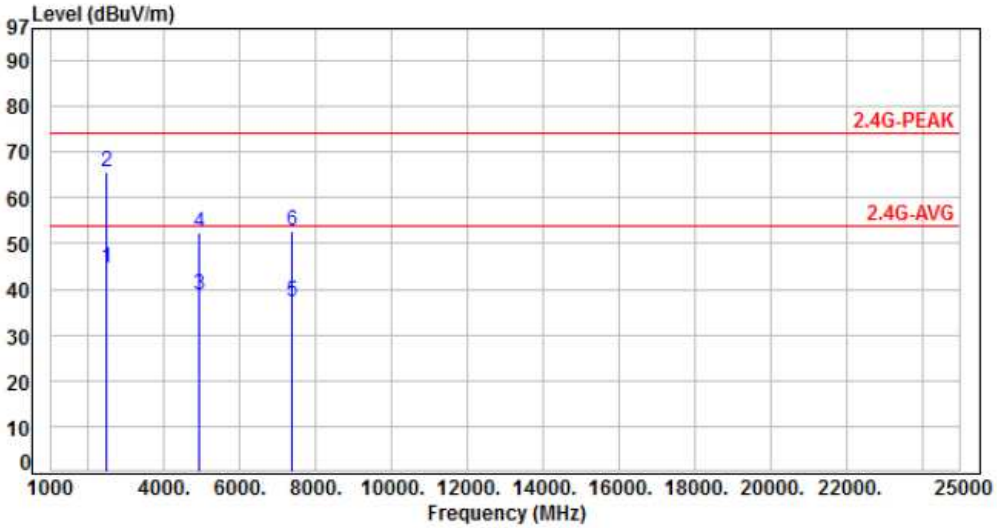
Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode	:	Mode 4, CH06	Temperature	:	24 °C
Test Date	:	Aug. 22, 2017	Humidity	:	63 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-19.03	63.35	44.32	54.00	-9.68	Average	122	113	P
2	2390.00	-19.03	77.27	58.24	74.00	-15.76	Peak	122	113	P
3	2483.50	-18.81	63.34	44.53	54.00	-9.47	Average	122	113	P
4	2483.50	-18.81	78.75	59.94	74.00	-14.06	Peak	122	113	P
5	4874.00	-13.24	55.10	41.86	54.00	-12.14	Average	231	12	P
6	4874.00	-13.24	69.08	55.84	74.00	-18.16	Peak	231	12	P
7	7311.00	-10.19	53.22	43.03	54.00	-10.97	Average	195	107	P
8	7311.00	-10.19	69.03	58.84	74.00	-15.16	Peak	195	107	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

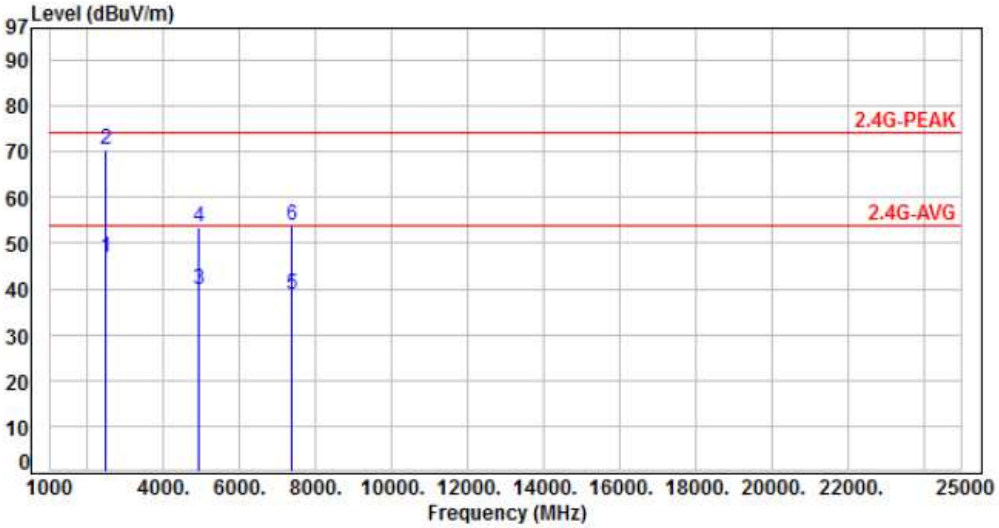
Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	Mode 4, CH11	Temperature	:	24 °C
Test Date	:	Aug. 22, 2017	Humidity	:	63 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2483.50	-18.81	63.53	44.72	54.00	-9.28	Average	100	201	P
2	2483.50	-18.81	84.40	65.59	74.00	-8.41	Peak	100	201	P
3	4924.00	-13.14	51.88	38.74	54.00	-15.26	Average	112	213	P
4	4924.00	-13.14	65.48	52.34	74.00	-21.66	Peak	112	213	P
5	7386.00	-10.01	47.35	37.34	54.00	-16.66	Average	144	192	P
6	7386.00	-10.01	62.67	52.66	74.00	-21.34	Peak	144	192	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

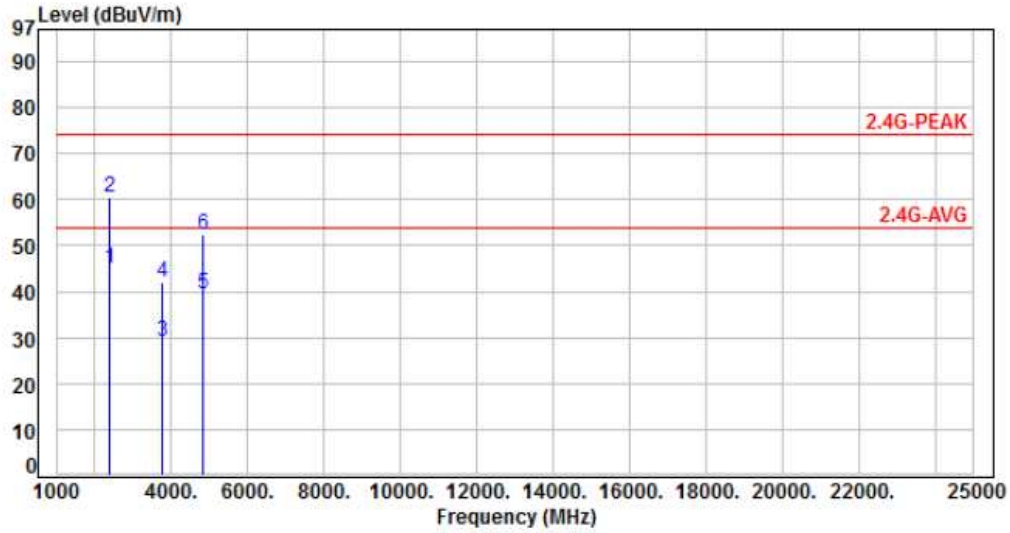
Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode	:	Mode 4, CH11	Temperature	:	24 °C
Test Date	:	Aug. 22, 2017	Humidity	:	63 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2483.50	-18.81	65.83	47.02	54.00	-6.98	Average	109	110	P
2	2483.50	-18.81	89.22	70.41	74.00	-3.59	Peak	109	110	P
3	4924.00	-13.14	52.97	39.83	54.00	-14.17	Average	253	18	P
4	4924.00	-13.14	66.59	53.45	74.00	-20.55	Peak	253	18	P
5	7386.00	-10.01	48.78	38.77	54.00	-15.23	Average	211	101	P
6	7386.00	-10.01	63.93	53.92	74.00	-20.08	Peak	211	101	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

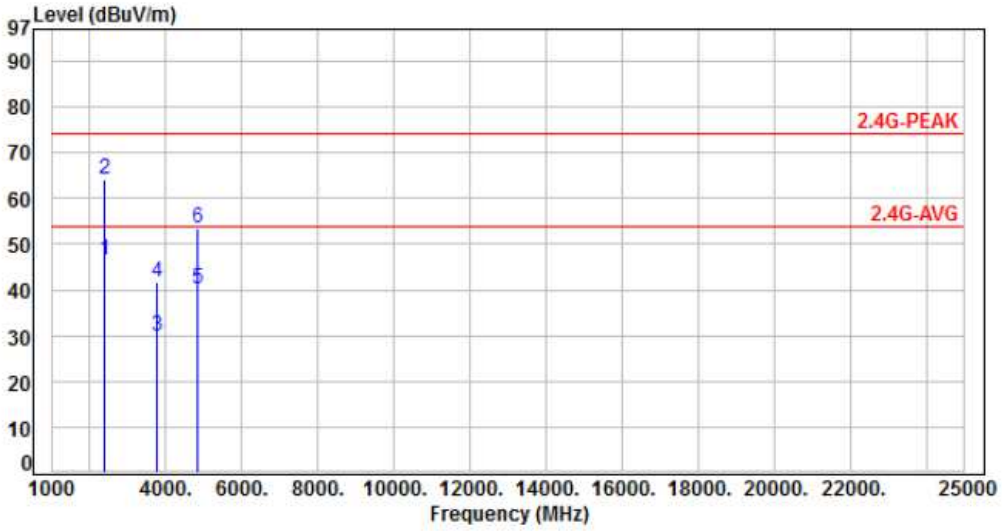
Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	Mode 5, CH01	Temperature	:	24 °C
Test Date	:	Aug. 22, 2017	Humidity	:	63 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-19.03	64.10	45.07	54.00	-8.93	Average	101	192	P
2	2390.00	-19.03	79.57	60.54	74.00	-13.46	Peak	101	192	P
3	3750.00	-14.83	43.84	29.01	54.00	-24.99	Average	151	66	P
4	3750.00	-14.83	56.79	41.96	74.00	-32.04	Peak	151	66	P
5	4824.00	-13.33	52.69	39.36	54.00	-14.64	Average	117	212	P
6	4824.00	-13.33	65.72	52.39	74.00	-21.61	Peak	117	212	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

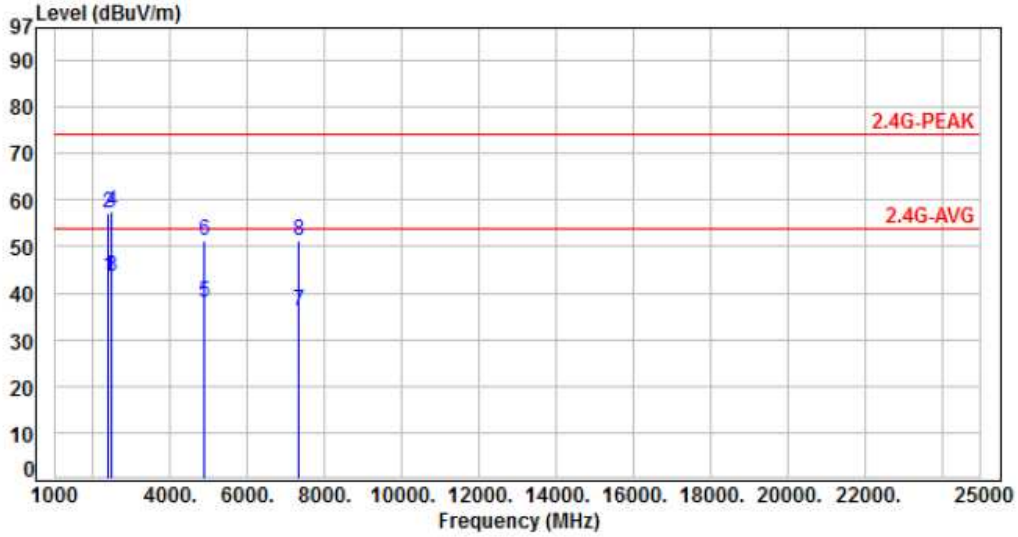
Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode	:	Mode 5, CH01	Temperature	:	24 °C
Test Date	:	Aug. 22, 2017	Humidity	:	63 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-19.03	65.49	46.46	54.00	-7.54	Average	125	105	P
2	2390.00	-19.03	83.07	64.04	74.00	-9.96	Peak	125	105	P
3	3750.00	-14.83	44.73	29.90	54.00	-24.10	Average	144	189	P
4	3750.00	-14.83	56.64	41.81	74.00	-32.19	Peak	144	189	P
5	4824.00	-13.33	53.58	40.25	54.00	-13.75	Average	212	17	P
6	4824.00	-13.33	66.91	53.58	74.00	-20.42	Peak	212	17	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

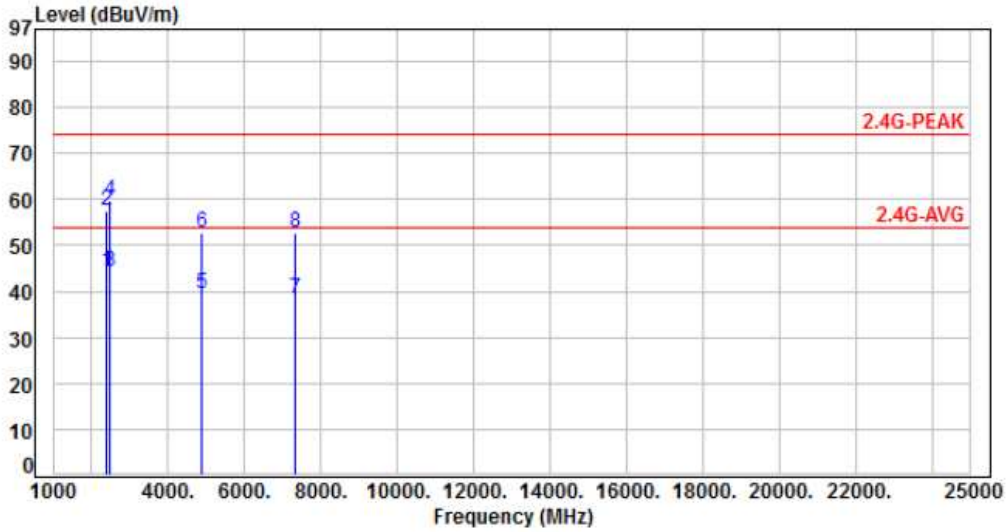
Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	Mode 5, CH06	Temperature	:	24 °C
Test Date	:	Aug. 22, 2017	Humidity	:	63 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-19.03	62.73	43.70	54.00	-10.30	Average	147	186	P
2	2390.00	-19.03	76.15	57.12	74.00	-16.88	Peak	147	186	P
3	2483.50	-18.81	62.43	43.62	54.00	-10.38	Average	147	186	P
4	2483.50	-18.81	76.25	57.44	74.00	-16.56	Peak	147	186	P
5	4874.00	-13.24	51.36	38.12	54.00	-15.88	Average	117	214	P
6	4874.00	-13.24	64.62	51.38	74.00	-22.62	Peak	117	214	P
7	7311.00	-10.19	46.48	36.29	54.00	-17.71	Average	134	193	P
8	7311.00	-10.19	61.44	51.25	74.00	-22.75	Peak	134	193	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

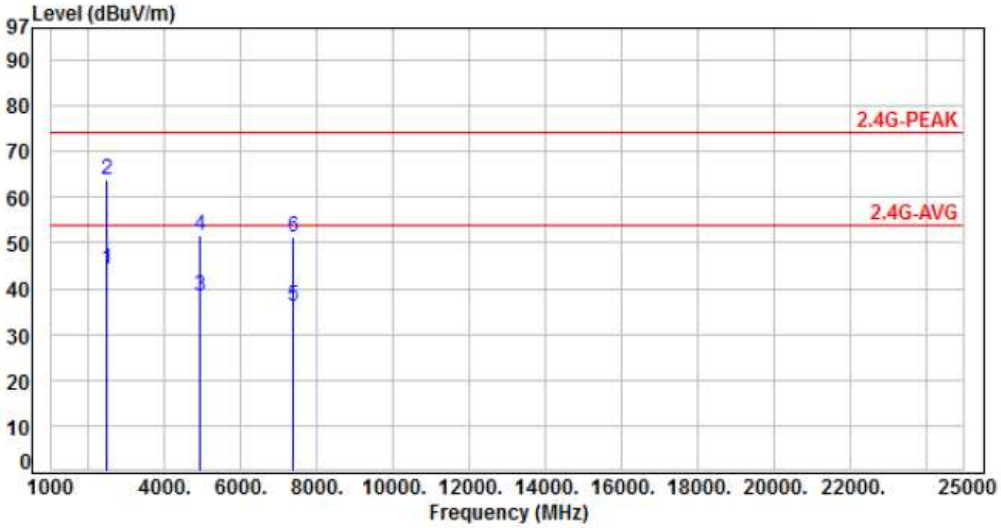
Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode	:	Mode 5, CH06	Temperature	:	24 °C
Test Date	:	Aug. 22, 2017	Humidity	:	63 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-19.03	63.27	44.24	54.00	-9.76	Average	115	121	P
2	2390.00	-19.03	76.73	57.70	74.00	-16.30	Peak	115	121	P
3	2483.50	-18.81	63.24	44.43	54.00	-9.57	Average	115	121	P
4	2483.50	-18.81	78.58	59.77	74.00	-14.23	Peak	115	121	P
5	4874.00	-13.24	52.74	39.50	54.00	-14.50	Average	189	15	P
6	4874.00	-13.24	65.87	52.63	74.00	-21.37	Peak	189	15	P
7	7311.00	-10.19	48.48	38.29	54.00	-15.71	Average	184	122	P
8	7311.00	-10.19	62.95	52.76	74.00	-21.24	Peak	184	122	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

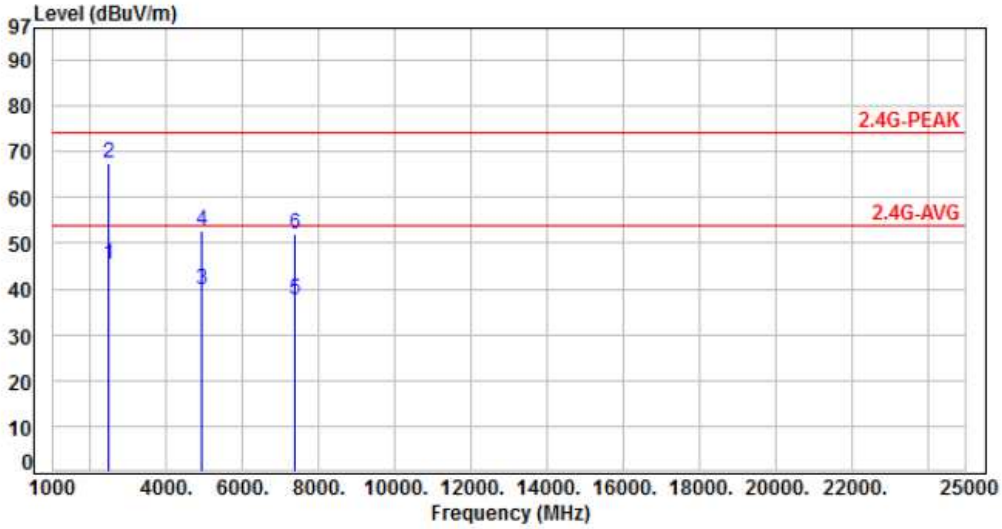
Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	Mode 5, CH11	Temperature	:	24 °C
Test Date	:	Aug. 22, 2017	Humidity	:	63 %



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2483.50	-18.81	63.04	44.23	54.00	-9.77	Average	101	199	P
2	2483.50	-18.81	82.79	63.98	74.00	-10.02	Peak	101	199	P
3	4924.00	-13.14	51.38	38.24	54.00	-15.76	Average	112	215	P
4	4924.00	-13.14	64.70	51.56	74.00	-22.44	Peak	112	215	P
5	7386.00	-10.01	46.28	36.27	54.00	-17.73	Average	138	186	P
6	7386.00	-10.01	61.17	51.16	74.00	-22.84	Peak	138	186	P

Note: Level=Reading+Factor
Margin=Level-Limit
Factor=Antenna Factor + cable loss - Amplifier Factor

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode	:	Mode 5, CH11	Temperature	:	24 °C
Test Date	:	Aug. 22, 2017	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	-18.81	64.28	45.47	54.00	-8.53	Average	143	116	P
2	2483.50	-18.81	86.14	67.33	74.00	-6.67	Peak	143	116	P
3	4924.00	-13.14	52.91	39.77	54.00	-14.23	Average	214	16	P
4	4924.00	-13.14	65.82	52.68	74.00	-21.32	Peak	214	16	P
5	7386.00	-10.01	47.60	37.59	54.00	-16.41	Average	180	117	P
6	7386.00	-10.01	61.87	51.86	74.00	-22.14	Peak	180	117	P

Note: Level=Reading+Factor
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

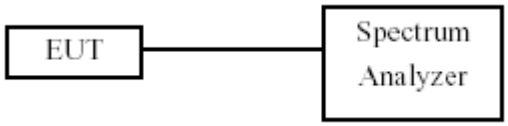
7.1 Test Limit

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



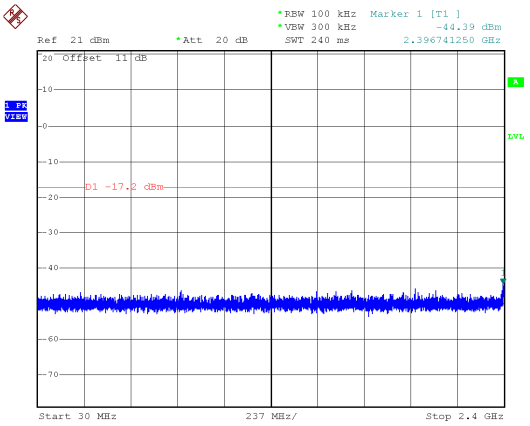
7.4 Test Result and Data

Test Result	:	PASS	Temperature	:	22°C
Test Date	:	Sep. 07, 2017	Humidity	:	64%

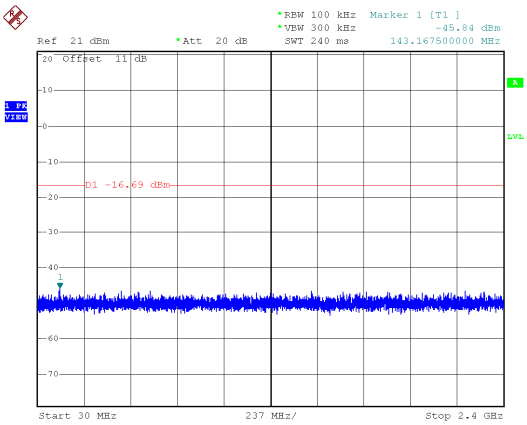
Note: Test plots refers to the following pages.

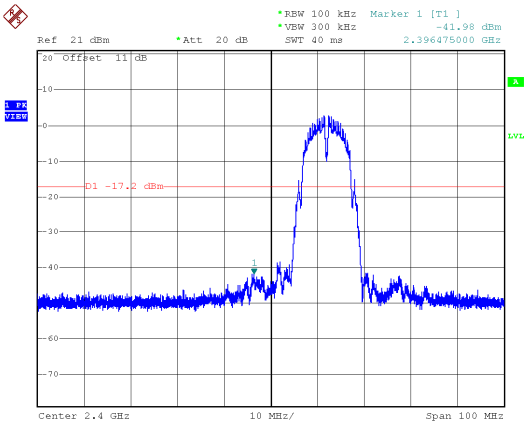
1TX: ANT B

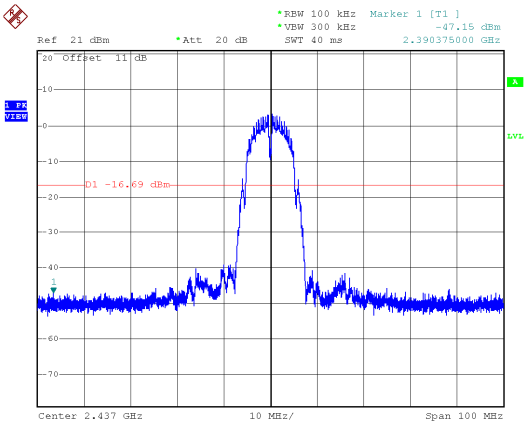
Modulation Type: 802.11b, CH 01

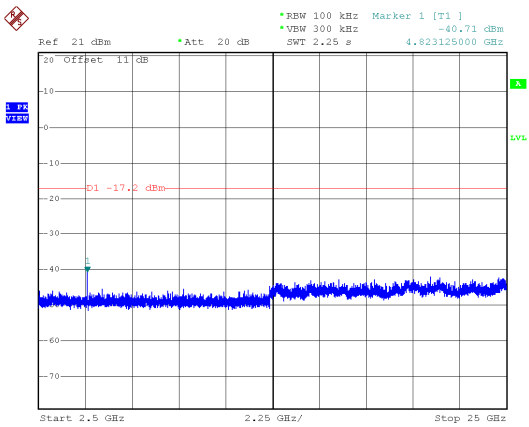


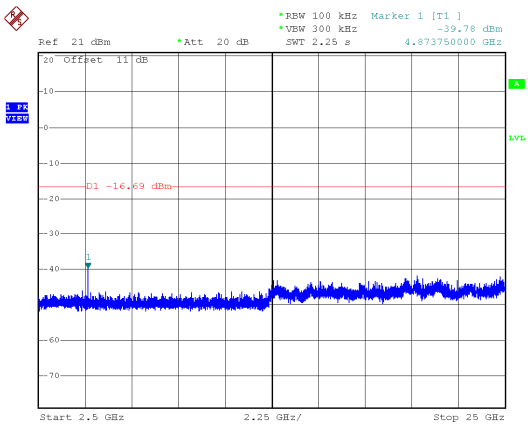
Modulation Type: 802.11b, CH 06





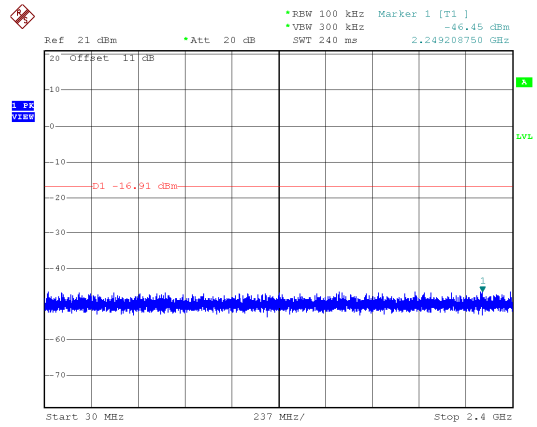


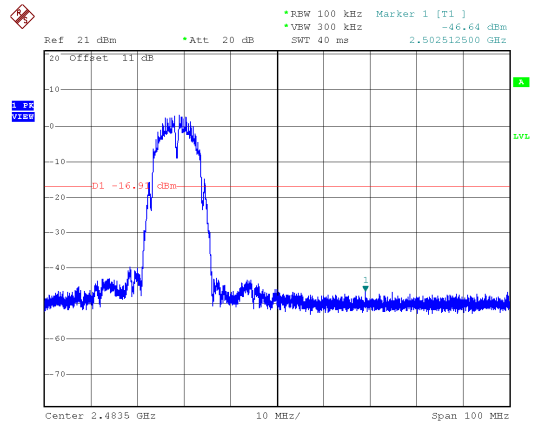


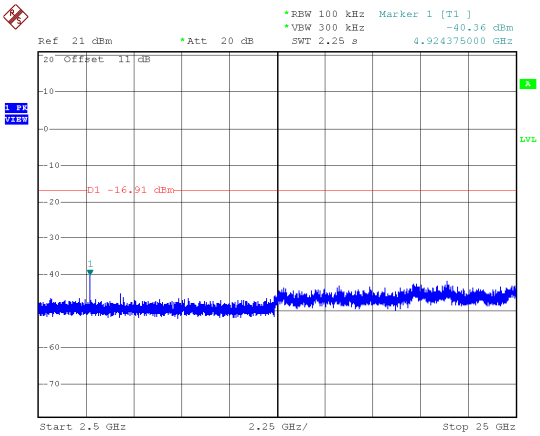


1TX: ANT B

Modulation Type: 802.11b, CH 11

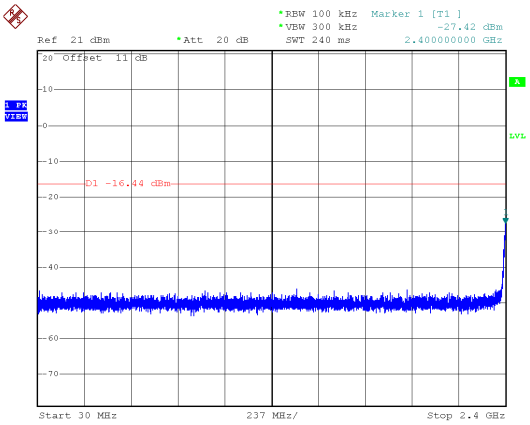




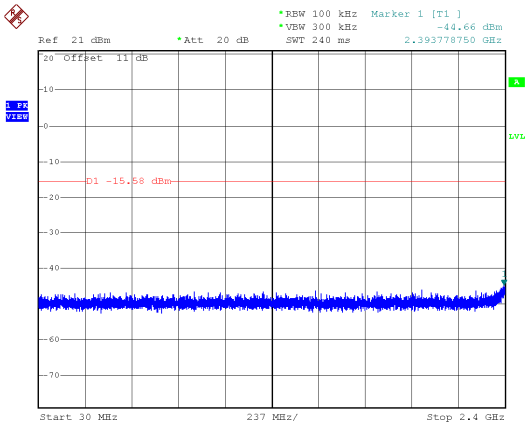


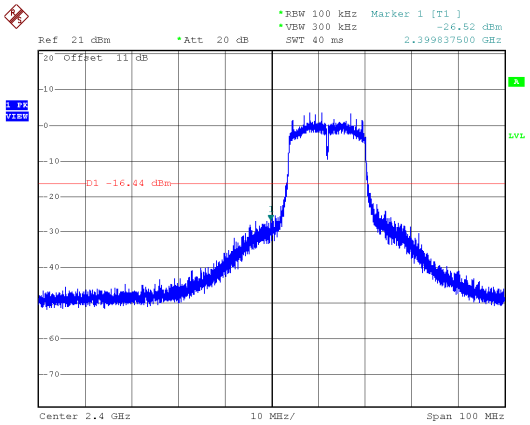
1TX: ANT B

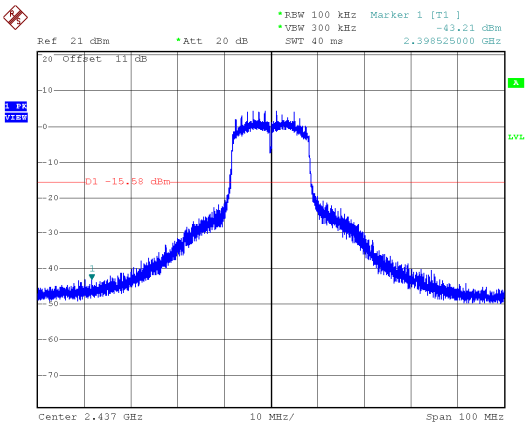
Modulation Type: 802.11g, CH 01

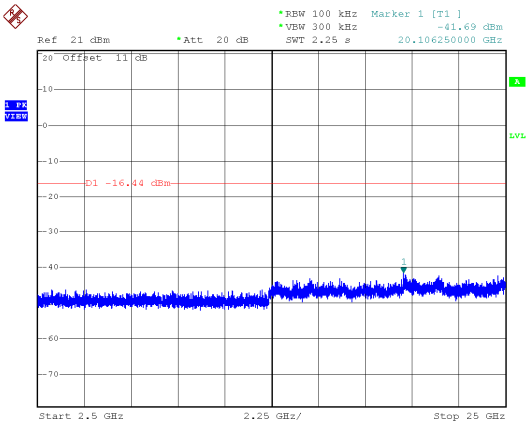


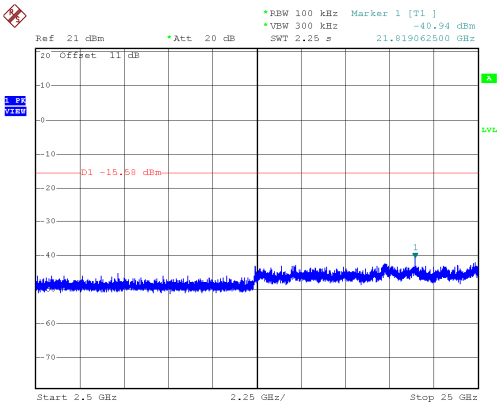
Modulation Type: 802.11g, CH 06





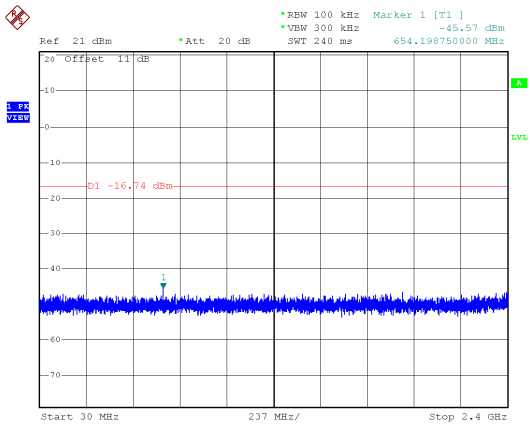


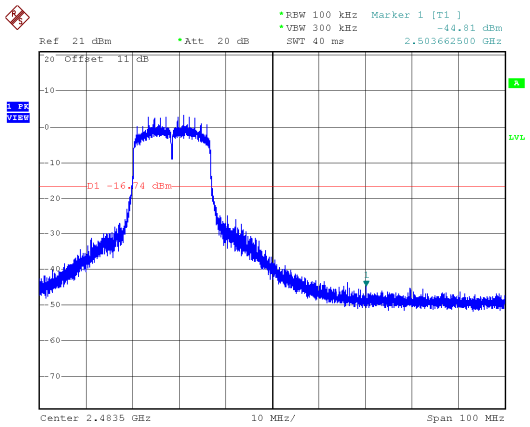


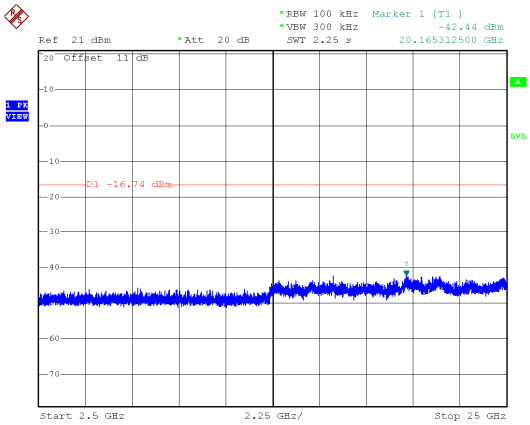


1TX: ANT B

Modulation Type: 802.11g, CH 11

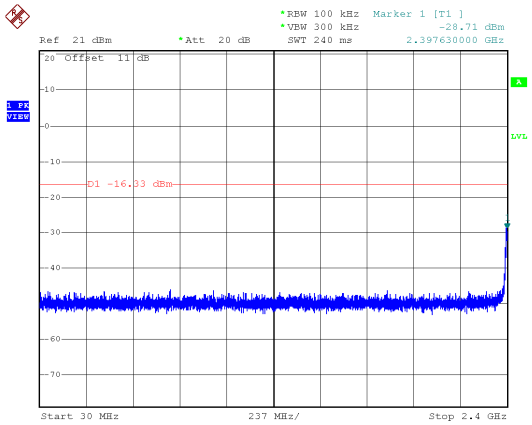




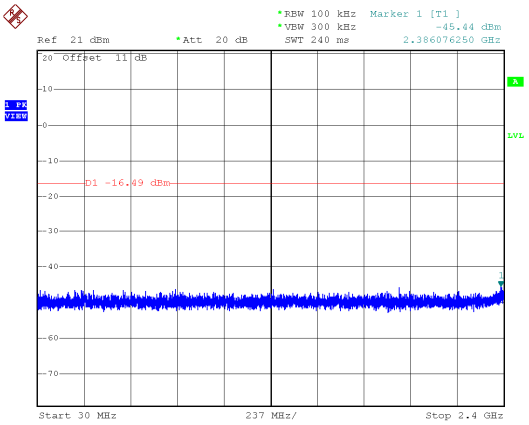


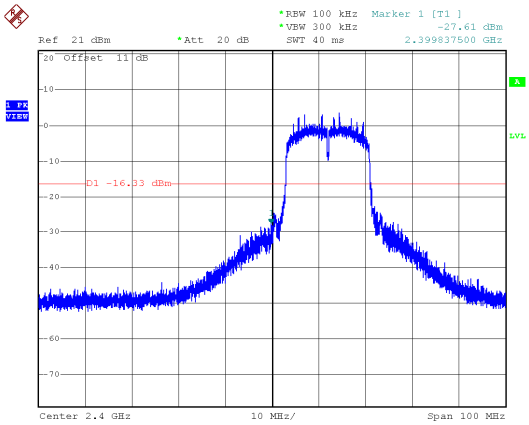
1TX: ANT B

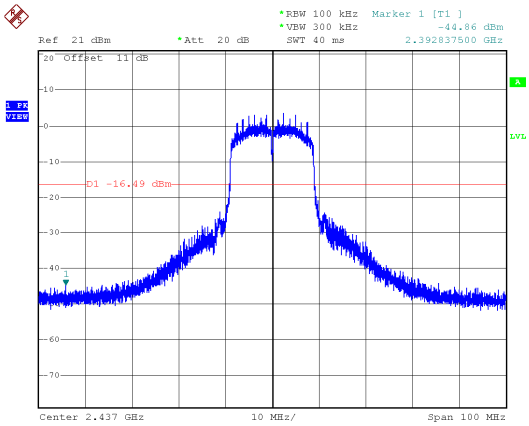
Modulation Type: 802.11n HT20, CH01

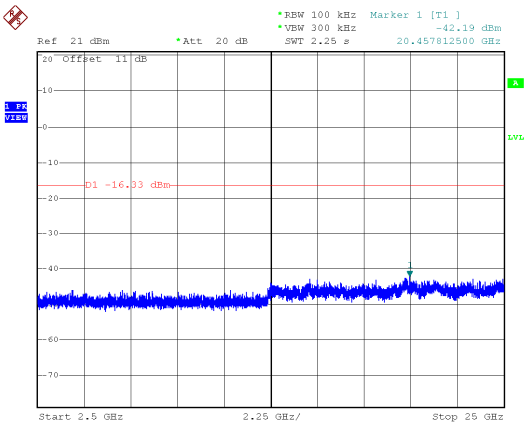


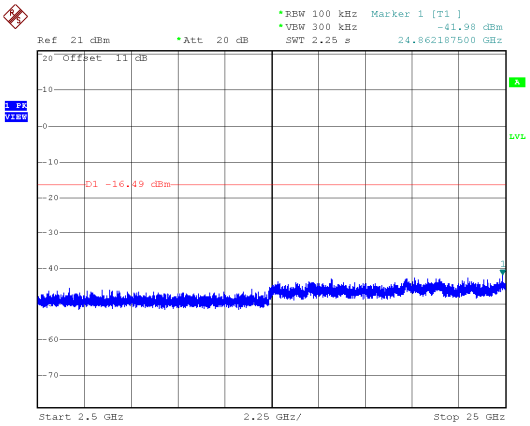
Modulation Type: 802.11n HT20, CH06





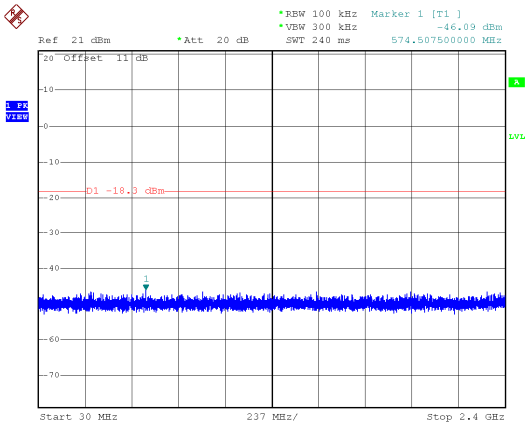


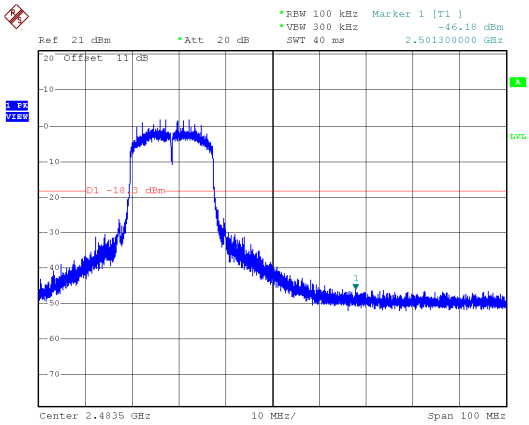


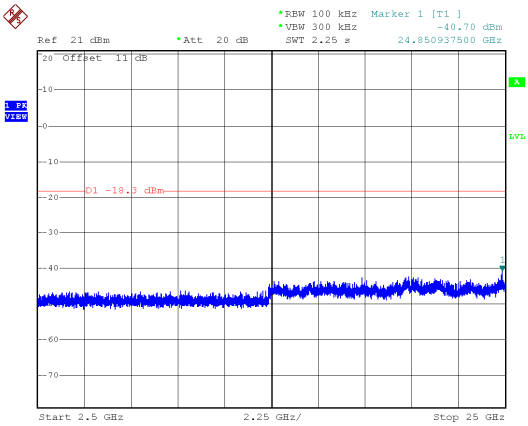


1TX: ANT B

Modulation Type: 802.11n HT20, CH11

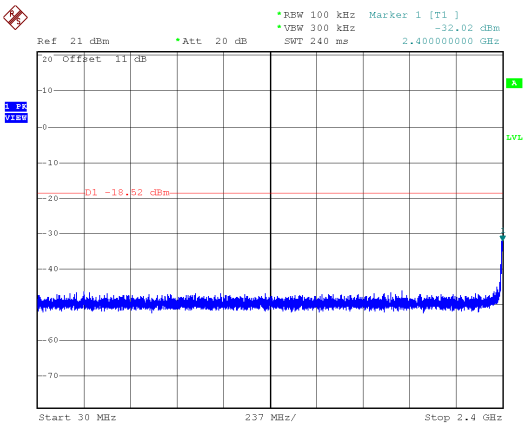




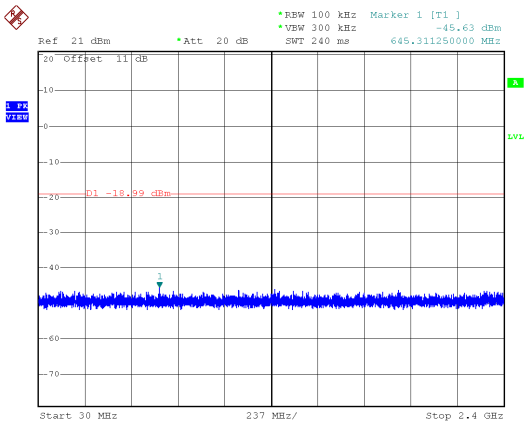


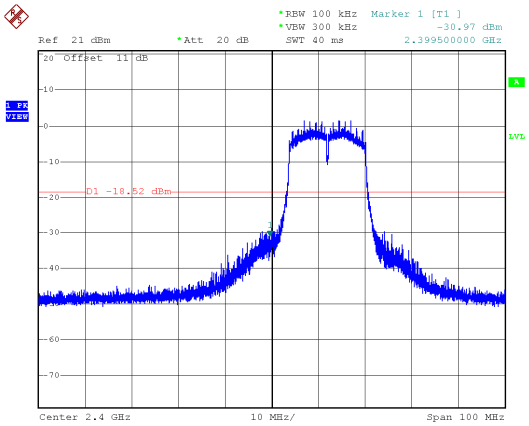
2TX: ANT A

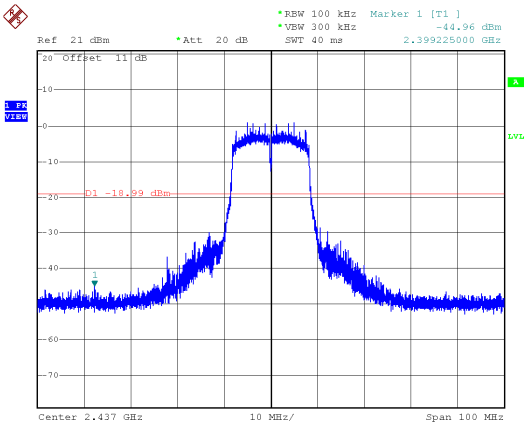
Modulation Type: 802.11g, CH 01

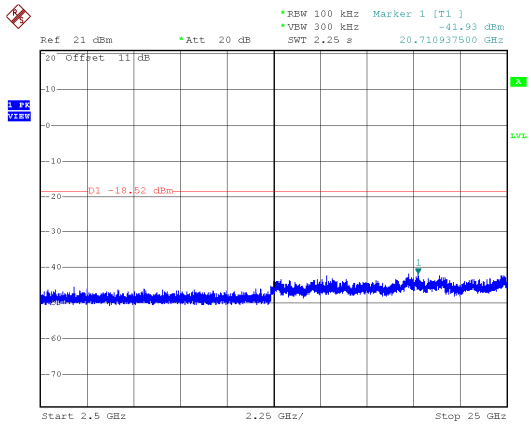


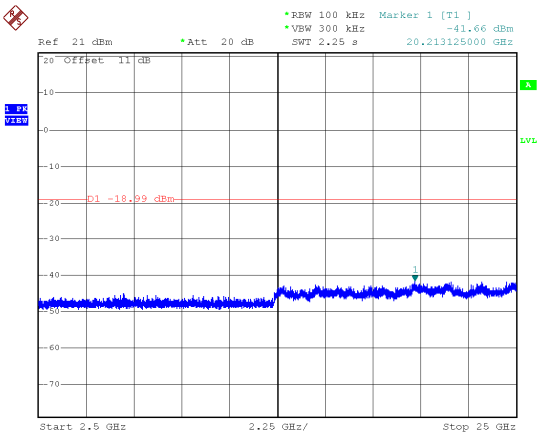
Modulation Type: 802.11g, CH 06





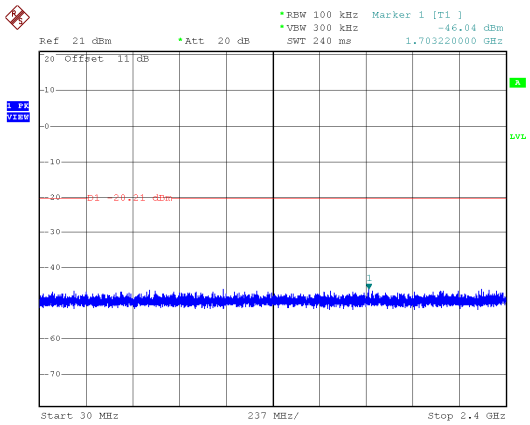


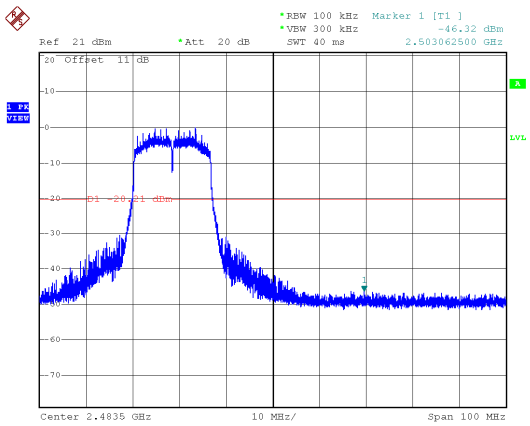


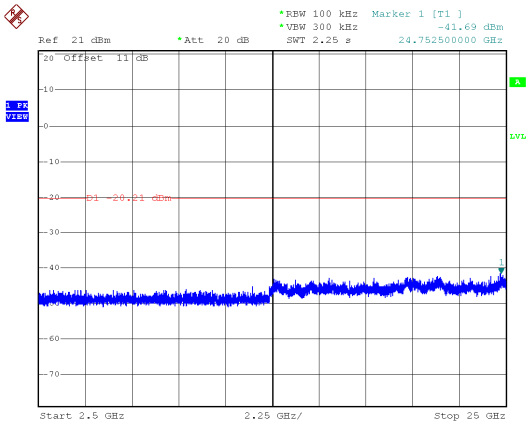


2TX: ANT A

Modulation Type: 802.11g, CH 11

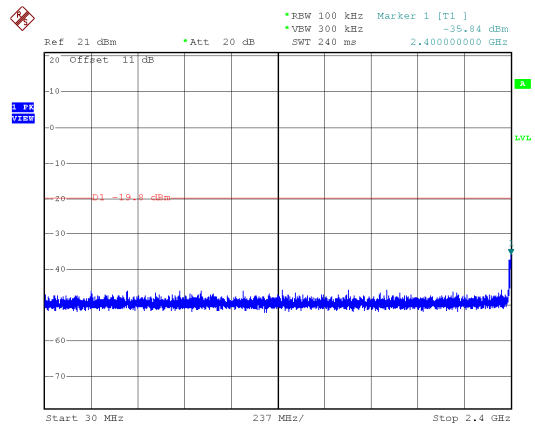




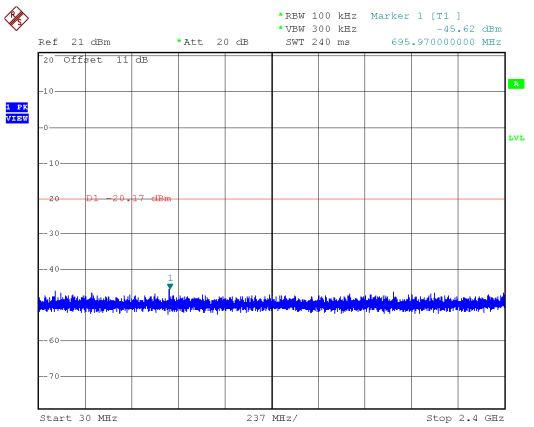


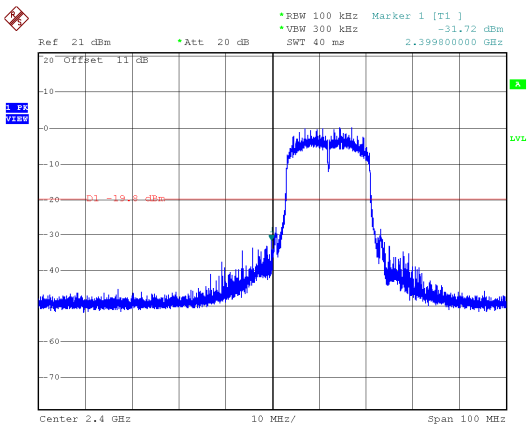
2TX: ANT A

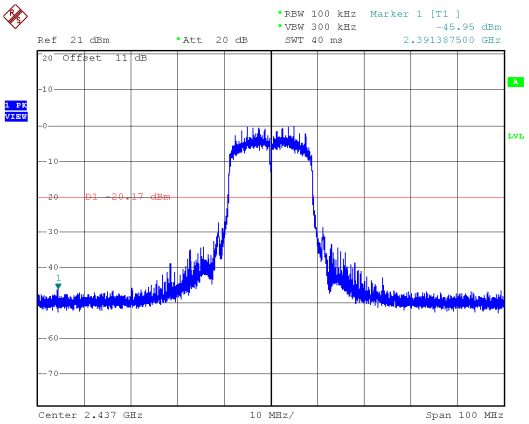
Modulation Type: 802.11n HT20, CH01

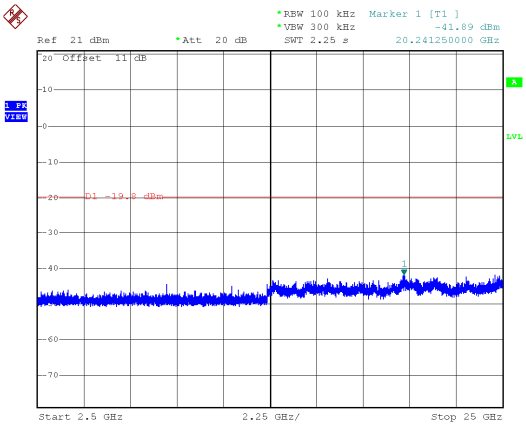


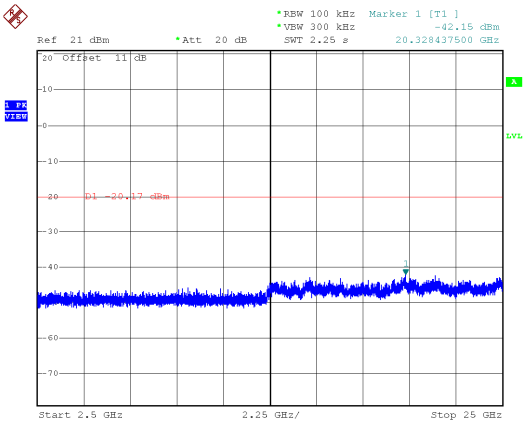
Modulation Type: 802.11n HT20, CH06





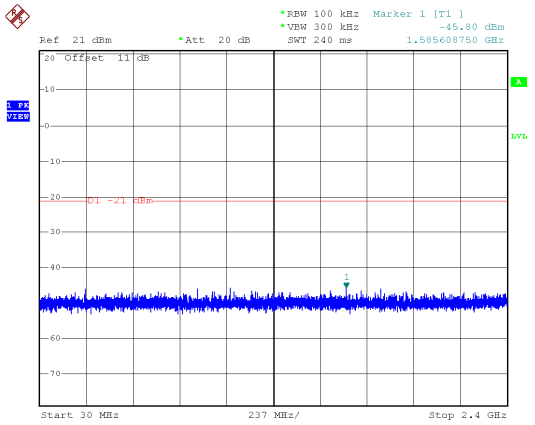


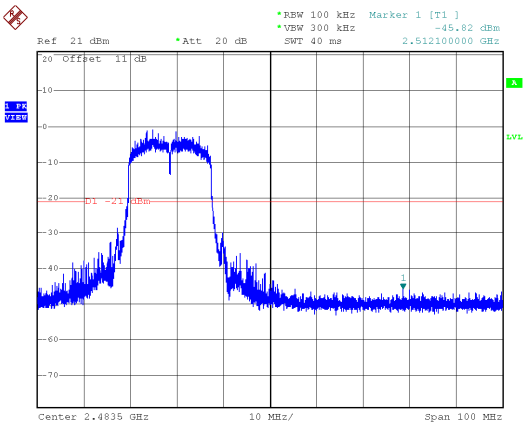


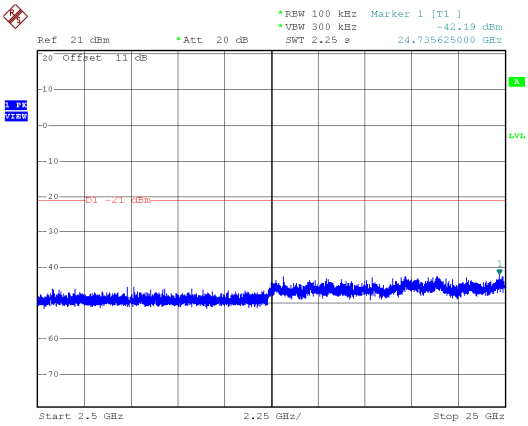


2TX: ANT A

Modulation Type: 802.11n HT20, CH11

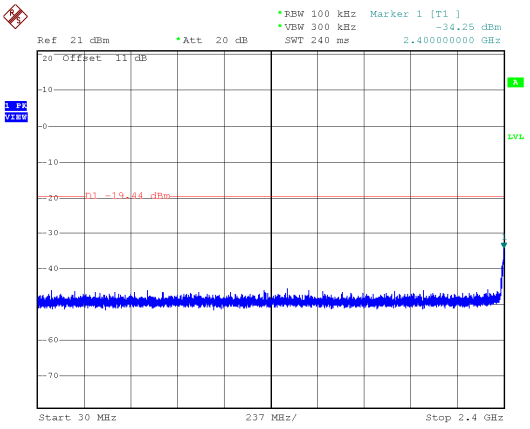




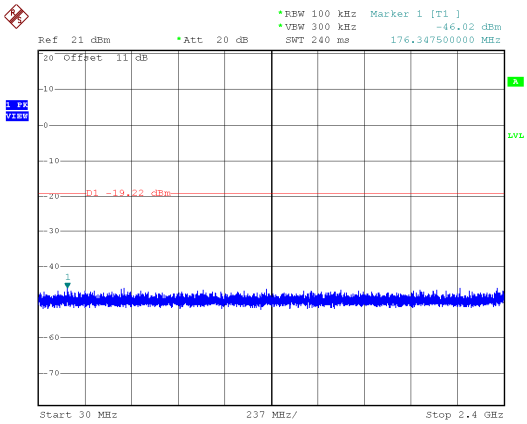


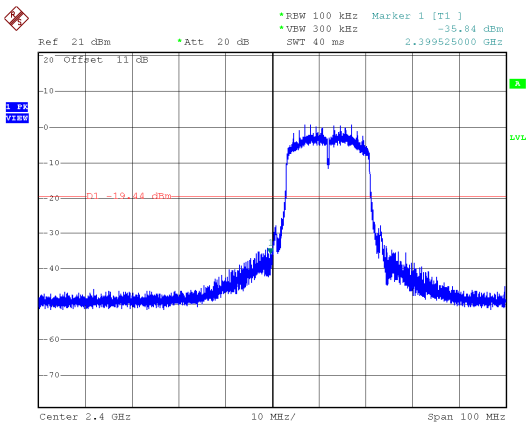
2TX: ANT B

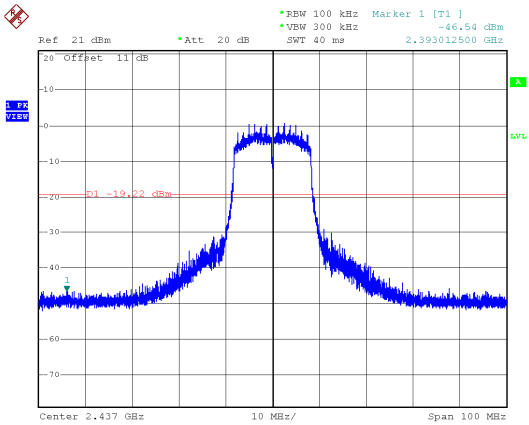
Modulation Type: 802.11g, CH 01

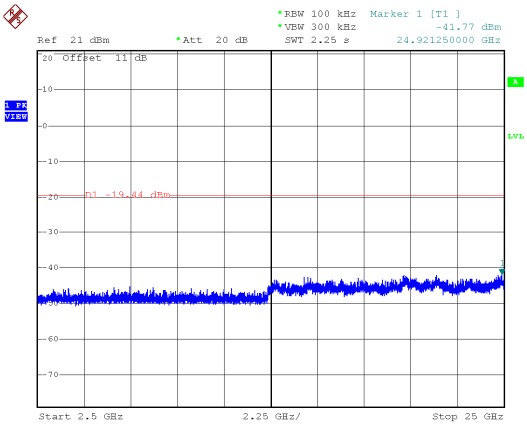


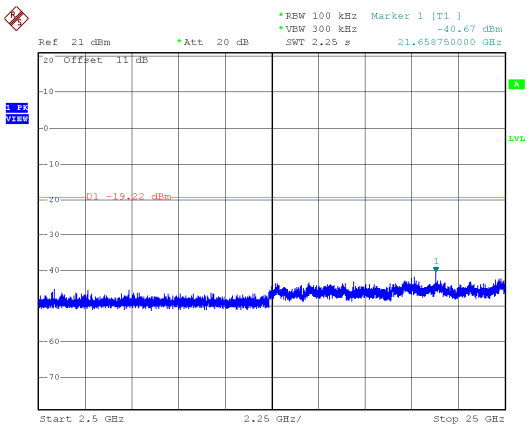
Modulation Type: 802.11g, CH 06





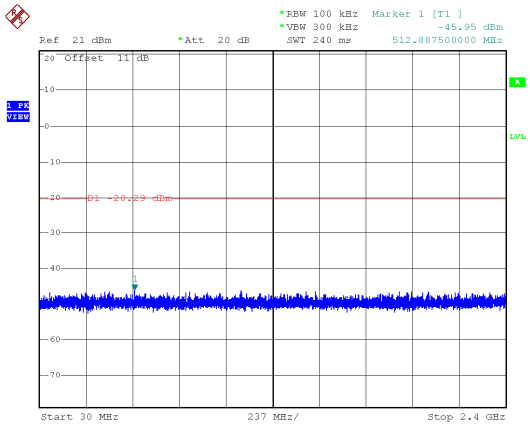


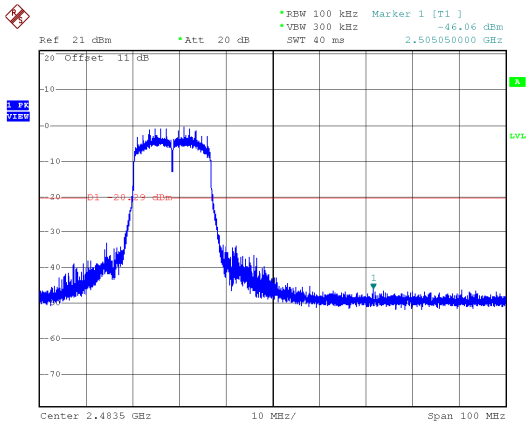


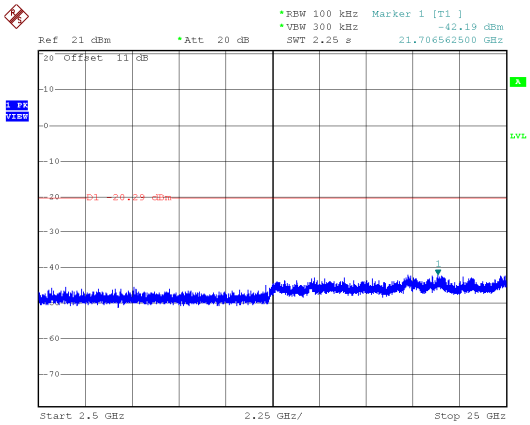


2TX: ANT B

Modulation Type: 802.11g, CH 11

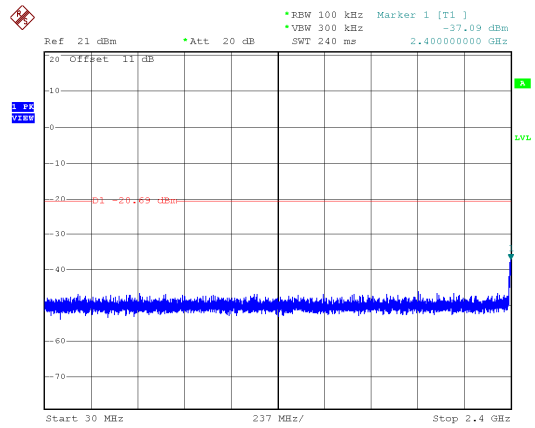




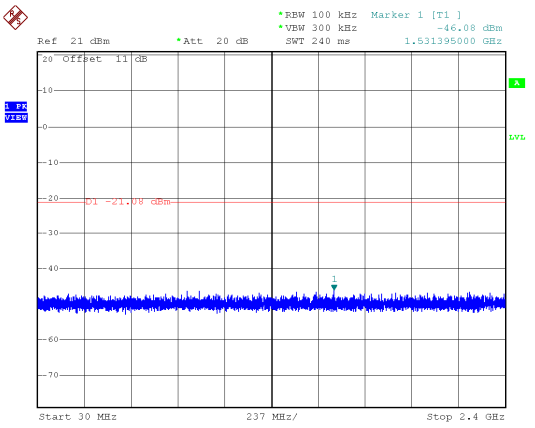


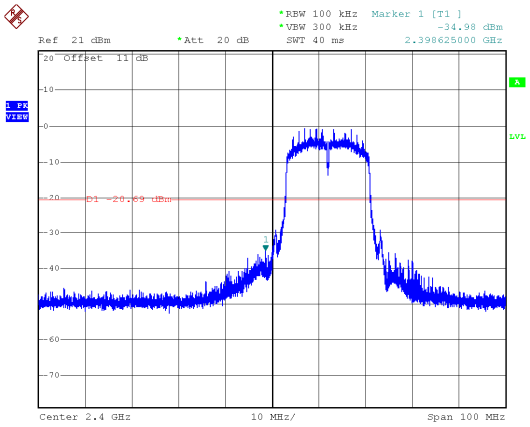
2TX: ANT B

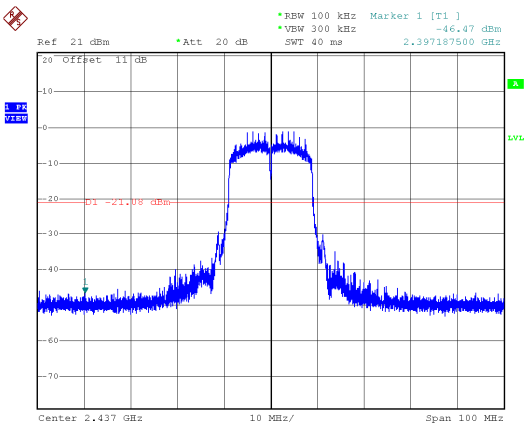
Modulation Type: 802.11n HT20, CH01

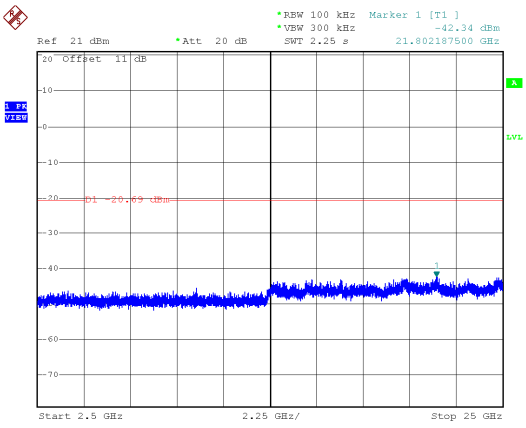


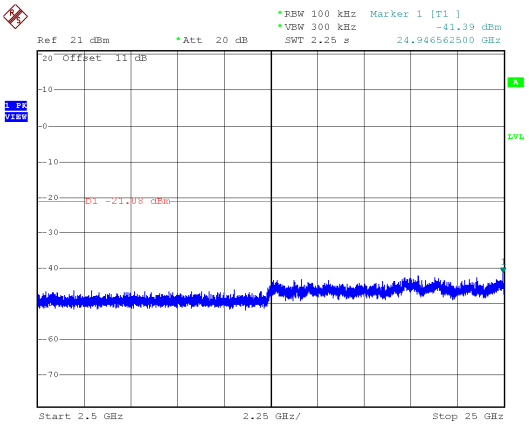
Modulation Type: 802.11n HT20, CH06





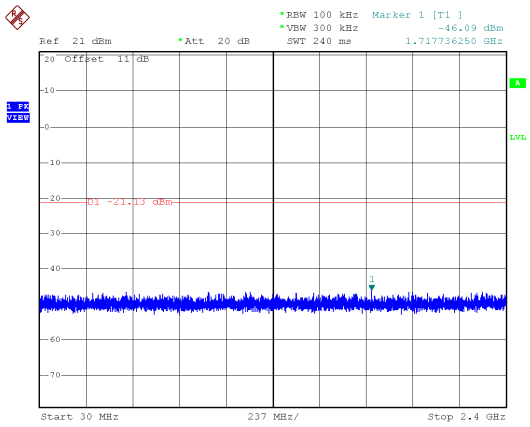


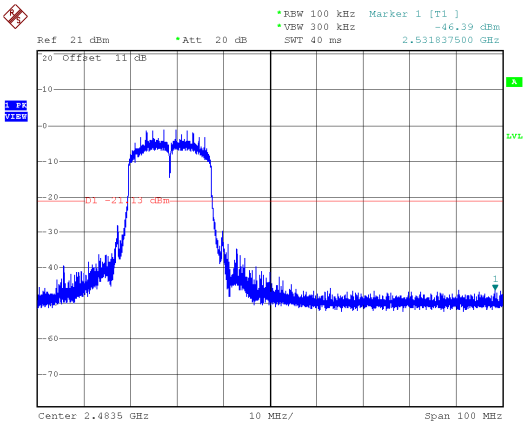


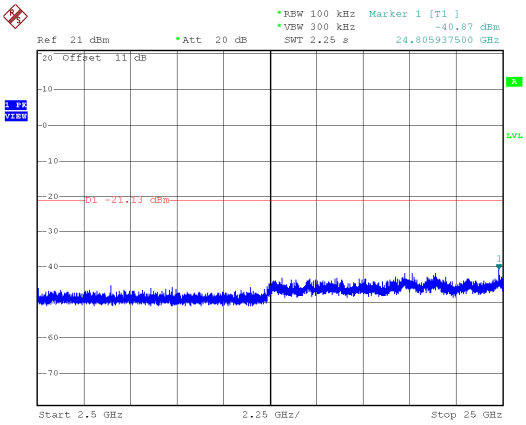


2TX: ANT B

Modulation Type: 802.11n HT20, CH11







8. 6dB Bandwidth Measurement Data

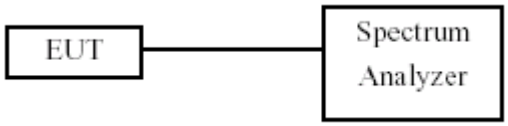
8.1 Test Limit

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

8.2 Test Procedures

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

8.3 Test Setup Layout



8.4 Test Result and Data

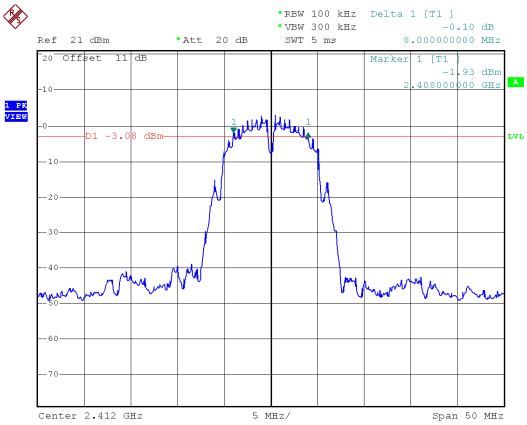
Temperature : 22°C Humidity : 64%
Test Date : Sep. 07, 2017 Test Mode : 1TX

Modulation Type	Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)
			ANT B	
IEEE 802.11b (1Mbps)	01	2412	8.00	0.5
	06	2437	8.00	0.5
	11	2462	8.10	0.5
IEEE 802.11g (6Mbps)	01	2412	16.10	0.5
	06	2437	15.80	0.5
	11	2462	15.70	0.5
IEEE 802.11n HT20 (6.5Mbps)	01	2412	16.00	0.5
	06	2437	16.10	0.5
	11	2462	16.00	0.5

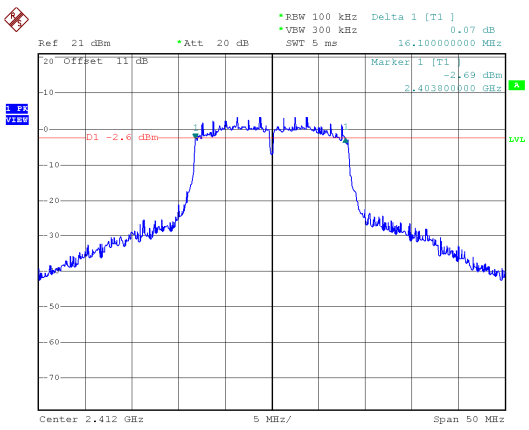
Temperature : 22°C Humidity : 64%
Test Date : Sep. 07, 2017 Test Mode : 2TX

Modulation Type	Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Limit (MHz)
			ANT A	ANT B	
IEEE 802.11g (6Mbps)	01	2412	16.30	16.00	0.5
	06	2437	16.30	15.90	0.5
	11	2462	16.10	15.60	0.5
IEEE 802.11n HT20 (6.5Mbps)	01	2412	16.60	15.90	0.5
	06	2437	16.80	16.10	0.5
	11	2462	16.50	16.00	0.5

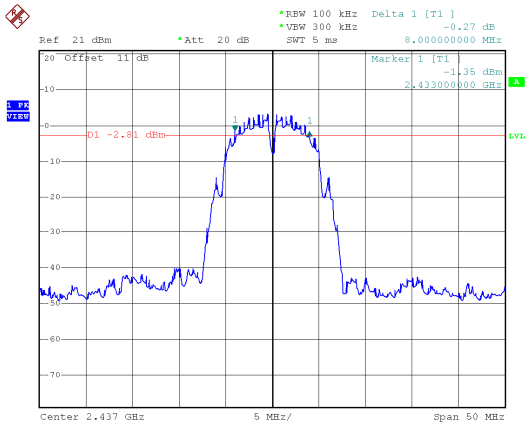
1TX: ANT B
Modulation Type: 802.11b
CH01



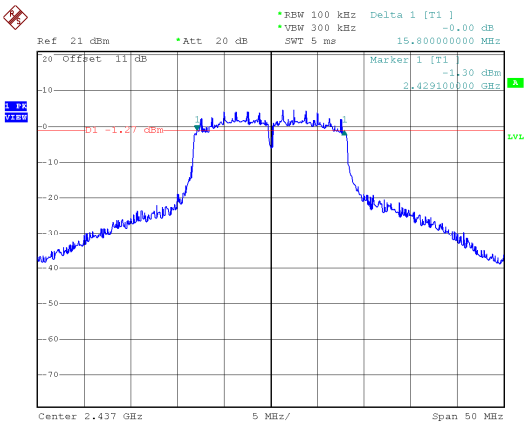
Modulation Type: 802.11g
CH01



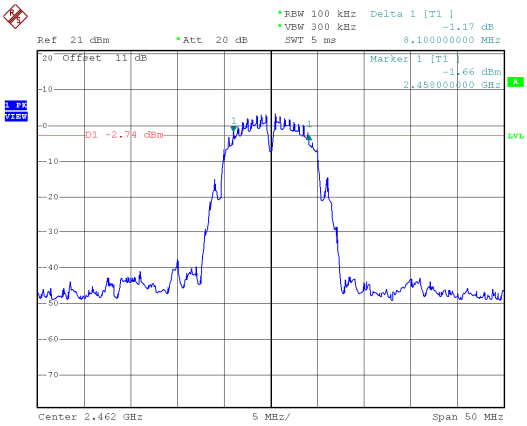
CH06



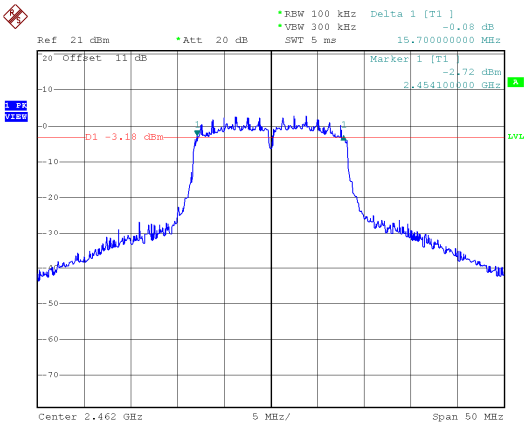
CH06



CH11



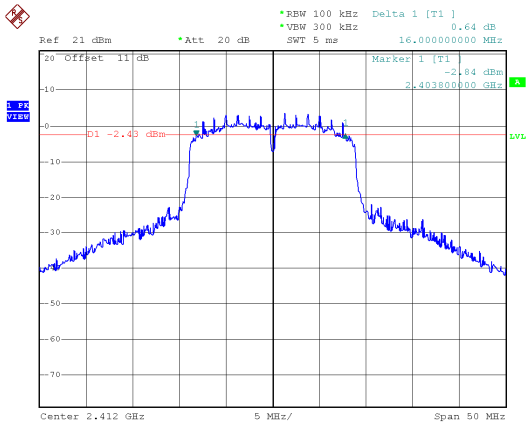
CH11



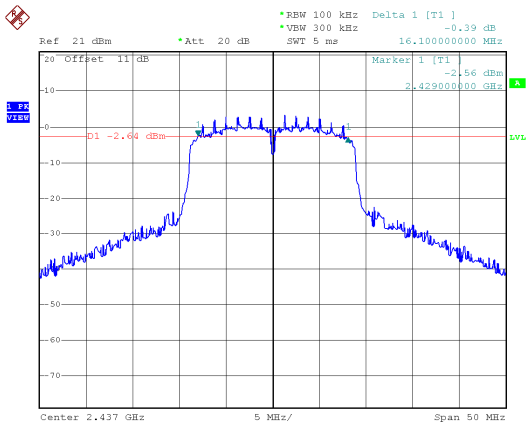
1TX: ANT B

Modulation Type: 802.11n HT20

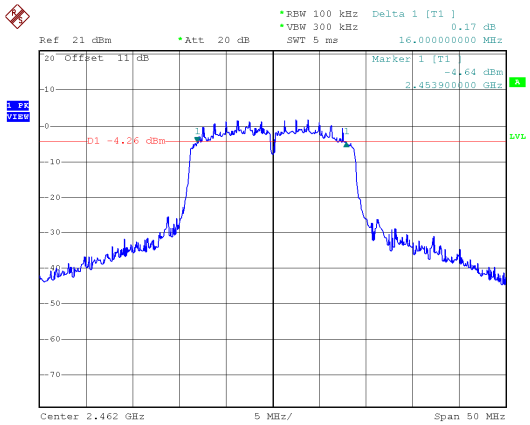
CH01



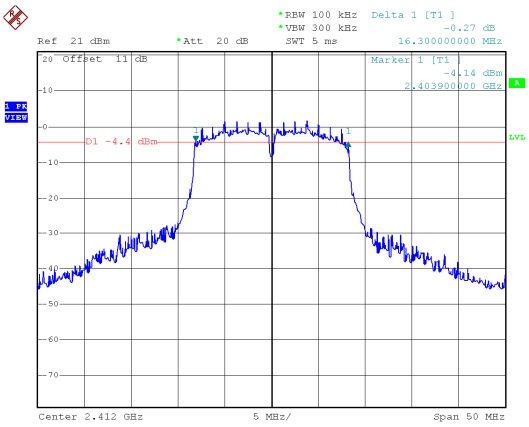
CH06



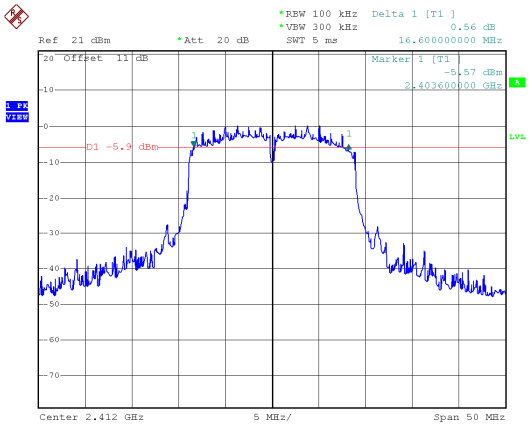
CH11



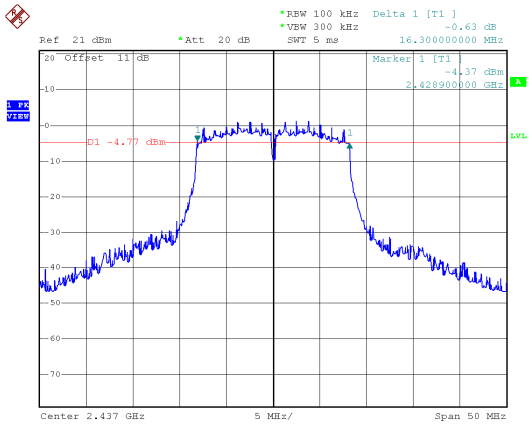
2TX: ANT A
Modulation Type: 802.11g
CH01



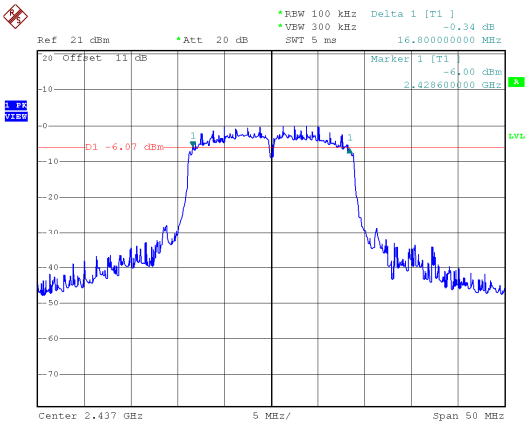
Modulation Type: 802.11n HT20
CH01



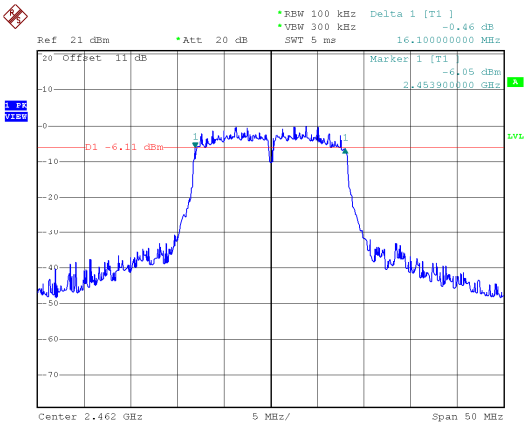
CH06



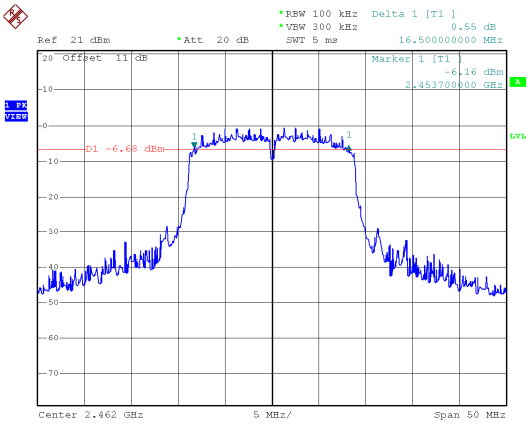
CH06



CH11



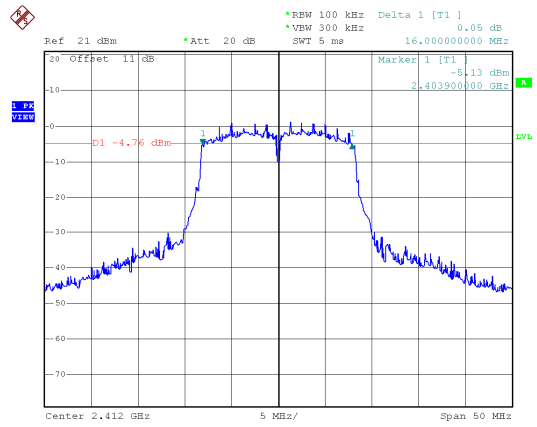
CH11



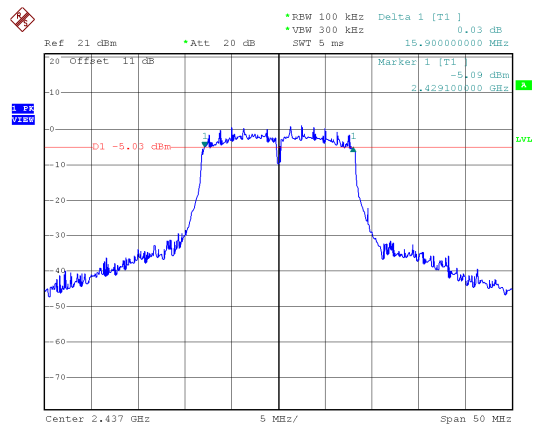
2TX: ANT A

Modulation Type: 802.11g

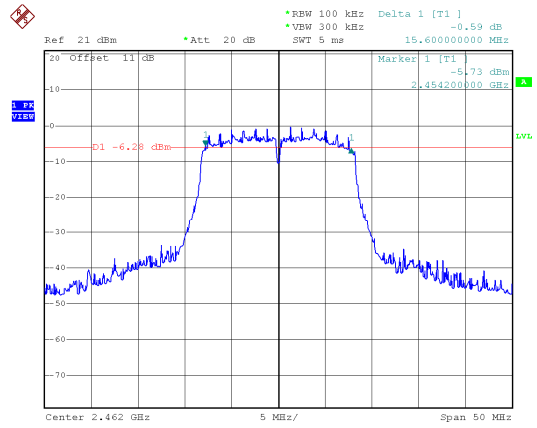
CH01



CH06

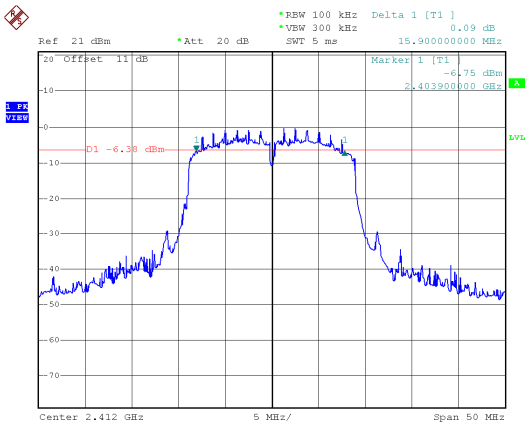


CH11

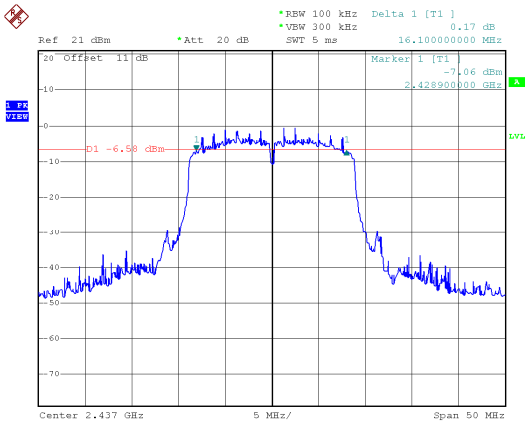


Modulation Type: 802.11n HT20

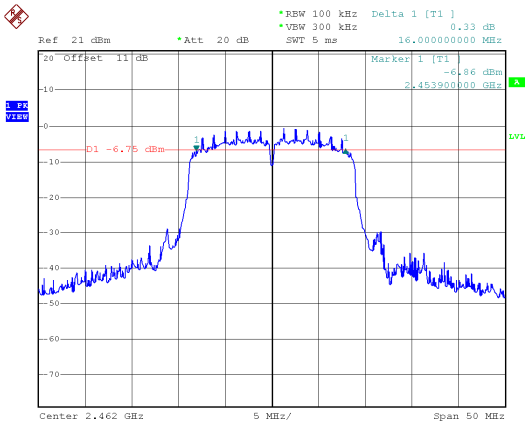
CH01



CH06



CH11



9. Maximum Peak and Average Output Power

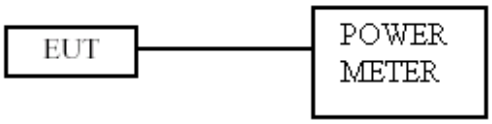
9.1 Test Limit

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

Temperature : 22°C Humidity : 64%
Test Date : Sep. 07, 2017 Test Mode : 1TX

Modulation Type	Channel	Frequency (MHz)	Peak Power Output (dBm) ANT B	Total Power (mW)	Total Power (dBm)	Power Limit (dBm)
IEEE 802.11b (1Mbps)	01	2412	14.66	29.242	14.66	30.00
	06	2437	15.31	33.963	15.31	30.00
	11	2462	14.97	31.405	14.97	30.00
IEEE 802.11g (6Mbps)	01	2412	21.07	127.938	21.07	30.00
	06	2437	21.12	129.420	21.12	30.00
	11	2462	20.92	123.595	20.92	30.00
IEEE 802.11n HT20 (6.5Mbps)	01	2412	20.92	123.595	20.92	30.00
	06	2437	20.73	118.304	20.73	30.00
	11	2462	20.52	112.720	20.52	30.00

Modulation Type	Channel	Frequency (MHz)	Avg. Power Output (dBm)	Total Power (mW)	Total Power (dBm)	Power Limit (dBm)
			ANT B			
IEEE 802.11b (1Mbps)	01	2412	10.97	12.503	10.97	NA
	06	2437	11.67	14.689	11.67	NA
	11	2462	11.31	13.521	11.31	NA
IEEE 802.11g (6Mbps)	01	2412	14.62	28.973	14.62	NA
	06	2437	15.21	33.189	15.21	NA
	11	2462	14.02	25.235	14.02	NA
IEEE 802.11n HT20 (6.5Mbps)	01	2412	14.07	25.527	14.07	NA
	06	2437	13.78	23.878	13.78	NA
	11	2462	12.97	19.815	12.97	NA

Note: Average power is for reference only.

Temperature : 22°C Humidity : 64%

Test Date : Sep. 07, 2017 Test Mode : 2TX

Modulation Type	Channel	Frequency (MHz)	Peak Power Output (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)
			ANT A	ANT B			
IEEE 802.11g (6Mbps)	01	2412	20.54	19.62	204.862	23.11	30.00
	06	2437	20.12	19.32	188.308	22.75	30.00
	11	2462	19.03	18.74	154.800	21.90	30.00
IEEE 802.11n HT20 (6.5Mbps)	01	2412	19.61	18.89	168.858	22.28	30.00
	06	2437	19.03	18.48	150.453	21.77	30.00
	11	2462	18.87	18.27	144.233	21.59	30.00

Modulation Type	Channel	Frequency (MHz)	Avg. Power Output (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)
			ANT A	ANT B			
IEEE 802.11g (6Mbps)	01	2412	12.42	11.85	32.769	15.15	NA
	06	2437	12.08	11.47	30.172	14.80	NA
	11	2462	10.72	10.38	22.718	13.56	NA
IEEE 802.11n HT20 (6.5Mbps)	01	2412	11.04	10.41	23.696	13.75	NA
	06	2437	10.46	10.02	21.163	13.26	NA
	11	2462	12.42	11.85	20.026	13.02	NA

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

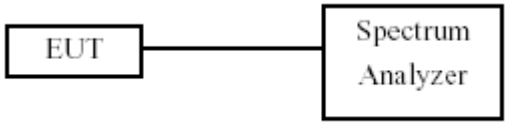
10.2 Test Procedures

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

Temperature	:	22°C	Humidity	:	64%	
Test Date	:	Sep. 07, 2017	Test Mode	:	1TX	

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)
			ANT B				
IEEE 802.11b (1Mbps)	01	2412	-11.49	-11.49	0.00	-11.49	8.00
	06	2437	-11.47	-11.47	0.00	-11.47	8.00
	11	2462	-10.87	-10.87	0.00	-10.87	8.00
IEEE 802.11g (6Mbps)	01	2412	-10.57	-10.57	0.00	-10.57	8.00
	06	2437	-9.16	-9.16	0.00	-9.16	8.00
	11	2462	-11.52	-11.52	0.00	-11.52	8.00
IEEE 802.11n HT20 (6.5Mbps)	01	2412	-10.36	-10.36	0.00	-10.36	8.00
	06	2437	-10.11	-10.11	0.00	-10.11	8.00
	11	2462	-12.05	-12.05	0.00	-12.05	8.00

Temperature : 22°C Humidity : 64%

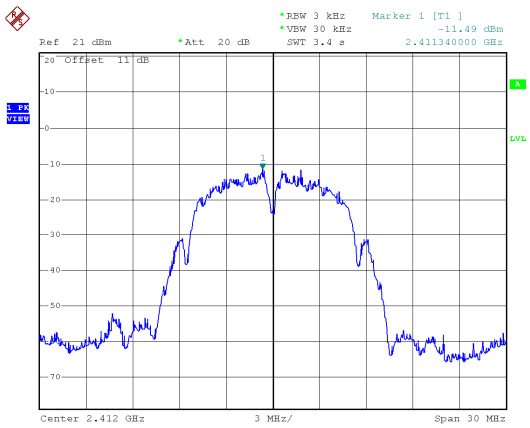
Test Date : Sep. 07, 2017 Test Mode : 2TX

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)
			ANT A	ANT B				
IEEE 802.11g (6Mbps)	01	2412	-11.91	-13.15	-9.48	0.00	-9.48	8.00
	06	2437	-12.93	-12.94	-9.92	0.00	-9.92	8.00
	11	2462	-13.75	-13.93	-10.83	0.00	-10.83	8.00
IEEE 802.11n HT20 (6.5Mbps)	01	2412	-13.62	-14.07	-10.83	0.00	-10.83	8.00
	06	2437	-14.34	-14.59	-11.45	0.00	-11.45	8.00
	11	2462	-14.69	-14.57	-11.62	0.00	-11.62	8.00

1TX: ANT B

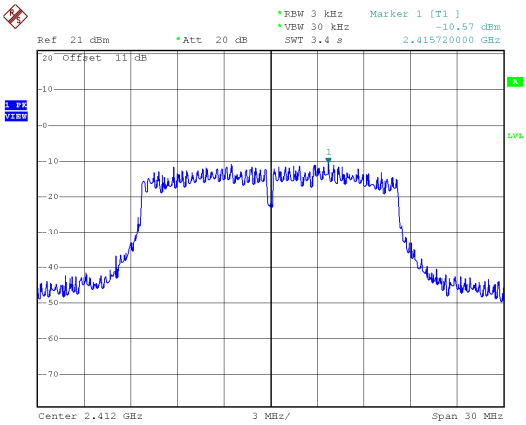
Modulation Type: 802.11b

CH01

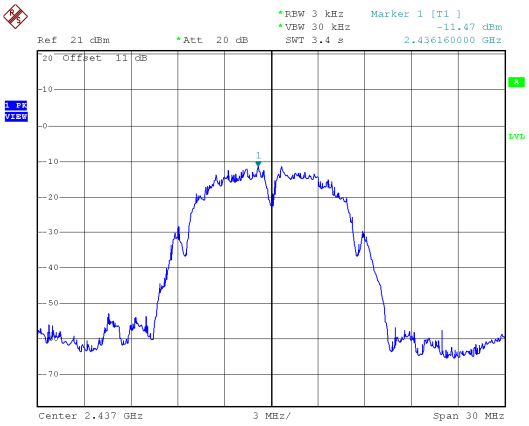


Modulation Type: 802.11g

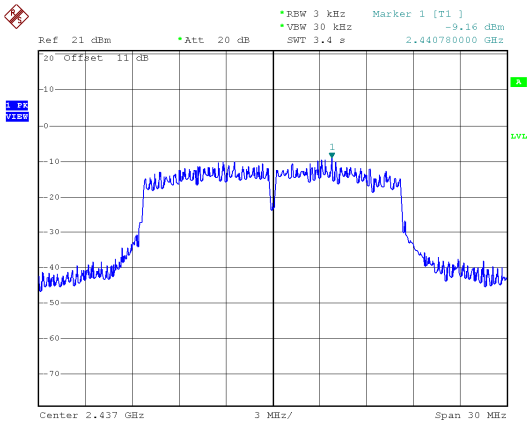
CH01



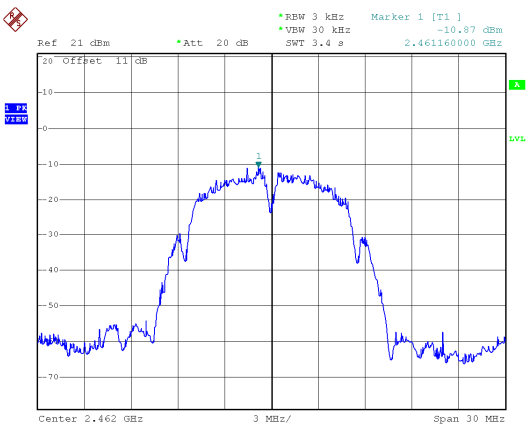
CH06



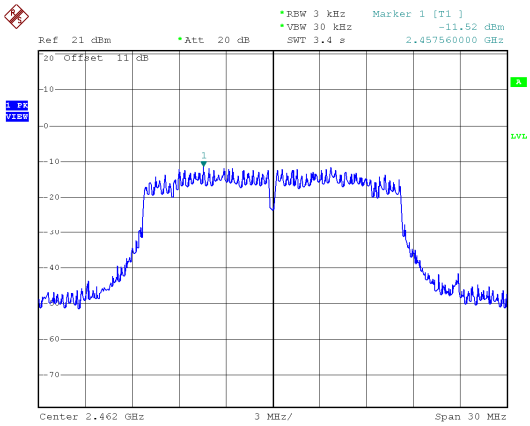
CH06



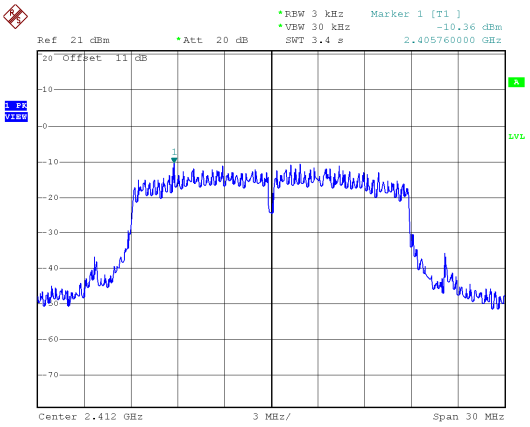
CH11



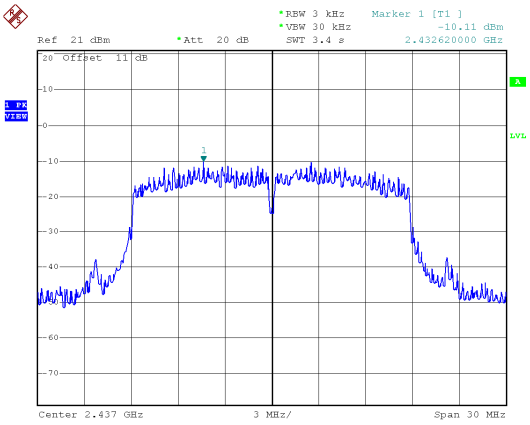
CH11



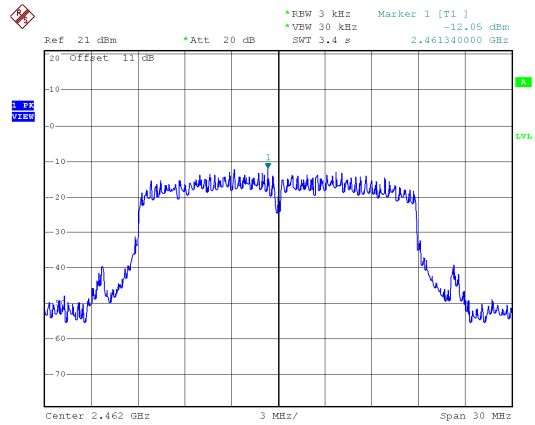
1TX: ANT B
Modulation Type: 802.11n HT20
CH01



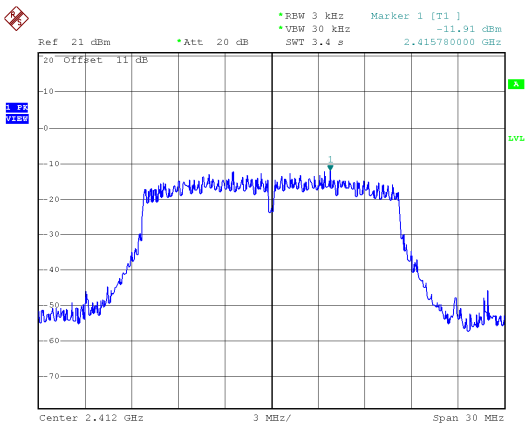
CH06



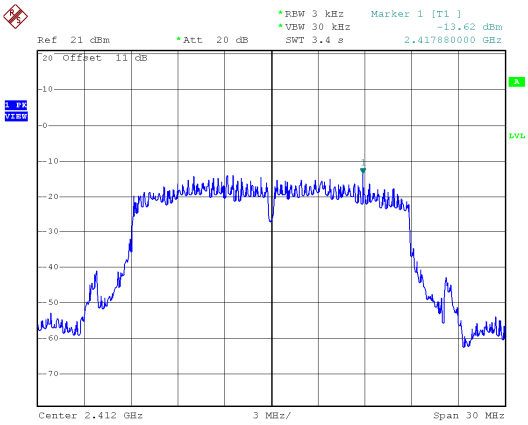
CH11



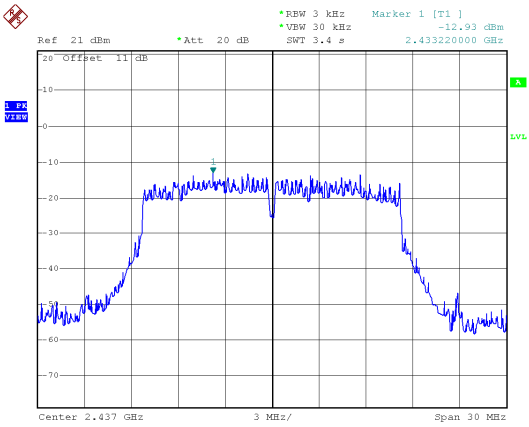
2TX: ANT A
Modulation Type: 802.11g
CH01



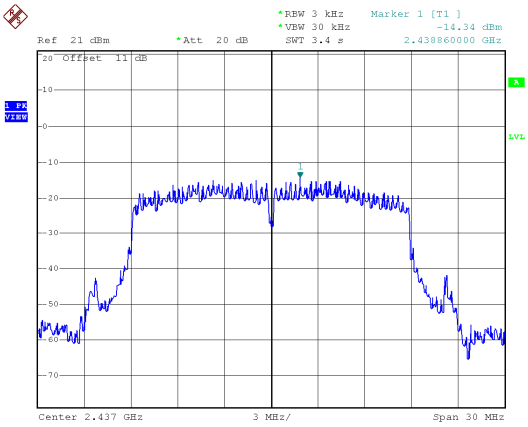
Modulation Type: 802.11n HT20
CH01



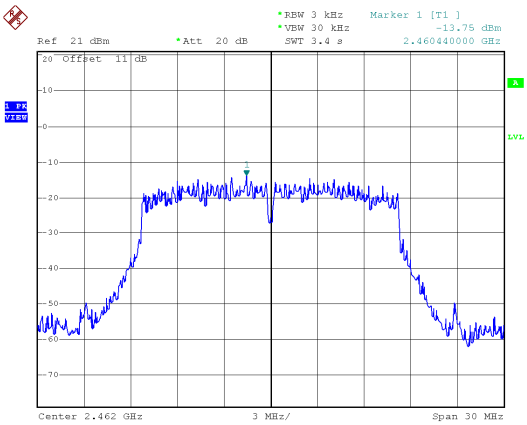
CH06



CH06



CH11



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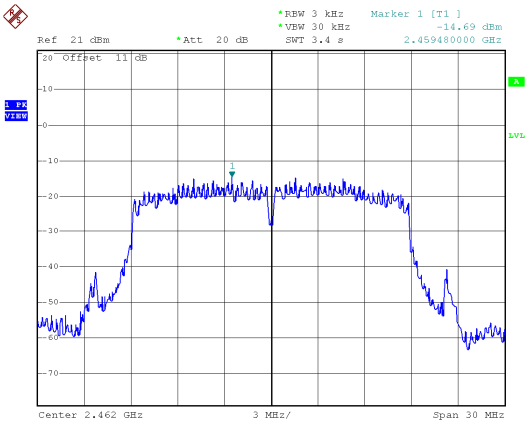
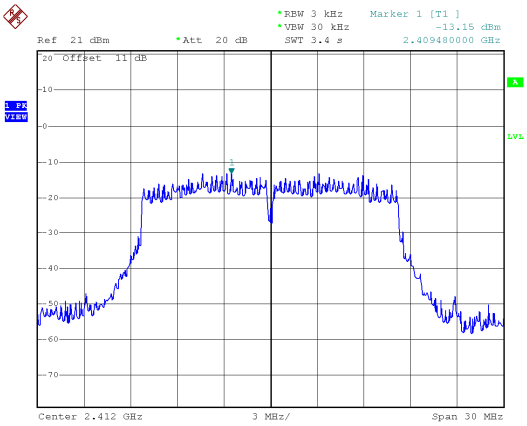


2TX: ANT B

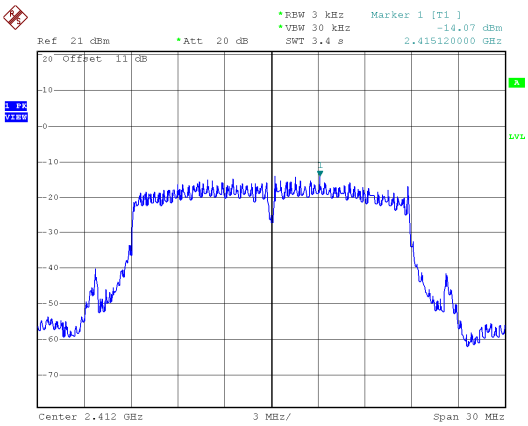
Modulation Type: 802.11g

CH01

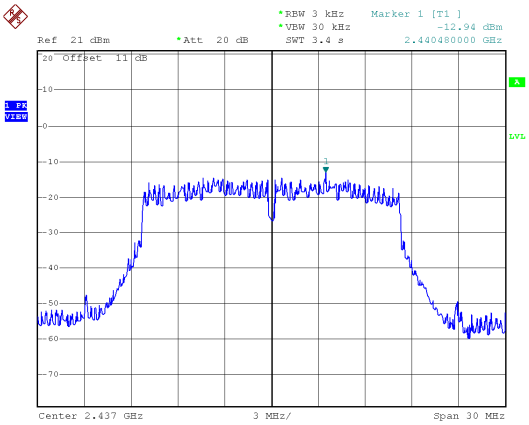


Modulation Type: 802.11n HT20

CH01



CH06



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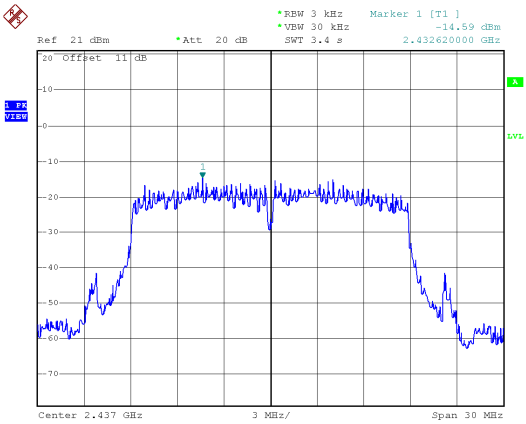
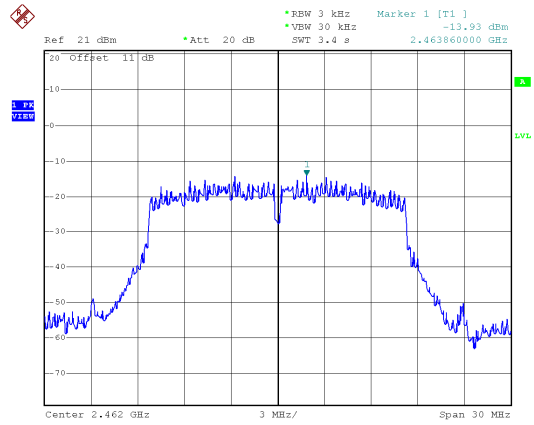
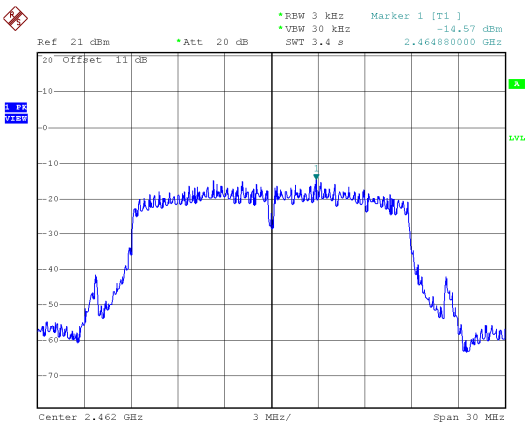


CH11



CH11



11. Radio Frequency Exposure

11.1 Applicable Standards

The measurements shown in this test report were made in accordance with the procedures given in FCC Part 2 (Section 2.1091)

KDB 447498

11.2 EUT Specification

Frequency band (Operating)	☒ WLAN: 2412MHz ~ 2462MHz ☐ WLAN: 5150MHz ~ 5250MHz ☐ WLAN: 5250MHz ~ 5350MHz ☐ WLAN: 5470MHz ~ 5725MHz ☐ WLAN: 5725MHz ~ 5850MHz ☐ Bluetooth: 2402MHz ~ 2480MHz
Device category	☐ Portable (<20cm separation) ☒ Mobile (>20cm separation)
Exposure classification	☐ Occupational/Controlled exposure (S = 5mW/cm^2) ☒ General Population/Uncontrolled exposure (S=1mW/cm^2)
Antenna diversity	☐ Single antenna ☒ Multiple antennas ☐ Tx diversity ☐ Rx diversity ☒ Tx/Rx diversity
Evaluation applied	☒ MPE Evaluation* ☐ SAR Evaluation ☐ N/A

Remark:

1. The maximum output power is 23.11dBm (0.0525mW) at 2412MHz (with numeric 1.1 antenna gain.)
2. DTS device is not subject to routine RF evaluation; MPE estimate is used to justify the compliance.
3. For mobile or fixed location transmitters, no SAR consideration applied. The maximum power density is 1.0 mW/cm^2 even if the calculation indicates that the power density would be larger.

11.3 Test Results

No non-compliance noted.

11.4 Calculation

Given $E = \frac{\sqrt{30 \times P \times G}}{d}$ & $S = \frac{E^2}{3770}$

Where E = Field strength in Volts / meter

P = Power in Watts
G = Numeric antenna gain

d = Distance in meters

S = Power density in milliwatts / square centimeter

Combining equations and re-arranging the terms to express the distance as a function of the remaining variables yields:

$$S = \frac{30 \times P \times G}{3770 d^2}$$

Changing to units of mW and cm, using:

P (mW) = P (W) / 1000 and
d (cm) = d(m) / 100

Yields

$$S = \frac{30 \times (P/1000) \times G}{3770 \times (d/100)^2} = 0.0796 \times \frac{P \times G}{d^2}$$ **Equation 1**

Where d = Distance in cm
P = Power in mW
G = Numeric antenna gain
S = Power density in mW / cm^2

11.5 Maximum Permissible Exposure

Max. output power	Band: 2412MHz ~ 2462MHz 1TX: 802.11b: 15.31 dBm (0.0087mW) 802.11g: 21.12 dBm (0.0332mW) 802.11n HT20: 20.92 dBm (0.0317mW) 2TX: 802.11g: 23.11 dBm (0.0525mW) 802.11n HT20: 22.28 dBm (0.0433mW)
Antenna gain (Max)	1TX: ANT B: 1.1dBi 2TX: ANT A: 0.9dBi, ANT B: 1.1dBi

Maximum Permissible Exposure

Test Mode: 1TX

Modulation Mode	Frequency band (MHz)	Max. Conducted output power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm2)	Limit (mW/cm2)
802.11b	2412-2462	15.31	1.1	20	0.0087	1
802.11g	2412-2462	21.12	1.1	20	0.0332	1
802.11n HT20	2412-2462	20.92	1.1	20	0.0317	1

Test Mode: 2TX

Modulation Mode	Frequency band (MHz)	Max. Conducted output power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm2)	Limit (mW/cm2)
802.11g	2412-2462	23.11	1.1	20	0.0525	1
802.11n HT20	2412-2462	22.28	1.1	20	0.0433	1