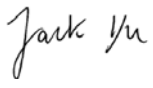
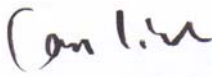
FCC REPORT

FCC ID..... :	2ADESN5810HH
Applicant's name..... :	SHENZHEN DIT SECURITY&SURVEILLANCE TECHNOLOGY CO.,LTD
Address.....:	3-4F,Building 5th,Wandaiheng High-Tech Park Guangming Shenzhen, China
Manufacturer.....:	SHENZHEN DIT SECURITY&SURVEILLANCE TECHNOLOGY CO.,LTD
Address.....:	3-4F,Building 5th,Wandaiheng High-Tech Park Guangming Shenzhen, China
Test item description ..... :	IP camera
Trade Mark .....:	KARE
Model/Type reference.....:	N5810HH-E
List Model .....:	N5810HH-F, N5818HH-E, N5806HH-E, N5809HH-E, N5801HH-E N5815JVT, N5801JVT, N5801JV, N5815HH-F
Standard ..... :	**FCC Part 15.247: Operation within the bands 902-928 MHz, 2400-2483.5 MHz and 5725-5850 MHz**
Date of receipt of test sample……..:	Jan. 21 2016
Date of testing……:	Jan. 22 2016 ~ Jan. 31 2016
Date of issue……...:	Jan. 31 2016
Result..... ……...:	**Pass**

Compiled by (position+printed name+signature)..:	File administrators Jack Yu	
Supervised by (position+printed name+signature)..:	Test Engineer Jerry You	
Approved by (position+printed name+signature)..:	Manager Can Liu	

Testing Laboratory Name ..... :	**Dongguan Yaxu (AiT) Technology Limited**
Address.....:	No. 22, Jinqianling Third Street, Jitigang, Huangjiang, Dongguan, Guangdong, China.

Contents

1. TEST STANDARDS AND TEST DESCRIPTION

1.1. Test Standards

The tests were performed according to following standards:

FCC Rules Part 15.247: Frequency Hopping, Direct Spread Spectrum and Hybrid Systems that are in operation within the bands of 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz.

ANSI C63.10(2009): American National Standard for Testing Unlicensed Wireless Devices

KDB558074 D01 DTS Meas Guidance v03r04: Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247

1.2. Test Description

FCC PART 15 15.247		
FCC Part 15.207	AC Power Conducted Emission	PASS
FCC Part 15.247(a)(2)	6dB Bandwidth	PASS
FCC Part 15.247(d)	Spurious RF Conducted Emission	PASS
FCC Part 15.247(b)	Maximum Peak Output Power	PASS
FCC Part 15.247(e)	Power Spectral Density	PASS
FCC Part 15.109/ 15.205/ 15.209	Radiated Emissions	PASS
FCC Part 15.247(d)	Band Edge	PASS
FCC Part 15.203/15.247 (b)	Antenna Requirement	PASS

2. SUMMARY

2.1. Client Information

Applicant:	SHENZHEN DIT SECURITY&SURVEILLANCE TECHNOLOGY CO.,LTD
Address:	3-4F,Building 5th,Wandaiheng High-Tech Park Guangming Shenzhen, China
Manufacturer:	SHENZHEN DIT SECURITY&SURVEILLANCE TECHNOLOGY CO.,LTD
Address:	3-4F,Building 5th,Wandaiheng High-Tech Park Guangming Shenzhen, China

2.2. Product Description

Name of EUT	IP camera
Trade Mark:	KARE
Model No.:	N5810HH-E
List Model:	N5810HH-F N5818HH-E N5806HH-E N5809HH-E N5801HH-E N5815JVT N5801JVT N5801JV N5815HH-F
Model difference:	All models are identical except model name.
Power supply:	DC 5V, 2A
Adapter information:	Model No.:JF012WR-0500200UH Input: AC 100~240V, 50/60Hz, 0.35A Output: DC 5.0V 2A
WIFI	
Supported type:	802.11b/802.11g
Modulation:	802.11b: DSSS 802.11g: OFDM
Operation frequency:	802.11b/802.11g: 2412MHz~2462MHz
Channel number:	802.11b/802.11g: 11
Channel separation:	5MHz
Antenna type:	dipole Antenna
Antenna gain:	3.5 dBi
HW:	V1.1
SW:	APP_SZ4532_0054

Operation Frequency:

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

Test Items	Mode	Data Rate	Channel
Maximum Peak Conducted Output Power Power Spectral Density 6dB Bandwidth Spurious RF conducted emission Radiated Emission 9kHz~1GHz& Radiated Emission 1GHz~10th Harmonic	11b/DSSS	1 Mbps	1/6/11
	11g/OFDM	6 Mbps	1/6/11
Band Edge	11b/DSSS	1 Mbps	1/11
	11g/OFDM	6 Mbps	1/11

NOTE: Typical working modes for each IEEE 802.11mode are selected to perform tests. The manufacturer provide special test software(rftesttool_v25) to control TX duty cycle >98% for TX test. Set the output power to 15dbm(PK)

Test Mode Test Modes Description
11b IEEE 802.11b with data rate of 1 Mbps using SISO mode.
11g IEEE 802.11g with data rate of 6 Mbps using SISO mode.

2.3. EUT operation mode

The EUT has been tested under typical operating condition. The Applicant provides command

to control the EUT for staying in continous transmitting and receiving mode for testing.

2.4. EUT configuration

The following peripheral devices and interface cables were connected during the measurement:

● - supplied by the manufacturer

○ - supplied by the lab

○	Power Cable	Length (m) :	/
		Shield :	/
		Detachable :	/
○	Multimeter	Manufacturer :	/
		Model No. :	/

3. TEST ENVIRONMENT

3.1. Address of the test laboratory

FCC- Registration No: 248337

DongGuan Yaxu(AiT) Technology Limited
No. 22,JinQianLing Street 3, JiTiGang Village, Huang-Jiang Town, DongGuan, Guangdong, 523757 China.

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 (2009) and CISPR Publication 22.

3.2. Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature	Normal Temperature:	25°C
	High Temperature:	55°C
	Low Temperature:	-20°C
Voltage	Normal Voltage	DC 5V
	High Voltage	DC 5.5V
	Low Voltage	DC 4.5V
Other	lative Humidity	55 %
	Air Pressure	989 hPa

3.3. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16 - 4 „Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements“ and is documented in the Shenzhen Asia Test Technology Co.,Ltd. quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for Shenzhen Huatongwei laboratory is reported:

Test Items	Measurement Uncertainty	Notes
Frequency stability	25 Hz	(1)
Transmitter power conducted	0.57 dB	(1)
Transmitter power Radiated	2.20 dB	(1)
Conducted spurious emission 9KHz-12.75 GHz	1.60 dB	(1)
Radiated spurious emission 9KHz-12.75 GHz	2.20 dB	(1)
Conducted Emission 9KHz-30MHz	3.39 dB	(1)
Radiated Emission 30~1000MHz	4.24 dB	(1)
Radiated Emissio 1~18GHz	5.16 dB	(1)
Radiated Emissio 18-40GHz	5.54 dB	(1)
Occupied Bandwidth	---------	(1)
Emission Mask	---------	(1)
Modulation Characteristic	---------	(1)
Transmitter Frequency Behavior	---------	(1)

(1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=1.96.

3.4. Equipments Used during the Test

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Spectrum Analyzer	Agilent	E4407B	MY45108040	2015.07.06	2016.07.05	1 year
2	Test Receiver	R&S	ESPI	101318	2015.06.07	2016.06.06	1 year
3	Bilog Antenna	TESEQ	CBL6111D	31216	2015.07.06	2016.07.05	1 year
4	50Ω Coaxial Switch	Anritsu	MP59B	6200264416	2015.06.07	2016.06.06	1 year
5	Spectrum Analyzer	ADVANTEST	R3132	150900201	2015.06.07	2016.06.06	1 year
6	Horn Antenna	EM	EM-AH-10180	2011071402	2015.07.06	2016.07.05	1 year
7	Horn Ant	Schwarzbeck	BBHA 9170	9170-181	2015.07.06	2016.07.05	1 year
8	Amplifier	EM	EM-30180	060538	2015.12.22	2016.12.21	1 year
9	Loop Antenna	ARA	PLA-1030/B	1029	2015.06.08	2016.06.07	1 year
10	Power Meter	R&S	NRVS	100696	2015.07.06	2016.07.05	1 year
11	Power Sensor	R&S	URV5-Z4	0395.1619.05	2015.07.06	2016.07.05	1 year
12	Power Meter	Anristu	ML2495A	1145054	2015.08.16	2016.08.15	1 year
13	Power Sensor	Anristu	MA2411B	1126096	2015.08.16	2016.08.15	1 year
14	Cable 1-26GHz	R&S	ATT-R02	201309R048	2015.06.08	2016.06.07	1 year
15	Cable 30-1000MHz	R&S	ATT-R01	201409R047	2015.06.08	2016.06.07	1 year
16	Temp. antenna connector	DOKMA	KYS-0944	22550510	2015.06.08	2016.06.07	1 year

The temporary antenna connector(Impedance=50ohm,cable loss=0.9db) is soldered on the PCB board in order to perform conducted tests and this temporary antenna connector is listed in the equipment list.

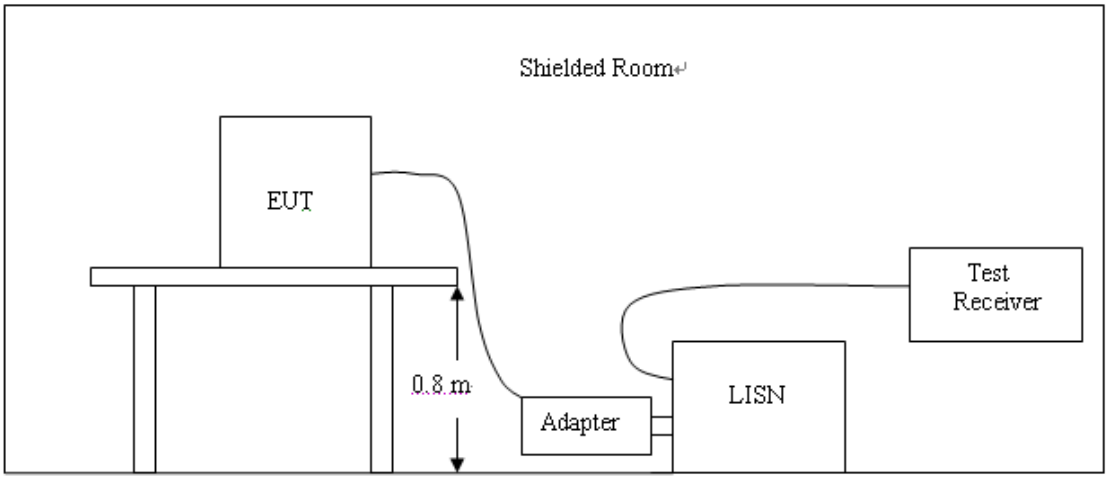
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Test Receiver	R&S	ESCI	101160	2016.06.06	2016.06.05	1 year
2	LISN	R&S	ENV216	101313	2015.08.24	2016.08.23	1 year
3	LISN	EMCO	3816/2	00042990	2015.08.24	2016.08.23	1 year
4	50Ω Coaxial Switch	Anritsu	MP59B	6200264417	2015.06.07	2016.06.06	1 year
5	Passive Voltage Probe	R&S	ESH2-Z3	100196	2015.06.07	2016.06.06	1 year
6	Absorbing clamp	R&S	MOS-21	100423	2015.06.08	2016.06.07	1 year
7	Attenuation	MCE	24-10-34	BN9258	2015.06.08	2016.06.07	1 year
8	Cable 0.009-30MHz	R&S	ATT-C01	201309C006	2015.06.08	2016.06.07	1 year

The Cal.Interval was one year

4. TEST CONDITIONS AND RESULTS

4.1. AC Power Conducted Emission

TEST CONFIGURATION



TEST PROCEDURE

1. The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. The EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10-2009.
2. Support equipment, if needed, was placed as per ANSI C63.10-2009
3. All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10-2009
4. The EUT received DC5V power from the adapter, the adapter received AC120V/60Hz power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.
5. All support equipments received AC power from a second LISN, if any.
6. The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
7. Analyzer / Receiver scanned from 150 KHz to 30MHz for emissions in each of the test modes.
8. During the above scans, the emissions were maximized by cable manipulation.

AC Power Conducted Emission Limit

For intentional device, according to § 15.207(a) AC Power Conducted Emission Limits is as following：

Frequency (MHz)	Maximum RF Line Voltage (dBμV)			
	CLASS A		CLASS B	
	Q.P.	Ave.	Q.P.	Ave.
0.15 - 0.50	79	66	66-56*	56-46*
0.50 - 5.00	73	60	56	46
5.00 - 30.0	73	60	60	50

* Decreasing linearly with the logarithm of the frequency

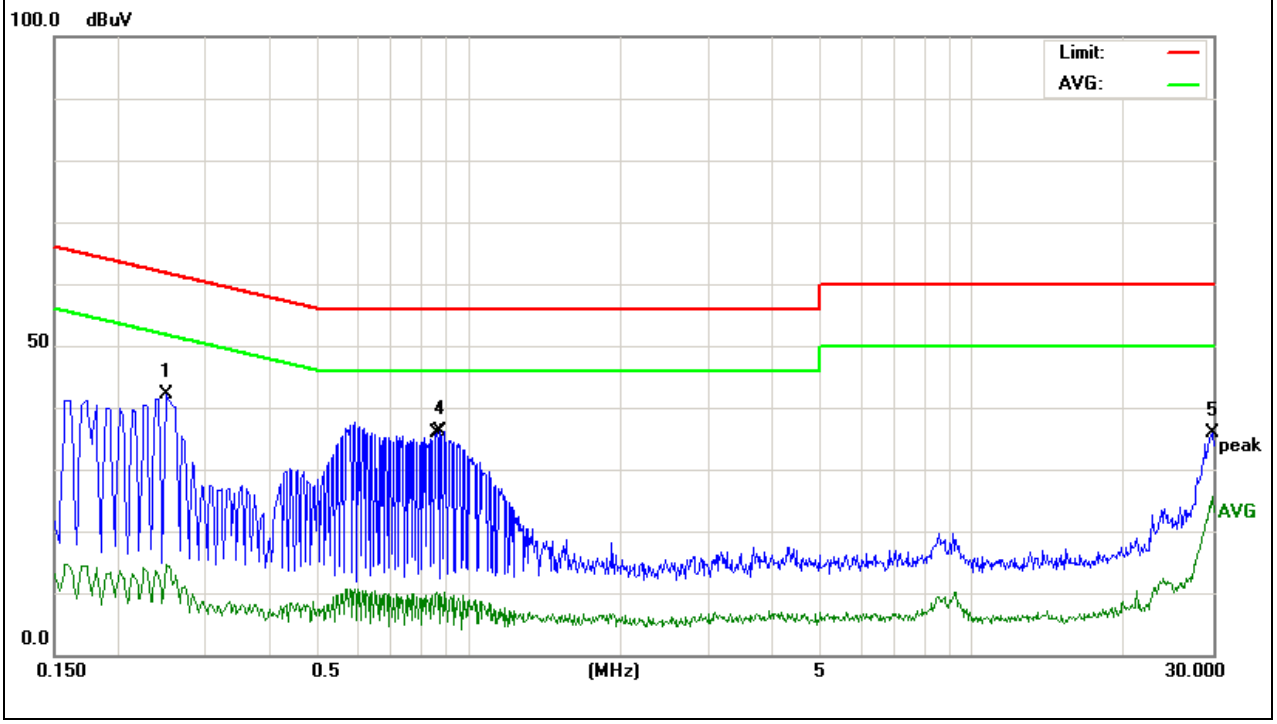
TEST RESULTS

The AC Power Conducted Emission measurement are performed the each test mode (b/g) and channel (low/mid/high), the datum recorded below (802.11b mode,the middle channel) is the worst case for all the test modes and channels.

Phase :L

Freq. (MHz)	Reading (dBuV)	Factor (dBuV)	Measurement (dBuV)	Limit (dBuV)	Over (dB)	Detector
0.2500	31.32	10.89	42.21	61.75	-19.54	peak
0.2500	3.63	10.89	14.52	51.75	-37.23	AVG
0.8660	0.28	9.93	10.21	46.00	-35.79	AVG
0.8780	26.25	9.93	36.18	56.00	-19.82	peak
29.9460	33.68	2.13	35.81	60.00	-24.19	peak
29.9460	23.49	2.13	25.62	50.00	-24.38	AVG

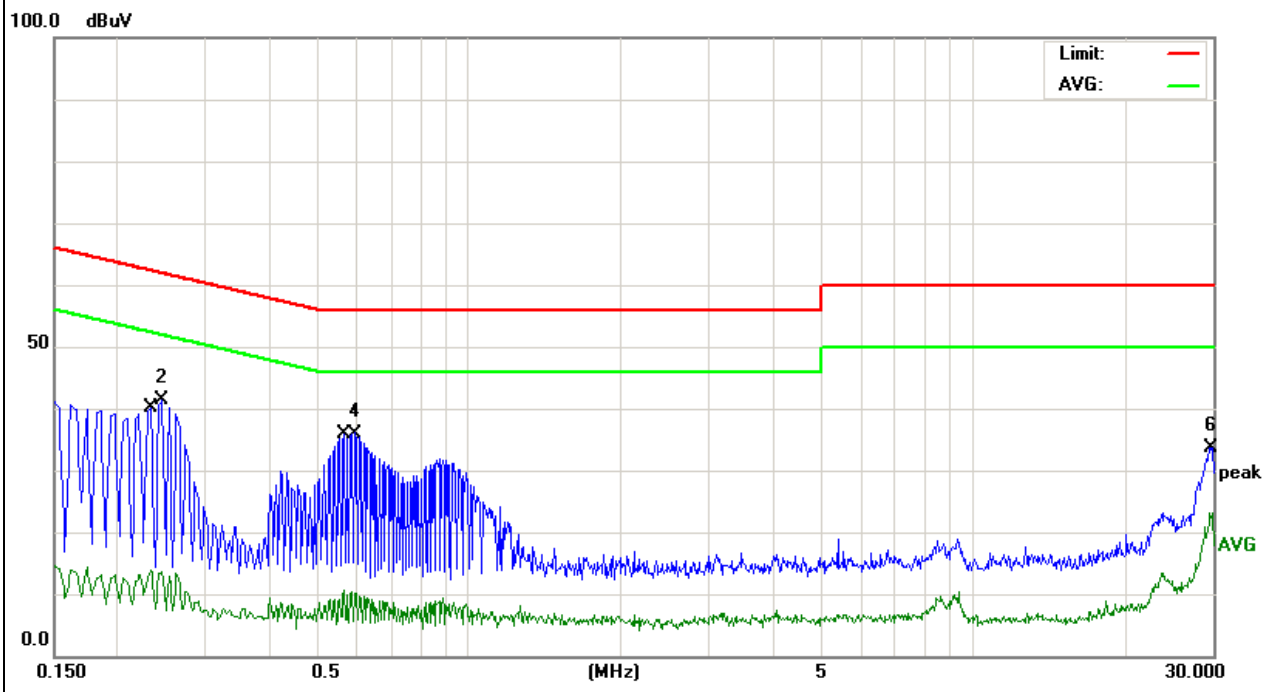
Remark:
Factor = Insertion Loss + Cable Loss.



Phase :N

Freq. (MHz)	Reading (dBuV)	Factor (dBuV)	Measurement (dBuV)	Limit (dBuV)	Over (dB)	Detector
0.2340	2.86	10.94	13.80	52.30	-38.50	AVG
0.2460	30.46	10.90	41.36	61.89	-20.53	peak
0.5660	0.54	10.00	10.54	46.00	-35.46	AVG
0.5940	26.01	9.99	36.00	56.00	-20.00	peak
29.6260	21.07	2.10	23.17	50.00	-26.83	AVG
29.7420	31.59	2.11	33.70	60.00	-26.30	peak

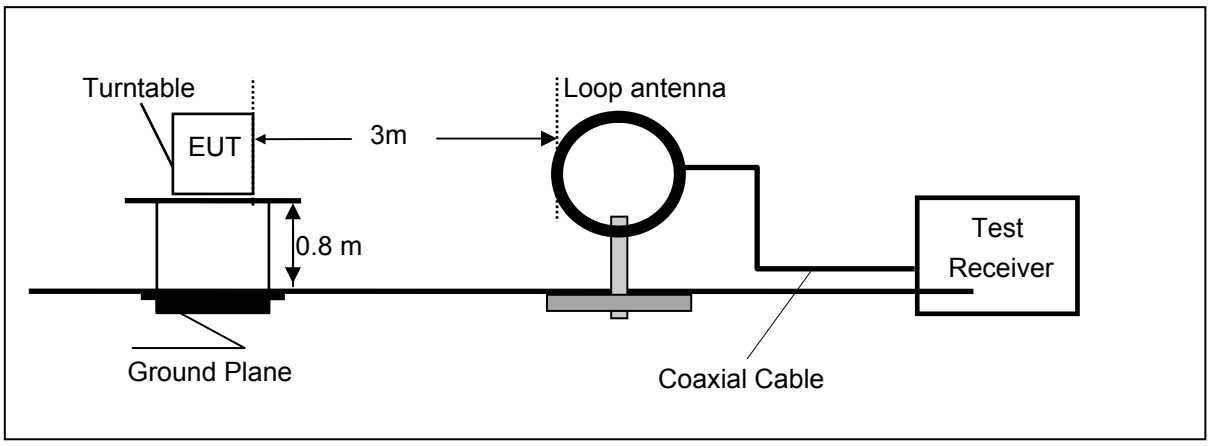
Remark:
Factor = Insertion Loss + Cable Loss.



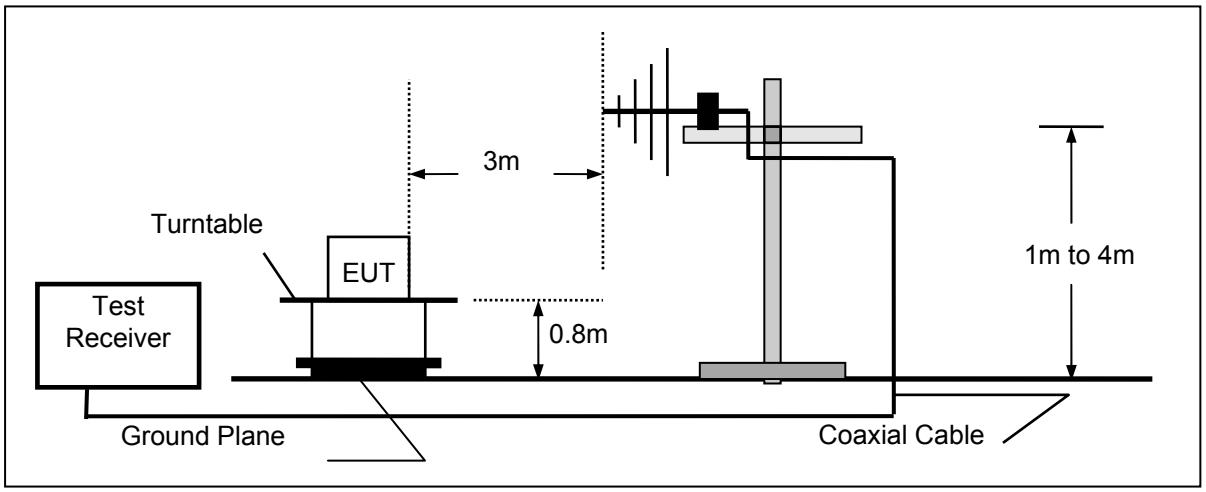
4.2. Radiated Emission

TEST CONFIGURATION

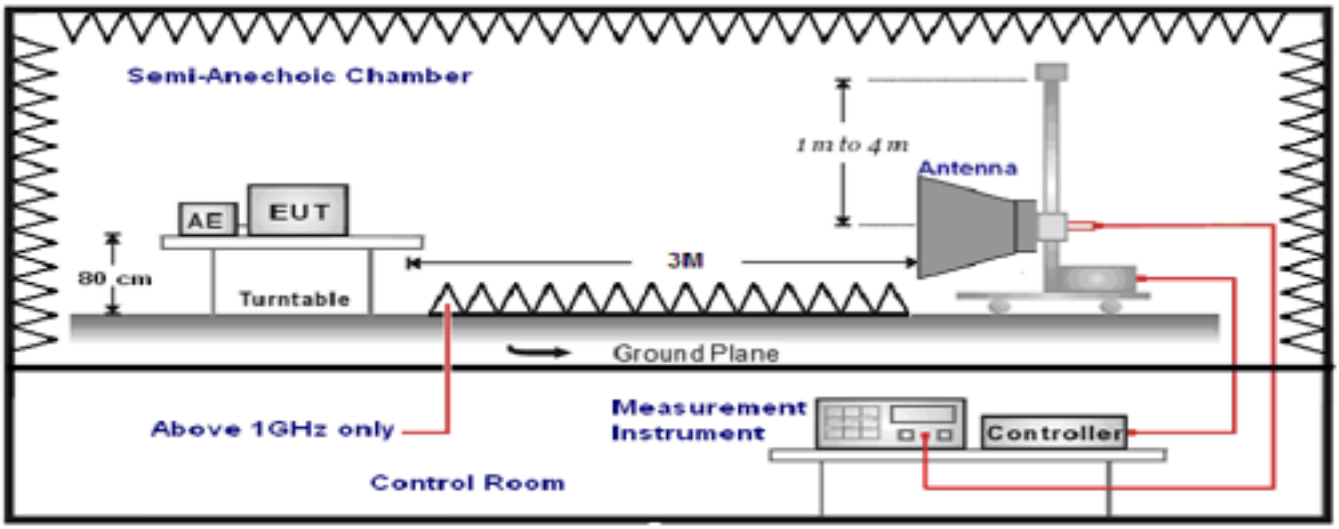
Frequency range 9KHz – 30MHz



Frequency range 30MHz – 1000MHz



Frequency range above 1GHz-25GHz



TEST PROCEDURE

1. The EUT was placed on a turn table which is 0.8m above ground plane.
2. Maximum procedure was performed by raising the receiving antenna from 1m to 4m and rotating the turn table from 0℃ to 360℃ to acquire the highest emissions from EUT.
3. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
4. Repeat above procedures until all frequency measurements have been completed.
5. The EUT minimum operation frequency was 32.768KHz and maximum operation frequency was 2462MHz.so radiated emission test frequency band from 9KHz to 25GHz.

For the radiated emission test above 1GHz:
Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.

Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor(if any) from the measured reading. The basic equation with a sample calculation is as follows:

FS = RA + AF + CL - AG

Where FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
RA = Reading Amplitude	AG = Amplifier Gain
AF = Antenna Factor	

RADIATION LIMIT

For intentional device, according to § 15.209(a), the general requirement of field strength of radiated emission from intentional radiators at a distance of 3 meters shall not exceed the following table. According to § 15.247(d), in any 100kHz bandwidth outside the frequency band in which the EUT is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the100kHz bandwidth within the band that contains the highest level of desired power.

The frequency spectrum above 1 GHz for Transmitter was investigated. All emission not reported are much lower than the prescribed limits. Set the RBW=1MHz,VBW=3MHz for Peak Detector while the RBW=1MHz,VBW=10Hz for Average Detector,Readings are both peak and average values.

Frequency (MHz)	Distance (Meters)	Radiated (dBμV/m)	Radiated (μV/m)
0.009-0.49	300	20log(2400/F(KHz))+80	2400/F(KHz)
0.49-1.705	30	20log(24000/F(KHz))+40	24000/F(KHz)
1.705-30	30	20log(30)+40	30
30-88	3	40.0	100
88-216	3	43.5	150
216-960	3	46.0	200
Above 960	3	54.0	500

TEST RESULTS

Remark:
1. The radiated measurement are performed the each test mode (b/g) and channel (low/mid/high), the datum recorded below (802.11b mode,the middle channel) is the worst case for all the test mode and channel.
2. ULTRA-BROADBAND ANTENNA for the radiation emission test below 1G.
3. HORN ANTENNA for the radiation emission test above 1G.
4. We tested both battery powered and powered by adapter charging mode at three orientations,recored woest case at powered by adapter charging mode.

For 9KHz to 30MHz

Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	P
--	--	--	--	P

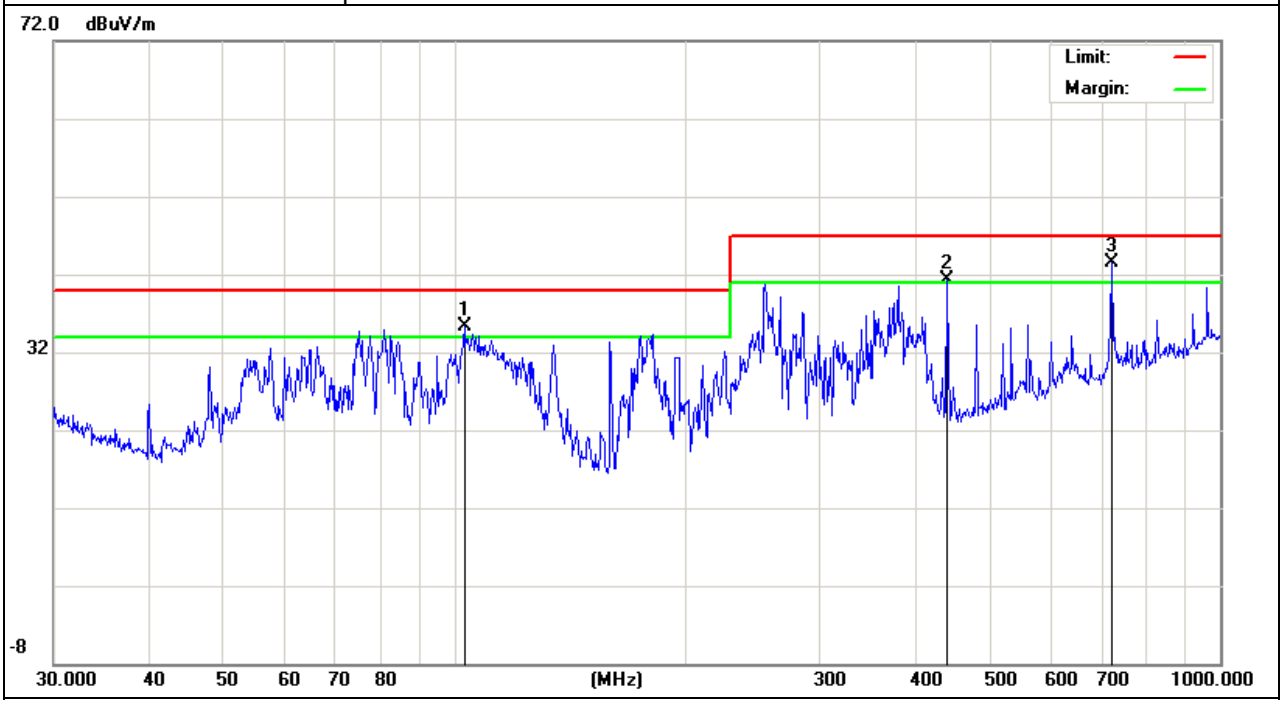
NOTE:
The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.
Distance extrapolation factor =40 log (specific distance/test distance)(dB);
Limit line = specific limits(dBuv) + distance extrapolation factor.

For 30MHz to 1000MHz

Polarization :H

Freq.	Reading	Factor	Measurement	Limit	Over	Detector
(MHz)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	
103.0799	24.47	10.83	35.3	40	-4.7	QP
440.1963	23.37	17.89	41.26	47	-5.74	QP
721.7259	20.41	23.14	43.55	47	-3.45	QP

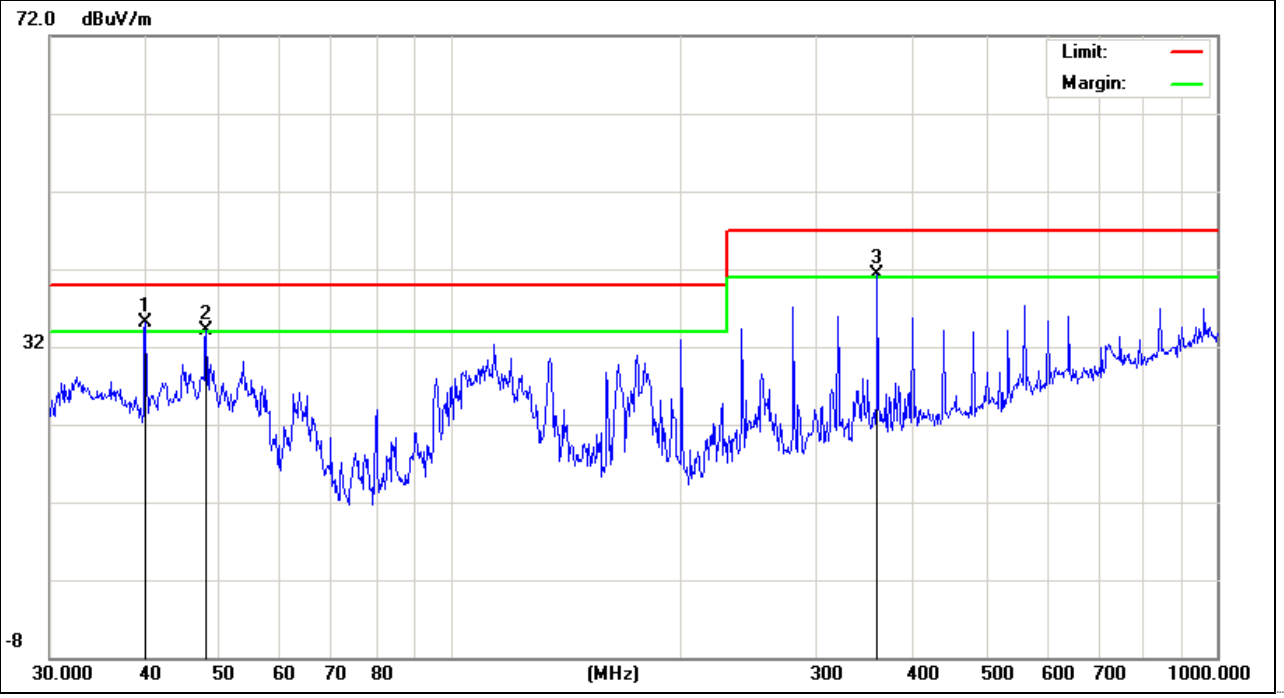
Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Antenna Factor + Cable Loss.
3. N/A means All Data have pass Limit



Polarization :V

Freq. (MHz)	Reading (dBuV)	Factor (dBuV)	Measurement (dBuV)	Limit (dBuV)	Over (dB)	Detector
39.9942	21.82	13.35	35.17	40	-4.83	QP
47.994	25.02	9.13	34.15	40	-5.85	QP
360.4476	25.81	15.57	41.38	47	-5.62	QP

Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Antenna Factor + Cable Loss.
3. N/A means All Data have pass Limit



802.11b Mode(above 1GHz)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11b--2412MHz)												
No.	Frequency (MHz)	Emssion Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier	Correction Factor (dB/m)
1	4824.00	54.91	PK	74.00	19.09	1.00 H	39	52.81	31.60	7.00	36.5	2.10
1	4824.00	46.32	AV	54.00	7.68	1.00 H	39	44.22	31.60	7.00	36.5	2.10
2	7236.00	58.47	PK	74.00	15.53	1.00 H	131	47.54	37.33	8.90	35.3	10.93
2	7236.00	42.25	AV	54.00	11.75	1.00 H	131	31.32	37.33	8.90	35.3	10.93

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11b--2412MHz)												
No.	Frequency (MHz)	Emssion Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier	Correction Factor (dB/m)
1	4824.00	62.91	PK	74.00	11.09	1.00 H	301	60.81	31.60	7.00	36.5	2.10
1	4824.00	50.72	AV	54.00	3.28	1.00 H	301	48.62	31.60	7.00	36.5	2.10
2	7236.00	60.63	PK	74.00	13.37	1.00 H	157	49.7	37.33	8.90	35.3	10.93
2	7236.00	50.65	AV	54.00	3.35	1.00 H	157	39.72	37.33	8.90	35.3	10.93

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11b--2437MHz)												
No.	Frequency (MHz)	Emssion Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier	Correction Factor (dB/m)
1	4874.00	59.26	PK	74.00	14.74	1.00 H	215	57.14	31.02	7.60	36.5	2.12
1	4874.00	48.16	AV	54.00	5.84	1.00 H	215	46.04	31.02	7.60	36.5	2.12
2	7311.00	62.13	PK	74.00	11.87	1.00 H	193	51.05	37.28	8.60	34.8	11.08
2	7311.00	49.22	AV	54.00	4.78	1.00 H	193	38.14	37.28	8.60	34.8	11.08

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11b--2437MHz)												
No.	Frequency (MHz)	Emssion Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier	Correction Factor (dB/m)
1	4874.00	59.26	PK	74.00	14.74	1.00 H	131	57.14	31.02	7.60	36.5	2.12
1	4874.00	48.17	AV	54.00	5.83	1.00 H	131	46.05	31.02	7.60	36.5	2.12
2	7311.00	58.22	PK	74.00	15.78	1.00 H	39	47.14	37.28	8.60	34.8	11.08
2	7311.00	48.13	AV	54.00	5.87	1.00 H	39	37.05	37.28	8.60	34.8	11.08

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11b--2462MHz)												
No.	Frequency (MHz)	Emssion Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier	Correction Factor (dB/m)
1	4924.00	59.61	PK	74.00	14.39	1.00 H	319	57.23	31.58	7.00	36.2	2.38
1	4924.00	49.70	AV	54.00	4.30	1.00 H	319	47.32	31.58	7.00	36.2	2.38
2	7386.00	61.95	PK	74.00	12.05	1.00 H	127	50.24	38.51	8.50	35.3	11.71
2	7386.00	48.95	AV	54.00	5.05	1.00 H	127	37.24	38.51	8.50	35.3	11.71

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11b--2462MHz)												
No.	Frequency (MHz)	Emssion Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier	Correction Factor (dB/m)
1	4924.00	62.8	PK	74.00	11.2	1.00 H	312	60.42	31.58	7.00	36.2	2.38
1	4924.00	49.23	AV	54.00	4.77	1.00 H	312	46.85	31.58	7.00	36.2	2.38
2	7386.00	64.00	PK	74.00	10.00	1.00 H	207	52.29	38.51	8.50	35.3	11.71

2	7386.00	48.94	AV	54.00	5.06	1.00 H	207	37.23	38.51	8.50	35.3	11.71

REMARKS:
1. Emission level (dBuV/m)=Raw Value(dBuV)+Correction Factor(dB/m)
2. Correction Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
3. The other emission levels were very low against the limit.
4. Margin value = Limit value- Emission level.
5. For Wireless 802.11b mode at 1Mbps.

802.11g Mode(above 1GHz)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11g--2412MHz)												
No.	Frequency (MHz)	Emssion Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier	Correction Factor (dB/m)
1	4824	52.28	PK	74	21.72	1.00 H	75	50.18	31.6	7	36.5	2.1
1	4824	43.25	AV	54	10.75	1.00 H	75	41.15	31.6	7	36.5	2.1
2	7236	56.26	PK	74	17.74	1.00 H	187	45.33	37.33	8.9	35.3	10.93
2	7236	41.15	AV	54	12.85	1.00 H	187	30.22	37.33	8.9	35.3	10.93

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11g--2412MHz)												
No.	Frequency (MHz)	Emssion Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier	Correction Factor (dB/m)
1	4824	56.21	PK	74	17.79	1.00 H	105	54.11	31.6	7	36.5	2.1
1	4824	43.35	AV	54	10.65	1.00 H	105	41.25	31.6	7	36.5	2.1
2	7236	60.8	PK	74	13.2	1.00 H	187	49.87	37.33	8.9	35.3	10.93
2	7236	46.87	AV	54	7.13	1.00 H	187	35.94	37.33	8.9	35.3	10.93

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11g--2437MHz)												
No.	Frequency (MHz)	Emssion Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier	Correction Factor (dB/m)
1	4874	60.59	PK	74	13.41	1.00 H	64	58.47	31.02	7.6	36.5	2.12
1	4874	47.46	AV	54	6.54	1.00 H	64	45.34	31.02	7.6	36.5	2.12
2	7311	61.82	PK	74	12.18	1.00 H	96	50.74	37.28	8.6	34.8	11.08
2	7311	50.42	AV	54	3.58	1.00 H	96	39.34	37.28	8.6	34.8	11.08

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11g--2437MHz)												
No.	Frequency (MHz)	Emssion Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier	Correction Factor (dB/m)
1	4874	56.47	PK	74	17.53	1.00 H	118	54.35	31.02	7.6	36.5	2.12
1	4874	45.9	AV	54	8.1	1.00 H	118	43.78	31.02	7.6	36.5	2.12
2	7311	60.83	PK	74	13.17	1.00 H	241	49.75	37.28	8.6	34.8	11.08
2	7311	46.45	AV	54	7.55	1.00 H	241	35.37	37.28	8.6	34.8	11.08

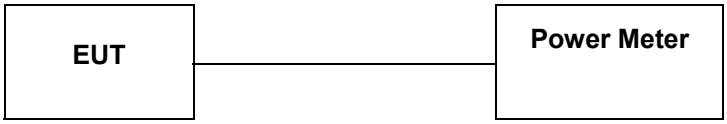
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11g--2462MHz)												
No.	Frequency (MHz)	Emssion Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier	Correction Factor (dB/m)
1	4924	57.35	PK	74	16.65	1.00 H	154	54.97	31.58	7	36.2	2.38
1	4924	43.46	AV	54	10.54	1.00 H	154	41.08	31.58	7	36.2	2.38
2	7311	63.88	PK	74	10.12	1.00 H	65	52.17	38.51	8.5	35.3	11.71
2	7311	43.29	AV	54	10.71	1.00 H	65	31.58	38.51	8.5	35.3	11.71

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11g--2462MHz)												
No.	Frequency (MHz)	Emssion Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier	Correction Factor (dB/m)
1	4924	56.69	PK	74	17.31	1.00 H	110	54.31	31.58	7	36.2	2.38
1	4924	46.32	AV	54	7.68	1.00 H	110	43.94	31.58	7	36.2	2.38
2	7386	62.56	PK	74	11.44	1.00 H	35	50.85	38.51	8.5	35.3	11.71
2	7386	46.32	AV	54	7.68	1.00 H	35	34.61	38.51	8.5	35.3	11.71

REMARKS: 1. Emission level (dBuV/m) =Raw Value (dBuV)+Correction Factor (dB/m)
2. Correction Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
3. The other emission levels were very low against the limit.
4. Margin value = Limit value- Emission level.
5. For Wireless 802.11g mode at 6Mbps.

4.3. Maximum Peak Output Power

TEST CONFIGURATION



TEST PROCEDURE

The EUT was directly connected to the Power Meter and antenna output port as show in the block diagram as TEST CONFIGURATION shows.
According to the clause 9.1.2 of the 558074 D01 DTS Meas Guidance v03r04

LIMIT

The Maximum Peak Output Power Measurement is 30dBm.

TEST RESULTS

Remark:We measured output power at difference data rate for each mode and recorded woest case for each mode.

4.3.1 802.11b Test Mode

A. Test Verdict

Channel	Frequency (MHz)	Measured Output Peak Power (dBm)	Average output power (dBm)	Limits (dBm)	Verdict
1	2412	14.89	9.35	30	PASS
6	2437	14.93	9.41	30	PASS
11	2462	14.87	9.33	30	PASS

Note: 1. For 802.11b mode at finial test to get the worst-case emission at 1Mbps.
2.The test results including the cable lose.

4.3.2 802.11g Test Mode

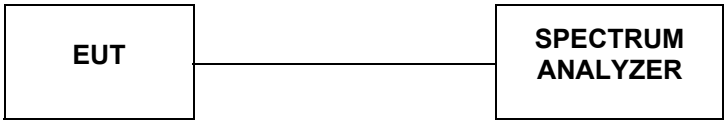
A. Test Verdict

Channel	Frequency (MHz)	Measured Output Peak Power (dBm)	Average output power (dBm)	Limits (dBm)	Verdict
1	2412	14.67	8.79	30	PASS
6	2437	14.78	8.83	30	PASS
11	2462	14.65	8.77	30	PASS

Note: 1. For 802.11g mode at finial test to get the worst-case emission at 6Mbps.
2.The test results including the cable lose.

4.4. Power Spectral Density

TEST CONFIGURATION



TEST PROCEDURE

According to KDB 558074 D01 V03r04 Method PKPSD (peak PSD) This procedure shall be used if maximum peak conducted output power was used to demonstrate compliance, and is optional if the maximum conducted (average) output power was used to demonstrate compliance.
1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the DTS bandwidth.
3. Set the RBW to: 3 kHz ≤ RBW ≤ 100 kHz.
4. Set the VBW ≥ 3 RBW.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level within the RBW.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

LIMIT

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

TEST RESULTS

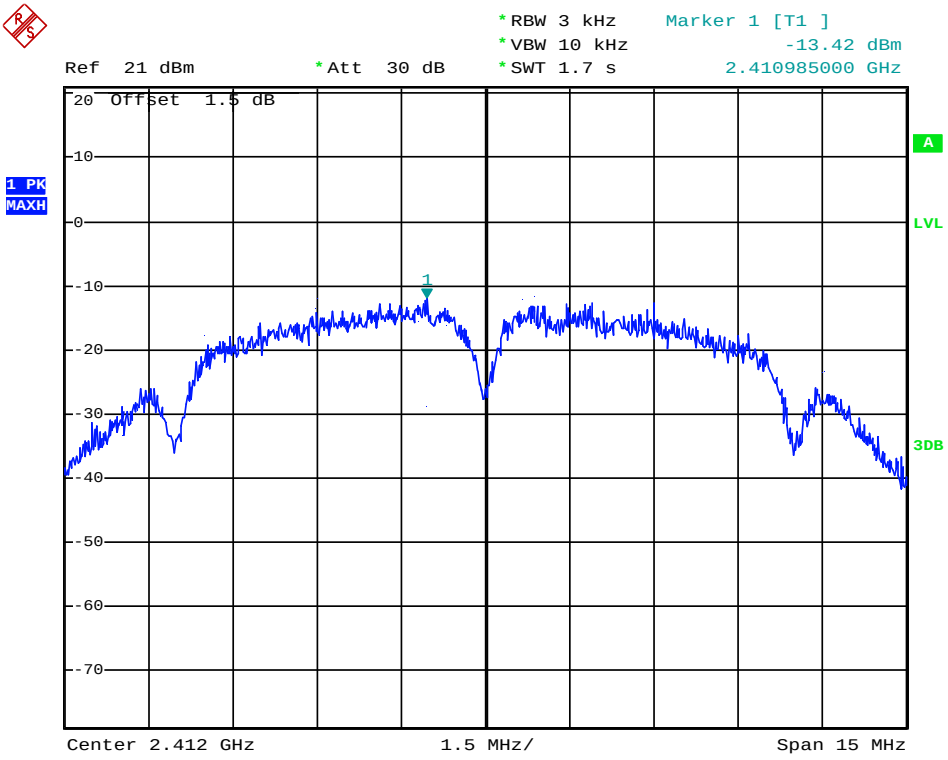
4.4.1 802.11b Test Mode

A. Test Verdict

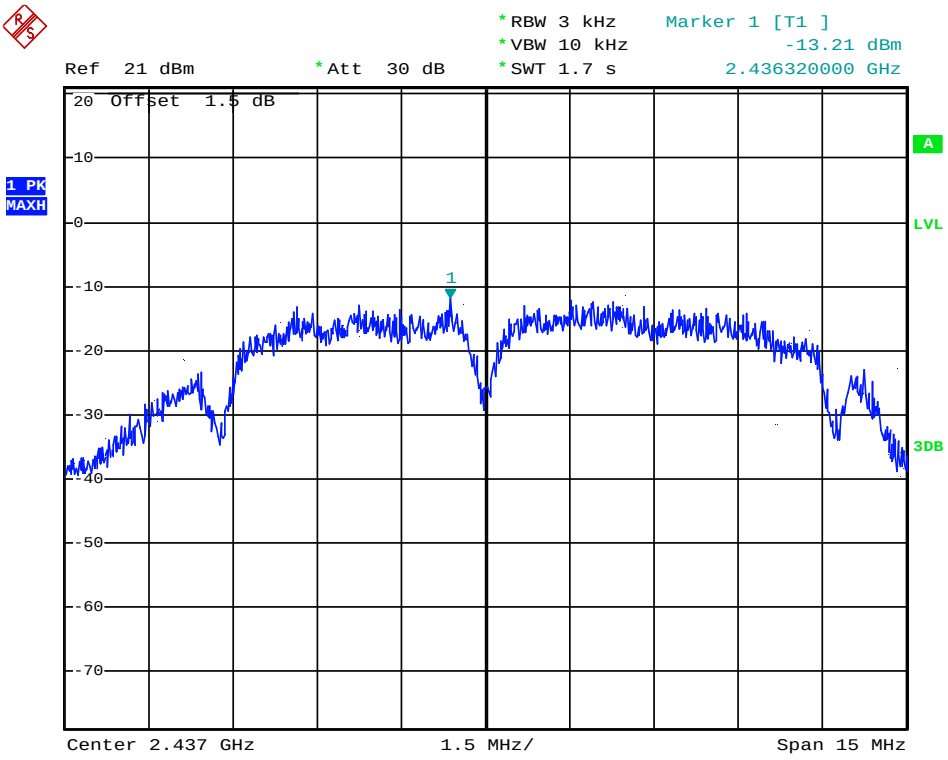
Channel	Frequency (MHz)	Report PSD (dBm/3kHz)	Refer to Plot	Limits (dBm/3KHz)	Verdict
1	2412	-13.42	Plot 4.4.1 A	8	PASS
6	2437	-13.21	Plot 4.4.1 B	8	PASS
11	2462	-14.16	Plot 4.4.1 C	8	PASS

Note: 1. For 802.11b mode at finial test to get the worst-case emission at 1Mbps.
2.The test results including the cable lose.

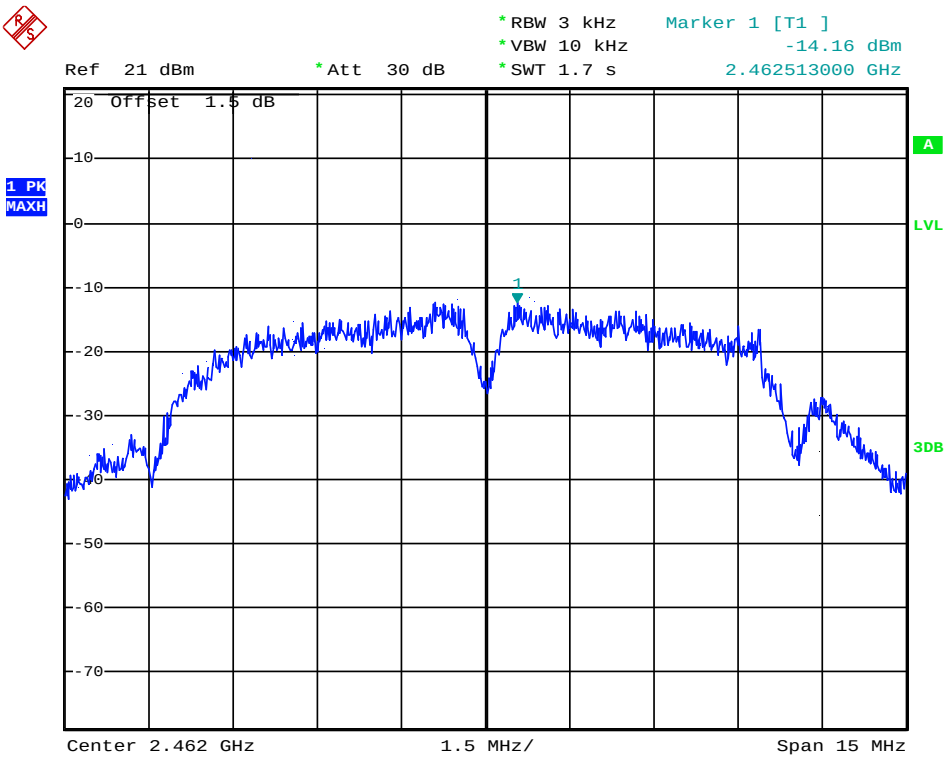
B. Test Plots



(Plot 4.4.1 A: Channel 1: 2412MHz @ 802.11b)



(Plot 4.4.1 B: Channel 6: 2437MHz @ 802.11b)



(Plot 4.4.1 C: Channel 11: 2462MHz @ 802.11b)

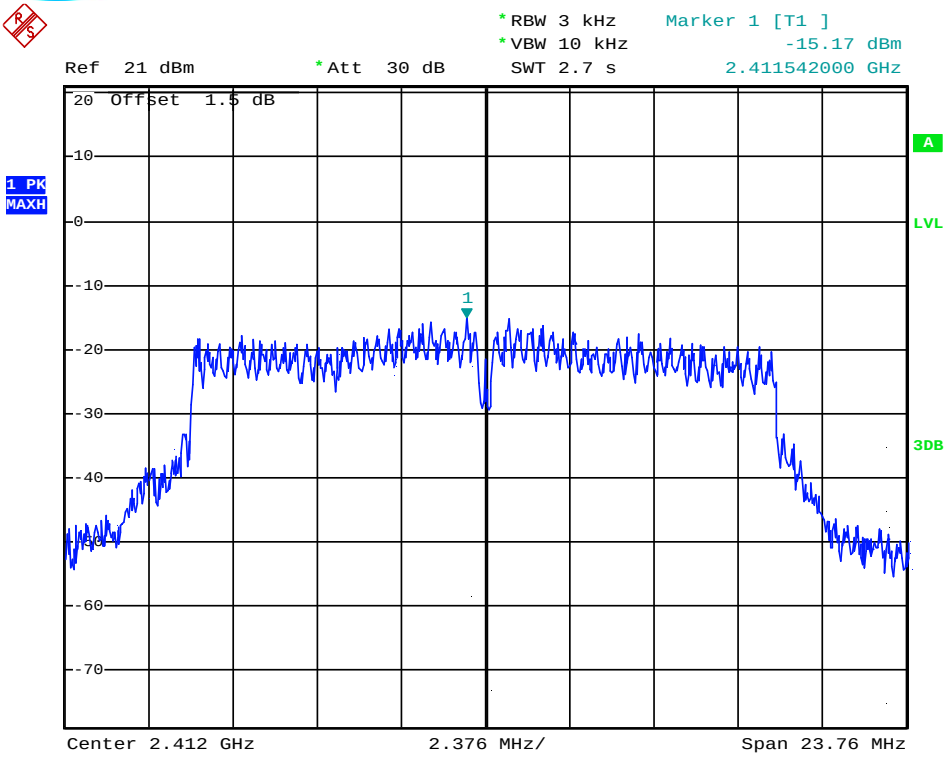
4.4.2 802.11g Test Mode

A. Test Verdict

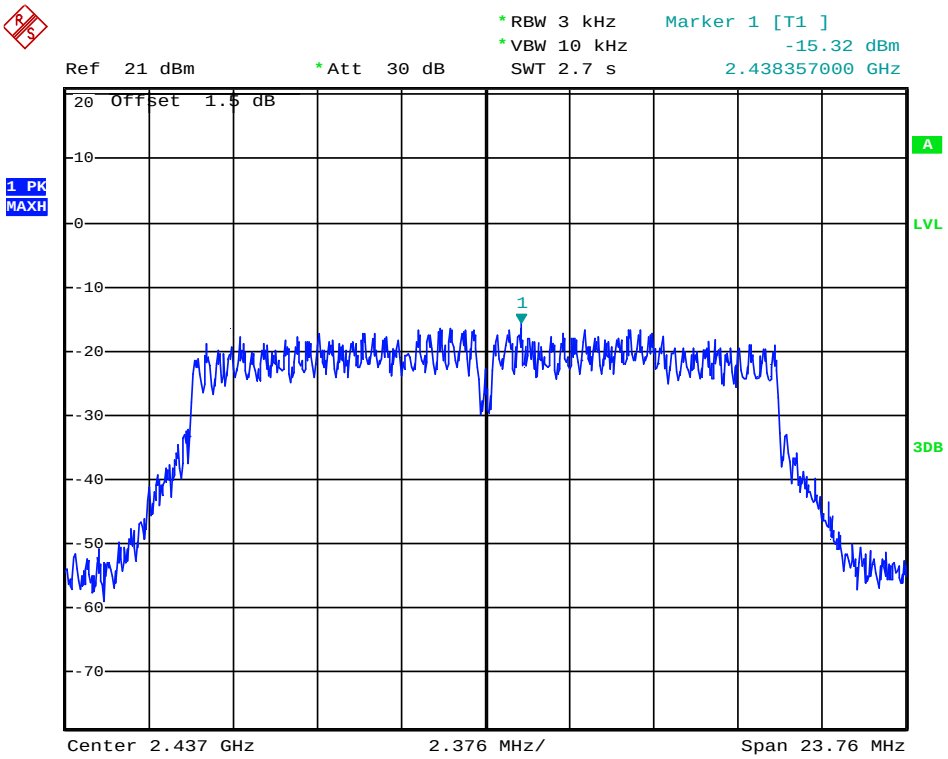
Channel	Frequency (MHz)	Report PSD (dBm/3kHz)	Refer to Plot	Limits (dBm/3KHz)	Verdict
1	2412	-15.17	Plot 4.4.2 A	8	PASS
6	2437	-15.32	Plot 4.4.2 B	8	PASS
11	2462	-15.48	Plot 4.4.2 C	8	PASS

Note: 1. For 802.11g mode at finial test to get the worst-case emission at 6Mbps.
2.The test results including the cable lose.

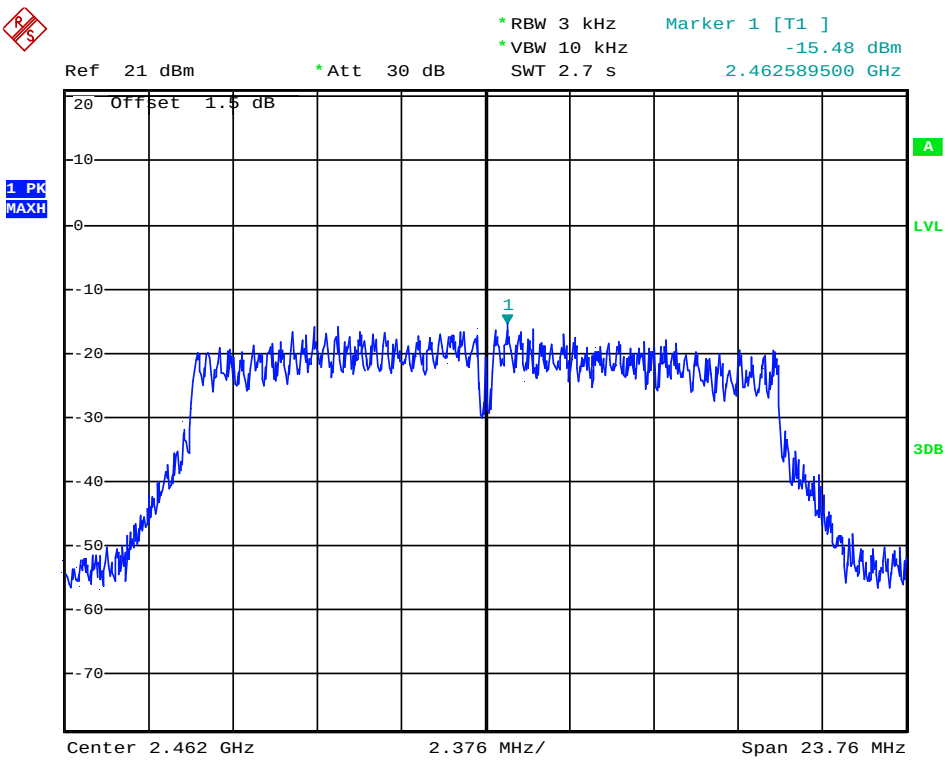
B. Test Plots



(Plot 4.4.2 A: Channel 1: 2412MHz @ 802.11g)



(Plot 4.4.2 B: Channel 6: 2437MHz @ 802.11g)



(Plot 4.4.2 C: Channel 11: 2462MHz @ 802.11g)

4.5. Band Edge Compliance of RF Emission

TEST REQUIREMENT

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

TEST PROCEDURE

According to KDB 558074 D01 V03r04 for Antenna-port conducted measurement. Antenna-port conducted measurements may also be used as an alternative to radiated measurements for demonstrating compliance in the restricted frequency bands. If conducted measurements are performed, then proper impedance matching must be ensured and an additional radiated test for cabinet/case spurious emissions is required.

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Remove the antenna from the EUT and then connect to a low loss RF cable from the antenna port to a EMI test receiver, then turn on the EUT and make it operate in transmitting mode. Then set it to Low Channel and High Channel within its operating range, and make sure the instrument is operated in its linear range.

3. Set both RBW=100kHz and VBW=300kHz of spectrum analyzer to convenient frequency span including 100kHz bandwidth from band edge, for Radiated emissions restricted band RBW=1MHz, VBW=3MHz for peak detector and RBW=1MHz, VBW=10Hz for average detector.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.
6. Measure the conducted output power (in dBm) using the detector specified by the appropriate regulatory agency (see 12.2.2, 12.2.3, and 12.2.4 for guidance regarding measurement procedures for determining quasi-peak, peak, and average conducted output power, respectively).
7. Add the maximum transmit antenna gain (in dBi) to the measured output power level to determine the EIRP level (see 12.2.5 for guidance on determining the applicable antenna gain)
8. Add the appropriate maximum ground reflection factor to the EIRP level (6 dB for frequencies ⩽ 30 MHz, 4.7 dB for frequencies between 30 MHz and 1000 MHz, inclusive and 0 dB for frequencies > 1000 MHz).
9. For devices with multiple antenna-ports, measure the power of each individual chain and sum the EIRP of all chains in linear terms (e.g., Watts, mW).
10. Convert the resultant EIRP level to an equivalent electric field strength using the following relationship:
    E = EIRP – 20log D + 104.8

where:
E = electric field strength in dBμV/m,
EIRP = equivalent isotropic radiated power in dBm
D = specified measurement distance in meters.

11. Compare the resultant electric field strength level to the applicable regulatory limit.
12. Perform radiated spurious emission test

LIMIT

Below -20dB of the highest emission level in operating band.
Radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a)

TEST RESULTS

Remark:The Bandedge was measured at difference data rate for each mode and recorded worst case for each mode.

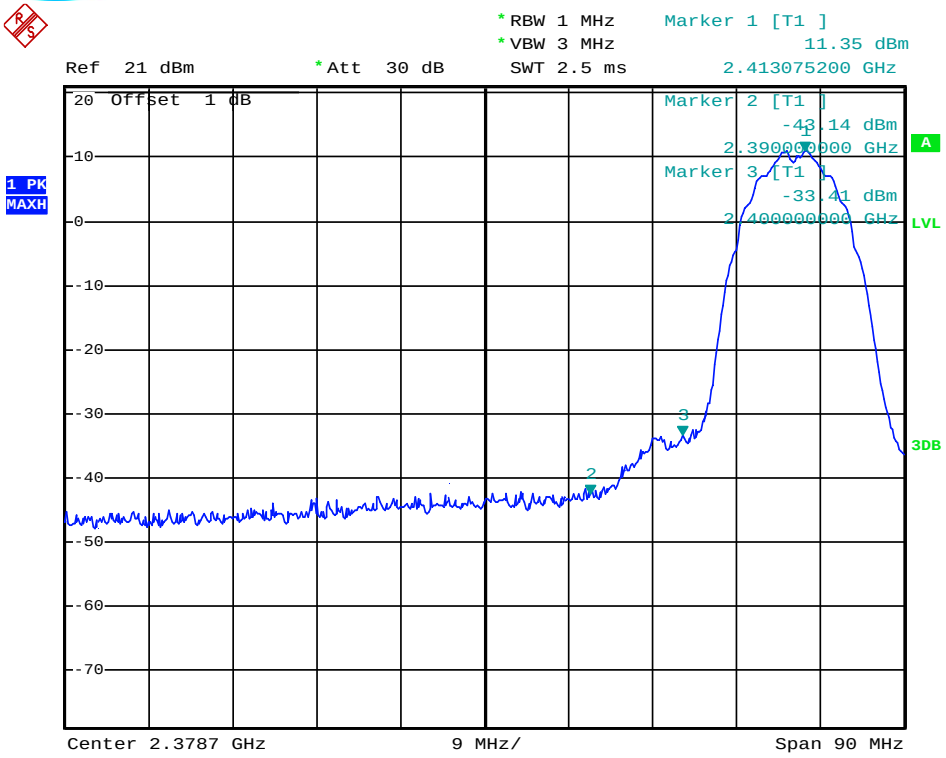
4.5.1 802.11b Test Mode

A. Test Verdict

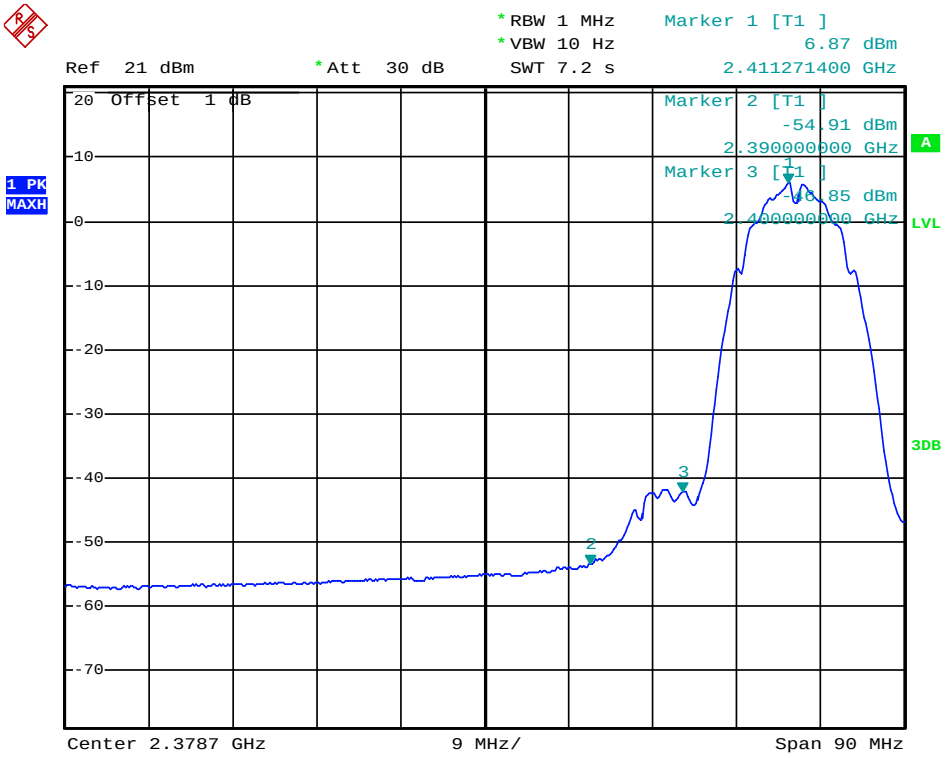
Frequency (MHz)	Conducted EMI level (dBm)	Antenna Gain (dBi)	Ground Reflection Factor (dB)	Covert Radiated E Level At 3m (dBuV/m)	Detector	Limit (dBuV/m)	Refer to Plot
2390.00	-43.14	3.5	0.00	55.62	Peak	74.00	Plot 4.5.1 A1
2390.00	-54.91	3.5	0.00	47.35	AV	54.00	Plot 4.5.1 A2
2483.50	-42.11	3.5	0.00	56.65	Peak	74.00	Plot 4.5.1 A3
2483.50	-53.79	3.5	0.00	44.97	AV	54.00	Plot 4.5.1 A4

Note: 1. For 802.11b mode at finial test to get the worst-case emission at 1Mbps.
2.The test results including the cable lose.
3. “---“ means that the fundamental frequency not for 15.209 limits requirement.

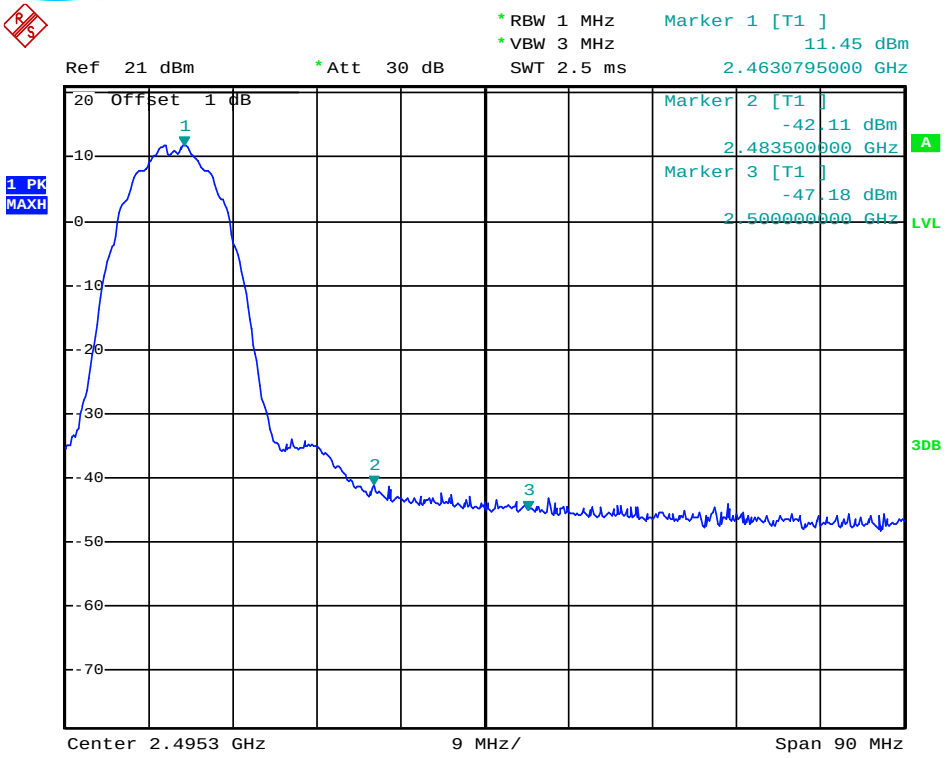
B. Test Plots



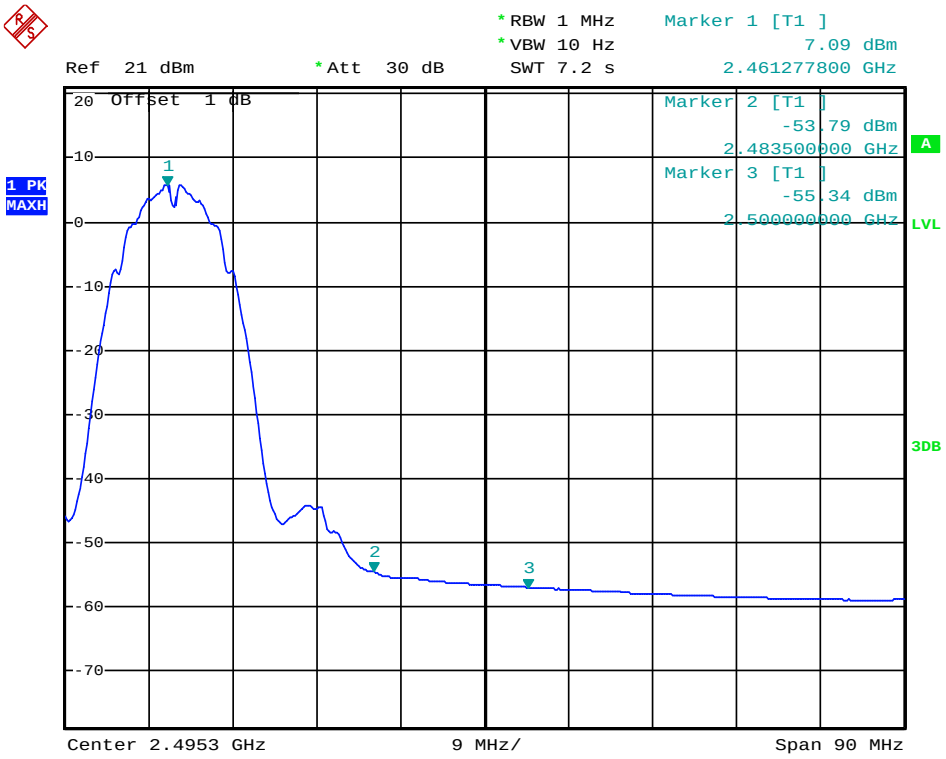
(Plot 4.5.1 A1: Channel 1: 2412MHz @ 802.11b)



(Plot 4.5.1 A2: Channel 1: 2412MHz @ 802.11b)



(Plot 4.5.1 A3: Channel 11: 2462MHz @ 802.11b)



(Plot 4.5.1 A4: Channel 11: 2462MHz @ 802.11b)

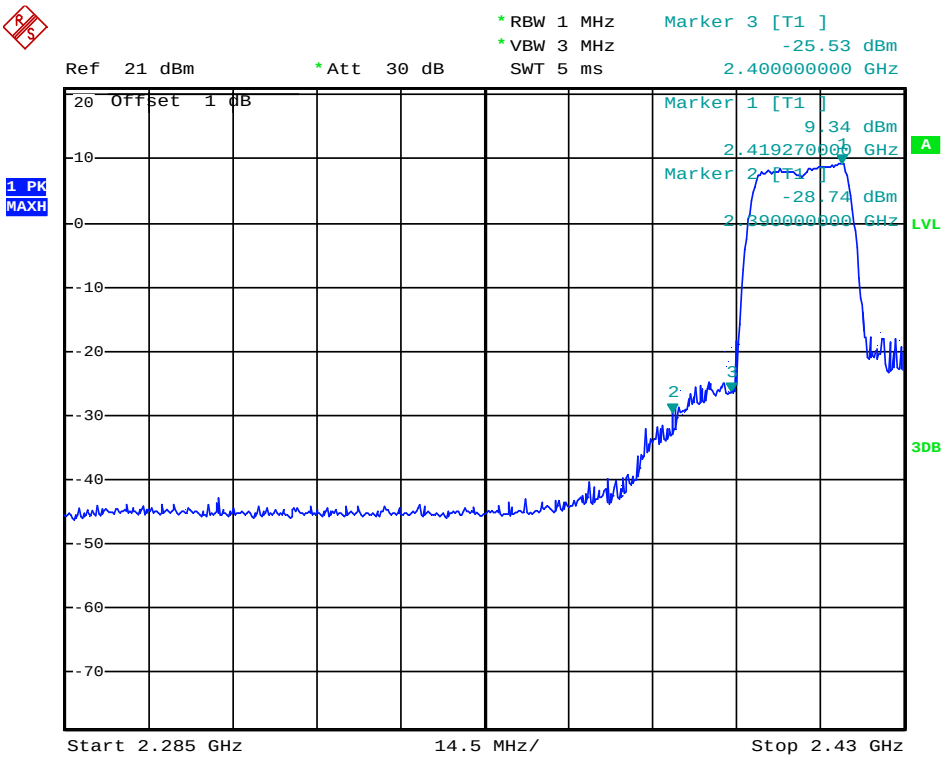
4.5.2 802.11g Test Mode

A. Test Verdict

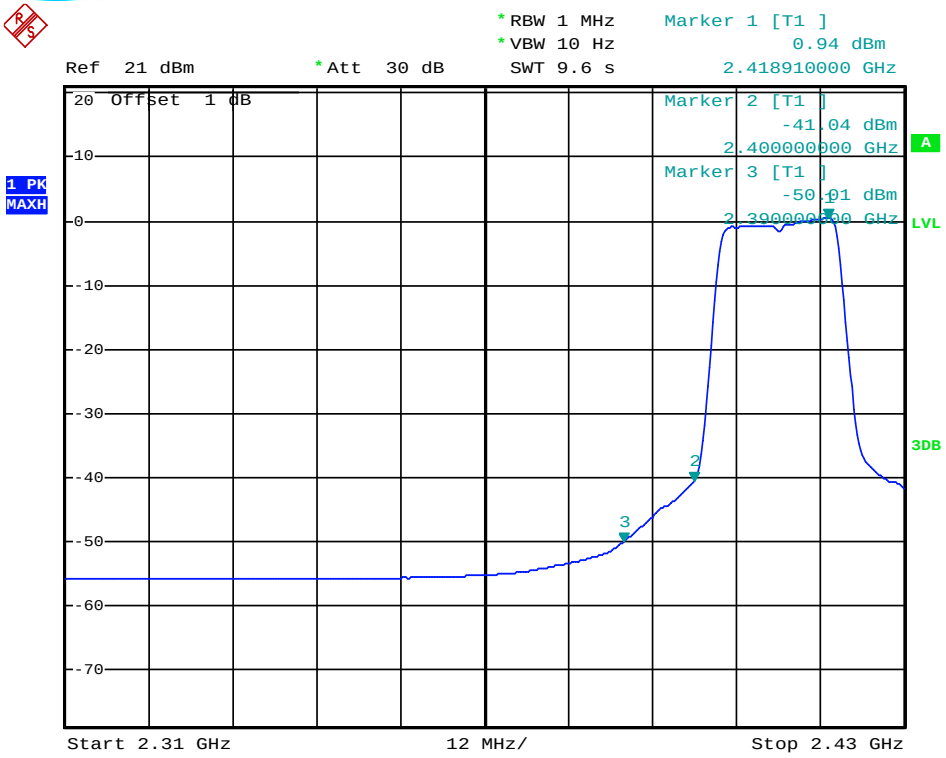
Frequency (MHz)	Conducted EMI level (dBm)	Antenna Gain (dBi)	Ground Reflection Factor (dB)	Covert Radiated E Level At 3m (dBuV/m)	Detector	Limit (dBuV/m)	Refer to Plot
2439.00	-28.74	3.5	0.00	70.02	Peak	74.00	Plot 4.5.2 A1
2439.00	-50.01	3.5	0.00	48.70	AV	54.00	Plot 4.5.2 A2
2483.50	-35.26	3.5	0.00	63.50	Peak	74.00	Plot 4.5.2 A3
2483.50	-49.08	3.5	0.00	49.68	AV	54.00	Plot 4.5.2 A4

Note: 1. For 802.11g mode at finial test to get the worst-case emission at 6Mbps.
2.The test results including the cable lose.
3. "---" means that the fundamental frequency not for 15.209 limits requirement.

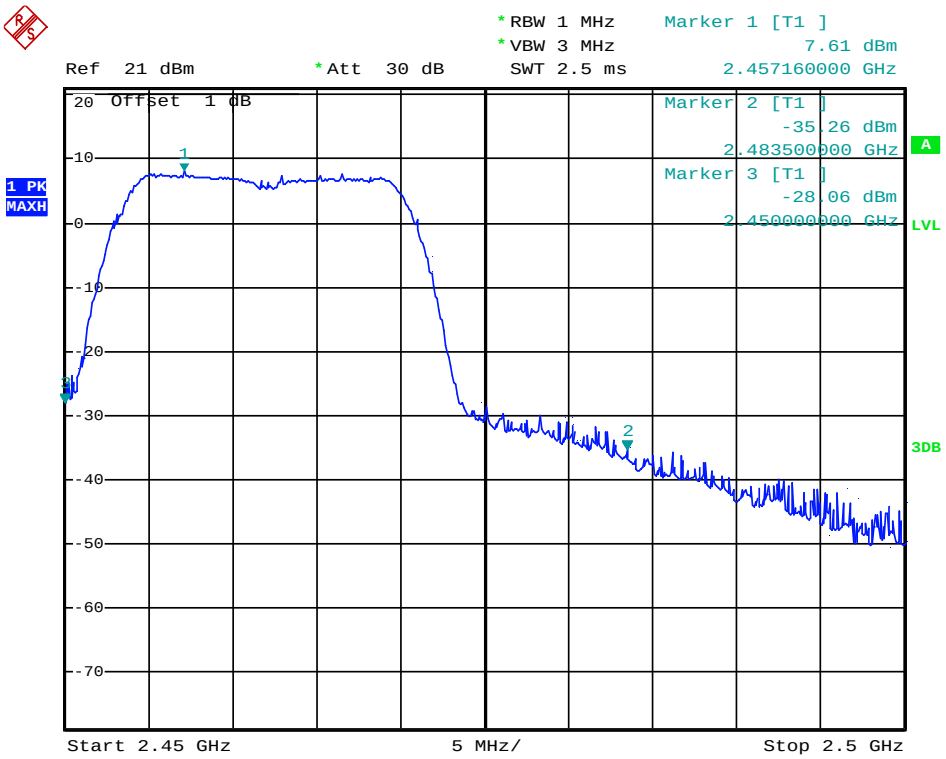
B. Test Plots



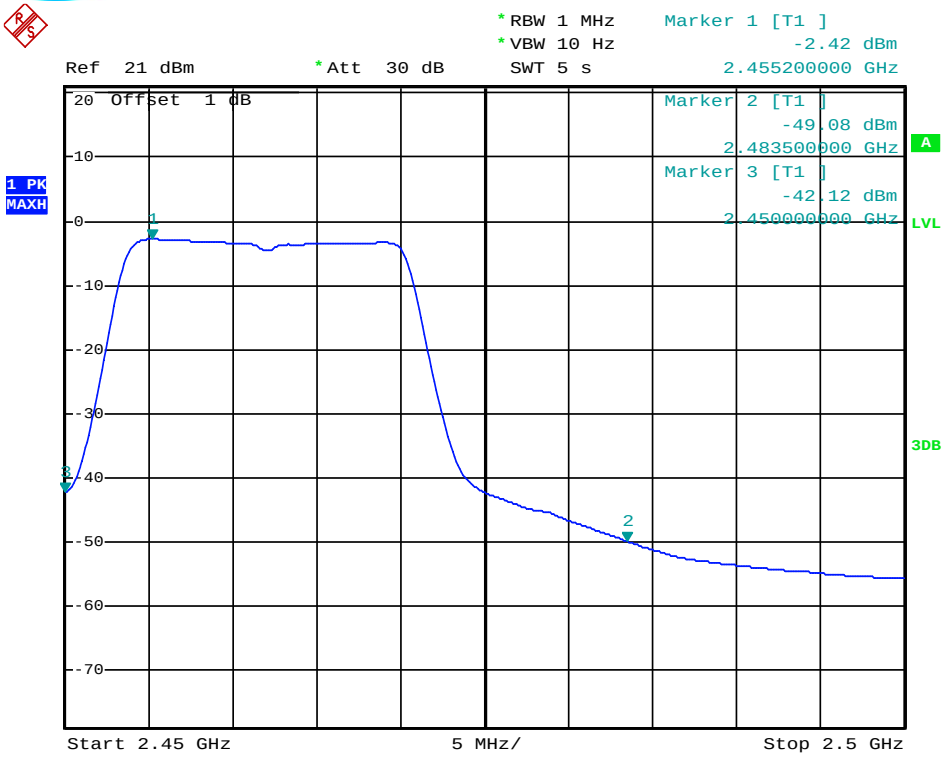
(Plot 4.5.2 A1: Channel 1: 2412MHz @ 802.11g)



(Plot 4.5.2 A2: Channel 1: 2412MHz @ 802.11g)



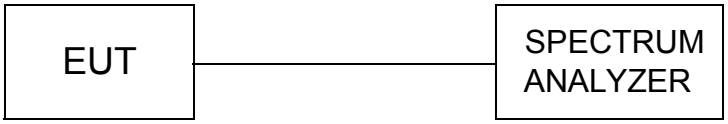
(Plot 4.5.2 A3: Channel 11: 2462MHz @ 802.11g)



(Plot 4.5.2 A4: Channel 11: 2462MHz @ 802.11g)

4.6. Spurious RF Conducted Emission

TEST CONFIGURATION



TEST PROCEDURE

The Spurious RF conducted emissions compliance of RF radiated emission should be measured by following the guidance in ANSI C63.10-2009 with respect to maximizing the emission by rotating the EUT, measuring the emission while the EUT is situated in three orthogonal planes (if appropriate), adjusting the measurement antenna height and polarization etc. Set RBW=100kHz and VBM= 300KHz to measure the peak field strength , and mwasure frequeny range from 30MHz to 26.5GHz.

LIMIT

1. Below -20dB of the highest emission level in operating band.
2. Fall in the restricted bands listed in section 15.205. The maximum permitted average field strength is listed in section 15.209.

TEST RESULTS

Remark: The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. The lowest, middle and highest channels are tested to verify the spurious emissions and bandege measurement data.

4.6.1 802.11b Test Mode

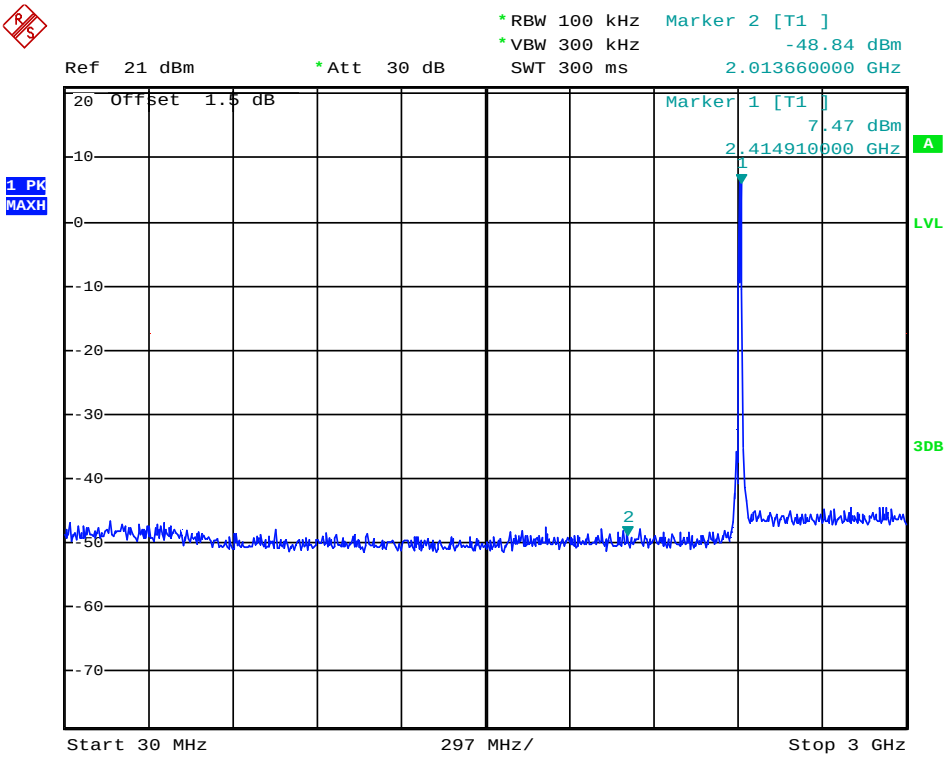
A. Test Verdict

Channel	Frequency (MHz)	Refer to Plot	Limit (dBc)	Verdict
1	2412	Plot 4.6.1 A1	-20	PASS
		Plot 4.6.1 A2	-20	PASS
		Plot 4.6.1 A3	-20	PASS
6	2437	Plot 4.6.1 B1	-20	PASS
		Plot 4.6.1 B2	-20	PASS
		Plot 4.6.1 B3	-20	PASS
11	2462	Plot 4.6.1 C1	-20	PASS
		Plot 4.6.1 C2	-20	PASS
		Plot 4.6.1 C3	-20	PASS

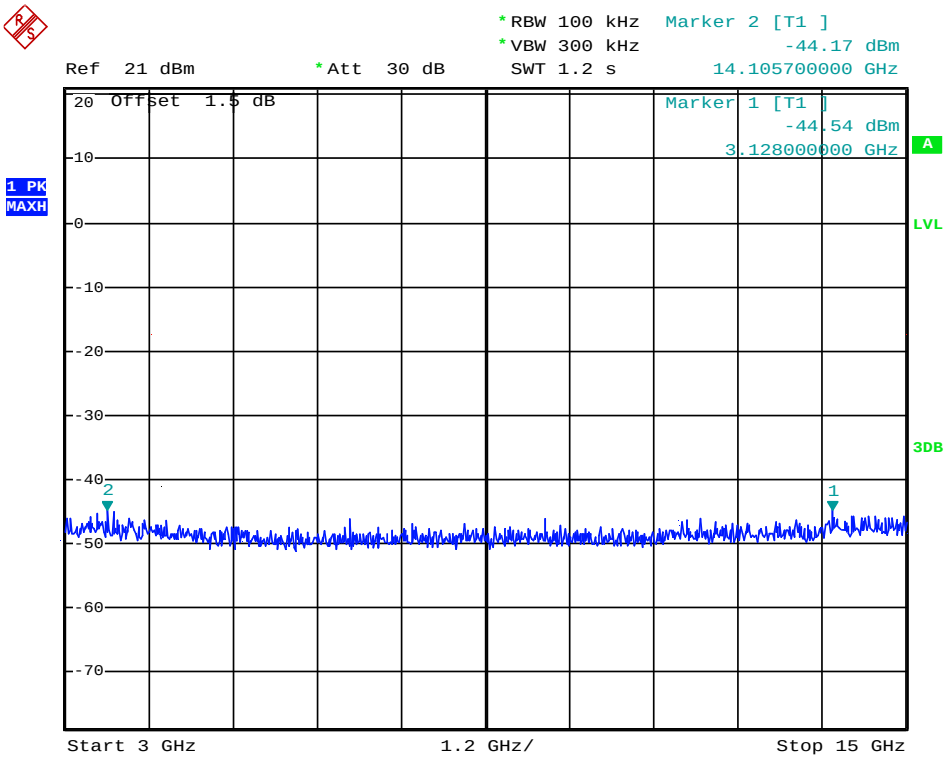
Frequency (MHz)	Delta Peak to Band emission (dBc)	Detector	Limit (dBc)	Refer to Plot	Verdict
2400.00	-45.64	Peak	-20	Plot 4.6.1 D	PASS
2483.50	-45.55	Peak	-20	Plot 4.6.1 E	PASS

Note: 1. For 802.11b mode at finial test to get the worst-case emission at 1Mbps.
2.The test results including the cable lose.

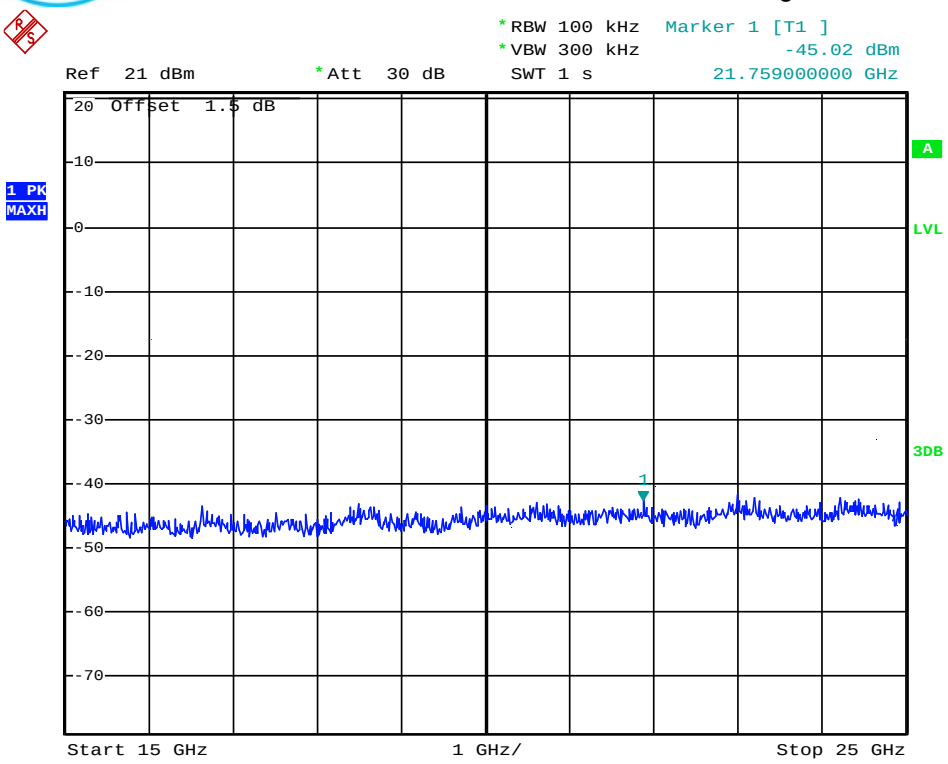
B. Test Plots



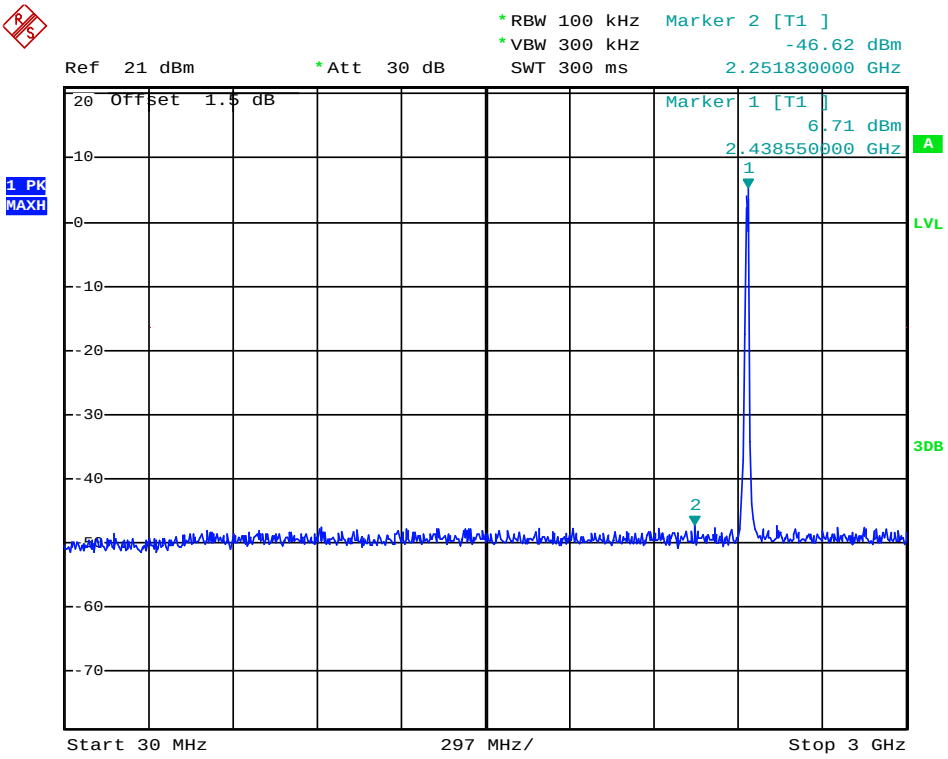
(Plot 4.6.1 A1: Channel 1: 2412MHz @ 802.11b)



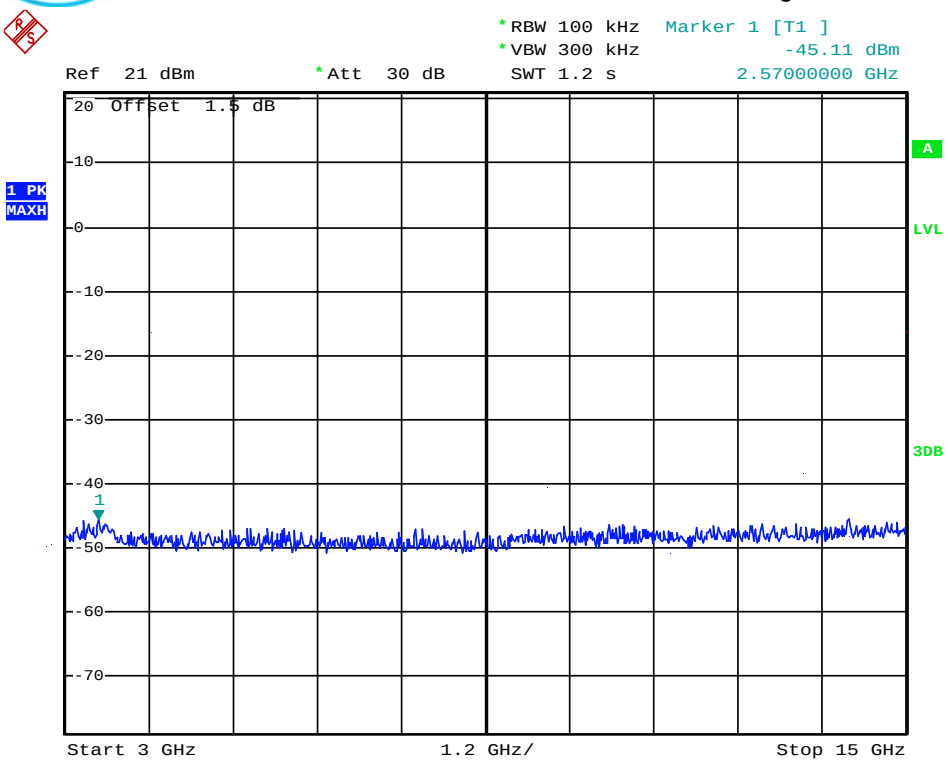
(Plot 4.6.1 A2: Channel 1: 2412MHz @ 802.11b)



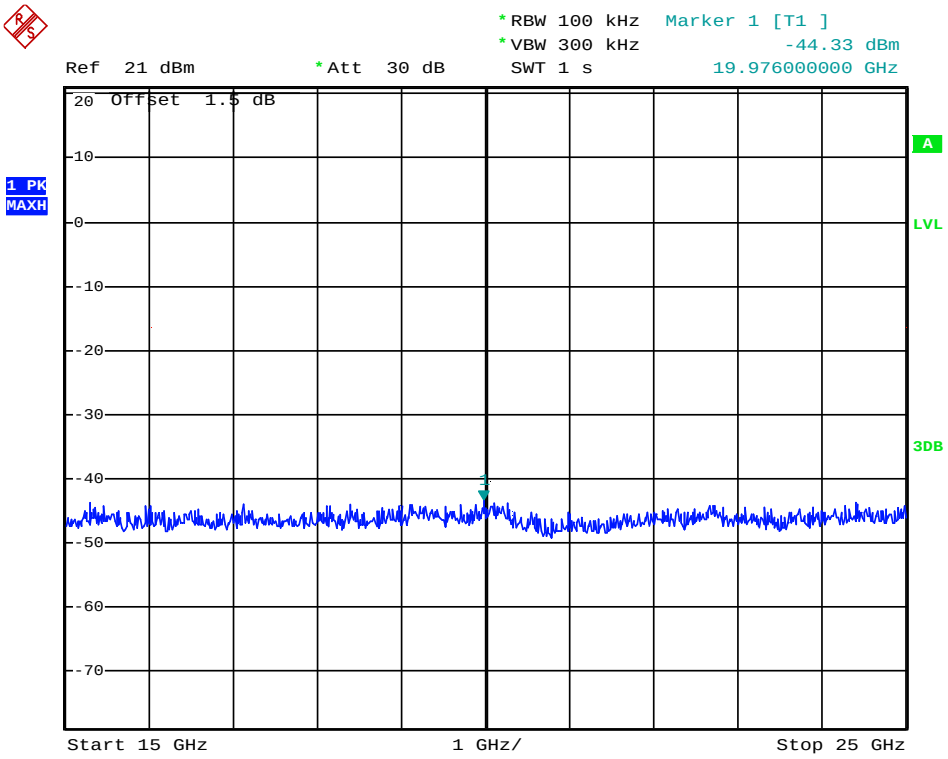
(Plot 4.6.1 A3: Channel 1: 2412MHz @ 802.11b)



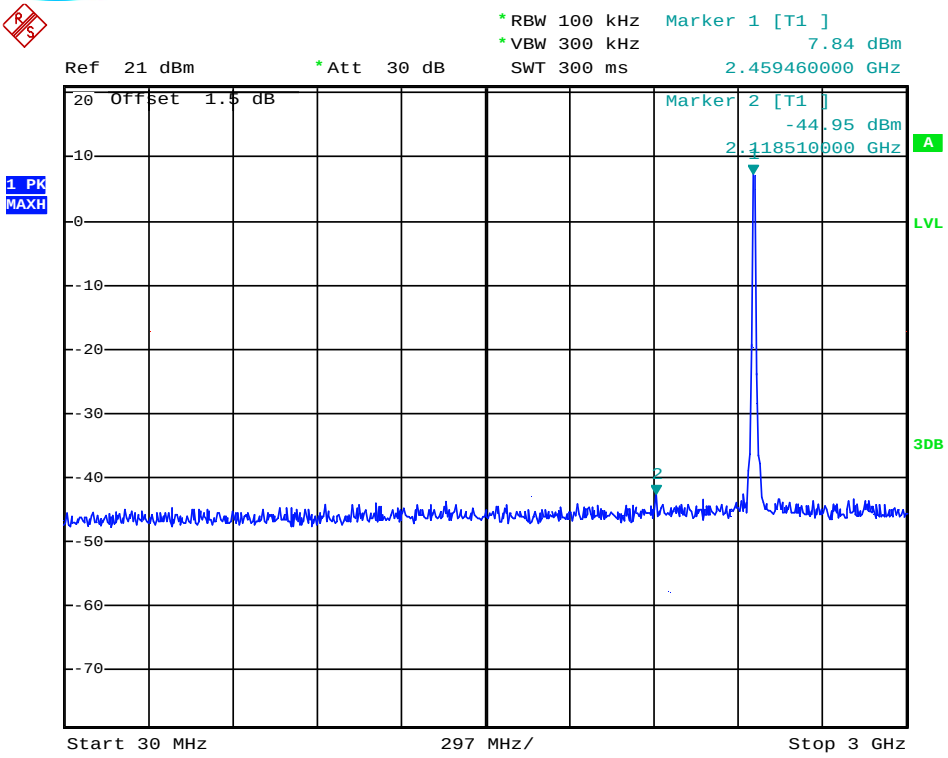
(Plot 4.6.1 B1: Channel 6: 2437MHz @ 802.11b)



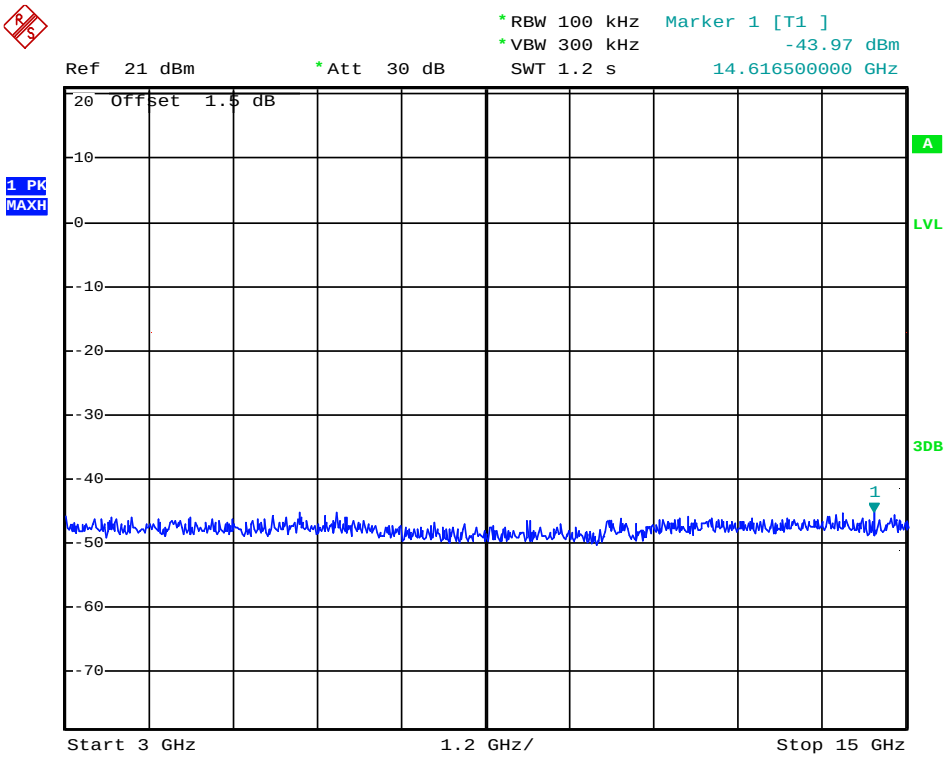
(Plot 4.6.1 B2: Channel 6: 2437MHz @ 802.11b)



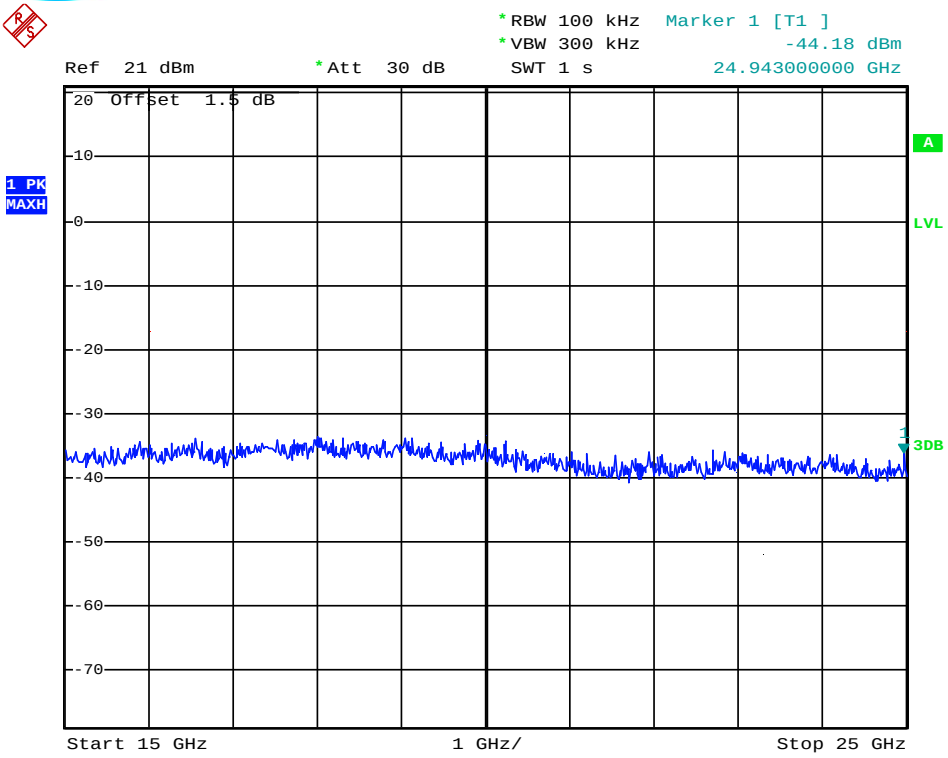
(Plot 4.6.1 B3: Channel 6: 2437MHz @ 802.11b)



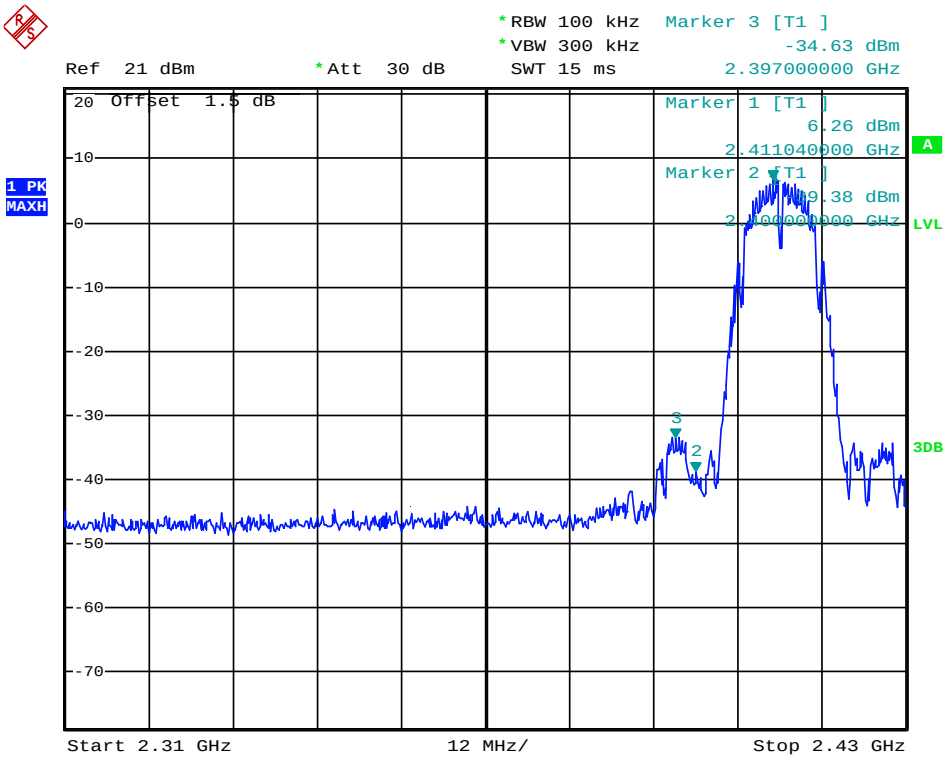
(Plot 4.6.1 C1: Channel 11: 2462MHz @ 802.11b)



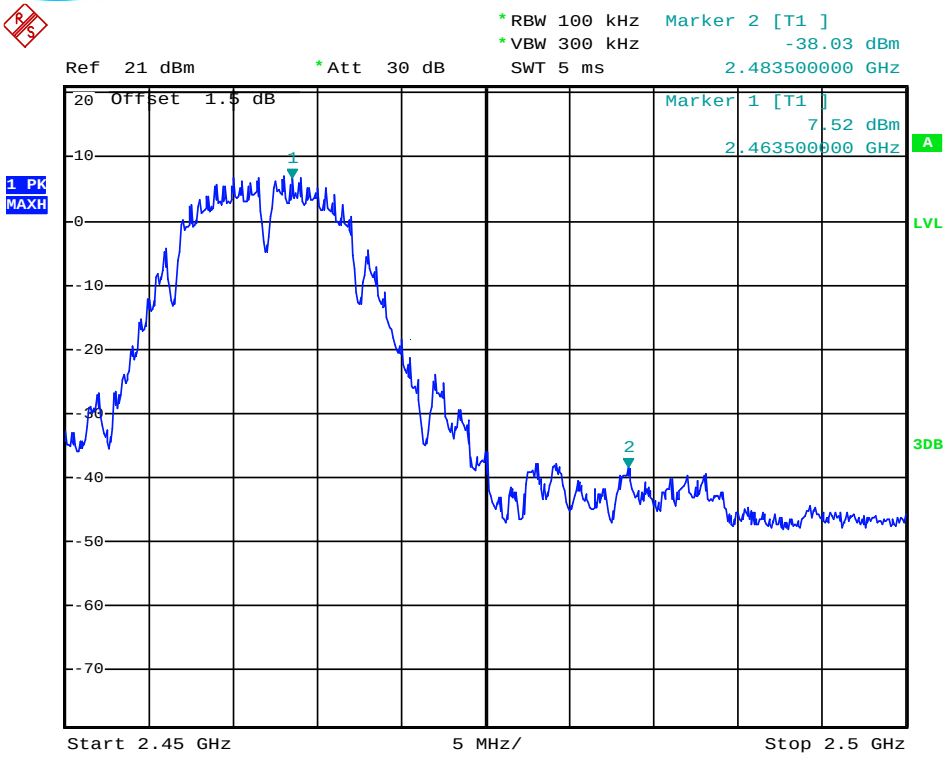
(Plot 4.6.1 C2: Channel 11: 2462MHz @ 802.11b)



(Plot 4.6.1 C3: Channel 11: 2462MHz @ 802.11b)



(Plot 4.6.1 D: Channel 1: 2412MHz @ 802.11b)



(Plot 4.6.1 E: Channel 11: 2462MHz @ 802.11b)

4.6.2 802.11g Test Mode

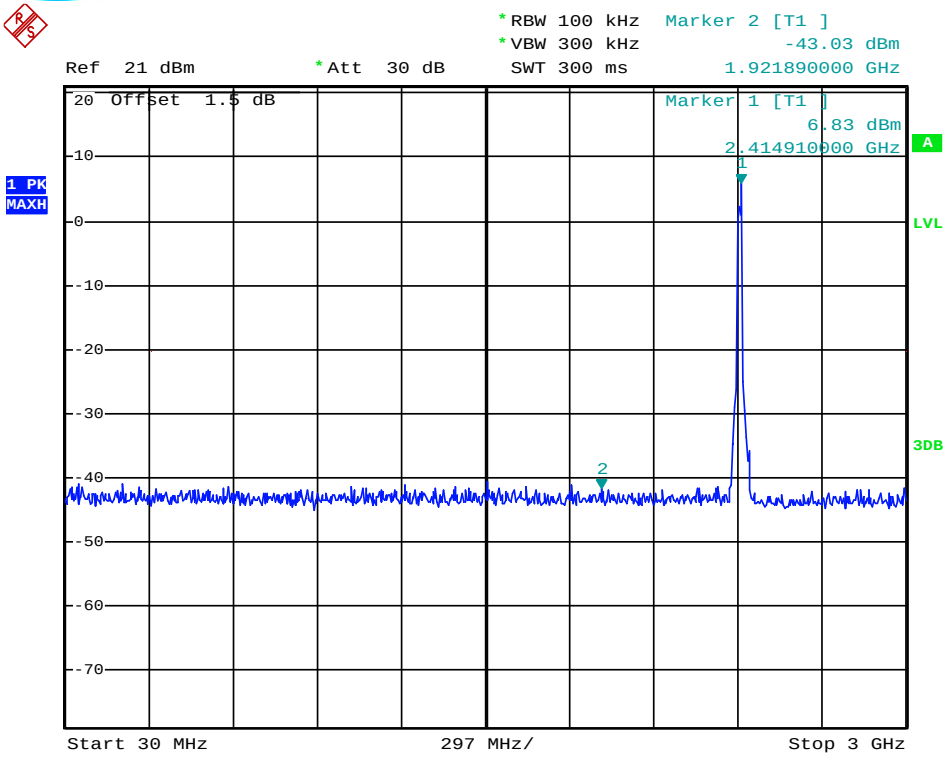
A. Test Verdict

Channel	Frequency (MHz)	Refer to Plot	Limit (dBc)	Verdict
1	2412	Plot 4.6.2 A1	-20	PASS
		Plot 4.6.2 A2	-20	PASS
		Plot 4.6.2 A3	-20	PASS
6	2437	Plot 4.6.2 B1	-20	PASS
		Plot 4.6.2 B2	-20	PASS
		Plot 4.6.2 B3	-20	PASS
11	2462	Plot 4.6.2 C1	-20	PASS
		Plot 4.6.2 C2	-20	PASS
		Plot 4.6.2 C3	-20	PASS

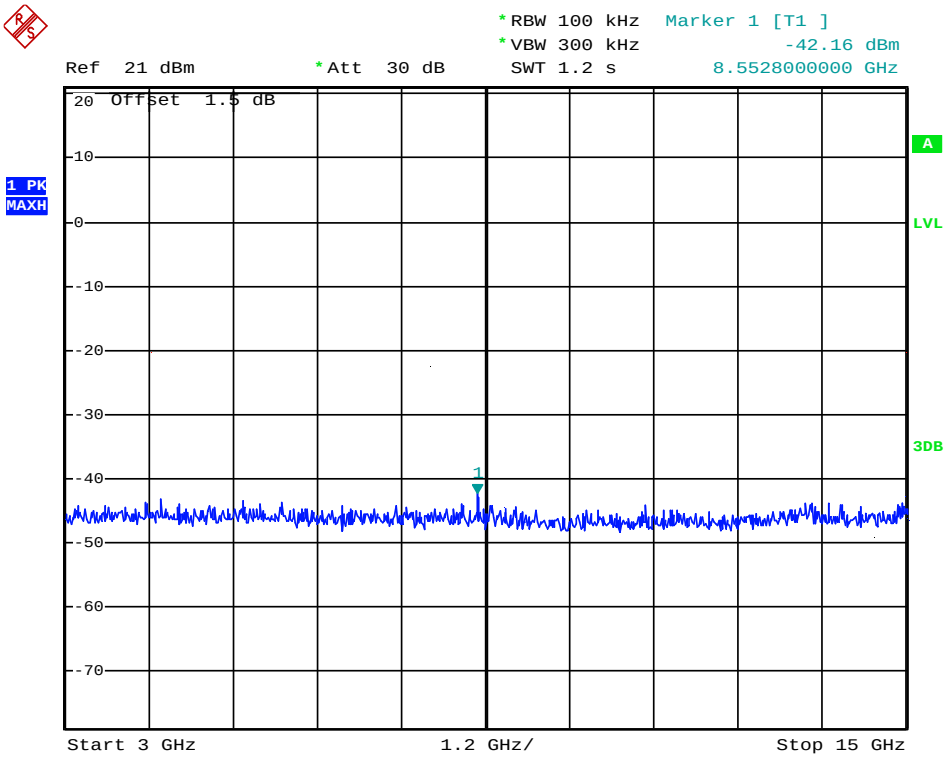
Frequency (MHz)	Delta Peak to Band emission (dBc)	Detector	Limit (dBc)	Refer to Plot	Verdict
2400.00	-33.49	Peak	-20	Plot 4.6.2 D	PASS
2483.50	-33.63	Peak	-20	Plot 4.6.2 E	PASS

Note: 1. For 802.11g mode at finial test to get the worst-case emission at 6Mbps.
2.The test results including the cable lose.

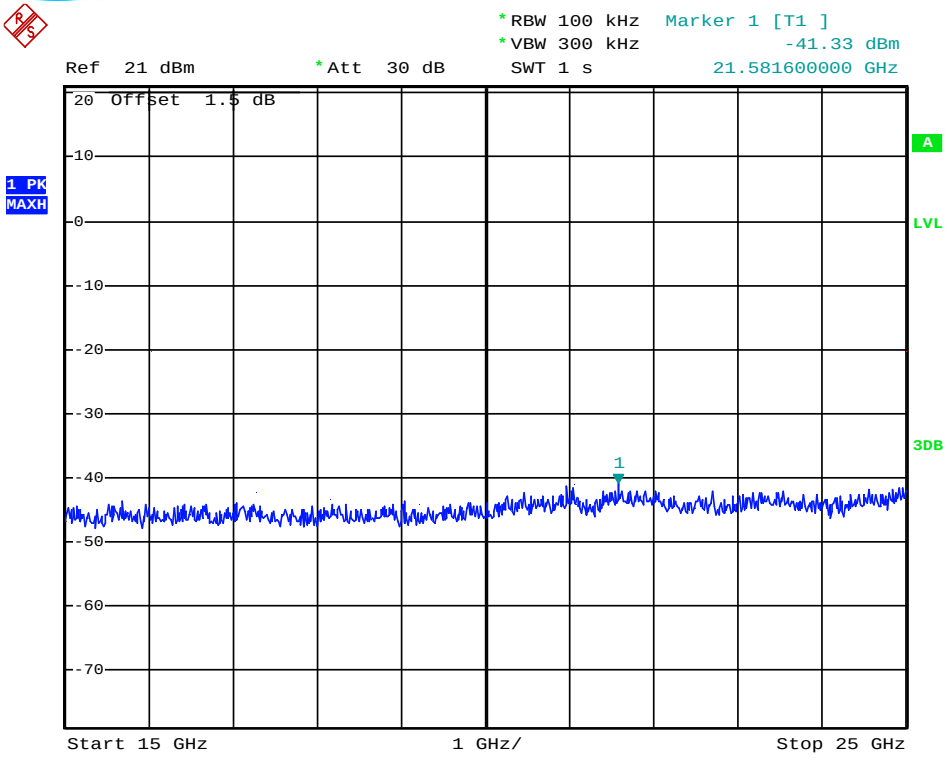
B. Test Plots



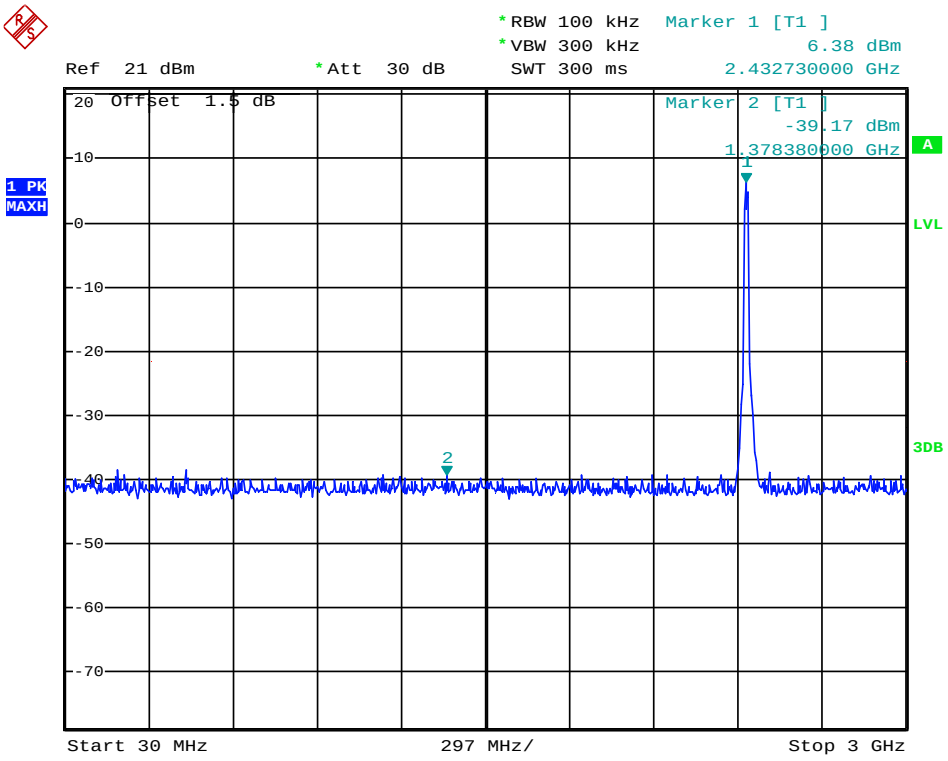
(Plot 4.6.2 A1: Channel 1: 2412MHz @ 802.11g)



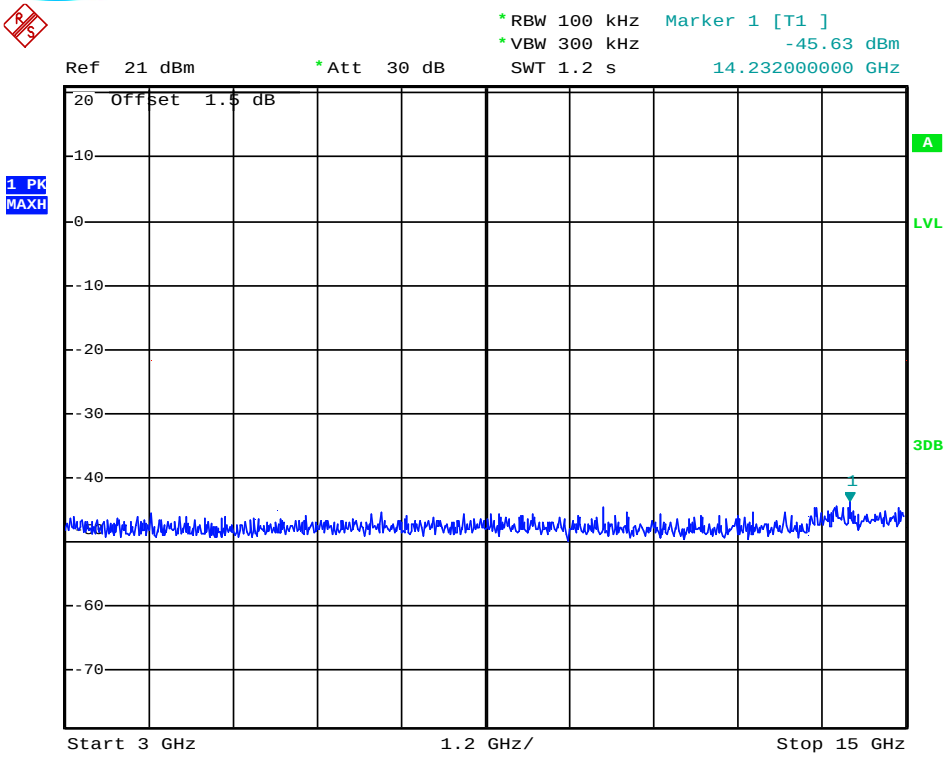
(Plot 4.6.2 A2: Channel 1: 2412MHz @ 802.11g)



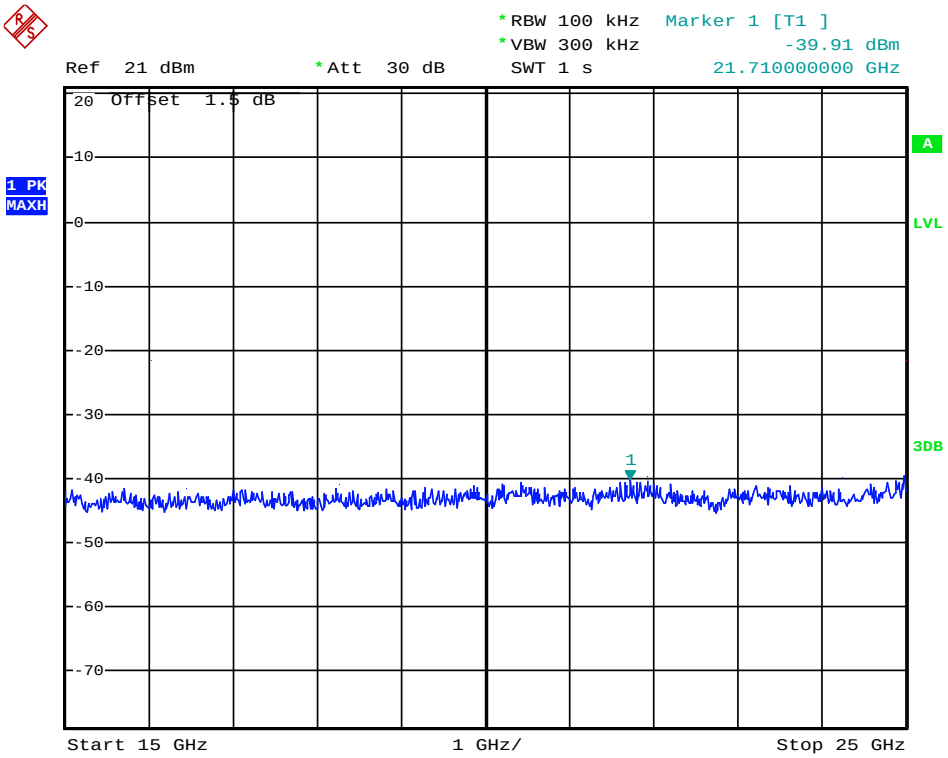
(Plot 4.6.2 A3: Channel 1: 2412MHz @ 802.11g)



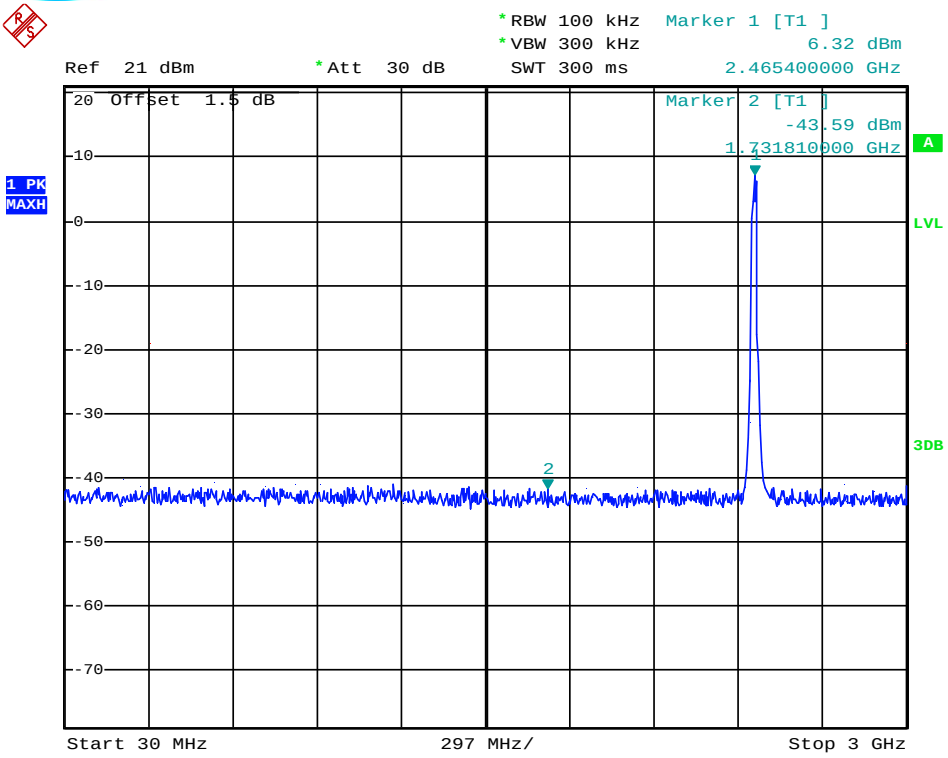
(Plot 4.6.2 B1: Channel 6: 2437MHz @ 802.11g)



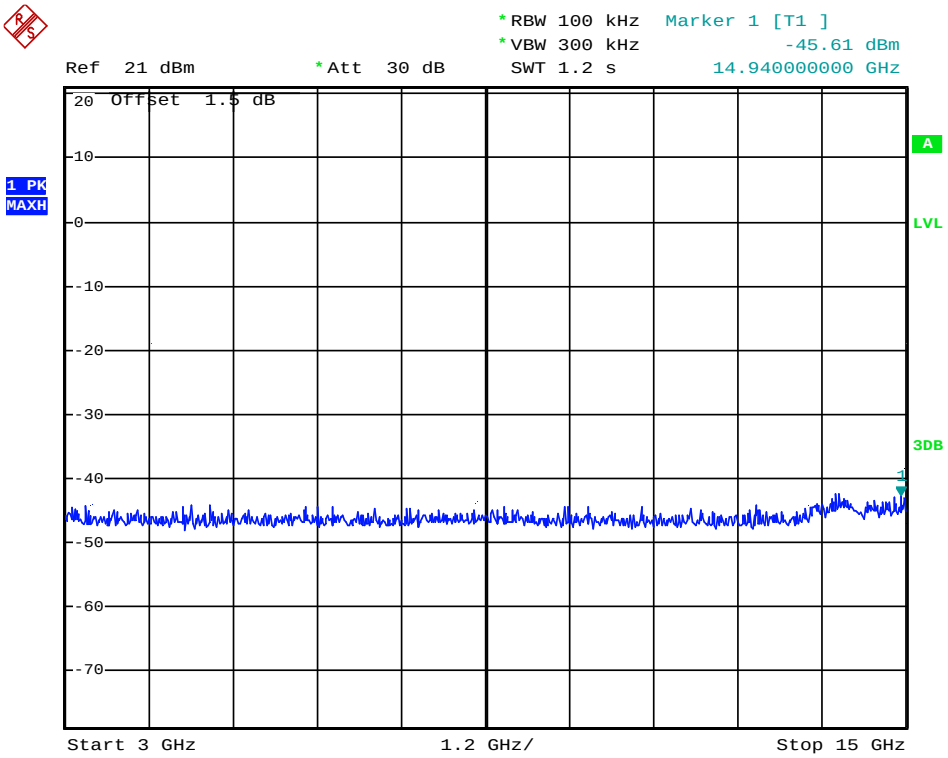
(Plot 4.6.2 B2: Channel 6: 2437MHz @ 802.11g)



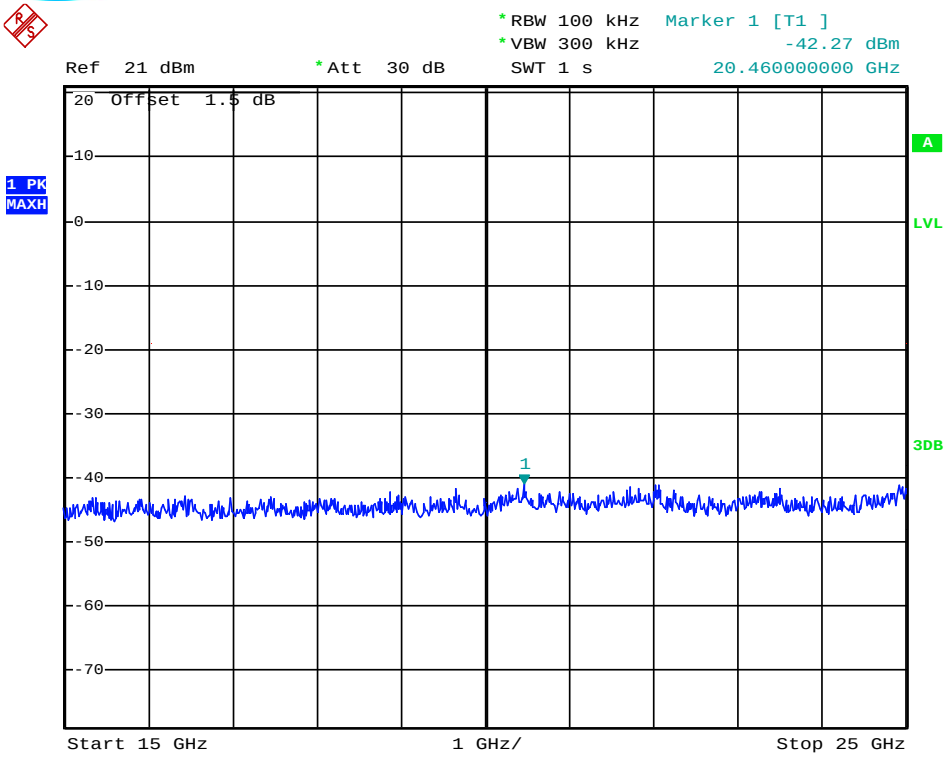
(Plot 4.6.2 B3: Channel 6: 2437MHz @ 802.11g)



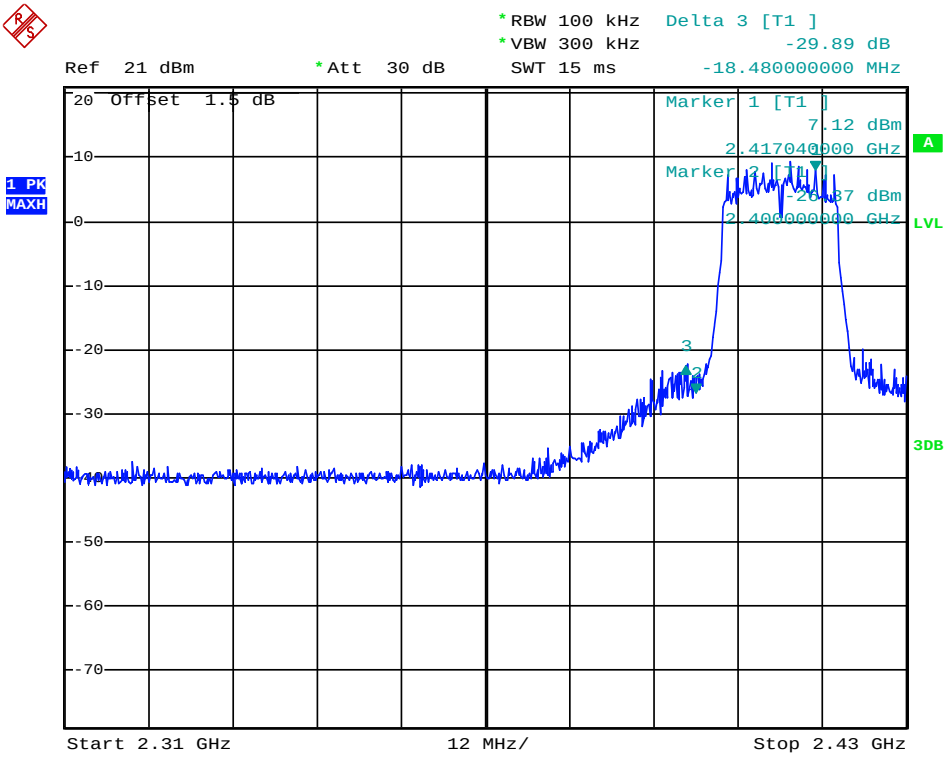
(Plot 4.6.2 C1: Channel 11: 2462MHz @ 802.11g)



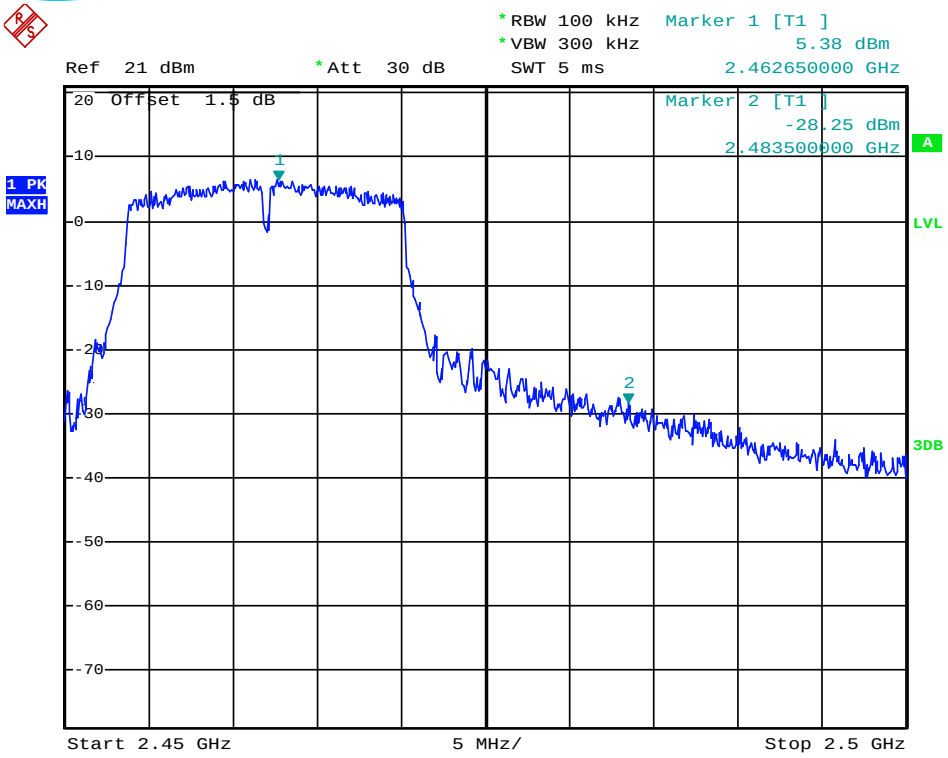
(Plot 4.6.2 C2: Channel 11: 2462MHz @ 802.11g)



(Plot 4.6.2 C3: Channel 11: 2462MHz @ 802.11g)



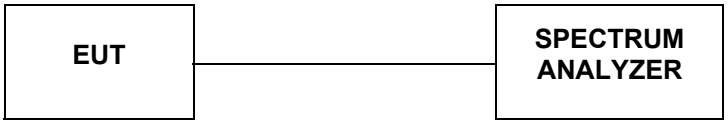
(Plot 4.6.2 D: Channel 1: 2412MHz @ 802.11g)



(Plot 4.6.2 E: Channel 11: 2462MHz @ 802.11g)

4.7. 6dB Bandwidth

TEST CONFIGURATION



TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with100 KHz RBW and 300KHz VBW.
The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.
According to KDB558074 D01 V03r04 for one of the following procedures may be used to determine the modulated DTS device signal bandwidth.
1. Set RBW = 100 kHz.
2. Set the video bandwidth (VBW) ⩾ 3 RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

LIMIT

For digital modulation systems, the minimum 6 dB bandwidth shall be at least 500 kHz.

TEST RESULTS

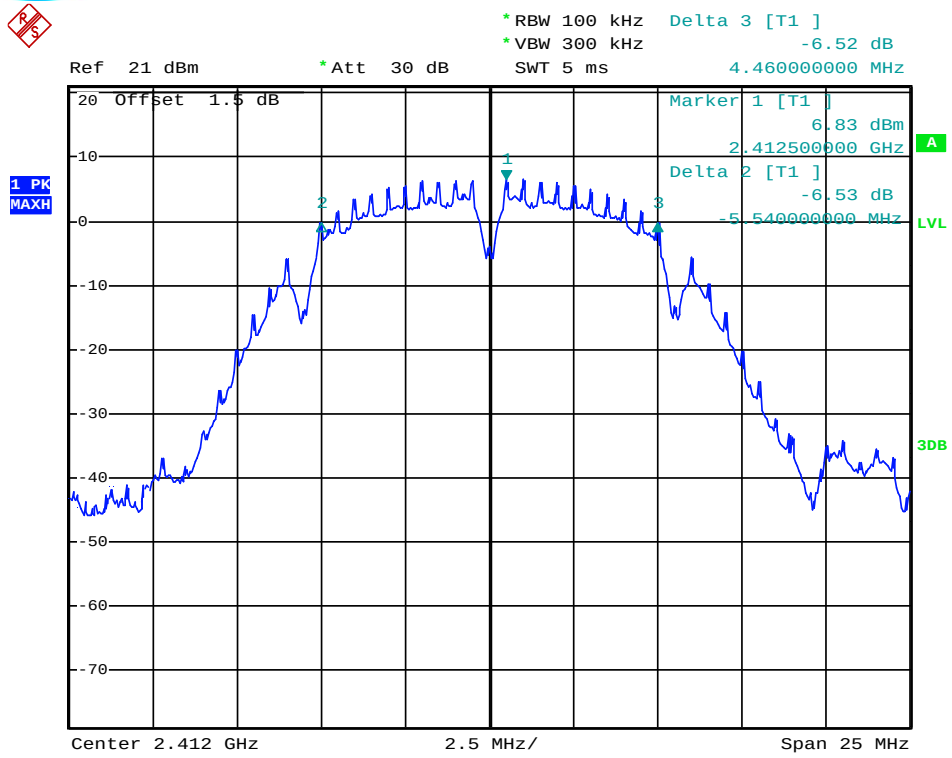
4.7.1 801.11b Test Mode

A. Test Verdict

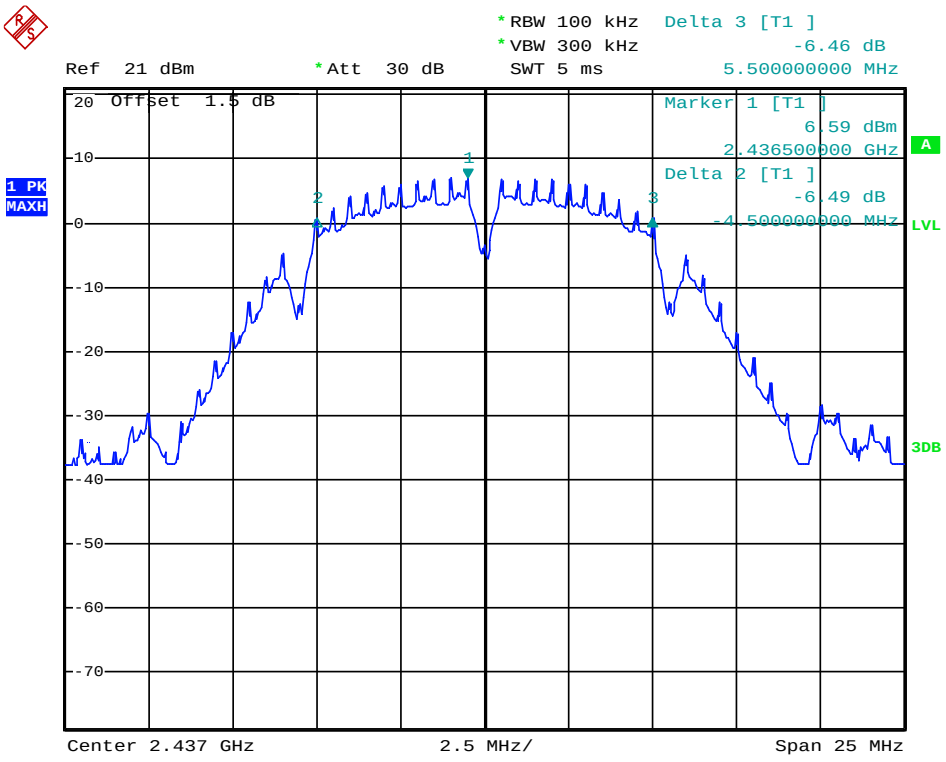
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Refer to Plot	Limits (kHz)	Verdict
1	2412	10.00	Plot 4.7.1 A	≥500	PASS
6	2437	10.00	Plot 4.7.1 B	≥500	PASS
11	2462	10.00	Plot 4.7.1 C	≥500	PASS

Note: 1. For 802.11b mode at finial test to get the worst-case emission at 1Mbps.
2.The test results including the cable lose.

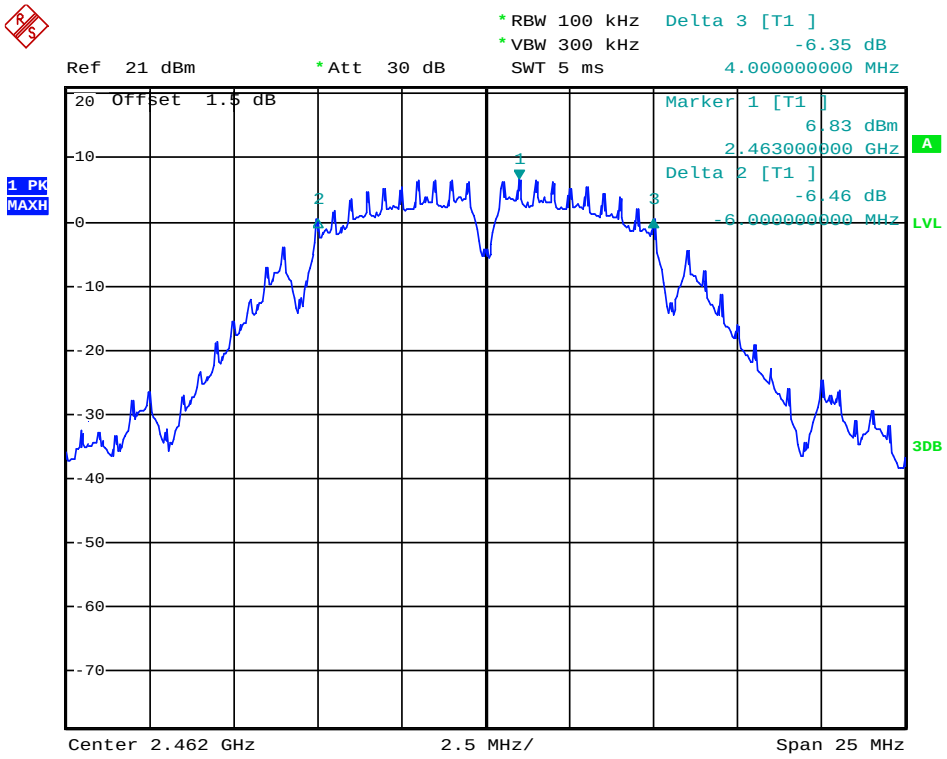
B. Test Plots



(Plot 4.7.1 A: Channel 1: 2412MHz @ 802.11b)



(Plot 4.7.1 B: Channel 6: 2437MHz @ 802.11b)



(Plot 4.7.1 C: Channel 11: 2462MHz @ 802.11b)

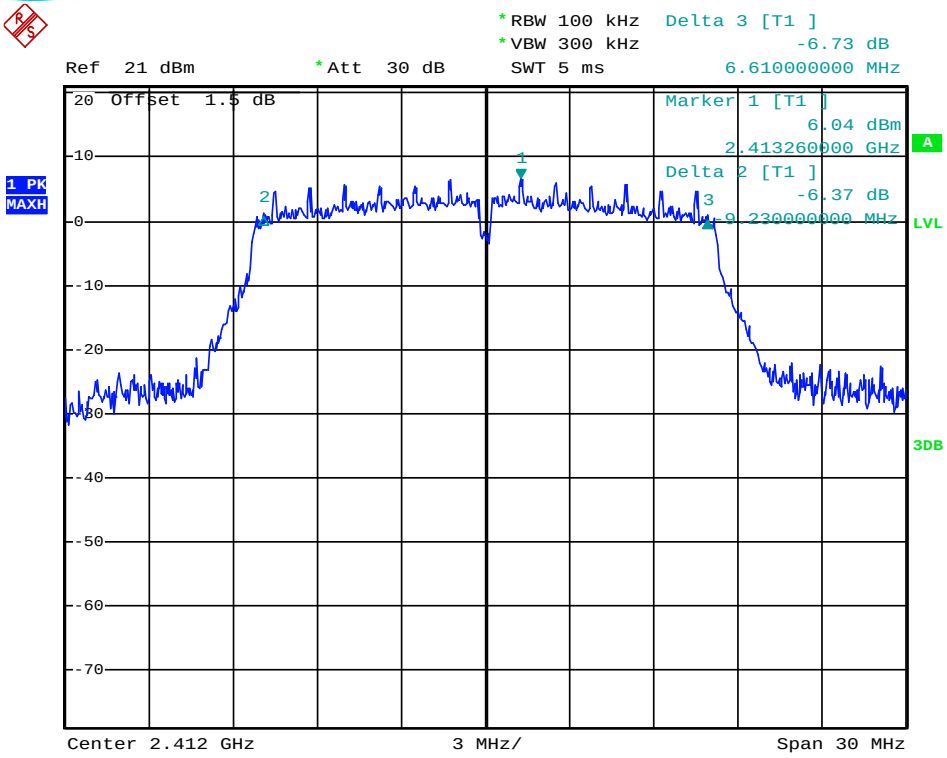
4.7.2 801.11g Test Mode

A. Test Verdict

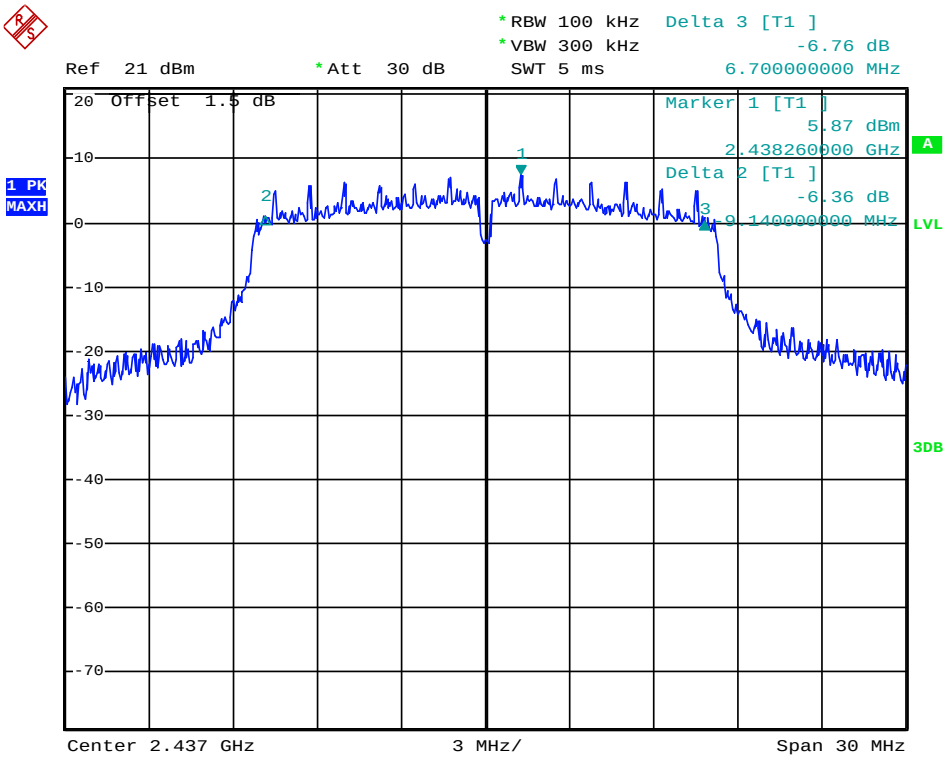
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Refer to Plot	Limits (kHz)	Verdict
1	2412	15.84	Plot 4.7.2 A	≥500	PASS
6	2437	15.84	Plot 4.7.2 B	≥500	PASS
11	2462	15.84	Plot 4.7.2 C	≥500	PASS

Note: 1. For 802.11g mode at finial test to get the worst-case emission at 6Mbps.
2.The test results including the cable lose.

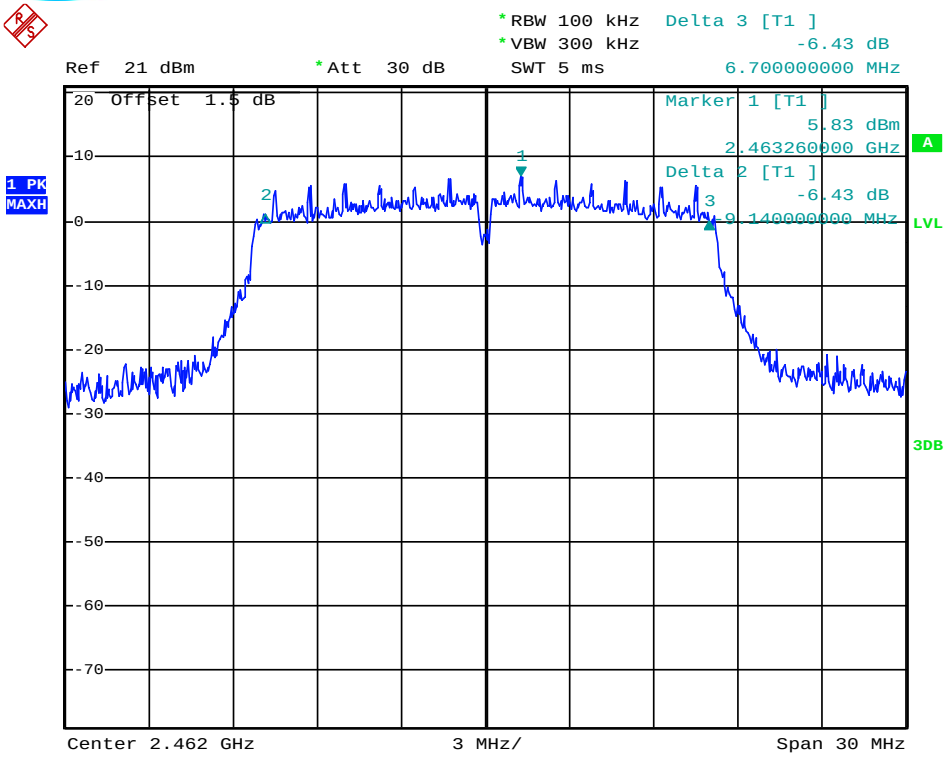
B. Test Plots



(Plot 4.7.2 A: Channel 1: 2412MHz @ 802.11g)



(Plot 4.7.2 B: Channel 6: 2437MHz @ 802.11g)



(Plot 4.7.2 C: Channel 11: 2462MHz @ 802.11g)

4.8. Antenna Requirement

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.

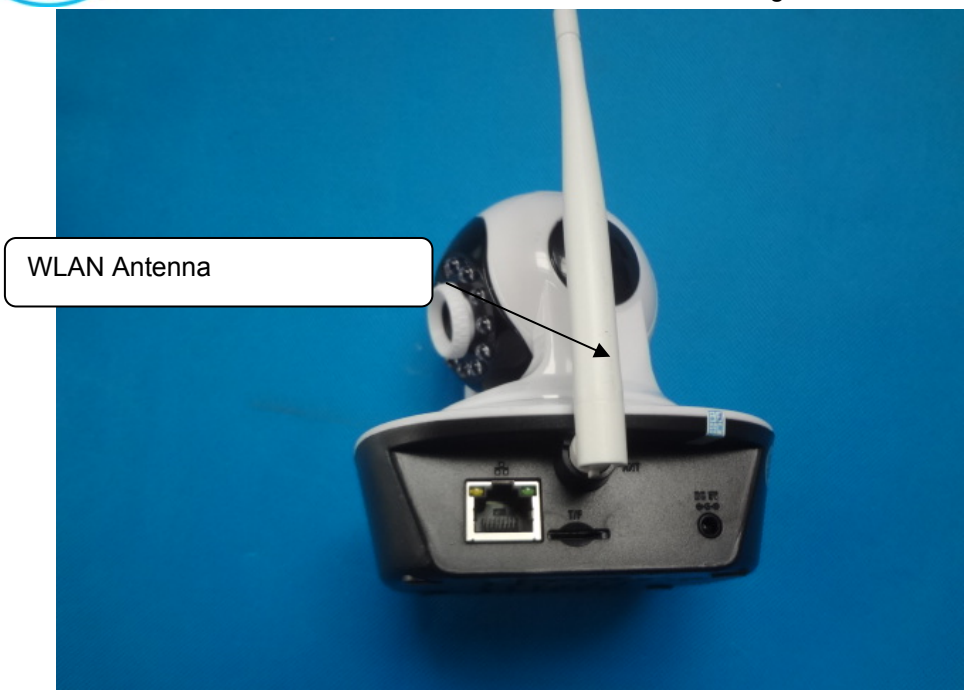
And according to FCC 47 CFR Section 15.247 (c), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

Refer to statement below for compliance

The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. Further, this requirement does not apply to intentional radiators that must be professionally installed.

Antenna Connected Construction

The WLAN antenna is soldered on the PCB board.
The WLAN antenna and the maximum antenna gain of WLAN uesed was 3.5 dBi.


WLAN Antenna