CERTIFICATION TEST REPORT FOR

FCC ID: 2AFC3GCCSSO

Report Reference No.....:	15FAB06007 21
Date of issue.....:	2015-7-28
Testing Laboratory.....:	ATT Product Service Co., Ltd.
Address.....:	No. 3, ChangLianShan Industrial Park, ChangAn Town, DongGuan City, GuangDong, China.
Applicant's name .....:	Grid Connect Inc.
Address.....:	1630 W. Diehl Rd. Naperville, Illinois 60563 USA
Manufacturer.....:	Globalscale Technologies Inc
Address.....:	5F.No.2 Building, Minxing Industrial Park, Minkang Road, Minzhi Street, Baoan District, Shenzhen, Guangdong, China
Test specification:	
Test item description .....:	Smart Outlet
Trade Mark .....:	
Model/Type reference .....:	GC-CS-SO
Ratings.....:	Input:AC 100-240V 50/60Hz 0.15A; Output: AC 125V

Responsible Engineer

Bin Jiang

（Bin Jiang/ Engineer）

Approved by

KingWang

（King Wang /EMC Manager）

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TEST REPORT DECLARE

Applicant	:	Grid Connect Inc.
Address	:	1630 W. Diehl Rd. Naperville, Illinois 60563 USA
Equipment under Test	:	Smart Outlet
Model No	:	GC-CS-SO
Trade Mark	:	
Manufacturer	:	Globalscale Technologies Inc
Address	:	5F.No.2 Building, Minxing Industrial Park, Minkang Road, Minzhi Street, Baoan District, Shenzhen, Guangdong, China

Test Standard Used: FCC Rules and Regulations Part 15 Subpart C

Test procedure used: ANSI C63.10:2013, ANSI C63.4:2014, KDB558074 D01 DTS Meas Guidance V03r02

We Declare:

The equipment described above is tested by ATT Product Service Co., Ltd. and in the configuration tested the equipment complied with the standards specified above. The test results are contained in this test report and ATT Product Service Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these tests.

After test and evaluation, our opinion is that the equipment provided for test compliance with the requirement of the above FCC standards.

Report No:	15FAB06007 21		
Date of Test:	2015-7-18---2015-7-25	**Date of Report**:	2015-7-28

Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of ATT Product Service Co., Ltd.

1.Summary of test Standards and results

The EUT have been tested according to the applicable standards as referenced below.

Description of Test Item	Standard	Results
6dB Bandwidth And 99% Occupied Bandwidth	§15.247 (a)(2)	PASS
Peak Output Power	§15.247(b)(3)	PASS
Power Spectral Density	§15.247(e)	PASS
Spurious Emissions at Antenna Port	§15.247(d)	PASS
Spurious Emissions	§15.205, §15.209, §15.247(d)	PASS
100 kHz Bandwidth of Frequency Band Edge	§15.247(d)	PASS
AC Line Conducted Emissions	§15.207 (a)	PASS
Antenna requirement	FCC Part 15: 15.203	PASS

2.General test information

2.1 Accresitations

The measuring facility of laboratories has been authorized or registered by the following approval agencies.

USA	**FCC**	**Registration Number :923232**
Canada	**INDUSTRY CANADA**	**Registration Number 11033A**

2.2 Description of EUT

EUT* Name	:	Smart Outlet
Model Number	:	GC-CS-SO
Trade Mark	:	
EUT function description	:	Please reference user manual of this device
Power supply	:	AC 120V/60Hz
Radio Specification	:	IEEE802.11b/g/n
Operation frequency	:	IEEE 802.11b: 2412MHz—2462MHz IEEE 802.11g: 2412MHz—2462MHz IEEE 802.11n HT20: 2412MHz—2462MHz
Modulation	:	IEEE 802.11b: DSSS(CCK,DQPSK,DBPSK) IEEE 802.11g: OFDM(64QAM, 16QAM, QPSK, BPSK) EEE 802.11n HT20, HT40: OFDM (64QAM, 16QAM, QPSK,BPSK)
Antenna Type	:	built-in antenna, maximum PK gain:2dBi
Date of Receipt	:	2015-7-28
Sample Type	:	Series production

Note: EUT is the ab. of equipment under test.

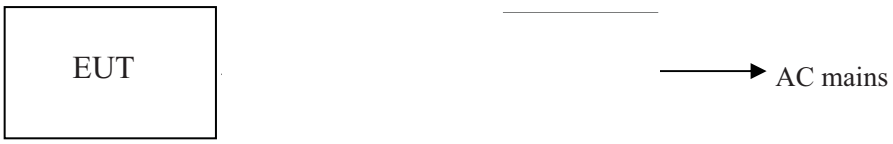
2.3 Accessories of EUT

Description of Accessories	Manufacturer	Model number or Type	Other
/	/	/	/
/	/	/	/
/	/	/	/

2.4 Assistant equipment used for test

Description of Assistant equipment	Manufacturer	Model number or Type	Other
PC	Lenovo	E R500	FCC DOC
mobile phone	Apple	Iphone 4S	FCC ID

2.5 Block diagram of EUT configuration for test



Tested mode, channel, and data rate information			
Mode	data rate (Mpbs) (see Note)	Channel	Frequency (MHz)
IEEE 802.11b	1	Low :CH1	2412
	1	Middle: CH6	2437
	1	High: CH11	2462
IEEE 802.11g	6	Low :CH1	2412
	6	Middle: CH6	2437
	6	High: CH11	2462
IEEE 802.11n HT20	MCS 0	Low :CH1	2412
	MCS 0	Middle: CH6	2437
	MCS 0	High: CH11	2462
Note: According exploratory test, EUT will have maximum output power in those data rate, so those data rate were used for all test.			

2.6 Test environment conditions

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

Temperature range:	21-25℃
Humidity range:	40-75%
Pressure range:	86-106kPa

2.7 Measurement uncertainty

Test Item	Uncertainty
Uncertainty for Conduction emission test	2.44dB
Uncertainty for Radiation Emission test (150KHz-30MHz)	3.21dB
Uncertainty for Radiation Emission test (30MHz-1GHz)	3.14 dB (Polarize: V)
	3.16 dB (Polarize: H)
Uncertainty for Radiation Emission test (1GHz to 25GHz)	2.08dB(Polarize: V)
	2.56dB (Polarize: H)
Uncertainty for radio frequency	1×10-9
Uncertainty for conducted RF Power	0.65dB

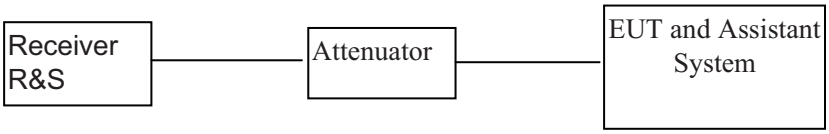
Note：This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

3. 6dB Bandwidth and 99% Occupied Bandwidth

3.1 Test equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Next Cal.	Cal. Interval
1	EMI Test Receiver	R&S	ESCI	101307	2015/12/26	1Y

3.2 Block diagram of test setup



3.3 Limits

For direct sequence systems, the minimum 6dB bandwidth shall be at least 500 KHz

3.4 Test Procedure

(1) Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.

(2) Position the EUT without connection to measurement instrument. Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.

(3) Measure the frequency difference of two frequencies that were attenuated 6 dB from the reference level. Record the frequency difference as the emission bandwidth.

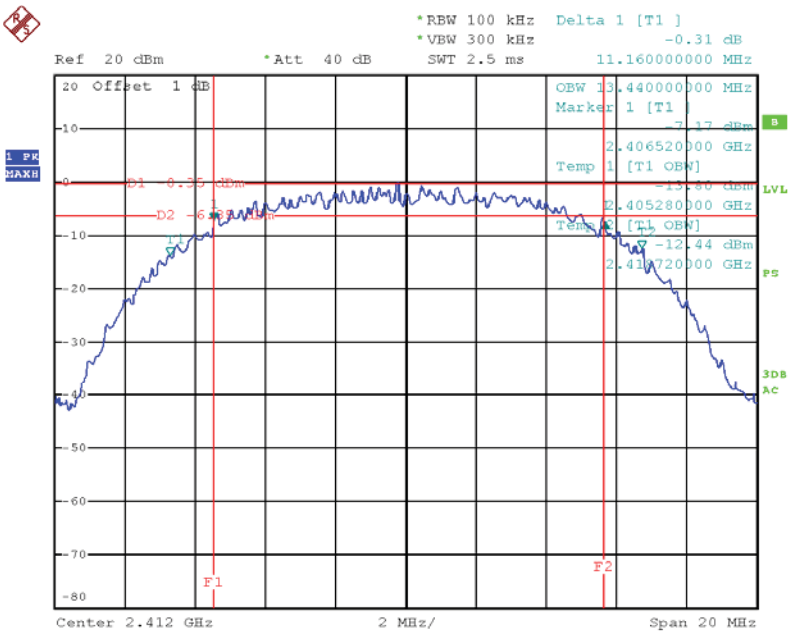
(4) Repeat above procedures until all frequencies measured were complete.

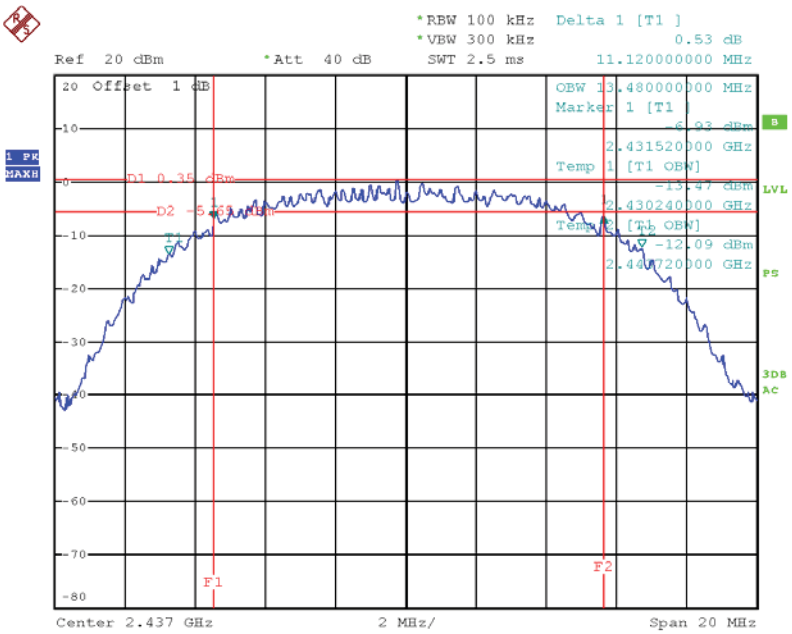
3.5 Test Result

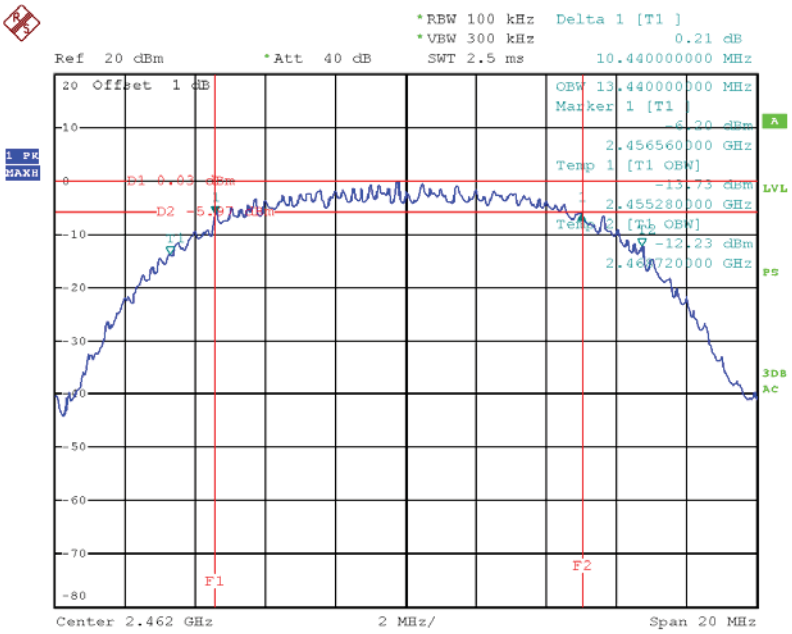
EUT Set Mode	CH or Frequency	6 dB bandwidth	99% dB bandwidth	Limt	Conclusion
		Result (MHz)	Result (MHz)	>500KHz	PASS
11b	CH1	11.16	13.44	>500KHz	PASS
	CH6	11.12	13.48	>500KHz	PASS
	CH11	10.44	13.44	>500KHz	PASS
11g	CH1	16.56	16.48	>500KHz	PASS
	CH6	16.52	16.48	>500KHz	PASS
	CH11	16.48	16.48	>500KHz	PASS
11n HT 20	CH1	17.64	17.72	>500KHz	PASS
	CH6	17.68	17.68	>500KHz	PASS
	CH11	17.64	17.68	>500KHz	PASS

3.6 Original test data

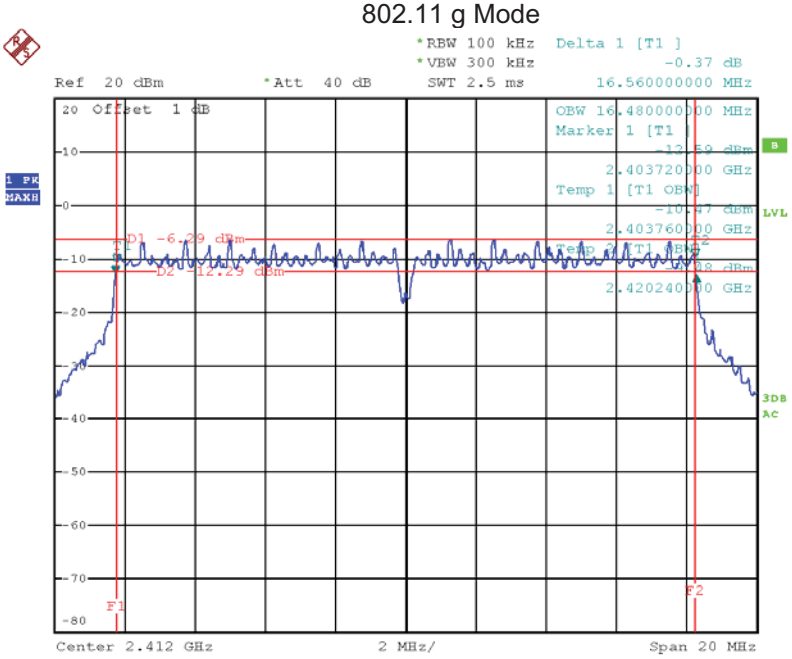
802.11 b Mode

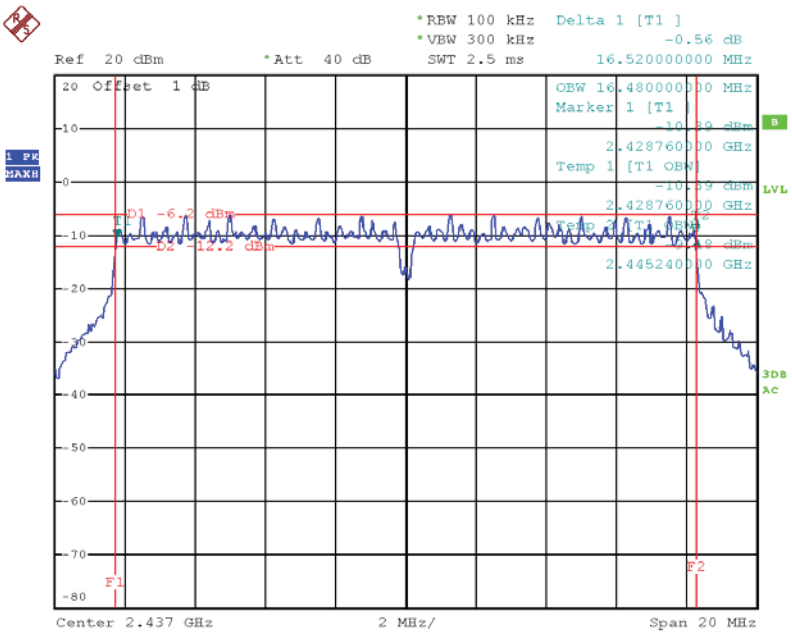


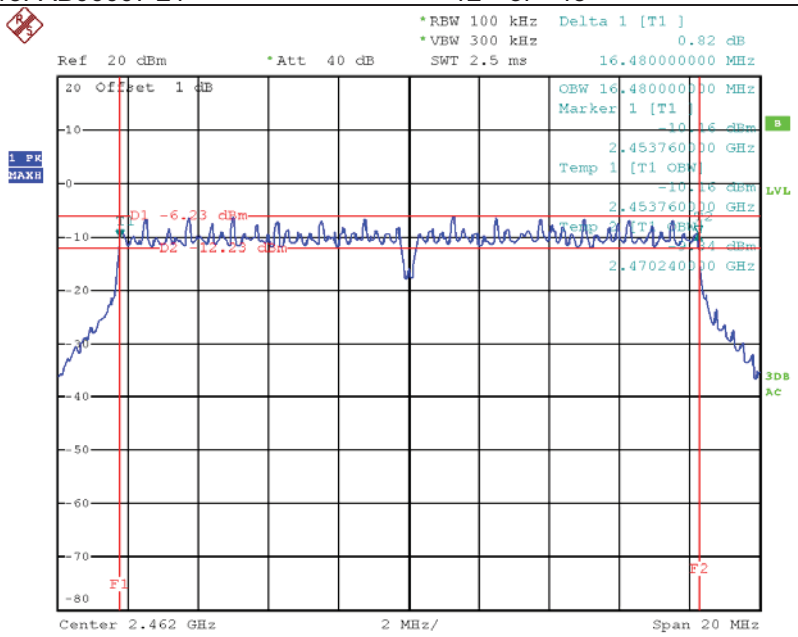

*RBW 100 kHz
*VBW 300 kHz
SWT 2.5 ms
Delta 1 [T1]
0.53 dB
11.120000000 MHz
Ref 20 dBm
*Att 40 dB
20 Offset 1 dB
OBW 13.480000000 MHz
Marker 1 [T1]
-6.93 dBm
2.431520000 GHz
Temp 1 [T1 OBW]
-13.47 dBm
2.430240000 GHz
Temp 2 [T1 OBW]
-12.09 dBm
2.440720000 GHz
D1 0.35 dBm
D2 -5.13 dBm
F1
F2
Center 2.437 GHz
2 MHz/
Span 20 MHz


*RBW 100 kHz
*VBW 300 kHz
SWT 2.5 ms
Delta 1 [T1]
0.21 dB
10.440000000 MHz
Ref 20 dBm
*Att 40 dB
20 Offset 1 dB
OBW 13.440000000 MHz
Marker 1 [T1]
-6.20 dBm
2.456560000 GHz
Temp 1 [T1 OBW]
-13.73 dBm
2.455280000 GHz
Temp 2 [T1 OBW]
-12.23 dBm
2.466720000 GHz
D1 0.03 dBm
D2 -5.97 dBm
F1
F2
Center 2.462 GHz
2 MHz/
Span 20 MHz

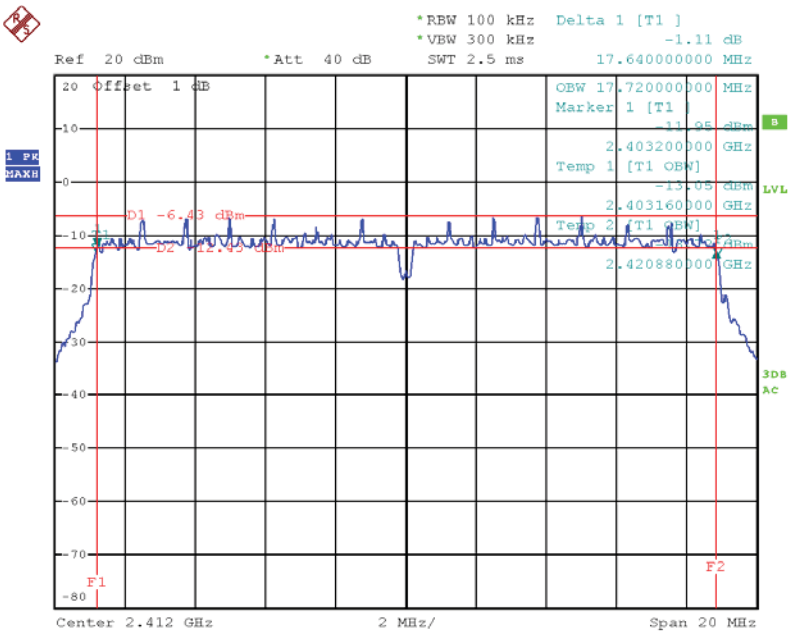
802.11 g Mode

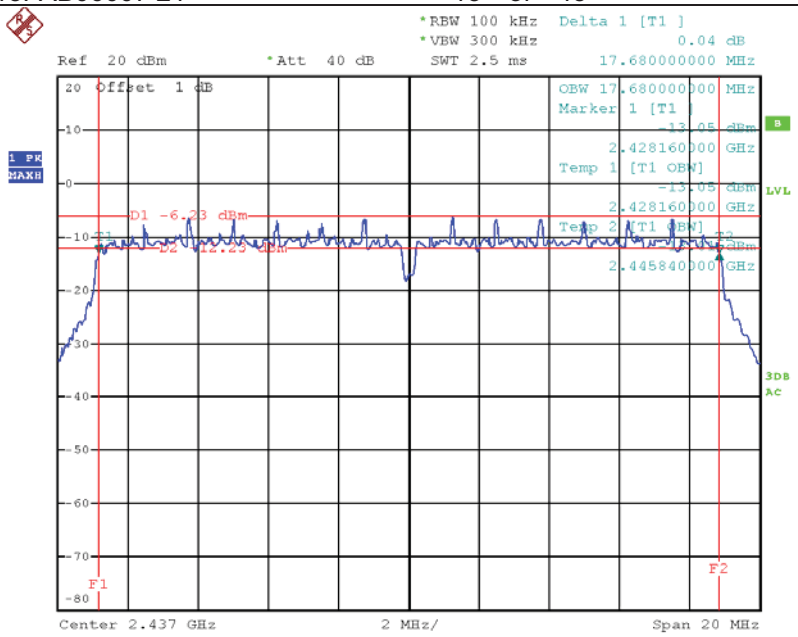

*RBW 100 kHz
*VBW 300 kHz
Ref 20 dBm
*Att 40 dB
SWT 2.5 ms
Delta 1 [T1]
-0.37 dB
16.560000000 MHz
20 Offset 1 dB
OBW 16.480000000 MHz
Marker 1 [T1]
2.403720000 GHz
Temp 1 [T1 OBW]
2.403760000 GHz
D1 -6.29 dBm
D2 12.29 dBm
2.420240000 GHz
1 PK MAXH
B
LVL
3DB AC
F1
F2
Center 2.412 GHz
2 MHz/
Span 20 MHz

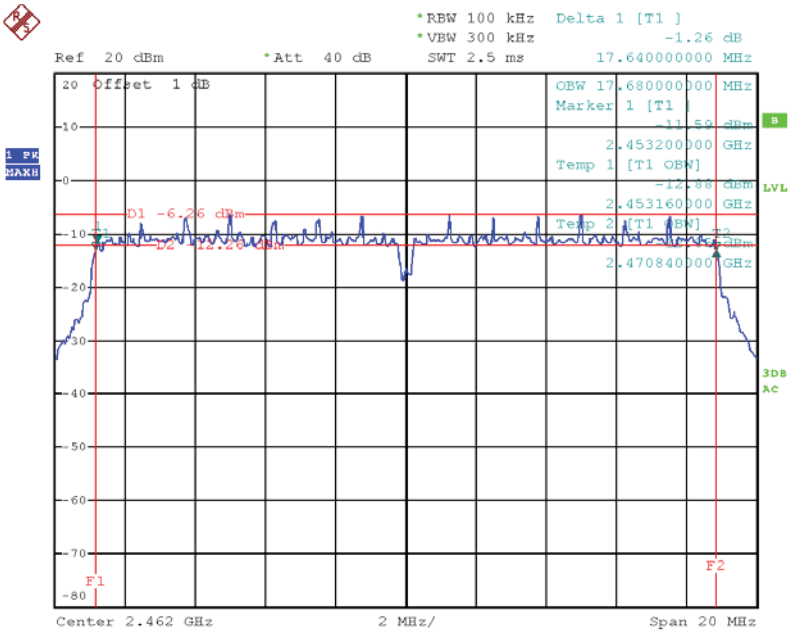

*RBW 100 kHz
*VBW 300 kHz
Ref 20 dBm
*Att 40 dB
SWT 2.5 ms
Delta 1 [T1]
-0.56 dB
16.520000000 MHz
20 Offset 1 dB
OBW 16.480000000 MHz
Marker 1 [T1]
2.428760000 GHz
Temp 1 [T1 OBW]
2.428760000 GHz
D1 -6.2 dBm
D2 12.2 dBm
2.445240000 GHz
1 PK MAXH
B
LVL
3DB AC
F1
F2
Center 2.437 GHz
2 MHz/
Span 20 MHz


*RBW 100 kHz
*VBW 300 kHz
SWT 2.5 ms
Delta 1 [T1]
0.82 dB
16.480000000 MHz
Ref 20 dBm
*Att 40 dB
20 Offset 1 dB
OBW 16.480000000 MHz
Marker 1 [T1]
2.453760000 GHz
Temp 1 [T1 OBW]
2.453760000 GHz
2.470240000 GHz
D1 -6.23 dBm
D2 12.25 dBm
F1
F2
Center 2.462 GHz
2 MHz/
Span 20 MHz

802.11 n20


*RBW 100 kHz
*VBW 300 kHz
SWT 2.5 ms
Delta 1 [T1]
-1.11 dB
17.640000000 MHz
Ref 20 dBm
*Att 40 dB
20 Offset 1 dB
OBW 17.720000000 MHz
Marker 1 [T1]
2.403200000 GHz
Temp 1 [T1 OBW]
2.403160000 GHz
2.420880000 GHz
D1 -6.43 dBm
D2 12.45 dBm
F1
F2
Center 2.412 GHz
2 MHz/
Span 20 MHz


RBW 100 kHz
VBW 300 kHz
SWT 2.5 ms
Delta 1 [T1]
0.04 dB
17.680000000 MHz
Ref 20 dBm
Att 40 dB
20 Offset 1 dB
OBW 17.680000000 MHz
Marker 1 [T1]
-13.05 dBm
2.428160000 GHz
Temp 1 [T1 OBW]
-13.05 dBm
2.428160000 GHz
Temp 2 [T1 OBW]
2.445840000 GHz
D1 -6.23 dBm
1 PK MAXH
B
LVL
3DB AC
F1
F2
Center 2.437 GHz
2 MHz/
Span 20 MHz

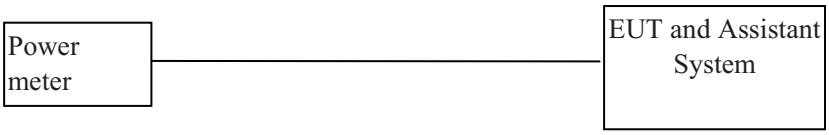

RBW 100 kHz
VBW 300 kHz
SWT 2.5 ms
Delta 1 [T1]
-1.26 dB
17.640000000 MHz
Ref 20 dBm
Att 40 dB
20 Offset 1 dB
OBW 17.680000000 MHz
Marker 1 [T1]
-11.59 dBm
2.453200000 GHz
Temp 1 [T1 OBW]
-12.88 dBm
2.453160000 GHz
Temp 2 [T1 OBW]
2.470840000 GHz
D1 -6.26 dBm
1 PK MAXH
B
LVL
3DB AC
F1
F2
Center 2.462 GHz
2 MHz/
Span 20 MHz

4. Maximum Peak Output Power

4.1 Test equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Next Cal.	Cal. Interval
1	Power meter	Agilent	E4417A	MY45100473	2015/12/26	1Y
2	Wireband Power sensor	Agilent	E4427A	MY5100041	2015/12/26	1Y

4.2 Block diagram of test setup



4.3 Limits

For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz bands: 1 Watt. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi..

4.4 Test Procedure

1. Place the EUT on a bench and set it in transmitting mode. .
2. A wide band power meter with a matched thermocouple detector was used to directly measure the output power from the RF output port of the EUT in continuously transmitting mode.
3. The measurement shall be repeated at the lowest, the middle, and the highest channel of the stated frequency range.

4.5 Test Result

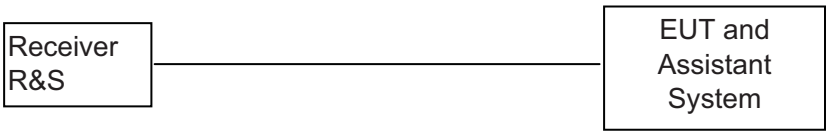
EUT Set Mode	Limit	Conclusion	CH	Result(dBm)
				Peak
11b	30dBm	PASS	CH1	14.26
			CH6	14.04
			CH11	14.35
11g	30dBm	PASS	CH1	13.73
			CH6	13.11
			CH11	13.4
11n HT20	30dBm	PASS	CH1	13.18
			CH6	12.94
			CH11	12.89

5. Power Spectral Density

5.1 Test equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Next Cal.	Cal. Interval
1	EMI Test Receiver	R&S	ESCI	101307	2015/12/26	1Y

5.2 Block diagram of test setup



5.3 Limits

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

5.4 Test Procedure

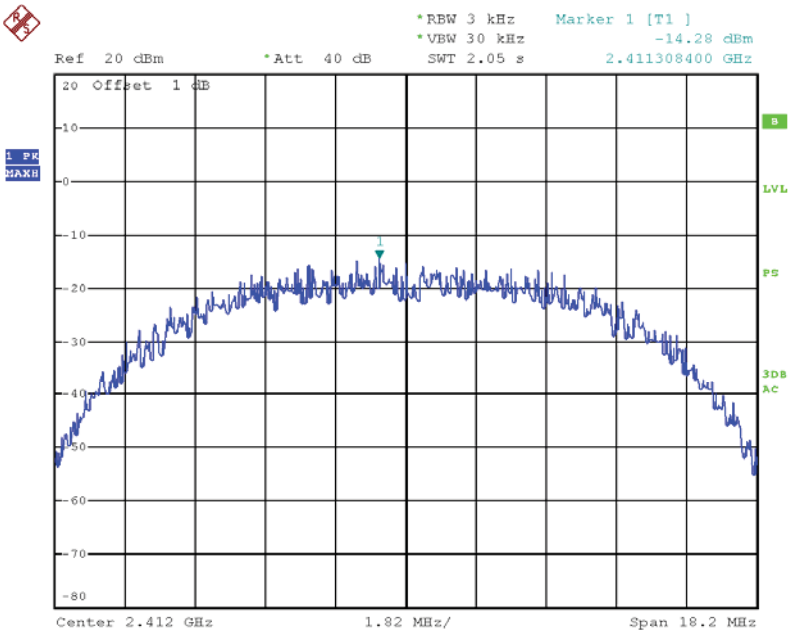
1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generatorl.
2. Position the EUT was set without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range
3. According to KDB 558074 D01 DTS Meas Guidance v03, set the RBW = 3 kHz, VBW = 30 kHz, Set the span to 1.5 times the DTS channel bandwidth.
4. Use the peak marker function to determine the maximum power level in any 3 kHz band segment within the fundamental EBW

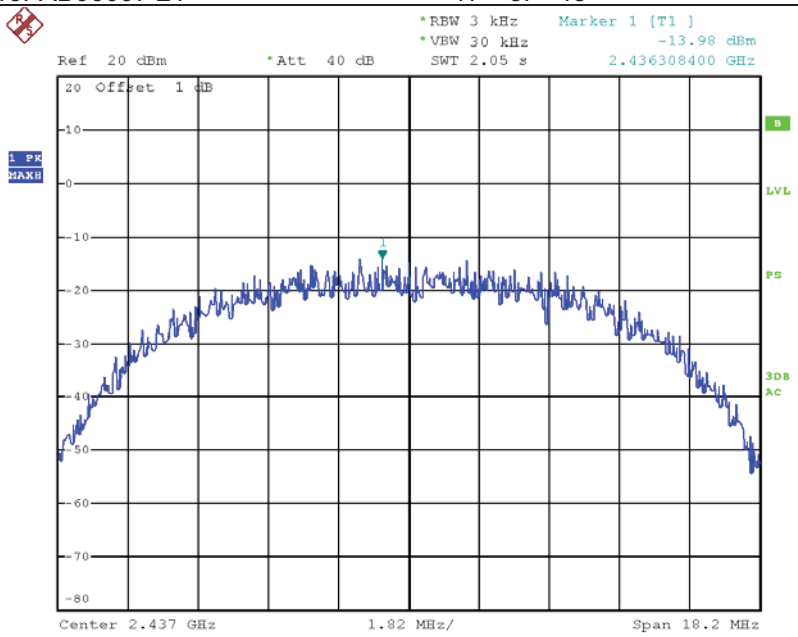
5.5 Test Result

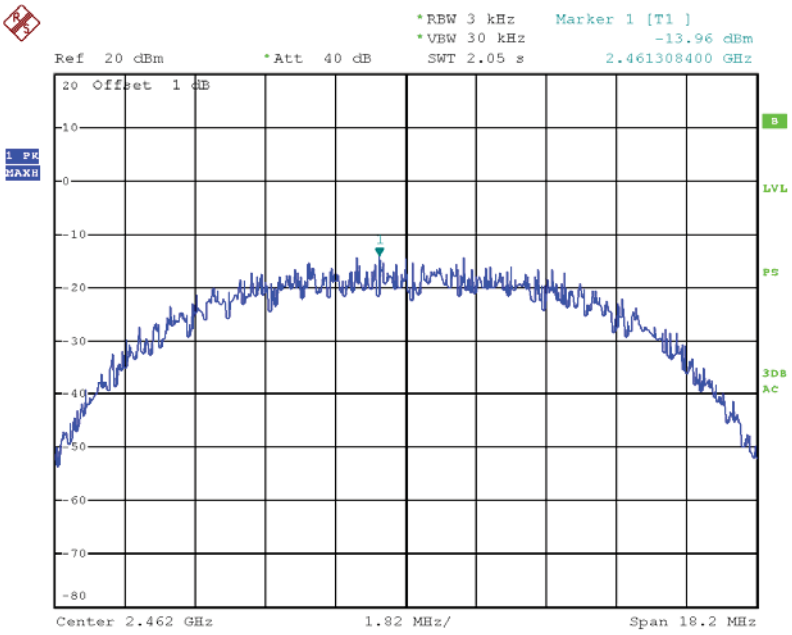
EUT Set Mode	CH or Frequency	Result	Limit: <dBm/3KHz	Conclusion
11b	CH1	-14.28	8	PASS
	CH6	-13.98	8	PASS
	CH11	-13.96	8	PASS
11g	CH1	-22.25	8	PASS
	CH6	-21.94	8	PASS
	CH11	-22.61	8	PASS
11n HT 20	CH1	-21.98	8	PASS
	CH6	-22.14	8	PASS
	CH11	-22.95	8	PASS

5.6 Original test data

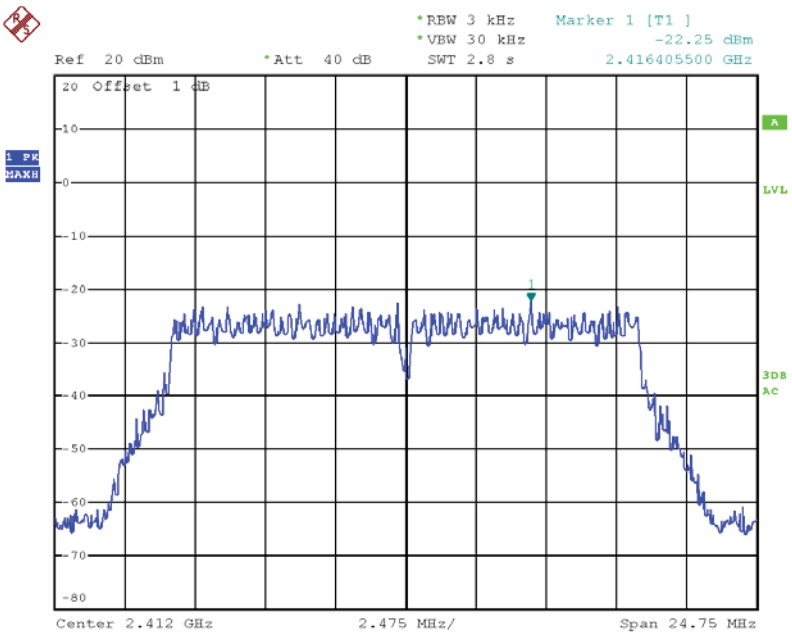
802.11 b Mode

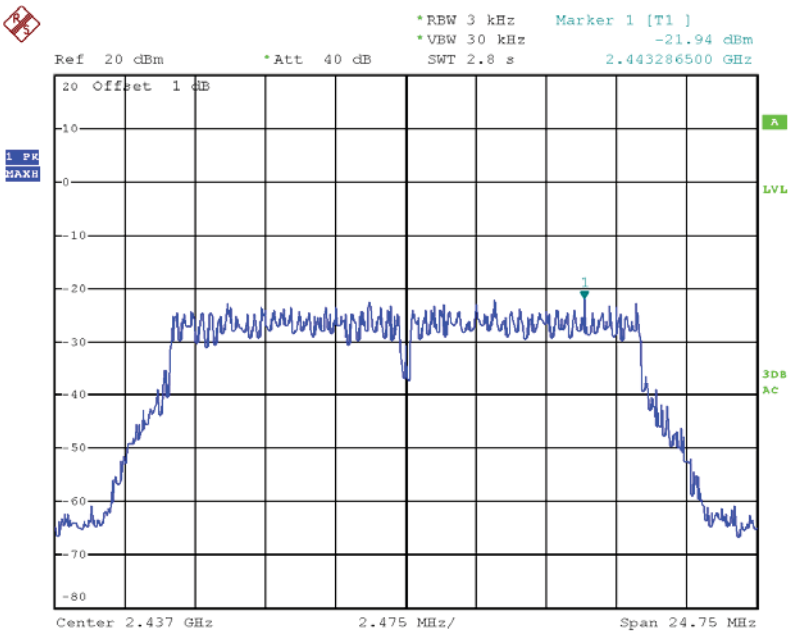


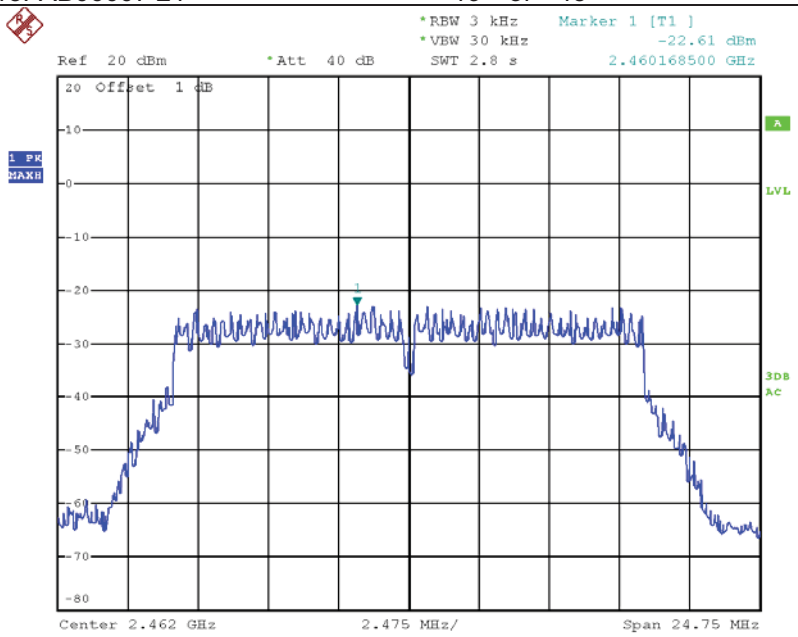

RBW 3 kHz
VBW 30 kHz
SWT 2.05 s
Marker 1 [T1]
-13.98 dBm
2.436308400 GHz
Ref 20 dBm
Att 40 dB
Offset 1 dB
1 PK MAXH
B
LVL
PS
3DB AC
Center 2.437 GHz
1.82 MHz/
Span 18.2 MHz


RBW 3 kHz
VBW 30 kHz
SWT 2.05 s
Marker 1 [T1]
-13.96 dBm
2.461308400 GHz
Ref 20 dBm
Att 40 dB
Offset 1 dB
1 PK MAXH
B
LVL
PS
3DB AC
Center 2.462 GHz
1.82 MHz/
Span 18.2 MHz

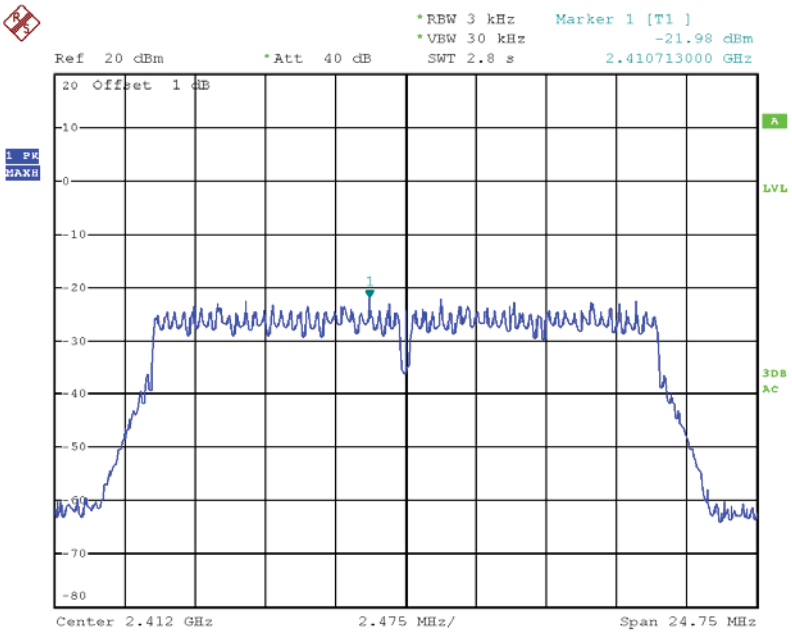
802.11 g Mode

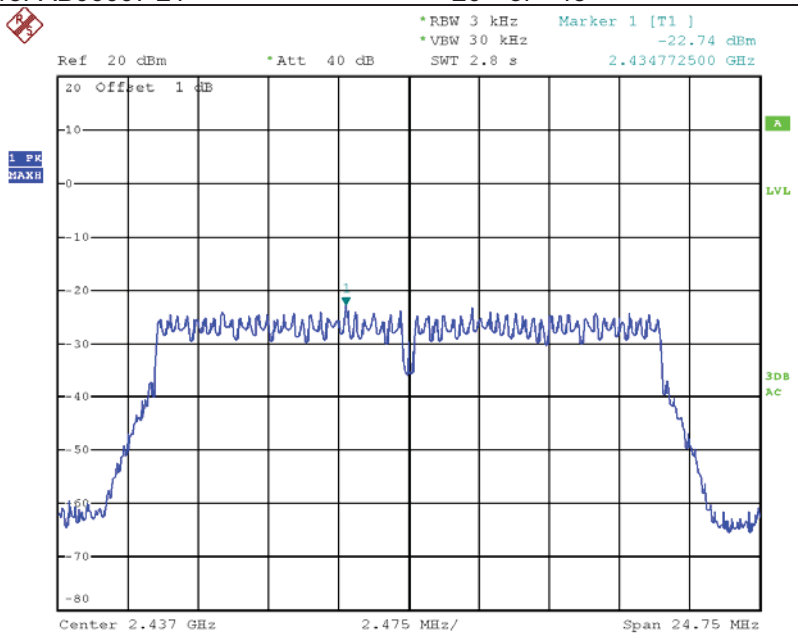

*RBW 3 kHz
*VBW 30 kHz
SWT 2.8 s
Marker 1 [T1]
-22.25 dBm
2.416405500 GHz
Ref 20 dBm
*Att 40 dB
20 Offset 1 dB
1 PK MAXH
A
LVL
3DB AC
Center 2.412 GHz
2.475 MHz/
Span 24.75 MHz

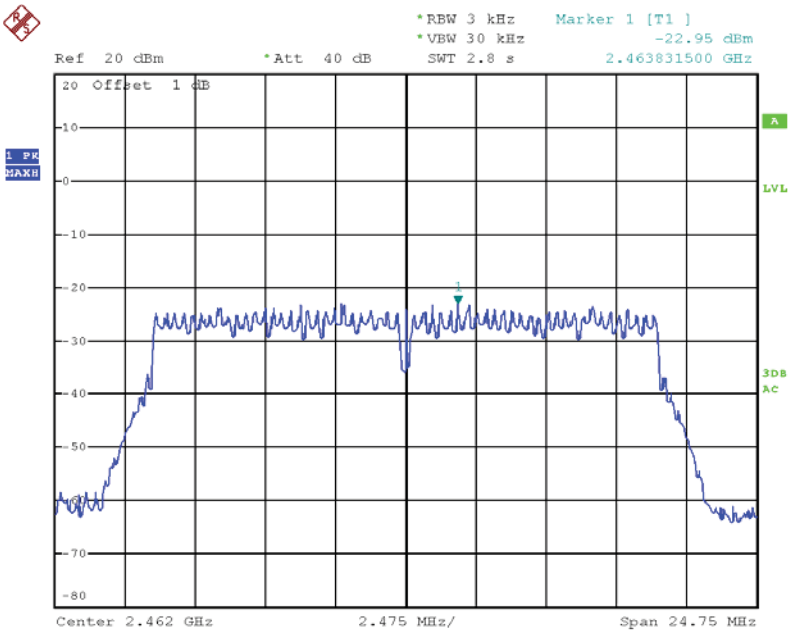

*RBW 3 kHz
*VBW 30 kHz
SWT 2.8 s
Marker 1 [T1]
-21.94 dBm
2.443286500 GHz
Ref 20 dBm
*Att 40 dB
20 Offset 1 dB
1 PK MAXH
A
LVL
3DB AC
Center 2.437 GHz
2.475 MHz/
Span 24.75 MHz



802.11 n20 Mode




RBW 3 kHz
VBW 30 kHz
SWT 2.8 s
Marker 1 [T1]
-22.74 dBm
2.434772500 GHz
Ref 20 dBm
Att 40 dB
Offset 1 dB
1 PK MAXH
A
LVL
3DB AC
Center 2.437 GHz
2.475 MHz/
Span 24.75 MHz


RBW 3 kHz
VBW 30 kHz
SWT 2.8 s
Marker 1 [T1]
-22.95 dBm
2.463831500 GHz
Ref 20 dBm
Att 40 dB
Offset 1 dB
1 PK MAXH
A
LVL
3DB AC
Center 2.462 GHz
2.475 MHz/
Span 24.75 MHz

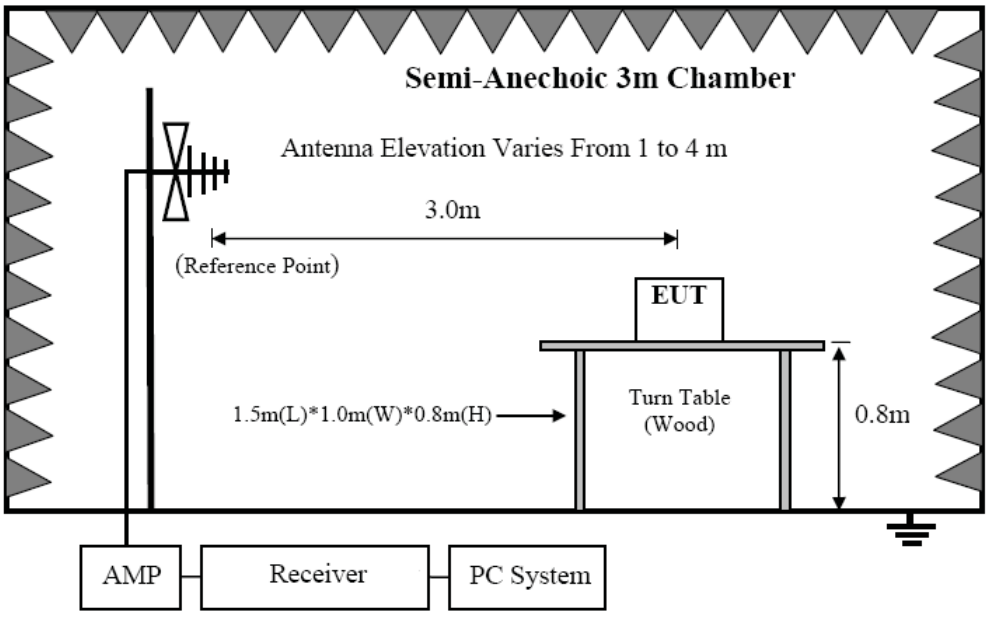
6. Spurious Emissions

6.1 Test equipment

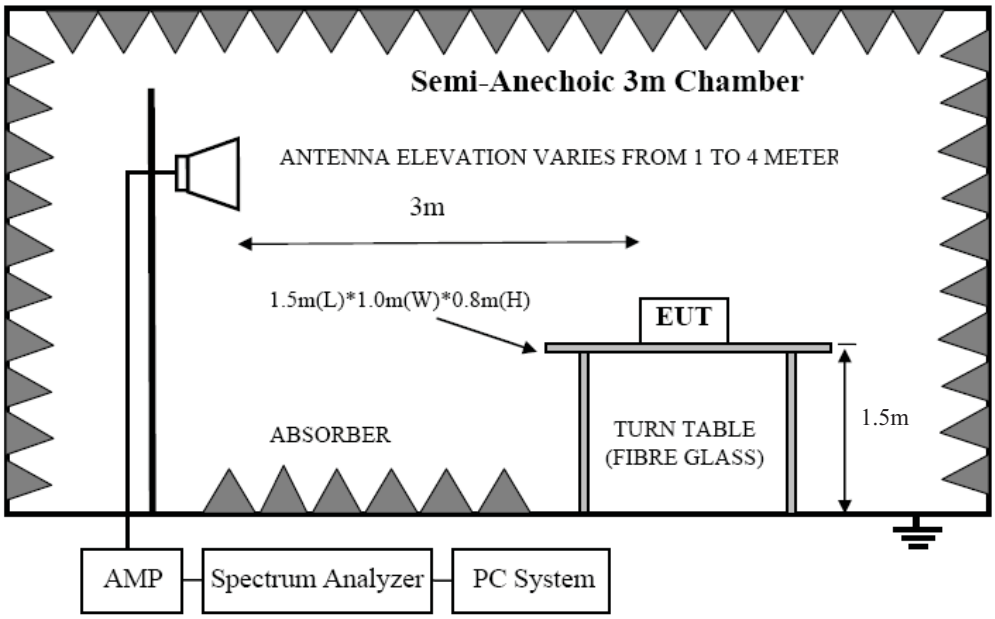
Item	Equipment	Manufacturer	Model No.	Serial No.	Next Cal.	Cal. Interval
1	EMI Test Receiver	R&S	ESCI	101307	2015/12/26	1Y
2	Spectrum analyzer	Agilent	E4407B	US40240708	2015/12/26	1Y
3	Loop antenna	Chase	HLA6120	20129	2015/12/26	1Y
4	Trilog Broadband Antenna	Schwarzbeck	VULB9163	9163-462	2015/12/26	1Y
5	Double Ridged Horn Antenna	R&S	HF907	100276	2015/12/26	1Y
6	Pre-Amplifier	R&S	SCU-01	10049	2015/12/26	1Y
7	Pre-amplifier	A.H.	PAM0-0118	360	2015/12/26	1Y
8	RF Cable	R&S	R01	10403	2015/12/26	1Y
9	RF Cable	R&S	R02	10512	2015/12/26	1Y
10	Horn Antenna	EMCO	3116	9608-4877	2015/12/26	1Y

6.2 Block diagram of test setup

In 3m Anechoic Chamber Test Setup Diagram for below 1GHz



In 3m Anechoic Chamber Test Setup Diagram for frequency above 1GHz



Note: For harmonic emissions test a appropriate high pass filter was inserted in the input port of AMP.

6.3 Limit

6.3.1 FCC 15.205 Restricted frequency band

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
[1]0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	([2])

6.3.2 FCC 15.209 Limit

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		μV/m	dB(μV)/m
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000	3	74.0 dB(μV)/m (Peak) 54.0 dB(μV)/m (Average)	

6.3.3 Limit for this EUT

The radiated emission tests were performed in the 3 meters test site, using the setup accordance with the ANSI C63.4-2014 The specification used was the FCC 15.209, and FCC 15.247 limits.

6.4 Test Procedure

(1) EUT was placed on a non-metallic table, 80 cm for below 1GHz and 1.5m for above 1GHz above the ground plane inside a semi-anechoic chamber.

(2) Setup EUT and assistant system according clause 2.4 and 8.2

(3) Test antenna was located 3m from the EUT on an adjustable mast. Below pre-scan procedure was first performed in order to find prominent radiated emissions.

(a) Change work frequency or channel of device if practicable.

(b) Change modulation type of device if practicable.

(c) Change power supply range from 85% to 115% of the rated supply voltage

(d) Rotated EUT though three orthogonal axes to determine the attitude of EUT arrangement produces highest emissions

(4) Spectrum frequency from 9MHz to 25GHz (tenth harmonic of fundamental frequency) was investigated, and no any obvious emission were detected from 9KHz to 30MHz and 18GHz to 25GHz, so below final test was performed with frequency range from 30MHz to 18GHz.

(5) For final emissions measurements at each frequency of interest, the EUT were rotated and the antenna height was varied between 1m and 4m in order to maximize the emission. Measurements in both horizontal and vertical polarities were made and the data was recorded. In order to find the maximum emission, the relative positions of equipments and all of the interface cables were changed according to ANSI C63.10 2009 on Radiated Emission test.

(6) For emissions from 30MHz to 1GHz, Quasi-Peak values were measured with EMI Receiver and the bandwidth of Receiver is 120 KHz.

(7)For emissions above 1GHz, both Peak and Average level were measured with Spectrum Analyzer, and the RBW is set at 1MHz, VBW is set at 3MHz for Peak measure, Detector is at PK; RBW is set at 1MHz, VBW is set at 3MHz for Average measure, Detector is at RMS..

6.5 Test result

PASS. (See below detailed test result)

According to the recorded data in following table, the EUT complied with the FCC Title 47, Part 15, Subpart C, and section 15.205, 15.209 and 15.247, Vertical and Horizontal mode all have been tested ，Horizontal mode is the worse case .with the worst margin reading of: 6.02 dB at 2483.5 MHz in the Horizontal polarization.

Radiated Emission Test Result

Test Site : 3m Chamber
Test Date : 2015-7-25 **Tested By** : week
EUT : Smart Outlet **Model Number** : GC-CS-SO
Power Supply : AC 120V/60Hz **Test Mode** : 802.11 b
Condition : Temp:24.5'C,Humi:55% **Antenna/Distance** : 3m

Frequency	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	FCC 15.247	
(MHz)	Reading (dBμV)	Detector (PK/QP/AV)	Polar (H/V)	Factor (dB)				Limit (dBμV/m)	Margin (dB)
Low Channel (2412)									
2390	28.63	PK	H	28.4	3.57	0	60.6	74	13.4
2390	15.47	AV	H	28.4	3.57	0	47.44	54	6.56
2390	27.58	PK	V	28.4	3.57	0	59.55	74	14.45
2390	14.57	AV	V	28.4	3.57	0	46.54	54	7.46
4824	44.32	PK	H	32.3	5.91	31.78	50.75	74	23.25
4824	28.96	AV	H	32.3	5.91	31.78	35.39	54	18.61
4824	42.84	PK	V	32.3	5.91	31.78	49.27	74	24.73
4824	26.48	AV	V	32.3	5.91	31.78	32.91	54	21.09
7236	43.51	PK	H	36.3	6.34	30.97	55.18	74	18.82
7236	27.66	AV	H	36.3	6.34	30.97	39.33	54	14.67
7236	4.67	PK	V	36.3	6.34	30.97	56.34	74	17.66
7236	25.87	AV	V	36.3	6.34	30.97	37.54	54	16.46
9648	44.11	PK	H	37.9	8.01	30.86	59.16	74	14.84
9648	27.08	AV	H	37.9	8.01	30.86	42.13	54	11.87
9648	39.91	PK	V	37.9	8.01	30.86	54.96	74	19.04
9648	24.86	AV	V	37.9	8.01	30.86	39.91	54	14.09
457.32	38.64	QP	H	12.8	2.63	27.2	26.87	46	19.13
457.25	36.87	QP	V	12.8	2.63	27.2	25.1	46	20.9
Middle Channel (2437)									
4874	43.65	PK	H	32.6	6.15	31.78	50.62	74	23.38
4874	29.14	AV	H	32.6	6.15	31.78	36.11	54	17.89
4874	42.84	PK	V	32.6	6.15	31.78	49.81	74	24.19
4874	28.95	AV	V	32.6	6.15	31.78	35.92	54	18.08

7311	44.25	PK	H	36.7	6.22	30.97	56.2	74	17.8
7311	29.88	AV	H	36.7	6.22	30.97	41.83	54	12.17
7311	43.56	PK	V	36.7	6.22	30.97	55.51	74	18.49
7311	29.21	AV	V	36.7	6.22	30.97	41.16	54	12.84
9748	43.02	PK	H	38.2	8.11	30.86	58.47	74	15.53
9748	28.14	AV	H	38.2	8.11	30.86	43.59	54	10.41
9748	43.19	PK	V	38.2	8.11	30.86	58.64	74	15.36
9748	28.75	AV	V	38.2	8.11	30.86	44.2	54	9.8
455.83	38.96	QP	H	12.8	2.63	27.2	27.19	46	18.81
456.04	37.58	QP	V	12.8	2.63	27.2	25.81	46	20.19
High Channel (2462)									
2483.5	30.63	PK	H	28.7	3.62	0	62.95	74	11.05
2483.5	17.04	AV	H	28.7	3.62	0	49.36	54	4.64
2483.5	28.54	PK	V	28.7	3.62	0	60.86	74	13.14
2483.5	16.87	AV	V	28.7	3.62	0	49.19	54	4.81
4924	43.52	PK	H	32.8	6.17	31.78	50.71	74	23.29
4924	30.12	AV	H	32.8	6.17	31.78	37.31	54	16.69
4924	41.67	PK	V	32.8	6.17	31.78	48.86	74	25.14
4924	30.24	AV	V	32.8	6.17	31.78	37.43	54	16.57
7386	42.35	PK	H	36.8	6.26	30.97	54.44	74	19.56
7386	29.61	AV	H	36.8	6.26	30.97	41.7	54	12.3
7386	41.89	PK	V	36.8	6.26	30.97	53.98	74	20.02
7386	29.34	AV	V	36.8	6.26	30.97	41.43	54	12.57
9848	40.15	PK	H	38.4	8.17	30.86	55.86	74	18.14
9848	28.33	AV	H	38.4	8.17	30.86	44.04	54	9.96
9848	39.86	PK	V	38.4	8.17	30.86	55.57	74	18.43
9848	28.67	AV	V	38.4	8.17	30.86	44.38	54	9.62
456.58	37.54	QP	H	12.8	2.63	27.2	25.77	46	20.03
456.43	38.47	QP	V	12.8	2.63	27.2	26.7	46	19.3

Test Site : 3m Chamber
Test Date : 2015-7-25 **Tested By** : Week
EUT : Smart Outlet **Model Number** : GC-CS-SO
Power Supply : AC120V/60 **Test Mode** : 802.11 g
Condition : Temp:24.5'C,Humi:55% **Antenna/Distance** : 3m

Frequency	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	FCC 15.247	
(MHz)	Reading (dBμV)	Detector (PK/QP/AV)	Polar (H/V)	Factor (dB)				Limit (dBμV/m)	Margin (dB)
Low Channel (2412)									
2390	29.1	PK	H	28.4	3.57	0	61.07	74	12.93
2390	15.92	AV	H	28.4	3.57	0	47.89	54	6.11
2390	27.91	PK	V	28.4	3.57	0	59.55	74	14.45
2390	15.02	AV	V	28.4	3.57	0	46.54	54	7.46
4824	44.85	PK	H	32.3	5.91	31.78	51.28	74	22.72
4824	28.74	AV	H	32.3	5.91	31.78	35.17	54	18.83
4824	43.25	PK	V	32.3	5.91	31.78	49.27	74	24.73
4824	26.97	AV	V	32.3	5.91	31.78	32.91	54	21.09
7236	43.84	PK	H	36.3	6.34	30.97	55.51	74	18.49
7236	28.14	AV	H	36.3	6.34	30.97	39.81	54	14.19
7236	44.53	PK	V	36.3	6.34	30.97	56.2	74	17.8
7236	26.37	AV	V	36.3	6.34	30.97	38.04	54	15.96
9648	44.65	PK	H	37.9	8.01	30.86	59.7	74	14.3
9648	27.54	AV	H	37.9	8.01	30.86	42.59	54	11.41
9648	39.15	PK	V	37.9	8.01	30.86	54.2	74	19.8
9648	25.34	AV	V	37.9	8.01	30.86	40.39	54	13.61
457.18	38.21	QP	H	12.8	2.63	27.2	26.44	46	19.56
457.33	37.23	QP	V	12.8	2.63	27.2	25.46	46	20.54
Middle Channel (2437)									
4874	43.87	PK	H	32.6	6.15	31.78	50.84	74	23.16
4874	29.75	AV	H	32.6	6.15	31.78	36.72	54	17.28
4874	42.35	PK	V	32.6	6.15	31.78	49.32	74	24.68
4874	29.42	AV	V	32.6	6.15	31.78	36.39	54	17.61
7311	44.37	PK	H	36.7	6.22	30.97	56.32	74	17.68
7311	30.35	AV	H	36.7	6.22	30.97	42.3	54	11.7

7311	44.35	PK	V	36.7	6.22	30.97	56.3	74	17.7
7311	29.69	AV	V	36.7	6.22	30.97	41.64	54	12.36
9748	43.87	PK	H	38.2	8.11	30.86	59.32	74	14.68
9748	28.67	AV	H	38.2	8.11	30.86	44.12	54	9.88
9748	43.87	PK	V	38.2	8.11	30.86	59.32	74	14.68
9748	28.81	AV	V	38.2	8.11	30.86	44.26	54	9.74
458.31	39.51	QP	H	12.8	2.63	27.2	27.74	46	18.26
455.26	38.47	QP	V	12.8	2.63	27.2	26.7	46	19.3
High Channel (2462)									
2483.5	30.57	PK	H	28.7	3.62	0	62.89	74	11.11
2483.5	17.58	AV	H	28.7	3.62	0	49.9	54	4.1
2483.5	28.64	PK	V	28.7	3.62	0	60.96	74	13.04
2483.5	17.24	AV	V	28.7	3.62	0	49.56	54	4.44
4924	45.14	PK	H	32.8	6.17	31.78	52.33	74	21.67
4924	31.24	AV	H	32.8	6.17	31.78	38.43	54	15.57
4924	41.57	PK	V	32.8	6.17	31.78	48.76	74	25.24
4924	30.86	AV	V	32.8	6.17	31.78	38.05	54	15.95
7386	42.78	PK	H	36.8	6.26	30.97	54.87	74	19.13
7386	30.24	AV	H	36.8	6.26	30.97	42.33	54	11.67
7386	42.54	PK	V	36.8	6.26	30.97	54.63	74	19.37
7386	29.82	AV	V	36.8	6.26	30.97	41.91	54	12.09
9848	40.72	PK	H	38.4	8.17	30.86	56.43	74	17.57
9848	29.34	AV	H	38.4	8.17	30.86	45.05	54	8.95
9848	39.75	PK	V	38.4	8.17	30.86	55.46	74	18.54
9848	28.16	AV	V	38.4	8.17	30.86	43.87	54	10.13
456.88	37.18	QP	H	12.8	2.63	27.2	25.41	46	20.59
456.65	39.26	QP	V	12.8	2.63	27.2	27.49	46	18.51

Test Site : 3m Chamber

Test Date : 2015-7-25 **Tested By** : Week

EUT : Smart Outlet **Model Number** : GC-CS-SO

Power Supply : AC 120V/60Hz **Test Mode** : 802.11 n20

Condition : Temp:24.5'C,Humi:55% **Antenna/Distance** : 3m

Frequency	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	FCC 15.247	
(MHz)	Reading (dBμV)	Detector (PK/QP/AV)	Polar (H/V)	Factor (dB)				Limit (dBμV/m)	Margin (dB)
Low Channel (2412)									
2390	30.42	PK	H	28.4	3.57	0	62.39	74	11.61
2390	16.38	AV	H	28.4	3.57	0	48.35	54	5.65
2390	28.34	PK	V	28.4	3.57	0	59.55	74	14.45
2390	15.84	AV	V	28.4	3.57	0	46.54	54	7.46
4824	45.27	PK	H	32.3	5.91	31.78	51.7	74	22.3
4824	28.35	AV	H	32.3	5.91	31.78	34.78	54	19.22
4824	43.67	PK	V	32.3	5.91	31.78	49.27	74	24.73
4824	26.51	AV	V	32.3	5.91	31.78	32.91	54	21.09
7236	.25	PK	H	36.3	6.34	30.97	54.92	74	19.08
7236	28.99	AV	H	36.3	6.34	30.97	40.66	54	13.34
7236	43.12	PK	V	36.3	6.34	30.97	54.79	74	19.21
7236	26.37	AV	V	36.3	6.34	30.97	38.04	54	15.96
9648	44.57	PK	H	37.9	8.01	30.86	59.62	74	14.38
9648	27.31	AV	H	37.9	8.01	30.86	42.36	54	11.64
9648	39.5	PK	V	37.9	8.01	30.86	54.55	74	19.45
9648	25.81	AV	V	37.9	8.01	30.86	40.86	54	13.14
458.43	38.6	QP	H	12.8	2.63	27.2	26.83	46	19.17
458.25	37.84	QP	V	12.8	2.63	27.2	26.07	46	19.93
Middle Channel (2437)									
4874	43.19	PK	H	32.6	6.15	31.78	50.16	74	23.84
4874	29.57	AV	H	32.6	6.15	31.78	36.54	54	17.46
4874	42.96	PK	V	32.6	6.15	31.78	49.93	74	24.07
4874	30.01	AV	V	32.6	6.15	31.78	36.98	54	17.02
7311	44.84	PK	H	36.7	6.22	30.97	56.79	74	17.21
7311	30.84	AV	H	36.7	6.22	30.97	42.79	54	11.21

7311	44.76	PK	V	36.7	6.22	30.97	56.71	74	17.29
7311	30.21	AV	V	36.7	6.22	30.97	42.16	54	11.84
9748	44.15	PK	H	38.2	8.11	30.86	59.6	74	14.4
9748	29.16	AV	H	38.2	8.11	30.86	44.61	54	9.39
9748	44.02	PK	V	38.2	8.11	30.86	59.47	74	14.53
9748	28.36	AV	V	38.2	8.11	30.86	43.81	54	10.19
456.38	39.87	QP	H	12.8	2.63	27.2	28.1	46	17.9
455.62	38.76	QP	V	12.8	2.63	27.2	26.99	46	19.01
High Channel (2462)									
2483.5	30.87	PK	H	28.7	3.62	0	63.19	74	10.81
2483.5	17.43	AV	H	28.7	3.62	0	49.75	54	4.25
2483.5	28.41	PK	V	28.7	3.62	0	60.73	74	13.27
2483.5	17.88	AV	V	28.7	3.62	0	50.2	54	3.8
4924	44.67	PK	H	32.8	6.17	31.78	51.86	74	22.14
4924	31.57	AV	H	32.8	6.17	31.78	38.76	54	15.24
4924	43.98	PK	V	32.8	6.17	31.78	51.17	74	22.83
4924	31.27	AV	V	32.8	6.17	31.78	38.46	54	15.54
7386	42.33	PK	H	36.8	6.26	30.97	54.42	74	19.58
7386	30.63	AV	H	36.8	6.26	30.97	42.72	54	11.28
7386	42.66	PK	V	36.8	6.26	30.97	54.75	74	19.25
7386	30.17	AV	V	36.8	6.26	30.97	42.26	54	11.74
9848	40.24	PK	H	38.4	8.17	30.86	55.95	74	18.05
9848	29.86	AV	H	38.4	8.17	30.86	45.57	54	8.43
9848	40.31	PK	V	38.4	8.17	30.86	56.02	74	17.98
9848	28.75	AV	V	38.4	8.17	30.86	44.46	54	9.54
456.76	37.85	QP	H	12.8	2.63	27.2	26.08	46	19.92
458.31	39.24	QP	V	12.8	2.63	27.2	27.47	46	18.53

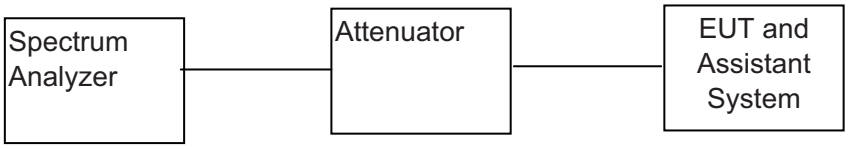
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor
2. If Peak Result comply with QP limit, QP Result is deemed to comply with QP limit

7. 100 kHz Bandwidth of Frequency Band Edge

7.1 Test equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Next Cal.	Cal. Interval
1	Spectrum analyzer	Agilent	E4407B	US40240708	2015/12/26	1Y
2	RF Cable	R&S	R02	10512	2015/12/26	1Y

7.2 Block diagram of test setup



7.3 Limit

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)).

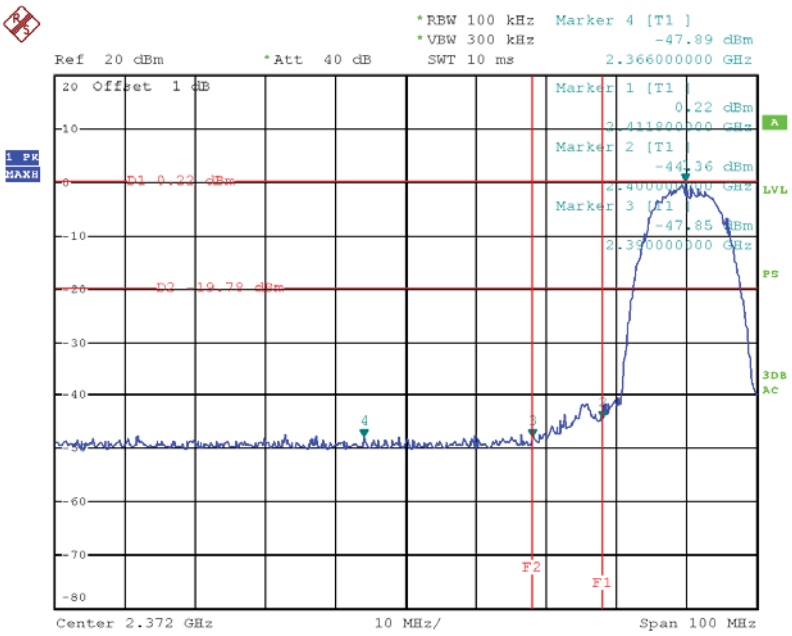
7.4 Test Procedure

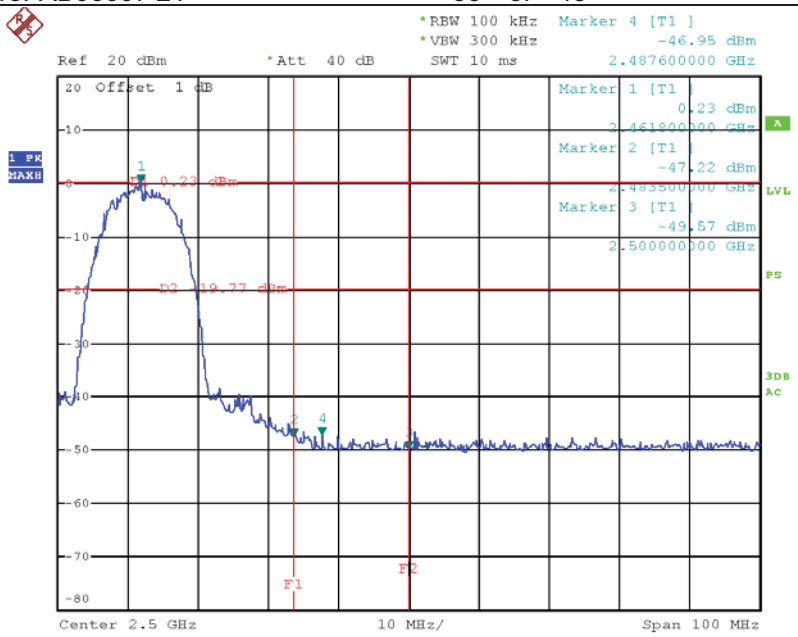
1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Remove the antenna from the EUT and then connect to a low loss RF cable from the antenna port to a EMI test receiver, then turn on the EUT and make it operate in transmitting 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 and VBW of spectrum analyzer to 100 kHz with a convenient frequency span including 100 kHz bandwidth from band edge.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete..

7.5 Test result

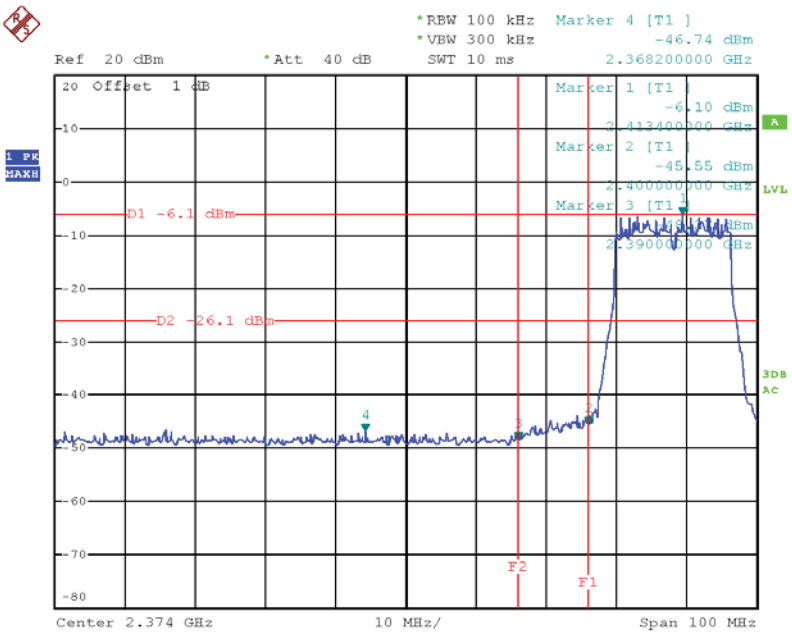
PASS. (hopping on and hopping off mode all have been tested ，hopping off mode is the worse case ,See below detailed test result)

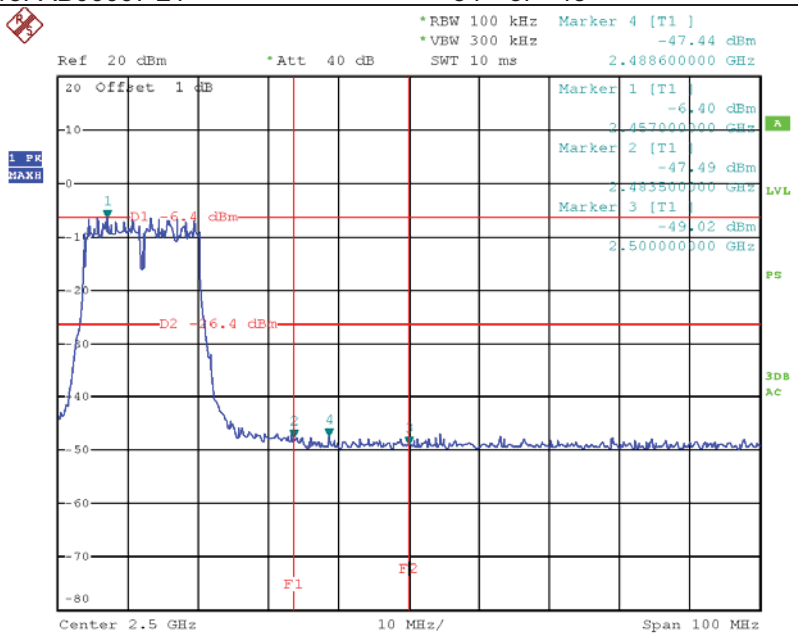
802.11 b Mode



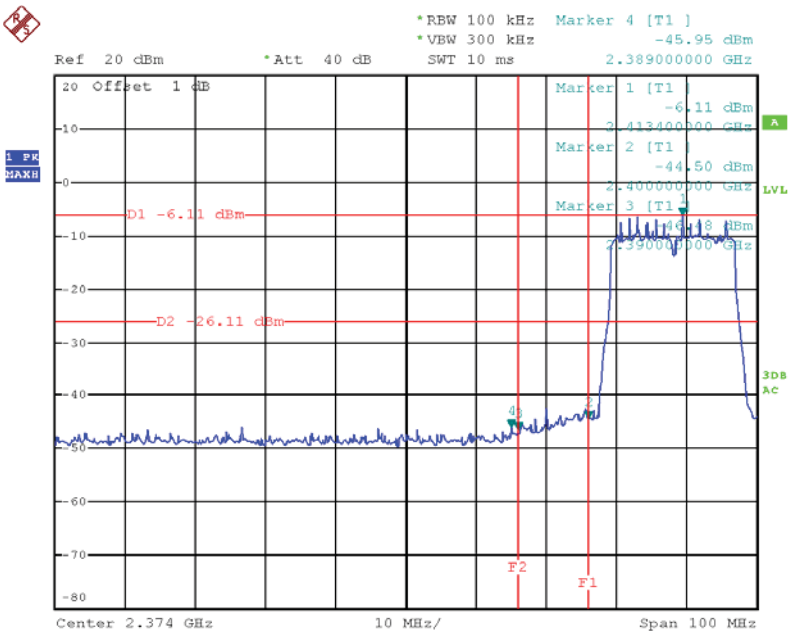

RBW 100 kHz
VBW 300 kHz
SWT 10 ms
Marker 4 [T1]
-46.95 dBm
2.487600000 GHz
Ref 20 dBm
Att 40 dB
Offset 1 dB
Marker 1 [T1]
0.23 dBm
Marker 2 [T1]
-47.22 dBm
Marker 3 [T1]
-49.57 dBm
2.500000000 GHz
D2 -19.77 dBm
F1
F2
Center 2.5 GHz
10 MHz/
Span 100 MHz

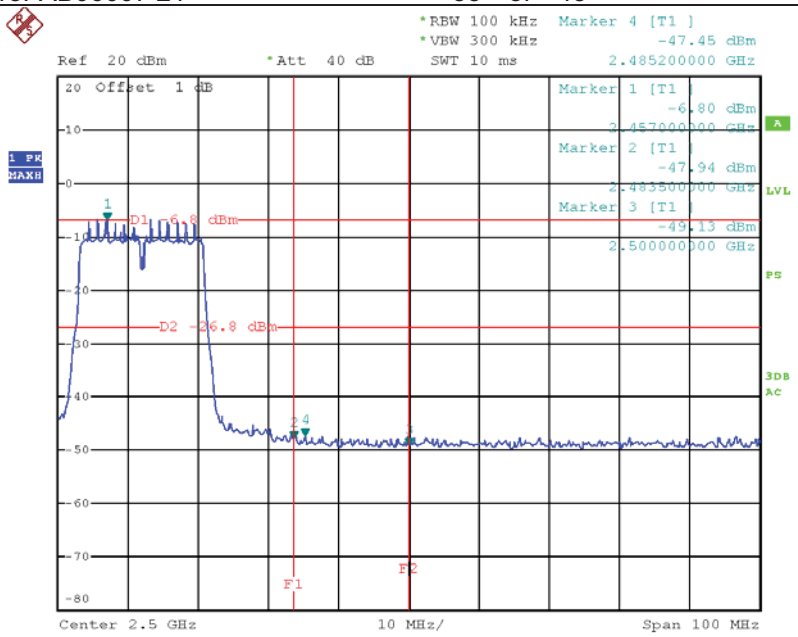
802.11 g Mode


RBW 100 kHz
VBW 300 kHz
SWT 10 ms
Marker 4 [T1]
-46.74 dBm
2.368200000 GHz
Ref 20 dBm
Att 40 dB
Offset 1 dB
Marker 1 [T1]
-6.10 dBm
Marker 2 [T1]
-45.55 dBm
Marker 3 [T1]
D1 -6.1 dBm
D2 -26.1 dBm
F1
F2
Center 2.374 GHz
10 MHz/
Span 100 MHz



802.11 n20 Mode



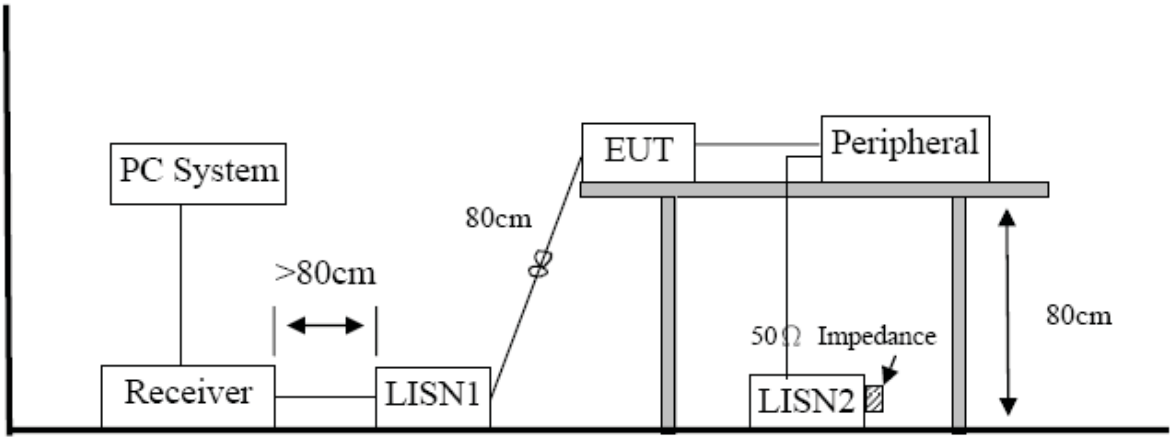

RBW 100 kHz
VBW 300 kHz
SWT 10 ms
Marker 4 [T1]
-47.45 dBm
2.485200000 GHz
Ref 20 dBm
Att 40 dB
Offset 1 dB
Marker 1 [T1]
-6.80 dBm
2.457000000 GHz
Marker 2 [T1]
-47.94 dBm
2.483500000 GHz
Marker 3 [T1]
-49.13 dBm
2.500000000 GHz
1 PK MAXH
D1 -6.8 dBm
D2 -26.8 dBm
F1
F2
LVL
PS
3DB
AC
Center 2.5 GHz
10 MHz/
Span 100 MHz

8. Power Line Conducted Emission

8.1 Test equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Next Cal.	Cal. Interval
1	Test Receiver	R&S	ESCI	101308	2015/12/26	1 Year
2	LISN 1	AFJ	LS16	16011103219	2015/12/26	1 Year
3	LISN 2	R&S	ESH2-Z5	100309	2015/12/26	1 Year
4	Pulse Limiter	MTS-systemtechnik	MTS-IMP-136	261115-010-0024	2015/12/26	1 Year

8.2 Block diagram of test setup



8.3 Power Line Conducted Emission Limits(Class B)

Frequency	Quasi-Peak Level dB(μV)	Average Level dB(μV)
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*
500kHz ~ 5MHz	56	46
5MHz ~ 30MHz	60	50

Note 1: * Decreasing linearly with logarithm of frequency.

Note 2: The lower limit shall apply at the transition frequencies.

8.4 Test Procedure

The EUT and Support equipment, if needed, were put placed on a non-metallic table, 80cm above the ground plane.

Configuration EUT to simulate typical usage as described in clause 2.4 and test equipment as described in clause 10.2 of this report.

All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.

All support equipment power received from a second LISN.

Emissions were measured on each current carrying line of the EUT using an EMI Test Receiver connected to the LISN powering the EUT.

The Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.

During the above scans, the emissions were maximized by cable manipulation.

The test mode(s) described in clause 2.4 were scanned during the preliminary test.

After the preliminary scan, we found the test mode producing the highest emission level.

The EUT configuration and worse cable configuration of the above highest emission levels were recorded for reference of the final test.

EUT and support equipment were set up on the test bench as per the configuration with highest emission level in the preliminary test.

A scan was taken on both power lines, Neutral and Line, recording at least the six highest emissions.

Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit.

The test data of the worst-case condition(s) was recorded.

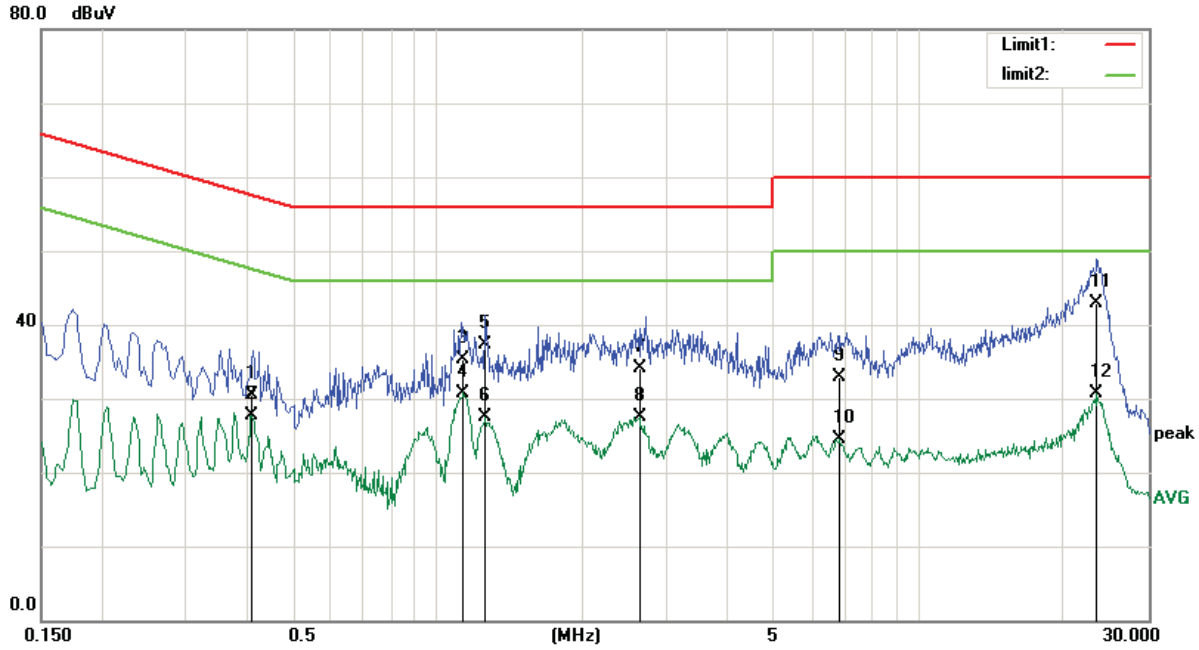
The bandwidth of test receiver is set at 9 KHz.

8.5 Test Result

pass. (See below detailed test result)

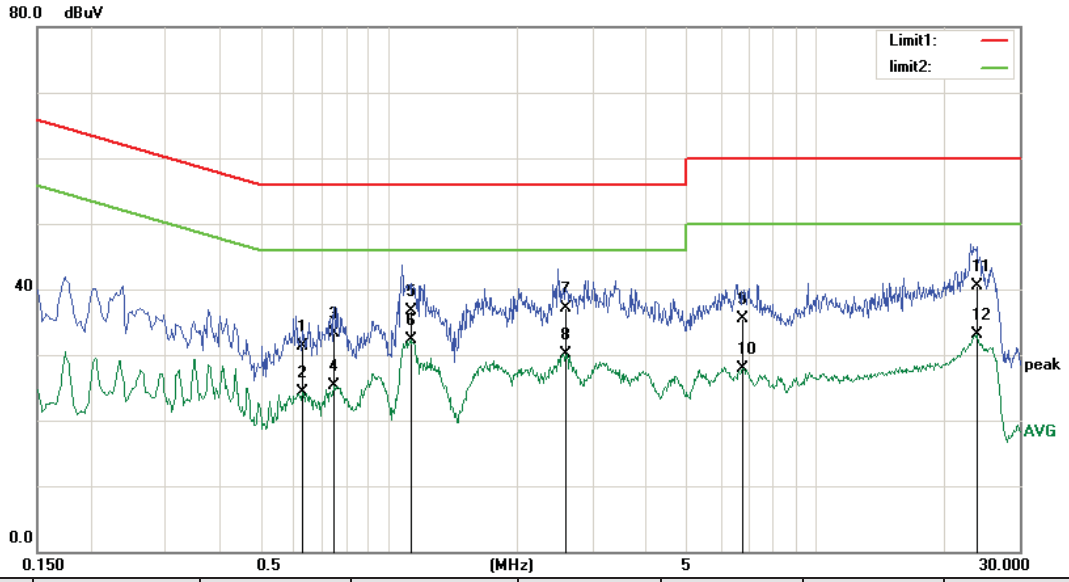
Note1: All emissions not reported below are too low against the prescribed limits.
Note2: "-----" means average detection; "-----" mans peak detection

EUT:	Smart Outlet	Model No.:	GC-CS-SO
Temperature:	24℃	Relative Humidity:	55%
Probe:	L1	Test Power:	AC 120V/60Hz
Standard:	FCC PART 15 class B_QP	Test Result:	Pass
Test Mode:	transmitting+charging	Test By:	Week



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.4099	20.28	10.30	30.58	57.65	-27.07	QP
2	0.4099	17.45	10.30	27.75	47.65	-19.90	AVG
3	1.1298	25.27	10.10	35.37	56.00	-20.63	QP
4	1.1298	20.70	10.10	30.80	46.00	-15.20	AVG
5	1.2579	27.16	10.10	37.26	56.00	-18.74	QP
6	1.2579	17.33	10.10	27.43	46.00	-18.57	AVG
7	2.6299	24.02	10.13	34.15	56.00	-21.85	QP
8	2.6299	17.36	10.13	27.49	46.00	-18.51	AVG
9	6.8699	22.80	10.12	32.92	60.00	-27.08	QP
10	6.8699	14.38	10.12	24.50	50.00	-25.50	AVG
11	23.4819	32.73	10.19	42.92	60.00	-17.08	QP
12	23.4819	20.46	10.19	30.65	50.00	-19.35	AVG

EUT:	Smart Outlet	Model No.:	GC-CS-SO
Temperature:	24℃	Relative Humidity:	55%
Probe:	N	Test Power:	AC 120V/60Hz
Standard:	FCC PART 15 class B_QP	Test Result:	Pass
Test Mode:	transmitting+charging	Test By:	Week



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Marn (dB)	Remark
1	0.6300	21.10	10.14	31.24	56.00	-24.76	QP
2	0.6300	14.20	10.14	24.34	46.00	-21.66	AVG
3	0.7459	23.26	10.11	33.37	56.00	-22.63	QP
4	0.7459	15.15	10.11	25.26	46.00	-20.74	AVG
5	1.1339	26.62	10.10	36.72	56.00	-19.28	QP
6	1.1339	22.23	10.10	32.33	46.00	-13.67	AVG
7	2.6218	26.99	10.13	37.12	56.00	-18.88	QP
8	2.6218	20.05	10.13	30.18	46.00	-15.82	AVG
9	6.7659	25.46	10.12	35.58	60.00	-24.42	QP
10	6.7659	17.75	10.12	27.87	50.00	-22.13	AVG
11	23.7698	30.37	10.19	40.56	60.00	-19.44	QP
12	23.7698	22.89	10.19	33.08	50.00	-16.92	AVG

9. Conducted Spurious Emissions

9.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Next Cal.	Cal. Interval
1	Spectrum analyzer	Agilent	E4407B	US40240708	2015/12/26	1Y
2	Attenuator	Mini-Circuits	BW-S10W2	101109	2015/12/26	1 Y
3	RF Cable	Micable	C10-01-01-1	100309	2015/12/26	1Y

9.2. Limit

In any 100kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator in 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.

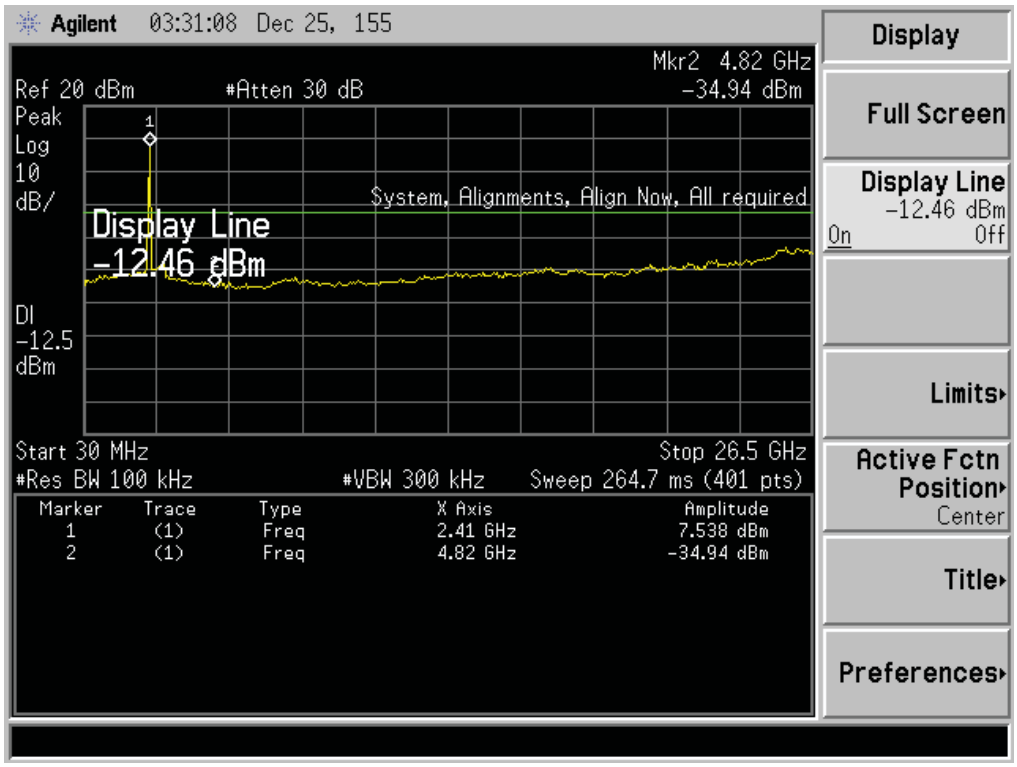
9.3. Test Procedure

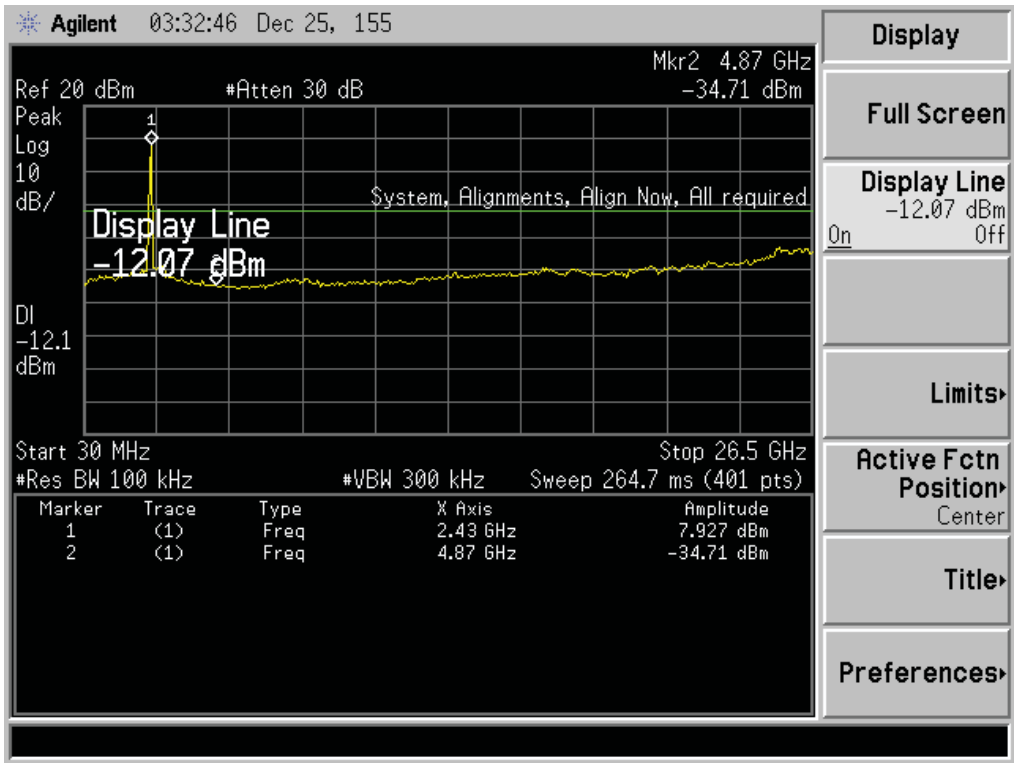
The transmitter output was connected to a spectrum analyzer, The resolution bandwidth is set to 100 kHz, The video bandwidth is set to 300 kHz and measure all the emissions detected.

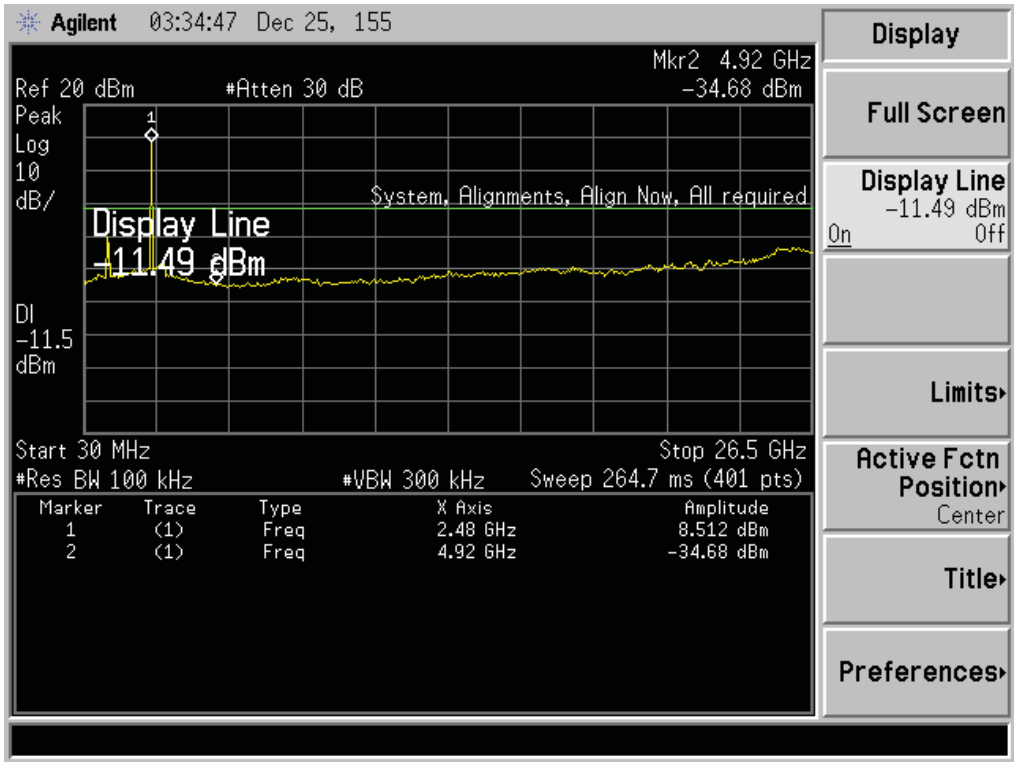
9.4. Test result

PASS (**See below detailed test result**.)

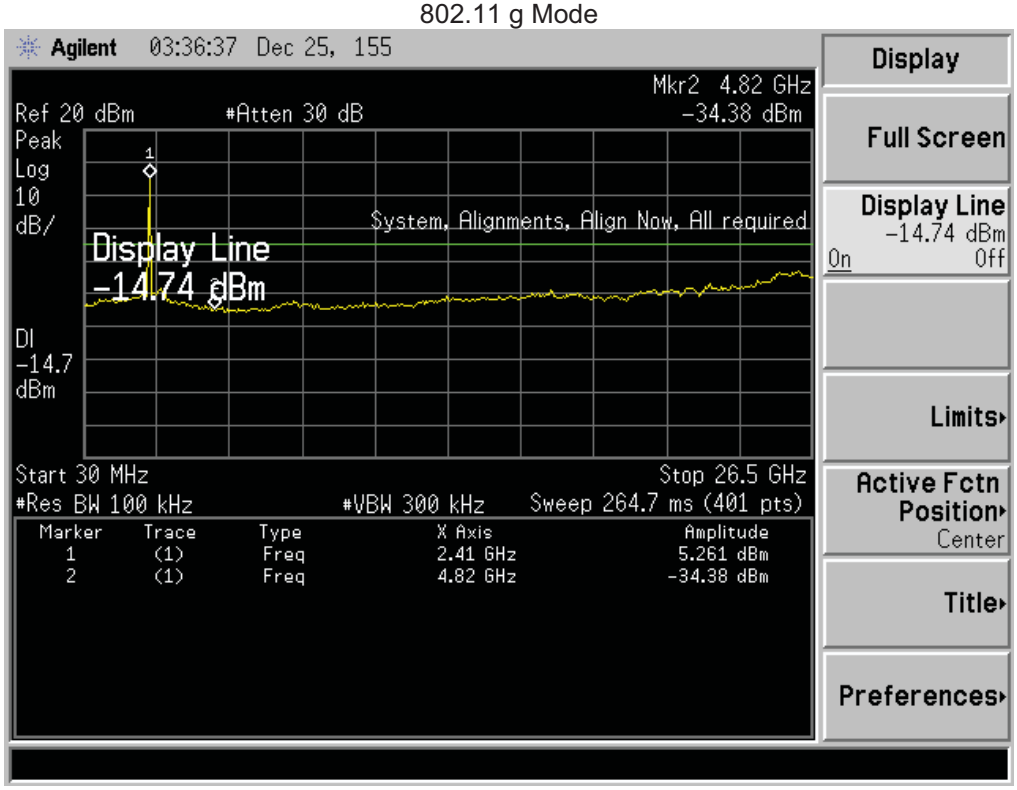
802.11 b Mode

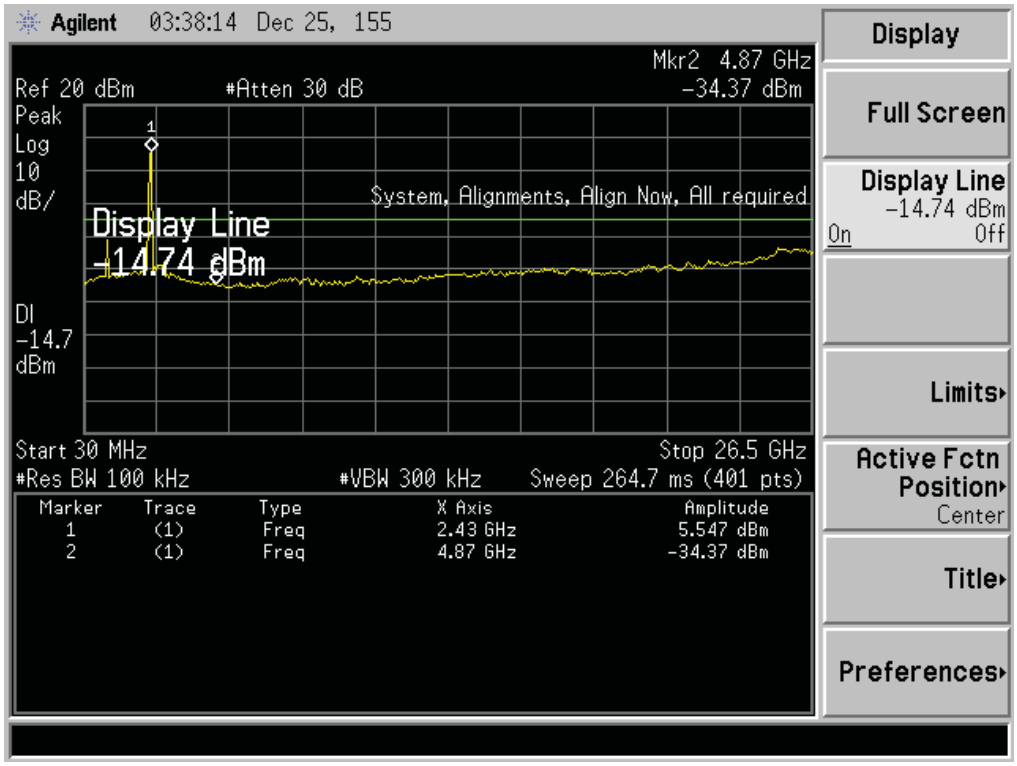


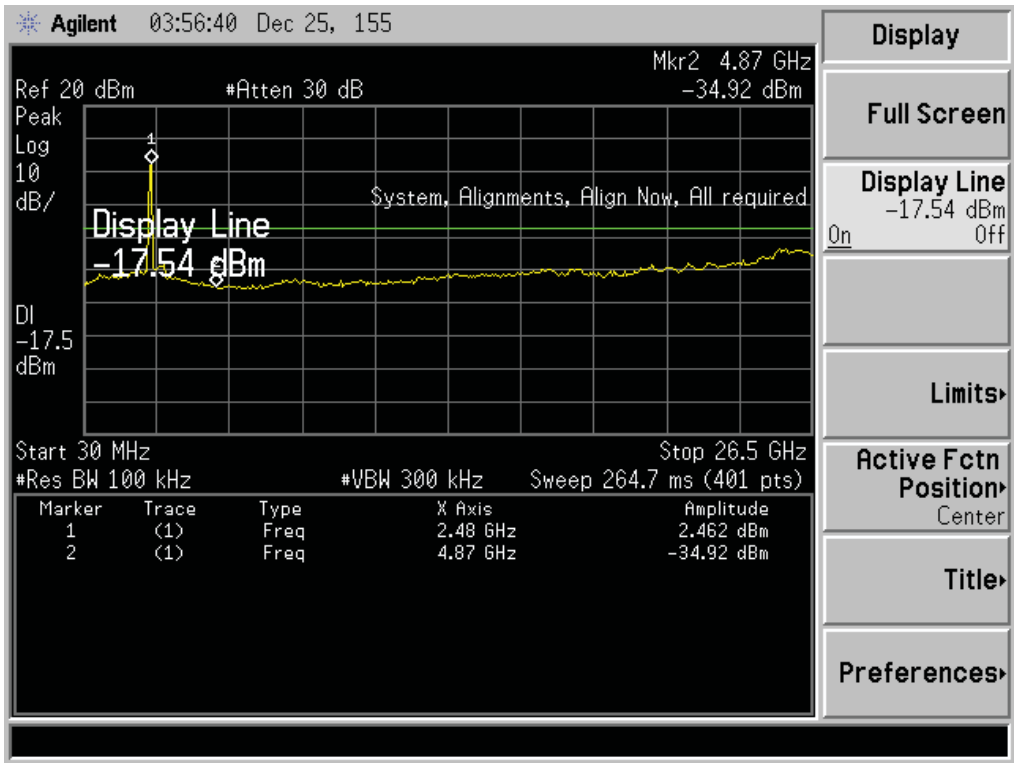



Agilent 03:34:47 Dec 25, 155
Mkr2 4.92 GHz
Ref 20 dBm #Atten 30 dB -34.68 dBm
Peak
Log
10
dB/
System, Alignments, Align Now, All required
Display Line
-11.49 dBm
Dl
-11.5
dBm
Start 30 MHz Stop 26.5 GHz
#Res BW 100 kHz #VBW 300 kHz Sweep 264.7 ms (401 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.48 GHz 8.512 dBm
2 (1) Freq 4.92 GHz -34.68 dBm
Display
Full Screen
Display Line
-11.49 dBm
On Off
Limits
Active Fctn
Position
Center
Title
Preferences

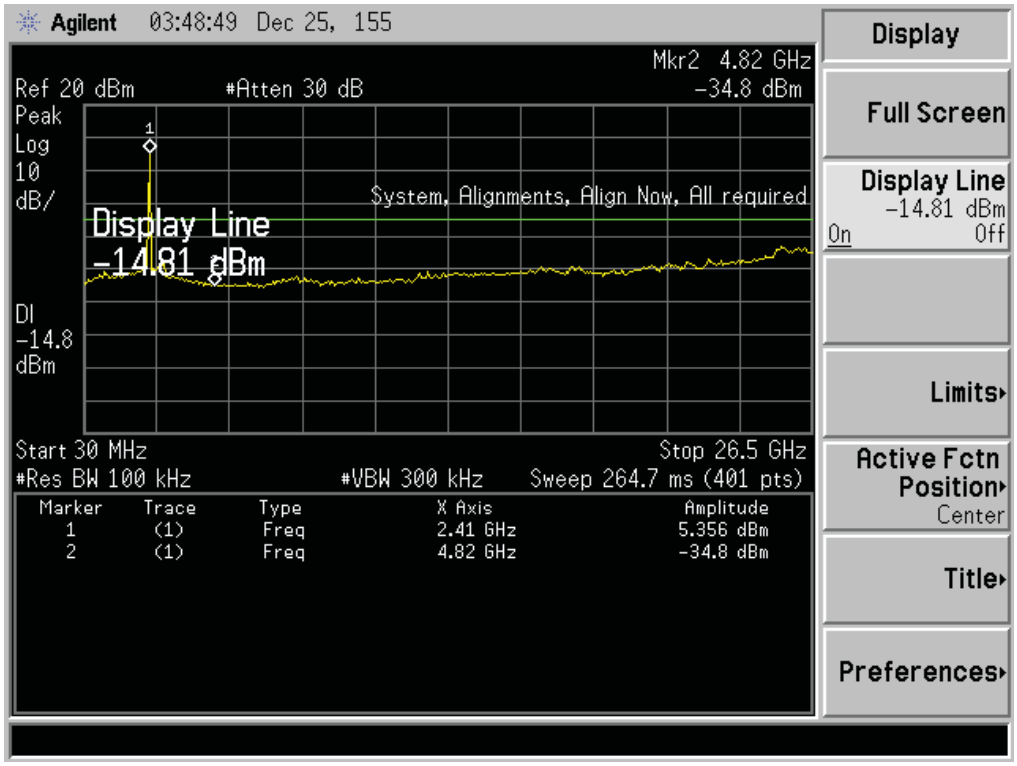
802.11 g Mode

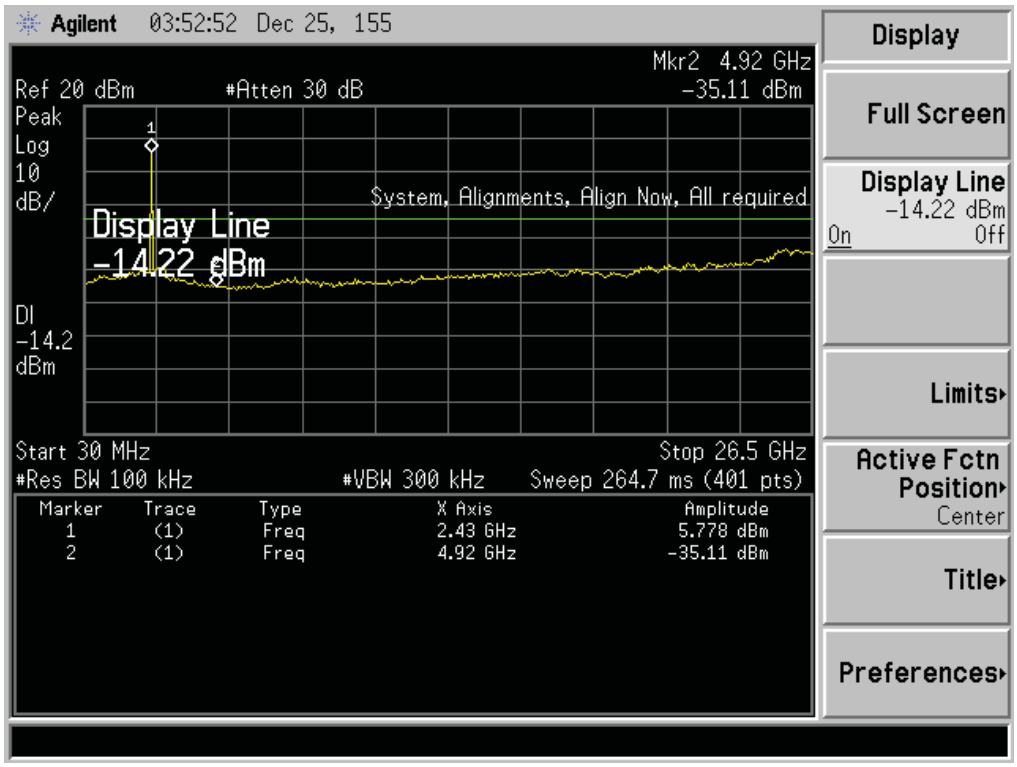

Agilent 03:36:37 Dec 25, 155
Mkr2 4.82 GHz
Ref 20 dBm #Atten 30 dB -34.38 dBm
Peak
Log
10
dB/
System, Alignments, Align Now, All required
Display Line
-14.74 dBm
Dl
-14.7
dBm
Start 30 MHz Stop 26.5 GHz
#Res BW 100 kHz #VBW 300 kHz Sweep 264.7 ms (401 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.41 GHz 5.261 dBm
2 (1) Freq 4.82 GHz -34.38 dBm
Display
Full Screen
Display Line
-14.74 dBm
On Off
Limits
Active Fctn
Position
Center
Title
Preferences

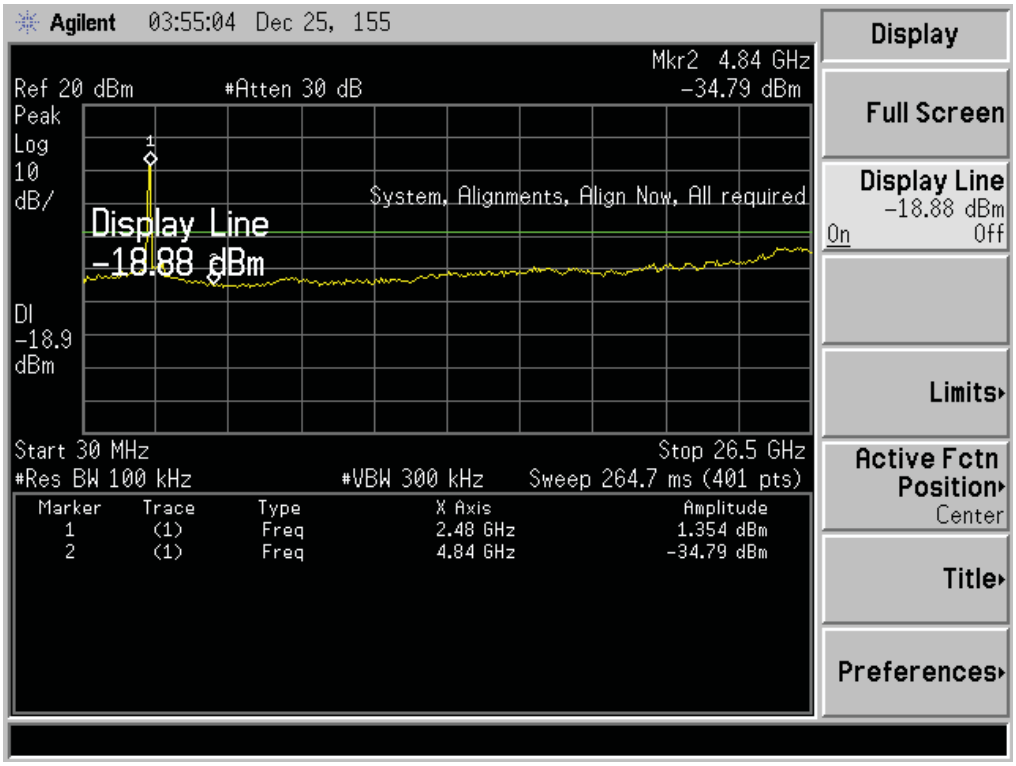




802.11 n20 Mode


Agilent 03:48:49 Dec 25, 155
Mkr2 4.82 GHz
Ref 20 dBm
#Atten 30 dB
-34.8 dBm
Peak
Log
10
dB/
System, Alignments, Align Now, All required
Display Line
-14.81 dBm
Dl
-14.8
dBm
Start 30 MHz
Stop 26.5 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 264.7 ms (401 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.41 GHz 5.356 dBm
2 (1) Freq 4.82 GHz -34.8 dBm
Display
Full Screen
Display Line
-14.81 dBm
On Off
Limits
Active Fctn
Position
Center
Title
Preferences


Agilent 03:52:52 Dec 25, 155
Mkr2 4.92 GHz
Ref 20 dBm
#Atten 30 dB
-35.11 dBm
Peak
Log
10
dB/
System, Alignments, Align Now, All required
Display Line
-14.22 dBm
Dl
-14.2
dBm
Start 30 MHz
Stop 26.5 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 264.7 ms (401 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.43 GHz 5.778 dBm
2 (1) Freq 4.92 GHz -35.11 dBm
Display
Full Screen
Display Line
-14.22 dBm
On Off
Limits
Active Fctn
Position
Center
Title
Preferences



10. Antenna Requirements

10.1 Limit

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.

10.2 Result

The antennas used for this product are built-in undetachable dipole antenna and that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is only 2dBi.

END OF REPORT