TECHNICAL REPORT

ISO/IEC17025Accredited Lab.

Report No: FCC 1411058
File reference No: 2014-11-07

Applicant: Dalian Cheering Technology Co., Ltd.

Product: Case Remote

Model No: CR11, CR110, CR119

Trademark:

Test Standards: FCC Part 15.247

Test result: It is herewith confirmed and found to comply with the requirements set up by ANSI C63.4, ,FCC Part 15 Subpart C, Paragraph 15.247 regulations for the evaluation of electromagnetic compatibility

Approved By

Jack Chung

Manager

Dated: November 07, 2014

Results appearing herein relate only to the sample tested
The technical reports is issued errors and omissions exempt and is subject to withdrawal at

SHENZHEN TIMEWAY TECHNOLOGY CONSULTING CO., LTD

5/F,Block 4, Anhua Industrial Zone.,No.8 TaiRan Rd.CheGongMiao,FuTian District, Shenzhen,CHINA.

Tel (755) 83448688, Fax (755) 83442996, E-Mail:info@timewaytech.com

Special Statement:

The testing quality ability of our laboratory meet with "Quality Law of People's Republic of China" Clause 19.

The testing quality system of our laboratory meet with ISO/IEC-17025 requirements, which is approved by CNAL. This approval result is accepted by MRA of APLAC.

Our test facility is recognized, certified, or accredited by the following organizations:

CNAL-LAB Code: L2292

The EMC Laboratory has been assessed and in compliance with CNAL/AC01:2002 accreditation criteria for testing Laboratories (identical to ISO/IEC 17025:1999 General Requirements) for the Competence of testing Laboratories.

FCC-Registration No.: 899988

The EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications commission. The acceptance letter from the FCC is maintained in our files. Registration No.: 899988.

IC- Registration No.: IC5205A-02

The EMC Laboratory has been registered and fully described in a report filed with the (IC) Industry Canada. The acceptance letter from the IC is maintained in our files. Registration IC No.: 5205A-02.

Test Report Conclusion

Content

1.0 General Details

1.1 Test Lab Details

Name : SHENZHEN TIMEWAY TECHNOLOGY CONSULTING CO., LTD

Address: 5/F,Block 4, Anhua Industrial Zone.,No.8 TaiRan Rd.CheGongMiao,FuTian District, Shenzhen,CHINA.

Telephone: (755) 83448688

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Site on File with the Federal Communications Commission – United Sates

Registration Number: 899988

For 3m & 10 m OATS

Site Listed with Industry Canada of Ottawa, Canada

Registration Number: IC: 5205A-02

For 3m & 10 m OATS

1.2 Applicant Details

Applicant: Dalian Cheering Technology Co., Ltd.

Address: 321-1 Tuqiang Street RM308, DDA Dalian, Liaoning, China 116023

Telephone: +86-411-39022576

Fax: +86-411-39022576

1.3 Description of EUT

Product: Case Remote

Manufacturer: Dalian Cheering Technology Co., Ltd.

Address: 321-1 Tuqiang Street RM308, DDA Dalian, Liaoning, China 116023

Brand Name:

Model Number: CR11

Additional Model Number: CR110, CR119

Type of Modulation	IEEE 802.11b : DSSS (CCK, QPSK, DBPSK)
	IEEE 802.11g/n (HT20, HT40) : OFDM(64QAM, 16QAM, QPSK, BPSK)
Frequency range	IEEE 802.11b/g/n (HT20) : 2412-2462MHz; 802.11n(HT40): 2422-2452MHz
Channel Spacing	5MHz for IEEE 802.11b/g/n(HT20, HT40)
Air Data Rate	IEEE 802.11b : 11, 5.5, 2, 1 Mbps
	IEEE 802.11g : 54, 48,36, 24, 18, 12, 9, 6 Mbps
	IEEE 802.11n HT20/40 :150, 135, 117 ,104, 78, 65, 58.5, 52, 39, 26, 19.5, 13, 6.5 Mbps
Frequency Selection	By software
Channel Number	IEEE 802.11b/g/n (HT20) : 11 Channels
	IEEE 802.11n HT40 : 7 Channels

Antenna: PCB Antenna with maximum gain 1.5 dBi

1.4 Submitted Sample: 2 Samples

1.5 Test Duration

2014-11-06 to 2014-11-07

1.6 Test Uncertainty

Conducted Emissions Uncertainty =3.6dB

Radiated Emissions Uncertainty =4.7dB

1.7 Test Engineer

The sample tested by Terry Tang

Print Name: Terry Tang

2.0	Test Equipments				
Instrument Type	Manufacturer	Model	Serial No.	Date of Cal.	Due Date
ESPI Test Receiver	R&S	ESPI 3	100379	2014-08-22	2015-08-21
TWO Line-V-NETW	R&S	EZH3-Z5	100294	2014-08-22	2015-08-21
TWO Line-V-NETW	R&S	EZH3-Z5	100253	2014-08-22	2015-08-21
Ultra Broadband ANT	R&S	HL562	100157	2014-08-22	2015-08-21
ESDV Test Receiver	R&S	ESDV	100008	2014-08-22	2015-08-21
Impuls-Begrenzer	R&S	ESH3-Z2	100281	2014-08-22	2015-08-21
System Controller	CT	SC100	-	--	--
Printer	EPSON	PHOTO EX3	CFNH234850	--	--
Computer	IBM	8434	1S8434KCE99BLX LO*	-	-
Loop Antenna	EMCO	6502	00042960	2014-08-22	2015-08-21
ESPI Test Receiver	R&S	ESI26	838786/013	2014-08-22	2015-08-21
3m OATS	--	--	N/A	2014-08-22	2015-08-21
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170265	2014-08-22	2015-08-21
Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-631	2014-08-22	2015-08-21
Power meter	Anritsu	ML2487A	6K00003613	2014-08-22	2015-08-21
Power sensor	Anritsu	MA2491A	32263	2014-08-22	2015-08-21
Bilog Antenna	Schwarebeck	VULB9163	9163/340	2014-08-22	2015-08-21
LISN	AFJ	LS16C	10010947251	2014-08-22	2015-08-21
LISN (Three Phase)	Schwarebeck	NSLK 8126	8126453	2014-08-22	2015-08-21
9*6*6 Anechoic	--	--	N/A	2014-08-22	2015-08-21
EMI Test Receiver	RS	ESCS30	100139	2014-08-22	2015-08-21

3. DESCRIPTION OF TEST MODES

IEEE 802.11b, 802.11g, 802.11n (HT20) mode

The EUT had been tested under operating condition. There are three channels have been tested as following:

Channel	Frequency (MHz)
Low	2412
Middle	2437
High	2462

IEEE 802.11b mode: 1Mbps data rate (worst case) was chosen for full testing. IEEE 802.11g mode: 6Mbps data rate (worst case) was chosen for full testing. IEEE 802.11n (HT20) mode 6.5Mbps data rate (worst case) were chosen for full testing

The worst-case data rates are determined according to the description above, based on the investigations by measuring the PSD and average power across all the data rates, bandwidths, modulations and spatial stream modes.

IEEE 802.11n HT40

The EUT had been tested under operating condition. There are three channels have been tested as following:

Channel	Frequency (MHz)
Low	2422
Mid	2437
High	2452

IEEE 802.11n HT40 mode: 6.5Mbps data rate (worst case) was chosen for full testing.

The worst-case data rates are determined according to the description above, based on the investigations by measuring the PSD and average power across all the data rates, bandwidths, modulations and spatial stream modes.

3.0 Technical Details

3.1 Summary of test results

The EUT has been tested according to the following specifications:

Standard	Test Type	Result	Notes
FCC Part 15, Paragraph 15.107 & 15.207	Conducted Emission Test	PASS	Complies
FCC Part 15 Subpart C Paragraph 15.247(a)(2) Limit	Spectrum bandwidth of a Orthogonal Frequency Division Multiplex System Limit: 6dB bandwidth>500kHz	PASS	Complies
FCC Part 15, Paragraph 15.247(b)	Maximum peak output power Limit: max. 30dBm	PASS	Complies
FCC Part 15, Paragraph 15.109,15.205 & 15.209	Transmitter Radiated Emission Limit: Table 15.209	PASS	Complies
FCC Part 15, Paragraph 15.247(e)	Power Spectral Density Limit: max. 8dBm	PASS	Complies
FCC Part 15, Paragraph 15.247(d)	Out of Band Emission and Restricted Band Radiation Limit: 20dB less than peak value of fundamental frequency Restricted band limit: Table 15.209	PASS	Complies

3.2 Test Standards

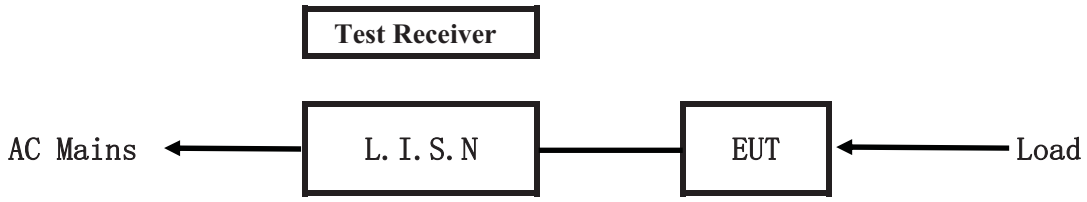
FCC Part 15 Subpart & Subpart C, Paragraph 15.247

4.0 EUT Modification

No modification by Shenzhen Timeway Technology Consulting Co., Ltd

5. Power Line Conducted Emission Test

5.1 Schematics of the test



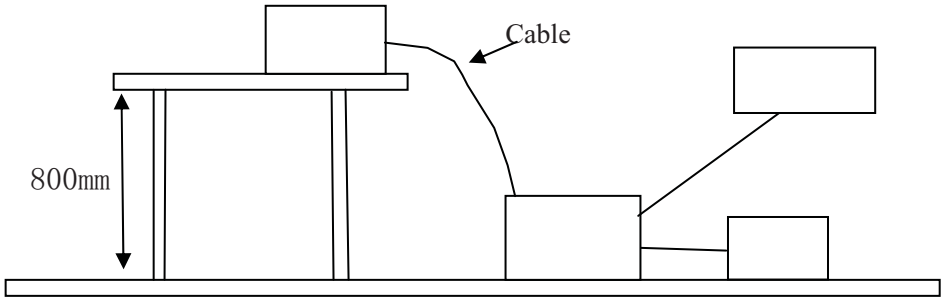
EUT: Equipment Under Test

5.2 Test Method and test Procedure

The EUT was tested according to ANSI C63.4-2003.The Frequency spectrum From 0.15MHz to 30MHz was investigated. The LISN used was 50ohm/50uH as specified by section 5.1 of ANSI C63.4 –2003.

Test Voltage: 120V~, 60Hz

Block diagram of Test setup



5.3 Configuration of The EUT

The EUT was configured according to ANSI C63.4-2003. All interface ports were connected to the appropriate peripherals. All peripherals and cables are listed below.

A. EUT

Device	Manufacturer	Model	FCC ID
Case Remote	Dalian Cheering Technology Co., Ltd.	CR11, CR110, CR119	2ADHGCR11

B. Internal Device

Device	Manufacturer	Model	FCC ID/DOC
N/A			

C. Peripherals

Device	Manufacturer	Model	FCC ID/DOC	Rating
Power Supply	THX	THX-050200KE	VOC	Input: 100-240V~, 50/60Hz, 0.65A; Output: DC5V, 2A

5.4 EUT Operating Condition

Operating condition is according to ANSI C63.4 -2003.

A Setup the EUT and simulators as shown on follow

B Enable AF signal and confirm EUT active to normal condition

5.5 Power line conducted Emission Limit according to Paragraph 15.207 and 15.107

Frequency (MHz)	Class A Limits (dB μ V)		Class B Limits (dB μ V)	
	Quasi-peak Level	Average Level	Quasi-peak Level	Average Level
0.15 ～ 0.50	79.0	66.0	66.0～56.0*	56.0～46.0*
0.50 ～ 5.00	73.0	60.0	56.0	46.0
5.00 ～ 30.00	73.0	60.0	60.0	50.0

Notes: 1. *Decreasing linearly with logarithm of frequency.

2. The tighter limit shall apply at the transition frequencies

5.6 Test Results

The frequency spectrum from 0.15MHz to 30MHz was investigated. All reading are quasi-peak values with a resolution bandwidth of 9kHz.

A: Conducted Emission on Live Terminal (150kHz to 30MHz)

EUT Operating Environment

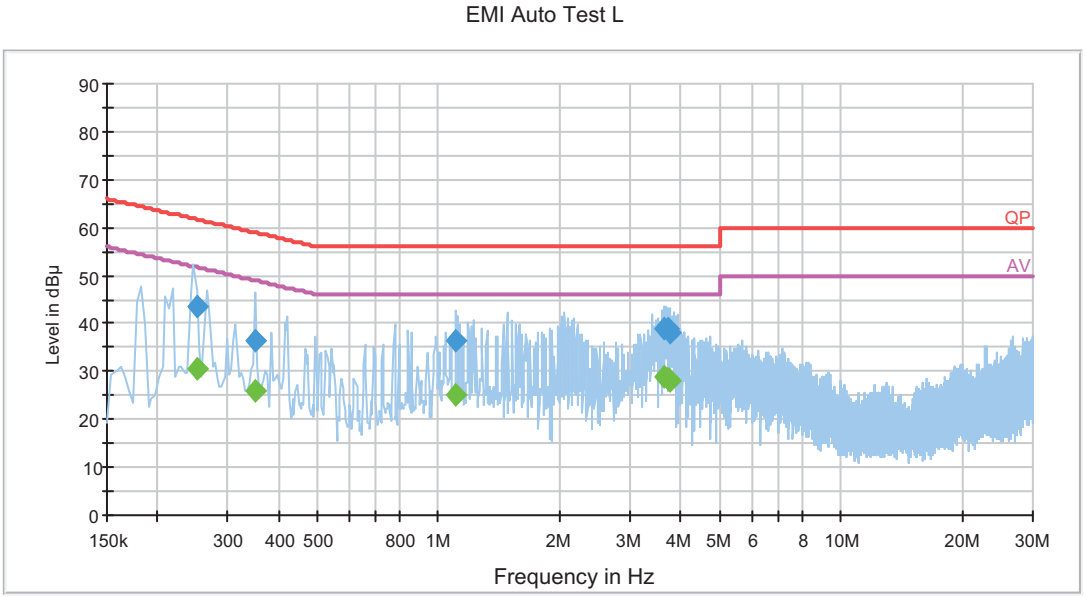
Temperature: 26℃ Humidity: 65%RH Atmospheric Pressure: 101 KPa

EUT set Condition: Charging and Keep WIFI Transmitting

Equipment Level: Class B

Results: PASS

Please refer to following diagram for individual



Frequency (MHz)	Reading (dBµV)	Correct Factor(dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Remark
0.250501	33.2	10.5	43.7	61.7	-18.0	QP
0.250501	19.9	10.5	30.4	51.7	-21.3	AV
0.348750	26.0	10.5	36.5	59.0	-22.5	QP
0.348750	15.4	10.5	25.9	49.0	-23.1	AV
1.109410	25.9	10.5	36.4	56.0	-19.6	QP
1.109410	14.5	10.5	25.0	46.0	-21.0	AV
3.640030	28.1	10.7	38.8	56.0	-17.2	QP
3.640030	18.1	10.7	28.8	46.0	-17.2	AV
3.726530	28.2	10.7	38.9	56.0	-17.1	QP
3.726530	17.7	10.7	28.4	46.0	-17.6	AV
3.765450	27.5	10.7	38.2	56.0	-17.8	QP
3.765450	17.4	10.7	28.1	46.0	-17.9	AV

B: Conducted Emission on Neutral Terminal (150kHz to 30MHz)

EUT Operating Environment

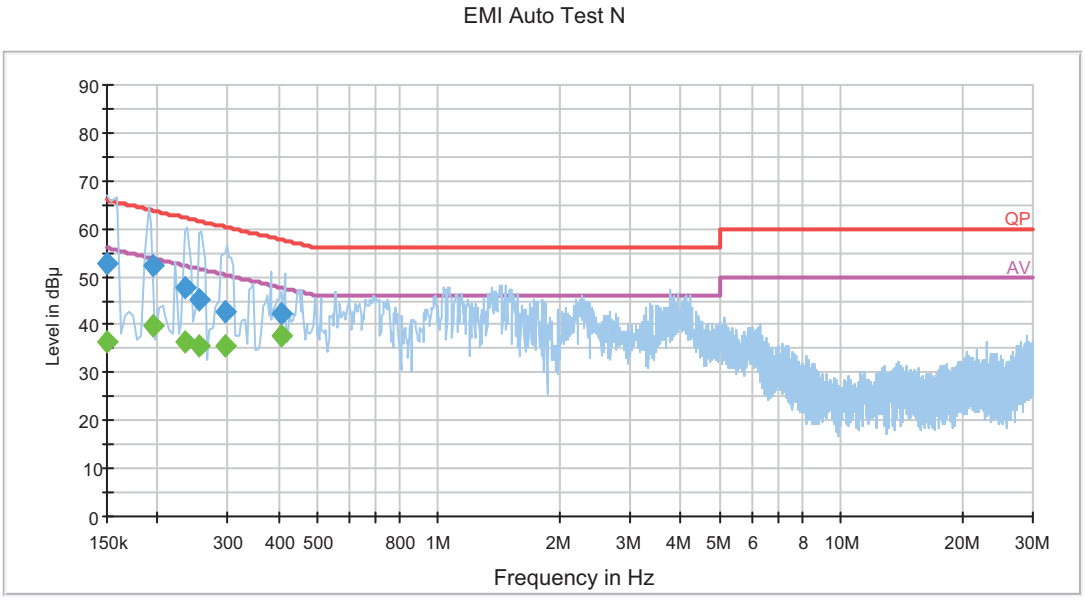
Temperature: 26℃ Humidity: 65%RH Atmospheric Pressure: 101 KPa

EUT set Condition: Charging and Keep WIFI Transmitting

Equipment Level: Class B

Results: Pass

Please refer to following diagram for individual



Frequency (MHz)	Reading (dBµV)	Correct Factor(dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Remark
0.150000	42.1	10.6	52.7	66.0	-13.3	QP
0.150000	25.7	10.6	36.3	56.0	-19.7	AV
0.194500	41.8	10.6	52.4	63.8	-11.4	QP
0.194500	29.2	10.6	39.8	53.8	-14.0	AV
0.233500	37.3	10.5	47.8	62.3	-14.5	QP
0.233500	26.0	10.5	36.5	52.3	-15.8	AV
0.253500	34.9	10.5	45.4	61.6	-16.2	QP
0.253500	25.1	10.5	35.6	51.6	-16.0	AV
0.293500	32.4	10.5	42.9	60.4	-17.5	QP
0.293500	25.3	10.5	35.8	50.4	-14.6	AV
0.407790	31.6	10.6	42.2	57.7	-15.5	QP
0.407790	27.0	10.6	37.6	47.7	-10.1	AV

6 Radiated Emission Test

6.1 Test Method and test Procedure:

(1) The EUT was tested according to ANSI C63.4 –2003. The radiated test was performed at Timeway Laboratory. This site is on file with the FCC laboratory division, Registration No.899988

(2) The EUT, peripherals were put on the turntable which table size is 1m x 1.5 m, table high 0.8 m. All set up is according to ANSI C63.4-2003.

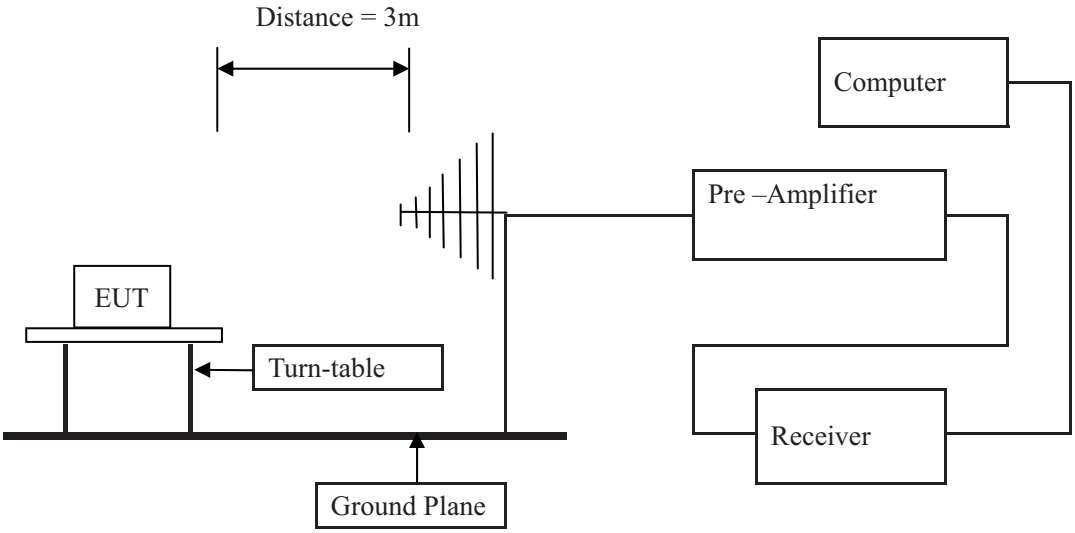
(3) The frequency spectrum from 30 MHz to 25 GHz was investigated. All readings from 30 MHz to 1 GHz are Quasi-peak values with a resolution bandwidth of 120 kHz. For measurement above 1GHz, peak values with RBW=VBW=1MHz and PK detector. AV value with RBW=1MHz, VBW=3MHz and RMS detector. Measurements were made at 3 meters.

(4) The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.

(5) Maximizing procedure was performed on the six (6) highest emissions to ensure EUT compliance is with all installation combinations. All data was recorded in the peak detection mode. Quasi-peak readings was performed only when an emission was found to be marginal (within -4 dB of specification limit), and are distinguished with a "**QP**" in the data table.

(6) The antenna polarization : Vertical polarization and Horizontal polarization.

Block diagram of Test setup



6.2 Configuration of The EUT

Same as section 5.3 of this report

6.3 EUT Operating Condition

Same as section 5.4 of this report.

6.4 Radiated Emission Limit

All emission from a digital device, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strength specified below:

Frequencies in restricted band are complied to limit on Paragraph 15.209 and 15.109 and RSS-210

Frequency Range (MHz)	Distance (m)	Field strength (dB μ V/m)
30-88	3	40.0
88-216	3	43.5
216-960	3	46.0
Above 960	3	54.0

Note: 1. RF Voltage (dBuV) = 20 log RF Voltage (uV)

2. In the Above Table, the higher limit applies at the band edges.

3. Distance refers to the distance in meters between the measuring instrument antenna and the EUT

4. This is a handhold device. The radiated emissions should be tested under 3-axes position (Lying, Side, and Stand), After pre-test. It was found that the worse radiated emission was get at the lying position.

Test result

General Radiated Emission Data and Harmonics Radiated Emission Data

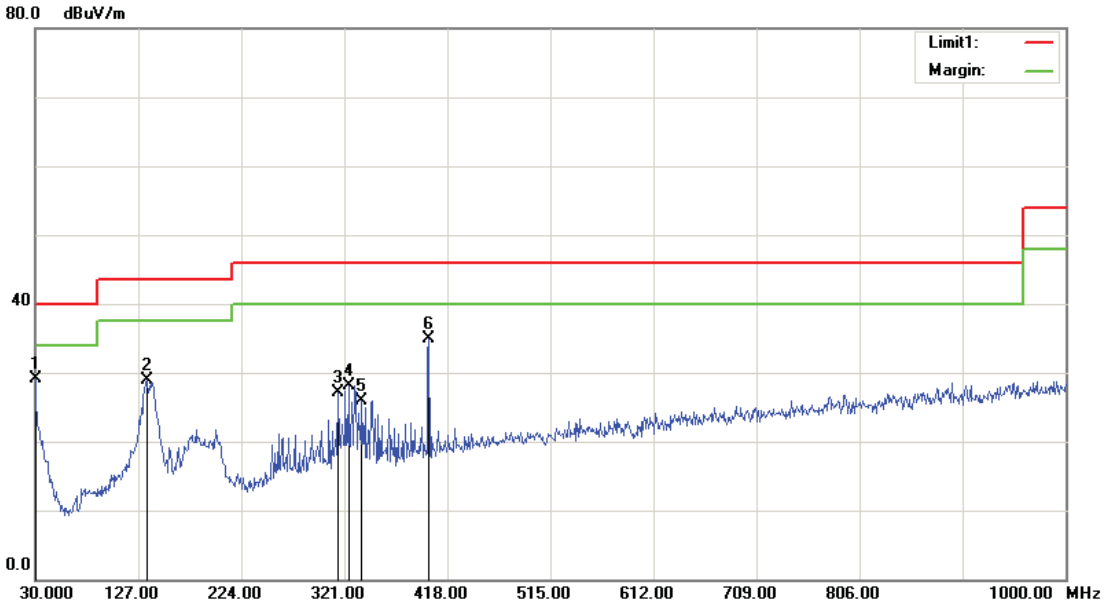
Radiated Emission In Horizontal/Vertical (30MHz----1000MHz)

EUT set Condition: **Charging and Keep WIFI Transmitting**

Results: **Pass**

Test Figure:

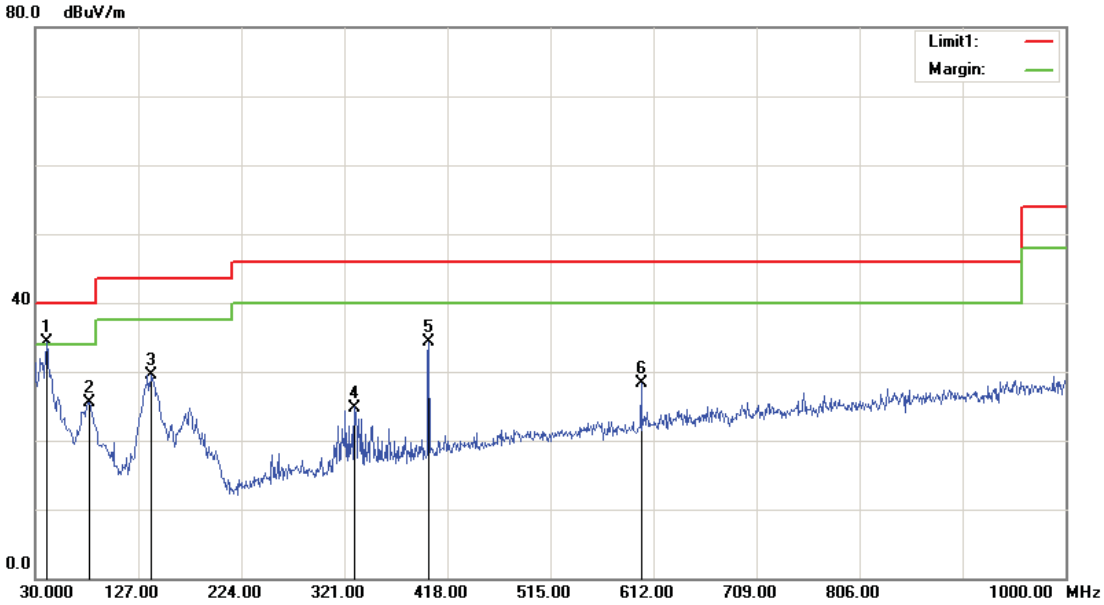
H



No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
	(MHz)	(dBμV)		dB/m	(dBμV/m)	(dBμV/m)	(dB)
1	30.0000	25.76	QP	3.38	29.14	40.00	10.86
2	134.7600	35.06	QP	-6.11	28.95	43.50	14.55
3	315.1800	32.63	QP	-5.57	27.06	46.00	18.94
4	324.8800	33.67	QP	-5.47	28.20	46.00	17.80
5	337.4900	31.33	QP	-5.36	25.97	46.00	20.03
6	400.5400	38.50	QP	-3.66	34.84	46.00	11.16

Test Figure:

V



No.	Frequency	Reading	Detector	Corrected	Result	Limit	Margin
	(MHz)	(dBμV)		dB/m	(dBμV/m)	(dBμV/m)	(dB)
1	40.6700	41.13	QP	-6.89	34.24	40.00	5.76
2	81.4100	38.03	QP	-12.45	25.58	40.00	14.42
3	139.6100	36.01	QP	-6.46	29.55	43.50	13.95
4	330.7000	30.14	QP	-5.34	24.80	46.00	21.20
5	400.5400	38.06	QP	-3.66	34.40	46.00	11.60
6	600.3600	28.86	QP	-0.61	28.25	46.00	17.75

Above 1 GHz:

802.11b Mode:

Indicated		Detector (PK/QP/Ave.)	Antenna	Correction Factor (dB)	FCC Part 15.247/15.209/15.205		
Frequency (MHz)	S.A. Reading (dBμV)		Polar (H/V)		Cord. Amp. (dBμV/m)	Limit (dBμV/m)	Margin(dB)
Low Channel (2412 MHz)							
2412	92.38	PK	H	6.13	98.51	/	/
2412	87.87	AV	H	6.13	94.00	/	/
2412	90.75	PK	H	6.13	96.88	/	/
2412	86.87	AV	V	6.13	93.00	/	/
2372	39.84	PK	V	5.48	45.32	74	28.68
2372	27.03	AV	H	5.48	32.51	54	21.49
2389.8	46.19	PK	H	5.48	51.67	74	22.33
2389.8	30.16	AV	V	5.48	35.64	54	18.36
2486.4	39.16	PK	V	7.21	46.37	74	27.63
2486.4	24.37	AV	V	7.21	31.58	54	22.42
4824	40.14	PK	V	12.44	52.58	74	21.42
4824	25.54	AV	H	12.44	37.98	54	16.02
7236	35.64	PK	H	17.06	52.70	74	21.30
7236	22.78	AV	V	17.06	39.84	54	14.16
9648	36.83	PK	V	19.28	56.11	74	17.89
9648	22.79	AV	V	19.28	42.07	54	11.93
Middle Channel (2437 MHz)							
2437	92.70	PK	H	6.13	98.83	/	/
2437	88.53	AV	H	6.13	94.66	/	/
2437	92.36	PK	V	6.13	98.49	/	/
2437	87.77	AV	V	6.13	93.90	/	/
2368.6	37.40	PK	V	5.48	42.88	74	31.12
2368.6	23.74	AV	V	5.48	29.22	54	24.78
2390	37.51	PK	H	5.48	42.99	74	31.01
2390	23.82	AV	H	5.48	29.30	54	24.70
2484.6	37.10	PK	V	7.21	44.31	74	29.69
2484.6	23.92	AV	V	7.21	31.13	54	22.87
4874	38.64	PK	V	12.40	51.04	74	22.96
4874	24.78	AV	V	12.40	37.18	54	16.82
7311	36.16	PK	H	16.62	52.78	74	21.22

7311	22.68	AV	H	16.62	39.30	54	14.70
9748	37.14	PK	H	19.40	56.54	74	17.46
9748	22.62	AV	H	19.40	42.02	54	11.98

Indicated		Detector (PK/QP/Ave.)	Antenna	Correction Factor (dB)	FCC Part 15.247/15.209/15.205		
Frequency (MHz)	S.A. Reading (dBμV)		Polar (H/V)		Cord. Amp. (dBμV/m)	Limit (dBμV/m)	Margin(dB)
High Channel (2462 MHz)							
2462	93.01	PK	H	6.13	99.14	/	/
2462	88.7	AV	H	6.13	94.83	/	/
2462	92.08	PK	V	6.13	98.21	/	/
2462	87.82	AV	V	6.13	93.95	/	/
2378.8	37.05	PK	H	5.48	42.53	74	31.47
2378.8	23.75	AV	H	5.48	29.23	54	24.77
2485.4	47.03	PK	V	7.21	54.24	74	19.76
2485.4	28.86	AV	V	7.21	36.07	54	17.93
2487.2	45.78	PK	V	7.21	52.99	74	21.01
2487.2	25.91	AV	V	7.21	33.12	54	20.88
4924	36.79	PK	H	12.46	49.25	74	24.75
4924	23.81	AV	H	12.46	36.27	54	17.73
7386	36.98	PK	H	15.91	52.89	74	21.11
7386	23.26	AV	H	15.91	39.17	54	14.83
9848	36.75	PK	H	19.29	56.04	74	17.96
9848	23.07	AV	H	19.29	42.36	54	11.64

Note:

Frequency = Emission frequency in MHz

Correction Factor (dB) =Ant Factor+ cable loss-Pre-Amp .Gain

Corrected Amplitude (dBμV/m) = S.A. Reading + Correction Factor (dB)

Limit（dBμV/m）= Limit stated in standard

PK = Peak QP =Quasi-peak Ave =Average

Calculation Formula

Margin (dB) = Limit – Corrected Amplitude

802.11g Mode:

Indicated		Detector (PK/QP/Ave.)	Antenna	Correction Factor (dB)	FCC Part 15.247/15.209/15.205		
Frequency (MHz)	S.A. Reading (dBμV)		Polar (H/V)		Cord. Amp. (dBμV/m)	Limit (dBμV/m)	Margin(dB)
Low Channel (2412 MHz)							
2412	92.74	PK	H	6.13	98.87	/	/
2412	82.28	AV	H	6.13	88.41	/	/
2412	92.41	PK	V	6.13	98.54	/	/
2412	81.39	AV	V	6.13	87.52	/	/
2388.2	51.96	PK	H	5.48	57.44	74	16.56
2388.2	33.51	AV	H	5.48	38.99	54	15.01
2490.4	35.57	PK	H	7.21	42.78	74	31.22
2490.4	23.20	AV	H	7.21	30.41	54	23.59
4824	36.44	PK	H	12.44	48.88	74	25.12
4824	23.22	AV	H	12.44	35.66	54	18.34
7236	35.64	PK	V	17.06	52.70	74	21.30
7236	22.81	AV	V	17.06	39.87	54	14.13
9648	35.69	PK	H	19.28	54.97	74	19.03
9648	23.72	AV	H	19.28	43.00	54	11.00
Middle Channel (2437 MHz)							
2437	93.12	PK	H	6.13	99.25	/	/
2437	81.73	AV	H	6.13	87.86	/	/
2437	92.26	PK	V	6.13	98.39	/	/
2437	81.01	AV	V	6.13	87.14	/	/
2389.5	36.88	PK	V	5.48	42.36	74	31.64
2389.5	22.71	AV	V	5.48	28.19	54	25.81
2485.8	36.71	PK	H	7.21	43.92	74	30.08
2485.8	23.60	AV	H	7.21	30.81	54	23.19
4874	37.32	PK	V	12.4	49.72	74	24.28
4874	23.85	AV	V	12.4	36.25	54	17.75
7311	35.97	PK	V	16.62	52.59	74	21.41
7311	23.76	AV	V	16.62	40.38	54	13.62
9748	36.25	PK	H	19.4	55.65	74	18.35
9748	23.15	AV	H	19.4	42.55	54	11.45

Indicated		Detector (PK/QP/Ave.)	Antenna	Correction Factor (dB)	FCC Part 15.247/15.209/15.205		
Frequency (MHz)	S.A. Reading (dBμV)		Polar (H/V)		Cord. Amp. (dBμV/m)	Limit (dBμV/m)	Margin(dB)
High Channel (2462 MHz)							
2462	91.12	PK	H	6.13	97.25	/	/
2462	80.73	AV	H	6.13	86.86	/	/
2462	91.78	PK	V	6.13	97.91	/	/
2462	81.61	AV	V	6.13	87.74	/	/
2387.5	36.24	PK	H	5.48	41.72	74	32.28
2387.5	24.03	AV	H	5.48	29.51	54	24.49
2487.8	36.50	PK	V	7.21	43.71	74	30.29
2487.8	22.93	AV	V	7.21	30.14	54	23.86
4924	37.23	PK	H	12.46	49.69	74	24.31
4924	23.76	AV	H	12.46	36.22	54	17.78
7386	35.78	PK	V	15.91	51.69	74	22.31
7386	22.98	AV	V	15.91	38.89	54	15.11
9848	35.96	PK	V	19.29	55.25	74	18.75
9848	22.69	AV	V	19.29	41.98	54	12.02

Note:

Frequency = Emission frequency in MHz

Correction Factor (dB) =Ant Factor+ cable loss-Pre-Amp .Gain

Corrected Amplitude (dBμV/m) = S.A. Reading + Correction Factor (dB)

Limit（dBμV/m）= Limit stated in standard

PK = Peak QP =Quasi-peak Ave =Average

Calculation Formula

Margin (dB) = Limit – Corrected Amplitude

802.11n-HT20 Mode

Indicated		Detector (PK/QP/Ave.)	Antenna	Correction Factor (dB)	FCC Part 15.247/15.209/15.205		
Frequency (MHz)	S.A. Reading (dBμV)		Polar (H/V)		Cord. Amp. (dBμV/m)	Limit (dBμV/m)	Margin(dB)
Low Channel (2412 MHz)							
2412	92.17	PK	H	6.13	98.30	/	/
2412	82.9	AV	H	6.13	89.03	/	/
2412	91.78	PK	V	6.13	97.91	/	/
2412	82.65	AV	V	6.13	88.78	/	/
2375	39.07	PK	H	5.48	44.55	74	29.45
2375	23.74	AV	H	5.48	29.22	54	24.78
2488.9	35.79	PK	H	7.21	43.00	74	31.00
2488.9	23.65	AV	H	7.21	30.86	54	23.14
4824	36.06	PK	V	12.44	48.50	74	25.50
4824	23.27	AV	V	12.44	35.71	54	18.29
7236	36.93	PK	V	17.06	53.99	74	20.01
7236	23.69	AV	V	17.06	40.75	54	13.25
9648	35.33	PK	H	19.28	54.61	74	19.39
9648	23.64	AV	H	19.28	42.92	54	11.08
Middle Channel (2437 MHz)							
2437	92.73	PK	H	6.13	98.86	/	/
2437	83.94	AV	H	6.13	90.07	/	/
2437	92.09	PK	V	6.13	98.22	/	/
2437	83.74	AV	V	6.13	89.87	/	/
2385	40.55	PK	V	5.48	46.03	74	27.97
2385	27.77	AV	V	5.48	33.25	54	20.75
2488.2	36.65	PK	H	7.21	43.86	74	30.14
2488.2	23.70	AV	H	7.21	30.91	54	23.09
4874	35.87	PK	V	12.40	48.27	74	25.73
4874	23.55	AV	V	12.40	35.95	54	18.05
7311	36.24	PK	V	16.62	52.86	74	21.14
7311	23.36	AV	V	16.62	39.98	54	14.02
9748	36.54	PK	V	19.40	55.94	74	18.06
9748	23.50	AV	V	19.40	42.90	54	11.10

Indicated		Detector (PK/QP/Ave.)	Antenna	Correction Factor (dB)	FCC Part 15.247/15.209/15.205		
Frequency (MHz)	S.A. Reading (dBμV)		Polar (H/V)		Cord. Amp. (dBμV/m)	Limit (dBμV/m)	Margin(dB)
High Channel (2462 MHz)							
2462	92.13	PK	H	6.13	98.26	/	/
2462	82.87	AV	H	6.13	89.00	/	/
2462	91.25	PK	V	6.13	97.38	/	/
2462	84.09	AV	V	6.13	90.22	/	/
2376.4	35.78	PK	H	5.48	41.26	74	32.74
2376.4	23.73	AV	H	5.48	29.21	54	24.79
2484	43.74	PK	V	7.21	50.95	74	23.05
2484	28.84	AV	V	7.21	36.05	54	17.95
4924	36.77	PK	V	12.46	49.23	74	24.77
4924	24.42	AV	V	12.46	36.88	54	17.12
7386	36.07	PK	H	15.91	51.98	74	22.02
7386	23.93	AV	H	15.91	39.84	54	14.16
9848	36.15	PK	V	19.29	55.44	74	18.56
9848	23.1	AV	V	19.29	42.39	54	11.61

Note:

Frequency = Emission frequency in MHz

Correction Factor (dB) =Ant Factor+ cable loss-Pre-Amp .Gain

Corrected Amplitude (dBμV/m) = S.A. Reading + Correction Factor (dB)

Limit（dBμV/m）= Limit stated in standard

PK = Peak QP =Quasi-peak Ave =Average

Calculation Formula

Margin (dB) = Limit – Corrected Amplitude

802.11n-HT40 Mode

Indicated		Detector (PK/QP/Ave.)	Antenna	Correction Factor (dB)	FCC Part 15.247/15.209/15.205		
Frequency (MHz)	S.A. Reading (dBμV)		Polar (H/V)		Cord. Amp. (dBμV/m)	Limit (dBμV/m)	Margin(dB)
Low Channel (2422 MHz)							
2422	92.78	PK	H	6.13	98.91	/	/
2422	83.07	AV	H	6.13	89.20	/	/
2422	91.89	PK	V	6.13	98.02	/	/
2422	82.47	AV	V	6.13	88.60	/	/
2378.4	43.86	PK	H	5.48	49.34	74	24.66
2378.4	30.34	AV	H	5.48	35.82	54	18.18
2497.1	36.00	PK	V	7.21	43.21	74	30.79
2497.1	23.31	AV	V	7.21	30.52	54	23.48
4844	36.80	PK	H	12.40	49.20	74	24.80
4844	23.66	AV	H	12.40	36.06	54	17.94
7266	36.18	PK	V	16.62	52.80	74	21.20
7266	22.96	AV	V	16.62	39.58	54	14.42
9688	34.85	PK	V	19.29	54.14	74	19.86
9688	22.71	AV	V	19.29	42.00	54	12.00
Middle Channel (2437 MHz)							
2437	91.93	PK	H	6.13	98.06	/	/
2437	82.67	AV	H	6.13	88.80	/	/
2437	91.71	PK	V	6.13	97.84	/	/
2437	82.81	AV	V	6.13	88.94	/	/
2386.2	37.20	PK	V	5.48	42.68	74	31.32
2386.2	23.68	AV	V	5.48	29.16	54	24.84
2486.7	37.16	PK	H	7.21	44.37	74	29.63
2486.7	23.78	AV	H	7.21	30.99	54	23.01
4874	36.88	PK	V	12.4	49.28	74	24.72
4874	23.19	AV	V	12.4	35.59	54	18.41
7311	36.56	PK	V	16.62	53.18	74	20.82
7311	23.86	AV	V	16.62	40.48	54	13.52
9748	36.03	PK	H	19.4	55.43	74	18.57
9748	23.69	AV	H	19.4	43.09	54	10.91

Indicated		Detector (PK/QP/Ave.)	Antenna	Correction Factor (dB)	FCC Part 15.247/15.209/15.205		
Frequency (MHz)	S.A. Reading (dBμV)		Polar (H/V)		Cord. Amp. (dBμV/m)	Limit (dBμV/m)	Margin(dB)
High Channel (2452 MHz)							
2452	91.71	PK	H	6.13	97.84	/	/
2452	81.8	AV	H	6.13	87.93	/	/
2452	90.98	PK	V	6.13	97.11	/	/
2452	81.56	AV	V	6.13	87.69	/	/
2385.2	36.85	PK	H	5.48	42.33	74	31.67
2385.2	23.82	AV	H	5.48	29.30	54	24.70
2484.8	42.68	PK	V	7.21	49.89	74	24.11
2484.8	30.03	AV	V	7.21	37.24	54	16.76
4904	37.45	PK	H	12.46	49.91	74	24.09
4904	24.53	AV	H	12.46	36.99	54	17.01
7356	37.25	PK	H	16.49	53.74	74	20.26
7356	23.68	AV	H	16.49	40.17	54	13.83
9808	35.63	PK	V	19.29	54.92	74	19.08
9808	22.86	AV	V	19.29	42.15	54	11.85

Note:

Frequency = Emission frequency in MHz

Correction Factor (dB) =Ant Factor+ cable loss-Pre-Amp .Gain

Corrected Amplitude (dBμV/m) = S.A. Reading + Correction Factor (dB)

Limit（dBμV/m）= Limit stated in standard

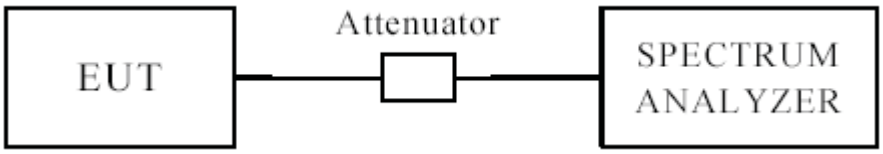
PK = Peak QP =Quasi-peak Ave =Average

Calculation Formula

Margin (dB) = Limit – Corrected Amplitude

7.0 6dB Bandwidth Measurement

7.1 Test Setup



7.2 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is >500 kHz

7.3 Test Procedure

1. Set resolution bandwidth (RBW) = 100 kHz
2. Set the video bandwidth (VBW) ≥ 3 x 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) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

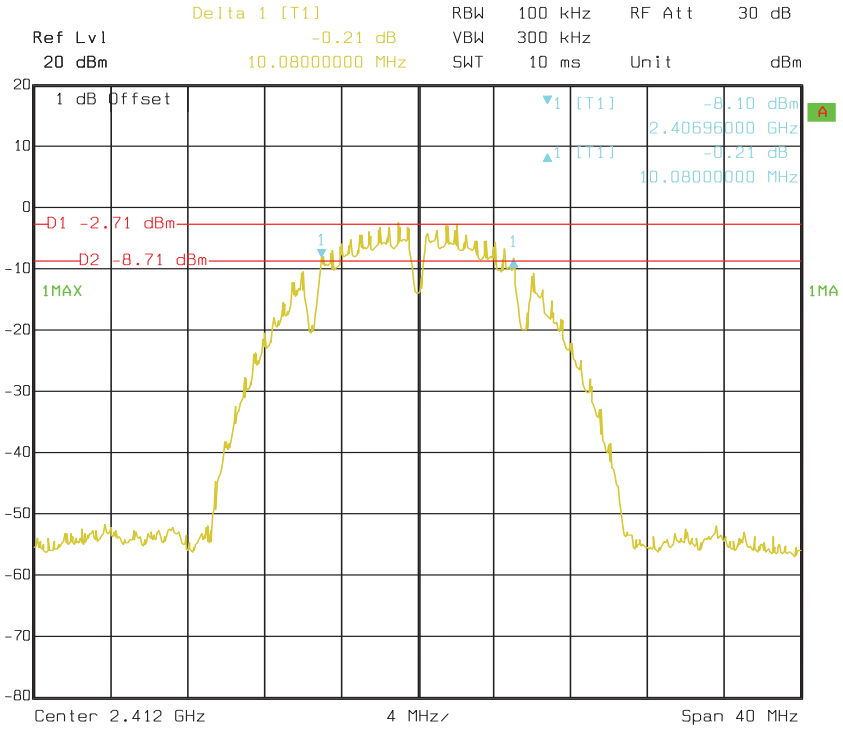
7.4 Test Result

6dB Occupied Bandwidth

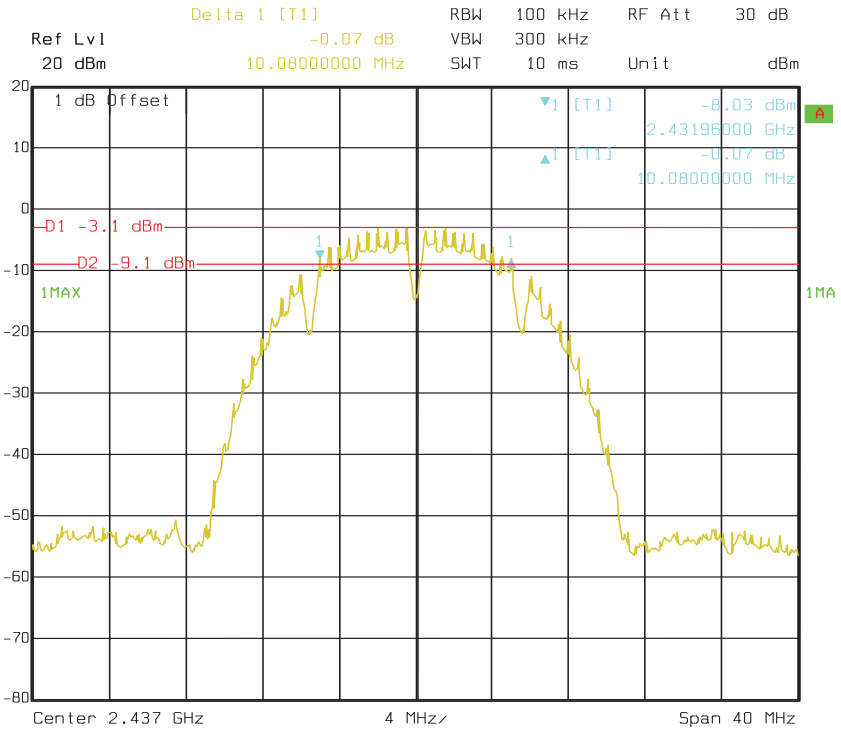
EUT	Case Remote	Model	CR11, CR110, CR119
Mode	802.11b	Input Voltage	AC120V
Temperature	24 deg. C,	Humidity	56% RH

Channel	Channel Frequency (MHz)	Data Transfer Rate (Mbps)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass/ Fail
1	2412	1	10.08	0.5	Pass
6	2437	1	10.08	0.5	Pass
11	2462	1	10.00	0.5	Pass

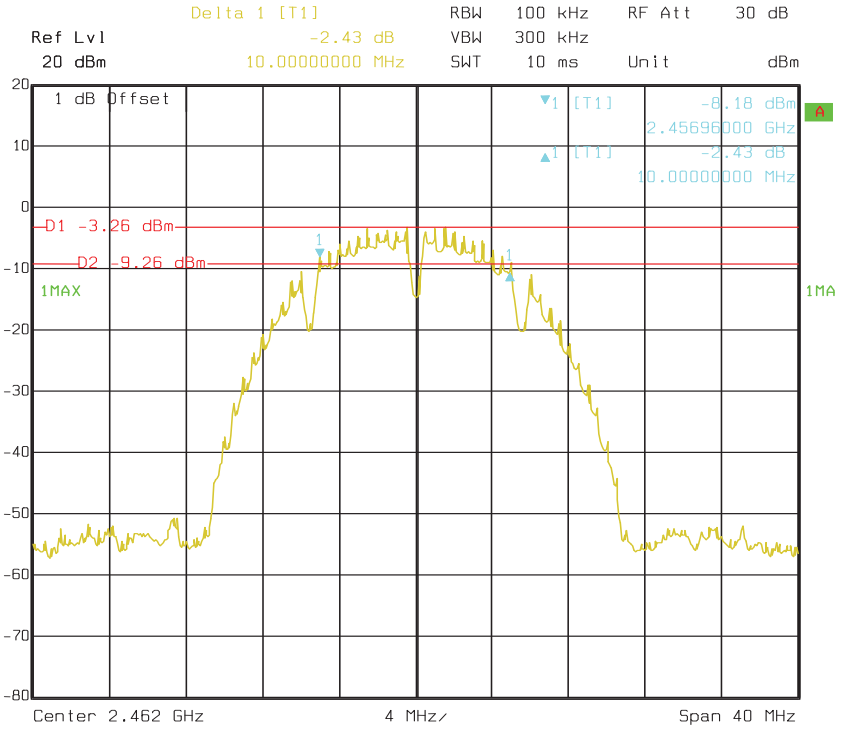
1. 802.11b at 1Mbps of CH01



2. 802.11b at 1Mbps of CH06



3. 802.11b at 1Mbps of CH11



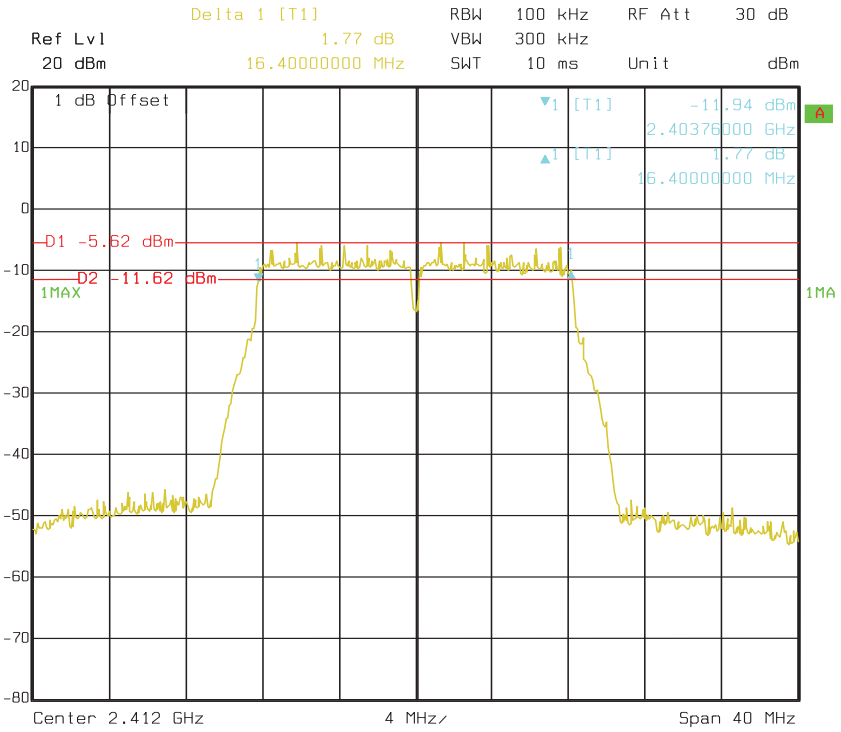
6dB Occupied Bandwidth

EUT	Case Remote	Model	CR11, CR110, CR119
Mode	802.11g	Input Voltage	AC120V
Temperature	24 deg. C,	Humidity	56% RH

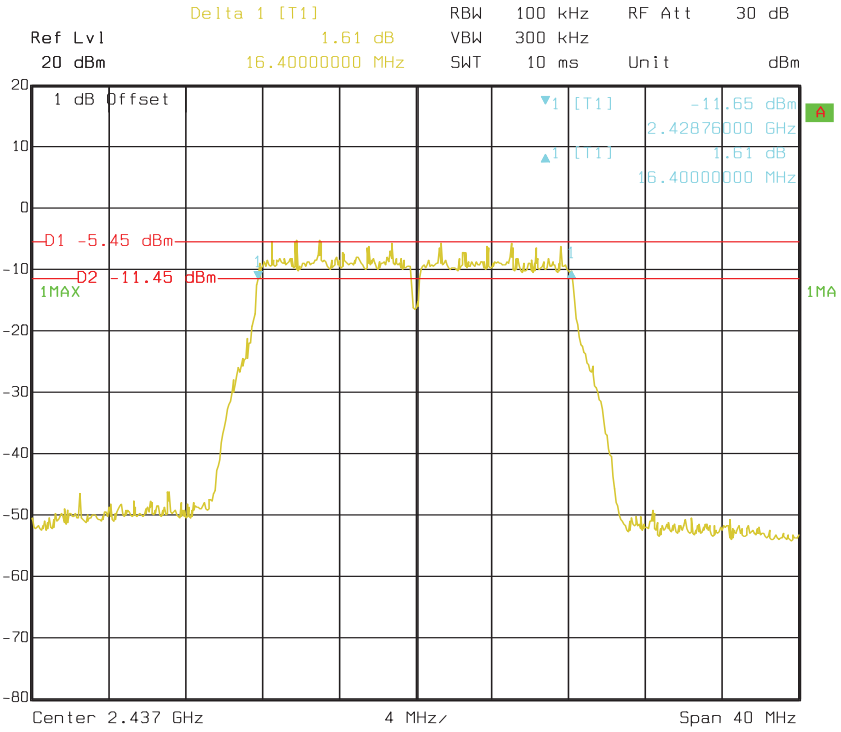
Channel	Channel Frequency (MHz)	Data Transfer Rate (Mbps)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass/ Fail
1	2412	6	16.40	0.5	Pass
6	2437	6	16.40	0.5	Pass
11	2462	6	16.40	0.5	Pass

Test Plots:

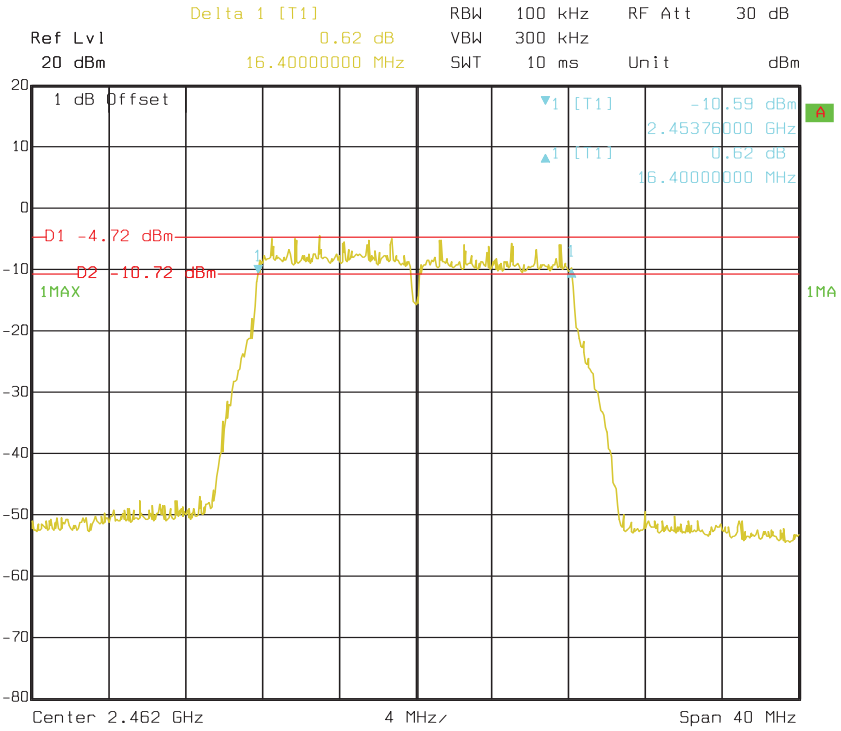
1. 802.11g at 6Mbps of CH01



2. 802.11g at 6Mbps of CH06



3. 802.11g at 6Mbps of CH11



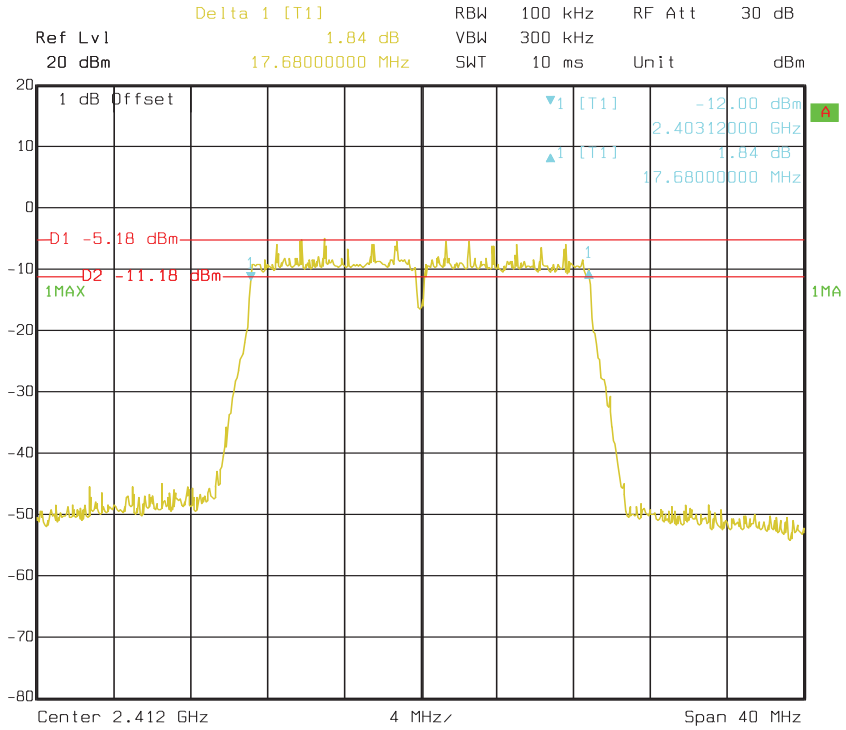
6dB Occupied Bandwidth

EUT	Case Remote	Model	CR11, CR110, CR119
Mode	802.11n HT20	Input Voltage	AC120V
Temperature	24 deg. C,	Humidity	56% RH

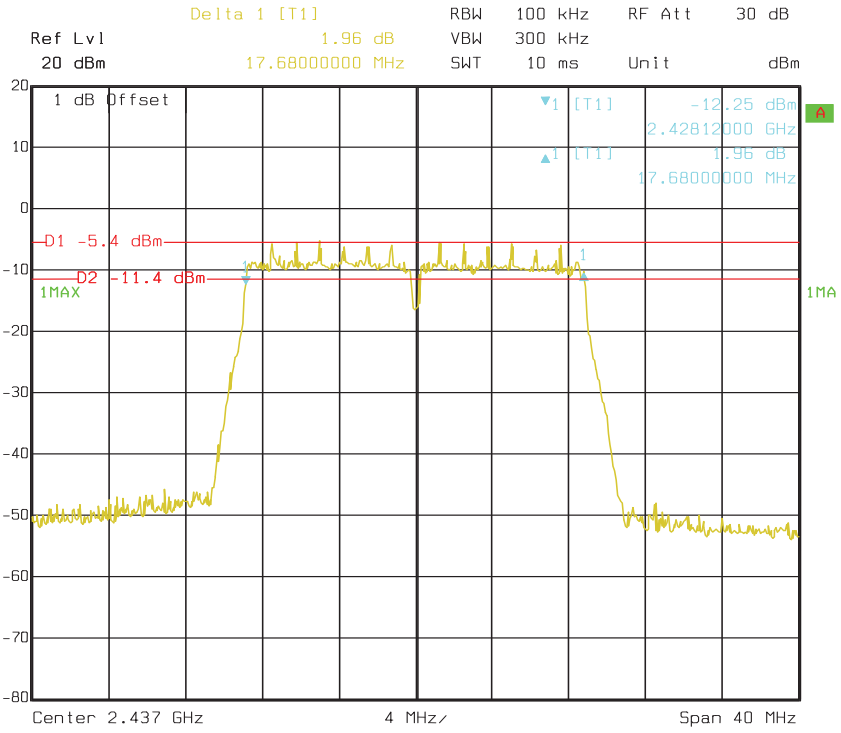
Channel	Channel Frequency (MHz)	Data Transfer Rate (Mbps)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass/ Fail
1	2412	6.5M	17.68	0.5	Pass
6	2437	6.5M	17.68	0.5	Pass
11	2462	6.5M	17.60	0.5	Pass

Test Plots:

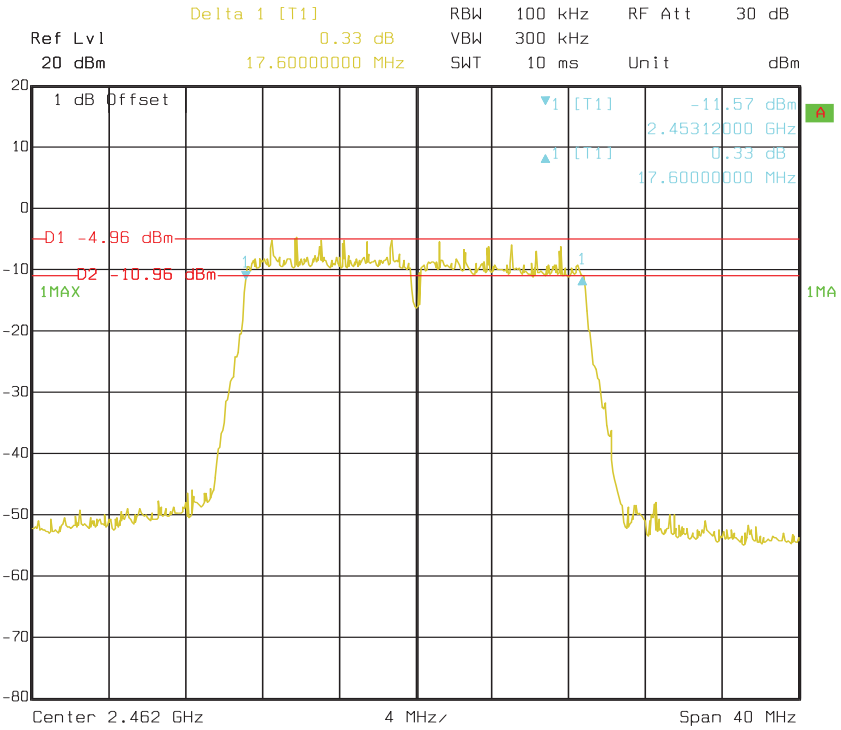
1. 802.11n at HT20 of CH01



2. 802.11n at HT20 of CH06



3. 802.11n at HT20 of CH11



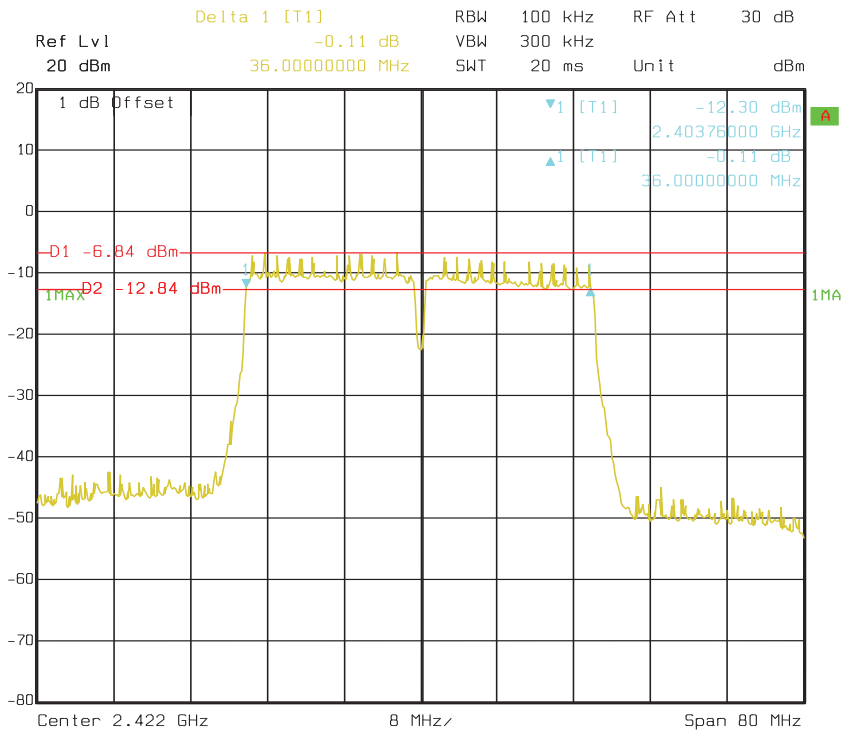
6dB Occupied Bandwidth

EUT	Case Remote	Model	CR11, CR110, CR119
Mode	802.11n HT40	Input Voltage	AC120V
Temperature	24 deg. C,	Humidity	56% RH

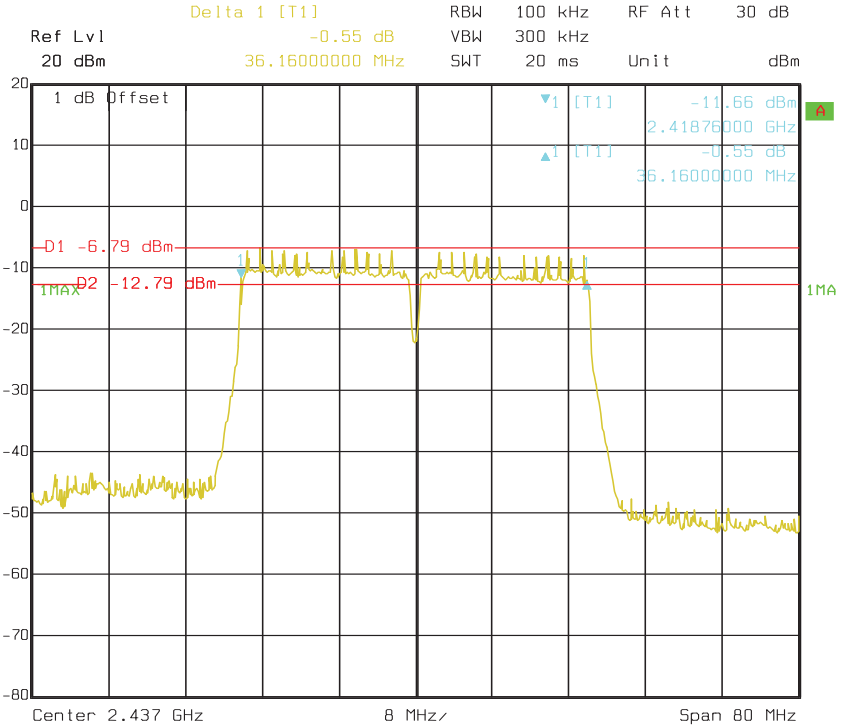
Channel	Channel Frequency (MHz)	Data Transfer Rate (Mbps)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass/ Fail
1	2422	6.5M	36.00	0.5	Pass
4	2437	6.5M	36.16	0.5	Pass
7	2452	6.5M	35.84	0.5	Pass

Test Plots:

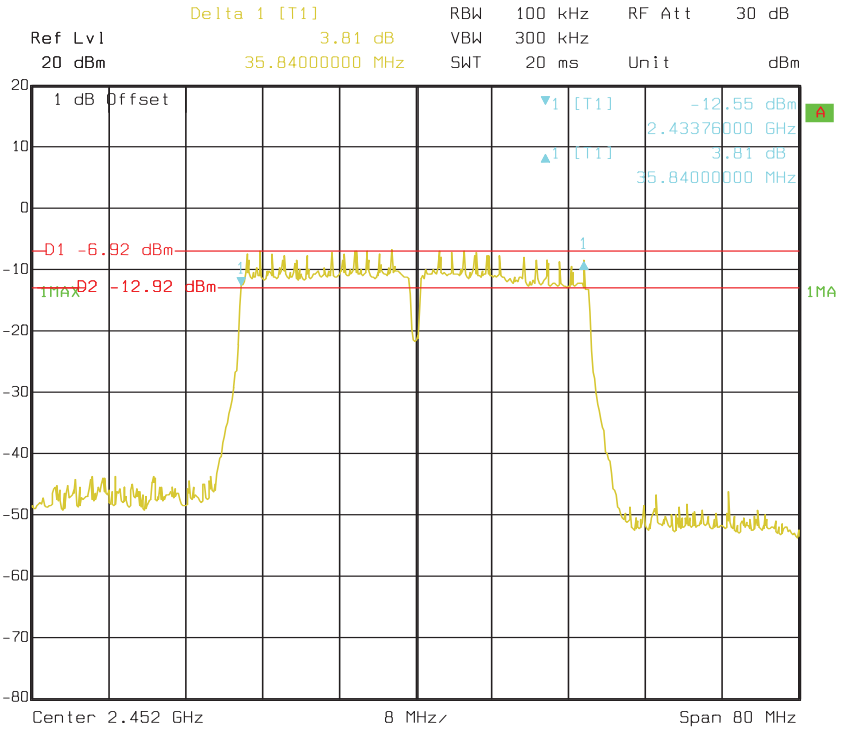
1. 802.11n at HT40 of CH01



2. 802.11n at HT40 of CH04

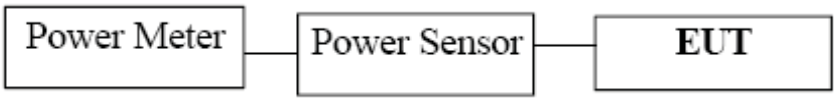


3. 802.11n at HT40 of CH07



8. Maximum Peak Output Power

8.1 Test Setup



8.2 Limits of Maximum Peak Output Power

The Maximum Peak Output Power Measurement is 30dBm.

8.3 Test Procedure

The RF power output was measured with a Power meter connected to the RF Antenna connector (conducted measurement) while EUT was operating in transmit mode at the appropriate centre frequency.

Note: the peak power was measured

8.4Test Results

EUT	Case Remote	Model	CR11, CR110, CR119
Mode	802.11b	Input Voltage	AC120V
Temperature	24 deg. C,	Humidity	56% RH

Channel	Channel Frequency (MHz)	Peak Power Output (dBm)	Peak Power Limit (dBm)	Pass/ Fail
1	2412	9.04	30	Pass
6	2437	8.73	30	Pass
11	2462	8.57	30	Pass

Note: 1. At finial test to get the worst-case emission at 1Mbps for CH01, CH06 and CH11

2. The result basic equation calculation as follow:

Peak Power Output = Peak Power Reading + Cable loss + Attenuator

3. The worse case was recorded

EUT	Case Remote	Model	CR11, CR110, CR119
Mode	802.11g	Input Voltage	AC120V
Temperature	24 deg. C,	Humidity	56% RH

Channel	Channel Frequency (MHz)	Peak Power Output (dBm)	Peak Power Limit (dBm)	Pass/ Fail
1	2412	8.85	30	Pass
6	2437	8.74	30	Pass
11	2462	8.93	30	Pass

Note: 1. At finial test to get the worst-case emission at 6Mbps for CH01, CH06 and CH11

2. The result basic equation calculation as follow:

Peak Power Output = Peak Power Reading + Cable loss + Attenuator

3. The worse case was recorded

EUT	Case Remote	Model	CR11, CR110, CR119
Mode	802.11n (HT20)	Input Voltage	AC120V
Temperature	24 deg. C,	Humidity	56% RH

Channel	Channel Frequency (MHz)	Peak Power Output (dBm)	Peak Power Limit (dBm)	Pass/ Fail
1	2412	8.98	30	Pass
6	2437	8.66	30	Pass
11	2462	8.96	30	Pass

Note: 1. At finial test to get the worst-case emission at 6.5Mbps of 11n HT20 for CH01, CH06 and CH11

2. The result basic equation calculation as follow:

Peak Power Output = Peak Power Reading + Cable loss + Attenuator

3. The worse case was recorded

EUT	Case Remote	Model	CR11, CR110, CR119
Mode	802.11n (HT40)	Input Voltage	AC120V
Temperature	24 deg. C,	Humidity	56% RH

Channel	Channel Frequency (MHz)	Peak Power Output (dBm)	Peak Power Limit (dBm)	Pass/ Fail
1	2422	7.99	30	Pass
4	2437	8.04	30	Pass
7	2452	8.21	30	Pass

Note: 1. At finial test to get the worst-case emission at 6.5Mbps of 11n HT40 for CH01, CH04 and CH7

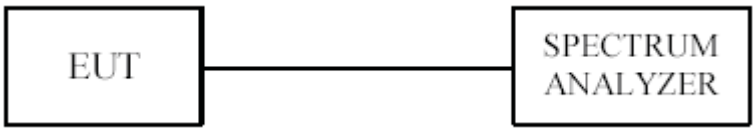
2. The result basic equation calculation as follow:

Peak Power Output = Peak Power Reading + Cable loss + Attenuator

3. The worse case was recorded

9. Power Spectral Density Measurement

9.1 Test Setup



9.2 Limits of Power Spectral Density Measurement

The Maximum Power Spectral Density Measurement is 8dBm.

9.3 Test Procedure

1. Use this procedure when the maximum peak conducted output power in the fundamental emission is used to demonstrate compliance.
2. Set the RBW = 3 kHz.
3. Set the VBW ≥ 10 kHz.
4. Set the span to 1.5 times the DTS channel bandwidth.
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.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.
11. The resulting peak PSD level must be ≤ 8 dBm.

9.4Test Result

EUT	Case Remote	Model	CR11, CR110, CR119
Mode	802.11b 1Mbps	Input Voltage	AC120V
Temperature	24 deg. C,	Humidity	56% RH

Channel	Channel Frequency (MHz)	Final RF Power Level (dBm)	Maximum Limit (dBm)	Pass/ Fail
1Mbps				
1	2412	-17.10	8	Pass
6	2437	-17.19	8	Pass
11	2462	-16.73	8	Pass

EUT	Case Remote	Model	CR11, CR110, CR119
Mode	802.11g 6Mbps	Input Voltage	AC120V
Temperature	24 deg. C,	Humidity	56% RH

Channel	Channel Frequency (MHz)	Final RF Power Level in (dBm)	Maximum Limit (dBm)	Pass/ Fail
6Mbps				
1	2412	-19.05	8	Pass
6	2437	-19.42	8	Pass
11	2462	-18.75	8	Pass

EUT	Case Remote	Model	CR11, CR110, CR119
Mode	802.11n HT20 6.5Mbps	Input Voltage	AC120V
Temperature	24 deg. C,	Humidity	56% RH

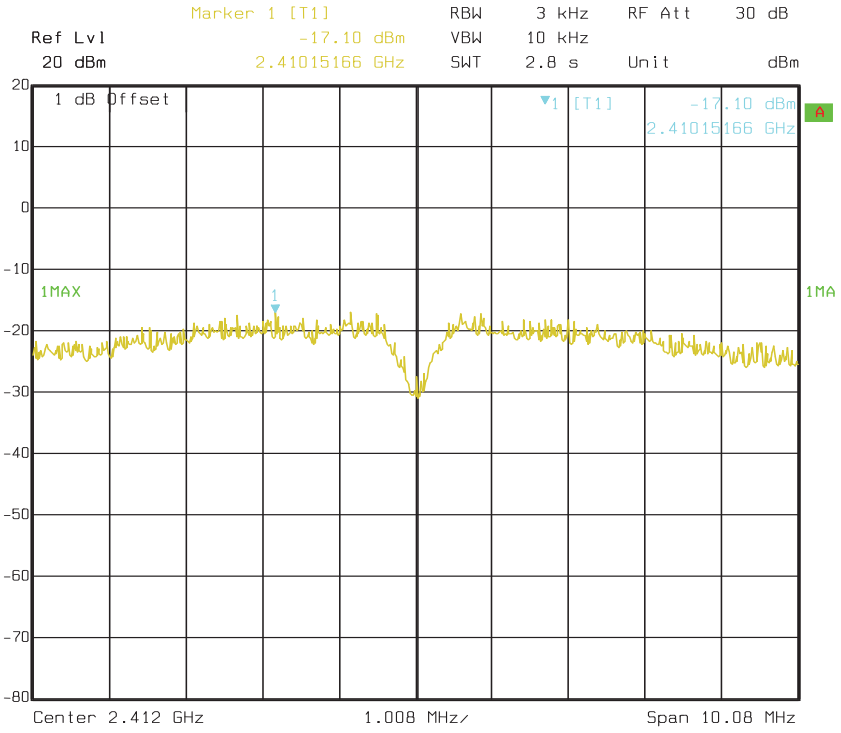
Channel	Channel Frequency (MHz)	Final RF Power Level (dBm)	Maximum Limit (dBm)	Pass/ Fail
HT20				
1	2412	-19.19	8	Pass
6	2437	-19.76	8	Pass
11	2462	-19.53	8	Pass

EUT	Case Remote	Model	CR11, CR110, CR119
Mode	802.11n HT40 6.5Mbps	Input Voltage	AC120V
Temperature	24 deg. C,	Humidity	56% RH

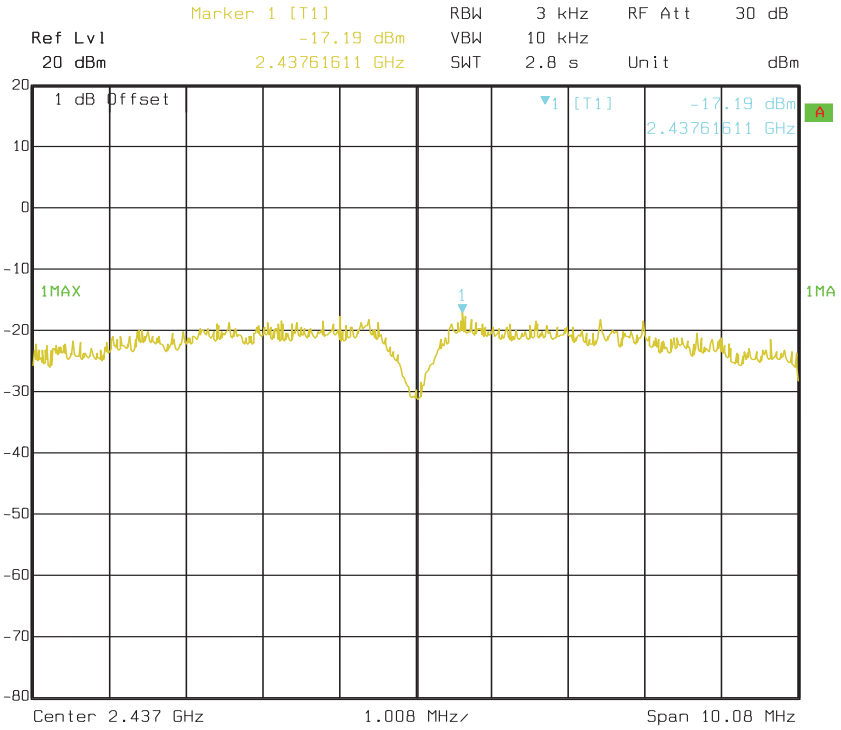
Channel	Channel Frequency (MHz)	Final RF Power Level (dBm)	Maximum Limit (dBm)	Pass/ Fail
HT40				
1	2422	-21.01	8	Pass
4	2437	-20.05	8	Pass
7	2452	-21.05	8	Pass

9.5 Photo of Power Spectral Density Measurement

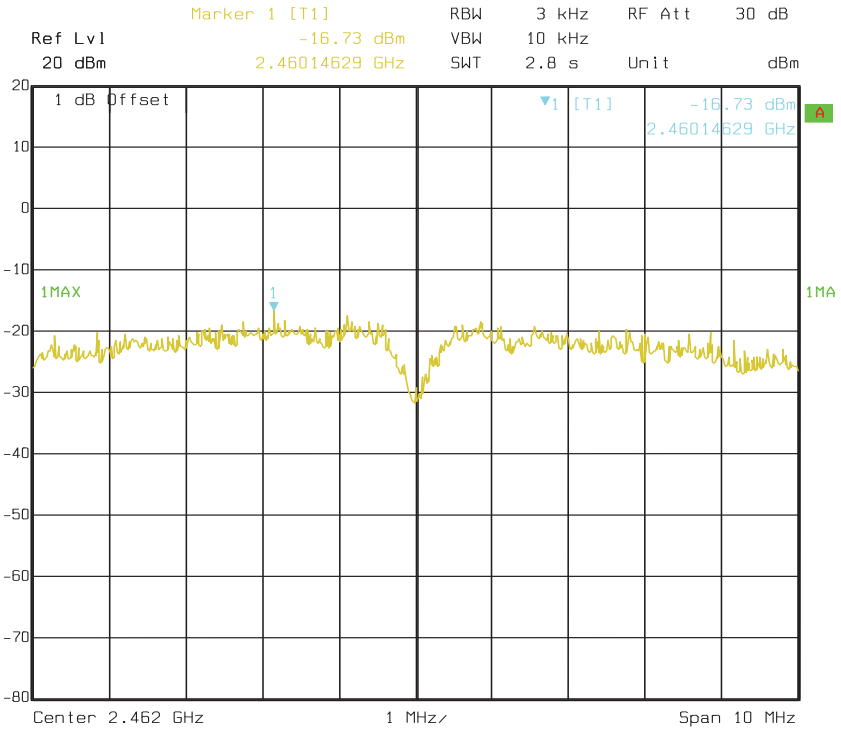
1. 802.11b at 1Mbps of CH1



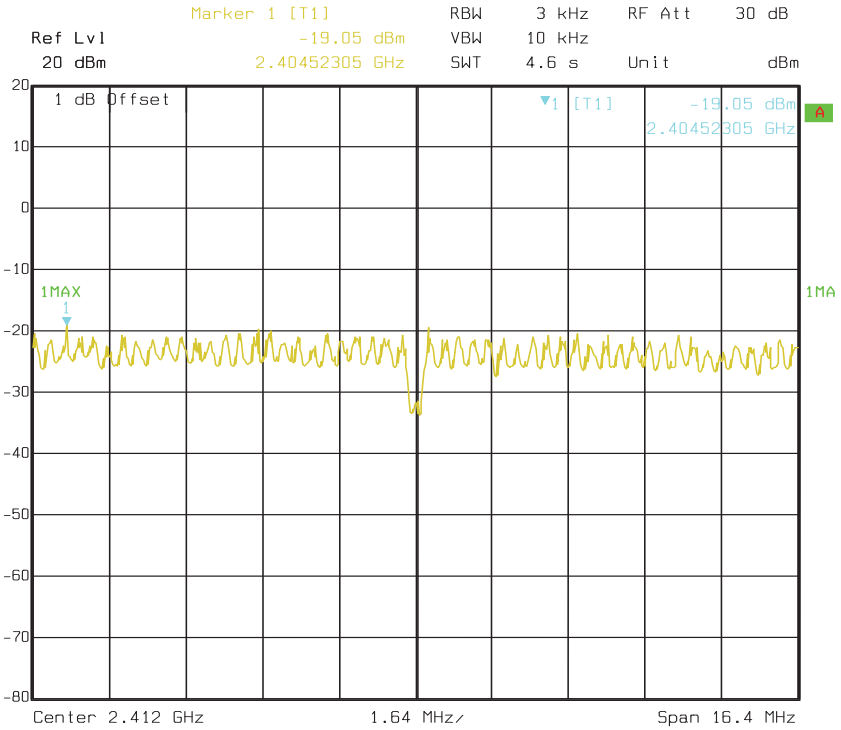
2. 802.11b at 1Mbps of CH6



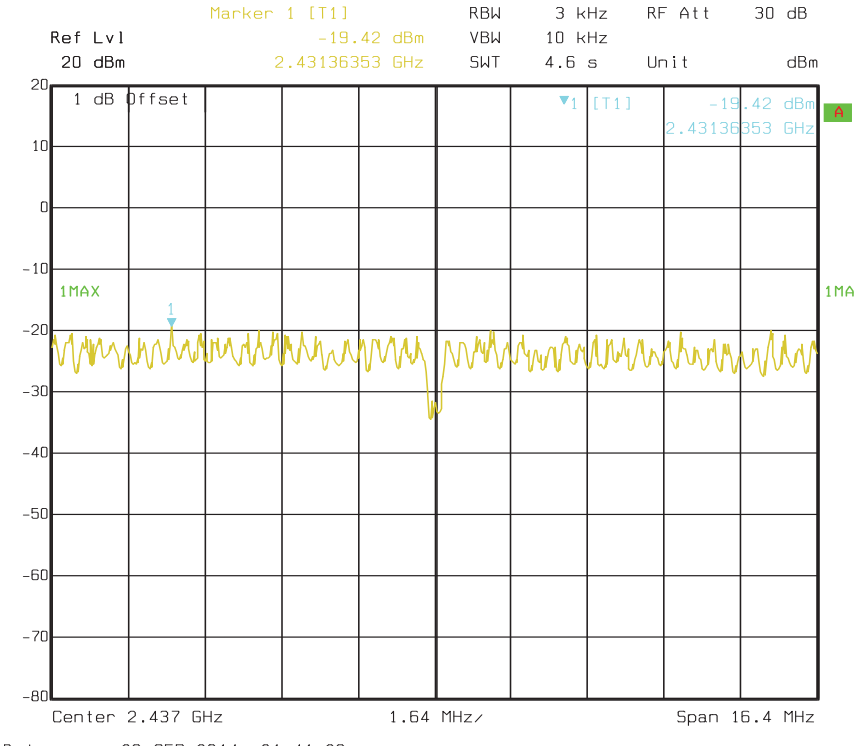
3. 802.11b at 1Mbps of CH11



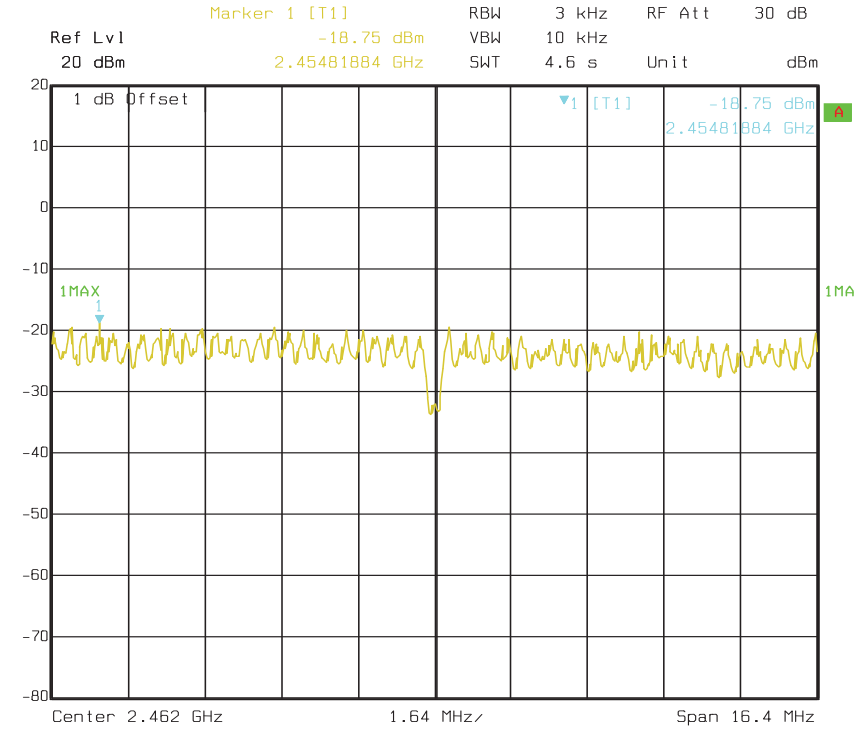
4. 802.11g at 6Mbps of CH1



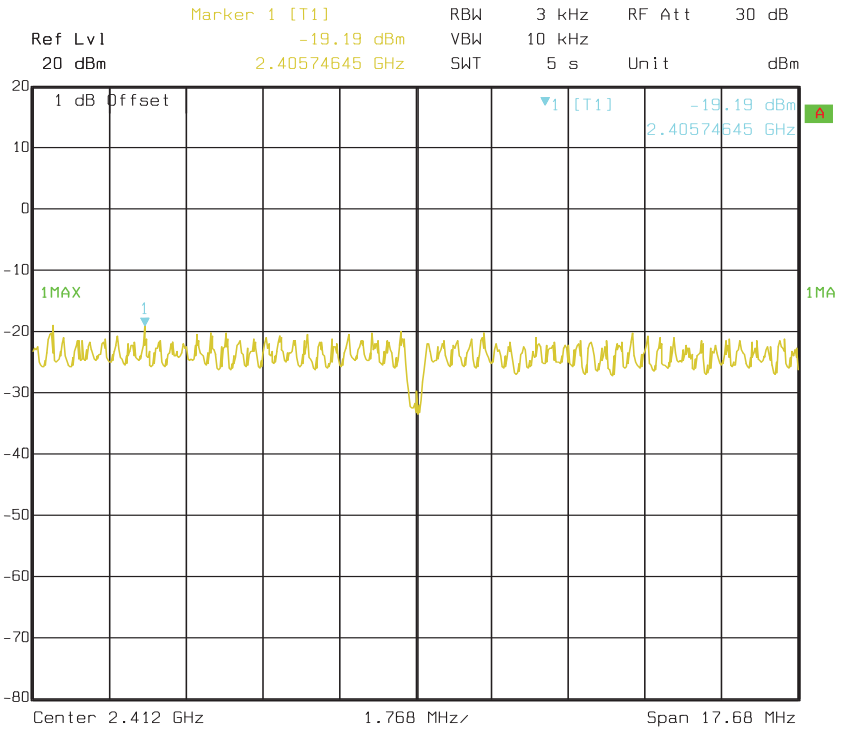
5. 802.11g at 6Mbps of CH6



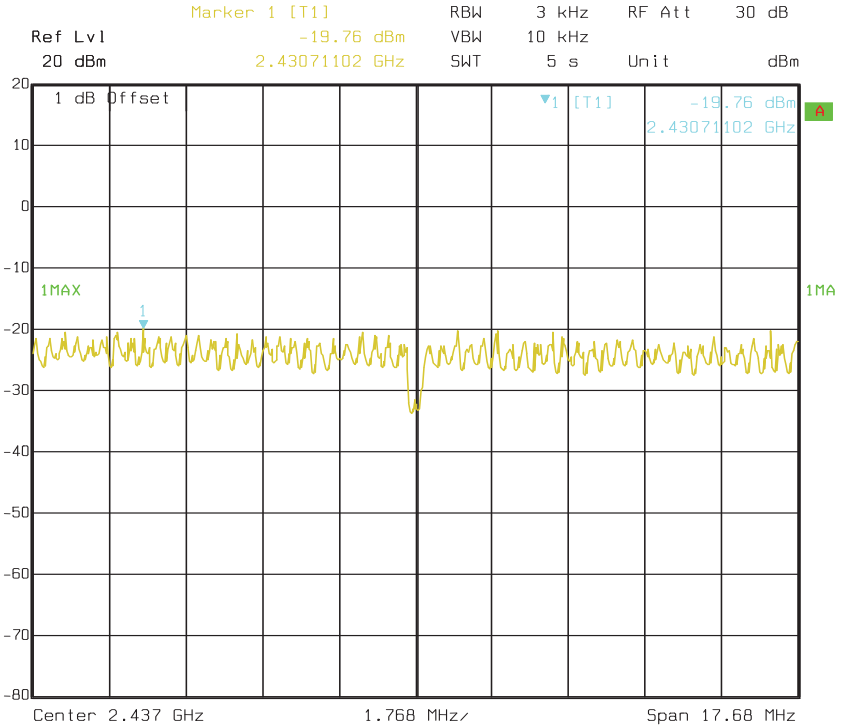
6. 802.11g at 6Mbps of CH11



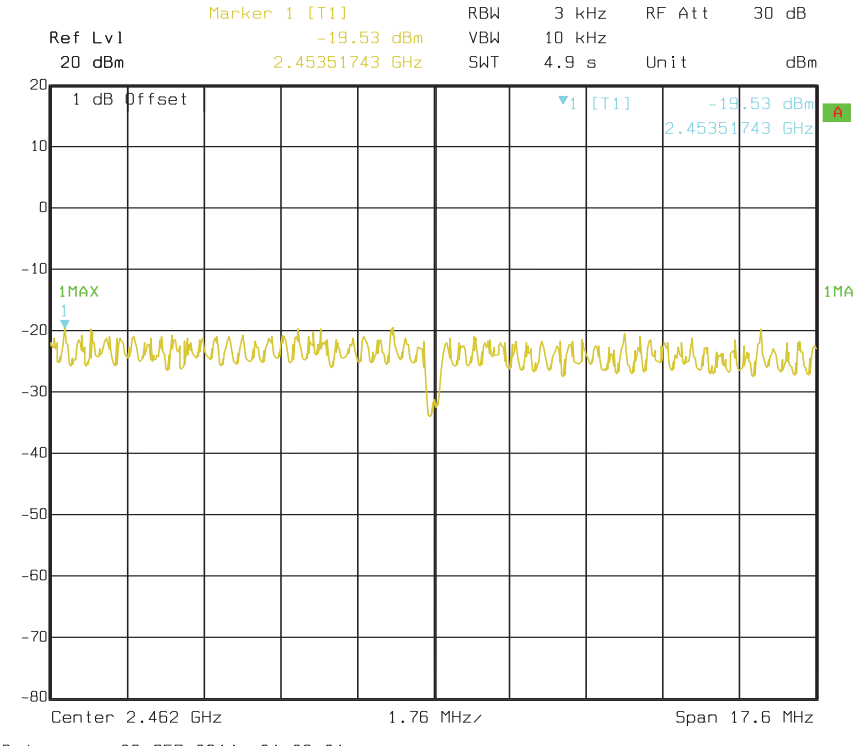
7. 802.11n at HT20 of CH01



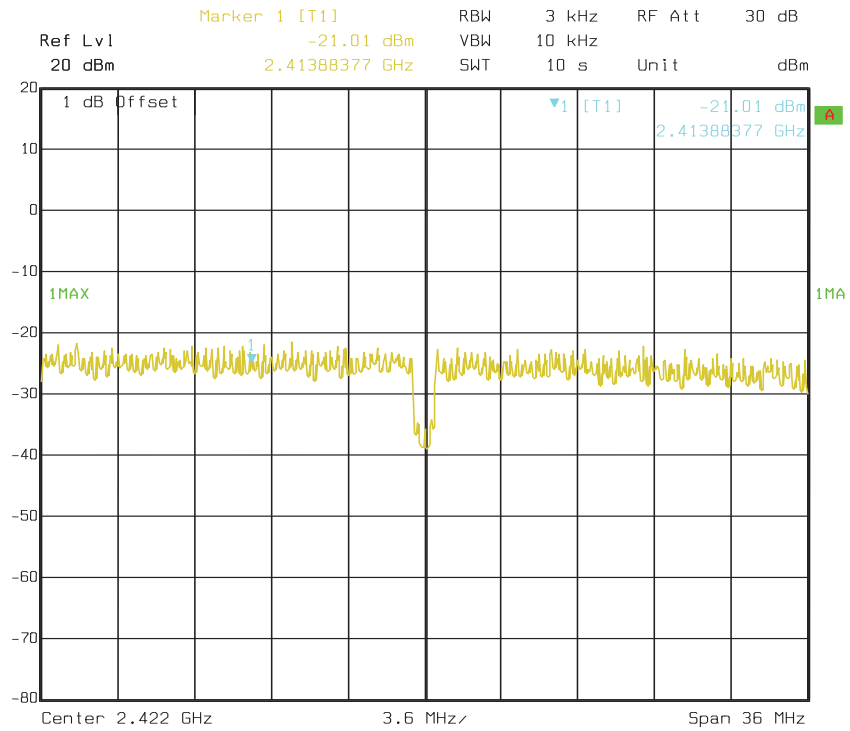
8. 802.11n at HT20 of CH06



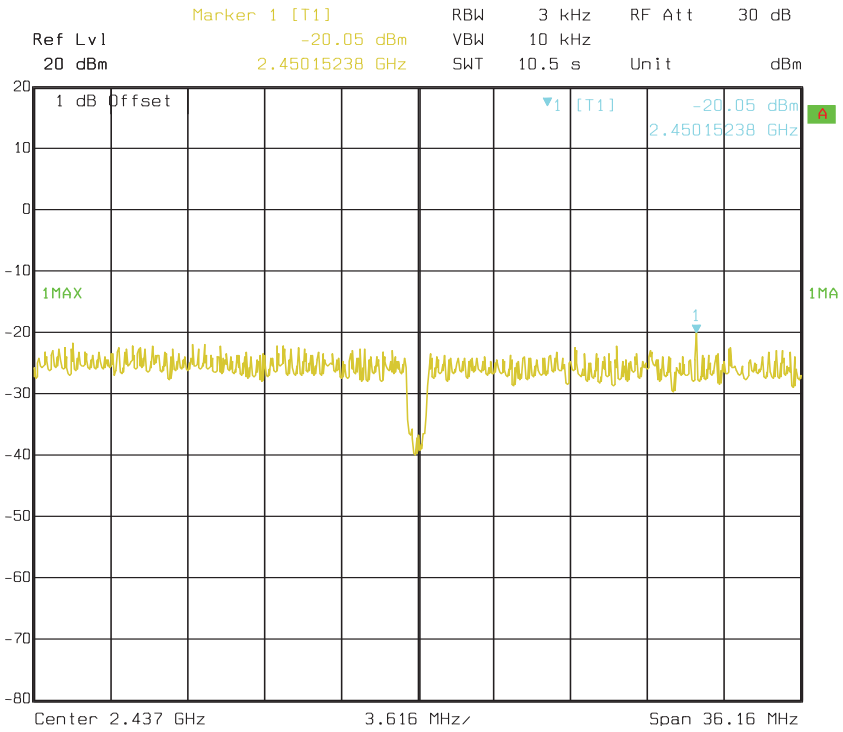
9. 802.11n at HT20 of CH11



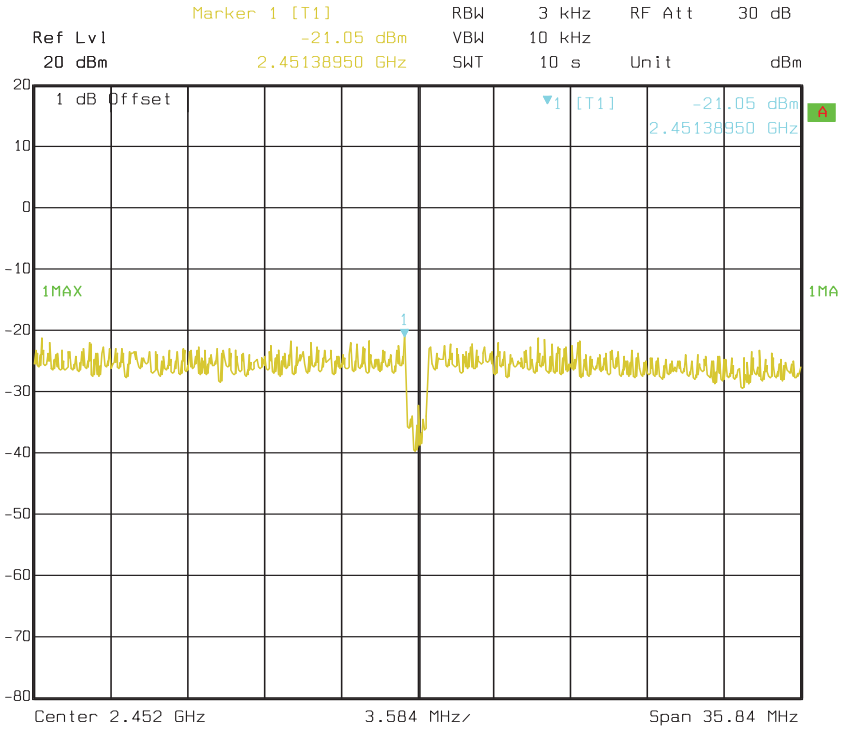
10. 802.11n at HT40 of CH01



11. 802.11n at HT40 of CH04

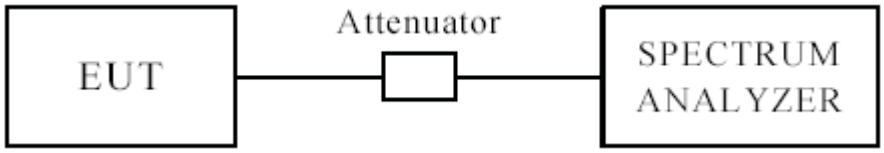


12. 802.11n at HT40 of CH07



10 Out of Band Measurement

10.1 Test Setup for band edge



The restricted band requirement based on radiated emission test; please see the clause 6 for the test setup

10.2 Limits of Out of Band Emissions Measurement

1. Below –20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).
2. Fall in the restricted bands listed in section 15.205. The maximum permitted average field strength is listed in section 15.209.

10.3 Test Procedure

For signals in the restricted bands above and below the 2.4-2.483GHz allocated band a measurement was made of radiated emission test.(Peak values with RBW=1MHz, VBW=3MHz and PK detector. AV value with RBW=1MHz, VBW=3MHz and RMS detector)

For bandage test, the spectrum set as follows: RBW=100, VBW=300 kHz. A conducted measurement used

10.4 Test Result

Please see next pages

Note: 1. this is a handhold device. The radiated emissions should be tested under 3-axes position (Lying, Side, and Stand), after pre-test. It was found that the worse radiated emission was get at the lying position. the worse case was recorded

2. For band-edge measurement, the frequency from 30MHz-25GHz was tested. And It met the FCC rule.

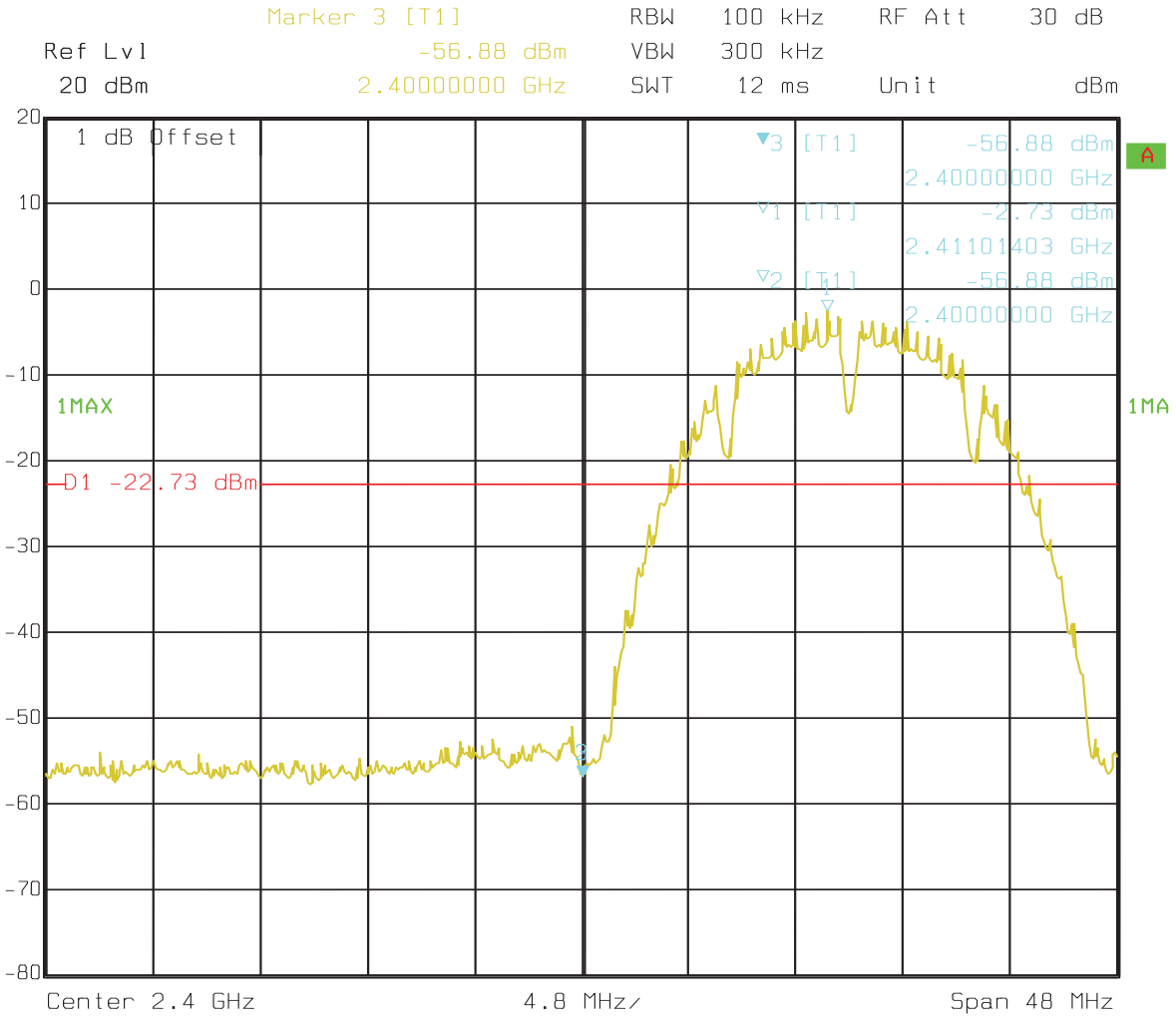
For 802.11b mode

CH01 at 1Mbps

10.4 Band-edge and Restricted band Measurement

EUT	Case Remote		Model	CR11, CR110, CR119
Mode	Keeping Transmitting		Input Voltage	AC120V
Temperature	24 deg. C,		Humidity	56% RH
Test Result:	Pass		Detector	PK
2400	PK (dBμV/m)	46.13	Limit	74(dBμV/m)
	AV (dBμV/m)	--		54(dBμV/m)
2390	PK (dBμV/m)	38.81	Limit	74(dBμV/m)
	AV (dBμV/m)	--		54(dBμV/m)

Test Figure:



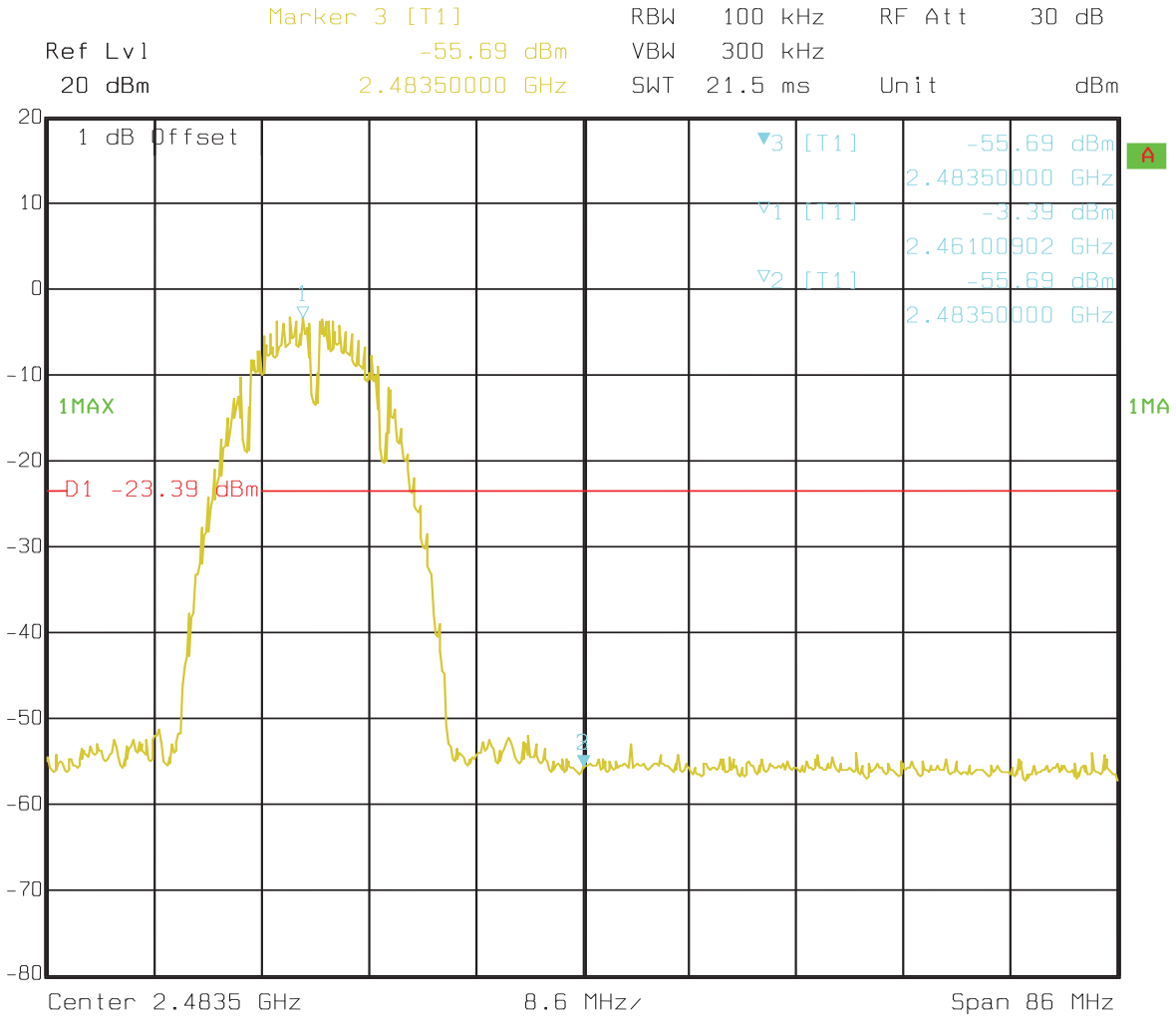
Note: The Max. FS in Restrict Band are measured in conventional method.

CH11 at 1Mbps

10.4 Band-edge and Restricted band Measurement

EUT	Case Remote		Model	CR11, CR110, CR119
Mode	Keeping Transmitting		Input Voltage	AC120V
Temperature	24 deg. C,		Humidity	56% RH
Test Result:	Pass		Detector	PK
2483.5	PK (dBμV/m)	42.89	Limit	74(dBμV/m)
	AV (dBμV/m)	--		54(dBμV/m)

Test Figure:



Note: The Max. FS in Restrict Band are measured in conventional method.

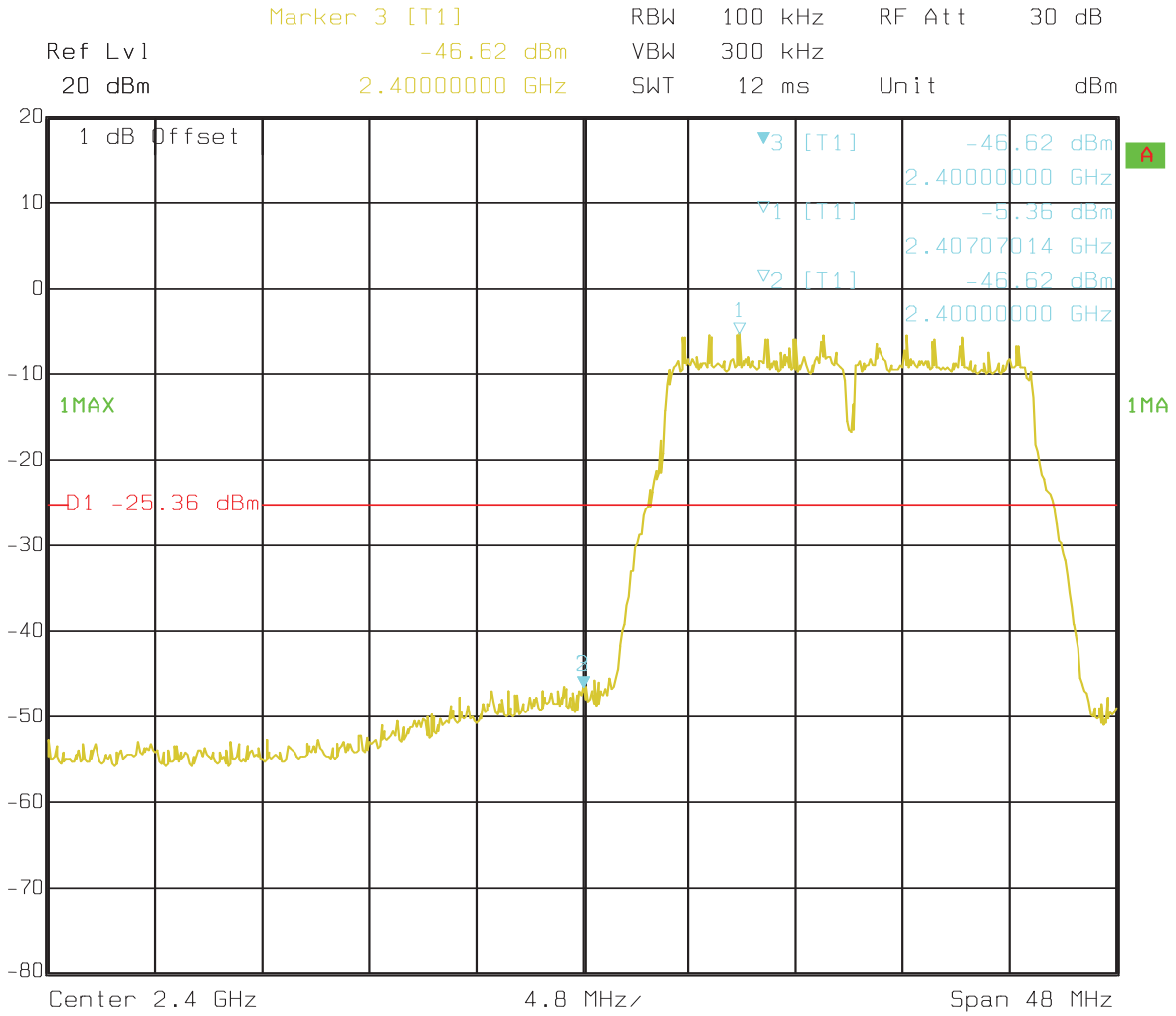
For 802.11g mode

CH01 at 6Mbps

10.4 Band-edge and Restricted band Measurement

EUT	Case Remote		Model	CR11, CR110, CR119
Mode	Keeping Transmitting		Input Voltage	AC120V
Temperature	24 deg. C,		Humidity	56% RH
Test Result:	Pass		Detector	PK
2400	PK (dBμV/m)	48.82	Limit	74(dBμV/m)
	AV (dBμV/m)	--		54(dBμV/m)
2390	PK (dBμV/m)	38.79	Limit	74(dBμV/m)
	AV (dBμV/m)	--		54(dBμV/m)

Test Figure:



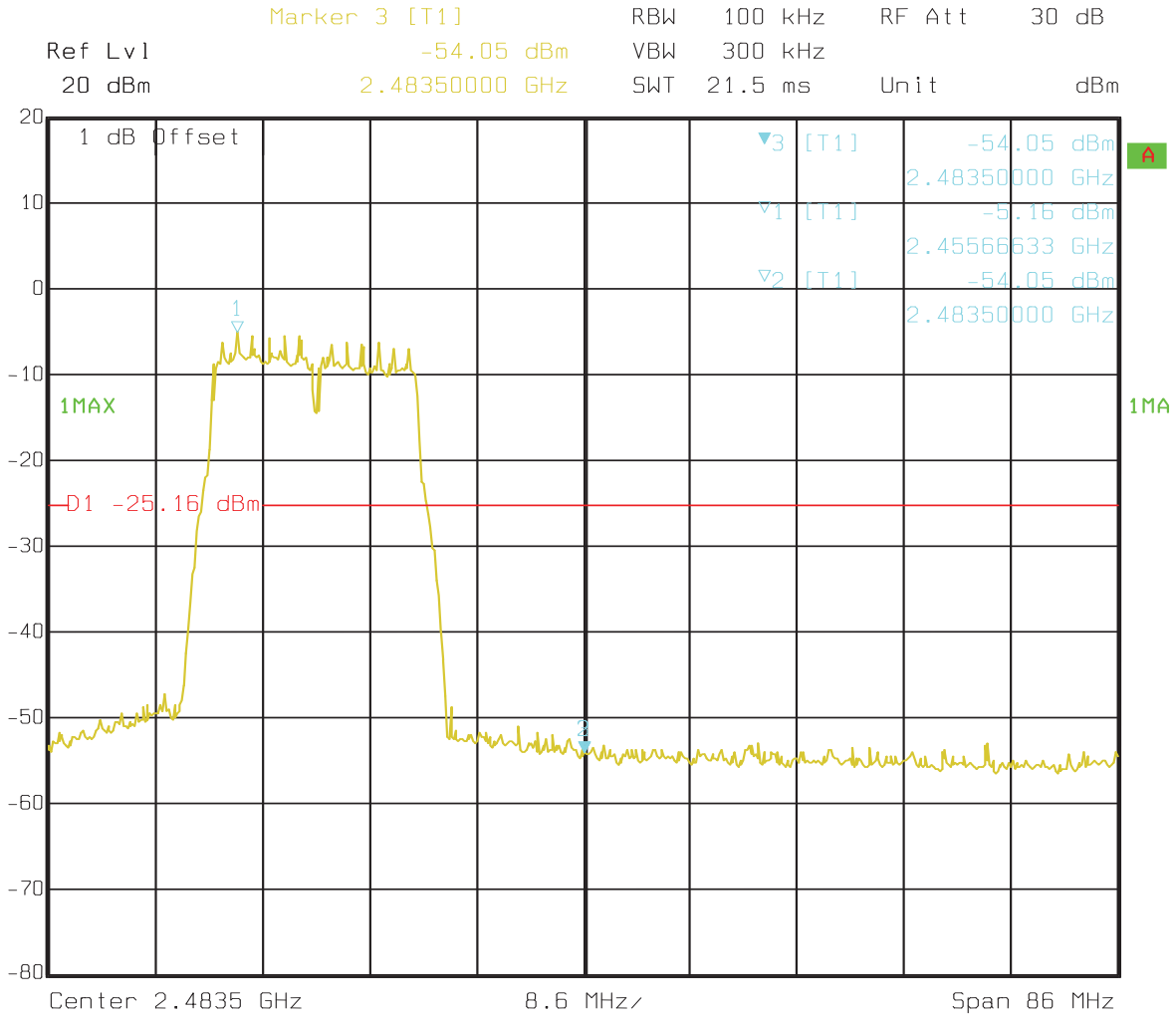
Note: The Max. FS in Restrict Band are measured in conventional method.

CH11 at 6Mbps

10.4 Band-edge and Restricted band Measurement

EUT	Case Remote		Model	CR11, CR110, CR119
Mode	Keeping Transmitting		Input Voltage	AC120V
Temperature	24 deg. C,		Humidity	56% RH
Test Result:	Pass		Detector	PK
2483.5	PK (dBμV/m)	45.12	Limit	74(dBμV/m)
	AV (dBμV/m)	--		54(dBμV/m)

Test Figure:



Note: The Max. FS in Restrict Band are measured in conventional method.

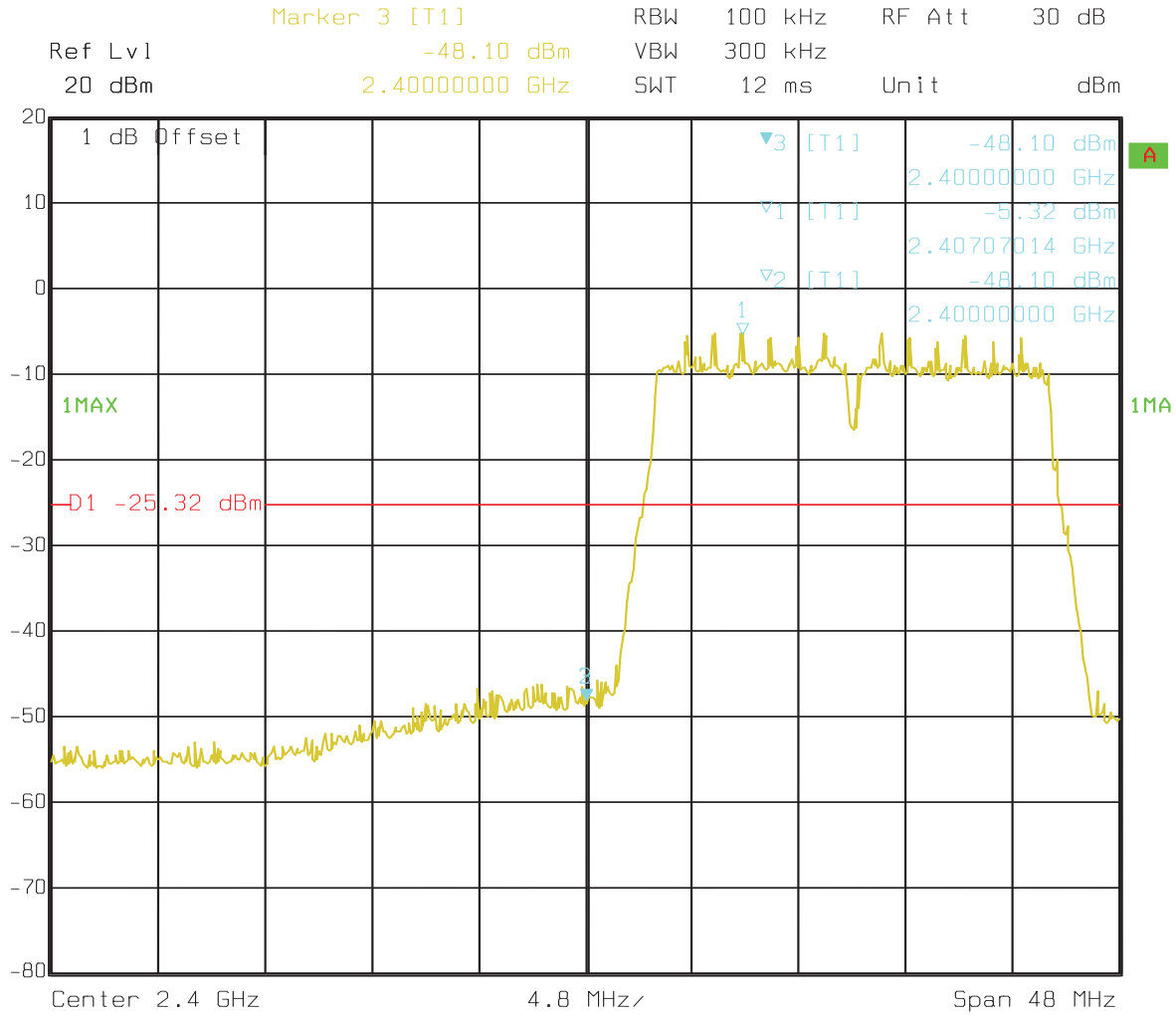
For 802.11n (HT20) mode

CH01 at 6.5Mbps

10.4 Band-edge and Restricted band Measurement

EUT	Case Remote		Model	CR11, CR110, CR119
Mode	Keeping Transmitting		Input Voltage	AC120V
Temperature	24 deg. C,		Humidity	56% RH
Test Result:	Pass		Detector	PK
2400	PK (dBμV/m)	49.82	Limit	74(dBμV/m)
	AV (dBμV/m)	--		54(dBμV/m)
2390	PK (dBμV/m)	37.29	Limit	74(dBμV/m)
	AV (dBμV/m)	--		54(dBμV/m)

Test Figure:



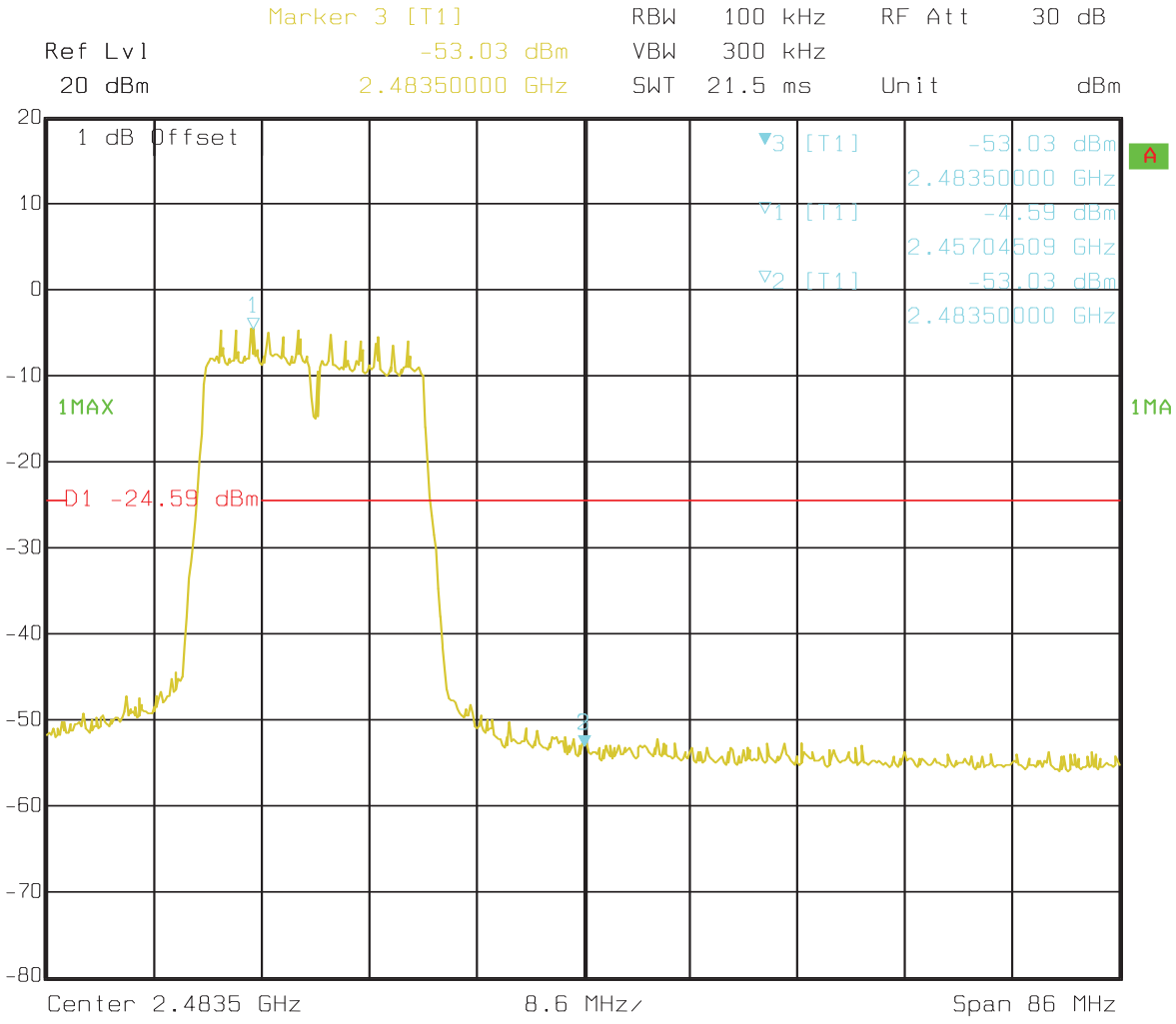
Note: The Max. FS in Restrict Band are measured in conventional method.

CH11 at 6.5Mbps

10.4 Band-edge and Restricted band Measurement

EUT	Case Remote		Model	CR11, CR110, CR119
Mode	Keeping Transmitting		Input Voltage	AC120V
Temperature	24 deg. C,		Humidity	56% RH
Test Result:	Pass		Detector	PK
2483.5	PK (dBμV/m)	46.11	Limit	74(dBμV/m)
	AV (dBμV/m)	--		54(dBμV/m)

Test Figure:



Note: The Max. FS in Restrict Band are measured in conventional method.

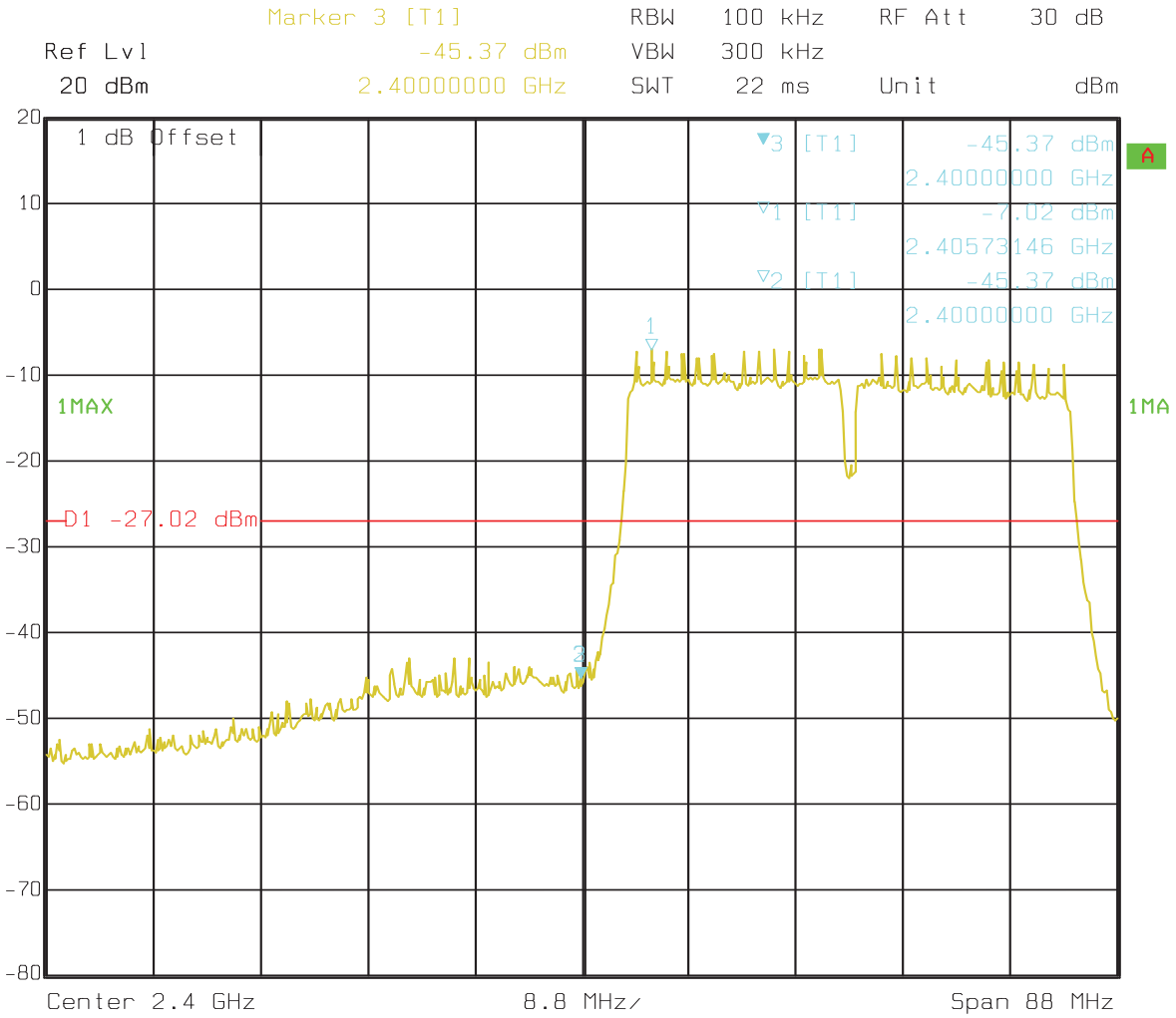
For 802.11n (HT40) mode

CH01 at 6.5Mbps

10.4 Band-edge and Restricted band Measurement

EUT	Case Remote		Model	CR11, CR110, CR119
Mode	Keeping Transmitting		Input Voltage	AC120V
Temperature	24 deg. C,		Humidity	56% RH
Test Result:	Pass		Detector	PK
2400	PK (dBμV/m)	46.56	Limit	74(dBμV/m)
	AV (dBμV/m)	--		54(dBμV/m)
2390	PK (dBμV/m)	40.67	Limit	74(dBμV/m)
	AV (dBμV/m)	--		54(dBμV/m)

Test Figure:



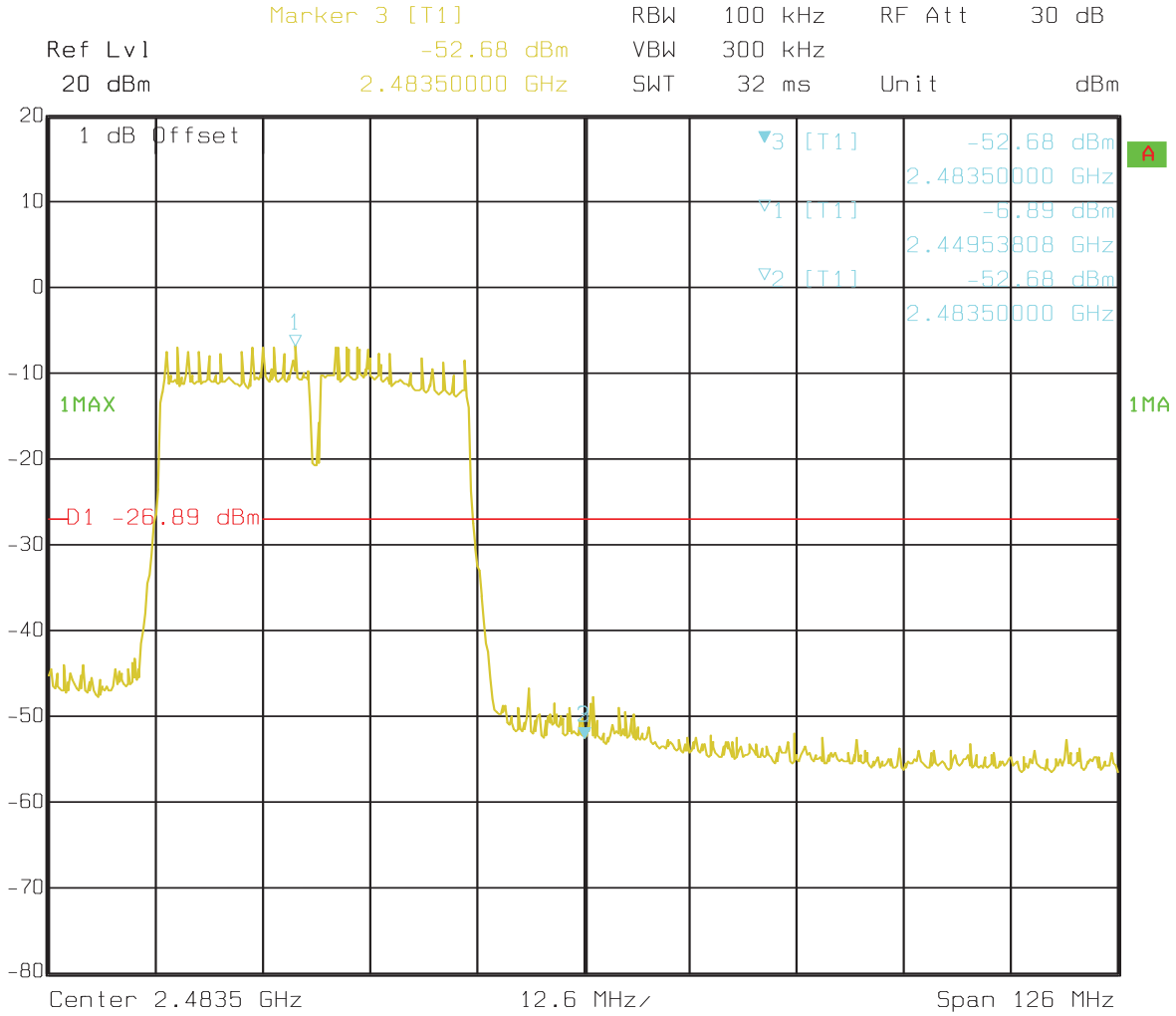
Note: The Max. FS in Restrict Band are measured in conventional method.

CH7 at 6.5Mbps

10.4 Band-edge and Restricted band Measurement

EUT	Case Remote		Model	CR11, CR110, CR119
Mode	Keeping Transmitting		Input Voltage	AC120V
Temperature	24 deg. C,		Humidity	56% RH
Test Result:	Pass		Detector	PK
2483.5	PK (dBμV/m)	49.38	Limit	74(dBμV/m)
	AV (dBμV/m)	--		54(dBμV/m)

Test Figure:



Note: The Max. FS in Restrict Band are measured in conventional method.

11.0 Antenna Requirement

11.1 Standard Applicable

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

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

11.2 Antenna Connected construction

PCB antenna used. The maximum Gain of the antennas is 1.5 dBi.

12.0 FCC ID Label

FCC ID:2ADHGCR11

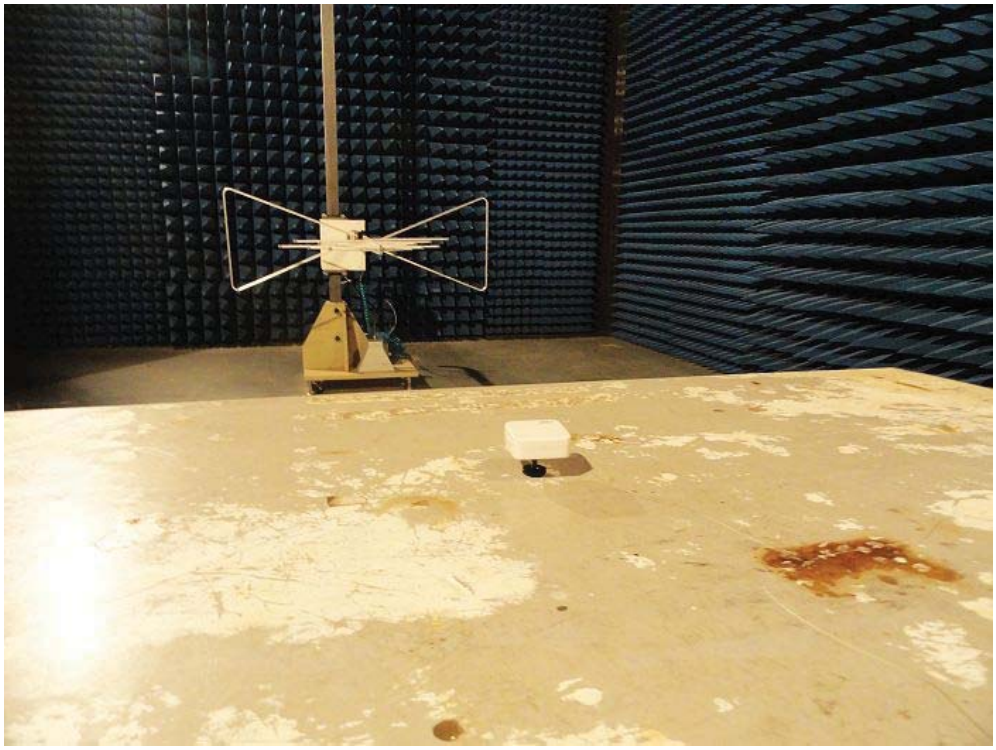
The label must not be a stick-on paper label. The label on these products must be permanently affixed to the product and readily visible at the time of purchase and must last the expected lifetime of the equipment not be readily detachable.

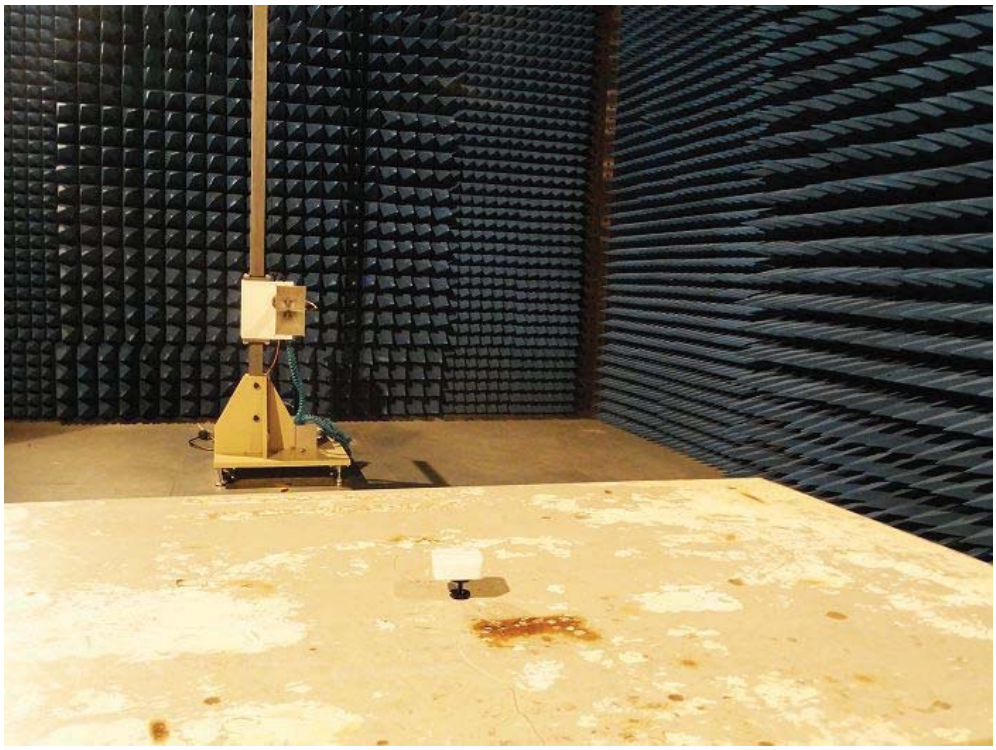
Mark Location:

13.0 Photo of testing

Conducted Emission Test Setup:

Radiated Emission Test Setup:





Photographs – EUT

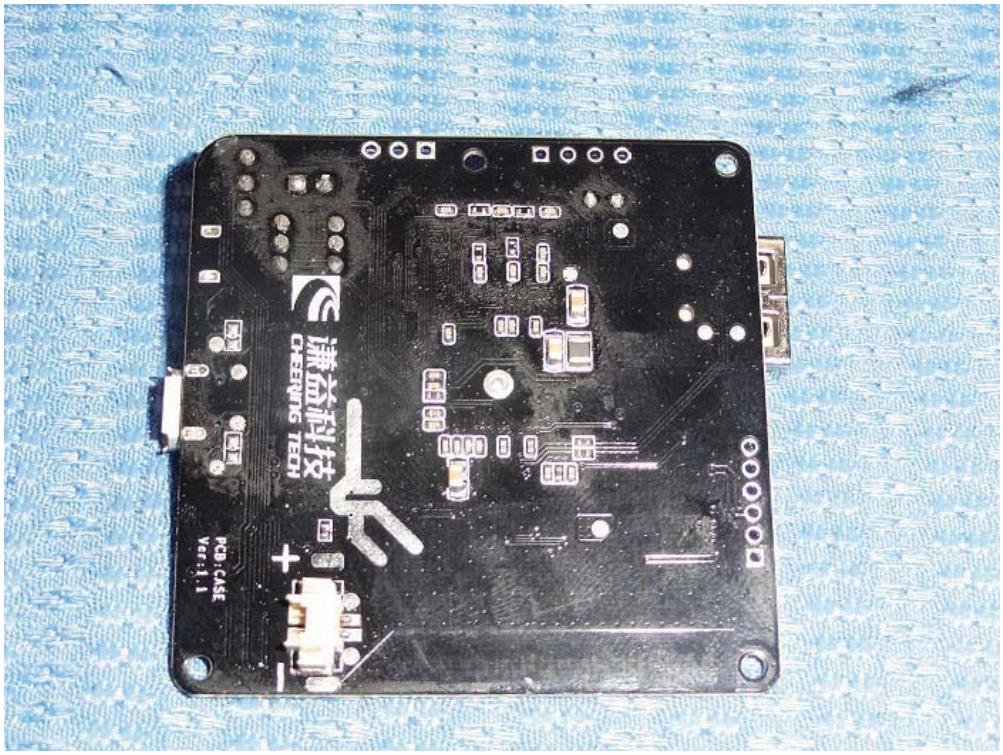
Outside view

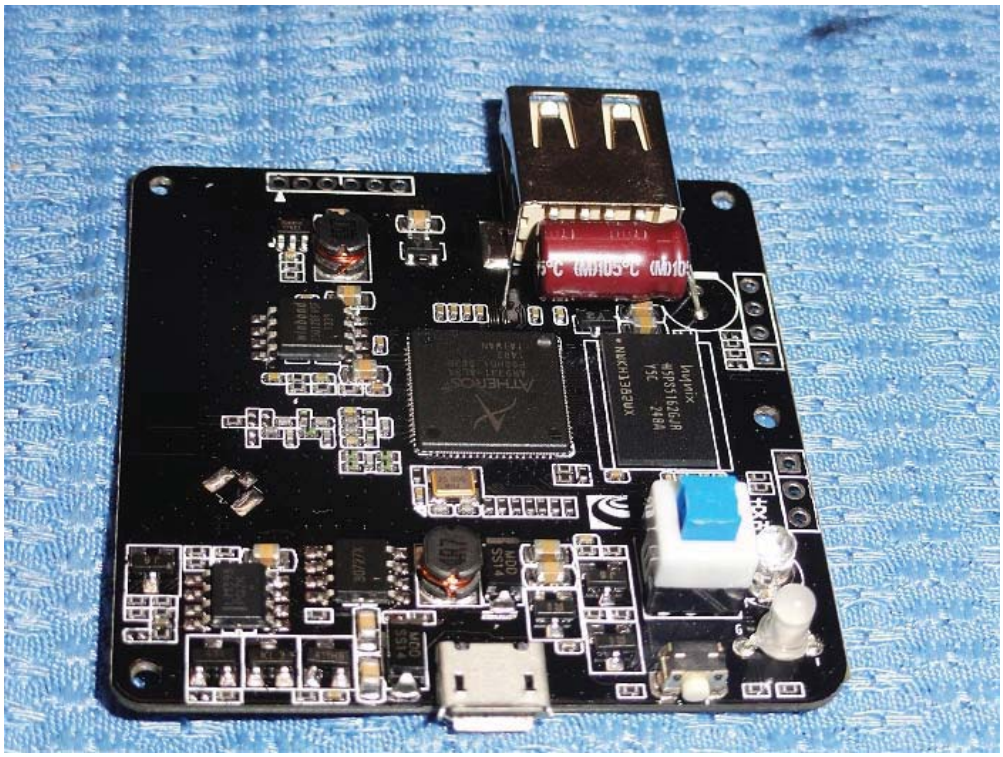
Outside view

Outside view

Inside view

Inside view





-End of the report