Shenzhen Certification Technology Service Co., Ltd
2F, Building B, East Area of Nanchang Second Industrial Zone, Gushu 2nd Road, Bao'an District, Shenzhen 518126, P.R. China.

TEST REPORT

FCC ID: GGOBL-LW05-2M

Applicant : **Shenzhen Bilian Electronic Limited**
Address : **No 268, FuQian Rd, Jutang Community, Guanlan Town, BaoAn District, Shenzhen, 518110, PRC**

Equipment under Test (EUT):

Name : 3070-8D mould
Model : BL-LW05-2M(3070-8D)

Standards : FCC PART 15, SUBPART C : 2011 (Section 15.247)

Report No. : STE121212768-1
Date of Test : March 12-13, 2013
Date of Issue : March 13, 2013

Test Result :	**PASS ***

* In the configuration tested, the EUT complied with the standards specified above

Authorized Signature

(Mark Zhu)
General Manager

The manufacture should ensure that all the products in series production are in conformity with the product sample detailed in this report.

If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of Shenzhen Certification Technology Service Co., Ltd. Or test done by Shenzhen Certification Technology Service Co., Ltd. Approvals in connection with, distribution or use of the product described in this report must be approved by Shenzhen Certification Technology Service Co., Ltd. Approvals in writing.

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1 General Information

1.1 Description of Device (EUT)

Trade Name	:	N/A
EUT	:	3070-8D mould
Model No.	:	BL-LW05-2M(3070-8D)
Type of Antenna	:	Integral Antenna
Antenna Specification	:	1dBi
Operation Frequency	:	2412~2462MHz for 802.11b.g.n/HT20 2422-2452MHz for 802.11n/HT40
Channel number	:	11 for 802.11b.g.n/HT20 7 for 802.11n/HT40
Modulation type	:	IEEE 802.11b: DSSS(CCK,DQPSK,DBPSK) IEEE 802.11g: OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n :OFDM(64QAM, 16QAM, QPSK, BPSK)
Power Supply	:	DC 5V from PC with AC 120V/60Hz
Rated PF output Power	:	12.83dBm for 802.11b.g.n/HT20 11.80dBm for 802.11n/HT40 Note: The device and its antenna(s) must operate with a separation distance of at least 20cm from all persons.
Applicant	:	Shenzhen Bilian Electronic Limited
Address	:	No 268, FuQian Rd, Jutang Community, Guanlan Town, BaoAn District, Shenzhen, 518110, PRC
Manufacturer	:	Shenzhen Bilian Electronic Limited
Address	:	No 268, FuQian Rd, Jutang Community, Guanlan Town, BaoAn District, Shenzhen, 518110, PRC

1.2 Description of Test Facility

Shenzhen Certification Technology Service Co.,Ltd.
2F, Building B, East Area of Nanchang Second Industrial Zone,
Gushu 2nd Road, Bao'an District, Shenzhen 518126, P.R. China
FCC Registered No.:197647
IC Registered No.: 8528B

2 EMC Equipment List

Equipment	Manufacture	Model No.	Serial No.	Last cal.	Cal Interval
3m Semi-Anechoic	ETS-LINDGREN	N/A	SEL0017	Nov. 16, 12	1Year
Spectrum analyzer	Agilent	E4407B	MY49510055	Oct. 31, 12	1Year
Receiver	R&S	ESCI	100492	Oct. 31, 12	1Year
Receiver	R&S	ESCI	101202	Oct. 31, 12	1Year
Bilog Antenna	SCHWARZBECK	VULB 9168	VULB9168-438	Feb.20, 13	1Year
L.I.S.N.	SCHWARZBECK	NSLK8126	8126466	Oct. 31, 12	1Year
Active Loop Antenna	Beijing Daze	ZN30900A	SEL0097	Feb.20, 13	1Year
Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D(1201)	Feb.20, 13	1Year
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170 D(1432)	Feb.20, 13	1Year
Cable	Resenberger	N/A	No.1	Oct. 31, 12	1Year
Cable	SCHWARZBECK	N/A	No.2	Oct. 31, 12	1Year
Cable	SCHWARZBECK	N/A	No.3	Oct. 31, 12	1Year
Pre-amplifier	SCHWARZBECK	BBV9743	9743-019	Oct. 31, 12	1Year
Pre-amplifier	Quietek	AP-180C	CHM-0602012	Oct. 31, 12	1Year

3 Test Procedure

POWER LINE CONDUCTED INTERFERENCE: The test procedure used was ANSI Standard C63.4-2003 using a 50 u H LISN. Both Lines were observed. The bandwidth of the receiver was 10kHz with an appropriate sweep speed. The ambient temperature of the EUT was 25℃ with a humidity of 58%.

RADIATION INTERFERENCE: The test procedure used was ANSI Standard C63.4-2003 using a ANRITSU spectrum analyzer with a pre-selector. The analyzer was calibrated in dB above a micro volt at the output of the antenna. The resolution bandwidth was 100kHz and the video bandwidth was 300 kHz up to 1 GHz and 1 MHz with a video BW of 3MHz above 1 GHz. The ambient temperature of the EUT was 25℃ with a humidity of 58%.

FORMULA OF CONVERSION FACTORS: The Field Strength at 3m was established by adding the meter reading of the spectrum analyzer (which is set to read in units of dBuV) to the antenna correction factor supplied by the antenna manufacturer and cable loss. The antenna correction factors and cable loss are stated in terms of dB. The gain of the Pre-selector was accounted for in the Spectrum Analyzer Meter Reading.
Example:
Freq (MHz) METER READING + ACF + CABLE = FS
33.20 dBuV + 10.36 dB + 0.9 dB= 44.46 dBuV/m @ 3m
ANSI STANDARD C63.4-2003 10.1.7 MEASUREMENT PROCEDURES: The EUT was placed on a table 80 cm high and with dimensions of 1m by 1.5m. The EUT was placed in the center of the table (1.5m side). The table used for radiated measurements is capable of continuous rotation. When an emission was found, the table was rotated to produce the maximum signal strength. At this point, the antenna was raised and lowered from 1m to 4m. The antenna was placed in both the horizontal and vertical planes. The situation was similar for the conducted measurement except that the table did not rotate. The EUT was setup as described in ANSI Standard C63.4-2003 10.1.7 with the EUT 40 cm from the vertical ground wall.

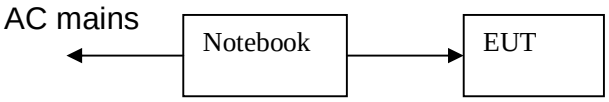
4 Summary of Measurement

4.1 Summary of test result

Test Item	Test Requirement	Standards Paragraph	Result
Spurious Emission	FCC PART 15 : 2011	Section 15.247&15.209	Compliance
Conduction Emission	FCC PART 15: 2011	Section 15.207	N/A
6dB Bandwidth Test	FCC PART 15:2011	Section 15.247	N/A
Peak Power	FCC PART 15:2011	Section 15.247	Compliance
Power Density	FCC PART 15:2011	Section 15.247	N/A
Band Edge	FCC PART 15:2011	Section 15.247	N/A
Antenna Requirement	FCC PART 15 : 2011	Section 15.203	Compliance
Note: This short test report will be needed to prove the adherence to applicable rules after this modifications, original test report: STE121212768.			

Note: The EUT has been tested as an independent unit. And Continual Transmitting in maximum power (The Notebook be used during Test)

4.2 Test connection



4.3 Assistant equipment used for test

Description	:	Notebook
Manufacturer	:	acer
Model No.	:	4552G

4.4 Test mode

Tested mode, channel, and data rate information			
Mode	data rate (Mpbs)(see Note)	Channel	Frequency (MHz)
IEEE 802.11b	11	Low :CH1	2412
	11	Middle: CH6	2437
	11	High: CH11	2462
IEEE 802.11g	6	Low :CH1	2412
	6	Middle: CH6	2437
	6	High: CH11	2462
IEEE 802.11n/HT20	6.5	Low :CH1	2412
	6.5	Middle: CH6	2437
	6.5	High: CH11	2462
IEEE 802.11n/HT40	13.5	Low :CH3	2422
	13.5	Middle:CH6	2437
	13.5	High:CH9	2452
Note: According exploratory test, EUT will have maximum output power in those data rate. so those data rate were used for all test.			

5 Spurious Emission

5.1 Conducted Spurious Emission

5.1.1 Test limit

Please refer section15.247.

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. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

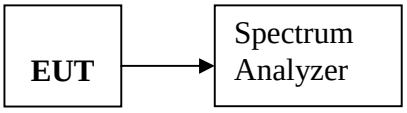
5.1.2 Method of measurement

Conducted RF measurements of the transmitter output were made to confirm that the EUT antenna port conducted emissions meet the specified limit and to identify any spurious signals that require further investigation or measurements on the radiated emissions site.

The transmitter output is connected to the spectrum analyzer.
RBW=100 KHz, VBW=300 KHz below 1G,
RBW=1MHz, VBW=3MHz above 1G,

Measurements are made over the 30MHz to 25GHzrange with the transmitter set to the lowest, middle, and highest channels.

5.1.3 Test Setup



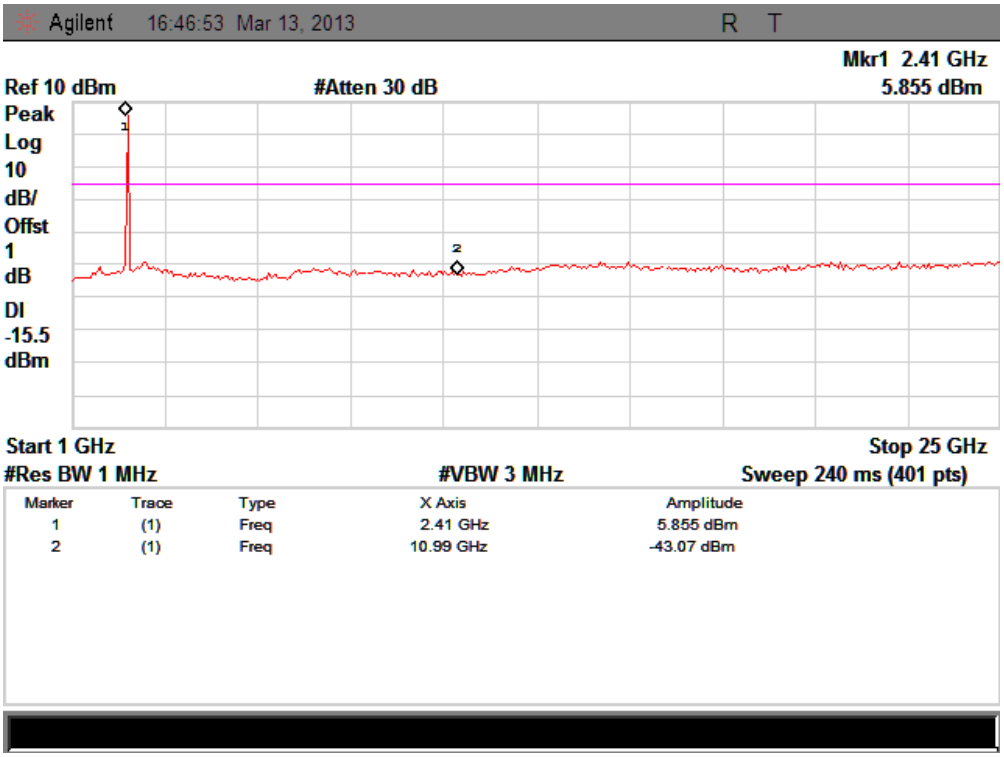
5.1.4 Test Results

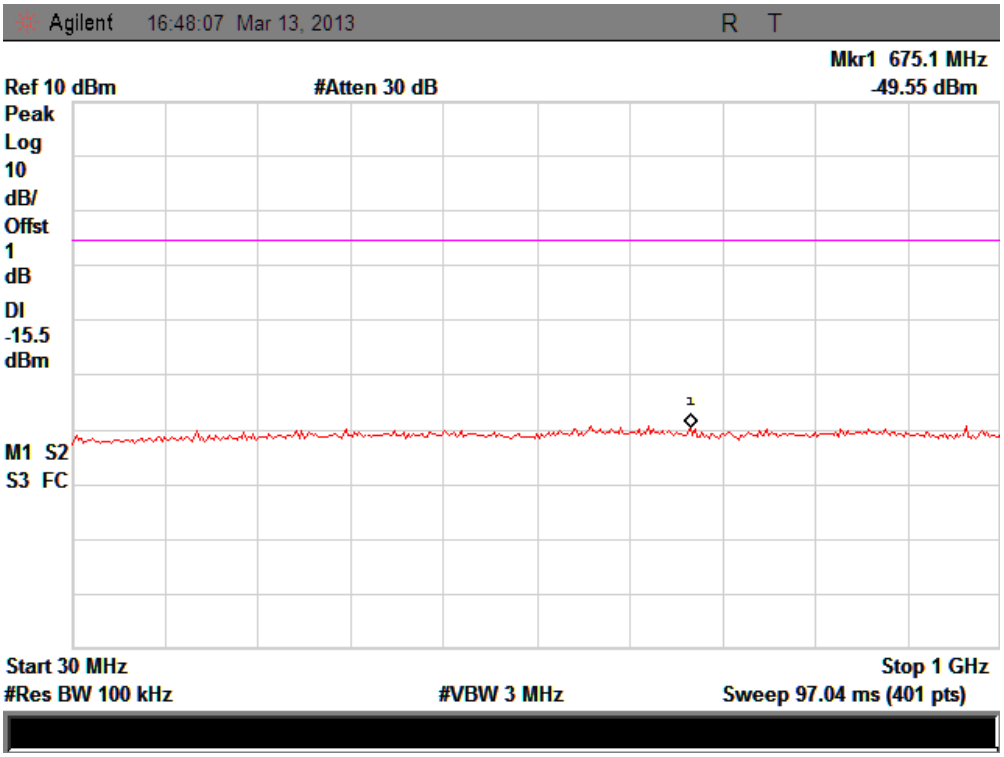
PASS.

Detailed information please see the following page.

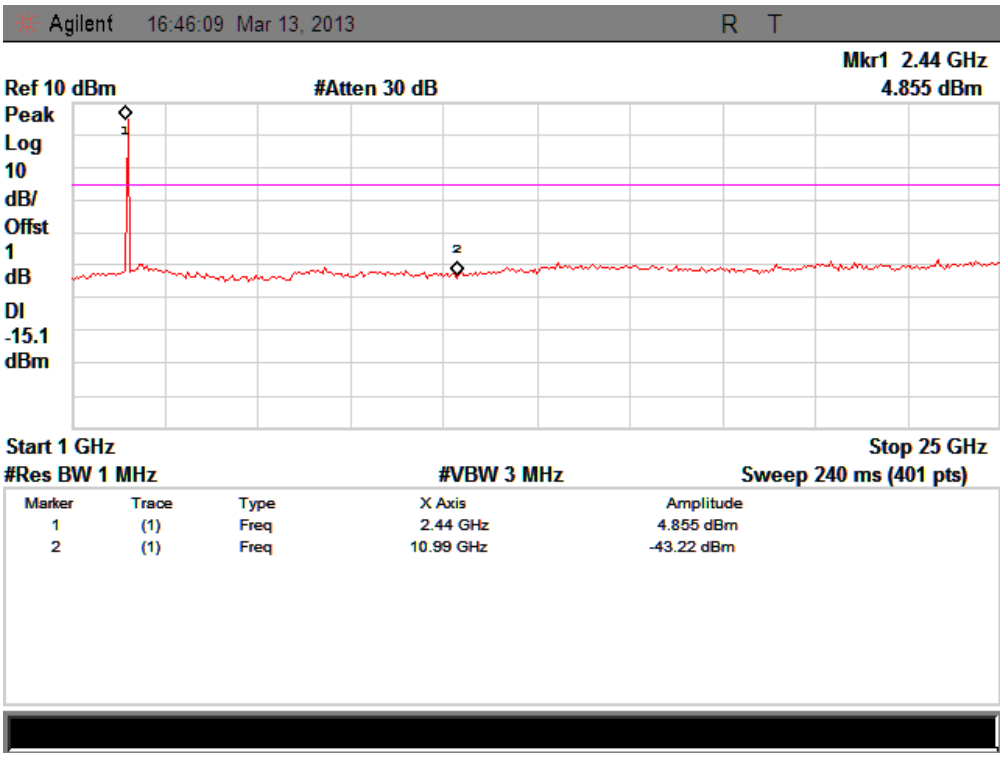
IEEE 802.11b:

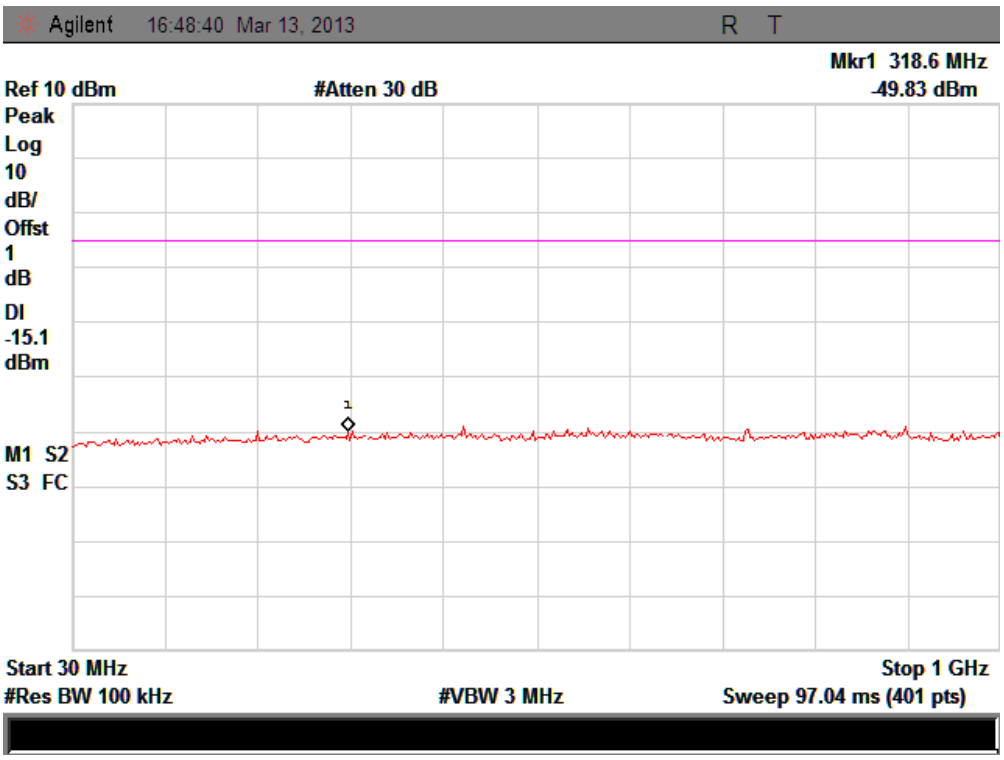
CH Low : 30MHz-25GHz



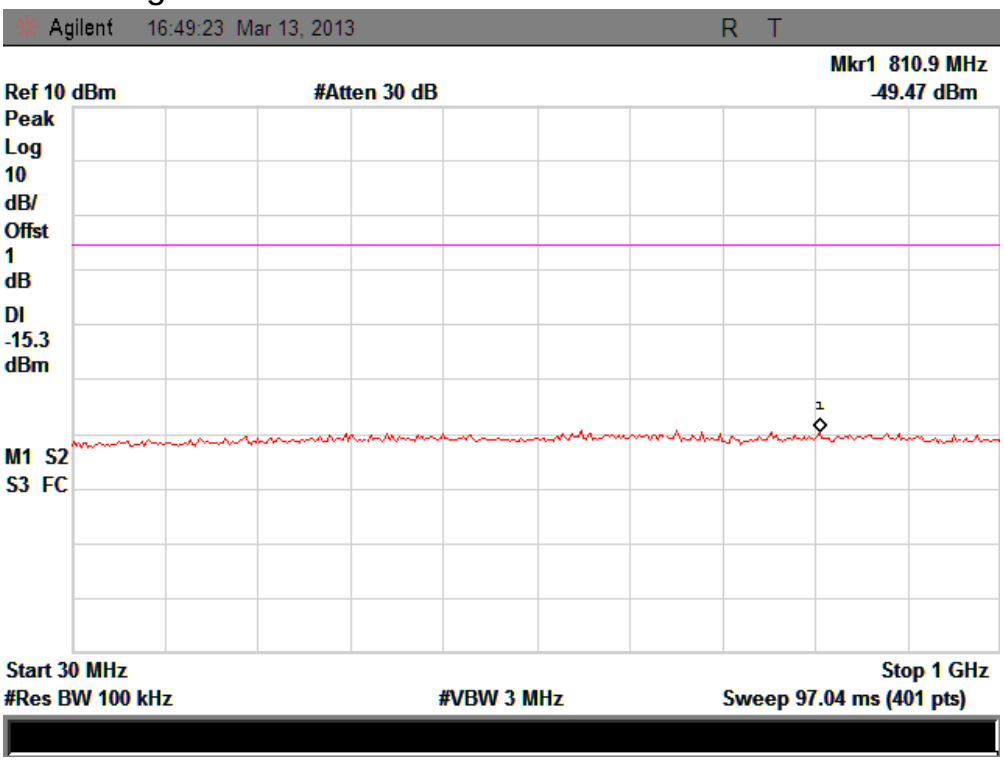


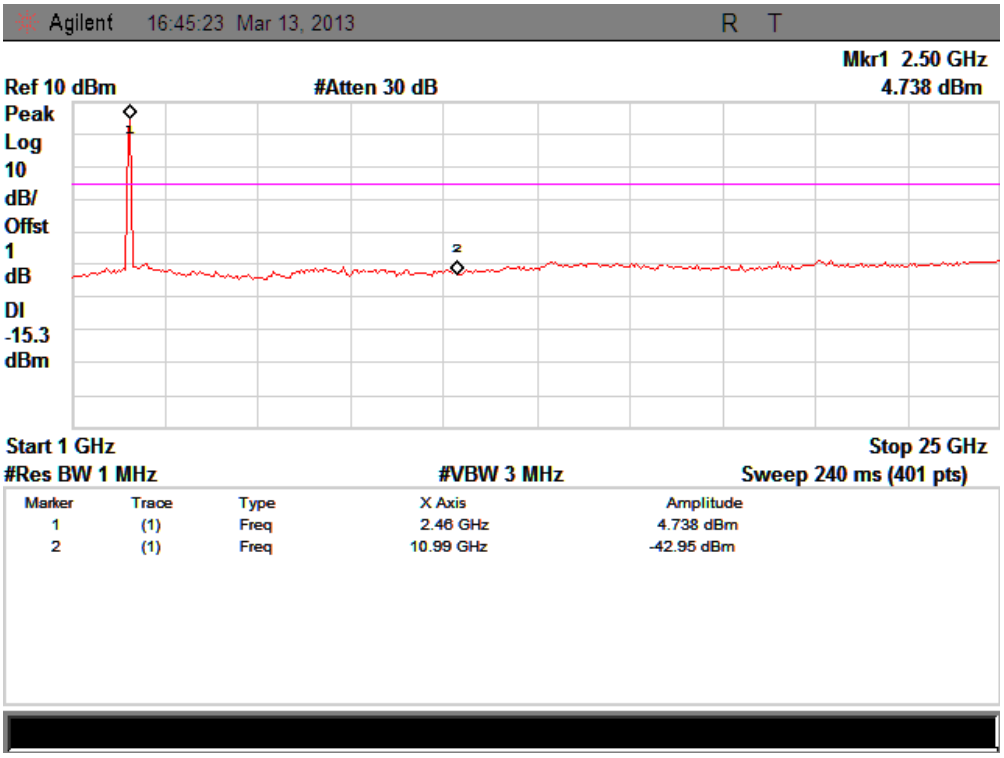
CH Mid : 30MHz-25GHz





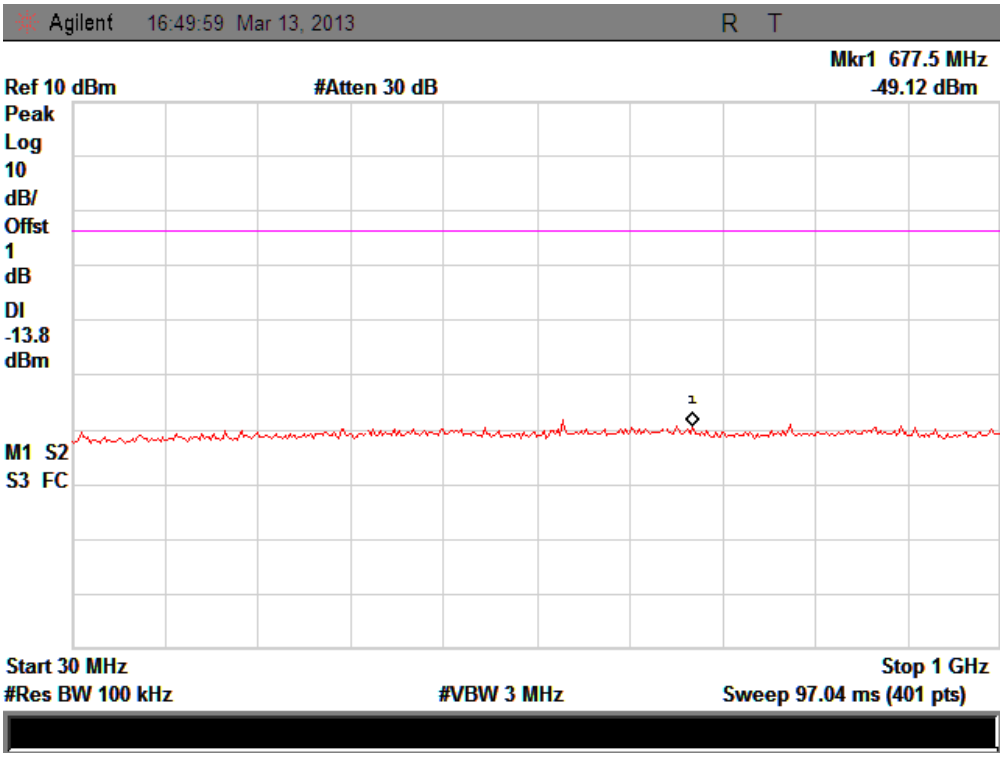
CH High : 30MHz-25GHz

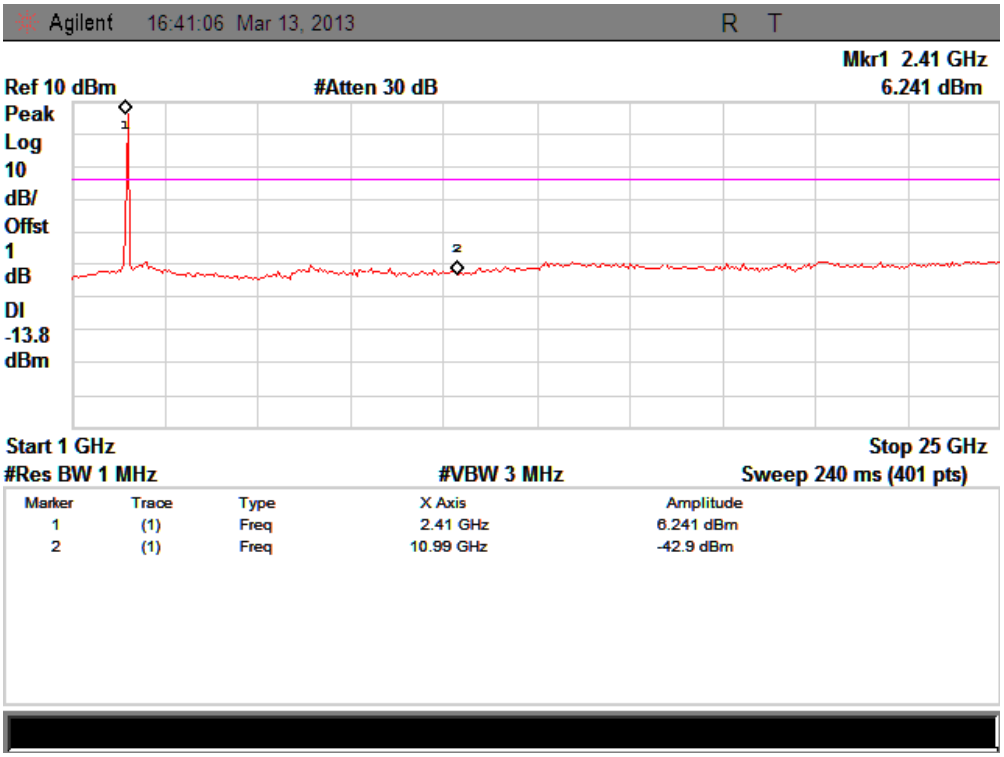




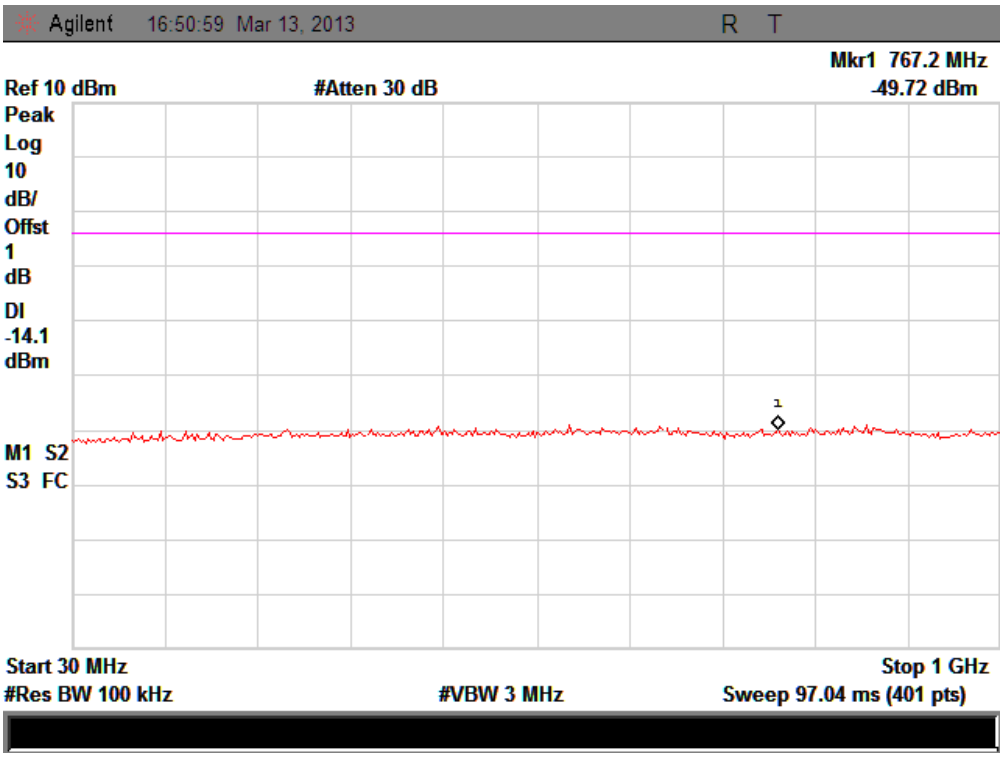
IEEE 802.11g:

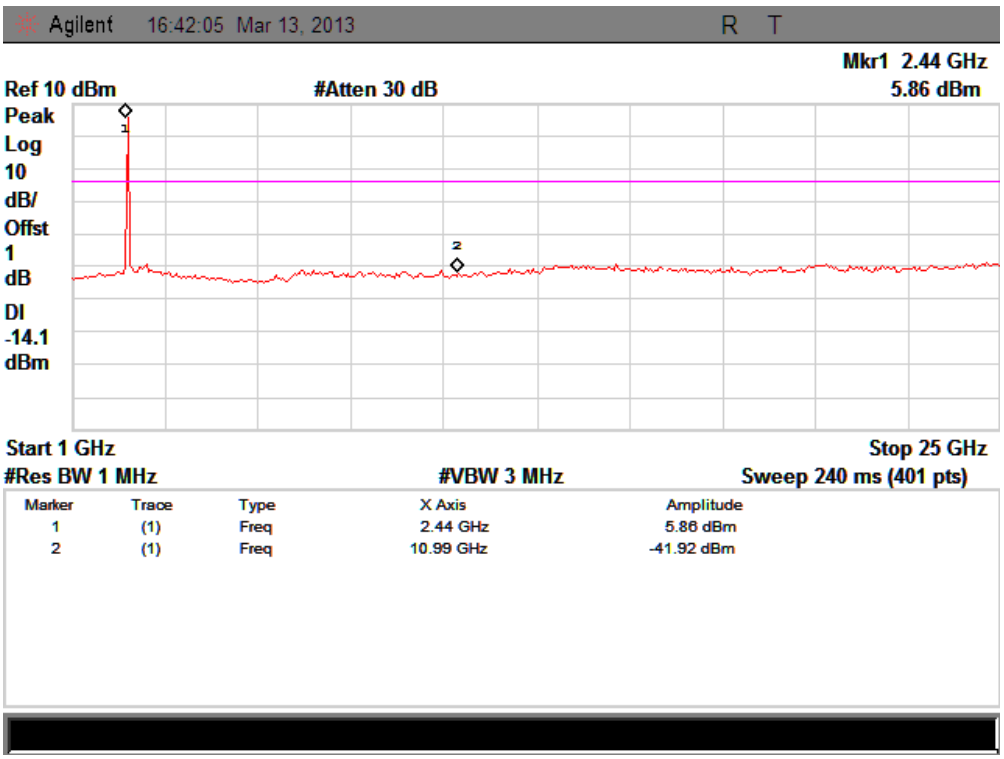
CH Low : 30MHz-25GHz



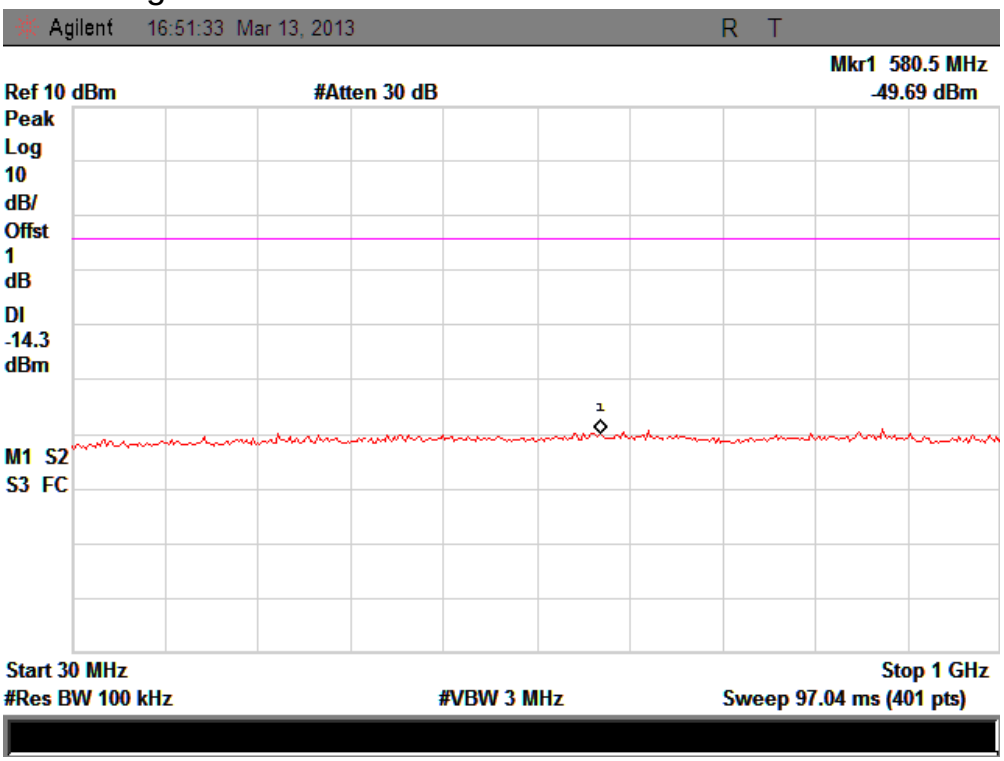


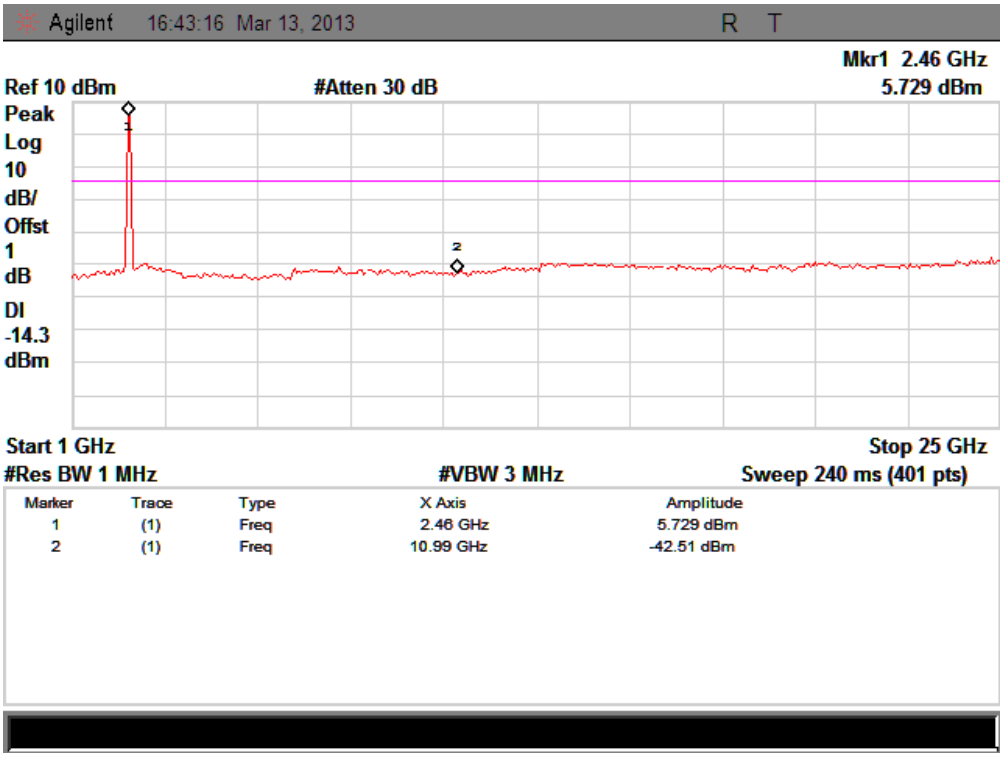
CH Mid : 30MHz-25GHz





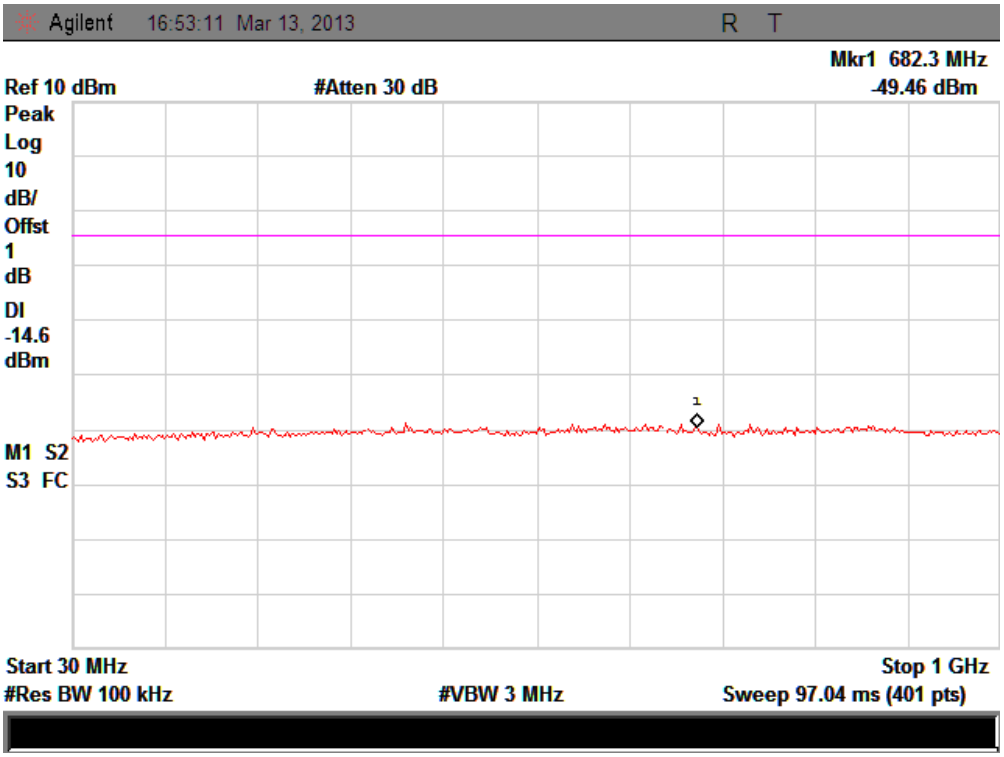
CH High : 30MHz-25GHz

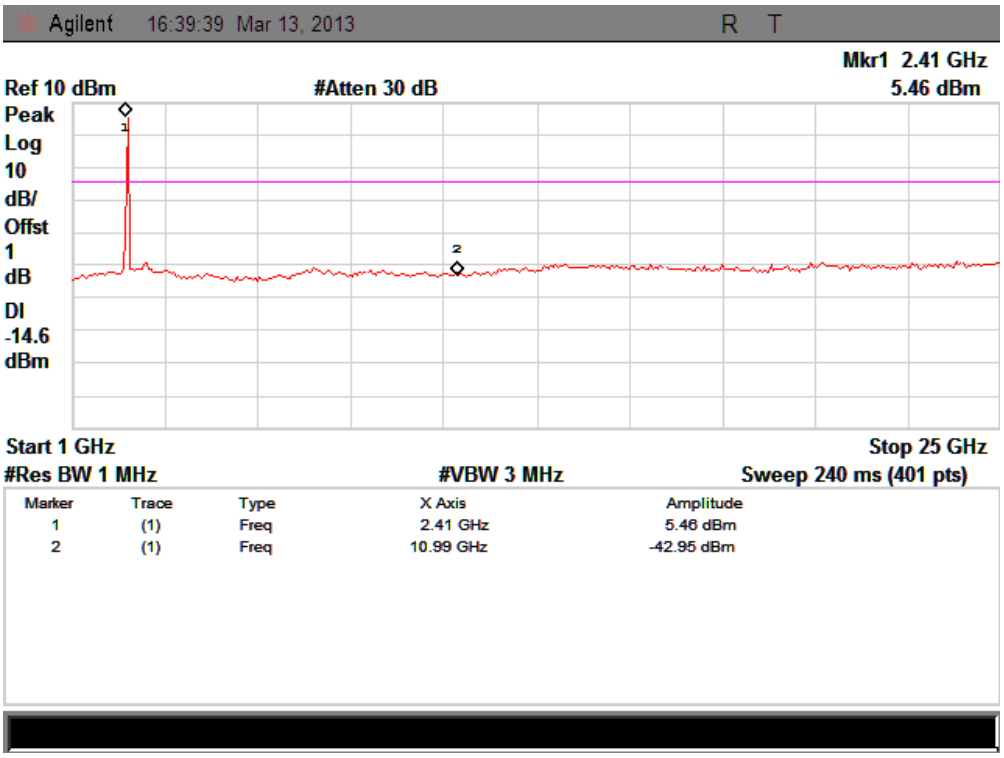




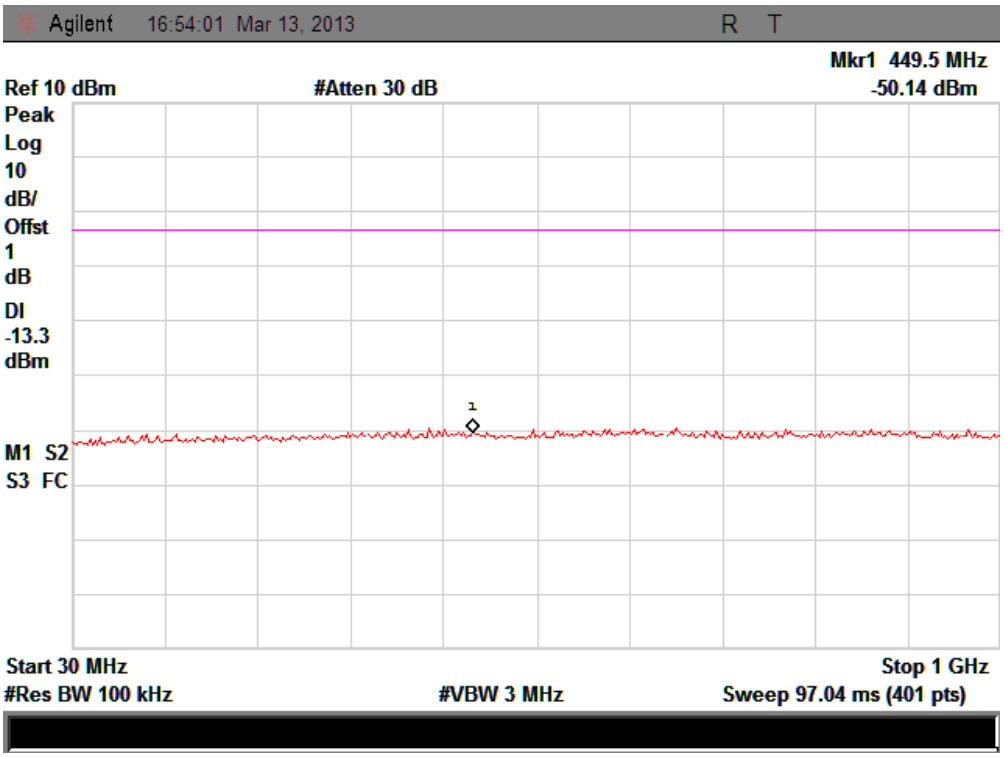
IEEE 802.11n/HT20:

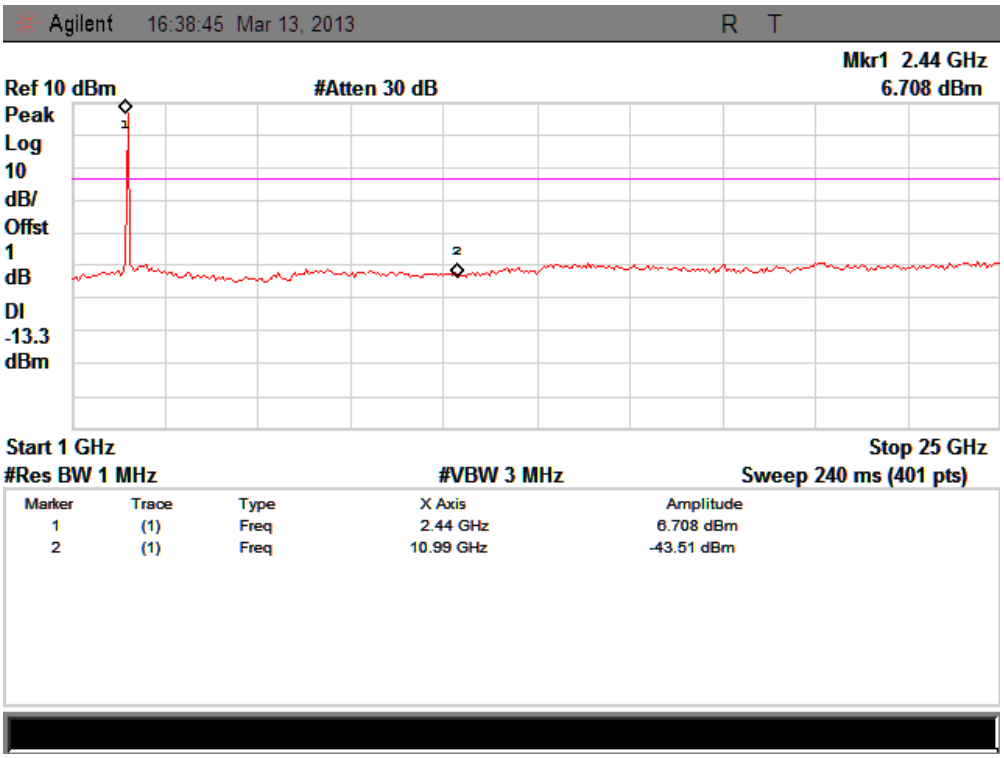
CH Low : 30MHz-25GHz



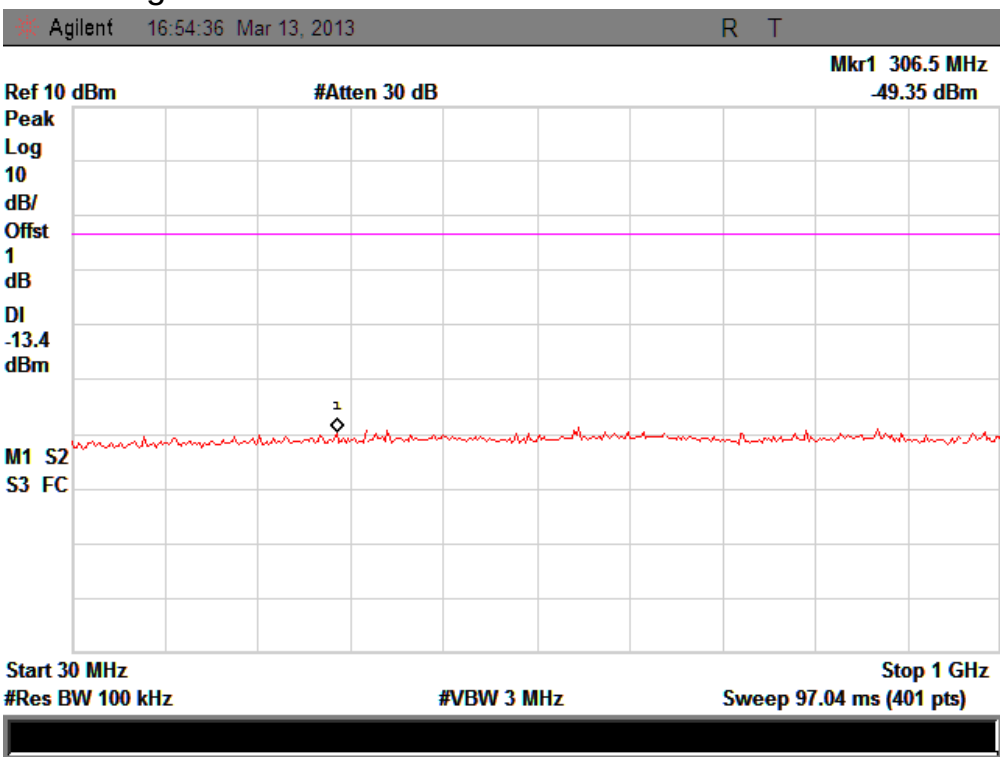


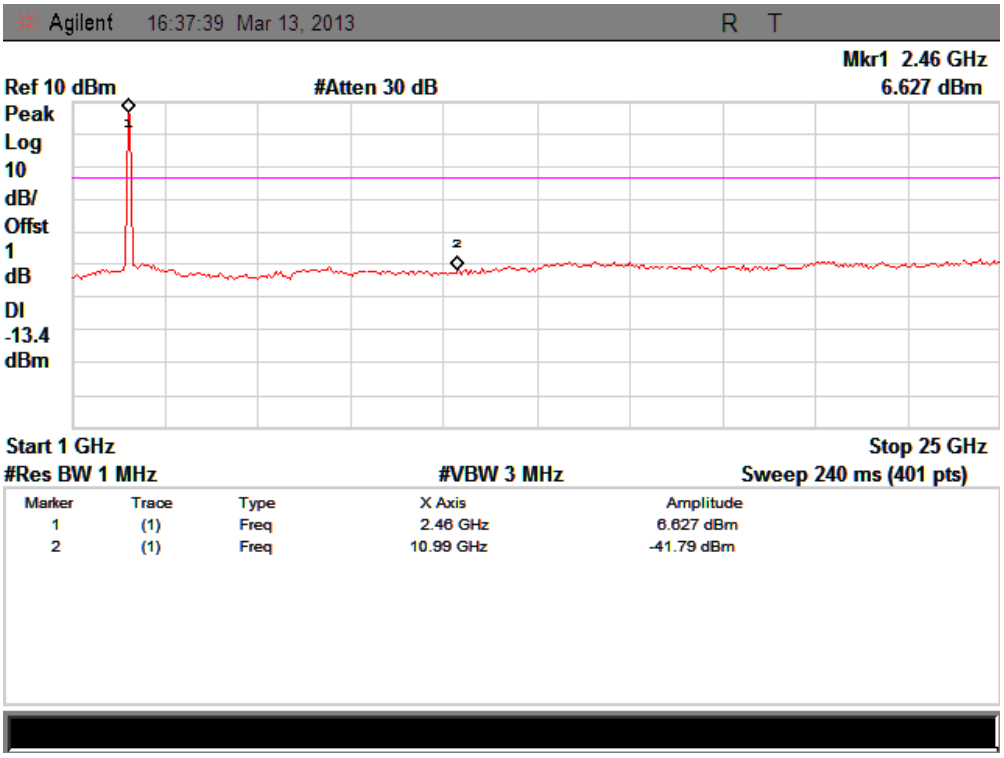
CH Mid : 30MHz-25GHz





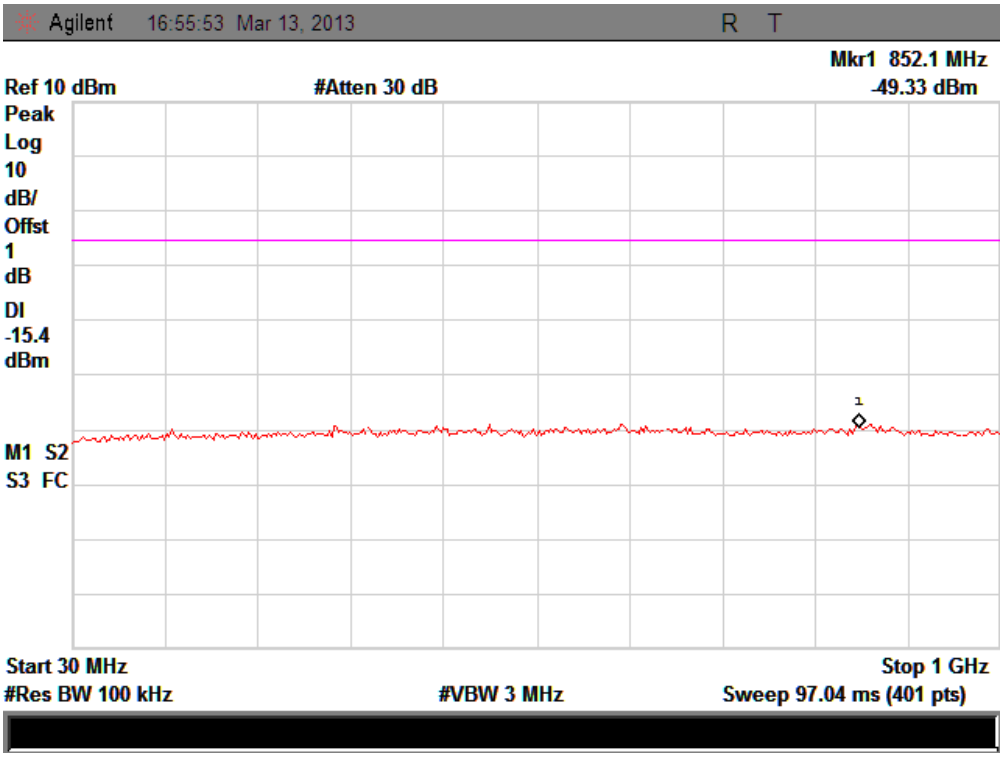
CH High : 30MHz-25GHz

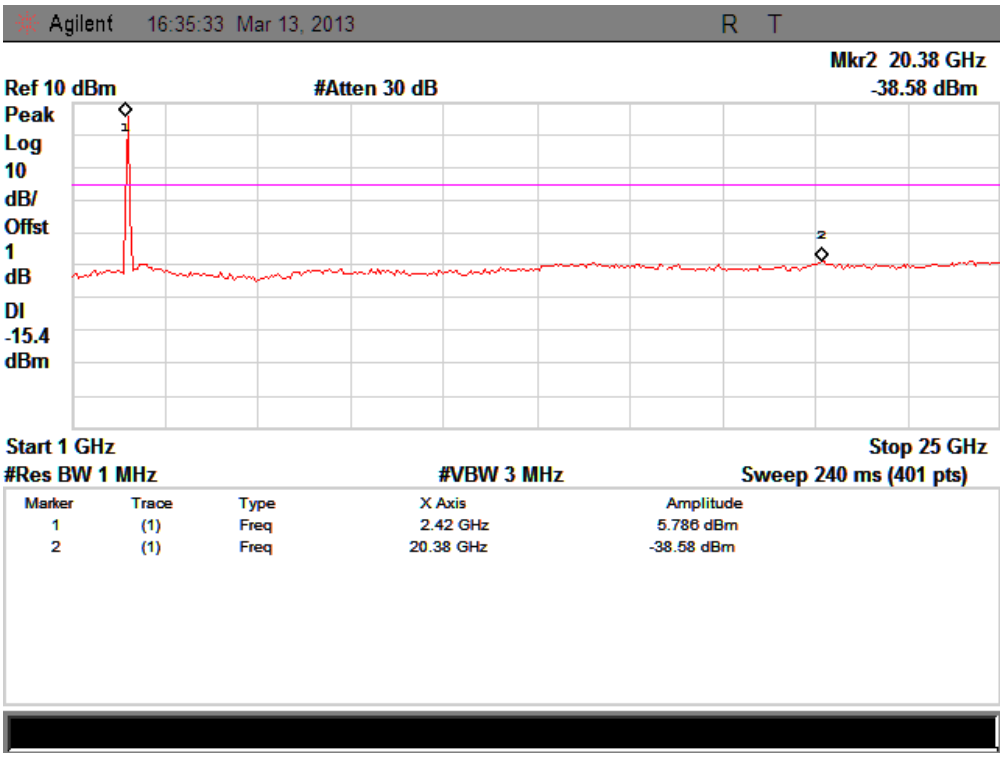




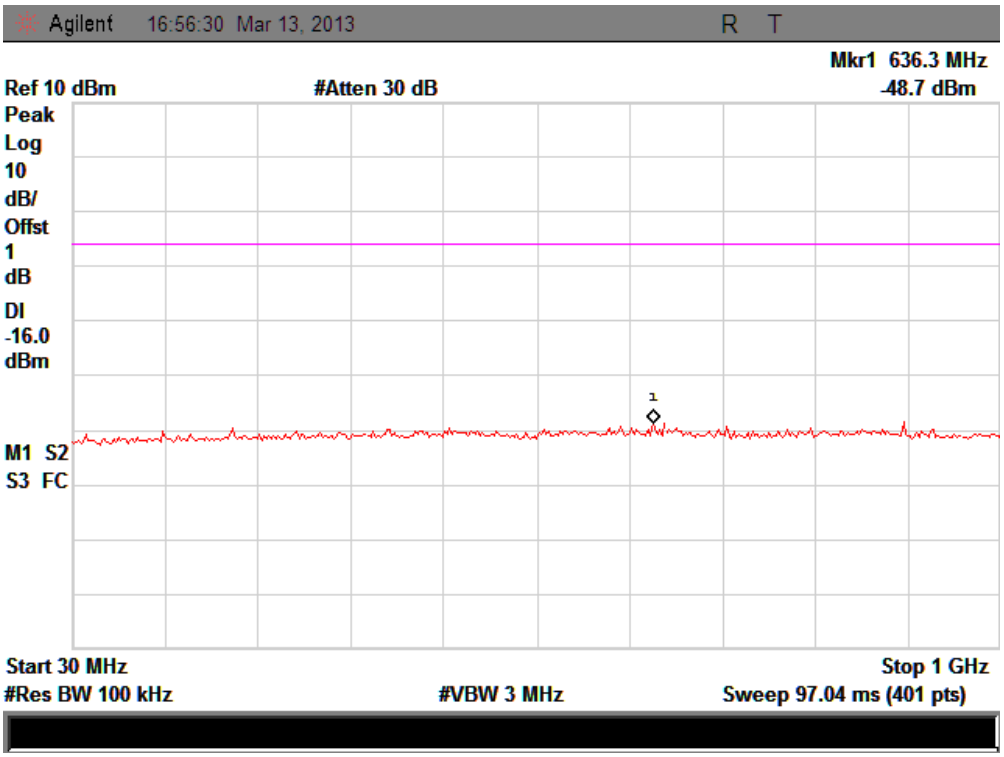
IEEE 802.11n/HT40:

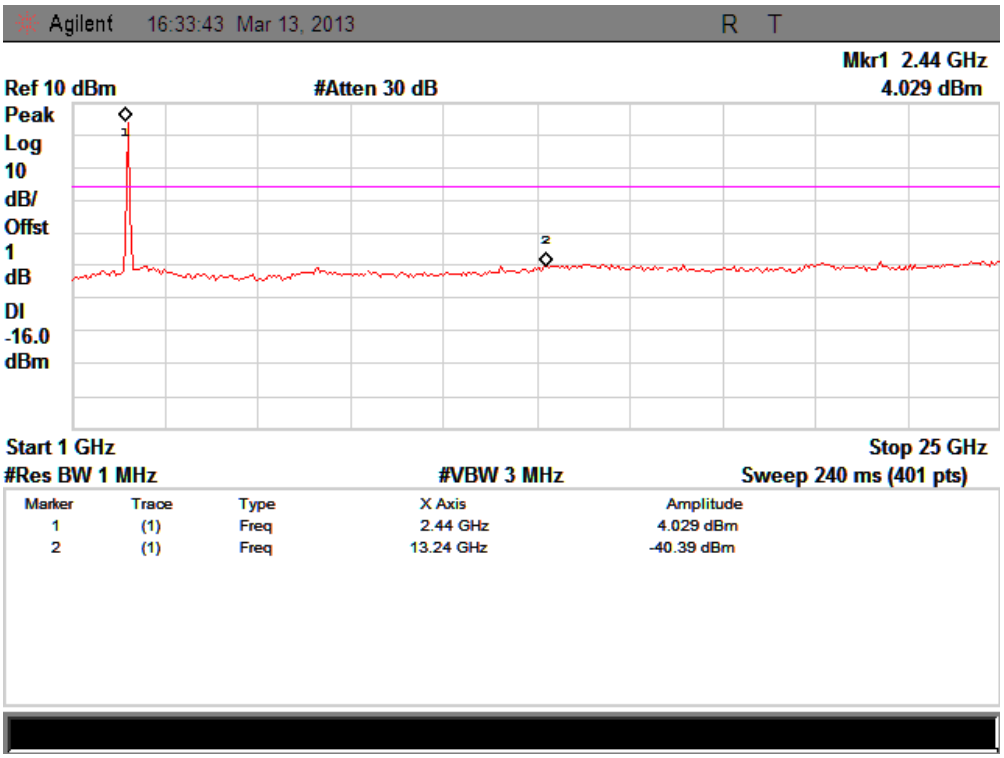
CH Low : 30MHz-25GHz



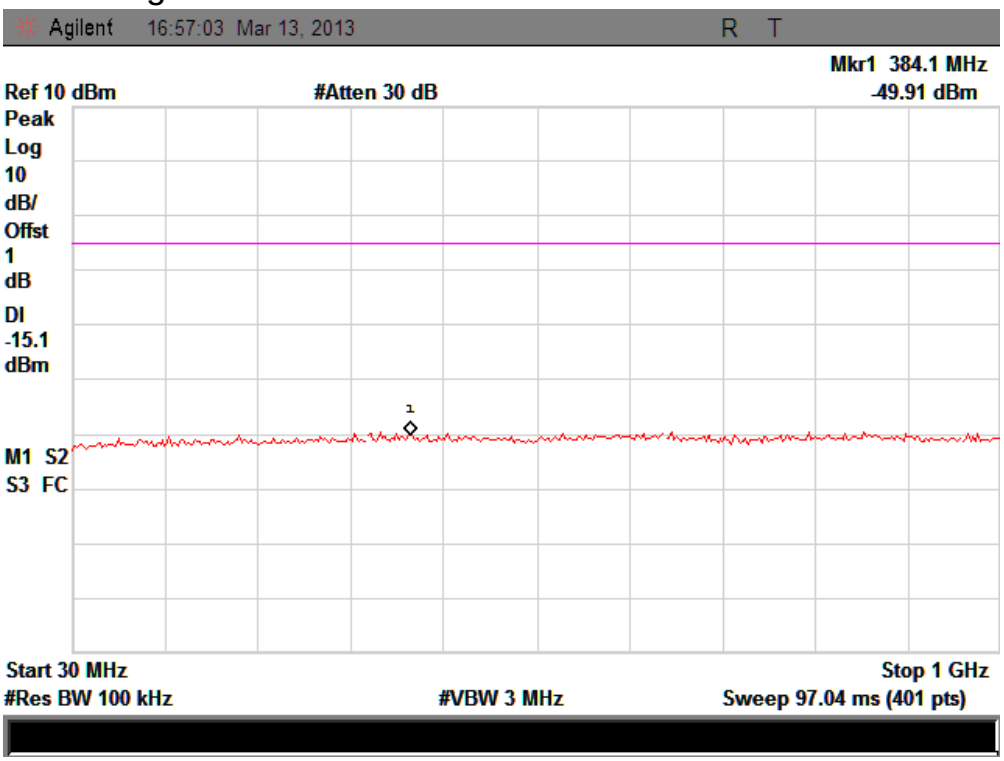


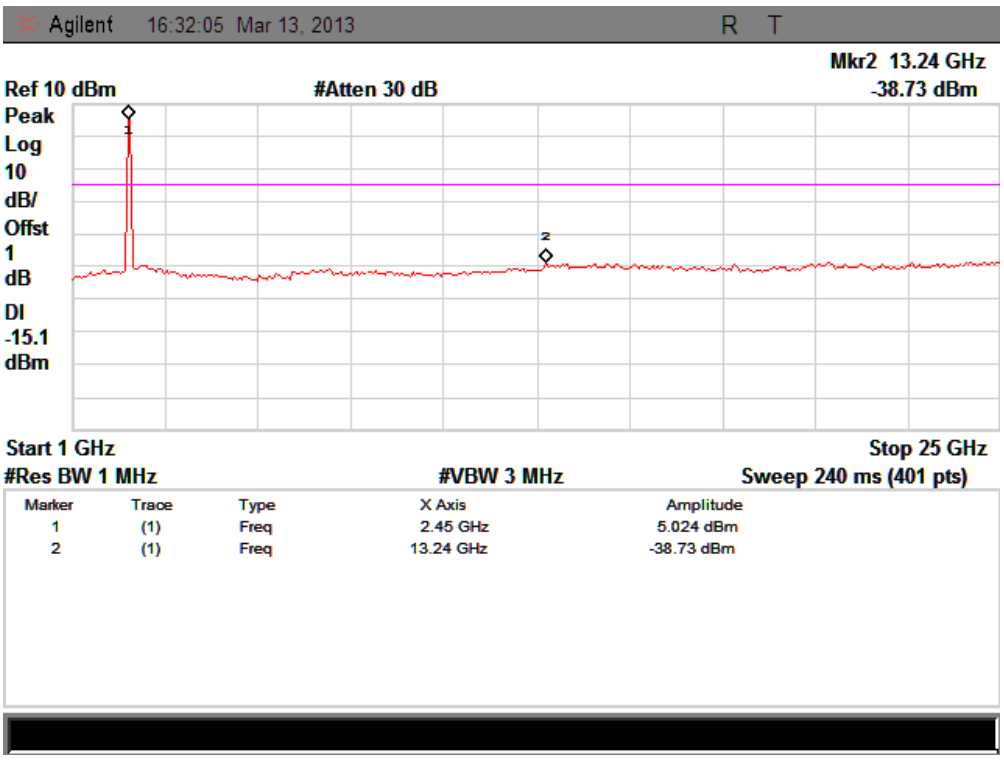
CH Mid : 30MHz-25GHz





CH High : 30MHz-25GHz





5.2 Radiation Emission

5.2.1 Radiation Emission Limits(15.209)

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

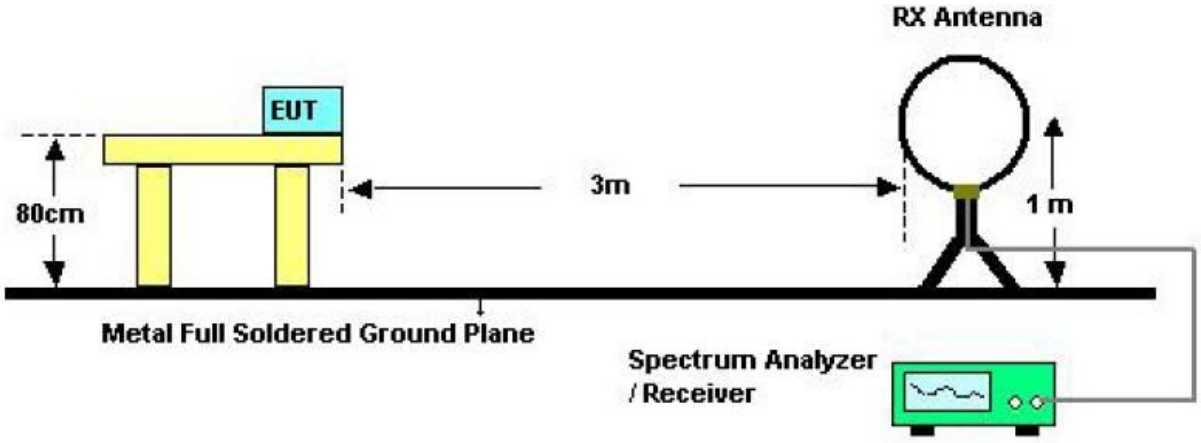
Harmonic emissions limits comply with below 54 dBuV/m at 3m. Other emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or comply with the radiated emissions limits specified in section 15.209(a) limit in the table below has to be followed.

NOTE:

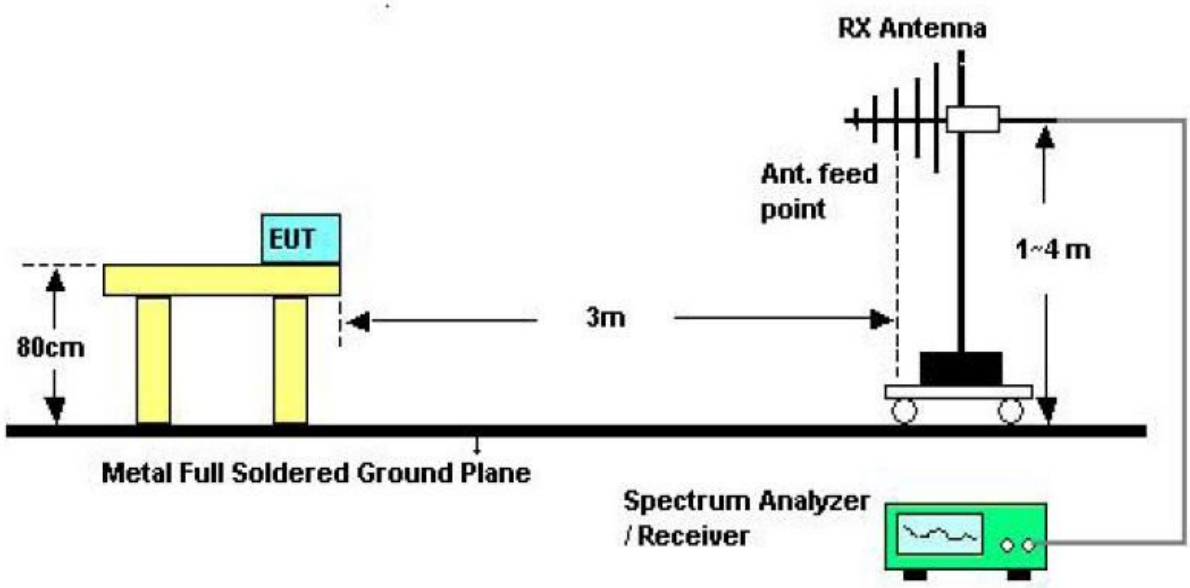
a) The tighter limit applies at the band edges.
b) Emission Level(dB uV/m)=20log Emission Level(Uv/m)

5.2.2 Test Setup

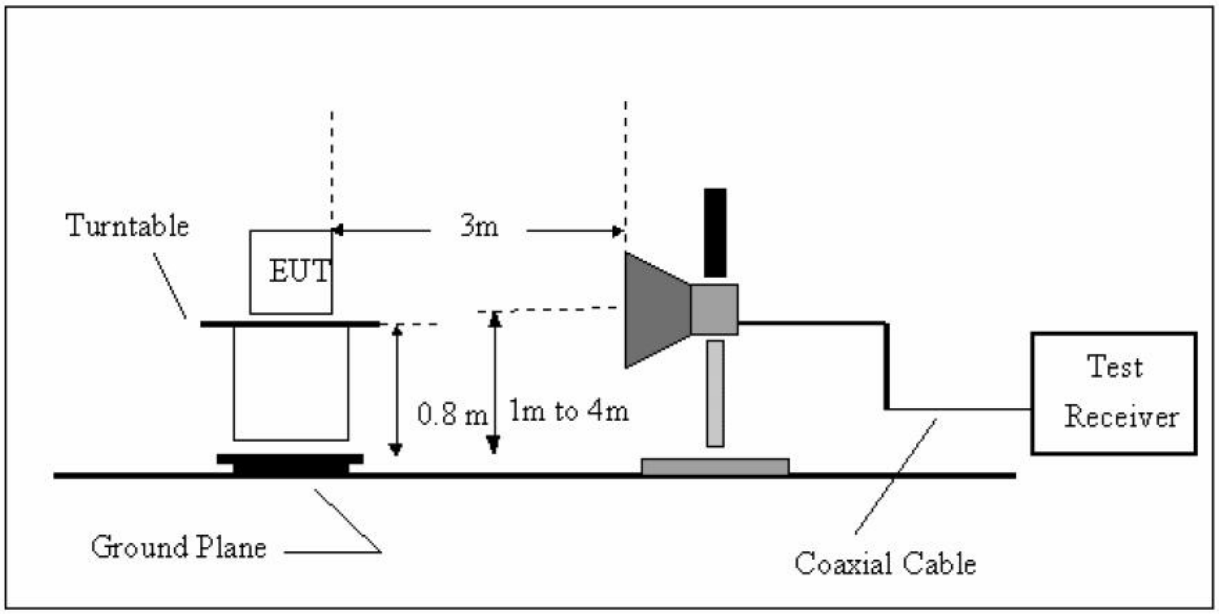
See the next page



Below 30MHZ Test Setup



Above 30MHZ Test Setup



Above 1GHZ Test Setup

5.2.3 Test Procedure

a) The measuring distance of 3m shall be used for measurements at frequency up to 1GHZ and above 1GHZ, The EUT was placed on a rotating 0.8 m high above ground, The table was rotated 360 degrees to determine the position of the highest radiation
b) The Test antenna shall vary between 1m and 4m,Both Horizontal and Vertical antenna are set of make measurement.
c) The initial step in collecting conducted emission data is a spectrum analyzer Peak detector mode pre-scanning the measurement frequency range. Significant Peaks are then marked. and then Qusia Peak Detector mode premeasured
d) If Peak value comply with QP limit Below 1GHZ.The EUT deemed to comply with QP limit. But the Peak value and average value both need to comply with applicable limit above 1GHZ.
e) For the actual test configuration, please see the test setup photo.

5.2.4 Test Equipment Setting For emission test Result

9KHZ~150KHZ	RBW 200HZ	VBW1KHZ
150KHZ~30MHZ	RBW 9KHZ	VBW 30KHZ
30MHZ~1GHZ	RBW 120KHZ	VBW 300KHZ
Above 1GHZ	RBW 1MHZ	VBW 3MHZ

5.2.5 Test Condition

Continual Transmitting in maximum power.

5.2.6 Test Result

We have scanned the 5th harmonic from 9KHz to the EUT.

Detailed information please see the following page.

From 9KHz to 30MHz: Conclusion: PASS

Note: The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

From 30MHz to 1GHz

Shenzhen Certification Technology Service Co., Ltd.
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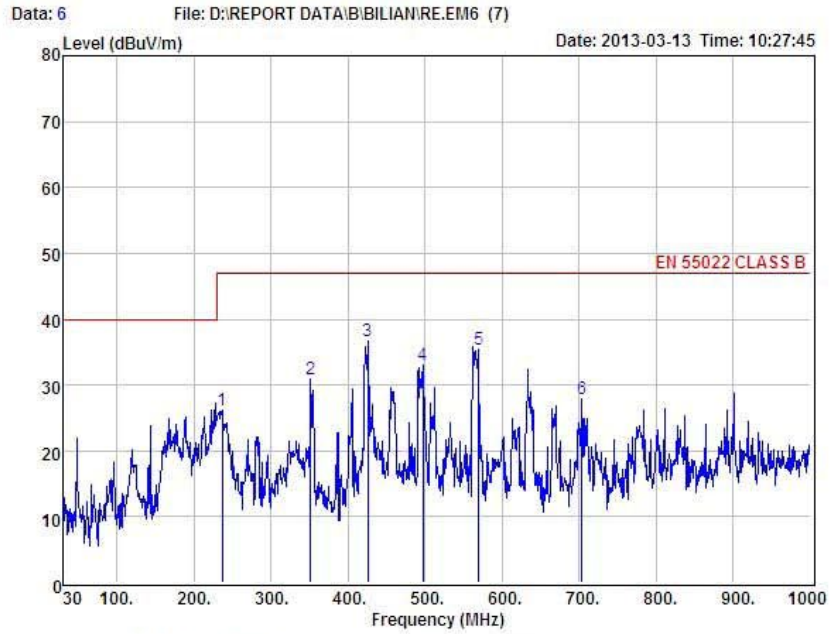
Website: http://www.cessz.com Email: Service@cessz.com



Condition : EN 55022 CLASS B 3m POL: VERTICAL
EUT : 3070-8D mould
Model No : BL-LM05-2M(3070-8D)
Test Mode : Link mode
Power : DC 5V From PC
Test Engineer : Simple
Remark :

Item	Freq	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Level	Limit	Margin	Remark
	MHz	dBuV	dB	dB	dB	dBuV	dBuV	dBuV	
1	236.61	41.37	11.35	27.09	0.47	26.10	47.00	-20.90	QP
2	351.07	43.71	13.83	27.27	0.62	30.89	47.00	-16.11	QP
3	425.76	48.00	15.38	27.46	0.66	36.58	47.00	-10.42	QP
4	497.54	43.16	16.48	27.61	1.05	33.08	47.00	-13.92	QP
5	569.32	44.01	17.70	27.75	1.43	35.39	47.00	-11.61	QP
6	703.18	35.10	19.69	27.75	0.89	27.93	47.00	-19.07	QP

Remark: Level = Read Level + Antenna Factor - Preamp Factor + Cable Loss

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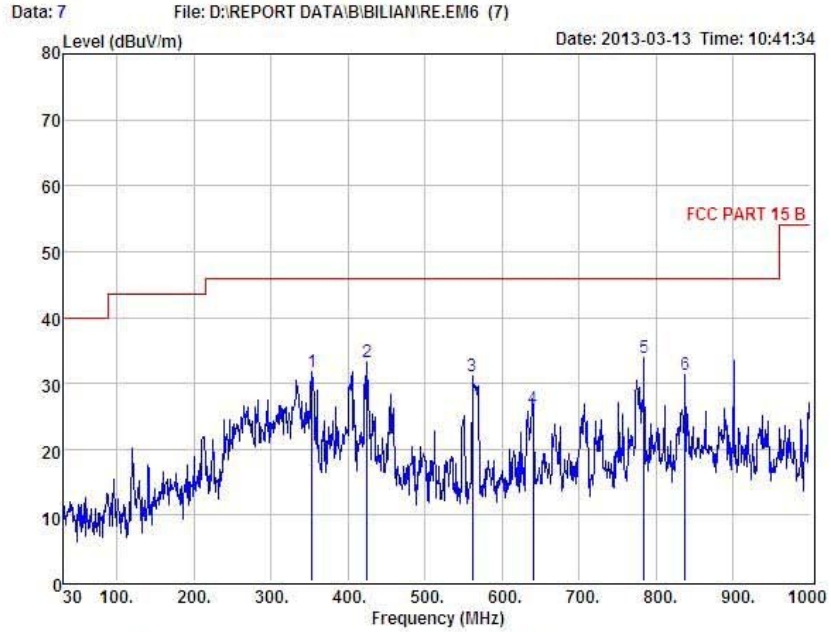

Condition : FCC PART 15 B 3m POL: HORIZONTAL
EUT : 3070-8D mould
Model No : BL-LM05-2M(3070-8D)
Test Mode : Link mode
Power : DC 5V From PC AC 120V/60Hz
Test Engineer : Simple
Remark :

Item	Freq	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Level	Limit	Margin	Remark
	MHz	dBuV	dB	dB	dB	dBuV	dBuV	dBuV	
1	353.01	44.50	13.87	27.28	0.65	31.74	46.00	-14.26	QP
2	424.79	44.62	15.33	27.45	0.71	33.21	46.00	-12.79	QP
3	561.56	40.05	17.60	27.73	1.09	31.01	46.00	-14.99	QP
4	640.13	33.89	18.97	27.82	1.08	26.12	46.00	-19.88	QP
5	783.69	40.02	20.60	27.66	0.97	33.93	46.00	-12.07	QP
6	837.04	36.61	20.96	27.70	1.43	31.30	46.00	-14.70	QP

Remark: Level = Read Level + Antenna Factor - Preamp Factor + Cable Loss

EUT	3070-8D mould	Model Name	BL-LW05-2M(3070-8D)
Temperature	26°C	Relative Humidity	56%
Pressure	960hPa	Test voltage	DC 5V supply by PC with AC 120V/60Hz
Test Mode	TX Low		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1436	V	51.05	---	-10.29	40.76	---	74.00	54.00	-13.24	Peak
1724	V	51.37	---	-9.53	41.84	---	74.00	54.00	-12.16	Peak
1843	V	52.11	---	-9.16	42.95	---	74.00	54.00	-11.05	Peak
4824	V	42.11	---	0.64	42.75	---	74.00	54.00	-11.25	Peak
N/A										

EUT	3070-8D mould	Model Name	BL-LW05-2M(3070-8D)
Temperature	26°C	Relative Humidity	56%
Pressure	960hPa	Test voltage	DC 5V supply by PC with AC 120V/60Hz
Test Mode	TX Low		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1165	H	52.88	---	-11.73	41.15	---	74.00	54.00	-12.85	Peak
2128	H	49.12	---	-8.36	40.76	---	74.00	54.00	-13.24	Peak
3047	H	45.20	---	-5.81	39.39	---	74.00	54.00	-14.61	Peak
4824	H	41.25	---	0.64	41.89	---	74.00	54.00	-12.11	Peak
N/A										

Notes: AV Means AV detector test data, Peak Means Peak detector test data. Emissions attenuated more than 20 dB below the permissible value are not reported.

EUT	3070-8D mould	Model Name	BL-LW05-2M(3070-8D)
Temperature	26°C	Relative Humidity	56%
Pressure	960hPa	Test voltage	DC 5V supply by PC with AC 120V/60Hz
Test Mode	TX Mid		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1437	V	51.42	---	-10.29	41.13	---	74.00	54.00	-12.87	Peak
1853	V	51.06	---	-9.04	42.02	---	74.00	54.00	-11.98	Peak
2962	V	47.72	---	-5.95	41.77	---	74.00	54.00	-12.23	Peak
4874	V	42.09	---	0.76	42.85	---	74.00	54.00	- 11.15	Peak

EUT	3070-8D mould	Model Name	BL-LW05-2M(3070-8D)
Temperature	26°C	Relative Humidity	56%
Pressure	960hPa	Test voltage	DC 5V supply by PC with AC 120V/60Hz
Test Mode	TX Mid		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1356	H	52.16	---	-10.43	41.73	---	74.00	54.00	-12.27	Peak
1729	H	50.94	---	-9.53	41.41	---	74.00	54.00	-12.59	Peak
3463	H	47.11	---	-4.95	42.16	---	74.00	54.00	-11.84	Peak
4874	H	41.66	---	0.76	42.42	---	74.00	54.00	-11.58	Peak

Notes: AV Means AV detector test data, Peak Means Peak detector test data. Emissions attenuated more than 20 dB below the permissible value are not reported.

EUT	3070-8D mould	Model Name	BL-LW05-2M(3070-8D)
Temperature	26°C	Relative Humidity	56%
Pressure	960hPa	Test voltage	DC 5V supply by PC with AC 120V/60Hz
Test Mode	TX High		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1162	V	52.89	---	-11.73	41.16	---	74.00	54.00	-12.84	Peak
1937	V	51.10	---	-8.86	42.24	---	74.00	54.00	-11.76	Peak
3053	V	47.26	---	-5.74	41.52	---	74.00	54.00	-12.48	Peak
4924	V	40.54	---	0.87	41.41	---	74.00	54.00	-12.59	Peak

EUT	3070-8D mould	Model Name	BL-LW05-2M(3070-8D)
Temperature	26°C	Relative Humidity	56%
Pressure	960hPa	Test voltage	DC 5V supply by PC with AC 120V/60Hz
Test Mode	TX High		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1943	H	49.62	---	-8.86	40.76	---	74.00	54.00	-13.24	Peak
3156	H	46.40	---	-5.52	40.88	---	74.00	54.00	-13.12	Peak
3682	H	44.70	---	-4.38	40.32	---	74.00	54.00	-13.68	Peak
4924	H	40.69	---	0.87	41.56	---	74.00	54.00	-12.44	Peak

Notes: AV Means AV detector test data,Peak Means Peak detector test data.
Emissions attenuated more than 20 dB below the permissible value are not reported.

IEEE 802.11 g:

EUT	3070-8D mould	Model Name	BL-LW05-2M(3070-8D)
Temperature	26°C	Relative Humidity	56%
Pressure	960hPa	Test voltage	DC 5V supply by PC with AC 120V/60Hz
Test Mode	TX Low		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1462	V	50.76	---	-10.27	40.49	---	74.00	54.00	-13.51	Peak
1869	V	50.68	---	-9.04	41.64	---	74.00	54.00	-12.36	Peak
2057	V	50.42	---	-8.49	41.93	---	74.00	54.00	-12.07	Peak
4824	V	42.04	---	0.64	42.68	---	74.00	54.00	-11.32	Peak
N/A										

EUT	3070-8D mould	Model Name	BL-LW05-2M(3070-8D)
Temperature	26°C	Relative Humidity	56%
Pressure	960hPa	Test voltage	DC 5V supply by PC with AC 120V/60Hz
Test Mode	TX Low		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1371	H	51.95	---	-10.43	41.52	---	74.00	54.00	-12.48	Peak
2854	H	44.08	---	-5.87	38.21	---	74.00	54.00	-15.79	Peak
2985	H	46.59	---	-5.86	40.73	---	74.00	54.00	-13.27	Peak
4824	H	42.07	---	0.64	42.71	---	74.00	54.00	-11.29	Peak
N/A										

Notes: AV Means AV detector test data,Peak Means Peak detector test data.
Emissions attenuated more than 20 dB below the permissible value are not reported.

EUT	3070-8D mould	Model Name	BL-LW05-2M(3070-8D)
Temperature	26°C	Relative Humidity	56%
Pressure	960hPa	Test voltage	DC 5V supply by PC with AC 120V/60Hz
Test Mode	TX Mid		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1464	V	50.91	---	-10.27	40.64	---	74.00	54.00	-13.36	Peak
1728	V	50.24	---	-9.53	40.71	---	74.00	54.00	-13.29	Peak
1940	V	50.14	---	-8.86	41.28	---	74.00	54.00	-12.72	Peak
4874	V	41.83	---	0.76	42.59	---	74.00	54.00	-11.41	Peak

EUT	3070-8D mould	Model Name	BL-LW05-2M(3070-8D)
Temperature	26°C	Relative Humidity	56%
Pressure	960hPa	Test voltage	DC 5V supply by PC with AC 120V/60Hz
Test Mode	TX Mid		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1385	H	50.75	---	-10.43	40.32	---	74.00	54.00	-13.68	Peak
1621	H	50.89	---	-9.84	41.05	---	74.00	54.00	-12.95	Peak
3736	H	45.42	---	-4.24	41.18	---	74.00	54.00	-12.82	Peak
4874	H	41.45	---	0.76	42.21	---	74.00	54.00	-11.79	Peak

Notes: AV Means AV detector test data, Peak Means Peak detector test data. Emissions attenuated more than 20 dB below the permissible value are not reported.

EUT	3070-8D mould	Model Name	BL-LW05-2M(3070-8D)
Temperature	26°C	Relative Humidity	56%
Pressure	960hPa	Test voltage	DC 5V supply by PC with AC 120V/60Hz
Test Mode	TX High		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1488	V	50.99	---	-10.27	40.72	---	74.00	54.00	-13.28	Peak
2953	V	46.29	---	-5.86	40.43	---	74.00	54.00	-13.57	Peak
3761	V	43.66	---	-4.07	39.59	---	74.00	54.00	-14.41	Peak
4924	V	40.87	---	0.87	41.74	---	74.00	54.00	-12.26	Peak

EUT	3070-8D mould	Model Name	BL-LW05-2M(3070-8D)
Temperature	26°C	Relative Humidity	56%
Pressure	960hPa	Test voltage	DC 5V supply by PC with AC 120V/60Hz
Test Mode	TX High		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1859	H	49.26	---	-9.04	40.22	---	74.00	54.00	-13.78	Peak
3046	H	47.22	---	-5.81	41.41	---	74.00	54.00	-12.59	Peak
4234	H	44.15	---	-2.31	41.84	---	74.00	54.00	-12.16	Peak
4924	H	41.65	---	0.87	42.52	---	74.00	54.00	-11.48	Peak

Notes: AV Means AV detector test data, Peak Means Peak detector test data. Emissions attenuated more than 20 dB below the permissible value are not reported.

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EUT	3070-8D mould	Model Name	BL-LW05-2M(3070-8D)
Temperature	26°C	Relative Humidity	56%
Pressure	960hPa	Test voltage	DC 5V supply by PC with AC 120V/60Hz
Test Mode	TX Low		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1821	V	49.58	---	-9.16	40.42	---	74.00	54.00	-13.58	Peak
2037	V	50.34	---	-8.58	41.76	---	74.00	54.00	-12.24	Peak
3459	V	46.78	---	-4.95	41.83	---	74.00	54.00	-12.17	Peak
4824	V	42.02	---	0.64	42.66	---	74.00	54.00	-11.34	Peak
N/A										

EUT	3070-8D mould	Model Name	BL-LW05-2M(3070-8D)
Temperature	26°C	Relative Humidity	56%
Pressure	960hPa	Test voltage	DC 5V supply by PC with AC 120V/60Hz
Test Mode	TX Low		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1432	H	50.71	---	-10.29	40.42	---	74.00	54.00	-13.58	Peak
1649	H	50.15	---	-9.84	40.31	---	74.00	54.00	-13.69	Peak
2853	H	48.13	---	-5.87	42.26	---	74.00	54.00	-11.74	Peak
4824	H	42.78	---	0.64	43.42	---	74.00	54.00	-10.58	Peak
N/A										

Notes: AV Means AV detector test data,Peak Means Peak detector test data.
Emissions attenuated more than 20 dB below the permissible value are not reported.

EUT	3070-8D mould	Model Name	BL-LW05-2M(3070-8D)
Temperature	26°C	Relative Humidity	56%
Pressure	960hPa	Test voltage	DC 5V supply by PC with AC 120V/60Hz
Test Mode	TX Mid		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1194	V	52.06	---	-11.73	40.33	---	74.00	54.00	-13.67	Peak
1963	V	48.21	---	-8.64	39.57	---	74.00	54.00	-14.43	Peak
3572	V	46.47	---	-4.76	41.71	---	74.00	54.00	-12.29	Peak
4874	V	41.68	---	0.76	42.44	---	74.00	54.00	-11.56	Peak

EUT	3070-8D mould	Model Name	BL-LW05-2M(3070-8D)
Temperature	26°C	Relative Humidity	56%
Pressure	960hPa	Test voltage	DC 5V supply by PC with AC 120V/60Hz
Test Mode	TX Mid		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1736	H	50.78	---	-9.53	41.25	---	74.00	54.00	-12.75	Peak
2684	H	49.32	---	-6.94	42.38	---	74.00	54.00	-11.62	Peak
3511	H	46.66	---	-4.87	41.79	---	74.00	54.00	-12.21	Peak
4874	H	41.87	---	0.76	42.63	---	74.00	54.00	-11.37	Peak

Notes: AV Means AV detector test data,Peak Means Peak detector test data.
Emissions attenuated more than 20 dB below the permissible value are not reported.

EUT	3070-8D mould	Model Name	BL-LW05-2M(3070-8D)
Temperature	26°C	Relative Humidity	56%
Pressure	960hPa	Test voltage	DC 5V supply by PC with AC 120V/60Hz
Test Mode	TX High		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1324	V	50.22	---	-10.84	39.38	---	74.00	54.00	-14.62	Peak
1762	V	50.10	---	-9.27	40.83	---	74.00	54.00	-13.17	Peak
2028	V	50.73	---	-8.58	42.15	---	74.00	54.00	-11.85	Peak
4924	V	41.65	---	0.87	42.52	---	74.00	54.00	-11.48	Peak

EUT	3070-8D mould	Model Name	BL-LW05-2M(3070-8D)
Temperature	26°C	Relative Humidity	56%
Pressure	960hPa	Test voltage	DC 5V supply by PC with AC 120V/60Hz
Test Mode	TX High		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1937	H	48.29	---	-8.86	39.43	---	74.00	54.00	-14.57	Peak
3426	H	46.47	---	-5.09	41.38	---	74.00	54.00	-12.62	Peak
4158	H	45.19	---	-2.48	42.71	---	74.00	54.00	-11.29	Peak
4924	H	41.68	---	0.87	42.55	---	74.00	54.00	-11.45	Peak

Notes: AV Means AV detector test data,Peak Means Peak detector test data.
Emissions attenuated more than 20 dB below the permissible value are not reported.

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EUT	3070-8D mould	Model Name	BL-LW05-2M(3070-8D)
Temperature	26°C	Relative Humidity	56%
Pressure	960hPa	Test voltage	DC 5V supply by PC with AC 120V/60Hz
Test Mode	TX Low		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1821	V	48.93	---	-9.16	39.77	---	74.00	54.00	-14.23	Peak
2037	V	48.90	---	-8.58	40.32	---	74.00	54.00	-13.68	Peak
3459	V	45.98	---	-4.95	41.03	---	74.00	54.00	-12.97	Peak
4844	V	42.01	---	0.64	42.65	---	74.00	54.00	-11.35	Peak
N/A										

EUT	3070-8D mould	Model Name	BL-LW05-2M(3070-8D)
Temperature	26°C	Relative Humidity	56%
Pressure	960hPa	Test voltage	DC 5V supply by PC with AC 120V/60Hz
Test Mode	TX Low		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1432	H	51.01	---	-10.29	40.72	---	74.00	54.00	-13.28	Peak
1649	H	50.67	---	-9.84	40.83	---	74.00	54.00	-13.17	Peak
2853	H	48.72	---	-5.87	42.85	---	74.00	54.00	-11.15	Peak
4844	H	41.07	---	0.64	41.71	---	74.00	54.00	-12.29	Peak
N/A										

Notes: AV Means AV detector test data,Peak Means Peak detector test data.
Emissions attenuated more than 20 dB below the permissible value are not reported.

EUT	3070-8D mould	Model Name	BL-LW05-2M(3070-8D)
Temperature	26°C	Relative Humidity	56%
Pressure	960hPa	Test voltage	DC 5V supply by PC with AC 120V/60Hz
Test Mode	TX Mid		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1194	V	52.16	---	-11.73	40.43	---	74.00	54.00	-13.57	Peak
1963	V	50.47	---	-8.64	41.83	---	74.00	54.00	-12.17	Peak
3572	V	46.34	---	-4.76	41.58	---	74.00	54.00	-12.42	Peak
4874	V	41.86	---	0.76	42.62	---	74.00	54.00	-11.38	Peak

EUT	3070-8D mould	Model Name	BL-LW05-2M(3070-8D)
Temperature	26°C	Relative Humidity	56%
Pressure	960hPa	Test voltage	DC 5V supply by PC with AC 120V/60Hz
Test Mode	TX Mid		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1736	H	49.28	---	-9.53	39.75	---	74.00	54.00	-14.25	Peak
2684	H	47.58	---	-6.94	40.64	---	74.00	54.00	-13.36	Peak
3511	H	46.00	---	-4.87	41.13	---	74.00	54.00	-12.87	Peak
4874	H	41.65	---	0.76	42.41	---	74.00	54.00	-11.59	Peak

Notes: AV Means AV detector test data,Peak Means Peak detector test data.
Emissions attenuated more than 20 dB below the permissible value are not reported.

EUT	3070-8D mould	Model Name	BL-LW05-2M(3070-8D)
Temperature	26°C	Relative Humidity	56%
Pressure	960hPa	Test voltage	DC 5V supply by PC with AC 120V/60Hz
Test Mode	TX High		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1324	V	52.36	---	-10.84	41.52	---	74.00	54.00	-12.48	Peak
1762	V	51.54	---	-9.27	42.27	---	74.00	54.00	-11.73	Peak
2028	V	49.34	---	-8.58	40.76	---	74.00	54.00	-13.24	Peak
4904	V	40.37	---	0.87	41.24	---	74.00	54.00	-12.76	Peak

EUT	3070-8D mould	Model Name	BL-LW05-2M(3070-8D)
Temperature	26°C	Relative Humidity	56%
Pressure	960hPa	Test voltage	DC 5V supply by PC with AC 120V/60Hz
Test Mode	TX High		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1937	H	49.01	---	-8.86	40.15	---	74.00	54.00	-13.85	Peak
3426	H	44.42	---	-5.09	39.33	---	74.00	54.00	-14.67	Peak
4158	H	43.04	---	-2.48	40.56	---	74.00	54.00	-13.44	Peak
4904	H	42.31	---	0.87	43.18	---	74.00	54.00	-10.82	Peak

Notes: AV Means AV detector test data, Peak Means Peak detector test data. Emissions attenuated more than 20 dB below the permissible value are not reported.

6 Peak Power

7.1 Test limit

Please refer section15.247.

Regulation 15.247(b) The limit of Maximum Peak Output Power Measurement is 1W(30dBm)

7.2 Test Procedure

Details see the KDB558074 D01 Meas Guidance

7.2.1 Place the EUT on the table and set it in transmitting mode.

7.2.2 Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.

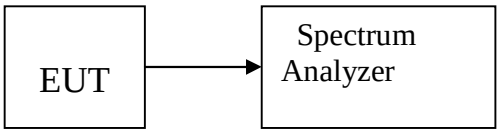
7.2.3 Set the spectrum analyzer as RBW = 1MHz, VBW = 3MHz, Sweep=auto.

7.2.4 Record the max. reading.

7.2.5 Repeat the above procedure until the measurements for all frequencies are completed.

Details see the KDB558074 DTS Meas Guidance

7.3 Test Setup



7.4 Test Results

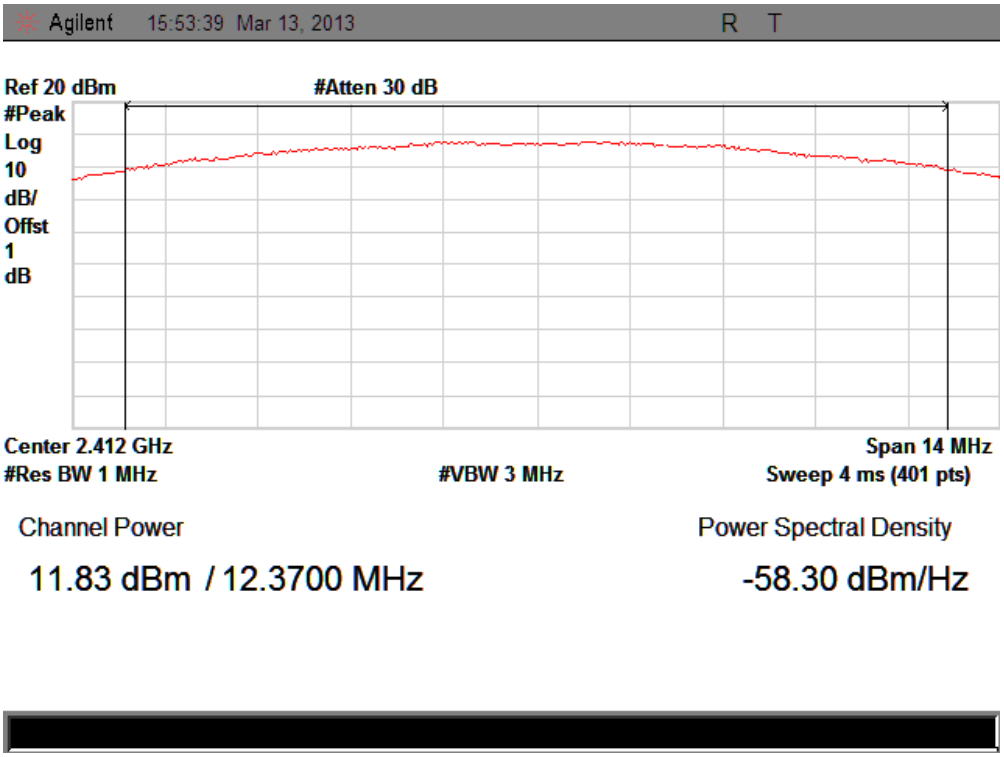
PASS

Detailed information please see the following page.

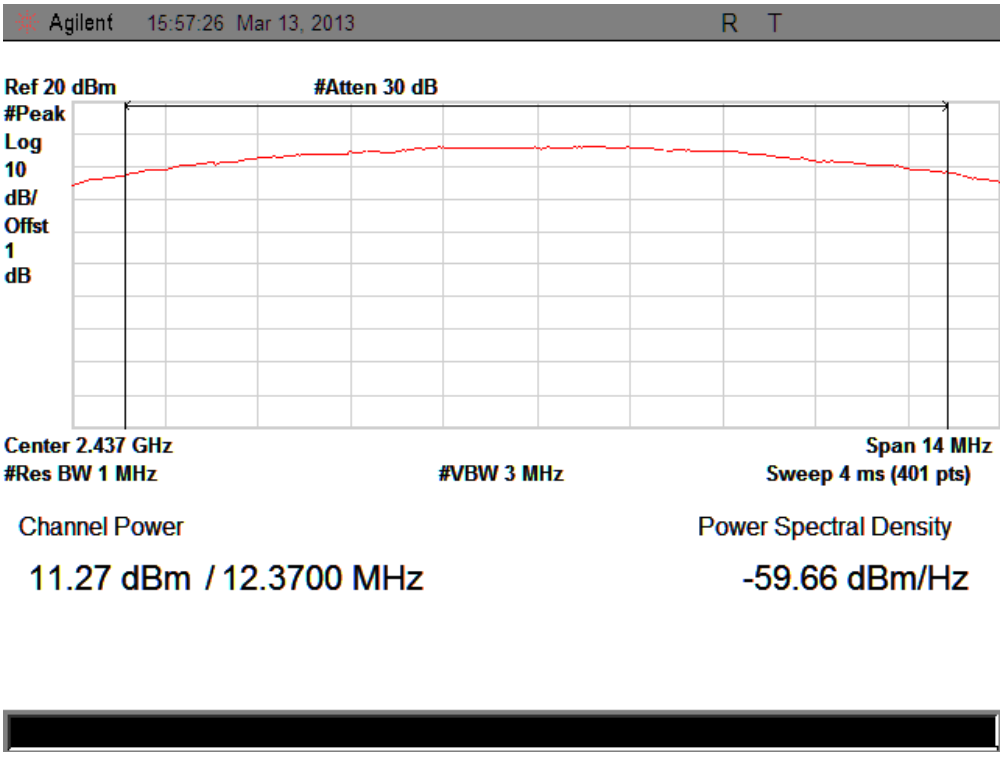
Channel	Frequency (MHz)	Reading Power (dBm)	Factor (dB)	Out put Power (dBm)	Out put Power (W)	Limit (W)	Result
IEEE 802.11b:							
Mid	2412	11.83	1	12.83	0.01919	1	PASS
High	2437	11.27	1	12.27	0.01687		PASS
Low	2462	10.70	1	11.70	0.01479		PASS
IEEE 802.11g:							
Low	2412	10.67	1	11.67	0.01469	1	PASS
Mid	2437	10.65	1	11.65	0.01462		PASS
High	2462	10.81	1	11.81	0.01517		PASS
IEEE 802.11n/HT20:							
Low	2412	10.75	1	11.75	0.01496	1	PASS
Mid	2437	10.43	1	11.43	0.01390		PASS
High	2462	10.95	1	11.95	0.01567		PASS
IEEE 802.11n/HT40:							
Low	2422	10.56	1	11.56	0.01432	1	PASS
Mid	2437	10.30	1	11.30	0.01349		PASS
High	2452	10.80	1	11.80	0.01514		PASS

IEEE 802.11b:

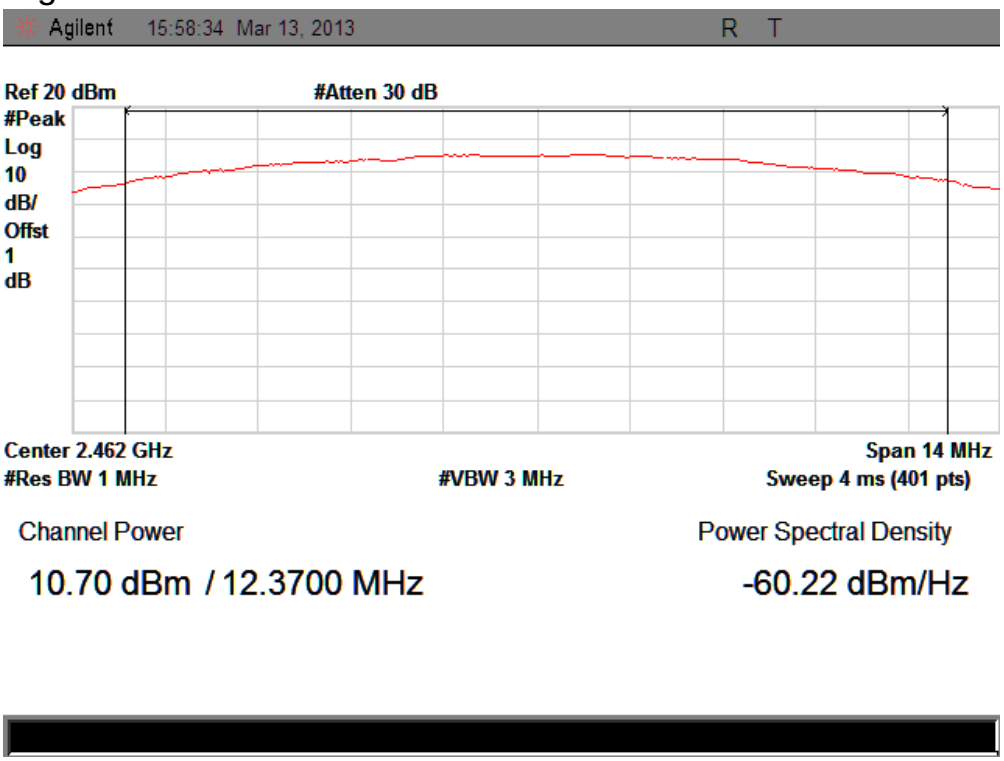
CH Low :



CH Mid :

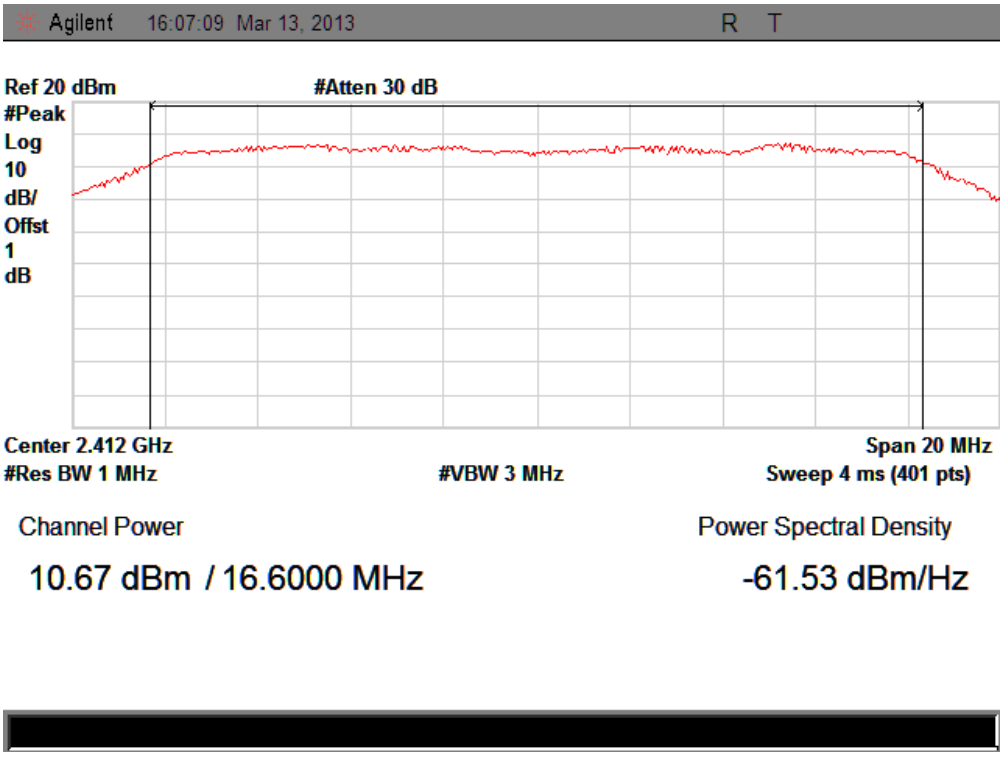


CH High :

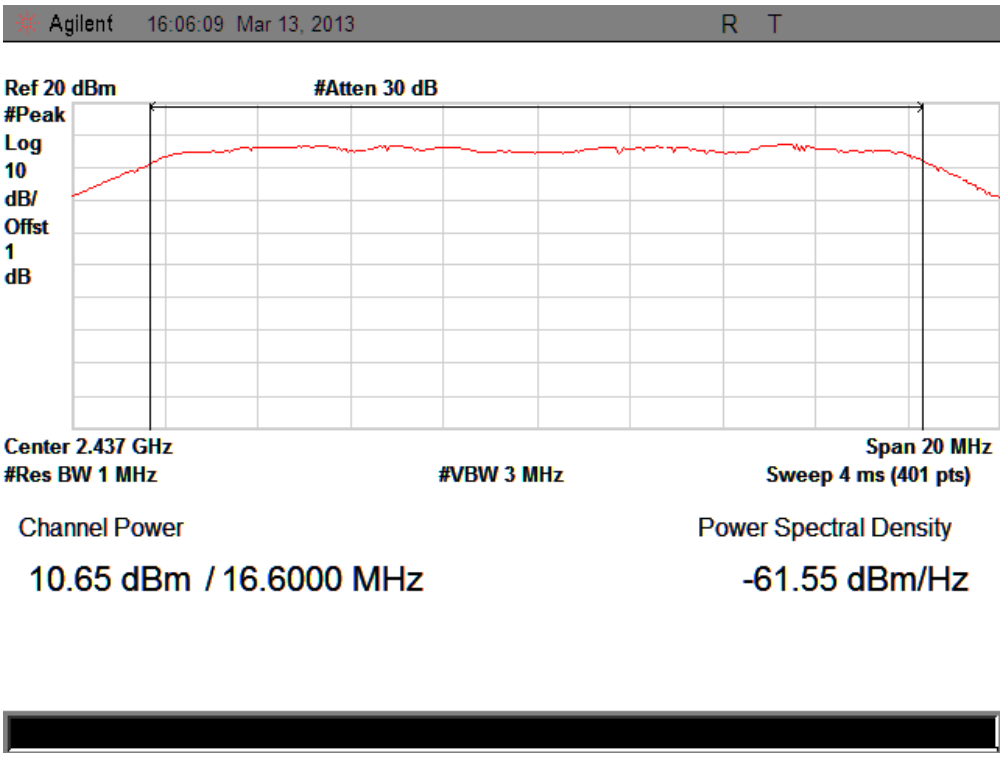


IEEE 802.11g:

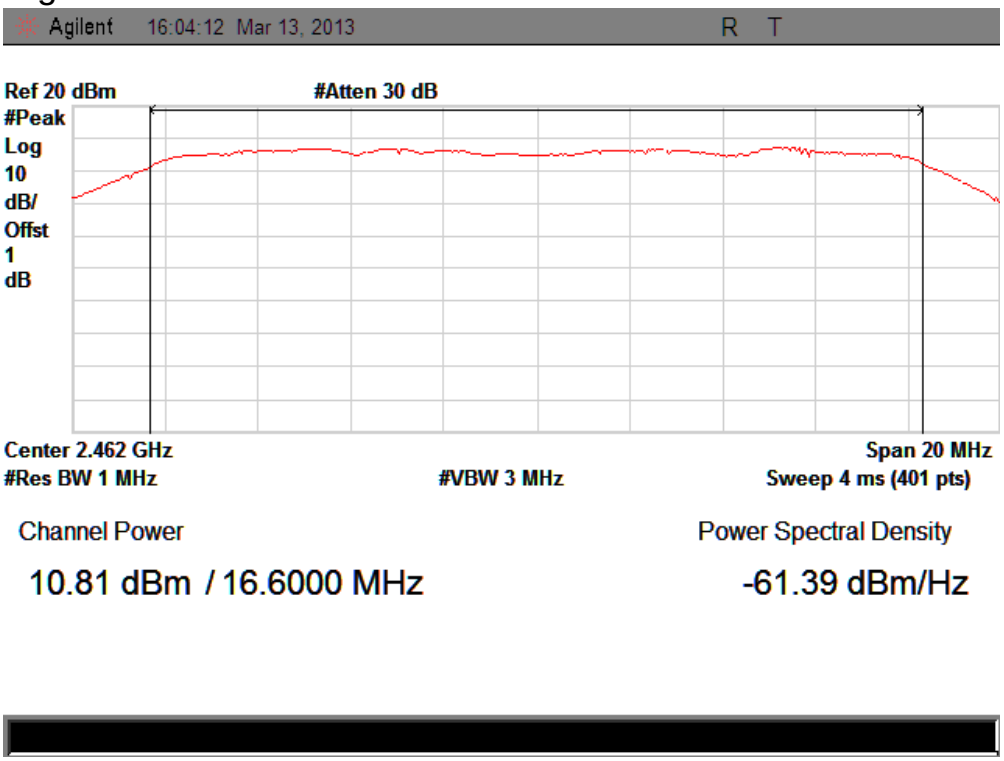
CH Low :



CH Mid :

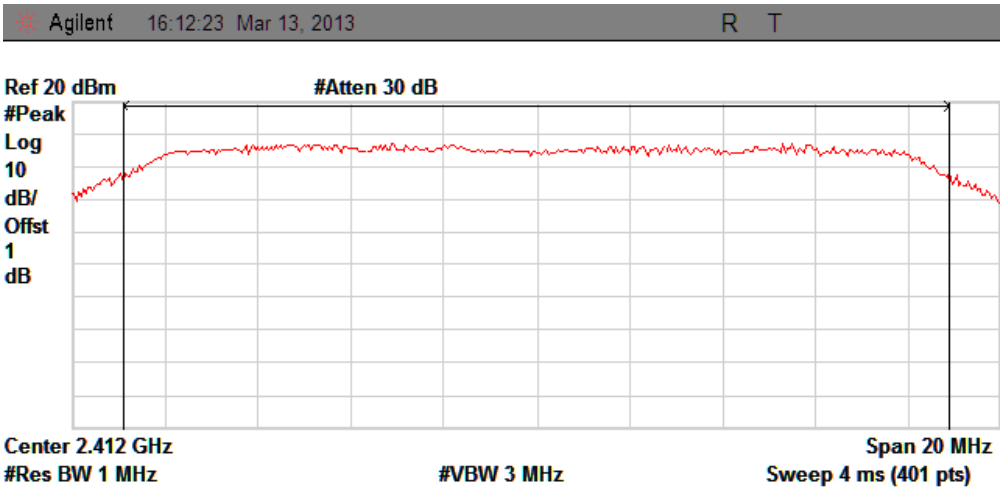


CH High :



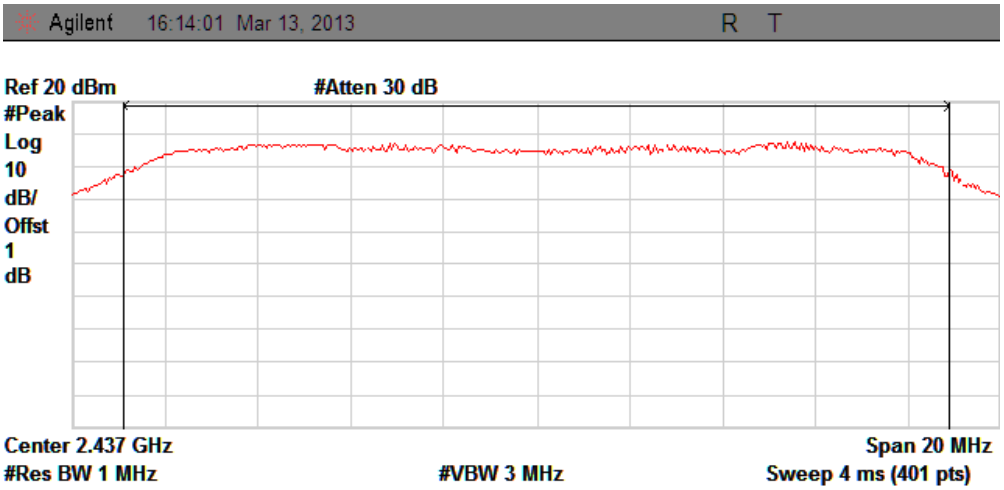
IEEE 802.11n/HT20:

CH Low :



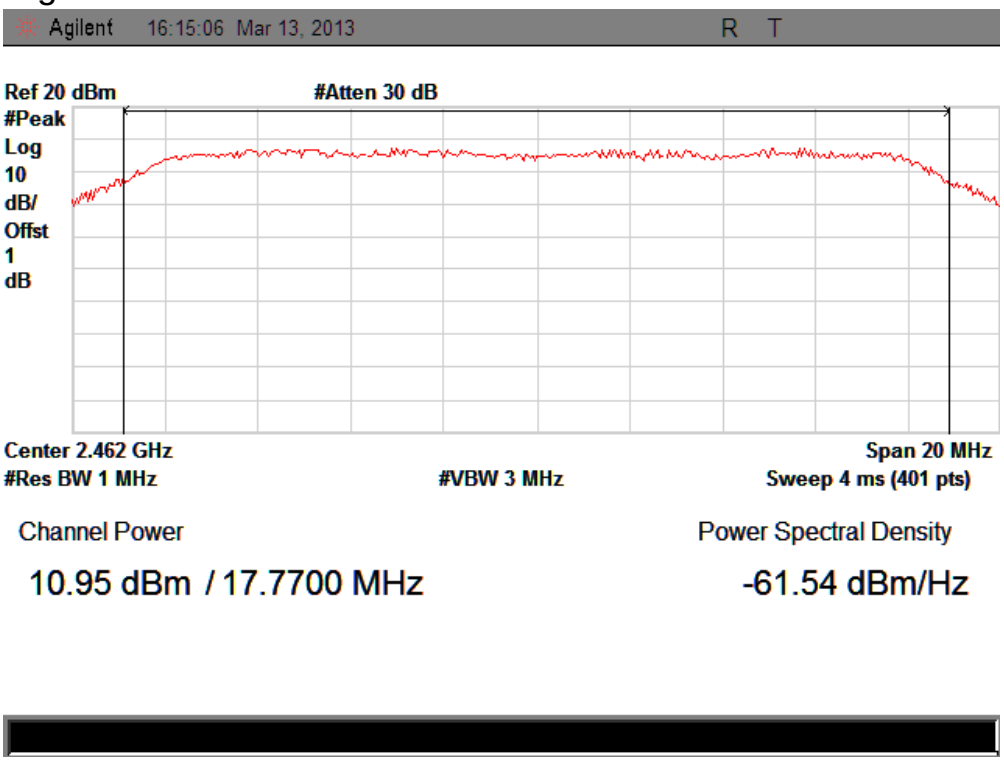
[redacted]

CH Mid :



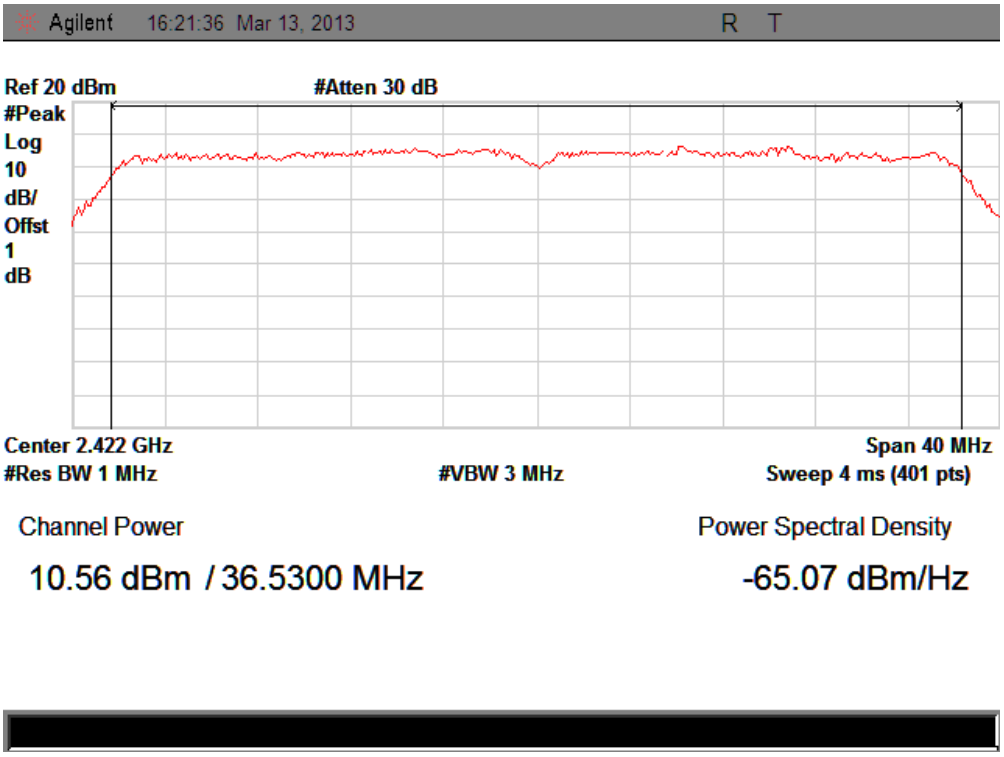
[redacted]

CH High :

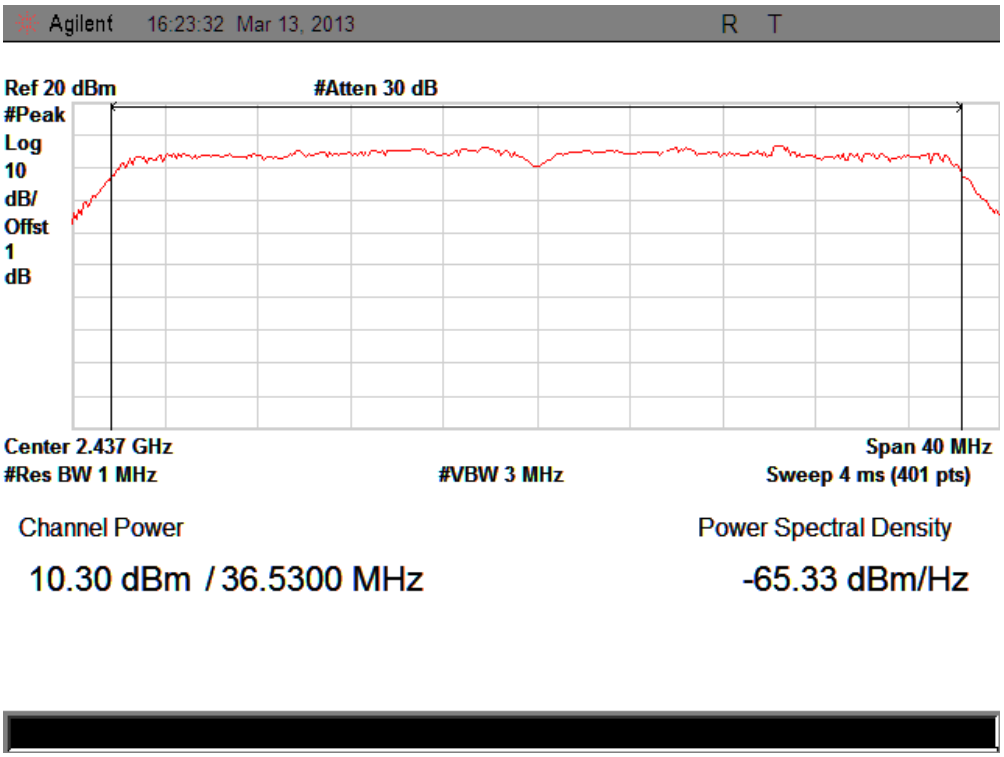


IEEE 802.11n/HT40:

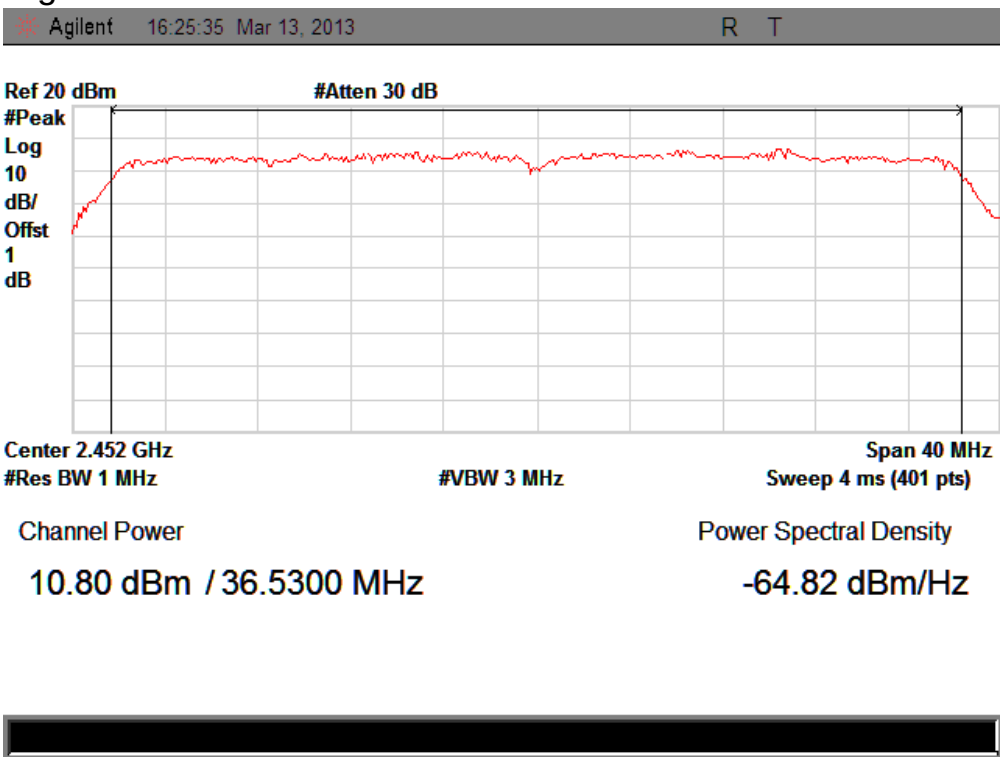
CH Low :



CH Mid :



CH High :



7 Antenna Requirement

7.1 Standard Requirement

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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

7.2 Antenna Connected Construction

The directional gains of antenna used for transmitting is 1 dBi, and the antenna connector is de- signed with permanent attachment and no consideration of replacement. Please see EUT photo for details.

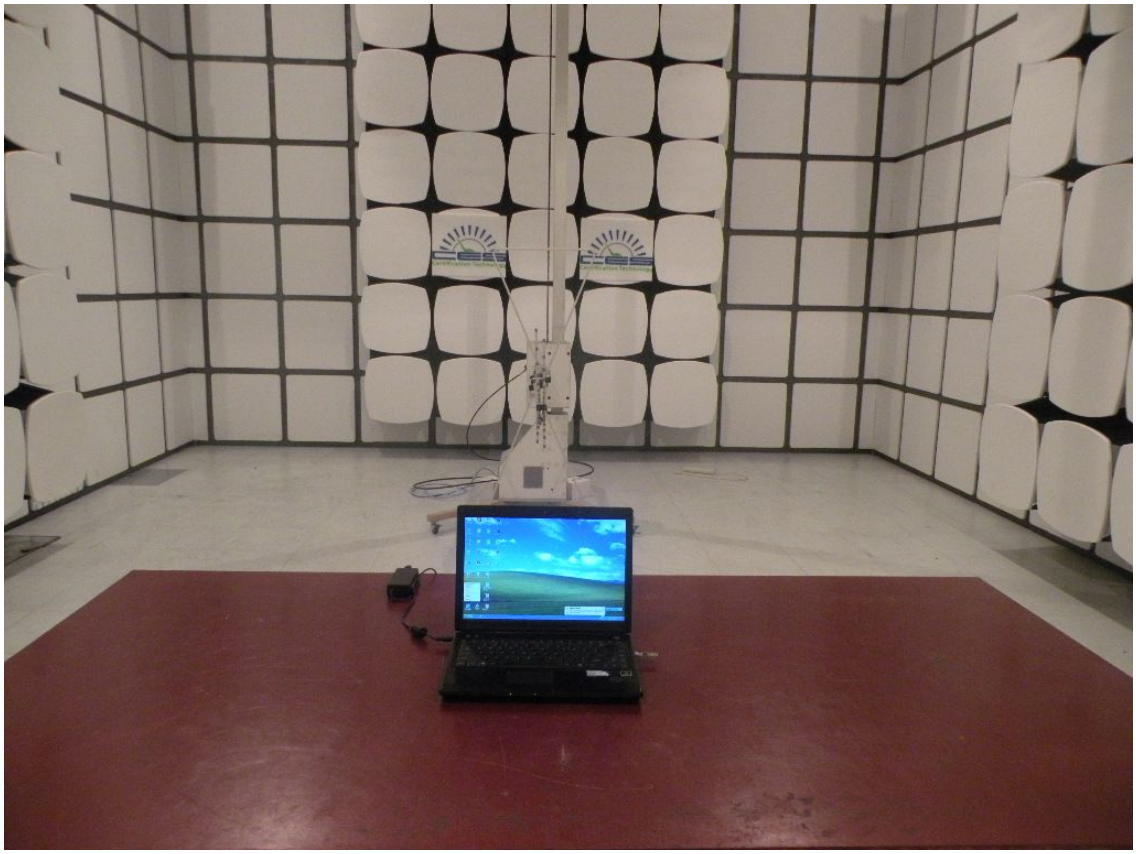
7.3 Result

The EUT antenna is integral Antenna. It comply with the standard requirement.

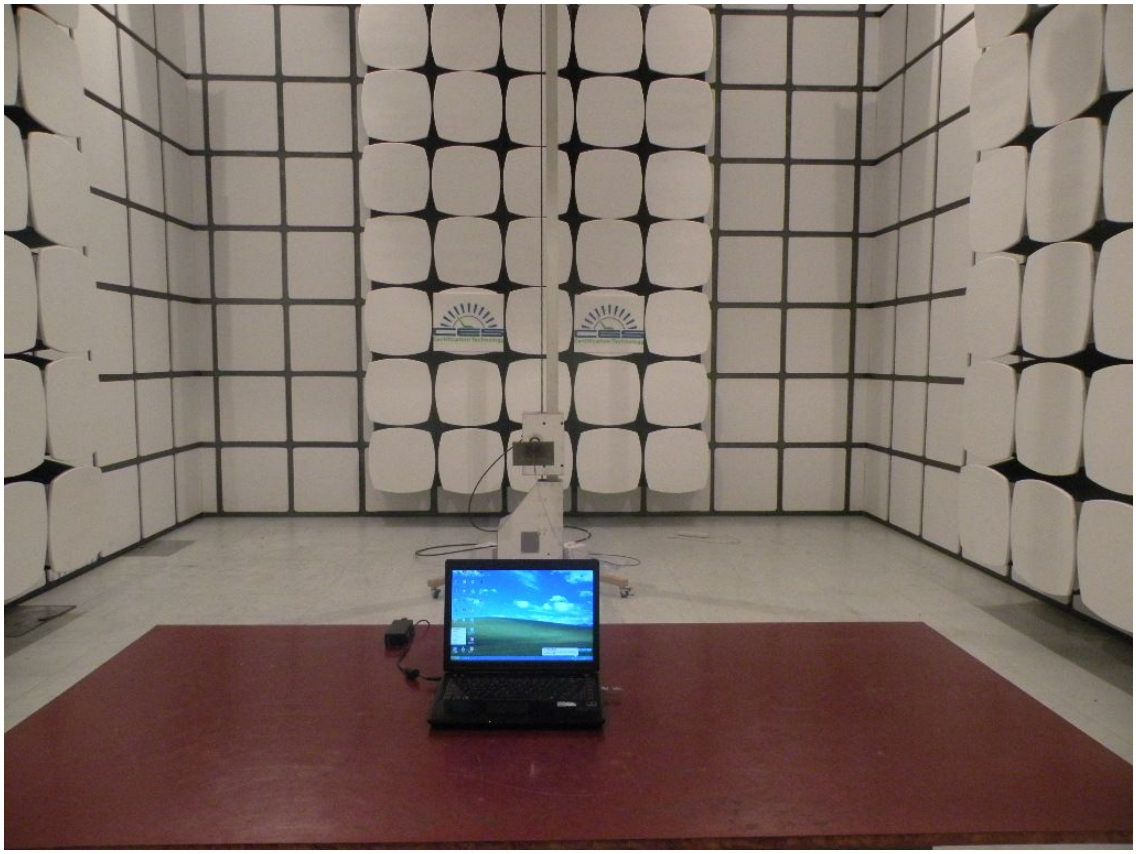
8 Photographs of Test Setup

Photographs-Radiated Emission Test Setup in Chamber

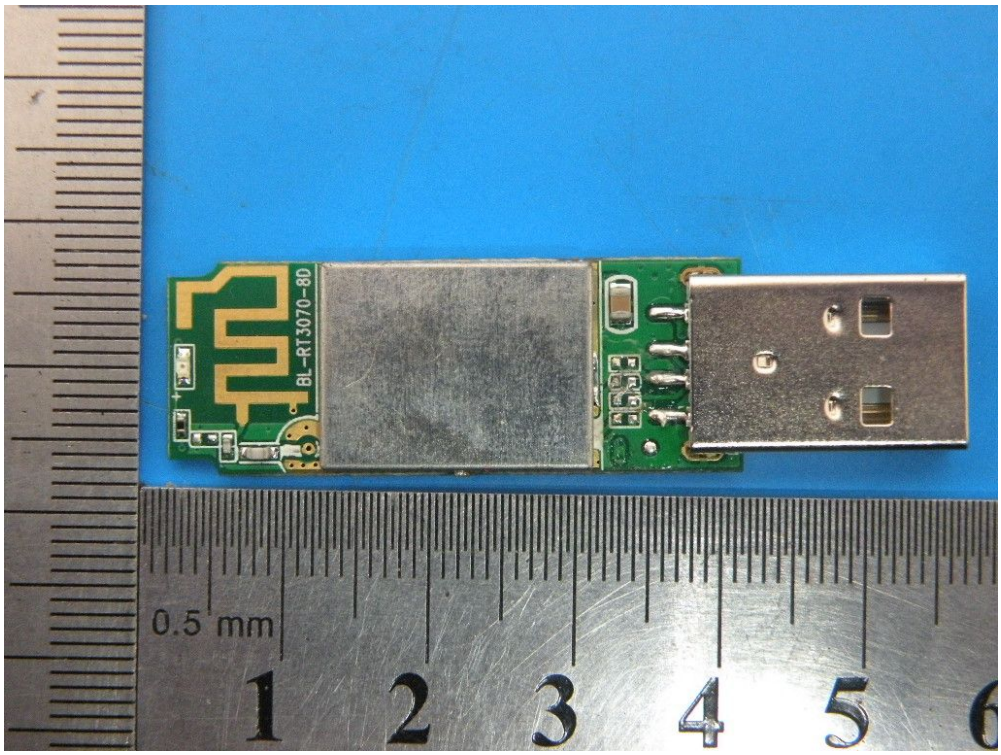
Below 1G

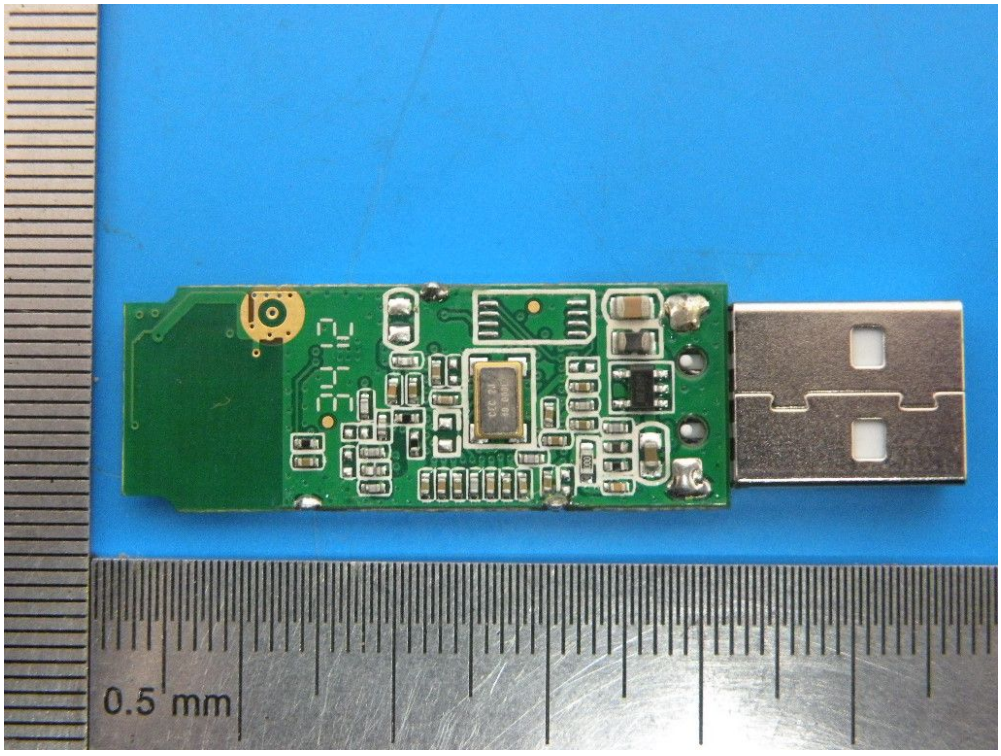


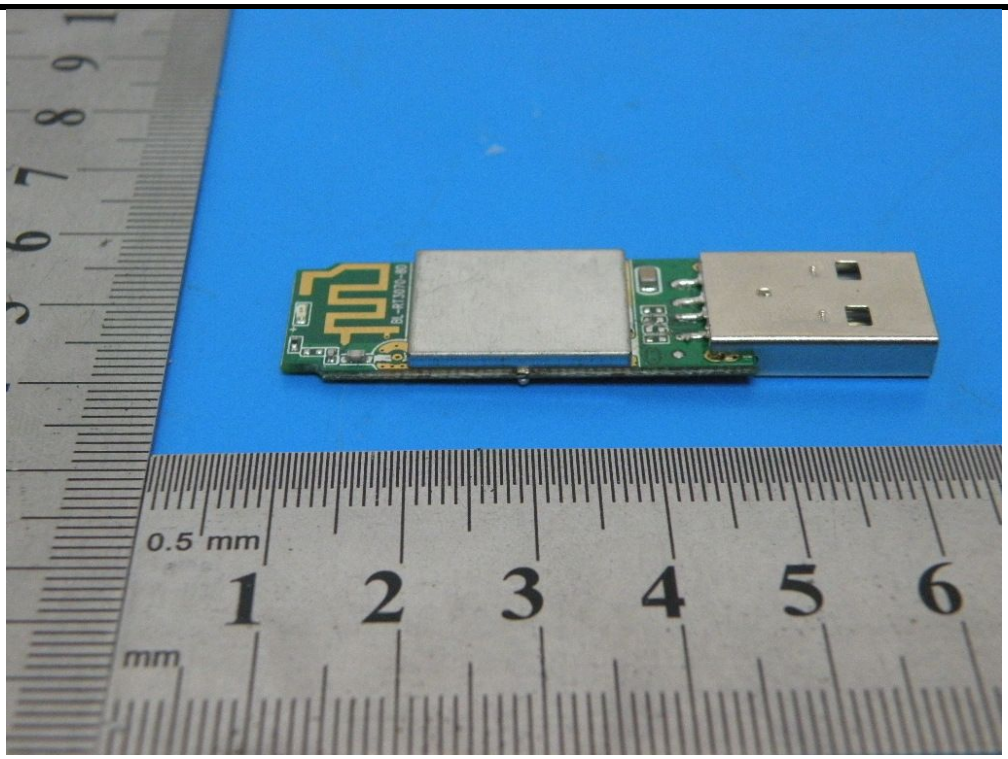
Above 1G

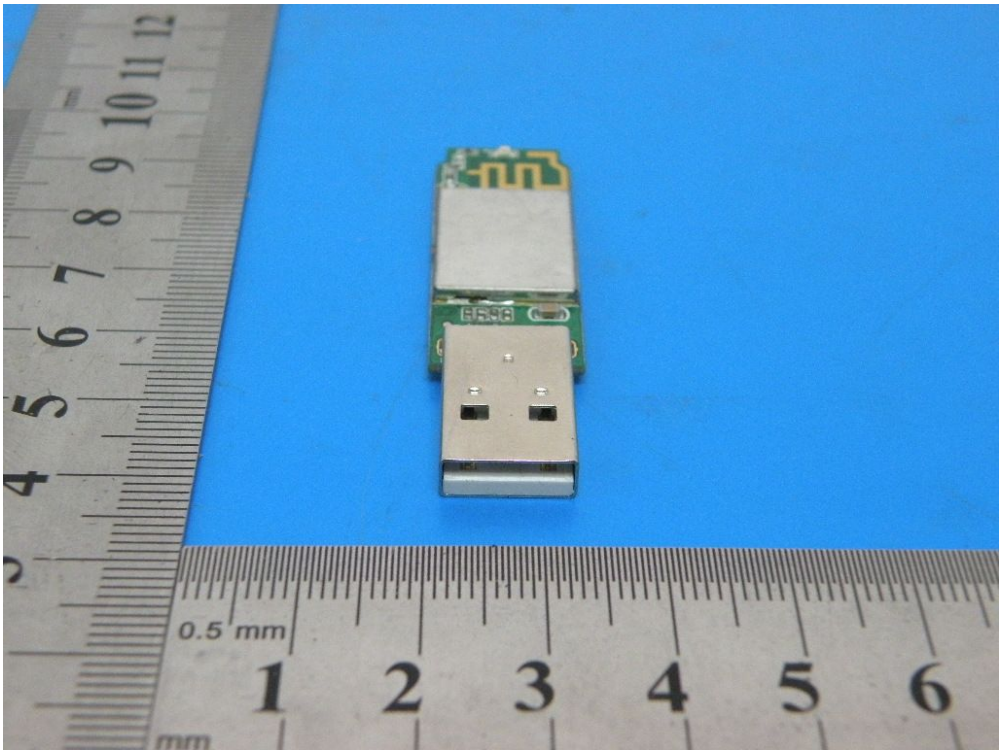


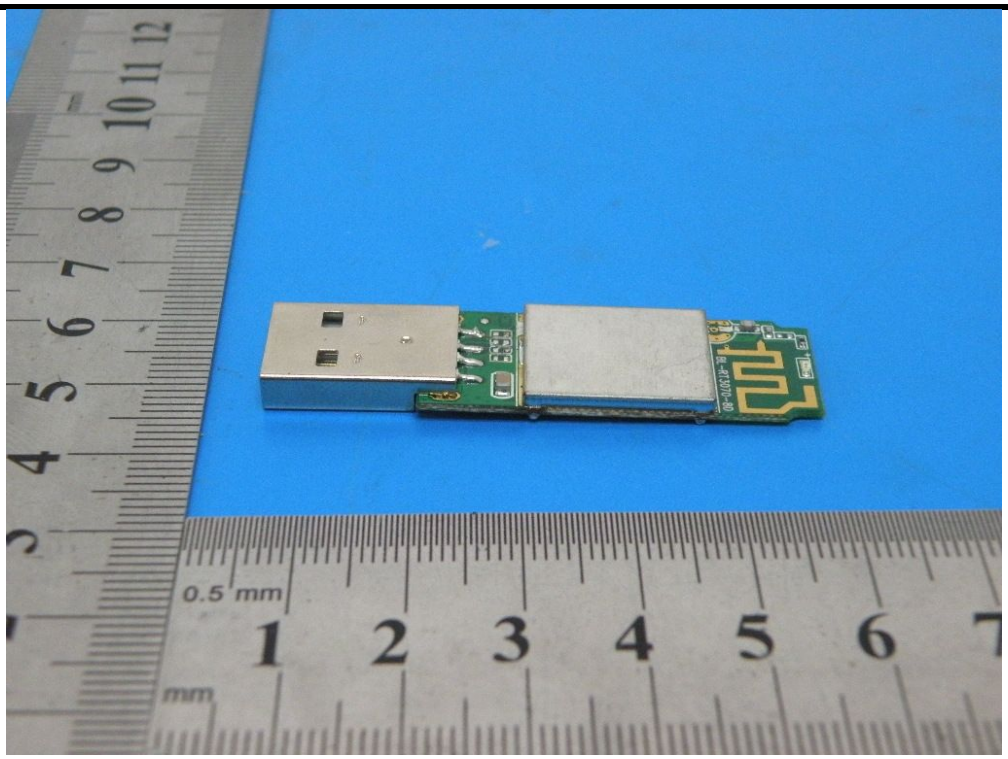
9 Photographs of EUT






0.5 mm
1 2 3 4 5 6
mm


0.5 mm
1 2 3 4 5 6
mm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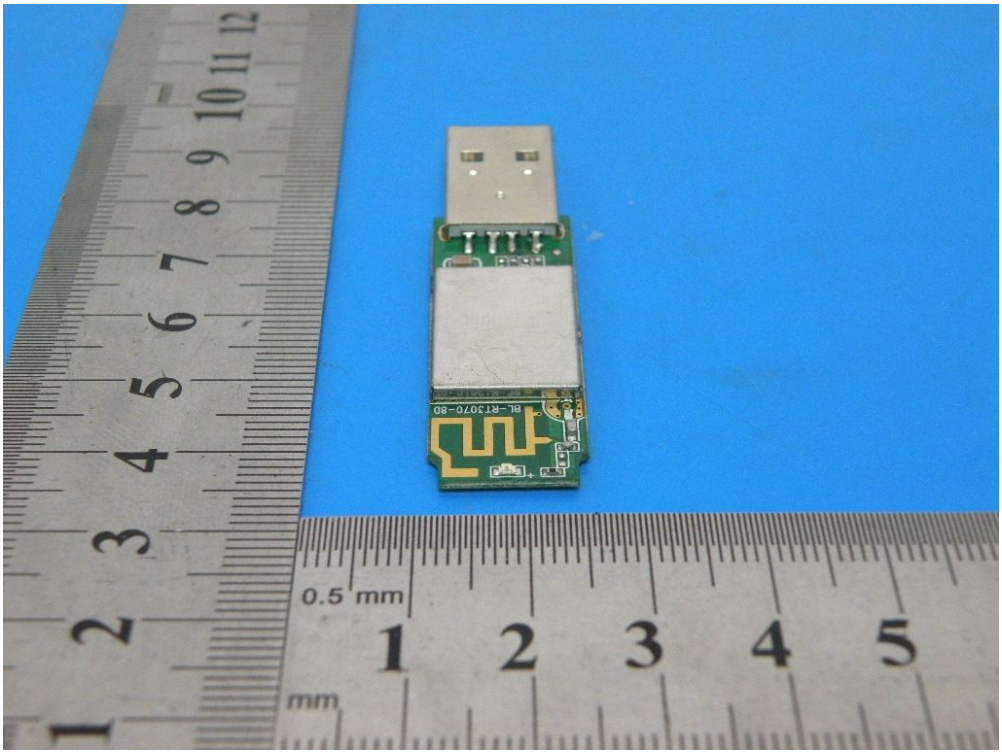
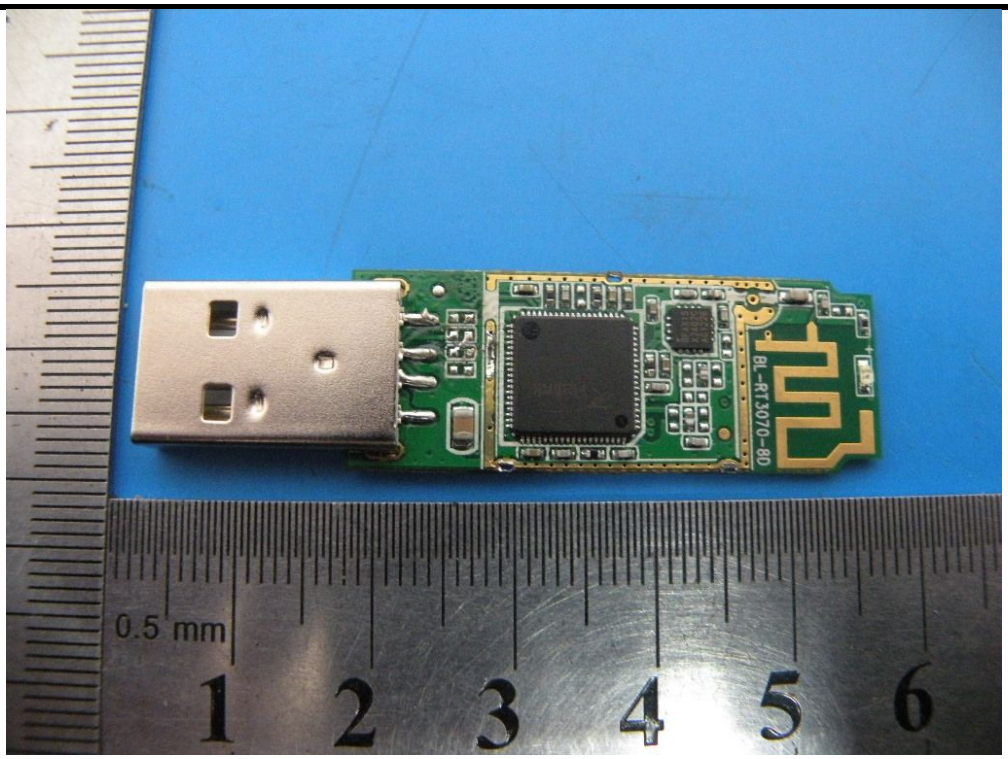
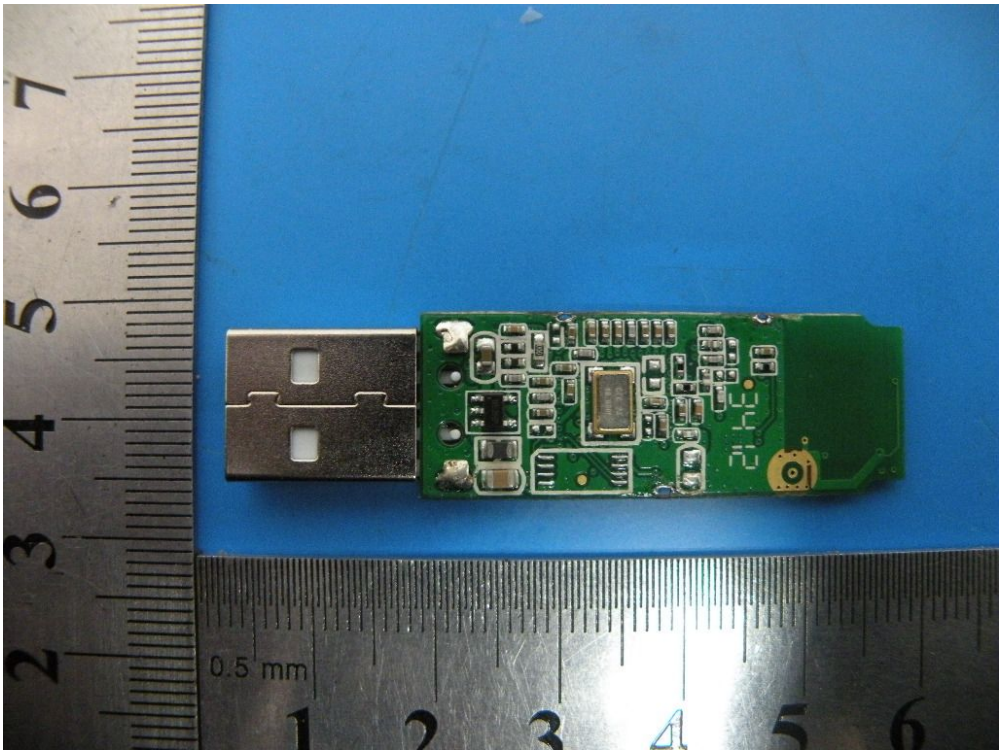
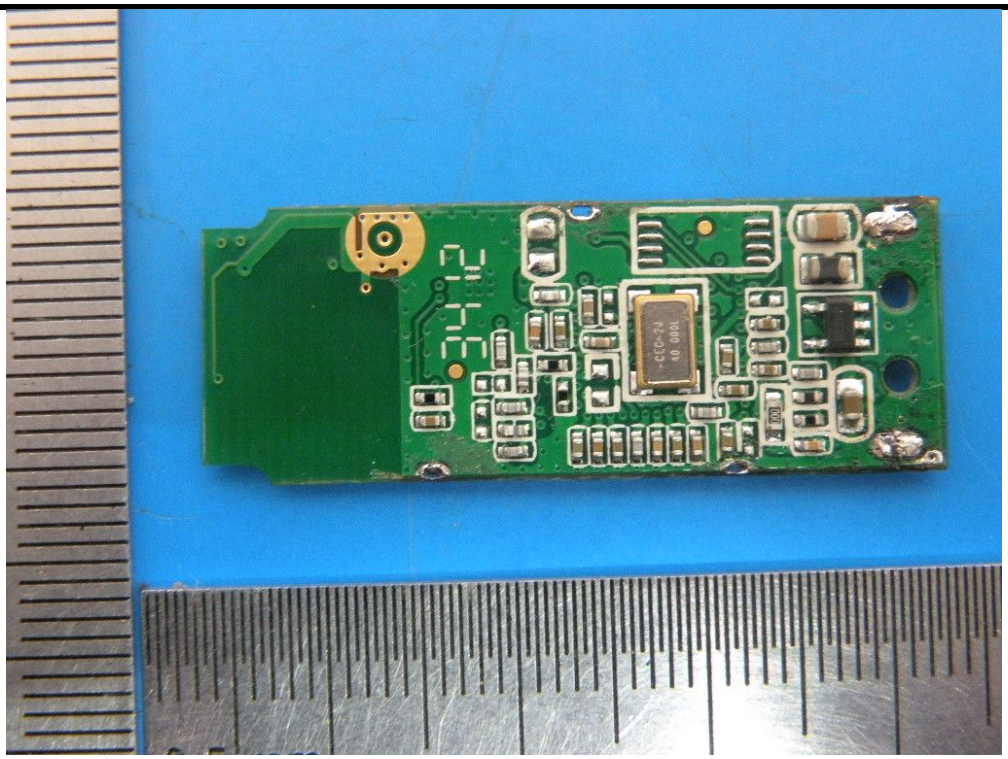
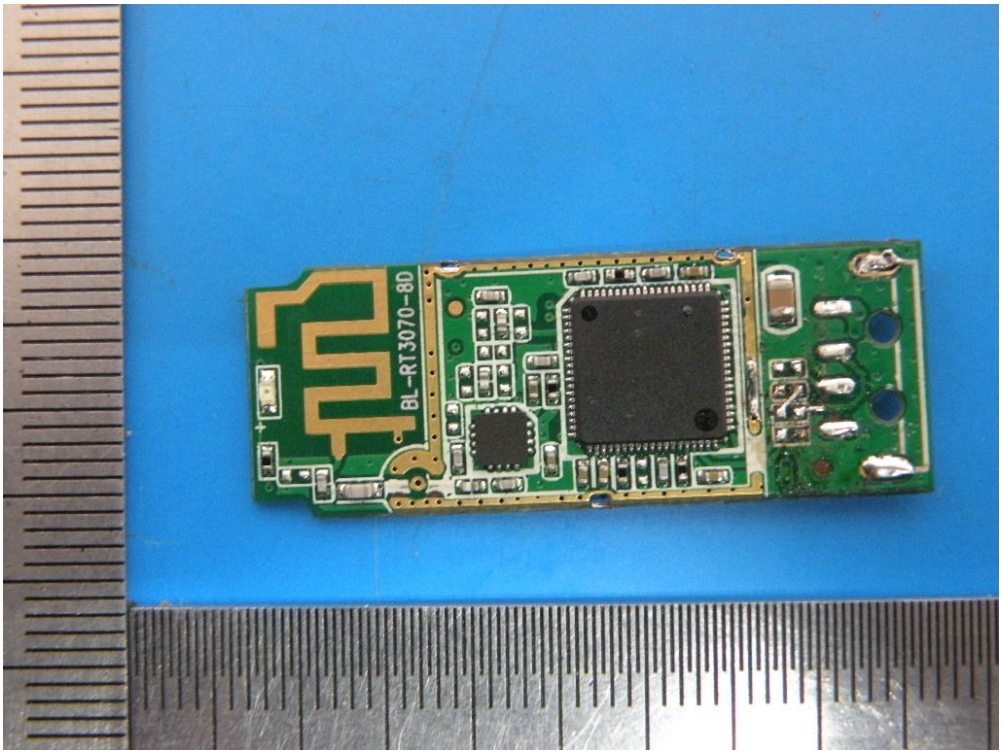
mm


0.5 mm
mm


BL-RT3070-8D
0.5 mm
1 2 3 4 5 6


0.5 mm
1 2 3 4 5 6





-------END OF THE REPORT-------