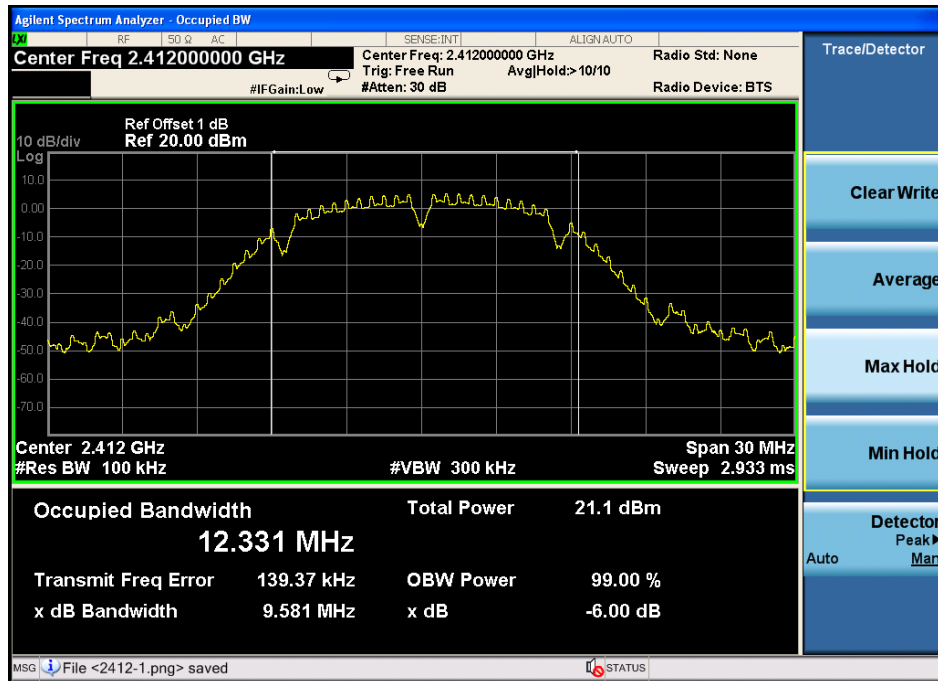


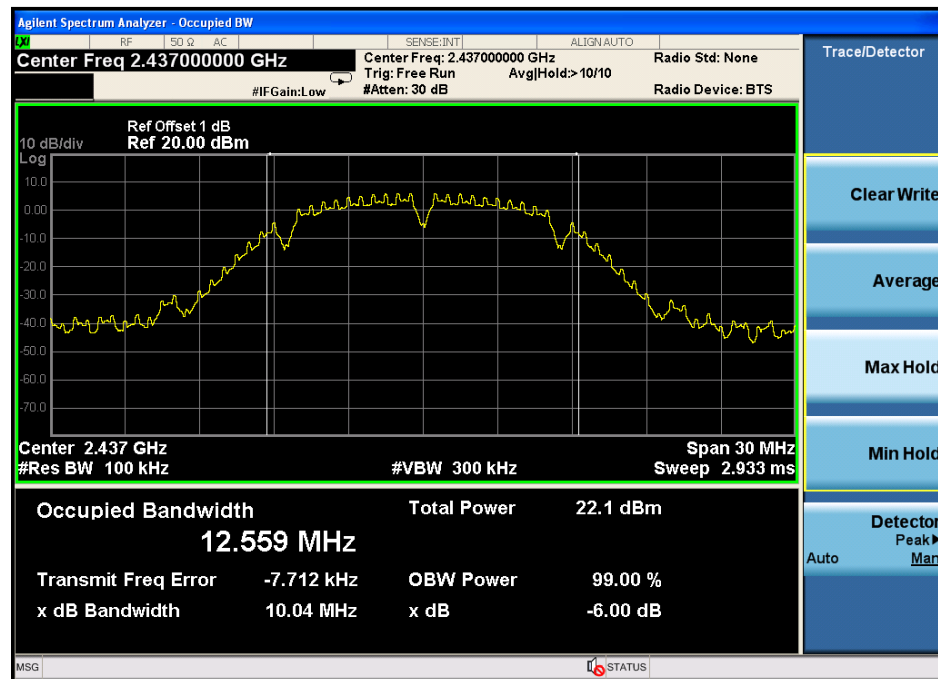
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit (MHz)	Result
IEEE 802.11b:					
Low	2412	9.58	12.331	0.5	PASS
Mid	2437	10.04	12.559	0.5	PASS
High	2462	9.59	12.603	0.5	PASS
IEEE 802.11g					
Low	2412	15.35	16.382	0.5	PASS
Mid	2437	15.49	16.417	0.5	PASS
High	2462	15.75	16.449	0.5	PASS
IEEE 802.11n/HT20:					
Low	2412	17.39	17.635	0.5	PASS
Mid	2437	17.65	17.675	0.5	PASS
High	2462	17.23	17.673	0.5	PASS
IEEE 802.11n/HT40:					
Low	2422	35.21	35.873	0.5	PASS
Mid	2437	35.29	36.051	0.5	PASS
High	2452	35.50	35.847	0.5	PASS

IEEE 802.11b:

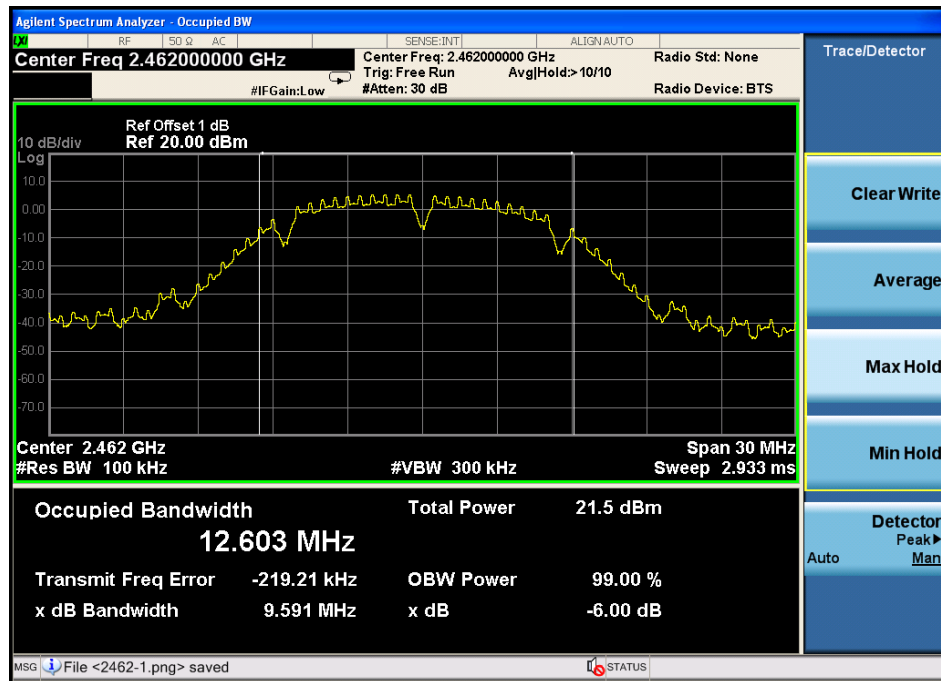
CH Low :



CH Mid :

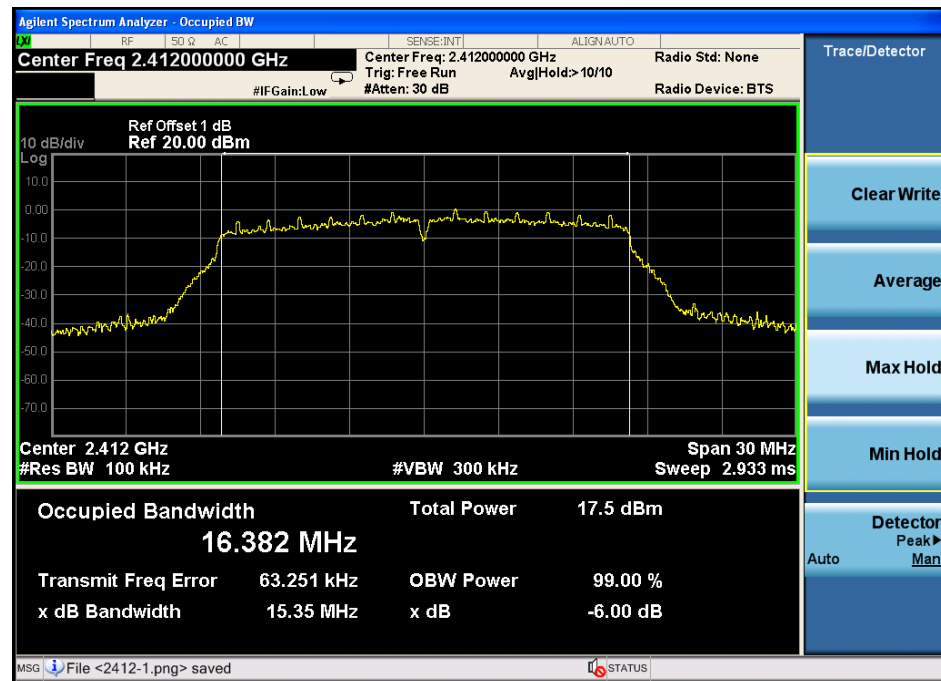


CH High :

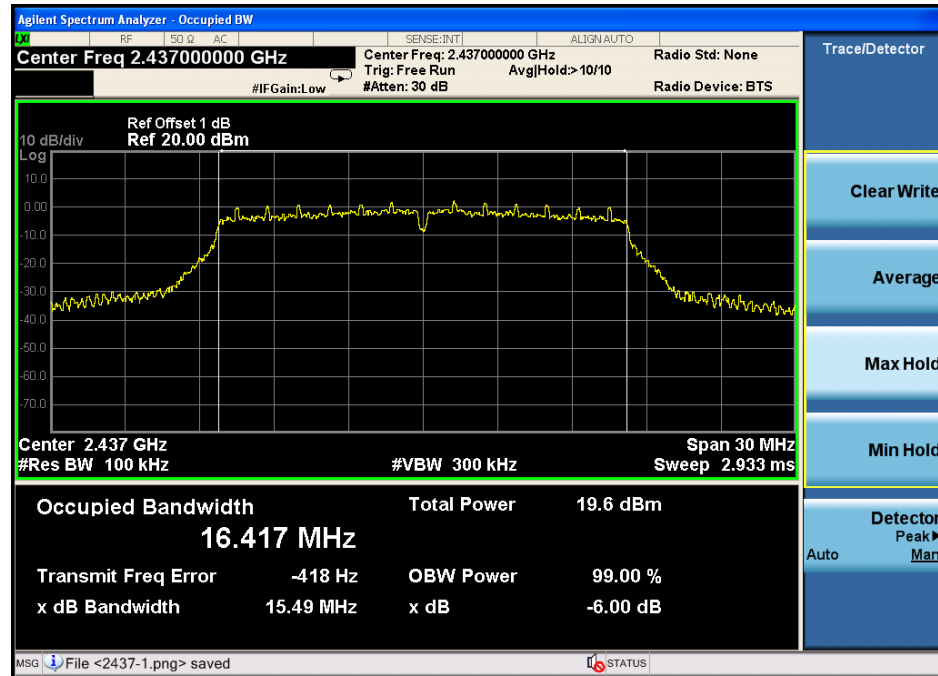


IEEE 802.11g:

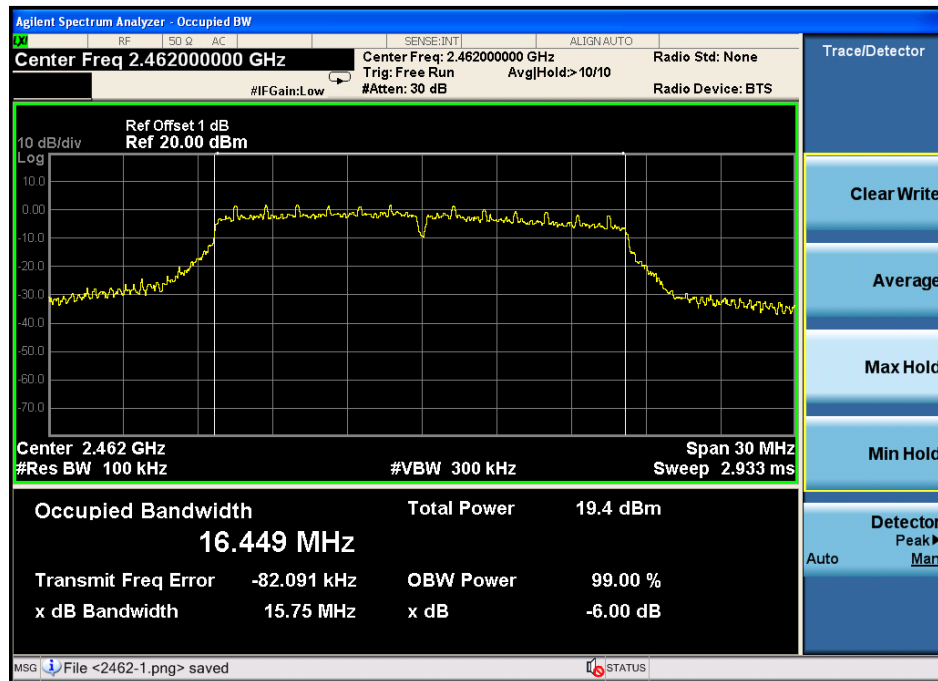
CH Low :



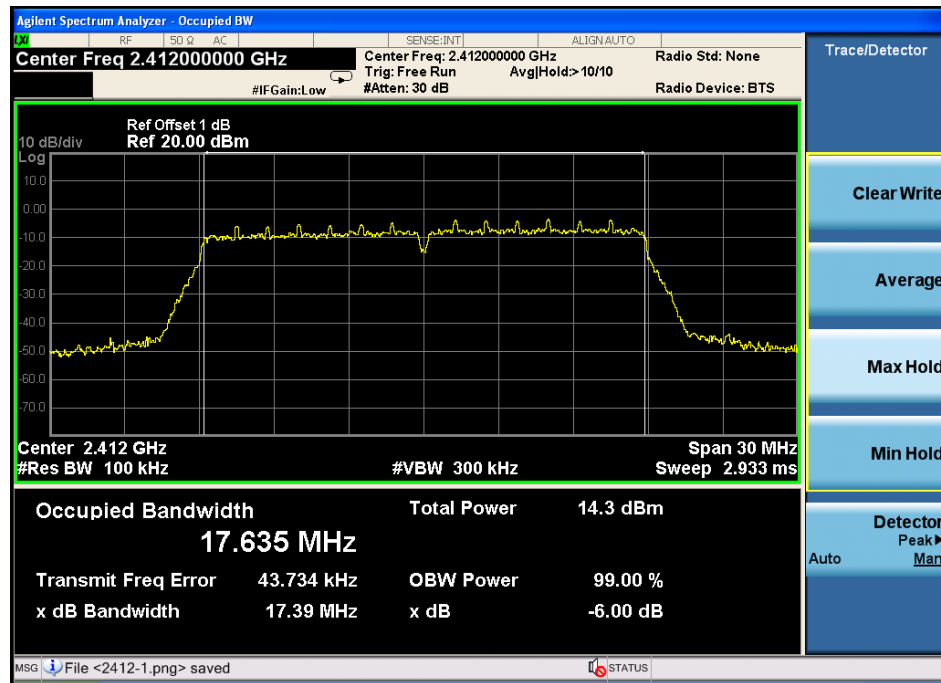
CH Mid:



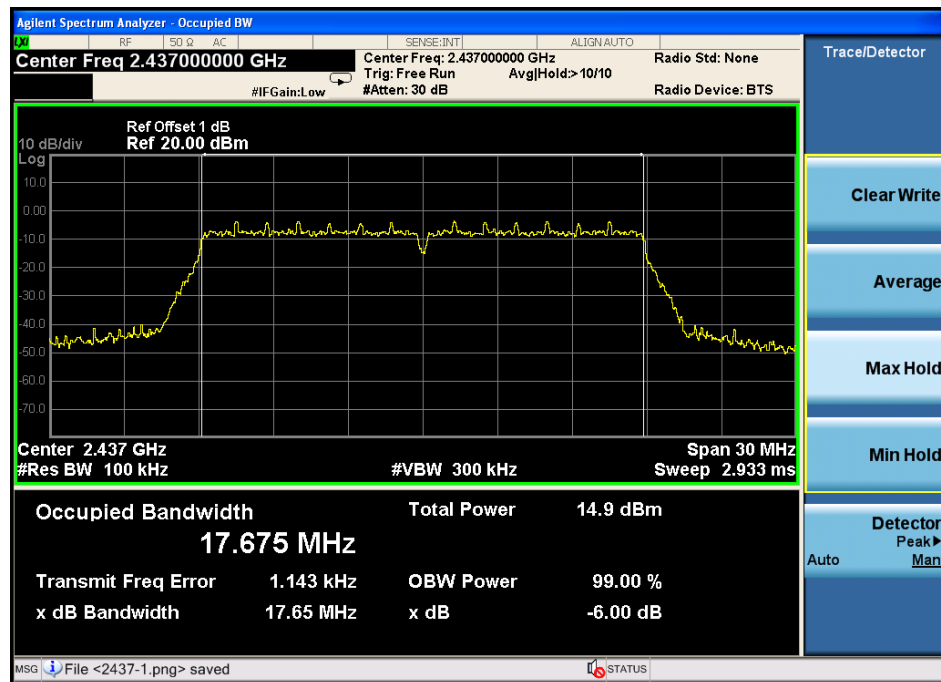
CH Hig:



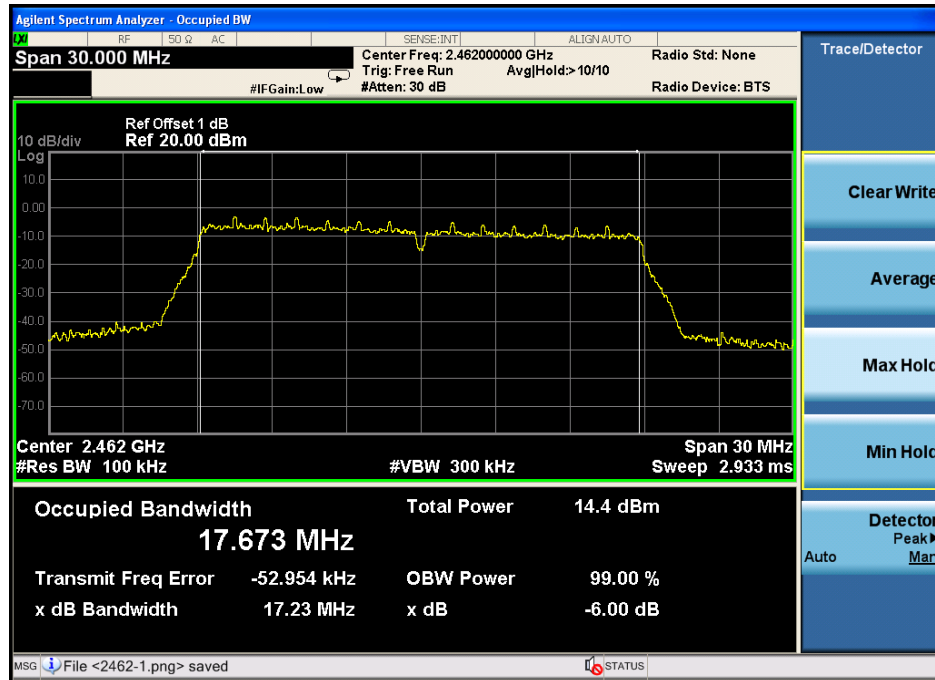
IEEE 802.11n HT20:
CH Low :



CH Mid :

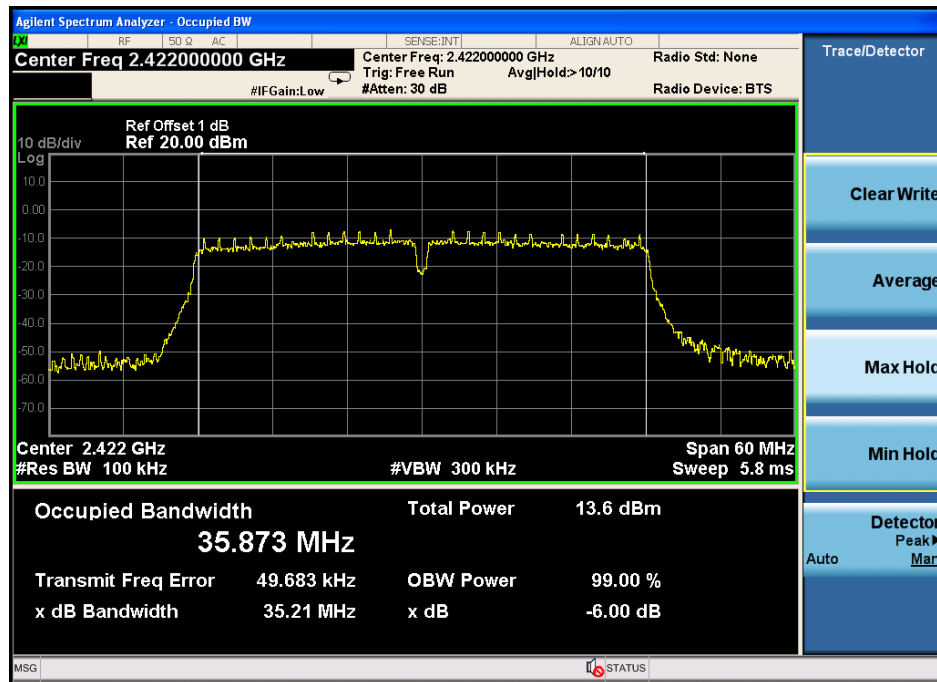


CH High :

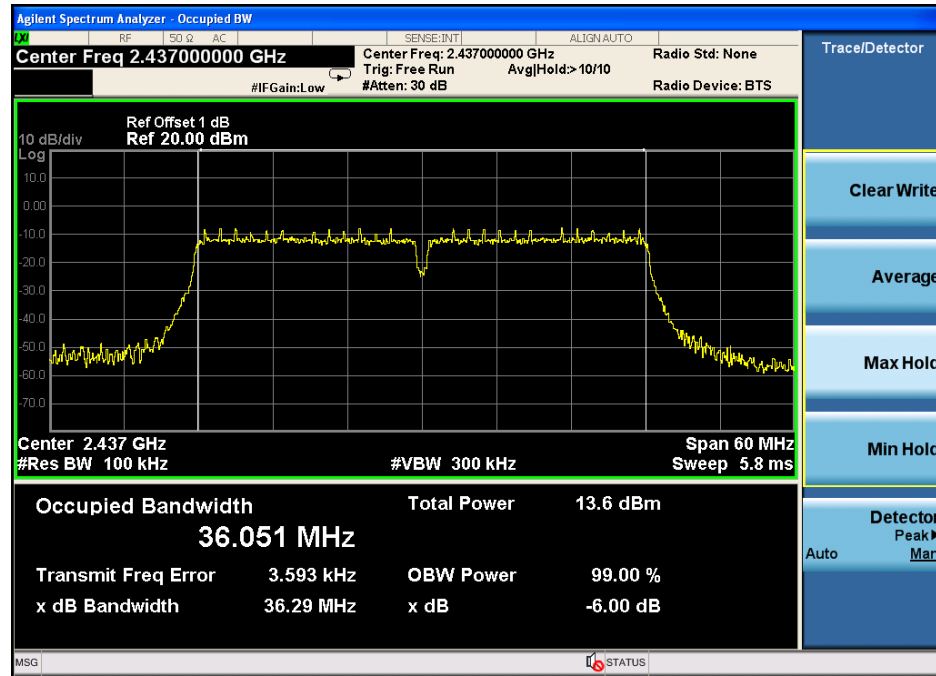


IEEE 802.11n/HT40:

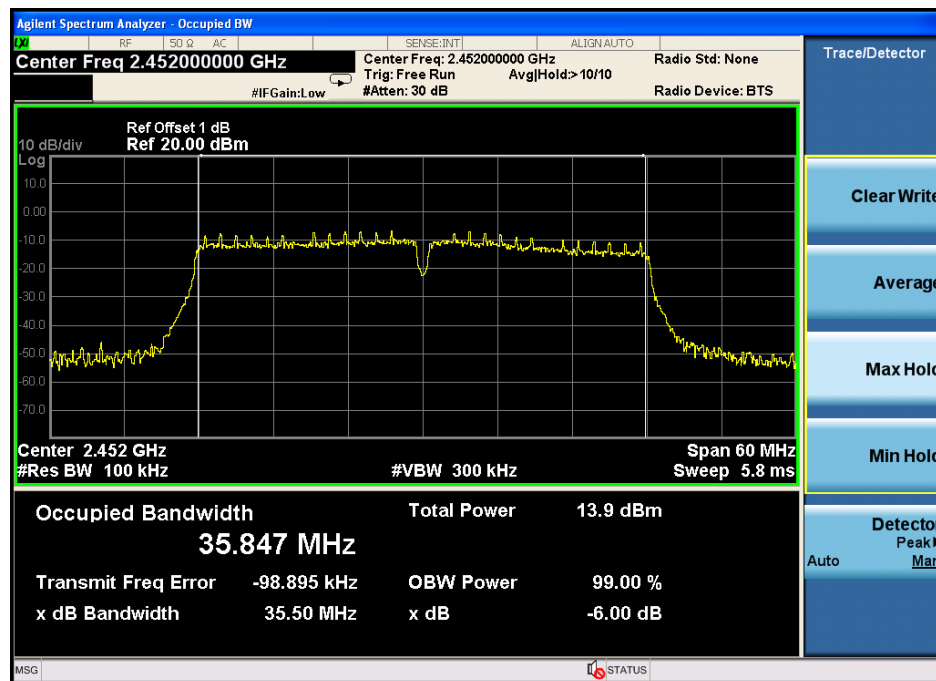
CH Low :



CH Mid:



CH High :



10 Band Edge Check

10.1 Test limit

Please refer section 15.247

All the lower and upper band-edges emissions appearing within 2310MHz to 2390MHz and 2483.5MHz to 2500MHz restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions outside operation frequency band 2400MHz to 2483.5MHz and 5725MHz to 5850MHz shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

10.2 Test Procedure

12.2.1 Put the EUT on a 0.8m high table, power on the EUT. Emissions were scanned and measured rotating the EUT to 360 degrees, Find the maximum Emission

12.2.2 Check the spurious emissions out of band.

12.2.3 RBW 1MHz ,VBW 3MHz, peak detector for peak value , RBW 1MHz ,VBW 10Hz , RMS detector for AV value.

10.3 Test Setup

Same as 5.2.2.

10.4 Test Result

PASS.

Detailed information please see the following page.

Site LAB

Polarization: **Vertical**

Temperature: 23.9

Limit: FCC Part 15_Above 1G_Peak

Power:

Humidity: 46 %

EUT:

Distance: 3m

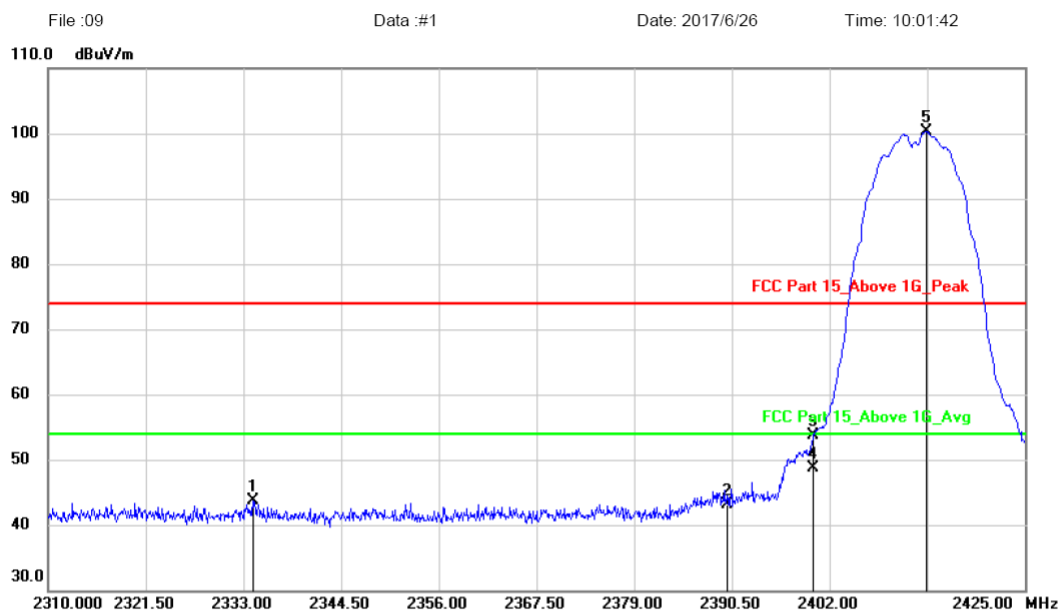
M/N:

Mode:802.11b low channel

Note:

Engineer Signature:

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree
1		2334.150	47.09	-3.34	43.75	74.00	-30.25	peak		
2		2390.000	46.56	-3.40	43.16	74.00	-30.84	peak		
3		2400.000	57.07	-3.41	53.66	74.00	-20.34	peak		
4		2400.000	52.07	-3.41	48.66	54.00	-5.34	AVG		
5	*	2413.385	103.67	-3.41	100.26	74.00	26.26	peak		

Note:1. *:Maximum data; x:Over limit; !:over margin.

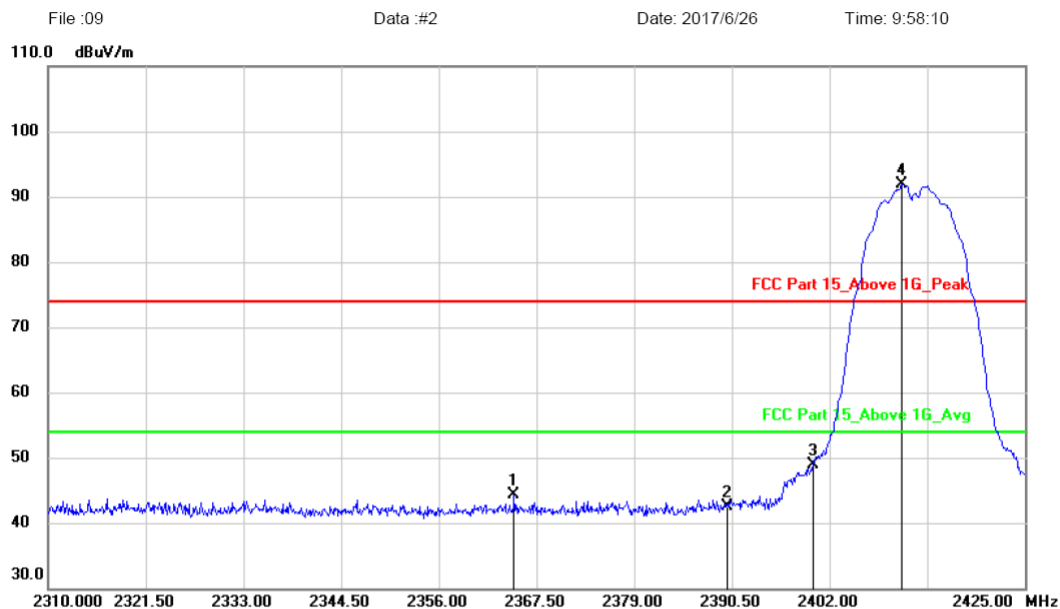
2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

Site LAB
 Limit: FCC Part 15_Above 1G_Peak
 EUT:
 M/N:
 Mode:802.11b low channel
 Note:
 Engineer Signature:

Polarization: **Horizontal**
 Power:
 Distance: 3m

Temperature: 23.9
 Humidity: 46 %

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree
1		2364.855	47.63	-3.38	44.25	74.00	-29.75	peak		
2		2390.000	45.93	-3.40	42.53	74.00	-31.47	peak		
3		2400.000	52.28	-3.41	48.87	74.00	-25.13	peak		
4	*	2410.510	95.26	-3.40	91.86	74.00	17.86	peak		

Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

Site LAB

Polarization: **Vertical**

Temperature: 23.9

Limit: FCC Part 15_Above 1G_Peak

Power:

Humidity: 46 %

EUT:

Distance: 3m

M/N:

Mode:802.11b high channel

Note:

Engineer Signature:

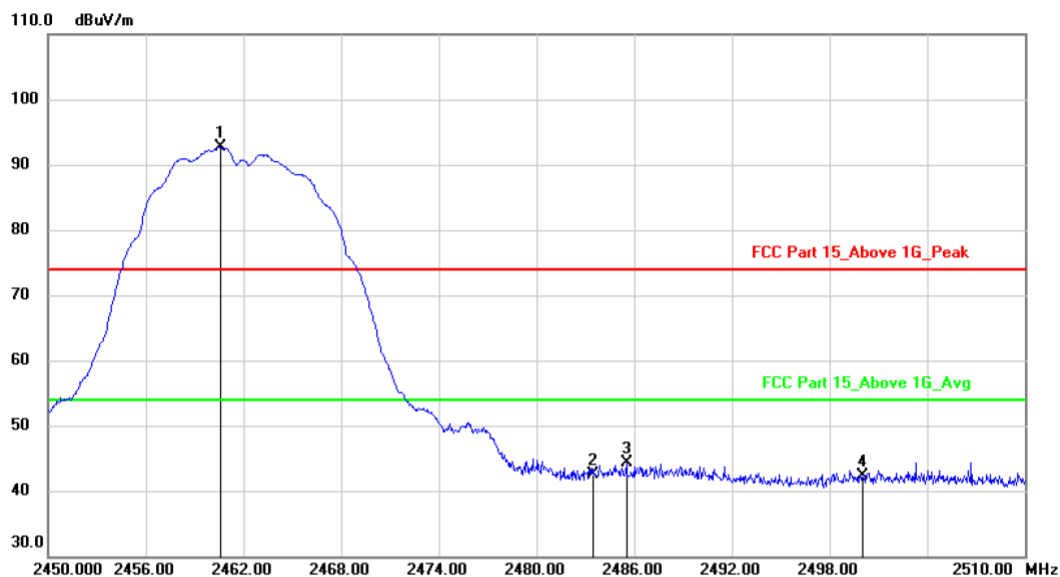
Radiated Emission Measurement

File :09

Data :#11

Date: 2017/6/26

Time: 9:32:38



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	*	2460.620	96.11	-3.39	92.72	74.00	18.72	peak		
2		2483.500	45.90	-3.38	42.52	74.00	-31.48	peak		
3		2485.520	47.74	-3.38	44.36	74.00	-29.64	peak		
4		2500.000	45.58	-3.38	42.20	74.00	-31.80	peak		

Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

Site LAB

Polarization: *Horizontal*

Temperature: 23.9

Limit: FCC Part 15_Above 1G_Peak

Power:

Humidity: 46 %

EUT:

Distance: 3m

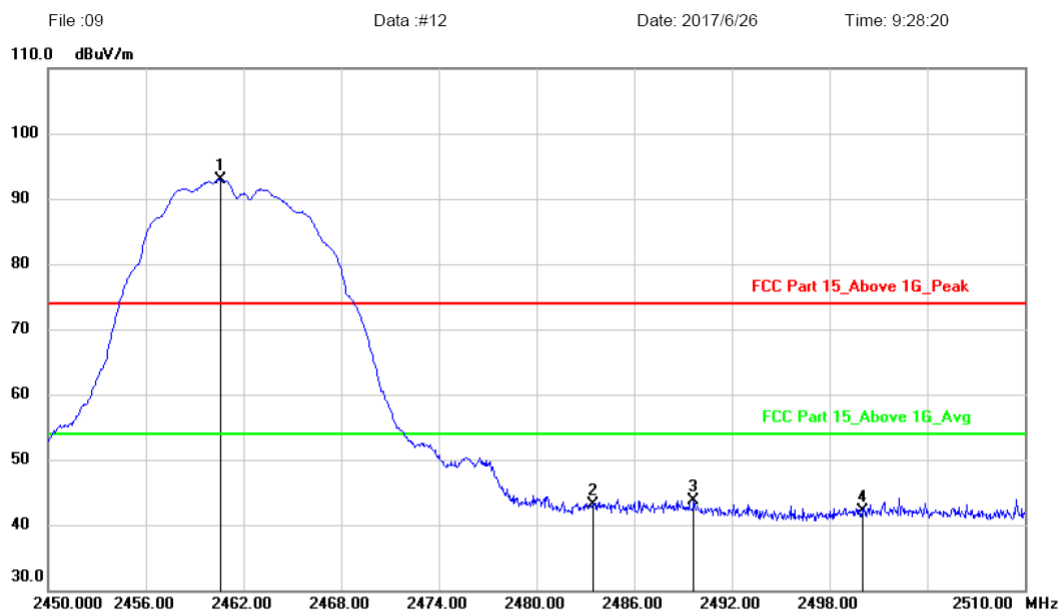
M/N:

Mode: 802.11b high channel

Note:

Engineer Signature:

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	*	2460.560	96.32	-3.39	92.93	74.00	18.93	peak		
2		2483.500	46.57	-3.38	43.19	74.00	-30.81	peak		
3		2489.660	47.19	-3.39	43.80	74.00	-30.20	peak		
4		2500.000	45.43	-3.38	42.05	74.00	-31.95	peak		

Note: 1. *:Maximum data; x:Over limit; !:over margin.

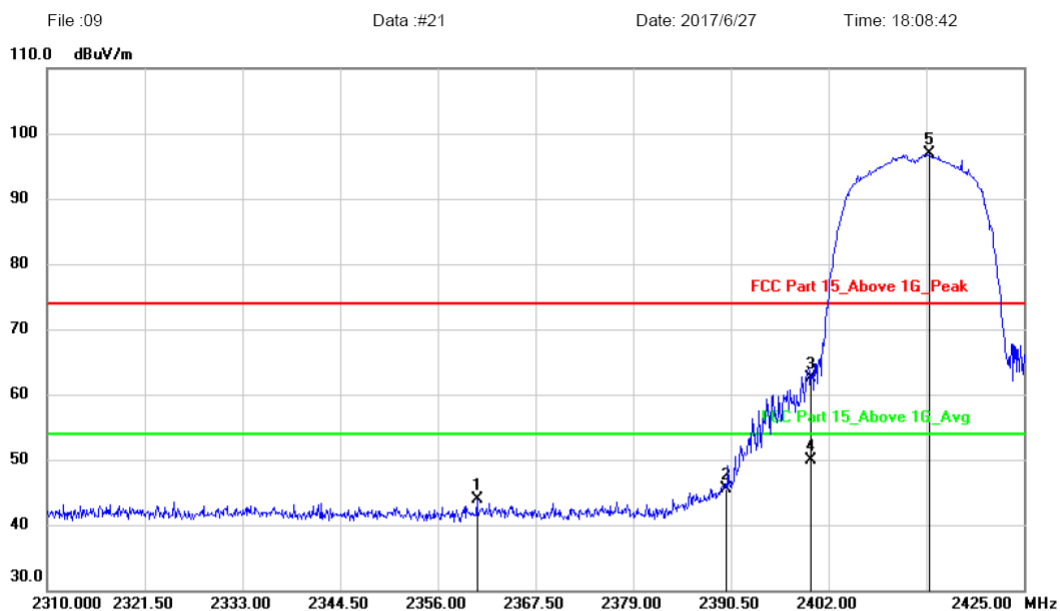
2. Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

Site LAB
 Limit: FCC Part 15_Above 1G_Peak
 EUT:
 M/N:
 Mode: 802.11g low channel
 Note:
 Engineer Signature:

Polarization: **Vertical**
 Power:
 Distance: 3m

Temperature: 23.9
 Humidity: 46 %

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree
1		2360.600	47.25	-3.38	43.87	74.00	-30.13	peak		
2		2390.000	48.99	-3.40	45.59	74.00	-28.41	peak		
3		2400.000	66.01	-3.41	62.60	74.00	-11.40	peak		
4		2400.000	53.31	-3.41	49.90	54.00	-4.10	AVG		
5	*	2413.845	100.28	-3.41	96.87	74.00	22.87	peak		

Note: 1. *:Maximum data; x:Over limit; !:over margin.

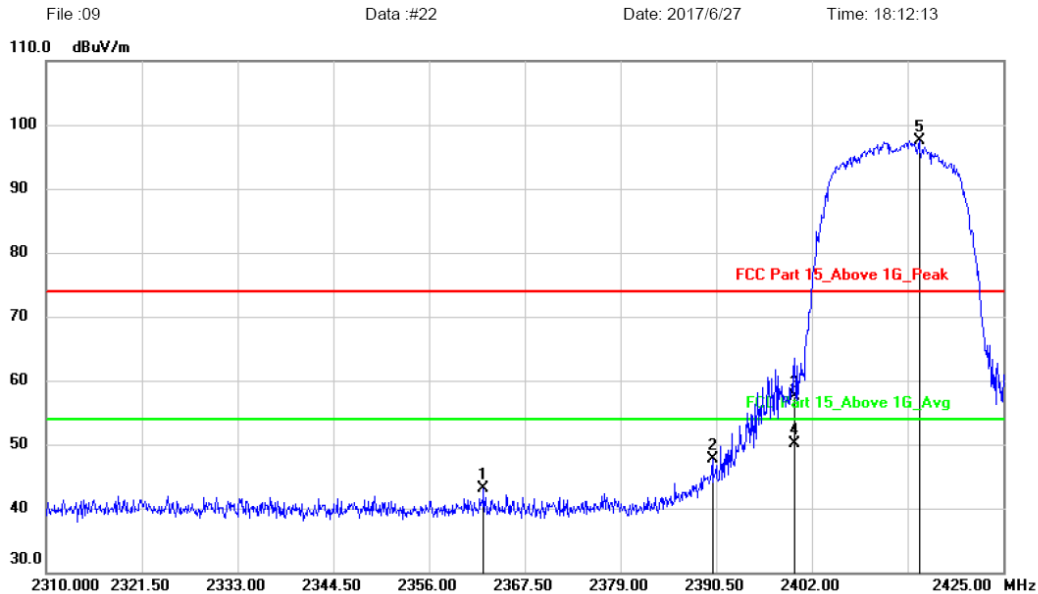
2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

Site LAB
 Limit: FCC Part 15_Above 1G_Peak
 EUT:
 M/N:
 Mode:802.11g low channel
 Note:
 Engineer Signature:

Polarization: **Horizontal**
 Power:
 Distance: 3m

Temperature: 23.9
 Humidity: 46 %

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree
1		2362.555	46.38	-3.37	43.01	74.00	-30.99	peak		
2		2390.000	51.16	-3.40	47.76	74.00	-26.24	peak		
3		2400.000	60.95	-3.41	57.54	74.00	-16.46	peak		
4		2400.000	53.51	-3.41	50.10	54.00	-3.90	AVG		
5	*	2414.880	101.00	-3.41	97.59	74.00	23.59	peak		

Note:1. *:Maximum data; x:Over limit; !:over margin.

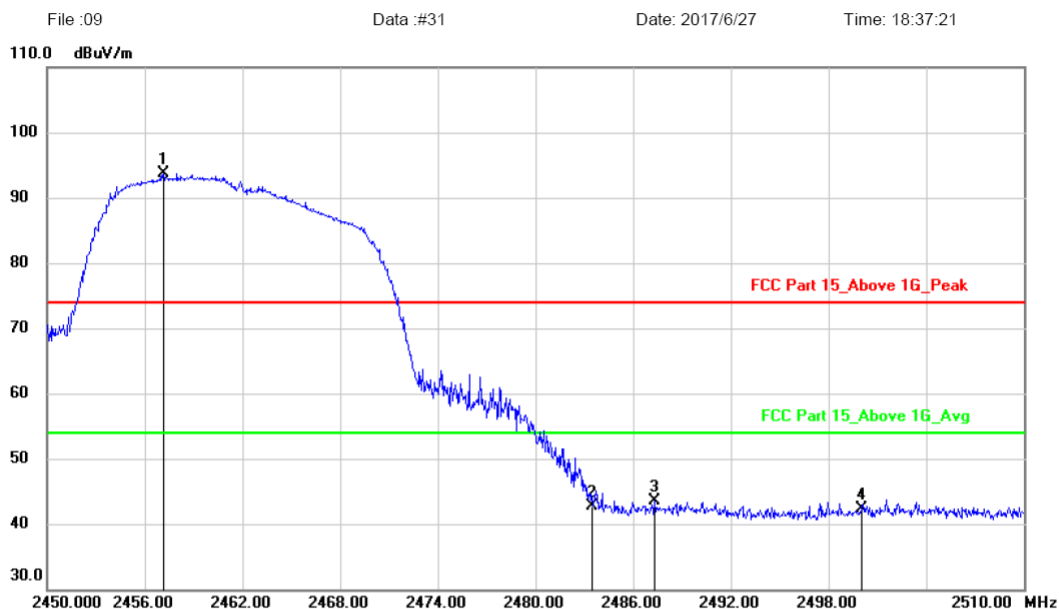
2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

Site LAB
 Limit: FCC Part 15_Above 1G_Peak
 EUT:
 M/N:
 Mode:802.11g high channel
 Note:
 Engineer Signature:

Polarization: **Vertical**
 Power:
 Distance: 3m

Temperature: 23.9
 Humidity: 46 %

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	*	2457.140	97.04	-3.39	93.65	74.00	19.65	peak		
2		2483.500	46.13	-3.38	42.75	74.00	-31.25	peak		
3		2487.320	46.98	-3.39	43.59	74.00	-30.41	peak		
4		2500.000	45.62	-3.38	42.24	74.00	-31.76	peak		

Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

Site LAB

Polarization: *Horizontal*

Temperature: 23.9

Limit: FCC Part 15_Above 1G_Peak

Power:

Humidity: 46 %

EUT:

Distance: 3m

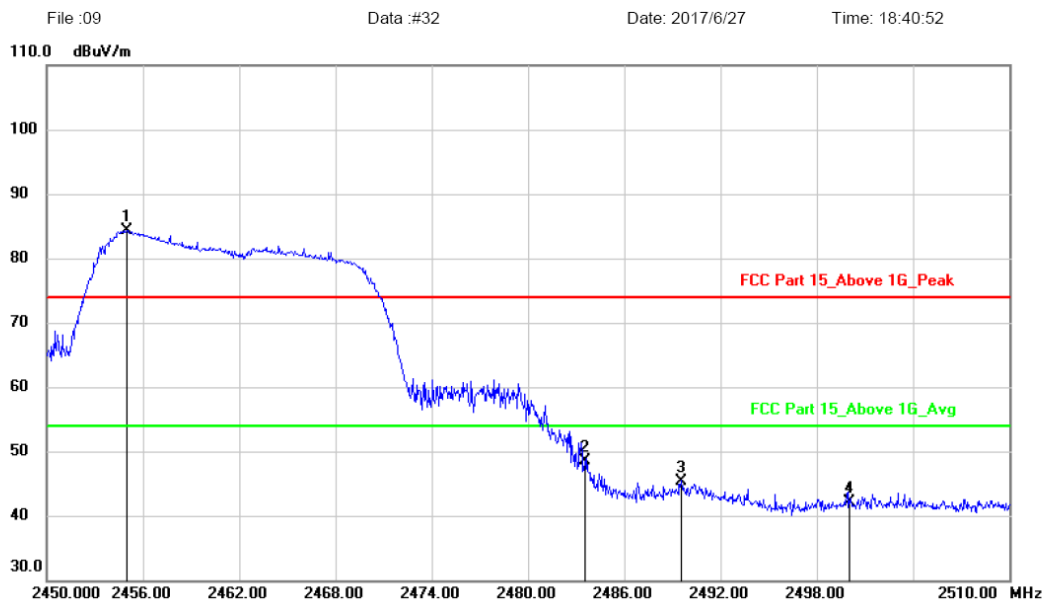
M/N:

Mode:802.11g high channel

Note:

Engineer Signature:

Radiated Emission Measurement



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Antenna Height cm	Table Degree	
							Detector		degree	Comment
1	*	2454.980	87.68	-3.39	84.29	74.00	10.29	peak		
2		2483.500	51.86	-3.38	48.48	74.00	-25.52	peak		
3		2489.540	48.79	-3.39	45.40	74.00	-28.60	peak		
4		2500.000	45.42	-3.38	42.04	74.00	-31.96	peak		

Note: 1. *:Maximum data; x:Over limit; !:over margin.

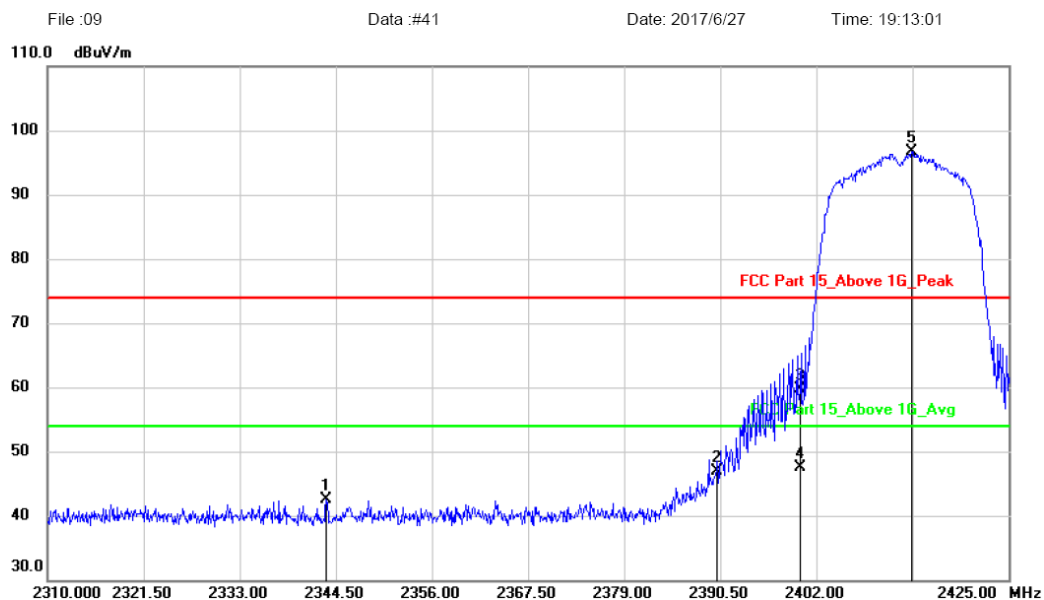
2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

Site LAB
 Limit: FCC Part 15_Above 1G_Peak
 EUT:
 M/N:
 Mode:802.11n HT20 low channel
 Note:
 Engineer Signature:

Polarization: **Vertical**
 Power:
 Distance: 3m

Temperature: 23.9
 Humidity: 46 %

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree
1		2343.350	45.77	-3.35	42.42	74.00	-31.58	peak		
2		2390.000	50.37	-3.40	46.97	74.00	-27.03	peak		
3		2400.000	63.08	-3.41	59.67	74.00	-14.33	peak		
4		2400.000	51.01	-3.41	47.60	54.00	-6.40	AVG		
5	*	2413.385	100.11	-3.41	96.70	74.00	22.70	peak		

Note:1. *:Maximum data; x:Over limit; !:over margin.

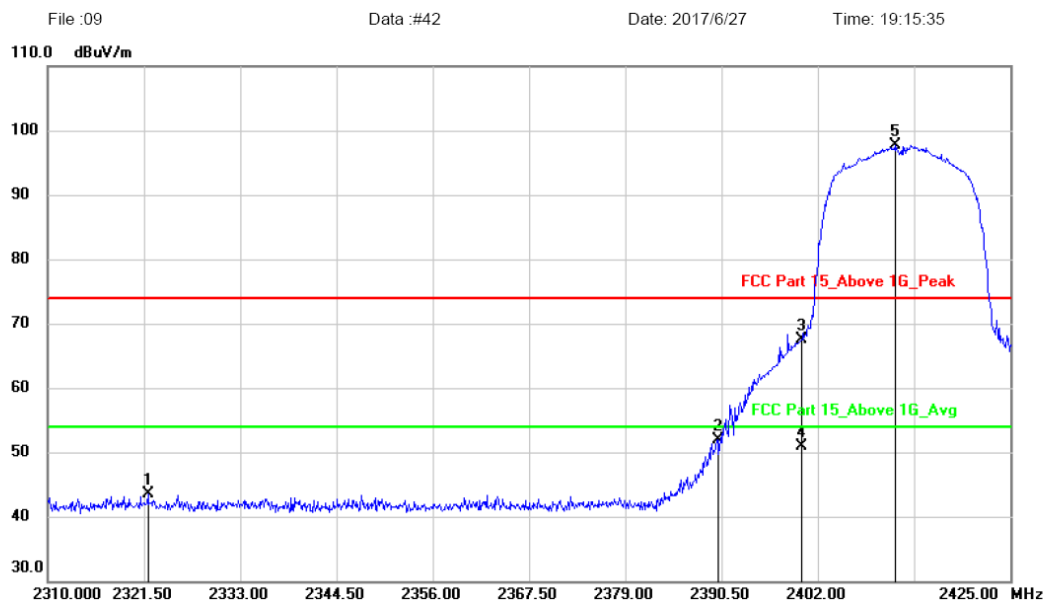
2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

Site LAB
 Limit: FCC Part 15_Above 1G_Peak
 EUT:
 M/N:
 Mode:802.11n HT20 low channel
 Note:
 Engineer Signature:

Polarization: **Horizontal**
 Power:
 Distance: 3m

Temperature: 23.9
 Humidity: 46 %

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		2321.960	46.91	-3.33	43.58	74.00	-30.42			peak
2		2390.000	55.33	-3.40	51.93	74.00	-22.07			peak
3		2400.000	70.96	-3.41	67.55	74.00	-6.45			peak
4		2400.000	54.41	-3.41	51.00	54.00	-3.00			AVG
5	*	2411.200	101.15	-3.40	97.75	74.00	23.75			peak

Note:1. *:Maximum data; x:Over limit; !:over margin.

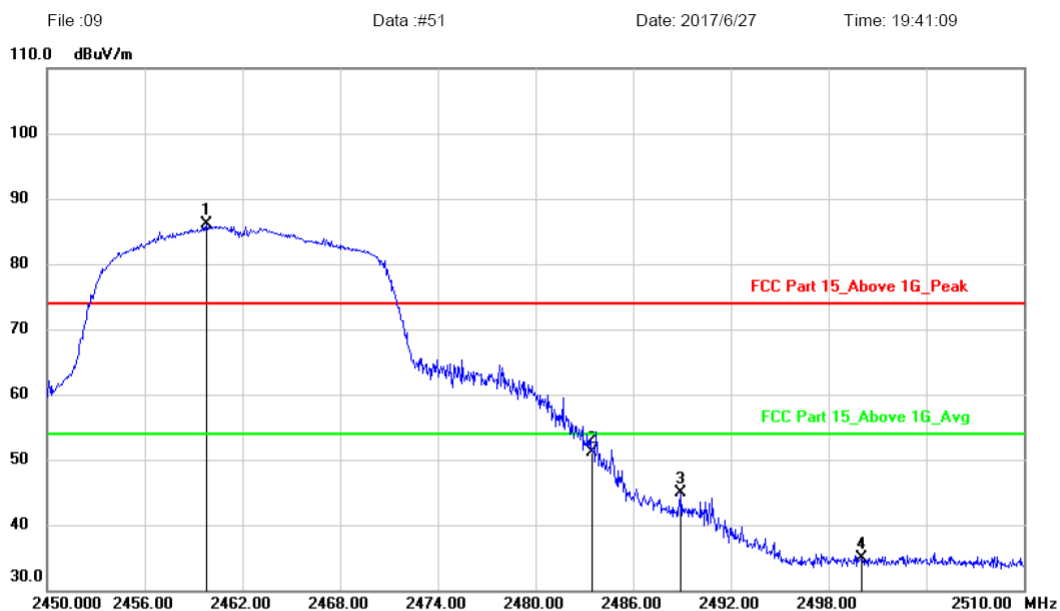
2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

Site LAB
 Limit: FCC Part 15_Above 1G_Peak
 EUT:
 M/N:
 Mode:802.11n HT20 high channel
 Note:
 Engineer Signature:

Polarization: **Vertical**
 Power:
 Distance: 3m

Temperature: 23.9
 Humidity: 46 %

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	*	2459.780	89.44	-3.39	86.05	74.00	12.05	peak		
2		2483.500	54.46	-3.38	51.08	74.00	-22.92	peak		
3		2488.940	48.30	-3.39	44.91	74.00	-29.09	peak		
4		2500.000	38.29	-3.38	34.91	74.00	-39.09	peak		

Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

Site LAB

Polarization: **Horizontal**

Temperature: 23.9

Limit: FCC Part 15_Above 1G_Peak

Power:

Humidity: 46 %

EUT:

Distance: 3m

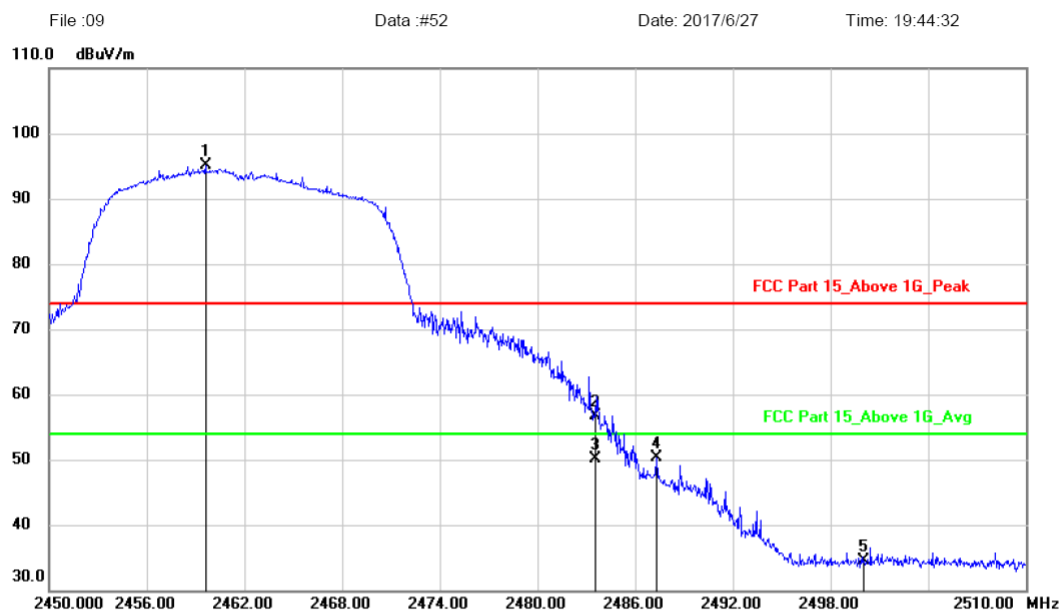
M/N:

Mode:802.11n HT20 high channel

Note:

Engineer Signature:

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	*	2459.600	98.40	-3.39	95.01	74.00	21.01	peak		
2		2483.500	60.13	-3.38	56.75	74.00	-17.25	peak		
3		2483.500	53.48	-3.38	50.10	54.00	-3.90	AVG		
4		2487.320	53.69	-3.39	50.30	74.00	-23.70	peak		
5		2500.000	37.94	-3.38	34.56	74.00	-39.44	peak		

Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

Site LAB

Polarization: **Vertical**

Temperature: 23.9

Limit: FCC Part 15_Above 1G_Peak

Power:

Humidity: 46 %

EUT:

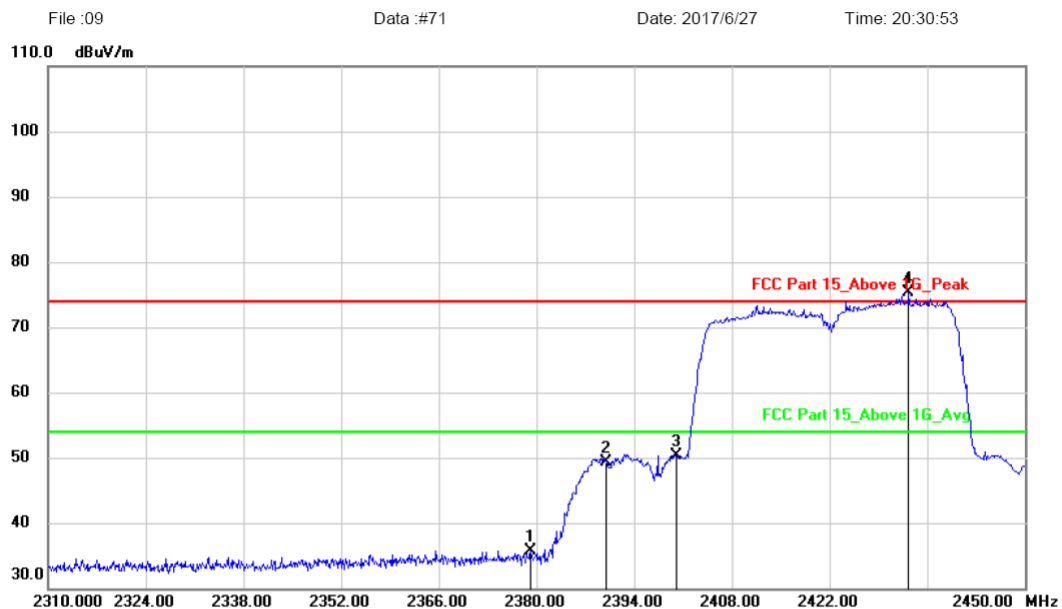
Distance: 3m

M/N:

Mode: 802.11n HT40 low channel

Note:

Engineer Signature:

Radiated Emission Measurement

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree
1		2379.160	39.13	-3.39	35.74	74.00	-38.26	peak		
2		2390.000	52.60	-3.40	49.20	74.00	-24.80	peak		
3		2400.000	53.73	-3.41	50.32	74.00	-23.68	peak		
4	*	2433.340	78.77	-3.40	75.37	74.00	1.37	peak		

Note: 1. *: Maximum data; x: Over limit; !: over margin.

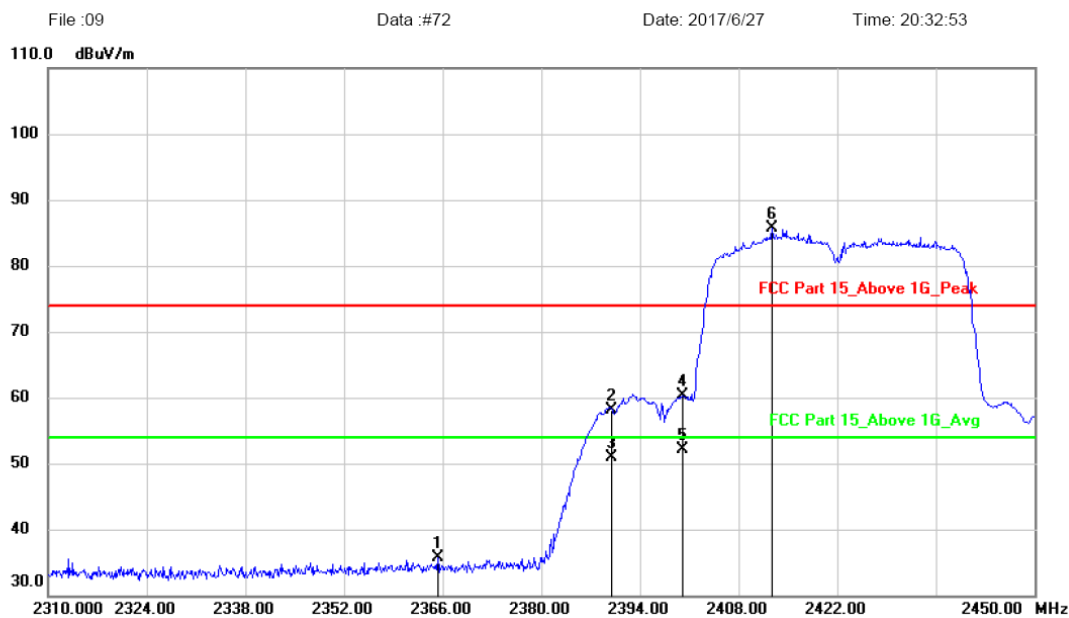
2. Measurement = Reading Level + Correct Factor; Correct Factor = Antenna Factor + Cable Loss.

Site LAB
 Limit: FCC Part 15_Above 1G_Peak
 EUT:
 M/N:
 Mode:802.11n HT40 low channel
 Note:
 Engineer Signature:

Polarization: **Horizontal**
 Power:
 Distance: 3m

Temperature: 23.9
 Humidity: 46 %

Radiated Emission Measurement



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Antenna Height cm	Table Degree	Comment
1		2365.300	39.07	-3.38	35.69	74.00	-38.31	peak		
2		2390.000	61.44	-3.40	58.04	74.00	-15.96	peak		
3		2390.000	54.40	-3.40	51.00	54.00	-3.00	AVG		
4		2400.000	63.64	-3.41	60.23	74.00	-13.77	peak		
5		2400.000	55.50	-3.41	52.09	54.00	-1.91	AVG		
6	*	2412.760	89.05	-3.41	85.64	74.00	11.64	peak		

Note:1. *:Maximum data; x:Over limit; !:over margin.

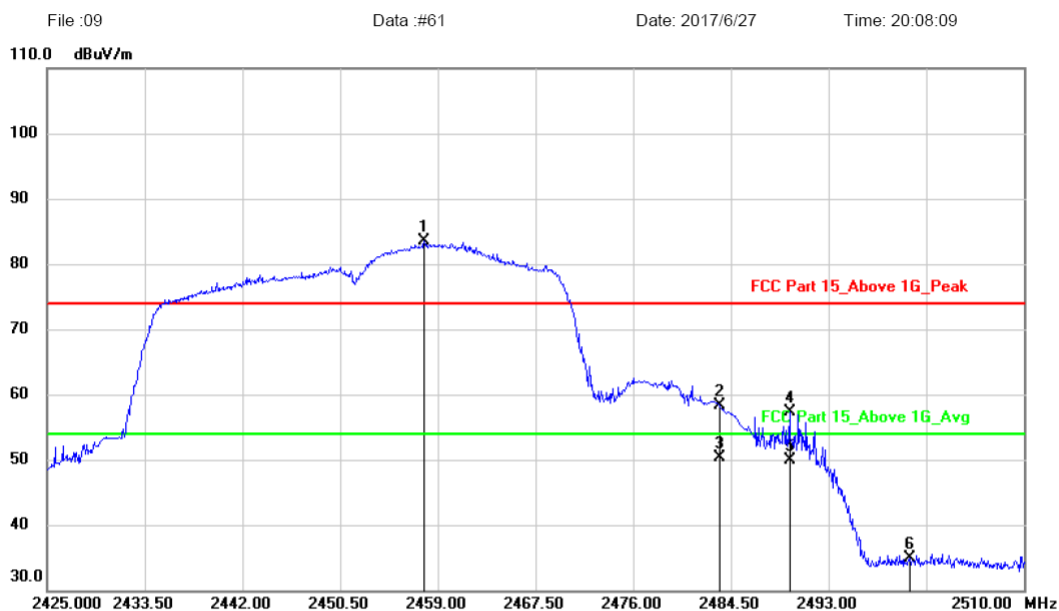
2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

Site LAB
 Limit: FCC Part 15_Above 1G_Peak
 EUT:
 M/N:
 Mode:802.11n HT40 high channel
 Note:
 Engineer Signature:

Polarization: **Vertical**
 Power:
 Distance: 3m

Temperature: 23.9
 Humidity: 46 %

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	*	2457.810	86.80	-3.39	83.41	74.00	9.41	peak		
2		2483.500	61.67	-3.38	58.29	74.00	-15.71	peak		
3		2483.500	53.58	-3.38	50.20	54.00	-3.80	AVG		
4		2489.600	60.65	-3.39	57.26	74.00	-16.74	peak		
5		2489.600	53.39	-3.39	50.00	54.00	-4.00	AVG		
6		2500.000	38.30	-3.38	34.92	74.00	-39.08	peak		

Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

Site LAB

Polarization: **Horizontal**

Temperature: 23.9

Limit: FCC Part 15_Above 1G_Peak

Power:

Humidity: 46 %

EUT:

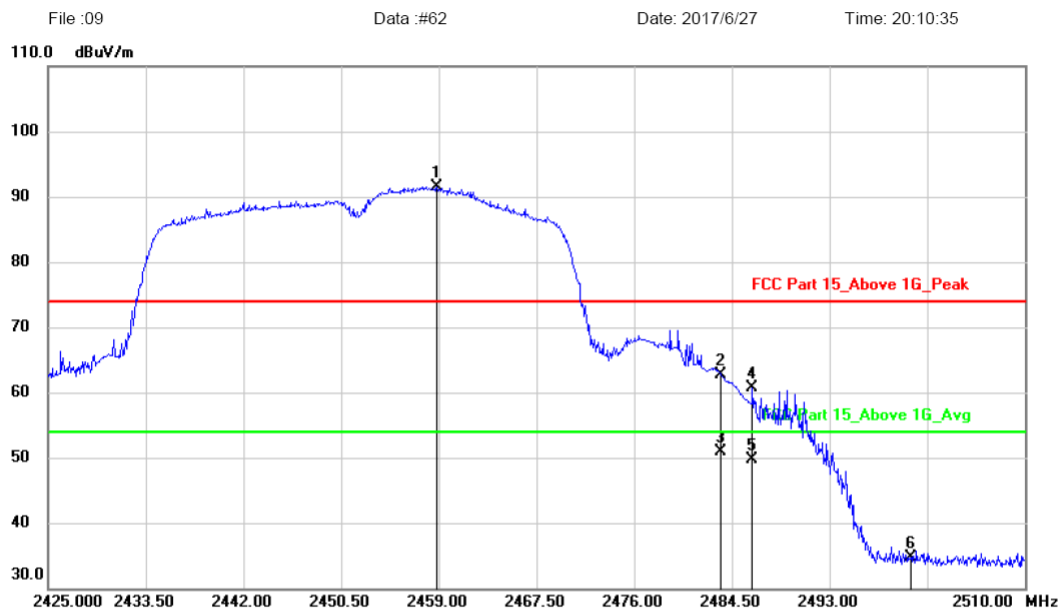
Distance: 3m

M/N:

Mode: 802.11n HT40 high channel

Note:

Engineer Signature:

Radiated Emission Measurement

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	*	2458.830	94.95	-3.39	91.56	74.00	17.56	peak		
2		2483.500	66.18	-3.38	62.80	74.00	-11.20	peak		
3		2483.500	54.28	-3.38	50.90	54.00	-3.10	AVG		
4		2486.285	64.00	-3.38	60.62	74.00	-13.38	peak		
5		2486.285	53.08	-3.38	49.70	54.00	-4.30	AVG		
6		2500.000	38.05	-3.38	34.67	74.00	-39.33	peak		

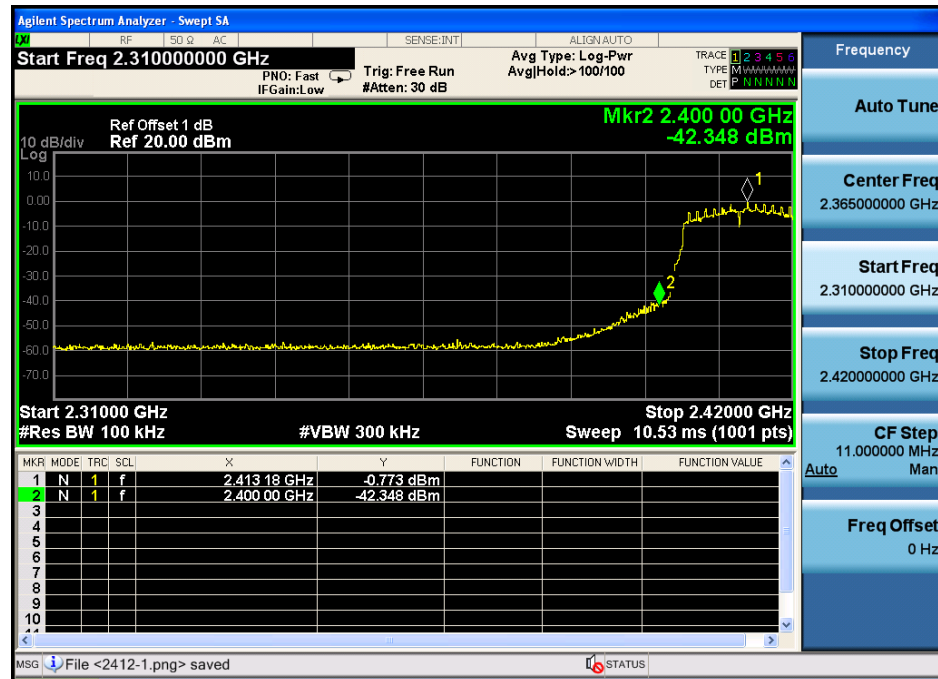
Note: 1. *:Maximum data; x:Over limit; !:over margin.

2. Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

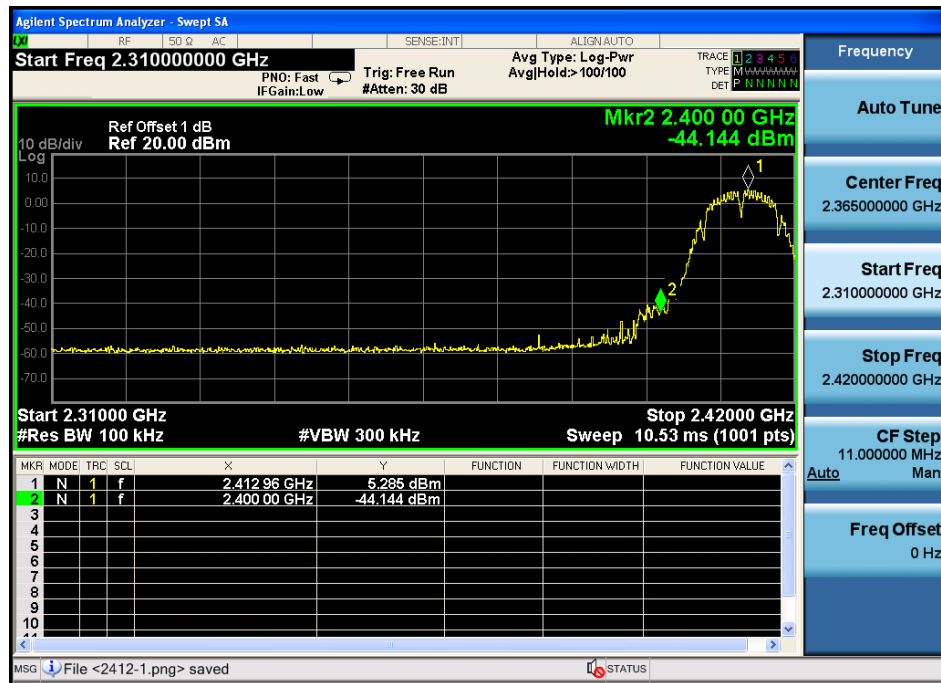
802.11b



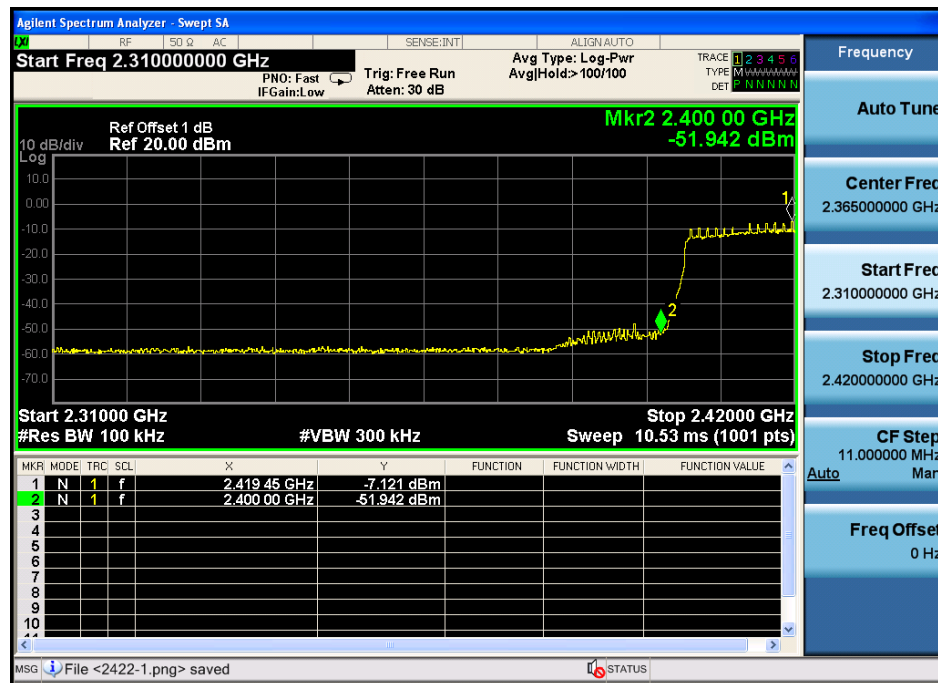
802.11g



802.11n HT20



802.11n HT40



11 Antenna Requirement

11.1 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.

11.2 Antenna Connected Construction

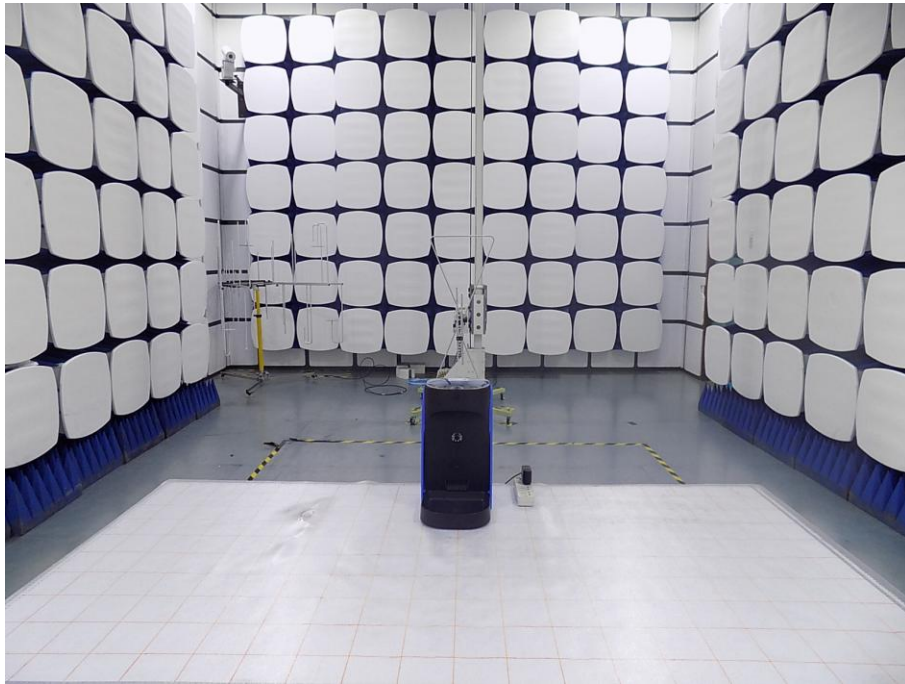
The antenna connector is unique antenna and no consideration of replacement. Please see EUT photo for details.

11.3 Result

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

12 Test setup photo

12.1 Photos of Radiated emission

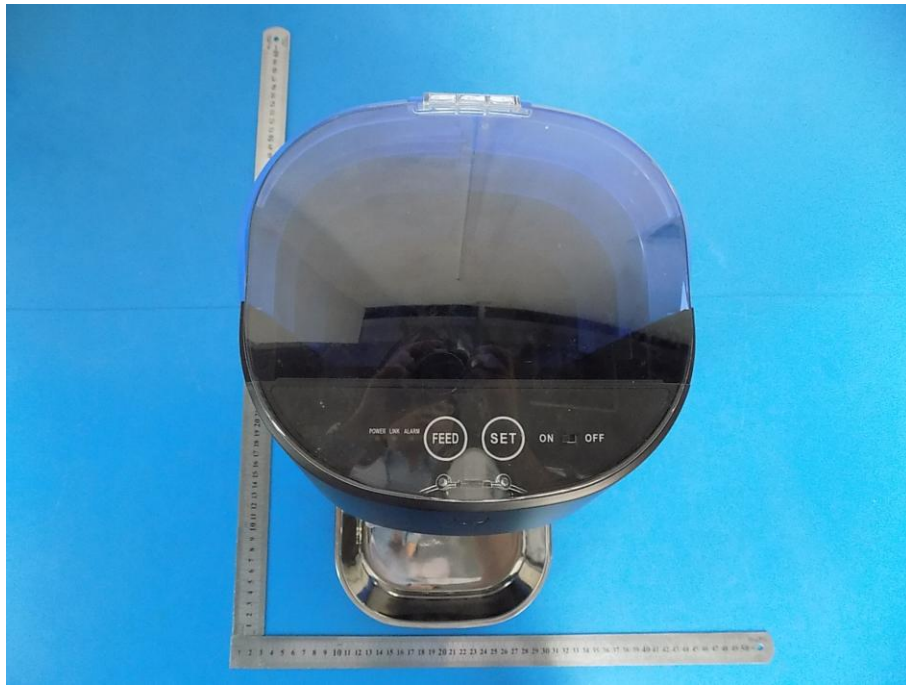


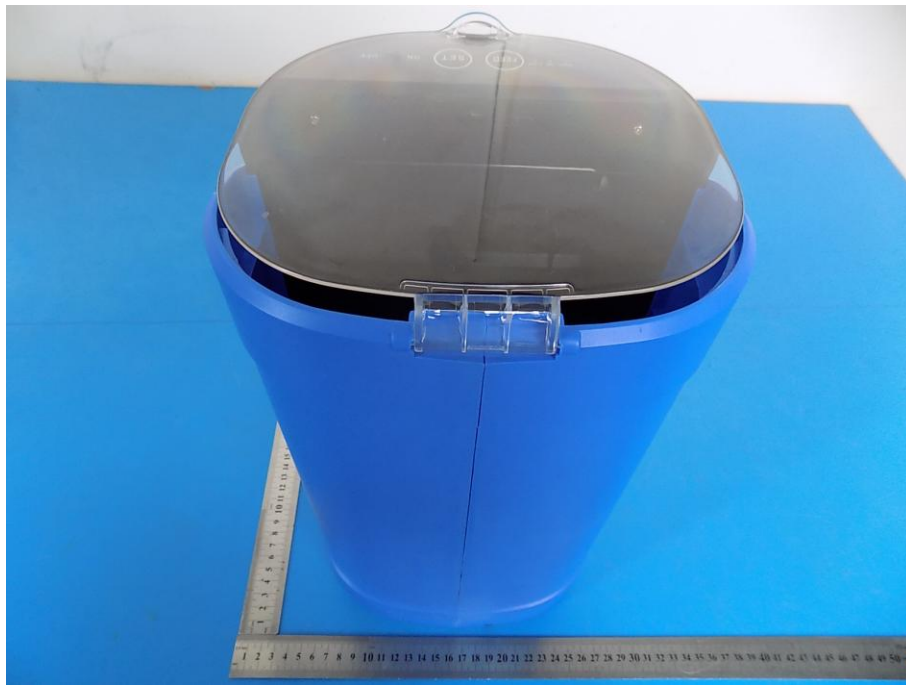
12.2 Photos of Conducted Emission test

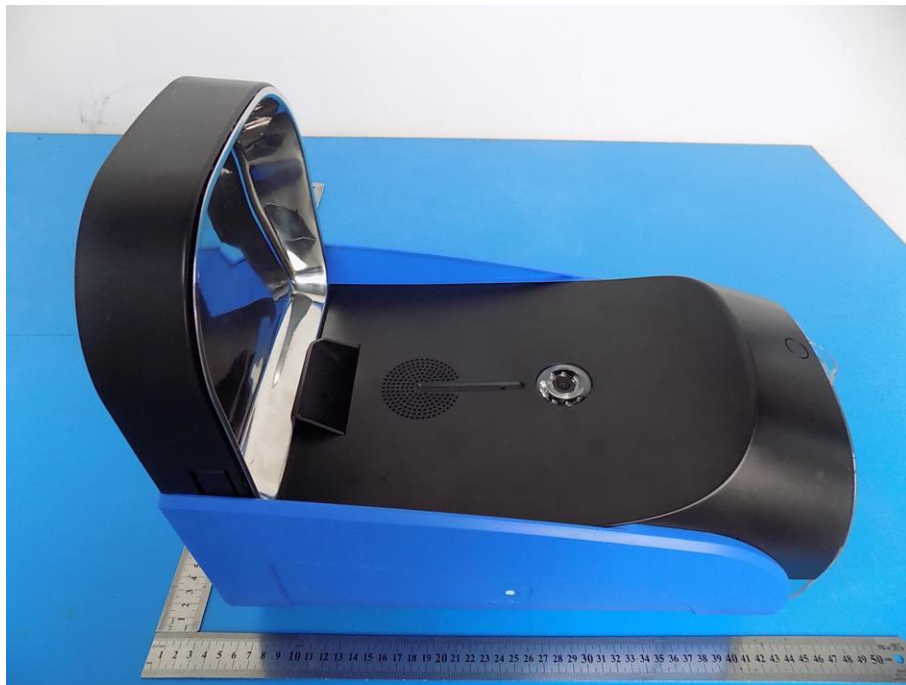
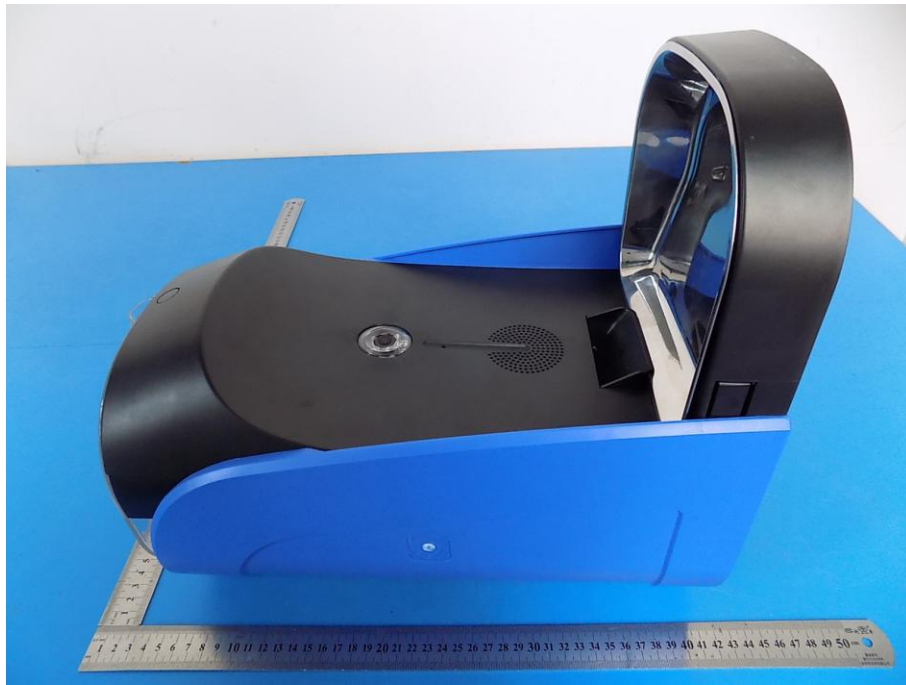


13 Photographs of EUT

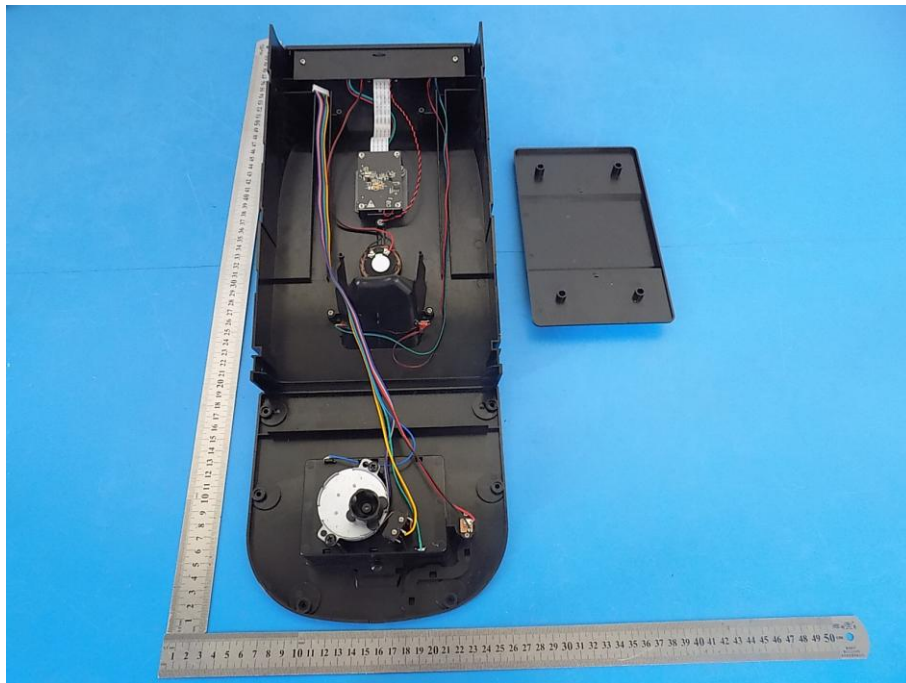


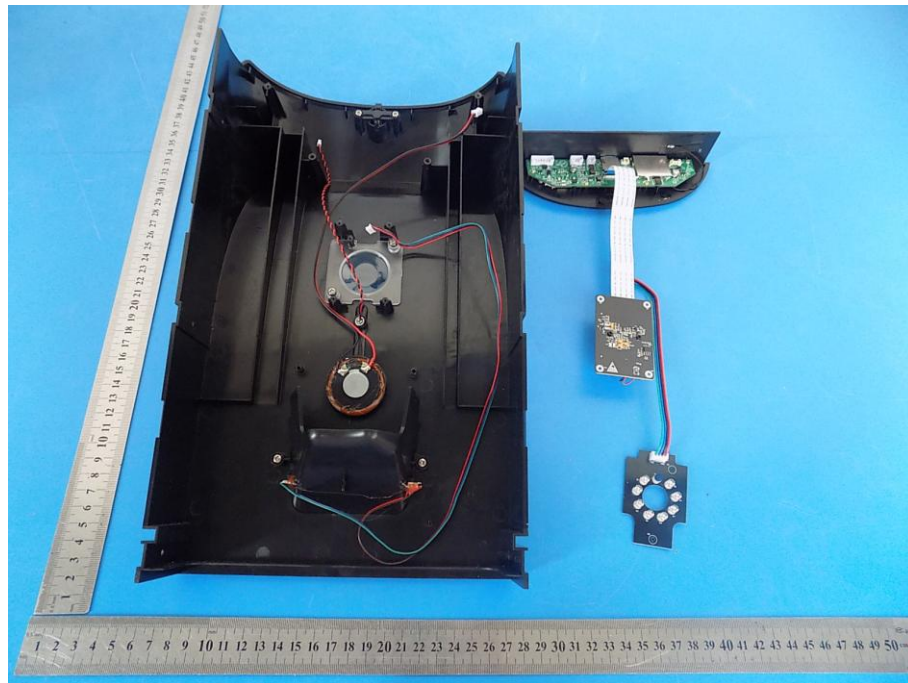
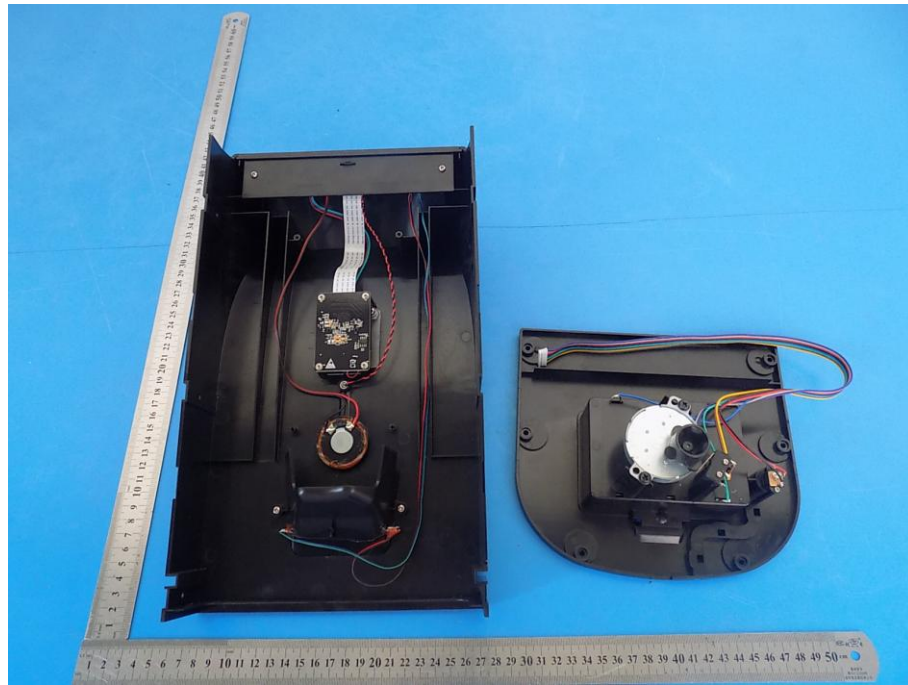


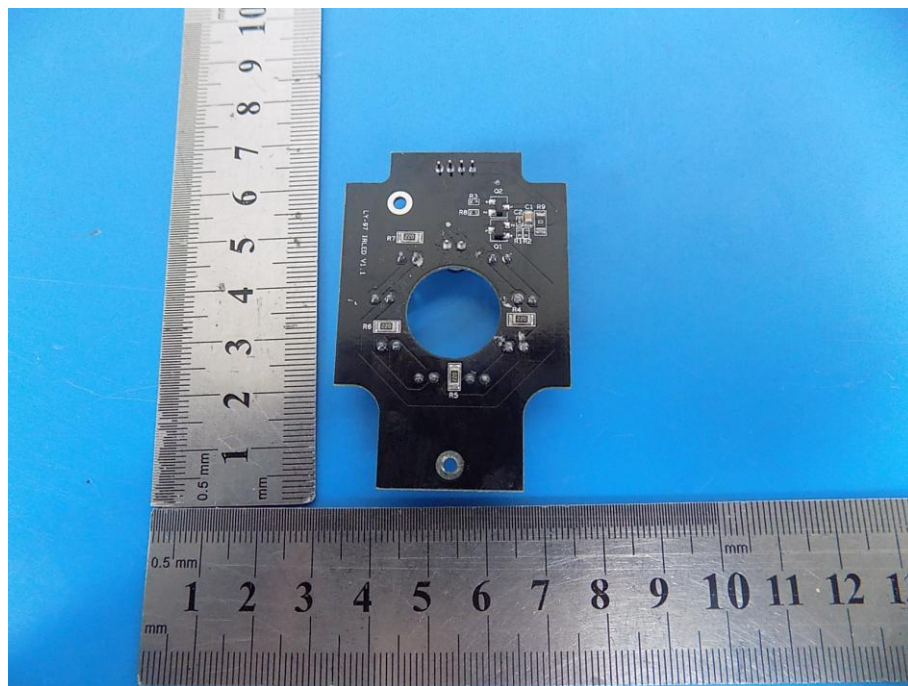
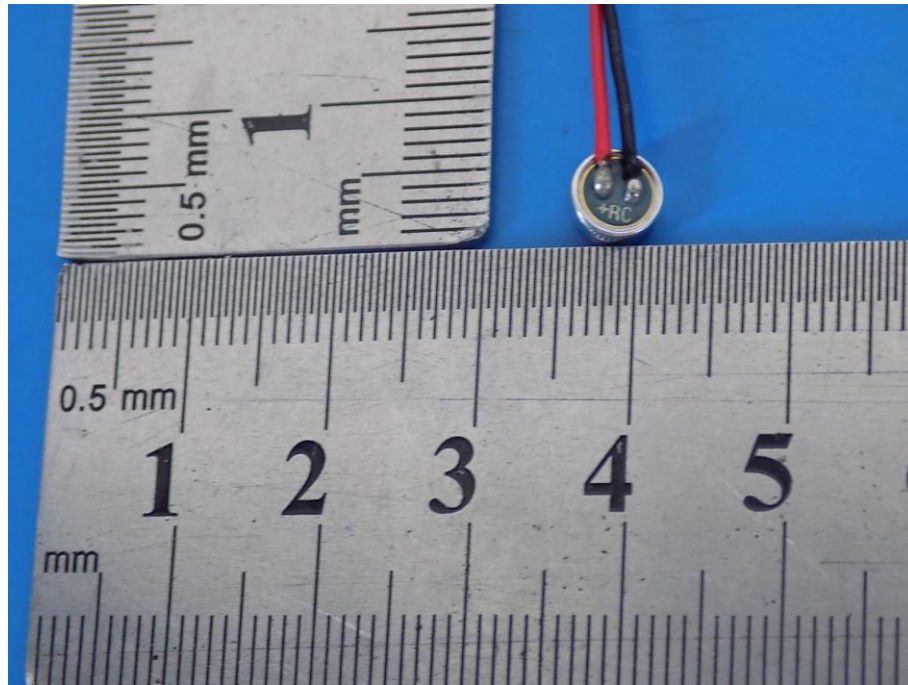


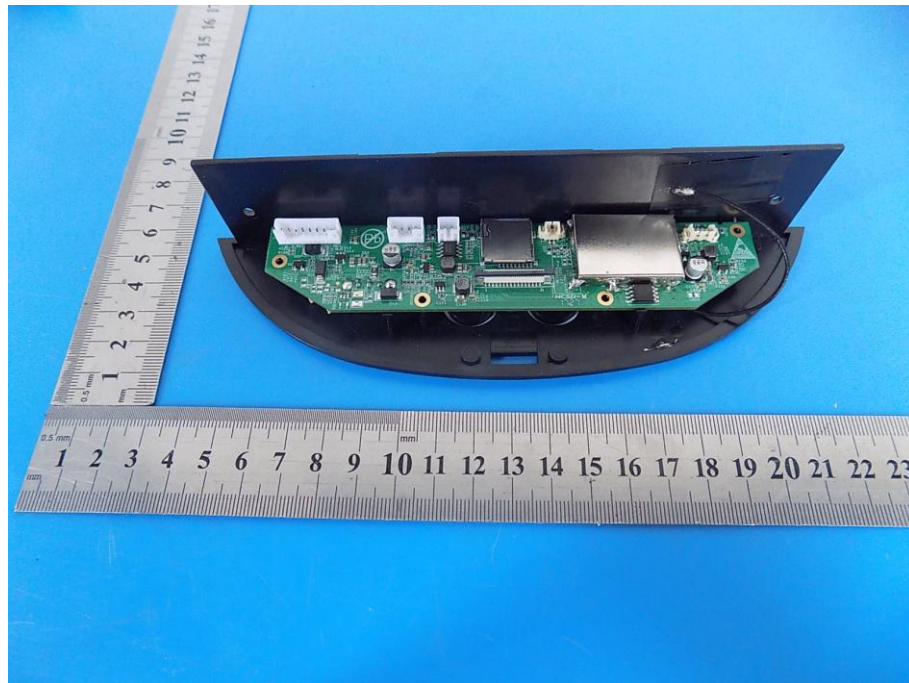


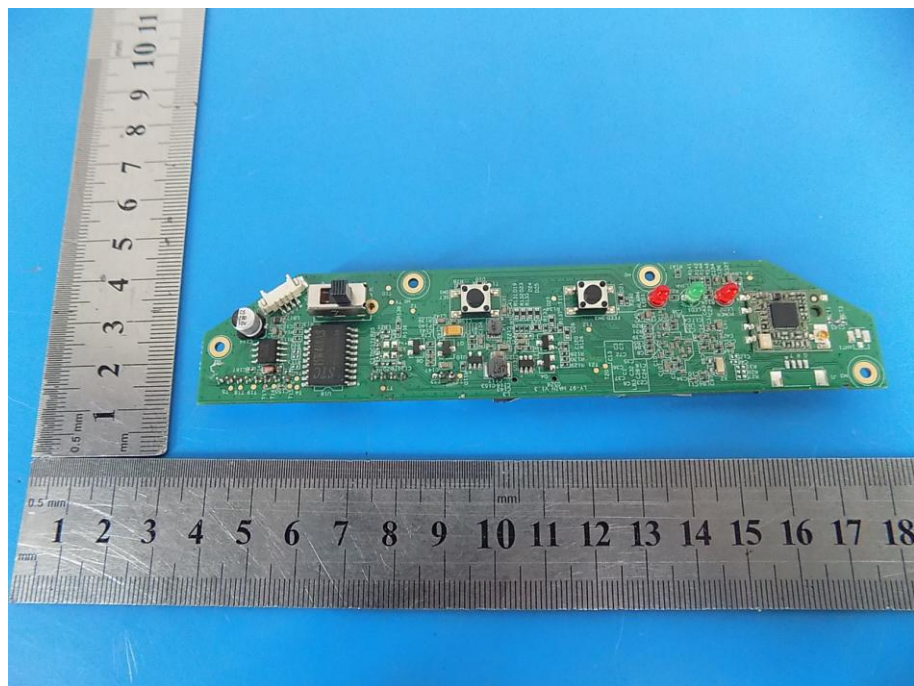
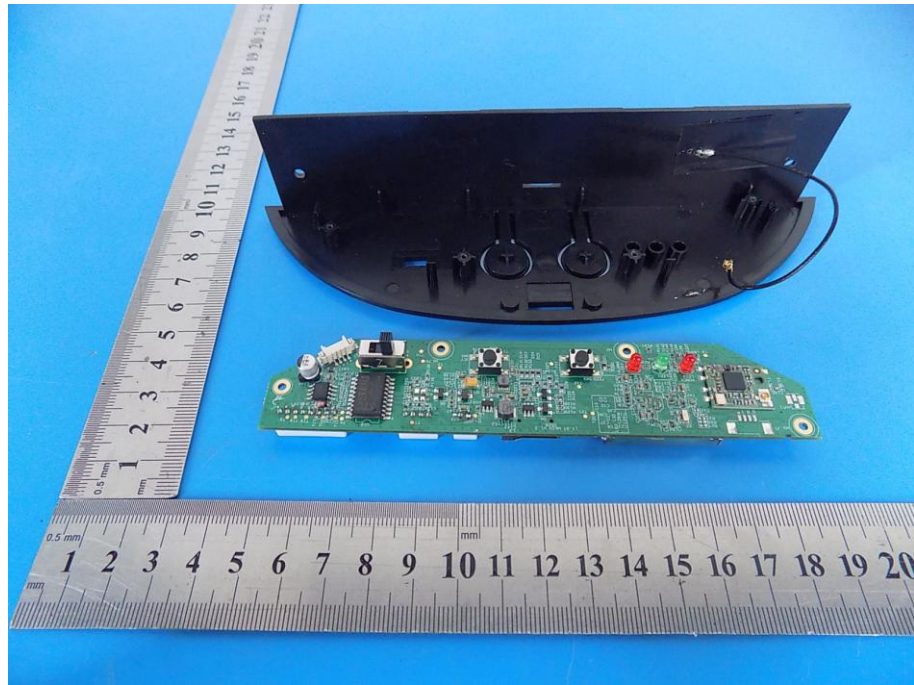


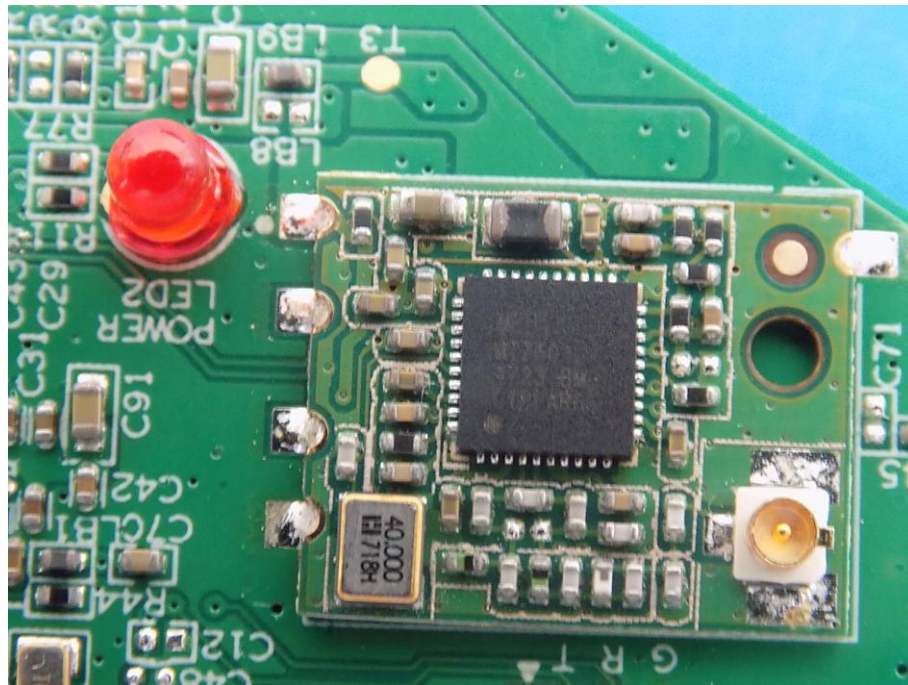


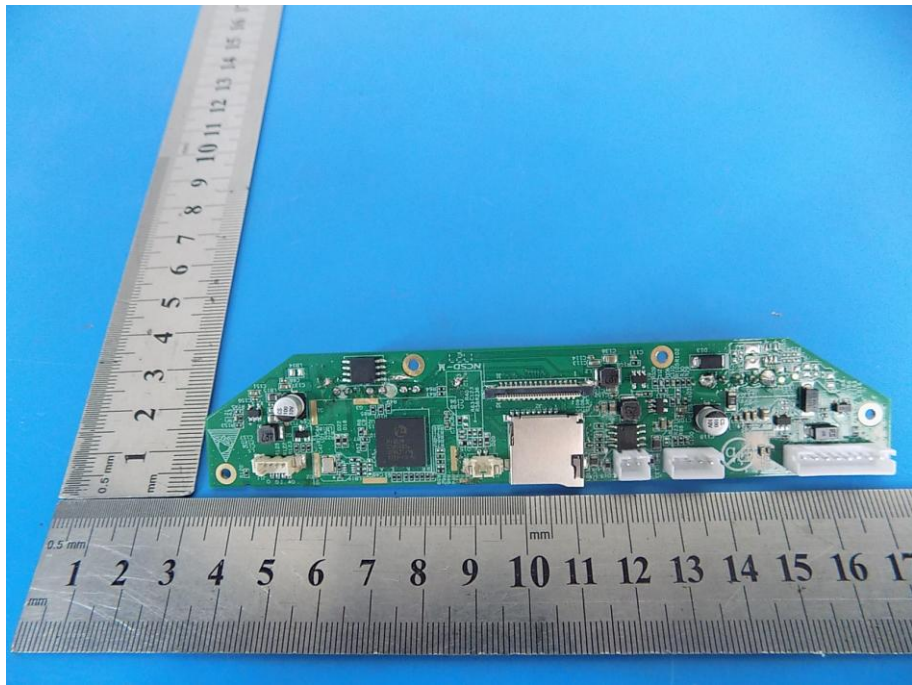
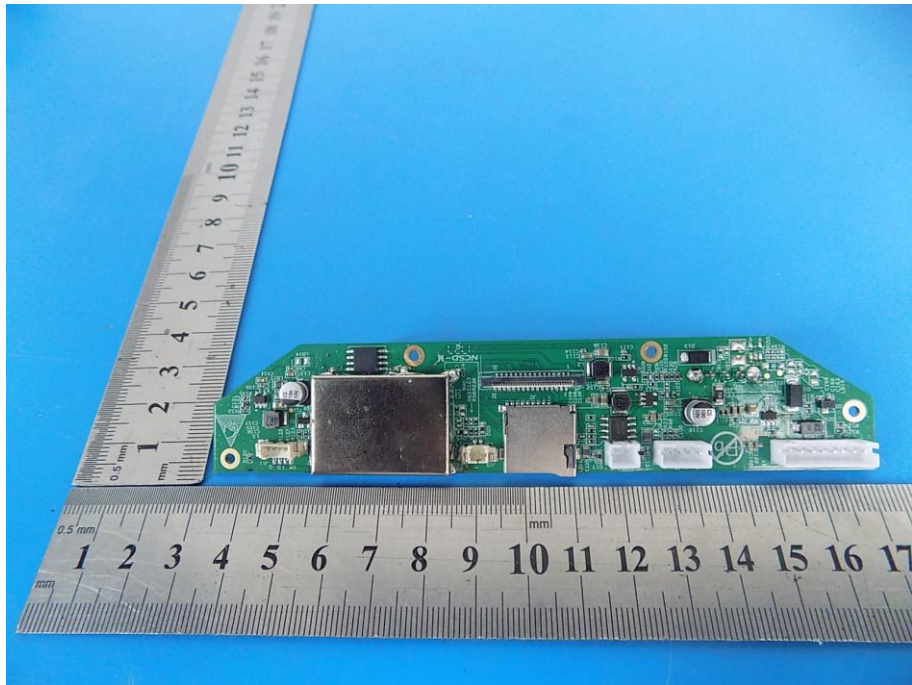


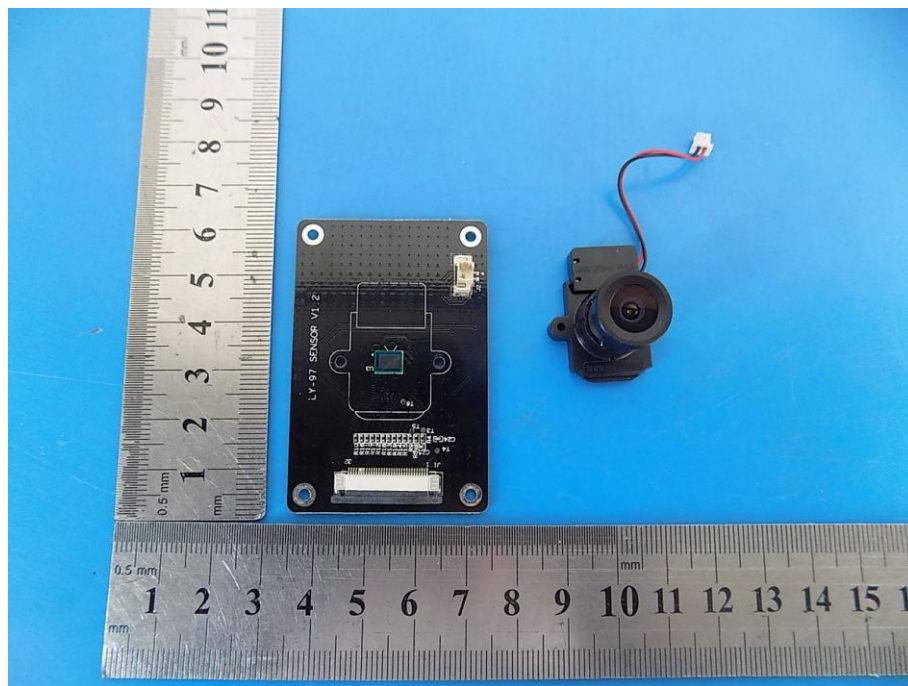
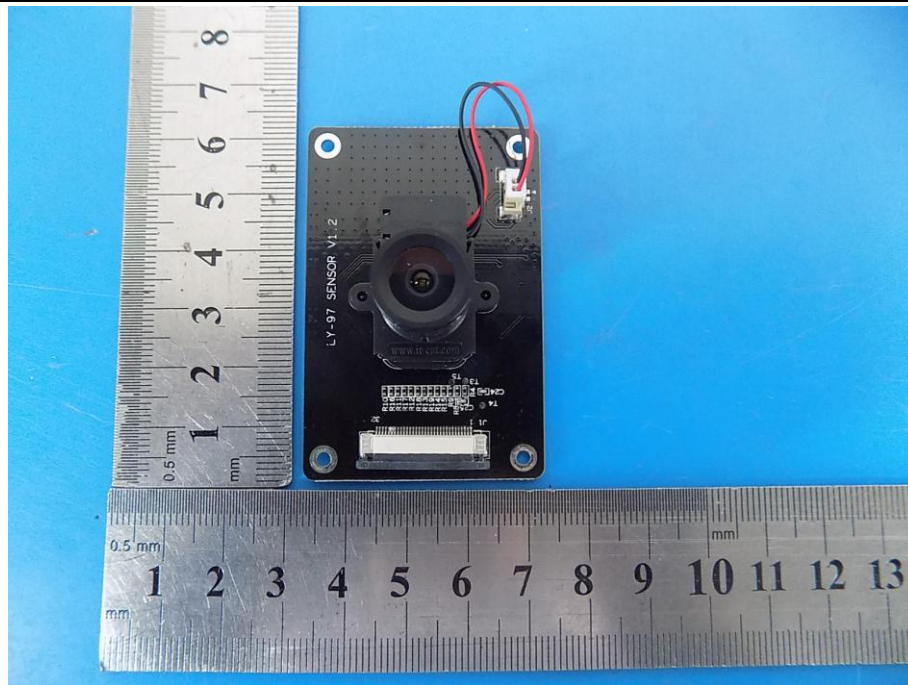


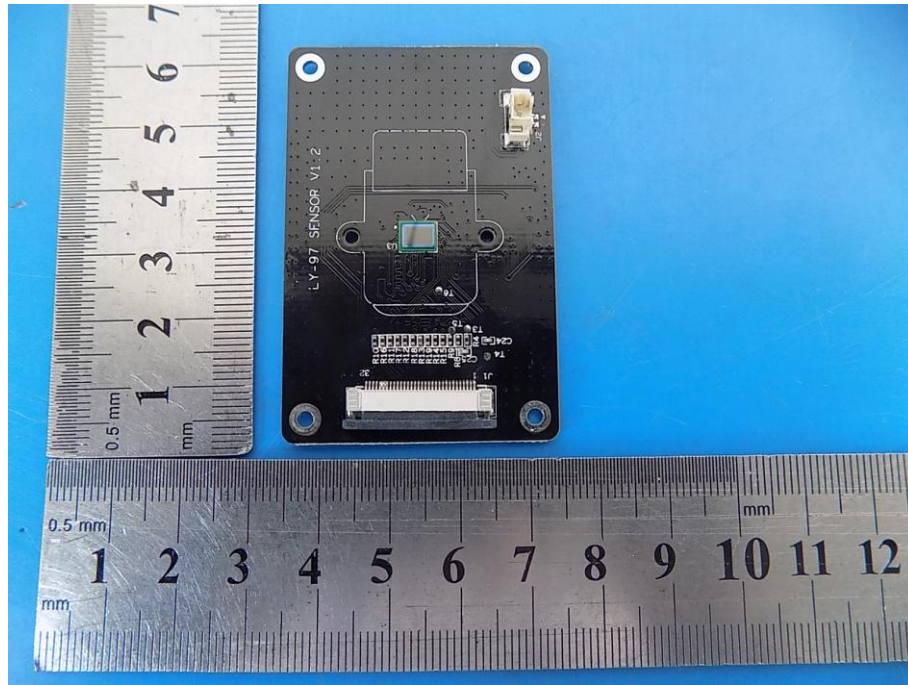












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