

FCC Verification Test Report

For

YI MEI(SHENZHEN)LIMITED

EUT Name: Cloud Wifi TV Dongle

Model No.: YM-8XXX

Brand Name: a-Cloud

Prepared By:

Asia Institute Technology (Dongguan) Limited

Date of Receipt: Jul. 05, 2012

Date of Test: Jul.09 ~10, 2012

Date of Issue: Jul. 11, 2012

Test Result: Pass

This report shall not be reproduced except in full, without the written approval of Asia Institute Technology (Dongguan) Limited.

Verification of Compliance

Client Information:

Applicant: YI MEI(SHENZHEN)LIMITED
Applicant add.: Room 905, West Block, Qiushi Building, Zhuzilin, Shennan Road,
Futian District, Shenzhen City, Guangdong Province, China 518040

EUT Information:

EUT Name: Cloud Wifi TV Dongle
Model No.: YM-8XXX
Brand Name: a-Cloud

Test procedure used: FCC Part 15 Subpart B Class B
ICES-003

This device described above has been tested by Asia Institute Technology (Dongguan) Limited, and the test results show that the equipment under test (EUT) is in compliance with the FCC and IC requirements. And it is applicable only to the tested sample identified in the report.

Reviewed by: Seal-Chen
Test director

Approved by: Jensen. vlv
Technical director

1 Contents

	Page
COVER PAGE	
1 CONTENTS	3
2 TEST SUMMARY	4
2.1 MEASUREMENT UNCERTAINTY.....	5
3 TEST FACILITY.....	6
3.1 DEVIATION FROM STANDARD.....	6
3.2 ABNORMALITIES FROM STANDARD CONDITIONS.....	6
4 GENERAL INFORMATION	7
4.1 GENERAL DESCRIPTION OF EUT	7
4.1.1 EUT Test Mode	7
4.2 DESCRIPTION OF TEST SETUP.....	8
4.3 PERIPHERAL LIST.....	9
4.4 EUT PERIPHERAL LIST	10
5 EQUIPMENTS LIST FOR ALL TEST ITEMS	11
6 EMISSION TEST RESULTS	12
6.1 MAINS TERMINALS DISTURBANCE VOLTAGE MEASUREMENT	12
6.1.1 E.U.T. Operation	12
6.1.2 Test Specification	12
6.1.3 Measurement Data.....	13
6.1.4 Test Setup Photograph	18
6.2 RADIATED EMISSION MEASUREMENT	19
6.2.1 E.U.T. Operation	19
6.2.2 Test Specification	19
6.2.3 Measurement Data.....	20
6.2.4 Test Setup photograph.....	27
7 APPENDIX-PHOTOGRAPHS OF EUT CONSTRUCTIONAL DETAILS	29

2 Test Summary

Test	Test Requirement	Test Method	Criterion	Result
Mains Terminals Disturbance Voltage, 150kHz to 30MHz	FCC Part 15 Subpart B ICES-003	FCC Part 15 Subpart B ANSI C63.4: 2009	Limits	PASS
Radiated Emissions 30MHz to 1GHz	FCC Part 15 Subpart B ICES-003	FCC Part 15 Subpart B ANSI C63.4: 2009	Limits	PASS

Remark: None

Model description: YM-8XXX, 8: Representative appearance, the first X: Representative clients, the second X: Representative exporter, the third X: Representative version

2.1 Measurement Uncertainty

The report uncertainty of measurement $y \pm U$, where expended uncertainty U is based on a standard uncertainty Multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95%.

No.	Item	Frequency Range	U , Value
1	Power Line Conducted Emission (Conduction 1)	150KHz~30MHz	1.18 dB
2	Power Line Conducted Emission (Conduction 2)	150KHz~30MHz	2.00 dB
3	Disturbance Power Emission (Conduction 1)	30MHz~300MHz	3.12 dB
4	Radiated Emission Test	30MHz~1GHz	3.40 dB
5	Radiated Emission Test	1GHz~18GHz	3.30 dB

3 Test Facility

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

.FCC- Registration No: 248337

The 3m Semi-Anechoic Chamber, 3m/10m Open Area Test Site and Shielding Room of Asia Institute Technology (Dongguan) Limited have been registered by Federal Communications Commission (FCC) on Nov.20, 2009.

.Industry Canada(IC)-Registration No: IC6819A-1 & IC6819A-2

The 3m Semi-Anechoic Chamber and 3m/10m Open Area Test Site of Asia Institute Technology (Dongguan) Limited have been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing on Nov.07, 2010.

.VCCI- Registration No: 2705

The 3m/10m Open Area Test Site, Shielding Room and 3m Chamber of Asia Institute Technology (Dongguan) Limited have been registered by Voluntary Control Council for Interference on Jan.24, 2010 and Oct. 30, 2010. The Telecommunication Ports Conducted Disturbance Measurement of Asia Institute Technology (Dongguan) Limited have been registered by Voluntary Control Council for Interference on Sep. 06, 2011.

.TUV Rhineland

Asia Institute Technology (Dongguan) Limited has been assessed on Dec.29, 2011 that it can carry out EMC tests by order and under supervision of TUV Rhineland.

.ITS- Registration No: TMPSHA031

Asia Institute Technology (Dongguan) Limited has been assessed and included in Intertek Shanghai TMP Program regarding Laboratory facilities and test equipment on Jul.22, 2011.

3.1 Deviation from standard

None

3.2 Abnormalities from standard conditions

None

4 General Information

4.1 General Description of EUT

Manufacturer:	Cosmosonic Enterprise Co.Ltd			
Manufacturer Address:	NO.158, Jin-Lang South Rd.Dalang Town, DongGuan City,GuangDong, CHINA 523785			
EUT Name:	Cloud Wifi TV Dongle			
Model No:	YM-8XXX			
Brand Name:	a-Cloud			
Serial No:	N/A			
Power Supply:	DC 5.0V			
Test Supply:	DC 5.0V			
Power Cord:	N/A			
Signal Cable:	N/A			
Key component's information:				
No.	component name	Brand Name	Model No:	Serial No:
1	N/A	N/A	N/A	N/A

4.1.1 EUT Test Mode

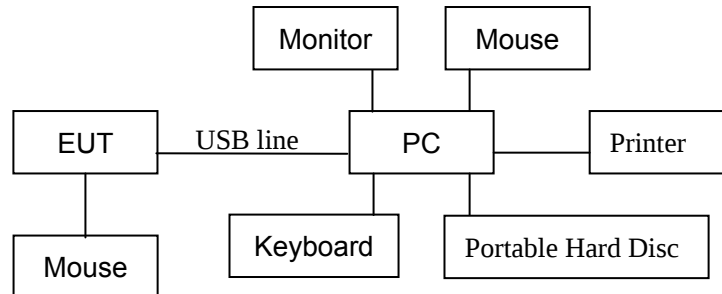
Mode 1	The EUT is connecting to pc for supply power and data transmitting.
Mode 2	The EUT is connecting to pc for supply power , connecting to HDMI monitor to play.
Mode 3	The EUT is connecting to pc for supply power , connecting to internet by wifi.

4.2 Description of Test setup

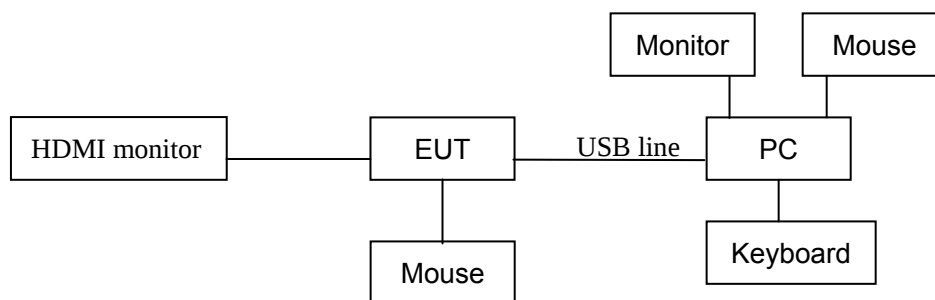
EUT was tested in normal configuration (Please See following Block diagram)

1. Block diagram of EUT configuration

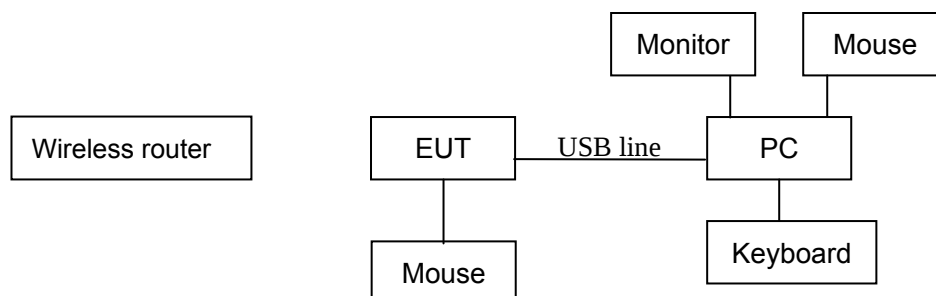
Mode 1:



Mode 2:



Mode 3:



4.3 Peripheral List

No.	Equipment	Manufacturer	EMC Compliance	Model No.	Serial No.	Power cord	signal cable
1	Personal computer	H P	CE 、 FCC	DX2310	CNG8250MZ3	1.8m/unshielded /detachable	N/A
2	Keyboard	DELL	CE	SK-8115	CN-ONM432-71616-81M-OLKB	N/A	1.5m/unshielded /undetachable
3	Mouse	Microsoft	CE	X800898	30603	N/A	1.5m/unshielded /undetachable
4	Monitor	DELL	CE	T980KAC DK21SN	TWS20006045	1.8m/unshielded /detachable	1.8m/shielded /detachable
5	HDMI Monitor	SONY	BSMI	KDL-20S4 000	1495334	1.5m/unshielded /detachable	N/A
6	Printer	EPSON	CE	STYLUS C45	FY9YC48288	1.5m/unshielded /detachable	1.8m/unshielded /detachable
7	Portable Hard Disc	ALUMINUM	CE	3.5 HDD Storage Box	06832c009	1.8m/unshielded /detachable	1.2m/unshielded /detachable

4.4 EUT Peripheral List

No.	Equipment	Manufacturer	EMC Compliance	Model No.	Serial No.	Power cord	signal cable
1	N/A	N/A	N/A	N/A	N/A	N/A	N/A

5 Equipments List For All Test Items

☒ Radiation Test Equipment						
No	Test Equipment	Manufacturer	Model No	Serial No	Cal. Date	Cal. Due Date
1	Spectrum Analyzer	ADVANTEST	R3132	160400005	2012.04.07	2013.04.06
2	EMI Measuring Receiver	R&S	ESPI	1164.6407.03	2011.10.21	2012.10.20
3	Low Noise Pre Amplifier	Tsj	MLA-10K01-B01-27	1205323	2012.04.07	2013.04.06
4	TRILOG Super Broadband test Antenna	SCHWARZBECK	VULB9160	9160-3206	2011.09.02	2012.09.01
5	50Ω Coaxial Switch	Anritsu	MP59B	6200264416	2011.09.02	2012.09.01
6	Spectrum Analyzer	ADVANTEST	R3182	150900201	2011.10.21	2012.10.20
7	Low Noise Pre Amplifier	Tsj	MLA-0120-A02-34	2648A04738	2012.04.07	2013.04.06
8	Broadband Horn Antenna	Schwarzbeck	BBHA 9120D	452	2012.01.10	2013.01.09

☒ 1# Conduction Test equipment						
No	Test Equipment	Manufacturer	Model No	Serial No	Cal. Date	Cal. Due Date
1	EMI Test Receiver	R&S	ESCI	100124	2011.12.28	2012.12.27
2	LISN	Kyoritsu	KNW-242	8-837-4	2012.04.07	2013.04.06
3	LISN	Kyoritsu	KNW-407	8-1789-3	2012.04.07	2013.04.06
4	50Ω Coaxial Switch	Anritsu	MP59B	6200264417	2012.04.07	2013.04.06

Note:

1. ☐ is not applicable in this Test Report. ☒ is applicable in this Test Report.

6.1 Mains Terminals Disturbance Voltage Measurement

Detector:	Peak for pre-scan (9kHz Resolution Bandwidth) Quasi-Peak & Average if maximized peak within 6dB of Average Limit
-----------	---

Temperature:	22°C	Humidity:	53% RH	Atmospheric Pressure:	101	Kpa
Test Mode:	Mode 1/ Mode 2/ Mode3			The Worst Mode:	Mode 2	

1.2 Test Specification

The diagram illustrates the test setup for EUT immunity testing. It shows a yellow table with a grey frame. On the table sits a white box labeled 'EUT'. To the right of the table is a white box labeled 'LISN'. A vertical line represents the 'V.C.P.' (Vertical Center Plane). A horizontal double-headed arrow indicates a distance of '40cm' between the EUT and the V.C.P. To the left of the table, a vertical double-headed arrow indicates a height of '80cm' from the ground to the top of the table. A horizontal arrow labeled 'H.C.P.' (Horizontal Center Plane) points towards the setup. To the right of the LISN, there is another yellow table with a grey frame. On this table are two white boxes: 'Pulse Limiter' and 'Test Receiver'. A cable connects the LISN to the Pulse Limiter.

EUT was placed upon a wooden test table 0.8m above the horizontal metal reference plane and 0.4m from the vertical ground plane, and it was connected to an AMN. The closest distance between the boundary of the EUT and the surface of the AMN is 0.8m. All peripherals were connected to another AMN, and placed at a distance of 10cm from each other. A spectrum and receiver was connected to the RF output port of the AMN. Both average and quasi-peak value were detected.

6.1.3 Measurement Data

An initial pre-scan was performed on the live and neutral lines.

Quasi-peak or average measurements were performed at the frequency which maximum peak emissions were detected.

Please refer to the attached quasi-peak & average measurement data for reference.

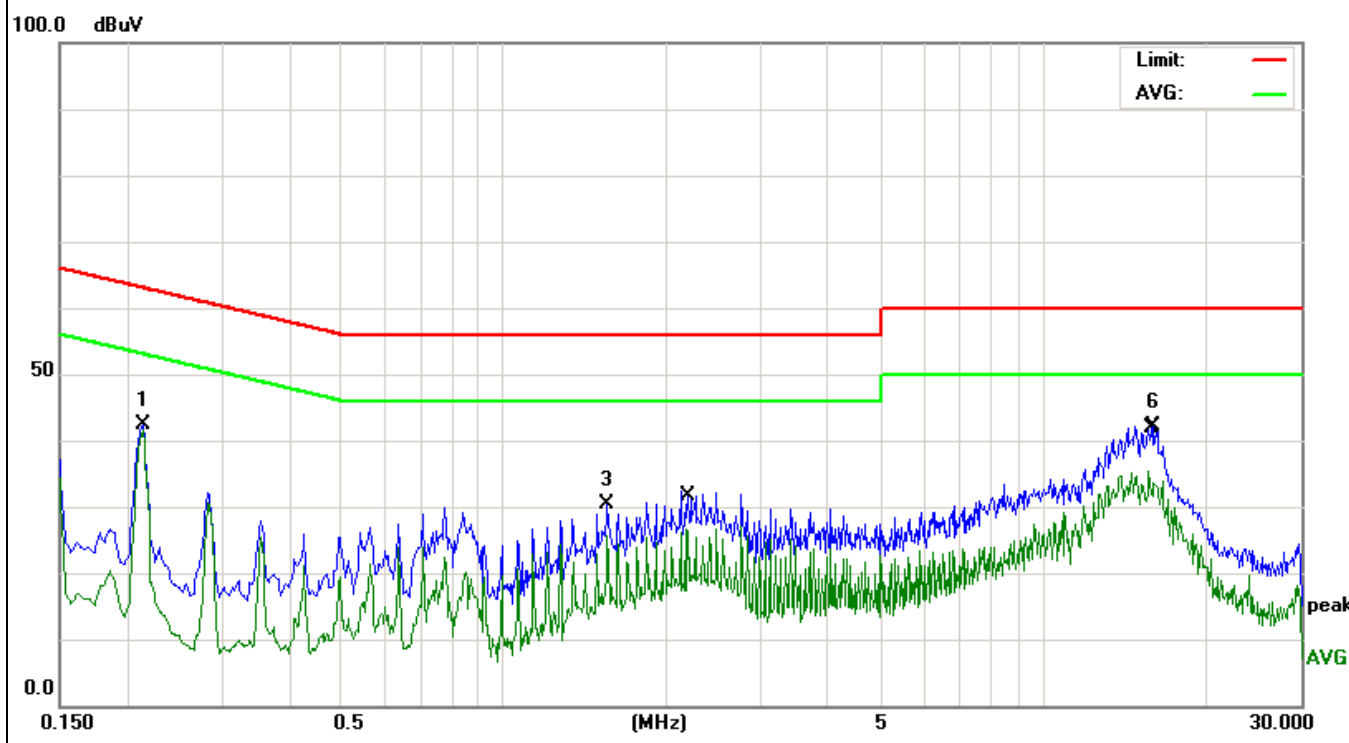
EUT:	Cloud Wifi TV Dongle	Model Name :	YM-8XXX
Temperature:	22 °C	Relative Humidity:	53%
Pressure:	1010hPa	Test Date :	2012-07-09
Test Mode:	Mode 2	Phase :	Line
Test Voltage :	DC 5.0V from PC , AC 120V/60Hz for PC		

Frequency (MHz)	Meter Reading (dBμV)	Factor(dB)	Emission Level (dBμV)	Limits (dBμV)	Margin (dB)	Detector
0.2140	31.37	11.03	42.40	63.04	-20.64	Quasi-Peak
*0.2140	30.60	11.03	41.63	53.04	-11.41	Average
1.5580	20.25	10.18	30.43	56.00	-25.57	Quasi-Peak
2.1739	16.51	10.17	26.68	46.00	-19.32	Average
16.0059	40.79	1.37	42.16	60.00	-17.84	Quasi-Peak
15.6539	34.08	1.37	35.45	50.00	-14.55	Average

Remark:

1. Factor = Insertion Loss + Cable Loss.

2. '*' means the worst case.



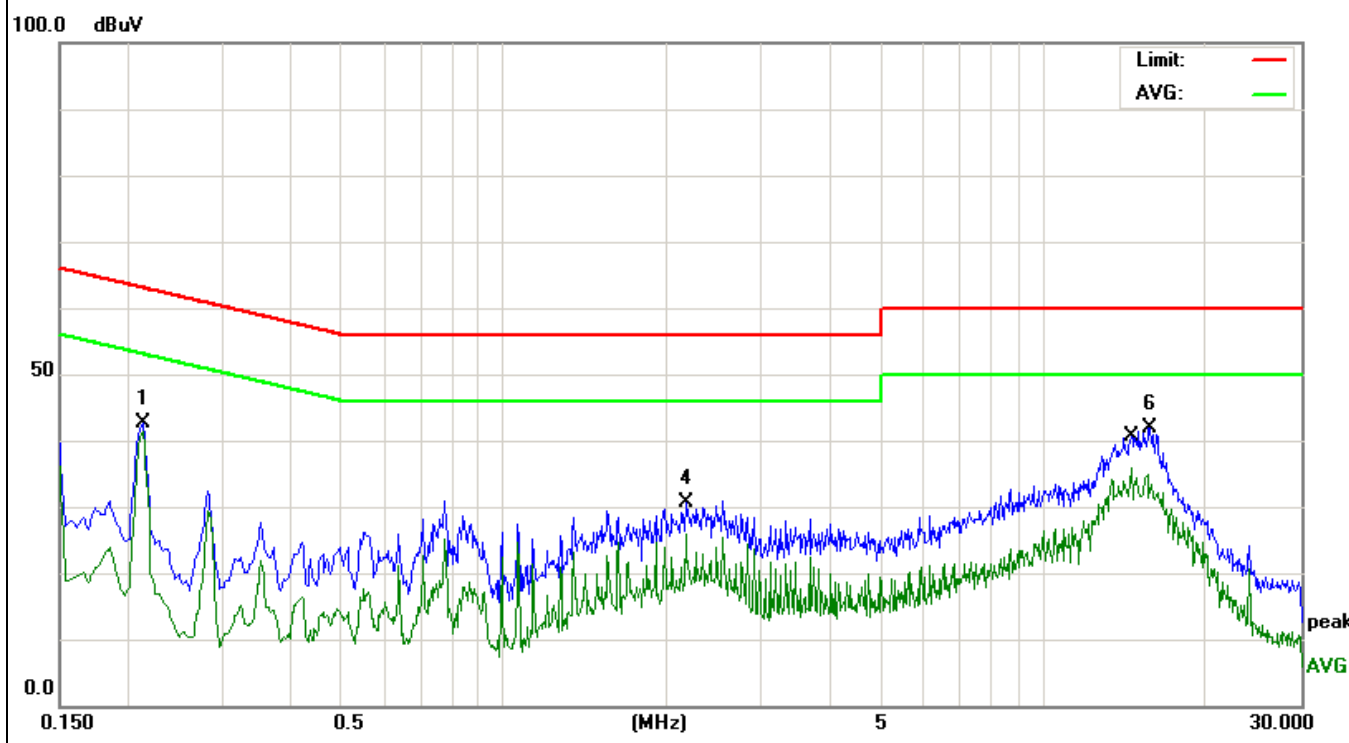
EUT:	Cloud Wifi TV Dongle	Model Name :	YM-8XXX
Temperature:	22 °C	Relative Humidity:	53%
Pressure:	1010hPa	Test Date :	2012-07-09
Test Mode:	Mode 2	Phase :	Neutral
Test Voltage :	DC 5.0V from PC , AC 120V/60Hz for PC		

Frequency (MHz)	Meter Reading (dBμV)	Factor(dB)	Emission Level (dBμV)	Limits (dBμV)	Margin (dB)	Detector
0.2140	31.70	11.03	42.73	63.04	-20.31	Quasi-Peak
*0.2140	30.41	11.03	41.44	53.04	-11.60	Average
2.1819	20.36	10.17	30.53	56.00	-25.47	Quasi-Peak
2.1739	15.64	10.17	25.81	46.00	-20.19	Average
15.7219	40.63	1.37	42.00	60.00	-18.00	Quasi-Peak
14.5899	34.47	1.36	35.83	50.00	-14.17	Average

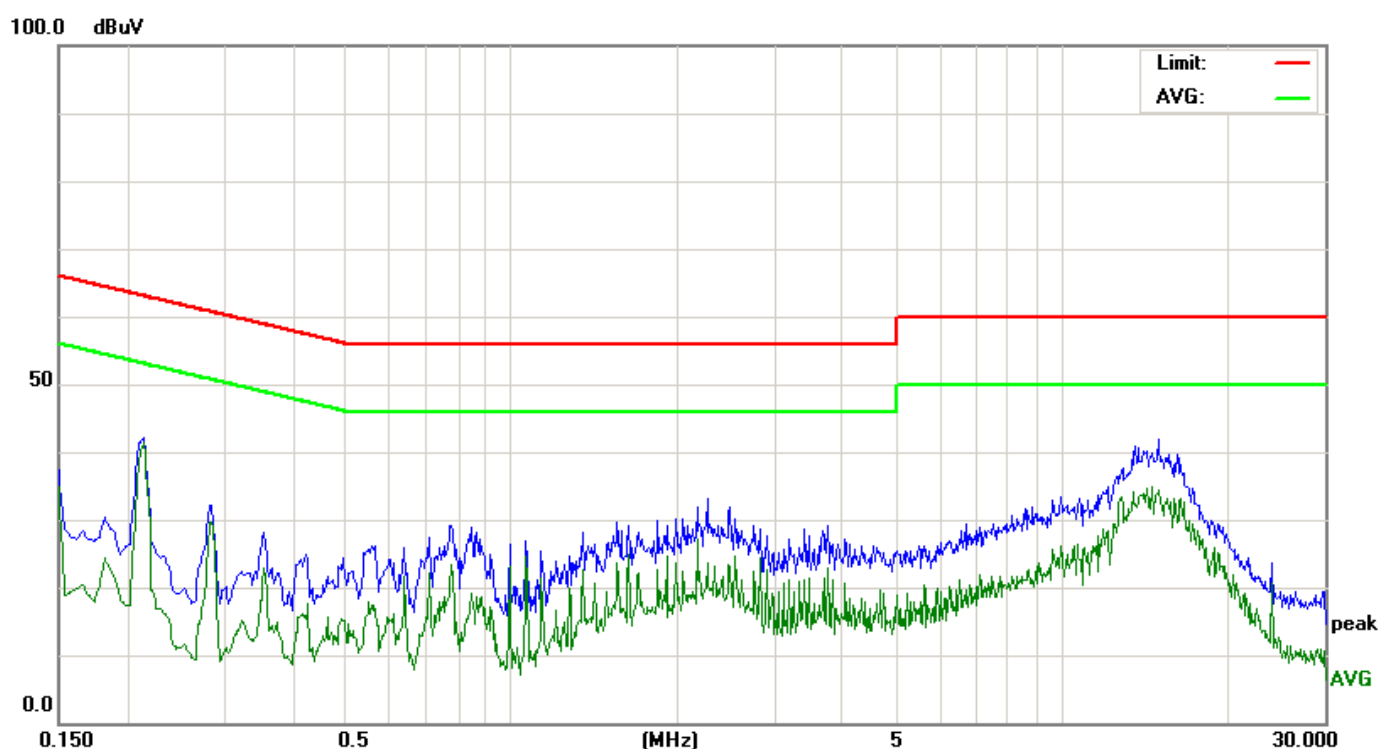
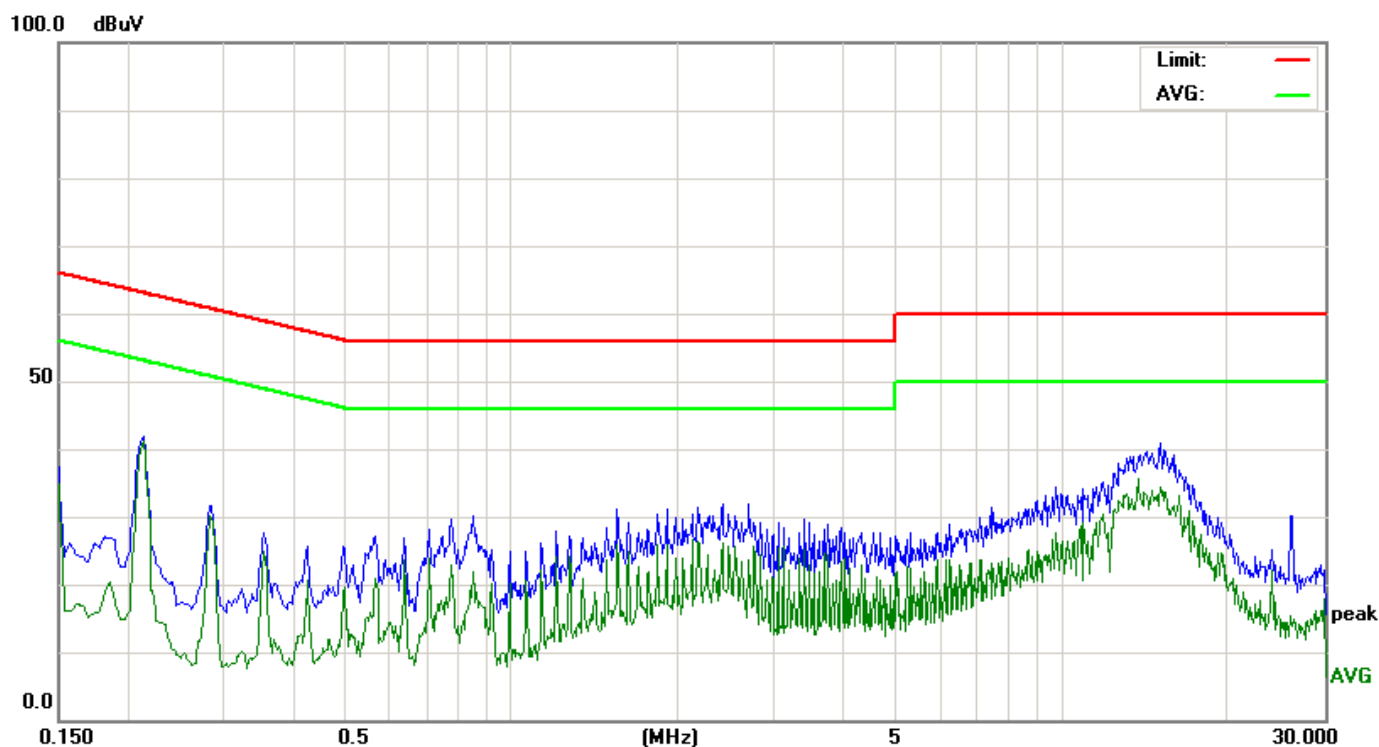
Remark:

1. Factor = Insertion Loss + Cable Loss.

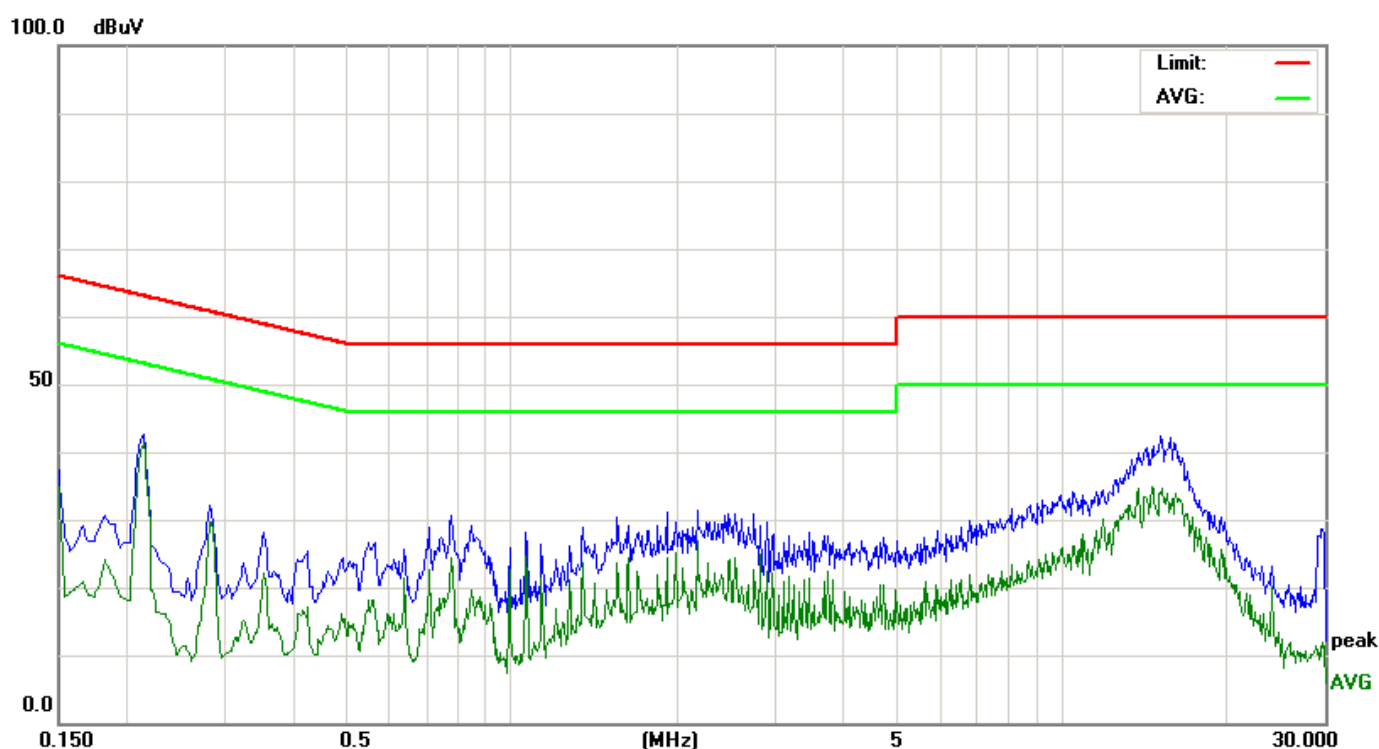
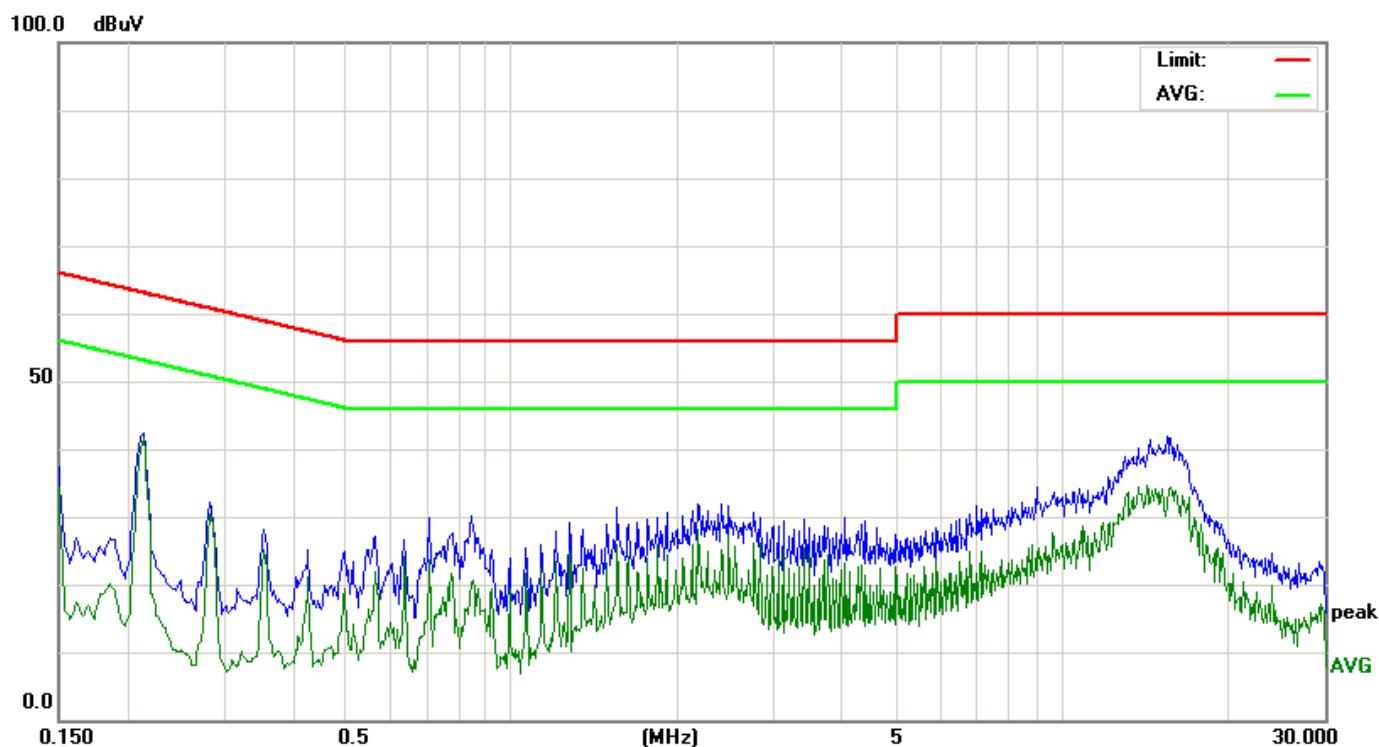
2. '*' means the worst case.



EUT:	Cloud Wifi TV Dongle	Model Name :	YM-8XXX
Temperature:	22℃	Relative Humidity:	53%
Pressure:	1010hPa	Test Date :	2012-07-09
Test Mode:	Mode 1	Phase :	Line/Neutral
Test Voltage :	DC 5.0V from PC , AC 120V/60Hz for PC		

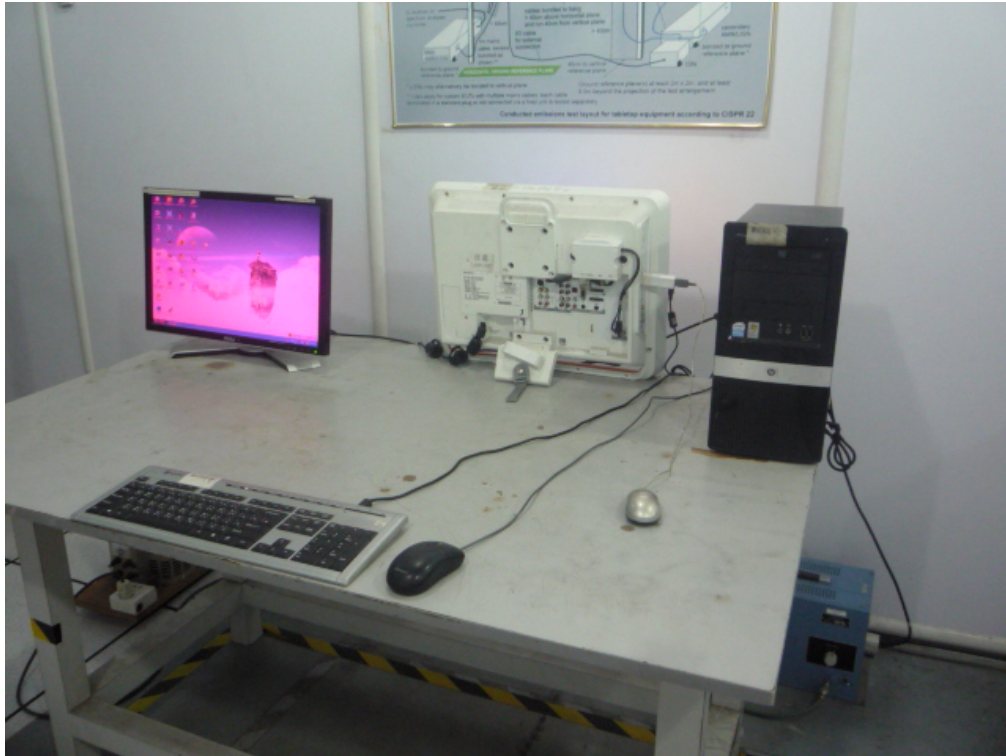


EUT:	Cloud Wifi TV Dongle	Model Name :	YM-8XXX
Temperature:	22℃	Relative Humidity:	53%
Pressure:	1010hPa	Test Date :	2012-07-09
Test Mode:	Mode 3	Phase :	Line/Neutral
Test Voltage :	DC 5.0 V from PC , AC 120V/60Hz for PC		



6.1.4 Test Setup Photograph

Model: YM-8XXX



Model: YM-8XXX



6.2 Radiated Emission Measurement

Limits of Radiated Emission Measurement

Frequency (MHz)	☐ Class A (10m)	☒ Class B (3m)
	Quasi-Peak dB(μ V/m)	Quasi-Peak dB(μ V/m)
30 ~ 88	39.0	40.0
88 ~ 216	43.5	43.5
216 ~ 960	46.5	46.0
Above 960	49.5	54.0

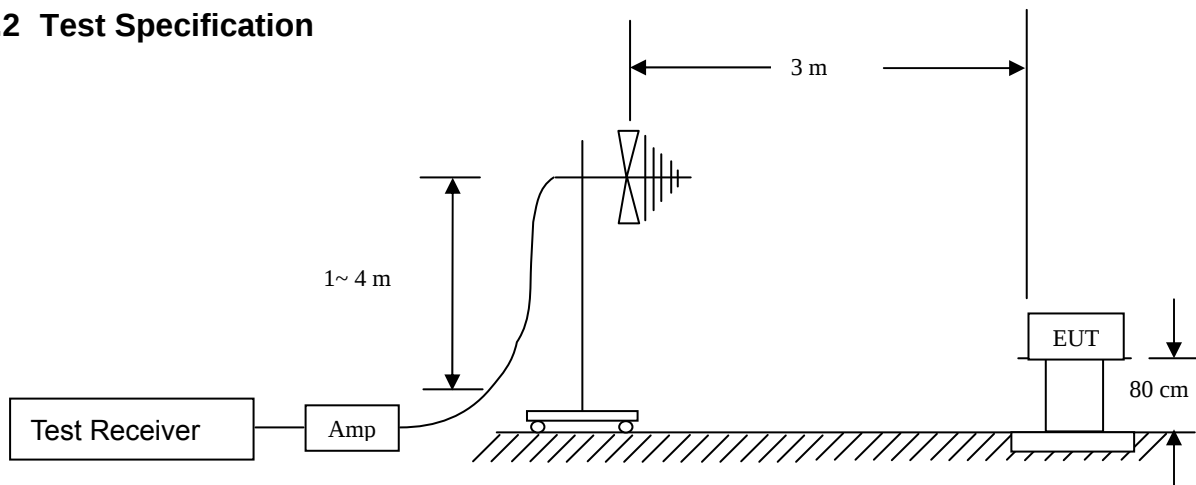
Detector:

Peak for pre-scan (120kHz resolution bandwidth)
Quasi-Peak if maximum peak within 6dB of limit

6.2.1 E.U.T. Operation

Temperature:	23°C	Humidity:	56% RH	Atmospheric Pressure:	101	Kpa
Test Mode:	Mode 1/ Mode 2/ Mode 3			The Worst Mode:	Mode 2	

6.2.2 Test Specification



EUT was placed upon a wooden test table which was placed on the turn table 0.8m above the horizontal metal ground plane, and operating in the mode as mentioned above. A receiving antenna was placed 3m away from the EUT. During testing, turn around the turn table and move the antenna from 1m to 4m to find the maximum field-strength reading. All peripherals were placed at a distance of 10cm between each other. Both horizontal and vertical antenna polarities were tested.

6.2.3 Measurement Data

An initial pre-scan was performed in the 3m chamber using the spectrum analyzers in peak detection mode. The EUT was measured by Biology antenna with 2 orthogonal polarities and peak emissions from the EUT were detected within 6dB of the class B limit line.

The following quasi-peak measurements were performed on the EUT.

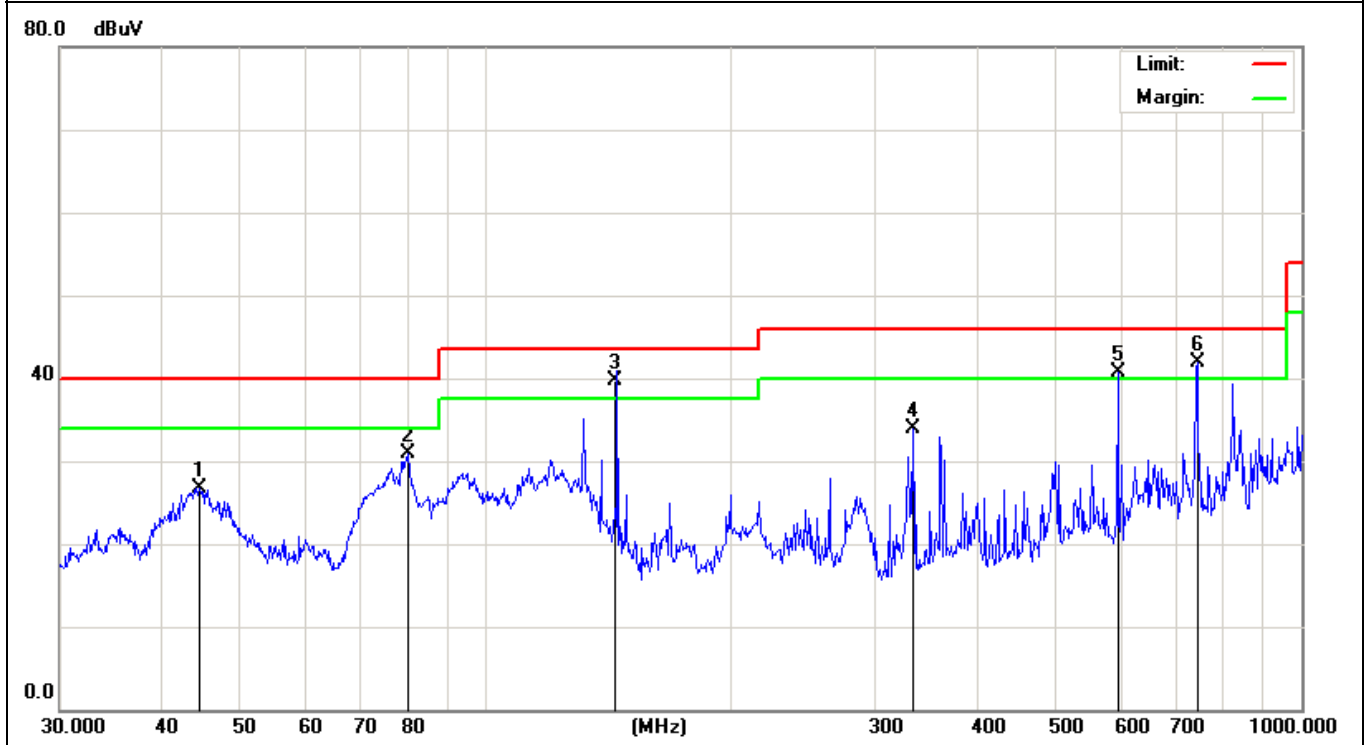
Between 30-1000MHz

EUT:	Cloud Wifi TV Dongle	Model Name :	YM-8XXX
Temperature:	23 °C	Relative Humidity:	56%
Pressure:	1010hPa	Test Date :	2012-07-10
Test Mode:	Mode 2	Phase :	Vertical
Test Voltage :	DC 5.0 V from PC , AC 120V/60Hz for PC		

Frequency (MHz)	Reading Level (dBμV)	Factor(dB)	Measurement (dBμV)	Limits (dBμV)	Margin (dB)	Detector
44.5867	44.79	-18.01	26.78	40.00	-13.22	Quasi-Peak
80.3619	50.64	-19.72	30.92	40.00	-9.08	Quasi-Peak
143.9818	52.80	-13.18	39.62	43.50	-3.88	Quasi-Peak
333.6865	43.34	-9.36	33.98	46.00	-12.02	Quasi-Peak
595.1329	44.22	-3.45	40.77	46.00	-5.23	Quasi-Peak
744.8661	43.32	-1.39	41.93	46.00	-4.07	Quasi-Peak

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

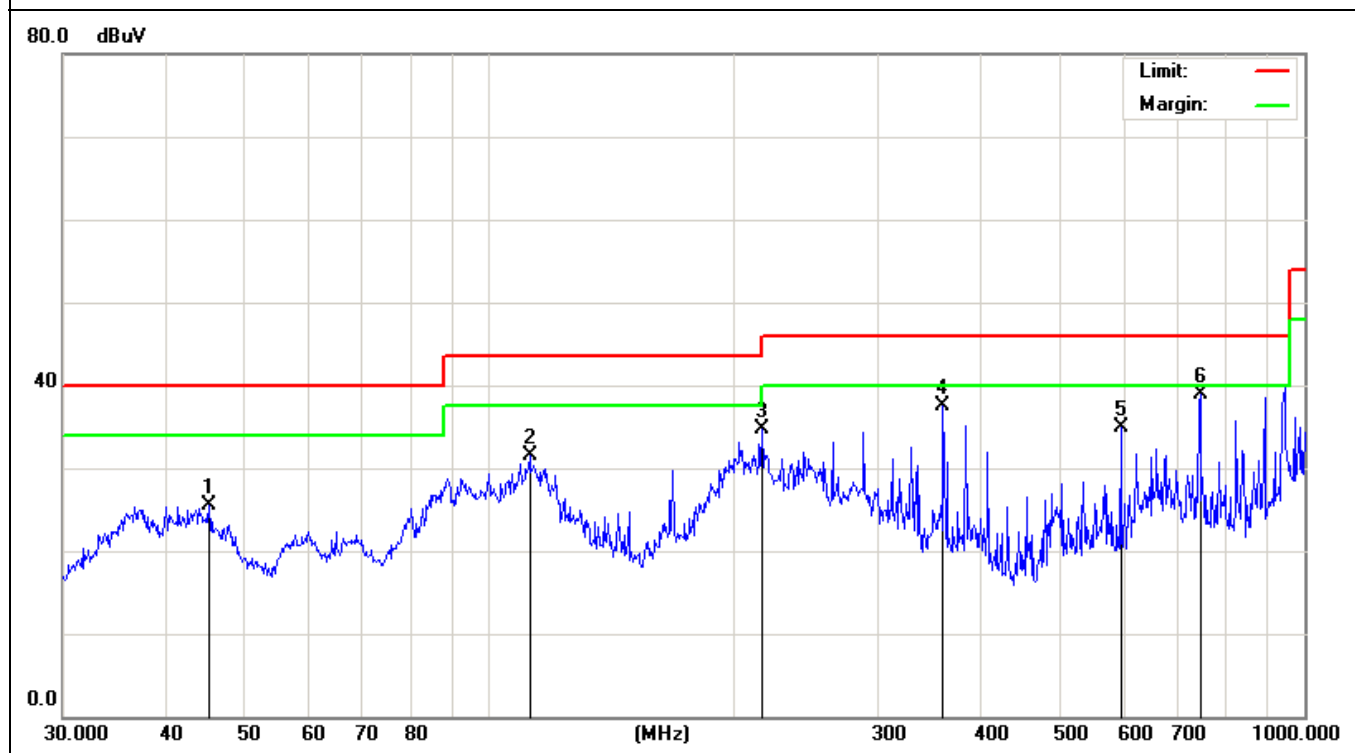


EUT:	Cloud Wifi TV Dongle	Model Name :	YM-8XXX
Temperature:	23 °C	Relative Humidity:	56%
Pressure:	1010hPa	Test Date :	2012-07-10
Test Mode:	Mode 2	Phase :	Horizontal
Test Voltage :	DC 5.0 V from PC , AC 120V/60Hz for PC		

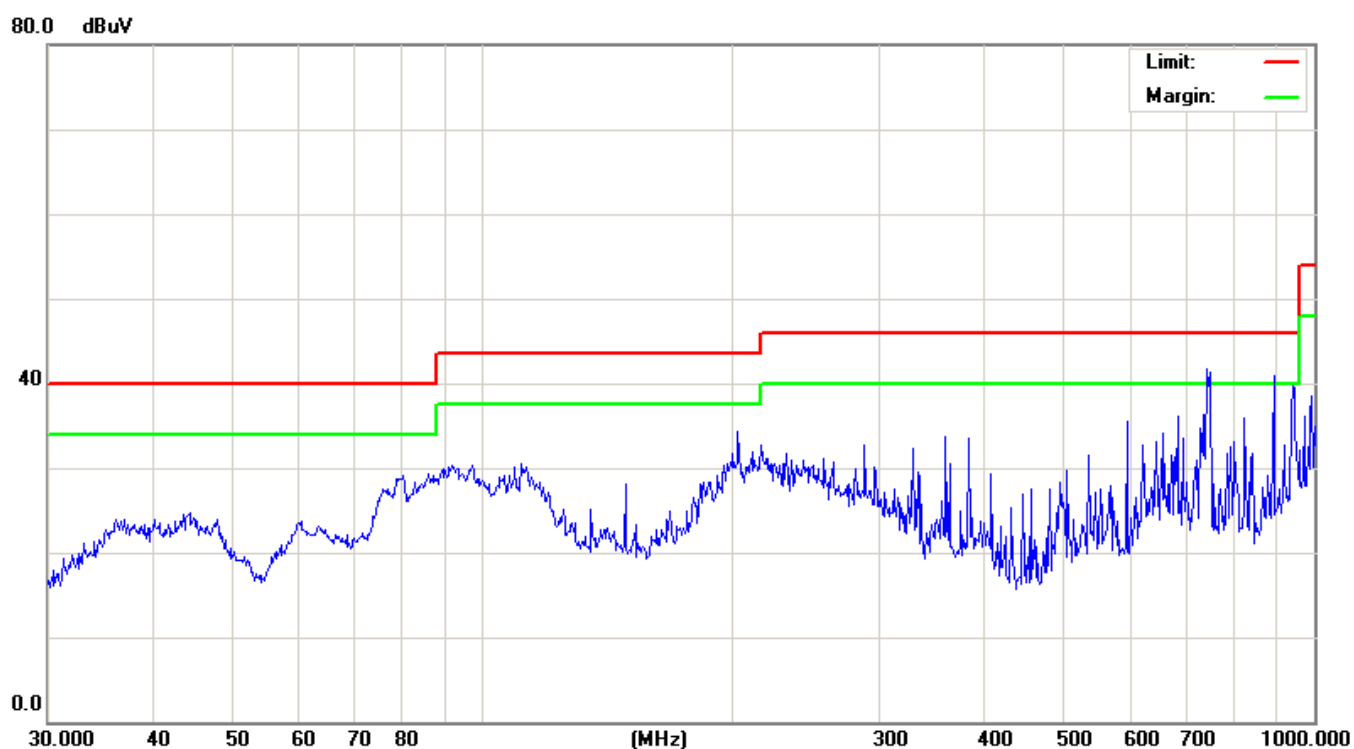
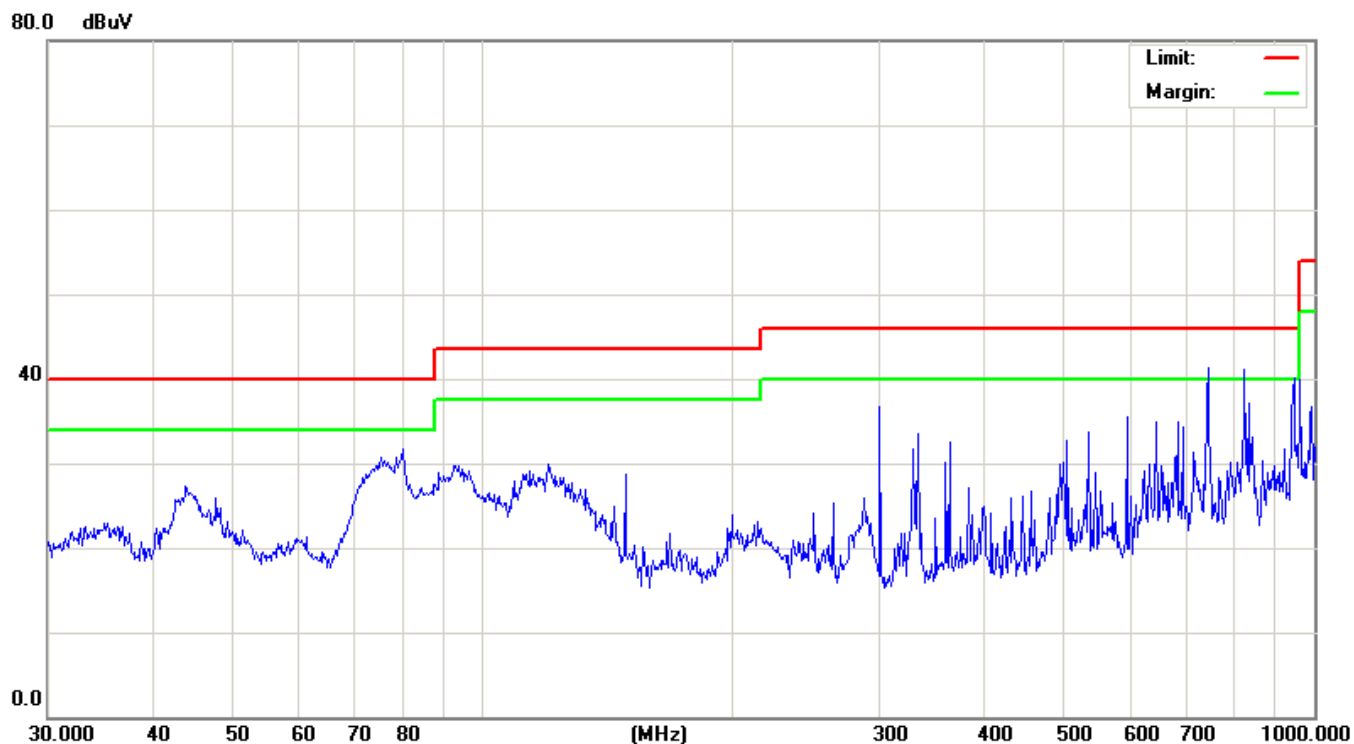
Frequency (MHz)	Reading Level (dBμV)	Factor(dB)	Measurement (dBμV)	Limits (dBμV)	Margin (dB)	Detector
45.3755	41.32	-15.79	25.53	40.00	-14.47	Quasi-Peak
112.1305	45.22	-13.78	31.44	43.50	-12.06	Quasi-Peak
216.0240	44.99	-10.34	34.65	46.00	-11.35	Quasi-Peak
360.4476	46.17	-8.71	37.46	46.00	-8.54	Quasi-Peak
595.1327	38.33	-3.45	34.88	46.00	-11.12	Quasi-Peak
744.8661	40.32	-1.39	38.93	46.00	-7.07	Quasi-Peak

Remark:

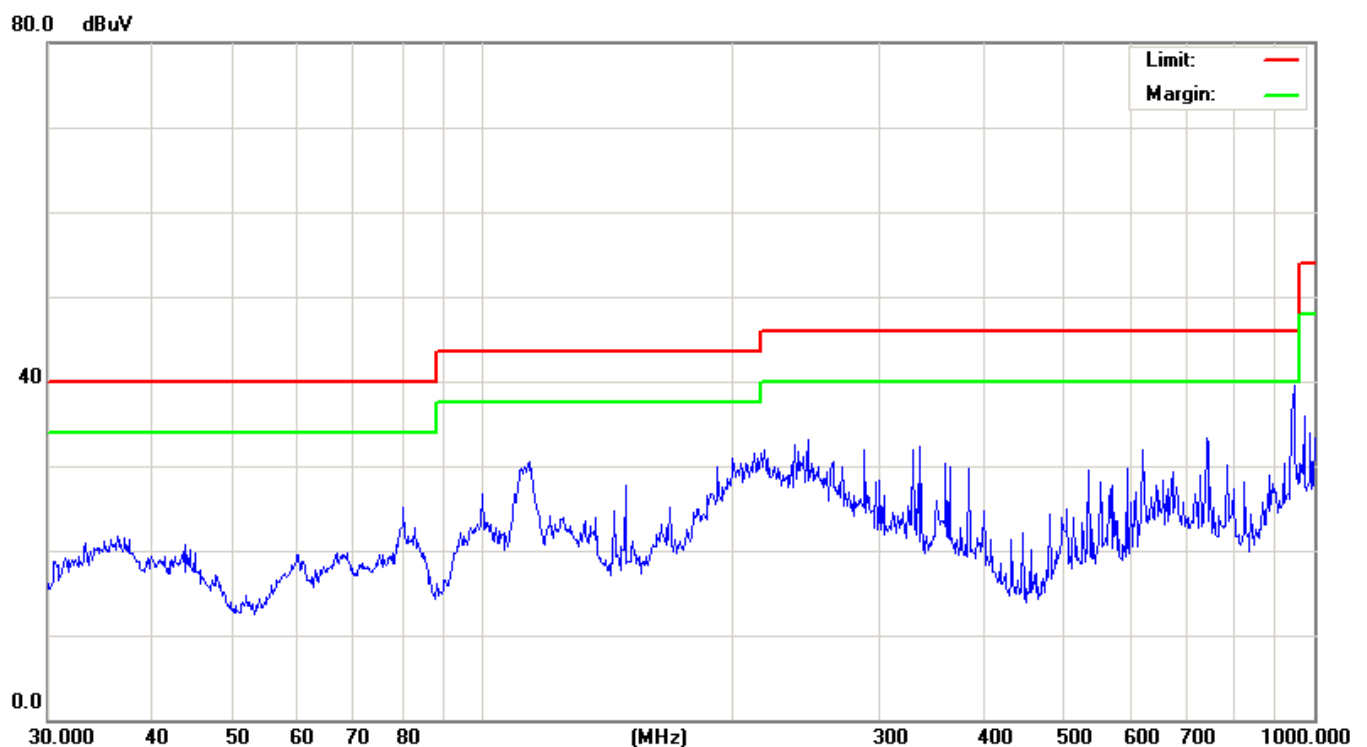
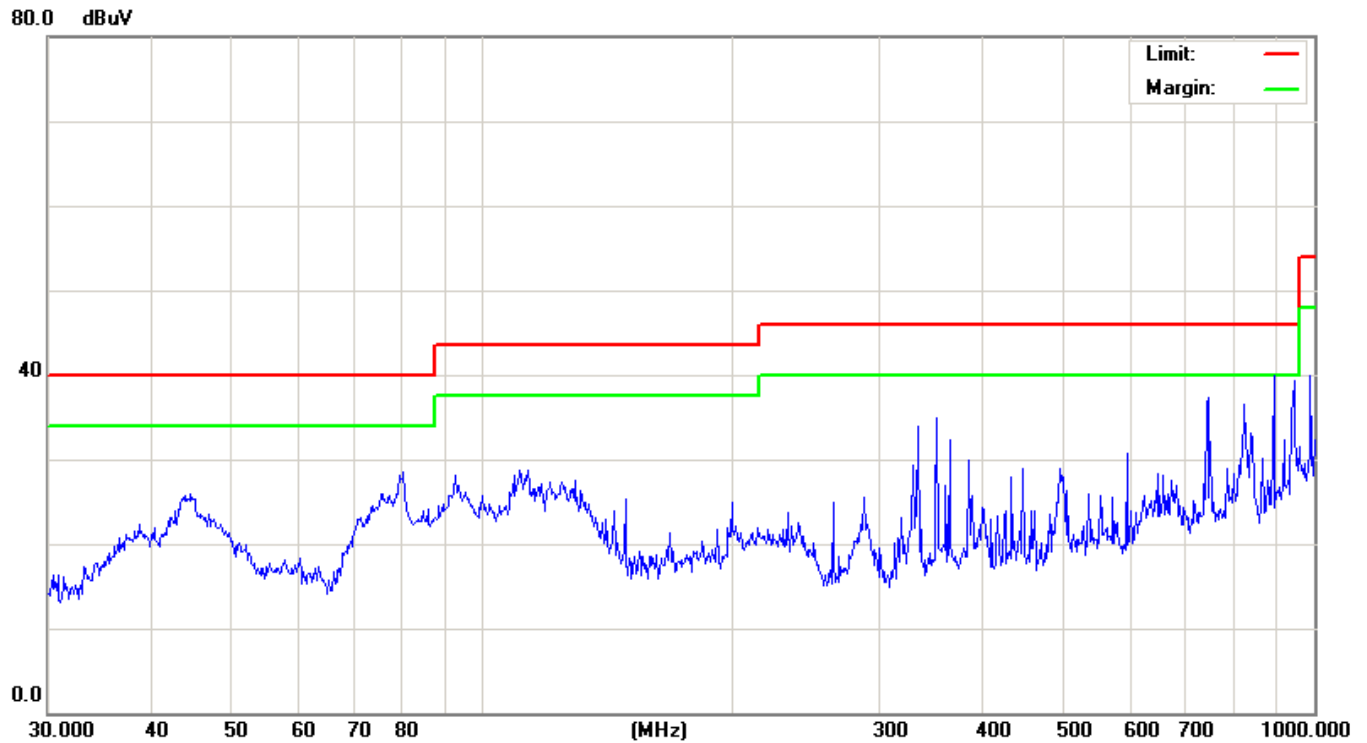
1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT:	Cloud Wifi TV Dongle	Model Name :	YM-8XXX
Temperature:	23 °C	Relative Humidity:	56%
Pressure:	1010hPa	Test Date :	2012-07-10
Test Mode:	Mode 1	Polarization :	Vertical/Horizontal
Test Voltage :	DC 5.0V from PC , AC 120V/60Hz for PC		



EUT:	Cloud Wifi TV Dongle	Model Name :	YM-8XXX
Temperature:	23 °C	Relative Humidity:	56%
Pressure:	1010hPa	Test Date :	2012-07-10
Test Mode:	Mode 3	Polarization :	Vertical/Horizontal
Test Voltage :	DC 5.0V from PC , AC 120V/60Hz for PC		



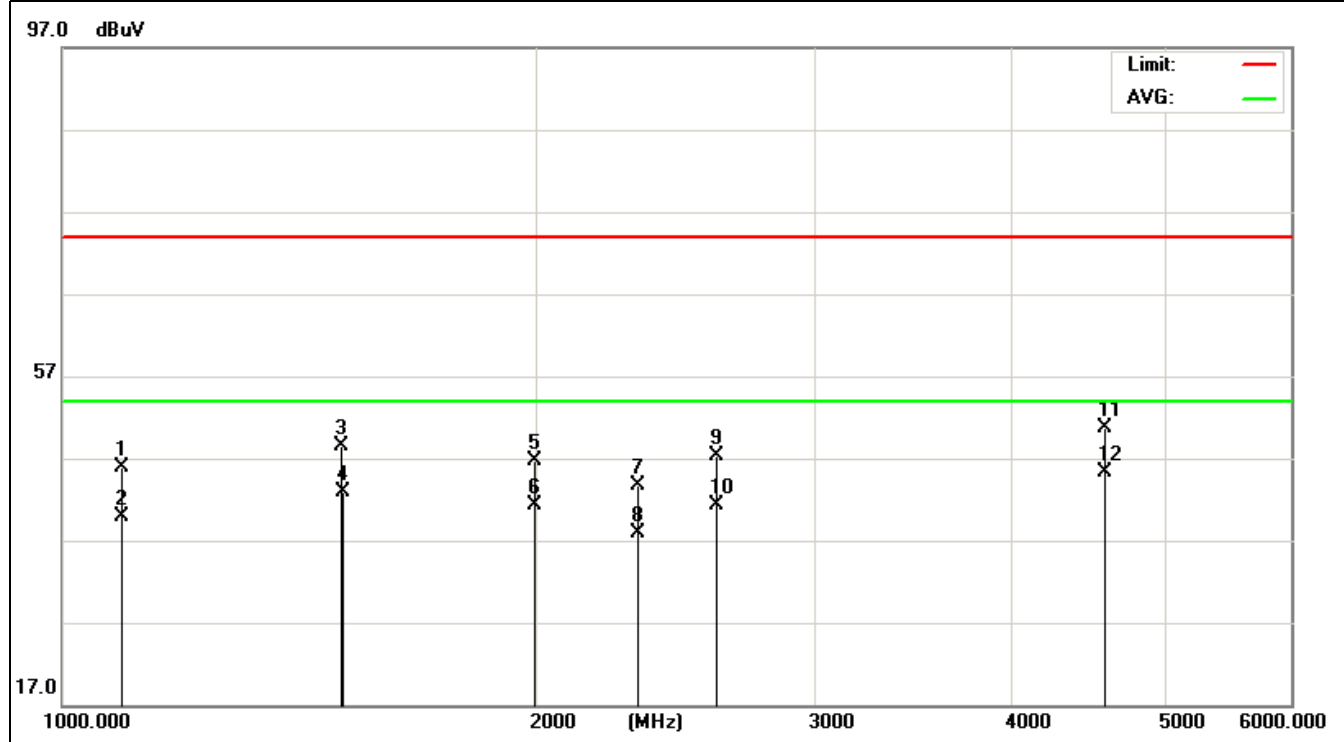
Between 1000-6000MHz

EUT:	Cloud Wifi TV Dongle	Model Name :	YM-8XXX
Temperature:	23 °C	Relative Humidity:	56%
Pressure:	1010hPa	Test Date :	2012-07-10
Test Mode:	Mode 2 (the worst mode)	Phase :	Vertical
Test Voltage :	DC 5.0V from PC , AC 120V/60Hz for PC		

Frequency	Meter Reading (dBμV)		Factor	Emission Level (dBμV)		Limits (dBμV)		Margin (dBμV)	
(MHz)	Peak	Average	(dB)	Peak	Average	Peak	Average	Peak	Average
1090.000	56.78	50.78	-10.83	45.95	39.95	74.00	54.00	-28.05	-14.05
1501.000	58.40	52.72	-9.85	48.55	42.87	74.00	54.00	-25.45	-11.13
1990.000	55.77	50.46	-9.13	46.64	41.33	74.00	54.00	-27.36	-12.67
2320.000	50.13	44.33	-6.35	43.78	37.98	74.00	54.00	-30.22	-16.02
2595.000	51.52	45.50	-4.23	47.29	41.27	74.00	54.00	-26.71	-12.73
*4585.000	45.61	40.33	5.03	50.64	45.36	74.00	54.00	-23.36	-8.64

Remark:

- Factor = Antenna Factor + Cable Loss – Pre-amplifier.
- ** means the worst case



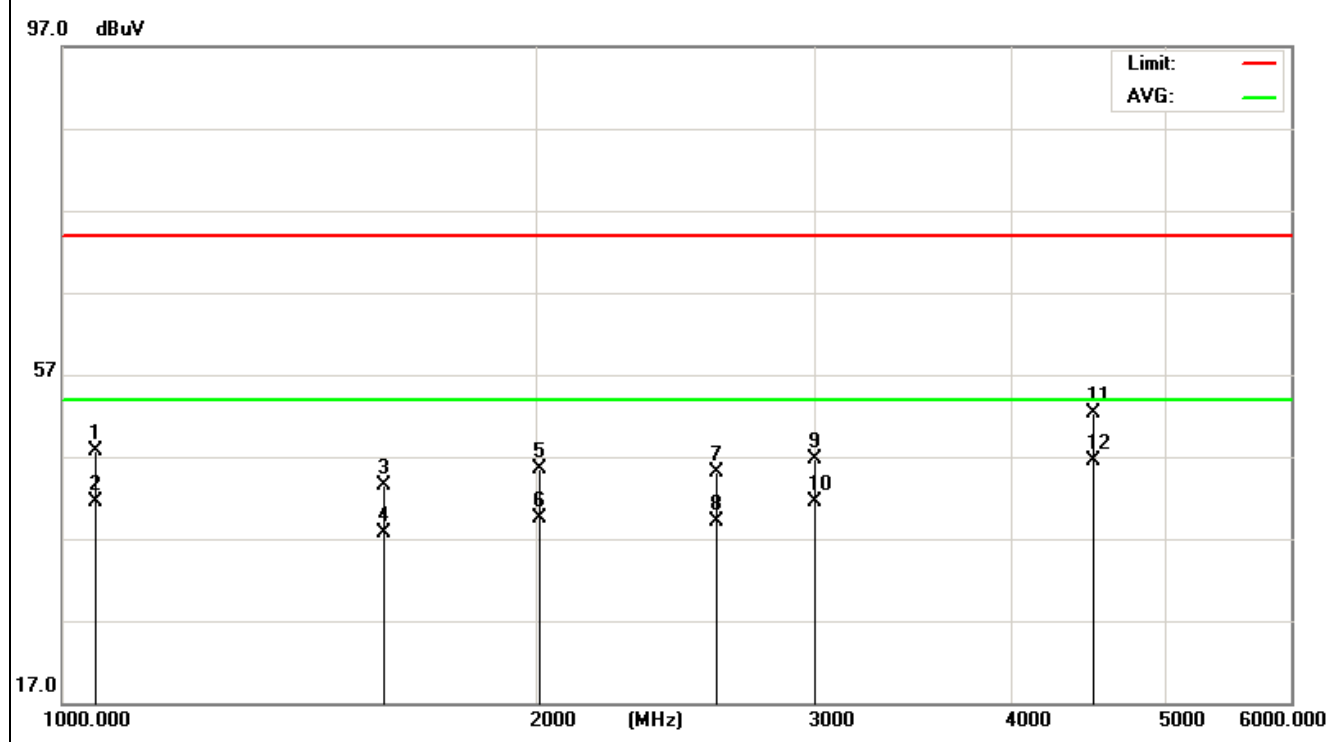
EUT:	Cloud Wifi TV Dongle	Model Name :	YM-8XXX
Temperature:	23 °C	Relative Humidity:	56%
Pressure:	1010hPa	Test Date :	YM-8XXX
Test Mode:	Mode 2 (the worst mode)	Phase :	Horizontal
Test Voltage :	DC 5.0V from PC , AC 120V/60Hz for PC		

Frequency (MHz)	Meter Reading (dBμV)		Factor (dB)	Emission Level (dBμV)		Limits (dBμV)		Margin (dBμV)	
	Peak	Average		Peak	Average	Peak	Average	Peak	Average
1050.000	58.59	52.36	-10.83	47.76	41.53	74.00	54.00	-26.24	-12.47
1600.000	53.48	47.68	-9.89	43.59	37.79	74.00	54.00	-30.41	-16.21
2010.000	54.59	48.55	-8.99	45.60	39.56	74.00	54.00	-28.40	-14.44
2595.000	49.34	43.38	-4.23	45.11	39.15	74.00	54.00	-28.89	-14.85
3000.000	48.34	43.26	-1.68	46.66	41.58	74.00	54.00	-27.34	-12.42
*4500.000	47.44	41.64	4.85	52.29	46.49	74.00	54.00	-21.71	-7.51

Remark:

3. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

4. '*' means the worst case



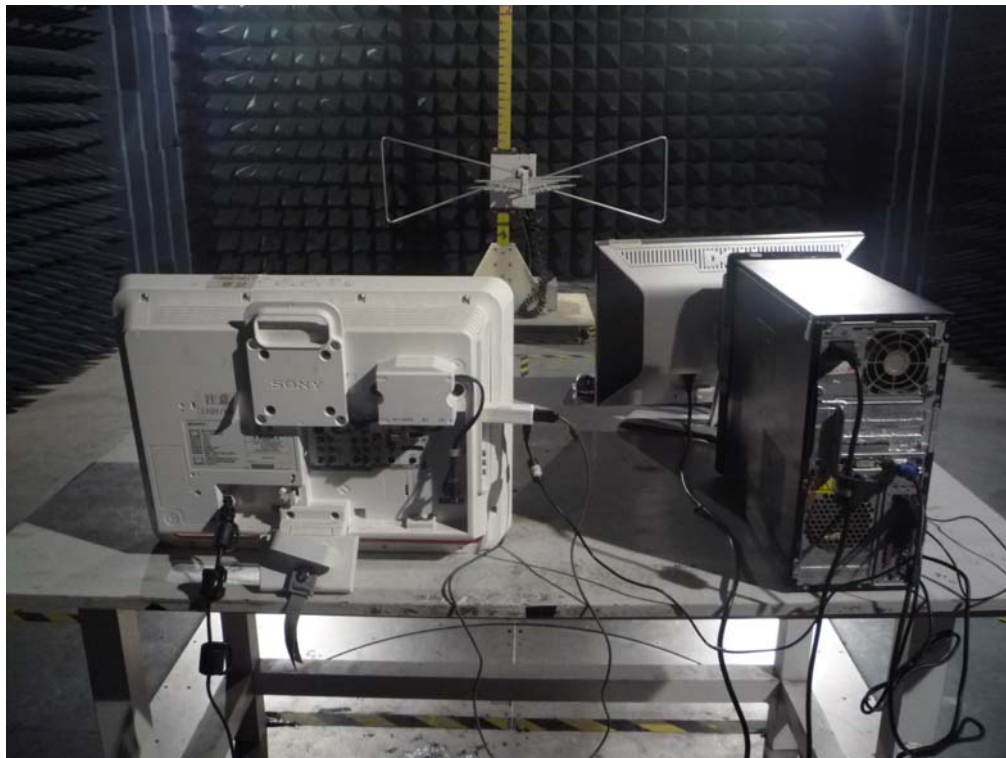
6.2.4 Test Setup photograph

Between 30—1000MHz

Model: YM-8XXX



Model: YM-8XXX

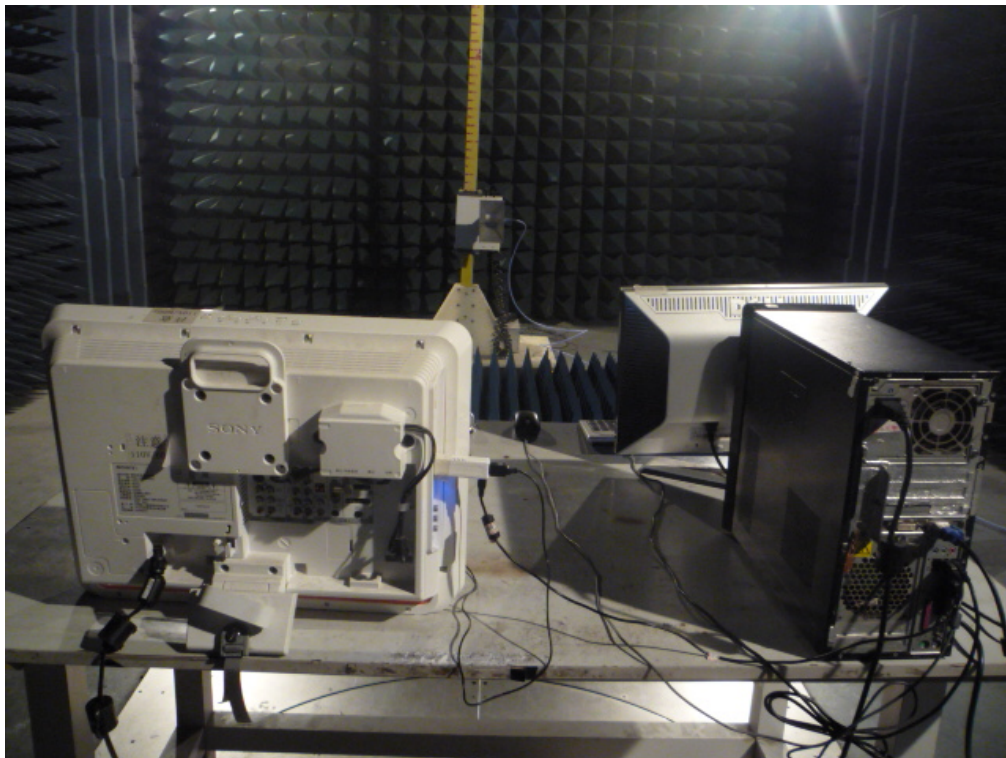


Between 1000—6000MHz

Model: YM-8XXX

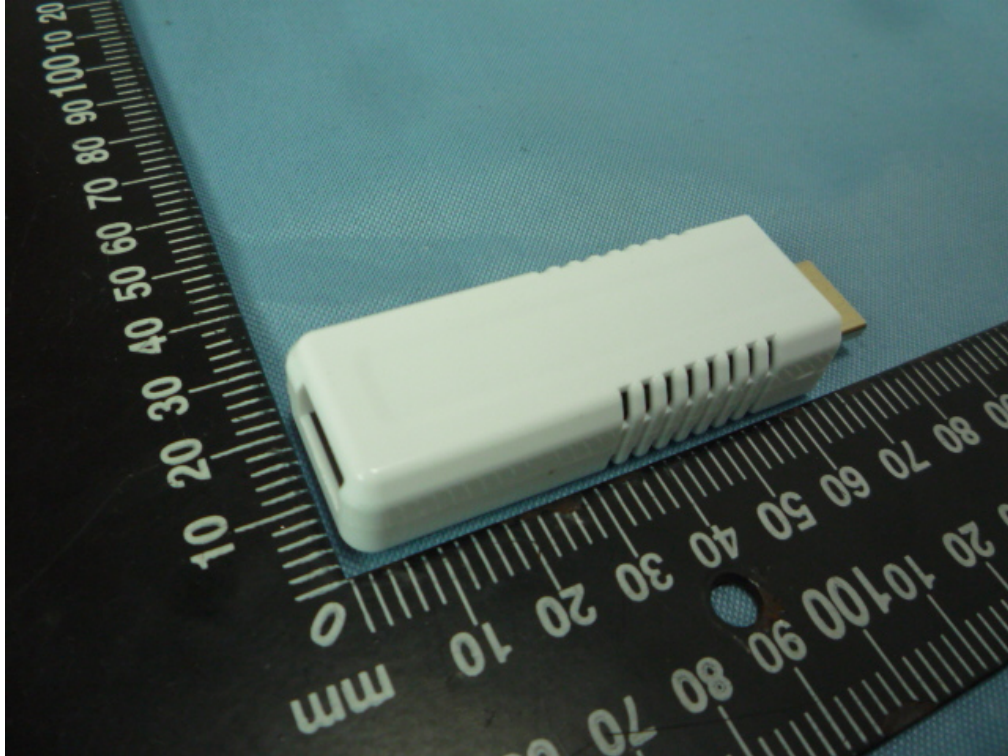


Model: YM-8XXX

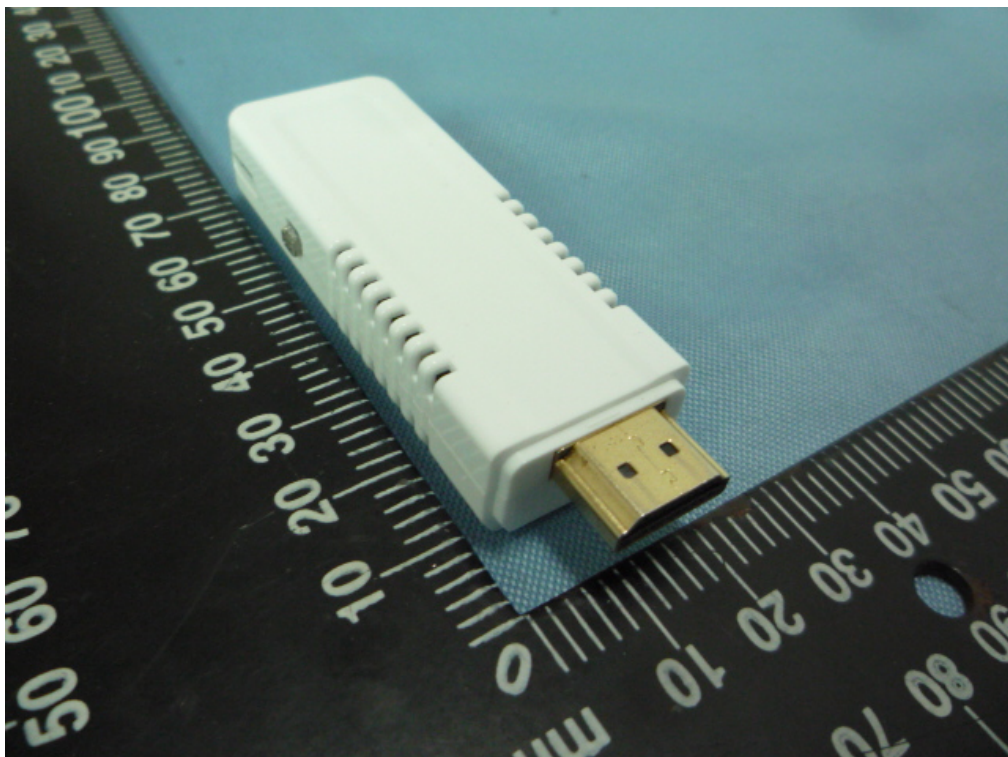


7 APPENDIX-Photographs of EUT Constructional Details

Model: YM-8XXX



Model: YM-8XXX



Model: YM-8XXX



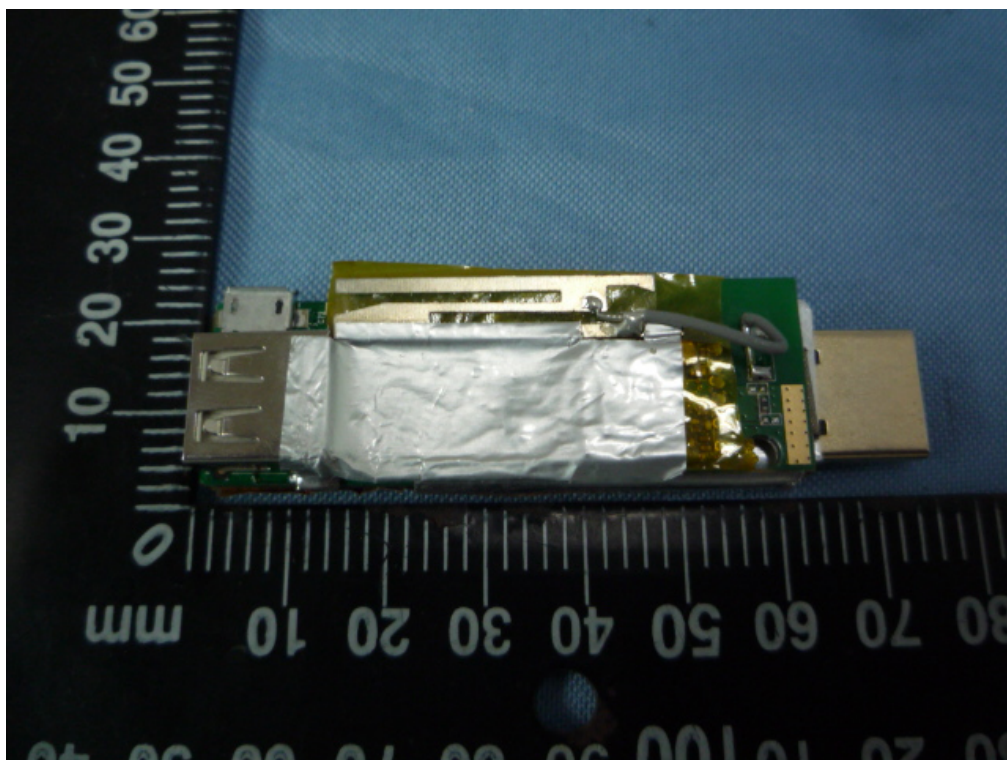
Model: YM-8XXX



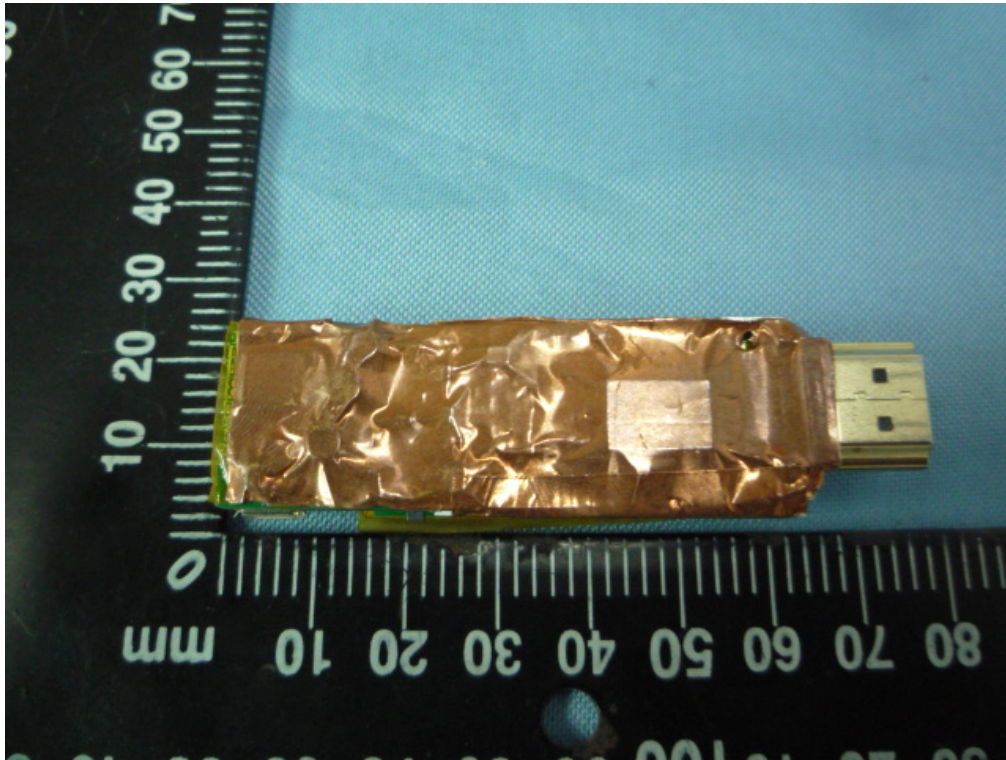
Model: YM-8XXX



Model: YM-8XXX



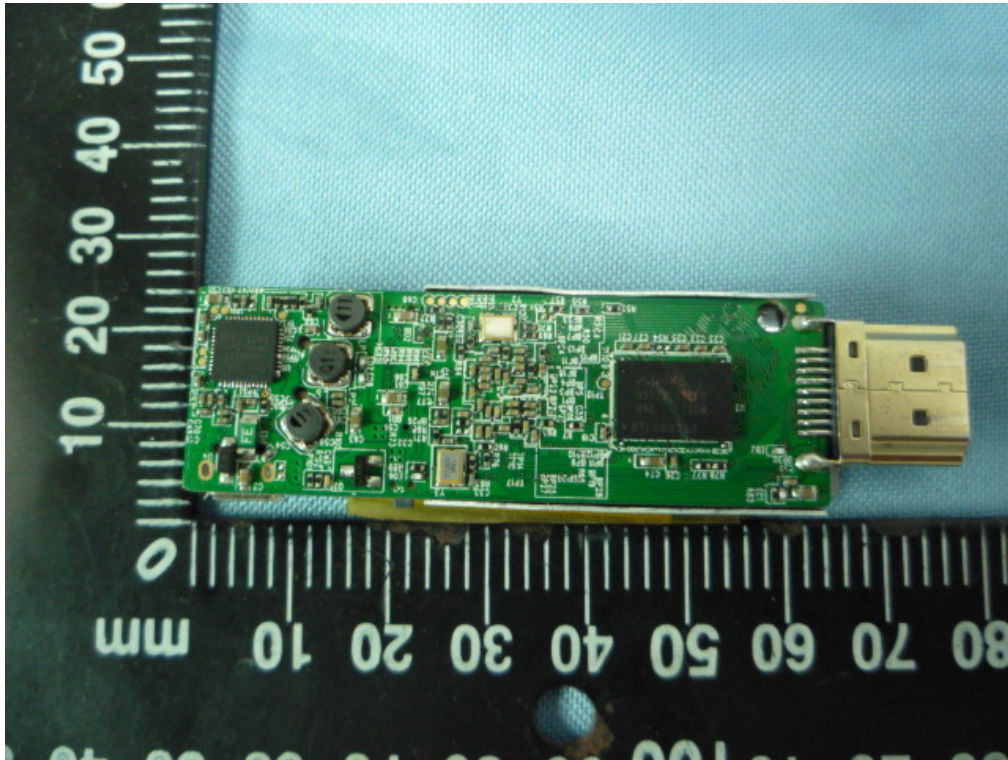
Model: YM-8XXX



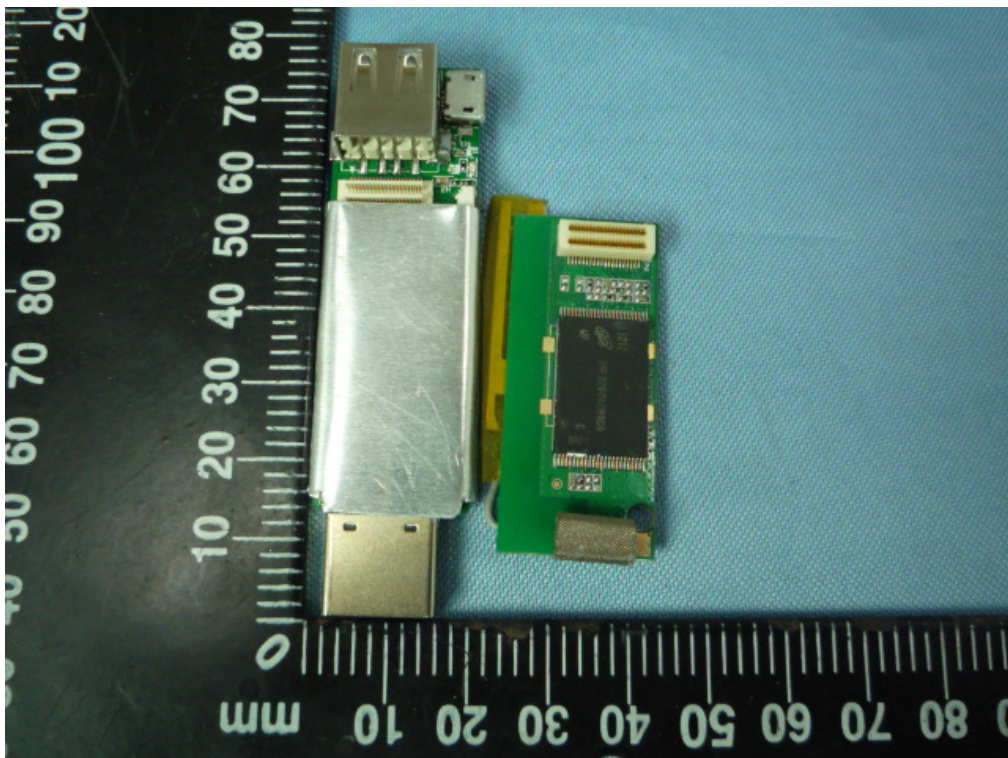
Model: YM-8XXX



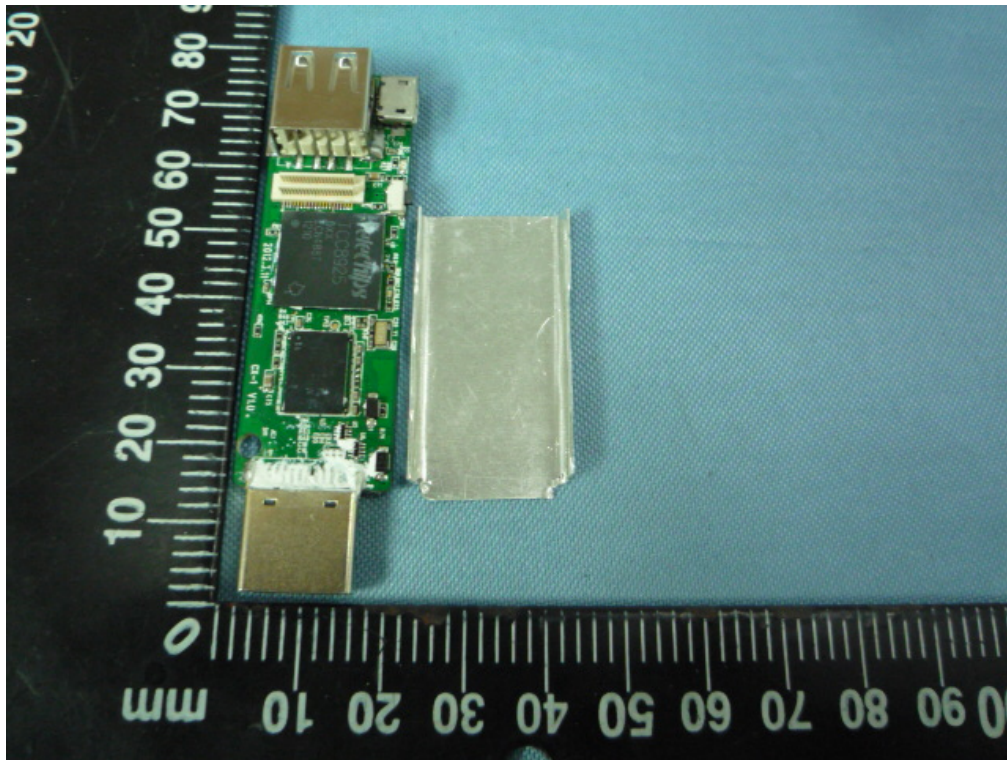
Model: YM-8XXX



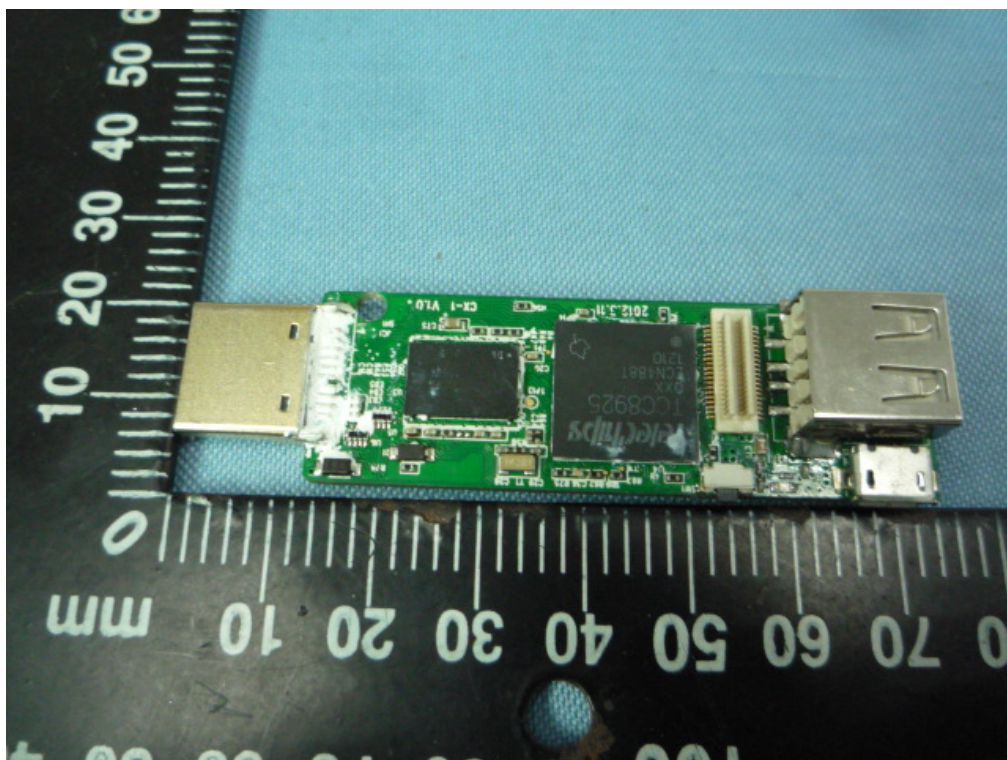
Model: YM-8XXX



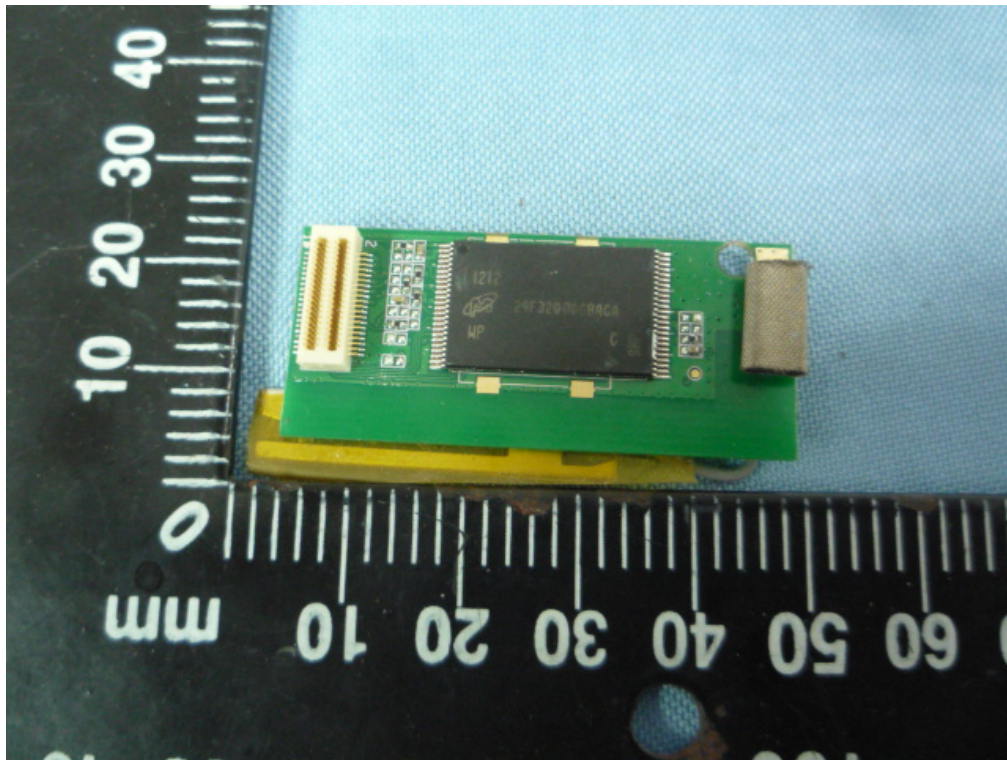
Model: YM-8XXX



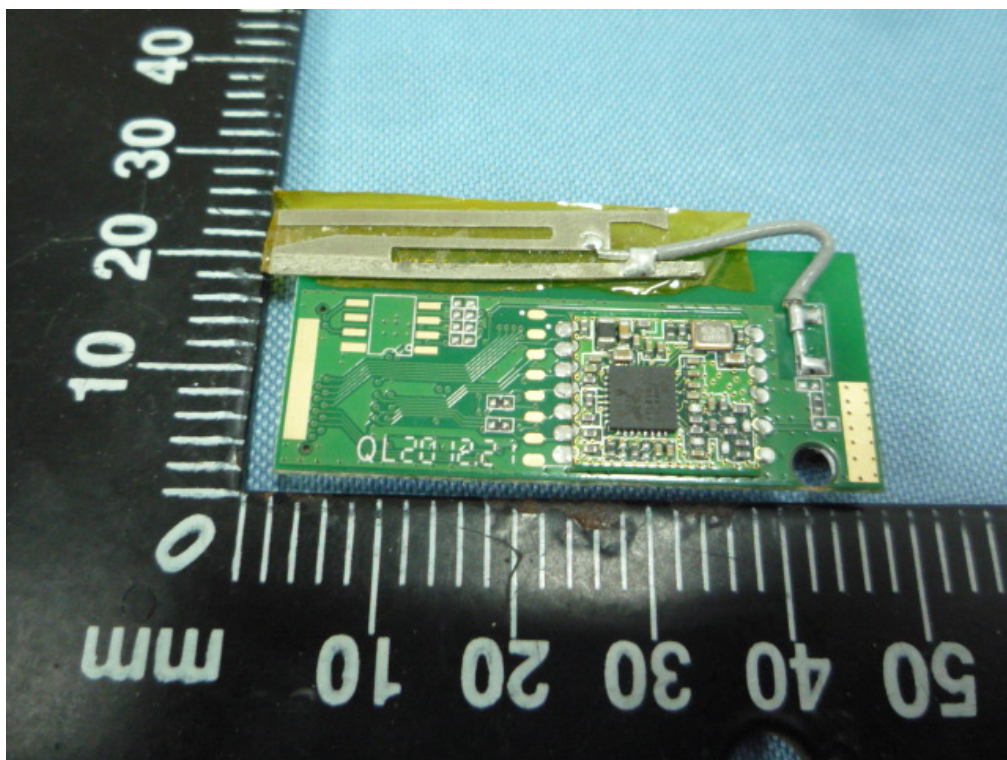
Model: YM-8XXX



Model: YM-8XXX



Model: YM-8XXX



End of the report