



Certificate of Compliance
for the FCC Declaration of Conformity Procedure from the
Conformity Assessment Body
Hong Kong Standards and Testing Centre
Designation Number: HK0001

on the basis of Asia-Pacific Economic Cooperation (APEC) economies' Mutual Recognition Arrangement for Conformity Assessment of Telecommunications Equipment (APEC Tel MRA) scheme sanctioned by the Federal Communications Commission of the United States Government.

Certificate Number: FCC002199
Test Laboratory: The Hong Kong Standards and Testing Centre Ltd.
Test Report / Issued date: MH188686 / 08 July 2013
Applicant: SANHO ELECTRONICS TECHNOLOGY CO., LTD.
Manufacturer: SANHO ELECTRONICS TECHNOLOGY CO., LTD.
Type of Equipment: Wireless Portable Storage Device
Brand Name: Hyper Drive
Model Number: iUSBport Mini

Rules and Regulations

United States CFR 47 FCC Part 15 Subpart B (Unintentional Radiators).

Standards

ANSI C63.4-2009, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9kHz to 40GHz.

Remark

This certificate shall be used in conjunction with the above mentioned test report



Signed by Dr. LEE Kam Chuen,

ElectroMagnetic Compatibility Department

For and on behalf of

Date: 2013-07-08

The Hong Kong Standards and Testing Centre Ltd.

(Conformity Assessment Body CAB under the APEC Tel MRA)



STC Test Report

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Applicant(KAW001): SANHO ELECTRONICS TECHNOLOGY CO., LTD
1/F, BLOCK 1, #1177 LINGYUN ROAD, NINGBO,
CHINA

Manufacturer: SANHO ELECTRONICS TECHNOLOGY CO., LTD
1/F, BLOCK 1, #1177 LINGYUN ROAD, NINGBO,
CHINA

Description of Sample(s): Submitted sample(s) said to be
Product: Wireless Portable Storage Device
Brand Name: Hyper Drive
Model Number: iUSBport Mini

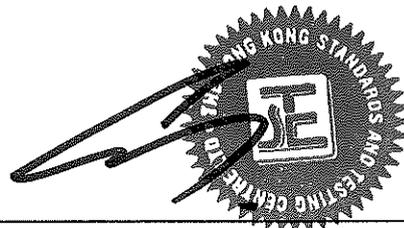
Date Sample(s) Received: 2013-07-03

Date Tested: 2013-07-04

Investigation Requested: FCC Part 15 Subpart B

Conclusion(s): The submitted product COMPLIED with the requirements of Federal Communications Commission [FCC] Rules and Regulations Part 15. The tests were performed in accordance with the standards described above and on Section 2.2 in this Test Report.

Remark(s): The EUT Highest Operating frequency provided by manufacturer is 24MHz (RF function excluded).



Dr. LEE Kam Chuen

Authorized Signatory

ElectroMagnetic Compatibility Department

For and on behalf of

The Hong Kong Standards and Testing Centre Ltd.

The Hong Kong Standards and Testing Centre Limited

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For Conditions of Issuance of this test report, please refer to the overleaf and Website.

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1.0 General Details

**1.1 Equipment Under Test [EUT]
Description of Sample(s)**

Submitted sample(s) said to be	
Product:	Wireless Portable Storage Device
Manufacturer:	SANHO ELECTRONICS TECHNOLOGY CO., LTD 1/F, BLOCK 1, #1177 LINGYUN ROAD, NINGBO, CHINA
Brand Name:	Hyper Drive
Model Number:	iUSBport Mini
Rating:	5Vd.c.(Power by PC USB port)

1.2 Description of EUT Operation

The Equipment Under Test (EUT) is a SANHO ELECTRONICS TECHNOLOGY CO., LTD. Wireless Portable Storage Device. During the test, the EUT was connected to the USB port of a PC and the TF card port was inserted with a TF card to perform data transfer and the USB output port of the EUT was connected to resistive load to simulate the typical of actual usage.

1.3 Date of Order

2013-07-03

1.4 Submitted Sample(s):

1 Sample

1.5 Test Duration

2013-07-04

1.6 Country of Origin

China

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2.0 Technical Details

2.1 Investigations Requested

Perform ElectroMagnetic Interference measurement in accordance with FCC 47CFR [Codes of Federal Regulations] Part 15: 2012 and ANSI C63.4: 2009 for FCC DoC.

2.2 Test Standards and Results Summary Tables

EMISSION Results Summary					
Test Condition	Test Requirement	Test Method	Class / Severity	Test Result	
				Pass	Failed
Radiated Emissions	FCC 47CFR 15.109	ANSI C63.4: 2009	Class B	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Conducted Emissions on AC, 0.15MHz to 30MHz	FCC 47CFR 15.107	ANSI C63.4: 2009	Class B	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.0 Test Results

3.1 Emission

3.1.1 Radiated Emissions

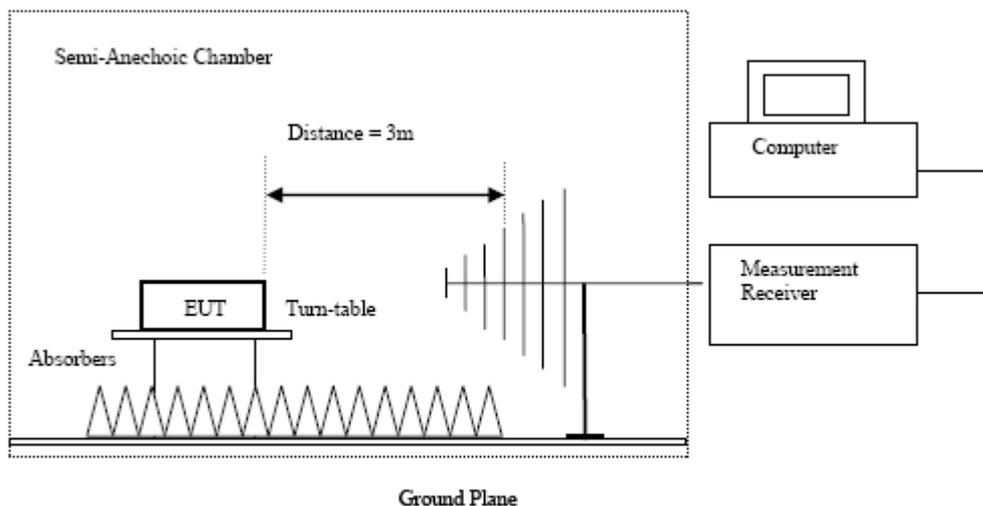
Test Requirement: FCC 47CFR 15.109
Test Method: ANSI C63.4:2009
Test Date: 2013-07-04
Mode of Operation: Download and charge mode(Connected to PC, TF card and EUT USB output port connected to Resistive load)

Test Method:

The sample was placed 0.8m above the ground plane of Semi-Anechoic chamber*. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case are shown in Test Results of the following pages.

*: Semi-Anechoic chamber located on the G/F of The Hong Kong Standards and Testing Centre Ltd. with a metal ground plane filed with the FCC pursuant to section 2.948 of the FCC rules, with Registration Number: 607756.

Test Setup:



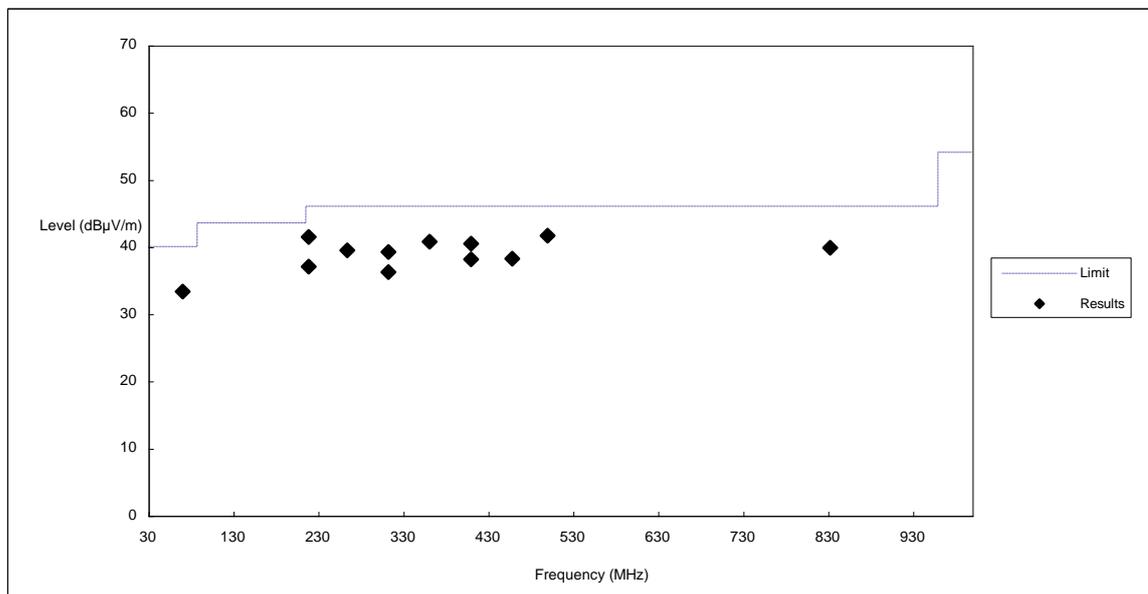
- Absorbers placed on top of the ground plane are for measurements above 1000MHz only.
- Measurements between 30MHz to 1000MHz made with Bi-log antenna, above 1000MHz horn antenna is used.

Limits for Radiated Emissions [FCC 47 CFR 15.109 Class B]:

Frequency Range [MHz]	Quasi-Peak Limits [$\mu\text{V}/\text{m}$]
30-88	100
88-216	150
216-960	200
Above960	500

The emission limits shown in the above table are based on measurement employing a CISPR quasi-peak detector and above 1000MHz are based on measurements employing an average detector.

Results of Download and charge mode(Connected to PC, TF card and EUT USB output port connected to Resistive load) : PASS



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Results of Download and charge mode(Connected to PC, TF card and EUT USB output port connected to Resistive load) : PASS

Radiated Emissions Quasi-Peak					
Emission Frequency MHz	E-Field Polarity	Level @3m dB μ V/m	Limit @3m dB μ V/m	Level @3m μ V/m	Limit @3m μ V/m
219.2	Horizontal	41.4	46.0	117.5	200
264.7	Horizontal	39.4	46.0	93.3	200
313.2	Horizontal	39.2	46.0	91.2	200
361.7	Horizontal	40.7	46.0	108.4	200
410.2	Horizontal	40.4	46.0	104.7	200
833.2	Horizontal	39.8	46.0	97.7	200
70.7	Vertical	33.3	40.0	46.2	100
219.2	Vertical	37.0	46.0	70.8	200
313.2	Vertical	36.2	46.0	64.6	200
410.2	Vertical	38.1	46.0	80.4	200
458.7	Vertical	38.2	46.0	81.3	200
500.5	Vertical	41.6	46.0	120.2	200

Remarks:

Calculated measurement uncertainty (30MHz – 1GHz): 4.9dB

Emissions in the vertical and horizontal polarizations have been investigated and the worst-case test results are recorded in this report.

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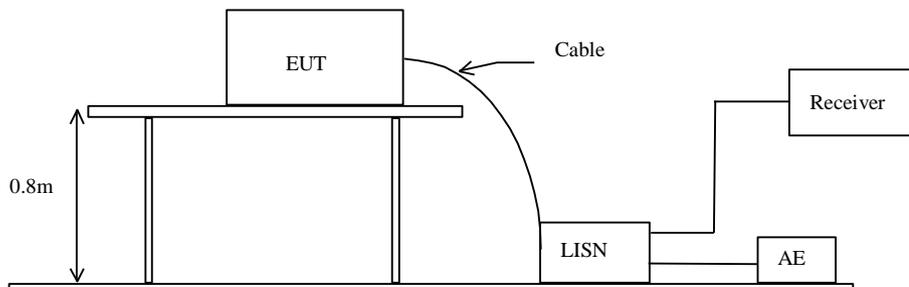
3.1.2 Conducted Emissions (0.15MHz to 30MHz)

Test Requirement: FCC 47CFR 15.107
Test Method: ANSI C63.4:2009
Test Date: 2013-07-04
Mode of Operation: Download and charge mode(Connected to PC, TF card and EUT USB output port connected to Resistive load)

Test Method:

The test was performed in accordance with ANSI C63.4: 2009, with the following: an initial measurement was performed in peak and average detection mode on the live line, any emissions recorded within 30dB of the relevant limit line were re-measured using quasi-peak and average detection on the live and neutral lines with the worst case recorded in the table of results.

Test Setup:



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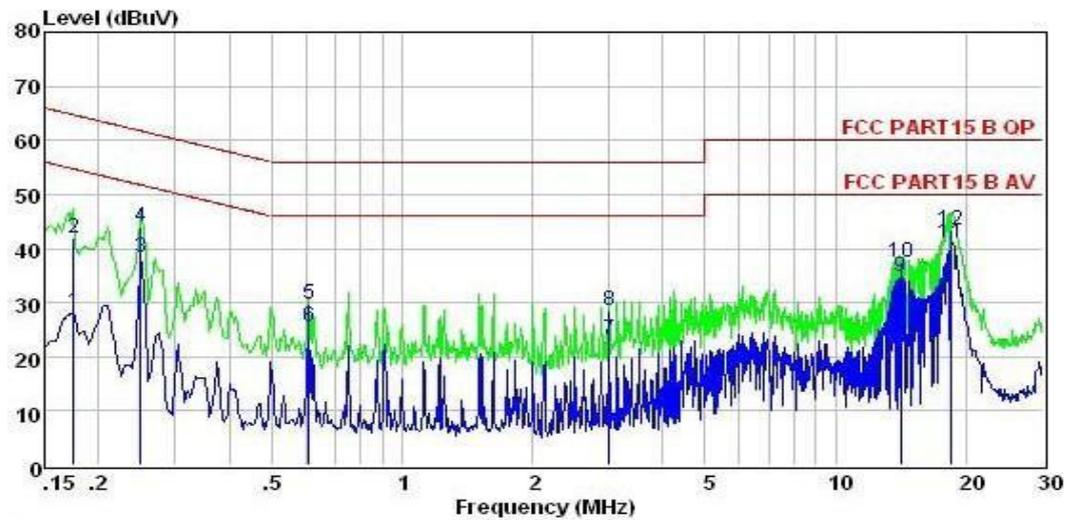
Limit for Conducted Emissions (FCC 47 CFR 15.107):

Frequency Range [MHz]	Quasi-Peak Limits [dB μ V]	Average [dB μ V]
0.15-0.5	66 to 56*	56 to 46*
0.5-5.0	56	46
5.0-30.0	60	50

* Decreases with the logarithm of the frequency.

Limits for Conducted Emissions Test, please refer to limit lines (Quasi-Peak and Average) in the following diagram.

Results of Download and Full load mode(with PC, TF card, EUT USB output port connected to Resistive load, PC mains) (L) : PASS



Conductor Live or Neutral	Frequency MHz	Quasi-peak		Average	
		Level dB μ V	Limit dB μ V	Level dB μ V	Limit dB μ V
Live	0.175	41.8	64.7	28.3	54.7
Live	0.249	43.9	61.8	38.3	51.8
Live	0.611	29.8	56.0	25.6	46.0
Live	3.010	28.6	56.0	23.3	46.0
Live	14.138	37.4	60.0	34.7	50.0
Live	18.524	43.3	60.0	41.0	50.0

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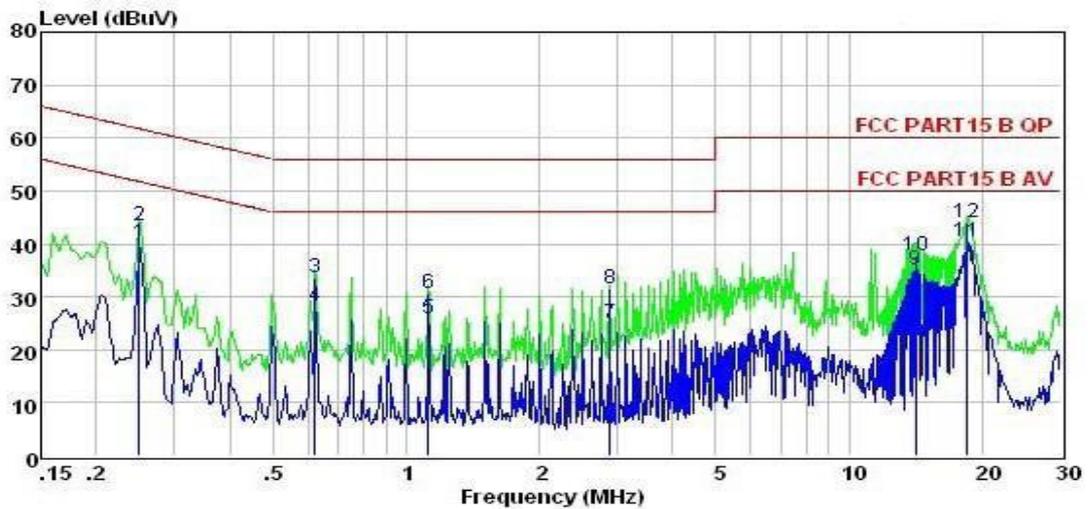
Limit for Conducted Emissions (FCC 47 CFR 15.107):

Frequency Range [MHz]	Quasi-Peak Limits [dBμV]	Average [dBμV]
0.15-0.5	66 to 56*	56 to 46*
0.5-5.0	56	46
5.0-30.0	60	50

* Decreases with the logarithm of the frequency.

Limits for Conducted Emissions Test, please refer to limit lines (Quasi-Peak and Average) in the following diagram.

Results of Download and Full load mode(with PC, TF card, EUT USB output port connected to Resistive load, PC mains) (N) : PASS



Conductor Live or Neutral	Frequency MHz	Quasi-peak		Average	
		Level dBμV	Limit dBμV	Level dBμV	Limit dBμV
Neutral	0.249	43.3	61.8	40.1	51.8
Neutral	0.623	33.5	56.0	28.4	46.0
Neutral	1.123	30.6	56.0	25.9	46.0
Neutral	2.884	31.4	56.0	25.1	46.0
Neutral	14.138	37.8	60.0	35.1	50.0
Neutral	18.524	43.9	60.0	40.3	50.0

Remark:

Calculated measurement uncertainty (0.15MHz – 30 MHz): 3.25dB

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Appendix A

List of Measurement Equipment

Radiated Emission

EQP NO.	DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	LAST CAL	DUE CAL
EM215	MULTIDEVICE CONTROLLER	EMCO	2090	00024676	N/A	N/A
EM216	MINI MAST SYSTEM	EMCO	2075	00026842	N/A	N/A
EM217	ELECTRIC POWERED TURNTABLE	EMCO	2088	00029144	N/A	N/A
EM218	ANECHOIC CHAMBER	ETS-LINDGREN	FACT-3	--	2012/10/25	2013/10/25
EM174	BICONILOG ANTENNA	EMCO	3142B	1671	2012/05/31	2014/05/31
EM229	EMI TEST RECEIVER	R&S	ESIB40	100248	2013/05/07	2014/05/07

Line Conducted

EQP NO.	DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	LAST CAL	DUE CAL
EM232	LISN	SCHAFFNER	NNB41	04/100082	2013/04/15	2014/05/07
EM145	EMI TEST RECEIVER	R & S	ESCS 30	830245/021	2013/05/07	2014/05/07
EM179	IMPULSE LIMITER	ROHDE & SCHWARZ	ESH3-Z2	357-8810.52/54	2013/01/27	2014/01/27
EM154	SHIELDING ROOM	SIEMENS MATSUSHITA COMPONENTS	N/A	803-740-057-99A	2012/02/03	2017/02/03

Remarks:-

CM Corrective Maintenance
N/A Not Applicable or Not Available
TBD To Be Determined

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Appendix B

Ancillary Equipment

ITEM NO.	DESCRIPTION	MODEL NO.	FCC ID	REMARK
1	DELL COMPUTER	DMC	N/A	N/A
2	DELL MONITOR	E177FPB	ARSCM356N	RESOLUTION 1024*768 (DURING TESTING) 1.0M UNSHIEDED POWER VORD CONNECTED TO THE COMPUTER 1.5M SHIEDED CABLE CONNECTED TO THE COMPUTER
3	DELL KEYBOARD	SK-8110	N/A	1.8M SHIEDED COILED CABLE CONNECTED TO THE COMPUTER
4	DELL MOUSE	N/A	N/A	2.4M UNSHIEDED CABLE CONNECTED TO THE COMPUTER
5	LASER PRINTER	HP LaserJet 1020 Plus	N/A	1.8M UNSHIEDED POWER CORD 2.8M SHIEDED CABLE (BUNDLED TO 1M) CONNECTED TO THE COMPUTER
6	TF CARD	SD-002G	N/A	2GB
7	RESISTIVE LOAD	20W20RJ	N/A	20 ohm

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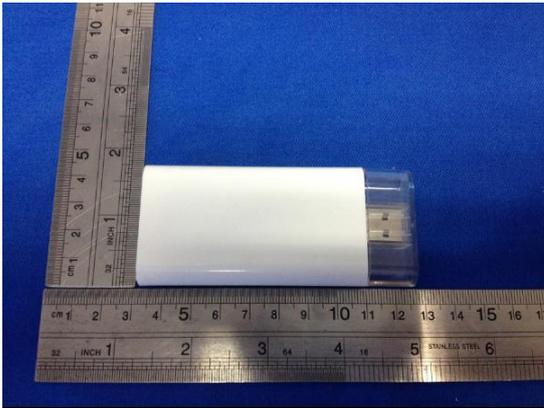
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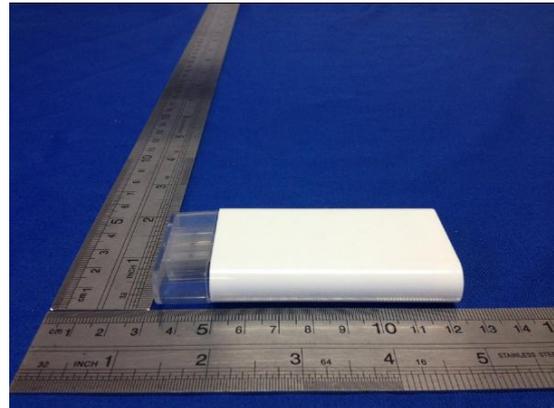
Appendix C

Photographs of EUT

Front View of the Product



Rear View of the Product



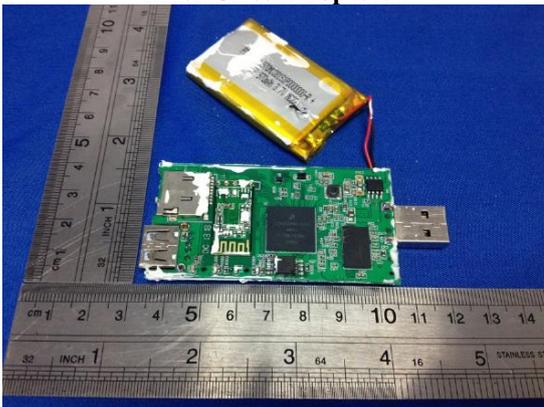
Front View of the Product



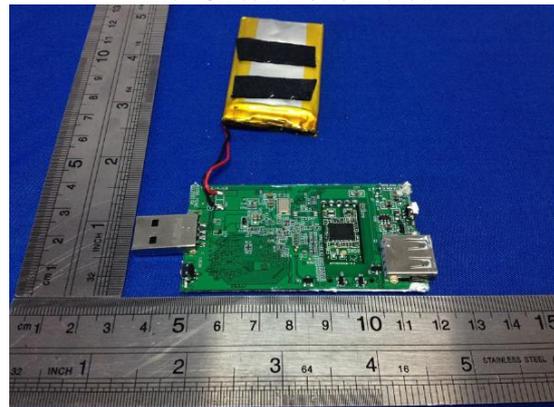
Side View of the Product



Inner Circuit Top View



Inner Circuit Bottom View



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Photographs of EUT

Measurement of Radiated Emission Test Set Up



Measurement of Conducted Emission Test Set Up



******* End of Test Report *******