



# CERTIFICATE OF CONFORMITY

For the following information

Ref. File No.: C1M1503003

Product	Intel® Compute Stick
Test Model	STCK1A32WFC
Family Product Code	xSTCK1xFCx (Where x may be a combination of alphanumeric characters or blank)
Brand Name	Intel® Compute Stick
Applicant	INTEL CORP.
Test Report Number	EM-F150137
Standards	FCC 47 CFR Part 15 Subpart B/Oct. 2014 and ICES-003 Issue 5 Aug. 2012

We hereby certify that the above product has been tested by us and complied with the FCC and IC official limits. These products might be marketed at the US in accordance with FCC Rule based on the standard 47 CFR Part 2 and Part 15 Subpart B class B Equipment Regulations. The test was performed according to the procedures from ANSI C63.4-2009. The test data & results are issued on the test report no. EM-F150137.

Signature

  
 Allen Wang/Assistant General Manager  
 Date: 2015. 03. 18.

Test Laboratory:  
 AUDIX Technology Corporation, EMC Department  
 NVLAP Lab. Code: 200077-0  
 TAF Accreditation No.: 1724  
 FCC OET Designation: TW1004  
 Web Site: www.audixtech.com



NVLAP Lab Code 200077-0



The statement is based on a single evaluation of one sample of the above-mentioned products. It does not imply an assessment of the whole production and does not permit the use of the test lab logo.

**TEST REPORT FOR FCC DoC and INDUSTRY CANADA**

For

**INTEL CORP.****Intel<sup>®</sup> Compute Stick****Test Model: STCK1A32WFC****Family Product Code: xSTCK1xFCx**

(Where x may be a combination of alphanumeric characters or blank)

**Brand: Intel<sup>®</sup>**

Prepared for : INTEL CORP.

HF3-96, 5200 NE ELAM YOUNG PKY,  
HILLSBORO, OR 97124 USA

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File Number : C1M1503003  
Report Number : EM-F150137  
Date of Test : 2015. 03. 04 ~ 13  
Date of Report : 2015. 03. 18

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APPENDIX (Photos of EUT)

## TEST REPORT FOR COMPLIANCE DECLARATION

Applicant : INTEL CORP.  
 EUT Description : Intel<sup>®</sup> Compute Stick  
 (A) Test Model : STCK1A32WFC  
 (B) Family Product Code : xSTCK1xFCx  
 (Where x may be a combination of alphanumeric characters or blank)  
 (C) Serial Number : N/A  
 (D) Brand Name : Intel<sup>®</sup>  
 (E) Power Supply : DC 5V, 2A  
 (F) Test Voltage : AC 120V, 60Hz (Via AC Adapter)

**Measurement Standard Used:**

FCC CFR47 Part 15 Subpart B/Oct. 2014  
 ANSI C63.4-2009  
 ICES-003 Issue 5 Aug. 2012

The device described above was tested by AUDIX Technology Corporation, to determine the maximum emission levels emanating from the device. The maximum emission levels were compared to the FCC Part 15 subpart B with the provisions of sections 15.107 and 15.109 and ICES-003 Class B limits both conducted and radiated emissions.

The measurement results are contained in this test report and AUDIX Technology Corporation is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliant with the FCC and IC official limits.

This report applies to above tested sample only and which shall not be reproduced in part without written approval of AUDIX Technology Corporation.

This report is made under FCC Part 2.1075. No modifications were required during testing to bring this product into compliance.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

Date of Test: 2015. 03. 04 ~ 13 Date of Report: 2015. 03. 18

Producer :   
 (Tina Huang/Administrator)

Signatory:   
 (Allen Wang/Assistant General Manager)

Name of the Representative of the Responsible Party : \_\_\_\_\_

Signature : \_\_\_\_\_

## 1. DESCRIPTION OF VERSION

Edition No.	Date of Revision	Revision Summary	Report Number
0	2015. 03. 18	Original Report.	EM-F150137

## 2. SUMMARY OF STANDARDS AND RESULTS

### 2.1. Description of Standards and Results

The EUT has been tested according to the applicable standards as referenced below.

EMISSION			
Description of Test Item	Standard	Limits	Results
Conducted disturbance at main terminal	FCC CFR 47 Part 15 Subpart B: 2014 and ICES-003: 2012	Class B	PASS
		Minimum passing margin is 7.05dB at 0.320MHz	
Radiated disturbance (30-1000MHz)	FCC CFR 47 Part 15 Subpart B: 2014 and ICES-003: 2012	Class B	PASS
		Minimum passing margin is 4.36dB at 600.36MHz	
Radiated disturbance (Above 1GHz)	FCC CFR 47 Part 15 Subpart B: 2013 and ICES-003: 2012	Class B	PASS
		Minimum passing margin is 10.45dB at 1020.05MHz	
Note: There is no deviation to the applied test methods and requirements covered by the scope of this report.			

### 3. GENERAL INFORMATION

#### 3.1. Description of EUT

Product	Intel® Compute Stick
Test Model	STCK1A32WFC
Family Product Code	xSTCK1xFCx (Where x may be a combination of alphanumeric characters or blank)
Serial Number	N/A
Brand Name	Intel®
Applicant	INTEL CORP. HF3-96, 5200 NE ELAM YOUNG PKY, HILLSBORO, OR 97124 USA
Power Supply Rating	Refer to AC adapter rating
Date of Receipt of Sample	2015. 02. 26.
Interface Ports of EUT	HDMI Port *1 USB 2.0 Port *1 Micro USB 2.0 *1 Micro SD Card Slot *1

### 3.2. Descriptions of Key Components and Operating Modes

#### 3.2.1. List of key components under test

Item	Supplier	Model / Type	Character
Mother Board	Intel	STCK1A32WFC-IS	With 32G eMMC and 2GB memory
		STCK1A8LFC-IS	With 8G Emmc and 1GB memory
CPU (Socket: BGA592)	Intel	Intel® Atom™ CPU Z3735F@1.33GHz	1.33 GHz
Memory	HYNIX	H5TC4G63AFR-PBA	2GB IC DDR3L SDRAM.256M*16
		H5TC2G63FFR	1GB IC DDR3L SDRAM.128M*16
	Micron	MT41K128M16JT	1GB IC DDR3L SDRAM.128M*16
eMMC	SAMSUNG	KLMBG4GEND-B031	32G
		KLM8G1GEAC-B031	8G
	TOSHIBA	THGBMBG8D4KBAIR	32G
		THGBMBG6D1KBAIL	8G
	KINGSTON	EMMC32G-S100-WB9	32G
		EMMC08G-S100	8G
Wi-Fi +BT Combo Module	REALTEK	RTL8723BS	802.11 b/g/n Wireless LAN Bluetooth 2.1+EDR/BT4.0 for BT peripherals
Antenna	Linking Technology Inc.	T-543-8321061	PIFA Antenna, 2.95dBi
AC Adapter	Asian Power Device Inc.	WB-10G05R (Wall-mount, 2C)	AC Input: 100-240V~, 50-60Hz, 0.4A Max. DC Output: 5V, 2A
Micro USB Cable	Shielded, Detachable, 1.0m		
HDMI Cable	Shielded, Detachable, 0.2m		

Remark: For a more detailed features description, please refer to the manufacturer's specifications or the user manual.



## 3.2.2. List of operating modes under test:

SKU #1 ~ 14		1	2	3	4	5	6	7	8	9	10	11	12	13	14
<b>Mother Board</b>	Intel, STCK1A32WFC-IS	V	V	V	V	V	V	V	V	V	V	V	V	V	V
<b>CPU</b>	Intel, Z3735F	V	V	V	V	V	V	V	V	V	V	V	V	V	V
<b>Memory</b>	HYNIX, H5TC4G63AFR-PBA	V	V	V	V	V	V	V	V	V	V	V	V	V	V
<b>eMMC</b>	SAMSUNG, KLMBG4GEND-B031	V			V	V	V	V	V	V	V	V	V	V	V
	TOSHIBA, THGBMBG8D4KBAIR		V												
	KINGSTON, EMMC32G-S100-WB9			V											
<b>Wi-Fi +BT Combo Module</b>	REALTEK, RTL8723BS	V	V	V	V	V	V	V	V	V	V	V	V	V	V
<b>Resolution</b>	1920*1200 60Hz 32bit 200% Font Size	V	V	V							V	V	V	V	V
	1920*1080 60Hz 32bit 200% Font Size				V										
	1600*1200 60Hz 32bit 150% Font Size					V									
	1400*1050 60Hz 32bit 150% Font Size						V								
	1280*1024 75Hz 32bit 125% Font Size							V							
	1024*768 75Hz 32bit 100% Font Size								V						
	800*600 75Hz 32bit 100% Font Size									V					
<b>Cable</b>	with HDMI Cable	V	V	V	V	V	V	V	V	V		V	V	V	V
	without HDMI Cable										V				
<b>AC Adapter</b>	Asian, WB-10G05R.	V	V	V	V	V	V	V	V	V	V	V	V	V	V
<b>Test Voltage</b>	AC 100V, 50Hz											V			
	AC 110V, 60Hz	V	V	V	V	V	V	V	V	V					
	AC 120V, 60Hz												V		
	AC 220V, 60Hz													V	
	AC 230V, 50Hz														V

3.2.3. According to radiated emission pre-test result, the EUT collocates with following worst components (SKU #1), which are used to establish a basic configuration of system during test:

Item	Supplier	Model / Type	Character
Mother Board	Intel	STCK1A32WFC-IS	With 32G eMMC and 2GB memory
CPU (Socket: BGA592)	Intel	Intel® Atom™ CPU Z3735F@1.33GHz	1.33 GHz
Memory	HYNIX	H5TC4G63AFR-PBA	2GB IC DDR3L SDRAM.256M*16
eMMC	SAMSUNG	KLMBG4GEND-B031	32G
Wi-Fi +BT Combo Module	REALTEK	RTL8723BS	802.11 b/g/n Wireless LAN Bluetooth 2.1+EDR/BT4.0 for BT peripherals
Antenna	Linking Technology Inc.	T-543-8321061	PIFA Antenna, 2.95dBi
AC Adapter	Asian Power Device Inc.	WB-10G05R (Wall-mount, 2C)	AC Input: 100-240V~, 50-60Hz, 0.4A Max. DC Output: 5V, 2A
Micro USB Cable	Shielded, Detachable, 1.0m		
HDMI Cable	Shielded, Detachable, 0.2m		

### 3.2.4. Description of Test Modes

Configuration Mode	Memory	eMMC	Resolution	Test Voltage
SKU #1	HYNIX, H5TC4G63AFR-PBA	SAMSUNG, KLMBG4GEND-B031	1920*1200 60Hz 32bit 200% Font Size	AC 120V, 60Hz

### 3.3. Description of Tested Supporting Unit and Cable

#### 3.3.1. Support Peripheral Unit

No.	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A	USB Keyboard	DELL	SK-8175	MY-0W217F-71619-058-1522-A01	By DoC	Provided by LAB
B	LCD Monitor	DELL	U3011T	CN-0PH5NY-74445-1CM-142L	By DoC	Provided by LAB
C	MICRO SD Card	Kingston	NSDC4/8GB	N/A	N/A	Provided by LAB
D	BT Mouse	Logitech	M-R0047-O	1443LZ0A1DDS	FCC ID: JNZMR0047O	Provided by LAB
E	Notebook PC	Lenovo	TP00034A	895097	By DoC	Provided by LAB
F	Wireless Router	ASUS	RT-N53	N/A	FCC ID: MSQ-RT-N53	Provided by LAB

#### 3.3.2. Cable Lists

No.	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	USB Cable	1	1.8	Yes	0	Provided by LAB
2	HDMI Cable	1	0.2	Yes	0	Supplied by Client
3	Micro USB Cable	1	1.0	Yes	0	Supplied by Client
4	LAN Cable	1	10.0	No	0	Provided by LAB

- Note:
- Support Units B: Power Cord: Non-Shielded, Detachable, 1.8m
  - Support Unit E: AC Adapter: DVE, M/N DSA-12G-12 FUS 120120;  
Power Cord: Non-Shielded, Detachable, 1.0m
  - Support Unit F: AC Adapter: Lenovo, M/N ADLX65NCT3A;  
DC Power Cord: Non-Shielded, Undetachable, 1.8m,  
Bonded a ferrite core  
AC Power Cord: Non-Shielded, Detachable, 1.0m
  - The support units (E-F) are communicated partner system.

### 3.4. Description of Test Facility

Name of Firm : **AUDIX Technology Corporation**  
**EMC Department**  
 No. 53-11, Dingfu, Linkou Dist.,  
 New Taipei City 244, Taiwan

Test Facility & Location : **No. 7 Shielded Room**  
 No. 53-11, Dingfu, Linkou Dist.,  
 New Taipei City 244, Taiwan

**No. 1 10m Semi-Anechoic Chamber**  
 No. 53-11, Dingfu, Linkou Dist.,  
 New Taipei City 244, Taiwan  
 Federal Communication Commission  
 Registration Number: 705125  
 Renewal on July 02, 2012

NVLAP Lab. Code : 200077-0

TAF Accreditation No : 1724

### 3.5. Measurement Uncertainty

Test Item	Frequency Range	Uncertainty
Conduction Test	150kHz~30MHz	±3.5dB
Radiation Test (Distance: 10m)	30MHz~1000MHz	±5.3dB
Radiation Test (Distance: 3m)	1GHz ~ 6GHz	±4.8dB
	6GHz ~ 18GHz	±4.8dB

Remark : Uncertainty =  $k_{u_c}(y)$

## 4. POWERLINE CONDUCTED EMISSION MEASUREMENT

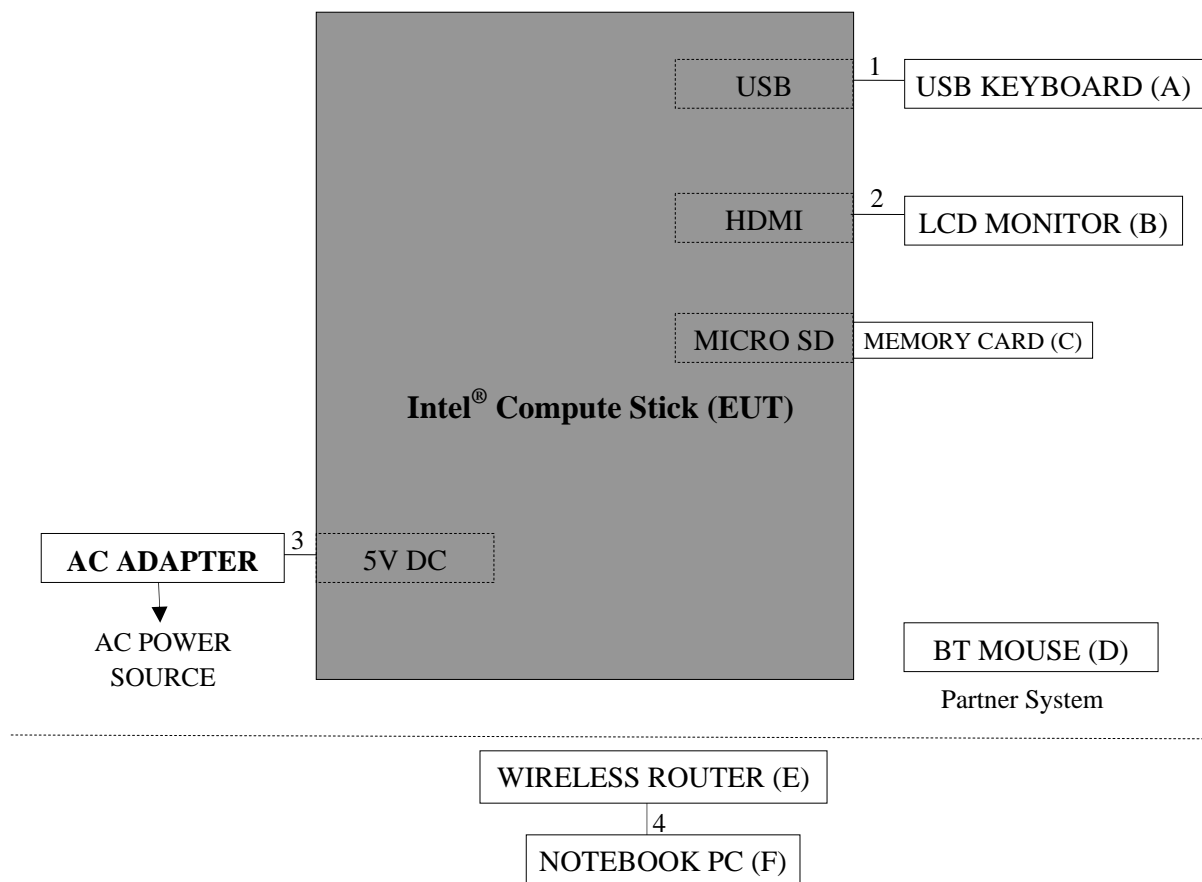
### 4.1. Test Equipment

The following test equipment was used during the powerline conducted emission measurement : (No. 7 Shielded Room)

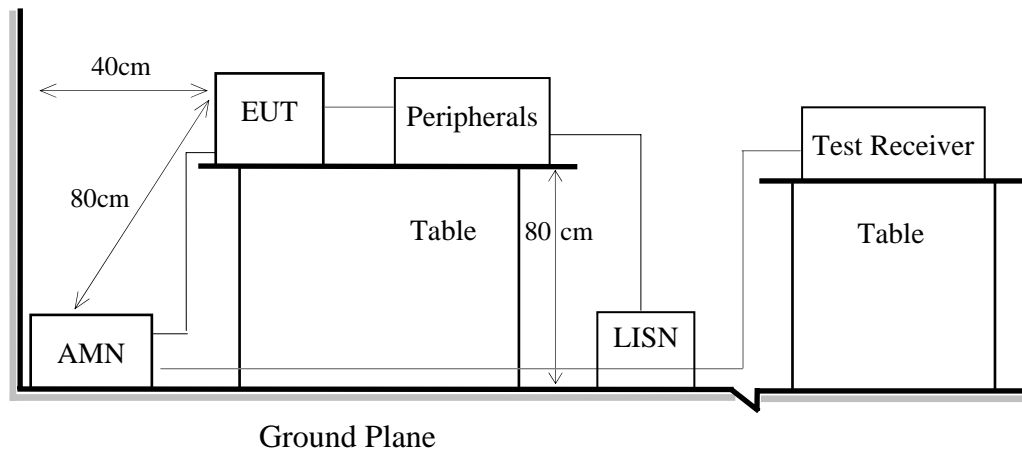
Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
1.	Test Receiver	R&S	ESCI	101276	2014. 04. 14	2015. 04. 13
2.	A.M.N.	R&S	ESH2-Z5	100366	2014. 03. 11	2015. 03. 10
3.	L.I.S.N.	Kyoritsu	KNW-407	8-1539-3	2015. 01. 22	2016. 01. 21
4.	Pulse Limiter	R&S	ESH3-Z2	101495	2015. 01. 17	2016. 01. 16

### 4.2. Block Diagram of Test Setup

#### 4.2.1. Block Diagram of connection between EUT and simulators



4.2.2. Shielded Room Setup Diagram



4.3. Powerline Conducted Emission Limit  
(FCC§15.107/ICES-003, Class B)

Frequency	Maximum RF Line Voltage	
	Quasi-Peak Level	Average Level
150kHz ~ 500kHz	66 ~ 56 dB $\mu$ V	56 ~ 46 dB $\mu$ V
500kHz ~ 5MHz	56 dB $\mu$ V	46 dB $\mu$ V
5MHz ~ 30MHz	60 dB $\mu$ V	50 dB $\mu$ V

- Remark: 1. If the average limit is met when using a Quasi-Peak detector, the EUT shall be deemed to meet both limits and measurement with the average detector is unnecessary.  
 2. The lower limit applies at the band edges.

4.4. Operating Condition of EUT

EUT Exercise Program and Condition	
Operating System	Windows 8.1
Test Program	EMC Test
Graphic Function	Display scrolling “H” pattern with respective resolution at the same time.
WLAN Function	To transmit Data transfer to partner Notebook PC
BT Function	To transfer BT signal to Bluetooth mouse
Card reader	Read/Write operation to memory card
The other peripheral devices were driven and operated in turn during all testing.	

#### 4.5. Test Procedure

The EUT was put on table which was above the ground by 80cm and AC adapter's power cord was connected to the AC mains through an Artificial Mains Network (AMN). The other peripheral devices power cord connected to the power mains through a line impedance stabilization network (LISN). This provided a 50Ω coupling impedance for the tested equipments.

Both sides of A.C. line were checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables were changed according to ANSI C63.4-2009 during conducted measurement.

The bandwidth of the R & S Test Receiver ESCI was set at 9kHz.

The frequency range from 0.15MHz to 30MHz was pre-scanned with a peak detector.

All the final readings from Test Receiver were measured with the Quasi-Peak detector and Average detector. (Remark: If the Average limit is met when using a Quasi-Peak detector, the Average detector is unnecessary)

#### 4.6. Powerline Conducted Emission Measurement Results

**PASSED.** (All emissions not reported below are too low against the prescribed limits.)

The EUT with **the worst test mode (SKU #1)** was measured and the test results are listed in next pages.

EUT: Intel<sup>®</sup> Compute Stick      Test Model: STCK1A32WFC

Test Date: 2015. 03. 04.      Temperature: 21      Humidity: 52%

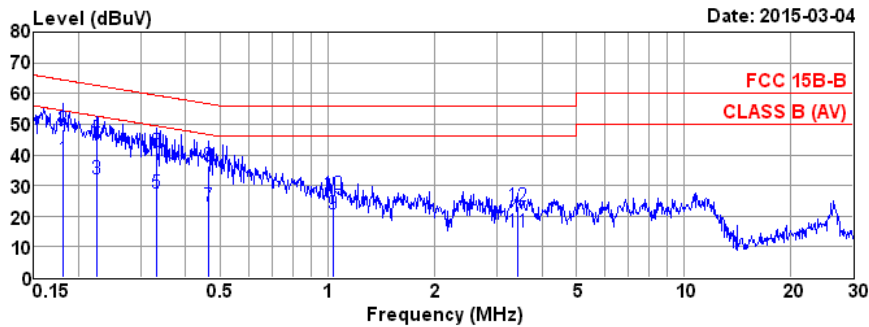
The details of test mode are as follows:

Configuration Mode	Reference Test Data No.	
	Neutral	Line
SKU #1	# 24	# 23



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Data: 24 File: D:\test data\REPORT\2015\1C1M1503\XX\1C1M1503003-C-D.EM6 (30)



Site no. : No.7 Shielded Room Data no. : 24  
 Condition : ESH2-Z5 366 Phase : NEUTRAL  
 Limit : FCC 15B-B  
 Env. / Ins. : 21°C / 62% ESCI (1276) Engineer : Kan  
 EUT : STCK1A32WFC  
 Power Rating : 120Vac/60Hz  
 Test Mode : SKU #1

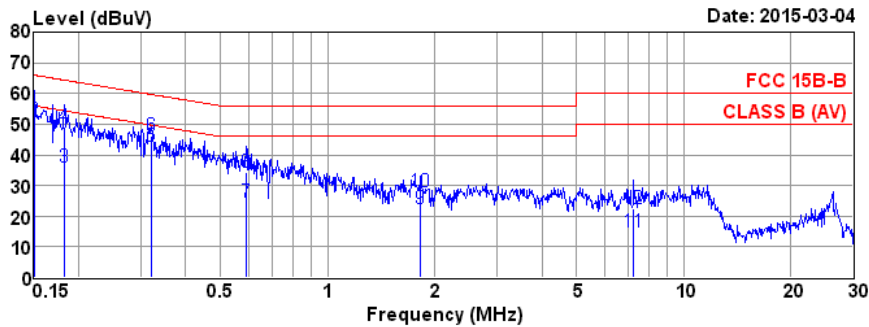
	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Pulse Att. (dB)	Reading (dBμV)	Emission Level (dBμV)	Limits (dBμV)	Margin (dB)	Remark
1	0.182	0.21	0.03	9.85	28.63	38.72	54.42	15.70	Average
2	0.182	0.21	0.03	9.85	38.12	48.21	64.42	16.21	QP
3	0.226	0.21	0.03	9.85	22.26	32.35	52.61	20.26	Average
4	0.226	0.21	0.03	9.85	35.87	45.96	62.61	16.65	QP
5	0.330	0.22	0.03	9.86	17.39	27.50	49.44	21.94	Average
6	0.330	0.22	0.03	9.86	30.78	40.89	59.44	18.55	QP
7	0.464	0.23	0.03	9.87	13.15	23.28	46.63	23.35	Average
8	0.464	0.23	0.03	9.87	26.14	36.27	56.63	20.36	QP
9	1.037	0.23	0.04	9.85	10.75	20.87	46.00	25.13	Average
10	1.037	0.23	0.04	9.85	16.92	27.04	56.00	28.96	QP
11	3.417	0.32	0.08	9.86	4.65	14.91	46.00	31.09	Average
12	3.417	0.32	0.08	9.86	13.22	23.48	56.00	32.52	QP

Remarks: 1. Emission Level= AMN Factor + Cable Loss + Pulse Att. + Reading.  
 2. If the average limit is met when using a quasi-peak detector,  
 the EUT shall be deemed to meet both limits and measurement  
 with average detector is unnecessary.



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Data: 23 File: D:\test data\REPORT\2015\1C1M1503\XX\1C1M1503003-C-D.EM6 (30)



Site no. : No.7 Shielded Room Data no. : 23  
 Condition : ESH2-Z5 366 Phase : LINE  
 Limit : FCC 15B-B  
 Env. / Ins. : 21°C / 62% ESCI (1276) Engineer : Kan  
 EUT : STCK1A32WFC  
 Power Rating : 120Vac/60Hz  
 Test Mode : SKU #1

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Pulse Att. (dB)	Reading (dBμV)	Emission Level (dBμV)	Limits (dBμV)	Margin (dB)	Remark
1	0.151	0.18	0.02	9.85	30.47	40.52	55.96	15.44	Average
2	0.151	0.18	0.02	9.85	41.18	51.23	65.96	14.73	QP
3	0.182	0.18	0.03	9.85	26.05	36.11	54.37	18.26	Average
4	0.182	0.18	0.03	9.85	39.06	49.12	64.37	15.25	QP
5	0.320	0.19	0.03	9.86	32.58	42.66	49.71	7.05	Average
6	0.320	0.19	0.03	9.86	36.10	46.18	59.71	13.53	QP
7	0.592	0.20	0.03	9.86	14.66	24.75	46.00	21.25	Average
8	0.592	0.20	0.03	9.86	24.05	34.14	56.00	21.86	QP
9	1.829	0.24	0.06	9.86	12.10	22.26	46.00	23.74	Average
10	1.829	0.24	0.06	9.86	17.58	27.74	56.00	28.26	QP
11	7.252	0.38	0.12	9.89	4.24	14.63	50.00	35.37	Average
12	7.252	0.38	0.12	9.89	11.90	22.29	60.00	37.71	QP

Remarks: 1. Emission Level= AMN Factor + Cable Loss + Pulse Att. + Reading.  
 2. If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.



## 5. RADIATED EMISSION MEASUREMENT

### 5.1. Test Equipment

The following test equipment was used during the radiated emission measurement :

#### 5.1.1. For 30MHz~1000MHz Frequency (At No.1 10m Semi-Anechoic Chamber)

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
1.	Spectrum Analyzer	Agilent	N9010A-503	MY52220119	2014. 12. 23	2015. 12. 22
2.	Spectrum Analyzer	Agilent	N9010A-503	MY51250850	2015. 03. 05	2016. 03. 04
3.	Test Receiver	R & S	ESCI7	100922	2014. 05. 06	2015. 05. 05
4.	Amplifier	Sonoma	310N	187158	2015. 03. 04	2016. 03. 03
5.	Amplifier	HP	8447D	2727A06166	2015. 02. 05	2016. 02. 04
6.	Bilog Antenna	TESEQ	CBL6112D	33819	2014. 04. 19	2015. 04. 18
7.	Bilog Antenna	TESEQ	CBL6112D	33820	2014. 04. 19	2015. 04. 18

#### 5.1.2. For Above 1GHz Frequency (At No.1 10m Semi-Anechoic Chamber)

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
1.	Spectrum Analyzer	Agilent	N9010A-526	MY51250943	2015. 02. 24	2016. 02. 23
2.	Amplifier	Agilent	8449B	3008A02681	2014. 03. 27	2015. 03. 26
3.	Horn Antenna	EMCO	3117	00114403	2014. 03. 18	2015. 03. 17

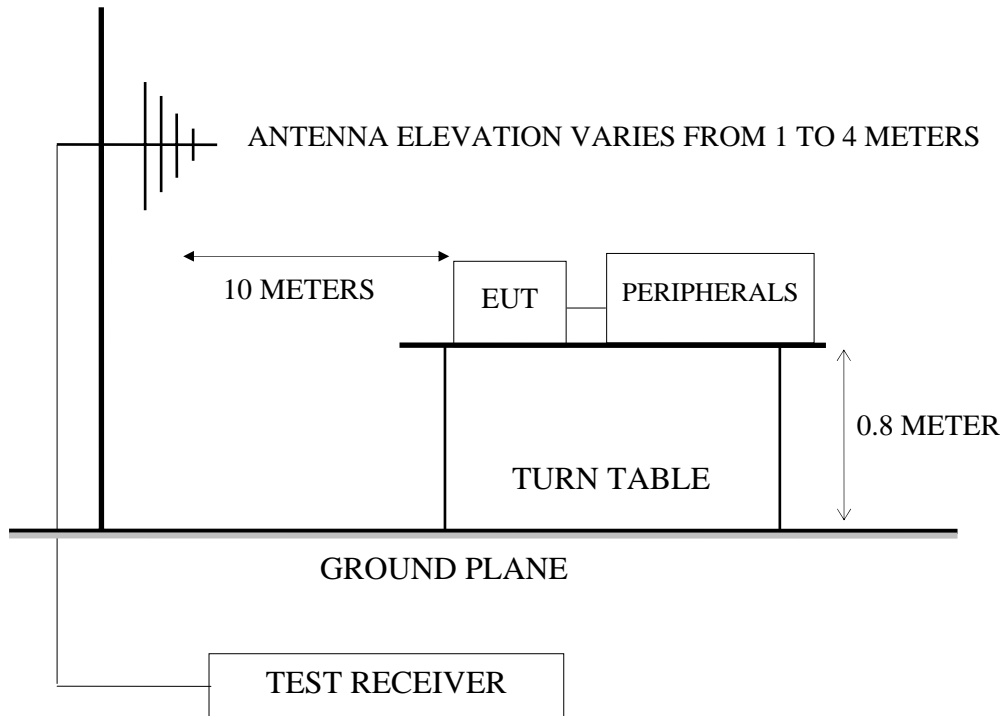
### 5.2. Block Diagram of Test Setup

#### 5.2.1. Block Diagram of connection between EUT and simulators

Same as Section 4.2.1.

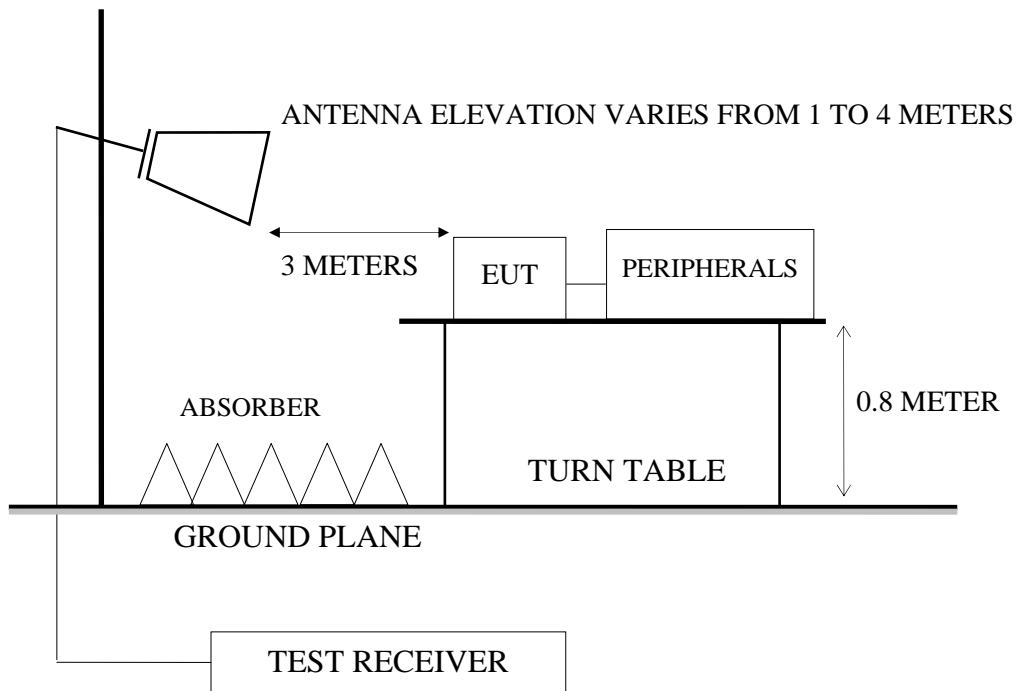
5.2.2. Semi-Anechoic Chamber (10m) Setup Diagram for 30-1000MHz

ANTENNA TOWER



5.2.3. Semi-Anechoic Chamber (3m) Setup Diagram for Above 1GHz

BORE-SIGHT ANTENNA TOWER



### 5.3. Radiation Emission Limit

(FCC§15.109/ICES-003, Class B)

FREQUENCY (MHz)	DISTANCE (Meters)	FIELD STRENGTHS LIMITS (dB $\mu$ V/m)
30 ~ 230	10	30
230 ~ 1000	10	37
Above 1000	3	53.98 (Average)
Above 1000	3	73.98 (Peak)

- Note :
- (1) The tighter limit applies at the edge between two frequency bands.
  - (2) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the E.U.T.
  - (3) The limits applied for radiated emission measurement were used against the requirement of FCC 15.109(a)/(g)

### 5.4. Operating Condition of EUT

Same as powerline conducted emission measurement which is listed in 4.4. except the test set up replaced by section 5.2.

### 5.5. Test Procedure

- 5.5.1. For Frequency Range 30MHz-1000MHz, which was measuring at Semi-Anechoic Chamber:

The EUT and its simulator were placed on a turn table which was 0.8 meter above ground. The turn table rotated 360 degrees to determine the position of the maximum emission level. EUT was set to 10 meters away from the receiving antenna which were mounted on an antenna tower. The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antennas (Bilog Antenna) were used as a receiving antenna. Both horizontal and vertical polarization of the antenna were set on measurement. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4-2009 on radiated measurement.

The bandwidth of the R & S Test Receiver ESCI7 was set at 120 kHz.

The frequency range from 30MHz to 1000MHz was checked with Peak detector and all final readings of measurement were with Quasi-Peak detector at Semi-Anechoic Chamber.

5.5.2. For Frequency Range Above 1GHz, which was measuring at Semi-Anechoic Chamber:

The EUT and its simulators were placed on a turn table which was 0.8 meter above ground. The portion of the test volume that was obstructed by absorber placed on the floor (30cm maximum). The turn table rotated 360 degrees to determine the position of the maximum emission level. EUT was set to 3 meters away from the receiving antenna which was mounted on an antenna tower. The antenna moved up and down between 1 to 4 meters to find out the maximum emission level. A calibrated Horn Antenna was used as a receiving antenna. Both horizontal and vertical polarization of the antenna were set on measurement, and both average and peak emission level were recorded from spectrum analyzer. In order to find the maximum emission level, all the interface cables were manipulated according to ANSI C63.4-2009 on radiated measurement.

The resolution bandwidth of the Agilent Spectrum Analyzer N9010A-526 was set at 1MHz.

The frequency range from Above 1GHz was checked with Peak and Average detector.

### 5.6. Radiated Emission Measurement Results

**PASSED.** (All emissions not reported below are too low against the prescribed limits.)

**For 30MHz~1000MHz frequency range:**

The EUT with **the worst test mode (SKU #1)** was measured and the test results are listed in section 5.6.1.

EUT: Intel® Compute Stick      Test Model: STCK1A32WFC

Test Date: 2015. 03. 13      Temperature: 19      Humidity: 52%

The details of test mode are as follows:

Configuration Mode	Reference Test Data No.	
	Horizontal	Vertical
SKU #1	# 2	# 1

**For Above 1GHz frequency range:**

The EUT with **the worst test mode (SKU #1)** was measured and the test results are listed in section 5.6.2.

EUT: Intel® Compute Stick      Test Model: STCK1A32WFC

Test Date: 2015. 03. 13      Temperature: 19      Humidity: 52%

The details of test mode are as follows:

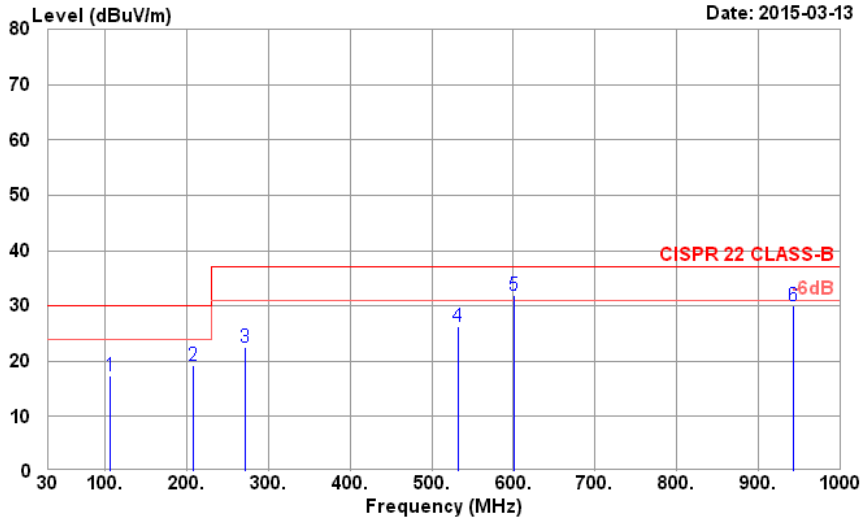
Configuration Mode	Reference Test Data No.	
	Horizontal	Vertical
SKU #1	# 2	# 1

5.6.1. Radiated Emission Measurement Results at Semi-Anechoic Chamber (30 - 1000MHz)



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Data: 2 File: D:\TEST DATA\REPORT\2015\1M1503XXX\1M1503003\1M1503003-10M.EM6 (1



Site no. : NO.1 10M Chamber Data no. : 2  
 Dis. / Ant. : 10m 6112D 33820 Ant. pol. : HORIZONTAL  
 Limit : CISPR 22 CLASS-B  
 Env. / Ins. : 19°C / 52% Engineer : TIM  
 EUT : STCK1A32WFC  
 Power Rating : 120Vac/60Hz  
 Test Mode : SKU#1

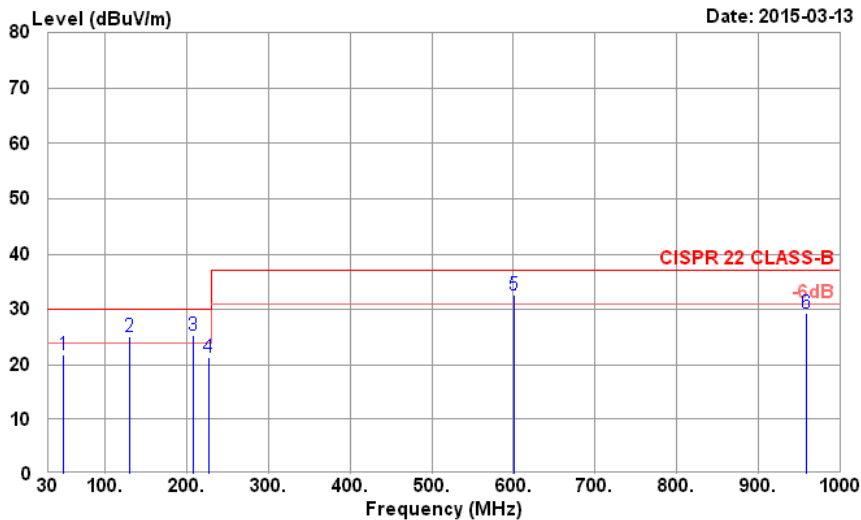
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dB μV)	Emission Level (dB μV/m)	Limits (dB μV/m)	Margin (dB)	Remark
1	106.63	11.42	1.74	4.22	17.38	30.00	12.62	QP
2	208.48	9.86	2.52	6.95	19.33	30.00	10.67	QP
3	271.53	12.75	2.93	6.90	22.58	37.00	14.42	QP
4	532.46	17.49	4.31	4.59	26.39	37.00	10.61	QP
5	600.36	18.35	4.63	8.88	31.86	37.00	5.14	QP *
6	943.74	20.95	5.99	3.19	30.13	37.00	6.87	QP

Remarks: 1.Emission Level= Antenna Factor + Cable Loss + Reading.  
 2.The emission levels that are 20dB below the official limit are not reported  
 3.The worst emission was 31.86dBuV/m at 600.36MHz when antenna was in horizontal polarization, 1.5m height and turn table was at 110°.  
 4.Degree is calculated from 0° clockwise facing the antenna.



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Data: 1 File: D:\TEST DATA\REPORT\2015\1M1503XXX\1C1M1503003\1C1M1503003-10M.EM6 (1



Site no. : NO.1 10M Chamber	Data no. : 1
Dis. / Ant. : 10m 6112D 33819	Ant. pol. : VERTICAL
Limit : CISPR 22 CLASS-B	
Env. / Ins. : 19°C / 52%	Engineer : TIM
EUT : STCK1A32WFC	
Power Rating : 120Vac/60Hz	
Test Mode : SKU#1	

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dB μV)	Emission Level (dB μV/m)	Limits (dB μV/m)	Margin (dB)	Remark
1	48.43	9.15	0.80	11.96	21.91	30.00	8.09	QP
2	129.91	11.69	1.38	12.13	25.20	30.00	4.80	QP
3	208.48	9.80	1.81	13.82	25.43	30.00	4.57	QP
4	226.91	10.95	1.91	8.58	21.44	30.00	8.56	QP
5	600.36	18.26	3.37	11.01	32.64	37.00	4.36	QP *
6	959.26	21.07	4.41	3.80	29.28	37.00	7.72	QP

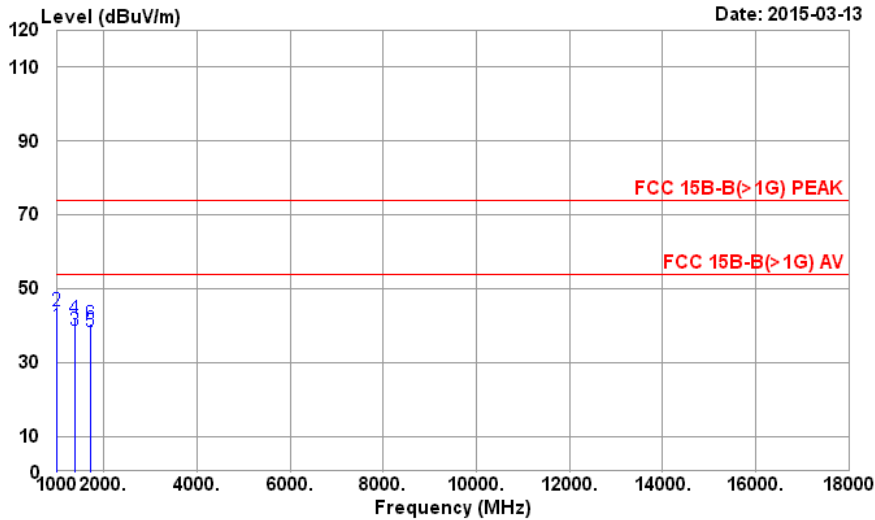
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported  
 3. **The worst emission was 32.64dBuV/m at 600.36MHz when antenna was in vertical polarization, 2.0m height and turn table was at 260°.**  
 4. Degree is calculated from 0° clockwise facing the antenna.

5.6.2. Radiated Emission Measurement Results at Semi-Anechoic Chamber (Above 1GHz)



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Data: 2 File: D:\TEST DATA\REPORT\2015\1M1503XXX\1M1503003\1M1503003-1G.EM6 (10



Site no. : NO.1 10M Chamber  
 Dis. / Ant. : 3m 3117 14403  
 Limit : FCC 15B-B(>1G) PEAK  
 Env. / Ins. : 19°C / 52%  
 EUT : STCK1A32WFC  
 Power Rating : 120Vac/60Hz  
 Test Mode : SKU#1

Data no. : 2  
 Ant. pol. : HORIZONTAL  
 Engineer : TIM

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading (dB μV)	Emission Level (dB μV/m)	Limits (dB μV/m)	Margin (dB)	Remark
1	1005.37	27.70	1.77	36.33	46.55	39.69	53.98	14.29	Average
2	1005.37	27.70	1.77	36.33	50.75	43.89	73.98	30.09	Peak
3	1390.56	27.86	2.13	35.83	44.54	38.70	53.98	15.28	Average
4	1390.56	27.86	2.13	35.83	47.57	41.73	73.98	32.25	Peak
5	1730.66	29.67	2.30	35.60	41.96	38.33	53.98	15.65	Average
6	1730.66	29.67	2.30	35.60	44.00	40.37	73.98	33.61	Peak

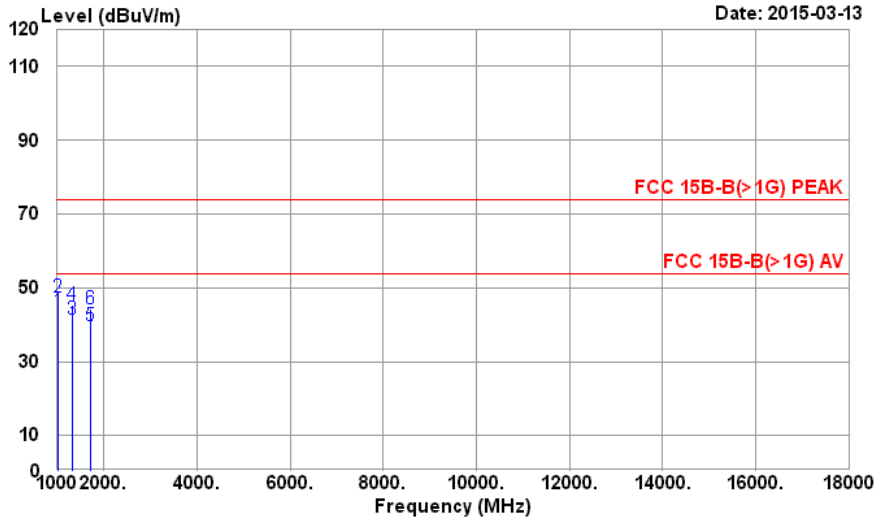
Remarks: 1.Emission Level= Antenna Factor + Cable Loss + Reading - Preamp.  
 2.The emission levels that are 20dB below the official limit are not reported





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Data: 1 File: D:\TEST DATA\REPORT\2015\1M1503XXX\1M1503003\1M1503003-1G.EM6 (10



Site no. : NO.1 10M Chamber Data no. : 1  
 Dis. / Ant. : 3m 3117 14403 Ant. pol. : VERTICAL  
 Limit : FCC 15B-B(>1G) PEAK  
 Env. / Ins. : 19°C / 52% Engineer : TIM  
 EUT : STCK1A32WFC  
 Power Rating : 120Vac/60Hz  
 Test Mode : SKU#1

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading (dB μV)	Emission Level (dB μV/m)	Limits (dB μV/m)	Margin (dB)	Remark
1	1020.05	27.71	1.78	36.31	50.35	43.53	53.98	10.45	Average
2	1020.05	27.71	1.78	36.31	54.39	47.57	73.98	26.41	Peak
3	1340.25	27.84	2.09	35.90	47.54	41.57	53.98	12.41	Average
4	1340.25	27.84	2.09	35.90	51.35	45.38	73.98	28.60	Peak
5	1710.02	29.55	2.30	35.61	43.54	39.78	53.98	14.20	Average
6	1710.02	29.55	2.30	35.61	47.98	44.22	73.98	29.76	Peak

Remarks: 1.Emission Level= Antenna Factor + Cable Loss + Reading - Preamp.  
 2.The emission levels that are 20dB below the official limit are not reported

## 6. PHOTOGRAPHS

### 6.1. Photos of Powerline Conducted Emission Measurement



FRONT VIEW OF CONDUCTED MEASUREMENT



BACK VIEW OF CONDUCTED MEASUREMENT

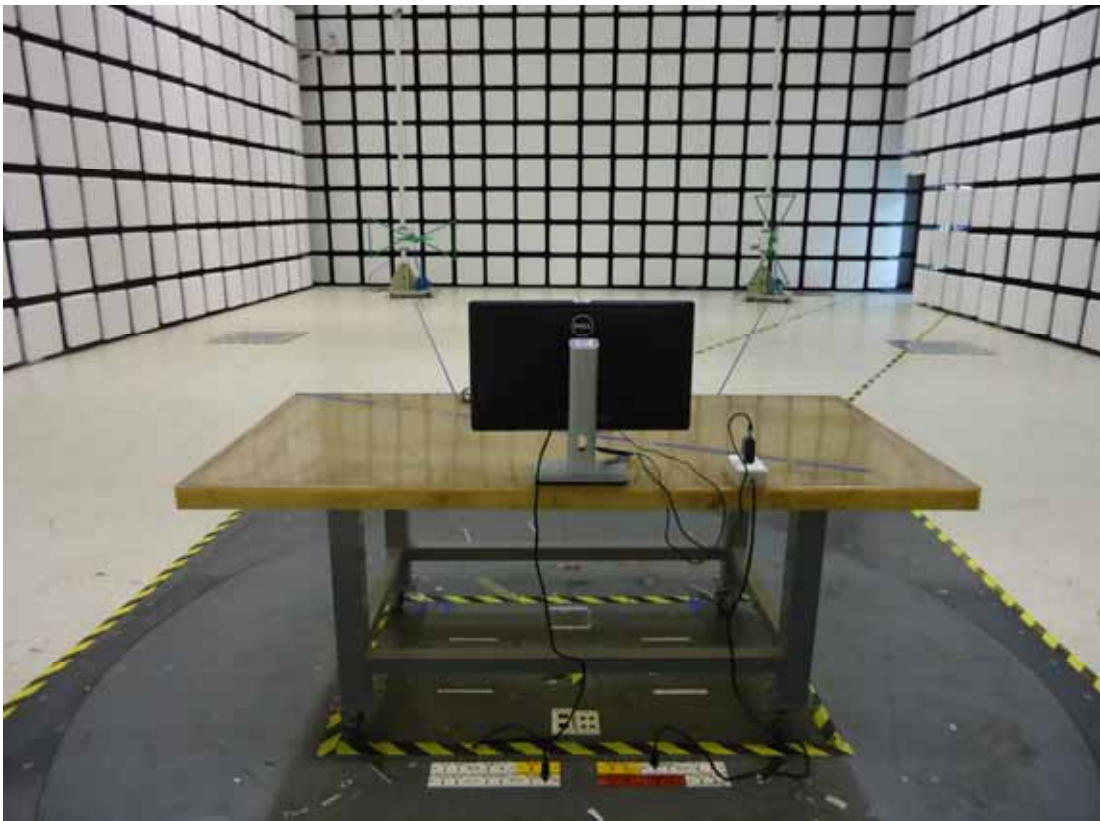


ZOOM-IN VIEW OF EUT

## 6.2. Photos of Radiated Emission Measurement at Semi-Anechoic Chamber (30-1000MHz)

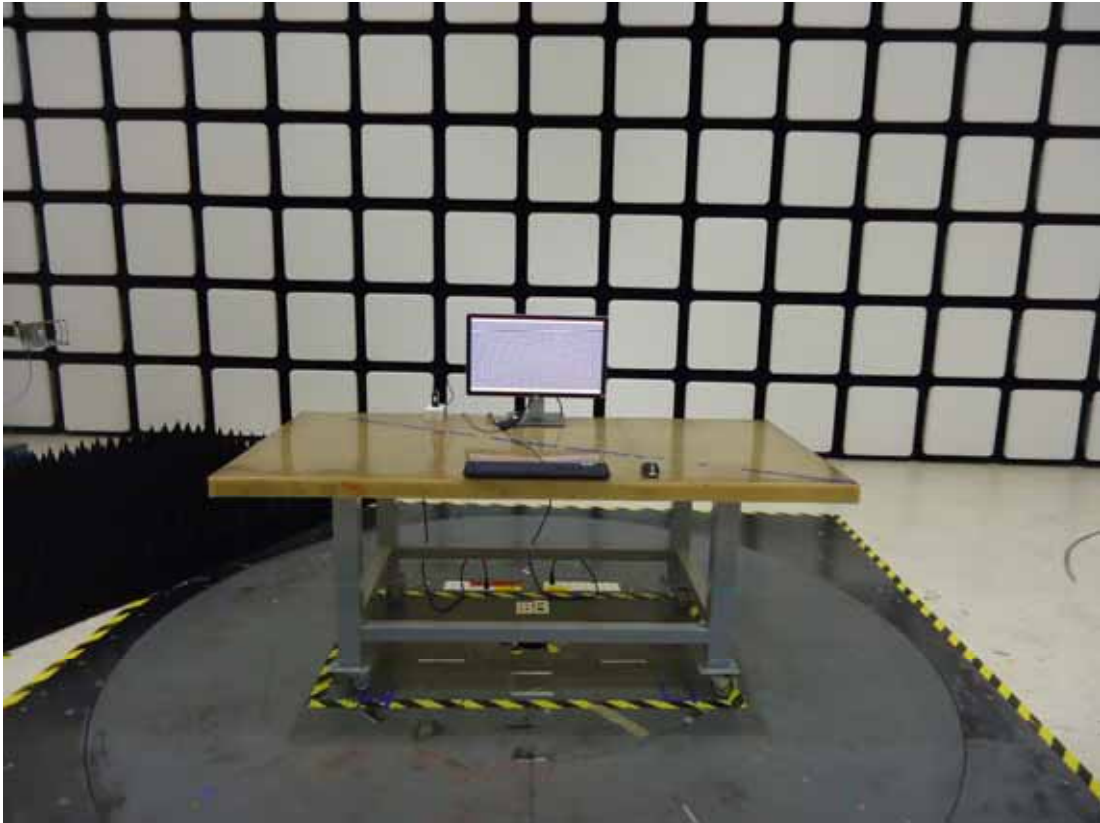


FRONT VIEW OF RADIATED MEASUREMENT

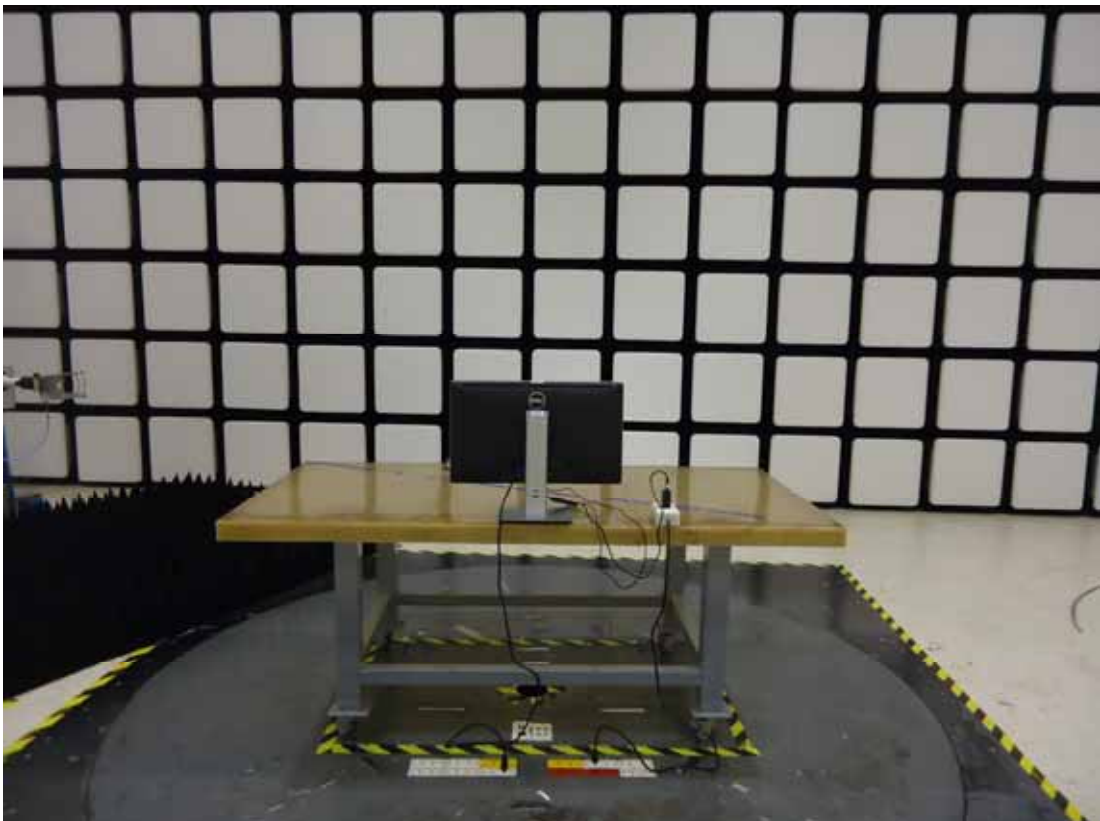


BACK VIEW OF RADIATED MEASUREMENT

6.3. Photo of Radiated Emission Measurement at Semi-Anechoic Chamber  
(Above 1GHz)



FRONT VIEW OF RADIATED MEASUREMENT



BACK VIEW OF RADIATED MEASUREMENT





PARTNER SYSTEM