



CERTIFICATE OF CONFORMITY

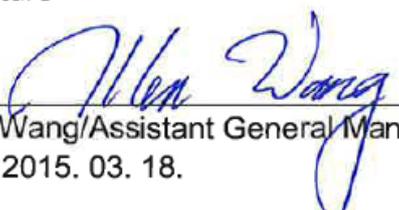
For the following information

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®
Applicant	INTEL CORP.
Test Report Number	EM-V150032
Standards	Agreement of VCCI by ITE, Apr. 2014 (Regulation of VCCI V-2/Apr. 2012 and V-3/Apr. 2014 and V-4/Apr. 2012)

We hereby certify that the above product has been tested by us and complied with the VCCI official limits. The test was performed according to the procedures from Agreement of VCCI by ITE (Apr. 2014). The test data & results are issued on the test report no. EM-V150032.

Signature


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

Test Laboratory:
 AUDIX Technology Corporation, EMC Department
 VCCI Registration No.: C-4426 & R-3918 & G-628
 TAF Accreditation No.: 1724
 Web Site: www.audixtech.com



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.

RFI/EMI TEST REPORT FOR VCCI
for
INTEL CORP.
Intel[®] Compute Stick
Test Model: STCK1A32WFC
Family Product Code: xSTCK1xFCx
(Where x may be a combination of alphanumeric characters or blank)
Brand: Intel[®]

Prepared for : INTEL CORP.
HF3-96, 5200 NE ELAM YOUNG PKY,
HILLSBORO, OR 97124 USA

Prepared by : AUDIX Technology Corporation
EMC Department
No. 53-11, Dingfu, Linkou Dist.,
New Taipei City 244, Taiwan

Tel: (02) 2609-9301, 2609-2133
Fax: (02) 2609-9303

File Number : C1M1503003
Report Number : EM-V150032
Date of Test : 2015. 03. 04 ~ 13
Date of Report : 2015. 03. 18

TABLE OF CONTENTS

Description	Page
Test Report Verification.....	4
1. DESCRIPTION OF VERSION	5
2. SUMMARY OF STANDARDS AND RESULTS.....	6
2.1. Description of Standards and Results.....	6
3. GENERAL INFORMATION	7
3.1. Description of EUT	7
3.2. Descriptions of Key Components and Operating Modes.....	8
3.3. Description of Tested Supporting Unit and Cable.....	10
3.4. Description of Test Facility	11
3.5. Measurement Uncertainty	11
4. CONDUCTED DISTURBANCE MEASUREMENT	12
4.1. Test Equipment	12
4.2. Block Diagram of Test Setup	12
4.3. Limits for Conducted Disturbance	13
4.4. Operating Condition of EUT.....	13
4.5. Test Procedure.....	14
4.6. Conducted Disturbance Measurement Results.....	14
5. RADIATED DISTURBANCE MEASUREMENT.....	17
5.1. Test Equipment	17
5.2. Block Diagram of Test Setup	17
5.3. Limits for Radiated Disturbance	19
5.4. Operating Condition of EUT.....	19
5.5. Test Procedure.....	19
5.6. Radiated Disturbance Measurement Results.....	21
6. PHOTOGRAPHS.....	26
6.1. Photos of Conducted Disturbance Measurement	26
6.2. Photos of Radiated Disturbance Measurement at Semi-Anechoic Chamber (30-1000MHz).....	28
6.3. Photo of Radiated Disturbance Measurement at Semi-Anechoic Chamber (Above 1GHz).....	29
APPENDIX (Photos of EUT)	
APPENDIX II (Lab. Certificates)	

TEST REPORT VERIFICATION

Applicant : INTEL CORP.
EUT Description : Intel® 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®
(E) Power Supply : DC 5V, 2A
(F) Test Voltage : AC 100V, 50Hz (Via AC Adapter)

Measurement Standards Used:

Agreement of VCCI by ITE, Apr. 2014
(Regulation of VCCI V-2/Apr. 2012 and V-3/Apr. 2014 and V-4/Apr. 2012)

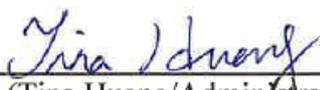
The device described above was tested by AUDIX Technology Corporation to determine the maximum emission levels emanating from the device. The maximum emission levels were compared to the VCCI Class B limits of the VCCI for both radiated and conducted emissions.

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 compliance with the VCCI official limits.

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

Date of Test: 2015. 03. 04 ~ 13

Date of Report: 2015. 03. 18

Producer : 
(Tina Huang/Administrator)

Signatory: 
(Allen Wang/Assistant General Manager)

1. DESCRIPTION OF VERSION

Edition No.	Date of Revision	Revision Summary	Report Number
0	2015. 03. 18.	Original Report.	EM-V150032

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 AC Main Port	VCCI V-3, Apr. 2014	Class B	PASS
		Minimum passing margin is 6.68dB at 0.320MHz	
Conducted disturbance at Telecommunication Port	VCCI V-3, Apr. 2014	Class B	N/A
Radiated disturbance (30-1000MHz)	VCCI V-3, Apr. 2014	Class B	PASS
		Minimum passing margin is 4.10dB at 603.27MHz	
Radiated disturbance (Above 1GHz)	VCCI V-3, Apr. 2014	Class B	PASS
		Minimum passing margin is 6.67dB at 11020.12MHz	
N/A is an abbreviation for Not Applicable.			

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 (VSO/GWI0614-2)		

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
Mother Board	Intel, STCK1A32WFC-IS	V	V	V	V	V	V	V	V	V	V	V	V	V	V
CPU	Intel, Z3735F	V	V	V	V	V	V	V	V	V	V	V	V	V	V
Memory	HYNIX, H5TC4G63AFR-PBA	V	V	V	V	V	V	V	V	V	V	V	V	V	V
eMMC	SAMSUNG, KLMBG4GEND-B031	V			V	V	V	V	V	V	V	V	V	V	V
	TOSHIBA, THGBMBG8D4KBAIR		V												
	KINGSTON, EMMC32G-S100-WB9			V											
Wi-Fi +BT Combo Module	REALTEK, RTL8723BS	V	V	V	V	V	V	V	V	V	V	V	V	V	V
Resolution	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					
Cable	with HDMI Cable	V	V	V	V	V	V	V	V	V		V	V	V	V
	without HDMI Cable										V				
AC Adapter	Asian, WB-10G05R.	V	V	V	V	V	V	V	V	V	V	V	V	V	V
Test Voltage	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 (VSO/GWI0614-2)		

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 100V, 50Hz

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 (VSO/GWI0614-2)
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
 VCCI Registration No.: C-4426
 Expired Date: December 24, 2015

No. 1 10m Semi-Anechoic Chamber
 No. 53-11, Dingfu, Linkou Dist.,
 New Taipei City 244, Taiwan
 VCCI Registration No.: R-3918
 Expired Date: October 15, 2015
 VCCI Registration No.: G-628
 Expired Date: November 20, 2015

NVLAP Lab. Code : 200077-0

TAF Accreditation No. : 1724

VCCI Member No. : 237

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

Remark : Uncertainty = $ku_c(y)$

4. CONDUCTED DISTURBANCE MEASUREMENT

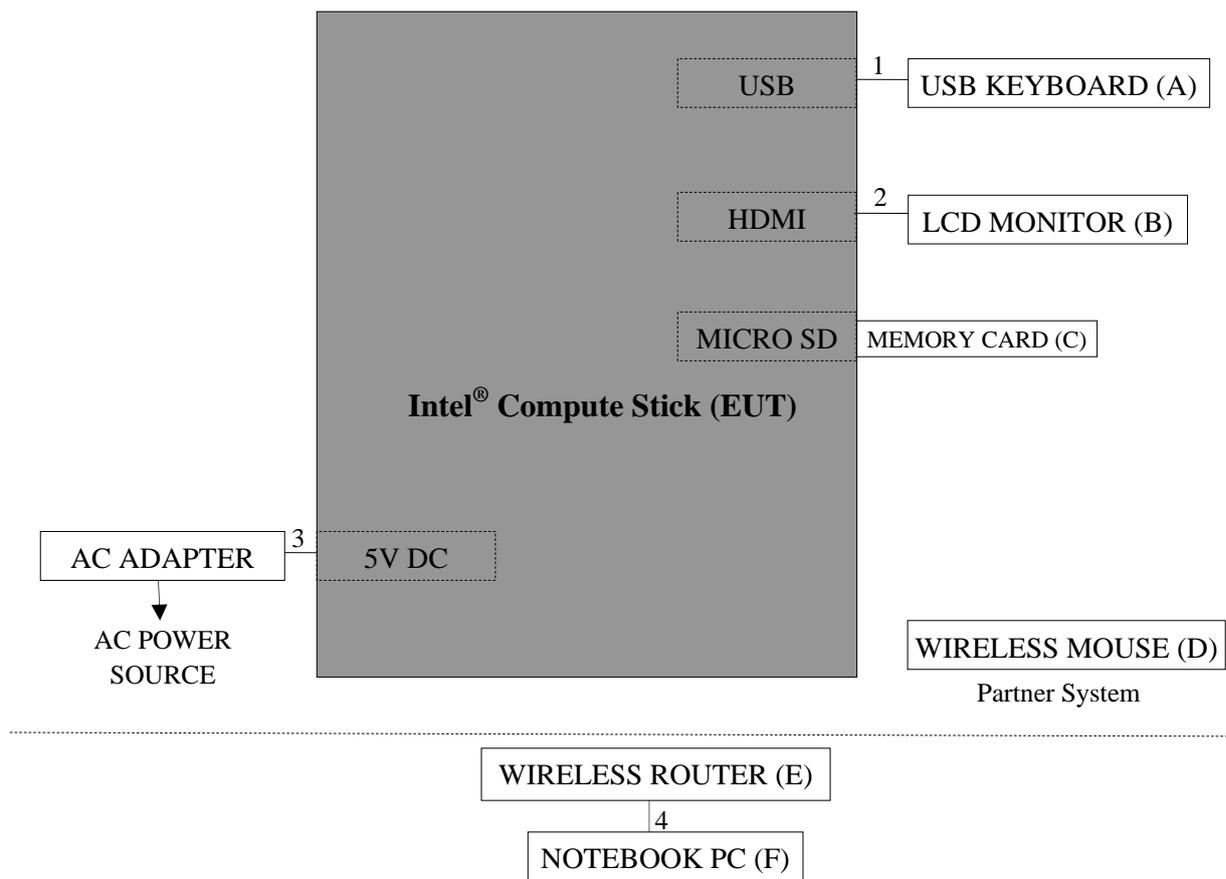
4.1. Test Equipment

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

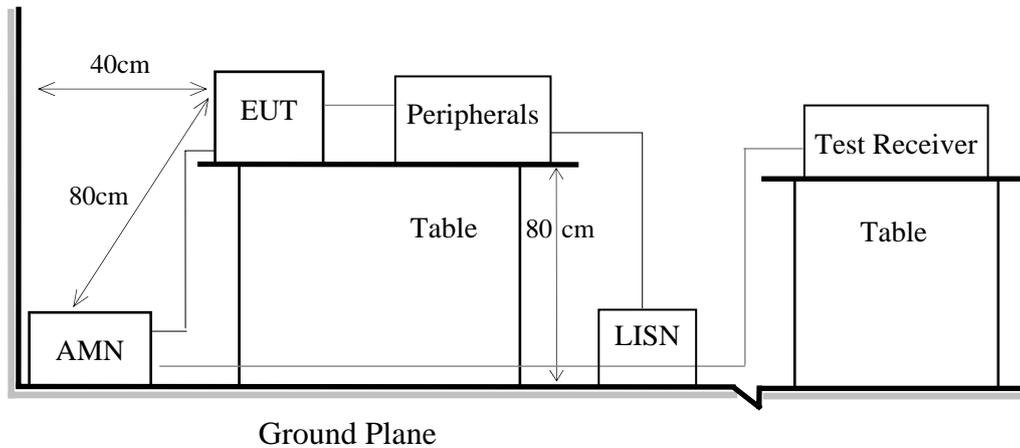
Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
1.	Test Receiver	R&S	ESCI	101276	2014. 04. 14	2015. 04. 13
2.	A.M.N.	R&S	ESH2-Z5	100366	2014. 03. 11	2015. 03. 10
3.	L.I.S.N.	Kyoritsu	KNW-407	8-1539-3	2015. 01. 22	2016. 01. 21
4.	Pulse Limiter	R&S	ESH3-Z2	101495	2015. 01. 17	2016. 01. 16

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. Limits for Conducted Disturbance

(Class B)

Frequency	Maximum RF Line Voltage	
	Quasi-Peak Level	Average Level
150kHz ~ 500kHz	66 ~ 56 dB μ V	56 ~ 46 dB μ V
500kHz ~ 5MHz	56 dB μ V	46 dB μ V
5MHz ~ 30MHz	60 dB μ V	50 dB μ 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 (A.M.N.). The other peripheral devices power cord connected to the power mains through a line impedance stabilization network (L.I.S.N.). 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 VCCI Class B requirement.

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. Conducted Disturbance 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[®] Compute Stick Test Model: STCK1A32WFC

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

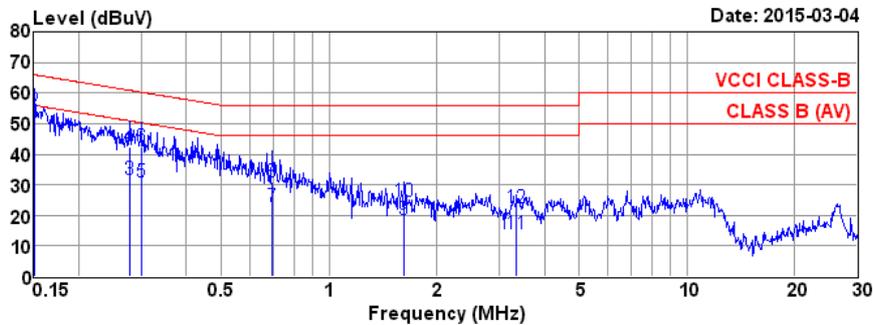
The details of test mode are as follows:

Configuration Mode	Reference Test Data No.	
	Neutral	Line
SKU #1	# 26	# 25



AUDIX TECHNOLOGY Corp. EMC Department
 No.53-11, Dingfu, Linkou Dist., New Taipei City
 244, Taiwan R.O.C.
 Tel:+886-2-26092133 Fax:+886-2-26099303
 Email:emc@audixtech.com

Data: 26 File: D:\test data\REPORT\2015\1C1M1503\XX\1C1M1503003-C-D.EM6 (30)



Site no. : No.7 Shielded Room Data no. : 26
 Condition : ESH2-Z5 366 Phase : NEUTRAL
 Limit : VCCI CLASS-B
 Env. / Ins. : 21°C / 62% ESCI (1276) Engineer : Kan
 EUT : STCK1A32WFC
 Power Rating : 100Vac/50Hz
 Test Mode : SKU #1

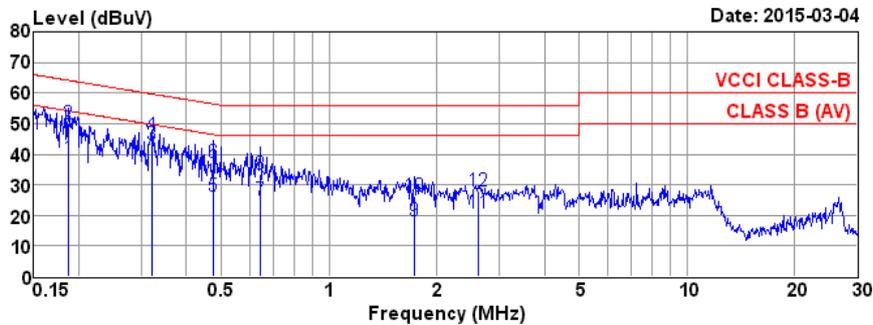
	AMN	Cable	Pulse	Emission			Margin	Remark	
Freq. (MHz)	Factor (dB)	Loss (dB)	Att. (dB)	Reading (dBμV)	Level (dBμV)	Limits (dBμV)	(dB)		
1	0.151	0.21	0.02	9.85	28.96	39.04	55.96	16.92	Average
2	0.151	0.21	0.02	9.85	43.92	54.00	65.96	11.96	QP
3	0.277	0.22	0.03	9.86	21.72	31.83	50.90	19.07	Average
4	0.277	0.22	0.03	9.86	32.44	42.55	60.90	18.35	QP
5	0.299	0.22	0.03	9.86	20.92	31.03	50.28	19.25	Average
6	0.299	0.22	0.03	9.86	32.14	42.25	60.28	18.03	QP
7	0.694	0.23	0.04	9.84	12.72	22.83	46.00	23.17	Average
8	0.694	0.23	0.04	9.84	20.81	30.92	56.00	25.08	QP
9	1.619	0.24	0.05	9.86	8.34	18.49	46.00	27.51	Average
10	1.619	0.24	0.05	9.86	14.42	24.57	56.00	31.43	QP
11	3.346	0.32	0.07	9.86	3.79	14.04	46.00	31.96	Average
12	3.346	0.32	0.07	9.86	12.16	22.41	56.00	33.59	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.



AUDIX TECHNOLOGY Corp. EMC Department
 No.53-11, Dingfu, Linkou Dist., New Taipei City
 244, Taiwan R.O.C.
 Tel:+886-2-26092133 Fax:+886-2-26099303
 Email:emc@audixtech.com

Data: 25 File: D:\test data\REPORT\2015\IC1M1503\XX\IC1M1503003-C-D.EM6 (30)



Site no. : No.7 Shielded Room Data no. : 25
 Condition : ESH2-Z5 366 Phase : LINE
 Limit : VCCI CLASS-B
 Env. / Ins. : 21°C / 62% ESCI (1276) Engineer : Kan
 EUT : STCK1A32WFC
 Power Rating : 100Vac/50Hz
 Test Mode : SKU #1

	AMN	Cable	Pulse	Emission			Margin	Remark	
Freq. (MHz)	Factor (dB)	Loss (dB)	Att. (dB)	Reading (dBμV)	Level (dBμV)	Limits (dBμV)	(dB)		
1	0.186	0.18	0.03	9.85	28.55	38.61	54.20	15.59	Average
2	0.186	0.18	0.03	9.85	40.03	50.09	64.20	14.11	QP
3	0.320	0.19	0.03	9.86	32.95	43.03	49.71	6.68	Average
4	0.320	0.19	0.03	9.86	36.03	46.11	59.71	13.60	QP
5	0.476	0.20	0.03	9.87	16.23	26.33	46.41	20.08	Average
6	0.476	0.20	0.03	9.87	26.99	37.09	56.41	19.32	QP
7	0.644	0.20	0.04	9.85	14.73	24.82	46.00	21.18	Average
8	0.644	0.20	0.04	9.85	23.27	33.36	56.00	22.64	QP
9	1.734	0.23	0.06	9.86	8.04	18.19	46.00	27.81	Average
10	1.734	0.23	0.06	9.86	15.97	26.12	56.00	29.88	QP
11	2.608	0.26	0.07	9.85	10.68	20.86	46.00	25.14	Average
12	2.608	0.26	0.07	9.85	17.64	27.82	56.00	28.18	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 DISTURBANCE MEASUREMENT

5.1. Test Equipment

The following test equipment was used during the radiated disturbance 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)

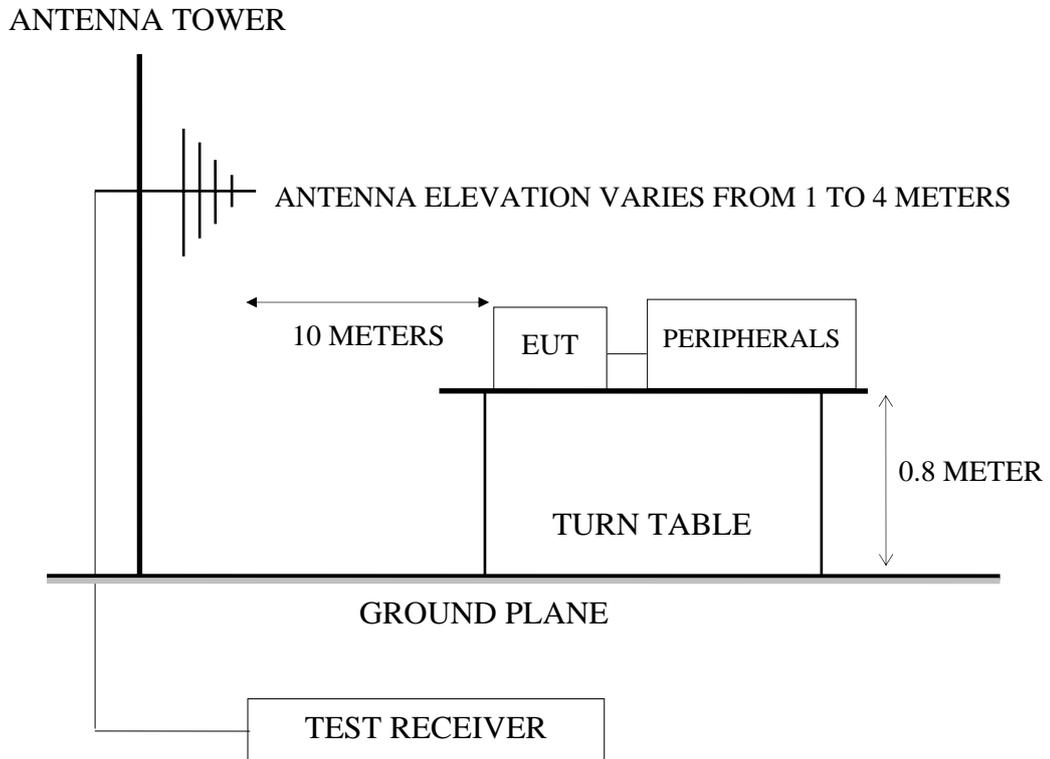
Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
1.	Spectrum Analyzer	Agilent	N9010A-526	MY51250943	2015. 02. 24	2016. 02. 23
2.	Amplifier	Agilent	8449B	3008A02681	2014. 03. 27	2015. 03. 26
3.	Horn Antenna	EMCO	3117	00114403	2014. 03. 18	2015. 03. 17

5.2. Block Diagram of Test Setup

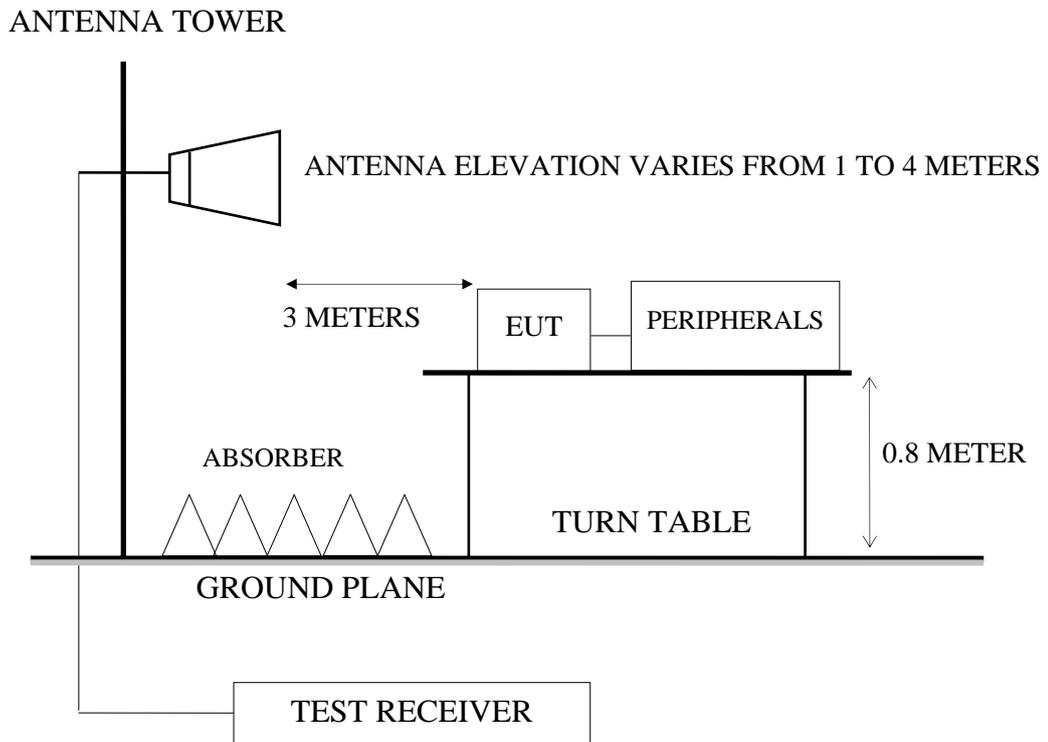
5.2.1. Block Diagram of connection between EUT and simulators

Same as Section 4.2.1.

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



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



5.3. Limits for Radiated Disturbance

(Class B)

5.3.1. Limit below 1GHz

Frequency Range	Distance	Field Strengths Limits
	(Meters)	(dB μ V/m)
30MHz – 230MHz	10	30
230MHz – 1000MHz	10	37

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.

5.3.2. Limit above 1GHz

Frequency Range	Distance	Average Limits	Peak Limits
	(Meters)	(dB μ V/m)	(dB μ V/m)
1GHz ~ 3GHz	3	50	70
3GHz ~ 6GHz	3	54	74

Note : (1) The lower limit applies at the transition frequency.
 (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.

5.4. Operating Condition of EUT

Same as conducted disturbance 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 was 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 was mounted on an antenna tower. The antenna could be moved up and down between 1 to 4 meters to find out the maximum emission level. Broadband antennas (Bilog Antenna) were used as receiving antenna. Both horizontal and vertical polarization of the antenna were set on 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 could be 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 form spectrum analyzer. In order to find the maximum emission level, all the interface cables were manipulated according to VCCI on radiated measurement.

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

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

In chapter 6.5.2.5.1 the standard Regulation of VCCI V-3 requires to include the values of *w* in the test report:

“*w*: The dimension of the line tangent to the EUT formed by θ_{3dB} at the measurement distance *d*. Equation shall be used to calculate *w* for each actual antenna and measurement distance used. The values of *w* shall be included in the test report. This calculation may be based on the manufacturer-provided receive-antenna beamwidth specifications:

$$w = 2 \times d \times \tan (0,5 \times \theta_{3dB})$$

Frequency GHz	3117 Horn	
	d = 3m	
	θ_{3dB} (min) (°)	<i>w</i> (min) (m)
1.00	88	5.79
2.00	68	4.05
4.00	70	4.20
6.00	52	2.93

The values of *w*. are greater than chapter 6.5.2.5.1 of Table 2, the minimum dimension of *w*. (*w* min) requirements.

5.6. Radiated Disturbance 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	# 8	# 7

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:

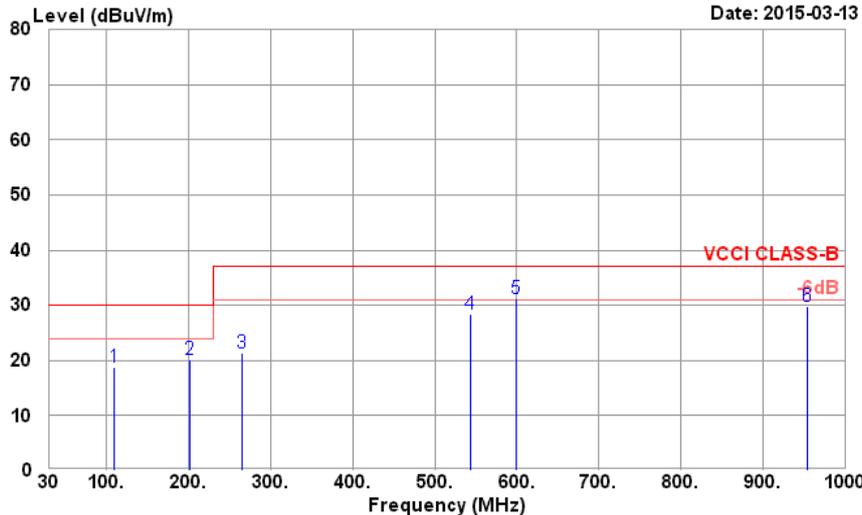
Configuration Mode	Reference Test Data No.	
	Horizontal	Vertical
SKU #1	# 8	# 7

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



AUDIX TECHNOLOGY Corp. EMC Department
 No.53-11, Dingfu, Linkou Dist.,New Taipei City
 244, Taiwan R.O.C.
 Tel:+886-2-26092133 Fax:+886-2-26099303
 Email:emc@audixtech.com

Data: 8 File: D:\TEST DATA\REPORT\2015\1C1M1503XXX\1C1M1503003\1C1M1503003-10M.EM6 (1



Site no. : NO.1 10M Chamber Data no. : 8
 Dis. / Ant. : 10m 6112D 33820 Ant. pol. : HORIZONTAL
 Limit : VCCI CLASS-B
 Env. / Ins. : 19°C / 52% Engineer : TIM
 EUT : STCK1A32WFC
 Power Rating : 100Vac/50Hz
 Test Mode : SKU#1

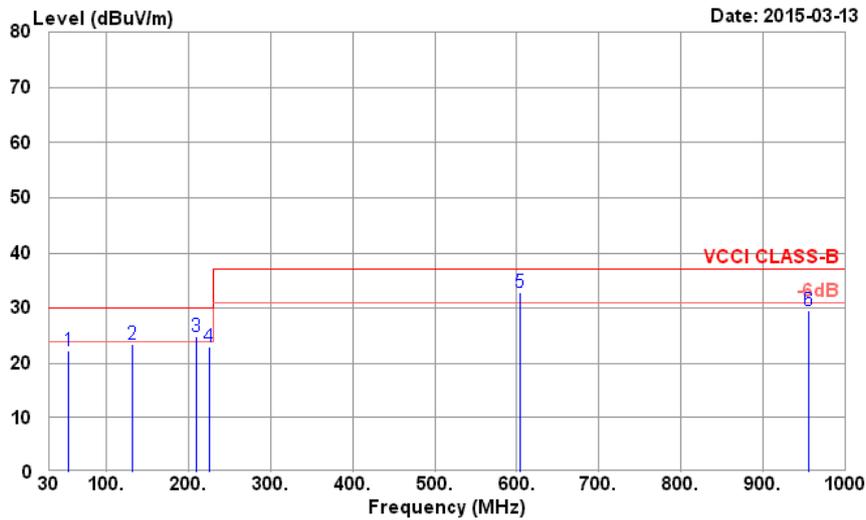
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dB μV)	Emission Level (dB μV/m)	Limits (dB μV/m)	Margin (dB)	Remark
1	109.54	11.62	1.76	5.30	18.68	30.00	11.32	QP
2	201.69	9.37	2.46	8.30	20.13	30.00	9.87	QP
3	264.74	12.64	2.89	5.79	21.32	37.00	15.68	QP
4	544.10	17.64	4.37	6.50	28.51	37.00	8.49	QP
5	599.31	18.35	4.63	8.23	31.21	37.00	5.79	QP *
6	954.41	21.02	6.06	2.75	29.83	37.00	7.17	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 31.21dBuV/m at 599.31MHz 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.



AUDIX TECHNOLOGY Corp. EMC Department
 No.53-11, Dingfu, Linkou Dist., New Taipei City
 244, Taiwan R.O.C.
 Tel:+886-2-26092133 Fax:+886-2-26099303
 Email:emc@audixtech.com

Data: 7 File: D:\TEST DATA\REPORT\2015\1M1503XXX\1M1503003\1M1503003-10M.EM6 (1



Site no. : NO.1 10M Chamber Data no. : 7
 Dis. / Ant. : 10m 6112D 33819 Ant. pol. : VERTICAL
 Limit : VCCI CLASS-B
 Env. / Ins. : 19°C / 52% Engineer : TIM
 EUT : STCK1A32WFC
 Power Rating : 100Vac/50Hz
 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	54.25	7.47	0.85	14.05	22.37	30.00	7.63	QP
2	131.85	11.60	1.39	10.46	23.45	30.00	6.55	QP
3	209.45	9.85	1.81	13.27	24.93	30.00	5.07	QP
4	224.97	10.86	1.90	10.28	23.04	30.00	6.96	QP
5	603.27	18.29	3.38	11.23	32.90	37.00	4.10	QP *
6	956.35	21.04	4.40	4.10	29.54	37.00	7.46	QP

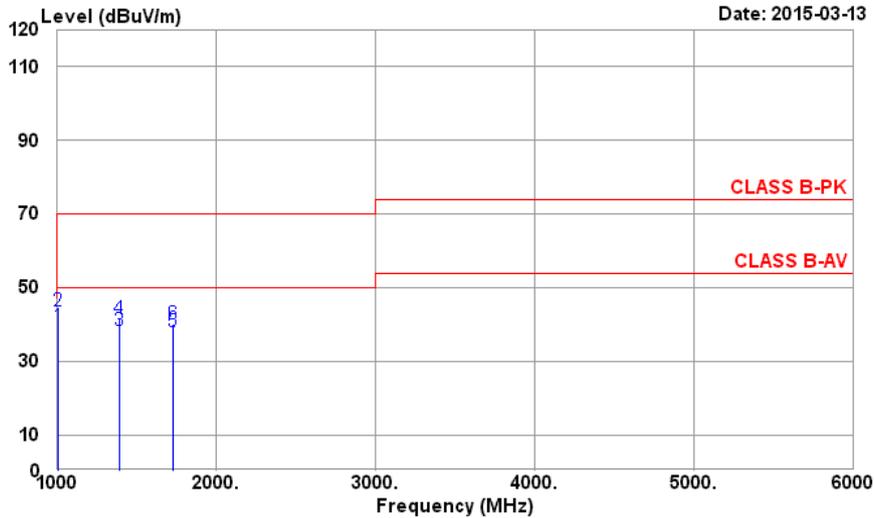
- Remarks:
1. Emission Level = Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported
 3. The worst emission was 32.90dBuV/m at 603.27MHz when antenna was in vertical polarization, 2.0m height and turn table was at 260°.
 4. Degree is calculated from 0° clockwise facing the antenna.

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



AUDIX TECHNOLOGY Corp. EMC Department
 No.53-11, Dingfu, Linkou Dist.,New Taipei City
 244, Taiwan R.O.C.
 Tel:+886-2-26092133 Fax:+886-2-26099303
 Email:emc@audixtech.com

Data: 8 File: D:\TEST DATA\REPORT\2015\1M1503XXX\1M1503003\1M1503003-1G.EM6 (10



Site no. : NO.1 10M Chamber
 Dis. / Ant. : 3m 3117 14403
 Limit : CLASS B-PK
 Env. / Ins. : 19°C / 52%
 EUT : STCK1A32WFC
 Power Rating : 100Vac/50Hz
 Test Mode : SKU#1

Data no. : 8
 Ant. pol. : HORIZONTAL
 Engineer : TIM

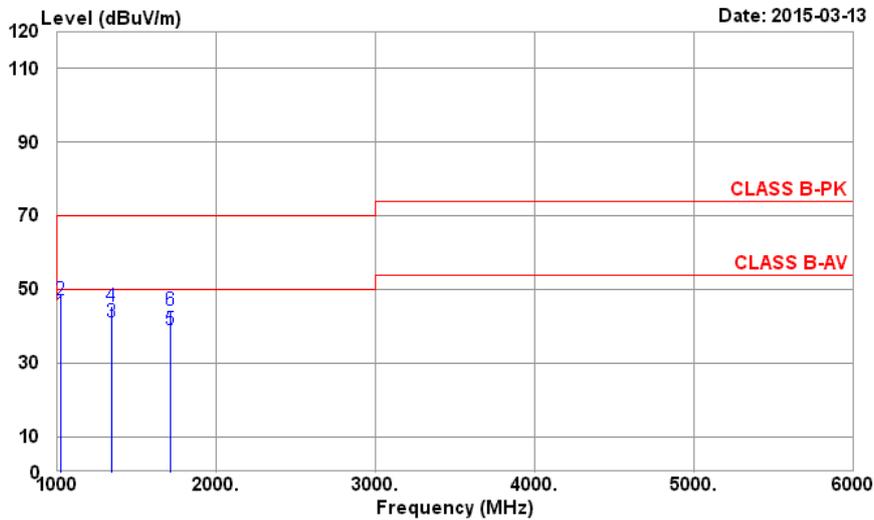
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Preamp Gain (dB)	Reading (dB μV)	Emission Level (dB μV/m)	Limits (dB μV/m)	Margin (dB)	Remark
1	1005.21	27.70	1.77	36.33	46.19	39.33	50.00	10.67	Average
2	1005.21	27.70	1.77	36.33	50.54	43.68	70.00	26.32	Peak
3	1390.16	27.86	2.13	35.83	44.31	38.47	50.00	11.53	Average
4	1390.16	27.86	2.13	35.83	47.47	41.63	70.00	28.37	Peak
5	1730.25	29.67	2.30	35.60	41.76	38.13	50.00	11.87	Average
6	1730.25	29.67	2.30	35.60	43.93	40.30	70.00	29.70	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



AUDIX TECHNOLOGY Corp. EMC Department
 No.53-11, Dingfu, Linkou Dist., New Taipei City
 244, Taiwan R.O.C.
 Tel:+886-2-26092133 Fax:+886-2-26099303
 Email:emc@audixtech.com

Data: 7 File: D:\TEST DATA\REPORT\2015\1M1503XXX\1M1503003\1M1503003-1G.EM6 (10



Site no. : NO.1 10M Chamber Data no. : 7
 Dis. / Ant. : 3m 3117 14403 Ant. pol. : VERTICAL
 Limit : CLASS B-PK
 Env. / Ins. : 19°C / 52% Engineer : TIM
 EUT : STCK1A32WFC
 Power Rating : 100Vac/50Hz
 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	1020.12	27.71	1.78	36.31	50.15	43.33	50.00	6.67	Average
2	1020.12	27.71	1.78	36.31	54.13	47.31	70.00	22.69	Peak
3	1340.42	27.84	2.09	35.90	47.20	41.23	50.00	8.77	Average
4	1340.42	27.84	2.09	35.90	51.31	45.34	70.00	24.66	Peak
5	1710.32	29.55	2.30	35.61	42.99	39.23	50.00	10.77	Average
6	1710.32	29.55	2.30	35.61	48.18	44.42	70.00	25.58	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 Conducted Disturbance Measurement



FRONT VIEW OF CONDUCTED MEASUREMENT



BACK VIEW OF CONDUCTED MEASUREMENT

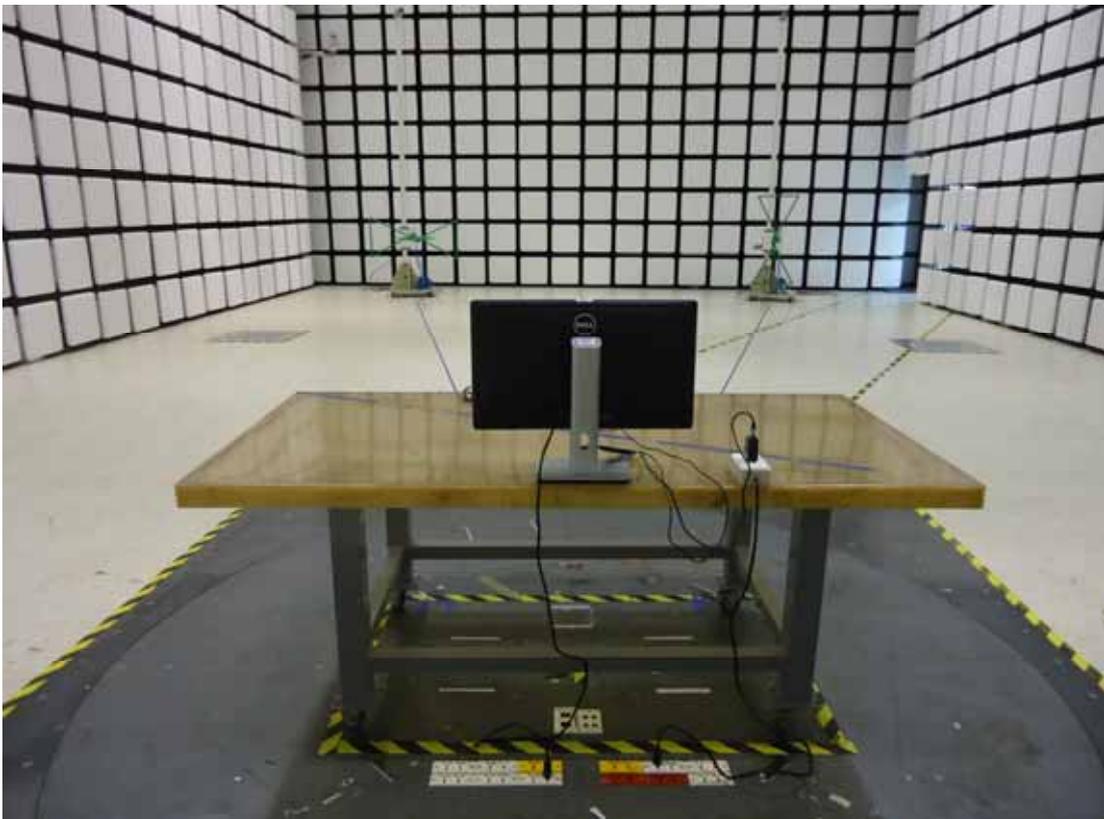


ZOOM-IN VIEW OF EUT

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

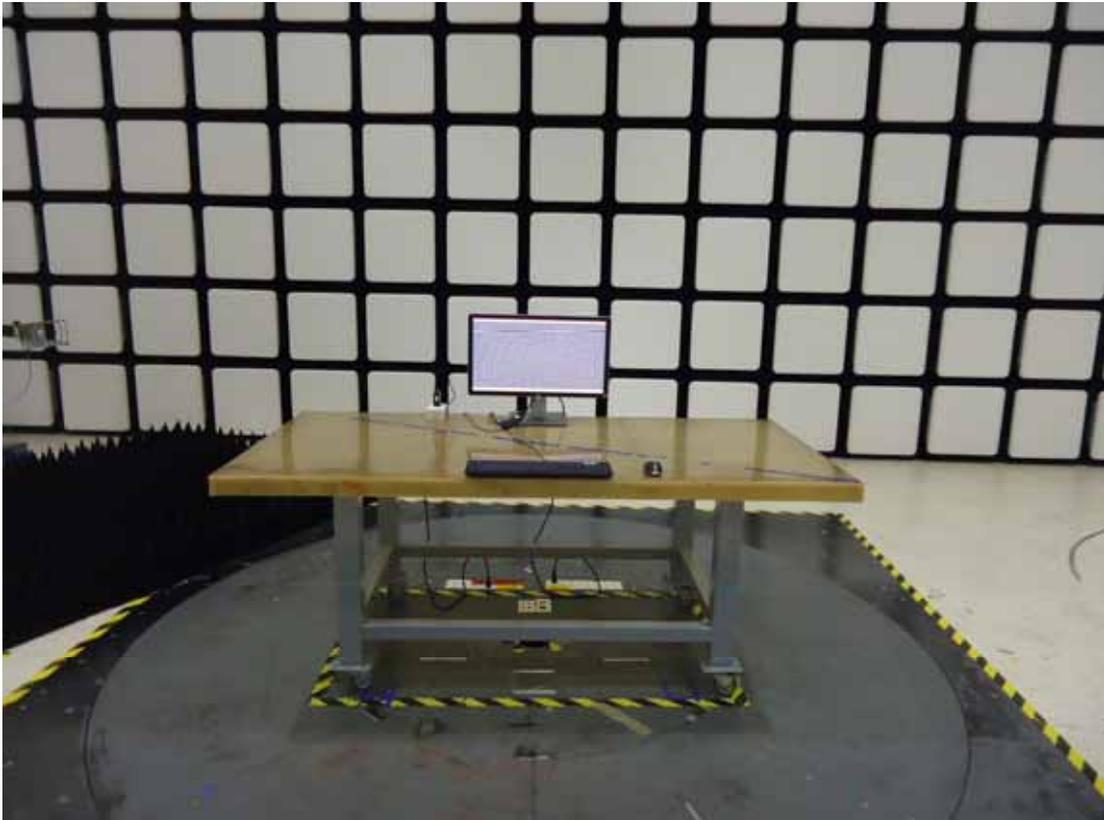


FRONT VIEW OF RADIATED MEASUREMENT

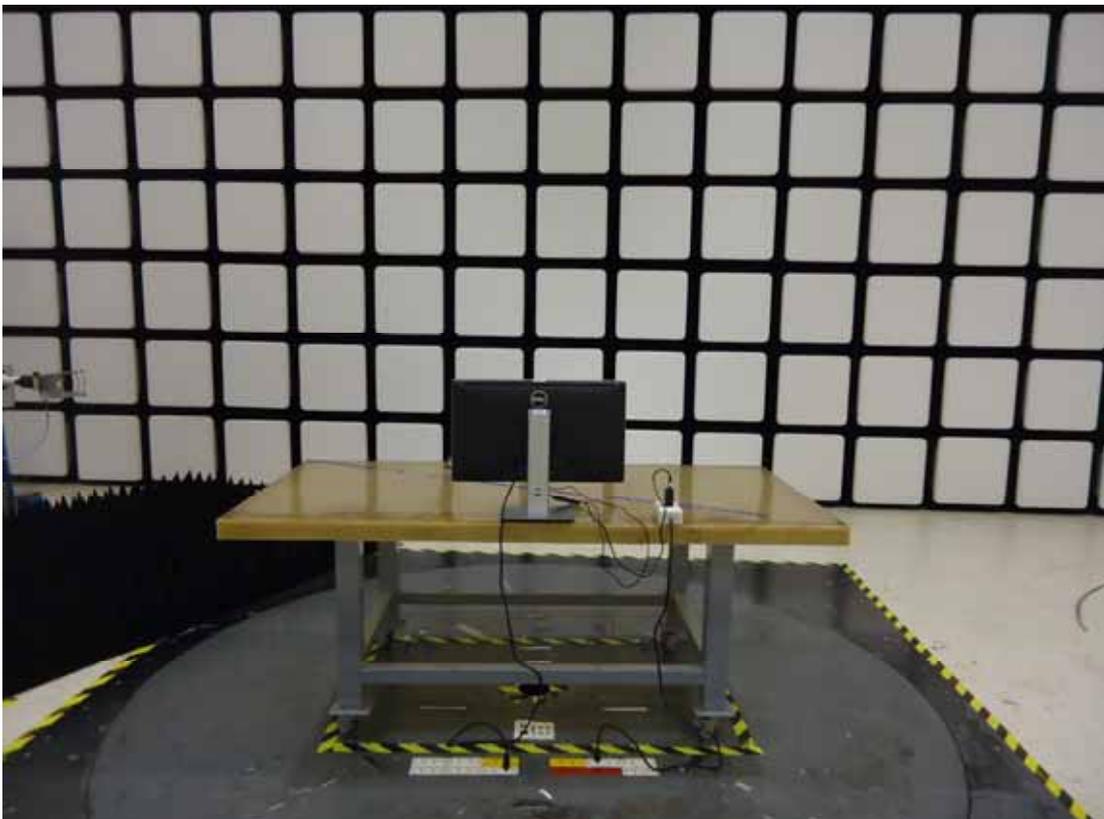


BACK VIEW OF RADIATED MEASUREMENT

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



FRONT VIEW OF RADIATED MEASUREMENT



BACK VIEW OF RADIATED MEASUREMENT



PARTNER SYSTEM