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-RF150018
Standards	ETSI EN 300 328 V.1.8.1:2012-06

We hereby certify that the above product has been tested by us with the listed standards and found in compliance with the council R&TTE directive 1999/5/EC. The test data & results are issued on the R&TTE-RF test report no. EM-RF150018.

Signature

Ben Cheng/Manager
Date: 2015. 03. 18

Test Laboratory:
AUDIX Technology Corporation, EMC Department
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.

ETSI EN 300 328

OUTPUT POWER & SPURIOUS EMISSIONS TEST REPORT

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, R.O.C.

Tel : (02) 2609-9301, 2609-2133
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File Number : C1M1503003
Report Number : EM-RF150018
Date of Test : 2015. 03. 09
Date of Report : 2015. 03. 18

TABLE OF CONTENTS

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 No.	:	N/A
	(D) Brand	:	Intel®
	(E) Power Supply	:	DC 5V, 2A
	(F) Test Voltage	:	AC 230V, 50Hz (Via AC Adapter)

Measurement Standards Used:

ETSI EN 300 328 V.1.8.1:2012-06

The device described above was tested by AUDIX Technology Corporation. The measurement results were contained in this test report and AUDIX Technology Corporation was assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliance with the ETSI EN 300 328 requirements.

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

Date of Test: 2015. 03. 09 Date of Report: 2015. 03. 18

Producer: Annie Yu
(Annie Yu/Administrator)

Signatory: Ben Cheng
(Ben Cheng/Manager)

1. DESCRIPTION OF REVISION HISTORY

Edition No.	Date of Rev.	Revision Summary	Report No.
0	2015. 03. 18	Original Report	EM-RF150018

2. SUMMARY OF MEASUREMENTS AND RESULTS

2.1. Compliance with ETSI EN 300 328

CLAUSE (ETSI 300 328)	TEST PARAMETER	RESULTS
Technical Requirements for Frequency Hopping Equipment		
4.3.1.1	RF Output Power	**PASS**
4.3.1.9	Transmitter Unwanted Emissions in the Spurious Domain	**PASS**
4.3.1.10	Receiver Spurious Emissions	**PASS**
Technical Requirements for other types of Wide Band modulation		
4.3.2.1	RF Output Power	**PASS**
4.3.2.8	Transmitter Unwanted Emission in the Spurious Domain	**PASS**
4.3.2.9	Receiver Spurious Emissions	**PASS**
Remark: Pursuant to ETSI TR 102 070-2 that the modification does not has effect at RF characteristic, thus we assessed transmitter power and spurious emission are sufficient for demonstrating this device is in compliance with article 3.2 of the R&TTE Directive 1999/5/EC.		

3. GENERAL INFORMATION

3.1. Description of Device (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	Intel®
Applicant	INTEL CORP. HF3-96, 5200 NE ELAM YOUNG PKY, HILLSBORO, OR 97124 USA
Power Supply Rating	Refer to AC adapter rating.
Fundamental Range	802.11b/g/n-HT20: 2412MHz ~ 2472MHz 802.11n-HT40: 2422MHz ~ 2462MHz Bluetooth and BLE: 2402MHz ~ 2480MHz
Frequency Channel	802.11b/g/n-HT20: 13 channels 802.11n-HT40: 7 channels Bluetooth: 79 channels BLE: 40 channels
Radio Technology	802.11b: DSSS Modulation (DBPSK/DQPSK/CCK) 802.11g: OFDM Modulation (BPSK/QPSK/16QAM/64QAM) 802.11n: OFDM Modulation (BPSK/QPSK/16QAM/64QAM) Bluetooth: FHSS (GFSK,π/4DQPSK, 8-DPSK) BLE: GFSK
Data Transfer Rate	802.11b: 1/2/5.5/11Mbps 802.11g: 6/9/12/18/24/36/48/54Mbps 802.11n: up to 150Mbps Bluetooth: 1/2/3Mbps BLE: 1Mbps
Antenna Type	PIFA Antenna, Linking Technology Inc., M/N T-543-8321061
Antenna Gain	2.95dBi
Interface Ports	HDMI Port *1 USB 2.0 Port *1 Micro USB 2.0 *1 Micro SD Card Slot *1
Date of Receipt of Sample	2015. 02. 26

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
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	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. The worst mode was reported for emission and immunity measurement.

Configuration Mode	Memory	eMMC	Resolution	Test Voltage
SKU #1	HYNIX, H5TC4G63AFR-PBA	SAMSUNG, KLMBG4GEND-B031	1920*1200 32bit 150% Font Size	AC 230V, 50Hz

3.3. Tested Supporting System Details

3.3.1. Support Peripheral Units

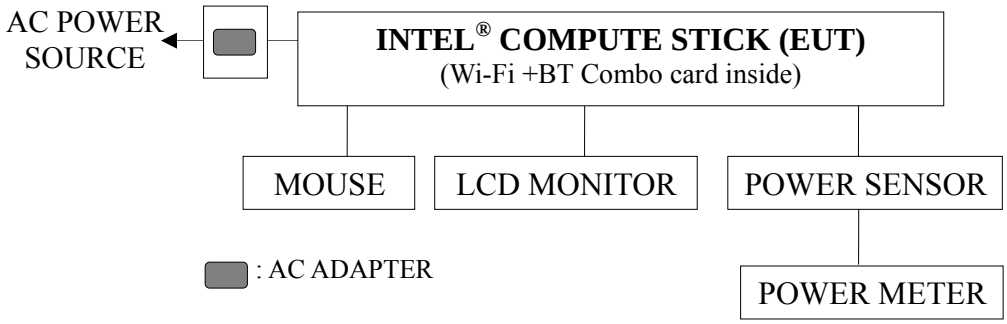
No.	Product	Brand	Model No.	Serial No.
1.	LCD Monitor	LG	22LK330-DB	N/A
2.	USB MOUSE	Targus	AMU94APZ-CN	N/A

3.3.2. Used Cable Lists

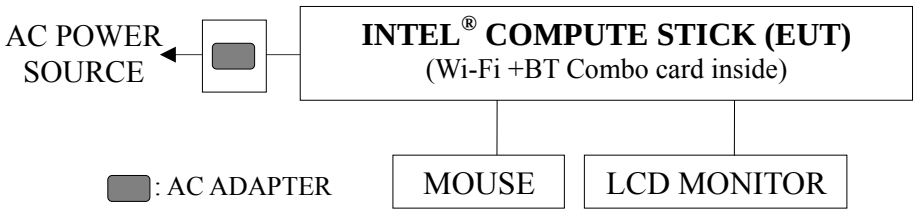
No.	Cable Description Of The Above Support Units
1.	Non-Shielded, Detachable, 1.8m
2.	USB Cable: Non-Shielded, Undetachable, 1.0m

3.4. Block Diagram of Test Setup

3.4.1. Equivalent Isotropic Radiated Power (Conducted)



3.4.2. Spurious Emission (Radiated)



3.5. Description of Test Facility

Name of Firm	:	**AUDIX Technology Corporation** **EMC Department** No. 53-11, Dingfu, Linkou Dist., New Taipei City 244, Taiwan, R.O.C.
Test Site	:	No. 53-11, Dingfu, Linkou Dist., New Taipei City 244, Taiwan, R.O.C.
NVLAP Lab. Code	:	200077-0
TAF Accreditation No	:	1724

3.6. Measurement Uncertainty

Test Item		Uncertainty
RF Output Power		±0.34dB
Spurious Emission (RE)	30MHz ~ 1000MHz	± 0.20dB
	Above 1GHz	± 1.60dB

Remark：Uncertainty = $ku_c(y)$

4. MEASUREMENTS OF TRANSMITTER PARAMETERS

4.1. RF Output Power

4.1.1. Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
1.	Power Meter	Anritsu	ML2487A	6K00005406	2015. 02. 11	2016. 02. 01
2.	Power Sensor	Anritsu	MA2491A	030873	2015. 02. 21	2016. 02. 20

4.1.2. Limit (ETSI EN 300 328, Clause 4.3.1.1.2 and 4.3.2.1.2.)

The maximum RF output power shall be equal to or less than 20dBm (-10dBW or 100mW) e.i.r.p. This limit shall apply for any combination of power level and intended antenna assembly.

4.1.3. Test Information

EUT:	Intel® Compute Stick
Test Model:	STCK1A32WFC
Radio Technology:	Wi-Fi: 802.11b : DSSS modulation 802.11g : OFDM modulation 802.11n : OFDM modulation BT: FHSS modulation (GFSK,π/4DQPSK, 8-DPSK) BLE: GFSK Modulation
Test Date:	2015. 03. 09
Ambient Temperature:	23℃
Relative Humidity:	40%
Test Method:	ETSI EN 300 328 V.1.8.1 (See clause 5.3.2.2.1.1)
Assigned Frequency Band:	802.11b/g: 2412MHz ~ 2472MHz 802.11n-HT20: 2412MHz ~ 2472MHz 802.11n-HT40: 2422MHz ~ 2462MHz BT: 2402MHz ~ 2480MHz BLE: 2402MHz ~ 2480MHz
Antenna Assembly Gain:	802.11b/g/n-HT20/n-HT40: 2.95dBi Bluetooth & BLE: 2.95dBi
Test Program:	Wi-Fi: Realtek 11n 8723B SDIO WLAN MP Diagnostic Program 32.20141201
	BT/BLE: Realtek Bluetooth MP – RTK_BT_CHIP_ID_RTL8723B

4.1.4. Type of Network: IEEE 802.11b

Frequency (MHz)	Average Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)
	Chin 0		
2412	15.85	2.95	18.80
2442	15.98	2.95	18.93
2472	16.01	2.95	18.96

Note 1: EIRP =Average Conducted Power + Antenna Gain
2: Average power as defined in clause 5.7.2.2. step 2 (P).

4.1.5. Type of Network: IEEE 802.11g

Frequency (MHz)	Average Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)
	Chin 0		
2412	14.17	2.95	17.12
2442	13.89	2.95	16.84
2472	14.12	2.95	17.07

Note 1: EIRP =Average Conducted Power + Antenna Gain
2: Average power as defined in clause 5.7.2.2. step 2 (P).

4.1.6. Type of Network: IEEE 802.11n-HT20

Frequency (MHz)	Average Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)
	Chin 0		
2412	13.11	2.95	16.06
2442	13.00	2.95	15.95
2472	12.97	2.95	15.92

Note 1: EIRP =Total Average Conducted Power + Antenna Gain
2: Average power as defined in clause 5.7.2.2. step 2 (P).

4.1.7. Type of Network: IEEE 802.11n-HT40

Frequency (MHz)	Average Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)
	Chin 0		
2422	13.17	2.95	16.12
2442	13.09	2.95	16.04
2462	12.93	2.95	15.88

Note 1: EIRP =Total Average Conducted Power + Antenna Gain
2: Average power as defined in clause 5.7.2.2. step 2 (P).

4.1.8. Type of Network: Bluetooth (GFSK)

Frequency (MHz)	Average Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)
	Chin 0		
2402	4.19	2.95	7.14
2441	4.51	2.95	7.46
2480	1.64	2.95	4.59

Note 1: EIRP =Average Conducted Power + Antenna Gain
2: Average power as defined in clause 5.7.2.2. step 2 (P).

4.1.9. Type of Network: Bluetooth (8DPSK)

Frequency (MHz)	Average Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)
	Chin 0		
2402	5.01	2.95	7.96
2441	5.35	2.95	8.30
2480	2.57	2.95	5.52

Note 1: EIRP =Average Conducted Power + Antenna Gain
2: Average power as defined in clause 5.7.2.2. step 2 (P).

4.1.10. Type of Network: BLE

Frequency (MHz)	Average Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)
	Chin 0		
2402	5.01	2.95	7.96
2440	5.21	2.95	8.16
2480	5.00	2.95	7.95

Note 1: EIRP =Average Conducted Power + Antenna Gain
2: Average power as defined in clause 5.7.2.2. step 2 (P).

4.2. Transmitter Unwanted Emission in the spurious Domain (Radiated)

4.2.1. Test Equipment

4.2.1.1. For Radiated Spurious Emissions (for 30MHz-1GHz)

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
1.	Spectrum Analyzer	Agilent	E4446A	US44300366	2014. 08. 21	2015. 08. 20
2.	Amplifier	Sonoma	310N	187161	2014. 06. 17	2015. 06. 16
3.	Bilog Antenna	Schaffner	CBL6112B	2736	2015. 02. 27	2016. 02. 26

4.2.1.2. For Radiated Spurious Emissions (for 1GHz-12.75GHz)

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
1.	Spectrum Analyzer	Agilent	E4446A	US44300366	2014. 08. 21	2015. 08. 20
2.	Pre-Amplifier	HP	8449B	3008A02678	2015. 03. 04	2016. 03. 03
3.	Horn Antenna	EMCO	3116	2653	2014. 10. 14	2015. 10. 13
4.	2.4GHz Notch Filter	K&L	7NSL10-2441. 5E130.5-00	1	2014. 06. 13	2015. 06. 12
5.	3G High Pass Filter	Microware Circuits	H3G018G1	484796	2014. 06. 13	2015. 06. 12

4.2.2. Limit (ETSI EN 300 328, Clause 4.3.1.9.1 and 4.3.2.8.2)

Frequency Range	Maximum Power, e.r.p.(≤ 1GHz) e.i.r.p.(≥ 1GHz)	Bandwidth
30MHz to 47MHz	-36 dBm	100 kHz
47MHz to 74MHz	-54 dBm	100 kHz
74MHz to 87.5MHz	-36 dBm	100 kHz
87.5MHz to 118MHz	-54 dBm	100 kHz
118MHz to 174MHz	-36 dBm	100 kHz
174MHz to 230MHz	-54 dBm	100 kHz
230MHz to 470MHz	-36 dBm	100 kHz
470MHz to 862MHz	-54 dBm	100 kHz
862MHz to 1GHz	-36 dBm	100 kHz
1GHz to 12.75GHz	-30 dBm	1 MHz

4.2.3. Test Information

EUT:	Intel® Compute Stick
Test Model:	STCK1A32WFC
Radio Technology:	Wi-Fi: 802.11b : DSSS modulation 802.11g : OFDM modulation 802.11n : OFDM modulation BT: FHSS modulation (GFSK,π/4DQPSK, 8-DPSK) BLE: GFSK Modulation
Test Date:	2015. 03. 09
Ambient Temperature:	23℃
Relative Humidity:	40%
Test Method:	ETSI EN 300 328 V1.8.1 (See clause 5.3.10.2.2)
Assigned Frequency Band:	802.11b/g: 2412MHz ~ 2472MHz 802.11n-HT20: 2412MHz ~ 2472MHz 802.11n-HT40: 2422MHz ~ 2462MHz BT: 2402MHz ~ 2480MHz BLE: 2402MHz ~ 2480MHz
Antenna Assembly Gain:	802.11b/g/n-HT20/n-HT40: 2.95dBi Bluetooth & BLE: 2.95dBi
Test Program:	Wi-Fi: Realtek 11n 8723B SDIO WLAN MP Diagnostic Program 32.20141201
	BT/BLE: Realtek Bluetooth MP – RTK_BT_CHIP_ID_RTL8723B

4.2.4. Test Results for WLAN Function

4.2.4.1. Type of Network: IEEE 802.11b

CH 1: 2412MHz

Frequency (MHz)	Spurious emission level (dBm)	Limit (dBm)	Margin (dBm)	Antenna Polarization
30-1000	<-70	-36/-54	--	Horizontal
1000 – 12750 others	<-55	-30	--	Horizontal
30-1000	<-70	-36/-54	--	Vertical
4235	-42.43	-30	12.43	Vertical
6310	-42.02	-30	12.02	Vertical
1000 – 12750 others	<-55	-30	--	Vertical

Note : All the emissions (up to 12.75GHz) not reported for there is no emission be found.

CH 13: 2472MHz

Frequency (MHz)	Spurious emission level (dBm)	Limit (dBm)	Margin (dBm)	Antenna Polarization
30-1000	<-70	-36/-54	--	Horizontal
1000 – 12750 others	<-55	-30	--	Horizontal
30-1000	<-70	-36/-54	--	Vertical
4235	-43.51	-30	13.51	Vertical
1000 – 12750 others	<-55	-30	--	Vertical

Note : All the emissions (up to 12.75GHz) not reported for there is no emission be found.

4.2.4.2. Type of Network: IEEE 802.11g

CH 1: 2412MHz

Frequency (MHz)	Spurious emission level (dBm)	Limit (dBm)	Margin (dBm)	Antenna Polarization
30-1000	<-70	-36/-54	--	Horizontal
1000 – 12750 others	<-55	-30	--	Horizontal
30-1000	<-70	-36/-54	--	Vertical
1000 – 12750 others	<-55	-30	--	Vertical

Note : All the emissions (up to 12.75GHz) not reported for there is no emission be found.

CH 13: 2472MHz

Frequency (MHz)	Spurious emission level (dBm)	Limit (dBm)	Margin (dBm)	Antenna Polarization
30-1000	<-70	-36/-54	--	Horizontal
1000 – 12750 others	<-55	-30	--	Horizontal
30-1000	<-70	-36/-54	--	Vertical
1000 – 12750 others	<-55	-30	--	Vertical

Note : All the emissions (up to 12.75GHz) not reported for there is no emission be found.

4.2.4.3. Type of Network: IEEE 802.11n-HT20

CH 1: 2412MHz

Frequency (MHz)	Spurious emission level (dBm)	Limit (dBm)	Margin (dBm)	Antenna Polarization
30-1000	<-70	-36/-54	--	Horizontal
1000 – 12750 others	<-55	-30	--	Horizontal
30-1000	<-70	-36/-54	--	Vertical
1000 – 12750 others	<-55	-30	--	Vertical

Note : All the emissions (up to 12.75GHz) not reported for there is no emission be found.

CH 13: 2472MHz

Frequency (MHz)	Spurious emission level (dBm)	Limit (dBm)	Margin (dBm)	Antenna Polarization
30-1000	<-70	-36/-54	--	Horizontal
1000 – 12750 others	<-55	-30	--	Horizontal
30-1000	<-70	-36/-54	--	Vertical
1000 – 12750 others	<-55	-30	--	Vertical

Note : All the emissions (up to 12.75GHz) not reported for there is no emission be found.

4.2.4.4. Type of Network: IEEE 802.11n-HT40

CH 3: 2422MHz

Frequency (MHz)	Spurious emission level (dBm)	Limit (dBm)	Margin (dBm)	Antenna Polarization
30-1000	<-70	-36/-54	--	Horizontal
1000 – 12750 others	<-55	-30	--	Horizontal
30-1000	<-70	-36/-54	--	Vertical
1000 – 12750 others	<-55	-30	--	Vertical

Note : All the emissions (up to 12.75GHz) not reported for there is no emission be found.

CH 11: 2462MHz

Frequency (MHz)	Spurious emission level (dBm)	Limit (dBm)	Margin (dBm)	Antenna Polarization
30-1000	<-70	-36/-54	--	Horizontal
1000 – 12750 others	<-55	-30	--	Horizontal
30-1000	<-70	-36/-54	--	Vertical
1000 – 12750 others	<-55	-30	--	Vertical

Note : All the emissions (up to 12.75GHz) not reported for there is no emission be found.

4.2.5. Test Results for Bluetooth & BLE Function

4.2.5.1. Type of Network: Bluetooth (GFSK)

CH 0: 2402MHz

Frequency (MHz)	Spurious emission level (dBm)	Limit (dBm)	Margin (dBm)	Antenna Polarization
30-1000	<-70	-36/-54	--	Horizontal
1000 – 12750 others	<-55	-30	--	Horizontal
30-1000	<-70	-36/-54	--	Vertical
1000 – 12750 others	<-55	-30	--	Vertical

Note : All the emissions (up to 12.75GHz) not reported for there is no emission be found.

CH 78: 2480MHz

Frequency (MHz)	Spurious emission level (dBm)	Limit (dBm)	Margin (dBm)	Antenna Polarization
30-1000	<-70	-36/-54	--	Horizontal
1000 – 12750 others	<-55	-30	--	Horizontal
30-1000	<-70	-36/-54	--	Vertical
1000 – 12750 others	<-55	-30	--	Vertical

Note : All the emissions (up to 12.75GHz) not reported for there is no emission be found.

4.2.5.2. Type of Network: Bluetooth (8DPSK)

CH 0: 2402MHz

Frequency (MHz)	Spurious emission level (dBm)	Limit (dBm)	Margin (dBm)	Antenna Polarization
30-1000	<-70	-36/-54	--	Horizontal
1000 – 12750 others	<-55	-30	--	Horizontal
30-1000	<-70	-36/-54	--	Vertical
1000 – 12750 others	<-55	-30	--	Vertical

Note : All the emissions (up to 12.75GHz) not reported for there is no emission be found.

CH 78: 2480MHz

Frequency (MHz)	Spurious emission level (dBm)	Limit (dBm)	Margin (dBm)	Antenna Polarization
30-1000	<-70	-36/-54	--	Horizontal
1000 – 12750 others	<-55	-30	--	Horizontal
30-1000	<-70	-36/-54	--	Vertical
1000 – 12750 others	<-55	-30	--	Vertical

Note : All the emissions (up to 12.75GHz) not reported for there is no emission be found.

4.2.5.3. Type of Network: BLE

CH 0: 2402MHz

Frequency (MHz)	Spurious emission level (dBm)	Limit (dBm)	Margin (dBm)	Antenna Polarization
30-1000	<-70	-36/-54	--	Horizontal
1000 – 12750 others	<-55	-30	--	Horizontal
30-1000	<-70	-36/-54	--	Vertical
1000 – 12750 others	<-55	-30	--	Vertical

Note : All the emissions (up to 12.75GHz) not reported for there is no emission be found.

CH 39: 2480MHz

Frequency (MHz)	Spurious emission level (dBm)	Limit (dBm)	Margin (dBm)	Antenna Polarization
30-1000	<-70	-36/-54	--	Horizontal
1000 – 12750 others	<-55	-30	--	Horizontal
30-1000	<-70	-36/-54	--	Vertical
1000 – 12750 others	<-55	-30	--	Vertical

Note : All the emissions (up to 12.75GHz) not reported for there is no emission be found.

5. RECEIVER SPURIOUS EMISSIONS

5.1. Spurious Emissions (Radiated)

5.1.1. Test Equipment

5.1.1.1. For Radiated Spurious Emissions (for 30MHz-1GHz)

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
1.	Spectrum Analyzer	Agilent	E4446A	US44300366	2014. 08. 21	2015. 08. 20
2.	Amplifier	Sonoma	310N	187161	2014. 06. 17	2015. 06. 16
3.	Bilog Antenna	Schaffner	CBL6112B	2736	2015. 02. 27	2016. 02. 26

5.1.1.2. For Radiated Spurious Emissions (for 1GHz-12.75GHz)

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
1.	Spectrum Analyzer	Agilent	E4446A	US44300366	2014. 08. 21	2015. 08. 20
2.	Pre-Amplifier	HP	8449B	3008A02678	2015. 03. 04	2016. 03. 03
3.	Horn Antenna	EMCO	3116	2653	2014. 10. 14	2015. 10. 13
4.	2.4GHz Notch Filter	K&L	7NSL10-2441. 5E130.5-00	1	2014. 06. 13	2015. 06. 12
5.	3G High Pass Filter	Microware Circuits	H3G018G1	484796	2014. 06. 13	2015. 06. 12

5.1.2. Limit (ETSI EN 300 328, Clause 4.3.2.9.2 and 4.3.1.10.1)

Frequency Range	Maximum power, e.r.p.(≤1GHz) e.i.r.p. (>1GHz)	Bandwidth
30MHz to 1GHz	-57dBm	100kHz
1GHz to 12.75GHz	-47dBm	1MHz

5.1.3. Test Information

EUT:	Intel® Compute Stick
Test Model:	STCK1A32WFC
Radio Technology:	Wi-Fi: 802.11b : DSSS modulation 802.11g : OFDM modulation 802.11n : OFDM modulation BT: FHSS modulation (GFSK,π/4DQPSK, 8-DPSK) BLE: GFSK Modulation
Test Date:	2015. 03. 09
Ambient Temperature:	23℃
Relative Humidity:	40%
Test Method:	ETSI EN 300 328 V1.8.1 (See clause 5.3.11.2.2)
Assigned Frequency Band:	802.11b/g: 2412MHz ~ 2472MHz 802.11n-HT20: 2412MHz ~ 2472MHz 802.11n-HT40: 2422MHz ~ 2462MHz BT: 2402MHz ~ 2480MHz BLE: 2402MHz ~ 2480MHz
Antenna Assembly Gain:	802.11b/g/n-HT20/n-HT40: 2.95dBi Bluetooth & BLE: 2.95dBi
Test Program:	Wi-Fi: Realtek 11n 8723B SDIO WLAN MP Diagnostic Program 32.20141201
	BT/BLE: Realtek Bluetooth MP – RTK_BT_CHIP_ID_RTL8723B

5.1.4. Test Results for WLAN Function

Frequency: 2412MHz

Frequency (MHz)	Spurious emission level (dBm)	Limit (dBm)	Margin (dBm)	Antenna Polarization
30-1000	<-70	-57	--	Horizontal
1000 – 12750 others	<-55	-47	--	Horizontal
30-1000	<-70	-57	--	Vertical
1000 – 12750 others	<-55	-47	--	Vertical

Frequency: 2472MHz

Frequency (MHz)	Spurious emission level (dBm)	Limit (dBm)	Margin (dBm)	Antenna Polarization
30-1000	<-70	-57	--	Horizontal
1000 – 12750 others	<-55	-47	--	Horizontal
30-1000	<-70	-57	--	Vertical
1000 – 12750 others	<-55	-47	--	Vertical

5.1.5. Type of Function: BT and BLE

Frequency: 2402MHz

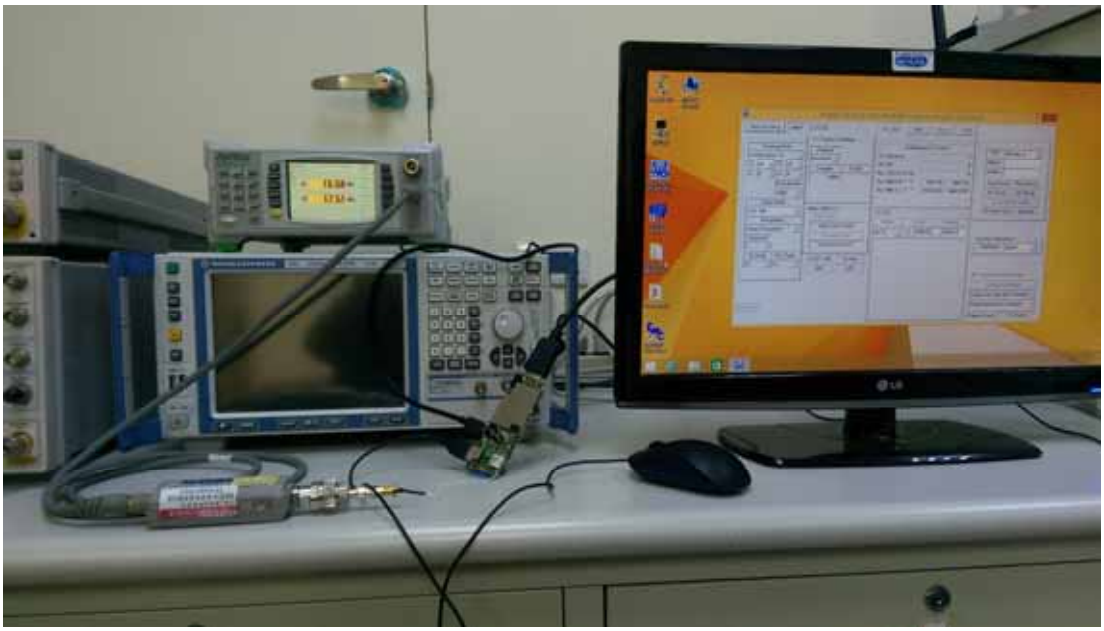
Frequency (MHz)	Spurious emission level (dBm)	Limit (dBm)	Margin (dBm)	Antenna Polarization
30-1000	<-70	-57	--	Horizontal
1000 – 12750 others	<-55	-47	--	Horizontal
30-1000	<-70	-57	--	Vertical
1000 – 12750 others	<-55	-47	--	Vertical

Frequency: 2480MHz

Frequency (MHz)	Spurious emission level (dBm)	Limit (dBm)	Margin (dBm)	Antenna Polarization
30-1000	<-70	-57	--	Horizontal
1000 – 12750 others	<-55	-47	--	Horizontal
30-1000	<-70	-57	--	Vertical
1000 – 12750 others	<-55	-47	--	Vertical

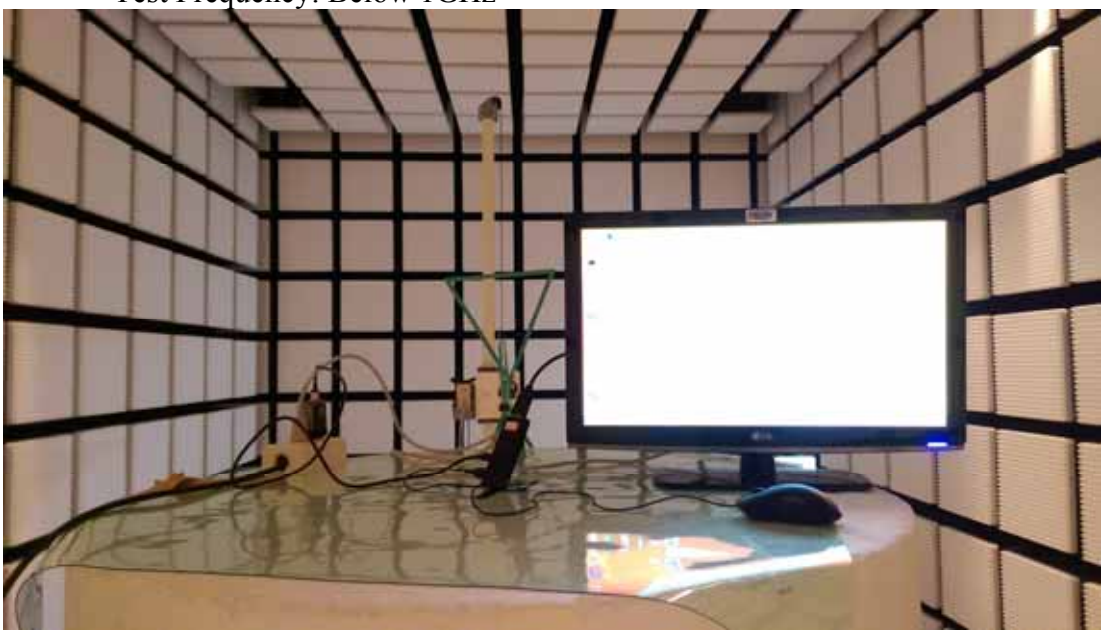
6. PHOTOGRAPHS OF MEASUREMENT

6.1.Photo of RF Output Power



6.2.Photos of Spurious Emissions Measurement

Test Frequency: Below 1GHz



Test Frequency: Above 1GHz