FCC Test Report

APPLICANT : CT Asia

EQUIPMENT: Mobile Phone

BRAND NAME : BLU

MODEL NAME : Dash C Music

FCC ID : YHLBLUDCMUSIC

STANDARD : FCC 47 CFR FCC Part 15 Subpart B

CLASSIFICATION: Certification

The product was received on Sep. 19, 2014 and testing was completed on Oct. 28, 2014. We, SPORTON INTERNATIONAL (SHENZHEN) INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI C63.4-2003 and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL (SHENZHEN) INC., the test report shall not be reproduced except in full.

Reviewed by: Louis Wu / Manager

Lunis Wu

Approved by: Jones Tsai / Manager

SPORTON INTERNATIONAL (SHENZHEN) INC.

No. 3 Building, the third floor of south, Shahe River west, Fengzeyuan warehouse, Nanshan District, Shenzhen, Guangdong, P.R.C.

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Report Issued Date : Oct. 28, 2014

Testing Laboratory

Report No. : FC491907

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FC491907	Rev. 01	Initial issue of report	Oct. 28, 2014

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SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
					Under limit
3.1	15.107	AC Conducted Emission	< 15.107 limits	PASS	8.17 dB at
					0.540 MHz
					Under limit
3.2	45 400	Dadiated Emission	45 400 limita	DACC	0.76 dB at
3.2	15.109	15.109 Radiated Emission	< 15.109 limits	PASS	164.830 MHz
					for Quasi-Peak

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1. General Description

1.1. Applicant

CT Asia

Unit 01, 15/F, Seaview Centre, 139-141 Hoi bun road, Kwun Tong, Kowloon, Hongkong

1.2. Manufacturer

Zechin Communications Co.,Ltd.

Unit804, 8th Floor Desay Tech Building Gaoxin Road South, Nanshan District Shenzhen, China

1.3. Product Feature of Equipment Under Test

	Product Feature
Equipment	Mobile Phone
Brand Name	BLU
Model Name	Dash C Music
FCC ID	YHLBLUDCMUSIC
	GSM/GPRS/EDGE(Downlinkonly)/WCDMA/HSPA/HSPA+(
EUT supports Radios application	Downlink only)
EOT Supports Naulos application	WLAN 2.4GHz 802.11b/g/n HT20/HT40
	Bluetooth v2.1 + EDR
HW Version	S2115-MB-V1.0
SW Version	BLU_D390u_V01_GENERIC
EUT Stage	Identical Prototype

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

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1.4. Product Specification subjective to this standard

Product Spe	Product Specification subjective to this standard				
	GSM850 : 824.2 MHz ~ 848.8 MHz				
	GSM1900 : 1850.2 MHz ~ 1909.8MHz				
	WCDMA Band V : 826.4 MHz ~ 846.6 MHz				
Tx Frequency	WCDMA Band IV : 1712.4 MHz ~ 1752.6 MHz				
	WCDMA Band II: 1852.4 MHz ~ 1907.6 MHz				
	802.11b/g/n: 2412 MHz ~ 2462 MHz				
	Bluetooth: 2402 MHz ~ 2480 MHz				
	GSM850 : 869.2 MHz ~ 893.8 MHz				
	GSM1900 : 1930.2 MHz ~ 1989.8 MHz				
	WCDMA Band V : 871.4 MHz ~ 891.6 MHz				
Rx Frequency	WCDMA Band IV : 2112.4 MHz ~ 2152.6 MHz				
TX Trequency	WCDMA Band II: 1932.4 MHz ~ 1987.6 MHz				
	802.11b/g/n: 2412 MHz ~ 2462 MHz				
	Bluetooth: 2402 MHz ~ 2480 MHz				
ntenna Tyne	GPS : 1.57542 GHz				
	WWAN : Fixed Internal Antenna				
Antenna Tyne	WLAN : PIFA Antenna				
Antenna Type	Bluetooth : PIFA Antenna				
	GPS: PIFA Antenna				
	GSM: GMSK				
	GPRS: GMSK				
	EDGE(MCS 0-4): GMSK/(MCS 5-9): 8PSK(Downlink Only)				
	WCDMA: QPSK (Uplink)				
	HSDPA: QPSK (Uplink)				
	HSUPA: QPSK (Uplink)				
Type of Modulation	HSPA+: 16QAM (Downlink Only)				
	802.11b: DSSS (DBPSK / DQPSK / CCK)				
	802.11g/n: OFDM (BPSK / QPSK / 16QAM / 64QAM)				
	Bluetooth (1Mbps) : GFSK				
	Bluetooth (2Mbps) : π /4-DQPSK				
	Bluetooth (3Mbps) : 8-DPSK				
	GPS: BPSK				

1.5. Modification of EUT

No modifications are made to the EUT during all test items.

SPORTON INTERNATIONAL (SHENZHEN) INC.

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1.6. Test Location

Test Site	SPORTON INTERNATIONAL (SHENZHEN) INC.		
Test Site Location	No. 3 Building, the third floor of south, Shahe River west, Fengzeyuan warehouse, Nanshan District, Shenzhen, Guangdong, P.R.C.		
	TEL: +86-755-3320-2398	g.cog,c.	
Test Site No.	Sporton Site No. FCC Registrat		
Test Site NO.	CO01-SZ 831040		

Report No.: FC491907

Test Site	SPORTON INTERNATIONAL (KUNSHAN) INC.		
	No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P.R.C.		
Test Site Location	TEL: +86-0512-5790-0158		
	FAX: +86-0512-5790-0958		
Toot Site No	Sporton Site No.	FCC Registration No.	
Test Site No.	CO01-KS	149928	

Test Site	SPORTON INTERNATIONAL (KUNSHAN) INC.		
	No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P.R.C.		
Test Site Location	TEL: +86-0512-5790-0158		
	FAX: +86-0512-5790-0958		
Took Cita No	Sporton Site No. FCC Registration		
Test Site No.	03CH01-KS	149928	

1.7. Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC 47 CFR FCC Part 15 Subpart B
- ANSI C63.4-2003

Remark: All test items were verified and recorded according to the standards and without any deviation during the test.

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2. Test Configuration of Equipment Under Test

2.1. Test Mode

The EUT has been associated with peripherals pursuant to ANSI C63.4-2003 and configuration operated in a manner tended to maximize its emission characteristics in a typical application.

Frequency range investigated: conduction (150 kHz to 30 MHz), radiation (30MHz to the 5th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

The following tables are showing the test modes as the worst cases and recorded in this report.

		Test Condition			
Item	EUT Configuration	EMI	EMI	EMI	
		AC	RE<1G	RE≥1G	
1.	Charging Mode (EUT with adapter)	\boxtimes	\boxtimes	Note 1	
2.	Data application transferred mode		\bowtie		
	(EUT connected with notebook)				

Abbreviations:

EMI AC: AC conducted emissions

EMI RE ≥ 1G: EUT radiated emissions ≥ 1GHz

• EMI RE < 1G: EUT radiated emissions < 1GHz

Note 1: Testing for this mode is not required or not the worst case.

Remark: For signal above 1GHz, the worst case was test item 2.

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Test Items	EUT Configure Mode	Function Type
	1/2	Mode 1: GSM850 Idle + Bluetooth Idle + WLAN Idle +USB Cable (Charging from Adapter) + Earphone + Camera + SIM1 <fig.1></fig.1>
AC Conducted Emission		Mode 2: GSM1900 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + MPEG4 + SIM1 <fig.1></fig.1>
		Mode 3: WCDMA Band V Idle + Bluetooth Idle + WLAN Idle + USB Cable (Data Link with Notebook) + Earphone + GPS Rx + SIM1 <fig.2></fig.2>
		Mode 1: GSM850 Idle + Bluetooth Idle + WLAN Idle +USB Cable (Charging from Adapter) + Earphone + Camera + SIM1 <fig.1></fig.1>
Radiated Emissions < 1GHz	1/2	Mode 2: GSM1900 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + MPEG4 + SIM1 <fig.1></fig.1>
		Mode 3: WCDMA Band V Idle + Bluetooth Idle + WLAN Idle + USB Cable (Data Link with Notebook) + Earphone + GPS Rx + SIM1 <fig.2></fig.2>
Radiated		Mode 1: WCDMA Band V Idle + Bluetooth Idle + WLAN Idle + USB

Remark:

Radiated

Emissions ≥ 1GHz

2

1. The worst case of AC is mode 2; and the USB Link mode of AC is mode 3, only the test data of these modes are reported.

Cable (Data Link with Notebook) + Earphone + GPS Rx +

2. The worst case of RE < 1G is mode 3; only the test data of this mode was reported.

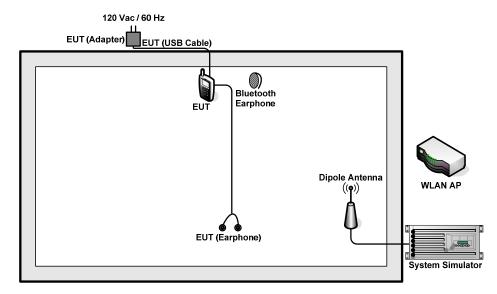
SIM1<Fig.2>

3. Link with Notebook means data application transferred mode between EUT and Notebook.

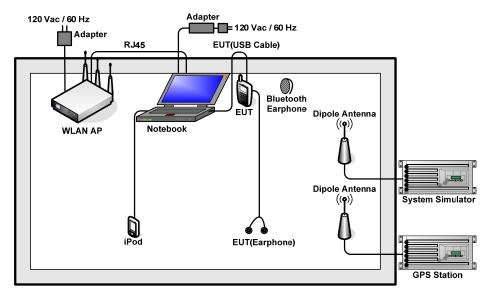
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2.2. Connection Diagram of Test System



<Fig.1>



<Fig.2>

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2.3. Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	System Simulator	R&S	CMW 500	N/A	N/A	Unshielded, 1.8 m
2.	GPS Station	Adivic	MP9000	N/A	N/A	Unshielded, 1.8 m
3.	WLAN AP	ASUS	RT-AC66U	MSQ- RTAC66U	N/A	Unshielded, 1.8 m
4.	WLAN AP	D-Link	DIR-815	KA2IR815A1	N/A	Unshielded, 1.8 m
5.	Bluetooth Earphone	Nokia	BH-108	2010DP1340	N/A	N/A
6.	Notebook	Lenovo	G480	N/A	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
7.	Notebook	Lenovo	E540	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
8.	iPod	Apple	MC525 ZP/A	FCC DoC	Unshielded, 1.0 m	N/A
9.	SD Card	SanDisk	4G class 4	FCC DoC	N/A	N/A
10.	IPod nano 8GB	Apple	MC525 ZP/A	FCC DoC	Unshielded, 1.2 m	N/A

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2.4. EUT Operation Test Setup

The EUT was in GSM or WCDMA idle mode during the testing. The EUT was synchronized to the BCCH, and was in continuous receiving mode by setting system simulator's paging reorganization.

At the same time, the EUT was attached to the Bluetooth earphone or WLAN AP, and the following programs installed in the EUT were programmed during the test.

- 1. Execute the program, "Winthrax" under WIN7 installed in notebook for files transfer with EUT via USB cable.
- 2. Execute "GPS Test" to make the EUT receive continuous signals from GPS station.
- 3. Execute "Video Player" to play MPEG4 files.
- 4. Turn on camera to capture images.

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3. Test Result

Test of AC Conducted Emission Measurement

3.1.1 Limits of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

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Frequency of emission	Conducted limit (dBuV)		
(MHz)	Quasi-peak	Average	
0.15-0.5	66 to 56*	56 to 46*	
0.5-5	56	46	
5-30	60	50	

^{*}Decreases with the logarithm of the frequency.

3.1.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.1.3 Test Procedure

- 1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- 2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
- 3. All the support units are connecting to the other LISN.
- 4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
- 5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
- 6. Both sides of AC line were checked for maximum conducted interference.
- 7. The frequency range from 150 kHz to 30 MHz was searched.
- Set the test-receiver system to Peak Detect Function and specified bandwidth (IF Bandwidth = 8. 9kHz) with Maximum Hold Mode. Then measurement is also conducted by Average Detector and Quasi-Peak Detector Function respectively.

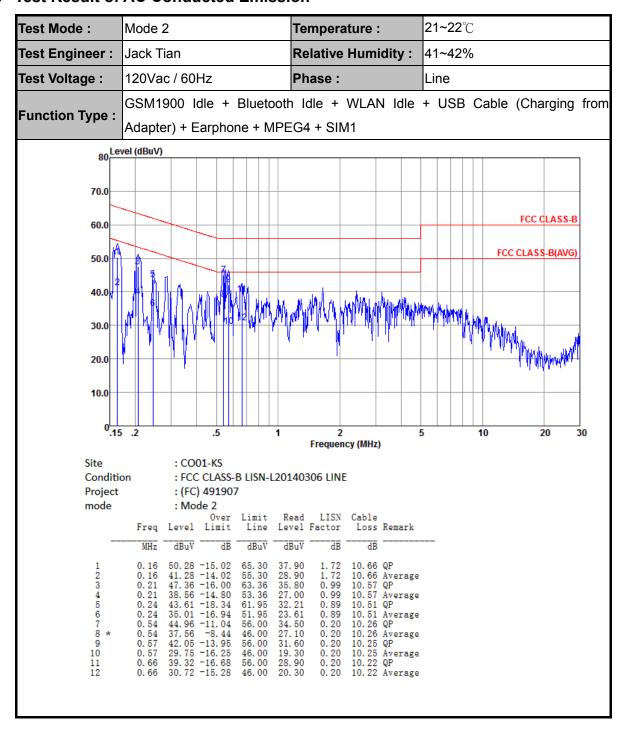
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3.1.4 Test Setup



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3.1.5 Test Result of AC Conducted Emission



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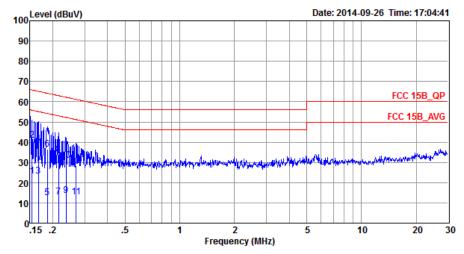
Test Mode: Mode 2 Temperature: 21~22℃ **Relative Humidity:** Test Engineer: Jack Tian 41~42% Test Voltage: 120Vac / 60Hz Phase: Neutral GSM1900 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Function Type: Adapter) + Earphone + MPEG4 + SIM1 80 Level (dBuV) 70.0 FCC CLASS-B 60.0 FCC CLASS-B(AVG) 50.0 40.0 AND THE WASHINGTON 30.0 20.0 10.0 0<mark>.15</mark> .2 .5 5 10 <u>3</u>0 Frequency (MHz) : CO01-KS Site Condition : FCC CLASS-B LISN-N20140306 NEUTRAL : (FC) 491907 Project : Mode 2 mode Read LISN Over Limit Cable Line Level Factor Freq Level Limit Loss Remark MHz dBuV dB dBuV dBuV 45. 90 -19. 31 37. 50 -17. 71 43. 35 -19. 88 35. 75 -17. 48 40. 99 -20. 74 33. 69 -18. 04 42. 43 -13. 57 37. 83 -8. 17 36. 03 -19. 97 30. 53 -15. 47 31. 79 -24. 21 25. 59 -20. 41 1.65 1.65 0.98 0.98 0. 17 0. 17 65. 21 55. 21 63. 23 53. 23 61. 73 51. 73 56. 00 46. 00 56. 00 46. 00 56. 00 10.66 QP 10.66 Av 2 3 4 5 6 7 31. 80 24. 20 10. 57 10. 57 0. 21 0. 21 Average 29. 60 22. 30 31. 90 27. 30 25. 60 0. 98 0. 89 0. 28 0. 28 0. 21 0. 21 0. 25 0. 25 10.50 Average 10.25 QP 10.25 QP 10.25 Average 10.22 QP 10.22 Average 10.19 QP 8 * 9 20. 10 21. 50 15. 30 10 0.67 0.10 11

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Test Mode :	Mode 3	Temperature :	21~22℃
Test Engineer :	Jack Tian	Relative Humidity :	41~42%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Eurotion Type	WCDMA Band V Idle + Blue	etooth Idle + WLAN Id	le + USB Cable (Data Link with
Function Type :	Notebook) + Earphone + GF	PS Rx + SIM1	



Site : CO01-SZ

Condition: FCC 15B_QP LISN_L_20140304 LINE

Project : (FC)491907 Mode : Mode 3

				Over	Limit	Read	LISN	Cable	
		Freq	Level	Limit	Line	Level	Factor	Loss	Remark
		MHz	dBu₹	dB	dBu∇	dBu₹	dB	dB	
1		0.15	23.27	-32.51	55.78	12.70	0.22	10.35	Average
2	*	0.15	40.87	-24.91	65.78	30.30	0.22	10.35	QP
3		0.17	23.16	-31.96	55.12	12.60	0.22	10.34	Average
4		0.17	39.06	-26.06	65.12	28.50	0.22	10.34	QP
5		0.19	12.53	-41.67	54.20	2.00	0.22	10.31	Average
6		0.19	36.63	-27.57	64.20	26.10	0.22	10.31	QP
7		0.22	12.90	-40.11	53.01	2.39	0.23	10.28	Average
8		0.22	34.10	-28.91	63.01	23.59	0.23	10.28	QP
9		0.24	13.69	-38.53	52.22	3.21	0.23	10.25	Average
10		0.24	30.99	-31.23	62.22	20.51	0.23	10.25	QP
11		0.27	12.77	-38.39	51.16	2.29	0.25	10.23	Average
12		0.27	28.47	-32.69	61.16	17.99	0.25	10.23	QP

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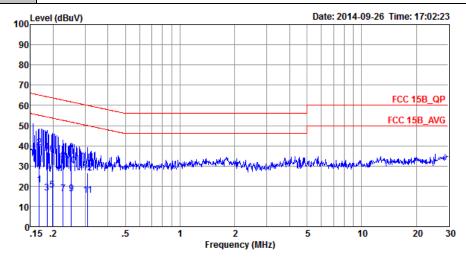
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 Test Mode :
 Mode 3
 Temperature :
 21~22°C

 Test Engineer :
 Jack Tian
 Relative Humidity :
 41~42%

 Test Voltage :
 120Vac / 60Hz
 Phase :
 Neutral

 Function Type :
 WCDMA Band V Idle + Bluetooth Idle + WLAN Idle + USB Cable (Data Link with Notebook) + Earphone + GPS Rx + SIM1



Site : CO01-SZ

Condition: FCC 15B_QP LISN_N_20140304 NEUTRAL

Project : (FC)491907 Mode : Mode 3

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBu∀	dBu∀	dB	dB	
1	0.17	20.66	-34.42	55.08	10.00	0.33	10.33	Average
2 *	0.17	39.26	-25.82	65.08	28.60	0.33	10.33	QP
3	0.19	16.53	-37.71	54.24	5.90	0.32	10.31	Average
4	0.19	37.03	-27.21	64.24	26.40	0.32	10.31	QP
5	0.20	18.12	-35.59	53.71	7.50	0.32	10.30	Average
6	0.20	35.62	-28.09	63.71	25.00	0.32	10.30	QP
7	0.23	16.20	-36.37	52.57	5.61	0.33	10.26	Average
8	0.23	32.60	-29.97	62.57	22.01	0.33	10.26	QP
9	0.25	16.38	-35.31	51.69	5.80	0.34	10.24	Average
10	0.25	30.38	-31.31	61.69	19.80	0.34	10.24	QP
11	0.31	15.56	-34.41	49.97	5.00	0.36	10.20	Average
12	0.31	26.46	-33.51	59.97	15.90	0.36	10.20	QP

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Test of Radiated Emission Measurement 3.2.

3.2.1. Limit of Radiated Emission

The emissions from an unintentional radiator shall not exceed the field strength levels specified in the following table:

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Frequency	Field Strength	Measurement Distance
(MHz)	(microvolts/meter)	(meters)
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

3.2.2. Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.2.3. Test Procedures

- 1. The EUT was placed on a turntable with 0.8 meter above ground.
- 2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
- 3. The table was rotated 360 degrees to determine the position of the highest radiation.
- 4. The antenna is a Bi-Log antenna and its height is adjusted between one to four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
- 5. For each suspected emission, the EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
- 6. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode (RBW=120kHz/VBW=300kHz for frequency below 1GHz; RBW=1MHz VBW=3MHz (Peak), RBW=1MHz/VBW=10Hz (Average) for frequency above 1GHz).
- 7. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, peak values of EUT will be reported. Otherwise, the emission will be repeated by using the quasi-peak method and reported.
- 8. Emission level (dB μ V/m) = 20 log Emission level (μ V/m)
- 9. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

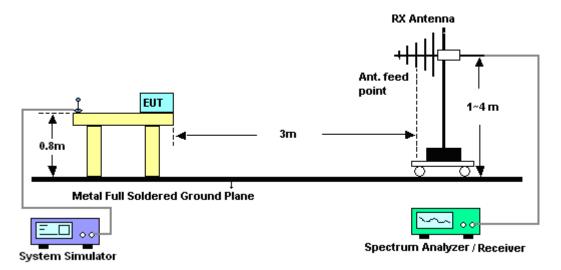
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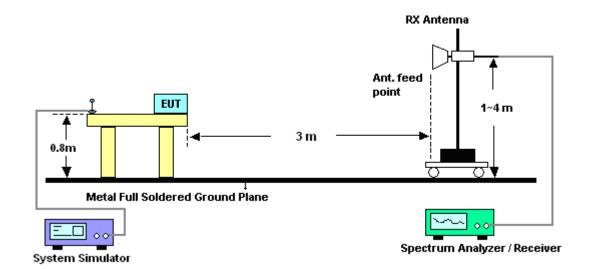
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3.2.4. Test Setup of Radiated Emission

For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



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3.2.5. Test Result of Radiated Emission

Test Mode :	Mode 3			Те	Temperature :			21~2	21~22°C			
Test Engineer :	River	Cheng			Re	elative	Humi	idity :	44~45%			
Test Distance :	3m				Po	olariza	tion :		Horiz	ontal		
Francisco Trans.	WCDI	иА Ва	nd V I	dle + E	Blueto	oth Idl	e + W	LAN I	dle + L	ISB C	able (Da	ata Link wi
Function Type :	Noteb	ook) +	Earph	none +	GPS	Rx + S	IM1					
Remark :	#7 is s	#7 is system simulator signal which can be ignored.										
120 ^{Le} \	vel (dBuV	/m)										
110.0												
100.0												
90.0												
80.0												
70.0	7										FCC	CLASS-B 6dB
60.0												
50.0			9	10	11	12		1;	3		FCC CLAS	S-B (AVG)
40.0	6	8	Ĭ									
30.0												
20.0												
10.0												
10.0												
30	1000.		3000.		5000.	Frequen	7000. cy (MHz))	9000.		11000.	13000
Site Condition Project Mode	1	: 03CH01 : FCC CLA : (FC)491 : 3	ASS-B 3m	LF_ANT_3	7879 HO	RIZONTAL						
	Frea	Level		Limit Line		Antenna Factor		Preamp Factor	A/Pos	T/Pos	Remark	
_		dBuV/m		dBuV/m	dBuV	dB/m	— dB	——dB		deg		_
1	134.76	36.72	-6.78	43.50	57.05	11.58	0.67	32.58			Peak	
				43.50 43.50				32.53 32.48	200		QP Peak	
3 1				46.00				32.47			Peak	
3 ! 4 !	245.34		-7 50	46.00				32.36			Peak	
4 ! 5	345.25					20 00	1 35	32.00	122	0	QP	
4 ! 5 6 !	345.25 720.64	45.03	-0.97	46.00							-	
4 ! 5 6 ! 7 *	345.25 720.64 880.69	45.03 72.63	-0.97	46.00 74.00	80.68	22.05	1.70	31.80 40.63	154		Peak Peak	
4 ! 5 6 ! 7 * 8 : 9 :	345.25 720.64 880.69 1598.00 2828.00	45.03 72.63 42.98 47.34	-0.97 -31.02 -26.66	74.00 74.00	80.68 52.96 46.81	22.05 28.52 32.27	1.70 2.13 2.82	31.80 40.63 34.56	154 147	312 138	Peak Peak Peak	
4 ! 5 6 ! 7 * 8 : 9 :	345.25 720.64 880.69 1598.00 2828.00 3742.00	45.03 72.63 42.98 47.34 48.23	-0.97 -31.02 -26.66 -25.77	74.00 74.00 74.00	80.68 52.96 46.81 44.94	22.05 28.52 32.27 33.07	1.70 2.13 2.82 3.29	31.80 40.63 34.56 33.07	154 147 200	312 138 324	Peak Peak Peak Peak	
4 ! 5 6 ! 7 * 8 : 9 : 10	345.25 720.64 880.69 1598.00 2828.00 3742.00 4894.00	45.03 72.63 42.98 47.34 48.23 49.10	-0.97 -31.02 -26.66 -25.77 -24.90	74.00 74.00	80.68 52.96 46.81 44.94 48.02	22.05 28.52 32.27 33.07 34.20	1.70 2.13 2.82 3.29 3.78	31.80 40.63 34.56 33.07 36.90	154 147	312 138 324 325	Peak Peak Peak	

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21~22°C Test Mode: Mode 3 Temperature: Test Engineer: River Cheng Relative Humidity: 44~45% Test Distance: Polarization: 3m Vertical WCDMA Band V Idle + Bluetooth Idle + WLAN Idle + USB Cable (Data Link with Function Type: Notebook) + Earphone + GPS Rx + SIM1 Remark: #7 is system simulator signal which can be ignored. 120 Level (dBuV/m) 110.0 100.0 90.0 80.0 FCC CLASS-B 70.0 60.0 FCC CLASS-B (AVG) 50.0 40.0 30.0 20.0 10.0 1000. 5000. 7000. 9000. 11000. 13000 Frequency (MHz) Site : 03CH01-KS Condition : FCC CLASS-B 3m LF_ANT_37879 VERTICAL Project : (FC)491907 Mode . 3 Over Limit ReadAntenna Cable Preamp A/Pos T/Pos Freq Level Limit Line Level Factor Loss Factor Remark dB dBuV/m MHz dBuV/m dBuV dB/m dB dB cm deg 1 30.00 29.31 -10.69 40.00 42.58 19.20 0.19 32.66 ------ Peak 2 45.52 28.50 -11.50 40.00 49.60 11.25 0.31 32.66 ------ Peak 3 164.83 36.17 -7.33 43.50 56.73 11.14 0.83 32.53 ------ Peak 36.94 -6.56 43.50 4 194.90 58.71 9.99 0.71 32.47 ------ Peak 5 239.52 34.11 -11.89 46.00 54.14 11.61 0.84 32.48 Peak 6! 720.64 42.63 -3.37 46.00 53.20 20.08 1.35 32.00 128 314 Peak 7 881.66 61.71 69.73 22.08 1.70 31.80 Peak 8 40.33 -33.67 74.00 100 298 Peak 1302.00 51.39 28.54 1.93 41.53 9 2728.00 46.75 -27.25 74.00 46.71 32.12 2.76 34.84 129 167 Peak 10 3188.00 50.66 -23.34 74.00 48.20 32.84 3.04 33.42 131 340 Peak 11 4170.00 48.36 -25.64 74.00 45.88 33.40 3.47 34.39 157 308 Peak 5778.00 48.09 -25.91 102 Peak 12 74.00 47.97 34.65 4.24 38.77 130 8026.00 48.75 -25.25 74.00 45.94 186 214 Peak 36.11 5.04 38.34

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4. List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EMI Test Receiver	R&S	ESCI	100534	9kHz~3GHz	Nov. 05, 2013	Oct. 27,2014	Nov. 04, 2014	Radiation (03CH01-KS)
Spectrum Analyzer	R&S	FSP30	101399	9kHz~30GHz	May 04, 2014	Oct. 27,2014	May 03, 2015	Radiation (03CH01-KS)
Bilog Antenna	SCHAFFNER	CBL6112D	23182	25MHz~2GHz	Jan. 08, 2014	Oct. 27,2014	Jan. 07, 2015	Radiation (03CH01-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	75959	1GHz~18GHz	Jan. 08, 2014	Oct. 27,2014	Jan. 07, 2015	Radiation (03CH01-KS)
Amplifier	com-power	PA-103A	161073	1MHz~1GHz	May 04, 2014	Oct. 27,2014	May 03, 2015	Radiation (03CH01-KS)
Amplifier	Agilent	8449B	3008A02371	1GHz~26.5GHz	Dec. 10, 2013	Oct. 27,2014	Dec. 09, 2014	Radiation (03CH01-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Oct. 27,2014	NCR	Radiation (03CH01-KS)
Turn Table	MF	MF7802	N/A	0~360 degree	NCR	Oct. 27,2014	NCR	Radiation (03CH01-KS)
Antenna Mast	MF	MF7802	N/A	1 m~4 m	NCR	Oct. 27,2014	NCR	Radiation (03CH01-KS)
ESCIO TEST Receiver	R&S	ESCI	100724	9kHz~3GHz	Feb. 21, 2014	Sep. 26, 2014	Feb. 20, 2015	Conduction (CO01-SZ)
AC LISN	EMCO	3816/2SH	00103912	9kHz~30MHz	Mar. 04, 2014	Sep. 26, 2014	Mar. 03, 2015	Conduction (CO01-SZ)
AC LISN (for auxiliary equipment)	EMCO	3816/2SH	00103892	9kHz~30MHz	Mar. 04, 2014	Sep. 26, 2014	Mar. 03, 2015	Conduction (CO01-SZ)
AC Power Source	Chroma	61602	61602000089 1	100Vac~250Vac	Dec. 17, 2013	Sep. 26, 2014	Dec. 16, 2014	Conduction (CO01-SZ)
EMI Receiver	R&S	ESCI7	100768	9kHz~7GHz;	May 04, 2014	Oct. 28,2014	May 03, 2015	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060103	9kHz~30MHz	Dec. 10, 2013	Oct. 28,2014	Dec. 09, 2014	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060105	9kHz~30MHz	Dec. 10, 2013	Oct. 28,2014	Dec. 09, 2014	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP0000008 11	AC 0V~300V, 45Hz~1000Hz	Nov. 12, 2013	Oct. 28,2014	Nov. 11, 2014	Conduction (CO01-KS)

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5. Uncertainty of Evaluation

Uncertainty of Conducted Emission Measurement (150 kHz ~ 30 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.3
(377	

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<u>Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)</u>

Measuring Uncertainty for a Level of	2.5
Confidence of 95% (U = 2Uc(y))	2.5

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