FCC Test Report

APPLICANT : Shenzhen Tinno Mobile Technology Corp.

EQUIPMENT: Smart Phone

MODEL NAME : U626AA

FCC ID : XD6U626AA

STANDARD : 47 CFR Part 15 Subpart B

CLASSIFICATION: Certification

TEST DATE(S) : Jan. 07, 2022 ~ Jan. 15, 2022

We, Sporton International Inc. (Shenzhen), would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI C63.4-2014 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 Inc. (Shenzhen), the test report shall not be reproduced except in full.

Reviewed by: Derreck Chen / Supervisor

Frie Shih

Donale Chen

Approved by: Eric Shih / Manager

Sporton International Inc. (ShenZhen)

1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan Shenzhen, 518055 People's Republic of China

Sporton International Inc. (ShenZhen)

TEL: +86-755-8637-9589 FAX: +86-755-8637-9595 FCC ID: XD6U626AA Page Number : 1 of 21
Report Issued Date : Feb. 10, 2022
Report Version : Rev. 01

Report No.: FC1N0415

TABLE OF CONTENTS

RE	VISIO	N HISTORY	3
ÇI I		RY OF TEST RESULT	
		ERAL DESCRIPTION	
••	1.1.	Applicant	
	1.1.	Manufacturer	
	1.3.	Product Feature of Equipment Under Test	
	1.4.	Product Specification of Equipment Under Test	
	1.5.	Modification of EUT	
	1.6.	Test Location	
	1.7.	Test Software	
	1.8.	Applicable Standards	
2.	TEST	CONFIGURATION OF EQUIPMENT UNDER TEST	8
	2.1.	Test Mode	8
	2.2.	Connection Diagram of Test System	
	2.3.	Support Unit used in test configuration and system	9
	2.4.	EUT Operation Test Setup	10
3.	TEST	RESULT	11
	3.1.	Test of AC Conducted Emission Measurement	11
	3.2.	Test of Radiated Emission Measurement	15
4.	LIST	OF MEASURING EQUIPMENT	20
5.	UNCE	ERTAINTY OF EVALUATION	21

APPENDIX A. SETUP PHOTOGRAPHS

TEL: +86-755-8637-9589 FAX: +86-755-8637-9595 FCC ID: XD6U626AA Page Number : 2 of 21
Report Issued Date : Feb. 10, 2022
Report Version : Rev. 01

Report No. : FC1N0415

REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FC1N0415	Rev. 01	Initial issue of report	Feb. 10, 2022

Sporton International Inc. (ShenZhen)

TEL: +86-755-8637-9589 FAX: +86-755-8637-9595 FCC ID: XD6U626AA Page Number : 3 of 21
Report Issued Date : Feb. 10, 2022
Report Version : Rev. 01

Report No. : FC1N0415

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	7.61 dB at
					0.170 MHz
					Under limit
3.2	15.109	Radiated Emission	< 15.109 limits	PASS	7.12 dB at
					159.980 MHz

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Sporton International Inc. (ShenZhen)

TEL: +86-755-8637-9589 FAX: +86-755-8637-9595 FCC ID: XD6U626AA Page Number : 4 of 21
Report Issued Date : Feb. 10, 2022
Report Version : Rev. 01

Report No.: FC1N0415

1. General Description

1.1. Applicant

Shenzhen Tinno Mobile Technology Corp.

TINNO Building, No.33, Xiandong Rd, Xili, Nanshan District, Shenzhen, Guangdong Province, PRC

Report No.: FC1N0415

: 5 of 21

1.2. Manufacturer

Shenzhen Tinno Mobile Technology Corp.

TINNO Building, No.33, Xiandong Rd, Xili, Nanshan District, Shenzhen, Guangdong Province, PRC

1.3. Product Feature of Equipment Under Test

	Product Feature
Equipment	Smart Phone
Model Name	U626AA
FCC ID	XD6U626AA
EUT supports Radios application	LTE WLAN 2.4GHz 802.11b/g/n HT20 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE GNSS
IMEI Code	Conduction: 866289050019084 Radiation: 866289050019175
HW Version	V1.0
SW Version	U626AAV01.02.10
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.

Sporton International Inc. (ShenZhen) Page Number TEL: +86-755-8637-9589 Report Issued Date: Feb. 10, 2022

FAX: +86-755-8637-9595 Report Version : Rev. 01 FCC ID: XD6U626AA Report Template No.: BU5-FC15B Version 3.0

1.4. Product Specification of Equipment Under Test

Stan	dards-related Product Specification
Stan	•
	LTE Band 2 : 1850 MHz ~ 1910 MHz
	LTE Band 4 : 1710 MHz ~ 1755 MHz LTE Band 5 : 824 MHz ~ 849 MHz
	LTE Band 5 : 824 MHz ~ 849 MHz LTE Band 12 : 699 MHz ~ 716 MHz
	LTE Band 12 : 099 MHz ~ 710 MHz
	LTE Band 14 : 766 MHz ~ 796 MHz
Tx Frequency	802.11b/g/n: 2400 MHz ~ 2483.5 MHz
	802.11a/n/ac: 5150 MHz ~ 5250 MHz;
	5250 MHz ~ 5350 MHz;
	5470 MHz ~ 5725 MHz
	5725 MHz ~ 5850 MHz
	Bluetooth: 2400 MHz ~ 2483.5 MHz LTE Band 2: 1930 MHz ~ 1990 MHz
	LTE Band 4 : 2110 MHz ~ 2155 MHz
	LTE Band 5 : 869 MHz ~ 894 MHz
	LTE Band 12 : 729 MHz ~ 746 MHz
	LTE Band 14 : 758 MHz ~ 768 MHz
D., 5	LTE Band 30 : 2350 MHz ~ 2360 MHz
Rx Frequency	802.11b/g/n: 2400 MHz ~ 2483.5 MHz
	802.11a/n/ac: 5150 MHz ~ 5250 MHz;
	5250 MHz ~ 5350 MHz;
	5470 MHz ~ 5725 MHz
	5725 MHz ~ 5850 MHz
	Bluetooth: 2400 MHz ~ 2483.5 MHz
	GNSS: 1559 MHz ~ 1610 MHz
	WWAN : PIFA Antenna
Antenna Type	WLAN: FPC Antenna
Antenna Type	Bluetooth : FPC Antenna
	GNSS: FPC Antenna
	LTE: QPSK / 16QAM / 64QAM
	802.11b: DSSS (DBPSK / DQPSK / CCK)
	802.11a/g/n: OFDM (BPSK / QPSK / 16QAM / 64QAM)
	802.11ac: OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)
Type of Modulation	Bluetooth LE : GFSK
	Bluetooth (1Mbps) : GFSK
	Bluetooth (2Mbps) :π/4-DQPSK
	Bluetooth (3Mbps) : 8-DPSK
	GNSS: BPSK

1.5. Modification of EUT

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

Sporton International Inc. (ShenZhen)

TEL: +86-755-8637-9589 FAX: +86-755-8637-9595 FCC ID: XD6U626AA Page Number : 6 of 21
Report Issued Date : Feb. 10, 2022
Report Version : Rev. 01

Report Template No.: BU5-FC15B Version 3.0

1.6. Test Location

Sporton International Inc. (Shenzhen) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.01.

Test Firm	Sporton International Inc	. (Shenzhen)	
Test Site Location	Shenzhen, 518055 Peop TEL: +86-755-86379589	le's Republic of China	inwei Village, Xili, Nanshan,
	FAX: +86-755-86379595		
	Sporton Site No.	FCC Designation No	FCC Test Firm
Test Site No.	Sporton Site No.	i CC Designation No	Registration No.
	CO01-SZ	CN1256	421272

Test Firm	Sporton International Inc. (Shenz	zhen)			
Test Site Location	101, 1st Floor, Block B, Buildin Community, Fuyong Street, Baoa China 518103 TEL: +86-755-33202398				
Test Site No.	Sporton Site No.	Sporton Site No. FCC Designation FCC Test No. Registration			
	03CH05-SZ	CN1256	421272		

1.7. Test Software

Item	Site	Manufacturer	Name	Version
1.	03CH05-SZ	AUDIX	E3	6.2009-8-24
2.	CO01-SZ	AUDIX	E3	6.120613b

1.8. Applicable Standards

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

- 47 CFR Part 15 Subpart B
- ANSI C63.4-2014

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

Sporton International Inc. (ShenZhen)

TEL: +86-755-8637-9589 FAX: +86-755-8637-9595 FCCID: XD6U626AA Page Number : 7 of 21
Report Issued Date : Feb. 10, 2022
Report Version : Rev. 01

Report Template No.: BU5-FC15B Version 3.0

2. Test Configuration of Equipment Under Test

2.1. Test Mode

The EUT has been associated with peripherals pursuant to ANSI C63.4-2014 and configuration operated in a manner tended to maximize its emission characteristics in a typical application.

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

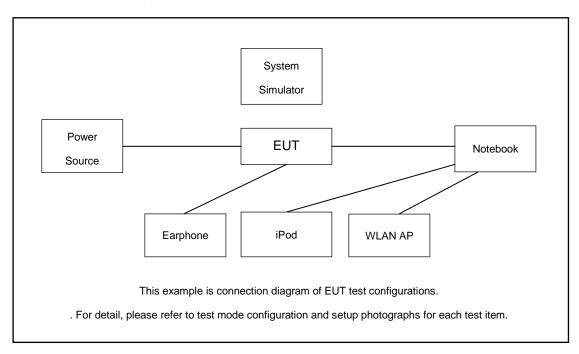
Test Items	Function Type
	Mode 1: LTE Band 5 Idle(Low CH) + USB Cable 1(Charging from Adapter) + Earphone + Camera(Rear) + SD Card(Load) + Battery
	Mode 2: LTE Band 12 Idle(High CH) + USB Cable 2(Charging from Adapter) + Earphone + Camera(Front) + SD Card(Load) + Battery
AC Conducted Emission	Mode 3: LTE Band 14 Idle(High CH) + USB Cable2(Charging from Adapter) + Earphone + MPEG4(Colur bar) + SD Card(Link) + Battery
	Mode 4: LTE Band 14 Idle(High CH) + USB Cable1(Data Link with Notebook) + Earphone + H-Pattern + SD Card(Link) + Battery
	Mode 5: LTE Band 14 Idle(High CH) + USB Cable2(Data Link with Notebook) + Earphone + H-Pattern + SD Card(Link) + Battery
	Mode 1: LTE Band 5 Idle(Low CH) + USB Cable 1(Charging from Adapter) + Earphone + Camera(Rear) + SD Card(Load) + Battery
	Mode 2: LTE Band 12 Idle(High CH) + USB Cable 2(Charging from Adapter) + Earphone + Camera(Front) + SD Card(Load) + Battery
Radiated Emissions	Mode 3: LTE Band 14 Idle(High CH) + USB Cable2(Charging from Adapter) + Earphone + MPEG4(Colur bar) + SD Card(Link) + Battery
	Mode 4: LTE Band 14 Idle(High CH) + USB Cable1(Data Link with Notebook) + Earphone + H-Pattern + SD Card(Link) + Battery
	Mode 5: LTE Band 14 Idle(High CH) + USB Cable2(Data Link with Notebook) + Earphone + H-Pattern + SD Card(Link) + Battery

Remark:

- 1. The worst case of AC is mode 4; only the test data of this mode is reported.
- 2. The worst case of RE is mode 5; only the test data of this mode is reported.
- Data Link with Notebook means data application transferred mode between EUT and Notebook.
- 4. Pre-scanned Low/Middle/High channel, the worst channel was recorded in this report.

Report Template No.: BU5-FC15B Version 3.0

2.2. Connection Diagram of Test System



The EUT has been associated with peripherals pursuant to ANSI C63.4-2014 and configuration operated in a manner tended to maximize its emission characteristics in a typical application

2.3. Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Base Station	Anritsu	MT8820C	N/A	N/A	Unshielded,1.8m
2.	WLAN AP	ASUSTek	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded,2.7m with Core
3.	WLAN AP	D-Link	DIR-820L	KA2IR820LA1	N/A	Unshielded,1.8m
4.	Earphone	мото	N/A	N/A	Unshielded,1.2m	N/A
5.	Notebook	DELL	Inspiron15-7570	Fcc DoC	N/A	shielded cable DC O/P 1.8m Unshielded AC I/P cable 1.8m
6.	Notebook	Lenovo	E540	FCC DoC	N/A	AC I/P: Unshielded, 1.2m DC O/P: Shielded, 1.8m
7.	SD Card	N/A	MicroSD HC	FCC DoC	N/A	N/A
8.	IPod	Apple	MC525 ZP/A	Fcc DoC	Shielded, 1.0m	N/A

Sporton International Inc. (ShenZhen)

TEL: +86-755-8637-9589 FAX: +86-755-8637-9595 FCC ID: XD6U626AA Page Number : 9 of 21
Report Issued Date : Feb. 10, 2022
Report Version : Rev. 01

Report Template No.: BU5-FC15B Version 3.0

2.4. EUT Operation Test Setup

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

At the same time, the following programs installed in the EUT were programmed during the test.

- 1. Data application is transferred between notebook and EUT via USB cable.
- 2. Turn on camera to capture images.
- 3. Turn on MPEG4 function.
- 4. Execute "H Pattern" to show H Pattern via USB Cable on the Notebook.

Sporton International Inc. (ShenZhen)

TEL: +86-755-8637-9589 FAX: +86-755-8637-9595 FCC ID: XD6U626AA Page Number : 10 of 21
Report Issued Date : Feb. 10, 2022
Report Version : Rev. 01

Report Template No.: BU5-FC15B Version 3.0

3. Test Result

3.1. 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.

<Class B Limit>

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

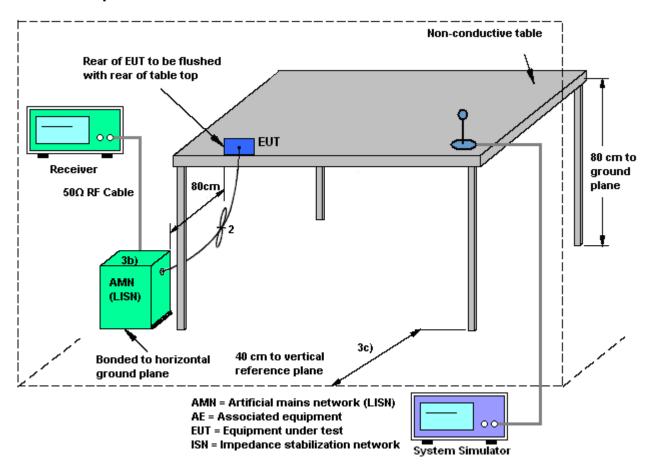
- 1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- 2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
- 3. All the support units are connecting to the other 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.
- 8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF Bandwidth = 9kHz) with Maximum Hold Mode. Then measurement is also conducted by Average Detector and Quasi-Peak Detector Function respectively.

Page Number : 11 of 21
Report Issued Date : Feb. 10, 2022
Report Version : Page 04

Report No.: FC1N0415

Report Version : Rev. 01

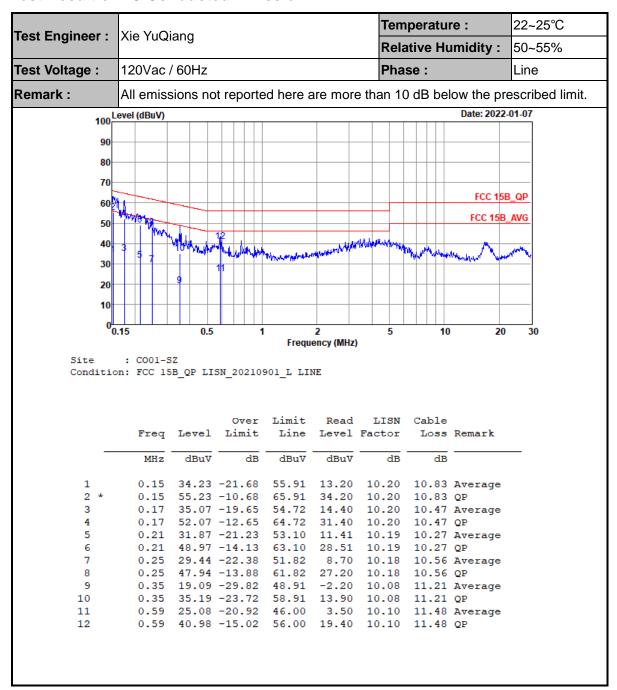
3.1.4 Test Setup



TEL: +86-755-8637-9589 FAX: +86-755-8637-9595 FCC ID: XD6U626AA Page Number : 12 of 21
Report Issued Date : Feb. 10, 2022
Report Version : Rev. 01

Report Template No.: BU5-FC15B Version 3.0

3.1.5 Test Result of AC Conducted Emission



TEL: +86-755-8637-9589 FAX: +86-755-8637-9595 FCC ID: XD6U626AA Page Number : 13 of 21
Report Issued Date : Feb. 10, 2022
Report Version : Rev. 01

Report Template No.: BU5-FC15B Version 3.0

FCC Test Report No.: FC1N0415

est Engineer :	ריי∨ בוצו	iana				16	mpera		22~25°C
	VIE INC	iaiiy				Re	lative	Humidity:	50~55%
est Voltage :	120Vac	/ 60Hz				Ph	ase :		Neutral
Remark :	All emis	sions no	t reporte	ed here a	are more	e than	10 dB l	below the pi	rescribed lim
100L	evel (dBuV)							Date: 2022	2-01-07
90									
80									
70									
col								FCC 15	B_QP
60								FCC 15E	2 AVG
50	"Br Sully Ald							100 132	<u>5_AVO</u>
40	3 18	WHAT HAVE BEEN		h.	Appendict of the party of the	Mary and Marketing	- L	, , ,	
30-	5 7	WHI BANGE TO HER	He was gray a	Marylowallow	Mary Age	12	Talk Control	March March Branch Control	MAN TO
	9								
20									
20									
10									
10- 0- Site	: CO01- on: FCC 1			Frequ	2 ency (MHz)	5		10 20	30
10- 0- Site	: CO01-	SZ	SN_202109	Frequ	ency (MHz))	N Cab		30
10- 0- Site	: CO01- on: FCC 1	SZ SB_QP LI	SN_202109	Frequ 901_N NE	ency (MHz)	LISI	N Cab		0 30
10- 0- Site	: CO01- on: FCC 1	SZ SB_QP LI	SN_202109	Frequ 901_N NE	JTRAL Read	LISM Factor	r Lo	le	0 30
10- 0- Site	: COOl- on: FCC l Freq	SZ 5B_QP LI Level	SN_202109 Over Limit dB	Frequ 901_N NE Limit Line dBuV	Read Level dBuV	LISI Factor	B Lo	le ss Remark	0 30
Site Condition	: COOl- on: FCC 1 Freq MHz 0.15 0.15	Level dBuV 34.66 55.76	Over Limit ———————————————————————————————————	Freque 901_N NE Limit Line dBuV 56.00 66.00	Read Level dBuV	LISI Factor di 10.33	E Lo.	le ss Remark dB 85 Average 85 QP	0 30
Site Condition	: COO1- on: FCC 1 Freq MHz 0.15 0.15 0.17	Level dBuV 34.66 55.76 36.67	Over Limit dB -21.34 -10.24 -18.41	Freque 901_N NE Limit Line dBuV 56.00 66.00 55.08	Read Level dBuV 13.50 34.60 15.80	LISI Factor di 10.33 10.33 10.30	B 1 10.1 1 10.1 0 10.1	le ss Remark dB 85 Average 85 QP 57 Average	0 30
10 0 Site Condition	: COO1- on: FCC 1 Freq MHz 0.15 0.15 0.17 0.17	Level dBuV 34.66 55.76 36.67 57.47	Over Limit dB -21.34 -10.24 -18.41 -7.61	Freque 901_N NET Limit Line dBuV 56.00 66.00 55.08 65.08	Read Level dBuV 13.50 34.60 15.80 36.60	LIST Factor di 10.33 10.33 10.30 10.30	B 1 10.1 1 10.1 0 10.	le ss Remark dB 85 Average 85 QP 57 Average 57 QP	0 30
Site Condition	: COO1- on: FCC 1 Freq MHz 0.15 0.15 0.17 0.17 0.20	Level dBuV 34.66 55.76 36.67 57.47 30.17	Over Limit dB -21.34 -10.24 -18.41	Freque 901_N NET Limit Line dBuV 56.00 66.00 55.08 65.08 53.76	Read Level dBuV 13.50 34.60 15.80 36.60 9.70	LIST Factor di 10.33 10.33 10.36 10.26	B 10.00 10.0	le ss Remark dB 85 Average 85 QP 57 Average 57 QP 19 Average	0 30
10 0 0 Site Condition	: CO01- on: FCC 1 Freq MHz 0.15 0.15 0.17 0.17 0.20 0.20	Level dBuV 34.66 55.76 36.67 57.47 30.17 47.17	Over Limit ———————————————————————————————————	Freque 901_N NET Limit Line dBuV 56.00 66.00 55.08 65.08 53.76 63.76	Read Level dBuV 13.50 34.60 15.80 36.60 9.70 26.70	LISI Factor di 10.33 10.33 10.33 10.20 10.20	E Lo. 1 10.1 1 10.1 0 10.0 0 10.0 8 10.0 8 10.0	le ss Remark dB 85 Average 85 QP 57 Average 57 QP 19 Average	0 30
10 0 Site Condition	: COO1- on: FCC 1 Freq MHz 0.15 0.17 0.17 0.20 0.20 0.23 0.23	Level dBuV 34.66 55.76 36.67 57.47 30.17 47.17 28.95 47.85	Over Limit ———————————————————————————————————	Freque 901_N NET Limit Line dBuV 56.00 66.00 55.08 65.08 53.76 63.76 62.57	Read Level dBuV 13.50 34.60 15.80 36.60 9.70 26.70 8.30 27.20	LISI Factor di 10.33 10.33 10.33 10.20 10.20 10.20 10.20 10.20 10.20	1 10.: 1 10.: 1 10.: 0 10.: 0 10.: 8 10.: 8 10.: 6 10.:	le ss Remark dB 85 Average 85 QP 57 Average 57 QP 19 Average 19 QP 39 Average 39 QP	0 30
10 0 Site Condition	: COO1- on: FCC 1 Freq MHz 0.15 0.17 0.17 0.20 0.20 0.23 0.23 0.23 0.28	Level dBuV 34.66 55.76 36.67 57.47 30.17 47.17 28.95 47.85 22.94	Over Limit ———————————————————————————————————	Dimit Limit Line dBuV 56.00 66.00 55.08 65.08 53.76 63.76 62.57 50.68	Read Level dBuV 13.50 34.60 15.80 36.60 9.70 26.70 8.30 27.20 1.90	LISI Factor di 10.33 10.33 10.33 10.20 10.	T LO. 1 10. 1 10. 0 10. 0 10. 8 10. 8 10. 6 10. 6 10. 2 10.	1e ss Remark dB 85 Average 85 QP 57 Average 57 QP 19 Average 19 QP 39 Average 39 QP 82 Average	0 30
10 0 Site Condition	: COO1- on: FCC 1 Freq MHz 0.15 0.17 0.17 0.20 0.20 0.23 0.23	Level dBuV 34.66 55.76 36.67 57.47 30.17 47.17 28.95 47.85 22.94 39.34	Over Limit ———————————————————————————————————	Dimit Limit Line dBuV 56.00 66.00 55.08 65.08 63.76 62.57 62.57 50.68 60.68	Read Level dBuV 13.50 34.60 15.80 36.60 9.70 26.70 8.30 27.20	LISI Factor di 10.33 10.33 10.32 10.22 10.22 10.22 10.22 10.22 10.22	T Lo. 1 10 1 10 0	le ss Remark dB 85 Average 85 QP 57 Average 57 QP 19 Average 19 QP 39 Average 39 QP	0 30

Note:

- 1. Level(dB μ V) = Read Level(dB μ V) + LISN Factor(dB) + Cable Loss(dB)
- 2. Over Limit(dB) = Level(dB μ V) Limit Line(dB μ V)

TEL: +86-755-8637-9589 FAX: +86-755-8637-9595 FCC ID: XD6U626AA Page Number : 14 of 21
Report Issued Date : Feb. 10, 2022
Report Version : Rev. 01

3.2. Test of Radiated Emission Measurement

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:

<Class B Limit>

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.

Sporton International Inc. (ShenZhen)

TEL: +86-755-8637-9589 FAX: +86-755-8637-9595 FCC ID: XD6U626AA Page Number : 15 of 21
Report Issued Date : Feb. 10, 2022
Report Version : Rev. 01

Report No.: FC1N0415

3.2.3. Test Procedures

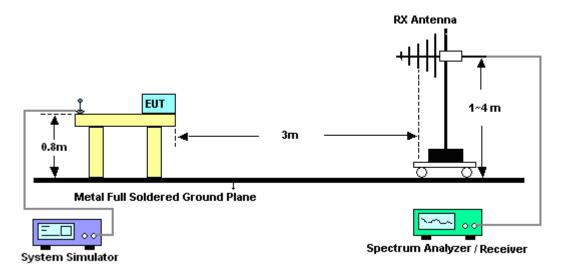
- 1. The EUT was placed on a turntable with 0.8 meter above ground.
- 2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
- 3. The table was rotated 360 degrees to determine the position of the highest radiation.
- 4. The 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
- 10. Exploratory radiated emissions testing of handheld and/or body-worn devices shall include rotation of the EUT through three orthogonal axes (X/Y/Z Plane) to determine the orientation (attitude) that maximizes the emissions.

TEL: +86-755-8637-9589 FAX: +86-755-8637-9595 FCC ID: XD6U626AA Page Number : 16 of 21
Report Issued Date : Feb. 10, 2022
Report Version : Rev. 01

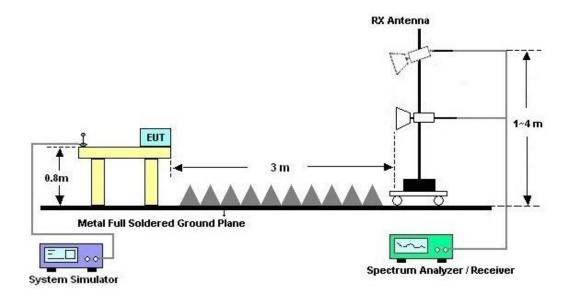
Report Template No.: BU5-FC15B Version 3.0

3.2.4. Test Setup of Radiated Emission

For radiated emissions from 30MHz to 1GHz



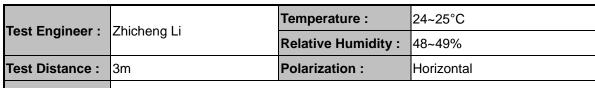
For radiated emissions above 1GHz



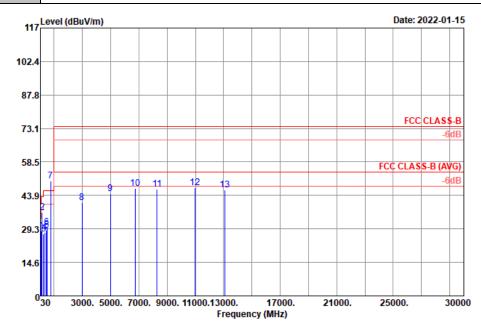
TEL: +86-755-8637-9589 FAX: +86-755-8637-9595 FCC ID: XD6U626AA Page Number : 17 of 21
Report Issued Date : Feb. 10, 2022
Report Version : Rev. 01

Report No.: FC1N0415

3.2.5. Test Result of Radiated Emission



Remark: #7 is system simulator signal which can be ignored.



Site : 03CH05-SZ

Condition : FCC CLASS-B 3m VULB9168-01001 HORIZONTAL

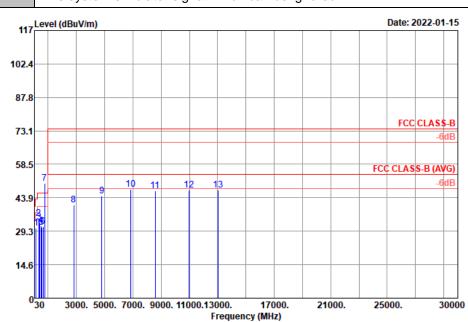
	Freq	Level	Over Limit	Limit Line		Intenna Factor		Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	CM	deg	
1	93.05	28.27	-15.23	43.50	47.05	13.97	2.44	35.19			Peak
2	159.98	36.38	-7.12	43.50	49.57	19.32	2.59	35.10			Peak
3	263.77	27.08	-18.92	46.00	40.50	18.61	2.94	34.97			Peak
4	332.64	27.64	-18.36	46.00	38.69	20.63	3.22	34.90			Peak
5	455.83	28.84	-17.16	46.00	36.97	23.25	3.32	34.70			Peak
6	497.54	30.05	-15.95	46.00	37.50	23.79	3.46	34.70			Peak
7 *	763.00	50.30			52.80	27.97	3.90	34.37			Peak
8	2988.00	40.86	-33.14	74.00	53.27	28.62	8.88	49.91			Peak
9	4978.00	44.71	-29.29	74.00	52.18	31.50	10.53	49.50			Peak
10	6740.00	47.08	-26.92	74.00	50.44	34.63	11.53	49.52			Peak
11	8286.00	46.65	-27.35	74.00	46.46	37.21	12.81	49.83			Peak
12	10980.00	47.22	-26.78	74.00	39.76	40.57	14.91	48.02			Peak
13	13091.00	46.36	-27.64	74.00	37.67	39.25	16.11	46.67			Peak

TEL: +86-755-8637-9589 FAX: +86-755-8637-9595 FCC ID: XD6U626AA Page Number : 18 of 21
Report Issued Date : Feb. 10, 2022
Report Version : Rev. 01

Report Template No.: BU5-FC15B Version 3.0

FCC Test Report Report No.: FC1N0415

Took Engineer	Zhichang Li	Temperature :	24~25°C			
Test Engineer :		Relative Humidity :	48~49%			
Test Distance :	3m	Polarization :	Vertical			
Remark :	#7 is system simulator signal which can be ignored.					



Site : 03CH05-SZ

: FCC CLASS-B 3m VULB9168-01001 VERTICAL Condition

			0ver	Limit	ReadA	ntenna	Cable	Preamp	A/Pos	T/Pos	
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor			Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	159.98	30.70	-12.80	43.50	43.89	19.32	2.59	35.10			Peak
2	332.64	34.76	-11.24	46.00	45.81	20.63	3.22	34.90			Peak
3	386.96	33.16	-12.84	46.00	42.85	21.85	3.29	34.83			Peak
4	499.48	31.52	-14.48	46.00	38.93	23.82	3.47	34.70			Peak
5	551.86	30.82	-15.18	46.00	36.97	24.79	3.66	34.60			Peak
6	640.13	31.41	-14.59	46.00	35.78	26.24	3.89	34.50			Peak
7 *	763.00	50.31			52.81	27.97	3.90	34.37			Peak
8	2828.00	40.78	-33.22	74.00	54.06	28.26	8.57	50.11			Peak
9	4790.00	44.55	-29.45	74.00	52.43	31.30	10.36	49.54			Peak
10	6846.00	47.70	-26.30	74.00	51.01	34.86	11.63	49.80			Peak
11	8588.00	47.08	-26.92	74.00	46.60	37.12	13.02	49.66			Peak
12	10972.00	47.18	-26.82	74.00	39.77	40.56	14.87	48.02			Peak
13	13046.00	47.26	-26.74	74.00	38.37	39.17	16.36	46.64			Peak

Note:

- 1. Level($dB\mu V/m$) = Read Level($dB\mu V$) + Antenna Factor(dB/m) + Cable Loss(dB) Preamp Factor(dB)
- 2. Over Limit(dB) = Level(dB μ V/m) Limit Line(dB μ V/m)

Sporton International Inc. (ShenZhen)

TEL: +86-755-8637-9589 FAX: +86-755-8637-9595 FCC ID: XD6U626AA

Page Number : 19 of 21 Report Issued Date : Feb. 10, 2022 Report Version : Rev. 01

4. List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EMI Receiver	R&S	ESR7	101630	9kHz~7GHz;	Mar. 08, 2021	Jan. 07, 2022	Mar. 07, 2022	Conduction (CO01-SZ)
AC LISN	R&S	ENV216	100063	9kHz~30MHz	Sep. 01, 2021	Jan. 07, 2022	Aug. 31, 2022	Conduction (CO01-SZ)
AC LISN (for auxiliary equipment)	EMCO	3816/2SH	00103892	9kHz~30MHz	Oct. 28, 2021	Jan. 07, 2022	Oct. 27, 2022	Conduction (CO01-SZ)
AC Power Source	Chroma	61602	616020000891	100Vac~250Vac	Jul. 14, 2021	Jan. 07, 2022	Jul. 13, 2022	Conduction (CO01-SZ)
EMI Test Receiver	R&S	ESR7	102261	9kHz~7GHz	May 21, 2021	Jan. 15, 2022	May 20, 2022	Radiation (03CH05-SZ)
EXA Spectrum Analyzer	KEYSIGHT	N9010B	MY59071191	10Hz~44GHz	Apr. 07, 2021	Jan. 15, 2022	Apr. 06, 2022	Radiation (03CH05-SZ)
Log-periodic Antenna	SCHWARZBE CK	VULB 9168	01001	20MHz~1.5GHz	Mar 25, 2021	Jan. 15, 2022	Mar. 24, 2022	Radiation (03CH05-SZ)
Amplifier	EM Electronics	EM330	060756	0.01Hz ~3000MHz	Apr. 07, 2021	Jan. 15, 2022	Apr. 06, 2022	Radiation (03CH05-SZ)
Double Ridge Horn Antenna	SCHWARZBE CK	BBHA9120D	9120D-2206	1GHz~18GHz	Apr. 11, 2021	Jan. 15, 2022	Apr. 10, 2022	Radiation (03CH05-SZ)
HF Amplifier	EM Electronics	EM01G18GA	060781	1GHz~18GHz	Apr. 07, 2021	Jan. 15, 2022	Apr. 06, 2022	Radiation (03CH05-SZ)
HF Amplifier	EM Electronics	EM18G40G	060778	18GHz~40GHz	Apr. 07, 2021	Jan. 15, 2022	Apr. 06, 2022	Radiation (03CH05SZ)
Horn Antenna	SCHWARZBE CK	BBHA9170	00983	15GHz~40GHz	Apr. 11, 2021	Jan. 15, 2022	Apr. 10, 2022	Radiation (03CH05-SZ)
AC Power Source	APC	AFV-S-600	F119050013	N/A	NCR	Jan. 15, 2022	NCR	Radiation (03CH05-SZ)
Turn Table	EMEC	T-200-S-1	060925-T	0~360 degree	NCR	Jan. 15, 2022	NCR	Radiation (03CH05-SZ)
Antenna Mast	EMEC	MBS-400-1	060927	1 m~4 m	NCR	Jan. 15, 2022	NCR	Radiation (03CH05-SZ)

NCR: No Calibration Required

Sporton International Inc. (ShenZhen)

TEL: +86-755-8637-9589 FAX: +86-755-8637-9595 FCC ID: XD6U626AA Page Number : 20 of 21
Report Issued Date : Feb. 10, 2022
Report Version : Rev. 01

Report Template No.: BU5-FC15B Version 3.0

5. Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence	2.2dB
of 95% (U = 2Uc(y))	2.2U B

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence	4.2dB
of 95% (U = 2Uc(y))	4.2ub

Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence	5.1dB
of 95% (U = 2Uc(y))	3.1 u B

Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence	
-	5.1dB
of 95% (U = 2Uc(y))	3.1dD
01 33 /0 (O = 200(y))	

Sporton International Inc. (ShenZhen) TEL: + 86-755-8637-9589

FAX: +86-755-8637-9595 FCC ID: XD6U626AA Page Number : 21 of 21
Report Issued Date : Feb. 10, 2022
Report Version : Rev. 01

Report Template No.: BU5-FC15B Version 3.0