

Global United Technology Services Co., Ltd.

Report No.: GTSL2024120047F01-2

TEST REPORT

Applicant: Shenzhen Golden Vision Technology Development Co., Ltd.

Address of Applicant: No.6 Bao Fu Road, Bao Lai industrial Park, Shang Mu Gu

Villiage, Pinghu Street, Longgang District, Shenzhen City,

Guangdong Province, 518000, China

Manufacturer: Shenzhen Golden Vision Technology Development Co., Ltd

Address of No.6 Bao Fu Road, Bao Lai industrial Park, Shang Mu Gu Manufacturer:

Villiage, Pinghu Street, Longgang District, Shenzhen City,

Guangdong Province, 518000, China

Factory: Shenzhen Golden Vision Technology Development Co., Ltd.

Address of Factory: Shenzhen Golden Vision Technology Development Co., Ltd.

> No.6 Bao Fu Road, Bao Lai industrial Park, Shang Mu Gu Villiage, Pinghu Street, Longgang District, Shenzhen City,

Guangdong Province, 518000, China

Equipment Under Test (EUT)

Smart camera **Product Name:**

B2, S8A, B1, B3, B4, B5, B6, B7, B8, B9, B10, B1C, B2C, Model No.:

B3C, B4C, B5C, B6C, B7C, B8C, B9C, B10C, B11, P6, P8

FCC ID: 2APD7-B2

Applicable standards: FCC CFR Title 47 Part 15 Subpart C Section 15.247

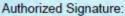
Date of sample receipt: 2024-10-25

Date of Test: 2024-11-15 to 2024-11-21

Date of report issued: 2025-01-13

PASS * Test Result:

* In the configuration tested, the EUT complied with the standards specified above.





Robinson Luo Laboratory Manager



2 Version

Version No.	Date	Description
GTSL2024120047F01-2	2025-01-13	Original
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Prepared By:	Insmilly	Date:	2025-01-13
	Project Engineer		
Check By:	Johnson Lund	Date:	2025-01-13
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4 Test Summary

Test Item	Section in CFR 47	Result
Antenna requirement	15.203/15.247 (c)	Pass
AC Power Line Conducted Emission	15.207	Pass
Conducted Output Power	15.247 (b)(3)	Pass
Channel Bandwidth	15.247 (a)(2)	Pass
Power Spectral Density	15.247 (e)	Pass
Band Edge	15.247(d)	Pass
Spurious Emission	15.205/15.209	Pass

Remarks:

1. Pass: The EUT complies with the essential requirements in the standard.

2. N/A: Not applicable.

3. Test according to ANSI C63.10:2013

Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	±7.25×10 ⁻⁸
2	Duty cycle	±0.37%
3	Occupied Bandwidth	±3%
4	RF conducted power	±0.75dB
5	RF power density	±3dB
6	Conducted Spurious emissions	±2.58dB
7	AC Power Line Conducted Emission	±3.44dB (0.15MHz ~ 30MHz)
n on the		±3.1dB (9kHz-30MHz)
200	Radiated Spurious emission test	±3.8039dB (30MHz-200MHz)
8		±3.9679dB (200MHz-1GHz)
D 100 00		±4.29dB (1GHz-18GHz)
San Care		±3.30dB (18GHz-40GHz)
9	Temperature test	±1°C
10	Humidity test	±3%
11	Time	±3%



5 General Information

5.1 General Description of EUT

Product Name:	Smart camera
Model No.:	B2
Serial No.:	B2, S8A, B1, B3, B4, B5, B6, B7, B8, B9, B10, B1C, B2C, B3C, B4C, B5C, B6C, B7C, B8C, B9C, B10C, B11,P6,P8
Hardware version:	N/A
Software version:	N/A constraints of the constrain
Test sample(s) ID:	GTSL2024120047F01
Sample(s) Status:	Engineer sample
Operation Frequency:	906MHz~926MHz
Channel Numbers:	
Channel Separation:	5MHz
Modulation Type:	GFSK
Antenna Type:	FPC Antenna
Antenna Gain:	0.97dBi
Power Supply:	DC power modules DC5V

Remark:

- 1. Antenna gain information provided by the customer
- 2. The relevant information of the sample is provided by the entrusting company, and the laboratory is not responsible for its authenticity.



Operation Frequency each of channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
	(MHz)		(MHz)	The state of the state of	(MHz)	and the state of the	(MHz)
1	906MHz	4	918MHz	The same of the same		State of the state	on the same of the same
2	910MHz	5	922MHz	The state of the s		The state of the s	and the second second
3	916MHz	6	926MHz	and the second	and or any	The state of the state of	or or or or or or

Test CH

Channel	Frequency (MHz)
The lowest channel	906MHz
The middle channel	916MHz
The Highest channel	926MHz



5.2 Test mode

Transmitting mode	Keep the EUT in continuously transmitting mode

5.3 Description of Support Units

	Manufacturer	Description	Model	Serial Number
Shenzhen	Golden Vision Technology	DC power modules	UL050100CU	N/A
Deve	opment Co., Ltd			

5.4 Deviation from Standards

None.

5.5 Abnormalities from Standard Conditions

None.

5.6 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

• FCC—Registration No.: 381383

Designation Number: CN5029

Global United Technology Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in files.

• ISED—Registration No.: 9079A

CAB identifier: CN0091

The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been registered by Certification and Engineering Bureau of ISED for radio equipment testing

NVLAP (LAB CODE:600179-0)

Global United Technology Services Co., Ltd., is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP).

5.7 Test Location

All tests were performed at:

Global United Technology Services Co., Ltd.

Address: No. 123-128, Tower A, Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102

Tel: 0755-27798480 Fax: 0755-27798960

5.8 Additional Instructions

Test Software	Continuous transmitter provide by manufacturer
Power level setup	Default



6 Test Instruments list

Radia	Radiated Emission:							
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)		
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)* 6.4(H)	GTS250	Jun. 22, 2024	Jun. 21, 2027		
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A		
3	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	Apr. 11, 2024	Apr. 10, 2025		
4	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9168	GTS640	Mar. 19, 2023	Mar. 18, 2025		
5	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120 D	GTS208	Apr. 17, 2023	Apr. 16, 2025		
6	Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	GTS575	Apr. 11, 2024	Apr. 10, 2025		
7	Loop Antenna	ZHINAN	ZN30900A	GTS534	Nov.12, 2024	Nov.11, 2025		
8	Broadband Preamplifier	SCHWARZBECK	BBV9718	GTS535	Apr. 11, 2024	Apr. 10, 2025		
9	Amplifier(1GHz-26.5GHz)	HP	8449B	GTS601	Apr. 11, 2024	Apr. 10, 2025		
10	Horn Antenna (15GH-40GHz)	SCHWARZBECK	01296	GTS691	Mar. 07, 2024	Mar. 06, 2025		
11	FSV·Signal Analyzer (10Hz-40GHz)	Keysight	FSV-40-N	GTS666	Mar. 12, 2024	Mar. 11, 2025		
12	Amplifier	The state of the s	LNA-1000-30S	GTS650	Apr. 11, 2024	Apr. 10, 2025		
13	CDNE M2+M3-16A	HCT	30MHz-300MHz	GTS692	Nov. 07, 2024	Nov. 06, 2025		
14	Wideband Amplifier		WDA-01004000- 15P35	GTS602	Apr. 11, 2024	Apr. 10, 2025		
15	Thermo meter	JINCHUANG	GSP-8A	GTS643	Apr. 18, 2024	Apr. 17, 2025		
16	RE cable 1	GTS	N/A	GTS675	Jul. 02, 2024	Jul. 01, 2025		
17	RE cable 2	GTS	N/A	GTS676	Jul. 02, 2024	Jul. 01, 2025		
18	RE cable 3	GTS	N/A	GTS677	Jul. 02, 2024	Jul. 01, 2025		
19	RE cable 4	GTS	N/A	GTS678	Jul. 02, 2024	Jul. 01, 2025		
20	RE cable 5	GTS	N/A	GTS679	Jul. 02, 2024	Jul. 01, 2025		
21	RE cable 6	GTS	N/A	GTS680	Jul. 02, 2024	Jul. 01, 2025		
22	RE cable 7	GTS	N/A	GTS681	Jul. 05, 2024	Jul. 04, 2025		
23	RE cable 8	GTS	N/A	GTS682	Jul. 05, 2024	Jul. 04, 2025		
24	EMI Test Software	AUDIX	E3-6.100614a	GTS725	N/A	N/A		



Cond	Conducted Emission					
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Shielding Room	ZhongYu Electron	7.3(L)x3.1(W)x2.9(H)	GTS252	Jul. 12, 2022	Jul. 11, 2027
2	EMI Test Receiver	R&S	ESCI 7	GTS552	Apr. 11, 2024	Apr. 10, 2025
3	LISN	ROHDE & SCHWARZ	ENV216	GTS226	Apr. 11, 2024	Apr. 10, 2025
4	Coaxial Cable	GTS	N/A	GTS227	N/A	N/A
5	Thermo meter	JINCHUANG	GSP-8A	GTS642	Apr. 18, 2024	Apr. 17, 2025
6	Absorbing clamp	Elektronik- Feinmechanik	MDS21	GTS229	Apr. 11, 2024	Apr. 10, 2025
7	ISN	SCHWARZBECK	NTFM 8158	GTS565	Apr. 11, 2024	Apr. 10, 2025
8	High voltage probe	SCHWARZBECK	TK9420	GTS537	Apr. 11, 2024	Apr. 10, 2025
9	Antenna end assembly	Weinschel	1870A	GTS560	Apr. 11, 2024	Apr. 10, 2025
10	EMI Test Software	AUDIX	E3-6.100622	GTS726	N/A	N/A

RF C	RF Conducted Test:					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
o 1 o	MXA Signal Analyzer	Agilent	N9020A	GTS566	Apr. 13, 2024	Apr. 12, 2025
2	EMI Test Receiver	R&S	ESCI 7	GTS552	Apr. 13, 2024	Apr. 12, 2025
3	PSA Series Spectrum Analyzer	Agilent	E4440A	GTS536	Apr. 13, 2024	Apr. 12, 2025
4	MXG vector Signal Generator	Agilent	N5182A	GTS567	Apr. 13, 2024	Apr. 12, 2025
5	ESG Analog Signal Generator	Agilent	E4428C	GTS568	Apr. 13, 2024	Apr. 12, 2025
6	USB RF Power Sensor	DARE	RPR3006W	GTS569	Apr. 13, 2024	Apr. 12, 2025
7	RF Switch Box	Shongyi	RFSW3003328	GTS571	Apr. 13, 2024	Apr. 12, 2025
8	Programmable Constant Temp & Humi Test Chamber	WEWON	WHTH-150L-40-880	GTS572	Apr. 13, 2024	Apr. 12, 2025
9	Thermo meter	JINCHUANG	GSP-8A	GTS641	Apr. 18, 2024	Apr. 17, 2025

Gene	General used equipment:					
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
10100	Barometer	KUMAO	SF132	GTS647	Apr. 18, 2024	Apr. 17, 2025



7 Test results and Measurement Data

7.1 Antenna requirement

Standard requirement: FCC Part15 C Section 15.203 /247(c)

15.203 requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

15.247(c) (1)(i) requirement:

(i) Systems operating in the 2400-2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.

E.U.T Antenna:

The antenna is PCB antenna, reference to the appendix II for details.



7.2 Conducted Emissions

Test Requirement:	FCC Part15 C Section 15.207		
Test Method:	ANSI C63.10:2013 section 6.2		
Test Frequency Range:	150KHz to 30MHz Class B		
Class / Severity:			
Receiver setup:	RBW=9KHz, VBW=30KHz, S	weep time=auto	
Limit:	Fraguency range (MHz)	Limit	: (dBuV)
	Frequency range (MHz)	Quasi-peak	Average
	0.15-0.5	66 to 56*	56 to 46*
	0.5-5 5-30	56 60	46
	* Decreases with the logarithr		30
Test setup:	Reference Plane	the second second	
Total	AUX Equipment E.U.T Filter AC power Test table/Insulation plane EMI Receiver Remark E.U.T. Equipment Under Test LISN Line Impedence Stabilization Network Test table height=0.8m		
Test procedure:	 The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs). Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10:2013 on conducted measurement. 		
Test Instruments:	Refer to section 6.0 for details		
Test mode:	Refer to section 5.2 for details	Commence of the second	and the second s
Test environment:	Temp.: N/A Hun	nid.: N/A	Press.: N/A
Test voltage:	N/A	The state of the s	
Test results:	N/A		
the state of the s	the state of the s		the state of the state of the state of the



7.3 Conducted Output Power

Test Requirement:	FCC Part15 C Section 15.247 (b)(3)		
Test Method:	ANSI C63.10:2013 11.9.1.3		
Limit:	30dBm		
Test setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane		
Test Instruments:	Refer to section 6.0 for details		
Test mode:	Refer to section 5.2 for details		
Test results:	Pass		

Measurement Data

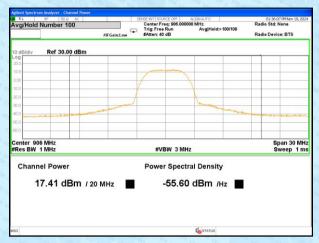
Test channel	Peak Output Power (dBm)	Limit(dBm)	Result
Lowest	17.41		
Middle	17.44	30.00	Pass
Highest	17.55		

Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102 Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960

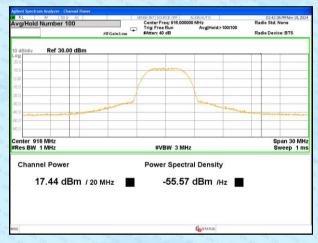


Test plot as follows:

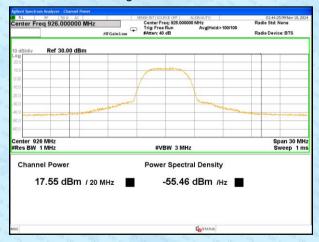
Lowest channel



Middle channel



Highest channel





7.4 Channel Bandwidth

Test Requirement:	FCC Part15 C Section 15.247 (a)(2)		
Test Method:	ANSI C63.10:2013 11.8		
Limit:	Channel Bandwidth >500KHz		
Test setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane		
Test Instruments:	Refer to section 6.0 for details		
Test mode:	Refer to section 5.2 for details		
Test results:	Pass		

Measurement Data

Test channel	Channel Bandwidth (MHz)	Limit(KHz)	Result
Lowest	3.691		
Middle	3.680	>500	Pass
Highest	3.701		

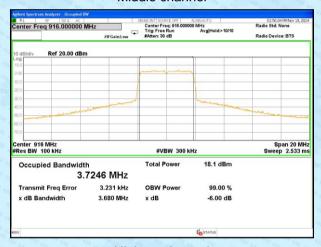


Test plot as follows:

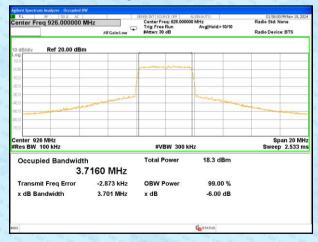
Lowest channel



Middle channel



Highest channel





7.5 Power Spectral Density

Test Requirement:	FCC Part15 C Section 15.247 (e)		
Test Method:	ANSI C63.10:2013 11.0		
Limit:	8dBm/3kHz		
Test setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane		
Test Instruments:	Refer to section 6.0 for details		
Test mode:	Refer to section 5.2 for details		
Test results:	Pass		

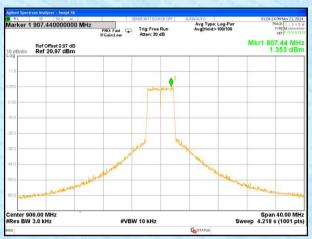
Measurement Data

Test channel	Power Spectral Density (dBm/3kHz)	Limit(dBm/3kHz)	Result
Lowest	1.353		
Middle	0.989	8.00	Pass
Highest	1.625		

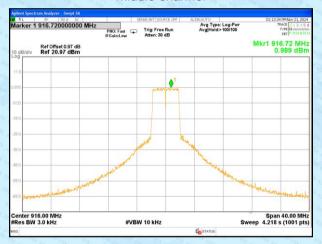


Test plot as follows:

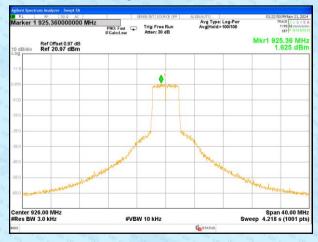
Lowest channel



Middle channel



Highest channel





7.6 Band edges

Test Requirement:	FCC Part15 C Section 15.247 (d)		
Test Method:	ANSI C63.10:2013 11.11		
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.		
Test setup:			
Test Instruments:	Refer to section 6.0 for details		
Test mode:	Refer to section 5.2 for details		
Test results:	Pass		

Test plot as follows:





RL RF 509 AC Marker 3 928.940000000 MHz

Start 922.000 MHz #Res BW 100 kHz Avg Type: Log-Pwr Avg|Hold:>100/100

> Stop 934.000 MHz Sweep 1.133 ms (1001 pts

PNO: Wide Trig: Free Run IFGain:Low Atten: 40 dB

#VBW 50 MHz



7.7 Spurious Emission

7.7.1 Conducted Emission Method

Test Requirement:	FCC Part15 C Section 15.247 (d)		
Test Method:	ANSI C63.10:2013 11.11		
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.		
Test setup:			
Test Instruments:	Refer to section 6.0 for details		
Test mode:	Refer to section 5.2 for details		
Test results:	Pass		



Test plot as follows:

Lowest channel



30MHz~25GHz

Middle channel



30MHz~25GHz

Highest channel



30MHz~25GHz



7.7.2 Radiated Emission Method

FCC Part15 C Section	on 15	5.209	01 01 01	9		
ANSI C63.10:2013 6	6.6.4	the state of the s		10 mg		
9kHz to 25GHz	on on	The state of the s	The state of the s		10000	
Measurement Distar	nce: 3	3m		000	on on on on	
Frequency	93 93 E	Detector	RBV	٧	VBW	Value
9KHz-150KHz	Qu	ıasi-peak	200H	lz	600Hz	Quasi-peak
150KHz-30MHz	Qı	ıasi-peak	9KHz		30KHz	Quasi-peak
30MHz-1GHz	Q	ıasi-peak	120K	Hz	300KHz	Quasi-peak
Above 1CUz	The same	Peak	1MH	lz	3MHz	Peak
Above IGHZ	On the	Peak	1MH	lz	10Hz	Average
			//m)		/alue	Measurement Distance
0.009MHz-0.490M	Hz	2400/F(k	(Hz) PK		/QP/AV	300m
0.490MHz-1.705M	Hz	24000/F(KHz)	QP		30m
1.705MHz-30MH	lz	30			QP	30m
30MHz-88MHz	93 Ox	100	To the same	Control of the second		
88MHz-216MHz	(a) (b)	150	D. C. O.	QP		
The state of the s	Z	200	100	QP		3m
960MHz-1GHz	200	500	20	100 m	A 100 May 100	
Above 1GHz		0. 7 7	The same of	175	- The Control of the	
	a car	5000	10 m	On On O	Peak	
		< 3m >	lm	Tes	***********	
	ANSI C63.10:2013 6 9kHz to 25GHz Measurement Distar Frequency 9KHz-150KHz 150KHz-30MHz 30MHz-1GHz Above 1GHz Note: For Duty cyccycle < 98%, avera Frequency 0.009MHz-0.490M 0.490MHz-1.705M 1.705MHz-30MH 30MHz-88MHz 88MHz-216MHz 216MHz-960MH 960MHz-1GHz Above 1GHz For radiated emiss	ANSI C63.10:2013 6.6.4 9kHz to 25GHz Measurement Distance: 3 Frequency 9KHz-150KHz Qu 150KHz-30MHz Qu 30MHz-1GHz Qu Above 1GHz Note: For Duty cycle > cycle < 98%, average d Frequency 0.009MHz-0.490MHz 0.490MHz-1.705MHz 1.705MHz-30MHz 30MHz-88MHz 88MHz-216MHz 216MHz-960MHz 960MHz-1GHz Above 1GHz For radiated emissions	Measurement Distance: 3m Frequency Detector 9KHz-150KHz Quasi-peak 150KHz-30MHz Quasi-peak 30MHz-1GHz Quasi-peak Above 1GHz Peak Note: For Duty cycle ≥ 98%, ave cycle < 98%, average detector set of the	ANSI C63.10:2013 6.6.4 9kHz to 25GHz Measurement Distance: 3m Frequency Detector RBV 9KHz-150KHz Quasi-peak 200H 150KHz-30MHz Quasi-peak 9KH 30MHz-1GHz Quasi-peak 120K Above 1GHz Peak 1MH Note: For Duty cycle ≥ 98%, average decycle < 98%, average detector set as below Frequency Limit (uV/m) 0.009MHz-0.490MHz 2400/F(KHz) 1.705MHz-30MHz 30 30MHz-88MHz 100 88MHz-216MHz 150 216MHz-960MHz 200 960MHz-1GHz 500 Above 1GHz 500 For radiated emissions from 9kHz to 30	ANSI C63.10:2013 6.6.4 9kHz to 25GHz Measurement Distance: 3m Frequency Detector RBW 9KHz-150KHz Quasi-peak 200Hz 150KHz-30MHz Quasi-peak 9KHz 30MHz-1GHz Quasi-peak 120KHz Above 1GHz Peak 1MHz Note: For Duty cycle ≥ 98%, average detect cycle < 98%, average detector set as below: V Frequency Limit (uV/m) 0.009MHz-0.490MHz 2400/F(KHz) PK 0.490MHz-1.705MHz 30 30MHz-88MHz 100 88MHz-216MHz 150 216MHz-960MHz 200 960MHz-1GHz 500 Above 1GHz 5000 For radiated emissions from 9kHz to 30MHz	ANSI C63.10:2013 6.6.4 9kHz to 25GHz Measurement Distance: 3m Frequency Detector RBW VBW 9KHz-150KHz Quasi-peak 200Hz 600Hz 150KHz-30MHz Quasi-peak 9KHz 30KHz 30MHz-1GHz Quasi-peak 120KHz 300KHz Above 1GHz Peak 1MHz 3MHz Note: For Duty cycle ≥ 98%, average detector set as cycle < 98%, average detector set as below: VBW ≥ 1 // Frequency Limit (uV/m) Value 0.009MHz-0.490MHz 2400/F(KHz) PK/QP/AV 0.490MHz-1.705MHz 24000/F(KHz) QP 1.705MHz-30MHz 30 QP 1.705MHz-30MHz 150 QP 88MHz-216MHz 150 QP 216MHz-960MHz 200 QP 960MHz-1GHz 500 Average For radiated emissions from 9kHz to 30MHz For radiated emissions from 9kHz to 30MHz

Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102



For radiated emissions from 30MHz to1GHz Test Antenna EUT-Turn Tables Preamplifier-For radiated emissions above 1GHz ******************************* < 3m > Test Antenna-< 1m ... 4m > EUT. Tum Table <150cm Receiver-Preamplifier-Test Procedure: 1. The EUT was placed on the top of a rotating table (0.8m for below 1G and 1.5m for above 1G) above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. 4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading. 5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. 6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet. Test Instruments: Refer to section 6.0 for details Test mode: Refer to section 5.2 for details Humid .: 52% 1012mbar Test environment: Temp.: 24 °C Press.:



90	Test voltage:	DC5V
20	Test results:	Pass

Remark:

Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the X-axis which it is worse case.

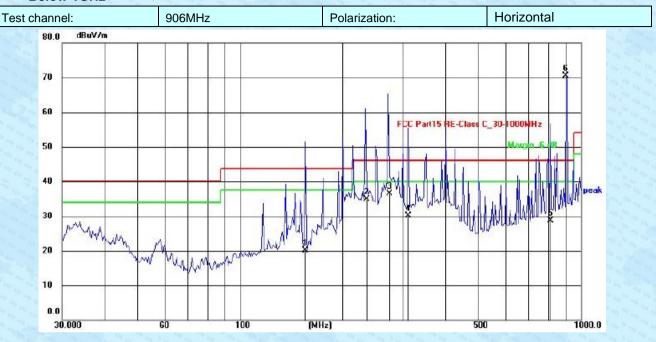
Measurement data:

■ 9 kHz ~ 30 MHz

The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per 15.31(o) was not reported.

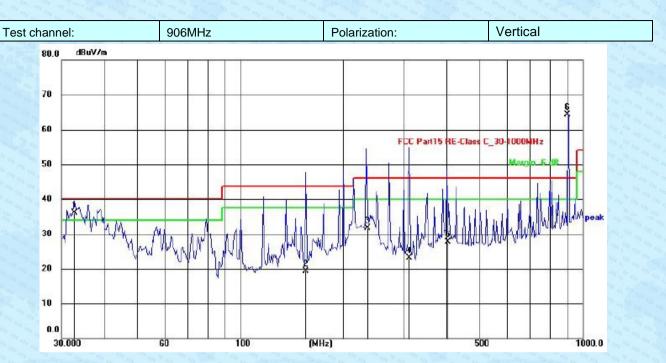


■ Below 1GHz



4 L								
8	No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
ſ	1	155.3305	28.09	-8.02	20.07	43.50	-23.43	QP
	2	233.4881	40.72	-5.74	34.98	46.00	-11.02	QP
	3	272.5246	42.03	-5.49	36.54	46.00	-9.46	QP
	4	311.4519	34.60	-4.46	30.14	46.00	-15.86	QP
	5	815.6352	25.60	3.16	28.76	46.00	-17.24	QP
	6	906.0000	65.74	4.72	70.46	46.00	24.46	peak

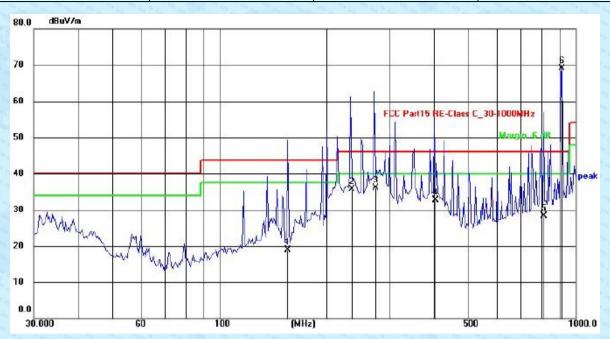




No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	32.6395	38.39	-2.36	36.03	40.00	-3.97	QP
2	155.3305	27.37	-8.02	19.35	43.50	-24.15	QP
3	233.4881	36.23	-4.54	31.69	46.00	-14.31	QP
4	311.4519	27.60	-4.46	23.14	46.00	-22.86	QP
5	401.1050	30.60	-2.82	27.78	46.00	-18.22	QP
6	906.0000	59.59	4.71	64.30	46.00	18.30	peak



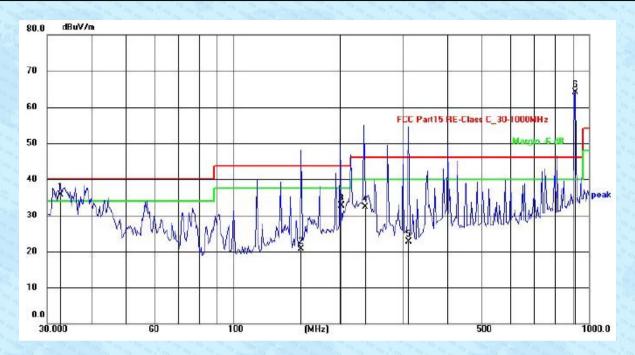
Test channel: 916MHz Polarization: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	155.3305	26.99	-8.02	18.97	43.50	-24.53	QP
2	233.4881	41.42	-5.74	35.68	46.00	-10.32	QP
3	272.5246	41.57	-5.49	36.08	46.00	-9.92	QP
4	401.1050	37.55	-4.77	32.78	46.00	-13.22	QP
5	815.6352	25.05	3.16	28.21	46.00	-17.79	QP
6	916.0000	64.32	4.88	69.20	46.00	23.20	peak

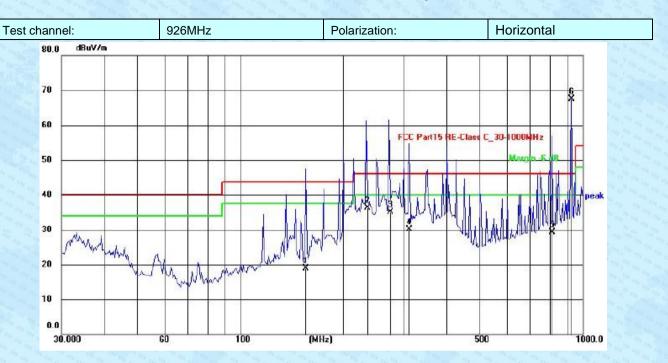


Test channel: 916MHz Polarization: Vertical



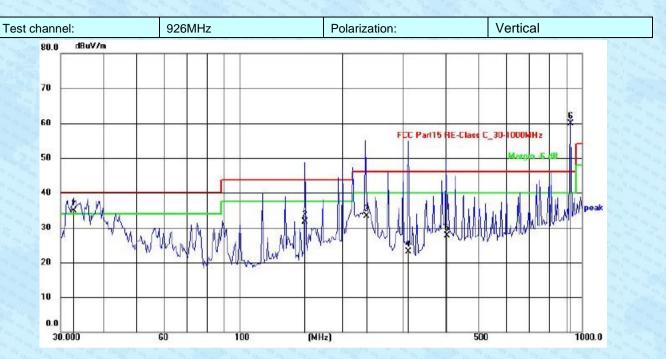
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	32.6395	37.98	-2.36	35.62	40.00	-4.38	QP
2	155.3305	28.64	-8.02	20.62	43.50	-22.88	QP
3	200.0432	35.78	-3.15	32.63	43.50	-10.87	QP
4	233.4881	36.91	-4.54	32.37	46.00	-13.63	QP
5	311.4519	27.23	-4.46	22.77	46.00	-23.23	QP
6	916.0000	59.31	4.85	64.16	46.00	18.16	peak





100	No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
	1	155.3305	27.00	-8.02	18.98	43.50	-24.52	QP
	2	233.4881	42.02	-5.74	36.28	46.00	-9.72	QP
	3	272.5246	40.63	-5.49	35.14	46.00	-10.86	QP
8	4	311.4519	34.47	-4.46	30.01	46.00	-15.99	QP
0	5	815.6352	26.16	3.16	29.32	46.00	-16.68	QP
	6	926.0000	62.52	5.03	67.55	46.00	21.55	peak



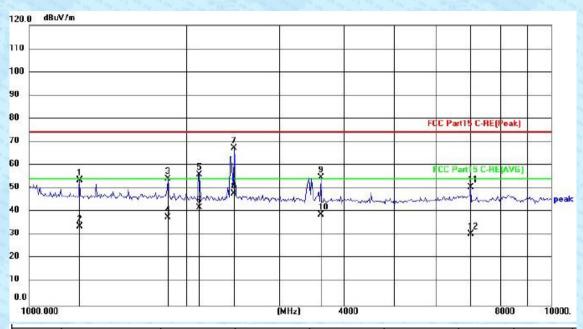


T A. T A.	500 W	100 VA 2012	" A. O. 97s	W _ W _ W	4. 14. VA		191 W.
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	32.6395	37.36	-2.36	35.00	40.00	-5.00	QP
2	155.3305	39.75	-8.02	31.73	43.50	-11.77	QP
3	233.4881	37.92	-4.54	33.38	46.00	-12.62	QP
4	311.4519	27.54	-4.46	23.08	46.00	-22.92	QP
5	401.1050	30.60	-2.82	27.78	46.00	-18.22	QP
6	926.0000	54.97	4.98	59.95	46.00	13.95	peak



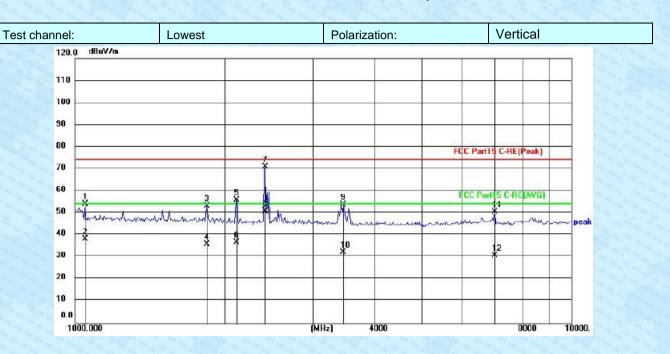
Above 1GHz

Test channel: Lowest Polarization: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1247.936	29.32	24.15	53.47	74.00	-20.53	peak
2	1247.936	9.52	24.15	33.67	54.00	-20.33	AVG
3	1847.281	29.06	25.24	54.30	74.00	-19.70	peak
4	1847.281	12.34	25.24	37.58	54.00	-16.42	AVG
5	2121.550	30.19	25.89	56.08	74.00	-17.92	peak
6	2121.550	15.84	25.89	41.73	54.00	-12.27	AVG
7	2470.504	40.79	26.45	67.24	74.00	-6.76	peak
8	2470.504	21.48	26.45	47.93	54.00	-6.07	AVG
9	3623.416	26.44	28.45	54.89	74.00	-19.11	peak
10	3623.416	10.47	28.45	38.92	54.00	-15.08	AVG
11	7009.570	14.66	35.81	50.47	74.00	-23.53	peak
12	7009.570	-5.28	35.81	30.53	54.00	-23.47	AVG

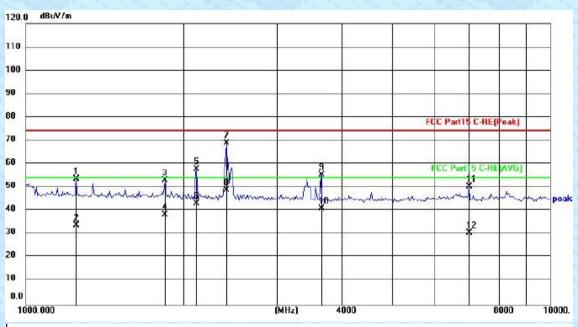




No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1047.225	30.60	23.64	54.24	74.00	-19.76	peak
2	1047.225	14.49	23.64	38.13	54.00	-15.87	AVG
3	1847.281	28.11	25.24	53.35	74.00	-20.65	peak
4	1847.281	10.66	25.24	35.90	54.00	-18.10	AVG
5	2121.550	29.95	25.89	55.84	74.00	-18.16	peak
6	2121.550	11.00	25.89	36.89	54.00	-17.11	AVG
7	2403.043	44.58	26.34	70.92	74.00	-3.08	peak
8	2403.043	24.54	26.34	50.88	54.00	-3.12	AVG
9	3476.019	25.66	28.26	53.92	74.00	-20.08	peak
10	3476.019	4.14	28.26	32.40	54.00	-21.60	AVG
11	7009.570	14.79	35.81	50.60	74.00	-23.40	peak
12	7009.570	-5.03	35.81	30.78	54.00	-23.22	AVG



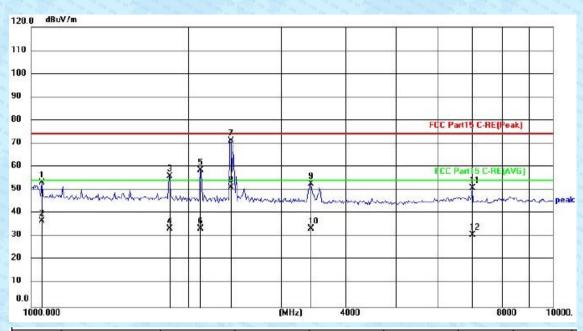
Test channel: Middle Polarization: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1247.936	29.52	24.15	53.67	74.00	-20.33	peak
2	1247.936	9.49	24.15	33.64	54.00	-20.36	AVG
3	1847.281	27.84	25.24	53.08	74.00	-20.92	peak
4	1847.281	13.02	25.24	38.26	54.00	-15.74	AVG
5	2121.550	31.90	25.89	57.79	74.00	-16.21	peak
6	2121.550	17.07	25.89	42.96	54.00	-11.04	AVG
7	2414.157	42.52	26.36	68.88	74.00	-5.12	peak
8	2414.157	22.51	26.36	48.87	54.00	-5.13	AVG
9	3657.011	26.75	28.49	55.24	74.00	-18.76	peak
10	3657.011	12.47	28.49	40.96	54.00	-13.04	AVG
11	7009.570	14.59	35.81	50.40	74.00	-23.60	peak
12	7009.570	-5.33	35.81	30.48	54.00	-23.52	AVG



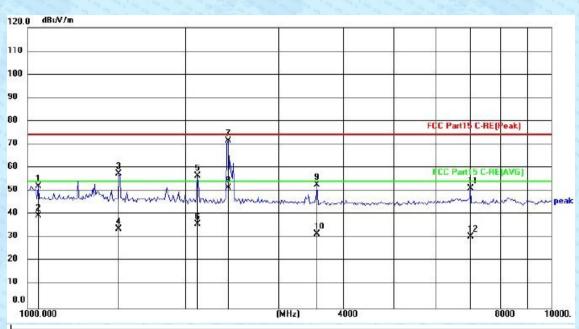
200	Test channel:	Middle	Polarization:	Vertical	
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No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1047.225	29.56	23.64	53.20	74.00	-20.80	peak
2	1047.225	13.09	23.64	36.73	54.00	-17.27	AVG
3	1838.777	30.78	25.22	56.00	74.00	-18.00	peak
4	1838.777	8.09	25.22	33.31	54.00	-20.69	AVG
5	2111.783	32.69	25.88	58.57	74.00	-15.43	peak
6	2111.783	7.54	25.88	33.42	54.00	-20.58	AVG
7	2403.043	44.98	26.34	71.32	74.00	-2.68	peak
8	2403.043	24.89	26.34	51.23	54.00	-2.77	AVG
9	3444.087	24.49	28.20	52.69	74.00	-21.31	peak
10	3444.087	5.35	28.20	33.55	54.00	-20.45	AVG
11	7009.570	14.99	35.81	50.80	74.00	-23.20	peak
12	7009.570	-5.14	35.81	30.67	54.00	-23.33	AVG

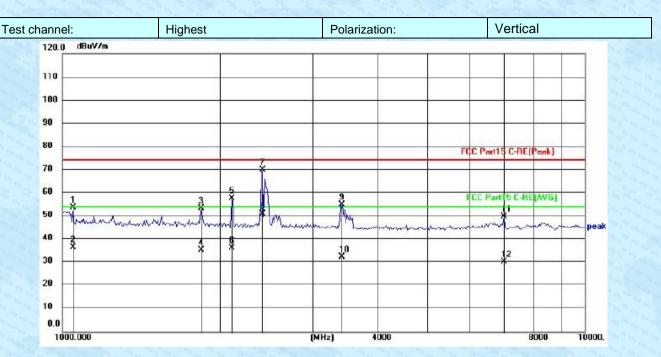


Test channel: Highest Polarization: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1047.225	28.48	23.64	52.12	74.00	-21.88	peak
2	1047.225	15.94	23.64	39.58	54.00	-14.42	AVG
3	1493.993	33.15	24.39	57.54	74.00	-16.46	peak
4	1493.993	9.39	24.39	33.78	54.00	-20.22	AVG
5	2111.783	30.81	25.88	56.69	74.00	-17.31	peak
6	2111.783	9.90	25.88	35.78	54.00	-18.22	AVG
7	2414.157	45.21	26.36	71.57	74.00	-2.43	peak
8	2414.157	25.18	26.36	51.54	54.00	-2.46	AVG
9	3573.602	24.39	28.39	52.78	74.00	-21.22	peak
10	3573.602	3.12	28.39	31.51	54.00	-22.49	AVG
11	7009.570	15.20	35.81	51.01	74.00	-22.99	peak
12	7009.570	-5.25	35.81	30.56	54.00	-23.44	AVG





No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1047.225	30.13	23.64	53.77	74.00	-20.23	peak
2	1047.225	12.98	23.64	36.62	54.00	-17.38	AVG
3	1847.281	28.37	25.24	53.61	74.00	-20.39	peak
4	1847.281	10.18	25.24	35.42	54.00	-18.58	AVG
5	2111.783	31.95	25.88	57.83	74.00	-16.17	peak
6	2111.783	10.66	25.88	36.54	54.00	-17.46	AVG
7	2403.043	43.81	26.34	70.15	74.00	-3.85	peak
8	2403.043	24.92	26.34	51.26	54.00	-2.74	AVG
9	3412.449	27.01	28.14	55.15	74.00	-18.85	peak
10	3412.449	4.48	28.14	32.62	54.00	-21.38	AVG
11	7009.570	14.07	35.81	49.88	74.00	-24.12	peak
12	7009.570	-5.23	35.81	30.58	54.00	-23.42	AVG

Remark:

- 1. Final Level =Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.



8 Test Setup Photo

Reference to the appendix I for details.

9 EUT Constructional Details

Reference to the appendix II for details.

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