

Global United Technology Services Co., Ltd.

Report No.:GTSL2023060360F01

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 Wanufacturer: Villiage, Pinghu Street, Longgang District, Shenzhen City,

Guangdong Province, 518000, China

Equipment Under Test (EUT)

Product Name: Smart Camera

Model No.: G12

Add. Model No.: G1,G2,G3,G4,G5,G6,G7,G8,G9,G10,G11,G13,G14,G15,Y1,Y2,Y3,Y4,Z8,

Z9,Z10,Z11,Z12,M1,M2,M3,S1,S2,S3

Trade Mark: N/A

FCC ID: 2APD7-G12

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

Date of sample receipt: 2023-06-01

Date of Test: 2023-06-02 to 2023-07-03

Date of report issued: 2023-07-05

Test Result : PASS *

Authorized Signature:



Laboratory Manager

This results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

Page 1 of 63

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

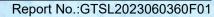


Report No.:GTSL2023060360F01

2 Version

Report No. Versi		Version No.	Date	Description		
8 0	GTSL2023060360F01	00	2023-07-05	Original		
0		0.10 0.12 0.12 0.12 0.12 0.12 0.12 0.13 0.13 0.13 0.13 0.13 0.13 0.13 0.13	east out out out out out out out out out ou			
67 67		0.18 0.18 0.18 0.18 0.18 0.18 0.18 0.18				
78		A CLE				
130		A CLR				

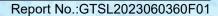
Prepared By:	Tranklu	Date:	2023-07-05
	Project Engineer		
Check By:	Lobinson Lun	Date:	2023-07-05
	Reviewer		





3 Contents

		Page
1	COVER PAGE	1
2	VERSION	2
3	CONTENTS	
4		
5		
	5.1 GENERAL DESCRIPTION OF EUT	
	5.2 TEST MODE	
	5.3 DESCRIPTION OF SUPPORT UNITS	
	5.4 DEVIATION FROM STANDARDS	
	5.6 TEST FACILITY	
	5.7 TEST LOCATION	
	5.8 ADDITIONAL INSTRUCTIONS	6
6	TEST INSTRUMENTS LIST	7
7	TEST RESULTS AND MEASUREMENT DATA	9
	7.1 ANTENNA REQUIREMENT	12 C12 C13
	7.2 CONDUCTED EMISSIONS.	
	7.3 CONDUCTED PEAK OUTPUT POWER	
	7.4 CHANNEL BANDWIDTH & 99% OCCUPY BANDWIDTH	
	7.5 POWER SPECTRAL DENSITY	
	7.6.1 Conducted Emission Method	
	7.6.2 Radiated Emission Method	
	7.7 Spurious Emission	
	7.7.1 Conducted Emission Method	
	7.7.2 Radiated Emission Method	
8		
9	EUT CONSTRUCTIONAL DETAILS	63





4 Test Summary

Test Item	Section	Result
Antenna requirement	FCC part 15.203/15.247 (c)	Pass
AC Power Line Conducted Emission	FCC part 15.207	Pass
Conducted Peak Output Power	FCC part 15.247 (b)(3)	Pass
Channel Bandwidth & 99% OCB	FCC part 15.247 (a)(2)	Pass
Power Spectral Density	FCC part 15.247 (e)	Pass
Band Edge	FCC part 15.247(d)	Pass
Spurious Emission	FCC part 15.205/15.209	Pass

Remark: Test according to ANSI C63.10:2013 and RSS-Gen

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

N/A: In this whole report not applicable.

Measurement Uncertainty

No.	ltem .	Measurement Uncertainty					
1	Radio Frequency	1 x 10 ⁻⁷					
2	Duty Cycle	0.37%					
3	Occupied Bandwidth	2.8dB					
4	RF Conducted Power	0.75dB					
5	RF Power Density	3dB					
6	Conducted Spurious Emissions	2.58dB					
7.7	AC Power Line Conducted Emission	3.44dB (0.15MHz ~ 30MHz)					
		3.1dB (9kHz-30MHz)					
75 675 675		3.8039dB (30MHz-200MHz)					
8	Radiated Spurious Emission Test	3.9679dB (200MHz-1GHz)					
		4.29dB (1GHz-18GHz)					
ers ers ers		3.30dB (18GHz-40GHz)					
Note	Note (1): The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.						



5 General Information

5.1 General Description of EUT

Product Name:	Smart Camera
Model No.:	G12
Add. Model No.:	G1,G2,G3,G4,G5,G6,G7,G8,G9,G10,G11,G13,G14,G15,Y1,Y2,Y3,Y4, Z8,Z9,Z10,Z11,Z12,M1,M2,M3,S1,S2,S3
Serial No.:	
Hardware Version:	V1.0 or 1 or
Software Version:	V1.0
Test sample(s) ID:	GTSL2023060360-1
Sample(s) Status:	Engineer sample
Sample(s) Status	Engineer sample
Channel numbers:	802.11b/802.11g /802.11n(HT20): 11
Channel separation:	5MHz
Modulation technology:	802.11b: Direct Sequence Spread Spectrum (DSSS) 802.11g/802.11n(H20):
	Orthogonal Frequency Division Multiplexing (OFDM)
Antenna Type:	PCB Antenna
Antenna gain:	2.04 dBi
Power supply:	5Vdc 1A

Note:

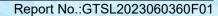
The product (Smart Camera) models (G12) and models (G1,G2,G3,G4,G5,G6,G7,G8,G9,G10,G11,G13, G14,G15,Y1,Y2,Y3,Y4,Z8,Z9,Z10,Z11,Z12,M1,M2,M3,S1,S2,S3) the difference is only to distinguish different sales areas of different customers, the model name is different, and the products are exactly the same.

Operation Frequency each of channel									
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency		
s one one one one one one one one	2412MHz	73 73 74 75 75 75 75 75 75 75 75 75 75 75 75 75	2427MHz	17 078 07 7 78 078 078	2442MHz	3 oz 10 oz	2457MHz		
	2417MHz	673 678 67 5 678 678	2432MHz	03-07- 8 -07-07-07-07-07-07-07-07-07-07-07-07-07-	2447MHz	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	2462MHz		
1	2422MHz	ons ons 6 ons ons	2437MHz	75 CTS 9 CTS CTS TS	2452MHz	18 018 018 02 018 02 018 02 02 02 02 02 02 02 02 02 02 02 02 02	018 018 019 018 018 018 018 018 018 018 018 018 018		

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

Test channel	Frequency (MHz)		
rest criamilei	802.11b/802.11g/802.11n(HT20)		
Lowest channel	2412MHz		
Middle channel	2437MHz		
Highest channel	2462MHz		





5.2 Test mode

Transmitting mode Keep the EUT in continuously transmitting mode

Remark: During the test, the dutycycle >98%, the test voltage was tuned from 85% to 115% of the nominal rated supply voltage, and found that the worst case was under the nominal rated supply condition. So the report just shows that condition's data.

We have verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows:

Pre-scan all kind of data rate in lowest channel, and found the follow list which it was worst case.

GTS G	Mode	802.11b	802.11g	802.11n(HT20)	
78 G2	Data rate	1Mbps	6Mbps	6.5Mbps	

5.3 Description of Support Units

None.

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.

• IC —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 Industry Canada 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

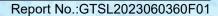
Tel: 0755-27798480 Fax: 0755-27798960

5.8 Additional Instructions

Test Software	Special test command provided by manufacturer
Power level setup	Default

Global United Technology Services Co., Ltd.

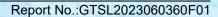
No. 123-128, Tower A, Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102





6 Test Instruments list

Rad	Radiated Emission:							
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)		
1 1 2 s	3m Semi- Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)* 6.4(H)	GTS250	June 23, 2021	June 22, 2024		
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	April 14, 2023	April 13, 2024		
4	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9168	GTS640	March 19, 2023	March 18, 2025		
5	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120 D	GTS208	April 17, 2023	April 16, 2025		
6	EMI Test Software	AUDIX	en e	N/A	N/A	N/A		
7.7 m	Coaxial Cable	GTS	03 03 03 03 03 03 03 03 03 03 03 03 03 0	GTS213	April 21, 2023	April 20, 2024		
8	Coaxial Cable	GTS	N/A TO THE REST	GTS211	April 21, 2023	April 20, 2024		
9	Coaxial cable	GTS	N/A	GTS210	April 21, 2023	April 20, 2024		
10	Coaxial Cable	GTS	N/A	GTS212	April 21, 2023	April 20, 2024		
11	Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	GTS575	April 14, 2023	April 13, 2024		
12	Loop Antenna	ZHINAN	ZN30900A	GTS534	Nov. 29, 2022	Nov. 28, 2023		
13	Broadband Preamplifier	SCHWARZBECK	BBV9718	GTS535	April 14, 2023	April 13, 2024		
14	Amplifier(1GHz-26.5GHz)	OR	8449B	GTS601	April 14, 2023	April 13, 2024		
15	Horn Antenna (18- 26.5GHz)		UG-598A/U	GTS664	Oct. 30, 2022	Oct. 29, 2023		
16	Horn Antenna (26.5-40GHz)	A.H Systems	SAS-573	GTS665	Oct. 30, 2022	Oct. 29, 2023		
17	FSV·Signal Analyzer (10Hz- 40GHz)	Keysight	FSV-40-N	GTS666	March 13, 2023	March 12, 2024		
18	Amplifier		LNA-1000-30S	GTS650	April 14, 2023	April 13, 2024		
19	CDNE M2+M3-16A	HCT	30MHz-300MHz	GTS668	Dec. 20, 2022	Dec.19, 2023		
20	Thermo meter	JINCHUANG	GSP-8A	GTS643	April 19, 2023	April 18, 2024		

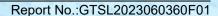




Con						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Shielding Room	ZhongYu Electron	7.3(L)x3.1(W)x2.9(H)	GTS252	July 12, 2022	July 11, 2027
2	EMI Test Receiver	R&S	ESCI 7	GTS552	April 14, 2023	April 13, 2024
3	LISN	ROHDE & SCHWARZ	ENV216	GTS226	April 14, 2023	April 13, 2024
4	Coaxial Cable	GTS	N/A	GTS227	N/A	N/A
5	EMI Test Software	AUDIX	78 OR OR OR OR OR OR OR OR OR	N/A	N/A	N/A
6	Thermo meter	JINCHUANG	GSP-8A	GTS642	April 19, 2023	April 18, 2024
7	Absorbing clamp	Elektronik- Feinmechanik	MDS21	GTS229	April 14, 2023	April 13, 2024
8	ISN	SCHWARZBECK	NTFM 8158	GTS565	April 14, 2023	April 13, 2024
9	High voltage probe	SCHWARZBECK	TK9420	GTS537	April 14, 2023	April 13, 2024
10	Antenna end assembly	Weinschel	1870A	GTS560	April 14, 2023	April 13, 2024

RF C	RF Conducted Test:								
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)			
** *** *** *** ***	MXA Signal Analyzer	Agilent	N9020A	GTS566	April 14, 2023	April 13, 2024			
2	EMI Test Receiver	R&S	ESCI 7	GTS552	April 14, 2023	April 13, 2024			
3	PSA Series Spectrum Analyzer	Agilent	E4440A	GTS536	April 14, 2023	April 13, 2024			
4	MXG vector Signal Generator	Agilent	N5182A	GTS567	April 14, 2023	April 13, 2024			
5	ESG Analog Signal Generator	Agilent	E4428C	GTS568	April 14, 2023	April 13, 2024			
6	USB RF Power Sensor	DARE	RPR3006W	GTS569	April 14, 2023	April 13, 2024			
75 7 5 075	RF Switch Box	Shongyi	RFSW3003328	GTS571	April 14, 2023	April 13, 2024			
8	Programmable Constant Temp & Humi Test Chamber	WEWON	WHTH-150L-40-880	GTS572	April 14, 2023	April 13, 2024			
9	Thermo meter	JINCHUANG	GSP-8A	GTS641	April 19, 2023	April 18, 2024			

(General used equipment:								
lt	em	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)		
en en	1 018	Barometer	KUMAO	SF132	GTS647	April 19, 2023	April 18, 2024		





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.

EUT Antenna:

The antennas are PCB Antenna, the best case gain of the antennas are 2.04dBi, reference to the appendix III for details



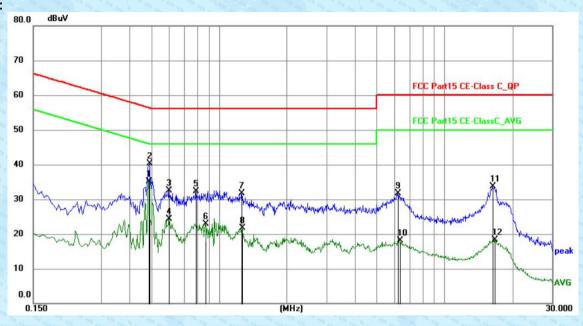
7.2 Conducted Emissions

T-4D-win-n	EOO D 15 007	S CONTRACTOR CONTRACTO			
Test Requirement:	FCC Part15 C Section 15.207				
Test Method:	ANSI C63.10:2013		CAS		
Test Frequency Range:	150KHz to 30MHz	elle olle olle olle olle olle olle olle	els		
Receiver setup:	RBW=9KHz, VBW=30KHz, Sweep time=auto				
Limit:	Frequency range (MHz) Limit (dBuV)				
73)	1 CTS	Quasi-peak	Average		
7	0.15-0.5	66 to 56*	56 to 46*		
	0.5-5 5-30	56 60	46		
0	* Decreases with the logarithn	16% 7/8 7/8 7/8 7/8 7/8 7/8 7/8 7/8 7/8 7/8	75 (75 (75 (75 (75 (75 (75 (75 (75 (75 (
Test setup:	Reference Plane	Tor the mequency.	of the control of the		
Took means divine	AUX Equipment E.U.T Test table/Insulation plane Remark E.U.T. Equipment Under Test LISN. Line Impedence Stabilization Network Test table height=0.8m	EMI Receiver	ower and the second sec		
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				
Test environment:	Temp.: 26.4°C Hun	nid.: 45%	Press.: 1010mbar		
Test voltage:	120V/60Hz	18 c12 c12 c12 c12 c12 c12 c13 c14 c15			
Test results:	Pass	18 018 018 018 018 018 018 018 018 018 0	the city of the ci		
	" O O O O O O O O O O O O O O O O O O O	Grand Charles	18 CIS CIS CIS CIS CIS CIS CIS CIS CIS		



Measurement data

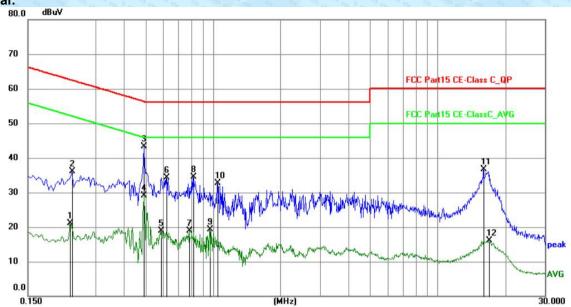
Line:



No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin dB	Detector
1 *	0.4875	25.48	9.71	35.19	46.21	-11.02	AVG
2	0.4920	30.64	9.71	40.35	56.13	-15.78	peak
3	0.6000	22.71	9.71	32.42	56.00	-23.58	peak
4	0.6000	14.58	9.71	24.29	46.00	-21.71	AVG
5	0.7890	22.61	9.68	32.29	56.00	-23.71	peak
6	0.8700	13.31	9.67	22.98	46.00	-23.02	AVG
7	1.2570	22.13	9.66	31.79	56.00	-24.21	peak
8	1.2660	11.95	9.66	21.61	46.00	-24.39	AVG
9	6.2115	21.90	9.74	31.64	60.00	-28.36	peak
10	6.3465	8.33	9.74	18.07	50.00	-31.93	AVG
11	16.3140	23.69	9.92	33.61	60.00	-26.39	peak
12	16.7055	8.45	9.92	18.37	50.00	-31.63	AVG







No. Mk. Freq. Level Reading Level Correct Factor Measurement Limit Margin 1 0.2310 11.37 9.76 21.13 52.41 -31.28 AVG 2 0.2355 26.32 9.76 36.08 62.25 -26.17 peak 3 * 0.4920 33.53 9.71 43.24 56.13 -12.89 peak 4 0.4920 19.38 9.71 29.09 46.13 -17.04 AVG 5 0.5865 9.12 9.70 18.82 46.00 -27.18 AVG 6 0.6180 24.53 9.71 34.24 56.00 -21.76 peak 7 0.7845 9.18 9.68 18.86 46.00 -27.14 AVG 8 0.8160 24.87 9.68 34.55 56.00 -21.45 peak 9 0.9645 9.60 9.65 19.25 46.00 -26.75 AVG 10 1.0455	Go.	G24	12 To 18 m	1 4/8 -18	On Ore 18 m	On On To	36 378	on on	To Same Co.	62 670
1 0.2310 11.37 9.76 21.13 52.41 -31.28 AVG 2 0.2355 26.32 9.76 36.08 62.25 -26.17 peak 3 * 0.4920 33.53 9.71 43.24 56.13 -12.89 peak 4 0.4920 19.38 9.71 29.09 46.13 -17.04 AVG 5 0.5865 9.12 9.70 18.82 46.00 -27.18 AVG 6 0.6180 24.53 9.71 34.24 56.00 -21.76 peak 7 0.7845 9.18 9.68 18.86 46.00 -27.14 AVG 8 0.8160 24.87 9.68 34.55 56.00 -21.45 peak 9 0.9645 9.60 9.65 19.25 46.00 -26.75 AVG 10 1.0455 23.07 9.64 32.71 56.00 -23.29 peak 11 16.0350 26.75 9.92 36.67 60.00 -23.33 peak <th></th> <td>No.</td> <td>Mk.</td> <td>Freq.</td> <td>_</td> <td></td> <td></td> <td>Limit</td> <td>Margin</td> <td></td>		No.	Mk.	Freq.	_			Limit	Margin	
2 0.2355 26.32 9.76 36.08 62.25 -26.17 peak 3 * 0.4920 33.53 9.71 43.24 56.13 -12.89 peak 4 0.4920 19.38 9.71 29.09 46.13 -17.04 AVG 5 0.5865 9.12 9.70 18.82 46.00 -27.18 AVG 6 0.6180 24.53 9.71 34.24 56.00 -21.76 peak 7 0.7845 9.18 9.68 18.86 46.00 -27.14 AVG 8 0.8160 24.87 9.68 34.55 56.00 -21.45 peak 9 0.9645 9.60 9.65 19.25 46.00 -26.75 AVG 10 1.0455 23.07 9.64 32.71 56.00 -23.29 peak 11 16.0350 26.75 9.92 36.67 60.00 -23.33 peak	°203			MHz					dB	Detector
3 * 0.4920 33.53 9.71 43.24 56.13 -12.89 peak 4 0.4920 19.38 9.71 29.09 46.13 -17.04 AVG 5 0.5865 9.12 9.70 18.82 46.00 -27.18 AVG 6 0.6180 24.53 9.71 34.24 56.00 -21.76 peak 7 0.7845 9.18 9.68 18.86 46.00 -27.14 AVG 8 0.8160 24.87 9.68 34.55 56.00 -21.45 peak 9 0.9645 9.60 9.65 19.25 46.00 -26.75 AVG 10 1.0455 23.07 9.64 32.71 56.00 -23.29 peak 11 16.0350 26.75 9.92 36.67 60.00 -23.33 peak	Ts + Ts	1		0.2310	11.37	9.76	21.13	52.41	-31.28	AVG
4 0.4920 19.38 9.71 29.09 46.13 -17.04 AVG 5 0.5865 9.12 9.70 18.82 46.00 -27.18 AVG 6 0.6180 24.53 9.71 34.24 56.00 -21.76 peak 7 0.7845 9.18 9.68 18.86 46.00 -27.14 AVG 8 0.8160 24.87 9.68 34.55 56.00 -21.45 peak 9 0.9645 9.60 9.65 19.25 46.00 -26.75 AVG 10 1.0455 23.07 9.64 32.71 56.00 -23.29 peak 11 16.0350 26.75 9.92 36.67 60.00 -23.33 peak	s (=	2		0.2355	26.32	9.76	36.08	62.25	-26.17	peak
5 0.5865 9.12 9.70 18.82 46.00 -27.18 AVG 6 0.6180 24.53 9.71 34.24 56.00 -21.76 peak 7 0.7845 9.18 9.68 18.86 46.00 -27.14 AVG 8 0.8160 24.87 9.68 34.55 56.00 -21.45 peak 9 0.9645 9.60 9.65 19.25 46.00 -26.75 AVG 10 1.0455 23.07 9.64 32.71 56.00 -23.29 peak 11 16.0350 26.75 9.92 36.67 60.00 -23.33 peak	6	3	*	0.4920	33.53	9.71	43.24	56.13	-12.89	peak
6 0.6180 24.53 9.71 34.24 56.00 -21.76 peak 7 0.7845 9.18 9.68 18.86 46.00 -27.14 AVG 8 0.8160 24.87 9.68 34.55 56.00 -21.45 peak 9 0.9645 9.60 9.65 19.25 46.00 -26.75 AVG 10 1.0455 23.07 9.64 32.71 56.00 -23.29 peak 11 16.0350 26.75 9.92 36.67 60.00 -23.33 peak	67) 67)	4		0.4920	19.38	9.71	29.09	46.13	-17.04	AVG
7 0.7845 9.18 9.68 18.86 46.00 -27.14 AVG 8 0.8160 24.87 9.68 34.55 56.00 -21.45 peak 9 0.9645 9.60 9.65 19.25 46.00 -26.75 AVG 10 1.0455 23.07 9.64 32.71 56.00 -23.29 peak 11 16.0350 26.75 9.92 36.67 60.00 -23.33 peak	75	5		0.5865	9.12	9.70	18.82	46.00	-27.18	AVG
8 0.8160 24.87 9.68 34.55 56.00 -21.45 peak 9 0.9645 9.60 9.65 19.25 46.00 -26.75 AVG 10 1.0455 23.07 9.64 32.71 56.00 -23.29 peak 11 16.0350 26.75 9.92 36.67 60.00 -23.33 peak	de e	6		0.6180	24.53	9.71	34.24	56.00	-21.76	peak
9 0.9645 9.60 9.65 19.25 46.00 -26.75 AVG 10 1.0455 23.07 9.64 32.71 56.00 -23.29 peak 11 16.0350 26.75 9.92 36.67 60.00 -23.33 peak	s .	7		0.7845	9.18	9.68	18.86	46.00	-27.14	AVG
10 1.0455 23.07 9.64 32.71 56.00 -23.29 peak 11 16.0350 26.75 9.92 36.67 60.00 -23.33 peak	0	8		0.8160	24.87	9.68	34.55	56.00	-21.45	peak
11 16.0350 26.75 9.92 36.67 60.00 -23.33 peak	92) 02)	9		0.9645	9.60	9.65	19.25	46.00	-26.75	AVG
(8) (8) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1	78	10		1.0455	23.07	9.64	32.71	56.00	-23.29	peak
12 16.8720 6.19 9.93 16.12 50.00 -33.88 AVG	(c)	11		16.0350	26.75	9.92	36.67	60.00	-23.33	peak
	63 673	12		16.8720	6.19	9.93	16.12	50.00	-33.88	AVG



7.3 Conducted Peak Output Power

Test Requirement :	FCC Part15 C Section 15.247 (b)(3)				
Test Method :	KDB558074 D01 15.247 Meas Guidance v05r02				
Limit:	30dBm				
Test setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane				
	A CONTROL MAD ON THE PROPERTY OF THE PROPERTY				
Test Instruments:	Refer to section 6.0 for details				
Test mode:	Refer to section 5.2 for details				
Test results:	Pass				

Measurement Data

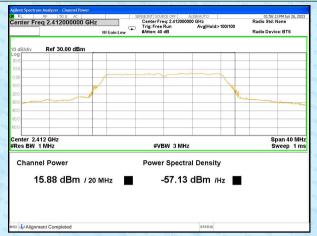
Test CH	Pea	Limit(dBm)	Result		
Test CIT	802.11b	802.11g	802.11n(HT20)	Liiiii(abiii)	Nesult
Lowest	16.14	15.88	7.15.15		
Middle	16.99	16.47	15.89	30.00	Pass
Highest	16.56	17.17	15.70		



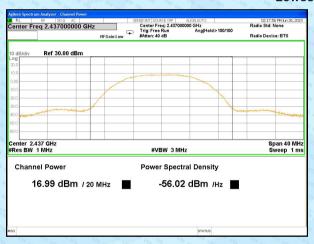
Test plot as follows:



802.11g



Lowest channel





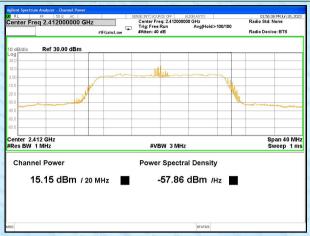




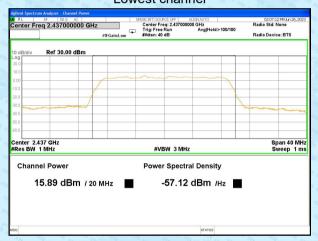
Highest channel

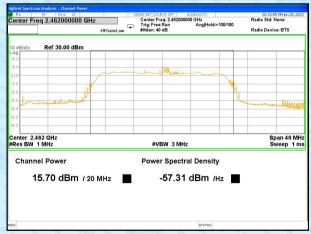


802.11n(HT20)



Lowest channel





Highest channel



7.4 Channel Bandwidth & 99% Occupy Bandwidth

Test Requirement :	FCC Part15 C Section 15.247 (a)(2)				
Test Method :	KDB558074 D01 15.247 Meas Guidance v05r02				
Limit:	>500KHz				
Test setup:	Spectrum Analyzer E.U.T Non-Conducted Table				
99	Ground Reference Plane				
Test Instruments:	Refer to section 6.0 for details				
Test mode:	Refer to section 5.2 for details				
Test results:	Pass				

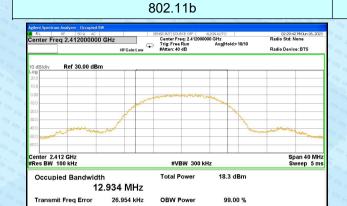
Measurement Data

Test CH	Channel Bandwidth (MHz)			Limit(KHz)	Result
Test CIT	802.11b	802.11g	802.11n(HT20)	Lillin(IXI IZ)	Nesuit
Lowest	9.556	16.410	17.380		
Middle	9.845	16.420	17.550	>500	Pass
Highest	10.070	16.450	15.080		18 CLR

Test CH	99%	Result		
Test CH	802.11b	802.11g	802.11n(HT20)	Result
Lowest	12.934	16.408	17.548	
Middle	12.934	16.379	17.513	Pass
Highest	12.946	16.479	17.671	



Test plot as follows:

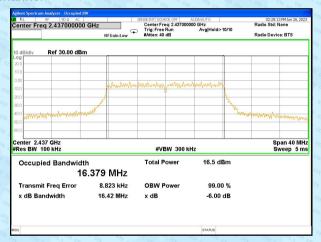


| Applied | Special | Spec

802.11g

Lowest channel





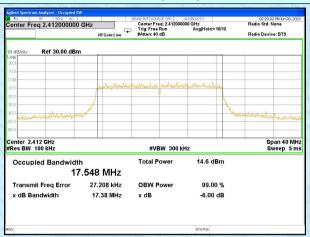




Highest channel

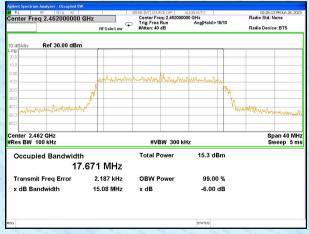


802.11n(HT20)



Lowest channel





Highest channel



7.5 Power Spectral Density

and the second s					
Test Requirement:	FCC Part15 C Section 15.247 (e)				
Test Method:	KDB558074 D01 15.247 Meas Guidance v05r02				
Limit:	8dBm/3kHz				
Test setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane				
0	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

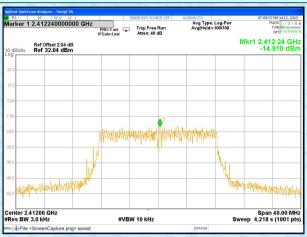
Test CH	Powe	Limit	Result		
Test of t	802.11b	802.11g	802.11n(HT20)	(dBm/3kHz)	Nesuit
Lowest	-13.666	-9.757	-26.115		
Middle	-13.312	-28.698	-23.409	8.00	Pass
Highest	-11.894	-27.908	-30.605		



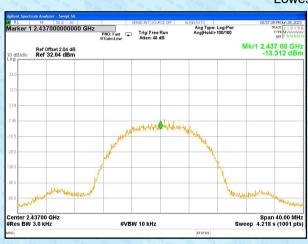
Test plot as follows:

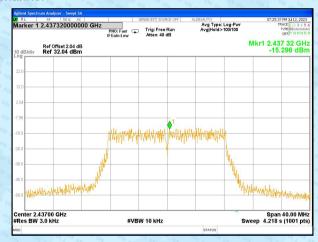


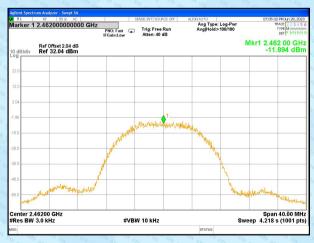


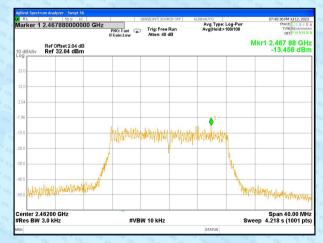


Lowest channel





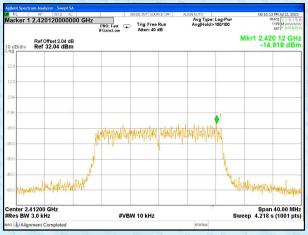




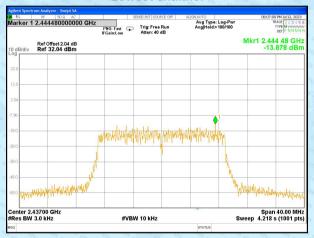
Highest channel

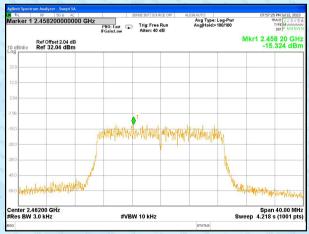


802.11n(HT20)



Lowest channel





Highest channel



7.6 Band edges

7.6.1 Conducted Emission Method

Test Requirement:	FCC Part15 C Section 15.247 (d)						
Test Method:	KDB558074 D01 15.247 Meas Guidance v05r02						
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:	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 of the state						

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

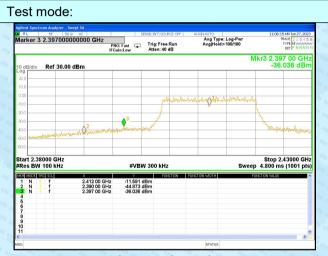


Test plot as follows:



Lowest channel

Highest channel



Lowest channel



Highest channel



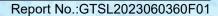
Marker 3 2.48826000000 GHz
FO 1 Feb | Trig Free Run | Avg Type: Log-Pur Avg Hold-100100 | Trig Free Run | Av

Highest channel



7.6.2 Radiated Emission Method

75	Test Requirement:	FCC Part15 C Section 15.209 and 15.205								
	Test Method:	ANSI C63.10: 2	2013	G GIS GIS GIS GIS GIS	C18 C18 C18 C18 C18	618 618 618 618 618 618 618 618 618				
78 ₀	Test Frequency Range:	All of the restrict 2500MHz) data			the worst b	pand's (2310MHz to				
8 0	Test site:	Measurement D	Distance: 3m	ells ells ells ells ells	ers ers ers ers ers	Lis cité cité cité cité cité cité cité cité				
67	Receiver setup:	Frequency	Detector	RBW	VBW	Value				
67) Gr.	·	0, 30, 03, 03, 03	Peak	1MHz	3MHz	Peak				
G73:		Above 1GHz	Average	1MHz	3MHz	Average				
78	Limit:	Freque	0 70 776 77	Limit (dBuV/	m @3m)	Value				
Ts		To GLE CLE CLE CLE CLE CLE CLE	1011-	54.0	0 9 078 078 078 078	Average				
8 0		Above 1	IGHZ	74.0	O ers ers ers ers	Peak				
	Test setup:	Turn Table* ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	< 31 EUT+	Test Antenna-	amplifier-					
	Test Procedure:	 The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 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. 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. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. 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, quasipeak or average method as specified and then reported in a data sheet. The radiation measurements are performed in X, Y, Z axis positioning. 								
67	Test Instruments:	Refer to section	node is record		75	18 C13 C12 C12 C12 C13				
G78		100 00 000 000 000			S Car all car cas cas cas	618 618 618 618 618 618 618 618 618 6				
978	Test mode: Test results:	Refer to section	i 5.2 for details		S Green GIS GIS GIS	Cas are also are are are are are are				
rs GTS	TEST TESUITS.	Pass	To GIS OF GIS	78	GIS GIS GIS GIS	Cre Cls Cls Cre Cls Cre Cls Cre Cls Cre				



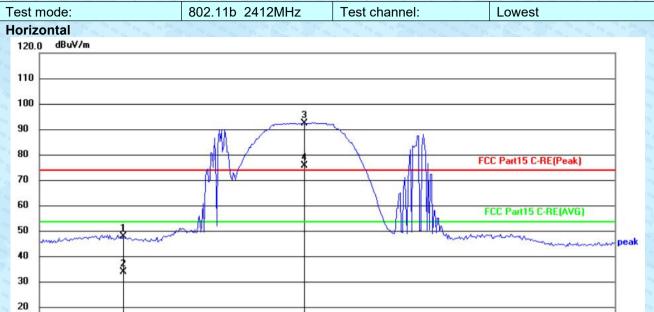
2450.0



Measurement data:

0.0

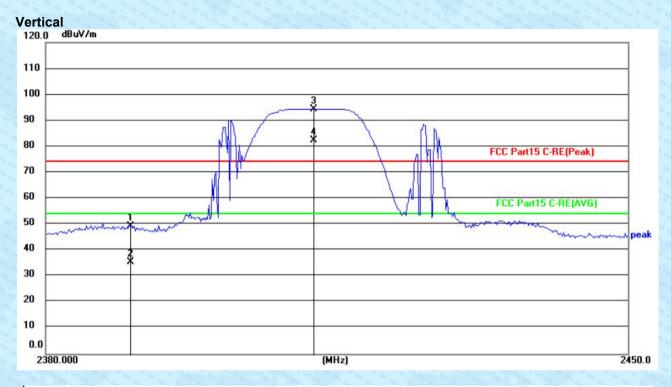
All antennas have test, only the worst case ANT 1 report.



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2390.000	22.15	26.32	48.47	74.00	-25.53	peak
2	2390.000	8.22	26.32	34.54	54.00	-19.46	AVG
3	2412.000	66.17	26.36	92.53	74.00	18.53	peak
4	2412.000	49.62	26.36	75.98	54.00	21.98	AVG

(MHz)

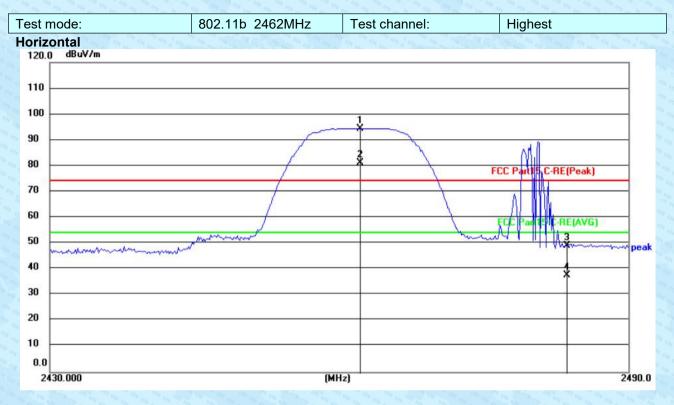




No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2390.000	23.07	26.32	49.39	74.00	-24.61	peak
2	2390.000	9.10	26.32	35.42	54.00	-18.58	AVG
3	2412.000	68.10	26.36	94.46	74.00	20.46	peak
4	2412.000	56.00	26.36	82.36	54.00	28.36	AVG

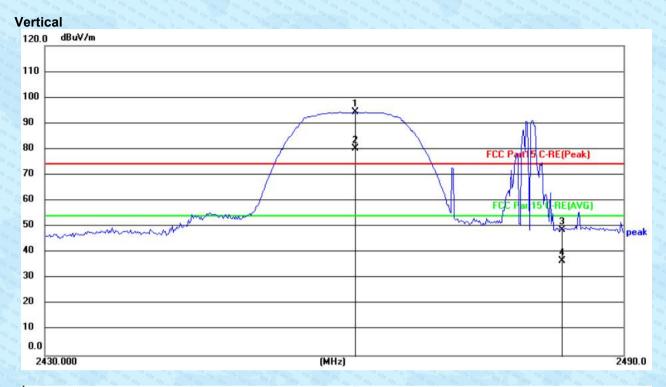






No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2462.000	67.90	26.44	94.34	74.00	20.34	peak
2	2462.000	54.66	26.44	81.10	54.00	27.10	AVG
3	2483.500	22.64	26.47	49.11	74.00	-24.89	peak
4	2483.500	11.05	26.47	37.52	54.00	-16.48	AVG

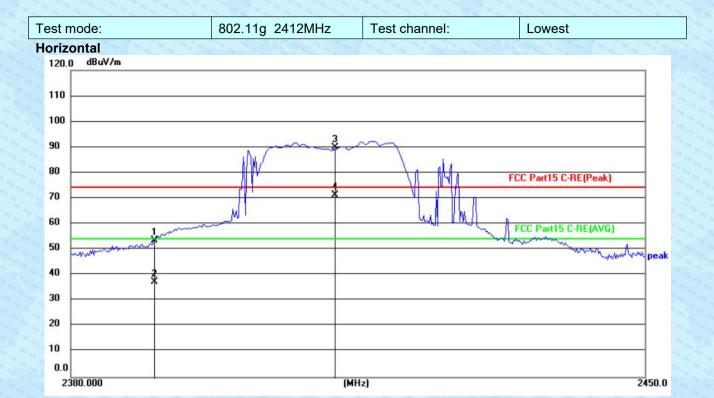




No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2462.000	67.87	26.44	94.31	74.00	20.31	peak
2	2462.000	53.70	26.44	80.14	54.00	26.14	AVG
3	2483.500	22.25	26.47	48.72	74.00	-25.28	peak
4	2483.500	10.24	26.47	36.71	54.00	-17.29	AVG



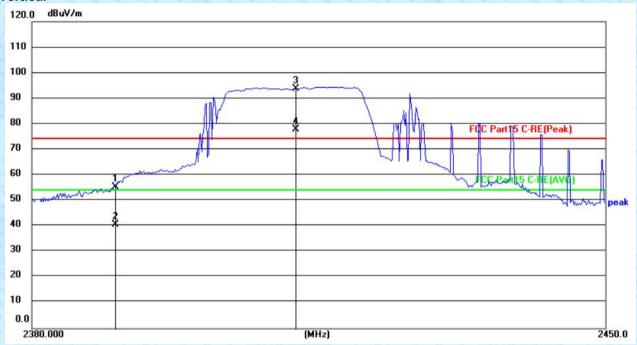




No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2390.000	27.18	26.32	53.50	74.00	-20.50	peak
2	2390.000	10.89	26.32	37.21	54.00	-16.79	AVG
3	2412.000	63.37	26.36	89.73	74.00	15.73	peak
4	2412.000	44.87	26.36	71.23	54.00	17.23	AVG



Vertical



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2390.000	29.09	26.32	55.41	74.00	-18.59	peak
2	2390.000	14.21	26.32	40.53	54.00	-13.47	AVG
3	2412.000	67.26	26.36	93.62	74.00	19.62	peak
4	2412.000	51.36	26.36	77.72	54.00	23.72	AVG