

# Global United Technology Services Co., Ltd.

Report No.: GTSL2023050532F01

# **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 Pet Feeder

Model No.: BL1

Add. Model No.: BL2,BL3,BL4,BL5,BL6,BL7,BL8,C1,C2,C3,C4,C5,WF

Trade Mark: N/A

FCC ID: 2APD7-BL1

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

Date of sample receipt: 2023-05-19

**Date of Test:** 2023-05-26 to 2023-07-13

Date of report issued: 2023-07-19

Test Result: PASS \*

### **Authorized Signature:**



Robinson Luo 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

<sup>\*</sup> In the configuration tested, the EUT complied with the standards specified above.



## 2 Version

Report No.	Version No.	Date	Description
GTSL2023050532F01	00	2023-07-19	Original
	618 618 618 618 618 618 618 618 618 618	elle elle elle elle elle elle elle ell	
	0.18 0.18 0.18 0.18 0.18 0.18 0.18 0.18		
	13 Cas	13	
	2 012 016 012 012 012 012 013 013 013 013 013 013 013 013 013 013	As als als als als als als als als als al	

Prepared By:	Trankly	Date:	2023-07-19
	Project Engineer		
Check By:	Johnson Lus	Date:	2023-07-19
	Reviewer		



## 3 Contents

		Page
1	COVER PAGE	1
2	2 VERSION	2
3	3 CONTENTS	the case of the case case case case case case case cas
18 6		
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	<b>7</b>
7	7 TEST RESULTS AND MEASUREMENT DATA	The Charles of the Ch
92		
	7.1 ANTENNA REQUIREMENT	
	7.3 CONDUCTED PEAK OUTPUT POWER	
	7.4 CHANNEL BANDWIDTH & 99% OCCUPY BANDWIDTH	
	7.5 POWER SPECTRAL DENSITY	19
	7.6 BAND EDGES	
	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	TEST SETUP PHOTO	63
9		
J		



## 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 <sup>-7</sup>	
2	Duty Cycle	0.37%
3	Occupied Bandwidth	2.8dB
4	RF Conducted Power	0.75dB
5	RF Power Density	
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)
18 CTS CTS C		3.30dB (18GHz-40GHz)
Note	(1): The measurement uncertainty is for cove	rage factor of k=2 and a level of confidence of 95%.



## 5 General Information

## 5.1 General Description of EUT

Product Name:	Smart Pet Feeder
Model No.:	BL1
Add. Model No.:	BL2,BL3,BL4,BL5,BL6,BL7,BL8,C1,C2,C3,C4,C5,WF
Serial No.:	
Hardware Version:	
Software Version:	V1.0
Test sample(s) ID:	GTSL2023050532-1
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
CNI-C- Org. Org. Org. Org. Org. Org. Org. Org.	

#### Note:

The product ( Smart Pet Feeder ) models ( BL1 ) and models ( BL2,BL3,BL4,BL5,BL6,BL7,BL8,C1,C2,C3, C4,C5,WF ) 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
978 978 978 978 978 978 978 978 978	2412MHz	s ors ors <b>4</b> ors ors	2427MHz	013 013 0 <b>7</b> 013 013 013	2442MHz	7 <b>10</b> 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	2457MHz
The ors ors ors ors ors	2417MHz	5	2432MHz	8	2447MHz	25 cm 21.1 cm cm	2462MHz
or 3 or	2422MHz	6	2437MHz	9	2452MHz	elk elk elk elk el	18 C18 C18 C18 C18 C18 C18 C18 C18 C18 C

## 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:

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

Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960



### 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.

78 G	Mode	802.11b	802.11g	802.11n(HT20)
8 62	Data rate	1Mbps	6Mbps	6.5Mbps

## 5.3 Description of Support Units

Manufacturer	Description	Model	Serial Number
SHENZHEN XED POWER SUPPLY CO,LTD	Power Adapter	XED-CE050100CU	N/A

## 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

Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960



## 6 Test Instruments list

Rad	liated Emission:			The cree cree cree cree		18 c18 c18 c18 c 618 c 6
ltem	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
100	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	678 ON 678 E378 ON 678 ON 678	N/A	N/A	N/A
7	Coaxial Cable	GTS	N/A 25 05 05 05 05 05 05 05 05 05 05 05 05 05	GTS213	April 21, 2023	April 20, 2024
8	Coaxial Cable	GTS	73 075 075 075 N/A 075 075 075 075	GTS211	April 21, 2023	April 20, 2024
9	Coaxial cable	GTS	NA STATE OF	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)		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	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	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	E3. on "	N/A	N/A	N/A	
6	Thermo meter	JINCHUANG	GSP-8A	GTS642	April 19, 2023	April 18, 2024	
7 7 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	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	onducted Test:				The state of the s	
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
7 cz. 1 cz.	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
7.7	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

Ge	General used equipment:					
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
en en <b>1</b>	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



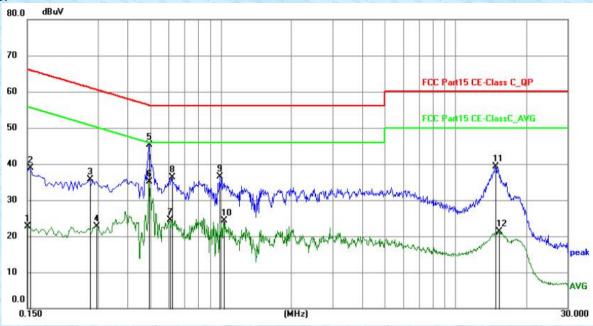
## 7.2 Conducted Emissions

07 07 07 07 07 07 07 07 07 07 07 07 07 0	The state of the s	8 CTC CTS CTS CTS CTS CTS CTS CTS CTS CTS	3 CT CT CT CT CT	one one one one
Test Requirement:	FCC Part15 C Section 15.207			
Test Method:	ANSI C63.10:2013		CAS	
Test Frequency Range:	150KHz to 30MHz			18 c18 c18 c18 c18 c18 c18
Receiver setup:	RBW=9KHz, VBW=30KHz, S	weep time=auto	ols ols ols ols ols ols o	3 02" 018 018 018 018 019 019 019 019 019 019 019 019 019 019
Limit:	Frequency range (MHz)	Trong on the Comp	t (dBuV)	Carlo
3	ors ors ors ors ors ors ors	Quasi-peak	Ave	
	0.15-0.5	66 to 56*	7/0 17 (2) 17	46*
	0.5-5 5-30	56	-0 62 -276	6
	* Decreases with the logarithm	60	13 4 13 gr. 13 25 5 15 17 18 18 18 18 18 18 18 18 18 18 18 18 18	
Test setup:	Reference Plane	6 62 3 2 62 62	one one one	S CT CIS CIS CIS CIS
Test procedure:	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  1. The E.U.T and simulators a	EMI Receiver	power main power	through a
	<ol> <li>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.</li> <li>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).</li> <li>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.</li> </ol>			
Test Instruments:	Refer to section 6.0 for details		all cas cas cas cas cas cas	els els els els els els els
Test mode:	Refer to section 5.2 for details		els els els els els els els	ers ers ers ers ers ers
Test environment:	Temp.: 26.4°C Hun	nid.: 45%	Press.:	1010mbar
Test voltage:	120V/60Hz	18 of	IS CIS CIS CIS CIS CIS CIS CIS	12 c12 c12 c12 12 c12 c12 c12 c12
Test results:	Pass	off off off off off off off off off	Notes on the case of the case	2 C18
		Great State Control of	18 018 02 070 078 078	old old old old old



### Measurement data

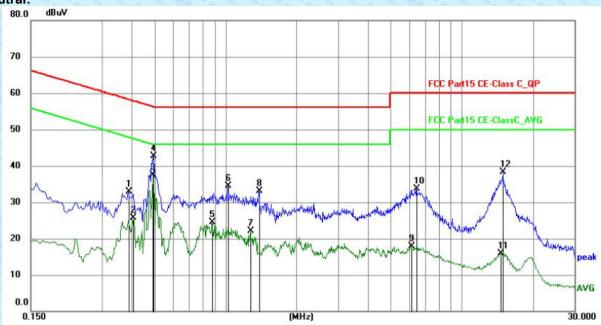
## Line:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1500	12.81	9.81	22.62	56.00	-33.38	AVG	Р
2	0.1545	29.12	9.80	38.92	65.75	-26.83	peak	Р
3	0.2760	26.03	9.74	35.77	60.94	-25.17	peak	Р
4	0.2940	13.06	9.74	22.80	50.41	-27.61	AVG	Р
5	0.4965	35.51	9.71	45.22	56.06	-10.84	peak	Р
6	0.4965	25.30	9.71	35.01	46.06	-11.05	AVG	Р
7	0.6090	14.72	9.71	24.43	46.00	-21.57	AVG	Р
8	0.6180	26.69	9.71	36.40	56.00	-19.60	peak	Р
9	0.9915	26.86	9.64	36.50	56.00	-19.50	peak	Р
10	1.0275	14.71	9.64	24.35	46.00	-21.65	AVG	Р
11	14.7975	29.35	9.90	39.25	60.00	-20.75	peak	Р
12	15.3825	11.31	9.90	21.21	50.00	-28.79	AVG	Р



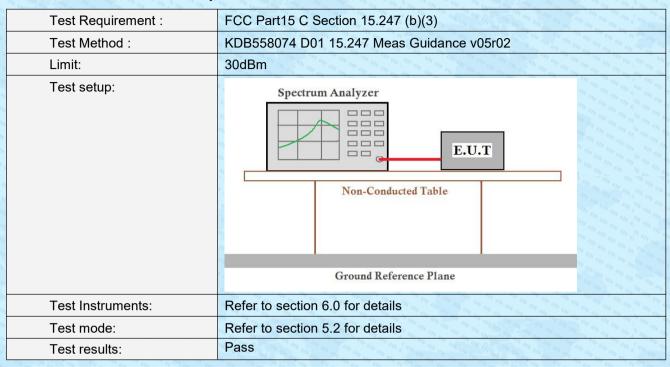
## Neutral:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.3885	23.26	9.72	32.98	58.10	-25.12	peak	Р
2	0.4065	16.02	9.72	25.74	47.72	-21.98	AVG	Р
3	0.4920	27.76	9.71	37.47	46.13	-8.66	AVG	Р
4	0.4965	33.05	9.71	42.76	56.06	-13.30	peak	Р
5	0.8790	14.90	9.66	24.56	46.00	-21.44	AVG	Р
6	1.0230	24.87	9.64	34.51	56.00	-21.49	peak	Р
7	1.2795	12.44	9.66	22.10	46.00	-23.90	AVG	Р
8	1.3829	23.45	9.67	33.12	56.00	-22.88	peak	Р
9	6.1125	8.18	9.73	17.91	50.00	-32.09	AVG	Р
10	6.4500	24.03	9.74	33.77	60.00	-26.23	peak	Р
11	14.5275	6.08	9.90	15.98	50.00	-34.02	AVG	Р
12	14.9685	28.31	9.91	38.22	60.00	-21.78	peak	Р



## 7.3 Conducted Peak Output Power



## **Measurement Data**

Test CH	Pea	Limit(dBm)	Result		
Test CIT	802.11b	802.11g	802.11n(HT20)	Liiiii(dbiii)	Nesuit
Lowest	18.60	18.25	17.41		
Middle	19.35	19.33	17.88	30.00	Pass
Highest	20.36	20.10	19.30		

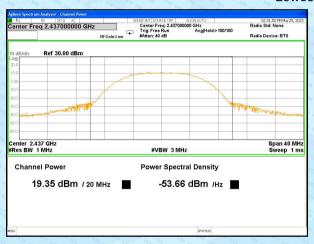


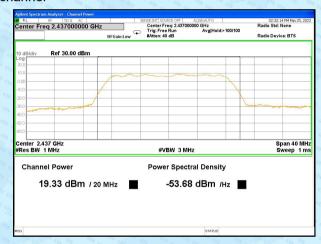
### Test plot as follows:



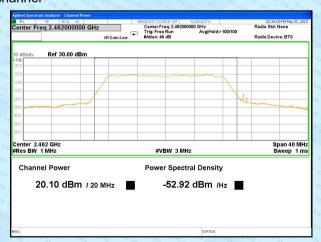


### Lowest channel



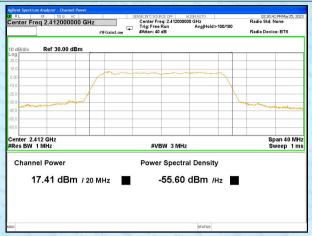




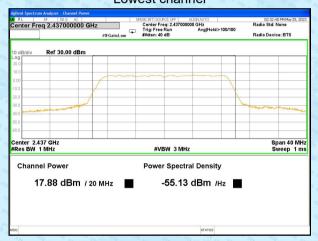


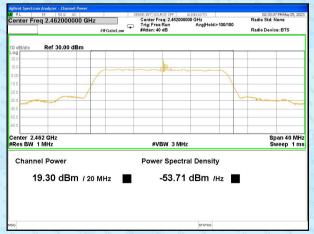
Highest channel

## 802.11n(HT20)



## Lowest channel





Highest channel



## 7.4 Channel Bandwidth & 99% Occupy Bandwidth

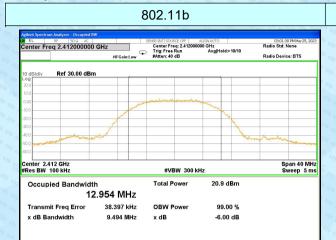
Test Requirement :	FCC Part15 C Section 15.247 (a)(2)		
Test Method :	KDB558074 D01 15.247 Meas Guidance v05r02		
Limit:	>500KHz		
Test setup:	Spectrum Analyzer  E.U.T  Non-Conducted Table  Ground Reference Plane		
Test Instruments:	Refer to section 6.0 for details		
Test mode:	Refer to section 5.2 for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

### **Measurement Data**

Test CH	Channel Bandwidth (MHz)			Limit(KHz)	Result
Test CIT	802.11b	802.11g	802.11n(HT20)	Liiiii(iXi iZ)	rvesuit
Lowest	9.494	16.430	17.650		
Middle	9.701	16.480	17.340	>500	Pass
Highest	9.216	16.390	17.560		



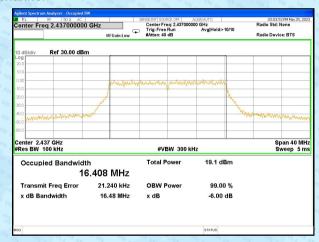
### Test plot as follows:



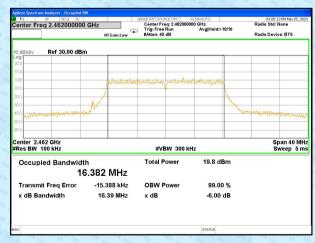
## 

## Lowest channel





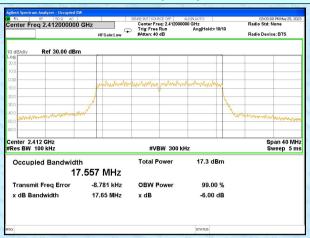




Highest channel

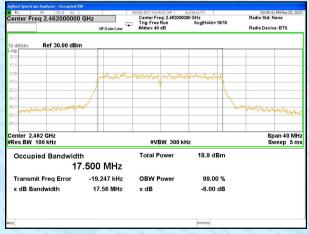


## 802.11n(HT20)



#### Lowest channel





Highest channel



## 7.5 Power Spectral Density

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		
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**

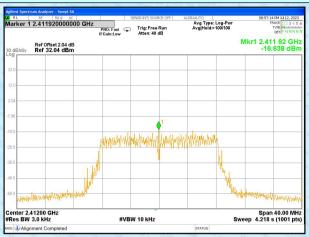
Test CH	Power Spectral Density (dBm/3kHz)			Limit	Result
70011	802.11b	802.11g	802.11n(HT20)	(dBm/3kHz)	rtesuit
Lowest	-10.063	-16.638	-17.393	0.18	
Middle	-9.557	-17.103	-18.488	8.00	Pass
Highest	-9.480	-15.951	-18.243		



## Test plot as follows:

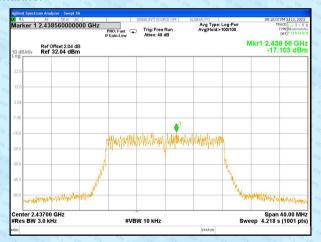




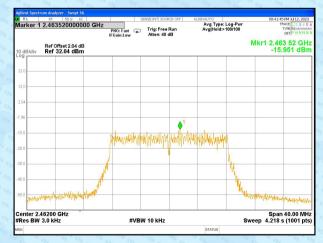


### Lowest channel





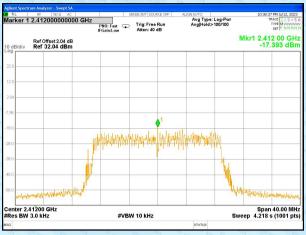




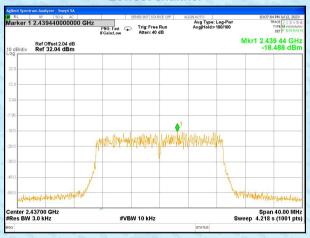
Highest channel

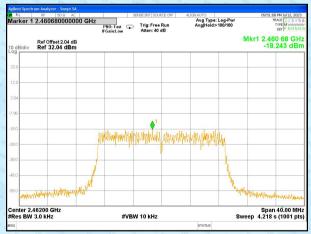


## 802.11n(HT20)



#### Lowest channel





Highest channel



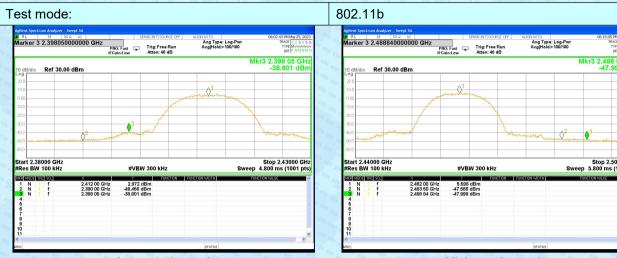
## 7.6 Band edges

## 7.6.1 Conducted Emission Method

Co Cr. 18 S. Cr. Cr. Ts IS Gr. Cr.				
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			

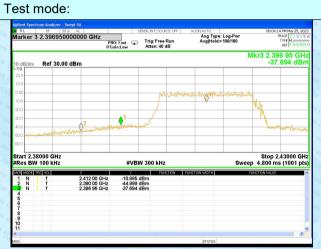


## Test plot as follows:



Lowest channel

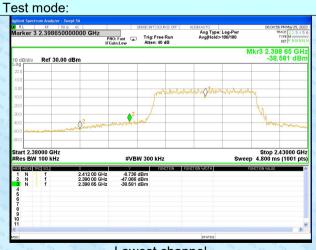
Highest channel



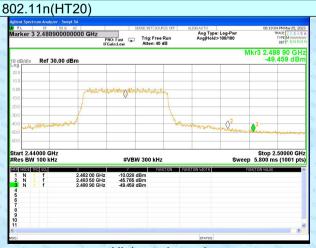
Lowest channel



Highest channel



Lowest channel



Highest channel



## 7.6.2 Radiated Emission Method

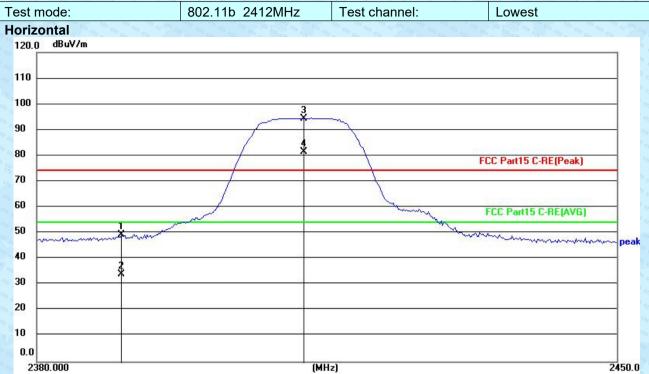
Test Requirement:	FCC Part15 C Section 15.209 and 15.205								
Test Method:	ANSI C63.10: 2013								
Test Frequency Range:	All of the restrict bands were tested, only the worst band's (2310MHz to 2500MHz) data was showed.								
Test site:	Measurement D		10 018 018 018 018 018 018	or ors ors ors ors					
Receiver setup:	Frequency	Detector	RBW	VBW	Value				
o	One of the off on one of	Peak	1MHz	3MHz	Peak				
5	Above 1GHz	Average	1MHz	3MHz	Average				
Limit:	Frequency Limit (dBuV/m @3m) Valu								
·	54.00 Average								
	Above 1	GHZ	74.0	100 170 10	Peak				
Test setup:	Tum Table <150cm>	< 3m	Test Antenna-	amplifier					
Test Procedure:	the ground a determine the 2. The EUT was antenna, whi tower.  3. The antenna ground to de horizontal an measuremer  4. For each sus and then the and the rotathe maximum  5. The test-rece Specified Ba  6. If the emission the limit specified Ba  6. If the emission the EUT whave 10dB meak or average sheet.  7. The radiation And found the second	t a 3 meter came position of the set 3 meters and the set 3 meters and the set 3 meters are termine the mand and the set 4 meters are the set 5 meters and the set 5 meters are t	aber. The tall highest race away from the don the top of from one maximum value izations of the control of the	ole was rotadiation. The interferer of a variable of the field one antennative antennative arrange of the field of the fie	r meters above the distrength. Both are set to make the ed to its worst case meter to 4 meters 0 degrees to find function and 10dB lower than and the peak values sions that did not using peak, quasi-				
Test Instruments:	Refer to section		ani ujo ropo	The case of the ca	CIS				
Test mode:	Refer to section	90 90 18 0	2 ch ch ch ch	Lis CLS	618 618 618 618 618 618 618 618 618 618				
Test mode:	Pass	O.Z. TO, GOTAINS	ors ors or ors	TS GTS GTS GTS GTS	CAS				
Tool Toolito.	1 400 on 18 on 18	Grand Strategy Company	62 618 - 618 62	9 CT 678 CT	Comments of the comments of th				

Telephone: +86 (0) 755 2779 8480 Fax: +86 (0) 755 2779 8960



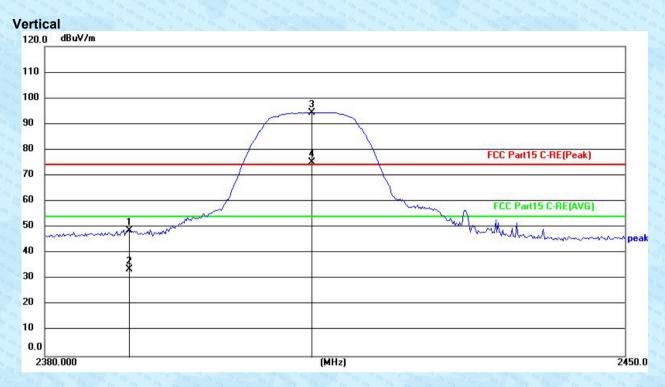
## Measurement data:

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



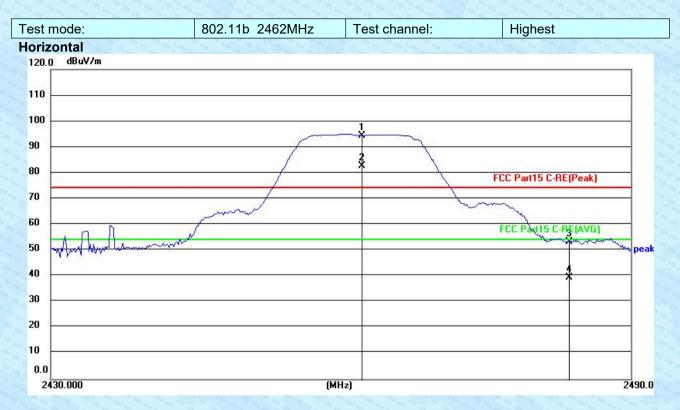
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	2390.000	23.03	26.32	49.35	74.00	-24.65	peak
2	2390.000	7.83	26.32	34.15	54.00	-19.85	AVG
3	2412.000	68.03	26.36	94.39	74.00	20.39	peak
4	2412.000	55.12	26.36	81.48	54.00	27.48	AVG





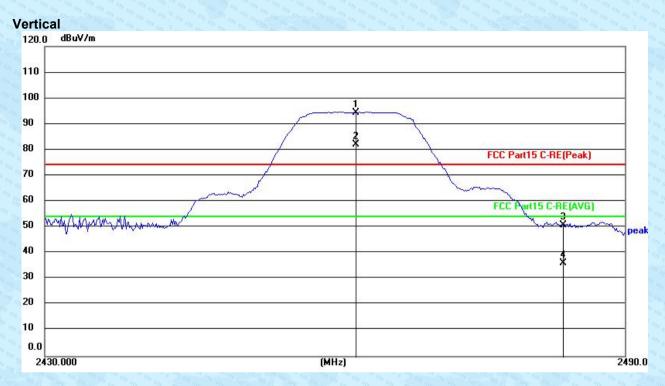
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	2390.000	22.33	26.32	48.65	74.00	-25.35	peak
2	2390.000	7.39	26.32	33.71	54.00	-20.29	AVG
3	2412.000	67.90	26.36	94.26	74.00	20.26	peak
4	2412.000	48.91	26.36	75.27	54.00	21.27	AVG





No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2462.000	68.03	26.44	94.47	74.00	20.47	peak
2	2462.000	56.25	26.44	82.69	54.00	28.69	AVG
3	2483.500	26.90	26.47	53.37	74.00	-20.63	peak
4	2483.500	13.06	26.47	39.53	54.00	-14.47	AVG

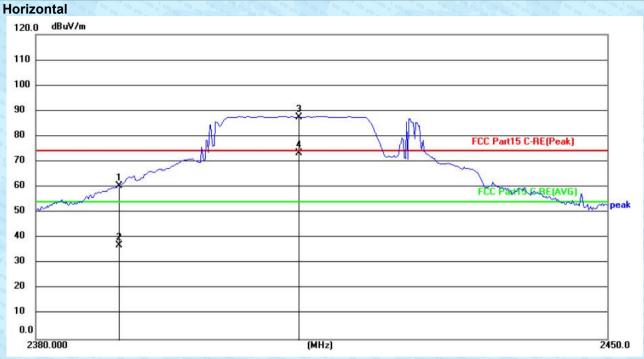




No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector
1	2462.000	68.03	26.44	94.47	74.00	20.47	peak
2	2462.000	55.72	26.44	82.16	54.00	28.16	AVG
3	2483.500	24.51	26.47	50.98	74.00	-23.02	peak
4	2483.500	9.67	26.47	36.14	54.00	-17.86	AVG



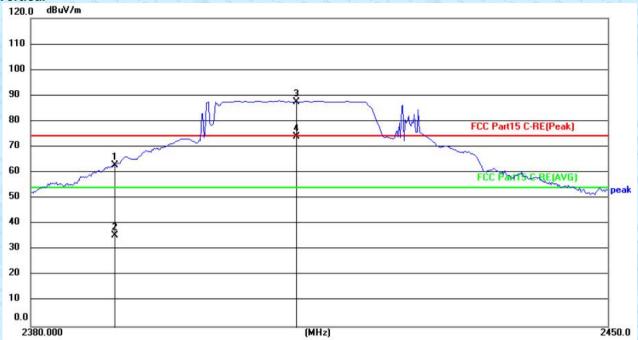




No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2390.000	34.26	26.32	60.58	74.00	-13.42	peak
2	2390.000	10.63	26.32	36.95	54.00	-17.05	AVG
3	2412.000	61.11	26.36	87.47	74.00	13.47	peak
4	2412.000	46.89	26.36	73.25	54.00	19.25	AVG



## Vertical



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2390.000	36.57	26.32	62.89	74.00	-11.11	peak
2	2390.000	9.37	26.32	35.69	54.00	-18.31	AVG
3	2412.000	61.11	26.36	87.47	74.00	13.47	peak
4	2412.000	47.53	26.36	73.89	54.00	19.89	AVG