

# Shenzhen Toby Technology Co., Ltd.

Report No.: TB-FCC160938

1 of 28 Page:

# **FCC Radio Test Report** FCC ID: 2ANIE-V09

## **FCC Class II Permissive Change**

Report No. TB-FCC160938

WO-SMART TECHNOLOGIES (SHENZHEN) CO., LTD **Applicant** 

**Equipment Under Test (EUT)** 

**EUT Name** V09s for HRV & SAS

Model No. V09s,

Serial Model No. V09pro, V09HRV

nego BlueBone **Brand Name** CACO fitup

**Receipt Date** 2018-07-09

**Test Date** 2018-07-10 to 2018-07-24

**Issue Date** 2018-07-24

Standards FCC Part 15: 2017, Subpart C(15.247)

ANSI C63.10: 2013 **Test Method** 

**Conclusions PASS** 

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

Test/WitnessEngineer

**Engineer Supervisor** 

**Engineer Manager** 

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in the report.

TB-RF-074-1.0



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# **Revision History**

Report No.	Version	Description	Issued Date
TB-FCC160938	Rev.01	Initial issue of report	2018-07-24
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# 1. General Information about EUT

#### 1.1 Client Information

Applicant		WO-SMART TECHNOLOGIES (SHENZHEN) CO., LTD
Address	i	2C, AB Block, Tianji Building, Tian'an Cyber Park, Chegongmiao, Futian District, Shenzhen, China
Manufacturer		SHENZHEN HONGKAIJIAWEI TECHNOLOGY GO.,LTD
Address		Floor 3, Buliding 2, Jianlian Industiral Park, Longhua, Shenzhen, Guangdong, China

## 1.2 General Description of EUT (Equipment Under Test)

<b>EUT Name</b>		V09s for HRV & SAS			
Models No.	4	V09s, V09pro, V09HRV	V09s, V09pro,V09HRV		
Model Difference	1		All these models are identical in the same PCB, layout and electrical ircuit, the only difference is brand name and color.		
Million	,	Operation Frequency:	Bluetooth (BLE): 2402MHz~2480MHz		
		Number of Channel:	40 channels see note(3)		
Product	÷	RF Output Power: -1.56dBm Conducted Power			
Description		Antenna Gain: -2.5dBi PIFA Antenna			
		Modulation Type:	GFSK		
		Bit Rate of Transmitter:	1Mbps(GFSK)		
Power Rating	:	Rated Voltage:3.7V. Charge Limit: 4.2V. Capacity: 150mAh.	OH TON THE REAL PROPERTY OF		
Software Version	1:	00.01.02.00-350-01	00.01.02.00-350-01		
Hardware Version		S1			
Connecting I/O Port(S)		Please refer to the User's Manual			

#### Note:

This Test Report is FCC Part 15.247 for Bluetooth BLE, the test procedure follows the FCC KDB 558074 D01 DTS Means Guidance v04.

- (1) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
- (2) Antenna information provided by the applicant.



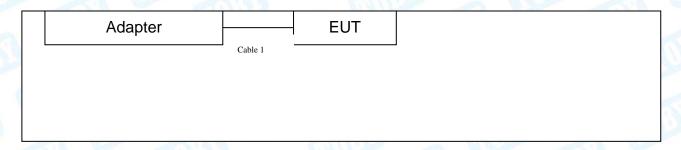
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## (3) Channel List:

	0/4/6				
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
00	2402	14	2430	28	2458
01	2404	15	2432	29	2460
02	2406	16	2434	30	2462
03	2408	17	2436	31	2464
04	2410	18	2438	32	2466
05	2412	19	2440	33	2468
06	2414	20	2442	34	2470
07	2416	21	2444	35	2472
08	2418	22	2446	36	2474
09	2420	23	2448	37	2476
10	2422	24	2450	38	2478
11	2424	25	2452	39	2480
12	2426	26	2454		
13	2428	27	2456		

# 1.3 Block Diagram Showing the Configuration of System Tested

# **Charge Mode**



# **TX Mode**





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### 1.4 Description of Support Units

		Equipment Inform	nation	
Name	Model	FCC ID/VOC	Manufacturer	Used "√"
1	1	1	1	1
		Cable Information		
Number	Shielded Type	Ferrite Core	Length	Note
Cable 1	N0	N0	6.5M	1

#### 1.5 Description of Test Mode

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned follow was evaluated respectively.

For	Radiated Test
Final Test Mode	Description
Mode 1	TX Mode
Mode 2	TX Mode (Channel 00/20/39)

#### Note:

(1) For all test, we have verified the construction and function in typical operation. And all the test modes were carried out with the EUT in transmitting operation in maximum power with all kinds of data rate.

According to ANSI C63.10 standards, the measurements are performed at the highest, middle, lowest available channels, and the worst case data rate as follows:

BLE Mode: GFSK Modulation Transmitting mode.

- (2) During the testing procedure, the continuously transmitting with the maximum power mode was programmed by the customer.
- (3) The EUT is considered a portable unit; in normal use it was positioned on X-plane. The worst case was found positioned on X-plane. Therefore only the test data of this X-plane was used for radiated emission measurement test.



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## 1.6 Description of Test Software Setting

During testing channel& Power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters of RF setting.

Test Software Version	Nrfgo studio		
Frequency	2402 MHz	2440MHz	2480 MHz
BLE GFSK	DEF	DEF	DEF

## 1.7 Measurement Uncertainty

The reported uncertainty of measurement  $y \pm U$ , where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95 %.

Test Item	Parameters	Expanded Uncertainty (U <sub>Lab</sub> )
	Level Accuracy:	
Conducted Emission	9kHz~150kHz	±3.42 dB
	150kHz to 30MHz	±3.42 dB
Padiated Emission	Level Accuracy:	±4.60 dB
Radiated Emission	9kHz to 30 MHz	±4.60 dB
Radiated Emission	Level Accuracy:	
Radiated Emission	30MHz to 1000 MHz	±4.40 dB
Dadiated Emission	Level Accuracy:	. 4 20 dD
Radiated Emission	Above 1000MHz ±4.20 dB	±4.20 UB



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### 1.8 Test Facility

The testing was performed by the Shenzhen Toby Technology Co., Ltd., in their facilities located at:1A/F., Bldg.6, Yusheng Industrial Zone, The National Road No.107 Xixiang Section 467, Xixiang, Bao'an, Shenzhen, Guangdong, China.

At the time of testing, the following bodies accredited the Laboratory:

#### **CNAS (L5813)**

The Laboratory has been accredited by CNAS to ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories for the competence in the field of testing. And the Registration No.: CNAS L5813.

#### A2LA Certificate No.: 4750.01

The laboratory has been accredited by American Association for Laboratory Accreditation(A2LA) to ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories for the technical competence in the field of Electrical Testing. And the A2LA Certificate No.: 4750.01.

#### IC Registration No.: (11950A-1)

The Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing. The site registration: Site# 11950A-1.



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# 2. Test Summary

Standard S	FCC Part 1		SOME	
		Test Item	Judgment	Remark
FCC	IC			
15.203		Antenna Requirement	PASS	N/A
15.207(a)	RSS-GEN 7.2.4	Conducted Emission	PASS	N/A
15.205&15.247(d)	RSS-GEN 7.2.2	Band-Edge & Unwanted Emissions into Restricted Frequency	N/A Note(3)	N/A
15.247(a)(2)	RSS 247 5.2 (1)	6dB Bandwidth	N/A Note(3)	N/A
15.247(b)(3)	RSS 247 5.4 (4)	Conducted Max Output Power	N/A Note(3)	N/A
15.247(e)	RSS 247 5.2 (2)	Power Spectral Density	N/A Note(3)	N/A
15.205, 15.209&15.247(d)	RSS 247 5.5	Transmitter Radiated Spurious &Unwanted Emissions into Restricted Frequency	PASS	N/A

Note: (1): "/" for no requirement for this test item.

- (2): N/A is an abbreviation for Not Applicable.
- (3): This report is Class II change report for the original equipment have changed, the transmitter module itself has not changed. More information about the test data please refer to the original test report.



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# 3. Test Equipment

Conducted Emission Test					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
EMI Test Receiver	Rohde & Schwarz	ESCI	100321	Jul. 18, 2018	Jul. 17, 2019
RF Switching Unit	Compliance Direction Systems Inc	RSU-A4	34403	Jul. 18, 2018	Jul. 17, 2019
AMN	SCHWARZBECK	NNBL 8226-2	8226-2/164	Jul. 18, 2018	Jul. 17, 2019
LISN	Rohde & Schwarz	ENV216	101131	Jul. 18, 2018	Jul. 17, 2019
Radiation Emission	n Test				•
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	MY45106456	Jul. 18, 2018	Jul. 17, 2019
EMI Test Receiver	Rohde & Schwarz	ESPI	100010/007	Jul. 18, 2018	Jul. 17, 2019
Bilog Antenna	ETS-LINDGREN	3142E	00117537	Mar.16, 2018	Mar. 15, 2019
Bilog Antenna	ETS-LINDGREN	3142E	00117542	Mar.16, 2018	Mar. 15, 2019
Horn Antenna	ETS-LINDGREN	3117	00143207	Mar.16, 2018	Mar. 15, 2019
Horn Antenna	ETS-LINDGREN	3117	00143209	Mar.16, 2018	Mar. 15, 2019
Loop Antenna	Laplace instrument	RF300	0701	Mar.14, 2018	Mar. 13, 2019
Pre-amplifier	Sonoma	310N	185903	Mar.16, 2018	Mar. 15, 2019
Pre-amplifier	HP	8449B	3008A00849	Mar.16, 2018	Mar. 15, 2019
Cable	HUBER+SUHNER	100	SUCOFLEX	Mar.16, 2018	Mar. 15, 2019
Positioning Controller	ETS-LINDGREN	2090	N/A	N/A	N/A
Antenna Conduct	ed Emission				
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	MY45106456	Jul. 18, 2018	Jul. 17, 2019
Spectrum Analyzer	Rohde & Schwarz	ESCI	100010/007	Jul. 18, 2018	Jul. 17, 2019
MXA Signal Analyzer	Agilent	N9020A	MY49100060	Oct. 26, 2017	Oct. 25, 2018
Vector Signal Generator	Agilent	N5182A	MY50141294	Oct. 26, 2017	Oct. 25, 2018
Analog Signal Generator	Agilent	N5181A	MY50141953	Oct. 26, 2017	Oct. 25, 2018
A DE	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO26	Oct. 26, 2017	Oct. 25, 2018
DE Dower Conser	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO29	Oct. 26, 2017	Oct. 25, 2018
RF Power Sensor	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO31	Oct. 26, 2017	Oct. 25, 2018
	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO33	Oct. 26, 2017	Oct. 25, 2018



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# 4. Conducted Emission Test

#### 4.1 Test Standard and Limit

4.1.1Test Standard FCC Part 15.207

#### 4.1.2 Test Limit

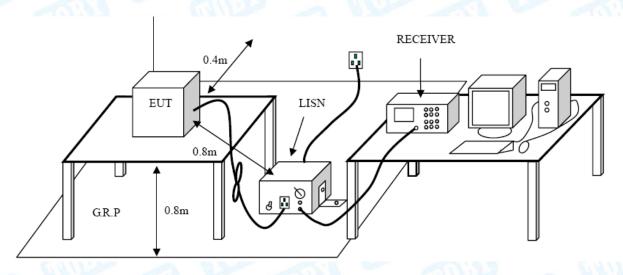
#### **Conducted Emission Test Limit**

Fue automos (TIII)	Maximum RF Line Voltage (dBμV)		
Frequency	Quasi-peak Level	Average Level	
150kHz~500kHz	66 ~ 56 *	56 ~ 46 *	
500kHz~5MHz	56	46	
5MHz~30MHz	60	50	

#### Notes:

- (1) \*Decreasing linearly with logarithm of the frequency.
- (2) The lower limit shall apply at the transition frequencies.
- (3) The limit decrease in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

### 4.2 Test Setup



#### 4.3 Test Procedure

The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/50uH of coupling impedance for the measuring instrument.

Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.



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I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

LISN at least 80 cm from nearest part of EUT chassis.

The bandwidth of EMI test receiver is set at 9 kHz, and the test frequency band is from 0.15MHz to 30MHz.

### 4.4 EUT Operating Mode

Please refer to the description of test mode.

#### 4.5 Test Da5ta

Please refer to the Attachment A.



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# 5. Radiated Emission Test

### 5.1 Test Standard and Limit

5.1.1 Test Standard FCC Part 15.247(d)

5.1.2 Test Limit

#### Radiated Emission Limits (9kHz~1000MHz)

Frequency (MHz	Field Strength (microvolt/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

### Radiated Emission Limit (Above 1000MHz)

Frequency	Distance Met	ers(at 3m)
(MHz)	Peak (dBuV/m)	Average (dBuV/m)
Above 1000	74	54

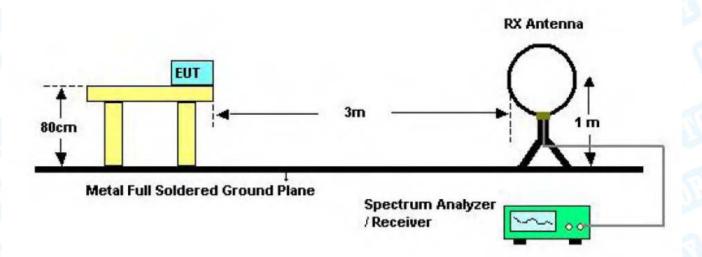
#### Note:

- (1) The tighter limit applies at the band edges.
- (2) Emission Level (dBuV/m)=20log Emission Level (uV/m)

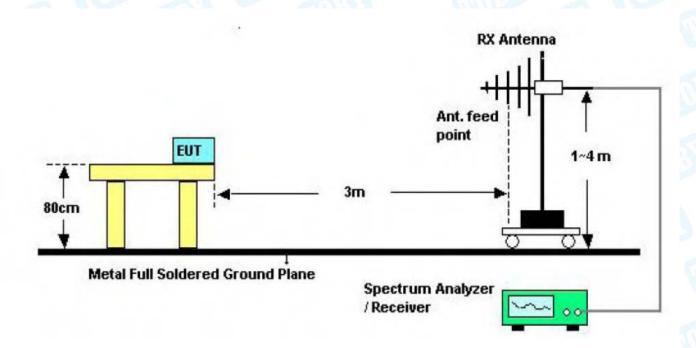


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# 5.2 Test Setup



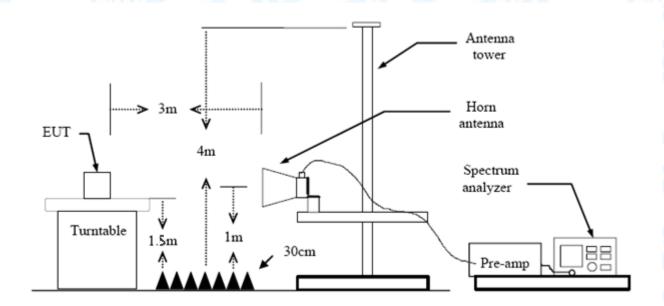
Below 30MHz Test Setup



Below 1000MHz Test Setup



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Above 1GHz Test Setup

#### 5.3 Test Procedure

- (1) The measuring distance of 3m shall be used for measurements at frequency up to 1GHz and above 1 GHz. The EUT was placed on a rotating 0.8m high above ground, the table was rotated 360 degrees to determine the position of the highest radiation.
- (2) Measurements at frequency above 1GHz. The EUT was placed on a rotating 1.5m high above the ground. RF absorbers covered the ground plane with a minimum area of 3.0m by 3.0m between the EUT and measurement receiver antenna. The RF absorber shall not exceed 30cm in high above the conducting floor. The table was rotated 360 degrees to determine the position of the highest radiation.
- (3) The Test antenna shall vary between 1m and 4m, Both Horizontal and Vertical antenna are set to make measurement.
- (4) The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- (5) If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit Bellow 1 GHz, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed. But the Peak Value and average value both need to comply with applicable limit above 1 GHz.
- (6) Testing frequency range below 1GHz the measuring instrument use VBW=120 kHz with Quasi-peak detection.
- (7) Testing frequency range above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.
- (8) For the actual test configuration, please see the test setup photo.



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## 5.4 EUT Operating Condition

The Equipment Under Test was set to Continual Transmitting in maximum power.

#### 5.5 Test Data

Remark: During testing above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.

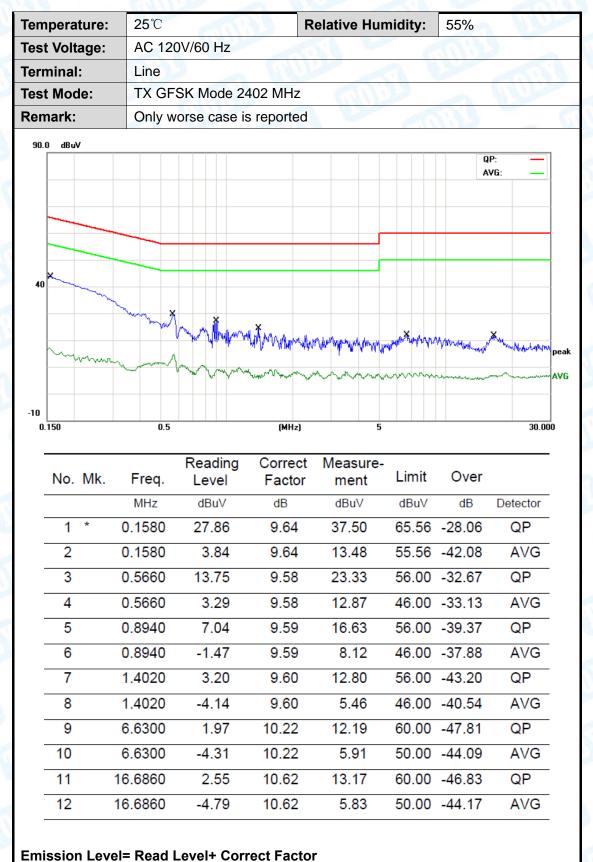
Please refer to the Attachment B.



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## **Attachment A-- Conducted Emission Test Data**





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Temperature:	25℃		Relative Hu	midity:	55%	
Test Voltage:	AC 120V/60 Hz	THE STATE OF THE S	- CALL		-	Alle
Terminal:	Neutral		10	6	CENT	
Test Mode:	TX GFSK Mode	2402 MHz		16		
Remark:	Only worse case	e is reported	MILE	2	1 N	N. Carrie
90.0 dBuV				nmana.	QP: AVG:	peak
0.150	0.5 Reading	(MHz)	Measure-			30.000
No. Mk. Fr	eq. Level	Factor	ment	Limit	Over	
MI	Hz dBuV	dB	dBuV	dBu∀	dB	Detector
1 * 0.16	660 27.82	9.64	37.46	65.15	-27.69	QP
2 0.16	5.27	9.64	14.91	55.15	-40.24	AVG
3 0.56	660 18.41	9.58	27.99	56.00	-28.01	QP
4 0.56	6.52	9.58	16.10	46.00	-29.90	AVG
5 0.79	900 12.39	9.59	21.98	56.00	-34.02	QP
6 0.79	900 2.12	9.59	11.71	46.00	-34.29	AVG
7 0.98	320 9.25	9.59	18.84	56.00	-37.16	QP
8 0.98	320 -0.18	9.59	9.41	46.00	-36.59	AVG
9 3.03		9.67	17.16		-38.84	QP
10 3.03		9.67	8.68		-37.32	AVG
11 16.31		10.62	16.35		-43.65	QP
12 16.31		10.62	7.52		-42.48	AVG
Emission Level=	Read Level+ Co	rrect Factor				



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4.1	0		7
4		ĸ	V
ш	U.	U.	1
-	V	_	٠.

Temperature:	25℃	- I	Relative Humidit	y:	55%	
Test Voltage:	AC 240V/60 Hz	33	all the	9		A Brown
Terminal:	Line			(Fil	11:30	
Test Mode:	TX GFSK Mode 2	402 MHz		6		633
Remark:	Only worse case i	s reported	Will Do			A. Land
40				~~~~	QP: AVG:	
-10 0.150 No. Mk. F	Reading Freq. Level	(MHz) Correct Factor	Measure- ment Lir	mit	Over	30.000
1	MHz dBuV	dB	dBuV dE	Bu∀	dB	Detector
1 0.4	4860 18.73	9.60	28.33 56	.24	-27.91	QP
2 0.4	4860 14.43	9.60	24.03 46	.24	-22.21	AVG
3 0.	5820 22.44	9.60	32.04 56	.00	-23.96	QP
4 * 0.	5820 17.81	9.60	27.41 46	.00	-18.59	AVG
5 0.9	9380 12.28	9.60	21.88 56	.00	-34.12	QP
6 0.9	9380 2.98	9.60	12.58 46	.00	-33.42	AVG
7 1.0	0660 11.37	9.60	20.97 56	.00	-35.03	QP
	0660 2.18	9.60	11.78 46	.00	-34.22	AVG
	3540 14.22	9.60			-32.18	QP
	3540 8.90	9.60			-27.50	AVG
	2380 12.37	9.62			-34.01	QP
	2380 7.76	9.62			-28.62	AVG
	el= Read Level+ Cor					



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Temperature:	25℃		Relative Humidit	<b>:y:</b> 55%	
Test Voltage:	AC 240V/60 Hz	33	- CHILLIA		ARTIC
Terminal:	Neutral		11	ATT IN	
Test Mode:	TX GFSK Mode	2402 MHz			
Remark:	Only worse case	is reported	WIII DO		
90.0 dBuV				QP: AVG:	peak AVG
0.150	0.5	(MHz)	5		30.000
No. Mk. Fr	Reading eq. Level	Correct Factor	Measure- ment Lim	it Over	
М	Hz dBu∨	dB	dBuV dBu	ıV dB	Detector
1 0.49	900 21.76	9.58	31.34 56.	17 -24.83	QP
2 0.49	900 14.61	9.58	24.19 46.	17 -21.98	AVG
3 0.5	780 24.70	9.58	34.28 56.0	00 -21.72	QP
4 * 0.5	780 17.30	9.58	26.88 46.0	00 -19.12	AVG
5 1.3	500 17.72	9.60	27.32 56.0	00 -28.68	QP
6 1.3	500 9.46	9.60	19.06 46.0	00 -26.94	AVG
7 2.3	740 16.28	9.63	25.91 56.0	00 -30.09	QP
8 2.3	740 8.62	9.63	18.25 46.0	00 -27.75	AVG
9 3.3	100 14.36	9.68	24.04 56.0	00 -31.96	QP
10 3.3	100 6.68	9.68	16.36 46.0	00 -29.64	AVG
11 4.39	940 12.28	9.79	22.07 56.0	00 -33.93	QP
12 4.39		9.79		00 -32.09	
Emission Level=	Read Level+ Cor	rect Factor			



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# **Attachment B-- Radiated Emission Test Data**

#### 9 KHz~30 MHz

From 9 KHz to 30 MHz: Conclusion: PASS

Note: The amplitude of spurious emissions which are attenuated by more than 20dB

Below the permissible value has no need to be reported.

#### 30MHz~1GHz

emperatu	re:	25	$^{\circ}$ C			CHIII.	Relative	Humi	dity:		55%		
est Voltag	ge:	AC	120	)V/60	HZ					A.			
nt. Pol.		Но	rizor	ntal			63		10				6
est Mode	:	BL	E T	< 240	)2 Mod	de		A.A.			A	1	/ /
emark:		On	ıly w	orse	case i	s reported	THE STATE OF			Ŋ,	M		7
80.0 dBuV	/m												
									(RF)FC	C 15C	3M Rad		
											Marc	jin -6 d	
										+	+		
30					<u> </u>								6
									4	5	_mhhm	me	W.L
marke			1 X			, Žuli	My My man	MANAMA	www	Many			
	wyw	nh	MV Y	~V#\~	why	Mrs manths	Mym	,					
30.000	40	50 (	60 70	0 80		(MHz)		300	400	500	600	700	1000.000
				Rea	ading	Correct	Measure-						
No. N	۱k.	Fred	q.		evel	Factor	ment		nit	0	ver		
		MHz	7	dE	BuV	dB/m	dBuV/m	dB	uV/m		dB	Det	ector
1	62	2.212	28	37	7.01	-24.17	12.84	40	0.00	-2	7.16	ре	eak
2	14	11.32	98	36	3.31	-22.35	13.96	43	3.50	-2	9.54	ре	eak
3	24	10.83	04	30	0.02	-17.69	12.33	46	6.00	-3	3.67	ре	eak
4	41	19.10	81	28	3.52	-12.16	16.36	46	3.00	-2	9.64	р	eak
5	50	2.93	95	29	9.73	-10.52	19.21	46	6.00	-2	6.79	р	eak
6 *	89					-3.84	26.57		6.00		9.43		eak

<sup>\*:</sup>Maximum data x:Over limit !:over margin



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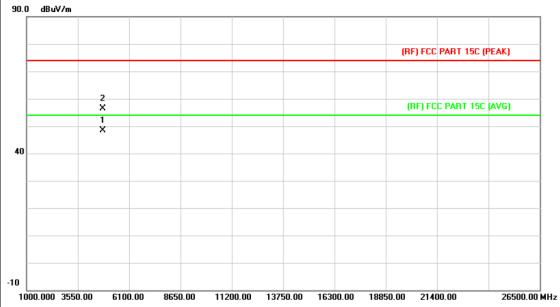
25℃	Re	lative Humid	dity:	55%	M				
AC 120V/60HZ	13	a CHII			BAR				
Vertical	Vertical								
BLE TX 2402 Mode	;		63	- Ti					
Only worse case is	reported	CALL DE		a 113	A STATE OF				
			(RF)FCC	15C 3M Radiation					
				Margin -6	dB				
				6	Ann				
. 2 3	4	5	mangahil	W. W					
X Munday	warmen and the same	Mummundy	~/ <sup>~</sup>						
walls from the same	7VV								
60 70 80	(MHz)	300	400	500 600 700	1000.0				
Reading	Correct	Measure-							
Freq. Level	Factor	ment	Limit	Over					
MHz dBuV	dB/m	dBuV/m	dBuV/m	dB I	Detecto				
.2662 32.95	-23.83	9.12	40.00	-30.88	peak				
.8984 34.34	-22.21	12.13	40.00	-27.87	peak				
).2766 33.37	-22.30	11.07	43.50	-32.43	peak				
9.4857 33.51	-21.49	12.02	43.50	-31.48	peak				
7.8873 28.72	-15.30	13.42	46.00	-32.58	peak				
	AC 120V/60HZ  Vertical  BLE TX 2402 Mode Only worse case is  Reading Freq. Reading Level MHz dBuV 2662 32.95 8984 34.34 .2766 33.37 .4857 33.51	AC 120V/60HZ  Vertical  BLE TX 2402 Mode  Only worse case is reported  Reading Correct Factor  MHz dBuV dB/m  2662 32.95 -23.83  8984 34.34 -22.21  .2766 33.37 -22.30  .4857 33.51 -21.49	AC 120V/60HZ  Vertical  BLE TX 2402 Mode  Only worse case is reported  Reading Correct Measure- Freq. Level Factor ment  MHz dBuV dB/m dBuV/m  2662 32.95 -23.83 9.12  8984 34.34 -22.21 12.13  .2766 33.37 -22.30 11.07  .4857 33.51 -21.49 12.02	AC 120V/60HZ  Vertical  BLE TX 2402 Mode  Only worse case is reported  Reading Correct Measure- Factor Ment Limit  MHz dBuV dB/m dBuV/m dBuV/m 2662 32.95 -23.83 9.12 40.00  8984 34.34 -22.21 12.13 40.00  2766 33.37 -22.30 11.07 43.50  .4857 33.51 -21.49 12.02 43.50	AC 120V/60HZ  Vertical  BLE TX 2402 Mode  Only worse case is reported  (RFJFCC 15C 3M Radiation Margin 6)  Reading Correct Measure- Level Factor ment Limit Over  //Hz dBuV dB/m dBuV/m dBuV/m dB worse  2662 32.95 -23.83 9.12 40.00 -30.88  8984 34.34 -22.21 12.13 40.00 -27.87  .2766 33.37 -22.30 11.07 43.50 -32.43  .4857 33.51 -21.49 12.02 43.50 -31.48				



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### **Above 1GHz**

Temperature:	<b>25</b> ℃	Relative Humidity:	55%				
remperature.	25 0	Relative Humbity.	3378				
Test Voltage:	AC 120V/60HZ						
Ant. Pol.	nt. Pol. Horizontal						
Test Mode:	BLE Mode TX 2402 MHz						
Remark: No report for the emission which more than 10 dB below the							
	prescribed limit.						

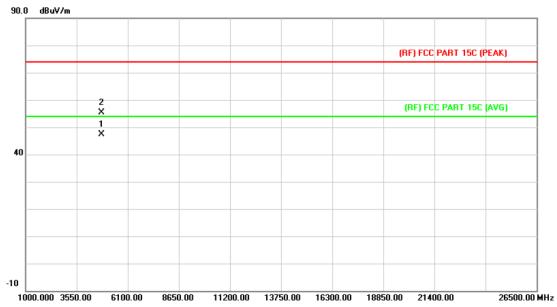


N	o. N	Λk.	Freq.	Reading Level		Measure- ment	Limit	Over	
			MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*		4803.685	33.96	14.43	48.39	54.00	-5.61	AVG
2		4	4803.954	41.93	14.43	56.36	74.00	-17.64	peak



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Temperature:	25℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60HZ		1
Ant. Pol.	Vertical		The state of the s
Test Mode:	BLE Mode TX 2402 M	Hz	
Remark:	No report for the emiss prescribed limit.	sion which more than 10 dE	3 below the
90.0 dP.4//m			

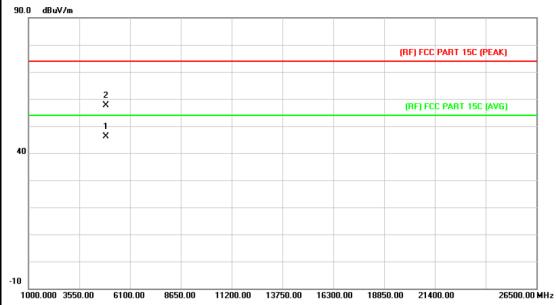


N	o. l	Mk.	Freq.	Reading Level		Measure- ment	Limit	Over	
			MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	t	4803.578	32.92	14.43	47.35	54.00	-6.65	AVG
2			4803.726	41.05	14.43	55.48	74.00	-18.52	peak



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Temperature:	25℃	Relative Humidity:	55%			
Test Voltage:	AC 120V/60HZ	Militia	The state of the s			
Ant. Pol.	Horizontal					
Test Mode:	BLE Mode TX 2442 MHz					
Remark:	No report for the emission was prescribed limit.	hich more than 10 dB	below the			

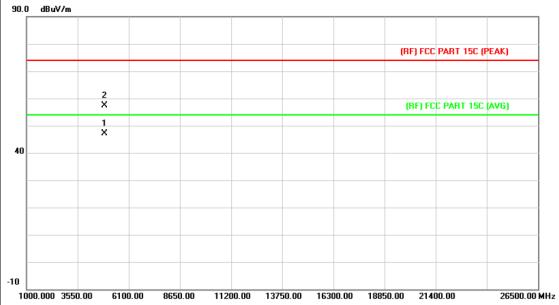


1	No.	Mk.	Freq.	Reading Level		Measure- ment	Limit	Over	
			MHz	dBu∨	dB/m	dBuV/m	dBuV/m	dB	Detector
1		*	4880.943	31.29	14.92	46.21	54.00	-7.79	AVG
2			4880.954	42.77	14.92	57.69	74.00	-16.31	peak



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Temperature:	25℃ Relative Humidity: 55%						
Test Voltage:	AC 120V/60HZ						
Ant. Pol. Vertical							
Test Mode:	BLE Mode TX 2442 MHz						
Remark:	No report for the emission which more than 10 dB below the prescribed limit.						
90.0 dBuV/m							

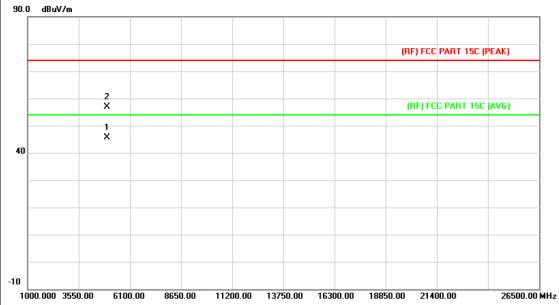


N	lo.	Mk.	Freq.	Reading Level		Measure- ment	Limit	Over	
			MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1		*	4880.865	32.30	14.92	47.22	54.00	-6.78	AVG
2			4880.887	42.44	14.92	57.36	74.00	-16.64	peak



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Temperature:	25°C Relative Humidity: 55%							
Test Voltage:	AC 120V/60HZ	The same						
Ant. Pol. Horizontal								
Test Mode:	BLE Mode TX 2480 MHz	BLE Mode TX 2480 MHz						
Remark:	No report for the emission which more than 10 dB below the prescribed limit.							
90.0 dBuV/m								

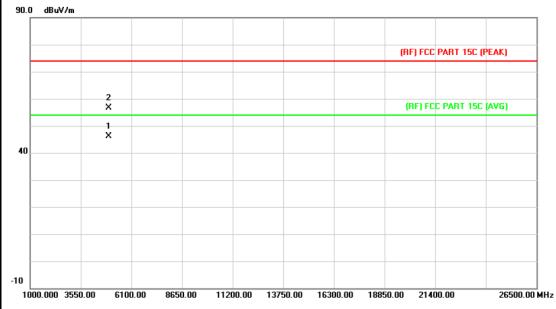


No	o. Mk	. Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4959.687	30.20	15.39	45.59	54.00	-8.41	AVG
2		4960.025	41.49	15.39	56.88	74.00	-17.12	peak



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Temperature:	25℃	Relative Humidity:	55%					
Test Voltage: AC 120V/60HZ								
Ant. Pol. Vertical								
Test Mode:	BLE Mode TX 2480 MH	BLE Mode TX 2480 MHz						
Remark:	No report for the emissi prescribed limit.	on which more than 10 dB	below the					
90.0 dBuV/m								



No	. Mk	. Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBu∨	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4959.481	30.73	15.39	46.12	54.00	-7.88	AVG
2		4959.699	41.15	15.39	56.54	74.00	-17.46	peak

**Emission Level= Read Level+ Correct Factor** 

----END OF REPORT-----