

# RADIO TEST REPORT FCC ID: 2AXP2-OCS35

Product: Model O Classic Wireless Trade Mark: GLORIOUS Model No.: Model O Classic Wireless Family Model: N/A Report No.: S25021000702001 Issue Date: Mar. 04, 2025

# Prepared for

**Glorious LLC** 

13809 Research Blvd Suite 500 PMB 93206 Austin, TX 78750, USA

# Prepared by

Shenzhen NTEK Testing Technology Co., Ltd. No. 24 Xinfa East Road, Xiangshan Community, Xinqiao Street, Baoan District, Shenzhen, Guangdong, People's Republic of China

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# TABLE OF CONTENTS

1 '	TEST RESULT CERTIFICATION	3
2	SUMMARY OF TEST RESULTS	4
3	FACILITIES AND ACCREDITATIONS	5
3.1 3.2 3.3	LABORATORY ACCREDITATIONS AND LISTINGS MEASUREMENT UNCERTAINTY	5 5
4	GENERAL DESCRIPTION OF EUT	6
5	DESCRIPTION OF TEST MODES	8
6	SETUP OF EQUIPMENT UNDER TEST	9
6.1 6.2 6.3	BLOCK DIAGRAM CONFIGURATION OF TEST SYSTEM SUPPORT EQUIPMENT	9 10
7	TEST REQUIREMENTS	13
7.1 7.2 7.3 7.4 7.5 7.6 7.7 7.8 7.9	RADIATED SPURIOUS EMISSION         6DB BANDWIDTH         DUTY CYCLE         PEAK OUTPUT POWER         POWER SPECTRAL DENSITY         CONDUCTED BAND EDGE MEASUREMENT         SPURIOUS RF CONDUCTED EMISSIONS         ANTENNA APPLICATION	16 25 26 28 29 31 32 33
8 7	TEST RESULTS	
8.1 8.2 8.3 8.4 8.5	-6DB BANDWIDTH Occupied Channel Bandwidth Maximum Power Spectral Density Level Band Edge	37 40 43 46
8.6	6 CONDUCTED RF SPURIOUS EMISSION	49

**TEST RESULT** 

Complied



# **1 TEST RESULT CERTIFICATION**

Applicant's name:	Glorious LLC
Address:	13809 Research Blvd Suite 500 PMB 93206 Austin, TX 78750,USA
Manufacturer's Name:	Glorious LLC
Address:	13809 Research Blvd Suite 500 PMB 93206 Austin, TX 78750,USA
Product description	
Product name:	Model O Classic Wireless
Model and/or type reference:	Model O Classic Wireless
Family Model:	N/A
Test Sample Number:	S250210007003
Date (s) of performance of tests	Feb. 12, 2025 ~ Mar. 04, 2025

Measurement Procedure Used:

# APPLICABLE STANDARDS

APPLICABLE STANDARD/ TEST PROCEDURE

FCC 47 CFR Part 2, Subpart J

FCC 47 CFR Part 15, Subpart C

ANSI C63.10-2013

KDB 558074 D01 15.247 Meas Guidance v05r02

This device described above has been tested by Shenzhen NTEK Testing Technology Co., Ltd., and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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The test results of this report relate only to the tested sample identified in this report.

Prepared . By <sup>:</sup>	Yoyo Liang Yoyo Liang (Project Engineer)	Reviewed . By <sup>· ·</sup>	Aawn Cheng Aaron Cheng (Supervisor)	Approved : Alex Li By : Alex Li (Manager)

Version.1.3



FCC Part15 (15.247), Subpart C						
Standard Section	Test Item	Verdict	Remark			
15.207	Conducted Emission	PASS				
15.247 (a)(2)	6dB Bandwidth	PASS				
15.247 (b)	(b) Peak Output Power PASS					
15.209 (a) 15.205 (a)	Radiated Spurious Emission	PASS				
15.247 (e)	Power Spectral Density	PASS				
15.247 (d) Band Edge Emission PASS						
15.247 (d) Spurious RF Conducted Emission PASS						
15.203 Antenna Requirement PASS						

Remark:

 "N/A" denotes test is not applicable in this Test Report.
 All test items were verified and recorded according to the standards and without any deviation during the test.



# **3 FACILITIES AND ACCREDITATIONS**

## 3.1 FACILITIES

All measurement facilities used to collect the measurement data are located at

No. 24 Xinfa East Road, Xiangshan Community, Xinqiao Street, Baoan District, Shenzhen, Guangdong, People's Republic of China.

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.10 and CISPR Publication 22.

## 3.2 LABORATORY ACCREDITATIONS AND LISTINGS

Site Description	
CNAS-Lab.	: The Certificate Registration Number is L5516.
IC-Registration	The Certificate Registration Number is 9270A.
-	CAB identifier:CN0074
FCC- Accredited	Test Firm Registration Number: 463705.
	Designation Number: CN1184
A2LA-Lab.	The Certificate Registration Number is 4298.01
	This laboratory is accredited in accordance with the recognized
	International Standard ISO/IEC 17025:2005 General requirements for
	the competence of testing and calibration laboratories.
	This accreditation demonstrates technical competence for a defined
	scope and the operation of a laboratory quality management system
	(refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009).
Name of Firm	: Shenzhen NTEK Testing Technology Co., Ltd.
Site Location	: No. 24 Xinfa East Road, Xiangshan Community, Xinqiao Street, Baoan
	District, Shenzhen, Guangdong, People's Republic of China.

#### 3.3 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 %.

No.	Item	Uncertainty
1	Conducted Emission Test	±2.80dB
2	RF power, conducted, PSD	±0.16dB
3	Spurious emissions, conducted	±0.21dB
4	All emissions, radiated(30MHz~1GHz)	±2.64dB
5	All emissions, radiated(1GHz~6GHz)	±2.40dB
6	All emissions, radiated(>6GHz)	±2.52dB
7	Temperature	±0.5°C
8	Humidity	±2%
9	All emissions, radiated(9KHz~30MHz)	±6dB
10	Occupied bandwidth	±4.7%

# 4 GENERAL DESCRIPTION OF EUT

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ACCREDITED Certificate #4298.01

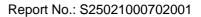
Product Feature and Specification					
Equipment	Model O Classic Wireless				
Trade Mark	GLORIOUS				
FCC ID	2AXP2-OCS35				
Model No.	Model O Classic Wireless				
Family Model	N/A				
Model Difference	N/A				
Operating Frequency	2402MHz~2480MHz				
Modulation	GFSK				
Number of Channels	78 Channels				
Antenna Type	Chip Antenna				
Antenna Gain	2.78dBi				
Adapter	N/A				
Battery	DC 3.7V, 450mAh,1.665Wh				
Power supply DC 3.7V from battery or DC 5V from type-c port					
HW Version V0.7					
SW Version 00.03.08.01					

Note 1: Based on the application, features, or specification exhibited in User's Manual, the EUT is considered as an ITE/Computing Device. More details of EUT technical specification, please refer to the User's Manual.

Note 2: The engineering test program was provided and the EUT was programmed to be in continuously transmitting mode.



	adadada a	ertificate #4298.01				
Revision History						
Report No.	Version	Description	Issued Date			
S25021000702001	Rev.01	Initial issue of report	Mar. 04, 2025			





# 5 DESCRIPTION OF TEST MODES

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 above was evaluated respectively.

The Transmitter was operated in the normal operating mode. The TX frequency was fixed which was for the purpose of the measurements.

Test of channel included the lowest and middle and highest frequency to perform the test, then record on this report.

Those data rates (2Mbps for GFSK modulation) were used for all test.

The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement -X, Y, and Z-plane. The X-plane results were found as the worst case and were shown in this report.

Carrier Frequency and Channel list:

Channel	Frequency(MHz)
0	2402
1	2403
38	2440
39	2441
40	2442
77	2479
78	2480

Note: fc=2402MHz+k×1MHz k=0 to 78

The following summary table is showing all test modes to demonstrate in compliance with the standard.

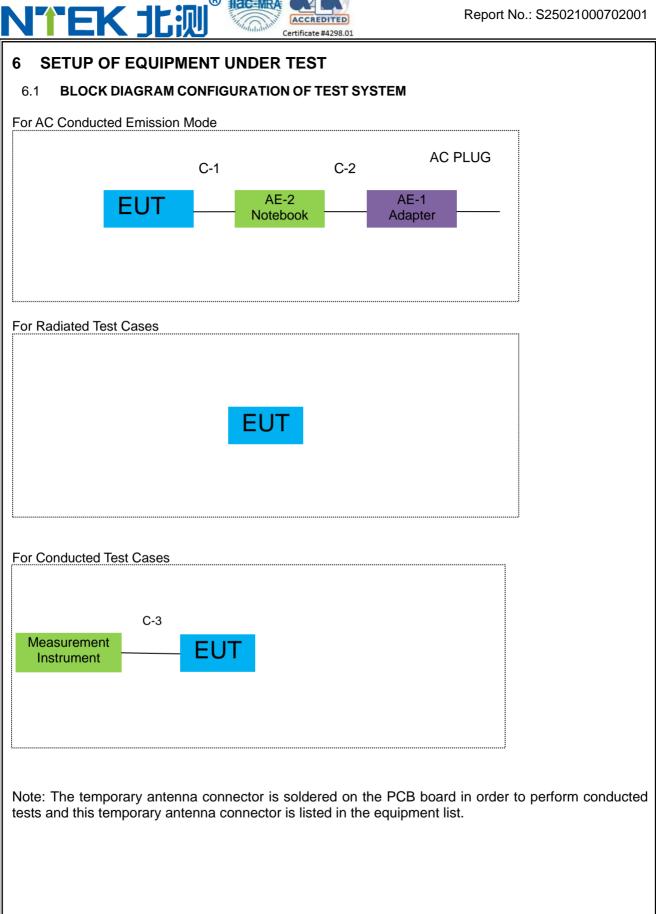
Test Cases				
Test Item	Data Rate/ Modulation			
AC Conducted Emission	Mode 1: normal link mode			
	Mode 1: normal link mode			
Radiated Test	Mode 2: GFSK Tx Ch00_2402MHz			
Cases	Mode 3: GFSK Tx Ch38_2440MHz			
	Mode 4: GFSK Tx Ch78_2480MHz			
Conducted Test	Mode 2: GFSK Tx Ch00_2402MHz			
Conducted Test	Mode 3: GFSK Tx Ch38_2440MHz			
04363	Mode 4: GFSK Tx Ch78_2480MHz			

Note:

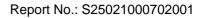
1. The engineering test program was provided and the EUT was programmed to be in continuously transmitting mode(duty cycle =100% during the test)

2. AC power line Conducted Emission was tested under maximum output power.

3. EUT built-in battery-powered, the battery is fully-charged.



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#### 6.2 SUPPORT EQUIPMENT

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

ACCREDITED Certificate #4298.01

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Note
AE-1	Adapter	DELL	LA65NS2-01	N/A	Peripherals
AE-2	Notebook	DELL	Inspiron 5493	9M1NN63	Peripherals

Item	Cable Type	Shielded Type	Ferrite Core	Length
C-1	USB Cable	NO	YES	1.0m
C-2	Power Cable	NO	NO	1.5m
C-3	RF Cable	YES	NO	0.1m

#### Notes:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in [Length] column.
- (3) "YES" is means "shielded" "with core"; "NO" is means "unshielded" "without core".



### 6.3 EQUIPMENTS LIST FOR ALL TEST ITEMS

#### Radiation& Conducted Test equipment

N

Radiat	on& Conducted	lest equipment					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibratio n period
1	Spectrum Analyzer	Agilent	E4440A	MY41000130	2024.04.26	2025.04.25	1 year
2	Spectrum Analyzer	Agilent	N9020A	MY49100060	2024.04.25	2025.04.24	1 year
3	Spectrum Analyzer	R&S	FSV40	101417	2024.04.25	2025.04.24	1 year
4	Test Receiver	R&S	ESPI7	101318	2024.04.26	2025.04.25	1 year
5	Bilog Antenna	TESEQ	CBL6111D	31216	2024.05.12	2025.05.11	1 year
6	50Ω Coaxial Switch	Anritsu	MP59B	6200983705	2024.04.26	2027.04.25	3 year
7	Horn Antenna	EM	EM-AH-1018 0	2011071402	2024.05.12	2027.05.11	3 year
8	Broadband Horn Antenna	SCHWARZBE CK	BBHA 9170	803	2024.05.12	2027.05.11	3 year
9	Amplifier	EMC	EMC051835 SE	980246	2024.04.25	2025.04.24	1 year
10	Active Loop Antenna	SCHWARZBE CK	FMZB 1519 B	055	2024.05.17	2027.05.16	3 year
11	Power Meter	DARE	RPR3006W	15I00041SN 084	2024.04.25	2025.04.24	1 year
12	Test Cable (9KHz-30MHz)	N/A	R-01	N/A	2022.06.17	2025.06.16	3 year
13	Test Cable (30MHz-1GHz)	N/A	R-02	N/A	2022.06.17	2025.06.16	3 year
14	High Test Cable(1G-40G Hz)	N/A	R-03	N/A	2022.06.17	2025.06.16	3 year
15	High Test Cable(1G-40G Hz)	N/A	R-04	N/A	2022.06.17	2025.06.16	3 year
16	Filter	TRILTHIC	2400MHz	29	2024.04.26	2027.04.25	3 year
17	temporary antenna connector (Note)	NTS	R001	N/A	N/A	N/A	N/A

Note:

We will use the temporary antenna connector (soldered on the PCB board) When conducted test And this temporary antenna connector is listed within the instrument list



NT	EK	北测®

AC Cc	AC Conduction Test equipment						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Test Receiver	· R&S	ESCI	101160	2024.04.26	2025.04.25	1 year
2	LISN	R&S	ENV216	101313	2024.04.25	2025.04.24	1 year
3	LISN	SCHWARZBE CK	NNLK 8129	8129245	2024.04.25	2025.04.24	1 year
4	50Ω Coaxial Switch	ANRITSU CORP	MP59B	6200983704	2024.04.26	2027.04.25	3 year
5	Test Cable (9KHz-30MH z)	N/A	C01	N/A	2023.05.06	2026.05.05	3 year
6	Test Cable (9KHz-30MH z)	N/A	C02	N/A	2023.05.06	2026.05.05	3 year
7	Test Cable (9KHz-30MH z)	N/A	C03	N/A	2023.05.06	2026.05.05	3 year

Note: Each piece of equipment is scheduled for calibration once a year except the Aux Equipment & Test Cable which is scheduled for calibration every 2 or 3 years.

#### Measurement Software

Item	Manufacturer	Software Name	Software Version	Description
1	MWRFtest	MTS 8310 2.4GHz/5GHz	2.0	RF Conducted Test
2	Farad	EZ-EMC_RE	AIT-03A	RadiatedTest
3	raditeq	RadiMation	2023.1.3	RadiatedTest
4	Farad	EZ-EMC_CE	AIT-03A	AC Conducted Test





# 7 TEST REQUIREMENTS

## 7.1 CONDUCTED EMISSIONS TEST

#### 7.1.1 Applicable Standard

According to FCC Part 15.207(a)

#### 7.1.2 Conformance Limit

	Conducted	Emission Limit
Frequency(MHz)	Quasi-peak	Average
0.15-0.5	66-56*	56-46*
0.5-5.0	56	46
5.0-30.0	60	50

Certificate #4298 01

Note: 1. \*Decreases with the logarithm of the frequency

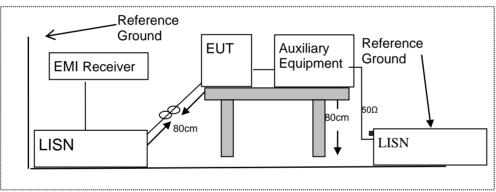
2. The lower limit shall apply at the transition frequencies

3. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

#### 7.1.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

#### 7.1.4 **Test Configuration**



#### 7.1.5 Test Procedure

According to the requirements in Section 13.1.4.1 of ANSI C63.10-2013 Conducted emissions the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-Peak and average detector mode.

- 1. The EUT was placed 0.4 meter from the conducting wall of the shielding room.
- 2. The EUT was placed on a table which is 0.8m above ground plane.
- Connect EUT 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.
- 4. 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 40cm long.
- 5. 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.
- 6. LISN at least 80 cm from nearest part of EUT chassis.
- 7. The frequency range from 150KHz to 30MHz was searched.
- 8. Set the test-receiver system to Peak Detect Function and specified bandwidth(IF bandwidth=9KHz) with Maximum Hold Mode
- 9. For the actual test configuration, please refer to the related Item -EUT Test Photos.



12.56

9.72

9.72

9.83

9.83

9.98

10.00

# 7.1.6 Test Results

EUT:	Model O C	Model O Classic Wireless			Name .	Model O Class Wireless	ic
Temperature:	<b>25</b> ℃	<b>25</b> ℃			e Humidity:	47%	
Pressure:	1010hPa	1010hPa			:	L	
Test Voltage :		DC 5V from Notebook Adapter AC 120V/60Hz		Test M	ode:	Mode 1	
Frequency	Reading Level	Correct Factor	Measur	e-ment	Limits	Margin	Remark
(MHz)	(dBµV)	(dB)	(dB	μV)	(dBµV)	(dB)	Remark
0.1805	37.37	9.95	47	.32	64.46	-17.14	QP
0.1844	20.90	9.95	30	.85	54.29	-23.44	AVG
0.4740	24.13	10.55	34	.68	56.44	-21.76	QP
0.4863	13.81	10.60	24	.41	46.23	-21.82	AVG
1.4220	26.12	12.50	38	.62	56.00	-17.38	QP

31.65

25.54

16.56

32.34

21.40

26.84

17.81

46.00

60.00

50.00

60.00

50.00

60.00

50.00

-14.35

-34.46

-33.44

-27.66

-28.60

-33.16

-32.19

AVG QP

AVG

QP AVG

QP

AVG

25.9300
Remark:

1.4540

5.1940

5.2740

15.0900

15.3340

25.1340

1. All readings are Quasi-Peak and Average values.

2. Factor = Insertion Loss + Cable Loss.

19.09

15.82

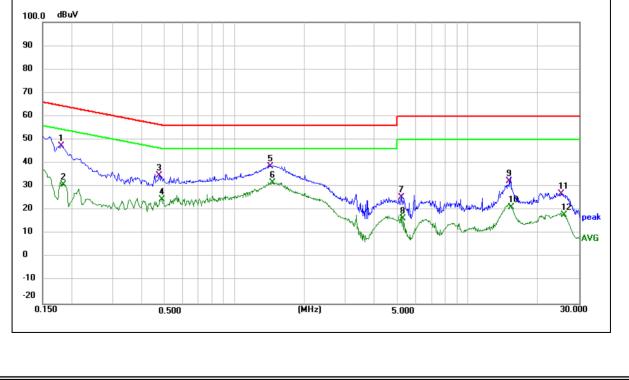
6.84

22.51

11.57

16.86

7.81



Version.1.3



UT:	Model O C	lassic Wireless	s Model	Name :	Model O Class Wireless	ic
emperature:	<b>25</b> ℃		Relativ	e Humidity:	47%	
Pressure:	1010hPa		Phase	-	N	
est Voltage :	DC 5V fror	DC 5V from Notebook Adapter AC 120V/60Hz Test Mode			Mode 1	
Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Demort
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	Remark
0.1620	41.38	10.03	51.41	65.36	-13.95	QP
0.1620	24.26	10.03	34.29	55.36	-21.07	AVG
1.4220	26.97	12.58	39.55	56.00	-16.45	QP
1.4580	20.32	12.66	32.98	46.00	-13.02	AVG
4.4220	15.29	9.77	25.06	56.00	-30.94	QP
4.5460	8.39	9.78	18.17	46.00	-27.83	AVG
7.7820	15.90	9.82	25.72	60.00	-34.28	QP
7.8580	4.58	9.82	14.40	50.00	-35.60	AVG
14.7140	22.40	9.88	32.28	60.00	-27.72	QP
15.0020	13.74	9.88	23.62	50.00	-26.38	AVG
23.8940	15.74	10.02	25.76	60.00	-34.24	QP
24.1740 Remark: 1. All readings	6.73 are Quasi-Peak ertion Loss + Ca		16.76 alues.	50.00	-33.24	AVG
24.1740 Remark: 1. All readings 2. Factor = Inse 100.0 dBuV 90 80 70 60 50 40 30	are Quasi-Peak	and Average v able Loss.	1 1		-33.24	
24.1740 Remark: 1. All readings 2. Factor = Inse 100.0 dBuV 90 80 70 60 50 40 2 2 40	are Quasi-Peak ertion Loss + Ca	and Average v able Loss.	1 1		-33.24	
24.1740 Remark: 1. All readings 2. Factor = Inse 100.0 dBuV 90 80 70 60 50 40 20 10 0	are Quasi-Peak ertion Loss + Ca	and Average v able Loss.	1 1		-33.24	11 X. 12 V/V, peak
24.1740 Remark: 1. All readings 2. Factor = Inse 100.0 dBuV 90 80 70 60 50 40 30 20 10	are Quasi-Peak ertion Loss + Ca	and Average v able Loss.	1 1		-33.24	11 X. 12 V/V, peak

Version.1.3



# 7.2 RADIATED SPURIOUS EMISSION

# 7.2.1 Applicable Standard

According to FCC Part 15.247(d) and 15.209 and ANSI C63.10-2013

# 7.2.2 Conformance Limit

According to FCC Part 15.247(d): radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)). According to FCC Part15.205, Restricted bands

MHz	MHz	GHz
16.42-16.423	399.9-410	4.5-5.15
16.69475-16.69525	608-614	5.35-5.46
16.80425-16.80475	960-1240	7.25-7.75
25.5-25.67	1300-1427	8.025-8.5
37.5-38.25	1435-1626.5	9.0-9.2
73-74.6	1645.5-1646.5	9.3-9.5
74.8-75.2	1660-1710	10.6-12.7
123-138	2200-2300	14.47-14.5
149.9-150.05	2310-2390	15.35-16.2
156.52475-156.52525	2483.5-2500	17.7-21.4
156.7-156.9	2690-2900	22.01-23.12
162.0125-167.17	3260-3267	23.6-24.0
167.72-173.2	3332-3339	31.2-31.8
240-285	3345.8-3358	36.43-36.5
322-335.4	3600-4400	(2)
	MHz 16.42-16.423 16.69475-16.69525 16.80425-16.80475 25.5-25.67 37.5-38.25 73-74.6 74.8-75.2 123-138 149.9-150.05 156.52475-156.52525 156.7-156.9 162.0125-167.17 167.72-173.2 240-285	MHzMHz16.42-16.423399.9-41016.69475-16.69525608-61416.80425-16.80475960-124025.5-25.671300-142737.5-38.251435-1626.573-74.61645.5-1646.574.8-75.21660-1710123-1382200-2300149.9-150.052310-2390156.52475-156.525252483.5-2500156.7-156.92690-2900162.0125-167.173260-3267167.72-173.23332-3339240-2853345.8-3358

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Restricted Frequency(MHz)	Field Strength (µV/m)	Field Strength (dBµV/m)	Measurement Distance
0.009~0.490	2400/F(KHz)	20 log (uV/m)	300
0.490~1.705	24000/F(KHz)	20 log (uV/m)	30
1.705~30.0	30	29.5	30
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

Limits of Radiated Emission Measurement(Above 1000MHz)

Frequency(MHz)	Class B (dBuV/	/m) (at 3M)
Frequency(iviriz)	PEAK	AVERAGE
Above 1000	74	54

Remark :1. Emission level in dBuV/m=20 log (uV/m)

2. Measurement was performed at an antenna to the closed point of EUT distance of meters.

3. For Frequency 9kHz~30MHz: Distance extrapolation factor =40log(Specific distance/ test distance)(dB); Limit line=Specific limits(dBuV) + distance extrapolation factor.

For Frequency above 30MHz: Distance extrapolation factor =20log(Specific distance/ test distance)(dB); Limit line=Specific limits(dBuV) + distance extrapolation factor.

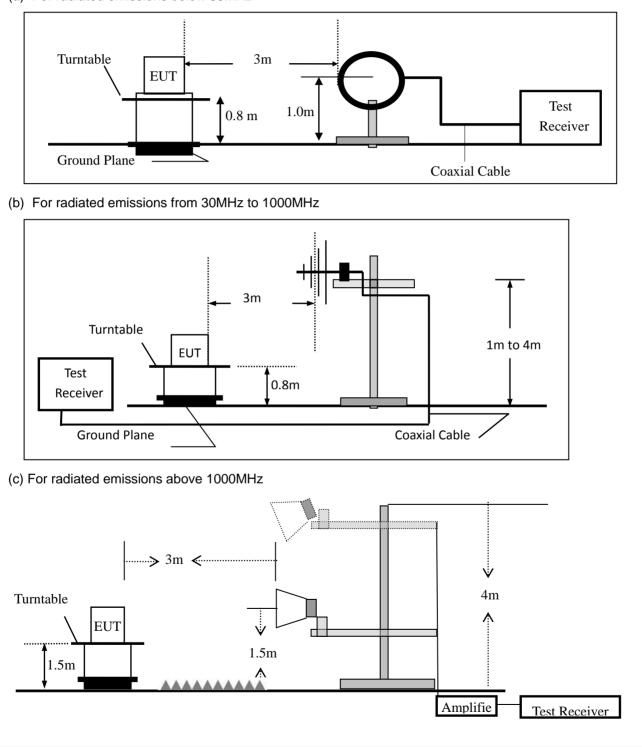


#### 7.2.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

# 7.2.4 Test Configuration

#### (a) For radiated emissions below 30MHz





#### 7.2.5 Test Procedure

The test site semi-anechoic chamber has met the requirement of NSA tolerance 4 dB according to the standards: ANSI C63.10-2013. The test distance is 3m. The setup is according to the requirements in Section 13.1.4.1 of ANSI C63.10-2013 and CAN/CSA-CEI/IEC CISPR 22.

This test is required for any spurious emission that falls in a Restricted Band, as defined in Section 15.205. It must be performed with the highest gain of each type of antenna proposed for use with the EUT. Use the following spectrum analyzer settings:

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB / VB (emission in restricted band)	1 MHz / 1 MHz for Peak, 1 MHz / 1MHz for Average

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

- a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b. The EUT was placed on the top of a rotating table 0.8 m for below 1GHz and 1.5m for above 1GHz the ground at a 3 meter. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the equipment or of the substitution antenna shall be 0.8 m for below 1GHz and 1.5m for above 1GHz; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For the radiated emission test above 1GHz: Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.
- e. 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.
- f. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- g. For the actual test configuration, please refer to the related Item -EUT Test Photos.

Note:

Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported



During the radiated emission t	During the radiated emission test, the Spectrum Analyzer was set with the following configurations:								
Frequency Band (MHz)	Function	Resolution bandwidth	Video Bandwidth						
30 to 1000	QP	120 kHz	300 kHz						
Above 1000	Peak	1 MHz	1 MHz						
Above 1000	Average	1 MHz	1 MHz						

Note: for the frequency ranges below 30 MHz, a narrower RBW is used for these ranges but the measured value should add a RBW correction factor (RBWCF) where RBWCF [dB] =10\*lg(100 [kHz]/narrower RBW [kHz]). , the narrower RBW is 1 kHz and RBWCF is 20 dB for the frequency 9 kHz to 150 kHz, and the narrower RBW is 10 kHz and RBWCF is 10 dB for the frequency 150 kHz to 30 MHz.

#### 7.2.6 Test Results

■ Spurious Emission below 30MHz (9KHz to 30MHz)

EUT:	Model O Classic Wireless	Model No.:	Model O Classic Wireless
Temperature:	20 °C	Relative Humidity:	48%
Test Mode:	Mode1/Mode2/Mode3/ Mode4	Test By:	Yoyo Liang

Freq.	Ant.Pol.	Emission L	.evel(dBuV/m)	Limit 3	m(dBuV/m)	Over(dB)		
(MHz)	H/V	PK	AV	PK	AV	PK	AV	

Note: the amplitude of spurious emission that is attenuated by more than 20dB below the permissible limit has no need to be reported.



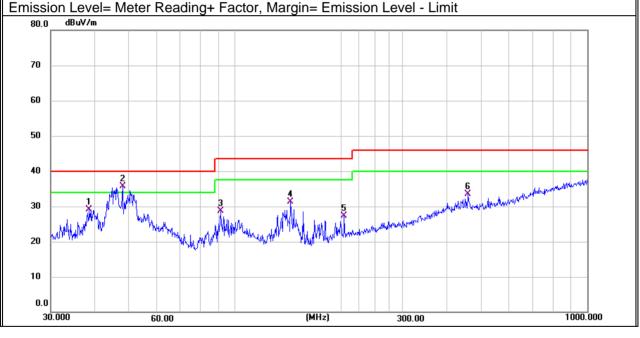
Spurious Emission below 1GHz (30MHz to 1GHz) All the modulation modes have been tested, and the worst result was report as below:

EUT:	Model O Classic Wireless	Model Name :	Model O Classic Wireless
Temperature:	<b>25</b> ℃	Relative Humidity:	53%
Pressure:	1010hPa	Test Mode:	GFSK CH00
Test Voltage :	DC 3.7V		

Polar	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
(H/V)	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
V	38.6160	10.83	18.30	29.13	40.00	-10.87	QP
V	47.9940	16.02	19.67	35.69	40.00	-4.31	QP
V	91.1746	12.46	16.16	28.62	43.50	-14.88	QP
V	143.8295	16.76	14.47	31.23	43.50	-12.27	QP
V	204.2377	9.22	18.12	27.34	43.50	-16.16	QP
V	459.1144	9.57	23.98	33.55	46.00	-12.45	QP

**Remark:** 

Emission Level= Meter Reading+ Factor, Margin= Emission Level - Limit





Polar	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
(H/V)	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Н	51.6616	6.00	19.52	25.52	40.00	-14.48	QP
Н	100.2286	5.97	17.89	23.86	43.50	-19.64	QP
Н	149.4857	7.68	14.60	22.28	43.50	-21.22	QP
Н	191.7450	7.39	17.36	24.75	43.50	-18.75	QP
Н	473.8347	7.10	24.13	31.23	46.00	-14.77	QP
Н	766.0571	5.81	29.13	34.94	46.00	-11.06	QP
Remark Emission 80.0	n Level= Meter F	Reading+ Fac	tor, Margin	= Emission Le	vel - Limit		
70 60 50							 
40						6	
30	warmithe bour with the second		3	4	Mandan Malanan Maria	www.handelandelandelandelandelandelandelandel	
20 "**	Wern Million and a second	mound the mound	And the second s	Nervice Martine and			
10							
0.0 30.0	00	).00		MHz)	300.00		1000.000



Spurious			1GHz (1GI	Hz to 250	GHz)		1			
EUT:		odel O C ireless	lassic	Мо	del No.:		Model	O Classi	c Wireless	6
Temperature	e: 20	°C		Rel	/:	48%				
Test Mode:	Mo	ode2/Mo	de3/Mode4	Tes	Test By: Yoyo Liang					
Frequency	Read Level	Cable loss	Antenna Factor	Preamp Factor		Li	mits	Margin	Remark	Comment
(MHz)	(dBµV)	(dB)	dB/m	(dB)	(dBµV/m)	(dB	μV/m)	(dB)		
			Low Chan	nel (240	2 MHz)(GFSK	()Ab	ove 1G	ì		
4804.73	59.74	5.21	35.59	44.30	56.24	7	4.00	-17.76	Pk	Vertical
4804.73	53.92	5.21	35.59	44.30	50.42	5	4.00	-3.58	AV	Vertical
7206.34	55.24	6.48	36.27	44.60	53.39	7	4.00	-20.61	Pk	Vertical
7206.34	49.46	6.48	36.27	44.60	47.61	5	4.00	-6.39	AV	Vertical
4804.66	54.89	5.21	35.55	44.30	51.35	7	4.00	-22.65	Pk	Horizontal
4804.66	46.59	5.21	35.55	44.30	43.05	5	4.00	-10.95	AV	Horizontal
7206.56	51.54	6.48	36.27	44.52	49.77	7	4.00	-24.23	Pk	Horizontal
7206.56	48.16	6.48	36.27	44.52	46.39	5	4.00	-7.61	AV	Horizontal
Mid Channel (2440 MHz)(GFSK)Above 1G										
4880.55	56.76	5.21	35.66	44.20	53.43	7	4.00	-20.57	Pk	Vertical
4880.55	51.85	5.21	35.66	44.20	48.52	5	4.00	-5.48	AV	Vertical
7320.44	53.06	7.10	36.50	44.43	52.23	7	4.00	-21.77	Pk	Vertical
7320.44	45.97	7.10	36.50	44.43	45.14	5	4.00	-8.86	AV	Vertical
4880.33	51.62	5.21	35.66	44.20	48.29	7	4.00	-25.71	Pk	Horizontal
4880.33	41.75	5.21	35.66	44.20	38.42	5	4.00	-15.58	AV	Horizontal
7320.71	49.28	7.10	36.50	44.43	48.45	7	4.00	-25.55	Pk	Horizontal
7320.71	46.58	7.10	36.50	44.43	45.75	5	4.00	-8.25	AV	Horizontal
			High Chan	nel (248	0 MHz)(GFSK	) Al	bove 10	3		
4960.37	58.06	5.21	35.52	44.21	54.58	7	4.00	-19.42	Pk	Vertical
4960.37	53.78	5.21	35.52	44.21	50.30	5	4.00	-3.70	AV	Vertical
7440.63	54.23	7.10	36.53	44.60	53.26	7	4.00	-20.74	Pk	Vertical
7440.63	48.10	7.10	36.53	44.60	47.13	5	4.00	-6.87	AV	Vertical
4960.55	53.37	5.21	35.52	44.21	49.89	7	4.00	-24.11	Pk	Horizontal
4960.55	45.27	5.21	35.52	44.21	41.79	5	4.00	-12.21	AV	Horizontal
7440.53	50.77	7.10	36.53	44.60	49.80	7	4.00	-24.20	Pk	Horizontal
7440.53	47.12	7.10	36.53	44.60	46.15	5	4.00	-7.85	AV	Horizontal

Note:

(1) Emission Level= Antenna Factor + Cable Loss + Read Level - Preamp Factor(2) All other emissions more than 20dB below the limit.



UT:	Model C	) Class	ic Wireles	s N	Model No.: Mo		Mod	Iodel O Classic Wireless			
emperature:	<b>20</b> ℃	Relative Humidity:					ty:	48%			
est Mode:	Mode2/	2/ Mode4 Test By:				Yoyo	Liang				
Frequency	Meter Reading	Cable Loss	Antenna Factor	Prea Fact		Emission Level	Lim	its	Margin	Detector	Comment
(MHz)	(dBµV)	(dB)	dB/m	(dE	3)	(dBµV/m)	(dBµ'	V/m)	(dB)	Туре	
2Mbps(GFSK)											
2310.00	64.50	2.97	27.80	43.8	80	51.47	74	4	-22.53	Pk	Horizontal
2310.00	46.32	2.97	27.80	43.8	80	33.29	54	4	-20.71	AV	Horizontal
2310.00	67.54	2.97	27.80	43.8	80	54.51	74	4	-19.49	Pk	Vertical
2310.00	45.33	2.97	27.80	43.8	80	32.30	54	4	-21.70	AV	Vertical
2390.00	65.25	3.14	27.21	43.8	80	51.80	74	4	-22.20	Pk	Vertical
2390.00	47.14	3.14	27.21	43.8	80	33.69	54	4	-20.31	AV	Vertical
2390.00	66.42	3.14	27.21	43.8	80	52.97	74	4	-21.03	Pk	Horizontal
2390.00	46.57	3.14	27.21	43.8	80	33.12	54	4	-20.88	AV	Horizontal
2483.50	66.25	3.58	27.70	44.0	00	53.53	74	4	-20.47	Pk	Vertical
2483.50	45.65	3.58	27.70	44.0	00	32.93	54	4	-21.07	AV	Vertical
2483.50	65.13	3.58	27.70	44.(	00	52.41	74	4	-21.59	Pk	Horizontal
2483.50	45.99	3.58	27.70	44.0	00	33.27	54	4	-20.73	AV	Horizontal

Note: (1) All other emissions more than 20dB below the limit.



EUT:	Mode	I O Clas	sic Wirele	ess	Mode	l No.:		Mode	Model O Classic Wireless		
Temperature	<b>20</b> ℃	<b>20</b> ℃			Relative Humidity: 48%						
Test Mode:				Test I	Test By: Yoyo Liang						
Frequency	Reading Level	Cable Loss	Antenna Factor		eamp actor	Emission Level	Li	mits	Margin	Detector	Comment
(MHz)	(dBµV)	(dB)	dB/m	(0	dB)	(dBµV/m)	(dB	μV/m)	(dB)	Туре	
3260	64.03	4.04	29.57	44	4.70	52.94		74	-21.06	Pk	Vertical
3260	45.65	4.04	29.57	44	4.70	34.56		54	-19.44	AV	Vertical
3260	63.80	4.04	29.57	44	4.70	52.71		74	-21.29	Pk	Horizontal
3260	44.12	4.04	29.57	44	4.70	33.03		54	-20.97	AV	Horizontal
3332	65.59	4.26	29.87	44	1.40	55.32		74	-18.68	Pk	Vertical
3332	45.36	4.26	29.87	44	1.40	35.09		54	-18.91	AV	Vertical
3332	66.38	4.26	29.87	44	1.40	56.11		74	-17.89	Pk	Horizontal
3332	44.12	4.26	29.87	44	1.40	33.85		54	-20.15	AV	Horizontal
17797	51.75	10.99	43.95	43	3.50	63.19		74	-10.81	Pk	Vertical
17797	32.12	10.99	43.95	43	3.50	43.56	:	54	-10.44	AV	Vertical
17788	53.42	11.81	43.69	44	4.60	64.32		74	-9.68	Pk	Horizontal
17788	31.55	11.81	43.69	44	4.60	42.45	:	54	-11.55	AV	Horizontal

Note: (1) All other emissions more than 20dB below the limit.



#### 7.3 6DB BANDWIDTH

#### 7.3.1 Applicable Standard

According to FCC Part 15.247(a)(2) and KDB 558074 D01 15.247 Meas Guidance v05r02 Section 8.2.

#### 7.3.2 **Conformance Limit**

The minimum permissible 6dB bandwidth is 500 kHz.

#### 7.3.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

#### 7.3.4 Test Setup

Please refer to Section 6.1 of this test report.

#### 7.3.5 Test Procedure

The testing follows Subclause 11.8 of ANSI C63.10

The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.

The path loss was compensated to the results for each measurement.

Set to the maximum power setting and enable the EUT transmit continuously.

The EUT was operating in controlled its channel.

Use the following spectrum analyzer settings:

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW)  $\geq$  3\*RBW.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.

g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

#### 7.3.6 Test Results

EUT:	Model O Classic Wireless	Model No.:	Model O Classic Wireless
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Test Mode:	Mode2/Mode3/Mode4	Test By:	Yoyo Liang



## 7.4 DUTY CYCLE

#### 7.4.1 Applicable Standard

According to KDB 558074 D01 15.247 Meas Guidance v05r02s Section 6.

#### 7.4.2 Conformance Limit

No limit requirement.

#### 7.4.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

#### 7.4.4 Test Setup

Please refer to Section 6.1 of this test report.

#### 7.4.5 **Test Procedure**

The zero-span mode on a spectrum analyzer or EMI receiver if the response time and spacing between bins on the sweep are sufficient to permit accurate measurements of the on and off times of the transmitted signal. Set the center frequency of the instrument to the center frequency of the transmission. Set RBW  $\geq$  OBW if possible; otherwise, set RBW to the largest available value. Set VBW  $\geq$  RBW. Set detector = peak or average. The zero-span measurement method shall not be used unless both RBW and VBW are > 50/T and the number of sweep points across duration T exceeds 100. (For example, if VBW and/or RBW are limited to 3 MHz, then the zero-span method of measuring duty cycle shall not be used if T  $\leq$  16.7 microseconds.)

The transmitter output is connected to the Spectrum Analyzer. We tested accroding to the zero-span measurement method, 6.0)b) in KDB 558074

The largest available value of RBW is 8 MHz and VBW is 50 MHz. The zero-span method of measuring duty cycle shall not be used if  $T \le 6.25$  microseconds. (50/6.25 = 8)

The zero-span method was used because all measured T data are > 6.25 microseconds and both RBW and VBW are > 50/T.

The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement. Set to the maximum power setting and enable the EUT transmit continuously. The EUT was operating in controlled its channel. Use the following spectrum analyzer settings: Span = Zero Span RBW = 8MHz(the largest available value) VBW = 8MHz ( $\geq$  RBW) Number of points in Sweep >100 Detector function = peak Trace = Clear write Measure T<sub>total</sub> and T<sub>on</sub> Calculate Duty Cycle = T<sub>on</sub>/T<sub>total</sub>



#### 7.4.6 Test Results

EUT:	Model O Classic Wireless	Model No.:	Model O Classic Wireless
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Test Mode:	N/A	Test By:	N/A

Note: Not Applicable



# 7.5 **PEAK OUTPUT POWER**

# 7.5.1 Applicable Standard

According to FCC Part 15.247(b)(3) and KDB 558074 D01 15.247 Meas Guidance v05r02 Section 8.3.1.

### 7.5.2 **Conformance Limit**

The maximum peak conducted output power of the intentional radiator for systems using digital modulation in the 2400 - 2483.5 MHz bands shall not exceed: 1 Watt (30dBm). If transmitting antenna of directional gain greater than 6dBi is used, the peak output power from the intentional radiator shall be reduced below the above stated value by the amount in dB that the directional gain of the antenna exceeds 6 dBi. In case of point-to-point operation, the limit has to be reduced by 1dB for every 3dB that the directional gain of the antenna exceeds 6dBi.

#### 7.5.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

#### 7.5.4 Test Setup

Please refer to Section 6.1 of this test report.

#### 7.5.5 **Test Procedure**

The testing follows Subclause 11.9.1.1 of ANSI C63.10 The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement. Set to the maximum power setting and enable the EUT transmit continuously. The EUT was operating in controlled its channel. Use the following spectrum analyzer settings: Set the RBW  $\geq$  DTS bandwidth. Set VBW =3\*RBW. Set the span  $\geq$  3\*RBW Set Sweep time = auto couple. Set Detector = peak. Set Trace mode = max hold. Allow trace to fully stabilize. Use peak marker function to determine the peak amplitude level.

#### 7.5.6 Test Results

EUT:	Model O Classic Wireless	Model No.:	Model O Classic Wireless
Temperature:	20 °C	Relative Humidity:	48%
Test Mode:	Mode2/Mode3/Mode4	Test By:	Yoyo Liang



# 7.6 **POWER SPECTRAL DENSITY**

#### 7.6.1 Applicable Standard

According to FCC Part 15.247(e) and KDB 558074 D01 15.247 Meas Guidance v05r02 Section 8.4.

#### 7.6.2 **Conformance Limit**

The transmitter power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

#### 7.6.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

#### 7.6.4 Test Setup

Please refer to Section 6.1 of this test report.

#### 7.6.5 Test Procedure

The testing follows Measurement Procedure Subclause 11.10.2 of ANSI C63.10 This procedure shall be used if maximum peak conducted output power was used to demonstrate compliance, and is optional if the maximum conducted (average) output power was used to demonstrate compliance.

The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.

The path loss was compensated to the results for each measurement.

Set to the maximum power setting and enable the EUT transmit continuously.

The EUT was operating in controlled its channel.

- a) Set analyzer center frequency to DTS channel center frequency.
- b) Set the span to 1.5\*DTS bandwidth.
- c) Set the RBW to:  $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$ .
- d) Set the VBW  $\geq$  3 RBW.
- e) Detector = peak.
- f) Sweep time = auto couple.
- g) Trace mode = max hold.
- h) Allow trace to fully stabilize.
- i) Use the peak marker function to determine the maximum amplitude level within the RBW.
- j) If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.



## 7.6.6 Test Results

EUT:	Model O Classic Wireless	Model No.:	Model O Classic Wireless
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Test Mode:	Mode2/Mode3/Mode4	Test By:	Yoyo Liang



# 7.7 CONDUCTED BAND EDGE MEASUREMENT

#### 7.7.1 Applicable Standard

According to FCC Part 15.247(d) and KDB 558074 D01 15.247 Meas Guidance v05r02 Section 8.7.

#### 7.7.2 Conformance Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated 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, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

#### 7.7.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

#### 7.7.4 Test Setup

Please refer to Section 6.1 of this test report.

#### 7.7.5 **Test Procedure**

The testing follows FCC KDB 558074 D01 15.247 Meas Guidance v05r02 Section 8.7.

The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.

The path loss was compensated to the results for each measurement.

Set to the maximum power setting and enable the EUT transmit continuously.

The EUT was operating in controlled its channel.

Set RBW to 100 kHz and VBW of spectrum analyzer to 300 kHz with a convenient frequency span including 100 kHz bandwidth from band edge.

Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.

Repeat above procedures until all measured frequencies were complete.

#### 7.7.6 Test Results

EUT:	Model O Classic Wireless	Model No .	Model O Classic Wireless
Temperature:	20 °C	Relative Humidity:	48%
Test Mode:	Mode2/Mode4	Test By:	Yoyo Liang



# 7.8 SPURIOUS RF CONDUCTED EMISSIONS

#### 7.8.1 Conformance Limit

Below -20dB of the highest emission level in operating band.
 Fall in the restricted bands listed in section 15.205. The maximum permitted average field strength is listed in section 15.209.

#### 7.8.2 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

#### 7.8.3 Test Setup

Please refer to Section 6.1 of this test report.

#### 7.8.4 **Test Procedure**

The Spurious RF conducted emissions compliance of RF radiated emission should be measured by following the guidance in ANSI C63.10-2013 with respect to maximizing the emission by rotating the EUT, measuring the emission while the EUT is situated in three orthogonal planes (if appropriate), adjusting the measurement antenna height and polarization etc. Set RBW=100kHz and VBW= 300KHz to measure the peak field strength , and measure frequency range from 30MHz to 26.5GHz.

#### 7.8.5 Test Results

Remark: The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. The lowest, middle and highest channels are tested to verify the spurious emissions and bandege measurement data.



# 7.9 ANTENNA APPLICATION

#### 7.9.1 Antenna Requirement

15.203 requirement: For intentional device, according to 15.203: 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.

#### 7.9.2 **Result**

The EUT antenna is permanent attached Chip Antenna (Gain: 2.78dBi). It comply with the standard requirement.

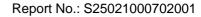


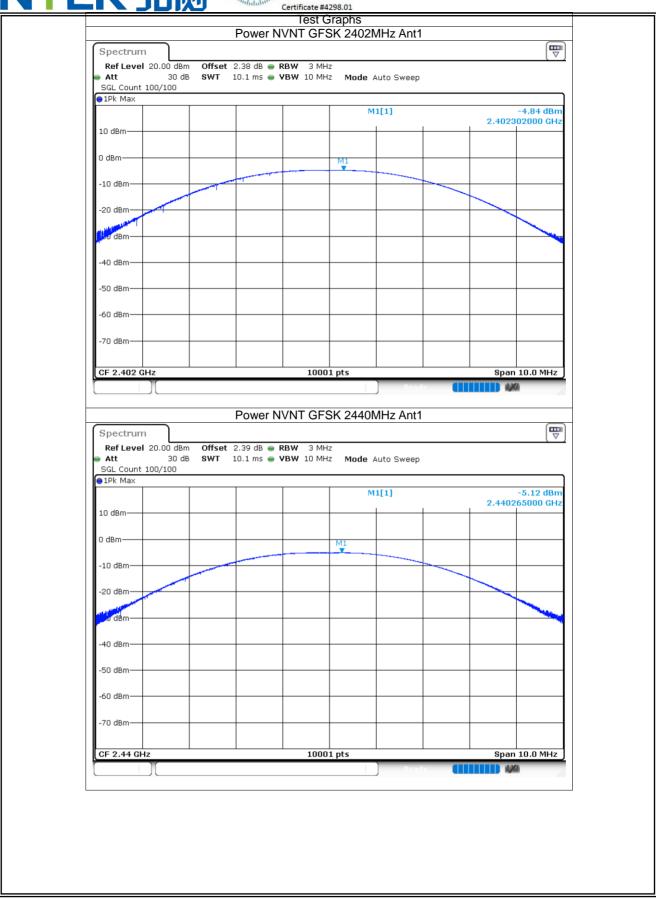
# 8 TEST RESULTS

#### 8.1 MAXIMUM CONDUCTED OUTPUT POWER

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	GFSK	2402	Ant1	-4.84	30	Pass
NVNT	GFSK	2440	Ant1	-5.12	30	Pass
NVNT	GFSK	2480	Ant1	-5.22	30	Pass

# NTEK 北测





ACCREDITED

Version.1.3



Ref Level 20.00 dBm Offset 2.42 dB			
Att 30 dB SWT 10.1 ms SGL Count 200/200	VBW 10 MHz	Mode Auto Sweep	
1Pk Max			)
		M1[1]	-5.22 dBm
			2.479851000 GHz
.0 dBm			
) dBm	M1		
10 dBm			
20 dBm			
20 UBIN			
dBm			
40 dBm			
50 dBm	_		
60 dBm			
70 dBm			
CF 2.48 GHz	10001		Span 10.0 MHz



8.2 -6DB BA	NDWIDTH	
Condition	Mada	

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	GFSK	2402	Ant1	0.698	0.5	Pass
NVNT	GFSK	2440	Ant1	0.716	0.5	Pass
NVNT	GFSK	2480	Ant1	0.714	0.5	Pass

#### Report No.: S25021000702001



R

ilac-MR

Ref Level 20.00 dBn	-	• RBW 100 kHz				
Att 30 di	в <b>SWT</b> 18.9 µs 🖷	• VBW 300 kHz	Mode Auto FFT			
SGL Count 100/100						
1Pk Max	,					
			M1[1]			-5.35 dBm
.0 dBm			M2[1]			86770 GHz 11.30 dBm
			MZ[1]			50000 GHz
) dBm			MI		2.7790	00000 0112
10 40-		M2	<u>∕w</u>			
10 dBm						
20 dBm			V L			
30 dBm				×		
	1				<b>`</b>	
40 dBm						
58 dBm					$\sim$	$\sim$
					7	~
50 dBm						
70 dBm						
F 2.48 GHz		10001 pt	ts	1 1	Spa	n 4.0 MHz
arker						
Type   Ref   Trc	X-value	Y-value	Function	Funct	ion Result	
M1 1	2.48028677 GHz	-5.35 dBm				
M2 1	2.47965 GHz	-11.30 dBm				
M3 1	2.480364 GHz	-11.40 dBm				

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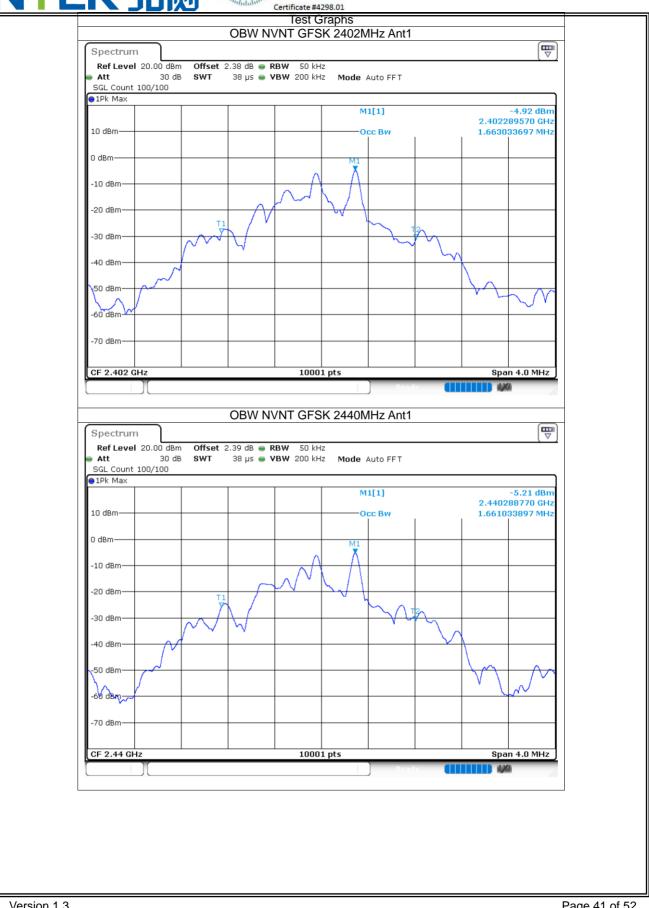


#### 8.3 OCCUPIED CHANNEL BANDWIDTH

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	GFSK	2402	Ant1	1.663
NVNT	GFSK	2440	Ant1	1.661
NVNT	GFSK	2480	Ant1	1.645

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#### Report No.: S25021000702001



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#### Report No.: S25021000702001



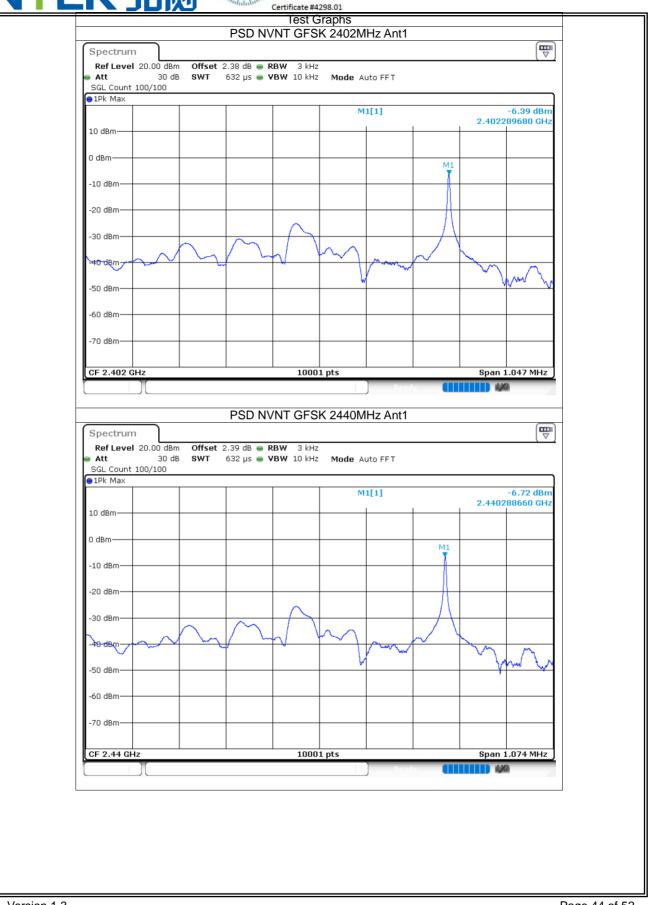
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#### 8.4 MAXIMUM POWER SPECTRAL DENSITY LEVEL

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm)	Limit (dBm)	Verdict
NVNT	GFSK	2402	Ant1	-6.39	8	Pass
NVNT	GFSK	2440	Ant1	-6.72	8	Pass
NVNT	GFSK	2480	Ant1	-6.83	8	Pass

#### Report No.: S25021000702001



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Version.1.3



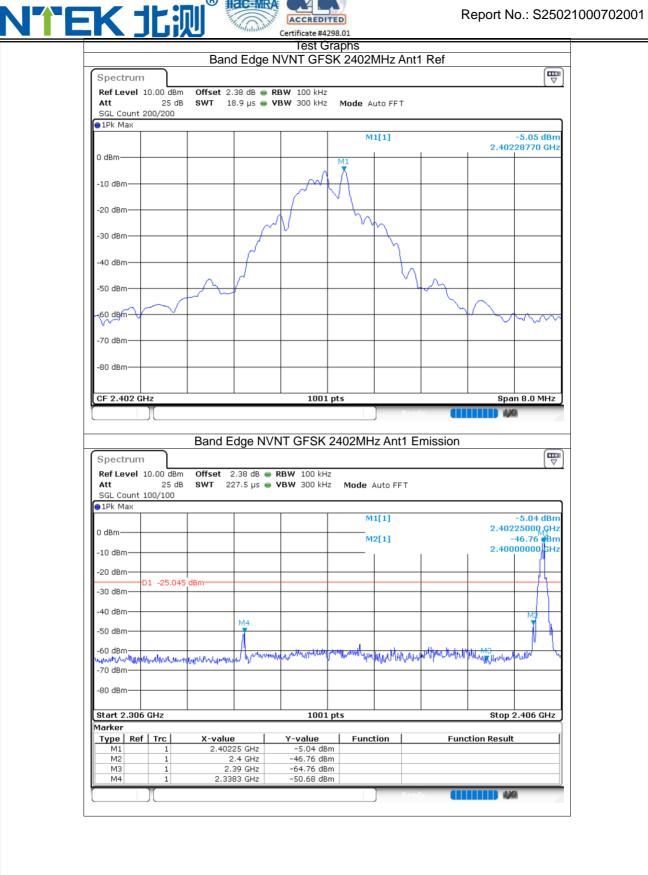
Spectrum RefLevel 20.00 dBm Offset Att 30 dB SWT	2.42 dB <b>● RBW</b> 3 kH 632.1 µs <b>● VBW</b> 10 kH				
SGL Count 100/100					
●1Pk Max					
		M1[1]			-6.83 dBm 87860 GHz
10 dBm			1	2.4002	
0 dBm					
			M1		
-10 dBm					
-20 dBm			1 1		
-30 dBm					
	1 min 1		$\sim$	h	
-48 dBm	w w	1 mars		N	$\sim$
-50 dBm		₩		V V	mar was
-60 dBm					
-70 dBm					
CF 2.48 GHz	1000	1 pts		Snan 1	L.071 MHz
	1000	- 14-2		opun s	

Verdict Pass Pass



8.5 BAND ED	DGE				
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)
NVNT	GFSK	2402	Ant1	-45.62	-20
NVNT	GFSK	2480	Ant1	-46.83	-20

#### Report No.: S25021000702001



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#### Report No.: S25021000702001

Spectru Ref Leve		Bm Offset 2.4	2 dB 👄	RBW 100 kHz					
Att SGL Cour	35 it 200/200	dB SWT 18.		<b>VBW</b> 300 kHz	Mode A	uto FFT			
●1Pk Max						1[1]			-5.35 dBm
					IVI	1[1]		2.480	-3.35 uBm )28770 GHz
10 dBm—									
0 dBm									
					M1 X				
-10 dBm—					A				
-20 dBm—				$\wedge$					
			~	$\Lambda$	$\sim$	h			
-30 dBm—			-f		×	h			
-40 dBm—									
			$\sim$			$  \rangle$	m		
-50 dBm—	10.00						$ \downarrow \downarrow $	hm	1 1
-60 dBm—	V VV ·	~ ~						V ~~	~~~~~
-70 dBm—									
CF 2.48 (	Hz			1001	ots		411	Spa	n 8.0 MHz
Spactru		Band Ed	lge NV	NT GFSK 2	2480MH	z Ant1 E	mission		
Spectru Ref Leve Att	l 20.00 d	Band Ed Bm Offset 2. dB SWT 227	42 dB 👄	RBW 100 kHz			mission		
Ref Leve Att SGL Cour	l 20.00 d 35 it 100/100	IBm <b>Offset</b> 2. dB <b>SWT</b> 227	42 dB 👄	RBW 100 kHz			mission		
Ref Leve Att	l 20.00 d 35 it 100/100	IBm <b>Offset</b> 2. dB <b>SWT</b> 227	42 dB 👄	RBW 100 kHz	Mode /		mission		-5.36 dBm
Ref Leve Att SGL Cour	l 20.00 d 35 it 100/100	IBm <b>Offset</b> 2. dB <b>SWT</b> 227	42 dB 👄	RBW 100 kHz	Mode /	Auto FFT	mission		
Ref Leve Att SGL Cour 1Pk Max	l 20.00 d 35 it 100/100	IBm <b>Offset</b> 2. dB <b>SWT</b> 227	42 dB 👄	RBW 100 kHz	Mode /	Auto FFT 1[1]	mission		-5.36 dBm 025000 GHz
Ref Leve Att SGL Cour 1Pk Max	l 20.00 d 35 it 100/100	IBm <b>Offset</b> 2. dB <b>SWT</b> 227	42 dB 👄	RBW 100 kHz	Mode /	Auto FFT 1[1]	mission		-5.36 dBm )25000 GHz -54.13 dBm
Ref Leve Att SGL Cour 1Pk Max 10 dBm- 0 dBm-	1 20.00 d 35 ht 100/100	IBm Offset 2. dB SWT 227	42 dB 👄	RBW 100 kHz	Mode /	Auto FFT 1[1]	mission		-5.36 dBm )25000 GHz -54.13 dBm
Ref Leve Att SGL Cour 1Pk Max 10 dBm- 0 dBm- -10 dBm-	1 20.00 d 35 ht 100/100	IBm <b>Offset</b> 2. dB <b>SWT</b> 227	42 dB 👄	RBW 100 kHz	Mode /	Auto FFT 1[1]	mission		-5.36 dBm )25000 GHz -54.13 dBm
Ref Leve Att SGL Cour 1Pk Max 10 dBm	1 20.00 d 35 ht 100/100	IBm Offset 2. dB SWT 227	42 dB 👄	RBW 100 kHz	Mode /	Auto FFT 1[1]			-5.36 dBm )25000 GHz -54.13 dBm
Ref Leve Att SGL Cour 1Pk Max 10 dBm	U 20.00 d 35 100/100	Bm Offset 2. dB SWT 227 3 353 dBm M4	42 dB ● 7.5 µs ●	RBW 100 kHz VBW 300 kHz	Mode /	Auto FFT  1[1] 2[1]		2.483	-5.36 dBm )25000 GHz -54.13 dBm
Ref Leve Att SGL Cour ● 1Pk Max 10 dBm	U 20.00 d 35 100/100	Bm Offset 2. dB SWT 227 D 353 dBm	42 dB ● 7.5 µs ●	RBW 100 kHz VBW 300 kHz	Mode /	Auto FFT  1[1] 2[1]		2.483	-5.36 dBm 125000 GHz -54.13 dBm 50000 GHz
Ref Leve Att SGL Cour 1Pk Max 10 dBm	U 20.00 d 35 100/100	Bm Offset 2. dB SWT 227 3 353 dBm M4	42 dB ● 7.5 µs ●	RBW 100 kHz VBW 300 kHz	Mode /	Auto FFT  1[1] 2[1]		2.483	-5.36 dBm 125000 GHz -54.13 dBm 550000 GHz
Ref Leve Att SGL Cour ● 1Pk Max 10 dBm	U 20.00 d 35 100/100	Bm Offset 2. dB SWT 227 3 353 dBm M4	42 dB ● 7.5 µs ●	RBW 100 kHz VBW 300 kHz	Mode /	Auto FFT  1[1] 2[1]		2.483	-5.36 dBm 125000 GHz -54.13 dBm 550000 GHz
Ref Leve Att SGL Cour 1Pk Max 10 dBm	1 20.00 d 35 ht 100/100	Bm Offset 2. dB SWT 227 3 353 dBm M4	42 dB ● 7.5 µs ●	RBW 100 kHz VBW 300 kHz	Mode /	Auto FFT  1[1] 2[1]		2.483	-5.36 dBm 125000 GHz -54.13 dBm 550000 GHz
Ref Leve           Att           SGL Cour           1Pk Max           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -30 dBm           -40 dBm           -60 dBm           -70 dBm           Start 2.4           Marker	1 20.00 d 35 1t 100/100 01 -25.	Bm Offset 2. dB SWT 227 353 dBm 353 dBm M4 www.www.hulup.ov	42 dB ● 7.5 µs ●	RBW         100 kHz           VBW         300 kHz	Mode /	Auto FFT  1[1] 2[1]	Ajjeles <sup>10</sup> nes <sup>a</sup> lesens	2.483	-5.36 dBm 125000 GHz -54.13 dBm 550000 GHz
Ref Leve           Att           SGL Cour           IPk Max           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -30 dBm           -40 dBm           -50 dBm           -60 dBm           -70 dBm           Start 2.4           Marker           Type R           M1	I 20.00 d 35 ht 100/100 D1 -25.	Bm Offset 2. dB SWT 227 353 dBm 353 dBm M4 W4 W4 W4 W4 W4 W4 W4 W4 W4 W	42 dB 7.5 μs 42 dB 5 GHz	RBW         100 kHz           VBW         300 kHz	Mode / M M M M M M M M M M M M M M M M M M M	Auto FFT  1[1] 2[1]	Ajjeles <sup>10</sup> nes <sup>a</sup> lesens	2.483	-5.36 dBm 125000 GHz -54.13 dBm 550000 GHz
Ref Leve           Att           SGL Cour           1Pk Max           10 dBm           0 dEm           -10 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm           -70 dBm           -70 dBm           Start 2.4           Marker           Type         R	I 20.00 d 35 11 100/100 D1 -25.	Bm Offset 2. dB SWT 227 353 dBm 353 dBm M4 wy w w w w w w w C 2.48022 2.4832	42 dB 7.5 μs 42 dB 5 GHz	RBW         100 kHz           VBW         300 kHz	Mode / 	Auto FFT  1[1] 2[1]	Ajjeles <sup>10</sup> nes <sup>a</sup> lesens	2.483	-5.36 dBm 125000 GHz -54.13 dBm 550000 GHz
Ref Leve           Att           SGL Cour           1Pk Max           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -30 dBm           -40 dBm           -50 dBm           -50 dBm           -50 dBm           -50 dBm           -60 dBm           -70 dBm           Start 2.4           Marker           Type R           M2	I 20.00 d 35 1t 100/100 D1 -25. D1 -25. C6 GHz ef Trc 1 1	Bm Offset 2. dB SWT 227 353 dBm 353 dBm M4 wy w w w w w w w C 2.48022 2.4832	42 dB 7.5 μs 40 5 GHz 5 GHZ	RBW 100 kHz VBW 300 kHz 	Mode / 	Auto FFT  1[1] 2[1]	Ajjeles <sup>10</sup> nes <sup>a</sup> lesens	2.483	-5.36 dBm 125000 GHz -54.13 dBm 550000 GHz 

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8.6 <b>Conduct</b>	ED <b>RF S</b> PU	RIOUS EMISSION				
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	GFSK	2402	Ant1	-46.1	-20	Pass
NVNT	GFSK	2440	Ant1	-45.25	-20	Pass
NVNT	GFSK	2480	Ant1	-44.82	-20	Pass

#### Report No.: S25021000702001



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Ref Level 20 Att	30 dB					Auto FFT			
SGL Count 300	/300								
1Pk Max						1[1]			-5.21 dBm
								2.440	028770 GHz
10 dBm							-		
0 dBm					М	1			
10 10				$\sim \sim \sim$					
-10 dBm		~	$\sim$		$\bigtriangledown$				
-20 dBm									
	- 1	$\sim$					$h_{c}$		
-30 dBm									
$\sim$									
-40 dBm									
-50 dBm									
-60 dBm							ļ		
-70 dBm									
	ר	Tx. Spuriou	ıs NVI	1001 NT GFSK		) Don Iz Ant1 E		spa	an 3.0 MHz )
Spectrum Ref Level 20		Offset 2.39	dB 🖷 R	NT GFSK	2440MF		Emission		<b>a</b>
Spectrum Ref Level 20 Att SGL Count 10/3	.00 dBm 30 dB	Offset 2.39	dB 🖷 R	NT GFSK	2440MF	) Rem Hz Ant1 E Auto Sweep	Emission		<b>a</b>
Spectrum Ref Level 20 Att SGL Count 10/3	.00 dBm 30 dB	Offset 2.39	dB 🖷 R	NT GFSK	2440MF 2 2 Mode /	Auto Sweep	Emission		
Spectrum Ref Level 20 Att SGL Count 10/: 1Pk Max	.00 dBm 30 dB	Offset 2.39	dB 🖷 R	NT GFSK	2440MF 2 2 Mode /		Emission		<b>a</b>
Spectrum Ref Level 20 Att SGL Count 10/: 1Pk Max	.00 dBm 30 dB	Offset 2.39	dB 🖷 R	NT GFSK	22440MH z Mode /	Auto Sweep	Emission		-5.37 dBm 2.4500 GHz -50.46 dBm
Spectrum Ref Level 20 Att SGL Count 10/: 1Pk Max	.00 dBm 30 dB	Offset 2.39	dB 🖷 R	NT GFSK	22440MH z Mode /	Auto Sweep 1[1]	Emission		-5.37 dBm 2.4500 GHz
Spectrum Ref Level 20 ) Att SGL Count 10/1 ) IPK Max 10 dBm 0 dBm	.00 dBm 30 dB	Offset 2.39	dB 🖷 R	NT GFSK	22440MH z Mode /	Auto Sweep 1[1]	Emission		-5.37 dBm 2.4500 GHz -50.46 dBm
Spectrum Ref Level 20 Att SGL Count 10/ 1Pk Max 10 dBm -10 dBm	.00 dBm 30 dB	Offset 2.39	dB 🖷 R	NT GFSK	22440MH z Mode /	Auto Sweep 1[1]	Emission		-5.37 dBm 2.4500 GHz -50.46 dBm
Spectrum Ref Level 20 Att SGL Count 10/1 IPk Max 10 dBm 0 dBm -10 dBm -20 dBm D1	.00 dBm 30 dB	Offset 2.39 SWT 265	dB 🖷 R	NT GFSK	22440MH z Mode /	Auto Sweep 1[1]	Emission		-5.37 dBm 2.4500 GHz -50.46 dBm
Spectrum Ref Level 20 Att SGL Count 10/1 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -30 dBm	00 dBm 30 dB 10	Offset 2.39 SWT 265	dB 🖷 R	NT GFSK	22440MH z Mode /	Auto Sweep 1[1]	Emission		-5.37 dBm 2.4500 GHz -50.46 dBm
Spectrum Ref Level 20 Att SGL Count 10/1 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -30 dBm	00 dBm 30 dB 10	Offset 2.39 SWT 265	dB 🖷 R	NT GFSK	22440MH z Mode /	Auto Sweep 1[1] 2[1]	Emission		-5.37 dBm 2.4500 GHz -50.46 dBm
Spectrum Ref Level 20 Att SGL Count 10/1 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -30 dBm	-25.209 d	Offset 2.39 SWT 265	dB • R ms • V	NT GFSK	2 2440MF	Auto Sweep	Emission	1	-5.37 dBm 2.4500 GHz -50.46 dBm 7.6590 GHz
Spectrum           Ref Level 20           Att           SGL Count 10/1           IPk Max           10 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm	-25.209 d	Offset 2.39 SWT 265	dB • R ms • V	NT GFSK	2 2440MF	Auto Sweep	Emission	1	-5.37 dBm 2.4500 GHz -50.46 dBm 7.6590 GHz
Spectrum Ref Level 20 Att SGL Count 10/ Ph Max O dBm O	-25.209 d	Offset 2.39 SWT 265	dB • R ms • V	NT GFSK	2 2440MF	Auto Sweep	Emission	1	-5.37 dBm 2.4500 GHz -50.46 dBm 7.6590 GHz
Spectrum Ref Level 20 Att SGL Count 10/ Ph Max O dBm O	-25.209 d	Offset 2.39 SWT 265	dB • R ms • V	NT GFSK	2 2440MF	Auto Sweep	Emission	1	-5.37 dBm 2.4500 GHz -50.46 dBm 7.6590 GHz
Spectrum Ref Level 20 Att SGL Count 10/ IPk Max O dBm	.00 dBm 30 dB 10	Offset 2.39 SWT 265	dB • R ms • V	NT GFSK	2 2 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	Auto Sweep	Emission	1 where the second seco	-5.37 dBm 2.4500 GHz -50.46 dBm 7.6590 GHz
Spectrum           Ref Level 20           Att           SGL Count 10/           IPk Max           10 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm           -70 dBm           -70 dBm           -70 dBm           -70 dBm	.00 dBm 30 dB 10 -25.209 d	Offset 2.39 SWT 265	dB • R ms • V	NT GFSK BW 100 kH BW 300 kH	2 2440MH	Auto Sweep 1[1] 2[1] M2		1 submet wh	-5.37 dBm 2.4500 GHz -50.46 dBm 7.6590 GHz
Spectrum           Ref Level 20           Att           SGL Count 10/           1Pk Max           10 dBm           -10 dBm           -20 dBm           -30 dBm           -20 dBm           -70 dBm	.00 dBm 30 dB 10 -25.209 d -25.209 d	Offset 2.39 SWT 265	dB e R ms V	NT GFSK BW 100 kH BW 300 kH	2 2440MH 2 Mode / M M M M	Auto Sweep 1[1] 2[1] M2		1 where the second seco	-5.37 dBm 2.4500 GHz -50.46 dBm 7.6590 GHz
Att           SGL Count 10/           SGL Count 10/           IPk Max           10 dBm           -10 dBm           -20 dBm           -20 dBm           -30 dBm           -30 dBm           -70 dBm	.00 dBm 30 dB 10 -25.209 d M3 ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Offset 2.39 SWT 265	dB ● R ms ● V Ms Ms Hz Hz Hz	NT GFSK	2 2440MH 2 Mode / M M M M M M M M M M M M M	Auto Sweep 1[1] 2[1] M2		1 submet wh	-5.37 dBm 2.4500 GHz -50.46 dBm 7.6590 GHz
Spectrum           Ref Level 20           Att           SGL Count 10/           1Pk Max           10 dBm           -10 dBm           -20 dBm           -30 dBm           -30 dBm           -40 dBm           -50 dBm           -70 dBm	.00 dBm 30 dB 10 -25.209 d M3 ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Offset 2.39 SWT 265	HIZ	NT GFSK BW 100 kH BW 300 kH 	2 2440MH	Auto Sweep 1[1] 2[1] M2		1 submet wh	-5.37 dBm 2.4500 GHz -50.46 dBm 7.6590 GHz

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Att SGL Count	20.00 dBn 30 dB 300/300			<b>XBW</b> 100 kH <b>/BW</b> 300 kH		uto FFT			
1Pk Max					M	L[1]			-5.36 dBm
10 dBm								2.480	28770 GHz
D dBm									
					M				
-10 dBm			$\sim$		$\bigtriangledown$				
-20 dBm		h/							
-30 dBm-	$\frown$							$\sim$	
-40 dBm-									
									$\sim$
-50 dBm									
-60 dBm									
-70 dBm									
05 0 40 61	-			100					
CF 2.48 GH	Z			1001	pts	Read		Spa	in 3.0 MHz
Spectrum Ref Level Att SGL Count	20.00 dBn 30 dB	n Offset 2	2.42 dB 👄 F	NT GFSK RBW 100 kH VBW 300 kH	z				
1Pk Max					M	L[1]			-5.38 dBm
10 dBm					M	2[1]			2.4760 GHz ·50.18 dBm
0 dBm Ma								1	5.5944 GHz
-10 dBm									
	D1 -25.362	dBm							
-40 dBm									
-50 dBm		May Market Luter	MS	h der	M2	and which is all place	W. Web Mar way was a second	A.W.A.A.	الدينان بالد
160 abitm	balaharandyarit	for an high	wellow and the	antrophy - alwala	pende open tille i 1977	· · · · · · · · · · · · · · · · · · ·	- v - · · ••••+•	arium inv cashv	and we have a service of the
-70 dBm									
Start 30.0	MHz	1	1	1001	pts			Stop	26.5 GHz
M1 M2 M3	Trc 1 1 1	15.59 5.08	76 GHz 44 GHz 58 GHz	Y-value -5.38 dB -50.18 dB -54.79 dB	m m	ion	Fun	ction Result	
M4 M5	1		45 GHz 21 GHz	-54.28 dB -55.41 dB					
	Л					Read	ly <b>(II</b>		

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