

# RADIO TEST REPORT FCC ID: 2ANMU-24137

Product: Smart Phone

Trade Mark: OUKITEL

Model No.: WP100 TITAN Family Model: WP100, WP100 S, WP100 Pro, WP100 Plus, WP100 Ultra, WP100 GT Report No.: S24122402206002

Issue Date: Feb. 25, 2025

# **Prepared for**

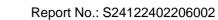
SHENZHEN YUNJI INTELLIGENT TECHNOLOGY CO.,LTD A2 2F BUILDING ENET NEW INDUSTRIAL PARK, DAFU INDUSTRIAL ZONE, GUANLAN,LONGHUA SHENZHEN, 518XXX China

# 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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## **1 TEST RESULT CERTIFICATION**

Applicant's name:	SHENZHEN YUNJI INTELLIGENT TECHNOLOGY CO., LTD
Address:	A2 2F BUILDING ENET NEW INDUSTRIAL PARK, DAFU INDUSTRIAL ZONE, GUANLAN,LONGHUA SHENZHEN, 518XXX China
Manufacturer's Name:	SHENZHEN YUNJI INTELLIGENT TECHNOLOGY CO., LTD
Address:	A2 2F BUILDING ENET NEW INDUSTRIAL PARK, DAFU INDUSTRIAL ZONE, GUANLAN,LONGHUA SHENZHEN, 518XXX China
Product description	
Product name:	Smart Phone
Trade Mark:	OUKITEL
Model and/or type reference:	WP100 TITAN
Family Model	WP100, WP100 S, WP100 Pro, WP100 Plus, WP100 Ultra, WP100 GT
Test Sample number:	S241224022007
Date of Test:	Dec. 24, 2024 ~ Feb. 25, 2025

Measurement Procedure Used:

APPLICABLE STANDARDS			
APPLICABLE STANDARD/ TEST PROCEDURE	TEST RESULT		
FCC 47 CFR Part 2, Subpart J			
FCC 47 CFR Part 15, Subpart C	Complied		
ANSI C63.10-2013	Complied		
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 : Allen Liu (Project Engineer)
Reviewed : Aavon Cheng By : Aaron Cheng (Project Engineer) Alex Li (Project Engineer) (Supervisor) (Manager)

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#### 2 SUMMARY OF TEST RESULTS

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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)	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						

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#### 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	±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

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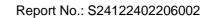
## 4 GENERAL DESCRIPTION OF EUT

Product Feature and Specification			
Equipment	Smart Phone		
Trade Mark	OUKITEL		
FCC ID	2ANMU-24137		
Model No.	WP100 TITAN		
Family Model	WP100, WP100 S, WP100 Pro, WP100 Plus, WP100 Ultra, WP100 GT		
Model Difference	All the model are the same circuit and RF module, except the model names.		
Operating Frequency	BLE 1M: 2402~2480 MHz BLE 2M: 2404~2478 MHz		
Modulation	GFSK		
Number of Channels	Please refer channel list		
Antenna Type	LDS Antenna		
Antenna Gain	1.34 dBi		
Adapter	Model: HJ-PD66W-US Input: 100-240V~50/60Hz 1.5A Output: 5.0V3.0A 15.0W OR 9.0V3.0A 27.0W OR 12.0V3.0A 36.0W OR 15.0V3.0A 45.0W OR 20.0V3.25A 65.0W OR 11.0V6.0A 66.0W MAX		
Battery	DC 3.87V, 33000mAh, 127.71Wh		
Power supply	DC 3.87V from battery or DC 5V/9V/11V/12V/15V/20V from adapter		
HW Version	M175-MUB-V2		
SW Version V04			

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.





### **Revision History**

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Report No.	Version	Description	Issued Date
S24122402206002	Rev.01	Initial issue of report	Feb. 25, 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 (1Mbps/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:

BLE(1M)		BLE(2M)		
Channel	Frequency (MHz)	Channel	Frequency (MHz)	
00	2402			
01	2404	01	2404	
19	2440	19	2440	
38	2478	38	2478	
39	2480			

Note: fc=2402MHz+kx2MHz k=0 to 39

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					
	Mode 2: GFSK Tx Ch00_2402MHz_1Mbps/					
Radiated Test	GFSK Tx Ch01_2404MHz_2Mbps					
Cases	Mode 3: GFSK Tx Ch19_2440MHz_1Mbps/2Mbps					
	Mode 4: GFSK Tx Ch39_2480MHz_1Mbps/					
	GFSK Tx Ch38_2478MHz_2Mbps					
	Mode 2: GFSK Tx Ch00_2402MHz_1Mbps/					
Conducted Test	GFSK Tx Ch01_2404MHz_2Mbps					
Conducted Test	Mode 3: GFSK Tx Ch19_2440MHz_1Mbps/2Mbps					
Cases	Mode 4: GFSK Tx Ch39_2480MHz_1Mbps/					
	GFSK Tx Ch38 2478MHz 2Mbps					



#### Note:

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

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

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- 3. For radiated test cases, the worst mode data rate 1Mbps was reported only, because this data rate has the highest RF output power at preliminary tests, and no other significantly frequencies found in conducted spurious emission.
- 4. EUT built-in battery-powered, the battery is fully-charged.



6

SETUP OF EQUIPMENT UNDER TEST



# **BLOCK DIAGRAM CONFIGURATION OF TEST SYSTEM** 6.1 For AC Conducted Emission Mode AC PLUG C-1 AE-2 AE-1 Adapter EUT For Radiated Test Cases AE-1 EUT For Conducted Test Cases C-2 Measurement AE-1 Instrument EUT Note: The temporary antenna connector is soldered on the PCB board in order to perform conducted tests and this temporary antenna connector is listed in the equipment list.





#### 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.

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Item Equipment		Model/Type No.	Series No.	Note
AE-1 Smart Phone		WP100 TITAN	N/A	EUT
AE-2 Adapter		HJ-PD66W-US	N/A	Peripherals

Item	Cable Type	Shielded Type	Ferrite Core	Length
C-1	USB Cable	YES	NO	1.0m
C-2	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".

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### 6.3 EQUIPMENTS LIST FOR ALL TEST ITEMS

Radiation& Conducted Test equipment

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Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibrati on 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	2023.05.06	2026.05.05	3 year
13	Test Cable (30MHz-1GHz)	N/A	R-02	N/A	2023.05.06	2026.05.05	3 year
14	High Test Cable(1G-40G Hz)	N/A	R-03	N/A	2022.06.17	2025.06.16	3 year
15	Filter	TRILTHIC	2400MHz	29	2024.04.26	2027.04.25	3 year
16	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



AC Co	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

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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	Farad	EZ-EMC_CE	AIT-03A	AC Conducted Test

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## 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**

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

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

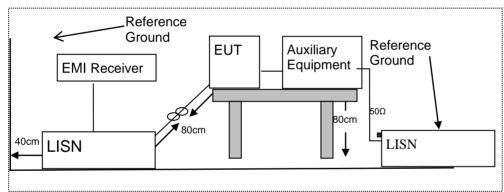
2. The lower limit shall apply at the transition frequencies

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.
- 3. 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.





#### 7.1.6 Test Results

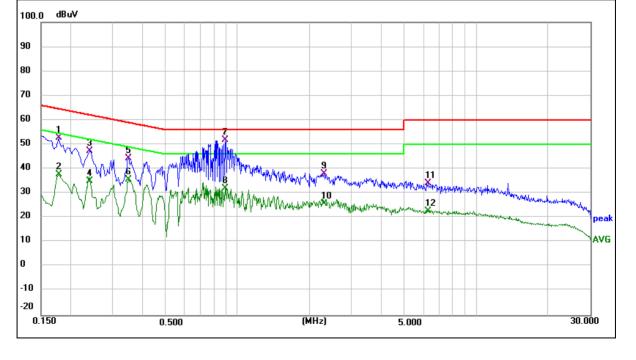
EUT:	Smart Phone	Model Name :	WP100 TITAN
Temperature:	<b>22</b> ℃	Relative Humidity:	57%
Pressure:	1010hPa	Phase :	L
	DC 5V from Adapter AC 120V/60Hz	Test Mode:	Mode 1

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Bomork
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	Remark
0.1780	42.57	10.05	52.62	64.58	-11.96	QP
0.1780	27.56	10.05	37.61	54.58	-16.97	AVG
0.2404	37.32	10.18	47.50	62.08	-14.58	QP
0.2404	24.98	10.18	35.16	52.08	-16.92	AVG
0.3500	33.83	10.39	44.22	58.96	-14.74	QP
0.3500	25.31	10.39	35.70	48.96	-13.26	AVG
0.8860	40.19	11.51	51.70	56.00	-4.30	QP
0.8860	20.61	11.51	32.12	46.00	-13.88	AVG
2.2980	28.10	9.83	37.93	56.00	-18.07	QP
2.2980	15.81	9.83	25.64	46.00	-20.36	AVG
6.3180	23.79	10.29	34.08	60.00	-25.92	QP
6.3180	12.38	10.29	22.67	50.00	-27.33	AVG

Remark:

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









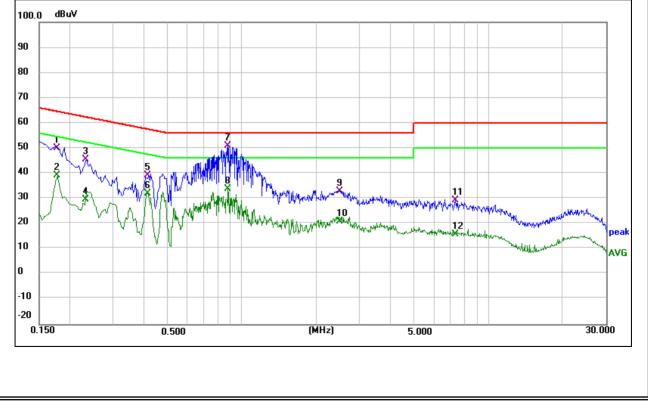
EUT:	Smart Phone	Model Name :	WP100 TITAN
Temperature:	<b>22</b> ℃	Relative Humidity:	57%
Pressure:	1010hPa	Phase :	N
Test vollage ·	DC 5V from Adapter AC 120V/60Hz	Test Mode:	Mode 1

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Domorila
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	Remark
0.1768	40.64	9.48	50.12	64.63	-14.51	QP
0.1768	29.70	9.48	39.18	54.63	-15.45	AVG
0.2316	36.11	9.57	45.68	62.39	-16.71	QP
0.2316	20.08	9.57	29.65	52.39	-22.74	AVG
0.4140	29.24	9.88	39.12	57.57	-18.45	QP
0.4140	22.16	9.88	32.04	47.57	-15.53	AVG
0.8780	40.05	10.76	50.81	56.00	-5.19	QP
0.8780	22.94	10.76	33.70	46.00	-12.30	AVG
2.4900	23.92	9.09	33.01	56.00	-22.99	QP
2.4900	11.98	9.09	21.07	46.00	-24.93	AVG
7.3460	19.62	9.65	29.27	60.00	-30.73	QP
7.3460	6.21	9.65	15.86	50.00	-34.14	AVG

Remark:

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

2. Factor = Insertion Loss + Cable Loss.







#### 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

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MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(2)
13.36-13.41			

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)

Eroguopov(MHz)	Class B (dBuV/m) (at 3M)		
Frequency(MHz)	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.

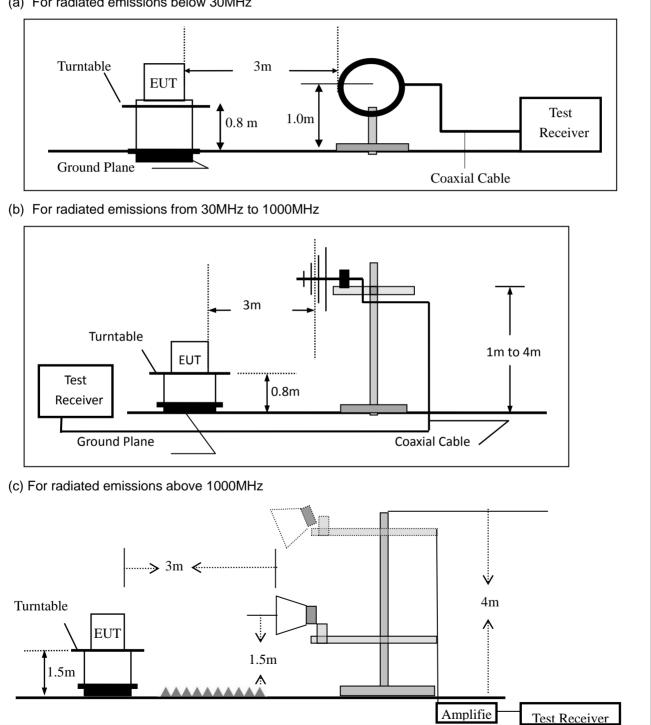
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#### 7.2.3 **Measuring Instruments**

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

#### **Test Configuration** 7.2.4

(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.

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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 test, the Spectrum Analyzer was set with the following configurations:

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Frequency Band (MHz)	Function	Resolution bandwidth	Video Bandwidth
30 to 1000	QP	120 kHz	300 kHz
Above 4000	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:	Smart Phone	Model No.:	WP100 TITAN
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Lest Mode.	Mode1/Mode2/Mode3/ Mode4	Test By:	Allen Liu

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:

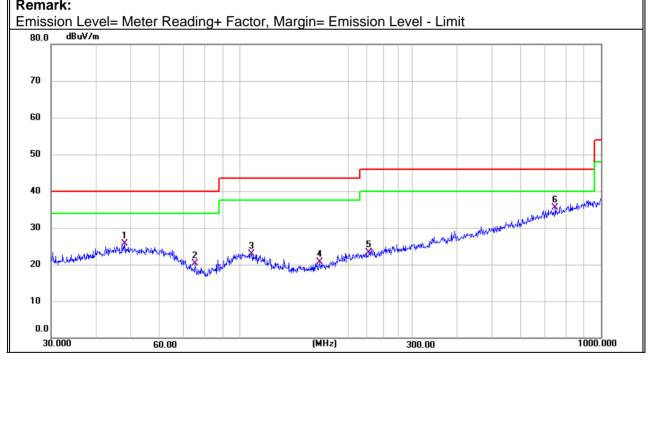
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EUT:	Smart Phone	Model Name :	WP100 TITAN
Temperature:	<b>25</b> ℃	Relative Humidity:	55%
Pressure:	1010hPa	Test Mode:	Mode 3 (1Mbps)
Test Voltage :	DC 3.87V		

Polar	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
(H/V)	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
V	47.9940	6.06	19.67	25.73	40.00	-14.27	QP
V	75.1822	5.98	14.29	20.27	40.00	-19.73	QP
V	107.8877	5.05	17.92	22.97	43.50	-20.53	QP
V	166.6514	5.34	15.34	20.68	43.50	-22.82	QP
V	227.6906	4.59	18.68	23.27	46.00	-22.73	QP
V	747.4825	6.75	28.83	35.58	46.00	-10.42	QP

Remark:







Polar	Freque	ncy		eter ding	Factor	Emission Level	Limits	Margin	Remark
(H/V)	(MHz	)	(dB	BuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Н	46.666	34	7.	03	19.66	26.69	40.00	-13.31	QP
Н	56.79 <sup>2</sup>	17	6.	24	19.26	25.50	40.00	-14.50	QP
Н	104.53	60	5.	70	18.15	23.85	43.50	-19.65	QP
Н	149.48			00	14.60	20.60	43.50	-22.90	QP
Н	275.15	70	5.	94	19.89	25.83	46.00	-20.17	QP
Н	709.18	20	7.	98	28.61	36.59	46.00	-9.41	QP
	∩ Level= Iv dBuV/m		readin	g+ ⊦ac	tor, wargin	n= Emission I	Level - Limit		
70									
60									
50									
40								6	Handrenser
30	white the second day	2		-	ļ		5 water and have been and	And Margaret Margaret	
20	white where the second	- uni i vunipili	When when	Here Hand Hand Hand Hand	Wathington and the contract the	hipiter and the contraction of the second	5. Walter March Contraction		
10									
0.0 30.00			00			(MHz)			1000.000

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1	Emis		ve 1GHz (10		,					
EUT:		Smart Ph	none		Model No.:		WP100 T	ITAN		
Temperature	:	<b>20</b> ℃			Relative Hun	nidity:	48%			
Fest Mode:	ode: Mode2/Mode3/Mode4 Test By:					Allen Liu				
Frequency	Read Leve		e Antenna Factor	Pream Facto		Limits	Margin	Remark	Comment	
(MHz)	(dBµ∖	/) (dB)	dB/m	(dB)	(dBµV/m)	(dBµV/m)	) (dB)			
Low Channel (2402 MHz)(GFSK)Above 1G										
4804.338	62.58	8 5.21	35.59	44.3	59.08	74.00	-14.92	Pk	Vertical	
4804.338	42.3	0 5.21	35.59	44.3	38.80	54.00	-15.20	AV	Vertical	
7206.107	61.68	8 6.48	36.27	44.6	59.83	74.00	-14.17	Pk	Vertical	
7206.107	40.74	4 6.48	36.27	44.6	38.89	54.00	-15.11	AV	Vertical	
4804.169	63.8	9 5.21	35.55	44.3	60.35	74.00	-13.65	Pk	Horizontal	
4804.169	42.12	2 5.21	35.55	44.3	38.58	54.00	-15.42	AV	Horizontal	
7206.214	61.3	3 6.48	36.27	44.5	2 59.56	74.00	-14.44	Pk	Horizontal	
7206.214	41.8	3 6.48	36.27	44.5	2 40.06	54.00	-13.94	AV	Horizontal	
Mid Channel (2440 MHz)(GFSK)Above 1G										
4880.473	63.79	9 5.21	35.66	44.2	60.46	74.00	-13.54	Pk	Vertical	
4880.473	43.5	0 5.21	35.66	44.2	40.17	54.00	-13.83	AV	Vertical	
7320.265	64.5	7.10	36.50	44.4	63.67	74.00	-10.33	Pk	Vertical	
7320.265	41.8	9 7.10	36.50	44.4	3 41.06	54.00	-12.94	AV	Vertical	
4880.366	61.8	8 5.21	35.66	44.2	58.55	74.00	-15.45	Pk	Horizontal	
4880.366	41.69	9 5.21	35.66	44.2	38.36	54.00	-15.64	AV	Horizontal	
7320.234	61.10	6 7.10	36.50	44.4	60.33	74.00	-13.67	Pk	Horizontal	
7320.234	45.23	3 7.10	36.50	44.43	3 44.40	54.00	-9.60	AV	Horizontal	
			High	Channel	(2480 MHz)(GF	SK) Abov	e 1G			
4960.482	63.68	8 5.21	35.52	44.2	1 60.20	74.00	-13.80	Pk	Vertical	
4960.482	42.68	8 5.21	35.52	44.2	1 39.20	54.00	-14.80	AV	Vertical	
7440.131	65.29	9 7.10	36.53	44.6	64.32	74.00	-9.68	Pk	Vertical	
7440.131	49.19	9 7.10	36.53	44.6	) 48.22	54.00	-5.78	AV	Vertical	
4960.326	63.43	3 5.21	35.52	44.2	1 59.95	74.00	-14.05	Pk	Horizontal	
4960.326	44.0	0 5.21	35.52	44.2	1 40.52	54.00	-13.48	AV	Horizontal	
7440.199	64.10	6 7.10	36.53	44.6	0 63.19	74.00	-10.81	Pk	Horizontal	
7440.199	45.8	3 7.10	36.53	44.6	0 44.86	54.00	-9.14	AV	Horizontal	

Note:

(1) Emission Level= Antenna Factor + Cable Loss + Read Level - Preamp Factor

(2)All other emissions more than 20dB below the limit.

(3)Only the worst data is recorded in the report, the data rates (1Mbps for GFSK modulation) test result is the worst



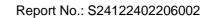


_	Spurious E			ed Band 2			2483.	1			
EU	T:	Smart P	hone		Mode	Model No.:		WP <sup>.</sup>	100 TITA	N	
Те	mperature:	<b>20</b> °C			Relati	Relative Humidity:			48%		
Te	est Mode: Mode2/ Mode4					Зу:		Alle	n Liu		
	Frequency	Meter Reading	Cable Loss	Antenna Factor	Preamp Factor	Emission Level	Lim	its	Margin	Detector	Comment
	(MHz)	(dBµV)	(dB)	dB/m	(dB)	(dBµV/m)	(dBµ\	//m)	(dB)	Туре	
1Mbps(GFSK)											
	2310.00	72.44	2.97	27.80	43.80	59.41	74	1	-14.59	Pk	Horizontal
	2310.00	53.57	2.97	27.80	43.80	40.54	54	1	-13.46	AV	Horizontal
	2310.00	72.15	2.97	27.80	43.80	59.12	74	1	-14.88	Pk	Vertical
	2310.00	51.82	2.97	27.80	43.80	38.79	54	1	-15.21	AV	Vertical
	2390.00	73.48	3.14	27.21	43.80	60.03	74	1	-13.97	Pk	Vertical
	2390.00	53.66	3.14	27.21	43.80	40.21	54	1	-13.79	AV	Vertical
	2390.00	73.44	3.14	27.21	43.80	59.99	74	1	-14.01	Pk	Horizontal
	2390.00	53.34	3.14	27.21	43.80	39.89	54	1	-14.11	AV	Horizontal
	2483.50	71.97	3.58	27.70	44.00	59.25	74	1	-14.75	Pk	Vertical
	2483.50	53.77	3.58	27.70	44.00	41.05	54	1	-12.95	AV	Vertical
	2483.50	75.71	3.58	27.70	44.00	62.99	74	1	-11.01	Pk	Horizontal
	2483.50	53.25	3.58	27.70	44.00	40.53	54	1	-13.47	AV	Horizontal

#### 1 0 1 0 0 E 0 5 0 0 M H

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

(2)Only the worst data is recorded in the report, the data rates (1Mbps for GFSK modulation) test result is the worst



			n Restrict Phone	eu Band 3	Model	8000MHz			DO TITAN		
EUT:			FIIUIIE					-	JUTTIAN		
Temperature	e:	<b>20</b> ℃			Relativ	e Humidity		48%			
Test Mode:	Test Mode: Mode2/ Mode4 Te			Test By	/:		Allen	Liu			
	-										1
Frequency		iding vel	Cable Loss	Antenna Factor	Preamp Factor	Emission Level	Li	mits	Margin	Detector	Comment
(MHz)	(dB	βµV)	(dB)	dB/m	(dB)	(dBµV/m)	(dB	µV/m)	(dB)	Туре	
3260	63	.62	4.04	29.57	44.70	52.53	-	74	-21.47	Pk	Vertical
3260	57	.02	4.04	29.57	44.70	45.93	ļ	54	-8.07	AV	Vertical
3260	65	.31	4.04	29.57	44.70	54.22	-	74	-19.78	Pk	Horizontal
3260	58	.07	4.04	29.57	44.70	46.98	ļ	54	-7.02	AV	Horizontal
3332	65	.37	4.26	29.87	44.40	55.10	-	74	-18.90	Pk	Vertical
3332	58	.33	4.26	29.87	44.40	48.06	ļ	54	-5.94	AV	Vertical
3332	65	.31	4.26	29.87	44.40	55.04	-	74	-18.96	Pk	Horizontal
3332	52	.36	4.26	29.87	44.40	42.09	ļ	54	-11.91	AV	Horizontal
17797	45	.14	10.99	43.95	43.50	56.58	-	74	-17.42	Pk	Vertical
17797	35	.19	10.99	43.95	43.50	46.63	ļ	54	-7.37	AV	Vertical
17788	45	.59	11.81	43.69	44.60	56.49	-	74	-17.51	Pk	Horizontal
17788	35	.88	11.81	43.69	44.60	46.78	Į	54	-7.22	AV	Horizontal

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

(2)Only the worst data is recorded in the report, the data rates (1Mbps for GFSK modulation) test result is the worst



#### 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.

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#### 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:	Smart Phone	Model No.:	WP100 TITAN
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Test Mode:	Mode2/Mode3/Mode4	Test By:	Allen Liu





#### 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.)

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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:	Smart Phone	Model No.:	WP100 TITAN
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Test Mode:	Mode2/Mode3/Mode4	Test By:	Allen Liu



#### 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.

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#### 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: Smart Phone		Model No.:	WP100 TITAN
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Test Mode:	Mode2/Mode3/Mode4	Test By:	Allen Liu



#### 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: Smart Phone		Model No.:	WP100 TITAN
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Test Mode:	Mode2/Mode3/Mode4	Test By:	Allen Liu



#### 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:	JT: Smart Phone		WP100 TITAN
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Test Mode:	Mode2/Mode4	Test By:	Allen Liu





#### 7.8 SPURIOUS RF CONDUCTED EMISSIONS

#### 7.8.1 Conformance Limit

1. Below -20dB of the highest emission level in operating band.

2. Fall in the restricted bands listed in section 15.205. The maximum permitted average field strength is listed in section 15.209.

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#### 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 LDS Antenna (Gain: 1.34 dBi). It comply with the standard requirement.





# 8 TEST RESULTS

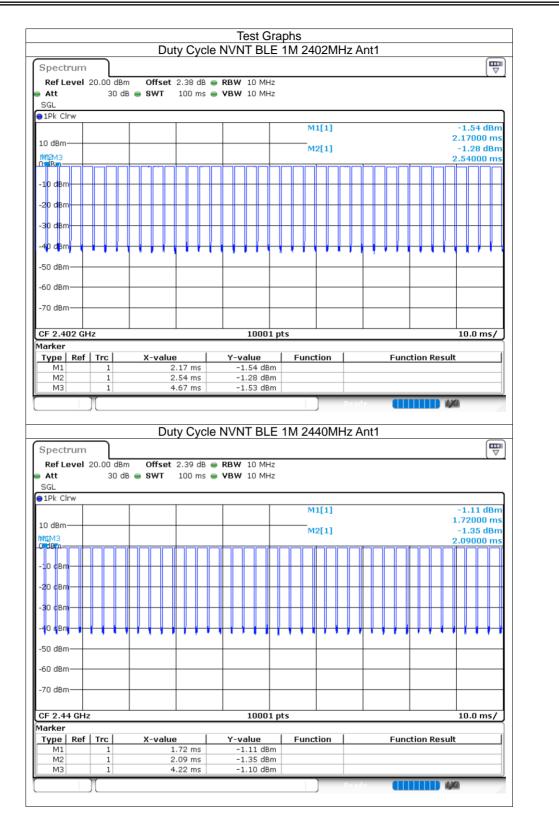
#### 8.1**1M**

### 8.1.1 Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	BLE 1M	2402	Ant1	85.59	0.68	0.47
NVNT	BLE 1M	2440	Ant1	85.6	0.68	0.47
NVNT	BLE 1M	2480	Ant1	85.6	0.68	0.47

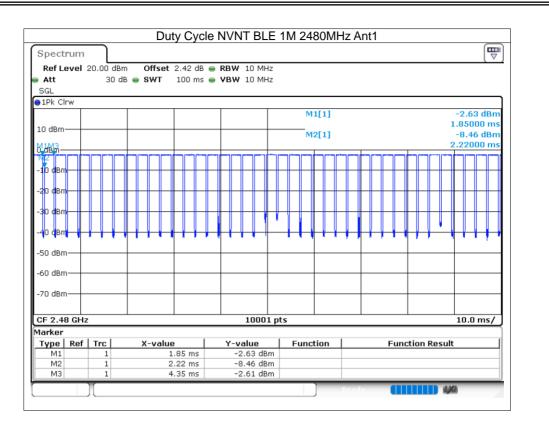


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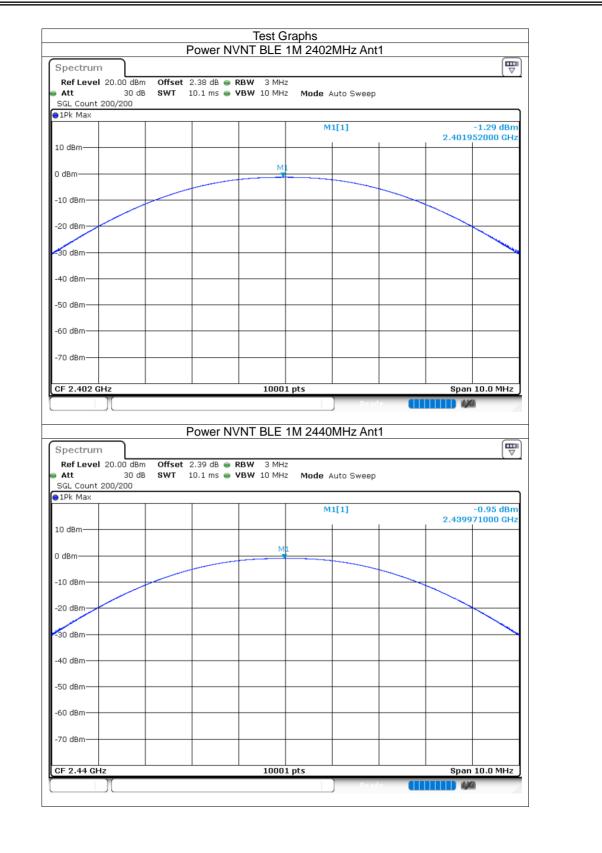


### 8.1.2 Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	-1.29	30	Pass
NVNT	BLE 1M	2440	Ant1	-0.95	30	Pass
NVNT	BLE 1M	2480	Ant1	-2.35	30	Pass

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	Power	NVNT BLE 1M 248	30MHz Ant1	
Spectrum				
Ref Level 20.00		-		,
		VBW 10 MHz Mode	: Auto Sweep	
SGL Count 200/20 1Pk Max	0			
TEN MON			M1[1]	-2.35 dBm
				2.479907000 GHz
10 dBm				
0 dBm		M1		
-10 dBm				
-20 dBm				
-30 dBm				
-40 dBm				
-50 dBm				
-60 dBm				
-60 UBM				
-70 dBm				
-/ 0 UDIII				
CF 2.48 GHz		10001 pts		Span 10.0 MHz
			Ready	

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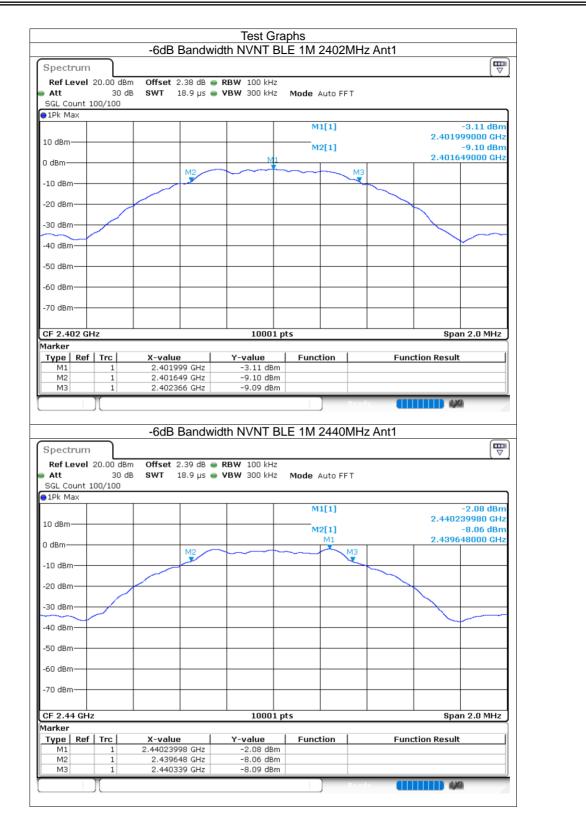




### 8.1.3 -6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	BLE 1M	2402	Ant1	0.717	0.5	Pass
NVNT	BLE 1M	2440	Ant1	0.691	0.5	Pass
NVNT	BLE 1M	2480	Ant1	0.658	0.5	Pass





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Spect	rum								
Ref L	evel :	20.00 d	Bm Offset	2.42 dB 🔵	RBW 100 kHz				
Att		30	dB SWT	18.9 µs 👄	<b>VBW</b> 300 kHz	Mode Auto FFT			
SGL Co	unt 1	00/100							
1Pk M	ах								
						M1[1]			-2.81 dBn
LO dBm								2.480	244580 GH
LO UBIII						M2[1]			-8.80 dBn
) dBm—						M1		2.479	662000 GH
ubm				M2		Мз			
10 dBm				-		~ ~			
to abii	·			-					
20 dBm				_					
	.								
30 dBm	<u> </u>	_/							
~~~									
40 dBm								$\rightarrow$	
50 dBm	∩								
60 dBrr	η <u> </u>								
70 dBrr	ι <del>  </del>							+	
CF 2.4	B GHz		1	1	10001 pt	ts	1	Spa	an 2.0 MHz
larker									
Туре	Ref	Trc	X-val	ue	Y-value	Function	Fun	nction Resul	t
M1		1	2.48024	458 GHz	-2.81 dBm				
M2		1	2.479	9662 GHz	-8.80 dBm				
MЗ		1	2.48	3032 GHz	-8.82 dBm				

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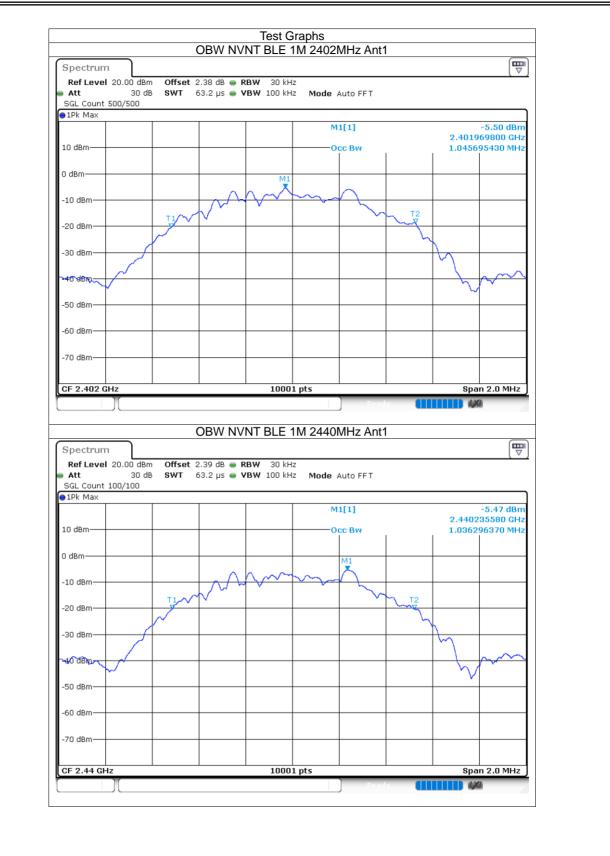




# 8.1.4 Occupied Channel Bandwidth

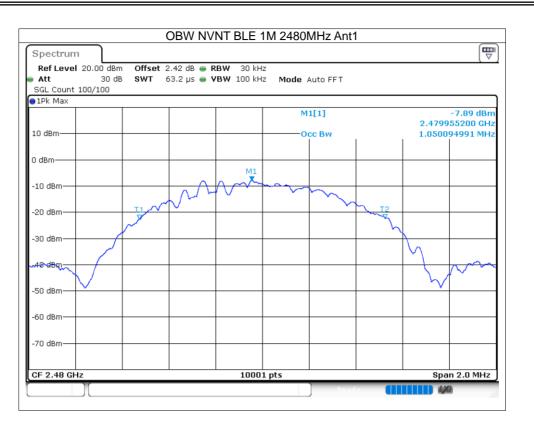
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	BLE 1M	2402	Ant1	1.046
NVNT	BLE 1M	2440	Ant1	1.036
NVNT	BLE 1M	2480	Ant1	1.05





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# 8.1.5 Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	-18.39	8	Pass
NVNT	BLE 1M	2440	Ant1	-18	8	Pass
NVNT	BLE 1M	2480	Ant1	-19.48	8	Pass

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		PSD NV	Test Gr NT BLE 11	M 2402MHz	Ant1		
Spectrum							
Ref Level 20.00 Att	30 dB <b>SWT</b>		RBW 3 kHz VBW 10 kHz	Mode Auto F	FT		<u>(``)</u>
SGL Count 1000/1 1Pk Max	.000						
IFK Max				M1[1]			-18.39 dBm
10 dBm						2.4	0182705 GHz
) dBm							
-10 dBm		M1					
20 dBm	mpmmmmm	www.	๛๚๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛	๛๛๚๚๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛	www.upp	month and a	
30, 98m m						~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	When we the way
40 dBm							
-50 dBm							
-60 dBm							
-70 dBm							
CF 2.402 GHz			1001	pts		Span	1.0755 MHz
		PSD NV	NT BLE 1	M 2440MHz	Ready Ant1		
Spectrum Ref Level 20.00	dBm Offset	2.39 dB • 1		M 2440MHz	Ready Ant1		
Ref Level 20.00 Att	30 dB <b>SWT</b>	2.39 dB 👄 F	RBW 3 kHz	M 2440MHz Mode Auto Fi			
Ref Level 20.00 Att 3 SGL Count 1000/1	30 dB <b>SWT</b>	2.39 dB 👄 F	RBW 3 kHz				
Ref Level 20.00 Att 3 SGL Count 1000/1 1Pk Max	30 dB <b>SWT</b>	2.39 dB 👄 F	RBW 3 kHz	Mode Auto Fi			
	30 dB <b>SWT</b>	2.39 dB 👄 F	RBW 3 kHz	Mode Auto Fi			-18.00 dBm
Ref Level 20.00 Att 33 SGL Count 1000/1 11Pk Max 10 dBm	80 dB SWT	2.39 dB • F 632 µs • V	RBW 3 kHz	Mode Auto Fi		2.4	-18.00 dBm 3982605 GHz
Ref Level 20.00           Att           SGL Count 1000/1           11Pk Max           IO dBm           10 dBm	80 dB SWT	2.39 dB • F 632 µs • V	RBW 3 kHz VBW 10 kHz	Mode Auto Fi		2.4	-18.00 dBm 3982605 GHz
Ref Level         20.00           Att         33           SGL Count         1000/1           NIPK Max         10           0 dBm         10           10 dBm         10           20 dBm         20           30 dBm         30	80 dB SWT	2.39 dB • F 632 µs • V	RBW 3 kHz VBW 10 kHz	Mode Auto Fi			-18.00 dBm 3982605 GHz
Ref Level         20.00           Att         33           SGL Count         1000/1           NIPK Max         10           0 dBm         10           10 dBm         10           20 dBm         10           40 dBm         40 dBm	80 dB SWT	2.39 dB • F 632 µs • V	RBW 3 kHz VBW 10 kHz	Mode Auto Fi		2.4	-18.00 dBm 3982605 GHz
Ref Level         20.00           Att         33           SGL Count         1000/1           11PK Max         10           10 dBm         10           20 dBm         10           20 dBm         10           50 dBm         10	80 dB SWT	2.39 dB • F 632 µs • V	RBW 3 kHz VBW 10 kHz	Mode Auto Fi		2.4	-18.00 dBm 3982605 GHz
Ref Level         20.00           Att         33           SGL Count         1000/1           PIPK Max         10           0 dBm         10           10 dBm         10           20 dBm         10           30 dBm         10           30 dBm         10           10 dBm         10           10 dBm         10           20 dBm         10           30 dBm         10           60 dBm         60 dBm	80 dB SWT	2.39 dB • F 632 µs • V	RBW 3 kHz VBW 10 kHz	Mode Auto Fi		2.4	-18.00 dBm 3982605 GHz
Ref Level 20.00 Att 3 <u>SGL Count 1000/1</u> 91Pk Max 10 dBm-0 0 dBm-0	80 dB SWT	2.39 dB • F 632 µs • V	RBW 3 kHz VBW 10 kHz	Mode Auto Fi		2.4	-18.00 dBm 3982605 GHz



# Certificate #4298.01 Rep

Spectrum	-	1M 2480MHz Ant1		
Ref Level         20.00 dBm         Offset           Att         30 dB         SWT           SGL Count         1000/1000	2.42 dB <b>● RBW</b> 3 k 632.1 µs <b>● VBW</b> 10 k			(v
)1Pk Max		M1[1]		-19.48 dBm
		(inter)	2.479	9826460 GHz
10 dBm				
D dBm				
-10 dBm				_
	M1			
-20 dBm 30 dBm///www.MM////m//m//	With many mark	and the second and the second se	Muphiman	
39-dBetty WWWWW			" rongular	Madewow
-40 dBm				
50 dBm				
-60 dBm				
-70 dBm				
CF 2.48 GHz	100	11 pts	Sna	n 987.0 kHz





# 8.1.6 Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-58.34	-20	Pass
NVNT	BLE 1M	2480	Ant1	-57.98	-20	Pass

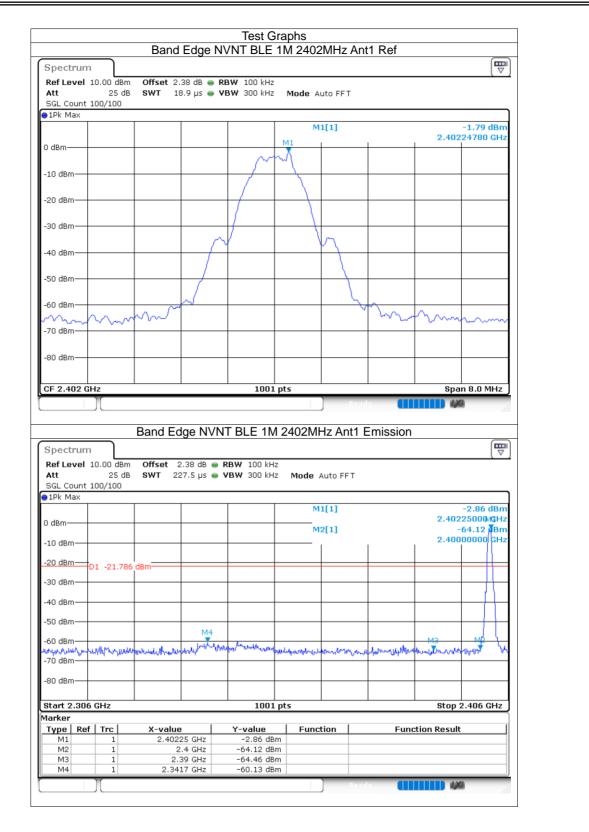


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### Report No.: S24122402206002





Att	25 dB			BW 100 kHz BW 300 kHz		uto FFT			
SGL Count 1Pk Max	100/100								
					м	1[1]			-4.20 dBm
0 dBm								2.479	99200 GHz
o abiii				m	1 4				
-10 dBm—					<u> </u>				
-20 dBm—					$\rightarrow$				
-30 dBm					$\rightarrow$				
-40 dBm				v					
~30^BM^_	m	h	$\sim$						
-60 dBm						کر	m	inn.	h. m
-70 dBm							V	** 4* V	
-80 dBm									
CF 2.48 Gł				1001	ntc				n 8.0 MHz
	16			1001	pts			əpe	11 0.0 Mill2
		Band Ed	lge NVN	T BLE 1M	1 2480MI	) Read Hz Ant1 E	Emission		
Spectrun Ref Level Att	n 10.00 dBm 25 dB	Offset 2	2.42 dB 👄 I	T BLE 1M	z		Emission		
Spectrun Ref Level	n 10.00 dBm 25 dB	Offset 2	2.42 dB 👄 I	<b>RBW</b> 100 kHz	z z <b>Mode</b> /	Auto FFT	Emission		
Spectrun Ref Level Att SGL Count JPk Max	n 10.00 dBm 25 dB	Offset 2	2.42 dB 👄 I	<b>RBW</b> 100 kHz	z z <b>Mode</b> /		Emission	2.479	-4.37 dBm 95000 GHz
Spectrun Ref Level Att SGL Count	n 10.00 dBm 25 dB	Offset 2	2.42 dB 👄 I	<b>RBW</b> 100 kHz	z Mode / Mode /	Auto FFT	Emission	-	. ⊽ -4.37 dBm
Spectrun Ref Level Att SGL Count JPk Max 0 d5m -10 d8m -20 d8m	n 10.00 dBm 25 dB 100/100	Offset 2 SWT 22	2.42 dB 👄 I	<b>RBW</b> 100 kHz	z Mode / Mode /	Auto FFT	Emission	-	-4.37 dBm 095000 GHz -64.48 dBm
Spectrun Ref Level Att SGL Count 1Pk Max 0 d5m -10 d8m -20 d8m	n 10.00 dBm 25 dB	Offset 2 SWT 22	2.42 dB 👄 I	<b>RBW</b> 100 kHz	z Mode / Mode /	Auto FFT	Emission	-	-4.37 dBm 095000 GHz -64.48 dBm
Spectrun Ref Level Att SGL Count 1Pk Max 0 dSm -10 dBm -20 cBm -30 cBm	n 10.00 dBm 25 dB 100/100	Offset 2 SWT 22	2.42 dB 👄 I	<b>RBW</b> 100 kHz	z Mode / Mode /	Auto FFT	Emission	-	-4.37 dBm 095000 GHz -64.48 dBm
Spectrun Ref Level Att SGL Count IPk Max 0 dSm -10 dBm -20 dBm -30 dBm -40 dBm	n 10.00 dBm 25 dB 100/100	Offset 2 SWT 22	2.42 dB 👄 I	<b>RBW</b> 100 kHz	z Mode / Mode /	Auto FFT	Emission	-	-4.37 dBm 095000 GHz -64.48 dBm
Spectrun Ref Level Att SGL Count IPk Max 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -40 dBm	n 10.00 dBm 25 dB 100/100	Offset 2 SWT 22	2.42 dB 👄 I	<b>RBW</b> 100 kHz	z Mode / Mode /	Auto FFT	Emission	-	-4.37 dBm 095000 GHz -64.48 dBm
Spectrun Ref Level Att SGL Count IPk Max 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -40 dBm	n 10.00 dBm 25 dB 100/100	Offset 2 SWT 22	2.42 dB ● I 27.5 µs ● \	RBW 100 kHz VBW 300 kHz	z Mode / M M	Auto FFT  1[1]  2[1]		2.483	-4.37 dBm 095000 GHz -64.48 dBm 550000 GHz
Spectrun Ref Level Att SGL Count IPk Max 0 dSm -10 dBm -20 dBm -30 dBm -40 dBm	n 10.00 dBm 25 dB 100/100	Offset 2 SWT 22	2.42 dB 👄 I	RBW 100 kHz VBW 300 kHz	z Mode / M M	Auto FFT		2.483	-4.37 dBm 095000 GHz -64.48 dBm 550000 GHz
Spectrun Ref Level Att SGL Count IPk Max 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -40 dBm -60 dBm	n 10.00 dBm 25 dB 100/100	Offset 2 SWT 22	2.42 dB ● I 27.5 µs ● \	RBW 100 kHz VBW 300 kHz	z Mode / M M	Auto FFT  1[1]  2[1]		2.483	-4.37 dBm 095000 GHz -64.48 dBm 550000 GHz
Spectrun Ref Level Att SGL Count IPk Max 0 d5m -10 d8m -20 c8m -20 c8m -40 d8m -40 d8m -40 d8m -40 d8m -70 d8m -70 d8m -70 d8m -80 d8m -80 d8m	D1 -24.196	Offset 2 SWT 22	2.42 dB ● I 27.5 µs ● \	RBW 100 kHz VBW 300 kHz	2 Mode / 	Auto FFT  1[1]  2[1]		2.483	-4.37 dBm 095000 GHz -64.48 dBm 550000 GHz
Spectrun Ref Level Att SGL Count 1Pk Max 0 dSm -10 dBm -20 dBm -20 dBm -30 dBm -60 dBm -70 dBm -70 dBm -80 dBm -80 dBm	n 10.00 dBm 25 dB 100/100 -D1 -24.196 -D1 -24.196 	Offset 2 SWT 22 dBm dBm	2.42 dB • 1 27.5 μs • 1	RBW 100 kHz	2 Mode / M M M	Auto FFT  1[1] 2[1]		2.483	
Spectrun Ref Level Att SGL Count 1Pk Max 0 d5m -20 d8m -20 d8m -30 d8m -40 d8m -40 d8m -40 d8m -70 d8m -70 d8m -70 d8m -80 d8m -70	n 10.00 dBm 25 dB 100/100 01 -24.196 01 -24.196 6 GHz 6 GHz 1	Offset 2 SWT 22 dBm- dBm- max- max- max- max- max- z.4799	2.42 dB 27.5 μs	RBW 100 kH2 VBW 300 kH2	2 2 Mode / M 	Auto FFT  1[1] 2[1]		2.483	
Spectrun Ref Level Att SGL Count IPk Max 0 d5m -10 d8m -20 d8m -20 d8m -40 d8m -40 d8m -40 d8m -40 d8m -70 d8m -70 d8m -70 d8m -70 d8m -80 d8m -70 d8m -80 d8m -70 d8m -80 d8m -70	n 10.00 dBm 25 dB 100/100 D1 -24.196 6 GHz 6 GHz f Trc 1 1	Offset 2 SWT 22 dBm dBm M3 wthtphuth straight straight st	2.42 dB 27.5 μs	RBW 100 kH2 VBW 300 kH2	2 2 Mode / من من م	Auto FFT  1[1] 2[1]		2.483	
Spectrun Ref Level Att SGL Count 1Pk Max 0 d5m -20 d8m -20 d8m -30 d8m -40 d8m -40 d8m -40 d8m -70 d8m -70 d8m -70 d8m -80 d8m -70	n 10.00 dBm 25 dB 100/100 01 -24.196 01 -24.196 6 GHz 6 GHz 1	Offset 2 SWT 22 dBm dBm MB MB MB MB MB MB MB MB MB	2.42 dB 27.5 μs	RBW 100 kH2 VBW 300 kH2	2 2 Mode / M 	Auto FFT  1[1] 2[1]		2.483	

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### 8.1.7 Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-47.81	-20	Pass
NVNT	BLE 1M	2440	Ant1	-46.76	-20	Pass
NVNT	BLE 1M	2480	Ant1	-45.54	-20	Pass





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Spectrum Ref Level Att	10.00 dBm 30 dB		9 dB 👄 RBW 9 µs 👄 VBW		Mode Auto FF1			
SGL Count 1			, =					
1Pk Max					M1[1]			1.04 dBm
					M1[1]		2.4402	-1.34 dBm 450920 GHz
) dBm					~ /			
10 dBm								
IO UBIII								
20 dBm	~							
30 dBm								
40 dBm								
50 dBm							+	<b> </b>
60 dBm								
70 dBm								
80 dBm								
CF 2.44 GHz				30001 pt	5		Spa	an 1.5 MHz
Spectrum Ref Level	T	Offset 2.3	ədb 🖷 RBW	100 kHz	440MHz An	eady	n	
Spectrum	10.00 dBm 30 dB	Offset 2.3		100 kHz	P R		n	
Spectrum Ref Level Att	10.00 dBm 30 dB	Offset 2.3	ədb 🖷 RBW	100 kHz	440MHz An Mode Auto Swi		n	
Spectrum Ref Level Att SGL Count 1	10.00 dBm 30 dB	Offset 2.3	ədb 🖷 RBW	100 kHz	440MHz An Mode Auto Swa		2.	(∇) -1.93 dBm #40010 GHz
Spectrum Ref Level Att SGL Count 1 (1Pk Max ) dBm	10.00 dBm 30 dB	Offset 2.3	ədb 🖷 RBW	100 kHz	440MHz An Mode Auto Swi		2.4	-1.93 dBm 440010 GHz -48.10 dBm
Spectrum Ref Level Att SGL Count 1 11Pk Max 11Pk Max 10 dBm	T 10.00 dBm 30 dB 00/100	Offset 2.3 SWT 265	ədb 🖷 RBW	100 kHz	440MHz An Mode Auto Swa		2.4	(∇) -1.93 dBm #40010 GHz
Spectrum Ref Level Att SGL Count 1 (1Pk Max ) dBm 10 dBm 20 dBm	T 10.00 dBm 30 dB 00/100	Offset 2.3 SWT 265	ədb 🖷 RBW	100 kHz	440MHz An Mode Auto Swa		2.4	-1.93 dBm 440010 GHz -48.10 dBm
Spectrum Ref Level Att SGL Count 1 11Pk Max 11Pk Max 10 dBm	T 10.00 dBm 30 dB 00/100	Offset 2.3 SWT 265	ədb 🖷 RBW	100 kHz	440MHz An Mode Auto Swa		2.4	-1.93 dBm 440010 GHz -48.10 dBm
Spectrum Ref Level Att SGL Count 1 (1Pk Max ) dBm 10 dBm 20 dBm	T 10.00 dBm 30 dB 00/100	Offset 2.3 SWT 265	ədb 🖷 RBW	100 kHz	440MHz An Mode Auto Swa		2.4	-1.93 dBm 440010 GHz -48.10 dBm
Spectrum Ref Level Att SGL Count 1 1Pk Max 0 dBm 10 dBm 20 dBm 30 dBm	10.00 dBm 30 dB 00/100	Offset 2.3 SWT 265	9 dB • RBW 5 ms • VBW	100 kHz 300 kHz	440MHz An Mode Auto Swi M1[1] 	эер 	2.	-1.93 dBm 440010 GHz -48.10 dBm 188121 GHz
Spectrum Ref Level Att SGL Count 1 11Pk Max 0 dBm 10 dBm 20 dBm 30 dBm 40 dBm	10.00 dBm 30 dB 00/100	Offset 2.3 SWT 265	9 dB • RBW 5 ms • VBW	100 kHz 300 kHz	440MHz An Mode Auto Swa	эер 	2.	-1.93 dBm 440010 GHz -48.10 dBm 188121 GHz
Spectrum Ref Level Att SGL Count 1 11Pk Max 10 dBm 10 dBm 20 dBm 30 dBm 40 dBm 50 dBm 50 dBm	10.00 dBm 30 dB 00/100 1 -21.339 d M2	Offset 2.3 SWT 265	9 dB • RBW 5 ms • VBW	100 kHz 300 kHz	440MHz An Mode Auto Swi M1[1] 	эер 	2.	-1.93 dBm 440010 GHz -48.10 dBm 188121 GHz
Spectrum Ref Level Att SGL Count 1 1Pk Max 10 dBm 20 dBm 40 dBm 50 dBm 70 dBm	10.00 dBm 30 dB 00/100 1 -21.339 d M2	Offset 2.3 SWT 265	9 dB • RBW 5 ms • VBW	100 kHz 300 kHz	440MHz An Mode Auto Swi M1[1] 	эер 	2.	-1.93 dBm 440010 GHz -48.10 dBm 188121 GHz
Spectrum Ref Level Att SGL Count 1 11Pk Max 10 dBm 10 dBm 20 dBm 30 dBm 40 dBm 50 dBm 50 dBm	10.00 dBm 30 dB 00/100 1 -21.339 d M2	Offset 2.3 SWT 265	9 dB • RBW 5 ms • VBW	100 kHz 300 kHz	440MHz An Mode Auto Swi M1[1] 	эер 	2.	-1.93 dBm 440010 GHz -48.10 dBm 188121 GHz
Spectrum Ref Level Att SGL Count 1 IPR Max I D dBm I D	1 -21.339 c	Offset 2.3 SWT 265	9 dB • RBW 5 ms • VBW	100 kHz 300 kHz	440MHz An	эер 	2 5	-1.93 dBm 440010 GHz -48.10 dBm 188121 GHz
Spectrum Ref Level Att SGL Count 1 11Pk Max 10 dBm 20 dBm 20 dBm 40 dBm 50 dBm 70 dBm 80 dBm	10.00 dBm 30 dB 00/100	Offset 2.3 SWT 265	B dB  RBW ms VBW	100 kHz 300 kHz	440MHz An		2 5	▼ -1.93 dBm 440010 GHz -48.10 dBm 188121 GHz 188121 GHz 9 26.5 GHz
Spectrum Ref Level Att SGL Count 1 IPk Max ID dBm I	1 -21.339 c M2 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2	Offset 2.3' SWT 263	9 dB • RBW 5 ms • VBW	100 kHz 300 kHz	440MHz An Mode Auto Swa M1[1] M2[1]		2 5	▼ -1.93 dBm 440010 GHz -48.10 dBm 188121 GHz 188121 GHz 9 26.5 GHz
Spectrum Ref Level Att SGL Count 1 PPk Max OdBm 10 dBm 20 dBm 20 dBm 30 dBm 40 dBm 50	10.00 dBm 30 dB 00/100 1 -21.339 d M2 M3 M3 M3 M3 M3 M3 M3 M3 M3 M3 M3 M3 M3	Offset 2.3 SWT 265	9 dB ● RBW 5 ms ● VBW	100 kHz 300 kHz 	440MHz An Mode Auto Swa M1[1] M2[1]		2 5	▼ -1.93 dBm 440010 GHz -48.10 dBm 188121 GHz 188121 GHz 9 26.5 GHz
Spectrum           Ref Level           Att           SGL Count 1           SQL Count 1	10.00 dBm 30 dB 00/100 1 -21.339 d M3 M3 M3 M3 M3 M3 M3 M3 M3 M3 M3 M3 M3	Offset 2.3' SWT 265	9 dB • RBW 6 ms • VBW	100 kHz 300 kHz	440MHz An Mode Auto Swa M1[1] M2[1]		2 5	▼ -1.93 dBm 440010 GHz -48.10 dBm 188121 GHz 188121 GHz 9 26.5 GHz
Spectrum Ref Level Att SGL Count 1 PPk Max OdBm 10 dBm 20 dBm 20 dBm 30 dBm 40 dBm 50	10.00 dBm 30 dB 00/100 1 -21.339 d M2 M3 M3 M3 M3 M3 M3 M3 M3 M3 M3 M3 M3 M3	Offset 2.3 SWT 265	9 dB • RBW 6 ms • VBW	100 kHz 300 kHz 	440MHz An Mode Auto Swa M1[1] M2[1]	eep	2 5	▼

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Spectrum		011					
Ref Level Att SGL Count 1	30 dB		2 dB 🖷 <b>RBW</b> 100 kHz 9 µs 🖶 <b>VBW</b> 300 kHz		Т		
●1Pk Max	_ >, _ >0						
				M1[1]			-3.93 dBm 52500 GHz
0 dBm			мд			2.479990	2000 0112
-10 dBm	_						
-20 dBm							
-30 dBm							
-40 dBm							
10 dbiii							
-50 dBm							<b> </b>
60 d8m							
-60 dBm							
-70 dBm							
-80 dBm							
CF 2.48 GHz			30001	pts		Span	1.5 MHz
Spectrum Ref Level	10.00 dBm	Offset 2.42	S NVNT BLE 1M			n	
Ref Level Att SGL Count 1	10.00 dBm 30 dB	Offset 2.42				n	
Ref Level Att SGL Count 1	10.00 dBm 30 dB	Offset 2.42	2 dB 曼 <b>RBW</b> 100 kHz	Mode Auto Sw			
Ref Level Att SGL Count 1 1Pk Max	10.00 dBm 30 dB	Offset 2.42	2 dB 曼 <b>RBW</b> 100 kHz	Mode Auto Sw		2.48	.3.87 dBm 30600 GHz
Ref Level Att SGL Count 1 1Pk Max 0 dBm M1	10.00 dBm 30 dB	Offset 2.42	2 dB 曼 <b>RBW</b> 100 kHz	Mode Auto Sw		-4 -4	(∇)
Ref Level Att SGL Count 1 1Pk Max 0 dBm	10.00 dBm 30 dB 00/100	0 Offset 2.42 5 SWT 265	2 dB 曼 <b>RBW</b> 100 kHz	Mode Auto Sw		-4 -4	-3.87 dBm 30600 GHz 19.47 dBm
Ref Level Att SGL Count 1 1Pk Max 0 dBm -10 dBm -20 dBm	10.00 dBm 30 dB	0 Offset 2.42 5 SWT 265	2 dB 曼 <b>RBW</b> 100 kHz	Mode Auto Sw		-4 -4	-3.87 dBm 30600 GHz 19.47 dBm
Ref Level Att SGL Count 1 1Pk Max 0 dBm -10 dBm -20 dBm -30 dBm	10.00 dBm 30 dB 00/100	0 Offset 2.42 5 SWT 265	2 dB 曼 <b>RBW</b> 100 kHz	Mode Auto Sw		-4 -4	-3.87 dBm 30600 GHz 19.47 dBm
Att <u>SGL Count 1</u> <u>JIPk Max</u> 0 dBm <u>M1</u> -10 dBm <u>0</u> -20 dBm <u>0</u> -30 dBm <u>0</u>	10.00 dBm 30 dB 00/100 1 -23.928	0 Offset 2.42 5 SWT 265	2 dB • RBW 100 kHz ms • VBW 300 kHz	Mode Auto Sw M1[1] M2[1]                                                                                                                                                                                                                                                                                                                                           		-4 -4	-3.87 dBm 30600 GHz 19.47 dBm
Ref Level Att SGL Count 1 1Pk Max 0 dBm -10 dBm -20 dBm -30 dBm	10.00 dBm 30 dB 00/100	dBm	2 dB • RBW 100 kHz ms • VBW 300 kHz	Mode Auto Sw M1[1] M2[1]		2.48 -4 16.75	-3.87 dBm 30600 GHz 19.47 dBm
Ref Level           Att           SGL Count 1           TPk Max           0 dBm           -10 dBm           -20 dBm           -30 dBm	10.00 dBm 30 dB 00/100 1 -23.928	dBm	2 dB • RBW 100 kHz ms • VBW 300 kHz	Mode Auto Sw M1[1] M2[1]                                                                                                                                                                                                                                                                                                                                           	eep	2.48 -4 16.75	.3.87 dBm 30600 GHz 19.47 dBm 58158 GHz
Ref Level           Att           SGL Count 1           IPk Max           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm	10.00 dBm 30 dB 00/100 1 -23.928	dBm	2 dB • RBW 100 kHz ms • VBW 300 kHz	Mode Auto Sw M1[1] M2[1]                                                                                                                                                                                                                                                                                                                                           	eep	2.48 -4 16.75	.3.87 dBm 30600 GHz 19.47 dBm 58158 GHz
Ref Level           Att           SGL Count 1           TPk Max           0 dBm           -10 dBm           -20 dBm           -30 dBm	10.00 dBm 30 dB 00/100 1 -23.928	dBm	2 dB • RBW 100 kHz ms • VBW 300 kHz	Mode Auto Sw M1[1] M2[1]                                                                                                                                                                                                                                                                                                                                           	eep	2.48 -4 16.75	.3.87 dBm 30600 GHz 19.47 dBm 58158 GHz
Ref Level           Att           SGL Count 1           1Pk Max           0 dBm           -10 dBm           -20 dBm           -30 dBm           -50 dBm           -50 dBm           -70 dBm           -80 dBm	10.00 dBm 30 dB 00/100 1 -23.928	dBm	2 dB • RBW 100 kHz ms • VBW 300 kHz	Mode Auto Sw M1[1] M2[1] M2 M2 M2	eep	2.44  16.75	-3.87 dBm 30600 GHz 19.47 dBm 8158 GHz
Ref Level           Att           SGL Count 1           IPk Max           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm           -50 dBm           -80 dBm           -80 dBm           -80 dBm	10.00 dBm 30 dB 00/100 1 -23.928	dBm	2 dB • RBW 100 kHz ms • VBW 300 kHz	Mode Auto Sw M1[1] M2[1] M2 M2 M2	eep	2.44  16.75	.3.87 dBm 30600 GHz 19.47 dBm 58158 GHz
Ref Level           Att           SGL Count 1           IPk Max           0 dBm           -10 dBm           -20 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm           -50 dBm           -70 dBm           -80 dBm           -80 dBm           -70 dBm           -70 dBm           -70 dBm           -70 dBm           -70 dBm           -70 dBm	10.00 dBm 30 dB 00/100 1 -23.928 M3 Hz	dBm M4 X-value	2 dB      RBW 100 kHz ms     VBW 300 kHz	Mode Auto Sw M1[1] M2[1] M2 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2		2.44  16.75	-3.87 dBm 30600 GHz 19.47 dBm 8158 GHz
Ref Level           Att           SGL Count 1           1Pk Max           0 dBm           -10 dBm           -20 dBm           -30 dBm           -30 dBm           -50 dBm           -70 dBm           -80 dBm           -80 dBm           -70 dBm           -80 dBm           -70 dBm           -80 dBm           -80 dBm           -70 dBm           -80 dBm           -70 dBm	10.00 dBm 30 dB 00/100 1 -23.928 M3 HZ HZ	Offset 2.42 SWT 265	2 dB      RBW 100 kHz ms     VBW 300 kHz      VBW 300 kHz      M5     M5	Mode Auto Sw M1[1] M2[1] M2[1] M2 M2 M2 M2 M2 M2 M2 M2 M2 M2		2.44 -4 16.75	-3.87 dBm 30600 GHz 19.47 dBm 8158 GHz
Ref Level           Att           SGL Count 1           IPk Max           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm           -60 dBm           -70 dBm           -70 dBm           -80 dBm           -80 dBm           -70 dBm           -80 dBm           -70 dBm           -70 dBm           -80 dBm           -70 dBm <td< td=""><td>10.00 dBm 30 dB 00/100 1 -23.928 M3 IHz IHz ITrc 1 1 1 1</td><td>Offset 2.42 SWT 265</td><td>2 dB      RBW 100 kHz ms     VBW 300 kHz      M5     M5     M5     M5     M5     S0001     SHz     -3.87 dBm     SHz     -49.47 dBm     SHz     -54.31 dBm</td><td>Mode Auto Sw M1[1] M2[1] M2 M2 M2 M2 M2 M2 M2 M2 M2 M2</td><td></td><td>2.44 -4 16.75</td><td>-3.87 dBm 30600 GHz 19.47 dBm 8158 GHz</td></td<>	10.00 dBm 30 dB 00/100 1 -23.928 M3 IHz IHz ITrc 1 1 1 1	Offset 2.42 SWT 265	2 dB      RBW 100 kHz ms     VBW 300 kHz      M5     M5     M5     M5     M5     S0001     SHz     -3.87 dBm     SHz     -49.47 dBm     SHz     -54.31 dBm	Mode Auto Sw M1[1] M2[1] M2 M2 M2 M2 M2 M2 M2 M2 M2 M2		2.44 -4 16.75	-3.87 dBm 30600 GHz 19.47 dBm 8158 GHz
Ref Level           Att           SGL Count 1           1Pk Max           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm           -70 dBm           -80 dBm           -80 dBm           -70 dBm           -80 dBm           -80 dBm           -70 dBm           -80 dBm           -80 dBm           -70 dBm           -80 dBm           -90 dBm           -10 dBm	10.00 dBm 30 dB 00/100 1 -23.928 M3 HZ HZ	Offset 2.42 SWT 265	2 dB      RBW 100 kHz ms     VBW 300 kHz      M5     VBW 300 kHz      M5     VBW 300 kHz      M5     VBW 300 kHz      M5     VBW 300 kHz      SM5     VBW 300 kHz      SM5     VBW 300 kHz      SM5     SM5	Mode Auto Sw M1[1] M2[1] M2 M2 M2 M2 M2 M2 M2 M2 M2 M2		2.44 -4 16.75	-3.87 dBm 30600 GHz 19.47 dBm 8158 GHz
Ref Level           Att           SGL Count 1           IPk Max           0 dBm           -10 dBm           -20 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm           -50 dBm           -70 dBm           -80 dBm           -70 dBm           -80 dBm           Marker           Type           M1           M2           M3           M4	10.00 dBm 30 dB 00/100 1 -23.928 M3 II -23.928 Hz II -23.928	Offset 2.42 SWT 265	2 dB      RBW 100 kHz ms     VBW 300 kHz      M5     VBW 300 kHz      M5     VBW 300 kHz      M5     VBW 300 kHz      M5     VBW 300 kHz      SM5     VBW 300 kHz      SM5     VBW 300 kHz      SM5     SM5	Mode Auto Sw M1[1] M2[1] M2 M2 M2 M2 M2 M2 M2 M2 M2 M2	eep	2.44 -4 16.75	-3.87 dBm 30600 GHz 19.47 dBm 8158 GHz

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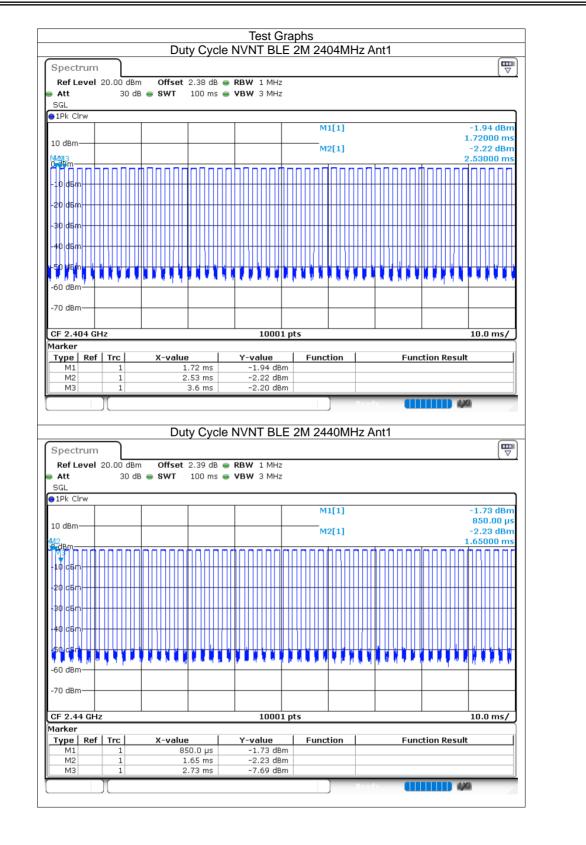
### 8.2 **2M**

### 8.2.1 Duty Cycle

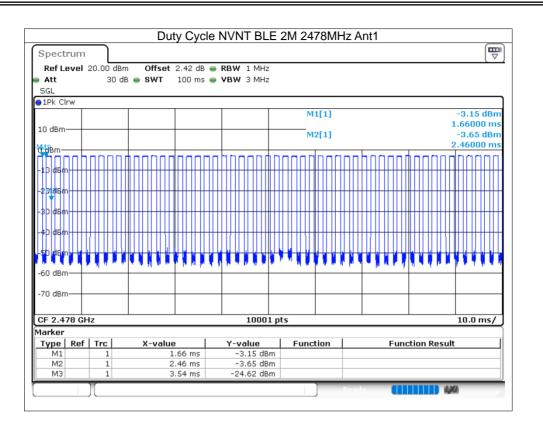
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	BLE 2M	2404	Ant1	57.23	2.42	0.93
NVNT	BLE 2M	2440	Ant1	58.13	2.36	0.93
NVNT	BLE 2M	2478	Ant1	57.54	2.4	0.93



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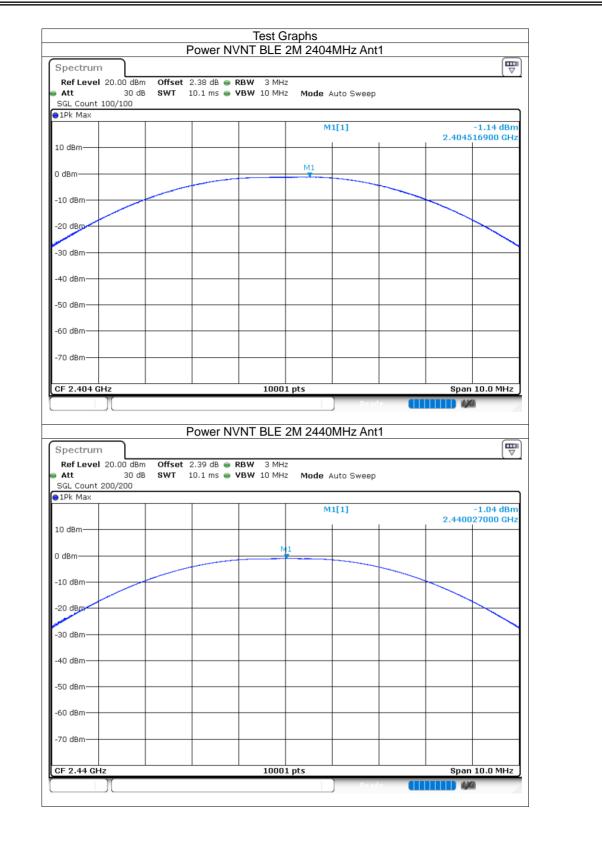


### 8.2.2 Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 2M	2404	Ant1	-1.14	30	Pass
NVNT	BLE 2M	2440	Ant1	-1.04	30	Pass
NVNT	BLE 2M	2478	Ant1	-2.22	30	Pass

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	Power N	IVNT BLE 2M 24	78MHz Ant1	
Spectrum				
Ref Level 20.00 dB	im Offset 2.42 dB 🖷	RBW 3 MHz		
Att 30 c	dB SWT 10.1 ms 🖷	VBW 10 MHz Mode	e Auto Sweep	
SGL Count 100/100				
1Pk Max				
			M1[1]	-2.22 dBm 2.477965000 GHz
10 dBm				2.477903000 GH2
D dBm		ML		
-10 dBm				
	1			
-20 dBm				
-20 UBIL				
-30 dBm				
-40 dBm				
-50 dBm				
-60 dBm				
-70 dBm				
CF 2.478 GHz		10001 pts		Span 10.0 MHz
			Dondu	

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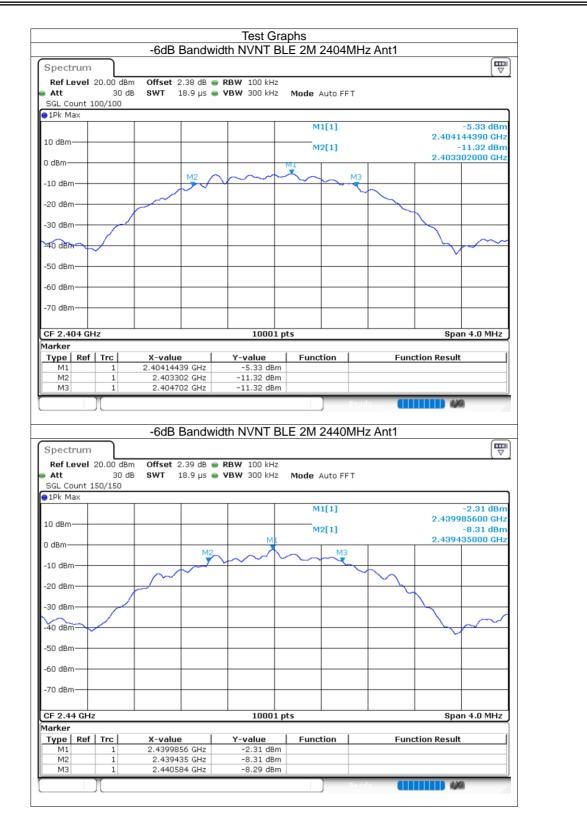




### 8.2.3 -6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	BLE 2M	2404	Ant1	1.4	0.5	Pass
NVNT	BLE 2M	2440	Ant1	1.149	0.5	Pass
NVNT	BLE 2M	2478	Ant1	1.077	0.5	Pass





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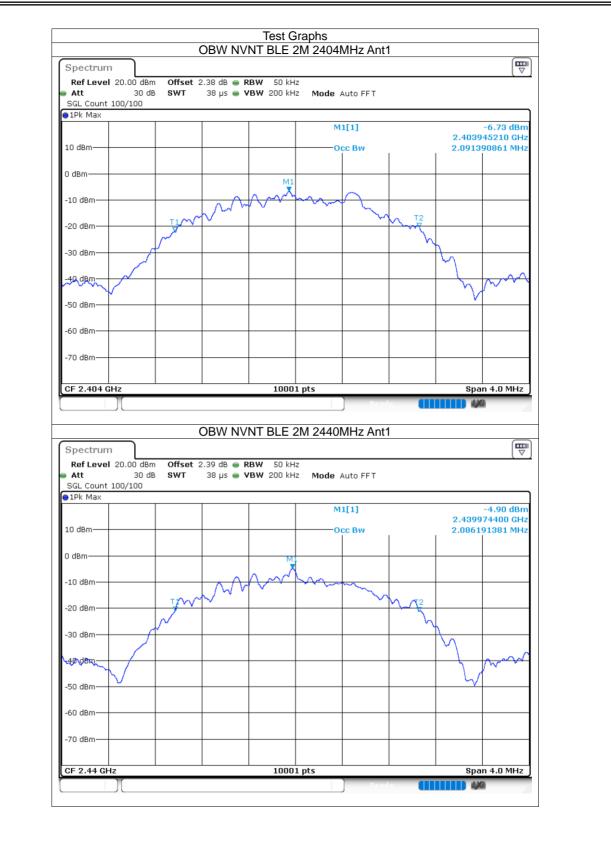




### 8.2.4 Occupied Channel Bandwidth

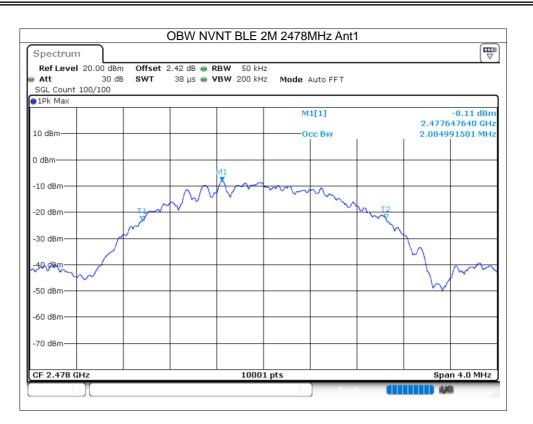
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	BLE 2M	2404	Ant1	2.091
NVNT	BLE 2M	2440	Ant1	2.086
NVNT	BLE 2M	2478	Ant1	2.085





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# 8.2.5 Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm)	Limit (dBm)	Verdict
NVNT	BLE 2M	2404	Ant1	-20.68	8	Pass
NVNT	BLE 2M	2440	Ant1	-20.33	8	Pass
NVNT	BLE 2M	2478	Ant1	-21.36	8	Pass

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		ו חפת		apns /I 2404MHz Ant	·1		
- ·	_	P2D1	INVINI BLE ZI	vi ∠4∪4ivi⊓z Ant	.1		
Spectrum							
Ref Level 2 Att			8 <b>e RBW</b> 3 kHz 8 <b>e VBW</b> 10 kHz	Mode Auto FFT			
SGL Count 10				Mode Adtorn			
⊜1Pk Max		1					
				M1[1]			-20.68 dBm 963040 GHz
10 dBm					+ +	2.400	
0 dBm							
-10 dBm							
-20 dBm			M1				
			ليالا الماريسية والمعالية والمسار	www.wallysindernational	alamen .		
-30 dBm	and and the last and	any market watched and				manne	
		·					when marked when
-40 dBm					+ +		
-50 dBm							
-60 dBm							
-70 dBm					+ +		
CF 2.404 GH	z		10001	pts		Spa	n 2.1 MHz
	[			Rea	idy		0
		PSD I	NVNT BLE 21	M 2440MHz Ant	:1		
Spectrum		PSD	NVNT BLE 21	M 2440MHz Ant	:1		
Spectrum Ref Level 2	20.00 dBm 0			M 2440MHz Ant	1		
Ref Level 2 Att	30 dB 🛚 S	Offset 2.39 dB	s 👄 RBW 3 kHz	M 2440MHz Ant	1		
Ref Level 2 Att SGL Count 10	30 dB 🛚 S	Offset 2.39 dB	s 👄 RBW 3 kHz		1		
Ref Level 2 Att	30 dB 🛚 S	Offset 2.39 dB	s 👄 RBW 3 kHz	Mode Auto FFT	1		-20.33 dBm
Ref Level 2 Att SGL Count 10 1Pk Max	30 dB 🛚 S	Offset 2.39 dB	s 👄 RBW 3 kHz		.1		
Ref Level 2 Att SGL Count 10	30 dB 🛚 S	Offset 2.39 dB	s 👄 RBW 3 kHz	Mode Auto FFT	.1 		-20.33 dBm
Ref Level 2 Att SGL Count 10 1Pk Max	30 dB 🛚 S	Offset 2.39 dB	s 👄 RBW 3 kHz	Mode Auto FFT	.1		-20.33 dBm
Ref Level 2 Att SGL Count 10 1Pk Max	30 dB 🛚 S	Offset 2.39 dB	s 👄 RBW 3 kHz	Mode Auto FFT			-20.33 dBm
Ref Level 2 Att SGL Count 10 1Pk Max	30 dB 🛚 S	Offset 2.39 dB	s 👄 RBW 3 kHz	Mode Auto FFT			-20.33 dBm
Ref Level 2           Att           SGL Count 10           IPk Max           10 dBm           -10 dBm	30 dB 🛚 S	Offset 2.39 dB	s 👄 RBW 3 kHz	Mode Auto FFT			-20.33 dBm
Ref Level 2           Att           SGL Count 10           1Pk Max           10 dBm           -10 dBm	30 dB <b>S</b>	<b>Offset</b> 2.39 dB WT 632.2 μs	8 • RBW 3 kHz • VBW 10 kHz	Mode Auto FFT		2.4399	-20.33 dBm
Ref Level 2           Att           SGL Count 10           IPk Max           10 dBm           -10 dBm           -20 dBm	30 dB <b>S</b>	<b>Offset</b> 2.39 dB WT 632.2 μs	8 • RBW 3 kHz • VBW 10 kHz	Mode Auto FFT		2.4399	-20.33 dBm 662950 GHz
Ref Level 2           Att           SGL Count 10           1Pk Max           10 dBm           -10 dBm	30 dB <b>S</b>	<b>Offset</b> 2.39 dB WT 632.2 μs	8 • RBW 3 kHz • VBW 10 kHz	Mode Auto FFT		2.4399	-20.33 dBm
Ref Level 2           Att           SGL Count 10           IPk Max           10 dBm           -10 dBm           -20 dBm	30 dB <b>S</b>	<b>Offset</b> 2.39 dB WT 632.2 μs	8 • RBW 3 kHz • VBW 10 kHz	Mode Auto FFT		2.4399	-20.33 dBm 662950 GHz
Ref Level 2           Att           SGL Count 10           IPk Max           10 dBm           -10 dBm           -20 dBm	30 dB <b>S</b>	<b>Offset</b> 2.39 dB WT 632.2 μs	8 • RBW 3 kHz • VBW 10 kHz	Mode Auto FFT		2.4399	-20.33 dBm 662950 GHz
Ref Level 2           Att           SGL Count 10           IPk Max           10 dBm           -10 dBm           -20 dBm	30 dB <b>S</b>	<b>Offset</b> 2.39 dB WT 632.2 μs	8 • RBW 3 kHz • VBW 10 kHz	Mode Auto FFT		2.4399	-20.33 dBm 662950 GHz
Ref Level 2           Att           SGL Count 10           IPk Max           10 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm	30 dB <b>S</b>	<b>Offset</b> 2.39 dB WT 632.2 μs	8 • RBW 3 kHz • VBW 10 kHz	Mode Auto FFT		2.4399	-20.33 dBm 662950 GHz
Ref Level 2           Att           SGL Count 10           IPk Max           10 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm	30 dB <b>S</b>	<b>Offset</b> 2.39 dB WT 632.2 μs	8 • RBW 3 kHz • VBW 10 kHz	Mode Auto FFT		2.4399	-20.33 dBm 662950 GHz
Ref Level 2           Att           SGL Count 10           IPk Max           10 dBm           -10 dBm           -20 dBm           -30 dBm           -60 dBm	30 dB <b>S</b>	<b>Offset</b> 2.39 dB WT 632.2 μs	8 • RBW 3 kHz • VBW 10 kHz	Mode Auto FFT		2.4399	-20.33 dBm 662950 GHz
Ref Level 2           Att           SGL Count 10           IPk Max           10 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm	30 dB <b>S</b>	<b>Offset</b> 2.39 dB WT 632.2 μs	8 • RBW 3 kHz • VBW 10 kHz	Mode Auto FFT		2.4399	-20.33 dBm 662950 GHz
Ref Level 2           Att           SGL Count 10           IPk Max           10 dBm           -10 dBm           -20 dBm           -30 dBm           -50 dBm           -60 dBm           -70 dBm	30 dB <b>S</b>	<b>Offset</b> 2.39 dB WT 632.2 μs	M1	Mode Auto FFT		2.4399	-20.33 dBm 62950 GHz
Ref Level 2           Att           SGL Count 10           IPk Max           10 dBm           -10 dBm           -20 dBm           -30 dBm           -60 dBm	30 dB <b>S</b>	<b>Offset</b> 2.39 dB WT 632.2 μs	8 • RBW 3 kHz • VBW 10 kHz	Mode Auto FFT		2.4399	-20.33 dBm 662950 GHz
Ref Level 2           Att           SGL Count 10           IPk Max           10 dBm           -10 dBm           -20 dBm           -30 dBm           -50 dBm           -60 dBm           -70 dBm	30 dB <b>S</b>	<b>Offset</b> 2.39 dB WT 632.2 μs	M1	Mode Auto FFT		2.4399	-20.33 dBm 662950 GHz



P	D NVNT BLE 2M 2478MHz Ant	
Spectrum		
	2 dB 🛑 RBW 3 kHz	
Att 30 dB SWT 632 SGL Count 100/100	.1 μs 🖶 VBW 10 kHz 🛛 Mode Auto FFT	
1Pk Max		
	M1[1]	-21.36 dBm
		2.477962850 GHz
10 dBm		
0 dBm		
-10 dBm		
-10 dBm		
-20 dBm	M1	
	and the second and the bosis is the	
-30 dBox Male ale rate of the mark the latter	weder the market and the work of the second of	han whether half the lesting had a for
ALCORED THE REAL PROPERTY OF THE REAL PROPERTY		and the second
-40 dBm		
-50 dBm		
-60 dBm		
-70 dBm		
CF 2.478 GHz	10001 pts	Span 1.6155 MHz
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# 8.2.6 Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 2M	2404	Ant1	-51.55	-20	Pass
NVNT	BLE 2M	2478	Ant1	-53.97	-20	Pass

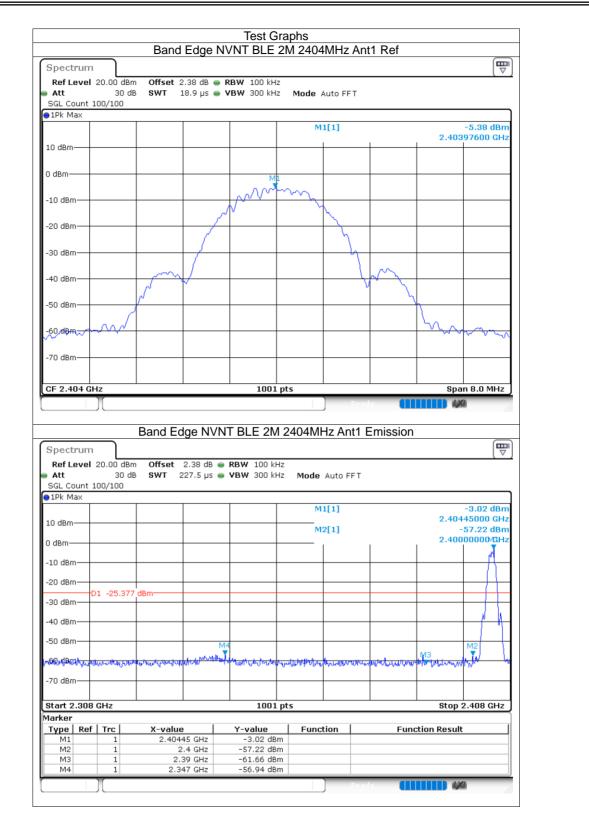


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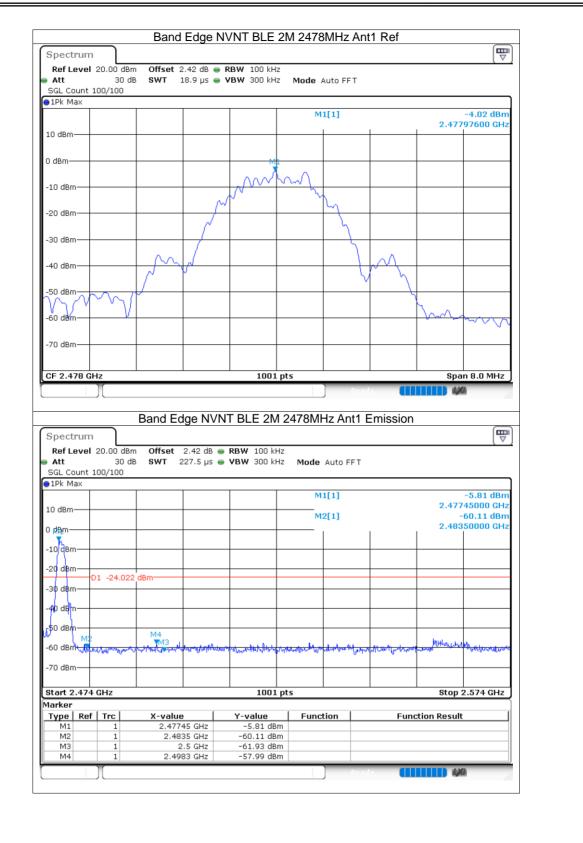
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### Report No.: S24122402206002







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### 8.2.7 Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 2M	2404	Ant1	-46.53	-20	Pass
NVNT	BLE 2M	2440	Ant1	-48.03	-20	Pass
NVNT	BLE 2M	2478	Ant1	-45.67	-20	Pass

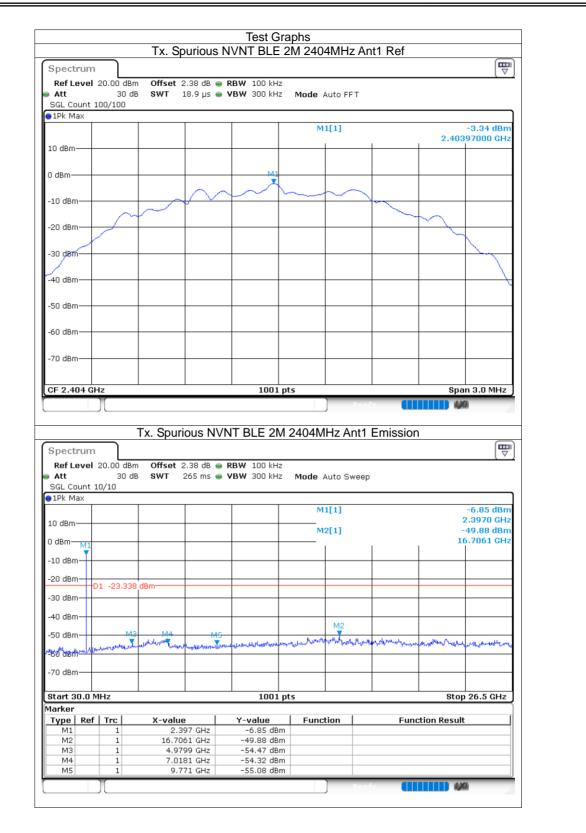


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### Report No.: S24122402206002





Att	n I 10.00 dBm 30 dB		dB <b>e RBW</b> 100   µs <b>e VBW</b> 300		uto FFT			
SGL Count	300/300							
TEK MIGX				M1	[1]			-2.44 dBm
								49150 GHz
0 dBm					M1			
			$\sim$		$\sim $			
-10 dBm—		$\sim$				$\sim$		
-20 dBm	$\sim$	- I					$\sim$	
-20 UBIII	~						~	
-30 dBm								
								$\sim$
-40 dBm								
-50 dBm								
a 40.								
-60 dBm								
-70 dBm								
, o ubiii								
-80 dBm								
CF 2.44 GH	17		10	D1 pts			Spar	n 3.0 MHz
0. 51.1.0			10	52 965			opu	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Spectrum Ref Level	1				Ready Hz Ant1 E	mission		
Ref Level	1 I 10.00 dBm 30 dB	Offset 2.39	S NVNT BLE 3	<hz< th=""><th></th><th>mission</th><th></th><th></th></hz<>		mission		
Ref Level Att SGL Count	1 I 10.00 dBm 30 dB	Offset 2.39	dB 👄 RBW 100	KHZ KHZ <b>Mode</b> A	uto Sweep	mission		
Ref Level Att SGL Count 1Pk Max	1 I 10.00 dBm 30 dB	Offset 2.39	dB 👄 RBW 100	KHZ KHZ <b>Mode</b> A		mission		-4.82 dBm .4500 GHz
Ref Level Att SGL Count 1Pk Max 0 dBm M1	1 I 10.00 dBm 30 dB	Offset 2.39	dB 👄 RBW 100	(Hz (Hz Mode A) M1	uto Sweep	mission	2 -3	-4.82 dBm 2.4500 GHz 50.48 dBm
Ref Level Att SGL Count 1Pk Max 0 dBm M1	1 I 10.00 dBm 30 dB	Offset 2.39	dB 👄 RBW 100	(Hz (Hz Mode A) M1	uto Sweep [1]	mission	2 -3	(∇) -4.82 dBm 2.4500 GHz
Ref Level Att SGL Count 1Pk Max 0 dBm	1 10.00 dBm 30 dB 30/30	Offset 2.39 SWT 265	dB 👄 RBW 100	(Hz (Hz Mode A) M1	uto Sweep [1]	mission	2 -3	-4.82 dBm 2.4500 GHz 50.48 dBm
Ref Level Att SGL Count IPk Max 0 dBm -10 dBm -20 dBm	1 I 10.00 dBm 30 dB	Offset 2.39 SWT 265	dB 👄 RBW 100	(Hz (Hz Mode A) M1	uto Sweep [1]	mission	2 -3	-4.82 dBm 2.4500 GHz 50.48 dBm
Ref Level Att SGL Count PPk Max O dBm -10 dBm -20 dBm -30 dBm	1 10.00 dBm 30 dB 30/30	Offset 2.39 SWT 265	dB 👄 RBW 100	(Hz (Hz Mode A) M1	uto Sweep [1]	mission	2 -3	-4.82 dBm 2.4500 GHz 50.48 dBm
Ref Level Att SGL Count IPk Max 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm	1 10.00 dBm 30 dB 30/30	Offset 2.39 SWT 265	dB 👄 RBW 100	(Hz (Hz Mode A) M1	uto Sweep [1]	mission	2 -3	-4.82 dBm 2.4500 GHz 50.48 dBm
Ref Level Att SGL Count IPk Max 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm	1 10.00 dBm 30 dB 30/30	Offset 2.39 SWT 265	dB • RBW 100 ms • VBW 300	(Hz Mode A)	(1) [1] [1]		2	-4.82 dBm ∴4500 GHz 50.48 dBm ∴6855 GHz
Ref Level           Att           SGL Count           IPk Max           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm	1 10.00 dBm 30 dB 30/30	Offset 2.39 SWT 265	dB 👄 RBW 100	(Hz Mode A)	(1) [1] [1]		2	-4.82 dBm 2.4500 GHz 50.48 dBm
Ref Level           Att           SGL Count           IPk Max           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm	1 10.00 dBm 30 dB 30/30	Offset 2.39 SWT 265	dB • RBW 100 ms • VBW 300	(Hz Mode A)	(1) [1] [1]		2	-4.82 dBm ∴4500 GHz 50.48 dBm ∴6855 GHz
Ref Level           Att           SGL Count           IPk Max           0 dBm           -10 dBm           -20 dBm           -30 dBm           -50 dBm           -50 dBm           -70 dBm	1 10.00 dBm 30 dB 30/30	Offset 2.39 SWT 265	dB • RBW 100 ms • VBW 300	(Hz Mode A)	(1) [1] [1]		2	-4.82 dBm ∴4500 GHz 50.48 dBm ∴6855 GHz
Ref Level           Att           SGL Count           IPk Max           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm	1 10.00 dBm 30 dB 30/30	Offset 2.39 SWT 265	dB • RBW 100 ms • VBW 300	(Hz Mode A)	(1) [1] [1]		2	-4.82 dBm ∴4500 GHz 50.48 dBm ∴6855 GHz
Ref Level           Att           SGL Count           IPk Max           0 dBm           -10 dBm           -20 dBm           -30 dBm           -50 dBm           -50 dBm           -60 dBm           -70 dBm           -80 dBm	D1 -22.437	Offset 2.39 SWT 265	dB • RBW 100 ms • VBW 300	(Hz Mode A)	(1) [1] [1]		2 	-4.82 dBm ∴4500 GHz 50.48 dBm ∴6855 GHz
Ref Level           Att           SGL Count           IPk Max           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm           -60 dBm           -70 dBm           -80 dBm           -80 dBm	D1 -22.437	Offset 2.39 SWT 265	dB • RBW 100 ms • VBW 300	(Hz (Hz Mode A) M1 M2	(1) [1] [1]		2 	-4.82 dBm .4500 GHz 50.48 dBm .6855 GHz
Ref Level           Att           SGL Count           IPk Max           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm           -60 dBm           -70 dBm           -80 dBm           -80 dBm           -70 dBm           -70 dBm           -70 dBm           -80 dBm           -80 dBm           -70 dBm	1 10.00 dBm 30 dB 30/30 D1 -22.437 M3 MHz MHz	Offset 2.39 SWT 265	dB	(H2 (H2 Mode A) M1 M2 M2 M2 M2 M1 M2 M1 M2 M2 M1 M2 M2 M1 M2 M2 M1 M2 M2 M1 M2 M2 M1 M2 M2 M1 M2 M2 M1 M2 M1 M2 M1 M2 M1 M2 M1 M2 M1 M2 M2 M1 M2 M1 M2 M1 M2 M1 M2 M1 M2 M1 M2 M1 M2 M1 M2 M1 M2 M1 M2 M2 M1 M2 M1 M2 M1 M2 M1 M2 M2 M1 M2 M2 M1 M2 M2 M1 M2 M2 M1 M2 M2 M1 M2 M2 M1 M2 M2 M1 M2 M2 M1 M2 M2 M1 M2 M2 M1 M2 M2 M1 M2 M2 M1 M2 M2 M1 M2 M2 M1 M2 M2 M1 M2 M2 M1 M2 M2 M1 M2 M2 M1 M2 M2 M2 M1 M2 M2 M2 M1 M2 M2 M1 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2	(1) [1] [1] [1]	/~pho-to-to-to-to-to-to-to-to-to-to-to-to-to	2 	-4.82 dBm .4500 GHz 50.48 dBm .6855 GHz
Ref Level           Att           SGL Count           IPk Max           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm           -60 dBm           -70 dBm           -80 dBm           -70 dBm           -80 dBm           -70 dBm           -70 dBm           -80 dBm           -70 dBm           -80 dBm           -80 dBm           -70 dBm           -80 dBm           -80 dBm           -80 dBm           -80 dBm           -80 dBm           -90 dBm           -	1 10.00 dBm 30 dB 30/30 D1 -22.437	Offset 2.39 SWT 265	dB      RBW 100 ms     VBW 300	(H2 (H2 Mode A) M1 M2 M2 M2 M2 M1 M2 M2 M1 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2	(1) [1] [1] [1]	/~pho-to-to-to-to-to-to-to-to-to-to-to-to-to	2 17 	-4.82 dBm .4500 GHz 50.48 dBm .6855 GHz
Ref Level           Att           SGL Count           IPk Max           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm           -60 dBm           -70 dBm           -80 dBm           -80 dBm           -70 dBm           -	1 10.00 dBm 30 dB 30/30 01 -22,437 01 -22,437 MHz MHz f Trc 1 1 1 1	Offset 2.39 SWT 265	dB ● RBW 100 ms ● VBW 300   	(Hz (Hz Mode A) M1 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2	(1) [1] [1] [1]	/~pho-to-to-to-to-to-to-to-to-to-to-to-to-to	2 17 	-4.82 dBm .4500 GHz 50.48 dBm .6855 GHz
Ref Level           Att           SGL Count           IPk Max           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm           -60 dBm           -70 dBm           -80 dBm           -70 dBm           -80 dBm           -70 dBm           -70 dBm           -80 dBm           -80 dBm           -80 dBm           -80 dBm           -80 dBm           -70 dBm           -80 dBm           -80 dBm           -80 dBm           -80 dBm           -80 dBm           -90 dBm           -10 dBm           -	1 10.00 dBm 30 dB 30/30 D1 -22.437 M2 MHz MHz f Trc 1 1 1 1 1	Offset 2.39 SWT 265	dB      RBW 100 ms     VBW 300	(H2 (H2 Mode A) M1 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2	(1) [1] [1] [1]	/~pho-to-to-to-to-to-to-to-to-to-to-to-to-to	2 17 	-4.82 dBm .4500 GHz 50.48 dBm .6855 GHz
Ref Level           Att           SGL Count           IPk Max           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm           -60 dBm           -70 dBm           -80 dBm           -80 dBm           -70 dBm           -	1 10.00 dBm 30 dB 30/30 01 -22,437 01 -22,437 MHz MHz f Trc 1 1 1 1	Offset 2.39 SWT 265	dB      RBW 100 ms     VBW 300	(H2 (H2 Mode A) M1 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2	(1) [1] [1] [1]	Funct	2 17 	-4.82 dBm .4500 GHz 50.48 dBm .6855 GHz .///w/w/u-4/.wk 26.5 GHz

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					M1[1]			-5.38 dBm	
10 dBm							2.477	97000 GHz	
10 dbiii									
0 dBm				M1					
-10 dBm			$\sim$		$\sim$	~			
	$\sim$	$\sim$							
-20 dBm									
-30 dBpr									
-40 dBm-									
-50 dBm									
-60 dBm									
70 40									
-70 dBm									
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CF 2.478 GH	z			1001 pi	ts		opa	n 3.0 MHz	1
Spectrum Ref Level 3	20.00 dBm 30 dE	Offset 2.	.42 dB 👄		2478MHz A	Prody Internation		n 3.0 MHz )	-
Spectrum	20.00 dBm 30 dE	Offset 2.	.42 dB 👄	NT BLE 2M	2478MHz A Mode Auto S				-
Spectrum Ref Level : Att SGL Count 11 1Pk Max	20.00 dBm 30 dE	Offset 2.	.42 dB 👄	NT BLE 2M	2478MHz A				-
Spectrum Ref Level : Att SGL Count 1 1Pk Max 10 dBm	20.00 dBm 30 dE	Offset 2.	.42 dB 👄	NT BLE 2M	2478MHz A Mode Auto S			-6.51 dBm 2.4760 GHz 51.05 dBm	-
Spectrum Ref Level 3 Att SGL Count 11 IPk Max 10 dBm 0 dBm	20.00 dBm 30 dE	Offset 2.	.42 dB 👄	NT BLE 2M	2478MHz A Mode Auto S 			-6.51 dBm 2.4760 GHz	-
Spectrum Ref Level : Att SGL Count 11 1Pk Max 10 dBm 0 dBm -10 dBm	20.00 dBm 30 dE	Offset 2.	.42 dB 👄	NT BLE 2M	2478MHz A Mode Auto S 			-6.51 dBm 2.4760 GHz 51.05 dBm	-
Spectrum Ref Level 3 Att SGL Count 11 IPk Max 10 dBm 0 dBm -10 dBm -20 dBm D	20.00 dBm 30 dE	Offset 2. SWT 2	.42 dB 👄	NT BLE 2M	2478MHz A Mode Auto S 			-6.51 dBm 2.4760 GHz 51.05 dBm	-
Spectrum Ref Level 3 Att SGL Count 11 PPk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm	20.00 dBm 30 dE 0/10	Offset 2. SWT 2	.42 dB 👄	NT BLE 2M	2478MHz A Mode Auto S 			-6.51 dBm 2.4760 GHz 51.05 dBm	-
Spectrum Ref Level : Att SGL Count 11 1Pk Max 10 dBm -10 dBm -20 dBm -30 dBm -40 dBm	20.00 dBm 30 dE 0/10	dBm	.42 dB ● .65 ms ●	NT BLE 2M	2478MHz A Mode Auto S M1[1] M2[1]	weep		-6.51 dBm 2.4760 GHz 51.05 dBm	-
Spectrum Ref Level 3 Att SGL Count 11 PPK Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -30 dBm -30 dBm -40 dBm -50 dBm	20.00 dBm 30 dE 0/10	Offset 2. SWT 2	.42 dB 👄	NT BLE 2M RBW 100 kHz VBW 300 kHz	2478MHz A Mode Auto S M1[1] M2[1]			-6.51 dBm 2.4760 GHz 51.05 dBm	-
Spectrum Ref Level : SGL Count 11 1Pk Max 10 dBm -10 dBm -20 dBm -30 dBm -30 dBm -40 dBm -50 dBm	) 20.00 dBm 30 dE 0/10 1 -25.380	Offset 2. SWT 2	.42 dB ● .65 ms ●	NT BLE 2M RBW 100 kHz VBW 300 kHz	2478MHz A Mode Auto S M1[1] M2[1]	weep		-6.51 dBm 2.4760 GHz 51.05 dBm	
Spectrum Ref Level 3 Att SGL Count 11 PPK Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -30 dBm -30 dBm -40 dBm -50 dBm	) 20.00 dBm 30 dE 0/10 1 -25.380	Offset 2. SWT 2	.42 dB ● .65 ms ●	NT BLE 2M RBW 100 kHz VBW 300 kHz	2478MHz A Mode Auto S M1[1] M2[1]	weep		-6.51 dBm 2.4760 GHz 51.05 dBm	-
Spectrum Ref Level 3 Att SGL Count 11 ID dBm 0 dBm -10 dBm -20 dBm -30 dBm -30 dBm -40 dBm -70 dBm -70 dBm -70 dBm -70 dBm	20.00 dBm 30 dE 0/10	Offset 2. SWT 2	.42 dB ● .65 ms ●	NT BLE 2M RBW 100 kHz VBW 300 kHz	2478MHz A Mode Auto S M1[1] M2[1] M2[1]	weep	1 	-6.51 dBm 2.4760 GHz 51.05 dBm	
Spectrum Ref Level : Att SGL Count 1  PPK Max  ID dBm O dBm -10 dBm -20 dBm -20 dBm -30 dBm -30 dBm -30 dBm -70 dBm -7	20.00 dBm 30 dE 0/10	dBm	.42 dB ● .65 ms ● 	NT BLE 2M RBW 100 kH2 VBW 300 kH2 	2478MHz A Mode Auto S M1[1] M2[1] M2[1]	weep	1 	-6.51 dBm 2.4760 GHz 5.1.05 dBm 5.3355 GHz	
Spectrum Ref Level 3 Att SGL Count 11 ID dBm 0 dBm -10 dBm -20 dBm -30 dBm -30 dBm -40 dBm -50 dBm -70 dBm -70 dBm Type Ref M1 M2	20.00 dBm 30 dE 0/10	dBm	.42 dB ● .65 ms ● 	NT BLE 2M RBW 100 kHz VBW 300 kHz 	2478MHz A Mode Auto S M1[1] M2[1] M2[1] M2[1] M2 M2 M2 M2 M2 M2 M2 M2 M2 M2	weep	10 	-6.51 dBm 2.4760 GHz 5.1.05 dBm 5.3355 GHz	
Spectrum Ref Level : SGL Count 1: SGL Count 1: 10 dBm 10 dBm -10 dBm -20 dBm -30 dBm -30 dBm -30 dBm -40 dBm -50 dBm -50 dBm -70 dBm Type Ref M1	) 20.00 dBm 30 dE 0/10 1 -25.380 M2 	Offset 2. SWT 2 dBm dBm 	.42 dB ● 65 ms ● 	NT BLE 2M RBW 100 kHz VBW 300 kHz 	2478MHz A Mode Auto S M1[1] M2[1] M2[1] M2[1] M2 M2 M2 M2 M2 M2 M2 M2 M2 M2	weep	10 	-6.51 dBm 2.4760 GHz 5.1.05 dBm 5.3355 GHz	
Spectrum           Ref Level :           Att           SGL Count 1           1Pk Max           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -30 dBm           -70 dBm           -70 dBm           Start 30.0 M           Marker           Type         Ref           M1           M2           M3	20.00 dBm 30 dB 0/10 1 -25.380 Hz Hz Trc 1 1 1	Construction of the second sec	.42 dB 165 ms 165 ms 16	NT BLE 2M RBW 100 kHz VBW 300 kHz 	2478MHz A Mode Auto S M1[1] M2[1] M2[1] M2[1] M2 M2 M2 M2 M2 M2 M2 M2 M2 M2	weep	10 	-6.51 dBm 2.4760 GHz 5.1.05 dBm 5.3355 GHz	

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