



# RADIO TEST REPORT FCC ID: 2BALXNT-P801

Product: Tablet PC Trade Mark: N/A Model No.: NT-P801 Family Model: N/A Report No.: S23022202301002 Issue Date: 15 Mar. 2023

## **Prepared for**

Shenzhen New Yu Technology Co., Ltd.

Room 1121, Zehua Building,Longhua Road 3698#, Longhua Street, Longhua District,Shenzhen, China.

## Prepared by

Shenzhen NTEK Testing Technology Co., Ltd. 1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street Bao'an District, Shenzhen 518126 P.R. China Tel. 400-800-6106, 0755-2320 0050, 0755-2320 0090 Website: http://www.ntek.org.cn





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## TABLE OF CONTENTS

1 TE	ST RESULT CERTIFICATION	3
2 SU	MMARY OF TEST RESULTS	4
3 FA	CILITIES AND ACCREDITATIONS	5
3.1 3.2 3.3	FACILITIES LABORATORY ACCREDITATIONS AND LISTINGS MEASUREMENT UNCERTAINTY	5
4 GE	NERAL DESCRIPTION OF EUT	6
5 DE	SCRIPTION OF TEST MODES	8
6 SE	ГUP OF EQUIPMENT UNDER TEST	9
6.1 6.2 6.3	BLOCK DIAGRAM CONFIGURATION OF TEST SYSTEM SUPPORT EQUIPMENT EQUIPMENTS LIST FOR ALL TEST ITEMS	9 10 11
7 TE	ST REQUIREMENTS	13
7.1 7.2 7.3 7.4 7.5 7.6 7.7 7.8 7.9 7.10 7.11	CONDUCTED EMISSIONS TEST RADIATED SPURIOUS EMISSION NUMBER OF HOPPING CHANNEL HOPPING CHANNEL SEPARATION MEASUREMENT AVERAGE TIME OF OCCUPANCY (DWELL TIME) 20DB BANDWIDTH TEST PEAK OUTPUT POWER CONDUCTED BAND EDGE MEASUREMENT SPURIOUS RF CONDUCTED EMISSION ANTENNA APPLICATION FREQUENCY HOPPING SYSTEM (FHSS) EQUIPMENT REQUIREMENTS	16 25 27 29 30 31 32 33 34
8 TE	ST RESULTS	35
8.1 8.2 8.3 8.4 8.5 8.6 8.7 8.8 8.9	DWELL TIME MAXIMUM CONDUCTED OUTPUT POWER -20DB BANDWIDTH OCCUPIED CHANNEL BANDWIDTH CARRIER FREQUENCIES SEPARATION NUMBER OF HOPPING CHANNEL BAND EDGE BAND EDGE BAND EDGE (HOPPING) CONDUCTED RF SPURIOUS EMISSION	45 51 63 69 72 79





#### 1 **TEST RESULT CERTIFICATION**

Applicant's name:	Shenzhen New Yu Technology Co., Ltd.
Address:	Room 1121, Zehua Building,Longhua Road 3698#, Longhua Street, Longhua District,Shenzhen, China.
Manufacturer's Name:	ShenZhen EGO Devices Co., Limited
Address:	4F-5F ,C1 Building, Jidali Industrial Park, Shajing, Baoan District, Shenzhen, PR China, 518104
Product description	
Product name:	Tablet PC
Model and/or type reference:	NT-P801
Family Model:	N/A
Sample number	S230222023001

#### Measurement Procedure Used:

APPLICABLE STANDARDS				
STANDARD/ TEST PROCEDURE TEST RESULT				
FCC 47 CFR Part 2, Subpart J FCC 47 CFR Part 15, Subpart C ANSI C63.10-2013				
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. This report shall not be reproduced except in full, without the written approval of Shenzhen NTEK Testing Technology Co., Ltd., this document may be altered or revised by Shenzhen NTEK Testing Technology Co., Ltd., this document may be altered or revised by Shenzhen NTEK Testing Technology Co., Ltd., this document may be altered or the document. The test results of this report relate only to the tested sample identified in this report.				
Date of Test	: 24	4 Feb. 2023~ 15 Mar. 2023		
Testing Engineer	:	(Gavan Zhang)		
Authorized Signatory		Getters		

Authorized Signatory

2

(Alex Li)





FCC Part15 (15.247), Subpart C			
Standard Section	Test Item	Verdict	Remark
15.207	Conducted Emission	PASS	
15.209 (a) 15.205 (a)	Radiated Spurious Emission	PASS	
15.247(a)(1)	Hopping Channel Separation	PASS	
15.247(b)(1)	Peak Output Power	PASS	
15.247(a)(iii)	Number of Hopping Frequency	PASS	
15.247(a)(iii)	Dwell Time	PASS	
15.247(a)(1)	Bandwidth	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

1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street, Bao'an District, Shenzhen 518126 P.R. 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).
	: Shenzhen NTEK Testing Technology Co., Ltd.
Site Location	: 1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang
	Street, Bao'an District, Shenzhen 518126 P.R. 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





## 4 GENERAL DESCRIPTION OF EUT

Product Feature and Specification		
Equipment	Tablet PC	
Trade Mark	N/A	
FCC ID	2BALXNT-P801	
Model No.	NT-P801	
Family Model	N/A	
Model Difference	N/A	
Operating Frequency	2402MHz~2480MHz	
Modulation	GFSK, π/4-DQPSK, 8-DPSK	
Number of Channels	79 Channels	
Antenna Type	FPCB Antenna	
Antenna Gain	1.62 dBi	
Adapter	Model: JHD-AP013U-050200BB-B Input: 110-240V~50/60Hz 0.35A Output: 5V 2000mA	
Battery	3.8V 5100mAh	
Power supply	DC 3.8V from battery or DC 5V from adapter AC 120V/60Hz	
HW Version	N/A	
SW Version	N/A	

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.





		Certificate #4298.01		
Revision History				
Report No.	Version	Description	Issued Date	
S23022202301002	Rev.01	Initial issue of report	15 Mar. 2023	





## 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 for GFSK modulation; 2Mbps for  $\pi$ /4-DQPSK modulation; 3Mbps for 8-DPSK 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
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.

For AC Conducted Emission	
Final Test Mode	Description
Mode 1	normal link mode

Note: AC power line Conducted Emission was tested under maximum output power.

For Radiated Test Cases		
Final Test Mode	Description	
Mode 1	normal link mode	
Mode 2	CH00(2402MHz)	
Mode 3	CH39(2441MHz)	
Mode 4	CH78(2480MHz)	

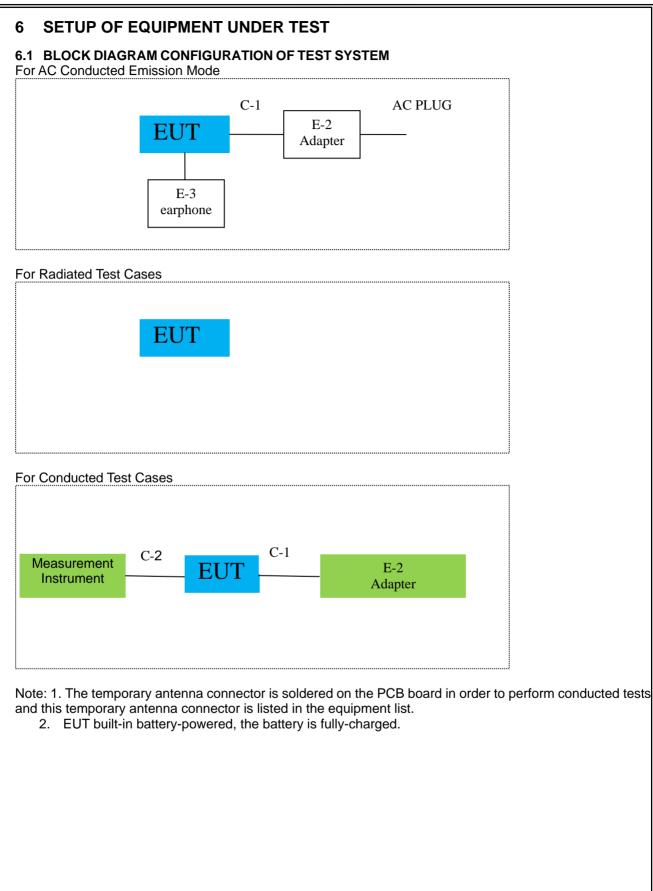
Note: For radiated test cases, the worst mode data rate 3Mbps was reported only, because this data rate has the highest RF output power at preliminary tests, and no other significantly frequencies found in conducted spurious emission.

For Conducted Test Cases		
Final Test Mode	Description	
Mode 2	CH00(2402MHz)	
Mode 3	CH39(2441MHz)	
Mode 4	CH78(2480MHz)	
Mode 5	Hopping mode	

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











#### 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.

Item	Equipment	Model/Type No.	Series No.	Note
E-1	Tablet PC	NT-P801	N/A	EUT
E-2	Adapter	JHD-AP013U-050200BB-B	N/A	
E-3	earphone	N/A	N/A	

Item	Cable Type	Shielded Type	Ferrite Core	Length	Note
C-1	Cable	NO	NO	100cm	
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".





#### 6.3 EQUIPMENTS LIST FOR ALL TEST ITEMS

#### Radiation& Conducted Test equipment

uuuu		cor equipment					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibrati on period
1	Spectrum Analyzer	Aglient	E4407B	MY45108040	2022.04.01	2023.03.31	1 year
2	Spectrum Analyzer	Agilent	N9020A	MY49100060	2022.04.01	2023.03.31	1 year
3	Spectrum Analyzer	R&S	FSV40	101417	2022.04.01	2023.03.31	1 year
4	Test Receiver	R&S	ESPI7	101318	2022.04.01	2023.03.31	1 year
5	Bilog Antenna	TESEQ	CBL6111D	31216	2022.03.30	2023.03.29	1 year
6	50Ω Coaxial Switch	Anritsu	MP59B	6200983705	2020.05.11	2023.05.10	3 year
7	Horn Antenna	EM	EM-AH-1018 0	2011071402	2022.03.31	2023.03.30	1 year
8	Broadband Horn Antenna	SCHWARZBE CK	BBHA 9170	803	2022.03.31	2023.03.30	1 year
9	Amplifier	EMC	EMC051835 SE	980246	2022.06.17	2023.06.15	1 year
10	Active Loop Antenna	SCHWARZBE CK	FMZB 1519 B	055	2022.06.16	2023.06.15	1 year
11	Power Meter	DARE	RPR3006W	15I00041SN O84	2022.06.16	2023.06.15	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	Filter	TRILTHIC	2400MHz	29	2022.04.01	2023.03.31	1 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	2022.04.06	2023.04.05	1 year
2	LISN	R&S	ENV216	101313	2022.06.17	2023.06.15	1 year
3	LISN	SCHWARZBE CK	NNLK 8129	8129245	2022.04.06	2023.04.05	1 year
4	50Ω Coaxial Switch	ANRITSU CORP	MP59B	6200983704	2020.05.11	2023.05.10	3 year
5	Test Cable (9KHz-30MH z)	N/A	C01	N/A	2020.05.11	2023.05.10	3 year
6	Test Cable (9KHz-30MH z)	N/A	C02	N/A	2020.05.11	2023.05.10	3 year
7	Test Cable (9KHz-30MH z)	N/A	C03	N/A	2020.05.11	2023.05.10	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.





#### 7 TEST REQUIREMENTS

#### 7.1 CONDUCTED EMISSIONS TEST

#### 7.1.1 Applicable Standard

According to FCC Part 15.207(a)

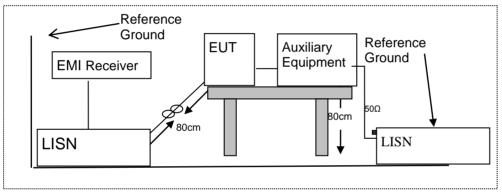
#### 7.1.2 Conformance Limit

	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	

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 Test Configuration



#### 7.1.4 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.
- 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.

#### 7.1.5 Test Results

Pass





#### 7.1.6 Test Results

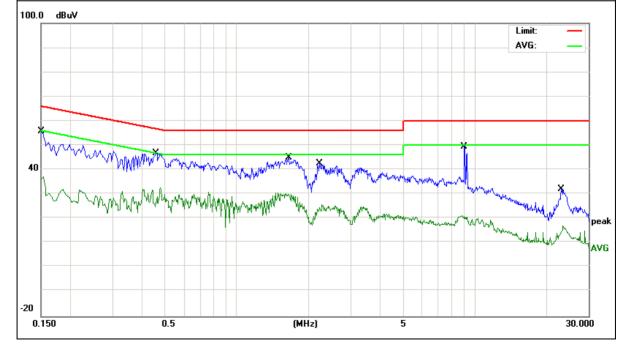
EUT:	Tablet PC	Model Name :	NT-P801
Temperature:	<b>22</b> ℃	Relative Humidity:	57%
Pressure:	1010hPa	Phase :	L
Test Voltage :	DC 5V from adapter AC 120V/60Hz	Test Mode:	Mode 1

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Domork
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	- Remark
0.1500	46.06	9.60	55.66	65.99	-10.33	QP
0.1500	26.53	9.60	36.13	55.99	-19.86	AVG
0.4580	37.23	9.66	46.89	56.73	-9.84	QP
0.4580	17.03	9.66	26.69	46.73	-20.04	AVG
1.6460	35.18	9.67	44.85	56.00	-11.15	QP
1.6460	19.72	9.67	29.39	46.00	-16.61	AVG
2.2260	32.81	9.69	42.50	56.00	-13.50	QP
2.2260	14.84	9.69	24.53	46.00	-21.47	AVG
9.0540	39.52	9.90	49.42	60.00	-10.58	QP
9.0540	10.96	9.90	20.86	50.00	-29.14	AVG
23.0660	21.88	10.24	32.12	60.00	-27.88	QP
23.0660	4.11	10.24	14.35	50.00	-35.65	AVG

Remark:

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

2. Factor = Insertion Loss + Cable Loss.







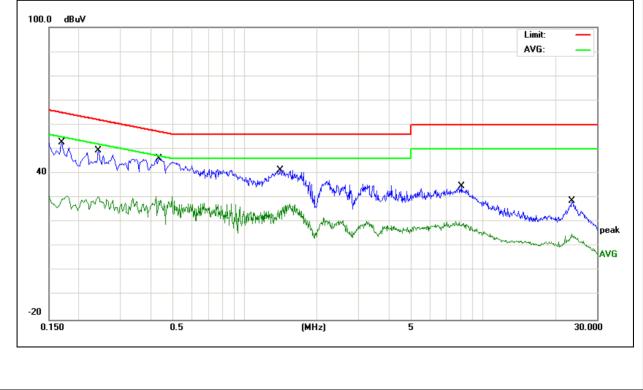
EUT:	Tablet PC	Model Name :	NT-P801
Temperature:	<b>25</b> ℃	Relative Humidity:	62%
Pressure:	1010hPa	Phase :	Ν
Test Voltage :	DC 5V from adapter AC 120V/60Hz	Test Mode:	Mode 1

				1		
Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	Remark
0.1700	43.11	9.65	52.76	64.96	-12.20	QP
0.1700	19.80	9.65	29.45	54.96	-25.51	AVG
0.2420	39.91	9.62	49.53	62.02	-12.49	QP
0.2420	21.06	9.62	30.68	52.02	-21.34	AVG
0.4340	36.56	9.67	46.23	57.18	-10.95	QP
0.4340	18.50	9.67	28.17	47.18	-19.01	AVG
1.4100	31.83	9.67	41.50	56.00	-14.50	QP
1.4100	14.72	9.67	24.39	46.00	-21.61	AVG
8.1340	24.75	9.85	34.60	60.00	-25.40	QP
8.1340	9.05	9.85	18.90	50.00	-31.10	AVG
23.5500	18.53	10.19	28.72	60.00	-31.28	QP
23.5500	5.21	10.19	15.40	50.00	-34.60	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

According to 1 OO 1 art15.205, Restricted bands					
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)

Froguopov(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)

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



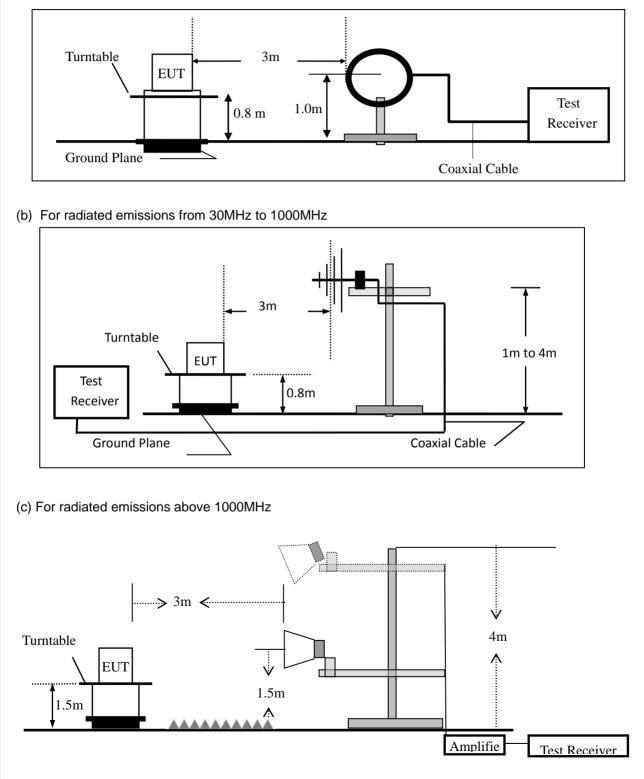


#### 7.2.3 Measuring Instruments

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 / 1 MHz 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	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						
Abaua 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:	Tablet PC	Model No.:	NT-P801
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Test Mode:	Mode2/Mode3/Mode4	Test By:	Gavan Zhang

Freq.	Ant.Pol.	Emission Level(dBuV/m)		Limit 3m(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: Tablet PC Model Name : NT-P801 Temperature: **25°**℃ 55% **Relative Humidity:** 1010hPa Test Mode: Mode 3 GFSK Pressure: Test Voltage : DC 3.8V from battery Emission Meter Frequency Factor Limits Margin Polar Reading Level Remark (H/V) (MHz) (dBuV) (dB) (dBuV/m) (dBuV/m) (dB) V 31.0706 7.32 25.80 33.12 40.00 -6.88 QP 27.01 QP V 77.3212 11.93 15.08 40.00 -12.99V 99.5281 15.71 17.78 33.49 43.50 -10.01 QP V 138.3873 7.75 18.52 26.27 43.50 -17.23 QP V 269.4284 7.05 19.40 26.45 46.00 -19.55 QP V 612.0642 7.20 26.46 33.66 46.00 -12.34 QP **Remark:** Emission Level= Meter Reading+ Factor, Margin= Emission Level - Limit 72.0 dBuV/m Limit: Margin: 6 1 10 32 3 with the day the 2 5 X Mymo X -8 30.000 40 50 60 70 80 (MHz) 300 400 500 600 700 1000.000

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Polar	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remar
(H/V)	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Н	30.1054	6.31	25.87	32.18	40.00	-7.82	QP
Н	113.7143	7.59	18.56	26.15	43.50	-17.35	QP
Н	136.4598	7.03	18.94	25.97	43.50	-17.53	QP
Н	292.0583	6.39	20.07	26.46	46.00	-19.54	QP
Н	443.2943	7.11	24.10	31.21	46.00	-14.79	QP
Н	709.1823	7.51	28.11	35.62	46.00	-10.38	QP
						Margin:	
						Limit: Margin:	
						6	
32	Une many man with a theater	and here the other starts	23 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	Hannahan Shanna ye watan ta	5 4 Appention of the and the	Madda Mar Mar Mar Mar Mar Mar Mar Mar Mar Ma	
-8							





Spurious E EUT:		et PC	GHZ (1GH		HZ) lel No.:		NT-F	2801		
									001	
Femperature:	-		<u> </u>	Relative Humidity: 48%						
Fest Mode:	est Mode: Mode2/Mode3/Mode4 Test By: Gavan Zhang I the modulation modes have been tested, and the worst result was report as below:									
All the modulati	on mode	s have t	been teste	d, and th	e worst resu	ilt was	s repo	ort as belo	SW:	
Frequency	Read Level	Cable loss	Antenna Factor	Preamp Factor	Emission Level	Lin	nits	Margin	Remark	Comment
(MHz)	(dBµV)	(dB)	dB/m	(dB)	(dBµV/m)	(dBµ	V/m)	(dB)		
			Low Chan	nel (2402	MHz)( GFSK	()Abc	ove 1G	6		
4804	70.18	5.21	35.59	44.30	66.68	74	.00	-7.32	Pk	Vertical
4804	46.13	5.21	35.59	44.30	42.63	54	.00	-11.37	AV	Vertical
7206	68.3	6.48	36.27	44.60	66.45	74	.00	-7.55	Pk	Vertical
7206	46.26	6.48	36.27	44.60	44.41	54	.00	-9.59	AV	Vertical
4804	69.54	5.21	35.55	44.30	66.00	74	.00	-8.00	Pk	Horizontal
4804	48.86	5.21	35.55	44.30	45.32	54	.00	-8.68	AV	Horizontal
7206	69.42	6.48	36.27	44.52	67.65	74	.00	-6.35	Pk	Horizontal
7206	46.74	6.48	36.27	44.52	44.97	54	.00	-9.03	AV	Horizontal
			Mid Chan	nel (2441	MHz)( GFSK	)Abo	ve 1G	i		
4882	70.31	5.21	35.66	44.20	66.98	74	.00	-7.02	Pk	Vertical
4882	50.41	5.21	35.66	44.20	47.08	54	.00	-6.92	AV	Vertical
7323	70.89	7.10	36.50	44.43	70.06	74	.00	-3.94	Pk	Vertical
7323	47.92	7.10	36.50	44.43	47.09	54	.00	-6.91	AV	Vertical
4882	68.72	5.21	35.66	44.20	65.39	74	.00	-8.61	Pk	Horizontal
4882	46.21	5.21	35.66	44.20	42.88	54	.00	-11.12	AV	Horizontal
7323	68.39	7.10	36.50	44.43	67.56	74	.00	-6.44	Pk	Horizontal
7323	47.17	7.10	36.50	44.43	46.34	54	.00	-7.66	AV	Horizontal
			High Chan	nel (2480	MHz)( GFSK	() Ab	ove 10	G		
4960	70.82	5.21	35.52	44.21	67.34	74	.00	-6.66	Pk	Vertical
4960	46.11	5.21	35.52	44.21	42.63	54	.00	-11.37	AV	Vertical
7440	70.85	7.10	36.53	44.60	69.88	74	.00	-4.12	Pk	Vertical
7440	45.13	7.10	36.53	44.60	44.16	54	.00	-9.84	AV	Vertical
4960	68.34	5.21	35.52	44.21	64.86	74	.00	-9.14	Pk	Horizontal
4960	47.19	5.21	35.52	44.21	43.71	54	.00	-10.29	AV	Horizontal
7440	69.37	7.10	36.53	44.60	68.40	74	.00	-5.60	Pk	Horizontal
7440	47.99	7.10	36.53	44.60	47.02	54	.00	-6.98	AV	Horizontal

Note:

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





	Spurious Emission in Restricted Band 2310-2390MHz and 2483.5-2500MHz										
EUT:		Tablet PC	Nesinci		Mode		2403.	NT-F			
									48%		
	erature:										
		Mode2/ Mo			Test				an Zhar	0	
All tr	ne modula	tion modes					sult wa	s rep	ort as b	elow:	
	Frequenc	y Meter Reading	Cable Loss	Antenna Factor	Preamp Factor	Emission Level	Limi	ts	Margin	Detector	Comment
	(MHz)	(dBµV)	(dB)	dB/m	(dB)	(dBµV/m)	(dBµ∨	//m)	(dB)	Туре	
				11	/lbps(GFSk	()- Non-hop	ping				
	2310.00	69.09	2.97	27.80	43.80	56.06	74		-17.94	Pk	Horizontal
	2310.00	47.32	2.97	27.80	43.80	34.29	54		-19.71	AV	Horizontal
	2310.00	70.18	2.97	27.80	43.80	57.15	74		-16.85	Pk	Vertical
	2310.00	45.62	2.97	27.80	43.80	32.59	54		-21.41	AV	Vertical
	2390.00	69.47	3.14	27.21	43.80	56.02	74		-17.98	Pk	Vertical
	2390.00	48.24	3.14	27.21	43.80	34.79	54		-19.21	AV	Vertical
	2390.00	68.03	3.14	27.21	43.80	54.58	74		-19.42	Pk	Horizontal
	2390.00	48.62	3.14	27.21	43.80	35.17	54		-18.83	AV	Horizontal
	2483.50	70.39	3.58	27.70	44.00	57.67	74		-16.33	Pk	Vertical
	2483.50	49.60	3.58	27.70	44.00	36.88	54		-17.12	AV	Vertical
	2483.50	68.66	3.58	27.70	44.00	55.94	74		-18.06	Pk	Horizontal
	2483.50	46.97	3.58	27.70	44.00	34.25	54		-19.75	AV	Horizontal
					1Mbps (G	FSK)- hoppin	g				
	2310.00	69.30	2.97	27.80	43.80	56.27	74		-17.73	Pk	Horizontal
	2310.00	48.68	2.97	27.80	43.80	35.65	54		-18.35	AV	Horizontal
	2310.00	68.40	2.97	27.80	43.80	55.37	74		-18.63	Pk	Vertical
	2310.00	48.56	2.97	27.80	43.80	35.53	54		-18.47	AV	Vertical
	2390.00	69.38	3.14	27.21	43.80	55.93	74		-18.07	Pk	Vertical
	2390.00	47.85	3.14	27.21	43.80	34.40	54		-19.60	AV	Vertical
	2390.00	70.51	3.14	27.21	43.80	57.06	74		-16.94	Pk	Horizontal
	2390.00	50.60	3.14	27.21	43.80	37.15	54		-16.85	AV	Horizontal
	2483.50	68.17	3.58	27.70	44.00	55.45	74		-18.55	Pk	Vertical
	2483.50	46.63	3.58	27.70	44.00	33.91	54		-20.09	AV	Vertical
	2483.50	69.30	3.58	27.70	44.00	56.58	74		-17.42	Pk	Horizontal
	2483.50	45.44	3.58	27.70	44.00	32.72	54		-21.28	AV	Horizontal

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





	Spurious	Emissior	n in Restri	cted Band	326	50MHz	z-18000MH	z				
Εl	EUT: Tablet PC					Model No.: N			NT-P	NT-P801		
Τe	emperature:	20	°C			Relat	ive Humidit	y:	48%			
Τe	est Mode:	Mo	de2/ Mod	e4		Test	By:		Gava	in Zhang		
A	II the modu	lation mo	des have	been test	ed, a	and th	e worst res	ult wa	as repo	ort as bel	ow:	1
	Frequency	Reading Level	Cable Loss	Antenna Factor		eamp actor	Emission Level	Lir	nits	Margin	Detector	Comment
	(MHz)	(dBµV)	(dB)	dB/m	(	dB)	(dBµV/m)	(dBµ	ıV/m)	(dB)	Туре	
	3260	69.28	4.04	29.57	44	4.70	58.19	7	<b>'</b> 4	-15.81	Pk	Vertical
	3260	45.23	4.04	29.57	44	4.70	34.14	5	54	-19.86	AV	Vertical
	3260	70.09	4.04	29.57	44	4.70	59.00	7	<b>'</b> 4	-15.00	Pk	Horizontal
	3260	48.49	4.04	29.57	44	4.70	37.40	5	54	-16.60	AV	Horizontal
	3332	69.21	4.26	29.87	44	4.40	58.94	7	<b>'</b> 4	-15.06	Pk	Vertical
	3332	46.09	4.26	29.87	44	4.40	35.82	5	54	-18.18	AV	Vertical
	3332	69.80	4.26	29.87	44	4.40	59.53	7	<b>'</b> 4	-14.47	Pk	Horizontal
	3332	47.54	4.26	29.87	44	4.40	37.27	5	54	-16.73	AV	Horizontal
	17797	56.60	10.99	43.95	43	3.50	68.04	7	<b>'</b> 4	-5.96	Pk	Vertical
	17797	40.62	10.99	43.95	43	3.50	52.06	5	54	-1.94	AV	Vertical
	17788	58.79	11.81	43.69	44	4.60	69.69	7	<b>'</b> 4	-4.31	Pk	Horizontal
	17788	38.52	11.81	43.69	44	4.60	49.42	5	54	-4.58	AV	Horizontal

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





#### 7.3 NUMBER OF HOPPING CHANNEL

#### 7.3.1 Applicable Standard

According to FCC Part 15.247(a)(1) (iii)and ANSI C63.10-2013

#### 7.3.2 Conformance Limit

Frequency hopping systems in the 2400-2483.5MHz band shall use at least 15 channels.

#### 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 ANSI C63.10-2013 clause 7.8.3 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 must have its hopping function enabled. Use the following spectrum analyzer settings: Span = the frequency band of operation RBW : To identify clearly the individual channels, set the RBW to less than 30% of the channel spacing or the 20 dB bandwidth, whichever is smaller. VBW  $\geq$  RBW Sweep = auto Detector function = peak Trace = max hold

#### 7.3.6 Test Results

EUT:	Tablet PC	Model No.:	NT-P801
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Test Mode:	Mode 5(1Mbps)	Test By:	Gavan Zhang





#### 7.4 HOPPING CHANNEL SEPARATION MEASUREMENT

#### 7.4.1 Applicable Standard

According to FCC Part 15.247(a)(1) and ANSI C63.10-2013

#### 7.4.2 Conformance Limit

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5MHz band shall have hopping channel carrier frequencies that are separated by 25kHz or two-thirds of the 20dB bandwidth of the hopping channel, whichever is greater.

#### 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 testing follows ANSI C63.10-2013 clause 7.8.2

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 = Measurement Bandwidth or Channel Separation

RBW: Start with the RBW set to approximately 30% of the channel spacing; adjust as necessary to best identify the center of each individual channel.

VBW ≥ RBW Sweep = auto

Detector function = peak Trace = max hold

#### 7.4.6 Test Results

EUT:	Tablet PC	Model No.:	NT-P801
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Test Mode:	Mode2/Mode3/Mode4	Test By:	Gavan Zhang





#### 7.5 AVERAGE TIME OF OCCUPANCY (DWELL TIME)

#### 7.5.1 Applicable Standard

According to FCC Part 15.247(a)(1)(iii) and ANSI C63.10-2013

#### 7.5.2 Conformance Limit

The average time of occupancy on any channel shall not be greater than 0.4s within a period of 0.4s multiplied by the number of hopping channels employed.

#### 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 ANSI C63.10-2013 clause 7.8.4 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 must have its hopping function enabled. Use the following spectrum analyzer settings: Span = zero span, centered on a hopping channel RBW  $\geq$  1MHz VBW  $\geq$  RBW Sweep = as necessary to capture the entire dwell time per hopping channel Detector function = peak Trace = max hold Measure the maximum time duration of one single pulse. Set the EUT for DH5, DH3 and DH1 packet transmitting. Measure the maximum time duration of one single pulse.





#### 7.5.6 Test Results

EUT:	Tablet PC	Model No.:	NT-P801
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Test Mode:	Mode2/Mode3/Mode4	Test By:	Gavan Zhang

Test data reference attachment. Note:

Dwell Time(s) = Burst Count(31.6s) x Pulse Time





#### 7.6 20DB BANDWIDTH TEST

#### 7.6.1 Applicable Standard

According to FCC Part 15.247(a)(1) and ANSI C63.10-2013

#### 7.6.2 Conformance Limit

No limit requirement.

#### 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 ANSI C63.10-2013 clause 6.9.2 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 = approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel RBW  $\geq$  1% of the 20 dB bandwidth VBW  $\geq$  RBW Sweep = auto Detector function = peak Trace = max hold

#### 7.6.6 Test Results

EUT:	Tablet PC	Model No.:	NT-P801
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Test Mode:	Mode2/Mode3/Mode4	Test By:	Gavan Zhang





#### 7.7 PEAK OUTPUT POWER

#### 7.7.1 Applicable Standard

According to FCC Part 15.247(b)(1) and ANSI C63.10-2013

#### 7.7.2 Conformance Limit

The maximum peak conducted output power of the intentional radiator shall not exceed the following: (1) For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band 0.125 watts.

#### 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 ANSI C63.10-2013 clause 7.8.5.

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 = approximately 5 times the 20 dB bandwidth, centered on a hopping channel

 $RBW \ge the 20 dB$  bandwidth of the emission being measured

 $VBW \ge RBW$ 

Sweep = auto

Detector function = peak Trace = max hold

#### 7.7.6 Test Results

EUT:	Tablet PC	Model No.:	NT-P801
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Test Mode:	Mode2/Mode3/Mode4	Test By:	Gavan Zhang





#### 7.8 CONDUCTED BAND EDGE MEASUREMENT

#### 7.8.1 Applicable Standard

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

#### 7.8.2 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. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.205(c)).

#### 7.8.3 Measuring Instruments

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

#### 7.8.4 Test Setup

Please refer to Section 6.1 of this test report.

#### 7.8.5 Test Procedure

The testing follows ANSI C63.10-2013 clause 7.8.6.

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 must have its hopping function enabled.

Use the following spectrum analyzer settings:

Span = approximately 5 times the 20 dB bandwidth, centered on a hopping channel

RBW = 100KHz

VBW = 300KHz

Band edge emissions must be at least 20 dB down from the highest emission level within the authorized band as measured with a 100kHz RBW. The attenuation shall be 30 dB instead of 20 dB when RMS conducted output power procedure is used.

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.

#### 7.8.6 Test Results

EUT:	Tablet PC	Model No.:	NT-P801 48%
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Test Mode:	Mode2 /Mode4/ Mode 5	Test By:	Gavan Zhang





#### 7.9 SPURIOUS RF CONDUCTED EMISSION

#### 7.9.1 Applicable Standard

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

#### 7.9.2 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. Attenuation below the general limits specified in §15.209(a) is not required. In addition, 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)).

#### 7.9.3 Measuring Instruments

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

#### 7.9.4 Test Setup

Please refer to Section 6.1 of this test report.

#### 7.9.5 Test Procedure

Establish an emission level by using the following procedure:

a) Set the center frequency and span to encompass frequency range to be measured.

- b) Set the RBW = 100 kHz.
- c) Set the VBW  $\geq$  [3 × RBW].
- d) Detector = peak.
- e) Sweep time = auto couple.
- f) Trace mode = max hold.

g) Allow trace to fully stabilize.

h) Use the peak marker function to determine the maximum amplitude level.

Then the limit shall be attenuated by at least 20 dB relative to the maximum amplitude level in 100 kHz.

#### 7.9.6 Test Results

Remark: The measurement frequency range is from 30MHzHz 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.





#### 7.10 ANTENNA APPLICATION

#### 7.10.1 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.

#### 7.10.2 Result

The EUT antenna is permanent attached FPCB Antenna (Gain: 1.62dBi). It comply with the standard requirement.





#### 7.11 FREQUENCY HOPPING SYSTEM (FHSS) EQUIPMENT REQUIREMENTS 7.11.1 Standard Applicable

According to FCC Part 15.247(a)(1), The system shall hop to channel frequencies that are selected at the system hopping rate from a pseudo randomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals. (g) Frequency hopping spread spectrum systems are not required to employ all available hopping channels during each transmission. However, the system, consisting of both the transmitter and the receiver, must be designed to comply with all of the regulations in this section should the transmission bursts must comply with the definition of a frequency hopping system and must distribute its transmissions over the minimum number of hopping channels specified in this section. (h) The incorporation of intelligence within a frequency hopping spread spectrum system that permits the system to recognize other users within the spectrum band so that it individually and independently chooses and adapts its hopsets to avoid hopping on occupied channels is permitted. The coordination of frequency hopping systems in any other manner for the express purpose of avoiding the simultaneous occupancy of individual hopping frequencies by multiple transmitters is not permitted.

#### 7.11.2 Frequency Hopping System

This transmitter device is frequency hopping device, and complies with FCC part 15.247 rule. This device uses Bluetooth radio which operates in 2400-2483.5 MHz band. Bluetooth uses a radio technology called frequency-hopping spread spectrum, which chops up the data being sent and transmits chunks of it on up to 79 bands (1 MHz each: centred from 2402 to 2480 MHz) in the range 2,400-2,483.5 MHz. The transmitter switches hop frequencies 1,600 times per second to assure a high degree of data security. All Bluetooth devices participating in a given piconet are synchronized to the frequency-hopping channel for the piconet. The frequency hopping sequence is determined by the master's device address and the phase of the hopping sequence (the frequency to hop at a specific time) is determined by the master's internal clock. Therefore, all slaves in a piconet must know the master's device address and must synchronize their clocks with the master's clock. Adaptive Frequency Hopping (AFH) was introduced in the Bluetooth specification to provide an effective way for a Bluetooth radio to counteract normal interference. AFH identifies "bad" channels, where either other wireless devices are interfering with the Bluetooth signal or the Bluetooth signal is interfering with another device. The AFH-enabled Bluetooth device will then communicate with other devices within its piconet to share details of any identified bad channels. The devices will then switch to alternative available "good" channels, away from the areas of interference, thus having no impact on the bandwidth used.

This device was tested with an bluetooth system receiver to check that the device maintained hopping synchronization, and the device complied with these requirements for FCC Part 15.247 rule.

#### 7.11.3 EUT Pseudorandom Frequency Hopping Sequence

Pseudorandom Frequency Hopping Sequence Table as below: Channel: 08, 24, 40, 56, 40, 56, 72, 09, 01, 09, 33, 41, 33, 41, 65, 73, 53, 69, 06, 22, 04, 20, 36, 52, 38, 46, 70, 78, 68, 76, 21, 29, 10, 26, 42, 58, 44, 60, 76, 13, 03, 11, 35, 43, 37, 45, 69, 77, 55, 71, 08, 24, 08, 24, 40, 56, 40, 48, 72, 01, 72, 01, 25, 33, 12, 28, 44, 60, 42, 58, 74, 11, 05, 13, 37, 45 etc.

The system receiver have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shift frequencies in synchronization with the transmitted signals.





## 8 TEST RESULTS

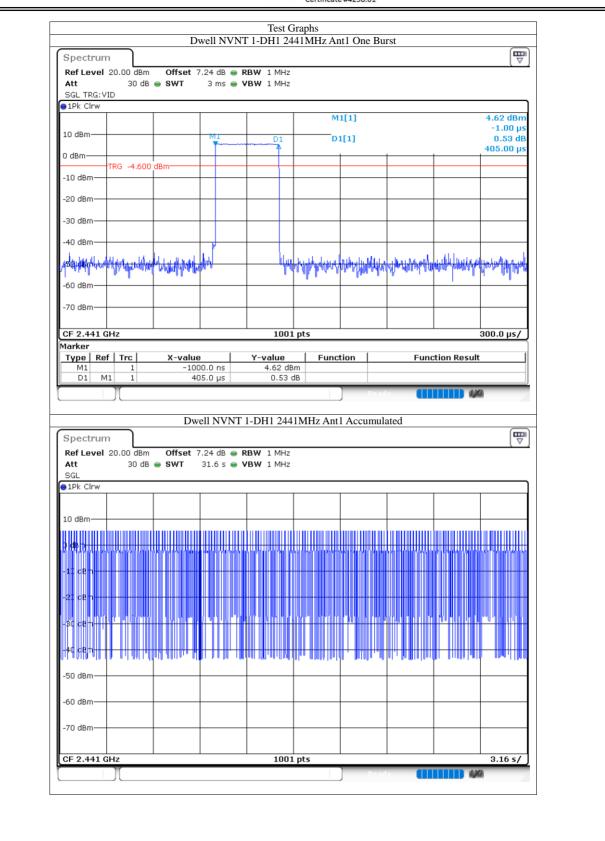
### 8.1 DWELL TIME

Mode	Frequency	Antenna	Pulse Time	Total Dwell	Burst	Period Time	Limit	Verdict
	(MHz)		(ms)	Time (ms)	Count	(ms)	(ms)	
							10.0	_
1-DH1	2441	Ant1	0.405	87.075	215	31600	400	Pass
1-DH3	2441	Ant1	1.66	205.84	124	31600	400	Pass
1-DH5	2441	Ant1	2.912	262.08	90	31600	400	Pass
2-DH1	2441	Ant1	0.399	86.184	216	31600	400	Pass
2-DH3	2441	Ant1	1.65	204.6	124	31600	400	Pass
2-DH5	2441	Ant1	2.896	260.64	90	31600	400	Pass
3-DH1	2441	Ant1	0.396	87.912	222	31600	400	Pass
3-DH3	2441	Ant1	1.65	206.25	125	31600	400	Pass
3-DH5	2441	Ant1	2.84	272.64	96	31600	400	Pass
	Mode 1-DH1 1-DH3 1-DH5 2-DH1 2-DH3 2-DH5 3-DH1 3-DH3	Mode         Frequency (MHz)           1-DH1         2441           1-DH3         2441           1-DH5         2441           2-DH1         2441           2-DH3         2441           2-DH5         2441           3-DH1         2441           3-DH3         2441	Mode         Frequency (MHz)         Antenna           1-DH1         2441         Ant1           1-DH3         2441         Ant1           1-DH5         2441         Ant1           2-DH1         2441         Ant1           2-DH3         2441         Ant1           2-DH5         2441         Ant1           3-DH1         2441         Ant1           3-DH3         2441         Ant1	ModeFrequency (MHz)AntennaPulse Time (ms)1-DH12441Ant10.4051-DH32441Ant11.661-DH52441Ant12.9122-DH12441Ant10.3992-DH32441Ant11.652-DH52441Ant10.3963-DH12441Ant10.3963-DH32441Ant11.65	ModeFrequency (MHz)AntennaPulse Time (ms)Total Dwell Time (ms)1-DH12441Ant10.40587.0751-DH32441Ant11.66205.841-DH52441Ant12.912262.082-DH12441Ant10.39986.1842-DH32441Ant11.65204.62-DH52441Ant11.65260.643-DH12441Ant10.39687.9123-DH32441Ant11.65206.25	ModeFrequency (MHz)AntennaPulse Time (ms)Total Dwell Time (ms)Burst Count1-DH12441Ant10.40587.0752151-DH32441Ant11.66205.841241-DH52441Ant12.912262.08902-DH12441Ant10.39986.1842162-DH32441Ant11.65204.61242-DH52441Ant11.65206.64903-DH12441Ant10.39687.9122223-DH32441Ant11.65206.25125	ModeFrequency (MHz)AntennaPulse Time (ms)Total Dwell Time (ms)Burst 	ModeFrequency (MHz)AntennaPulse Time (ms)Total Dwell Time (ms)Burst CountPeriod Time (ms)Limit (ms)1-DH12441Ant10.40587.075215316004001-DH32441Ant11.66205.84124316004001-DH52441Ant12.912262.0890316004002-DH12441Ant10.39986.184216316004002-DH32441Ant11.65204.6124316004002-DH52441Ant10.39687.912222316004003-DH12441Ant10.39687.912222316004003-DH32441Ant11.65206.2512531600400



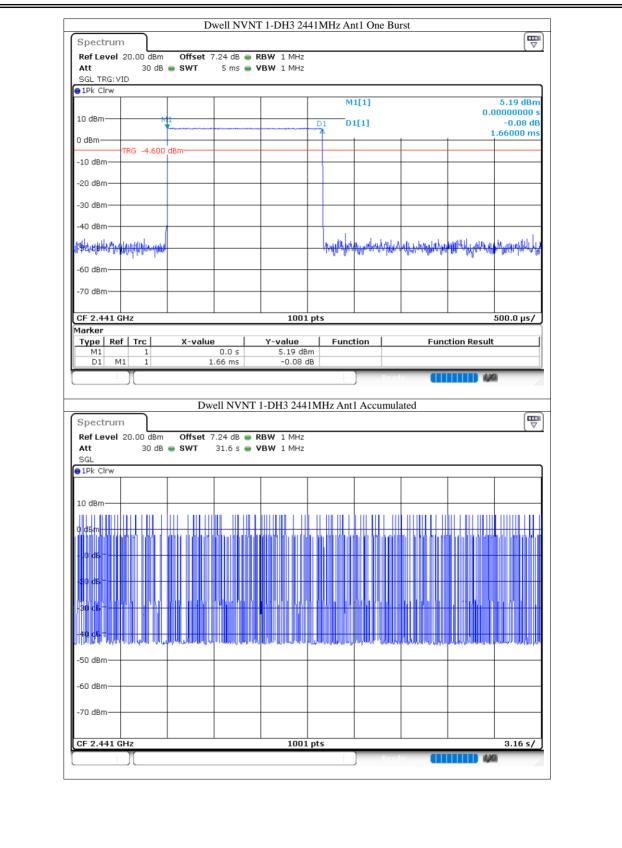


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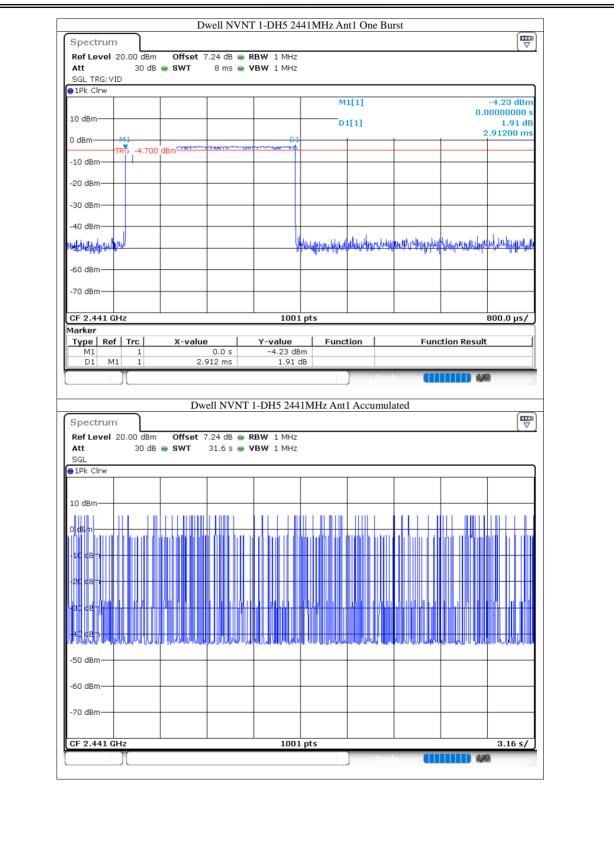






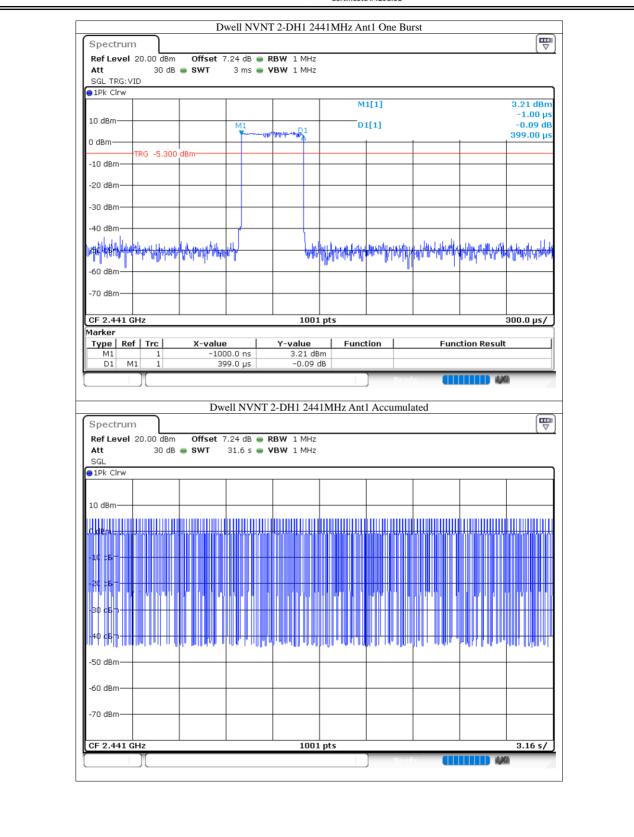






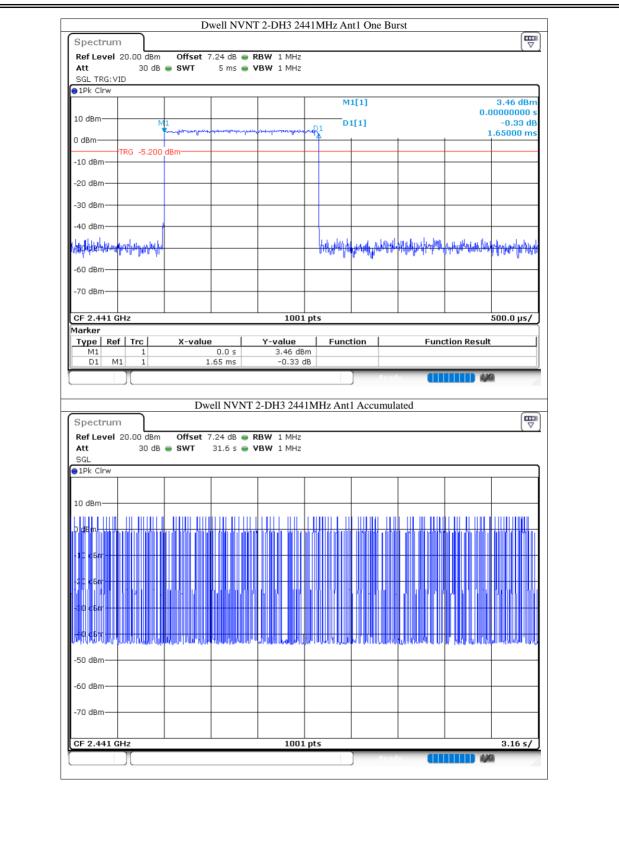






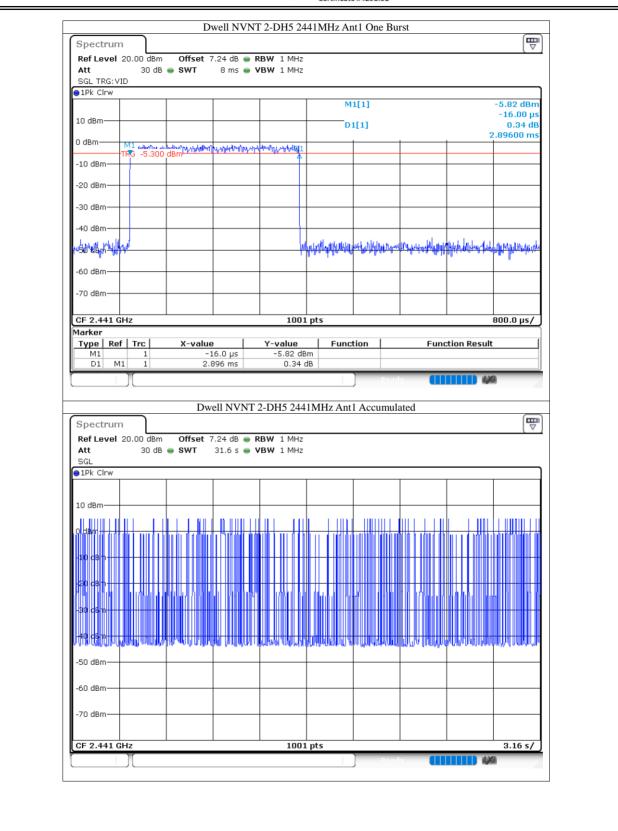






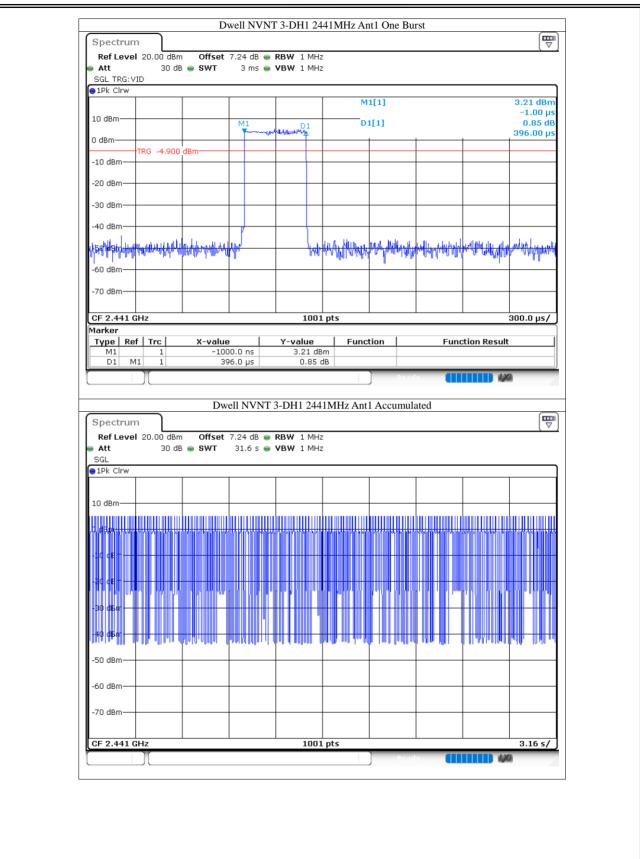






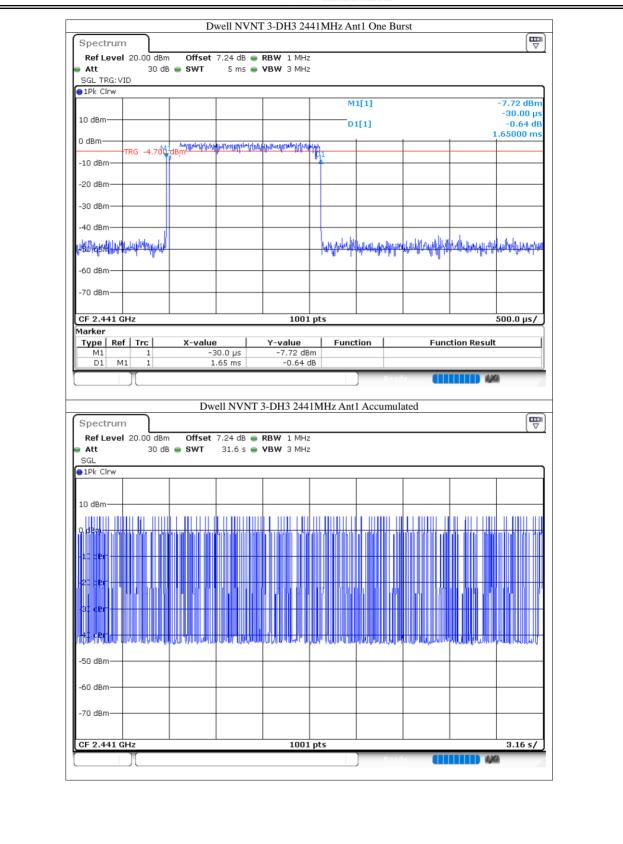






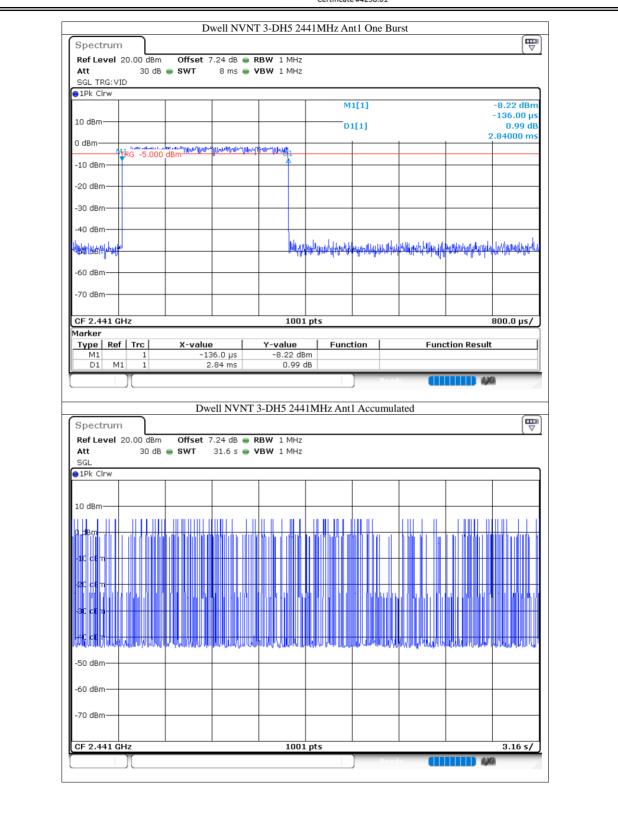














## 8.2 MAXIMUM CONDUCTED OUTPUT POWER

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	1.87	1.87	21	Pass
NVNT	1-DH5	2441	Ant1	1.8	1.8	21	Pass
NVNT	1-DH5	2480	Ant1	2.08	2.08	21	Pass
NVNT	2-DH5	2402	Ant1	2.21	2.21	21	Pass
NVNT	2-DH5	2441	Ant1	1.96	1.96	21	Pass
NVNT	2-DH5	2480	Ant1	2.47	2.47	21	Pass
NVNT	3-DH5	2402	Ant1	2.37	2.37	21	Pass
NVNT	3-DH5	2441	Ant1	2.01	2.01	21	Pass
NVNT	3-DH5	2480	Ant1	2.66	2.66	21	Pass





Spectrum Ref Level 20.00		7 07 do - P				 	
	30 dB <b>SWT</b>	7.07 dB 👄 R 1 ms 👄 V	BW 2 MHz	Mode Auto S	weep		
IPK Max				M1[1	]	 2.402	1.87 dBm 02000 GHz
10 dBm			N	11			
0 dBm						 	
-10 dBm						 	
-20 dBm							
-30 dBm							
-40 dBm						 	
-50 dBm							
-60 dBm						 	
-70 dBm							
CF 2.402 GHz			1001	nts		Sna	n 5.0 MHz
	dBm Offset :		NVNT 1-DI	H5 2441MHz	Ready Ant1		
SGL Count 100/1	30 dB <b>SWT</b>	7.24 dB 👄 R	NVNT 1-DI				
Ref Level 20.00 Att SGL Count 100/1	30 dB <b>SWT</b>	7.24 dB 👄 R	NVNT 1-DI	H5 2441MHz	weep		
Ref Level 20.00 Att SGL Count 100/1 PPk Max	30 dB <b>SWT</b>	7.24 dB 👄 R	NVNT 1-DI	H5 2441MHz Mode Auto S M1[1	weep		
Ref Level         20.00           Att         3           SGL Count         100/1           IPk Max         3           10 dBm         10	30 dB <b>SWT</b>	7.24 dB 👄 R	NVNT 1-DI	H5 2441MHz Mode Auto S	weep		
Ref Level         20.00           Att         3           SGL Count         100/1           1Pk Max         10           10 dBm         0	30 dB <b>SWT</b>	7.24 dB 👄 R	NVNT 1-DI	H5 2441MHz Mode Auto S M1[1	weep		
Ref Level         20.00           Att         3           SGL Count         100/1           1Pk Max         3           10 dBm         0           -10 dBm         -10	30 dB <b>SWT</b>	7.24 dB 👄 R	NVNT 1-DI	H5 2441MHz Mode Auto S M1[1	weep		
Ref Level         20.00           Att         3           SGL Count         100/1           1Pk Max         3           10 dBm         0           -10 dBm         -20 dBm	30 dB <b>SWT</b>	7.24 dB 👄 R	NVNT 1-DI	H5 2441MHz Mode Auto S M1[1	weep		
Ref Level 20.00 Att 3	30 dB <b>SWT</b>	7.24 dB 👄 R	NVNT 1-DI	H5 2441MHz Mode Auto S M1[1	weep		
Ref Level         20.00           Att         3           SGL Count         100/1           1Pk Max         10           10 dBm         0           -10 dBm	30 dB <b>SWT</b>	7.24 dB 👄 R	NVNT 1-DI	H5 2441MHz Mode Auto S M1[1	weep		
Ref Level         20.00           Att         3           SGL Count         100/1           1Pk Max         10           10 dBm         0           -10 dBm	30 dB <b>SWT</b>	7.24 dB 👄 R	NVNT 1-DI	H5 2441MHz Mode Auto S M1[1	weep		
Ref Level 20.00           Att         SGL Count 100/1           SGL Count 100/1           IPk Max           10 dBm           -0 dBm           -20 dBm           -30 dBm           -50 dBm           -60 dBm	30 dB <b>SWT</b>	7.24 dB 👄 R	NVNT 1-DI	H5 2441MHz Mode Auto S M1[1	weep		
Ref Level         20.00           Att         3           SGL Count         100/1           1Pk Max         3           10 dBm         -           0 dBm         -           -10 dBm         -           -20 dBm         -           -30 dBm         -           -40 dBm         -           -50 dBm         -	30 dB <b>SWT</b>	7.24 dB 👄 R	NVNT 1-DI	H5 2441MHz Mode Auto S M1[1 M1 1	weep	2.441	1.80 dBm 11990 GHz





1Pk Max	<ul> <li>RBW 2 MHz</li> <li>VBW 2 MHz</li> <li>Mode Auto Sv</li> </ul>	( <sup>™</sup> ) weep
	M1[1]	2.08 dBm
		2.47998500 GHz
10 dBm	мд	
) dBm		
10 dBm		
-20 dBm		
-30 dBm		
-40 dBm		
-50 dBm		
-60 dBm		
-70 dBm		
CF 2.48 GHz	1001 pts	Span 5.0 MHz
Att 30 dB SWT 1 ms SGL Count 100/100 1Pk Max	■ VBW 2 MHz Mode Auto Sv	,,b
	M1[1]	2.21 dBm 2.40209090 GHz
10 dBm		2.40209090 GHz
	M1	
) dBm		
D dBm		
10 dBm		and a second sec
		and the second s
20.06m		
-10 dBm		
20.06m		
10 dBm 20 dBm 		
20 dBm		
10 dBm 20 dBm 		
10 dBm 20 dBm 30 dBm 40 dBm 50 dBm 60 dBm		
10 dBm 20 dBm 		
10 dBm 20 dBm 30 dBm 40 dBm 50 dBm 60 dBm	1001 pts	Span 6.5 MHz





SGL Count 100/10	dBm Offset 7 IdB SWT O	1 ms 🖶 VB		Mode Aut	to Sweep			
91Pk Max				M	1[1]			1.96 dBm
10 dBm					1		2.44	104550 GHz
10 0800				M1				
0 dBm	_			<b>X</b>		-		
-10 dBm							where and the second se	
al Branch and a branch							and and a second	
-20,d8m								and a series of the series of
-30 dBm								
-40 dBm								
-50 dBm								
-60 dBm								
-70 dBm								
CF 2.441 GHz			1001	Inte			- Sn:	an 6.5 MHz
Spectrum Ref Level 20.00 c	dBm <b>Offset</b> 7	.07 dB 👄 RB	W 2 MHz	H5 2480M				
Ref Level         20.00           Att         30           SGL Count         100/10	dB SWT		W 2 MHz	Mode Aut	to Sweep			
Ref Level 20.00 C Att 30 SGL Count 100/10 1Pk Max	dB SWT	.07 dB 👄 RB	W 2 MHz	Mode Aut				- ///
Ref Level 20.00 C Att 30 SGL Count 100/10 1Pk Max	dB SWT	.07 dB 👄 RB	W 2 MHz W 2 MHz MHz	Mode Aut	to Sweep			 2.47 dBm
Ref Level         20.00 C           Att         30           SGL Count         100/10           1Pk Max         10	dB SWT	.07 dB 👄 RB	W 2 MHz W 2 MHz	Mode Aut	to Sweep			 2.47 dBm
Ref Level         20.00 C           Att         30           SGL Count         100/10           1Pk Max         10           10 dBm         0	dB SWT	.07 dB 👄 RB	W 2 MHz W 2 MHz MHz	Mode Aut	to Sweep			 2.47 dBm
Ref Level         20.00 C           Att         30           SGL         Count         100/10           1Pk         Max           10 dBm         0           -10 dBm         0	dB SWT	.07 dB 👄 RB	W 2 MHz W 2 MHz MHz	Mode Aut	to Sweep			 2.47 dBm
Att         30           SGL Count 100/10         100/10           1Pk Max         10           10 dBm         0	dB SWT	.07 dB 👄 RB	W 2 MHz W 2 MHz MHz	Mode Aut	to Sweep			 2.47 dBm
Ref Level         20.00 C           Att         30           SGL         Count         100/10           1Pk         Max           10 dBm         0           -10 dBm         0	dB SWT	.07 dB 👄 RB	W 2 MHz W 2 MHz MHz	Mode Aut	to Sweep			 2.47 dBm
Ref Level         20.00 c           Att         30           SGL         Count         100/10           1Pk         Max         10           0 dBm         -         -           -10 dBm         -         -           -20 dBm         -         -           -30 dBm         -         -	dB SWT	.07 dB 👄 RB	W 2 MHz W 2 MHz MHz	Mode Aut	to Sweep			 2.47 dBm
Ref Level         20.00 c           Att         30           SGL         Count         100/10           1Pk         Max         10           0 dBm         -         -           -10 dBm         -         -           -20 dBm         -         -	dB SWT	.07 dB 👄 RB	W 2 MHz W 2 MHz MHz	Mode Aut	to Sweep			 2.47 dBm
Ref Level         20.00 c           Att         30           SGL         Count         100/10           1Pk         Max         10           0 dBm         -         -           -10 dBm         -         -           -20 dBm         -         -           -30 dBm         -         -	dB SWT	.07 dB 👄 RB	W 2 MHz W 2 MHz MHz	Mode Aut	to Sweep			 2.47 dBm
Ref Level         20.00 G           Att         30           SGL Count         100/10           IPk Max         10           0 dBm         -0           -10 dBm         -0           -20 dBm         -30 dBm           -40 dBm         -40 dBm	dB SWT	.07 dB 👄 RB	W 2 MHz W 2 MHz MHz	Mode Aut	to Sweep			 2.47 dBm
Ref Level         20.00 c           Att         30           SGL Count         100/10           1Pk Max         10           0 dBm         -0           -10 dBm	dB SWT	.07 dB 👄 RB	W 2 MHz W 2 MHz MHz	Mode Aut	to Sweep			 2.47 dBm
Ref Level         20.00 G           Att         30           SGL Count         100/10           IPk Max         10           0 dBm         -0           -10 dBm         -0           -20 dBm	dB SWT	.07 dB 👄 RB	W 2 MHz W 2 MHz MHz	Mode Aut	to Sweep			 2.47 dBm
Ref Level         20.00 c           Att         30           SGL Count         100/10           1Pk Max         10           10 dBm         0           -10 dBm	db SWT	.07 dB 👄 RB	W 2 MHz W 2 MHz MHz	Mode Aut	to Sweep		2.479	 2.47 dBm





SGL Count 100/100	dB SWT	07 dB 👄 RB 1 ms 👄 VB		Mode Auto	o Sweep		
●1Pk Max				M	1[1]		2.37 dBm
						 2.40	201950 GHz
10 dBm			N	1			
0 dBm		and the second	mun	humanny	- mar marker		
						 and the second se	
-10 dBm	**					- And and a second	
-20.etBm							The second second
-30 dBm							
-40 dBm							
-50 dBm							
-50 ubiii-							
-60 dBm							+
-70 dBm							
CF 2.402 GHz			1001	pts		Spa	an 6.5 MHz
Spectrum Ref Level 20.00 d		24 dB 😑 RB	W 2 MHz	H5 2441MF			
Ref Level         20.00 d           Att         30           SGL Count         100/100	dB SWT	24 dB 😑 RB	W 2 MHz	H5 2441MH Mode Auto			
Ref Level         20.00 d           Att         30	dB SWT	24 dB 😑 RB	W 2 MHz	Mode Auto			.01 dBm
Ref Level         20.00 d           Att         30           SGL Count         100/100	dB SWT	24 dB 😑 RB	3W 2 MHz 3W 2 MHz	Mode Auto	o Sweep	2.44	
Ref Level         20.00 d           Att         30           SGL Count         100/100           1Pk Max         10 dBm	dB SWT	24 dB 😑 RB	W 2 MHz	Mode Auto	o Sweep	2.44	.01 dBm
Ref Level 20.00 d Att 30 SGL Count 100/100 P1Pk Max	dB SWT	24 dB 😑 RB	3W 2 MHz 3W 2 MHz	Mode Auto	o Sweep	2.44	.01 dBm
Ref Level         20.00 d           Att         30           SGL Count         100/100           1Pk Max         10 dBm	dB SWT	24 dB 😑 RB	3W 2 MHz 3W 2 MHz	Mode Auto	o Sweep	2.44	.01 dBm
Ref Level         20.00 d           Att         30           SGL Count         100/100           1Pk Max         10           10 dBm         0           -10 dBm         -10 dBm	dB SWT	24 dB 😑 RB	3W 2 MHz 3W 2 MHz	Mode Auto	o Sweep	2.44	.01 dBm
Ref Level         20.00 d           Att         30           SGL Count         100/100           1Pk Max         100           10 dBm         0           -10 dBm	dB SWT	24 dB 😑 RB	3W 2 MHz 3W 2 MHz	Mode Auto	o Sweep	2.44	.01 dBm
Ref Level         20.00 d           Att         30           SGL Count         100/100           1Pk Max         10           10 dBm         0           -10 dBm         -10 dBm	dB SWT	24 dB 😑 RB	3W 2 MHz 3W 2 MHz	Mode Auto	o Sweep	2.44	.01 dBm
Ref Level         20.00 d           Att         30           SGL Count         100/100           1Pk Max         100           10 dBm         0           -10 dBm	dB SWT	24 dB 😑 RB	3W 2 MHz 3W 2 MHz	Mode Auto	o Sweep	2.44	.01 dBm
Ref Level         20.00 d           Att         30           SGL Count         100/100           1Pk Max         10           10 dBm         0           -10 dBm	dB SWT	24 dB 😑 RB	3W 2 MHz 3W 2 MHz	Mode Auto	o Sweep	2.44	.01 dBm
Ref Level         20.00 d           Att         30           SGL Count         100/100           1Pk Max         100           10 dBm         0           -10 dBm	dB SWT	24 dB 😑 RB	3W 2 MHz 3W 2 MHz	Mode Auto	o Sweep	2.44	.01 dBm
Ref Level         20.00 d           Att         30           SGL Count         100/100           1Pk Max         10           10 dBm         0           -10 dBm	dB SWT	24 dB 😑 RB	3W 2 MHz 3W 2 MHz	Mode Auto	o Sweep	2.44	.01 dBm
Ref Level         20.00 d           Att         30           SGL Count         100/100           1Pk Max         10           10 dBm         10           -10 dBm         -0           -20 dBm	dB SWT	24 dB 😑 RB	3W 2 MHz 3W 2 MHz	Mode Auto	o Sweep	2.44	.01 dBm
Ref Level         20.00 d           Att         30           SGL Count         100/100           10 dBm         0           0 dBm         0           -10 dBm         0           -20 dBm         0           -30 dBm         0           -30 dBm         0           -50 dBm         0	dB SWT	24 dB 😑 RB	3W 2 MHz 3W 2 MHz	Mode Auto	o Sweep	2.44	.01 dBm
Ref Level         20.00 d           Att         30           SGL Count         100/100           10 dBm         0           0 dBm         -           -10 dBm         -           -20 dBm         -           -30 dBm         -           -60 dBm         -           -70 dBm         -	dB SWT	24 dB 😑 RB	3W 2 MHz 3W 2 MHz	Mode Auto	o Sweep		.01 dBm
Ref Level         20.00 d           Att         30           SGL Count         100/100           1Pk Max         10           10 dBm         10           -10 dBm         -0           -20 dBm	dB SWT	24 dB 😑 RB	W 2 MHz WHz MHz	Mode Auto	o Sweep		2.01 dBm 100650 GHz





Spectrum				
Ref Level 20.00 dBr Att 30 d GGL Count 100/100	dB ● RBW 2 MHz ms ● VBW 2 MHz M	Mode Auto Sweep		( • )
1Pk Max				
		M1[1]	2.48	2.66 dBm 000000 GHz
0 dBm				
	M1	monument		
dBm		and the second s	minne	
LO dBm	 			
and the second second				-
20 efBm	 			No non
30 dBm				
10 dBm				
50 dBm	 			
50 dBm				
70 dBm				
F 2.48 GHz	1001 p	ts	Sn	an 6.5 MHz





## 8.3 -20DB BANDWIDTH

Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	0.942	Pass
NVNT	1-DH5	2441	Ant1	0.946	Pass
NVNT	1-DH5	2480	Ant1	0.95	Pass
NVNT	2-DH5	2402	Ant1	1.282	Pass
NVNT	2-DH5	2441	Ant1	1.304	Pass
NVNT	2-DH5	2480	Ant1	1.278	Pass
NVNT	3-DH5	2402	Ant1	1.306	Pass
NVNT	3-DH5	2441	Ant1	1.3	Pass
NVNT	3-DH5	2480	Ant1	1.288	Pass























Spectrun Ref Level Att									
	20.00 dBm	Offset 7	07 dB 👄 🛙	RBW 30 kHz					( v
	30 dB			VBW 100 kHz	Mode Auto	FFT			
SGL Count	100/100								
●1Pk Max	1	1			MIEI	1			-4.20 dBm
					M1[1]	1			-4.20 dBm 03000 GHz
10 dBm					M2[1]	1		-	23.61 dBm
0 dBm					41			2.401	35000 GHz
				hant	3~~				
-10 dBm—		~~~	~~~		~~ <u>}</u> ~~	$\sim \sim \sim \sim$	$\sim$		
-20 dBm	M2						- 54	ма	
	L Z							Υ	
-30 dBm—									
-40 dBm	5								
$\sim\sim\sim$	~~~							Ŭ	$\sim$
-50 dBm									
-60 dBm				+					
-70 dBm									
OE 0 400 1	24.5			1001	ntc			0	n 0 0 Mill-
CF 2.402 ( Marker	artz			1001	μις			spa	n 2.0 MHz
Type   Re	f   Trc	X-value	.	Y-value	Function	1	Functi	on Result	:
M1	1	2.4020	D3 GHz	-4.20 dBr	n				
M2 M3	1	2.4013	35 GHz	-23.61 dBr -23.96 dBr					
MO		2.7020.		20.90 UDI					
Spectrum		-20	)dB Band	lwidth NVNT	3-DH5 24411	Peady MHz Ant1			
Ref Level	20.00 dBm	Offset 7.	24 dB 👄 I	RBW 30 kHz					
Ref Level Att SGL Count	20.00 dBm 30 dB	Offset 7.	24 dB 👄 I						
Ref Level Att SGL Count	20.00 dBm 30 dB	Offset 7.	24 dB 👄 I	RBW 30 kHz	Mode Auto	FFT			
Ref Level Att SGL Count 1Pk Max	20.00 dBm 30 dB	Offset 7.	24 dB 👄 I	RBW 30 kHz		FFT			-3.37 dBm
Ref Level Att SGL Count 1Pk Max	20.00 dBm 30 dB	Offset 7.	24 dB 👄 I	RBW 30 kHz	Mode Auto	FFT		2.441	
Ref Level Att SGL Count 1Pk Max	20.00 dBm 30 dB	Offset 7.	24 dB 👄 I	RBW 30 kHz	Mode Auto	FFT		2.441	-3.37 dBm 01200 GHz
Ref Level Att SGL Count 1Pk Max 10 dBm	20.00 dBm 30 dB	Offset 7.	24 dB 👄 I	RBW 30 kHz	Mode Auto	FFT		2.441	-3.37 dBm 01200 GHz 22.88 dBm
Ref Level Att SGL Count 1Pk Max 10 dBm	20.00 dBm 30 dB	Offset 7.	24 dB 👄 I	RBW 30 kHz	Mode Auto	FFT		2.441	-3.37 dBm 01200 GHz 22.88 dBm
Ref Level Att SGL Count 1Pk Max 10 dBm	20.00 dBm 30 dB	Offset 7.	24 dB 👄 I	RBW 30 kHz	Mode Auto	FFT		2.441	-3.37 dBm 01200 GHz 22.88 dBm
Att SGL Count 1Pk Max 10 dBm	20.00 dBm 30 dB 100/100	Offset 7.	24 dB 👄 I	RBW 30 kHz	Mode Auto	FFT		2.441 - 2.440	-3.37 dBm 01200 GHz 22.88 dBm
Ref Level Att SGL Count 1Pk Max 10 dBm	20.00 dBm 30 dB 100/100	Offset 7.	24 dB 👄 I	RBW 30 kHz	Mode Auto	FFT		2.441 - 2.440	-3.37 dBm 01200 GHz 22.88 dBm
Ref Level Att SGL Count 10 dBm	20.00 dBm 30 dB 100/100	Offset 7.	24 dB 👄 I	RBW 30 kHz	Mode Auto	FFT		2.441 - 2.440	-3.37 dBm 01200 GHz 22.88 dBm
Ref Level Att SGL Count O dBm	20.00 dBm 30 dB 100/100	Offset 7.	24 dB 👄 I	RBW 30 kHz	Mode Auto	FFT		2.441 - 2.440	-3.37 dBm 01200 GHz 22.88 dBm
Ref Level           Att           SGL Count           IPk Max           10 dBm           -10 dBm           -20 dBm           -30 dBm	20.00 dBm 30 dB 100/100	Offset 7.	24 dB 👄 I	RBW 30 kHz	Mode Auto	FFT		2.441 - 2.440	-3.37 dBm 01200 GHz 22.88 dBm
Ref Level           Att           SGL Count           1Pk Max           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm	20.00 dBm 30 dB 100/100	Offset 7.	24 dB 👄 I	RBW 30 kHz	Mode Auto	FFT		2.441 - 2.440	-3.37 dBm 01200 GHz 22.88 dBm
Ref Level Att           SGL Count           9 1Pk Max           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm           -60 dBm	20.00 dBm 30 dB 100/100	Offset 7.	24 dB 👄 I	RBW 30 kHz	Mode Auto	FFT		2.441 - 2.440	-3.37 dBm 01200 GHz 22.88 dBm
Ref Level Att           SGL Count           9 1Pk Max           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm           -60 dBm	20.00 dBm 30 dB 100/100	Offset 7.	24 dB 👄 I	RBW 30 kHz	Mode Auto	FFT		2.441 - 2.440	-3.37 dBm 01200 GHz 22.88 dBm
Ref Level           Att           SGL Count           SGL Count           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm           -60 dBm	20.00 dBm 30 dB 100/100	Offset 7.	24 dB 👄 I	RBW 30 kHz	Mode Auto M1[1] M2[1]	FFT		2.441 2.440	-3.37 dBm 01200 GHz 22.88 dBm 35000 GHz
Ref Level           Att           SGL Count           SGL Count           10 dBm           0 dBm           -10 dBm           -20 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm           -60 dBm           -70 dBm	20.00 dBm 30 dB 100/100	Offset 7.	24 dB 👄 I	RBW 30 kHz	Mode Auto M1[1] M2[1]	FFT		2.441 2.440	-3.37 dBm 01200 GHz 22.88 dBm
Ref Level           Att           SGL Count           IPk Max           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm           -60 dBm           -70 dBm           CF 2.441 (Marker	20.00 dBm 30 dB 100/100	Offset 7. SWT 63	24 dB • • •	RBW 30 kHz	Mode Auto M1[1] M2[1] M2[1]	FF T		2.441 2.440	-3.37 dBm 01200 GHz 22.88 dBm 35000 GHz
Ref Level Att           SGL Count           SGL Count           10 dBm           10 dBm           -10 dBm           -20 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm           -60 dBm           -70 dBm           Type           M1	20.00 dBm 30 dB 100/100	Offset 7. SWT 63	24 dB • • •	RBW 30 kHz VBW 100 kHz	Mode Auto M1[1] M2[1]	FF T		2.441 2.440	-3.37 dBm 01200 GHz 22.88 dBm 35000 GHz
Ref Level Att           SGL Count           1Pk Max           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm           -60 dBm           -70 dBm           GF 2.441 ( Marker           Type         Re	20.00 dBm 30 dB 100/100	Offset 7. SWT 63	24 dB • 1	RBW 30 kHz VBW 100 kHz	Mode Auto M1[1] M2	FF T		2.441 2.440	-3.37 dBm 01200 GHz 22.88 dBm 35000 GHz
Lef Level           Max           GGL Count           IPK Max           0 dBm           dBm           0 dBm	20.00 dBm 30 dB 100/100	Offset 7.	24 dB 👄 I	RBW 30 kHz	Mode Auto M1[1] M2[1]	FFT		2.441 2.440	-3.37 dBm 01200 GHz 22.88 dBm 35000 GHz





pectrum						
Ref Level - 2	 20.00.dBr	m Offset 7.07 dB 🖷	RBW 30 kHz			(*)
tt	30 d			Mode Auto FFT		
GL Count 1		5 6111 0010 ps 🧉	100 100	Hode Autorn		
1Pk Max	,					
				M1[1]		-1.33 dBm
				out[1]		02600 GHz
D dBm				M2[1]		21.13 dBm
			M1			35400 GHz
dBm			<u> </u>	0		
			h m m /	$\sim \sim$		
.0 dBm						
	M				M3	
	7					
0 dBm						
o ubiii						
O dBm	_					
$\sim$	~					~~~~
0 dBm						
50 dBm —						
'0 dBm —						
F 2.48 GH	7		1001 pt	s	Sna	n 2.0 MHz
arker	-		1001 pt	2	640	
ype   Ref	Trol	X-value	Y-value	Function	Function Result	1
M1 M1	1	2.480026 GHz	-1.33 dBm	Function	Function Result	
M2	1	2.479354 GHz	-21.13 dBm			
M3	1	2.480642 GHz	-21.32 dBm			





## 8.4 OCCUPIED CHANNEL BANDWIDTH

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH5	2402	Ant1	0.919
NVNT	1-DH5	2441	Ant1	0.821
NVNT	1-DH5	2480	Ant1	0.857
NVNT	2-DH5	2402	Ant1	1.187
NVNT	2-DH5	2441	Ant1	1.185
NVNT	2-DH5	2480	Ant1	1.191
NVNT	3-DH5	2402	Ant1	1.187
NVNT	3-DH5	2441	Ant1	1.179
NVNT	3-DH5	2480	Ant1	1.191
	Condition NVNT NVNT NVNT NVNT NVNT NVNT NVNT NVN	ConditionModeNVNT1-DH5NVNT1-DH5NVNT1-DH5NVNT2-DH5NVNT2-DH5NVNT2-DH5NVNT3-DH5NVNT3-DH5	NVNT         1-DH5         2402           NVNT         1-DH5         2441           NVNT         1-DH5         2480           NVNT         2-DH5         2402           NVNT         2-DH5         2402           NVNT         2-DH5         2441           NVNT         2-DH5         2442           NVNT         2-DH5         2442           NVNT         3-DH5         2402           NVNT         3-DH5         2441	Condition         Mode         Frequency (MHz)         Antenna           NVNT         1-DH5         2402         Ant1           NVNT         1-DH5         2441         Ant1           NVNT         1-DH5         2440         Ant1           NVNT         1-DH5         2441         Ant1           NVNT         2-DH5         2402         Ant1           NVNT         2-DH5         2441         Ant1           NVNT         2-DH5         2441         Ant1           NVNT         2-DH5         2480         Ant1           NVNT         3-DH5         2402         Ant1           NVNT         3-DH5         2402         Ant1

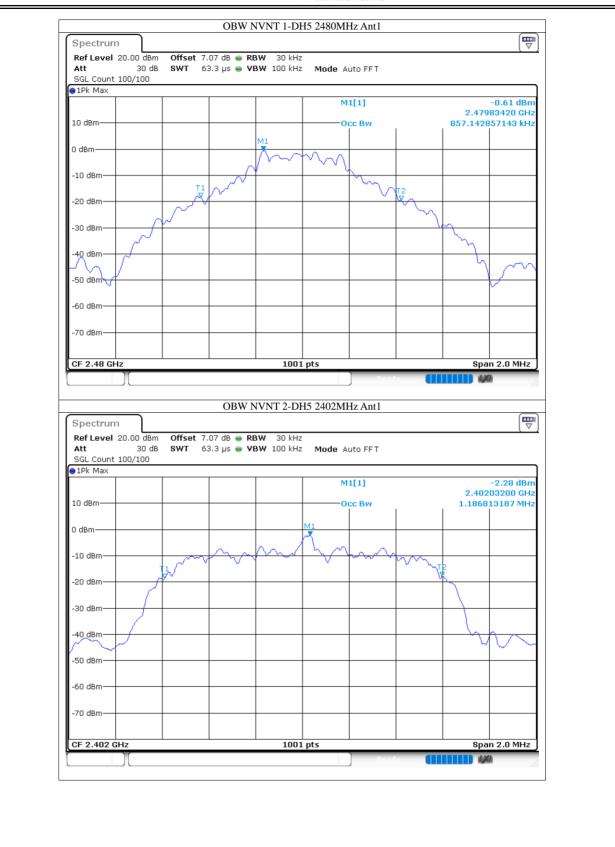












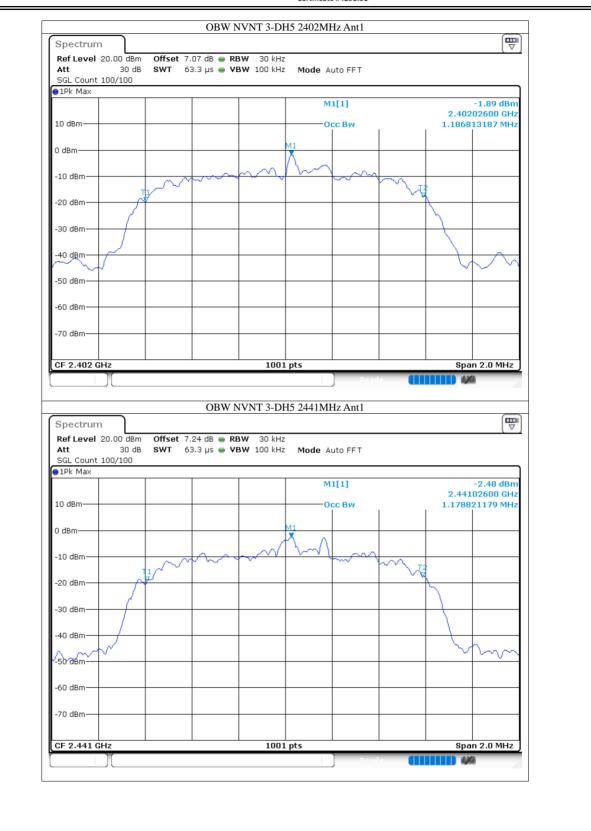






















## **8.5** CARRIER FREQUENCIES SEPARATION

Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict					
NVNT	1-DH5	Ant1	2402.028	2403.032	1.004	0.628	Pass					
NVNT	1-DH5	Ant1	2441.06	2442.062	1.002	0.631	Pass					
NVNT	1-DH5	Ant1	2478.838	2479.84	1.002	0.633	Pass					
NVNT	2-DH5	Ant1	2402.03	2403.028	0.998	0.855	Pass					
NVNT	2-DH5	Ant1	2441.022	2442.016	0.994	0.869	Pass					
NVNT	2-DH5	Ant1	2479.028	2480.032	1.004	0.852	Pass					
NVNT	3-DH5	Ant1	2402.03	2403.032	1.002	0.871	Pass					
NVNT	3-DH5	Ant1	2440.981	2441.979	0.998	0.867	Pass					
NVNT	3-DH5	Ant1	2479.024	2480.032	1.008	0.859	Pass					























