

# RADIO TEST REPORT FCC ID: 2AKDT-MDP1220

Product:Magic Drawing PadTrade Mark:XPPenModel No.:MDP1221Family Model:MDP1220, MDP1222, MDP1223,<br/>MDP1225Report No.:S24110503415001Issue Date:Dec. 12, 2024

# **Prepared for**

XPPEN Technology CO.

15350 Fairfield Ranch Road, Chino Hills, CA, 91709, US

# 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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ACCREDITED Certificate #4298.01

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## 1 TEST RESULT CERTIFICATION

r	
Applicant's name	XPPEN Technology CO.
Address	15350 Fairfield Ranch Road, Chino Hills, CA, 91709, US
Manufacturer's Name	Hanvon Ugee Technology Co., Ltd.
Address	2/F, West of 3/F, 4/F, No.4 Building, Fulongte Industrial Park, Huaxing Road, Langkou Community, Dalang Street, Longhua District, Shenzhen, China
Product description	
Product name	Magic Drawing Pad
Trade Mark	XPPen
Model and/or type reference	MDP1221
Family Model	MDP1220, MDP1222, MDP1223, MDP1225
Test Sample number	S241105034016
Date (s) of performance of tests	Nov. 07, 2024 ~ Dec. 12, 2024

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	Complied

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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Prepared By: Kieron Luo (Project Engineer) Reviewed By: Aavon Cheng (Supervisor) Aavon Cheng (Supervisor) (Supervisor) (Project Engineer) (Manager)



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

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
10	Occupied bandwidth	±4.7%

## 4 GENERAL DESCRIPTION OF EUT

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Product Feature and Specification		
Equipment	Magic Drawing Pad	
Trade Mark	XPPen	
FCC ID	2AKDT-MDP1220	
Model No.	MDP1221	
Family Model	MDP1220, MDP1222, MDP1223, MDP1225	
Model Difference	All models are the same circuit and RF module, except for model names.	
Operating Frequency	2402MHz~2480MHz	
Modulation	GFSK, π/4-DQPSK, 8-DPSK	
Number of Channels	79 Channels	
Antenna Type	PCB Antenna	
Antenna Gain	1.4 dBi	
Adapter	Model: QC16US Input: 100-240V~, 50/60Hz 1.0A PD Output: 5.0V3.0A 15.0W 9.0V3.0A 27.0W 12.0V2.75A 33.0W 15.0V2.2A 33.0W 20.0V1.65A 33.0W PPS Output: 5.0-11.0V3.0A 33.0W MAX.; 5.0-16.0V2.0A 32.0W MAX.	
Battery	Typical Capacity: DC 3.85V, 8000mAh, 30.80Wh Rated Capacity: DC 3.85V, 7800mAh, 30.03Wh	
Power supply	DC 3.85V from battery or DC 5V from Adapter.	
HW Version	05	
FW Version	01	
SW Version	v1L11-H	

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.



Revision History				
Report No.	Version	Description	Issued Date	
S24110503415001	Rev.01	Initial issue of report	Dec. 12, 2024	



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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.

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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	Final Test Mode Description			
Mode 1 normal link mode				

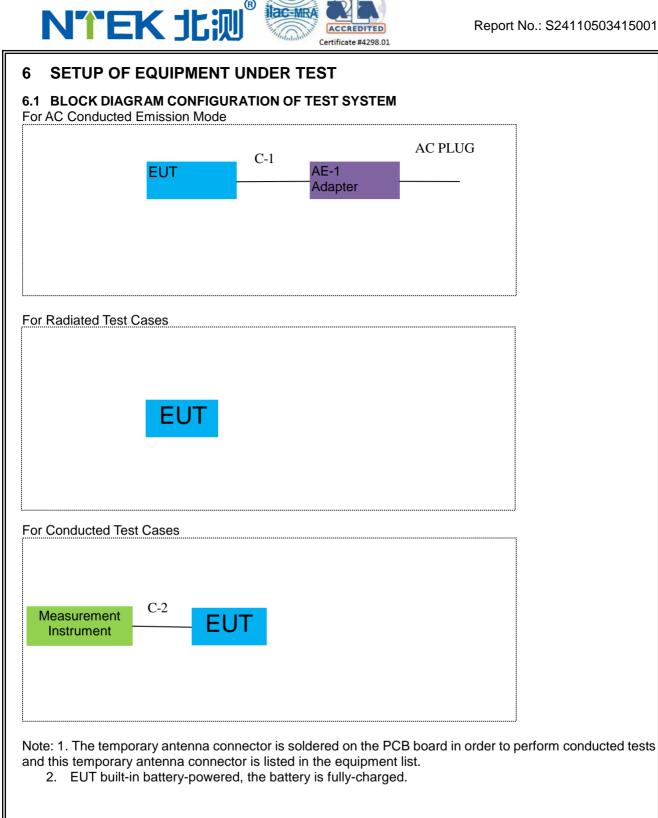
Note: AC power line Conducted Emission was tested under maximum output power.

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 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.

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.



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#### 6.2 SUPPORT EQUIPMENT

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

Item	Equipment	Model/Type No.	Series No.	Note
AE-1	Adapter	QC16US	QC16US240624G105217W	Peripherals

Item	Cable Type	Shielded Type	Ferrite Core	Length
C-1	Type-C Cable	YES	NO	0.8m
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

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#### 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	2025.03.11	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

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

#### Measurement Software

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



#### 7 TEST REQUIREMENTS

#### 7.1 CONDUCTED EMISSIONS TEST

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#### 7.1.1 Applicable Standard

According to FCC Part 15.207(a)

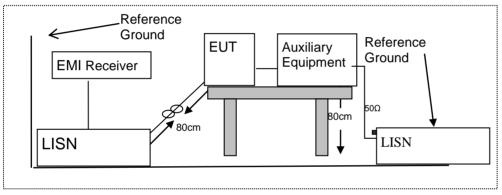
#### 7.1.2 Conformance Limit

	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

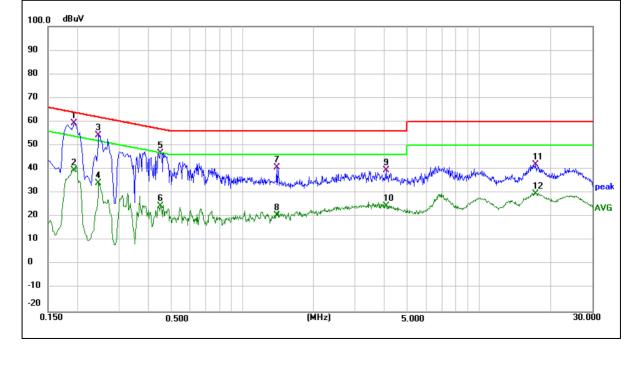
EUT:	Magic Drawing Pad	Model Name :	MDP1221
Temperature:	<b>23.8℃</b>	Relative Humidity:	54%
Pressure:	1010hPa	Phase :	L
Test Voltage :	DC 5V from Adapter AC 120V/60Hz	Test Mode:	Mode 1

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remar
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	k
0.1940	49.34	10.07	59.41	63.86	-4.45	QP
0.1940	29.48	10.07	39.55	53.86	-14.31	AVG
0.2460	44.15	10.20	54.35	61.89	-7.54	QP
0.2460	24.00	10.20	34.20	51.89	-17.69	AVG
0.4500	36.20	10.59	46.79	56.88	-10.09	QP
0.4500	14.11	10.59	24.70	46.88	-22.18	AVG
1.3900	28.14	12.54	40.68	56.00	-15.32	QP
1.3900	8.25	12.54	20.79	46.00	-25.21	AVG
4.0460	29.44	10.00	39.44	56.00	-16.56	QP
4.0460	14.42	10.00	24.42	46.00	-21.58	AVG
17.3500	29.60	12.27	41.87	60.00	-18.13	QP
17.3500	17.40	12.27	29.67	50.00	-20.33	AVG

Remark:

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

2. Factor = Insertion Loss + Cable Loss.





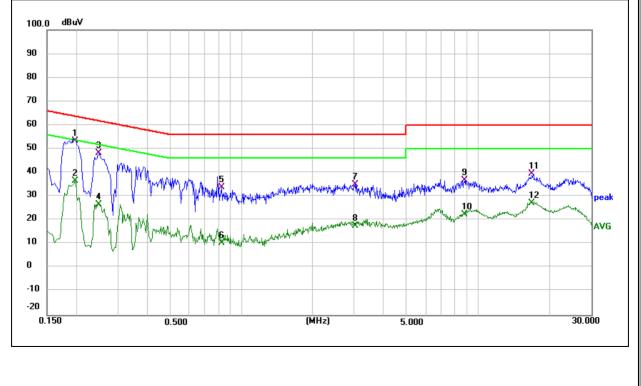
EUT:	Magic Drawing Pad	Model Name :	MDP1221
Temperature:	<b>23.8</b> ℃	Relative Humidity:	54%
Pressure:	1010hPa	Phase :	N
Test Voltage :	DC 5V from Adapter AC 120V/60Hz	Test Mode:	Mode 1

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Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	Remark
0.1980	43.71	9.51	53.22	63.69	-10.47	QP
0.1980	26.91	9.51	36.42	53.69	-17.27	AVG
0.2481	38.79	9.61	48.40	61.82	-13.42	QP
0.2481	17.12	9.61	26.73	51.82	-25.09	AVG
0.8260	23.34	10.66	34.00	56.00	-22.00	QP
0.8260	-0.16	10.66	10.50	46.00	-35.50	AVG
3.0180	25.88	9.14	35.02	56.00	-20.98	QP
3.0180	8.65	9.14	17.79	46.00	-28.21	AVG
8.7580	27.06	9.88	36.94	60.00	-23.06	QP
8.7580	12.66	9.88	22.54	50.00	-27.46	AVG
16.9060	28.05	11.39	39.44	60.00	-20.56	QP
16.9060	15.96	11.39	27.35	50.00	-22.65	AVG

Remark:

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

2. Factor = Insertion Loss + Cable Loss.



#### 7.2 RADIATED SPURIOUS EMISSION

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#### 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

Cartificate #4299 01

According to 1 00 1 art13.20	According to FOOT art 13.200, 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)

	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

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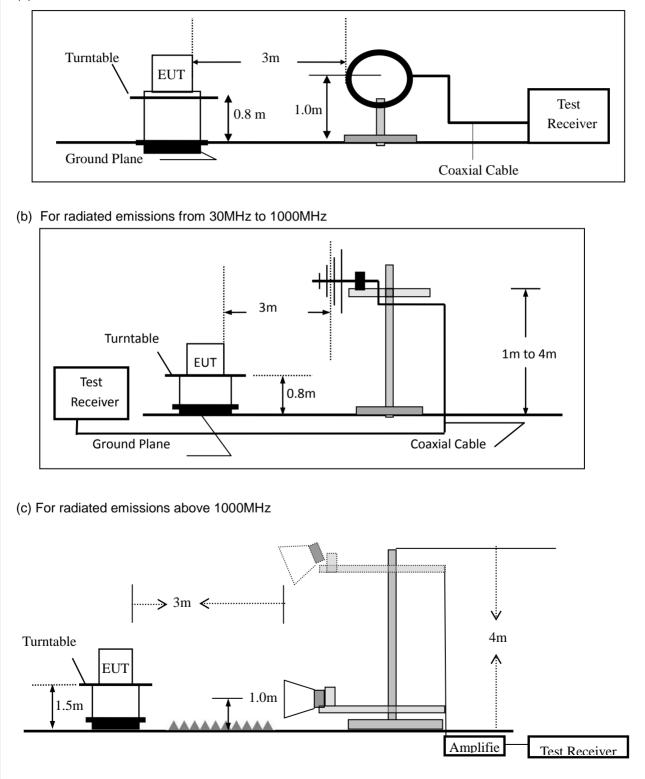
The Measuring equipment is listed in the section 6.3 of this test report.

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#### 7.2.4 Test Configuration

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



#### 7.2.5 Test Procedure

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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:

Cartificate #4298 01

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 t	est, the Spectrum An	alyzer was set with the follow	ving configurations:
Frequency Band (MHz)	Function	Resolution bandwidth	Video Bandwidth
30 to 1000	QP	120 kHz	300 kHz
Ab ave 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

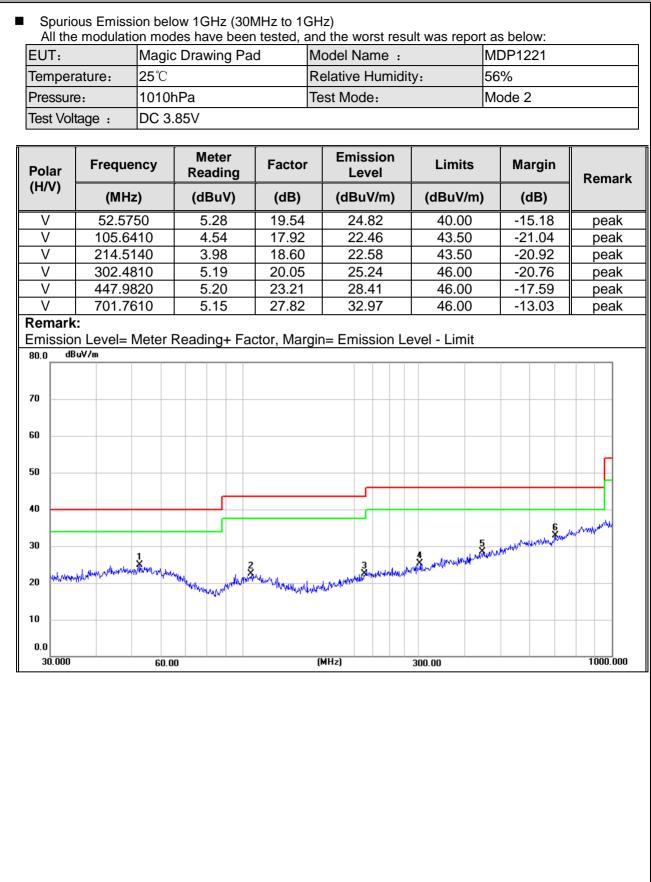
	Spurious	Emission	below 30MHz	(9KHz to 30MHz)
--	----------	----------	-------------	-----------------

EUT:	Magic Drawing Pad	Model No.:	MDP1221
Temperature:	<b>25</b> ℃	Relative Humidity:	56%
Test Mode:	Mode2/Mode3/Mode4	Test By:	Kieron Luo

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

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





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Polar	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
(H/V)	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Н	55.2210	4.48	19.76	24.24	40.00	-15.76	peak
Н	110.9570	4.53	17.84	22.37	43.50	-21.13	peak
Н	209.3130	4.42	18.02	22.44	43.50	-21.06	peak
Н	303.5440	5.52	20.03	25.55	46.00	-20.45	peak
Н	549.0190	4.85	25.47	30.32	46.00	-15.68	peak
Н	952.0940	5.91	30.90	36.81	46.00	-9.19	peak
70							
80.0 dB	uV/m						
70							
60							
50							
40							
30	1				A	North Standy and Standy Party	Wald Broker W
20 <sup>Mindul</sup> mi	to many many the second	have ween and a walk of	2 Anthe Maple and Anthe	well and the second second	and the property and an option watch		
10							
0.0							

ACCREDITED Certificate #4298.01



			GHz (1GH				1			
EUT:	Ma	igic Draw	ing Pad	Mode	el No.:		MDP1	221		
Temperature	25	°C		Relat	ive Humidity	y:	56%			
Test Mode:	Mc	de2/Mod	e3/Mode4	Test	By:		Kieror	n Luo		
All the modula	All the modulation modes have been tested, and the worst result was report as below:									
Frequency	Read Level	Cable loss	Antenna Factor	Preamp Factor	Emission Level	Lii	mits	Margin	Remark	Comment
(MHz)	(dBµV)	(dB)	dB/m	(dB)	(dBµV/m)	(dB	µV/m)	(dB)		
			Low Cha	nnel (2402	MHz)(GFSK)	)Abov	e 1G			
4804.214	55.18	5.21	35.59	44.30	51.68	74	4.00	-22.32	Pk	Vertical
4804.214	41.16	5.21	35.59	44.30	37.66	54	4.00	-16.34	AV	Vertical
7206.265	57.24	6.48	36.27	44.60	55.39	74	4.00	-18.61	Pk	Vertical
7206.265	42.32	6.48	36.27	44.60	40.47	54	4.00	-13.53	AV	Vertical
4804.109	53.14	5.21	35.55	44.30	49.60	74	4.00	-24.40	Pk	Horizontal
4804.109	41.23	5.21	35.55	44.30	37.69	54	4.00	-16.31	AV	Horizontal
7206.224	55.87	6.48	36.27	44.52	54.10	74	4.00	-19.90	Pk	Horizontal
7206.224	40.73	6.48	36.27	44.52	38.96	54	4.00	-15.04	AV	Horizontal
			Mid Chan	nel (2441	MHz)(GFSK)-	-Abov	/e 1G	-	-	
4882.396	53.03	5.21	35.66	44.20	49.70	74	4.00	-24.30	Pk	Vertical
4882.396	40.81	5.21	35.66	44.20	37.48	54	4.00	-16.52	AV	Vertical
7323.241	55.38	7.10	36.50	44.43	54.55	74	4.00	-19.45	Pk	Vertical
7323.241	40.40	7.10	36.50	44.43	39.57	54	4.00	-14.43	AV	Vertical
4882.108	55.64	5.21	35.66	44.20	52.31	74	4.00	-21.69	Pk	Horizontal
4882.108	39.82	5.21	35.66	44.20	36.49	54	4.00	-17.51	AV	Horizontal
7323.132	53.14	7.10	36.50	44.43	52.31	74	4.00	-21.69	Pk	Horizontal
7323.132	40.05	7.10	36.50	44.43	39.22	54	4.00	-14.78	AV	Horizontal
			High Char	nel (2480	MHz)(GFSK)-	Abo	ve 1G			
4960.397	56.21	5.21	35.52	44.21	52.73	74	4.00	-21.27	Pk	Vertical
4960.397	40.55	5.21	35.52	44.21	37.07	54	4.00	-16.93	AV	Vertical
7440.201	53.92	7.10	36.53	44.60	52.95	74	4.00	-21.05	Pk	Vertical
7440.201	41.23	7.10	36.53	44.60	40.26	54	4.00	-13.74	AV	Vertical
4960.225	54.48	5.21	35.52	44.21	51.00	74	4.00	-23.00	Pk	Horizontal
4960.225	40.26	5.21	35.52	44.21	36.78	54	4.00	-17.22	AV	Horizontal
7440.298	54.84	7.10	36.53	44.60	53.87	74	4.00	-20.13	Pk	Horizontal
7440.298	40.14	7.10	36.53	44.60	39.17	54	4.00	-14.83	AV	Horizontal

Note:

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



UT:	Magic Drawing Pad Model No.:						MD	P1221		
emperature	25 °C Relative Humidity:						56%	0		
est Mode:	Mode2/ M	lode4		Т	est By:		Kier	on Luo		
All the modu	lation mod	es have	been test	ed, an	d the worst re	sult wa	as re	port as be	elow:	
Frequency	Meter Reading	Cable Loss	Antenna Factor	Pream Facto		Limi	ts	Margin	Detector	Comment
(MHz)	(dBµV)	(dB)	dB/m	(dB)	(dBµV/m)	(dBµV	//m)	(dB)	Туре	
				1Mbps(	GFSK)-Non-hop	ping				
2310.00	55.65	2.97	27.80	43.8	0 42.62	74	ļ	-31.38	Pk	Horizontal
2310.00	44.38	2.97	27.80	43.8	0 31.35	54	ļ	-22.65	AV	Horizontal
2310.00	56.35	2.97	27.80	43.8	0 43.32	74	-	-30.68	Pk	Vertical
2310.00	41.70	2.97	27.80	43.8	0 28.67	54	Ļ	-25.33	AV	Vertical
2390.00	55.30	3.14	27.21	43.8	0 41.85	74	Ļ	-32.15	Pk	Vertical
2390.00	44.96	3.14	27.21	43.8	0 31.51	54	-	-22.49	AV	Vertical
2390.00	54.77	3.14	27.21	43.8	0 41.32	74		-32.68	Pk	Horizontal
2390.00	46.07	3.14	27.21	43.8	0 32.62	54	-	-21.38	AV	Horizontal
2483.50	55.50	3.58	27.70	44.0	0 42.78	74		-31.22	Pk	Vertical
2483.50	46.80	3.58	27.70	44.0	0 34.08	54	Ļ	-19.92	AV	Vertical
2483.50	58.35	3.58	27.70	44.0	0 45.63	74	-	-28.37	Pk	Horizontal
2483.50	44.36	3.58	27.70	44.0	0 31.64	54	Ļ	-22.36	AV	Horizontal
				1Mbp	os(GFSK)-hoppir	ng				
2310.00	52.95	2.97	27.80	43.8	0 39.92	74.0	00	-34.08	Pk	Vertical
2310.00	44.42	2.97	27.80	43.8	0 31.39	54.0	00	-22.61	AV	Vertical
2310.00	56.52	2.97	27.80	43.8	0 43.49	74.0	00	-30.51	Pk	Horizontal
2310.00	44.18	2.97	27.80	43.8	0 31.15	54.0	00	-22.85	AV	Horizontal
2390.00	55.29	3.14	27.21	43.8	0 41.84	74.0	00	-32.16	Pk	Vertical
2390.00	44.65	3.14	27.21	43.8	0 31.20	54.0	00	-22.80	AV	Vertical
2390.00	52.64	3.14	27.21	43.8	0 39.19	74.0	00	-34.81	Pk	Horizontal
2390.00	45.82	3.14	27.21	43.8	0 32.37	54.0	00	-21.63	AV	Horizontal
2483.50	53.84	3.58	27.70	44.0	0 41.12	74.0	00	-32.88	Pk	Vertical
2483.50	46.13	3.58	27.70	44.0	0 33.41	54.0	00	-20.59	AV	Vertical
2483.50	54.73	3.58	27.70	44.0	0 42.01	74.0	00	-31.99	Pk	Horizontal
2483.50	42.44	3.58	27.70	44.0	0 29.72	54.0	0	-24.28	AV	Horizontal

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



	Durious Emission in Restricted Band 3260MHz-18000MHz Magic Drawing Pad Model No.:								004			
EUT:				ng Pad		ivioae	I NO.:		MDP1	221		
Temperature	:	25 °	С			Relat	ive Humidity	y:	56%			
Test Mode:	1	Mod	e2/ Mod	e4		Test I	By:		Kieror	n Luo		
All the modu	lation	mod	es have	been test	ed, a	and th	e worst resu	ult wa	s repo	rt as belc	W:	
Frequency	Readi Leve	0	Cable Loss	Antenna Factor		eamp actor	Emission Level	Lir	nits	Margin	Detector	Comment
(MHz)	(dBµ	V)	(dB)	dB/m	(0	dB)	(dBµV/m)	(dBµ	uV/m)	(dB)	Туре	
3260	52.5	54	4.04	29.57	44	4.70	41.45	-	74	-32.55	Pk	Vertical
3260	42.3	39	4.04	29.57	44	4.70	.70 31.30		54	-22.70	AV	Vertical
3260	54.9	98	4.04	29.57	44	4.70	43.89	-	74	-30.11	Pk	Horizontal
3260	42.1	0	4.04	29.57	44	4.70	31.01	ę	54	-22.99	AV	Horizonta
3332	53.6	69	4.26	29.87	44	4.40	43.42	-	74	-30.58	Pk	Vertical
3332	41.1	9	4.26	29.87	44	4.40	30.92	ę	54	-23.08	AV	Vertical
3332	55.6	63	4.26	29.87	44	4.40	45.36	-	74	-28.64	Pk	Horizonta
3332	44.5	58	4.26	29.87	44	4.40	34.31	ę	54	-19.69	AV	Horizonta
17796	40.9	91	10.99	43.95	43	3.50	52.35	-	74	-21.65	Pk	Vertical
17796	31.7	<b>'</b> 1	10.99	43.95	43	3.50	43.15	ę	54	-10.85	AV	Vertical
17788	41.8	38	11.81	43.69	44	4.60	52.78		74	-21.22	Pk	Horizonta
17788	33.8	34	11.81	43.69	44	4.60	44.74	Į	54	-9.26	AV	Horizonta

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



#### 7.3 NUMBER OF HOPPING CHANNEL

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#### 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.

#### Test Setup 7.3.4

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 ≥ RBW

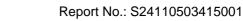
Sweep = auto

Detector function = peak

Trace = max hold

#### 7.3.6 Test Results

EUT:	Magic Drawing Pad	Model No.:	MDP1221
Temperature:	<b>25</b> ℃	Relative Humidity:	56%
Test Mode:	Mode 5(1Mbps)	Test By:	MDP1221 56% Kieron Luo





#### 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:	Magic Drawing Pad	Model No.:	MDP1221
Temperature:	<b>25</b> ℃	Relative Humidity:	56%
Test Mode:	Mode2/Mode3/Mode4	Test By:	Kieron Luo



#### 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:	Magic Drawing Pad	Model No.:	MDP1221
Temperature:	<b>25</b> ℃	Relative Humidity:	56%
Test Mode:	Mode2/Mode3/Mode4	Test By:	Kieron Luo

Test data reference attachment.

Note:

A Period Time = (channel number)\*0.4

DH1 Dwell time: Reading \* (1600/2)\*31.6/(channel number) DH3 Dwell time: Reading \* (1600/4)\*31.6/(channel number) DH5 Dwell time: Reading \* (1600/6)\*31.6/(channel number)

For Example:

- 1. In normal mode, hopping rate is 1600 hops/s with 6 slots in 79 hopping channels. With channel hopping rate (1600 / 6 / 79) in Occupancy Time Limit (0.4 x 79) (s), Hops Over Occupancy Time comes to  $(1600 / 6 / 79) \times (0.4 \times 79) = 106.67$  hops.
- 2. In AFH mode, hopping rate is 800 hops/s with 6 slots in 20 hopping channels. With channel hopping rate (800 / 6 / 20) in Occupancy Time Limit (0.4 x 20) (s), Hops Over Occupancy Time comes to  $(800 / 6 / 20) \times (0.4 \times 20) = 53.33$  hops.
- 3. Dwell Time(s) = Hops Over Occupancy Time (hops) x Package Transfer 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

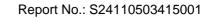
Please refer to Section 6.1 of this test report.

#### 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:	Magic Drawing Pad	Model No.:	MDP1221
Temperature:	<b>25</b> ℃	Relative Humidity:	56%
Test Mode:	Mode2/Mode3/Mode4	Test By:	Kieron Luo





#### 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:	Magic Drawing Pad	Model No.:	MDP1221	
Temperature:	<b>25</b> ℃	Relative Humidity:	56%	
Test Mode:	Mode2/Mode3/Mode4	Test By:	Kieron Luo	





#### 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 §15.209(a) (see §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:	Magic Drawing Pad	Model No.:	MDP1221
Temperature:	<b>25</b> ℃	Relative Humidity:	56%
Test Mode:	Mode2 /Mode4/ Mode 5	Test By:	Kieron Luo





#### 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.

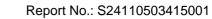
g) Allow trace to fully stabilize.

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 PCB Antenna (Gain: 1.4 dBi). It comply with the standard requirement.

# NTEK ILW<sup>®</sup>

#### 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.



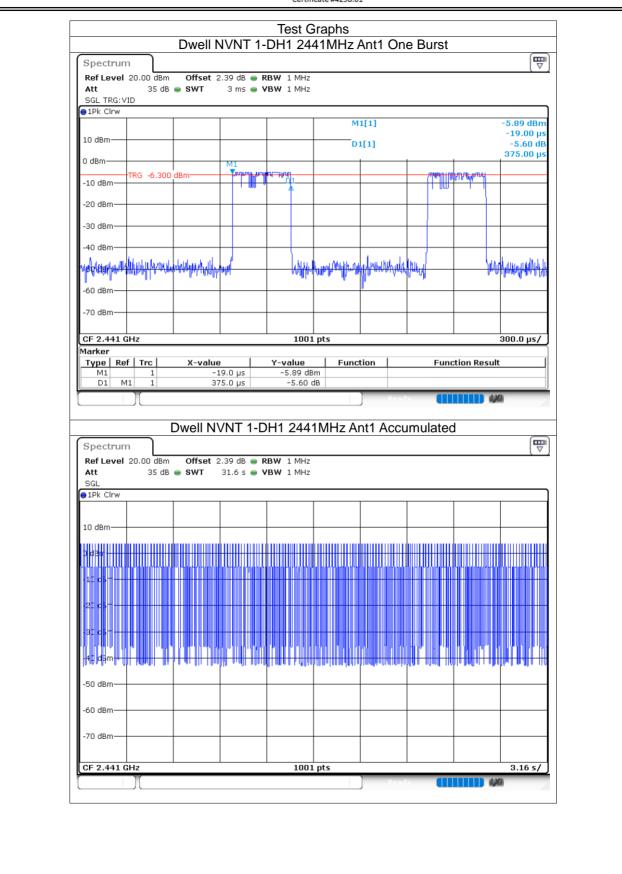
# 8 TEST RESULTS

### 8.1 Dwell Time

Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.375	76.5	204	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.63	213.53	131	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.88	247.68	86	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.384	77.952	203	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.635	206.012	126	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.88	262.08	91	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.384	79.488	207	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.635	214.185	131	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.88	244.800	85	31600	400	Pass









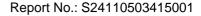


SGL TRG: VID	dB 😑 SWT 5	6 ms 👄 <b>VBW</b> 1 MH:	2				
●1Pk Clrw			M	1[1]			-6.00 dBm
10 dBm			D	L[1]			-20.00 μs 0.29 dB
0 dBm	ML		D1			1	.63000 ms
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-30 dBm							
-40 dBm							
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-60 dBm							
-70 dBm							
CF 2.441 GHz		100	1 pts				500.0 µs/
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	DWCIIII				mulated	-	
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Spectrum Ref Level 20.00 de		9 dB 😑 <b>RBW</b> 1 MH:					
Ref Level 20.00 dB Att 35 SGL		9 dB <b>e RBW</b> 1 MH; .6 s <b>e VBW</b> 1 MH;					
Ref Level 20.00 dE							
Ref Level 20.00 dB Att 35 SGL							
Ref Level         20.00 dt           Att         35 s           SGL         10 dbm           10 dbm         10 dbm							
Ref Level 20.00 dE Att 35 i SGL 1Pk Cirw							
Ref Level         20.00 dt           Att         35 s           SGL         10 dbm           10 dbm         10 dbm							
Ref Level         20.00 dt           Att         35 s           SGL         10 dbm           10 dbm         10 dbm							
Ref Level         20.00 df           Att         35           SGL         9           1Pk Clrw         10 dBm           10 dBm         -           -10 c2m         -           -10 c2m         -							
Ref Level         20.00 df           Att         35           SGL         10           ID dBm         10           Level         20.00 df           Level         20.00 df           Level         35           SGL         10           JD dBm         10           Level         10           Level <t< td=""><td>dB • SWT 31</td><td>.6 s • VBW 1 MH;</td><td></td><td></td><td></td><td></td><td></td></t<>	dB • SWT 31	.6 s • VBW 1 MH;					
Ref Level         20.00 df           Att         35 is           SGL         9 1Pk Clrw           10 dBm         10 dBm           -10 dBm         -10 dBm           -20 32 m         -10 dBm           -30 32 m         -10 dBm	dB • SWT 31	.6 s • VBW 1 MH;					
Ref Level         20.00 df           Att         35           SGL         9           10 dBm         10           10 dBm         10           -10 d2m         10           -20 22 h         10           -30 32 h         10           -50 dBm         -50 dBm	dB • SWT 31	.6 s • VBW 1 MH;					
Ref Level         20.00 df           Att         35 is           SGL         9 1Pk Clrw           10 dBm         10 dBm           -10 dBm         -10 dBm           -20 32 m         -10 dBm           -30 32 m         -10 dBm	dB • SWT 31	.6 s • VBW 1 MH;					
Ref Level         20.00 df           Att         35           SGL         9           10 dBm         10           10 dBm         10           -10 d2m         10           -20 22 h         10           -30 32 h         10           -50 dBm         -50 dBm	dB • SWT 31	.6 s • VBW 1 MH;					
Ref Level         20.00 df           Att         35 i           SGL         10 dBm           10 dBm         10 dBm           20 dBm         10 dBm           -20 dBm         10 dBm           -50 dBm         -60 dBm	dB • SWT 31	.6 s • VBW 1 MH;					
Ref Level     20.00 df       Att     35       SGL     9       ● 1Pk Clrw     10 dBm       10 dBm     -       -20 22 n     -       -30 22 n     -       -50 dBm     -       -70 dBm     -	dB • SWT 31	.6 s • VBW 1 MH;					3.16 s/
Ref Level     20.00 df       Att     35       SGL     9       ● 1Pk Clrw     10 dBm       10 dBm     -       -10 dBm     -       -20 22 n     -       -30 32 n     -       -50 dBm     -       -70 dBm     -	dB • SWT 31	.6 s • VBW 1 MH;					3.16 s/

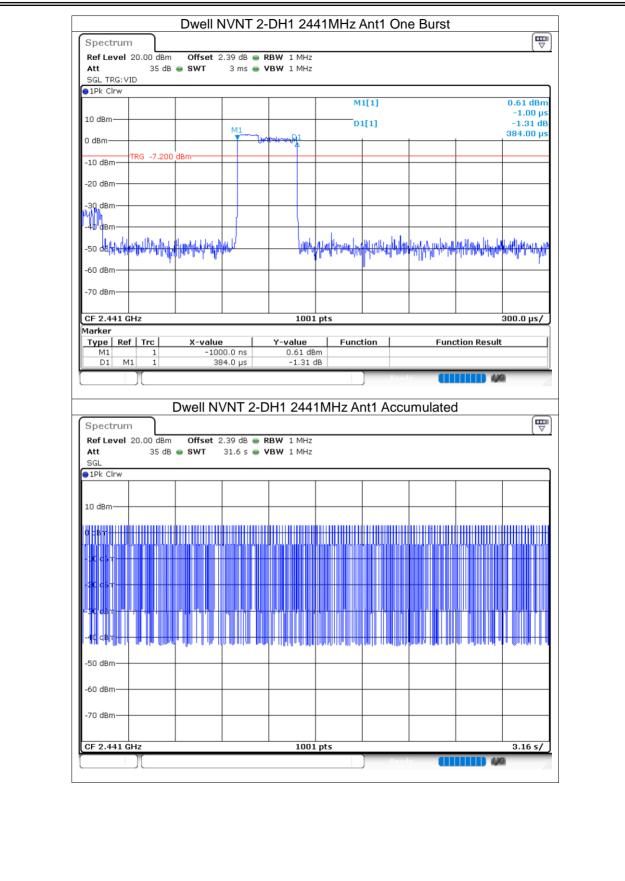




			M1[1]		-12.75 dBm
10 dBm			D1[1]		-16.00 μs 7.23 dB
0 dBm	0.dBm <del>~~/~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~</del>	D1			2.88000 ms
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-20 dBm					
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-60 dBm					
-70 dBm					
CF 2.441 GHz		1001 pts			800.0 µs/
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			Ready		
	Dwell NVNT 1-D	DH5 2441MHz	z Ant1 Accun	nulated	
Spectrum					
		RBW 1 MHz VBW 1 MHz			
SGL IPk Clrw					
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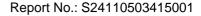


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-60 dBm—									
-70 dBm—									
CF 2.441	GHz			1001	pts				500.0 μs/
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CF 2.441									

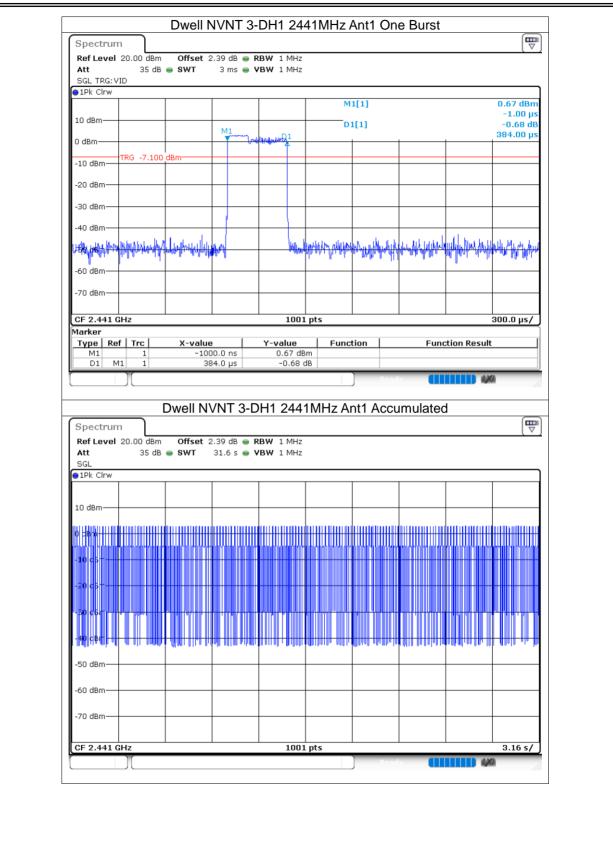




1Pk Clrw			M	1[1]			-6.86 dBm
10 dBm				1[1]			-8.00 µs 0.92 dB
0 dBmM1						2	.88000 ms
-10 dBm TRG -7.200 c	aBuyerstaller	potentry approved					
-20 dBm							
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-40 dBm							
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-60 dBm							
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Marker Type   Ref   Trc	X-value	Y-value	Func	tion	Fund	tion Result	
M1 1 D1 M1 1	-8.0 µs 2.88 ms	-6.86 dB 0.92 (					
				) Read	v <b>(11</b>		1
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Ref Level 20.00 dBm							
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Att 35 dB of SGL 1Pk Clrw 10 dBm	SWI 31.05	VBW 1 MHz					
Att 35 dB SGL ● 1Pk Clrw 10 dBm 0 dBm 0 dBm 0 dBm	SWI 31.55	VBW 1 MHz					
Att 35 dB of SGL 1Pk Clrw 10 dBm	SWI 31.55	VBW 1 MHz					
Att 35 dB o SGL ● 1Pk Clrw 10 dBm - 10 dBm - 10 dBm	SWI 31.55	VBW 1 MHz					
Att         35 dB           SGL           10 dBm           10 dBm           10 dBm           10 dBm           10 dBm           -20 dBm							
Att         35 dB           SGL           10 dBm           10 dBm           10 dBm           10 dBm           10 dBm           -20 dBm							
Att         35 dB           SGL         SGL           10 dBm         10 dBm           10 dBm         10 dBm           10 dBm         10 dBm           -20 dBm         10 dBm           -30 dBm         10 dBm           -50 dBm         -50 dBm							
Att         35 dB           SGL         SGL           10 dBm							
Att 35 dB SGL 9 1Pk Clrw 10 dBm 10 dBm -10 dBm -20 dBm -30 dBm -30 dBm -50 dBm -50 dBm							
Att 35 dB SGL							3.16 s/











					м	1[1]			-5.71 dBm
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Ref Leve Att SGL 1Pk Clrw	l 20.00 dBm		2.39 dB 😑	RBW 1 MHz	1				
Ref Leve Att SGL 1Pk Clrw	l 20.00 dBm		2.39 dB 😑	RBW 1 MHz	1				
Ref Leve Att SGL 1Pk Clrw 10 dBm d dBm -10 c6r -20 c6r -20 c6r	1 20.00 dBm 30 dP	3 • SWT	2.39 dB • 31.6 s •	RBW 1 MHz	1				
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Ref Leve Att SGL 1Pk Clrw 10 dBm d dBm -10 c6r -20 c6r -20 c6r	1 20.00 dBr 30 dP	3 • SWT	2.39 dB • 31.6 s •	RBW 1 MHz	1				
Ref Leve Att SGL 1Pk Clrw 10 dBm -10 dBm -10 dBm -20 dBm -	1 20.00 dBr 30 dP	3 • SWT	2.39 dB • 31.6 s •	RBW 1 MHz	1				
Ref Leve Att SGL 1PK CIrw 10 dBm d dBm -10 dBm -20	1 20.00 dBr 30 dP	3 • SWT	2.39 dB • 31.6 s •	RBW 1 MHz	1				
Ref Leve Att SGL 1Pk Clrw 10 dBm -10 dBm -20 dBm -20 dBm -30 dBm -50 dBm -60 dBm	1 20.00 dBr 30 dP	3 • SWT	2.39 dB • 31.6 s •	RBW 1 MHz	1				
Ref Leve Att SGL 1PK CIrw 10 dBm d dBm -10 c6 T -20 c6 T -20 c6 T -30 c6 T -50 dBm	1 20.00 dBr 30 dP	3 • SWT	2.39 dB • 31.6 s •	RBW 1 MHz	1				
Ref Leve Att SGL 1Pk Clrw 10 dBm -10 dBm -20 dBm -20 dBm -30 dBm -50 dBm -60 dBm	1 20.00 dBm 30 dP	3 • SWT	2.39 dB • 31.6 s •	RBW 1 MHz					3.16 s/





10 dBm 0 dBm 0 111 2.88 0 dBm 17R 0 -7.300 dBm 0 10 10 10 10 10 10 10 10 10 10 10 10 1	00 dBm 8.00 μs 0.12 dB 000 ms
O dBm         M1         2.88           -10 dBm         -7.300 dBm <sup>(-1</sup> )//-1/2/2/2         -10         -	
M1     -7.300 dBm <sup>0-1</sup> /te-/ft-/ft-/ft-/ft-/ft-/ft-/ft-/ft-/ft-/ft	
-20 dBm	
-30 dBm	
-40 dBm	
-340, 48 Mi calmatici	and a show
	<del>r (fibils r ~ 1</del>
-60 dBm-	
-70 dBm-	
· · ·	1.0 μs/
Marker Type Ref Trc X-value Y-value Function Function Result	
M1         1         -8.0 μs         -7.00 dBm           D1         M1         1         2.88 ms         -0.12 dB	
Ready (	
Att         35 dB         SWT         31.6 s         VBW         1 MHz           SGL         91Pk Clrw         1 <td< th=""><th></th></td<>	
10 dBm	
	utratic for the
-50 dBm	
-60 dBm-	
-70 dBm-	
	1.16 s/



#### 8.2 MAXIMUM CONDUCTED OUTPUT POWER

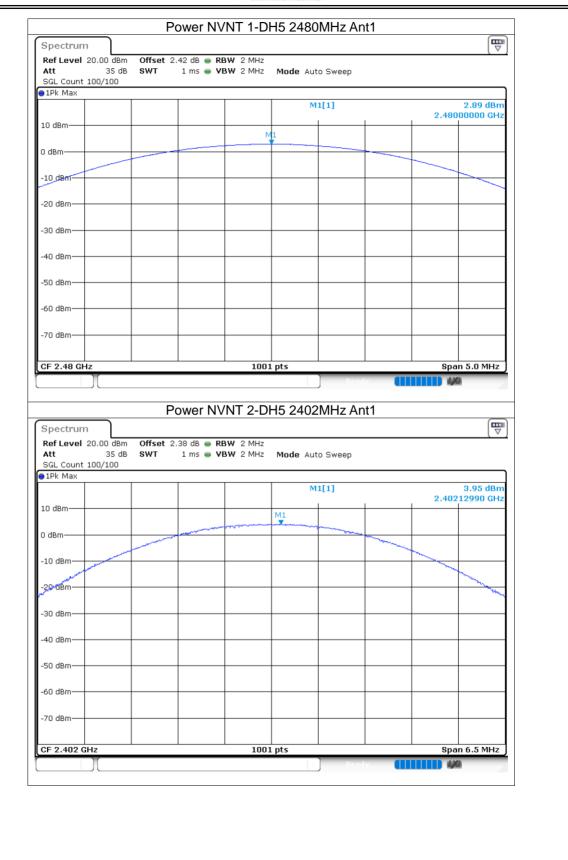
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict					
NVNT	1-DH5	2402	Ant1	4.74	21	Pass					
NVNT	1-DH5	2441	Ant1	3.9	21	Pass					
NVNT	1-DH5	2480	Ant1	2.89	21	Pass					
NVNT	2-DH5	2402	Ant1	3.95	21	Pass					
NVNT	2-DH5	2441	Ant1	3.1	21	Pass					
NVNT	2-DH5	2480	Ant1	2.18	21	Pass					
NVNT	3-DH5	2402	Ant1	3.97	21	Pass					
NVNT	3-DH5	2441	Ant1	3.13	21	Pass					
NVNT	3-DH5	2480	Ant1	2.19	21	Pass					



Spectrum Ref Level 20.00 di Att 35 SGL Count 100/100 1Pk Max	dB SWT	2.38 dB <b>e RBW</b> 2 MHz 1 ms <b>e VBW</b> 2 MHz	Mode Auto Sweep			
			M1[1]			.74 dBm
10 dBm		N	11	+ +	2.40195	500 GHZ
0 dBm						
-10 dBm						
-20 dBm						
-30 dBm						
-40 dBm						
-40 0811						
-50 dBm						
-60 dBm			<u> </u>			
-70 dBm						
CF 2.402 GHz		100	1 pts		Span 5	.0 MHz
Spectrum Ref Level 20.00 dt		Power NVNT 1-E	0H5 2441MHz A	dv <b>111</b>		
Spectrum Ref Level 20.00 dl Att 35 SGL Count 100/100	Bm Offset dB SWT	Power NVNT 1-E	0H5 2441MHz A	dy <b>(11)</b> nt1		
Spectrum Ref Level 20.00 dl Att 35	Bm Offset dB SWT	Power NVNT 1-E	0H5 2441MHz A	nt1	3.	.90 dBm
Spectrum Ref Level 20.00 dl Att 35 SGL Count 100/100	Bm Offset dB SWT	Power NVNT 1-E 2.39 dB • RBW 2 MHz 1 ms • VBW 2 MHz	Mode Auto Sweep	nt1		.90 dBm
Spectrum Ref Level 20.00 dt Att 35 SGL Count 100/100 1Pk Max 10 dBm	Bm Offset dB SWT	Power NVNT 1-E 2.39 dB • RBW 2 MHz 1 ms • VBW 2 MHz	0H5 2441MHz A	nt1	3.	.90 dBm
Spectrum           Ref Level 20.00 di           Att 35           SGL Count 100/100           • IPk Max           10 dBm           0 dBm	Bm Offset dB SWT	Power NVNT 1-E 2.39 dB • RBW 2 MHz 1 ms • VBW 2 MHz	Mode Auto Sweep		3.	.90 dBm
Spectrum Ref Level 20.00 dt Att 35 SGL Count 100/100 1Pk Max 10 dBm	Bm Offset dB SWT	Power NVNT 1-E 2.39 dB • RBW 2 MHz 1 ms • VBW 2 MHz	Mode Auto Sweep	nt1	3.	.90 dBm
Spectrum           Ref Level 20.00 di           Att 35           SGL Count 100/100           • IPk Max           10 dBm           0 dBm	Bm Offset dB SWT	Power NVNT 1-E 2.39 dB • RBW 2 MHz 1 ms • VBW 2 MHz	Mode Auto Sweep		3.	.90 dBm
Spectrum           Ref Level 20.00 di           Att 35           SGL Count 100/100           • IPk Max           10 dBm           0 dBm           -10 dBm	Bm Offset dB SWT	Power NVNT 1-E 2.39 dB • RBW 2 MHz 1 ms • VBW 2 MHz	Mode Auto Sweep	nt1	3.	.90 dBm
Spectrum           Ref Level 20.00 di           Att 35           SGL Count 100/100           • IPk Max           10 dBm           0 dBm           -10 dBm           -20 dBm	Bm Offset dB SWT	Power NVNT 1-E 2.39 dB • RBW 2 MHz 1 ms • VBW 2 MHz	Mode Auto Sweep		3.	.90 dBm
Spectrum Ref Level 20.00 dl Att 35 SGL Count 100/100 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm	Bm Offset dB SWT	Power NVNT 1-E 2.39 dB • RBW 2 MHz 1 ms • VBW 2 MHz	Mode Auto Sweep	nt1	3.	.90 dBm
Spectrum Ref Level 20.00 df Att 35 SGL Count 100/100 • 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm	Bm Offset dB SWT	Power NVNT 1-E 2.39 dB • RBW 2 MHz 1 ms • VBW 2 MHz	Mode Auto Sweep		3.	.90 dBm
Spectrum Ref Level 20.00 dl Att 35 SGL Count 100/100 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm	Bm Offset dB SWT	Power NVNT 1-E 2.39 dB • RBW 2 MHz 1 ms • VBW 2 MHz	Mode Auto Sweep		3.	.90 dBm
Spectrum           Ref Level 20.00 dl           Att 35           SGL Count 100/100           • 1Pk Max           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm	Bm Offset dB SWT	Power NVNT 1-E 2.39 dB • RBW 2 MHz 1 ms • VBW 2 MHz	Mode Auto Sweep		3.	.90 dBm
Spectrum Ref Level 20.00 dl Att 35 SGL Count 100/100 ● 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm	Bm Offset dB SWT	Power NVNT 1-E	Mode Auto Sweep		3.2.44097	.90 dBm

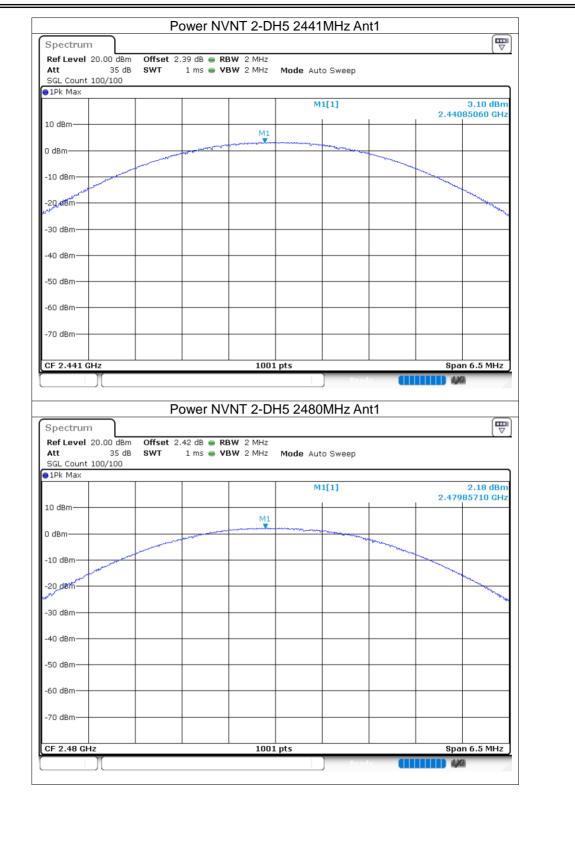






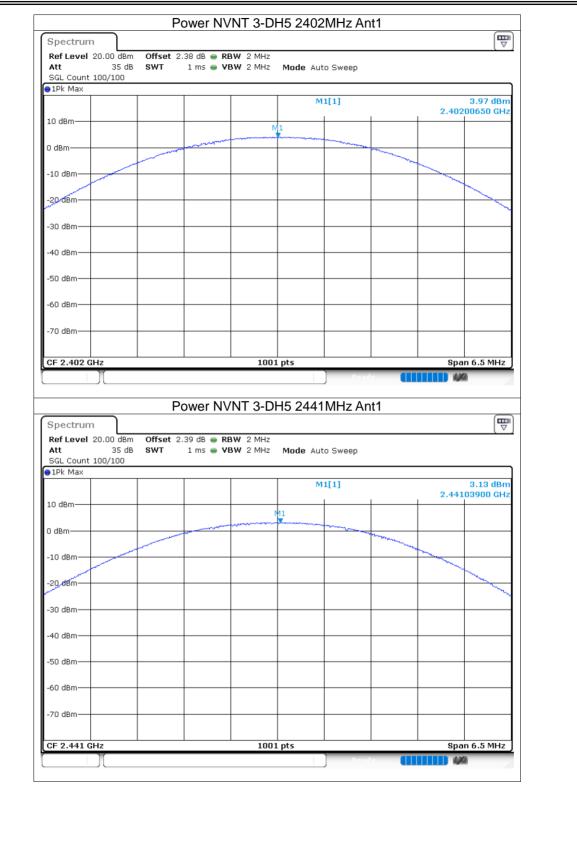


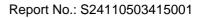














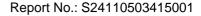
						pectrum
	Mode Auto Sweep		2.42 dB 👄 RE 1 ms 👄 VE	Offset 2 SWT	35 dB	e <b>f Level</b> 20 tt GL Count 10
0.10.10			1			Pk Max
2.19 dBm 2.47977920 GHz	M1[1]					
		M1				dBm
						JBm
						) dBm
					<u> </u>	
						) dBm
						) dBm
						) dBm
						) dBm
						) dBm
		1001				
Span 6.5 MHz	. pts	1001			z	2.48 GHz



#### 8.3 -20DB BANDWIDTH

Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH5	2402	Ant1	0.854	Pass
NVNT	1-DH5	2441	Ant1	0.858	Pass
NVNT	1-DH5	2480	Ant1	0.856	Pass
NVNT	2-DH5	2402	Ant1	1.242	Pass
NVNT	2-DH5	2441	Ant1	1.254	Pass
NVNT	2-DH5	2480	Ant1	1.256	Pass
NVNT	3-DH5	2402	Ant1	1.275	Pass
NVNT	3-DH5	2441	Ant1	1.269	Pass
NVNT	3-DH5	2480	Ant1	1.257	Pass

ACCREDITED Certificate #4298.01

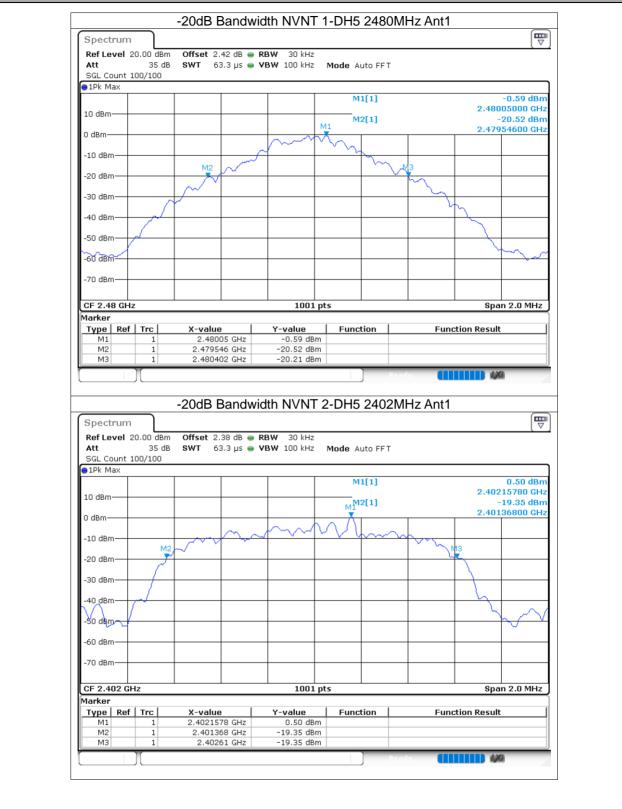








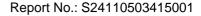




















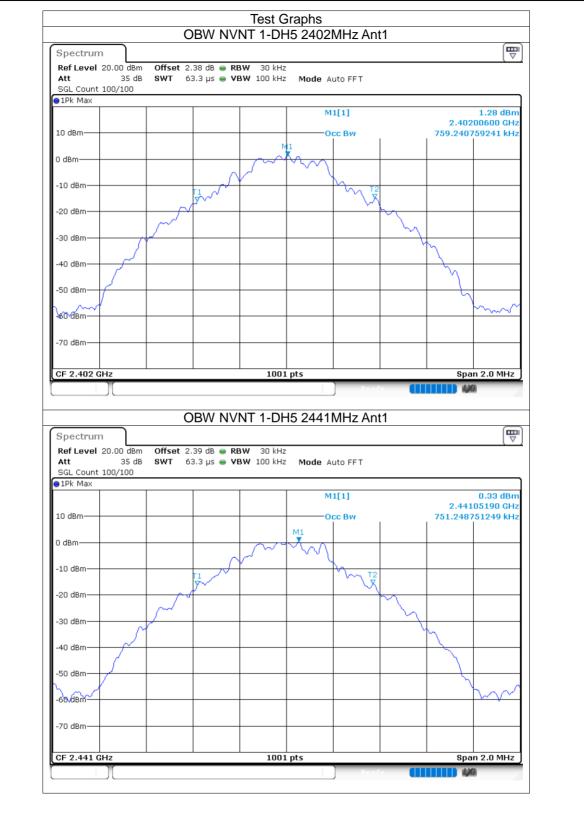
Spectrum					
Ref Level 20.00	dBm Offset 2.42 dB 🧉	RBW 30 kHz			
Att 3	idB <b>SWT</b> 63.2 μs 🧉	<b>VBW</b> 100 kHz	Mode Auto FFT		
SGL Count 100/10	0				
1Pk Max					
			M1[1]		-2.00 dBm
10 dBm					2.48000900 GHz
			M2[1]		-21.70 dBm
D dBm					2.47935500 GHz
			$\mathcal{A}$		
10 dBm		www.	home		
	M2 M2		w h	13	
-20 dBm	7				
-30 dBm					
SU UBIII					
40 dBm					
	$\langle \nabla   N   \rangle$			h	
50 dBm					
mm					mono
60 dBm					U W 500
70 40					
70 dBm					
CF 2.48 GHz		1001 pt	s		Span 3.0 MHz
1arker					
Type Ref Trc	X-value	Y-value	Function	Functior	Result
M1 1		-2.00 dBm			
M2 1		-21.70 dBm			
M3 1	2.480612 GHz	-21.87 dBm			



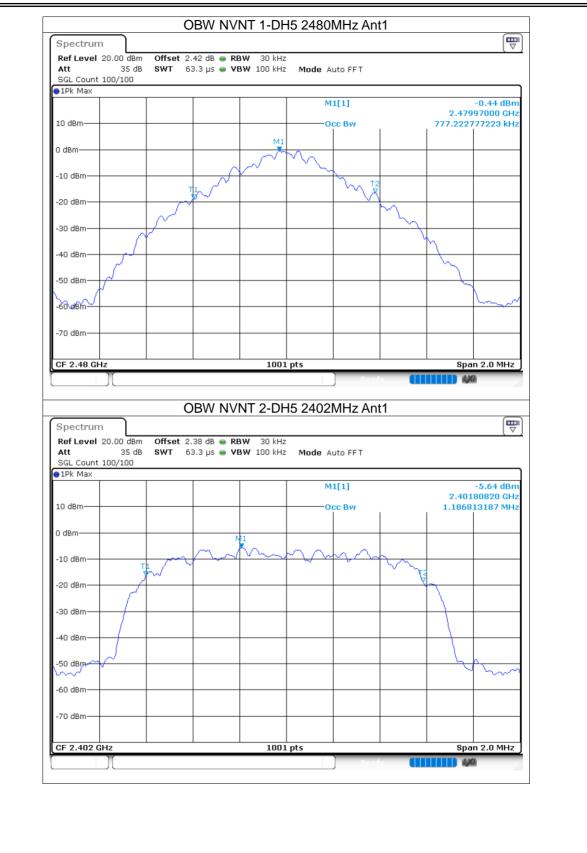
### 8.4 OCCUPIED CHANNEL BANDWIDTH

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH5	2402	Ant1	0.759
NVNT	1-DH5	2441	Ant1	0.751
NVNT	1-DH5	2480	Ant1	0.777
NVNT	2-DH5	2402	Ant1	1.187
NVNT	2-DH5	2441	Ant1	1.147
NVNT	2-DH5	2480	Ant1	1.171
NVNT	3-DH5	2402	Ant1	1.163
NVNT	3-DH5	2441	Ant1	1.16
NVNT	3-DH5	2480	Ant1	1.175

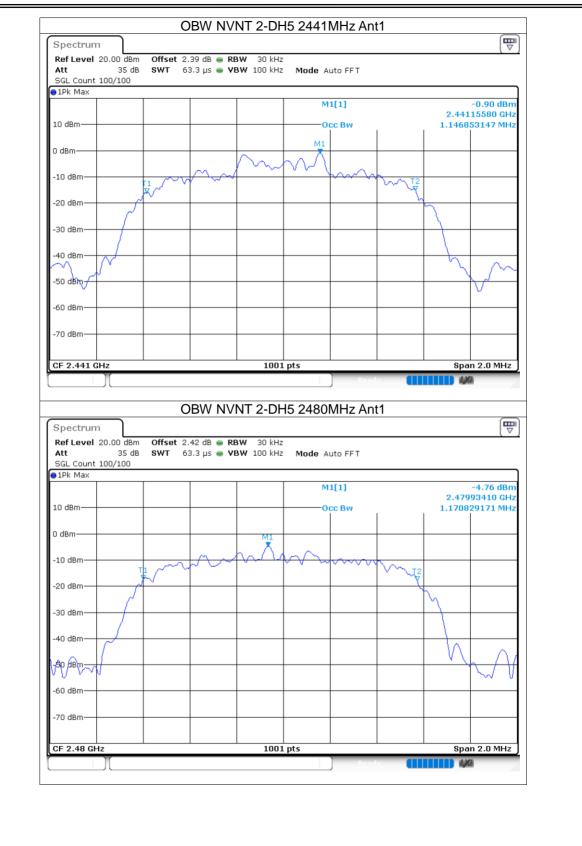




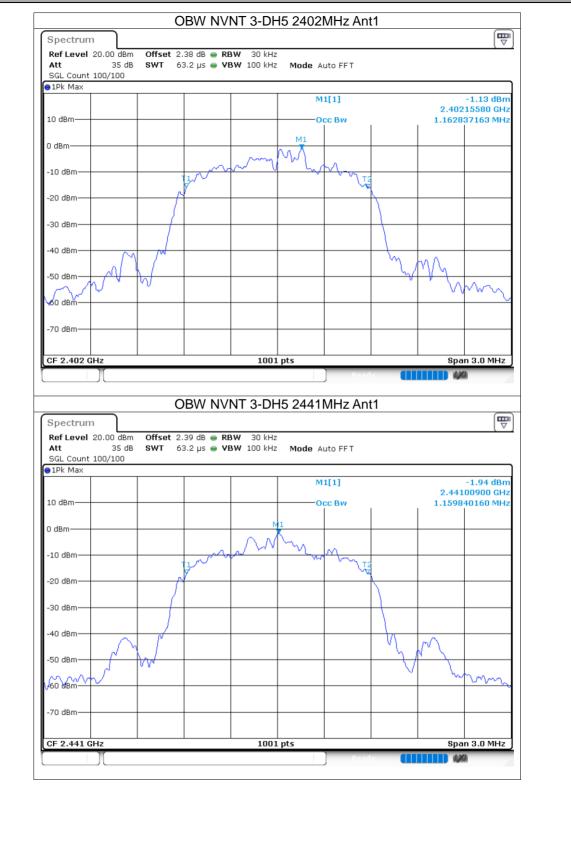


















### 8.5 CARRIER FREQUENCIES SEPARATION

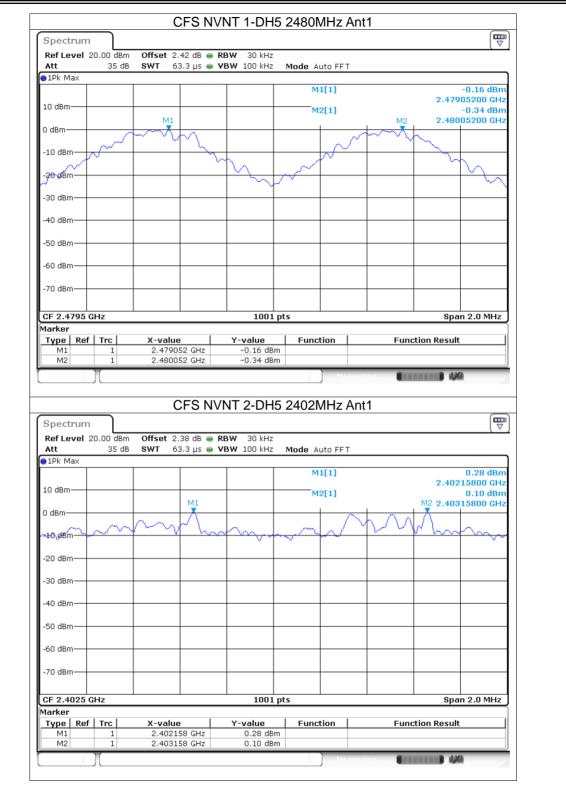
0.5 CANNER	INEQUEN	ICIES OFFAR	ATION				
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2402.054	2403.054	1	0.569	Pass
NVNT	1-DH5	Ant1	2441.05	2442.052	1.002	0.572	Pass
NVNT	1-DH5	Ant1	2479.052	2480.052	1	0.571	Pass
NVNT	2-DH5	Ant1	2402.158	2403.158	1	0.828	Pass
NVNT	2-DH5	Ant1	2440.971	2441.989	1.018	0.836	Pass
NVNT	2-DH5	Ant1	2478.974	2480.004	1.03	0.837	Pass
NVNT	3-DH5	Ant1	2402.156	2403.158	1.002	0.85	Pass
NVNT	3-DH5	Ant1	2440.924	2441.948	1.024	0.846	Pass
NVNT	3-DH5	Ant1	2479.156	2480.16	1.004	0.838	Pass



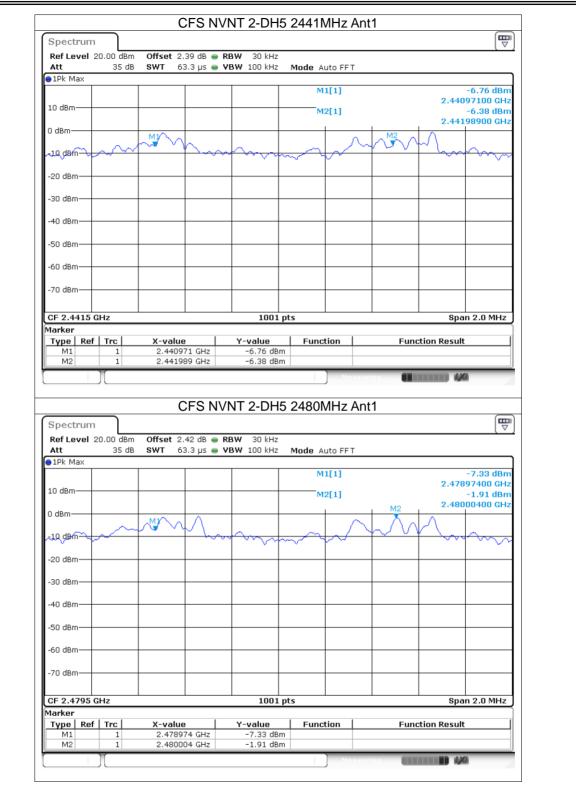




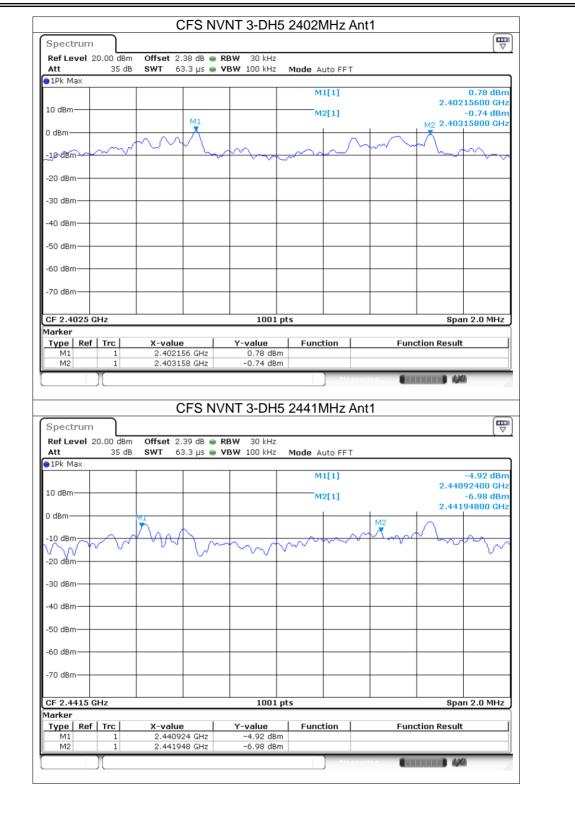




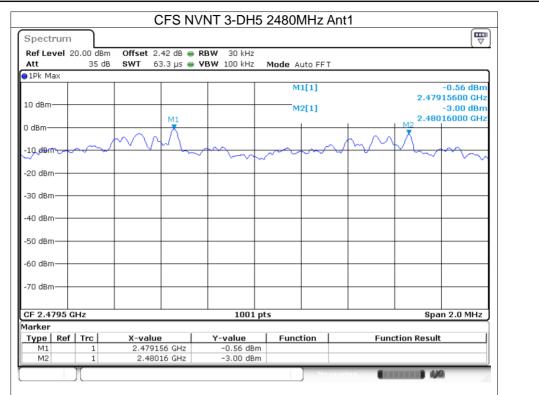












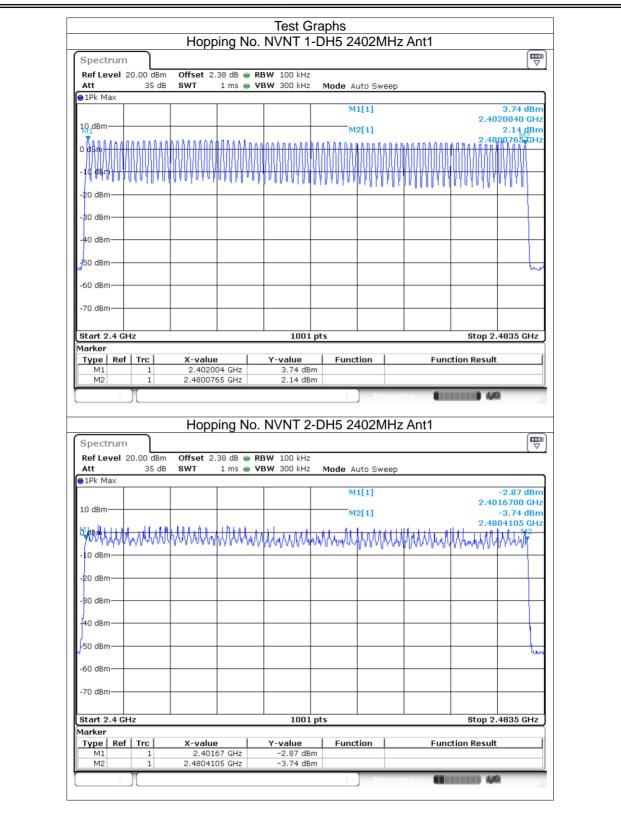


#### 8.6 NUMBER OF HOPPING CHANNEL

Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass
NVNT	3-DH5	Ant1	79	15	Pass









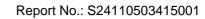


									ectrum
					<b>BW</b> 100 kHz	38 dB 🔵 RE	Offset 2.	).00 dBm	f Level 2
			uto Sweep	Mode A	<b>BW</b> 300 kHz	1 ms 😑 ۷	SWT	35 dB	t
						_			Pk Max
	-2.41 0		l[1]	M					
	2.4015865								dBm
	-5.35 c 2.4804940		2[1]	M					
de la come		h					n <b>i.</b> 44 441		km
7	634444444444444	ለሐብለሳጦላለበ	nnMMM	VMIVWVV	WHARM	www.	WWYWWW	6174674444	ANN AND
'	- 4 0 Q - 0 - 0 0 0								dBm
									dBm—
_									dBm—
									) dBm —
-t									dBm
									dBm
									dBm
GHz	Stop 2.4835 G			pts	1001			z	art 2.4 GH
									rker
	tion Result	Funct	ion	Func	Y-value		X-value	Trc	
					-2.41 dB		2.401586	1	M1
				m	-5.35 dB	94 GH2	2.48049	1	M2



# 8.7 BAND EDGE

	GL						
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-53.85	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-53.02	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-52.3	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-53	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-52.83	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-53.54	-20	Pass





Spectrum Ref Level 20.00 of Att 35 SGL Count 100/10 PIPk Max	dB <b>SWT</b> 18		<b>RBW</b> 100 kHz <b>VBW</b> 300 kHz	Mode A	uto FFT			
				м	1[1]			3.68 dB
10 dBm							2.40	200000 GF
			M A	1 ~~				
0 dBm								
-10 dBm				$\rightarrow$				
-20 dBm				<u>}</u>				
20 32								
-30 dBm								
-40 dBm								
				)				
-50 dBm	man	$\sim$			m	hon -	A.M	han.
-60 dBm							~ ~~~~	
-70 dBm								
-/ J UDIII-								
	'					1		1
CF 2.402 GHz			1001	pts			Spa	an 8.0 MHz
Band	Edge NVN		H5 2402N	1Hz Ant	) 0000 1 No-Ho	opping E		KA
Band Spectrum Ref Level 20.00 c	IBm Offset 2 dB SWT 22	.38 dB 👄	H5 2402M	1Hz Ant		opping E		K0) 1
Band Spectrum Ref Level 20.00 o Att 35	IBm Offset 2 dB SWT 22	.38 dB 👄	H5 2402M	/IHz Ant <sup>z</sup> Mode /	Auto FFT	opping E		
Band Spectrum Ref Level 20.00 c Att 35 SGL Count 100/10	IBm Offset 2 dB SWT 22	.38 dB 👄	H5 2402M	/Hz Ant	Auto FFT	opping E	mission 2.40	4.07 dB/ 215000, CH
Band Spectrum Ref Level 20.00 o Att 35 SGL Count 100/10 ●1Pk Max	IBm Offset 2 dB SWT 22	.38 dB 👄	H5 2402M	/Hz Ant	Auto FFT	ppping E	mission	۲۵) ۲ 4.07 dBr
Band Spectrum Ref Level 20.00 c Att 35 SGL Count 100/10 10 dBm 0 dBm	IBm Offset 2 dB SWT 22	.38 dB 👄	H5 2402M	/Hz Ant	Auto FFT	opping E	mission	4.07 dB/ 215000 GF -55.51 dB/
Band Spectrum Ref Level 20.00 c Att 35 SGL Count 100/10 ● 1Pk Max 10 dBm -10 dBm -10 dBm -10 dBm	IBm Offset 2 dB SWT 22	.38 dB 👄	H5 2402M	/Hz Ant	Auto FFT	opping E	mission	4.07 dB/ 215000 GF -55.51 dB/
Band Spectrum Ref Level 20.00 c Att 35 SGL Count 100/10 1Pk Max 10 dBm -10 dBm -20 dBm D1 -16	IBm Offset 2 dB SWT 22	.38 dB 👄	H5 2402M	/Hz Ant	Auto FFT	opping E	mission	4.07 dB/ 215000 GF -55.51 dB/
Band Spectrum Ref Level 20.00 c Att 35 SGL Count 100/10 PIPk Max 10 dBm -10 dBm -10 dBm -20 dBm -30 dBm	IBm Offset 2 dB SWT 22	.38 dB 👄	H5 2402M	/Hz Ant	Auto FFT	opping E	mission	4.07 dB/ 215000 GF -55.51 dB/
Band Spectrum Ref Level 20.00 c Att 35 SGL Count 100/10 ● 1Pk Max 10 dBm -10 dBm -20 dBm -20 dBm -40 dBm	IBm Offset 2 dB SWT 22	.38 dB 👄	H5 2402M	/Hz Ant	Auto FFT	ppping E	mission	4.07 dB/ 215000 GF -55.51 dB/
Band Spectrum Ref Level 20.00 c Att 35 SGL Count 100/10 PIPk Max 10 dBm -10 dBm -20 dBm -20 dBm -30 dBm -40 dBm -50 dBm	IBm Offset 2 dB SWT 22	.38 dB 👄	H5 2402M	/Hz Ant	Auto FFT		2.40	4.07 dBr 215000 GH 55.51 MBr 000000 GH
Band Spectrum Ref Level 20.00 c Att 35 SGL Count 100/10 P1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm	Bm Offset 2 dB SWT 22 0 323 dBm	.38 dB 🖷	H5 2402M	/Hz Ant	Auto FFT  1[1]  2[1]		2.40 2.40	4.07 dBr 215000 GH 55.51 MBr 000000 GH
Band Spectrum Ref Level 20.00 c Att 35 SGL Count 100/10 P1Pk Max 10 dBm -10 dBm -20 dBm -20 dBm -30 dBm -40 dBm -50 dBm -50 dBm	Bm Offset 2 dB SWT 22 0 323 dBm	.38 dB 🖷	H5 2402M	/Hz Ant	Auto FFT  1[1]  2[1]		2.40	4.07 dBr 215000 GH 55.51 MBr 000000 GH
Band Spectrum Ref Level 20.00 c Att 35 SGL Count 100/10 ● 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -20 dBm -40 dBm -50 dBm -50 dBm -50 dBm	Bm Offset 2 dB SWT 22 0 323 dBm	.38 dB 🖷	H5 2402M	/Hz Ant	Auto FFT  1[1]  2[1]		2.40 2.40	4.07 dBr 215000 GH 55.51 MBr 000000 GH
Band Spectrum Ref Level 20.00 c Att 35 SGL Count 100/10 P1Pk Max 10 dBm -10 dBm -20 dBm -20 dBm -20 dBm -30 dBm -30 dBm -70 dBm -70 dBm -70 dBm -70 dBm	Bm Offset 2 dB SWT 22 323 dBm 323 dBm	.38 dB ● .7.5 µs ●	H5 2402M	1Hz Ant	Auto FFT  1[1] 2[1]		mission 2.40 2.40	4.07 dBr 215000 GH - 55.51 MBr 000000 GH
Band           Spectrum           Ref Level 20.00 c           Att 35           SGL Count 100/10           ● 1Pk Max           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm           -50 dBm           -70 dBm           Start 2.306 GHz           Marker           Type Ref Trc           M1	Bm Offset 2 dB SWT 22 323 dBm 323 dBm , , , , , , , , , , , , , , , , , , ,	38 dB • • .7.5 µs •	H5 2402M	1Hz Ant	Auto FFT  1[1] 2[1]		2.40 2.40	4.07 dBr 215000 GH - 55.51 MBr 000000 GH
Band           Spectrum           Ref Level 20.00 c           Att 35           SGL Count 100/100           ● 1Pk Max           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm           -50 dBm           -70 dBm           Start 2.306 GHz           Marker           Type           M1           M2	Bm Offset 2 dB SWT 22 323 dBm 323 dBm M/J ////II/J/m/M A X-value 2.4021 2	38 dB ● .7.5 µs ● 	H5 2402M	/Hz Ant	Auto FFT  1[1] 2[1]		mission 2.40 2.40	4.07 dBr 215000 GH - 55.51 MBr 000000 GH
Band           Spectrum           Ref Level 20.00 c           Att 35           SGL Count 100/10           ● 1Pk Max           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm           -50 dBm           -70 dBm           Start 2.306 GHz           Marker           Type Ref Trc           M1	Bm Offset 2 dB SWT 22 323 dBm 323 dBm Alapha - Angel - Ang	38 dB • • .7.5 µs •	H5 2402M	1Hz Ant Mode / M M M M M M M M M M M M	Auto FFT  1[1] 2[1]		mission 2.40 2.40	4.07 dBr 215000 GH - 55.51 MBr 000000 GH





Ref Level 20.00 d Att 35 SGL Count 100/100 91Pk Max	dB <b>SWT</b> 18.9 µs 👄		Mode Auto FF1	r		
			M1[1]			2.05 dBr
10 dBm		_			2.479	98400 GH
		M				
0 dBm						
-10 dBm						
-20 dBm						
-30 dBm						
-40 dBm						
			N N			
-50 dBm		$\sqrt{1}$	-			Mar
-60 dBm	m m	_	V	~~~~~~~	m m	$\sim \sim$
-70 dBm						
CF 2.48 GHz		1001 μ				n 8.0 MHz
		10011				
Band Spectrum Ref Level 20.00 d	Edge NVNT 1-E	DH5 2480M	Hz Ant1 No	-Hopping E		
Band Spectrum Ref Level 20.00 d	Bm <b>Offset</b> 2.42 dB dB <b>SWT</b> 227.5 µs (	DH5 2480M	Hz Ant1 No	-Hopping E		
Band Spectrum Ref Level 20.00 d Att 35 SGL Count 100/100	Bm <b>Offset</b> 2.42 dB dB <b>SWT</b> 227.5 µs (	DH5 2480M	Hz Ant1 No Mode Auto FF	-Hopping E		
Band Spectrum Ref Level 20.00 d Att 35 SGL Count 100/100 @1Pk Max 10 dBm	Bm <b>Offset</b> 2.42 dB dB <b>SWT</b> 227.5 µs (	DH5 2480M	Hz Ant1 No Mode Auto FF	-Hopping E	mission 2.480	.68 dBn 05000 GH
Band Spectrum Ref Level 20.00 d Att 35 SGL Count 100/100 PIPk Max	Bm <b>Offset</b> 2.42 dB dB <b>SWT</b> 227.5 µs (	DH5 2480M	Hz Ant1 No Mode Auto FF	-Hopping E	mission 2.480	
Band Spectrum Ref Level 20.00 d Att 35 SGL Count 100/100 1Pk Max 10 dBm M1 0 dBm	Bm <b>Offset</b> 2.42 dB dB <b>SWT</b> 227.5 µs (	DH5 2480M	Hz Ant1 No Mode Auto FF	-Hopping E	mission 2.480	1.68 dBr 05000 GH 54.30 dBr
Band Spectrum Ref Level 20.00 d Att 35 SGL Count 100/100 @1Pk Max 10 dBm 	Bm <b>Offset</b> 2.42 dB dB <b>SWT</b> 227.5 µs (	DH5 2480M	Hz Ant1 No Mode Auto FF	-Hopping E	mission 2.480	1.68 dBr 05000 GH 54.30 dBr
Band           Spectrum           Ref Level 20.00 d           Att 35           SGL Count 100/100           ●1Pk Max           10 dBm           -10 dBm           -10 dBm           -20 dBm	Bm Offset 2.42 dB dB SWT 227.5 μs )	DH5 2480M	Hz Ant1 No Mode Auto FF	-Hopping E	mission 2.480	1.68 dBr 05000 GH 54.30 dBr
Band Spectrum Ref Level 20.00 d Att 35 SGL Count 100/100 @1Pk Max 10 dBm 	Bm Offset 2.42 dB dB SWT 227.5 μs )	DH5 2480M	Hz Ant1 No Mode Auto FF	-Hopping E	mission 2.480	1.68 dBr 05000 GH 54.30 dBr
Band           Spectrum           Ref Level 20.00 d           Att 35           SGL Count 100/100           ● 1Pk Max           10 dBm           10 dBm           -10 dBm           -20 dBm           -40 dBm	Bm Offset 2.42 dB dB SWT 227.5 μs dBm	DH5 2480M RBW 100 kHz VBW 300 kHz	Mode Auto FF	-Hopping E	2.480 	1.68 dBr 05000 GH 54.30 dBr 50000 GH
Band Spectrum Ref Level 20.00 d Att 35 SGL Count 100/100 • 1Pk Max 10 dBm -10 dBm -20 dBm -20 dBm -20 dBm -20 dBm -20 dBm -30 cBm -50 dBm -50 dBm	Bm Offset 2.42 dB dB SWT 227.5 μs )	DH5 2480M RBW 100 kHz VBW 300 kHz	Mode Auto FF	-Hopping E	2.480 	1.68 dBr 05000 GH 54.30 dBr 50000 GH
Band           Spectrum           Ref Level         20.00 d           Att         35           SGL Count         100/100           •IPk Max           10 dBm           -10 dBm           -20 dBm           -20 dBm           -40 dBm           -50 dBm	Bm Offset 2.42 dB dB SWT 227.5 μs dBm	DH5 2480M RBW 100 kHz VBW 300 kHz	Mode Auto FF	-Hopping E	2.480 	1.68 dBr 05000 GH 54.30 dBr 50000 GH
Band Spectrum Ref Level 20.00 d Att 35 SGL Count 100/100 • 1Pk Max 10 dBm -10 dBm -20 dBm -20 dBm -20 dBm -20 dBm -20 dBm -30 cBm -50 dBm -50 dBm	Bm Offset 2.42 dB dB SWT 227.5 μs dBm	DH5 2480M RBW 100 kHz VBW 300 kHz	Mode Auto FF	-Hopping E	2.480 	1.68 dBr 05000 GH 54.30 dBr 50000 GH
Band Spectrum Ref Level 20.00 d Att 35 SGL Count 100/100 9 1Pk Max 10 dBm 10 dBm -10 dBm -20 dBm -20 dBm -20 dBm -40 dBm -50 dBm -50 dBm	Bm Offset 2.42 dB dB SWT 227.5 μs dBm	DH5 2480M RBW 100 kHz VBW 300 kHz	Hz Ant1 No Mode Auto FF M1[1] M2[1]	-Hopping E	2.480 2.483	1.68 dBr 05000 GH 54.30 dBr 50000 GH
Band Spectrum Ref Level 20.00 d Att 35 SGL Count 100/100 • 1Pk Max 10 dBm -10 dBm -20 dBm -20 dBm -20 dBm -30 dBm -50 dBm -70 dBm -70 dBm -70 dBm -70 dBm -70 dBm	Bm Offset 2.42 dB dB SWT 227.5 μs 953 dBm M4 M4 M4	DH5 2480M	Mode Auto FF M1[1] M2[1] m2[1]		2.480 2.483	1.68 dBn 05000 GH 54.30 dBn 50000 GH
Band           Spectrum           Ref Level 20.00 d           Att 35           SGL Count 100/100           ID dBm           ID dBm           -10 dBm           -20 dBm           -50 dBm           -50 dBm           -70 dBm           -70 dBm           Start 2.476 GHz           Marker           Type         Ref Trc           M1         1	Bm Offset 2.42 dB dB SWT 227.5 µs d)	DH5 2480M	Hz Ant1 No Mode Auto FF M1[1] M2[1] M2[1]		2.480 2.483	1.68 dBn 05000 GH 54.30 dBn 50000 GH
Band           Spectrum           Ref Level 20.00 d           Att 35           SGL Count 100/100           ID dBm           10 dBm           -10 dBm           -20 dBm           -50 dBm           -50 dBm           -70 dBm	Bm Offset 2.42 dB dB SWT 227.5 µs 953 dBm 953 dBm 100 100 100 100 100 100 100 100 100 10	DH5 2480M	Hz Ant1 No Mode Auto FF M1[1] M2[1		2.480 2.483	1.68 dBn 05000 GH 54.30 dBn 50000 GH
Band           Spectrum           Ref Level 20.00 d           Att 35           SGL Count 100/100           1Pk Max           10 dBm           -10 dBm           -20 dBm           -20 dBm           -30 cBm           -40 dBm           -50 dBm <sup>+12</sup> -70 dBm	Bm Offset 2.42 dB dB SWT 227.5 µs o	DH5 2480M RBW 100 kHz VBW 300 kHz VBW 300 kHz 100 kHz	Mode Auto FF Mode Auto FF M1[1] M2[1] m2[1] m2[1] M2[1]		2.480 2.483	1.68 dBr 05000 GH 54.30 dBr 50000 GH





Spectrun									
Ref Level Att SGL Count	35 c			RBW 100 kHz VBW 300 kHz		ito FFT			
1Pk Max									
					M1	[1]		2 40	2.95 d 184020 (
10 dBm								2.40	104020
				M1 X	^				
0 dBm					thy !				
-10 dBm—									
-20 dBm									
20 abiii-									
-30 dBm—									
10.15									
-40 dBm			ſ	V		M			
-50 dBm			Jan L		· · · · · ·	<u>ˈ</u> LA			
m	$\sim$	m	M			~ (	m	han	from
-60 dBm—							-		
-70 dBm									
-70 ubili									
CF 2.402 (	 3Hz			1001	nts				an 8.0 M
3. 2.1.02 (	1			1001					
Spectrun	n			H5 2402N		1 No-Ho		mission	
	n 20.00 dB 35 c	m Offset 2	2.38 dB 👄	H5 2402M	Z				
Spectrun Ref Level Att	n 20.00 dB 35 c	m Offset 2	2.38 dB 👄	<b>RBW</b> 100 kHz	z z <b>Mode</b> A	uto FFT			1
Spectrun Ref Level Att SGL Count 9 1Pk Max	n 20.00 dB 35 c	m Offset 2	2.38 dB 👄	<b>RBW</b> 100 kHz	z z <b>Mode</b> A			mission	
Spectrum Ref Level Att SGL Count 9 1Pk Max 10 dBm-	n 20.00 dB 35 c	m Offset 2	2.38 dB 👄	<b>RBW</b> 100 kHz	z Mode A	uto FFT		2.40:	3.44 d 215000 -55.36
Spectrun Ref Level Att SGL Count 9 1Pk Max	n 20.00 dB 35 c	m Offset 2	2.38 dB 👄	<b>RBW</b> 100 kHz	z Mode A	uto FFT		2.40:	3.44 d 215000 (
Spectrum Ref Level Att SGL Count 9 1Pk Max 10 dBm-	n 20.00 dB 35 c	m Offset 2	2.38 dB 👄	<b>RBW</b> 100 kHz	z Mode A	uto FFT		2.40:	3.44 d 215000 -55.36
Spectrun Ref Level Att SGL Count • 1Pk Max 10 dBm	n 20.00 dB 35 c	m Offset 2 B SWT 22	2.38 dB 👄	<b>RBW</b> 100 kHz	z Mode A	uto FFT		2.40:	3.44 d 215000 -55.36
Spectrun Ref Level Att SGL Count 1Pk Max 10 dBm	n 20.00 dB 35 c 100/100	m Offset 2 B SWT 22	2.38 dB 👄	<b>RBW</b> 100 kHz	z Mode A	uto FFT		2.40:	3.44 d 215000 -55.36
Spectrum Ref Level Att SGL Count • 1Pk Max 10 dBm	n 20.00 dB 35 c 100/100	m Offset 2 B SWT 22	2.38 dB 👄	<b>RBW</b> 100 kHz	z Mode A	uto FFT		2.40:	3.44 d 215000 -55.36
Spectrum Ref Level Att SGL Count • 1Pk Max 10 dBm	n 20.00 dB 35 c 100/100	m Offset 2 B SWT 22	2.38 dB 👄	RBW 100 kHz VBW 300 kHz	z Mode A	uto FFT		2.402	3.44 d 215000 -55.36
Spectrun Ref Level Att SGL Count • 1Pk Max 10 dBm	n 20.00 dB 35 c 100/100	m Offset 2 18 SWT 22 49 dBm	2.38 dB 2.38 dB 2.5 μs 2.5	RBW 100 kHz VBW 300 kHz	Z Mode A	uto FFT	ppping E	2.40 2.40	3.44 d 215000 -55.36 d 000000
Spectrum Ref Level Att SGL Count • 1Pk Max 10 dBm	n 20.00 dB 35 c 100/100	m Offset 2 B SWT 22	2.38 dB 2.38 dB 2.5 μs 2.5	RBW 100 kHz VBW 300 kHz	Z Mode A	uto FFT		2.402	3.44 d 215000 
Spectrum Ref Level Att SGL Count ● 1Pk Max 10 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -50 dBm	n 20.00 dB 35 c 100/100	m Offset 2 18 SWT 22 49 dBm	2.38 dB 2.38 dB 2.5 μs 2.5	RBW 100 kHz VBW 300 kHz	Z Mode A	uto FFT	ppping E	2.40 2.40	3.44 d 215000 -55.36 d 000000
Spectrun Ref Level Att SGL Count ● 1Pk Max 10 dBm -10 dBm -20 dBm -30 dBm -30 dBm -40 dBm -50 dBm -50 dBm -70 dBm	ո 20.00 dB 35 c 100/100 	m Offset 2 18 SWT 22 49 dBm	2.38 dB 2.38 dB 2.5 μs 2.5	RBW 100 kHz VBW 300 kHz	2 Mode A M1 M2	uto FFT	ppping E	2.40 2.40	3.44 d 215000 -55.36 d 000000
Spectrun Ref Level Att SGL Count ● 1Pk Max 10 dBm -10 dBm -20 dBm -30 dBm -30 dBm -40 dBm -50 dBm -70 dBm -70 dBm -70 dBm	ո 20.00 dB 35 c 100/100 	m Offset 2 18 SWT 22 49 dBm	2.38 dB 2.38 dB 2.5 μs 2.5	RBW 100 kHz VBW 300 kHz	2 Mode A M1 M2	uto FFT	ppping E	2.40 2.40	3.44 d 215000 -55.36 d 000000
Spectrun Ref Level Att SGL Count • 1Pk Max 10 dBm -10 dBm -20 dBm -20 dBm -30 dBm -30 dBm -40 dBm -70 dBm -	n 20.00 dB 35 c 100/100 01 -17.0 4	m Offset 2 B SWT 22 49 dBm 49 dBm 49 dBm 49 dBm	2.38 dB • 77.5 μs •	RBW 100 kHz VBW 300 kHz	2 Mode ۸ ۲ Mi ۳ M2	uto FFT [[1] 2[1] 		2.40 2.40	3.44 d 215000 -55.36 000000 000000 
Spectrun           Ref Level           Att           SGL Count           ● 1Pk Max           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -30 dBm           -50 dBm           -50 dBm           -70 dBm           Start 2.30           Marker           Type           M1	n 20.00 dB 35 c 100/100 	m Offset 2 B SWT 22 49 dBm 49 dBm 49 dBm 49 dBm 2 49 dBm 49 dBm 49 dBm 49 dBm 49 dBm	2.38 dB • 27.5 µs •	RBW 100 kHz VBW 300 kHz	2 2 Mode A M1 M2 M2 M4 M2 M4 M2 M2 M4 M2 M4 M4 M2 M4 M4 M4 M4 M4 M4 M4 M4 M4 M4 M4 M4 M4	uto FFT [[1] 2[1] 		2.40 2.40	3.44 d 215000 -55.36 000000 000000 
Spectrun           Ref Level           Att           SGL Count           ● 1Pk Max           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -30 dBm           -40 dBm           -50 dBm           -70 dBm           Start 2.30           Marker           Type         Re           M1           M2           M3	6 GHz	m Offset 2 18 SWT 22 19 SWT 22 49 dBm 49 dBm 40 d	2.38 dB • 77.5 µs • 74.1/ <sup>46.44</sup> л	RBW 100 kHz VBW 300 kHz VBW 300 kHz VBW 300 kHz VBW 300 kHz VBW 300 kHz VBW 300 kHz VE VE VE VE VE VE VE VE VE VE	z Mode A M1 M2 M2 M2 M4 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2	uto FFT [[1] 2[1] 		2.40 2.40	3.44 d 215000 -55.36 000000 000000 
Spectrun           Ref Level           Att           SGL Count           ● 1Pk Max           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -30 dBm           -40 dBm           -50 dBm           -70 dBm           Start 2.30           Marker           Type           M1           M2	100/100 20.00 dB 35 c 100/100 D1 -17.0 (ujb-ul-ul-ul-ul-ul-ul-ul-ul-ul-ul-ul-ul-ul-	m Offset 2 18 SWT 22 19 SWT 22 49 dBm 49 dBm 40 d	2.38 dB • 77.5 µs • гили <sup>4</sup> мин гили <sup>4</sup> мин г	RBW 100 kHz VBW 300 kHz	z Mode A M1 M2 M2 M2 M4 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2	uto FFT [[1] 2[1] 	ppping E	2.40 2.40	3.44 d 215000 -55.36 000000 - 000000 - 2.406 G



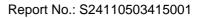


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Spectrum Ref Level : Att SGL Count	1 20.00 dBr 35 d	n Offset 2.42	2 dB 👄	<b>RBW</b> 100 kH:	z z Mode A		lopping E		0.18 dBn
Spectrum Ref Level Att SGL Count 1Pk Max	1 20.00 dBr 35 d	n Offset 2.42	2 dB 👄	<b>RBW</b> 100 kH:	z Mode A	auto FFT	opping E	2.480	0.18 dBn 005000 GH
Spectrum Ref Level Att SGL Count 1Pk Max	1 20.00 dBr 35 d	n Offset 2.42	2 dB 👄	<b>RBW</b> 100 kH:	z Mode A	uto FFT	lopping E	2.480	0.18 dBn
Spectrum Ref Level Att SGL Count 1Pk Max 10 dBm <u>M1</u>	1 20.00 dBr 35 d	n Offset 2.42	2 dB 👄	<b>RBW</b> 100 kH:	z Mode A	auto FFT	opping E	2.480	0.18 dBn 05000 GH -53.96 dBn
Spectrum Ref Level Att SGL Count 10 dBm 10 dBm -10 dBm	20.00 dBr 35 d 100/100	n Offset 2.42 B SWT 227.5	2 dB 👄	<b>RBW</b> 100 kH:	z Mode A	auto FFT	opping E	2.480	0.18 dBn 05000 GH -53.96 dBn
Spectrum Ref Level Att SGL Count 10 dBm M1 0 dBm -10 dBm -20 uBm	20.00 dBr 35 d 100/100	n Offset 2.42 B SWT 227.5	2 dB 👄	<b>RBW</b> 100 kH:	z Mode A	auto FFT	opping E	2.480	0.18 dBn 05000 GH -53.96 dBn
Spectrum Ref Level Att SGL Count 1Pk Max 10 dBm -10 dBm -10 dBm	20.00 dBr 35 d 100/100	n Offset 2.42 B SWT 227.5	2 dB 👄	<b>RBW</b> 100 kH:	z Mode A	auto FFT		2.480	0.18 dBn 05000 GH -53.96 dBn
Spectrum Ref Level Att SGL Count ● 1Pk Max 10 dBm M1 0 dBm -10 dBm -20 uBm	20.00 dBr 35 d 100/100	n Offset 2.42 B SWT 227.5	2 dB 👄	<b>RBW</b> 100 kH:	z Mode A	auto FFT		2.480	0.18 dBn 05000 GH -53.96 dBn
Spectrum Ref Level Att SGL Count © 1Pk Max 10 dBm -10 dBm -10 dBm -30 dBm -30 dBm	20.00 dB <sub>i</sub> 35 d 100/100	m Offset 2.42 B SWT 227.5	2 dB • 5 µs •	RBW 100 kH;	z Mode /	auto FFT [[1] 2[1]		2.48	0.18 dBr 005000 GH -53.96 dBr 350000 GH
Spectrum Ref Level Att SGL Count ● 1Pk Max 10 dBm -10 dBm -10 dBm -20 dBm -30 dBm -30 dBm -50 dBm <sup>2</sup> -50 dBm <sup>2</sup>	20.00 dBr 35 d 100/100	m Offset 2.42 B SWT 227.5	2 dB • 5 µs •	RBW 100 kH;	z Mode /	auto FFT [[1] 2[1]		2.48	0.18 dBr 005000 GH -53.96 dBr 350000 GH
Spectrum Ref Level Att SGL Count • 1Pk Max 10 dBm -10 dBm -20 uBm -20 uBm -30 dBm -40 dBm -50 dBm -60 dBm	20.00 dB <sub>i</sub> 35 d 100/100	m Offset 2.42 B SWT 227.5	2 dB • 5 µs •	RBW 100 kH;	z Mode /	auto FFT [[1] 2[1]		2.48	0.18 dBr 005000 GH -53.96 dBr 350000 GH
Spectrum Ref Level Att SGL Count ● 1Pk Max 10 dBm -10 dBm -10 dBm -20 dBm -30 dBm -30 dBm -50 dBm <sup>2</sup> -50 dBm <sup>2</sup>	20.00 dB <sub>i</sub> 35 d 100/100	m Offset 2.42 B SWT 227.5	2 dB • 5 µs •	RBW 100 kH;	z Mode /	auto FFT [[1] 2[1]		2.48	0.18 dBr 005000 GH -53.96 dBr 350000 GH
Spectrum Ref Level Att SGL Count ● 1Pk Max 10 dBm -10 dBm -20 cBm -30 dBm -30 dBm -50 dBm -50 dBm -70 dBm	20.00 dB <sub>i</sub> 35 d 100/100	m Offset 2.42 B SWT 227.5	2 dB • 5 µs •	RBW         100 kH:           VBW         300 kH:	z Mode A	auto FFT [[1] 2[1]		2.48( 2.48;	0.18 dBr 005000 GH -53.96 dBr 350000 GH
Spectrum Ref Level Att SGL Count • 1Pk Max 10 dBm -10 dBm -20 uBm -20 uBm -30 dBm -40 dBm -50 dBm -60 dBm	20.00 dB <sub>i</sub> 35 d 100/100	m Offset 2.42 B SWT 227.5	2 dB • 5 µs •	RBW 100 kH;	z Mode A	auto FFT [[1] 2[1]		2.48( 2.48;	0.18 dBr 005000 GH -53.96 dBr 350000 GH
Spectrum Ref Level Att SGL Count ● 1Pk Max 10 dBm -10 dBm -20 dBm -20 dBm -30 dBm -30 dBm -50 dBm -70 dBm -70 dBm Start 2.4766 Marker Type Ref	20.00 dBi 35 d 100/100 D1 -19.20 40-4mm/m 6 GHz	m Offset 2.42 B SWT 227.5	2 dB • 5 µs •	RBW         100 kH;           VBW         300 kH;           Image: state st	Z Z Mode / M M M M Z M Z Z M Z M Z M Z M Z M Z M	งuto FFT 1[1] 2[1] ฟางปางไหน(รม	typus and and	2.48( 2.48;	0.18 dBr 005000 GH -53.96 dBr 350000 GH
Spectrum Ref Level Att SGL Count ● 1Pk Max 10 dBm -10 dBm -10 dBm -20 dBm -30 dBm -30 dBm -40 dBm -50 dBm -70 dBm	20.00 dBi 35 d 100/100 D1 -19.26 	m Offset 2.42 B SWT 227.5 0 dBm 0 dB	2 dB 5 µs	RBW 100 kH: VBW 300 kH:	z Mode ۸ ۲ M ۲ M ۲ M ۲ M ۲ M	งuto FFT 1[1] 2[1] ฟางปางไหน(รม	typus and and	2.480 2.483	0.18 dBr 005000 GH -53.96 dBr 350000 GH
Spectrum Ref Level Att SGL Count ● 1Pk Max 10 dBm -10 dBm -20 dBm -30 dBm -30 dBm -30 dBm -50 dBm -70 dBm -70 dBm -70 dBm -70 dBm -70 dBm M1 M1 M1 M2 M3	20.00 dBi 35 d 100/100 D1 -19.20 	m Offset 2.42 B SWT 227.5	2 dB • 5 µs •	RBW 100 kH; VBW 300 kH; S3.96 dB; -53.96 dB; -54.92 dB; -54.92 dB;	z Mode / m M: M: M: M: M: M: M: M: M: M:	งuto FFT 1[1] 2[1] ฟางปางไหน(รม	typus and and	2.480 2.483	0.18 dBr 005000 GH -53.96 dBr 350000 GH
Spectrum Ref Level Att SGL Count ● 1Pk Max 10 dBm -10 dBm -10 dBm -20 dBm -30 dBm -30 dBm -40 dBm -50 dBm -70 dBm	20.00 dBi 35 d 100/100 D1 -19.26 	m Offset 2.42 B SWT 227.5 0 dBm 0 dB	2 dB • 5 µs •	RBW 100 kH: VBW 300 kH:	z Mode / m M: M: M: M: M: M: M: M: M: M:	งuto FFT 1[1] 2[1] ฟางปางไหน(รม	fund	2.480 2.483	0.18 dBr 005000 GH -53.96 dBr 350000 GH 





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Spectrum	] Band E	Edge NVN		H5 2402N	/Hz Ant1	Rea No-H		<b></b>	X
Spectrum Ref Level 2 Att	Band E	Edge NVN n Offset 2 8 swr 22	.38 dB 👄	H5 2402N	/Hz Ant1			<b></b>	X
Spectrum Ref Level 2	Band E	n Offset 2.	.38 dB 👄	H5 2402N	/Hz Ant1			<b></b>	X
Spectrum Ref Level 2 Att SGL Count 1	Band E	n Offset 2.	.38 dB 👄	H5 2402N	/Hz Ant1	uto FFT		mission	3.00 c
Spectrum Ref Level 2 Att SGL Count 1	Band E	n Offset 2.	.38 dB 👄	H5 2402N	/Hz Ant1	uto FFT		mission 2.40	3.00 o 195000
Spectrum Ref Level 2 Att SGL Count 1 9 1Pk Max 10 dBm	Band E	n Offset 2.	.38 dB 👄	H5 2402N	Z Z Z Mode A	uto FFT		mission 2.40	3.00 c
Spectrum Ref Level 2 Att SGL Count 1 1Pk Max 10 dBm 0 dBm	Band E	n Offset 2.	.38 dB 👄	H5 2402N	/Hz Ant1	uto FFT		mission 2.40	80 ) 3.00 ( 195000 -55.31
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Spectrum Ref Level 2 Att SGL Count 1 @1Pk Max 10 dBm 0 dBm -10 dBm	Band E	n Offset 2. B SWT 22	.38 dB 👄	H5 2402N	/Hz Ant1	uto FFT		mission 2.40	80 ) 3.00 ( 195000 -55.31
Spectrum Ref Level 2 Att SGL Count 1 P1Pk Max 10 dBm -10 dBm	Band E	n Offset 2. B SWT 22	.38 dB 👄	H5 2402N	/Hz Ant1	uto FFT		mission 2.40	80 ) 3.00 ( 195000 -55.31
Spectrum           Ref Level 2           Att           SGL Count 1           ● 1Pk Max           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm	Band E	n Offset 2. B SWT 22	.38 dB 👄	H5 2402N	/Hz Ant1	uto FFT		mission 2.40	80 ) 3.00 ( 195000 -55.31
Spectrum Ref Level 2 Att SGL Count 1 • 1Pk Max 10 dBm -10 dBm -20 dBm -30 dBm -40 dBm	Band E	n Offset 2. B SWT 22	.38 dB ● 7.5 µs ●	H5 2402N	/Hz Ant1	uto FFT		mission 2.40	80 ) 3.00 ( 195000 -55.31
Spectrum Ref Level 2 Att SGL Count 1 ● 1Pk Max 10 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm	35 d 0.00/100	n Offset 2 B SWT 22	.38 dB	H5 2402N	/Hz Ant1	uto FFT [1] [1]	opping E	2.40 2.40	3.00 ( 195000 -55.31 000000 000000
Spectrum Ref Level 2 Att SGL Count 1 ● 1Pk Max 10 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm	35 d 0.00/100	n Offset 2. B SWT 22	.38 dB ● 7.5 µs ●	H5 2402N	/Hz Ant1	uto FFT [1] [1]	opping E	2.40 2.40	3.00 ( 195000 -55.31 000000 000000
Spectrum Ref Level 2 Att SGL Count 1 ● 1Pk Max 10 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm	35 d 0.00/100	n Offset 2 B SWT 22	.38 dB ● 7.5 µs ●	H5 2402N	/Hz Ant1	uto FFT [1] [1]	opping E	2.40 2.40	3.00 ( 195000 -55.31 000000 000000
Spectrum Ref Level 2 Att SGL Count 1 ● 1Pk Max 10 dBm -10 dBm -20 dBm -30 dBm -30 dBm -50 dBm -70 dBm -70 dBm	35 d 0.00 dBr 35 d 0.00/100	n Offset 2 B SWT 22	.38 dB ● 7.5 µs ●	H5 2402N	MHz Ant1	uto FFT [1] [1]	opping E	2.40 2.40	3.00 o 195000 -55.31 000000
Spectrum           Ref Level 2           Att           SGL Count 1           ● 1Pk Max           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm           -70 dBm           -70 dBm           Start 2.306	35 d 0.00 dBr 35 d 0.00/100	n Offset 2 B SWT 22	.38 dB ● 7.5 µs ●	H5 2402N	MHz Ant1	uto FFT [1] [1]	opping E	2.40 2.40	3.00 ( 195000 -55.31 000000 000000
Spectrum Ref Level 2 Att SGL Count 1 9 1Pk Max 10 dBm -10 dBm -20 dBm -30 dBm -30 dBm -50 dBm -70 dBm -70 dBm -70 dBm -70 dBm -70 dBm	3and E 35 d 00/100	n Offset 2. B SWT 22	.38 dB ● 7.5 µs ● 	H5 2402N	/Hz Ant1	uto FFT [1] [1]		2.40 2.40 2.40	3.00 ( 195000 -55.31) 0.000000
Spectrum           Ref Level 2           Att           SGL Count 1           ● 1Pk Max           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm           -70 dBm           -70 dBm           Start 2.306           Marker           Type Ref           M1	Band E 0.00 dBr 35 d 0.00/100 1 -17.50 01 -17.50 GHz 1 Trc 1 1	n Offset 2 B SWT 22'	.38 dB ● 7.5 µs ● 	H5 2402N	AHz Ant1	uto FFT [1] [1]		2.40 2.40	3.00 ( 195000 -55.31) 0.000000
Spectrum           Ref Level 2           Att           SGL Count 1           ● 1Pk Max           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm           -70 dBm           -70 dBm           Start 2.306           Marker           Type Ref           M1	Band E 35 d 00/100 1 -17.50 GHz Trc 1 1	m Offset 2. B SWT 22	.38 dB ● 7.5 μs ● 	H5 2402N	/Hz Ant1	uto FFT [1] [1]		2.40 2.40 2.40	3.00 ( 195000 -55.31) 0.000000
Spectrum           Ref Level 2           Att           SGL Count 1           ● 1Pk Max           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm           -70 dBm           -70 dBm           Start 2.306           Marker           Type Ref           M1	Band E 0.00 dBr 35 d 0.00/100 1 -17.50 01 -17.50 GHz 1 Trc 1 1	m Offset 2. B SWT 22 4 dBm 4 dBm 4 dBm 5 dBm 6 dBm 7 dBm	.38 dB ● 7.5 µs ● 	H5 2402N	/Hz Ant1	uto FFT [1] [1]		2.40 2.40 2.40	3.00 ( 195000 -55.31) 0.000000





Att 35 dB SGL Count 100/100 1Pk Max	Offset 2.42 SWT 18.9		W 100 kHz W 300 kHz	Mode Au	uto FFT			
				M	1[1]		2.480	0.95 dBr 14390 GH
10 dBm			r	M1				
0 dBm			$\sim$	×				
-10 dBm				<u> </u>				
-20 dBm				$\rightarrow$				
-30 dBm								
-40 dBm					Λ			
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m	m	~~				hm	m	m
-60 dBm								
-70 dBm								
CF 2.48 GHz			1001	pts			Spa	n 8.0 MHz
Spectrum           Ref Level 20.00 dBm           Att         35 dB           SGL Count 100/100			BW 100 kHz BW 300 kHz		Auto FFT			( \
● 1Pk Max				M	1[1]			0.67 dBn
10 dBm					2[1]			95000 GH 53.67 dBr
0 dem							2.483	50000 GH
l M								
-10 cBm	dBm							
-10 dBm	dBm							
-20 cBm-D1 -19.047	dBm							
-20 cBm-D1 -19.047 -30 dBm-	dBm	-war while and	M. Marcheller	cyflaetaj.ado.Au IV/A	a collector and a	<u>ስ</u>	water	-
-20 cBm 01 -19.047 -30 dBm -40 dBm -50 dBm -50 dBm -60 dBm	M3,	quint a billiphing	m mon man	cylinitation of the	ana ang banga	numutututu	nuter when not the	-ruinadada
-20 свт D1 -19.047 -30 свт -40 свт -50 свт -5	M3,	wer bible for	"\normalia	ryfantul an Ail Ma	Walks of Survey	nustoristation	Nuther Martin	+U.J.unium
-20 cBm 01 -19.047 -30 dBm -40 dBm -50 dBm -50 dBm -60 dBm	M3,	wyn Millhigen	<sup>10</sup> \1001		William for the second s		Stop 2	2.576 GHz
-20 cBm D1 -19.047 -30 dBm -40 dBm -50 dBm -50 dBm -70 dBm -70 dBm Start 2.476 GHz	M3,	5 GHz	, rating and	pts Funct				2.576 GHz



## 8.8 BAND EDGE(HOPPING)

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-53.35	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-53.5	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-52.58	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-52.59	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-53.24	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-53.53	-20	Pass

ACCREDITED Certificate #4298.01





Spectrum Ref Level 20.00	iBm Offset 2.3	38 dB 👄	<b>RBW</b> 100 kHz					
Att 39 SGL Count 8000/8	dB <b>SWT</b> 18 000	3.9 µs 👄	VBW 300 kHz	Mode Auto	OFFT			
●1Pk Max								4.40.40
				M1[	.1]		2.404	4.19 dBn 99700 GH
10 dBm							M1	
0 dBm			- A	$\gamma$		-	$- \sim$	
				$\Lambda$ /		$/ \langle \rangle$	1	$\mathbb{N}$
-10 dBm				$\nabla$			$\checkmark$	$\nabla$
-20 dBm					~		*	×
-30 dBm								
-30 0811								
-40 dBm								
-50 dBm								
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Ann	m '	V					
-60 dBm			+ +					
-70 dBm								
								1
CF 2.402 GHz			1001	pts			Spa	n 8.0 MHz
CF 2.402 GHz			1001	pts	Read	a	Spa	n 8.0 MHz
					Pead	Honnin		8
Band Ec	dge(Hoppin	ig) NV			Road Iz Ant1	Hoppin		ion
Band Ec			NT 1-DH5	) 2402MH	Pead Iz Ant1	Hopping		8
Band Ec		2.38 dB 👄	NT 1-DH5 RBW 100 kHz	) 2402MH		Hopping		ion
Band Ec Spectrum Ref Level 20.00 ( Att 35 SGL Count 1200/1	IBm Offset 2 dB SWT 22	2.38 dB 👄	NT 1-DH5 RBW 100 kHz	) 2402MH		Hopping		ion
Band Ec Spectrum Ref Level 20.00 Att 35	IBm Offset 2 dB SWT 22	2.38 dB 👄	NT 1-DH5 RBW 100 kHz	) 2402MH	ito FFT	Hoppin	g Emiss	ion 
Band Ed Spectrum Ref Level 20.00 ( Att 35 SGL Count 1200/1	IBm Offset 2 dB SWT 22	2.38 dB 👄	NT 1-DH5 RBW 100 kHz	2402MH Mode Au	ito FFT	Hoppin	g Emiss	3.77 dBr 05000 GH 54.02 dBr
Band Ed Spectrum Ref Level 20.00 ( Att 38 SGL Count 1200/1 PIPk Max	IBm Offset 2 dB SWT 22	2.38 dB 👄	NT 1-DH5 RBW 100 kHz	2402MH	ito FFT	Hoppin	g Emiss	ion 
Band Ec Spectrum Ref Level 20.00 ( Att 33 SGL Count 1200/1 PIPk Max 10 dBm	IBm Offset 2 dB SWT 22	2.38 dB 👄	NT 1-DH5 RBW 100 kHz	2402MH Mode Au	ito FFT	Hoppin	g Emiss	3.77 dBr 3.77 dBr 55.000 GH 54.02 dBr
Band Ec           Spectrum           Ref Level 20.00 ( Att 33 SGL Count 1200/1           Image: Provide the system           Image: Provide the system	IBm Offset 2 dB SWT 22	2.38 dB 👄	NT 1-DH5 RBW 100 kHz	2402MH Mode Au	ito FFT	Hoppin	g Emiss	3.77 dBr 05000 GH 54.02 dBr
Band Ec           Spectrum           Ref Level 20.00 ( Att 33: SGL Count 1200/1           ID dBm           10 dBm           -10 dBm           -20 dBm	IBm Offset 2 dB SWT 22 200	2.38 dB 👄	NT 1-DH5 RBW 100 kHz	2402MH Mode Au	ito FFT	Hoppin	g Emiss	3.77 dBr 3.77 dBr 55.000 GH 54.02 dBr
Band Ec           Spectrum           Ref Level 20.00 (att 33)           SGL Count 1200/1           • IPk Max           10 dBm           -10 dBm           -20 dBm           -30 dBm	IBm Offset 2 dB SWT 22 200	2.38 dB 👄	NT 1-DH5 RBW 100 kHz	2402MH Mode Au	ito FFT	Hoppin	g Emiss	3.77 dBr 3.77 dBr 55.000 GH 54.02 dBr
Band Ec           Spectrum           Ref Level 20.00 ( Att 33: SGL Count 1200/1           ID dBm           10 dBm           -10 dBm           -20 dBm	IBm Offset 2 dB SWT 22 200	2.38 dB 👄	NT 1-DH5 RBW 100 kHz	2402MH Mode Au	ito FFT	Hoppin	g Emiss	3.77 dBr 3.77 dBr 54.02 dBr
Band Ec           Spectrum           Ref Level 20.00 (att 33)           SGL Count 1200/1           • IPk Max           • IPk Max           10 dBm           • 10 dBm           • -10 dBm           • -20 dBm           • -30 dBm           • -50 dBm	IBm Offset 2 dB SWT 22 200	2.38 dB •	NT 1-DH5 RBW 100 kHz VBW 300 kHz	2402MH	11 (1)	Hoppin	g Emiss	3.77 dBr 3.77 dBr 54.02 dBr
Band Ec           Spectrum           Ref Level 20.00 (att 33)           SGL Count 1200/1           • IPk Max           • IPk Max           10 dBm           • 10 dBm           • -10 dBm           • -20 dBm           • -30 dBm           • -50 dBm	BBm Offset 2 dB SWT 22 200 	2.38 dB 2.38 dB 2.38 dB 4.38	NT 1-DH5 RBW 100 kHz VBW 300 kHz	2402MH	11]		2.403 2.400	3.77 dBr 3.77 dBr 54.02 dBr 00000 GH
Band Ec           Spectrum           Ref Level 20.00 ( Att 35 SGL Count 1200/1           ID dBm           10 dBm           -10 dBm           -10 dBm           -30 dBm           -40 dBm	BBm Offset 2 dB SWT 22 200 	2.38 dB 2.38 dB 2.38 dB 4.38	NT 1-DH5 RBW 100 kHz VBW 300 kHz	2402MH	11]		2.403 2.400	3.77 dBr 3.77 dBr 54.02 dBr 00000 GH
Band Ec           Spectrum           Ref Level 20.00 (Att 33)           SGL Count 1200/1           ● 1Pk Max           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm           -70 dBm	BBm Offset 2 dB SWT 22 200 	2.38 dB 2.38 dB 2.38 dB 4.38	NT 1-DH5	2402MH	11]		g Emiss 2.403 2.400	3.77 dBr 05000 GH 54.02 dBr 000000 dAr 000000 dAr
Band Ec           Spectrum           Ref Level 20.00 (Att 35)           SGL Count 1200/1           ID dBm           0 dBm           10 dBm           -20 dBm           -30 dBm           -50 dBm           -50 dBm           -60 dBm	BBm Offset 2 dB SWT 22 200 	2.38 dB 2.38 dB 2.38 dB 4.38	NT 1-DH5 RBW 100 kHz VBW 300 kHz	2402MH	11]		g Emiss 2.403 2.400	3.77 dBr 3.77 dBr 54.02 dBr 00000 GH
Band Ec           Spectrum           Ref Level 20.00 (Att 38)           SGL Count 1200/1           ID dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -30 dBm           -50 dBm           -70 dBm           -70 dBm           Start 2.306 GHz           Marker           Type	Bm Offset 2 dB SWT 22 200 813 dBm 813 dBm	2.38 dB • 27.5 µs •	NT 1-DH5	2402MH	ito FFT [1] [1]	لللمي م <sup>ر</sup> ي مي المراجع المراجع الم	g Emiss 2.403 2.400	3.77 dBn 005000 GH
Band Ec           Spectrum           Ref Level 20.00 ( Att 33: SGL Count 1200/1           91Pk Max           10 dBm           10 dBm           -10 dBm           -20 dBm           -30 dBm           -30 dBm           -50 dBm           -70 dBm           -70 dBm           Start 2.306 GHz	Bm         Offset         2           dB         SWT         22           200	2.38 dB 2.38 dB 2.38 dB 4.30 de la construction de la construcción de la construcc	NT 1-DH5	2402MH	ito FFT [1] [1]	لللمي م <sup>ر</sup> ي مي المراجع المراجع الم	g Emiss 2.403 2.400	3.77 dBn 005000 GH
Band Ec           Spectrum           Ref Level 20.00 ( Att 33           SGL Count 1200/1           1Pk Max           10 dBm           10 dBm           -10 dBm           -20 dBm           -30 dBm           -30 dBm           -30 dBm           -70 dBm     <	Bm Offset 2 dB SWT 22 200 	2.38 dB ● 27.5 µs ● 4 4 5 GHz 39 GHz	NT 1-DH5  RBW 100 kHz VBW 300 kHz  100  100  Y-value 3.77 dBn -54.02 dBn -54.02 dBn -54.04 dBn -54.	2402MH	ito FFT [1] [1]	لللمي م <sup>ر</sup> ي مي المراجع المراجع الم	g Emiss 2.403 2.400	3.77 dBn 005000 GH
Band Ec           Spectrum           Ref Level 20.00 (Att 33)           SGL Count 1200/1           ● 1Pk Max           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm           -50 dBm           -70 dBm           -70 dBm           Start 2.306 GHz           Marker           Type           Mal           M2	Bm Offset 2 dB SWT 22 200 	2.38 dB ● 27.5 µs ● М4 	NT 1-DH5  RBW 100 kHz VBW 300 kHz  VBW 300 kHz  1001  Y-value 3.77 dBn -54.02	2402MH	ito FFT [1] [1]	لللمي م <sup>ر</sup> ي مي المراجع المراجع الم	g Emiss 2.403 2.400	3.77 dBn 005000 GH