



# RADIO TEST REPORT FCC ID: OSF-MCP-4010

Product: Wireless Conference Speaker Trade Mark: SPRACHT Model No.: MCP-4010 Family Model: MCP-4011, MCP-4012 Report No.: S22101004501001 Issue Date: Oct 19.2022

# Prepared for

Spracht

974 Commercial Street, Suite 108 Palo Alto, CA 94303, USA

# Prepared by

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# **1 TEST RESULT CERTIFICATION**

Applicant's name:	Spracht
Address	974 Commercial Street,Suite 108 Palo Alto,CA 94303, USA
Manufacturer's Name	Spracht
Address	974 Commercial Street,Suite 108 Palo Alto,CA 94303, USA
Product description	
Product name	Wireless Conference Speaker
Model and/or type reference:	MCP-4010
Family Model	MCP-4011, MCP-4012
Sample number	S221010045004

#### Measurement Procedure Used:

# APPLICABLE STANDARDS STANDARD/ TEST PROCEDURE TEST RESULT FCC 47 CFR Part 2, Subpart J Complied FCC 47 CFR Part 15, Subpart C Complied 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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The test results of this report relate only to the tested sample identified in this report.

Date of Test	:	Oct 10.2022 ~ Oct 19.2022
Testing Engineer	:	hang. Hu
Authorized Signatory	·	(Mary Hu)
	- <u> </u>	(Alex Li)





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

Remark:

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





# **3 FACILITIES AND ACCREDITATIONS**

#### 3.1 FACILITIES

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

1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street, Bao'an District, Shenzhen 518126 P.R. China.

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

#### 3.2 LABORATORY ACCREDITATIONS AND LISTINGS

Site Description	
CNAS-Lab.	: The Certificate Registration Number is L5516.
IC-Registration	The Certificate Registration Number is 9270A.
	CAB identifier:CN0074
FCC- Accredited	Test Firm Registration Number: 463705.
	Designation Number: CN1184
A2LA-Lab.	The Certificate Registration Number is 4298.01
	This laboratory is accredited in accordance with the recognized
	International Standard ISO/IEC 17025:2005 General requirements for
	the competence of testing and calibration laboratories.
	This accreditation demonstrates technical competence for a defined
	scope and the operation of a laboratory quality management system
	(refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009).
Name of Firm	: Shenzhen NTEK Testing Technology Co., Ltd.
Site Location	: 1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang
	Street, Bao'an District, Shenzhen 518126 P.R. China.

#### 3.3 MEASUREMENT UNCERTAINTY

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

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





# 4 GENERAL DESCRIPTION OF EUT

Product Feature and Specification		
Equipment	Wireless Conference Speaker	
Trade Mark	SPRACHT	
FCC ID	OSF-MCP-4010	
Model No.	MCP-4010	
Family Model	MCP-4011, MCP-4012	
Model Difference	All models are the same circuit, RF module, only model name are different	
Operating Frequency	2402MHz~2480MHz	
Modulation	GFSK, π/4-DQPSK, 8-DPSK	
Number of Channels	79 Channels	
Antenna Type	PCB Antenna	
Antenna Gain	1.58dBi	
Adapter	N/A	
Battery	DC 3.7V, 2600mAh,9.62Wh	
Power supply	DC 3.7V from battery or DC 5V from USB Port.	
HW Version	N/A	
SW Version	N/A	

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

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





	Re	vision History		
Report No.	Version	Description	Issued Date	
S22101004501001	Rev.01	Initial issue of report	Oct 19.2022	





# 5 DESCRIPTION OF TEST MODES

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

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

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

Those data rates (1Mbps for GFSK modulation; 2Mbps for  $\pi$ /4-DQPSK modulation; 3Mbps for 8-DPSK modulation) were used for all test.

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

Carrier Frequency and Channel list:

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

Note: fc=2402MHz+k×1MHz k=0 to 78

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

For AC Conducted Emission		
Final Test Mode	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.





		Certificate #	4258.01	
6 SETUP OF	EQUIPMENT UNDE	R TEST		
6.1 BLOCK DIAGE	RAM CONFIGURATION	OF TEST SYSTEM	l	
EUT -	C-1 AE-1 Notebook	AE-2 Adapter	AC PLUG	
For Radiated Test C	Cases			
	EUT			
For Conducted Test	Cases			····:
Measurement Instrument	C-3 EUT			
and this temporary	rary antenna connector is antenna connector is list battery-powered, the ba	ed in the equipmen	t list.	o perform conducted tests





#### 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	N/A	N/A	Peripherals
AE-2	Notebook	N/A	N/A	Peripherals

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

#### Notes:

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





#### 6.3 EQUIPMENTS LIST FOR ALL TEST ITEMS

#### Radiation& Conducted Test equipment

uuluu		col equipment					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibrati on period
1	Spectrum Analyzer	Aglient	E4407B	MY45108040	2022.04.06	2023.04.05	1 year
2	Spectrum Analyzer	Agilent	N9020A	MY49100060	2022.04.06	2023.04.05	1 year
3	Spectrum Analyzer	R&S	FSV40	101417	2022.04.06	2023.04.05	1 year
4	Test Receiver	R&S	ESPI7	101318	2022.04.06	2023.04.05	1 year
5	Bilog Antenna	TESEQ	CBL6111D	31216	2022.03.30	2023.03.29	1 year
6	50Ω Coaxial Switch	Anritsu	MP59B	6200983705	2020.05.11	2023.05.10	3 year
7	Horn Antenna	EM	EM-AH-1018 0	2011071402	2022.03.31	2023.03.30	1 year
8	Broadband Horn Antenna	SCHWARZBE CK	BBHA 9170	803	2021.11.07	2022.11.06	1 year
9	Amplifier	EMC	EMC051835 SE	980246	2022.06.17	2023.06.16	1 year
10	Active Loop Antenna	SCHWARZBE CK	FMZB 1519 B	055	2021.11.07	2022.11.06	1 year
11	Power Meter	DARE	RPR3006W	15I00041SN 084	2021.11.07	2022.11.06	1 year
12	Test Cable (9KHz-30MHz)	N/A	R-01	N/A	2020.05.11	2023.05.10	3 year
13	Test Cable (30MHz-1GHz)	N/A	R-02	N/A	2020.05.11	2023.05.10	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	2021.11.07	2022.11.06	1 year
16	temporary antenna connector (Note)	NTS	R001	N/A	N/A	N/A	N/A

Note:

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





AC Co	AC Conduction Test equipment						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Test Receiver	R&S	ESCI	101160	2022.04.06	2023.04.05	1 year
2	LISN	R&S	ENV216	101313	2022.04.06	2023.04.05	1 year
3	LISN	SCHWARZBE CK	NNLK 8129	8129245	2022.04.06	2023.04.05	1 year
4	50Ω Coaxial Switch	ANRITSU CORP	MP59B	6200983704	2020.05.11	2023.05.10	3 year
5	Test Cable (9KHz-30MH z)	N/A	C01	N/A	2020.05.11	2023.05.10	3 year
6	Test Cable (9KHz-30MH z)	N/A	C02	N/A	2020.05.11	2023.05.10	3 year
7	Test Cable (9KHz-30MH z)	N/A	C03	N/A	2020.05.11	2023.05.10	3 year

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





### 7 TEST REQUIREMENTS

#### 7.1 CONDUCTED EMISSIONS TEST

#### 7.1.1 Applicable Standard

According to FCC Part 15.207(a)

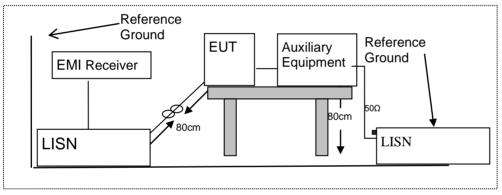
#### 7.1.2 Conformance Limit

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

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

- 2. The lower limit shall apply at the transition frequencies
  - 3. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

#### 7.1.3 Test Configuration



#### 7.1.4 Test Procedure

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

- 1. The EUT was placed 0.4 meter from the conducting wall of the shielding room.
- 2. The EUT was placed on a table which is 0.8m above ground plane.
- Connect EUT to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- 4. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40cm long.
- I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable
  may be terminated, if required, using the correct terminating impedance. The overall length shall not
  exceed 1 m.
- 6. LISN at least 80 cm from nearest part of EUT chassis.
- 7. The frequency range from 150KHz to 30MHz was searched.
- 8. Set the test-receiver system to Peak Detect Function and specified bandwidth(IF bandwidth=9KHz) with Maximum Hold Mode
- 9. For the actual test configuration, please refer to the related Item -EUT Test Photos.

#### 7.1.5 Test Results

Pass





## 7.1.6 Test Results

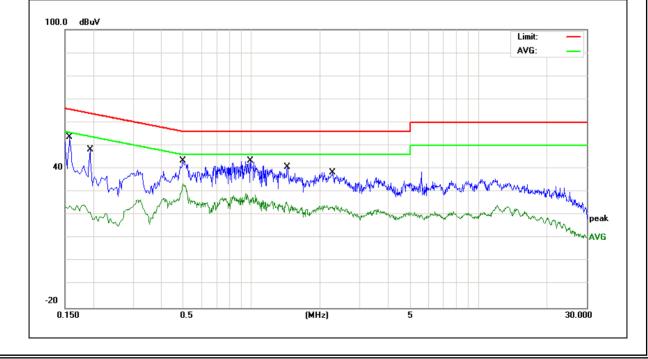
EUT:	Wireless Conference Speaker	Model Name :	MCP-4010
Temperature:	<b>22</b> ℃	Relative Humidity:	57%
Pressure:	1010hPa	Phase :	L
Test Voltage :	DC 5V from Adapter AC 120V/60Hz	Test Mode:	Mode 1

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Demeril
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	- Remark
0.1580	43.95	9.60	53.55	65.56	-12.01	QP
0.1580	14.31	9.60	23.91	55.56	-31.65	AVG
0.1940	38.53	9.61	48.14	63.86	-15.72	QP
0.1940	11.68	9.61	21.29	53.86	-32.57	AVG
0.4979	33.79	9.66	43.45	56.03	-12.58	QP
0.4979	23.92	9.66	33.58	46.03	-12.45	AVG
0.9859	33.81	9.68	43.49	56.00	-12.51	QP
0.9859	19.53	9.68	29.21	46.00	-16.79	AVG
1.4379	31.01	9.67	40.68	56.00	-15.32	QP
1.4379	16.07	9.67	25.74	46.00	-20.26	AVG
2.2740	28.59	9.70	38.29	56.00	-17.71	QP
2.2740	14.42	9.70	24.12	46.00	-21.88	AVG

Remark:

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

2. Factor = Insertion Loss + Cable Loss.







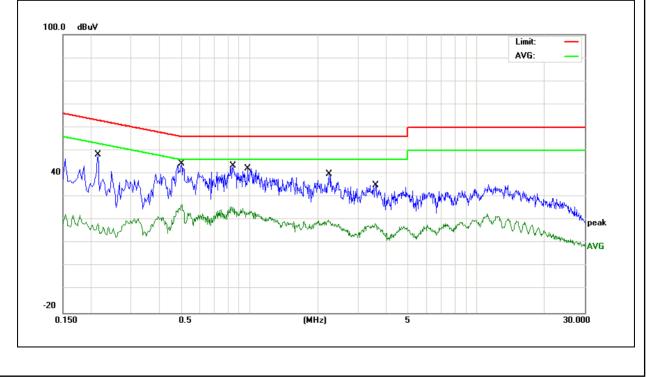
EUT:	Wireless Conference Speaker	Model Name :	MCP-4010
Temperature:	<b>25℃</b>	Relative Humidity:	62%
Pressure:	1010hPa	Phase :	N
Test Voltage :	DC 5V from Adapter AC 120V/60Hz	Test Mode:	Mode 1

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	Remark
0.2140	38.59	9.63	48.22	63.04	-14.82	QP
0.2140	8.95	9.63	18.58	53.04	-34.46	AVG
0.5020	34.72	9.66	44.38	56.00	-11.62	QP
0.5020	17.06	9.66	26.72	46.00	-19.28	AVG
0.8460	33.69	9.68	43.37	56.00	-12.63	QP
0.8460	16.03	9.68	25.71	46.00	-20.29	AVG
0.9820	32.69	9.69	42.38	56.00	-13.62	QP
0.9820	14.58	9.69	24.27	46.00	-21.73	AVG
2.2380	30.06	9.67	39.73	56.00	-16.27	QP
2.2380	10.45	9.67	20.12	46.00	-25.88	AVG
3.5980	25.39	9.71	35.10	56.00	-20.90	QP
3.5980	8.88	9.71	18.59	46.00	-27.41	AVG

Remark:

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

2. Factor = Insertion Loss + Cable Loss.







#### 7.2 RADIATED SPURIOUS EMISSION

#### 7.2.1 Applicable Standard

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

#### 7.2.2 Conformance Limit

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

According to 1 00 1 art10.20			
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)

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

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

Measurement was performed at an antenna to the closed point of EUT distance of meters.
 For Frequency 9kHz~30MHz:

Distance extrapolation factor =40log(Specific distance/ test distance)(dB);

Limit line=Specific limits(dBuV) + distance extrapolation factor.

For Frequency above 30MHz:

Distance extrapolation factor =20log(Specific distance/ test distance)(dB);

Limit line=Specific limits(dBuV) + distance extrapolation factor.



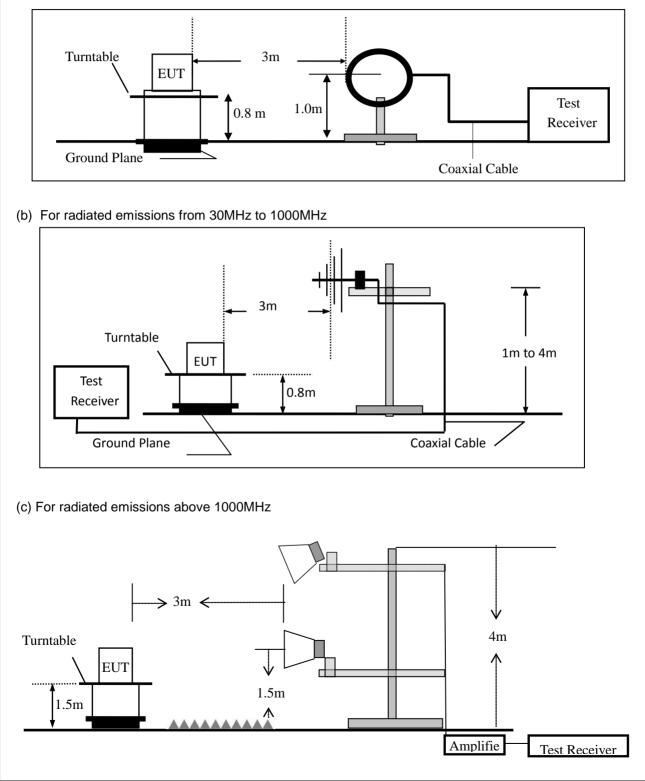


#### 7.2.3 Measuring Instruments

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

#### 7.2.4 Test Configuration

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







#### 7.2.5 Test Procedure

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

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

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

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

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

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





During the radiated emission test, the Spectrum Analyzer was set with the following configurations:								
Frequency Band (MHz)	Function	Resolution bandwidth	Video Bandwidth					
30 to 1000	QP	120 kHz	300 kHz					
Ab ave 4000	Peak		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:	Wireless Conference Speaker	Model No.:	MCP-4010	
Temperature:	20 °C	Relative Humidity:	48%	
Test Mode:	Mode2/Mode3/Mode4	Test By:	Mary Hu	

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

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





Spurious Emission below 1GHz (30MHz to 1GHz) All the modulation modes have been tested, and the worst result was report as below: MCP-4010 EUT: Wireless Conference Speaker Model Name : **25°**℃ Temperature: Relative Humidity: 55% Test Mode: 1010hPa Mode 3 GFSK Pressure: DC 3.7V Test Voltage : Emission Meter Frequency Factor Limits Margin Polar Reading Level Remark (H/V) (MHz) (dBuV) (dB) (dBuV/m) (dBuV/m) (dB) V 31.3992 8.91 25.39 34.30 40.00 -5.70 QP V 47.3253 14.77 16.33 31.10 40.00 -8.90 QP V QP 53.6931 17.12 12.98 30.10 40.00 -9.90 V 153.7384 17.89 18.41 36.30 43.50 -7.20 QP V 711.6734 7.77 28.13 35.90 46.00 -10.10 QP V QP 900.1471 9.67 30.23 39.90 46.00 -6.10 Remark: Emission Level= Meter Reading+ Factor, Margin= Emission Level - Limit 72.0 dBuV/m Limit: Margin: 5 X And man whigh the first which had a construction of 32 🚽 Many Martin Martin

(MHz)

300

400

500

600 700

1000.000

-8

40

50

60

70 80

NTEK 北测<sup>®</sup>









	Spurious Er	mission A	Above 10	GHz (1GH	z to 25G⊦	lz)					
EU	T:	Wireless Conference Speaker						del No.:	Ν	ICP-4010	
Ter	nperature:	20 °C	;				Rela	ative Humi	dity: 4	8%	
Tes	st Mode:	Mode	e2/Mode	3/Mode4		-	Test	t By:	Ν	/lary Hu	
All t	All the modulation modes have been tested, and the worst result was report as below:										
	Frequency	Read Level	Cable loss	Antenna Factor	Preamp Factor	Emissio Level	-	Limits	Margir	Remark	Comment
	(MHz)	(dBµV)	(dB)	dB/m	(dB)	(dBµV/r	m)	(dBµV/m)	(dB)		
				Low Char	nel (2402	MHz)(GF	SK)	Above 1G			
	4804.26	67.23	5.21	35.59	44.30	63.73	3	74.00	-10.27	Pk	Vertical
	4804.26	43.01	5.21	35.59	44.30	39.51		54.00	-14.49	AV	Vertical
	7206.81	61.54	6.48	36.27	44.60	59.69	)	74.00	-14.31	Pk	Vertical
	7206.81	43.07	6.48	36.27	44.60	41.22	2	54.00	-12.78	AV	Vertical
	4804.00	64.67	5.21	35.55	44.30	61.13	3	74.00	-12.87	Pk	Horizontal
	4804.00	42.66	5.21	35.55	44.30	39.12	2	54.00	-14.88	AV	Horizontal
	7206.41	62.56	6.48	36.27	44.52	60.79	)	74.00	-13.21	Pk	Horizontal
	7206.41	41.09	6.48	36.27	44.52	39.32		54.00	-14.68	AV	Horizontal
			I	Mid Chan	nel (2441	MHz)(GF	SK)	Above 1G			
	4882.18	66.98	5.21	35.66	44.20	63.65	5	74.00	-10.35	Pk	Vertical
	4882.18	43.09	5.21	35.66	44.20	39.76	3	54.00	-14.24		Vertical
	7323.99	63.21	7.10	36.50	44.43	62.38	3	74.00	-11.62		Vertical
	7323.99	43.45	7.10	36.50	44.43	42.62	2	54.00	-11.38		Vertical
	4882.56	64.92	5.21	35.66	44.20	61.59	)	74.00	-12.41	Pk	Horizontal
	4882.56	43.72	5.21	35.66	44.20	40.39	)	54.00	-13.61	AV	Horizontal
	7324.22	60.86	7.10	36.50	44.43	60.03		74.00	-13.97	Pk	Horizontal
	7324.22	43.56	7.10	36.50	44.43	42.73		54.00	-11.27	AV	Horizontal
			1	-		MHz)(GF	SK)	Above 1G			
	4959.63	63.39	5.21	35.52	44.21	59.91		74.00	-14.09		Vertical
	4959.63	43.79	5.21	35.52	44.21	40.31		54.00	-13.69	AV	Vertical
	7439.94	63.55	7.10	36.53	44.60	62.58	3	74.00	-11.42		Vertical
	7439.94	43.39	7.10	36.53	44.60	42.42	2	54.00	-11.58	AV	Vertical
	4960.88	60.67	5.21	35.52	44.21	57.19	)	74.00	-16.81	Pk	Horizontal
	4960.88	40.54	5.21	35.52	44.21	37.06	3	54.00	-16.94	AV	Horizontal
	7440.10	63.67	7.10	36.53	44.60	62.70	)	74.00	-11.30	Pk	Horizontal
	7440.10	41.49	7.10	36.53	44.60	40.52	2	54.00	-13.48	AV	Horizontal

Note:

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





Spurious	Spurious Emission in Restricted Band 2310-2390MHz and 2483.5-2500MHz										
EUT:	T: Wireless Conference Speaker Model						del No.:		MCI	P-4010	
Temperature:	20 °C					Re	lative Humi	dity:	48%	, D	
Test Mode:	Mode2/ M	lode4				Te	st By:		Mar	y Hu	
All the modul	ation mod	es have	been test	ed, and th	e worst						
Frequency	Meter Reading	Cable Loss	Antenna Factor	Preamp Factor	Emissi Leve		Limits	Mar	gin	Detector	Comment
(MHz)	(dBµV)	(dB)	dB/m	(dB)	(dBµV/	m)	(dBµV/m)	(dE	3)	Туре	
	•		1	Mbps(GFS	SK)-Non-	hop	ping				
2310.00	54.57	2.97	27.80	43.80	41.54	4	74	-32.	46	Pk	Horizontal
2310.00	44.25	2.97	27.80	43.80	31.22	2	54	-22.	78	AV	Horizontal
2310.00	52.77	2.97	27.80	43.80	39.74	4	74	-34.	26	Pk	Vertical
2310.00	41.17	2.97	27.80	43.80	28.14	4	54	-25.	86	AV	Vertical
2390.00	52.66	3.14	27.21	43.80	39.21	1	74	-34.	79	Pk	Vertical
2390.00	41.20	3.14	27.21	43.80	27.75	5	54	-26.	25	AV	Vertical
2390.00	51.55	3.14	27.21	43.80	38.10	)	74	-35.	90	Pk	Horizontal
2390.00	43.72	3.14	27.21	43.80	30.27	7	54	-23.	73	AV	Horizontal
2483.50	51.47	3.58	27.70	44.00	38.75	5	74	-35.	25	Pk	Vertical
2483.50	40.48	3.58	27.70	44.00	27.76	6	54	-26.	24	AV	Vertical
2483.50	50.55	3.58	27.70	44.00	37.83	3	74	-36.	17	Pk	Horizontal
2483.50	40.37	3.58	27.70	44.00	27.65	5	54	-26.	35	AV	Horizontal
				1Mbps(G	FSK)-ho	ppir	ng				
2310.00	51.31	2.97	27.80	43.80	38.28	3	74	-35.	72	Pk	Horizontal
2310.00	43.03	2.97	27.80	43.80	30.00	)	54	-24.	00	AV	Horizontal
2310.00	53.24	2.97	27.80	43.80	40.21	1	74	-33.	79	Pk	Vertical
2310.00	42.77	2.97	27.80	43.80	29.74	4	54	-24.	26	AV	Vertical
2390.00	50.04	3.14	27.21	43.80	36.59	9	74	-37.	41	Pk	Vertical
2390.00	40.64	3.14	27.21	43.80	27.19	9	54	-26.	81	AV	Vertical
2390.00	52.87	3.14	27.21	43.80	39.42	2	74	-34.	58	Pk	Horizontal
2390.00	43.22	3.14	27.21	43.80	29.77	7	54	-24.	23	AV	Horizontal
2483.50	52.13	3.58	27.70	44.00	39.41	1	74	-34.	59	Pk	Vertical
2483.50	42.93	3.58	27.70	44.00	30.21	1	54	-23.	79	AV	Vertical
2483.50	53.74	3.58	27.70	44.00	41.02	2	74	-32.	98	Pk	Horizontal
2483.50	41.37	3.58	27.70	44.00	28.65	5	54	-25.	35	AV	Horizontal

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





Spurious Emission in Restricted Band 3260MHz-18000MHz										
EUT:	Wireless Conference Speaker						Model No.:		MCP-4010	
Temperature:	20 °C	;				Relative H	lumidity:	48%		
Test Mode:	Mode	e2/ Mode	e4			Test By:		Mary Hu	l	
All the modula	ation mode	es have	been teste	ed, and the	e worst res	ult was repo	ort as bel	ow:		
Frequency	Reading Level	Cable Loss	Antenna Factor	Preamp Factor	Emission Level	Limits	Margin	Detector	Comment	
(MHz)	(dBµV)	(dB)	dB/m	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре		
3260	61.32	4.04	29.57	44.70	50.23	74	-23.77	Pk	Vertical	
3260	49.98	4.04	29.57	44.70	38.89	54	-15.11	AV	Vertical	
3260	55.00	4.04	29.57	44.70	43.91	74	-30.09	Pk	Horizontal	
3260	46.38	4.04	29.57	44.70	35.29	54	-18.71	AV	Horizontal	
3332	60.80	4.26	29.87	44.40	50.53	74	-23.47	Pk	Vertical	
3332	45.88	4.26	29.87	44.40	35.61	54	-18.39	AV	Vertical	
3332	62.06	4.26	29.87	44.40	51.79	74	-22.21	Pk	Horizontal	
3332	47.73	4.26	29.87	44.40	37.46	54	-16.54	AV	Horizontal	
17797	48.61	10.99	43.95	43.50	60.05	74	-13.95	Pk	Vertical	
17797	38.73	10.99	43.95	43.50	50.17	54	-3.83	AV	Vertical	
17788	55.17	11.81	43.69	44.60	66.07	74	-7.93	Pk	Horizontal	
17788	35.95	11.81	43.69	44.60	46.85	54	-7.15	AV	Horizontal	

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





#### 7.3 NUMBER OF HOPPING CHANNEL

#### 7.3.1 Applicable Standard

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

#### 7.3.2 Conformance Limit

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

#### 7.3.3 Measuring Instruments

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

#### 7.3.4 Test Setup

Please refer to Section 6.1 of this test report.

#### 7.3.5 Test Procedure

The testing follows ANSI C63.10-2013 clause 7.8.3

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

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

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

The EUT must have its hopping function enabled.

Use the following spectrum analyzer settings:

Span = the frequency band of operation

RBW : To identify clearly the individual channels, set the RBW to less than 30% of the channel spacing or the 20 dB bandwidth, whichever is smaller.

 $VBW \ge RBW$ 

Sweep = auto

Detector function = peak

Trace = max hold

#### 7.3.6 Test Results

EUT:	Wireless Conference Speaker	Model No.:	MCP-4010
Temperature:	120 °C	Relative Humidity:	48%
Test Mode:	Mode 5(1Mbps)	Test By:	Mary Hu





#### 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:	Wireless Conference Speaker	Model No.:	MCP-4010
Temperature:	20 °C	Relative Humidity:	48%
Test Mode:	Mode2/Mode3/Mode4	Test By:	Mary Hu





#### 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:	Wireless Conference Speaker	Model No.:	MCP-4010
Temperature:	20 °C	Relative Humidity:	48%
Test Mode:	Mode2/Mode3/Mode4	Test By:	Mary Hu

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:	Wireless Conference Speaker	Model No.:	MCP-4010
Temperature:	20 °C	Relative Humidity:	48%
Test Mode:	Mode2/Mode3/Mode4	Test By:	Mary Hu





#### 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:	Wireless Conference Speaker	Model No.:	MCP-4010
Temperature:	20 °C	Relative Humidity:	48%
Test Mode:	Mode2/Mode3/Mode4	Test By:	Mary Hu





#### 7.8 CONDUCTED BAND EDGE MEASUREMENT

#### 7.8.1 Applicable Standard

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

#### 7.8.2 Conformance Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.205(c)).

#### 7.8.3 Measuring Instruments

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

#### 7.8.4 Test Setup

Please refer to Section 6.1 of this test report.

#### 7.8.5 Test Procedure

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

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

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

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

The EUT must have its hopping function enabled.

Use the following spectrum analyzer settings:

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

RBW = 100KHz

VBW = 300KHz

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

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

Repeat above procedures until all measured frequencies were complete.

#### 7.8.6 Test Results

EUT:	Wireless Conference Speaker	Model No.:	MCP-4010
Temperature:	20 °C	Relative Humidity:	
Test Mode:	Mode2 /Mode4/ Mode 5	Test By:	Mary Hu





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





#### 7.10 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: 1.58dBi). It comply with the standard requirement.





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

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

#### 7.11.2 Frequency Hopping System

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

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

#### 7.11.3 EUT Pseudorandom Frequency Hopping Sequence

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

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

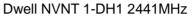


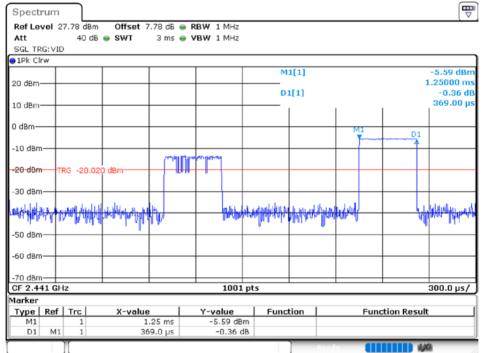


# 8 TEST RESULTS

#### 8.1 DWELL TIME

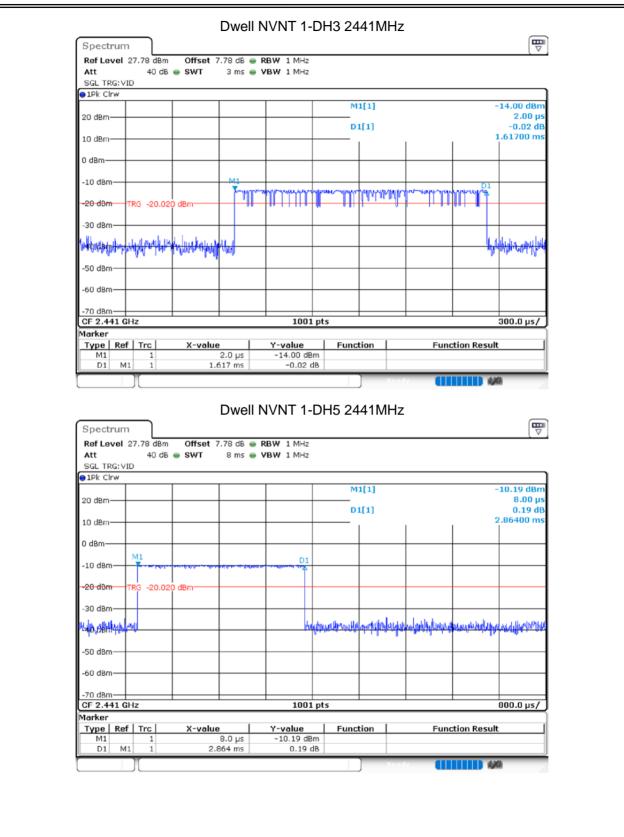
Verdict Pass Pass Pass
Pass Pass
Pass
Pass
1 400
Pass
-



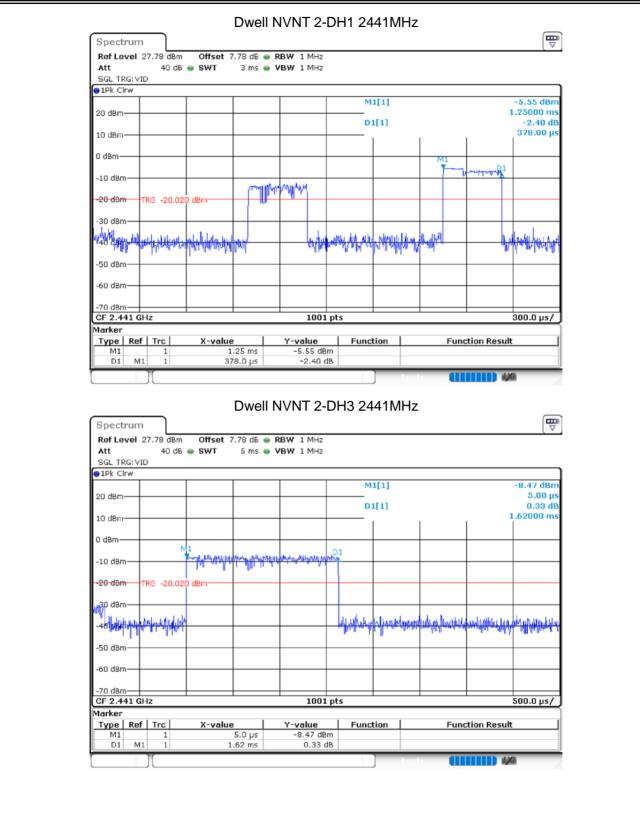












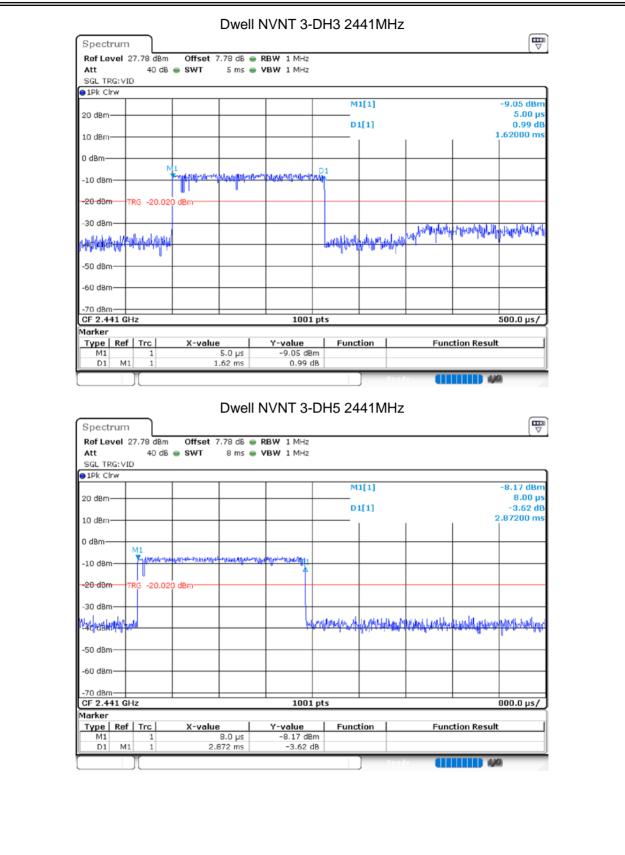




Att 40 dB  SGL TRG: VID	8 ms 👄 <b>VBW</b> 1 MH:	2		
●1Pk Clrw		M1[1]		-9.85 dBm
20 dBm		D1[1]		8.00 µs -1.81 dB
10 dBm				2.87200 ms
0 dBm				
-10 dBm		1		
	and a second			
-20 dBm TRG -20.020 dBm				
-30 dBm		. Intelligence of		
nder and a second s		h <del>heidetspiellehbergetetspies</del>	in hall the state of the second	hand target and the state of th
-50 dBm				
-60 dBm				
-70 dBm				
CF 2.441 GHz	100	1 pts		800.0 µs/
Marker Type Ref Trc X-valı		Function	Fund	tion Result
M1 1	8.0 µs -9.85 d	IBm		
	2.872 ms -1.81	dB		
DI MI I	2.872 ms -1.81 Dwell NVNT 3 7.78 dB • RBW 1 MH: 3 ms • VBW 1 MH:	-DH1 2441MH	ady <b>())</b> Z	(
D1         M1         1         2           Spectrum	Dwell NVNT 3	-DH1 2441MH	ndy <b>())</b>  Z	
D1 M1 1 2 Spectrum Ref Level 27.78 dBm Offset Att 40 dB SWT SGL TRG: VID 91Pk Clrw	Dwell NVNT 3	-DH1 2441MH	ndr ()))	0.13 dBm
D1         M1         1         2           Spectrum	Dwell NVNT 3	-DH1 2441MH	ndy <b>())</b>	0.13 dBm 1.25300 ms -2.94 dE
D1 M1 1 2 Spectrum Ref Level 27.78 dBm Offset Att 40 dB SWT SGL TRG: VID 91Pk Clrw	Dwell NVNT 3	-DH1 2441MH		0.13 dBm 1.25300 ms
D1         M1         1         2           Spectrum	Dwell NVNT 3	-DH1 2441MH	MI	0.13 dBm 1.25300 ms -2.94 dE
D1         M1         1         2           Spectrum	Dwell NVNT 3 7.78 dB • RBW 1 MH: 3 ms • VBW 1 MH:	-DH1 2441MH	MI	0.13 dBm 1.25300 ms -2.94 dE 378.00 μs
D1         M1         1         2           Spectrum	Dwell NVNT 3 7.78 dB • RBW 1 MH: 3 ms • VBW 1 MH:	-DH1 2441MH	MI	0.13 dBm 1.25300 ms -2.94 dE 378.00 μs
D1         M1         1         2           Ref Level         27.78         dBm         Offset           Att         40 dB         SWT         SGL           SGL         TRG: VID         9         1Pk Clrw           20 dBm         0         0         0           10 dBm         0         0         0           -10 dBm         -10         TRG         -20.020 dBm	Dwell NVNT 3 7.78 dB • RBW 1 MH: 3 ms • VBW 1 MH:	-DH1 2441MH	MI	0.13 dBm 1.25300 ms -2.94 dE 378.00 μs
D1         M1         1         2           Ref Level         27.78 dBm         Offset           Att         40 dB         SWT           SGL TRG: VID         9 IPk Clrw           20 dBm         10 dBm           -10 dBm         -10 dBm           -20 dBm         TRG         -20.020 dBm	Dwell NVNT 3	-DH1 2441MH	M1 V V	0.13 dBm 1.25300 ms -2.94 dE 378.00 μs
D1         M1         1         2           Ref Level         27.78 dBm         Offset           Att         40 dB         SWT           SGL TRG: VID         10k         SWT           20 dBm         0         0           10 dBm         0         0           -10 dBm         -         0           -30 dBm         -         -	Dwell NVNT 3	-DH1 2441MH	M1 V V	0.13 dBm 1.25300 ms -2.94 dE 378.00 μs
D1         M1         1         2           Ref Level         27.78 dBm         Offset           Att         40 dB         SWT           SGL TRG: VID         9 IPk Clrw           20 dBm         10 dBm           10 dBm         0 dBm           -10 dBm         -20 dBm           -20 dBm         TRG           -20 dBm         -20 dBm           -50 dBm         -50 dBm	Dwell NVNT 3	-DH1 2441MH	M1 V V	0.13 dBm 1.25300 ms -2.94 dE 378.00 μs
D1         M1         1         2           Ref Level         27.78 dBm         Offset           Att         40 dB         SWT           SGL TRG: VID         10k         SWT           20 dBm         0         0           10 dBm         0         0           -10 dBm         -         0           -30 dBm         -         -	Dwell NVNT 3	-DH1 2441MH	M1 V V	0.13 dBm 1.25300 ms -2.94 dE 378.00 μs
D1         M1         1         2           Ref Level         27.78         dBm         Offset           Att         40 dB         SWT         SGL TRG: VID           9 IPk Clrw         20 dBm         10 dBm         10 dBm           10 dBm         -         -         -         -           -10 dBm         -         -         -         -         -           -30 dBm         - <td>Dwell NVNT 3</td> <td>-DH1 2441MH</td> <td>M1 V V</td> <td>0.13 dBm 1.25300 ms -2.94 dE 378.00 µs</td>	Dwell NVNT 3	-DH1 2441MH	M1 V V	0.13 dBm 1.25300 ms -2.94 dE 378.00 µs
D1         M1         1         2           Ref Level         27.78 dBm         Offset           Att         40 dB         SWT         SGL           SGL TRG: VID         9 IPk Clrw         20 dBm         20 dBm <td>Dwell NVNT 3</td> <td>-DH1 2441MH</td> <td></td> <td>0.13 dBm 1.25300 ms -2.94 dE 378.00 µs</td>	Dwell NVNT 3	-DH1 2441MH		0.13 dBm 1.25300 ms -2.94 dE 378.00 µs
D1         M1         1         2           Ref Level         27.78 dBm         Offset           Att         40 dB         SWT           SGL TRG: VID         1Pk Clrw           20 dBm         20 dBm           10 dBm         0           0 dBm         0           -10 dBm         0           -20 dBm         7RG -20.020 dBm           -30 dBm         -30 dBm           -60 dBm         -60 dBm           -70 dBm         -70 dBm	Dwell NVNT 3	-DH1 2441MH		0.13 dBm 1.25300 ms -2.94 dE 378.00 µs





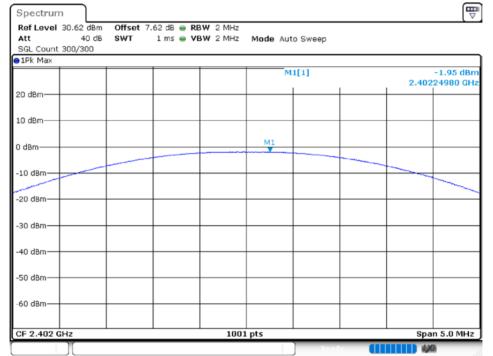




## 8.2 MAXIMUM CONDUCTED OUTPUT POWER

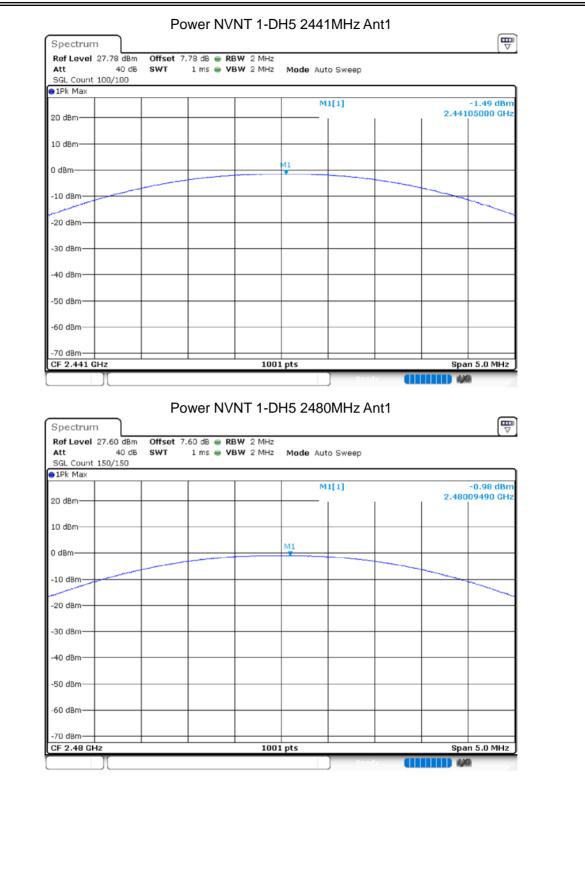
			OTTER			
Condition	Mode	Frequency (MHz)	Antenna	Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH5	2402	Ant 1	-1.95	30	Pass
NVNT	1-DH5	2441	Ant 1	-1.49	30	Pass
NVNT	1-DH5	2480	Ant 1	-0.98	30	Pass
NVNT	2-DH5	2402	Ant 1	-1.99	21	Pass
NVNT	2-DH5	2441	Ant 1	-1.58	21	Pass
NVNT	2-DH5	2480	Ant 1	-1.06	21	Pass
NVNT	3-DH5	2402	Ant 1	-1.81	21	Pass
NVNT	3-DH5	2441	Ant 1	-1.44	21	Pass
NVNT	3-DH5	2480	Ant 1	-1.01	21	Pass

#### Power NVNT 1-DH5 2402MHz Ant1



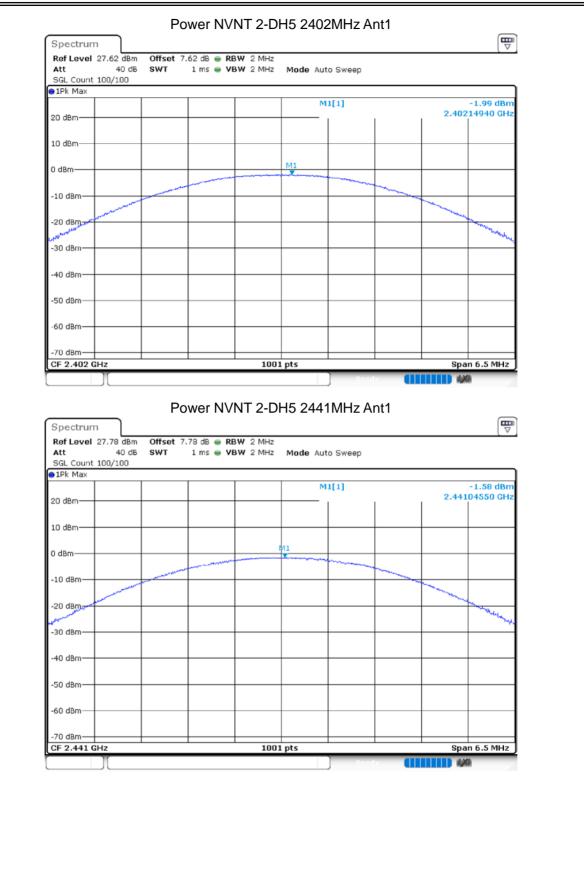






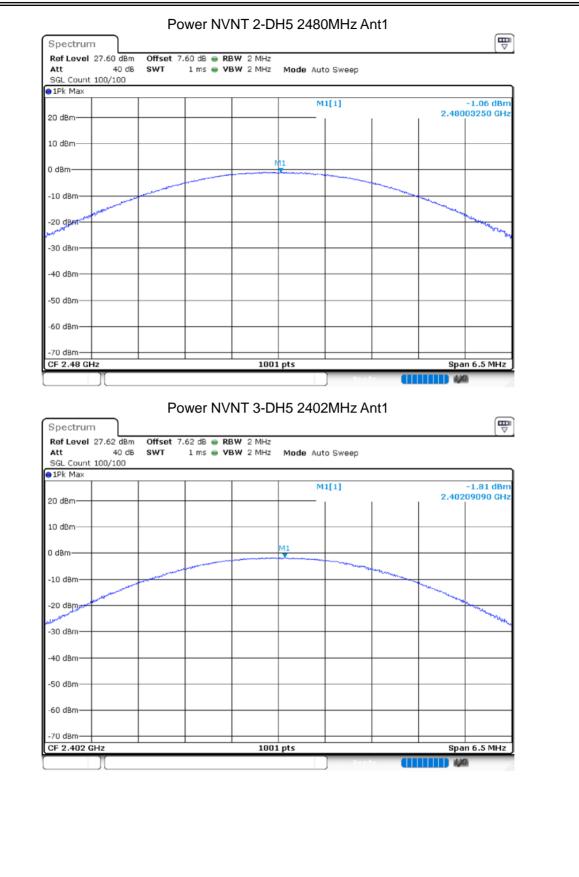






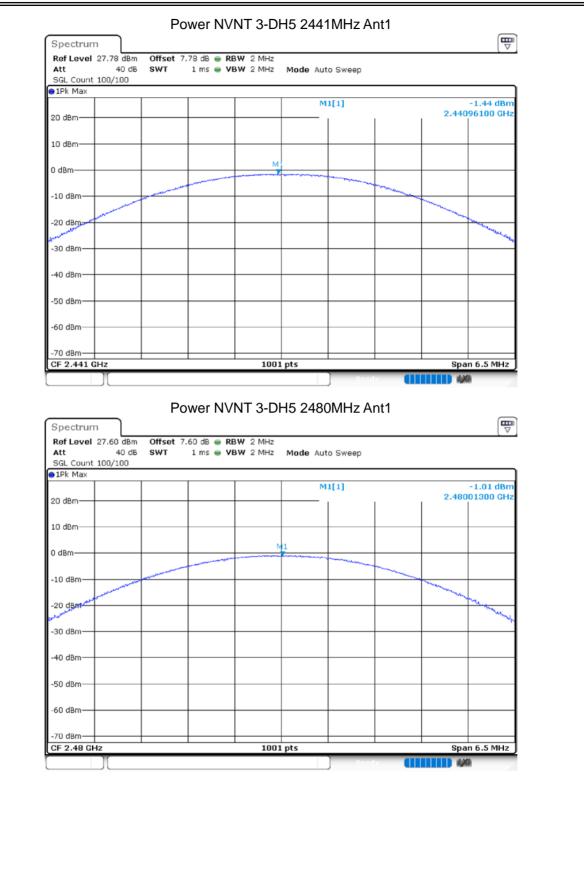
















# 8.3 OCCUPIED CHANNEL BANDWIDTH

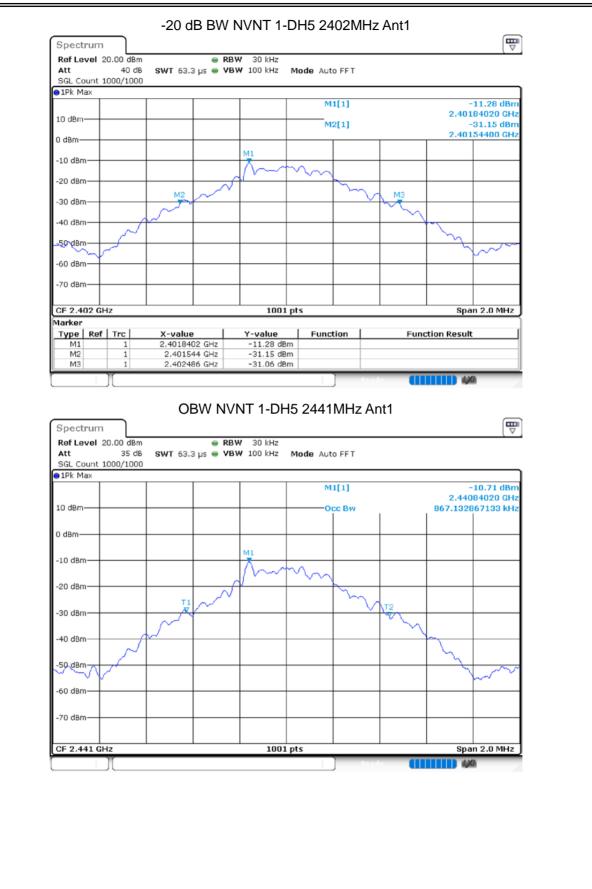
0.0 00001					1	1
Condition	Mode	Frequency	Antenna	99% OBW	-20 dB Bandwidth	Verdict
Condition	Mode	(MHz)	Antenna	(MHz)	(MHz)	verdict
NVNT	1-DH5	2402	Ant 1	0.8591	0.942	Pass
NVNT	1-DH5	2441	Ant 1	0.8671	0.936	Pass
NVNT	1-DH5	2480	Ant 1	0.8631	0.946	Pass
NVNT	2-DH5	2402	Ant 1	1.1628	1.268	Pass
NVNT	2-DH5	2441	Ant 1	1.1628	1.266	Pass
NVNT	2-DH5	2480	Ant 1	1.1748	1.272	Pass
NVNT	3-DH5	2402	Ant 1	1.1508	1.24	Pass
NVNT	3-DH5	2441	Ant 1	1.1429	1.198	Pass
NVNT	3-DH5	2480	Ant 1	1.1608	1.246	Pass



#### OBW NVNT 1-DH5 2402MHz Ant1

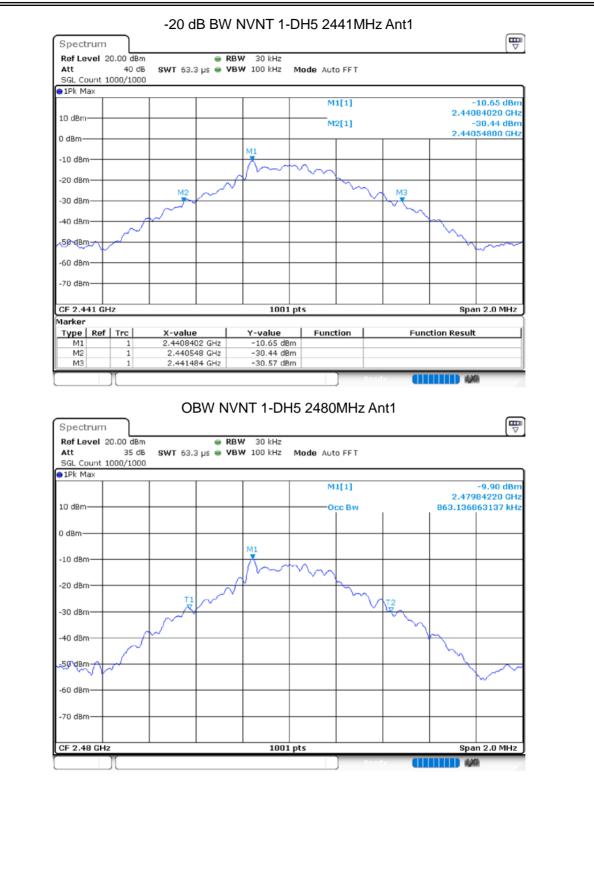






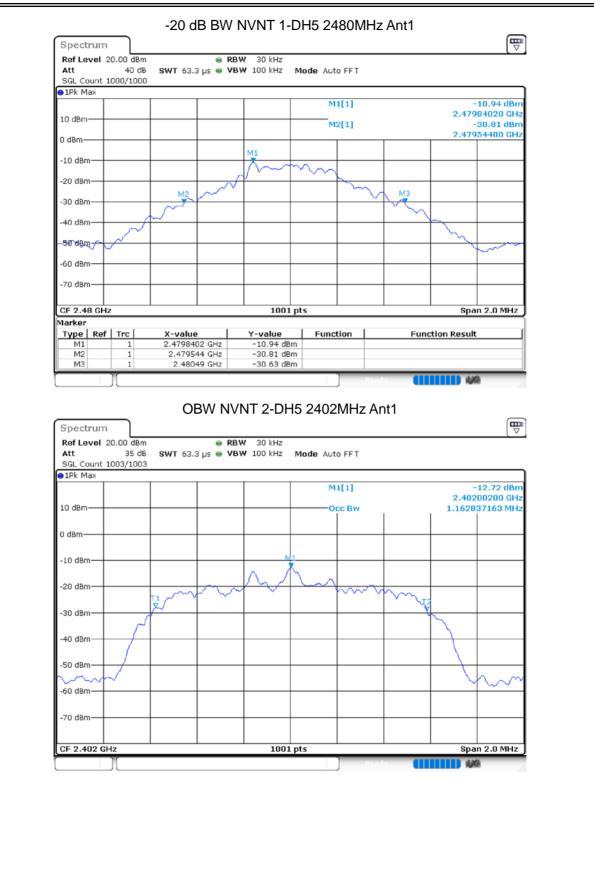






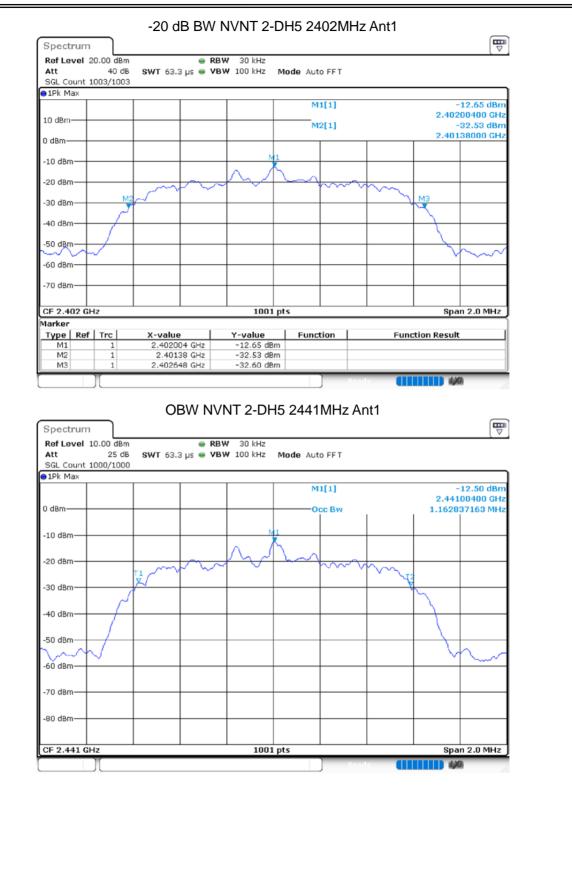






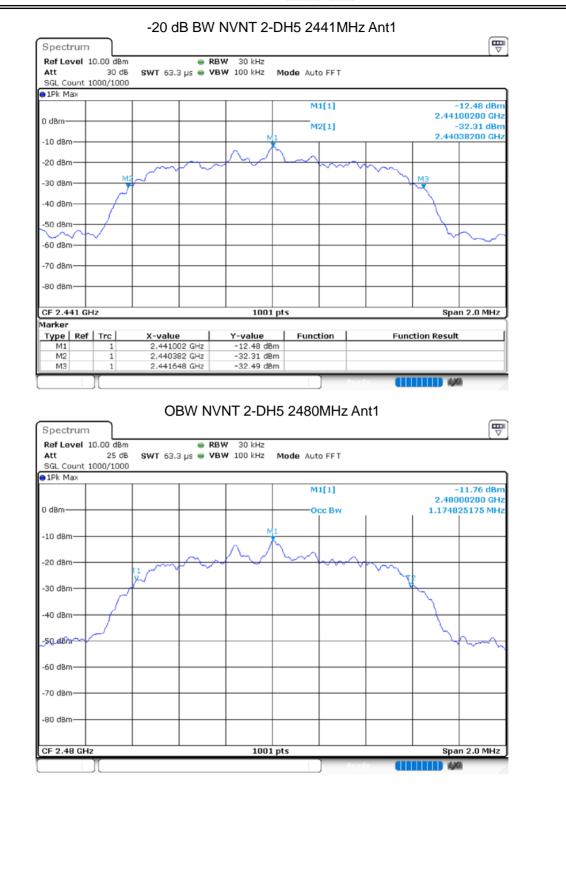






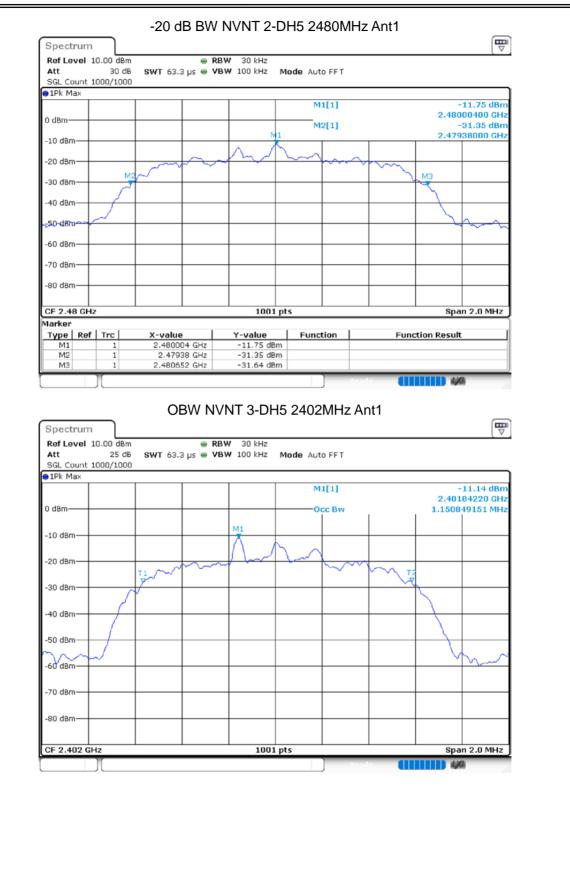












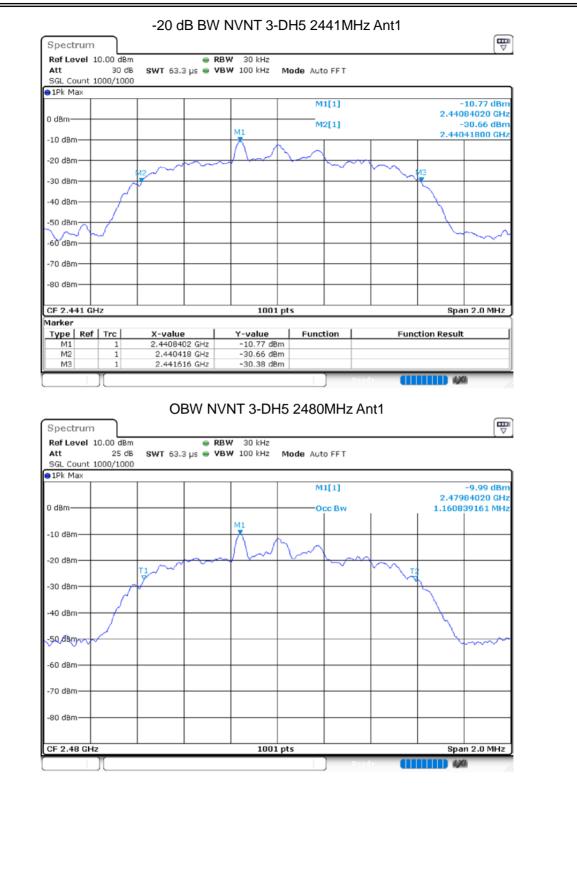






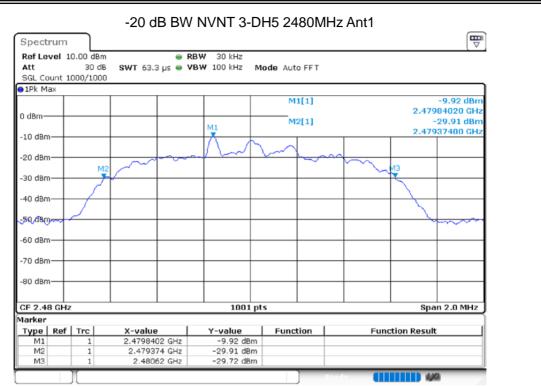










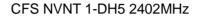


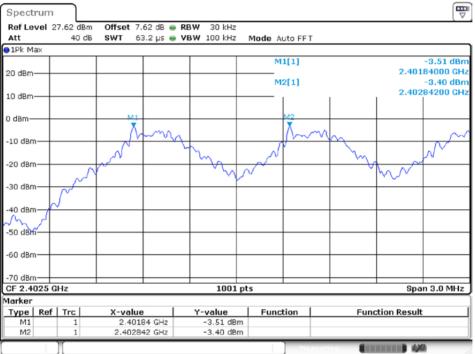


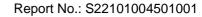


## 8.4 CARRIER FREQUENCIES SEPARATION

0.4 CARINE			N			
Condition	Mode	Hopping Freq1	Hopping Freq2	HFS	Limit	Verdict
Condition	woue	(MHz)	(MHz)	(MHz)	(MHz)	veruici
NVNT	1-DH5	2401.84	2402.842	1.002	0.942	Pass
NVNT	1-DH5	2441.065	2442.067	1.002	0.936	Pass
NVNT	1-DH5	2478.843	2479.842	0.999	0.946	Pass
NVNT	2-DH5	2402.023	2403.007	0.984	0.844	Pass
NVNT	2-DH5	2440.999	2442.007	1.008	0.844	Pass
NVNT	2-DH5	2479.008	2480.001	0.993	0.844	Pass
NVNT	3-DH5	2401.84	2402.845	1.005	0.831	Pass
NVNT	3-DH5	2440.84	2441.842	1.002	0.831	Pass
NVNT	3-DH5	2478.846	2479.842	0.996	0.831	Pass

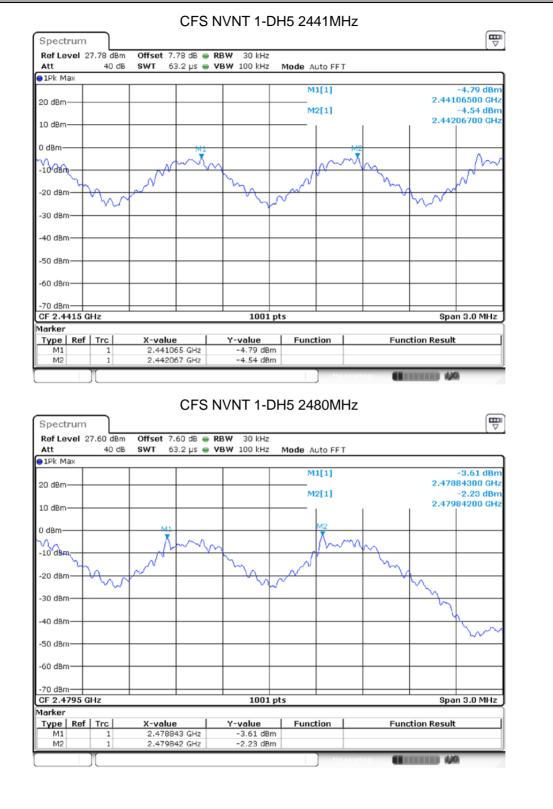


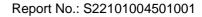






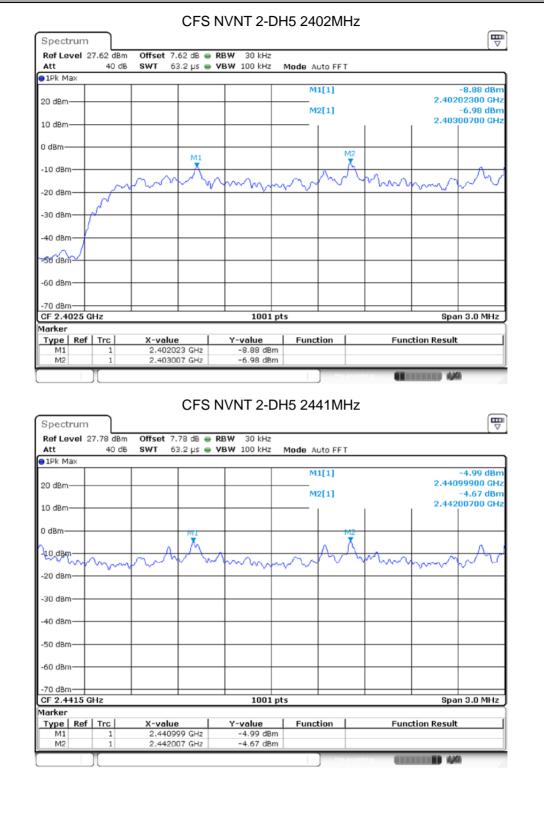


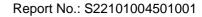






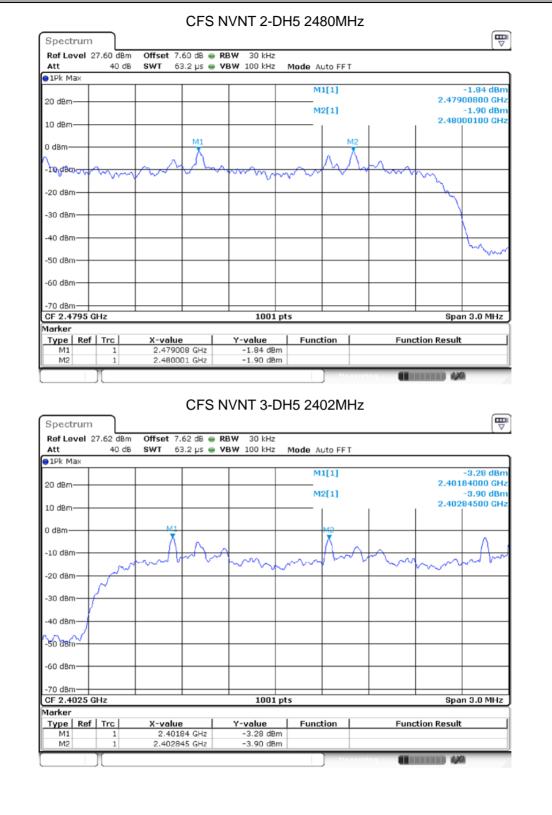


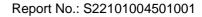






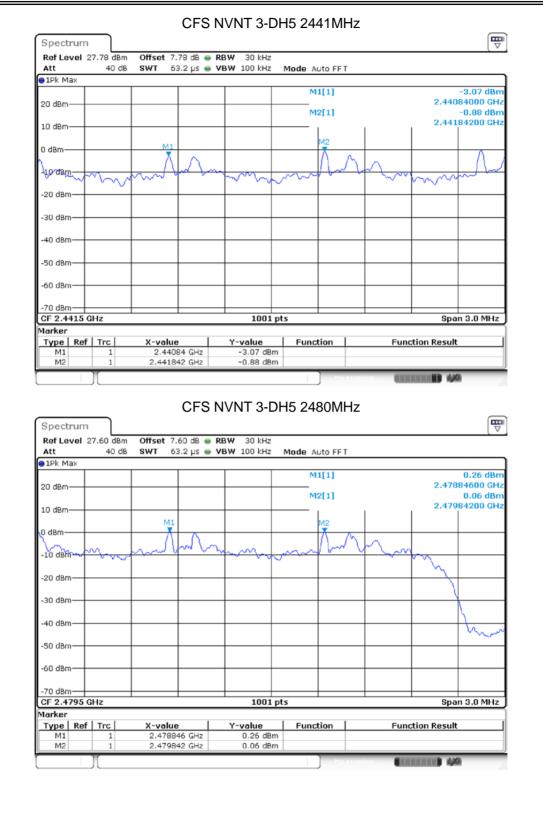
















Report No.: S22101004501001

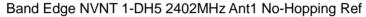
5 NUMBE	R OF HOPPING C Mode Hopping		nit Verdict		
		'9 1	5 Pass		
•••••		<u> </u>	• • • • • •		
		Hopping N	No. NVNT 1-DH5 2	2402MHz	
	Spectrum				
	Att 40 dB	Offset 7.62 dB ⊜ I SWT 1 ms ⊜ '	RBW 100 kHz VBW 300 kHz Mode Auto	Sweep	
	SGL Count 7000/7000 Pk Max				]
	20 dBm		M1[1	]	-2.68 dBm 2.4018370 GHz
	10 dBm		M2[1	1	2.12 dBm 2.4802435 GHz
	ðy∂sm				M2 MANAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
		ADADADADADADADADADADADADADADADADADADAD	NATARABANDANAANNA		
	- I YAAAAAAAAAAAAAAAAAAAAAAAA	<u>AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA</u>	<u>AANAAAAAAAaaaaaaaaaaaaaaaaaaaaaaaaaaaa</u>	869.00.00.00.00.00.00	INTERNIAL INTERNIE
	-20 dBm				
	-30 dBm				
	u <mark>n</mark> 40 dBm				have
	-50 dBm				
	-60 dBm				
	-70 dBm Start 2.4 GHz		1001 pts		Stop 2.4835 GHz
	Marker Type   Ref   Trc	X-value	Y-value Function	. I Sugat	
	M1 1 M2 1	2.401837 GHz	-2.68 dBm 2.12 dBm	n Funct	ion Result
		2.4802435 GHz	2.12 UBm		
	1 211				
			)		-4.446
				Ready 🚺	
				Ready	
				Ready 🚺	
				Ready <b>(111</b>	446
				Ready <b>(111</b>	446
				Ready <b>(111</b>	446
				Ready <b>(111</b>	<b>44</b> 0
				Ready <b>(111</b>	<b>44</b> 0
				Ready <b>(111</b>	<b>44</b> 0
				Ready <b>(111</b>	<b>446</b>
				Ready <b>(111</b>	<b>446</b>
				Ready <b>(111</b>	
				Ready <b>(111</b>	
				Ready	
				Ready <b>(11)</b>	
				Ready	

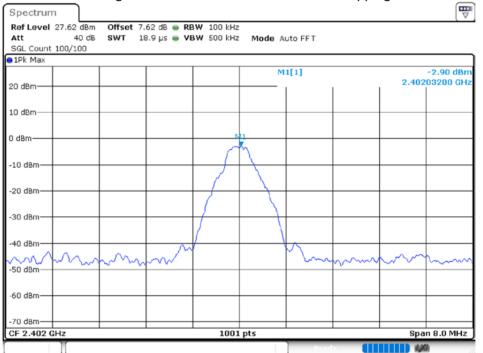




## 8.6 BAND EDGE

8.0 BANDE	DGE						
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant 1	No-Hopping	-38.82	-20	Pass
NVNT	1-DH5	2402	Ant 1	Hopping	-37.56	-20	Pass
NVNT	1-DH5	2480	Ant 1	No-Hopping	-40.13	-20	Pass
NVNT	1-DH5	2480	Ant 1	Hopping	-39.52	-20	Pass
NVNT	2-DH5	2402	Ant 1	No-Hopping	-37.92	-20	Pass
NVNT	2-DH5	2402	Ant 1	Hopping	-34.46	-20	Pass
NVNT	2-DH5	2480	Ant 1	No-Hopping	-38.92	-20	Pass
NVNT	2-DH5	2480	Ant 1	Hopping	-43.53	-20	Pass
NVNT	3-DH5	2402	Ant 1	No-Hopping	-38.55	-20	Pass
NVNT	3-DH5	2402	Ant 1	Hopping	-38.21	-20	Pass
NVNT	3-DH5	2480	Ant 1	No-Hopping	-41.49	-20	Pass
NVNT	3-DH5	2480	Ant 1	Hopping	-44.37	-20	Pass









Att SGL Count	40 di 100/100	3 <b>SWT</b> 2	27.5 µs 🧉	• VBW 500 kHz	2 Mode /	\uto FFT			
20 dBm					M	1[1]		2.40	-3.08 dBm 195000 GHz
10 dBm					M	2[1]			-47.13 dBm 000000 GHz
0 dBm								2.40	M1
-10 dBm-									<u> </u>
-20 dBm-									
-30 dBm-	-D1 -22.90	3 dBm							
-40 dBm—			M4				_	мз	
-50 dBm	then the	and the second	napona putero	seven many	~19thurrown	howthenky	whother	aparlan Turnhana	waynya linaka
-60 dBm				_					
-70 dBm—		<u> </u>							<u> </u>
Start 2.30 Marker	6 GHz			1001	pts			Stop	2.406 GHz
Type Re M1	f Trc	X-value 2.401	95 GHz	Y-value -3.08 dBr	Funct	tion	Fun	ction Resu	lt
M2	1		2.4 GHz	-47.13 dBr	n				
				-46.31 dBr	n				
M3 M4 Spectrur Ref Level Att	and Ec 27.62 dBr 40 dl	2. 2.34 Ige(Hop) 0 Offset 7 3 SWT 1	39 GHz 23 GHz ping) N	-46.31 dBr -41.72 dBr NVNT 1-D RBW 100 kHz VBW 300 kHz	m H5 240		otr 🔲 Ant1 Ho	pping F	Xef (₩
M3 M4 Spectrur Ref Level Att	and Ec	2. 2.34 Ige(Hop) 0 Offset 7 3 SWT 1	39 GHz 23 GHz ping) N	-41.72 dBr	m H5 240 Mode At		Ant1 Ho		-2.22 dBm
M3 M4 Spectrur Ref Level Att SGL Count	and Ec 27.62 dBr 40 dl	2. 2.34 Ige(Hop) 0 Offset 7 3 SWT 1	39 GHz 23 GHz ping) N	-41.72 dBr	m H5 240 Mode At	uto FFT	Ant1 Ho		♥
M3 M4 Spectrur Ref Level Att SGL Count	and Ec 27.62 dBr 40 dl	2. 2.34 Ige(Hop) 0 Offset 7 3 SWT 1	39 GHz 23 GHz ping) N	-41.72 dBr	m H5 240 Mode At	uto FFT	Ant1 Ho		-2.22 dBm
M3 M4 Spectrur Ref Level Att SGL Count IPk Max 20 dBm 10 dBm	and Ec 27.62 dBr 40 dl	2. 2.34 Ige(Hop) 0 Offset 7 3 SWT 1	39 GHz 23 GHz ping) N	-41.72 dBr	m H5 240 Mode At	uto FFT	Ant1 Ho		-2.22 dBm
M3 M4 Spectrur Ref Level Att SGL Count 9 1Pk Max 20 dBm 10 dBm 0 dBm	and Ec 27.62 dBr 40 dl	2. 2.34 Ige(Hop) 0 Offset 7 3 SWT 1	39 GHz 23 GHz ping) N	-41.72 dBr	m H5 240 Mode At	uto FFT			-2.22 dBm
M3 M4 Spectrur Ref Level Att SGL Count IPk Max 20 dBm 10 dBm	and Ec 27.62 dBr 40 dl	2. 2.34 Ige(Hop) 0 Offset 7 3 SWT 1	39 GHz 23 GHz ping) N	-41.72 dBr	Mode Ac	uto FFT			-2.22 dBm
M3 M4 Spectrur Ref Level Att SGL Count 9 1Pk Max 20 dBm 10 dBm 0 dBm	and Ec 27.62 dBr 40 dl	2. 2.34 Ige(Hop) 0 Offset 7 3 SWT 1	39 GHz 23 GHz ping) N	-41.72 dBr	m H5 240 Mode At	uto FFT			-2.22 dBm
M3 M4 Spectrur Ref Level Att SGL Count 9 1Pk Max 20 dBm 10 dBm 0 dBm -10 dBm	and Ec 27.62 dBr 40 dl	2. 2.34 Ige(Hop) 0 Offset 7 3 SWT 1	39 GHz 23 GHz ping) N	-41.72 dBr	Mode Ac	uto FFT			-2.22 dBm
M3         M4           M4         M4           Spectrur         Ref Level           Att         SGL Count           • 1Pk Max         20 dBm           • 10 dBm         0 dBm           -10 dBm         -20 dBm           -30 dBm         -30 dBm	and Ec 27.62 dBr 40 dl	2. 2.34 Ige(Hop) 0 Offset 7 3 SWT 1	39 GHz 23 GHz ping) N	-41.72 dBr	Mode Ac	uto FFT			-2.22 dBm
M3 M4           M3 M4           Spectrur           Ref Level Att           SGL Count           ●1Pk Max           20 dBm           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm	and Ec 27.62 dBr 40 dl	2. 2.34 Ige(Hop) 0 Offset 7 3 SWT 1	39 GHz 23 GHz ping) N	-41.72 dBr	Mode Ac	uto FFT			-2.22 dBm
M3         M4           M4         M4           Spectrur         Ref Level           Att         SGL Count           • 1Pk Max         20 dBm           • 10 dBm         0 dBm           -10 dBm         -20 dBm           -30 dBm         -30 dBm	and Ec 27.62 dBr 40 dl	2. 2.34 Ige(Hop) 0 Offset 7 3 SWT 1	39 GHz 23 GHz ping) N	-41.72 dBr	Mode Ac	uto FFT			-2.22 dBm
M3 M4           M3 M4           Spectrur           Ref Level Att           SGL Count           ●1Pk Max           20 dBm           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm	and Ec 27.62 dBr 40 dl	2. 2.34 Ige(Hop) 0 Offset 7 3 SWT 1	39 GHz 23 GHz ping) N	-41.72 dBr	Mode Ac	uto FFT			-2.22 dBm
M3         M4           M4         M4           Spectrur         Ref Level           Att         SGL Count           SGL Count         10 dBm           10 dBm         0 dBm           -10 dBm         -20 dBm           -30 dBm         -30 dBm           -50 dBm         -50 dBm	and Ec 27.62 dBr 40 dl	2. 2.34 Ige(Hop) 0 Offset 7 3 SWT 1	39 GHz 23 GHz ping) N	-41.72 dBr	Mode Ac	uto FFT			-2.22 dBm
M3 M4 Spectrur Ref Level Att SGL Count • 1Pk Max 20 dBm • 10 dBm • 10 dBm • -10 dBm 20 dBm 30 dBm 50 dBm 60 dBm	1 1 1 27.62 dBr 40 db 8000/800	2. 2.34 Ige(Hop) 0 Offset 7 3 SWT 1	39 GHz 23 GHz ping) N	-41.72 dBr	Mode Au	uto FFT		2.40	-2.22 dBm 384620 GHz





20 dBm	2.40505000 GHz           -45.00 dBm           2.40000000 GHz           -45.00 dBm           0	SGL Count 700/700 P1Pk Max	
10 dBm	M2[1]     -45.00 dBm       2.40000000 GHz     M3       dBm     M4       M4     M3       M4     M3       M4     M3       M4     M3       M4     M3       M4     M3       M4     M4       M4     M3       M4     M4	M1[1] -2.	
0 dBm	d8m         M4         M3           M4         M3         M4           M4         M3         M3           M3         M3         M3           M4         M3         M3           M4         M3         M3           M4         M3         M3           M3         M3         M3           M4         M3         M3	M2[1] -45.	i.00 dBm
-10 dBm	M4         M3         M4           M4         M3         M4         M3         M4         M4 </td <td></td> <td>1000 GHz</td>		1000 GHz
-20 dBm     D1 -22.225 dBm     M4	M4         M3         M4           Image: Market and the state of th	0 dBm	- MIX
O1         -22.225 dBm         M4         M4         M4         M3         M4         M4         M3         M4         M3         M4         M3         M4         M3         M4         M3         M4         M3         M3         M3         M4         M3	M4         M3         M4         M3         M4         M3         M4         M3         M4         M3         M3<	-10 dBm	Mill
M4         M4<	Mr. Million And Mil	-20 dBm D1 -22.225 dBm	100
-50 dBm -60 dBm -70	Mr. Million And Mil		
Store         1001 pts         Store 2.406 (Constraint)           Type         Ref         Trc         X-value         Y-value         Function         Function Result           M1         1         2.40505 GHz         -2.78 dBm         -2.78 dBm         -2.78 dBm	1001 pts         Stop 2.406 GHz           X-value         Y-value         Function           2.40505 GHz         -2.78 dBm           2.4 GHz         -45.00 dBm		M2
Type         Ref         Trc         X-value         Y-value         Function         Function Result           M1         1         2.40505 GHz         -2.78 dBm         -2.78 dBm         -2.78 dBm	X-value         Y-value         Function         Function Result           2.40505 GHz         -2.78 dBm         -2.78 dBm         -45.00 dBm         -45.00 dBm	-50 dBm	
Start 2.306 GHz         1001 pts         Stop 2.406 (           Marker         Type         Ref         Trc         X-value         Y-value         Function         Function Result           M1         1         2.40505 GHz         -2.78 dBm         -2.78 dBm         -2.78 dBm	X-value         Y-value         Function         Function Result           2.40505 GHz         -2.78 dBm         -2.78 dBm         -45.00 dBm         -45.00 dBm	-60 dBm	
Marker         Type         Ref         Trc         X-value         Y-value         Function         Function Result           M1         1         2.40505 GHz         -2.78 dBm         -2.78 dBm </td <td>X-value         Y-value         Function         Function Result           2.40505 GHz         -2.78 dBm         -2.78 dBm         -2.40 GHz         -45.00 dBm         -45.00 dBm</td> <td></td> <td></td>	X-value         Y-value         Function         Function Result           2.40505 GHz         -2.78 dBm         -2.78 dBm         -2.40 GHz         -45.00 dBm		
Type         Ref         Trc         X-value         Y-value         Function         Function Result           M1         1         2.40505 GHz         -2.78 dBm         -2.78 dBm	2.40505 GHz -2.78 dBm 2.4 GHz -45.00 dBm	<u>.</u>	106 GHz
	2.4 GHz -45.00 dBm	Type   Ref   Trc   X-value   Y-value   Function   Function Result	
	2.387 GHZ -45.32 dBm	M2 1 2.4 GHz -45.00 dBm	
M4 1 2.35 GHz -39.79 dBm			
	Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref		₽
	Offset 7.60 dB ● RBW 100 kHz SWT 18.9 µs ● VBW 300 kHz Mode Auto FFT 	Spectrum           Ref Level         27.60 dBm         Offset         7.60 dB         RBW         100 kHz           Att         40 dB         SWT         18.9 µs         VBW 300 kHz         Mode         Auto FFT           SGL Count         100/100         •         •         •         •         •           •         IPk Max         M1[1]         •         •         •         •	40 dBm
	Offset 7.60 dB ● RBW 100 kHz SWT 18.9 µs ● VBW 300 kHz Mode Auto FFT	Spectrum           Ref Level         27.60 dBm         Offset         7.60 dB         RBW         100 kHz           Att         40 dB         SWT         18.9 µs         VBW 300 kHz         Mode         Auto FFT           SGL Count         100/100         •         •         •         •         •           •         IPk Max         M1[1]         •         •         •         •	40 dBm
	Offset 7.60 dB ● RBW 100 kHz SWT 18.9 µs ● VBW 300 kHz Mode Auto FFT 	Spectrum           Ref Level         27.60 dBm         Offset         7.60 dB         RBW         100 kHz           Att         40 dB         SWT         18.9 µs         VBW 300 kHz         Mode         Auto FFT           SGL Count         100/100         VBW         300 kHz         Mode         Auto FFT           91Pk Max	40 dBm
20 dBm M1[1]1.402.47984020	Offset 7.60 dB ● RBW 100 kHz SWT 18.9 µs ● VBW 300 kHz Mode Auto FFT M1[1] -1.40 dBm 2.47984020 GHz	Spectrum           Ref Level 27.60 dBm         Offset 7.60 dB          RBW 100 kHz           Att         40 dB         SWT         18.9 µs         VBW 300 kHz         Mode Auto FFT           SGL Count 100/100         Image: SGL Count 100/100         M1[1]         -1.         2.47984(           10 dBm         M1         M1         M1         M1         M1	40 dBm
20 dBm M1[1]1.40 20 dBm 2.47984020 10 dBm 0 dBm M1 0 dBm M1 0 dBm 0 dBm M1 0 dBm 0 dBm0 dBm	Offset 7.60 dB ● RBW 100 kHz SWT 18.9 µs ● VBW 300 kHz Mode Auto FFT M1[1] -1.40 dBm 2.47984020 GHz	Spectrum           Ref Level 27.60 dBm         Offset 7.60 dB          RBW 100 kHz            Att         40 dB         SWT         18.9 µs         VBW 300 kHz         Mode Auto FFT           SGL Count 100/100         ● 1Pk Max         M1[1]         -1.         2.47984(           10 dBm         M1         M1         M1         M1         M1	40 dBm
20 dBm M1[1]1.402.47984020	Offset 7.60 dB ● RBW 100 kHz SWT 18.9 µs ● VBW 300 kHz Mode Auto FFT M1[1] -1.40 dBm 2.47984020 GHz	Spectrum           Ref Level 27.60 dBm         Offset 7.60 dB          RBW 100 kHz            Att         40 dB         SWT         18.9 µs         VBW 300 kHz         Mode Auto FFT           SGL Count 100/100         ● 1Pk Max         M1[1]         -1.         2.47984(           10 dBm         M1         M1         M1         M1         M1	40 dBm
20 dBm M1[1]1.40 20 dBm 2.47984020 10 dBm 0 dBm M1 0 dBm M1 0 dBm 0 dBm M1 0 dBm 0 dBm0 dBm	Offset 7.60 dB ● RBW 100 kHz SWT 18.9 µs ● VBW 300 kHz Mode Auto FFT M1[1] -1.40 dBm 2.47984020 GHz	Spectrum           Ref Level 27.60 dBm         Offset 7.60 dB         RBW 100 kHz           Att         40 dB         SWT         18.9 µs         VBW 300 kHz         Mode Auto FFT           SGL Count 100/100         •1Pk Max         •1[1]         -1.         2.47984(           10 dBm         M1         0         M1         0         0	40 dBm
20 dBm     M1[1]     -1.40       20 dBm     2.47984020       10 dBm     M1       0 dBm     M1       -10 dBm     -10 dBm	Offset 7.60 dB ● RBW 100 kHz SWT 18.9 µs ● VBW 300 kHz Mode Auto FFT M1[1] -1.40 dBm 2.47984020 GHz	Spectrum           Ref Level 27.60 dBm         Offset 7.60 dB         RBW 100 kHz           Att         40 dB         SWT         18.9 µs         VBW 300 kHz         Mode Auto FFT           SGL Count 100/100         Image: SGL Count 100/100         Image: SGL Count 100/100         Image: SGL Count 100/100         Image: SGL Count 100/100           Image: SGL Count 100/100	40 dBm
20 dBm     M1[1]     -1.40       20 dBm     2.47984020       10 dBm     M1       0 dBm     M1       -10 dBm     Image: Constraint of the second	Offset 7.60 dB ● RBW 100 kHz SWT 18.9 µs ● VBW 300 kHz Mode Auto FFT M1[1] -1.40 dBm 2.47984020 GHz	Spectrum           Ref Level 27.60 dBm         Offset 7.60 dB         RBW 100 kHz           Att         40 dB         SWT         18.9 µs         VBW 300 kHz         Mode Auto FFT           SGL Count 100/100         Image: SGL Count 100/100         Image: SGL Count 100/100         Image: SGL Count 100/100         Image: SGL Count 100/100           Image: SGL Count 100/100	40 dBm
20 dBm	Offset 7.60 dB ● RBW 100 kHz SWT 18.9 µs ● VBW 300 kHz Mode Auto FFT M1[1] -1.40 dBm 2.47984020 GHz	Spectrum           Ref Level 27.60 dBm         Offset 7.60 dB         RBW 100 kHz           Att         40 dB         SWT         18.9 µs         VBW 300 kHz         Mode Auto FFT           SGL Count 100/100         Pirk Max         M1[1]         -1.           20 dBm         0 d	40 dBm
20 dBm 2.47984020 10 dBm 0 dB	Offset 7.60 dB ● RBW 100 kHz SWT 18.9 µs ● VBW 300 kHz Mode Auto FFT M1[1] -1.40 dBm 2.47984020 GHz	Spectrum           Ref Level 27.60 dBm         Offset 7.60 dB         RBW 100 kHz           Att         40 dB         SWT         18.9 µs         VBW 300 kHz         Mode Auto FFT           SGL Count 100/100         PIFK Max         M1[1]         -1.           20 dBm         0 d	40 dBm
20 dBm     M1[1]     -1.40       20 dBm     2.47984020       10 dBm     M1       0 dBm     M1       -10 dBm     -10       -20 dBm     -10       -30 dBm     -10       -40 dBm     -10	Offset 7.60 dB ● RBW 100 kHz SWT 18.9 µs ● VBW 300 kHz Mode Auto FFT M1[1] -1.40 dBm 2.47984020 GHz	Spectrum           Ref Level 27.60 dBm         Offset 7.60 dB         RBW 100 kHz           Att         40 dB         SWT         18.9 µs         VBW 300 kHz         Mode Auto FFT           SGL Count 100/100         Image: Superstand state s	40 dBm
20 dBm     M1[1]     -1.40       20 dBm     2.47984020       10 dBm     M1       0 dBm     M1       -10 dBm     -10 dBm       -20 dBm     -10 dBm       -30 dBm     -10 dBm	Offset 7.60 dB ● RBW 100 kHz SWT 18.9 µs ● VBW 300 kHz Mode Auto FFT M1[1] -1.40 dBm 2.47984020 GHz	Spectrum           Ref Level 27.60 dBm         Offset 7.60 dB         RBW 100 kHz           Att         40 dB         SWT         18.9 µs         VBW 300 kHz         Mode Auto FFT           SGL Count 100/100         Image: Superstand state s	40 dBm
20 dBm	Offset 7.60 dB e RBW 100 kHz SWT 18.9 µs e VBW 300 kHz Mode Auto FFT	Spectrum           Ref Level 27.60 dBm         Offset 7.60 dB         RBW 100 kHz           Att         40 dB         SWT         18.9 µs         VBW 300 kHz         Mode Auto FFT           SGL Count 100/100         PIR Max         M1[1]         -1.         2.47984           20 dBm         0 dBm         M1         0	40 dBm 020 GHz
M3 1 2.387 GHz -45.32 dBm		M3 1 2.387 GHz -45.32 dBm	
	2.387 GHz -45.32 dBm		
	2.4 GHz -45.00 dBm		
M1 1 2.40505 GHz -2.78 dBm	2.40505 GHz -2.78 dBm 2.4 GHz -45.00 dBm	Marker	
Type         Ref         Trc         X-value         Y-value         Function         Function Result           M1         1         2.40505 GHz         -2.78 dBm         -2.78 dBm         -2.78 dBm	2.40505 GHz -2.78 dBm 2.4 GHz -45.00 dBm	Start 2.306 GHz         1001 pts         Stop 2.4	HO6 GHZ
Marker         Yes         Ref         Trc         X-value         Y-value         Function         Function Result           M1         1         2.40505 GHz         -2.78 dBm         -2.78 dBm <td>X-value         Y-value         Function         Function Result           2.40505 GHz         -2.78 dBm         -2.78 dBm         -45.00 dBm         -45.00 dBm</td> <td></td> <td></td>	X-value         Y-value         Function         Function Result           2.40505 GHz         -2.78 dBm         -2.78 dBm         -45.00 dBm         -45.00 dBm		
Start 2.306 GHz         1001 pts         Stop 2.406 (           Marker         Type         Ref         Trc         X-value         Y-value         Function         Function Result           M1         1         2.40505 GHz         -2.78 dBm	X-value         Y-value         Function         Function Result           2.40505 GHz         -2.78 dBm         -2.78 dBm         -45.00 dBm	-60 dBm	
Tot dBm         Image: Constraint of the second	X-value         Y-value         Function         Function Result           2.40505 GHz         -2.78 dBm         -2.78 dBm         -45.00 dBm         -45.00 dBm		
-60 dBm         -70 dBm         Image: Constraint of the second se	X-value         Y-value         Function         Function Result           2.40505 GHz         -2.78 dBm         -2.78 dBm         -45.00 dBm         -45.00 dBm	had and had my makes and and and and and a second and a second and a second had been all and a second had a second had been and had a second had been a se	AND I
-50 dBm -60 dBm -70	1001 pts         Stop 2.406 GHz           X-value         Y-value         Function           2.40505 GHz         -2.78 dBm           2.4 GHz         -45.00 dBm	-40 dBm-	M2
-50 dBm -60 dBm -70	1001 pts         Stop 2.406 GHz           X-value         Y-value         Function           2.40505 GHz         -2.78 dBm           2.4 GHz         -45.00 dBm	-40 dBm	ME
Start 2.306 GHz         1001 pts         Stop 2.406 (Market And	Mr. Million		
-40 dBm         M4         M4 <t< td=""><td>Mr. Million         Million</td><td></td><td></td></t<>	Mr. Million		
-40 dBm         M4         M4 <t< td=""><td>Mr. Million         Million</td><td>-20 dBmD1 -22.225 dBm</td><td></td></t<>	Mr. Million	-20 dBmD1 -22.225 dBm	
-40 dBm         M4         M4 <t< td=""><td>Mr. Million         Million</td><td>-20 dBm</td><td>1,111,</td></t<>	Mr. Million	-20 dBm	1,111,
-30 dBm	M4         M3         M4           Improve the the the the the the the the the th	-20 dBm 0122 225 dBm	n (h)
-30 dBm     -30 dBm     M4     M4     M3     M6       -40 dBm     -40 dBm     M4     M3     M6       -50 dBm     -50 dBm     -60 dBm     -60 dBm     -60 dBm     -60 dBm     -60 dBm     -60 dBm     -70 dBm     -60 dBm     -60 dBm     -60 dBm     -60 dBm     -60 dBm     -70 dBm     <	M4         M3         M4           Improve the the the the the the the the the th		19484
-30 dBm     -30 dBm     M4     M4     M3     M6       -40 dBm     -40 dBm     M4     M3     M6       -50 dBm     -50 dBm     -60 dBm     -60 dBm     -60 dBm     -60 dBm     -60 dBm     -60 dBm     -70 dBm     -60 dBm     -60 dBm     -60 dBm     -60 dBm     -60 dBm     -70 dBm     <	M4         M4           Improvement	-10 dBm	Milli
-20 dBm     -22.225 dBm	M4         M3         M3         M3         M3         M4         M3         M3<	-10 dBm	NM
-20 dBm     -22.225 dBm	M4         M3         M3         M3         M3         M4         M3         M3<	0 dBm	L L L
-10 dBm	M4         M3         M3         M3         M3         M4         M3         M3<		MI
-10 dBm	M4         M3         M3         M3         M3         M4         M3         M3<		
10 dBm     2.40000000       0 dBm     2.40000000       0 dBm     2.40000000       -10 dBm     2.40000000       -20 dBm     -22.225 dBm       -30 dBm     -40       -40 dBm     -40       -50 dBm     -40       -70 dBm     -40	2.40000000 GHz           M3           M3           M4		
10 dBm	M2[1]     -45.00 dBm       2.40000000 GHz     M3       dBm     M3       dBm     M4       M4     M4 <td></td> <td></td>		
20 dBm	2.40505000 GHz           45.00 dBm           2.40000000 GHz           48m           49m		78 dBm





●1Pk Max				1					0.00.40
20 dBm						1[1]			-2.08 dBm 15000 GHz
10 dBm					M:	2[1]			45.12 dBm 50000 GHz
-10 dBm									
-20 cBm-0:	1 -21.397	dBm							
-30 cBm									
-40 dBm		Ma	eda dirolla an					بر بر از دارد.	
-50 dBm	alolus (stalisti	atalanti	wave concern	wayhourse	ipragles and a shapped	and the stand of the second	al with when the second	and the second second	and pressions
-60 dBm									
-70 dBm									
Start 2.476 ( Marker	GHz			1001	pts			Stop :	2.576 GHz
Type Ref M1	Trc 1	X-value 2.4803	9 15 GHz	Y-value -2.08 dB	Funct	tion	Fund	ction Result	
			35 GHz	-45.12 dB	m				
M2 M3	1			-41.54 dB	m				
M3 M4 Bai Spectrum Ref Level 27 Att SGL Count 80	1 1 nd Edg 7.60 dBm 40 dB	2 2 ge(Hopp Offset 7.	5 GHz 5 GHz 5 GHz 5 GHz 60 dB • R	-41.54 dBi -41.54 dBi VNT 1-D BW 100 kHz /BW 300 kHz	m H5 248		e 🚺 Ant1 Hoj	pping R	ef
M3 M4 Bai Spectrum Ref Level 27 Att	1 1 nd Edg 7.60 dBm 40 dB	2 2 ge(Hopp Offset 7.	5 GHz 5 GHz 5 GHz 5 GHz 60 dB • R	-41.54 dB VNT 1-D BW 100 kHz	m H5 248 Mode At	uto FFT	Ant1 Ho	pping R	
M3 M4 Bai Spectrum Ref Level 27 Att SGL Count 80	1 1 nd Edg 7.60 dBm 40 dB	2 2 ge(Hopp Offset 7.	5 GHz 5 GHz 5 GHz 5 GHz 60 dB • R	-41.54 dB VNT 1-D BW 100 kHz	m H5 248 Mode At		Ant1 Ho		
M3 M4 Bai Spectrum Ref Level 2: Att SGL Count 8( • 1Pk Max 20 dBm	1 1 nd Edg 7.60 dBm 40 dB	2 2 ge(Hopp Offset 7.	5 GHz 5 GHz 5 GHz 5 GHz 60 dB • R	-41.54 dB VNT 1-D BW 100 kHz	m H5 248 Mode At	uto FFT	Ant1 Ho		-2.44 dBm
M3 M4 Bai Spectrum Ref Level 2: Att SGL Count 81 91Pk Max 20 dBm 10 dBm	1 1 nd Edg 7.60 dBm 40 dB	2 2 ge(Hopp Offset 7.	5 GHz 5 GHz 5 GHz 5 GHz 60 dB • R	-41.54 dB VNT 1-D BW 100 kHz	m H5 248 Mode At	uto FFT	Ant1 Ho		-2.44 dBm
M3 M4 Bai Spectrum Ref Level 2: Att SGL Count 8( • 1Pk Max 20 dBm	1 1 nd Edg 7.60 dBm 40 dB	2 2 ge(Hopp Offset 7.	5 GHz 5 GHz 5 GHz 5 GHz 60 dB • R	-41.54 dB	m H5 248 Mode At	uto FFT	Ant1 Ho		-2.44 dBm
M3 M4 Bai Spectrum Ref Level 2: Att SGL Count 81 91Pk Max 20 dBm 10 dBm	1 1 nd Edg 7.60 dBm 40 dB	2 2 ge(Hopp Offset 7.	5 GHz 5 GHz 5 GHz 5 GHz 60 dB • R	-41.54 dB	m H5 248 Mode At	uto FFT	Ant1 Ho		-2.44 dBm
M3 M4 Bai Spectrum Ref Level 2: Att SGL Count 81 91Pk Max 20 dBm 10 dBm 0 dBm	1 1 nd Edg 7.60 dBm 40 dB	2 2 ge(Hopp Offset 7.	5 GHz 5 GHz 5 GHz 5 GHz 60 dB • R	-41.54 dB	m H5 248 Mode At	uto FFT	Ant1 Ho		-2.44 dBm
M3 M4 Spectrum Ref Level 2: Att SGL Count 8t SGL Count 8t O dBm 10 dBm 0 dBm -10 dBm -20 dBm	1 1 nd Edg 7.60 dBm 40 dB	2 2 ge(Hopp Offset 7.	5 GHz 5 GHz 5 GHz 5 GHz 60 dB • R	-41.54 dB	m H5 248 Mode At	uto FFT	Ant1 Ho		-2.44 dBm
M3 M4 Spectrum Ref Level 2: Att SGL Count 8t SGL Count 8t O dBm 10 dBm 0 dBm -10 dBm	1 1 nd Edg 7.60 dBm 40 dB	2 2 ge(Hopp Offset 7.	5 GHz 5 GHz 5 GHz 5 GHz 60 dB • R	-41.54 dB	m H5 248 Mode At	uto FFT	Ant1 Ho		-2.44 dBm
M3 M4 Spectrum Ref Level 2: Att SGL Count 8t SGL Count 8t O dBm 10 dBm 0 dBm -10 dBm -20 dBm	1 1 nd Edg 7.60 dBm 40 dB	2 2 ge(Hopp Offset 7.	5 GHz 5 GHz 5 GHz 5 GHz 60 dB • R	-41.54 dB	m H5 248 Mode At	uto FFT	Ant1 Ho		-2.44 dBm
M3 M4 Bai Spectrum Ref Level 2 Att SGL Count 80 • 1Pk Max 20 dBm 10 dBm -10 dBm -20 dBm -30 dBm	1 1 nd Edg 7.60 dBm 40 dB	2 2 ge(Hopp Offset 7.	5 GHz 5 GHz 5 GHz 5 GHz 60 dB • R	-41.54 dB	m H5 248 Mode At	uto FFT			-2.44 dBm
M3 M4 Spectrum Ref Level 27 Att SGL Count 80 • 1Pk Max 20 dBm 10 dBm -10 dBm -20 dBm -30 dBm -30 dBm -40 dBm	1 1 nd Edg 7.60 dBm 40 dB	2 2 ge(Hopp Offset 7.	5 GHz 5 GHz 5 GHz 5 GHz 60 dB • R	-41.54 dB	m H5 248 Mode At	uto FFT			-2.44 dBm
M3 M4 Bai Spectrum Ref Level 27 Att SGL Count 80 • 1Pk Max 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm	1 1 nd Edg 7.60 dBm 40 dB	2 2 ge(Hopp Offset 7.	5 GHz 5 GHz 5 GHz 5 GHz 60 dB • R	-41.54 dB	m H5 248 Mode At	uto FFT	Ant1 Ho		-2.44 dBm
M3 M4 Spectrum Ref Level 27 Att SGL Count 80 • 1Pk Max 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -30 dBm -40 dBm	1 1 7.60 dBm 40 dB 5009/8009	2 2 ge(Hopp Offset 7.	5 GHz 5 GHz 5 GHz 5 GHz 60 dB • R	-41.54 dB	Mode Au	uto FFT		2.476	-2.44 dBm





Att SGL Count	27.60 dBm 40 dB 700/700			RBW 100 kH VBW 300 kH		Auto FFT			
●1Pk Max					M	1[1]			-3.22 dBm
20 dBm									05000 GHz
10 dBm					M	2[1]			-44.21 dBm 350000 GHz
0 dBm									
10 dBm									
-20 dBm									
	D1 -22.439	dBm							
-30 dBm	M4								
-40 dBm	when will all you way	M3 www.www.www.ww	une Marin	- yoursevered	mohamine	www.halesonalogo	manager	he walnut	hundred
-60 dBm									
-70 dBm	6 0117			1001	ntc			Ptop	2 576 042
Start 2.47 Marker	0 GH2			1001	, prs			stop	2.576 GHz
Type Re M1	f Trc	X-value 2 476	9 O5 GHz	Y-value -3.22 dB	Func	tion	Fund	ction Result	t
	-		35 GHz	-44.21 dB	Im				
M2	1								
	1 1 1	2	2.5 GHz 06 GHz	-44.08 dB -41.96 dB					
M2 M3 M4 Spectrum Ref Level Att	1 1 Band n 27.62 dBm 40 dB	2.490 Edge N Offset 7.	VNT 2-		02MHz		-Hoppii	ng Ref	
M2 M3 M4 Spectrun Ref Level	1 1 Band n 27.62 dBm 40 dB	2.490 Edge N Offset 7.	VNT 2-	-41.96 dB DH5 24( BW 100 kHz	D2MHz /	uto FFT	-Hoppin	ng Ref	
M2 M3 M4 Spectrun Ref Level Att SGL Count	1 1 Band n 27.62 dBm 40 dB	2.490 Edge N Offset 7.	VNT 2-	-41.96 dB DH5 24( BW 100 kHz	D2MHz /		-Hoppin		-3.22 dBm 200800 GHz
M2 M3 M4 Spectrum Ref Level Att SGL Count ●1Pk Max	1 1 Band n 27.62 dBm 40 dB	2.490 Edge N Offset 7.	VNT 2-	-41.96 dB DH5 24( BW 100 kHz	D2MHz /	uto FFT	-Hoppin		-3.22 dBm
M2 M3 M4 Spectrum Ref Level Att SGL Count • 1Pk Max 20 dBm	1 1 Band n 27.62 dBm 40 dB	2.490 Edge N Offset 7.	VNT 2-	-41.96 dB DH5 24( BW 100 kHz	D2MHz /	uto FFT	-Hoppin		-3.22 dBm
M2 M3 M4 Spectrum Ref Level Att SGL Count • 1Pk Max 20 dBm	1 1 Band n 27.62 dBm 40 dB	2.490 Edge N Offset 7.	VNT 2-	-41.96 dB DH5 24( BW 100 kHz	D2MHz /	uto FFT	p-Hoppin		-3.22 dBm
M2 M3 M4 Spectrum Ref Level Att SGL Count • 1Pk Max 20 dBm	1 1 Band n 27.62 dBm 40 dB	2.490 Edge N Offset 7.	VNT 2-	-41.96 dB DH5 24( BW 100 kHz	D2MHz /	uto FFT	p-Hoppin		-3.22 dBm
M2 M3 M4 Spectrum Ref Level Att SGL Count • 1Pk Max 20 dBm 10 dBm - 10 dBm - 10 dBm	1 1 Band n 27.62 dBm 40 dB	2.490 Edge N Offset 7.	VNT 2-	-41.96 dB DH5 24( BW 100 kHz	D2MHz /	uto FFT	p-Hoppin		-3.22 dBm
M2 M3 M4 Spectrum Ref Level Att SGL Count • 1Pk Max 20 dBm 0 dBm -10 dBm -10 dBm -20 dBm	1 1 Band n 27.62 dBm 40 dB	2.490 Edge N Offset 7.	VNT 2-	-41.96 dB DH5 24( BW 100 kHz	D2MHz /	uto FFT	P-Hoppin		-3.22 dBm
M2 M3 M4 Spectrum Ref Level Att SGL Count • 1Pk Max 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm	1 1 Band n 27.62 dBm 40 dB	2.490 Edge N Offset 7.	VNT 2-	-41.96 dB DH5 24( BW 100 kHz	D2MHz /	uto FF T	-Hoppin		-3.22 dBm
M2 M3 M4 Spectrum Ref Level Att SGL Count ● 1Pk Max 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm	Band n 27.62 dBm 40 dB	2.490 Edge N Offset 7.	VNT 2-	-41.96 dB DH5 24( BW 100 kHz	D2MHz /	uto FF T	P-Hoppin		-3.22 dBm
M2 M3 M4 Spectrun Ref Level Att SGL Count ● 1Pk Max 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -30 dBm -50 dBm -50 dBm -70 dBm	1 1 27.62 dBm 40 dB 100/100	2.490 Edge N Offset 7.	VNT 2-	-41.96 dB	D2MHz	uto FF T		2.402	-3.22 dBm 200800 GHz
M2 M3 M4 Spectrum Ref Level Att SGL Count • 1Pk Max 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -30 dBm -40 dBm -60 dBm	1 1 27.62 dBm 40 dB 100/100	2.490 Edge N Offset 7.	VNT 2-	-41.96 dB DH5 24( BW 100 kHz	D2MHz	uto FF T	p-Hoppin	2.402	-3.22 dBm 200800 GHz





SGL Count 100, 1Pk Max	/100								
20 dBm					M	1[1]		2.402	-3.10 dBm 05000 GHz
10 dBm					M	2[1]			45.93 dBm 00000 GHz
0 dBm				_					M1
-10 dBm				_					- A-
-20 dBm-01	-23.223	d8m							
-30 dBm									
-40 dBm		este altre et a	- Annouly	M4 http://www.huma	ا بەللە يە		mumhaww	МЗ	M2/
-50 dBm	Mangharo At	elastrand produced	panys		appenneering	an a	Mer Mary Catalor	na angrada na sa	capator wea
-60 dBm									
-70 dBm Start 2.306 GH				1001	nte			Stop	2.406 GHz
Marker									
Type Ref T	1	X-value 2.402	05 GHz	Y-value -3.10 dB		tion	Fund	tion Result	:
M1					200				
M2 M3	1	2.3	39 GHz	-45.93 dB -47.03 dB	m				
M2 M3 M4 Band Spectrum Ref Level 27.6	d Edg	2:344 2:344 ge(Hopp Offset 7:	39 GH2 82 GH2 Ding) N		m H5 240		Ant1 Ho	oping R	ef
M2 M3 M4 Band Spectrum Ref Level 27.6	d Edg	2:344 2:344 ge(Hopp Offset 7:	39 GH2 82 GH2 Ding) N	-47.03 dB -41.15 dB IVNT 2-D RBW 100 kHz	m H5 240 Mode A	uto FFT	Ant1 Ho	oping R	
M2 M3 M4 Band Spectrum Ref Level 27.6 Att SGL Count 800	d Edg	2:344 2:344 ge(Hopp Offset 7:	39 GH2 82 GH2 Ding) N	-47.03 dB -41.15 dB IVNT 2-D RBW 100 kHz	m H5 240 Mode A		Ant1 Hop		
M2 M3 M4 Band Spectrum Ref Level 27.6 Att SGL Count 800 P1Pk Max 20 dBm	d Edg	2:344 2:344 ge(Hopp Offset 7:	39 GH2 82 GH2 Ding) N	-47.03 dB -41.15 dB IVNT 2-D RBW 100 kHz	m H5 240 Mode A	uto FFT	Ant1 Ho		-4.99 dBm
M2 M3 M4 Band Spectrum Ref Level 27.6 Att SGL Count 800 PIPk Max	d Edg	2:344 2:344 ge(Hopp Offset 7:	39 GH2 82 GH2 Ding) N	-47.03 dB -41.15 dB IVNT 2-D RBW 100 kHz	m H5 240 Mode A	uto FFT	Ant1 Ho		-4.99 dBm
M2 M3 M4 Band Spectrum Ref Level 27.6 Att SGL Count 800 P1Pk Max 20 dBm	d Edg	2:344 2:344 ge(Hopp Offset 7:	39 GH2 82 GH2 Ding) N	-47.03 dB -41.15 dB IVNT 2-D RBW 100 kHz	m H5 240 Mode A	uto FFT	Ant1 Hop		-4.99 dBm
M2 M3 M4 Band Spectrum Ref Level 27.6 Att SGL Count 800 P1Pk Max 20 dBm 10 dBm	d Edg	2:344 2:344 ge(Hopp Offset 7:	39 GH2 82 GH2 Ding) N	-47.03 dB -41.15 dB IVNT 2-D RBW 100 kHz	m H5 240 Mode A	uto FFT			-4.99 dBm
M2 M3 M4 Band Spectrum Ref Level 27.6 Att SGL Count 800 P1Pk Max 20 dBm 10 dBm 0 dBm -10 dBm	d Edg	2:344 2:344 ge(Hopp Offset 7:	39 GH2 82 GH2 Ding) N	-47.03 dB -41.15 dB IVNT 2-D RBW 100 kHz	m H5 240 Mode A	uto FFT			-4.99 dBm
M2         M3           M3         M4           Band         Band           Spectrum         Ref Level 27.6           Att         SGL Count 800           PIPk Max         20 dBm           10 dBm         0 dBm           -10 dBm         -20 dBm	d Edg	2:344 2:344 ge(Hopp Offset 7:	39 GH2 82 GH2 Ding) N	-47.03 dB -41.15 dB IVNT 2-D RBW 100 kHz	m H5 240 Mode A	uto FFT			-4.99 dBm
M2 M3 M4 Band Spectrum Ref Level 27.6 Att SGL Count 800 P1Pk Max 20 dBm 10 dBm 0 dBm -10 dBm	d Edg	2:344 2:344 ge(Hopp Offset 7:	39 GH2 82 GH2 Ding) N	-47.03 dB -41.15 dB IVNT 2-D RBW 100 kHz	m H5 240 Mode A	uto FFT			-4.99 dBm
M2         M3           M3         M4           Band         Band           Spectrum         Ref Level 27.6           Att         SGL Count 800           PIPk Max         20 dBm           10 dBm         0 dBm           -10 dBm         -20 dBm	d Edg	2:344 2:344 ge(Hopp Offset 7:	39 GH2 82 GH2 Ding) N	-47.03 dB -41.15 dB IVNT 2-D RBW 100 kHz	m H5 240 Mode A	uto FFT			-4.99 dBm
M2         M3           M3         M4           Band           Spectrum           Ref Level 27.6           Att           SGL Count 800           PIPk Max           20 dBm           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm	d Edg	2:344 2:344 ge(Hopp Offset 7:	39 GH2 82 GH2 Ding) N	-47.03 dB -41.15 dB IVNT 2-D RBW 100 kHz	m H5 240 Mode A	uto FFT			-4.99 dBm
M2         M3           M3         M4           Band         M4           Spectrum         Ref Level 27.6           Att         SGL Count 800           • IPk Max         20 dBm           10 dBm         -0           -10 dBm	d Edg	2:344 2:344 ge(Hopp Offset 7:	39 GH2 82 GH2 Ding) N	-47.03 dB -41.15 dB IVNT 2-D RBW 100 kHz	m H5 240 Mode A	uto FFT			-4.99 dBm
M2         M3           M3         M4           Band         Spectrum           Ref Level 27.6         Att           SGL Count 800         PIPk Max           20 dBm         10 dBm           10 dBm         -           -10 dBm         -           -30 dBm         -	d Edg	2:344 2:344 ge(Hopp Offset 7:	39 GH2 82 GH2 Ding) N	-47.03 dB -41.15 dB IVNT 2-D RBW 100 kHz	m H5 240 Mode A	uto FFT			-4.99 dBm
M2         M3           M3         M4           Band         Spectrum           Ref Level 27.6         Att           SGL Count 800         10           PIPk Max         20           20 dBm         10           10 dBm         -           -10 dBm         -           -20 dBm         -           -30 dBm         -           -50 dBm         -	d Edg	2:344 2:344 ge(Hopp Offset 7:	39 GH2 82 GH2 Ding) N	-47.03 dB -41.15 dB IVNT 2-D RBW 100 kHz	Mode A	uto FFT		2.404	-4.99 dBm





SGL Count	40 dB t 1000/1000		.21.0 ps 🖕	• <b>VBW</b> 300 kH:	- Mode	Auto FFT			
-					м	1[1]			-4.39 dBm
20 dBm					м	2[1]			185000 GHz -44.85 dBm
10 dBm						1	1		000000 GHz
0 dBm									M1
-10 dBm—									- Lud
-20 dBm—									-Ana
-30 dBm—	D1 -24.990	dBm							
-40 dBm—			M4					мз	
es and the second	wonterfore	aproximited	Allen alanna	this with a start	will an and the form	ساس المحاصلا الاراس	harthurran measure	er and	mary will
-50 dBm—									
-60 dBm—									
-70 dBm-	)6 CH-			1001	ntc			04.0	9 406 0115
Marker	J6 GHZ			1001	pts			stop	2.406 GHz
Type Re		X-valu		Y-value	Func	tion	Fund	tion Resul	t l
M1	1		185 GHz 2.4 GHz	-4.39 dB -44.85 dB					
M2									
M2 M3 M4 Spectrur		2.34	.39 GHz 403 GHz IVNT 2	-43.77 dBi -39.46 dBi 2-DH5 248	m	) Ant1 No	b <b>()</b> D-Hoppir	ng Ref	XI T
M3 M4 Spectrur Ref Level Att SGL Coun	1 Band 1 27.60 dBm 40 dB	2.34 Edge N Offset 7	IVNT 2	-39.46 dB	BOMHz		o-Hoppir	ng Ref	<b>X</b>
M3 M4 Spectrun Ref Level Att SGL Coun ● 1Pk Max	1 Band 1 27.60 dBm 40 dB	2.34 Edge N Offset 7	IVNT 2	-39.46 dB 2-DH5 248 RBW 100 kHz	Mode A		b-Hoppir		-4.14 dBm
M3 M4 Spectrur Ref Level Att SGL Coun	1 Band 1 27.60 dBm 40 dB	2.34 Edge N Offset 7	IVNT 2	-39.46 dB 2-DH5 248 RBW 100 kHz	Mode A	uto FFT	o-Hoppir		
M3 M4 Spectrun Ref Level Att SGL Coun ● 1Pk Max	1 Band 1 27.60 dBm 40 dB	2.34 Edge N Offset 7	IVNT 2	-39.46 dB 2-DH5 248 RBW 100 kHz	Mode A	uto FFT	o-Hoppir		-4.14 dBm
M3 M4 Spectrun Ref Level Att SGL Coun • 1Pk Max 20 dBm-	1 Band 1 27.60 dBm 40 dB	2.34 Edge N Offset 7	IVNT 2	-39.46 dB 2-DH5 248 RBW 100 kHz	Mode A	uto FFT	p-Hoppir		-4.14 dBm
M3 M4 Spectrum Ref Level Att SGL Coun • 1Pk Max 20 dBm 10 dBm	1 Band 1 27.60 dBm 40 dB	2.34 Edge N Offset 7	IVNT 2	-39.46 dBi	Mode A	uto FFT	p-Hoppir		-4.14 dBm
M3 M4 Spectrum Ref Level Att SGL Coun • 1Pk Max 20 dBm 10 dBm 0 dBm	1 Band 1 27.60 dBm 40 dB	2.34 Edge N Offset 7	IVNT 2	-39.46 dBi	Mode A	uto FFT	p-Hoppir		-4.14 dBm
M3 M4 Spectrum Ref Level Att SGL Coun • 1Pk Max 20 dBm 10 dBm - 10 dBm - 10 dBm	1 Band 1 27.60 dBm 40 dB	2.34 Edge N Offset 7	IVNT 2	-39.46 dBi	Mode A	uto FFT	p-Hoppir		-4.14 dBm
M3 M4 Spectrum Ref Level Att SGL Coun • 1Pk Max 20 dBm - 10 dBm - 10 dBm - 20 dBm	1 Band 1 27.60 dBm 40 dB	2.34 Edge N Offset 7	IVNT 2	-39.46 dBi	Mode A	uto FFT	p-Hoppir		-4.14 dBm
M3 M4 M4 Spectrun Att SGL Coun • 1Pk Max 20 dBm 10 dBm -10 dBm -10 dBm -20 dBm -30 dBm	1 Band 1 27.60 dBm 40 dB	2.34 Edge N Offset 7	IVNT 2	-39.46 dBi	Mode A	uto FFT	p-Hoppir		-4.14 dBm
M3 M4 Spectrur Ref Level Att SGL Coun • 1Pk Max 20 dBm 10 dBm - 10 dBm - 10 dBm - 20 dBm - 30 dBm - 40 dBm	1 Band 1 27.60 dBm 40 dB	2.34 Edge N Offset 7	IVNT 2	-39.46 dBi	Mode A	uto FFT	p-Hoppir		-4.14 dBm
M3 M4 M4 Spectrur Ref Level Att SGL Coun •1Pk Max 20 dBm •10 dBm -10 dBm -20 dBm -30 dBm -30 dBm -50 dBm -50 dBm -70 dBm	1 Band 1 27.60 dBm 40 dB t 100/100	2.34 Edge N Offset 7	IVNT 2	-39.46 dBi	Mode A	uto FFT	p-Hoppir	2.47	-4.14 dBm 984820 GHz
M3 M4 Spectrur Ref Level Att SGL Coun •1Pk Max 20 dBm •10 dBm -10 dBm -20 dBm -30 dBm -30 dBm -50 dBm -60 dBm	1 Band 1 27.60 dBm 40 dB t 100/100	2.34 Edge N Offset 7	IVNT 2	-39.46 dBi	Mode A	uto FFT	p-Hoppir	2.47	-4.14 dBm 984820 GHz





SGL Count 1Pk Max	100/100								
20 dBm-					M	1[1]		2.480	-2.63 dBm 05000 GHz
10 dBm					м	2[1]		-	45.45 dBm
								2.483	350000 GHz
-10 CBm									
-20 dBm	D1 -24.144	dBm							
-30 dBm									
-40 dBm <del>2</del>	M4 Keduatikaan a	M3	Here Mallery	App hannely the	and rather	LAD NO L IN	- LARGER LA	a work print about	hung all an hear
-50 dBm	the down of building		Acc.		Not only a 1 Mar	944 - Y 1949			analises of
-60 dBm									
-70 dBm					-				
Start 2.476 Marker	GHz			1001	pts			Stop	2.576 GHz
Type Ref	Trc	X-value		Y-value	Func	tion	Fund	tion Result	:
M1	1	2.483	35 GHz	-2.63 dB -45.45 dB	m				
M2					m				
M3 M4	and Edg	<sub>2.494</sub> ge(Hopp		-46.73 dB -43.07 dB	m H5 248	) 0MHz	Ant1 Ho	pping R	ef
M3 M4 Spectrum Ref Level Att SGL Count	1 1 27.60 dBm 40 dB	2.494 ge(Hopp offset 7.	+5 GH2 Ding) N	-43.07 dB	m H5 248		Ant1 Ho	pping R	
M3 M4 Spectrum Ref Level Att SGL Count ● 1Pk Max	1 1 27.60 dBm 40 dB	2.494 ge(Hopp offset 7.	+5 GH2 Ding) N	-43.07 dB	m H5 248 Mode A		Ant1 Ho		0.82 dBm
M3 M4 Spectrum Ref Level Att SGL Count	1 1 27.60 dBm 40 dB	2.494 ge(Hopp offset 7.	+5 GH2 Ding) N	-43.07 dB	m H5 248 Mode A	uto FF T	Ant1 Ho		
M3 M4 Spectrum Ref Level Att SGL Count ● 1Pk Max	1 1 27.60 dBm 40 dB	2.494 ge(Hopp offset 7.	+5 GH2 Ding) N	-43.07 dB	m H5 248 Mode A	uto FF T	Ant1 Ho		0.82 dBm
M3 M4 Ba Spectrum Ref Level Att SGL Count • 1Pk Max 20 dBm 10 dBm	1 1 27.60 dBm 40 dB	2.494 ge(Hopp offset 7.	+5 GH2 Ding) N	-43.07 dB	m H5 248 Mode A	uto FF T	Ant1 Ho		0.82 dBm
M3 M4 Ba Spectrum Ref Level Att SGL Count • 1Pk Max 20 dBm	1 1 27.60 dBm 40 dB	2.494 ge(Hopp offset 7.	45 GH2 Ding) Ν 60 dB • 3.9 μs •	-43.07 dB	m H5 248 Mode A	uto FF T	Ant1 Ho		0.82 dBm
M3 M4 Ba Spectrum Ref Level Att SGL Count • 1Pk Max 20 dBm 10 dBm	1 1 27.60 dBm 40 dB	2.494 ge(Hopp offset 7.	45 GH2 Ding) Ν 60 dB • 3.9 μs •	-43.07 dB	m H5 248 Mode A	uto FF T	Ant1 Ho		0.82 dBm
M3 M4 Ba Spectrum Ref Level Att SGL Count • 1Pk Max 20 dBm 10 dBm 0 dBm	1 1 27.60 dBm 40 dB	2.494 ge(Hopp offset 7.	45 GH2 Ding) Ν 60 dB • 3.9 μs •	-43.07 dB	m H5 248 Mode A	uto FF T	Ant1 Ho		0.82 dBm
M3 M4 Spectrum Ref Level Att SGL Count •1Pk Max 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm	1 1 27.60 dBm 40 dB	2.494 ge(Hopp offset 7.	45 GH2 Ding) Ν 60 dB • 3.9 μs •	-43.07 dB	m H5 248 Mode A	uto FF T	Ant1 Ho		0.82 dBm
M3 M4 Spectrum Ref Level Att SGL Count • 1Pk Max 20 dBm 10 dBm 0 dBm	1 1 27.60 dBm 40 dB	2.494 ge(Hopp offset 7.	45 GH2 Ding) Ν 60 dB • 3.9 μs •	-43.07 dB	m H5 248 Mode A	uto FF T	Ant1 Ho		0.82 dBm
M3 M4 Spectrum Ref Level Att SGL Count •1Pk Max 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm	1 1 27.60 dBm 40 dB	2.494 ge(Hopp offset 7.	45 GH2 Ding) Ν 60 dB • 3.9 μs •	-43.07 dB	m H5 248 Mode A	uto FF T	Ant1 Ho		0.82 dBm
M3 M4 Ba Spectrum Ref Level Att SGL Count • 1Pk Max 20 dBm 10 dBm -10 dBm -20 dBm -20 dBm -30 dBm -40 dBm	1 1 27.60 dBm 40 dB	2.494 ge(Hopp offset 7.	45 GH2 Ding) Ν 60 dB • 3.9 μs •	-43.07 dB	m H5 248 Mode A	uto FF T			0.82 dBm
M3 M4 Ba Spectrum Ref Level Att SGL Count • 1Pk Max 20 dBm 10 dBm -10 dBm -20 dBm -20 dBm -30 dBm	1 1 27.60 dBm 40 dB	2.494 ge(Hopp offset 7.	45 GH2 Ding) Ν 60 dB • 3.9 μs •	-43.07 dB	m H5 248 Mode A	uto FF T			0.82 dBm
M3 M4 Ba Spectrum Ref Level Att SGL Count • 1Pk Max 20 dBm 10 dBm -10 dBm -20 dBm -20 dBm -30 dBm -40 dBm	1 1 27.60 dBm 40 dB	2.494 ge(Hopp offset 7.	45 GH2 Ding) Ν 60 dB • 3.9 μs •	-43.07 dB	m H5 248 Mode A	uto FF T			0.82 dBm
M3 M4           Ba           Spectrum           Ref Level           Att           SGL Count           ● 1Pk Max           20 dBm           10 dBm           0 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm           -60 dBm	1 1 27.60 dBm 40 dB	2.494 ge(Hopp offset 7.	45 GH2 Ding) Ν 60 dB • 3.9 μs •	-43.07 dB	m H5 248 Mode A	uto FF T			0.82 dBm
M3 M4 Spectrum Ref Level Att SGL Count • 1Pk Max 20 dBm 10 dBm -10 dBm -20 dBm -20 dBm -30 dBm -30 dBm -50 dBm	1 1 27.60 dBm 40 dB 8000/8000	2.494 ge(Hopp offset 7.	45 GH2 Ding) Ν 60 dB • 3.9 μs •	-43.07 dB	Mode A	uto FF T		2.476	0.82 dBm





Att SGL Count 1	27.60 dBn 40 dB 1000/1000	SWT 22		RBW 100 kH: VBW 300 kH:		Auto FFT			
●1Pk Max					м	1[1]			-1.93 dBm
20 dBm						2[1]			05000 GHz 43.78 dBm
10 dBm						1	I		50000 GHz
odem-									
-10 dBm									
-20 dBm-0	1 -19.18	0 d8m							
-30 dBm									
-40 dBm	M4	ма							
-50 dBm	monte		Joseph and a start of the	andennen	hadracarderly	argunaro	munder have	manul	how have norther and
-60 dBm									
-70 dBm Start 2.476	GHz			1001	pts			Stop	2.576 GHz
Marker	L True L	X-value	1	M	1 5	Nau I	<b>F</b>	1	
M1	Trc 1	2.4780	05 GHz	Y-value -1.93 dB		tion	Fund	tion Result	
	1	2,483	35 GHz	-43.78 dBi					
M2 M3	1		.5 GHz	-44.87 dB					
	Band	2 2.490 Edge N'	.5 GHz 35 GHz VNT 3- 62 dB • R	-42.72 dB	m D2MHz		o-Hoppin	ng Ref	
M3 M4 Spectrum Ref Level 3	1 1 Band 27.62 dBn 40 dE	2 2.490 Edge N'	.5 GHz 35 GHz VNT 3- 62 dB • R	-42.72 dB DH5 240 BW 100 kHz	m D2MHz		o-Hoppin	ng Ref	
M3 M4 Spectrum Ref Level 2 Att SGL Count 3 •1Pk Max	1 1 Band 27.62 dBn 40 dE	2 2.490 Edge N'	.5 GHz 35 GHz VNT 3- 62 dB • R	-42.72 dB DH5 240 BW 100 kHz	)2MHz . Mode A		o-Hoppin		-2.23 dBm
M3 M4 Spectrum Ref Level 2 Att SGL Count 3	1 1 Band 27.62 dBn 40 dE	2 2.490 Edge N'	.5 GHz 35 GHz VNT 3- 62 dB • R	-42.72 dB DH5 240 BW 100 kHz	)2MHz . Mode A	uto FF T	o-Hoppir		
M3 M4 Spectrum Ref Level 2 Att SGL Count 3 •1Pk Max	1 1 Band 27.62 dBn 40 dE	2 2.490 Edge N'	.5 GHz 35 GHz VNT 3-	-42.72 dB DH5 240 BW 100 kHz	)2MHz . Mode A	uto FF T	o-Hoppir		-2.23 dBm
M3 M4 Spectrum Ref Level 2 Att SGL Count 3 • 1Pk Max 20 dBm 10 dBm	1 1 Band 27.62 dBn 40 dE	2 2.490 Edge N'	.5 GHz 35 GHz VNT 3-	-42.72 dBi	)2MHz . Mode A	uto FF T	o-Hoppir		-2.23 dBm
M3 M4 Spectrum Ref Level 2 Att SGL Count 3 IPk Max 20 dBm 10 dBm	1 1 Band 27.62 dBn 40 dE	2 2.490 Edge N'	.5 GHz 35 GHz VNT 3-	-42.72 dB DH5 240 BW 100 kHz	)2MHz . Mode A	uto FF T	o-Hoppir		-2.23 dBm
M3 M4 Spectrum Ref Level 2 Att SGL Count 3 IPk Max 20 dBm 10 dBm	1 1 Band 27.62 dBn 40 dE	2 2.490 Edge N'	.5 GHz 35 GHz VNT 3-	-42.72 dBi	)2MHz . Mode A	uto FF T	o-Hoppir		-2.23 dBm
M3 M4 Spectrum Ref Level 2 Att SGL Count 3 1Pk Max 20 dBm 10 dBm -10 dBm	1 1 Band 27.62 dBn 40 dE	2 2.490 Edge N'	.5 GHz 35 GHz VNT 3-	-42.72 dBi	)2MHz . Mode A	uto FF T	o-Hoppin		-2.23 dBm
M3 M4 Spectrum Ref Level 2 Att SGL Count 3 1Pk Max 20 dBm 10 dBm 0 dBm	1 1 Band 27.62 dBn 40 dE	2 2.490 Edge N'	.5 GHz 35 GHz VNT 3-	-42.72 dBi	)2MHz . Mode A	uto FF T	o-Hoppir		-2.23 dBm
M3 M4 Spectrum Ref Level 2 Att SGL Count 3 1Pk Max 20 dBm 10 dBm -10 dBm	1 1 Band 27.62 dBn 40 dE	2 2.490 Edge N'	.5 GHz 35 GHz VNT 3-	-42.72 dBi	)2MHz . Mode A	uto FF T			-2.23 dBm
M3 M4 Spectrum Ref Level 2 Att SGL Count 3 IPk Max 20 dBm 10 dBm -10 dBm -20 dBm	1 1 Band 27.62 dBn 40 dE	2 2.490 Edge N'	.5 GHz 35 GHz VNT 3-	-42.72 dBi	)2MHz . Mode A	uto FF T	o-Hoppin		-2.23 dBm
M3 M4 Spectrum Ref Level 2 Att SGL Count 3 P1Pk Max 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm	1 1 Band 27.62 dBn 40 dE	2 2.490 Edge N'	.5 GHz 35 GHz VNT 3-	-42.72 dBi	)2MHz . Mode A	uto FF T			-2.23 dBm
M3 M4 Spectrum Ref Level 2 Att SGL Count 3 P1Pk Max 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm	1 1 Band 27.62 dBn 40 dE	2 2.490 Edge N'	.5 GHz 35 GHz VNT 3-	-42.72 dBi	)2MHz . Mode A	uto FF T			-2.23 dBm
M3 M4 Spectrum Ref Level 2 Att SGL Count 3 P1Pk Max 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm	1 1 Band 27.62 dBn 40 dE	2 2.490 Edge N'	.5 GHz 35 GHz VNT 3-	-42.72 dBi	)2MHz . Mode A	uto FF T			-2.23 dBm
M3 M4 Spectrum Ref Level 2 Att SGL Count 3 9 1Pk Max 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -50 dBm -60 dBm	1 1 Band 27.62 dBn 40 dE	2 2.490 Edge N'	.5 GHz 35 GHz VNT 3-	-42.72 dBi	)2MHz . Mode A	uto FF T			-2.23 dBm
M3 M4 Spectrum Ref Level 2 Att SGL Count 3 9 IPk Max 20 dBm 10 dBm -10 dBm -20 dBm -30 dBm -30 dBm -50 dBm	1 1 1 27.62 dBm 40 db	2 2.490 Edge N'	.5 GHz 35 GHz VNT 3-	-42.72 dBi	Mode A	uto FF T		2.401	-2.23 dBm





Att	27.62 dBm 40 dB		7.62 dB 👄 🖡 27.5 µs 👄 🕻			Auto FFT			
SGL Count 1Pk Max	100/100								
20 dBm					M	1[1]		2.402	-3.49 dBm 05000 GHz
10 dBm					M	2[1]		-	45.73 dBm
								2.400	M1
0 dBm									X
-10 dBm									1 N
-20 dBm	D1 -22.231	dBm							
-30 dBm			M4						
-40 dBm	millinguration	a nation tax. I	-	and fallow a grad data	toursh stul	a mer start have	en Ment dis une	M3	Whyter War
-50 dBm-	www.theflert.Window	anna achaite ann			and hand and and	elenertene. (norre	ar-co-Andrah	of a defective strates of	andhros. ato
-60 dBm									
-70 dBm									
Start 2.30 Marker	6 GHz			1001	l pts			Stop :	2.406 GHz
Type Re	f Trc	X-value		Y-value	Func	tion	Func	tion Result	:
M1	1		05 GHz 2.4 GHz	-3.49 dB -45.73 dB					
M2	-								
M3 M4 Bi Spectrum Ref Level	and Ede	2. ge(Hopp Offset 7.	39 GHZ 34 GHZ Ding) N	<b>BW</b> 100 kHz	0H5 240		xnt1 Hoj	oping R	a ef ₩
M3 M4 Spectrun Ref Level Att SGL Count	and Edg	2. ge(Hopp Offset 7.	s4 GHz	-40.79 de /NT 3-D 3W 100 kHz	0H5 240		unt1 Hop	oping R	
M3 M4 Spectrun Ref Level Att	1 1 27.62 dBm 40 dB	2. ge(Hopp Offset 7.	34 GH2 Ding) N\ .62 dB ● RE	-40.79 de /NT 3-D 3W 100 kHz	0H5 240 Mode A		ant1 Hoj		-2.25 dBm
M3 M4 Spectrun Ref Level Att SGL Count	1 1 27.62 dBm 40 dB	2. ge(Hopp Offset 7.	34 GH2 Ding) N\ .62 dB ● RE	-40.79 de /NT 3-D 3W 100 kHz	0H5 240 Mode A	uto FFT	ant1 Hop		
M3 M4 Spectrun Ref Level Att SGL Count ●1Pk Max	1 1 27.62 dBm 40 dB	2. ge(Hopp Offset 7.	34 GH2 Ding) N\ .62 dB ● RE	-40.79 de /NT 3-D 3W 100 kHz	0H5 240 Mode A	uto FFT	ant1 Hop		-2.25 dBm
M3 M4 Spectrun Ref Level Att SGL Count • 1Pk Max 20 dBm	1 1 27.62 dBm 40 dB	2. ge(Hopp Offset 7.	34 GH2 Ding) N\ .62 dB ● RE	-40.79 de /NT 3-D 3W 100 kHz	0H5 240 Mode A	uto FFT	ant1 Hop		-2.25 dBm 84420 GHz
M3 M4 Spectrun Ref Level Att SGL Count • 1Pk Max 20 dBm-	1 1 27.62 dBm 40 dB	2. ge(Hopp Offset 7.	34 GH2 Ding) N\ .62 dB ● RE	-40.79 de /NT 3-D 3W 100 kHz	0H5 240 Mode A	uto FF T	ant1 Hop		-2.25 dBm
M3 M4 Spectrun Ref Level Att SGL Count • 1Pk Max 20 dBm	1 1 27.62 dBm 40 dB	2. ge(Hopp Offset 7.	34 GH2 Ding) N\ .62 dB ● RE	-40.79 de /NT 3-D 3W 100 kHz	0H5 240 Mode A	uto FFT	Ant1 Hop		-2.25 dBm 84420 GHz
M3 M4 Spectrun Ref Level Att SGL Count • 1Pk Max 20 dBm- 10 dBm- 0 dBm- -10 dBm-	1 1 27.62 dBm 40 dB	2. ge(Hopp Offset 7.	34 GH2 Ding) N\ .62 dB ● RE	-40.79 de /NT 3-D 3W 100 kHz	0H5 240 Mode A	uto FF T	xnt1 Hoj		-2.25 dBm 84420 GHz
M3 M4 Spectrun Ref Level Att SGL Count • 1Pk Max 20 dBm- 10 dBm- 0 dBm-	1 1 27.62 dBm 40 dB	2. ge(Hopp Offset 7.	34 GH2 Ding) N\ .62 dB ● RE	-40.79 de /NT 3-D 3W 100 kHz	0H5 240 Mode A	uto FF T	Ant1 Hop		-2.25 dBm 84420 GHz
M3 M4 Spectrun Ref Level Att SGL Count • 1Pk Max 20 dBm- 10 dBm- 0 dBm- -10 dBm-	1 1 27.62 dBm 40 dB	2. ge(Hopp Offset 7.	34 GH2 Ding) N\ .62 dB ● RE	-40.79 de /NT 3-D 3W 100 kHz	0H5 240 Mode A	uto FF T	Ant1 Hop		-2.25 dBm 84420 GHz
M3 M4 Spectrum Ref Level Att SGL Count • 1Pk Max 20 dBm- 10 dBm- 0 dBm- -10 dBm- -20 dBm-	1 1 27.62 dBm 40 dB	2. ge(Hopp Offset 7.	34 GH2 Ding) N\ .62 dB ● RE	-40.79 de /NT 3-D 3W 100 kHz	0H5 240 Mode A	uto FF T	xnt1 Hoj		-2.25 dBm 84420 GHz
M3 M4 Spectrun Ref Level Att SGL Count • 1Pk Max 20 dBm 10 dBm -10 dBm -20 dBm -30 dBm -40 dBm	1 1 27.62 dBm 40 dB	2. ge(Hopp Offset 7.	34 GH2 Ding) N\ .62 dB ● RE	-40.79 de /NT 3-D 3W 100 kHz	0H5 240 Mode A	uto FF T	Ant1 Hop		-2.25 dBm 84420 GHz
M3 M4 Spectrun Ref Level Att SGL Count • 1Pk Max 20 dBm 10 dBm -10 dBm -10 dBm -30 dBm	1 1 27.62 dBm 40 dB	2. ge(Hopp Offset 7.	34 GH2 Ding) N\ .62 dB ● RE	-40.79 de /NT 3-D 3W 100 kHz	0H5 240 Mode A	uto FF T	Ant1 Hop		-2.25 dBm 84420 GHz
M3 M4 Spectrun Ref Level Att SGL Count • 1Pk Max 20 dBm 10 dBm -10 dBm -20 dBm -30 dBm -40 dBm	1 1 27.62 dBm 40 dB	2. ge(Hopp Offset 7.	34 GH2 Ding) N\ .62 dB ● RE	-40.79 de /NT 3-D 3W 100 kHz	0H5 240 Mode A	uto FF T	Ant1 Hop		-2.25 dBm 84420 GHz
M3 M4 Spectrum Ref Level Att SGL Count • 1Pk Max 20 dBm 10 dBm -10 dBm -20 dBm -30 dBm -30 dBm -50 dBm -60 dBm	1 1 27.62 dBm 40 dB	2. ge(Hopp Offset 7.	34 GH2 Ding) N\ .62 dB ● RE	-40.79 de /NT 3-D 3W 100 kHz	0H5 240 Mode A	uto FF T	Ant1 Hop		-2.25 dBm 84420 GHz
M3         M4           Bi         M4           Spectrum         Ref Level           Att         SGL Count           • 1Pk Max         20 dBm           10 dBm         0 dBm           -10 dBm         -20 dBm           -30 dBm         -30 dBm           -50 dBm         -50 dBm	1 1 27.62 dBm 40 dB 8000/8000	2. ge(Hopp Offset 7.	34 GH2 Ding) N\ .62 dB ● RE	-40.79 de /NT 3-D 3W 100 kHz	DH5 240	uto FF T	Ant1 Hop	2.405	-2.25 dBm 84420 GHz





Att SGL Count	40 dB 1000/1000	SWT 22	27.5 µs 🥃	<b>VBW</b> 300 kHz	. Muue /	uto FFT			
					M	1[1]			-2.22 dBm
20 dBm						2[1]			185000 GHz -45.04 dBm
10 dBm	<u> </u>		<u> </u>						000000 GHz
0 dBm									M1
-10 dBm—									- MM
-20 dBm—									
-30 dBm	D1 -22.246	asm-							
-40 dBm-			M4						
محية والطاق والأرسيقوي	alucal respired	howhere	envolue	angen melong	suspendence	nt-van mars brann	www.www.wlplub	Why the real	New Artho
-50 dBm									
-60 dBm—									
-70 dBm- Start 2.30	6 GH2			1001	nte			Ptor	2.406 GHz
Marker	o GH2			1001	pts			stop	2.400 GH2
Type Re M1	f Trc	X-value 2.401	85 GHz	Y-value -2.22 dBr	Funct	tion	Fund	tion Resul	t
M2	1	2	2.4 GHz	-45.04 dBr -44.93 dBr	n				
Att SGL Count	11 27.60 dBm 40 dB	2.34 Edge N Offset 7.	.60 dB 👄 R	-40.46 dBr -40.46 dBr DH5 248 BW 100 kHz /BW 300 kHz	80MHz /		o-Hoppii	ng Ref	Ø (₩ ⊽
Spectrur Ref Level Att	Band n 27.60 dBm 40 dB	2.34 Edge N Offset 7.	09 GHZ VNT 3-	-40.46 dBr DH5 248	n BOMHZ / Mode Au		o-Hoppin		-2.17 dBm
M4 Spectrur Ref Level Att SGL Count	Band n 27.60 dBm 40 dB	2.34 Edge N Offset 7.	09 GHZ VNT 3-	-40.46 dBr DH5 248	n BOMHZ / Mode Au	uto FFT	p-Hoppin		
M4 Spectrur Ref Level Att SGL Count 9 1Pk Max	Band n 27.60 dBm 40 dB	2.34 Edge N Offset 7.	09 GHZ VNT 3-	-40.46 dBr DH5 248	n BOMHZ / Mode Au	uto FFT	o-Hoppin		-2.17 dBm
M4 Spectrur Ref Level Att SGL Count PIPk Max 20 dBm-	Band n 27.60 dBm 40 dB	2.34 Edge N Offset 7.	09 GHZ VNT 3-	-40.46 dBr DH5 248	n BOMHZ / Mode Au	uto FFT	p-Hoppin		-2.17 dBm
M4 Spectrur Ref Level Att SGL Count SGL Count PIPk Max 20 dBm- 10 dBm-	Band n 27.60 dBm 40 dB	2.34 Edge N Offset 7.	09 GHZ VNT 3-	-40.46 dBr DH5 248	n BOMHZ / Mode Au	uto FFT	p-Hoppin		-2.17 dBm
M4 Spectrur Ref Level Att SGL Count SGL Count IPk Max 20 dBm- 10 dBm- 0 dBm-	Band n 27.60 dBm 40 dB	2.34 Edge N Offset 7.	09 GHZ VNT 3-	-40.46 dBr DH5 248	n BOMHZ / Mode Au	uto FFT	p-Hoppin		-2.17 dBm
M4 Spectrur Ref Level Att SGL Count SGL Count IPk Max 20 dBm 10 dBm -10 dBm -10 dBm	Band n 27.60 dBm 40 dB	2.34 Edge N Offset 7.	09 GHZ VNT 3-	-40.46 dBr DH5 248	n BOMHZ / Mode Au	uto FFT	p-Hoppin		-2.17 dBm
M4 Spectrur Ref Level Att SGL Count 9 IPk Max 20 dBm- 10 dBm- -10 dBm- -20 dBm-	Band n 27.60 dBm 40 dB	2.34 Edge N Offset 7.	09 GHZ VNT 3-	-40.46 dBr DH5 248	n BOMHZ / Mode Au	uto FFT	p-Hoppin		-2.17 dBm
M4 Spectrur Ref Level Att SGL Count SGL Count 10 dBm 10 dBm -10 dBm -10 dBm -20 dBm -30 dBm	Band n 27.60 dBm 40 dB	2.34 Edge N Offset 7.	09 GH2 VNT 3- 60 dB ● R 8.9 µs ● V	-40.46 dBr DH5 248	n BOMHZ / Mode Au	uto FFT	p-Hoppin		-2.17 dBm
M4 Spectrur Ref Level Att SGL Count ● 1Pk Max 20 dBm 10 dBm -10 dBm -20 dBm -30 dBm -40 dBm	Band n 27.60 dBm 40 dB	2.34 Edge N Offset 7.	09 GH2 VNT 3- 60 dB ● R 8.9 µs ● V	-40.46 dBr DH5 248	n BOMHZ / Mode Au	uto FFT	p-Hoppin		-2.17 dBm
M4 Spectrur Ref Level Att SGL Count • 1Pk Max 20 dBm - 10 dBm - 20 dBm - 20 dBm - 30 dBm - 40 dBm - 50 dBm - 60 dBm	Band n 27.60 dBm 40 dB	2.34 Edge N Offset 7.	09 GH2 VNT 3- 60 dB ● R 8.9 µs ● V	-40.46 dBr DH5 248	n BOMHZ / Mode Au	uto FFT			-2.17 dBm
M4 Spectrur Ref Level Att SGL Count 9 1Pk Max 20 dBm 10 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm	1 Band 27.60 dBm 40 dB 100/100	2.34 Edge N Offset 7.	09 GH2 VNT 3- 60 dB ● R 8.9 µs ● V	-40.46 dBr DH5 248	Mode Au	uto FFT	p-Hoppin	2.48	-2.17 dBm
M4 Spectrur Ref Level Att SGL Count P1Pk Max 20 dBm 10 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -50 dBm -70 dBm	1 Band 27.60 dBm 40 dB 100/100	2.34 Edge N Offset 7.	09 GH2 VNT 3- 60 dB ● R 8.9 µs ● V	-40.46 dBr	Mode Au	uto FFT	p-Hoppin	2.48	-2.17 dBm 000000 GHz





Ref Level Att SGL Count	40 dB			RBW 100 kH: VBW 300 kH:		\uto FFT			
●1Pk Max									t or draw
20 dBm-					M	1[1]		2.479	-1.35 dBm 85000 GHz
10 dBm					M	2[1]			-44.67 dBm 350000 GHz
0 dam									
-10 dBm-									
11 1	D1 -22.171	dBm							
-30 dBm-									
-40 dBnn <del>ie</del>	M4 Wathenthe million	M3 MARAMAN	walkers	when her man have made	montanta	Indolucional	Lander Research	mapymania	entranna name
-50 dBm		10.444					0.011.04110.		
-60 dBm									
-70 dBm									
Start 2.476	5 GHz			1001	pts			Stop	2.576 GHz
Marker Type   Ref	Trc	X-value		Y-value	Fund	tion	Func	tion Result	<u> </u>
M1 M2	1	2.4798		-1.35 dB -44.67 dB	m				
1412	1		5 GHz	-45.70 dB	m				
M3					m				
M4	1 and Edg 27.60 dBm 40 dB	2.490 ge(Hopp Offset 7.6	ing) N	-43.67 dB VNT 3-D RBW 100 kHz /BW 300 kHz	H5 248		Ant1 Hop	oping R	ef
M4 Ba Spectrum Ref Level Att	1 and Edg 27.60 dBm 40 dB	2.490 ge(Hopp Offset 7.6	ing) N	VNT 3-D	H5 248 Mode A		de 🚺		2.85 dBm
M4 Spectrum Ref Level Att SGL Count	1 and Edg 27.60 dBm 40 dB	2.490 ge(Hopp Offset 7.6	ing) N	VNT 3-D	H5 248 Mode A	uto FFT	Ant1 Hop		
M4 Spectrum Ref Level Att SGL Count • 1Pk Max	1 and Edg 27.60 dBm 40 dB	2.490 ge(Hopp Offset 7.6	ing) N' 50 dB ● R 9 µs ● V	VNT 3-D	H5 248 Mode A	uto FFT	Ant1 Hop		2.85 dBm
M4 Spectrum Ref Level Att SGL Count • 1Pk Max 20 dBm- 10 dBm-	1 and Edg 27.60 dBm 40 dB	2.490 ge(Hopp Offset 7.6	ing) N	VNT 3-D RBW 100 kHz /BW 300 kHz	Mode A	uto FFT	Ant1 Hop		2.85 dBm
M4 Spectrum Ref Level Att SGL Count • 1Pk Max 20 dBm	1 and Edg 27.60 dBm 40 dB	2.490 ge(Hopp Offset 7.6	ing) N' 50 dB ● R 9 µs ● V	VNT 3-D RBW 100 kHz /BW 300 kHz	H5 248 Mode A	uto FFT	Ant1 Hop		2.85 dBm
M4 Spectrum Ref Level Att SGL Count • 1Pk Max 20 dBm- 10 dBm-	1 and Edg 27.60 dBm 40 dB	2.490 ge(Hopp Offset 7.6	ing) N' 50 dB ● R 9 µs ● V	VNT 3-D RBW 100 kHz /BW 300 kHz	Mode A	uto FFT	Ant1 Hop		.85 dBm
M4 Spectrum Ref Level Att SGL Count • 1Pk Max 20 dBm 10 dBm	1 and Edg 27.60 dBm 40 dB	2.490 ge(Hopp Offset 7.6	ing) N' 50 dB ● R 9 µs ● V	VNT 3-D RBW 100 kHz /BW 300 kHz	Mode A	uto FFT	Ant1 Hop		.85 dBm
M4 Spectrum Ref Level Att SGL Count IPk Max 20 dBm 10 dBm -10 dBm	1 and Edg 27.60 dBm 40 dB	2.490 ge(Hopp Offset 7.6	ing) N' 50 dB ● R 9 µs ● V	VNT 3-D RBW 100 kHz /BW 300 kHz	Mode A	uto FFT	Ant1 Hop		.85 dBm
M4 Spectrum Ref Level Att SGL Count 10 dBm 10 dBm -10 dBm -20 dBm -30 dBm	1 and Edg 27.60 dBm 40 dB	2.490 ge(Hopp Offset 7.6	ing) N' 50 dB ● R 9 µs ● V	VNT 3-D RBW 100 kHz /BW 300 kHz	Mode A	uto FFT	Ant1 Hop		.85 dBm
M4 Spectrum Ref Level Att SGL Count ID dBm 10 dBm -10 dBm -20 dBm -20 dBm	1 and Edg 27.60 dBm 40 dB	2.490 ge(Hopp Offset 7.6	ing) N' 50 dB ● R 9 µs ● V	VNT 3-D RBW 100 kHz /BW 300 kHz	Mode A	uto FFT	Ant1 Hop		.85 dBm
M4 Spectrum Ref Level Att SGL Count 10 dBm 10 dBm -10 dBm -20 dBm -30 dBm	1 and Edg 27.60 dBm 40 dB	2.490 ge(Hopp Offset 7.6	ing) N' 50 dB ● R 9 µs ● V	VNT 3-D RBW 100 kHz /BW 300 kHz	Mode A	uto FFT	Ant1 Hop		.85 dBm
M4 Spectrum Ref Level Att SGL Count IPk Max 20 dBm 10 dBm 10 dBm -10 dBm -20 dBm -30 dBm -40 dBm	1 and Edg 27.60 dBm 40 dB	2.490 ge(Hopp Offset 7.6	ing) N' 50 dB ● R 9 µs ● V	VNT 3-D RBW 100 kHz /BW 300 kHz	Mode A	uto FFT	Ant1 Hop		.85 dBm
M4 Spectrum Ref Level Att SGL Count 1Pk Max 20 dBm 10 dBm -10 dBm -20 dBm -20 dBm -30 dBm -30 dBm -50 dBm	1 and Edg 27.60 dBm 40 dB	2.490 ge(Hopp Offset 7.6	ing) N' 50 dB ● R 9 µs ● V	VNT 3-D RBW 100 kHz /BW 300 kHz	Mode A	uto FFT	Ant1 Hop		.85 dBm
M4           Spectrum           Ref Level           Att           SGL Count           1Pk Max           20 dBm           10 dBm           0 dBm           -10 dBm           -20 dBm           -30 dBm           -40 dBm           -50 dBm           -60 dBm	and Edg 27.60 dBm 40 dB 8000/8000	2.490 ge(Hopp Offset 7.6	ing) N' 50 dB ● R 9 µs ● V	VNT 3-D RBW 100 kHz /BW 300 kHz	H5 248	uto FFT	Ant1 Hop	2.478	.85 dBm
M4 Spectrum Ref Level Att SGL Count • 1Pk Max 20 dBm 10 dBm -10 dBm -20 dBm -20 dBm -30 dBm -40 dBm -50 dBm -50 dBm -70 dBm	and Edg 27.60 dBm 40 dB 8000/8000	2.490 ge(Hopp Offset 7.6	ing) N' 50 dB ● R 9 µs ● V		H5 248	uto FFT	Ant1 Hop	2.478	2.85 dBm 184120 GHz





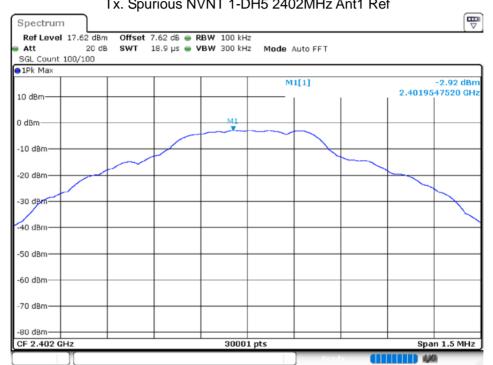
	vel 27.60 dB		● RB₩ 100 kHz				
Att	40 0		😑 VBW 300 kHz	Mode Auto F	FT		
	unt 1000/100	00					
1Pk Ma	ax						
00 d0				M1[1]			1.52 dBm
20 dBm							905000 GHz
10 dBm				M2[1]			-44.70 dBm 350000 GHz
M1				1	1	2.40	
0 dBm-							<u> </u>
MNA							
-10 dBm	י <del>ן</del> ו						
	D1 -17.1	.49_d8m					
-20 cBm							
-30 dBm							
-56 650	M4						
-40 dBn	12 7	M3	Indenda in a la			م الم الم الم	
	Jedageordman	maynet the weather when	mounder	aller all the second second	manshammen	provident	and more many
-50 dBm							
-60 dBm							
-60 übn	'						
-70 dBm	<u> </u>						
Start 2	.476 GHz		1001 pt	s		Stop	2.576 GHz
Marker							
Туре	Ref   Trc	X-value	Y-value	Function		Function Resul	t
M1	1	2.47905 GHz	1.52 dBm				
M2	1	2.4835 GHz	-44.70 dBm				
M3	1	2.5 GHz	-43.54 dBm				
M4	1	2.4898 GHz	-41.52 dBm				





# 8.7 CONDUCTED RF SPURIOUS EMISSION

0010	001201					
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant 1	-47.38	-20	Pass
NVNT	1-DH5	2441	Ant 1	-50.75	-20	Pass
NVNT	1-DH5	2480	Ant 1	-45.82	-20	Pass
NVNT	2-DH5	2402	Ant 1	-46.87	-20	Pass
NVNT	2-DH5	2441	Ant 1	-51.2	-20	Pass
NVNT	2-DH5	2480	Ant 1	-50.93	-20	Pass
NVNT	3-DH5	2402	Ant 1	-47.58	-20	Pass
NVNT	3-DH5	2441	Ant 1	-49.91	-20	Pass
NVNT	3-DH5	2480	Ant 1	-50.21	-20	Pass



#### Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref

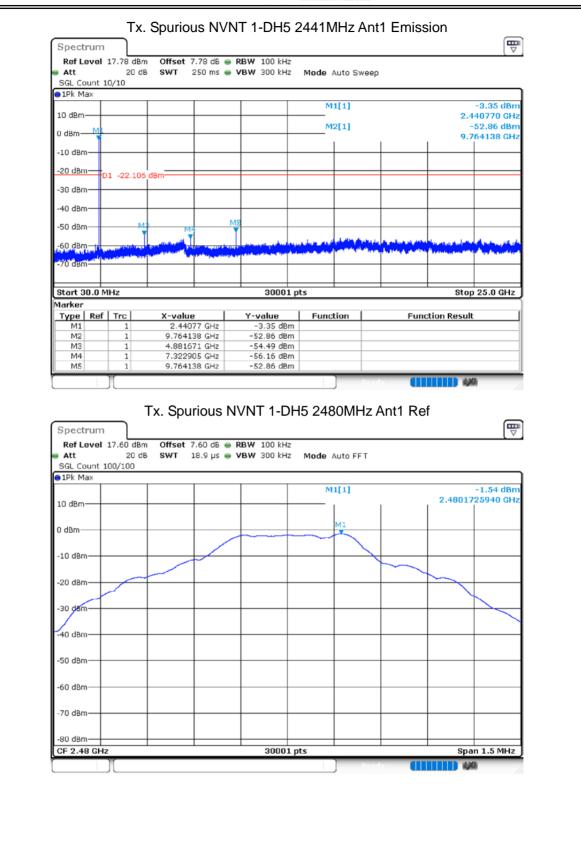




Ref Level 1 Att SGL Count 10	20 dB			RBW 100 kHz VBW 300 kHz		uto Sweep			
●1Pk Max					MI	[1]			-2.77 dBm
10 dBm									102490 GHz
0 dBm					W12	[1]			-50.31 dBm 507660 GHz
-10 dBm									
-20 dBm-01	22.923 (	d0m-							
-30 dBm	-22.923	ubili							
-40 dBm									
-50 dBm			MS	8					
	, T	M4			مريد المراجع	al material and a	والموري والتعريان	and a second second	
-60 dBm		and Second States	Security of the second se		Lanna de la Calendaria	and the state of the state of	A second de las	falsen and a second	Antonychurt
-70 dBm									
-80 dBm Start 30.0 MI	Hz			30001	pts			Sto	25.0 GHz
Marker									
Type Ref M1	1	X-value 2.4024	49 GHz	<u>Y-value</u> -2.77 dBn	Funct	ion	Fund	tion Resul	t
M2	1	9.6076	56 GHz	-50.31 dBn -56.04 dBn					
	1								
M3 M4	1	7.20554		-59.15 dBn					
M3	1 1 .7.78 dBm 20 dB	7.20554 9.6076 Tx. Spur	rious N	-59.15 dBr -50.31 dBr VNT 1-D RBW 100 kHz VBW 300 kHz	H5 244		Ant1 Re	f	<b>0</b> (₩
M3 M4 M5 Spectrum Ref Level 1 Att	1 1 .7.78 dBm 20 dB	7.20554 9.6076 Tx. Spur	rious N	-50.31 dBr VNT 1-D RBW 100 kHz	H5 244 Mode A		Ant1 Re		-2.11 dBm
M3 M4 M5 Spectrum Ref Level 1 Att SGL Count 10	1 1 .7.78 dBm 20 dB	7.20554 9.6076 Tx. Spur	rious N	-50.31 dBr VNT 1-D RBW 100 kHz	H5 244 Mode A	uto FFT	Ant1 Re		
M3 M4 M5 Spectrum Ref Level 1 Att SGL Count 10 •1Pk Max	1 1 .7.78 dBm 20 dB	7.20554 9.6076 Tx. Spur	rious N	-50.31 dBr VNT 1-D RBW 100 kHz	H5 244 Mode A	uto FFT	Ant1 Re		-2.11 dBm
M3 M4 M5 Spectrum Ref Level 1 Att SGL Count 10 •1Pk Max	1 1 7.78 dBm 20 dB	7.20554 9.6076 Tx. Spur	rious N	-50.31 dBr VNT 1-D RBW 100 kHz	H5 244 Mode A	uto FFT	Ant1 Re		-2.11 dBm
M3 M4 M5 Spectrum Ref Level 1 Att SGL Count 10 • 1Pk Max	1 1 7.78 dBm 20 dB	7.20554 9.6076 Tx. Spur	rious N	-50.31 dBr VNT 1-D RBW 100 kHz	H5 244 Mode A	uto FFT	Ant1 Re		-2.11 dBm
M3 M4 M5 Spectrum Ref Level 1 Att SGL Count 10 • 1Pk Max 10 dBm -10 dBm	1 1 7.78 dBm 20 dB	7.20554 9.6076 Tx. Spur	rious N	-50.31 dBr VNT 1-D RBW 100 kHz	H5 244 Mode A	uto FFT	Ant1 Re		-2.11 dBm
M3 M4 M5 Spectrum Ref Level 1 Att SGL Count 10 • 1Pk Max 10 dBm 0 dBm	1 1 7.78 dBm 20 dB	7.20554 9.6076 Tx. Spur	rious N	-50.31 dBr VNT 1-D RBW 100 kHz	H5 244 Mode A	uto FFT	Ant1 Re		-2.11 dBm
M3 M4 M5 Spectrum Ref Level 1 Att SGL Count 10 • 1Pk Max 10 dBm -10 dBm	1 1 7.78 dBm 20 dB	7.20554 9.6076 Tx. Spur	rious N	-50.31 dBr VNT 1-D RBW 100 kHz	H5 244 Mode A	uto FFT	Ant1 Re		-2.11 dBm
M3 M4 M5 Spectrum Ref Level 1 Att SGL Count 10 •1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm	1 1 7.78 dBm 20 dB	7.20554 9.6076 Tx. Spur	rious N	-50.31 dBr VNT 1-D RBW 100 kHz	H5 244 Mode A	uto FFT	Ant1 Re		-2.11 dBm
M3 M4 M5 Spectrum Ref Level 1 Att SGL Count 10 • 1Pk Max 10 dBm - 0 dBm - 10 dBm - 20 dBm - 30 dBm	1 1 7.78 dBm 20 dB	7.20554 9.6076 Tx. Spur	rious N	-50.31 dBr VNT 1-D RBW 100 kHz	H5 244 Mode A	uto FFT	Ant1 Re		-2.11 dBm
M3 M4 M5 Spectrum Ref Level 1 Att SGL Count 10 • 1Pk Max 10 dBm - 0 dBm - 10 dBm - 20 dBm - 30 dBm	1 1 7.78 dBm 20 dB	7.20554 9.6076 Tx. Spur	rious N	-50.31 dBr VNT 1-D RBW 100 kHz	H5 244 Mode A	uto FFT	Ant1 Re		-2.11 dBm
M3 M4 M5 Spectrum Ref Level 1 Att SGL Count 10 • 1Pk Max 10 dBm - 0 dBm - 10 dBm - 20 dBm - 30 dBm - 40 dBm	1 1 7.78 dBm 20 dB	7.20554 9.6076 Tx. Spur	rious N	-50.31 dBr VNT 1-D RBW 100 kHz	H5 244 Mode A	uto FFT	Ant1 Re		-2.11 dBm
M3 M4 M5 Spectrum Ref Level 1 Att SGL Count 10 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm	1 1 7.78 dBm 20 dB	7.20554 9.6076 Tx. Spur	rious N	-50.31 dBr VNT 1-D RBW 100 kHz	H5 244 Mode A	uto FFT	Ant1 Re		-2.11 dBm
M3         M4           M5         M4           M5         M4           M5         M4           M4         M5           Spectrum         Ref Level 1           Att         SGL Count 10           TO dBm         10 dBm           -10 dBm         -20 dBm           -30 dBm         -30 dBm           -50 dBm         -60 dBm           -70 dBm         -70 dBm	1 1 7.78 dBm 20 dB	7.20554 9.6076 Tx. Spur	rious N	-50.31 dBr VNT 1-D RBW 100 kHz	H5 244 Mode A	uto FFT	Ant1 Re		-2.11 dBm
M3       M4         M4       M5         Spectrum       Ref Level 1         Att       SGL Count 10         10 dBm       10         0 dBm       10         -10 dBm       -20         -30 dBm       -30 dBm         -40 dBm       -50 dBm         -50 dBm       -60 dBm         -70 dBm       -80 dBm	1 1 7.78 dBm 20 dB 00/100	7.20554 9.6076 Tx. Spur	rious N	-50.31 dBr	Mode A	uto FFT	Ant1 Re	2.4411	-2.11 dBm /36440 GHz
M3         M4           M5         M4           M5         M4           M5         M4           M4         M5           Spectrum         Ref Level 1           Att         SGL Count 10           TO dBm         10 dBm           -10 dBm         -20 dBm           -30 dBm         -30 dBm           -50 dBm         -60 dBm           -70 dBm         -70 dBm	1 1 7.78 dBm 20 dB 00/100	7.20554 9.6076 Tx. Spur	rious N	-50.31 dBr VNT 1-D RBW 100 kHz	Mode A	uto FFT	Ant1 Re	2.4411	-2.11 dBm











Ref Level Att SGL Count 1	20 dB			RBW 100 kHz VBW 300 kHz	Mode /	∖uto Sweep			
●1Pk Max					M	1[1]			-2.09 dBm
10 dBm									179890 GHz
0 dBm					M	2[1]			-47.37 dBm 959078 GHz
-10 dBm									
-20 dBm-0	1 -21.541	dBm							
-30 dBm									
-40 dBm	м								
-50 dBm		* M		45					
-60 dBm		a manda			والادر وقرابا روروس	and the first states	Apren work	المعدر فيرب حطوانا	والمتناف المتعالم
-70 dBm	a de la constante de la constan				كالمحترية ستحصلها		fa mar da na hairte	Contracting Accelet	the business
-80 dBm Start 30.0 M	IHz			30001	pts			Sto	25.0 GHz
Marker					1 -				
Type Ref M1	1 1	X-value 2.4798		<u>Y-value</u> -2.09 dBm	Fund	tion	Fund	tion Resul	ι
	1	4.95907	8 GHz	-47.37 dBm					
M2			8 GHz L	-47.37 dBm					
MЗ	1	4.95907		-49 76 dBm					
	1 1 1	7.43943	1 GHz	-48.76 dBm -57.07 dBm					
M3 M4 M5 Spectrum Ref Level Att	1 1 17.62 dBm 20 dB	7.43943 9.91978 Tx. Spur Offset 7.	1 GHz 5 GHz ious N		H5 240	) 2000 2000 A	Ant1 Re	f	0 (\_
M3 M4 M5 Spectrum Ref Level Att SGL Count 1	1 1 17.62 dBm 20 dB	7.43943 9.91978 Tx. Spur Offset 7.	1 GHz 5 GHz ious N	-57.07 dBm VNT 2-D	H5 240	Auto FFT	Ant1 Re	f	
M3 M4 M5 Spectrum Ref Level Att SGL Count 1 • 1Pk Max	1 1 17.62 dBm 20 dB	7.43943 9.91978 Tx. Spur Offset 7.	1 GHz 5 GHz ious N	-57.07 dBm VNT 2-D	H5 240		Ant1 Re		-3.56 dBm 773480 GHz
M3 M4 M5 Spectrum Ref Level Att SGL Count 1	1 1 17.62 dBm 20 dB	7.43943 9.91978 Tx. Spur Offset 7.	1 GHz 5 GHz ious N	-57.07 dBm VNT 2-D	H5 240	Auto FFT	Ant1 Re		-3.56 dBm
M3 M4 M5 Spectrum Ref Level Att SGL Count 1 • 1Pk Max	1 1 17.62 dBm 20 dB	7.43943 9.91978 Tx. Spur Offset 7.	1 GHz 5 GHz ious N	-57.07 dBm VNT 2-D	H5 240	Auto FFT	Ant1 Re		-3.56 dBm
M3 M4 M5 Spectrum Ref Level Att SGL Count 1 •1Pk Max 10 dBm 0 dBm	1 1 17.62 dBm 20 dB	7.43943 9.91978 Tx. Spur Offset 7.	1 GHz 5 GHz ious N	-57.07 dBm VNT 2-D	Mode /	Auto FFT	Ant1 Re		-3.56 dBm
M3 M4 M5 Spectrum Ref Level Att SGL Count 1 •1Pk Max 10 dBm	1 1 17.62 dBm 20 dB	7.43943 9.91978 Tx. Spur Offset 7.	1 GHz 5 GHz ious N	-57.07 dBm VNT 2-D	Mode /	Auto FFT	Ant1 Re		-3.56 dBm
M3 M4 M5 Spectrum Ref Level Att SGL Count 1 •1Pk Max 10 dBm 0 dBm	1 1 17.62 dBm 20 dB	7.43943 9.91978 Tx. Spur Offset 7.	1 GHz 5 GHz ious N	-57.07 dBm VNT 2-D	Mode /	Auto FFT	Ant1 Re		-3.56 dBm
M3 M4 M5 Spectrum Ref Level Att SGL Count 1 • 1Pk Max 10 dBm • 0 dBm -10 dBm -20 dBm	1 1 17.62 dBm 20 dB	7.43943 9.91978 Tx. Spur Offset 7.	1 GHz 5 GHz ious N	-57.07 dBm VNT 2-D	Mode /	Auto FFT	Ant1 Re		-3.56 dBm
M3 M4 M5 Spectrum Ref Level Att SGL Count 1 • 1Pk Max 10 dBm -10 dBm	1 1 17.62 dBm 20 dB	7.43943 9.91978 Tx. Spur Offset 7.	1 GHz 5 GHz ious N	-57.07 dBm VNT 2-D	Mode /	Auto FFT	Ant1 Re		-3.56 dBm
M3 M4 M5 Spectrum Ref Level Att SGL Count 1 • 1Pk Max 10 dBm • 0 dBm -10 dBm -20 dBm	1 1 17.62 dBm 20 dB	7.43943 9.91978 Tx. Spur Offset 7.	1 GHz 5 GHz ious N	-57.07 dBm VNT 2-D	Mode /	Auto FFT	Ant1 Re		-3.56 dBm
M3 M4 M5 Spectrum Ref Level Att SGL Count 1 10 dBm 0 dBm -10 dBm -20 dBm -20 dBm -30 dBm -40 dBm	1 1 17.62 dBm 20 dB	7.43943 9.91978 Tx. Spur Offset 7.	1 GHz 5 GHz ious N	-57.07 dBm VNT 2-D	Mode /	Auto FFT	Ant1 Re		-3.56 dBm
M3 M4 M5 Spectrum Ref Level Att SGL Count 1 O dBm 0 dBm -10 dBm -20 dBm -30 dBm	1 1 17.62 dBm 20 dB	7.43943 9.91978 Tx. Spur Offset 7.	1 GHz 5 GHz ious N	-57.07 dBm VNT 2-D	Mode /	Auto FFT	Ant1 Re		-3.56 dBm
M3 M4 M5 Spectrum Ref Level Att SGL Count 1 10 dBm 0 dBm -10 dBm -20 dBm -20 dBm -30 dBm -40 dBm	1 1 17.62 dBm 20 dB	7.43943 9.91978 Tx. Spur Offset 7.	1 GHz 5 GHz ious N	-57.07 dBm VNT 2-D	Mode /	Auto FFT	Ant1 Re		-3.56 dBm
M3 M4 M5 Spectrum Ref Level Att SGL Count 1 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -30 dBm -50 dBm	1 1 17.62 dBm 20 dB	7.43943 9.91978 Tx. Spur Offset 7.	1 GHz 5 GHz ious N	-57.07 dBm VNT 2-D	Mode /	Auto FFT	Ant1 Re		-3.56 dBm
M3 M4 M5 Spectrum Ref Level Att SGL Count 1 P1Pk Max 10 dBm -10 dBm -20 dBm -20 dBm -30 dBm -50 dBm -50 dBm -60 dBm	1 1 17.62 dBm 20 dB	7.43943 9.91978 Tx. Spur Offset 7.	1 GHz 5 GHz ious N	-57.07 dBm VNT 2-D	Mode /	Auto FFT	Ant1 Re		-3.56 dBm
M3 M4 M5 Spectrum Ref Level Att SGL Count 1 • 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -20 dBm -30 dBm -50 dBm -70 dBm -70 dBm -70 dBm	1 1 1 17.62 dBm 20 dB 00/100	7.43943 9.91978 Tx. Spur Offset 7.	1 GHz 5 GHz ious N	-57.07 dBm	Mode /	Auto FFT	Ant1 Re	2.40203	-3.56 dBm
M3 M4 M5 Spectrum Ref Level Att SGL Count 1 Plk Max 10 dBm -10 dBm -20 dBm -20 dBm -30 dBm -50 dBm -50 dBm -70 dBm	1 1 1 17.62 dBm 20 dB 00/100	7.43943 9.91978 Tx. Spur Offset 7.	1 GHz 5 GHz ious N	-57.07 dBm VNT 2-D	Mode /	Auto FFT	Ant1 Re	2.40203	-3.56 dBm 573480 GHz





SGL Count	20 dB 10/10	SWT 2	250 ms 👄 V	<b>/BW</b> 300 kHz	Mode /	\uto Swee	p		
10 dBm					м	1[1]			-7.94 dBm
0 dBm					M	2[1]			101650 GHz -50.43 dBm
-10 dBm								9.6	507660 GHz
	D1 -23.557	dBm							
-30 dBm									
-40 dBm			MS						
-50 dBm	MB	M4	• T						
-60 dBm	A DATE OF THE OWNER			land to enclose the second		and the second second		The second s	
-70 dBm									
-80 dBm				20001	nte			Ctor	25.0 GHz
Start 30.0   Marker	MHZ			30001	pts			stop	25.0 GHZ
Type Ref		X-value		Y-value -7.94 dBm	Fund	tion	Fund	tion Result	t
	1		65 GHz 66 GHz	-7.94 dBm -50.43 dBm					
M2	1	9.0070							
M2 M3	1	4.80420	64 GHz	-58.70 dBm					
M2		4.80420 7.28794	64 GHz	-58.70 dBm -59.57 dBm -50.43 dBm	1				
M2 M3 M4 M5 Spectrum Ref Level	1 1 1 1 17.78 dBm 20 dB	4.8042( 7.2879- 9.607( Tx. Sput	64 GHz 47 GHz 66 GHz rious N	-59.57 dBm	H5 244	1MHz	Ant1 Re	f	<b>Ω</b> (₩
M2 M3 M4 M5 Spectrum Ref Level	1 1 1 1 17.78 dBm 20 dB	4.8042( 7.2879- 9.607( Tx. Sput	64 GHz 47 GHz 66 GHz rious N	-59.57 dBm -50.43 dBm /NT 2-D	H5 244	\uto FFT	Ant1 Re	f	
M2 M3 M4 M5 Spectrum Ref Level Att SGL Count • 1Pk Max	1 1 1 1 17.78 dBm 20 dB	4.8042( 7.2879- 9.607( Tx. Sput	64 GHz 47 GHz 66 GHz rious N	-59.57 dBm -50.43 dBm /NT 2-D	H5 244		Ant1 Re		-2.61 dBm 503550 GHz
M2 M3 M4 M5 Spectrum Ref Level Att SGL Count	1 1 1 1 17.78 dBm 20 dB	4.8042( 7.2879- 9.607( Tx. Sput	64 GHz 47 GHz 66 GHz rious N	-59.57 dBm -50.43 dBm /NT 2-D	H5 244	\uto FFT	Ant1 Re		-2.61 dBm
M2 M3 M4 M5 Spectrum Ref Level Att SGL Count • 1Pk Max	1 1 1 1 17.78 dBm 20 dB	4.8042( 7.2879- 9.607( Tx. Sput	64 GHz 47 GHz 66 GHz rious N	-59.57 dBm -50.43 dBm /NT 2-D	H5 244	\uto FFT	Ant1 Re		-2.61 dBm
M2 M3 M4 M5 Spectrum Ref Level Att SGL Count SGL Count 10 dBm 0 dBm	1 1 1 1 17.78 dBm 20 dB	4.8042( 7.2879- 9.607( Tx. Sput	64 GHz 47 GHz 66 GHz rious N	-59.57 dBm -50.43 dBm /NT 2-D	H5 244	\uto FFT	Ant1 Re		-2.61 dBm
M2 M3 M4 M5 Spectrum Ref Level Att SGL Count • 1Pk Max 10 dBm	1 1 1 1 17.78 dBm 20 dB	4.8042( 7.2879- 9.607( Tx. Sput	64 GHz 47 GHz 66 GHz rious N	-59.57 dBm -50.43 dBm /NT 2-D	H5 244	\uto FFT	Ant1 Re		-2.61 dBm
M2 M3 M4 M5 Spectrum Ref Level Att SGL Count SGL Count 10 dBm 0 dBm	1 1 1 1 17.78 dBm 20 dB	4.8042( 7.2879- 9.607( Tx. Sput	64 GHz 47 GHz 66 GHz rious N	-59.57 dBm -50.43 dBm /NT 2-D	H5 244	\uto FFT	Ant1 Re		-2.61 dBm
M2 M3 M4 M5 Spectrum Ref Level Att SGL Count 1Pk Max 10 dBm -10 dBm -20 dBm	1 1 1 1 17.78 dBm 20 dB	4.8042( 7.2879- 9.607( Tx. Sput	64 GHz 47 GHz 66 GHz rious N	-59.57 dBm -50.43 dBm /NT 2-D	H5 244	\uto FFT	Ant1 Re		-2.61 dBm
M2 M3 M4 M5 Spectrum Ref Level Att SGL Count 1Pk Max 10 dBm 0 dBm -10 dBm	1 1 1 1 17.78 dBm 20 dB	4.8042( 7.2879- 9.607( Tx. Sput	64 GHz 47 GHz 66 GHz rious N	-59.57 dBm -50.43 dBm /NT 2-D	H5 244	\uto FFT	Ant1 Re		-2.61 dBm
M2 M3 M4 M5 Spectrum Ref Level Att SGL Count 1Pk Max 10 dBm -10 dBm -20 dBm	1 1 1 1 17.78 dBm 20 dB	4.8042( 7.2879- 9.607( Tx. Sput	64 GHz 47 GHz 66 GHz rious N	-59.57 dBm -50.43 dBm /NT 2-D	H5 244	\uto FFT	Ant1 Re		-2.61 dBm
M2 M3 M4 M5 Spectrum Ref Level Att SGL Count 10 dBm -10 dBm -20 dBm -20 dBm -30 dBm -40 dBm	1 1 1 1 17.78 dBm 20 dB	4.8042( 7.2879- 9.607( Tx. Sput	64 GHz 47 GHz 66 GHz rious N	-59.57 dBm -50.43 dBm /NT 2-D	H5 244	\uto FFT	Ant1 Re		-2.61 dBm
M2 M3 M4 M5 Spectrum Ref Level Att SGL Count 10 dBm -10 dBm -10 dBm -20 dBm -38 dBm	1 1 1 1 17.78 dBm 20 dB	4.8042( 7.2879- 9.607( Tx. Sput	64 GHz 47 GHz 66 GHz rious N	-59.57 dBm -50.43 dBm /NT 2-D	H5 244	\uto FFT	Ant1 Re		-2.61 dBm
M2 M3 M4 M5 Spectrum Ref Level Att SGL Count 10 dBm -10 dBm -20 dBm -20 dBm -30 dBm -40 dBm	1 1 1 1 17.78 dBm 20 dB	4.8042( 7.2879- 9.607( Tx. Sput	64 GHz 47 GHz 66 GHz rious N	-59.57 dBm -50.43 dBm /NT 2-D	H5 244	\uto FFT	Ant1 Re		-2.61 dBm
M2 M3 M4 M5 Spectrum Ref Level Att SGL Count 10 dBm -10 dBm -20 dBm -20 dBm -38 dBm -38 dBm -50 dBm	1 1 1 1 17.78 dBm 20 dB	4.8042( 7.2879- 9.607( Tx. Sput	64 GHz 47 GHz 66 GHz rious N	-59.57 dBm -50.43 dBm /NT 2-D	H5 244	\uto FFT	Ant1 Re		-2.61 dBm
M2 M3 M4 M5 Spectrum Ref Level Att SGL Count 10 dBm -10 dBm -10 dBm -20 dBm -20 dBm -38 dBm -38 dBm -50 dBm -50 dBm	1 1 1 1 17.78 dBm 20 dB	4.8042( 7.2879- 9.607( Tx. Sput	64 GHz 47 GHz 66 GHz rious N	-59.57 dBm -50.43 dBm /NT 2-D	H5 244	\uto FFT	Ant1 Re		-2.61 dBm
M2 M3 M4 M5 Spectrum Ref Level Att SGL Count ID dBm 0 dBm -10 dBm -20 dBm -20 dBm -38 dBm -50 dBm -60 dBm -70 dBm -80 dBm	1 1 1 1 17.78 dBm 20 dB 100/100	4.8042( 7.2879- 9.607( Tx. Sput	64 GHz 47 GHz 66 GHz rious N	-59.57 dBm -50.43 dBm /NT 2-DI BW 100 kHz BW 300 kHz	Mode /	\uto FFT	Ant1 Re	2.44083	-2.61 dBm
M2 M3 M4 M5 Spectrum Ref Level Att SGL Count 10 dBm 0 dBm -10 dBm -20 dBm -38 dBm -38 dBm -50 dBm -70 dBm	1 1 1 1 17.78 dBm 20 dB 100/100	4.8042( 7.2879- 9.607( Tx. Sput	64 GHz 47 GHz 66 GHz rious N	-59.57 dBm -50.43 dBm /NT 2-D	Mode /	\uto FFT	Ant1 Re	2.44083	-2.61 dBm

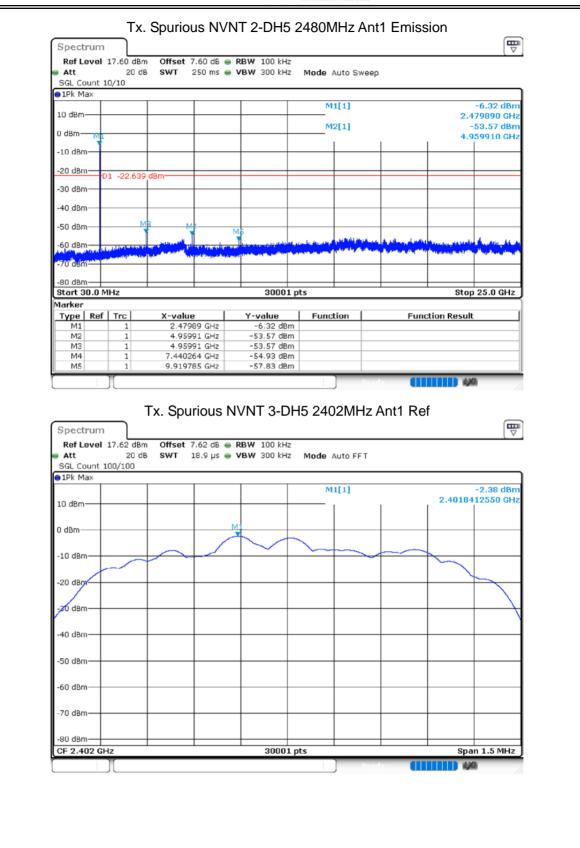




Ref Level 17 Att SGL Count 10/: 1Pk Max	20 dB			RBW 100 kHz VBW 300 kHz		∖uto Sweep			
10 dBm					M	1[1]			-7.32 dBm
0 dBm					M	2[1]		-	40770 GHz 53.82 dBm
-10 dBm								9.7	64138 GHz
-20 dBm									
-30 dBm	-22.612 dB	Bm							
-40 dBm									
-50 dBm			M	9					
-60 dBm	M3	M4	aling and the state of the stat	Lung and the	and the set of the	مدين والمكار و <sup>15</sup> (16 م.) مريد ماريخ المريخ مريد مريد م		a secold a solution	
-70 dBM	adalah tugan tahi		er földe som som för de bland		alasia tang di sara				
01								Ot	05.0.011-
Start 30.0 MHz Marker	2			30001	pts			stop	25.0 GHz
Type Ref T M1	rc	X-value 2.4407		Y-value -7.32 dBr	Funct	tion	Fund	tion Result	:
M2 M3	1	9.76413 4.88250	38 GHz	-53.82 dBr -58.38 dBr	n				
M4	1	7.32373	37 GHz	-59.33 dBr -53.82 dBr					
M4 M5 Spectrum Ref Level 17 Att	1 1 Tr .60 dBm 20 dB	7.32373 9.76413 x. Spur	rious N	-59.33 dBr -53.82 dBr VNT 2-D RBW 100 kHz VBW 300 kHz	H5 248	OMHZ A	Ant1 Re	f	Ø (₩ ▽
M4 M5 Spectrum Ref Level 17 Att SGL Count 100	1 1 Tr .60 dBm 20 dB	7.32373 9.76413 x. Spur	rious N	-53.82 dBr VNT 2-D RBW 100 kHz	H5 248	\uto FFT	Ant1 Re	f	
M4 M5 Spectrum Ref Level 17 Att SGL Count 100 1Pk Max	1 1 Tr .60 dBm 20 dB	7.32373 9.76413 x. Spur	rious N	-53.82 dBr VNT 2-D RBW 100 kHz	H5 248		Ant1 Re		-2.64 dBm 31000 GHz
M4 M5 Spectrum Ref Level 17 Att SGL Count 100 1Pk Max 10 dBm	1 1 Tr .60 dBm 20 dB	7.32373 9.76413 x. Spur	rious N	-53.82 dBr VNT 2-D RBW 100 kHz	H5 248	\uto FFT	Ant1 Re		-2.64 dBm
M4 M5 Spectrum Ref Level 17 Att SGL Count 100 1Pk Max	1 1 Tr .60 dBm 20 dB	7.32373 9.76413 x. Spur	rious N	-53.82 dBr VNT 2-D RBW 100 kHz VBW 300 kHz	H5 248	\uto FFT	Ant1 Re		-2.64 dBm
M4 M5 Spectrum Ref Level 17 Att SGL Count 100 1Pk Max 10 dBm	1 1 Tr .60 dBm 20 dB	7.32373 9.76413 x. Spur	rious N	-53.82 dBr VNT 2-D RBW 100 kHz VBW 300 kHz	Mode A	\uto FFT	Ant1 Re		-2.64 dBm
M4 M5 Spectrum Ref Level 17 Att SGL Count 100 1Pk Max 10 dBm -10 dBm -10 dBm	1 1 Tr .60 dBm 20 dB	7.32373 9.76413 x. Spur	rious N	-53.82 dBr VNT 2-D RBW 100 kHz VBW 300 kHz	Mode A	\uto FFT	Ant1 Re		-2.64 dBm
M4 M5 Spectrum Ref Level 17 Att SGL Count 100 P1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm	1 1 Tr .60 dBm 20 dB	7.32373 9.76413 x. Spur	rious N	-53.82 dBr VNT 2-D RBW 100 kHz VBW 300 kHz	Mode A	\uto FFT	Ant1 Re		-2.64 dBm
M4 M5 Spectrum Ref Level 17 Att SGL Count 100 1Pk Max 10 dBm -10 dBm -10 dBm	1 1 Tr .60 dBm 20 dB	7.32373 9.76413 x. Spur	rious N	-53.82 dBr VNT 2-D RBW 100 kHz VBW 300 kHz	Mode A	\uto FFT	Ant1 Re		-2.64 dBm
M4 M5 Spectrum Ref Level 17 Att SGL Count 100 P1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm	1 1 Tr .60 dBm 20 dB	7.32373 9.76413 x. Spur	rious N	-53.82 dBr VNT 2-D RBW 100 kHz VBW 300 kHz	Mode A	\uto FFT	Ant1 Re		-2.64 dBm
M4 M5 Spectrum Ref Level 17 SGL Count 100 1Pk Max 10 dBm -10 dBm -20 dBm -20 dBm	1 1 Tr .60 dBm 20 dB	7.32373 9.76413 x. Spur	rious N	-53.82 dBr VNT 2-D RBW 100 kHz VBW 300 kHz	Mode A	\uto FFT	Ant1 Re		-2.64 dBm
M4 M5 Spectrum Ref Level 17 Att SGL Count 100 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -20 dBm -30 dBm -50 dBm	1 1 Tr .60 dBm 20 dB	7.32373 9.76413 x. Spur	rious N	-53.82 dBr VNT 2-D RBW 100 kHz VBW 300 kHz	Mode A	\uto FFT	Ant1 Re		-2.64 dBm
M4         M4           M5         M4           M5         M4           Spectrum         Ref Level 17           Att         SGL Count 100           PIPK Max         Max           10 dBm         Max           10 dBm         Max           -20 dBm         Max           -30 dBm         Max           -50 dBm         Max	1 1 Tr .60 dBm 20 dB	7.32373 9.76413 x. Spur	rious N	-53.82 dBr VNT 2-D RBW 100 kHz VBW 300 kHz	Mode A	\uto FFT	Ant1 Re		-2.64 dBm
M4 M5 Spectrum Ref Level 17 Att SGL Count 100 P1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -20 dBm -30 dBm -40 dBm	1 1 Tr .60 dBm 20 dB	7.32373 9.76413 x. Spur	rious N	-53.82 dBr VNT 2-D RBW 100 kHz VBW 300 kHz	Mode A	\uto FFT	Ant1 Re		-2.64 dBm
M4 M5 Spectrum Ref Level 17 Att SGL Count 100 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -20 dBm -30 dBm -50 dBm -50 dBm	1 1 Tr .60 dBm 20 dB	7.32373 9.76413 x. Spur	rious N	-53.82 dBr VNT 2-D RBW 100 kHz VBW 300 kHz	H5 248	\uto FFT	Ant1 Re	2.48001	-2.64 dBm











M2[1]	-7.64 dBm 401650 GHz -49.96 dBm 607660 GHz
O dBm     M2[1]     9       -10 dBm     -     -     -     9       -10 dBm     -     -     -     9       -20 dBm     D1 -22.378 dBm     -     -     -       -30 dBm     -     -     -     -       -40 dBm     -     -     -     -       -50 dBm     -     -     -     -       -60 dBm     -     -     -     -     -	-49.96 dBm
-10 dBm -20 dBm -30 dBm -40 dBm -50	.607660 GH2
-20 dBm     D1 -22.378 dBm     dBm     Image: state of the state	
-30 dBm	
-40 dBm	
-50 dBm M8 M4 -60 dBm M8 -60 dBm M8 M4 -60 dBm M8 M4 -60 dBm M8 -60 dBm M8 M4 -60 dBm M8	
	a Hickory W
	The American Street and Property of Co
-80 dBm	
Start 30.0 MHz 30001 pts Sta	p 25.0 GHz
Marker _Type   Ref   Trc   X-value   Y-value   Function   Function Resu	lt
M1         1         2.40165 GHz         -7.64 dBm           M2         1         9.60766 GHz         -49.96 dBm	
M3         1         4.934108 GHz         -60.25 dBm           M4         1         7.044905 GHz         -59.45 dBm	
M4 1 7.044903 GH2 -39.45 0Bm M5 1 9.60766 GHz -49.96 dBm	
SGL Count 100/100 P1Pk Max  M1[1]  0.1110	-3.40 dBm
10 dBm	347990 GHz
0 dBm	
0 dBm	
-10 dBm	
-10 dBm -20 dBm -30 dBm	
-10 dBm -20 dBm -20 dBm -30 dBm -40 dBm	
-10 dBm -20 dBm -30 dBm	
-10 dBm -20 dBm -20 dBm -30 dBm -40 dBm	
-10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm	
-10 dBm -20 dBm -20 dBm -30 dBm -40 dBm -50 dBm -70 dBm -70 dBm -70 dBm -70 dBm -70 dBm -10	
-10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm -70 dBm -80 dBm	an 1.5 MHz





Ref Level Att SGL Count 1	20 dB			RBW 100 kHz VBW 300 kHz		uto Swe	эр			
●1Pk Max					M	I[1]			-7.23 dBm	
10 dBm					M2[1]			2.440770 GH: -53.32 dBn		
0 dBm							I		764138 GHz	
-10 dBm										
-20 dBm	1 -23.396	dBm								
-30 dBm										
-40 dBm										
-50 dBm	мз		N	15						
-60 dBm	T		an a sheadar that a fea	Land and the state	الباسية ومعمو		a halanan	and the state of the	- Harris Marrie	
-70 dBm	dependent of the second	and the second second	and a construction of the	Market and States	h <sub>a</sub> kana dagi kandiki			Michael State	11 Construction of the second	
Start 30.0 M	1Hz			30001	pts			Sto	p 25.0 GHz	
Marker Type   Ref	Trc	X-value	1	Y-value	Funct	ion	Fun	ction Resu	t í	
M1 M2	1 1		77 GHz	-7.23 dBn -53.32 dBn	n					
	-		71 GHz	-55.69 dBn	n					
MЗ	1									
		7.32207 9.76413	38 GHz	-54.78 dBn -53.32 dBn	n	0MHz	atr 🛄 : Ant1 Re	ef	M W	
M3 M4 M5 Spectrum Ref Level Att SGL Count 1	1 1 1 1 17.60 dBm 20 dB	7.32207 9.76413 7x. Spur Offset 7	rious N	-53.32 dBn	H5 248		Ant1 Re	f		
M3 M4 M5 Spectrum Ref Level Att SGL Count 1 •1Pk Max	1 1 1 1 17.60 dBm 20 dB	7.32207 9.76413 7x. Spur Offset 7	rious N	-53.32 dBn	H5 248		Ant1 Re		-1.32 dBm 407550 GHz	
M3 M4 M5 Spectrum Ref Level Att SGL Count 1	1 1 1 1 17.60 dBm 20 dB	7.32207 9.76413 7x. Spur Offset 7	rious N .60 dB @ 8.9 µs @	-53.32 dBn	H5 248	uto FFT	Ant1 Re		-1.32 dBm	
M3 M4 M5 Spectrum Ref Level Att SGL Count 1 •1Pk Max	1 1 1 1 17.60 dBm 20 dB	7.32207 9.76413 7x. Spur Offset 7	rious N	-53.32 dBn	H5 248	uto FFT	Ant1 Re		-1.32 dBm	
M3 M4 M5 Spectrum Ref Level Att SGL Count 1 • 1Pk Max 10 dBm	1 1 1 1 17.60 dBm 20 dB	7.32207 9.76413 7x. Spur Offset 7	rious N .60 dB @ 8.9 µs @	-53.32 dBn	H5 248	uto FFT	Ant1 Re		-1.32 dBm	
M3 M4 M5 Spectrum Ref Level Att SGL Count 1 •1Pk Max 10 dBm 0 dBm	1 1 1 1 17.60 dBm 20 dB	7.32207 9.76413 7x. Spur Offset 7	rious N .60 dB @ 8.9 µs @	-53.32 dBn	H5 248	uto FFT	Ant1 Re		-1.32 dBm	
M3 M4 M5 Spectrum Ref Level Att SGL Count 1 •1Pk Max 10 dBm 0 dBm	1 1 1 1 17.60 dBm 20 dB	7.32207 9.76413 7x. Spur Offset 7	rious N .60 dB @ 8.9 µs @	-53.32 dBn	H5 248	uto FFT	Ant1 Re		-1.32 dBm	
M3 M4 M5 Spectrum Ref Level Att SGL Count 1 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm	1 1 1 1 17.60 dBm 20 dB	7.32207 9.76413 7x. Spur Offset 7	rious N .60 dB @ 8.9 µs @	-53.32 dBn	H5 248	uto FFT	Ant1 Re		-1.32 dBm	
M3 M4 M5 Spectrum Ref Level Att SGL Count 1 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm	1 1 1 1 17.60 dBm 20 dB	7.32207 9.76413 7x. Spur Offset 7	rious N .60 dB @ 8.9 µs @	-53.32 dBn	H5 248	uto FFT	Ant1 Re		-1.32 dBm	
M3 M4 M5 Spectrum Ref Level Att SGL Count 1 • 1Pk Max 10 dBm -10 dBm	1 1 1 1 17.60 dBm 20 dB	7.32207 9.76413 7x. Spur Offset 7	rious N .60 dB @ 8.9 µs @	-53.32 dBn	H5 248	uto FFT	Ant1 Re		-1.32 dBm	
M3 M4 M5 Spectrum Ref Level Att SGL Count 1 O dBm 0 dBm -10 dBm -20 dBm -20 dBm	1 1 1 1 17.60 dBm 20 dB	7.32207 9.76413 7x. Spur Offset 7	rious N .60 dB @ 8.9 µs @	-53.32 dBn	H5 248	uto FFT	Ant1 Re		-1.32 dBm	
M3 M4 M5 Spectrum Ref Level Att SGL Count 1 10 dBm 0 dBm -10 dBm -20 dBm -20 dBm -20 dBm -40 dBm	1 1 1 1 17.60 dBm 20 dB	7.32207 9.76413 7x. Spur Offset 7	rious N .60 dB @ 8.9 µs @	-53.32 dBn	H5 248	uto FFT	Ant1 Re		-1.32 dBm	
M3 M4 M5 Spectrum Ref Level Att SGL Count 1 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -30 dBm -50 dBm	1 1 1 1 17.60 dBm 20 dB	7.32207 9.76413 7x. Spur Offset 7	rious N .60 dB @ 8.9 µs @	-53.32 dBn	H5 248	uto FFT	Ant1 Re		-1.32 dBm	
M3 M4 M5 Spectrum Ref Level Att SGL Count 1 • 1Pk Max 10 dBm -10 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm	1 1 1 1 17.60 dBm 20 dB	7.32207 9.76413 7x. Spur Offset 7	rious N .60 dB @ 8.9 µs @	-53.32 dBn	H5 248	uto FFT	Ant1 Re		-1.32 dBm	
M3 M4 M5 Spectrum Ref Level Att SGL Count 1 Plk Max 10 dBm -10 dBm -10 dBm -20 dBm -30 dBm -50 dBm -50 dBm -70 dBm	1 17.60 dBm 20 dB 00/100	7.32207 9.76413 7x. Spur Offset 7	rious N .60 dB @ 8.9 µs @	-53.32 dBn	Mode A	uto FFT	Ant1 Re	2.4798	-1.32 dBm	





Att	vel 17.60 dBm							
		n Offset 7.60 dB (	RBW 100 kHz				`	
COL COL	20 dB	3 SWT 250 ms (	VBW 300 kHz	Mode Auto S	weep			
	int 10/10							
∋1Pk Ma	×							
10 40-				M1[1]		-6.84 dBm		
10 dBm—					2.479890 GHz			
0 dBm—				M2[1]		-51.54 dBm 4.959078 GHz		
	N III			1	1	4.9	aan va eHs	
-10 dBm-								
00 -10-								
-20 dBm-	D1 -21.323	dBm						
-30 dBm-	_							
-40 dBm-								
	M	B						
-50 dBm-		1 M	Mő					
-60 dBm-		and a state of the		and a start of the second starts	وجوالحلوق أتستاكم	والعالق فارعد وواحا والعالي	Harden and a star of	
anna e se		and the local day of the same day	and the bulleter and the first	and the second second second	felenin de telever	William Based and should be	Acober, mart	
-70 dBm-								
-80 dBm-								
-80 asm- Start 30	0 MHz		30001 p	ts		Stor	25.0 GHz	
Marker	.0 14112		00001 p			0100	20.0 012	
	Ref   Trc	X-value	Y-value	Function	1 1	unction Result	1	
M1	1	2.47989 GHz	-6.84 dBm	. unction		anotion Result		
M2	1	4.959078 GHz	-51.54 dBm					
M3	1	4.959078 GHz	-51.54 dBm					
M4	1	7.439431 GHz	-55.56 dBm					
M5	1	9.919785 GHz	-57.45 dBm					

END OF REPORT