

# **TEST REPORT**

Report No.:	BCTC2307991182E	
Applicant:	DP AUDIO VIDEO LLC	
Product Name:	Karaoke Microphone	
Model/Type reference:	PKMC500	CHENZH
Tested Date:	2023-07-19 to 2023-08-02	
Issued Date:	2023-08-02	
She	nzhen BCTC Testing Co., Ltd.	
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# FCC ID:2AVRVPKMC500

Product Name:	Karaoke Microphone
Trademark:	Packed Party
Model/Type Reference:	PKMC500 PKMC500ST, PKMC500LP
Prepared For:	DP AUDIO VIDEO LLC
Address:	920 Malcolm Ave Los Angeles, California, USA 90024
Manufacturer:	GUANGDONG KAIGE TECHNOLOGY CO., LTD
Address:	XiuShui Road, Laimei Industrial Park, Fengxiang Street, Chenghai District, Shantou, Guangdong, China
Prepared By:	Shenzhen BCTC Testing Co., Ltd.
Address:	1-2/F., Building B, Pengzhou Industrial Park, No.158, Fuyuan 1st Road, Zhancheng, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China
Sample Received Date:	2023-07-19
Sample tested Date:	2023-07-19 to 2023-08-02
Issue Date:	2023-08-02
Report No.:	BCTC2307991182E
Test Standards	FCC Part15.247 ANSI C63.10-2013
Test Results	PASS
Remark:	This is Bluetooth Classic radio test report.

Tested by:

Jeff.Fu/Project Handler

Approved by:

Zero Zhou/Reviewer

The test report is effective only with both signature and specialized stamp. This result(s) shown in this report refer only to the sample(s) tested. Without written approval of Shenzhen BCTC Testing Co., Ltd, this report can't be reproduced except in full. The tested sample(s) and the sample information are provided by the client.

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(Note: N/A Means Not Applicable)



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## 1. Version

Report No.	Issue Date	Description	Approved
BCTC2307991182E	2023-08-02	Original	Valid



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## 2. Test Summary

The Product has been tested according to the following specifications:

No.	Test Parameter	Clause No	Results
1	Conducted emission AC power port	§15.207	PASS
2	Conducted peak output power for FHSS	§15.247(b)(1)	PASS
3	20dB Occupied bandwidth	§15.247(a)(1)	PASS
4	Hopping channel separation	§15.247(a)(1)	PASS
5	Number of hopping frequencies	§15.247(a)(1)(iii)	PASS
6	Dwell Time	§15.247(a)(1)(iii)	PASS
7	Spurious RF conducted emissions	§15.247(d)	PASS
8	Band edge	§15.247(d)	PASS
9	Spurious radiated emissions for transmitter	§15.247(d) & §15.209 & §15.205	PASS
10	Antenna Requirement	15.203	PASS



### 3. Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the Product as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

No.	Item	Uncertainty
1	3m chamber Radiated spurious emission(30MHz-1GHz)	U=4.3dB
2	3m chamber Radiated spurious emission(9KHz-30MHz)	U=3.7dB
3	3m chamber Radiated spurious emission(1GHz-18GHz)	U=4.5dB
4	3m chamber Radiated spurious emission(18GHz-40GHz)     U=3.34dB	
5	Conducted Emission (150kHz-30MHz)	U=3.20dB
6	Conducted Adjacent channel power	U=1.38dB
7	Conducted output power uncertainty Above 1G	U=1.576dB
8	Conducted output power uncertainty below 1G	U=1.28dB
9	humidity uncertainty	U=5.3%
10	Temperature uncertainty	<b>U=0.59</b> ℃



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## 4. Product Information And Test Setup

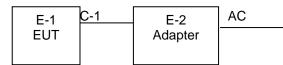
#### 4.1 Product Information

Model/Type reference:	PKMC500 PKMC500ST, PKMC500LP
Model differences:	All the model are the same circuit and RF module, except model names.
Bluetooth Version:	5.3
Hardware Version:	N/A
Software Version:	N/A
Operation Frequency:	2402-2480MHz
Type of Modulation:	GFSK, π/ 4 DQPSK, 8DPSK
Number Of Channel	79CH
Antenna installation:	PCB antenna
Antenna Gain:	-0.58 dBi
Ratings:	USB: DC 5V Battery: DC 3.7V

#### 4.2 Test Setup Configuration

See test photographs attached in *EUT TEST SETUP PHOTOGRAPHS* for the actual connections between Product and support equipment.

Conducted Emission:



Radiated Spurious Emission

|--|



#### 4.3 Support Equipment

No.	Device Type	Brand	Model	Series No.	Note
E-1	Karaoke Microphone	Packed Party	PKMC500	N/A	EUT
E-2	Adapter	N/A	CD122	N/A	Auxiliary

ltem	Shielded Type	Ferrite Core	Length	Note
C-1	N/A	N/A	0.5M	DC cable unshielded

Notes:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.

2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

#### 4.4 Channel List

СН	Frequency (MHz)	СН	Frequency (MHz)	СН	Frequency (MHz)	СН	Frequency (MHz)
0	2402	1	2403	2	2404	3	2405
4	2406	5	2407	6	2408	7	2409
8	2410	9	2411	10	2412	11	2413
12	2414	13	2415	14	2416	15	2417
16	2418	17	2419	18	2420	19	2421
20	2422	21	2423	22	2424	23	2425
24	2426	25	2427	. 26	2428	27	2429
28	2430	29	2431	30	2432	31	2433
32	2434	33	2435	34	2436	35	2437
36	2438	37	2439	38	2440	39	2441
40	2442	41	2443	42	2444	43	2445
44	2446	45	2447	46	2448	47	2449
48	2450	49	2451	50	2452	51	2453
52	2454	53	2455	54	2456	55	2457
56	2458	57	2459	58	2460	59	2461
60	2462	61	2463	62	2464	63	2465
64	2466	65	2467	66	2468	67	2469
68	2470	69	2471	70	2472	71	2473
72	2474	73	2475	74	2476	75	2477
76	2478	77	2479	78	2480	79	

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#### 4.5 Test Mode

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.

Test Mode	Test mode	Low channel	Middle channel	High channel	
1	Transmitting(GFSK)	2402MHz	2441MHz	2480MHz	
2	Transmitting(π/ 4 DQPSK)	2402MHz	2441MHz	2480MHz	
3	Transmitting(8DPSK) 2402MHz 2441MHz 2480M				
4	Transmitting (Conducted emission & Radiated emission)				

Note:

(1) The measurements are performed at the highest, middle, lowest available channels.

(2) Fully-charged battery is used during the test

#### 4.6 Table Of Parameters Of Text Software Setting

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters

Test software Version	FCC_assist_1.0.2.2			
Frequency	2402 MHz	2441 MHz	2480 MHz	
Parameters	DEF	DEF	DEF	



#### 5. **Test Facility And Test Instrument Used**

#### 5.1 **Test Facility**

All measurement facilities used to collect the measurement data are located at Shenzhen BCTC Testing Co., Ltd. Address: 1-2/F., Building B, Pengzhou Industrial Park, No.158, Fuyuan 1st Road, Zhancheng, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China. The site and apparatus are constructed in conformance with the requirements of ANSI C63.4 and CISPR 16-1-1 other equivalent standards. FCC Test Firm Registration Number: 712850

A2LA certificate registration number is: CN1212

ISED Registered No.: 23583 ISED CAB identifier: CN0017

5.2	Test Instrument Used

Conducted Emissions Test									
Equipment	EquipmentManufacturerModel#Serial#Last Cal.Next Cal.								
Receiver	R&S	ESR3	102075	May 15, 2023	May 14, 2024				
LISN	R&S	ENV216	101375	May 15, 2023	May 14, 2024				
Software	Frad	EZ-EMC	EMC-CON 3A1	١	١				
Attenuator	١	10dB DC-6GHz	1650	May 15, 2023	May 14, 2024				

RF Conducted Test							
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.		
Power Meter	Keysight	E4419	$\lambda$	May 15, 2023	May 14, 2024		
Power Sensor (AV)	Keysight	E9300A		May 15, 2023	May 14, 2024		
Signal Analyzer20kH z-26.5GHz	Keysight	N9020A	MY49100060	May 15, 2023	May 14, 2024		
Spectrum Analyzer9kHz- 40GHz	R&S	FSP40	100363	May 15, 2023	May 14, 2024		
Radio frequency control box	MAIWEI	MW100-RFC B					
Software	MAIWEI	MTS 8310		λ			

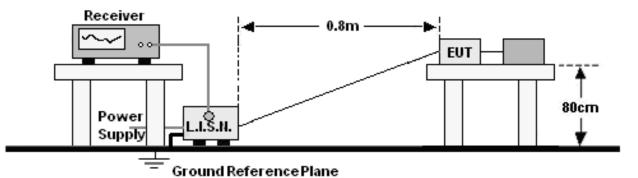


Radiated Emissions Test (966 Chamber01)							
Equipment	quipment Manufacturer		Serial#	Last Cal.	Next Cal.		
966 chamber	ChengYu	966 Room	966	May 15, 2023	May 14, 2026		
Receiver	R&S	ESR3	102075	May 15, 2023	May 14, 2024		
Receiver	R&S	ESRP	101154	May 15, 2023	May 14, 2024		
Amplifier	Schwarzbeck	BBV9744	9744-0037	May 15, 2023	May 14, 2024		
TRILOG Broadband Antenna	Schwarzbeck	VULB9163	942	May 29, 2023	May 28, 2024		
Loop Antenna(9KHz -30MHz)	Schwarzbeck	FMZB1519B	00014	May 31, 2023	May 30, 2024		
Amplifier	SKET	LAPA_01G18 G-45dB	١	May 15, 2023	May 14, 2024		
Horn Antenna	Schwarzbeck	BBHA9120D	1541	May 31, 2023	May 30, 2024		
Amplifier(18G Hz-40GHz)	MITEQ	TTA1840-35- HG	2034381	May 15, 2023	May 14, 2024		
Horn Antenna(18G Hz-40GHz)	Schwarzbeck	BBHA9170	00822	May 31, 2023	May 30, 2024		
Spectrum Analyzer9kHz- 40GHz	R&S	FSP40	100363	May 15, 2023	May 14, 2024		
Software	Frad	EZ-EMC	FA-03A2 RE	\	\		



#### 6. Conducted Emissions

#### 6.1 Block Diagram Of Test Setup



#### 6.2 Limit

	Limit (dBuV)		
Frequency (MHz)	Quas-peak	Average	
0.15 -0.5	66 - 56 *	56 - 46 *	
0.50 -5.0	56.00	46.00	
5.0 -30.0	60.00	50.00	

Notes:

1. \*Decreasing linearly with logarithm of frequency.

2. The lower limit shall apply at the transition frequencies.

#### 6.3 Test procedure

		그는 그는 것은 것은 것은 것은 것은 것은 것은 것을 가지 않는 것이 없다.
Receiver Parameters		Setting
Attenuation		10 dB
Start Frequency		0.15 MHz
Stop Frequency	10 Th	30 MHz
IF Bandwidth		9 kHz

a. The Product was placed on a nonconductive table 0.8 m above the horizontal ground reference plane, and 0.4 m from the vertical ground reference plane, and connected to the main through Line Impedance Stability Network (L.I.S.N).

b. The RBW of the receiver was set at 9 kHz in 150 kHz ~ 30MHz with Peak and AVG detector in Max Hold mode. Run the receiver's pre-scan to record the maximum disturbance generated from Product in all power lines in the full band.

c. For each frequency whose maximum record was higher or close to limit, measure its QP and AVG values and record.

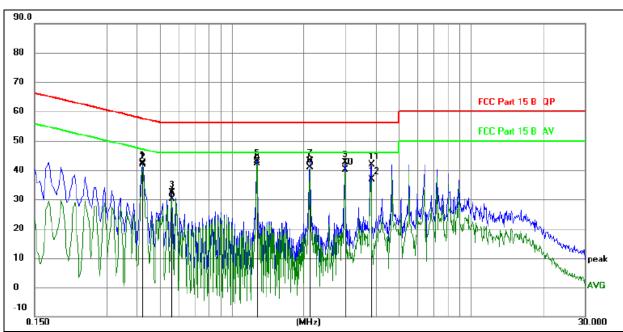
#### 6.4 EUT operating Conditions

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.



#### 6.5 Test Result

Temperature:	<b>26</b> ℃	Relative Humidity:	54%
Pressure:	101KPa	Phase :	L
Test Mode:	Mode 4	Test Voltage :	AC120V/60Hz



Remark:

All readings are Quasi-Peak and Average values.
 Factor = Insertion Loss + Cable Loss.
 Measurement = Reading Level + Correct Factor

<ol> <li>Over = Measurement - Li</li> </ol>	mit
---	-----

No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
	MHz		dB	dBuV	dBuV	dB	Detector
1	0.4245	32.83	9.62	42.45	57.36	-14.91	QP
2	0.4245	32.29	9.62	41.91	47.36	-5.45	AVG
3	0.5639	22.73	9.62	32.35	56.00	-23.65	QP
4	0.5639	20.45	9.62	30.07	46.00	-15.93	AVG
5	1.2750	33.43	9.73	43.16	56.00	-12.84	QP
6 *	1.2750	32.54	9.73	42.27	46.00	-3.73	AVG
7	2.1300	33.29	9.74	43.03	56.00	-12.97	QP
8	2.1300	31.12	9.74	40.86	46.00	-5.14	AVG
9	2.9849	32.75	9.78	42.53	56.00	-13.47	QP
10	2.9849	30.27	9.78	40.05	46.00	-5.95	AVG
11	3.8310	32.03	9.83	41.86	56.00	-14.14	QP
12	3.8310	27.05	9.83	36.88	46.00	-9.12	AVG

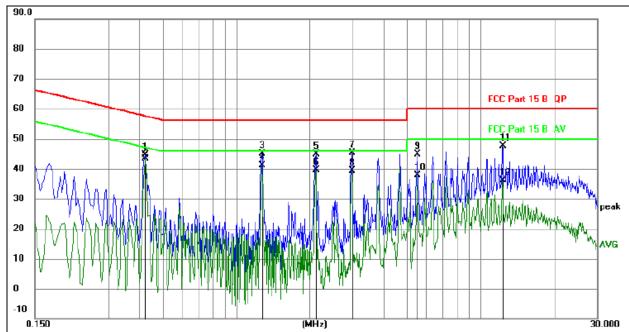
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Temperature:	<b>26</b> ℃	Relative Humidity:	54%
Pressure:	101KPa	Phase :	Ν
Test Mode:	Mode 4	Test Voltage :	AC120V/60Hz



Remark:

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

Factor = Insertion Loss + Cable Loss.
 Measurement = Reading Level + Correct Factor
 Over = Measurement - Limit

<ol> <li>Measurement = Reading Level + Correct Factor</li> <li>Over = Measurement - Limit</li> </ol>								
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz		dB	dBuV	dBuV	dB	Detector
1		0.4245	35.13	9.62	44.75	57.36	-12.61	QP
2	*	0.4245	33.69	9.62	43.31	47.36	-4.05	AVG
3		1.2750	35.46	9.73	45.19	56.00	-10.81	QP
4		1.2750	31.37	9.73	41.10	46.00	-4.90	AVG
5		2.1210	35.08	9.74	44.82	56.00	-11.18	QP
6		2.1210	29.93	9.74	39.67	46.00	-6.33	AVG
7		2.9760	35.50	9.78	45.28	56.00	-10.72	QP
8		2.9760	29.70	9.78	39.48	46.00	-6.52	AVG
9		5.5230	34.99	9.79	44.78	60.00	-15.22	QP
10		5.5230	28.08	9.79	37.87	50.00	-12.13	AVG
11		12.3180	37.99	9.66	47.65	60.00	-12.35	QP
12		12.3180	26.43	9.66	36.09	50.00	-13.91	AVG

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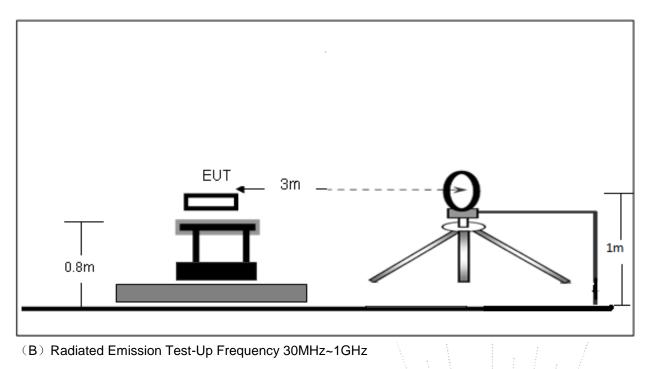
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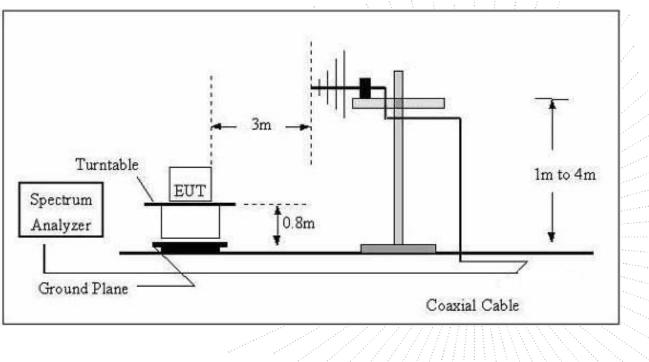


#### 7. Radiated emissions

### 7.1 Block Diagram Of Test Setup

(A) Radiated Emission Test-Up Frequency Below 30MHz





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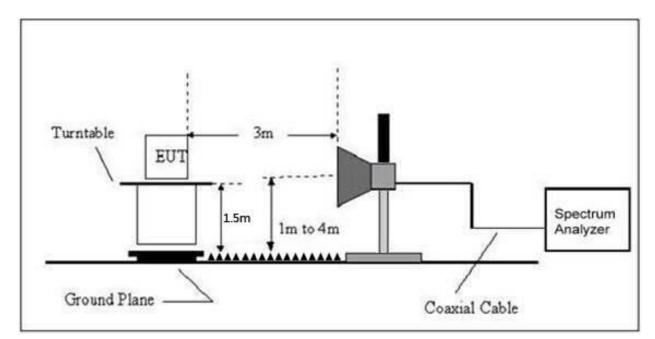
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#### (C) Radiated Emission Test-Up Frequency Above 1GHz



#### 7.2 Limit

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.

Frequency	Field Strength	Distance	Field Strength Limit at 3m Distance				
(MHz)	uV/m	(m)	uV/m	dBuV/m			
0.009 ~ 0.490	2400/F(kHz)	300	10000 * 2400/F(kHz)	20log <sup>(2400/F(kHz))</sup> + 80			
0.490 ~ 1.705	24000/F(kHz)	30	100 * 24000/F(kHz)	20log <sup>(24000/F(kHz))</sup> + 40			
1.705 ~ 30	30	30	100 * 30	20log <sup>(30)</sup> + 40			
30 ~ 88	100	3	100	20log <sup>(100)</sup>			
88 ~ 216	150	3	150	20log <sup>(150)</sup>			
216 ~ 960	200	3	200	20log <sup>(200)</sup>			
Above 960	500	3	500	20log <sup>(500)</sup>			

Limits Of Radiated Emission Measurement (Above 1000MHz)

	Limit (dBuV/m) (at 3M)	
Frequency (MHz)	Peak	Average
Above 1000	74	54

Notes:

(1)The limit for radiated test was performed according to FCC PART 15C

(2)The tighter limit applies at the band edges.

(3) Emission level (dBuV/m)=20log Emission level (uV/m).



Frequency Range Of Radiated Measurement

(a) For an intentional radiator the spectrum shall be investigated from the lowest radio frequency signal generated in the device, without going below 9 kHz, up to at least the frequency shown in this paragraph:

(1) If the intentional radiator operates below 10 GHz: to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.

(2) If the intentional radiator operates at or above 10 GHz and below 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 100 GHz, whichever is lower.

(3) If the intentional radiator operates at or above 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 200 GHz, whichever is lower, unless specified otherwise elsewhere in the rules.

(4) If the intentional radiator operates at or above 95 GHz: To the third harmonic of the highest fundamental frequency or to 750 GHz, whichever is lower, unless specified otherwise elsewhere in the rules.

(5) If the intentional radiator contains a digital device, regardless of whether this digital device controls the functions of the intentional radiator or the digital device is used for additional control or function purposes other than to enable the operation of the intentional radiator, the frequency range shall be investigated up to the range specified in paragraphs (a) (1)through (4) of this section or the range applicable to the digital device, as shown in paragraph (b)(1) of this section, whichever is the higher frequency range of investigation.

#### 7.3 Test procedure

Receiver Parameter	Setting			
Attenuation	Auto			
9kHz~150kHz	RBW 200Hz for QP			
150kHz~30MHz	RBW 9kHz for QP			
30MHz~1000MHz	RBW 120kHz for QP			

Spectrum Parameter	Setting
1-25GHz	RBW 1 MHz /VBW 1 MHz for Peak, RBW 1 MHz / VBW 10Hz for Average

Below 1GHz test procedure as below:

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.



Above 1GHz test procedure as below:

a. The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.

b.The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c.The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d.For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading.

e.The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

g. Test the EUT in the lowest channel, the middlest channel, the Highest channel. Note:

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

#### 7.4 EUT operating Conditions

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

#### 7.5 Test Result

		*			
Temperature:	<b>26</b> ℃		Relative Humidity:	54%	
Pressure:	101KPa		Test Voltage :	DC 3.7V	
Test Mode:	Mode 4		Polarization :	$\Lambda = 1/7/7$	

Below 30MHz

Freq.	Reading	Limit Margin	State
(MHz)	(dBuV/m)	(dBuV/m) (dB)	P/F
			PASS
			PASS

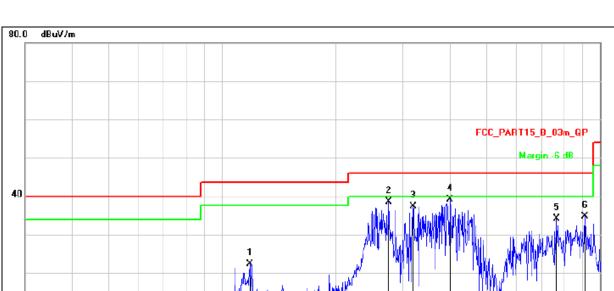
Note:

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Distance extrapolation factor =40 log (specific distance/test distance)(dB); Limit line = specific limits(dBuv) + distance extrapolation factor.



Between 30MHz – 1GHz						
Temperature:26 °CRelative Humidity:54%						
Pressure:	101KPa	Phase :	Horizontal			
Test Mode:	Mode 4	Test Voltage :	DC 3.7V			



(MHz)

300

400

500

600 700

1000.000

30.000 Remark:

0.0

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Measurement = Reading Level + Correct Factor
 Over = Measurement - Limit

60 70 80

50

40

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	/
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		118.1862	41.21	-18.96	22.25	43.50	-21.25	QP
2	:	276.1235	53.62	-15.18	38.44	46.00	-7.56	QP
3	;	319.9370	51.12	-13.87	37.25	46.00	-8.75	QP
4	*	400.4319	51.26	-12.20	39.06	46.00	-6.94	QP
5	-	768.7481	40.12	-6.07	34.05	46.00	-11.95	QP
6		912.8620	39.10	-4.45	34.65	46.00	-11.35	QP

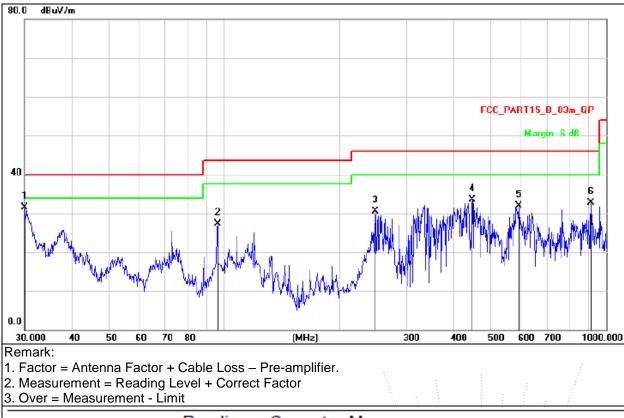
#### No.: BCTC/RF-EMC-007

Edition:

E



Temperature:	<b>26</b> ℃	Relative Humidity:	54%
Pressure:	101KPa	Phase :	Vertical
Test Mode:	Mode 4	Test Voltage :	DC 3.7V



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1	*	30.0000	49.87	-18.38	31.49	40.00	-8.51	QP
2		96.0986	45.61	-18.33	27.28	43.50	-16.22	QP
3	:	248.5519	46.47	-15.87	30.60	46.00	-15.40	QP
4	4	446.4141	45.04	-11.54	33.50	46.00	-12.50	QP
5		590.9737	40.56	-8.60	31.96	46.00	-14.04	QP
6	9	912.8620	37.20	-4.45	32.75	46.00	-13.25	QP

JC JC JC



Polar	Frequency	Reading Level	Correct Factor	Measure- ment	Limits	Over	Detector		
(H/V)	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	Туре		
	GFSK Low channel								
V	4804.00	68.04	-19.84	48.20	74.00	-25.80	PK		
V	4804.00	58.28	-19.84	38.44	54.00	-15.56	AV		
V	7206.00	58.03	-13.9	44.13	74.00	-29.87	PK		
V	7206.00	47.09	-13.9	33.19	54.00	-20.81	AV		
Н	4804.00	66.02	-19.84	46.18	74.00	-27.82	PK		
Н	4804.00	56.52	-19.84	36.68	54.00	-17.32	AV		
Н	7206.00	55.96	-13.9	42.06	74.00	-31.94	PK		
Н	7206.00	48.59	-13.9	34.69	54.00	-19.31	AV		
		G	FSK Middle c	hannel					
V	4882.00	68.27	-19.68	48.59	74.00	-25.41	PK		
V	4882.00	57.72	-19.68	38.04	54.00	-15.96	AV		
V	7323.00	60.29	-13.57	46.72	74.00	-27.28	PK		
V	7323.00	50.86	-13.57	37.29	54.00	-16.71	AV		
Н	4882.00	64.58	-19.68	44.90	74.00	-29.10	PK		
Н	4882.00	55.14	-19.68	35.46	54.00	-18.54	AV		
Н	7323.00	58.39	-13.57	44.82	74.00	-29.18	PK		
Н	7323.00	49.92	-13.57	36,35	54.00	-17.65	AV		
		(	GFSK High ch	annel					
V	4960.00	66.86	-19.99	46.87	74.00	-27.13	PK		
V	4960.00	56.12	-19.99	36.13	54.00	-17.87	AV		
V	7440.00	57.10	-14.22	42.88	74.00	-31.12	PK		
V	7440.00	47.37	-14.22	33.15	54.00	-20.85	AV		
Н	4960.00	62.61	-19.99	42.62	74.00	-31.38	PK		
Н	4960.00	52.29	-19.99	32.30	54.00	-21.70	AV		
Н	7440.00	55.87	-14.22	41.65	74.00	-32.35	PK		
Н	7440.00	46.98	-14.22	32.76	54.00	-21.24	AV		

#### Between 1GHz – 25GHz

Remark:

1.Emission Level = Meter Reading + Factor, Factor = Antenna Factor + Cable Loss – Pre-amplifier. Over= Emission Level - Limit

2.If peak below the average limit, the average emission was no test.

3. In restricted bands of operation, The spurious emissions below the permissible value more than 20dB4. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

5.All the Modulation are test, the worst mode is GFSK, the data recording in the report.

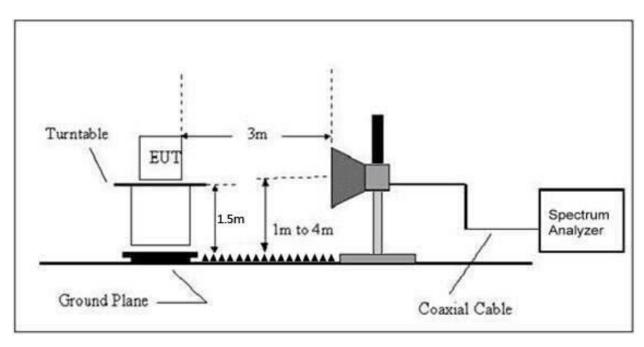
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#### 8. Radiated Band Emission Measurement And Restricted Bands Of Operation

#### 8.1 Block Diagram Of Test Setup

Radiated Emission Test-Up Frequency Above 1GHz



#### 8.2 Limit

FCC Part15 C Section 15.209 and 15.205

(a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
<sup>1</sup> 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	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	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			





#### Limits Of Radiated Emission Measurement (Above 1000MHz)

Eroquonov (MHz)	Limit (dBuV/m) (at 3M)					
Frequency (MHz)	Peak	Average				
Above 1000	74	54				

Notes:

(1)The limit for radiated test was performed according to FCC PART 15C.

(2) The tighter limit applies at the band edges.

(3)Emission level (dBuV/m)=20log Emission level (uV/m).

#### 8.3 Test procedure

Receiver Parameter	Setting
Attenuation	Auto
Start Frequency	2300MHz
Stop Frequency	2520
RB / VB (Emission In Restricted Band)	1 MHz / 1 MHz for Peak, 1 MHz / 10Hz for Average

Above 1GHz test procedure as below:

a. The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.

b.The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c.The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d.For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading.

e.The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

g. Test the EUT in the lowest channel, the middlest channel, the Highest channel.

Note:

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

#### 8.4 EUT operating Conditions

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.



#### 8.5 Test Result

Test mode	Polar (H/V)	Frequency (MHz)	Reading Level	Correct Factor	Measure- ment (dBuV/m)		nits V/m)	Result
	(177)	(11112)	(dBuV/m)	(dB)	РК	PK	AV	
		L	Low	Channel 24	402MHz			
	Н	2390.00	69.53	-25.43	44.10	74.00	54.00	PASS
	Н	2400.00	78.89	-25.40	53.49	74.00	54.00	PASS
	V	2390.00	70.10	-25.43	44.67	74.00	54.00	PASS
GFSK	V	2400.00	77.87	-25.40	52.47	74.00	54.00	PASS
Gran			High	Channel 24	480MHz			
	Н	2483.50	67.57	-25.15	42.42	74.00	54.00	PASS
	Н	2500.00	61.34	-25.10	36.24	74.00	54.00	PASS
	V	2483.50	70.56	-25.15	45.41	74.00	54.00	PASS
	V	2500.00	63.27	-25.10	38.17	74.00	54.00	PASS
			Low	Channel 24	102MHz			
	Н	2390.00	65.12	-25.43	39.69	74.00	54.00	PASS
	Н	2400.00	74.75	-25.40	49.35	74.00	54.00	PASS
	V	2390.00	64.89	-25.43	39.46	74.00	54.00	PASS
	V	2400.00	73.02	-25.40	47.62	74.00	54.00	PASS
π/4DQPSK			High	Channel 24	480MHz			
	Н	2483.50	65.17	-25.15	40.02	74.00	54.00	PASS
	Н	2500.00	61.82	-25.10	36.72	74.00	54.00	PASS
	V	2483.50	65.15	-25.15	40.00	74.00	54.00	PASS
	V	2500.00	61.80	-25.10	36.70	74.00	54.00	PASS
			Low	Channel 24	402MHz			
	Н	2390.00	64.42	-25.43	38.99	74.00	54.00	PASS
	Н	2400.00	73.70	-25.40	48.30	74.00	54.00	PASS
	V	2390.00	63.53	-25.43	38.10	74.00	54.00	PASS
	V	2400.00	71.55	-25.40	46.15	74.00	54.00	PASS
8DPSK		*•,	High	Channel 24	480MHz			
	Н	2483.50	63.28	-25.15	38.13	74.00	54.00	PASS
	Н	2500.00	60.52	-25.10	35.42	74.00	54.00	PASS
	V	2483.50	61.85	-25.15	36.70	74.00	54.00	PASS
	V	2500.00	58.87	-25.10	33.77	74.00	54.00	PASS

1. Emission Level = Meter Reading + Factor, Factor = Antenna Factor + Cable Loss - Pre-amplifier. Over= Emission Level - Limit

2. If the PK measured levels comply with average limit, then the average level were deemed to comply with average limit.

3 In restricted bands of operation, The spurious emissions below the permissible value more than 20dB 4. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.



#### 9. Spurious RF Conducted Emissions

#### 9.1 Block Diagram Of Test Setup



#### 9.2 Limit

Regulation 15.247 (d),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))

#### 9.3 Test procedure

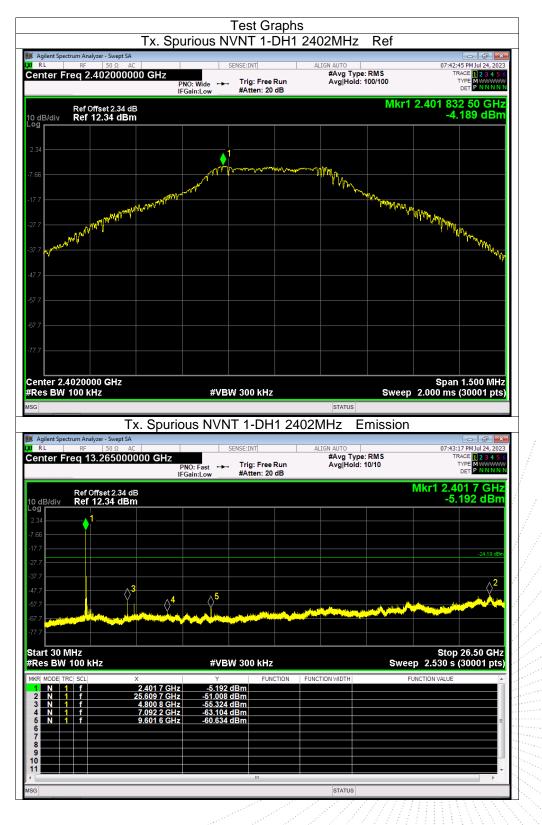
1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum;

2. Set the spectrum analyzer: Below 30MHz: RBW = 100kHz, VBW = 300kHz, Sweep = auto Detector function = peak, Trace = max hold Above 30MHz: RBW = 100KHz, VBW = 300KHz, Sweep = auto Detector function = peak, Trace = max hold

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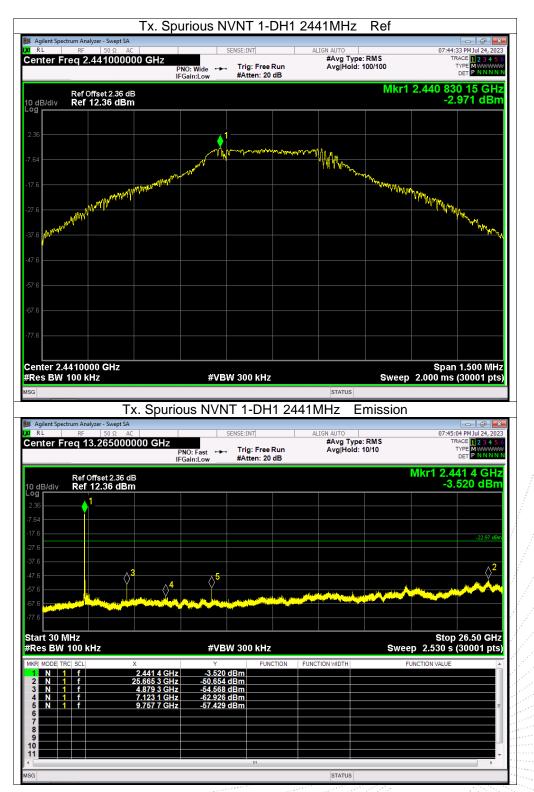
#### 9.4 Test Result







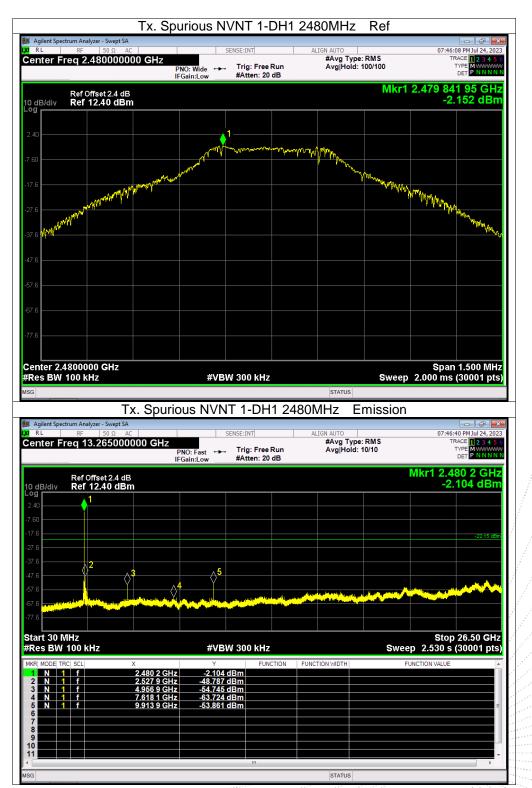






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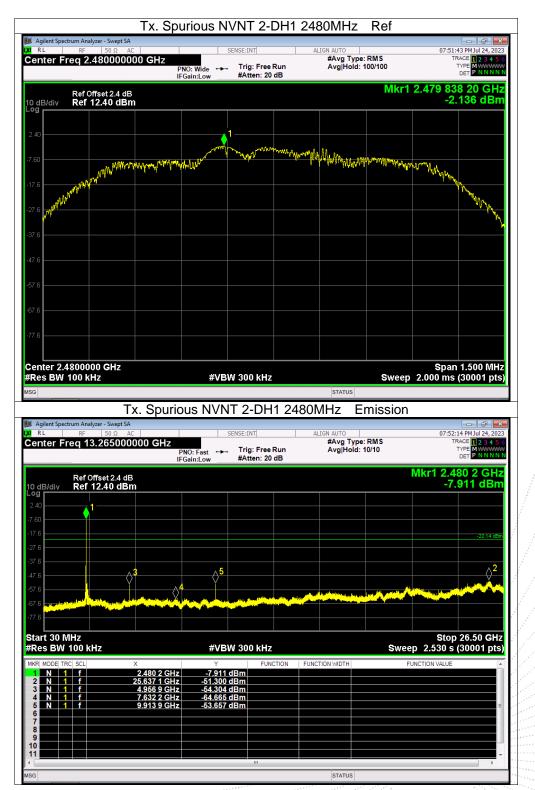
Agilent Spectrum Analyzer - Swept				2402MHz			
RL RF 50 Ω enter Freq 2.402000	0000 GHz			ALIGN AUTO #Avg Typ	e: RMS	т	:09 PM Jul 24, 20 RACE 1 2 3 4 5
			Trig: Free Run #Atten: 20 dB	Avg Hold			
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Res BW 100 kHz		#VBW	E (1) [1] [2] [2]				
2		#VDVV	JUU KHZ	CTATI IC	Sweep	2.000 ms	(30001 pt
G	T., 0'-					2.000 ms	(30001 pt
· · · · · · · · · · · · · · · · · · ·			2-DH1 24		Emission	2.000 ms	
Agilent Spectrum Analyzer - Swept : RL RF 50 Ω	SA AC	ous NVNT		402MHz E	Emission	07:48	:40 PM Jul 24, 20
Agilent Spectrum Analyzer - Swept 1 RL RF 50 Ω	sa AC 00000 GHz		2-DH1 24	102MHz E	Emission e: RMS	07:48 T	:40 PM Jul 24, 20
Agilent Spectrum Analyzer - Swept 1 RL RF 50 Ω enter Freq 13.26500 Ref Offset 2.34	AC 00000 GHz F		2-DH1 24	ALIGN AUTO #Avg Typ	Emission e: RMS : 10/10	<sup>07:48</sup> ⊤ T Mkr1 2.4	40 PM Jul 24, 20 RACE 1 2 3 4 5 TYPE MWWWW DET P NNNN
Agilent Spectrum Analyzer - Swept RL RF 50 Ω enter Freq 13.26500 Ref Offset 2.34 dB/div Ref 12.34 dB	AC 00000 GHz F		2-DH1 24	ALIGN AUTO #Avg Typ	Emission e: RMS : 10/10	<sup>07:48</sup> ⊤ T Mkr1 2.4	40 PM Jul 24, 20 RACE 1 2 3 4 5 TYPE MWWWW DET P NNNN
Aglient Spectrum Analyzer - Swept RL RE 50 Q enter Freq 13.26500 Ref Offset 2.34 dB/div Ref 12.34 dB 9 34	AC 00000 GHz F		2-DH1 24	ALIGN AUTO #Avg Typ	Emission e: RMS : 10/10	<sup>07:48</sup> ⊤ T Mkr1 2.4	40 PM Jul 24, 20 RACE 1 2 3 4 5 TYPE MWWWW DET P NNNN
Agilent Spectrum Analyzer - Swept 1 RL RF 50 Ω enter Freq 13.26500 Ref Offset 2.34	AC 00000 GHz F		2-DH1 24	ALIGN AUTO #Avg Typ	Emission e: RMS : 10/10	<sup>07:48</sup> ⊤ T Mkr1 2.4	140 PM Jul 24, 20 RACE 1 2 3 4 5 TYPE MWWW DET PNNNM 01 7 GH .840 dBr
Aglient Spectrum Analyzer - Swept RL RF 50 Q enter Freq 13.26500 Ref Offset 2.34 dB/div Ref 12.34 dB 34	AC 00000 GHz F		2-DH1 24	ALIGN AUTO #Avg Typ	Emission e: RMS : 10/10	<sup>07:48</sup> ⊤ T Mkr1 2.4	140 PM Jul 24, 20 RACE 1 2 3 4 5 TYPE MWWW DET PNNNM 01 7 GH .840 dBr
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Aglient Spectrum Analyzer - Swept RL RF 50 Q enter Freq 13.26500 Ref Offset 2.34 dB/div Ref 12.34 dB 9 1 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7	AC 00000 GHz F		2-DH1 24	ALIGN AUTO #Avg Typ	Emission e: RMS : 10/10	<sup>07:48</sup> ⊤ T Mkr1 2.4	140 PM Jul 24, 200 RACE 1 2 3 4 5 TYPE MWWW DET PNNNN 01 7 GH .840 dBr
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Agilent Spectrum Analyzer - Swept           RL         RF         50 Ω           enter Freq 13.26500         Ref Offset 2.34 dB           dB/div         Ref 12.34 dB           34         1           65         1           77         1           77         1           77         1           77         1           77         1           77         1           77         1           77         1           77         1           77         1	AC 00000 GHz F	DUS NVNT SEN PNO: Fast FGain:Low	2-DH1 24	ALIGN AUTO #Avg Typ	Emission e: RMS : 10/10	<sup>07:48</sup> ⊤ T Mkr1 2.4	140 PM Jul 24, 20 RACE 1 2 3 4 5 TYPE MWWW DET PNNNM 01 7 GH .840 dBr
Agilent Spectrum Analyzer - Swept RL RF 50 Ω enter Freq 13.265000 Ref Offset 2.34 dB 34 34 34 34 34 34 34 34 34 34	AC 00000 GHz F	DUS NVNT SEN PNO: Fast FGain:Low	2-DH1 24	ALIGN AUTO #Avg Typ	Emission e: RMS : 10/10	07:48 T Mkr1 2.4 -4 Stop	10 PM Jul 24, 20 RACE 12 34 5 DET P NNNN 001 7 GH 840 dBr
Agilent Spectrum Analyzer - Swept: RL RF 50 Ω enter Freq 13.265000 Ref Offset 2.34 dB 34 434 437 77 77 77 77 77 77 77 77 77	AC 00000 GHz F	DUS NVNT	2-DH1 24 ISE:INT Trig: Free Run #Atten: 20 dB	ALIGN AUTO #Avg Typ Avg Hold	Emission e. RMS : 10/10	07:48 T Mkr1 2.4 -4. -9. Stop p 2.530 s	10 PM Jul 24, 20 RACE 12 34 5 DET P NNNN 001 7 GH 840 dBr
Agilent Spectrum Analyzer - Swept           RL         RF         50 Ω           Senter Freq 13.26500         Ref Offset 2.34           CB/div         Ref 12.34 dB           93         1           94         1           95         1           96         1           97         1           98         1           99         1           91         1           92         1           93         1           94         1           95         1           96         1           97         1           98         1           99         1           90         1           91         1           92         1           93         1           94         1           95         1           96         1           97         1           98         1           99         1           90         1           90         1           90         1           90         1	SA AC 000000 GHz If dB Bm 3 4 4 4 4 4 2.401 7 GHz	PNO: Fast FGain:Low	2-DH1 24	ALIGN AUTO #Avg Typ	Emission e. RMS : 10/10	07:48 T Mkr1 2.4 -4 Stop	140 PM Jul 24, 200 RACE 12 34 5 DET PNINN 017 GH .840 dBr -2419 dB -2419 dB
Aglient Spectrum Analyzer - Swept RL RF 50 Q enter Freq 13.26500 Ref Offset 2.34 dB/div Ref 12.34 dB 9 34 	AC 00000 GHz AC F F B AB B AB AB AB AB AB AB AB	PNO: Fast FGain:Low	2-DH1 24	ALIGN AUTO #Avg Typ Avg Hold	Emission e. RMS : 10/10	07:48 T Mkr1 2.4 -4. -9. Stop p 2.530 s	140 PM Jul 24, 200 RACE 12 34 5 DET PNINN 017 GH .840 dBr -2419 dB -2419 dB
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Agilent Spectrum Analyzer - Swept:           RL         RF         50 Ω           enter Freq 13.265000         Senter Freq 13.265000           GB/div         Ref Offset 2.34 dt           GB/div         Ref 12.34 dt           GB/div	AC 00000 GHz AC F F C dB B B C dB C dB C C dB C dB C C dB C dB C	DUS NVNT SEN PNO: Fast FGain:Low	2-DH1 24 SE:INT Trig: Free Run #Atten: 20 dB	ALIGN AUTO #Avg Typ Avg Hold	Emission e. RMS : 10/10	07:48 T Mkr1 2.4 -4. -9. Stop p 2.530 s	140 PM Jul 24, 200 RACE 12 34 5 DET PNINN 017 GH .840 dBr -2419 dB -2419 dB
Aglient Spectrum Analyzer - Swept RL RE 50 Q enter Freq 13.26500 Ref Offset 2.34 dB/div Ref 12.34 dB 9 34 	AC 00000 GHz AC F F C dB B B C dB C dB C C dB C dB C C dB C dB C	DUS NVNT SEN PNO: Fast FGain:Low	2-DH1 24 SE:INT Trig: Free Run #Atten: 20 dB	ALIGN AUTO #Avg Typ Avg Hold	Emission e: RMS : 10/10	07:48 T Mkr1 2.4 -4. -9. Stop p 2.530 s	.840 dBn



Agilent Spectrum Analyzer - Swept							- 6
RL RF 50 Ω enter Freq 2.441000		SENSE:INT		IGN AUTO #Avg Type:		TI	:03 PM Jul 24, 202 RACE 1 2 3 4 5
	Р		ree Run : 20 dB	Avg Hold: 1			
Ref Offset 2.36					Mkr1	2.440 83	
dB/div Ref 12.36 dE	3m					-2	.945 dBn
.36		<b></b> 1					
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		DUS NVNT 2-D	DH1 2441N	1Hz Er	mission		
Agilent Spectrum Analyzer - Swept           R L         RF         50 Ω	SA AC	SENSE:INT		IGN AUTO		07:50:	.34 PM Jul 24, 202
Agilent Spectrum Analyzer - Swept           R L         RF         50 Ω	AC       00000 GHz	SENSE:INT	Tree Run		RMS	TI	:34 PM Jul 24, 202 RACE 1 2 3 4 5
Agilent Spectrum Analyzer - Swept RL RF 50 Ω	AC       00000 GHz	SENSE:INT	ALI	IGN AUTO #Avg Type:	RMS 0/10	T	34 PM Jul 24, 202 RACE 1 2 3 4 5 TYPE MWWWW DET PNNNN
Agilent Spectrum Analyzer - Swept RL RF 50 Ω enter Freq 13.26500 Ref Offset 2.36 dB(div Ref 12.36 db	AC 00000 GHz	SENSE:INT	Tree Run	IGN AUTO #Avg Type:	RMS 0/10	Mkr1 2.4	34 PM Jul 24, 202 RACE 1 2 3 4 5 TYPE MWWW DET P NN NN
Agilent Spectrum Analyzer - Swept RL	AC 00000 GHz	SENSE:INT	Tree Run	IGN AUTO #Avg Type:	RMS 0/10	Mkr1 2.4	34 PM Jul 24, 202 RACE 1 2 3 4 5 TYPE MWWW DET P NN NN
Agilent Spectrum Analyzer - Swept RL RF 50 Ω enter Freq 13.26500 Ref Offset 2.36 0 dB/div Ref 12.36 dB 29	AC 00000 GHz	SENSE:INT	Tree Run	IGN AUTO #Avg Type:	RMS 0/10	Mkr1 2.4	34 PM Jul 24, 202 RACE 1 2 3 4 5 TYPE MWWWW DET P N N N
Agilent Spectrum Analyzer - Swept RL RF 50 Ω enter Freq 13.26500 Ref Offset 2.36 D dB/div Ref 12.36 dB 9 1 64	AC 00000 GHz	SENSE:INT	Tree Run	IGN AUTO #Avg Type:	RMS 0/10	Mkr1 2.4	:34 PMJul 24, 202 RACE    2 3 4 5 TYPE    3 WWWW DET    NNNN 40 5 GH; 898 dBn
Agilent Spectrum Analyzer - Swept RL RF 50 Ω enter Freq 13.26500 Age of the second	AC 00000 GHz	SENSE:INT	Tree Run	IGN AUTO #Avg Type:	RMS 0/10	Mkr1 2.4	34 PM Jul 24, 202 RACE 1 2 3 4 5 TYPE MWWW DET P NNNN
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Agilent Spectrum Analyzer - Swept : RL RF 50 Ω enter Freq 13.26500 Ref Offset 2.36	AC 00000 GHz	SENSE:INT	Tree Run	IGN AUTO #Avg Type:	RMS 0/10	Mkr1 2.4	:34 PMJul 24, 202 RACE    2 3 4 5 TYPE    3 WWWW DET    NNNN 40 5 GH; 898 dBn
Agilent Spectrum Analyzer - Swept RL RE 50 Ω enter Freq 13.265000 0 dB/div Ref 0ffset 2.36 0 dB/div Ref 12.36 dB 09 1 64 7.6 7.6 7.6 7.6 7.6 7.6 7.6 7.6	AC 00000 GHz	SENSE:INT	Tree Run	IGN AUTO #Avg Type:	RMS 0/10	Mkr1 2.4	34 PMJul 24, 202 RACE [] 2 3 4 5 TYPE MWWWW DET PNNNN 40 5 GH; 898 dBn
Agilent Spectrum Analyzer - Swept RL RE 50 Ω enter Freq 13.265000 0 dB/div Ref 0ffset 2.36 0 dB/div Ref 12.36 dB 0 9 1 1 6 4 7.6 7.6 7.6 7.6 7.6 7.6 7.6 7.6	AC 00000 GHz	SENSE:INT	Tree Run	IGN AUTO #Avg Type:	RMS 0/10	Mkr1 2.4	34 PMJul 24, 202 RACE [] 2 3 4 5 TYPE MWWWW DET PNNNN 40 5 GH; 898 dBn
Agilent Spectrum Analyzer - Swept: RL RF 50 Q enter Freq 13.265000 Ref Offset 2.36 Ref Offset 2.36 dB/div Ref 12.36 dB 36 4 7 6 7 7 6 7 7 6 7 7 7 7 7 7 7 7 7 7 7 7 7	AC 00000 GHz	SENSE:INT	Tree Run	IGN AUTO #Avg Type:	RMS 0/10	Mkr1 2.4 -2.	34 PM JI 24,202 RACE ↓ 2 3 4 5 TYPE M X X X X X X X X X X X X X X X X X X
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Agilent Spectrum Analyzer - Swept: RL RF 50 Q enter Freq 13.265000 Ref Offset 2.36 Ref	AC 00000 GHz	SENSE:INT	Tree Run : 20 dB	IGN AUTO #Avg Type:	RMS 0/10 Swee	Mkr1 2.4 -2.	34 PM JI 24,202 RACE    2 3 4 5 TYPE    1 2 3 4 5 DET P NNNN 440 5 GH: 898 dBn -2295 dP 26,50 GH:
Agilent Spectrum Analyzer - Swept: RL RF 50 Ω enter Freq 13.265000 Ref Offset 2.36 Ref Offset 2.36 Ref 12.36 dB 9 135 145 156 157 157 157 157 157 157 157 157	SA AC 000000 GHz i dB Bm 3 3 4 4 2.440 5 GHz	PNO: Fast → Trig: F Gain:Low → Trig: F #Atten	Tree Run : 20 dB	IGN AUTO #Avg Type: Avg Hold: 1	RMS 0/10 Swee	Mkr1 2.4 -2.	34 PU JU 24,202 RACE    2 3 4 5 2 3 4 5 2 3 4 5 2 3 4 5 C 2 3 4 5 2 3 4 5 2 3 4 5 C 2 3 4
Agilent Spectrum Analyzer - Swept:           RL         RF         50 Ω           enter Freq 13.265000         Second         Second           Ref Offset 2.36         Second         Second         Second           O dB/div         Ref 0ffset 2.36         Generation         Second	AC AC D00000 GHz F F F F F F F F F F	SENSE:INT PNO: Fast → Trig: F Gain:Low #Atten #Att	Tree Run : 20 dB	IGN AUTO #Avg Type: Avg Hold: 1	RMS 0/10 Swee	Mkr1 2.4 -2.	34 PM JI 24,202 RACE    2 3 4 5 TYPE    1 2 3 4 5 DET P NNNN 440 5 GH: 898 dBn -2295 dP 26,50 GH:
Agilent Spectrum Analyzer - Swept: RL RE 50 Q enter Freq 13.265000 Ref Offset 2.36 0 dB/div Ref 12.36 dB 0 dB/div Ref 12.36 dB 1 1 1 1 1 1 1 1 1 1 1 1 1	SA AC D00000 GHz F F S dB Bm A A A A A A A A A A A A A	SENSE:INT PNO: Fast → Trig: F Gain:Low → Trig: F #Atten \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Tree Run : 20 dB	IGN AUTO #Avg Type: Avg Hold: 1	RMS 0/10 Swee	Mkr1 2.4 -2.	34 PU JU 24,202 RACE    2 3 4 5 2 3 4 5 2 3 4 5 2 3 4 5 C 2 3 4 5 2 3 4 5 2 3 4 5 C 2 3 4
Agilent Spectrum Analyzer - Swept: RL RF 50 Q enter Freq 13.265000 Ref Offset 2.36 0 dB/div Ref 12.36 dB 0 dB/div Ref 12.36 dB 1 1 1 5 7 6 7 6 7 6 7 7 6 7 7 6 7 7 6 7 7 6 7 8 7 9 7 9 7 9 7 9 7 9 7 9 7 9 7 9	AC 00000 GHz BODOOO GHz GdB Bm Carrier Control of the second	SENSE:INT PNO: Fast → Trig: F Gain:Low → Trig: F #Atten \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Tree Run : 20 dB	IGN AUTO #Avg Type: Avg Hold: 1	RMS 0/10 Swee	Mkr1 2.4 -2.	34 PM Jul 24,202 RACE    2,3 4 5 1,2 3 4 5 DET P NNNN 140 5 GH: 898 dBn -22 95 dB -22 95 dB
Agilent Spectrum Analyzer - Swept: RL RF 50 Q enter Freq 13.265000 Ref Offset 2.36 0 dE/div Ref 12.36 dE 0 dE/div Ref 12.36 dE 0 dF/div Ref 12.36 dE 0 dF	AC 00000 GHz BODOOO GHz GdB Bm Carrier Control of the second	SENSE:INT PNO: Fast → Trig: F Gain:Low → Trig: F #Atten \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Tree Run : 20 dB	IGN AUTO #Avg Type: Avg Hold: 1	RMS 0/10 Swee	Mkr1 2.4 -2.	34 PM Jul 24,202 RACE    2,3 4 5 1,2 3 4 5 DET P NNNN 140 5 GH: 898 dBn -22 95 dB -22 95 dB
Agilent Spectrum Analyzer - Swept:           RL         RF         50 Ω           enter Freq 13.265000         Second         Second           Ref Offset 2.36         Ref 12.36 dB         Second           O dB/div         Ref 12.36 dB         Second         Second           30         1         1         1         1           64         7         5         2         1         1         1           7.6         7         5         7         5         7         5         7         5         7         5         7         5         7         5         7         6         7         6         7         6         7         6         7         6         7         6         7         6         7         6         7         7         6         7	AC 00000 GHz BODOOO GHz GdB Bm Carrier Control of the second	SENSE:INT PNO: Fast → Trig: F Gain:Low → Trig: F #Atten \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Tree Run : 20 dB	IGN AUTO #Avg Type: Avg Hold: 1	RMS 0/10 Swee	Mkr1 2.4 -2.	34 PM Jul 24,202 RACE    2,3 4 5 1,2 3 4 5 DET P NNNN 140 5 GH: 898 dBn -22 95 dB -22 95 dB



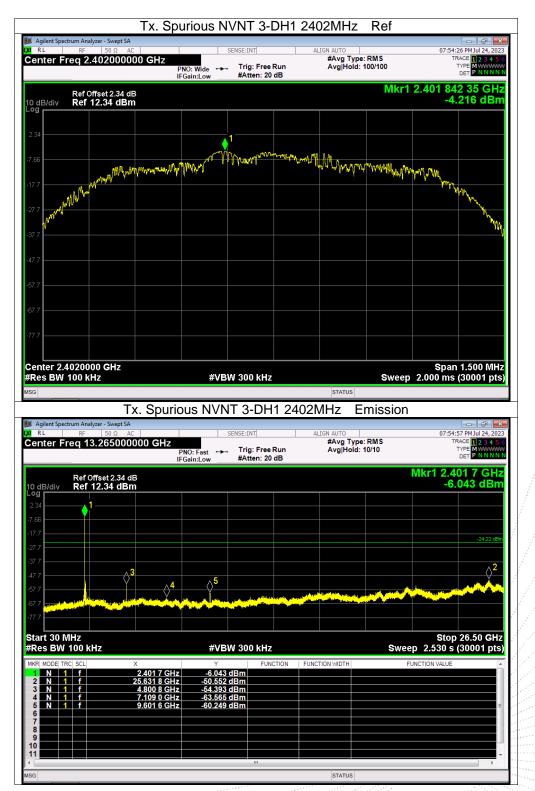






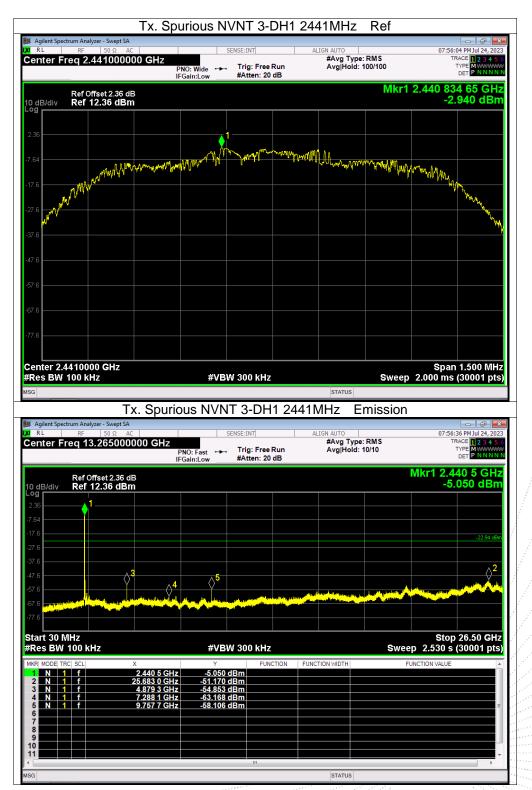
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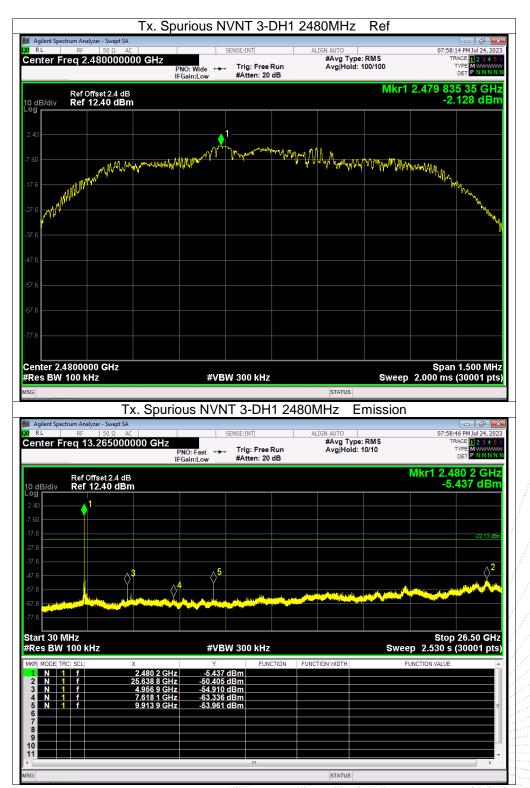




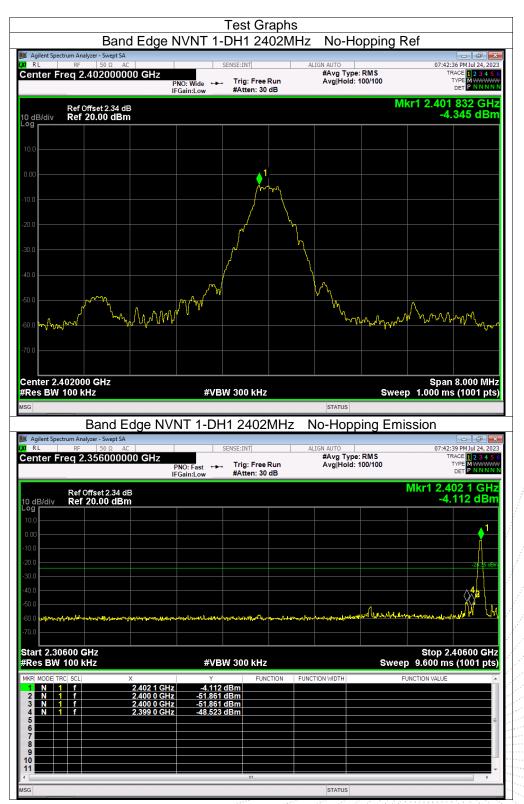






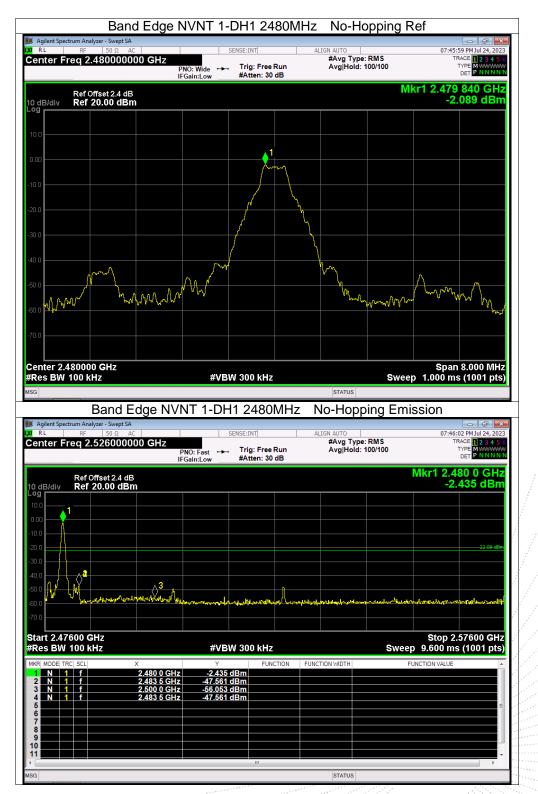






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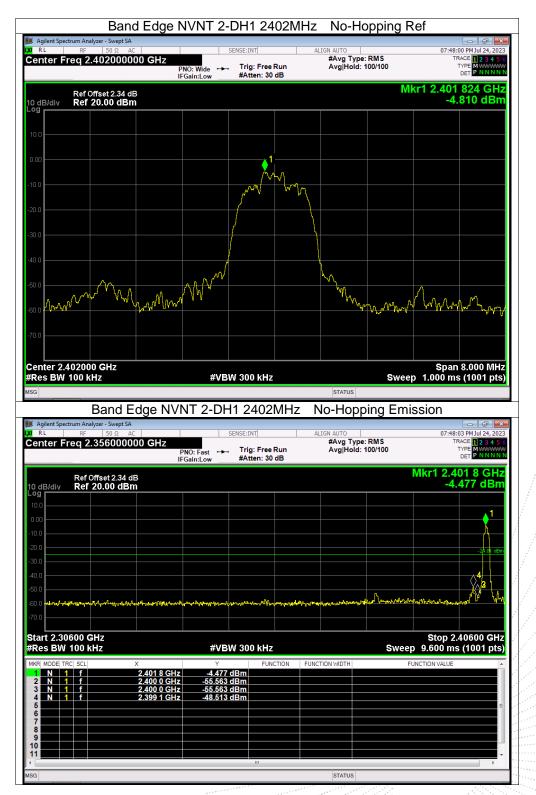






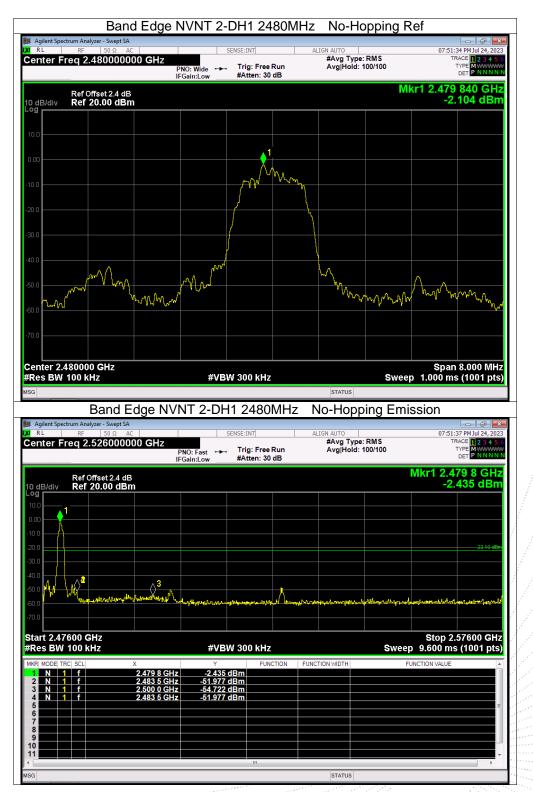
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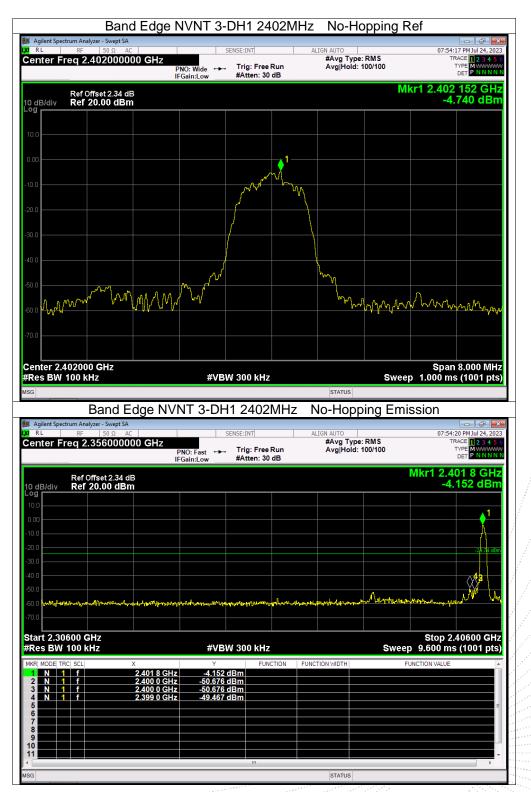




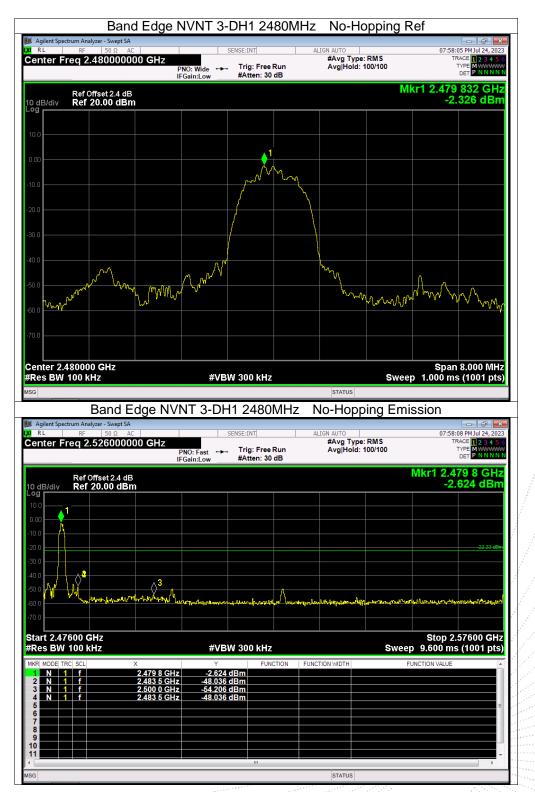
















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No.: BCTC/RF-EMC-007









Agilent Spectrum An							
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enter Freq 2	.40200000 GHZ		rig: Free Run Atten: 30 dB	Avg Hold	: 2000/2000		TYPE MWWWW DET PNNNN
		n Jani.LUW #			M	kr1 2.405	
dB/div Ref	Offset 2.34 dB <b>20.00 dBm</b>					-4.	.078 dBn
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3				STATUS			
Do							
	nd Edge(Hopp	ing) NVNT 2	2-DH1 24	102MHz H	lopping E	missior	
Agilent Spectrum An	alyzer - Swept SA 50 Ω AC			ALIGN AUTO		08:03:	14 PM Jul 24, 202
Agilent Spectrum An	alyzer - Swept SA	PNO: Fast	E:INT	ALIGN AUTO #Avg Typ		08:03: TF	14 PM Jul 24, 202
Agilent Spectrum An. RL RF enter Freq 2	alyzer - Swept SA 50 Ω AC 2560000000 GHz	PNO: Fast	E:INT	ALIGN AUTO #Avg Typ	pe: RMS 1: 2000/2000	08:03: Tf	14 PM Jul 24, 202 RACE 1 2 3 4 5 TYPE M
Agilent Spectrum An RL RF enter Freq 2 Ref dB/div Ref	alyzer - Swept SA 50 Ω AC	PNO: Fast	E:INT	ALIGN AUTO #Avg Typ	pe: RMS 1: 2000/2000	08:03: TF	14 PM Jul 24, 202 RACE 1 2 3 4 5 TYPE MWWW DET PNNNN
Agilent Spectrum An RL RF enter Freq 2 Ref 0 dB/div Ref 9	alyzer - Swept SA 50 Ω AC 3556000000 GHz	PNO: Fast	E:INT	ALIGN AUTO #Avg Typ	pe: RMS 1: 2000/2000	08:03: TF	14 PM Jul 24, 202 RACE 1 2 3 4 5 TYPE MWWW DET PNNNN
Agilent Spectrum An RL RF enter Freq 2 Ref U dB/div Ref 9 9	alyzer - Swept SA 50 Ω AC 3556000000 GHz	PNO: Fast	E:INT	ALIGN AUTO #Avg Typ	pe: RMS 1: 2000/2000	08:03: TF	14 PM Jul 24, 202 RACE 1 2 3 4 5 TYPE MWWW DET PNNNN
Agilent Spectrum An RL RF enter Freq 2 Ref 0 dB/div Ref 0 0 0 0 0 0 0 0	alyzer - Swept SA 50 Ω AC 3556000000 GHz	PNO: Fast	E:INT	ALIGN AUTO #Avg Typ	pe: RMS 1: 2000/2000	08:03: TF	14 PM Jul 24, 202 RACE 1 2 3 4 5 TYPE MWWW DET PNNNN
Agilent Spectrum An RL RF enter Freq 2 0 dB/div Ref 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	alyzer - Swept SA 50 Ω AC 3556000000 GHz	PNO: Fast	E:INT	ALIGN AUTO #Avg Typ	pe: RMS 1: 2000/2000	08:03: TF	14 PM Jul 24, 202 RACE 1 2 3 4 5 TYPE MWWW DET PNNNN
Agilent Spectrum An RL RF enter Freq 2 dB/div Ref 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	alyzer - Swept SA 50 Ω AC 3556000000 GHz	PNO: Fast	E:INT	ALIGN AUTO #Avg Typ	pe: RMS 1: 2000/2000	08:03: TF	14 PM Jul 24, 202 RACE 1 2 3 4 5 TYPE MWWWW DET PNNNN
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Agilent Spectrum An RL RF enter Freq 2 0 dB/div Ref 0 dB/div Ref	alyzer - Swept SA 50 Ω AC 2.3556000000 GHz Offset 2.34 dB 20.00 dBm	PNO: Fast	E:INT	ALIGN AUTO #Avg Typ Avg Hold		08:03: TT Mkr1 2.4 -4.	
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Agilent Spectrum An RL RF enter Freq 2 0 dB/div Ref 0	alyzer - Swept SA 50 Ω AC 2.3566000000 GHz Offset 2.34 dB 20.00 dBm GHz KHz X 2.404 8 GH 2.404 8 GH 2.404 8 GH	PNO: Fast         →→         T           IFGain:Low         #           #VBW 3           #VBW 3           z         -4.291 dBn           z         -5.2510 dBn	EINT rig: Free Run Atten: 30 dB	ALIGN AUTO #Avg Typ Avg Hold	e: RMS : 2000/2000	08:03: TT Mkr1 2.4 -4. -4. -4. 4. 4. 4. 	
Agilent Spectrum An RL RF enter Freq 2 0 dB/div Ref 0	alyzer - Swept SA 50 Ω AC 2.3556000000 GHz Offset 2.34 dB 20.00 dBm	PNO: Fast         →         T           IFGain:Low         #           #VBW 3	EINT rig: Free Run Atten: 30 dB	ALIGN AUTO #Avg Typ Avg Hold	e: RMS : 2000/2000	08:03: TT Mkr1 2.4 -4. -4. -4. 4. 4. 4. 	
Agilent Spectrum An RL RF enter Freq 2 Ref 4 0 dB/div Ref 0 dB/div	alyzer - Swept SA 50 Ω AC 2.3556000000 GHz Offset 2.34 dB 20.00 dBm 3Hz 4Hz 2.404 8 GH 2.400 0 GH	PNO: Fast         →         T           IFGain:Low         #           #VBW 3	EINT rig: Free Run Atten: 30 dB	ALIGN AUTO #Avg Typ Avg Hold	e: RMS : 2000/2000	08:03: TT Mkr1 2.4 -4. -4. -4. 4. 4. 4. 	
Agilent Spectrum An RL RF enter Freq 2 Ref 1 0 dB/div Ref 0 dB/div	alyzer - Swept SA 50 Ω AC 2.3556000000 GHz Offset 2.34 dB 20.00 dBm 3Hz 4Hz 2.404 8 GH 2.400 0 GH	PNO: Fast         →         T           IFGain:Low         #           #VBW 3	EINT rig: Free Run Atten: 30 dB	ALIGN AUTO #Avg Typ Avg Hold	e: RMS : 2000/2000	08:03: TT Mkr1 2.4 -4. -4. -4. 4. 4. 4. 	
Agilent Spectrum An RL RF enter Freq 2 Ref dB/div Ref 00 00 00 00 00 00 00 00 00 0	alyzer - Swept SA 50 Ω AC 2.3556000000 GHz Offset 2.34 dB 20.00 dBm 3Hz 4Hz 2.404 8 GH 2.400 0 GH	PNO: Fast         →         T           IFGain:Low         #           #VBW 3	EINT rig: Free Run Atten: 30 dB	ALIGN AUTO #Avg Typ Avg Hold	e: RMS : 2000/2000	08:03: TT Mkr1 2.4 -4. -4. -4. 4. 4. 4. 	















Band	Edge(Hopping	g) NVNT 3-DH1	2480MHz	Hopping Ref	
Agilent Spectrum Analyzer - Swept           RL         RF         50 Ω           Center Freq 2.480000	AC		ALIGN AUTO #Avg Type: Avg Hold: 2	RMS TR	48 PM Jul 24, 2023 AACE 1 2 3 4 5 6 TYPE M WWWWW DET P NNNN
Ref Offset 2.4 10 dB/div Ref 20.00 d	dB	w writen oo ub		Mkr1 2.478 -2.	816 GHz 937 dBm
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-10.0 -20.0 -20.0		MY W M	M.		
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-40.0				A	
-60.0			V\/ \		m w
-70.0					
Center 2.480000 GHz #Res BW 100 kHz		#VBW 300 kHz		Span Sweep 1.000 ms	8.000 MHz s (1001 pts)
MSG			STATUS		
Band Ed		IVNT 3-DH1 24		opping Emission	)
	SA AC DOOO GHz PNO: Fas	SENSE:INT		08:09:2 RMS TR 000/2000 T	22 PM Jul 24, 2023 RACE 1 2 3 4 5 6 TYPE MWWWW DET P. N.N.N.N.N
Band Ed	sa AC DOOO GHz PNO: Fas IFGain:Lo dB	SENSE:INT	ALIGN AUTO #Avg Type:	08:09:2 RMS TR 000/2000 Mkr1 2.4	22 PM Jul 24, 2023 RACE 1 2 3 4 5 6 TYPE M 3 4 5 0 DET P NNNN
Band Ed	sa AC DOOO GHz PNO: Fas IFGain:Lo dB	SENSE:INT	ALIGN AUTO #Avg Type:	08:09:2 RMS TR 000/2000 Mkr1 2.4	22 PM Jul 24, 2023 AACE 1 2 3 4 5 6 TYPE M WWWWW DET P. N.N.N.N.N 76 8 GHZ
Band Ed Mailent Spectrum Analyzer - Swept RL RF 50 Ω Center Freq 2.52600( Ref Offset 2.4 10 dB/div Ref 20.00 d 100	sa AC DOOO GHz PNO: Fas IFGain:Lo dB	SENSE:INT	ALIGN AUTO #Avg Type:	08:09:2 RMS TR 000/2000 Mkr1 2.4	22 PM Jul 24, 2023 AACE 1 2 3 4 5 6 TYPE M WWWWW DET P. N.N.N.N.N 76 8 GHZ
Band Ed	sa AC DOOO GHz PNO: Fas IFGain:Lo dB	SENSE:INT t + Trig: Free Run #Atten: 30 dB	ALIGN AUTO #Avg Type:	08:09:2 RMS TR 000/2000 Mkr1 2.4	22 PM Jul 24, 2023 AACE 1 2 3 4 5 6 TYPE MWWWWW DET P NNNNN 76 8 GHZ
Band Ed Agilent Spectrum Analyzer - Swept W RL RF 50 2 Center Freq 2.526000 Center Freq 2.526000 Ref Offset 2.4 10 dB/div Ref 20.00 d 10 0 10	AC AC D0000 GHz PN0: Fas IFGain:Lo dB Bm	SENSE:INT t + Trig: Free Run #Atten: 30 dB	ALIGN AUTO #Avg Type:	08:09:2 RMS TR 000/2000 Mkr1 2.4 -2.	22 PM Jul 24, 2023 AACE 1 2 3 4 5 6 TYPE MWWWWW DET P NNNNN 76 8 GHZ
Band Ed	AC AC D000 GHz PN0: Fas IFGain:Lo dB Bm A A A A A A A A A A A A A	SENSE:INT t →→ Trig: Free Run #Atten: 30 dB	ALIGN AUTO #Avg Type: Avg Hold: 2	08:09:2 RMS TR 000/2000 <b>Mkr1 2.4</b> -2.1 	22 PMJU 24, 2023 Noce 1 2 - 3 4 4 5 0 2 1 2 - 4 5 0 2 - 4 5 0 2 - 4 5 0 2 - 4 5 0 2 - 4 5 0 2 - 4 5 0 2 - 4 5 0 2
Band Ed	AC AC AC PNO: Fas IFGain:Lo dB Bm A A A A A A A A A A A A A	SENSE:INT t + Trig: Free Run #Atten: 30 dB	ALIGN AUTO #Avg Type:	08:09:2 RMS TR 000/2000 Mkr1 2.4 -2. -2. -2. -2. -2. -2. -2. -2.	22 PMJU 24, 2023 ACCE 12 23 ACCE 12 24 ACCE PYPE M ANNUM DET P NINN NIN C6 8 GHZ 059 dBm
Band Ed ■ Agilent Spectrum Analyzer - Swept N RL RF 50 2 Center Freq 2.526000 Center Freq 2.526000 10 dB/div Ref Offset 2.4 10 dB/div Ref 20.00 d 10 dB/	AC AC AC PNO: Fas IFGain:Lo dB Bm 3 AM AC PNO: Fas IFGain:Lo dB Bm 4 AC PNO: Fas IFGain:Lo AC AC PNO: Fas IFGain:Lo AC AC AC PNO: Fas IFGain:Lo AC AC AC AC PNO: Fas IFGain:Lo AC AC AC AC AC AC AC AC AC AC	SENSE:INT           t         →           Trig: Free Run #Atten: 30 dB           #Atten: 30 dB           #Atten: 30 dB           #WW           #WW           #WW           #VBW           Y           FUNCTION           8.828 dBm           9.927 dBm	ALIGN AUTO #Avg Type: Avg Hold: 2	08:09:2 RMS TR 000/2000 <b>Mkr1 2.4</b> -2.1 	22 PMJU 24, 2023 ACC II 2 3 4 4 2023 ACC II 2 3 4 4 2023 DET IN NN NN C6 8 GHz D57600 GHz 57600 GHz (1001 pts)



# 10. 20 dB Bandwidth

## 10.1 Block Diagram Of Test Setup



10.2 Limit

N/A

### 10.3 Test procedure

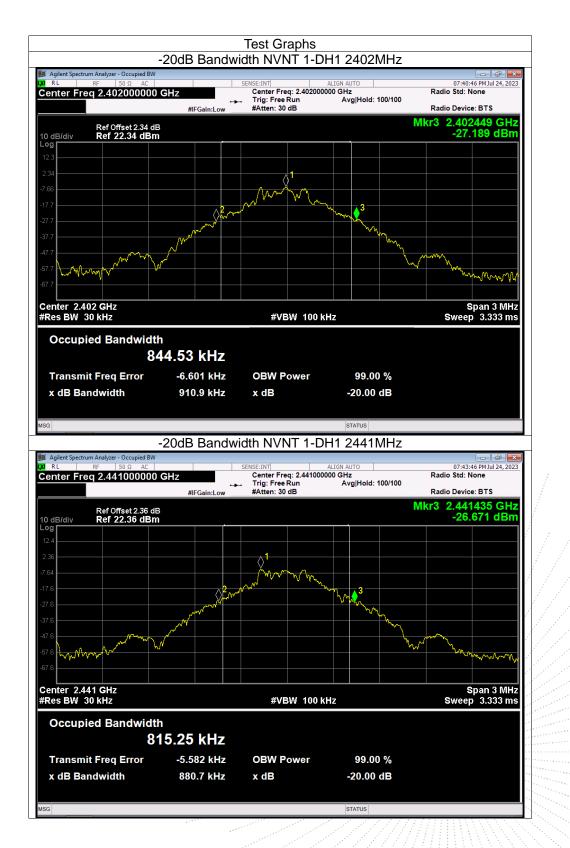
- 1. Set RBW = 30kHz.
- 2. Set the video bandwidth (VBW)  $\ge$  3 x RBW.
- 3. Detector = Peak.
- 4. Trace mode = max hold.
- 5. Sweep = auto couple.
- 6. Allow the trace to stabilize.

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

### 10.4 Test Result

Condition	Mode	Frequency (MHz)	-20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	0.911	Pass
NVNT	1-DH1	2441	0.881	Pass
NVNT	1-DH1	2480	0.858	Pass
NVNT	2-DH1	2402	1.257	Pass
NVNT	2-DH1	2441	1.225	Pass
NVNT	2-DH1	2480	1.252	Pass
NVNT	3-DH1	2402	1.220	Pass
NVNT	3-DH1	2441	1.221	Pass
NVNT	3-DH1	2480	1.223	Pass





CHENZHE.











JC JC PPR

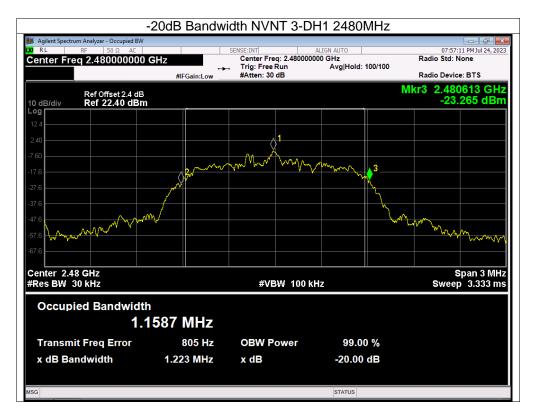






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# 11. Maximum Peak Output Power

### 11.1 Block Diagram Of Test Setup

EUT	SPECTRUM
	ANALYZER

### 11.2 Limit

		FCC Part15 (15.247)	, Subpart C	
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(b)(1)	Peak Output Power	0.125 watt or 21dBm	2400-2483.5	PASS

# 11.3 Test procedure

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum.

2. Set the spectrum analyzer: RBW = 2MHz. VBW = 6MHz. Sweep = auto; Detector Function = Peak.

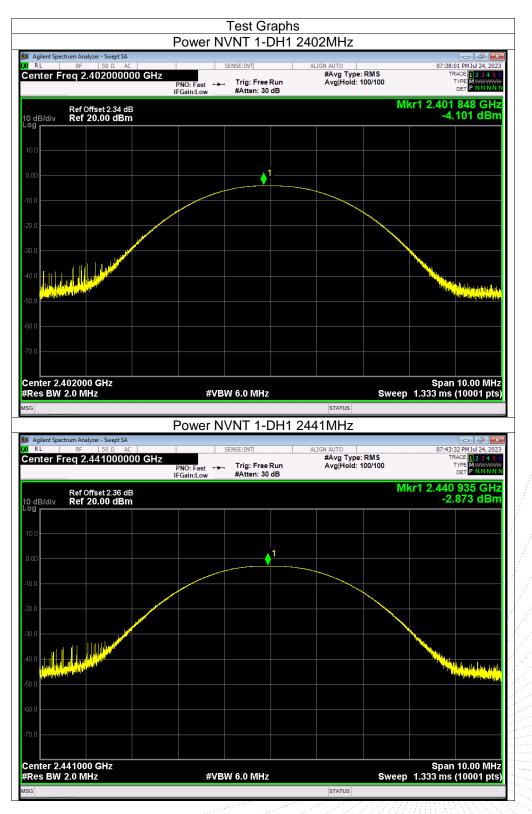
3. Keep the EUT in transmitting at lowest, medium and highest channel individually. Record the max value.

#### 11.4 Test Result

Condition	Mode	Frequency (MHz)	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	-4.10	21	Pass
NVNT	1-DH1	2441	-2.87	21	Pass
NVNT	1-DH1	2480	-2.05	21	Pass
NVNT	2-DH1	2402	-3.26	21	Pass
NVNT	2-DH1	2441	-1.99	21	Pass
NVNT	2-DH1	2480	-1.18	21	Pass
NVNT	3-DH1	2402	-2.65	21	Pass
NVNT	3-DH1	2441	-1.39	21	Pass
NVNT	3-DH1		-0.55	21	Pass

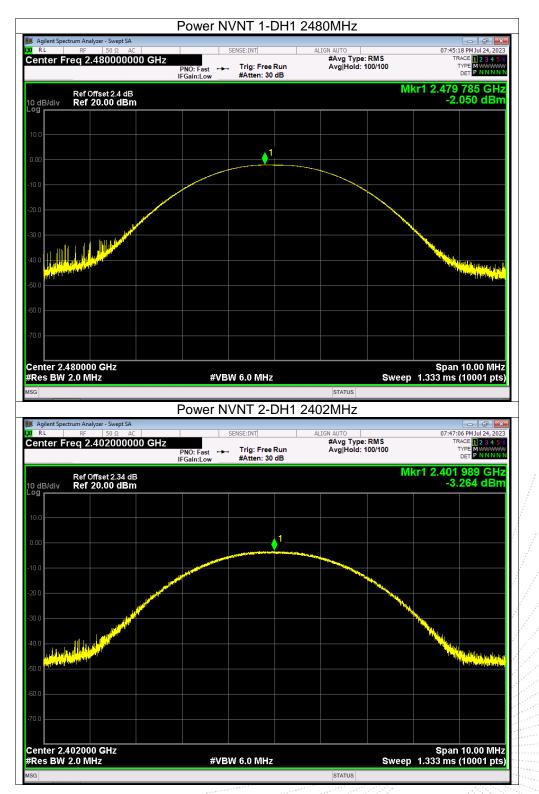
n 00.,LT





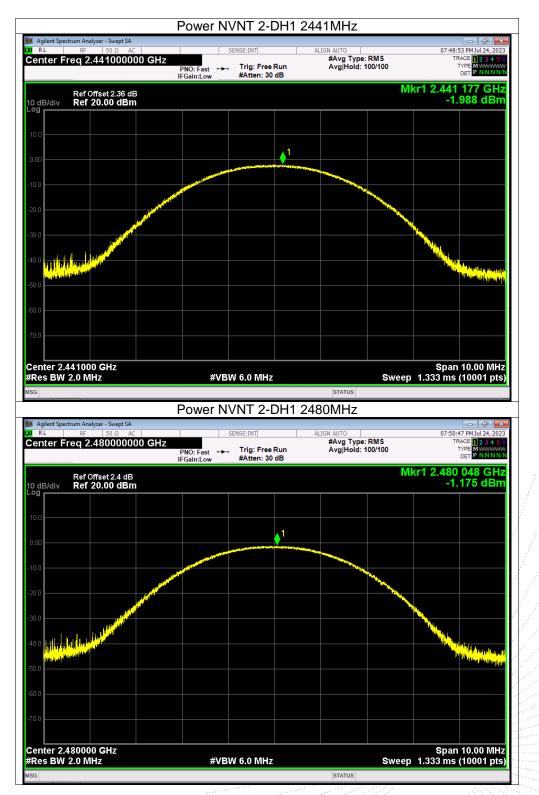






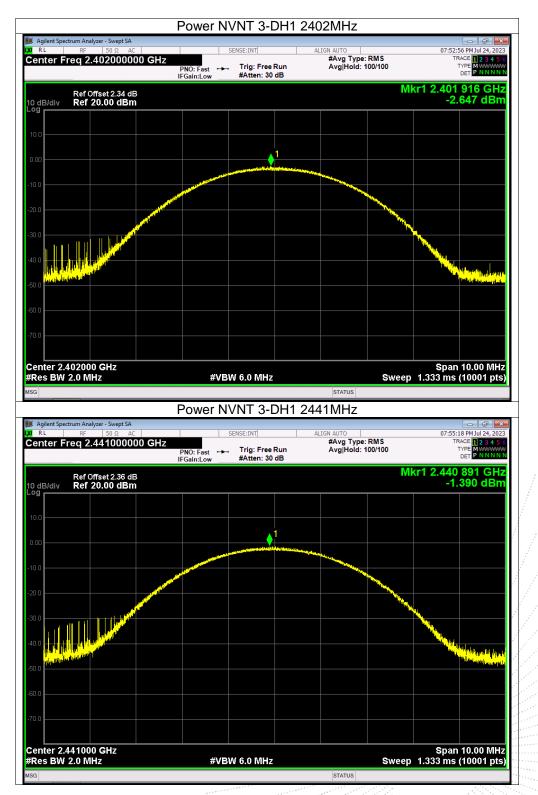
Normal S.





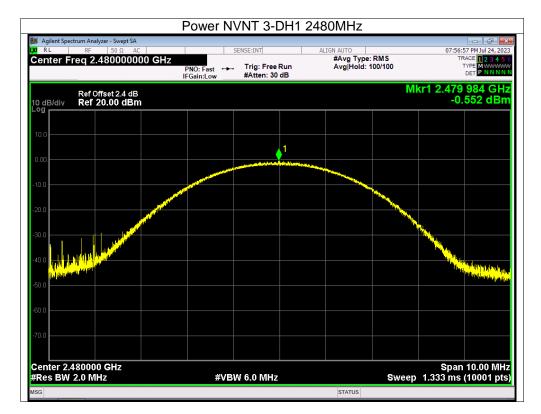






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# 12. Hopping Channel Separation

### 12.1 Block Diagram Of Test Setup



### 12.2 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 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 0.125W.

# 12.3 Test procedure

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum.

2. Set the spectrum analyzer: RBW = 30kHz. VBW = 100kHz , Span = 2.0MHz. Sweep = auto; Detector Function = Peak. Trace = Max hold.

3. Allow the trace to stabilize. Use the marker-delta function to determine the separation between the peaks of the adjacent channels. The limit is specified in one of the subparagraphs of this Section Submit this plot.

Condition	Mode	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	2401.832	2402.832	1	0.911	Pass
NVNT	1-DH1	2440.832	2441.834	1.002	0.881	Pass
NVNT	1-DH1	2478.832	2479.832	1	0.858	Pass
NVNT	2-DH1	2401.834	2402.834	1	0.838	Pass
NVNT	2-DH1	2440.832	2441.832	1	0.817	Pass
NVNT	2-DH1	2478.834	2479.834	1	0.835	Pass
NVNT	3-DH1	2401.832	2402.832	1	0.813	Pass
NVNT	3-DH1	2440.834	2441.834	1	0.814	Pass
NVNT	3-DH1	2478.832	2479.832	1	0.815	Pass

### 12.4 Test Result



		CFS NVN	IT 1-DH1 2	2402MHz		
Agilent Spectrum Analyzer - Sw R L RF 50 S	ept SA Ω AC	SEN	ISE:INT	ALIGN AUTO	07	🗗 론 42:31 PM Jul 24, 202
enter Freq 2.4025	PI	NO: Wide	Trig: Free Run #Atten: 30 dB	#Avg Type: R Avg Hold:>10	MS	TRACE 1 2 3 4 5 TYPE MWWWW DET P NNNN
Ref Offset 2 dB/div Ref 20.00	34 dB dBm				Mkr1 2.4	01 832 GHz -5.846 dBm
<b>9</b> 0.0						
00	<b>♦</b> <sup>1</sup>			2		
0.0						$\sim$
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enter 2.402500 GHz	2					an 2.000 MHz
Res BW 30 kHz		#VBW	100 kHz		Sweep 2.133	
R MODE TRC SCL	× 2.401 832 GHz	-5.846 dB	FUNCTION	FUNCTION WIDTH	FUNCTION VAL	UE A
2 N 1 f 3 4	2.402 832 GHz	-5.838 dB	sm			
						=
7 <b></b> 8 <b></b>						
9						
			III			
3				STATUS		
		CES NVN	IT 1-DH1 2			
Agilant Spactrum Apply and Su				2441MHZ		
	ept SA Ω AC		ISE:INT	ALIGN AUTO		44:27 PM Jul 24, 202
	ept SA Ω AC 00000 GHz PI	SEN			MS	7:44:27 PM Jul 24, 202 TRACE 1 2 3 4 5
RL RF 50 5 enter Freq 2.4415 Ref Offset 2	ept SA Ω AC     000000 GHz PI IF .36 dB	SEN	ISE:INT	ALIGN AUTO #Avg Type: R	MS 0/100 Mkr1 2.44	1744:27 PM Jul 24, 202 TRACE 1 2 3 4 5 TYPE MWWWW DET PNNNN 40 832 GHz
RL RF 50 5 enter Freq 2.4415 Ref Offset 2 Ref 0ffset 2 Ref 20.00	ept SA Ω AC 000000 GHz PI IF .36 dB	SEN	ISE:INT	ALIGN AUTO #Avg Type: R	MS 0/100 Mkr1 2.44	1744:27 PM Jul 24, 202 TRACE 1 2 3 4 5 TYPE MWWWW DET PNNNN 40 832 GHz
RL RF 50 5 enter Freq 2.4415 Ref Offset 2 dB/div Ref 20.00	ept SA Ω AC 000000 GHz PI IF .36 dB	SEN	ISE:INT	ALIGN AUTO #Avg Type: R Avg Hold:>10	MS 0/100 Mkr1 2.44	1744:27 PM Jul 24, 202 TRACE 1 2 3 4 5 TYPE MWWWW DET PNNNN 40 832 GHz
RL RF 50 5 enter Freq 2.4415 Ref Offset 2 Ref 0ffset 2 Ref 20.00	ept SA Ω AC 000000 GHz PI IF .36 dB	SEN	ISE:INT	ALIGN AUTO #Avg Type: R	MS 0/100 Mkr1 2.44	1744:27 PM Jul 24, 202 TRACE 1 2 3 4 5 TYPE MWWWW DET PNNNN 40 832 GHz
RL         RF         50 4           enter Freq 2.4415         Ref Offset 2         Ref Offset 2           dB/div         Ref 20.00         Ref 20.00           00         0         0         0           00         0         0         0	ept SA Ω AC 000000 GHz PI IF .36 dB	SEN	ISE:INT	ALIGN AUTO #Avg Type: R Avg Hold:>10	MS 0/100 Mkr1 2.44	1744:27 PM Jul 24, 202 TRACE 1 2 3 4 5 TYPE MWWWW DET PNNNN 40 832 GHz
RL RF 50 4 enter Freq 2.4415 dB/div Ref 20.00	ept SA Ω AC 000000 GHz PI IF .36 dB	SEN	ISE:INT	ALIGN AUTO #Avg Type: R Avg Hold:>10	MS 0/100 Mkr1 2.44	1744:27 PM Jul 24, 202: TRACE 1 2 3 4 5 TYPE MWWWW DET PNNNN
RL         RF         50 4           enter Freq 2.4415         Ref Offset 2         Ref Offset 2           dB/div         Ref 20.00         Ref 20.00           00         0         0         0           00         0         0         0	ept SA Ω AC 000000 GHz PI IF .36 dB	SEN	ISE:INT	ALIGN AUTO #Avg Type: R Avg Hold:>10	MS 0/100 Mkr1 2.44	1744:27 PM Jul 24, 202: TRACE 1 2 3 4 5 TYPE MWWWW DET PNNNN
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RL         RF         50 4           enter Freq 2.4415         Ref Offset 2         Ref 20.00           Ref 20.00         Ref 20.00         Ref 20.00	ept SA Ω AC 000000 GHz PI IF .36 dB	SEN	ISE:INT	ALIGN AUTO #Avg Type: R Avg Hold:>10	MS 0/100 Mkr1 2.44	1744:27 PM Jul 24, 202: TRACE 1 2 3 4 5 TYPE MWWWW DET PNNNN
RL         RF         50 4           enter Freq 2.4415         Ref Offset 2         Ref 20.00           Ref 20.00         Ref 20.00         Ref 20.00           Ref 20.00         Ref	ept SA 2 AC P 1 1 1 1 1 1 1 1 1 1 1 1 1	NO: Wide Gain:Low	ISE:INT	ALIGN AUTO #Avg Type: R Avg Hold:>10	MS 0/100 Mkr1 2.44	radicz PMJul 24, 2022 TRACE II 2 34 3 TYPE P NNNN 40 832 GH2 -4.628 dBm
RL         RF         50 4           enter Freq 2.4415         Ref Offset 2         B           dB/div         Ref 20.00         B           00         B         B         B           00         B         B         B         B           00         B         B         B         B         B           00         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B         B <t< td=""><td>ept SA 2 AC 3 AC P F F S36 dB dB dB dB c c c x</td><td>NO: Wide Gain:Low</td><td>ISE:INT Trig: Free Run #Atten: 30 dB</td><td>ALIGN AUTO #Avg Type: R Avg Hold:&gt;10</td><td>MS 0/100 Mkr1 2.44</td><td>radia 27 PMJul 24, 2022 TRACE [] 2 34 3 TYPE MUMMUM 0 832 GH2 -4.628 dBm -4.628 dBm -4.628 dBm -4.628 dBm</td></t<>	ept SA 2 AC 3 AC P F F S36 dB dB dB dB c c c x	NO: Wide Gain:Low	ISE:INT Trig: Free Run #Atten: 30 dB	ALIGN AUTO #Avg Type: R Avg Hold:>10	MS 0/100 Mkr1 2.44	radia 27 PMJul 24, 2022 TRACE [] 2 34 3 TYPE MUMMUM 0 832 GH2 -4.628 dBm -4.628 dBm -4.628 dBm -4.628 dBm
RL         RF         50 d           enter Freq 2.4415         Ref Offset 2         Ref 20.00           gB/div         Ref 20.00         Ref 20.00	ept SA 2 AC PI 1 1 2 2 2 2 2 2 2	NO: Wide Gain:Low	ISE:INT Trig: Free Run #Atten: 30 dB	ALIGN AUTO #Avg Type: RI Avg]Hold:>10	MS 0/100 Mkr1 2.44 	
RL         RF         50 d           enter Freq 2.4415         Ref Offset 2         Ref 20.00           gg         Ref 20.00         Ref 20.00	ept SA 2. AC PI 3.36 dB dBm 1 1 2. 4. 2. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4	NO: Wide Gain:Low #VBW #VBW Y 4.628 dB	ISE:INT Trig: Free Run #Atten: 30 dB	ALIGN AUTO #Avg Type: RI Avg]Hold:>10	MS 0/100 Mkr1 2.44 	radia 27 PMJul 24, 2022 TRACE [] 2 34 3 TYPE MUMMUM 0 832 GH2 -4.628 dBm -4.628 dBm -4.628 dBm -4.628 dBm
RL         RF         50 d           enter Freq 2.4415         Ref Offset 2         Sector           dB/div         Ref 20.00         Sector           gg         Sector         Sector           db/div         Ref 20.00         Sector           gg         Sector         Sector	ept SA 2. AC PI 3.36 dB dBm 1 1 2. 4. 2. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4	NO: Wide Gain:Low #VBW #VBW Y 4.628 dB	ISE:INT Trig: Free Run #Atten: 30 dB	ALIGN AUTO #Avg Type: RI Avg]Hold:>10	MS 0/100 Mkr1 2.44 	radia 27 PMJul 24, 2022 TRACE [] 2 34 3 TYPE MUMMUM 0 832 GH2 -4.628 dBm -4.628 dBm -4.628 dBm -4.628 dBm
RL         RF         50.6           enter Freq 2.4415         Ref Offset 2         Ref 20.00           00         0         0         0           00         0         0         0         0           00         0         0         0         0           00         0         0         0         0           00         0         0         0         0           00         0         0         0         0           00         0         0         0         0           00         0         0         0         0           010         0         0         0         0           010         0         0         0         0           010         0         0         0         0           010         0         0         0         0         0           010         0         0         0         0         0         0           010         0         0         0         0         0         0         0           02         0         0         0         0         0         0 <td>ept SA 2. AC PI 3.36 dB dBm 1 1 2. 4. 2. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4</td> <td>NO: Wide Gain:Low #VBW #VBW Y 4.628 dB</td> <td>ISE:INT Trig: Free Run #Atten: 30 dB</td> <td>ALIGN AUTO #Avg Type: RI Avg]Hold:&gt;10</td> <td>MS 0/100 Mkr1 2.44 </td> <td>radia 27 PM Jul 24, 202 TRACE 1 2 3 4 5 TYPE M MMMM DET P NNNN 40 832 GH2 -4.628 dBm an 2.000 MH2 ms (1001 pts</td>	ept SA 2. AC PI 3.36 dB dBm 1 1 2. 4. 2. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4	NO: Wide Gain:Low #VBW #VBW Y 4.628 dB	ISE:INT Trig: Free Run #Atten: 30 dB	ALIGN AUTO #Avg Type: RI Avg]Hold:>10	MS 0/100 Mkr1 2.44 	radia 27 PM Jul 24, 202 TRACE 1 2 3 4 5 TYPE M MMMM DET P NNNN 40 832 GH2 -4.628 dBm an 2.000 MH2 ms (1001 pts

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