

# **TEST REPORT**

Report No.:	BCTC2209694979-3E				
Applicant:	Telecell Mobile (H.K) Ltd.				
Product Name:	LTE Flip Phone				
Model/Type reference:	Τ2				
Tested Date:	2022-09-13 to 2022-10-11				
Issued Date:	2022-10-11				
She	nzhen BCTC Testing Co., Ltd.	*****			
No.: BCTC/RF-EMC-007	Page: 1 of 80 Edition: A.5				



## FCC ID: 2ADX3T2

Product Name:	LTE Flip Phone
Trademark:	FiGO
Model/Type Reference:	T2
Prepared For:	Telecell Mobile (H.K) Ltd.
Address:	RM 801 Metro Ctr II, 21 Lam Hing Street Kln Bay, Hong Kong
Manufacturer:	Telecell Mobile (H.K) Ltd.
Address:	RM 801 Metro Ctr II, 21 Lam Hing Street Kln Bay, Hong Kong
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:	2022-09-13
Sample tested Date:	2022-09-13 to 2022-10-11
Issue Date:	2022-10-11
Report No.:	BCTC2209694979-3E
Test Standards	FCC Part15.247 ANSI C63.10-2013
Test Results	PASS
Remark:	This is Bluetooth Classic radio test report.

Tested by:

R

Brave Zeng/ 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
BCTC2209694979-3E	2022-10-11	Original	Valid





## 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 & §1 5.205	PASS
10	Antenna Requirement	15.203	PASS

No.: BCTC/RF-EMC-007



### 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	Ú=5.3%
10	Temperature uncertainty	U≠0.59℃



## 4. Product Information And Test Setup

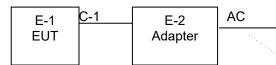
#### 4.1 Product Information

Model/Type reference:	T2
Model differences:	N/A
Bluetooth Version:	5.0
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:	Internal antenna
Antenna Gain:	-0.02 dBi
Ratings:	DC 5V from adapter /DC 3.7V from battery
Adapter Information:	Model:T2 Input: AC100-240V 50/60Hz 150mA Output: DC 5.0V 600mA

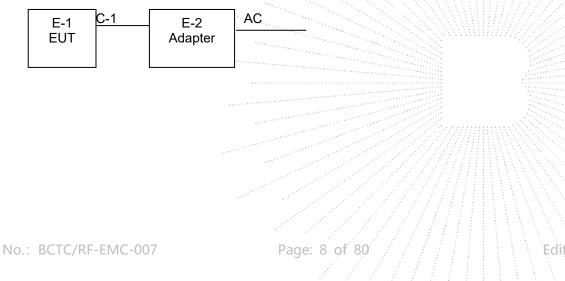
## 4.2 Test Setup Configuration

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	LTE Flip Phone	N/A	T2	N/A	EUT
E-2	Adapter	N/A	T2	N/A	Auxiliary

ltem	Shielded Type	Ferrite Core	Length	Note
C-1	N/A	N/A	1M	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	$\int dx dx dx dx dx dx$



#### 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	2480MHz		
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



#### 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 IC Registered No.: 23583

#### 5.2 Test Instrument Used

Conducted Emissions Test							
Equipment	Manufacturer	Last Cal.	Next Cal.				
Receiver	R&S	ESR3	102075	May 24, 2022	May 23, 2023		
LISN	R&S	ENV216	101375	May 24, 2022	May 23, 2023		
Software	Frad	EZ-EMC	EMC-CON 3A1	١	١		
Attenuator	1	10dB DC-6GHz	1650	May 24, 2022	May 23, 2023		

RF Conducted Test							
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.		
Power Metter	Keysight	E4419		May 24, 2022	May 23, 2023		
Power Sensor (AV)	Keysight	E9300A		May 24, 2022	May 23, 2023		
Signal Analyzer20kH z-26.5GHz	Keysight	N9020A	MY49100060	May 24, 2022	May 23, 2023		
Spectrum Analyzer9kHz- 40GHz	R&S	FSP40	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	May 24, 2022	May 23, 2023		

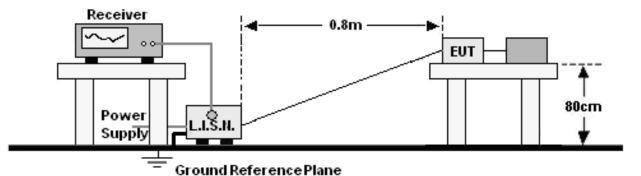


Radiated Emissions Test (966 Chamber01)							
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.		
966 chamber	ChengYu	966 Room	966	Jun. 06. 2020	Jun. 05, 2023		
Receiver	R&S	ESR3	102075	May 24, 2022	May 23, 2023		
Receiver	R&S	ESRP	101154	May 24, 2022	May 23, 2023		
Amplifier	SKET	LAPA_01G18 G-45dB	١	May 24, 2022	May 23, 2023		
Amplifier	Schwarzbeck	BBV9744	9744-0037	May 24, 2022	May 23, 2023		
TRILOG Broadband Antenna	Schwarzbeck	VULB9163	942	May 26, 2022	May 25, 2023		
Horn Antenna	Schwarzbeck	BBHA9120D	1541	Jun. 06, 2022	Jun. 05, 2023		
Horn Antenna(18G Hz-40GHz)	Schwarzbeck	BBHA9170	00822	Jun. 06, 2022	Jun. 05, 2023		
Amplifier(18G Hz-40GHz)	MITEQ	TTA1840-35- HG	2034381	May 26, 2022	May 25, 2023		
Loop Antenna(9KHz -30MHz)	Schwarzbeck	FMZB1519B	00014	May 26, 2022	May 25, 2023		
Power Metter	Keysight	E4419	١	May 26, 2022	May 25, 2023		
Power Sensor (AV)	Keysight	E9300A	/	May 26, 2022	May 25, 2023		
Signal Analyzer20kH z-26.5GHz	Keysight	N9020A	MY49100060	May 26, 2022	May 25, 2023		
Spectrum Analyzer9kHz- 40GHz	R&S	FSP40		May 26, 2022	May 25, 2023		
Software	Frad	EZ-EMC	FA-03A2 RE		$ ///\sqrt{2}$		



#### 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	

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

#### 6.3 Test procedure

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	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.

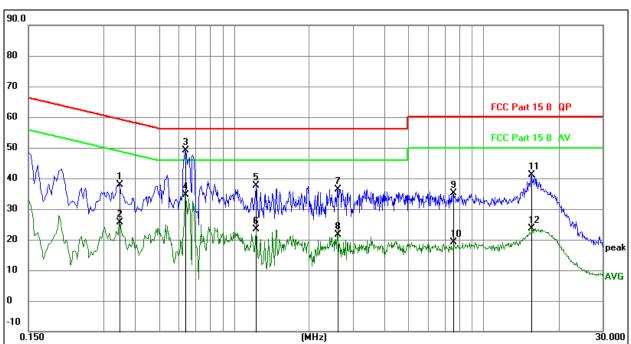
#### 6.4 EUT operating Conditions

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 1	Test Voltage :	AC120V/60Hz



#### Remark:

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

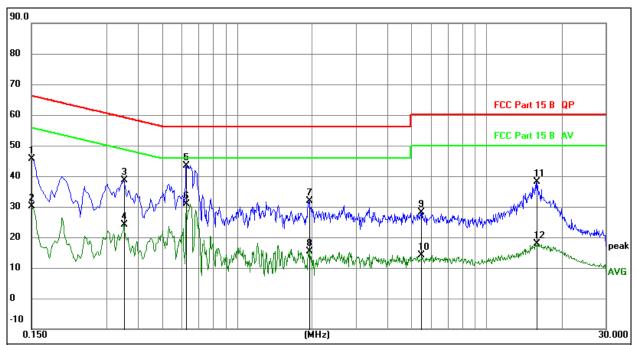
No. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
	MHz		dB	dBuV	dBuV	dB	Detector
1	0.3465	18.21	19.76	37.97	59.05	-21.08	QP
2	0.3465	5.76	19.76	25.52	49.05	-23.53	AVG
3 *	0.6372	29.48	19.73	49.21	56.00	-6.79	QP
4	0.6372	14.81	19.73	34.54	46.00	-11.46	AVG
5	1.2291	17.90	19.79	37.69	56.00	-18.31	QP
6	1.2291	3.48	19.79	23.27	46.00	-22.73	AVG
7	2.5945	16.55	19.95	36.50	56.00	-19.50	QP
8	2.5945	1.61	19.95	21.56	46.00	-24.44	AVG
9	7.5258	14.85	20.20	35.05	60.00	-24.95	QP
10	7.5258	-1.10	20.20	19.10	50.00	-30.90	AVG
11	15.4701	20.83	20.30	41.13	60.00	-18.87	QP
12	15.4701	3.44	20.30	23.74	50.00	-26.26	AVG

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Temperature:	<b>26</b> ℃	Relative Humidity:	54%
Pressure:	101KPa	Phase :	Ν
Test Mode:	Mode 1	Test Voltage :	AC120V/60Hz



Remark:

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

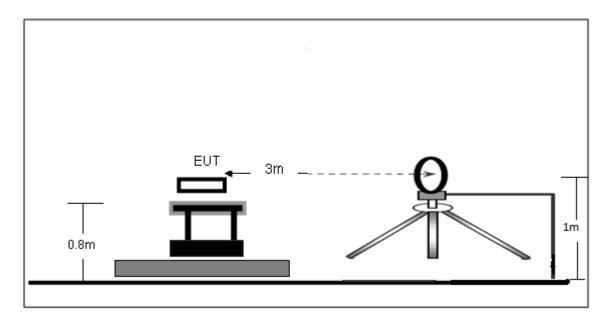
No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
	MHz		dB	dBuV	dBuV	dB	Detector
1	0.1500	26.00	19.67	45.67	66.00	-20.33	QP
2	0.1500	10.48	19.67	30.15	56.00	-25.85	AVG
3	0.3525	18.82	19.76	38.58	58.90	-20.32	QP
4	0.3525	4.39	19.76	24.15	48.90	-24.75	AVG
5 *	0.6269	23.65	19.73	43.38	56.00	-12.62	QP
6	0.6269	11.06	19.73	30.79	46.00	-15.21	AVG
7	1.9409	11.95	19.87	31.82	56.00	-24.18	QP
8	1.9409	-4.60	19.87	15.27	46.00	-30.73	AVG
9	5.4645	7.93	20.14	28.07	60.00	-31.93	QP
10	5.4645	-6.04	20.14	14.10	50.00	-35.90	AVG
11	15.8460	17.81	20.32	38.13	60.00	-21.87	QP
12	15.8460	-2.54	20.32	17.78	50.00	-32.22	AVG



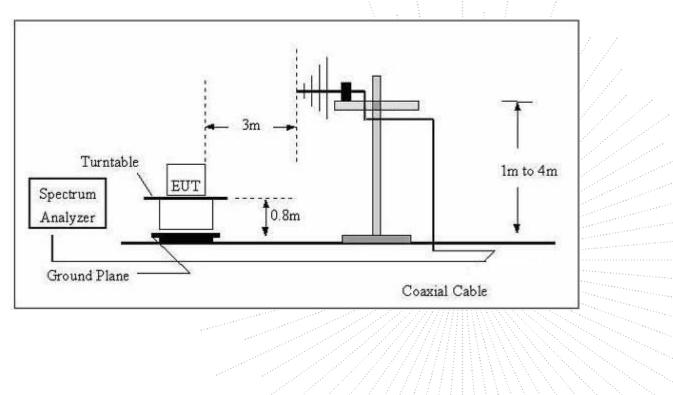
#### 7. Radiated emissions

## 7.1 Block Diagram Of Test Setup

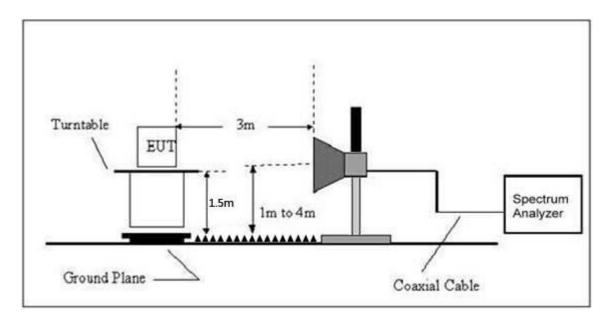
#### (A) Radiated Emission Test-Up Frequency Below 30MHz



(B) Radiated Emission Test-Up Frequency 30MHz~1GHz







#### (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		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> °C		Relative Humidity:	54%
Pressure:	101KPa	and the second	Test Voltage :	AC120V/60Hz
Test Mode:	Mode 2		Polarization :	H   ///////////////////////////////////

Below 30MHz

	1144 A			
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.

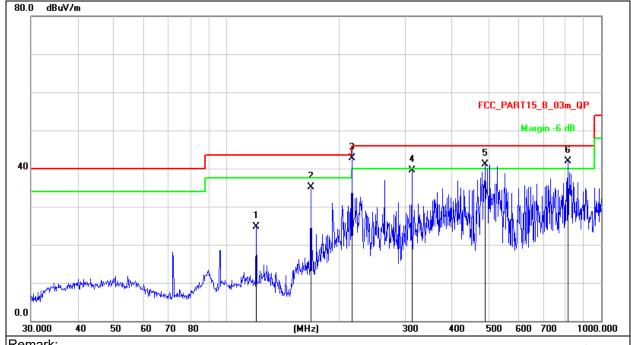
Distance extrapolation factor =40 log (specific distance/test distance)(dB);

Limit line = specific limits(dBuv) + distance extrapolation factor.



Temperature:	<b>26</b> ℃	Relative Humidity:	54%
Pressure:	101KPa	Phase :	Horizontal
Test Mode:	Mode 1	Test Voltage :	AC120V/60Hz





Remark:

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

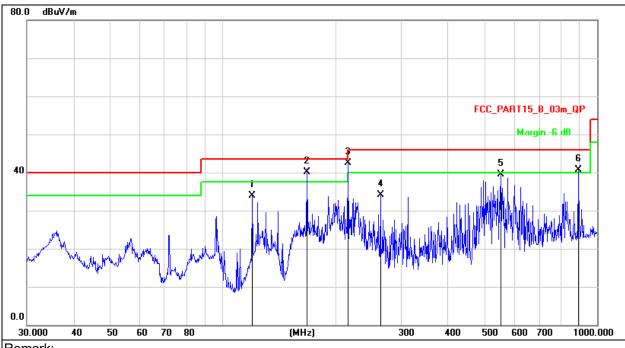
2. Measurement = Reading Level + Correct Factor

3. Over = Measurement - Limit

No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		119.8556	42.61	-17.97	24.64	43.50	-18.86	QP
2		167.8243	53.61	-18.47	35.14	43.50	-8.36	QP
3	*	216.0240	58.19	-15.39	42.80	46.00	-3.20	QP
4		312.1794	51.15	-11.71	39.44	46.00	-6.56	QP
5	İ	490.7447	49.24	-8.09	41.15	46.00	-4.85	QP
6	İ	815.9678	44.00	-2.09	41.91	46.00	-4.09	QP



Temperature:	<b>26</b> ℃	Relative Humidity:	54%
Pressure:	101KPa	Phase :	Vertical
Test Mode:	Mode 1	Test Voltage :	AC120V/60Hz



#### Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.
 Measurement = Reading Level + Correct Factor

3.	Over =	Measurement	- Limit

			D	0	14			
No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		119.8556	51.95	-17.97	33.98	43.50	-9.52	QP
2	*	167.8243	58.54	-18.47	40.07	43.50	-3.43	QP
3	İ	216.0240	57.84	-15.39	42.45	46.00	-3.55	QP
4		263.8190	47.62	-13.57	34.05	46.00	-11.95	QP
5		552.8832	46.26	-6.75	39.51	46.00	-6.49	QP
6	ļ	890.7278	41.68	-0.99	40.69	46.00	-5.31	QP

Edition:



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 ch	annel			
V	4804.00	52.58	-0.43	52.15	74.00	-21.85	PK
V	4804.00	41.89	-0.43	41.46	54.00	-12.54	AV
V	7206.00	44.24	8.31	52.55	74.00	-21.45	PK
V	7206.00	34.45	8.31	42.76	54.00	-11.24	AV
Н	4804.00	50.91	-0.43	50.48	74.00	-23.52	PK
Н	4804.00	40.16	-0.43	39.73	54.00	-14.27	AV
Н	7206.00	42.43	8.31	50.74	74.00	-23.26	PK
Н	7206.00	34.44	8.31	42.75	54.00	-11.25	AV
		G	FSK Middle c	hannel			
V	4882.00	51.18	-0.38	50.80	74.00	-23.20	PK
V	4882.00	45.07	-0.38	44.69	54.00	-9.31	AV
V	7323.00	40.82	8.83	49.65	74.00	-24.35	PK
V	7323.00	31.21	8.83	40.04	54.00	-13.96	AV
Н	4882.00	46.88	-0.38	46.50	74.00	-27.50	PK
Н	4882.00	37.05	-0.38	36.67	54.00	-17.33	AV
Н	7323.00	39.43	8.83	48.26	74.00	-25.74	PK
Н	7323.00	31.26	8.83	40.09	54.00	-13.91	AV
			GFSK High ch	annel			
V	4960.00	52.48	-0.32	52.16	74.00	-21.84	PK
V	4960.00	42.76	-0.32	42.44	54.00	-11.56	AV
V	7440.00	46.05	9.35	55.40	74.00	-18.60	PK
V	7440.00	36.82	9.35	46.17	54.00	-7.83	AV
Н	4960.00	50.17	-0.32	49.85	74.00	-24.15	PK
Н	4960.00	40.60	-0.32	40.28	54.00	-13.72	AV
Н	7440.00	44.29	9.35	53.64	74.00	-20.36	PK
Н	7440.00	36.82	9.35	46.17	54.00	-7.83	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.

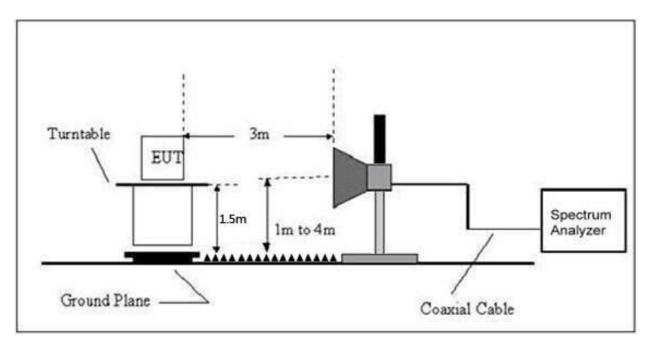
5.All the Modulation are test, the worst mode is GFSK, the data recording in the report.



#### 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	( <sup>2</sup> )
13.36-13.41			



#### 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).

#### 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

Loct modo	Polar (H/V)	Frequency (MHz)	Reading Level	Correct Factor	Measure- ment (dBuV/m)	Limits (dBuV/m)		Result
	(п/•)		(dBuV/m)	(dB)	PK	PK	AV	
			Low	Channel 24	102MHz			
	Н	2390.00	53.33	-6.70	46.63	74.00	54.00	PASS
	Н	2400.00	57.96	-6.71	51.25	74.00	54.00	PASS
	V	2390.00	54.27	-6.70	47.57	74.00	54.00	PASS
GFSK	V	2400.00	57.95	-6.71	51.24	74.00	54.00	PASS
Gran			High	Channel 24	480MHz			
	Н	2483.50	57.55	-6.79	50.76	74.00	54.00	PASS
	Н	2500.00	50.81	-6.81	44.00	74.00	54.00	PASS
	V	2483.50	57.62	-6.79	50.83	74.00	54.00	PASS
	V	2500.00	55.01	-6.81	48.20	74.00	54.00	PASS
			Low	Channel 24	102MHz			
	Н	2390.00	54.48	-6.70	47.78	74.00	54.00	PASS
	Н	2400.00	57.53	-6.71	50.82	74.00	54.00	PASS
	V	2390.00	55.47	-6.70	48.77	74.00	54.00	PASS
	V	2400.00	59.31	-6.71	52.60	74.00	54.00	PASS
π/4DQPSK			High	Channel 24	480MHz			
	Н	2483.50	58.20	-6.79	51.41	74.00	54.00	PASS
	Н	2500.00	53.85	-6.81	47.04	74.00	54.00	PASS
	V	2483.50	59.23	-6.79	52.44	74.00	54.00	PASS
	V	2500.00	54.80	-6.81	47.99	74.00	54.00	PASS
			Low	Channel 24	102MHz			
	Н	2390.00	53.79	-6.70	47.09	74.00	54.00	PASS
	Н	2400.00	57.93	-6.71	51.22	74.00	54.00	PASS
	V	2390.00	54.25	-6.70	47.55	74.00	54.00	PASS
	V	2400.00	58.95	-6.71	52.24	74.00	54.00	PASS
8DPSK		*.	High	Channel 24	480MHz			
	Н	2483.50	57.20	-6.79	50.41	74.00	54.00	PASS
	Н	2500.00	51.54	-6.81	44.73	74.00	54.00	PASS
	V	2483.50	56.93	-6.79	50.14	74.00	54.00	PASS
	V	2500.00	53.75	-6.81	46.94	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



#### 9.4 Test Result



No.: BCTC/RF-EMC-007





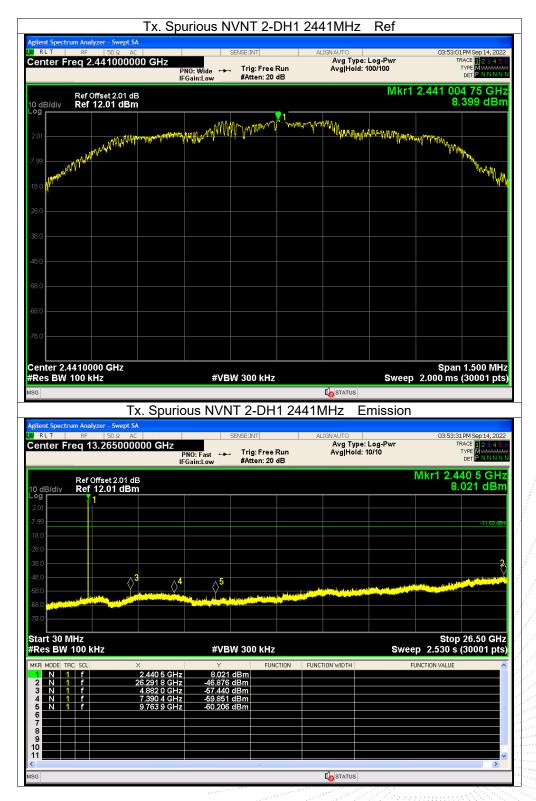


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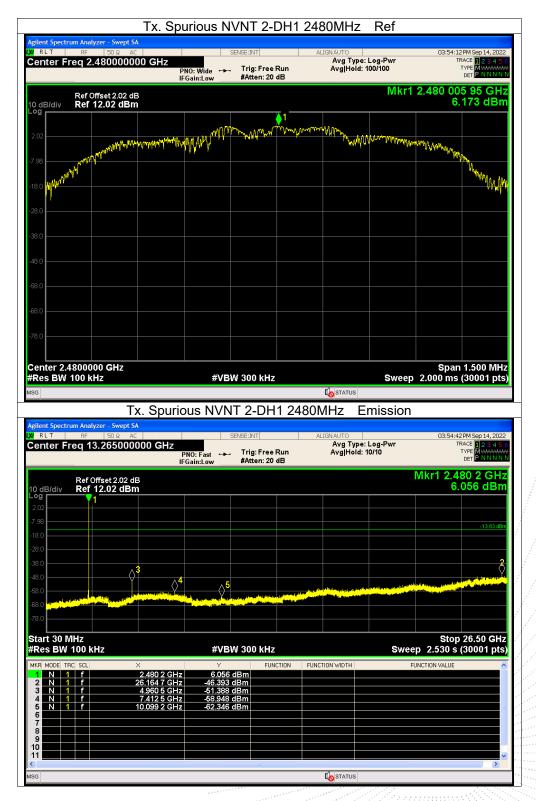


ilent Spectrum Analyzer - Sw RLT RF 50 G	vept SA	SENSE:	INT	ALIGN AUTO		03:51:4	18 PM Sep 14, 202
enter Freq 2.4020	00000 GHz	NO:Wide Tri	ig: Free Run tten: 20 dB	Aug Type: Avg Hold: 1	Log-Pwr 00/100	1	IRACE 1 2 3 4 5 TYPE MWWWW DET P N N N
Ref Offset 2 dB/div Ref 12.00	dB				Mkr1	2.401 99	9 15 GH .366 dBi
nd no		. 41 <sup>47</sup> (1)m		1 0/1 (n.l.)			
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G G		# <b>* D * *</b> 30	0 KH2			2.000 1113	(00001 pt
				STATUS			
	Tx. Spurio	ous NVNT 2	2-DH1 240		mission		
	vept SA			)2MHz Ei		02-52-1	90M Son 14, 201
RLT RF 50 G	vept SA 2 AC 000000 GHz P	SENSE:			mission	03:52:1	8PM Sep 14, 202 IRACE 1 2 3 4 5 TYPE MWWWW DET P N N N
RLT RF 50 G enter Freq 13.265 Ref Offset2 0 dB/div Ref 12.00	vept SA 2 AC 0000000 GHz P IF	SENSE: NO: Fast ↔ Tri	INT	2MHz EI	mission Log-Pwr 0/10	Mkr1 2.4	
RLT RF 50 G enter Freq 13.265 Ref Offset 2 0 dB/div Ref 12.00	vept SA 2 AC 0000000 GHz P IF	SENSE: NO: Fast ↔ Tri	INT	2MHz EI	mission Log-Pwr 0/10	Mkr1 2.4	
RLT RF 50 G enter Freq 13.265 Ref Offset 2 D dB/div Ref 12.00	vept SA 2 AC 0000000 GHz P IF	SENSE: NO: Fast ↔ Tri	INT	2MHz EI	mission Log-Pwr 0/10	Mkr1 2.4	
Ref Offset 2 0 dB/div Ref 12.00 9 1 0 0 0 0 8 0 1 8 0	vept SA 2 AC 0000000 GHz P IF	SENSE: NO: Fast ↔ Tri	INT	2MHz EI	mission Log-Pwr 0/10	Mkr1 2.4	
RLT RF 50 G enter Freq 13.265 Ref Offset 2 0 dB/div Ref 12.00 9 1 0 0 1 0 0	vept SA 2 AC 0000000 GHz P IF	SENSE: NO: Fast ↔ Tri	INT	2MHz EI	mission Log-Pwr 0/10	Mkr1 2.4	
RLT         RF         50 g           enter Freq 13.265/	vept SA 2 AC 0000000 GHz P IF	SENSE: NO: Fast ↔ Tri	INT	2MHz EI	mission Log-Pwr 0/10	Mkr1 2.4	8PMSep 14, 202 RACE 12345 TYPE MWWW OT 7 GH 905 dBr -1163 dB
RLT         RF         50 g           enter Freq 13.265/         Ref Offset2           0 dB/div         Ref 12.00           9         1           0.00         1           0.00         1           0.00         1           0.00         1           0.00         1           0.00         1           0.00         1	vept SA 2 AC 0000000 GHz P IF	SENSE: NO: Fast ↔ Tri	INT	2MHz EI	mission Log-Pwr 0/10	Mkr1 2.4	
RLT         RF         50 g           enter Freq 13.265         Ref Offset2           0 dB/div         Ref 12.00           9         1           20         1	vept SA 2 AC 0000000 GHz P IF	SENSE: NO: Fast ↔ Tri	INT	2MHz EI	mission Log-Pwr 0/10	Mkr1 2.4	
RLT         RF         S0 c           enter Freq 13.265         Ref Offset 2           0 dB/div         Ref 12.00           0 dB/div         Ref 12.00 <t< td=""><td>vept SA 2 AC 0000000 GHz P IF</td><td>SENSE: NO: Fast ↔ Tri</td><td>INT                                      </td><td>2MHz EI</td><td>mission Log-Pwr 0/10</td><td>Mkr1 2.4 6</td><td>12 3 4 3 TYPE MANANA Det P NNN 01 7 GH 905 dBt </td></t<>	vept SA 2 AC 0000000 GHz P IF	SENSE: NO: Fast ↔ Tri	INT	2MHz EI	mission Log-Pwr 0/10	Mkr1 2.4 6	12 3 4 3 TYPE MANANA Det P NNN 01 7 GH 905 dBt 
RLT         RF         50 c           enter Freq 13.265         Ref Offset 2         Second 2           0 dB/div         Ref 12.00         Ref 12.00           9         1         Second 2           0 dB/div         Ref 12.00         Ref 12.00           80         1         Second 2           80         1 <td< td=""><td>xept SA 2 AC 4C P F C C C C C C C C C C C C C C C C C</td><td>SENSE: NO: Fast Gain:Low Tri #A</td><td>INT ig: Free Run tten: 20 dB</td><td>2MHz EI</td><td>mission Log-Pwr 0/10</td><td>Mkr1 2.4 6</td><td>12 3 4 TYPE MYWWW 001 7 GH 905 dBr </td></td<>	xept SA 2 AC 4C P F C C C C C C C C C C C C C C C C C	SENSE: NO: Fast Gain:Low Tri #A	INT ig: Free Run tten: 20 dB	2MHz EI	mission Log-Pwr 0/10	Mkr1 2.4 6	12 3 4 TYPE MYWWW 001 7 GH 905 dBr 
RLT         RF         S0 2           enter Freq 13.265         Ref Offset 2           0 dB/div         Ref 12.00           9         1           0 0         1	xept SA 2 AC 0 000000 GHz P F dB dB dB dB dB dB dB dB dB dB dB dB dB	SENSE: NO: Fast → Tri Gain:Low 5 5 5 #VBW 30	INT ig: Free Run tten: 20 dB	ALIGNAUTO Avg Type: AvgHold: 1	mission Log-Pwr 0/10	Mkr1 2.4 6	12 3 4 TYPE MYWWW 001 7 GH 905 dBr 
RLT         RF         S0 2           enter Freq 13.265         Ref Offset 2         S0 4           0 dB/div         Ref 12.00         Ref 12.00           9         1         S0 4           0 dB/div         Ref 12.00         Ref 12.00           9         1         S0 4           8.0         1         S0 4           8.0         1         S0 4           8.0         1         1           8.0         1         1           8.0         1         1           8.0         1         1           8.0         1         1	xept SA 2 AC 4C P F C C C C C C C C C C C C C C C C C	SENSE: NO: Fast Gain:Low	INT ig: Free Run tten: 20 dB	ALIGNAUTO Avg Type: AvgHold: 1	mission Log-Pwr 0/10	Mkr1 2.4 6	12 3 4 TYPE MYWWW 001 7 GH 905 dBr 
RLT         RF         S0 c           enter Freq 13.265         Ref Offset 2           0 dB/div         Ref 12.00           9         1           0 0         1           1 0         1           1 1         1           0 1	xept SA 2 AC 2 AC 3 AC 4 4 4 4 4 4 4 4 4 4 4 4 4	SENSE: NO: Fast → Tri Gain:Low → #A 5 5 #VBW 30 ¥VBW 30 × 6 905 dBm -60,783 dBm -61,454 dBm -61,474 dBm	INT ig: Free Run tten: 20 dB	ALIGNAUTO Avg Type: AvgHold: 1	mission Log-Pwr 0/10	Mkr1 2.4 6	12 3 4 TYPE MYWWW 001 7 GH 905 dBr 
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RLT         RF         50 c           enter Freq 13.265         Ref Offset 2         Ref 12.00           20 dB/div         Ref 12.00         Ref 12.00           30         1         1           300         1         1           300         1         1           300         1         1           300         1         1           300         1         1           300         1         1           300         1         1           300         1         1           300         1         1           301         1         1           301         1         1           301         1         1           301         1         1	xept SA 2 AC 2 AC 3 AC 4 4 4 4 4 4 4 4 4 4 4 4 4	SENSE: NO: Fast → Tri Gain:Low → #A 5 5 #VBW 30 ¥VBW 30 × 6 905 dBm -60,783 dBm -61,454 dBm -61,474 dBm	INT ig: Free Run tten: 20 dB	ALIGNAUTO Avg Type: AvgHold: 1	mission Log-Pwr 0/10	Mkr1 2.4 6	12 3 4 TYPE MYWWW 001 7 GH 905 dBr 





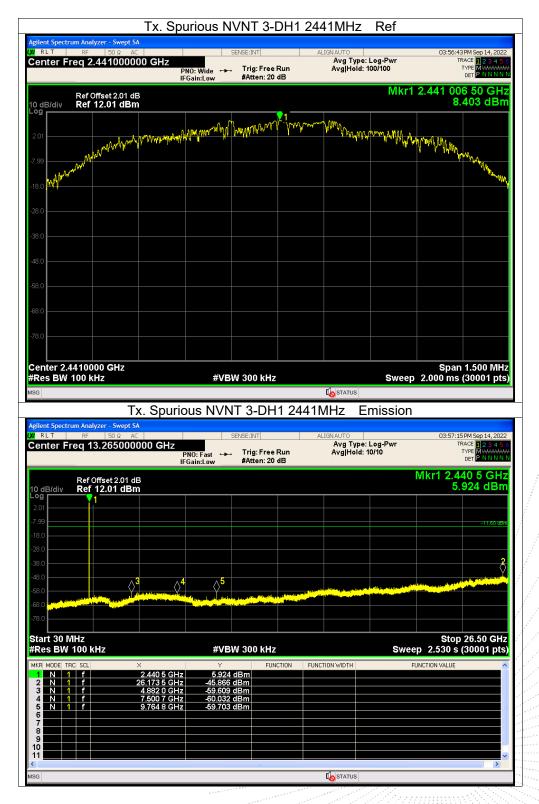








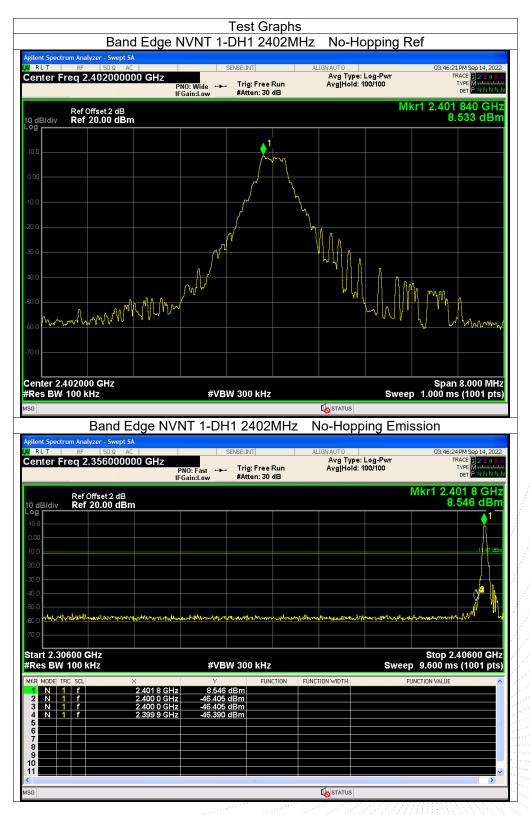






ilent Spectrum Analyzer - S	wept SA Ω AC	SENSE:INT		ALIGN AUTO		03:57:57 PM Sep 14. )
enter Freq 2.4800	000000 GHz	NO:Wide 🛶 Trig:I	Free Run n: 20 dB	Avg Type: Avg Hold: 1		TRACE 123 TYPE MWW DET P N N
Ref Offset 2 dB/div Ref 12.02	.02 dB <b>dBm</b>				Mkr1	2.480 003 50 G 6.162 dl
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enter 2.4800000 GI	lz					Span 1.500 N
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	Ty Spurie		1 24Q		mission	
ilent Spectrum Analyzer - S		ous NVNT 3-I	DH1 248		mission	
RLT RF 50	wept SA Ω AC	SENSE:INT		OMHZ E	Log-Pwr	03:58:28 PM Sep 14, TRACE 12 3
RLT RF 50	wept SA Ω AC     0000000 GHz	SENSE:INT		OMHZ E	Log-Pwr	03:58:28 PM Sep 14, TRACE 12 3 TYPE MWW DET P NN
RLT RF 50 enter Freq 13.265 Ref Offset 2	wept SA Ω AC F 0000000 GHz F IF 2.02 dB	SENSE:INT	Free Run	OMHZ E	Log-Pwr 0/10	TRACE 12 3 TYPE MWW DET P N N
RLT RF 50 enter Freq 13.265 Ref Offset 2 0 dB/div Ref 12.02 9 1	wept SA Ω AC F 0000000 GHz F IF 2.02 dB	SENSE:INT	Free Run	OMHZ E	Log-Pwr 0/10	TRACE 123 TYPE MWW DET PNN
RLT         RF         50           enter Freq 13.265         Ref Offset 2           0 dB/div         Ref 12.02           0 g         1	wept SA Ω AC F 0000000 GHz F IF 2.02 dB	SENSE:INT	Free Run	OMHZ E	Log-Pwr 0/10	TRACE 128 Type Mww Det P NN Mkr1 2.480 2 G 2.782 dE
RLT         RF         50           enter Freq 13.265         Ref Offset 2           0 dB/div         Ref 12.02           0 g         1           .02         1           .03         9           .04         1	wept SA Ω AC F 0000000 GHz F IF 2.02 dB	SENSE:INT	Free Run	OMHZ E	Log-Pwr 0/10	TRACE 12 3 TYPE MWW DET P N N
RLT         RF         50           enter Freq 13.265         Ref Offset 2           D dB/div         Ref 12.02           29         1           20         1	wept SA Ω AC F 0000000 GHz F IF 2.02 dB	SENSE:INT	Free Run	OMHZ E	Log-Pwr 0/10	TRACE 128 Type Mww Det P NN Mkr1 2.480 2 G 2.782 dE
RET         RF         50           enter Freq 13.265         Ref Offset2           DdB/div         Ref 12.02           0         1           202         1           203         1           204         1           205         1           206         1           207         1           208         1           209         1           201         1           202         1           203         1           204         1           205         1           206         1           207         1	wept SA Ω AC F 0000000 GHz F IF 2.02 dB	SENSE:INT	Free Run	OMHZ E	Log-Pwr 0/10	TRACE 128 Type Mww Det P NN Mkr1 2.480 2 G 2.782 dE
RET         RF         S0           enter Freq 13.265         Ref Offset 2         1           0 dB/div         Ref 12.02         1           0 dB/div	wept SA Ω AC F 0000000 GHz F IF 2.02 dB	SENSE:INT	Free Run	OMHZ E	Log-Pwr 0/10	TRACE 128 Type Mww Det P NN Mkr1 2.480 2 G 2.782 dE
RET         RF         S0           enter Freq 13.265         Ref Offset 2         2           0 dB/div         Ref 12.02         3           0 dB/div         Ref 12.02         4           0 dB/div	wept SA Ω AC F 0000000 GHz F IF 2.02 dB	SENSE:INT	Free Run	OMHZ E	Log-Pwr 0/10	TRACE 128 Type Mww Det P NN Mkr1 2.480 2 G 2.782 dE
RET         RF         S0           enter Freq 13.265         Ref Offset 2         2           0 dB/div         Ref 12.02         3           0 dB/div         Ref 12.02         4           0 dB/div	wept SA Ω AC F 0000000 GHz F IF 2.02 dB	SENSE:INT	Free Run	OMHZ E	Log-Pwr 0/10	TRACE 128 Type Mww Det P NN Mkr1 2.480 2 G 2.782 dE
RET         RF         S0           enter Freq 13.265         Ref Offset 2           odB/div         Ref 12.02           0         9           0         1           0.02         1           0.03         1           0.04         1           0.05         1	wept SA Ω AC F 0000000 GHz F IF 2.02 dB	SENSE:INT	Free Run n: 20 dB	OMHZ E	Log-Pwr 0/10	TRACE 128 Type Mww Det P NN Mkr1 2.480 2 G 2.782 dE
RLT         RF         S0           enter Freq 13.265         Ref Offset 2           0 dB/div         Ref 12.02	x	SENSE:INT Gain:Low Trig: Gain:Low #Atter #A	Free Run n: 20 dB	OMHZ E	Log-Pwr 0/10	TRACE 11 2 3 TYPE MWWD DET P NN Mkr1 2.480 2 G 2.782 dE 
RLT         RF         S0           enter Freq 13.265         Ref Offset 2           odB/div         Ref 12.02           og         1	x 480 2 GHz 2 480 2 GHz 2 480 2 GHz 2 480 2 GHz	SENSE:INT Sain:Low Trig: Gain:Low #Atter 5 5 #VBW 300 ¥VBW 300 Y 2.782 dBm 46.967 dBm	Free Run n: 20 dB	OMHZ E	Log-Pwr 0/10	TRACE 12 3 TYPE MANN DET PANN Mkr1 2.480 2 G 2.782 dE 
Ref Offset 2           Ref Offset 2           Colspan="2">Colspan="2">Colspan="2"           Colspan="2"	x 2 AC 3 AC 3000000 GHz F 2.02 dB 3 dBm 4 2.02 dB 4 2.02 dB 4 2.02 dB 5 dBm 4 4 4 5 dC 5 dBm 4 4 4 5 dC 5 dBm 5 dC 5 dC	SENSE:INT PNO: Fast → Trig: Gain:Low / #Atter 50.000 50.000 4000 50.000 50.000 4000 50.000 4000 50.000 4000 50.000 4000 50.000 4000 50.0000 50.00000 50.0000 50.00000 50.0000 50.0000 50.0000 50	Free Run n: 20 dB	OMHZ E	Log-Pwr 0/10	TRACE 12 3 TYPE MANN DET PANN Mkr1 2.480 2 G 2.782 dE 
RLT         RF         S0           enter Freq 13.265         Ref Offset 2         Ref 0 ffset 2           0 dB/div         Ref 12.02         Ref 12.02           98         1         1           80         1         1           80         1         1           80         1         1           80         1         1           80         1         1           80         1         1           80         1         1           80         1         1           80         1         1           80         1         1           80         1         1           80         1         1           80         1         1           80         1         1           80         1         1           80         1         1           80         1         1           80         1         1           80         1         1	x x x x x x x x x x x x x x	SENSE:INT Gain:Low → Trig: Gain:Low → Atter #Atter	Free Run n: 20 dB	OMHZ E	Log-Pwr 0/10	TRACE 12 3 TYPE MANN DET PANN Mkr1 2.480 2 G 2.782 dE 
RET         RF         S0           enter Freq 13.265         Ref Offset 2         Ref 0 ffset 2           0 dB/div         Ref 12.02         Ref 12.02           9         1         1           0 dB/div         Ref 12.02         1           1 dB/div         Ref 12.02         1           1 n         1         1           2 N         1	x 2 AC 3 AC 3000000 GHz F 2.02 dB 3 dBm 4 2.02 dB 4 2.02 dB 4 2.02 dB 5 dBm 4 4 4 5 dC 5 dBm 4 4 4 5 dC 5 dBm 5 dC 5 dC	SENSE:INT PNO: Fast → Trig: Gain:Low / #Atter 50.000 50.000 4000 50.000 50.000 4000 50.000 4000 50.000 4000 50.000 4000 50.000 4000 50.0000 50.00000 50.0000 50.00000 50.0000 50.0000 50.0000 50	Free Run n: 20 dB	OMHZ E	Log-Pwr 0/10	TRACE 12 3 TYPE MANN DET PANN Mkr1 2.480 2 G 2.782 dE 
RLT         RF         S0           enter Freq 13.265         Ref Offset2         Ref Offset2           0 dB/div         Ref 12.02         Ref 12.02           0 dB/div         Ref 12.02	x 2 AC 3 AC 3000000 GHz F 2.02 dB 3 dBm 4 2.02 dB 4 2.02 dB 4 2.02 dB 5 dBm 4 4 4 5 dC 5 dBm 4 4 4 5 dC 5 dBm 5 dC 5 dC	SENSE:INT PNO: Fast → Trig: Gain:Low / #Atter 50.000 50.000 4000 50.000 50.000 4000 50.000 4000 50.000 4000 50.000 4000 50.000 4000 50.0000 50.00000 50.0000 50.00000 50.0000 50.0000 50.0000 50	Free Run n: 20 dB	OMHZ E	Log-Pwr 0/10	TRACE 12 3 TYPE MANN DET PANN Mkr1 2.480 2 G 2.782 dE 

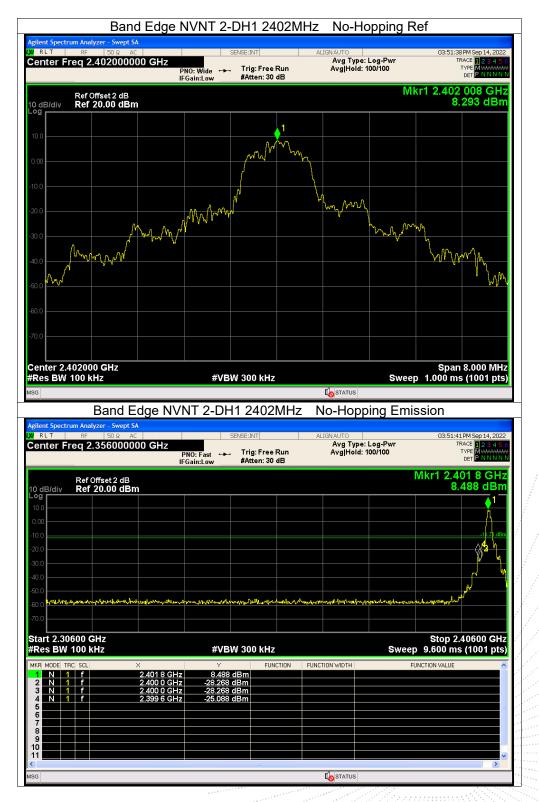




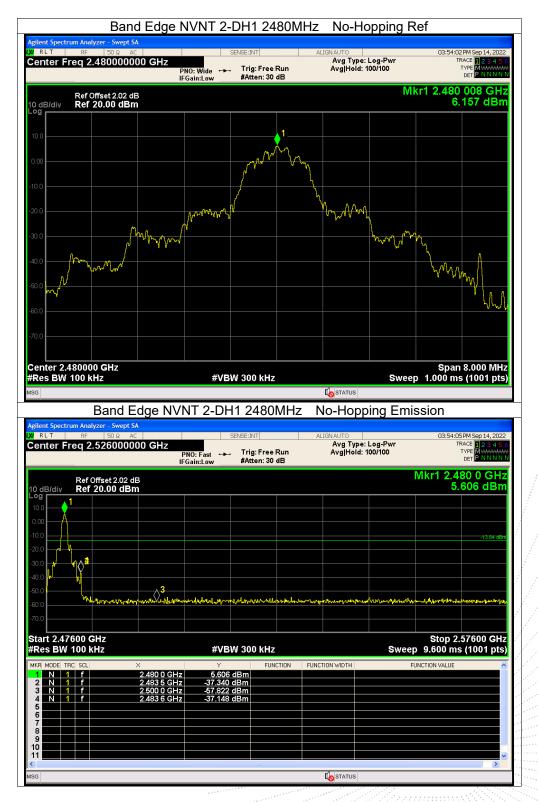








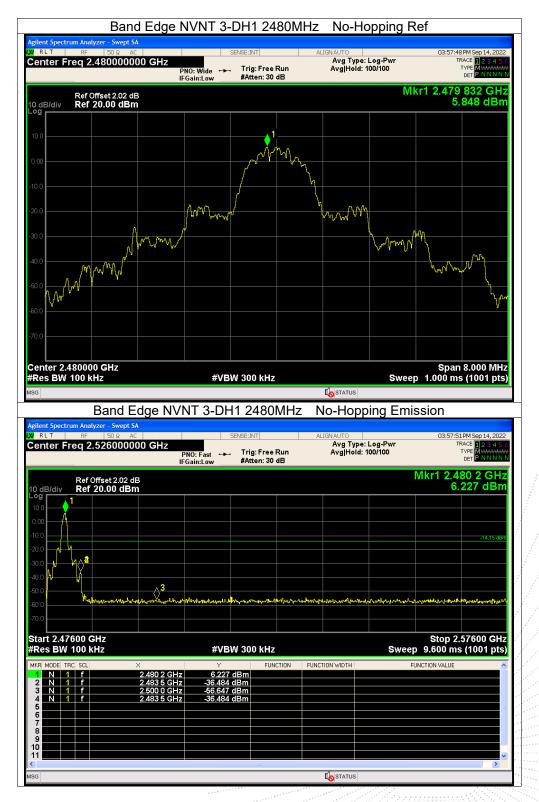












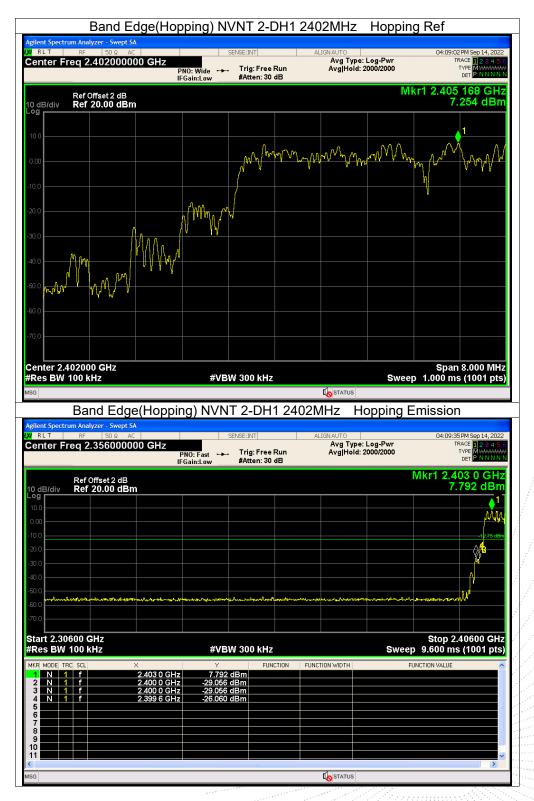


Ba lent Spectrum Analyzer	nd Edge(Hop	ping) NVN I	1-DH1 24	402MHz	Hopping	g Ref
RLT RF	50 Ω AC	SENSE:INT	ſ	ALIGNAUTO		04:02:03 PM Sep 14, 20
enter Freq 2.40	PN		Free Run		: Log-Pwr 2000/2000	TRACE 1234 TYPE MWWW DET P N N N
		Gain:Low #Atte	en:30 dB		Mk	r1 2.402 144 GH
dB/div Ref 20.0						7.864 dB
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Res BW 100 kHz Band Ilent Spectrum Analyzer	Edge(Hoppin	g) NVNT 1-l	DH1 2402	2MHz H	sweep lopping E	1.000 ms (1001 pt mission
Res BW 100 kHz Band Ient Spectrum Analyzer RLT RF	Edge(Hoppin	g) NVNT 1-I	DH1 2402	ALIGNAUTO Avg Type	opping E	1.000 ms (1001 pt mission
Res BW 100 kHz Band Itent Spectrum Analyzer RLT RF	Edge(Hoppin - Swept SA 50 Q AC 6000000 GHz	g) NVNT 1-I SENSE:IM N0: Fast ↔ Trig:	DH1 2402	ALIGNAUTO Avg Type	lopping E	1.000 ms (1001 pt mission
Res BW 100 kHz Band Ient Spectrum Analyzer RLT RF enter Freq 2.35 Ref Offst	Edge(Hoppin - Swept SA 50 Q AC 6000000 GHz Pr IFC	g) NVNT 1-I SENSE:IM N0: Fast ↔ Trig:	DH1 2402	ALIGNAUTO Avg Type	lopping E : Log-Pwr 2000/2000	1.000 ms (1001 pt mission D4:02:36 PM Sep 14, 20 TRACE 12 3 4 TYPE MYWWW DET P NNNN
Res BW 100 kHz Band Ient Spectrum Analyzer RLT RF enter Freq 2.35 Ref Offst	Edge(Hoppin - Swept SA 500 AC     6000000 GHz IFC	g) NVNT 1-I SENSE:IM N0: Fast ↔ Trig:	DH1 2402	ALIGNAUTO Avg Type	lopping E : Log-Pwr 2000/2000	1.000 ms (1001 pt mission D4:02:36 PM Sep 14, 20 TRACE 1 2 3 4 TYPE MWWWW PET P N1N1
Res BW 100 kHz Band Itent Spectrum Analyzer RLT RF enter Freq 2.35 Ref Offs: Ref Offs: Ref 20.	Edge(Hoppin - Swept SA 50 Q AC 6000000 GHz Pr IFC	g) NVNT 1-I SENSE:IM N0: Fast ↔ Trig:	DH1 2402	ALIGNAUTO Avg Type	lopping E : Log-Pwr 2000/2000	1.000 ms (1001 pt mission D4:02:36 PM Sep 14, 20 TRACE 12 3 4 TYPE MYWWW DET P NNNN
Res BW 100 kHz Band Hent Spectrum Analyzer RLT RF enter Freq 2.35 Ref Offs: Ref 20.	Edge(Hoppin - Swept SA 50 Q AC 6000000 GHz Pr IFC	g) NVNT 1-I SENSE:IM N0: Fast ↔ Trig:	DH1 2402	ALIGNAUTO Avg Type	lopping E : Log-Pwr 2000/2000	1.000 ms (1001 pt mission D4:02:36 PM Sep 14, 20 TRACE 12 3 4 TYPE MYWWW DET P NNNN
Res BW 100 kHz Band Hent Spectrum Analyzer RLT RF enter Freq 2.35 Ref Offse Ref Offse Ref 20.	Edge(Hoppin - Swept SA 50 Q AC 6000000 GHz Pr IFC	g) NVNT 1-I SENSE:IM N0: Fast ↔ Trig:	DH1 2402	ALIGNAUTO Avg Type	lopping E : Log-Pwr 2000/2000	1.000 ms (1001 pt mission 04:02:36PM Sep 14, 20 TRACE 12:3 4 TYPE MINIMUM Ikr1 2:402 2 GH 8:372 dB
Res BW 100 kHz Band Ient Spectrum Analyzer Ref Offis dB/div Ref 20. Ref 20.	Edge(Hoppin - Swept SA 50 Q AC 6000000 GHz Pr IFC	g) NVNT 1-I SENSE:IM N0: Fast ↔ Trig:	DH1 2402	ALIGNAUTO Avg Type	lopping E : Log-Pwr 2000/2000	1.000 ms (1001 pt mission 04:02:36PM Sep 14, 20 TRACE 12:3 4 TYPE MINIMUM Ikr1 2:402 2 GH 8:372 dB
Res BW 100 kHz Band Itent Spectrum Analyzer RLT RF enter Freq 2.35 Ref Offse Ref 20.	Edge(Hoppin - Swept SA 50 Q AC 6000000 GHz Pr IFC	g) NVNT 1-I SENSE:IM N0: Fast ↔ Trig:	DH1 2402	ALIGNAUTO Avg Type	lopping E : Log-Pwr 2000/2000	1.000 ms (1001 pt mission 04:02:36PM Sep 14, 20 TRACE 12:3 4 TYPE MINIMUM Ikr1 2:402 2 GH 8:372 dB
RLT Ref Offse RLT Ref Offse dB/div Ref 20. 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Edge(Hoppin - Swept SA 50 Q AC 6000000 GHz Pr IFC	g) NVNT 1-I SENSE:IM N0: Fast ↔ Trig:	DH1 2402	ALIGNAUTO Avg Type Avg Hold:	lopping E : Leg-Pwr 2000/2000	1.000 ms (1001 pt mission 04:02:36PM Sep 14, 20 TRACE 12:3 4 TYPE MINIMUM Ikr1 2:402 2 GH 8:372 dB
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Res BW 100 kHz Band Ilent Spectrum Analyzer RLT RF enter Freq 2.35 Ref Offse dB/div Ref 20. Re	Edge(Hoppin	g) NVNT 1-I SENSE:IM NO: Fast → Trig: Sain:Low + Trig: #Atte	DH1 2402	2MHz H ALIGNAUTO Avg Type Avg Hold:	lopping E :Log-Pwr 2000/2000	1.000 ms (1001 pt mission D4:02:36 PM Sep 14,20 TRACE 12:34 TVPE 14:00 Mkr1 2:402 2 GF 8:372 dB 14 14 14 14 14 14 14 14 14 14 14 14 14
Res         BW         100 kHz           Band         Band           Ilent Spectrum Analyzer         Ref Offse           RLT         RF           enter Freq 2.35         Ref Offse           dB/div         Ref Offse	Edge(Hoppin	g) NVNT 1-I	DH1 2402	2MHz H ALIGNAUTO Avg Type Avg Hold:	lopping E :Log-Pwr 2000/2000	1.000 ms (1001 pt mission D4:02:36 PM Sep 14,20 TRACE 12:34 TVPE 14:00 Mkr1 2:402 2 GF 8:372 dB 14 14 14 14 14 14 14 14 14 14 14 14 14
Res BW 100 kHz           Band           Ilent Spectrum Analyzer           RLT         RF           canter Freq 2.35           Ref Offse           dB/div         Ref Offse           dB/div         Ref 20.           0	Edge (Hoppin	g) NVNT 1-I	DH1 2402	2MHz H ALIGNAUTO Avg Type Avg Hold:	lopping E :Log-Pwr 2000/2000	1.000 ms (1001 pt mission D4:02:36 PM Sep 14,20 TRACE 12:34 TVPE 14:00 Mkr1 2:402 2 GF 8:372 dB 14 14 14 14 14 14 14 14 14 14 14 14 14
Res BW 100 kHz           Band           Ilent Spectrum Analyzer           RLT         RF           enter Freq 2.35           B/div         Ref Offse           dB/div         Ref Offse           dB/div <td>Edge (Hoppin</td> <td>g) NVNT 1-I</td> <td>DH1 2402</td> <td>2MHz H ALIGNAUTO Avg Type Avg Hold:</td> <td>lopping E :Log-Pwr 2000/2000</td> <td>1.000 ms (1001 pt mission D4:02:36 PM Sep 14,20 TRACE 12:34 TVPE 14:00 Mkr1 2:402 2 GF 8:372 dB 14 14 14 14 14 14 14 14 14 14 14 14 14</td>	Edge (Hoppin	g) NVNT 1-I	DH1 2402	2MHz H ALIGNAUTO Avg Type Avg Hold:	lopping E :Log-Pwr 2000/2000	1.000 ms (1001 pt mission D4:02:36 PM Sep 14,20 TRACE 12:34 TVPE 14:00 Mkr1 2:402 2 GF 8:372 dB 14 14 14 14 14 14 14 14 14 14 14 14 14





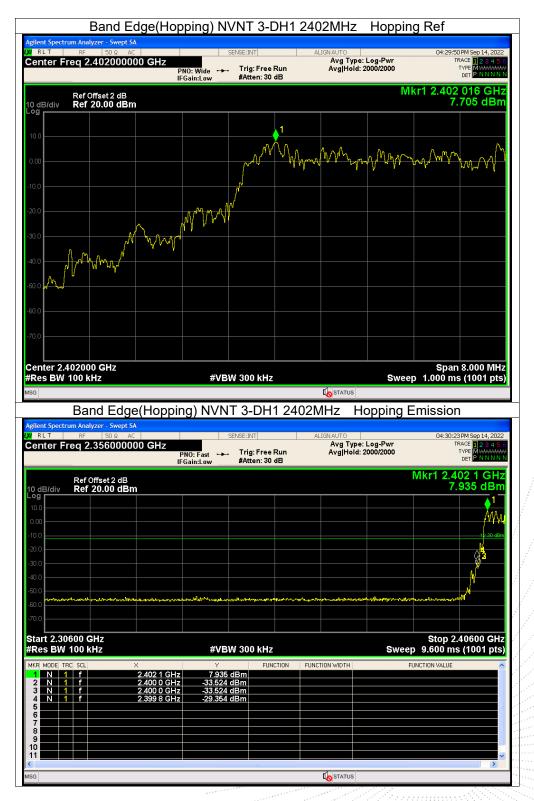
















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### 10. 20 dB Bandwidth

### 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.

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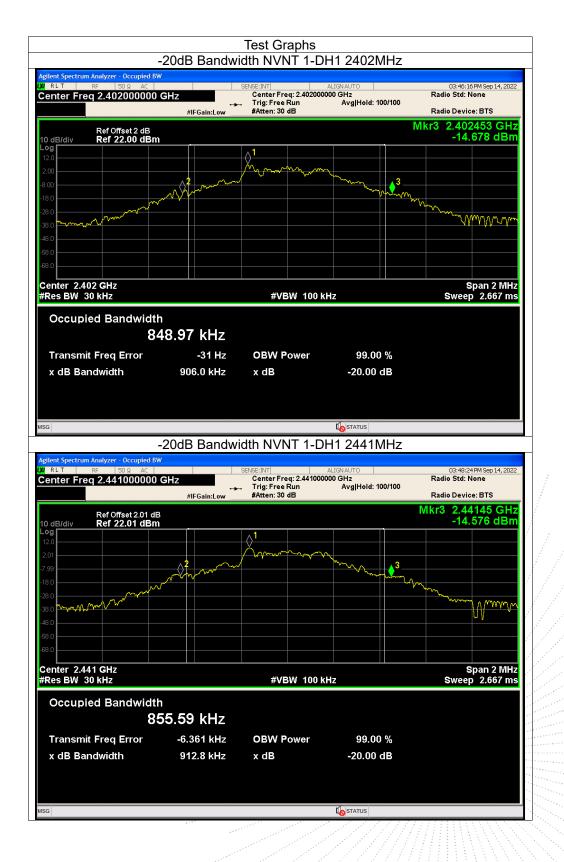


### 10.4 Test Result

Condition	Mode	Frequency (MHz)	-20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	0.906	Pass
NVNT	1-DH1	2441	0.913	Pass
NVNT	1-DH1	2480	1.033	Pass
NVNT	2-DH1	2402	1.342	Pass
NVNT	2-DH1	2441	1.333	Pass
NVNT	2-DH1	2480	1.327	Pass
NVNT	3-DH1	2402	1.259	Pass
NVNT	3-DH1	2441	1.253	Pass
NVNT	3-DH1	2480	1.25	Pass





















-200	dB Bandwi	dth NVNT 3-D	H1 2480MHz	
Agilent Spectrum Analyzer - Occupied BW				
M RLT RF 50 Ω AC Center Freq 2.480000000 GHz		SENSE:INT Center Freq: 2.480000 . Trig: Free Run #Atten: 30 dB	ALIGNAUTO 000 GHz Avg Hold: 100/100	03:57:43 PM Sep 14, 2022 Radio Std: None Radio Device: BTS
Ref Offset 2.02 dB 10 dB/div Ref 22.02 dBm				Vlkr3 2.480641 GHz -17.210 dBm
Log		1		
-18.0	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Mar Marine	Munim	~ <u>\</u>
-28.0				Mumm
-48.0				
Center 2.48 GHz #Res BW 30 kHz		#VBW 100 k	Hz	Span 2 MHz Sweep 2.667 ms
Occupied Bandwidth 1.188	5 MHz			
Transmit Freq Error 1	5.758 kHz	OBW Power	99.00 %	
x dB Bandwidth	1.250 MHz	x dB	-20.00 dB	
MSG			STATUS	

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### 11. Maximum Peak Output Power

### 11.1 Block Diagram Of Test Setup



### 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.

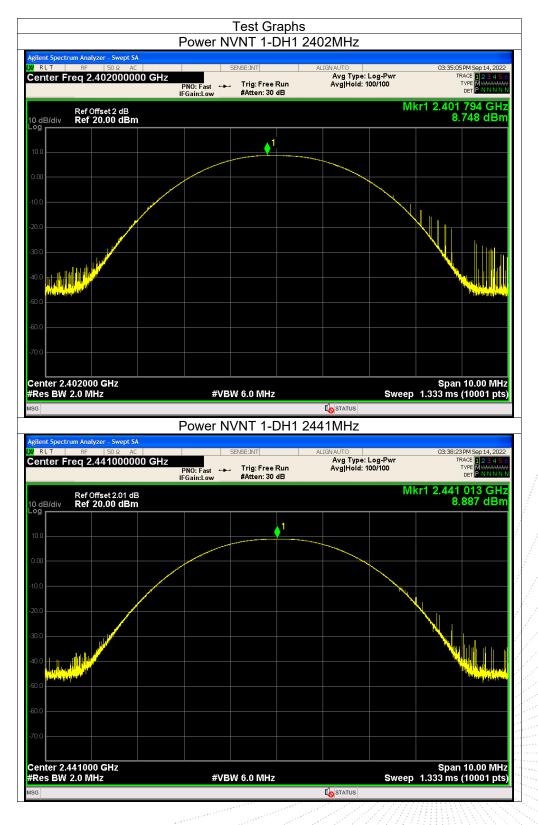
2. Set the spectrum analyzer: RBW = 3MHz. VBW = 3MHz. Sweep = auto; Detector Function = Peak.

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

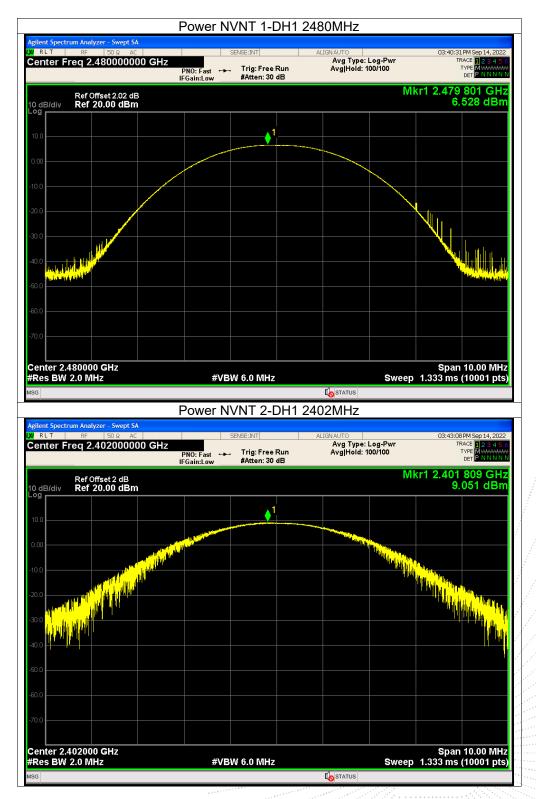
### 11.4 Test Result

Condition	Mode	Frequency (MHz)	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	8.75	21	Pass
NVNT	1-DH1	2441	8.89	21	Pass
NVNT	1-DH1	2480	6.53	21	Pass
NVNT	2-DH1	2402	9.05	21	Pass
NVNT	2-DH1	2441	9.3	21	Pass
NVNT	2-DH1	2480	6.86	21	Pass
NVNT	3-DH1	2402	9.02	21	Pass
NVNT	3-DH1	2441	9.24	21	Pass
NVNT	3-DH1	2480	6.89	21	Pass

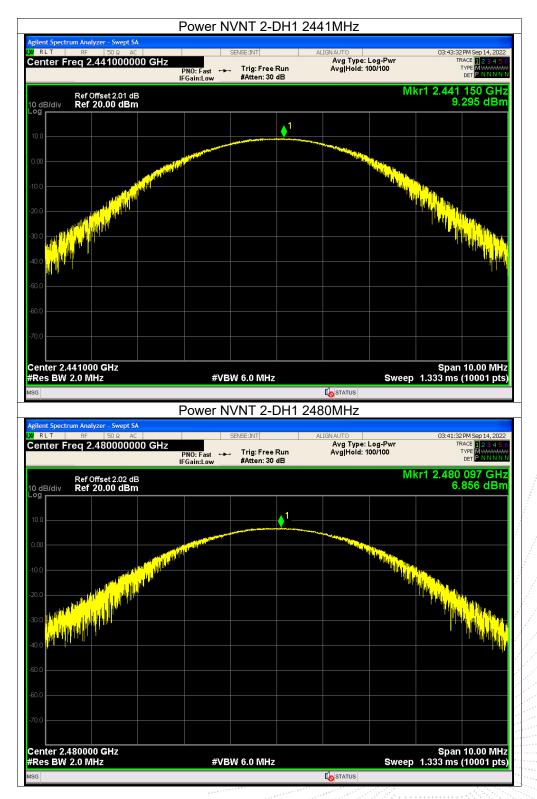




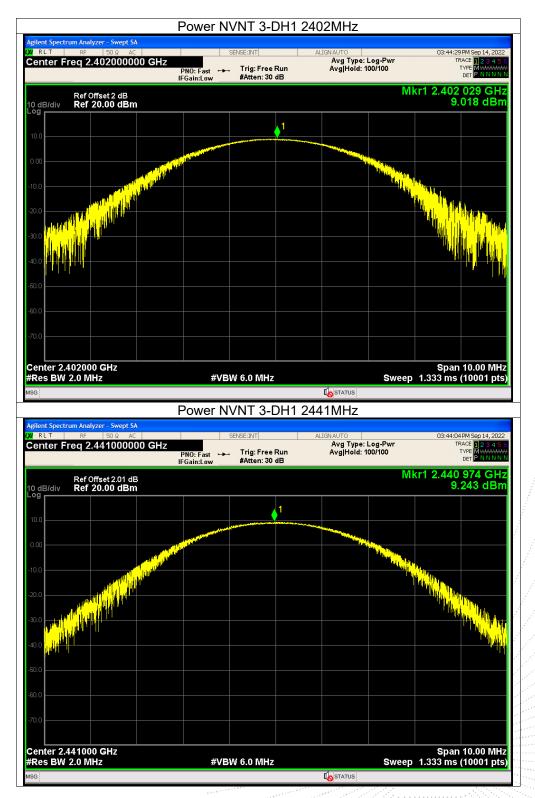




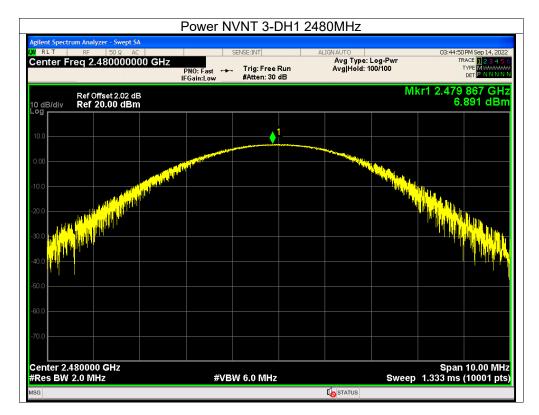












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### 12. Hopping Channel Separation

### 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	2401.84	2402.836	0.996	0.604	Pass
NVNT	1-DH1	2440.838	2441.838	1	0.609	Pass
NVNT	1-DH1	2478.836	2479.836	1	0.689	Pass
NVNT	2-DH1	2402.002	2403.002	1	0.895	Pass
NVNT	2-DH1	2441.004	2442.002	0.998	0.889	Pass
NVNT	2-DH1	2479.002	2480.002	1	0.885	Pass
NVNT	3-DH1	2402.002	2403	0.998	0.839	Pass
NVNT	3-DH1	2441.004	2442.006	1.002	0.835	Pass
NVNT	3-DH1	2479.006	2480.006	1	0.833	Pass

### 12.4 Test Result

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ilent Spectrum Analyzer - Sv RLT RF 50 S enter Freq 2.4025	2 AC 00000 GHz	SENSE:INT Wide Trig: Fre I:Low #Atten: 3		Log-Pwr 1 100/100	5PM Sep 14, 2022 RACE 1 2 3 4 5 TYPE MWWWW DET P N N N N
Ref Offset 2 dB/div Ref 20.00	dB dBm			Mkr1 2.401 7.	840 GHz 741 dBm
	<b>^</b> '	~			
0.0					
0.0					
0.0					
enter 2.402500 GHz Res BW 30 kHz	2	#VBW 100 kH	lz	Spar Sweep 2.133 m	2.000 MHz s (1001 pts)
KR MODE TRC SCL	× 2.401 840 GHz	Y F 7.741 dBm	UNCTION FUNCTION WIDTH	FUNCTION VALUE	^
2 N 1 f 3 4	2.402 836 GHz	7.494 dBm			
5 6 7					
8 9 0					
1					24
		Ш	-		>
G	CF		to status DH1 2441MHz		
j <mark>ilent Spectrum Analyzer - Sv</mark> R L T RF 50 S	vept SA Ω AC	FS NVNT 1-I	DH1 2441MHz	04:03:0	70M Sen 14 2022
jilent Spectrum Analyzer - Sv	vept SA 2 AC 00000 GHz	SENSE:INT	DH1 2441MHz ALIGNAUTO Avg Type: ee Run Avg[Hold:	04:03:0 Log-Pwr 1 100/100	
ilent Spectrum Analyzer - Sv RLT RF 503 enter Freq 2.4415 Ref Offset 2	vept SA 2 AC   PNO: PNO: IFGair .01 dB	SENSE:INT	DH1 2441MHz ALIGNAUTO Avg Type: ee Run Avg[Hold:	Log-Pwr 100/100 Mkr1 2.440	7PM Sep 14, 2022 RACE 1 2 3 4 5 6 TYPE MWWWWW DET P N N N N 838 GHZ
ilent Spectrum Analyzer - So RLT RF 500 enter Freq 2.4415	vept SA 2 AC   PNO: PNO: IFGair .01 dB	SENSE:INT	DH1 2441MHz ALIGNAUTO Avg Type: ee Run Avg[Hold:	Log-Pwr 100/100 Mkr1 2.440	7 PM Sep 14, 2022 RACE 1 2 3 4 5 ( TYPE MWWWWW DET P N N N N
RLT RF 1500 RLT RF 1500 enter Freq 2.4415 0 dB/div Ref 20.00	vept SA 2 AC   PNO: PNO: IFGair .01 dB	SENSE:INT	DH1 2441MHz ALIGNAUTO Avg Type: Avg Type: Avg Type: Avg Type: Avg Type:	Log-Pwr 100/100 Mkr1 2.440	7PM Sep 14, 2022 RACE 1 2 3 4 5 6 TYPE MWWWWW DET P N N N N 838 GHZ
RLT RE Soc enter Freq 2.4415 Ref Offset 2 D dB/div Ref 20.00	vept SA 2 AC   PNO: PNO: IFGair .01 dB	SENSE:INT	DH1 2441MHz ALIGNAUTO Avg Type: Avg Type: Avg Type: Avg Type: Avg Type:	Log-Pwr 100/100 Mkr1 2.440	7PM Sep 14, 2022 RACE 1 2 3 4 5 6 TYPE MWWWWW DET P N N N N 838 GHZ
Ilent Spectrum Analyzer - Sv RLT RF S0 c enter Freq 2.4415 0 dB/div Ref 20.00 00	vept SA 2 AC   PNO: PNO: IFGair .01 dB	SENSE:INT	DH1 2441MHz ALIGNAUTO Avg Type: Avg Type: Avg Type: Avg Type: Avg Type:	Log-Pwr 100/100 Mkr1 2.440	7PM Sep 14, 2022 RACE 1 2 3 4 5 6 TYPE MWWWWW DET P N N N N 838 GHZ
RLT RE Soc enter Freq 2.4415 Ref Offset 2 o dB/div Ref 20.00	vept SA 2 AC   PNO: PNO: IFGair .01 dB	SENSE:INT	DH1 2441MHz ALIGNAUTO Avg Type: Avg Type: Avg Type: Avg Type: Avg Type:	Log-Pwr 100/100 Mkr1 2.440	7PM Sep 14, 2022 RACE 1 2 3 4 5 6 TYPE MWWWWW DET P N N N N 838 GHZ
RLT         Ref         Iso           enter         Freq         2.4415           Ref Offset 2         0         0           0         0         0           00         0         0           00         0         0           00         0         0           00         0         0           00         0         0           00         0         0	vept SA 2 AC   PNO: PNO: IFGair .01 dB	SENSE:INT	DH1 2441MHz ALIGNAUTO Avg Type: Avg Type: Avg Type: Avg Type: Avg Type:	Log-Pwr 100/100 Mkr1 2.440	7PM Sep 14, 2022 RACE 1 2 3 4 5 6 TYPE MWWWWW DET P N N N N 838 GHZ
RLT         Ref         Soc           enter         Freq 2.4415           Ref Offset 2         odB/div           Ref Offset 2         odB/div           Ref Offset 2         odB/div           0         0           00         0           00         0           00         0           00         0           00         0           00         0           00         0	vept SA 2 AC 2 AC PNO: IFGain 01 dB dBm 1	SENSE:INT	DH1 2441MHz	Log-Pwr 100/100 Mkr1 2.440 7.	7PM Sep 14, 2022 FACE [] 2: 3: 4: 5: TYPE [] 3: 4: 5: TYPE [] 3: 4: 5: TYPE [] 3: 4: 5: TYPE [] 3: 5: TYPE [
RLT         Ref         IS03           enter         Freq 2.4415           Ref Offset 2         0 dB/div           0 dB/div         Ref 20.00           00         0           0.00         0      <	vept SA 2 AC 2 AC PNO: IF Gain 01 dB dBm 1 1 2 2 4 2 4 2 4 2 4 4 8 3 8 4 8 4 4 4 4 4 4 4 4 4 4 4 4 4	SENSE:INT Wide Trig: Fre #Atten: S #VBW 100 kH	DH1 2441MHz	Log-Pwr 100/100 Mkr1 2.440 7.	7PM Sep 14, 2022 FACE [] 2: 3: 4: 5: TYPE [] 3: 4: 5: TYPE [] 3: 4: 5: TYPE [] 3: 4: 5: TYPE [] 3: 5: TYPE [
Ref Offset 2           Ref Offset 2           d B/div         Ref Offset 2           0 d B/div         Ref Offset 2           0 d B/div         Ref Offset 2           0 d B/div         Ref Offset 2           0 d B/div         Ref Offset 2           0 d B/div         Ref Offset 2           0 d B/div         Ref 20.00           0 d B	vept SA 2 AC PNO: IFGain 01 dB dBm 1 1 1 2 2 2 2 2 2 2 2 2	SENSE:INT Wide Trig: Fre #Atten: S	DH1 2441MHz	Log-Pwr 100/100 Mkr1 2.440 7.	7PM Sep 14, 2022 FACE [] 2: 3: 4: 5: TYPE [] 3: 4: 5: TYPE [] 3: 4: 5: TYPE [] 3: 4: 5: TYPE [] 3: 5: TYPE [
RLT         Ref         Soc           RLT         RF         Soc           enter         Freq 2.4415           0         Address           0         Address           000         Addres     <	vept SA 2 AC 2 AC PNO: IF Gain 01 dB dBm 1 1 2 2 4 2 4 2 4 2 4 4 8 3 8 4 8 4 4 4 8 4 4 4 4 4 4 4 4 4 4 4 4 4	SENSE:INT Wide Trig: Fre #Atten: S #VBW 100 kH	DH1 2441MHz	Log-Pwr 100/100 Mkr1 2.440 7.	7PM Sep 14, 2022 FACE [] 2: 3: 4: 5: TYPE [] 3: 4: 5: TYPE [] 3: 4: 5: TYPE [] 3: 4: 5: TYPE [] 3: 5: TYPE [



gilent Spectrum Analyzer - RLT RF 5	Swept SA 50 Ω AC	SENSE:INT	ALIGN /	AUTO	04:06:51 PM Sep 14, 2022
enter Freq 2.479	9500000 GHz		ree Run A	vg Type: Log-Pwr vg Hold:>100/100	TRACE 12345 TYPE MWWWW DET PNNNN
Ref Offse 0 dB/div Ref 20.0	t 2.02 dB 00 dBm			Μ	kr1 2.478 836 GHz 5.921 dBm
og 10.0	<b>↓</b> <sup>1</sup>			<b>2</b>	
0.00	A	$\sim$		$\bigwedge$	
	~				
80.0					
0.0					
50.0 50.0					
0.0					
enter 2.479500 G	Hz				Span 2.000 MH;
Res BW 30 kHz	X	#VBW 100 k	FUNCTION FUNCTION		p 2.133 ms (1001 pts
1 N 1 f 2 N 1 f	2.478 836 GHz 2.479 836 GHz	5.921 dBm 5.698 dBm	FONCTION FONCTION	WDTN	
3	2.410 000 0112				
5					
7 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9					
1					~
G			L.	STATUS	
		CFS NVNT 2-	DH1 2402N	IHz	
ilent Spectrum Analyzer - R L T RF 5					04-00-45 PM 0 14, 2022
enter Freq 2.402	2500000 GHz	SENSE:INT		Avg Type: Log-Pwr vg Hold:>100/100	04:08:45 PM Sep 14, 2022 TRACE 1 2 3 4 5 TYPE MWWWW DET P N N N N
			30 dB		
·	IF	Gain:Low #Atten:		8.4	Ket 0 400 000 CU-
Ref Offse 0 dB/div Ref 20.0	t2dB	Gain:Low #Atten:		Μ	kr1 2.402 002 GH: 6.034 dBm
Ref Offse D dB/div Ref 20.0	t2dB	Gain:Low #Atten:		M	kr1 2.402 002 GHz 6.034 dBm
Ref Offse 0 dB/div Ref 20.0 99 000	t 2 dB 00 dBm	Gain:Low #Atten:			kr1 2.402 002 GHz 6.034 dBm
Ref Offse 0 dB/div Ref 20.0 99 0.00 0.00	t 2 dB 00 dBm	Gain:Low #Atten:			kr1 2.402 002 GHz 6.034 dBm
Ref Offse 0 dB/div Ref 20.0 99 0.00 0.00 0.00	t 2 dB 00 dBm	Gain:Low #Atten:			kr1 2.402 002 GHz 6.034 dBm
Ref Offse 0 dB/div Ref 20.0 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0	t 2 dB 00 dBm	Sain:Low #Atten:			kr1 2.402 002 GHz 6.034 dBm
Ref Offse 0 dB/div Ref 20.0 9 00 0 00 0 0 0 0 0 0 0 0 0 0	t 2 dB 00 dBm	Gain:Low #Atten:			kr1 2.402 002 GHz 6.034 dBm
Ref Offse 0 dB/div Ref 20.0 9 00 0 0 0 0 0 0 0 0 0 0 0 0 0	t 2 dB 00 dBm	Sain:Low #Atten:			kr1 2.402 002 GHz 6.034 dBm
Ref Offse 0 dB/div Ref 20.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0					6.034 dBm
Ref Offse 0 dB/div Ref 20.0 9 9 9 9 9 9 9 9 9 9 9 9 9	t2 dB 0 dBm	 #VBW 100 k		Swee	6.034 dBm
Ref Offse 0 dB/div Ref 20.0 9 d 9 d 9 d 9 d 9 d 9 d 9 d 9 d	t2 dB 00 dBm 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	#VBW 100 k	Hz FUNCTION FUNCTION	Swee	kr1 2.402 002 GHz 6.034 dBm 5.034 dBm 2.133 ms (1001 pts) 2.133 ms (1001 pts)
Ref Offse 0 dB/div Ref 20.0 9 9 9 9 9 9 9 9 9 9 9 9 9	t2 dB 00 dBm 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	#VBW 100 k		Swee	6.034 dBm
Ref Offse 9 d B/div Ref 20.0 9 d 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	t2 dB 00 dBm 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	#VBW 100 k		Swee	6.034 dBm
Ref Offse 9 G G G G G G G G G G G G G G G G G G G	t2 dB 00 dBm 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	#VBW 100 k		Swee	6.034 dBm
Ref Offse           0 dB/div         Ref 20.0           0 dB/div         Ref 20.0	t2 dB 00 dBm 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	#VBW 100 k		Swee	6.034 dBm



gilent Spectrum Analyzer - Swo RLT RF 50 Ω		SENSE:I	NT	ALIGN AUTO		04:11:10	PM Sep 14, 2022
enter Freq 2.44150	PNO	): Wide 🖵 Tri ain:Low #At	g: Free Run ten: 30 dB	Avg Type: Avg Hold:>	Log-Pwr 100/100	TF.	ACE 12345 TYPE MWWWW DET PNNNN
Ref Offset 2.0 0 dB/div Ref 20.00 (	01 dB d <b>Bm</b>				Mk	r1 2.441 6.1	004 GHz 090 dBm
og 10.0	1				<mark>2</mark>		
1.00		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		$\sim$	~~~~	$\sim$
20.0							
30.0							
10.0							
50.0 60.0							
70.0							
enter 2.441500 GHz Res BW 30 kHz		#VBW 10	0 kHz		Sweep		2.000 MHz (1001 pts
KR MODE TRC SCL	Х	Y	FUNCTION	FUNCTION WIDTH		NCTION VALUE	(1001 ptc)
1 N 1 f 2 N 1 f 3	2.441 004 GHz 2.442 002 GHz	6.090 dBm 5.854 dBm					
4 5							
6 7							
8 9 0							
							~
G				STATUS			
	C	FS NVNT	2-DH1	2480MHz			
<mark>gilent Spectrum Analyzer - Sw</mark> RLT RF 50 Ω	AC	SENSE:I	NT	ALIGNAUTO		04:16:19	PM Sep 14, 2022
enter Freq 2.47950	PNO		g: Free Run ten: 30 dB	Avg Type: Avg Hold:>		TF.	ACE 12345 TYPE MWWWW DET PNNNN
					B 41-		002 GHz
Ref Offset 2.0 dB/div Ref 20.00 d	)2 dB				IVIK	r1 2.479 4.	116 dBm
0 dB/div Ref 20.00 (	)2 dB					r1 2.479 4.	116 dBm
0 dB/div Ref 20.00 ( 99 10.0	02 dB d <b>Bm</b>	~~~~~				r1 2.479 4.	116 dBm
0 dB/div Ref 20.00 ( 9	02 dB d <b>Bm</b>	~~~~~	~~~			r1 2.479 4.	116 dBm
0 dB/div Ref 20.00 ( 0 d 0 d 0 d 0 d 0 d 0 d 0 d 0 d	02 dB d <b>Bm</b>	~~~~~		^		r1 2.479 4.	116 dBm
0 dB/div Ref 20.00 ( 9 0 00 0 00 0	02 dB d <b>Bm</b>	~~~~				r1 2.479 4.	116 dBm
0 dB/div Ref 20.00 ( 9  9  9  9  9  9  9  9  9  9  9  9  9	02 dB d <b>Bm</b>	~~~~~				r1 2.4/9 4.	116 dBm
0 dB/div Ref 20.00 ( 9  9  9  9  9  9  9  9  9  9  9  9  9	02 dB d <b>Bm</b>					r1 2.4/9 4.	116 dBm
o dB/div Ref 20.00 ( 99 0.00 0.00 0.00 0.00 0.00 0.00 0.00					2 	4.	2.000 MHz
o dB/div Ref 20.00 d 99 100 100 100 100 100 100 100		#VBW 10			2 2 Sweep	4.	2.000 MHz (1001 pts)
0 dB/div Ref 20.00 d 9 9 9 9 9 9 9 9 9 9 9 9 9	22 dB dBm 1 1 1 2 dP 2 2 dP 2 dP 2 dP 2 dP 2 dP 2 dP 2	۲ 4.116 dBm	O KHz FUNCTION	FUNCTION WIDTH	2 2 Sweep	4.	2.000 MHz
o dB/div Ref 20.00 d 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	22 dB JBm 	Y		FUNCTION WIDTH	2 2 Sweep	4.	2.000 MHz
0 dB/div Ref 20.00 d 9 9 9 9 9 9 9 9 9 9	22 dB dBm 1 1 1 2 dP 2 2 dP 2 dP 2 dP 2 dP 2 dP 2 dP 2	۲ 4.116 dBm		FUNCTION WIDTH	2 2 Sweep	4.	2.000 MHz
O dB/div         Ref 20.00 d           99	22 dB dBm 1 1 1 2 dP 2 2 dP 2 dP 2 dP 2 dP 2 dP 2 dP 2	۲ 4.116 dBm		FUNCTION WIDTH	2 2 Sweep	4.	2.000 MHz
O dB/div         Ref 20.00 (c)           O dB/div         Ref 20.00 (c)	22 dB dBm 1 1 1 2 dP 2 2 dP 2 dP 2 dP 2 dP 2 dP 2 dP 2	۲ 4.116 dBm		FUNCTION WIDTH	2 2 Sweep	4.	2.000 MHz



gilent Spectrum Analyzer - Swe RLT RF 50 Ω		SEN!	BE:INT	ALIGN AUTO		04:29:13	3PM Sep 14, 2022
enter Freq 2.40250	00000 GHz	. 🕠 Wide	Trig: Free Run #Atten: 30 dB	Avg Typ	e: Log-Pwr i:>100/100	TF	RACE 12345 TYPE MWWWWW DET PNNNN
Ref Offset 2 c 0 dB/div Ref 20.00 c	dB d <b>B</b> m				MI	kr1 2.402 6.	002 GHz 081 dBm
					<mark>2</mark>		
3.00	$\sim$	$\sim$	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	$\sim$	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
20.0							
30.0							
0.0							
i0.0							
0.0							
enter 2.402500 GHz Res BW 30 kHz		#VBW	100 kHz		Swee	Span p 2.133 ms	2.000 MHz 6 (1001 pts
KR MODE TRC SCL	× 2.402 002 GHz	Y 6.081 dB	FUNCTION	FUNCTION WIDTH	F	UNCTION VALUE	<u>^</u>
2 N 1 f	2.403 000 GHz	5.674 dB	m				
4 5 6							
7 8							
9							
G							
				2441MHz			
gilent Spectrum Analyzer - Swe							
RLT RF 50Ω	AC 00000 GHz		BE:INT		e: Log-Pwr	04:31:50 TF	DPM Sep 14, 2022
RLT RF 50Ω	AC 00000 GHz Ph	10: Wide 🕠 .	5E:INT Trig: Free Run #Atten: 30 dB	Avg Typ	l:>100/100	TF	RACE 12345 TYPE MWWWWWW DET PNNNN
RLT RF 50Ω enter Freq 2.44150 Ref Offset 2.0 0 dB/div Ref 20.00 d	AC DOOOOO GHz Ph IF4	10: Wide 🖵	Trig: Free Run	Avg Typ	l:>100/100	۳ kr1 2.441	
RLT RF 50 Q enter Freq 2.44150 Ref Offset 2.0 0 dB/div Ref 20.00 o 9	AC DOOOOO GHz Ph IF4	10: Wide 🖵	Trig: Free Run	Avg Typ	l:>100/100	۳ kr1 2.441	
RLT RF 50 2 enter Freq 2.44150 Ref Offset 2.0 0 dB/div Ref 20.00 c	AC D00000 GHz Ph IF0 D1 dB dBm	10: Wide 🖵	Trig: Free Run	Avg Typ	i:>1007100 MI	۳ kr1 2.441	
RLT         RF         50 Ω           enter Freq 2.44150         Ref Offset 2.0         Ref Offset 2.0           0 dB/div         Ref 2.000 c         Ref 2.000 c           9         0         0         0	AC D00000 GHz Ph IF0 D1 dB dBm	10: Wide 🖵	Trig: Free Run	Avg Typ	i:>1007100 MI	۳ kr1 2.441	
RLT         RF         50 Q           enter Freq 2.44150         Ref Offset 2.0         Ref Offset 2.0           0 dB/div         Ref 20.00 c         Ref 000 c           0 00         00         00         00           0.00         00         00         00	AC D00000 GHz Ph IF0 D1 dB dBm	10: Wide 🖵	Trig: Free Run	Avg Typ	i:>1007100 MI	۳ kr1 2.441	
RLT         RF         50 2           enter Freq 2.44150         Ref Offset2.0         Ref Offset2.0           0 dB/div         Ref 20.00 c         Ref 20.00 c           0 0         0         0           0.00         0         0           0.00         0         0           0.00         0         0           0.00         0         0           0.00         0         0	AC D00000 GHz Ph IF0 D1 dB dBm	10: Wide 🖵	Trig: Free Run	Avg Typ	i:>1007100 MI	۳ kr1 2.441	004 GHz 017 dBm
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RLT         RF         50 2           enter Freq 2.44150         Ref Offset 2.0         Ref Offset 2.0           0 dB/div         Ref 20.00 c         Ref 0.00 c           0 0	AC D00000 GHz Ph IF0 D1 dB dBm	10: Wide 🖵	Trig: Free Run	Avg Typ	i:>1007100 MI	۳ kr1 2.441	
RLT         RF         50 2           enter Freq 2.44150         Ref Offset 2.0         Ref Offset 2.0           0 dB/div         Ref 20.00 c         Ref 20.00 c	AC DO000 GHz PP IFI D1 dB dBm 1 1	40: Wide	Trig: Free Run KAtten: 30 dB	Avg Typ	I:>100/100	kr1 2.441 6.	2.000 MHz
RLT REF 50 2 enter Freq 2.44150 0 dB/div Ref 20.00 d 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	AC D0000 GHz PP IFI D1 dB dBm 1 1 1 1 1 1 1 1 1 1 1 1 1	40: Wide	Trig: Free Run	Avg Typ	I:>100/100	kr1 2.441 6.	2.000 MHz
RLT         RF         SO 2           enter Freq 2.44150         Ref Offset 2.0         Ref Offset 2.0           0 dB/div         Ref 20.00 d         Ref 20.00 d	AC DO000 GHz PP IFI D1 dB dBm 1 1	40: Wide	Trig: Free Run #Atten: 30 dB	Avg Typ Avg Hold	I:>100/100	kr1 2.441 6.	2.000 MHz
RLT         RF         SO 2           enter Freq 2.44150         Ref Offset2.0         Ref Offset2.0           0 dB/div         Ref 20.00 d         Ref 20.00 d           0 dD         Ref 20.00 d         Ref 20.00 d           1 dD         Ref 20.00 d         Ref 20.00 d           1 dD         Ref 20.00 d         Ref 20.00 d	AC D0000 GHz PP PF PF PF PF PF PF PF PF PF	10: Wide Gain:Low	Trig: Free Run #Atten: 30 dB	Avg Typ Avg Hold	I:>100/100	kr1 2.441 6.	2.000 MHz
RLT         RF         50 pl           enter Freq 2.44150         Ref Offset 2.0         Ref Offset 2.0           0 dB/div         Ref 20.00 cl         Ref 20.00 cl           1 dB/div         Ref 20.00 cl         Ref 20.00 cl           1 n         1 f         Ref 20.00 cl           1 dB/div         Ref 20.00 cl	AC D0000 GHz PP PF PF PF PF PF PF PF PF PF	10: Wide Gain:Low	Trig: Free Run #Atten: 30 dB	Avg Typ Avg Hold	I:>100/100	kr1 2.441 6.	2.000 MHz
RLT         RF         50 pl           enter Freq 2.44150         Ref Offset 2.0         Ref Offset 2.0           0 dB/div         Ref 20.00 d         Ref 20.00 d           0 dB/div         Ref 20.00 d         Ref 20.00 d <td>AC D0000 GHz PP PF PF PF PF PF PF PF PF PF</td> <td>10: Wide Gain:Low</td> <td>Trig: Free Run #Atten: 30 dB</td> <td>Avg Typ Avg Hold</td> <td>I:&gt;100/100</td> <td>kr1 2.441 6.</td> <td>2.000 MHz</td>	AC D0000 GHz PP PF PF PF PF PF PF PF PF PF	10: Wide Gain:Low	Trig: Free Run #Atten: 30 dB	Avg Typ Avg Hold	I:>100/100	kr1 2.441 6.	2.000 MHz
Ref         Offset 2.0           0 dB/div         Ref 20.00 d           0 db/div         Ref 2	AC D0000 GHz PP PF PF PF PF PF PF PF PF PF	10: Wide Gain:Low	Trig: Free Run #Atten: 30 dB	Avg Typ Avg Hold	I:>100/100	kr1 2.441 6.	2.000 MHz



	CFS N	IVNT 3-DH1 2	2480MHz	
Agilent Spectrum Analyzer - Swept RLT RF 50 Ω Center Freq 2.479500	AC	SENSE:INT Trig: Free Run #Atten: 30 dB	ALIGNAUTO Avg Type: Log-P Avg Hold:>100/10	04:36:18 PM Sep 14, 2022 wr TRACE 112:34 55 0 TYPE [Mwshing Det P.N.IN.II
Ref Offset 2.02 10 dB/div Ref 20.00 dE				Mkr1 2.479 006 GHz 4.253 dBm
Log 100 000 -100 -200			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	¢ <sup>2</sup>
-30.0 -40.0 -50.0 -60.0 -70.0				
Center 2.479500 GHz #Res BW 30 kHz	#\	/BW 100 kHz		Span 2.000 MHz Sweep 2.133 ms (1001 pts)
2 N 1 f 3 4 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		FUNCTION 53 dBm 81 dBm	FUNCTION WIDTH	FUNCTION VALUE
MSG		iii)		

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### 13. Number Of Hopping Frequency

### 13.1 Block Diagram Of Test Setup



### 13.2 Limit

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

### 13.3 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 = 100kHz. VBW = 300kHz. Sweep = auto; Detector Function = Peak. Trace = Max hold.

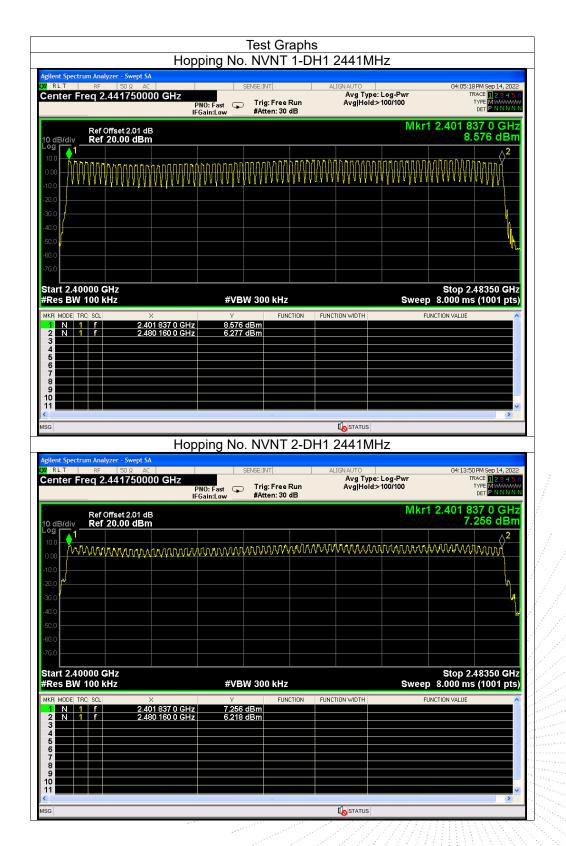
3. Allow the trace to stabilize. It may prove necessary to break the span up to sections. in order to clearly show all of the hopping frequencies. The limit is specified in one of the subparagraphs of this Section.
4. Set the spectrum analyzer: Start Frequency = 2.4GHz, Stop Frequency = 2.4835GHz. Sweep=auto;

### 13.4 Test Result

Condition	Mode	Hopping Number	Limit	Verdict
NVNT	1-DH1	79	15	Pass
NVNT	2-DH1	79	15	Pass
NVNT	3-DH1	79	15	Pass









Нор	ping No. NVNT 3	-DH1 2441MHz	
	SENSE:INT PNO: Fast Trig: Free Ru FGain:Low #Atten: 30 dB		04:34:51 PM Sep 14, 2022 TRACE 1 2 34 5 6 TYPE MWARAWAY DET PNNNNNN
Ref Offset 2.01 dB           10 dB/div         Ref 20.00 dBm           10 dB/div         1           10 db/			Ikr1 2.402 004 0 GHz 7.989 dBm
Start 2.40000 GHz #Res BW 100 kHz	#VBW 300 kHz	Sw	Stop 2.48350 GHz veep 8.000 ms (1001 pts)
MKR         MODE         TC         SCL         X           1         N         1         f         2.402         004         0         Hz           2         N         1         f         2.402         004         0         Hz           3         Image: Control of the state of		DN FUNCTION WIDTH	FUNCTION VALUE
MSG		STATUS	

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### 14. Dwell Time

### 14.1 Block Diagram Of Test Setup



### 14.2 Limit

Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

### 14.3 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 spectrum analyzer span = 0. Centred on a hopping channel;

3. Set RBW = 1MHz and VBW = 3MHz.Sweep = as necessary to capture the entire dwell time per hopping channel. Set the EUT for DH5, DH3 and DH1 packet transmitting.

4. Use the marker-delta function to determine the dwell time. If this value varies with different modes of operation (e.g., data rate, modulation format, etc.), repeat this test for each variation. The limit is specified in one of the subparagraphs of this Section. Submit this plot(s).

### 14.4 Test Result

DH5 Packet permit maximum 1600 / 79 / 6 hops per second in each channel (5 time slots RX, 1 time slot TX).

DH3 Packet permit maximum 1600 / 79 / 4 hops per second in each channel (3 time slots RX, 1 time slot TX).

DH1 Packet permit maximum 1600 / 79 /2 hops per second in each channel (1 time slot RX, 1 time slot TX). So, the Dwell Time can be calculated as follows:

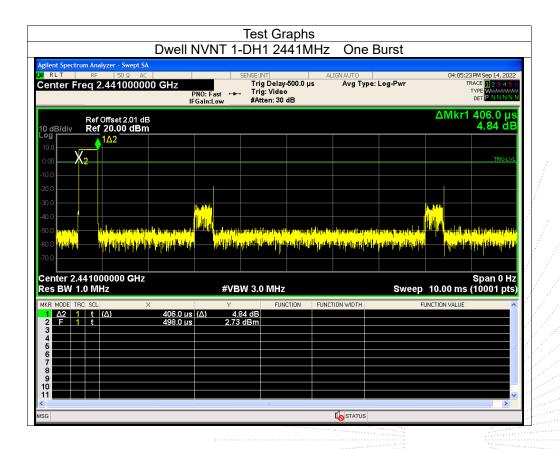
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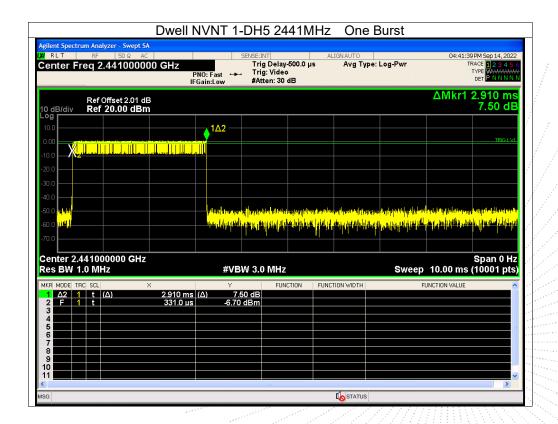


Condition	Mode	Frequency (MHz)	Pulse Time (ms)	Total Dwell Time (s)	Limit (s)	Verdict
NVNT	1-DH1	2441	0.406	0.130	0.4	Pass
NVNT	1-DH3	2441	1.645	0.263	0.4	Pass
NVNT	1-DH5	2441	2.91	0.310	0.4	Pass
NVNT	2-DH1	2441	0.399	0.128	0.4	Pass
NVNT	2-DH3	2441	1.651	0.264	0.4	Pass
NVNT	2-DH5	2441	2.898	0.309	0.4	Pass
NVNT	3-DH1	2441	0.397	0.127	0.4	Pass
NVNT	3-DH3	2441	1.646	0.263	0.4	Pass
NVNT	3-DH5	2441	2.898	0.309	0.4	Pass



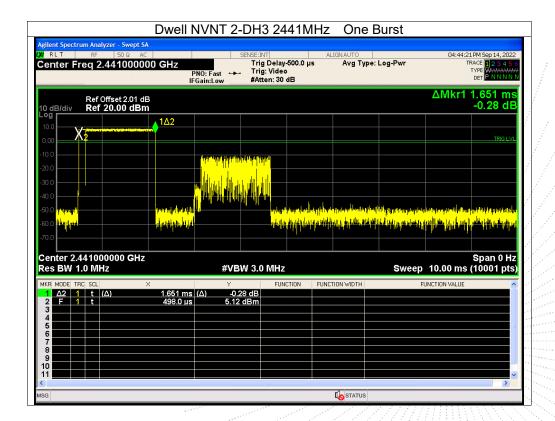


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gilent Spectrum Analyzer - Swept S RL RF 50 Ω A( enter Freq 2.4410000	00 GHz	NO:East →→ Ti	rig Delay-500.0 µs rig: Video Atten: 30 dB	ALIGN AUTO #Avg Type	e: RMS		D2 PM Sep 30, 202 TRACE 1 2 3 4 5 TYPE WWWWW DET P N N N
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30.0							
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80.0         #τηγη           80.0         #τηγη           90.0         #10.1           tenter 2.441000000 GHz           tenter 2.441000000 GHz           KR MODE TRC SCI           1         Δ2           2         F           3         4	× 1.645 ms	#VBW 3	.0 MHz	dillari, edit per a laria.	Sweep	10.00 ms	Span 0 H (10001 pts
30.0         μ(1)           50.0         μ(1)	× 1.645 ms	#VBW 3	.0 MHz	dillari, edit per a laria.	Sweep	10.00 ms	Span 0 H (10001 pts
30.0         μ(1)           50.0         μ(1)           6         μ(1)           7         μ(1)           6         μ(1)           7         μ(1)	× 1.645 ms	#VBW 3	.0 MHz	dillari, edit per a laria.	Sweep	10.00 ms	Span 0 H (10001 pts
30.0         μητημ           50.0         μητημ           6         μητημ           7         μητημ           8         μητημ           9         μητημ	× 1.645 ms	#VBW 3	.0 MHz	dillari, edit per a laria.	Sweep	10.00 ms	Span 0 H (10001 pts
0.0         μηγημ           0.0         μηγημ           center 2.441000000 GHz           center 2.441000000 GHz           center 2.441000000 GHz           center 2.41000000  GHz           center 2.410000000 GHz           center 2.410000000 GHz           center 2.4100000000000 GHz           center 2.41000000000000000000000000000000000000	× 1.645 ms	#VBW 3	.0 MHz	dillari, edit per a laria.	Sweep	10.00 ms	Span 0 H: (10001 pts





	Dwell N	NVNT 2-	·DH1 24	41MHz	One	Burst		
g <mark>ilent Spectrum Analyzer - Swept SA</mark> RLT RF 50Ω AC enter Freq 2.441000000	00 GHz	PNO: Fast +++ FGain:Low	SENSE:INT Trig Delay- Trig: Video #Atten: 30 (	500.0 µs	LIGNAUTO Avg Type	:: Log-Pwr		6 PM Sep 14, 202 RACE 1 2 3 4 5 TYPE WWWWW DET P N N N
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And the second	من ایر 4 مسط × 399.0 µs	#VΒι (Δ) -2.1	W 3.0 MHz	<mark>Uleanten Unite</mark>	and a specific production of the specific production of the specific production of the specific product of the s	Sweep	10.00 ms	Span 0 H (10001 pt
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30 0         μμμ μ         μμμμ         μμμμ           senter 2.441000000 GHz         senter 2.441000000 GHz         senter 2.441000000 GHz           senter 2.441000000 GHz         senter 2.441000000 GHz         senter 2.441000000 GHz           senter 2.441000000 GHz         senter 2.441000000 GHz         senter 2.441000000 GHz           senter 2.441000000 GHz         senter 2.441000000 GHz         senter 2.441000000 GHz           senter 2.4410 GHz         senter 2.441000000 GHz         senter 2.441000000 GHz           senter 3.4410 GHz         senter 3.441000000 GHz         senter 3.441000000 GHz           senter 3.4410 GHz         senter 3.441000000 GHz         senter 3.4410000000 GHz           senter 3.4410 GHz         senter 3.4410000000 GHz         senter 3.4410000000 GHz           senter 3.4410 GHz         senter 3.4410000000 GHz         senter 3.4410000000 GHz           senter 3.4410 GHz         senter 3.4410000000 GHz         senter 3.4410000000 GHz           senter 3.4410 GHz         senter 3.4410000000 GHz         senter 3.44100000000 GHz           senter 3.4410 GHz         senter 3.44100000000 GHz         senter 3.44100000000000000000000000000000000000	من ایر منبع × 399.0 µs	#VΒι (Δ) -2.1	W 3.0 MHz	<mark>Uleanten Unite</mark>	and a specific production of the specific production of the specific production of the specific product of the s	Sweep	10.00 ms	Span 0 H (10001 pts



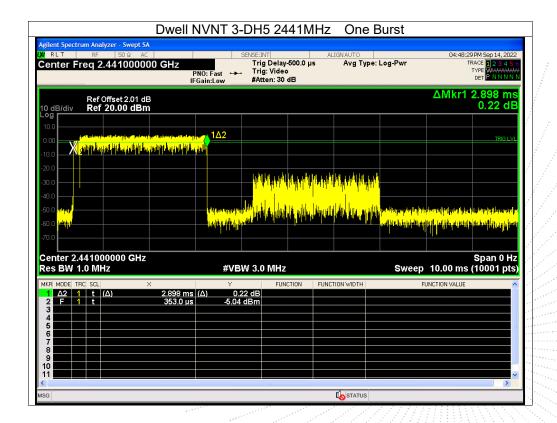


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Center 2.441000000 GHz           Res BW 1.0 MHz           MKR MODE TRC SCL         X           1         Δ2         1         t           2         F         1         t           3         -         -         -	Γ 2.898 ms (Δ)	#VBW 3.0 MH			Sweep	10.00 ms (	Span 0 H: 10001 pts
Center 2.441000000 GHz Res BW 1.0 MHz MKR MODE TRC SCL × 1 A2 1 t (A) 2 F 1 t 3 4 5 6 7 1 4	Γ 2.898 ms (Δ)	#VBW 3.0 MH			Sweep	10.00 ms (	Span 0 Hi
70.0         Image: Conter 2.44 1000000 GHz           Center 2.44 1000000 GHz         Kes BW 1.0 MHz           MKR MODE TRC SCL         X           1         A2         1         t           2         F         1         t         X           3         Image: Conter 2 General Science Conter 2	Γ 2.898 ms (Δ)	#VBW 3.0 MH			Sweep	10.00 ms (	Span 0 H 10001 pts
Center 2.441000000 GHz           Res BW 1.0 MHz           MKR MODE TRC SCL         X           1 A2 1 t (A)           2 F 1 t           3           4           5           6           7           8	Γ 2.898 ms (Δ)	#VBW 3.0 MH			Sweep	10.00 ms (	Span 0 H: 10001 pts

	Dwell NV	NT 3-DH	1 2441M	Hz One	Burst		
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40.0 50.0 10.0		#VBW 3.0	<mark>handan (</mark> 1994) and an an an an an an an an an an an an an		Sweep	<mark>andan katan ka</mark> Si	pan 0 Hz
400 500 mto constant approximate 600 mto constant approximate 700 conter 2.441000000 GHz Res BW 1.0 MHz	<mark>l de la sub qua propuel, helte</mark> q	#VBW 3.0	<mark>ма најаници, е</mark> о MHz	<mark>4), 41(1), 44, 14, 19, 19, 19, 19, 19, 19, 19, 19, 19, 19</mark>	Sweep	5 10.00 ms (10	pan 0 Hz
40.0         40.0 <t< td=""><td><sup>44</sup>μ<sup>4</sup>μ<sup>4</sup>μ<sup>4</sup>μ<sup>4</sup>μ<sup>4</sup>μ<sup>4</sup>μ<sup>4</sup>μ<sup>4</sup>μ<sup>4</sup></td><td>#VBW 3.0</td><td><mark>ма најаници, е</mark> о MHz</td><td><mark>4), 41(1), 44, 14, 19, 19, 19, 19, 19, 19, 19, 19, 19, 19</mark></td><td>Sweep</td><td>5 10.00 ms (10</td><td>pan 0 Hz</td></t<>	<sup>44</sup> μ <sup>4</sup>	#VBW 3.0	<mark>ма најаници, е</mark> о MHz	<mark>4), 41(1), 44, 14, 19, 19, 19, 19, 19, 19, 19, 19, 19, 19</mark>	Sweep	5 10.00 ms (10	pan 0 Hz
400 400 400 400 400 400 400 400	<sup>44</sup> μ <sup>4</sup>	#VBW 3.0	<mark>ма најаници, е</mark> о MHz	<mark>4), 41(1), 44, 14, 19, 19, 19, 19, 19, 19, 19, 19, 19, 19</mark>	Sweep	5 10.00 ms (10	pan 0 Hz
40.0         μμμ         μμμμ         μμμμ         μμμμ         μμμμμ         μμμμμ         μμμμμμμμμμμμμμμμμμμμμμμμμμμμμμμμμμμμ	<sup>44</sup> μ <sup>4</sup>	#VBW 3.0	<mark>ма најаници, е</mark> о MHz	<mark>4), 41(1), 44, 14, 19, 19, 19, 19, 19, 19, 19, 19, 19, 19</mark>	Sweep	5 10.00 ms (10	pan 0 Hz



	Dwell N	VNT 3-D	DH3 24	41MHz	One I	Burst		
Agilent Spectrum Analyzer - Swept SA X RLT RF 50 Ω AC Center Freq 2.44100000	00 GHz	SE NO: Fast ↔→ Gain:Low	ENSE:INT Trig Delay- Trig: Video #Atten: 30 o	500.0 µs	IGNAUTO Avg Type	Log-Pwr		2PM Sep 14, 202 RACE 1 2 3 4 5 TYPE WWWWW DET P N N N N
Ref Offset 2.01 dE 10 dB/div Ref 20.00 dBm Log							∆Mkr1	1.646 m -0.56 dB
	1∆2							TRIG LV
10.0 20.0 20.0 20.0 20.0 20.0 20.0 20.0								
-30.0								
50.0 <mark>U Y III.</mark> 60.0 <mark>U II II III.</mark> 70.0	ni ole groth fin Ngayaga tang tan	kan na si si dipala pian <mark>Ikan kana kana ka</mark>	<mark>titili in optanovana</mark> <mark>titili in optanovana</mark>	ktowia wia webi <mark>Wanishi kana k</mark> u	al a ten la comuna a par La la <sub>col</sub> tra parte de la	i da kada kada kata k Ni lagu <mark>panakana ku</mark>	an baratan kada <mark>Ushan ya</mark> n at kadal (	ndurusianan <sup>A</sup> ndalijang
Center 2.441000000 GHz Res BW 1.0 MHz		#VBW	ý 3.0 MHz			Sweep	10.00 ms	Span 0 H: (10001 pts
MKR MODE TRC SCL >		Y	FUNC	TION FUNC	TION WIDTH	FL	UNCTION VALUE	2
1 Δ2 1 t (Δ) 2 F 1 t 3	1.646 ms 352.0 µs	( <u>∆)</u> -0.56 -2.80 d						
4 5 6								
7 8								
9								
10								



No.: BCTC/RF-EMC-007



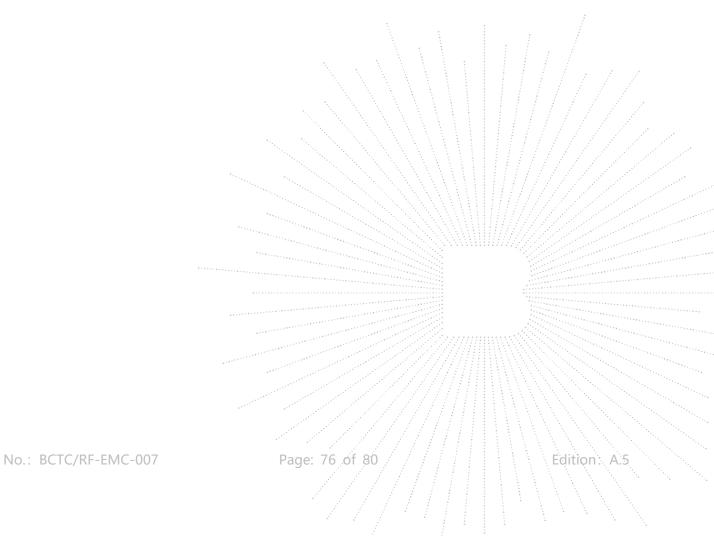
### 15. Antenna Requirement

### 15.1 Limit

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.

### 15.2 Test Result

The EUT antenna is Internal antenna, fulfill the requirement of this section.





### 16. EUT Photographs

EUT Photo 1



NOTE: Appendix-Photographs Of EUT Constructional Details

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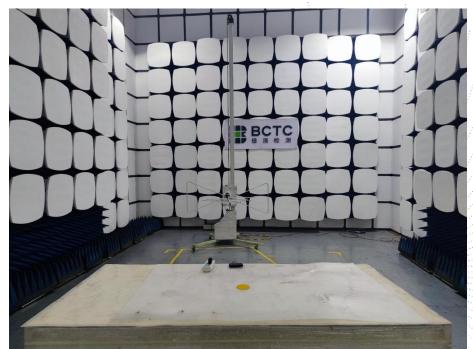


### 17. EUT Test Setup Photographs

Conducted Measurement Photo



#### **Radiated Measurement Photos**



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# **STATEMENT**

1. The equipment lists are traceable to the national reference standards.

2. The test report can not be partially copied unless prior written approval is issued from our lab.

3. The test report is invalid without the "special seal for inspection and testing".

4. The test report is invalid without the signature of the approver.

5. The test process and test result is only related to the Unit Under Test.

6. Sample information is provided by the client and the laboratory is not responsible for its authenticity.

7. The test report without CMA mark is only used for scientific research, teaching, enterprise product development and internal quality control purposes.

8. The quality system of our laboratory is in accordance with ISO/IEC17025.

9. If there is any objection to this test report, the client should inform issuing laboratory within 15 days from the date of receiving test report.

Address:

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**\*\*\*\*\*\* END \*\*\*\*** 

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