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	TEST REPOR	Т
FCC ID :	2AFSG-F9	
Test Report No:	TCT220228E001	
Date of issue:	Mar. 09, 2022	
Testing laboratory: :	SHENZHEN TONGCE TESTING	S LAB
Testing location/ address:	TCT Testing Industrial Park Fuq Street, Bao'an District Shenzhen Republic of China	
Applicant's name: :	Dongguan Jin wen hua digital te	chnology Co., LTD.
Address:	NO.1 Hua Da Road, Long Bei Li Dongguan City, Guangdong, Ch	
Manufacturer's name :	Dongguan Jin wen hua digital te	chnology Co., LTD.
Address:	NO.1 Hua Da Road, Long Bei Li Dongguan City, Guangdong, Ch	
Standard(s):	FCC CFR Title 47 Part 15 Subpa FCC KDB 558074 D01 15.247 M ANSI C63.10:2013	
Test item description :	HIT BOOM	
Trade Mark:	SUNGRYCIS	
Model/Type reference :	F9	
Rating(s):	Rechargeable Li-ion Battery DC	3.7V C
Date of receipt of test item	Feb. 28, 2022	
Date (s) of performance of test:	Feb. 28, 2022 ~ Mar. 09, 2022	
Tested by (+signature) :	Brews XU	Forents sotters
Check by (+signature) :	Beryl ZHAO	Boy(PTCT)
Approved by (+signature):	Tomsin	Tomsters
TONGCE TESTING LAB. Th	oduced except in full, without the his document may be altered or r	evised by SHENZHEN TONGCE

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TCT通测检测 TESTING CENTRE TECHNOLOGY

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1. General Product Information

1.1. EUT description

Test item description:	НІТ ВООМ	(C ¹)	(\mathbf{C}^{*})
Model/Type reference:	F9		
Sample Number	TCT220228E001-0101		
Bluetooth Version:	V5.0		
Operation Frequency:	2402MHz~2480MHz		
Transfer Rate:	1/2/3 Mbits/s		$\left(\mathbf{C} \right)$
Number of Channel:	79		
Modulation Type:	GFSK, π/4-DQPSK, 8DPSK		
Modulation Technology:	FHSS		
Antenna Type:	PCB Antenna		
Antenna Gain:	0dBi	S.	
Rating(s):	Rechargeable Li-ion Battery DC 3.	7V	

Note: The antenna gain listed in this report is provided by applicant, and the test laboratory is not responsible for this parameter.

1.2. Model(s) list

None.

1.3. Operation Frequency

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
0	2402MHz	20	2422MHz	40	2442MHz	60	2462MHz
1	2403MHz	21	2423MHz	41	2443MHz	61	2463MHz
~	(×	(<u> </u>		····	(
10	2412MHz	30	2432MHz	50	2452MHz	70	2472MHz
11	2413MHz	31	2433MHz	51	2453MHz	71	2473MHz
18	2420MHz	38	2440MHz	58	2460MHz	78	2480MHz
19	2421MHz	39	2441MHz	59	2461MHz		-
Remark: modulatic	Channel 0, 3 on mode.	39 &78 ha	ve been tes	ted for G	FSK, π/4-D0	QPSK, 8E	DPSK

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2. Test Result Summary

Requirement	CFR 47 Section	Result
Antenna Requirement	§15.203/§15.247 (c)	PASS
AC Power Line Conducted Emission	§15.207	PASS
Conducted Peak Output Power	§15.247 (b)(1)	PASS
20dB Occupied Bandwidth	§15.247 (a)(1)	PASS
Carrier Frequencies Separation	§15.247 (a)(1)	PASS
Hopping Channel Number	§15.247 (a)(1)	PASS
Dwell Time	§15.247 (a)(1)	PASS
Radiated Emission	§15.205/§15.209	PASS
Band Edge	§15.247(d)	PASS

Note:

1. PASS: Test item meets the requirement.

2. Fail: Test item does not meet the requirement.

3. N/A: Test case does not apply to the test object.

4. The test result judgment is decided by the limit of test standard.

Report No.: TCT220228E001

3. General Information

3.1. Test environment and mode

Operating Environment:		
Condition	Conducted Emission	Radiated Emission
Temperature:	25.0 °C	25.3 °C
Humidity:	55 % RH	54 % RH
Atmospheric Pressure:	1010 mbar	1010 mbar
Test Software:		
Software Information:	BT FCC TOOL V2.23	
Power Level:	3	
Test Mode:	•	
Engineering mode:	Keep the EUT in continuous channel and modulations wi	0,

The sample was placed 0.8m & 1.5m for the measurement below & above 1GHz above the ground plane of 3m chamber. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case(Z axis) are shown in Test Results of the following pages. DH1 DH3 DH5 all have been tested, only worse case DH1 is reported.

3.2. Description of Support Units

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

Equipment	Model No.	Serial No.	FCC ID	Trade Name
Adapter	JD-050200	2012010907576735	/	/

Note:

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.

3. For conducted measurements (Output Power, 20dB Occupied Bandwidth, Carrier Frequencies Separation, Hopping Channel Number, Dwell Time, Spurious Emissions), the antenna of EUT is connected to the test equipment via temporary antenna connector, the antenna connector is soldered on the antenna port of EUT, and the temporary antenna connector is listed in the Test Instruments.

FCT通测检测 4. Facilities and Accreditations

4.1. Facilities

The test facility is recognized, certified, or accredited by the following organizations:

• FCC - Registration No.: 645098

SHENZHEN TONGCE TESTING LAB

Designation Number: CN1205

The testing lab has been registered and fully described in a report with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files.

- IC Registration No.: 10668A-1
- SHENZHEN TONGCE TESTING LAB
- CAB identifier: CN0031

The testing lab has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing.

4.2. Location

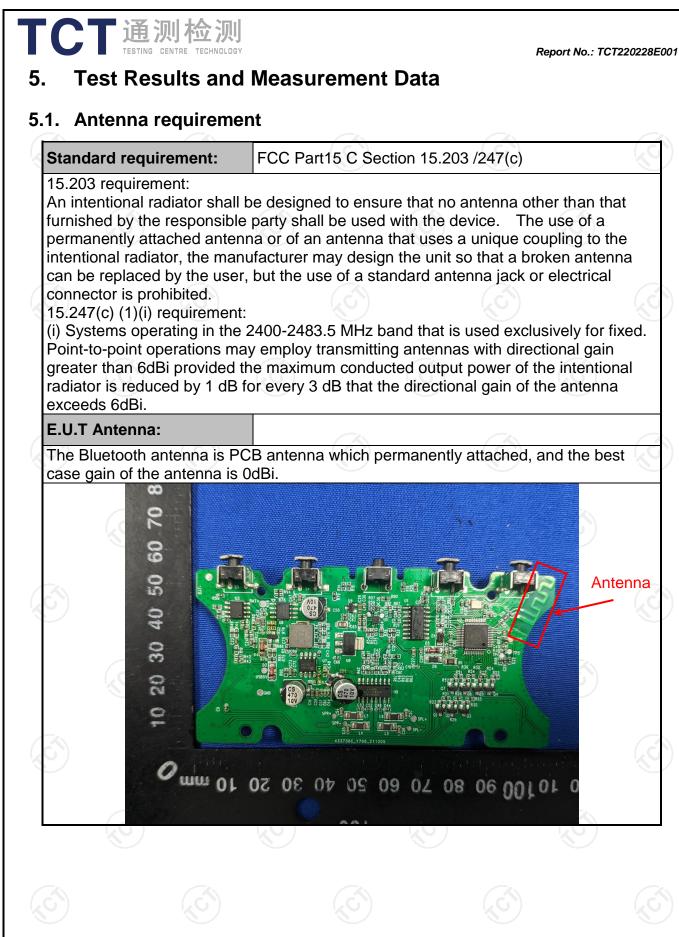
SHENZHEN TONGCE TESTING LAB

Address: TCT Testing Industrial Park Fuqiao 5th Industrial Zone, Fuhai Street, Bao'an District Shenzhen, Guangdong, 518103, People's Republic of China TEL: +86-755-27673339

4.3. Measurement Uncertainty

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

No.	Item	MU
1	Conducted Emission	± 3.10 dB
2	RF power, conducted	± 0.12 dB
3	Spurious emissions, conducted	± 0.11 dB
4	All emissions, radiated(<1 GHz)	± 4.56 dB
5	All emissions, radiated(1 GHz - 18 GHz)	± 4.22 dB
6	All emissions, radiated(18 GHz- 40 GHz)	± 4.36 dB





5.2. Conducted Emission

5.2.1. Test Specification

Tari Dan in and		45.007	
Test Requirement:	FCC Part15 C Section	15.207	
Test Method:	ANSI C63.10:2013		
Frequency Range:	150 kHz to 30 MHz	S)	$\langle \mathcal{C}^{(n)} \rangle$
Receiver setup:	RBW=9 kHz, VBW=30) kHz, Sweep time	e=auto
	Frequency range	Limit (dBuV)
	(MHz)	Quasi-peak	Average
Limits:	0.15-0.5	66 to 56*	56 to 46*
	0.5-5	56	46
	5-30	60	50
	Referenc	e Plane	
Test Setup:	E.U.T AC powe Test table/Insulation plane Remark: E.U.T. Equipment Under Test LISN: Line Impedence Stabilization N Test table height=0.8m	EMI Receiver	AC power
Test Mode:	Charging + Transmittir	0	0
Test Mode: Test Procedure:	 The E.U.T is connerimpedance stabilized provides a 500hm/st measuring equipme The peripheral device power through a Licoupling impedance refer to the block photographs). Both sides of A.C. conducted interferent emission, the relative the interface cables 	ected to an adapted tation network 50uH coupling im nt. ces are also connect SN that provides with 50ohm tern diagram of the line are checked nce. In order to fin the positions of equi must be changed	(L.I.S.N.). This pedance for the ected to the main a 50ohm/50uh nination. (Please test setup and ed for maximum nd the maximum ipment and all o according to
	 The E.U.T is connerimpedance stabilized provides a 500hm/s measuring equipme The peripheral device power through a Licoupling impedance refer to the block photographs). Both sides of A.C. conducted interferent emission, the relative 	ected to an adapted tation network 50uH coupling im nt. ces are also connect SN that provides with 50ohm tern diagram of the line are checked nce. In order to fin the positions of equi must be changed	(L.I.S.N.). This pedance for the ected to the main a 50ohm/50uh nination. (Please test setup and ed for maximum nd the maximum ipment and all o according to

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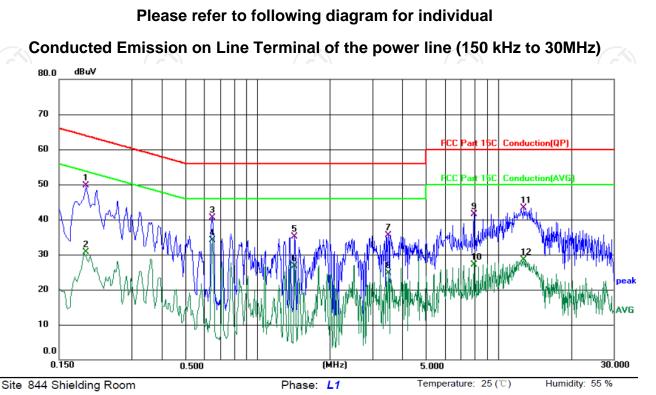
http://www.tct-lab.com

Fax: 86-755-27673332

5.2.2. Test Instruments

Cond	lucted Emission	Shielding R	oom Test Site (8	43)
Equipment	Manufacturer	Model	Serial Number	Calibration Due
EMI Test Receiver	R&S	ESCI3	100898	Jul. 07, 2022
Line Impedance Stabilisation Newtork(LISN)	Schwarzbeck	NSLK 8126	8126453	Mar. 11, 2022
Line-5	ТСТ	CE-05	N/A	Jul. 07, 2022
EMI Test Software	Shurple Technology	EZ-EMC	N/A	N/A

5.2.3. Test data



Limit: FCC Part 15C Conduction(QP) Power: DC 5 V(Adapter Input AC 120 V/60 Hz)

No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment	
1	0.1940	40.04	9.58	49.62	63.86	-14.24	QP		
2	0.1940	21.03	9.58	30.61	53.86	-23.25	AVG		
3	0.6500	31.24	9.19	40.43	56.00	-15.57	QP		
4 *	0.6500	24.90	9.19	34.09	46.00	-11.91	AVG		
5	1.4299	25.79	9.37	35.16	56.00	-20.84	QP		
6	1.4299	17.40	9.37	26.77	46.00	-19.23	AVG		
7	3.5019	25.95	9.53	35.48	56.00	-20.52	QP		
8	3.5019	15.08	9.53	24.61	46.00	-21.39	AVG		
9	7.8979	32.03	9.57	41.60	60.00	-18.40	QP		
10	7.8979	17.50	9.57	27.07	50.00	-22.93	AVG		
11	12.7420	33.75	9.64	43.39	60.00	-16.61	QP		
12	12.7420	18.87	9.64	28.51	50.00	-21.49	AVG		

Note:

Freq. = Emission frequency in MHz

Reading level $(dB\mu V) = Receiver reading$

Corr. Factor (dB) = LISN factor + Cable loss

Measurement $(dB\mu V) = Reading level (dB\mu V) + Corr. Factor (dB)$

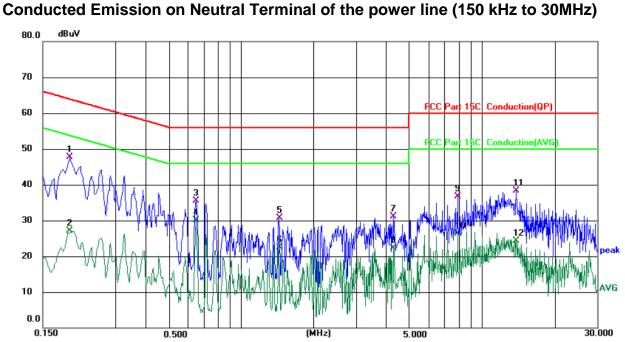
Limit ($dB\mu V$) = Limit stated in standard

 $Margin (dB) = Measurement (dB\mu V) - Limits (dB\mu V)$

Q.P. =Quasi-Peak

AVG =average

* is meaning the worst frequency has been tested in the frequency range 150 kHz to 30MHz.



 Site 844 Shielding Room
 Phase: N
 Temperature: 25 (°C)
 Humidity: 55 %

 Limit: FCC Part 15C Conduction(QP)
 Power: DC 5 V(Adapter Input AC 120 V/60 Hz)

No. Mk	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.1940	38.11	9.51	47.62	63.86	-16.24	QP	
2	0.1940	17.53	9.51	27.04	53.86	-26.82	AVG	
3	0.6500	26.23	9.21	35.44	56.00	-20.56	QP	
4 *	0.6500	20.81	9.21	30.02	46.00	-15.98	AVG	
5	1.4340	21.33	9.34	30.67	56.00	-25.33	QP	
6	1.4340	13.08	9.34	22.42	46.00	-23.58	AVG	
7	4.3140	21.61	9.46	31.07	56.00	-24.93	QP	
8	4.3140	12.94	9.46	22.40	46.00	-23.60	AVG	
9	7.9180	27.17	9.58	36.75	60.00	-23.25	QP	
10	7.9180	16.65	9.58	26.23	50.00	-23.77	AVG	
11	13.8460	28.58	9.66	38.24	60.00	-21.76	QP	
12	13.8460	14.72	9.66	24.38	50.00	-25.62	AVG	

Note1:

Freq. = Emission frequency in MHz Reading level ($dB\mu V$) = Receiver reading Corr. Factor (dB) = LISN factor + Cable loss

Measurement $(dB\mu V)$ = Reading level $(dB\mu V)$ + Corr. Factor (dB)

 $Limit (dB\mu V) = Limit stated in standard$

Margin (dB) = Measurement (dB μ V) – Limits (dB μ V)

Q.P. =Quasi-Peak AVG =average

* is meaning the worst frequency has been tested in the frequency range 150 kHz to 30MHz.

Note2:

Measurements were conducted in all three channels (high, middle, low) and three modulation (GFSK, Pi/4 DQPSK, 8DPSK), and the worst case Mode (Lowest channel and 8DPSK) was submitted only.



5.3. Conducted Output Power

5.3.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.247 (b)(1)			
Test Method:	KDB 558074 D01 v05r02			
Limit:	Section 15.247 (b) The maximum peak conducted out power of the intentional radiator shall not exceed the following: (1) For frequency hopping systems operatin in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt For all other frequency hopping systems in the 2400-2483.5 MHz band 0.125 watts.			
Test Setup:	Spectrum Analyzer	EUT		
Test Mode:	Transmitting mode with me	odulation		
Test Procedure:	centered on a hopping cha RBW > the 20 dB bandwid measured VBW ≥ RBW Sweep = auto Detector function = peak Trace = max hold Allow the trace to stabilize	times the 20 dB bandwidth, annel Ith of the emission being		
Test Result:	PASS			

5.3.2. Test Instruments

Name	Manufacturer	Model No.	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	N9020A	MY49100619	Jul. 18, 2022
Combiner Box	Ascentest	AT890-RFB	N/A	Jul. 07, 2022





5.4. 20dB Occupy Bandwidth

5.4.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.247 (a)(1)				
Test Method:	KDB 558074 D01 v05r02				
Limit:	N/A				
Test Setup:	Spectrum Analyzer				
Test Mode:	Transmitting mode with modulation				
Test Procedure:	 The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement. Set to the maximum power setting and enable the EUT transmit continuously. Use the following spectrum analyzer settings for 20dB Bandwidth measurement. Span = approximately 2 to 5 times the 20 dB bandwidth, centered on a hopping channel; 1%≤RBW≤5% of the 20 dB bandwidth; VBW≥3RBW; Sweep = auto; Detector function = peak; Trace = max hold. Measure and record the results in the test report. 				
Test Result:	PASS				

5.4.2. Test Instruments

	Manufacturer	Model No.	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	N9020A	MY49100619	Jul. 18, 2022
Combiner Box	Ascentest	AT890-RFB	N/A	Jul. 07, 2022



5.5. Carrier Frequencies Separation

5.5.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.247 (a)(1)		
Test Method:	KDB 558074 D01 v05r02		
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 125 mW.		
Test Setup:	Spectrum Analyzer EUT		
Test Mode:	Hopping mode		
Test Procedure:	 The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement. Set to the maximum power setting and enable the EUT transmit continuously. Enable the EUT hopping function. Use the following spectrum analyzer settings: Span = wide enough to capture the peaks of two adjacent channels; RBW is set to approximately 30% of the channel spacing, adjust as necessary to best identify the center of each individual channel; VBW≥RBW; Sweep = auto; Detector function = peak; Trace = max hold. Use the marker-delta function to determine the separation between the peaks of the adjacent channels. Record the value in report. 		
Test Result:	PASS		

5.5.2. Test Instruments

Name	Manufacturer	Model No.	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	N9020A	MY49100619	Jul. 18, 2022
Combiner Box	Ascentest	AT890-RFB	N/A	Jul. 07, 2022

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5.6. Hopping Channel Number

5.6.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.247 (a)(1)			
Test Method:	KDB 558074 D01 v05r02			
Limit:	Frequency hopping systems in band shall use at least 15 char		5 MHz	
Test Setup:		•		
	Spectrum Analyzer	EUT		
Test Mode:	Hopping mode			
Test Procedure:	 Hopping mode 1. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement. 2. Set to the maximum power setting and enable the EUT transmit continuously. 3. Enable the EUT hopping function. 4. Use the following spectrum analyzer settings: Span = the frequency band of operation; set the RBW to less than 30% of the channel spacing or the 20 dB bandwidth, whichever is smaller; VBW≥RBW; Sweep = auto; Detector function = peak; Trace = max hold. 5. The number of hopping frequency used is defined as the number of total channel. 			
Test Result:	PASS			

5.6.2. Test Instruments

Name	Manufacturer	Model No.	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	N9020A	MY49100619	Jul. 18, 2022
Combiner Box	Ascentest	AT890-RFB	N/A	Jul. 07, 2022
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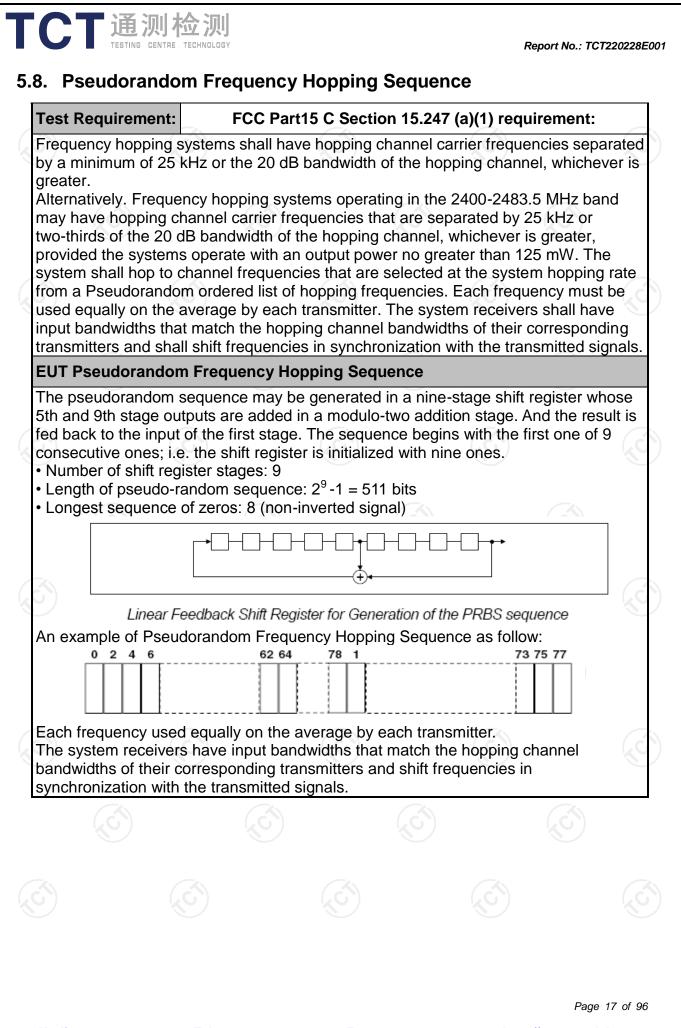
5.7. Dwell Time

5.7.1. Test Specification

FCC Part15 C Section 15.247 (a)(1)
KDB 558074 D01 v05r02
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.
Spectrum Analyzer EUT
Hopping mode
 The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement. Set to the maximum power setting and enable the EUT transmit continuously. Enable the EUT hopping function. Use the following spectrum analyzer settings: Span = zero span, centered on a hopping channel; RBW shall be ≤ channel spacing and where possible RBW should be set >> 1 / T, where T is the expected dwell time per channel; VBW≥RBW; Sweep = as necessary to capture the entire dwell time per hopping channel; Detector function = peak; Trace = max hold. Measure and record the results in the test report.
PASS

5.7.2. Test Instruments

Name	Manufacturer	Model No.	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	N9020A	MY49100619	Jul. 18, 2022
Combiner Box	Ascentest	AT890-RFB	N/A	Jul. 07, 2022





5.9. Conducted Band Edge Measurement

5.9.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.247 (d)		
Test Method:	KDB 558074 D01 v05r02		
Limit:	In any 100 kHz bandwidth outside the intentional radiation frequency band, the radio frequency power shall be at least 20 dB below the highest level of the radiated power. In addition, radiated emissions which fall in the restricted bands must also comply with the radiated emission limits.		
Test Setup:	Spectrum Analyzer EUT		
Test Mode:	Transmitting mode with modulation		
Test Procedure:	 Set to the maximum power setting and enable the EUT transmit continuously. Set RBW = 100 kHz (≥1% span=10MHz), VBW = 30 kHz (≥RBW). Band edge emissions must be at leas 20 dB down from the highest emission level within the authorized band as measured with a 100kHz RBW. The attenuation shall be 30 dB instead of 20 dB when RMS conducted output power procedure i used. Enable hopping function of the EUT and then repeating the strength of the results in the test report. 		
Test Result:	PASS		

5.9.2. Test Instruments

Name	Manufacturer	Model No.	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	N9020A	MY49100619	Jul. 18, 2022
Combiner Box	Ascentest	AT890-RFB	N/A	Jul. 07, 2022
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5.10. Conducted Spurious Emission Measurement

5.10.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.247 (d)
Test Method:	KDB 558074 D01 v05r02
Limit:	In any 100 kHz bandwidth outside the intentional radiation frequency band, the radio frequency power shall be at least 20 dB below the highest level of the radiated power. In addition, radiated emissions which fall in the restricted bands must also comply with the radiated emission limits.
Test Setup:	Spectrum Analyzer EUT
Test Mode:	Transmitting mode with modulation
Test Procedure:	 The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement. Set to the maximum power setting and enable the EUT transmit continuously. Set RBW = 100 kHz, VBW = 300kHz, scan up through 10th harmonic. All harmonics / spurs must be at least 20 dB down from the highest emission level within the authorized band as measured with a 100 kHz RBW. Measure and record the results in the test report. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
Test Result:	PASS

5.10.2. Test Instruments

Name	Manufacturer	Model No.	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	N9020A	MY49100619	Jul. 18, 2022
Combiner Box	Ascentest	AT890-RFB	N/A	Jul. 07, 2022
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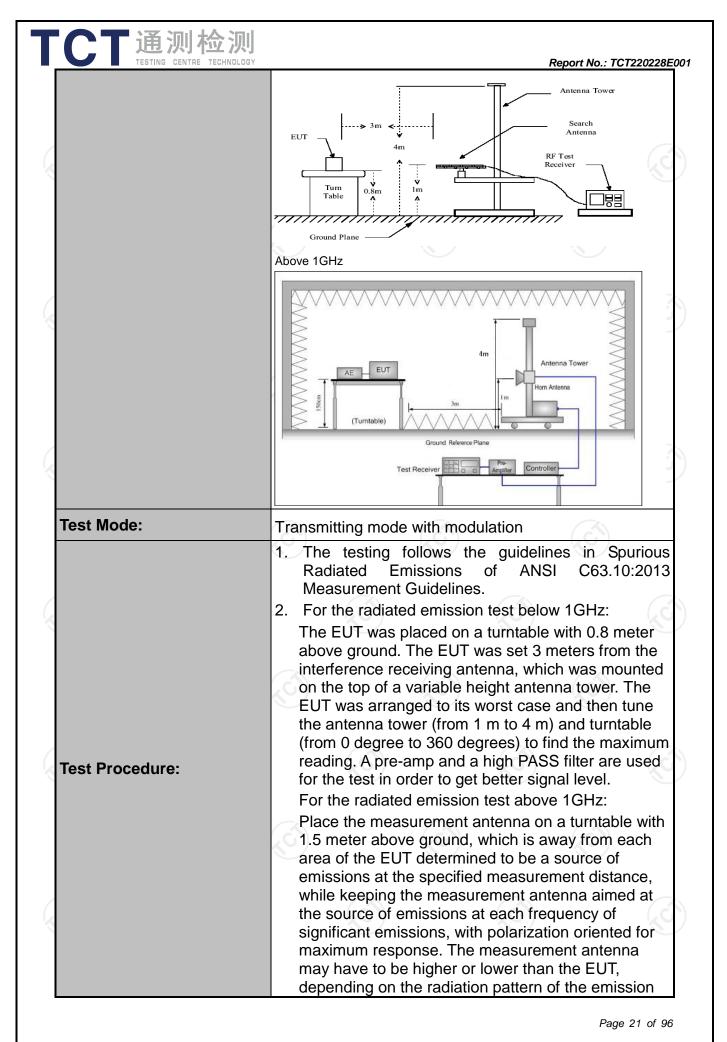




5.11.1. Test Specification

TCT通测检测 TESTING CENTRE TECHNOLOGY

	FCC Part 15	C Section	15.209					
Test Method:	ANSI C63.10):2013						
Frequency Range:	9 kHz to 25 0	GHz				6		
Measurement Distanc	:e: 3 m	3 m						
Antenna Polarization:	Horizontal &	Horizontal & Vertical						
	Frequency	Detector	RBW	VBW		Remark		
	9kHz- 150kHz	Quasi-peak		1kHz		si-peak Value		
Receiver Setup:	150kHz- 30MHz	Quasi-peak	9kHz	30kHz	Quas	si-peak Value		
	30MHz-1GHz	Quasi-peak		300KHz		si-peak Value		
	Above 1GHz	Peak	1MHz	3MHz		eak Value		
		Peak	1MHz	10Hz	Ave	erage Value		
	Frequen	су	Field Str			asurement		
	0.009-0.4		(microvolts) 2400/F(E. XI	Dista	nce (meters) 300		
	0.490-1.7	/	2400/F			300		
	1.705-3		30	· · · · ·		30		
	30-88		100		3			
l insit.	88-216		150			3		
Limit:	216-960 Above 90		200 500		3			
	Frequency Above 1GHz		volts/meter) 500 5000	3	(meters)			
Test setup:	EUT	ssions below stance = 3m Turn table Ground			Compu Amplifier			
	30MHz to 1GHz		(



	receiving t measurem maximizes antenna e restricted above the 3. Set to the EUT trans 4. Use the fo (1) Span emiss (2) Set R for f> Swe = ma (3) For a correc 15.35	g aimed at the the maximum s nent antenna el s the emissions levation for ma to a range of he ground or refer e maximum por smit continuous ollowing spectru shall wide enor sion being meas BW=120 kHz fr 1GHz ; VBW≥F ep = auto; Dete ax hold for peak average measu ection factor me (c). Duty cycle	ignal. The fi evation sha s. The measu ximum emis eights of frou- rence groun wer setting sly. um analyzer ugh to fully of sured; or f < 1 GHz RBW; ector functio c rement: use ethod per	nal II be that v urement ssions sha m 1 m to 4 d plane. and enab settings: capture th c, RBW=1 n = peak; e duty cycl 00 millise	II be 4 m Ile the e MHz Trace e conds
	Whe leng Aver Leve Corre	re N1 is numbe th of type 1 puls age Emission I el + 20*log(Duty cted Reading: /	ses, etc. Level = Peal / cycle) Antenna Fac	k Emission ctor + Cab	is 💟 n ble
Test results:	Whe leng Aver Leve Corre	ere N1 is number th of type 1 puls age Emission I el + 20*log(Duty	ses, etc. Level = Peal / cycle) Antenna Fac	k Emission ctor + Cab	is 🖋 n ole
Test results:	Whe leng Aver Leve Corre Loss	re N1 is numbe th of type 1 puls age Emission I el + 20*log(Duty cted Reading: /	ses, etc. Level = Peal / cycle) Antenna Fac	k Emission ctor + Cab	is 🚫 n ole
Test results:	Whe leng Aver Leve Corre Loss	re N1 is numbe th of type 1 puls age Emission I el + 20*log(Duty cted Reading: /	ses, etc. Level = Peal / cycle) Antenna Fac	k Emission ctor + Cab	is 😪 n ole
Test results:	Whe leng Aver Leve Corre Loss	re N1 is numbe th of type 1 puls age Emission I el + 20*log(Duty cted Reading: /	ses, etc. Level = Peal / cycle) Antenna Fac	k Emission ctor + Cab	is 😪 n ole



5.11.2. Test Instruments

	Radiated En	nission Test Site	e (966)	
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
EMI Test Receiver	R&S	ESIB7	100197	Jul. 07, 2022
Spectrum Analyzer	R&S	FSQ40	200061	Jul. 07, 2022
Pre-amplifier	SKET	LNPA_0118G- 45	SK2021012 102	Mar. 11, 2022
Pre-amplifier	SKET	LNPA_1840G- 50	SK2021092 03500	Apr. 08, 2022
Pre-amplifier	HP	8447D	2727A05017	Jul. 07, 2022
Loop antenna	ZHINAN	ZN30900A	12024	Sep. 05, 2022
Broadband Antenna	Schwarzbeck	VULB9163	340	Sep. 04, 2022
Horn Antenna	Schwarzbeck	BBHA 9120D	631	Sep. 04, 2022
Horn Antenna	Schwarzbeck	BBHA 9170	00956	Apr. 10, 2023
Antenna Mast	Keleto	RE-AM	N/A	N/A
Coaxial cable	SKET	RC_DC18G-N	N/A	Apr. 08, 2022
Coaxial cable	SKET	RC-DC18G-N	N/A	Apr. 08, 2022
Coaxial cable	SKET	RC-DC40G-N	N/A	Jul. 07, 2022
EMI Test Software	Shurple Technology	EZ-EMC	N/A	N/A
		C		

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5.11.3. **Test Data**

TCT通测检测 TCT通测检测

Please refer to following diagram for individual



Site #1 3m Anechoic Chamber Limit: FCC Part 15C RE_3m

Polarization: Horizontal Power: DC 3.7 V

Temperature: 25.3(C) Humidity: 54 %

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	38.4809	9.90	13.83	23.73	40.00	-16.27	QP	Р	
2	70.3365	10.27	11.23	21.50	40.00	-18.50	QP	Р	
3	107.1337	9.30	11.02	20.32	43.50	-23.18	QP	Р	
4 *	155.9101	24.85	13.75	38.60	43.50	-4.90	QP	Р	
5	193.0944	14.90	11.10	26.00	43.50	-17.50	QP	Р	
6	278.0668	8.91	13.51	22.42	46.00	-23.58	QP	Р	

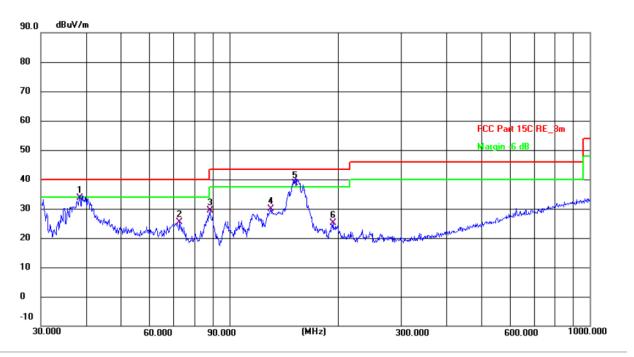


Vertical:

6

193.7726

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Site #1 3m Anechoic Chamber Polarization: Vertical Temperature: 25.3(C) Humidity: 54 % Limit: FCC Part 15C RE_3m Power: DC 3.7 V Frequency Reading Factor Level Limit Margin Detector P/F No. Remark (MHz) (dBuV) (dB/m) (dBuV/m) (dBuV/m) (dB) 1 38.4808 19.77 13.83 33.60 40.00 -6.40 QP Ρ 2 72.8465 14.69 10.72 25.41 40.00 -14.59 QP Ρ 3 88.3421 20.20 9.07 29.27 43.50 -14.23 QP Ρ 4 130.3788 17.11 12.67 29.78 43.50 -13.72 QP Ρ 5 152.1297 25.00 13.60 38.60 43.50 -4.90 QP Ρ *

Note: 1. The low frequency, which started from 9KHz~30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.

-18.32

QP

Ρ

 Measurements were conducted in all three channels (high, middle, low) and three modulation (GFSK, Pi/4 DQPSK, 8DPSK) and the worst case Mode (Lowest channel and 8DPSK) was submitted only.
 Freq. = Emission frequency in MHz

43.50

- Measurement $(dB\mu V/m) = Reading level (dB\mu V) + Corr. Factor (dB)$
- Correction Factor= Antenna Factor + Cable loss Pre-amplifier

11.05

Limit $(dB\mu V/m) = Limit$ stated in standard

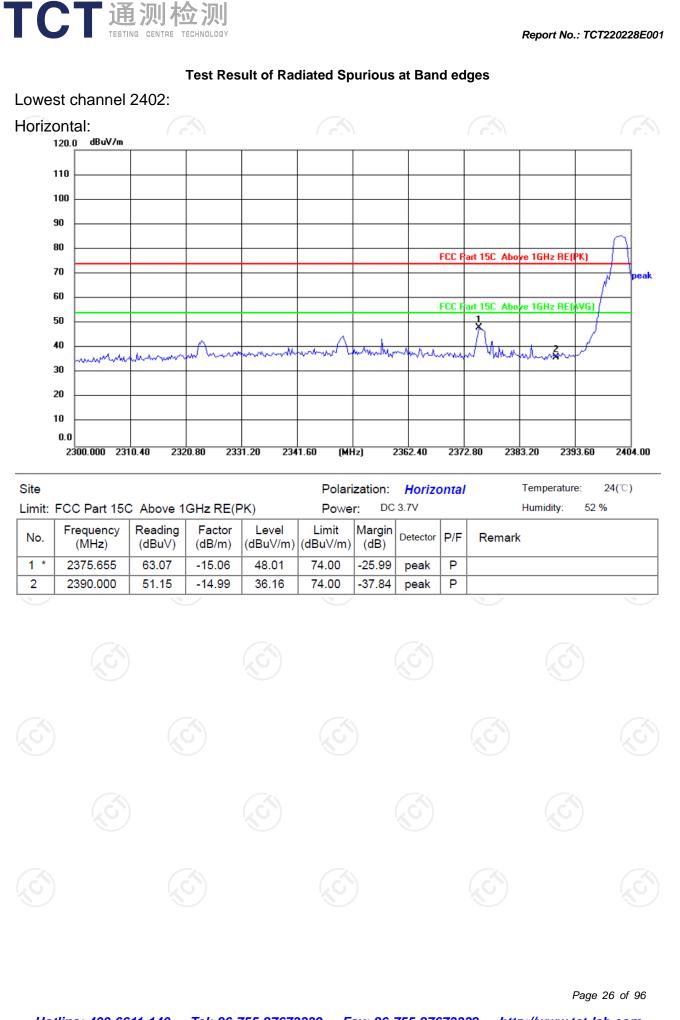
14.13

 $Over (dB) = Measurement (dB\mu V/m) - Limits (dB\mu V/m)$

* is meaning the worst frequency has been tested in the test frequency range.

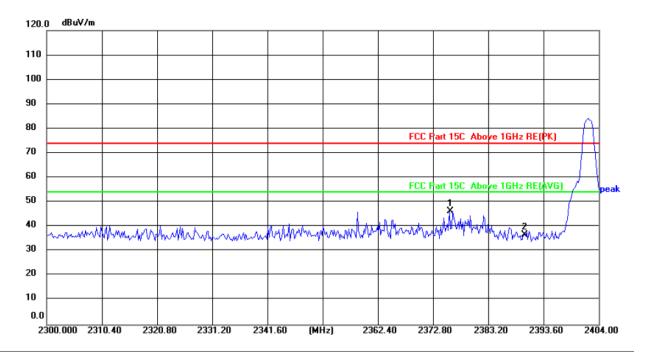
25.18

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Vertical:

TCT通测检测 TESTING CENTRE TECHNOLOGY



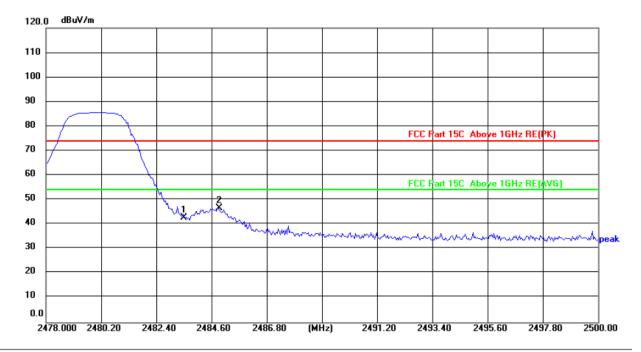
Site					Polarization: Vertical			a/	Temperature: 24(°C)	
Limit: FCC Part 15C Above 1GHz RE(PK) Power: DC 3.7V Humidity: 52 %										
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)		Margin (dB)	Detector	P/F	Remark	
1 *	2375.864	61.46	-15.06	46.40	74.00	-27.60	peak	Ρ		
2	2390.000	51.73	-14.99	36.74	74.00	-37.26	peak	Ρ		



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Highest channel 2480:

Horizontal:

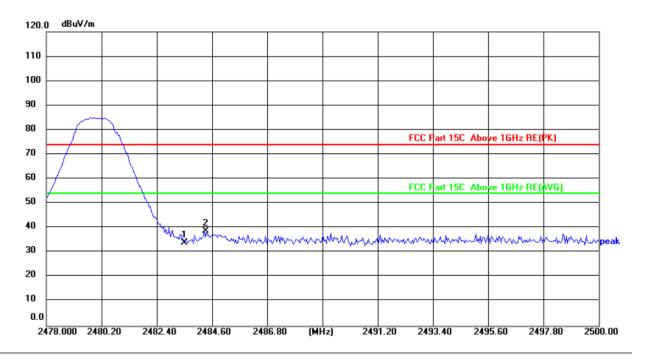


Site					Polari	Polarization: Horizontal			Temperature: 24(°C)
Limit	FCC Part 15	C Above 1	GHz RE(F	PK)	Powe	r: DC	3.7V		Humidity: 52 %
No.	Frequency (MHz)	Level (dBuV/m)		Margin (dB)	Detector	P/F	Remark		
1	2483.500	57.29	-14.58	42.71	74.00	-31.29	peak	Ρ	
2 *	2484.878	61.23	-14.57	46.66	74.00	-27.34	peak	Ρ	
11 11									

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Vertical:

TCT 通测检测 TESTING CENTRE TECHNOLOGY



Site					Polarization: Vertical				Temperature: 24(°C)			
Limit:	Limit: FCC Part 15C Above 1GHz RE(PK) Power: DC 3.7V Humidity: 52 %											
No.	Frequency (MHz)	Reading (dBuV)		Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark			
1	2483.500	48.70	-14.58	34.12	74.00	-39.88	peak	Ρ				
2 *	2484.305	53.49	-14.57	38.92	74.00	-35.08	peak	Ρ				

Note: Measurements were conducted in all three modulation (GFSK, Pi/4 DQPSK, 8DPSK), and the worst case Mode (8DPSK) was submitted only.

Above 1GHz

Modulation	Type: 8D	PSK							
Low chann	el: 2402 N	1Hz							
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBµV)	AV reading (dBuV)	Correction Factor (dB/m)	Peak	n Level AV (dBµV/m)	Peak limit (dBµV/m)	AV limit (dBµV/m)	Margin (dB)
4804	Н	46.17		0.66	46.83		74	54	-7.17
7206	Н	36.05		9.50	45.55		74	54	-8.45
	Н					~~~			
	C)		J.J	`)	()	· (J`)		(\mathcal{G})	
4804	V	46.57		0.66	47.23		74	54	-6.77
7206	V	35.36		9.50	44.86		74	54	-9.14
	V								

Middle cha	nnel: 2441	MHz)				K C
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBµV)	AV reading (dBµV)	Correction Factor (dB/m)	Emissic Peak (dBµV/m)	AV	Peak limit (dBµV/m)		Margin (dB)
4882	Н	45.26		0.99	46.25	·	74	54	-7.75
7323	ζ ^O H)	35.90	- KO	9.87	45.77		74	54	-8.23
	Ĥ								
4882	V	46.99		0.99	47.98		74	54	-6.02
7323	V	35.71		9.87	45.58		74	54	-8.42
	V			~ ×	· /				

High channel: 2480 MHz

CT通测检测 TESTING CENTRE TECHNOLOGY

Ant Pol	Peak	AV		Emissio	on Level	Poak limit	AV/ limit	Margin
		reading	Factor	Peak	AV			(dB)
, •	(dBµV)	(dBµV)	(dB/m)	(dBµV/m)	(dBµV/m)		(00,00,00)	(42)
Н	44.49)	1.33	45.82		74	54	-8.18
Н	34.56		10.22	44.78		74	54	-9.22
Н				<u> </u>				
	(.c.)					(.c.)		0.0
V	44.80		1.33	46.13		74	54	-7.87
V	34.92		10.22	45.14		74	54	-8.86
V								
	Ant. Pol. H/V H H H V V	Ant. Pol. H/V Peak reading (dBµV) H 44.49 H 34.56 H V 44.80 V 34.92	Ant. Pol. H/V Peak reading (dBµV) AV reading (dBµV) H 44.49 H 34.56 H V 44.80 V 34.92	Ant. Pol. reading (dBµV) reading (dBµV) Factor (dB/m) H 44.49 1.33 H 34.56 10.22 H 10.22 H V 44.80 1.33 V 34.92 10.22	Ant. Pol. H/V Peak reading (dBµV) AV reading (dBµV) Correction Factor (dB/m) Emissic Peak (dBµV/m) H 44.49 1.33 45.82 H 34.56 10.22 44.78 H V 44.80 1.33 46.13 V 34.92 10.22 45.14	Ant. Pol. H/V Peak reading (dBµV) AV reading (dBµV) Correction Factor (dB/m) Emission Level Peak (dBµV/m) H 44.49 1.33 45.82 H 34.56 10.22 44.78 H 1.33 46.13 V 44.80 10.22 45.14	Ant. Pol. H/V Peak reading (dBµV) AV reading (dBµV) Correction Factor (dB/m) Emission Level Peak (dBµV/m) Peak limit (dBµV/m) H 44.49 1.33 45.82 74 H 34.56 10.22 44.78 74 H 74 H 74 V 44.80 1.33 46.13 V 34.92 10.22 45.14 74	$\begin{array}{c c c c c c c c c c c c c c c c c c c $

Note:

1. Emission Level=Peak Reading + Correction Factor; Correction Factor= Antenna Factor + Cable loss - Pre-amplifier

2. Margin (dB) = Emission Level (Peak) (dB μ V/m)-Average limit (dB μ V/m)

3. The emission levels of other frequencies are very lower than the limit and not show in test report.

4. Measurements were conducted from 1 GHz to the 10th harmonic of highest fundamental frequency.

5. Data of measurement shown "----"in the above table mean that the reading of emissions is attenuated more than 20 dB below the limits or the field strength is too small to be measured.

6. Measurements were conducted in all three modulation (GFSK, Pi/4 DQPSK, 8DPSK), and the worst case Mode (8DPSK) was submitted only.

7. All the restriction bands are compliance with the limit of 15.209.



Appendix A: Test Result of Conducted Test

Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	-2.60	30	Pass
NVNT	1-DH1	2441	-2.58	30	Pass
NVNT	1-DH1	2480	-2.76	30	Pass
NVNT	2-DH1	2402	-0.11	21	Pass
NVNT	2-DH1	2441	-0.01	21	Pass
NVNT	2-DH1	2480	-0.07	21	Pass
NVNT	3-DH1	2402	0.58	21	Pass
NVNT	3-DH1	2441	0.51	21	Pass
NVNT	3-DH1	2480	0.45	21	Pass





















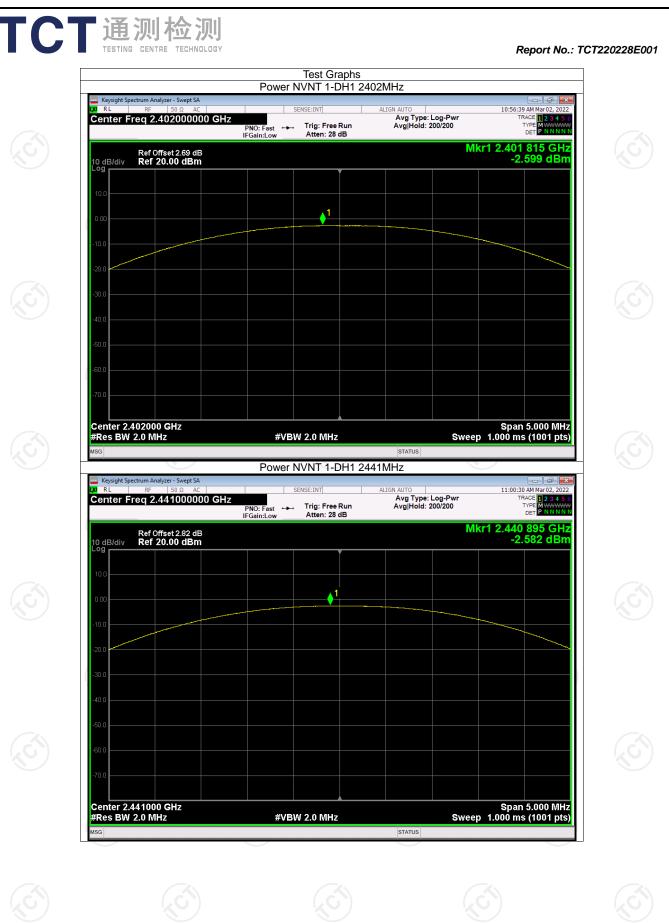






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Keysig	ht Spectrum Analyzer - Swept SA RF 50 Ω AC	Power NVNT 1-DH1 24	ALIGN AUTO	11:03:15 AM Mar02, 2022
	r Freq 2.480000000 GHz	PNO: Fast +++ Trig: Free Run IFGain:Low Atten: 28 dB	Avg Type: Log-Pwr Avg Hold: 1000/1000	TRACE 1 2 3 4 5 6 TYPE MWWWW DET PNNNNN
10 dB/c	Ref Offset 2.91 dB liv Ref 20.00 dBm		Mkr1	1 2.479 845 GHz -2.757 dBm
10.0				
0.00		1		
-10.0				
-20.0				
-30.0				
-40.0				
-50.0				
-60.0				
-70.0				
Cente	r 2.480000 GHz			Span 5.000 MHz
#Res I	3W 2.0 MHz	#VBW 2.0 MHz	Sweep 1	1.000 ms (1001 pts)
	ht Spectrum Analyzer - Swept SA	Power NVNT 2-DH1 24		
Cente	r Freq 2.402000000 GHz	PNO: Fast Trig: Free Run	ALIGN AUTO Avg Type: Log-Pwr Avg Hold: 1000/1000	11:06:46 AM Mar02, 2022 TRACE 12 3 4 5 6 TYPE MWWWWW DET P. N.N.N.N
10 4174	Ref Offset 2.69 dB	IFGain:Low Atten: 28 dB	Mkr	1 2.402 040 GHz -0.114 dBm
	liv Ref 20.00 dBm			
10.0		1		
0.00				
-10.0				
-30.0				
-40.0				
-50.0				
-60.0				
-70.0				
Cente	r 2.402000 GHz			Span 5.000 MHz
#Res	SW 2.0 MHz	#VBW 2.0 MHz	Sweep 1	1.000 ms (1001 pts)
	/			

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Keysig	ht Spectrum Analyzer - Swept SA RF 50 Ω AC	Power NVNT 2-DH1 2	ALIGN AUTO	11:12:43 AM Mar 02, 2022	
Cente	r Freq 2.441000000 GHz		Avg Type: Log-Pwr Avg Hold: 1000/1000	TRACE 123456 TYPE MWWWW DET PNNNNN	
10 dB/c	Ref Offset 2.82 dB liv Ref 20.00 dBm		Mkr1	2.441 095 GHz -0.011 dBm	
0.00		♦ ¹			
-10.0					
-20.0 —					
-30.0					
-40.0					
-50.0					
-60.0					
-70.0					
Cente	r 2.441000 GHz			Span 5.000 MHz	
#Res MSG	3W 2.0 MHz	#VBW 2.0 MHz	STATUS	1.000 ms (1001 pts)	
	ht Spectrum Analyzer - Swept SA	Power NVNT 2-DH1 2			
Cente	RF 50 Ω AC Freq 2.480000000 GHz	PNO: Fast ++++ Irig: Free Run	ALIGN AUTO Avg Type: Log-Pwr Avg Hold: 1000/1000	11:17:04 AM Mar 02, 2022 TRACE 1 2 3 4 5 6 TYPE MWWWW DET PNNNNN	
	Ref Offset 2.91 dB liv Ref 20.00 dBm	IFGain:Low Atten: 28 dB	Mkr1	2.480 135 GHz -0.065 dBm	
10.0		▲ ¹			
-10.0					
-10.0				and the second sec	
-30.0					
-40.0					
-50.0					
-60.0					
-70.0					
Cente	r 2.480000 GHz			Span 5.000 MHz	
#Res I	3W 2.0 MHz	#VBW 2.0 MHz	Sweep 7	1.000 ms (1001 pts)	
C				NO NO	

Keysight	Spectrum Analyzer - Swept SA RF 50 Ω AC	Power NVNT 3-DH1 2	ALIGN AUTO	11:23:50 AM Mar 02, 2022	
	Freq 2.402000000 GHz		Avg Type: Log-Pwr Avg Hold: 1000/1000	TRACE 123456 TYPE MWWWWW DET PNNNNN	
10 dB/div	Ref Offset 2.69 dB ∕ Ref 20.00 dBm		Mkr1	2.401 965 GHz 0.579 dBm	
Log					
0.00		1			
-10.0					
-20.0					
-30.0					
-40.0					
-50.0					
-60.0					
-70.0					
Center #Res B	2.402000 GHz W 2.0 MHz	#VBW 2.0 MHz	Sweep 1	Span 5.000 MHz .000 ms (1001 pts)	
MSG			STATUS		
LX/ RL	Spectrum Analyzer - Swept SA RF 50 Ω AC	Power NVNT 3-DH1 2	ALIGN AUTO	11:29:02 AM Mar 02, 2022	
Center	Freq 2.441000000 GHz	PNO: Fast ↔ Trig: Free Run IFGain:Low Atten: 28 dB	Avg Type: Log-Pwr Avg Hold: 1000/1000	TRACE 1 2 3 4 5 6 TYPE MWWWW DET P NNNNN	
10 dB/div Log	Ref Offset 2.82 dB Ref 20.00 dBm		Mkr1	2.440 970 GHz 0.507 dBm	
10.0					
0.00		1			
-10.0					
-20.0					
-30.0					
-40.0					
-50.0					
-60.0					
-70.0					
Center #Res B	2.441000 GHz W 2.0 MHz	#VBW 2.0 MHz	Sween 1	Span 5.000 MHz .000 ms (1001 pts)	
MSG	W 2.0 WI12		STATUS	looo ma (roor play	

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LXI F	eysight Spectrum Analyzer - Swept SA RE RF 50 Ω AC Inter Freq 2.4800000000		SENSE:INT	ALIGN AUTO Avg Type: Log-F	11:33 Pwr	59 AM Mar 02, 2022 TRACE 1 2 3 4 5 6	
		PNO: Fast +>- IFGain:Low	. Trig: Free Run Atten: 28 dB	AvgjHold: 1000/1		TRACE 1 2 3 4 5 6 TYPE NWWWW DET NNNNN 0 065 GHz	
10 d Log	Ref Offset 2.91 dB B/div Ref 20.00 dBm		Ĭ			0.452 dBm	
10.0			1				
-10.0							
-20.0							
-30.0							
-40.0							
-60.0							
-70.0							
Cer #Re	nter 2.480000 GHz s BW 2.0 MHz	#VB	W 2.0 MHz	STATUS	Spa Sweep 1.000 n	n 5.000 MHz ns (1001 pts)	
	No.		S.		S.		

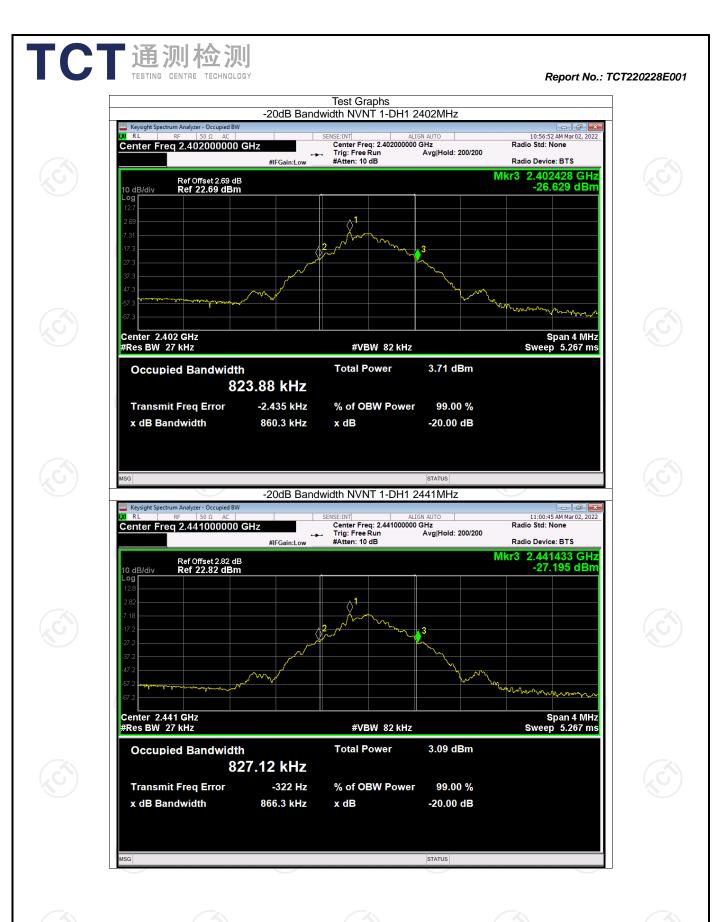


	-20dB Bandwidth								
	Condition	Mode	Frequency (MHz)	-20 dB Bandwidth (MHz)	Verdict				
	NVNT	1-DH1	2402	0.860	Pass				
	NVNT	1-DH1	2441	0.866	Pass				
	NVNT	1-DH1	2480	0.867	Pass				
(NVNT	2-DH1	2402	1.268	Pass				
N	NVNT	2-DH1	2441	1.268	Pass				
	NVNT	2-DH1	2480	1.269	Pass				
	NVNT	3-DH1	2402	1.243	Pass				
	NVNT	3-DH1	2441	1.240	Pass				
	NVNT	3-DH1	2480	1.240	Pass				

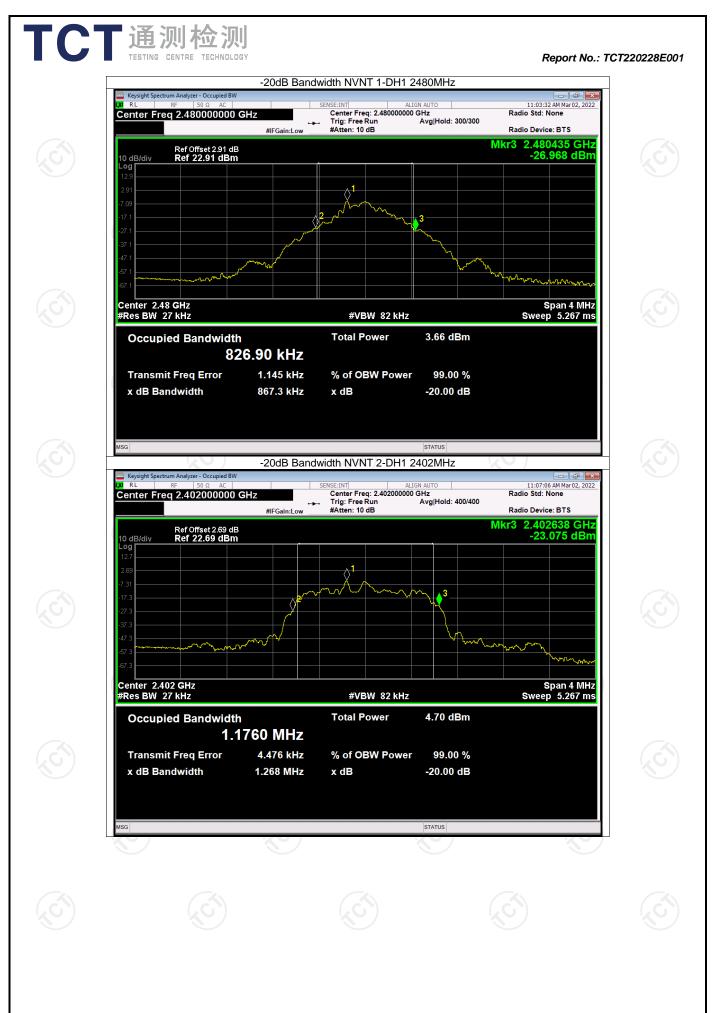
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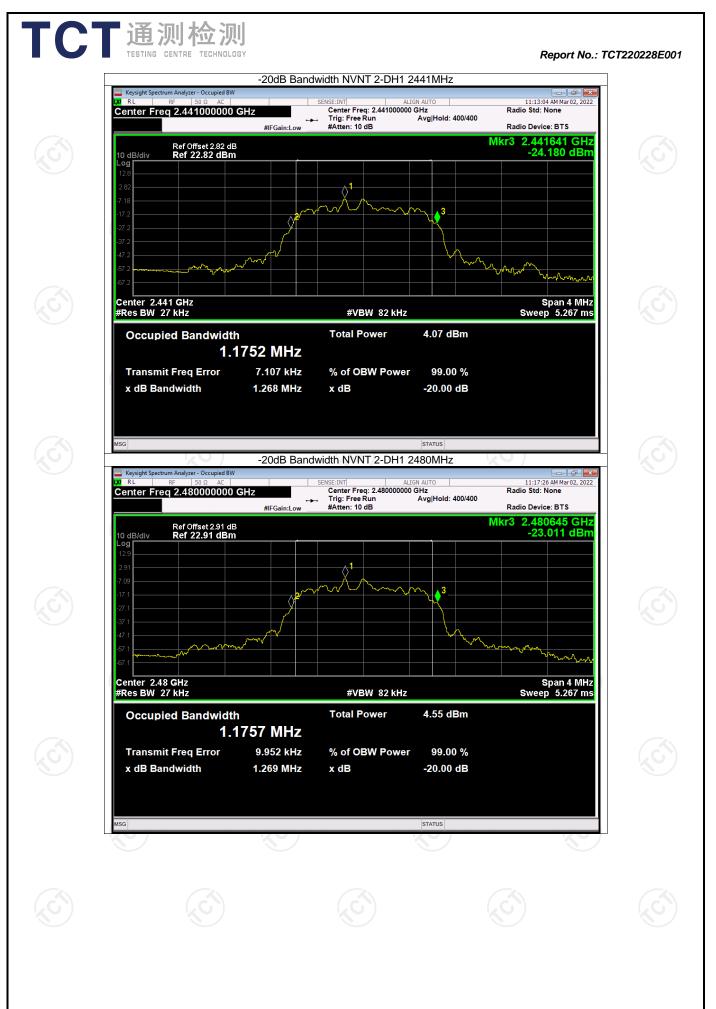


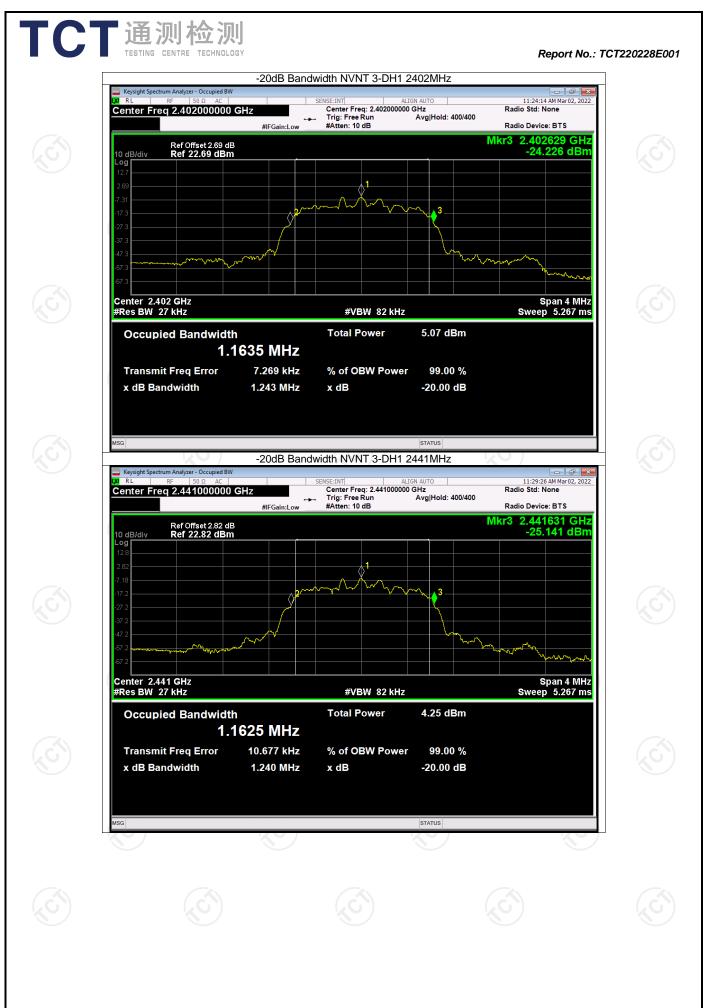
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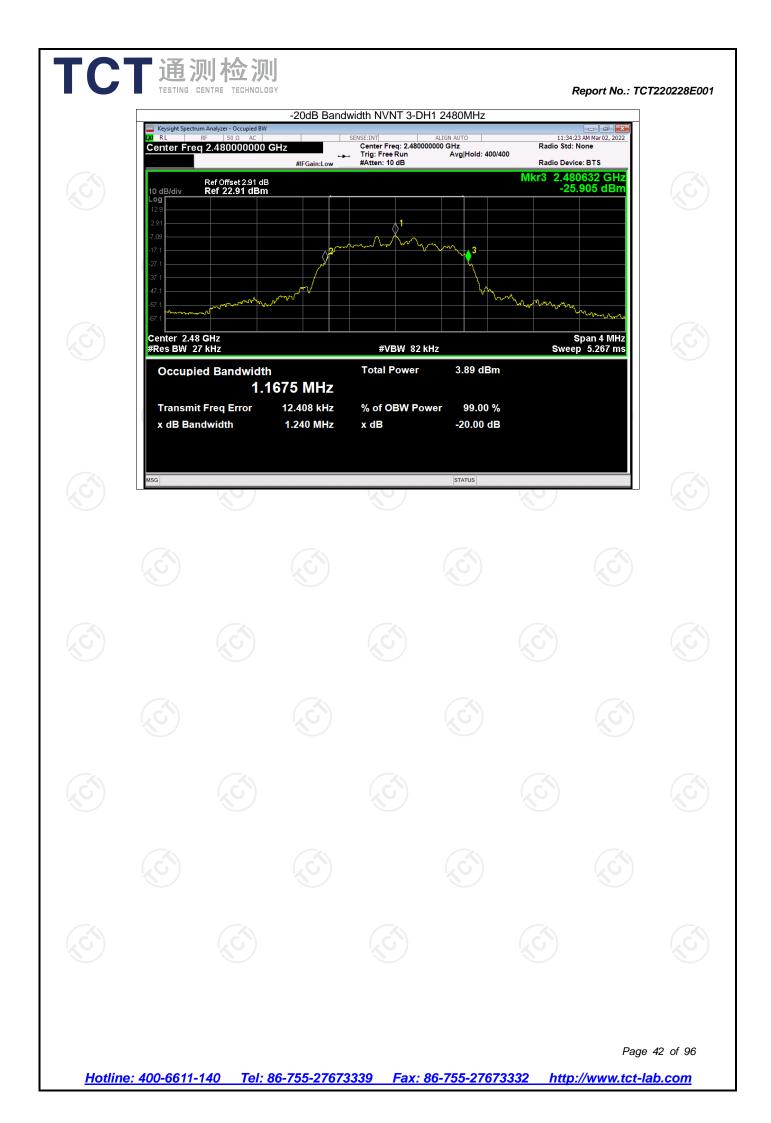
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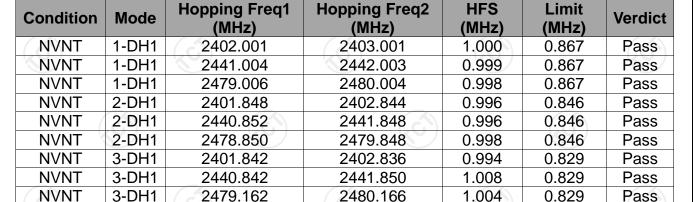




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Carrier Frequencies Separation

TCT通测检测 TESTING CENTRE TECHNOLOGY

Report No.: TCT220228E001

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	ENTRE TECHNOLOGY	CFS NVNT 1-DH1 248	0MHz	Report No.: TCT22	
Keysight Spectrum	F 50 Ω AC	SENSE:INT	ALIGN AUTO Avg Type: Log-Pwr	11:05:18 AM Mar 02, 2022	
Center Freq	2.479500000 GHz	NO: Wide Trig: Free Run Gain:Low #Atten: 30 dB	Avg Hold:>100/100	TRACE 1 2 3 4 5 6 TYPE MWWWW DET PNNNNN	
10 dB/div R	ef Offset 2.91 dB ef 20.00 dBm		Mkr1	2.479 006 GHz -3.436 dBm	
10.0	1		2		
-10.0					
-30.0					
-50.0					
-70.0					
Center 2.479 #Res BW 100) kHz	#VBW 300 kHz		Span 2.000 MHz 1.000 ms (1001 pts)	
MKR MODE TRC SO	2.479 006 GHz	Y FUNCTION 1 -3.436 dBm -3.453 dBm	UNCTION WIDTH FUNC	TION VALUE	
3 4 5 6				E	
7 8 9					
				The second secon	
MSG	<u>k</u> 0)	CFS NVNT 2-DH1 240	STATUS 2MHz		
Keysight Spectrum		SENSE:INT	ALIGN AUTO	11:10:14 AM Mar 02, 2022	
Center rreq	P	NO: Wide 😱 Trig: Free Run Gain:Low #Atten: 30 dB	Avg Hold:>100/100	TRACE 2 2 4 5 6 TYPE MWWWW DET PNNNN	
10 dB/div Re Log	ef Offset 2.69 dB ef 20.00 dBm		MKM	2.401 848 GHz -2.722 dBm	
0.00			2		
-10.0 -20.0					
-30.0					
-50.0					
-70.0 Center 2.402	500 CH2			Span 2.000 MHz	
#Res BW 100) kHz	#VBW 300 kHz		1.000 ms (1001 pts)	
1 N 1 f 2 N 1 f 3	2.401 848 GHz	-2.722 dBm			
4 5 6 7					
8 9 10					
11		III	STATUS		
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	Keysight Spectrum Analyzer - Swept SA	CFS NVNT 2-DH1 24			
	RL RF 50 Ω AC enter Freq 2.441500000 GHz	Z PNO: Wide Trig: Free Run IFGain:Low #Atten: 30 dB	ALIGN AUTO Avg Type: Log-Pwr Avg Hold:>100/100	11:15:38 AM Mar02, 2022 TRACE 1 2 3 4 5 6 TYPE MWWWW DET P N N N N	
	Ref Offset 2.82 dB dB/div Ref 20.00 dBm		Mkr1	2.440 852 GHz -2.562 dBm	
1			2 ²		
-21					
-41	0.0				
-61	0.0				
	enter 2.441500 GHz Res BW 100 kHz	#VBW 300 kHz	Sweep 7	Span 2.000 MHz I.000 ms (1001 pts)	
	N 1 f 2.440 852 N 1 f 2.441 848	Y FUNCTION GHz -2.562 dBm GHz -2.262 dBm	FUNCTION WIDTH FUNC	TION VALUE	
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	Keysight Spectrum Analyzer - Swept SA RL RF 50 Ω AC	CFS NVNT 2-DH1 24	ALIGN AUTO	11:20:01 AM Mar 02, 2022	
	enter Freq 2.479500000 GHz		Avg Type: Log-Pwr Avg Hold:>100/100	TRACE 123456 TYPE MWWWW DET PNNNNN	
10	Ref Offset 2.91 dB dB/div Ref 20.00 dBm		Mkr1	2.478 850 GHz -2.632 dBm	
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#F	enter 2.479500 GHz Res BW 100 kHz	#VBW 300 kHz		Span 2.000 MHz I.000 ms (1001 pts)	
	NODE TRC SCL X N 1 f 2.478 850 2 N 1 f 2.479 848 3 - - - -	Y FUNCTION GHz -2.632 dBm GHz -2.724 dBm	FUNCTION WIDTH FUNC	rion value	
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	<pre>transformation white - seets Genter Freq 2.402500000 GHz rection and rection and re</pre>		通测检测 TESTING CENTRE TECHNOLOGY		00101	Report No.: TC	F220228E00
Mikr1 2.401 842 Gitt: 2.349 Gitt: 2	Mikr1 2.401 842 GHz C Grine 2 60 8B C Grine 2 60 75 Span 2.000 MHz Span 2.000 MHz C FS IVVT 3-DH1 2441MHz C FS IVVT 3-DH1 2441MHz </th <th></th> <th>α RL RF 50Ω AC</th> <th></th> <th>ALIGN AUTO</th> <th>11:26:44 AM Mar 02, 2022</th> <th></th>		α RL RF 50Ω AC		ALIGN AUTO	11:26:44 AM Mar 02, 2022	
Conter Freq 2.4415000 CH2 Program Ref 07000 CH2 Processor Span 2.000 MH2 State State State State State State State State State State State State State State State State State State State State State State State Sta	Center 740500 CH2 Center 740500 CH2 AVEW 300 KH2 Sweep 1.000 mK1001 PE3 Sweep 1.000 KH2 Sweep 1.000 MH2 Sweep 1.000 KH2 Sweep 1.000 MH2 Sweep 1.000 KH2 Sweep 1.000 KH2 Sweep		Center Freq 2.402500000 GHz		Avg Type: Log-Pwr Avg Hold:>100/100	TRACE 123456 TYPE MWWWW DET PNNNNN	
Image: state stat	Image: control transmission of the second		Ref Offset 2.69 dB 10 dB/div Ref 20.00 dBm		Mkr1	2.401 842 GHz -2.549 dBm	
Image: state stat	Image: Second		10.0				
Center 2.402500 GHz #Kes BW 100 kHz #Kes BW 100 kHz #K	000 0		10.0				
Image: Span 2.000 MHz Span 2.000 MHz Image: Span 2.000 MHz Sweep 1.000 ms (001 pts) Image: Sp	Image: Second Control of		-30.0				
Center 2.441500 GHz Reform Reform Re	Center 2.402500 GHz #Kes BW 100 Hz #VBW 300 Hz Sweep 1.000 ms (1001 pts)		-50.0				
Image: Sec: X X Y PARCTON FUNCTION WIDTH PARCTON WIDTH PARCTON WALL 3 1 1 2402336.0Hz -2569.dBm	Image mode the set of the 240 set o						
1 1 2 2402 835 GHz -2.469 dBm 2 1 1 2.402 835 GHz -2.469 dBm 2 1 1 2.402 835 GHz -2.469 dBm 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 <td< td=""><td>1 1 2 2402 833 GHz -2449 dBm 2 1 1 2402 833 GHz -2449 dBm 2 1 1 2402 833 GHz -2449 dBm 3 1 1 2402 833 GHz -2449 dBm 4 1 1 2402 833 GHz -2449 dBm 1 1 2402 833 GHz -2449 dBm 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 2402 842 GHz 1</td><td></td><td></td><td>#VBW 300 kHz</td><td>Sweep 1</td><td>Span 2.000 MHz .000 ms (1001 pts)</td><td></td></td<>	1 1 2 2402 833 GHz -2449 dBm 2 1 1 2402 833 GHz -2449 dBm 2 1 1 2402 833 GHz -2449 dBm 3 1 1 2402 833 GHz -2449 dBm 4 1 1 2402 833 GHz -2449 dBm 1 1 2402 833 GHz -2449 dBm 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 2402 842 GHz 1			#VBW 300 kHz	Sweep 1	Span 2.000 MHz .000 ms (1001 pts)	
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Image: Section Address Section	CFS NVNT 3-DH1 2441MHz CFS NVNT 3-DH1 2441MHz CFS NVNT 3-DH1 2441MHz Center Freq 2.441500000 GHz Ref Offset 2.82 dB Center Freq 2.44150000 GHz PNO: Wde PNO: Wd		3 4 5			E	
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CFS NVNT 3-DH1 2441MHz	CFS NVNT 3-DH1 2441MHz CFS NVNT 3-DH1 2441MHz CFS NVNT 3-DH1 2441MHz CFIter Freq 2.441500000 GHz PtC: Wide Trig: Free Run Arginol 3-100/100 Mkr1 2.440 242 GHz Center 2.441500 Odbm Center 2.440842 Odbm Center 2.4		10				
Register Service	Revigiti Section: Address - Stept SA Section: Address - Stept SA Section: Address - Stept SA With Revigiti Section: Address - Stept SA Section: Address - Stept SA Address - Stept SA Center Freq 2.441500000 GHz Trig: Free Run #Atten: 30 dB Address - Stept SA Address - Stept SA Ref Offset 2.82 dB Mkr1 2.440 842 GHz -2.477 dBm 100 1 -2.477 dBm 100 -2.441500 GHz #VBW 300 kHz Streep 1.000 mS (1001 pts) WR 820 GHz -2.441 850 GHz -2.441 850 GHz -2.441 850 GHz 101 1 2.440 842 GHz -2.441 850 GHz -2.441 850 GHz -2.441 850 GHz -2.447 dBm 102 X Y Function Function width Function width Function width 113 2.440 842 GHz -2.441 850	3	ISG				
Center Freq 2.441500000 GHz Trig: Free Run Avg Type: Log-Pwr Trig: Free Run Ref Offset2.82 dB Mkr1 2.440 842 GHz -2.477 dBm 10 dB/dv Ref 20.00 dBm -2.477 dBm 10 dB/dv Ref 2440 842 GHz -2.477 dBm 11 f 2.441 850 GHz -2.477 dBm 11 f 2.441 850 GHz -2.477 dBm 11 f 2.441 850 GHz -2.477 dBm	Center Freq 2.441500000 GHz PRO: Wide IFGain:Low Trig: Free Run #Atten: 30 dB Mkr1 2.440 842 GHz 2.477 dBm 2.477 dBm Center 2.441500 GHz #Res BW 100 kHz #VBW 300 kHz Span 2.000 MHz Sweep 1.000 ms (1001 pts) MRT 12.441 850 GHz 2.477 dBm 10 0 10 0 1					11:32:42 AM Mar 02, 2022	
10. dB/div Ref 20.00 dBm -2.477 dBm 10. dB/div Ref 20.00 dBm -2.477 dBm 10. dB/div -2.477 dBm -2.477 dBm 10. dB/div -2.471 dBm -2.477 dBm 10. dB/div -2.471 dBm -2.477 dBm 10. dB/div -2.441 B50 GHz Span 2.000 MHz 20. dB/div -2.441 B50 GHz -2.477 dBm 10. dB/div -2.441 B50 GHz -2.477 dBm 20. dB/div	0.dB/div Ref 20.00 dBm -2.477 dBm 0.00		Center Freq 2.441500000 GHz	PNO: Wide 😱 Trig: Free Run	Avg Type: Log-Pwr Avg Hold:>100/100	TRACE 123456 TYPE MWWWWW DET PNNNN	
Content 2.441850 GHz 0.000 mm	Log 1 2		Ref Offset 2.82 dB 10 dB/div Ref 20.00 dBm		Mkr1	2.440 842 GHz -2.477 dBm	
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-50.0 MHz -50.0	-600 -000 -700 -000 -700 -000 Center 2.441500 GHz #VBW 300 kHz Span 2.000 MHz Sweep 1.000 ms (1001 pts) MRR MODE TRC SCL X Y Function Function width 1 1 2 N 1 1 2 1 3 - 4 - 5 - 6 - 7 - 7 - 8 - 9 - 10 - 11 - 11 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 10 - 10 - 10 - 10 - 10 </td <td>\mathbf{G}</td> <td>-30.0</td> <td></td> <td></td> <td></td> <td></td>	\mathbf{G}	-30.0				
70.0 Span 2.000 MHz Center 2.441500 GHz #VBW 300 kHz Sweep 1.000 ms (1001 pts) MRR MODE TCC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE 1 1 1 2.440 842 GHz -2.247 dBm -2.240 dBm 3 1 7 2.441 850 GHz -2.240 dBm -2.240 dBm -2.240 dBm 3 1 7 2.441 850 GHz -2.240 dBm -2.240 dBm <td>-70.0 Center 2.441500 GHz Span 2.000 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 1.000 ms (1001 pts) MRR MODE TRC SCL X Y Function width 1 1 2.441 850 GHz -2.2477 dBm 3 1 1 2.441 850 GHz -2.240 dBm 3 1 1 - - 4 - - - - 10 - - - - 11 - - - -</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	-70.0 Center 2.441500 GHz Span 2.000 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 1.000 ms (1001 pts) MRR MODE TRC SCL X Y Function width 1 1 2.441 850 GHz -2.2477 dBm 3 1 1 2.441 850 GHz -2.240 dBm 3 1 1 - - 4 - - - - 10 - - - - 11 - - - -						
#Res BW 100 kHz #VBW 300 kHz Sweep 1.000 ms (1001 pts) MKR MODE TRC SCL X Y 1 N 1 2 N 1 7 2.441 850 GHz 6 6 7 6 8 8 9 9 10 1	#Res BW 100 kHz #VBW 300 kHz Sweep 1.000 ms (1001 pts) MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH 1 N 1 1 2 N 1 1 2 N 1 1 2 N 1 1 2 N 1 1 2 N 1 1 2 N 1 1 2 N 1 1 2 N 1 1 2 N 1 1 2 N 1 1 2 N 1 1 2 N 1 1 3 3 - 4 - - 5 - - 6 - - 7 - - 9 - - 9 - - 9 - - 10 - - 11 - -						
MKR MODE TRC SCI X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE 1 N 1 f 2.440 842 GHz -2.477 dBm 2 N 1 f 2.441 850 GHz -2.240 dBm 3 1 f 2.441 850 GHz -2.240 dBm 4 - - - - 5 - - - - 6 - - - - 7 - - - - 8 - - - - 9 - - - - 10 - - - - 11 - - - -	MKR MODE TRC SCI X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE 1 N 1 f 2.440 842 GHz -2.477 dBm -2.40 dBm -2.240 dBm -2.24			#VBW 300 kHz	Sweep 1	Span 2.000 MHz .000 ms (1001 pts)	
			MKR MODE TRC SCL X	Y FUNCTION			
		3	3	HZ -2.240 dBm			
10	10 11 · · · · · · · · · · · · · · · · · ·		6 7				
			10				
		N	SG SG		STATUS	•	

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LXI RL	rum Analyzer - Swept SA RF 50 Ω AC		SENSE:INT	ALIGN AUTO	11:41:	55 AM Mar 02, 2022	
	q 2.479500000 G	CHZ PNO: Wide IFGain:Low	Trig: Free Run #Atten: 30 dB	Avg Type: Log-Pw Avg Hold:>100/100	Mkr1 2.47		
Log 10.0 .000 -10.0 -20.0 -30.0 -40.0	Ref Offset 2.91 dB Ref 20.00 dBm				-2		
-500 -600 -700 Center 2.47 #Res BW 10 MKR MODE TRC 1 N 1 2 N 1 3 N	SCL X	#VB 162 GHz -2.600 166 GHz -2.739	dBm	FUNCTION WIDTH	Spa Sweep 1.000 m FUNCTION VALUE		
4 6 7 8 9 10 11 				STATUS			

Condition	Mode	(MHz)	Mode	(dBc)	(dBc)	Verdict
NVNT	1-DH1	2402	No-Hopping	-47.84	-20	Pass
NVNT	1-DH1	2480	No-Hopping	-51.60	-20	Pass
NVNT	2-DH1	2402	No-Hopping	-48.53	-20	Pass
NVNT	2-DH1	2480	No-Hopping	-51.17	-20	Pass
NVNT	3-DH1	2402	No-Hopping	-48.83	-20	Pass
NVNT	3-DH1	2480	No-Hopping	-50.80	-20	Pass

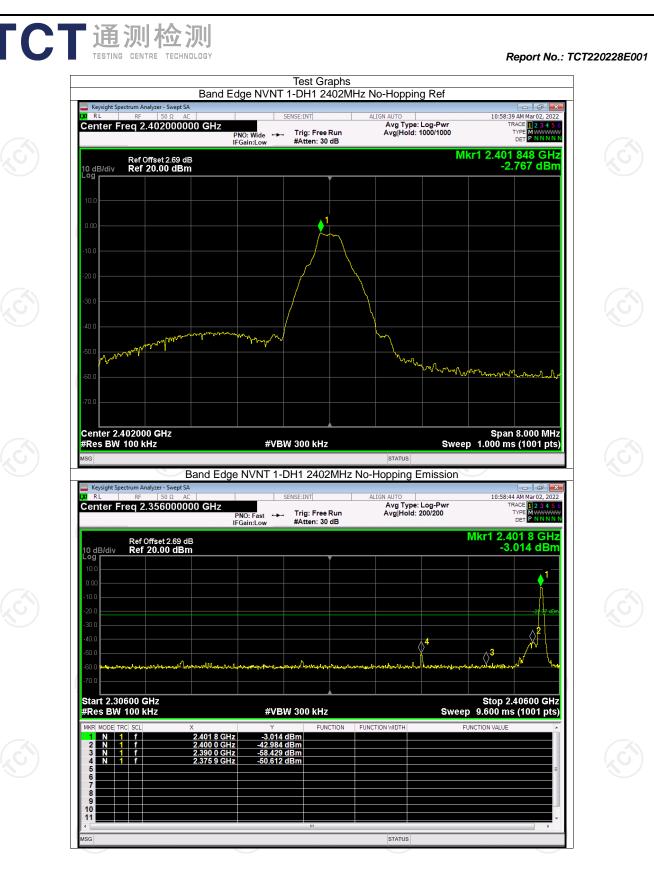
Band EdgeHoppingMax ValueLimitVardiat Frequency

Report No.: TCT220228E001

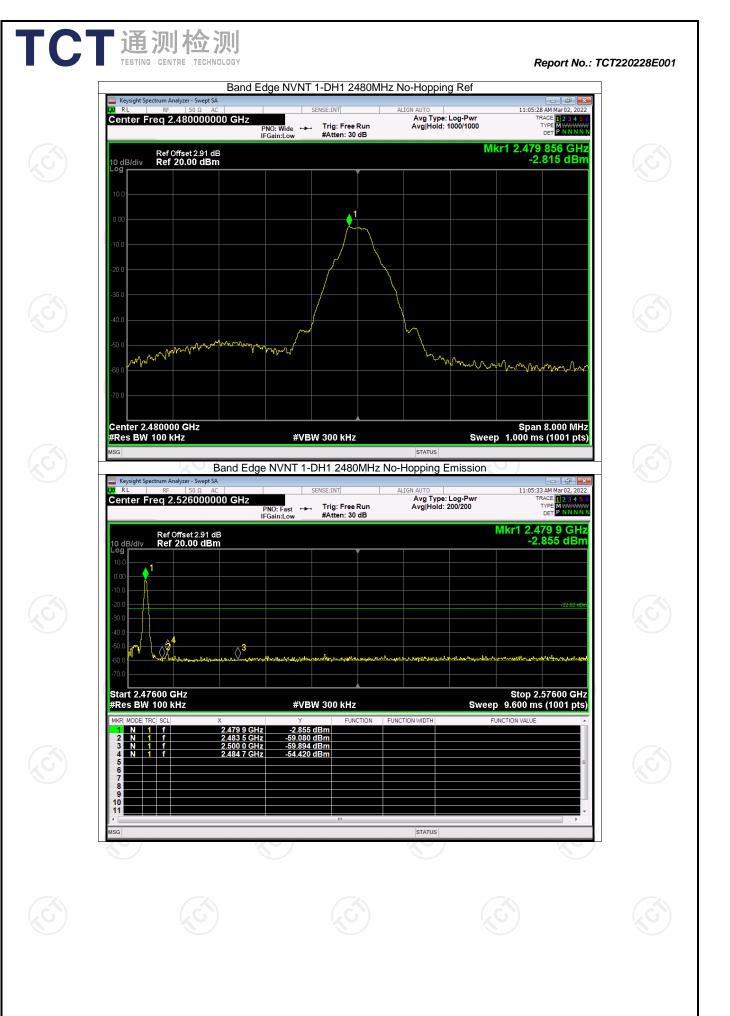
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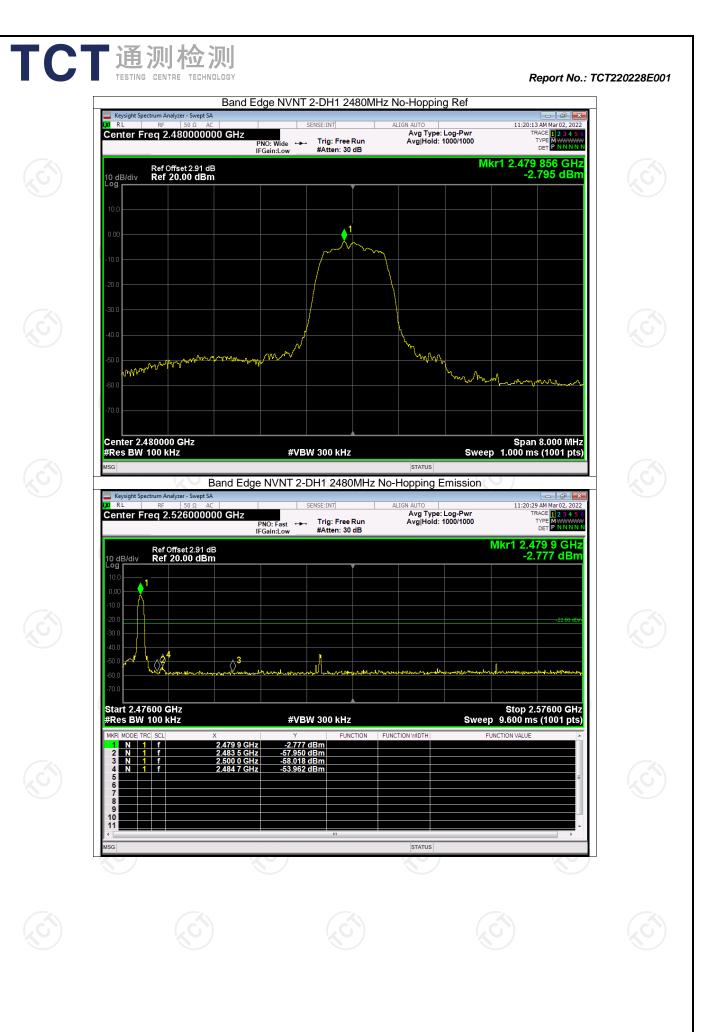


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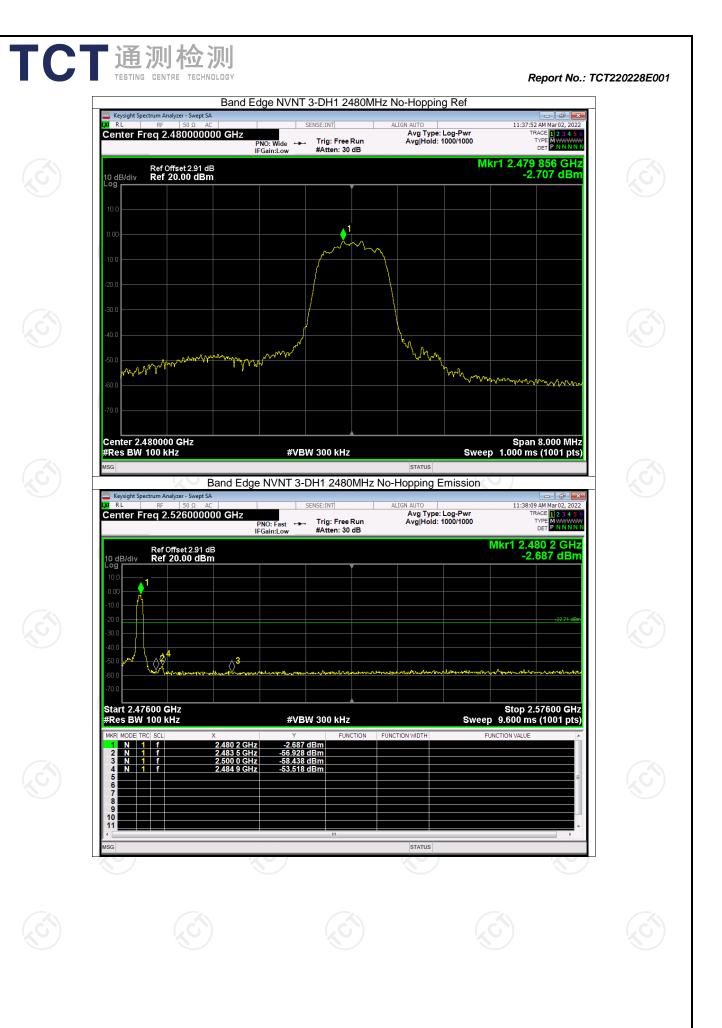
Keysight Spectrum Analyzer - Swep RL RF 50 Ω Center Freq 2.402000	AC S DOOD GHz PNO: Wide +++	ENSE:INT	ALIGN AUTO Avg Type: Log-Pwr Avg Hold: 1000/1000	11:10:24 AM Mar 02, 2022 TRACE 1 2 3 4 5 6 TYPE Mwwwww DET P N N N N N	-
Ref Offset 2.69 10 dB/div Ref 20.00 dE	IFGain:Low dB BM	#Atten: 30 dB	Mk	r1 2.401 848 GHz -2.730 dBm	
10.0		.1			
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-50.0 vront			- Marine Mari		
-60.0				www.www.www.ww	
Center 2.402000 GHz		N 200 kU-		Span 8.000 MHz 1.000 ms (1001 pts)	
#Res BW 100 kHz		V 300 kHz	STATUS	1.000 ms (1001 pts)	
Keysight Spectrum Analyzer - Swept KXI RL RF 50 Ω					
	AC	ENGERINI		11:10:41 AM Mor 02, 2022	
Center Freq 2.356000	PNO: Fast +++	Trig: Free Run #Atten: 30 dB	ALIGN AUTO Avg Type: Log-Pwr Avg Hold: 1000/1000	11:10:41 AM Mar02, 2022 TRACE 1 2 3 4 5 6 TYPE MWWWWW DET P N N N N N	
Ref Offset 2.69	PNO: Fast ↔ IFGain:Low	Trig: Free Run #Atten: 30 dB	Avg Type: Log-Pwr Avg Hold: 1000/1000	11:10:41 AM Mar02, 2022 TRACE 12 3 4 5 6 TYPE MUNIT DET P NNNNN Akr1 2.401 9 GHz -2.726 dBm	
Ref Offset 2.69	PNO: Fast ↔ IFGain:Low		Avg Type: Log-Pwr Avg Hold: 1000/1000		
10 dB/div Ref Offset 2.69 10 dB/div Ref 20.00 dB	PNO: Fast ↔ IFGain:Low		Avg Type: Log-Pwr Avg Hold: 1000/1000		G
Ref Offset 2.69 10 dB/div Ref 20.00 dB 100 0.00 -100 0.00 -300 0.00	PNO: Fast ↔ IFGain:Low		Avg Type: Log-Pwr Avg Hold: 1000/1000	7RACE 123456 TYPE MUNNIN DET PINNNIN Akr1 2.401 9 GHz -2.726 dBm	S.
Ref Offset 2.69 10 dB/div Ref 20.00 dB 10.0 0.00 -10.0	PNO: Fast ↔ IFGain:Low		Avg Type: Log-Pwr Avg Hold: 1000/1000		
Ref Offset 2.69 10 dB/div Ref 20.00 dE 100 000 000 000 -100 000 -200 000 -300 000 -600 000 -700 000 Start 2.30600 GHz	PNO: Fast → IFGain:Low	#Atten: 30 dB	Avg Type: Log-Pwr Avg Hold: 1000/1000	TRACE 1 2 3 4 5 G TYPE MUNNIN OCT PINNINN Akr1 2.401 9 GHz -2.726 dBm	
Ref Offset 2.69 10 dB/div Ref 20.00 dB 10.0	PNO: Fast IFGain:Low dB 3m dB 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	#Atten: 30 dB	Avg Type: Log-Pwr Avg Hold: 1000/1000	7RACE 12 3 4 5 G TYPE MINININ OET PINNININ Akr1 2.401 9 GHz -2.726 dBm	
Ref Offset 2.69 10 dB/div Ref 20.00 dB 10 0	PNO: Fast IFGain:Low IdB IGB IGB IGB IGB IGB IGB IGB IG	#Atten: 30 dB	Avg Type: Log-Pwr Avg Hold: 1000/1000	TRACE 12 3 4 5 G TYPE MINNIN Akr1 2.401 9 GHz -2.726 dBm 1 1 4 4 5 5 5 5 5 5 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1	
Ref Offset 2.69 10 dB/div Ref 20.00 dB 0 000	PNO: Fast IFGain:Low dB 3m dB 4m 4m 4m 4m 4m 4m 4m 4	#Atten: 30 dB	Avg Type: Log-Pwr Avg Hold: 1000/1000	TRACE 12 3 4 5 G TYPE MINNIN Akr1 2.401 9 GHz -2.726 dBm 1 1 4 4 5 5 5 5 5 5 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1	
Ref Offset 2.69 10 dB/div Ref 20.00 dE 0 g	PNO: Fast IFGain:Low dB 3m dB 4m 4m 4m 4m 4m 4m 4m 4	#Atten: 30 dB	Avg Type: Log-Pwr Avg Hold: 1000/1000	TRACE 12 3 4 5 G TYPE MINNIN Akr1 2.401 9 GHz -2.726 dBm 1 1 4 4 5 5 5 5 5 5 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1	
Ref Offset 2.69 10 dB/div Ref 20.00 dB 0 00	PNO: Fast IFGain:Low dB 3m dB 4m 4m 4m 4m 4m 4m 4m 4	#Atten: 30 dB	Avg Type: Log-Pwr Avg Hold: 1000/1000	TRACE 12 3 4 5 G TYPE MINNIN Akr1 2.401 9 GHz -2.726 dBm 1 1 4 4 5 5 5 5 5 5 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1	
Ref Offset 2.69 10 dB/div Ref 20.00 dB 10.0 0.00 0.00 0.00 -10.0 0.00 -20.0 0.00 -30.0 0.00 -40.0 0.00 -50.0 0.00 -60.0 0.00 -70.0 0 Start 2.30600 GHz #Res BW 100 kHz MKR MODE TRC SCL 1 2 N 1 2 N 1 3 N 1 4 N 1 5 6 6 7 9 0 10 1 11 1	PNO: Fast IFGain:Low dB 3m dB 4m 4m 4m 4m 4m 4m 4m 4	#Atten: 30 dB	Avg Type: Log-Pwr Avg Hold: 1000/1000	TRACE 12 3 4 5 G TYPE MINNIN Akr1 2.401 9 GHz -2.726 dBm 1 1 4 4 5 5 5 5 5 5 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1	
Ref Offset 2.69 10 dB/div Ref 20.00 dB 10.0 0.00 0.00 0.00 -10.0 0.00 -20.0 0.00 -30.0 0.00 -40.0 0.00 -50.0 0.00 -60.0 0.00 -70.0 0 Start 2.30600 GHz #Res BW 100 kHz MKR MODE TRC SCL 1 2 N 1 2 N 1 3 N 1 4 N 1 5 6 6 7 9 0 10 1 11 1	PNO: Fast IFGain:Low dB 3m dB 4m 4m 4m 4m 4m 4m 4m 4	#Atten: 30 dB	Avg Type: Log-Pwr Avg Hold: 1000/1000	TRACE 12 3 4 5 G TYPE MINNIN Akr1 2.401 9 GHz -2.726 dBm 1 1 4 4 5 5 5 5 5 5 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1	



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Band Edge NVNT 3-DH1 2402MHz No-Hop Keysight Spectrum Analyzer - Swept SA W RL RF 50 Ω AC SENSE:INT ALIGN. Center Freq 2.356000000 GHz PNO: Fast +++ Trig: Free Run Ref Offset 2.69 dB 10 dE/div Ref 20.00 dBm	AUTO 11:26:59 AM Mar02, 2022 Avg Type: Log-Pwr TRACE 12:34 5 5 Avg[Hold: 100/100 TYPE Mar04 DET PNNNNN
Log 100 100 100 100 100 100 100 10	AUTO 11:26:59 AM Mar02, 2022 Avg Type: Log-Pwr TRACE AUTO 11:26:59 AM Mar02, 2022
000 000 000 100 000 000 200 000 000 200 000 000 200 000 000 200 000 000 200 000 000 200 000 000 200 000 000 400 000 000 400 000 000 400 000 000 600 000 000 600 000 000 600 000 000 600 000 000 600 000 000 700 000 000 600 0000 0000 800 AC SENSE:INT 800 AC SENSE:INT 800 AC SENSE:INT 900: Fast	Span 8.000 MHz Sweep 1.000 ms (1001 pts) status pping Emission
100	Span 8.000 MHz Sweep 1.000 ms (1001 pts) status pping Emission
-30.0 -30.0 -40.0 -40.0 -60.0 -40.0 -60.0 -40.0 -60.0 -40.0 -60.0 -40.0 -60.0 -40.0 -60.0 -40.0 -60.0 -40.0 -60.0 -40.0 -60.0 -40.0 -60.0 -40.0 -70.0 -40.0 -70.0 -40.0 -70.0 -40.0 -70.0 -40.0 -70.0 -40.0 -70.0 -40.0 -70.0 -40.0 -70.0 -40.0 -70.0 -40.0 -70.0 -40.0 -70.0 -40.0 -70.0 -40.0 -70.0 -40.0 -70.0 -40.0 -70.0 -40.0 -70.0 -40.0 -70.0 -40.0 -70.0 -40.0 -70.0 -70.0 -70.0 -70.0 -70.0 -70.0 -	Span 8.000 MHz Sweep 1.000 ms (1001 pts) status pping Emission
-40.0 -70.0 -	Span 8.000 MHz Sweep 1.000 ms (1001 pts) status pping Emission
50.0	Span 8.000 MHz Sweep 1.000 ms (1001 pts) status pping Emission
-60 0 -70 0 <t< td=""><td>Span 8.000 MHz Sweep 1.000 ms (1001 pts) status pping Emission</td></t<>	Span 8.000 MHz Sweep 1.000 ms (1001 pts) status pping Emission
.70.0 Center 2.402000 GHz #Res BW 100 kHz #VBW 300 kHz Msg Band Edge NVNT 3-DH1 2402MHz No-Hop Keysight Spectrum Analyzer - Swept SA Sense:INT W RL RF 50 Ω Center Freq 2.356000000 GHz Frig: Free Run PNO: Fast ++- Trig: Free Run A Ref Offset 2.69 dB Ref 20.00 dBm	Span 8.000 MHz Sweep 1.000 ms (1001 pts) status pping Emission
Center 2.402000 GHz #VBW 300 kHz #Res BW 100 kHz #VBW 300 kHz Msg Band Edge NVNT 3-DH1 2402MHz No-Hop Image: Section Analyzer - Swept SA Sense:INT Image: Registry Section Analyzer - Swept SA Sense:INT Image: Registry Section Analyzer - Swept SA Sense:INT Image: Registry Section Analyzer - Swept SA PNO: Fast Image: Registry Section Analyzer - Swept SA PNO: Fast Image: Registry Section Analyzer - Swept SA PNO: Fast Image: Registry Section Analyzer - Swept SA PNO: Fast Image: Registry Section Analyzer - Swept SA PNO: Fast Image: Registry Section Analyzer - Swept SA PNO: Fast Image: Registry Section Analyzer - Swept SA PNO: Fast Image: Registry Section Analyzer - Swept SA PNO: Fast Image: Registry Section Analyzer - Swept SA PNO: Fast Image: Registry Section Analyzer - Swept SA PNO: Fast Image: Registry Section Analyzer - Swept SA PNO: Fast Image: Registry Section Analyzer - Swept SA PNO: Fast Image: Registry Section Analyzer - Swept SA PNO: Fast Image: Registry Section Analyzer - Swept SA <	Sweep 1.000 ms (1001 pts) status pping Emission AUTO 11:26:59 AM Mar02, 2022 Avg Type: Log-Pwr TRACE 12 34.5 6 TYPE DET PNNNNN
#Res BW 100 kHz #VBW 300 kHz Msg Band Edge NVNT 3-DH1 2402MHz No-Hop Band Edge NVNT 3-DH1 2402MHz No-Hop Keysight Spectrum Analyzer - Swept SA Center Freq 2.356000000 GHz PN0: Fast PN0: Fast Hatten: 30 dB Ref Offset 2.69 dB 10 dB/div	Sweep 1.000 ms (1001 pts) status pping Emission AUTO 11:26:59 AM Mar02, 2022 Avg Type: Log-Pwr TRACE 12 34.5 6 TYPE DET PNNNNN
Msg Band Edge NVNT 3-DH1 2402MHz No-Hop Keysight Spectrum Analyzer - Swept SA Of RL RF 50 Ω AC SENSE:INT ALIGN. Center Freq 2.356000000 GHz PNO: Fast IFGain:Low HAtten: 30 dB Ref Offset 2.69 dB 10 dB/div Ref 20.00 dBm	AUTO 11:26:59 AM Mar02, 2022 AVg Type: Log-Pwr Avg[Hold: 100/100 TYPE Det PNNNNN
Keysight Spectrum Analyzer - Swept SA Keysight Spectrum Analyzer - Swept SA Keysight Spectrum Analyzer - Swept SA Center Freq 2.356000000 GHz PNO: Fast → Trig: Free Run IFGain:Low Ref Offset 2.69 dB 10 dB/div Ref 20.00 dBm	AUTO 11:26:59 AM Mar02, 2022 Avg Type: Log-Pwr TRACE 12:34 5 5 Avg[Hold: 100/100 TYPE Mar04 DET PNNNNN
10 dB/div Ref 20.00 dBm	Mkr1 2.402 2 GHz -2.687 dBm
10.0	
0.00	
-20.0	-22.64 dBm
-40.0	$\overset{4}{\overset{3}{\overset{3}{\overset{3}{\overset{1}{\overset{1}{\overset{1}{\overset{1}{1$
- 60.0	new of the second the second
Start 2.30600 GHz #Res BW 100 kHz #VBW 300 kHz	Stop 2.40600 GHz Sweep 9.600 ms (1001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION 1 N 1 f 2.402.2 GHz -2.687.dBm 42.077.dBm 2 N 1 f 2.400.0 GHz -42.077.dBm 42.077.dBm	WIDTH FUNCTION VALUE
3 N 1 f 2.390 0 GHz -59.635 dBm 4 N 1 f 2.375 9 GHz -51.476 dBm 5	E
	-
MSG	STATUS

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Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com

('AnditiAn	Mode					Vordict
Condition	widde	(MHz)	Mode	(dBc)	(dBc)	Verdict
NVNT	1-DH1	2402	Hopping	-53.16	-20	Pass
NVNT	1-DH1	2480	Hopping	-62.83	-20	Pass
NVNT	2-DH1	2402	Hopping	-53.78	-20	Pass
NVNT	2-DH1	2480	Hopping	-57.70	-20	Pass
NVNT	3-DH1	2402	Hopping	-53.15	-20	Pass
NVNT	3-DH1	2480	Hopping	-58.06	-20	Pass

Band Edge(Hopping) Frequency Hopping Max Value



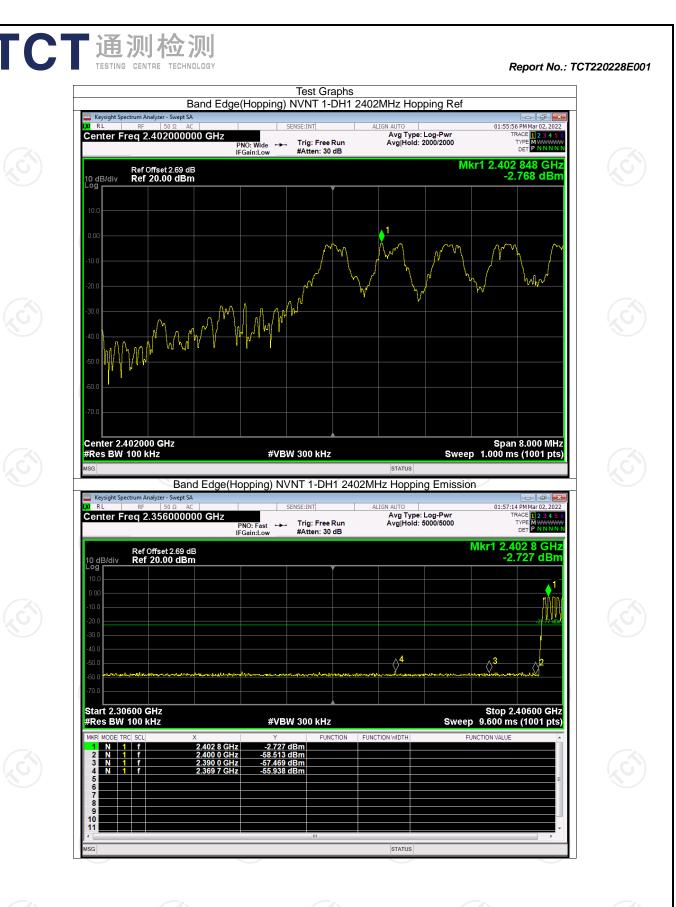
Report No.: TCT220228E001

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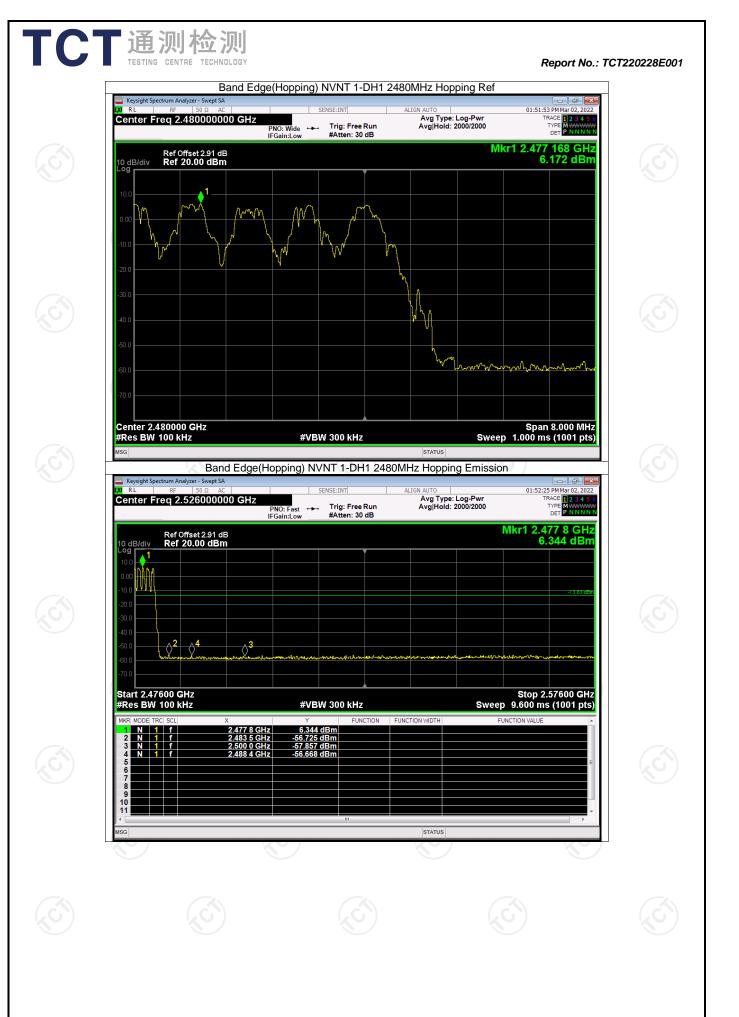
Limit











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СТ	通测检测 TESTING CENTRE TECHNOLOGY		Rep	oort No.: TCT220228E001
	Band Ec Keysight Spectrum Analyzer - Swept SA M RL RF 50 Ω AC	dge(Hopping) NVNT 2-DH1 2402N		- 健 💌
	Center Freq 2.402000000 GHz	PNO: Wide ++ Trig: Free Run IFGain:Low #Atten: 30 dB	Avg Type: Log-Pwr TRAC Avg Hold: 2000/2000 TYP DE	
	Ref Offset 2.69 dB 10 dB/div Ref 20.00 dBm 10.0 0.00		Mkr1 2.403 1 -3.10	84 GHz 07 dBm
Ĩ.	-10.0	- MW MW	and way and a second	M A
)	-40.0 -50.0 -60.0 ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	MMM		
	Center 2.402000 GHz #Res BW 100 kHz MsG Band Edge Keysight Spectrum Analyzer - Swept SA (W RL RF 50 Q AC Center Freq 2.356000000 GHz	PNO: Fast 🛶 Trig: Free Run	Sweep 1.000 ms (* status z Hopping Emission	000 MHz 1001 pts)
	Ref Offset 2.69 dB 10 dB/div Ref 20.00 dBm 10 0 10	IFGain:Low #Atten: 30 dB	Mkr1 2.403	
)	-20.0 -30.0 -40.0 -50.0 -70.0 -70.0		4 	
	Start 2.30600 GHz #Res BW 100 kHz	#VBW 300 kHz	Stop 2.40 Sweep 9.600 ms (* N WIDTH FUNCTION VALUE	
3	IMER MODE TEC X 1 1 f 2.403 0 2 N 1 f 2.400 0 3 N 1 f 2.390 0 4 N 1 f 2.376 2 5 7 7 7 8 9 9 10	GHz -2.669 dBm GHz -58.152 dBm GHz -58.369 dBm	N WIDTH FORCTION VALUE	
	MSG	,	STATUS	



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Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	-41.47	-20	Pass
NVNT	1-DH1	2441	-42.67	-20	Pass
NVNT	1-DH1	2480	-42.01	-20	Pass
NVNT	2-DH1	2402	-42.16	-20	Pass
NVNT	2-DH1	2441	-41.96	-20	Pass
NVNT	2-DH1	2480	-41.74	-20	Pass
NVNT 🚫	3-DH1	2402	-42.50	-20	Pass
NVNT	3-DH1	2441	-42.58	-20	Pass
NVNT	3-DH1	2480	-41.27	-20	Pass
	(





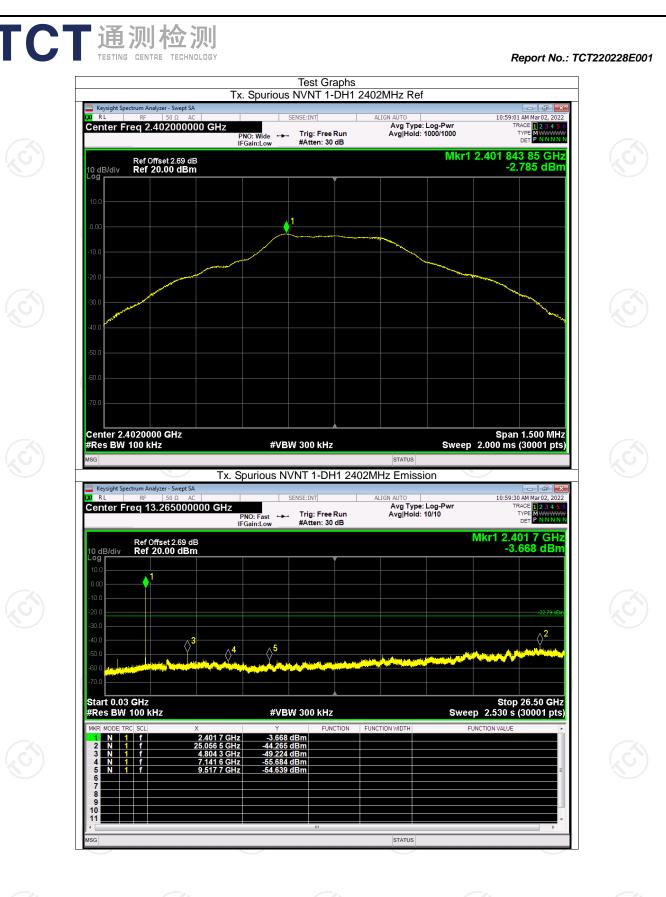






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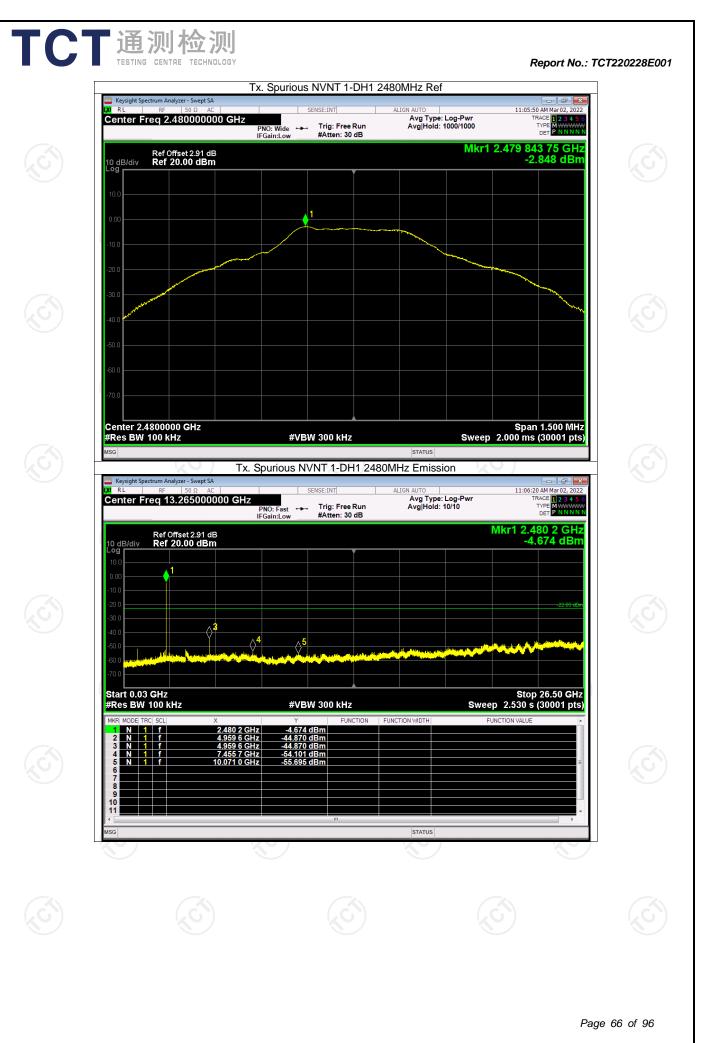
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Keysight	Spectrum Analyzer - Swept SA RF 50 Ω AC	Tx. Spurious NVNT 1-DH1	1 2441MHz Ref	11:02:23 AM Mar 02, 2022
	Freq 2.441000000 GHz	Z PNO: Wide ← Trig: Free Run IFGain:Low #Atten: 30 dB	Avg Type: Log-Pwr Avg Hold: 1000/1000	TRACE 123456 TYPE MWWWW DET P NNNNN
10 dB/div	Ref Offset 2.82 dB Ref 20.00 dBm		Mkr1 2.	440 845 80 GHz -2.653 dBm
0.00				
-10.0				
-20.0				
-30.0				
-40.0				
-50.0				
-60.0				
-70.0				
	2.4410000 GHz N 100 kHz	#VBW 300 kHz	Sweep 2	Span 1.500 MHz .000 ms (30001 pts)
MSG		- x. Spurious NVNT 1-DH1 2-	STATUS	
LX/ RL	Spectrum Analyzer - Swept SA	SENSE:INT	ALIGN AUTO	11:02:53 AM Mar 02, 2022
Center	Freq 13.265000000 GH	PNO: Fast ↔ Trig: Free Run IFGain:Low #Atten: 30 dB	Avg Type: Log-Pwr Avg Hold: 10/10	
10 dB/div Log	Ref Offset 2.82 dB Ref 20.00 dBm		M	kr1 2.441 4 GHz -3.361 dBm
10.0 0.00				
-10.0				-22.65 dBm
-30.0	3			<u>2</u>
-50.0 -60.0 recei				المريبية ومحروبا المعاط المعتس وروحيان
-70.0	03 CH7			Stop 26.50 GHz
	W 100 kHz	#VBW 300 kHz		2.530 s (30001 pts)
1 N 2 N 3 N	1 f 2.441 4 1 f 25.164 1 1 f 4.882 0	4 GHz -3.361 dBm GHz -45.321 dBm		
4 N 5 N 6 7	1 f 7.503 4 1 f 9.953 6	I GHz -55.798 dBm 6 GHz -56.504 dBm		
8 9 10				
MSG		m	STATUS	

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Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com

LXI RL	rum Analyzer - Swept SA RF 50 Ω AC	SI	NVNT 2-DH1 2	ALIGN AUTO	11:10:59 AM Mar 02, 20	22
Center Fre	q 2.402000000 GH:	Z PNO: Wide IFGain:Low	Trig: Free Run #Atten: 30 dB	Avg Type: Log-Pwr Avg Hold: 1000/1000	DET P NNN	
10 dB(div	Ref Offset 2.69 dB Ref 20.00 dBm			MI	kr1 2.401 841 95 GF -2.758 dB	m
			Ĭ			
0.00		1				
-10.0				v-m-		
-20.0						
-30.0						
-40.0						
-50.0						
-60.0						
-70.0						
Center 2.40	20000 GHz				Span 1.500 MI	łz
<mark>#Res BW 1</mark>	00 kHz	#VBV	/ 300 kHz	SW	eep 2.000 ms (30001 pt	s)
Keysight Spectr	rum Analyzer - Swept SA	x. Spurious NV	NT 2-DH1 240	2MHz Emission		×
	RF 50 Ω AC cq 13.265000000 GH	HZ PNO: Fast ↔→	Trig: Free Run	ALIGN AUTO Avg Type: Log-Pwr Avg Hold: 10/10	11:11:28 AM Mar02, 20 TRACE 1 2 3 4 TYPE MWWW DET PNNN	22 5 6 WW
		IFGain:Low	#Atten: 30 dB		UC1 C	
	Ref Offset 2.69 dB				Mkr1 2.401 7 GF	
10 dB/div Log 10.0	Ref Offset 2.69 dB Ref 20.00 dBm				Mkr1 2.401 7 GH -3.602 dB	
	Ref Offset 2.69 dB Ref 20.00 dBm				Mkr1 2.401 7 GH -3.602 dB	
Log 10.0 0.00					-3.602 dBi	
10.0 0.00 -10.0	↓	∧ 4 ∧5			-3.602 dBi	
Log 10.0 -10.0 -20.0 -30.0 -40.0 -50.0 -60.0	↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓	↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓			-3.602 dBi	
Log 10.0 -10.0 -20.0 -30.0 -40.0 -50.0 -60.0 -70.0 Start 0.03 C					-3.602 dBi	
Log 10.0 -10.0 -20.0 -30.0 -30.0 -40.0 -50	A Constraint of the second sec	#VBM			-3.602 dBi	
Log 10.0 -10.0 -20.0 -30.0 -30.0 -40.0 -50	↓ 1 ↓ 1 ↓ 3 ↓ 4 ↓ 4 ↓ 4 ↓ 4 ↓ 4 ↓ 4 ↓ 4 ↓ 4	#VBW GHz -3.602 d GHz -44.924 d GHz -47.335 d	FUNCTION Bm Bm Bm	S	-3.602 dB	
Log 10.0 -10.0 -20.0 -30.0 -40.0 -50.0 -60.0 -60.0 -70.0 Start 0.03 C #Res BW 1 MKR MODE TRC 1 N 1 - N 1 - N 1	A 1 A 1 A 3 A 3 A 3 A 4 A 4 A 4 A 4 A 4 A 4 A 4 A 4	#VBW GHz -3.602 d GHz -44.924 d GHz -47.335 d GHz -55.717 d	FUNCTION Bm Bm Bm Bm	S	-3.602 dB	
Log 10.0 -10.0 -20.0 -30.0 -30.0 -40.0 -50.0	1 3 3 3 3 3 4 5 1 1 1 1 1 1 1 1 1 1 1 1 1	#VBW GHz -3.602 d GHz -44.924 d GHz -47.335 d GHz -55.717 d	FUNCTION Bm Bm Bm Bm	S	-3.602 dB	
Log 10.0 0.00 -10.0 -20.0 -20.0 -30.0 -40.0 -50.0	1 3 3 3 3 3 4 5 1 1 1 1 1 1 1 1 1 1 1 1 1	#VBW GHz -3.602 d GHz -44.924 d GHz -47.335 d GHz -55.717 d	FUNCTION Bm Bm Bm Bm	FUNCTION WIDTH	-3.602 dB	
Log 10.0 -10.0 -20.0 -30.0 -30.0 -40.0 -50.0	1 3 3 3 3 3 4 5 1 1 1 1 1 1 1 1 1 1 1 1 1	#VBW GHz -3.602 d GHz -44.924 d GHz -47.335 d GHz -55.717 d	FUNCTION Bm Bm Bm Bm Bm Bm	S	-3.602 dB	
Log 10.0 0.00 -10.0 -20.0 -20.0 -30.0 -40.0 -50.0	1 3 3 3 3 3 4 5 1 1 1 1 1 1 1 1 1 1 1 1 1	#VBW GHz -3.602 d GHz -44.924 d GHz -47.335 d GHz -55.717 d	FUNCTION Bm Bm Bm Bm Bm Bm	FUNCTION WIDTH	-3.602 dB	
Log 10.0 0.00 -10.0 -20.0 -20.0 -30.0 -40.0 -50.0	1 3 3 3 3 3 4 5 1 1 1 1 1 1 1 1 1 1 1 1 1	#VBW GHz -3.602 d GHz -44.924 d GHz -47.335 d GHz -55.717 d	FUNCTION Bm Bm Bm Bm Bm Bm	FUNCTION WIDTH	-3.602 dB	

Keysight Spectrum Analyzer - Swept SA	Tx. Spurious NVNT 2-DH1		- 6 ×
KL RF 50 Ω AC Center Freq 2.441000000 (GHZ PNO: Wide IFGain:Low #Atten: 30 dB	ALIGN AUTO Avg Type: Log-Pwr Avg Hold: 2000/2000	11:16:09 AM Mar 02, 2022 TRACE 1 2 3 4 5 6 TYPE M WWWW DET P N N N N N
Ref Offset 2.82 dB 10 dB/div Ref 20.00 dBm		Mkr1 2.4	40 844 80 GHz -2.652 dBm
Log			
0.00	1		
-10.0			
-20.0			
-30.0			
-40.0			
-50.0			
-70.0			
Center 2.4410000 GHz			Span 1.500 MHz
#Res BW 100 kHz	#VBW 300 kHz	Sweep 2.0 STATUS	00 ms (30001 pts)
Keysight Spectrum Analyzer - Swept SA	Tx. Spurious NVNT 2-DH1 24	41MHz Emission	
021 RL RF 50Ω AC Center Freq 13.265000000	PNO: Fast ++++ Trig: Free Run	ALIGN AUTO Avg Type: Log-Pwr Avg Hold: 10/10	11:16:38 AM Mar02, 2022 TRACE 1 2 3 4 5 6 TYPE MWWWWW DET P N N N N N
Ref Offset 2.82 dB	IFGain:Low #Atten: 30 dB	Mk	1 2.440 5 GHz -5.579 dBm
10 dB/div Ref 20.00 dBm Log			
0.00 1			
-20.0			-22.65 dBm
-30.0 -40.0 -50.0			-22 65 dBm
-30.0 -40.0			and the second statements of
-30.0 -40.0 -50.0 -60.0			and the second statements of
-30.0 -30.0 -50.0 -60.0 -70.0 Start 0.03 GHz #Res BW 100 kHz MKR MODE TRC SCL X 1 N 1 f 24.7 2 W 1 f 24.7	#VBW 300 kHz 40 5 GHz -5.579 dBm 30 9 GHz -44.618 dBm	Sweep 2	Stop 26.50 GHz
-30.0 -40.0 -50.0 -60.0 -77.0 Start 0.03 GHz #Res BW 100 kHz MKR MODE TRC SCL X 1 N 1 f 24.7 3 N 1 f 24.7 3 N 1 f 7.3 5 N 1 f 7.3	#VBW 300 kHz 40 5 GHz -5.579 dBm	Sweep 2	Stop 26.50 GHz .530 s (30001 pts)
-30.0 -40.0 -50.0 -70.0 Start 0.03 GHz #Res BW 100 kHz MKR MODE TRC SCL × 1. N 1 f 24.7 3. N 1 f 24.7 3. N 1 f 24.7 3. N 1 f 7.3	#VBW 300 kHz 40 5 GHz -5.579 dBm 30 9 GHz -44.618 dBm 82 0 GHz -50.285 dBm 07 5 GHz -55.479 dBm	Sweep 2	Stop 26.50 GHz .530 s (30001 pts)
-30.0 -40.0 -60.0 -60.0 -70.0 Start 0.03 GHz #Res BW 100 kHz MKR MODE TRC SCL X 1 N 1 f 244 2 N 1 f 247 3 N 1 f 4.8 4 N 1 f 7.3 5 N 1 f 9.5 6 7 7 8	#VBW 300 kHz 40 5 GHz -5.579 dBm 30 9 GHz -44.618 dBm 82 0 GHz -50.285 dBm 07 5 GHz -55.479 dBm	Sweep 2	Stop 26.50 GHz .530 s (30001 pts)
-30.0 -30.0 -50.0 -60.0 -77.0 Start 0.03 GHz #Res BW 100 kHz MKR MODE TRC SCL X 1 N 1 f 24.7 3 N 1 f 4.8 4 N 1 f 7.3 5 N 1 f 9.5 6 7 8 9 9 10	Y FUNCTION 40 5 GHz -5.579 dBm 30 9 GHz -44.618 dBm 20 0 GHz -50.285 dBm 71 5 GHz -56.080 dBm	Sweep 2	Stop 26.50 GHz .530 s (30001 pts)
-30 0 -40 0 -50 0 -70 0 Start 0.03 GHz #Res BW 100 kHz MKR MODE TRC SCL × 1 f 24.7 3 N 1 f 24.7 3 N 1 f 24.7 3 N 1 f 9.5 6 9 9 9 10 11	Y FUNCTION 40 5 GHz -5.579 dBm 30 9 GHz -44.618 dBm 20 0 GHz -50.285 dBm 71 5 GHz -56.080 dBm	Sweep 2	Stop 26.50 GHz .530 s (30001 pts)
-30 0 -40 0 -50 0 -70 0 Start 0.03 GHz #Res BW 100 kHz MKR MODE TRC SCL × 1 f 24.7 3 N 1 f 24.7 3 N 1 f 24.7 3 N 1 f 9.5 6 9 9 9 10 11	Y FUNCTION 40 5 GHz -5.579 dBm 30 9 GHz -44.618 dBm 20 0 GHz -50.285 dBm 71 5 GHz -56.080 dBm	Sweep 2	Stop 26.50 GHz .530 s (30001 pts)

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	Tx. Spurious NVNT 2-DH1	2480MHz Ref	
RL RF 50 Ω AC Center Freq 2.480000000 GH	PNO: Wide ++- Trig: Free Run	ALIGN AUTO Avg Type: Log-Pwr Avg Hold: 1000/1000	11:20:48 AM Mar02, 2022 TRACE 1 2 3 4 5 6 TYPE M WWWW DET P N N N N N
Ref Offset 2.91 dB	IFGain:Low #Atten: 30 dB	Mkr1 2.4	79 847 50 GHz -2.808 dBm
10 dB/div Ref 20.00 dBm			2.000 0.011
10.0	1		
.10.0			
-20.0			
-30.0			
-40.0			
-50.0			
-60.0			
-70.0			
Center 2.4800000 GHz #Res BW 100 kHz	#VBW 300 kHz	Sweep 2.0	Span 1.500 MHz 00 ms (30001 pts)
MSG	x. Spurious NVNT 2-DH1 24	80MHz Emission)
Keysight Spectrum Analyzer - Swept SA μ RF 50 Ω AC Center Freq 13.265000000 G	SENSE:INT	ALIGN AUTO	11:21:17 AM Mar 02, 2022 TRACE 12, 3, 4, 5, 6
	PNO: Fast +++ Trig: Free Run IFGain:Low #Atten: 30 dB	Avg Hold: 10/10	TRACE 1 2 3 4 5 6 TYPE MWWWWW DET P NNNNN r1 2.480 2 GHz
Ref Offset 2.91 dB 10 dB/div Ref 20.00 dBm			-3.253 dBm
-10.0			-22:01-dDm
-40.0	۸ 4 ۸5		<mark>2</mark>
-50.0			
Start 0.03 GHz			Stop 26.50 GHz
#Res BW 100 kHz MKR MODE TRC SCL X 1 N 1 f 2.480 2	#VBW 300 kHz Y FUNCTION 2 GHz -3.253 dBm		.530 s (30001 pts)
2 N 1 f 25.119 1 3 N 1 f 4.959 6 4 N 1 f 7.487 5	GHz -44.557 dBm GHz -44.667 dBm GHz -55.824 dBm		
5 N 1 f 10.063 0 6 7 8) GHz -55.885 dBm		
9 10 11			
MSG		STATUS	Þ

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Keysight Spectrum Analyzer - Swept SA	Tx. Spurious NVNT 3-DH1		
KI RF 50 Ω AC Center Freq 2.402000000 GHz	PNO: Wide ++++ Trig: Free Run	ALIGN AUTO Avg Type: Log-Pwr Avg Hold: 2000/2000	11:27:29 AM Mar 02, 2022 TRACE 1 2 3 4 5 6 TYPE MWWWWW DET P NINNN
Ref Offset 2.69 dB 10 dB/div Ref 20.00 dBm	IFGain:Low #Atten: 30 dB	Mkr1 2.4	102 159 45 GHz -2.657 dBm
		1	
-10.0			
-20.0			
-30.0			
-40.0			
-50.0			
-60.0			
-70.0			
Center 2.4020000 GHz #Res BW 100 kHz	#VBW 300 kHz	Sweep 2.0	Span 1.500 MHz 000 ms (30001 pts)
MSG T	x. Spurious NVNT 3-DH1 24	status 102MHz Emission	
Keysight Spectrum Analyzer - Swept SA	SENSE:INT	ALIGN AUTO Avg Type: Log-Pwr	11:27:59 AM Mar02, 2022 TRACE 1 2 3 4 5 6
Center Freq 13.265000000 GH	PNO: Fast ++- Trig: Free Run IFGain:Low #Atten: 30 dB	Avg Hold: 10/10	DET PNNNN
Ref Offset 2.69 dB 10 dB/div Ref 20.00 dBm		MK	r1 2.401 7 GHz -3.851 dBm
0.00 10.0			
-10.0 -20.0			-22.66-dBm
-30.0 -40.0	4		<u>2</u>
-50.0			
-70.0 Start 0.03 GHz			Stop 26.50 GHz
#Res BW 100 kHz	#VBW 300 kHz		2.530 s (30001 pts)
1 N 1 f 2.4017 2 N 1 f 24.7777 3 N 1 f 24.8043 4 N 1 f 7.0578	GHz -45.168 dBm GHz -50.151 dBm		
5 N 1 f 9.454 2 6 7	GHz -55.950 dBm		
8 9 10 11			
MSG		STATUS	4

TES					Report No.: 1	TCT220228E
	ght Spectrum Analyzer - Sv	wept SA	Spurious NVNT 3-DH1			_
	er Freq 2.4410	PNC	SENSE:INT	ALIGN AUTO Avg Type: Log-Pwr Avg Hold: 1000/1000	11:33:01 AM Mar 02, 2022 TRACE 1 2 3 4 5 6 TYPE MWWWWW DET PNNNN	
	Ref Offset 2.	.82 dB	ain:Low #Atten: 30 dB	Mkr1	2.440 843 90 GHz -2.564 dBm	
	div Ref 20.00	dBm			-2.964 dBm	No.
10.0 -						
0.00			1			
-10.0	and the second			and the second s	And the second s	
-20.0 -						
-30.0 7	New Ar					
-40.0 —						
-50.0						
-60.0 -						
-70.0						
Cente #Res	er 2.4410000 GH BW 100 kHz	Z	#VBW 300 kHz	Sweep	Span 1.500 MHz 2.000 ms (30001 pts)	
MSG			urious NVNT 3-DH1 24			
Cent	er Freq 13.265	PN	0: Fast ↔→ Trig: Free Run ain:Low #Atten: 30 dB	Avg Type: Log-Pwr Avg Hold: 10/10	TRACE 123456 TYPE MWWWWW DET PNNNNN	
10 dB	Ref Offset 2 div Ref 20.00	.82 dB dBm			Mkr1 2.441 4 GHz -5.299 dBm	
Log - 10.0 -	div Ref 20.00	.82 dB dBm			Mkr1 2.441 4 GHz	
	Ref Offset 2 div Ref 20.00	.82 dB dBm			Mkr1 2.441 4 GHz	
Log - 10.0 - 0.00 -	div Ref 20.00	.82 dB dBm			Mkr1 2.441 4 GHz -5.299 dBm -22.66 dBm	(c
Log - 10.0 - -10.0 - -20.0 = -30.0 - -40.0 -	div Ref 20.00	dBm			Mkr1 2.441 4 GHz	
Log 1000 - -1000 - -2000 - -3000 - -4000 - -5000 - -6000 -	div Ref 20.00	82 dB dBm			Mkr1 2.441 4 GHz -5.299 dBm -22.66 dBm	(Co
Log 100 - -100 - -200 - -300 - -400 - -500 - -600 - -700 -	div Ref 20.00	dBm			Mkr1 2.441 4 GHz -5.299 dBm -22.56 dBm -22.56 dBm	(Co
Log 1000 -1000 -2000 -2000 -3000 -4000 -500	div Ref 20.00	dBm	5 400 kHz	Swee	Mkr1 2.441 4 GHz -5.299 dBm -22 56 dBm -22 56 dBm -22 Stop 26.50 GHz p 2.530 s (30001 pts)	
Log 100 - 000 - -100 - -200 - -300 - -400 - -500 -	div Ref 20.00	dBm	#VBW 300 kHz <u>FUNCTION</u> -5.299 dBm -45.143 dBm	Swee	Mkr1 2.441 4 GHz -5.299 dBm -2.66 dBm -2.66 dBm -2.66 dBm Stop 26.50 GHz	
Log 1000 -100 -200 -200 -300 -400 -400 -500 -	div Ref 20.00	dBm → 3 → 4 ↓ 4 ↓ 4 ↓ 4 ↓ 4 ↓ 4 ↓ 4 ↓ 4 ↓		Swee	Mkr1 2.441 4 GHz -5.299 dBm -22 56 dBm -22 56 dBm -22 Stop 26.50 GHz p 2.530 s (30001 pts)	
Log 1000 -1000 -2000 -3000 -4000 -6000 -6000 -6000 -7000 Start #Res MKR M 2 1 2 3 3 4 5 6 7 8 8	div Ref 20.00	dBm → 3 → 4 → 4 → 4 → 4 → 4 → 4 → 4 → 4	5 4	Swee	Mkr1 2.441 4 GHz -5.299 dBm -22 56 dBm -22 56 dBm -22 Stop 26.50 GHz p 2.530 s (30001 pts)	
Log 1000 0000 -1000 -2000 -3000 -4000 -4000 -6000 -6000 -7000 Start #Res MKR M 1 2 3 4 5 6 6 7 8 9 10 11	div Ref 20.00	dBm → 3 → 4 → 4 → 4 → 4 → 4 → 4 → 4 → 4	↓5 #VBW 300 kHz -5.299 dBm -47.290 dBm -55.389 dBm -56.708 dBm -56.708 dBm	Swee	Mkr1 2.441 4 GHz -5.299 dBm -22 56 dBm -22 56 dBm -22 Stop 26.50 GHz p 2.530 s (30001 pts)	
Log 1000 0000 -1000 -2000 -3000 -4000 -4000 -4000 -500 -5000	div Ref 20.00	dBm → 3 → 4 → 4 → 4 → 4 → 4 → 4 → 4 → 4	5 4	Swee	Mkr1 2.441 4 GHz -5.299 dBm -22 56 dBm -22 56 dBm -22 Stop 26.50 GHz p 2.530 s (30001 pts)	
Log 1000 0000 -2000 -2000 -3000 -4000 -4000 -6000 -6000 -7000 Start #Res MKR MKR MKR 4 5 6 6 7 8 9 10 -1000 -2	div Ref 20.00	dBm → 3 → 4 → 4 → 4 → 4 → 4 → 4 → 4 → 4	↓5 #VBW 300 kHz -5.299 dBm -47.290 dBm -55.389 dBm -56.708 dBm -56.708 dBm		Mkr1 2.441 4 GHz -5.299 dBm -22 56 dBm -22 56 dBm -22 Stop 26.50 GHz p 2.530 s (30001 pts)	
Log 1000 0000 -2000 -2000 -3000 -4000 -4000 -6000 -6000 -7000 Start #Res MKR MKR MKR 4 5 6 6 7 8 9 10 -1000 -2	div Ref 20.00	dBm → 3 → 4 → 4 → 4 → 4 → 4 → 4 → 4 → 4	↓5 #VBW 300 kHz -5.299 dBm -47.290 dBm -55.389 dBm -56.708 dBm -56.708 dBm		Mkr1 2.441 4 GHz -5.299 dBm -22 56 dBm -22 56 dBm -22 Stop 26.50 GHz p 2.530 s (30001 pts)	

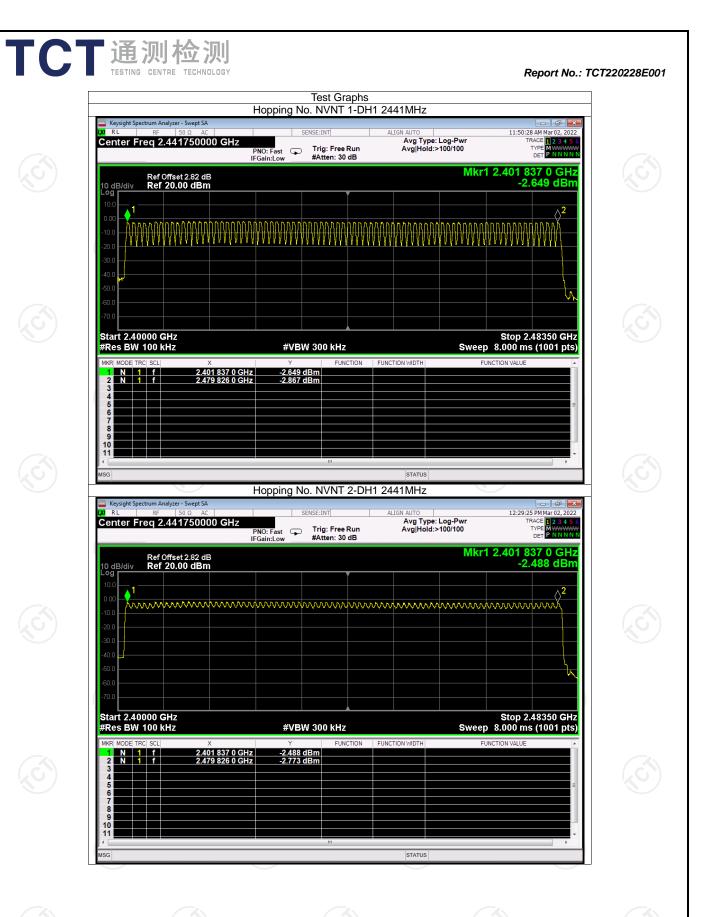
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	Tx. Spurious NVNT 3-DH1	2480MHz Ref	
Will RF 50.0 AC Center Freq 2.480000000 GHz	PNO: Wide Trig: Free Run IFGain:Low #Atten: 30 dB	ALIGN AUTO Avg Type: Log-Pwr Avg Hold: 1000/1000	11:38:28 AM Mar02, 2022 TRACE 1 2 3 4 5 6 TYPE MWWWW DET P N N N N N
Ref Offset 2.91 dB 10 dB/div Ref 20.00 dBm		Mkr1 :	2.479 844 50 GHz -2.730 dBm
Log			
0.00	1		
-10.0			
-20.0			
-30.0			
-40.0			
-50.0			
-70.0			
Center 2.4800000 GHz #Res BW 100 kHz ^{MSG}	#VBW 300 kHz	Sweep	Span 1.500 MHz 2.000 ms (30001 pts)
Tx.	Spurious NVNT 3-DH1 24		
Keysight Spectrum Analyzer - Swept SA VX RL RF 50 Q AC Center Freq 13.265000000 GHz	SENSE:INT PNO: Fast +++ Trig: Free Run	ALIGN AUTO Avg Type: Log-Pwr Avg Hold: 10/10	11:38:58 AM Mar02, 2022 TRACE 1 2 3 4 5 6 TYPE MWWWWW DET P. N N N N N
Ref Offset 2.91 dB	IFGain:Low #Atten: 30 dB		/kr1 2.480 2 GHz
10 dB/div Ref 20.00 dBm			-6.876 dBm
0.00			
-20.0			-22.73 dBm
-40.0		and the state of the	ورجادها المالية الرياس ويعاديهما
-70.0			
Start 0.03 GHz #Res BW 100 kHz	#VBW 300 kHz	Sweep	Stop 26.50 GHz 2.530 s (30001 pts)
MKR MODE TRC SCL X 1 N 1 f 2.480 2 G 2 2 N 1 f 4.959 6 G 3 3 N 1 f 4.959 6 G	Hz -6.876 dBm	FUNCTION WIDTH FU	ICTION VALUE
3 N 1 f 4.959 6 G 4 N 1 f 7.502 5 G 5 N 1 f 10.102 7 G 6	Hz -55.841 dBm Hz -54.793 dBm		E
7 8 9 9 10			
	m	STATUS	
MSC	x~7		
MSG			
MSG			

(Condition	Mode)	f Hoppin Hopping N	lumber	Limit	Verd	lict
Ð	NVNT NVNT NVNT	1-DH1 2-DH1 3-DH1		79 79 79 79		15 15 15	Pas Pas Pas	SS SS

Report No.: TCT220228E001

TCT通测检测 TESTING CENTRE TECHNOLOGY





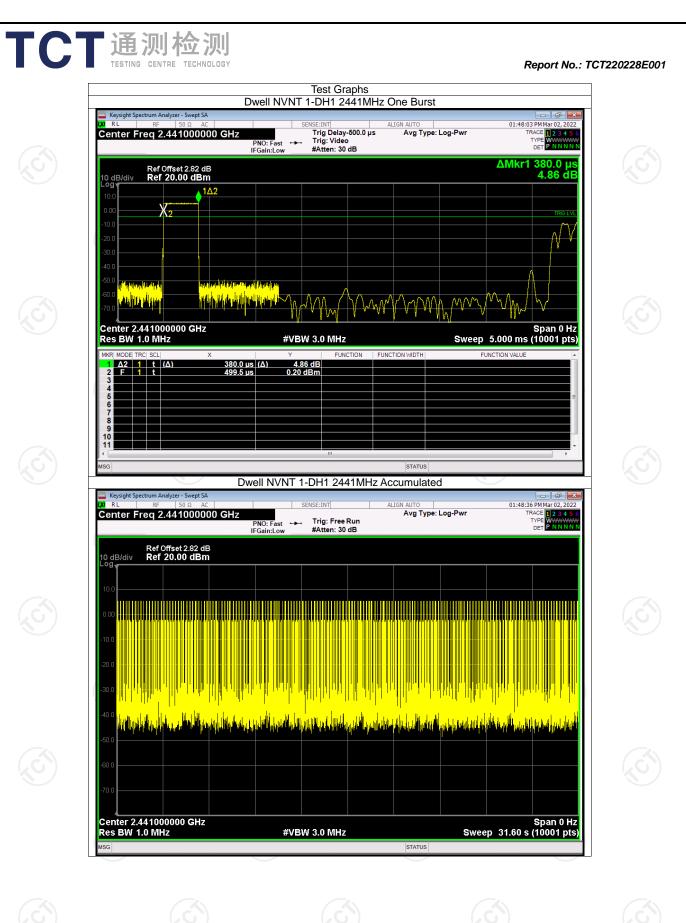
LXI RL	um Analyzer - Swept SA RF 50 Ω AC	S	O. NVNT 3-DH1	ALIGN AUTO	01:34:44	PM Mar 02, 2022	
	q 2.441750000 G	HZ PNO: Fast IFGain:Low	Trig: Free Run #Atten: 30 dB	Avg Type: Log-Pw Avg Hold:>100/100		ACE 1 2 3 4 5 6 TYPE MWWWW DET PNNNN	
10 dB/div	Ref Offset 2.82 dB Ref 20.00 dBm				Mkr1 2.401 5 -6.	511 dBm	
0.00 - 1 -10.020.0	vvvvvvvvvv	ᡰᡣ᠋᠐ᡁᡊᡧ᠋ᢉᢦ᠋ᢦᡳᠧᠧᡁᠢᢧ	VVVVVVVVVVV	vvvvvvvvv	M. M	vvvv	
-30.0 -40.0 -40.0 -50.0							
-60.0							
Start 2.4000 #Res BW 10 MKR MODE TRC	DO KHZ	Y		S	Stop 2. weep 8.000 ms	48350 GHz (1001 pts)	
2 N 1 3 4 5 5		0 GHz -5.423 0	dBm			=	
6 7 8 9 10							
MSG				STATUS		• •	

	Dwell Time										
Condition	Mode	Frequency (MHz)	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict			
NVNT	1-DH1	2441	0.38	120.84	318	31600	400	Pass			
NVNT	1-DH3	2441	1.66	297.14	179	31600	400	Pass			
NVNT	1-DH5	2441	2.91	317.19	109	31600	400	Pass			
NVNT	2-DH1	2441	0.40	128.00	320	31600	400	Pass			
NVNT	2-DH3	2441	1.65	272.25	165	31600	400	Pass			
NVNT	2-DH5	2441	2.90	316.10	109	31600	400	Pass			
NVNT	3-DH1	2441	0.40	127.60	319	31600	400	Pass			
NVNT	3-DH3	2441	1.65	275.55	167	31600	400	Pass			
NVNT	3-DH5	2441	2.90	321.90	111	31600	400	Pass			

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ТСТ	通测检测 TESTING CENTRE TECHNOLOGY			No.: TCT220228E001
L X I	Keysight Spectrum Analyzer - Swept SA RL RF S0 Q AC Inter Freq 2.441000000 GHz	SENSE:INT ALIGN AUT Trig Delay-500.0 µs Avg Trig: Video in:Low #Atten: 30 dB	ro 02:10:54 PM Mar 02 g Type: Log-Pwr TRACE TYPE UPE WW DET P M	2022 3 4 5 6 WWWW N N N
Lo			ΔMkr1 1.660 1.36	
-10 -20 -30 -40	0		2/1/market / 46	
-500 -600 -700			<mark>il il il il il internet set part de la posta de</mark>	
Re		#VBW 3.0 MHz Y FUNCTION 1.36 dB 3.21 dBm	Span (Sweep 10.00 ms (10001 DTH FUNCTION VALUE	pts)
4 5 6 7 8 9				п
		"" STZ NVNT 1-DH3 2441MHz Accum	atus ulated	
LXI	IFGa	SENSE:INT ALIGN AUT D: Fast Trig: Free Run im:Low #Atten: 30 dB	TO 02:11:27 PM Mar 02 g Type: Log-Pwr TRACE 10 TYPE WW DET PN	. 2022
10 10				
-10				
-20.				
-40				
-70.			Span	
	s BW 1.0 MHz	#VBW 3.0 MHz	Span Sweep 31.60 s (10001	pts)
				Page 78 of 96

TC	通测检测 TESTING CENTRE TECHNOLOGY		Report No.: 1	CT220228E001
	Keysight Spectrum Analyzer - Swept SA	Dwell NVNT 1-DH5 2441MHz One Bur	rst 🕞 💣 💌]
	X RL RF 50 Ω AC Center Freq 2.441000000 GH	SENSE:INT ALIGN AUTO Trig Delay-500.0 µs Avg Ty PNO: Fast →→ Trig: Video IFGain:Low #Atten: 30 dB	02:11:53 PM Mar 02, 2022 pe: Log-Pwr TRACE 112:3:45:6 TYPE WWWWWW DET P ININININ	
	Ref Offset 2.82 dB 10 dB/div Ref 20.00 dBm	In Gam. Low white the could	ΔMkr1 2.910 ms -31.79 dB	(3)
	-10.0	162	TRIG LVL	
	-30.0			
	-60.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	d ter for an a second secon A second secon	er bereite mer generen beforgene sternige vereitige sterne besternigen. An bereitigene sterne sterne bereitigene einigen sterne besterne generen.	
	-70.0 Center 2.441000000 GHz		Span 0 Hz	$\langle \mathcal{C} \rangle$
	Res BW 1.0 MHz MKR MODE TRC SCL X 1 Δ2 1 t (Δ) 2.91	#VBW 3.0 MHz Υ FUNCTION FUNCTION WIDTH 0 ms (Δ) -31.79 dB	Sweep 10.00 ms (10001 pts)	
	2 F 1 t 498 3 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	.0 μs 4.18 dBm	=	
	6 7 8 9			
			· ·	
	MSG	STATUS Dwell NVNT 1-DH5 2441MHz Accumula		
	Keysight Spectrum Analyzer - Swept SA Κμ RF 50 Ω AC Center Freq 2.441000000 GH3		02:12:25 PM Mar 02, 2022 rpe: Log-Pwr TRACE 2 3 4 5 0 TYPE	
	Ref Offset 2.82 dB	PNO: Fast Trig: Free Run IFGain:Low #Atten: 30 dB	DET P NNNNN	
	10 dB/div Ref 20.00 dBm			
	0.00 -10.0			
	-20.0			
	-30.0			
	-40.0			
	-50.0 and the building of the second se) na na miyo na miyo na marana na na na na miyo na miyo na miyo na miyo na hisana na miyo na hisana kata kata Marana na miyo na hisana na miyo na hisana na miyo na miyo na mi	yd ryffian afwr ar dir ann yn yn yr ar yn	
	-60.0			
	Center 2.441000000 GHz		Span 0 Hz	
	Res BW 1.0 MHz	#VBW 3.0 MHz	Sweep 31.60 s (10001 pts)	
				-
			Par	ge 79 of 96
				<u> </u>

	通测检测 TESTING CENTRE TECHNOLOGY Rep Dwell NVNT 2-DH1 2441MHz One Burst	port No.: TCT220228E001
	Keysight Spectrum Analyzer - Swept SA	□ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	IFGain:Low #Atten: 30 dB Ref Offset 2.82 dB ΔMkr1 4 10 dB/div Ref 20.00 dBm -3 100 20 100 -3 100 20 100 -3 100 20 100 -3	ETPNNNN
J.S.	Res BW 1.0 MHz #VBW 3.0 MHz Sweep 5.000 ms (1 MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE 1 Δ2 1 t (Δ) 400.0 µs (Δ) -32.09 dB 499.0 µs 0.49 dBm	Span 0 Hz 0001 pts)
	RL RF 50 Ω AC SENSE:INT ALIGN AUTO 02:26:04 P Center Freq 2.441000000 GHz SENSE to the sense tot the sense tot the sense tot	E E E E E E E E E E E E E E E E E E E
Ś	Ref Offset 2.82 dB Ref 20.00 dBm	
Č)	-40.0 -5	Span 0 Hz 10001 pts)

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