	TEST REPOR	Г					
FCC ID	2AV7N-BRK						
Test Report No:	TCT240722E003						
Date of issue:	Aug. 27, 2024						
Testing laboratory	SHENZHEN TONGCE TESTING	LAB					
Testing location/ address:	2101 & 2201, Zhenchang Factory Subdistrict, Bao'an District, Shen People's Republic of China						
Applicant's name:	GUANGZHOU RANTION TECH	NOLOGY CO., LTD.					
Address:	Room 7002 and 7003, 7th Floor, Digital Entertainment Industrial Park, Greater Bay Area, No.28 Huangpu Park West Road, Huangpu District, Guangzhou, China						
	GUANGZHOU RANTION TECH						
Address:: Standard(s):	Room 7002 and 7003, 7th Floor, Park, Greater Bay Area, No.28 H Huangpu District, Guangzhou, Cl FCC CFR Title 47 Part 15 Subpa FCC KDB 558074 D01 15.247 M ANSI C63.10:2013	uangpu Park West Road, nina rt C Section 15.247					
Product Name:	PA Speaker						
Trade Mark:	MouKey, DONNER						
Model/Type reference :	BRK-1, BRK-2, BRK-3, BRK-4, B	RK-5					
Rating(s):	Rechargeable Li-ion Battery DC	7.4V					
Date of receipt of test item	Aug. 22, 2024						
Date (s) of performance of test:	Aug. 22, 2024 ~ Aug. 27, 2024						
Tested by (+signature) :	Onnado YE	Onnado Raongezza					
Check by (+signature) :	Beryl ZHAO	Boyl 2 TCT)					
Approved by (+signature):	Tomsin	Tomsm 30 35					

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1. General Product Information

1.1. EUT description

Product Name:	PA Speaker	(3)		(\mathbf{c}^{*})
Model/Type reference:	BRK-1			
Sample Number:	TCT240722E003-0101			
Bluetooth Version:	V5.3		S	
Operation Frequency:	2402MHz~2480MHz			
Transfer Rate:	1/2/3 Mbits/s			
Number of Channel:	79			
Modulation Type:	GFSK, π/4-DQPSK, 8DPSK			
Modulation Technology:	FHSS			
Antenna Type:	PCB Antenna			
Antenna Gain:	3.38dBi			S.
Rating(s):	Rechargeable Li-ion Battery DC	7.4V		

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

No.	Model No.	Tested with
1	BRK-1	\square
Other models	BRK-2, BRK-3, BRK-4, BRK-5	

Note: BRK-1 is tested model, other models are derivative models. The models are identical in circuit and PCB layout, only different on the model names and trademark. So the test data of BRK-1can represent the remaining models.



Report No.: TCT240722E003

1.3. Operation Frequency

TCT通测检测 TESTING CENTRE TECHNOLOGY

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
0	2402MHz	20	2422MHz	40	2442MHz	60	2462MHz
G)1	2403MHz	21	2423MHz	41	2443MHz	61	2463MHz
<u> </u>		·		·		·	e
10	2412MHz	30	2432MHz	50	2452MHz	70	2472MHz
11	2413MHz	31	2433MHz	51	2453MHz	71	2473MHz
	Ø		.		S		S
18	2420MHz	38	2440MHz	58	2460MHz	78	2480MHz
19	2421MHz	- 39	2441MHz	- 59	2461MHz		-

modulation mode.



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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.

3. General Information

3.1. Test environment and mode

Operating Environment:		
Condition	Conducted Emission	Radiated Emission
Temperature:	22.7 °C	25.1 °C
Humidity:	52 % RH	54 % RH
Atmospheric Pressure:	1010 mbar	1010 mbar
Test Software:		
Software Information:	Frequency Tool_v0.3.2	
Power Level:	0	
Fest Mode:	· · · · · · · · · · · · · · · · · · ·	
Engineer mode: The sample was placed 0.	Keep the EUT in continuous channel and modulations wit .8m & 1.5m for the measure	th Fully-charged battery
above the ground plane of 3 polarities were performed. I he EUT continuously work axis (X, Y & Z) and cor nanipulating interconnectin rom 1m to 4m in both vorst-case(Z axis) are	Bm chamber. Measurements in During the test, each emission ing, investigated all operating nsidered typical configuration og cables, rotating the turnta horizontal and vertical po shown in Test Results	n both horizontal and vertica n was maximized by: having g modes, rotated about all 3 n to obtain worst position ble, varying antenna heigh plarizations. The emissions of the following pages
above the ground plane of 3 polarities were performed. I he EUT continuously work axis (X, Y & Z) and cor nanipulating interconnectin rom 1m to 4m in both vorst-case(Z axis) are	Bm chamber. Measurements in During the test, each emission ing, investigated all operating insidered typical configuration ing cables, rotating the turnta horizontal and vertical po	n both horizontal and vertica n was maximized by: having g modes, rotated about all 3 n to obtain worst position ble, varying antenna heigh plarizations. The emissions of the following pages
above the ground plane of 3 polarities were performed. I he EUT continuously work axis (X, Y & Z) and cor nanipulating interconnectir rom 1m to 4m in both vorst-case(Z axis) are	Bm chamber. Measurements in During the test, each emission ing, investigated all operating nsidered typical configuration og cables, rotating the turnta horizontal and vertical po shown in Test Results	n both horizontal and vertica n was maximized by: having g modes, rotated about all 3 n to obtain worst position ble, varying antenna heigh plarizations. The emissions of the following pages

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	EP-TA200	R37R55T6KL2SE3	/	SAMSUNG

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.





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
- SHENZHEN TONGCE TESTING LAB
- CAB identifier: CN0031

The testing lab has been registered by Innovation, Science and Economic Development Canada for radio equipment testing.

4.2. Location

SHENZHEN TONGCE TESTING LAB

Address: 2101 & 2201, Zhenchang Factory Renshan Industrial Zone, Fuhai Subdistrict, 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



Test Results and Measurement Data 5.

5.1. Antenna requirement

Standard requirement: FCC Part15 C Section 15.203 /247(c) 15.203 requirement: 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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. 15.247(c) (1)(i) requirement: (i) Systems operating in the 2400-2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi. E.U.T Antenna: The Bluetooth antenna is PCB antenna which permanently attached, and the best case gain of the antenna is 3.38dBi. Intenna

0 e0 20 40 30 50 10,00 80 50 90 90 20 20 40 30 50 10 mm

5.2. Conducted Emission

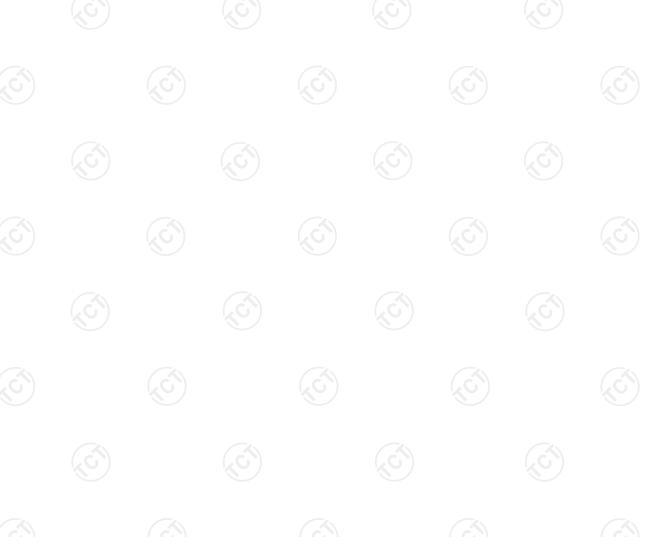
5.2.1. Test Specification

Test Method: ANSI C63.10:2013 Frequency Range: 150 kHz to 30 MHz Receiver setup: RBW=9 kHz, VBW=30 kHz, Sweep time=auto Limits: Frequency range Limit (dBuV) (MHz) Quasi-peak Average 0.15-0.5 66 to 56* 56 to 46* 0.5-5 56 46 5-30 60 50 Reference Plane Filter AC power Verage UT - AC power Filter - AC power EMI Remark: EUT Europrotect Under Test UT Europrotect Under Stabilization Network EMI Test Mode: Charging + Transmitting Mode 1. The E.U.T is connected to an adapter through a lit	Test Requirement:	FCC Part15 C Section 15.207						
Receiver setup: RBW=9 kHz, VBW=30 kHz, Sweep time=auto Limits: Frequency range Limit (dBuV) Quasi-peak Average 0.15-0.5 66 to 56* 56 to 46* 0.5-5 56 46 5-30 60 50 Reference Plane Image: Plane Image: Plane Rest Setup: Plane Test Mode: Charging + Transmitting Mode 1. The E.U.T is connected to an adapter through a light impedance stabilization network (L.I.S.N). The provides a 500hm/500H coupling impedance for the easuring equipment. 2. The peripheral devices are also connected to the maxima ender to tho block diagram of the test s	Test Method:	ANSI C63.10:2013						
Limits: Frequency range Limit (dBuV) Quasi-peak Average 0.15-0.5 66 to 56* 56 to 46* 0.5-5 56 46 5-30 60 50 Reference Plane Image: transmitting the provide of the p	Frequency Range:	150 kHz to 30 MHz						
Limits: (MHz) Quasi-peak Average 0.15-0.5 66 to 56* 56 to 46* 0.5-5 56 46 5-30 60 50 Reference Plane 40cm Filter AC power Fest Setup: E.U.T Ac power Fest able/Insulation plane Filter AC power Reference Plane Filter AC power Fest able/Insulation plane Filter AC power Fest able/Insulation plane Filter AC power Reference Plane Filter AC power Fest able/Insulation plane Filter AC power Reference Plane Filter AC power Fest able/Insulation plane Filter AC power Reference Plane Filter AC power Test table/Insulation plane Filter AC power Reference Plane Filter AC power Test table/Insulation plane Filter AC power Reference Plane Filter AC power Test table/Insulation plane Filter AC power Reference Plane Filter AC power Test table/Insulation plane Filter AC power Reference Plane Filtes	Receiver setup:	RBW=9 kHz, VBW=30) kHz, Sweep time	e=auto				
Limits: 0.15-0.5 66 to 56* 56 to 46* 0.5-5 56 46 5-30 60 50 Reference Plane 40cm Filter Ac power Test Setup: Filter Ac power Reference Plane 40cm Filter Ac power Test Mode: Filter Ac power Charging + Transmitting Mode Test Mode: Charging + Transmitting Mode 1. The E.U.T is connected to an adapter through a li impedance stabilization network (L.I.S.N.). Th provides a 500hm/50uH coupling impedance for t measuring equipment. 2. The peripheral devices are also connected to the ma power through a LISN that provides a 500hm/50u coupling impedance with 500hm termination. (Plea refer to the block diagram of the test setup a photographs). 3. Both sides of A.C. line are checked for maximu conducted interference. In order to find the maximu emission, the relative positions of equipment and all the interface cables must be changed according to		Frequency range	Limit (dBuV)				
Image: Description of the second s		(MHz)	Quasi-peak	Average				
Test Setup: Figure 1 Test Setup: Reference Plane Fund Fund Reference Plane Fund Fest Mode: Charging + Transmitting Mode Test Mode: Charging + Transmitting Mode 1. The E.U.T is connected to an adapter through a li impedance stabilization network (L.I.S.N.). The provides a 500hm/50uH coupling impedance for the measuring equipment. Test Procedure: 2. The peripheral devices are also connected to the maximul conducted interference. In order to find the maximul conducted interference. In order to find the maximul conducted interference. In order to find the maximul emission, the relative positions of equipment and all the interface cables must be changed according to	Limits:	0.15-0.5	66 to 56*	56 to 46*				
Test Setup: Reference Plane Image: Test Setup: Image: Test table/Insulation plane Remark: E U T Equipment Under Test LISN time impedence Stabilization Network ENI Receiver Test Mode: Charging + Transmitting Mode 1. The E.U.T is connected to an adapter through a li impedance stabilization network (L.I.S.N.). The provides a 500hm/50uH coupling impedance for the measuring equipment. 2. The peripheral devices are also connected to the mappower through a LISN that provides a 500hm/50u coupling impedance with 500hm termination. (Plear refer to the block diagram of the test setup a photographs). 3. Both sides of A.C. line are checked for maximu conducted interference. In order to find the maximu emission, the relative positions of equipment and all the interface cables must be changed according to		0.5-5	56	46				
Test Setup: Image: Charging + Transmitting Mode Test Mode: Charging + Transmitting Mode 1. The E.U.T is connected to an adapter through a li impedance stabilization network (L.I.S.N.). The provides a 500hm/50uH coupling impedance for the measuring equipment. 2. The peripheral devices are also connected to the maximus effer to the block diagram of the test setup a photographs). 3. Both sides of A.C. line are checked for maximus emission, the relative positions of equipment and all the interface cables must be changed according to		5-30	60	50				
Test Setup: Image: E.U.T image: AC power image: E.U.T image: E.		Referenc	e Plane					
 Test Procedure: Test Procedure: Test Procedure: The Billic Conducted interference. In order to find the maximum emission, the relative positions of equipment and all the interface cables must be changed according to 	Test Setup:	Test table/Insulation plane Remarkc E.U.T: Equipment Under Test LISN: Line Impedence Stabilization N	EMI Receiver	r _ AC power				
 Test Procedure: Test Procedure: impedance stabilization network (L.I.S.N.). The provides a 500hm/50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the material power through a LISN that provides a 500hm/500 coupling impedance with 500hm termination. (Pleat refer to the block diagram of the test setup at photographs). Both sides of A.C. line are checked for maximute emission, the relative positions of equipment and all the interface cables must be changed according to the stabilization. 	Test Mode:	Charging + Transmittir	ng Mode	e e				
	Test Procedure:	 impedance stabilizing provides a 500hm/s measuring equipme 2. The peripheral device power through a Licoupling impedance refer to the block photographs). 3. Both sides of A.C. conducted interferent emission, the relative the interface cables 	zation network 50uH coupling im ont. Ces are also conne ISN that provides with 50ohm tern diagram of the . line are checked nce. In order to fin re positions of equi must be changed	(L.I.S.N.). This pedance for the ected to the mains a 50ohm/50uH nination. (Please test setup and ed for maximum nd the maximum ipment and all o l according to				
Test Result: PASS								

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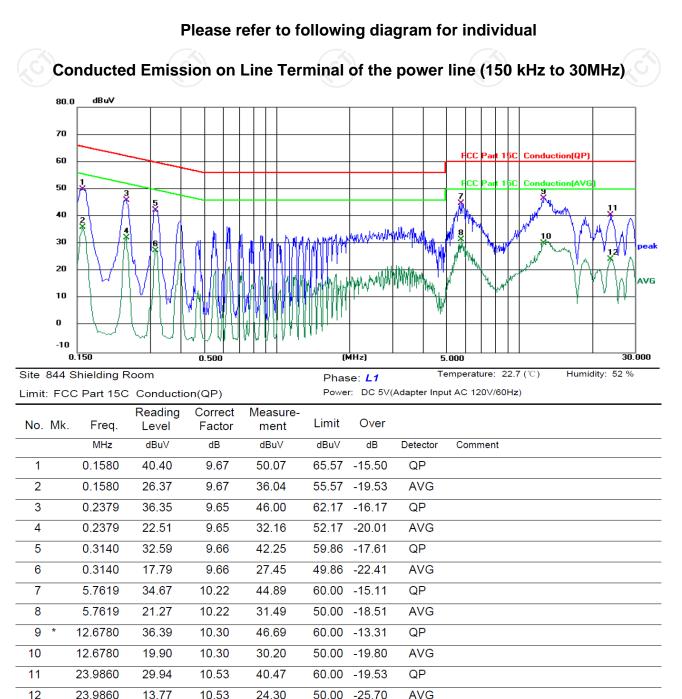
5.2.2. Test Instruments

Equipment Manufacturer Model Serial Number Cali								
EMI Test Receiver	R&S	ESCI3	100898	Jun. 26, 2025				
LISN	Schwarzbeck	NSLK 8126	8126453	Jan. 31, 2025				
Attenuator	N/A	10dB	164080	Jun. 26, 2025				
Line-5	тст	CE-05	/	Jun. 26, 2025				
EMI Test Software	EZ_EMC	EMEC-3A1	1.1.4.2	1				



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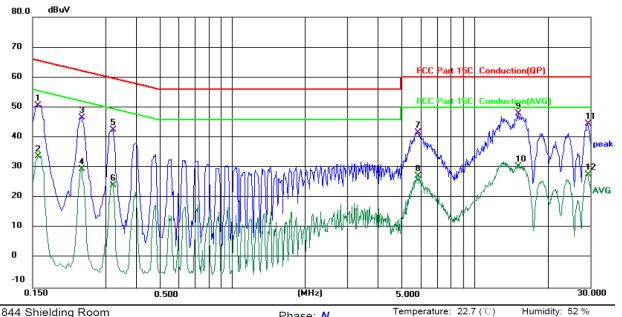
5.2.3. Test data



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

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Conducted Emission on Neutral Terminal of the power line (150 kHz to 30MHz)

 Site 844 Shielding Room
 Phase: N
 Temperature: 22.7 (°C)
 Hum

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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBu∨	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1580	41.10	9.65	50.75	65.57	-14.82	QP	
2		0.1580	24.16	9.65	33.81	55.57	-21.76	AVG	
3		0.2379	37.03	9.63	46.66	62.17	-15.51	QP	
4		0.2379	19.76	9.63	29.39	52.17	-22.78	AVG	
5		0.3220	32.47	9.96	42.43	59.66	-17.23	QP	
6		0.3220	14.17	9.96	24.13	49.66	-25.53	AVG	
7		5.8380	31.52	10.16	41.68	60.00	-18.32	QP	
8		5.8380	17.18	10.16	27.34	50.00	-22.66	AVG	
9	*	15.2140	37.71	10.24	47.95	60.00	-12.05	QP	
10		15.2140	20.10	10.24	30.34	50.00	-19.66	AVG	
11		29.2379	33.66	10.79	44.45	60.00	-15.55	QP	
12		29.2379	16.92	10.79	27.71	50.00	-22.29	AVG	
	//			//			//		

Note1:

Freq. = Emission frequency in MHz

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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

3.5.1. 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 output power of the intentional radiator shall not exceed the following: (1) For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band 0.125 watts.		
Test Setup:	Spectrum Analyzer EUT		
Test Mode:	Transmitting mode with modulation		
Test Procedure:	Use the following spectrum analyzer settings: Span = approximately 5 times the 20 dB bandwidth, centered on a hopping channel RBW > the 20 dB bandwidth of the emission being measured VBW ≥ RBW Sweep = auto Detector function = peak Trace = max hold Allow the trace to stabilize. Use the marker-to-peak function to set the marker to the peak of the emission.		
Test Result:	PASS		

5.3.2. Test Instruments

Name	Manufacturer	Model No.	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	N9020B	MY50030427	Jun. 26, 2025
Combiner Box	Ascentest	AT890-RFB		



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 (C)			
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. 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

Name	Manufacturer	Model No.	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	N9020B	MY50030427	Jun. 26, 2025
Combiner Box	Ascentest	AT890-RFB	/	/





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	N9020B	MY50030427	Jun. 26, 2025
Combiner Box	Ascentest	AT890-RFB	1	1

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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 the 2400-2483.5 MHz band shall use at least 15 channels.
Test Setup:	
	Spectrum Analyzer
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 = 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. The number of hopping frequency used is defined as the number of total channel. Record the measurement data in report.
Test Result:	PASS
5.6.2. Test Instruments	

5.6.2. Test Instruments

Name	Manufacturer	Model No.	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	N9020B	MY50030427	Jun. 26, 2025
Combiner Box	Ascentest	AT890-RFB	1	/
	(.G)			(G)

5.7.1. Test Specification

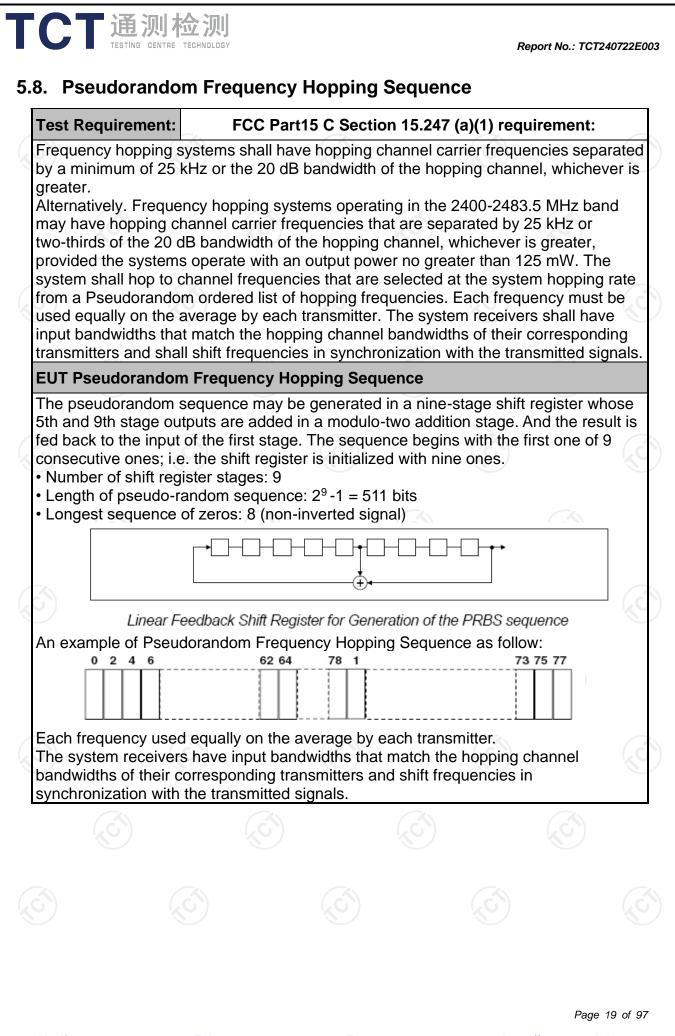
TCT 通测检测 TESTING CENTRE TECHNOLOGY

Test Requirement:	FCC Part15 C Section 15.247 (a)(1)
Test Method:	KDB 558074 D01 v05r02
Limit:	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.
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 = 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.
Test Result:	PASS

5.7.2. Test Instruments

Name	Manufacturer	Model No.	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	N9020B	MY50030427	Jun. 26, 2025
Combiner Box	Ascentest	AT890-RFB		

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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 = 300 kHz (≥RBW). Band edge emissions must be at least 20 dB down from the highest emission level within the authorized band as measured with a 100kHz RBW. The attenuation shall be 30 dB instead of 20 dB when RMS conducted output power procedure is used. Enable hopping function of the EUT and then repeat step 2 and 3. Measure and record 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	N9020B	MY50030427	Jun. 26, 2025
Combiner Box	Ascentest	AT890-RFB	1	1
(\mathcal{A}^{*})	(JC)		JG)	(\mathcal{O})



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

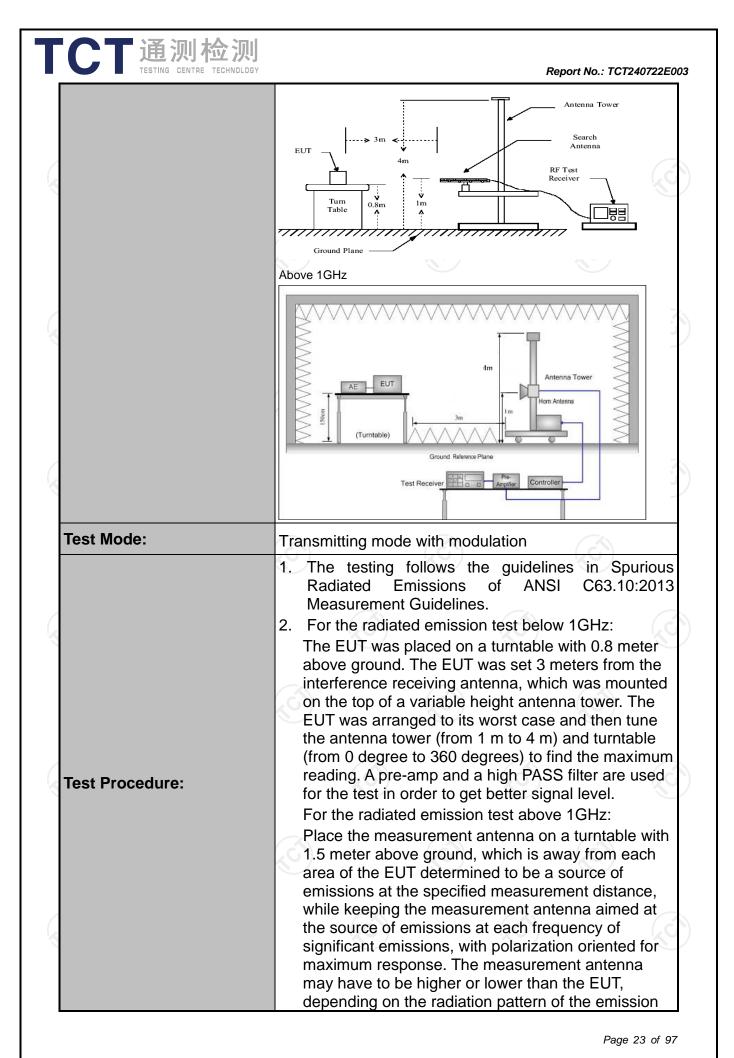
Name	Manufacturer	Model No.	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	N9020B	MY50030427	Jun. 26, 2025
Combiner Box	Ascentest	AT890-RFB	$\overline{\mathcal{C}}$ 1	



5.11.1. Test Specification

TCT通测检测 TESTING CENTRE TECHNOLOGY

Test Requirement:	FCC Part15	C Sectior	n 15.209 👌			
Test Method:	ANSI C63.10	0:2013				
Frequency Range:	9 kHz to 25 (GHz			C	6
Measurement Distance:	3 m	No.	9		R.)
Antenna Polarization:	Horizontal &	Vertical				
	Frequency	Detector	RBW	VBW	Remark	
	9kHz- 150kHz	Quasi-pea	k 200Hz	1kHz		si-peak Value
Receiver Setup:	150kHz- 30MHz	Quasi-pea	k 9kHz	30kHz	Quas	si-peak Value
	30MHz-1GHz	Quasi-pea		300KHz		si-peak Value
	Above 1GHz	Peak	1MHz	3MHz		eak Value
		Peak	1MHz	10Hz	Ave	erage Value
	Frequen	ю	Field Str (microvolts			asurement nce (meters)
	0.009-0.4	490	2400/F(300
	0.490-1.7		24000/F			30
	1.705-3		30			30
	30-88	1	100			3
Limit:	88-216		150			3
Linit.	216-96 Above 9		<u>200</u> 500			3
	Frequency Above 1GH:	(micro	ld Strength ovolts/meter) 500 5000	Distan (mete 3 3		Detector Average Peak
Test setup:	For radiated emis	stance = 3m	d Plane		Compu	
S) (S)			(,	S)		
						Page 22 of 9



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	receiving the max measurement an maximizes the er antenna elevation restricted to a rar above the ground 3. Set to the maxin EUT transmit con 4. Use the following (1) Span shall w emission bei (2) Set RBW=12 for f>1GHz ; Sweep = au = max hold (3) For average correction fat	d at the emission source ximum signal. The final tenna elevation shall be missions. The measurem of reaximum emission nge of heights of from 1 d or reference ground pla mum power setting and ntinuously. g spectrum analyzer sett vide enough to fully capt ing measured; 20 kHz for f < 1 GHz, RE VBW≥RBW; uto; Detector function = p	that which nent is shall be m to 4 m ane. enable the tings: ure the 3W=1MHz peak; Trace y cycle nilliseconds
	On time =N1 Where N1 i length of ty Average Er Level + 20*	s number of type 1 pulse pe 1 pulses, etc. nission Level = Peak En log(Duty cycle)	es, L1 is
Test results:	On time =N1 Where N1 i length of ty Average Er Level + 20* Corrected Re	s number of type 1 pulse pe 1 pulses, etc. nission Level = Peak En	es, L1 is nission + Cable
Test results:	On time =N1 Where N1 i length of ty Average Er Level + 20* Corrected Re Loss + Read	s number of type 1 pulse pe 1 pulses, etc. nission Level = Peak En log(Duty cycle) eading: Antenna Factor	es, L1 is nission + Cable
Test results:	On time =N1 Where N1 i length of ty Average Er Level + 20* Corrected Re Loss + Read	s number of type 1 pulse pe 1 pulses, etc. nission Level = Peak En log(Duty cycle) eading: Antenna Factor	es, L1 is nission + Cable
Test results:	On time =N1 Where N1 i length of ty Average Er Level + 20* Corrected Re Loss + Read	s number of type 1 pulse pe 1 pulses, etc. nission Level = Peak En log(Duty cycle) eading: Antenna Factor	es, L1 is nission + Cable



5.11.2. Test Instruments

TCT 通测检测 TESTING CENTRE TECHNOLOGY

R&S R&S HP SKET	Model ESCI7 FSQ40 8447D	Serial Number1005292000612727A05017	Calibration Due Jan. 31, 2025 Jun. 26, 2025
R&S HP	FSQ40 8447D	200061	
HP	8447D		Jun. 26, 2025
		2727405017	
SKET		2121703011	Jun. 26, 2025
	LNPA_0118G- 45	SK202101210 2	Jan. 31, 2025
SKET	LNPA_1840G- 50	SK202109203 500	Jan. 31, 2025
hwarzbeck	FMZB1519B	00191	Jun. 26, 2025
hwarzbeck	VULB9163	340	Jun. 28, 2025
hwarzbeck	BBHA 9120D	631	Jun. 28, 2025
hwarzbeck	BBHA 9170	00956	Feb. 02, 2025
SKET	RE-03-D	/	Jun. 26, 2025
SKET	RE-03-M	1	Jun. 26, 2025
SKET	RE-03-L	/	Jun. 26, 2025
SKET	RE-04-D		Jun. 26, 2025
SKET	RE-04-M		Jun. 26, 2025
SKET	RE-04-L	× /	Jun. 26, 2025
Keleto	RE-AM		
	FA-03A2 RE+	├ ───────────┤	
	SKET SKET SKET SKET SKET	SKETRE-03-DSKETRE-03-MSKETRE-03-LSKETRE-04-DSKETRE-04-MSKETRE-04-M	SKET RE-03-D / SKET RE-03-M / SKET RE-03-L / SKET RE-04-D / SKET RE-04-M / SKET RE-04-L /

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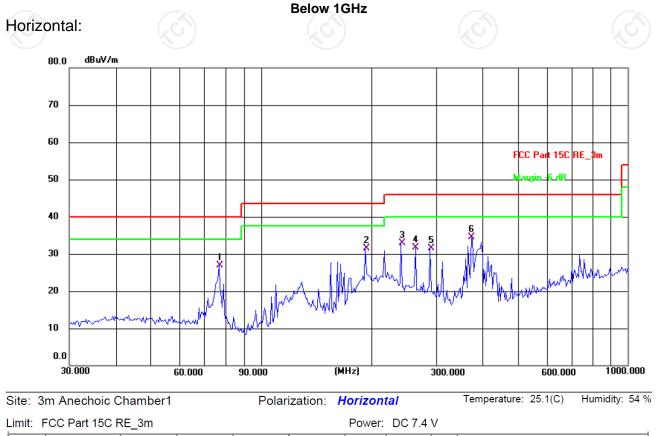
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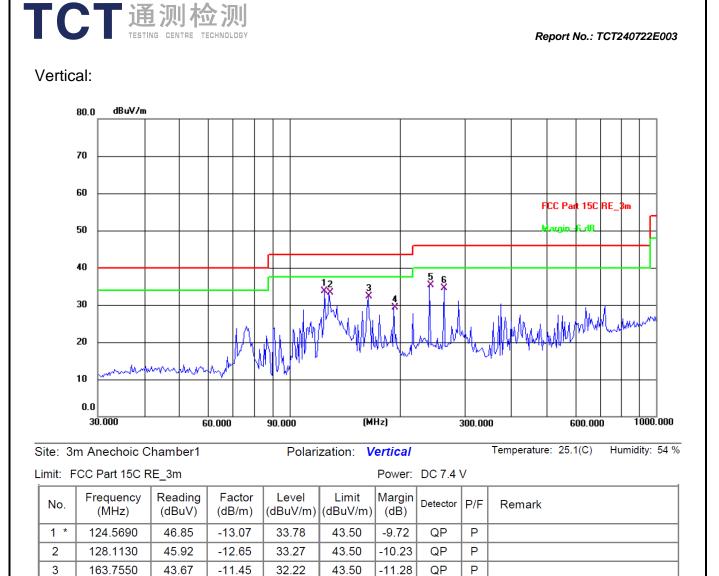
5.11.3. Test Data

Please refer to following diagram for individual



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	76.7808	42.25	-15.32	26.93	40.00	-13.07	QP	Ρ	
2	192.4186	45.93	-14.33	31.60	43.50	-11.90	QP	Ρ	
3	240.8304	46.54	-13.58	32.96	46.00	-13.04	QP	Ρ	
4	263.8190	44.26	-12.55	31.71	46.00	-14.29	QP	Ρ	
5	289.0021	42.63	-11.19	31.44	46.00	-14.56	QP	Ρ	
6 *	374.6225	44.24	-9.65	34.59	46.00	-11.41	QP	Ρ	

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	6	263.8190	47.00	-12.55	34.45	46.00	-11.55	QP		
1	Vote:	1 The low freq	uency whi	ch started f	rom 9KHz	~30MHz \	was pre-s	canned	and t	he result which was 20dB lower than

-14.18

-10.76

43.50

46.00

Ρ

Ρ

QP

QP

the limit line per 15.31(o) was not reported.

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

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

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

-14.33

-13.58

43.65

48.82

4

5

192.4186

240.8304

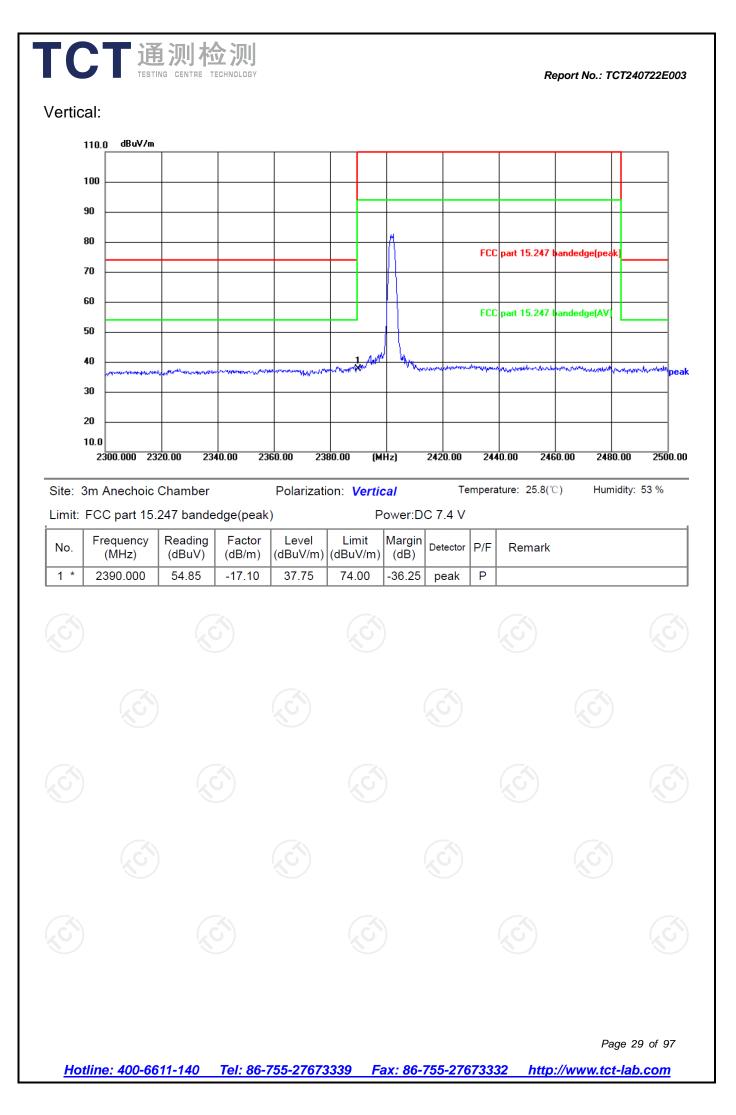
* is meaning the worst frequency has been tested in the test frequency range.

29.32

35.24

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TCT通测检测 TESTING CENTRE TECHNOLOGY Report No.: TCT240722E003 Test Result of Radiated Spurious at Band edges Lowest channel 2402: Horizontal: 110.0 dBuV/m 100 90 80 FCC part 15.247 bandedge(pea 70 60 FCC part 15.247 bandedge(AV 50 40 , Yuu peak 30 20 10.0 2300.000 2320.00 2340.00 2360.00 2380.00 2420.00 2460.00 2500.00 (MHz) 2440.00 2480.00 Temperature: 25.8(°C) Site: 3m Anechoic Chamber Polarization: Horizontal Humidity: 53 % Limit: FCC part 15.247 bandedge(peak) Power:DC 7.4 V Frequency Reading Factor Level Limit Margin P/F Detector No. Remark (MHz) (dBuV) (dB/m) (dBuV/m) (dBuV/m) (dB) 1 * 2390.000 53.49 -17.10 36.39 74.00 -37.61 peak Ρ Page 28 of 97



			全 测 ECHNOLOGY						R	eport No.: 1	TCT2407221	E003
Highe	st channel	2480:										
Horizo	ontal:											
	110.0 dBuV/m	1										-
	100											
!	90											-
1	80							FCC	part 15.247	bandedge(pe	aki	-
	70											-
I	60							FCC	part 15.247	bandedge(AV		
	50										×	1
	40	an the second second	and the second	an an start and a start and a start and a	and the second states	month	- Marine Marine Same	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	a for a start of the	manna	Westwart	peak
	20]
	10.0											
			40.00 23			Hz)	2420.00					00.00
	Bm Anechoic FCC part 15.		dqe(peak		on: Horiz P		те С 7.4 V	empera	ature: 25.8(°	C) Hur	midity: 53 %	
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit	Margin		P/F	Remark			
1 *	2483.500		· · ·			((a B)		' ''				
		60.74	-16.88	43.86	74.00	(dB) -30.14		P				
		60.74	-16.88								Q	3
		60.74	-16.88							Ś)	3
		60.74	-16.88									S S
		60.74	-16.88									
		60.74	-16.88									S S S

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	al:											
ſ	10.0 dBu¥/m											
1	100										++-	
9	90										\square	
8	30							FCC	part 15.247	bandedge(p	eakl	
7	70								·		╢╴	
6	50							FCC	part 15.247	handedge(A	#	
į	50				-				. puit 13.241	nanacage(n		
4	40									nermonteet	Ľ,	WAR WAR
3	30	a star a star a star	"""" An and a start	her men substantion for the form	n maana ka ka ya ka		++++++++++++++++++++++++++++++++++++++		the management	And and all the second s		
2	20										_	
1	10.0 2300.000 23	20.00 234	40.00 23	360.00 23	80.00 (MHz)	2420.00		10.00 24	60.00 2	480.00	2500.
	em Anechoic FCC part 15.		dge(peak	Polarizati			T 0C 7.4 V		ature: 25.8(°	ີ ()	umidity:	53 %
o.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)		Limit	Margir	Detector	P/F	Remark			
			· · ·		(dBuV/m) (dB)						
	2483.500	60.83	-16.88	43.95	74.00	-30.05	j peak	P				
te:/	2483.500 Measurement (8DPSK) was	s were con	-16.88 ducted in	43.95	74.00	-30.05	j peak	P			st cas	e Mode
te:/	Measurement	s were con	-16.88 ducted in	43.95	74.00	-30.05	j peak	P			st cas	e Mode
te:/	Measurement	s were con	-16.88 ducted in	43.95	74.00	-30.05	j peak	P			st cas	e Mode
te:/	Measurement	s were con	-16.88 ducted in	43.95	74.00	-30.05	j peak	P			st cas	e Mode
e:/	Measurement	s were con	-16.88 ducted in	43.95	74.00	-30.05	j peak	P			st cas	e Mode
te:/	Measurement	s were con	-16.88 ducted in	43.95	74.00	-30.05	j peak	P			rst cas	e Mode
e:/	Measurement	s were con	-16.88 ducted in	43.95	74.00	-30.05	j peak	P			rst cas	e Mode
e:/	Measurement	s were con	-16.88 ducted in	43.95	74.00	-30.05	j peak	P			rst cas	e Mode
e:/	Measurement	s were con	-16.88 ducted in	43.95	74.00	-30.05	j peak	P			rst cas	e Mode
te:/	Measurement	s were con	-16.88 ducted in	43.95	74.00	-30.05	j peak	P			rst cas	e Mode
te:/	Measurement	s were con	-16.88 ducted in	43.95	74.00	-30.05	j peak	P			rst cas	e Mode
te:/	Measurement	s were con	-16.88 ducted in	43.95	74.00	-30.05	j peak	P			rst cas	e Mode
	Measurement	s were con	-16.88 ducted in	43.95	74.00	-30.05	j peak	P			rst cas	e Mode
te:/	Measurement	s were con	-16.88 ducted in	43.95	74.00	-30.05	j peak	P			rst cas	e Mode

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	54.36		-9.51	44.85		74	54	-9.15
7206	Н	49.15		-1.41	47.74		74	54	-6.26
	Н)				
	G		J.)		()	.G`)		(G)	
4804	V	56.69		-9.51	47.18		74	54	-6.82
7206	V	47.75		-1.41	46.34		74	54	-7.66
	V								
					X.				

Middle cha	nnel: 2441	MHz		N N) ((x0')		N N
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBµV)	AV reading (dBµV)	Correction Factor (dB/m)	Peak		Peak limit (dBµV/m)	AV limit (dBµV/m)	Margin (dB)
4882	H	55.02		-9.36	45.66	<u> </u>	74	54	-8.34
7323	KOĤ)	45.77	-120	-1.14	44.63	01	74	54	-9.37
	Ĥ								
4882	V	56.32		-9.36	46.96		74	54	-7.04
7323	V	46.19		-1.14	45.05		74	54	-8.95
<u> </u>	V			%	- /				

High chann	nel: 2480 N	ЛНz							
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBµV)	AV reading (dBµV)	Correction Factor (dB/m)	Peak	n Level AV (dBµV/m)	Peak limit (dBµV/m)	AV limit (dBµV/m)	Margin (dB)
4960	Н	54.62)	-9.20	45.42		74	54	-8.58
7440	Н	45.08		-0.96	44.12		74	54	-9.88
	Н				2				
C		(\mathbf{G})		(.0			(\mathbf{G})		(.c
4960	V	54.10		-9.20	44.90		74	54	-9.10
7440	V	46.91		-0.96	45.95		74	54	-8.05
	V								

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.

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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.

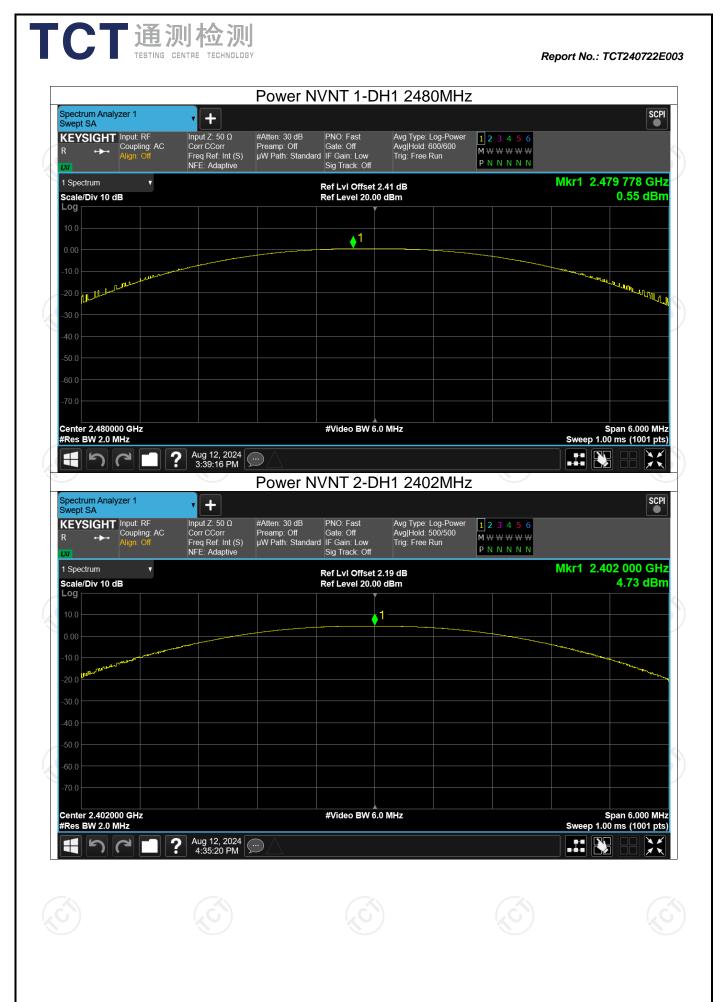


	Maximum Conducted Output Power						
	Condition	Mode	Frequency (MHz)	Conducted Power (dBm)	Limit (dBm)	Verdict	
	NVNT	1-DH1	2402	4.89	30	Pass	
	NVNT	1-DH1	2441	3.74	30	Pass	
	NVNT	1-DH1	2480	0.55	30	Pass	
	NVNT	2-DH1	2402	4.73	21	Pass	
	NVNT	2-DH1	2441	3.78	21	Pass	
	NVNT	2-DH1	2480	0.59	21	Pass	
	NVNT	3-DH1	2402	5.13	21	Pass	X
	NVNT	3-DH1	2441	4.01	21	Pass	
	NVNT	3-DH1	2480	0.75	21	Pass	
							_

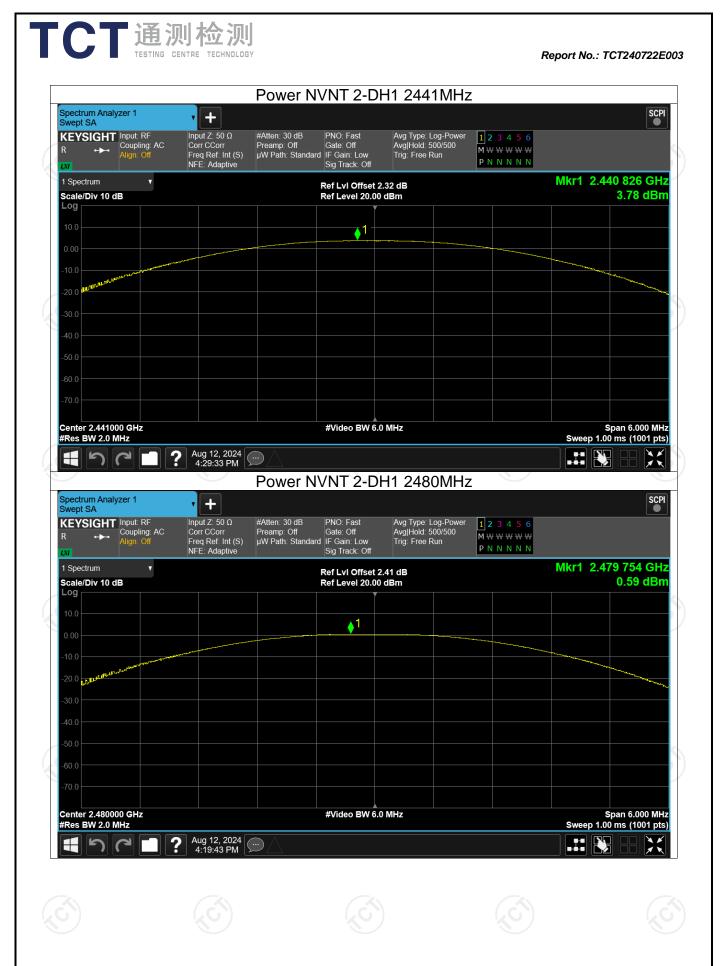


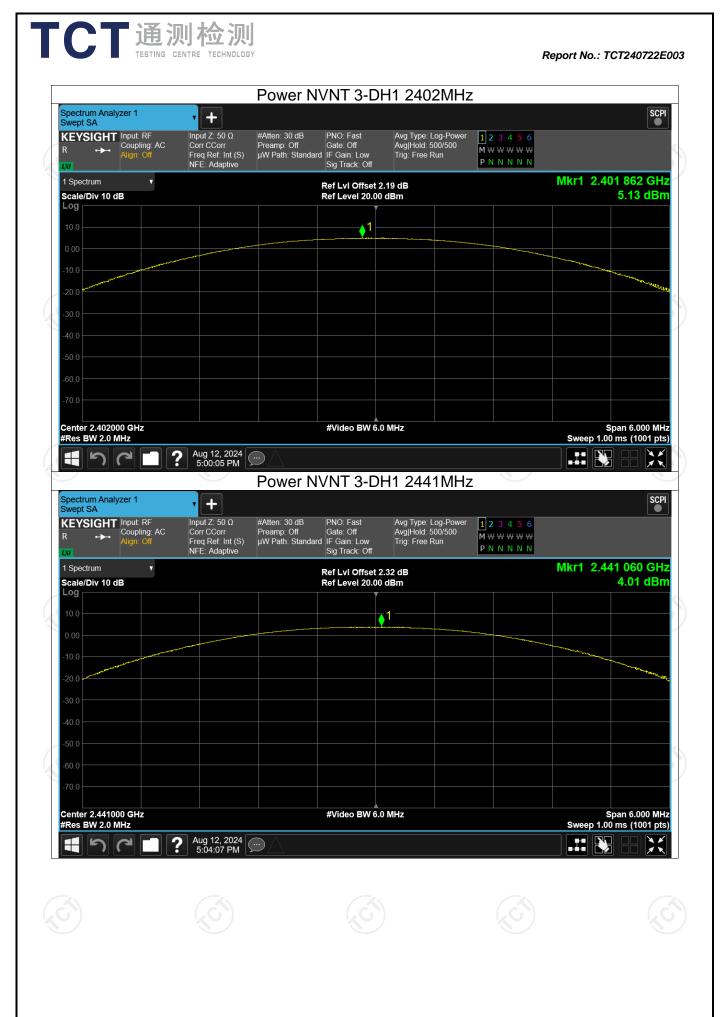
TCT 通测检测 TESTING CENTRE TECHNOLOGY Report No.: TCT240722E003 **Test Graphs** Power NVNT 1-DH1 2402MHz Spectrum Analyzer 1 Swept SA SCPI + Input Z: 50 Ω Corr CCorr Freq Ref: Int (S) NFE: Adaptive REYSIGHT Input: RF Coupling: AC #Atten: 30 dB Avg Type: Log-Power Avg|Hold: 600/600 PNO: Fast Gate: Off 1 2 3 4 5 6 Preamp: Off Gate: Οπ μW Path: Standard IF Gain: Low Sig Track: Off **----**Trig: Free Run PNNNN Mkr1 2.402 012 GHz 1 Spectrum Ref LvI Offset 2.19 dB 4.89 dBm Scale/Div 10 dB Ref Level 20.00 dBm Loc 1 20.0 WWW.M.M.M. Center 2.402000 GHz #Res BW 2.0 MHz #Video BW 6.0 MHz Span 6.000 MHz Sweep 1.00 ms (1001 pts) **?** Aug 12, 2024 \mathbf{X} ょう Power NVNT 1-DH1 2441MHz SCPI Spectrum Analyzer 1 + Swept SA REYSIGHT Input: RF Coupling: AC Avg Type: Log-Power Avg|Hold: 600/600 Trig: Free Run Input Z: 50 Ω #Atten: 30 dB PNO: Fast 1 2 3 4 5 6 Corr CCorr Freq Ref: Int (S) NFE: Adaptive Preamp: Off Gate: Off µW Path: Standard IF Gain: Low Sig Track: Off •**•**• M ₩ ₩ ₩ ₩ ₩ PNNNN 1 Spectrum Mkr1 2.440 760 GHz Ref LvI Offset 2.32 dB Ref Level 20.00 dBm 3.74 dBm Scale/Div 10 dB Log ₹1 M.U.III. Center 2.441000 GHz #Video BW 6.0 MHz Span 6.000 MHz #Res BW 2.0 MHz Sweep 1.00 ms (1001 pts) Aug 12, 2024 ょる ? X

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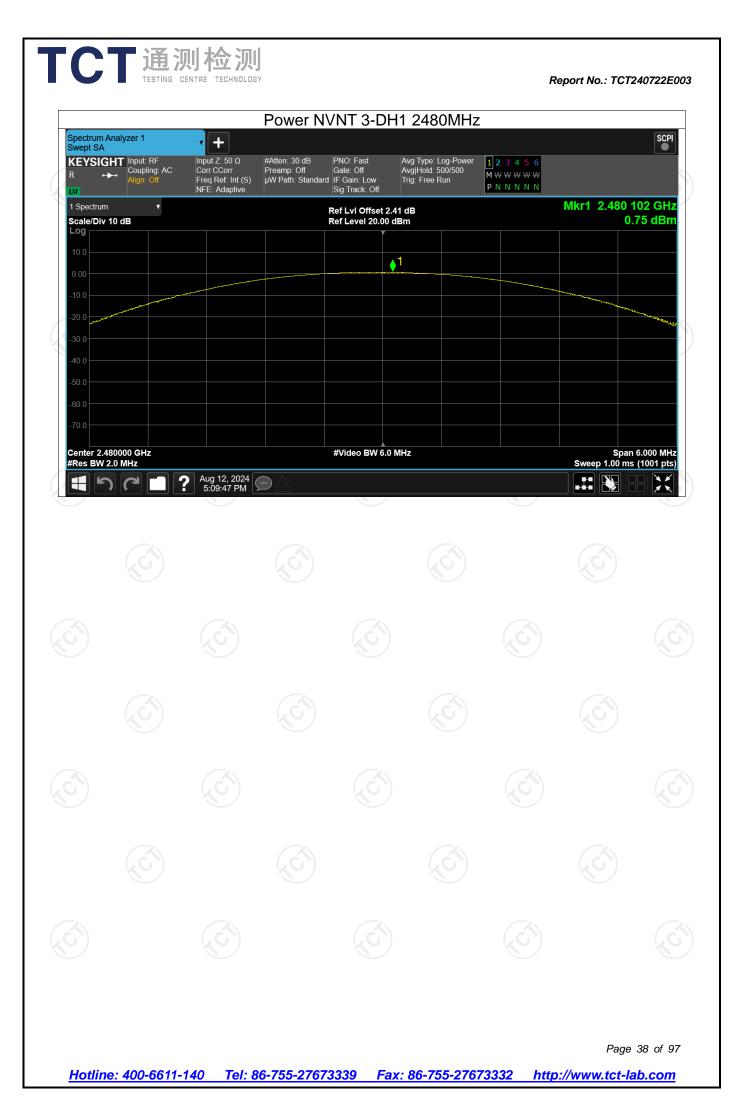


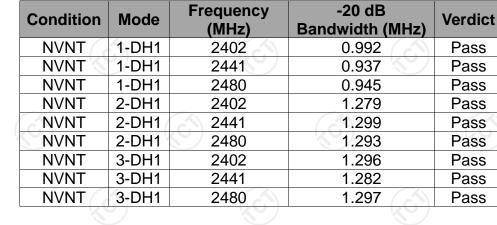
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-20dB Bandwidth

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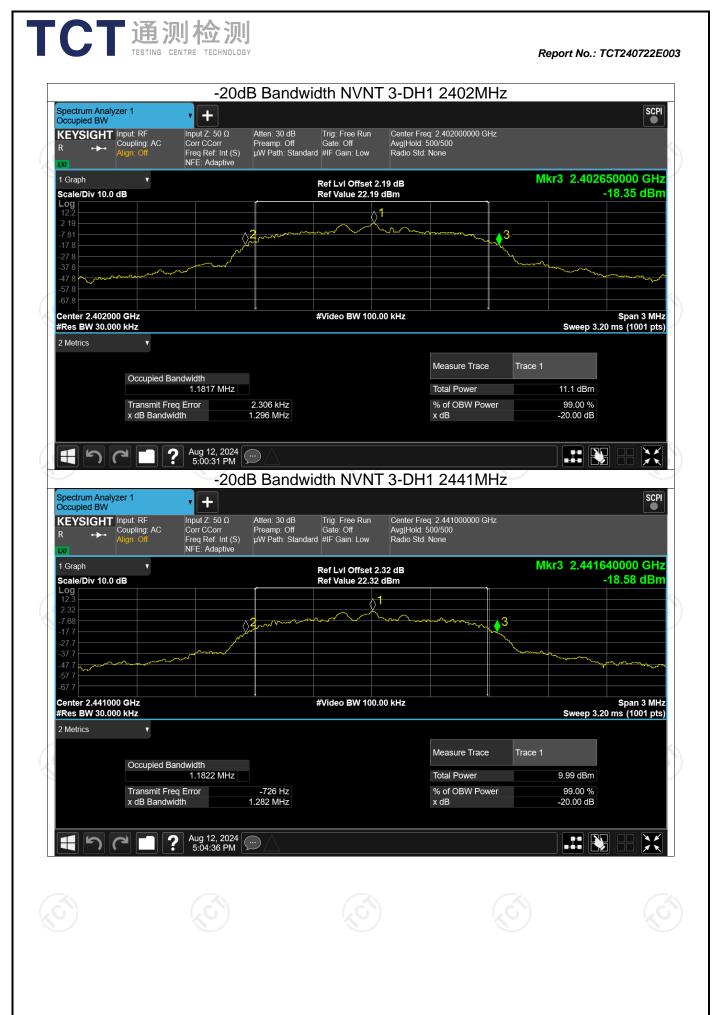
Report No.: TCT240722E003 **Test Graphs** -20dB Bandwidth NVNT 1-DH1 2402MHz Spectrum Analyzer 1 Occupied BW SCPI + REYSIGHT Input: RF Coupling: AC Input Z: 50 Ω Corr CCorr Freq Ref: Int (S) NFE: Adaptive Center Freq: 2.402000000 GHz Avg|Hold: 500/500 Radio Std: None Trig: Free Run Atten: 30 dB Preamp: Off Gate: Off µW Path: Standard #IF Gain: Low R **...** Mkr3 2.402499000 GHz 1 Graph Ref LvI Offset 2.19 dB -18.09 dBm Scale/Div 10.0 dB Ref Value 22.19 dBm 2 10 <mark>^</mark>3 \Diamond^2 37.8 47.8 57.8 67.8 Center 2.402000 GHz #Res BW 30.000 kHz Span 3 MHz Sweep 3.20 ms (1001 pts) #Video BW 100.00 kHz 2 Metrics Measure Trace Trace 1 Occupied Bandwidth 865.72 kHz Total Power 11.7 dBm Transmit Freq Error 2.837 kHz 99.00 % % of OBW Power x dB Bandwidth 992.3 kHz x dB -20.00 dB Aug 12, 2024 \mathbf{X} ? って -20dB Bandwidth NVNT 1-DH1 2441MHz Spectrum Analyzer 1 Occupied BW SCPI + REYSIGHT Input: RF Coupling: AC Input Z: 50 Ω Atten: 30 dB Trig: Free Run Center Freq: 2.441000000 GHz Corr CCorr Freq Ref: Int (S) NFE: Adaptive Preamp: Off Gate: Off µW Path: Standard #IF Gain: Low Avg|Hold: 500/500 Radio Std: None **---**-Mkr3 2.441468000 GHz 1 Graph Ref LvI Offset 2.32 dB Ref Value 22.32 dBm ۷ Scale/Div 10.0 dB -18.73 dBm 01 3 \Diamond Center 2.441000 GHz #Res BW 30.000 kHz #Video BW 100.00 kHz Span 3 MHz Sweep 3.20 ms (1001 pts) 2 Metrics v Measure Trace Trace 1 Occupied Bandwidth 865.72 kHz Total Power 10.8 dBm Transmit Freq Error x dB Bandwidth -508 Hz % of OBW Power 99.00 % -20.00 dB 937.2 kHz x dB Aug 12, 2024 ょ 2 ? Page 40 of 97

Report No.: TCT240722E003 -20dB Bandwidth NVNT 1-DH1 2480MHz Spectrum Analyzer 1 Dccupied BW SCPI + Input Z: 50 Ω Corr CCorr Center Freq: 2.480000000 GHz Avg|Hold: 500/500 Radio Std: None REYSIGHT Input: RF Coupling: AC Atten: 30 dB Trig: Free Run Gate: Off Preamp: Off Gate: Off µW Path: Standard #IF Gain: Low ----Freq Ref: Int (S) NFE: Adaptive Mkr3 2.480468000 GHz 1 Graph Ref Lvi Offset 2.41 dB Ref Value 22.41 dBm -20.75 dBm Scale/Div 10.0 dB \Diamond^1 3 **₿** 37.6 47 67.6 Center 2.480000 GHz #Res BW 30.000 kHz #Video BW 100.00 kHz Span 3 MHz Sweep 3.20 ms (1001 pts) 2 Metrics ۷ Measure Trace Trace 1 Occupied Bandwidth 865.94 kHz Total Power 7.41 dBm Transmit Freq Error -5.045 kHz % of OBW Power 99.00 % x dB Bandwidth 945.3 kHz x dB -20.00 dB 4ug 12, 2024 \mathbf{X} -20dB Bandwidth NVNT 2-DH1 2402MHz Spectrum Analyzer 1 Occupied BW SCPI + KEYSIGHT Input: RF Input Z: 50 Ω Atten: 30 dB Trig: Free Run Center Freq: 2.402000000 GHz Coupling: AC Corr CCorr Freq Ref: Int (S) Avg|Hold: 500/500 Radio Std: None Preamp: Off Gate: Off µW Path: Standard #IF Gain: Low R **→**→ NFE: Adaptive Mkr3 2.402641000 GHz 1 Graph Ref Lvi Offset 2.19 dB Ref Value 22.19 dBm Scale/Div 10.0 dB -19.54 dBm 3 37.8 47 8 67 8 Center 2.402000 GHz #Res BW 30.000 kHz #Video BW 100.00 kHz Span 3 MHz Sweep 3.20 ms (1001 pts) 2 Metrics Measure Trace Trace 1 Occupied Bandwidth 1.1811 MHz 11.0 dBm Total Power Transmit Freg Error 1.076 kHz % of OBW Power 99.00 % -20.00 dB x dB Bandwidth 1.279 MHz x dB Aug 12, 2024 ? \mathbf{X} **4** 7 7 7

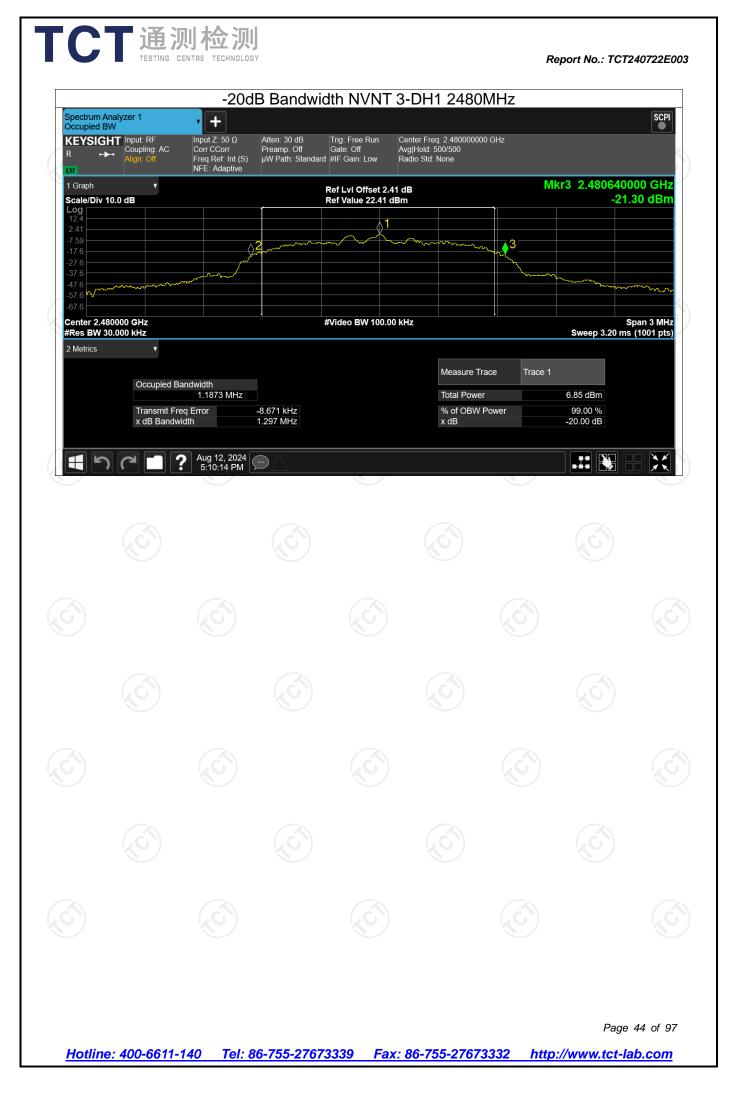
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Report No.: TCT240722E003 -20dB Bandwidth NVNT 2-DH1 2441MHz Spectrum Analyzer 1 Dccupied BW SCPI + Input Z: 50 Ω Corr CCorr Center Freq: 2.441000000 GHz Avg|Hold: 500/500 Radio Std: None REYSIGHT Input: RF Coupling: AC Atten: 30 dB Trig: Free Run Gate: Off Preamp: Off Gate: Off µW Path: Standard #IF Gain: Low ----Freq Ref: Int (S) NFE: Adaptive Mkr3 2.441647000 GHz 1 Graph Ref LvI Offset 2.32 dB Ref Value 22.32 dBm -17.50 dBm Scale/Div 10.0 dB 3 \Diamond Center 2.441000 GHz #Res BW 30.000 kHz #Video BW 100.00 kHz Span 3 MHz Sweep 3.20 ms (1001 pts) 2 Metrics ۷ Measure Trace Trace 1 Occupied Bandwidth 1.1861 MHz Total Power 10.1 dBm Transmit Freq Error -2.749 kHz % of OBW Power 99.00 % x dB Bandwidth 1.299 MHz x dB -20.00 dB 4:29:57 PM \mathbf{X} -20dB Bandwidth NVNT 2-DH1 2480MHz Spectrum Analyzer 1 Occupied BW SCPI + KEYSIGHT Input: RF Input Z: 50 Ω Atten: 30 dB Trig: Free Run Center Freq: 2.480000000 GHz Coupling: AC Corr CCorr Freq Ref: Int (S) Avg|Hold: 500/500 Radio Std: None Preamp: Off Gate: Off µW Path: Standard #IF Gain: Low R **→**→ NFE: Adaptive Mkr3 2.480644000 GHz 1 Graph Ref Lvi Offset 2.41 dB Ref Value 22.41 dBm Scale/Div 10.0 dB -21.82 dBm <u>3</u> Ą Center 2.480000 GHz #Res BW 30.000 kHz #Video BW 100.00 kHz Span 3 MHz Sweep 3.20 ms (1001 pts) 2 Metrics Measure Trace Trace 1 Occupied Bandwidth 1.1888 MHz 6.75 dBm Total Power Transmit Freg Error -2.665 kHz % of OBW Power 99.00 % -20.00 dB x dB Bandwidth 1.293 MHz x dB Aug 12, 2024 4:20:06 PM ? \mathbf{X} **4** 7 7 7

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Report No.: TCT240722E003



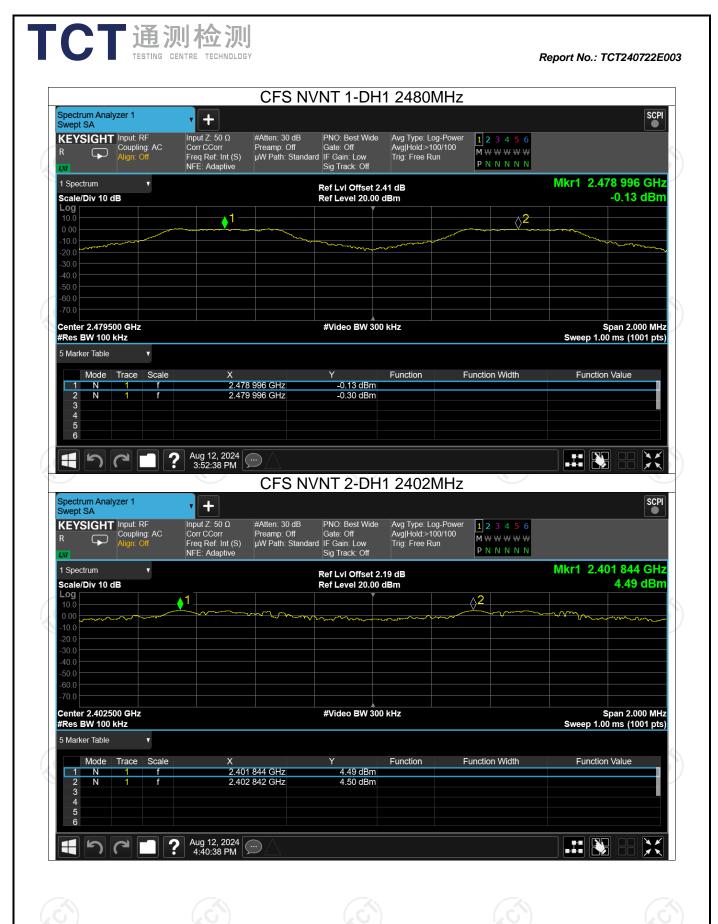
Carrier ried denoice de paratien							
Condition	Mode	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict	
NVNT	1-DH1	2402.007	2403.006	0.999	0.992	Pass	
NVNT	1-DH1	2440.993	2441.995	1.002	0.992	Pass	
NVNT	1-DH1	2478.996	2479.996	1.000	0.992	Pass	
NVNT	2-DH1	2401.844	2402.842	0.998	0.866	Pass	
NVNT 🔇	2-DH1	2440.842	2441.842	1.000	0.866	Pass	
NVNT	2-DH1	2478.838	2479.840	1.002	0.866	Pass	
NVNT	3-DH1	2401.846	2402.850	1.004	0.865	Pass	
NVNT	3-DH1	2440.84	2441.844	1.004	0.865	Pass	
NVNT	3-DH1	2478.834	2479.834	1.000	0.865	Pass	

Carrier Frequencies Separation

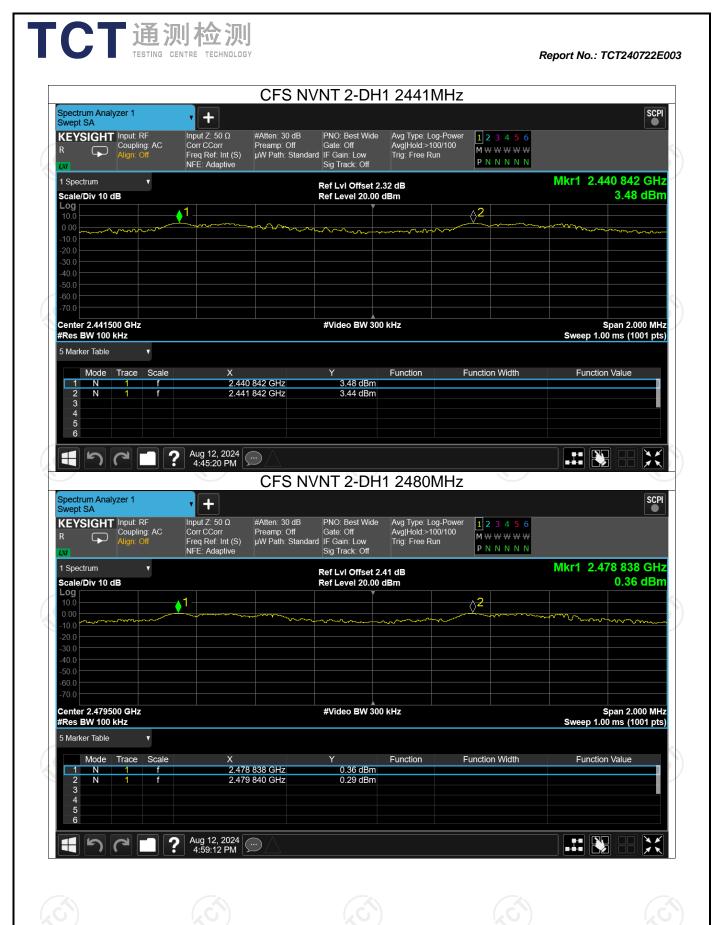


Report No.: TCT240722E003 **Test Graphs** CFS NVNT 1-DH1 2402MHz Spectrum Analyzer 1 Swept SA SCPI + Input Z: 50 Ω Corr CCorr Freq Ref: Int (S) NFE: Adaptive REYSIGHT Input: RF Coupling: AC PNO: Best Wide Gate: Off Avg Type: Log-Power Avg|Hold:>100/100 Trig: Free Run #Atten: 30 dB 1 2 3 4 5 6 Preamp: Off Gate: Off μW Path: Standard IF Gain: Low <u> ₩ ₩ ₩ ₩ ₩</u> \frown PNNNN Sig Track: Off Mkr1 2.402 007 GHz 1 Spectrum Ref LvI Offset 2.19 dB 4.11 dBm Scale/Div 10 dB Ref Level 20.00 dBm .00 **♦**1 **∂**2 Center 2.402500 GHz #Res BW 100 kHz Span 2.000 MHz Sweep 1.00 ms (1001 pts) #Video BW 300 kHz 5 Marker Table Mode Trace Scale Y Function Function Width Function Value X 2.402 007 GHz 2.403 006 GHz 4.11 dBm 2 Ν 4.12 dBm 5 6 ? Aug 12, 2024 \mathbf{X} 2 5 **F** 1 CFS NVNT 1-DH1 2441MHz SCPI Spectrum Analyzer 1 + Swept SA REYSIGHT Input: RF Avg Type: Log-Power Avg|Hold:>100/100 Trig: Free Run Input Z: 50 Ω #Atten: 30 dB PNO: Best Wide **1 2 3 4 5 6** Corr CCorr Freq Ref: Int (S) NFE: Adaptive Preamp: Off Gate: Off µW Path: Standard IF Gain: Low Sig Track: Off \frown M ₩ ₩ ₩ ₩ ₩ 1 Spectrum Mkr1 2.440 993 GHz ۷ Ref LvI Offset 2.32 dB Ref Level 20.00 dBm 2.98 dBm Scale/Div 10 dB .00 ▲1 - <mark>∂</mark>2 Center 2.441500 GHz #Res BW 100 kHz Span 2.000 MHz Sweep 1.00 ms (1001 pts) #Video BW 300 kHz 5 Marker Table v Function Function Width Function Value Mode Trace Scale ^ 2.440 993 GHz 2.441 995 GHz 2.98 dBm 23 N 2.25 dBm 4 5 6 Aug 12, 2024 ? XX 5 6

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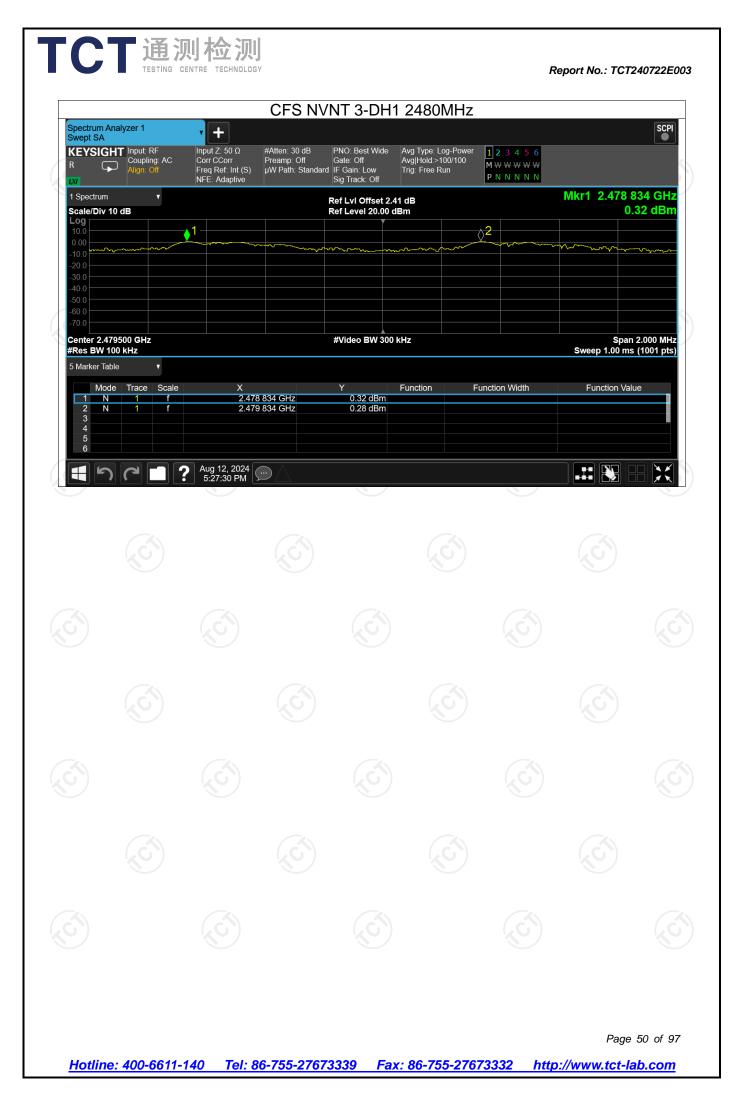
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Report No.: TCT240722E003 CFS NVNT 3-DH1 2402MHz Spectrum Analyzer 1 Swept SA SCPI + Input Z: 50 Ω Corr CCorr R Avg Type: Log-Power Avg|Hold:>100/100 Trig: Free Run #Atten: 30 dB PNO: Best Wide Gate: Off 1 2 3 4 5 6 #Atten Soff Gate: Oir Preamp: Off Gate: Oir µW Path: Standard IF Gain: Low Sig Track: Off **M** ₩ ₩ ₩ ₩ ₩ \frown Freq Ref: Int (S) PNNNN Mkr1 2.401 846 GHz 1 Spectrum Ref LvI Offset 2.19 dB Ref Level 20.00 dBm 4.51 dBm Scale/Div 10 dB **∂**2 1 Center 2.402500 GHz #Res BW 100 kHz Span 2.000 MHz Sweep 1.00 ms (1001 pts) #Video BW 300 kHz 5 Marker Table . Mode Scale Function Function Width Function Value Trace Х Y 2.401 846 GHz 2.402 850 GHz 4.51 dBm 4 49 dBm 2 Ν 3 4 5 6 Aug 12, 2024 5:28:20 PM じ つ つ ? \mathbf{X} CFS NVNT 3-DH1 2441MHz Spectrum Analyzer 1 Swept SA SCPI + R Coupling: AC Input Z: 50 Ω #Atten: 30 dB PNO: Best Wide Avg Type: Log-Power 1 2 3 4 5 6 Corr CCorr Freq Ref: Int (S) NFE: Adaptive Preamp: Off Gate: Off µW Path: Standard IF Gain: Low Avg|Hold:>100/100 Trig: Free Run \mathbf{r} **M** ₩ ₩ ₩ ₩ Sig Track: Off Mkr1 2.440 840 GHz 1 Spectrum Ref Lvi Offset 2.32 dB Ref Level 20.00 dBm Scale/Div 10 dB 3.50 dBm Log **∂**2 ▲1 Center 2.441500 GHz #Res BW 100 kHz Span 2.000 MHz Sweep 1.00 ms (1001 pts) #Video BW 300 kHz 5 Marker Table v Function Function Width Function Value Trace Scale Y Mode 2.440 840 GHz 3.50 dBm Ν 2.441 844 GHz 3.43 dBm 3 4 5 6 Aug 12, 2024 5:27:58 PM \mathbf{X} ? うつ

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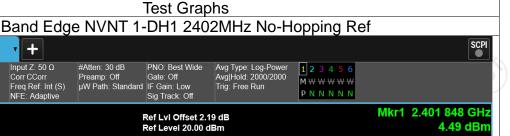


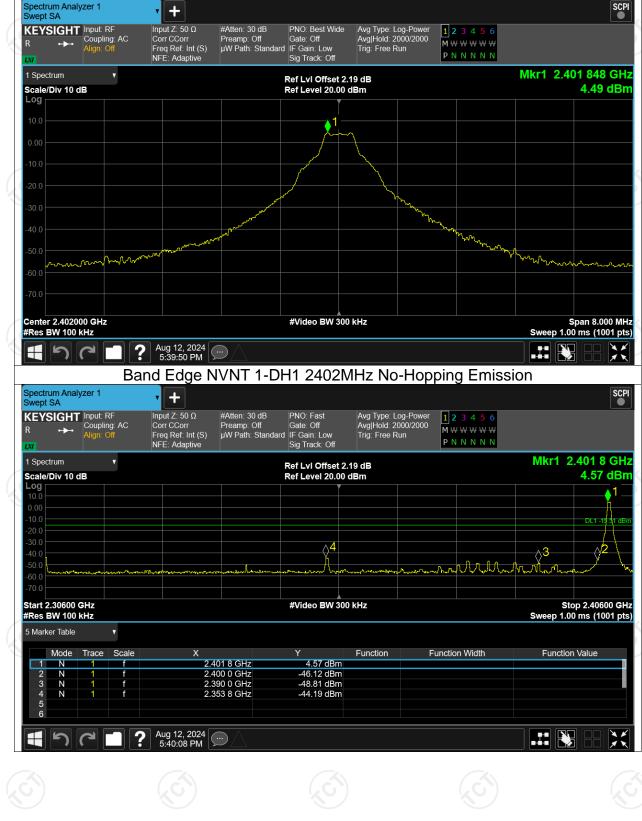
Report	No.:	TCT240722E003

Band Edge							
Condition	Mode	Frequency (MHz)	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict	
NVNT	1-DH1	2402	No-Hopping	-48.67	-20	Pass	
NVNT	1-DH1	2480	No-Hopping	-53.03	-20	Pass	
NVNT	2-DH1	2402	No-Hopping	-48.55	-20	Pass	
NVNT	2-DH1	2480	No-Hopping	-53.63	-20	Pass	
NVNT	3-DH1	2402	No-Hopping	-48.21	-20	Pass	
NVNT 🔇	3-DH1	2480	No-Hopping	-52.59	-20	Pass	

TCT 通测检测 TESTING CENTRE TECHNOLOGY

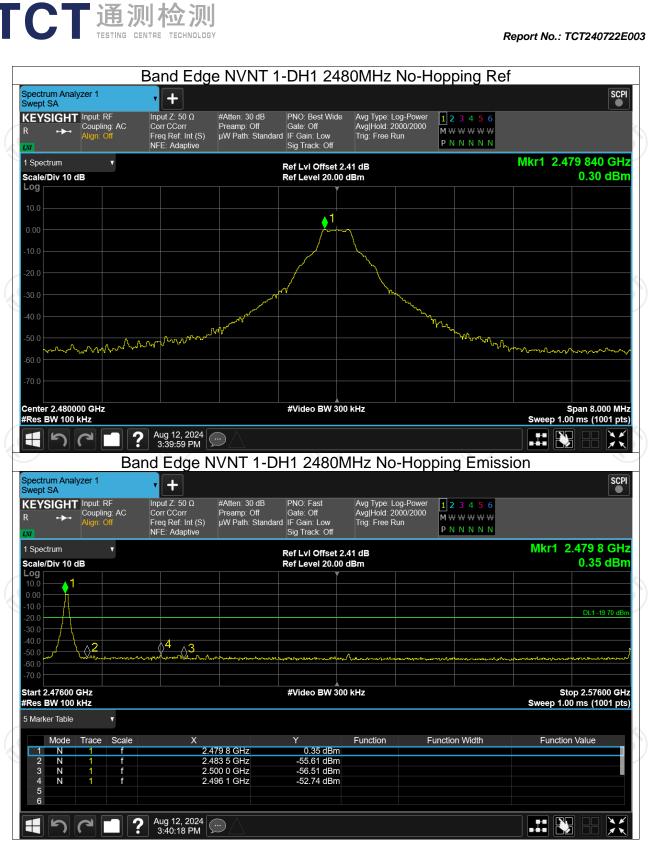
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CT 通测检测 TESTING CENTRE TECHNOLOGY

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Report No.: TCT240722E003 Band Edge NVNT 2-DH1 2402MHz No-Hopping Ref Spectrum Analyzer 1 Swept SA SCPI + ۰ Input Z: 50 Ω Corr CCorr REYSIGHT Input: RF Coupling: AC #Atten: 30 dB PNO: Best Wide Avg Type: Log-Power Avg|Hold: 2000/2000 **1 2 3 4 5 6** Preamp: Off Gate: On µW Path: Standard IF Gain: Low Sig Track: Off M ₩ ₩ ₩ ₩ ₩ Freq Ref: Int (S) NFE: Adaptive Trig: Free Run PNNNN Mkr1 2.401 848 GHz 1 Spectrum Ref LvI Offset 2.19 dB 4.51 dBm Scale/Div 10 dB Ref Level 20.00 dBm Loc 1 vvv Mun man man - and Span 8.000 MHz Sweep 1.00 ms (1001 pts) Center 2.402000 GHz #Res BW 100 kHz #Video BW 300 kHz **?** Aug 12, 2024 ... FH-3 (Band Edge NVNT 2-DH1 2402MHz No-Hopping Emission SCPI Spectrum Analyzer 1 + Swept SA R Avg Type: Log-Power Avg|Hold: 2000/2000 Trig: Free Run Input Z: 50 Ω #Atten: 30 dB PNO: Fast 1 2 3 4 5 6 Corr CCorr Freq Ref: Int (S) Preamp: Off Gate: Off µW Path: Standard IF Gain: Low **M** ₩ ₩ ₩ ₩ NFE: Adaptive Sig Track: Off Mkr1 2.401 8 GHz 1 Spectrum Ref Lvi Offset 2.19 dB Ref Level 20.00 dBm Scale/Div 10 dB 4.62 dBm .og 1 DH. **∆**4 D ___3 √~~~~~ V Markanta Start 2.30600 GHz #Res BW 100 kHz Stop 2.40600 GHz Sweep 1.00 ms (1001 pts) #Video BW 300 kHz 5 Marker Table v Function Function Width Function Value Trace Scale Y Mode Х 4.62 dBm -45.49 dBm -53.75 dBm 2.401 8 GHz 2.400 0 GHz 2.390 0 GHz 2 3 4 Ν Ν N 2.354 0 GHz -44.04 dBm 5 6 Aug 12, 2024 4:36:28 PM ち \mathbf{X} P ?

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Band Edge NVNT 2-DH1 2480MHz No-Hopping Ref Spectrum Analyzer 1 Swept SA SCPI + v Input Z: 50 Ω Corr CCorr REYSIGHT Input: RF Coupling: AC #Atten: 30 dB PNO: Best Wide Avg Type: Log-Power Avg|Hold: 2000/2000 **1 2 3 4 5 6** Preamp: Off Gate: On µW Path: Standard IF Gain: Low Sig Track: Off M ₩ ₩ ₩ ₩ ₩ Freq Ref: Int (S) NFE: Adaptive Trig: Free Run PNNNN Mkr1 2.479 840 GHz 1 Spectrum Ref LvI Offset 2.41 dB 0.37 dBm Scale/Div 10 dB Ref Level 20.00 dBm Loc 1 mahannom N-m mm Span 8.000 MHz Sweep 1.00 ms (1001 pts) Center 2.480000 GHz #Res BW 100 kHz #Video BW 300 kHz **?** Aug 12, 2024 FH-3 (Band Edge NVNT 2-DH1 2480MHz No-Hopping Emission SCPI Spectrum Analyzer 1 + Swept SA R Avg Type: Log-Power Avg|Hold: 2000/2000 Trig: Free Run Input Z: 50 Ω #Atten: 30 dB PNO: Fast 1 2 3 4 5 6 Corr CCorr Freq Ref: Int (S) Preamp: Off Gate: Off µW Path: Standard IF Gain: Low **M** ₩ ₩ ₩ ₩ NFE: Adaptive Sig Track: Off Mkr1 2.479 8 GHz 1 Spectrum ۷ Ref Lvi Offset 2.41 dB Ref Level 20.00 dBm Scale/Div 10 dB 0.42 dBm .og **∂**2 \<mark>4</mark>3 λ Start 2.47600 GHz #Res BW 100 kHz Stop 2.57600 GHz Sweep 1.00 ms (1001 pts) #Video BW 300 kHz 5 Marker Table v Function Width Function Value Trace Scale Y Function Mode х * 0.42 dBm -55.82 dBm -55.72 dBm -53.27 dBm 2.479 8 GHz 2 3 4 Ν 2.483 5 GHz 2.500 0 GHz Ν N 2.499 0 GHz 5 6 Aug 12, 2024 4:20:48 PM P \mathbf{X} ち ?



Band Edge NVNT 3-DH1 2402MHz No-Hopping Ref Spectrum Analyzer 1 Swept SA SCPI + ۰ Input Z: 50 Ω Corr CCorr REYSIGHT Input: RF Coupling: AC #Atten: 30 dB PNO: Best Wide Avg Type: Log-Power Avg|Hold: 2000/2000 1 2 3 4 5 6 Preamp: Off Gate: On µW Path: Standard IF Gain: Low Sig Track: Off M ₩ ₩ ₩ ₩ ₩ Freq Ref: Int (S) NFE: Adaptive Trig: Free Run PNNNN Mkr1 2.401 848 GHz 1 Spectrum Ref LvI Offset 2.19 dB 4.54 dBm Scale/Div 10 dB Ref Level 20.00 dBm Loc ĭ1 www. man Span 8.000 MHz Sweep 1.00 ms (1001 pts) Center 2.402000 GHz #Res BW 100 kHz #Video BW 300 kHz **?** Aug 12, 2024 5:00:56 PM 12 FH-3 (Band Edge NVNT 3-DH1 2402MHz No-Hopping Emission SCPI Spectrum Analyzer 1 + Swept SA R Avg Type: Log-Power Avg|Hold: 2000/2000 Trig: Free Run Input Z: 50 Ω #Atten: 30 dB PNO: Fast 1 2 3 4 5 6 Corr CCorr Freq Ref: Int (S) Preamp: Off Gate: Off µW Path: Standard IF Gain: Low **M** ₩ ₩ ₩ ₩ ₩ NFE: Adaptive Sig Track: Off Mkr1 2.401 8 GHz 1 Spectrum Ref Lvi Offset 2.19 dB Ref Level 20.00 dBm Scale/Div 10 dB 4.60 dBm .og .1 $\wedge 4$ **≬**3 white man Stop 2.40600 GHz Sweep 1.00 ms (1001 pts) Start 2.30600 GHz #Video BW 300 kHz #Res BW 100 kHz 5 Marker Table v Function Width Function Value Trace Scale Y Function Mode Х 2.401 8 GHz 4.60 dBm 2.400 0 GHz 2.390 0 GHz 2 3 4 Ν -46.18 dBm -50.74 dBm Ν N 2.353 8 GHz -43.68 dBm 5 6 Aug 12, 2024 5:01:16 PM P \mathbf{X} 5 ? **Г** 1

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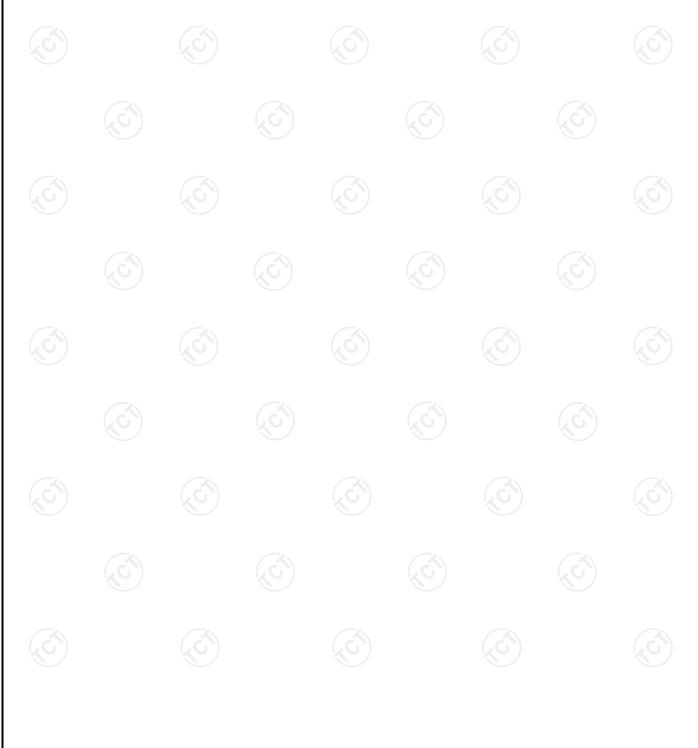
Band Edge NVNT 3-DH1 2480MHz No-Hopping Ref Spectrum Analyzer 1 Swept SA SCPI + ۰ Input Z: 50 Ω Corr CCorr REYSIGHT Input: RF Coupling: AC #Atten: 30 dB PNO: Best Wide Avg Type: Log-Power Avg|Hold: 2000/2000 **1 2 3 4 5 6** Preamp: Off Gate: On µW Path: Standard IF Gain: Low Sig Track: Off M ₩ ₩ ₩ ₩ ₩ Freq Ref: Int (S) NFE: Adaptive Trig: Free Run PNNNN Mkr1 2.479 840 GHz 1 Spectrum Ref LvI Offset 2.41 dB 0.33 dBm Scale/Div 10 dB Ref Level 20.00 dBm Loc ▲1 mannon w ᠕᠋᠋ᠰᢧᡳᡗ \sim Span 8.000 MHz Sweep 1.00 ms (1001 pts) Center 2.480000 GHz #Res BW 100 kHz #Video BW 300 kHz **?** Aug 12, 2024 5:10:39 PM FH-E 3 (Band Edge NVNT 3-DH1 2480MHz No-Hopping Emission SCPI Spectrum Analyzer 1 + Swept SA R Avg Type: Log-Power Avg|Hold: 2000/2000 Trig: Free Run Input Z: 50 Ω #Atten: 30 dB PNO: Fast 1 2 3 4 5 6 Corr CCorr Freq Ref: Int (S) Preamp: Off Gate: Off µW Path: Standard IF Gain: Low **M** ₩ ₩ ₩ ₩ NFE: Adaptive Sig Track: Off Mkr1 2.479 8 GHz 1 Spectrum ۷ Ref Lvi Offset 2.41 dB Ref Level 20.00 dBm Scale/Div 10 dB 0.36 dBm .og **∂**2 **∆**A3 Start 2.47600 GHz #Res BW 100 kHz Stop 2.57600 GHz Sweep 1.00 ms (1001 pts) #Video BW 300 kHz 5 Marker Table v Function Width Function Value Trace Scale Y Function Mode х 0.36 dBm -55.70 dBm -55.68 dBm 2.479 8 GHz 2 3 4 Ν 2.483 5 GHz 2.500 0 GHz Ν N 2.499 2 GHz -52.26 dBm 5 6 Aug 12, 2024 5:10:58 PM \mathbf{X} 5 P ? **Г** 1

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Report	No.:	TCT240722E003

Condition	Mode	Frequency (MHz)	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Hopping	-46.75	-20	Pass
NVNT	1-DH1	2480	Hopping	-44.56	-20	Pass
NVNT	2-DH1	2402	Hopping	-46.77	-20	Pass
NVNT	2-DH1	2480	Hopping	-43.76	-20	Pass
NVNT	3-DH1	2402	Hopping	-46.72	-20	Pass
NVNT 🔇	3-DH1	2480	Hopping	-43.91	-20	Pass

Band Edge(Hopping)



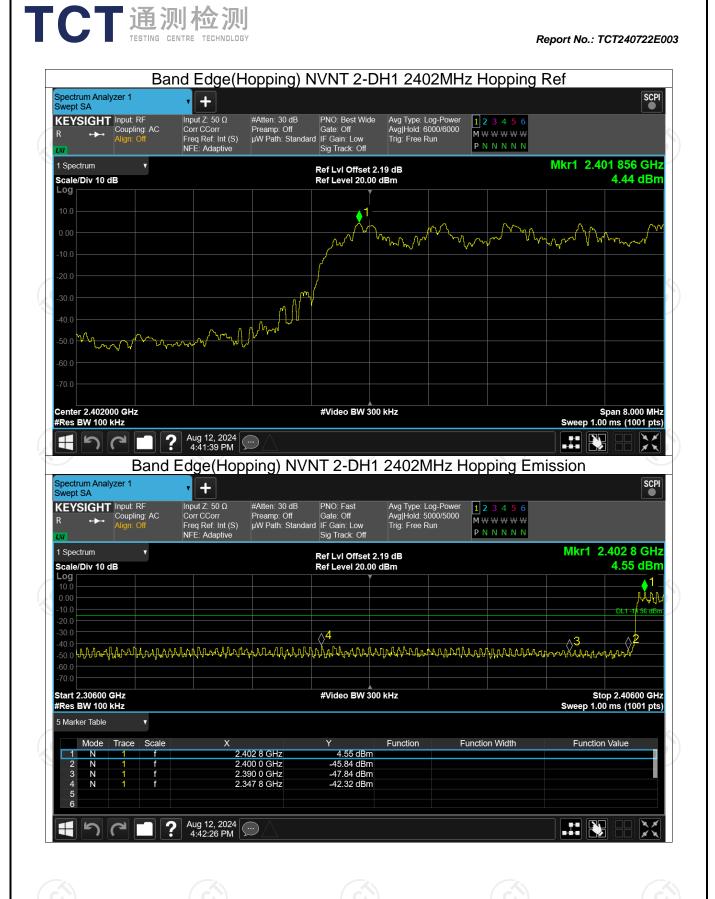
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Report No.: TCT240722E003 Test Graphs Band Edge(Hopping) NVNT 1-DH1 2402MHz Hopping Ref Spectrum Analyzer 1 Swept SA SCPI + KEYSIGHT Input: RF Coupling: AC Input Z: 50 Ω Corr CCorr Freq Ref: Int (S) NFE: Adaptive Avg Type: Log-Power Avg|Hold: 6000/6000 #Atten: 30 dB PNO: Best Wide 1 2 3 4 5 6 Preamp: Off Gate: Off μW Path: Standard IF Gain: Low <u> ₩ ₩ ₩ ₩ ₩</u> Trig: Free Run PNNNN Sig Track: Off Mkr1 2.401 848 GHz 1 Spectrum ۲ Ref LvI Offset 2.19 dB 4.51 dBm Scale/Div 10 dB Ref Level 20.00 dBm 0 1 in Ma Center 2.402000 GHz #Res BW 100 kHz Span 8.000 MHz Sweep 1.00 ms (1001 pts) #Video BW 300 kHz Aug 12, 2024 $\mathbf{\tilde{\mathbf{x}}}$ う 2 Band Edge(Hopping) NVNT 1-DH1 2402MHz Hopping Emission pectrum Analyzer 1 SCPI + Swept SA Avg Type: Log-Power Avg|Hold: 5000/5000 Trig: Free Run REYSIGHT Input: RF Coupling: AC Input Z: 50 Ω #Atten: 30 dB PNO: Fast 1 2 3 4 5 6 Corr CCorr Freq Ref: Int (S) NFE: Adaptive Preamp: Off Gate: Off µW Path: Standard IF Gain: Low Sig Track: Off M ₩ ₩ ₩ ₩ ₩ PNNNN 1 Spectrum Mkr1 2.405 8 GHz ۷ Ref LvI Offset 2.19 dB Ref Level 20.00 dBm 4.54 dBm Scale/Div 10 dB .00 **≬**4 Stop 2.40600 GHz Sweep 1.00 ms (1001 pts) Start 2.30600 GHz #Video BW 300 kHz #Res BW 100 kHz 5 Marker Table . Function Function Width Function Value Scale Mode Trace Y 2.405 8 GHz 4.54 dBm 2.400 0 GHz 2.390 0 GHz -45.56 dBm -45.00 dBm -42.24 dBm N N 2 3 4 5 6 N 2.347 8 GHz Aug 12, 2024 ち 2 ?

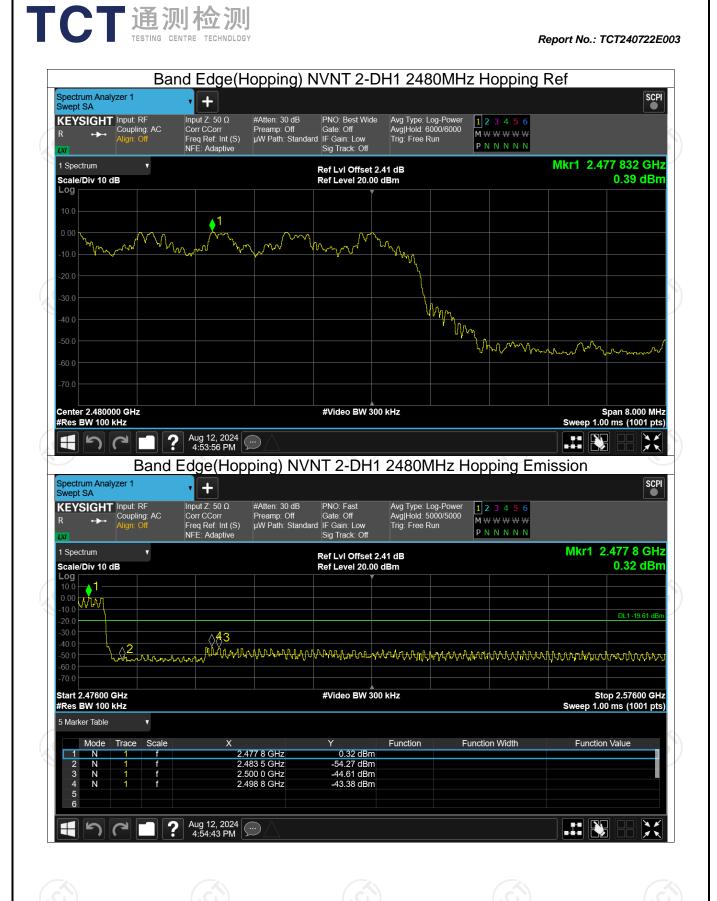
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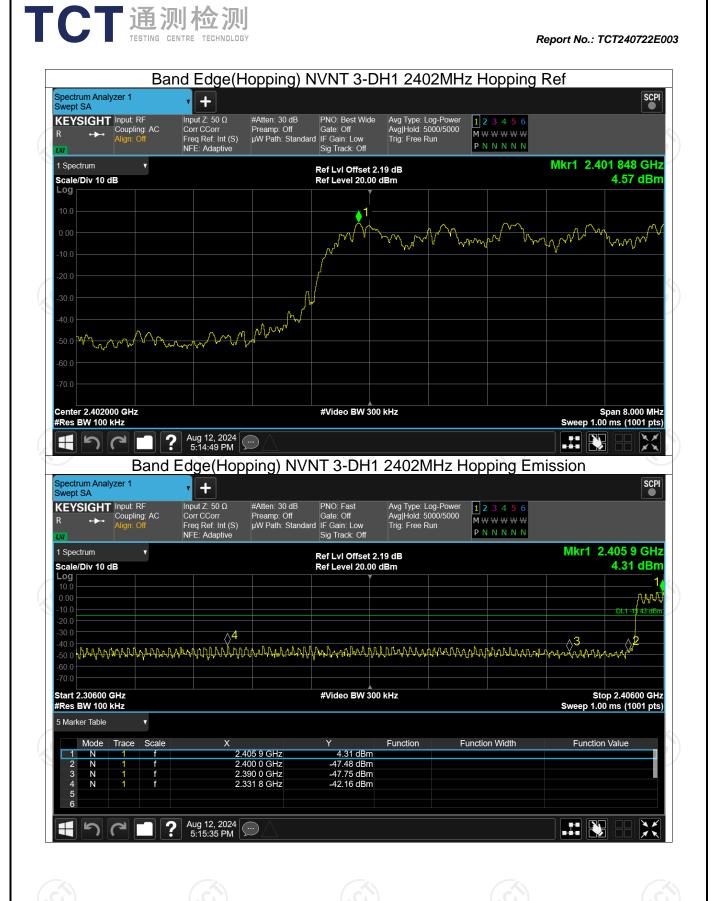
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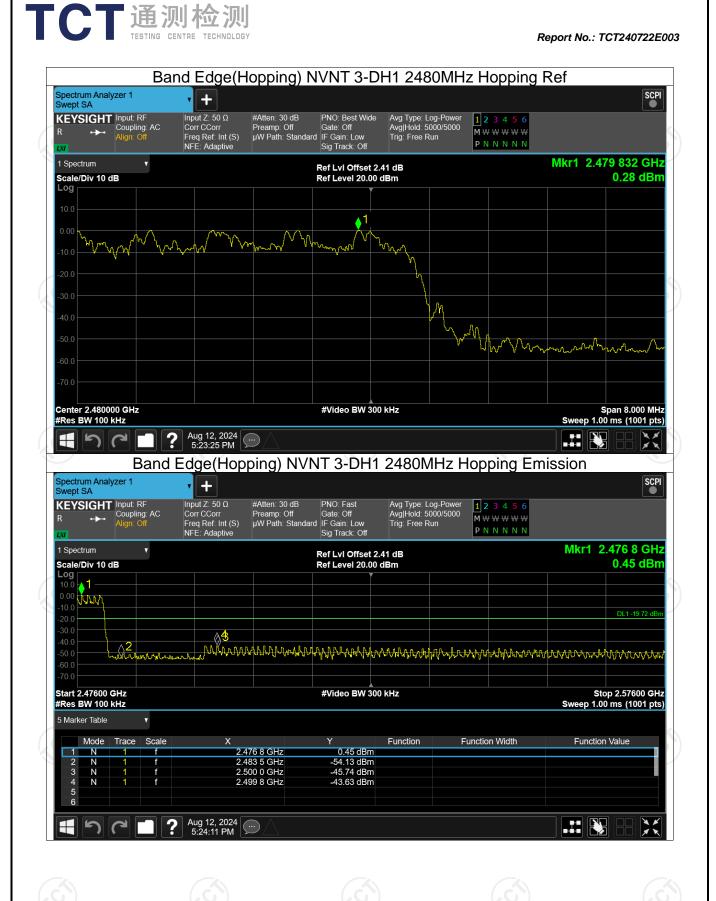
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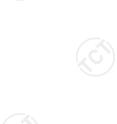


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Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Max Value (dBc)	Limit (dBc)	Verdict			
NVNT	1-DH1	2402	-48.87	-20	Pass			
NVNT	1-DH1	2441	-48.12	-20	Pass			
NVNT	1-DH1	2480	-45.48	-20	Pass			
NVNT	2-DH1	2402	-48.35	-20	Pass			
NVNT	2-DH1	2441	-48.33	-20	Pass			
NVNT	2-DH1	2480	-45.67	-20	Pass			
NVNT 🚫	3-DH1	2402	-48.41	-20	Pass			
NVNT	3-DH1	2441	-47.87	-20	Pass			
NVNT	3-DH1	2480	-45.36	-20	Pass			

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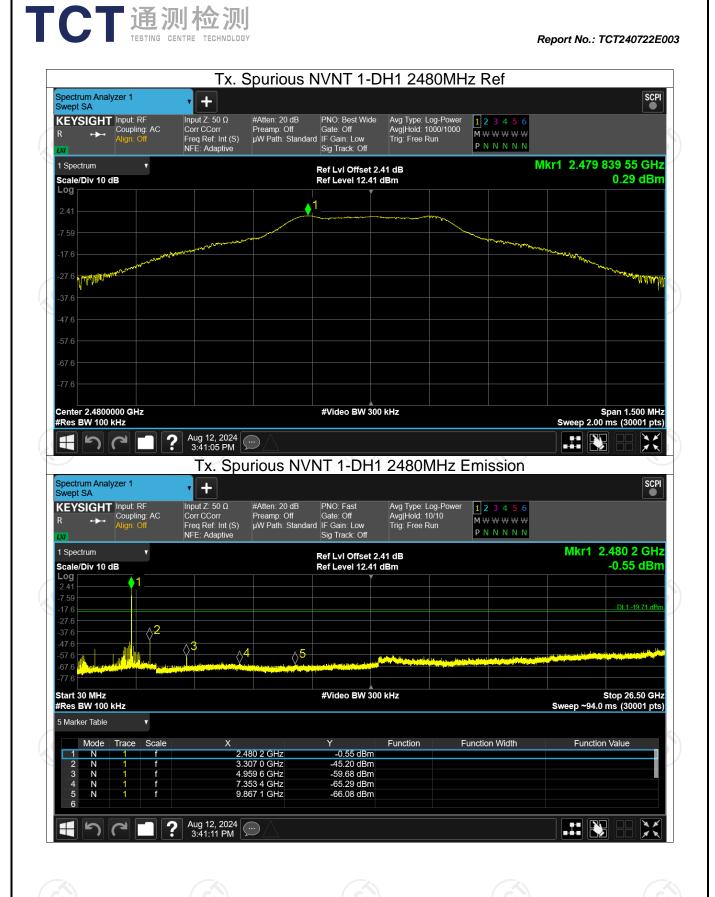
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CT 通测检测 TESTING CENTRE TECHNOLOGY Report No.: TCT240722E003 **Test Graphs** Tx. Spurious NVNT 1-DH1 2402MHz Ref Spectrum Analyzer 1 Swept SA SCPI + Input Z: 50 Ω Corr CCorr Freq Ref: Int (S) NFE: Adaptive KEYSIGHT Input: RF R +++ Coupling: AC PNO: Best Wide Gate: Off Avg Type: Log-Power Avg|Hold: 1000/1000 Trig: Free Run #Atten: 20 dB 1 2 3 4 5 6 Preamp: Off Gate: Off μW Path: Standard IF Gain: Low MWWWWW **----**PNNNN Sig Track: Off Mkr1 2.401 848 90 GHz 1 Spectrum Ref LvI Offset 2.19 dB 4.50 dBm Scale/Div 10 dB Ref Level 12.19 dBm Loc **∖**1 2.19 ALL ALL 27.8 37.8 57.8 Center 2.4020000 GHz #Res BW 100 kHz #Video BW 300 kHz Span 1.500 MHz Sweep 2.00 ms (30001 pts) う Aug 12, 2024 \mathbf{X} P ? Tx. Spurious NVNT 1-DH1 2402MHz Emission SCPI Spectrum Analyzer 1 + Swept SA REYSIGHT Input: RF Coupling: AC Avg Type: Log-Power Avg|Hold: 10/10 Trig: Free Run Input Z: 50 Ω #Atten: 20 dB PNO: Fast 1 2 3 4 5 6 Corr CCorr Freq Ref: Int (S) NFE: Adaptive Preamp: Off Gate: Off µW Path: Standard IF Gain: Low Sig Track: Off **→**→ M ₩ ₩ ₩ ₩ ₩ 1 Spectrum Mkr1 2.401 7 GHz ۷ Ref LvI Offset 2.19 dB Ref Level 12.19 dBm 3.04 dBm Scale/Div 10 dB .00 DL1 -15.50 d Δ2 37.8 **∂**3 47 8 **∂**4 **≬**5 Stop 26.50 GHz #Video BW 300 kHz Start 30 MHz #Res BW 100 kHz Sweep ~94.0 ms (30001 pts) 5 Marker Table . Function Function Width Function Value Trace Scale Mode Y 3.04 dBm 2.401 7 GHz 3.202 9 GHz 4.804 3 GHz 7.095 7 GHz 9.605 1 GHz -44.37 dBm -56.60 dBm -65.24 dBm N N 2 3 4 5 6 N N -66.19 dBm Aug 12, 2024 XX ? 5 6 **Г** 1

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Report No.: TCT240722E003 Tx. Spurious NVNT 1-DH1 2441MHz Ref Spectrum Analyzer 1 Swept SA SCPI + Input Z: 50 Ω Corr CCorr REYSIGHT Input: RF Coupling: AC #Atten: 20 dB PNO: Best Wide Avg Type: Log-Power Avg|Hold: 1000/1000 **1 2 3 4 5** 6 Preamp: Off Gate: On µW Path: Standard IF Gain: Low Sig Track: Off M ₩ ₩ ₩ ₩ ₩ Freq Ref: Int (S) NFE: Adaptive Trig: Free Run PNNNN Mkr1 2.440 841 00 GHz 1 Spectrum Ref LvI Offset 2.32 dB Ref Level 12.32 dBm 3.52 dBm Scale/Div 10 dB 1 ۸ www.www TH THM Span 1.500 MHz Sweep 2.00 ms (30001 pts) Center 2.4410000 GHz #Res BW 100 kHz #Video BW 300 kHz Aug 12, 2024 XX ? E) H 3 (Tx. Spurious NVNT 1-DH1 2441MHz Emission SCPI Spectrum Analyzer 1 + Swept SA KEYSIGHT Input: RF Input Z: 50 Ω #Atten: 20 dB PNO: Fast Avg Type: Log-Power 1 2 3 4 5 6 Coupling: AC Corr CCorr Freq Ref: Int (S) Preamp: Off Gate: Off µW Path: Standard IF Gain: Low Avg|Hold: 10/10 Trig: Free Run **M** ₩ ₩ ₩ ₩ R + NFE: Adaptive Sig Track: Off Mkr1 2.440 5 GHz 1 Spectrum ۷ Ref Lvi Offset 2.32 dB Ref Level 12.32 dBm Scale/Div 10 dB 3.54 dBm .og 1 7 68 DL1 -16.48 dE **∂**2 **∆**3 **∂**4 **∂**5 Start 30 MHz #Res BW 100 kHz Stop 26.50 GHz Sweep ~94.0 ms (30001 pts) #Video BW 300 kHz 5 Marker Table v Function Function Width Function Value Trace Scale Y Mode х 2.440 5 GHz 3.54 dBm 3.254 9 GHz 4.882 0 GHz 7.140 7 GHz 9.872 4 GHz N N -44.60 dBm -59.01 dBm 2 3 4 N -65.09 dBm 5 6 -65.93 dBm Aug 12, 2024 ち P \mathbf{X} ? **Г** 1

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