	<b>TEST REPO</b>	RT			
FCC ID	2AT8X-FALCONANC				
Test Report No:	TCT211206E001				
Date of issue:	Dec. 13, 2021				
Testing laboratory:	SHENZHEN TONGCE TEST	ING LAB			
Testing location/ address:	TCT Testing Industrial Park I Street, Bao'an District Shenz Republic of China				
Applicant's name: :	Noble HiFi. LLC				
Address:	109 State Hwy. 110 S, White	house, Texas 7	5791, United States		
Manufacturer's name :	SHENZHEN SHI KISB ELEC	TRONIC CO., I	_TD.		
Address:	F4, 5, BlockB, F3, Building A, Shanghe Industrial Park, Nanchang Village, Hangcheng Avenue, Xixiang Town, Bao'an District, Shenzhen City, Guangdong Province, China.(Zip Code: 518000)				
Standard(s) :	FCC CFR Title 47 Part 15 St FCC KDB 558074 D01 15.24 ANSI C63.10:2013	•			
Test item description :	True Wireless Stereo Earbuc	ls			
Trade Mark:	NOBLE				
Model/Type reference :	Falcon ANC				
Rating(s):	Rechargeable Li-ion Battery	DC 3.6V	$(\mathcal{G})$		
Date of receipt of test item	Dec. 06, 2021				
Date (s) of performance of test:	Dec. 06, 2021 - Dec. 13, 202	1			
Tested by (+signature) :	Aaron MO	Aaron .	DECONGEE		
Check by (+signature) :					
Approved by (+signature):	Tomsin	Tomsin	Alto gt		
• •	oduced except in full, without his document may be altered				

# **Table of Contents**

TCT 通测检测 TESTING CENTRE TECHNOLOGY

1. General Product Information
1.1. EUT description
1.2. Model(s) list3
1.3. Operation Frequency
2. Test Result Summary
3. General Information
3.1. Test environment and mode5
3.2. Description of Support Units5
4. Facilities and Accreditations
4.1. Facilities
4.2. Location
4.3. Measurement Uncertainty
5. Test Results and Measurement Data7
5.1. Antenna requirement7
5.2. Conducted Emission
5.3. Conducted Output Power12
5.4. 20dB Occupy Bandwidth13
5.5. Carrier Frequencies Separation14
5.6. Hopping Channel Number16
5.7. Dwell Time17
5.8. Pseudorandom Frequency Hopping Sequence
5.9. Conducted Band Edge Measurement19
5.10.Conducted Spurious Emission Measurement
5.11.Radiated Spurious Emission Measurement21
Appendix A: Test Result of Conducted Test
Appendix B: Photographs of Test Setup
Appendix C: Photographs of EUT



## **1. General Product Information**

## 1.1. EUT description

Test item description:	True Wireless Stereo Earbuds		$(\mathbf{c})$
Model/Type reference:	Falcon ANC		
Sample Number:	TCT211206E001-0101		
Bluetooth Version:	V5.2	No.	
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:	Chip Antenna		
Antenna Gain:	5.22dBi		
Rating(s):	Rechargeable Li-ion Battery DC 3.6V		

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



## 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
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		()
Romark <sup>.</sup>	Channel 0 3	0 & 78 h	ave been to	stad for C	ESK m/4-D		NPSK

Remark: Channel 0, 39 & 78 have been tested for GFSK,  $\pi/4$ -DQPSK, 8DPSK modulation mode.



# 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:	25.0 °C	23.9 °C				
Humidity:	55 % RH	49 % RH				
Atmospheric Pressure:	1010 mbar	1010 mbar				
Test Software:						
Software Information:	Software Information: Blue Test3					
Power Level:	5					
Test Mode:						
Engineering mode:	Keep the EUT in continuous channel and modulations wi	• •				
above the ground plane of 3 polarities were performed. If the EUT continuously worki axis (X, Y & Z) and com- manipulating interconnectin from 1m to 4m in both worst-case(Z axis) are	8m & 1.5m for the measure on chamber. Measurements in During the test, each emission ng, investigated all operating usidered typical configuration g cables, rotating the turnta horizontal and vertical por shown in Test Results in tested, only worse case DH	n both horizontal and vertical n was maximized by: having g modes, rotated about all 3 n to obtain worst position, ble, varying antenna height larizations. 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 Nam		
Adapter	JD-050200	2012010907576735	1	JD	

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-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. Test Results and Measurement Data

## 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 chip antenna which permanently attached, and the best case gain of the antenna is 5.22dBi.





## 5.2. Conducted Emission

## 5.2.1. Test Specification

Test Requirement:	FCC Part15 C Section	15.207				
Test Method:	ANSI C63.10:2013					
Frequency Range:	150 kHz to 30 MHz					
Receiver setup:	RBW=9 kHz, VBW=30	) kHz, Sweep time	e=auto			
	Frequency range	Limit (	dBuV)			
	(MHz)	Quasi-peak	Áverage			
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:	40cm     80cm       Filter     AC power       Filter     AC power       Filter     AC power       E.U.T     AC power       Remarkc     E.U.T: Equipment Under Test       LISN: Line Impedence Stabilization Network       Test table height=0.8m					
Test Meder	E.U.T: Equipment Under Test LISN: Line Impedence Stabilization N Test table height=0.8m	letwork				
Test Mode:	E.U.T: Equipment Under Test LISN: Line Impedence Stabilization N Test table height=0.8m Charging mode		or through a line			
	<ul> <li>E.U.T. Equipment Under Test LISN Line Impedence Stabilization N Test table height=0.8m</li> <li>Charging mode</li> <li>1. The E.U.T is connel impedance stabiliz provides a 500hm/s measuring equipme</li> <li>2. The peripheral device power through a L coupling impedance refer to the block photographs).</li> <li>3. Both sides of A.C. conducted interferent emission, the relative the interface cables</li> </ul>	ected to an adapte zation network 50uH coupling im nt. ces are also conne ISN that provides with 50ohm tern diagram of the . line are checke nce. In order to fin re positions of equ must be changed	(L.I.S.N.). Thi apedance for th ected to the mai a 500hm/50ul nination. (Pleas test setup an ed for maximur nd the maximur ipment and all c l according to			
Test Mode: Test Procedure: Test Result:	<ul> <li>E.U.T. Equipment Under Test LISN Line Impedence Stabilization N Test table height=0.8m</li> <li>Charging mode</li> <li>1. The E.U.T is conner impedance stabiliz provides a 500hm/s measuring equipme</li> <li>2. The peripheral device power through a L coupling impedance refer to the block photographs).</li> <li>3. Both sides of A.C. conducted interferent emission, the relative</li> </ul>	ected to an adapte zation network 50uH coupling im nt. ces are also conne ISN that provides with 50ohm tern diagram of the . line are checke nce. In order to fin re positions of equ must be changed	(L.I.S.N.). Thi apedance for th ected to the mai a 500hm/50ul nination. (Pleas test setup an ed for maximur nd the maximur ipment and all o l according to			



#### 5.2.2. Test Instruments

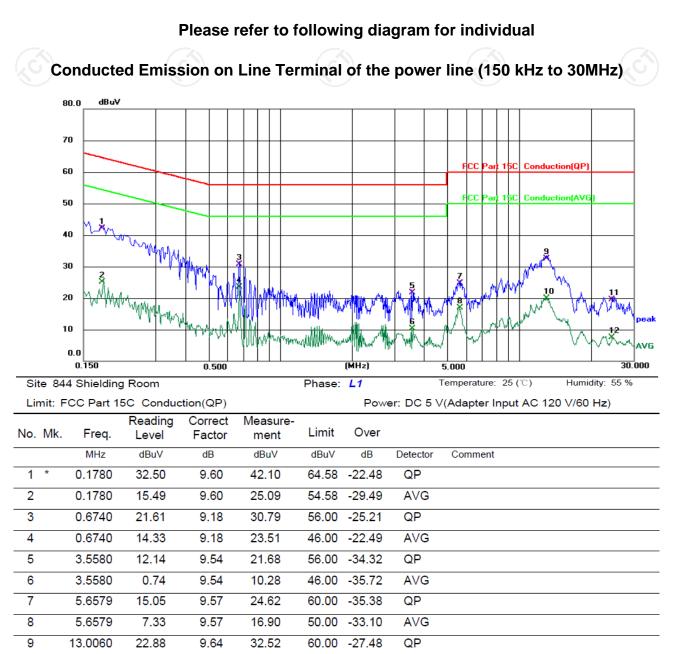
Conducted Emission Shielding Room Test Site (843)									
Equipment	Manufacturer	Model	Serial Number	Calibration Due					
EMI Test Receiver	R&S	ESCI3	100898	Jul. 07, 2022					
Line Impedance Stabilisation Newtork(LISN)		NSLK 8126	8126453	Mar. 11, 2022					
Line-5 TCT		CE-05	N/A	Jul. 07, 2022					
EMI Test Software	Shurple Technology	EZ-EMC	N/A	N/A					



Page 9 of 94

#### 5.2.3. Test data

CT通测检测 TESTING CENTRE TECHNOLOGY



Note:

10 11

12

13.0060

24.3020

24.3020

10.32

9.69

-2.40

9.64

9.82

9.82

19.96

19.51

7.42

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.

Page 10 of 94

50.00 -30.04

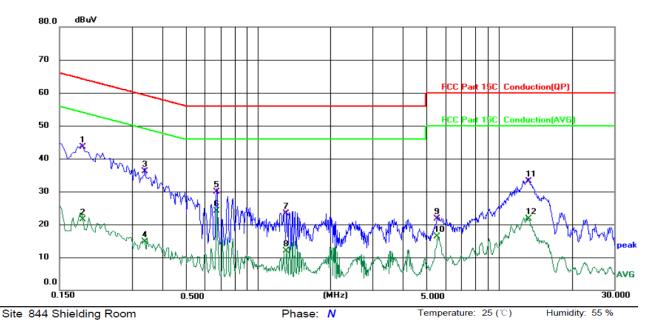
60.00 -40.49

50.00 -42.58

AVG

QP

AVG



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

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	*	0.1860	34.00	9.54	43.54	64.21	-20.67	QP	
2		0.1860	12.01	9.54	21.55	54.21	-32.66	AVG	
3		0.3379	26.82	9.32	36.14	59.25	-23.11	QP	
4		0.3379	5.40	9.32	14.72	49.25	-34.53	AVG	
5		0.6740	20.76	9.21	29.97	56.00	-26.03	QP	
6		0.6740	14.84	9.21	24.05	46.00	-21.95	AVG	
7		1.3140	13.94	9.33	23.27	56.00	-32.73	QP	
8		1.3140	2.55	9.33	11.88	46.00	-34.12	AVG	
9		5.5500	12.13	9.50	21.63	60.00	-38.37	QP	
10		5.5500	6.71	9.50	16.21	50.00	-33.79	AVG	
11		13.2060	23.51	9.65	33.16	60.00	-26.84	QP	
12		13.2060	12.08	9.65	21.73	50.00	-28.27	AVG	
1.00			1.07.1			1.5.3.4			1454

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 $\mu$ 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.

#### Note2:

Measurements were conducted in all three channels (high, middle, low) and three modulation (GFSK, Pi/4 DQPSK, 8DPSK), and the worst case Mode (Middle 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 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.				
Limit:					
Test Setup:	Spectrum Analyzer	EUT			
Test Mode:	Transmitting mode with n	nodulation			
Test Procedure:	Use the following spectrum analyzer settings: Span = approximately 5 times the 20 dB bandwin 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 peak of the emission				
	peak of the emission. PASS				

#### 5.3.2. Test Instruments

Name	Manufacturer	Model No.	Serial Number	<b>Calibration Due</b>
Spectrum Analyzer	Agilent	N9020A	MY49100619	Jul. 18, 2022
Combiner Box	Ascentest	AT890-RFB	S 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 EUT
Test Mode:	Transmitting mode with modulation
Test Procedure:	<ol> <li>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.</li> <li>Set to the maximum power setting and enable the EUT transmit continuously.</li> <li>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.</li> <li>Measure and record the results in the test report.</li> </ol>
Test Result:	PASS

#### 5.4.2. 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



## 5.5. 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 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.
Test Setup:	Spectrum Analyzer EUT
Test Mode:	Hopping mode
Test Procedure:	<ol> <li>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.</li> <li>Set to the maximum power setting and enable the EUT transmit continuously.</li> <li>Enable the EUT hopping function.</li> <li>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.</li> <li>Use the marker-delta function to determine the separation between the peaks of the adjacent channels. Record the value in report.</li> </ol>
Test Result:	PASS

Page 14 of 94



## 5.5.2. Test Instruments

	Name	Manufa	cturer	Model No.	Seria	al Number	Calibratio	on Due
Sp Ar	ectrum nalyzer	Agile	ent	N9020A	MY4	9100619	Jul. 18, 2	2022
	biner Box	Ascen	itest	AT890-RFE	3	N/A	Jul. 07, 2	2022



## 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:	
Test Mode:	Spectrum Analyzer         Eur           Hopping mode
Test Procedure:	<ol> <li>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.</li> <li>Set to the maximum power setting and enable the EUT transmit continuously.</li> <li>Enable the EUT hopping function.</li> <li>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.</li> <li>The number of hopping frequency used is defined as the number of total channel.</li> <li>Record the measurement data in report.</li> </ol>
Test Result:	PASS
5.6.2 Tost Instruments	

#### 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

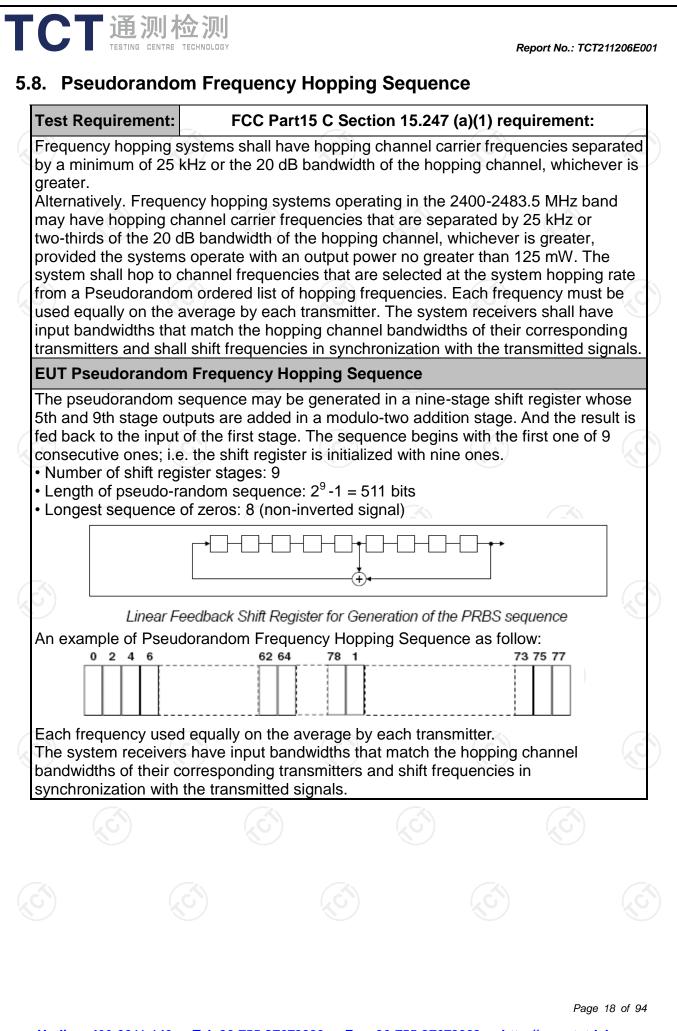
## 5.7. Dwell Time

#### 5.7.1. Test Specification

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:	<ol> <li>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.</li> <li>Set to the maximum power setting and enable the EUT transmit continuously.</li> <li>Enable the EUT hopping function.</li> <li>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 &gt;&gt; 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.</li> <li>Measure and record the results in the test report.</li> </ol>
Test Result:	PASS

#### 5.7.2. Test Instruments

Name	Manufacturer	Model No.	Serial Number	<b>Calibration Due</b>
Spectrum Analyzer	Agilent	N9020A	MY49100619	Jul. 18, 2022
Combiner Box	Ascentest	AT890-RFB	N/A	Jul. 07, 2022
			<u>, ()</u>	$(\mathbf{G})$





## 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:	<ol> <li>Set to the maximum power setting and enable the EUT transmit continuously.</li> <li>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.</li> <li>Enable hopping function of the EUT and then repeat step 2 and 3.</li> <li>Measure and record the results in the test report.</li> </ol>
Test Result:	PASS

#### 5.9.2. Test Instruments

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



## 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:	<ol> <li>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.</li> <li>Set to the maximum power setting and enable the EUT transmit continuously.</li> <li>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.</li> <li>Measure and record the results in the test report.</li> <li>The RF fundamental frequency should be excluded against the limit line in the operating frequency band.</li> </ol>
Test Result:	PASS

#### 5.10.2. Test Instruments

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





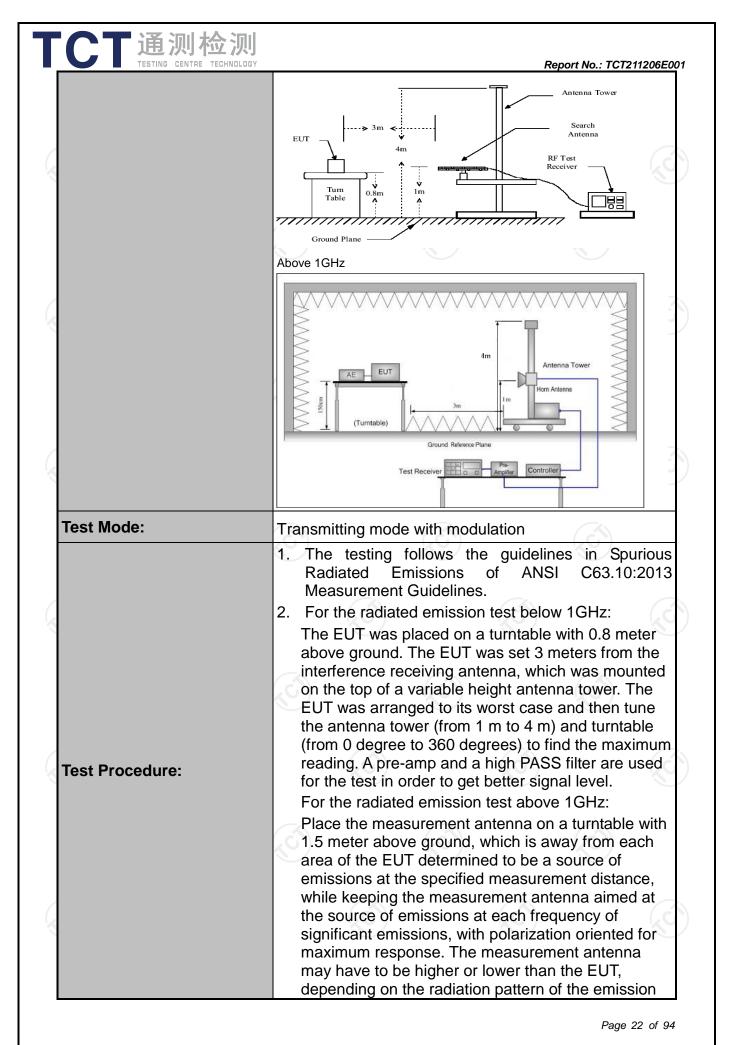
## 5.11. Radiated Spurious Emission Measurement

#### 5.11.1. Test Specification

TCT通测检测 TESTING CENTRE TECHNOLOGY

Test Requirement:	FCC Part15	C Sectior	15.209 ו			
Test Method:	ANSI C63.10	):2013				
Frequency Range:	9 kHz to 25 (	GHz			G	6
Measurement Distance:	3 m				R	)
Antenna Polarization:	Horizontal &	Vertical				
	Frequency	Detector	RBW	VBW	Remark	
	9kHz- 150kHz	Quasi-pea	k 200Hz	1kHz	Quas	si-peak Value
Receiver Setup:	150kHz- 30MHz	Quasi-pea	k 9kHz	30kHz	Quas	si-peak Value
	30MHz-1GHz	Quasi-pea	k 120KHz	300KHz	Quas	si-peak Value
	Above 1GHz	Peak	1MHz	3MHz		eak Value
	Above Tonz	Peak	1MHz	10Hz	Ave	erage Value
	_		Field Str	enath	Ме	asurement
	Frequer	су	(microvolts			nce (meters)
	0.009-0.4	190	2400/F(			300
	0.490-1.7		24000/F	(KHz)		30
	1.705-3		30			30
	30-88		100			3
l institu	88-216	150		- (_C	3	
Limit:	216-96 Above 9	200 500		3		
	Frequency		ld Strength ovolts/meter)	Measure Distan	ice	Detector
		(1110)	-	(mete	ers) Average	
	Above 1GH	<u>z</u>	500 5000	3		Average Peak
Test setup:	For radiated emis	stance = 3m	y 30MHz		Compu	
			(			
						Page 21 of s

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



	rece mea max ante rest abo 3. Set EU 4. Use (1) (2)	= max ho For avera correctior 15.35(c). [	aximum si antenna ele emissions ion for max ange of he ind or refer ximum pov continuous ing spectru wide enou eing meas ±120 kHz fo z ; VBW≥R auto; Dete ld for peak ige measur factor me Duty cycle	emission s ignal. The evation sha . The meas kimum emi eights of fro ence grou wer setting ly. um analyze ugh to fully sured; or f < 1 GH BW; ector function rement: us thod per = On time/	final all be that surement issions sha om 1 m to nd plane. g and enal er settings: capture the lz, RBW=1 on = peak se duty cyc	whicl all be 4 m ble th : ne i MHz ; Trac cle
	Ś	Where N length of Average Level + 2 Corrected	1 is numbe type 1 puls Emission L 0*log(Duty Reading: A	er of type 1 ses, etc. evel = Pea cycle) Antenna Fa	pulses, L ak Emissic actor + Ca	1 is on ble
est results:	PASS	Where N length of Average Level + 2	1 is numbe type 1 puls Emission L 0*log(Duty Reading: A	er of type 1 ses, etc. evel = Pea cycle) Antenna Fa	pulses, L ak Emissic actor + Ca	1 is on ble
est results:	PASS	Where N length of Average Level + 2 Corrected	1 is numbe type 1 puls Emission L 0*log(Duty Reading: A	er of type 1 ses, etc. evel = Pea cycle) Antenna Fa	pulses, L ak Emissic actor + Ca	1 is on ble
est results:	PASS	Where N length of Average Level + 2 Corrected	1 is numbe type 1 puls Emission L 0*log(Duty Reading: A	er of type 1 ses, etc. evel = Pea cycle) Antenna Fa	pulses, L ak Emissic actor + Ca	1 is on ble
est results:	PASS O	Where N length of Average Level + 2 Corrected	1 is numbe type 1 puls Emission L 0*log(Duty Reading: A	er of type 1 ses, etc. evel = Pea cycle) Antenna Fa	pulses, L ak Emissic actor + Ca	1 is on ble



## 5.11.2. Test Instruments

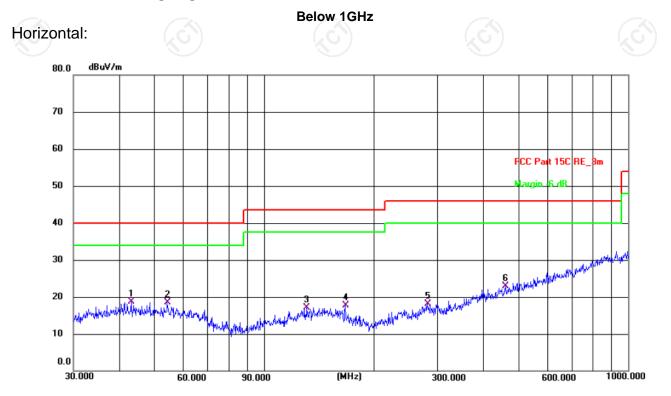
	Radiated En	nission Test Site	e (966)	
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
EMI Test Receiver	R&S	ESIB7	100197	Jul. 07, 2022
Spectrum Analyzer	R&S	FSQ40	200061	Jul. 07, 2022
Pre-amplifier	SKET	LNPA_0118G- 45	SK2021012 102	Mar. 11, 2022
Pre-amplifier	SKET	LNPA_1840G- 50	SK2021092 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
EMI Test Software		EZ-EMC	N/A	Ê

Page 24 of 94

#### 5.11.3. Test Data

TCT 通测检测 TESTING CENTRE TECHNOLOGY

#### Please refer to following diagram for individual



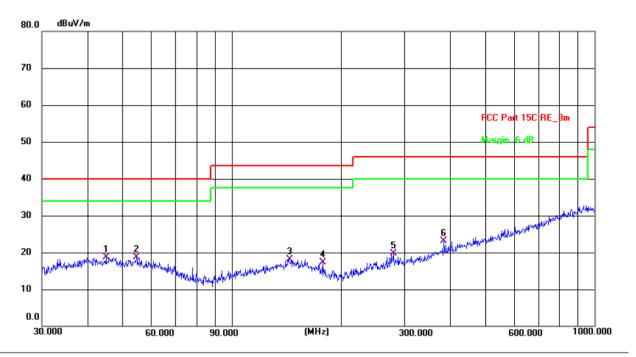
Site #2 3m Anechoic Chamber Limit: FCC Part 15C RE\_3m Polarization: *Horizontal* Power: DC 3.6 V Temperature: 23.9(C) Humidity: 49 %

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1 *	43.2017	4.87	13.93	18.80	40.00	-21.20	QP	Ρ	
2	54.2610	5.09	13.50	18.59	40.00	-21.41	QP	Ρ	
3	131.2965	4.43	12.69	17.12	43.50	-26.38	QP	Ρ	
4	167.2368	5.03	12.65	17.68	43.50	-25.82	QP	Ρ	
5	281.0075	3.89	14.16	18.05	46.00	-27.95	QP	Ρ	
6	460.7271	4.44	18.55	22.99	46.00	-23.01	QP	Ρ	



#### Vertical:

TCT通测检测



Site #	#2 3m Anecho	ic Chambe	er	Polarization: Vertical					emperature: 23.9(C)	Humidity: 49 %
Limit:	FCC Part 15	C RE_3m			Po	ver: DC	3.6 V			
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark	
1	45.0583	4.75	13.89	18.64	40.00	-21.36	QP	Ρ		
2 *	54.6428	5.18	13.47	18.65 40.00 -21.35 QP				Ρ		
3	143.8295	4.88	13.28	18.16	43.50	-25.34	QP	Ρ		
4	178.1327	5.82	11.50	17.32	43.50	-26.18	QP	Ρ		
5	279.0436	5.50	14.11	19.61	46.00	-26.39	QP	Ρ		
6	383.9318	23.06	46.00	-22.94	QP	Ρ				

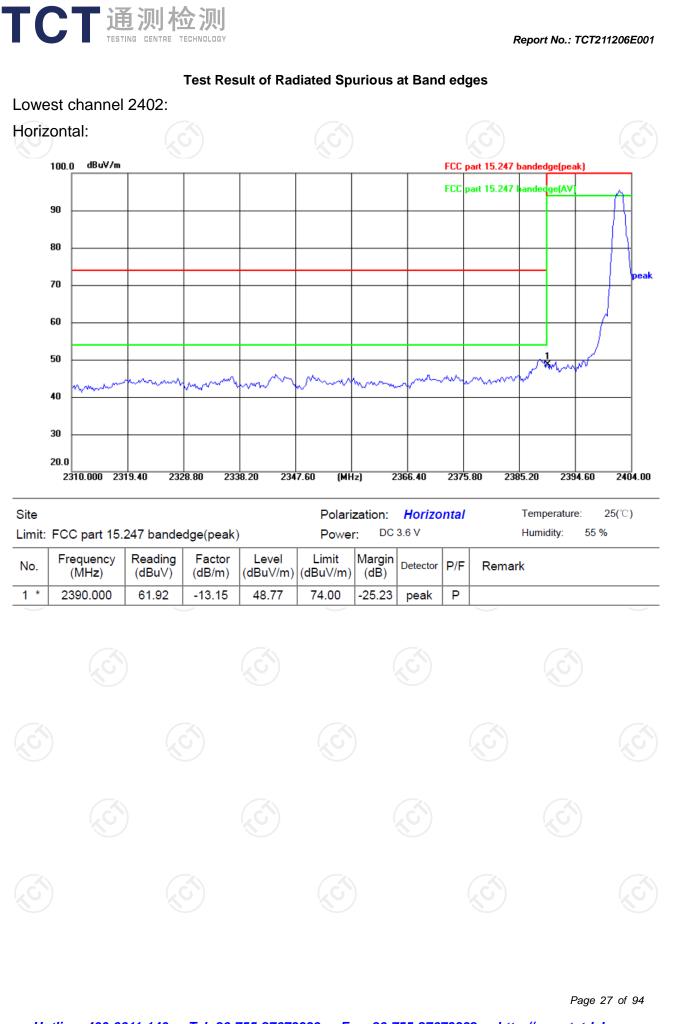
**Note:** 1. The low frequency, which started from 9KHz~30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.

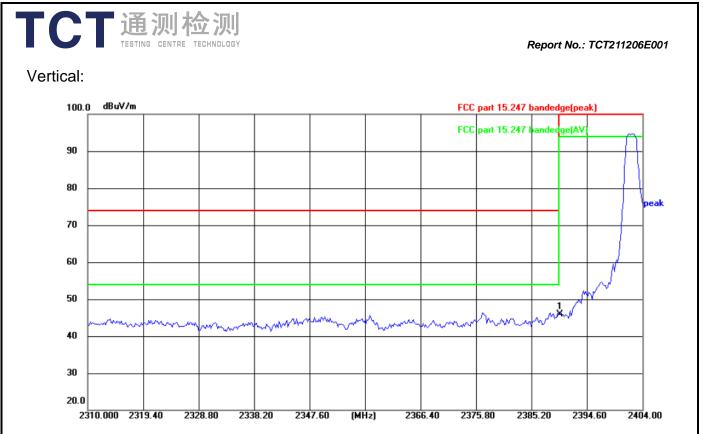
2. Measurements were conducted in all three channels (high, middle, low) and three modulation (GFSK, Pi/4 DQPSK, 8DPSK) and the worst case Mode (Middle channel and 8DPSK) was submitted only.

- 3. 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
- $Over (dB) = Measurement (dB\mu V/m) Limits (dB\mu V/m)$

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

Page 26 of 94



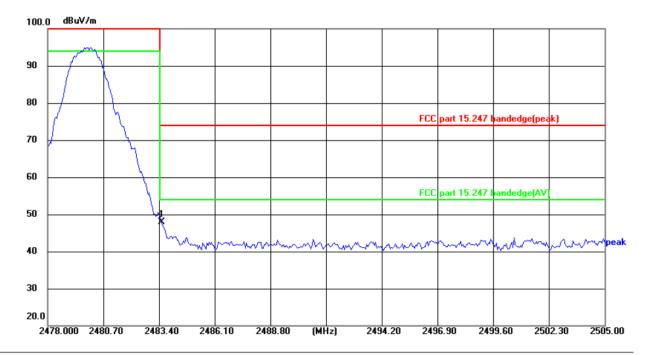


Site					Polari	zation:	Vertica	Temperature: 25(℃)			
Limit:	FCC part 15.	247 bande	dge(peak)	)	Power	r: DC	3.6 V		Humidity: 55 %		
No.	Frequency (MHz)	Reading (dBuV)		Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark		
1 *	2390.000	59.04	-13.15	45.89	74.00	-28.11	peak	Ρ			



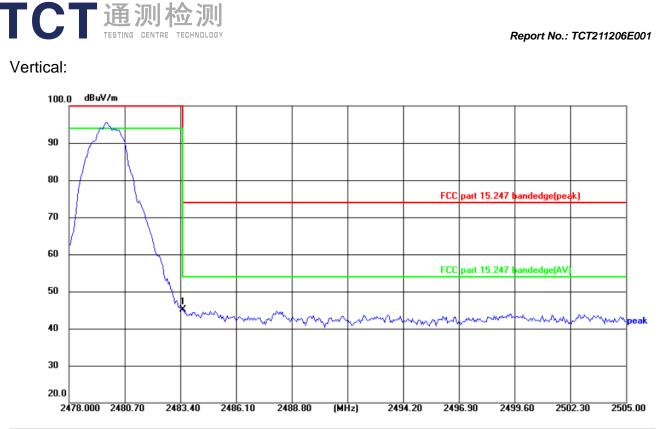
Highest channel 2480:

Horizontal:



Site					Polari	zation:	Horizo	ntal	Temperature: 25(°C)
Limit:	FCC part 15.	247 bande	dge(peak)	)	Power	: DC	3.6 V	Humidity: 55 %	
No.	Frequency (MHz)	Reading (dBu∀)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1 *	2483.500	60.69	-12.84	47.85	74.00	-26.15	peak	Ρ	





Site					Polari	zation:	Vertica	Temperature: 25(°C)	
Limit:	FCC part 15.	247 bande	dge(peak)		Power	r: DC	3.6 V	Humidity: 55 %	
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1 *	2483.500	58.03	-12.84	45.19	74.00	-28.81	peak	Ρ	

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

Page 30 of 94

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

#### 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	on Level AV (dBµV/m)	Peak limit (dBµV/m)	AV limit (dBµV/m)	Margin (dB)
4804	Н	44.86		0.66	45.52		74	54	-8.48
7206	Н	35.74		9.50	45.24		74	54	-8.76
	Н					~~~			
(	<b>C</b>		J.J	<ul> <li>)</li> </ul>	()	· ()		$(\mathcal{O})$	
4804	V	45.23		0.66	45.89	<u> </u>	74	54	-8.11
7206	V	35.98		9.50	45.48		74	54	-8.52
	V								

Middle cha	nnel: 2441	MHz		XC V	)		KO)		KC KC
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	45.16		0.99	46.15		74	54	-7.85
7323	KOH)	35.69	-120	9.87	45.56	0	74	54	-8.44
	Ĥ					<u> </u>		<u> </u>	
4882	V	43.52		0.99	44.51		74	54	-9.49
7323	V	34.17		9.87	44.04		74	54	-9.96
7	V			X	/				

#### High channel: 2480 MHz

**CT**通测检测 TESTING CENTRE TECHNOLOGY

Ant Pol	Peak	AV	Correction	Emissic	on Level	Peak limit	AV/ limit	Margin
H/V	reading (dBµV)	reading (dBµV)	Factor (dB/m)	Peak (dBµV/m)	AV			(dB)
Н	45.24		1.33	46.57		74	54	-7.43
Н	37.05		10.22	47.27		74	54	-6.73
Н								
	(G)		(.0			(G)		(.C
V	46.15		1.33	47.48		74	54	-6.52
V	37.22		10.22	47.44		74	54	-6.56
V								
ĺ	Ant. Pol. H/V H	Ant. Pol. H/V Peak reading (dBµV) H 45.24 H 37.05 H V 46.15 V 37.22	Ant. Pol. H/V         Peak reading (dBµV)         AV reading (dBµV)           H         45.24            H         37.05            H             V         46.15            V         37.22	Ant. Pol.         reading (dBµV)         reading (dBµV)         Factor (dBµN)           H         45.24          1.33           H         37.05          10.22           H           10.22           H           1.33           V         46.15          1.33           V         37.22          10.22	Ant. Pol. H/V         Peak reading (dBµV)         AV reading (dBµV)         Correction Factor (dB/m)         Emissic Peak (dBµV/m)           H         45.24          1.33         46.57           H         37.05          10.22         47.27           H           1.33         46.57           V         46.15          1.33         47.48           V         37.22          10.22         47.44	Ant. Pol. H/V         Peak reading (dBµV)         AV reading (dBµV)         Correction Factor (dB/m)         Emission Level Peak (dBµV/m)           H         45.24          1.33         46.57            H         37.05          10.22         47.27            H           1.33         46.57            H           10.22         47.27            V         46.15          1.33         47.48            V         37.22          10.22         47.44	Ant. Pol. H/V         Peak reading (dBµV)         AV reading (dBµV)         Correction Factor (dB/m)         Emission Level Peak (dBµV/m)         Peak limit (dBµV/m)           H         45.24          1.33         46.57          74           H         37.05          10.22         47.27          74           H           1.33         47.48          74           V         46.15          1.33         47.48          74           V         37.22          10.22         47.44          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 $\mu$ V/m)-Average limit (dB $\mu$ 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**

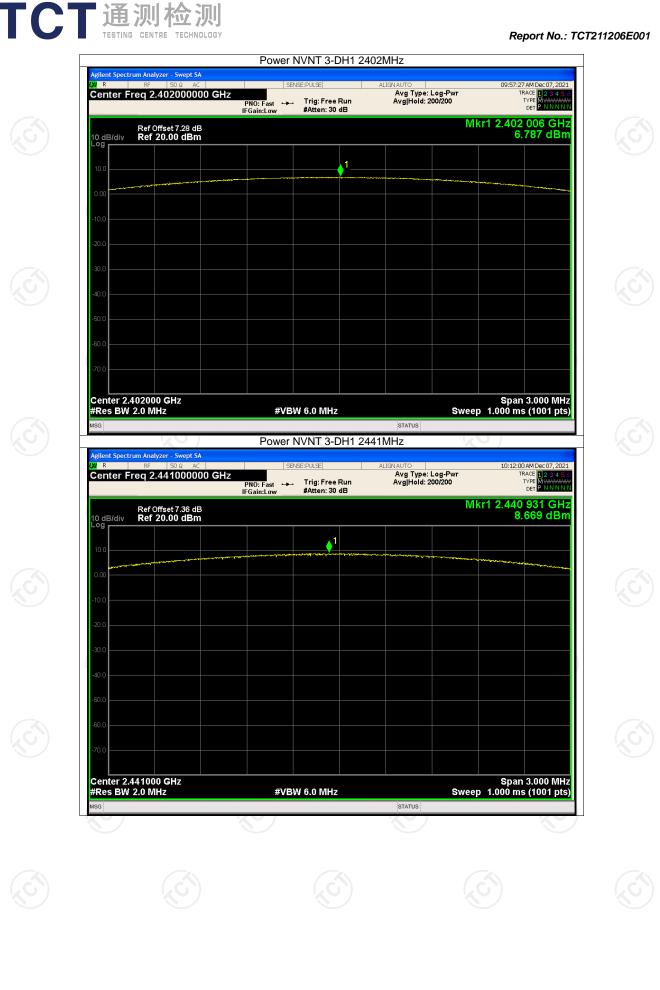
# **Maximum Conducted Output Power**

Condition	Mode	Frequency (MHz)	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	5.736	30	Pass
NVNT	1-DH1	2441	6.585	30	Pass
NVNT	1-DH1	2480	7.068	30	Pass
<b>NVNT</b>	2-DH1	2402	6.562	21	Pass
NVNT	2-DH1	2441	8.087	21	Pass
NVNT	2-DH1	2480	8.233	21	Pass
NVNT	3-DH1	2402	6.787	21	Pass
NVNT	3-DH1	2441	8.669	21	Pass
NVNT	3-DH1	2480	8.608	21	Pass



Page 32 of 94

a gradie Ref 20.00 dBm       S.087 dB         a gradie Ref 20.00 dBm       1         a gradie R
000       0
00         00
000       0
00 0 00 00 00 00 00 00 00 00 00 00 00 0
son son son son son son son son
son constrained of the second
Pour NVNT 2-DH1 2480MHz  senter 2.441000 GHz Res EW 2.0 MHz  #VBW 6.0 MHz  status  Power NVNT 2-DH1 2480MHz  Power NVNT 2-DH1 2480MHz  ether freq 2.480000000 GHz PN0: Fast PD0:
senter 2.441000 GH2 Res BW 2.0 MH2  *VBW 6.0 MH2  Span 3.000 Mi Sweep 1.000 ms (1001 pi sig  Power NVNT 2-DH1 2480MHz  Power NVNT 2-DH1 2480MHz  Ref 20.00 GH2 Pi00: Fast Pi00:
Res BW 2.0 MHz     Sweep 1.000 ms (1001 pr       Senter Freq 2.480000000 GHz     OP-WER NUNT 2-DH1 2480MHz       Planet Spectrum Analyzer - Swept SA       R     RF     SG Q     AC       PN0: Fast
Power NVNT 2-DH1 2480MHz  glient Spectrum Analyzer - Swept SA  R R P SO A C PHO: Fast
R         RF         50.0         AC         SENSE:PULSE         ALIGN AUTO         09:44:46 AMDec 07, 20           enter Freq 2.480000000 GHz         PN0: Fast IFGain:Low         Trig: Free Run #Atten: 30 dB         Avg Type: Log-Pwr AvgIHoid: 200/200         Trace Trace Trace Dec 123:4         Trig: Free Run #Atten: 30 dB         Mkr1 2.480 078 GH 8.233 dB           0 dB/div         Ref Offset 7.33 dB         8.233 dB         8.233 dB         8.233 dB           0 dB/div         Ref 20.00 dBm         1         1         1           0 dB/div         Ref 20.00 dBm         1         1         1           0 dB/div         Ref 20.00 dBm         1         1         1         1           0 dB/div         Ref 20.00 dBm         1         1         1         1         1           0 dB/div         Ref 20.00 dBm         1 </td
Ref Offset 7.33 dB         Mkr1 2.480 078 GF           000         1         1
0 dB/div       Ref 20.00 dBm       8.233 dB         0 d       1       1         0 d       1       1         0 d       1       1         0 d       1       1         0 d       1       1         0 d       1       1         0 d       1       1         0 d       1       1         0 d       1       1         0 d       1       1         0 d       1       1         0 d       1       1         0 d       1       1         0 d       1       1         0 d       1       1         0 d       1       1         0 d       1       1         0 d       1       1       1         1 d       1       1       1         1 d       1       1       1       1         1 d       1       1       1       1         1 d       1       1       1       1         1 d       1       1       1       1
50.0
60.0
70.0
Center 2.480000 GHz Span 3.000 MI #Res BW 2.0 MHz #VBW 6.0 MHz Sweep 1.000 ms (1001 pr
se status



Page 36 of 94

	通测检测 TESTING CENTRE TECHNOLOG		Г 3-DH1 2480MHz	Report No.:	TCT211206E0
	Agilent Spectrum Analyzer - Swept SA           XM         RF         50 Ω         AC           Center Freq 2.480000000 G	PNO: Fast ↔ Irig:	E ALIGNAUTO Avg Type: Lo : Free Run Avg Hold: 200 en: 30 dB	10:16:30 AM Dec 07, 202 g-Pwr TRACE 1 2 3 4 5 /200 TYPE MANANA DET PUNNIN	1 6 <del>**</del>
3	Ref Offset 7.33 dB 10 dB/div Ref 20.00 dBm 10 0 0.00	IF Gall.LUW Price	▲1 	Mkr1 2.479 940 GH 8.608 dBn	2
S)	-10.0 -20.0 -30.0 -40.0 -60.0				Ç
3	-70.0 Center 2.480000 GHz #Res BW 2.0 MHz	#VBW 6.0	MHz STATUS	Span 3.000 MH Sweep 1.000 ms (1001 pts	
					Page 37 of 94

Report No.: TCT211206E001



## -20dB Bandwidth

Condition	Mode	Frequency (MHz)	-20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	0.891	Pass
NVNT	1-DH1	2441	0.890	Pass
NVNT	1-DH1	2480	0.888	Pass
NVNT 📉	2-DH1	2402	1.356	Pass
NVNT	2-DH1	2441	1.345	Pass
NVNT	2-DH1	2480	1.353	Pass
NVNT	3-DH1	2402	1.344	Pass
NVNT	3-DH1	2441	1.323	Pass
<b>NVNT</b>	3-DH1	2480	1.335	Pass



















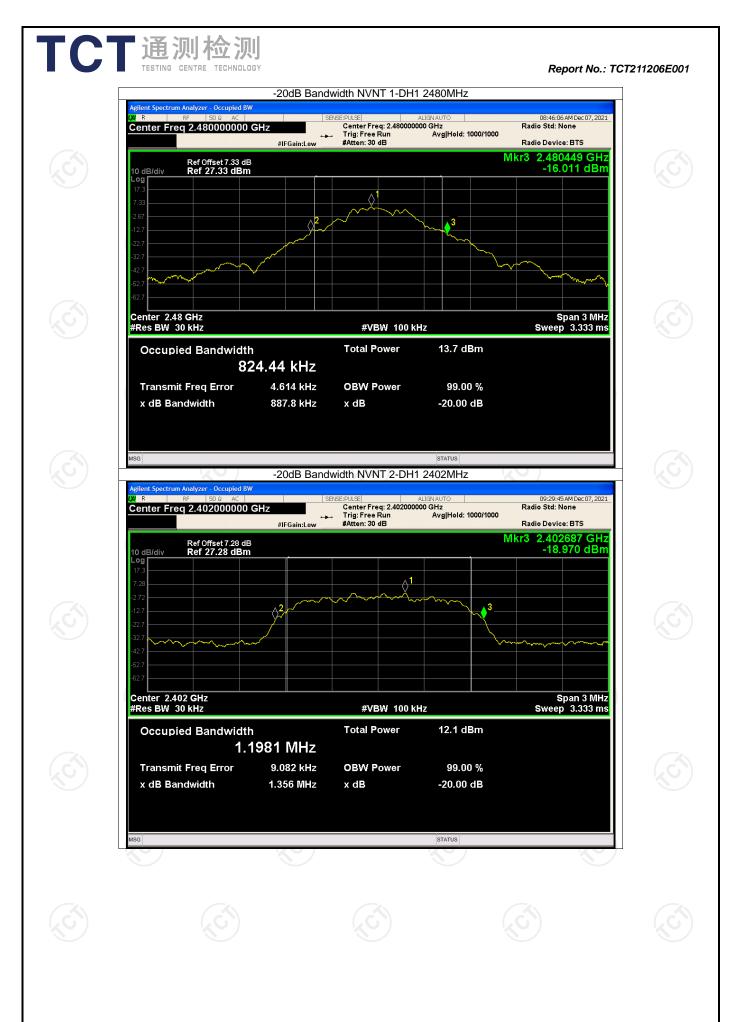




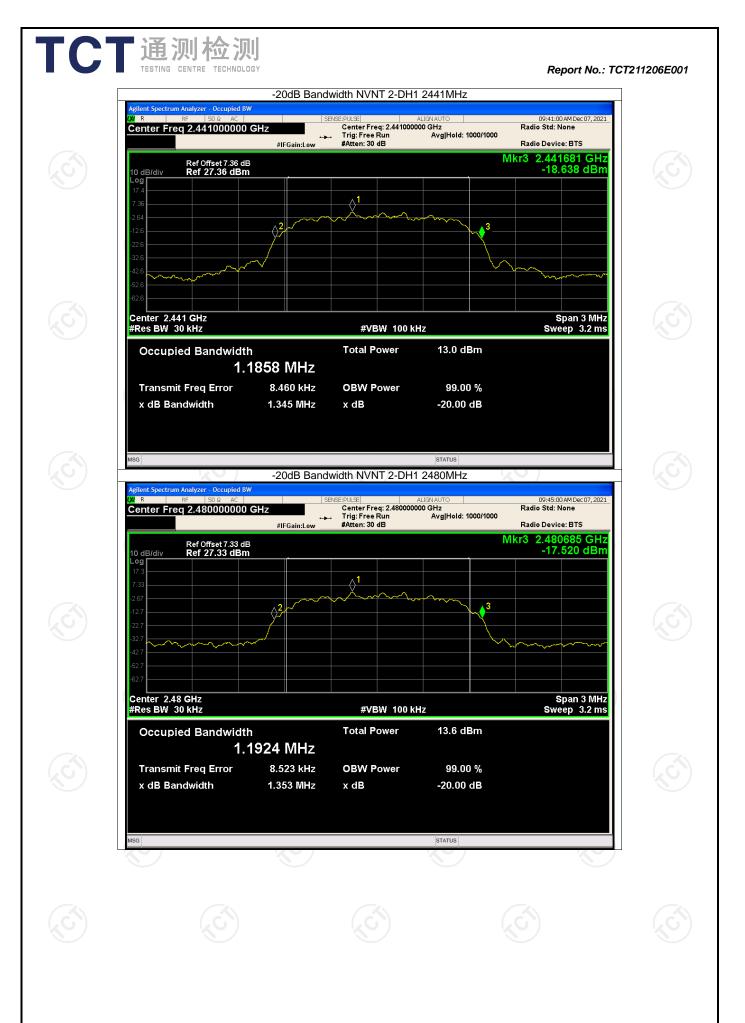
Page 38 of 94



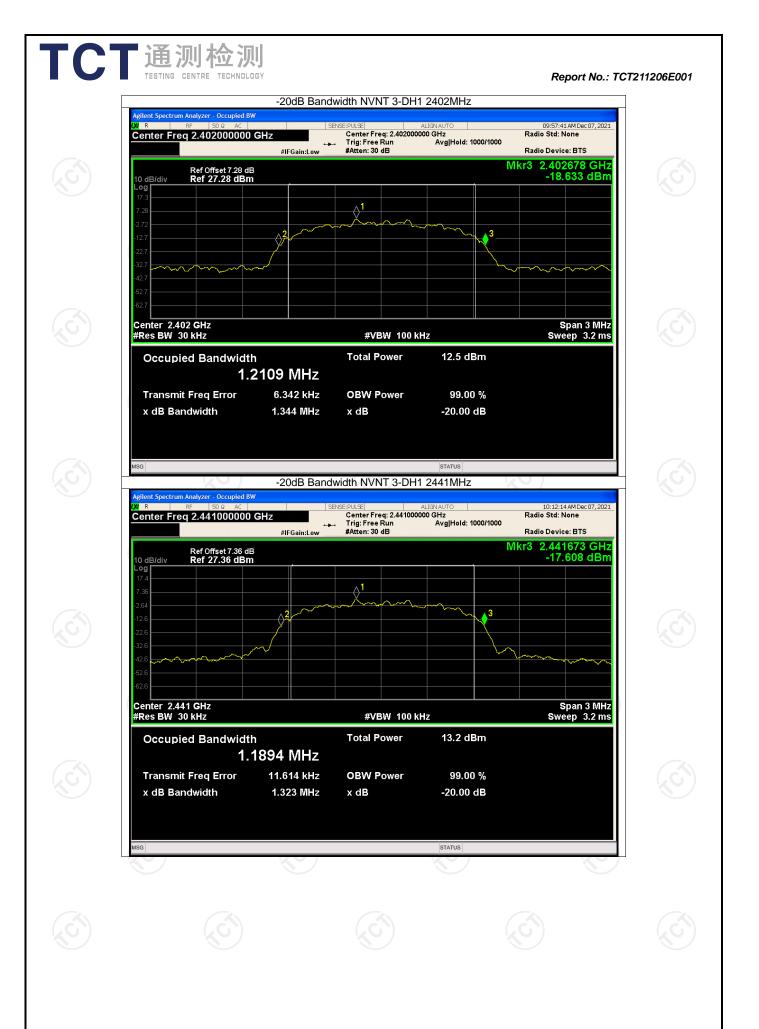
Page 39 of 94



Page 40 of 94



Page 41 of 94



Page 42 of 94

	Radio Std: 000	ALIGNAUTO 000 GHz Avg Hold: 1000/10	Center Freq: 2.480000 Trig: Free Run	GHz →	Analyzer - Occupied BW RF 50 Ω AC 2 2.480000000 C	LXI R
	Radio Devi Mkr3 2.48 -17		#Atten: 30 dB	#IFGain:Low	Ref Offset 7.33 dB Ref 27.33 dBm	10 dB/div Log
						17.3 7.33 -2.67
	3			2		-12.7 -22.7 -32.7
						-42.7 -52.7 -62.7
Span 3 MHz eep   3.2 ms	Sw	:Hz	#VBW 100 k		GHz ) kHz	Center 2.48 #Res BW 3
		13.8 dBm	Total Power	001 MHz	ed Bandwidth 1.2	Occupie
		99.00 % -20.00 dB	OBW Power x dB	7.702 kHz 1.335 MHz	Freq Error dwidth	Transmit x dB Bar
		STATUS				MSG
	Re la	314103	Ø		NO NO	mou

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

## **Carrier Frequencies Separation**

Condition	Mode	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict						
NVNT	1-DH1	2401.846	2402.844	0.998	0.891	Pass						
NVNT	1-DH1	2440.850	2441.848	0.998	0.891	Pass						
NVNT	1-DH1	2478.856	2479.846	0.990	0.891	Pass						
NVNT	2-DH1	2401.860	2402.844	0.984	0.904	Pass						
NVNT	2-DH1	2440.866	2441.840	0.974	0.904	Pass						
NVNT	2-DH1	2478.852	2479.848	0.996	0.904	Pass						
NVNT	3-DH1	2401.844	2402.848	1.004	0.896	Pass						
NVNT	3-DH1	2440.840	2441.836	0.996	0.896	Pass						
NVNT	3-DH1	2478.846	2479.842	0.996	0.896	Pass						

## 



































































Page 44 of 94

**ICT**通测检测

TESTING CENTRE TECHNOLOGY



Report No.: TCT211206E001

100 110 110 110 110 110 110 110 110 110	Ref Offset 7.33 dB Ref 20.00 dBm	PNO: Wide Trig: Free Run IFGain:Low #Atten: 30 dB	ALIGN AUTO Avg Type: Log-Pwr Avg Hold>100/100 Mkr1	10:47:38 AM Dec 09, 2021 TRACE 12 3 4 5 6 TYPE MINIMUM 2.478 856 GHz 5.787 dBm	
10 -10 -20 -30 -40 -50 -50 -70 -70 -70	9 00 00 00 00 00 00 00 00 00 00 00 00 00			2.478 856 GHz 5.787 dBm	
-70 Ce #F					
	enter 2.479500 GHz Res BW 100 kHz R MODE   TRC   SCL   X	#VBW 300 kHz		Span 2.000 MHz .000 ms (1001 pts)	
	N 1 f 2.478 856 Gł N 1 f 2.479 846 Gł 4			~	
MSG	K97	CFS NVNT 2-DH1 24	status 02MHz		
LXI	lent Spectrum Analyzer - Swept SA R RF 50 Q AC enter Freq 2.402500000 GHz Ref Offset 7.28 dB	PNO: Wide Trig: Free Run IFGain:Low #Atten: 30 dB	ALIGNAUTO Avg Type: Log-Pwr Avg Hold:>100/100 Mkr1	09:31:29 AM Dec 07, 2021 TRACE 1 2 3 4 5 6 TYPE MUMANAN DET P.N.N.N.N 2.401 860 GHz	
Lo 11 -10 -20 -30 -40 -50 -50 -70	Bildiv Ref 20.00 dBm		2 2 	4.521 dBm	
		Y         FUNCTION           Hz         4.521 dBm           Hz         4.728 dBm           Hz         4.728 dBm		Span 2.000 MHz .000 ms (1001 pts)	
Msc	J J	I A A A A A A A A A A A A A A A A A A A	STATUS		

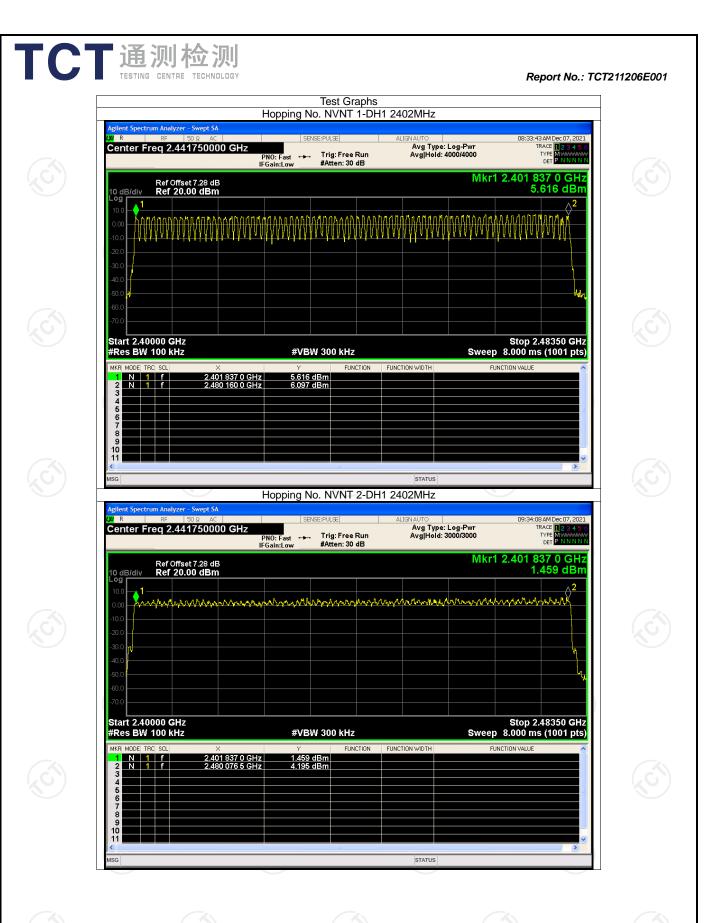
Agilent Spectrum Analyzer - Swept UX R RF 50 Ω		141MHz Alignauto	09:42:59 AM Dec 07, 2021	
Center Freq 2.441500		Avg Type: Log-Pwr Avg Hold>100/100	TRACE 1 2 3 4 5 6 TYPE MWWWW DET P N N N N	
Ref Offset 7.36 10 dB/div Ref 20.00 dE	dB m		2.440 866 GHz 4.845 dBm	
10.0 0.00		2	Marina	
-20.0				
-30.0 -40.0 -50.0				
-60.0				
Center 2.441500 GHz #Res BW 100 kHz	#VBW 300 kHz	Sweep 1.	Span 2.000 MHz 000 ms (1001 pts)	
MKR MODE TRC SCL 1 N 1 f 2 N 1 f	X         Y         FUNCTION           2.440 866 GHz         4.845 dBm         2.441 840 GHz         5.286 dBm	FUNCTION WIDTH FUNCTION	N VALUE	
3 4 5 6				
7 8 9 10				
11	ш Ш		×	
MSG		STATUS		
MSG	CFS NVNT 2-DH1 24			
	SA ac   SENSE:PULSE    DOO GHz Trig: Free Run		09-49-12 MMDec 07, 2021	
Agilent Spectrum Analyzer - Swept (X) R RF 50 Q Center Freq 2.479500 Ref Offset 7.33	SA AC SENSE:PULSE 000 GHz PNO: Wide IFGain:Low dB	ALIGN AUTO Avg Type: Log-Pwr Avg Hoid>100/100	/	
Agilent Spectrum Analyzer - Swept WR RF 50 Q Center Freq 2.479500 Center Freq 2.479500 Ref Offset 7.33 10 dB/div Ref 20.00 dE	SA AC SENSE:PULSE 000 GHz PNO: Wide IFGain:Low dB	ALIGNAUTO Avg Type: Log-Pwr Avg Hold>100/100 Mkr1	09:49:13 AM Dec 07, 2021 TRACE 12 34 5 6 TYPE MANANAN DET P. N.N.N.N. 2,478 852 GHZ	
Agilent Spectrum Analyzer - Swept (A R RF 50 & Center Freq 2.479500 Ref Offset 7.33 10 dB/div Ref 20.00 dB og	SA ac   SENSE/PULSE    DOO GHz   PNO: Wide   IFGain:Low #Atten: 30 dB dB m 1	ALIGNAUTO Avg Type: Log-Pwr Avg Hold>100/100 Mkr1	09:48:13 AM Dec 07, 2021 TRACE 12 3 4 5 6 TYPE 12 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5	
Agilent Spectrum Analyzer - Swept VI R RF 50 Q Center Freq 2.479500 Ref Offset 7.33 10 dB/div Ref 20.00 dE 10 0 -10 0	SA ac   SENSE/PULSE    DOO GHz   PNO: Wide   IFGain:Low #Atten: 30 dB dB m 1	ALIGNAUTO Avg Type: Log-Pwr Avg Hold>100/100 Mkr1	09:48:13 AM Dec 07, 2021 TRACE 12 3 4 5 6 TYPE 12 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5	
Agilent Spectrum Analyzer - Swept           Agilent Spectrum Analyzer - Swept           Center Freq 2.479500           Ref Offset 7.33           10 dB/div         Ref 20.00 dE           10 a	SA ac   SENSE/PULSE    DOO GHz   PNO: Wide   IFGain:Low #Atten: 30 dB dB m 1	ALIGNAUTO Avg Type: Log-Pwr Avg Hold>100/100 Mkr1	09:48:13 AM Dec 07, 2021 TRACE 12 3 4 5 6 TYPE 12 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5	
Agilent Spectrum Analyzer - Swept           Ref         S0 Q           Center Freq 2.479500           Ref Offset 7.33           10 dB/div         Ref 20.00 dE           10 0         Ref 20.00 dE	SA AC SENSE:PULSE PNO: Wide SENSE:PULSE IFGain:Low Trig: Free Run #Atten: 30 dB dB m 1 1 1 1 1 1 1 1 1 1 1 1 1	ISOMHZ	09:48:13 AM Dec 07, 2021 TRACE 12 33 4 5 6 TYPE MANNANY DET P NNNN 2.478 852 GHz 5.931 dBm	
MSG           Agilent Spectrum Analyzer - Swept           W         R         F         SO Q           Center Freq 2.479500           Ref Offset 7.33           10 dB/div         Ref 20.00 dE           10 0	SA AC SENSE:PULSE DOO GHZ PNO: Wide IFGain:Low Comparison HAtten: 30 dB M AC Trig: Free Run #Atten: 30 dB Comparison Atten: 40 dB Atten: 40	ISOMHZ	09:48:13 AM Dec 07, 2021 TRACE 12 3 4 5 6 TV DET P NNNNN 2.478 852 GHz 5.931 dBm	
Agitent Spectrum Analyzer - Swept           K         Ref         SO Q           Center Freq 2.479500         Ref Offset 7.33         O dB/div         Ref 20.00 dE           10 dB/div         Ref 20.00 dE         0         0         0           10 dB/div         Ref 20.00 dE         0         0         0         0           -00	SA AC SENSE:PULSE DOO GHZ PNO: Wide IFGain:Low Comparison HAtten: 30 dB M 1 1 4 4 4 4 4 4 4 4 4 4 4 4 4	ISOMHZ	09:48:13 AM Dec 07, 2021 TRACE 12 34 5 6 TVPE P NNNN 2.478 852 GHz 5.931 dBm	
Agilent Spectrum Analyzer - Swept           Agilent Spectrum Analyzer - Swept           Center Freq 2.479500           Center Freq 2.479500 dB           10 dB/div         Ref Offset 7.33           10 dB/div         Ref 20.00 dE           10 dB/div         Ref 20.00 dE           10 dB/div         Ref 20.00 dE           20 d         30 d           40 0         50 d           50 0         50 d           60 0         50 d           70 0         50 d           Center 2.479500 GHz         #Res BW 100 kHz           MKR MODE TRC SCL         1         f           3         1         f         3           4         5         6         6           7         8         9         9	SA AC SENSE:PULSE DOO GHZ PNO: Wide IFGain:Low Comparison HAtten: 30 dB M AC Trig: Free Run #Atten: 30 dB Comparison Atten: 40 dB Atten: 40	ISOMHZ	09:48:13 AM Dec 07, 2021 TRACE 12 34 5 6 TVPE P NNNN 2.478 852 GHz 5.931 dBm	
Aglient Spectrum Analyzer - Swept Of R RF S0 2 Center Freq 2.479500 10 dB/div Ref 0ffset 7.33 10 dB/div Ref 20.00 dB 10 0 -00 0	SA AC SENSE:PULSE DOO GHZ PNO: Wide IFGain:Low Comparison HAtten: 30 dB M AC Trig: Free Run #Atten: 30 dB Comparison Atten: 40 dB Atten: 40	ISOMHZ ALIGNAUTO Avg Type: Log-Pwr Avg Hoid>100/100 Mkr1	09:48:13 AM Dec 07, 2021 TRACE 12 34 5 6 TVPE P NNNN 2.478 852 GHz 5.931 dBm	
Agitent Spectrum Analyzer - Swept           NR         Ref         SO Q           Center Freq 2.479500         Ref         20.00 dE           10 dB/div         Ref 20.00 dE         0           -20 0	SA AC SENSE:PULSE DOO GHZ PNO: Wide IFGain:Low Comparison #Atten: 30 dB dB m 1 1 4 4 4 4 4 4 4 4 4 4 4 4 4	ISOMHZ	09:48:13 AM Dec 07, 2021 TRACE 12 34 5 6 TV PE 12 34 5	
Agilent Spectrum Analyzer - Swept D R Ref Offset 7.33 10 dB/div Ref 20.00 dE 10 0 -20 0	SA AC SENSE:PULSE DOO GHZ PNO: Wide IFGain:Low Comparison #Atten: 30 dB dB m 1 1 4 4 4 4 4 4 4 4 4 4 4 4 4	ISOMHZ ALIGNAUTO Avg Type: Log-Pwr Avg Hoid>100/100 Mkr1	09:48:13 AM Dec 07, 2021 TRACE 12 34 5 6 TV PE 12 34 5	
Agilent Spectrum Analyzer - Swept D R Ref Offset 7.33 10 dB/div Ref 20.00 dE 10 0 -20 0	SA AC SENSE:PULSE DOO GHZ PNO: Wide IFGain:Low Comparison #Atten: 30 dB dB m 1 1 4 4 4 4 4 4 4 4 4 4 4 4 4	ISOMHZ ALIGNAUTO Avg Type: Log-Pwr Avg Hoid>100/100 Mkr1	09:48:13 AM Dec 07, 2021 TRACE 12 34 5 6 TV PE 12 34 5	

Page 47 of 94

通测检测 TESTING CENTRE TECHNOLOGY	CFS NVNT 3-DH1 24	D2MHz	Report No.: 1
Agrent Spectrum Analyzer - Swept SA V R RF 50 Ω AC Center Freq 2.402500000 GHz	PNO: Wide 😱 Trig: Free Run	ALIGNAUTO Avg Type: Log-Pwr Avg Hold>100/100	09:59:40 AM Dec 07, 2021 TRACE 1 2 3 4 5 6 TYPE MWWWW DET P N N N N N
Ref Offset 7.28 dB 10 dB/div Ref 20.00 dBm	IFGain:Low #Atten: 30 dB	Mkr	1 2.401 844 GHz 4.910 dBm
10.0 1			~~~
-10.0			
-30.0			
-50.0			
-70.0 Center 2.402500 GHz			Span 2.000 MHz
#Res BW 100 kHz           MKR MODE         TRC SCL         X           1         N         1         f         2.401 844	#VBW 300 kHz		1.000 ms (1001 pts) TION VALUE
2 N 1 f 2.402 848 3 4 4	GHz 4.910 dBm GHz 4.901 dBm		
5 6 7 8			
9 10 11 11			~
мза	CFS NVNT 3-DH1 24	status 41MHz	
Agilent Spectrum Analyzer - Swept SA	SENSE:PULSE	ALIGNAUTO Avg Type: Log-Pwr	10:14:10 AM Dec 07, 2021
	PNO: Wide 🍙 Trig: Free Run IFGain:Low #Atten: 30 dB	Avg Hold>100/100	TRACE 123456 TYPE MWWWW DET PNNNNN 1 2.440 840 GHz
Ref Offset 7.36 dB 10 dB/div Ref 20.00 dBm 10 0 10 10 10 11		2	5.437 dBm
10.00	m	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Mart and and a second s
-20.0			
-40.0			
-60.0			
Center 2.441500 GHz #Res BW 100 kHz	#VBW 300 kHz	-	Span 2.000 MHz 1.000 ms (1001 pts)
1         N         1         f         2.440 840           2         N         1         f         2.441 836           3	GHz 5.437 dBm GHz 5.385 dBm		
4 5 6 7 8			
9 10 11			
MSG		STATUS	

	测 <b>硷</b> 测		IVNT 3-DH1 248	30MHz	Re	port No.: TCT2	211206E00
LXI R	um Analyzer - Swept SA RF 50 Ω AC req 2.479500000 C	SE	NSE:PULSE	ALIGNAUTO Avg Type: Log-Pwi Avg Hold>100/100	<u>10:22:3</u> - г П	4 AM Dec 07, 2021 RACE 1 2 3 4 5 6 TYPE M WWWWWWW DET P N N N N N	
10 dB/div 10.0 -10 0 -20 0 -30.0 -40.0 -50.0	Ref Offset 7.33 dB Ref 20.00 dBm			2 	Mkr1 2.478 6.		
-60.0 -70.0 Center 2.4 #Res BW	179500 GHz	#\/R	W 300 kHz		Span weep 1.000 ms	2.000 MHz	
MKR MODE TF 1 N 1 2 N 1 3 4	RC SCL X	346 GHz 6.125 342 GHz 6.118	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE		
5 6 7 8 9 10 11							
MSG				STATUS	No.		
						Parte	49 of

6 6	Pass Pass Pass Pass	Limit 15 15 15	mber	Hopping Nu 79 79 79 79	Mode           1-DH1           2-DH1           3-DH1	Condition NVNT NVNT NVNT	Ĵ.





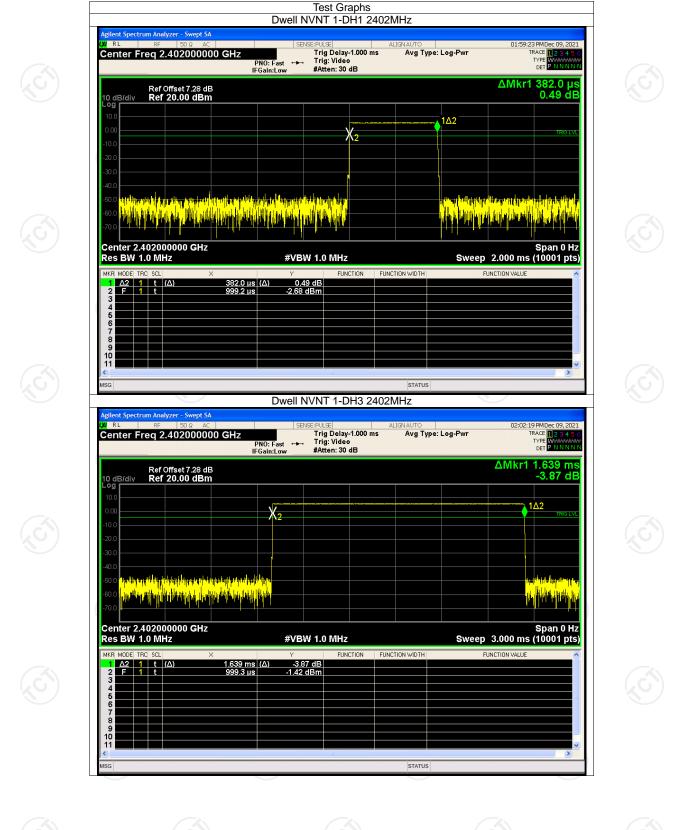
			No. NVNT 3-DH	Hopping N	Analyzer - Swept SA	
34 AM Dec 07, 2021 TRACE 1 2 3 4 5 6 TYPE MWWWWW DET P N N N N N	og-Pwr	ALIGN AUTO Avg Type: Lo Avg Hold: 100	NSE:PULSE Trig: Free Run #Atten: 30 dB		rf 50 Ω AC 2.441750000 G	
1.575 dBm	Mkr1 2.401 ( 1 มุรัก	rannan	WW TADING AND	<u>เห็ลวู้ในการเลือ</u>	ef Offset 7.28 dB ef 20.00 dBm	10 dB/div 10 0 1 1
	Stop 2 Sweep 8.000 m FUNCTION VALUE	FUNCTION WIDTH	W 300 kHz GBm dBm	Y	O KHZ	3 4 5
~	No.	STATUS				6 7 8 9 10 11 11 MSG

## **Dwell Time**

TCT通测检测 TESTING CENTRE TECHNOLOGY

Condition	Mode	Frequency (MHz)	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict				
NVNT	1-DH1	2402	0.382	122.240	31600	400	Pass				
NVNT	1-DH3	2402	1.639	262.240	31600	400	Pass				
NVNT	1-DH5	2402	2.886	307.840	31600	400	Pass				
NVNT	2-DH1	2402	0.385	123.200	31600	400	Pass				
NVNT	2-DH3	2402	1.631	260.960	31600	400	Pass				
NVNT	2-DH5	2402	2.879	307.093	31600	400	Pass				
NVNT	3-DH1	2402	0.383	122.560	31600	400	Pass				
NVNT	3-DH3	2402	1.635	261.600	31600	400	Pass				
NVNT	3-DH5	2402	2.887	307.947	31600	400	Pass				

Page 53 of 94



**「CT**通测检测

TESTING CENTRE TECHNOLOGY

Center Freq 2.4020000	C SENSE:PULSE AL Trig Delay-1.000 ms PN0: Fast IF6ain:Low #Atten: 30 dB	IGNAUTO         02:03:54 PMDec 09, 2021           Avg Type: Log-Pwr         TRACE 1, 2:34 5 6           TYPE         TYPE           DET P         NNNNN
Ref Offset 7.28 o 10 dB/div Ref 20.00 dBr	IB m	∆Mkr1 2.886 ms -1.13 dB
10.0		1 <u>\</u> 2
-10.0	X2	TRICLVL
-20.0		
-40.0 -50.0 <b>weischlich sicht die die die bestehen die stehen d</b>	u alahan	
-50.0 and a field and the first firs		
Center 2.402000000 GHz		Span 0 Hz
Res BW 1.0 MHz		Sweep         4.000 ms (10001 pts)           TION WIDTH         FUNCTION VALUE
1 Δ2 1 t (Δ) 2 F 1 t 3	2.886 ms (Δ) -1.13 dB 999.6 μs 0.22 dBm	
4 5 6		
7		
10		
MSG	Dwell NVNT 2-DH1 2402N	STATUS
Agilent Spectrum Analyzer - Swept S	5A	IGNAUTO 02:05:13 PMDec 09, 2021
Center Freq 2.402000	00 GHz Trig Delay-1.000 ms	
	PNO: Fast +++ Trig: video	Avg Type: Log-Pwr TRACE 1 2 3 4 5 6 TYPE WANNON DET PINNIN N
	PNO: Fast +++ Trig: Video IFGain:Low #Atten: 30 dB	Avg Type: Log-Pwr TRACE 123456 TYPE WAAAAAAA DET PNNNN
Ref Offset 7.28 c 10 dB/div Ref 20.00 dB/ 10 0	PNO: Fast Ing: Video IFGain:Low #Atten: 30 dB	Avg Type: Log-Pwr         TRACE 12 34 5 6 TYPE WWWWWWW DET P NUMNN           ΔMkr1 385.0 μs -2.76 dB
Ref Offset 7.28 c 10 dB/div Ref 20.00 dBr	PNO: Fast Ing: Video IFGain:Low #Atten: 30 dB	Avg Type: Log-Pwr TRACE 123456 TYPE WAAAAAAA DET PNNNN
Ref Offset 7.28 c 10 dB/div Ref 20.00 dBr 10 d 0.00	PNO: Fast Ing: Video IFGain:Low #Atten: 30 dB	Avg Type: Log-Pwr         TRACE 12 34 5 6 TYPE WWWWWWW DET P NUMNN           ΔMkr1 385.0 μs -2.76 dB
Ref Offset 7.28 c 10 dB/div Ref 20.00 dB 10.0 0.00 -10.0 -30.0 -40.0	PNO: Fast Ing: Video IFGain:Low #Atten: 30 dB	Avg Type: Log-Pwr         TRACE 12 3 4 5 G TYPE           ΔMkr1 385.0 µs -2.76 dB           ΔΜκτ1 385.0 μs           -2.76 dB
Ref Offset 7.28 c           Og         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           -60.0         0.00	PNO: Fast Ing: Video IFGain:Low #Atten: 30 dB	Avg Type: Log-Pwr         TRACE         12.9.4.9.6           Type: Log-Pwr         TRACE         12.9.4.9.6           Det P         NNNNN         Det P           AMIkr1 385.0 µs         -2.76 dB           -2.76 db         -2.76 db
Ref Offset 7.28 c           L0 dB/div         Ref 20.00 dB           10.0	PNO: Fast Ing: Video IFGain:Low #Atten: 30 dB	Avg Type: Log-Pwr         TRACE 12 34 9 G TYPE           ΔMkr1 385.0 µs -2.76 dB           ΔΜkr1 385.0 µs -2.76 dB           ΔΜκτ1 385.0 µs -2.76 dB
Ref Offset 7.28 c           Og         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           -60.0         0.00	PNO: Fast Ing: Video IFGain:Low #Atten: 30 dB	Avg Type: Log-Pwr         TRACE         12.9.4.9.6           Type: Log-Pwr         TRACE         12.9.4.9.6           Det P         NNNNN         Det P           AMIkr1 385.0 µs         -2.76 dB           -2.76 db         -2.76 db
Ref Offset 7.28 c           Og         Ref 20.00 dBr           10 dB/div         Ref 20.00 dBr           10 d	PNO: Fast IFGain:Low #Atten: 30 dB IB M 2 When the state of the When t	Avg Type: Log-Pwr         TRACE         12 3 4 9 G           ΔΜkr1 385.0 μs         -2.76 dB           ΔΜkr1 385.0 μs         -2.76 dB           ΔΜματι μαριματικά         -2.76 dB           ΔΜματι μαριματικά         -2.76 dB           Δματικά         -2.76 dB
Ref Offset 7.28 c           Og         Ref 20.00 dBr           10 dB/div         Ref 20.00 dBr           10 d         -	PNO: Fast Ing: Video IFGain:Low #Atten: 30 dB IB M 2 #VBW 1.0 MHz X Y FUNCTION FUNCT S85.0 µs (Δ) -2.76 dB	Avg Type: Log-Pwr         TRACE         12 3 4 9 G           ΔΜkr1 385.0 μs         -2.76 dB           ΔΜkr1 385.0 μs         -2.76 dB           ΔΜματι μαριματικά         -2.76 dB           ΔΜματι μαριματικά         -2.76 dB           Δματικά         -2.76 dB
Ref Offset 7.28 c           Og         Ref 20.00 dBr           10 dB/div         Ref 20.00 dBr           10 d         -	PNO: Fast Ing: Video IFGain:Low #Atten: 30 dB IB M 2 #VBW 1.0 MHz X Y FUNCTION FUNCT S85.0 µs (Δ) -2.76 dB	Avg Type: Log-Pwr         TRACE         12 3 4 9 G           ΔΜkr1 385.0 μs         -2.76 dB           ΔΜkr1 385.0 μs         -2.76 dB           ΔΜματι μαριματικά         -2.76 dB           ΔΜματι μαριματικά         -2.76 dB           Δματικά         -2.76 dB
Ref Offset 7.28 c           Cog         Ref 20.00 dB/           10 dB/div         Ref 20.00 dB/           0 d0	PNO: Fast Ing: Video IFGain:Low #Atten: 30 dB IB M 2 #VBW 1.0 MHz X Y FUNCTION FUNCT S85.0 µs (Δ) -2.76 dB	Avg Type: Log-Pwr         TRACE         12 3 4 9 G           ΔΜkr1 385.0 μs         -2.76 dB           ΔΜkr1 385.0 μs         -2.76 dB           ΔΜματι μαριματικά         -2.76 dB           ΔΜματι μαριματικά         -2.76 dB           Δματικά         -2.76 dB
Ref Offset 7.28 c           Og         Ref 20.00 dBr           10 dB/div         Ref 20.00 dBr           10 d         -           0.00         -           0.00         -           0.00         -           0.00         -           0.00         -           -         -	PNO: Fast Ing: Video IFGain:Low #Atten: 30 dB IB M 2 #VBW 1.0 MHz X Y FUNCTION FUNCT S85.0 µs (Δ) -2.76 dB	Avg Type: Log-Pwr         TRACE         2.3.4 G           Yme         Det         Det           AMkr1 385.0 µs         -2.76 dB           Yme         TROLVL           Yme         TROLVL           Yme         Yme           Yme         Yme <tr< td=""></tr<>



Report No.: TCT211206E001

10.0			-1.74 dB
20.0	V 5 van het de la la de la la de la la la de	ka terdetiller i Dallaner för til bandet och som för dallandet för	
40.0 50.0 <mark>11.1 11.1 11.1 11.1 11.1 11.1 11.1 </mark>			
Center 2.402000000 GHz Res BW 1.0 MHz	#VBW 1.0 MHz	Sw	Span 0 Hz eep   3.000 ms (10001 pts)
MKR MODE TRC SCL X 1 Δ2 1 t (Δ) 2 F 1 t	Υ         FUNCTION           1.631 ms         (Δ)         -1.74 dB           862.2 μs         -9.09 dBm	FUNCTION WIDTH	FUNCTION VALUE
3 4 5	002.2 µs		
6 7 8			
9 10 11			
SG	lu lu	STATUS	
KO /	Dwell NVNT 2-DH5	2402MHz	KU )
gilent Spectrum Analyzer - Swept SA RL RF 50Ω AC Conton From 2 402000000	SENSE:PULSE	ALIGNAUTO 0 ms Avg Type: Log-Pwr	02:06:38 PMDec 09, 2021
Center Freq 2.40200000	PNO: Fast Trig: Video IFGain:Low #Atten: 30 dB	o nis Avg Type. Log-t wi	TRACE 123456 TYPE WWWWWWWW DET PINNNNN
Ref Offset 7.28 dB 10 dB/div Ref 20.00 dBm			∆Mkr1 2.879 ms -1.55 dB
-og 10.0			
0.00			
-20.0			
~			
30.0			
			h Marakan Natarakan
-40.0 -50.0 <mark>ddi alathay to dipatan dipatan bird</mark> ire addi			hillan Muth Note fuilt
40.0 -50.0 <mark>441 - 441 - 441 - 444 - </mark>	#VBW 1.0 MHz	Sw	Span 0 Hz eep 4.000 ms (10001 pts)
40.0 50.0 60.0 70.0 Center 2.402000000 GHz Res BW 1.0 MHz MKR MODEL TRC SCL X	Y FUNCTION		
40.0 50.0 0 60.0 0			eep 4.000 ms (10001 pts)
40.0         40.0 <t< td=""><td>Y FUNCTION</td><td></td><td>eep 4.000 ms (10001 pts)</td></t<>	Y FUNCTION		eep 4.000 ms (10001 pts)
40.0         40.0 <t< td=""><td>Y FUNCTION</td><td></td><td>eep 4.000 ms (10001 pts)</td></t<>	Y FUNCTION		eep 4.000 ms (10001 pts)
40.0 60.0	Y FUNCTION		eep 4.000 ms (10001 pts)

Dwell NVNT 2-DH3 2402MHz

Report No.: TCT211206E001



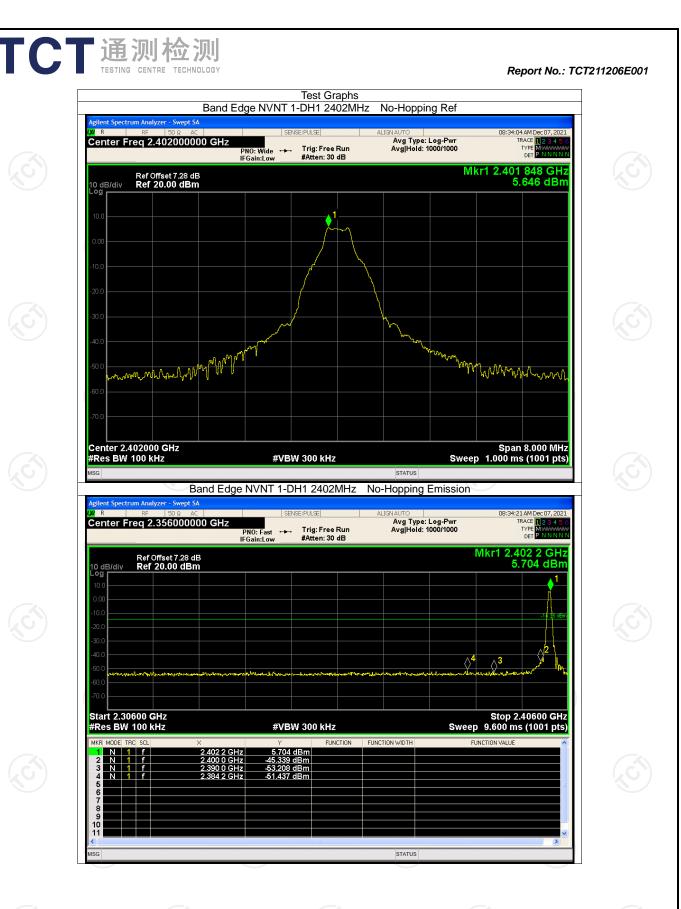
Agilent Spectrum Analyze	er - Swept SA 50 Ω AC SENSE:PULSE	DH1 2402MHz	02:07:09 PMDec 09, 2021
Center Freq 2.4		v-1.000 ms Avg Type: Log-Pwr o	TRACE 123456 TYPE WWWWWW DET PNNNNN
10 dB/div Ref 20	set 7.28 dB 0.00 dBm		∆Mkr1 383.0 µs 2.03 dB
Log 10.0		102	
-10.0			TRIG LVL
-30.0			
-50.0 <b>10111111111111111111111111111111111</b>			e de balden de de caratérie de la companya de la co Companya de la companya de la company
Center 2.4020000 Res BW 1.0 MHz	000 GHz #VBW 1.0 MHz	Sweep 2	Span 0 Hz .000 ms (10001 pts)
MKR MODE TRC SCL 1 Δ2 1 t (Δ)	X Y FUI	-	CTION VALUE
2 F 1 t 3 4 4	858.4 µs -9.30 dBm		
5 6 7			
8 9 10 11			
< MSG		STATUS	
	Dwell NVNT 3-E	0H3 2402MHz	7
Agilent Spectrum Analyze	50 Ω AC SENSE:PULSE		02:07:39 PM Dec 09, 2021 TRACE 123456
	PN0: Fast 🛶 Trig: Vide IFGain:Low #Atten: 30	dB	TYPE WWWWWW DET P N N N N N ΔMkr1 1.635 ms
Log	set 7.28 dB 0.00 dBm		-1.60 dB
0.00			
-10.0			
-30.0			
-50.0 <mark>(1) - 51.0 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)</mark>			ite konstitus haddillen di sam <mark>Tanan an ina di tanan ana ana ana ana ana ana ana ana a</mark>
Center 2.4020000 Res BW 1.0 MHz	#VBW 1.0 MHz		Span 0 Hz 5.000 ms (10001 pts) CTION VALUE
1 Δ2 1 t (Δ) 2 F 1 t		ICTION FUNCTION WIDTH FUNC	
3 4 5 6			
7 8 9			
10			×
MSG	×~ /	STATUS	

TCT通测检测 TESTING CENTRE TECHNOLOGY

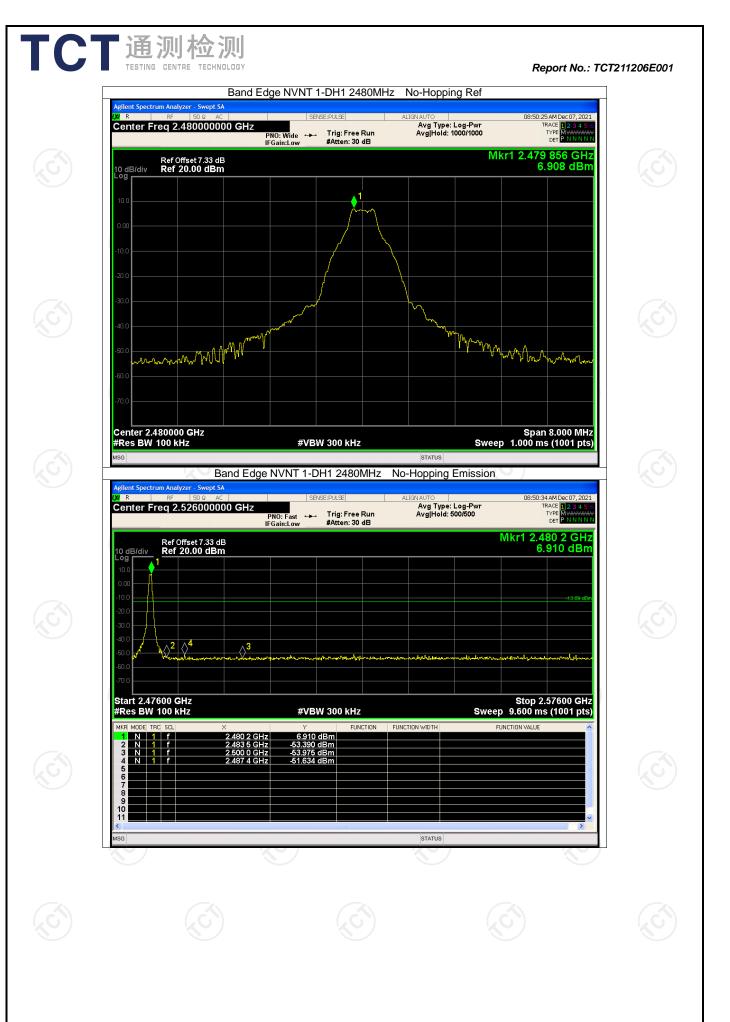
Page 57 of 94

	n Analyzer - Swept SA RF 50 Ω AC		NVNT 3-DH5 24	402MHz Align auto		8:05 PMDec 09, 2021	
	r⊧  50Ω AC   q 2.402000000 (	GHz PNO: Fast IFGain:Low	Trig Delay-1.000 m		og-Pwr	TRACE 123456 TYPE WWWWWW DET PNNNNN	
10 dB/div	Ref Offset 7.28 dB Ref 20.00 dBm				ΔMkr	1 2.887 ms -4.78 dB	
10.0 0.00 -10.0		X2 Company Com			anta Mantu Manta Manta A		
-20.0							
-40.0 -50.0 <mark>d<sup>1</sup> m</mark> yddau -60.0 <mark>digalaguad</mark>	n hadd all nige if an hine an					itera Vari	
Center 2.40	2000000 GHz					Span 0 Hz	
Res BW 1.0	SCL X	Y	FUNCTION 78 dB 3 dBm	FUNCTION WIDTH	Sweep 4.000 m		
2 F 1 3 4 5 6	t	999.6 µs 1.78	3 dBm				
7 8 9 10							
MSG			111	STATUS			

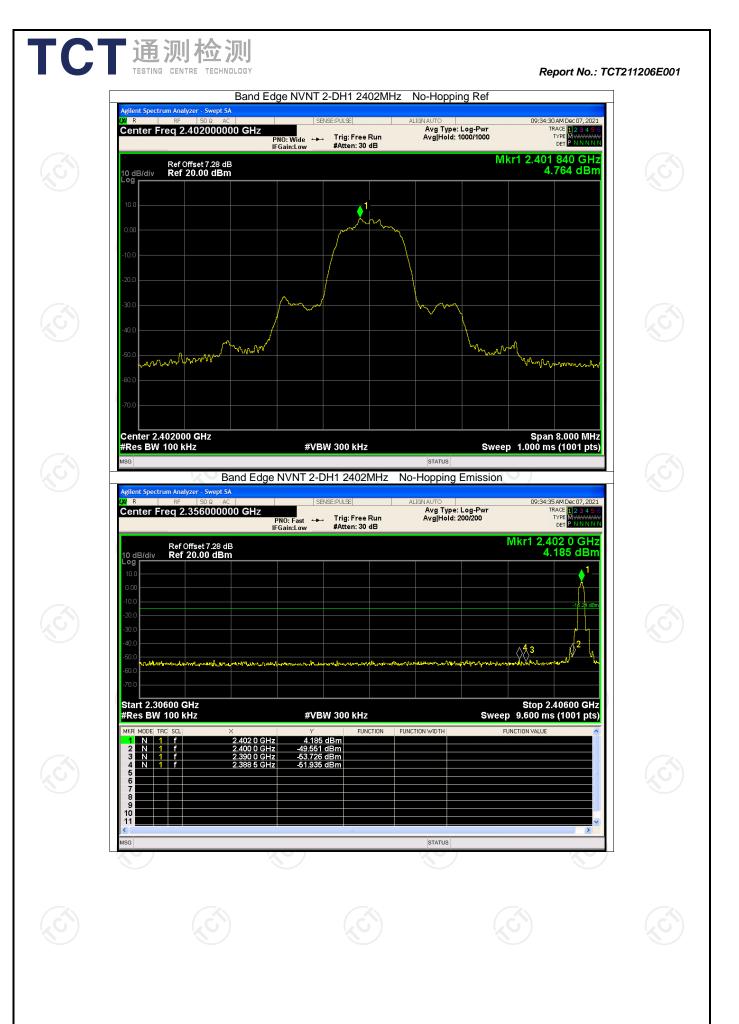
	Band Edg	e		
quency (MHz)           2402           2480           2402           2480           2402           2480           2402           2480           2402           2480	Hopping Mode No-Hopping No-Hopping No-Hopping No-Hopping No-Hopping	Max Value (dBc)           -57.08           -58.54           -56.69           -57.46           -56.28           -58.49	Limit (dBc) -20 -20 -20 -20 -20 -20	Verdict Pass Pass Pass Pass Pass Pass
				Page

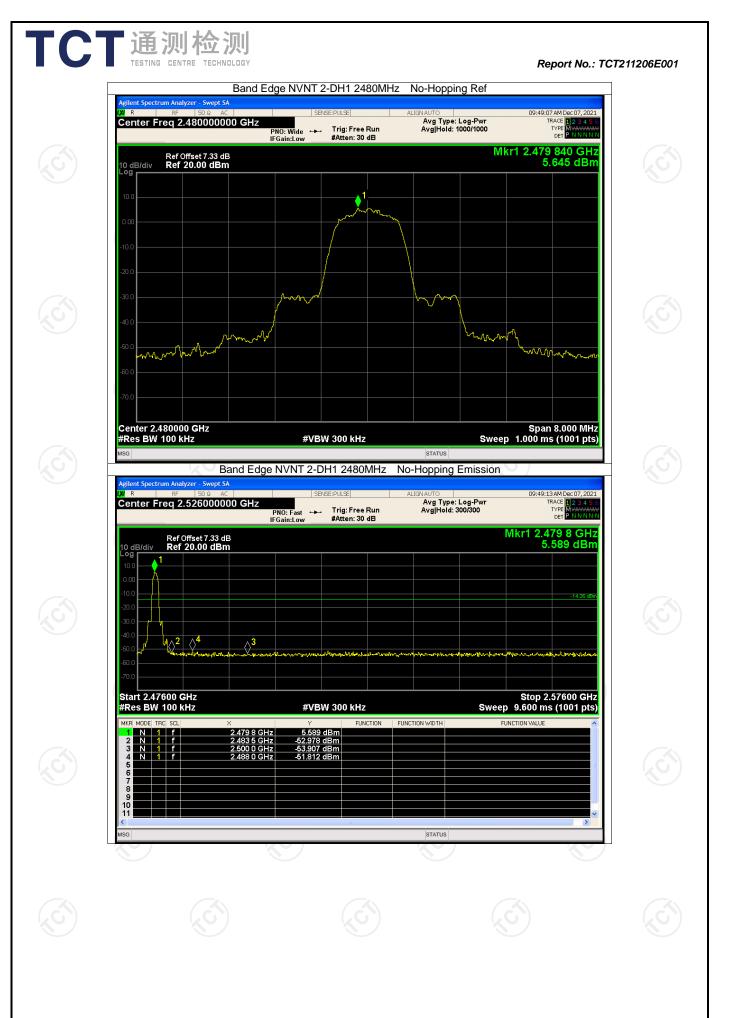


Page 60 of 94

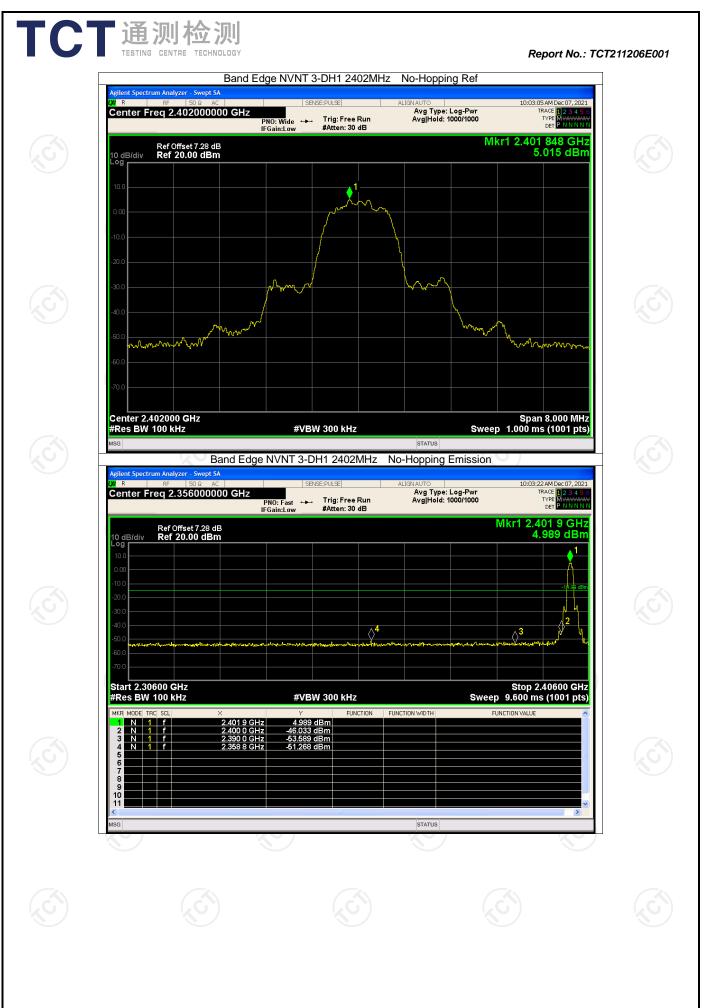


Page 61 of 94

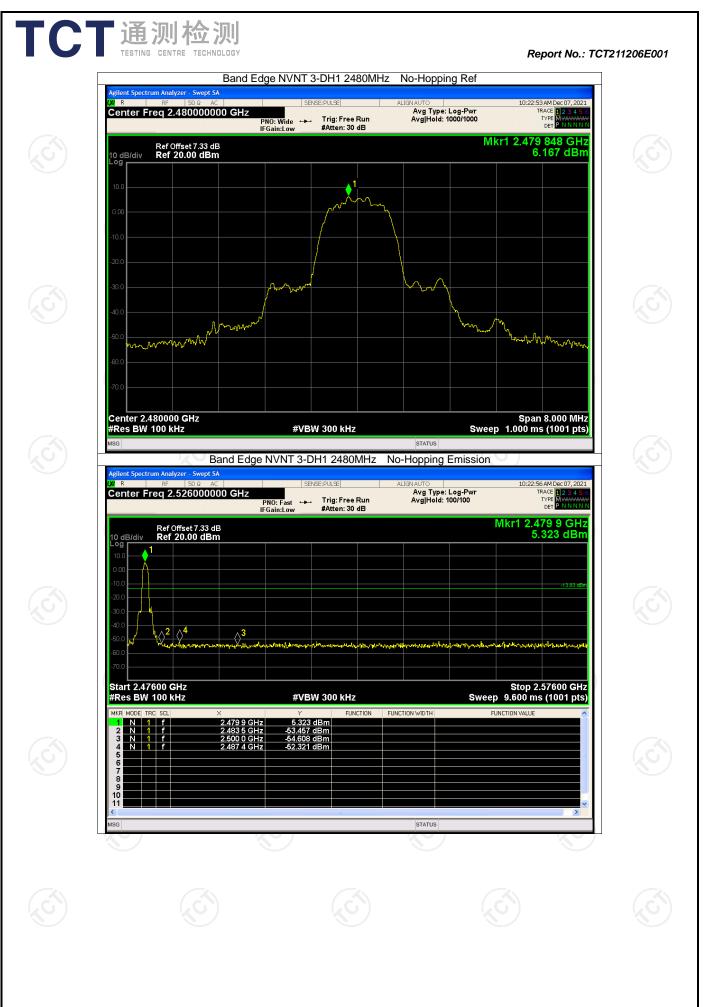




Page 63 of 94

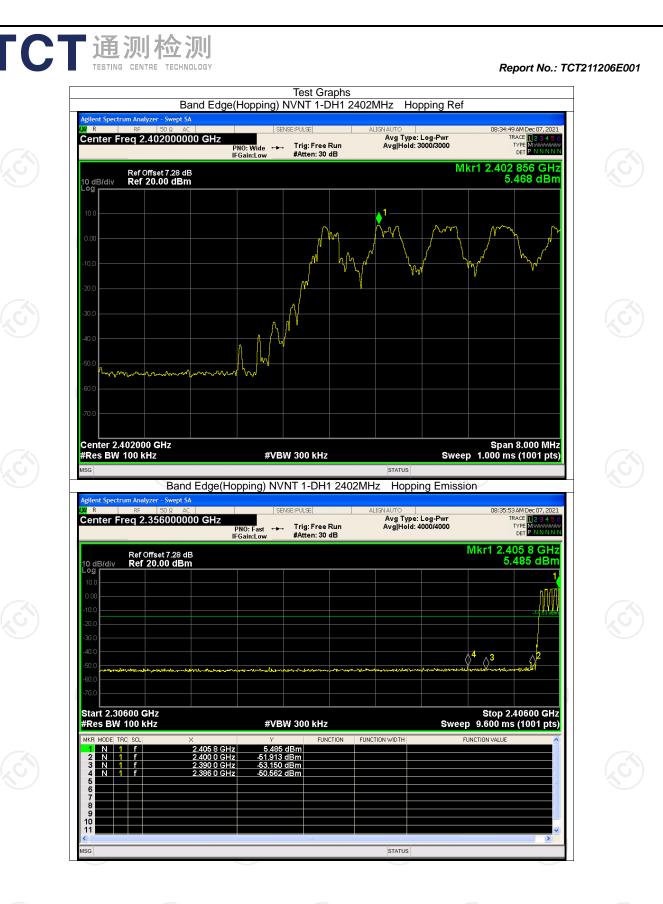


Page 64 of 94



Page 65 of 94

TC		则检测					Report No.: TCT2	11206E001
Condition NVNT NVNT NVNT NVNT NVNT NVNT	Mode 1-DH1 1-DH1 2-DH1 2-DH1 3-DH1 3-DH1	Frequency 2402 2480 2402 2480 2402 2480	(MHz)	Edge(Ho Hopping Mode Hopping Hopping Hopping Hopping Hopping	Max Val -56 -57 -57 -57 -56 -55	<b>ue (dBc)</b> 3.03 7.67 7.15 3.00 5.92 3.04	Limit (dBc) -20 -20 -20 -20 -20 -20	Verdict Pass Pass Pass Pass Pass Pass
<u>Hotline</u>	e: 400-6611-	140 Tel: 8	<u>6-755-2767</u>	<u>3339 Fax:</u>	<u>86-755-2767</u>	<u>3332 htt</u>	Page <b>p://www.tct-la</b>	66 of 94 <b>b.com</b>



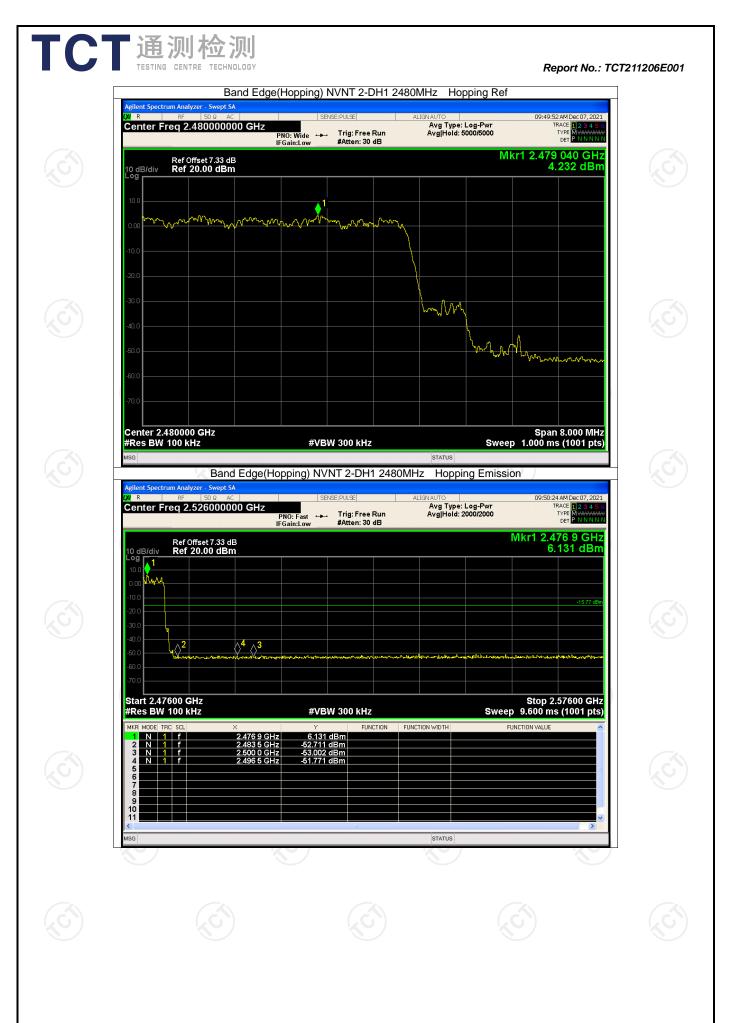
Page 67 of 94



Page 68 of 94



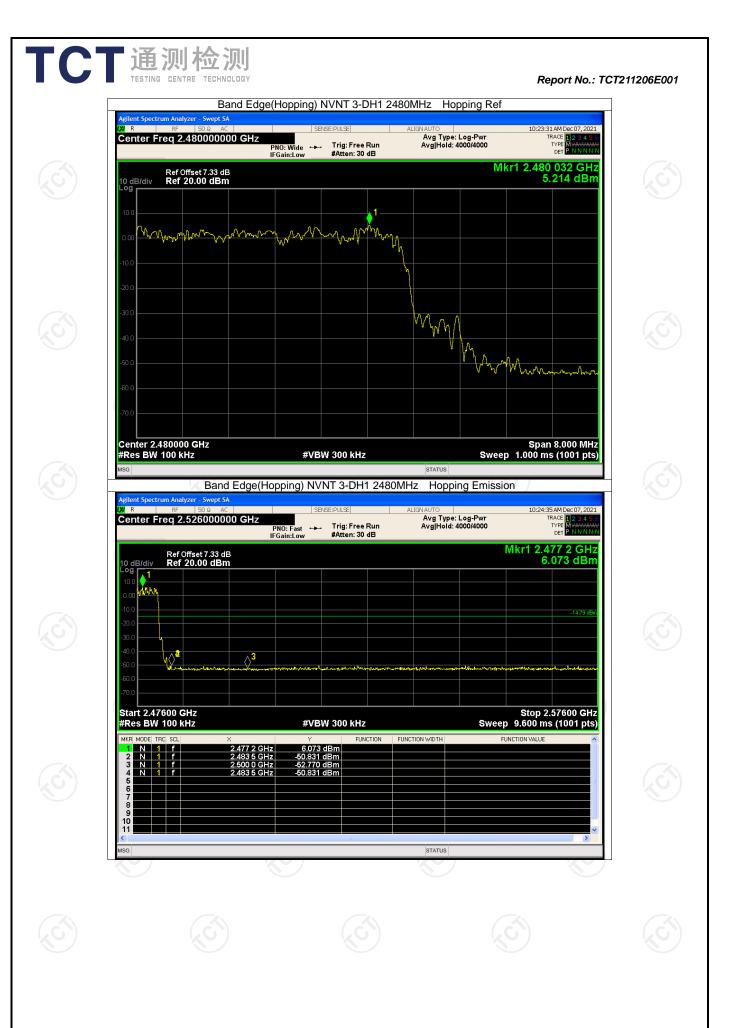
Page 69 of 94



Page 70 of 94



Page 71 of 94



Page 72 of 94

## **Conducted RF Spurious Emission**

Condition	Mode	Frequency (MHz)	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	-45.87	-20	Pass
NVNT	1-DH1	2441	-46.67	-20	Pass
NVNT	1-DH1	2480	-46.46	-20	Pass
NVNT	2-DH1	2402	-43.93	-20	Pass
NVNT	2-DH1	2441	-44.65	-20	Pass
NVNT	2-DH1	2480	-46.30	-20	Pass
NVNT	3-DH1	2402	-44.57	-20	Pass
NVNT	3-DH1	2441	-45.16	-20	Pass
NVNT	3-DH1	2480	-45.91	-20	Pass





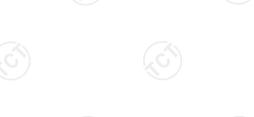








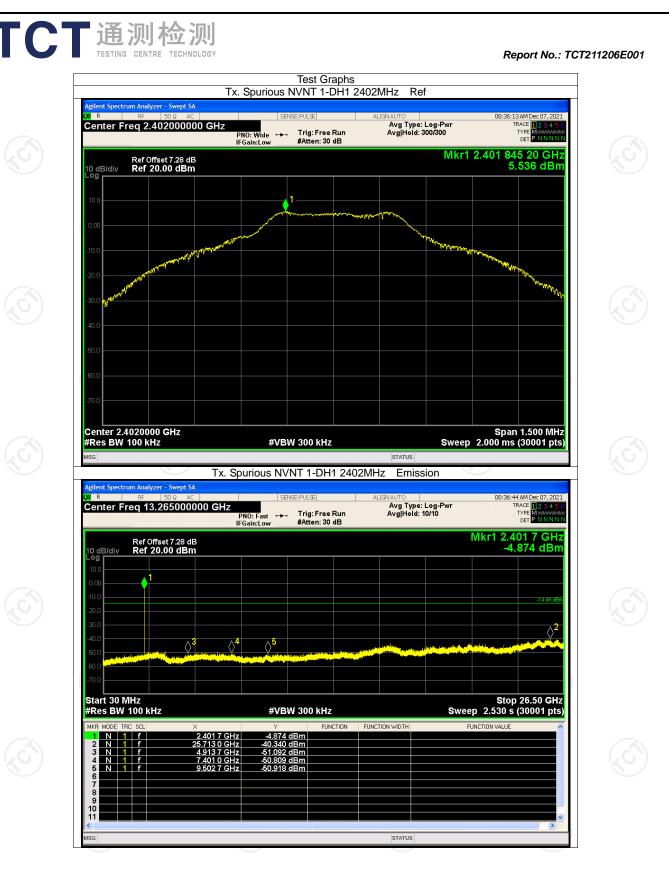






Page 73 of 94

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







Page 74 of 94

