

FCC PART 15.247 TEST REPORT

On Behalf of

GUANGDONG OML TECHNOLOGY CO., LTD.

No. 38 HETONG ROAD, DONGFENG TOWN ZHONGSHAN Guangdong, china

FCC ID: 2AVBD-TUYA5-24V

Model: Tuya 5-24V

December 13, 2024

This Report Concerns:		Equipment Type: Tuya controller
Test Engineer:		
Report Number:	QCT24LR-2	439E-01 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Test Date:	December 1	1~12, 2024
Reviewed By:	Vincent Yan	g vincent your
Approved By:	Kendy Wang	1 kun vo
Prepared By:	East of 1/F., Shuiku Road	

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Report Number	Description	Issued Date
QCT24LR-2439E-01	Initial Issue	2024-12-13
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Revision History of This Test Report

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1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test (EUT)

r reader Becchiption	
EUT Description	Tuya controller
Model No.	Tuya 5-24V
Tested Model	Tuya 5-24V
Sample(s) Status	Engineer sample
Operation Frequency:	802.11b/802.11g/802.11n(HT20): 2412MHz~2462MHz 802.11n(HT40): 2422MHz~2452MHz
Channel numbers:	802.11b/802.11g /802.11n(HT20): 11 802.11n(HT40):7
Channel separation:	5MHz Mar Contact and Contact a
Modulation type:	802.11b: Direct Sequence Spread Spectrum (DSSS) 802.11g/802.11n(HT20)/802.11n(HT40): Orthogonal Frequency Division Multiplexing (OFDM)
Antenna Type:	Plannar Inverted F Antenna on board
Antenna gain ^{*1} :	2.78dBi
Power supply:	DC 5-24V
Trade Mark:	N/A the set of the set
Applicant:	GUANGDONG OML TECHNOLOGY CO., LTD.
Address:	No. 38 HETONG ROAD, DONGFENG TOWN ZHONGSHAN Guangdong, china
Manufacturer:	GUANGDONG OML TECHNOLOGY CO., LTD.
Address:	No. 38 HETONG ROAD, DONGFENG TOWN ZHONGSHAN Guangdong, china
Sample No.:	Y24L2439E01WC

Note: *¹This information provided by Manufacturer, SZ QC Lab is not responsible for the accuracy of this information.

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1.2 System Test Configuration

1.2.1 Channel List

Operation	Operation Frequency each of channel						
Channel Frequency Channel Frequency Channel Frequency Channel Frequen							
	2412MHz	STINA CO	2427MHz	and The stime	2442MHz	(¹⁰⁰	2457MHz
15 M 2 C	2417MHz	5	2432MHz	8	2447MHz	E11,2	2462MHz
1 ¹² ,13,10	2422MHz	6	2437MHz	STI 9 6	2452MHz		No of the state

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

Test channel	Frequency (MHz)			
Test channel	802.11b/802.11g/802.11n(HT20)	802.11n(HT40)		
Lowest channel	2412MHz	2422MHz		
Middle channel	2437MHz	2437MHz		
Highest channel	2462MHz	2452MHz		

1.2.2 EUT Exercise Software

The device was tested with the worst case was performed as below:

Test Mode	Data Rate	Power Level
802.11b	Contraction 1 Mbps Contractions	State of the state
802.11g	6Mbps	2 ST AN AT ST AND S
802.11n(HT20)	MCS0 MCS0	Star Contracting
802.11n(HT40)	MCS0	

"Beken Wi-Fi Test Tool V1.6.0 " exercise software was made to the EUT tested. The software and power level was provided by the applicant.

1.2.3 Support Equipment

	Manufacturer	Description	Model	Serial Number
n and and and and and and and and and an	XING YUAN	Adapter	XY24SV-240075VQ-UW Input: 100-240V~, 50/60Hz 0.6A Max	of the first of the of
	Mar of the the of		Output: 24.0V 0.75A	no of the time o
	OML DE CAR	LED Strip Light	5050-15P-24V-RGB	In the se of states the

1.2.4 Test mode and test voltage

Transmitting mode: Keep the EUT in continuously transmitting. Test voltage: AC 120V/60Hz

Address: East of 1/F., Building E, Xinghong Science Park, No.111, Shuiku Road, Fenghuanggang, Xixiang Street, Bao'an District, Shenzhen, Guangdong, China Tel: 0755-23008269 Fax: 0755-23726780 http://www.qctest.com.cn

1.3 Test Facility

Test Firm : Shenzhen QC Testing Laboratory Co., Ltd.

The testing quality ability of our laboratory meet with "Quality Law of People's Republic of China" Clause 19. The testing quality system of our laboratory meets with ISO/IEC-17025 requirements This approval result is accepted by MRA of APLAC.

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

CNAS - Registration No.: L8464

The EMC Laboratory has been accredited by CNAS, and in compliance with ISO/IEC 17025:2017 General Requirements for testing Laboratories.

A2LA Certificate Number: 6759.01

The EMC Laboratory has been accredited by A2LA, and in compliance with ISO/IEC 17025:2017 General Requirements for testing Laboratories.

FCC Registration Number: 561109

The EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications commission.

IC Registration Number: 29628

CAB identifier: CN0141

The EMC Laboratory has been registered and fully described in a report filed with the (IC) Industry Canada.

1.4 Measurement Uncertainty

Parameter	Uncertainty
Occupied Channel Bandwidth	±1.42 x10 ⁻⁴ %
RF output power, conducted	±1.06dB
Power Spectral Density, conducted	5 5 ±1.06dB
Unwanted Emissions, conducted	5 ±2.51dB
AC Power Line Conducted Emission	±1.80dB
Radiated Spurious Emission test (9kHz-30MHz)	±2.66dB
Radiated Spurious Emission test (30MHz-1000MHz)	±4.04dB
Radiated Spurious Emission test (1000MHz-18000MHz)	2 1 ±4.70 dB
Radiated Spurious Emission test (18GHz-40GHz)	±4.80dB
Temperature	±0.8°C
Humidity of the of the of the of the of the of the	±3.2%
DC and low frequency voltages	±0.1%
Time" S S A M S S S A M S S S S S S S	±5%
Duty cycle	€ _£ ±5% € _2

Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2

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Address: East of 1/F., Building E, Xinghong Science Park, No.111, Shuiku Road, Fenghuanggang, Xixiang Street, Bao'an District, Shenzhen, Guangdong, China Tel: 0755-23008269 Fax: 0755-23726780 http://www.qctest.com.cn

2. Summary of Test Results

Test Item	Section	Result	
Antenna Requirement	FCC part 15.203/15.247 (c)	Pass	
AC Power Line Conducted Emission	FCC part 15.207	Pass	
Conducted Peak Output Power	FCC part 15.247 (b)(3)	Pass	
Channel Bandwidth & 99% Occupied Bandwidth	FCC part 15.247 (a)(2)	Pass	
Power Spectral Density	FCC part 15.247 (e)	Pass	
Band Edge	FCC part 15.247(d)	Pass	
Spurious Emissions	FCC part 15.205/15.209	Pass	

Note: 1. Pass: The EUT complies with the essential requirements in the standard.

2.Test according to ANSI C63.10:2013

3.. All indications of Pass/Fail in this report are opinions expressed by Shenzhen QC Testing Laboratory Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.

3. List of Test and Measurement Instruments

3.1 Conducted Emission Test

ltem	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.Due
IN XING S	EMI Test Receiver	Rohde&Schwarz	ESIB 7	2277573376	2024.03.14	2025.03.13
2	EMI Test Receiver	Rohde&Schwarz	ESCI3	101820	2024.08.06	2025.08.05
3	Artificial Mains Network	SCHWARZBECK	NSLK8126	8126200	2024.08.06	2025.08.05
4	PULSE LIMITER	Rohde&Schwarz	ESH3-Z2	100058	2024.03.14	2025.03.13

tem	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.Due
1. ⁶ .	EMI Test Receiver	[°] [©] [©] [©] [©] [©] [©] [©]	ESIB 7	2277573376	2024.03.14	2025.03.13
2. ¢	EMI Test Receiver	ESPI3	ESPI3	101131	2024.03.14	2025.03.13
3.	Spectrum Analyzer	Rohde&Schwarz	FSV 40	101458	2024.03.14	2025.03.13
4.4	TRILOG Broadband Test-Antenna	SCHWARZBECK	VULB9168	VULB9168-58 8	2023.04.01	2025.03.31
5.	Loop Antenna	EMCO	6502	2133	2023.03.18	2025.03.17
6.	horn antenna	SCHWARZBECK	BBHA9120D	2069	2023.04.01	2025.03.31
7 . É	Horn Antenna	COM-MW	ZLB7-18-40G -950	12221225	2023.01.12	2025.01.09
8. °	Pre-amplifier	MITEQ MITEQ	TTA0001-18	2063645	2024.03.27	2025.03.26
9.	Pre-amplifier	COM-MW	DLAN-18000 -40000-02	10229104	2024.03.14	2025.03.13
10.	966 Camber	ZhongYU	9*6*6	AST AND SO AND	2023.05.08	2026.05.07

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ltem	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.Due
111 1. 00 111 1. 00	Wideband Radio Communication Tester	Rohde & Schwarz	CW500	151583	2024.03.14	2025.03.13
2.	Spectrum Analyzer	ROHDE& SCHWARZ	FSV 40	101458	2024.03.14	2025.03.13
3.	Signal Generator	Agilent	N5182A	MY50141563	2024.03.14	2025.03.13
4.	RF Automatic Test System	STILLING MW STELLSTING	MW100-RFCB/ MW100-PSB	MW2007004	2024.03.14	2025.03.13

3.3 RF Conducted test

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4. 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.

EUT Antenna: The Antenna is Plannar Inverted F Antenna on board, the best case gain of the antenna is 2.78dBi, reference to the Internal photo for details.

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5. Conducted Emissions

5.1 Applicable Standard

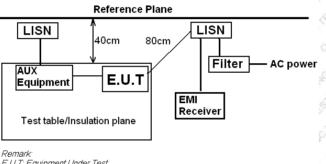
FCC Part15 C Section 15.207

5.2 Limit

k	- (Limit (dBµV)
2	Frequency range (MHz)	Quasi-peak	Average
4	0.15-0.5	66 to 56*	56 to 46*
9	0.5-5 6 6	56	46
P.	5-30	60 ch 5 ^m	50 50 STAT

Note *: The level decreases linearly with the logarithm of the frequency.

5.3 Test setup



E.U.T. Equipment Under Test LISN: Line Impedence Stabilization Network Test table height=0.8m

5.4 EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz. RBW=9 kHz, VBW=30 kHz, Sweep time=auto

5.5 Test procedure

- 1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment.
- The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs).
- 3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.

5.6 Test Data

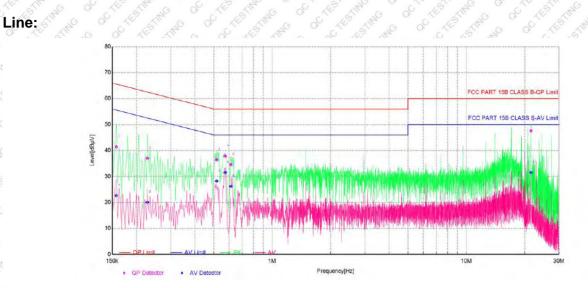
<	Temperature	23 °C	Humidity	52%
0	ATM Pressure	101.1kPa	Antenna Gain	2.78dBi
Q	Test by	LBiLi	Test result	PASS

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Measurement data:

Pre-scan all test modes, found worst case at 802.11b mode 2412MHz, and so only show the test result of 802.11b mode 2412MHz



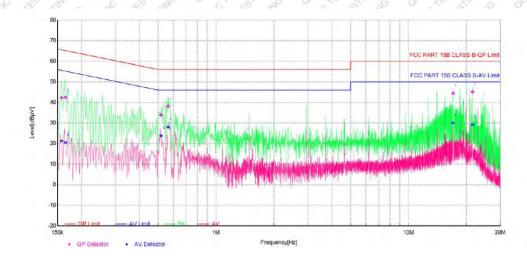
NO,	Freq. [MHz]	Factor[dB]	QP Value	QP Limit	QP Margin	AV Value	AV Limit	AV Margin	Phase	Verdict
			[dBµV]	[dBµV]	[dB]	[dBµV]	[dBµV]	[dB]		
1	0.1575	10.59	41.38	65.59	24.21	22.63	55.59	32.96	L	PASS
2	0.2275	10.68	37.03	62.54	25.51	20.08	52.54	32.46	L	PASS
3	0.5175	10.73	36.46	56.00	19.54	28.24	46.00	17.76	L	PASS
4	0.5725	1 0.75	37.85	56.00	18.15	31.54	46.00	14.46	L	PASS
5	0.6125	10.75	34.55	56.00	21.45	26.22	46.00	19.78	L	PASS
6	21.521	10.88	47.54	60.00	12.46	31.53	50.00	18.47	L	PASS

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Neutral:



NO.	Freq. [MHz]	EactorIdBI Value	reg		QP	AV	AV	AV		
			Limit [dBµV]	Margin [dB]	Value Lim [dBµV] [dBµ		Margin [dB]	Phase	Verdict	
1	0.1575	10.47	42.25	65.59	23.34	21.34	55.59	34.25	N	PASS
2	0.1650	10.48	42.43	65.21	22.78	20.57	55.21	34.64	N	PASS
3	0.5175	10.60	33.88	56.00	22.12	23.78	46.00	22.22	N	PASS
4	0.5625	10.65	37.97	56.00	18.03	28.10	46.00	17.90	N	PASS
5	17.0435	10.95	44.37	60.00	15.63	30.09	50.00	19.91	N	PASS
6	21.494	10.86	45.05	60.00	14.95	29.25	50.00	20.75	N	PASS

Notes:

- 1. An initial pre-scan was performed on the line and neutral lines with peak detector.
- 2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.

6. Conducted Peak Output Power

6.1 Applicable Standard

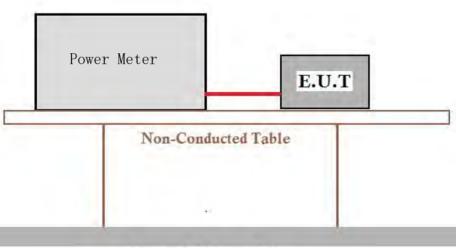
FCC Part15 C Section 15.247 (b)(3)

6.2 Limit

According to FCC §15.247(b) (3), for systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.

As an alternative to a peak power measurement, compliance can be based on a measurement of the maximum conducted output power. The maximum conducted output power is the total transmit power delivered to all antennas and antenna elements, averaged across all symbols in the signalling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or transmitting at a reduced power level. If multiple modes of operation are implemented, the maximum conducted output power is the highest total transmit power occurring in any mode.

6.3 Test setup



Ground Reference Plane

6.4 Test Procedure

The maximum peak conducted output power may be measured using a broadband peak RF power meter. The power meter shall have a video bandwidth that is greater than or equal to the DTS bandwidth and shall utilize a fast-responding diode detector.

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6.5 Test Data

Temperature	22.6 °C	Humidity	51 %
ATM Pressure	101.1kPa	Antenna Gain	2.78dBi
Test by	LBiPLi Chi Shi Shi Chi	Test result	PASS

Please refer to following table and plots.

Output Power:

Modulation	CH No.	Frequency (MHz)	Output Power (dBm)	Limit (dBm)	Verdict
Ser the the of	o ¹⁰ 01 0	2412	17.73	≪30	PASS
802.11b	06 06	2437	16.32	≤30	PASS
	° ° 11 , 5	2462	15.6	≤30	PASS
The of the	5 ¹¹⁰ 20 010 10	2412	16.97	≪30	PASS
802.11g	رگ _06 <u></u>	2437	15.74	≦30	PASS
a the the two of	a 41 a	2462	15.04	≪ ≤30	PASS
of the start	o 01°	2412	18.53	≤30	PASS
802.11 n(HT20)	06	2437	17.5	≪30	PASS
	still with a start	2462	16.99	≤30	PASS
ARE ARE OF	03	2422	18.1	≤30	PASS
802.11 n(HT40)	06	2437	17.28	≤30	PASS
	o o 09	2452	16.62	≤30	PASS

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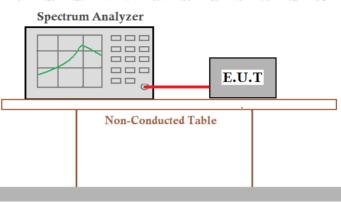
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7. Channel Bandwidth & 99% Occupied Bandwidth

- 7.1 Applicable Standard FCC Part15 C Section 15.247 (a)(2)
- 7.2 Limit

The minimum 6 dB bandwidth shall be 500 kHz.

7.3 Test setup



Ground Reference Plane

7.4 Test Procedure

The following conditions shall be observed for measuring the occupied bandwidth and x dB bandwidth: • The transmitter shall be operated at its maximum carrier power measured under normal test

conditions.

• The span of the spectrum analyzer shall be set large enough to capture all products of the modulation process, including the emission skirts, around the carrier frequency, but small enough to avoid having other emissions (e.g. on adjacent channels) within the span.

• The detector of the spectrum analyzer shall be set to "Sample". However, a peak, or peak hold, may be used in place of the sampling detector since this usually produces a wider bandwidth than the actual bandwidth (worst-case measurement). Use of a peak hold (or "Max Hold") may be necessary to determine the occupied / x dB bandwidth if the device is not transmitting continuously.

• Set RBW =1% to 5% of the OBW, but not less than 100 kHz, VBW ≥3 x RBW Detector = Peak. Trace mode=max hold. Sweep=auto Trace=max hold.

Note: It may be necessary to repeat the measurement a few times until the RBW and VBW are in compliance with the above requirement.

For the 99% emission bandwidth, the trace data points are recovered and directly summed in linear power level terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached, and that frequency recorded. The process is repeated for the highest frequency data points (starting at the highest frequency, at the right side of the span, and going down in frequency). This frequency is then recorded. The difference between the two recorded frequencies is the occupied bandwidth (or the 99% emission bandwidth).

7.5 Test Data

ç	Temperature	22.6 °C	Humidity	51 %
	ATM Pressure	101.1kPa	Antenna Gain	2.78dBi
9	Test by	LBi Li ^e	Test result	PASS

Please refer to following table and plots. **DTS Bandwidth:**

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S LE Mag	De De de .	CE LE LE LE	o the still to o	LE LIN D D	No all and
Modulation	CH No.	Frequency (MHz)	DTS Bandwidth (MHz)	Limit (MHz)	Verdict
No a charge	01 A	2412	11.751	6 60.5 M	PASS
802.11b	06	2437	12.219	0.5	PASS
LEST IN CO	o 511 ·	2462	12.081	0.5	PASS
S CHE STIM NO	01	2412	15.087	0.5°	PASS
802.11g	06	2437	15.057	€ (0.5 M _ C	PASS
NO O LES	11° A	2462	15.054	0.5	PASS
STAR OF	01	2412	15.054	0.5	PASS
802.11 n(HT20)	06	2437	12.558	د م 0.5 م	PASS
	~ 11 J.M	2462	15.075	0.5	PASS
6 6 A	03	2422	35.076	0.5 June 20	PASS
802.11 n(HT40)	06	2437	35.058	0.5	PASS
2 1(0140) ×	09	2452	35.076	6 ¹¹⁰ 0.5° 5 ¹⁰	PASS

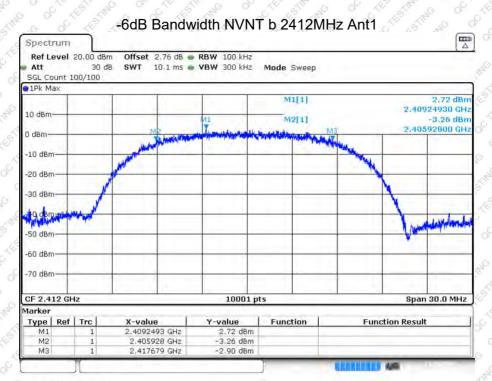
99% Occupied Bandwidth:

Modulation	CH No.	Frequency (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Verdict
	5 ¹¹ , 01 0 0	2412	15.25	and the second	PASS
802.11b	06	2437	15.238	All and a contraction	PASS
and the first the g	a crititati	2462	15.226	AND AND A	PASS
CO LE LIN	o 01 0 5	2412	17.128		PASS
802.11g	06 0	2437	17.179	C C - C SIM	PASS
STITUTE OF CH	11 °	2462	17.128	ANN O CONTRACT	PASS
ALC STRUCK	01	2412	18.046	ESTIN MO- OC	PASS
802.11 n(HT20)	06	2437	18.115	A R C	PASS
	∞ d1√°_≾	2462	18.076	a china the	PASS
the of the	03 0	2422	35.744	20 00- LES LINA	PASS
802.11 n(HT40)	06	2437	35.696	A CONTRACTOR	PASS
	6 . (°09, °°	2452	35.732	C C C C	PASS

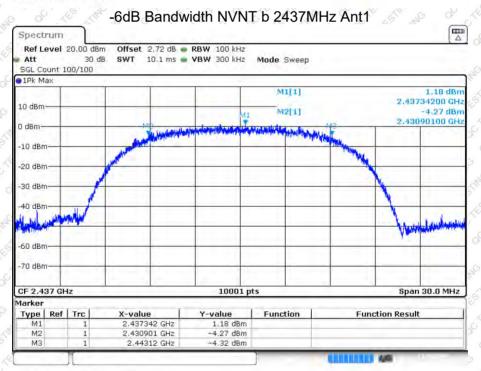
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Date: 11.DEC.2024 16:23:06



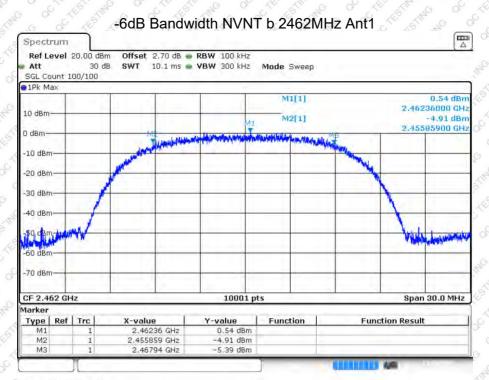
Date: 11.DEC.2024 16:24:45

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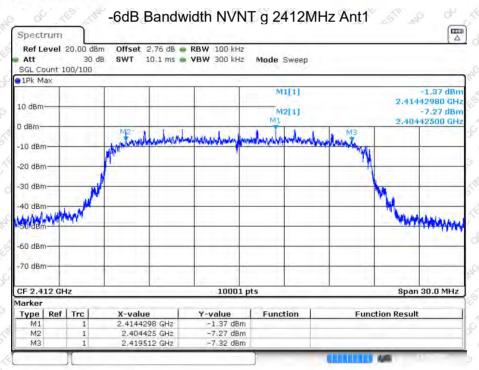
Address: East of 1/F., Building E, Xinghong Science Park, No.111, Shuiku Road, Fenghuanggang, Xixiang Street, Bao'an District, Shenzhen, Guangdong, China Tel: 0755-23008269 Fax: 0755-23726780 http://www.qctest.com.cn

Report No.: QCT24LR-2439E-01





CDate: 11.DEC.2024 16:26:18

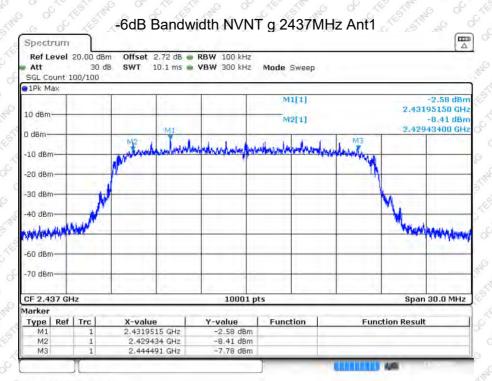


Date: 11.DEC.2024 16:30:08

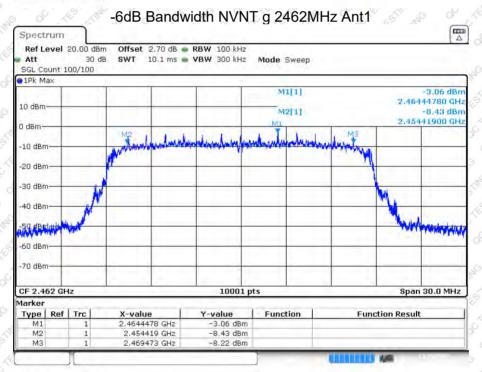
Report No.: QCT24LR-2439E-01

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Date: 11.DEC.2024 16:32:06

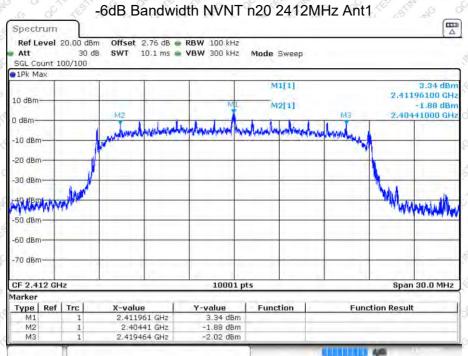


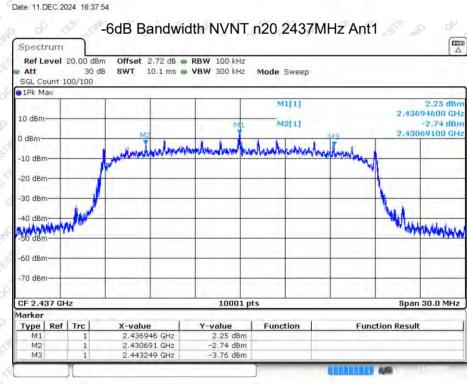
Date: 11.DEC.2024 16:33:55

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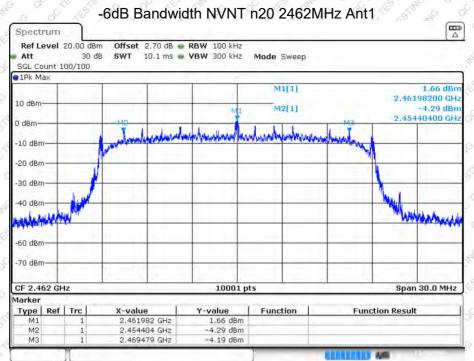


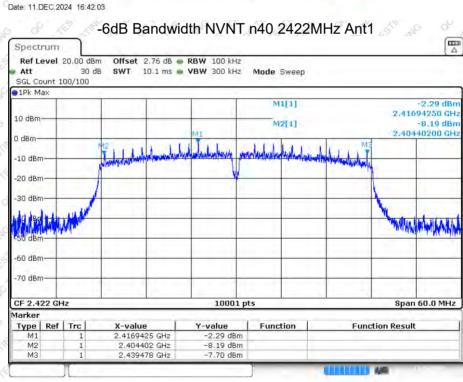
Date: 11.DEC.2024 16:39:58

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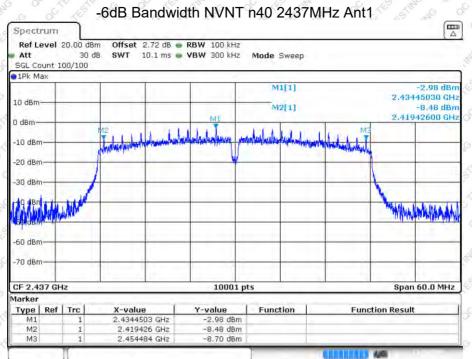


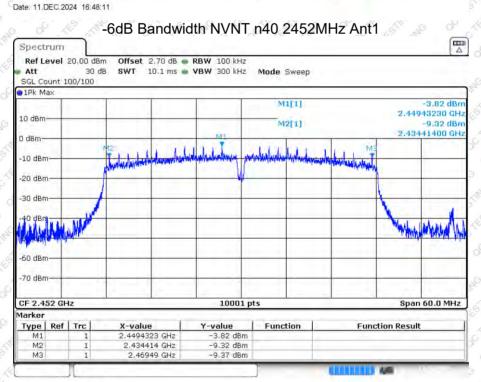
Date: 11.DEC.2024 16:45:19

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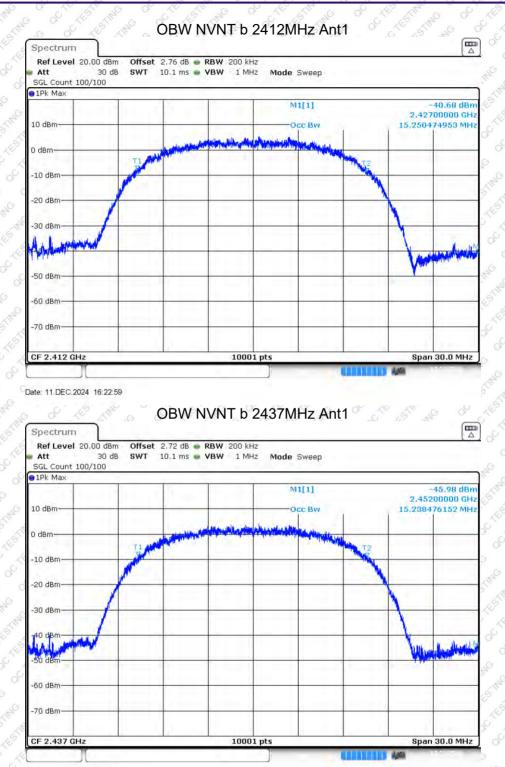


Date: 11.DEC.2024 16:50:50

Report No.: QCT24LR-2439E-01

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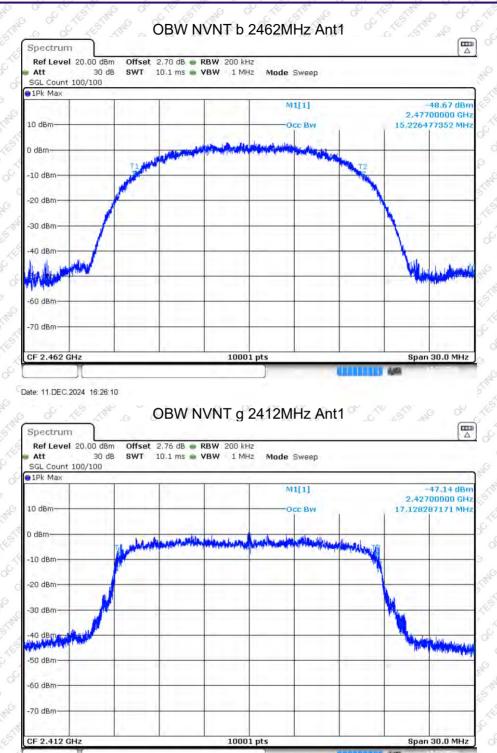


Date: 11.DEC.2024 16:24:38

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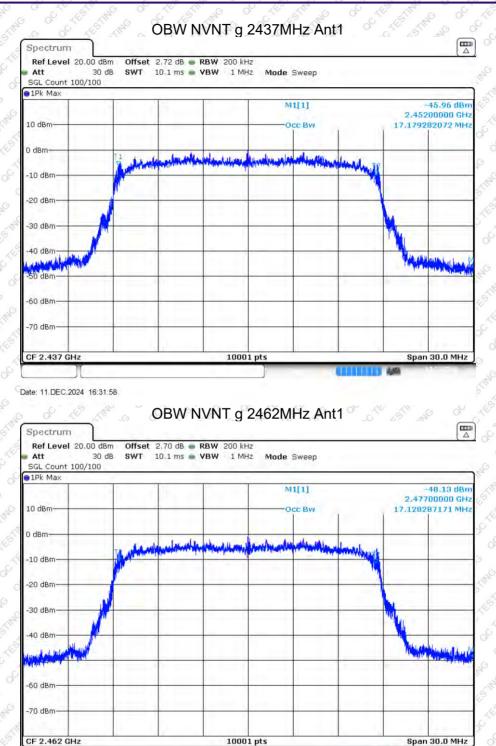


Date: 11.DEC.2024 16:30:01

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G D A G

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Date: 11.DEC.2024 16:33:45

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Date: 11.DEC.2024 16:39:48

-60 dBm -70 dBm

CF 2.437 GHz

Report No.: QCT24LR-2439E-01

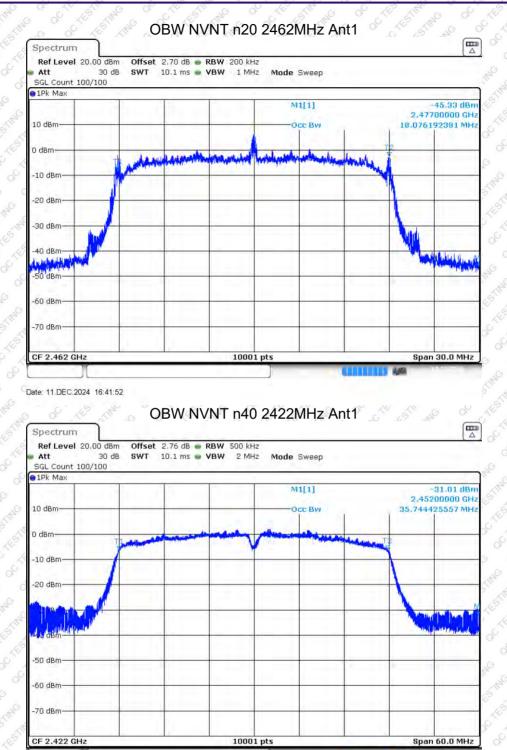
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Span 30.0 MHz

Address: East of 1/F., Building E, Xinghong Science Park, No.111, Shuiku Road, Fenghuanggang, Xixiang Street, Bao'an District, Shenzhen, Guangdong, China Tel: 0755-23008269 Fax: 0755-23726780 http://www.qctest.com.cn

10001 pts



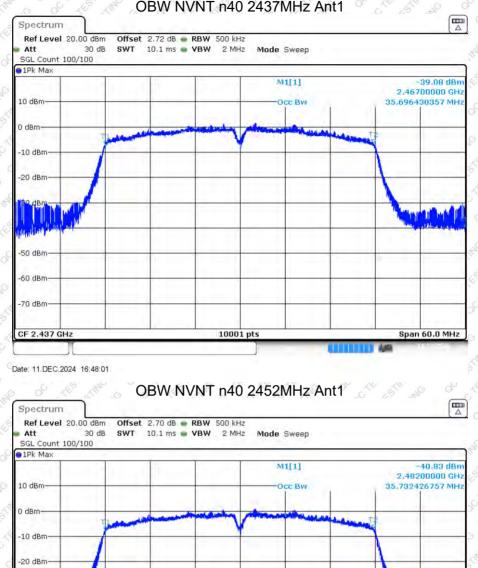


Date: 11.DEC.2024 16:45:08

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Report No.: QCT24LR-2439E-01





OBW NVNT n40 2437MHz Ant1

Date: 11.DEC.2024 16:50:40

CF 2.452 GHz

0 dBm

-50 dBm -60 dBm 70 dBm

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Span 60.0 MHz

Address: East of 1/F., Building E, Xinghong Science Park, No.111, Shuiku Road, Fenghuanggang, Xixiang Street, Bao'an District, Shenzhen, Guangdong, China Tel: 0755-23008269 Fax: 0755-23726780 http://www.qctest.com.cn

10001 pts

8. Power Spectral Density

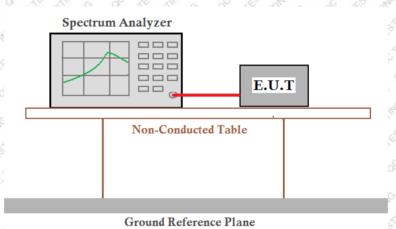
8.1 Applicable Standard

FCC Part15 C Section 15.247 (e)

8.2 Limit

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density

8.3 Test setup



and the second

8.4 Test Procedure

Refer to KDB558074 D01 15.247 Meas Guidance v05r02

8.5 Test Data

Temperature	22.6 °C	Humidity	51 %
ATM Pressure	101.1kPa	Antenna Gain	2.78dBi
Test by	LBi Li C L ST S	Test result	PASS

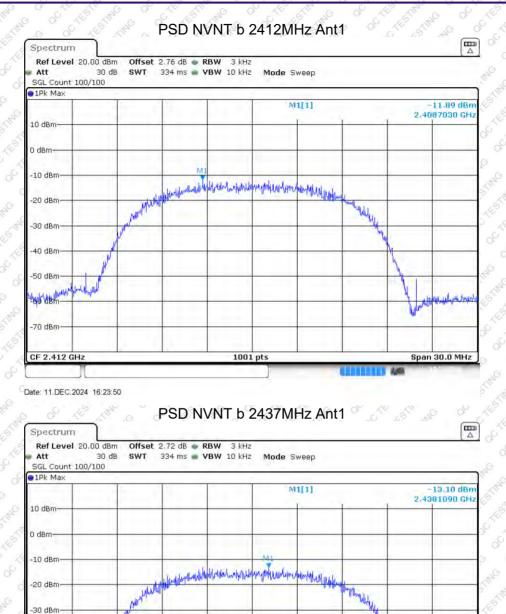
Please refer to following table and plots.

Modulation	Frequency (MHz)	Max PSD (dBm)	Limit (dBm/3kHz)	Modulation	Frequency (MHz)	Max PSD (dBm)	Limit (dBm/3kHz)
802.11b	2412	-11.89	A 8 0	802.11 n(HT20)	2412	-13.36	5 Mar 108 00
	2437	-13.1	8		2437	-14.38	10° 8° °
	2462	-13.61	6 8° 1114		2462	-14.98	8
802.11g	2412	-15.54	8	802.11 n(HT40)	2422	-17 m	884
	2437	-16.61	STING NO 8 OF		2437	-17.62	8 8
	2462	-17.19	8		2452	-18.34	5 ¹¹¹ 8 °

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Date: 11.DEC.2024 16:25:30

Date: 11.DE0.2024 10.23.30

-40 dBm -50 dBm -60 dBm

-70 dBm

CF 2.437 GHz

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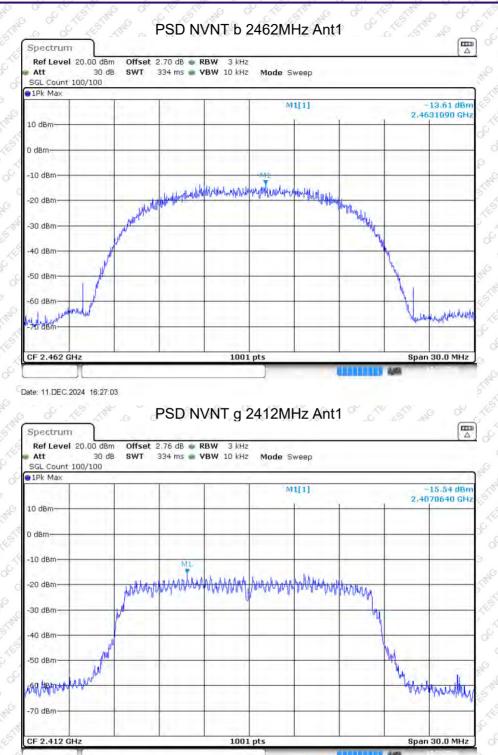
4 words days low have

Span 30.0 MHz

Address: East of 1/F., Building E, Xinghong Science Park, No.111, Shuiku Road, Fenghuanggang, Xixiang Street, Bao'an District, Shenzhen, Guangdong, China Tel: 0755-23008269 Fax: 0755-23726780 http://www.qctest.com.cn

1001 pts



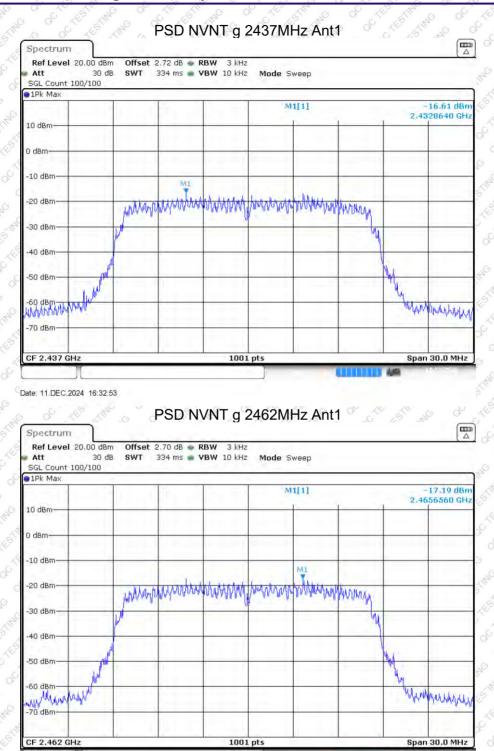


Date: 11.DEC.2024 16:30:53

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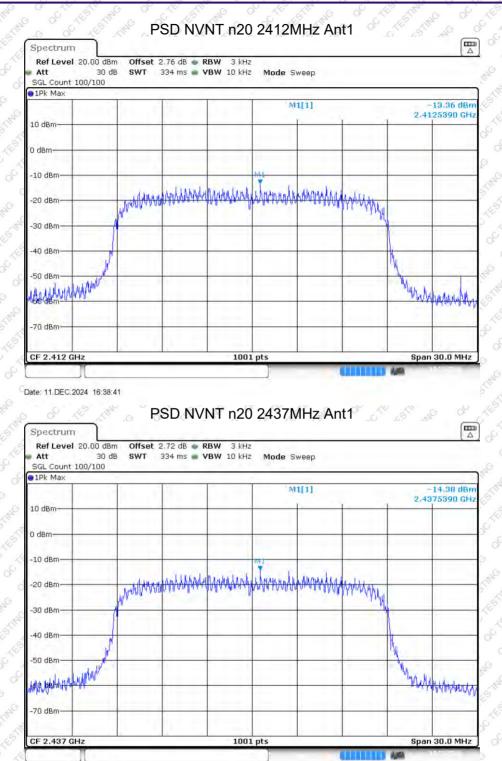


Date: 11.DEC.2024 16:34:41

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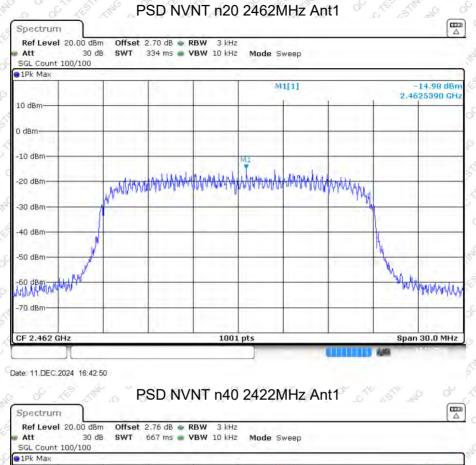


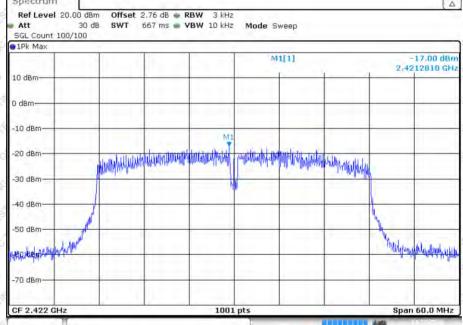
Date: 11.DEC.2024 16:40:46

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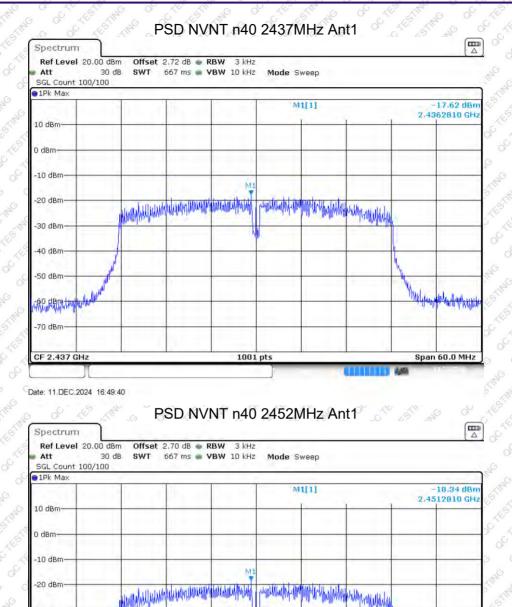


Date: 11.DEC.2024 16:46:49

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Date: 11.DEC.2024 16:52:19

-30 dBm -40 dBm -50 dBm

-60 dB

CF 2.452 GHz

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Span 60.0 MHz

Address: East of 1/F., Building E, Xinghong Science Park, No.111, Shuiku Road, Fenghuanggang, Xixiang Street, Bao'an District, Shenzhen, Guangdong, China Tel: 0755-23008269 Fax: 0755-23726780 http://www.qctest.com.cn

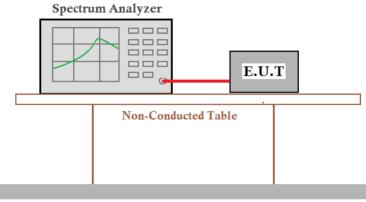
1001 pts

9. Spurious Emission in Non-restricted & restricted Bands

- 9.1 Conducted Emission Method
 - 9.1.1 Applicable Standard
 - FCC Part15 C Section 15.247 (d)
 - 9.1.2 Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

9.1.3 Test setup



Ground Reference Plane

9.1.4 Test Procedure

 Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.

- Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
- Set RBW to 100 kHz and VBW of spectrum analyzer to 300 kHz with a convenient frequency span including 100 kHz bandwidth from band edge.
- Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.

• Repeat above procedures until all measured frequencies were complete.

9.0	1.5 Test Data	A CAR A C	A A S S A A	G G L A G
	Temperature	22.6 °C	Humidity	51 %
1 Per	ATM Pressure	101.1kPa	Antenna Gain	2.78dBi
Ŀ,	Test by	LBitli Int S S In	Test result	PASS

Please refer to following plots.

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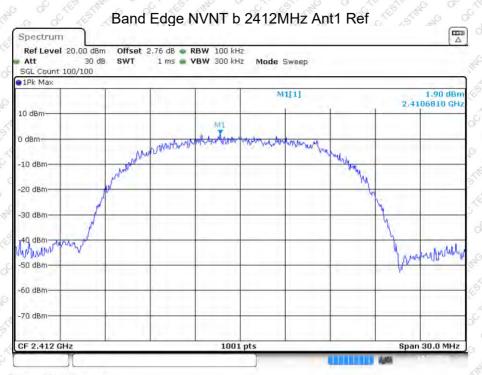
Modulation	Frequency (MHz)	Max Value (dBc)	Limit (dBc)	Verdict
De la la	2412	-52.7	-20	Pass
ST AT A S S	2462	-52.91	-20	Pass
of other grand and	2412	-50.32	-20 20	Pass
B O G g B STHO	2462	-48.48	-20 chi sh	Pass
n20	2412	-50.4	- <u>2</u> 0 6 5	Pass
n20 °	2462	-52.81	-20	Pass
n40 o	2422	-37.45	° ° ° -20 ° , °	Pass
∽n40	2452	-39.25	5 ¹¹⁰	Pass And to

Band Edge:

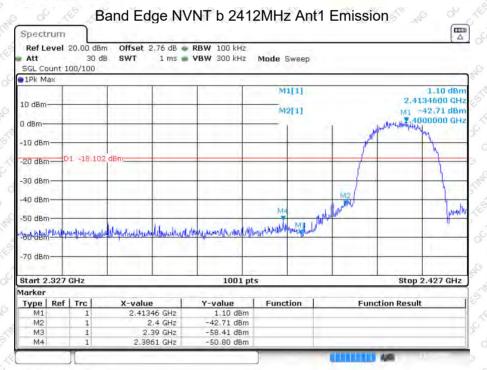
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CDate: 11.DEC.2024 16:23:54

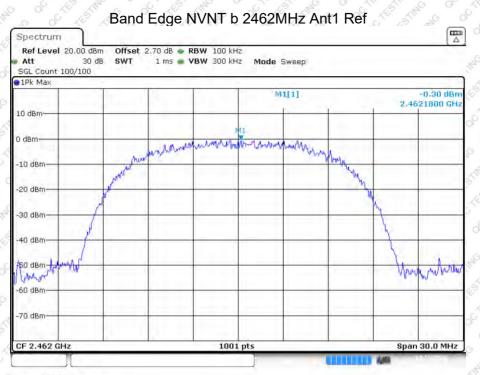


Date: 11.DEC.2024 16:23:56

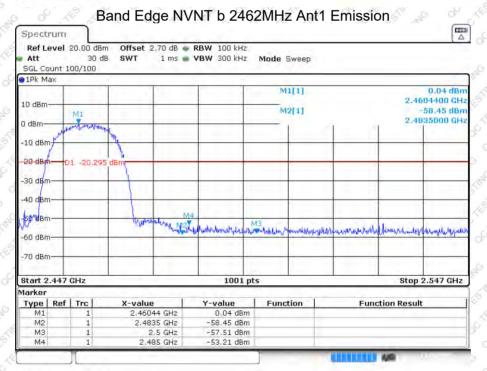
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CDate: 11.DEC.2024 16:28:31



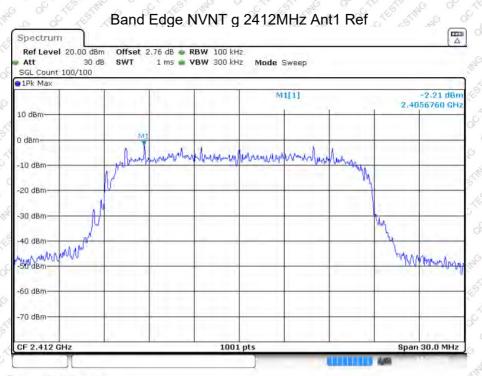
Date: 11.DEC.2024 16:28:33

0

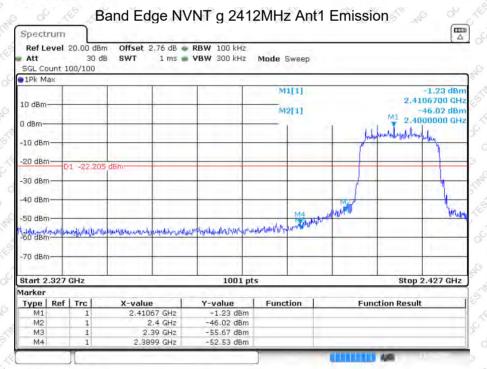
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Date: 11.DEC.2024 16:30:58

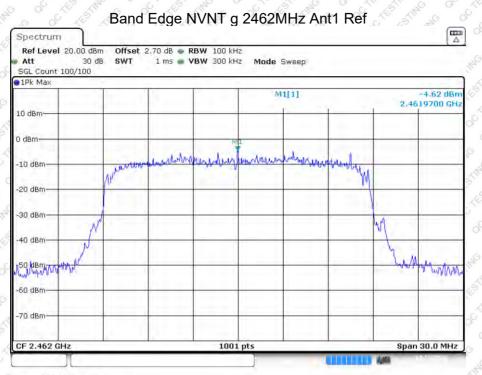


Date: 11.DEC.2024 16:31:00

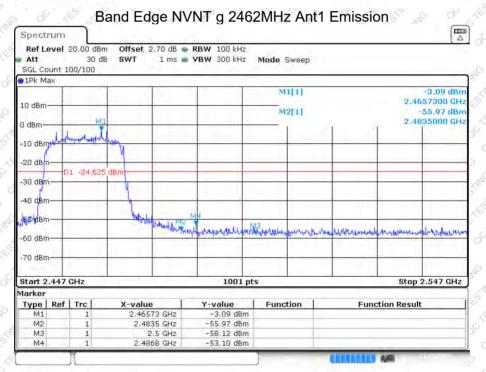
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Date: 11.DEC.2024 16:34:48

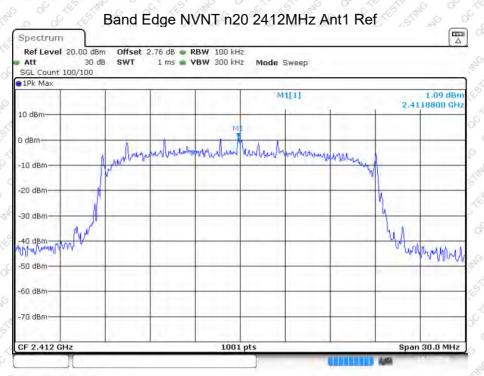


Date: 11.DEC.2024 16:34:49

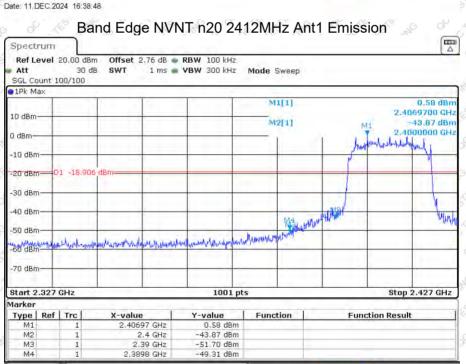
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Date: 11.DEC.2024 16:38:48

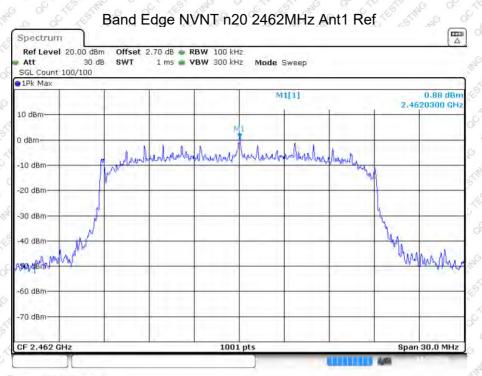


Date: 11.DEC.2024 16:38:50

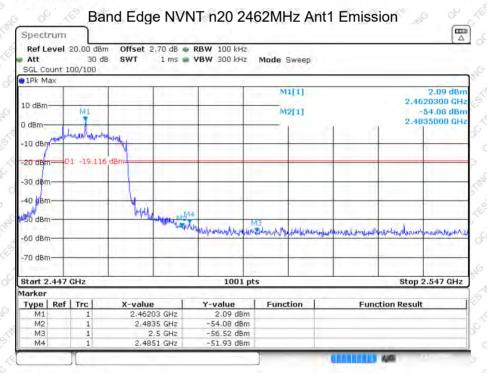
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CDate: 11.DEC.2024 16:42:58

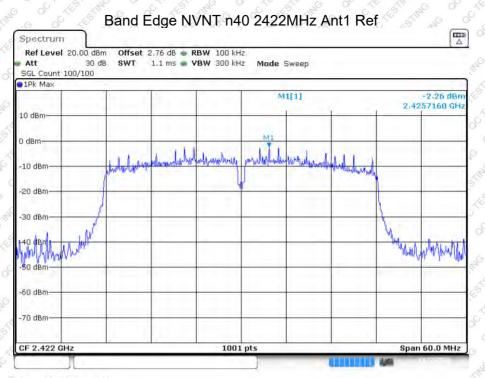


Date: 11.DEC.2024 16:43:00

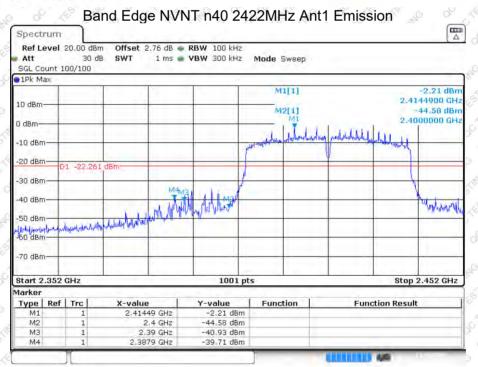
Report No.: QCT24LR-2439E-01

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CDate: 11.DEC.2024 16:46:55

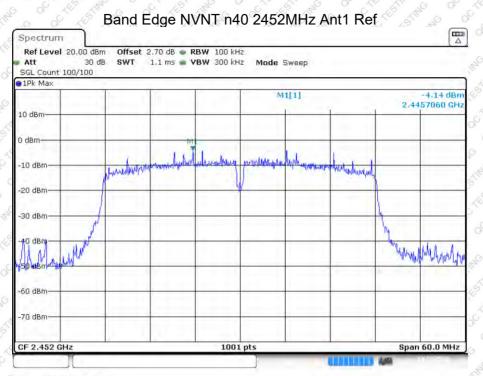


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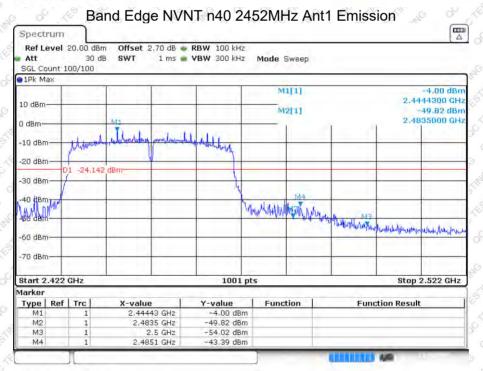
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CDate: 11.DEC.2024 16:52:27



Date: 11.DEC.2024 16:52:29

Report No.: QCT24LR-2439E-01

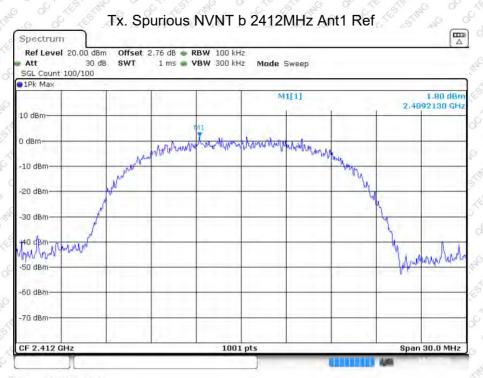
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Modulation	Frequency (MHz)	Max Value (dBc)	Limit (dBc)	Verdict
Stime 6 b St re	2412	-47.88	-20	Passo 1
C. C. C.	2437	-47.25	-20 (¹⁰)	Pass
C CLE DURNE	2462	-46.3	-20 -20	Pass
o o gre sta	2412	-41.32	-20 A A	Pass
Star Golden	2437	-43.02	-20	Pass
LE MG C	2462	-42.69	-20	Pass
n20	2412	-49.37	-20 S-20 S	Pass
o n20 📌	2437	-45.05	-20 Jun -20 Jun 511	Pass in a
n20	2462	-43.53	1 -20 S	Pass A
5 n40 0	2422	-44.29	-20° ° °	Pass
n40	2437	-42.15	-20	Pass
n40	2452	-43.65	-20 (STR	Pass

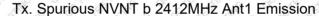
Conducted RF Spurious Emission:

Report No.: QCT24LR-2439E-01





CDate: 11.DEC.2024 16:24:01



Ref Level Att SGL Count	3(RBW 100 kHz VBW 300 kHz	Mode	Sweep				
1Pk Max	_	-	1	1		1[1]				1.92 dBn
10 10		1 11 11 11			IN	uft]				2.4230 GH
10 dBm M1		1.1.			M	2[1]				46.08 dBn
J dBm									1	5.4414 GH
		1.1	1.0.0							THE COL
-10 dBm						1	-	-		-
20 dBm-	01 -18	201 dBm	-	-		1				
	00 630	a share a								
30 dBm			-	-		-	-			
5.00		4								
40 dBm		110				1912	-			
50 dBm	_	Ma	MS		N.	abitur	ar march	and i		that the strange and
50 dBm	See Horton	Inthe Shit	multin	alleranauthanist	underhouse		1	in With the Des	Mulannoun	and a strange the star
60 dBm	_		the second		_	-				
-							_			
70 dBm	-									
Start 30.0 (MHz			1001 p	ts			-	Stop	26.5 GHz
larker					S					
Type Ref		X-valu		Y-value	Func	tion		Functi	ion Result	
M1	1		23 GHz	1,92 dBm	-		_			
M2	1		14 GHz	-46.08 dBm						
M3 M4	1		99 GHz 63 GHz	-50.39 dBm -55.00 dBm	-					
MI4 M5	1		74 GHz	-54.19 dBm	1					

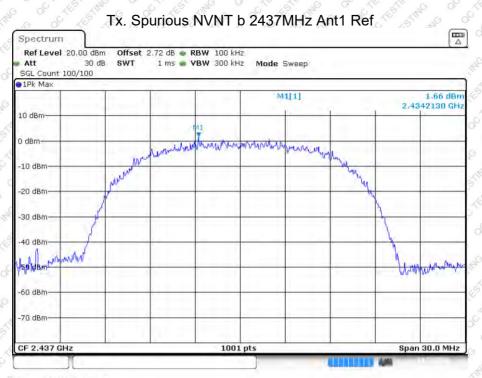
Date: 11.DEC.2024 16:24:13

Nº OF AT ST. NO

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CDate: 11.DEC.2024 16:25:34



Ref Lo Att SGL Co				100 100 100 100 E	RBW 100 kHz VBW 300 kHz	Mode S	weep		
1Pk M	∋x:								
						M1	[1]		1.03 dBr
10 dBm									2.4230 GH
	MI		1			M2	11		=45.59 dBr 19.3266 GH
J dBm-						1		1	19.3200 GH
10 dBm								_	
								-	
-20 dBm		1 -18.3	37 dBm		-			-	
30 dBm									
SU UBII			• • · · · · · · ·						
-40 dBm		_	-					WI2	
4		M		ME				and a start	
-50 dBm		andrahanitan	www.sepulidean	No.	and the second s	shapped the state	La Manada	A TOP WAY OF PRATE	nantimum temperature and
60 dBm	and the second		Clower	atrebarton	and the second sec				
00 00.						_			
70 dBm			-	-	-				
								1.	
Start 3	0.0 M	IHz	0		1001 pt	5			Stop 26.5 GHz
larker	. · · · · ·					d			
Type	Ref	Trc	X-value		Y-value	Functi	on	Func	tion Result
M1		1		3 GHz	1.03 dBm				
M2	_	1	19,326		-45.59 dBm	-	_		
M3 M4	_	1		3 GHz	-50.75 dBm -54.64 dBm		_		
W14		(L)	7.256	13 GHZ	-54.64 0BM				

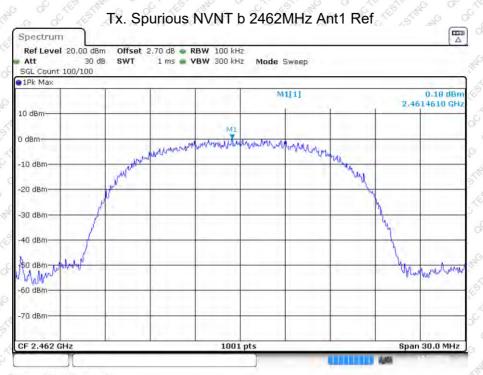
Date: 11.DEC.2024 16:25:46

AN G G LO L

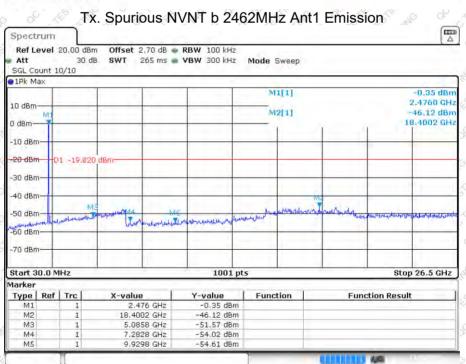
Report No.: QCT24LR-2439E-01

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CDate: 11.DEC.2024 16:27:15



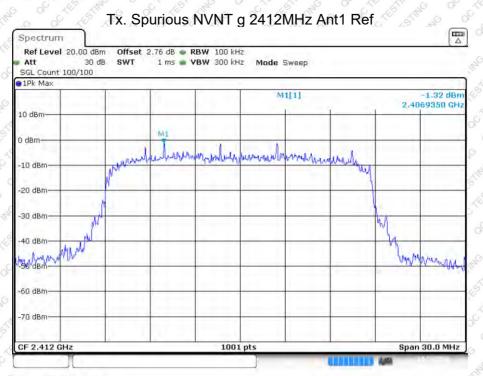
Date: 11.DEC.2024 16:27:27

Date: 11.DEG.2024 10.27.27

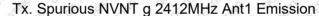
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CDate: 11.DEC.2024 16:31:05



Att SGL Co				21 - 21 - 21 - 21 - 21 - 21 - 21 - 21 -	RBW 100 kHz VBW 300 kHz	Mode 9	Sweep			
1Pk Ma	ax:									
			1.			M	1[1]			-3.72 dBn
10 dBm-	-			-						2.4230 GH
	MI					PHI	2[1]			-42.64 dBn 1.7241 GH
0 dBm—	7							1	1	1.7241 68
10 dBm								-		
20 dBm	1 Dr	-21.32	3 dBm		-			_		-
								-		
30 dBm										
40 dB	2						-	-		
14		MB	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1				1000	e la serie		
50 dBr	1	- united the	Multimer and and a	MS	when when when the second of the	mark New Standy	a the states of the	Chinage Contraction	an antipation and	Nor- align contraction of the
60 dBm			Lang	Munurt Margaret	Rednamps Balance all a	100		-		
OU UBII										
	1				-			-	-	
-70 dBm								1.		1.
-70 dBm					1001 p	ts	-	-	Sto	p 26.5 GHz
	0.0 MI	Hz								
70 dBm Start 3 Iarker	0.0 MI	Hz								
Start 3			X-value	1	Y-value	Funct	tion	Fu	nction Resu	lt
Start 3 Iarker				23 GHz	Y-value -3,72 dBm	Funct	tion	Fu	nction Resu	lt
itart 3 arker Type M1 M2		Trc	2.42 1.724	23 GHz 11 GHz	-3,72 dBm -42,64 dBm	Func	tion	Fu	nction Resu	lt
Start 3 Iarker Type M1		Trc	2.42 1.724 4.635	3 GHz	-3.72 dBm	Func	tion	Fu	nction Resu	lt

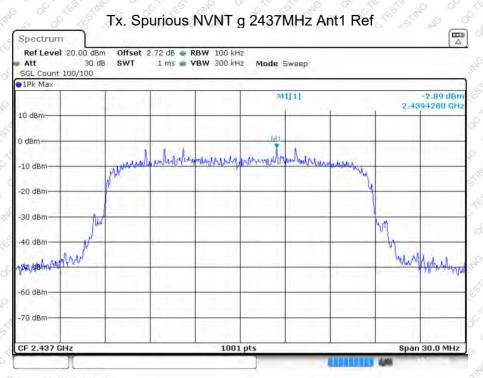
Date: 11.DEC.2024 16:31:17

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CDate: 11.DEC.2024 16:32:59



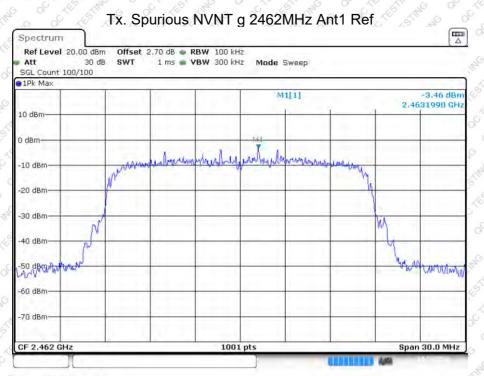
Att SGL Co			IBm Offset 2.72 d dB SWT 265 n			Mode	Sweep			
1Pk M	ах:									
10 dBm							1[1] 2[1]			-3.15 dBr 2.4230 GH -45.91 dBr
J dBm-	MI					_	1000	A		19.3531 GH
-10 dBm										
-20 dBm		1 .92.8	191 dBm			_		_		
30 dBm							_		_	
40 dBm						-		MZ	-	
50 dBn 60 dBn	1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	Januara	EM EM HANNER	115 Will Lung	adjugestormanders	works also the	helder and all	det. sond Marken y	htter water and a state of the	palaterateration
70 dBn	1-	_		-			-			
Start 3	0.0 M	IHz	4	-	1001 pt	ts			Sto	p 26.5 GHz
larker										
Type M1	Ref	Trc	X-value	- 1	Y-value	Func	tion	Fu	inction Resu	lt
		1	2.423 GF 19.3531 GF		-3.15 dBm -45.91 dBm	-				
	_	1	4,9799 GF		-50.72 dBm	-				
M2					00.72 UDII					
		1	7.3887 GH	12	-54.17 dBm					

Date: 11.DEC.2024 16:33:11

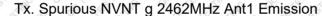
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{	_				weep			
				M1			2.	6.96 dBn 4500 GH 6.15 dBn 0296 GH
T						1		
Di	1 -23,45	7.dBm						
	M	3			M2	in a		100
a Money	wanddopen	when the work of the work of the	a standar Alander Walandar	with an and a	Carologian de Pre	and some law	autolenskalanti	American Second Street
+	-							
.0 MI	Hz		1001 pt	ts			Stop 2	26.5 GHz
		the second se						
Ref		X-value	Y-value	Functi	on	Fun	ction Result	
1	1	the second se						
_			The second					
		and the set of the set						
-								
	.0 M	01 -23.45 M M .0 MHz Ref Trc	M3 M4 M5 M3 M4 M5 M3 M4 M5 M4 M5 M4 M3 M4 M5 M4 M5 M4 M4 M5 M6 M5 M6 M6 M6 M6 M6 M6 M6 M6 M6 M6 M6 M6 M7 M6 M6 M6 M6 M6 M7 M6 M6 M7 M6 M6 M7 M6 M6 M7 M6 M8 M7 M7	D1 -23.457 dBm M3 M5 M3 M5 M4 M5 M6 M6 M3 M6 M3 M6 M3 M6 M4 M5 M6 M6 M7 M6 M7 M6 M7 M6 M8 M6 M7 M6 M8 M7 M8 M7 M8 M7 M8 M7 M8 M7 M8 M7 M8	M3 M5 M3 M5 M3 M5 M4 M5 M4 M5 M6 M6 M4 M5 M6 M6 M7 M6 M6 M7 M7 M6 M7 M6 M7 M7 M7 M7 M8 M7 M7 M7 M8 M7 M8 M7 M8 M7 M8 M8 M8 M8 M8 M8 M8 M8 M8 M8 M8 <	M3 M2 M3 M4 M3 M4 M4 M5 M4 M6 M4 M6 M4 M6 M4 M6 M6 M6 M7 M6 M6 M6 M6 M6 M7 M6 M7 M7 M7 M6 M7 M7 M7 M7	M3 M2 M3 M2 M3 M2 M4 M2 M4 M2 M4 M4 M4 M2 M4 M4 M4 <	Mile <th< td=""></th<>

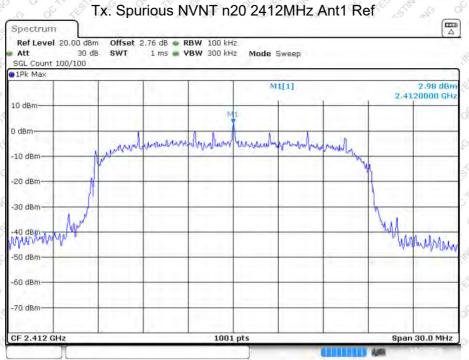
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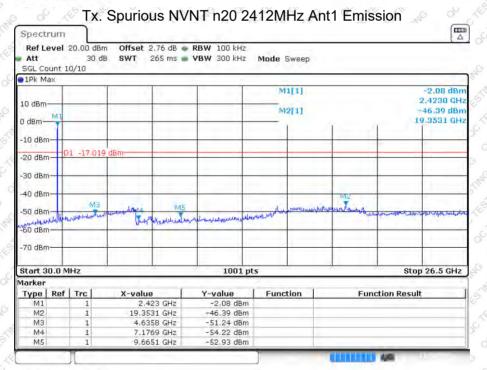
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Date: 11.DEC.2024 16:38:59

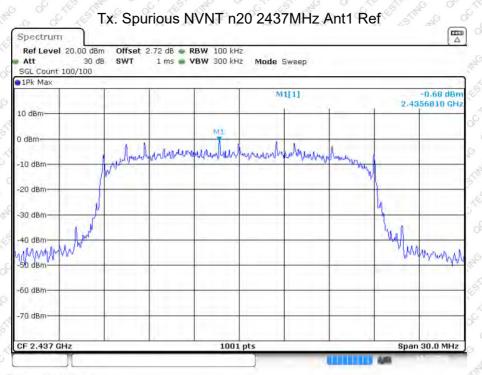


Date: 11.DEC.2024 16:39:11

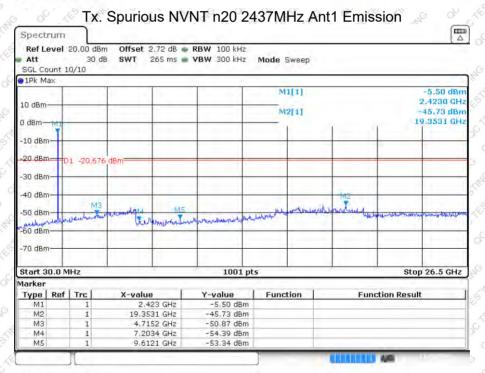
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CDate: 11.DEC.2024 16:40:53

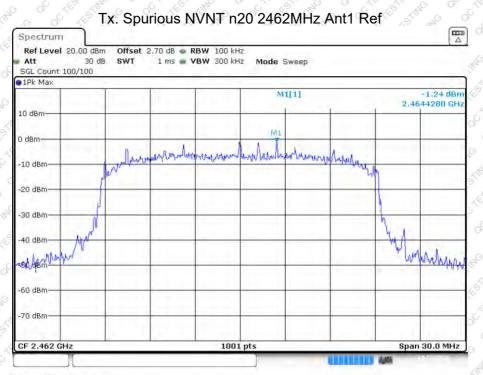


Date: 11.DEC.2024 16:41:06

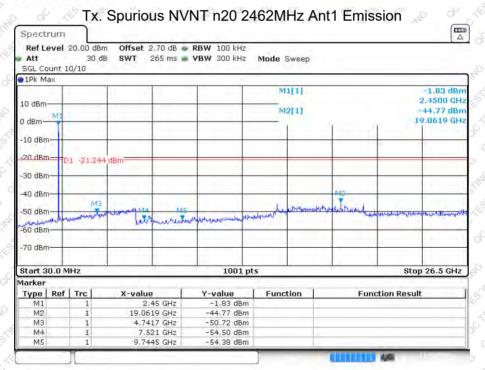
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CDate: 11.DEC.2024 16:43:08

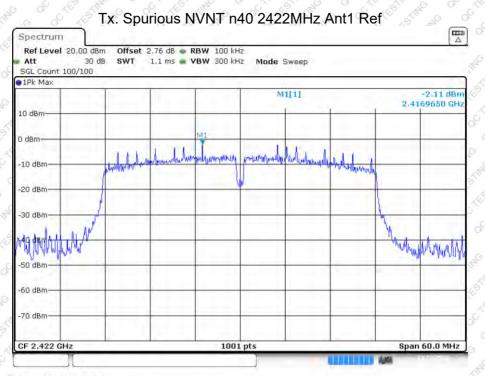


Date: 11.DEC.2024 16:43:20

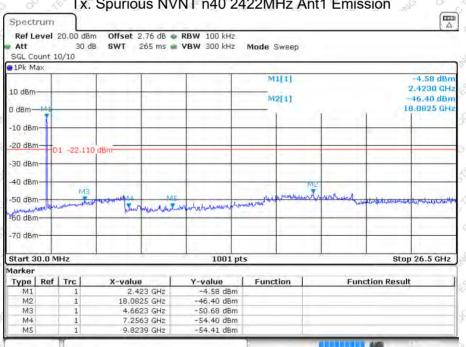
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Date: 11.DEC.2024 16:47:06



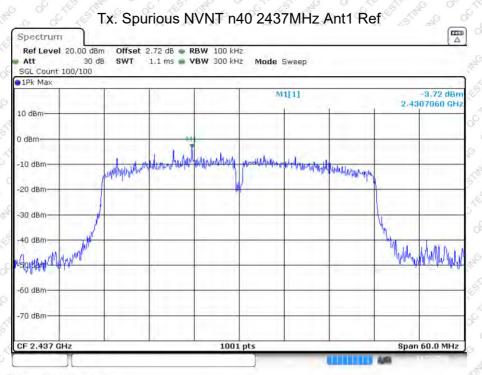
Tx. Spurious NVNT n40 2422MHz Ant1 Emission

Date: 11.DEC.2024 16:47:19

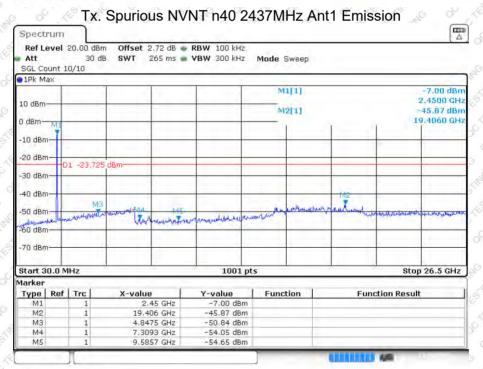
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CDate: 11.DEC.2024 16:49:47

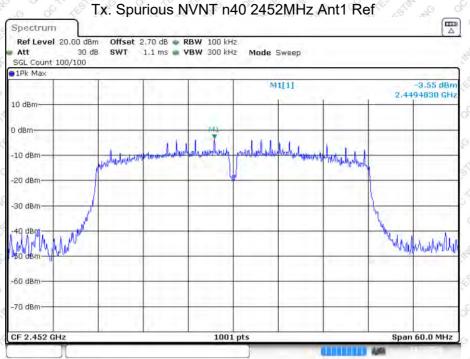


Date: 11.DEC.2024 16:50:00

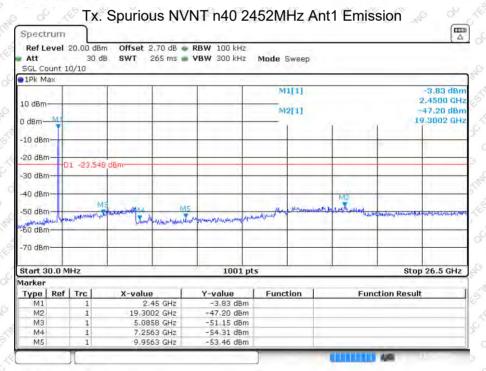
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Date: 11.DEC.2024 16:52:37



Date: 11.DEC.2024 16:52:49

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Radiated Emission Method 9.2

Applicable Standard 9.2.1

FCC Part15 C Section 15.209 and 15.205

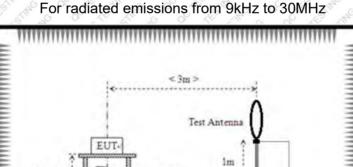
9.2.2 Limit

Frequency	Limit (uV/m)	Value	Measurement Distance
0.009MHz-0.490MHz	2400/F(KHz)	QP QP	300m 5
0.490MHz-1.705MHz	24000/F(KHz)	QP of	2 . S 30m . S . S
1.705MHz-30MHz	30	QP	30m

Frequency	Field Strengths Limits (µV/m at 3 m)	Field Strengths Limits (dBµV/m at 3 m)	Remark
30 - 88	^م ر 100 کې د	40.0	Quasi-peak
88 – 216	5 A 150 St 2	43.5	Quasi-peak
216 – 960	200 200	46.0	Quasi-peak
Above 960	<u>کې کې 500</u>	54.0	Quasi-peak
	o o che che co	74.0 8 4	Peak
Above 1GHz	MA DO CO TES END O	54.0	Average

Note: dBµV/m =20log(µV/m)

Test setup 9.2.3



Turn Tables

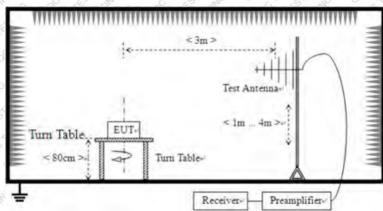
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Receiver

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For radiated emissions from 30MHz to1GHz

For radiated emissions above 1GHz

9.2.4 EMI Test Receiver Setup

AN G GE AV AN G) (1 ² .S ^a (1	19
Frequency	RBW	VBW	F B/W	Measurement
9KHz-150KHz	200Hz	600Hz	S RI M G	QP QP
150KHz-30MHz	9KHz	30KHz	o of to the o	QP QP
30 MHz – 1000 MHz	100 kHz	300 kHz	🤌 120 kHz 🔬	QP QP
	1 MHz	3 MHz	S & P S S	Peak S
Above 1 GHz	1 MHz	10 Hz	R B L D A	Average

Remark: For the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission test in these three bands are based on measurements employing an average detector.

9.2.5 Test procedure

The EUT was placed on the top of a rotating table (0.8m for below 1G and 1.5m for above 1G) above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.

- The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna

are set to make the measurement.

- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
- 9.2.6 Test Data

Temperature	22.6 ℃	Humidity	51 %
ATM Pressure	101.1kPa	Antenna Gain	2.78dBi
Test by	LBi Li Sha Sha	Test result	PASS

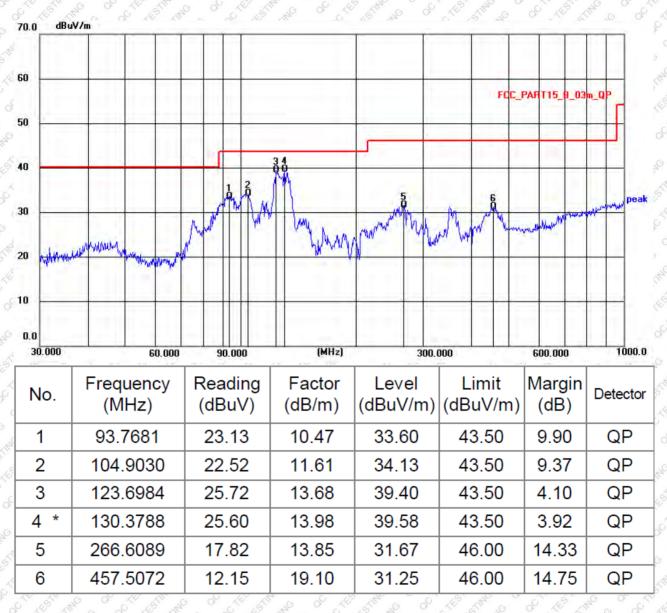
Remarks:

- 1. Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the Y- axis which it is worse case.
- 2. Data of measurement within frequency range 9kHz-30MHz, 18-26GHz are the noise floor or attenuated more than 20dB below the permissible limits or the field strength is too small to be measured, so test data does not present in this report.

Below 1GHz

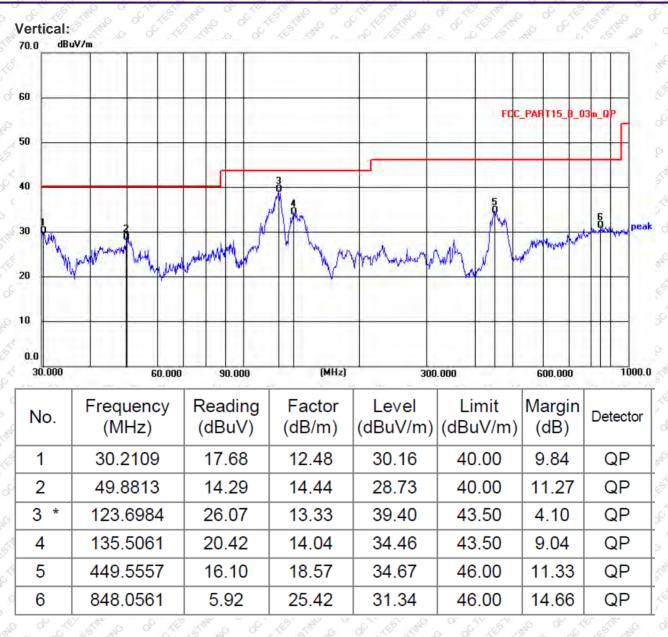
Pre-scan all test modes, found worst case at 802.11b mode 2412MHz, and so only show the test result of 802.11b mode 2412MHz

Horizontal:



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Frequency (MHz)	Read Level (dBµV)	polarization	Factor (dB/m)	Level (dBµV/m)	Limit Line (dBµV/m)	Margin (dB)	Detecto
STIM S O	er the the		11b Low	Channel	Star 15 March	CO LE LI	·
2310	40.47	ੂ ਸਿੱਟ	0.94	41.41	6 74°	32.59	peak
2310	38.41	ີ ເພີ ບ ິ ເ	0.92	39.33	° 74	34.67	peak
2390	40.97	H ST H	1.16	42.13	74 e	31.87	peak
2390	40.12	Service Victor	° 1.1 S	41.22	5 74 0	32.78	peak
4824	42.64	C H SIM	-4.29	38.35	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	35.65	peak
4824	44.23	S Vol 2	-4.43	39.8	° 74 5	34.2	peak
		STIM NO OC	11b Midd	le Channel	C C LE	THE G OF	1 Lestingthe
4874	43.3	्रि रही ु	-4.12	39.18	74 6	34.82	peak
4874	43.77	Cherry King	-4.25	39.52	ି _ଲ ି74 ୁ	34.48	peak
STIM 20 0	The all a		11b High	n Channel	offer with the	Co Le L	NO OU
2483.5	38.61	ू भ ति _र	1.4 0	40.01	6 74°	33.99	peak
2483.5	39.59	N Y S	ر 1.3	40.89	74	33.11	peak
2500	40.03	He of	1.43	41.46	74 0	32.54	peak
2500	39.09	S AV M	1.33	40.42	5 74	33.58	peak
4924	43.5	C C H	3.94	39.56	74	34.44	peak
4924	43.83	S Ver le	-4.06	39.77	74	34.23	peak
S LE M		STILL OF C	11g Low	Channel	S 8 19	AND GO	15 IN
2310	39.54	A A	0.94	40.48	~ 74° ~	33.52	peak
2310	39.87	S AN WIN NO	0.92	40.79	َ ۲4 م	33.21	peak
2390	40.26	G & H.C.	1.16	41.42	74	32.58	o peak
2390	40.66	NO V N	1 ¹⁰ 1.1 °	41.76	8 74° 11	32.24	peak
4824	0 44.14	THE H SO	-4.29	39.85	74	34.15	peak
4824	44.23	A ST VS O	-4.43	39.8	74 8	34.2	peak
S of A	E JAN O	of the time of	11g Middl	e Channel	E S O	CLE STR NO	e le
4874	43.3	C H A		39.18	74 0	34.82	peak
4874	43.77	S VS LO	-4.25	39.52	74	34.48	peak
and the state		STILL OF S	11g High	n Channel	NO OF LE	in con	Le In
2483.5	37.95	A KH S	۶ <u>1</u> .4 م	39.35	74	34.65	peak
2483.5	40.5	CALL N. M.	1.3	41.8	74 0	32.2	peak
2500	39.18	B CH C	1.43	40.61	74	33.39	o peak
2500	40.35	Nº V C	1.33	41.68	° 74°	32.32	peak
4924	6 43	Still H Sch	-3.94	39.06	74	34.94	peak
4924	43.33	No of	-4.06	39.27	74 6	34.73	peak
No of A	ES STAN JO	a the still s	11n20 Lo	w Channel	LEST MAR ON	STE ESTIMO	00 182
2310	39.71	H ST	0.94	40.65	14 74 NO	33.35	peak
2310	37.65	S V A	0.92	38.57	ر ۲4 م	35.43	peak
2390	42.05	ATT HON	1.16	43.21	्र 74 🖉	30.79	🖉 peak
2390	38.41	AS SN S	A.1	39.51	74	34.49	peak
4824	43.14	A H M	-4.29	38.85	74 0	35.15	peak
4824	43.73	V V	-4.43	39.3	74	34.7	peak

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Shenzhen	00	Testing	Laboratory	Co	I td
Onenzhen	Q.C	reading	Laboratory	ου.,	L'u

LES STIN	10 0° 10°	THE GOOD	11n20 Midd	lle Channel			STR. NO
4874	43.42	J. H.	-4.12	39.3	o 74 o	34.7	peak
4874	42.77	A Valle	-4.25	38.52	۶ 7 4	35.48	peak
AND OF	Sal and a start of the start of	of the still	11n20 Hig	h Channel 🔗	AR STRAND	of the time	
2483.5	40.48	ું મેં દ્વ	1,4	41.88	6 74 ×	32.12	peak
2483.5	38.63	Nº V °	1.3	39.93	o ∂74 ≪	34.07	peak
2500	41.55	E ANH C	1.43	42.98	74 0	31.02	peak
2500	39.74	ST N S	1.33	41.07	5 74 0	32.93	peak
4924	43	N H S	-3.94	39.06	74	34.94	peak
4924	41.83	V V	-4.06	37.77	~ 74 J	36.23	peak
Ster Star	S of A	I'M G Q	11n40 Lov	v Channel		in the of the	STILL MAD
2310 🖉	40.3	A H	0.94	41.24	× 74°	32.76	peak
2310	39.7	The Killer	0.92	40.62	A 74	33.38	peak
2390	40.86	° L'H L	1.16	42.02	× 74 v	31.98	o peak
2390	41.13	S & &	1.1 0	42.23	6 74 ×	31.77	peak
4844	44.31	Ho Hou	-4.23	40.08	े74 🖉	33.92	peak
4844	45.08	STV G	-4.36	40.72	🥂 74 ູດົ	33.28	peak
.0 00	LE LA C	ST LO M	11n40 Midd	lle Channel	STIM SO O	TE STAD O	e te
4874	42.3	° H° s	-4.12	38.18	274	35.82	peak
4874	44.27	్రంగ్	-4.25	40.02	° 74 5	33.98	peak
AND AND		IN SO OC	11n40 Hig	h Channel		The of the	STILL
2483.5	40.07	E H	1.4	41.47	్హ 74లో గ	32.53	peak
2483.5	40.36	Cles Kinger	o 1.3°	41.66	۶ ۲4 °	32.34	peak
2500	39.93	G AH A	1.43	o 41.36 o	74 0	32.64	o peak
2500	39.46	S & S	1.33	40.79	o 74	33.21	peak
4904	43.45	He He c	-4.02	39.43	· 74 ~	34.57	peak
4904	43.61	2 JV V.G	-4.14	39.47	74	34.53	peak

Remarks:

1. Level =Receiver Read level + Factor

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

-- THE END OF TEST REPORT --

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