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RADIO TEST REPORT FCC ID: 2AVE6TG4XL

Product: Tractive DOG XL Trade Mark: N/A Model No.: TG4XL Family Model: N/A Report No.: S23011301005001 Issue Date: Feb 27, 2023

Prepared for

Tractive GmbH

Poststrasse 4, 4061 Pasching, Austria

Prepared by

Shenzhen NTEK Testing Technology Co., Ltd. 1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street Bao'an District, Shenzhen 518126 P.R. China Tel. 400-800-6106, 0755-2320 0050, 0755-2320 0090 Website: http://www.ntek.org.cn





TABLE OF CONTENTS

1	TEST R	ESULT CERTIFICATION	4
2	SUMMA	ARY OF TEST RESULTS	5
3	FACILI	TIES AND ACCREDITATIONS	6
-		CILITIES	
		BORATORY ACCREDITATIONS AND LISTINGS	
		EASUREMENT UNCERTAINTY	
4	GENER	AL DESCRIPTION OF EUT	7
5		IPTION OF TEST MODES	
6		OF EQUIPMENT UNDER TEST	
		OCK DIAGRAM CONFIGURATION OF TEST SYSTEM	
	5.2 SU 5.3 EQ	PPORT EQUIPMENT UIPMENTS LIST FOR ALL TEST ITEMS	.11
	-		
7		EQUIREMENTS	
7		NDUCTED EMISSIONS TEST	
		Applicable Standard	
		Conformance Limit	
		Measuring Instruments	
		Fest Configuration	
		Test Results	
7		DIATED SPURIOUS EMISSION	
		Applicable Standard	
		Conformance Limit	
	7.2.3 N	Measuring Instruments	.18
		Test Configuration	
		Test Procedure	
		Test Results	
7		B BANDWIDTH	
		Applicable Standard	
		Conformance Limit	
		Measuring Instruments Test Setup	
		Test Procedure	
		Test Results	
7		TY CYCLE	
		Applicable Standard	
		Conformance Limit	
		Neasuring Instruments	
	7.4.4 T	Test Setup	.27
		Test Procedure	
		Test Results	
7		AK OUTPUT POWER	
		Applicable Standard	
		Conformance Limit Measuring Instruments	
		Test Procedure	
		lest Results	

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	D		20
7.6		OWER SPECTRAL DENSITY	
	.6.1	Applicable Standard	
	.6.2	Conformance Limit	
	.6.3	Measuring Instruments	
	.6.4	Test Setup	
	.6.5 .6.6	Test Procedure	
7.7		Test Results ONDUCTED BAND EDGE MEASUREMENT	
	.7.1	Applicable Standard	
	.7.1	Conformance Limit	
-	.7.2	Conjormance Linu	
-	.7.3	Test Setup	
-	.7.5	Test Procedure	
	.7.6	Test Results	
7.8		PURIOUS RF CONDUCTED EMISSIONS	
	.8.1	Conformance Limit	
	.8.2	Measuring Instruments	
	.8.3	Test Setup	
7	.8.4	Test Procedure	. 33
7	.8.5	Test Results	. 33
7.9	A	NTENNA APPLICATION	.34
7	.9.1	Antenna Requirement	
7	.9.2	Result	.34
8 T	EST	RESULTS	.35
8.1	1	M	35
0.1	.1.1	Maximum Conducted Output Power	
-	.1.2	-6dB Bandwidth	
	.1.3	Occupied Channel Bandwidth	
	.1.4	Maximum Power Spectral Density Level	
8	.1.5	Band Edge	
8	.1.6	Conducted RF Spurious Emission	. 50
8.2	2	M	
8	.2.1	Maximum Conducted Output Power	. 54
8	.2.2	-6dB Bandwidth	
8	.2.3	Occupied Channel Bandwidth	
8	.2.4	Maximum Power Spectral Density Level	
	.2.5	Band Edge	
8	.2.6	Conducted RF Spurious Emission	.69

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1 TEST RESULT CERTIFICATION

Tractive GmbH
Poststrasse 4, 4061 Pasching, Austria
Tractive GmbH
Poststrasse 4, 4061 Pasching, Austria
Tractive DOG XL
N/A
TG4XL
N/A
S230113010005

Measurement Procedure Used:

APPLICABLE STANDARD/ TEST PROCEDURE	TEST RESULT
FCC 47 CFR Part 2, Subpart J	
FCC 47 CFR Part 15, Subpart C	Complied
ANSI C63.10-2013	Complied
KDB 558074 D01 15.247 Meas Guidance v05r02	

This device described above has been tested by Shenzhen NTEK Testing Technology Co., Ltd., and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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The test results of this report relate only to the tested sample identified in this report.

Date of Test	: Jan 13, 2023 ~ Feb 27, 2023
Testing Engineer	: Mukzi Lee (Mukzi Lee)
Authorized Signatory	:(Alex Li)

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2 SUMMARY OF TEST RESULTS

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FCC Part15 (15.247), Subpart C			
Standard Section Test Item V			Remark
15.207	Conducted Emission	PASS	
15.247 (a)(2)	6dB Bandwidth	PASS	
15.247 (b)	Peak Output Power	PASS	
15.209 (a) 15.205 (a)	Radiated Spurious Emission	PASS	
15.247 (e)	Power Spectral Density	PASS	
15.247 (d)	Band Edge Emission	PASS	
15.247 (d)	Spurious RF Conducted Emission	PASS	
15.203	15.203 Antenna Requirement PASS		

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Certificate #4298.01

Remark:

 "N/A" denotes test is not applicable in this Test Report.
 All test items were verified and recorded according to the standards and without any deviation during the test.





3 FACILITIES AND ACCREDITATIONS

3.1 FACILITIES

All measurement facilities used to collect the measurement data are located at

1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street, Bao'an District, Shenzhen 518126 P.R. China.

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.10 and CISPR Publication 22.

3.2 LABORATORY ACCREDITATIONS AND LISTINGS

Site Description	
CNAS-Lab. :	The Certificate Registration Number is L5516.
IC-Registration	The Certificate Registration Number is 9270A.
-	CAB identifier:CN0074
FCC- Accredited	Test Firm Registration Number: 463705.
	Designation Number: CN1184
A2LA-Lab.	The Certificate Registration Number is 4298.01
	This laboratory is accredited in accordance with the recognized
	International Standard ISO/IEC 17025:2005 General requirements for
	the competence of testing and calibration laboratories.
	This accreditation demonstrates technical competence for a defined
	scope and the operation of a laboratory quality management system
	(refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009).
Name of Firm :	Shenzhen NTEK Testing Technology Co., Ltd.
Site Location :	1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang
	Street, Bao'an District, Shenzhen 518126 P.R. China.

3.3 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	Uncertainty
1	Conducted Emission Test	±2.80dB
2	RF power, conducted	±0.16dB
3	Spurious emissions, conducted	±0.21dB
4	All emissions, radiated(30MHz~1GHz)	±2.64dB
5	All emissions, radiated(1GHz~6GHz)	±2.40dB
6	All emissions, radiated(>6GHz)	±2.52dB
7	Temperature	±0.5°C
8	Humidity	±2%
9	All emissions, radiated(9KHz~30MHz)	±6dB

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4 GENERAL DESCRIPTION OF EUT

Product Feature and Specification		
Equipment	Tractive DOG XL	
Trade Mark	N/A	
FCC ID	2AVE6TG4XL	
Model No.	TG4XL	
Family Model	N/A	
Model Difference	N/A	
Operating Frequency	2402MHz~2480MHz	
Modulation	GFSK	
Number of Channels	40 Channels	
Antenna Type	SMD Chip Antenna	
Antenna Gain	-1.65 dBi	
Adapter	N/A	
Battery	DC 3.7V, 3000mAh, 11.1Wh	
Power supply	DC 3.7V from battery or DC 5V from magnetic charging port	
Hardware Version	TG4XL	
Firmware version	004.xxx	
Software Version	N/A	

Note 1: Based on the application, features, or specification exhibited in User's Manual, the EUT is considered as an ITE/Computing Device. More details of EUT technical specification, please refer to the User's Manual.

Note 2: The engineering test program was provided and the EUT was programmed to be in continuously transmitting mode.





Revision History

Revision history				
Report No.	Version	Description	Issued Date	
S23011301005001	Rev.01	Initial issue of report	Feb 27, 2023	





5 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

The Transmitter was operated in the normal operating mode. The TX frequency was fixed which was for the purpose of the measurements.

Test of channel included the lowest and middle and highest frequency to perform the test, then record on this report.

Those data rates (1Mbps/ 2Mbps for GFSK modulation) were used for all test.

The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement -X, Y, and Z-plane. The X-plane results were found as the worst case and were shown in this report.

Carrier Frequency and Channel list:

Channel	Frequency(MHz)
0	2402
1	2404
19	2440
20	2442
38	2478
39	2480

Note: fc=2402MHz+kx2MHz k=0 to 39

The following summary table is showing all test modes to demonstrate in compliance with the standard.

Test Cases				
Test Item	Data Rate/ Modulation			
AC Conducted Emission	Mode 1: normal link mode			
	Mode 1: normal link mode			
Radiated Test	Mode 2: GFSK Tx Ch00_2402MHz_1Mbps/ 2Mbps			
Cases	Mode 3: GFSK Tx Ch19_2440MHz_1Mbps/ 2Mbps			
	Mode 4: GFSK Tx Ch39_2480MHz_1Mbps/ 2Mbps			
Conducted Test	Mode 2: GFSK Tx Ch00_2402MHz_1Mbps/ 2Mbps			
Conducted test	Mode 3: GFSK Tx Ch19_2440MHz_1Mbps/ 2Mbps			
Cases	Mode 4: GFSK Tx Ch39_2480MHz_1Mbps/ 2Mbps			

Note:

1. The engineering test program was provided and the EUT was programmed to be in continuously transmitting mode(duty cycle =100% during the test)

2. AC power line Conducted Emission was tested under maximum output power.

3. For radiated test cases, the worst mode data rate 1Mbps was reported only, because this data rate has the highest RF output power at preliminary tests, and no other significantly frequencies found in conducted spurious emission.

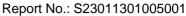
4. EUT built-in battery-powered, the battery is fully-charged.

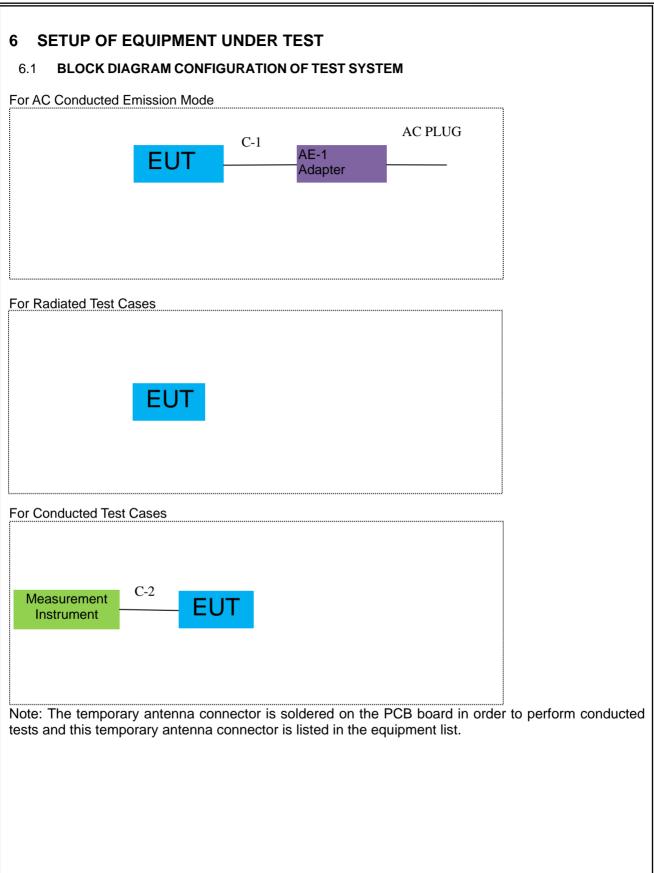
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6.2 SUPPORT EQUIPMENT

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.

Item	Equipment	Model/Type No.	Series No.	Note
AE-1	Adapter	N/A	N/A	Peripherals

Item	Cable Type	Shielded Type	Ferrite Core	Length
C-1	USB Cable	NO	NO	0.55m
C-2	RF Cable	YES	NO	0.1m

Notes:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in [Length] column.
- (3) "YES" is means "shielded" "with core"; "NO" is means "unshielded" "without core".

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6.3 EQUIPMENTS LIST FOR ALL TEST ITEMS

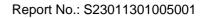
Radiation& Conducted Test equipment

addad	ond conducted	oot oquipmont					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibrati on period
1	Spectrum Analyzer	Aglient	E4407B	MY45108040	2022.04.01	2023.03.31	1 year
2	Spectrum Analyzer	Agilent	N9020A	MY49100060	2022.04.01	2023.03.31	1 year
3	Spectrum Analyzer	R&S	FSV40	101417	2022.06.16	2023.06.15	1 year
4	Test Receiver	R&S	ESPI7	101318	2022.04.06	2023.04.05	1 year
5	Bilog Antenna	TESEQ	CBL6111D	31216	2022.03.30	2023.03.29	1 year
6	50Ω Coaxial Switch	Anritsu	MP59B	6200983705	2020.05.11	2023.05.10	3 year
7	Horn Antenna	EM	EM-AH-1018 0	2011071402	2022.03.31	2023.03.30	1 year
8	Broadband Horn Antenna	SCHWARZBE CK	BBHA 9170	803	2022.11.07	2023.11.06	1 year
9	Amplifier	EMC	EMC051835 SE	980246	2022.06.17	2023.06.16	1 year
10	Active Loop Antenna	SCHWARZBE CK	FMZB 1519 B	055	2022.11.04	2023.11.03	1 year
11	Power Meter	DARE	RPR3006W	15I00041SN 084	2022.06.16	2023.06.15	1 year
12	Test Cable (9KHz-30MHz)	N/A	R-01	N/A	2022.06.17	2025.06.16	3 year
13	Test Cable (30MHz-1GHz)	N/A	R-02	N/A	2022.06.17	2025.06.16	3 year
14	High Test Cable(1G-40G Hz)	N/A	R-03	N/A	2022.06.17	2025.06.16	3 year
15	Filter	TRILTHIC	2400MHz	29	2020.04.07	2023.04.06	1 year
16	temporary antenna connector (Note)	NTS	R001	N/A	N/A	N/A	N/A

Note:

We will use the temporary antenna connector (soldered on the PCB board) When conducted test And this temporary antenna connector is listed within the instrument list





AC Conduction Test equipment							
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Test Receiver	R&S	ESCI	101160	2022.04.06	2023.04.05	1 year
2	LISN	R&S	ENV216	101313	2022.04.06	2023.04.05	1 year
3	LISN	SCHWARZBE CK	NNLK 8129	8129245	2022.04.06	2023.04.05	1 year
4	50Ω Coaxial Switch	ANRITSU CORP	MP59B	6200983704	2020.05.11	2023.05.10	3 year
5	Test Cable (9KHz-30MH z)	N/A	C01	N/A	2020.05.11	2023.05.10	3 year
6	Test Cable (9KHz-30MH z)	N/A	C02	N/A	2020.05.11	2023.05.10	3 year
7	Test Cable (9KHz-30MH z)	N/A	C03	N/A	2020.05.11	2023.05.10	3 year

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Note: Each piece of equipment is scheduled for calibration once a year except the Aux Equipment & Test Cable which is scheduled for calibration every 2 or 3 years.

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7 TEST REQUIREMENTS

7.1 CONDUCTED EMISSIONS TEST

7.1.1 Applicable Standard

According to FCC Part 15.207(a)

7.1.2 Conformance Limit

	Conducted Emission Limit		
Frequency(MHz)	Quasi-peak	Average	
0.15-0.5	66-56*	56-46*	
0.5-5.0	56	46	
5.0-30.0	60	50	

Note: 1. *Decreases with the logarithm of the frequency

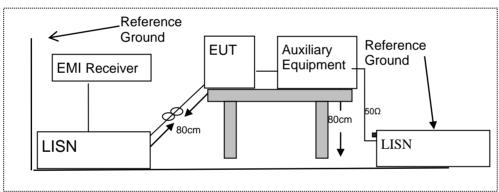
2. The lower limit shall apply at the transition frequencies

3. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

7.1.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

7.1.4 Test Configuration



7.1.5 Test Procedure

According to the requirements in Section 13.1.4.1 of ANSI C63.10-2013 Conducted emissions the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-Peak and average detector mode.

- 1. The EUT was placed 0.4 meter from the conducting wall of the shielding room.
- 2. The EUT was placed on a table which is 0.8m above ground plane.
- 3. Connect EUT to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- 4. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40cm long.
- 5. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- 6. LISN at least 80 cm from nearest part of EUT chassis.
- 7. The frequency range from 150KHz to 30MHz was searched.
- 8. Set the test-receiver system to Peak Detect Function and specified bandwidth(IF bandwidth=9KHz) with Maximum Hold Mode
- 9. For the actual test configuration, please refer to the related Item -EUT Test Photos.





7.1.6 Test Results

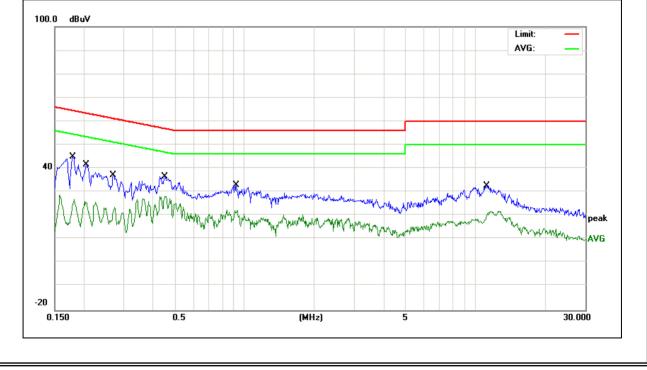
EUT:	Tractive DOG XL	Model Name :	TG4XL
Temperature:	22 ℃	Relative Humidity:	57%
Pressure:	1010hPa	Phase :	L
lest voltage ·	DC 5V from Adapter AC 120V/60Hz	Test Mode:	Mode 1

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Domork
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	Remark
0.1796	35.36	9.61	44.97	64.50	-19.53	QP
0.1796	15.40	9.61	25.01	54.50	-29.49	AVG
0.2058	32.01	9.62	41.63	63.37	-21.74	QP
0.2058	14.44	9.62	24.06	53.37	-29.31	AVG
0.2700	27.51	9.63	37.14	61.12	-23.98	QP
0.2700	12.23	9.63	21.86	51.12	-29.26	AVG
0.4500	26.91	9.66	36.57	56.87	-20.30	QP
0.4500	18.37	9.66	28.03	46.87	-18.84	AVG
0.9220	23.32	9.68	33.00	56.00	-23.00	QP
0.9220	11.55	9.68	21.23	46.00	-24.77	AVG
11.2018	22.80	9.96	32.76	60.00	-27.24	QP
11.2018	10.02	9.96	19.98	50.00	-30.02	AVG

Remark:

1. All readings are Quasi-Peak and Average values.

2. Factor = Insertion Loss + Cable Loss.







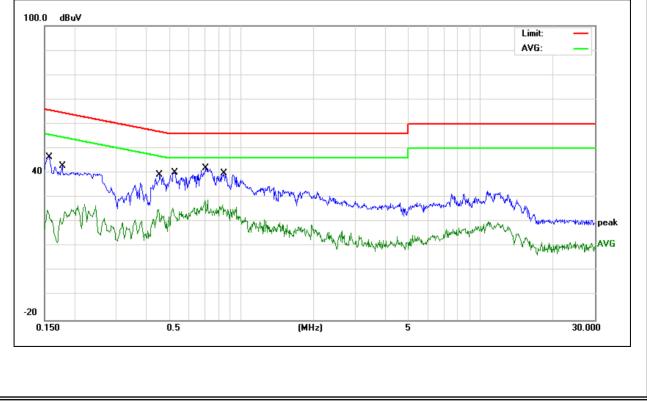
EUT:	Tractive DOG XL	Model Name :	TG4XL
Temperature:	22 ℃	Relative Humidity:	57%
Pressure:	1010hPa	Phase :	Ν
Test Voltage :	DC 5V from Adapter AC 120V/60Hz	Test Mode:	Mode 1

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Domorik
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	Remark
0.1580	36.94	9.60	46.54	65.56	-19.02	QP
0.1580	12.02	9.60	21.62	55.56	-33.94	AVG
0.1779	33.16	9.61	42.77	64.58	-21.81	QP
0.1785	10.39	9.61	20.00	54.55	-34.55	AVG
0.4540	29.60	9.66	39.26	56.80	-17.54	QP
0.4540	10.69	9.66	20.35	46.80	-26.45	AVG
0.5262	30.47	9.66	40.13	56.00	-15.87	QP
0.5262	12.91	9.66	22.57	46.00	-23.43	AVG
0.7097	32.17	9.67	41.84	56.00	-14.16	QP
0.7097	14.03	9.67	23.70	46.00	-22.30	AVG
0.8457	30.07	9.68	39.75	56.00	-16.25	QP
0.8457	15.59	9.68	25.27	46.00	-20.73	AVG

Remark:

1. All readings are Quasi-Peak and Average values.

2. Factor = Insertion Loss + Cable Loss.







7.2 RADIATED SPURIOUS EMISSION

7.2.1 Applicable Standard

According to FCC Part 15.247(d) and 15.209 and ANSI C63.10-2013

7.2.2 Conformance Limit

According to FCC Part 15.247(d): radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)). According to FCC Part15.205, Restricted bands

MHz	MHz	GHz
16.42-16.423	399.9-410	4.5-5.15
16.69475-16.69525	608-614	5.35-5.46
16.80425-16.80475	960-1240	7.25-7.75
25.5-25.67	1300-1427	8.025-8.5
37.5-38.25	1435-1626.5	9.0-9.2
73-74.6	1645.5-1646.5	9.3-9.5
74.8-75.2	1660-1710	10.6-12.7
123-138	2200-2300	14.47-14.5
149.9-150.05	2310-2390	15.35-16.2
156.52475-156.52525	2483.5-2500	17.7-21.4
156.7-156.9	2690-2900	22.01-23.12
162.0125-167.17	3260-3267	23.6-24.0
167.72-173.2	3332-3339	31.2-31.8
240-285	3345.8-3358	36.43-36.5
322-335.4	3600-4400	(2)
	MHz 16.42-16.423 16.69475-16.69525 16.80425-16.80475 25.5-25.67 37.5-38.25 73-74.6 74.8-75.2 123-138 149.9-150.05 156.52475-156.52525 156.7-156.9 162.0125-167.17 167.72-173.2 240-285	MHzMHz16.42-16.423399.9-41016.69475-16.69525608-61416.80425-16.80475960-124025.5-25.671300-142737.5-38.251435-1626.573-74.61645.5-1646.574.8-75.21660-1710123-1382200-2300149.9-150.052310-2390156.52475-156.525252483.5-2500156.7-156.92690-2900162.0125-167.173260-3267167.72-173.23332-3339240-2853345.8-3358

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Restricted Frequency(MHz)	Field Strength (µV/m)	Field Strength (dBµV/m)	Measurement Distance
0.009~0.490	2400/F(KHz)	20 log (uV/m)	300
0.490~1.705	24000/F(KHz)	20 log (uV/m)	30
1.705~30.0	30	29.5	30
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

Limits of Radiated Emission Measurement(Above 1000MHz)

Fraguanay (MHz)	Class B (dBuV/m) (at 3M)						
Frequency(MHz)	PEAK	AVERAGE					
Above 1000	74	54					

Remark :1. Emission level in dBuV/m=20 log (uV/m)

2. Measurement was performed at an antenna to the closed point of EUT distance of meters.

3. For Frequency 9kHz~30MHz: Distance extrapolation factor =40log(Specific distance/ test distance)(dB); Limit line=Specific limits(dBuV) + distance extrapolation factor.

For Frequency above 30MHz: Distance extrapolation factor =20log(Specific distance/ test distance)(dB); Limit line=Specific limits(dBuV) + distance extrapolation factor.

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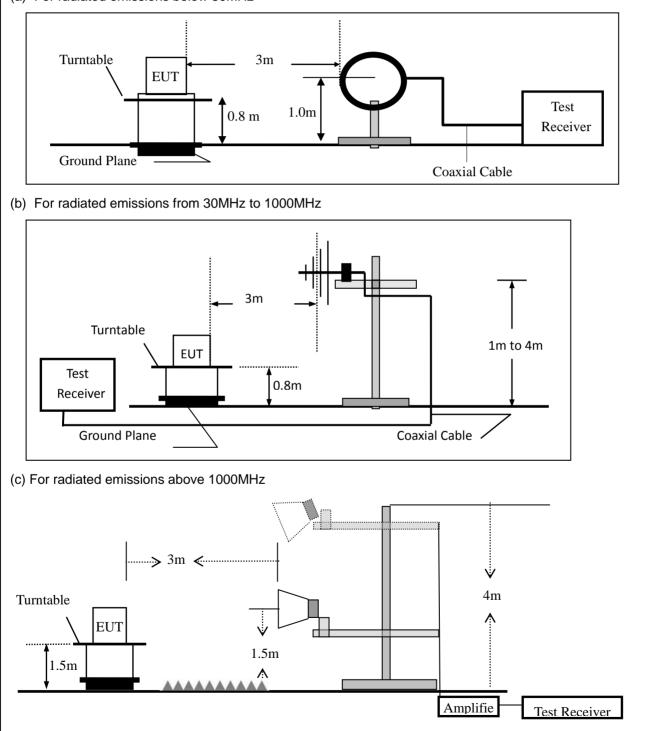


7.2.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

7.2.4 Test Configuration

(a) For radiated emissions below 30MHz



7.2.5 Test Procedure

The test site semi-anechoic chamber has met the requirement of NSA tolerance 4 dB according to the standards: ANSI C63.10-2013. The test distance is 3m. The setup is according to the requirements in Section 13.1.4.1 of ANSI C63.10-2013 and CAN/CSA-CEI/IEC CISPR 22.

This test is required for any spurious emission that falls in a Restricted Band, as defined in Section 15.205. It must be performed with the highest gain of each type of antenna proposed for use with the EUT. Use the following spectrum analyzer settings:

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB / VB (emission in restricted band)	1 MHz / 1 MHz for Peak, 1 MHz / 1MHz for Average

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.

- b. The EUT was placed on the top of a rotating table 0.8 m for below 1GHz and 1.5m for above 1GHz the ground at a 3 meter. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the equipment or of the substitution antenna shall be 0.8 m for below 1GHz and 1.5m for above 1GHz; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For the radiated emission test above 1GHz:

Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.

- e. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- f. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- g. For the actual test configuration, please refer to the related Item -EUT Test Photos.

Note:

Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported



During the radiated emission test, the Spectrum Analyzer was set with the following configurations:

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Frequency Band (MHz)	Function	Resolution bandwidth	Video Bandwidth
30 to 1000	QP	120 kHz	300 kHz
Above 4000	Peak	1 MHz	1 MHz
Above 1000	Average	1 MHz	1 MHz

Note: for the frequency ranges below 30 MHz, a narrower RBW is used for these ranges but the measured value should add a RBW correction factor (RBWCF) where RBWCF [dB] =10*lg(100 [kHz]/narrower RBW [kHz]). , the narrower RBW is 1 kHz and RBWCF is 20 dB for the frequency 9 kHz to 150 kHz, and the narrower RBW is 10 kHz and RBWCF is 10 dB for the frequency 150 kHz to 30 MHz.

7.2.6 Test Results

	Spurious	Emission	below	30MHz	(9KHz to 30MHz)	
--	----------	----------	-------	-------	-----------------	--

EUT:	Tractive DOG XL	Model No.:	TG4XL
Temperature:	20 ℃	Relative Humidity:	48%
Lest Mode.	Mode1/Mode2/Mode3/ Mode4	Test By:	Mukzi Lee

Freq.	Ant.Pol.	Emission L	.evel(dBuV/m)	Limit 3	m(dBuV/m)	Over(dB)		
(MHz)	H/V	PK ÀV Í		PK	AV	PK	AV	

Note: the amplitude of spurious emission that is attenuated by more than 20dB below the permissible limit has no need to be reported.



Spurious Emission below 1GHz (30MHz to 1GHz) All the modulation modes have been tested, and the worst result was report as below:

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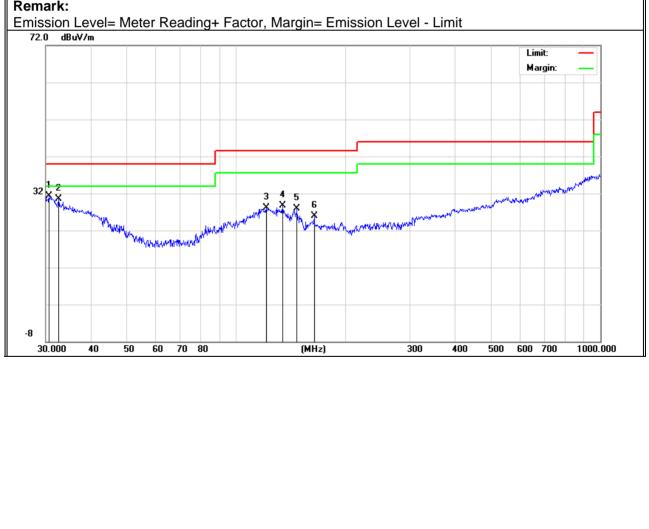
EUT:	Tractive DOG XL	Model Name :	TG4XL
Temperature:	25 ℃	Relative Humidity:	55%
Pressure:	1010hPa	Test Mode:	Mode 2 (1Mbps)
Test Voltage :	DC 3.7V		

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Polar	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
(H/V)	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
V	30.6373	5.48	25.87	31.35	40.00	-8.65	QP
V	32.5197	5.86	24.58	30.44	40.00	-9.56	QP
V	121.1230	9.39	18.63	28.02	43.50	-15.48	QP
V	134.0882	10.17	18.51	28.68	43.50	-14.82	QP
V	146.8874	9.63	18.35	27.98	43.50	-15.52	QP
V	163.7547	8.05	17.95	26.00	43.50	-17.50	QP

Remark:







(H/V) =	(MHz)	Reading	Factor	Emission Level	Limits	Margin	Remark	
Н		(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)		
	31.6202	5.57	25.14	30.71	40.00	-9.29	QP	
11	33.5623	5.27	23.93	29.20	40.00	-10.80	QP	
Н	122.4038	10.41	18.67	29.08	43.50	-14.42	QP	
Н			18.46	28.80	43.50	-14.70	QP	
Н	779.6068	3.82	29.10	32.92	46.00	-13.08	QP	
Н	807.4288	3.63	29.55	33.18	46.00	-12.82	QP	
Emission 72.0 dBu/	Level= Meter R V/m	eading+ Fac	tor, Margin:	= Emission Lev	vel - Limit	Limit: Margin:		
32 1 2	Martin		34		Mandhudhu Malumaana		56	
8	40 50 60	70 80	(Mł			500 600 700	1000.000	



EUT:		Tractive D	OG XL		Model No.:		TG₄	TG4XL				
Temperati	ure:	20 ℃			Relative Humidity:			48%				
Test Mode	e:	Mode2/Mo	ode3/Mode	•4	Test By:		Muł	kzi Lee				
		-										
Frequency	Read Level	Cable loss	Antenna Factor	Pream Facto		n Limi	ts	Margin	Remark	Comment		
(MHz)	(dBµV)	(dB)	dB/m	(dB)	(dBµV/i	/	,	(dB)				
	(2402 MHz)(0	FSK)Abov	ve 1G	,								
4804	68.99	5.21	35.59	44.30	0 65.49	74.0	00	-8.51	Pk	Vertical		
4804	48.31	5.21	35.59	44.30	0 44.81	54.0	00	-9.19	AV	Vertical		
7206	69	6.48	36.27	44.60	0 67.15	74.0	00	-6.85	Pk	Vertical		
7206	48.1	6.48	36.27	44.60	46.25	54.0	00	-7.75	AV	Vertical		
4804	69.37	5.21	35.55	44.30	65.83	74.0	00	-8.17	Pk	Horizontal		
4804	46.3	5.21	35.55	44.30	42.76	54.0	00	-11.24	AV	Horizontal		
7206	68.98	6.48	36.27	44.52	2 67.21	74.0	00	-6.79	Pk	Horizontal		
7206	48.84	6.48	36.27	36.27 44.52		47.07 54.00		-6.93	AV	Horizontal		
			Mid	Channel	(2440 MHz)(0	FSK)Abov	e 1G					
4880	68.46	5.21	35.66	44.20	65.13	74.0	00	-8.87	Pk	Vertical		
4880	47.39	5.21	35.66	44.20	0 44.06	54.0	00	-9.94	AV	Vertical		
7320	68.72	7.10	36.50	44.43	67.89	74.0	00	-6.11	Pk	Vertical		
7320	45.72	7.10	36.50	44.43	3 44.89	54.0	00	-9.11	AV	Vertical		
4880	68.91	5.21	35.66	44.20	0 65.58	74.0	00	-8.42	Pk	Horizontal		
4880	46.17	5.21	35.66	44.20	0 42.84	54.0	00	-11.16	AV	Horizontal		
7320	68.98	7.10	36.50	44.43	3 68.15	74.0	00	-5.85	Pk	Horizontal		
7320	47.03	7.10	36.50	44.43	3 46.20	54.0	00	-7.80	AV	Horizontal		
			High	Channel	(2480 MHz)(0	FSK) Abo	ve 1G					
4960	68.41	5.21	35.52	44.2	1 64.93	74.0	00	-9.07	Pk	Vertical		
4960	47.48	5.21	35.52	44.2	1 44.00	54.0	00	-10.00	AV	Vertical		
7440	68.97	7.10	36.53	44.60	0 68.00	74.0	00	-6.00	Pk	Vertical		
7440	46.36	7.10	36.53	44.60	0 45.39	54.0	00	-8.61	AV	Vertical		
4960	69.89	5.21	35.52	44.2	1 66.41	74.0	00	-7.59	Pk	Horizontal		
4960	47.91	5.21	35.52	44.2 <i>′</i>	1 44.43	54.0	00	-9.57	AV	Horizontal		
7440	70.51	7.10	36.53	44.60	0 69.54	74.0	00	-4.46	Pk	Horizontal		
7440	50.46	7.10	36.53	44.60) 49.49	54.0)0	-4.51	AV	Horizontal		

Note:

(1) Emission Level= Antenna Factor + Cable Loss + Read Level - Preamp Factor

(2)All other emissions more than 20dB below the limit.

(3)Only the worst data is recorded in the report, the data rates (1Mbps for GFSK modulation) test result is the worst





Spurious Emission in Restricted Band 2310												
EUT:	Tractiv	ve DOG X	(L		Model No.:			TG4XL				
Temperature	e: 20 ℃				Relative Humidity: 48%							
Test Mode:	est Mode: Mode2/ Mode4				Test E	Test By: Mukzi Lee						
						1			r	-	1	
Frequency	Meter Reading	Cable Loss	Antenna Factor		eamp actor	Emission Level	Lir	nits	Margin	Detector	Comment	
(MHz)	(dBµV)	(dB)	dB/m	(dB)	(dBµV/m)	(dBµ	ıV/m)	(dB)	Туре		
						s(GFSK)						
2310.00	70.03	2.97	27.80	4:	3.80	57.00	7	' 4	-17.00	Pk	Horizontal	
2310.00	45.45	2.97	27.80	4:	3.80	32.42	5	54	-21.58	AV	Horizontal	
2310.00	69.13	2.97	27.80	43	3.80	56.10	7	' 4	-17.90	Pk	Vertical	
2310.00	49.89	2.97	27.80	4:	3.80	36.86	5	54	-17.14	AV	Vertical	
2390.00	68.07	3.14	27.21	43	3.80	54.62	7	' 4	-19.38	Pk	Vertical	
2390.00	50.24	3.14	27.21	4:	3.80	36.79	5	54	-17.21	AV	Vertical	
2390.00	70.58	3.14	27.21	4:	3.80	57.13	7	' 4	-16.87	Pk	Horizontal	
2390.00	48.52	3.14	27.21	4:	3.80	35.07	5	54	-18.93	AV	Horizontal	
2483.50	69.99	3.58	27.70	44	4.00	57.27	7	' 4	-16.73	Pk	Vertical	
2483.50	50.35	3.58	27.70	44	4.00	37.63	5	54	-16.37	AV	Vertical	
2483.50	69.26	3.58	27.70	44	4.00	56.54	7	' 4	-17.46	Pk	Horizontal	
2483.50	48.16	3.58	27.70	44	4.00	35.44	5	54	-18.56	AV	Horizontal	

Spurious Emission in Restricted Band 2310-2390MHz and 2483.5-2500MHz

Note: (1) All other emissions more than 20dB below the limit.

(2)Only the worst data is recorded in the report, the data rates (1Mbps for GFSK modulation) test result is the worst



Spurious Emission in Restricted Band 3260MHz-18000MHz												
EUT: Tractive DOG XL				Model No.:		TG4XL						
Temperature: 20 ℃				Relative Humidity:		48%						
Test Mode: Mode2/ Mode4				Test B	Test By: Mukzi Lee							
Frequency	Frequency Reading Level		Cable Loss	Antenna Factor		reamp actor	Emission Level	Li	imits	Margin	Detector	Comment
(MHz)	(dB	(dBµV) (dB) dB/m		dB/m		(dB)	(dBµV/m)	(dBµV/m)		(dB)	Туре	
3260	70.58		4.04	29.57	2	14.70	59.49		74	-14.51	Pk	Vertical
3260	50.93		4.04	29.57	2	14.70	39.84		54	-14.16	AV	Vertical
3260	69.	.59	4.04	29.57	2	14.70	58.50		74	-15.50	Pk	Horizontal
3260	47.35		4.04	29.57	2	14.70	36.26		54	-17.74	AV	Horizontal
3332	70.26		4.26	29.87	2	14.40	59.99		74	-14.01	Pk	Vertical
3332	45.	.28	4.26	29.87	2	14.40	35.01		54	-18.99	AV	Vertical
3332	70.53		4.26	29.87	2	14.40	60.26		74	-13.74	Pk	Horizontal
3332	47.37		4.26	29.87	2	14.40	37.10		54	-16.90	AV	Horizontal
17797	58.27 10.99		10.99	43.95	2	13.50	69.71		74	-4.29	Pk	Vertical
17797	7797 31.86 10.99 43.9		43.95	2	13.50	43.30		54	-10.70	AV	Vertical	
17788	50.	.68	11.81	43.69	2	14.60	61.58		74	-12.42	Pk	Horizontal
17788	33.	.15	11.81	43.69	2	14.60	44.05		54	-9.95	AV	Horizontal

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Note: (1) All other emissions more than 20dB below the limit.

(2)Only the worst data is recorded in the report, the data rates (1Mbps for GFSK modulation) test result is the worst



7.3 6DB BANDWIDTH

7.3.1 Applicable Standard

According to FCC Part 15.247(a)(2) and KDB 558074 D01 15.247 Meas Guidance v05r02 Section 8.2.

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7.3.2 Conformance Limit

The minimum permissible 6dB bandwidth is 500 kHz.

7.3.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

7.3.4 Test Setup

Please refer to Section 6.1 of this test report.

7.3.5 Test Procedure

The testing follows Subclause 11.8 of ANSI C63.10

The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.

The path loss was compensated to the results for each measurement.

Set to the maximum power setting and enable the EUT transmit continuously.

The EUT was operating in controlled its channel.

Use the following spectrum analyzer settings:

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW) \geq 3*RBW.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.

g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

7.3.6 Test Results

EUT:	Tractive DOG XL	Model No.:	TG4XL
Temperature:	20 ℃	Relative Humidity:	48%
Test Mode:	Mode2/Mode3/Mode4	Test By:	Mukzi Lee





7.4 DUTY CYCLE

7.4.1 Applicable Standard

According to KDB 558074 D01 15.247 Meas Guidance v05r02s Section 6.

7.4.2 Conformance Limit

No limit requirement.

7.4.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

7.4.4 Test Setup

Please refer to Section 6.1 of this test report.

7.4.5 Test Procedure

The zero-span mode on a spectrum analyzer or EMI receiver if the response time and spacing between bins on the sweep are sufficient to permit accurate measurements of the on and off times of the transmitted signal. Set the center frequency of the instrument to the center frequency of the transmission. Set RBW \geq OBW if possible; otherwise, set RBW to the largest available value. Set VBW \geq RBW. Set detector = peak or average. The zero-span measurement method shall not be used unless both RBW and VBW are > 50/T and the number of sweep points across duration T exceeds 100. (For example, if VBW and/or RBW are limited to 3 MHz, then the zero-span method of measuring duty cycle shall not be used if T \leq 16.7 microseconds.)

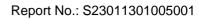
The transmitter output is connected to the Spectrum Analyzer. We tested accroding to the zero-span measurement method, 6.0)b) in KDB 558074

The largest available value of RBW is 8 MHz and VBW is 50 MHz. The zero-span method of measuring duty cycle shall not be used if $T \le 6.25$ microseconds. (50/6.25 = 8)

The zero-span method was used because all measured T data are > 6.25 microseconds and both RBW and VBW are > 50/T.

The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement. Set to the maximum power setting and enable the EUT transmit continuously. The EUT was operating in controlled its channel. Use the following spectrum analyzer settings: Span = Zero Span RBW = 8MHz(the largest available value) VBW = 8MHz (\geq RBW) Number of points in Sweep >100 Detector function = peak Trace = Clear write Measure T_{total} and T_{on} Calculate Duty Cycle = T_{on} / T_{total}





7.4.6 Test Results

EUT:	Tractive DOG XL	Model No.:	TG4XL
Temperature:	20 ℃	Relative Humidity:	48%
Test Mode:	N/A	Test By:	N/A

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Note: Not Applicable



7.5 **PEAK OUTPUT POWER**

7.5.1 Applicable Standard

According to FCC Part 15.247(b)(3) and KDB 558074 D01 15.247 Meas Guidance v05r02 Section 8.3.1.

Certificate #4298.01

7.5.2 Conformance Limit

The maximum peak conducted output power of the intentional radiator for systems using digital modulation in the 2400 - 2483.5 MHz bands shall not exceed: 1 Watt (30dBm). If transmitting antenna of directional gain greater than 6dBi is used, the peak output power from the intentional radiator shall be reduced below the above stated value by the amount in dB that the directional gain of the antenna exceeds 6 dBi. In case of point-to-point operation, the limit has to be reduced by 1dB for every 3dB that the directional gain of the antenna exceeds 6dBi.

7.5.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

7.5.4 Test Setup

Please refer to Section 6.1 of this test report.

7.5.5 Test Procedure

The testing follows Subclause 11.9.1.1 of ANSI C63.10 The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement. Set to the maximum power setting and enable the EUT transmit continuously. The EUT was operating in controlled its channel. Use the following spectrum analyzer settings: Set the RBW \geq DTS bandwidth. Set VBW =3*RBW. Set the span \geq 3*RBW Set Sweep time = auto couple. Set Detector = peak. Set Trace mode = max hold. Allow trace to fully stabilize. Use peak marker function to determine the peak amplitude level.

7.5.6 Test Results

EUT:	Tractive DOG XL	Model No.:	TG4XL
Temperature:	20 ℃	Relative Humidity:	48%
Test Mode:	Mode2/Mode3/Mode4	Test By:	Mukzi Lee



7.6 **POWER SPECTRAL DENSITY**

7.6.1 Applicable Standard

According to FCC Part 15.247(e) and KDB 558074 D01 15.247 Meas Guidance v05r02 Section 8.4.

7.6.2 Conformance Limit

The transmitter power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

7.6.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

7.6.4 Test Setup

Please refer to Section 6.1 of this test report.

7.6.5 Test Procedure

The testing follows Measurement Procedure Subclause 11.10.2 of ANSI C63.10 This procedure shall be used if maximum peak conducted output power was used to demonstrate compliance, and is optional if the maximum conducted (average) output power was used to demonstrate compliance.

The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.

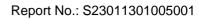
The path loss was compensated to the results for each measurement.

Set to the maximum power setting and enable the EUT transmit continuously.

The EUT was operating in controlled its channel.

- a) Set analyzer center frequency to DTS channel center frequency.
- b) Set the span to 1.5*DTS bandwidth.
- c) Set the RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- d) Set the VBW \geq 3 RBW.
- e) Detector = peak.
- f) Sweep time = auto couple.
- g) Trace mode = max hold.
- h) Allow trace to fully stabilize.
- i) Use the peak marker function to determine the maximum amplitude level within the RBW.
- j) If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.





7.6.6 Test Results

EUT:	Tractive DOG XL	Model No.:	TG4XL
Temperature:	20 ℃	Relative Humidity:	48%
Test Mode:	Mode2/Mode3/Mode4	Test By:	Mukzi Lee

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7.7 CONDUCTED BAND EDGE MEASUREMENT

7.7.1 Applicable Standard

According to FCC Part 15.247(d) and KDB 558074 D01 15.247 Meas Guidance v05r02 Section 8.7.

7.7.2 Conformance Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

7.7.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

7.7.4 Test Setup

Please refer to Section 6.1 of this test report.

7.7.5 Test Procedure

The testing follows FCC KDB 558074 D01 15.247 Meas Guidance v05r02 Section 8.7.

The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.

The path loss was compensated to the results for each measurement.

Set to the maximum power setting and enable the EUT transmit continuously.

The EUT was operating in controlled its channel.

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.

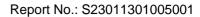
Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.

Repeat above procedures until all measured frequencies were complete.

7.7.6 Test Results

EUT:	Tractive DOG XL	Model No.:	TG4XL
Temperature:	20 ℃	Relative Humidity:	48%
Test Mode:	Mode2/Mode4	Test By:	Mukzi Lee





7.8 SPURIOUS RF CONDUCTED EMISSIONS

7.8.1 Conformance Limit

1. Below -20dB of the highest emission level in operating band.

2. Fall in the restricted bands listed in section 15.205. The maximum permitted average field strength is listed in section 15.209.

Certificate #4298.01

7.8.2 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

7.8.3 Test Setup

Please refer to Section 6.1 of this test report.

7.8.4 Test Procedure

The Spurious RF conducted emissions compliance of RF radiated emission should be measured by following the guidance in ANSI C63.10-2013 with respect to maximizing the emission by rotating the EUT, measuring the emission while the EUT is situated in three orthogonal planes (if appropriate), adjusting the measurement antenna height and polarization etc. Set RBW=100kHz and VBW= 300KHz to measure the peak field strength , and measure frequency range from 30MHz to 26.5GHz.

7.8.5 Test Results

Remark: The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. The lowest, middle and highest channels are tested to verify the spurious emissions and bandege measurement data.





7.9 ANTENNA APPLICATION

7.9.1 Antenna Requirement

15.203 requirement: For intentional device, according to 15.203: an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

7.9.2 Result

The EUT antenna is permanent attached SMD Chip antenna (Gain: -1.65 dBi). It comply with the standard requirement.



8 TEST RESULTS

8.1 **1M**

8.1.1 Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	-1.34	0	-1.34	30	Pass
NVNT	BLE 1M	2440	Ant1	-1.39	0	-1.39	30	Pass
NVNT	BLE 1M	2480	Ant1	-3.1	0	-3.1	30	Pass

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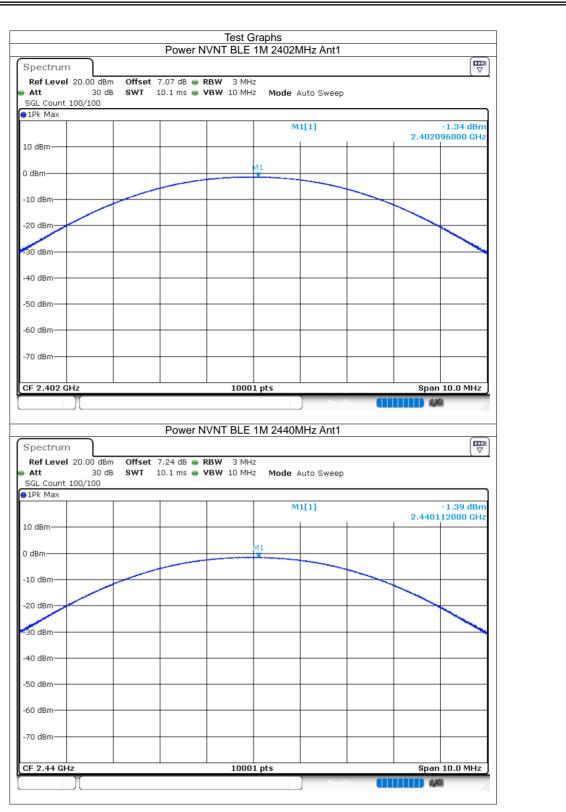


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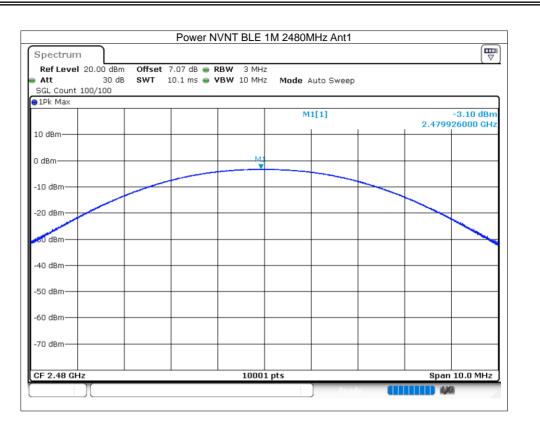
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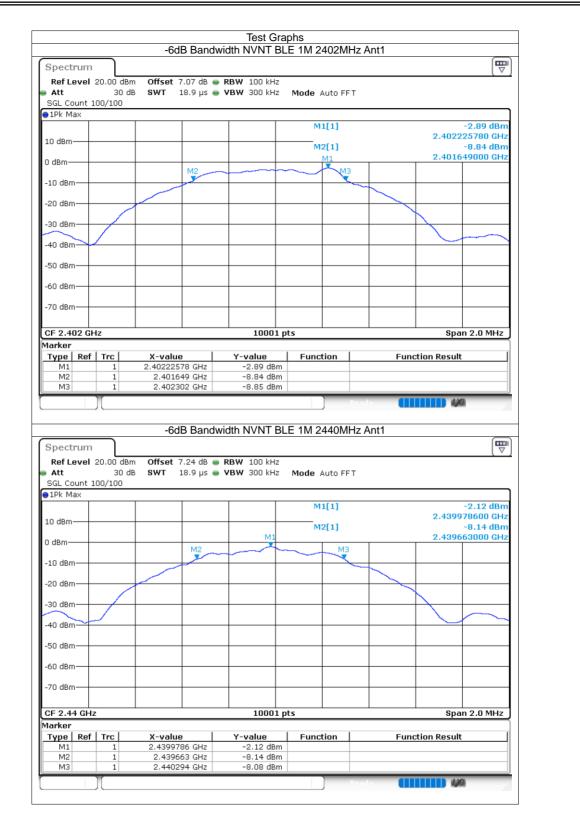




8.1.2 -6dB Bandwidth

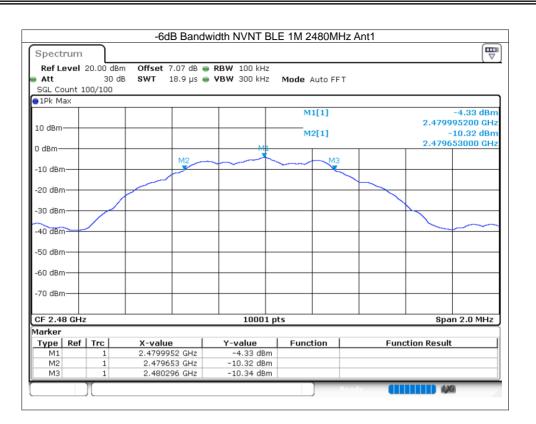
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	BLE 1M	2402	Ant1	0.653	0.5	Pass
NVNT	BLE 1M	2440	Ant1	0.631	0.5	Pass
NVNT	BLE 1M	2480	Ant1	0.643	0.5	Pass





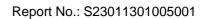
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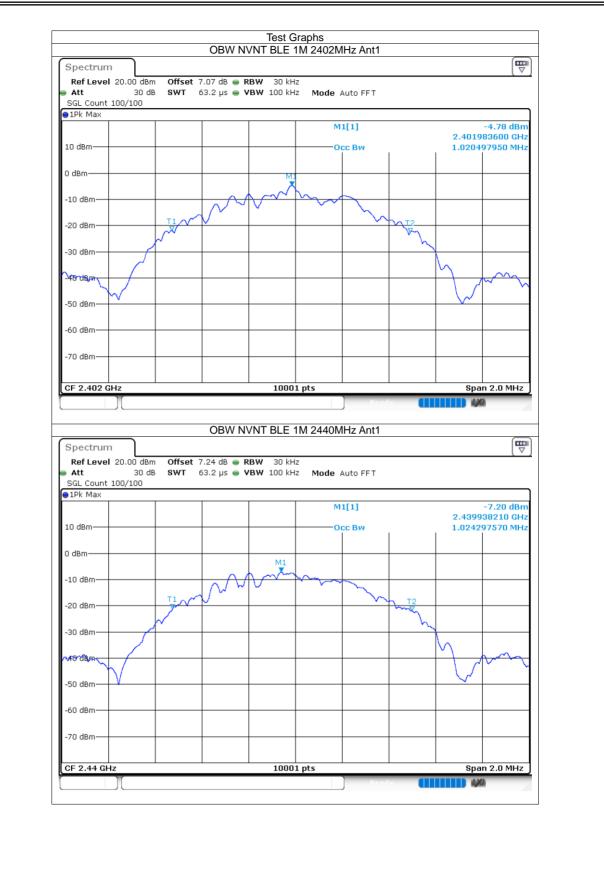
8.1.3 Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	BLE 1M	2402	Ant1	1.02
NVNT	BLE 1M	2440	Ant1	1.024
NVNT	BLE 1M	2480	Ant1	1.021

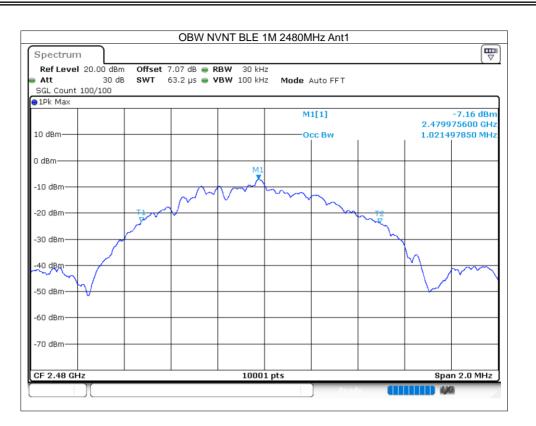
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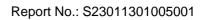






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8.1.4 Maximum Power Spectral Density Level

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Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm)	Duty Factor (dB)	Total PSD (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	-17.5	0	-17.5	8	Pass
NVNT	BLE 1M	2440	Ant1	-17.58	0	-17.58	8	Pass
NVNT	BLE 1M	2480	Ant1	-19.41	0	-19.41	8	Pass

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		PSD	Test Gra	apns 1 2402MHz Ant1			
Spectrum		1 301	AVIAL DEL 11V				
Ref Level 20. Att	30 dB 🛛 SV	fset 7.07 dB € VT 632.1 µs €		Mode Auto FFT			
SGL Count 100 1Pk Max	0/1000						
				M1[1]			7.50 dBm
10 dBm						2.40199	9020 GHz
0 dBm							
-10 dBm			MI				
-20 dBm		A. MANAMANA	WM WWW WWW	month Muther			
aqudsm WWW	Marahan	n-mlmmm		Munder Munder	" WWWW WWW	Mumphan	wywaty.
-40 dBm							
-50 dBm							
-60 dBm							
-70 dBm							
CF 2.402 GHz				ts		Snan 03	9.5 kHz
		PSD	NVNT BLE 1M	1 2440MHz Ant1	ady (111	4,43	
Ref Level 20. Att	30 dB SV	fset 7.24 dB (ady (111		
Ref Level 20. Att SGL Count 100	30 dB SV	fset 7.24 dB (RBW 3 kHz		ady (III)		
Ref Level 20. Att SGL Count 100	30 dB SV	fset 7.24 dB (RBW 3 kHz		ndy (III)		7.58 dBm
Ref Level 20. Att SGL Count 100 1Pk Max	30 dB SV	fset 7.24 dB (RBW 3 kHz	Mode Auto FFT		-1 ⁻ 2.43999	7.58 dBm
Spectrum Ref Level 20. Att SGL Count 100 1Pk Max 10 dBm	30 dB SV	fset 7.24 dB (RBW 3 kHz	Mode Auto FFT			7.58 dBm
Ref Level 20. Att SGL Count 100 1Pk Max 10 dBm 0 dBm -10 dBm	30 dB SV 0/1000	fset 7.24 dB VT 632.1 μs	RBW 3 kHz VBW 10 kHz	Mode Auto FFT		2.439999	7.58 dBm 2050 GHz
Ref Level 20. Att SGL Count 100 1Pk Max 10 dBm 0 dBm -10 dBm	30 dB SV 0/1000	fset 7.24 dB VT 632.1 μs	RBW 3 kHz VBW 10 kHz	Mode Auto FFT		2.439999	7.58 dBm 3050 GHz
Ref Level 20. Att SGL Count 100 1Pk Max 10 dBm 0 dBm -10 dBm	30 dB SV 0/1000	fset 7.24 dB (RBW 3 kHz VBW 10 kHz	Mode Auto FFT		2.439999	7.58 dBm 3050 GHz
Ref Level 20. Att SGL Count 100 1Pk Max 10 dBm 10 dBm 10 dBm	30 dB SV 0/1000	fset 7.24 dB VT 632.1 μs	RBW 3 kHz VBW 10 kHz	Mode Auto FFT		2.439999	7.58 dBm 3050 GHz
Ref Level 20. Att SGL Count 100 SGL Count 100 100 IPk Max 100 dBm 100 dBm	30 dB SV 0/1000	fset 7.24 dB VT 632.1 μs	RBW 3 kHz VBW 10 kHz	Mode Auto FFT		2.439999	7.58 dBm 3050 GHz
Ref Level 20. Att SGL Count 100 SGL Count 100 100 ID dBm 0 0 ID dBm 0 0 0 ID dBm 0 0 0 0 ID dBm 0	30 dB SV 0/1000	fset 7.24 dB VT 632.1 μs	RBW 3 kHz VBW 10 kHz	Mode Auto FFT		2.439999	7.58 dBm 3050 GHz
Ref Level 20. Att SGL Count 100 SGL Count 100 100 ID dBm 0 0 ID dBm 0 0 0 ID dBm 0 0 0 0 ID dBm 0	30 dB SV 0/1000	fset 7.24 dB VT 632.1 μs	RBW 3 kHz VBW 10 kHz	Mode Auto FFT M1[1] ///////////////////////////////////		2.439999	7.58 dBm 3050 GHz
Ref Level 20. Att SGL Count 100 1Pk Max 10 dBm 0 dBm -10 dBm	30 dB SV 0/1000	fset 7.24 dB VT 632.1 μs	RBW 3 kHz VBW 10 kHz	Mode Auto FFT M1[1] ///////////////////////////////////		2.43999	7.58 dBm 3050 GHz
Ref Level 20. Att SGL Count 100 SGL Count 100 Bm 10 dBm 0 0 10 dBm 0 0 0 10 dBm 0 0 0 0 20 dBm 0<	30 dB SV 0/1000	fset 7.24 dB VT 632.1 μs	RBW 3 kHz VBW 10 kHz	Mode Auto FFT M1[1] ///////////////////////////////////		2.43999	7.58 dBm 9050 GHz



Spectrum					
	fset 7.07 dB 👄 F				
Att 30 dB SW	/T 632.1 µs 🖷 🔪	/BW 10 kHz M	ode Auto FFT		
SGL Count 1000/1000					
JPK Max			M1[1]		-19.41 dBm
			WILLI	2.47	9998070 GHz
10 dBm					
0 dBm					
-10 dBm					
		м1			
-20 dBm					
-20 dBm	-malanaman	Allow Rouse	www.wallow.wall	A	
-30 dBrand Man Man Man Man				Month washington	A
-Through					w when my marking
-40 dBm					·
-50 dBm					
-60 dBm					
-70 dBm					
, o doni					
	1 1		1 1		
CF 2.48 GHz		1001 pts			n 964.5 kHz

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8.1.5 Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-38.83	-20	Pass
NVNT	BLE 1M	2480	Ant1	-37.43	-20	Pass

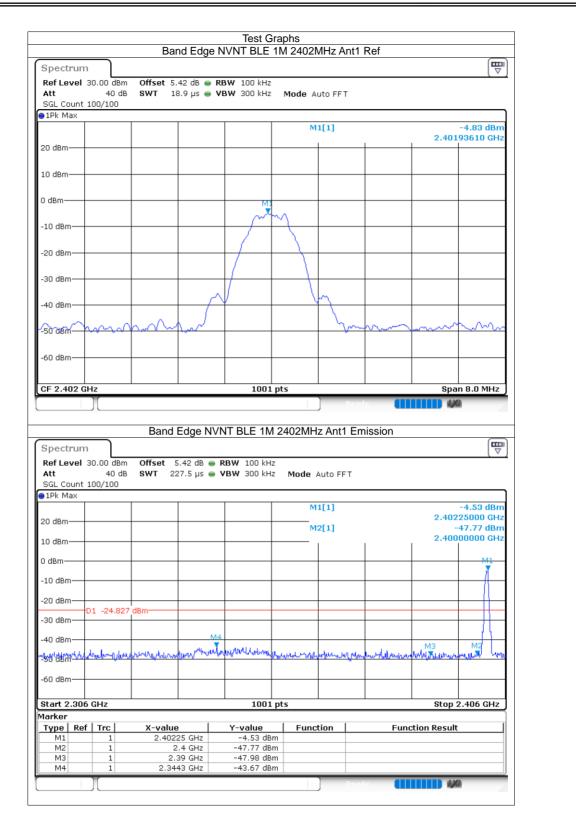


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Report No.: S23011301005001





Spectrum RefLevel 30.00 dBm Att 40 dB SGL Count 100/100			Mode Auto FFT			
1Pk Max			M1[1]			-7.60 dBm
				I		87210 GHz
20 dBm						
.0 dBm						
) dBm						
, abiii		M1				
10 dBm						
20 dBm						
			λ			
30 dBm						
40 dBm		√				
	man			han		0
50 dBm						- mr - m.
60 dBm						
CF 2.48 GHz		1001	ots		Spa	n 8.0 MHz
	Band Edge N	/NT BLE 1M	2480MHz Ant1 I	Emission		
Ref Level 30.00 dBm	Offset 5.42 dB 👄	RBW 100 kHz				
Spectrum Ref Level 30.00 dBm Att 40 dB SGL Count 100/100		RBW 100 kHz				
Ref Level 30.00 dBm Att 40 dB SGL Count 100/100	Offset 5.42 dB 👄	RBW 100 kHz				-7.02 dBm
RefLevel 30.00 dBm Att 40 dB	Offset 5.42 dB 👄	RBW 100 kHz	Mode Auto FFT		2.479	-7.02 dBm 95000 GHz
Ref Level 30.00 dBm Att 40 dB SGL Count 100/100 1Pk Max	Offset 5.42 dB 👄	RBW 100 kHz	Mode Auto FFT		2.479	-7.02 dBm
Ref Level 30.00 dBm Att 40 dB SGL Count 100/100 1Pk Max 20 dBm 20 dBm	Offset 5.42 dB 👄	RBW 100 kHz	Mode Auto FFT		2.479	-7.02 dBm 95000 GHz 48.04 dBm
Ref Level 30.00 dBm Att 40 dB SGL Count 100/100 :1Pk Max 20 dBm :0 dBm .0 dBm	Offset 5.42 dB 👄	RBW 100 kHz	Mode Auto FFT		2.479	-7.02 dBm 95000 GHz 48.04 dBm
Ref Level 30.00 dBm Att 40 dB SGL Count 100/100 11Pk Max 20 dBm .0 dBm .0 dBm	Offset 5.42 dB 👄	RBW 100 kHz	Mode Auto FFT		2.479	-7.02 dBm 95000 GHz 48.04 dBm
Ref Level 30.00 dBm Att 40 dB SGL Count 100/100 11Pk Max 40 dB 20 dBm 40 dB 10 dBm 40 dB 20 dBm 40 dB	Offset 5.42 dB SWT 227.5 µs	RBW 100 kHz	Mode Auto FFT		2.479	-7.02 dBm 95000 GHz 48.04 dBm
Ref Level 30.00 dBm Att 40 dB SGL Count 100/100 1Pk Max 20 dBm 20 dBm 30 dBm 10 dBm 30 dBm 20 dBm 30 dBm	Offset 5.42 dB SWT 227.5 µs	RBW 100 kHz	Mode Auto FFT		2.479	-7.02 dBm 95000 GHz 48.04 dBm
Ref Level 30.00 dBm Att 40 dB SGL Count 100/100 1Pk Max 20 dBm 20 dBm 30 dBm 10 dBm 30 dBm 20 dBm 30 dBm 30 dBm 91 -27.602 40 dBm 14 - 27.602	Offset 5.42 dB • SWT 227.5 µs •	RBW 100 kHz VBW 300 kHz	Mode Auto FFT		2.479 - 2.483	-7.02 dBm 95000 GHz 48.04 dBm
Ref Level 30.00 dBm Att 40 dB SGL Count 100/100 1Pk Max 20 dBm 20 dBm 30 dBm 10 dBm 30 dBm 20 dBm 30 dBm 30 dBm 91 -27.602 40 dBm 40 dBm 30 dBm 91 -27.602 40 dBm 94 dBm 30 dBm 94 dBm	Offset 5.42 dB • SWT 227.5 µs •	RBW 100 kHz VBW 300 kHz	Mode Auto FFT		2.479 - 2.483	-7.02 dBm 95000 GHz 48.04 dBm 50000 GHz
Ref Level 30.00 dBm Att 40 dB SGL Count 100/100 1Pk Max 20 dBm 20 dBm 30 dBm 10 dBm 30 dBm 20 dBm 30 dBm 30 dBm 91 -27.602 40 dBm 40 dBm 30 dBm 91 -27.602 40 dBm 94 dBm 30 dBm 94 dBm	Offset 5.42 dB • SWT 227.5 µs •	RBW 100 kHz VBW 300 kHz	Mode Auto FFT		2.479 - 2.483	-7.02 dBm 95000 GHz 48.04 dBm 50000 GHz
Ref Level 30.00 dBm Att 40 dB SGL Count 100/100 1Pk Max 20 dBm 20 dBm 30 dBm 10 dBm 30 dBm 20 dBm 30 dBm 30 dBm 91 -27.602 40 dBm 14 - 27.602	Offset 5.42 dB • SWT 227.5 µs •	RBW 100 kHz VBW 300 kHz	Mode Auto FFT		2.479 - 2.483	-7.02 dBm 95000 GHz 48.04 dBm 50000 GHz
Ref Level 30.00 dBm Att 40 dB SGL Count 100/100 IPK Max 40 dB 20 dBm 9 10 dBm 9 20 dBm 9 20 dBm 9 30 dBm 9 40 dBm 9 40 dBm 10 50 dBm 10 40 dBm 10 40 dBm 10 50 dBm 10 60 dBm 10 60 dBm 10 60 dBm 10 61 dBm 10 62 dBm 10	Offset 5.42 dB SWT 227.5 µs	RBW 100 kHz VBW 300 kHz	Mode Auto FFT	ultu-pendek list projeka da	2.479 - 2.483 	-7.02 dBm 95000 GHz 48.04 dBm 50000 GHz
Ref Level 30.00 dBm Att 40 dB SGL Count 100/100 1Pk Max 40 dB 20 dBm 9 10 dBm 9 10 dBm 9 20 dBm 9 30 dBm 9 30 dBm 9 40 dBm 10 30 dBm 10 50 dBm 10 50 dBm 10 60 dBm 10	Offset 5.42 dB • SWT 227.5 µs •	RBW 100 kHz VBW 300 kHz	Mode Auto FFT M1[1] M2[1]	ultu-pendek list proj. k. del	2.479 - 2.483	-7.02 dBm 95000 GHz 48.04 dBm 50000 GHz
Ref Level 30.00 dBm Att 40 dB SGL Count 100/100 11Pk Max 40 dB 120 dBm 10 10 dBm 10 10 dBm 10 20 dBm 10 30 dBm 10 40 dBm 10 50 dBm 10 50 dBm 10 60 dBm 10	Offset 5.42 dB SWT 227.5 µs	RBW 100 kHz VBW 300 kHz	Mode Auto FFT M1[1] M2[1]	ultu-pendek list proj. k. del	2.479 - 2.483 	-7.02 dBm 95000 GHz 48.04 dBm 50000 GHz

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8.1.6 Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 1M	2402	Ant1	-44.14	-20	Pass
NVNT	BLE 1M	2440	Ant1	-43.32	-20	Pass
NVNT	BLE 1M	2480	Ant1	-41.99	-20	Pass

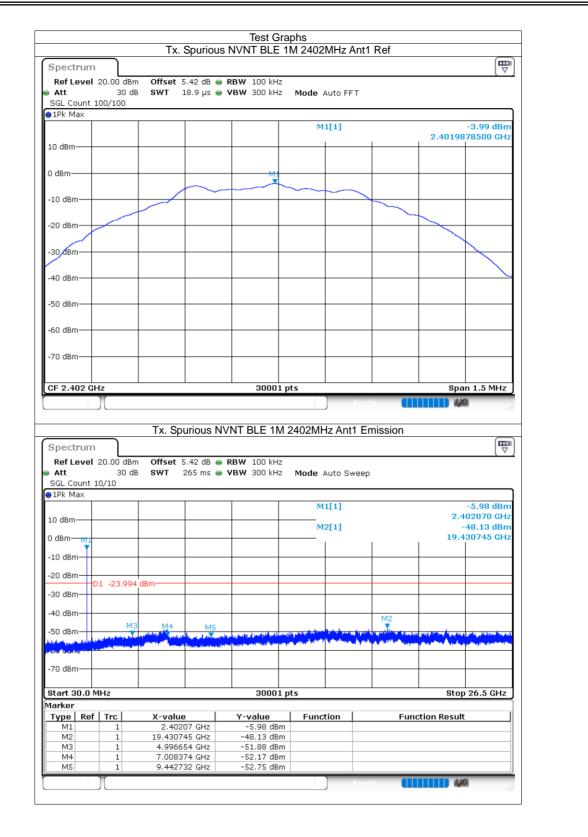


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Certificate #4298.01

Report No.: S23011301005001





Spectrum Ref Level		Offeet	50 dB =	• RBW 100 kHz						
Att SGL Count	30 dB			VBW 300 kHz	Mode A	uto FFT				
1Pk Max										
					M1	L[1]		0.400	-4.86	
.0 dBm								2.439	9497520	GHZ
I dBm				M1						
10 dBm				_			\leftarrow			
		-						\leftarrow		
20 dBm										
30 dt8m-										
30 aBm										
40 dBm				_			_			
50 dBm										
60 dBm										
70 dBm								1		
CF 2.44 GH	z			30001	pts			S	pan 1.5 M	ИНZ
		T . 0.				Rea	ndy 🔳		4,70	lli
Spectrum		Tx. Spi	urious N	IVNT BLE 1M	2440MH	lz Ant1 E	mission		4/4	
Ref Level	20.00 dBm	Offset 5	5.59 dB 🖷	• RBW 100 kHz					4/4	
Ref Level Att	20.00 dBm 30 dB	Offset 5	5.59 dB 🖷						4,44	
Ref Level Att SGL Count	20.00 dBm 30 dB	Offset 5	5.59 dB 🖷	• RBW 100 kHz					40	
Ref Level Att SGL Count 1Pk Max	20.00 dBm 30 dB	Offset 5	5.59 dB 🖷	• RBW 100 kHz	Mode A				-5.60	dBm
Ref Level Att SGL Count 1Pk Max	20.00 dBm 30 dB	Offset 5	5.59 dB 🖷	• RBW 100 kHz	Mode A	uto Swee			-5.60 2.440010 -48.19	dBm I GHz
Ref Level Att SGL Count 1Pk Max	20.00 dBm 30 dB	Offset 5	5.59 dB 🖷	• RBW 100 kHz	Mode A	uto Swee			2.440010	dBm I GHz dBm
Ref Level Att 5GL Count 1Pk Max 0 dBm	20.00 dBm 30 dB	Offset 5	5.59 dB 🖷	• RBW 100 kHz	Mode A	uto Swee			2.440010 -48.19	dBm I GHz dBm
Ref Level Att SGL Count 1Pk Max 0 dBm 10 dBm	20.00 dBm 30 dB	Offset 5	5.59 dB 🖷	• RBW 100 kHz	Mode A	uto Swee			2.440010 -48.19	dBm I GHz dBm
Ref Level Att SGL Count IPk Max 0 dBm I dBm 10 dBm 20 dBm	20.00 dBm 30 dB	Offset 5 SWT 2	5.59 dB 🖷	• RBW 100 kHz	Mode A	uto Swee			2.440010 -48.19	dBm I GHz dBm
Ref Level Att SGL Count IPk Max 0 dBm I dBm 10 dBm 20 dBm	20.00 dBm 30 dB 10/10	Offset 5 SWT 2	5.59 dB 🖷	• RBW 100 kHz	Mode A	uto Swee			2.440010 -48.19	dBm I GHz dBm
Ref Level Att SGL Count 11Pk Max 0 dBm 10 dBm 10 dBm 20 dBm	20.00 dBm 30 dB 10/10	Offset 5 SWT 2	5.59 dB 🖷	• RBW 100 kHz	Mode A	uto Swee			2.440010 -48.19	dBm I GHz dBm
Ref Level Att SGL Count 11Pk Max .0 dBm	20.00 dBm 30 dE 10/10	dBm	5.59 dB 265 ms	RBW 100 kHz VBW 300 kHz	Mode A M3 M2	uto Swee	p	1	2.440010 -48.19 5.317307	dBm I GHz dBm
Att SGL Count (1Pk Max 0 dBm 10 dBm 10 dBm 20 dBm	20.00 dBm 30 dE 10/10	dBmM4	5.59 dB 265 ms 	RBW 100 kHz VBW 300 kHz	Mode A M1 M2	uto Swee	p	1	2.440010 -48.19	dBm I GHz dBm
Ref Level Att SGL Count 11Pk Max .0 dBm	20.00 dBm 30 dE 10/10	dBmM4	5.59 dB 265 ms 	RBW 100 kHz VBW 300 kHz	Mode A M1 M2	uto Swee	p	1	2.440010 -48.19 5.317307	dBm I GHz dBm
Ref Level Att SGL Count 1Pk Max 0 dBm 10 dBm 20 dBm 30 dBm 40 dBm 50 dBm 50 dBm 50 dBm	20.00 dBm 30 dE 10/10	dBmM4	5.59 dB 265 ms 	RBW 100 kHz VBW 300 kHz	Mode A M1 M2	uto Swee	p	1	2.440010 -48.19 5.317307	dBm I GHz dBm
Ref Level Att SGL Count 1Pk Max 0 dBm dBm 10 dBm 30 dBm 40 dBm 50 dBm 70 dBm	20.00 dBm 30 d2 10/10	dBmM4	5.59 dB 265 ms 	RBW 100 kHz VBW 300 kHz	Mode A M1 M2	uto Swee	p		2.440010 -48.19 5.317307	dBm GHz dBm ' GHz
Ref Level Att SGL Count 1Pk Max 0 dBm 0 dBm 10 dBm 20 dBm 30 dBm 40 dBm 50 dBm 70 dBm 70 dBm	20.00 dBm 30 d2 10/10	dBmM4	5.59 dB 265 ms 	RBW 100 kHz VBW 300 kHz	Mode A M1 M2	uto Swee	p		2.440010 -48.19 5.317307	dBm GHz dBm ' GHz
Ref Level Att SGL Count 1Pk Max 0 dBm 0 dBm 10 dBm 20 dBm 30 dBm 40 dBm 50 dBm 70 dBm 70 dBm 31 dBm	20.00 dBm 30 dE 10/10 01 -24.859 M3	dBmM4	5.59 dB 265 ms	RBW 100 kHz VBW 300 kHz	Mode A M1 M2	L[1] 2[1]	p		2.440010 -48.19 5.317307	dBm GHz dBm ' GHz
Ref Level Att SGL Count 1Pk Max 0 dBm 10 dBm 10 dBm 20 dBm 30 dBm 40 dBm 50 dBm 50 dBm 70 dBm 70 dBm 70 dBm 70 dBm 70 dBm 8tart 30.0 f Type Ref M1	20.00 dBm 30 d2 10/10 01 -24.859 M3 MHz MHz	dBm dBm x-value 2.4400	5.59 dB 265 ms	RBW 100 kHz VBW 300 kHz 5	Mode A M1 M2 M2 M2 pts Funct	L[1] 2[1]	p		2.440010 -48.19 5.317307	dBm GHz dBm ' GHz
Ref Level Att SGL Count 1Pk Max 0 dBm 0 dBm 10 dBm 20 dBm 30 dBm 40 dBm 50 dBm 50 dBm 70 dBm 70 dBm start 30.0 f arker Type M1 M2	20.00 dBr 30 dE 10/10 01 -24.859 MEz MHz Trc 1 1	dBm 	5.59 dB 265 ms 265 ms 265 ms 265 ms 205 ms	RBW 100 kHz VBW 300 kHz	Mode A	L[1] 2[1]	p		2.440010 -48.19 5.317307	dBm GHz dBm ' GHz
Ref Level Att SGL Count 1Pk Max 0 dBm 10 dBm 10 dBm 20 dBm 30 dBm 40 dBm 50 dBm 50 dBm 70 dBm 70 dBm itart 30.0 f arker Type Ref M1 M2 M3 M4	20.00 dBr 30 d2 10/10 01 -24.859 M3 under to 4 MHz MHz 1 1 1 1	Control of the second s	5.59 dB 265 ms 265 ms	RBW 100 kHz VBW 300 kHz 5	Mode A M1 M2 M2 m2 m4 m2 m2 m2 m2 m2 m2 m2 m2 m2 m2 m2 m2 m2	L[1] 2[1]	p		2.440010 -48.19 5.317307	dBm GHz dBm ' GHz
Ref Level Att SGL Count 1Pk Max 0 dBm 0 dBm 10 dBm 20 dBm 30 dBm 40 dBm 50 dBm 30 dBm 40 dBm 50 dBm 30 dBm 40 dBm 50 dBm 70 dBm 36 dBm 70 dBm 36 dBm 70 dBm 37 dBm 70 dBm 70 dBm 31 dBm 32 dBm	20.00 dBm 30 dB 10/10 01 -24,859 MI2 MH2 MH2 1 1 1	Contract 5 SWT 2 Contract 5 Contract 5 Contr	5.59 dB 265 ms 265 ms	RBW 100 kHz VBW 300 kHz 5	Mode A M1 M2 M2 m2 m4 m2 m2 m2 m2 m2 m2 m2 m2 m2 m2 m2 m2 m2	L[1] 2[1]	p		2.440010 -48.19 5.317307	dBm GHz dBm ' GHz

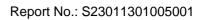
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Ref Level Att	20.00 dBn 30 dl			RBW 100 kHz VBW 300 kHz	Mode A	uto FFT			
SGL Count 1Pk Max	100/100								
		<u>т</u>			MI	L[1]			-6.38 dBm
.								2.4802	253920 GHz
.0 dBm								1	
-10									
dBm						M1			
10 dBm									
20 dBm							\vdash	<u> </u>	
30 dBm				+ +					
40 dBm				++				+	
50 dBm									
50 dBm									
Jo ubili									
70 dBm									
F 2.48 GH	2			30001	nte				an 1.5 MHz
, 2.70 GH				30001	Pr3	1	_	ар	
-				VNT BLE 1M	2480MH	Iz Ant1 E	mission		
Ref Level Att	20.00 dBr 30 dI	n Offset 5.	.42 dB 👄	VNT BLE 1M RBW 100 kHz VBW 300 kHz					
Ref Level Att GGL Count	20.00 dBr 30 dI	n Offset 5.	.42 dB 👄	RBW 100 kHz	Mode A	uto Sweep			
Ref Level Att GGL Count 1Pk Max	20.00 dBr 30 dI	n Offset 5.	.42 dB 👄	RBW 100 kHz	Mode A				-7.59 dBm
Ref Level Att GGL Count 1Pk Max	20.00 dBr 30 dI	n Offset 5.	.42 dB 👄	RBW 100 kHz	Mode A	uto Sweep			-7.59 dBm 479720 GHz -48.38 dBm
Ref Level Att GGL Count 1Pk Max	20.00 dBr 30 dI	n Offset 5.	.42 dB 👄	RBW 100 kHz	Mode A	uto Sweep			-7.59 dBm 479720 GHz
Ref Level Att SGL Count 1Pk Max 0 dBm	20.00 dBr 30 dI	n Offset 5.	.42 dB 👄	RBW 100 kHz	Mode A	uto Sweep			-7.59 dBm 479720 GHz -48.38 dBm
Ref Level Att SGL Count 1Pk Max 0 dBm dBm M1 10 dBm	20.00 dBr 30 dI	n Offset 5.	.42 dB 👄	RBW 100 kHz	Mode A	uto Sweep			-7.59 dBm 479720 GHz -48.38 dBm
Ref Level Att GGL Count 1Pk Max 0 dBm dBm M3 10 dBm 20 dBm	20.00 dBr 30 di 10/10	n Offset 5. 3 SWT 2	.42 dB 👄	RBW 100 kHz	Mode A	uto Sweep			-7.59 dBm 479720 GHz -48.38 dBm
Ref Level Att GGL Count 1Pk Max 0 dBm dBm M3 10 dBm 20 dBm	20.00 dBr 30 dI	n Offset 5. 3 SWT 2	.42 dB 👄	RBW 100 kHz	Mode A	uto Sweep			-7.59 dBm 479720 GHz -48.38 dBm
Ref Level Att SGL Count 1Pk Max 0 dBm MJ 10 dBm 20 dBm 30 dBm	20.00 dBr 30 di 10/10	n Offset 5. 3 SWT 2	.42 dB 👄	RBW 100 kHz	Mode A	L[1] 2[1]			-7.59 dBm 479720 GHz -48.38 dBm
Ref Level Att GGL Count 1Pk Max 0 dBm M3 10 dBm 20 dBm 30 dBm 40 dBm	20.00 dBr 30 dl 10/10 D1 -26.375	n Offset 5. 3 SWT 2	.42 dB ● 65 ms ●	RBW 100 kHz VBW 300 kHz	Mode A	L[1] 2[1]		15.	-7.59 dBm 479720 GHz -48.38 dBm 934058 GHz
Ref Level Att GGL Count 1Pk Max 0 dBm dBm 10 dBm 20 dBm 30 dBm 40 dBm 50 dBm	20.00 dBr 30 dl 10/10	n Offset 5. 3 SWT 2	.42 dB ● 65 ms ●	RBW 100 kHz YBW 300 kHz	Mode A	uto Sweep [[1] 2[1]			-7.59 dBm 479720 GHz -48.38 dBm 934058 GHz
Ref Level Att GGL Count 1Pk Max 0 dBm M3 10 dBm 20 dBm 30 dBm 40 dBm	20.00 dBr 30 dl 10/10 D1 -26.375	n Offset 5. 3 SWT 2	.42 dB ● 65 ms ● 	RBW 100 kHz VBW 300 kHz	Mode A	uto Sweep [[1] 2[1]			-7.59 dBm 479720 GHz -48.38 dBm 934058 GHz
Att <u>SGL Count</u> <u>1Pk Max</u> 0 dBm dBm <u>10 dBm</u> 20 dBm 30 dBm 40 dBm 50 dBm	20.00 dBr 30 dl 10/10 D1 -26.375	n Offset 5. 3 SWT 2	.42 dB ● 65 ms ● 	RBW 100 kHz VBW 300 kHz	Mode A	uto Sweep [[1] 2[1]			-7.59 dBm 479720 GHz -48.38 dBm 934058 GHz
Ref Level Att SGL Count 1Pk Max 0 dBm dBm 10 dBm 20 dBm 30 dBm 40 dBm 50 dBm 50 dBm 70 dBm	20.00 dBr 30 dl 10/10 D1 -26.375 M3	n Offset 5. 3 SWT 2	.42 dB ● 65 ms ● 	RBW 100 kHz VBW 300 kHz	Mode A	uto Sweep [[1] 2[1]			-7.59 dBm 479720 GHz -48.38 dBm 934058 GHz
Ref Level Att GGL Count IPK Max 0 dBm M3 10 dBm 20 dBm 30 dBm 40 dBm 50 dBm 40 dBm 70 dBm 70 dBm 70 dBm tart 30.0	20.00 dBr 30 dl 10/10 D1 -26.375 M3	n Offset 5. 3 SWT 2	.42 dB ● 65 ms ● 	RBW 100 kHz VBW 300 kHz	Mode A	uto Sweep [[1] 2[1]			-7.59 dBm 479720 GHz -48.38 dBm 934058 GHz
Ref Level Att GGL Count IPk Max 0 dBm M3 10 dBm 20 dBm 30 dBm 40 dBm 70 dBm 70 dBm 70 dBm 70 dBm 71 dBm 72 dBm	20.00 dBr 30 dl 10/10 D1 -26,375 M3 MHz	n Offset 5. 3 SWT 2	.42 dB ● 65 ms ● 	RBW 100 kHz VBW 300 kHz	Mode A	L[1] 22 2		15.	-7.59 dBm 479720 GHz -48.38 dBm 934058 GHz
Ref Level Att SGL Count IPK Max 0 dBm 10 dBm 20 dBm 30 dBm 40 dBm 50 dBm 70 dBm tart 30.0 f arker Fype Ref	20.00 dBr 30 dl 10/10 D1 -26.375 M3 M4 MHz VHz 1	n Offset 5. 3 SWT 2	.42 dB ● 65 ms ● 	RBW 100 kHz VBW 300 kHz	Mode A M3 M2 M2 M2 M2 M3 M2 M3 M2 M3 M2 M3 M3 M2 M3 M3 M3 M3 M3 M3 M3 M3 M3 M3 M3 M3 M3	L[1] 22 2			-7.59 dBm 479720 GHz -48.38 dBm 934058 GHz
Ref Level Att SGL Count IPk Max 0 dBm M1 10 dBm 20 dBm 30 dBm 40 dBm 50 dBm 40 dBm 70 dBm 70 dBm tart 30.0 f arker Type Ref M1 M2	20.00 dBr 30 dl 10/10 D1 -26.375 M3 MHz MHz	n Offset 5. 3 SWT 2 6 dBm 3 M4 8 M4 8 M4 9 M4 9 M4 9 M4 9 M4 9 M4 9 M4 9 M4 9	.42 dB ● 65 ms ● 	RBW 100 kHz VBW 300 kHz	Mode A	L[1] 22 2		15.	-7.59 dBm 479720 GHz -48.38 dBm 934058 GHz
Ref Level Att SGL Count IPK Max 0 dBm 10 dBm 20 dBm 30 dBm 40 dBm 50 dBm 70 dBm tart 30.0 f arker Fype Ref	20.00 dBr 30 dl 10/10 D1 -26.375 M3 M4 MHz VHz 1	n Offset 5. 3 SWT 2	42 dB 65 ms	RBW 100 kHz VBW 300 kHz	Mode A M3 M2 M2 M2 M2 M3 M3 M3 M3 M3 M3 M3 M3 M3 M3 M3 M3 M3	L[1] 22 2		15.	-7.59 dBm 479720 GHz -48.38 dBm 934058 GHz
Ref Level Att SGL Count IPk Max 0 dBm dBm M3 10 dBm 20 dBm 30 dBm 40 dBm 50 dBm 70 dBm 70 dBm tart 30.0 l arker Fype M1 M2 M3	20.00 dBr 30 dl 10/10 D1 -26.375 M8 MHz MHz	n Offset 5. 3 SWT 2 6 dBm 3 M4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	.42 dB ● 65 ms ● 	RBW 100 kHz VBW 300 kHz 	Mode A	L[1] 22 2		15.	-7.59 dBm 479720 GHz -48.38 dBm 934058 GHz

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8.2 **2M**

8.2.1 Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 2M	2402	Ant1	-2.92	0	-2.92	30	Pass
NVNT	BLE 2M	2440	Ant1	-3.04	0	-3.04	30	Pass
NVNT	BLE 2M	2480	Ant1	-3.68	0	-3.68	30	Pass

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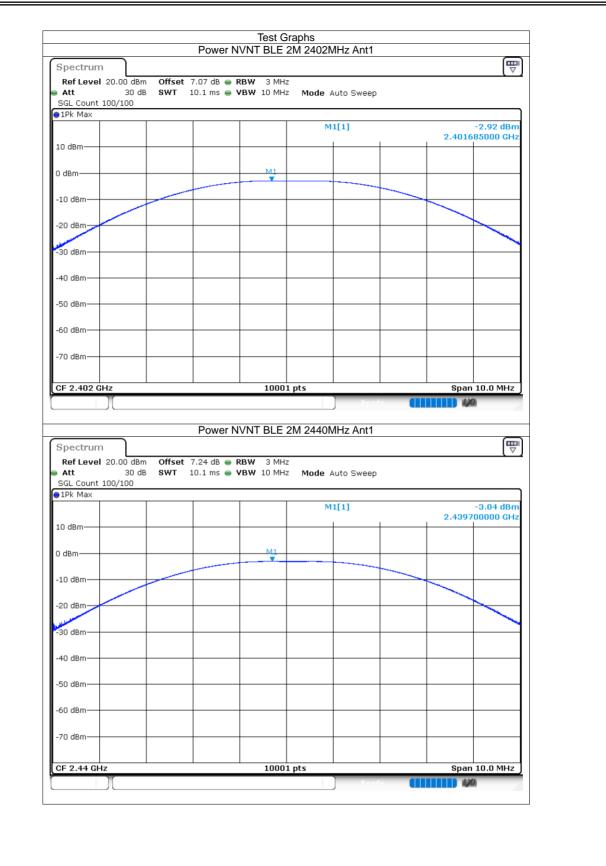


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Spectrum		Power NVN		VI 2400IV				
Ref Level 20.00 dB		7.07 dB 👄 RBV						
Att 30 - SGL Count 100/100	dB SWT 1	0.1 ms 👄 VBV	V 10 MHz	Mode A	uto Sweep	I		
1Pk Max								
				Mi	L[1]		2.4795	-3.68 dBm 95000 GHz
10 dBm								
0 dBm			- M1					
					_			
-10 dBm								
-20 dBm								
20 0811								
-30 dBm	_							
-40 dBm								
-50 dBm								
-60 dBm								
-70 dBm								
CF 2.48 GHz			10001	ots			Span	10.0 MHz
) (Rea	dy 🚺		3

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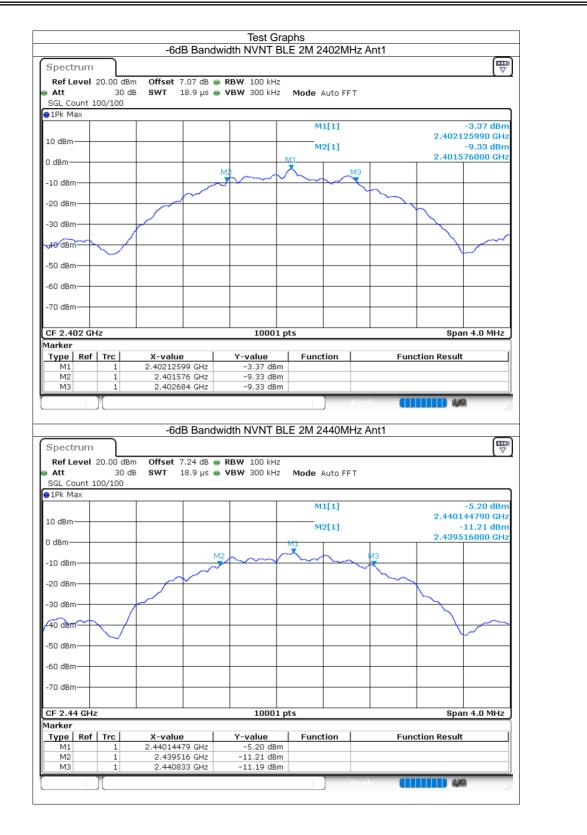




8.2.2 -6dB Bandwidth

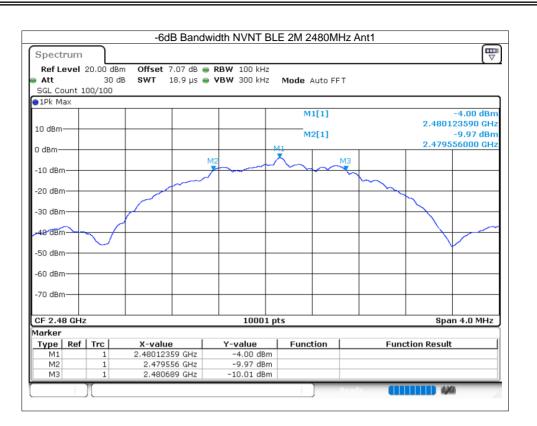
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	BLE 2M	2402	Ant1	1.108	0.5	Pass
NVNT	BLE 2M	2440	Ant1	1.317	0.5	Pass
NVNT	BLE 2M	2480	Ant1	1.133	0.5	Pass





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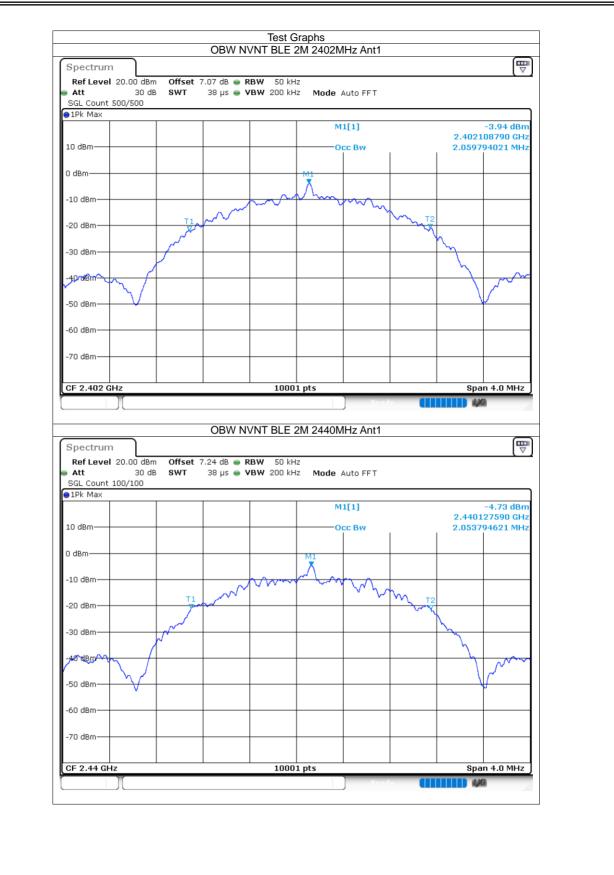


8.2.3 Occupied Channel Bandwidth

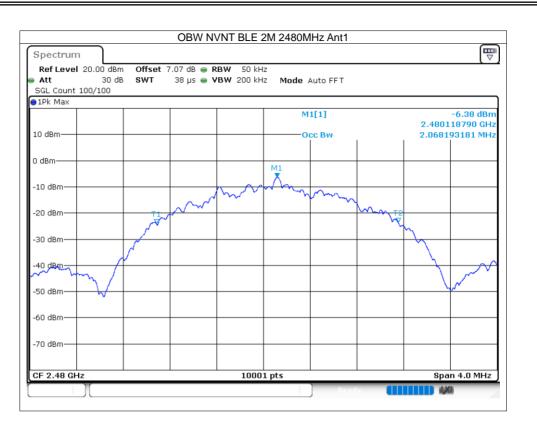
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	BLE 2M	2402	Ant1	2.06
NVNT	BLE 2M	2440	Ant1	2.054
NVNT	BLE 2M	2480	Ant1	2.068



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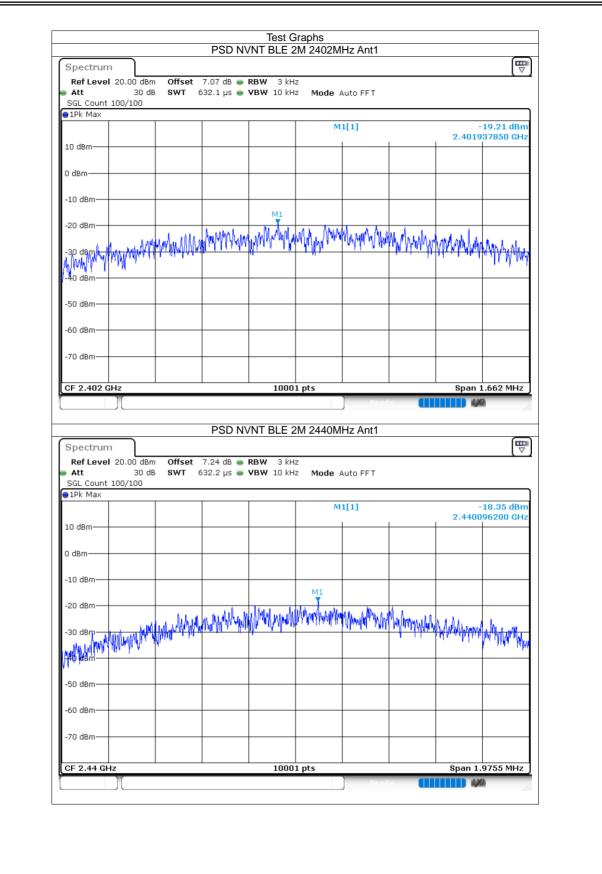


8.2.4 Maximum Power Spectral Density Level

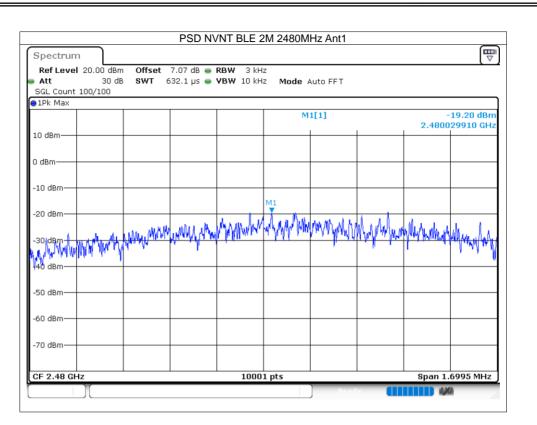
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm)	Duty Factor (dB)	Total PSD (dBm)	Limit (dBm)	Verdict
NVNT	BLE 2M	2402	Ant1	-19.21	0	-19.21	8	Pass
NVNT	BLE 2M	2440	Ant1	-18.35	0	-18.35	8	Pass
NVNT	BLE 2M	2480	Ant1	-19.2	0	-19.2	8	Pass



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8.2.5 Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 2M	2402	Ant1	-47.65	-20	Pass
NVNT	BLE 2M	2480	Ant1	-48.67	-20	Pass

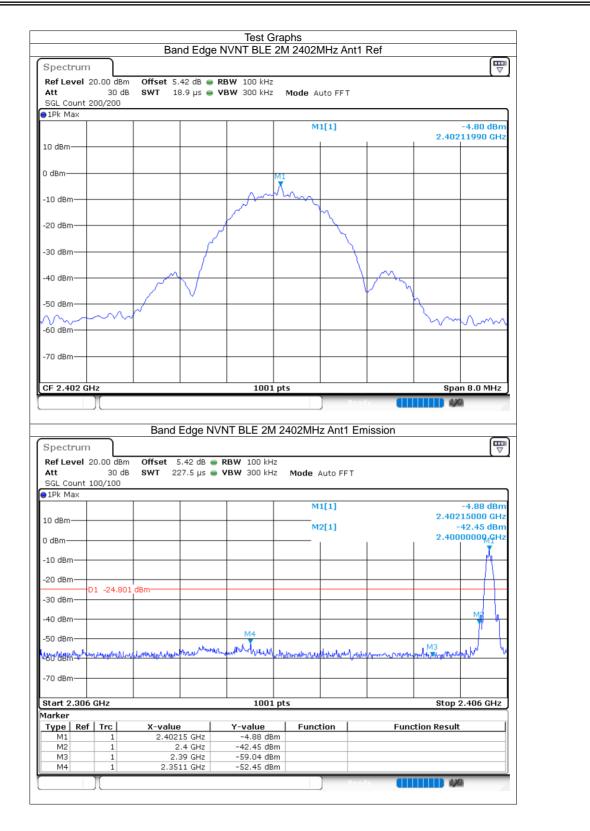


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Report No.: S23011301005001





Ref Level 20.00 dBr Att 30 d SGL Count 200/200		B e RBW 100 kHz s e VBW 300 kHz	Mode Auto FF	т		
1Pk Max						
			M1[1]		2,480	-5.68 dBm 11190 GHz
10 dBm					+	
0 dBm		r	M1			
-10 dBm			Man -			
		land in	The second			
-20 dBm						
-30 dBm						
		1				
-40 dBm	- m	/		\rightarrow		
	$ f \vee$			V V	Y.	
-50 dBm					1 mon	
-60 dBm					~	m
-70 dBm						
CF 2.48 GHz		1001	pts		Spa	n 8.0 MHz
				1 Emission		
Ref Level 20.00 dBr	m Offset 5.42 (2			
Ref Level 20.00 dBr Att 30 d SGL Count 100/100	m Offset 5.42 (dB 😑 RBW 100 kHz	2 2 Mode Auto F			
Ref Level 20.00 dBr Att 30 d SGL Count 100/100 IPk Max	m Offset 5.42 (dB 😑 RBW 100 kHz	2 Mode Auto F 		2.480	-8.24 dBm
Ref Level 20.00 dB; Att 30 d SGL Count 100/100 1Pk Max 10 dBm 10 dBm	m Offset 5.42 (dB 😑 RBW 100 kHz	2 2 Mode Auto F		-	-8.24 dBm 05000 GHz 55.98 dBm
Att 30 d SGL Count 100/100 PIPk Max 10 dBm 0 dBm M1	m Offset 5.42 (dB 😑 RBW 100 kHz	2 Mode Auto F 		-	-8.24 dBm 05000 GHz
Ref Level 20.00 dB; Att 30 d SGL Count 100/100 1Pk Max 10 dBm 10 dBm	m Offset 5.42 (dB 😑 RBW 100 kHz	2 Mode Auto F 		-	-8.24 dBm 05000 GHz 55.98 dBm
Ref Level 20.00 dBr Att 30 d SGL Count 100/100 1Pk Max 10 dBm 0 dBm	m Offset 5.42 d B SWT 227.5 j	dB 😑 RBW 100 kHz	2 Mode Auto F 		-	-8.24 dBm 05000 GHz 55.98 dBm
Ref Level 20.00 dBr Att 30 d SGL Count 100/100 IPk Max 10 dBm 0 dBm	m Offset 5.42 d B SWT 227.5 j	dB 😑 RBW 100 kHz	2 Mode Auto F 		-	-8.24 dBm 05000 GHz 55.98 dBm
Ref Level 20.00 dBi Att 30 d SGL Count 100/100 1Pk Max 10 dBm 0 dBm	m Offset 5.42 d B SWT 227.5 j	dB 😑 RBW 100 kHz	2 Mode Auto F 		-	-8.24 dBm 05000 GHz 55.98 dBm
Ref Level 20.00 dBi Att 30 d SGL Count 100/100 1Pk Max 30 d 10 dBm 0 -10 dBm -0 -20 dBm 01 -25.67 -30 dBm -0	m Offset 5.42 d B SWT 227.5 j	dB 😑 RBW 100 kHz	2 Mode Auto F 		-	-8.24 dBm 05000 GHz 55.98 dBm
Ref Level 20.00 dBr Att 30 d SGL Count 100/100 1Pk Max 10 dBm 10 dBm	m Offset 5.42 d B SWT 227.5 j	dB • RBW 100 kHz µs • VBW 300 kHz	2 Mode Auto F M1[1] M2[1] 	FT	2.483	-8.24 dBm 05000 GHz 55.98 dBm 550000 GHz
Ref Level 20.00 dBr Att 30 d SGL Count 100/100 1Pk Max 10 dBm 10 dBm	m Offset 5.42 d B SWT 227.5 j	dB • RBW 100 kHz µs • VBW 300 kHz	2 Mode Auto F 	FT	2.483	-8.24 dBm 05000 GHz 55.98 dBm
Ref Level 20.00 dBr Att 30 d SGL Count 100/100 1Pk Max 10 dBm 10 dBm 0 -10 dBm	m Offset 5.42 d B SWT 227.5 j	dB • RBW 100 kHz µs • VBW 300 kHz	2 Mode Auto F M1[1] M2[1] 	FT	2.483	-8.24 dBm 05000 GHz 55.98 dBm 550000 GHz
Ref Level 20.00 dBr Att 30 d SGL Count 100/100 IPk Max 10 dBm 10 dBm 0 -10 dBm	m Offset 5.42 d B SWT 227.5 j	dB • RBW 100 kHz µs • VBW 300 kHz	2 Mode Auto F M1[1] M2[1] M2[1] M2[1]	FT	2.483	-8.24 dBm 05000 GHz 55.98 dBm 50000 GHz
Ref Level 20.00 dBr Att 30 d SGL Count 100/100 1Pk Max 10 dBm 10 dBm	m Offset 5.42 d B SWT 227.5 j	dB • RBW 100 kHz µs • VBW 300 kHz	2 Mode Auto F M1[1] M2[1] M2[1] M2[1]	FT	2.483	-8.24 dBm 05000 GHz 55.98 dBm 550000 GHz
Ref Level 20.00 dBi Att 30 d SGL Count 100/100 1Pk Max 10 dBm 10 dBm	m Offset 5.42 d B SWT 227.5 j	dB • RBW 100 kHz µs • VBW 300 kHz 	2 Mode Auto F M1[1] M2[1	FT	2.483	-8.24 dBm 05000 GHz 55.98 dBm 50000 GHz
Ref Level 20.00 dBr Att 30 d SGL Count 100/100 1Pk Max 10 dBm 10 dBm	m Offset 5.42 d B SWT 227.5 j	dB • RBW 100 kHz µs • VBW 300 kHz	2 Mode Auto F M1[1] M2[1	FT	2.483	-8.24 dBm 05000 GHz 55.98 dBm 50000 GHz
Ref Level 20.00 dBr Att 30 d SGL Count 100/100 1Pk Max	m Offset 5.42 d B SWT 227.5 j	dB • RBW 100 kHz µs • VBW 300 kHz	2 Mode Auto F M1[1] M2[1]	FT	2.483	-8.24 dBm 05000 GHz 55.98 dBm 50000 GHz
Ref Level 20.00 dBr Att 30 d SGL Count 100/100 IPk Max 10 dBm 10 dBm 0 -10 dBm	m Offset 5.42 G	dB • RBW 100 kHz µs • VBW 300 kHz	2 Mode Auto F M1[1] M2[1]	FT	2.483	-8.24 dBm 05000 GHz 55.98 dBm 50000 GHz

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8.2.6 Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE 2M	2402	Ant1	-42.12	-20	Pass
NVNT	BLE 2M	2440	Ant1	-43.17	-20	Pass
NVNT	BLE 2M	2480	Ant1	-41.95	-20	Pass

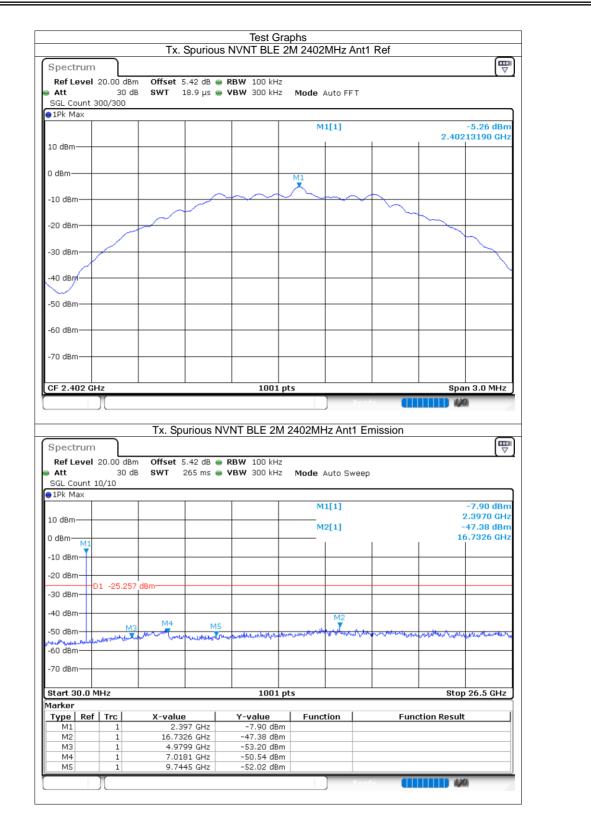


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Spectr Ref Le Att SGL Col	evel 2	0.00 dBr 30 d 30 d			RBW 100 kH VBW 300 kH		Auto FFT]
1Pk Ma		,0,000									
						M	1[1]		24	-4.93 dBm 4011690 GHz	
LO dBm-									2.4	4011090 GHz	
) dBm—						M1					
10 dBm						\sim					
10 00.00			\sim					$\gamma \sim$			
20 dBm	+								<u> </u>		
										\sim	
30 dBm											
40 dBm	4										
\smile											
50 dBm	+										
60 dBm											
00 00											
70 dBm	_										
CF 2.44	GHz			1	100:	pts			S	pan 3.0 MHz	
		<i>(</i>					<u> </u>				
Spectr	-um		Tx. Sp	ourious N	IVNT BLE 2) Re Iz Ant1 I	edy 🚺 Emission]
-	evel 2	20.00 dBr 30 d	m Offset	5.59 dB 👄	VNT BLE 2 RBW 100 kH	M 2440MH]
Ref Le Att	vel 2 unt 10	30 d	m Offset	5.59 dB 👄	• RBW 100 kH	M 2440MH Iz Iz Mode /	Auto Swee]
Ref Le Att SGL Cou 1Pk Ma	unt 10	30 d	m Offset	5.59 dB 👄	• RBW 100 kH	M 2440MH Iz Iz Mode /				-8.58 dBm 2.4500 GHz	
Ref Le Att SGL Cou 1Pk Ma	unt 10	30 d	m Offset	5.59 dB 👄	• RBW 100 kH	M 2440MH	Auto Swee			-8.58 dBm 2.4500 GHz -48.10 dBm]
Ref Le Att SGL Cou 1Pk Ma 10 dBm-	evel 2 unt 10 ax	30 d	m Offset	5.59 dB 👄	• RBW 100 kH	M 2440MH	Auto Swee			-8.58 dBm 2.4500 GHz]
Ref Le Att SGL Cou 1Pk Ma 10 dBm- 0 dBm- 10 dBm-	M1	30 d	m Offset	5.59 dB 👄	• RBW 100 kH	M 2440MH	Auto Swee			-8.58 dBm 2.4500 GHz -48.10 dBm	
Ref Le Att SGL Cou 1Pk Ma 10 dBm-	MI	30 d	m Offset B SWT	5.59 dB 👄	• RBW 100 kH	M 2440MH	Auto Swee			-8.58 dBm 2.4500 GHz -48.10 dBm	
Ref Le Att SGL Cou 1Pk Ma 10 dBm- 0 dBm- 10 dBm-	MI D	30 d	m Offset B SWT	5.59 dB 👄	• RBW 100 kH	M 2440MH	Auto Swee			-8.58 dBm 2.4500 GHz -48.10 dBm)
Ref Le Att SGL Cou) 1Pk Ma 10 dBm-) dBm- 10 dBm 20 dBm	MI D	30 d	m Offset B SWT	5.59 dB 👄	• RBW 100 kH	M 2440MH	Auto Swee			-8.58 dBm 2.4500 GHz -48.10 dBm	
Ref Le Att SGL Con 1Pk Ma 10 dBm- 10 dBm- 10 dBm- 20 dBm- 30 dBm-	MI D:	30 d)/10 1 -24.922 M3	n Offset B SWT	5.59 dB 265 ms	9 RBW 100 kH	M 2440MH	Auto Swee	2p		-8.58 dBm 2.4500 GHz -48.10 dBm 16.7061 GHz	
Ref Le Att SGL Could 1Pk Ma 1Pk Ma 0 dBm- 10 dBm- 10 dBm 20 dBm 30 dBm 40 dBm	M1 D	30 d)/10 1 -24.922 M3	n Offset B SWT	5.59 dB 265 ms	RBW 100 kH VBW 300 kH	M 2440MH	Auto Swee	2p		-8.58 dBm 2.4500 GHz -48.10 dBm	
Ref Le Att SGL Cool 1Pk Ma 1Pk Ma 0 dBm- 10 dBm- 10 dBm 20 dBm 30 dBm 40 dBm 50 dBm 60 dBm	M1 D:	30 d)/10 1 -24.922 M3	n Offset B SWT	5.59 dB 265 ms	9 RBW 100 kH	M 2440MH	Auto Swee	2p		-8.58 dBm 2.4500 GHz -48.10 dBm 16.7061 GHz	
Ref Le Att SGL Cou 1Pk Ma 1Pk Ma 0 dBm- 0 dBm- 10 dBm- 20 dBm- 30 dBm- 40 dBm- 50 dBm-	M1 D:	30 d)/10 1 -24.922 M3	n Offset B SWT	5.59 dB 265 ms	9 RBW 100 kH	M 2440MH	Auto Swee	2p		-8.58 dBm 2.4500 GHz -48.10 dBm 16.7061 GHz	
Ref Le Att SGL Cool 1Pk Ma 1Pk Ma 0 dBm- 10 dBm- 10 dBm 20 dBm 30 dBm 40 dBm 50 dBm 60 dBm	M1 D2	30 d //10 L -24.922 M3 	n Offset B SWT	5.59 dB 265 ms	9 RBW 100 kH	M 2440MH	Auto Swee	2p		-8.58 dBm 2.4500 GHz -48.10 dBm 16.7061 GHz	
Ref Le Att SGL Could SGL Could SGL Could IPK Ma 0 dBm 10 dBm 20 dBm 30 dBm 30 dBm 50 dBm 60 dBm 70 dBm 70 dBm 30 dBm	M1 D: D: D: D: D: M1	30 d //10 1 -24.927 M3 	n Offset B SWT	5.59 dB 265 ms 	RBW 100 kH VBW 300 kH	M 2440MH	Auto Swee		st	-8.58 dBm 2.4500 GHz -48.10 dBm 16.7061 GHz	
Ref Le Att SGL Cou 11Pk Ma 10 dBm- 0 dBm- 20 dBm 20 dBm 30 dBm 50 dBm 50 dBm 70 dBm	M1 D: D: D: D: D: M1	30 d //10 1 -24.927 M3 	n Offset B SWT	5.59 dB 265 ms 	RBW 100 kH VBW 300 kH S	M 2440MH	Auto Swee			-8.58 dBm 2.4500 GHz -48.10 dBm 16.7061 GHz	
Ref Le Att SGL Col SGL Col IPR Ma ID dBm- 0 dBm- 10 dBm- 20 dBm 30 dBm 30 dBm 40 dBm 50 dBm 51 dBm 52 dBm 53 dBm 54 dBm 55 dBm 56 dBm 70 dBm 51 dBm 51 dBm 52 dBm 53 dBm 60 dBm 70 dBm 51 dBm 62 dBm 70 dBm 63 dBm 70 dBm 70 dBm 70 dBm 70 dBm 70 dBm	M1 D: D: D: D: D: M1	30 d //10 -24.922 M3 M3 Hz Trc 1 1	n Offset B SWT	5.59 dB 265 ms 265 m	8 RBW 100 kH 9 VBW 300 kH 5 5 5 100: Y-value -8.58 df -48.10 df	M 2440MH	Auto Swee		st	-8.58 dBm 2.4500 GHz -48.10 dBm 16.7061 GHz	
Ref Le Att SGL Col SGL Col IPK Ma IPK	M1 D: D: D: D: D: M1	30 d //10	m Offset B SWT	5.59 dB 265 ms 265 ms 265 ms 265 ms 261 ms 261 ms 261 ms 261 ms 261 ms 261 ms 261 ms 265 ms 26	PRBW 100 kH VBW 300 kH	M 2440MH	Auto Swee		st	-8.58 dBm 2.4500 GHz -48.10 dBm 16.7061 GHz	
Ref Le Att SGL Col SGL Col SIPK Ma ID dBm ID dBm 10 dBm 20 dBm 30 dBm 30 dBm 40 dBm 50 dBm 60 dBm 70 dBm Start 30 Iarker Type M1 M2 M3	M1 D: D: D: D: D: M1	30 d //10 -24.927 M3 	m Offset B SWT	5.59 dB 265 ms 265 ms 26	9 RBW 100 kH 9 VBW 300 kH 9 VBW 300 kH 5	M 2440MH	Auto Swee		st	-8.58 dBm 2.4500 GHz -48.10 dBm 16.7061 GHz	

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Spectrum Ref Level Att SGL Count	20.00 dBm 30 dB			RBW 100 kHz VBW 300 kHz		uto FFT			
р1Рк Мах					M1	[1]			-5.59 dBm
10 dBm								2.480)11690 GHz
10 0.0									
0 dBm				++	M1				
-10 dBm			~		$\overline{}$				
-10 0.0111			\sim	T~			~~	_	
-20 dBm									
-30 dBm									\searrow
-40 dBm									
-50 dBm									
-60 dBm									
-70 dBm									
CF 2.48 GH	z			1001	pts			Spa	in 3.0 MHz
Att 🛛	20.00 dBm 30 dB	Offset 5	.42 dB 😑 I	(NT BLE 2M RBW 100 kHz VBW 300 kHz	1		nission		
Ref Level	20.00 dBm 30 dB	Offset 5	.42 dB 😑 I	RBW 100 kHz	: Mode At	uto Sweep	nission		
Ref Level Att SGL Count 1Pk Max	20.00 dBm 30 dB	Offset 5	.42 dB 😑 I	RBW 100 kHz	1	uto Sweep	nission		-9.07 dBm 2.4760 GHz
Ref Level Att SGL Count 1Pk Max	20.00 dBm 30 dB	Offset 5	.42 dB 😑 I	RBW 100 kHz	: Mode At	uto Sweep [1]	nission	-	-9.07 dBm 2.4760 GHz -47.54 dBm
Ref Level Att SGL Count 1Pk Max 10 dBm 0 dBm	20.00 dBm 30 dB	Offset 5	.42 dB 😑 I	RBW 100 kHz	: Mode A(uto Sweep [1]	nission	-	-9.07 dBm 2.4760 GHz
Ref Level Att SGL Count 1Pk Max 10 dBm 0 dBm M1 -10 dBm	20.00 dBm 30 dB	Offset 5	.42 dB 😑 I	RBW 100 kHz	: Mode A(uto Sweep [1]	nission	-	-9.07 dBm 2.4760 GHz -47.54 dBm
Ref Level Att SGL Count 1Pk Max 10 dBm 0 dBm 10 dBm -20 dBm	20.00 dBm 30 dB	Offset 5 SWT 2	.42 dB 😑 I	RBW 100 kHz	: Mode A(uto Sweep [1]		-	-9.07 dBm 2.4760 GHz -47.54 dBm
Ref Level Att SGL Count 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm	20.00 dBm 30 dB 10/10	Offset 5 SWT 2	.42 dB 😑 I	RBW 100 kHz	: Mode A(uto Sweep [1]		-	-9.07 dBm 2.4760 GHz -47.54 dBm
Mathematical Count Att SGL Count 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm	20.00 dBm 30 dB 10/10	Offset 5 SWT 2	.42 dB • 1 665 ms • 1	RBW 100 kHz VBW 300 kHz	Mode Au M1 M2	uto Sweep [1] [1]		1	-9.07 dBm 2.4760 GHz -47.54 dBm 4.9326 GHz
Ref Level Att SGL Count 1Pk Max 10 dBm 0 dBm -20 dBm -30 dBm -40 dBm	20.00 dBm 30 dB 10/10	Offset 5 SWT 2	.42 dB • 1 665 ms • 1	RBW 100 kHz	Mode Au M1 M2	uto Sweep [1] [1]		1	-9.07 dBm 2.4760 GHz -47.54 dBm
Ref Level Att SGL Count 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm	20.00 dBm 30 dB 10/10	Offset 5 SWT 2	.42 dB • 1 665 ms • 1	RBW 100 kHz VBW 300 kHz	Mode Au M1 M2	uto Sweep [1] [1]		1	-9.07 dBm 2.4760 GHz -47.54 dBm 4.9326 GHz
Ref Level Att SGL Count IPk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm	20.00 dBm 30 dB 10/10	Offset 5 SWT 2	.42 dB • 1 665 ms • 1	RBW 100 kHz VBW 300 kHz	Mode Au M1 M2	uto Sweep [1] [1]		1	-9.07 dBm 2.4760 GHz -47.54 dBm 4.9326 GHz
Ref Level Att SGL Count 1Pk Max 10 dBm 0 dBm -20 dBm -30 dBm -30 dBm -70 dBm -70 dBm -70 dBm	20.00 dBm 30 dB 10/10 D1 -25.590 c M3	Offset 5 SWT 2	.42 dB • 1 665 ms • 1	RBW 100 kHz VBW 300 kHz	Mode Au M1	uto Sweep [1] [1]		1	-9.07 dBm 2.4760 GHz -47.54 dBm 4.9326 GHz
Mathematical SGL Count 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -30 dBm -70 dBm -70 dBm -70 dBm	20.00 dBm 30 dB 10/10 D1 -25.590 d M3	Offset 5 SWT 2	.42 dB .65 ms	RBW 100 kHz yBW 300 kHz	Mode Au M1	uto Sweep [1] [1]	the standard and a standard	1	-9.07 dBm 2.4760 GHz -47.54 dBm 4.9326 GHz
Ref Level Att SGL Count 10 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm To dBm -70 dBm	20.00 dBm 30 dB 10/10 D1 -25.590 d M3 MHz MHz	Offset 5 SWT 2 ////////////////////////////////////	.42 dB • 1 .65 ms • 1 	RBW 100 kHz VBW 300 kHz	Mode Au M1 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2	uto Sweep [1] [1]	the standard and a standard	۱ بر این المی المی المی المی المی المی المی المی	-9.07 dBm 2.4760 GHz -47.54 dBm 4.9326 GHz
Mat SGL Count Att SGL Count 10 dBm 0 dBm 0 dBm -20 dBm -20 dBm -30 dBm -60 dBm -70 dBm -70 dBm Start 30.0 ft Marker Type M1 M2 M3	20.00 dBm 30 dB 10/10 D1 -25.590 c M3 www.sett.way.bat MHz MHz	Offset 5 SWT 2 ////////////////////////////////////	.42 dB .44 dB	RBW 100 kHz VBW 300 kHz	Mode Au M1 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2 M2	uto Sweep [1] [1]	the standard and a standard	۱ بر این المی المی المی المی المی المی المی المی	-9.07 dBm 2.4760 GHz -47.54 dBm 4.9326 GHz
Ref Level Att SGL Count 1Pk Max 10 dBm 0 dBm -20 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm -70 dBm -70 dBm Marker Type M1 M2	20.00 dBm 30 dB 10/10 D1 -25.590 c M3 ruggengtoughout, b MHz Trc 1 1	Offset 5 SWT 2 ////////////////////////////////////	.42 dB 265 ms X5 Vuller of GHz 26 GHz 26 GHz	RBW 100 kHz VBW 300 kHz	Mode Au M1 M2 M2 Autophic for a pts Functi n n n	uto Sweep [1] [1]	the standard and a standard	۱ بر این المی المی المی المی المی المی المی المی	-9.07 dBm 2.4760 GHz -47.54 dBm 4.9326 GHz
Ref Level Att SGL Count 10 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm Start 30.0 f Marker Type M1 M2 M3	20.00 dBm 30 dB 10/10 D1 -25.590 d M3 www.welk.u., kuk MHz Trc 1 1 1 1	Offset 5 SWT 2 ////////////////////////////////////	.42 dB .65 ms .565 ms	RBW 100 kHz VBW 300 kHz VBW 3	Mode Au M1 M2 M2 Autophic for a pts Functi n n n	uto Sweep [1] [1]	ເປັງໄທຍ່ານ ¹ າງາານາຍິດ Func	۱ بر این المی المی المی المی المی المی المی المی	-9.07 dBm 2.4760 GHz -47.54 dBm 4.9326 GHz
Ref Level Att SGL Count 10 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm Start 30.0 f Marker Type M1 M2 M3	20.00 dBm 30 dB 10/10 D1 -25.590 d M3 www.welk.u., kuk MHz Trc 1 1 1 1	Offset 5 SWT 2 ////////////////////////////////////	.42 dB .65 ms .565 ms	RBW 100 kHz VBW 300 kHz VBW 3	Mode Au M1 M2 M2 Autophic for a pts Functi n n n	uto Sweep [1] [1]	ເປັງໄທຍ່ານ ¹ າງາານາຍິດ Func	بریس ^{الاس} را ^ن سریم Stop	-9.07 dBm 2.4760 GHz -47.54 dBm 4.9326 GHz
Ref Level Att SGL Count 10 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm Start 30.0 f Marker Type M1 M2 M3	20.00 dBm 30 dB 10/10 D1 -25.590 d M3 www.welk.u., kuk MHz Trc 1 1 1 1	Offset 5 SWT 2 ////////////////////////////////////	.42 dB .65 ms .565 ms	RBW 100 kHz VBW 300 kHz VBW 3	Mode Au M1 M2 M2 Autophic for a pts Functi n n n	uto Sweep [1] [1]	ເປັງໄທຍ່ານ ¹ າງາານາຍິດ Func	بریس ^{الاس} را ⁴ سربرد Stop	-9.07 dBm 2.4760 GHz -47.54 dBm 4.9326 GHz

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