



FCC Test Report

Application No.:	DNT2408020022R0662-01740		
Applicant:	DGL Group LTD.		
Address of Applicant:	2045 Lincoln Highway, 3rd Floor, Edison, NJ 08817, United States		
EUT Description:	HOVER-1 PRO SERIES		
Model No.:	H1-BSS-DM		
FCC ID:	2AANZBSSDM		
Power Supply	DC 48V From Battery; DC 54.6V/3A From Adapter Input AC 100-240V, 50/60Hz		
Trade Mark:	HOVER-1 PRO SERIES		
Standards:	47 CFR FCC Part 2, Subpart J 47 CFR Part 15, Subpart C ANSI C63.10: 2020		
Date of Receipt:	2024/8/4		
Date of Test:	2024/8/5 to 2024/8/29		
Date of Issue:	2024/9/26		
Test Result:	PASS		

Prepared By:		
Reviewed By:		
Approved By:		

layne for	(Testing Engineer)
Penyils . chen	(Project Engineer)
Herse Ahen	(Manager)



Note: If there is any objection to the results in this report, please submit a written inquiry to the company within 15 days from the date of receiving the report. The test report is effective only with both signature and specialized stamp, and is issued by the company in accordance with the requirements of the "Conditions of Issuance of Test Reports" printed in the attached page. Unless otherwise stated, the results presented in this report only apply to the samples tested this time. Partial reproduction of this report is not allowed unless approved by the company in writing.

Dongguan DN Testing Co., Ltd.



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Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes	
V2.0		Sep.26, 2024	Valid	Original Report	



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Test Summary

Test Item	Test Requirement	Test Method	Test Result	Result
Antenna Requirement	15.203/247(b)	<u> </u>	Clause 3.1	PASS
Duty Cycle		<u> </u>	Clause 3.2	PASS
DTS (6 dB) Bandwidth	15.247 (a)(2)	ANSI C63.10: 2020	Clause 3.3	PASS
Conducted Output Power	15.247 (b)(3)	ANSI C63.10: 2020	Clause 3.4	PASS
Power Spectral Density	15.247 (e)	ANSI C63.10: 2020	Clause 3.5	PASS
Band-edge for RF Conducted Emissions	15.247(d)	ANSI C63.10: 2020	Clause 3.6	PASS
RF Conducted Spurious Emissions	15.247(d)	ANSI C63.10: 2020	Clause 3.7	PASS
Radiated Spurious Emissions	15.247(d);15.205/15.209	ANSI C63.10: 2020	Clause 3.8	PASS
Restricted bands around fundamental frequency (Radiated Emission)	15.247(d);15.205/15.209	ANSI C63.10: 2020	Clause 3.9	PASS
AC Power Line Conducted Emission	15.207	ANSI C63.10: 2020	Clause 3.10	PASS

Note:

1. "N/A" denotes test is not applicable in this test report.



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2 General Information

2.1 Test Location

Company:	Dongguan DN Testing Co., Ltd
Address:	No. 1, West Fourth Street, South Xinfa Road, Wusha Liwu, Chang ' an Town, Dongguan City, Guangdong P.R.China
Test engineer:	Wayne Lin

2.2 General Description of EUT

Manufacturer:	DGL Group LTD.			
Address of Manufacturer:	2045 Lincoln Highway, 3rd Floor, Edison, NJ 08817, United States			
EUT Description:	HOVER-1 PRO SERIES			
Test Model No.:	H1-BSS-DM			
Additional Model(s):	H1-BSS-DM-BLK,H1-BSS-DM-XXX,H1C-BSS-DM,H1C-BSS-DM-BLK, H1C-BSS-DM-XXX,DSA-BSS-DM,DSA-BSS-DM-BLK,DSA-BSS-DM-XXX, DSA-AH-BSS-DM,DSA-AH-BSS-DM-BLK,DSA-AH-BSS-DM-XXX, EU-H1-BSS-DM,EU-H1-RSS-DM-BLK,EU-H1-BSS-DM-XXX,EU-UK-BSS-DM, EU-UK-RSS-DM-BLK,EU-UK-BSS-DM-XXX			
Chip Type:	TLSR8253F512ET32			
Serial Number	PR2408020022R0662			
Power Supply	DC 48V From Battery; DC 54.6V/3A From Adapter Input AC 100-240V, 50/60Hz			
Trade Mark:	HOVER-1 PRO SERIES			
Hardware Version:	V1.0			
Software Version:	V1.0			
Operation Frequency:	2402 MHz to 2480 MHz			
Type of Modulation:	GFSK			
Sample Type:	□ Portable Device, □ Module, ⊠ Mobile Device			
Antenna Type:	□ External, ⊠ Integrated			
Antenna Ports	🖂 Ant 1, 🗌 Ant 2, 🗌 Ant 3			
Antenna Gain*:	⊠ Provided by applicant			
Antenna Gain .	-0.58dBi			
	⊠ Provided by applicant			
RF Cable*: 0.5dB(0.6~1GHz); 0.8dB(1.4~2GHz); 1.0dB(2.1~2.7GHz); 1.5dB(3~4GHz); 1.8dB(4.4~6GHz);				

Remark:

*Only the color of the product appearance is different, everything else is completely consistent.

*Since the above data and/or information is provided by the applicant relevant results or conclusions of this report are only made for these data and/or information, DNT is not responsible for the authenticity, integrity and results of the data and information and/or the validity of the conclusion.



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2.3 Channel List

	Operation Frequency of each channel						
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
0	2402MHz	10	2422MHz	20	2442MHz	30	2462MHz
1	2404MHz	11	2424MHz	21	2444MHz	31	2464MHz
2	2406MHz	12 📈	2426MHz	22	2446MHz	32	2466MHz
3	2408MHz	13	2428MHz	23	2448MHz	33	2468MHz
4	2410MHz	14	2430MHz	24	2450MHz	34	2470MHz
5	2412MHz	15	2432MHz	25	2452MHz	35	2472MHz
6	2414MHz	16	2434MHz	26	2454MHz	36	2474MHz
7	2416MHz	17	2436MHz	27	2456MHz	37	2476MHz
8	2418MHz	18	2438MHz	28	2458MHz	38	2478MHz
9	2420MHz	19	2440MHz	29	2460MHz	39	2480MHz

2.4 Test Environment and Mode

Operating Environment:	
Temperature:	20~25.0 °C
Humidity:	45~56 % RH
Atmospheric Pressure:	101.0~101.30 KPa
Test mode:	
Transmitting mode:	Keep the EUT in transmitting mode with all kind of modulation and all kind of data rate.

2.5 Power Setting of Test Software

Software Name	EMI_Tool		
Frequency(MHz)	2402 2440 2480		2480
BLE 1M Setting	Default	Default	Default

2.6 Description of Support Units

The EUT has been tested independent unit.



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2.7 Test Facility

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

Lab A:

• FCC, USA

Designation Number: CN1348

A2LA (Certificate No. 7050.01)

DONGGUAN DN TESTING CO., LTD. is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 7050.01.

Innovation, Science and Economic Development Canada

DONGGUAN DN TESTING CO., LTD. EMC Laboratory has been recognized by ISED as an accredited testing laboratory. CAB identifier is CN0149.

IC#: 30755.

2.8 Measurement Uncertainty (95% confidence levels, k=2)

No.	ltem	Measurement Uncertainty
1 (DTS Bandwidth	±0.0196%
2	Maximum Conducted Output Power	±0.686 dB
3	Maximum Power Spectral Density Level	±0.743 dB
4	Band-edge Compliance	±1.328 dB
5	Unwanted Emissions In Non-restricted Freq Bands	9KHz-1GHz:±0.746dB 1GHz-26GHz: ±1.328dB

No.	Item	Measurement Uncertainty
1	Conduction Emission	± 3.0dB (150kHz to 30MHz)
		± 4.8dB (Below 1GHz)
2	Radiated Emission	± 4.8dB (1GHz to 6GHz)
		± 4.5dB (6GHz to 18GHz)
		± 5.02dB (Above 18GHz)



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2.9 Equipment List

	For Conne	ect EUT Anten	na Terminal	Test	
Description	Manufacturer	Model	Serial Number	Cal date	Due date
Signal Generator	Keysight	N5181A-6G	MY48180415	2023-10-25	2024-10-24
Signal Generator	Keysight	N5182B	MY57300617	2023-10-25	2024-10-24
Power supply	Keysight	E3640A	ZB2022656	2023-10-25	2024-10-24
Radio Communication Tester	R&S	CMW500	105082	2023-10-25	2024-10-24
Spectrum Analyzer	Aglient	N9010A	MY52221458	2023-10-25	2024-10-24
BT/WIFI Test Software	Tonscend	JS1120 V3.1.83	NA	NA	NA
RF Control Unit	Tonscend	JS0806-2	22F8060581	NA	NA
Power Sensor	Anritsu	ML2495A	2129005	2023-10-25	2024-10-24
Pulse Power Sensor	Anritsu	MA2411B	1911397	2023-10-25	2024-10-24
temperature and humidity box	SCOTEK	SCD-C40-80PRO	6866682020008	2023-10-25	2024-10-24

Test Equipment for Conducted Emission						
Description	Manufacturer	Model	Serial Number	Cal Date	Due Date	
Receiver	R&S	ESCI3	101152	2023-10-24	2024-10-23	
LISN	R&S	ENV216	102874	2023-10-24	2024-10-23	
ISN	R&S	ENY81-CA6	1309.8590.03	2023-10-24	2024-10-23	

Test Ec	quipment for F	Radiated Emis	sion(30MHz-	-1000MHz	z)
Description	Manufacturer	Model	Serial Number	Cal Date	Due Date
Receiver	R&S	ESR7	102497	2023-10-24	2024-10-23
Test Software	ETS-LINDGREN	TiLE-FULL	NA	NA	NA
RF Cable	ETS-LINDGREN	RFC-NMS-100- NMS-350-IN	NA	2023-10-24	2024-10-23
Log periodic antenna	ETS-LINDGREN	VULB 9168	01475	2023-10-24	2024-10-23
Pre-amplifier	Schwarzbeck	BBV9743B	00423	2023-10-24	2024-10-23

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Test E	quipment for I	Radiated Emi	ssion(Above	1000MHz)
Description	Manufacturer	Model	Serial Number	Cal Date	Due Date
Frequency analyser	Keysight	N9010A	MY52221458	2023-10-24	2024-10-23
RF Cable	ETS-LINDGREN	RFC-NMS-100- NMS-350-IN	NA	2023-10-24	2024-10-23
Horn Antenna	ETS-LINDGREN	3117	00252567	2023-10-24	2024-10-23
Double ridged waveguide antenna	ETS-LINDGREN	3116C	00251780	2023-10-24	2024-10-23
Test Software	ETS-LINDGREN	TILE-FULL	NA	NA	NA
Pre-amplifier	ETS-LINDGREN	3117-PA	252567	2023-10-24	2024-10-23
Pre-amplifier	ETS-LINDGREN	3116C-PA	251780	2023-10-24	2024-10-23

2.10 Assistant equipment used for test

	Code	Equipment	Manufacturer	Model No.	Equipment No.
Ť		Adapter	GaoFanDe	GFDQ3- 0502000U	NA
	2	Computer	acer	N22C8	EMC notebook01



3 Test results and Measurement Data

3.1 Antenna Requirement

Standard requirement: 47 CFR Part 15C 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(b) (4) requirement:

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

The antenna is integrated on the main PCB and no consideration of replacement. The best case gain of the antenna is -0.58dBi.



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3.2 Duty Cycle

Refer to section : Appendix A

Note:

- 1.If duty cycle <98 %, the conducted average output power and average power spectral density should be add duty factor.
- 2.If duty cycle≥98 %,the EUT is consider to be transmitting continuously,the conducted average output power
 - and average power spectral density no need to add duty factor(consider to be zero).
- 3. The conducted peak output power and peak power spectral density no need to consider duty factor.
- 4. The on-time time is transmission duration(T).



3.3 DTS (6 dB) Bandwidth

Test Requirement:	47 CFR Part 15C Section 15.247 (a)(2)	
Test Method:	ANSI C63.10: 2020 Section 11.8.1 Option 1	~
Test Setup:	Spectrum Analyzer E.U.T	On On
	Non-Conducted Table	5
	Ground Reference Plane	
Instruments Used:	Refer to section 2.9 for details	
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates	
Final Test Mode:	Through Pre-scan, find the the worst case of GFSK	0
Limit:	≥ 500 kHz	
Test Results:	Pass	×.

The detailed test data see: Appendix B



3.4 Conducted Output Power

Test Requirement:	47 CFR Part 15C Section 15.247 (b)(3)
Test Method:	ANSI C63.10: 2020 Section 11.9.1.3
Test Setup:	POWER METER E.U.T
	Ground Reference Plane
Test Instruments:	Refer to section 2.9 for details
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates
Final Test Mode:	Through Pre-scan, find the the worst case of GFSK
Limit:	30dBm
Test Results:	Pass

The detailed test data see: Appendix C



3.5 Power Spectral Density

Test Requirement:	47 CFR Part 15C Section 15.247 (e)
Test Method:	ANSI C63.10: 2020 Section 11.10.2
Test Setup:	Spectrum Analyzer E.U.T
	Non-Conducted Table
	Ground Reference Plane
Test Instruments:	Refer to section 2.9 for details
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates
Final Test Mode:	Through Pre-scan, find the the worst case of GFSK
Limit:	≤8.00dBm/3kHz
Test Results:	Pass

The detailed test data see: Appendix D



3.6 Band-edge for RF Conducted Emissions

Test Requirement:	47 CFR Part 15C Section 15.247 (d)
· ·	
Test Method:	ANSI C63.10: 2020 Section 11.13
Test Setup:	Spectrum Analyzer E.U.T Non-Conducted Table
	Ground Reference Plane
Instruments Used:	Refer to section 2.9 for details
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates
Final Test Mode:	Through Pre-scan, find the the worst case of GFSK
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.
Test Results:	Pass

The detailed test data see: Appendix E



3.7 RF Conducted Spurious Emissions

Test Requirement:	47 CFR Part 15C Section 15.247 (d)
Test Method:	ANSI C63.10: 2020 Section 11.11
Test Setup:	Spectrum Analyzer E.U.T Non-Conducted Table
	Ground Reference Plane
Instruments Used:	Refer to section 2.9 for details
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates
Final Test Mode:	Through Pre-scan, find the worst case of GFSK;
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.
Test Results:	Pass

The detailed test data see: Appendix F



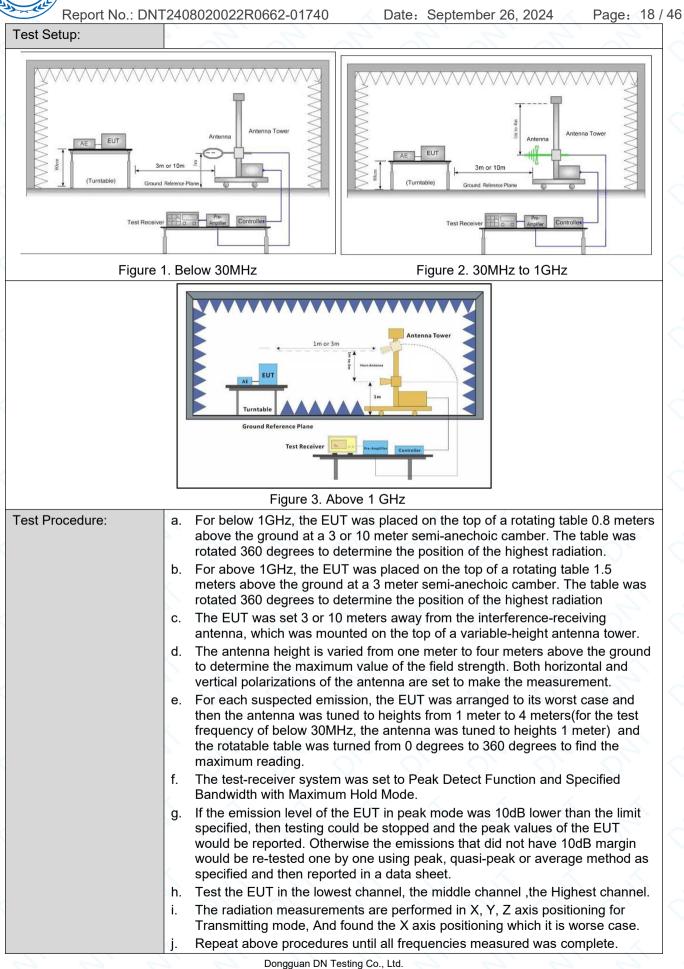
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3.8 Radiated Spurious Emissions

	ion 11.12		<u> </u>			
	ANSI C63.10: 2020 Section 11.12					
Measurement Distance:	Measurement Distance: 3m or 10m (Semi-Anechoic Chamber)					
Frequency	Detector	RBW	VBW	Remark		
0.009MHz-0.090MHz	Peak	10kHz	30kHz	Peak		
0.009MHz-0.090MHz	Average	10kHz	30kHz	Average		
0.090MHz-0.110MHz	Quasi-peak	10kHz	30kHz	Quasi-peak		
0.110MHz-0.490MHz	Peak	10kHz	30kHz	Peak		
0.110MHz-0.490MHz	Average	10kHz	30kHz	Average		
0.490MHz -30MHz	Quasi-peak	10kHz	30kHz	Quasi-peak		
30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak		
	Peak	1MHz	3MHz	Peak		
Above 1GHz	Peak	1MHz	10Hz (DC≥0.98)	Average		
5 2 A	5 5	S	≥1/T (DC<0.98)	2 12		
Frequency	Field strength (microvolt/meter)	Limit (dBuV/m)	Remark	Measurement distance (m)		
0.009MHz-0.490MHz	2400/F(kHz)	<u> </u>	<u> </u>	300		
0.490MHz-1.705MHz	24000/F(kHz)	<u></u>	2 - 2	30		
1.705MHz-30MHz	30	-		30		
30MHz-88MHz	100	40.0	Quasi-peak	3		
88MHz-216MHz	150	43.5	Quasi-peak	3		
216MHz-960MHz	200	46.0	Quasi-peak	3		
960MHz-1GHz	500	54.0	Quasi-peak	3		
Above 1GHz	500	54.0	Average	3		
	Frequency 0.009MHz-0.090MHz 0.009MHz-0.090MHz 0.090MHz-0.110MHz 0.110MHz-0.490MHz 0.110MHz-0.490MHz 0.490MHz-30MHz 30MHz-1GHz Above 1GHz 0.009MHz-0.490MHz 0.110MHz-0.490MHz 30MHz-1GHz 0.490MHz-104D 0.490MHz-0.490MHz 0.009MHz-0.490MHz 1.705MHz-0.490MHz 0.490MHz-1.705MHz 30MHz-88MHz 1.705MHz-30MHz 30MHz-88MHz 960MHz-1GHz 960MHz-1GHz 960MHz-1GHz Above 1GHz	Frequency Detector 0.009MHz-0.090MHz Peak 0.009MHz-0.090MHz Average 0.090MHz-0.110MHz Quasi-peak 0.110MHz-0.490MHz Peak 0.110MHz-0.490MHz Average 0.490MHz -300MHz Quasi-peak 30MHz-1GHz Quasi-peak 30MHz-1GHz Quasi-peak Above 1GHz Peak Frequency Field strength (microvolt/meter) 0.009MHz-0.490MHz 2400/F(kHz) 0.009MHz-0.490MHz 2400/F(kHz) 0.490MHz-1.705MHz 30 30MHz-88MHz 100 88MHz-216MHz 150 216MHz-960MHz 200 960MHz-1GHz 500	Frequency Detector RBW 0.009MHz-0.090MHz Peak 10kHz 0.009MHz-0.090MHz Average 10kHz 0.009MHz-0.110MHz Quasi-peak 10kHz 0.110MHz-0.490MHz Peak 10kHz 0.110MHz-0.490MHz Peak 10kHz 0.110MHz-0.490MHz Quasi-peak 10kHz 0.490MHz -30MHz Quasi-peak 10kHz 30MHz-1GHz Quasi-peak 11MHz Above 1GHz Peak 1MHz Frequency Field strength (microvolt/meter) Limit (dBuV/m) 0.009MHz-0.490MHz 2400/F(kHz) - 0.009MHz-0.490MHz 2400/F(kHz) - 1.705MHz-30MHz 30 - 1.705MHz-30MHz 30 - 30MHz-1.705MHz 30 - 30MHz-88MHz 100 40.0 88MHz-216MHz 150 43.5 216MHz-960MHz 200 46.0 960MHz-1GHz 500 54.0	FrequencyDetectorRBWVBW $0.009MHz-0.090MHz$ Peak $10kHz$ $30kHz$ $0.009MHz-0.090MHz$ Average $10kHz$ $30kHz$ $0.009MHz-0.110MHz$ Quasi-peak $10kHz$ $30kHz$ $0.110MHz-0.490MHz$ Peak $10kHz$ $30kHz$ $0.110MHz-0.490MHz$ Average $10kHz$ $30kHz$ $0.110MHz-0.490MHz$ Quasi-peak $10kHz$ $30kHz$ $0.490MHz$ -30MHzQuasi-peak $10kHz$ $30kHz$ $30MHz-1GHz$ Quasi-peak $10kHz$ $30kHz$ $Above 1GHz$ Peak $1MHz$ $10Hz$ $Above 1GHz$ Field strength (microvolt/meter) $Limit$ (dBuV/m) $Remark$ $0.009MHz-0.490MHz$ $2400/F(kHz)$ $0.009MHz-1.705MHz$ $24000/F(kHz)$ $1.705MHz-30MHz$ 30 $30MHz-88MHz$ 100 40.0 Quasi-peak $88MHz-216MHz$ 150 43.5 Quasi-peak $960MHz-1GHz$ 500 54.0 Quasi-peak		



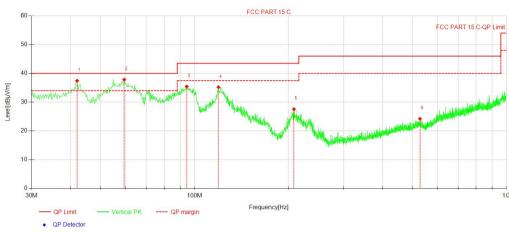




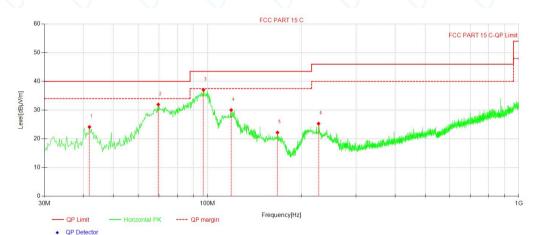
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Test data For 30-1000MHz



NO.	Freq. [MHz]	Reading Level [dBµV]	Correct Factor [dB/m]	Result Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity
1	42.03	45.96	-8.51	37.45	40.00	2.55	100	143	QP	Vertical
2	59.49	46.54	-8.71	37.83	40.00	2.17	100	11	QP	Vertical
3	94.42	48.87	-13.44	35.43	43.50	8.07	200	357	QP	Vertical
4	119.25	45.53	-10.33	35.20	43.50	8.30	100	114	QP	Vertical
5	208.32	38.55	-10.99	27.56	43.50	15.94	100	141	QP	Vertical
6	528.29	25.35	-1.14	24.21	46.00	21.79	200	162	QP	Vertical

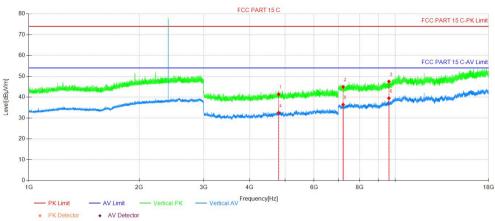


NO.	Freq. [MHz]	Reading Level [dBµV]	Correct Factor [dB/m]	Result Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity
1	41.83	32.66	-8.54	24.12	40.00	15.88	200	129	QP	Horizontal
2	69.58	41.96	-10.00	31.96	40.00	8.04	200	33	QP	Horizontal
3	97.13	50.09	-13.03	37.06	43.50	6.44	200	218	QP	Horizontal
4	119.25	40.36	-10.33	30.03	43.50	13.47	200	260	QP	Horizontal
5	167.96	30.33	-8.15	22.18	43.50	21.32	200	61	QP	Horizontal
6	227.53	36.02	-10.72	25.30	46.00	20.70	100	316	QP	Horizontal

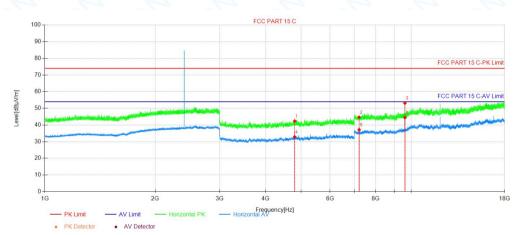


For above 1GHz

BLE 1M 2402MHz



NO.	Freq. [MHz]	Reading Level [dBµV]	Correct Factor [dB/m]	Result Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity
1	4804.59	46.00	-4.61	41.39	74.00	32.61	150	213	Peak	Vertical
2	7206.21	46.70	-1.76	44.94	74.00	29.06	150	74	Peak	Vertical
3	9608.58	46.66	0.88	47.54	74.00	26.46	150	123	Peak	Vertical
4	4804.59	37.12	-4.61	32.51	54.00	21.49	150	204	AV	Vertical
5	7206.21	38.19	-1.76	36.43	54.00	17.57	150	213	AV	Vertical
6	9608.58	38.63	0.88	39.51	54.00	14.49	150	123	AV	Vertical



NO.	Freq. [MHz]	Reading Level [dBµV]	Correct Factor [dB/m]	Result Level [dBµV/m]	AV Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity
1	4804.59	46.93	-4.61	42.32	74.00	31.68	150	217	Peak	Horizonta I
2	7206.21	46.40	-1.76	44.64	74.00	29.36	150	243	Peak	Horizonta I
3	9608.58	52.24	0.88	53.12	74.00	20.88	150	109	Peak	Horizonta I
4	4804.59	37.49	-4.61	32.88	54.00	21.12	150	189	AV	Horizonta I
5	7206.21	38.93	-1.76	37.17	54.00	16.83	150	243	AV	Horizonta I
6	9608.58	43.50	0.88	44.38	54.00	9.62	150	109	AV	Horizonta I

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Add: No. 1, West Fourth Street, Xingfa South Road, Wusha Community, Chang 'an Town, Dongguan City, Guangdong P.R.China

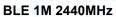
Web: www.dn-testing.com Tel:+

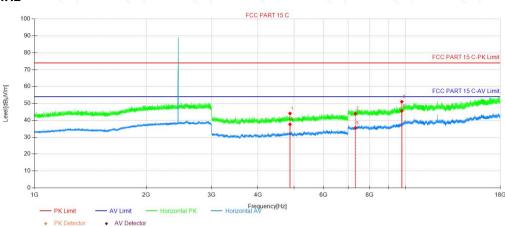
Tel:+86-769-88087383

E-mail: service@dn-testing.com

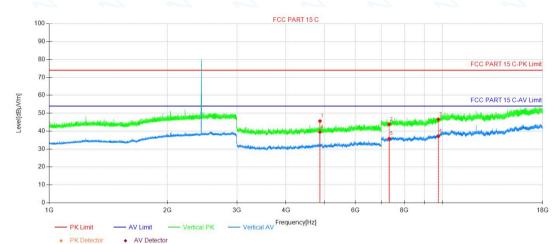


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NO.	Freq. [MHz]	Reading Level [dBµV]	Correct Factor [dB/m]	Result Level [dBµV/m]	AV Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity
1	4878.84	48.78	-4.70	44.08	74.00	29.92	150	191	Peak	Н
2	7320.21	45.43	-1.49	43.94	74.00	30.06	150	308	Peak	Н
3	9760.83	49.40	1.63	51.03	74.00	22.97	150	119	Peak	Н
4	4879.59	42.32	-4.70	37.62	54.00	16.38	150	316	AV	Н
5	7320.21	37.02	-1.49	35.53	54.00	18.47	150	352	AV	Н
6	9760.83	43.96	1.63	45.59	54.00	8.41	150	151	AV	Н



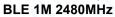
			· INDELECTOR	AV Detector							
	NO.	Freq. [MHz]	Reading Level [dBµV]	Correct Factor [dB/m]	Result Level [dBµV/m]	AV Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity
	1	4880.34	50.34	-4.71	45.63	74.00	28.37	150	214	Peak	V
	2	7320.21	45.28	-1.49	43.79	74.00	30.21	150	116	Peak	V
<	3	9760.08	44.98	1.62	46.60	74.00	27.40	150	358	Peak	V
	4	4879.59	44.17	-4.70	39.47	54.00	14.53	150	214	AV	V
Ī	5	7320.21	37.33	-1.49	35.84	54.00	18.16	150	335	AV	V
	6	9760.08	35.50	1.62	37.12	54.00	16.88	150	4	AV	V
Ś			1 1								

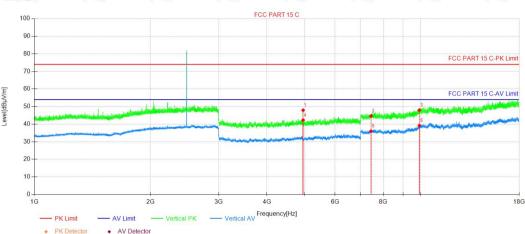
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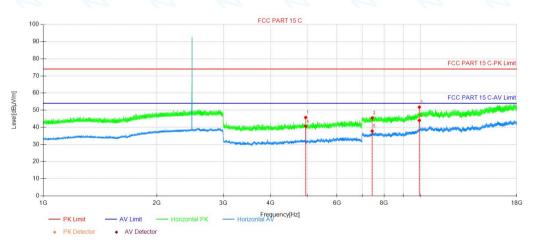


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NO.	Freq. [MHz]	Reading Level [dBµV]	Correct Factor [dB/m]	Result Level [dBµV/m]	AV Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity
1	4960.59	52.80	-4.86	47.94	74.00	26.06	150	201	Peak	V
2	7440.22	45.98	-1.34	44.64	74.00	29.36	150	313	Peak	V
3	9920.59	45.71	2.27	47.98	74.00	26.02	150	141	Peak	V
4	4959.84	47.16	-4.86	42.30	54.00	11.70	150	192	AV	V
5	7440.22	37.36	-1.34	36.02	54.00	17.98	150	10	AV	V
6	9920.59	36.92	2.27	39.19	54.00	14.81	150	123	AV	V



NO.	Freq. [MHz]	Reading Level [dBµV]	Correct Factor [dB/m]	Result Level [dBµV/m]	AV Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity
1	4959.09	50.58	-4.86	45.72	74.00	28.28	150	260	Peak	Н
2	7440.22	46.80	-1.34	45.46	74.00	28.54	150	114	Peak	Н
3	9920.59	49.47	2.27	51.74	74.00	22.26	150	155	Peak	Н
4	4959.84	45.44	-4.86	40.58	54.00	13.42	150	146	AV	Н
5	7440.22	39.12	-1.34	37.78	54.00	16.22	150	114	AV	Н
6	9920.59	41.78	2.27	44.05	54.00	9.95	150	146	AV	Н

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Note:

1. The Measurement (Result Level) is calculated by Reading Level adding the Correct Factor(maybe including Ant.Factor and the Cable Factor etc.), The basic equation is as follows:

Result Level= Reading Level + Correct Factor(including Ant.Factor, Cable Factor etc.)

2. The amplitude of 9KHz to 30MHz spurious emission that is attenuated by more than 20dB below the permissible limit has no need to be reported.

3. The amplitude of 18GHz to 25GHz spurious emission that is attenuated by more than 20dB below the permissible limit has no need to be report.

4. All channels had been pre-test, only the worst case was reported.

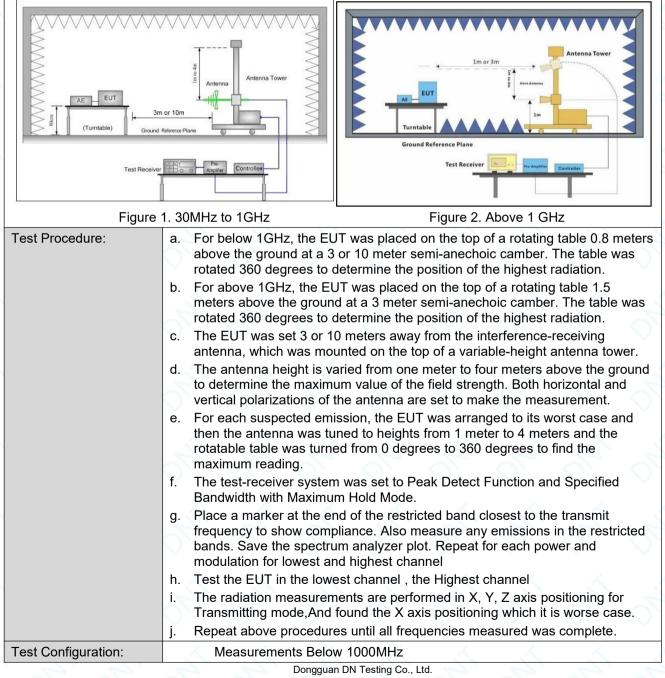


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3.9 Restricted bands around fundamental frequency

Test Requirement:	47 CFR Part 15C Section 1	5.209 and 15.205							
Test Method:	ANSI C63.10: 2020 Section	ANSI C63.10: 2020 Section 11.12							
Test Site:	Measurement Distance: 3m	or 10m (Semi-Anechoic C	Chamber)						
Limit:	Frequency	Limit (dBuV/m)	Remark						
	30MHz-88MHz	40.0	Quasi-peak						
	88MHz-216MHz	43.5	Quasi-peak						
	216MHz-960MHz	46.0	Quasi-peak						
	960MHz-1GHz	54.0	Quasi-peak						
		54.0	Average Value						
	Above 1GHz	74.0	Peak Value						
T. () (74.0	Peak Value						

Test Setup:



Add: No. 1, West Fourth Street, Xingfa South Road, Wusha Community, Chang 'an Town, Dongguan City, Guangdong P.R.China E-mail: service@dn-testing.com

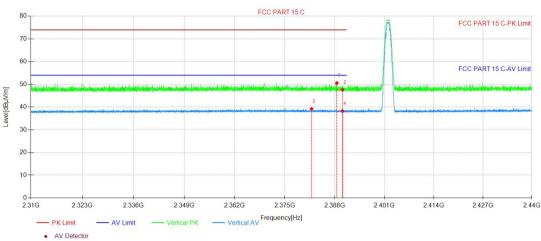


Report No.	: DNT2408020022R0662-01740 Date: September 26, 2024 Page: 2	6 / 46
	 RBW = 120 kHz VBW = 300 kHz Detector = Peak Trace mode = max hold Peak Measurements Above 1000 MHz RBW = 1 MHz VBW ≥ 3 MHz Detector = Peak Sweep time = auto Trace mode = max hold Average Measurements Above 1000MHz RBW = 1 MHz VBW = 10 Hz, when duty cycle is no less than 98 percent. VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation. 	n, On, On, On, On, On
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates.	
Final Test Mode:	Pretest the EUT at Charge + Transmitting mode. Through Pre-scan, find the worst case of GFSK Only the worst case is recorded in the report.	
Instruments Used:	Refer to section 2.9 for details	
Test Results:	Pass	

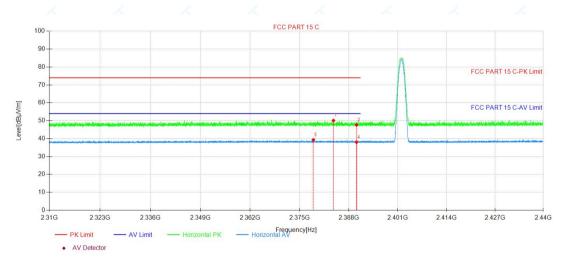


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Result Reading Correct AV Limit Freq. Margin Height Angle NO. Detector Factor Level Polarity Level [MHz] [dBµV/m] [dB] [cm] [°] [dBµV] [dB/m] [dBµV/m] 74.00 1 2388.52 51.37 -0.80 50.57 23.43 150 305 Peak V 2 2390.01 48.43 -0.80 47.63 74.00 26.37 150 320 Peak V 2381.94 40.04 39.21 54.00 150 3 -0.83 14.79 163 AV V 4 2390.01 39.06 -0.80 38.26 54.00 15.74 150 360 AV V



NO.	Freq. [MHz]	Reading Level [dBµV]	Correct Factor [dB/m]	Result Level [dBµV/m]	AV Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity
1	2383.89	50.92	-0.82	50.10	74.00	23.90	150	99	Peak	Н
2	2390.01	48.46	-0.80	47.66	74.00	26.34	150	334	Peak	Н
3	2378.60	40.16	-0.84	39.32	54.00	14.68	150	270	AV	Н
4	2390.01	38.83	-0.80	38.03	54.00	15.97	150	352	AV	Н



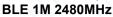


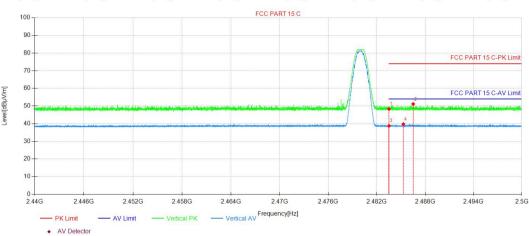
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Polarity

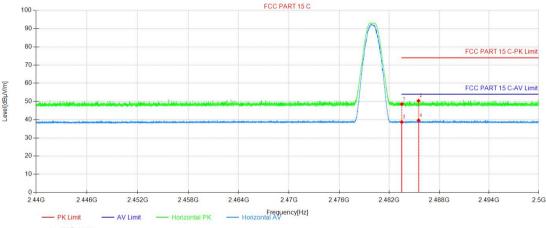
Н

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NO.	Freq. [MHz]	Reading Level [dBµV]	Correct Factor [dB/m]	Result Level [dBµV/m]	AV Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity
1	2483.51	48.60	-0.29	48.31	74.00	25.69	150	189	Peak	V
2	2486.50	51.42	-0.26	51.16	74.00	22.84	150	145	Peak	V
3	2483.51	39.07	-0.29	38.78	54.00	15.22	150	306	AV	V
4	2485.29	39.99	-0.27	39.72	54.00	14.28	150	3	AV	V



			AV Detector							
0	NO.	Freq. [MHz]	Reading Level [dBµV]	Correct Factor [dB/m]	Result Level [dBµV/m]	AV Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
	1	2483.50	48.87	-0.29	48.58	74.00	25.42	150	11	Peak
~	2	2485.50	50.64	-0.27	50.37	74.00	23.63	150	307	Peak
	3	2483.50	38.95	-0.29	38.66	54.00	15.34	150	322	AV
	4	2485 52	39.85	-0.27	39.58	54.00	14 42	150	71	AV

Note:

1. The BLE 1M is the worse case.

2. The Measurement (Result Level) is calculated by Reading Level adding the Correct Factor(maybe

including Ant.Factor and the Cable Factor etc.), The basic equation is as follows:

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Result Level= Reading Level + Correct Factor(including Ant.Factor ,Cable Factor etc.)

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Test Requirement: 47 CFR Part 15C Section 15.207 Test Method: ANSI C63.10: 2020 Test Frequency Range: 150kHz to 30MHz Limit: Limit (dBuV) Frequency range (MHz) Quasi-peak Average 0.15-0.5 66 to 56* 56 to 46* 0.5-5 56 46 5-30 60 50 * Decreases with the logarithm of the frequency. 1) The mains terminal disturbance voltage test was conducted in a shielded Test Procedure: room. 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a $50\Omega/50\mu$ H + 5Ω linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded. 3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane, 4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2. 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 2013 on conducted measurement. Test Setup: Shielding Room Test Receiver EUT AF

3.10AC Power Line Conducted Emissions

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AC Mains

80cm

Ground Reference Plane

LISN2



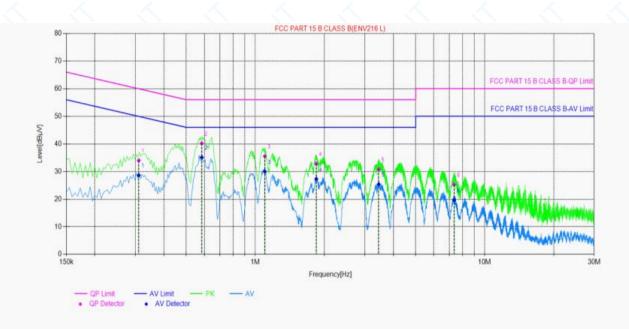
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates at lowest, middle and highest channel.
	Charge + Transmitting mode.
Final Test Mode:	Through Pre-scan, find the the worst case of GFSK
Instruments Used:	Refer to section 2.9 for details
Test Results:	Pass



Measurement Data

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

Live Line:

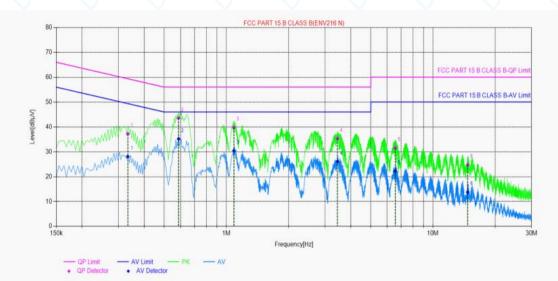


NO.	Freq. [MHz]	Factor [dB]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	AV Value [dBµV]	A∨ Limit [dBµV]	AV Margin [dB]	Verdict
1	0.3104	9.88	33.99	59.96	25.97	28.61	49.96	21.35	PASS
2	0.5840	9.83	40.21	56.00	15.79	35.09	4 6.00	10.91	PASS
3	1.0995	9.72	35.55	56.00	20.45	29.99	46.00	16.01	PASS
4	1.8444	9.73	32.80	56.00	23.20	27.29	4 6.00	18.71	PASS
5	3.4519	9.74	30.85	56.00	25.15	25.38	46.00	20.62	PASS
6	7.3566	9.87	25.29	60.00	34.71	19.67	50.00	30.33	PASS



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NO.	Freq. [MHz]	Factor [dB]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	AV Value [dBµV]	AV Limit [dBµV]	AV Margin [dB]	Verdic
1	0.3328	9.88	37.21	59.38	22.17	28.06	49.38	21.32	PASS
2	0.5870	9.78	43.59	56.00	12.41	35.18	46.00	10.82	PASS
3	1.0870	9.69	39.78	56.00	16.22	30.38	46.00	15.62	PASS
4	3.4513	9.91	35.35	56.00	20.65	26.11	46.00	19.89	PASS
5	6.5645	9.99	31.55	60.00	28.45	22.20	50.00	27.80	PASS
6	14.7369	9.93	24.75	60.00	35.25	13.78	50.00	36.22	PASS

Remark:

1. The BLE 1M is the worse case.

2. The following Quasi-Peak and Average measurements were performed on the EUT:

3. The Measurement (Result Level) is calculated by Reading Level adding the Correct Factor(maybe

including LISN Factor and the Cable Factor etc.), The basic equation is as follows:

Result Level= Reading Level + Correct Factor(including LISN Factor, Cable Factor etc.)



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4 Appendix

Appendix A: Duty Cycle

Test Result

TestMode	Antenna	Freq(MHz)	ON Time [ms]	Period [ms]	Х	DC [%]	xFactor	Limit	Verdict
		2402	0.42	0.90	0.4667	46.67	3.31		
BLE_1M	Ant1	2440	0.42	0.90 🔨	0.4667	46.67	3.31		<u> </u>
	1	2480	0.42	0.90	0.4667	46.67	3.31	<u> </u>	<u> </u>



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Test Graphs

Frequency	M Aug 05, 2024 CE 1 2 3 4 5 6 PE WWWWWWW	TRAC	IGN OFF RMS	Avg Type:	000 ms	Trig Delay-2J Trig: Video #Atten: 20 dB		00 GHz PNO: Fas	50 Q 2.402000	Freq 3		R en
Auto Tur	900.0 µs 4.52 dB		Δ			watten. 20 db	w		Offset 12.3 f 22.31 dB		B/div	
Center Fre 2.402000000 GH					_		1	2Δ1				og 12.3 2.31
	TRIG LVL			_			-				E	69
Start Fre 2.402000000 GH		_		_		_	_		1	0	F	7.7
///////////////////////////////////////	MadelandaylerN	All	walk		\$3∆1	Adamily	American	where .		Harm	4	17.7
Stop Fre 2.402000000 GH	descent 1	eprocess (40.5	_								7.7 7.7
CF Ste 8.000000 Mi	Span 0 Hz (1001 pts)		veep 2.0	Sv		3.0 MHz	VBW	#\	00000 GH	2.4020 8 MH		
<u>Auto</u> Mi	ON VALUE	RUNCTIO	ON WIDTH	N FUNCT	FUNCT	Y		×		TRC SCL		CE.
Freq Offs 01	=					-28.72 dBm 29.81 dB -14.52 dB	(△)	190.0 μs 420.0 μs 900.0 μs	(Δ) (Δ)		Ν Δ1 Δ1	
	_											6 7 8
							-				_	9 0 1

BLE_1M_Ant1_2440

	F 50 Ω			SENSE:PULS			ALIGN			M Aug 05, 2024	Frequency
enter Freq	2.44000	0000 GHz		g Delay-2.0 g: Video	00 ms	#Avg	Type: RM	5	TRA	CE 123456	Frequency
		PNO: Fast IFGain:Lov		ten: 20 dB					0	ET P P P P P P	Auto Tun
0 dB/div R	of Offset 12 of 22.31 c							Δι	Mkr3 9	900.0 µs 2.71 dB	Auto Tun
12 3		201					_	_			Center Fre
2.31		·	_	-		-		+		-	2.440000000 GH
7.69	-		_	-			-			TRIG LVL	
17.7				-			-				Start Fre
27.7	1				3∆1	-	-				2.440000000 GH
37.7 47.7 (atilityme)(it	ĺ	weister	Anostha	4-10-14-44				Decision		appropriate the	
47.7 (17)94(19) 57.7		1.303	and a state								Stop Fre
67.7											2.440000000 GH
Center 2.440 tes BW 8 M			BW 8.0	MHz			Swee	p 2.0		Span 0 Hz 1001 pts)	CF Ste 8.000000 MH
KR MODE THC S		×			FUNC	TION	FUNCTION	MIDTH	RUNCTI	ON VALUE	<u>Auto</u> Ma
1 N 1	(<u>(</u>)	190.0 µs 420.0 µs		.94 dBm 41.76 dB				-			
	(Δ)	900.0 µs		-2.71 dB		3		-			Freq Offs
5	-							-			01
6	-		_	-				-			
8	-		_			- 2	_	-			
10	-							-			
				4						2	

BLE_1M_Ant1_2480

Frequency	TRACE 1 2 3 4 5 6 TYPE WWWWWW DET P P P P P P	TF	IGN OFF	#Avg Type		y-2.0	Trig Dela Trig: Vide #Atten: 20		GHz PNO: Fast IFGain:Lov	2 DC 00000 (.4800	RF req 2	er F
Auto Tu	900.0 µs -43.99 dB	∆Mkr3	L								Offset 1 22.31		Vdiv
Center Fr 2.480000000 G									-			Q1	
	TRO LVL		+						2Δ1	-			
Start Fr 2.480000000 G			1		▲3∆1				Ť				
	mary advertising the second	-	14/21		1	4. MA	بعياديها وياديهم	MAN	VINIM			will.	n hille pr
Stop Fr 2.48000000 G												_	
CF Ste 8.000000 M	Span 0 Hz s (1001 pts)	.000 ms	eep 2	s			8.0 MHz	вw	#V	GHz	00000	4800 MHz	
Auto M	CTION VALUE	RUNC	ON WIDTH	ION FUN	FUNC		Y			X		ici sa	
Freq Offs	[_	-		dB	-0.67 df -22.70 -43.99		190.0 μs 420.0 μs 900.0 μs			t t t	N 01 01
0			_	_		-							
								_					
	<u>×</u>		_										
be	Now, All require	Alian	STATUS										

Dongguan DN Testing Co., Ltd.



Date: September 26, 2024

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Appendix B: DTS Bandwidth

Test Result

Test Mode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
		2402	0.664	2401.656	2402.320	0.5	PASS
BLE_1M	Ant1	2440	0.656	2439.664	2440.320	0.5	PASS
		2480	0.644	2479.664	2480.308	0.5	PASS



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Test Graphs

TRACE 1 2 3 4 5 6	ype: RMS		sense:Pulse					RF req 2	er Fr	en
and a second	Ĺ		Atten: 40 dB		IFGain:Lov				Vdiv) d
		▲3∆1								9 0.0 0.0
-4.77 dbn	n n n n n n n n n n n n n n n n n n n	× ~	per ya							0.0 0.0
tany when we want	- ha					and a start	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~	arero	1.0 1.0
		FINATION		/BW 3	#\		kHz	100	BW	le
					01 988 GHz			f	NN	1
										6 7 8 9
	INAK73 664 kHZ -0.254 dB -77786	Linut 100/100 Linut	AvgType: RMS Type: RMS	Avg Type: FMS Avg Type: FMS AvgHold: 100/100 MAXE: [2:3:4:5: [2:1:5:4:1] Avg Type: FMS AvgHold: 100/100 ImaxE: [2:3:4:5: [2:1:5:4:1] ΔMKr3 664 KHZ -0.254 dB 1 -0.254 dB 1 -0.254 dB 1 -0.254 dB 00 kHz Sypan 4.000 MHz 00 kHz Sweep 1.000 ms (1001 ps) 4.491 dBm -0.0101 # AURIADIVANSE	Avg Trø: Free Run #Avg Trø: Free Run #Atten: 40 dB Macg Tag 24 56 Interference Avg Trø: Free Run #Atten: 40 dB Avg Tøre Run #Atten: 40 dB Avg Tøre Run Avg Tøre Run #Atten: 40 dB Macg Tag 24 56 Interference Interference - 0.254 dB Aug Tøre Run #Atten: 40 dB Avg Tøre Run - 0.254 dB Aug Tøre - 0.254 dB Imacg Tag 24 56 Interference - 0.254 dB - 0.254 dB Imacg Tag 24 56 Interference - 0.254 dB - 0.254 dB Imacg Tag 24 56 Interference - 0.254 dB - 0.254 dB Imacg Tag 24 56 Interference - 0.254 dB - 0.254 dB Imacg Tag 24 56 Interference - 0.254 dB - 0.254 dB Imacg Tag 24 56 Interference - 0.254 dB - 0.254 dB Imacg Tag 24 56 Interference - 0.254 dB - 0.254 dB Imacg Tag 24 56 Interference - 0.254 dB - 0.254 dB Imacg Tag 24 56 Interference - 0.254 dB - 0.254 dB Imacg Tag 24 56 Interference - 0.254 dB - 0.254 dB Imacg Tag 24 56 Interference - 0.254 dB - 0.254 dB	00 GHz Proc. File model 23.4 5 c Avg/File model 23.4 5 c Trail model Trail Trail <thtrail< th=""> <thtrail< th=""></thtrail<></thtrail<>	000000 GHz IFGalnLow Trig: Free Run #Atten: 50 dB #Avg Type: RMS AvgHeid: 100/100 Image: [23 d-34 Trig: Free Run (atten: 50 dB 12.31 dB ΔMkr3 664 kHz 0 dBm -0.254 dB 1 -0.254 dB 4 4/1 dB 4/1 dB Span 4.000 MHz Span 4.000 MHz Sweep 1.000 ms (1001 pts) 4/1 dB Sweep 1.000 ms (1001 pts)	2.402000000 GHz Picolication Trig: Free Run Fallen.tow Avig Type: RMS AvigHeid: 100/100 max (1/2) 3 + 50 (1/2) 1/2) 1/2 Offset 12.31 dB 30.00 dBm ΔMkr3 664 kHz -0.254 dB -0.254 dB -0.254 dB 0 flag 1 -0.254 dB -0.254 dB 0 flag -0.000 mg (1/2) - 1.50 mg (1/2	Eq. 2.402000000 GHz (FGainLow) Trig: Free Run #Avg Type: RMS Avg Type: RMS Type: RMS Type: RMS Avg Type: RMS Type: RMS Avg Type:	ter Freq 2.40200000 GHz BrGaladow PRO: Wide Frag. Free Run BrGaladow Avg Tyse: RMS Avg Tyse: RMS Avg Tyse: RMS PMC [2:3:4:5:0] Pref (2:3:4:5:0] Pref (2:

BLE_1M_Ant1_2440

		SENSE:PULSE	ALIGN OFF	04:08:44 AM Aug 05, 2024	Erequency
enter Freq 2.4400000	PNO: Wide	Trig: Free Run Atten: 40 dB	#Avg Type: RMS Avg Hold: 100/100	TRACE 1 2 3 4 5 6 TYPE MWWWWW DET P P P P P P	Frequency
Ref Offset 12.31 dE 10 dB/div Ref 30.00 dBm	in Gennie Gr	Autor to the		ΔMkr3 656 kHz -0.194 dB	Auto Tun
00 200 100 000			3∆1		Center Fre 2.440000000 GF
20.0		spear out of	han	-4.83 dBm	Start Fre 2.438000000 GH
40.0					Stop Fre 2.442000000 GH
enter 2.440000 GHz		00 kHz	Sweep	Span 4.000 MHz 1.000 ms (1001 pts)	CF Ste
KA NODE THE SEL	#VBW 3	Y EUN	EUNCTION WIDTH		
1 N f 2.4	39 664 GHz				400.000 kH Auto Ma Freq Offs 0 H

BLE_1M_Ant1_2480

	04:10:29 AM Aug 05, 2024	ALIGN OFF		SENSE:PULSE	1		Q DC	50	RF	
Frequency	TRACE 1 2 3 4 5 6 TYPE MWWWWWW DET P P P P P P P	ype: RMS Id: 100/100		Free Run	Tria	GHz PNO: Wide →	000000	2.4800	req 2	ter F
	DET PPPPP			en: 40 dB		IFGain:Low				
Auto Tur	∆Mkr3 644 kHz -0.255 dB						12.31 dB) dBm	Offset 1 f 30.00		B/div
Center Fre				_		_			_	
2.48000000 GH		-	▲3∆1	2	A1				-	-
	-4.56 dBm		2	- Anore	Die		-		-	-
			2			1				
Stop Fre		mm				ma	~			
	mound	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		_			- mark	inde	myst.	~~~
2.482000000 GH										
2.47800000 Gi Stop Fre 2.48200000 Gi CF Ste 400.000 ki	Span 4.000 MHz 000 ms (1001 pts)	Sweep 1.		kHz	300 1	#VBW	z	00 GH kHz	4800	
	FUNCTION VALUE	FUNCTION WIDTH	FUNCTION		Y		Х		RC SCL	MODE T
				88 dBm 43 dBm		988 GHz			1	N
Freq Offs 0 F				255 dB	-0.:	644 kHz (Δ)		(Δ)	f	Δ1
									-	
				-				-	-	-
				_						
	>					-		-	-	



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Appendix C: Maximum conducted output power

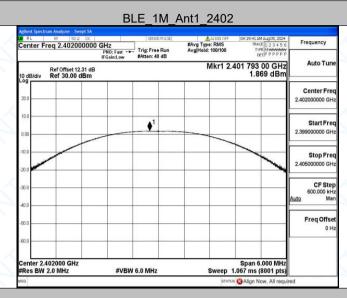
Test Result

Test Mode	Antenna	Freq(MHz)	Power [dBm]	Limit [dBm]	Verdict
		2402	1.87	≤30	PASS
BLE_1M	Ant1	2440	1.97	≤30	PASS
		2480	2.03	≤30	PASS



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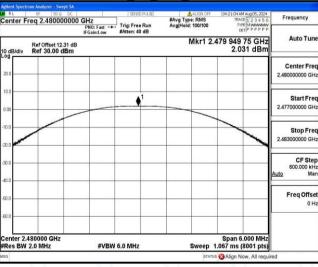
Test Graphs



BLE_1M_Ant1_2440

Center F	RF 50 Q DC req 2.440000000	GHz PNO: Fast	Trig: Free Run #Atten: 40 dB	#Avg Type: RMS Avg Hold: 100/100	04:20:24 AM ALQ05, 2024 TRACE 1 2 3 4 5 6 TYPE MWWWWWW DET P P P P P	Frequency
10 dB/div	Ref Offset 12.31 dB Ref 30.00 dBm			Mkr1 2.4	39 988 00 GHz 1.968 dBm	Auto Tun
20.0						Center Fre 2.440000000 GH
0.00			• ¹			Start Fre 2.437000000 GH
-10.0						Stop Fre 2.443000000 GH
-30.0						CF Ste 600.000 kF Auto Ma
-50.0						Freq Offs 0 ⊦
-60.0	440000 GHz				Span 6.000 MHz	
#Res BW		#VBW	6.0 MHz	Sweep 1	.067 ms (8001 pts)	

BLE_1M_Ant1_2480



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Appendix D: Maximum power spectral density

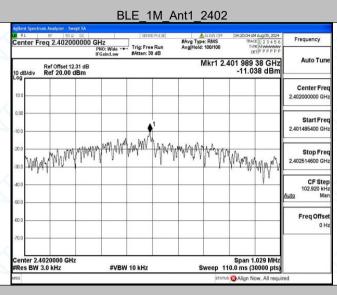
Test Result

Test Mode	Antenna	Freq(MHz)	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
		2402	-11.04	≤8.00	PASS
BLE_1M	Ant1	2440	-10.92	≤8.00	PASS
· · ·		2480	-10.83	≤8.00	PASS



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Test Graphs



BLE_1M_Ant1_2440

RL Contor F			SENSE:PULSE	#Avg Type: RMS	04:20:47 AM Aug 05, 2024 TRACE 1 2 3 4 5 6	Frequency	
Center F	req 2.440000	PNO: Wide IFGain:Low	Trig: Free Run #Atten: 30 dB	Avg Hold: 100/100	DET P P P P P	Auto Tun	
Ref Offset 12.31 dB Mkr1 2.439 988 39 GHz 10 dB/dlv Ref 20.00 dBm -10.916 dBm							
10.0						Center Fre 2.440000000 GH	
-10.0			∳ ¹			Start Fre 2.439491600 GH	
-20.0 -30.0 VMV	MMMMM	MAR MAR MAN	anter Anter	www.www.	Monum	Stop Fre 2.440508400 GH	
-40.0	-1					CF Ste 101.680 ki Auto Ma	
-60.0						Freq Offs 0 F	
-70.0							
Center 2. #Res BW	4400000 GHz 3.0 kHz	#VBW	10 kHz	Sweep 10	Span 1.017 MHz 8.0 ms (30000 pts)		
MSG				STATU	Align Now, All requi	red	

BLE_1M_Ant1_2480

	rum Analyzer - Swo									
enter F	req 2.48000	0000 GH	O: Wide -	Trig: Free	Run	#Avg Typ Avg Hold		TRAJ	Aug05, 2024 26 1 2 3 4 5 6 PE MWWWWWW ET P P P P P P	Frequency
0 dB/div	Ref Offset 12. Ref 20.00 d	31 dB	Gain:Low	#Atten: 3	0 dB	1	Mkr1 2.4	79 989	00 GHz 29 dBm	Auto Tun
og 10.0										Center Fre 2.480000000 GH
00				•	1					Start Fre 2.479500900 GH
	NMWMY	MMMM Y	whym	MAMN '	MWM	NAMA	WAN	WWW	MAMM	Stop Fre 2.480499100 GF
0									Ϋ́Υ	CF Sto 99.820 k Auto M
0	_									Freq Offs 0
nter 2	4800000 GHz							Snan	998.2 kHz	
	3.0 kHz		#VBW	10 kHz		s	weep 10		0000 pts)	
6							STATUS	Align N	ow, All requir	ed



Report No.: DNT2408020022R0662-01740
Appendix E: Band edge measurements

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Test Result

Test Mode	Antenna	Ch Name	Freq (MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE 1M	Ant1	Low	2402	1.21	-42.28	≤-18.79	PASS
	Anti	High	2480	1.43	-41.98	≤-18.57	PASS



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Test Graphs

	BLE_1M_Ant1_Low_2402
	Additorit Spectrum Analyzer Smpt SA b27 RL ref 500 DC IMPLERATE (All 201 CFF (Pla 02-20 AM Aug05, 2024) Center Freq 2.3525000000 GHz Trig: Free Run #Avg17per: RMS TMRC[12:3:4:5 Frequency IFGainter Trig: Free Run Avg17per: RMS TMRC[12:3:4:5 Frequency
	Ref Offset 12.31 dB Mkr5 2.398 070 GHz Auto Tune 10 dB/d/w -42.282 dBm
	100 Center Freq 2.352500000 GHz
	20.0
	60.0 Image: Start and the st
	Start 2:30000 GHz Stop 2:40500 GHz #Res BW 100 KHz #VBW 300 kHz Sweep 10.07 ms (1001 pts) Image: Start 2:30000 GHz Auto Man
	1 N f 2.401.056 GHz 1.208 dBm 2 N f 2.400.000 GHz 4.8302 dBm 3 N f 2.300.00 GHz 4.8352 dBm 4 N f 2.300.00 GHz 4.8352 dBm 8 N f 2.308.007 GHz 4.2322 dBm 6 N f 2.398.070 GHz 4.2282 dBm
	Instant @ Align Now, All required BLE_1M_Ant1_High_2480 Adjent Spectrum Analyzer Swept SA Market Spectrum Analyzer Swept SA Market Spectrum Analyzer Swept SA Enter Freq 2.5100000000 CHz File State + Trig: Free Run Market Swept SA Frequency
	PRO: Fast
	10 dBldiv Ref 20.00 dBm
	-10.0
	40.0 40.0 40.0 40.0 70.0 40.0
	Start 2.47000 CHz Stop 2.55000 CHz #Res BW 100 kHz #VBW 300 kHz Stop 7.667 ms (1001 pts) Build Note 1 ms (Stop 1 ms (S
	Image: sector Control
	Align Now, All required



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Appendix F: Conducted Spurious Emission

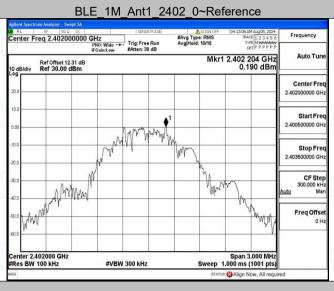
Те	st Result	
_		

Test Mode	Antenna	Freq(MHz)	Freq Range [Mhz]	Ref Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
		\sim	Reference	0.19	0.19		PASS
	\sim	2402	30~1000	0.19	-59.38	≤-19.81	PASS
			1000~26500	0.19	-49.05	≤-19.81	PASS
			Reference	0.83	0.83	<u> </u>	PASS
BLE_1M	Ant1	2440	30~1000	0.83	-58.2	≤-19.17	PASS
	\mathbf{O}	\bigcirc \bigcirc	1000~26500	0.83	-49.17	≤-19.17	PASS
×		~	Reference	0.84	0.84		PASS
		2480	30~1000	0.84	-58.18	≤-1 <mark>9</mark> .16	PASS
	1000~26500 0.84 -48.98 ≤-19.16	PASS					



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Test Graphs



BLE_1M_Ant1_2402_30~1000

Center Freq 515.00000	0 MHz PNO: Fast Trig: Free Run IFGain:Low #Atten: 20 dB	#Avg Type: RMS Avg Hold: 10/10	TRACE 1 2 3 4 5 6 TYPE M WWWWW DET P P P P P	Frequency
Ref Offset 12.31 0 dB/div Ref 20.00 dBr		М	kr1 898.12 MHz -59.382 dBm	Auto Tun
10.0				Center Fre 515.000000 MH
10.0				Start Fre 30.000000 MH
20.0			-19,81 aBn	Stop Fre 1.00000000 GH
40.0				CF Ste 97.000000 Mi Auto Mi
60.0 المتابارية المراجعة المراجع المراجعة المراجعة المراجعة المراجعة المراجعة المراجعة المراجعة المراجعة المراجعة ال	ning di pang kanang kanang Kang kanang ka			Freq Offse 0 H
Start 30.0 MHz Res BW 100 kHz	#VBW 300 kHz	Sween 94	Stop 1.0000 GHz	

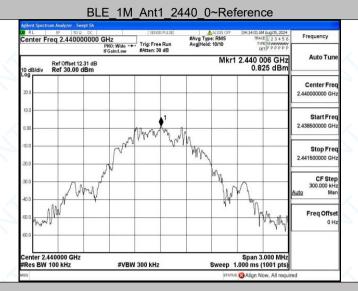
BLE_1M_Ant1_2402_1000~26500

						pt SA	lyzer - Sw	irum An	t Speci
Frequency	D4:13:45 AM Aug 05, 2024 TRACE 1 2 3 4 5 6 TYPE M WWWWW DET P P P P P	ALIGN OFF e: RMS : 10/10	#Avg Avg H	SENSE:PULSE Trig: Free Run #Atten: 20 dB	iHz NO: Fast ↔ Gain:Low	DC 000000 G PT IFC	3.7500	RF Freq '	ter F
Auto Tur	Ref Offset 12.31 dB Mkr2 26.004 45 GHz Bidly Ref 20.00 dBm -49.051 dBm								
Center Fre 13.750000000 GH								1	
Start Fre 1.000000000 GH	-19.81 dƏn						_		
Stop Fre 26.50000000 GH			in the second	aunyang dinasara	والأرماميا	-	ينابنه	-	-
CF Ste 2.55000000 GF	Stop 26.50 GHz 138 s (30001 pts)	Stop 26.50 GHz Sweep 2.438 s (30001 pts)			#VBW	0 GHz 100 kHz		art 1.00 es BW 1	
<u>Auto</u> Ma	FUNCTION VALUE	NCTION WIDTH	NCTION	0.889 dBm	5 GHz	× 2.401 6		FAC SCL	N
Freq Offs 0 F				49.051 dBm	5 GHz	26.004 4		1 1	N
									-
	Alian Now, All requir			- 4					

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BLE_1M_Ant1_2440_30~1000

kr1 893.56 M -58.198 dE	Avg Hold: 10/10	#Atten: 20 dB	PNO: Fast +++ IFGain:Low	Ref Offset 12.31 dB					
	M								
				Ref Offset 12.31 dB 10 dB/div Ref 20.00 dBm					
					10.0				
					-10.0				
-19,13					-20.0				
					-40.0				
					-60.0				
1									

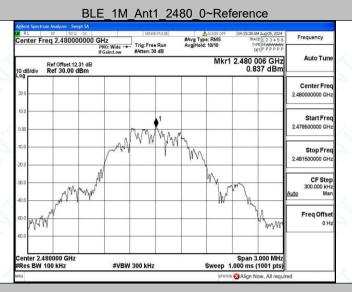
BLE_1M_Ant1_2440_1000~26500

								ilyzer - Swe			
Frequency	04:14:41 AM Aug 05, 2024 TRACE 1 2 3 4 5 6	s	ALIGN OF #Avg Type: RMS	SENSE:PULSE		łz	DC 00000 G	50 Q	RF rea		R en
	DET P P P P P		Avg Hold: 10/10		#Atten: 20	D: Fast -+	PN				
Auto Tun	6.086 90 GHz -49.170 dBm		Mk					Offset 12. 20.00 d		B/div	0 d
Center Fre									.1		0.0
13.750000000 GH									0.1		1.00
											0.0
	-19.17 dBm										0.0
Start Free 1.000000000 GH											0.0
	2										0.0
	1										0.0
Stop Free 26.50000000 GH:		the second			-	Maria Maria	-		-		0.0
										-	0.0
CF Ste 2.55000000 GH	Stop 26.50 GHz 38 s (30001 pts)		#VBW 300 kHz			t 1.00 GHz s BW 100 kHz					
<u>Auto</u> Ma	FUNCTION VALUE	WIDTH	ON FUNCTION WI	FUN	Y		×		TRC SCL		
					0.846 dB		2.439 90 26.086 90		I I	N	1
Freq Offse									-		3
0 H	=					_					5
			-	-		-			-		6 7
		_		-		_				-	89
				-		_			-		0
	~	_	-	-	4	-			-	-	1
ed	Alian Now, All requir		ST								6

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BLE_1M_Ant1_2480_30~1000

RL RF SDQ DC Center Freq 515.000000 M	AHz PNO: Fast ↔	SENSE PULSE	#Avg Type: RMS Avg Hold: 10/10	04:15:32 AM Aug 05, 2024 TRACE 1 2 3 4 5 6 TYPE MWWWWWW	Frequency		
Ref Offset 12.31 dB	IFGain:Low	#Atten: 20 dB	2.57 0 1.08.551.02.02.00	Mkr1 875.45 MHz			
10 dB/div Ref 20.00 dBm				-58.175 dBm			
10.0					Center Free 515.000000 MH		
10.0					Start Free 30.000000 MH		
20.0	_			-19.16 dBm	Stop Free		
40.0					CF Step 97.000000 MH		
50.0					Auto Mai		
60.0 Andreas and a same build build of 70.0 and its provide a statistication of provid					Freq Offse 0 H		
Start 30.0 MHz #Res BW 100 kHz	#VBW	300 kHz	Sweep 94	Stop 1.0000 GHz			

BLE_1M_Ant1_2480_1000~26500

	09 AM Aug 05, 2024		ALIEN OFF		PULSE	100000		ept SA	lyzer - Sw	trum An	t Spe
Frequency Auto Tun	TRACE 1 2 3 4 5 6	T	e: RMS	#Avg Ty Avg Ho			SHz NO: Fast -	DC 000000	3.750	Freq	ter
	DET PPPPP	05.00	MIL-0		dB	#Atten: 20	Gain:Low	I			_
	84 60 GHz 976 dBm		WIKF2						Offset 12 20.00		B/div
Center Fr	_						-			<u>_1</u>	
13.750000000 G								-		¥	\vdash
	-19.16 dBn										
Start Fr 1.000000000 G	_										
	₽			-			-			+ +	⊢
Stop Fre 26.50000000 GF	-	-	-				a link a sa s	-	~~~	مد	
									с		
CF Ste	Stop 26.50 GHz Sweep 2.438 s (30001 pts)					300 kHz	#VB	rt 1.00 GHz es BW 100 kHz			
Auto N	NCTION VALUE	FUN	NCTION WIDTH	CTION		Y		×		TRC SCL	
Freq Offs				-		0.817 de -48.976 de	6 GHz 0 GHz	25.884		1 1	N
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red	>										

The End Report

Dongguan DN Testing Co., Ltd.