



FCC Test Report

Application No.:	DNT2411260434R4491-06830
Applicant:	DGL Group LTD.
Address of Applicant:	2045 Lincoln Highway, 3rd Floor, Edison, NJ 08817, United States
EUT Description:	LED HEADPHONES
Model No.:	BMI-LEDHDPH,BMI-LEDHDPH-BLK,BMI-LEDHDPH-BLU,BMI-LEDHDPH-XXX
FCC ID:	2AANZLEDHDPH
Power Supply:	DC 3.7V From Battery
Charging Voltage:	DC 5V/1A
Trade Mark:	BMI
	47 CFR FCC Part 2, Subpart J
Standards:	47 CFR Part 15, Subpart C
5 & &	ANSI C63.10: 2013
Date of Receipt:	2024/12/01
Date of Test:	2024/12/02 to 2024/12/25
Date of Issue:	2025/02/27
Test Result:	PASS
Prepared By:	Wayne Jon (Testing Engineer) <u>Pencils chen</u> (Project Engineer) <u>Meine Chen</u> (Manager)
Reviewed By:	Pencils_cher (Project Engineer)
Approved By:	Meine 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.

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:+86-769-88087383 E-mail: service@dn-testing.com



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Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0		Feb.27, 2025	Valid	Original Report



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1 Test Summary

Test Item	Test Requirement	Test Method	Test Result	Result
i est item	rest Keyunement		Test Kesuit	Result
Antenna Requirement	15.203/247(b)		Clause 3.1	PASS
20dB Emission Bandwidth	15.247 (a)(1)	ANSI C63.10: 2013	Clause 3.2	PASS
Conducted Peak Output Power	15.247 (b)(1)	ANSI C63.10: 2013	Clause 3.3	PASS
Carrier Frequencies Separation	15.247 (a)(1)	ANSI C63.10: 2013	Clause 3.4	PASS
Dwell Time	15.247 (a)(1)	ANSI C63.10: 2013	Clause 3.5	PASS
Hopping Channel Number	15.247 (a)(1)	ANSI C63.10: 2013	Clause 3.6	PASS
Band-edge for RF Conducted Emissions	15.247(d)	ANSI C63.10: 2013	Clause 3.7	PASS
RF Conducted Spurious Emissions	15.247(d)	ANSI C63.10: 2013	Clause 3.8	PASS
Radiated Spurious	15.247(d);	ANSI C63.10: 2013	Clause 3.9	PASS
emissions	15.205/15.209	ANSI C03.10. 2013		FASS
Restricted bands around fundamental frequency (Radiated Emission)	15.247(d); 15.205/15.209	ANSI C63.10: 2013	Clause 3.10	PASS
AC Power Line Conducted Emission	15.207	ANSI C63.10: 2013	Clause 3.11	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		



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2.2 General Description of EUT

Manufacturer:	DGL Group LTD.		
Address of Manufacturer:	2045 Lincoln Highway, 3rd Floor, Edison, NJ 08817, United States		
Test EUT Description:	LED HEADPHONES		
Model No.:	BMI-LEDHDPH		
Additional Model(s):	BMI-LEDHDPH-BLK,BMI-LEDHDPH-BLU,BMI-LEDHDPH-XXX		
Chip Type:	AC7025F		
Serial number:	PR2411260434R4491		
Power Supply:	DC 3.7V From Battery		
Charging Voltage:	DC 5V/1A		
Trade Mark:	BMI		
Hardware Version:	V1.0		
Software Version:	V1.0		
Operation Frequency:	2402 MHz to 2480 MHz		
Modulation Technique:	Frequency Hopping Spread Spectrum(FHSS)		
Type of Modulation:	GFSK,π/4-DQPSK		
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 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	20	2422MHz	40	2442MHz	60	2462MHz
1	2403MHz	21	2423MHz	41	2443MHz	61	2463MHz
2	2404MHz	22	2424MHz	42	2444MHz	62	2464MHz
3	2405MHz	23	2425MHz	43	2445MHz	63	2465MHz
4	2406MHz	24	2426MHz	44	2446MHz	64	2466MHz
5	2407MHz	25	2427MHz	45	2447MHz	65	2467MHz
6	2408MHz	26	2428MHz	46	2448MHz	66	2468MHz
7	2409MHz	27	2429MHz	47	2449MHz	67	2469MHz
8	2410MHz	28	2430MHz	48	2450MHz	68	2470MHz
9	2411MHz	29	2431MHz	49	2451MHz	69	2471MHz
10	2412MHz	30	2432MHz	50	2452MHz	70	2472MHz
11	2413MHz	31	2433MHz	51	2453MHz	71	2473MHz
12	2414MHz	32	2434MHz	52	2454MHz	72	2474MHz
13	2415MHz	33	2435MHz	53	2455MHz	73	2475MHz
14	2416MHz	34	2436MHz	54	2456MHz	74	2476MHz
15	2417MHz	35	2437MHz	55	2457MHz	75	2477MHz
16	2418MHz	36	2438MHz	56	2458MHz	76	2478MHz
17	2419MHz	37	2439MHz	57	2459MHz	77	2479MHz
18	2420MHz	38	2440MHz	58	2460MHz	78	2480MHz
19	2421MHz	39	2441MHz	59	2461MHz		\sim

Remark:

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

Channel	Frequency
The Lowest channel	2402MHz
The Middle channel	2441MHz
The Highest channel	2480MHz



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2.4 5Test 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.		



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Software Name	\bigcirc \bigcirc	fcc assist	
Frequency(MHz)	2402	2441	2480
GFSK Setting	10	10	10
π/4-DQPSK Setting	10	10	10

2.6 Description of Support Units

The EUT has been tested independent unit.

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.



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

No.	Item	Measurement Uncertainty
1	20dB Emission Bandwidth	±0.0196%
2	Carrier Frequency Separation	±1.9%
3	Number of Hopping Channel	±1.9%
4	Time of Occupancy	±0.028%
5	Max Peak Conducted Output Power	±0.743 dB
6	Band-edge Spurious Emission	±1.328 dB
7	Conducted RF Spurious Emission	9KHz-1GHz:±0.746dB 1GHz-26GHz:±1.328dB

No.	Item	Measurement Uncertainty
1	Conduction Emission	± 3.0dB (150kHz to 30MHz)
\circ	\bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc	± 4.8dB (Below 1GHz)
0		± 4.8dB (1GHz to 6GHz)
2	Radiated Emission	± 4.5dB (6GHz to 18GHz)
		± 5.02dB (Above 18GHz)

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2.9 Equipment List

For Connect EUT Antenna Terminal Test					
Description	Manufacturer	Model	Serial Number	Cal date	Due date
Signal Generator	Keysight	N5181A-6G	MY48180415	2024-10-23	2025-10-22
Signal Generator	Keysight	N5182B	MY57300617	2024-10-23	2025-10-22
Power supply	Keysight	E3640A	ZB2022656	2024-10-23	2025-10-22
Radio Communication Tester	R&S	CMW500	105082	2024-10-23	2025-10-22
Spectrum Analyzer	Aglient	N9010A	MY52221458	2024-10-23	2025-10-22
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	2024-10-23	2025-10-22
Pulse Power Sensor	Anritsu	MA2411B	1911397	2024-10-23	2025-10-22
temperature and humidity box	SCOTEK	SCD-C40-80PRO	6866682020008	2024-10-23	2025-10-22

	Test Equipment for Conducted Emission				
Description	Manufacturer	Model	Serial Number	Cal Date	Due Date
Receiver	R&S	ESCI3	101152	2024-10-23	2025-10-22
LISN	R&S	ENV216	102874	2024-10-23	2025-10-22
ISN	R&S	ENY81-CA6	1309.8590.03	2024-10-23	2025-10-22

Test Ec	quipment for F	Radiated Emis	sion(30MHz-	-1000MHz	<u>z)</u>
Description	Manufacturer	Model	Serial Number	Cal Date	Due Date
Receiver	R&S	ESR7	102497	2024-10-23	2025-10-22
Test Software	ETS-LINDGREN	TILE-FULL	NA	NA	NA
RF Cable	ETS-LINDGREN	RFC-NMS-100- NMS-350-IN	NA	2024-10-23	2025-10-22
Log periodic antenna	ETS-LINDGREN	VULB 9168	01475	2022-11-28	2025-11-27
Pre-amplifier	Schwarzbeck	BBV9743B	00423	2024-10-23	2025-10-22



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Test E	quipment for F	Radiated Emi	ssion(Above	1000MHz)) <
Description	Manufacturer	Model	Serial Number	Cal Date	Due Date
Frequency analyser	Keysight	N9010A	MY52221458	2024-10-23	2025-10-22
RF Cable	ETS-LINDGREN	RFC-NMS-100- NMS-350-IN	NA	2024-10-23	2025-10-22
Horn Antenna	ETS-LINDGREN	3117	00252567	2022-11-28	2025-11-27
Double ridged waveguide antenna	ETS-LINDGREN	3116C	00251780	2022-11-28	2025-11-27
Test Software	ETS-LINDGREN	TILE-FULL	NA	NA	NA
Pre-amplifier	ETS-LINDGREN	3117-PA	252567	2024-10-23	2025-10-22
Pre-amplifier	ETS-LINDGREN	3116C-PA	251780	2024-10-23	2025-10-22

2.10 Assistant equipment used for test

Code	Equipment	Manufacturer	Model No.	Equipment No.
1	Computer	acer	N22C8	EMC notebook01
2	Adapter	HUAWEI	HW-100225C00	NA



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.

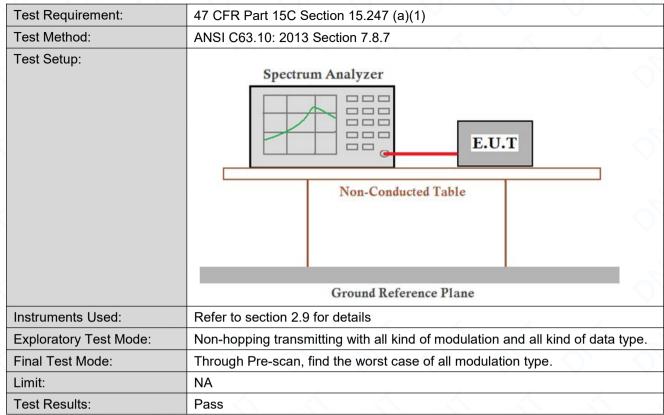
15.247(b) (4) requirement:

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.



3.2 20dB Emission Bandwidth



The detailed test data see: Appendix A



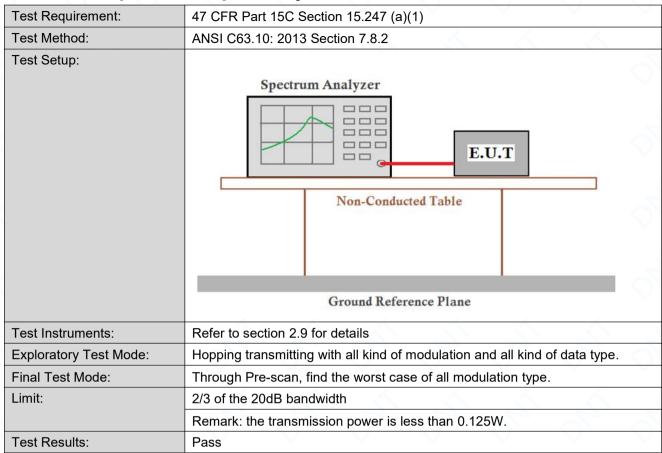
3.3 Conducted Output Power

Test Requirement:	47 CFR Part 15C Section 15.247 (b)(1)			
Test Method:	ANSI C63.10: 2013 Section 7.8.5			
Test Setup:	Spectrum Analyzer E.U.T			
	Ground Reference Plane			
Test Instruments:	Refer to section 2.9 for details			
Exploratory Test Mode:	Non-hopping transmitting with all kind of modulation and all kind of data type.			
Final Test Mode:	Through Pre-scan, find the worst case of all modulation type.			
Limit:	(20.97dBm) 125mW			
Test Results:	Pass			

The detailed test data see: Appendix B



3.4 Carrier Frequencies Separationy



The detailed test data see: Appendix C



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3.5 Dwell Time

Test Requirement:	47 CFR Part 15C Section 15.247 (a)(1)				
Test Method:	ANSI C63.10: 2013 Section 7.8.4				
Test Setup:	Spectrum Analyzer E.U.T Non-Conducted Table	0,0			
Instrumente Lleedu	Ground Reference Plane				
Instruments Used:	Refer to section 2.9 for details				
Test Mode:	Hopping transmitting with all kind of modulation and all kind of data type.				
Limit:	0.4 Second				
Test Results:	Pass				

The detailed test data see: Appendix D



3.6 Hopping Channel Number

Test Requirement:	47 CFR Part 15C Section 15.247 (a)(1)	\mathcal{O}		
Test Method:	ANSI C63.10: 2013 Section 7.8.3			
Test Setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane			
Instruments Used:	Refer to section 2.9 for details	2 2		
Test Mode:	Hopping transmitting with all kind of modulation			
Limit:	At least 15 channels			
Test Results:	Pass	2		

The detailed test data see: Appendix E



3.7 Band-edge for RF Conducted Emissions

Test Requirement:	47 CFR Part 15C Section 15.247 (d)				
Test Method:	ANSI C63.10: 2013 Section 7.8.6				
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:	Hopping and Non-hopping transmitting with all kind of modulation and all kind of data type.				
Final Test Mode:	Through Pre-scan, find the worst case of all modulation type.				
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



3.8 RF Conducted Spurious Emissions

Test Requirement:	47 CFR Part 15C Section 15.247 (d)				
Test Method:	ANSI C63.10: 2013 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 all modulation type.				
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 G



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3.9 Radiated Spurious Emissions

Test Requirement:	47 CFR Part 15C Sectio	47 CFR Part 15C Section 15.209 and 15.205					
Test Method:	ANSI C63.10: 2013 Sect	ANSI C63.10: 2013 Section 11.12					
Test Site:	Measurement Distance:	Measurement Distance: 3m or 10m (Semi-Anechoic Chamber)					
Receiver Setup:	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		
		$\langle \langle \rangle$		≥1/T (DC<0.98)	~		
Limit:	Frequency	Field strength (microvolt/meter)	Limit (dBuV/m)	Remark	Measuremen distance (m)		
	0.009MHz-0.490MHz	2400/F(kHz)	- 🔨	-<	300		
	0.490MHz-1.705MHz	24000/F(kHz)		<u></u>	30		
	1.705MHz-30MHz	30	<u> </u>	<u> </u>	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		
	Remark: 15.35(b),Unless emissions is 20dB above applicable to the equipm emission level radiated b	e the maximum per ent under test. This	mitted avera	ige emission lir	nit		



Date: February 27, 2025 Page: 22/59 Report No.: DNT2411260434R4491-06830 Test Setup: AE EUT (Turntable Control Figure 2. 30MHz to 1GHz Figure 1. Below 30MHz Turntabl Ground Reference Plan Test Receiver Figure 3. Above 1 GHz Test Procedure: For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters a. above the ground at a 3 or 10 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 b. meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation The EUT was set 3 or 10 meters away from the interference-receiving С antenna, which was mounted on the top of a variable-height antenna tower. The antenna height is varied from one meter to four meters above the ground d. to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. e. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters(for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading. f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. g. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet. h. Test the EUT in the lowest channel, the middle channel ,the Highest channel. The radiation measurements are performed in X, Y, Z axis positioning for i. Transmitting mode, And found the X axis positioning which it is worse case.

j. Repeat above procedures until all frequencies measured was complete.



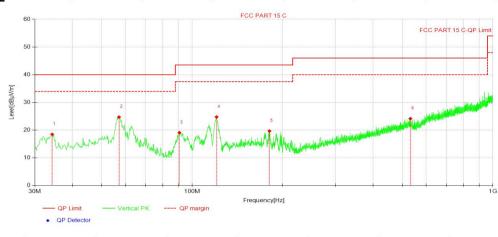
Report No.: DN	T2411260434R4491-06830 Date: February 27, 2025 Page: 23 / 59
Test Configuration:	Measurements Below 1000MHz • RBW = 120 kHz • VBW = 300 kHz • Detector = Peak • Trace mode = max hold
	Peak Measurements Above 1000 MHz RBW = 1 MHz VBW ≥ 3 MHz
	 Detector = Peak Sweep time = auto Trace mode = 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.
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates. Charge+Transmitting mode.
Final Test Mode:	Pretest the EUT at Transmitting mode. Through Pre-scan, find the DH5 of data type is the worst case of All modulation type.
Instruments Used:	Refer to section 2.9 for details
Test Results:	Pass

Dongguan DN Testing Co., Ltd.

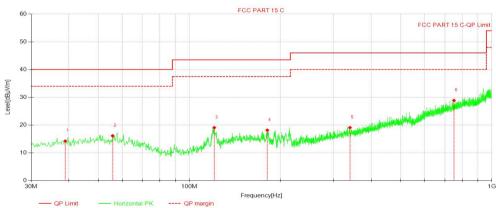
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Test data For 30-1000MHz



NO.	Freq. [MHz]	Reading Level [dBµV]	Correct Factor [dB/m]	Result Level [dBµV/m]	Limit [dBµV/ m]	Margin [dB]	Height [cm]	Angle [°]	Remark	Polarity
1	34.26	27.87	-9.39	18.48	40.00	21.52	100	359	QP	Vertical
2	57.16	33.19	-8.48	24.71	40.00	15.29	100	289	QP	Vertical
3	90.73	32.91	-13.82	19.09	43.50	24.41	100	235	QP	Vertical
4	120.61	34.98	-10.22	24.76	43.50	18.74	100	33	QP	Vertical
5	180.76	29.12	-9.43	19.69	43.50	23.81	100	4	QP	Vertical
6	531.97	25.33	-1.17	24.16	46.00	21.84	100	42	QP	Vertical

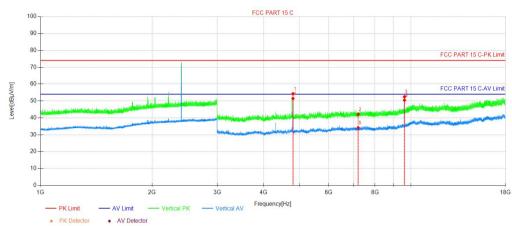


		QP Detecto	r							
NO.	Freq. [MHz]	Reading Level [dBµV]	Correct Factor [dB/m]	Result Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Remark	Polarity
1	38.92	23.17	-8.92	14.25	40.00	25.75	100	78	QP	Horizontal
2	55.80	24.50	-8.34	16.16	40.00	23.84	100	294	QP	Horizontal
3	121.00	29.28	-10.19	19.09	43.50	24.41	100	132	QP	Horizontal
4	181.15	27.65	-9.47	18.18	43.50	25.32	100	181	QP	Horizontal
5	339.87	25.00	-5.90	19.10	46.00	26.90	100	325	QP	Horizontal
6	750.07	25.49	3.41	28.90	46.00	17.10	100	15	QP	Horizontal

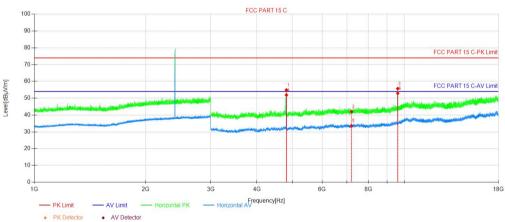


For above 1GHz

DH5 2402MHz



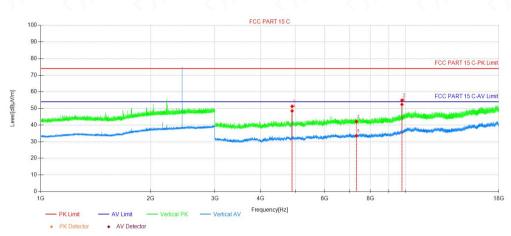
NO.	Freq. [MHz]	Reading Level [dBµV]	Correct Factor [dB/m]	Result Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Heigh t [cm]	Angle [°]	Remark	Polarity
1	4803.84	58.84	-4.61	54.23	74.00	19.77	150	15	Peak	Vertical
2	7206.21	43.90	-1.76	42.14	74.00	31.86	150	251	Peak	Vertical
3	9607.83	51.60	0.87	52.47	74.00	21.53	150	292	Peak	Vertical
4	4804.59	56.04	-4.61	51.43	54.00	2.57	150	3	AV	Vertical
5	7206.21	35.88	-1.76	34.12	54.00	19.88	150	358	AV	Vertical
6	9608.58	49.57	0.88	50.45	54.00	3.55	150	292	AV	Vertical



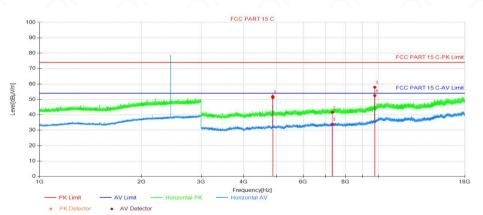
NO.	Freq. [MHz]	Reading Level [dBµV]	Correct Factor [dB/m]	Result Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Remark	Polarity
1	4803.84	59.53	-4.61	54.92	74.00	19.08	150	14	Peak	Horizon
2	7206.21	43.77	-1.76	42.01	74.00	31.99	150	357	Peak	Horizon
3	9607.83	54.84	0.87	55.71	74.00	18.29	150	357	Peak	Horizon
4	4804.59	56.48	-4.61	51.87	54.00	2.13	150	14	AV	Horizon
5	7206.21	35.40	-1.76	33.64	54.00	20.36	150	217	AV	Horizon
6	9608.58	52.05	0.88	52.93	54.00	1.07	150	357	AV	Horizon



DH5 2441MHz



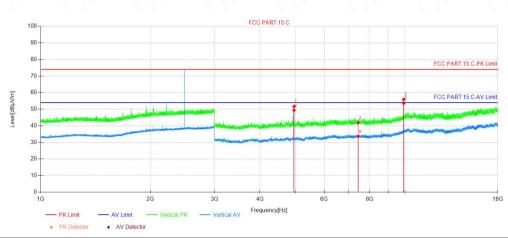
NO.	Freq. [MHz]	Reading Level [dBµV]	Correct Factor [dB/m]	Result Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Remark	Polarity
1	4881.84	55.98	-4.72	51.26	74.00	22.74	150	3	Peak	Vertical
2	7323.21	43.61	-1.49	42.12	74.00	31.88	150	341	Peak	Vertical
3	9763.83	53.31	1.64	54.95	74.00	19.05	150	200	Peak	Vertical
4	4882.59	53.21	-4.72	48.49	54.00	5.51	150	3	AV	Vertical
5	7323.21	35.10	-1.49	33.61	54.00	20.39	150	44	AV	Vertical
6	9764.58	50.74	1.64	52.38	54.00	1.62	150	215	AV	Vertical



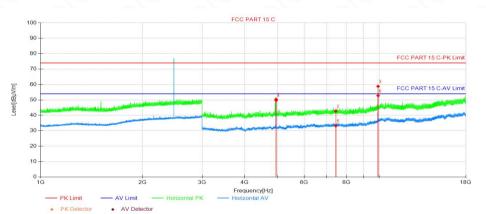
NO.	Freq. [MHz]	Reading Level [dBµV]	Correct Factor [dB/m]	Result Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Remark	Polarity
1	4881.84	58.66	-4.72	53.94	74.00	20.06	150	14	Peak	Horizon
2	7323.21	43.39	-1.49	41.90	74.00	32.10	150	333	Peak	Horizon
3	9763.83	56.79	1.64	58.43	74.00	15.57	150	360	Peak	Horizon
4	4882.59	55.86	-4.72	51.14	54.00	2.86	150	14	AV	Horizon
5	7323.21	35.11	-1.49	33.62	54.00	20.38	150	277	AV	Horizon
6	9764.58	50.83	1.64	52.47	54.00	1.53	150	360	AV	Horizon



DH5 2480MHz



NO.	Freq. [MHz]	Reading Level [dBµV]	Correct Factor [dB/m]	Result Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Remark	Polarity
1	4959.84	56.52	-4.86	51.66	74.00	22.34	150	4	Peak	Vertical
2	7440.22	43.18	-1.34	41.84	74.00	32.16	150	71	Peak	Vertical
3	9919.84	53.63	2.26	55.89	74.00	18.11	150	56	Peak	Vertical
4	4960.59	54.25	-4.86	49.39	54.00	4.61	150	4	AV	Vertical
5	7440.22	34.89	-1.34	33.55	54.00	20.45	150	166	AV	Vertical
6	9920.59	51.27	2.27	53.54	54.00	0.46	150	56	AV	Vertical



Reading Correct Result Freq. Limit Margin Height Angle NO. Remark Polarity Level Factor Level [MHz] [dBµV/m] [dB] [cm] [°] [dBµV] [dB/m] [dBµV/m] 1 4959.84 56.70 -4.86 51.84 74.00 22.16 150 14 Peak Horizon Horizon 2 7440.22 44.04 -1.34 42.70 74.00 31.30 150 352 Peak 3 57.56 74.00 352 9919.84 2.26 59.82 14.18 150 Peak Horizon 4.28 4 4960.59 54.58 -4.86 49.72 54.00 14 Horizon 150 AV -1.34 3 5 7440.22 34.52 33.18 54.00 20.82 150 AV Horizon 6 2.27 150 352 AV 9920.59 50.54 52.81 54.00 1.19 Horizon



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, DH5 is the worst case, only the worst case was reported.



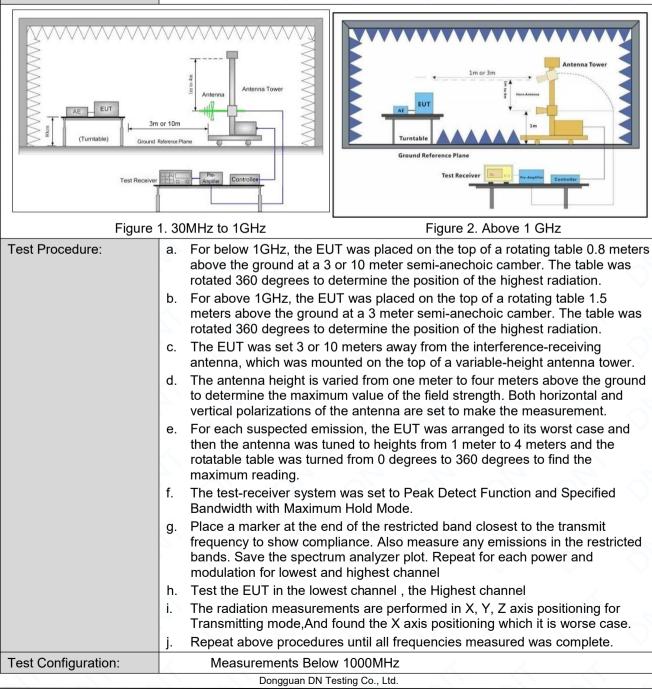
Report No.: DNT2411260434R4491-06830 Date: February 27, 2025

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3.10 Restricted bands around fundamental frequency

Test Requirement:	47 CFR Part 15C Section 1	5.209 and 15.205	\mathcal{O} \mathcal{O} \mathcal{O}
Test Method:	ANSI C63.10: 2013 Section	11.12	
Test Site:	Measurement Distance: 3m	or 10m (Semi-Anechoic	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

Test Setup:



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

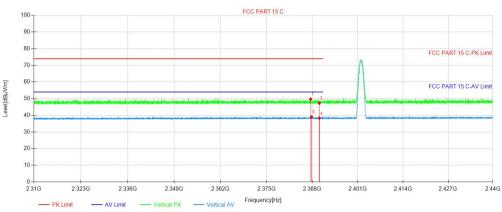
 Web: www.dn-testing.com
 Tel:+86-769-88087383
 E-mail: service@dn-testing.com



and the	Report No.: DN	T2411260434R4491-06830 Date: February 27, 2025 Page: 30 / 5
	Report No.: Div	 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 ≥ 1 MHz VBW ≥ 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.
Explora	tory Test Mode:	Transmitting with all kind of modulations, data rates. Transmitting mode.
Final Te	est Mode:	Pretest the EUT Transmitting mode. Through Pre-scan, find the DH5 of data type is the worst case of all modulation type. Only the worst case is recorded in the report.
Instrum	ents Used:	Refer to section 2.9 for details
Test Re	sults:	Pass

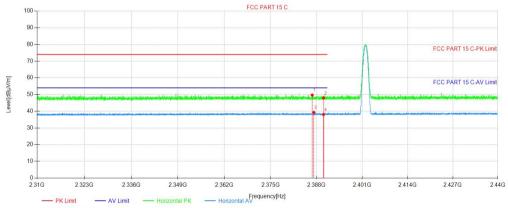


Test Date DH5 2402MHz



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 [°]	Remark	Polarity
1	2387.55	50.50	-0.80	49.70	74.00	24.30	150	294	Peak	Vertical
2	2390.01	48.14	-0.80	47.34	74.00	26.66	150	359	Peak	Vertical
3	2387.79	39.81	-0.80	39.01	54.00	14.99	150	54	AV	Vertical
4	2390.01	39.12	-0.80	38.32	54.00	15.68	150	223	AV	Vertical

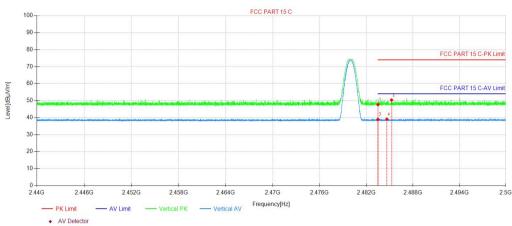


AV Detector

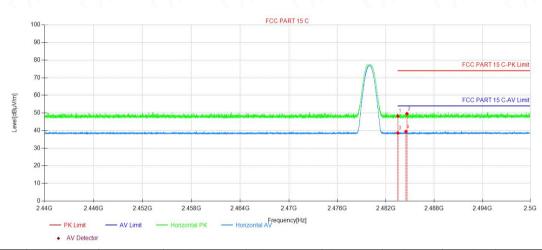
NO.	Freq. [MHz]	Reading Level [dBµV]	Correct Factor [dB/m]	Result Level [dBµV/m]	AV Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Remark	Polarity
1	2386.78	50.48	-0.81	49.67	74.00	24.33	150	285	Peak	Horizon
2	2390.01	48.72	-0.80	47.92	74.00	26.08	150	98	Peak	Horizon
3	2387.24	40.08	-0.80	39.28	54.00	14.72	150	227	AV	Horizon
4	2390.01	38.81	-0.80	38.01	54.00	15.99	150	129	AV	Horizon



DH5 2480MHz



NO.	Freq. [MHz]	Reading Level [dBµV]	Correct Factor [dB/m]	Result Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Remark	Polarity
1	2483.50	47.91	-0.29	47.62	74.00	26.38	150	226	Peak	Vertical
2	2485.25	50.58	-0.27	50.31	74.00	23.69	150	139	Peak	Vertical
3	2483.50	39.27	-0.29	38.98	54.00	15.02	150	54	AV	Vertical
4	2484.64	39.35	-0.28	39.07	54.00	14.93	150	192	AV	Vertical



NO.	Freq. [MHz]	Reading Level [dBµV]	Correct Factor [dB/m]	Result Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Remark	Polarity
1	2483.50	48.48	-0.29	48.19	74.00	25.81	150	155	Peak	Horizon
2	2484.63	49.86	-0.28	49.58	74.00	24.42	150	18	Peak	Horizon
3	2483.50	38.94	-0.29	38.65	54.00	15.35	150	0	AV	Horizon
4	2484.50	39.68	-0.28	39.40	54.00	14.60	150	57	AV	Horizon

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.All channels had been pre-test, DH5 is the worst case, only the worst case was reported.



Test Requirement:	47 CFR Part 15C Section	15.207					
Test Method:	ANSI C63.10: 2013	~ ~ ~ ~					
Test Frequency Range:	150kHz to 30MHz						
Limit:		Limit (dl	BuV)				
	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 loga	rithm of the frequency.					
Test Procedure:	 room. 2) The EUT was connected Impedance Stabilization I impedance. The power case a second LISN 2, which we plane in the same way as multiple socket outlet stripts single LISN provided the 3) The tabletop EUT was ground reference plane. A placed on the horizontal geometrical ground reference plane of the EUT shall be 0.4 metrical ground reference plane. The LISN plane in the LISN plane in the same way as multiple socket outlet stripts in the same way as multiple socket outlet stripts in the tabletop EUT was ground reference plane. A placed on the horizontal geometrical ground reference plane is the tabletop EUT was performed of the EUT shall be 0.4 metrical ground reference plane. The LISN plane is the tabletop EUT was performed on the tabletop EUT was performed of the EUT shall be 0.4 metrical ground reference plane. The LISN provided tabletop EUT was performed on the tabletop EUT was performed of the EUT shall be 0.4 metrical ground reference plane. The LISN provided tabletop EUT was performed on the tabletop EUT was performed of the EUT shall be 0.4 metrical ground reference plane. The LISN provided tabletop EUT was performed of the EUT shall be 0.4 metrical ground reference plane. The LISN performed plane is the tabletop EUT was performed of tabletop EUT was performed of tabletop EUT shall be 0.4 metrical ground reference plane. 	sturbance voltage test was constructed to AC power source throw Network) which provides a 50 ables of all other units of the vas bonded to the ground refe the LISN 1 for the unit being to was used to connect multip rating of the LISN was not ex- placed upon a non-metallic and for floor-standing arrange ground reference plane, and with a vertical ground refer plane was bonded to the how N 1 was placed 0.8 m from the reference plane.	ugh a LISN 1 (Line $\Omega\Omega/50\mu$ H + 5 Ω linear EUT were connected to ference g measured. A ble power cables to a kceeded. table 0.8m above the ement, the EUT was rence plane. The rear erence plane. The rizontal ground he boundary of the				
	mounted on top of the gro between the closest point the EUT and associated of In order to find the maxim equipment and all of the i	mounted on top of the ground reference plane. This distance wa between the closest points of the LISN 1 and the EUT. All other the EUT and associated equipment was at least 0.8 m from the I In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed acco ANSI C63.10 2013 on conducted measurement.					
Test Setup:							
	Shielding Room		Test Receiver				
		Ground Reference Plane					
Exploratory Test Mode:	Transmitting with all kind highest channel. Charge + Transmitting me	of modulations, data rates at ode.	t lowest, middle and				

3.11 AC Power Line Conducted Emissions

 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:+86-769-88087383
 E-mail: service@dn-testing.com



Date: February 27, 2025

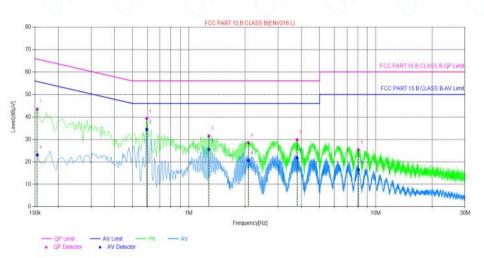
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Final Test Mode:	Through Pre-scan, find the the worst case.
Instruments Used:	Refer to section 2.9 for details
Test Results:	PASS

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.

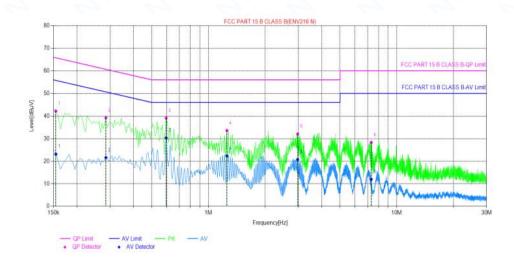
Live Line:



NO.	Freq. [MHz]	Factor [dB]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	AV Value [dBµV]	AV Limit [dBµV]	AV Margin [dB]	Verdict
1	0.1545	9.90	43.47	65.75	22.28	23.10	55.75	32.65	PASS
2	0.5955	9.82	39.33	56.00	16.67	34.50	46.00	11.50	PASS
3	1.2795	9.73	31.52	56.00	24.48	25.57	46.00	20.43	PASS
4	2.0805	9.73	28.50	56.00	27. <mark>5</mark> 0	20.66	46.00	25.34	PASS
5	3.7905	9.75	29.83	56.00	26.17	21.73	46.00	24.27	PASS
6	8.0745	9.87	25.35	60.00	34.65	16.49	50.00	33.51	PASS



Neutral Line:



-inal	Data Lis	t							
NO.	Freq. [MHz]	Factor [dB]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	AV Value [dBµV]	AV Limit [dBµV]	AV Margin [dB]	Verdict
1	0.1545	9.80	42.16	65.75	23.59	23.12	55.75	32.63	PASS
2	0.285	9.88	39.19	60.67	21.48	21. <mark>61</mark>	50.67	29.06	PASS
3	0.5955	9.78	39.08	56.00	16.92	30.33	46.00	15.67	PASS
4	1.2525	9.71	33.57	56.00	22.43	22.32	46.00	23.68	PASS
5	2.976	9.87	32.06	56.00	23.94	20.71	46.00	25.29	PASS
6	7.323	9.97	28.33	60.00	31.67	12.02	50.00	37.98	PASS

Remark:

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

2. 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



4 Appendix

Appendix A: 20dB Emission Bandwidth

Test Result		\circ		\circ \circ			\sim
TestMode	Antenna	Freq(MHz)	20dB EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
	~	2402	1.050	2401.466	2402.516	🔨	<
DH5	Ant1	2441	1.044	2440.475	2441.519		
		2480	1.062	2479.460	2480.522		
	\sim	2402	1.311	2401.349	2402.660	-4-	
2DH5	Ant1	2441	1.329	2440.337	2441.666		
		2480	1.329	2479.331	2480.660	🔨	<



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Test Graphs

			DH5_A	nt1_2402		
LXI RL	rum Analyzer - S RF 50 req 2.4020			#Avg Type: RMS	F 12:07:39 AM Dec 06, 2024 TRACE 1 2 3 4 5 6 TYPE MWWWWW DET P P P P P P	Frequency
10 dB/div	Ref Offset 1 Ref 30.00	4.31 dB		1	Mkr3 1.050 MHz 0.003 dB	Auto Tune
20.0 10.0			2			Center Fred 2.402000000 GH;
-10.0 -20.0 -30.0		ju ju	mar and the second	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	-28.36 dBn	Start Fred 2.400500000 GH:
-40.0 -50.0 -60.0	www	and the second s		w	mannan	Stop Fred 2.403500000 GH;
Center 2 #Res BW	402000 GH 30 kHz		BW 100 kHz	Sweep	Span 3.000 MHz 3.200 ms (1001 pts)	CF Step 300.000 kH
MX6 MODE 1 1 N 2 N 3 Δ1 4 5	FE SEL 1 f 1 f 1 f (Δ)	X 2.401 466 GHz 2.401 973 GHz 1.050 MHz	-28.469 dBm -8.363 dBm (Δ) 0.003 dB	FUNCTION FUNCTION WAE	TH FUNCTION VALUE	Auto Mar Freq Offse 0 H;
6 7 8 9 10 11					×	
MSG				ST/	ATUS 😵 Align Now, All requi	red

DH5_Ant1_2441

Agilent Spectrum Analyzer - Swept SA				
RL RF 50Ω DC Center Freq 2.441000000	SENSE:PUL	LSE ALIGN OFF #Avg Type: RMS	12:11:21 AM Dec 06, 2024 TRACE 1 2 3 4 5 6	Frequency
Ref Offset 14.31 dB	PNO: Wide ++++ Trig: Free Ru IFGain:Low #Atten: 40 dB	1	TYPE MWWWW DET P P P P P Mkr3 1.044 MHz	Auto Tune
10 dB/div Ref 30.00 dBm Log 20.0 10.0			0.064 dB	Center Freq 2.441000000 GHz
-10.0	phannen	^~~~3∆1	-26.49 dBm	Start Freq 2.439500000 GHz
40.0 50.0			n han man	Stop Fred 2.442500000 GHz
Center 2.441000 GHz #Res BW 30 kHz	#VBW 100 kHz	Sweep	Span 3.000 MHz 3.200 ms (1001 pts)	CF Step 300.000 kHz
	40 475 GHz -26.581 dBm 40 994 GHz -6.488 dBm	FUNCTION FUNCTION WIDT	H FUNCTION VALUE	<u>Auto</u> Man
3 Δ1 1 f (Δ) 4	1.044 MHz (Δ) 0.064 dB			Freq Offset 0 Hz
5 6 7 8 9 9				
10 11 <			×	

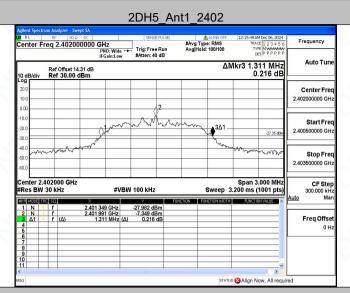
DH5_Ant1_2480

	rum Analyzer - Sw								
Center F	RF 50 Q req 2.48000	DC DOOOO GHz PNO: Wid		e Run	#Avg Type AvalHold:		TRAC TY	E 1 2 3 4 5 6	Frequency
10 dB/div	Ref Offset 14 Ref 30.00	IFGain:Lo			Arginola		⊿ /lkr3 1.0	PPPPP	Auto Tune
20.0 10.0				×2					Center Freq 2.480000000 GHz
-10.0 -20.0 -30.0		J.	and provident	hun	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Δ1 ——		-29.26 dBn	Start Freq 2.478500000 GHz
-40.0 -50.0 -60.0	www.					- marker	hummy	wh-mayh	Stop Freq 2.481500000 GHz
Center 2. #Res BW		#	/BW 100 kH:			Sweep 3	1.200 ms (.000 MHz 1001 pts)	CF Step 300.000 kHz Auto Man
1 N 1 2 N 1 3 Δ1 4 5 6 7 8 9 10 10 11 1	f f f (Δ)	2.479 460 GHz 2.479 997 GHz 1.062 MHz	-29.604 d -9.256 d	Bm Bm					Freq Offset 0 Hz
<						_	10		
MSG	_					STATU	s 🔀 Align N	ow, All requi	red



Date: February 27, 2025

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2DH5_Ant1_2441

gilent Spectrum Analyzer - Swept SA							
RL RF 50 Ω DC Center Freq 2.441000000	I GHZ	SENSE:PULSE	#Avg Type	ALIGN OFF		Dec 06, 2024	Frequency
Citter 1104 2.44 1000000	PNO: Wide Tr	ig: Free Run Itten: 40 dB	Avg Hold:	100/100	TYPE	PPPPP	Auto Tun
Ref Offset 14.31 dB 0 dB/div Ref 30.00 dBm						579 dB	
20.0							Center Fre
0.0		2					2.441000000 GH
0.0	1 mm	mhon	man	▲3∆1			Start Fre
0.0	Я		.1. %	~		-25.87 dBm	2.439500000 GH
0.0 mmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmm				"W	mun	whym	Stop Fre
0.0							2.442500000 GH
enter 2.441000 GHz Res BW 30 kHz	#VBW 10	0 kHz		Sweep 3.	Span 3.0 200 ms (1	000 MHz 001 pts)	CF Ste 300.000 kl
XE MODELTEC SCL X	0 337 GHz -26	Y FU		CTION WIDTH	FUNCTION	. ,	Auto Ma
2 N 1 f 2.44	0 991 GHz -5	.874 dBm -0.579 dB				_	Freq Offs
4							01
6 7 8							
5 6 6 7 7 7 8 9 9 9 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1							

2DH5_Ant1_2480

	Spect			lyzer - Sw																
Cent	er F		RF 12	50 s	DC	IO Gł	Ηz		1	ENSE:P			Тур	ALIGN OFF 2: RMS 100/100	12:	TRA	M Dec 06, CE 1 2 3 PE MWW	456	Fre	equency
10 dB	(div			Offset 14 30.00		IF B	NO: Wid Gain:Lo			n: 40 d		Avg	noia.		Mkr3	ء 1.3	29 M	Hz		Auto Tune
20.0 - 10.0 -								_										_		enter Freq 000000 GHz
-10.0 -20.0 -30.0						Ś		m	M	Ŵ	ya Maria	m	رم مر	J ^{3∆1 -}			-28.9	3 ciBin		Start Freq
-40.0 -50.0 -60.0	(ver	~~	~v	Watar	parr'l										, 1	m.r	www	n de		Stop Freq 500000 GHz
#Res	BW	1 30	k)0 GHz Hz			#\	/BW	100 k	Hz				Sweep	3.200	ms (pts)	Auto	CF Step 300.000 kHz Man
2	N N M	1	f f f	(Δ)		179 33 179 98	1 GHz 8 GHz 9 MHz		-8.93	4 dBm 0 dBm 565 dE		NCTION		ICTION WIDTH			ONVALUE		F	Freq Offset 0 Hz
MSG														STAT	JS 🔞 A	lign N	low, All	requ	ired	



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Appendix B: Maximum conducted output power

	_
Test	Result

Test Mode	Antenna	Freq(MHz)	Conducted Peak Powert[dBm]	Conducted Limit[dBm]	Verdict
		2402	-5.57	≤20.97	PASS
DH5	Ant1	2441	-4.26	≤20.97	PASS
		2480	-6.33	≤20.97	PASS
	Ant1	2402	-4.07	≤20.97	PASS
2DH5		2441	-3.03	≤20.97	PASS
		2480	-5.37	≤20.97	PASS



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Test Graphs

	rum Analyzer - Swept SA						
RL Center F	RF 50 Ω DC req 2.402000000	GH7	SENSE:PULSE	ALIGN OF	12:07:56 AM Dec TRACE	2 3 4 5 6	Frequency
Jeniter 1	104 2.40200000	PNO: Fast +	#Atten: 40 dB	Avg Hold: 100/100	TYPE M DET P	PPPPP	
0 dB/div	Ref Offset 14.31 dB Ref 30.00 dBm			Mk	r1 2.402 102 5.568-		Auto Tune
-og							Center Free
20.0							2.402000000 GH;
10.0						[Start Free
0.00			♦ ¹				2.399000000 GH
10.0		www.www.www.www.www.		and a second and a second as a second a			Stop Free
20.0 10 10 10 10 10 10 10 10 10 10 10 10 10	for all and				and the second second	higher	2.405000000 GH
- 1						inde.Ph	CF Step
40.0						Ĺ	600.000 kH: Auto Mar
50.0						ľ	Freq Offse
00.0							0 H:
60.0						[
Center 2. #Res BW	402000 GHz	#\/D\W	6.0 MHz		Span 6.00 1.000 ms (100	0 MHz	

DH5_Ant1_2441

	rum Analyzer - Swept SA					
CXI RL	RF 50 Ω DC		SENSE:PULSE	ALIGN OFF	12:11:38 AM Dec 06, 2024	Frequency
Center F	req 2.44100000	PNO: Fast +++ IFGain:Low	Trig: Free Run #Atten: 40 dB	#Avg Type: RMS Avg Hold: 100/100	TRACE 1 2 3 4 5 6 TYPE MWWWWWW DET P P P P P P	
10 dB/div	Ref Offset 14.31 dB Ref 30.00 dBm			Mkr	1 2.441 258 GHz -4.262 dBm	
20.0						Center Free 2.441000000 GH:
0.00			● ¹			Start Free 2.438000000 GH
-10.0	In production of the second				and the second states	Stop Free 2.444000000 GH
40.0						CF Ste 600.000 kH <u>Auto</u> Ma
50.0						Freq Offse 0 ⊢
60.0						
Center 2. #Res BW	441000 GHz 2.0 MHz	#VBW	6.0 MHz	Sweep	Span 6.000 MHz 1.000 ms (1001 pts)	
MSG				STAT	us 🐼 Align Now, All requ	ired

DH5_Ant1_2480

	um Analyzer - Swe									
Center F	RF 50 Ω req 2.48000	0000 GH	z		EPULSE	#Avg Type Avg Hold:		TRAC	1 2 3 4 5 6 E MWWWWW	Frequency
	Ref Offset 14.	1FC 31 dB	40: Fast ↔ Gain:Low	#Atten: 4) dB	Avginola.		2.479 9	40 GHz	Auto Tune
10 dB/div Log	Ref 30.00 d	Bm						-6.3	33 dBm	
20.0										Center Free 2.480000000 GH:
0.00					1					Start Free 2.477000000 GH
-10.0	NOIS AND THE MENT		ann an				Sand Sugar and a lo	and an and a second second	nd when the	Stop Free 2.483000000 GH:
-30.0										CF Step 600.000 kH Auto Mar
-40.0										Freq Offse 0 Hi
-60.0										
Center 2.4 #Res BW	480000 GHz 2.0 MHz		#VBW	6.0 MHz			Sweep 1		.000 MHz 1001 pts)	
MSG							STATUS	🛛 Align N	ow, All requi	red



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			2DH5	j_Ant′	1_240	2			
Agilent Spect	trum Analyzer - Swep RF 50 Ω								
	RF 50 Ω Freq 2.40200	DOOD GHz			ALIGN Avg Type: RM	IS	TRAC	1 2 3 4 5 6 MWWWWW	Frequency
		PNO: I IFGain	ast 🛶 Trig: Free Low #Atten: 40		Avg Hold: 100/	100	DE	PPPPPP	
10 dB/div	Ref Offset 14.3 Ref 30.00 di				Ν	Vlkr1 2.		60 GHz 58 dBm	Auto Tune
									Center Free
20.0									2.402000000 GHz
10.0									
0.00			A1						Start Freq 2.399000000 GHz
0.00		-		-	mann				
-10.0		and a starting				- Allowers	No.	-UKUMANANA	Stop Freq
-20.0	and the second second							-themade and	2.405000000 GHz
-30.0									CF Step
~~~~									600.000 kHz Auto Man
-40.0									
-50.0									Freq Offset
-60.0									0 Hz
-00.0									
Center 2	402000 GHz						Span 6.	000 MHz	
#Res BW	2.0 MHz		#VBW 6.0 MHz		Swe			1001 pts)	
MSG						STATUS 🔇	Align No	w, All requi	red

#### 2DH5_Ant1_2441

	rum Analyzer - Swept					
Center E	reg 2.441000		SENSE:PULSE	ALIGN OFF #Avg Type: RMS	12:19:16 AM Dec 06, 2024 TRACE 1 2 3 4 5 6	Frequency
Senter 1	100 2.44 1000	PNO: Fast +++ IFGain:Low	Trig: Free Run #Atten: 40 dB	Avg Hold: 100/100	DET P P P P P	
10 dB/div	Ref Offset 14.31 Ref 30.00 dB			Mkr1	2.440 880 GHz -3.030 dBm	
20.0						Center Fre 2.441000000 GH
10.0						Start Fre 2.438000000 GH
10.0	Harry Marganese	ADARA MARANA		and the state of the	and the state of t	Stop Fre 2.444000000 GH
30.0					- market	CF Ste 600.000 kH
40.0						<u>Auto</u> Ma
50.0	_					Freq Offs 0 H
60.0						
	441000 GHz 2.0 MHz	#VBW	5.0 MHz	Sweep	Span 6.000 MHz 1.000 ms (1001 pts)	
ISG				STATU	s 🔀 Alian Now, All reau	ired

#### 2DH5_Ant1_2480

#Res BW 2.0 MHz #VBW 6.0 MHz Sweep 1.000 ms (1001 pts)					_					
Center Freq 2.480000000 CHz Pito:Fait								vept SA	n Analyzer - Si	
Center Pred 2.420/0000000000000000000000000000000000	Frequency				NSE:PULSE	SENS				
Ref Offset 14.31 dB         Mkr1 2.479 910 GHz         Auto Tune           10 dald/w         Ref 30.00 dBm         -5.370 dBm         Center Freq           200         -         -         -         -         Center Freq           10 dald/w         Ref 30.00 dBm         -         -         Center Freq         2.4000000 GHz           200         -         -         -         -         Start Freq         2.4700000 GHz           300         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -	Trequency	TYPE MWARWW					PNO: Fast 🔸		eq 2.4800	enter F
Control         Center Freq         Center Freq           200         2.48000000 GHz         2.47700000 GHz           200         2.47700000 GHz         2.48300000 GHz           200         2.47700000 GHz         2.47700000 GHz           200         2.4870000 GHz         3.000 MHz           400         2.4870000 GHz         3.000 MHz           400         2.4870000 GHz         3.000 MHz           400         2.4880000 GHz         3.000 MHz           4788 BW 2.0 MHz         \$\$Weep 1.000 ms (1001 pts)	Auto Tune						Guilleow	4.31 dB		
200       2.4000000 GHz         100       1         100       1         100       1         100       1         100       1         100       1         100       1         100       1         100       1         100       1         100       1         100       1         100       1         100       1         100       1         100       1         100       1         100       1         100       1         100       1         100       1         100       1         100       1         100       1         100       1         100       1         100       1         100       1         100       1         100       1         100       1         100       1         100       1         100       1         100       1         100       1 <td></td> <td>-5.570 uBili</td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td>dBm</td> <td>Ref 30.00</td> <td>dB/div</td>		-5.570 uBili			-			dBm	Ref 30.00	dB/div
Start Freq         Start Freq         Start Freq         Start Freq         Start Freq         Start Freq         2.47700000 GHz         Stop Freq         2.48700000 GHz         Stop Freq         CFS tep         600.000 MHz         Man         Freq Offset         0 Hz         0 Hz         0 Hz <td></td> <td></td> <td></td> <td></td> <td>_</td> <td></td> <td></td> <td></td> <td>_</td> <td>D.0</td>					_				_	D.0
Start Freq         Start Freq         Start Freq         Start Freq         Start Freq         Start Freq         2.47700000 GHz         Stop Freq         2.48700000 GHz         Stop Freq         CFS tep         600.000 MHz         Man         Freq Offset         0 Hz         0 Hz         0 Hz <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>10</td>										10
300     CF Step 600.00 MHz       400     CF Step 600.00 MHz       400     CF Step 600.00 MHz       600     CF Step 600       600					▲!				_	
300         CF Step 600000 MHz           400         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1	Stop Frec		- and the state of	- manager and the second	Y			manner		
300     CF Step 600.00 MHz       400     CF Step 600.00 MHz       400     CF Step 600.00 MHz       600     CF Step 600       600	2.483000000 GHz	have all the dear the	***						in dealer and a	0.0
400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400         400 <td>CF Step 600.000 kHz</td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td>-</td> <td></td>	CF Step 600.000 kHz				-				-	
000         0 Hz           600         0 Hz           Center 2.480000 GHz         Span 6.000 MHz           #Res BW 2.0 MHz         #VBW 6.0 MHz           Sweep 1.000 ms (1001 pts)	<u>Auto</u> Man				-				-	0.0
600 Center 2.480000 GHz Span 6.00 MHz MVBW 6.0 MHz Sweep 1.000 ms (1001 pts)	Freq Offset									10
Center 2.480000 GHz Span 6.000 MHz #Res BW 2.0 MHz #VBW 6.0 MHz Sweep 1.000 ms (1001 pts)	0 Hz									
#Res BW 2.0 MHz #VBW 6.0 MHz Sweep 1.000 ms (1001 pts)										0.0
								:		
MSG STATUS 🔀 Align Now, All required		ms (1001 pts)	veep 1.000	Sw	z	/ 6.0 MHz	#VBW		.0 MHz	
	red	lign Now, All requi	STATUS 🔀 A							3



Report No.: DNT2411260434R4491-06830 Appendix C: Carrier frequency separation

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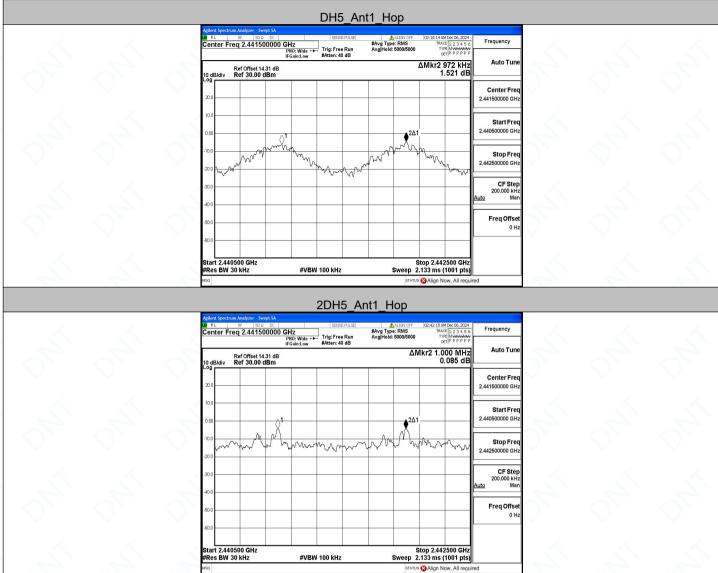
### Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Нор	0.972	≥0.708	PASS
2DH5	Ant1	Нор	1	≥0.886	PASS



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#### **Test Graphs**





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## Appendix D: Dwell Time

### Test Result

TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Нор	0.383	320	0.123	≤0.4	PASS
DH3	Ant1	Нор	1.638	160	0.262	≤0.4	PASS
DH5	Ant1	Нор	2.885	106.67	0.308	≤0.4	PASS
2DH1	Ant1	Нор	0.391	320	0.125	≤0.4	PASS
2DH3	Ant1	Нор	1.643	160	0.263	≤0.4	PASS
2DH5	Ant1	Нор	2.891	106.67	0.308	≤0.4	PASS