



RF TEST REPORT

Product Name: Oakford Pellet Grills

Model Number: 910-0509, 910-0508

FCC ID: 2A3GE910-0509

Issued For : Nexgrill Industries, Inc

14050 Laurelwood Pl, Chino CA 91710 USA

Issued By : Shenzhen LGT Test Service Co., Ltd.

Room 205, Building 13, Zone B, Zhenxiong Industrial Park,
No.177, Renmin West Road, Jinsha, Kengzi Street, Pingshan
District, Shenzhen, Guangdong, China

Report Number: LGT25G315RF05

Sample Received Date: Aug. 11, 2025

Date of Test: Aug. 11, 2025 ~ Sep. 25, 2025

Date of Issue: Sep. 25, 2025

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TEST REPORT CERTIFICATION

Applicant: Nexgrill Industries, Inc
Address: 14050 Laurelwood Pl, Chino CA 91710 USA
Manufacturer: Nexgrill Industries, Inc
Address: 14050 Laurelwood Pl, Chino CA 91710 USA
Product Name: Oakford Pellet Grills
Trademark: Nexgrill
Model Number: 910-0509, 910-0508
Sample Status: Normal

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC Part 15.247, Subpart C ANSI C63.10-2020/Cor 1-2023	PASS

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Table of Contents	Page
1. SUMMARY OF TEST RESULTS	6
1.1 TEST FACTORY	7
1.2 MEASUREMENT UNCERTAINTY	7
2. GENERAL INFORMATION	8
2.1 GENERAL DESCRIPTION OF THE EUT	8
2.2 DESCRIPTION OF THE TEST MODES	9
2.3 TEST SOFTWARE AND POWER LEVEL	9
2.4 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED	10
2.5 DESCRIPTION OF NECESSARY ACCESSORIES AND SUPPORT UNITS	11
2.5 EQUIPMENTS LIST	12
3. EMC EMISSION TEST	14
3.1 CONDUCTED EMISSION MEASUREMENT	14
3.2 RADIATED EMISSION MEASUREMENT	20
4. CONDUCTED SPURIOUS & BAND EDGE EMISSION	36
4.1 LIMIT	36
4.2 TEST PROCEDURE	36
4.3 TEST SETUP	36
5.4 EUT OPERATION CONDITIONS	36
5.5 TEST RESULTS	36
5. POWER SPECTRAL DENSITY TEST	37
5.1 LIMIT	37
5.2 TEST PROCEDURE	37
5.3 TEST SETUP	37
5.4 EUT OPERATION CONDITIONS	37
5.5 TEST RESULTS	37
6. BANDWIDTH TEST	38
6.1 LIMIT	38
6.2 TEST PROCEDURE	38
6.3 TEST SETUP	38
6.4 EUT OPERATION CONDITIONS	38
6.5 TEST RESULTS	38
7. PEAK OUTPUT POWER TEST	39
7.1 LIMIT	39



7.2 TEST PROCEDURE	39
7.3 TEST SETUP	39
7.4 EUT OPERATION CONDITIONS	39
7.5 TEST RESULTS	39
8. DUTY CYCLE	40
8.1 STANDARD REQUIREMENT	40
8.2 TEST PROCEDURE	40
8.3 DEVIATION FROM STANDARD	40
8.4 TEST SETUP	40
8.5 TEST RESULTS	40
9. ANTENNA REQUIREMENT	41
9.1 STANDARD REQUIREMENT	41
9.2 EUT ANTENNA	41
APPENDIX I - TEST RESULTS	42
DUTY CYCLE	42
BANDWIDTH	44
MAXIMUM CONDUCTED OUTPUT POWER	47
MAXIMUM POWER SPECTRAL DENSITY	49
UNWANTED EMISSIONS IN NON-RESTRICTED FREQUENCY BANDS	51
APPENDIX II - MEASUREMENT PHOTOS	55



Revision History

Rev.	Issue Date	Contents
00	Sep. 25, 2025	Initial Issue



1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:
KDB 558074 D01 15.247 Meas Guidance v05r02.

FCC Part 15.247, Subpart C			
Standard Section	Test Item	Judgment	Remark
15.207	Conducted Emission	PASS	--
15.247 (a)(2)	6dB&99% Bandwidth	PASS	--
15.247 (b)(3)	Output Power	PASS	--
15.209	Radiated Spurious Emission	PASS	--
15.247 (d)	Conducted Spurious & Band Edge Emission	PASS	--
15.247 (e)	Power Spectral Density	PASS	--
15.205	Restricted Band Edge Emission	PASS	--
Part 15.247(d)/ Part 15.209(a)	Band Edge Emission	PASS	--
15.203	Antenna Requirement	PASS	--

NOTE:

- (1) 'N/A' denotes test is not applicable in this Test Report.
- (2) All tests are according to ANSI C63.10-2020/Cor 1-2023.
- (3) The test data have all been compensated for cable loss, and when measuring the entire 30M-25G segment, the maximum loss value of the whole segment was used for compensation.



1.1 TEST FACTORY

Company Name:	Shenzhen LGT Test Service Co., Ltd.
Address:	Room 205, Building 13, Zone B, Zhenxiong Industrial Park, No.177, Renmin West Road, Jinsha, Kengzi Street, Pingshan District, Shenzhen, Guangdong, China
Accreditation Certificate	FCC Registration No.: 746540
	CAB ID: CN0136
	Company Number: 28858

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately **95** %.

No.	Item	Uncertainty
1	Occupied Channel Bandwidth	± 0.46 %
2	RF Output Power, Conducted	± 0.71 dB
3	Power Spectral Density, Conducted	± 1.57 dB
4	Unwanted Emission, Conducted	± 0.63 dB
5	Conducted emission	± 2.80 dB
6	All Emissions, Radiated (0.009-30MHz)	± 2.16 dB
7	All Emissions, Radiated (30MHz-1GHz)	± 4.61 dB
8	All Emissions, Radiated (1GHz-18GHz)	± 5.49 dB
9	Temperature	$\pm 0.5^{\circ}\text{C}$
10	Humidity	$\pm 2\%$
11	Duty Cycle	$\pm 2.3\%$

Note: The measurement uncertainty is not included in the test result.



2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF THE EUT

Product Name:	Oakford Pellet Grills	
Test Model Number:	910-0509	
Series Number:	910-0508	
Model Difference:	910-0508 is same as 910-0509 except size.	
Product Description:	Operation Frequency:	2402~2480 MHz
	Modulation Type:	GFSK
	Radio Technology:	BLE
	Bluetooth Configuration:	BLE (1M PHY)
	Number Of Channel:	40
	Antenna Type:	PCB
	Antenna Gain (dBi):	2.67
Channel List:	Please refer to the Note 3.	
Rating:	Input: AC 120V/60Hz	
Hardware Version:	V01	
Software Version:	V01	
Connecting I/O Port(s):	Please refer to the Note 1.	

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User Manual.
2. The antenna information refers to the manufacturer provide report, applicable only to the tested sample identified in the report. Due to the incorrect antenna information, a series of problems such as the accuracy of the test results will be borne by the customer.
3. Based on the model difference, 910-0509 was selected as the typical model for all necessary tests performed, 910-0508 only performed conducted emission and radiated spurious emission.



3.

Channel List							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
00	2402	10	2422	20	2442	30	2462
01	2404	11	2424	21	2444	31	2464
02	2406	12	2426	22	2446	32	2466
03	2408	13	2428	23	2448	33	2468
04	2410	14	2430	24	2450	34	2470
05	2412	15	2432	25	2452	35	2472
06	2414	16	2434	26	2454	36	2474
07	2416	17	2436	27	2456	37	2476
08	2418	18	2438	28	2458	38	2478
09	2420	19	2440	29	2460	39	2480

2.2 DESCRIPTION OF THE TEST MODES

For conducted test items and radiated spurious emissions

Each of these EUT operation mode(s) or test configuration mode(s) mentioned below was evaluated respectively.

Worst Mode	Description	Data/Modulation
Mode 1	TX CH00(2402MHz)	1 MHz/GFSK
Mode 2	TX CH19(2440MHz)	1 MHz/GFSK
Mode 3	TX CH39(2480MHz)	1 MHz/GFSK

Note:

(1) The measurements are performed at all Bit Rate of Transmitter, the worst data was reported.

(2) We have be tested for all avaiable U.S. voltage and frequency (For 120V,50/60Hz and 240V, 50/60Hz) for which the device is capable of operation, and the worst case of 120V/60Hz is shown in the report.

(3) The battery is fully-charged during the radited and RF conducted test.

For AC Conducted Emission

Test Case	
AC Conducted Emission	Mode 4: Keeping BLE TX

2.3 TEST SOFTWARE AND POWER LEVEL

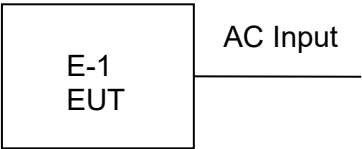
During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level.

Test software Version	Test program: BLE	
EspRFTTestTool_v4.6_Manual	Mode Or Modulation type	Power setting
	1M	7

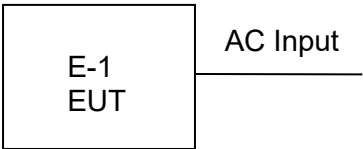


2.4 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

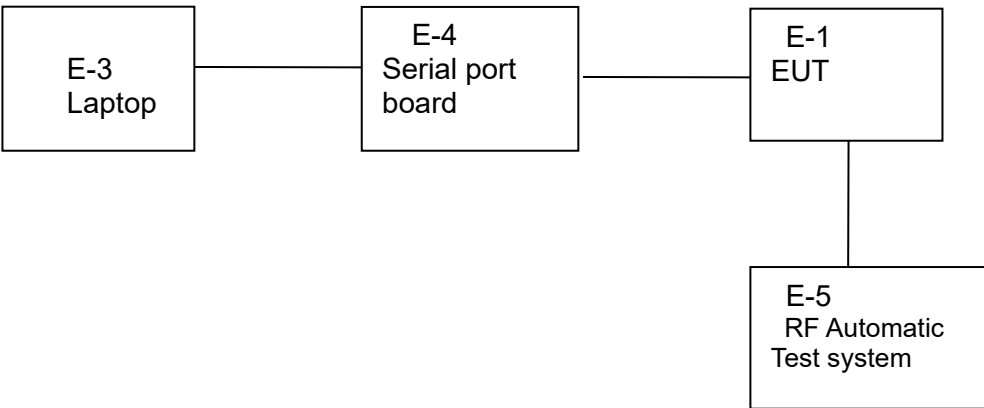
Radiation Test Set



conduction Test Set



Radiation conduction direct Test Set





2.5 DESCRIPTION OF NECESSARY ACCESSORIES AND SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Accessories Equipment

Description	Manufacturer	Model	S/N	Rating

Auxiliary Equipment

Description	Manufacturer	Model	S/N	Rating
Laptop	Lenovo	T470s	N/A	N/A
Debug board	N/A	TTL-C4C	N/A	N/A
Mobile phone	SHARK	KSR-10	N/A	N/A

Note:

- (1) For detachable type I/O cable should be specified the length in cm in 『Length』 column.
- (2) “YES” is means “with core”; “NO” is means “without core”.



2.5 EQUIPMENTS LIST

Conducted Emission					
Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Until
EMI Test Receiver	R&S	ESU8	100372	2025.03.06	2026.03.05
LISN	COM-POWER	LI-115	02032	2025.03.05	2026.03.04
LISN	SCHWARZBECK	NNLK 8122	00160	2025.03.05	2026.03.04
Transient Limiter	CYBERTEK	EM5010A	E2250100049	2025.03.05	2026.03.04
Coaxial cables (9kHz-30MHz)	Juncoax	JMR600-NMNM-2M	N.A	2025.03.06	2026.03.05
Temperature & Humidity	JINGCHUANG	BT-3	N.A	2025.03.10	2026.03.09
Testing Software	EMC-I_V1.4.0.3_SKET				

Radiated Test equipment					
Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Until
EMI Test Receiver	R&S	ESU8	100372	2025.03.06	2026.03.05
Active loop Antenna	ETS	6502	00049544	2025.03.11	2028.03.10
Spectrum Analyzer	Keysight	N9010B	MY60242508	2025.03.05	2026.03.04
Trilog Broadband Antenna (30M-1G)	SCHWARZBECK	VULB 9168	2705	2024.05.17	2027.05.16
Horn Antenna(1-18G)	SCHWARZBECK	3115	10SL0060	2025.03.10	2028.03.09
Horn Antenna(18-40G)	SCHWARZBECK	BBHA 9170	685	2023.10.23	2026.10.22
Pre-amplifier(30M-1G)	EMtrace	RP01A	02019	2025.03.06	2026.03.05
Pre-amplifier(1-26.5G)	Agilent	8449B	3008A4722	2025.03.06	2026.03.05
Pre-amplifier(18-40G)	SCHWARZBECK	BBV 9721	9721-019	2024.10.21	2025.10.20
Coaxial cables (9kHz-1GHz)	Juncoax	JMR600 -NMNM-8M	N.A	2025.03.06	2026.03.05
Coaxial cables (1GHz-18GHz)	TaiHe	UCD460B -NMSM-1M9	N.A	2025.03.06	2026.03.05
Coaxial cables (18GHz-40GHz)	Junkosha Inc.	MWX241 -05000KMSKMS	N.A	2025.03.08	2026.03.07
Temperature& Humidity test chamber	AISRY	LX-1000L	171200018	2025.07.30	2026.07.29
Antenna Tower	SAEMC	BK-4AT-BS-D	SK2021093008	N.A	N.A
Temperature & Humidity	JINGCHUANG	BT-3	N.A	2025.03.10	2026.03.09
Testing Software	EMC-I_V1.4.0.3_SKET				

RF Conducted Test equipment					
Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Until
Signal Analyzer	Keysight	N9020A	MY50530994	2025.03.05	2026.03.04
Power Sensor	R&S	NRP8S	149.0006K02 -104963-Ae	2025.03.06	2026.03.05
RF Automatic Test system	TST	TST PASS	293	2025.07.15	2026.07.14
MXG Vector Signal Generator	Keysight	N5182B	MY59100717	2025.03.05	2026.03.04
Temperature& Humidity test chamber	AISRY	LX-1000L	171200018	2025.07.30	2026.07.29
Attenuator	eastsheep	90db	N.A	2025.03.06	2026.03.05
Temperature & Humidity	JINGCHUANG	BT-3	N.A	2025.03.10	2026.03.09



Digital multimeter	MASTECH	MS8261	MBGBC83053	2025.03.05	2026.03.04
DC source	Keysight	E3634A	MY58036468	2025.03.06	2026.03.05
Testing Software	TST Pass_2.0.2				



3. EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION LIMITS

The radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table.

FREQUENCY (MHz)	Conducted Emission limit (dBuV)	
	Quasi-peak	Average
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of “ * ” marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

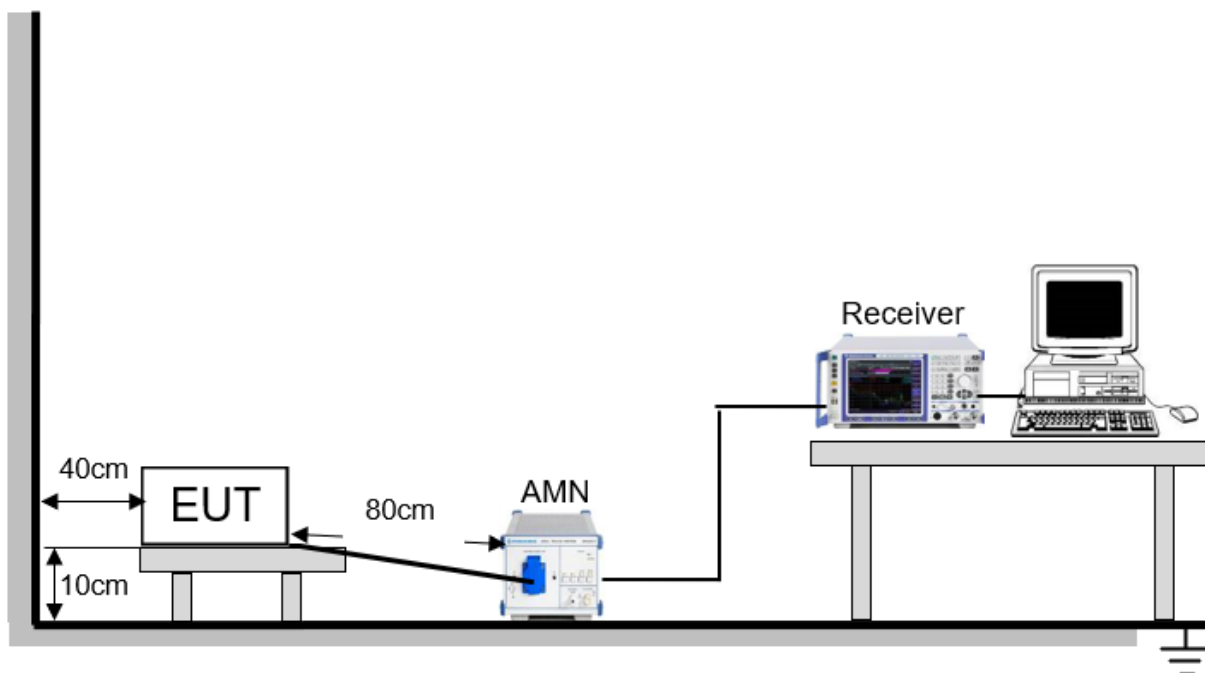
The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

3.1.2 TEST PROCEDURE

- The EUT was placed 0.4 meters from the conducting wall and 0.1m from Horizontal reference grounding plate of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provides 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- LISN is at least 80 cm from the nearest part of EUT chassis.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.1.3 TEST SETUP



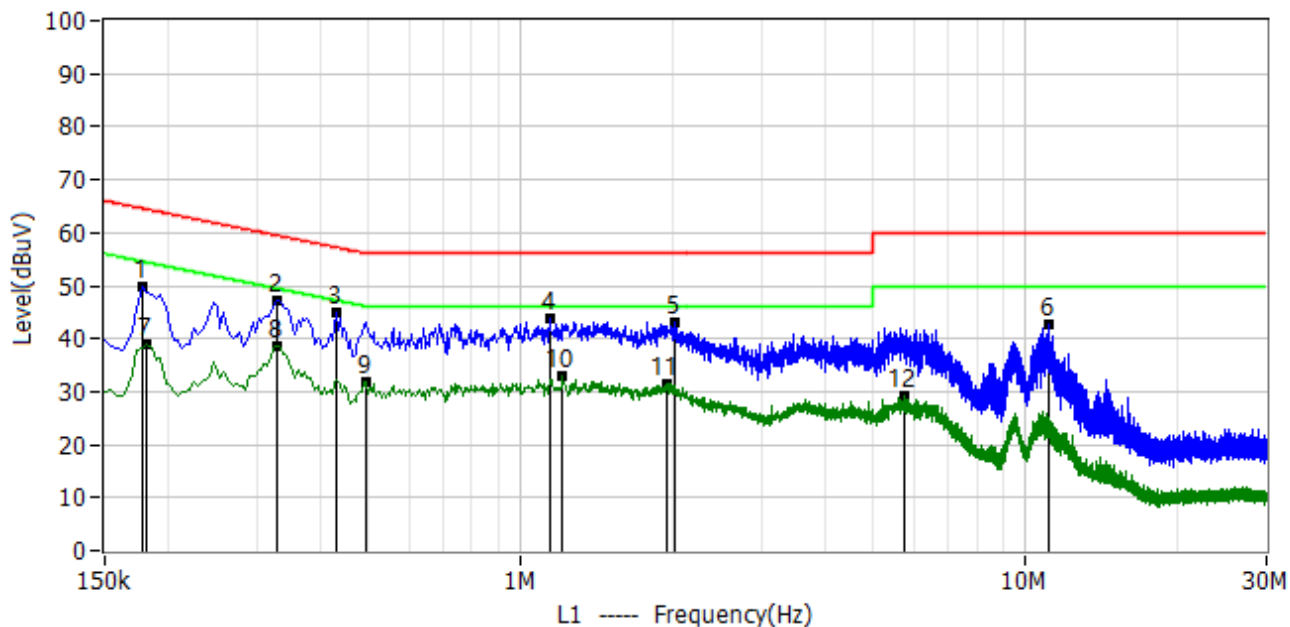
3.1.4 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.



3.1.5 TEST RESULTS

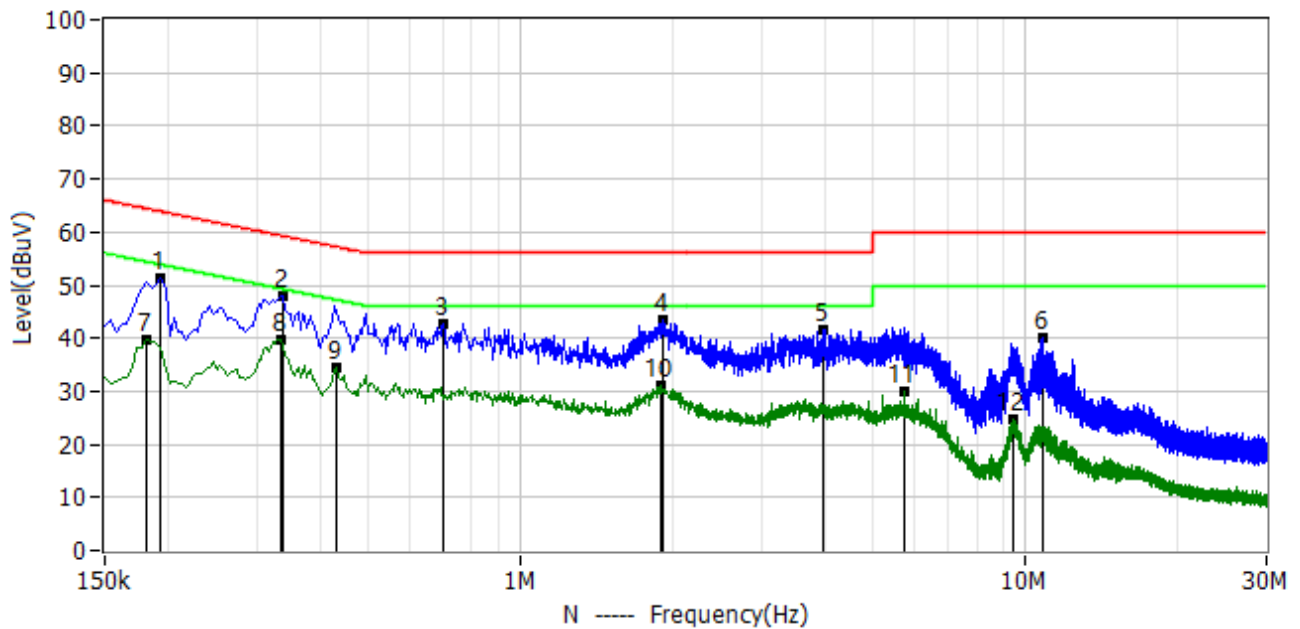
Project: LGT25G315	Test Engineer: LiuH
EUT: Oakford Pellet Grills	Temperature: 25.2°C
M/N: 910-0509	Humidity: 45%RH
Test Voltage: AC 120V/60Hz	Test Data: 2025-08-12
Test Mode: TX BLE 2402	
Note:	



No.	Frequency MHz	Reading dBuV	Factor dB	Level dBuV	Limit dBuV	Margin dB	Detector	Polar
1*	0.178	39.01	10.66	49.67	64.58	-14.91	QP	L1
2*	0.330	36.19	10.86	47.05	59.45	-12.40	QP	L1
3*	0.430	34.25	10.88	45.13	57.25	-12.12	QP	L1
4*	1.138	32.87	10.95	43.82	56.00	-12.18	QP	L1
5*	2.010	32.02	11.09	43.11	56.00	-12.89	QP	L1
6*	11.082	31.09	11.55	42.64	60.00	-17.36	QP	L1
7*	0.182	28.46	10.67	39.13	54.39	-15.27	AV	L1
8*	0.330	27.80	10.86	38.66	49.45	-10.79	AV	L1
9*	0.494	21.09	10.92	32.01	46.10	-14.09	AV	L1
10*	1.210	21.85	11.01	32.86	46.00	-13.14	AV	L1
11*	1.942	20.38	11.10	31.48	46.00	-14.52	AV	L1
12*	5.750	17.84	11.36	29.20	50.00	-20.80	AV	L1



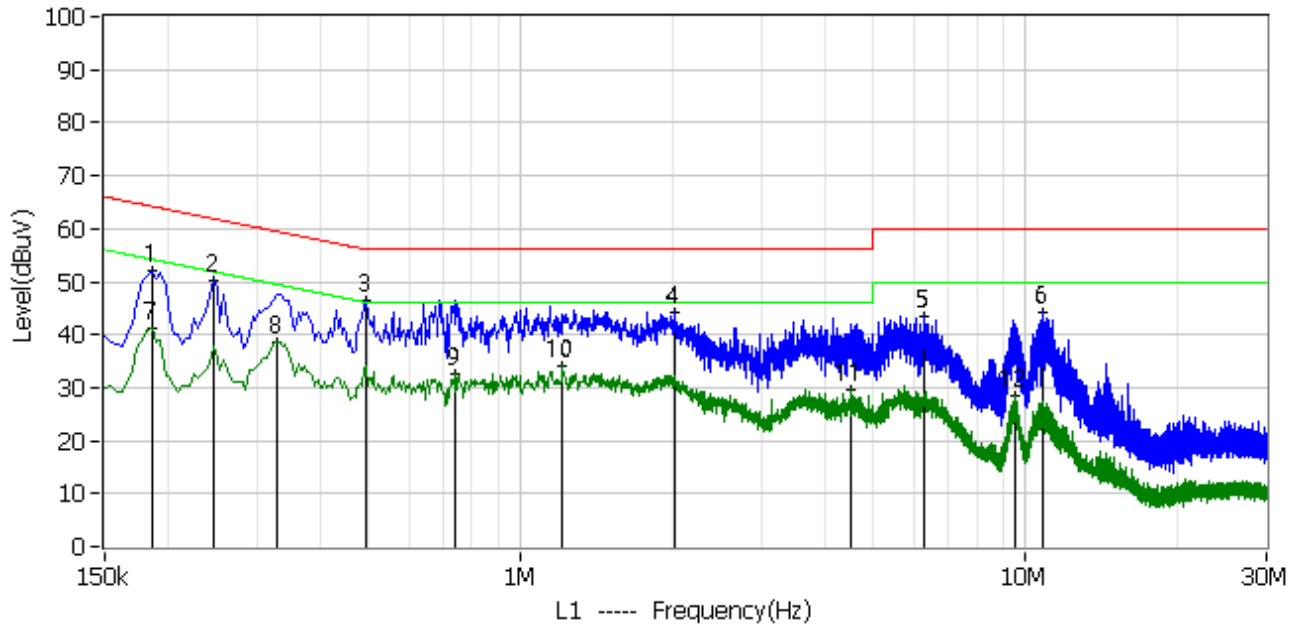
Project: LGT25G315	Test Engineer: LiuH
EUT: Oakford Pellet Grills	Temperature: 25.2°C
M/N: 910-0509	Humidity: 45%RH
Test Voltage: AC 120V/60Hz	Test Data: 2025-08-12
Test Mode: TX BLE 2402	
Note:	



No.	Frequency MHz	Reading dBuV	Factor dB	Level dBuV	Limit dBuV	Margin dB	Detector	Polar
1*	0.194	40.81	10.68	51.49	63.86	-12.37	QP	N
2*	0.338	37.28	10.80	48.08	59.25	-11.18	QP	N
3*	0.702	31.75	10.85	42.60	56.00	-13.40	QP	N
4*	1.918	32.28	11.13	43.41	56.00	-12.59	QP	N
5*	3.958	30.40	11.27	41.67	56.00	-14.33	QP	N
6*	10.822	28.56	11.52	40.08	60.00	-19.92	QP	N
7*	0.182	29.10	10.65	39.75	54.39	-14.64	AV	N
8*	0.334	29.04	10.80	39.84	49.35	-9.51	AV	N
9*	0.430	23.79	10.82	34.61	47.25	-12.65	AV	N
10*	1.890	19.85	11.13	30.98	46.00	-15.02	AV	N
11*	5.754	18.66	11.35	30.01	50.00	-19.99	AV	N
12*	9.442	13.15	11.48	24.63	50.00	-25.37	AV	N



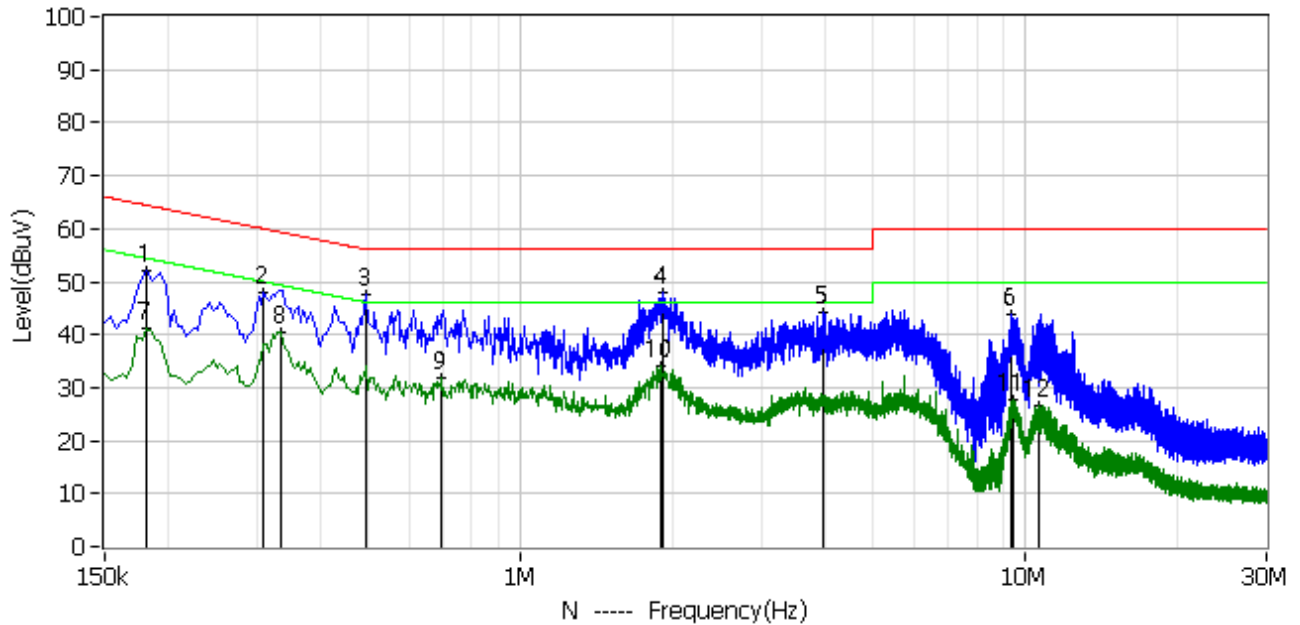
Project: LGT25G315	Test Engineer: LiuH
EUT: Oakford Pellet Grills	Temperature: 25.2°C
M/N: 910-0508	Humidity: 45%RH
Test Voltage: AC 120V/60Hz	Test Data: 2025-09-12
Test Mode: TX BLE 2402	
Note:	



No.	Frequency MHz	Reading dBuV	Factor dB	Result dBuV	Limit dBuV	Margin dB	Detector	Polar
1*	0.186	41.50	10.68	52.18	64.21	-12.03	QP	L1
2*	0.246	39.42	10.79	50.21	61.89	-11.68	QP	L1
3*	0.494	35.49	10.92	46.41	56.10	-9.69	QP	L1
4*	2.010	33.21	11.09	44.30	56.00	-11.70	QP	L1
5*	6.310	32.08	11.38	43.46	60.00	-16.54	QP	L1
6*	10.846	32.62	11.54	44.16	60.00	-15.84	QP	L1
7*	0.186	30.53	10.68	41.21	54.21	-13.00	AV	L1
8*	0.330	27.82	10.86	38.68	49.45	-10.77	AV	L1
9*	0.738	21.92	10.85	32.77	46.00	-13.23	AV	L1
10*	1.210	22.89	11.01	33.90	46.00	-12.10	AV	L1
11*	4.526	18.40	11.28	29.68	46.00	-16.32	AV	L1
12*	9.566	17.06	11.49	28.55	50.00	-21.45	AV	L1



Project: LGT25G315	Test Engineer: LiuH
EUT: Oakford Pellet Grills	Temperature: 25.2°C
M/N: 910-0508	Humidity: 45%RH
Test Voltage: AC 120V/60Hz	Test Data: 2025-09-12
Test Mode: TX BLE 2402	
Note:	



No.	Frequency MHz	Reading dBuV	Factor dB	Result dBuV	Limit dBuV	Margin dB	Detector	Polar
1*	0.182	41.39	10.65	52.04	64.39	-12.35	QP	N
2*	0.310	37.33	10.77	48.10	59.97	-11.87	QP	N
3*	0.494	36.56	10.84	47.40	56.10	-8.70	QP	N
4*	1.918	36.97	11.13	48.10	56.00	-7.90	QP	N
5*	3.958	32.75	11.27	44.02	56.00	-11.98	QP	N
6*	9.374	32.40	11.48	43.88	60.00	-16.12	QP	N
7*	0.182	30.70	10.65	41.35	54.39	-13.04	AV	N
8*	0.334	29.71	10.80	40.51	49.35	-8.84	AV	N
9*	0.698	20.94	10.85	31.79	46.00	-14.21	AV	N
10*	1.890	22.91	11.13	34.04	46.00	-11.96	AV	N
11*	9.442	16.37	11.48	27.85	50.00	-22.15	AV	N
12*	10.630	15.20	11.52	26.72	50.00	-23.28	AV	N



3.2 RADIATED EMISSION MEASUREMENT

3.2.1 RADIATED EMISSION LIMITS

In case the emission fall within the Restricted band specified on Part15.205 (a)&209(a) limit in the table and according to ANSI C63.10-2020/Cor 1-2023 below has to be followed.

LIMITS OF RADIATED EMISSION MEASUREMENT (0.009MHz - 1000MHz)

Frequencies (MHz)	Field Strength (micovolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

LIMITS OF RADIATED EMISSION MEASUREMENT (1GHz-25 GHz)

FREQUENCY (MHz)	(dBuV/m) (at 3M)	
	PEAK	AVERAGE
Above 1000	74	54

Notes:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

LIMITS OF RESTRICTED FREQUENCY BANDS

FREQUENCY (MHz)	FREQUENCY (MHz)	FREQUENCY (MHz)	FREQUENCY (GHz)
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	Above 38.6
13.36-13.41			



For Radiated Emission

Spectrum Parameter	Setting
Attenuation	Auto
Detector	Peak/QP/AV
Start Frequency	9 KHz/150KHz (Peak/QP/AV)
Stop Frequency	150KHz/30MHz (Peak/QP/AV)
RB / VB (emission in restricted band)	200Hz (From 9kHz to 0.15MHz)/ 9KHz (From 0.15MHz to 30MHz); 200Hz (From 9kHz to 0.15MHz)/ 9KHz (From 0.15MHz to 30MHz)

Spectrum Parameter	Setting
Attenuation	Auto
Detector	Peak/QP
Start Frequency	30 MHz (Peak/QP)
Stop Frequency	1000 MHz (Peak/QP)
RB / VB (emission in restricted band)	120 KHz / 300 KHz

Spectrum Parameter	Setting
Attenuation	Auto
Detector	Peak
Start Frequency	1000 MHz (Peak/AV)
Stop Frequency	10th carrier hamonic (Peak/AV)
RB / VB (emission in restricted band)	1 MHz / 3 MHz(Peak) 1 MHz/1/T MHz(AVG)

For Restricted band

Spectrum Parameter	Setting
Detector	Peak
Start/Stop Frequency	Lower Band Edge: 2310 to 2410 MHz Upper Band Edge: 2475 to 2500 MHz
RB / VB	1 MHz / 3 MHz(Peak) 1 MHz/1/T MHz(AVG)

Receiver Parameter	Setting
Start ~ Stop Frequency	9kHz~90kHz / RB 200Hz for PK & AV
Start ~ Stop Frequency	90kHz~110kHz / RB 200Hz for QP
Start ~ Stop Frequency	110kHz~490kHz / RB 200Hz for PK & AV
Start ~ Stop Frequency	490kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP



3.2.2 TEST PROCEDURE

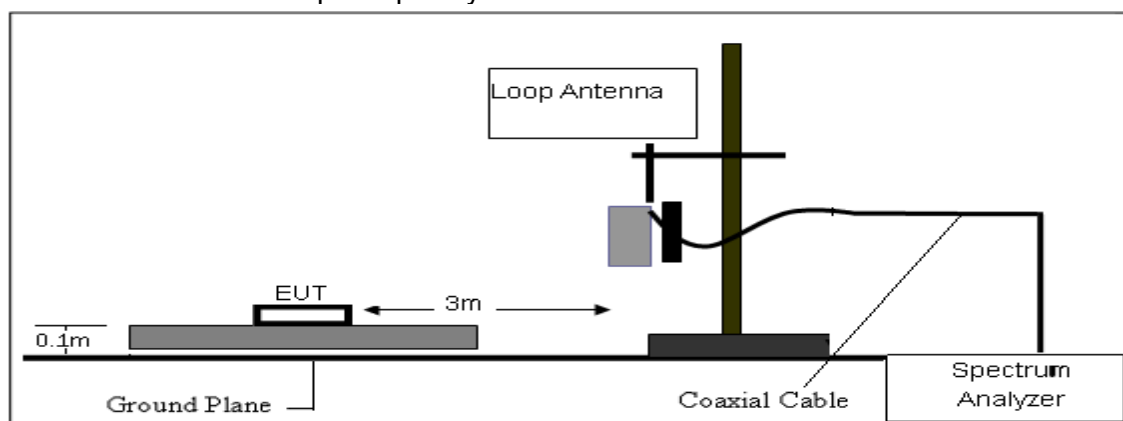
- a. The measuring distance at 3 m shall be used for measurements at frequency 0.009MHz up to 1GHz, and above 1GHz.
- b. The EUT was placed on the top of a rotating table 0.1 m (above 1GHz is 0.1 m) above the ground at a 3 m anechoic chamber test site. The table was rotated 360 degree to determine the position of the highest radiation.
- c. The height of the equipment shall be 0.1 m (above 1GHz is 0.1 m); the height of the test antenna shall vary between 1 m to 4 m. Horizontal and vertical polarization of the antenna are set to make the measurement.
- d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and QuasiPeak detector mode will be re-measured.
- e. If the Peak Mode measured value is compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and no additional QP Mode measurement was performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

Note:

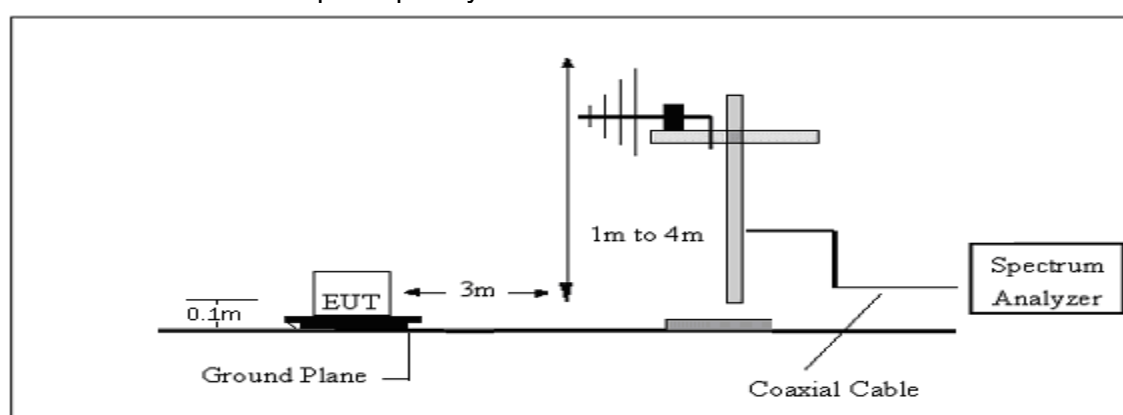
Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported.

3.2.3 TEST SETUP

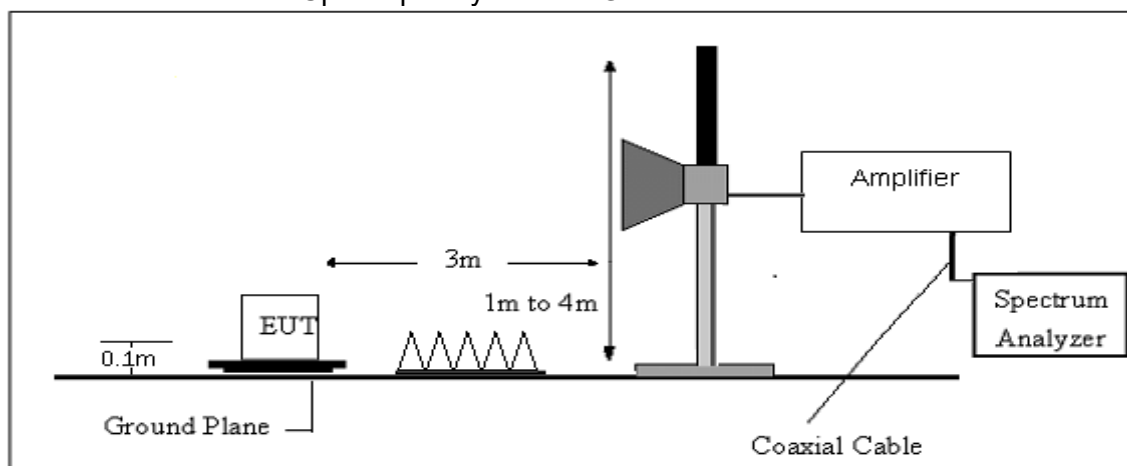
(A) Radiated Emission Test-Up Frequency Below 30MHz



(B) Radiated Emission Test-Up Frequency 30MHz~1GHz



(C) Radiated Emission Test-Up Frequency Above 1GHz



3.2.4 EUT OPERATING CONDITIONS

Please refer to section 3.4 of this report.



3.2.5 FIELD STRENGTH CALCULATION

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$FS = RA + AF + CL - AG$$

Where

FS = Field Strength

CL = Cable Attenuation Factor (Cable Loss)

RA = Reading Amplitude

AG = Amplifier Gain

AF = Antenna Factor

For example

Frequency	FS	RA	AF	CL	AG	Factor
(MHz)	(dBμV/m)	(dBμV/m)	(dB)	(dB)	(dB)	(dB)
300	40	58.1	12.2	1.6	31.9	-18.1

$$\text{Factor} = \text{AF} + \text{CL} - \text{AG}$$



3.2.6 TEST RESULTS

Results of Radiated Emissions (9 KHz~30MHz)

No.	Frequency	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Remark
1*	-	-	-	-	-	-	-	See Note

Note:

The emission from 9 kHz to 30MHz was pre-tested and found the result was 20dB lower than the limit, and the permissible value has no need to be reported.

Distance extrapolation factor = $40 \log (\text{specific distance} / \text{test distance})$ (dB);

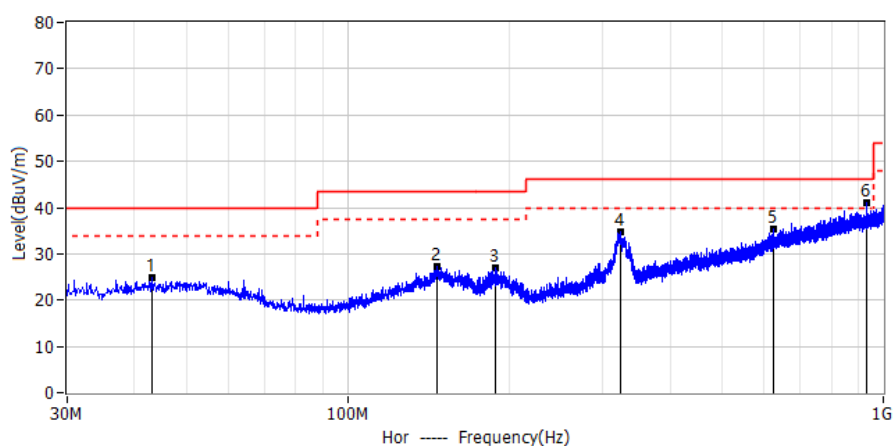
Limit line = specific limits (dBuV) + distance extrapolation factor.



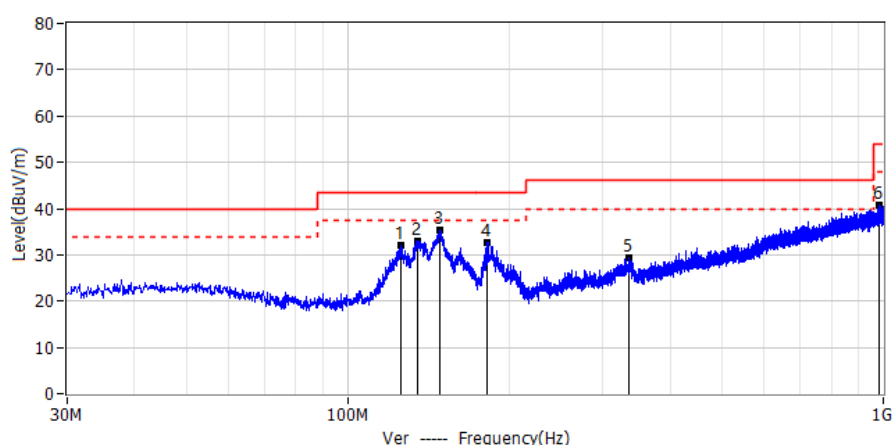
Results of Radiated Emissions (30MHz~1000MHz)

Note: 1. All mode has been tested, only shown the worst case data,
2. The peak value is less than the AV limit, so no AV data is displayed.

Project: LGT25G315	Test Engineer: LiuH
EUT: Oakford Pellet Grills	Temperature: 24.1°C
M/N: 910-0509	Humidity: 52%RH
Test Voltage: AC 120V/60Hz	Test Data: 2025-08-15
Test Mode: TX BLE 2402	
Note:	



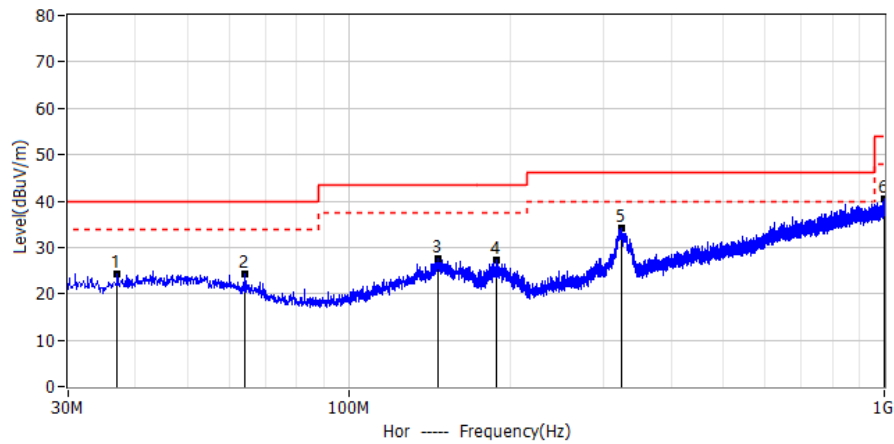
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	43.095	3.71	21.06	24.77	40.00	-15.23	QP	Hor
2*	147.370	5.23	21.97	27.20	43.50	-16.30	QP	Hor
3*	188.474	8.12	18.70	26.82	43.50	-16.68	QP	Hor
4*	323.425	11.85	22.84	34.69	46.00	-11.31	QP	Hor
5*	624.004	5.39	29.96	35.35	46.00	-10.65	QP	Hor
6*	928.341	6.72	34.45	41.17	46.00	-4.83	QP	Hor



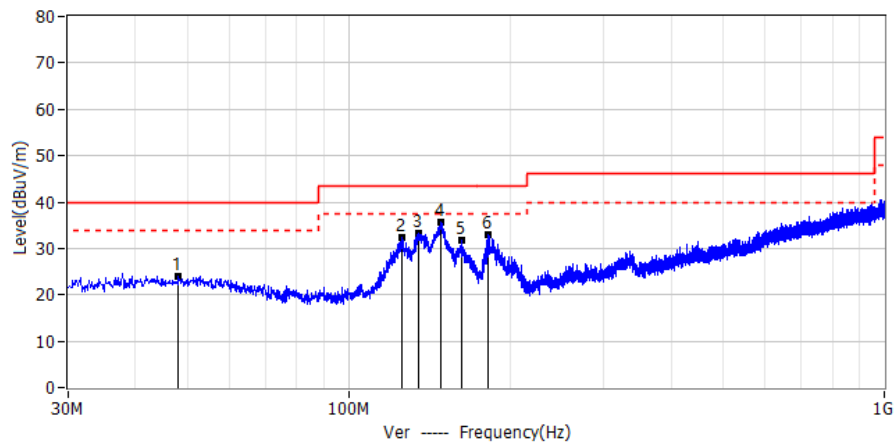
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	125.909	11.97	20.16	32.13	43.50	-11.37	QP	Ver
2*	135.003	11.98	21.09	33.07	43.50	-10.43	QP	Ver
3*	148.946	13.47	21.98	35.45	43.50	-8.05	QP	Ver
4*	182.654	13.33	19.45	32.78	43.50	-10.72	QP	Ver
5*	334.580	6.04	23.46	29.50	46.00	-16.50	QP	Ver
6*	983.753	5.29	35.41	40.70	54.00	-13.30	QP	Ver



Project: LGT25G315	Test Engineer: LiuH
EUT: Oakford Pellet Grills	Temperature: 24.1°C
M/N: 910-0508	Humidity: 52%RH
Test Voltage: AC 120V/60Hz	Test Data: 2025-09-11
Test Mode: TX BLE 2402	
Note:	



No.	Frequency MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	37.033	4.23	20.09	24.32	40.00	-15.68	QP	Hor
2*	64.071	5.12	19.25	24.37	40.00	-15.63	QP	Hor
3*	147.370	5.73	21.97	27.70	43.50	-15.80	QP	Hor
4*	189.311	8.59	18.70	27.29	43.50	-16.21	QP	Hor
5*	323.425	11.27	22.84	34.11	46.00	-11.89	QP	Hor
6*	998.303	5.31	35.19	40.50	54.00	-13.50	QP	Hor

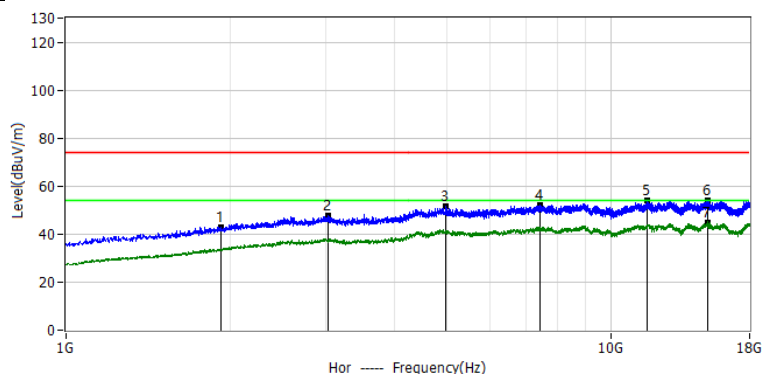


No.	Frequency MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	48.188	3.42	20.62	24.04	40.00	-15.96	QP	Ver
2*	126.103	12.09	20.16	32.25	43.50	-11.25	QP	Ver
3*	135.212	12.19	21.09	33.28	43.50	-10.22	QP	Ver
4*	149.325	13.58	21.98	35.56	43.50	-7.94	QP	Ver
5*	162.769	10.03	21.60	31.63	43.50	-11.87	QP	Ver
6*	183.751	13.62	19.45	33.07	43.50	-10.43	QP	Ver

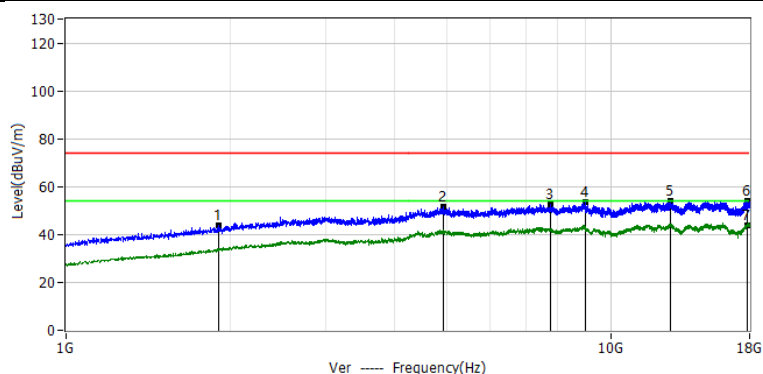


Results of Radiated Emissions (Above 1000MHz)

Project: LGT25G315	Test Engineer: LiuH
EUT: Oakford Pellet Grills	Temperature: 25.6°C
M/N: 910-0509	Humidity: 52%RH
Test Voltage: AC 120V/60Hz	Test Data: 2025-08-20
Test Mode: BLE 2402	
Note:	



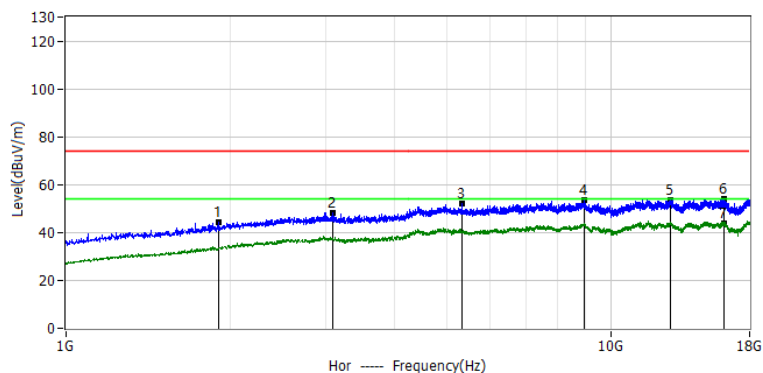
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1928.6000	58.62	-15.64	42.98	74.00	-31.02	PK	Hor
2*	3020.9000	55.89	-8.13	47.76	74.00	-26.24	PK	Hor
3*	4990.7000	57.51	-6.00	51.51	74.00	-22.49	PK	Hor
4*	7413.2000	59.04	-7.01	52.03	74.00	-21.97	PK	Hor
5*	11680.2000	58.95	-4.98	53.97	74.00	-20.03	PK	Hor
6*	15105.7000	57.98	-3.76	54.22	74.00	-19.78	PK	Hor
7*	1928.6000	58.62	-15.64	42.98	54.00	-11.02	AV	Hor
8*	3020.9000	55.89	-8.13	47.76	54.00	-6.24	AV	Hor
9*	4990.7000	57.51	-6.00	51.51	54.00	-2.49	AV	Hor
10*	7413.2000	59.04	-7.01	52.03	54.00	-1.97	AV	Hor
11*	11680.2000	58.95	-4.98	53.97	54.00	-0.03	AV	Hor
12*	15105.7000	48.76	-3.76	45.00	54.00	-9.00	AV	Hor



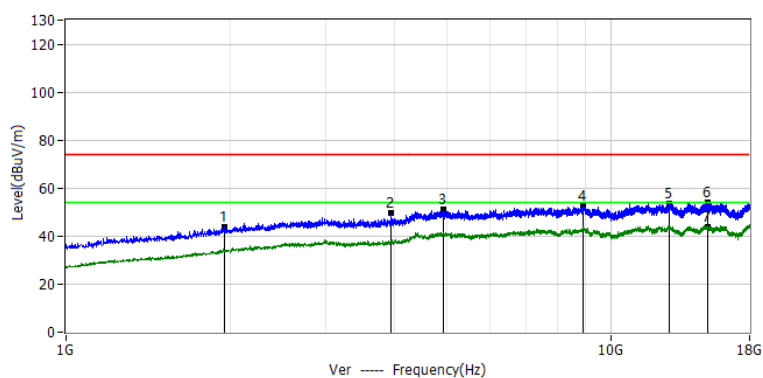
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1909.5000	59.78	-15.87	43.91	74.00	-30.09	PK	Ver
2*	4918.5000	57.37	-5.94	51.43	74.00	-22.57	PK	Ver
3*	7736.2000	60.25	-7.46	52.79	74.00	-21.21	PK	Ver
4*	8973.0000	60.38	-7.03	53.35	74.00	-20.65	PK	Ver
5*	12870.2000	58.85	-4.89	53.96	74.00	-20.04	PK	Ver
6*	17842.7000	57.57	-3.29	54.28	74.00	-19.72	PK	Ver
7*	1909.5000	59.78	-15.87	43.91	54.00	-10.09	AV	Ver
8*	4918.5000	57.37	-5.94	51.43	54.00	-2.57	AV	Ver
9*	7736.2000	60.25	-7.46	52.79	54.00	-1.21	AV	Ver
10*	8973.0000	60.38	-7.03	53.35	54.00	-0.65	AV	Ver
11*	12870.2000	58.85	-4.89	53.96	54.00	-0.04	AV	Ver
12*	17842.7000	47.09	-3.29	43.80	54.00	-10.20	AV	Ver



Project: LGT25G315	Test Engineer: LiuH
EUT: Oakford Pellet Grills	Temperature: 25.6°C
M/N: 910-0509	Humidity: 52%RH
Test Voltage: AC 120V/60Hz	Test Data: 2025-08-20
Test Mode: BLE 2440	
Note:	



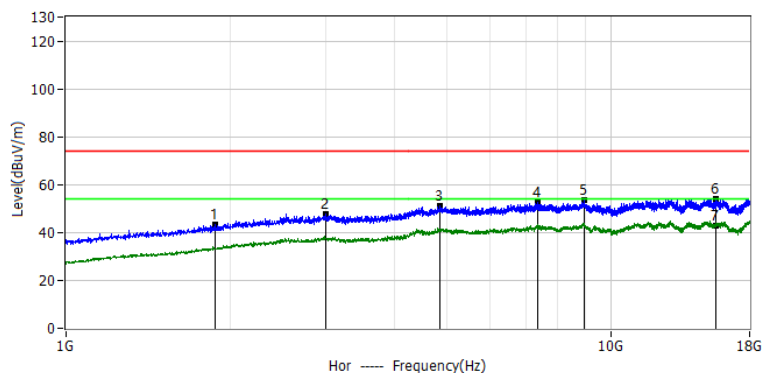
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1905.2000	60.01	-15.92	44.09	74.00	-29.91	PK	Hor
2*	3095.2000	56.37	-8.16	48.21	74.00	-25.79	PK	Hor
3*	5335.0000	59.16	-7.27	51.89	74.00	-22.11	PK	Hor
4*	8932.6000	60.69	-7.07	53.62	74.00	-20.38	PK	Hor
5*	12866.0000	58.56	-4.89	53.67	74.00	-20.33	PK	Hor
6*	16149.1000	58.16	-4.14	54.02	74.00	-19.98	PK	Hor
7*	1905.2000	60.01	-15.92	44.09	54.00	-9.91	AV	Hor
8*	3095.2000	56.37	-8.16	48.21	54.00	-5.79	AV	Hor
9*	5335.0000	59.16	-7.27	51.89	54.00	-2.11	AV	Hor
10*	8932.6000	60.69	-7.07	53.62	54.00	-0.38	AV	Hor
11*	12866.0000	58.56	-4.89	53.67	54.00	-0.33	AV	Hor
12*	16149.1000	47.84	-4.14	43.70	54.00	-10.30	AV	Hor



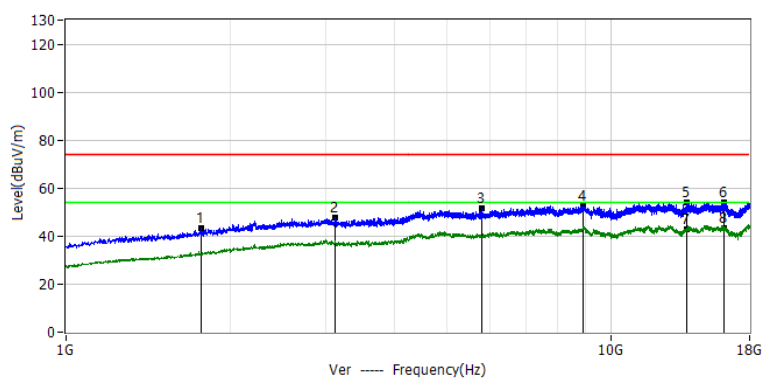
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1949.9000	59.28	-15.38	43.90	74.00	-30.10	PK	Ver
2*	3947.4000	57.19	-7.75	49.44	74.00	-24.56	PK	Ver
3*	4927.0000	56.89	-5.95	50.94	74.00	-23.06	PK	Ver
4*	8902.9000	59.79	-7.10	52.69	74.00	-21.31	PK	Ver
5*	12810.7000	58.54	-4.89	53.65	74.00	-20.35	PK	Ver
6*	15048.4000	58.03	-3.78	54.25	74.00	-19.75	PK	Ver
7*	1949.9000	59.28	-15.38	43.90	54.00	-10.10	AV	Ver
8*	3947.4000	57.19	-7.75	49.44	54.00	-4.56	AV	Ver
9*	4927.0000	56.89	-5.95	50.94	54.00	-3.06	AV	Ver
10*	8902.9000	59.79	-7.10	52.69	54.00	-1.31	AV	Ver
11*	12810.7000	58.54	-4.89	53.65	54.00	-0.35	AV	Ver
12*	15048.4000	47.78	-3.78	44.00	54.00	-10.00	AV	Ver



Project: LGT25G315	Test Engineer: LiuH
EUT: Oakford Pellet Grills	Temperature: 25.6°C
M/N: 910-0509	Humidity: 52%RH
Test Voltage: AC 120V/60Hz	Test Data: 2025-08-20
Test Mode: BLE 2480	
Note:	



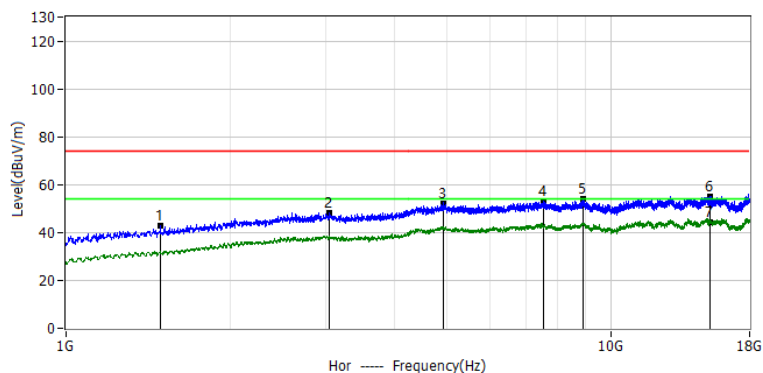
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1881.9000	59.77	-16.21	43.56	74.00	-30.44	PK	Hor
2*	3003.9000	55.79	-8.12	47.67	74.00	-26.33	PK	Hor
3*	4852.6000	56.89	-5.89	51.00	74.00	-23.00	PK	Hor
4*	7345.2000	59.44	-7.02	52.42	74.00	-21.58	PK	Hor
5*	8934.7000	60.84	-7.06	53.78	74.00	-20.22	PK	Hor
6*	15622.1000	57.88	-3.62	54.26	74.00	-19.74	PK	Hor
7*	1881.9000	59.77	-16.21	43.56	54.00	-10.44	AV	Hor
8*	3003.9000	55.79	-8.12	47.67	54.00	-6.33	AV	Hor
9*	4852.6000	56.89	-5.89	51.00	54.00	-3.00	AV	Hor
10*	7345.2000	59.44	-7.02	52.42	54.00	-1.58	AV	Hor
11*	8934.7000	60.84	-7.06	53.78	54.00	-0.22	AV	Hor
12*	15622.1000	46.42	-3.62	42.80	54.00	-11.20	AV	Hor



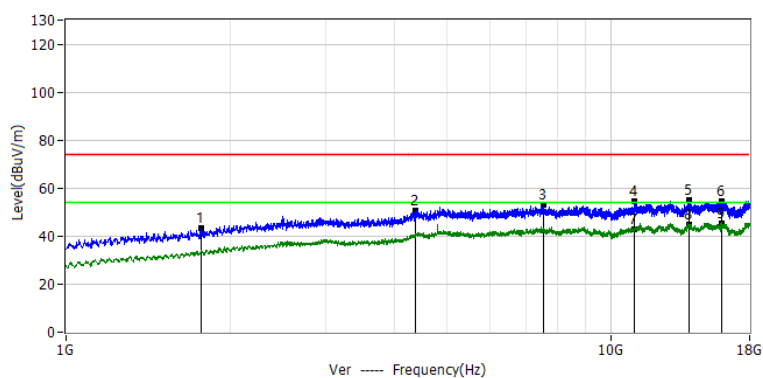
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1767.1000	60.80	-17.59	43.21	74.00	-30.79	PK	Ver
2*	3116.5000	55.75	-8.16	47.59	74.00	-26.41	PK	Ver
3*	5787.6000	59.40	-7.94	51.46	74.00	-22.54	PK	Ver
4*	8922.0000	59.74	-7.08	52.66	74.00	-21.34	PK	Ver
5*	13828.6000	58.61	-4.58	54.03	74.00	-19.97	PK	Ver
6*	16178.9000	58.33	-4.26	54.07	74.00	-19.93	PK	Ver
7*	1767.1000	60.80	-17.59	43.21	54.00	-10.79	AV	Ver
8*	3116.5000	55.75	-8.16	47.59	54.00	-6.41	AV	Ver
9*	5787.6000	59.40	-7.94	51.46	54.00	-2.54	AV	Ver
10*	8922.0000	59.74	-7.08	52.66	54.00	-1.34	AV	Ver
11*	13828.6000	47.58	-4.58	43.00	54.00	-11.00	AV	Ver
12*	16178.9000	47.66	-4.26	43.40	54.00	-10.60	AV	Ver



Project: LGT25G315	Test Engineer: LiuH
EUT: Oakford Pellet Grills	Temperature: 25.6°C
M/N: 910-0508	Humidity: 52%RH
Test Voltage: AC 120V/60Hz	Test Data: 2025-08-21
Test Mode: BLE 2402	
Note:	



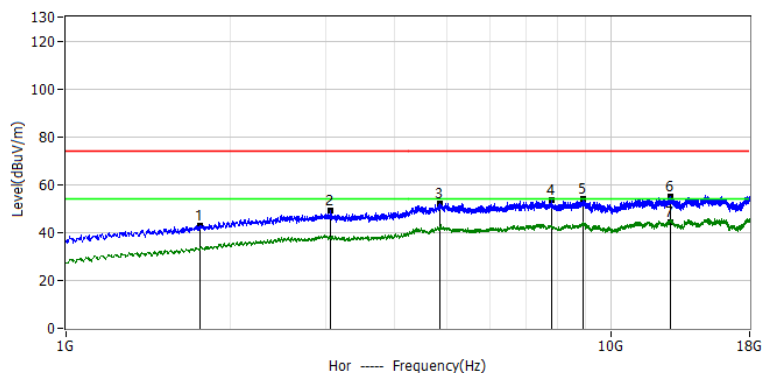
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1488.7000	63.24	-20.48	42.76	74.00	-31.24	PK	Hor
2*	3044.2000	56.58	-8.14	48.44	74.00	-25.56	PK	Hor
3*	4929.1000	58.29	-5.95	52.34	74.00	-21.66	PK	Hor
4*	7547.1000	59.99	-7.08	52.91	74.00	-21.09	PK	Hor
5*	8902.9000	61.01	-7.10	53.91	74.00	-20.09	PK	Hor
6*	15214.1000	58.97	-3.73	55.24	74.00	-18.76	PK	Hor
7*	1488.7000	63.24	-20.48	42.76	54.00	-11.24	AV	Hor
8*	3044.2000	56.58	-8.14	48.44	54.00	-5.56	AV	Hor
9*	4929.1000	58.29	-5.95	52.34	54.00	-1.66	AV	Hor
10*	7547.1000	59.99	-7.08	52.91	54.00	-1.09	AV	Hor
11*	8902.9000	61.01	-7.10	53.91	54.00	-0.09	AV	Hor
12*	15214.1000	48.23	-3.73	44.50	54.00	-9.50	AV	Hor



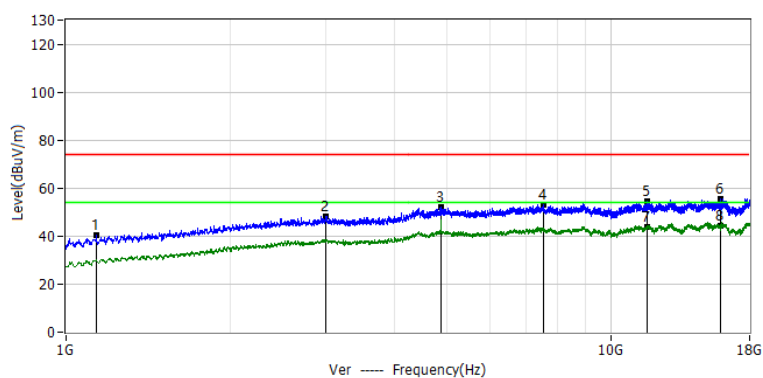
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1769.2000	60.88	-17.56	43.32	74.00	-30.68	PK	Ver
2*	4383.0000	56.81	-6.09	50.72	74.00	-23.28	PK	Ver
3*	7519.5000	60.20	-7.03	53.17	74.00	-20.83	PK	Ver
4*	11081.0000	59.84	-5.09	54.75	74.00	-19.25	PK	Ver
5*	13966.7000	58.90	-4.03	54.87	74.00	-19.13	PK	Ver
6*	15977.0000	58.12	-3.52	54.60	74.00	-19.40	PK	Ver
7*	1769.2000	60.88	-17.56	43.32	54.00	-10.68	AV	Ver
8*	4383.0000	56.81	-6.09	50.72	54.00	-3.28	AV	Ver
9*	7519.5000	60.20	-7.03	53.17	54.00	-0.83	AV	Ver
10*	11081.0000	48.09	-5.09	43.00	54.00	-11.00	AV	Ver
11*	13966.7000	48.83	-4.03	44.80	54.00	-9.20	AV	Ver
12*	15977.0000	48.62	-3.52	45.10	54.00	-8.90	AV	Ver



Project: LGT25G315	Test Engineer: LiuH
EUT: Oakford Pellet Grills	Temperature: 25.6°C
M/N: 910-0508	Humidity: 52%RH
Test Voltage: AC 120V/60Hz	Test Data: 2025-08-21
Test Mode: BLE 2440	
Note:	



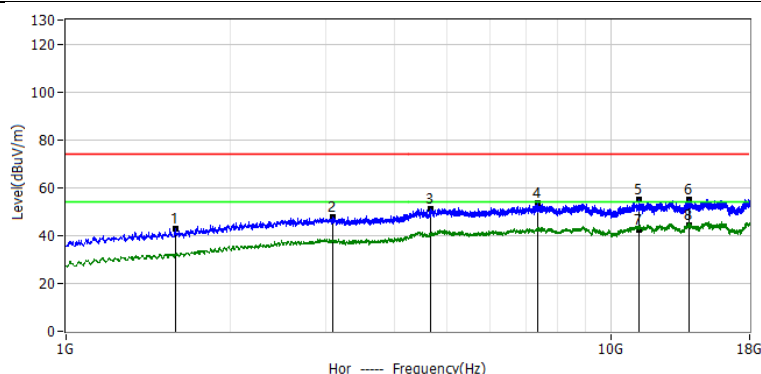
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1765.0000	60.62	-17.61	43.01	74.00	-30.99	PK	Hor
2*	3054.9000	57.17	-8.14	49.03	74.00	-24.97	PK	Hor
3*	4863.2000	57.92	-5.90	52.02	74.00	-21.98	PK	Hor
4*	7776.6000	61.10	-7.54	53.56	74.00	-20.44	PK	Hor
5*	8900.7000	61.07	-7.10	53.97	74.00	-20.03	PK	Hor
6*	12849.0000	59.78	-4.89	54.89	74.00	-19.11	PK	Hor
7*	1765.0000	60.62	-17.61	43.01	54.00	-10.99	AV	Hor
8*	3054.9000	57.17	-8.14	49.03	54.00	-4.97	AV	Hor
9*	4863.2000	57.92	-5.90	52.02	54.00	-1.98	AV	Hor
10*	7776.6000	61.10	-7.54	53.56	54.00	-0.44	AV	Hor
11*	8900.7000	61.07	-7.10	53.97	54.00	-0.03	AV	Hor
12*	12849.0000	49.19	-4.89	44.30	54.00	-9.70	AV	Hor



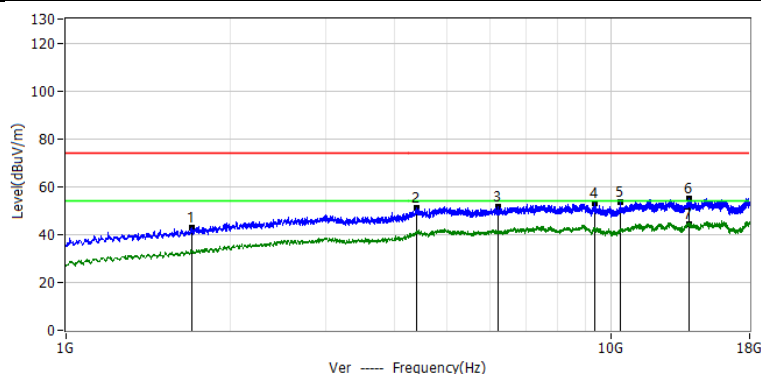
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1136.0000	64.19	-23.84	40.35	74.00	-33.65	PK	Ver
2*	3003.9000	56.42	-8.12	48.30	74.00	-25.70	PK	Ver
3*	4880.2000	57.93	-5.91	52.02	74.00	-21.98	PK	Ver
4*	7517.4000	60.17	-7.02	53.15	74.00	-20.85	PK	Ver
5*	11684.5000	59.31	-4.98	54.33	74.00	-19.67	PK	Ver
6*	15940.9000	59.13	-3.53	55.60	74.00	-18.40	PK	Ver
7*	1136.0000	64.19	-23.84	40.35	54.00	-13.65	AV	Ver
8*	3003.9000	56.42	-8.12	48.30	54.00	-5.70	AV	Ver
9*	4880.2000	57.93	-5.91	52.02	54.00	-1.98	AV	Ver
10*	7517.4000	60.17	-7.02	53.15	54.00	-0.85	AV	Ver
11*	11684.5000	48.98	-4.98	44.00	54.00	-10.00	AV	Ver
12*	15940.9000	47.73	-3.53	44.20	54.00	-9.80	AV	Ver



Project: LGT25G315	Test Engineer: LiuH
EUT: Oakford Pellet Grills	Temperature: 25.6°C
M/N: 910-0508	Humidity: 52%RH
Test Voltage: AC 120V/60Hz	Test Data: 2025-08-21
Test Mode: BLE 2480	
Note:	



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1586.5000	62.70	-19.65	43.05	74.00	-30.95	PK	Hor
2*	3091.0000	55.70	-8.15	47.55	74.00	-26.45	PK	Hor
3*	4661.4000	56.99	-5.73	51.26	74.00	-22.74	PK	Hor
4*	7364.4000	60.42	-7.02	53.40	74.00	-20.60	PK	Hor
5*	11261.6000	60.28	-5.06	55.22	74.00	-18.78	PK	Hor
6*	13937.0000	59.09	-4.15	54.94	74.00	-19.06	PK	Hor
7*	1586.5000	62.70	-19.65	43.05	54.00	-10.95	AV	Hor
8*	3091.0000	55.70	-8.15	47.55	54.00	-6.45	AV	Hor
9*	4661.4000	56.99	-5.73	51.26	54.00	-2.74	AV	Hor
10*	7364.4000	60.42	-7.02	53.40	54.00	-0.60	AV	Hor
11*	11261.6000	47.46	-5.06	42.40	54.00	-11.60	AV	Hor
12*	13937.0000	48.45	-4.15	44.30	54.00	-9.70	AV	Hor



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1699.1000	61.08	-18.38	42.70	74.00	-31.30	PK	Ver
2*	4404.2000	57.34	-6.00	51.34	74.00	-22.66	PK	Ver
3*	6206.2000	59.57	-7.78	51.79	74.00	-22.21	PK	Ver
4*	9340.6000	60.37	-7.11	53.26	74.00	-20.74	PK	Ver
5*	10437.1000	59.94	-6.36	53.58	74.00	-20.42	PK	Ver
6*	13943.4000	59.04	-4.13	54.91	74.00	-19.09	PK	Ver
7*	1699.1000	61.08	-18.38	42.70	54.00	-11.30	AV	Ver
8*	4404.2000	57.34	-6.00	51.34	54.00	-2.66	AV	Ver
9*	6206.2000	59.57	-7.78	51.79	54.00	-2.21	AV	Ver
10*	9340.6000	60.37	-7.11	53.26	54.00	-0.74	AV	Ver
11*	10437.1000	59.94	-6.36	53.58	54.00	-0.42	AV	Ver
12*	13943.4000	48.63	-4.13	44.50	54.00	-9.50	AV	Ver

Remark:

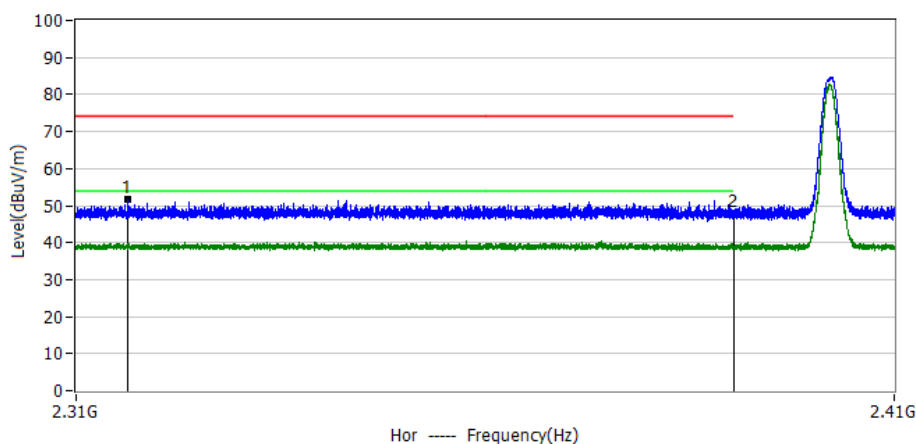
In frequency ranges above 18GHz no any other harmonic emissions detected which are tested to compliance with the limit. No recording in the test report. No any other emissions level which are attenuated less than 20dB below the limit. No recording in the test report.



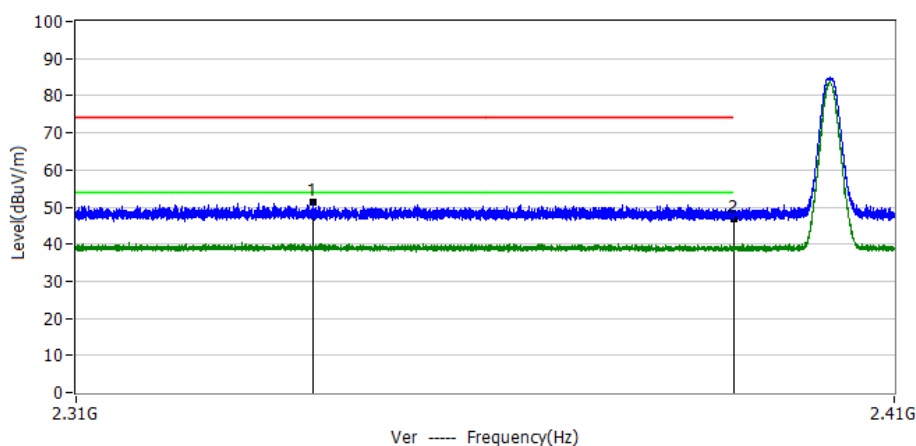
3.2.7 TEST RESULTS (BAND EDGE REQUIREMENTS)

Note: 1. All mode has been tested, only shown the worst case data,
2. The peak value is less than the AV limit, so no AV data is displayed.

Project: LGT25G315	Test Engineer: LiuH
EUT: Oakford Pellet Grills	Temperature: 25.6°C
M/N: 910-0509	Humidity: 52%RH
Test Voltage: AC 120V/60Hz	Test Data: 2025-08-20
Test Mode: BLE 1M 2402	
Note:	



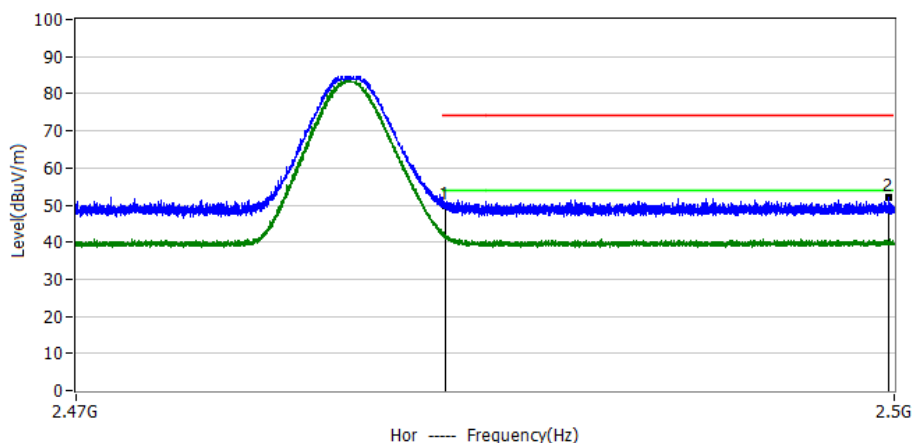
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	2316.2000	17.62	34.17	51.79	74.00	-22.21	PK	Hor
2*	2390.0000	13.90	34.10	48.00	74.00	-26.00	PK	Hor
3*	2316.2000	17.62	34.17	51.79	54.00	-2.21	AV	Hor
4*	2390.0000	13.90	34.10	48.00	54.00	-6.00	AV	Hor



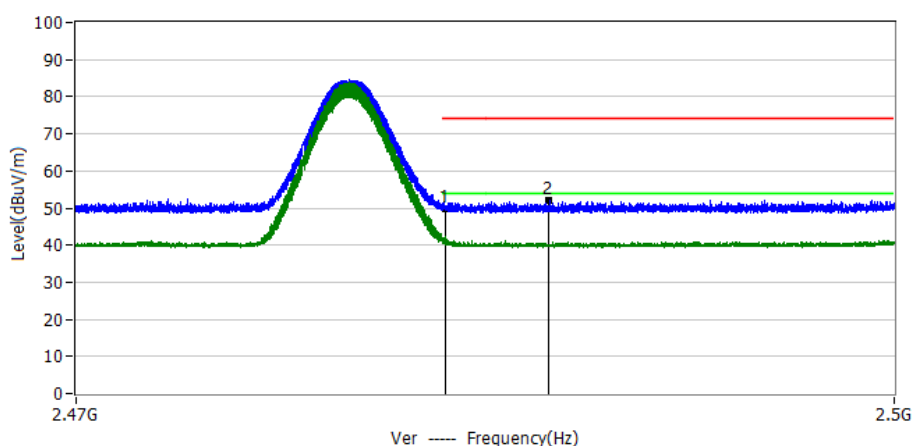
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	2338.6000	17.01	34.15	51.16	74.00	-22.84	PK	Ver
2*	2390.0000	12.70	34.10	46.80	74.00	-27.20	PK	Ver
3*	2338.6000	17.01	34.15	51.16	54.00	-2.84	AV	Ver
4*	2390.0000	12.70	34.10	46.80	54.00	-7.20	AV	Ver



Project: LGT25G315	Test Engineer: LiuH
EUT: Oakford Pellet Grills	Temperature: 25.6°C
M/N: 910-0509	Humidity: 52%RH
Test Voltage: AC 120V/60Hz	Test Data: 2025-08-20
Test Mode: BLE 1M 2480	
Note:	



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	2483.5000	15.26	34.44	49.70	74.00	-24.30	PK	Hor
2*	2499.8000	17.53	34.46	51.99	74.00	-22.01	PK	Hor
3*	2483.5000	15.26	34.44	49.70	54.00	-4.30	AV	Hor
4*	2499.8000	17.53	34.46	51.99	54.00	-2.01	AV	Hor



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	2483.5000	15.36	34.44	49.80	74.00	-24.20	PK	Ver
2*	2487.3000	17.74	34.44	52.18	74.00	-21.82	PK	Ver
3*	2483.5000	15.36	34.44	49.80	54.00	-4.20	AV	Ver
4*	2487.3000	17.74	34.44	52.18	54.00	-1.82	AV	Ver



4. CONDUCTED SPURIOUS & BAND EDGE EMISSION

4.1 LIMIT

According to FCC section 15.247(d), in any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

4.2 TEST PROCEDURE

Spectrum Parameter	Setting
Detector	Peak
Start/Stop Frequency	30 MHz to 10th carrier harmonic
RB / VB (emission in restricted band)	100 KHz/300 KHz
Trace-Mode:	Max hold

For Band edge

Spectrum Parameter	Setting
Detector	Peak
Start/Stop Frequency	Lower Band Edge: 2300 – 2407 MHz Upper Band Edge: 2475 – 2500 MHz
RB / VB (emission in restricted band)	100 KHz/300 KHz
Trace-Mode:	Max hold

4.3 TEST SETUP



The EUT which is powered by the battery, is connected to the Spectrum Analyzer; the RF load attached to the EUT antenna terminal is 50 Ohm; the path loss as the factor is calibrated to correct the reading. Make the measurement with the spectrum analyzer's resolution bandwidth(RBW) = 100 kHz. In order to make an accurate measurement, set the span greater than RBW.

5.4 EUT OPERATION CONDITIONS

Please refer to section 3.4 of this report.

5.5 TEST RESULTS

For the measurement records, refer to the appendix I.



5. POWER SPECTRAL DENSITY TEST

5.1 LIMIT

Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(e)	Power Spectral Density	$\leq 8 \text{ dBm}$ (RBW $\geq 3\text{KHz}$)	2400-2483.5	PASS

5.2 TEST PROCEDURE

1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the DTS channel bandwidth.
3. Set the RBW to: $100 \text{ kHz} \geq \text{RBW} \geq 3 \text{ kHz}$.
4. Set the VBW $\geq 3 \times \text{RBW}$.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

5.3 TEST SETUP



5.4 EUT OPERATION CONDITIONS

Please refer to section 3.4 of this report.

5.5 TEST RESULTS

For the measurement records, refer to the appendix I.



6. BANDWIDTH TEST

6.1 LIMIT

Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(a)(2)	Bandwidth	$\geq 500\text{KHz}$ (6dB bandwidth)	2400-2483.5	PASS

6.2 TEST PROCEDURE

Connect the UUT to the spectrum analyser and use the following settings:

Center Frequency	The centre frequency of the channel under test
Detector	Peak
RBW	For 6 dB Bandwidth : 100KHz For 99% Bandwidth : 1% to 5% of the occupied bandwidth
VBW	For 6dB Bandwidth : $\geq 3 \times \text{RBW}$ For 99% Bandwidth : approximately $3 \times \text{RBW}$
Trace	Max hold
Sweep	Auto

Allow the trace to stabilize and measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB and 99% relative to the maximum level measured in the fundamental emission.

6.3 TEST SETUP



6.4 EUT OPERATION CONDITIONS

Please refer to section 3.4 of this report.

6.5 TEST RESULTS

For the measurement records, refer to the appendix I.



7. PEAK OUTPUT POWER TEST

7.1 LIMIT

Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(b)(3)	Output Power	1 watt or 30dBm	2400-2483.5	PASS

7.2 TEST PROCEDURE

PKPM1 Peak power meter method:

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

7.3 TEST SETUP



7.4 EUT OPERATION CONDITIONS

Please refer to section 3.4 of this report.

7.5 TEST RESULTS

For the measurement records, refer to the appendix I.



8. DUTY CYCLE

8.1 STANDARD REQUIREMENT

When continuous transmission cannot be achieved and sweep triggering/signal gating cannot be implemented, alternate procedures are provided that can be used to measure the average power; however, they will require an additional measurement of the transmitter duty cycle. Within this guidance document, the duty cycle refers to the fraction of time over which the transmitter is on and is transmitting at its maximum power control level. The duty cycle is considered to be constant if variations are less than $\pm 2\%$, otherwise the duty cycle is considered to be non-constant.

The term “maximum power control level” is intended to distinguish between operating power levels of the EUT and differences in power levels of individual symbols that occur with some modulation types such as quadrature amplitude modulation (QAM). During testing, the EUT is not required to transmit continuously at its highest possible symbol power level. Rather, it should transmit all of the symbols and should do so at the highest power control level (*i.e.*, highest operating power level) of the EUT.

8.2 TEST PROCEDURE

Measurements of duty cycle and transmission duration shall be performed using below techniques: The zero-span mode on a spectrum analyzer or EMI receiver if the response time and spacing between bins on the sweep are sufficient to permit accurate measurements of the on- and off-times of the transmitted signal.

- 1) Set the center frequency of the instrument to the center frequency of the transmission.
- 2) Span=0Hz
- 3) Set RBW = 8MHz.
- 4) Set VBW = 8MHz.
- 5) Set detector = peak.
- 6) Trace mode = clear write.

8.3 DEVIATION FROM STANDARD

No deviation.

8.4 TEST SETUP



8.5 TEST RESULTS

For the measurement records, refer to the appendix I.



9. ANTENNA REQUIREMENT

9.1 STANDARD REQUIREMENT

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

9.2 EUT ANTENNA

The EUT antenna is PCB Antenna. It comply with the standard requirement.



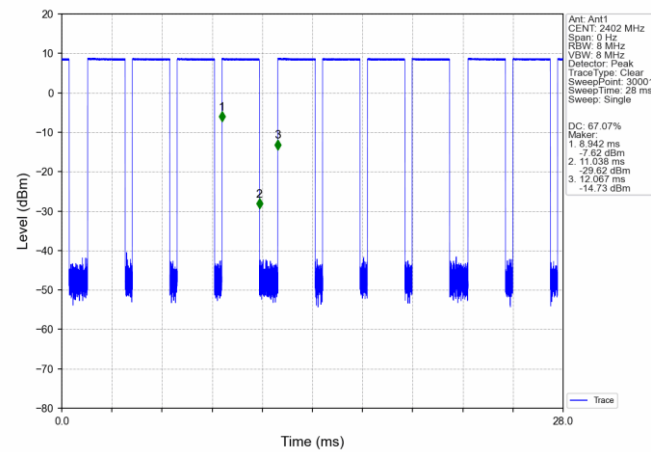
APPENDIX I - TEST RESULTS

Duty Cycle

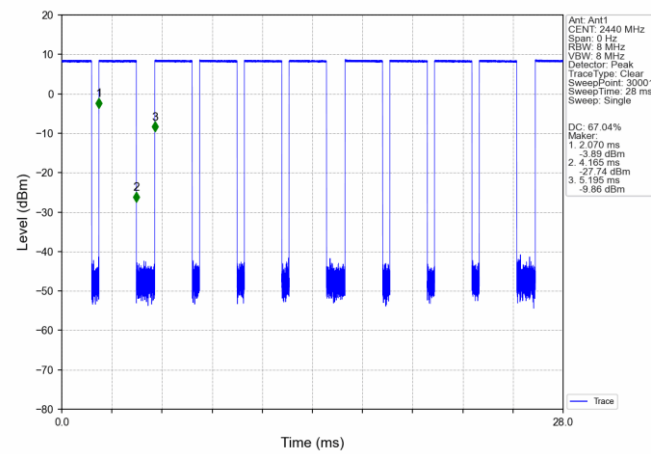
Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
1M	SISO	2402	2.096	3.125	67.07	1.73	16.75
		2440	2.095	3.125	67.04	1.74	16.78
		2480	2.096	3.126	67.05	1.74	16.77



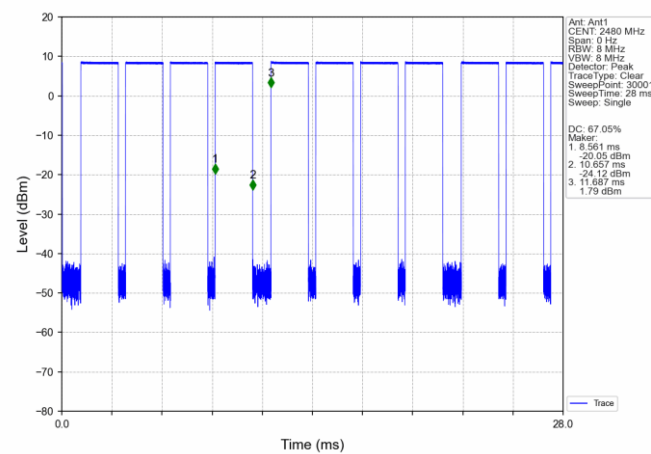
1M_LCH_2402MHz_Ant1_NTNV



1M_MCH_2440MHz_Ant1_NTNV



1M_HCH_2480MHz_Ant1_NTNV





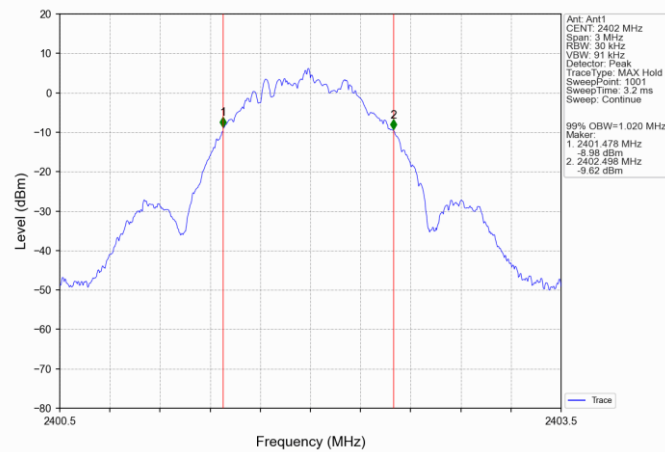
Bandwidth

Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
1M	SISO	2402	1	1.020	/	Pass
		2440	1	1.021	/	Pass
		2480	1	1.025	/	Pass

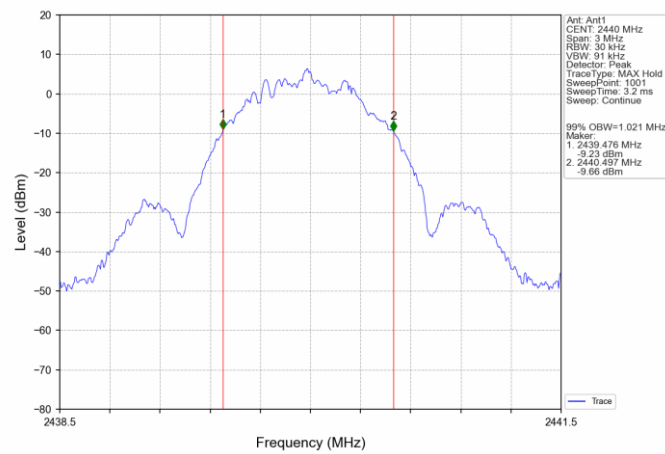
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
1M	SISO	2402	1	0.653	≥ 0.5	Pass
		2440	1	0.650	≥ 0.5	Pass
		2480	1	0.652	≥ 0.5	Pass



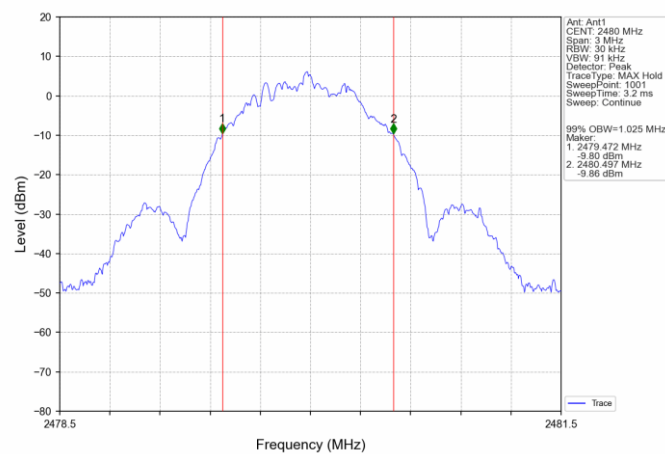
1M_LCH_2402MHz_Ant1_NTNV



1M_MCH_2440MHz_Ant1_NTNV

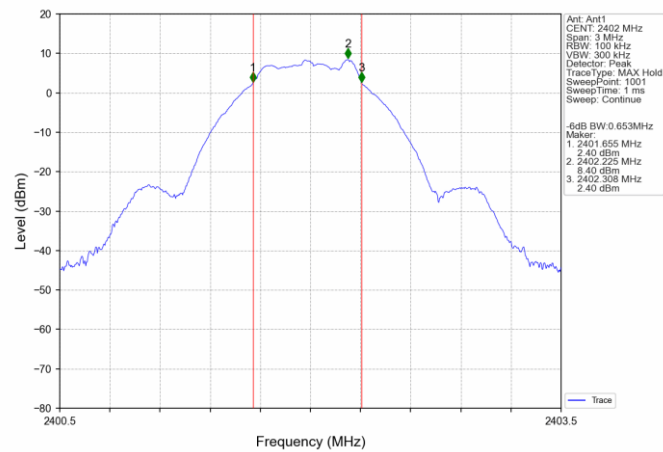


1M_HCH_2480MHz_Ant1_NTNV

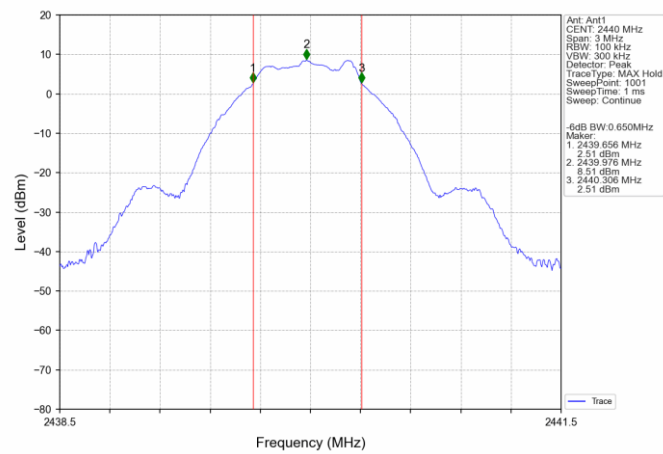




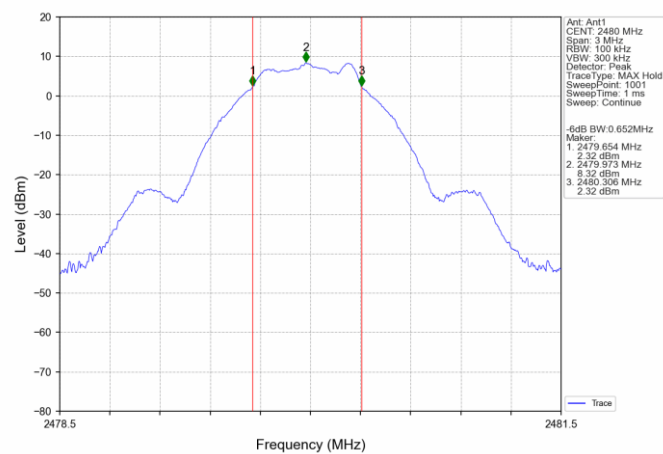
1M_LCH_2402MHz_Ant1_NTNV



1M_MCH_2440MHz_Ant1_NTNV



1M_HCH_2480MHz_Ant1_NTNV





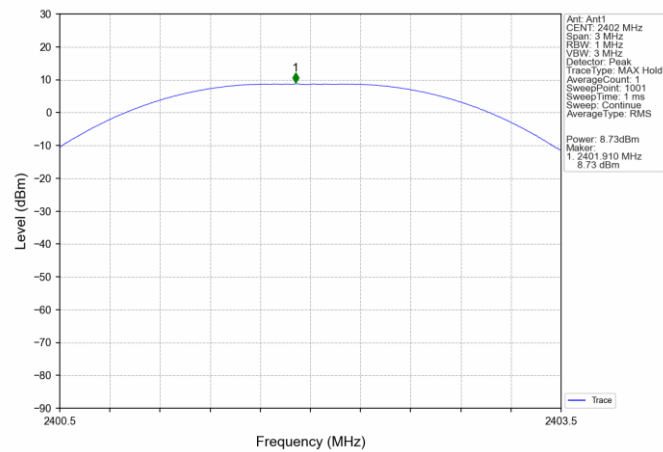
Maximum Conducted Output Power

Mode	TX Type	Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
1M	SISO	2402	8.73	<=30	Pass
		2440	8.86	<=30	Pass
		2480	8.64	<=30	Pass
Note1: Antenna Gain: Ant1: 2.67dBi;					

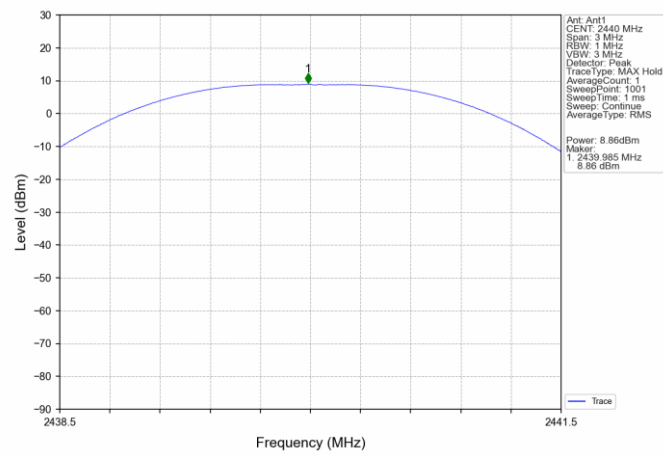
Mode	TX Type	Frequency (MHz)	E.I.R.P (dBm)		Verdict
			ANT1	Limit	
1M	SISO	2402	11.40	<=36.02	Pass
		2440	11.53	<=36.02	Pass
		2480	11.31	<=36.02	Pass
Note1: Antenna Gain: Ant1: 2.67dBi; Note2: E.I.R.P = Measured Power + Antenna Gain					



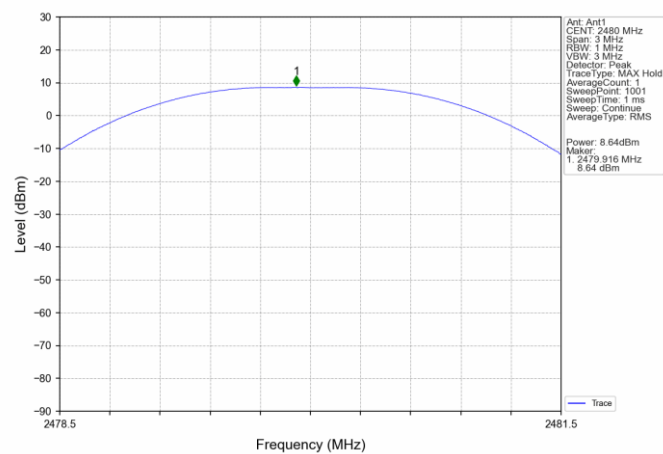
1M_LCH_2402MHz_Ant1_NTNV



1M_MCH_2440MHz_Ant1_NTNV



1M_HCH_2480MHz_Ant1_NTNV



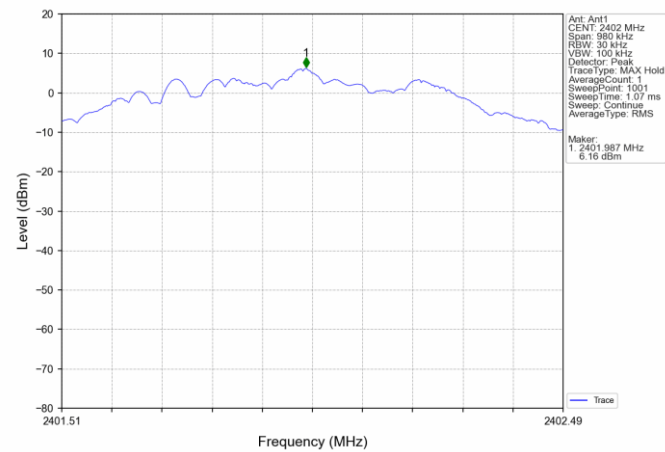


Maximum Power Spectral Density

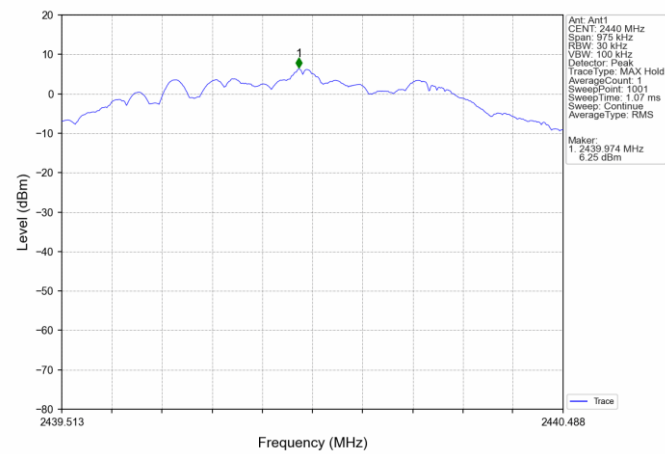
Mode	TX Type	Frequency (MHz)	Maximum PSD		Verdict
			ANT1 (dBm/100KHz)	Limit (dBm/3KHz)	
1M	SISO	2402	6.16	<=8	Pass
		2440	6.25	<=8	Pass
		2480	6.11	<=8	Pass
Note1: Antenna Gain: Ant1: 2.67dBi;					



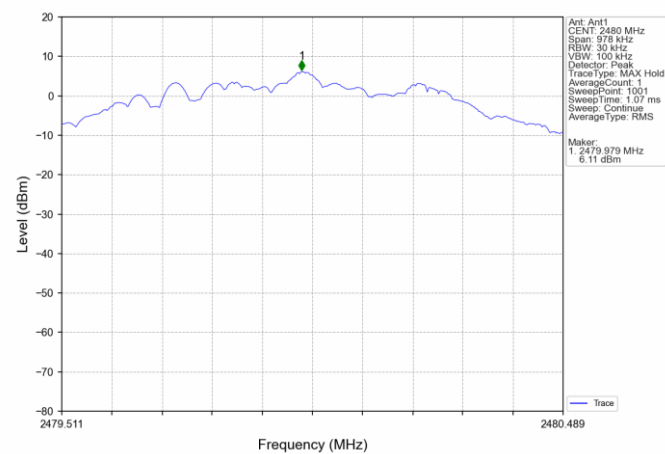
1M_LCH_2402MHz_Ant1_NTNV



1M_MCH_2440MHz_Ant1_NTNV



1M_HCH_2480MHz_Ant1_NTNV





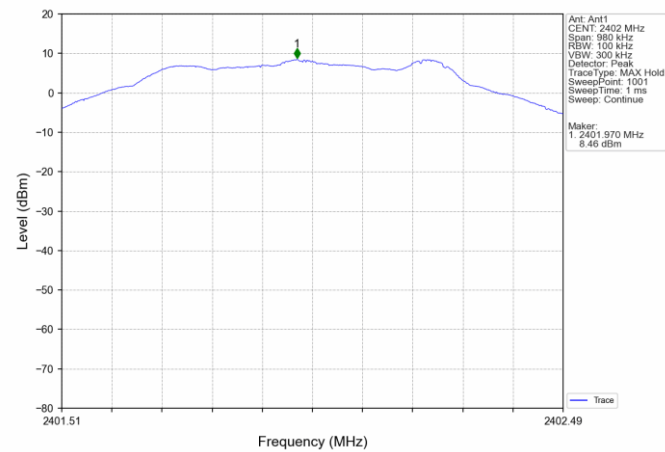
Unwanted Emissions In Non-restricted Frequency Bands

Mode	Tx Type	Frequency (MHz)	ANT	Level of Reference (dBm)
1M	SISO	2402	1	8.46
		2440	1	8.55
		2480	1	8.39
Note1: Refer to ANSI C63.10-2020, the channel contains the maximum PSD level was used to establish the reference level.				

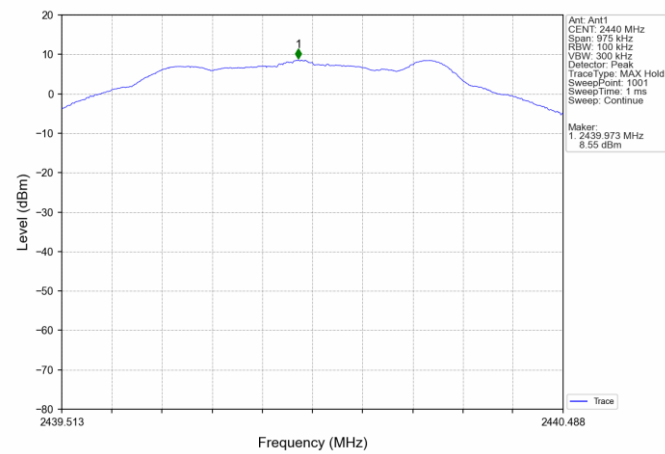
Mode	TX Type	Frequency (MHz)	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
1M	SISO	2402	1	8.46	-11.54	Pass
		2440	1	8.55	-11.45	Pass
		2480	1	8.39	-11.61	Pass
Note1: Refer to ANSI C63.10-2020, the channel contains the maximum PSD level was used to establish the reference level.						



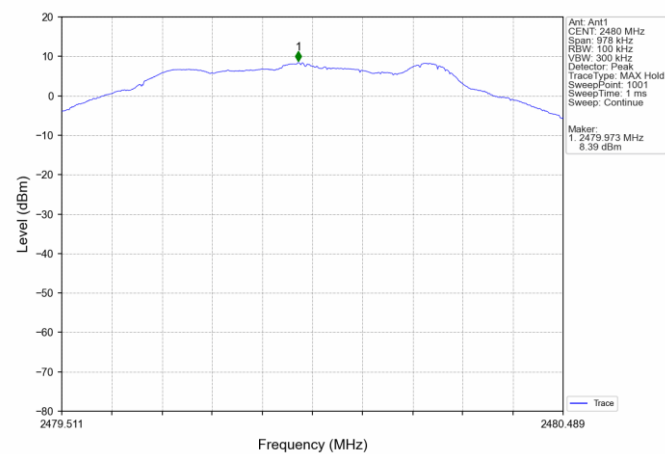
1M_LCH_2402MHz_Ant1_NTNV



1M_MCH_2440MHz_Ant1_NTNV

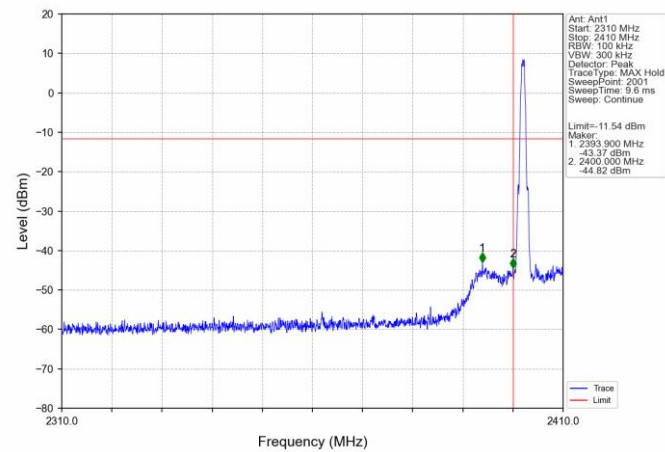


1M_HCH_2480MHz_Ant1_NTNV

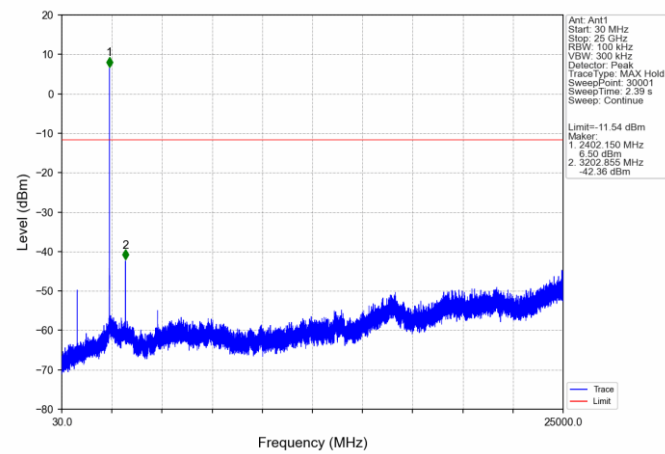




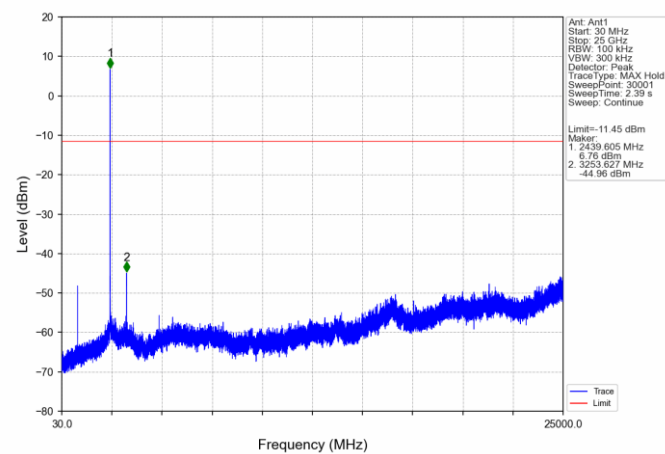
1M_LCH_2402MHz_Ant1_NTNV



1M_LCH_2402MHz_Ant1_NTNV

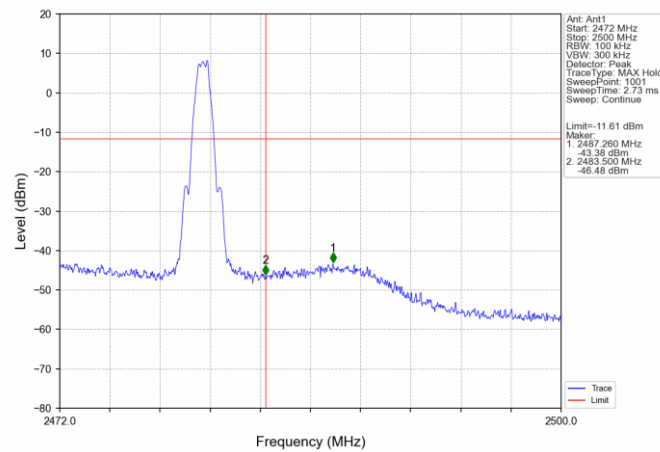


1M_MCH_2440MHz_Ant1_NTNV

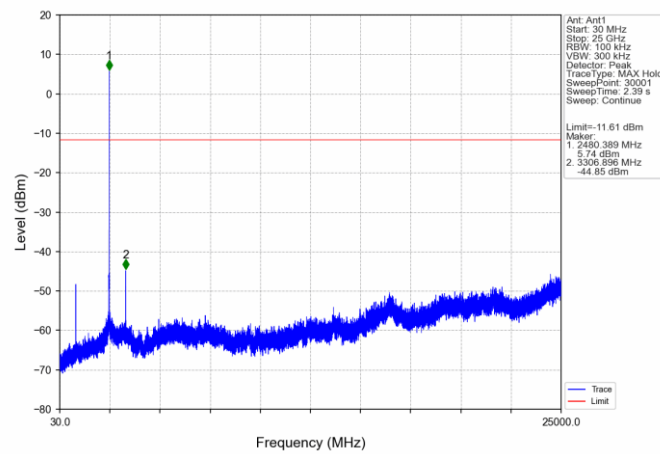




1M_HCH_2480MHz_Ant1_NTNV



1M_HCH_2480MHz_Ant1_NTNV





APPENDIX II - MEASUREMENT PHOTOS

Note: Please see the attached RF_Test Setup photos for FCC ID & IC.

※※※※※END OF THE REPORT※※※※※