



RF TEST REPORT

Product Name: Toy series

Model Name: W7, W1, W2, W3, W4, W5, W6, W8, W9, W10, W11, W12, W13, W14, W15, W16, W17, W18, W19, W20, K1, K2, K3, K4, K5, K6, K7, K8, K9, K10, K11, K12, K13, K14, K15, K16, K17, K18, K19, K20, U1pros, U2pros, U3pros, U4pros, U5pros, U6pros, U7pros, U8pros, U9pros, U10pros, W1pros, W2pros, W3pros, W4pros, W5pros, W6pros, W7pros, W8pros, W9pros, W10pros, U1, U2, U3, U4, U5, U6, U7, U8, U9, U10, U11, U12, U13, U14, U15, U16, U17, U18, U19, U20

FCC ID: 2BK28-WBW88

Issued For : Shenzhen Wubian Technology Co., Ltd.

1512, Area A, Huayi Building, No. 9, Pingji Avenue,
Longgang District, Shenzhen

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

Room 205, Building 13, Zone B, Chen Hsong Industrial Park,
No.177 Renmin West Road, Jinsha Community, Kengzi
Street, Pingshan New District, Shenzhen, China

Report Number: LGT24I053RF01

Sample Received Date: Sep. 10, 2024

Date of Test: Sep. 10, 2024 – Sep. 29, 2024

Date of Issue: Sep. 29, 2024

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TEST REPORT CERTIFICATION

Applicant: Shenzhen Wubian Technology Co., Ltd.
Address: 1512, Area A, Huayi Building, No. 9, Pingji Avenue, Longgang District, Shenzhen

Manufacturer: Shenzhen Wubian Technology Co., Ltd.
Address: 1512, Area A, Huayi Building, No. 9, Pingji Avenue, Longgang District, Shenzhen

Product Name: Toy series

Trademark: N/A

Model Name: W7, W1, W2, W3, W4, W5, W6, W8, W9, W10, W11, W12, W13, W14, W15, W16, W17, W18, W19, W20, K1, K2, K3, K4, K5, K6, K7, K8, K9, K10, K11, K12, K13, K14, K15, K16, K17, K18, K19, K20, U1pros, U2pros, U3pros, U4pros, U5pros, U6pros, U7pros, U8pros, U9pros, U10pros, W1pros, W2pros, W3pros, W4pros, W5pros, W6pros, W7pros, W8pros, W9pros, W10pros, U1, U2, U3, U4, U5, U6, U7, U8, U9, U10, U11, U12, U13, U14, U15, U16, U17, U18, U19, U20

Sample Status: Normal

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC Part 15.249, Subpart C ANSI C63.10-2013	PASS

Prepared by:

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Engineer

Approved by:

Vita Li

Vita Li
Technical Director





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Revision History

Rev.	Issue Date	Contents
00	Sep. 29, 2024	Initial Issue



1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part 15.249, Subpart C			
Standard Section	Test Item	Judgment	Remark
15.207	Conducted Emission	N/A	Power by battery
15.249	Radiated Spurious Emission	PASS	--
15.205	Restricted Band Edge Emission	PASS	--
15.215	20dB Bandwidth	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 C63.10-2013.



1.1 TEST FACTORY

Company Name:	Shenzhen LGT Test Service Co., Ltd.
Address:	Room 205, Building 13, Zone B, Chen Hsong Industrial Park, No.177 Renmin West Road, Jinsha Community, Kengzi Street, Pingshan New District, Shenzhen, China
Accreditation Certificate	A2LA Certificate No.: 6727.01
	FCC Registration No.: 746540
	CAB ID: CN0136

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	RF output power, conducted	$\pm 0.68\text{dB}$
2	Unwanted Emissions, conducted	$\pm 2.988\text{dB}$
3	All emissions, radiated 9K-30MHz	$\pm 2.84\text{dB}$
4	All emissions, radiated 30M-1GHz	$\pm 4.39\text{dB}$
5	All emissions, radiated 1G-6GHz	$\pm 5.10\text{dB}$
6	All emissions, radiated >6G	$\pm 5.48\text{dB}$
7	Conducted Emission (9KHz-150KHz)	$\pm 2.79\text{dB}$
8	Conducted Emission (150KHz-30MHz)	$\pm 2.80\text{dB}$



2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF THE EUT

Product Name:	Toy series	
Trademark:	N/A	
Model Name:	W7	
Series Model:	W1, W2, W3, W4, W5, W6, W8, W9, W10, W11, W12, W13, W14, W15, W16, W17, W18, W19, W20, K1, K2, K3, K4, K5, K6, K7, K8, K9, K10, K11, K12, K13, K14, K15, K16, K17, K18, K19, K20, U1pros, U2pros, U3pros, U4pros, U5pros, U6pros, U7pros, U8pros, U9pros, U10pros, W1pros, W2pros, W3pros, W4pros, W5pros, W6pros, W7pros, W8pros, W9pros, W10pros, U1, U2, U3, U4, U5, U6, U7, U8, U9, U10, U11, U12, U13, U14, U15, U16, U17, U18, U19, U20	
Model Difference:	Only the model is different	
Product Description:	Operation Frequency:	2440~2475 MHz
	Modulation Type:	GFSK
	Number Of Channel:	36
	Antenna Type:	Internal Antenna
	Antenna Gain (dBi):	2.09dBi
Channel List:	Please refer to the Note 3.	
Battery:	LR03/AAA 1.5V*3	
Hardware Version:	N/A	
Software Version:	N/A	
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.

Channel List	
Channel	Frequency(MHz)
1	2440
2	2441
3	2442
4	2443
5	2444
6	2445
7	2446
8	2447
9	2448
10	2449
11	2450
12	2451
13	2452
14	2453
15	2454
16	2455
17	2456
18	2457
19	2458
20	2459
21	2460
22	2461
23	2462
24	2463
25	2464
26	2465
27	2466
28	2467
29	2468
30	2469
31	2470
32	2471
33	2472
34	2473
35	2474
36	2475

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 CH01(2440MHz)	GFSK
Mode 2	TX CH18(2457MHz)	GFSK
Mode 3	TX CH36(2475MHz)	GFSK

Note:

(1) All above mode has been measurement, only 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.



2.3 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	HKF-16	N/A	N/A
USB-A to USB-C Cable	UGREEN	US287	N/A	1m, shielded, without ferrite core
USB extension cable	N/A	N/A	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”.



2.4 EQUIPMENTS LIST

Conducted Emission					
Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Until
EMI Test Receiver	R&S	ESU8	100372	2024.03.09	2025.03.08
LISN	COM-POWER	LI-115	02032	2024.03.09	2025.03.08
LISN	SCHWARZBECK	NNLK 8122	00160	2024.03.09	2025.03.08
Transient Limiter	CYBERTEK	EM5010A	E2250100049	2024.03.09	2025.03.08
Temperature & Humidity	KTJ	TA218B	N.A	2024.03.09	2025.03.08
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	2024.03.09	2025.03.08
Active loop Antenna	ETS	6502	00049544	2023.10.13	2025.10.12
Spectrum Analyzer	Keysight	N9010B	MY60242508	2024.08.05	2025.08.04
Bilog Antenna(30M-1G)	SCHWARZBECK	VULB 9168	2705	2022.12.12	2025.12.11
Horn Antenna(1-18G)	SCHWARZBECK	3115	10SL0060	2022.06.02	2025.06.01
Horn Antenna(18-40G)	A-INFO	LB-180400-KF	J211060273	2022.06.08	2025.06.07
Pre-amplifier(30M-1G)	EMtrace	RP01A	02019	2024.03.09	2025.03.08
Pre-amplifier(1-26.5G)	Agilent	8449B	3008A4722	2024.03.09	2025.03.08
Pre-amplifier(18-40G)	com-mw	LNPA_18-40-01	18050003	2024.03.09	2025.03.08
Wireless Communications Test Set	R&S	CMW 500	137737	2024.03.09	2025.03.08
Temperature & Humidity	JINGCHUANG	BT-3	N.A	2024.03.11	2025.03.10
Testing Software	EMC-I_V1.4.0.3_SKET				

RF Conducted Test equipment					
Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Until
Spectrum Analyzer	Keysight	N9010B	MY60242508	2024.08.05	2025.08.04
Signal Analyzer	Keysight	N9020A	MY50530994	2024.03.09	2025.03.08
RF Automatic Test system	MW	MW100-RFCB	MW220322LG-033	2024.03.09	2025.03.08
MXG Vector Signal Generator	Keysight	N5182B	MY59100717	2024.03.09	2025.03.08
Temperature& Humidity test chamber	AISRY	LX-1000L	171200018	2024.03.09	2025.03.08
Attenuator	eastsheep	90db	N.A	2024.03.09	2025.03.08
Temperature & Humidity	JINGCHUANG	BT-3	N.A	2024.03.11	2025.03.10
Digital multimeter	MASTECH	MS8261	MBGBC83053	2024.03.09	2025.03.08
Testing Software	MTS8310_V2.0.0.0_MW				



3. RADIATED EMISSION MEASUREMENT

3.1 RADIATED EMISSION LIMITS

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on Part 15.249, Part 15.209(a) limit in the table below has to be followed.

Standard FCC 15.209

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
960~1000	500	3
Above 1000	Other:74.0 dB(μV)/m (Peak) 54.0 dB(μV)/m (Average)	3

Standard FCC 15.249

Frequency of Emission (MHz)	Field Strength of fundamental (millivolts /meter)	Field Strength of Harmonics (microvolts/meter)
900~928	50	500
2400~2483.5	50	500
5725~5875	50	500
24000~242500	250	2500

Notes:

- (1) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.

Spectrum Parameter	Setting
Detector	Peak/AV
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB (emission in restricted band)	>20BW
VB (emission in restricted band)	=3xRB



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

3.2 TEST PROCEDURE

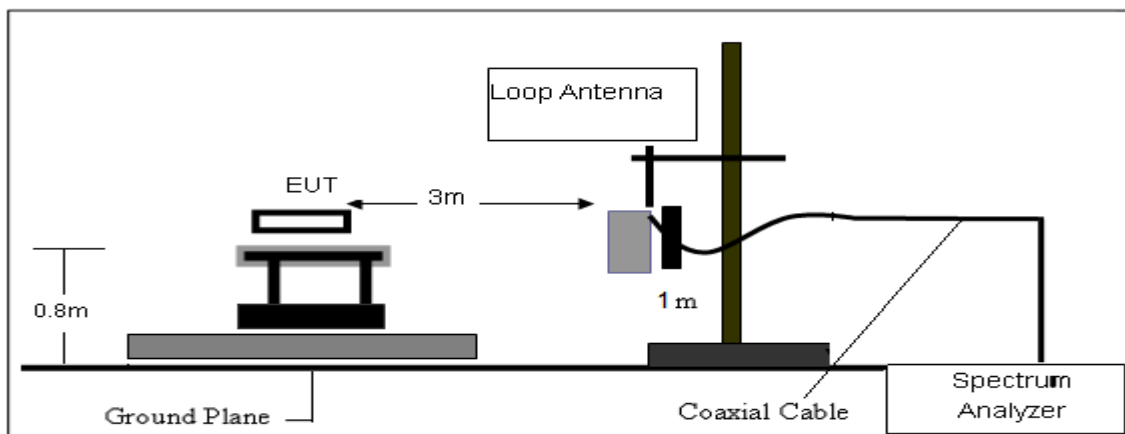
- The measuring distance at 3 m shall be used for measurements at frequency 0.009MHz up to 1GHz, and above 1GHz.
- The EUT was placed on the top of a rotating table 0.8 m (above 1GHz is 1.5 m) above the ground at a 3 m anechoic chamber test site. The table was rotated 360 degree to determine the position of the highest radiation.
- The height of the equipment shall be 0.8 m(above 1GHz is 1.5 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.
- 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.
- 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.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

Note:

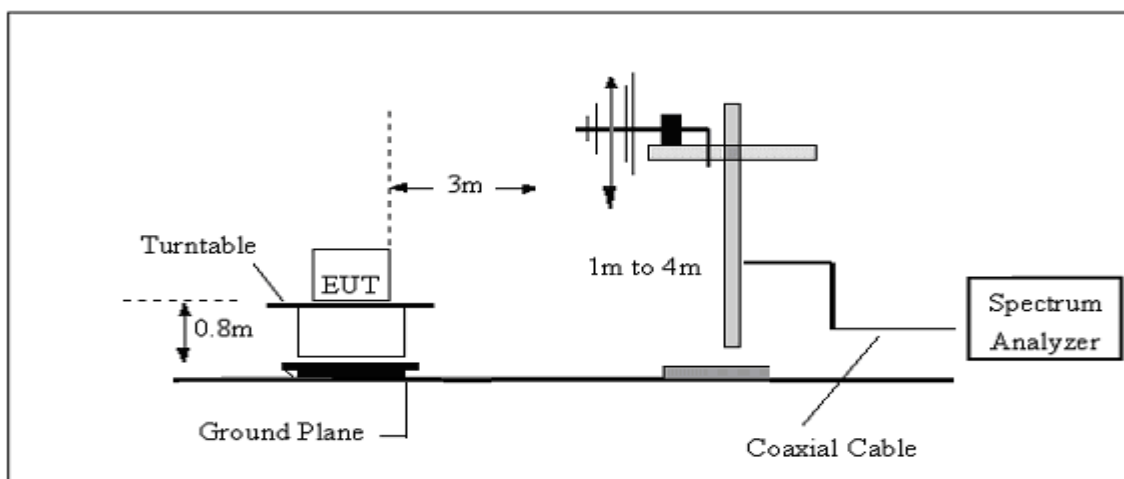
Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported.

3.3 TEST SETUP

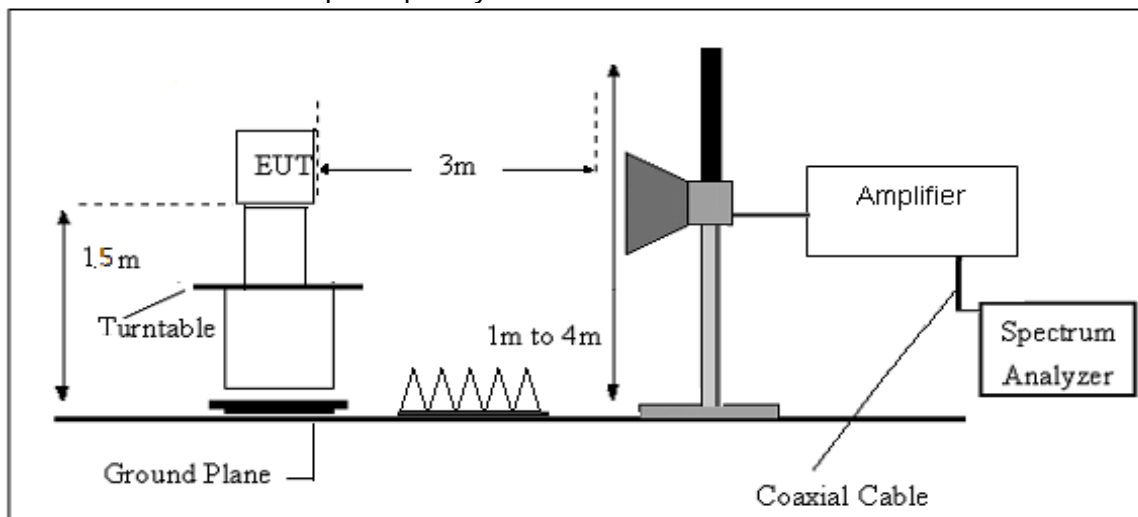
(A) Radiated Emission Test-Up Frequency Below 30MHz



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



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



3.4 EUT OPERATING CONDITIONS

Please refer to section 3.4 of this report.



3.5 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

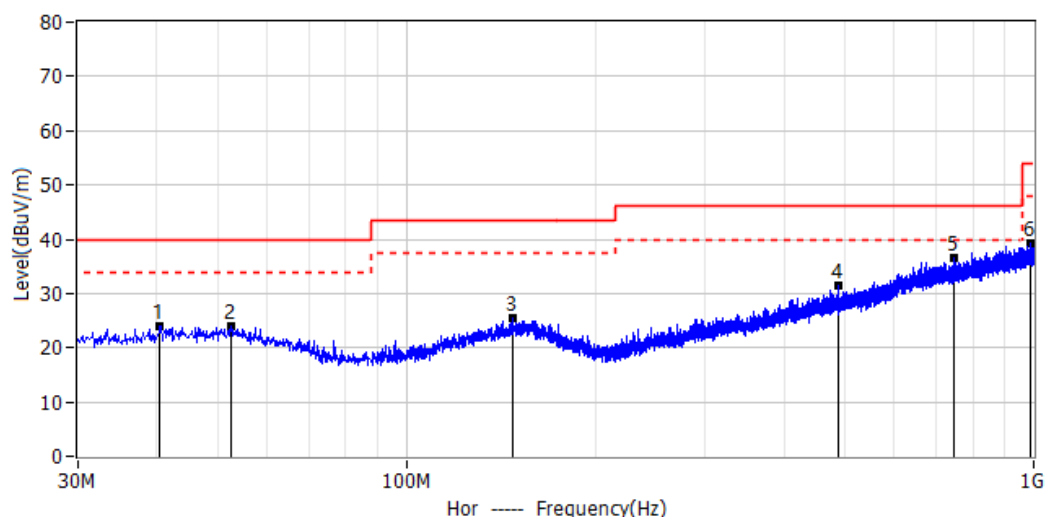
Frequency	FS	RA	AF	CL	AG	Factor
(MHz)	(dBμV/m)	(dBμV/m)	(dB)	(dB)	(dB)	(dB)
300	40	58.1	12.2	1.6	31.9	-18.1

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

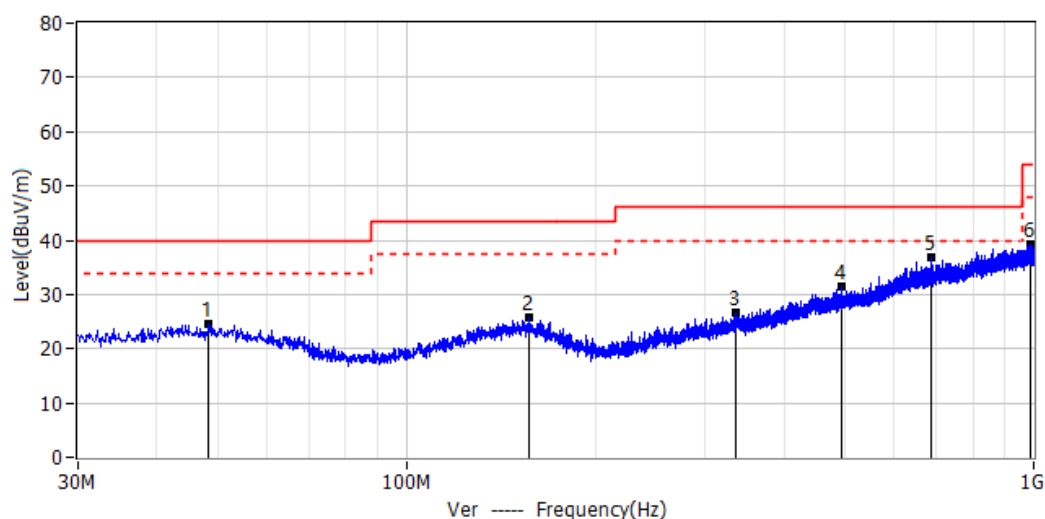


3.6 TEST RESULTS

Project: LGT24I053	Test Engineer: LiuH
EUT: Toy series	Temperature: 25.5°C
M/N: W7	Humidity: 52%RH
Test Voltage: DC 4.5V	Test Data: 2024-09-14
Test Mode: TX	
Note:	



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	40.549	3.89	20.20	24.09	40.00	-15.91	QP	Hor
2*	52.553	3.35	20.55	23.90	40.00	-16.10	QP	Hor
3*	147.613	3.97	21.50	25.47	43.50	-18.03	QP	Hor
4*	488.204	5.11	26.45	31.56	46.00	-14.44	QP	Hor
5*	746.830	5.90	30.74	36.64	46.00	-9.36	QP	Hor
6*	989.330	5.46	33.83	39.29	54.00	-14.71	QP	Hor

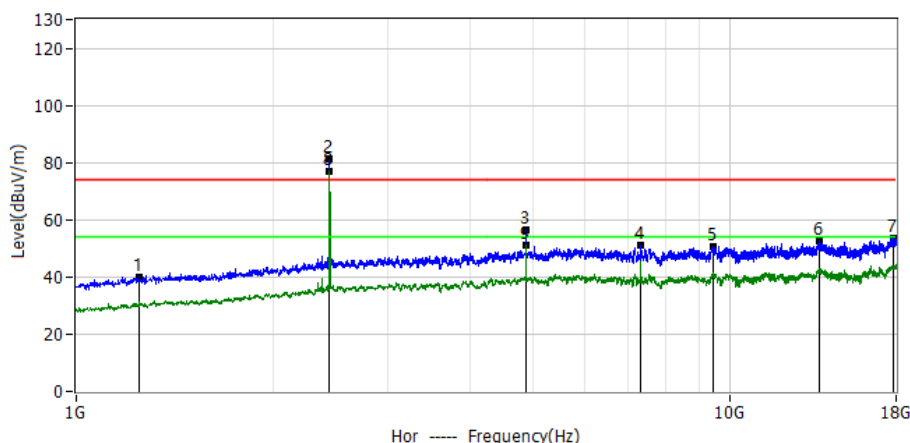


No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	48.430	4.23	20.46	24.69	40.00	-15.31	QP	Ver
2*	156.828	3.86	21.89	25.75	43.50	-17.75	QP	Ver
3*	334.944	3.97	22.83	26.80	46.00	-19.20	QP	Ver
4*	493.781	4.81	26.66	31.47	46.00	-14.53	QP	Ver
5*	687.418	6.65	30.09	36.74	46.00	-9.26	QP	Ver
6*	987.148	5.11	34.05	39.16	54.00	-14.84	QP	Ver

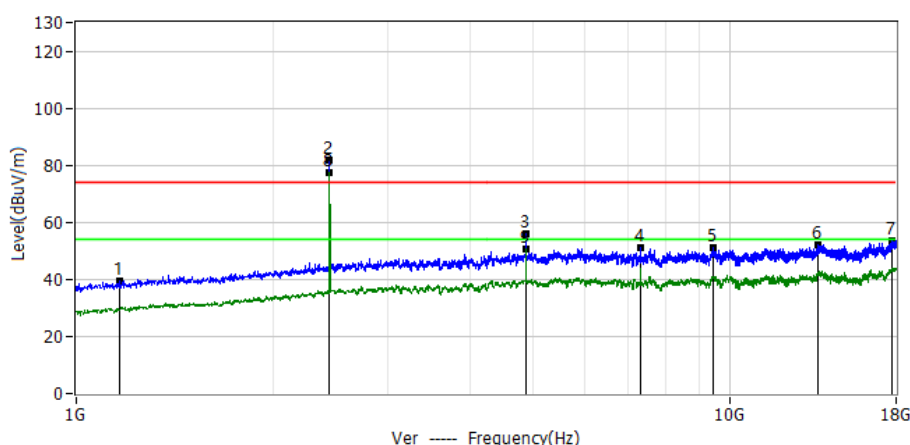


Above 1G Radiation Spurious

Project: LGT24I053	Test Engineer: LiuH
EUT: Toy series	Temperature: 25°C
M/N: W7	Humidity: 55%RH
Test Voltage: DC 4.5V	Test Data: 2024-09-25
Test Mode: L 2440	
Note:	



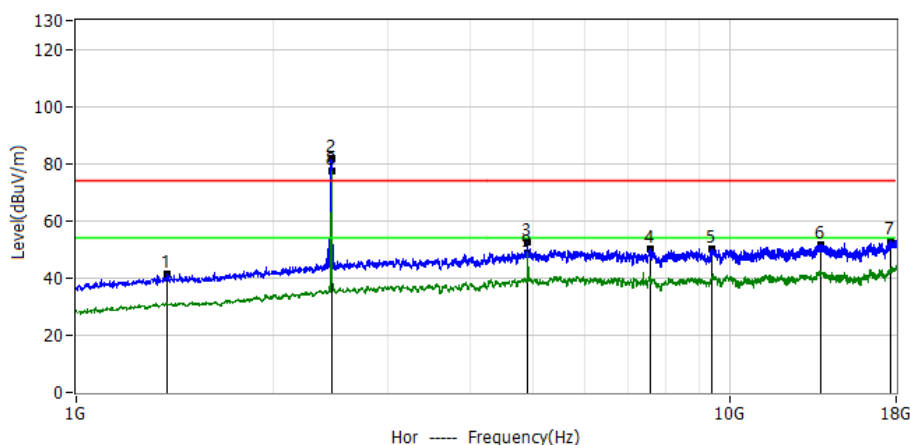
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1248.6000	62.65	-22.71	39.94	74.00	-34.06	PK	Hor
!2*	2440.7000	92.79	-11.28	81.51	--	--	--	Hor
3*	4880.2000	62.35	-6.06	56.29	74.00	-17.71	PK	Hor
4*	7319.7000	59.34	-8.25	51.09	74.00	-22.91	PK	Hor
5*	9423.5000	57.96	-7.44	50.52	74.00	-23.48	PK	Hor
6*	13720.2000	56.17	-3.60	52.57	74.00	-21.43	PK	Hor
7*	17834.2000	56.45	-2.69	53.76	74.00	-20.24	PK	Hor
!8*	2442.9000	88.39	-11.26	77.13	--	--	--	Hor
9*	4882.4000	57.03	-6.06	50.97	54.00	-3.03	AV	Hor



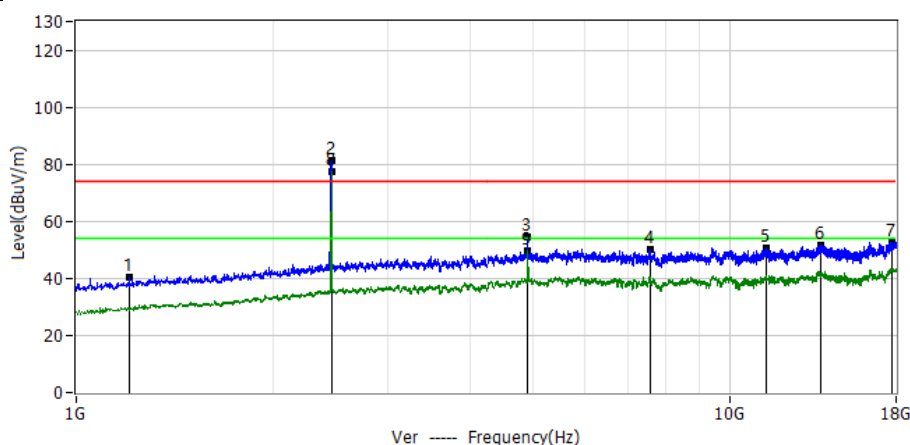
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1163.6000	63.01	-23.47	39.54	74.00	-34.46	PK	Ver
!2*	2440.7000	92.88	-11.28	81.60	--	--	--	Ver
3*	4880.2000	62.17	-6.06	56.11	74.00	-17.89	PK	Ver
4*	7319.7000	59.17	-8.25	50.92	74.00	-23.08	PK	Ver
5*	9425.6000	58.55	-7.43	51.12	74.00	-22.88	PK	Ver
6*	13641.6000	55.94	-3.80	52.14	74.00	-21.86	PK	Ver
7*	17736.5000	56.55	-2.75	53.80	74.00	-20.20	PK	Ver
!8*	2442.9000	88.51	-11.26	77.25	--	--	--	Ver
9*	4882.4000	56.85	-6.06	50.79	54.00	-3.21	AV	Ver



Project: LGT24I053	Test Engineer: LiuH
EUT: Toy series	Temperature: 25°C
M/N: W7	Humidity: 55%RH
Test Voltage: DC 4.5V	Test Data: 2024-09-25
Test Mode: M 2457	
Note:	



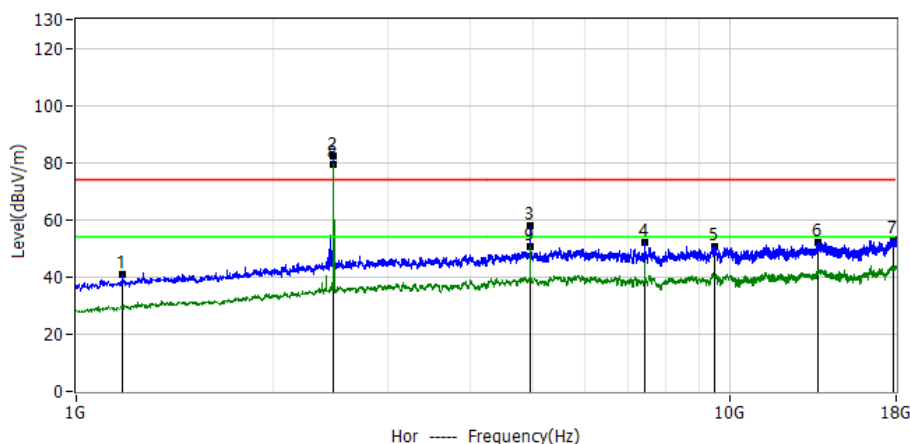
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1378.2000	62.94	-21.60	41.34	74.00	-32.66	PK	Hor
!2*	2457.7000	92.84	-11.11	81.73	--	--	--	Hor
3*	4914.2000	58.86	-6.04	52.82	74.00	-21.18	PK	Hor
4*	7549.2000	58.41	-8.47	49.94	74.00	-24.06	PK	Hor
5*	9387.4000	57.80	-7.49	50.31	74.00	-23.69	PK	Hor
6*	13820.1000	54.99	-3.35	51.64	74.00	-22.36	PK	Hor
7*	17668.5000	55.99	-2.80	53.19	74.00	-20.81	PK	Hor
!8*	2459.9000	88.58	-11.09	77.49	--	--	--	Hor
9*	4916.4000	54.54	-6.04	48.50	54.00	-5.50	AV	Hor



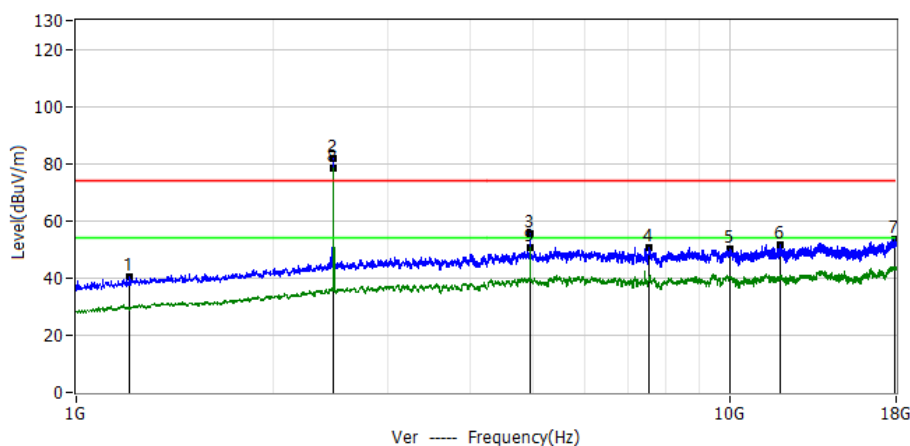
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1206.1000	63.29	-23.07	40.22	74.00	-33.78	PK	Ver
!2*	2457.7000	92.48	-11.11	81.37	--	--	--	Ver
3*	4914.2000	60.61	-6.04	54.57	74.00	-19.43	PK	Ver
4*	7553.5000	58.61	-8.48	50.13	74.00	-23.87	PK	Ver
5*	11395.5000	56.97	-6.26	50.71	74.00	-23.29	PK	Ver
6*	13824.4000	54.86	-3.34	51.52	74.00	-22.48	PK	Ver
7*	17774.7000	55.52	-2.73	52.79	74.00	-21.21	PK	Ver
!8*	2459.9000	88.53	-11.09	77.44	--	--	--	Ver
9*	4916.4000	55.73	-6.04	49.69	54.00	-4.31	AV	Ver



Project: LGT24I053	Test Engineer: LiuH
EUT: Toy series	Temperature: 25°C
M/N: W7	Humidity: 55%RH
Test Voltage: DC 4.5V	Test Data: 2024-09-25
Test Mode: H 2475	
Note:	



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1178.5000	64.35	-23.33	41.02	74.00	-32.98	PK	Hor
!2*	2474.7000	93.01	-10.93	82.08	--	--	--	Hor
3*	4950.4000	64.18	-6.02	58.16	74.00	-15.84	PK	Hor
4*	7426.0000	60.26	-8.30	51.96	74.00	-22.04	PK	Hor
5*	9512.7000	57.71	-7.29	50.42	74.00	-23.58	PK	Hor
6*	13677.7000	55.64	-3.71	51.93	74.00	-22.07	PK	Hor
7*	17806.6000	55.97	-2.71	53.26	74.00	-20.74	PK	Hor
!8*	2476.9000	90.23	-10.91	79.32	--	--	--	Hor
9*	4952.5000	56.42	-6.02	50.40	54.00	-3.60	AV	Hor



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1208.2000	63.30	-23.05	40.25	74.00	-33.75	PK	Ver
!2*	2474.7000	92.67	-10.93	81.74	--	--	--	Ver
3*	4950.4000	61.58	-6.02	55.56	74.00	-18.44	PK	Ver
4*	7519.5000	59.16	-8.39	50.77	74.00	-23.23	PK	Ver
5*	10018.5000	56.63	-6.53	50.10	74.00	-23.90	PK	Ver
6*	11941.6000	57.45	-5.78	51.67	74.00	-22.33	PK	Ver
7*	17938.4000	56.26	-2.61	53.65	74.00	-20.35	PK	Ver
!8*	2476.9000	89.44	-10.91	78.53	--	--	--	Ver
9*	4952.5000	56.63	-6.02	50.61	54.00	-3.39	AV	Ver

Note:1.In frequency ranges 18~25GHz 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.

Average measurement was not performed if peak level lower than average limit. No any other emissions level which are attenuated less than 20dB below the limit. The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part. Hence there no other emissions have been reported.

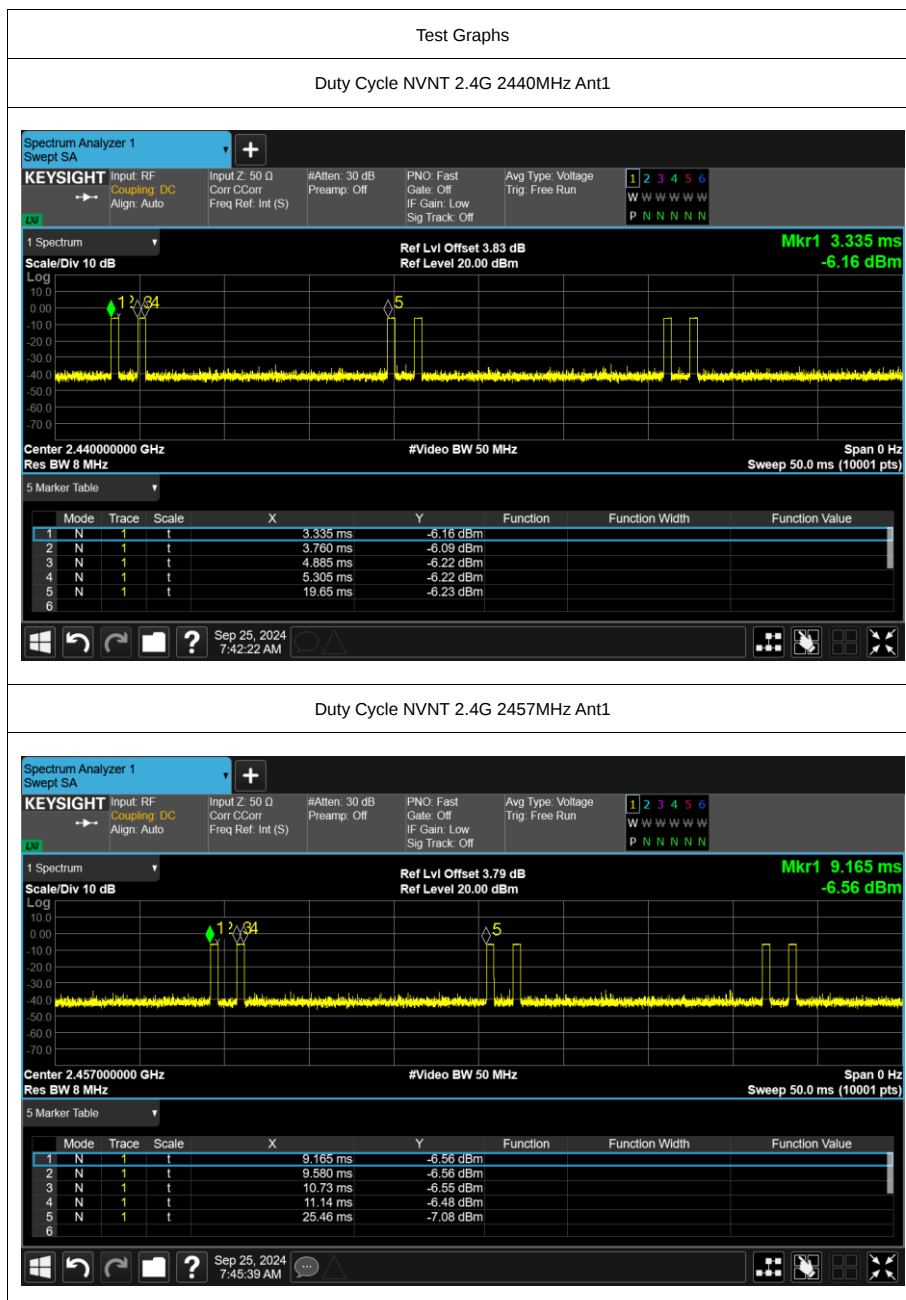
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	2.4G	2440	Ant1	5.18%	12.857	1.183
NVNT	2.4G	2457	Ant1	5.06%	12.956	1.212
NVNT	2.4G	2475	Ant1	4.39%	13.572	1.190

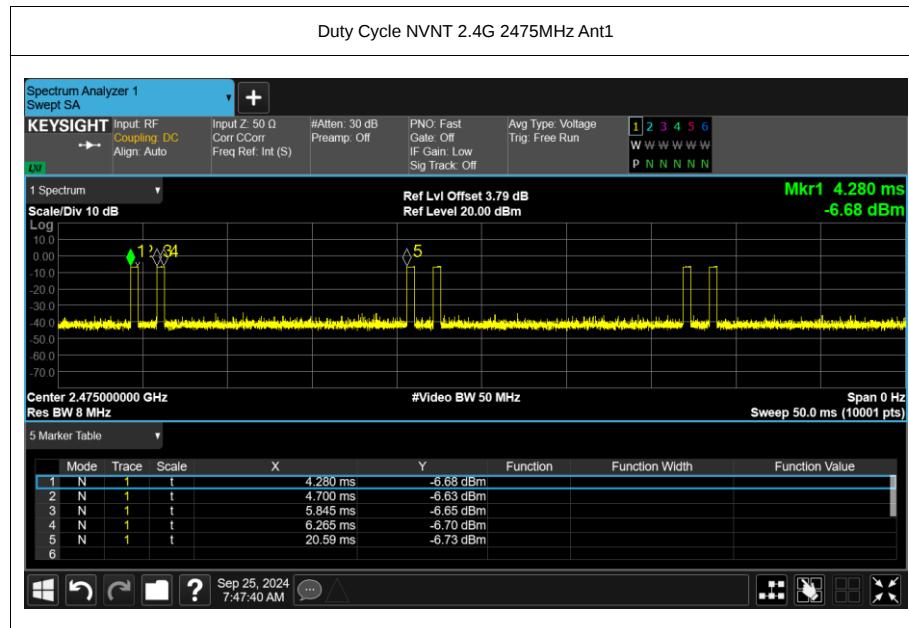
Note: Duty Factor= $20 \cdot \log(T_{on}/T_p)$



Duty cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	2.4G	2440	Ant1	5.18%	12.857	1.183
NVNT	2.4G	2457	Ant1	5.06%	12.956	1.212
NVNT	2.4G	2475	Ant1	4.39%	13.572	1.190







Field Strength of the Fundamental Signal

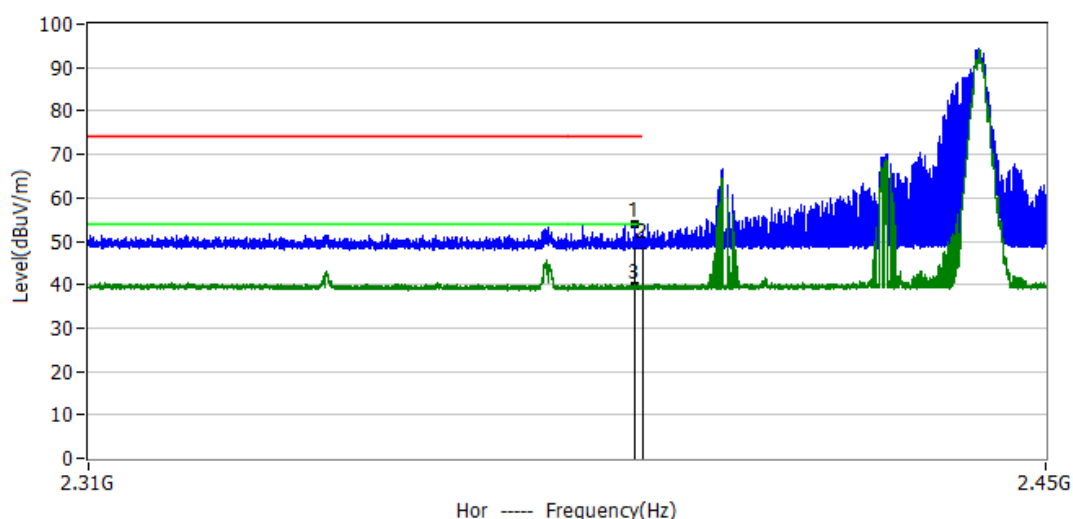
Project: LGT24I053	Test Engineer: LiuH
EUT: Toy series	Temperature: 25°C
M/N: W7	Humidity: 55%RH
Test Voltage: DC 4.5V	Test Data: 2024-09-25
Test Mode: L/M/H	
Note:	

Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
2440.7000	92.79	-11.28	81.51	114.00	-32.49	PK	Hor
2442.9000	88.39	-11.26	77.13	94.00	-16.87	AV	Hor
2440.7000	92.88	-11.28	81.60	114.00	-32.40	PK	Ver
2442.9000	88.51	-11.26	77.25	94.00	-16.75	AV	Ver
2457.7000	92.84	-11.11	81.73	114.00	-32.27	PK	Hor
2459.9000	88.58	-11.09	77.49	94.00	-16.51	AV	Hor
2457.7000	92.48	-11.11	81.37	114.00	-32.63	PK	Ver
2459.9000	88.53	-11.09	77.44	94.00	-16.56	AV	Ver
2474.7000	93.01	-10.93	82.08	114.00	-31.92	PK	Hor
2476.9000	90.23	-10.91	79.32	94.00	-14.68	AV	Hor
2474.7000	92.67	-10.93	81.74	114.00	-32.26	PK	Ver
2476.9000	89.44	-10.91	78.53	94.00	-15.47	AV	Ver

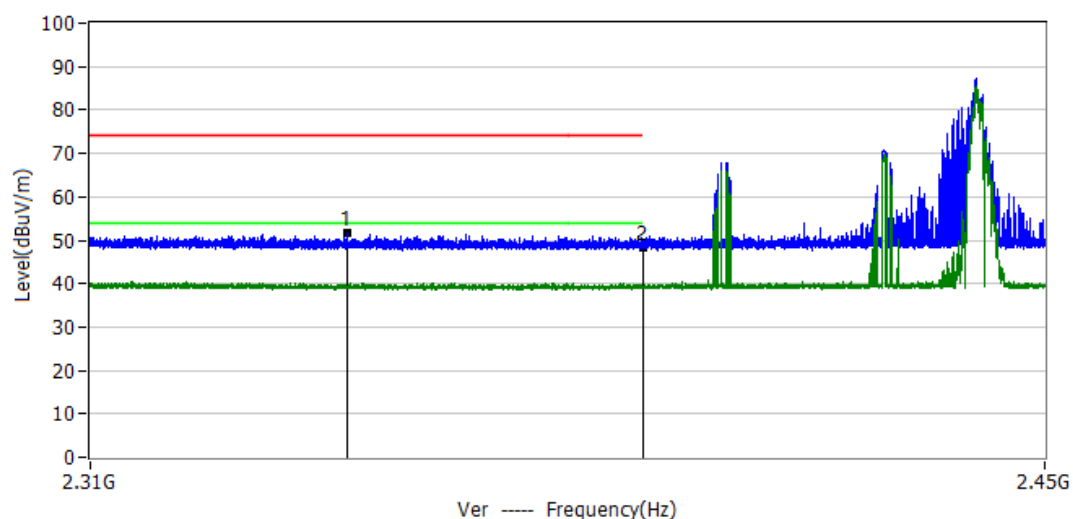


4.7 TEST RESULTS (BAND EDGE REQUIREMENTS)

Project: LGT24I053	Test Engineer: LiuH
EUT: Toy series	Temperature: 25°C
M/N: W7	Humidity: 55%RH
Test Voltage: DC 4.5V	Test Data: 2024-09-24
Test Mode: L 2440	
Note:	



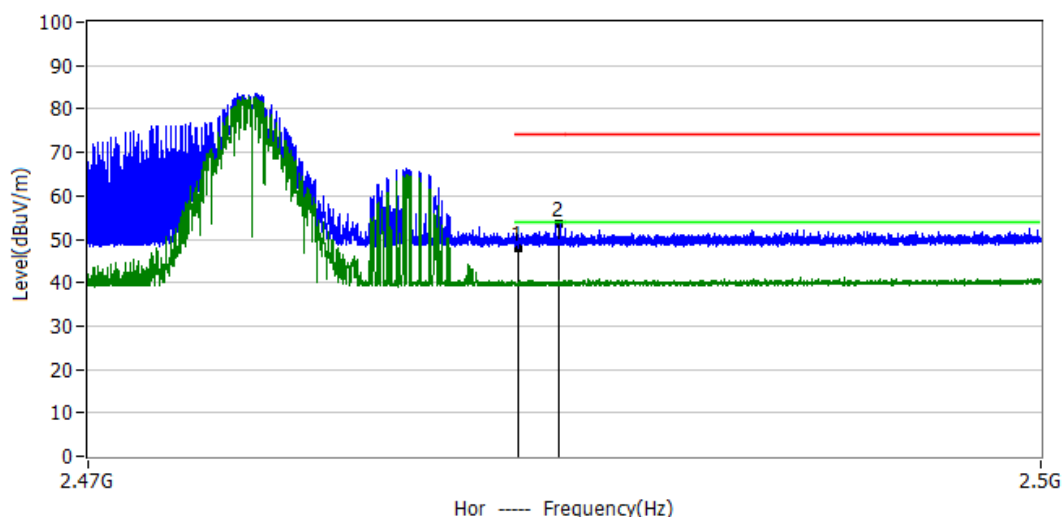
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	2388.9000	19.97	34.10	54.07	74.00	-19.93	PK	Hor
2*	2390.0000	14.80	34.10	48.90	74.00	-25.10	PK	Hor
3*	2388.9000	5.50	34.10	39.60	54.00	-14.40	AV	Hor



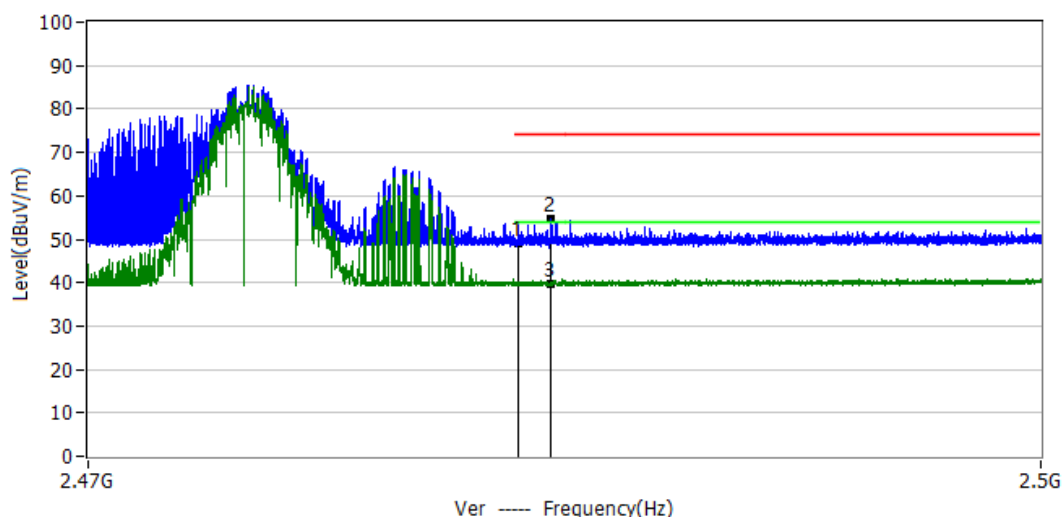
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	2346.8000	17.49	34.14	51.63	74.00	-22.37	PK	Ver
2*	2390.0000	14.40	34.10	48.50	74.00	-25.50	PK	Ver



Project: LGT24I053	Test Engineer: LiuH
EUT: Toy series	Temperature: 25°C
M/N: W7	Humidity: 55%RH
Test Voltage: DC 4.5V	Test Data: 2024-09-24
Test Mode: H 2475	
Note:	



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	2483.5000	13.66	34.44	48.10	74.00	-25.90	PK	Hor
2*	2484.8000	19.24	34.44	53.68	74.00	-20.32	PK	Hor



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	2483.5000	14.46	34.44	48.90	74.00	-25.10	PK	Ver
2*	2484.5000	20.15	34.44	54.59	74.00	-19.41	PK	Ver
3*	2484.5000	5.36	34.44	39.80	54.00	-14.20	AV	Ver

Note:

1.Average measurement was not performed if peak level lower than average limit. No any other emissions level which are attenuated less than 20dB below the limit. The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part. Hence there no other emissions have been reported.

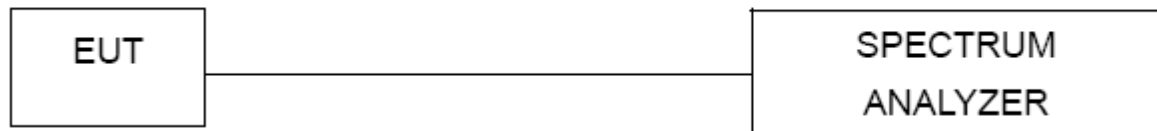


4. BANDWIDTH TEST

4.1 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. Spectrum Setting : RBW= 30KHz, VBW $\geq$ RBW, Sweep time = Auto.

4.2 TEST SETUP



4.3 EUT OPERATION CONDITIONS

TX mode.

4.4 TEST RESULTS

Mode	Frequency (MHz)	20dB BANDWIDTH (MHz)
2.4G	2440	1.024
2.4G	2457	1.029
2.4G	2475	1.056





5. ANTENNA REQUIREMENT

5.1 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.

5.2 EUT ANTENNA

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

※※※※※END OF THE REPORT※※※※※