



RF TEST REPORT

Product Name: Smart Beacon ID

Model Name: T7-BUD-A-TEEU-B-3, Colorado, 3460000

FCC ID: ZDLSB3

Issued For : Buddi Limited

Talbot House, 17 Church Street, Rickmansworth, WD3 1DE, United Kingdom

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: LGT24J015RF04

Sample Received Date: Oct. 11, 2024

Date of Test: Oct. 11, 2024 – Nov. 18, 2024

Date of Issue: Nov. 18, 2024

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TEST REPORT CERTIFICATION

Applicant: Buddi Limited
Address: Talbot House, 17 Church Street, Rickmansworth, WD3 1DE, United Kingdom
Manufacturer: Buddi Limited
Address: Talbot House, 17 Church Street, Rickmansworth, WD3 1DE, United Kingdom
Product Name: Smart Beacon ID
Trademark: buddi
Model Name: T7-BUD-A-TEEU-B-3, Colorado, 3460000
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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Approved by:

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Technical Director





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Revision History

Rev.	Issue Date	Contents
00	Nov. 18, 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	PASS	--
15.249	Radiated Spurious Emission	PASS	--
15.205	Restricted Band Edge Emission	PASS	--
15.249	20dB Bandwidth	Pass	--
15.203	Antenna Requirement	PASS	--

NOTE:

- (1) 'Colorado, 3460000' 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, Zhenxiong Industrial Park, No.177, Renmin West Road, Jinsha, Kengzi Street, Pingshan District, Shenzhen, Guangdong, 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)	$\pm 2.80\text{dB}$

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



2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF THE EUT

Product Name:	Smart Beacon ID	
Trademark:	buddi	
Model Name:	T7-BUD-A-TEEU-B-3	
Series Model:	Colorado, 3460000	
Model Difference:	The difference only in the model name.	
Product Description:	Operation Frequency:	914.5~921MHz
	Modulation Type:	FSK
	Antenna Type:	SMD Antenna
	Antenna Gain(dBi):	1.4
Adapter:	Input: 100-240V 47/63Hz 0.4A Output: 5V 2.4A 12W max	
Battery:	Rated Capacity: 3100mAh Rated Voltage: 3.7V	
Hardware Version:	V14.1	
Software Version:	1.41.5	
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.



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	Modulation
Mode 1	914.5MHz	FSK
Mode 2	917.5MHz	FSK
Mode 3	921MHz	FSK

Note:

(1) All above mode has been measurement, only worst data was reported.

(2) We have be tested for all available 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 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: ISM	
Engineering Mode	Mode Or Modulation type	Power setting
	FSK	Default



2.4 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
Adapter	SINPRO	SPU15-102	N/A	Input: 100-240V 47-63Hz 0.4A Output: 5V, 2.4A

Auxiliary Equipment

Description	Manufacturer	Model	S/N	Rating
Laptop	Lenovo	HKF-16	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	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
Antenna Tower	SAEMC	BK-4AT-BS-D	SK2021093008	N.A	N.A
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
Signal 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. 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.

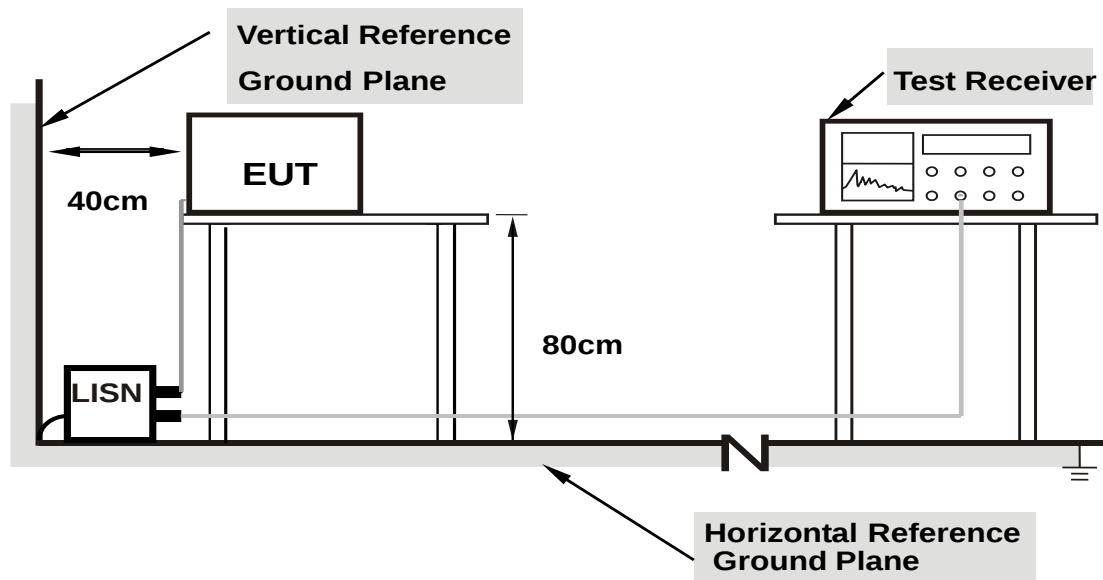
The following table is the setting of the receiver

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

3.2 TEST PROCEDURE

- The EUT is 0.8 m from the horizontal ground plane and 0.4 m from the vertical ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments are powered from additional LISN(s). The LISN 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.

3.3 TEST SETUP



Note: 1. Support units were connected to second LISN.

2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes support units.

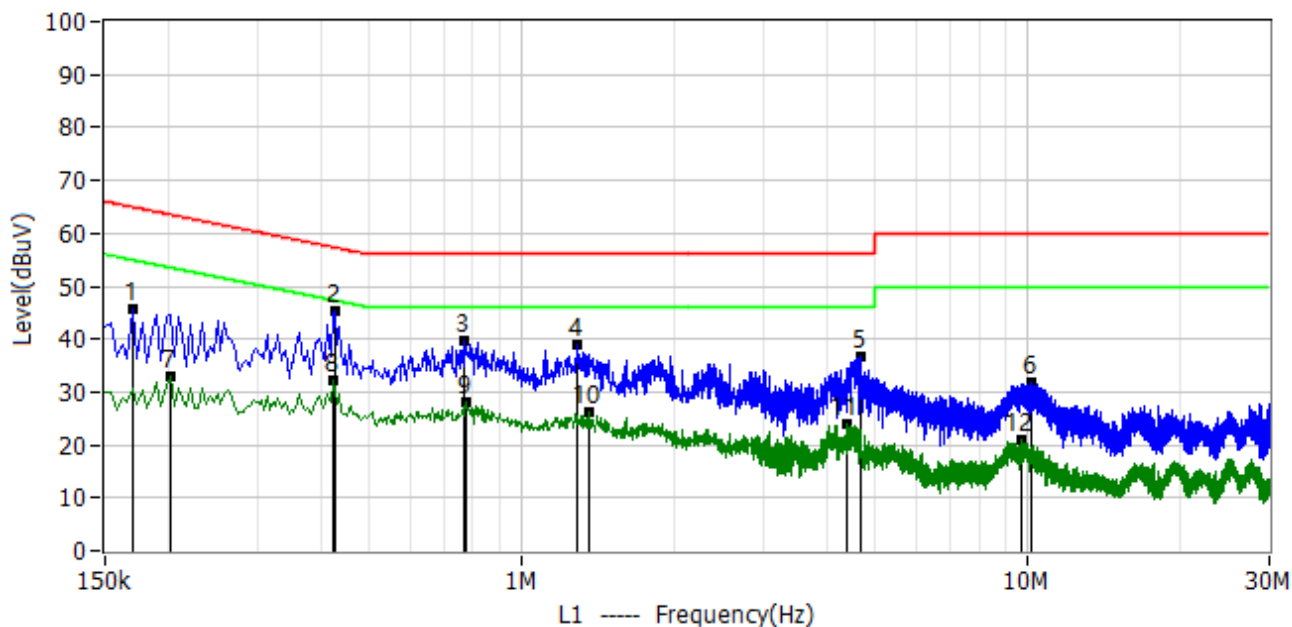
3.4 EUT OPERATING CONDITIONS

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.



3.5 TEST RESULTS

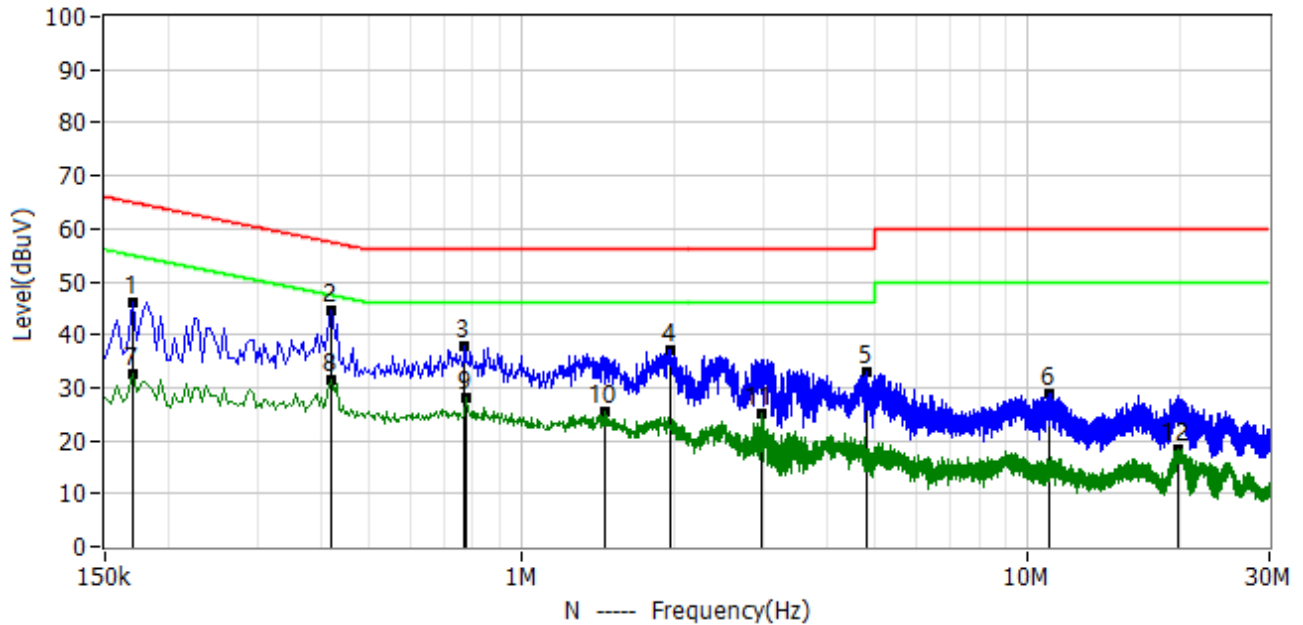
Project: LGT24J015	Test Engineer: LiuH
EUT: Smart Beacon ID	Temperature: 26.4°C
M/N: T7-BUD-A-TEEU-B-3	Humidity: 45%RH
Test Voltage: AC 120V/60Hz	Test Data: 2024-10-16
Test Mode: 915MHz TX	
Note:	



No.	Frequency MHz	Reading dBuV	Factor dB	Level dBuV	Limit dBuV	Margin dB	Detector	Polar
1*	0.170	35.04	10.59	45.63	64.96	-19.33	QP	L1
2*	0.426	34.63	10.56	45.19	57.33	-12.14	QP	L1
3*	0.766	29.04	10.59	39.63	56.00	-16.37	QP	L1
4*	1.286	28.12	10.78	38.90	56.00	-17.10	QP	L1
5*	4.674	25.47	11.10	36.57	56.00	-19.43	QP	L1
6*	10.158	20.69	11.03	31.72	60.00	-28.28	QP	L1
7*	0.202	22.32	10.62	32.94	53.53	-20.58	AV	L1
8*	0.422	21.54	10.56	32.10	47.41	-15.31	AV	L1
9*	0.774	17.59	10.60	28.19	46.00	-17.81	AV	L1
10*	1.354	15.47	10.80	26.27	46.00	-19.73	AV	L1
11*	4.402	12.81	11.11	23.92	46.00	-22.08	AV	L1
12*	9.678	9.93	11.02	20.95	50.00	-29.05	AV	L1



Project: LGT24J015	Test Engineer: LiuH
EUT: Smart Beacon ID	Temperature: 26.4°C
M/N: T7-BUD-A-TEEU-B-3	Humidity: 45%RH
Test Voltage: AC 120V/60Hz	Test Data: 2024-10-16
Test Mode: 915MHz TX	
Note:	



No.	Frequency MHz	Reading dBuV	Factor dB	Level dBuV	Limit dBuV	Margin dB	Detector	Polar
1*	0.170	35.68	10.56	46.24	64.96	-18.72	QP	N
2*	0.418	33.95	10.58	44.53	57.49	-12.95	QP	N
3*	0.770	27.44	10.56	38.00	56.00	-18.00	QP	N
4*	1.958	26.42	10.75	37.17	56.00	-18.83	QP	N
5*	4.790	22.24	10.83	33.07	56.00	-22.93	QP	N
6*	10.986	17.75	11.06	28.81	60.00	-31.19	QP	N
7*	0.170	21.84	10.56	32.40	54.96	-22.56	AV	N
8*	0.418	20.90	10.58	31.48	47.49	-16.01	AV	N
9*	0.778	17.43	10.56	27.99	46.00	-18.01	AV	N
10*	1.462	14.98	10.64	25.62	46.00	-20.38	AV	N
11*	2.978	14.31	10.78	25.09	46.00	-20.91	AV	N
12*	19.886	6.87	11.62	18.49	50.00	-31.51	AV	N



4. RADIATED EMISSION MEASUREMENT

4.1 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(μ V)/m (Peak) 54.0 dB(μ V)/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

4.2 TEST PROCEDURE

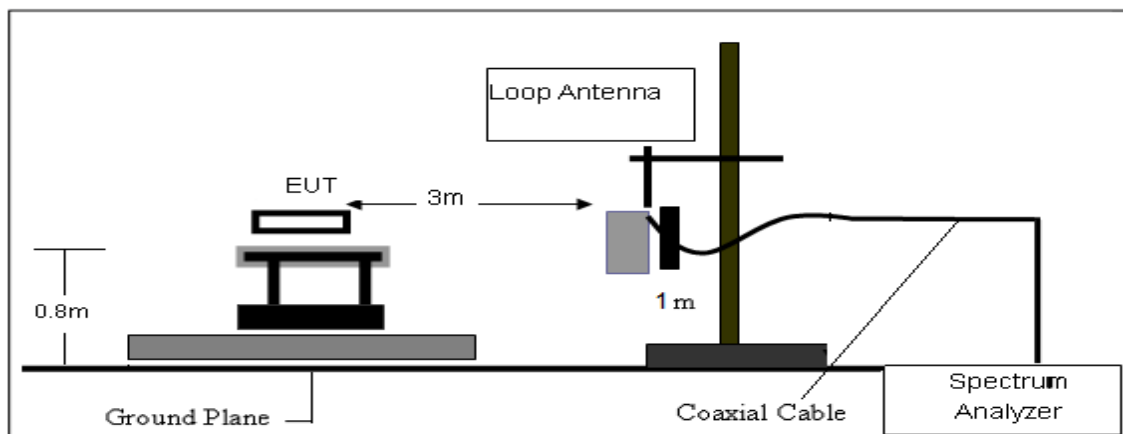
- The measuring distance at 3 m shall be used for measurements at frequency 0.009MHz up to 1GHz, and above 1GHz.
- The EUT was placed on the top of a rotating table 0.8 m (above 1GHz is 1.5 m) above the ground at a 3 m anechoic chamber test site. The table was rotated 360 degree to determine the position 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:

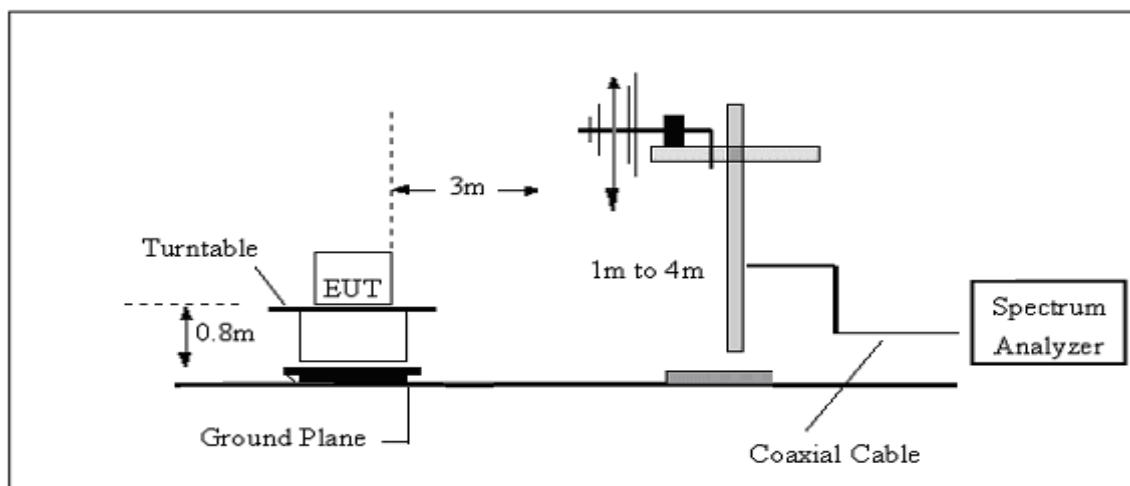
Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported.

4.3 TEST SETUP

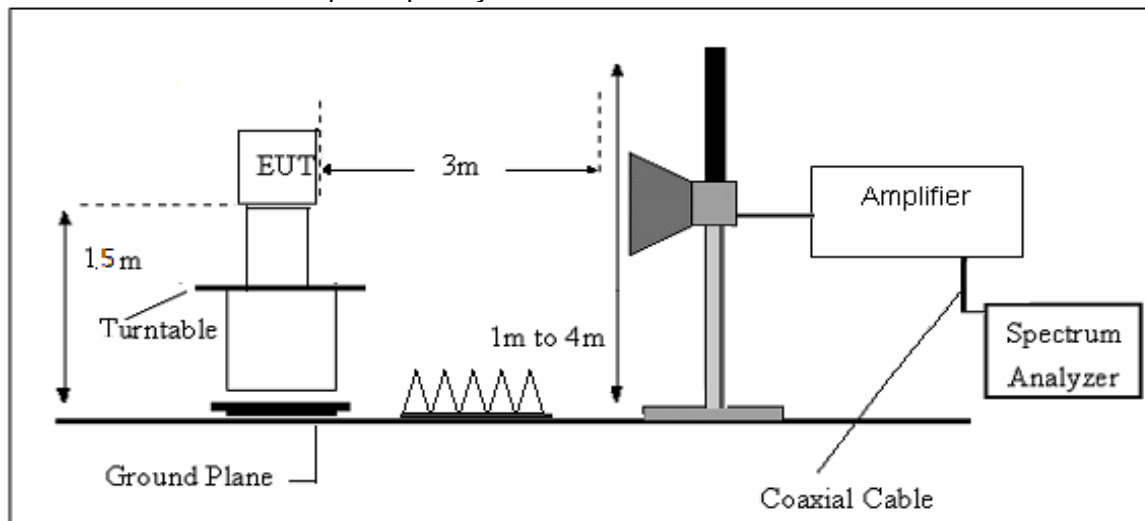
(A) Radiated Emission Test-Up Frequency Below 30MHz



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



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



4.4 EUT OPERATING CONDITIONS

Please refer to section 3.4 of this report.



4.5 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

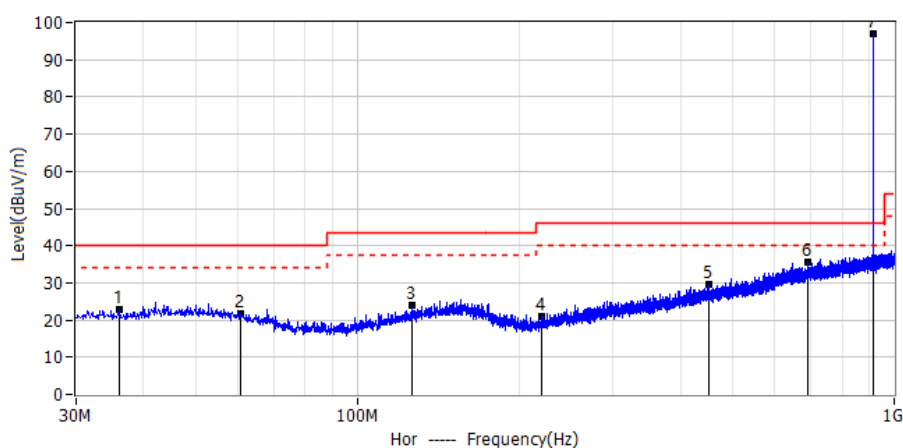
Frequency	FS	RA	AF	CL	AG	Factor
(MHz)	(dBμV/m)	(dBμV/m)	(dB)	(dB)	(dB)	(dB)
300	40	58.1	12.2	1.6	31.9	-18.1

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

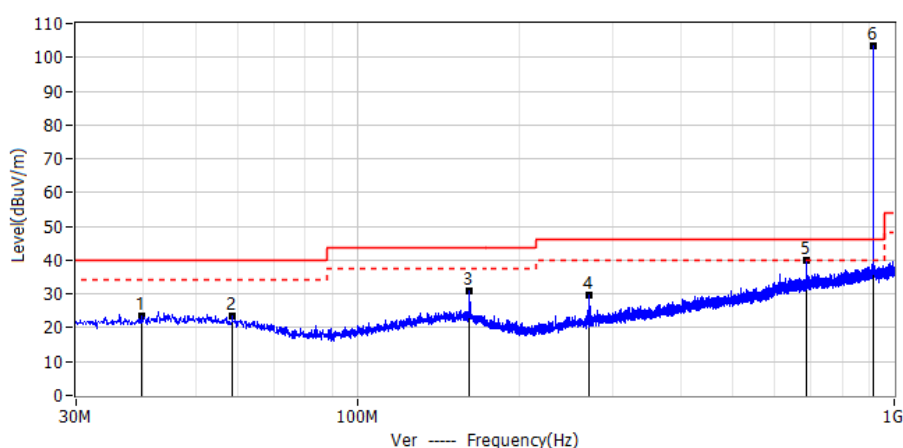


4.6 TEST RESULTS

Project: LGT24J015	Test Engineer: LiuH
EUT: Smart Beacon ID	Temperature: 25.5°C
M/N: T7-BUD-A-TEEU-B-3	Humidity: 52%RH
Test Voltage: Battery	Test Data: 2024-10-17
Test Mode: L	
Note:	



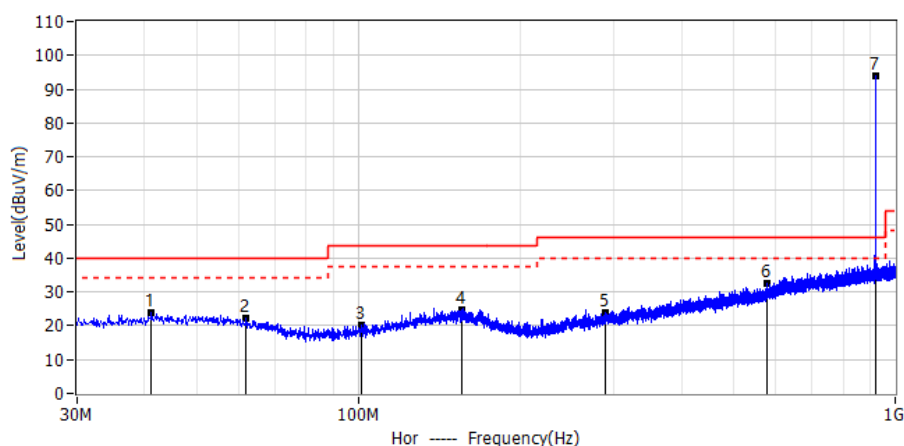
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	36.063	2.96	19.94	22.90	40.00	-17.10	QP	Hor
2*	60.676	2.49	19.41	21.90	40.00	-18.10	QP	Hor
3*	126.273	4.12	19.78	23.90	43.50	-19.60	QP	Hor
4*	221.090	3.20	17.92	21.12	46.00	-24.88	QP	Hor
5*	451.829	3.54	25.95	29.49	46.00	-16.51	QP	Hor
6*	688.630	5.29	30.12	35.41	46.00	-10.59	QP	Hor
!7*	914.640	64.08	32.88	96.96	--	--	QP	Hor



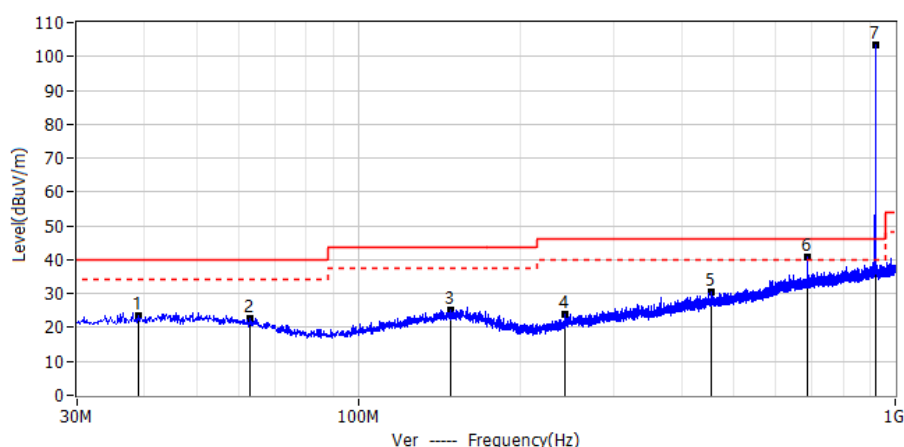
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	39.700	3.71	19.95	23.66	40.00	-16.34	QP	Ver
2*	58.615	4.08	19.57	23.65	40.00	-16.35	QP	Ver
3*	161.678	9.69	21.28	30.97	43.50	-12.53	QP	Ver
4*	269.711	9.62	20.00	29.62	46.00	-16.38	QP	Ver
5*	687.539	10.03	30.09	40.12	46.00	-5.88	QP	Ver
!6*	914.640	70.58	32.88	103.46	--	--	QP	Ver



Project: LGT24J015	Test Engineer: LiuH
EUT: Smart Beacon ID	Temperature: 25.5°C
M/N: T7-BUD-A-TEEU-B-3	Humidity: 52%RH
Test Voltage: Battery	Test Data: 2024-10-17
Test Mode: M	
Note:	



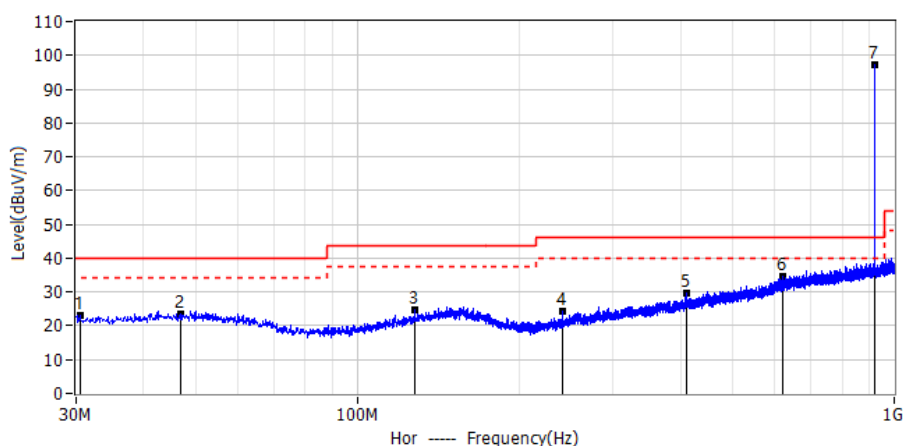
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	41.276	3.54	20.42	23.96	40.00	-16.04	QP	Hor
2*	61.889	3.29	19.01	22.30	40.00	-17.70	QP	Hor
3*	101.659	2.83	17.26	20.09	43.50	-23.41	QP	Hor
4*	155.615	3.36	21.56	24.92	43.50	-18.58	QP	Hor
5*	288.020	2.83	21.11	23.94	46.00	-22.06	QP	Hor
6*	577.808	4.60	28.05	32.65	46.00	-13.35	QP	Hor
!7*	917.550	61.00	33.12	94.12	--	--	QP	Hor



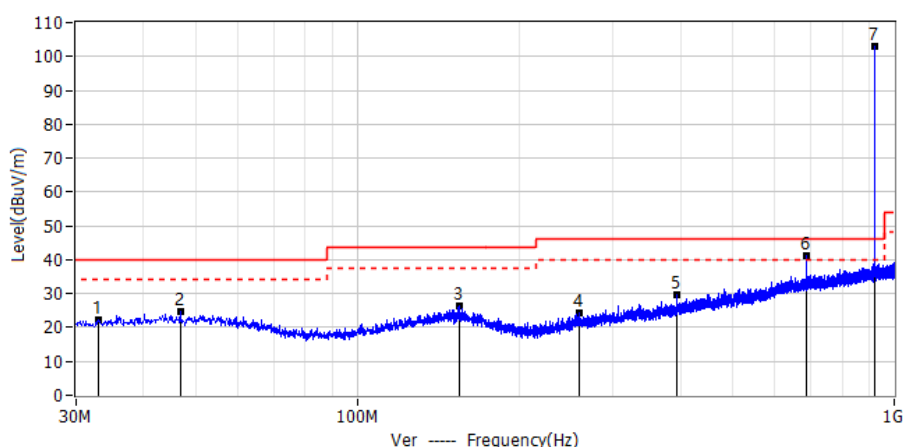
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	38.973	3.69	19.87	23.56	40.00	-16.44	QP	Ver
2*	62.980	4.06	18.67	22.73	40.00	-17.27	QP	Ver
3*	148.704	3.45	21.53	24.98	43.50	-18.52	QP	Ver
4*	242.915	4.82	19.27	24.09	46.00	-21.91	QP	Ver
5*	453.890	4.81	25.80	30.61	46.00	-15.39	QP	Ver
6*	687.539	10.62	30.09	40.71	46.00	-5.29	QP	Ver
!7*	917.550	70.30	33.12	103.42	--	--	QP	Ver



Project: LGT24J015	Test Engineer: LiuH
EUT: Smart Beacon ID	Temperature: 25.5°C
M/N: T7-BUD-A-TEEU-B-3	Humidity: 52%RH
Test Voltage: Battery	Test Data: 2024-10-17
Test Mode: H	
Note:	



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	30.485	3.63	19.40	23.03	40.00	-16.97	QP	Hor
2*	46.975	3.11	20.44	23.55	40.00	-16.45	QP	Hor
3*	128.334	4.60	20.09	24.69	43.50	-18.81	QP	Hor
4*	241.703	5.12	19.07	24.19	46.00	-21.81	QP	Hor
5*	409.755	4.69	24.94	29.63	46.00	-16.37	QP	Hor
6*	620.003	5.72	29.07	34.79	46.00	-11.21	QP	Hor
!7*	921.066	64.02	33.29	97.31	--	--	QP	Hor

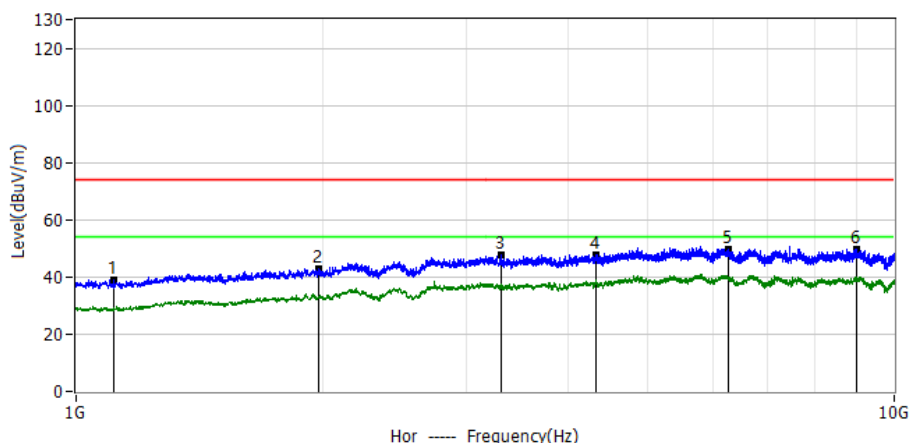


No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	33.031	2.92	19.53	22.45	40.00	-17.55	QP	Ver
2*	46.854	4.15	20.43	24.58	40.00	-15.42	QP	Ver
3*	154.645	5.01	21.42	26.43	43.50	-17.07	QP	Ver
4*	259.284	4.28	20.17	24.45	46.00	-21.55	QP	Ver
5*	394.841	5.29	24.41	29.70	46.00	-16.30	QP	Ver
6*	687.539	10.97	30.09	41.06	46.00	-4.94	QP	Ver
!7*	921.066	69.77	33.29	103.06	--	--	QP	Ver

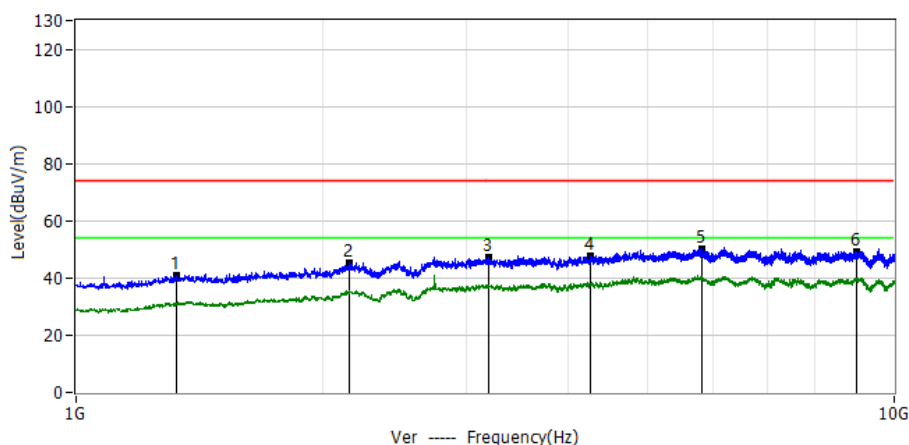


Above 1G Radiation Spurious

Project: LGT24J015	Test Engineer: LiuH
EUT: Smart Beacon ID	Temperature: 25.4°C
M/N: T7-BUD-A-TEEU-B-3	Humidity: 45%RH
Test Voltage: Battery	Test Data: 2024-10-17
Test Mode: L	
Note:	



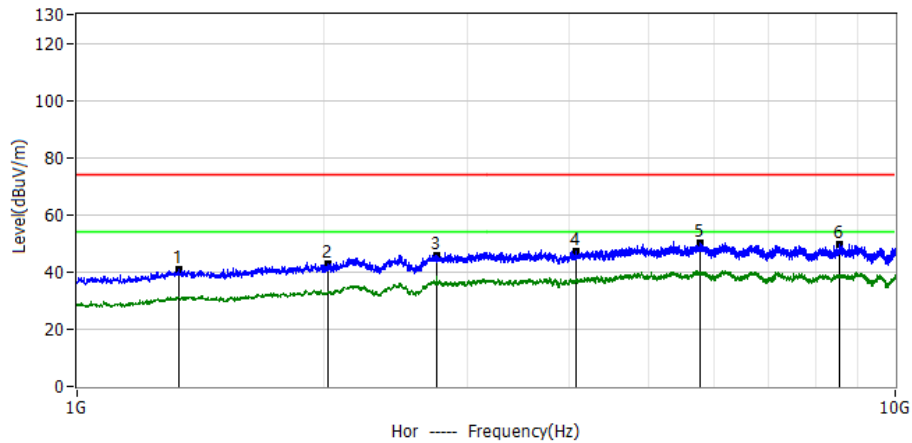
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1111.4000	63.10	-23.97	39.13	74.00	-34.87	PK	Hor
2*	1975.4000	59.02	-16.06	42.96	74.00	-31.04	PK	Hor
3*	3304.0000	55.82	-8.33	47.49	74.00	-26.51	PK	Hor
4*	4319.9000	54.34	-6.48	47.86	74.00	-26.14	PK	Hor
5*	6258.2000	57.39	-7.54	49.85	74.00	-24.15	PK	Hor
6*	9007.7000	57.71	-8.09	49.62	74.00	-24.38	PK	Hor



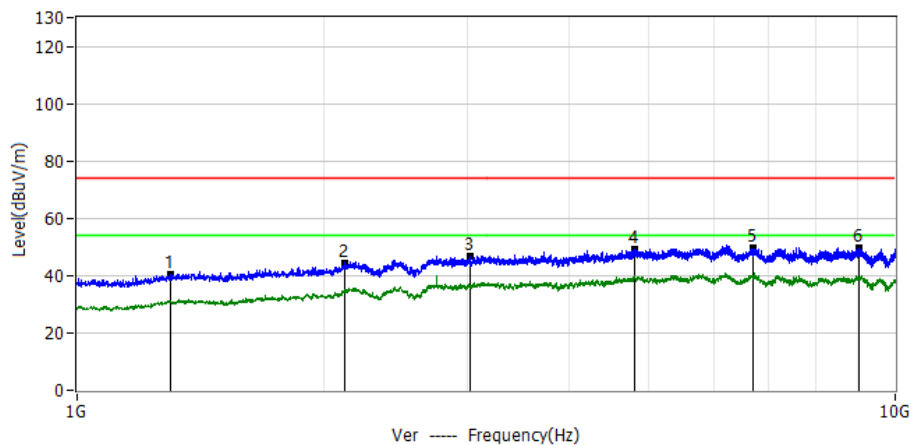
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1326.2000	62.78	-22.04	40.74	74.00	-33.26	PK	Ver
2*	2154.2000	59.27	-14.21	45.06	74.00	-28.94	PK	Ver
3*	3188.1000	55.87	-8.49	47.38	74.00	-26.62	PK	Ver
4*	4256.9000	54.09	-6.55	47.54	74.00	-26.46	PK	Ver
5*	5827.4000	57.23	-7.21	50.02	74.00	-23.98	PK	Ver
6*	8978.5000	57.51	-8.13	49.38	74.00	-24.62	PK	Ver



Project: LGT24J015	Test Engineer: LiuH
EUT: Smart Beacon ID	Temperature: 25.4°C
M/N: T7-BUD-A-TEEU-B-3	Humidity: 45%RH
Test Voltage: Battery	Test Data: 2024-10-17
Test Mode: M	
Note:	



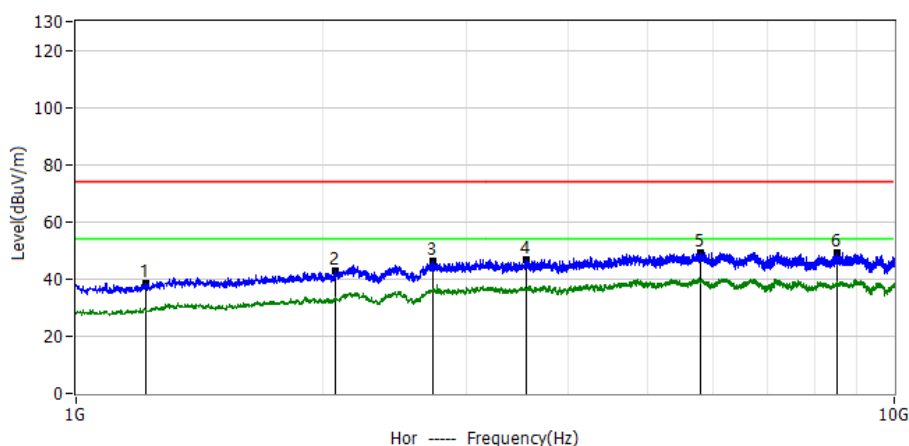
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1330.7000	62.88	-22.01	40.87	74.00	-33.13	PK	Hor
2*	2023.7000	58.33	-15.55	42.78	74.00	-31.22	PK	Hor
3*	2752.7000	55.50	-9.71	45.79	74.00	-28.21	PK	Hor
4*	4071.2000	53.87	-6.77	47.10	74.00	-26.90	PK	Hor
5*	5768.9000	57.11	-7.15	49.96	74.00	-24.04	PK	Hor
6*	8555.5000	58.43	-8.80	49.63	74.00	-24.37	PK	Hor



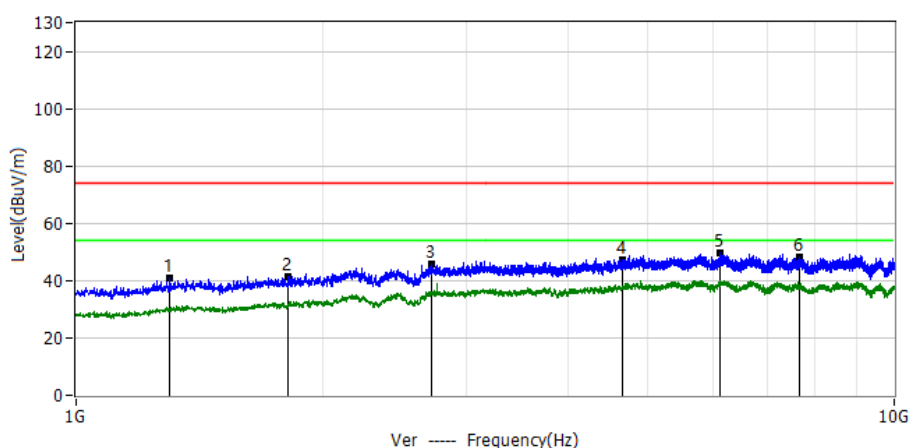
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1300.4000	62.64	-22.26	40.38	74.00	-33.62	PK	Ver
2*	2127.2000	59.04	-14.49	44.55	74.00	-29.45	PK	Ver
3*	3028.4000	55.61	-8.72	46.89	74.00	-27.11	PK	Ver
4*	4811.5000	55.28	-6.10	49.18	74.00	-24.82	PK	Ver
5*	6703.7000	57.28	-7.86	49.42	74.00	-24.58	PK	Ver
6*	9030.2000	57.58	-8.05	49.53	74.00	-24.47	PK	Ver



Project: LGT24J015	Test Engineer: LiuH
EUT: Smart Beacon ID	Temperature: 25.4°C
M/N: T7-BUD-A-TEEU-B-3	Humidity: 45%RH
Test Voltage: Battery	Test Data: 2024-10-17
Test Mode: H	
Note:	



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1214.9000	61.26	-22.99	38.27	74.00	-35.73	PK	Hor
2*	2074.4000	57.70	-15.03	42.67	74.00	-31.33	PK	Hor
3*	2729.1000	56.20	-9.80	46.40	74.00	-27.60	PK	Hor
4*	3543.6000	54.56	-7.95	46.61	74.00	-27.39	PK	Hor
5*	5785.7000	56.37	-7.17	49.20	74.00	-24.80	PK	Hor
6*	8525.1000	57.93	-8.85	49.08	74.00	-24.92	PK	Hor



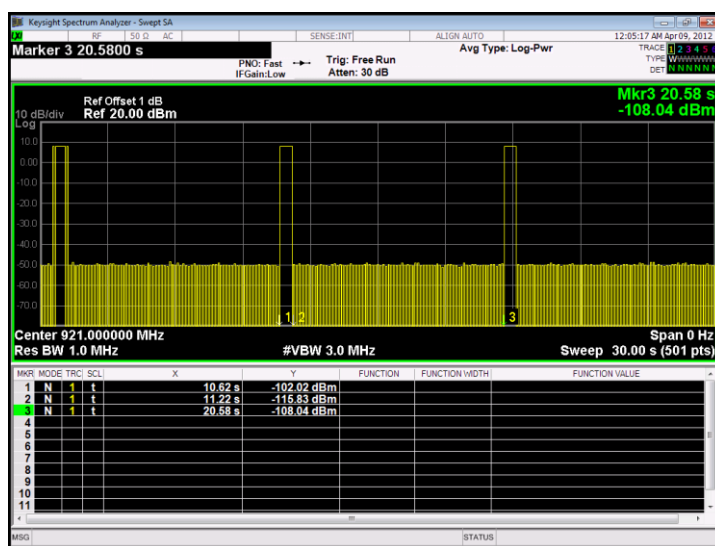
No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	1301.5000	62.94	-22.26	40.68	74.00	-33.32	PK	Ver
2*	1815.6000	59.35	-17.81	41.54	74.00	-32.46	PK	Ver
3*	2714.5000	55.45	-9.85	45.60	74.00	-28.40	PK	Ver
4*	4650.6000	53.57	-6.19	47.38	74.00	-26.62	PK	Ver
5*	6121.0000	57.00	-7.46	49.54	74.00	-24.46	PK	Ver
6*	7662.2000	56.92	-8.77	48.15	74.00	-25.85	PK	Ver

Remark:

In frequency ranges 18~40GHz 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.



Duty cycle



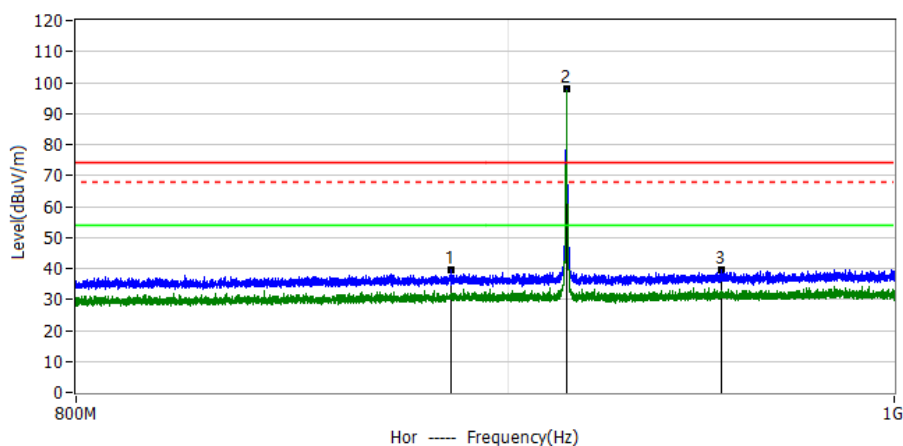
Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
921	Ant1	6.02%	0.060	12.201

Note: Duty Factor= $20 \cdot \text{LOG}(\text{Ton}/\text{Tp})$



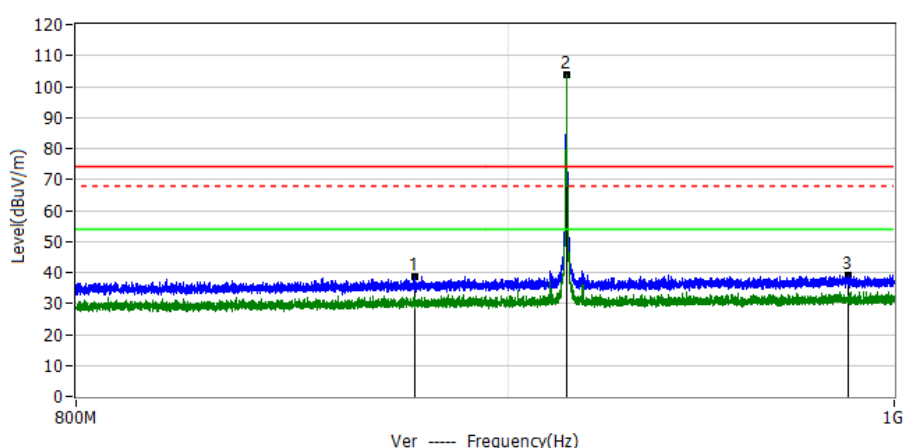
4.7 TEST RESULTS (BAND EDGE REQUIREMENTS)

Project: LGT24J015	Test Engineer: LiuH
EUT: Smart Beacon ID	Temperature: 27°C
M/N: T7-BUD-A-TEEU-B-3	Humidity: 51%RH
Test Voltage: Battery	Test Data: 2024-11-13
Test Mode: L	
Note:	



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	886.025	6.46	33.07	39.53	74.00	-34.47	PK	Hor
!2*	914.500	65.14	32.89	98.03	74.00	24.03	PK	Hor
3*	953.825	5.75	33.82	39.57	74.00	-34.43	PK	Hor

No.	Frequency	Reading dBuV	Factor dB/m	Duty cycle Factor(dB/m)	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
!2*	914.5MHz	65.14	32.89	-	98.03	114	-15.97	PK	Hor
	914.5MHz	65.14	32.89	12.2	85.83	94	-8.17	AVG	Hor

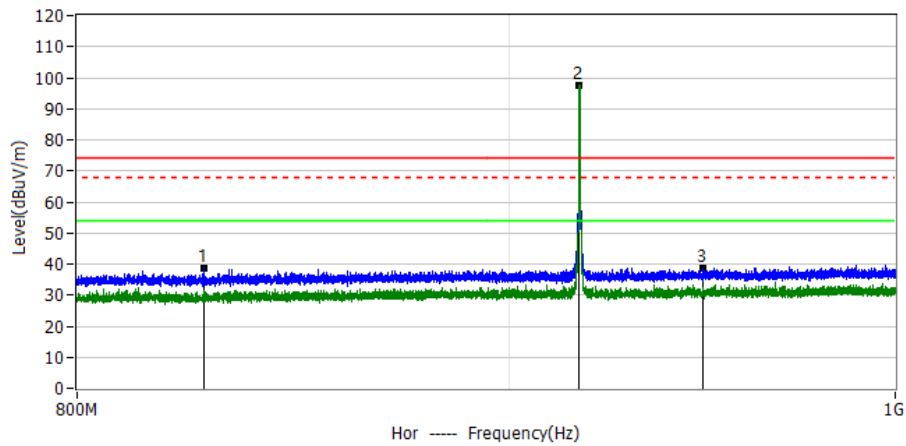


No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	877.500	5.75	32.89	38.64	74.00	-35.36	PK	Ver
!2*	914.475	70.84	32.89	103.73	74.00	29.73	PK	Ver
3*	987.675	5.11	34.00	39.11	74.00	-34.89	PK	Ver

No.	Frequency	Reading dBuV	Factor dB/m	Duty cycle Factor(dB/m)	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
!2*	914.475MHz	70.84	32.89	-	103.73	114	-10.27	PK	Ver
	914.475MHz	70.84	32.89	12.2	91.53	94	-2.47	AVG	Ver

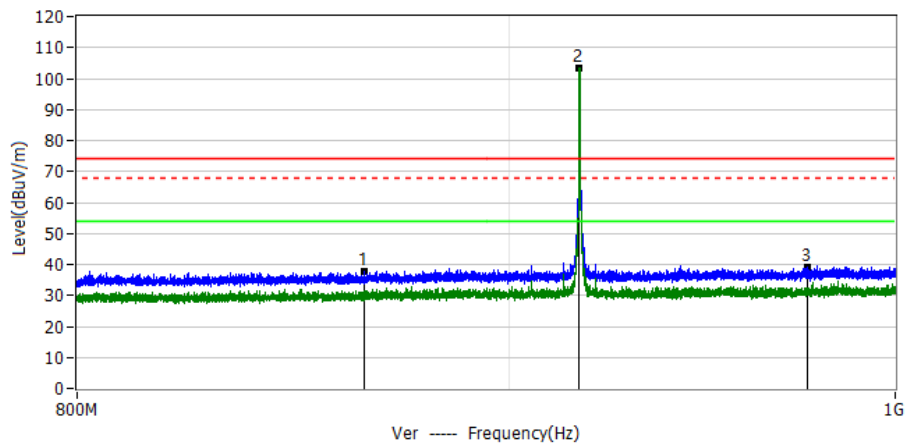


Project: LGT24J015	Test Engineer: LiuH
EUT: Smart Beacon ID	Temperature: 27°C
M/N: T7-BUD-A-TEEU-B-3	Humidity: 51%RH
Test Voltage: Battery	Test Data: 2024-11-13
Test Mode: M	
Note:	



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	828.025	6.49	32.04	38.53	74.00	-35.47	PK	Hor
!2*	917.475	64.50	33.11	97.61	74.00	23.61	PK	Hor
3*	949.000	5.22	33.65	38.87	74.00	-35.13	PK	Hor

No.	Frequency	Reading dBuV	Factor dB/m	Duty cycle Factor(dB/m)	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
!2*	917.475MHz	64.5	33.11	-	97.61	114	-16.39	PK	Hor
	917.475MHz	64.5	33.11	12.2	85.41	94	-8.59	AVG	Hor

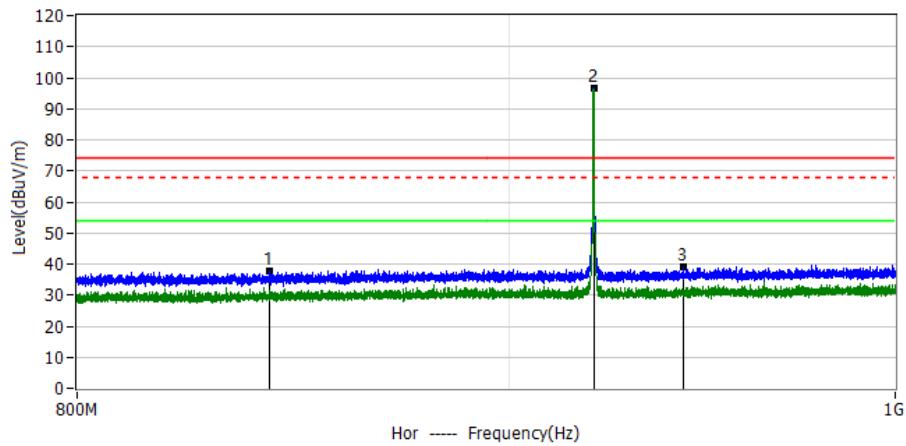


No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	865.075	4.92	32.77	37.69	74.00	-36.31	PK	Ver
!2*	917.475	70.33	33.11	103.44	74.00	29.44	PK	Ver
3*	976.325	5.29	33.77	39.06	74.00	-34.94	PK	Ver

No.	Frequency	Reading dBuV	Factor dB/m	Duty cycle Factor(dB/m)	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
!2*	917.475MHz	70.33	33.11	-	103.44	114	-10.56	PK	Ver
	917.475MHz	70.33	33.11	12.2	91.24	94	-2.76	AVG	Ver

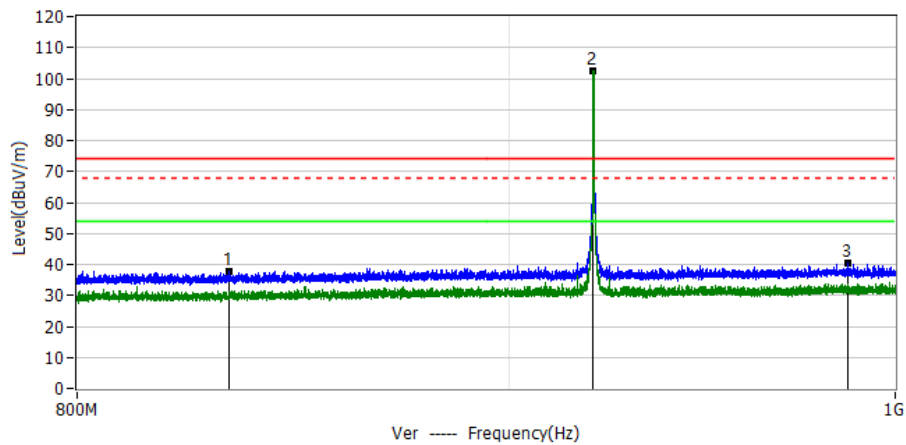


Project: LGT24J015	Test Engineer: LiuH
EUT: Smart Beacon ID	Temperature: 27°C
M/N: T7-BUD-A-TEEU-B-3	Humidity: 51%RH
Test Voltage: Battery	Test Data: 2024-11-13
Test Mode: H	
Note:	



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	843.025	5.22	32.31	37.53	74.00	-36.47	PK	Hor
!2*	921.025	63.36	33.29	96.65	74.00	22.65	PK	Hor
3*	943.875	5.49	33.57	39.06	74.00	-34.94	PK	Hor

No.	Frequency	Reading dBuV	Factor dB/m	Duty cycle Factor(dB/m)	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
!2*	921.025MHz	63.36	33.29	-	96.65	114	-17.35	PK	Hor
	921.025MHz	63.36	33.29	12.2	84.45	94	-9.55	AVG	Hor



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	833.850	5.56	32.24	37.80	74.00	-36.20	PK	Ver
!2*	920.975	69.26	33.30	102.56	74.00	28.56	PK	Ver
3*	987.100	6.18	34.05	40.23	74.00	-33.77	PK	Ver

No.	Frequency	Reading dBuV	Factor dB/m	Duty cycle Factor(dB/m)	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
!2*	920.975MHz	69.26	33.3	-	102.56	114	-11.44	PK	Ver
	920.975MHz	69.26	33.3	12.2	90.36	94	-3.64	AVG	Ver



5. BANDWIDTH TEST

5.1 TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- Spectrum Setting : RBW= 100KHz, VBW $\geq$ RBW, Sweep time = Auto.

5.2 TEST SETUP



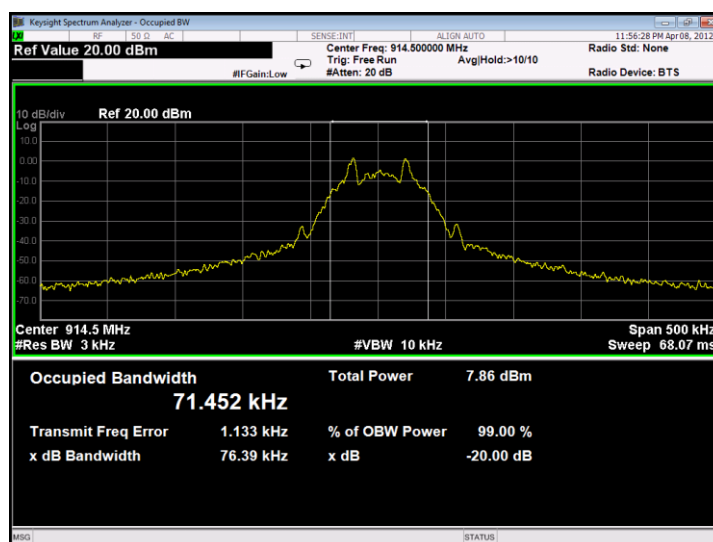
5.3 EUT OPERATION CONDITIONS

TX mode.

5.4 TEST RESULTS

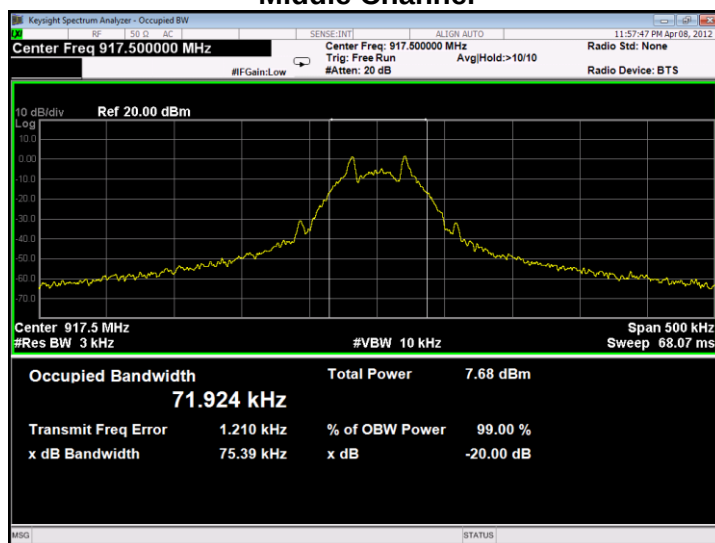
Mode	Frequency (MHz)	Antenna	99% OBW (KHz)	-20 dB Bandwidth (KHz)
ISM	914.5	Ant1	71.452	76.39
ISM	917.5	Ant1	71.924	75.39
ISM	921	Ant1	72.705	77.10

Lowest Channel

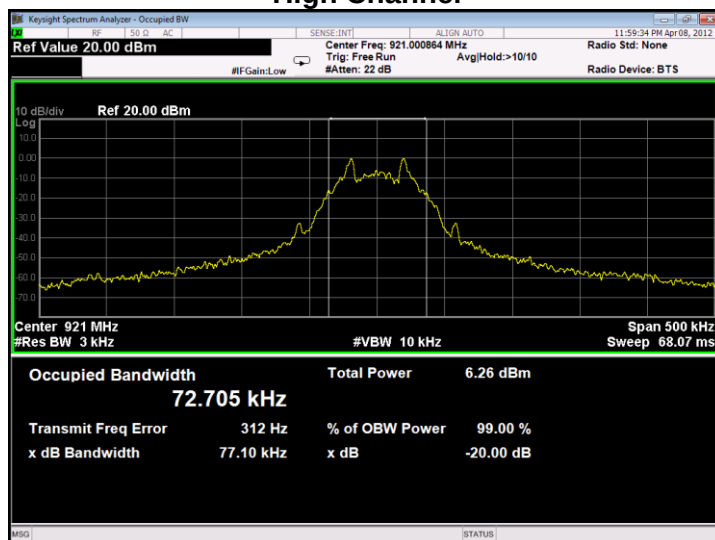




Middle Channel



High Channel





6. ANTENNA REQUIREMENT

6.1 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.

6.2 EUT ANTENNA

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



APPENDIX I - PHOTOGRAPHS OF EUT CONSTRUCTIONAL DETAILS

Note: Please see the attached T7-BUD-A-TEEU-B-3_EUT Photos.

※※※※※END OF THE REPORT※※※※※