



FCC TEST REPORT

FCC ID:2A9VK-L620

Report Number..... : ZKT-2212299846E-1

Date of Test..... Dec. 29, 2022 to Jan. 10, 2023

Date of issue..... : Jan. 10, 2023

Total number of pages..... 26

Test Result : PASS

Testing Laboratory..... : Shenzhen ZKT Technology Co., Ltd.

Address : 1/F, No. 101, Building B, No. 6, Tangwei Community Industrial Avenue, Fuhai Street, Bao'an District, Shenzhen, China

Applicant's name : BOTIN SMART TECHNOLOGY (Guangdong) Co., LTD.

Address : Fl. 8, Shenshan New Generation Information Industrial Park, No. 19, Keji Middle Road, High tech Zone, Shantou, Guangdong, China

Manufacturer's name : BOTIN SMART TECHNOLOGY (Guangdong) Co., LTD.

Address : Fl. 8, Shenshan New Generation Information Industrial Park, No. 19, Keji Middle Road, High tech Zone, Shantou, Guangdong, China

Test specification:

Standard..... : FCC CFR Title 47 Part 15 Subpart C Section 15.225
ANSI C63.10:2013

Test procedure..... : /

Non-standard test method : N/A

Test Report Form No..... : TRF-EL-112_V0**Test Report Form(s) Originator..... : ZKT Testing****Master TRF : Dated: 2020-01-06**

This device described above has been tested by ZKT, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Product name..... : Smart Lock

Trademark : N/A

Model/Type reference..... : L620

L904,L801,402,407,610,620,621,622,632,633,701,801,802,803,
818,819,820,821,822,823,826,828,829,901,902,904,905,906,
907,910,912,920,930,932,952,953

Ratings..... : Input: DC 5V or Battery 1.5*4V



Testing procedure and testing location:

Testing Laboratory.....: Shenzhen ZKT Technology Co., Ltd.

**Address.....: 1/F, No. 101, Building B, No. 6, Tangwei Community
Industrial Avenue, Fuhai Street, Bao'an District,
Shenzhen, China**

Tested by (name + signature).....: Tom Zou

Tom Zou

Reviewer (name + signature).....: Jackson Fang

Jackson Fang

Approved (name + signature).....: Lake Xie





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1.VERSION

Report No.	Version	Description	Approved
ZKT-2212299846E-1	Rev.01	Initial issue of report	Jan. 10, 2023



2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part15 (15.225) , Subpart C			
Standard Section	Test Item	Judgment	Remark
FCC part 15.203	Antenna requirement	PASS	
FCC part 15.207	AC Power Line Conducted Emission	PASS	
FCC part 15.225(a)(b)(c)(d)	Fundamental &Radiated Spurious Emission Measurement	PASS	
FCC part 15.215	Channel Bandwidth	PASS	
FCC part 15.225(e)	Frequency Tolerance	PASS	

NOTE:

(1)" N/A" denotes test is not applicable in this Test Report



2.1 TEST FACILITY

Shenzhen ZKT Technology Co., Ltd.

Add. : 1/F, No. 101, Building B, No. 6, Tangwei Community Industrial Avenue, Fuhai Street, Bao'an District, Shenzhen, China

FCC Test Firm Registration Number: 692225

Designation Number: CN1299

IC Registered No.: 27033

2.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expended 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	Conducted Emission Test	$\pm 1.38\text{dB}$
2	RF power conducted	$\pm 0.16\text{dB}$
3	Spurious emissions conducted	$\pm 0.21\text{dB}$
4	All emissions radiated(<1G)	$\pm 4.68\text{dB}$
5	All emissions radiated(>1G)	$\pm 4.89\text{dB}$
6	Temperature	$\pm 0.5^{\circ}\text{C}$
7	Humidity	$\pm 2\%$



3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Product Name:	Smart Lock
Model No.:	L620 L904,L801,402,407,610,620,621,622,632,633,701,801,802,803, 818,819,820,821,822,823,826,828,829,901,902,904,905,906, 907,910,912,920,930,932,952,953
Model Different.:	Only for different model name
Serial No.:	N/A
Hardware Version:	H1.0
Software Version:	S1.0
Sample(s) Status:	Engineer sample
Operation Frequency:	13.56MHz
Channel Numbers:	1
Channel Separation:	N/A
Modulation Type:	ASK
Antenna Type:	PCB Antenna
Antenna gain:	0dBi
Power supply:	DC 5V or Battery 1.5*4V
SWITCHING POWER ADAPTER:	N/A



3.2 DESCRIPTION OF TEST MODES

Transmitting mode	Keep the EUT in continuously transmitting NFC mode
Remark: During the test, the test voltage was tuned from 85% to 115% of the nominal rated supply voltage, and found that the worst case was under the nominal rated supply condition. So the report just shows that condition's data.	

3.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

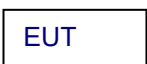
Conducted Emission



Radiated Emission



Conducted Spurious



3.4 DESCRIPTION OF SUPPORT UNITS(CONDUCTED MODE)

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.

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Note
E-1	Smart Lock	N/A	L620	N/A	EUT

Item	Shielded Type	Ferrite Core	Length	Note

Note:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in 『Length』 column.



3.5 EQUIPMENTS LIST FOR ALL TEST ITEMS

Radiation Test equipment

Item	Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	Spectrum Analyzer (9kHz-26.5GHz)	KEYSIGHT	9020A	MY55370835	Oct. 28, 2022	Oct. 27, 2023
2	Spectrum Analyzer (10kHz-39.9GHz)	R&S	FSQ	100363	Oct. 28, 2022	Oct. 27, 2023
3	EMI Test Receiver (9kHz-7GHz)	R&S	ESCI7	101169	Oct. 28, 2022	Oct. 27, 2023
4	Bilog Antenna (30MHz-1500MHz)	Schwarzbeck	VULB9168	N/A	Nov. 02, 2022	Nov. 01, 2023
5	Horn Antenna (1GHz-18GHz)	Agilent	AH-118	071145	Nov. 01, 2022	Oct. 31, 2023
6	Horn Antenna (15GHz-40GHz)	A.H.System	SAS-574	588	Oct. 28, 2022	Oct. 27, 2023
7	Loop Antenna	TESEQ	HLA6121	58357	Nov. 01, 2022	Oct. 31, 2023
8	Amplifier (30-1000MHz)	EM Electronics	EM330 Amplifier	060747	Nov. 15, 2022	Nov. 14, 2023
9	Amplifier (1GHz-26.5GHz)	Agilent	8449B	3008A00315	Oct. 28, 2022	Oct. 27, 2023
10	Amplifier (500MHz-40GHz)	全聚达	DLE-161	097	Oct. 28, 2022	Oct. 27, 2023
11	Test Cable	N/A	R-01	N/A	Oct. 28, 2022	Oct. 27, 2023
12	Test Cable	N/A	R-02	N/A	Oct. 28, 2022	Oct. 27, 2023
13	Test Cable	N/A	R-03	N/A	Oct. 28, 2022	Oct. 27, 2023
14	Magnetic Field Probe Tester	Narda	ELT-400	0-0344	Nov. 15, 2022	Nov. 14, 2023
15	D.C. Power Supply	LongWei	TPR-6405D	N/A	\	\
16	EMC Software	Frad	EZ-EMC	Ver.EMC-CO N 3A1.1	\	\
17	Turntable	MF	MF-7802BS	N/A	\	\
18	Antenna tower	MF	MF-7802BS	N/A	\	\
19	Program-type constant temperature and humidity test box	GX	GX-3000-100 LT	N/A	Nov. 15, 2022	Nov. 14, 2023

Conducted emissions Test

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	LISN	R&S	ENV216	101471	Oct. 21, 2022	Oct. 20, 2023
2	LISN	CYBERTEK	EM5040A	E1850400149	Oct. 21, 2022	Oct. 20, 2023
3	Test Cable	N/A	C-01	N/A	Oct. 21, 2022	Oct. 20, 2023
4	Test Cable	N/A	C-02	N/A	Oct. 21, 2022	Oct. 20, 2023
5	Test Cable	N/A	C-03	N/A	Oct. 21, 2022	Oct. 20, 2023
6	EMI Test Receiver	R&S	ESCI3	101393	Oct. 28, 2022	Oct. 27, 2023
7	EMC Software	Frad	EZ-EMC	Ver.EMC-CO N 3A1.1	\	\



4. EMC EMISSION TEST

4.1 CONDUCTED EMISSION MEASUREMENT

Test Requirement:	FCC Part15 C Section 15.207
Test Method:	ANSI C63.10:2013
Test Frequency Range:	150KHz to 30MHz
Receiver setup:	RBW=9KHz, VBW=30KHz, Sweep time=auto

4.1.1 POWER LINE CONDUCTED EMISSION Limits

FREQUENCY (MHz)	Limit (dBuV)		Standard
	Quas-peak	Average	
0.15 -0.5	66 - 56 *	56 - 46 *	FCC
0.50 -5.0	56.00	46.00	FCC
5.0 -30.0	60.00	50.00	FCC

Note:

(1) *Decreases with the logarithm of the frequency.

4.1.2 TEST PROCEDURE

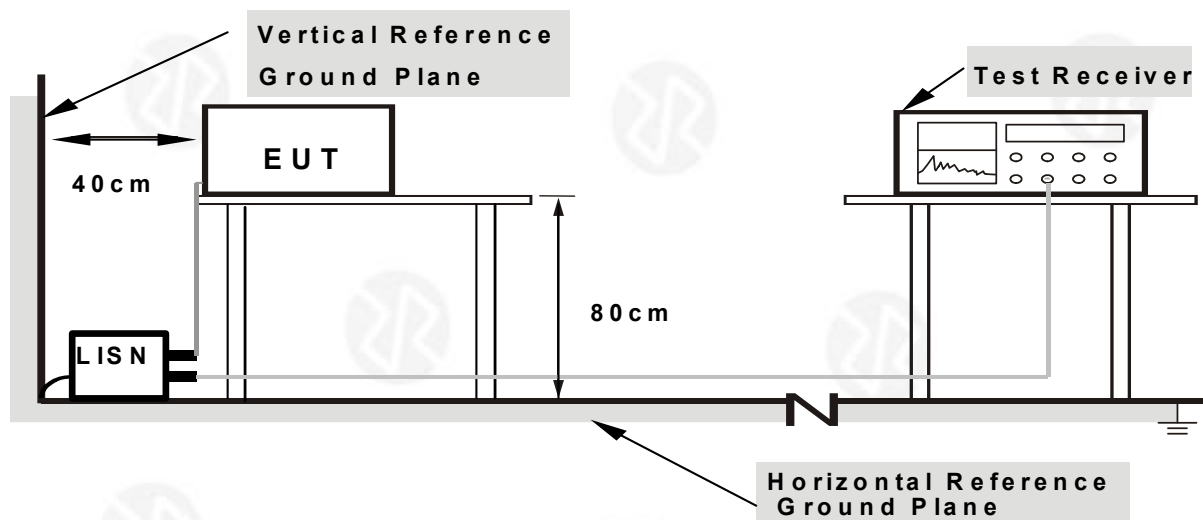
- The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- 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 at least 80 cm from nearest part of EUT chassis.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.1.3 DEVIATION FROM TEST STANDARD

No deviation



4.1.4 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

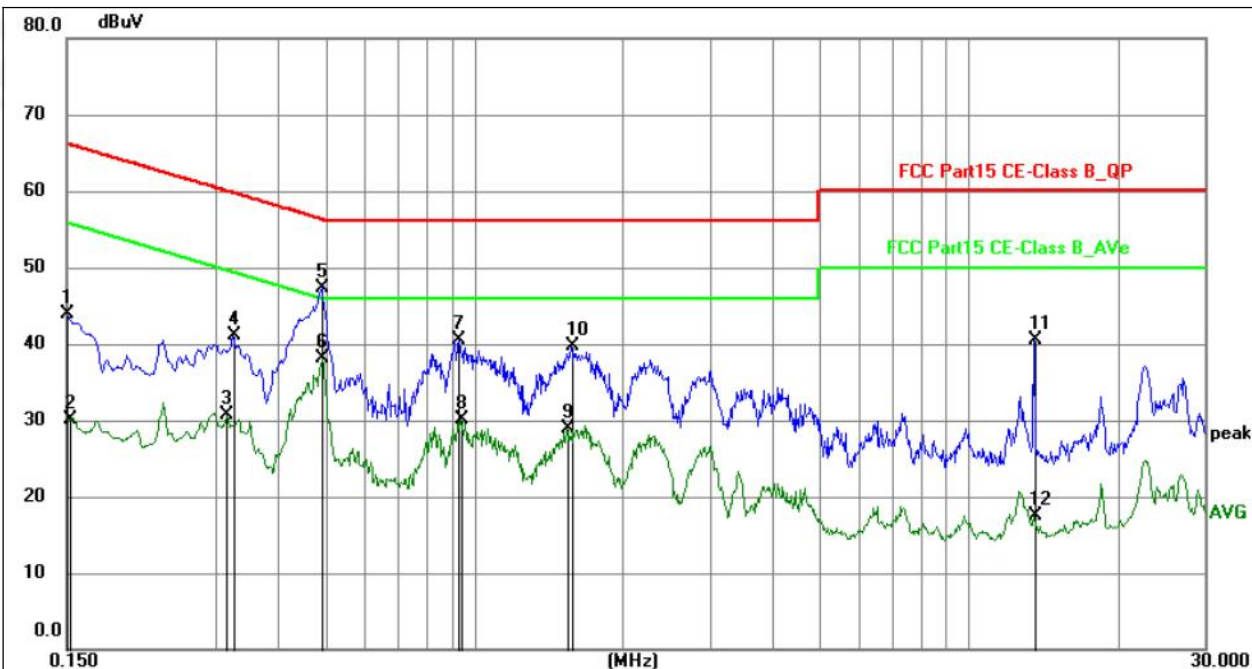
4.1.5 EUT OPERATING CONDITIONS

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.

We pretest AC 120V and AC 230V, the worst voltage was AC 120V and the data recording in the report.



Temperature :	26℃	Relative Humidity:	54%
Pressure :	101kPa	Phase :	L
Test Voltage :	AC 120V/60Hz		



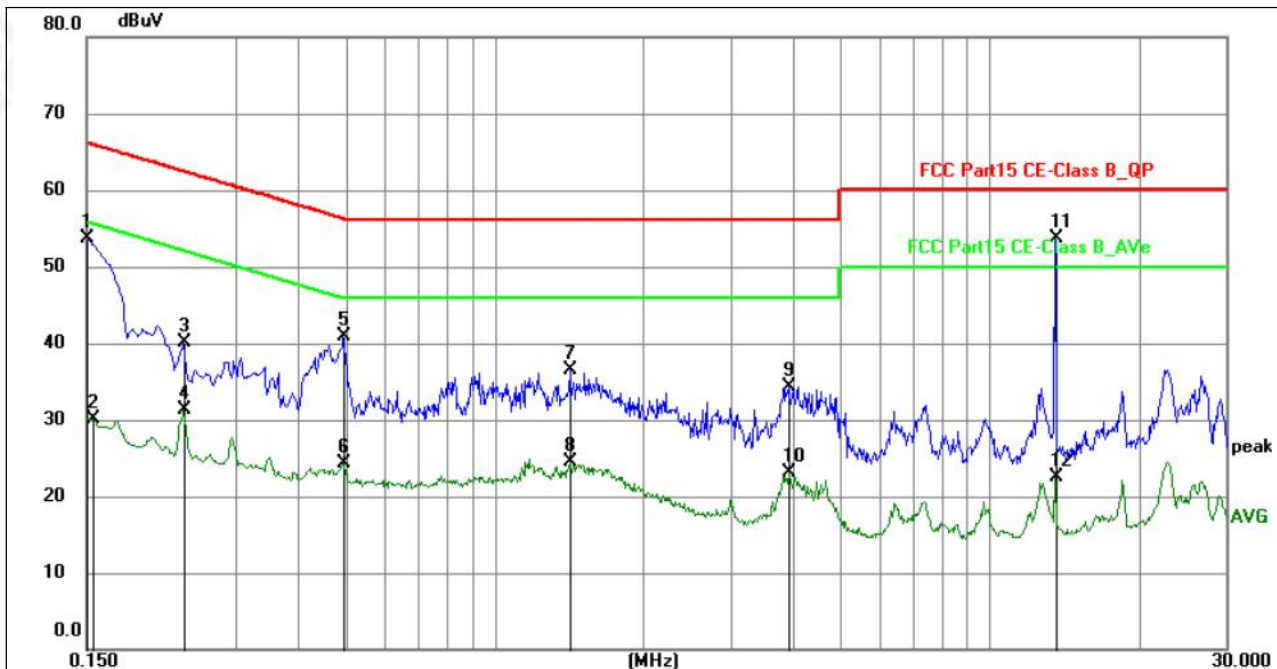
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1500	20.85	23.01	43.86	66.00	-22.14	QP	P	
2	0.1524	7.20	22.96	30.16	55.87	-25.71	AVG	P	
3	0.3165	9.38	21.39	30.77	49.80	-19.03	AVG	P	
4	0.3255	19.77	21.34	41.11	59.57	-18.46	QP	P	
5	0.4920	26.64	20.58	47.22	56.13	-8.91	QP	P	
6	0.4920	17.45	20.58	38.03	46.13	-8.10	AVG	P	
7	0.9284	20.13	20.45	40.58	56.00	-15.42	QP	P	
8	0.9419	9.69	20.45	30.14	46.00	-15.86	AVG	P	
9	1.5359	8.60	20.31	28.91	46.00	-17.09	AVG	P	
10	1.5719	19.32	20.30	39.62	56.00	-16.38	QP	P	
11	13.5510	21.49	18.96	40.45	60.00	-19.55	QP	P	
12	13.5510	-1.47	18.96	17.49	50.00	-32.51	AVG	P	

Notes:

- 1.An initial pre-scan was performed on the line and neutral lines with peak detector.
- 2.Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
- 3.Measurement Level = Reading level + Correct Factor



Temperature :	26℃	Relative Humidity:	54%
Pressure :	101kPa	Phase :	N
Test Voltage :	AC 120V/60Hz		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1500	30.73	23.01	53.74	66.00	-12.26	QP	P	
2	0.1544	7.17	22.91	30.08	55.76	-25.68	AVG	P	
3	0.2355	18.29	21.75	40.04	62.25	-22.21	QP	P	
4	0.2355	9.53	21.75	31.28	52.25	-20.97	AVG	P	
5	0.4965	20.25	20.56	40.81	56.06	-15.25	QP	P	
6	0.4965	3.76	20.56	24.32	46.06	-21.74	AVG	P	
7	1.4234	16.14	20.33	36.47	56.00	-19.53	QP	P	
8	1.4234	4.16	20.33	24.49	46.00	-21.51	AVG	P	
9	3.9300	15.02	19.34	34.36	56.00	-21.64	QP	P	
10	3.9300	3.76	19.34	23.10	46.00	-22.90	AVG	P	
11	13.5645	34.77	18.96	53.73	60.00	-6.27	QP	P	
12	13.5645	3.51	18.96	22.47	50.00	-27.53	AVG	P	

Notes:

- 1.An initial pre-scan was performed on the line and neutral lines with peak detector.
- 2.Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
- 3.Measurement Level = Reading level + Correct Factor



4.2 RADIATED EMISSION MEASUREMENT

Test Requirement:	FCC Part15 C Section 15.209				
Test Method:	ANSI C63.10:2013				
Test Frequency Range:	9kHz to 1GHz				
Test site:	Measurement Distance: 3m				
Receiver setup:	Frequency	Detector	RBW	VBW	Value
	9KHz-150KHz	Quasi-peak	200Hz	600Hz	Quasi-peak
	150KHz-30MHz	Quasi-peak	9KHz	30KHz	Quasi-peak
	30MHz-1GHz	Quasi-peak	100KHz	300KHz	Quasi-peak
	Above 1GHz	Peak	1MHz	3MHz	Peak
		Peak	1MHz	10Hz	Average

4.2.1 RADIATED EMISSION LIMITS

Frequencies (MHz)	Field Strength (micorvolts/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

Field Strength of Fundamental Limit:

- The field strength of any emissions within the band 13.553-13.567 MHz shall not exceed 15,848 microvolts/meter at 30 meters. 15,848 microvolts/meter at 3 meters=124 dBuV/m.
- Within the bands 13.410-13.553 MHz and 13.567-13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts/meter at 30 meters. 334 microvolts/meter at 3 meters=90.47 dBuV/m.

4.2.2 TEST PROCEDURE

- The measuring distance of at 3 m shall be used for measurements at frequency up to 25GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-chamber test. The table was rotated 360 degrees to determine the position of the highest radiation.
- The height of the equipment or of the substitution antenna shall be 0.8m; above 1GHz, the height was 1.5m, the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations 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 then Quasi Peak detector mode re-measured.
- If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.



f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

g. For the radiated emission test above 1GHz:

Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response.

The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.

Note:

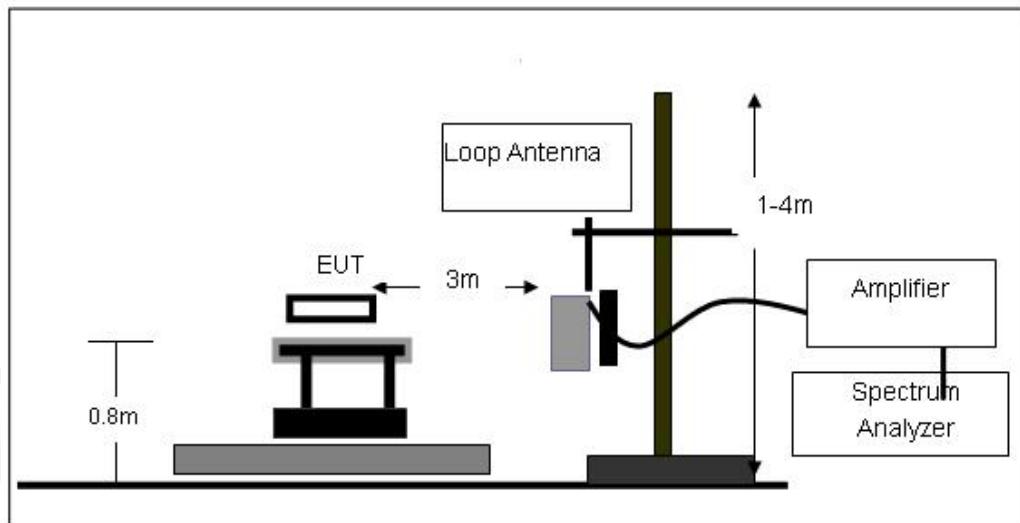
Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported

4.2.3 DEVIATION FROM TEST STANDARD

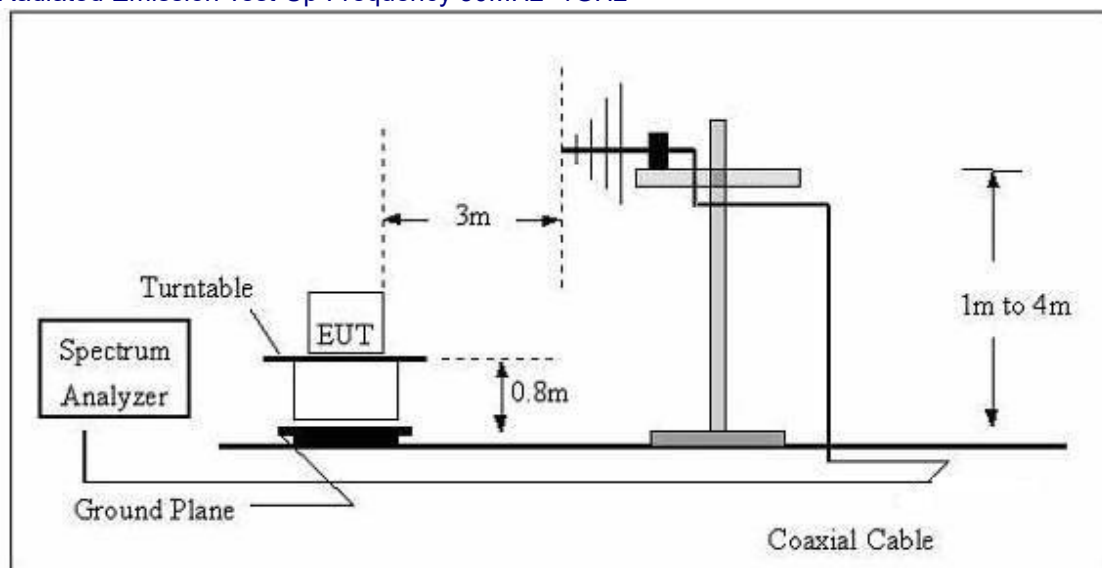
No deviation

4.2.4 TEST SETUP

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

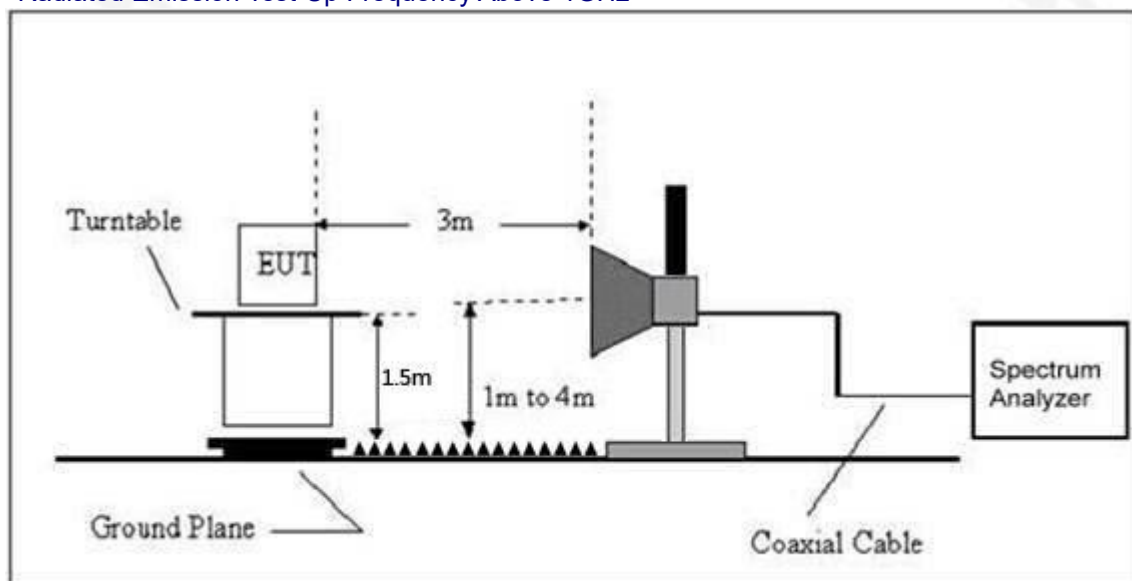


(B) Radiated Emission Test-Up Frequency 30MHz~1GHz





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



4.2.5 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.



4.2.6 TEST RESULTS

Field Strength of Fundamental

Frequency (MHz)	Reading (dBuV/m)	Correction Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polar (H/V)	Detector
13.44	52.87	15.82	68.69	90.47	-21.78	H	QP
13.44	51.45	15.82	67.27	90.47	-23.2	V	QP
13.55	57.64	15.61	73.25	90.47	-17.22	H	QP
13.55	56.31	15.61	71.92	90.47	-18.55	V	QP
13.56	87.82	12.33	100.15	124	-23.85	H	Peak
13.56	82.77	12.33	95.1	124	-28.9	V	Peak
13.569	56.49	12.33	68.82	90.47	-21.65	H	QP
13.569	54.18	12.33	66.51	90.47	-23.96	V	QP
13.65	50.55	15.82	66.37	90.47	-24.1	H	QP
13.65	49.62	15.82	65.44	90.47	-25.03	V	QP



Between 9KHz – 30 MHz

Note: Limit dBuV/m @3m = Limit dBuV/m @300m+ 80
Limit dBuV/m @3m = Limit dBuV/m @30m + 40
9 kHz~30 MHz

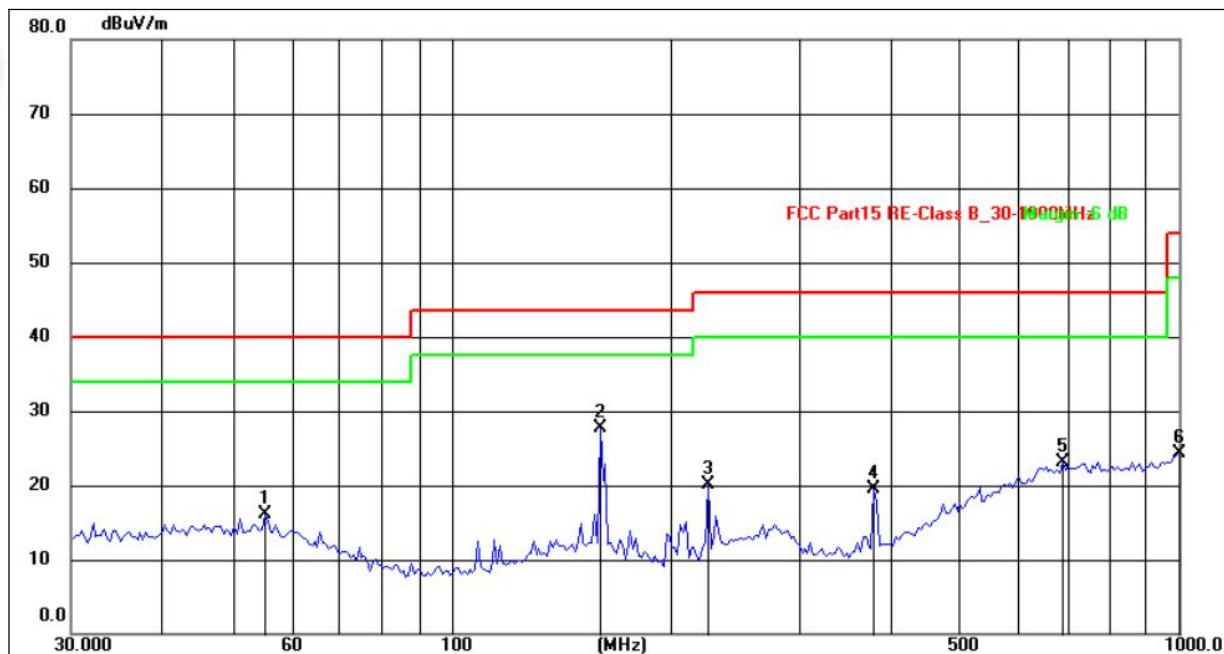
Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(kHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
25.69	37.56	15.15	52.71	119.41	-66.70	AV
58.88	38.26	15.22	53.48	112.20	-58.72	AV
158.54	39.32	16.33	55.65	103.60	-47.95	AV
1258.77	38.62	16.87	55.49	75.42	-19.93	QP
2123.41	36.82	17.62	54.44	58.45	-4.01	QP
3258.62	34.33	18.32	52.65	58.45	-5.8	QP
6829.31	32.41	18.64	51.05	58.45	-7.4	QP
9250.79	35.98	19.26	55.24	58.45	-3.21	QP
11153.64	35.63	19.32	54.95	58.45	-3.5	QP

Note:
Pre-scan in the all of mode, the worst case in of was recorded.
Factor = antenna factor + cable loss – pre-amplifier.
Margin = Emission Level- Limit.



Between 30MHz – 1GHz

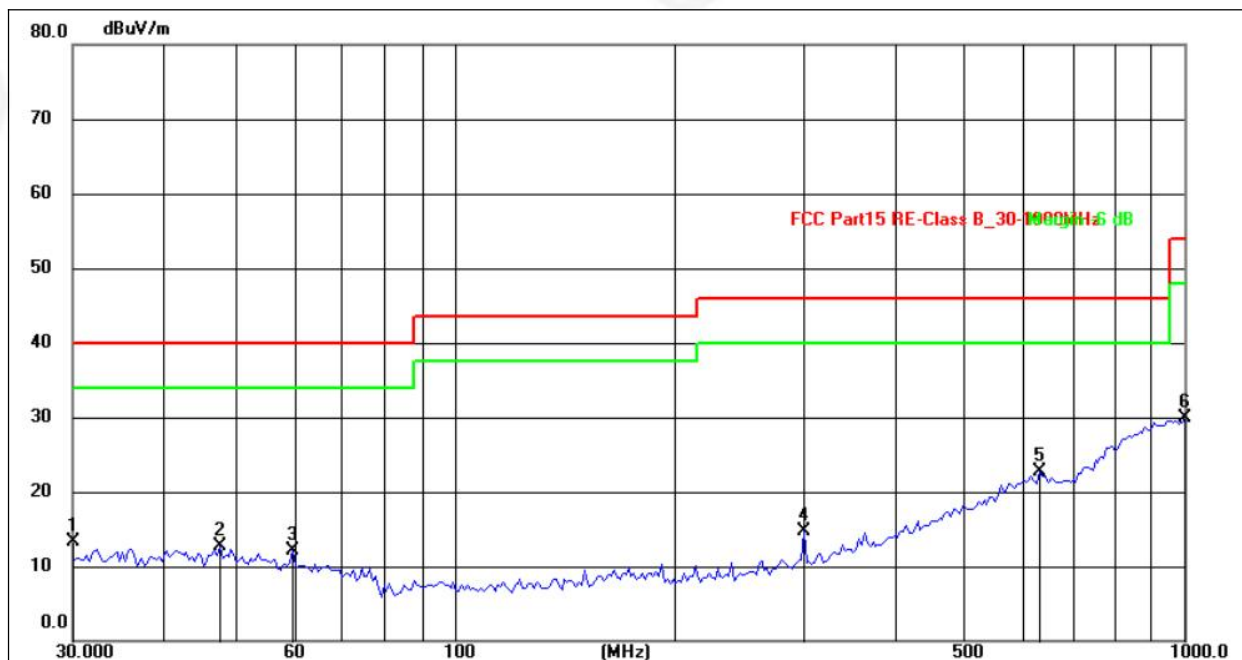
Temperature:	26℃	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	Horizontal
Test Voltage:	DC 6V		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	55.4147	30.23	-14.15	16.08	40.00	-23.92	QP
2	160.0648	43.81	-16.20	27.61	43.50	-15.89	QP
3	225.3079	37.42	-17.39	20.03	46.00	-25.97	QP
4	381.2485	36.09	-16.65	19.44	46.00	-26.56	QP
5	691.9865	30.00	-6.87	23.13	46.00	-22.87	QP
6	1000.0000	29.17	-4.87	24.30	54.00	-29.70	QP



Temperature:	26°C	Relative Humidity:	54%
Pressure:	101kPa	Polarization:	Vertical
Test Voltage:	DC 6V		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	30.0000	31.72	-18.44	13.28	40.00	-26.72	QP
2	47.7422	29.97	-17.20	12.77	40.00	-27.23	QP
3	59.9638	30.44	-18.32	12.12	40.00	-27.88	QP
4	300.8943	32.95	-18.30	14.65	46.00	-31.35	QP
5	633.9073	30.36	-7.73	22.63	46.00	-23.37	QP
6	1000.0000	30.18	-0.22	29.96	54.00	-24.04	QP

Remarks:

- 1.Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
- 2.The emission levels of other frequencies are very lower than the limit and not show in test report.



5. FREQUENCY TOLERANCE

Test Requirement:	FCC Part15 C Section 15.225(e)
Test Method:	ANSI C63.10:2013

5.1 LIMIT

The frequency tolerance of the carrier signal shall be maintained within $\pm 0.01\%$ of the operating frequency over a temperature variation of -20 degrees to $+50$ degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. For battery operated equipment, the equipment tests shall be performed using a new battery.

Limit: $\pm 0.01\%$ of 13.56MHz= ± 1356 Hz

5.2 TEST PROCEDURE

1. Set RBW = 10 kHz.
2. Set the video bandwidth (VBW) $\geq$ RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. The transmitter output (antenna port) was connected to the spectrum analyzer.

5.3 DEVIATION FROM TEST STANDARD

No deviation

5.4 TEST SETUP



5.5 TEST RESULT

Test Conditions			Frequency Deviation		Limit
Frequency MHz	Power(Vdc)	Temperature (°C)	Measured Freq. (MHz)	Deviation (%)	
13.56	Normal	-20	13.5602	0.0002	$\pm 0.01\%$
	Normal	-10	13.5602	0.0002	
	Normal	0	13.5600	0	
	Normal	10	13.5602	0.0002	
	Normal	20	13.5604	0.0004	
	Normal	30	13.5602	0.0002	
	Normal	40	13.5601	0.0001	
	Normal	50	13.5601	0.0001	
	Normal*85%	20	13.5604	0.0004	
	Normal *115%	20	13.5603	0.0003	



6. CHANNEL BANDWIDTH

Test Requirement:	FCC Part15 C Section 15.215
Test Method:	ANSI C63.10: 2013

6.1 APPLIED PROCEDURES / LIMIT

Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§15.217 through 15.257 and in subpart E of this part, must be designed to ensure that 20dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equip compliance with the 20dB attenuation specification may base on measurement at the intentional radiator's antenna output terminal unless the intentional radiator uses a permanently attached antenna, in which case compliance shall be demonstrated by measuring the radiated emissions.

6.2 TEST PROCEDURE

1. Set RBW = 1 kHz.
2. Set the video bandwidth (VBW) $\geq$ RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. 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 20 dB relative to the maximum level measured in the fundamental emission.

6.3 DEVIATION FROM STANDARD

No deviation.

6.4 TEST SETUP



6.5 EUT OPERATION CONDITIONS

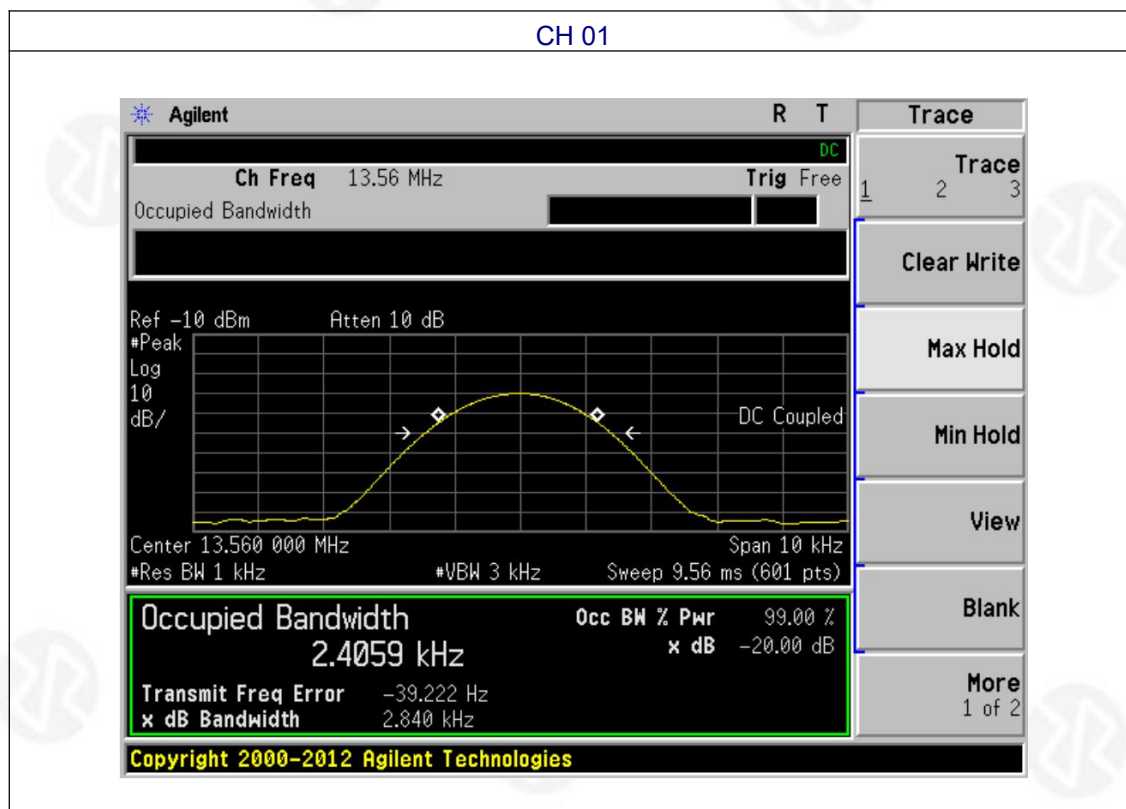
The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.



6.6 TEST RESULT

Temperature :	26°C	Relative Humidity :	54%
Test Mode :	ASK	Test Voltage :	DC 6V

Test channel	20dB Channel Bandwidth (KHz)	Result
1	2.840	Pass





7.ANTENNA REQUIREMENT

Standard requirement:	FCC Part15 C Section 15.203
15.203 requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.	
EUT Antenna:	
The antennas is PCB Antenna, the best case gain of the antennas is 0dBi, reference to the appendix II for details	



8. TEST SETUP PHOTO

Reference to the appendix I for details.

9. EUT CONSTRUCTIONAL DETAILS

Reference to the appendix II for details.

***** END OF REPORT *****