APPLICATION CERTIFICATION FCC Part 15C
On Behalf of
GD DIGITAL LTD

Remote control

Model No.: H881-TX

FCC ID: 2AWNU-H88X-TX

Prepared for	:	GD DIGITAL LTD
Address	:	4th Building, Tianan Digital City, Huangge Road, Longgang District, Shenzhen, China.
Prepared by	:	Shenzhen Accurate Technology Co., Ltd.
Address	:	1/F., Building A, Changyuan New Material Port, Science & Industry Park, Nanshan District, Shenzhen, Guangdong, P.R. China.
		Tel: (0755) 26503290
		Fax: (0755) 26503396

Report No.	:	ATE20200658
Date of Test	:	June 08, 2020--June 10, 2020
Date of Report	:	July 02, 2020

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Description Page

Test Report Certification

Applicant	:	GD DIGITAL LTD
Address	:	4th Building, Tianan Digital City, Huangge Road, Longgang District, Shenzhen
Manufacturer	:	OMG ELECTRONIC LTD
Address	:	LEFUSHAN INDUSTRY ZONE, YOUGANPU VILLAGE, FENGGANG DONGGUAN GUANGDONG
Product	:	Remote control
Model No.	:	H881-TX
Trade name	:	N/A

Measurement Procedure Used:

FCC Rules and Regulations Part 15 Subpart C Section 15.249
ANSI C63.10: 2013

The EUT was tested according to FCC 47CFR 15.249 for compliance to FCC 47CFR 15.249 requirements

The device described above is tested by Shenzhen Accurate Technology Co., Ltd to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C Section 15.249 limits. The measurement results are contained in this test report and Shenzhen Accurate Technology Co., Ltd is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Shenzhen Accurate Technology Co., Ltd.

Date of Test : June 08, 2020--June 10, 2020
Date of Report : July 02, 2020

Prepared by : Tim Zhang
(Tim.zhang, Engineer)

Approve & Authorized Signer : Martin Lu
(Martin Lü, Manager)

1. GENERAL INFORMATION

1.1.Description of Device (EUT)

EUT	:	Remote control
Model Number	:	H881-TX
Power Supply	:	DC 1.5V (Powered by Battery)
Modulation:	:	OOK
Operation Frequency	:	920MHz
Type of Antenna	:	PCB antenna
Max antenna gain	:	2dBi
Applicant	:	GD DIGITAL LTD
Address	:	6-17, Overseas Students Pioneer Park, No.108, Jiangbin East Road, Economic & Technological Development Zone, Fuzhou 350015, China.
Manufacturer	:	OMG ELECTRONIC LTD
Address	:	LEFUSHAN INDUSTRY ZONE, YOUGANPU VILLAGE, FENGGANG DONGGUAN GUANGDONG
Date of sample received	:	June 06, 2020
Date of Test	:	June 08, 2020--June 10, 2020
Sample No.	:	2000599

1.2.Special Accessory and Auxiliary Equipment

N/A

1.3.General disclaimer

The test results presented in this report relate only to the object tested.
The information supplied by the customer can affect the validity of results.

1.4.Description of Test Facility

EMC Lab	:	Recognition of accreditation by Federal Communications Commission (FCC) The Designation Number is CN1189 The Registration Number is 708358 Listed by Innovation, Science and Economic Development Canada (ISEDC) The Registration Number is 5077A-2 Accredited by China National Accreditation Service for Conformity Assessment (CNAS) The Registration Number is CNAS L3193 Accredited by American Association for Laboratory Accreditation (A2LA) The Certificate Number is 4297.01
Name of Firm	:	Shenzhen Accurate Technology Co., Ltd.
Site Location	:	1/F., Building A, Changyuan New Material Port, Science & Industry Park, Nanshan District, Shenzhen, Guangdong, P.R. China

1.5.Measurement Uncertainty

Conducted Emission Expanded Uncertainty (Mains ports, 9kHz-30MHz)	=	2.72dB, k=2
Radiated emission expanded uncertainty (9kHz-30MHz)	=	2.66dB, k=2
Radiated emission expanded uncertainty (30MHz-1000MHz)	=	4.28dB, k=2
Radiated emission expanded uncertainty (1G-18GHz)	=	4.98dB, k=2
Radiated emission expanded uncertainty (18G-26.5GHz)	=	5.06dB, k=2

2. MEASURING DEVICE AND TEST EQUIPMENT

2.1.For Radiated Emission Measurement

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E7405A	MY45115511	Jan.04, 2020	1 Year
2.	Spectrum Analyzer	Rohde&Schwarz	FSV40	101495	Jan.04, 2020	1 Year
3.	Test Receiver	Rohde&Schwarz	ESCS30	100307	Jan.04, 2020	1 Year
4.	Test Receiver	Rohde& Schwarz	ESPI	100396/003	Jan.04, 2020	1 Year
5.	Test Receiver	Rohde& Schwarz	ESPI	101526/003	Jan.04, 2020	1 Year
6.	Test Receiver	Rohde& Schwarz	ESR	101817	Jan.04, 2020	1 Year
7.	Bilog Antenna	Schwarzbeck	VULB9163	9163-194	Jan.04, 2020	1 Year
8.	Bilog Antenna	Schwarzbeck	VULB9163	9163-323	Jan.04, 2020	1 Year
9.	Log.-Per.Antenna	Schwarzbeck	VUSLP 9111B	9111B-074	Jan.04, 2020	1 Year
10.	Biconical Broad Band Antenna	Schwarzbeck	VHBB 9124+BBA 9106	9124-617	Jan.04, 2020	1 Year
11.	Loop Antenna	Schwarzbeck	FMZB1516	1516131	Jan.04, 2020	1 Year
12.	Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	Jan.04, 2020	1 Year
13.	Horn Antenna	Schwarzbeck	BBHA9120D	9120D-1067	Jan.04, 2020	1 Year
14.	Vertical Active Monopole Antenna	Schwarzbeck	VAMP 9243	9243-370	Jan.04, 2020	1 Year
15.	RF Switching Unit+PreAMP	Compliance Direction	RSU-M2	38322	Jan.04, 2020	1 Year
16.	Pre-Amplifier	Agilent	8447D	294A10619	Jan.04, 2020	1 Year
17.	Pre-Amplifier	Rohde&Schwarz	CBLU11835 40-01	3791	Jan.04, 2020	1 Year
18.	50 Coaxial Switch	Anritsu Corp	MP59B	6200237248	Jan.04, 2020	1 Year
19.	50 Coaxial Switch	Anritsu Corp	MP59B	6200506474	Jan.04, 2020	1 Year
20.	RF Coaxial Cable	Schwarzbeck	N-5m	No.1	Jan.04, 2020	1 Year
21.	RF Coaxial Cable	Schwarzbeck	N-1m	No.6	Jan.04, 2020	1 Year
22.	RF Coaxial Cable	Schwarzbeck	N-1m	No.7	Jan.04, 2020	1 Year
23.	RF Coaxial Cable	SUHNER	N-3m	No.8	Jan.04, 2020	1 Year
24.	RF Coaxial Cable	RESENBERGER	N-3.5m	No.9	Jan.04, 2020	1 Year
25.	RF Coaxial Cable	SUHNER	N-6m	No.10	Jan.04, 2020	1 Year
26.	RF Coaxial Cable	RESENBERGER	N-12m	No.11	Jan.04, 2020	1 Year
27.	RF Coaxial Cable	RESENBERGER	N-0.5m	No.12	Jan.04, 2020	1 Year
28.	RF Coaxial Cable	SUHNER	N-2m	No.13	Jan.04, 2020	1 Year
29.	RF Coaxial Cable	SUHNER	N-0.5m	No.15	Jan.04, 2020	1 Year
30.	RF Coaxial Cable	SUHNER	N-2m	No.16	Jan.04, 2020	1 Year
31.	RF Coaxial Cable	RESENBERGER	N-6m	No.17	Jan.04, 2020	1 Year
Radiated Emission Measurement Software: EZ_EMC V1.1.4.2						

2.2.The Equipment Used to Measure Conducted Disturbance (L.I.S.N)

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESCS30	100307	Jan.04, 2020	1 Year
2.	Test Receiver	Rohde & Schwarz	ESPI3	100396/003	Jan.04, 2020	1 Year
3.	Test Receiver	Rohde & Schwarz	ESPI3	101526/003	Jan.04, 2020	1 Year
4.	L.I.S.N.	Schwarzbeck	NLSK8126	8126431	Jan.04, 2020	1 Year
5.	L.I.S.N.	Rohde & Schwarz	ESH3-Z5	100305	Jan.04, 2020	1 Year
6.	L.I.S.N.	Rohde & Schwarz	ESH3-Z5	100310	Jan.04, 2020	1 Year
7.	L.I.S.N.	Rohde & Schwarz	ESH3-Z6	100132	Jan.04, 2020	1 Year
8.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100305	Jan.04, 2020	1 Year
9.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100312	Jan.04, 2020	1 Year
10.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100815	Jan.04, 2020	1 Year
11.	50Ω Coaxial Switch	Anritsu Corp	MP59B	6200283936	Jan.04, 2020	1 Year
12.	50Ω Coaxial Switch	Anritsu Corp	MP59B	6200283933	Jan.04, 2020	1 Year
13.	50Ω Coaxial Switch	Anritsu Corp	MP59B	6200506474	Jan.04, 2020	1 Year
14.	VOLTAGE PROBE	Schwarzbeck	TK9416	N/A	Jan.04, 2020	1 Year
15.	RF CURRENT PROBE	Rohde & Schwarz	EZ-17	100048	Jan.04, 2020	1 Year
16.	8-Wire Impedance Stabilisation Network	Schwarzbeck	CAT5 8158	8158-0035	Jan.04, 2020	1 Year
17.	RF Coaxial Cable	SUHNER	N-2m	No.2	Jan.04, 2020	1 Year
18.	RF Coaxial Cable	SUHNER	N-2m	No.3	Jan.04, 2020	1 Year
19.	RF Coaxial Cable	SUHNER	N-2m	No.14	Jan.04, 2020	1 Year
Conducted Emission Measurement Software: ES-K1 V1.71						

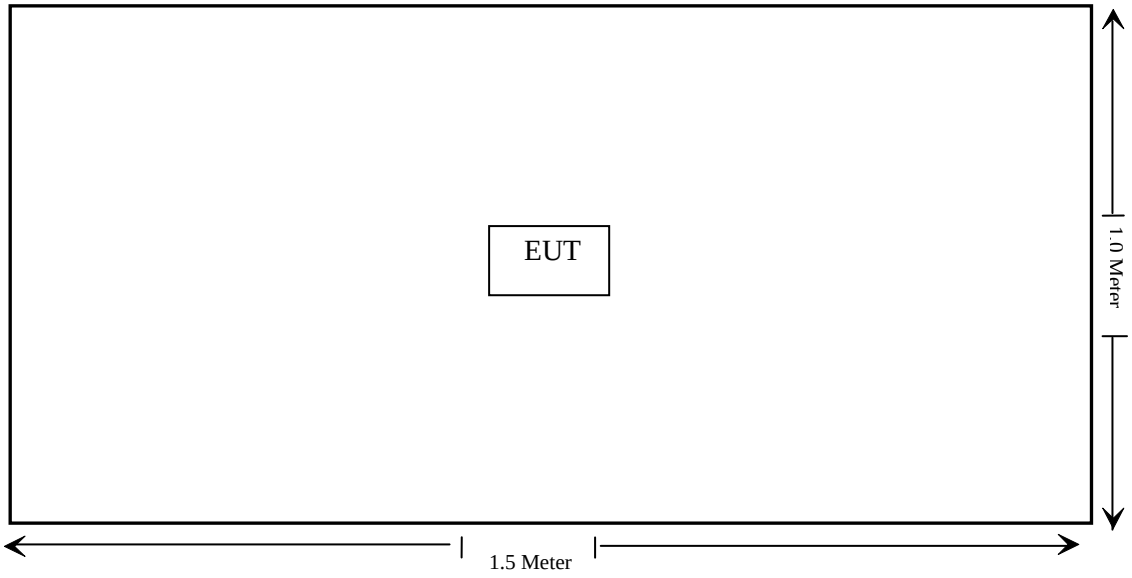
3. OPERATION OF EUT DURING TESTING

3.1.Operating Mode

The mode is used: **Transmitting mode**
TX Channel: 920MHz

3.2.Configuration and peripherals

Block Diagram of Test Setup



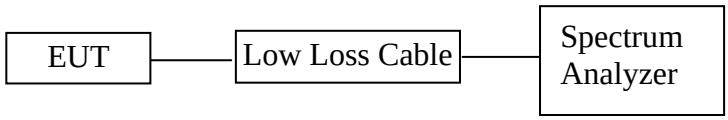
4. TEST PROCEDURES AND RESULTS

FCC Rules	Description of Test	Result
Section 15.215(c)	20dB Bandwidth	Compliant
Section 15.249(d)	Band Edge Compliance Test	Compliant
Section 15.205(a), Section 15.209(a), Section 15.249, Section 15.35	Radiated Spurious Emission Test	Compliant
Section 15.207	AC power Line Conducted Emission Test	N/A
Section 15.203	Antenna Requirement	Compliant

Note: The power supply of EUT is DC 1.5V, According to the FCC standard requirements, conducted emission is not applicable

5. 20DB BANDWIDTH MEASUREMENT

5.1.Block Diagram of Test Setup



5.2.The Requirement For Section 15.215(c)

The bandwidth of a frequency hopping channel is the 20 dB emission bandwidth, measured with the hopping stopped. The system RF bandwidth is equal to the channel bandwidth multiplied by the number of channels in the hopset. The hopset shall be such that the near-term distribution of frequencies appears random, with sequential hops randomly distributed in both direction and magnitude of change in the hopset while the long-term distribution appears evenly distributed.

5.3.Operating Condition of EUT

5.3.1.Setup the EUT and simulator as shown as Section 5.1.

5.3.2.Turn on the power of all equipment.

5.3.3.Let the EUT work in TX modes measure it. The transmit frequency is 920MHz.

5.4.Test Procedure

5.4.1.Place the EUT on the table and set it in transmitting mode.

5.4.2.Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.

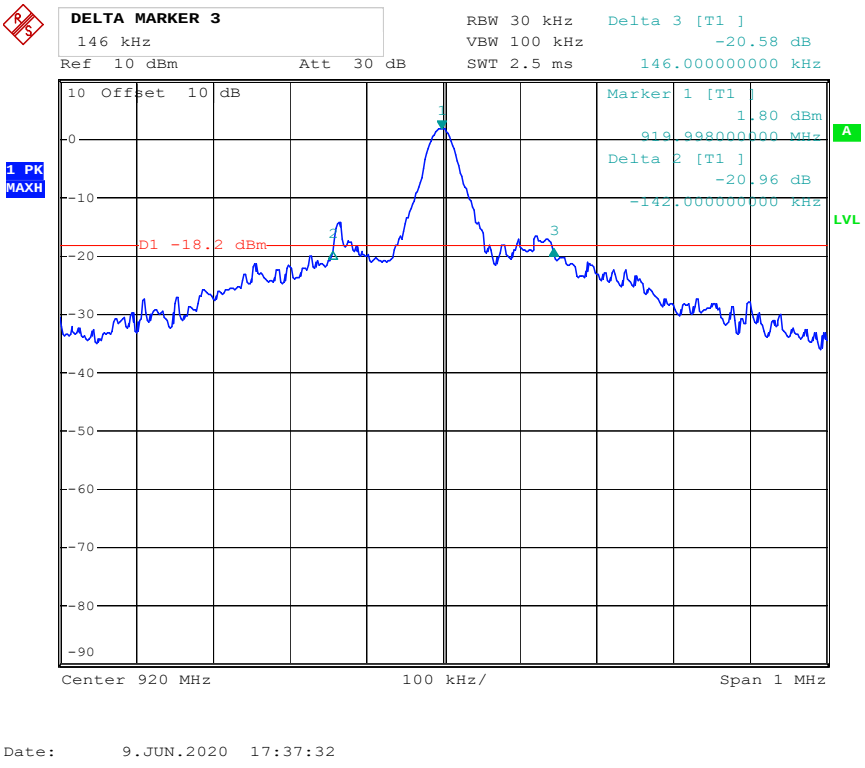
5.4.3.Set RBW of spectrum analyzer to 30 kHz and VBW to 100 kHz, Detector function=peak, Trace=max hold, Sweep=auto.

5.4.4.Set the measured frequency and test 20dB bandwidth with spectrum analyzer.

5.5.Test Result

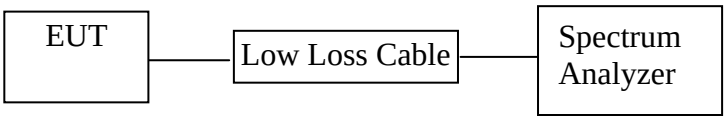
Channel	Frequency (MHz)	20 dB Bandwidth (MHz)
1	920	0.288

The spectrum analyzer plots are attached as below.



6. BAND EDGE COMPLIANCE TEST

6.1.Block Diagram of Test Setup



6.2.The Requirement For Section 15.249

In any 100 kHz 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 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph A8.4(4), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).

6.3.EUT Configuration on Measurement

The equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

6.4.Operating Condition of EUT

6.4.1.Setup the EUT and simulator as shown as Section 6.1.

6.4.2.Turn on the power of all equipment.

6.4.3.Let the EUT work in TX modes measure it. The transmit frequency is 920MHz.

6.5.Test Procedure

Conducted Band Edge:

6.5.1.The transmitter output was connected to the spectrum analyzer via a low loss cable.

6.5.2.Set RBW of spectrum analyzer to 100 kHz and VBW to 300 kHz.

Radiated Band Edge:
Note:
1. Emissions attenuated more than 20 dB below the permissible value are not reported.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:
Result = Reading + Corrected Factor
3. Display the measurement of peak values.

Test Procedure:

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground(Below 1GHz). The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bi-log antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the EUT location must be manipulated according to ANSI C63.10:2013 on radiated emission measurement. The EUT was tested in 3 orthogonal planes.

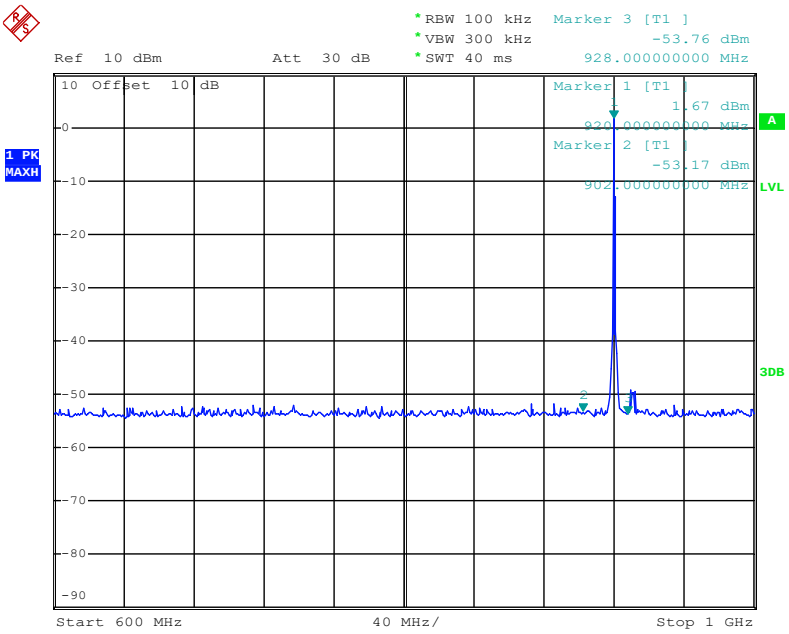
Let the EUT work in TX modes then measure it.

During the radiated emission test, the spectrum analyzer was set with the following configurations:
1.The resolution bandwidth of test receiver/spectrum analyzer is 100KHz and video bandwidth is 300KHz for peak measurement with peak detector at frequency Below 1GHz.
2.The resolution bandwidth of test receiver/spectrum analyzer is 100KHz and video bandwidth is 10Hz for Average measurement with peak detection at frequency Below 1GHz.
3.All modes of operation were investigated and the worst-case emissions are reported.

6.6.Test Result

Pass

Conducted Band Edge Result



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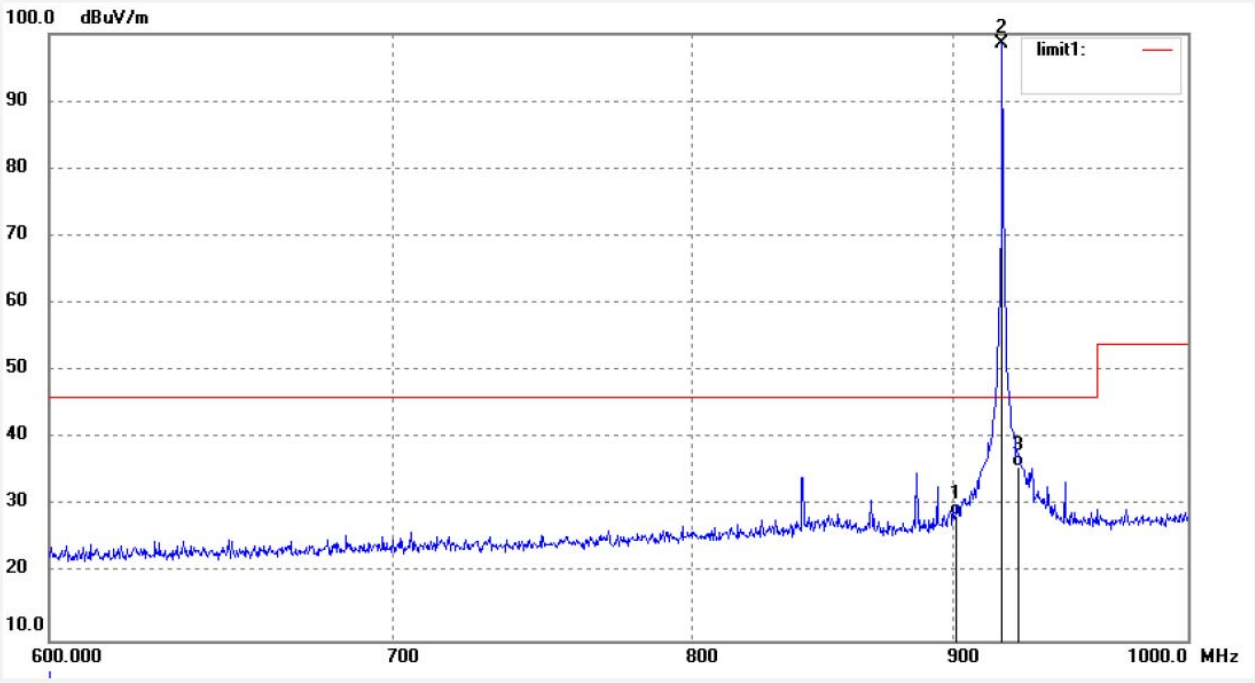
Radiated Band Edge Result

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: LGW2020 #366
Standard: FCC 15.249 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 48 %
EUT: Remote control
Mode: TX 920MHz
Model: H881-TX
Manufacturer: OMG ELECTRONIC LTD

Polarization: Horizontal
Power Source: DC 1.5V
Date: 2020/06/09/
Time: 11/29/05
Engineer Signature: WADE
Distance: 3m

Note: Report NO.:ATE20200658



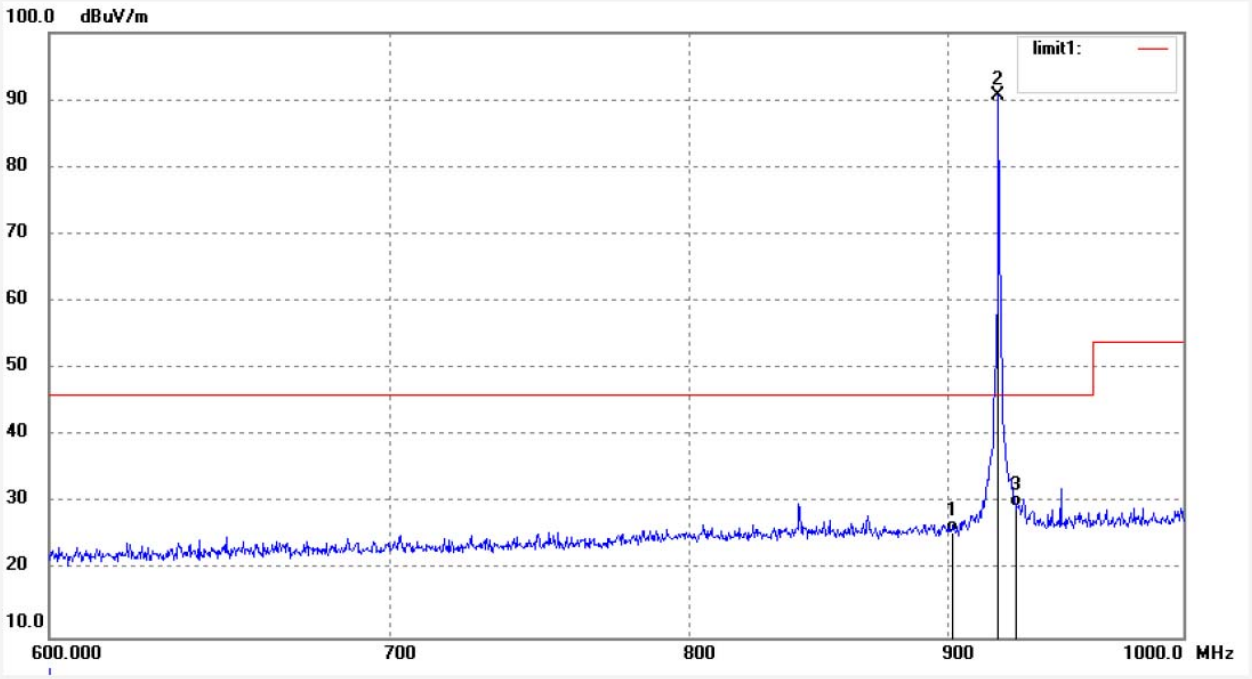
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	902.0000	28.20	0.28	28.48	46.00	-17.52	QP	100	351	
2	920.1077	96.01	0.59	96.60	/	/	peak	100	24	
3	928.0000	34.94	0.80	35.74	46.00	-10.26	QP	100	244	

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: LGW2020 #367
Standard: FCC 15.249 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 48 %
EUT: Remote control
Mode: TX 920MHz
Model: H881-TX
Manufacturer: OMG ELECTRONIC LTD

Polarization: Vertical
Power Source: DC 1.5V
Date: 2020/06/09/
Time: 11/29/52
Engineer Signature: WADE
Distance: 3m

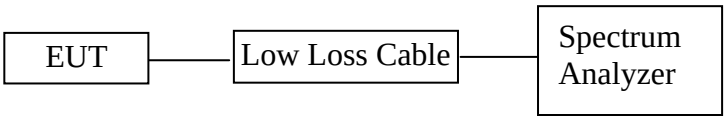
Note: Report NO.:ATE20200658



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	902.0000	25.35	0.28	25.63	46.00	-20.37	QP	100	312	
2	920.1077	89.97	0.59	90.56	/	/	peak	100	52	
3	928.0000	28.77	0.80	29.57	46.00	-16.43	QP	100	249	

7. AVERAGE FACTOR MEASUREMENT

7.1.Block Diagram of Test Setup



7.2.Average factor Measurement according to ANSI C63.10-2013

ANSI C63.10-2013 Section 7.5 Unless otherwise specified, when the radiated emission limits are expressed in terms of the average value of the emission, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 s (100 ms). In cases where the pulse train exceeds 0.1 s, the measured field strength shall be determined during a 0.1 s interval.The following procedure is an example of how the average value may be determined. The average field strength may be found by measuring the peak pulse amplitude (in log equivalent units) and determining the duty cycle correction factor (in dB) associated with the pulse modulation as shown in Equation (10):
Average factor in dB = 20 log (duty cycle)

7.3.EUT Configuration on Measurement

The following equipment are installed on average factor Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

7.4.Operating Condition of EUT

7.4.1.Setup the EUT and simulator as shown as Section 7.1.

7.4.2.Turn on the power of all equipment.

7.4.3.Let the EUT work in TX mode measure it.

7.5.Test Procedure

7.5.1.The time period over which the duty cycle is measured is 100 milliseconds, or the repetition cycle, whichever is a shorter time frame. The worst case (highest percentage on) duty cycle is used for the calculation.

7.5.2.Set SPA Center Frequency = Fundamental frequency, RBW = 100 kHz, VBW = 300 kHz, Span = 0 Hz.

7.5.3.Set EUT as normal operation.

7.5.4.Set SPA View. Delta Mark time.

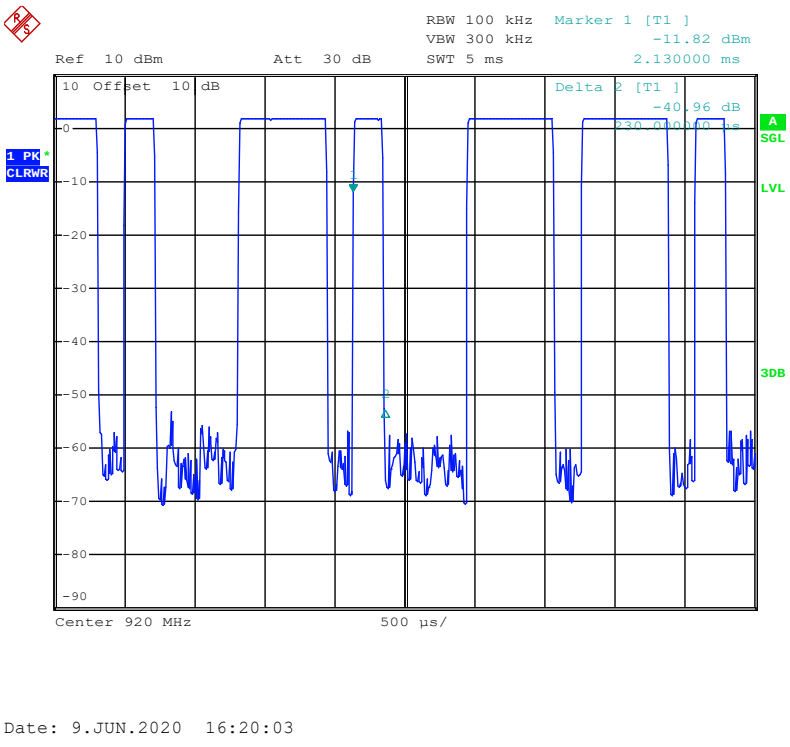
7.6. Measurement Result

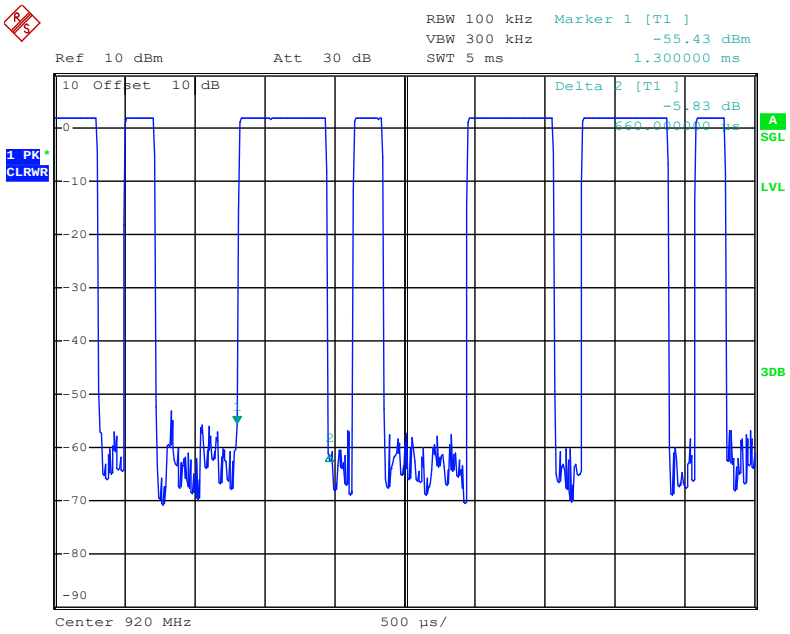
The duty cycle is simply the on time divided by the period:

Effective period in 100ms = (0.23*76)ms+ (0.66*46)ms =47.84 ms

DC =47.84ms/100ms=0.4784

Therefore, the average factor is found by 20log0.4784= -6.4dB





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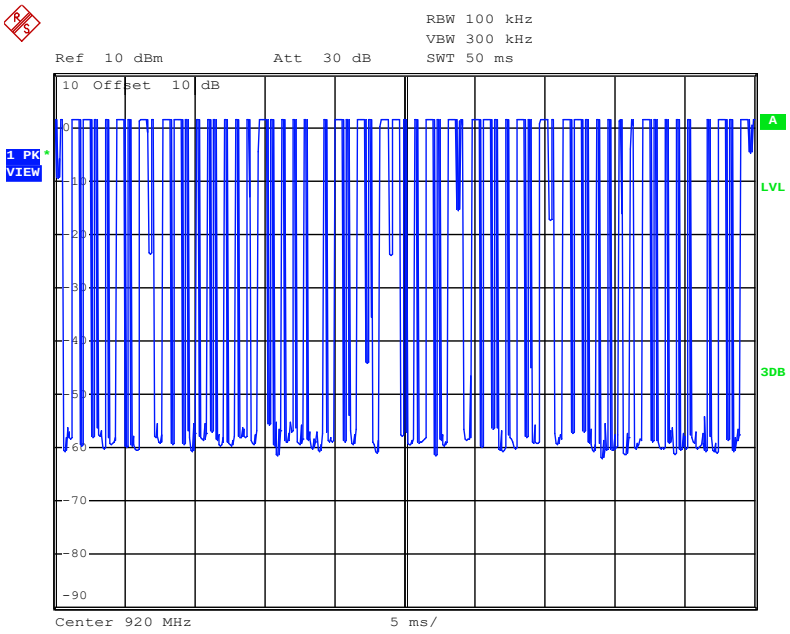

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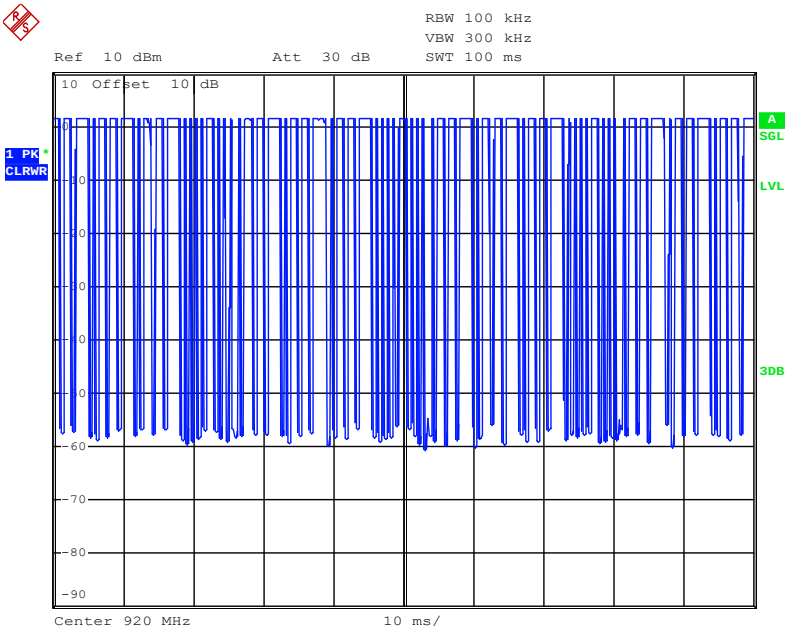

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8. RADIATED SPURIOUS EMISSION TEST

8.1.Block Diagram of Test Setup

8.1.1.Block diagram of connection between the EUT and peripherals

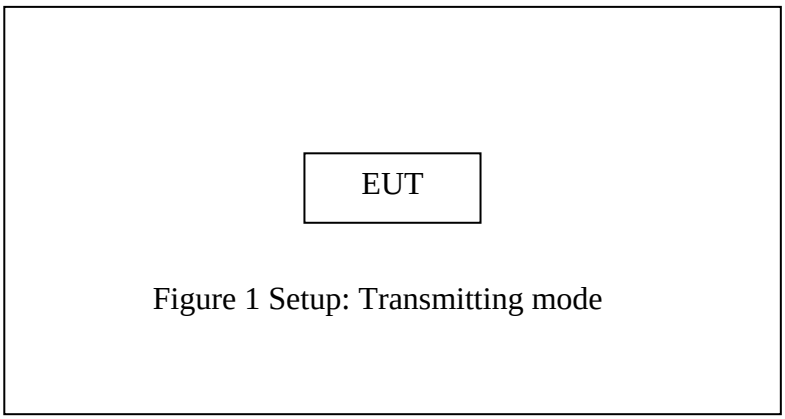
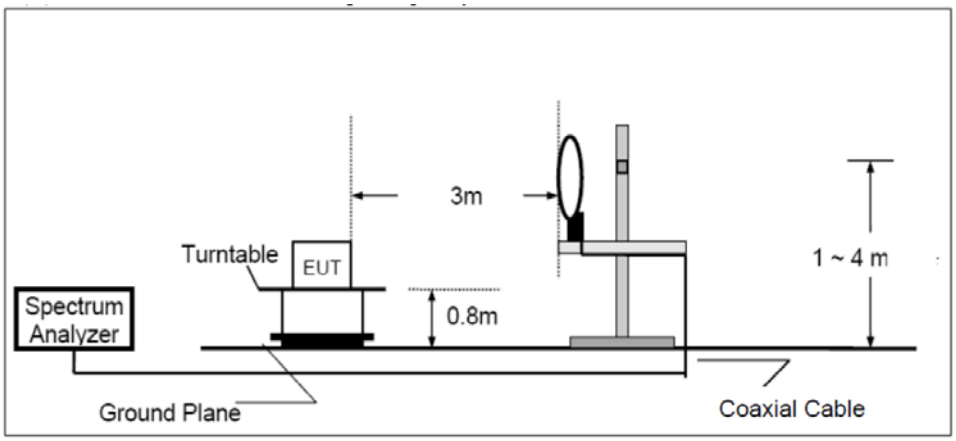


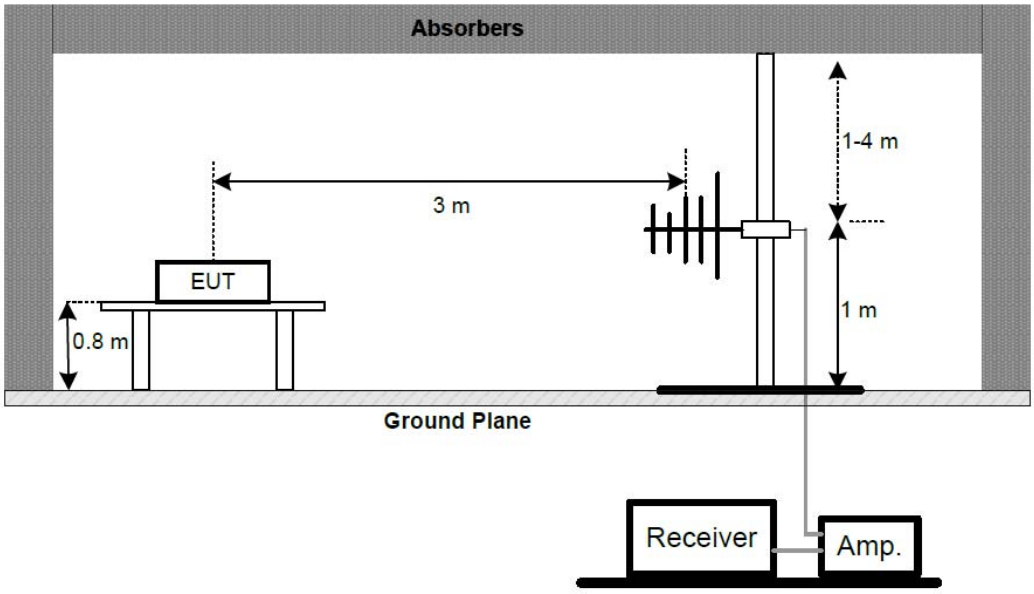
Figure 1 Setup: Transmitting mode

8.1.2.Semi-Anechoic Chamber Test Setup Diagram

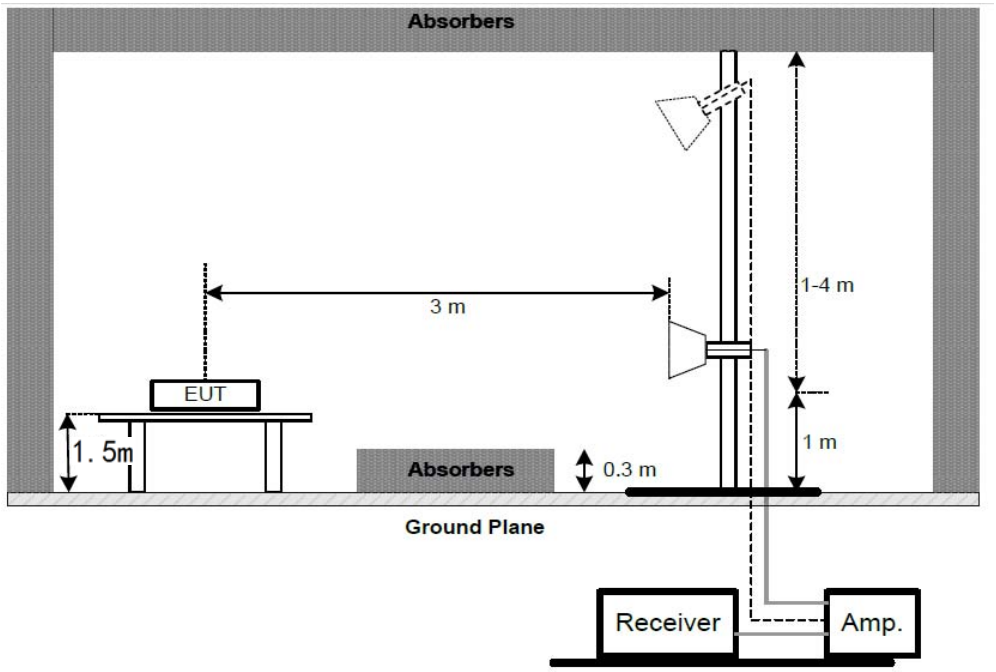
(A) Radiated Emission Test Set-Up, Frequency below 30MHz



(B) Radiated Emission Test Set-Up, Frequency below 1GHz



Above 1GHz:



8.2.The Limit For Section 15.249

Except as provided in paragraph (b) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following.

Fundamental frequency	Field strength of fundamental (millivolts/ meter)	Field strength of harmonics (microvolts/ meter)
902–928 MHz	50	500
2400–2483.5 MHz	50	500
5725–5875 MHz	50	500
24.0–24.25 GHz	250	2500

8.3.Restricted bands of operation

8.3.1.FCC Part 15.205 Restricted bands of operation

(a) Except as shown in paragraph (d) of this section, Only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
[1]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	([2])
13.36-13.41			

[1]Until February 1, 1999, this restricted band shall be 0.490-0.510
[2]Above 38.6

(b) Except as provided in paragraphs (d) and (e), the field strength of emission appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000MHz, Compliance with

the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000MHz, compliance with the emission limits in Section15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

8.4. Configuration of EUT on Measurement

The equipment are installed on Radiated Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

8.5. Operating Condition of EUT

8.5.1. Setup the EUT and simulator as shown as Section 8.1.

8.5.2. Turn on the power of all equipment.

8.5.3. Let the EUT work in TX modes. The transmit frequency is 920MHz.

8.6. Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground(Below 1GHz). The EUT and its simulators are placed on a turntable, which is 1.5 meter high above ground(Above 1GHz). The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bi-log antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the EUT location must be manipulated according to ANSI C63.10:2013 on radiated emission measurement. The EUT was tested in 3 orthogonal planes.

The frequency range from 9kHz to 10000MHz is checked.
Result = Reading + Corrected Factor
Where Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain
During the radiated emission test, the spectrum analyzer was set with the following configurations:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for peak measurement with peak detector at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average measurement with peak detection at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

8.7.The Field Strength of Radiation Emission Measurement Results

PASS.

Fundamental frequency:

Frequency (MHz)	Reading (dBμV/m)	Average Factor	Factor Corr.	Result(dBμV/m)		Limit(dBμV/m)		Margin(dB)		Polarization
	PEAK	(dB)	(dB)	AV	PEAK	AV	PEAK	AV	PEAK	
920.0	**95.37**	**-6.4**	**0.65**	**89.62**	**96.02**	**94.0**	**114.0**	**-4.38**	**-17.98**	Horizontal
920.0	**89.20**	**-6.4**	**0.65**	**83.45**	**89.85**	**94.0**	**114.0**	**-10.55**	**-24.15**	Vertical

Harmonic frequency(Worse case):

Frequency (MHz)	Reading (dBμV/m)	Factor Corr.	Average Factor	Result(dBμV/m)		Limit(dBμV/m)		Margin(dB)		Polarization
	PEAK	(dB)	(dB)	AV	PEAK	AV	PEAK	AV	PEAK	
2760.578	57.30	1.56	-6.4	52.46	58.86	54.0	74.0	-1.54	-15.14	Horizontal
2760.578	55.37	1.56	-6.4	50.53	56.93	54.0	74.0	-3.47	-17.07	Vertical

Note:

1. Emissions attenuated more than 20 dB below the permissible value are not reported.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

   Result = Reading + Corrected Factor

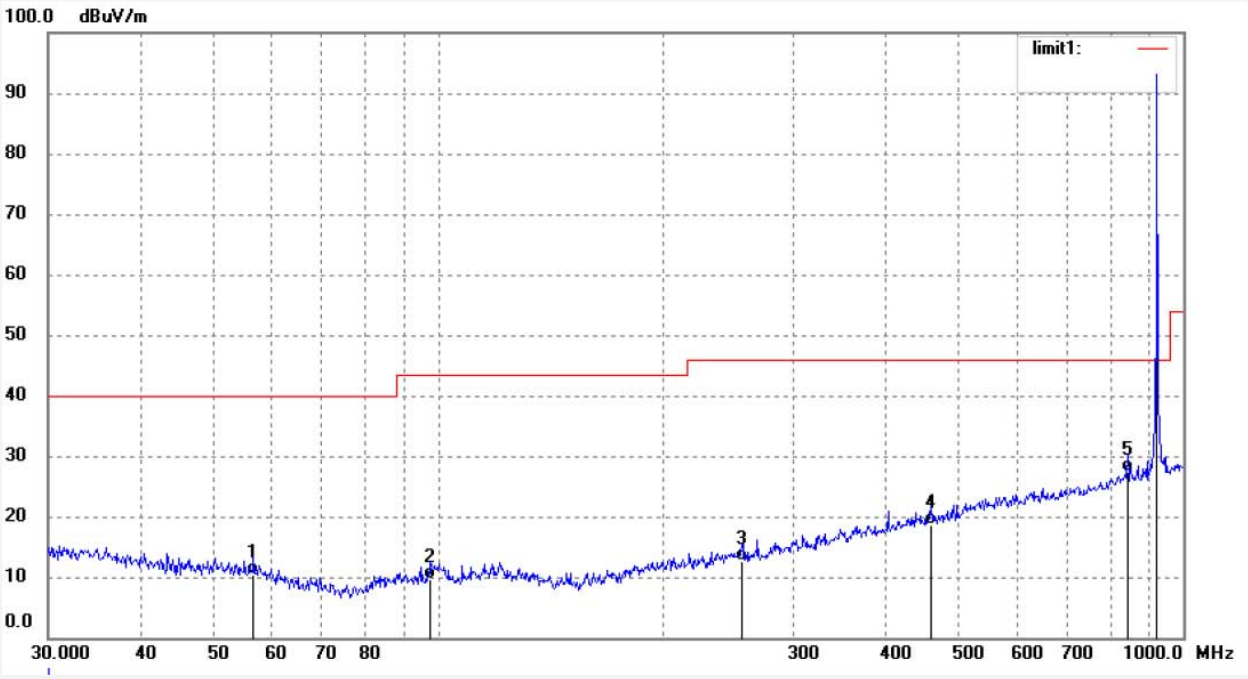
   Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss – Amplifier Gain
3. The spectral diagrams display the measurement of peak values.
4. If the peak-detected amplitude can be shown to comply with the average limit, then it is not necessary to perform a separate average measurement.
5. The EUT is tested radiation emission in three axes(X,Y,Z). The worst emissions are reported in three axes.

Below 1GHz

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: LGW2020 #360	Polarization: Horizontal
Standard: FCC 15.249 3M Radiated	Power Source: DC 1.5V
Test item: Radiation Test	Date: 2020/06/09/
Temp.(C)/Hum.(%) 23 C / 48 %	Time: 10/41/00
EUT: Remote control	Engineer Signature: WADE
Mode: TX 920MHz	Distance: 3m
Model: H881-TX	
Manufacturer: OMG ELECTRONIC LTD	

Note: Report NO.:ATE20200658

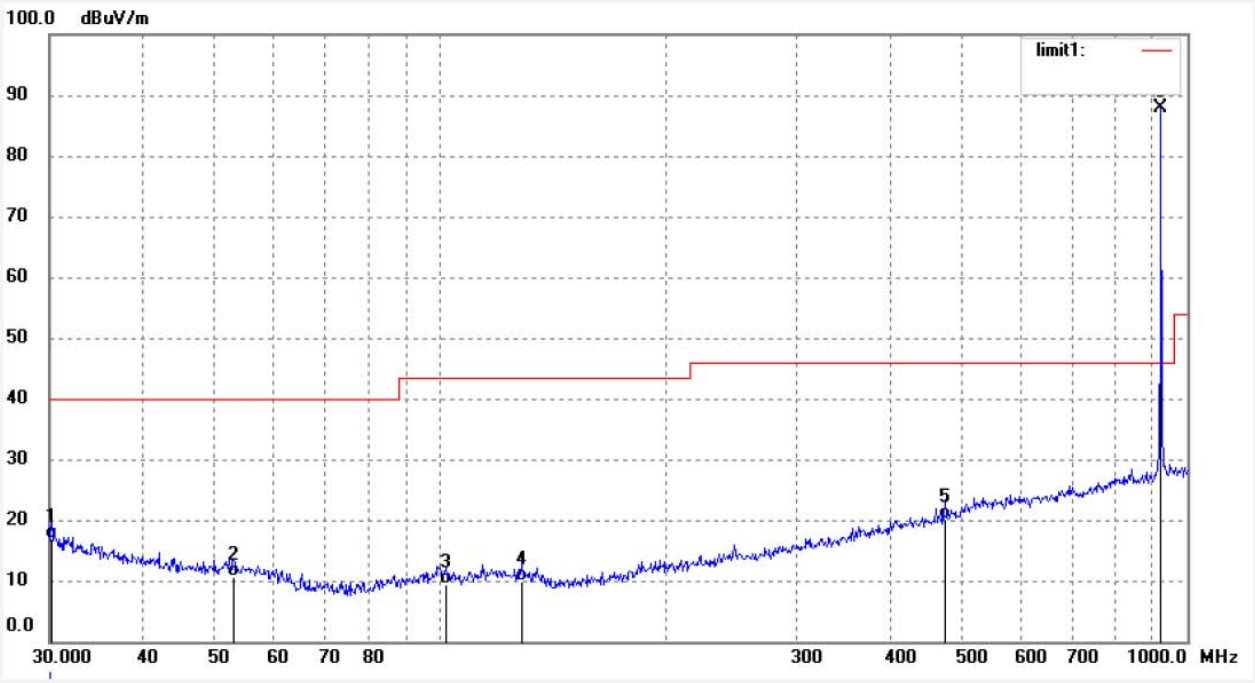


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	56.5929	24.54	-14.28	10.26	40.00	-29.74	QP	200	35	
2	97.7980	24.61	-14.87	9.74	43.50	-33.76	QP	200	243	
3	255.6229	24.44	-11.75	12.69	46.00	-33.31	QP	200	241	
4	459.1143	25.18	-6.63	18.55	46.00	-27.45	QP	200	314	
5	842.1295	27.64	-0.34	27.30	46.00	-18.70	QP	200	54	
6	920.1157	95.37	0.65	96.02	/	/	peak	200	24	

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: LGW2020 #361	Polarization: Vertical
Standard: FCC 15.249 3M Radiated	Power Source: DC 1.5V
Test item: Radiation Test	Date: 2020/06/09/
Temp.(C)/Hum.(%) 23 C / 48 %	Time: 10/42/26
EUT: Remote control	Engineer Signature: WADE
Mode: TX 920MHz	Distance: 3m
Model: H881-TX	
Manufacturer: OMG ELECTRONIC LTD	

Note: Report NO.:ATE20200658



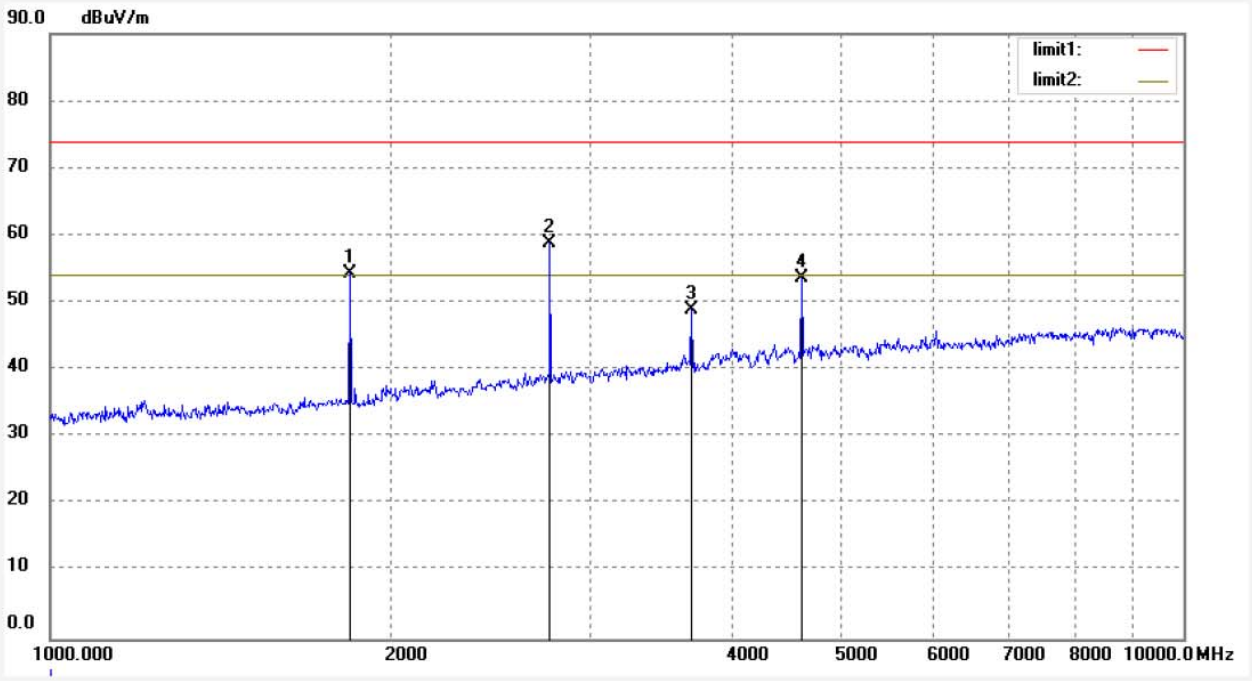
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	30.2110	26.98	-9.99	16.99	40.00	-23.01	QP	100	42	
2	52.9453	24.45	-13.82	10.63	40.00	-29.37	QP	100	35	
3	101.6443	23.80	-14.39	9.41	43.50	-34.09	QP	100	24	
4	128.5629	24.71	-14.82	9.89	43.50	-33.61	QP	100	351	
5	473.8346	26.68	-6.43	20.25	46.00	-25.75	QP	100	124	
6	920.1157	89.20	0.65	89.85	/	/	peak	100	244	

Above 1GHz

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: LGW2020 #363	Polarization: Horizontal
Standard: FCC PK	Power Source: DC 1.5V
Test item: Radiation Test	Date: 2020/06/09/
Temp.(C)/Hum.(%) 23 C / 48 %	Time: 10/46/59
EUT: Remote control	Engineer Signature: WADE
Mode: TX 920MHz	Distance: 3m
Model: H881-TX	
Manufacturer: OMG ELECTRONIC LTD	

Note: Report NO.:ATE20200658



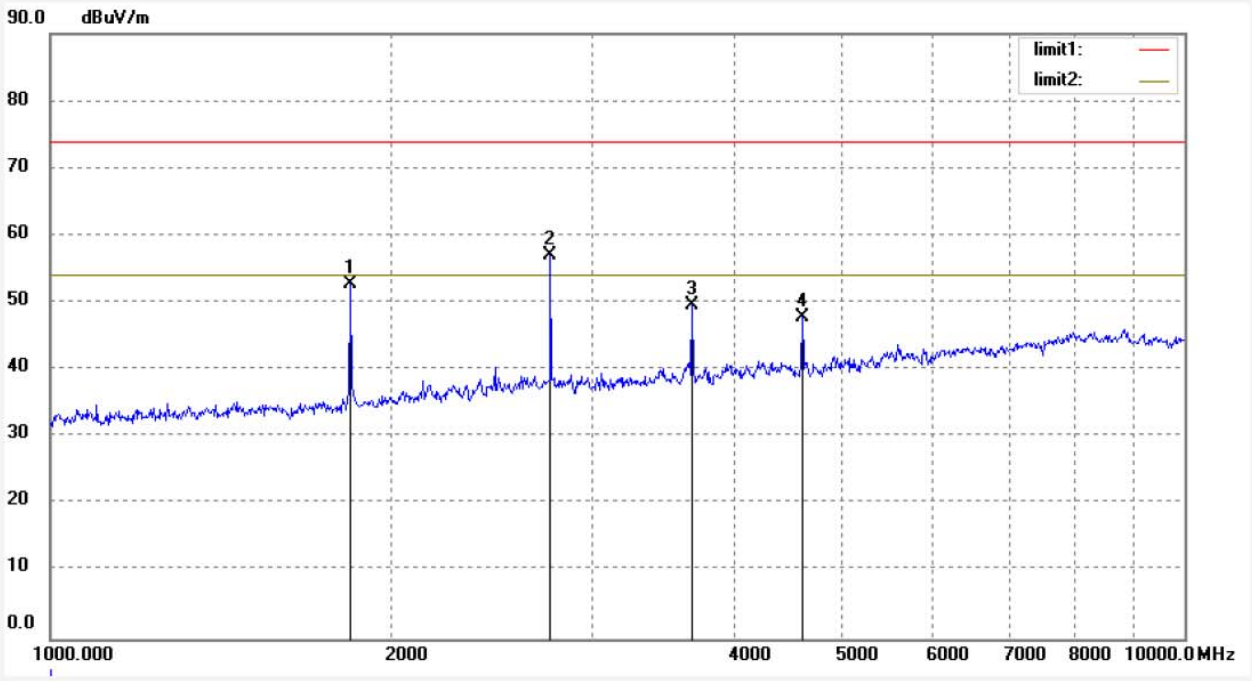
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	1840.772	56.75	-2.43	54.32	74.00	-19.68	peak	200	89	
2	2760.578	57.30	1.56	58.86	74.00	-15.14	peak	200	253	
3	3681.290	45.34	3.65	48.99	74.00	-25.01	peak	200	147	
4	4602.566	47.16	6.53	53.69	74.00	-20.31	peak	200	231	

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: LGW2020 #362
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 48 %
EUT: Remote control
Mode: TX 920MHz
Model: H881-TX
Manufacturer: OMG ELECTRONIC LTD

Polarization: Vertical
Power Source: DC 1.5V
Date: 2020/06/09/
Time: 10/45/45
Engineer Signature: WADE
Distance: 3m

Note: Report NO.:ATE20200658



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	1840.772	55.23	-2.43	52.80	74.00	-21.20	peak	100	54	
2	2760.578	55.37	1.56	56.93	74.00	-17.07	peak	100	354	
3	3681.290	45.98	3.65	49.63	74.00	-24.37	peak	100	24	
4	4602.566	41.27	6.53	47.80	74.00	-26.20	peak	100	244	

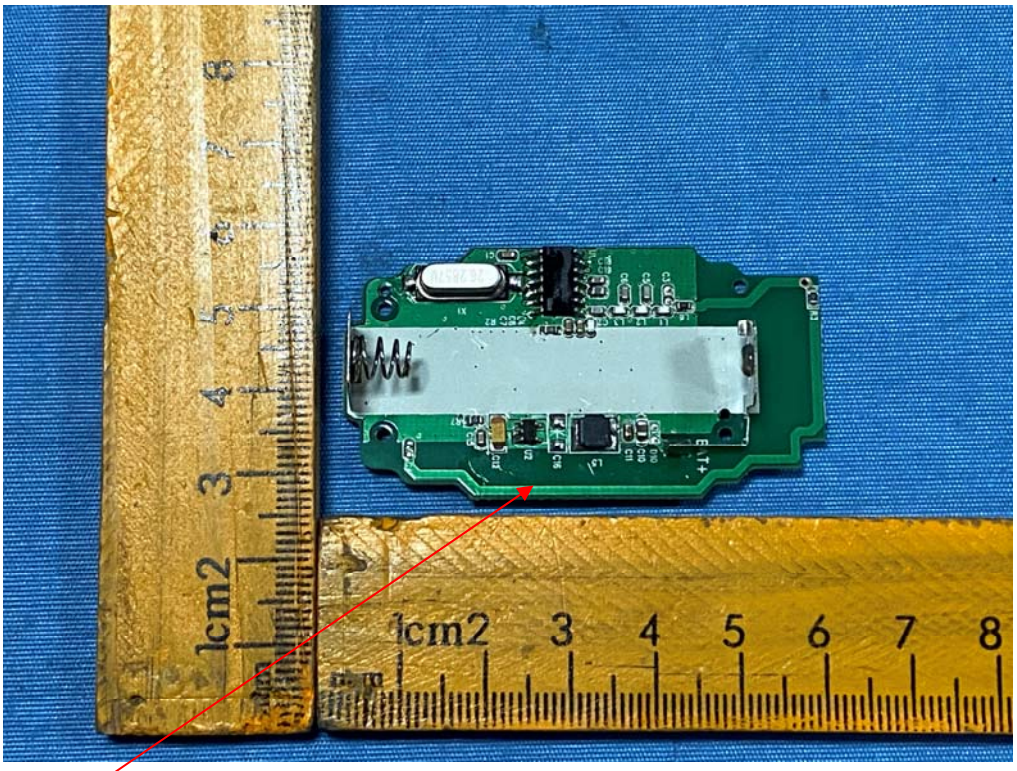
9. ANTENNA REQUIREMENT

9.1.The Requirement

According to Section 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.Antenna Construction

Device is equipped with permanent attached antenna, which isn't displaced by other antenna. The Antenna gain of EUT is 2dBi. Therefore, the equipment complies with the antenna requirement of Section 15.203.



Antenna