

APPLICATION CERTIFICATION FCC Part 15C  
On Behalf of  
XIAMEN COMFORT SCIENCE & TECHNOLOGY GROUP CO., LTD.

Massage Chair

Model No.: EC-628E, CZ-710/Qi SE

FCC ID: YMX-EC628E

Prepared for : XIAMEN COMFORT SCIENCE & TECHNOLOGY GROUP CO., LTD.

Address : (5/F) NO.168, QIANPU ROAD SIMING DISTRICT, XIAMEN, CHINA.

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Report No. : ATE20171583

Date of Test : Aug. 01, 2017-Sep. 17, 2017

Date of Report : Sep. 18, 2017

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## Test Report Certification

Applicant : XIAMEN COMFORT SCIENCE & TECHNOLOGY GROUP CO.,LTD.  
Address : (5/F) NO.168, QIANPU ROAD SIMING DISTRICT,  
XIAMEN, CHINA  
Manufacturer : XIAMEN COMFORT SCIENCE & TECHNOLOGY GROUP CO.,LTD.  
Address : (5/F) NO.168, QIANPU ROAD SIMING DISTRICT,  
XIAMEN, CHINA  
Product : Massage Chair  
Model No. : EC-628E, CZ-710/Qi SE  
Trade name : n.a

Measurement Procedure Used:

**FCC Rules and Regulations Part 15 Subpart C Section 15.247: 2016**  
**ANSI C63.10: 2013**

The EUT was tested according to DTS test procedure of Apr 05, 2017 KDB558074 D01 DTS Meas Guidance v04 for compliance to FCC 47CFR 15.247 requirements

The device described above is tested by 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 15.247 limits. The measurement results are contained in this test report and 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 ACCURATE TECHNOLOGY CO. LTD.

Date of Test : Aug. 01, 2017-Sep. 17, 2017  
Date of Report: Sep. 18, 2017

Prepared by :

Tim Zhang  
(Tim Zhang, Engineer)

Approved & Authorized Signer :

Sean Liu  
(Sean Liu, Manager)

## 1. GENERAL INFORMATION

### 1.1. Description of Device (EUT)

EUT	:	Massage Chair
Model Number	:	EC-628E, CZ-710/Qi SE
Bluetooth version	:	BT V4.0 LE
Frequency Range	:	2402MHz-2480MHz
Number of Channels	:	40
Antenna Gain	:	2dBi
Antenna type	:	PCB Antenna
Power Supply	:	AC 120V/60Hz
Modulation mode	:	GFSK
Applicant	:	XIAMEN COMFORT SCIENCE & TECHNOLOGY GROUP CO.,LTD.
Address	:	(5/F) NO.168, QIANPU ROAD SIMING DISTRICT, XIAMEN, CHINA
Manufacturer	:	XIAMEN COMFORT SCIENCE & TECHNOLOGY GROUP CO.,LTD.
Address	:	(5/F) NO.168, QIANPU ROAD SIMING DISTRICT, XIAMEN, CHINA
Date of sample received	:	Aug. 01, 2017
Date of Test	:	Aug. 01, 2017-Sep. 17, 2017

## 1.2. Carrier Frequency of Channels

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2402	10	2422	20	2442	30	2462
1	2404	11	2424	21	2444	31	2464
2	2406	12	2426	22	2446	32	2466
3	2408	13	2428	23	2448	33	2468
4	2410	14	2430	24	2450	34	2470
5	2412	15	2432	25	2452	35	2472
6	2414	16	2434	26	2454	36	2474
7	2416	17	2436	27	2456	37	2476
8	2418	18	2438	28	2458	38	2478
9	2420	19	2440	29	2460	39	2480

### 1.3.Special Accessory and Auxiliary Equipment

PC    Manufacturer: LENOVO  
M/N: 4290-RT8  
S/N: R9-FW93G 11/08

### 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 (ISED)  
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 = 2.23dB, k=2

Radiated emission expanded uncertainty = 3.08dB, k=2  
(9kHz-30MHz)

Radiated emission expanded uncertainty = 4.42dB, k=2  
(30MHz-1000MHz)

Radiated emission expanded uncertainty = 4.06dB, k=2  
(Above 1GHz)

## 2. MEASURING DEVICE AND TEST EQUIPMENT

**Table 1: List of Test and Measurement Equipment**

Kind of equipment	Manufacturer	Type	S/N	Calibrated dates	Calibrated until
EMI Test Receiver	Rohde&Schwarz	ESCS30	100307	Jan. 07, 2017	Jan. 06, 2018
EMI Test Receiver	Rohde&Schwarz	ESPI3	101526/003	Jan. 07, 2017	Jan. 06, 2018
Spectrum Analyzer	Rohde&Schwarz	FSV-40	101495	Jan. 07, 2017	Jan. 06, 2018
Spectrum Analyzer	Agilent	E7405A	MY45115511	Jan. 07, 2017	Jan. 06, 2018
Pre-Amplifier	Rohde&Schwarz	CBLU118354 0-01	3791	Jan. 07, 2017	Jan. 06, 2018
Loop Antenna	Schwarzbeck	FMZB1516	1516131	Jan. 13, 2017	Jan. 12, 2018
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	Jan. 13, 2017	Jan. 12, 2018
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	Jan. 13, 2017	Jan. 12, 2018
Horn Antenna	Schwarzbeck	BBHA9170	9170-359	Jan. 13, 2017	Jan. 12, 2018
Open Switch and Control Unit	Rohde&Schwarz	OSP120 + OSP-B157	101244 + 100866	Jan. 07, 2017	Jan. 06, 2018
LISN	Rohde&Schwarz	ESH3-Z5	100305	Jan. 07, 2017	Jan. 06, 2018
LISN	Schwarzbeck	NSLK8126	8126431	Jan. 07, 2017	Jan. 06, 2018
Highpass Filter	Wainwright Instruments	WHKX3.6/18 G-10SS	N/A	Jan. 07, 2017	Jan. 06, 2018
Band Reject Filter	Wainwright Instruments	WRCG2400/2 485-2375/2510 -60/11SS	N/A	Jan. 07, 2017	Jan. 06, 2018



### 3. OPERATION OF EUT DURING TESTING

#### 3.1. Operating Mode

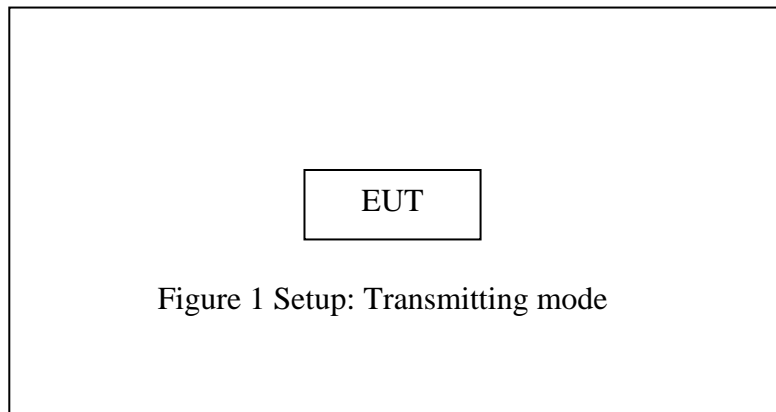
The mode is used: **BLE Transmitting mode**

Low Channel: 2402MHz

Middle Channel: 2440MHz

High Channel: 2480MHz

#### 3.2. Configuration and peripherals

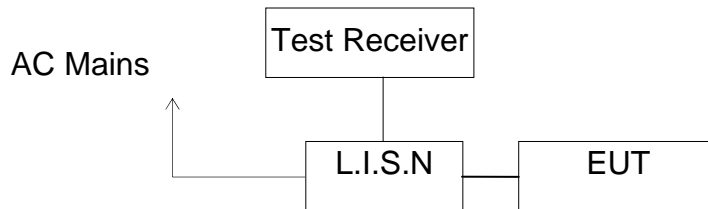


#### 4. TEST PROCEDURES AND RESULTS

<b>FCC Rules</b>	<b>Description of Test</b>	<b>Result</b>
Section 15.247(a)(2)	6dB Bandwidth Test	Compliant
Section 15.247(e)	Power Spectral Density Test	Compliant
Section 15.247(b)(3)	Maximum Peak Output Power Test	Compliant
Section 15.247(d)	Band Edge Compliance Test	Compliant
Section 15.247(d) Section 15.209	Radiated Spurious Emission Test	Compliant
Section 15.247(d)	Conducted Spurious Emission Test	Compliant
Section 15.207	AC Power Line Conducted Emission Test	Compliant
Section 15.203	Antenna Requirement	Compliant

## 5. POWER LINE CONDUCTED MEASUREMENT

### 5.1. Block Diagram of Test Setup



(EUT: Massage Chair)

### 5.2. Power Line Conducted Emission Measurement Limits

Frequency (MHz)	Limit dB( $\mu$ V)	
	Quasi-peak Level	Average Level
0.15 - 0.50	66.0 – 56.0 *	56.0 – 46.0 *
0.50 - 5.00	56.0	46.0
5.00 - 30.00	60.0	50.0

NOTE1: The lower limit shall apply at the transition frequencies.  
 NOTE2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.

### 5.3. Configuration of EUT on Measurement

The following equipments are installed on Power Line Conducted Emission Measurement to meet the commission requirement and operating regulations in a manner, which tends to maximize its emission characteristics in a normal application.

### 5.4. Operating Condition of EUT

- 5.4.1. Setup the EUT and simulator as shown as Section 5.1.
- 5.4.2. Turn on the power of all equipment.
- 5.4.3. Let the EUT work in test mode and measure it.

### 5.5. Test Procedure

The EUT is put on the plane 0.8 m high above the ground by insulating support and is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC lines are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.10: 2013 on Conducted Emission Measurement.

The bandwidth of test receiver (R & S ESCS30) is set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.

### 5.6. DATA SAMPLE

Frequency (MHz)	Quasi Peak Level (dB $\mu$ v)	Average Level (dB $\mu$ v)	Transducer value (dB)	QuasiPeak Result (dB $\mu$ v)	Average Result (dB $\mu$ v)	Quasi Peak Limit (dB $\mu$ v)	Average Limit (dB $\mu$ v)	QuasiPeak Margin (dB)	Average Margin (dB)	Remark (Pass/Fail)
X.XX	29.4	18.3	11.1	40.5	29.4	56.0	56.0	15.5	16.6	Pass

Transducer value = Insertion loss of LISN + Cable Loss  
 Result = Quasi-peak Level/Average Level + Transducer value  
 Limit = Limit stated in standard

Calculation Formula:

Margin = Limit – Reading level value – Transducer value

### 5.7. Power Line Conducted Emission Measurement Results

**PASS.**

The frequency range from 150kHz to 30MHz is checked.

Test mode : BT Operation(worse case)								
Test Voltage: 120V/60Hz								
<b>MEASUREMENT RESULT: "CM-0808-03_fin"</b>								
8/8/2017 10:57AM								
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE	
0.150000	45.40	10.5	66	20.6	QP	N	GND	
0.641450	33.50	10.8	56	22.5	QP	N	GND	
2.082610	27.00	11.0	56	29.0	QP	N	GND	
2.522471	31.10	11.0	56	24.9	QP	N	GND	
9.646144	34.50	11.3	60	25.5	QP	N	GND	
13.816176	31.90	11.4	60	28.1	QP	N	GND	
<b>MEASUREMENT RESULT: "CM-0808-03_fin2"</b>								
8/8/2017 10:57AM								
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE	
0.359562	23.30	10.6	49	25.4	AV	N	GND	
0.646592	29.40	10.8	46	16.6	AV	N	GND	
2.082610	22.90	11.0	46	23.1	AV	N	GND	
2.462770	24.50	11.0	46	21.5	AV	N	GND	
9.455514	27.20	11.3	50	22.8	AV	N	GND	
13.328598	22.70	11.3	50	27.3	AV	N	GND	
<b>MEASUREMENT RESULT: "CM-0808-04_fin"</b>								
8/8/2017 11:00AM								
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE	
0.150000	45.40	10.5	66	20.6	QP	L1	GND	
0.644016	33.20	10.8	56	22.8	QP	L1	GND	
2.116132	27.00	11.0	56	29.0	QP	L1	GND	
2.522471	31.70	11.0	56	24.3	QP	L1	GND	
9.531310	32.70	11.3	60	27.3	QP	L1	GND	
12.858226	31.30	11.3	60	28.7	QP	L1	GND	
<b>MEASUREMENT RESULT: "CM-0808-04_fin2"</b>								
8/8/2017 11:00AM								
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE	
0.318980	23.80	10.6	50	25.9	AV	L1	GND	
0.644016	32.70	10.8	46	13.3	AV	L1	GND	
2.099304	23.30	11.0	46	22.7	AV	L1	GND	
2.338222	27.50	11.0	46	18.5	AV	L1	GND	
9.121825	24.60	11.3	50	25.4	AV	L1	GND	
12.858226	23.50	11.3	50	26.5	AV	L1	GND	

Emissions attenuated more than 20 dB below the permissible value are not reported.

The spectral diagrams are attached as below.

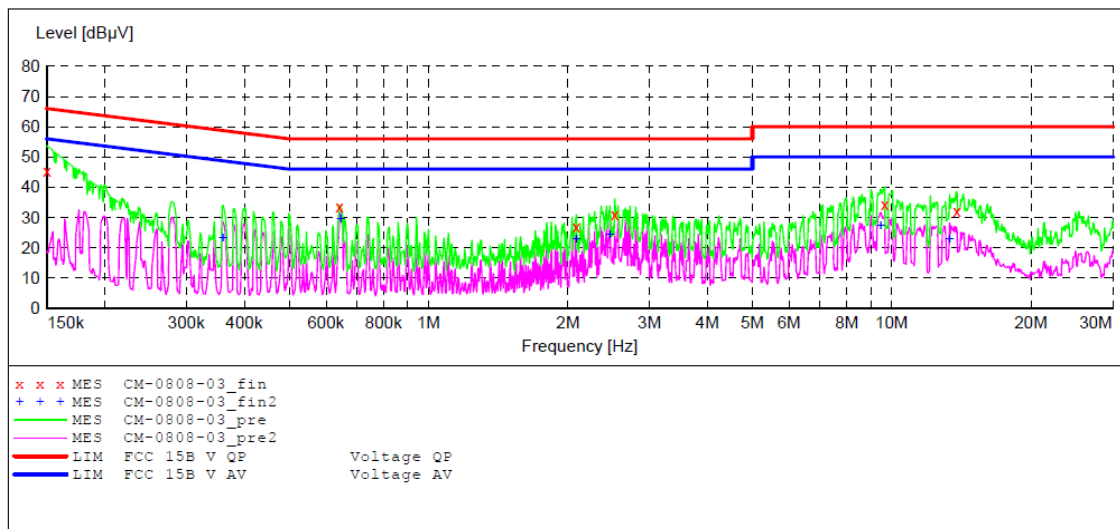
ACCURATE TECHNOLOGY CO.,LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: Massage Chair M/N:EC-628E  
 Manufacturer: XIAMEN COMFORT SCIENCE & TECHNOLOGY GROUP CO.,LTD  
 Operating Condition: BT OPERATION  
 Test Site: 1#Shielding Room  
 Operator: DING  
 Test Specification: N 120V/60Hz  
 Comment: Report NO.:ATE20171583  
 Start of Test: 8/8/2017 / 10:54:24AM

SCAN TABLE: "V 9K-30MHz fin"

Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak Average	1.0 s	200 Hz	NSLK8126 2008
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak Average	1.0 s	9 kHz	NSLK8126 2008



MEASUREMENT RESULT: "CM-0808-03\_fin"

8/8/2017 10:57AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000	45.40	10.5	66	20.6	QP	N	GND
0.641450	33.50	10.8	56	22.5	QP	N	GND
2.082610	27.00	11.0	56	29.0	QP	N	GND
2.522471	31.10	11.0	56	24.9	QP	N	GND
9.646144	34.50	11.3	60	25.5	QP	N	GND
13.816176	31.90	11.4	60	28.1	QP	N	GND

MEASUREMENT RESULT: "CM-0808-03\_fin2"

8/8/2017 10:57AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.359562	23.30	10.6	49	25.4	AV	N	GND
0.646592	29.40	10.8	46	16.6	AV	N	GND
2.082610	22.90	11.0	46	23.1	AV	N	GND
2.462770	24.50	11.0	46	21.5	AV	N	GND
9.455514	27.20	11.3	50	22.8	AV	N	GND
13.328598	22.70	11.3	50	27.3	AV	N	GND

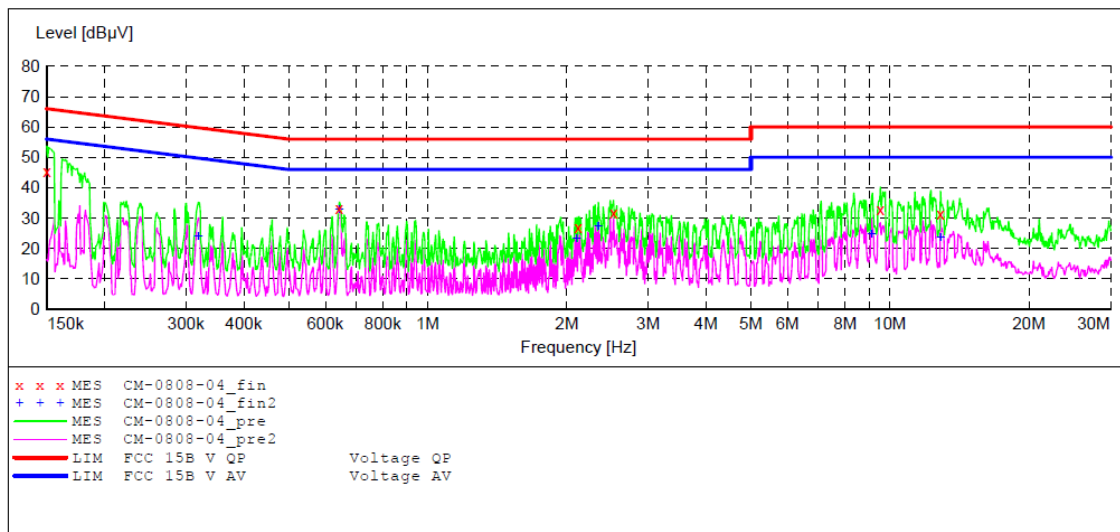
**ACCURATE TECHNOLOGY CO., LTD**

**CONDUCTED EMISSION STANDARD FCC PART 15B**

EUT: Message Chair M/N:EC-628E  
 Manufacturer: XIAMEN COMFORT SCIENCE & TECHNOLOGY GROUP CO.,LTD  
 Operating Condition: BT OPERATION  
 Test Site: 1#Shielding Room  
 Operator: DING  
 Test Specification: L 120V/60Hz  
 Comment: Report NO.:ATE20171583  
 Start of Test: 8/8/2017 / 10:58:33AM

**SCAN TABLE: "V 9K-30MHz fin"**

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
9.0 kHz	150.0 kHz	100.0 Hz	QuasiPeak	1.0 s	200 Hz	NSLK8126 2008
150.0 kHz	30.0 MHz	5.0 kHz	QuasiPeak	1.0 s	9 kHz	NSLK8126 2008



**MEASUREMENT RESULT: "CM-0808-04\_fin"**

8/8/2017 11:00AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000	45.40	10.5	66	20.6	QP	L1	GND
0.644016	33.20	10.8	56	22.8	QP	L1	GND
2.116132	27.00	11.0	56	29.0	QP	L1	GND
2.522471	31.70	11.0	56	24.3	QP	L1	GND
9.531310	32.70	11.3	60	27.3	QP	L1	GND
12.858226	31.30	11.3	60	28.7	QP	L1	GND

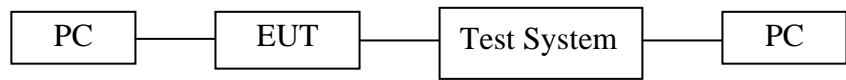
**MEASUREMENT RESULT: "CM-0808-04\_fin2"**

8/8/2017 11:00AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.318980	23.80	10.6	50	25.9	AV	L1	GND
0.644016	32.70	10.8	46	13.3	AV	L1	GND
2.099304	23.30	11.0	46	22.7	AV	L1	GND
2.338222	27.50	11.0	46	18.5	AV	L1	GND
9.121825	24.60	11.3	50	25.4	AV	L1	GND
12.858226	23.50	11.3	50	26.5	AV	L1	GND

## 6. 6DB BANDWIDTH MEASUREMENT

### 6.1. Block Diagram of Test Setup



(EUT: Massage Chair)

### 6.2. The Requirement For Section 15.247(a)(2)

Section 15.247(a)(2): Systems using digital modulation techniques may operate in the 902-928MHz, 2400-2483.5MHz, and 5725-5850MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

### 6.3. EUT Configuration on Measurement

The equipment is 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 are 2402-2480MHz. We select 2402MHz, 2440MHz, and 2480MHz TX frequency to transmit.

### 6.5. Test Procedure

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

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

6.5.3. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

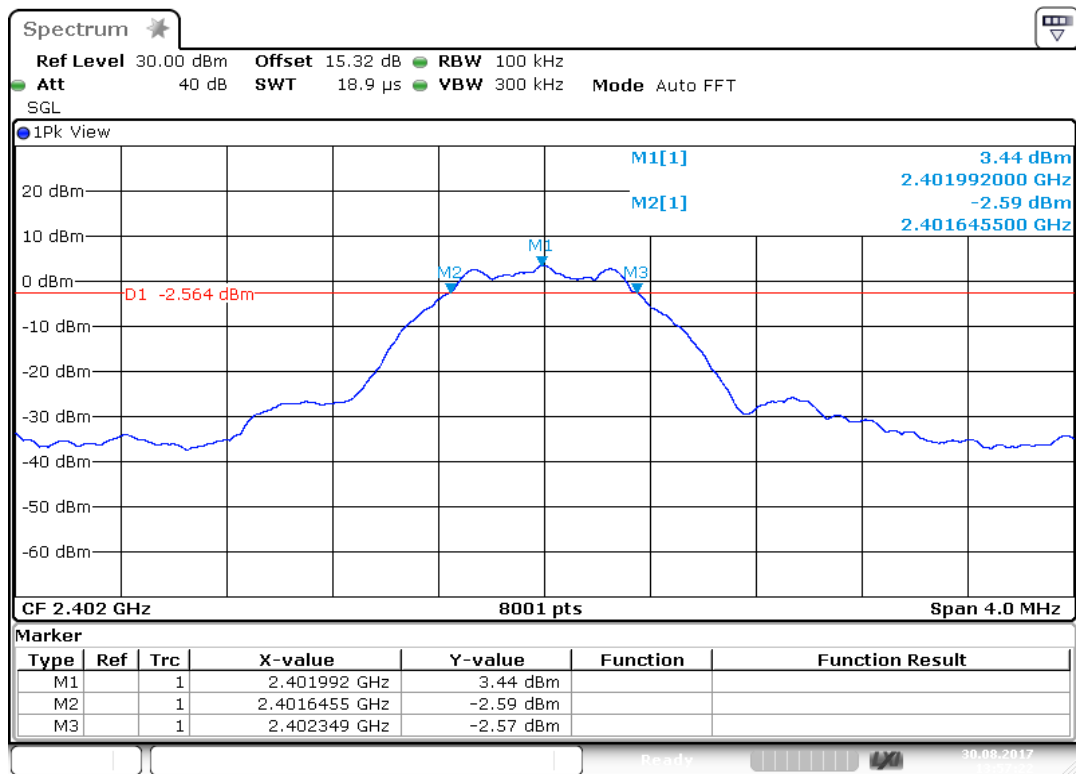


### 6.6. Test Result

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit(MHz)	PASS/FAIL
0	2402	0.704	0.5	PASS
19	2440	0.697	0.5	PASS
39	2480	0.686	0.5	PASS

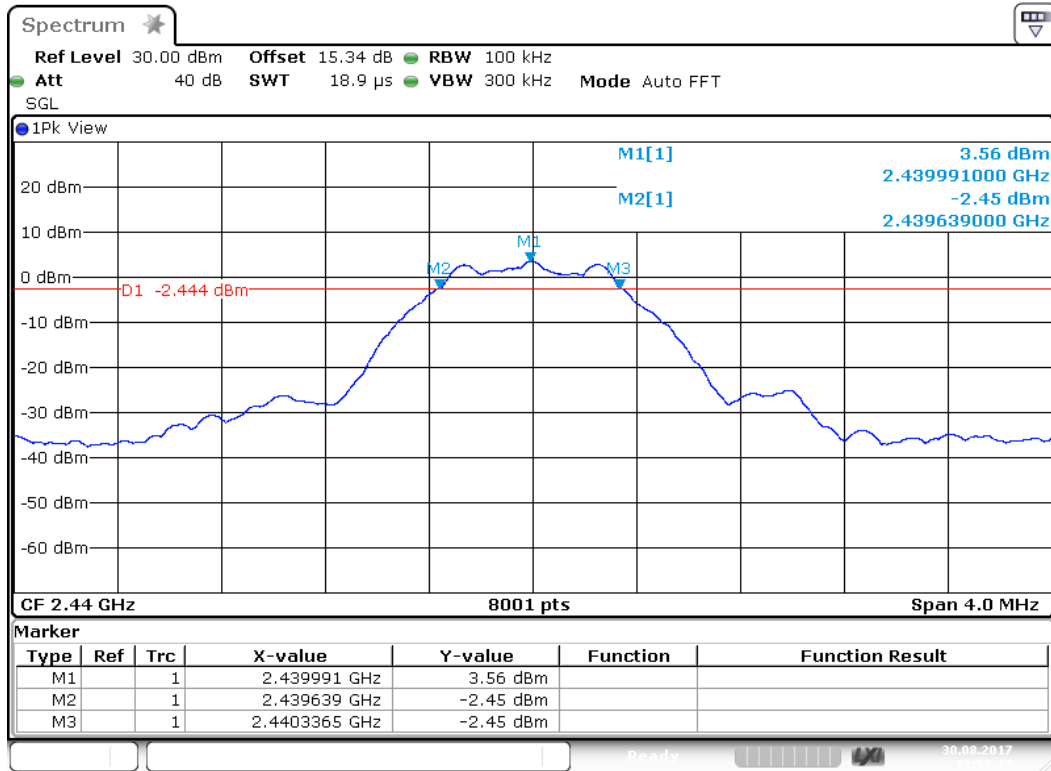
The spectrum analyzer plots are attached as below.

*channel 0*



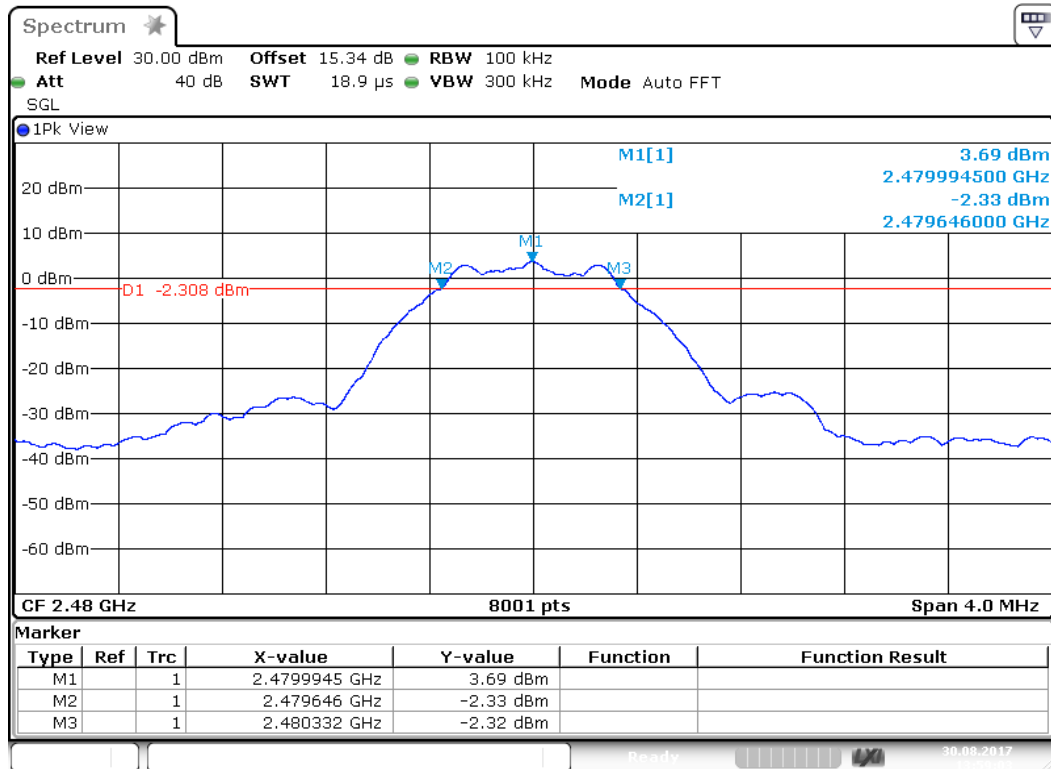
Date: 30.AUG.2017 13:57:21

## channel 19



Date: 30.AUG.2017 13:58:17

## channel 39



Date: 30.AUG.2017 13:59:03

## 7. MAXIMUM PEAK OUTPUT POWER

### 7.1. Block Diagram of Test Setup



(EUT: Massage Chair)

### 7.2. The Requirement For Section 15.247(b)(3)

Section 15.247(b)(3): For systems using digital modulation in the 902-928MHz, 2400-2483.5MHz, and 5725-5850MHz bands: 1 Watt.

### 7.3. 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.

### 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 modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2440MHz, and 2480MHz TX frequency to transmit.

### 7.5. Test Procedure

7.5.1. The transmitter output was connected to the spectrum analyzer through a low loss cable.

7.5.2. Set RBW of spectrum analyzer to 3 MHz and VBW to 3MHz.

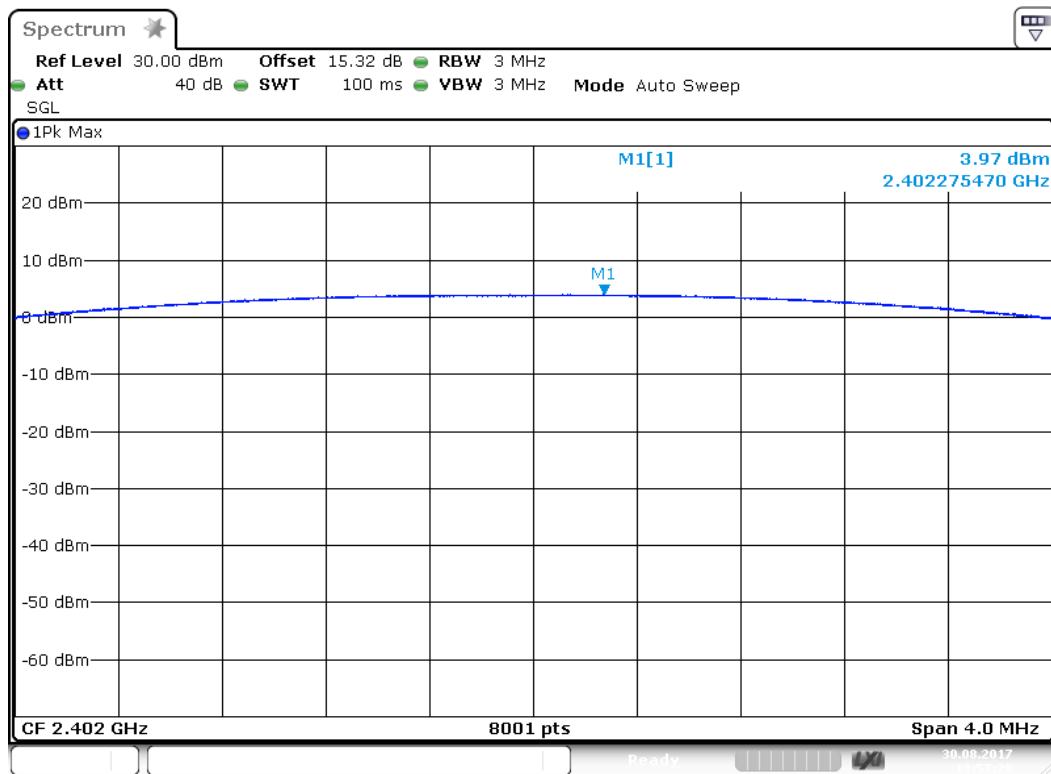
7.5.3. Measurement the maximum peak output power.

### 7.6. Test Result

Channel	Frequency (MHz)	Peak Power Output (dBm)	Peak Power Limit (dBm)	Pass / Fail
0	2402	3.97	30	PASS
19	2440	4.08	30	PASS
39	2480	4.16	30	PASS

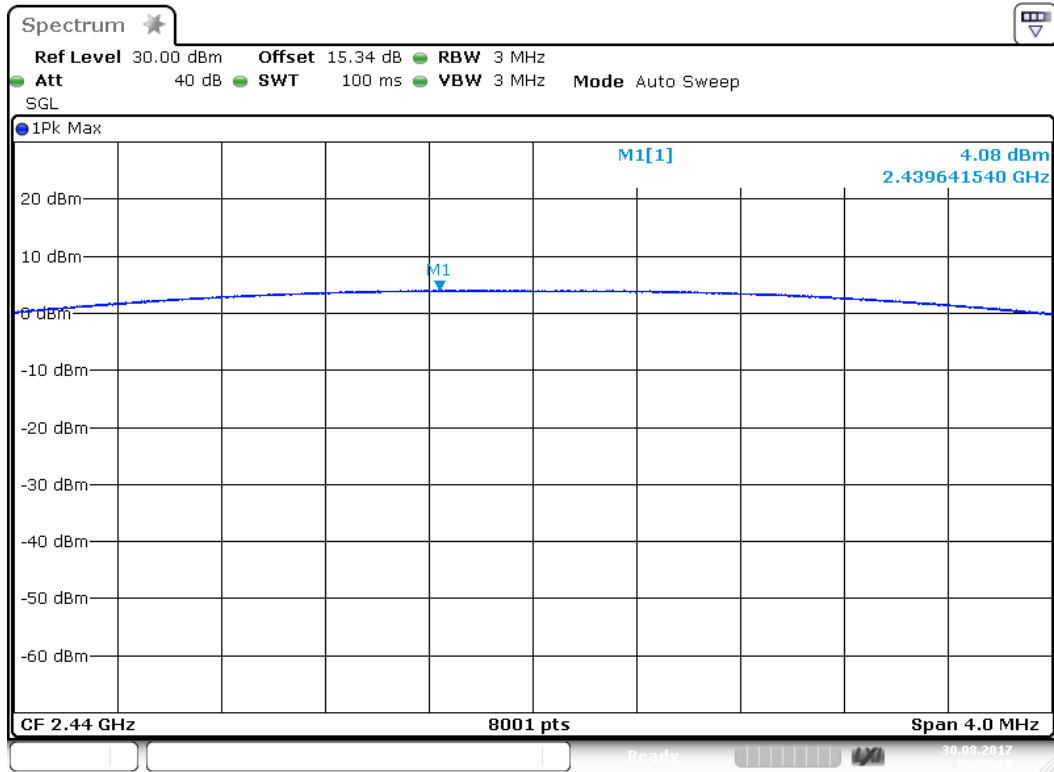
The spectrum analyzer plots are attached as below.

channel 0



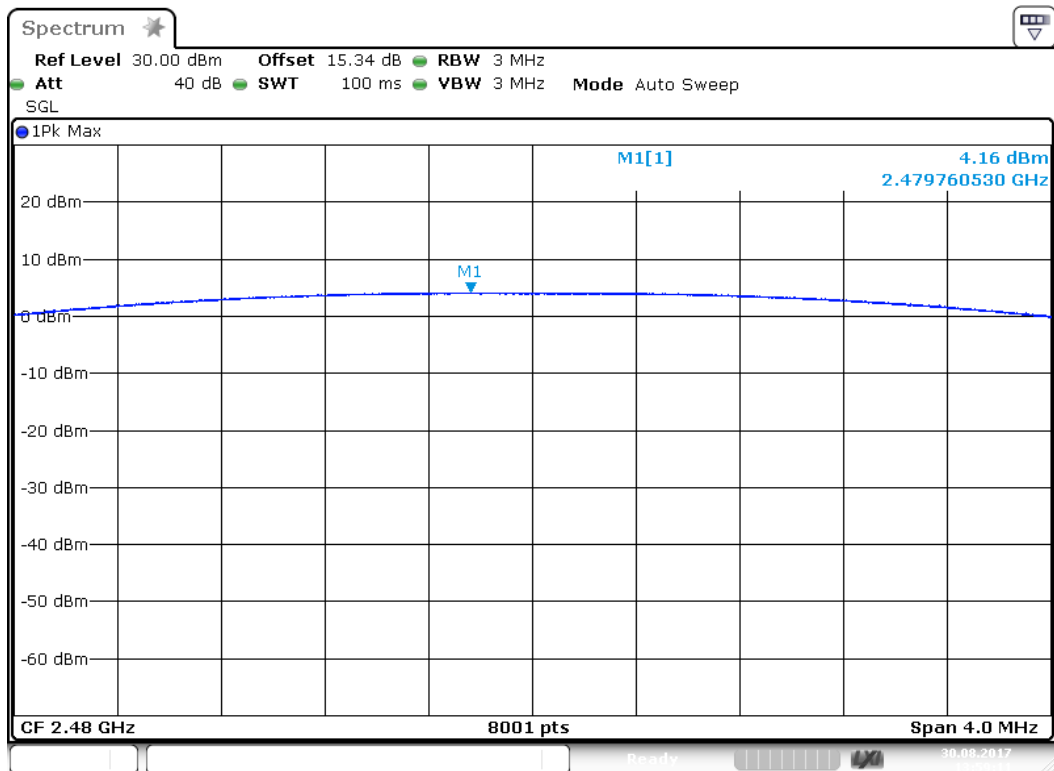
Date: 30.AUG.2017 13:57:29

*channel 19*



Date: 30.AUG.2017 13:58:25

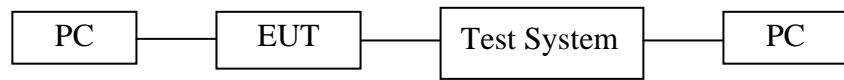
*channel 39*



Date: 30.AUG.2017 13:59:11

## 8. POWER SPECTRAL DENSITY MEASUREMENT

### 8.1. Block Diagram of Test Setup



(EUT: Massage Chair)

### 8.2. The Requirement For Section 15.247(e)

Section 15.247(e): For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

### 8.3. 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.

### 8.4. Operating Condition of EUT

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

8.4.2. Turn on the power of all equipment.

8.4.3. Let the EUT work in TX modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2440MHz, and 2480MHz TX frequency to transmit.

## 8.5. Test Procedure

8.5.1. The transmitter output was connected to the spectrum analyzer through a low loss cable.

8.5.2. Measurement Procedure PKPSD:

8.5.3. This procedure must be used if maximum peak conducted output power was used to demonstrate compliance to the fundamental output power limit, and is optional if the maximum (average) conducted output power was used to demonstrate compliance.

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

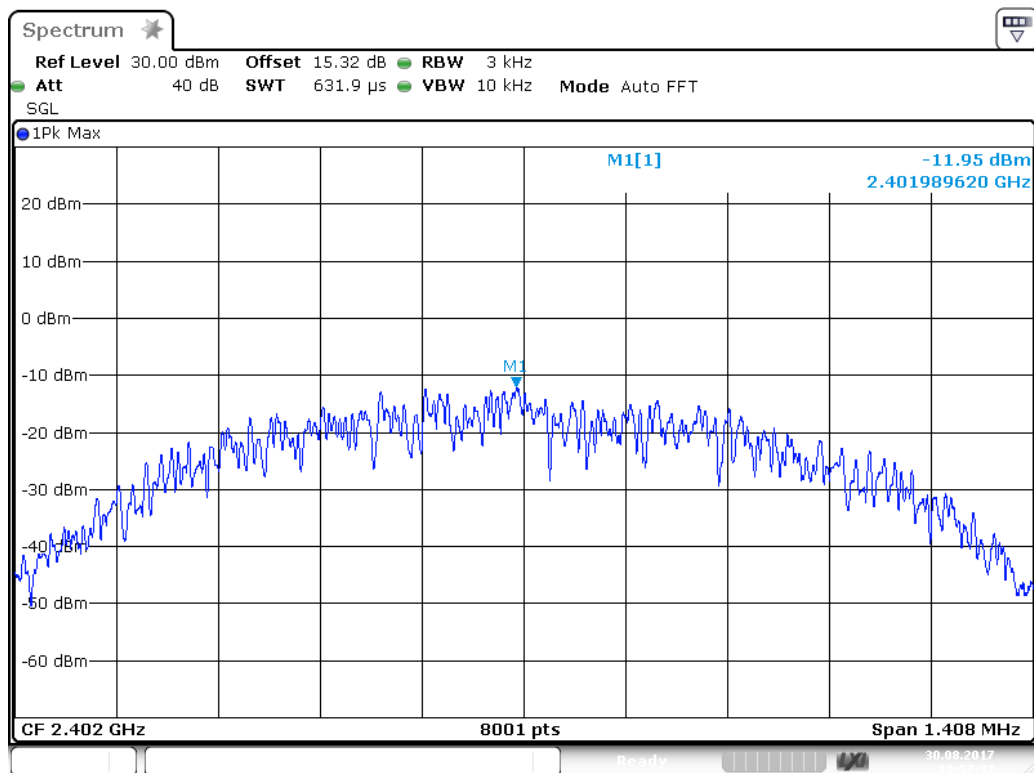
8.5.4. Measurement the maximum power spectral density.

### 8.6. Test Result

CHANNEL NUMBER	FREQUENCY (MHz )	PSD (dBm/3KHz)	LIMIT (dBm/3KHz)	PASS/FAIL
0	2402	-11.95	8	PASS
19	2440	-11.81	8	PASS
39	2480	-11.70	8	PASS

The spectrum analyzer plots are attached as below.

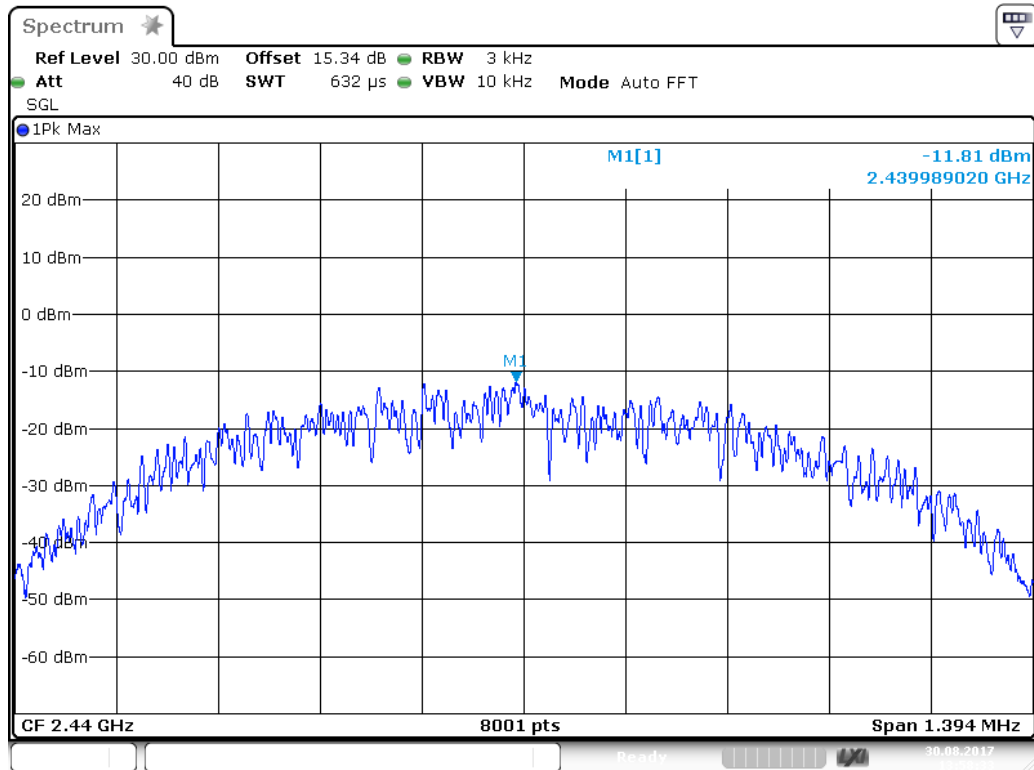
*channel 0*



Date: 30.AUG.2017 13:57:37

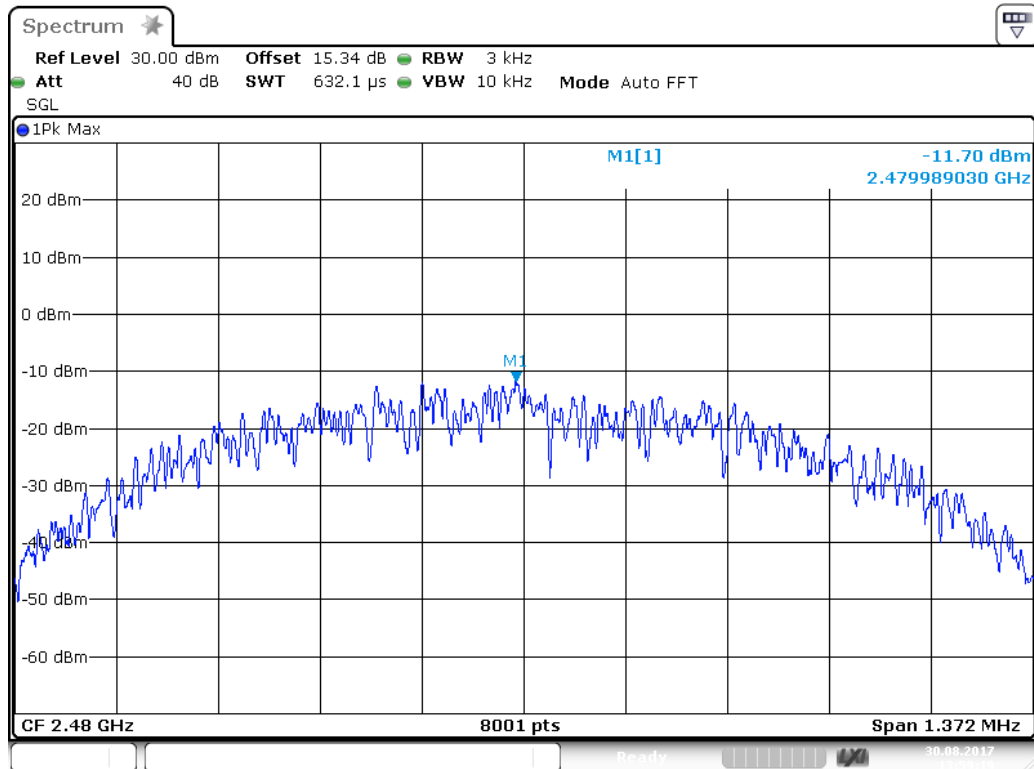


*channel 19*



Date: 30.AUG.2017 13:58:33

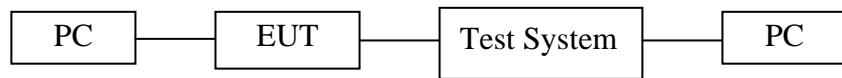
*channel 39*



Date: 30.AUG.2017 13:59:18

## 9. BAND EDGE COMPLIANCE TEST

### 9.1. Block Diagram of Test Setup



(EUT: Massage Chair)

### 9.2. The Requirement For Section 15.247(d)

Section 15.247(d): 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 (b)(3) of this section, the attenuation required under this paragraph 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).

### 9.3. 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.

### 9.4. Operating Condition of EUT

9.4.1. Setup the EUT and simulator as shown as Section 9.1.

9.4.2. Turn on the power of all equipment.

9.4.3. Let the EUT work in TX modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2480MHz TX frequency to transmit.

## 9.5. Test Procedure

### Conducted Band Edge:

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

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

### 9.5.3. Radiate Band Edge:

9.5.4. The EUT is placed on a turntable, which is 0.1m above the ground plane and worked at highest radiated power.

9.5.5. The turntable was rotated for 360 degrees to determine the position of maximum emission level.

9.5.6. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.

9.5.7. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:

9.5.8. RBW=1MHz, VBW=1MHz

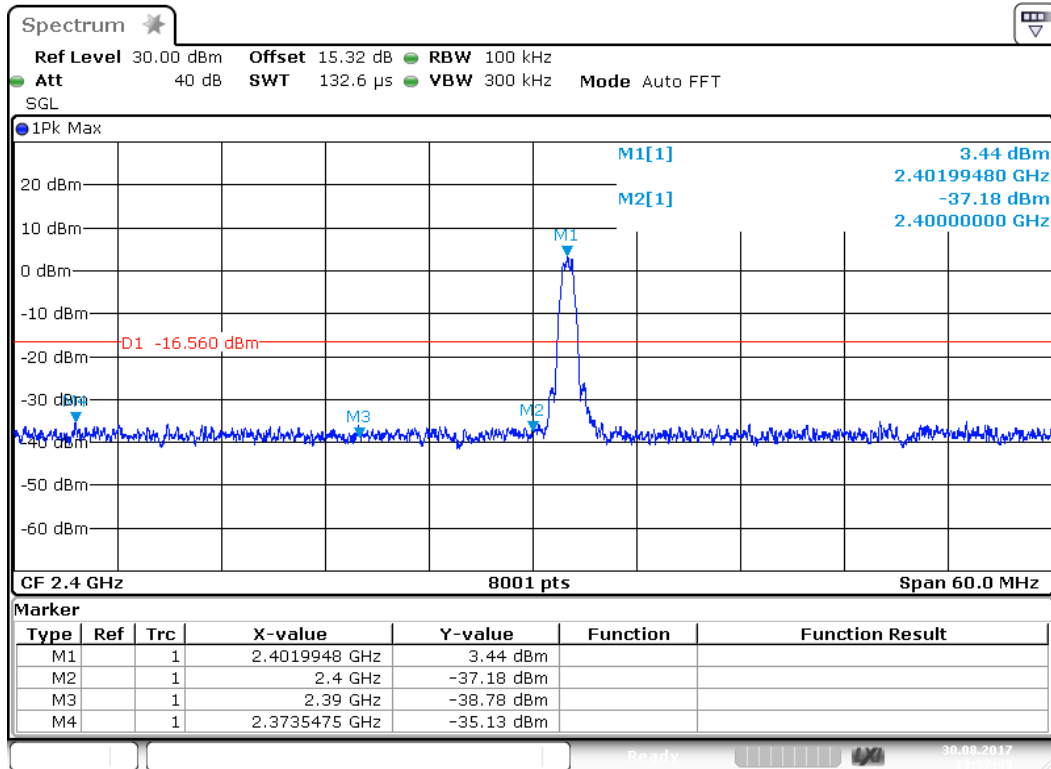
9.5.9. The band edges was measured and recorded.

## 9.6. Test Result

### Pass

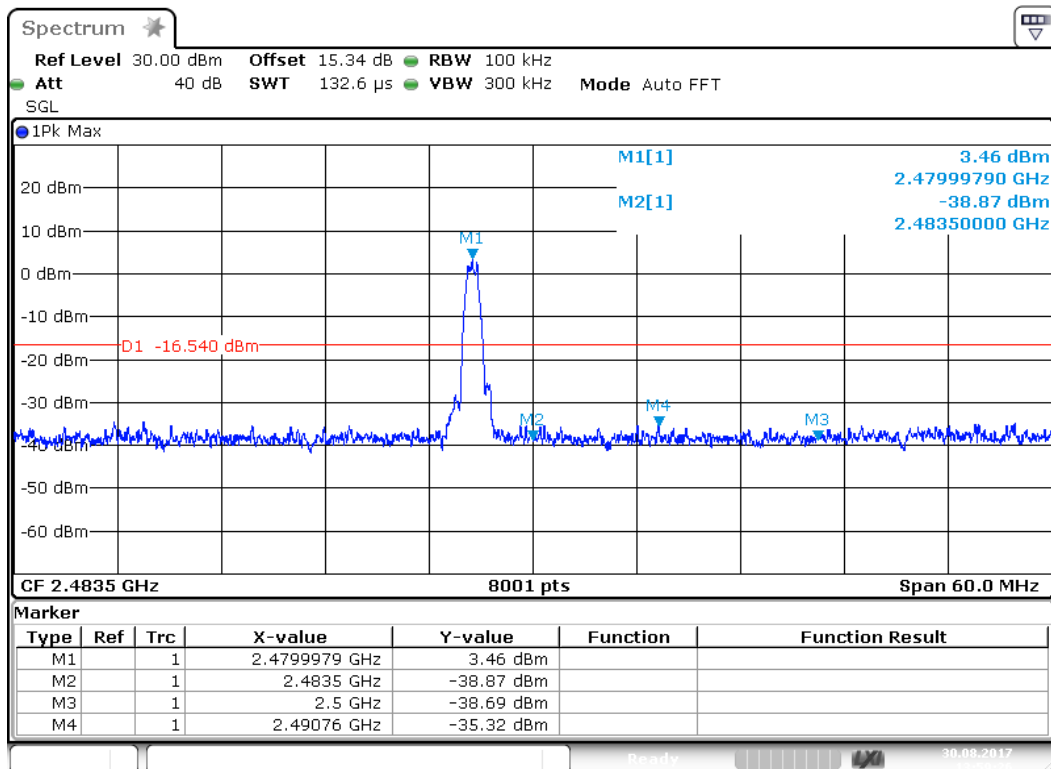
Channel	Frequency	Delta peak to band emission	Limit(dBc)
0	2.4GHz	40.62	20
39	2.4835GHz	42.33	20

### channel 0



Date: 30.AUG.2017 13:57:45

### channel 39



Date: 30.AUG.2017 13:59:26

### Radiated Band Edge Result



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Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: CORNLEY #155

Standard: FCC PK

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Massage Chair

Mode: TX 2480MHz

Model: EC-628E

Manufacturer: XIAMEN COMFORT SCIENCE &amp; TECHNOLOGY GROUP CO., LTD

Polarization: Horizontal

Power Source: AC 120V/60Hz

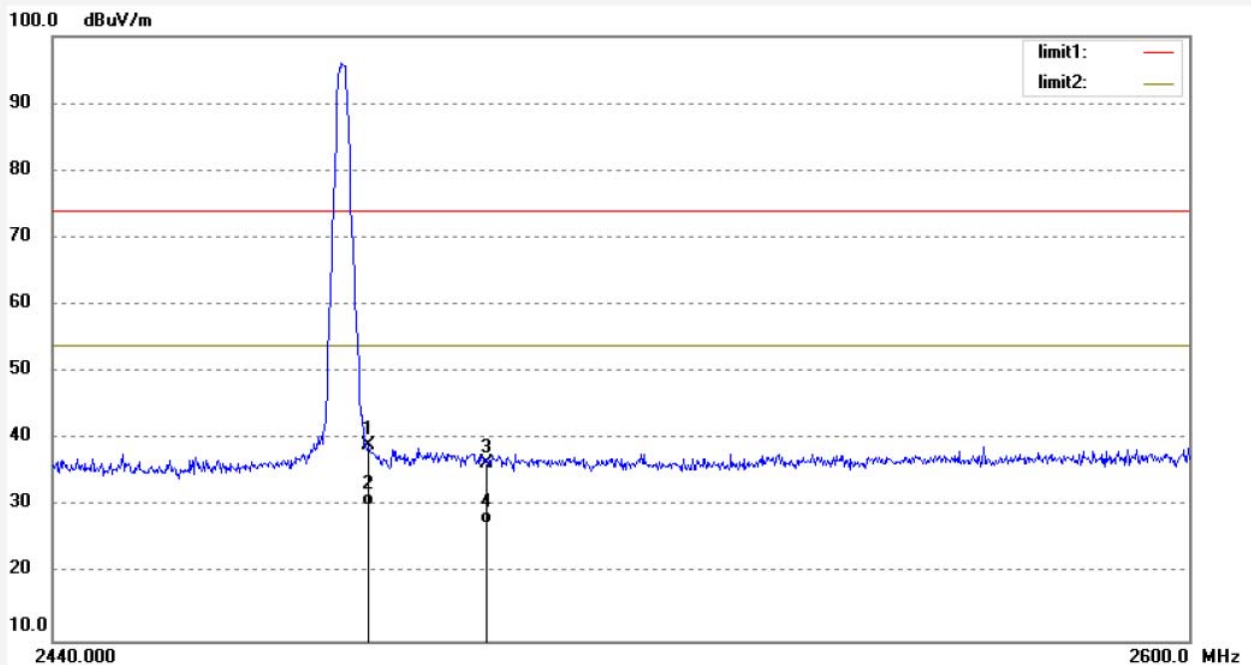
Date: 2017/09/16

Time: 14:11:11

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20171583

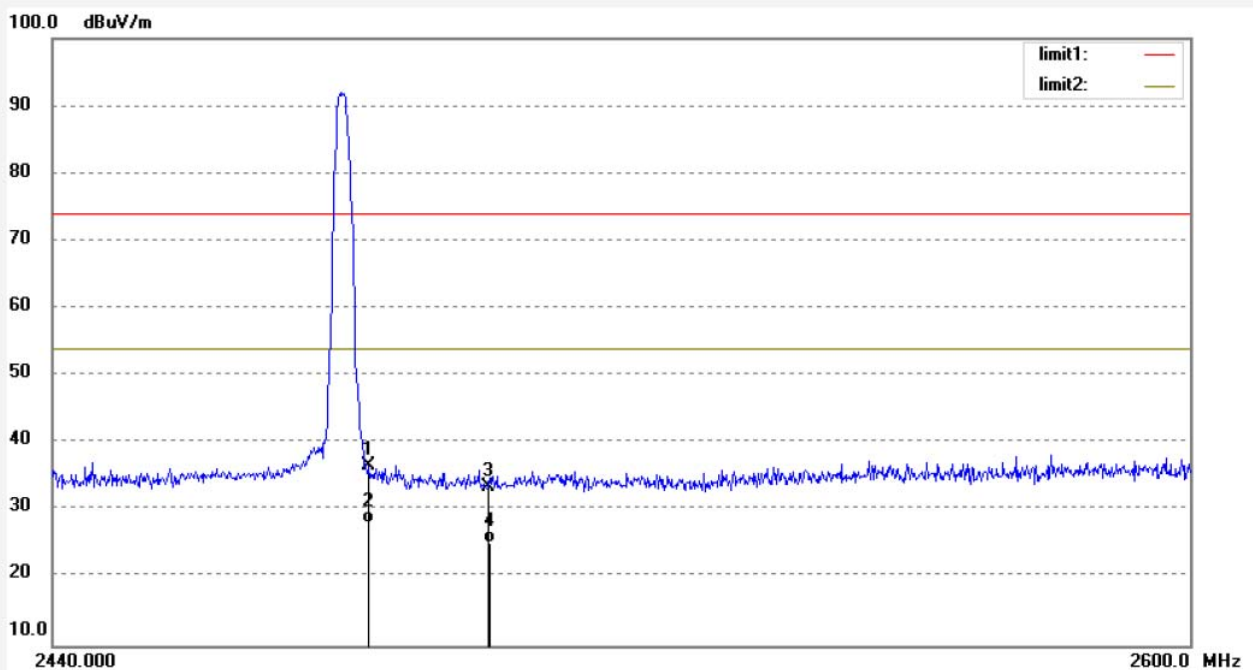


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	44.61	-5.51	39.10	74.00	-34.90	peak	151	237	
2	2483.500	35.74	-5.51	30.23	54.00	-23.77	AVG	151	238	
3	2500.000	41.88	-5.50	36.38	74.00	-37.62	peak	152	32	
4	2500.000	32.93	-5.50	27.43	54.00	-26.57	AVG	152	31	

Job No.: CORNLEY #154  
 Standard: FCC PK  
 Test item: Radiation Test  
 Temp.( C)/Hum.(%) 25 C / 55 %  
 EUT: Massage Chair  
 Mode: TX 2480MHz  
 Model: EC-628E  
 Manufacturer: XIAMEN COMFORT SCIENCE & TECHNOLOGY GROUP CO., LTD

Polarization: Vertical  
 Power Source: AC 120V/60Hz  
 Date: 2017/09/16  
 Time: 14:09:44  
 Engineer Signature:  
 Distance: 3m

Note: Report NO.:ATE20171583



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	42.11	-5.51	36.60	74.00	-37.40	peak	151	38	
2	2483.500	33.57	-5.51	28.06	54.00	-25.94	AVG	151	39	
3	2500.000	39.12	-5.50	33.62	74.00	-40.38	peak	152	36	
4	2500.000	30.69	-5.50	25.19	54.00	-28.81	AVG	152	37	

Job No.: CORNLEY #147

Polarization: Horizontal

Standard: FCC PK

Power Source: AC 120V/60Hz

Test item: Radiation Test

Date: 2017/09/16

Temp.( C)/Hum.(%) 25 C / 55 %

Time: 13:55:24

EUT: Massage Chair

Engineer Signature:

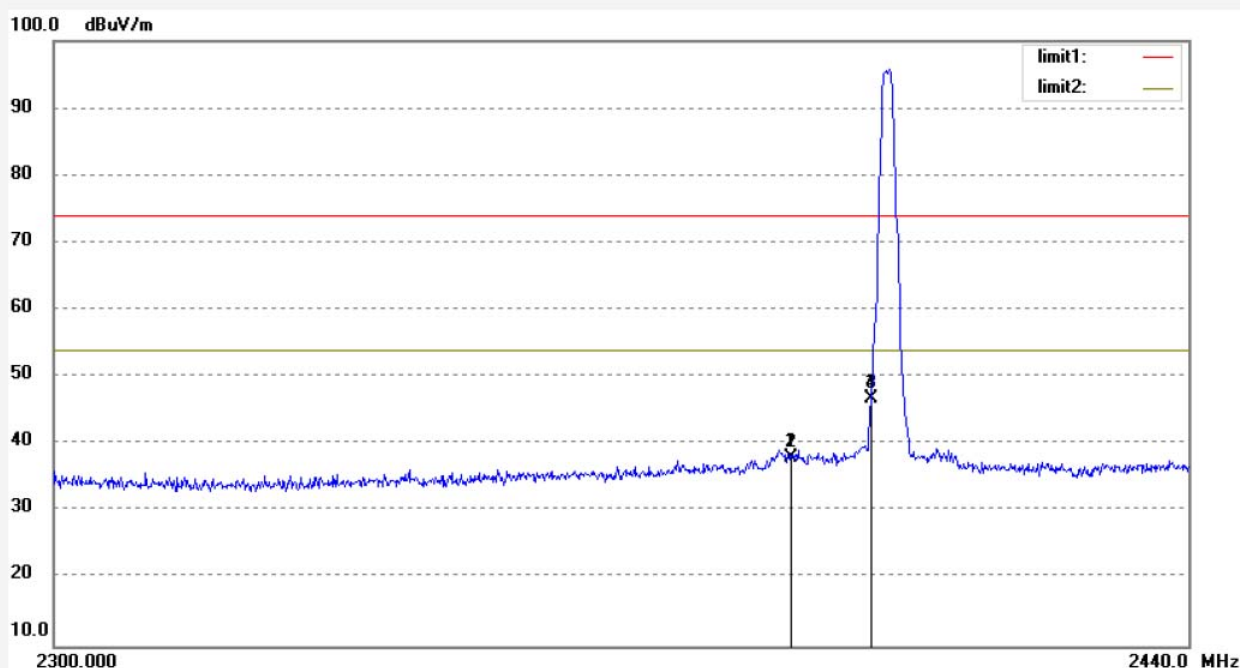
Mode: TX 2402MHz

Distance: 3m

Model: EC-628E

Manufacturer: XIAMEN COMFORT SCIENCE &amp; TECHNOLOGY GROUP CO., LTD

Note: Report NO.:ATE20171583



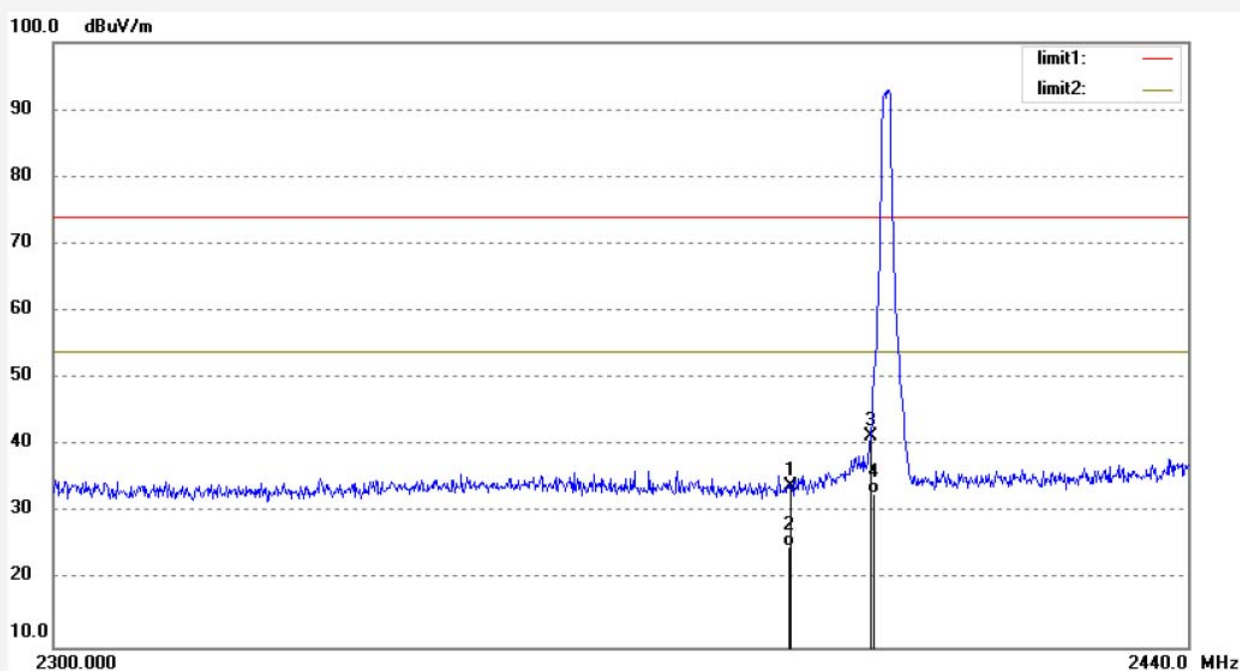
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	43.84	-5.89	37.95	74.00	-36.05	peak	151	320	
2	2390.000	43.84	-5.89	37.95	74.00	-36.05	peak	150	318	
3	2400.000	52.66	-5.80	46.86	74.00	-27.14	peak	150	23	
4	2400.000	52.66	-5.80	46.86	74.00	-27.14	peak	151	22	

Job No.: CORNLEY #146  
 Standard: FCC PK  
 Test item: Radiation Test  
 Temp.( C)/Hum.(%) 25 C / 55 %  
 EUT: Massage Chair  
 Mode: TX 2402MHz  
 Model: EC-628E

Polarization: Vertical  
 Power Source: AC 120V/60Hz  
 Date: 2017/09/16  
 Time: 13:54:14  
 Engineer Signature:  
 Distance: 3m

Manufacturer: XIAMEN COMFORT SCIENCE & TECHNOLOGY GROUP CO., LTD

Note: Report NO.:ATE20171583



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	39.81	-5.89	33.92	74.00	-40.08	peak	150	29	
2	2390.000	30.87	-5.89	24.98	54.00	-29.02	AVG	150	30	
3	2400.000	47.11	-5.80	41.31	74.00	-32.69	peak	150	62	
4	2400.000	38.64	-5.80	32.84	54.00	-21.16	AVG	150	63	

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:

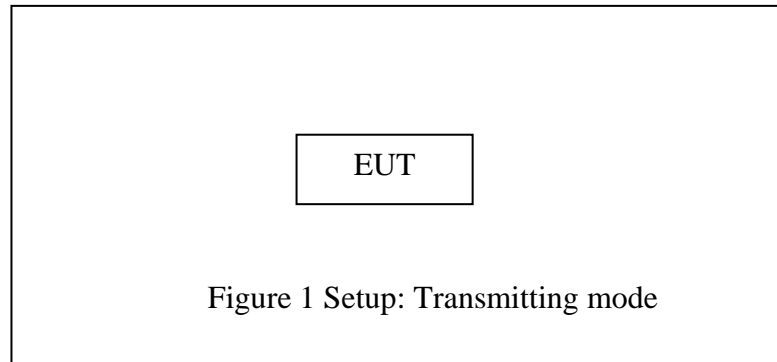
$$\text{Result} = \text{Reading} + \text{Corrected Factor}$$



## 10. RADIATED SPURIOUS EMISSION TEST

### 10.1. Block Diagram of Test Setup

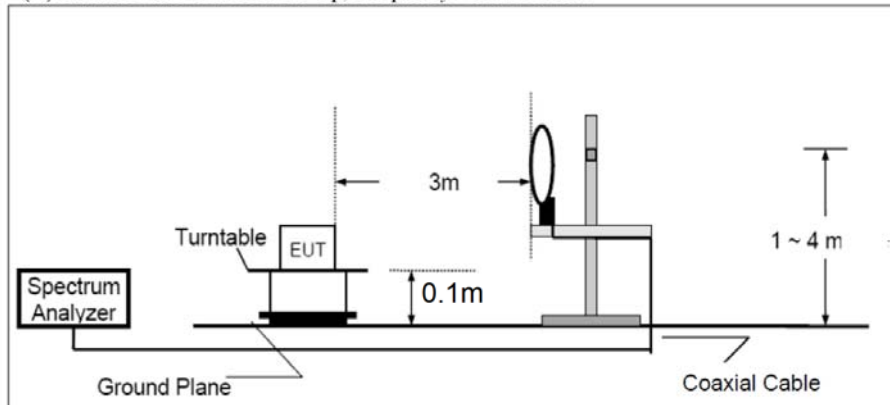
#### 10.1.1. Block diagram of connection between the EUT and peripherals



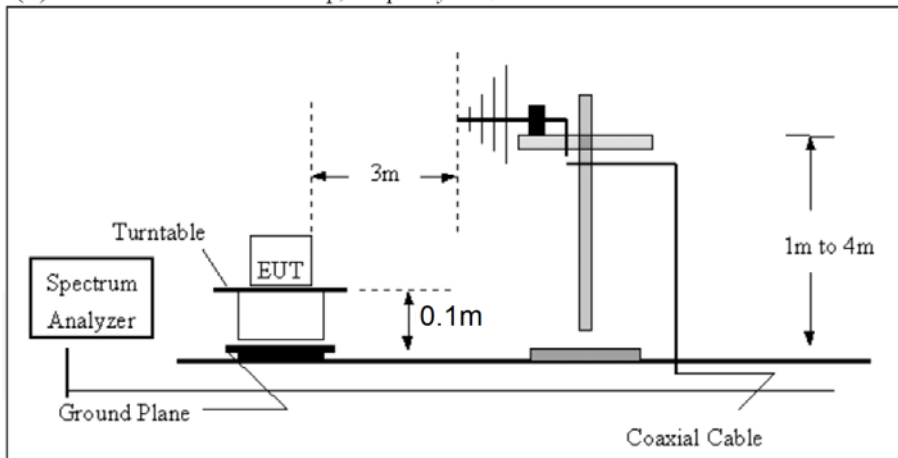
(EUT: Massage Chair)

#### 10.1.2. Semi-Anechoic Chamber Test Setup Diagram

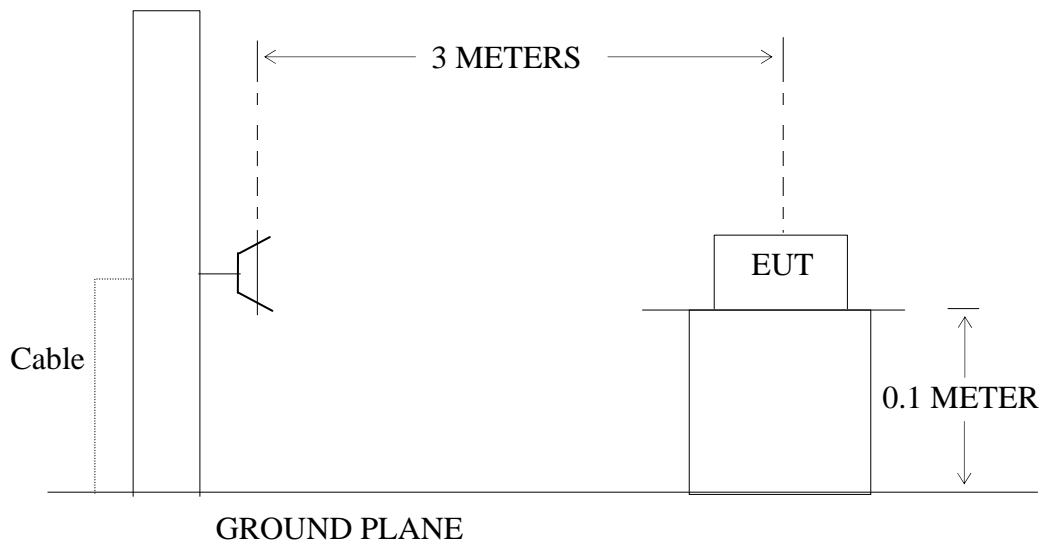
(A) Radiated Emission Test Set-Up, Frequency below 30MHz



(B) Radiated Emission Test Set-Up, Frequency 30-1000MHz



(C) Radiated Emission Test Set-Up, Frequency above 1GHz



## 10.2. The Limit For Section 15.247(d)

Section 15.247(d): 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 (b)(3) of this section, the attenuation required under this paragraph 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).

### 10.3.Restricted bands of operation

#### 10.3.1.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
<sup>1</sup> 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	( <sup>2</sup> )
13.36-13.41			

<sup>1</sup>Until February 1, 1999, this restricted band shall be 0.490-0.510

<sup>2</sup>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 Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

### 10.4.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.

## 10.5. Operating Condition of EUT

10.5.1. Setup the EUT and simulator as shown as Section 10.1.

10.5.2. Turn on the power of all equipment.

10.5.3. Let the EUT work in TX modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2440MHz, and 2480MHz TX frequency to transmit.

## 10.6. Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.1 meter high above ground (Below 1GHz). The EUT and its simulators are placed on a turntable, which is 0.1 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 bandwidth of test receiver is set at 9 kHz in below 30MHz. and set at 120 kHz in 30-1000MHz, and 1MHz in above 1000MHz.

The frequency range from 9 kHz to 25GHz is checked.

The final measurement in band 9-90 kHz, 110-490 kHz and above 1000MHz is performed with Average detector. Except those frequency bands mention above, the final measurement for frequencies below 1000MHz is performed with Quasi Peak detector.

The field strength is calculated by adding the antenna factor, and cable loss, and subtracting the amplifier gain from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

## 10.7. The Field Strength of Radiation Emission Measurement Results

PASS.

**Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.**

**2. \*: Denotes restricted band of operation.**

**3. The radiation emissions from 9kHz-30MHz and 18-25GHz are not reported, because the test values lower than the limits of 20dB.**

## Below 1GHz


**ACCURATE TECHNOLOGY CO., LTD.**

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Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: CORNLEY #140

Polarization: Horizontal

Standard: FCC Class B 3M Radiated

Power Source: AC 120V/60Hz

Test item: Radiation Test

Date: 2017/09/12

Temp.( C)/Hum.(%) 25 C / 55 %

Time: 15:27:57

EUT: Massage Chair

Engineer Signature:

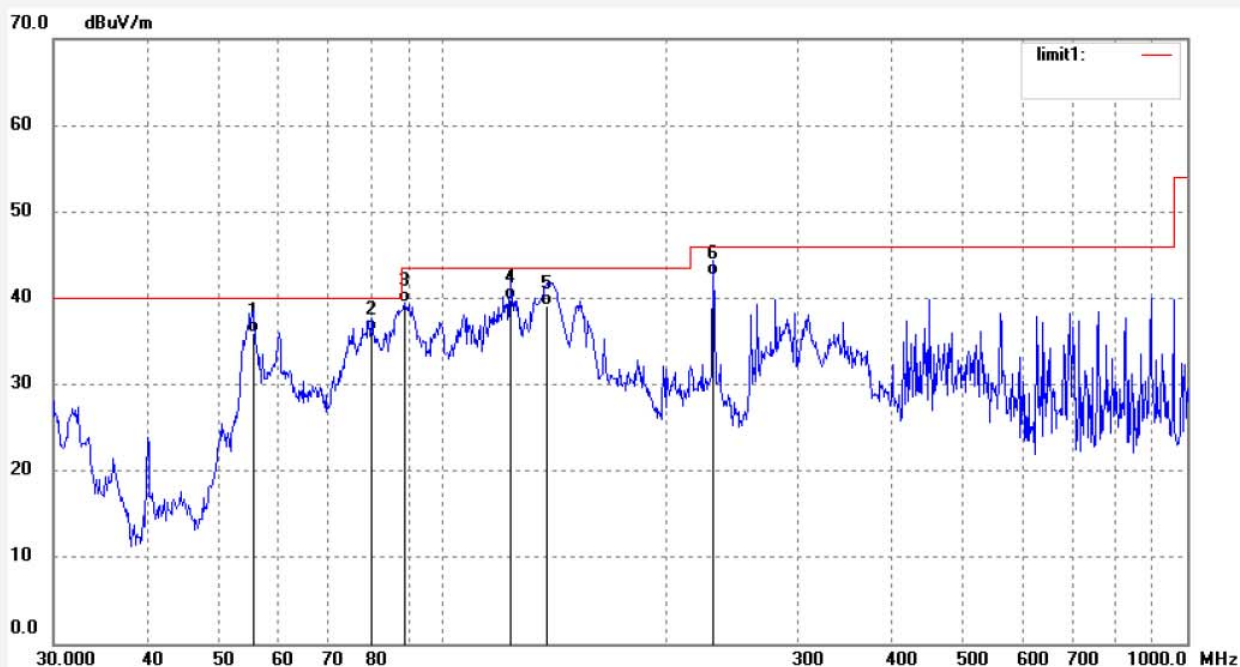
Mode: TX 2402MHz

Distance: 3m

Model: EC-628E

Manufacturer: XIAMEN COMFORT SCIENCE &amp; TECHNOLOGY GROUP CO., LTD

Note: Report NO.:ATE20171583



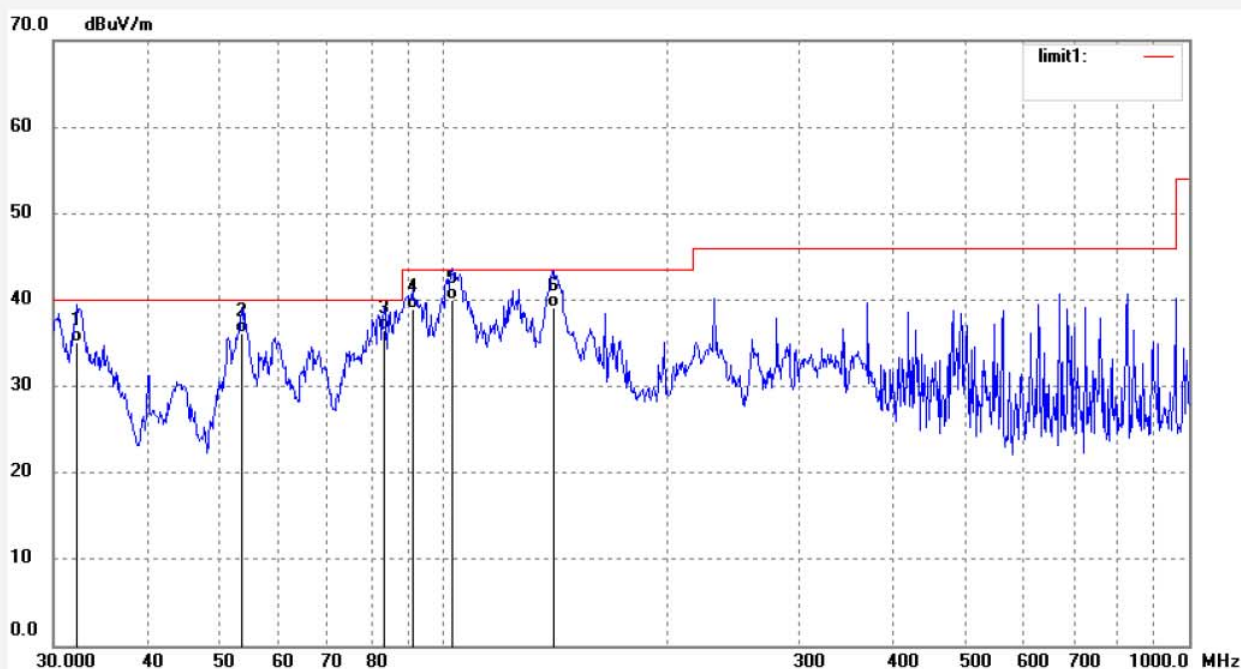
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	55.6094	56.78	-20.90	35.88	40.00	-4.12	QP	100	29	
2	80.3619	58.46	-22.27	36.19	40.00	-3.81	QP	100	120	
3	88.9637	60.21	-20.69	39.52	43.50	-3.98	QP	100	48	
4	123.2655	60.21	-20.41	39.80	43.50	-3.70	QP	100	238	
5	137.9028	60.35	-21.31	39.04	43.50	-4.46	QP	100	301	
6	230.9068	60.74	-18.13	42.61	46.00	-3.39	QP	100	13	

Job No.: CORNLEY #141  
 Standard: FCC Class B 3M Radiated  
 Test item: Radiation Test  
 Temp.( C)/Hum.(%) 25 C / 55 %  
 EUT: Massage Chair  
 Mode: TX 2402MHz  
 Model: EC-628E

Polarization: Vertical  
 Power Source: AC 120V/60Hz  
 Date: 2017/09/12  
 Time: 15:29:50  
 Engineer Signature:  
 Distance: 3m

Manufacturer: XIAMEN COMFORT SCIENCE & TECHNOLOGY GROUP CO., LTD

Note: Report NO.:ATE20171583



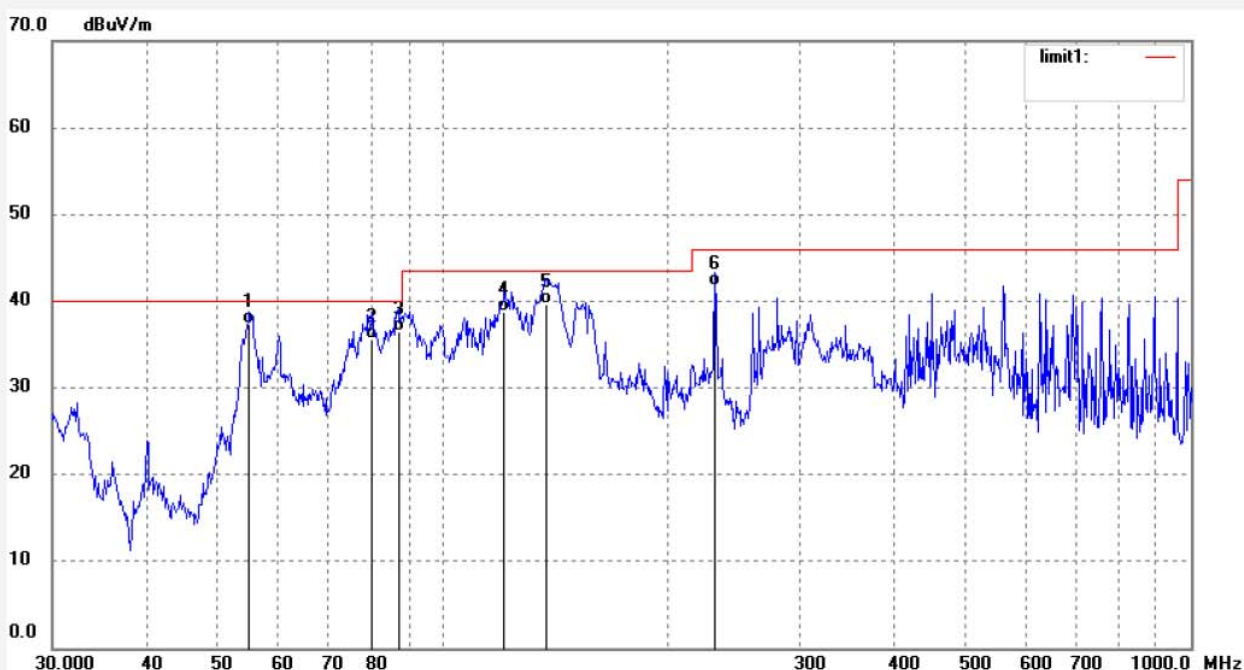
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	32.2924	51.36	-16.19	35.17	40.00	-4.83	QP	100	320	
2	53.6931	56.64	-20.51	36.13	40.00	-3.87	QP	110	23	
3	83.2296	59.11	-22.54	36.57	40.00	-3.43	QP	100	128	
4	90.8554	60.34	-21.36	38.98	43.50	-4.52	QP	110	301	
5	102.7192	59.87	-19.91	39.96	43.50	-3.54	QP	100	209	
6	140.3421	60.92	-21.74	39.18	43.50	-4.32	QP	110	167	

Job No.: CORNLEY #143  
 Standard: FCC Class B 3M Radiated  
 Test item: Radiation Test  
 Temp.( C)/Hum.(%) 25 C / 55 %  
 EUT: Massage Chair  
 Mode: TX 2440MHz  
 Model: EC-628E

Polarization: Horizontal  
 Power Source: AC 120V/60Hz  
 Date: 2017/09/12  
 Time: 15:35:56  
 Engineer Signature:  
 Distance: 3m

Manufacturer: XIAMEN COMFORT SCIENCE & TECHNOLOGY GROUP CO., LTD

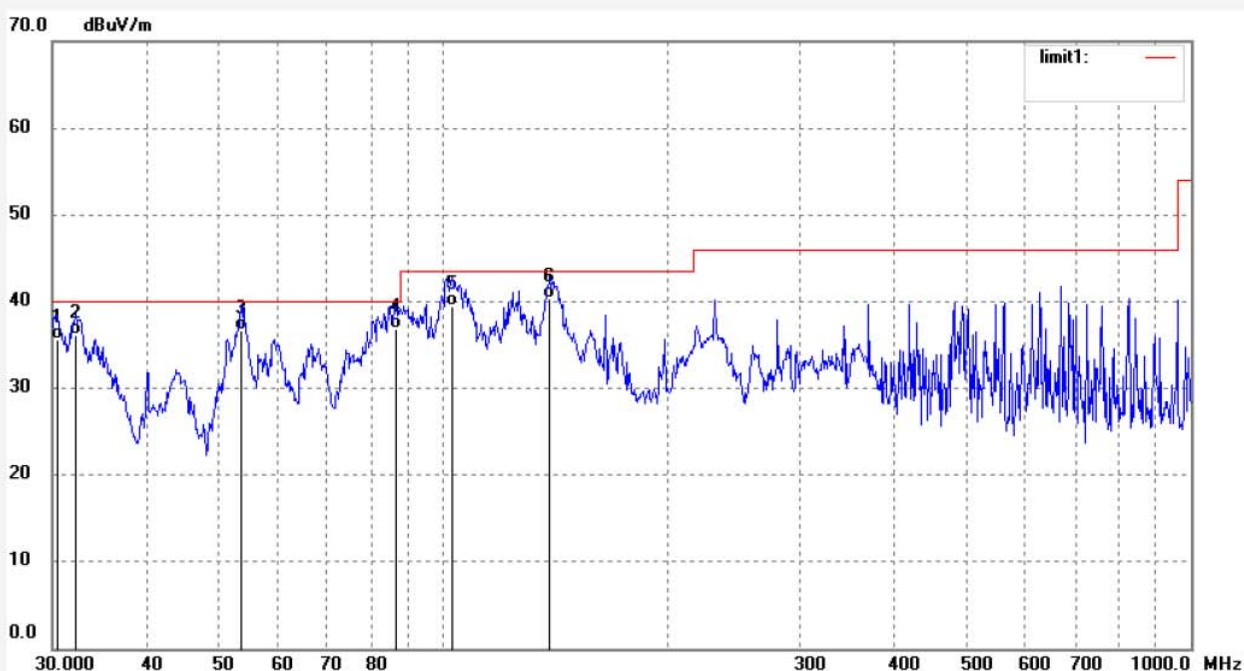
Note: Report NO.:ATE20171583



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	55.0274	58.16	-20.79	37.37	40.00	-2.63	QP	110	203	
2	80.3619	57.83	-22.27	35.56	40.00	-4.44	QP	110	128	
3	87.1115	57.31	-20.88	36.43	40.00	-3.57	QP	100	301	
4	120.6991	58.94	-20.18	38.76	43.50	-4.74	QP	100	355	
5	137.4199	60.79	-21.21	39.58	43.50	-3.92	QP	110	29	
6	230.9068	59.91	-18.13	41.78	46.00	-4.22	QP	100	238	

Job No.: CORNLEY #142	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 2017/09/12
Temp.( C)/Hum.(%) 25 C / 55 %	Time: 15:33:41
EUT: Massage Chair	Engineer Signature:
Mode: TX 2440MHz	Distance: 3m
Model: EC-628E	
Manufacturer: XIAMEN COMFORT SCIENCE & TECHNOLOGY GROUP CO., LTD	

Note: Report NO.:ATE20171583



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	30.5304	51.36	-15.81	35.55	40.00	-4.45	QP	100	89	
2	32.2924	52.41	-16.19	36.22	40.00	-3.78	QP	110	120	
3	53.6931	57.15	-20.51	36.64	40.00	-3.36	QP	100	210	
4	86.5027	58.79	-21.93	36.86	40.00	-3.14	QP	110	337	
5	102.7192	59.38	-19.91	39.47	43.50	-4.03	QP	100	148	
6	138.8735	61.84	-21.52	40.32	43.50	-3.18	QP	110	55	

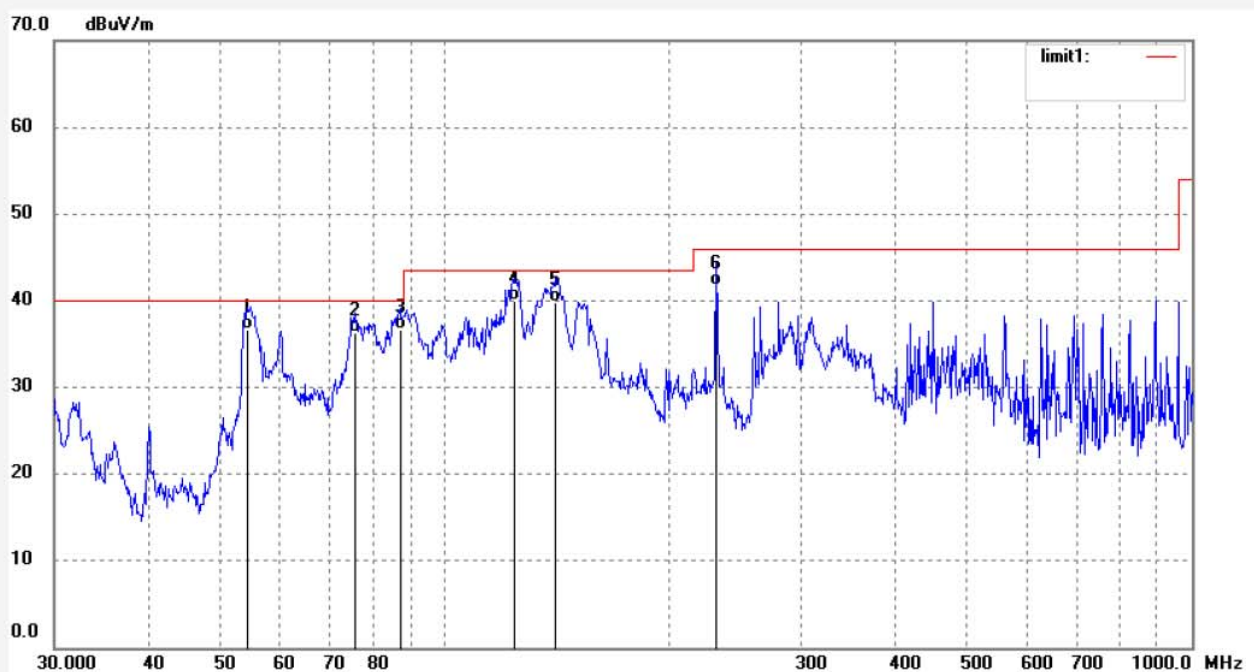


Job No.: CORNLEY #144  
 Standard: FCC Class B 3M Radiated  
 Test item: Radiation Test  
 Temp.( C)/Hum.(%) 25 C / 55 %  
 EUT: Massage Chair  
 Mode: TX 2480MHz  
 Model: EC-628E

Polarization: Horizontal  
 Power Source: AC 120V/60Hz  
 Date: 2017/09/12  
 Time: 15:37:41  
 Engineer Signature:  
 Distance: 3m

Manufacturer: XIAMEN COMFORT SCIENCE & TECHNOLOGY GROUP CO., LTD

Note: Report NO.:ATE20171583



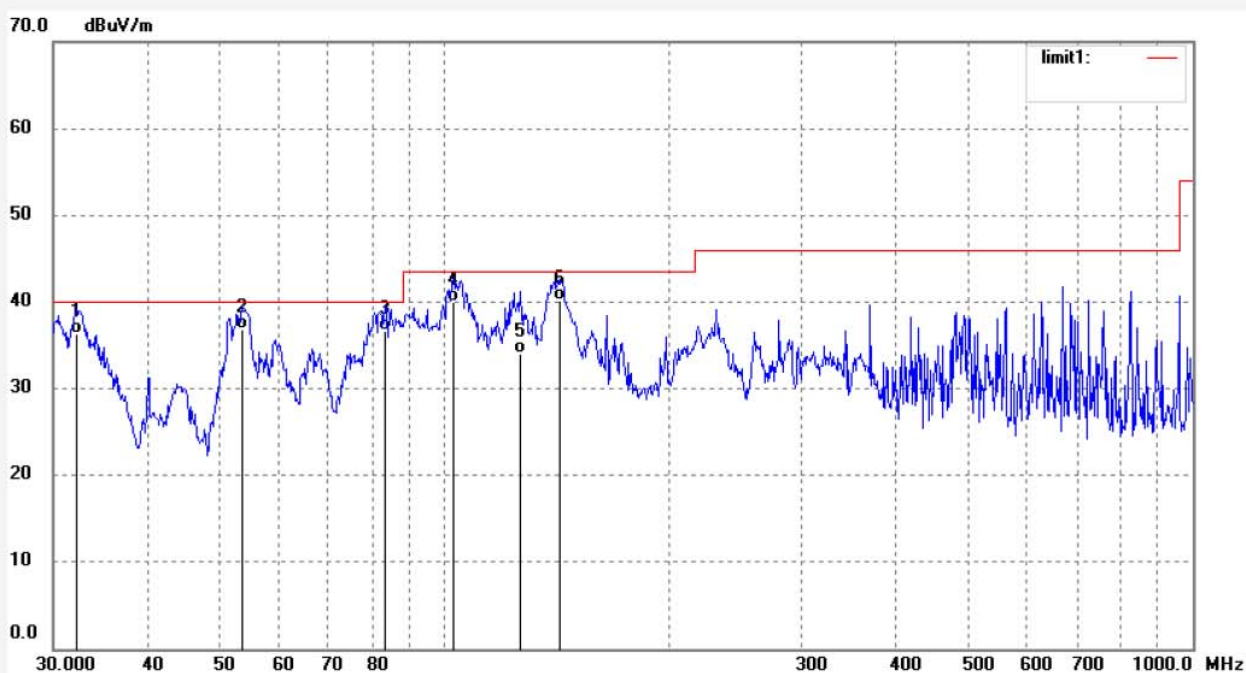
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	54.4515	57.41	-20.67	36.74	40.00	-3.26	QP	100	298	
2	75.7112	59.75	-23.47	36.28	40.00	-3.72	QP	110	129	
3	87.1115	57.48	-20.88	36.60	40.00	-3.40	QP	100	302	
4	123.6984	60.52	-20.46	40.06	43.50	-3.44	QP	120	296	
5	140.3420	61.47	-21.74	39.73	43.50	-3.77	QP	100	190	
6	230.9068	59.87	-18.13	41.74	46.00	-4.26	QP	110	21	

Job No.: CORNLEY #145  
 Standard: FCC Class B 3M Radiated  
 Test item: Radiation Test  
 Temp.( C)/Hum.(%) 25 C / 55 %  
 EUT: Massage Chair  
 Mode: TX 2480MHz  
 Model: EC-628E

Polarization: Vertical  
 Power Source: AC 120V/60Hz  
 Date: 2017/09/12  
 Time: 15:39:50  
 Engineer Signature:  
 Distance: 3m

Manufacturer: XIAMEN COMFORT SCIENCE & TECHNOLOGY GROUP CO., LTD

Note: Report NO.:ATE20171583



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	32.2924	52.48	-16.19	36.29	40.00	-3.71	QP	100	27	
2	53.6931	57.31	-20.51	36.80	40.00	-3.20	QP	110	290	
3	83.2296	59.17	-22.54	36.63	40.00	-3.37	QP	100	302	
4	102.7192	59.82	-19.91	39.91	43.50	-3.59	QP	110	48	
5	126.3285	54.67	-20.60	34.07	43.50	-9.43	QP	110	289	
6	142.3240	61.84	-21.70	40.14	43.50	-3.36	QP	100	346	

## Above 1GHz


**ACCURATE TECHNOLOGY CO., LTD.**

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Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: CORNLEY #148

Polarization: Horizontal

Standard: FCC Class B 3M Radiated

Power Source: AC 120V/60Hz

Test item: Radiation Test

Date: 2017/09/16

Temp.( C)/Hum.(%) 25 C / 55 %

Time: 13:57:50

EUT: Massage Chair

Engineer Signature:

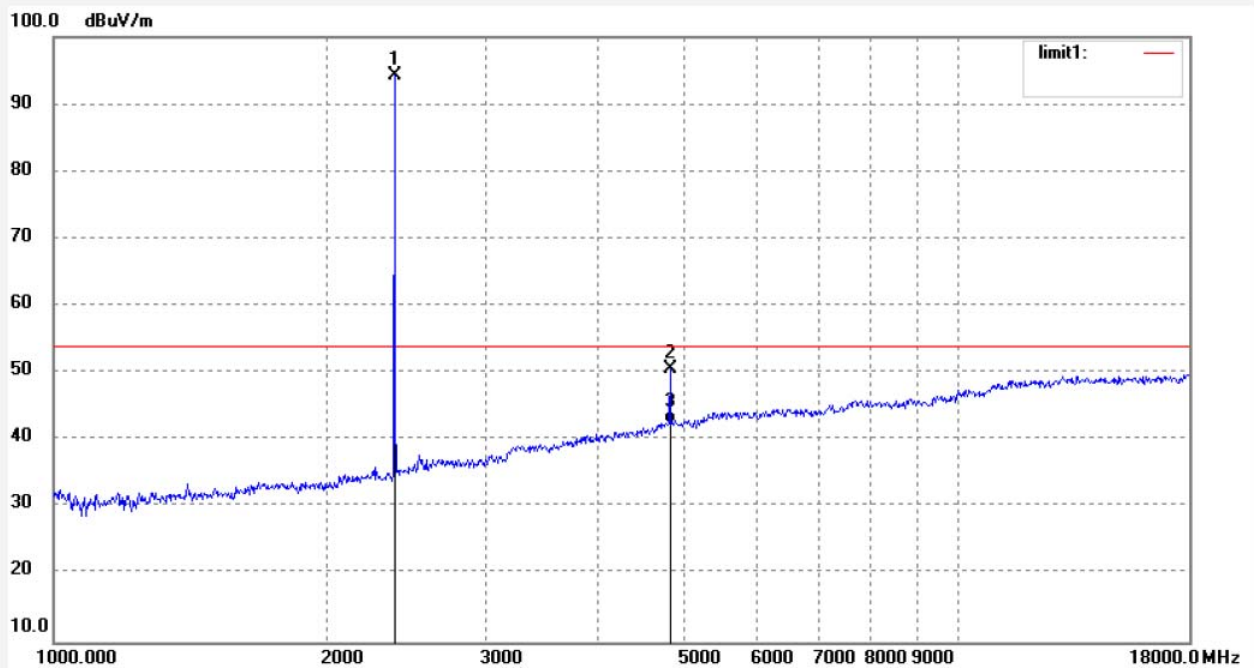
Mode: TX 2402MHz

Distance: 3m

Model: EC-628E

Manufacturer: XIAMEN COMFORT SCIENCE &amp; TECHNOLOGY GROUP CO., LTD

Note: Report NO.:ATE20171583



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2402.164	100.32	-5.98	94.34			peak	151	29	
2	4804.328	47.00	3.53	50.53	74.00	-23.47	peak	150	301	
3	4804.328	38.96	3.53	42.49	54.00	-11.51	AVG	150	300	

Job No.: CORNLEY #149

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Massage Chair

Mode: TX 2402MHz

Model: EC-628E

Manufacturer: XIAMEN COMFORT SCIENCE &amp; TECHNOLOGY GROUP CO., LTD

Polarization: Vertical

Power Source: AC 120V/60Hz

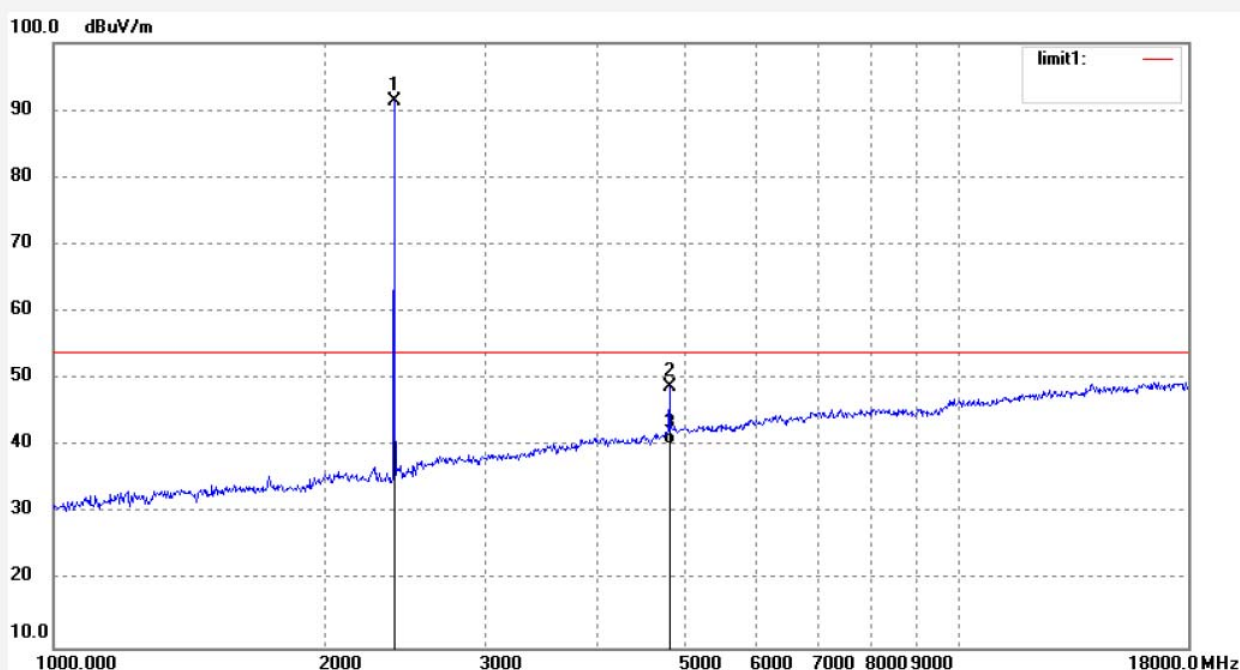
Date: 2017/09/16

Time: 13:59:41

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20171583



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2402.164	97.32	-5.98	91.34			peak	153	45	
2	4804.328	45.39	3.53	48.92	74.00	-25.08	peak	153	319	
3	4804.328	36.81	3.53	40.34	54.00	-13.66	AVG	153	318	

Job No.: CORNLEY #151

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Massage Chair

Mode: TX 2440MHz

Model: EC-628E

Manufacturer: XIAMEN COMFORT SCIENCE &amp; TECHNOLOGY GROUP CO., LTD

Polarization: Horizontal

Power Source: AC 120V/60Hz

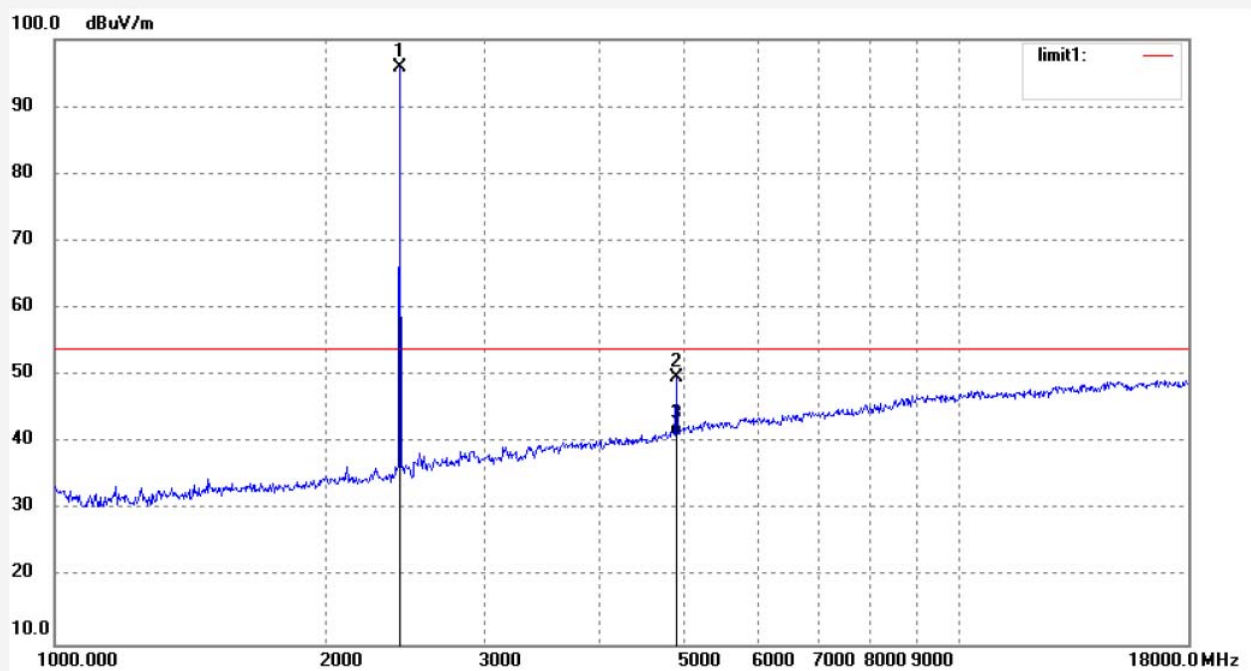
Date: 2017/09/16

Time: 14:03:33

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20171583



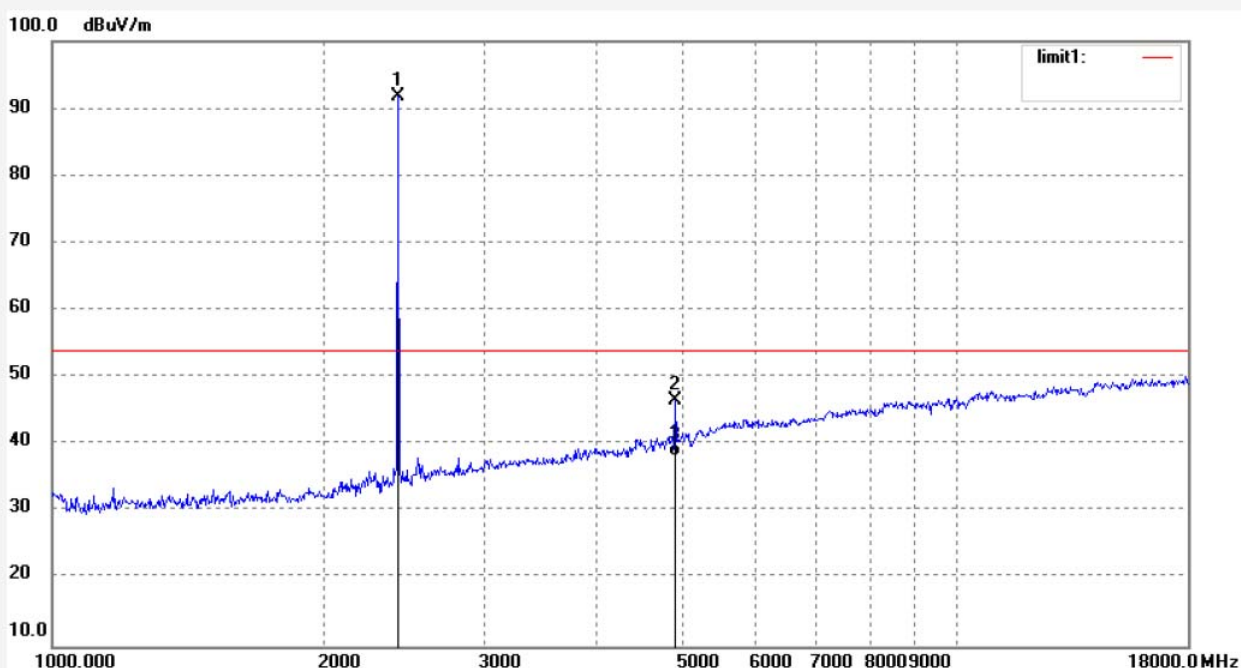
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2440.000	101.50	-5.76	95.74			peak	150	301	
2	4880.000	45.38	4.32	49.70	74.00	-24.30	peak	151	79	
3	4880.000	36.74	4.32	41.06	54.00	-12.94	AVG	151	80	

Job No.: CORNLEY #150  
 Standard: FCC Class B 3M Radiated  
 Test item: Radiation Test  
 Temp.( C)/Hum.(%) 25 C / 55 %  
 EUT: Massage Chair  
 Mode: TX 2440MHz  
 Model: EC-628E

Polarization: Vertical  
 Power Source: AC 120V/60Hz  
 Date: 2017/09/16  
 Time: 14:01:48  
 Engineer Signature:  
 Distance: 3m

Manufacturer: XIAMEN COMFORT SCIENCE & TECHNOLOGY GROUP CO., LTD

Note: Report NO.:ATE20171583



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2440.000	97.47	-5.76	91.71			peak	150	278	
2	4880.000	42.24	4.32	46.56	74.00	-27.44	peak	151	280	
3	4880.000	33.85	4.32	38.17	54.00	-15.83	AVG	151	281	

Job No.: CORNLEY #152

Polarization: Horizontal

Standard: FCC Class B 3M Radiated

Power Source: AC 120V/60Hz

Test item: Radiation Test

Date: 2017/09/16

Temp.( C)/Hum.(%) 25 C / 55 %

Time: 14:05:54

EUT: Massage Chair

Engineer Signature:

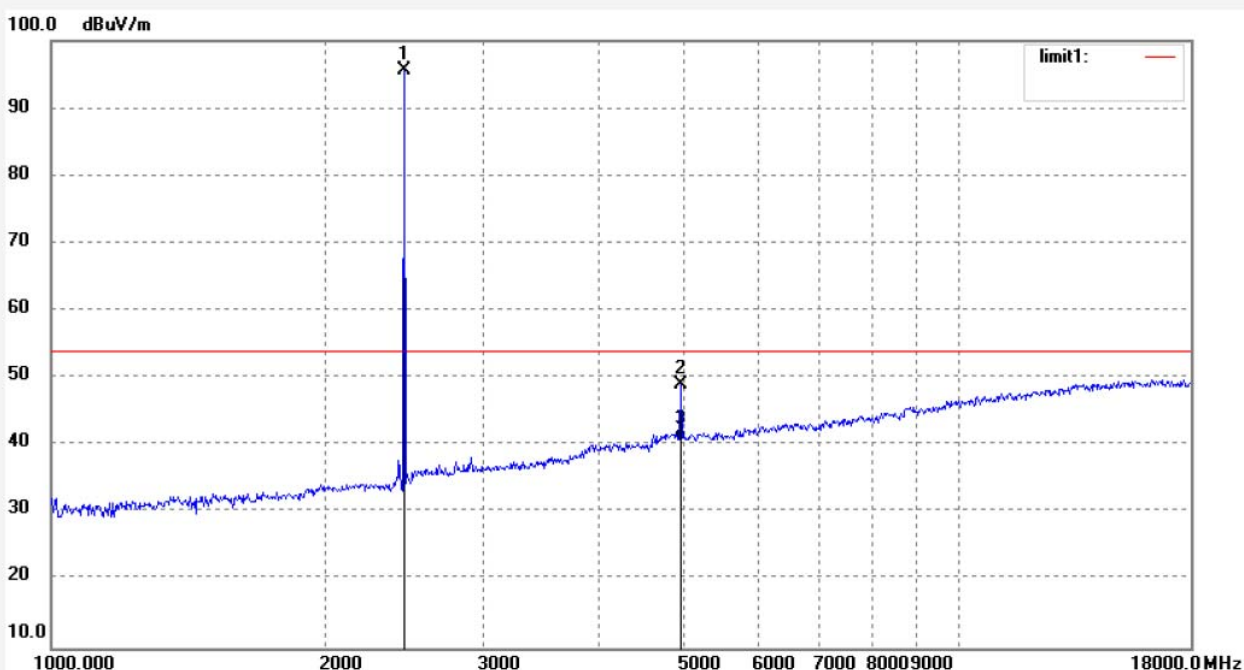
Mode: TX 2480MHz

Distance: 3m

Model: EC-628E

Manufacturer: XIAMEN COMFORT SCIENCE &amp; TECHNOLOGY GROUP CO., LTD

Note: Report NO.:ATE20171583



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2480.034	101.06	-5.55	95.51			peak	151	82	
2	4960.068	44.36	4.69	49.05	74.00	-24.95	peak	150	263	
3	4960.068	35.93	4.69	40.62	54.00	-13.38	AVG	150	262	

Job No.: CORNLEY #153

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Massage Chair

Mode: TX 2480MHz

Model: EC-628E

Manufacturer: XIAMEN COMFORT SCIENCE &amp; TECHNOLOGY GROUP CO., LTD

Polarization: Vertical

Power Source: AC 120V/60Hz

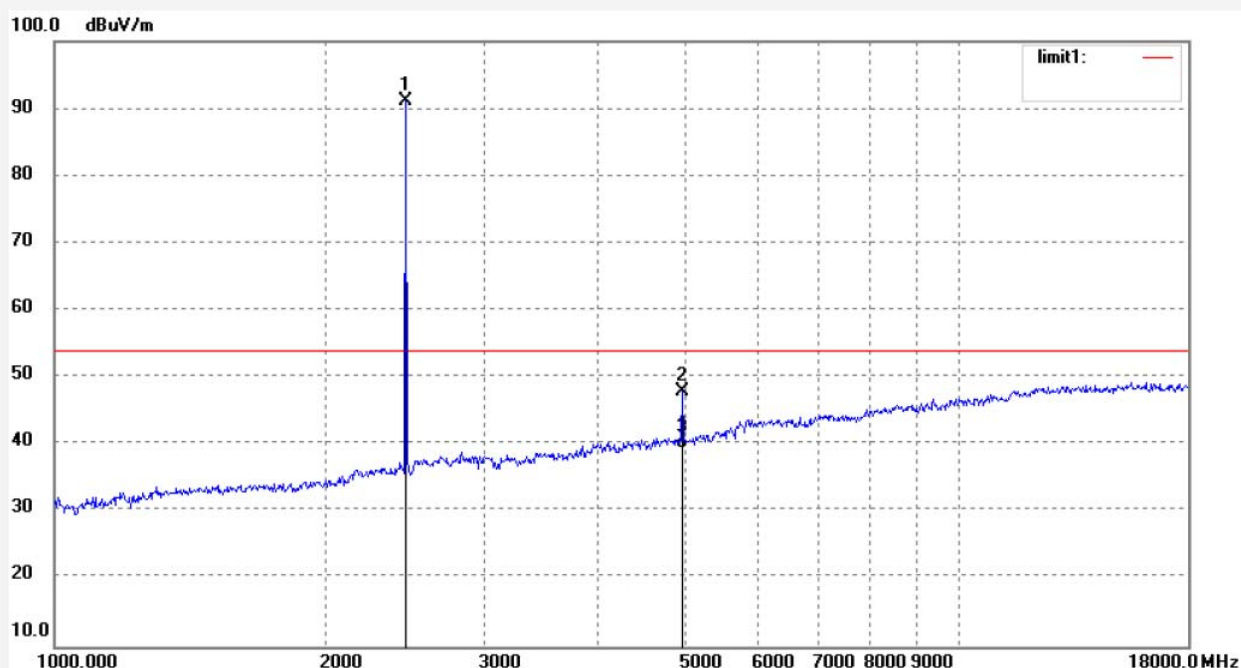
Date: 2017/09/16

Time: 14:07:41

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20171583



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2480.034	96.62	-5.55	91.07			peak	151	37	
2	4960.068	43.07	4.77	47.84	74.00	-26.16	peak	150	273	
3	4960.068	34.51	4.77	39.28	54.00	-14.72	AVG	150	274	



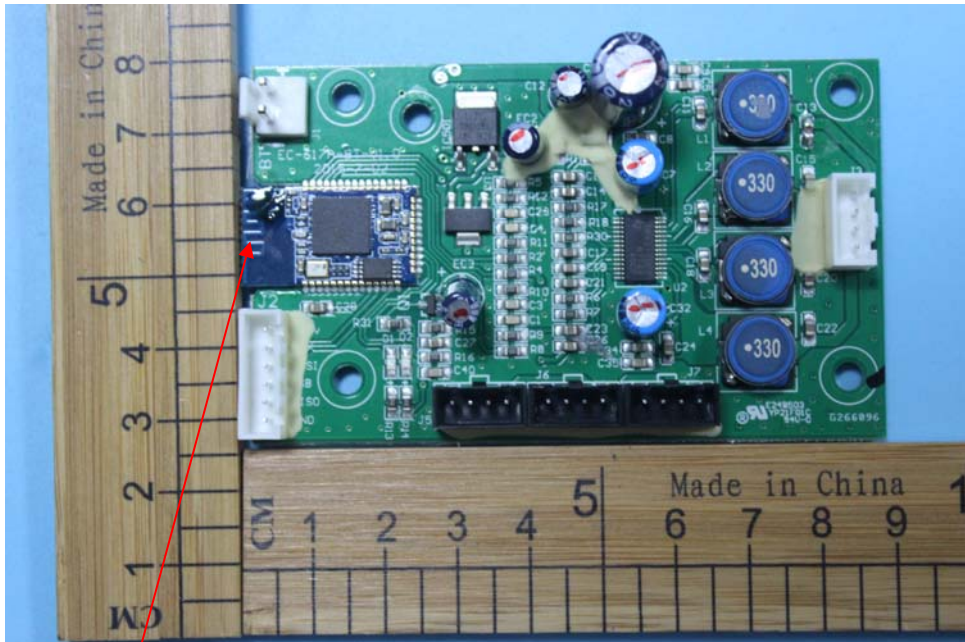
## 11. ANTENNA REQUIREMENT

### 11.1. 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.

### 11.2. 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**