APPLICATION CERTIFICATION FCC Part 15C
On Behalf of
BODYFRIEND CO., LTD.

Massage Chair

Model No.: EC-7501B, HIGHKEY-7000US

FCC ID: 2ALS5-EC7501B

Prepared for	:	BODYFRIEND CO., LTD.
Address	:	163 Yangjaecheron-ro, Gangnam-gu, Seoul, South Korea.
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.
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Report No.	:	ATE20190143
Date of Test	:	Feb. 19, 2019-June 04, 2019
Date of Report	:	June 05, 2019

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Description Page

Test Report Certification

Applicant	:	BODYFRIEND CO., LTD.
Address	:	163 Yangjaecheron-ro, Gangnam-gu, Seoul, South Korea.
Manufacturer	:	XIAMEN HEALTHCARE ELECTRONIC CO., LTD.
Address	:	65-66#, 62-63# BUILDING, SIMING ZONE, TONGAN INDUSTRIAL DISTRICT, XIAMEN CITY, FUJIAN PROVINCE, P.R.CHINA
Product	:	Massage Chair
Model No.	:	EC-7501B, HIGHKEY-7000US
Trade name	:	BODYFRIEND

Measurement Procedure Used:

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

The EUT was tested according to DTS test procedure of April 2, 2019 KDB558074 D01 DTS Meas Guidance v05r02 for compliance to FCC 47CFR 15.247 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 15.247 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 : Feb. 19, 2019-June 04, 2019
Date of Report: June 05, 2019

Prepared by : (Tim Zhang, Engineer)

Approved & Authorized Signer : (Sean Liu, Manager)

1. GENERAL INFORMATION

1.1.Description of Device (EUT)

EUT	:	Massage Chair
Model Number	:	EC-7501B, HIGHKEY-7000US
Bluetooth version	:	BT V4.0 LE
Frequency Range	:	2402MHz-2480MHz
Trade Name	:	BODYFRIEND
Number of Channels	:	40
Antenna Gain	:	2.5dBi
Antenna type	:	Chip antenna
Rating	:	DC 24V via adapter
Adapter information	:	MODEL: W199RA532-240083A INPUT: 100-240VAC, 50/60Hz 2.5A OUTPUT: DC 24V 8.3A
Modulation mode	:	GFSK
Applicant	:	BODYFRIEND CO., LTD.
Address	:	163 Yangjaecheron-ro, Gangnam-gu, Seoul, South Korea.
Manufacturer	:	XIAMEN HEALTHCARE ELECTRONIC CO.,LTD.
Address	:	65-66#, 62-63# BUILDING, SIMING ZONE, TONGAN INDUSTRIAL DISTRICT, XIAMEN CITY, FUJIAN PROVINCE, P.R.CHINA
Date of sample received	:	Feb. 19, 2019
Date of Test	:	Feb. 19, 2019-June 04, 2019

1.2.Carrier Frequency of Channels

Channel	Frequceny (MHz)	Channel	Frequceny (MHz)	Channel	Frequceny (MHz)	Channe l	Frequceny (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.Model difference declaration

EC-7501B, HIGHKEY-7000US are identical in interior structure, electrical circuits and components, and just model number is different for the marketing requirement.

1.4.Special Accessory and Auxiliary Equipment

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

1.5.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

1.6.Measurement Uncertainty

Conducted Emission Expanded Uncertainty	=	2.23dB, k=2
Radiated emission expanded uncertainty (9kHz-30MHz)	=	3.08dB, k=2
Radiated emission expanded uncertainty (30MHz-1000MHz)	=	4.42dB, k=2
Radiated emission expanded uncertainty (Above 1GHz)	=	4.06dB, k=2

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. 05, 2019	1 Year
EMI Test Receiver	Rohde&Schwarz	ESPI3	101526/003	Jan. 05, 2019	1 Year
Spectrum Analyzer	Rohde&Schwarz	FSV-40	101495	Jan. 05, 2019	1 Year
Spectrum Analyzer	Agilent	E7405A	MY45115511	Jan. 05, 2019	1 Year
Pre-Amplifier	Rohde&Schwarz	CBLU1183540-01	3791	Jan. 05, 2019	1 Year
Loop Antenna	Schwarzbeck	FMZB1516	1516131	Jan. 05, 2019	1 Year
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	Jan. 05, 2019	1 Year
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	Jan. 05, 2019	1 Year
Horn Antenna	Schwarzbeck	BBHA9170	9170-359	Jan. 05, 2019	1 Year
Open Switch and Control Unit	Rohde&Schwarz	OSP120 + OSP-B157	101244 + 100866	Jan. 05, 2019	1 Year
LISN	Rohde&Schwarz	ESH3-Z5	100305	Jan. 05, 2019	1 Year
LISN	Schwarzbeck	NSLK8126	8126431	Jan. 05, 2019	1 Year
Highpass Filter	Wainwright Instruments	WHKX3.6/18G-10SS	N/A	Jan. 05, 2019	1 Year
Band Reject Filter	Wainwright Instruments	WRCG2400/2485-2375/2510-60/11SS	N/A	Jan. 05, 2019	1 Year
RF Coaxial Cable (Conducted Emission)	SUHNER	N-2m	No.2	Jan. 05, 2019	1 Year
RF Coaxial Cable (Radiated Emission)	SUHNER	N-5m	NO.3	Jan. 05, 2019	1 Year
RF Coaxial Cable (Radiated Emission)	SUHNER	N-5m	NO.4	Jan. 05, 2019	1 Year
RF Coaxial Cable (Radiated Emission)	SUHNER	N-1m	NO.5	Jan. 05, 2019	1 Year
RF Coaxial Cable (Radiated Emission)	SUHNER	N-1m	NO.6	Jan. 05, 2019	1 Year
Conducted Emission Measurement Software: ES-K1 V1.71					
Radiated Emission Measurement Software: EZ_EMC V1.1.4.2					

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

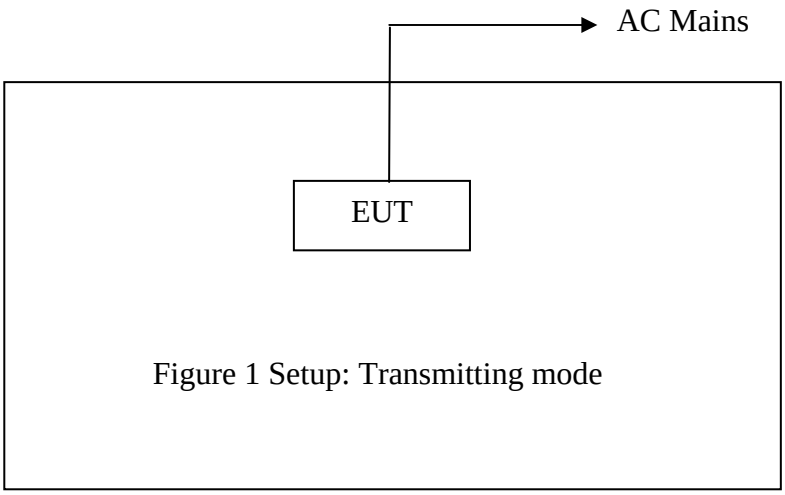


Figure 1 Setup: Transmitting mode

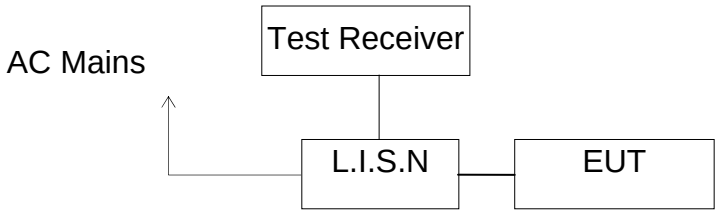
Note: The power was switched from 85% to 115%, and the worse case data was recorded.

4. TEST PROCEDURES AND RESULTS

FCC Rules	Description of Test	Result
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(μV)	
	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 0.1 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 (dBμv)	Average Level (dBμv)	Transducer value (dB)	QuasiPeak Result (dBμv)	Average Result (dBμv)	Quasi Peak Limit (dBμv)	Average Limit (dBμv)	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

MEASUREMENT RESULT: "F-0143-1_fin"

2019-2-19 16:37

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.159000	55.40	10.8	66	10.1	QP	N	GND
0.496500	34.00	11.0	56	22.1	QP	N	GND
1.239000	34.00	11.2	56	22.0	QP	N	GND
4.893000	33.70	11.4	56	22.3	QP	N	GND
6.742500	36.50	11.5	60	23.5	QP	N	GND
16.615500	41.20	11.7	60	18.8	QP	N	GND

MEASUREMENT RESULT: "F-0143-1_fin2"

2019-2-19 16:37

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.150000	45.10	10.8	56	10.9	AV	N	GND
0.672000	22.50	11.1	46	23.5	AV	N	GND
1.063500	22.60	11.1	46	23.4	AV	N	GND
4.978500	25.60	11.4	46	20.4	AV	N	GND
6.715500	28.60	11.5	50	21.4	AV	N	GND
16.732500	32.70	11.7	50	17.3	AV	N	GND

MEASUREMENT RESULT: "F-0143-2_fin"

2019-2-19 16:40

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.195000	53.40	10.8	64	10.4	QP	L1	GND
0.501000	34.30	11.0	56	21.7	QP	L1	GND
1.383000	29.60	11.2	56	26.4	QP	L1	GND
4.920000	29.30	11.4	56	26.7	QP	L1	GND
6.418500	39.40	11.5	60	20.6	QP	L1	GND
16.561500	39.50	11.7	60	20.5	QP	L1	GND

MEASUREMENT RESULT: "F-0143-2_fin2"

2019-2-19 16:40

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.195000	40.40	10.8	54	13.4	AV	L1	GND
0.496500	23.60	11.0	46	22.5	AV	L1	GND
1.365000	18.80	11.2	46	27.2	AV	L1	GND
4.983000	22.30	11.4	46	23.7	AV	L1	GND
6.571500	31.20	11.5	50	18.8	AV	L1	GND
16.269000	29.90	11.7	50	20.1	AV	L1	GND

Emissions attenuated more than 20 dB below the permissible value are not reported.
The spectral diagrams are attached as below.

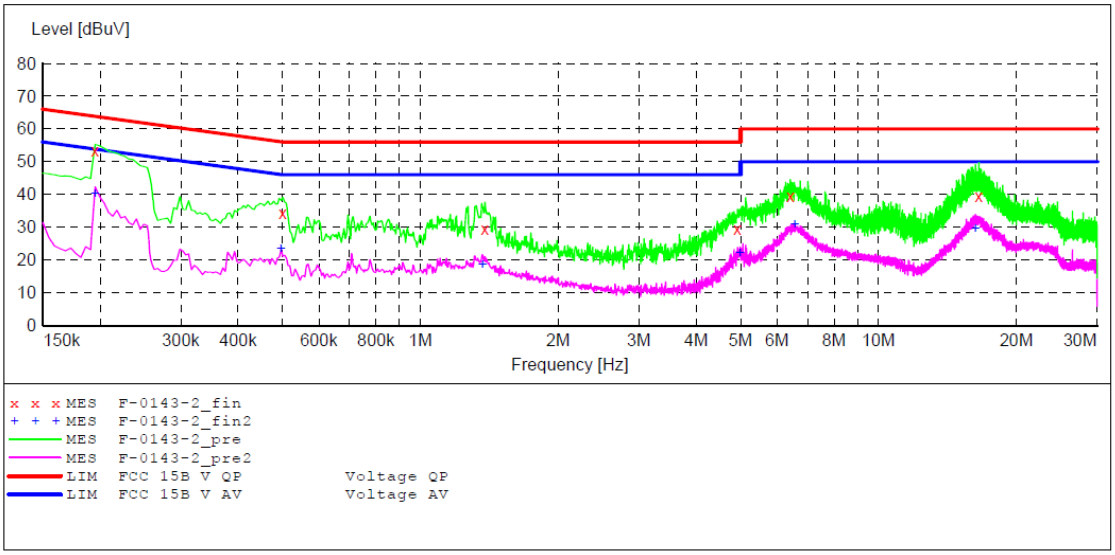
ACCURATE TECHNOLOGY CO.,LTD

CONDUCTED EMISSION STANDARD FCC PART 15C

```
EUT:                  Massage Chair  M/N:EC-7501B
Manufacturer:         XIAMEN HEALTHCARE LEECTRONIC Co.,Ltd
Operating Condition:  BT OPERATION
Test Site:            1#Shielding Room
Operator:             Frank
Test Specification:   L   120V/60Hz
Comment:              Report NO.:ATE20190143
Start of Test:        2019-2-19 / 16:38:17
```

SCAN TABLE: "V 150K-30MHz fin"

```
  Short Description:              SUB STD VTERM2 1.70
  Start      Stop       Step      Detector  Meas.     IF       Transducer
  Frequency  Frequency  Width               Time      Bandw.
  150.0 kHz  30.0 MHz   4.5 kHz   QuasiPeak 1.0 s     9 kHz    NSLK8126 2008
                                  Average
```



MEASUREMENT RESULT: "F-0143-2_fin"

2019-2-19 16:40

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.195000	53.40	10.8	64	10.4	QP	L1	GND
0.501000	34.30	11.0	56	21.7	QP	L1	GND
1.383000	29.60	11.2	56	26.4	QP	L1	GND
4.920000	29.30	11.4	56	26.7	QP	L1	GND
6.418500	39.40	11.5	60	20.6	QP	L1	GND
16.561500	39.50	11.7	60	20.5	QP	L1	GND

MEASUREMENT RESULT: "F-0143-2_fin2"

2019-2-19 16:40

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.195000	40.40	10.8	54	13.4	AV	L1	GND
0.496500	23.60	11.0	46	22.5	AV	L1	GND
1.365000	18.80	11.2	46	27.2	AV	L1	GND
4.983000	22.30	11.4	46	23.7	AV	L1	GND
6.571500	31.20	11.5	50	18.8	AV	L1	GND
16.269000	29.90	11.7	50	20.1	AV	L1	GND

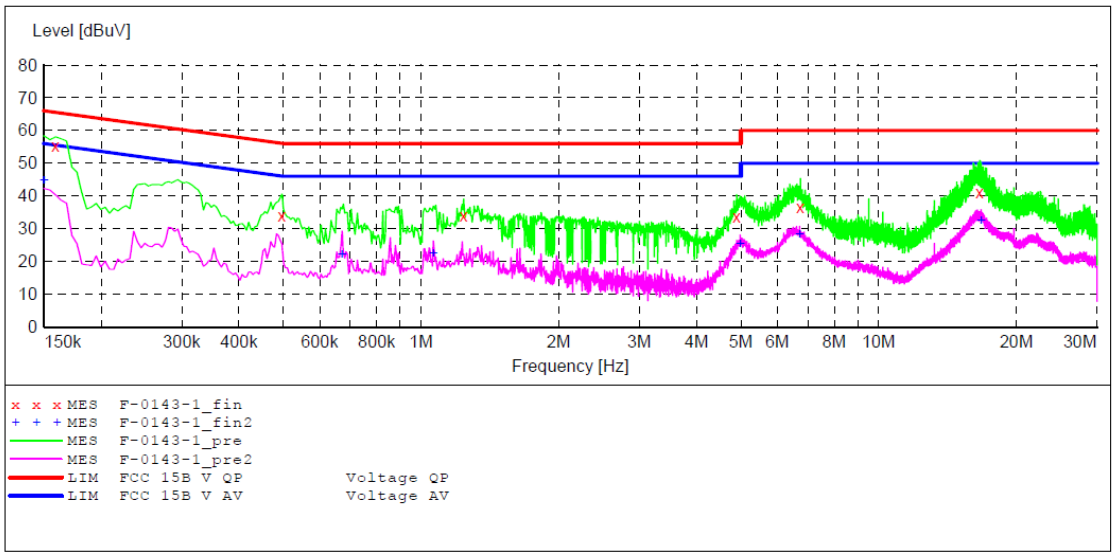
ACCURATE TECHNOLOGY CO.,LTD

CONDUCTED EMISSION STANDARD FCC PART 15C

```
EUT:                  Massage Chair  M/N:EC-7501B
Manufacturer:         XIAMEN HEALTHCARE LEECTRONIC Co.,Ltd
Operating Condition:  BT OPERATION
Test Site:            1#Shielding Room
Operator:             Frank
Test Specification:   N   120V/60Hz
Comment:              Report NO.:ATE20190143
Start of Test:        2019-2-19 / 16:35:35
```

SCAN TABLE: "V 150K-30MHz fin"

```
  Short Description:            SUB STD VTERM2 1.70
  Start      Stop       Step      Detector  Meas.     IF      Transducer
  Frequency  Frequency  Width               Time      Bandw.
  150.0 kHz  30.0 MHz   4.5 kHz   QuasiPeak 1.0 s     9 kHz   NSLK8126 2008
                                  Average
```



MEASUREMENT RESULT: "F-0143-1_fin"

2019-2-19 16:37

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.159000	55.40	10.8	66	10.1	QP	N	GND
0.496500	34.00	11.0	56	22.1	QP	N	GND
1.239000	34.00	11.2	56	22.0	QP	N	GND
4.893000	33.70	11.4	56	22.3	QP	N	GND
6.742500	36.50	11.5	60	23.5	QP	N	GND
16.615500	41.20	11.7	60	18.8	QP	N	GND

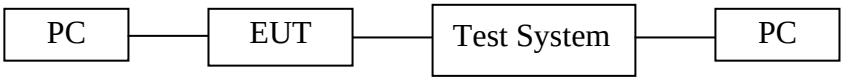
MEASUREMENT RESULT: "F-0143-1_fin2"

2019-2-19 16:37

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.150000	45.10	10.8	56	10.9	AV	N	GND
0.672000	22.50	11.1	46	23.5	AV	N	GND
1.063500	22.60	11.1	46	23.4	AV	N	GND
4.978500	25.60	11.4	46	20.4	AV	N	GND
6.715500	28.60	11.5	50	21.4	AV	N	GND
16.732500	32.70	11.7	50	17.3	AV	N	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.

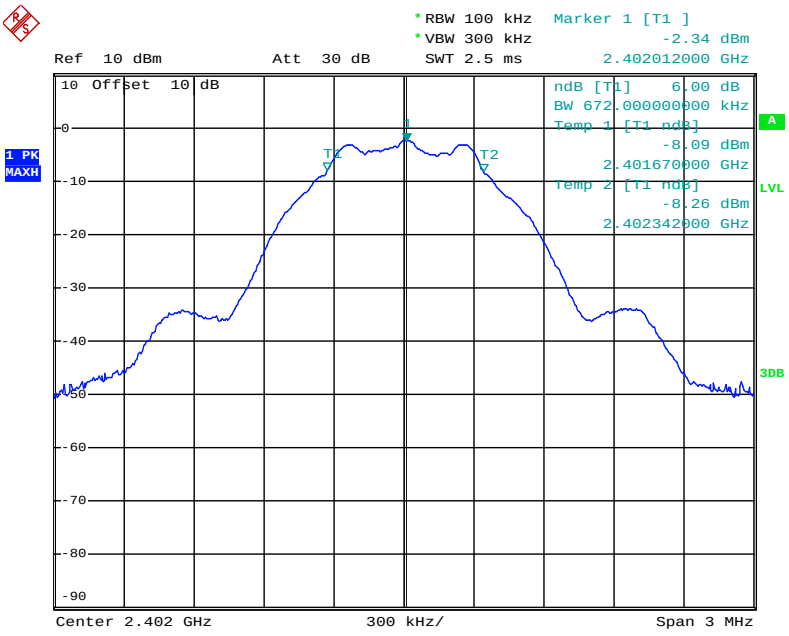
6.5.3.The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

6.6.Test Result

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit(MHz)	PASS/FAIL
0	2402	0.672	0.5	PASS
19	2440	0.666	0.5	PASS
39	2480	0.666	0.5	PASS

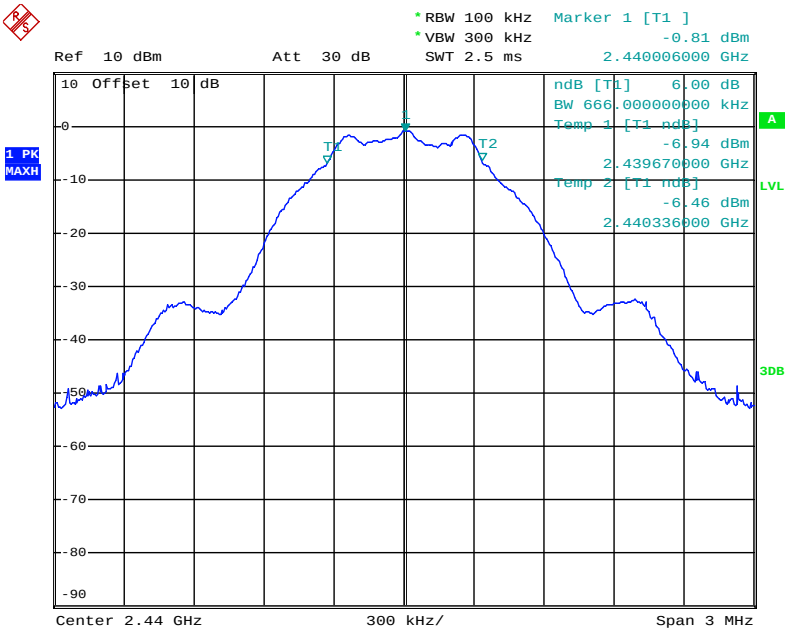
The spectrum analyzer plots are attached as below.

channel 0



Date: 22.FEB.2019 15:06:22

channel 19



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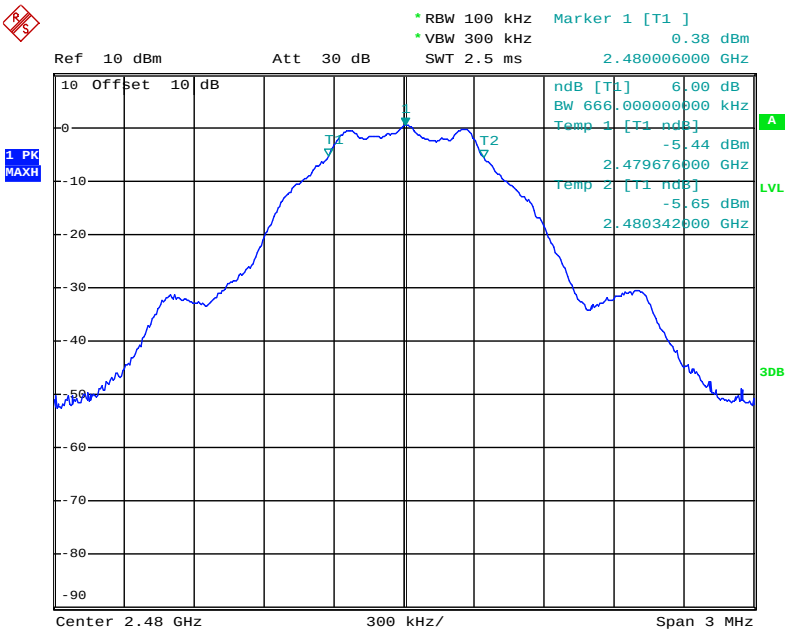
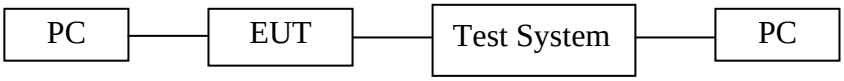
channel 39



Date: 22.FEB.2019 15:07:57

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 1 MHz and VBW to 3 MHz.

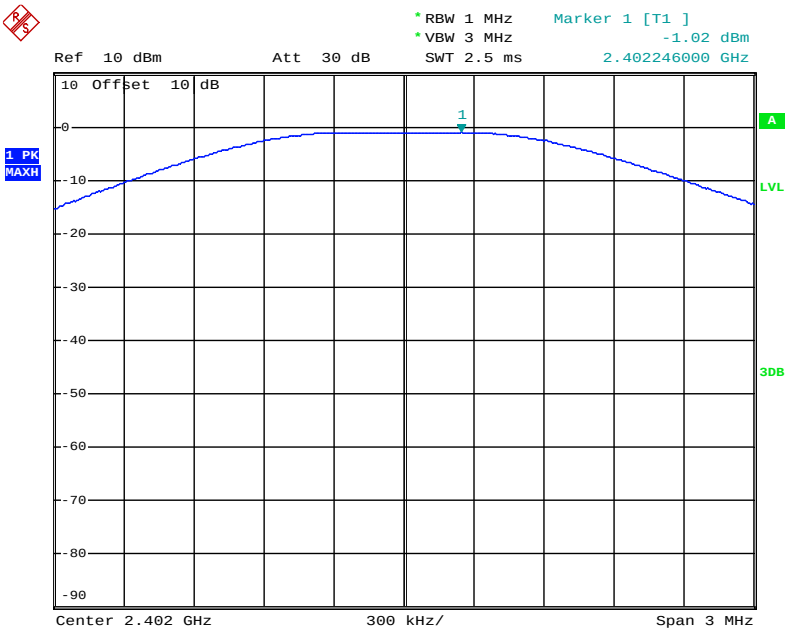
7.5.3.Measurement the maximum peak output power.

7.6.Test Result

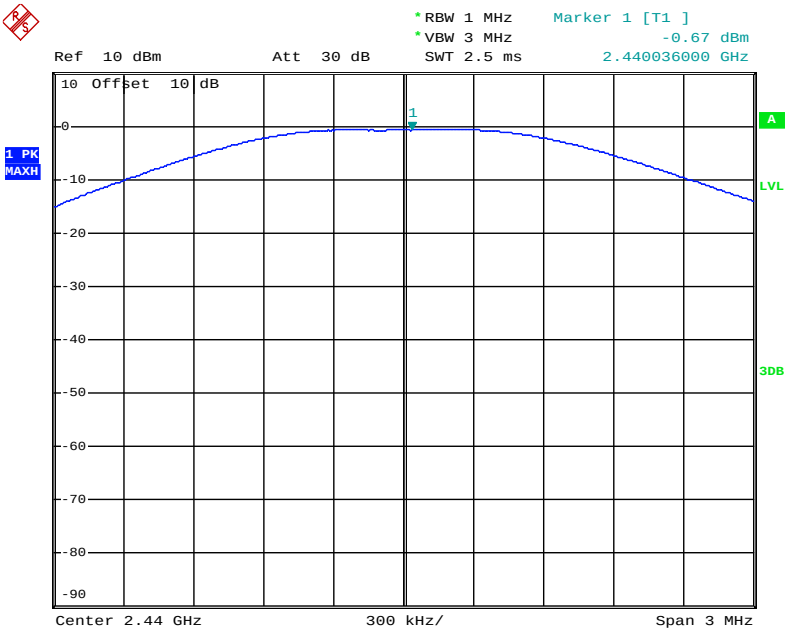
Channel	Frequency (MHz)	Peak Power Output (dBm)	Peak Power Limit (dBm)	Pass / Fail
0	2402	-1.02	30	PASS
19	2440	-0.67	30	PASS
39	2480	1.02	30	PASS

The spectrum analyzer plots are attached as below.

channel 0

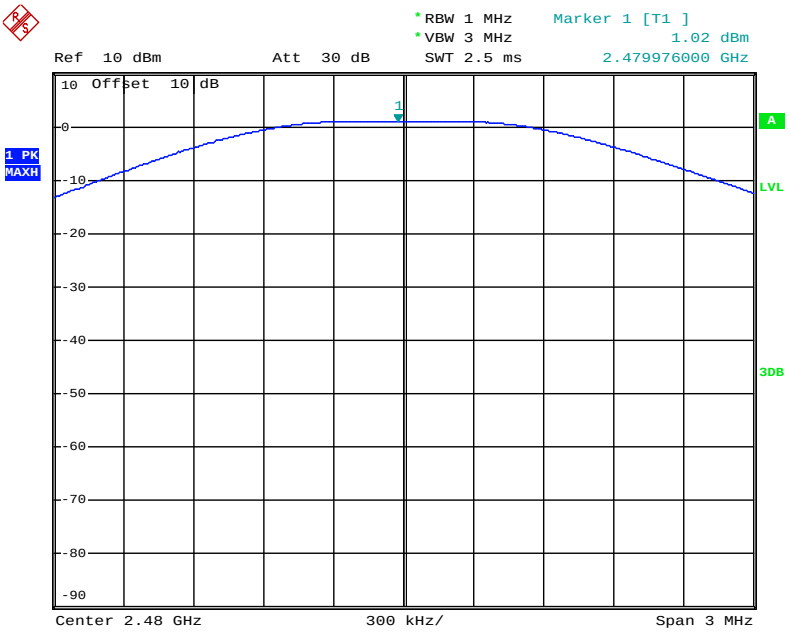


channel 19



Date: 22.FEB.2019 15:14:46

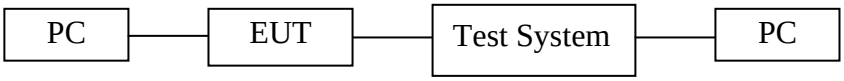
channel 39



Date: 22.FEB.2019 15:15:30

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 kHz ≤ RBW ≤ 100 kHz.
4. Set the VBW ≥ 3 x 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.

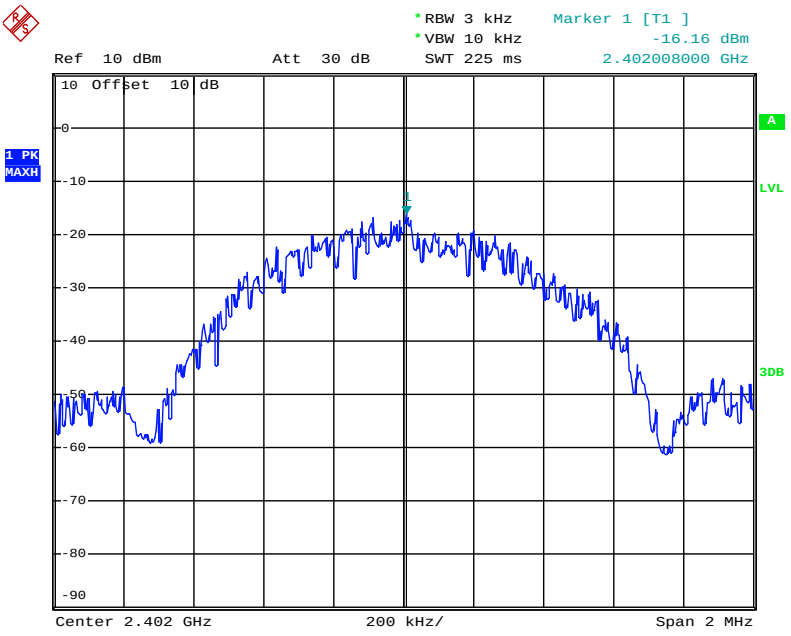
8.5.4.Measurement the maximum power spectral density.

8.6.Test Result

CHANNEL NUMBER	FREQUENCY (MHz)	PSD (dBm/3KHz)	LIMIT (dBm/3KHz)	PASS/FAIL
0	2402	-16.16	8	PASS
19	2440	-15.93	8	PASS
39	2480	-14.17	8	PASS

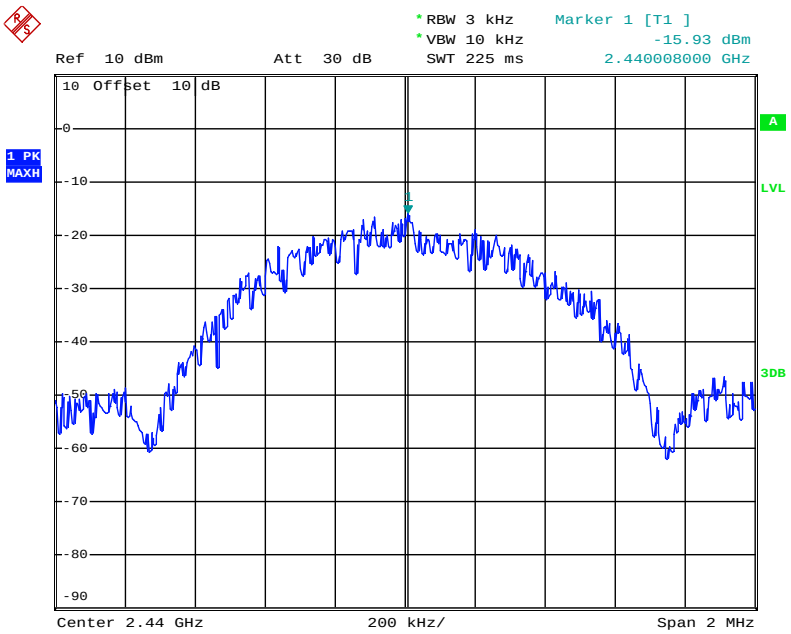
The spectrum analyzer plots are attached as below.

channel 0



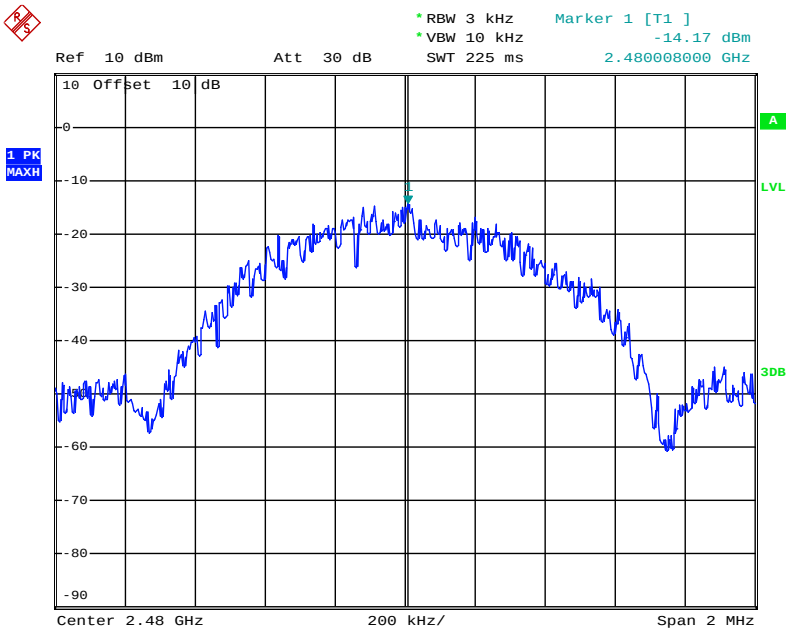
Date: 22.FEB.2019 15:21:57

channel 19



Date: 22.FEB.2019 15:20:55

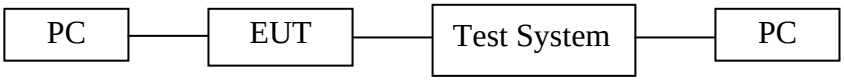
channel 39



Date: 22.FEB.2019 15:21:31

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

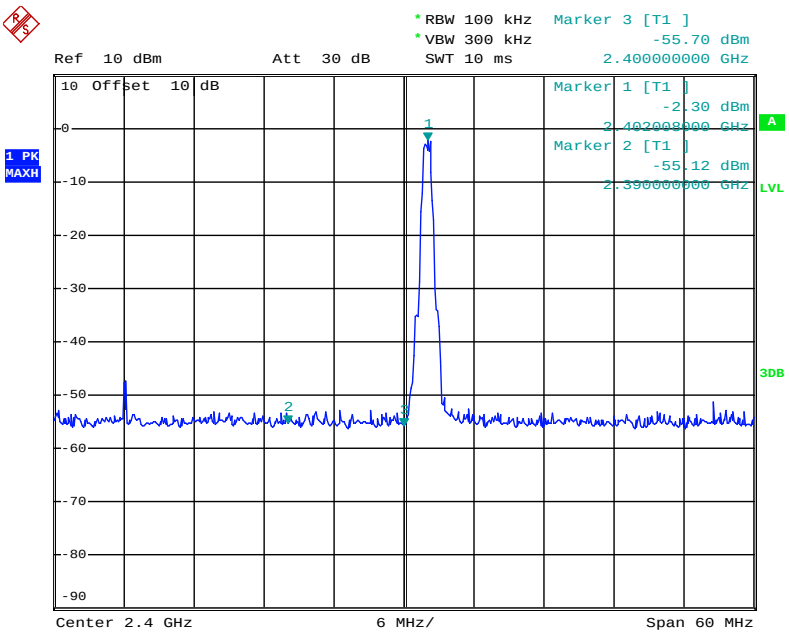
9.5.9.The band edges was measured and recorded.

9.6.Test Result

Pass

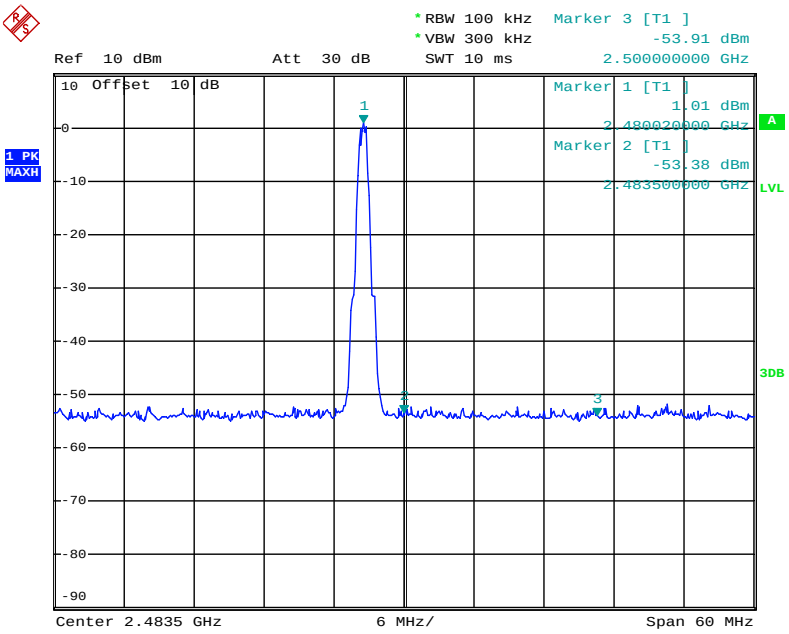
Channel	Frequency	Delta peak to band emission	Limit(dBc)
0	2.4GHz	53.40	20
39	2.4835GHz	52.38	20

channel 0



Date: 22.FEB.2019 15:25:20

channel 39



Date: 22.FEB.2019 15:27:21

Radiated Band Edge Result

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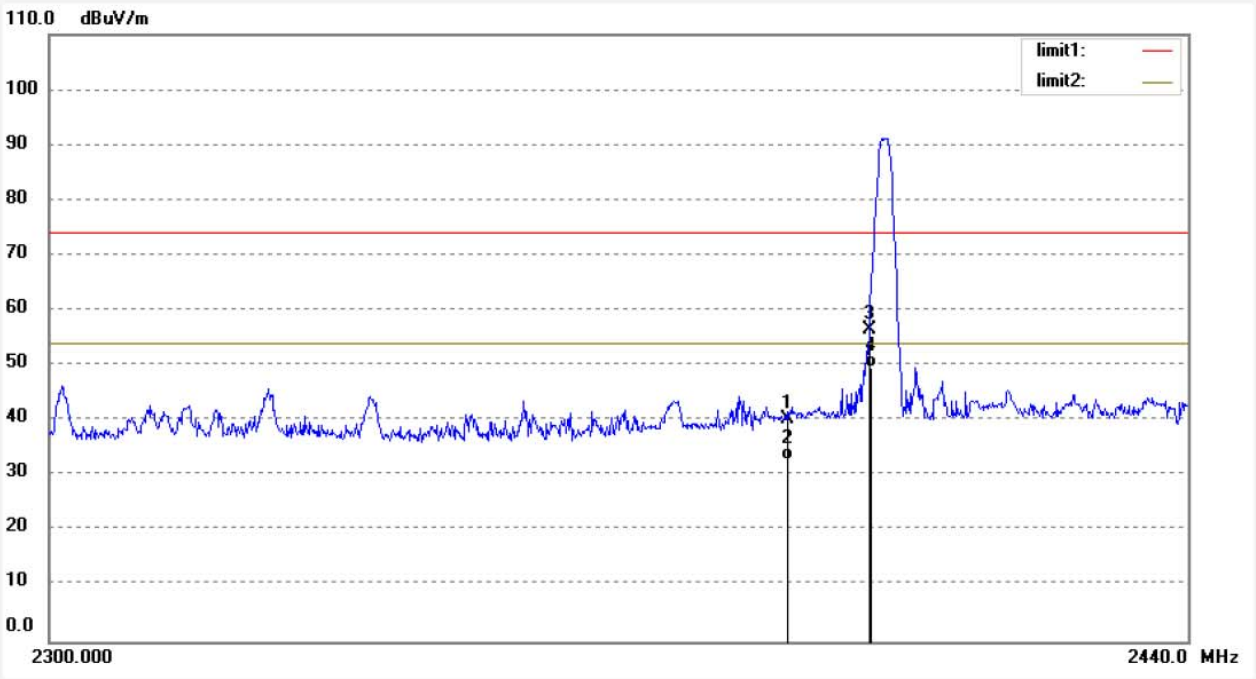
Fax:+86-0755-26503396

Job No.: FRANK2019 #497
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 48 %
EUT: Massage Chair
Mode: TX 2402MHz
Model: EC-7501B
Manufacturer: XIAMEN HEALTHCARE LEECTRONIC Co., Ltd

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 19/02/27/
Time: 14/21/48
Engineer Signature: .
Distance: 3m

Note: Report No.: ATE20190143



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	39.44	0.79	40.23	74.00	-33.77	peak	150	318	
2	2390.000	32.14	0.79	32.93	54.00	-21.07	AVG	150	320	
3	2400.000	55.74	0.88	56.62	74.00	-17.38	peak	150	351	
4	2400.000	48.64	0.88	49.52	54.00	-4.48	AVG	150	355	

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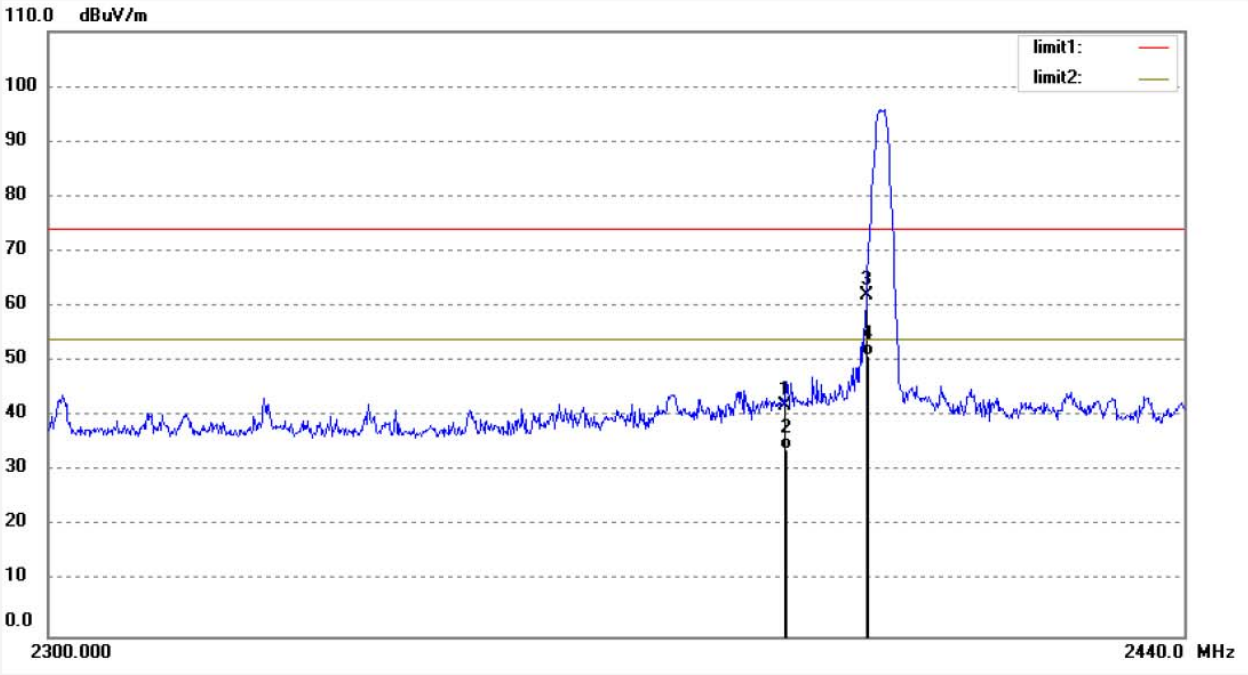
Fax:+86-0755-26503396

Job No.: FRANK2019 #498
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 48 %
EUT: Massage Chair
Mode: TX 2402MHz
Model: EC-7501B
Manufacturer: XIAMEN HEALTHCARE LEECTRONIC Co., Ltd

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 19/02/27/
Time: 14/22/45
Engineer Signature: .
Distance: 3m

Note: Report No.: ATE20190143



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	41.18	0.79	41.97	74.00	-32.03	peak	150	193	
2	2390.000	33.12	0.79	33.91	54.00	-20.09	AVG	150	200	
3	2400.000	61.14	0.88	62.02	74.00	-11.98	peak	150	136	
4	2400.000	50.00	0.88	50.88	54.00	-3.12	AVG	150	140	

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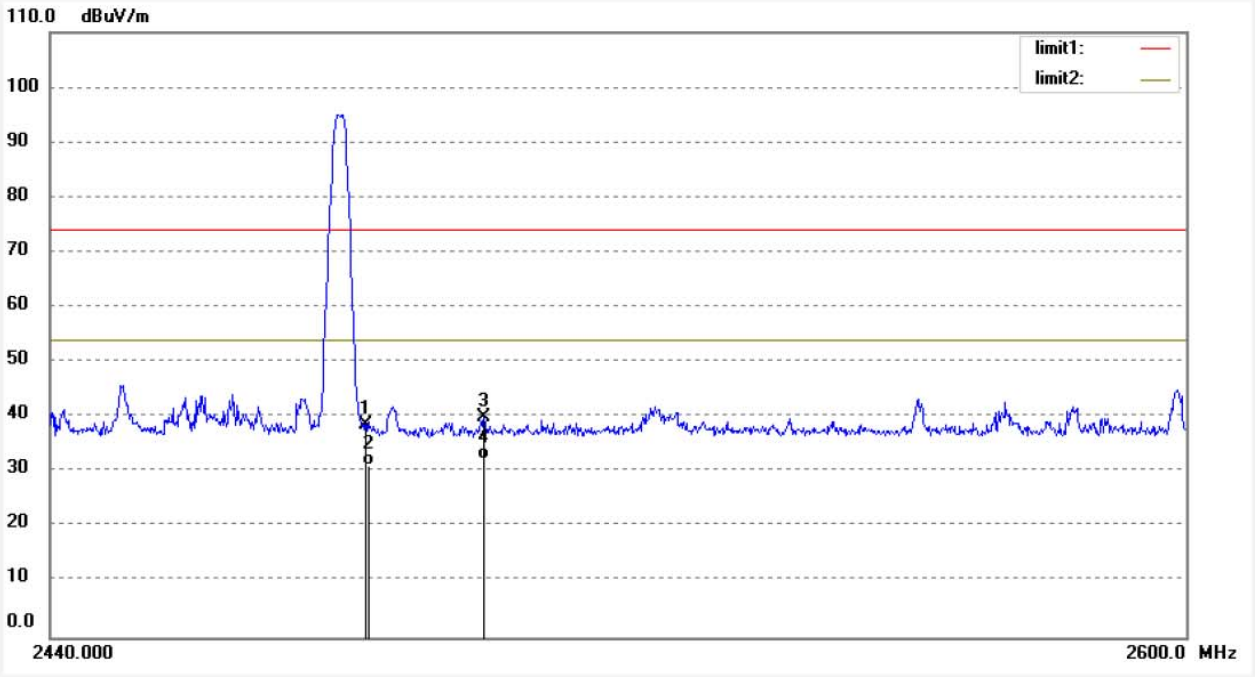
Job No.: FRANK2019 #496
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 48 %
EUT: Massage Chair
Mode: TX 2480MHz
Model: EC-7501B
Manufacturer: XIAMEN HEALTHCARE LEECTRONIC Co., Ltd

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 19/02/27/
Time: 14/18/38
Engineer Signature: .
Distance: 3m

Note: Report No.: ATE20190143



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	37.50	1.10	38.60	74.00	-35.40	peak	150	126	
2	2483.500	30.12	1.10	31.22	54.00	-22.78	AVG	150	130	
3	2500.000	38.79	1.10	39.89	74.00	-34.11	peak	150	318	
4	2500.000	31.25	1.10	32.35	54.00	-21.65	AVG	150	320	

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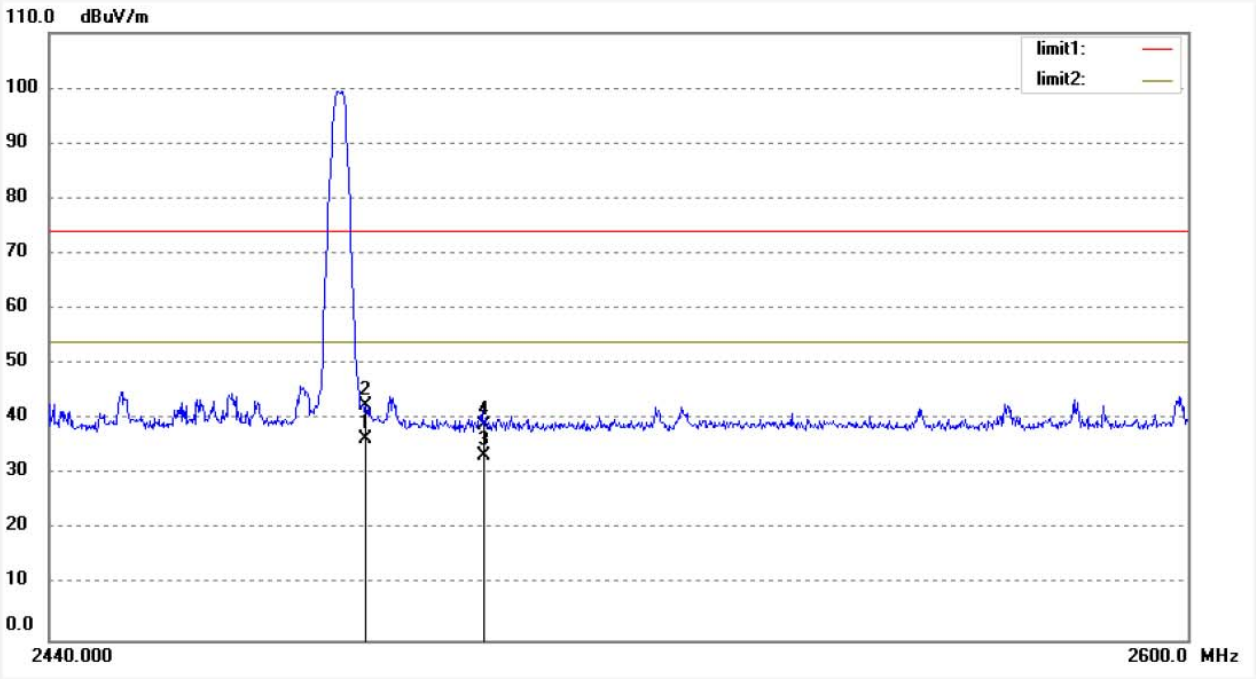
Fax:+86-0755-26503396

Job No.: FRANK2019 #495
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 48 %
EUT: Massage Chair
Mode: TX 2480MHz
Model: EC-7501B
Manufacturer: XIAMEN HEALTHCARE LEECTRONIC Co., Ltd

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 19/02/27/
Time: 14/14/54
Engineer Signature: .
Distance: 3m

Note: Report No.: ATE20190143



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	-3.30	39.63	36.33	74.00	-37.67	peak	150	123	
2	2483.500	2.78	39.63	42.41	74.00	-31.59	peak	150	130	
3	2500.000	-6.20	39.70	33.50	74.00	-40.50	peak	150	146	
4	2500.000	-0.80	39.70	38.90	74.00	-35.10	peak	150	135	

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

10.RADIATED SPURIOUS EMISSION TEST

10.1.Block Diagram of Test Setup

10.1.1. Block diagram of connection between the EUT and peripherals

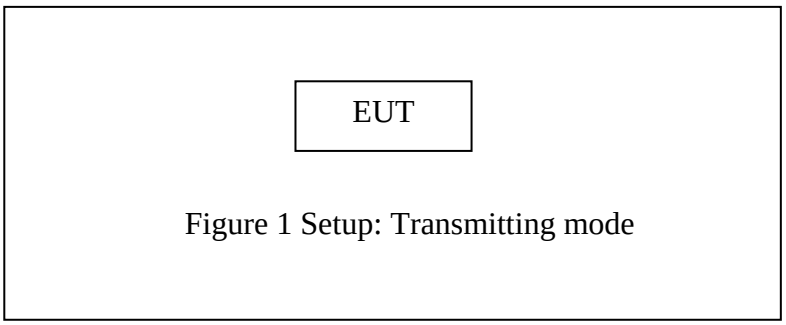
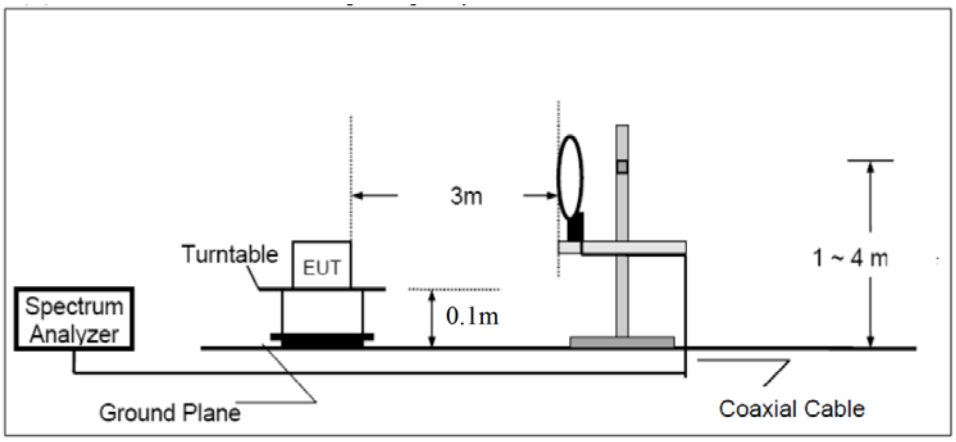


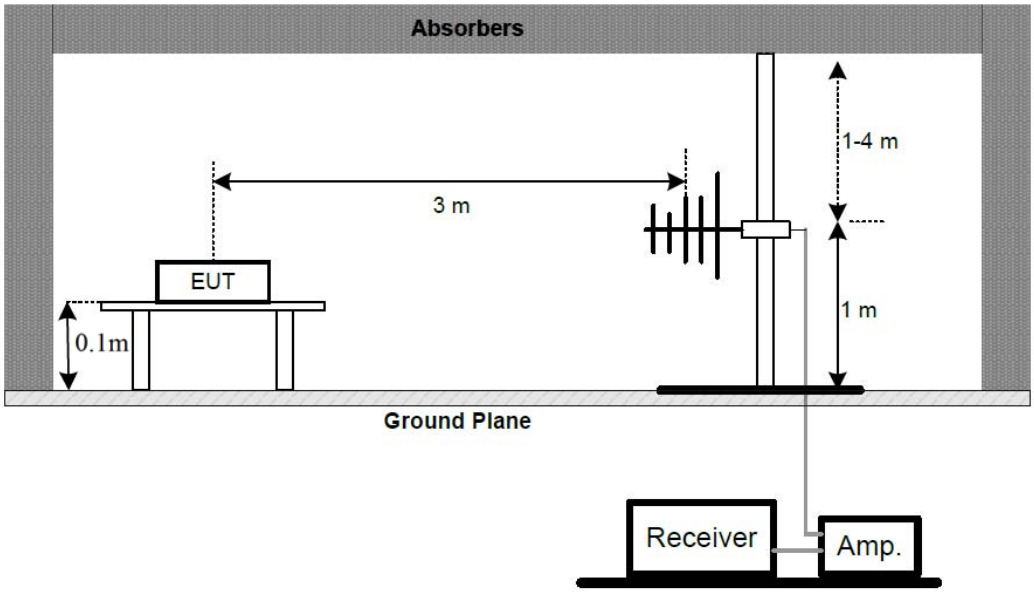
Figure 1 Setup: Transmitting mode

10.1.2.Semi-Anechoic Chamber Test Setup Diagram

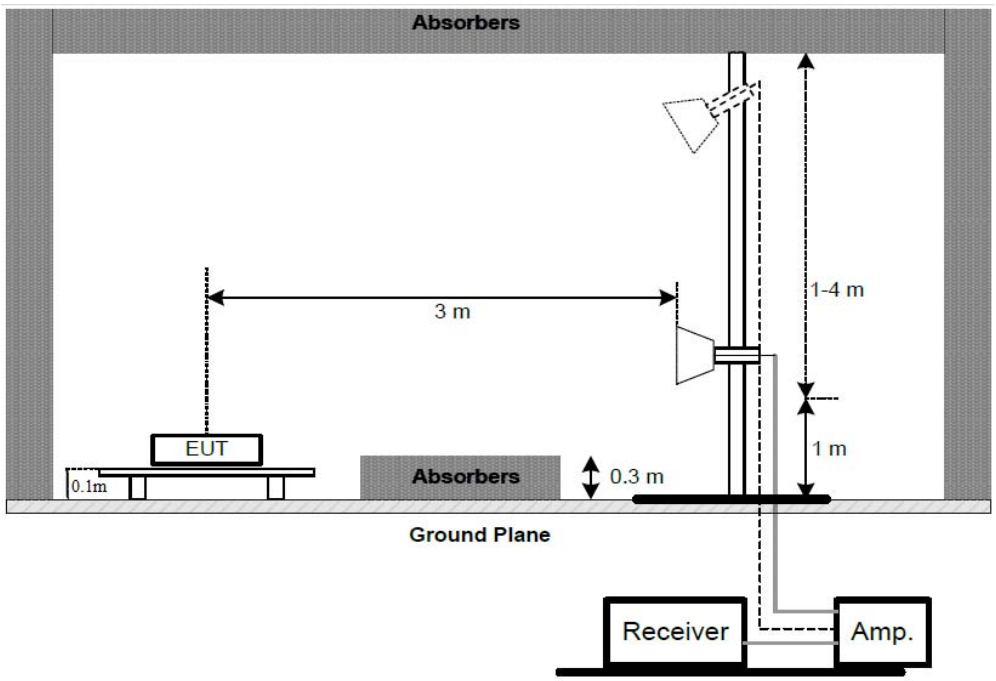
(A) Radiated Emission Test Set-Up, Frequency below 30MHz



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



(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
[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.

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.Data Sample

Frequency (MHz)	Reading (dBμv)	Factor (dB/m)	Result (dBμv/m)	Limit (dBμv/m)	Margin (dB)	Remark
X.XX	28.66	-15.19	13.47	40.0	-26.53	QP

Frequency(MHz) = Emission frequency in MHz
Reading(dBμv) = Uncorrected Analyzer/Receiver reading
Factor (dB/m) = Antenna factor + Cable Loss – Amplifier gain
Result(dBμv/m) = Reading(dBμv) + Factor(dB/m)
Limit (dBμv/m) = Limit stated in standard
Margin (dB) = Result(dBμv/m) - Limit (dBμv/m)
QP = Quasi-peak Reading

Calculation Formula:
Margin(dB) = Result (dBμV/m)–Limit(dBμV/m)
Result(dBμV/m)= Reading(dBμV)+ Factor(dB/m)

The “Margin” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -7dB means the emission is 7dB below the limit.

10.8.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

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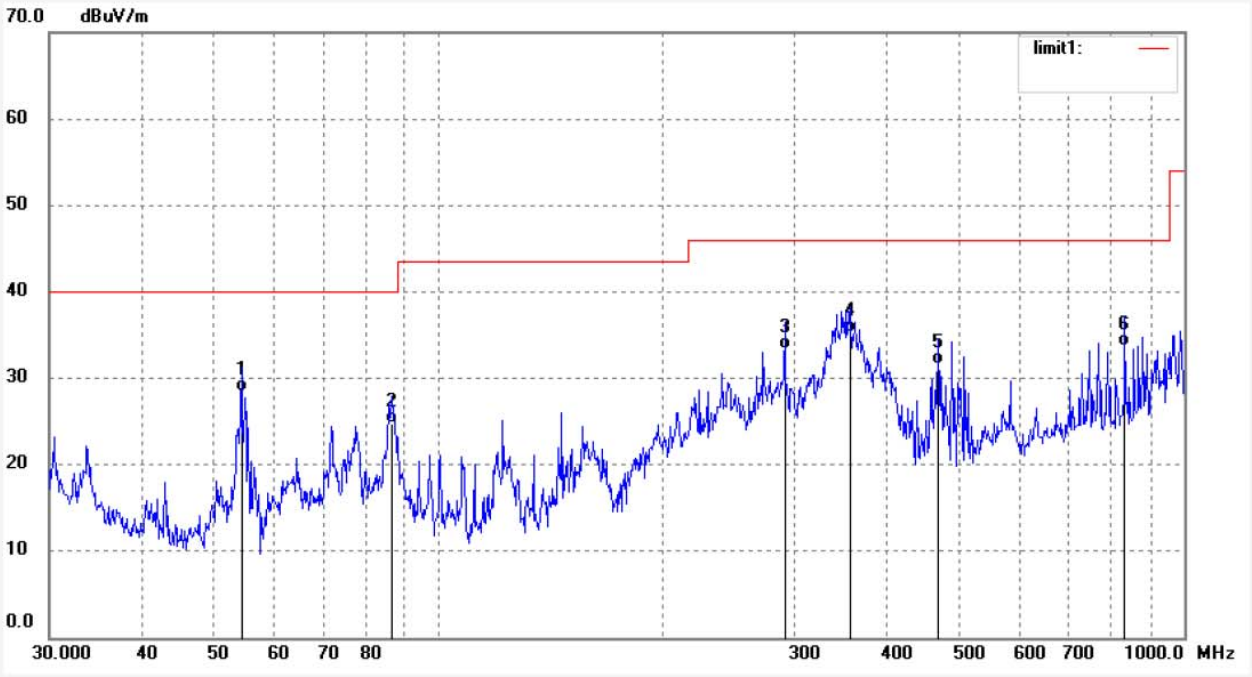
Job No.: FRANK2019 #473
Standard: FCC 15.247 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Massage Chair
Mode: TX 2402MHz
Model: EC-7501B
Manufacturer: XIAMEN HEALTHCARE LEECTRONIC Co., Ltd

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 19/02/27/
Time: 9/02/45
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20190143



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	54.3254	55.31	-26.90	28.41	40.00	-11.59	QP	200	96	
2	86.6867	52.30	-27.45	24.85	40.00	-15.15	QP	200	224	
3	291.3387	55.01	-21.61	33.40	46.00	-12.60	QP	200	321	
4	355.9397	54.36	-19.09	35.27	46.00	-10.73	QP	200	96	
5	468.1650	48.32	-16.80	31.52	46.00	-14.48	QP	200	221	
6	833.0126	42.07	-8.33	33.74	46.00	-12.26	QP	200	103	

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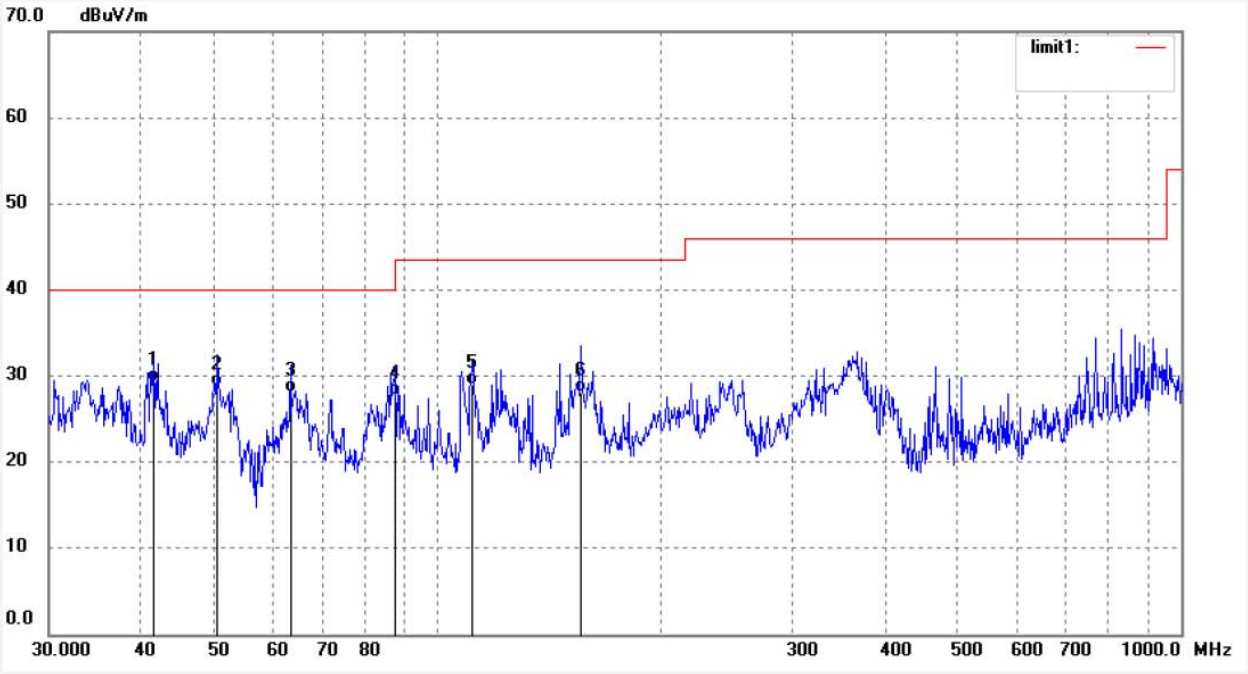
Fax:+86-0755-26503396

Job No.: FRANK2019 #474
Standard: FCC 15.247 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Massage Chair
Mode: TX 2402MHz
Model: EC-7501B
Manufacturer: XIAMEN HEALTHCARE LEECTRONIC Co., Ltd

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 19/02/27/
Time: 9/03/36
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20190143



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	41.5942	53.15	-23.86	29.29	40.00	-10.71	QP	100	161	
2	50.6389	55.01	-26.30	28.71	40.00	-11.29	QP	100	201	
3	63.4080	55.30	-27.27	28.03	40.00	-11.97	QP	100	315	
4	87.9136	55.21	-27.43	27.78	40.00	-12.22	QP	100	96	
5	111.2483	56.31	-27.29	29.02	43.50	-14.48	QP	100	221	
6	155.8771	55.60	-27.52	28.08	43.50	-15.42	QP	100	103	

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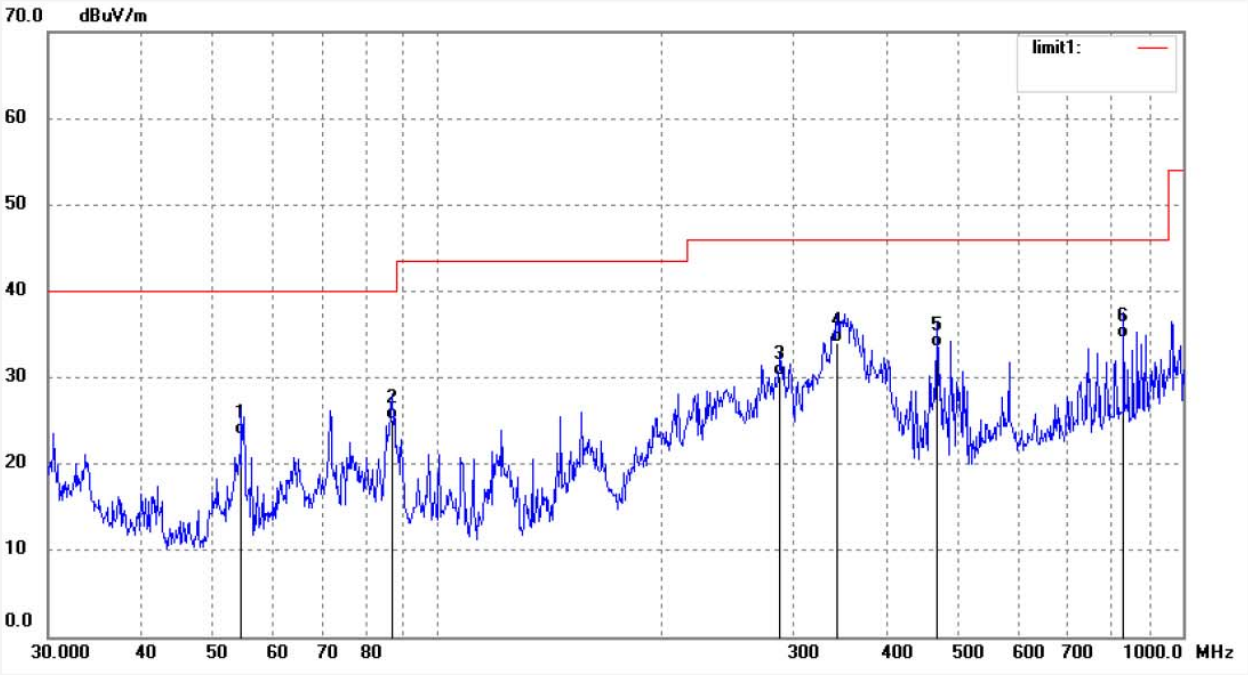
Job No.: FRANK2019 #476
Standard: FCC 15.247 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Massage Chair
Mode: TX 2440MHz
Model: EC-7501B
Manufacturer: XIAMEN HEALTHCARE LEECTRONIC Co., Ltd

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 19/02/27/
Time: 9/04/44
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20190143



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	54.5167	50.35	-26.92	23.43	40.00	-16.57	QP	200	227	
2	86.9917	52.61	-27.45	25.16	40.00	-14.84	QP	200	301	
3	288.2839	52.01	-21.74	30.27	46.00	-15.73	QP	200	113	
4	343.6505	53.64	-19.58	34.06	46.00	-11.94	QP	200	63	
5	468.1650	50.30	-16.80	33.50	46.00	-12.50	QP	200	55	
6	833.0126	42.96	-8.33	34.63	46.00	-11.37	QP	200	109	

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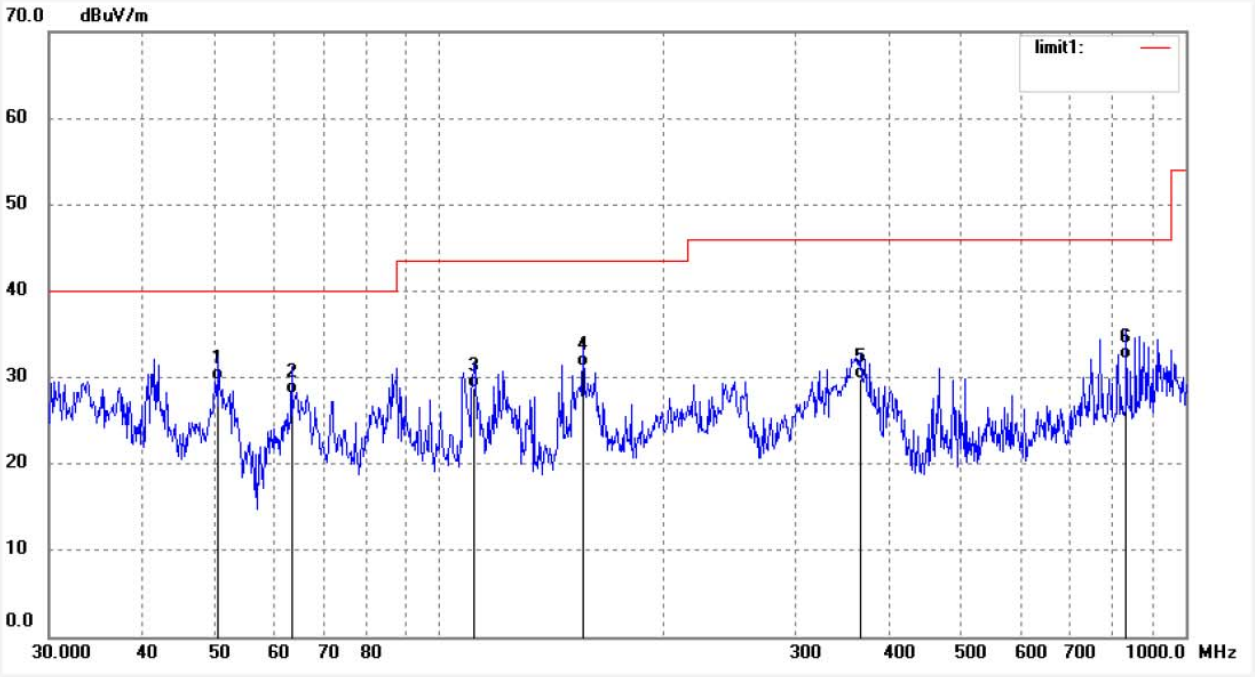
Job No.: FRANK2019 #475
Standard: FCC 15.247 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Massage Chair
Mode: TX 2440MHz
Model: EC-7501B
Manufacturer: XIAMEN HEALTHCARE LEECTRONIC Co., Ltd

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 19/02/27/
Time: 9/03/45
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20190143



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	50.6389	55.98	-26.30	29.68	40.00	-10.32	QP	100	113	
2	63.4080	55.30	-27.27	28.03	40.00	-11.97	QP	100	320	
3	111.2483	56.16	-27.29	28.87	43.50	-14.63	QP	100	42	
4	155.8771	58.84	-27.52	31.32	43.50	-12.18	QP	100	93	
5	367.3752	48.62	-18.81	29.81	46.00	-16.19	QP	100	221	
6	833.0126	40.39	-8.33	32.06	46.00	-13.94	QP	100	103	

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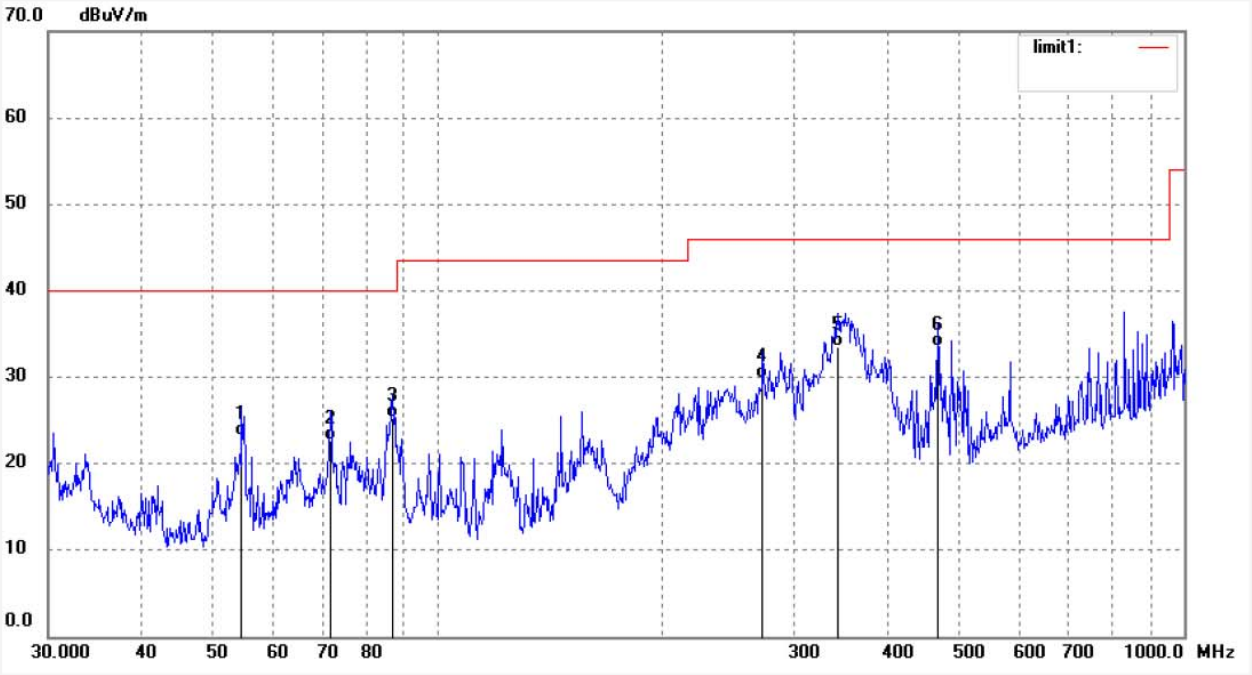
Job No.: FRANK2019 #477
Standard: FCC 15.247 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Massage Chair
Mode: TX 2480MHz
Model: EC-7501B
Manufacturer: XIAMEN HEALTHCARE LEECTRONIC Co., Ltd

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 19/02/27/
Time: 9/04/55
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20190143



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	54.5167	50.19	-26.92	23.27	40.00	-16.73	QP	200	63	
2	71.7053	50.22	-27.56	22.66	40.00	-17.34	QP	200	201	
3	86.9917	52.69	-27.45	25.24	40.00	-14.76	QP	200	167	
4	272.5246	52.31	-22.48	29.83	46.00	-16.17	QP	200	113	
5	343.6505	53.15	-19.58	33.57	46.00	-12.43	QP	200	332	
6	468.1650	50.30	-16.80	33.50	46.00	-12.50	QP	200	109	

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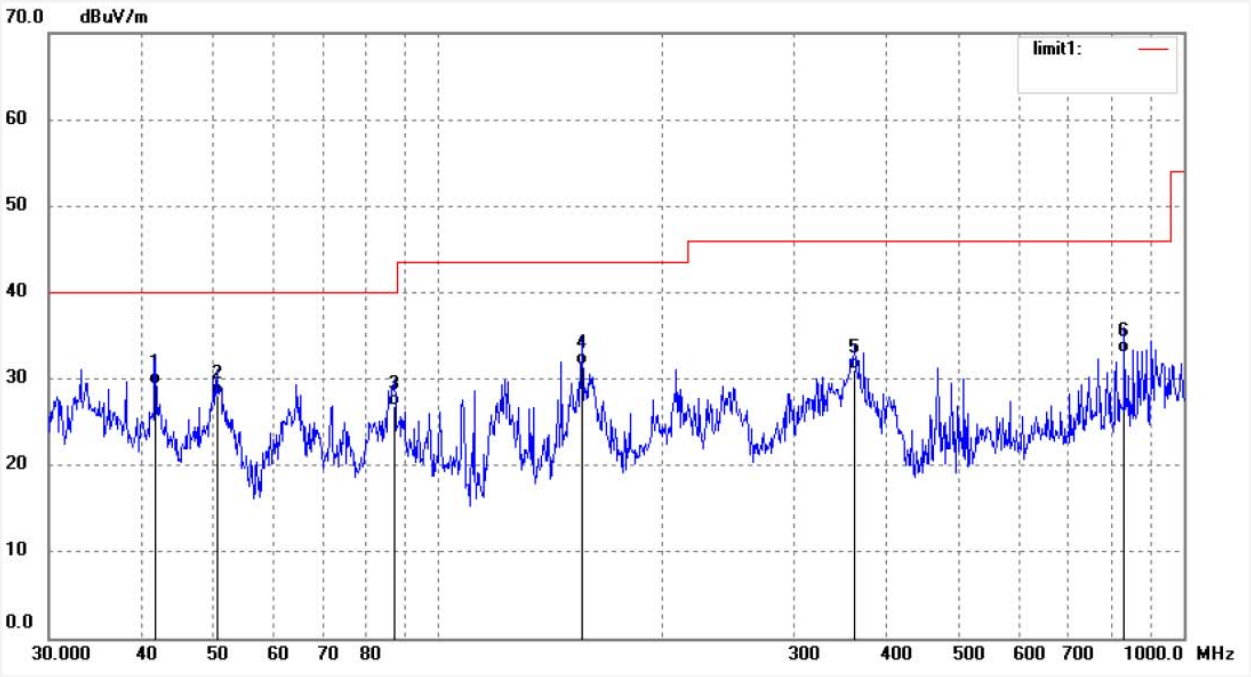
Job No.: FRANK2019 #478
Standard: FCC 15.247 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Massage Chair
Mode: TX 2480MHz
Model: EC-7501B
Manufacturer: XIAMEN HEALTHCARE LEECTRONIC Co., Ltd

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 19/02/27/
Time: 9/05/39
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20190143



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	41.7406	53.15	-23.89	29.26	40.00	-10.74	QP	100	314	
2	50.4613	54.42	-26.28	28.14	40.00	-11.86	QP	100	94	
3	87.2980	54.30	-27.44	26.86	40.00	-13.14	QP	100	203	
4	155.8771	59.15	-27.52	31.63	43.50	-11.87	QP	100	21	
5	362.2479	50.00	-18.88	31.12	46.00	-14.88	QP	100	33	
6	833.0126	41.30	-8.33	32.97	46.00	-13.03	QP	100	196	

Above 1GHz

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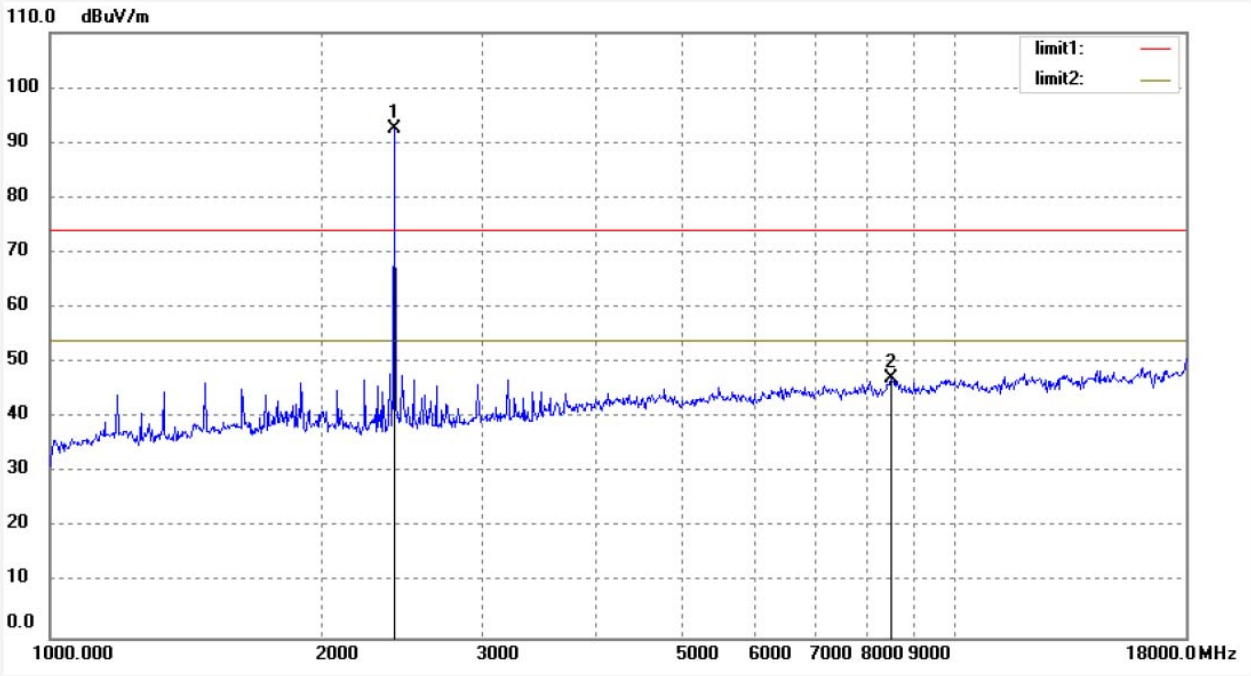
Job No.: FRANK2019 #489	Polarization: Horizontal
Standard: FCC PK	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 19/02/27/
Temp.(C)/Hum.(%) 23 C / 48 %	Time: 14/05/35
EUT: Massage Chair	Engineer Signature: .
Mode: TX 2402MHz	Distance: 3m
Model: EC-7501B	
Manufacturer: XIAMEN HEALTHCARE LEECTRONIC Co., Ltd	

Note: Report No.: ATE20190143



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2402.153	53.19	39.28	92.47			peak	150	19	
2	8514.456	-2.26	49.40	47.14	74.00	-26.86	peak	200	186	

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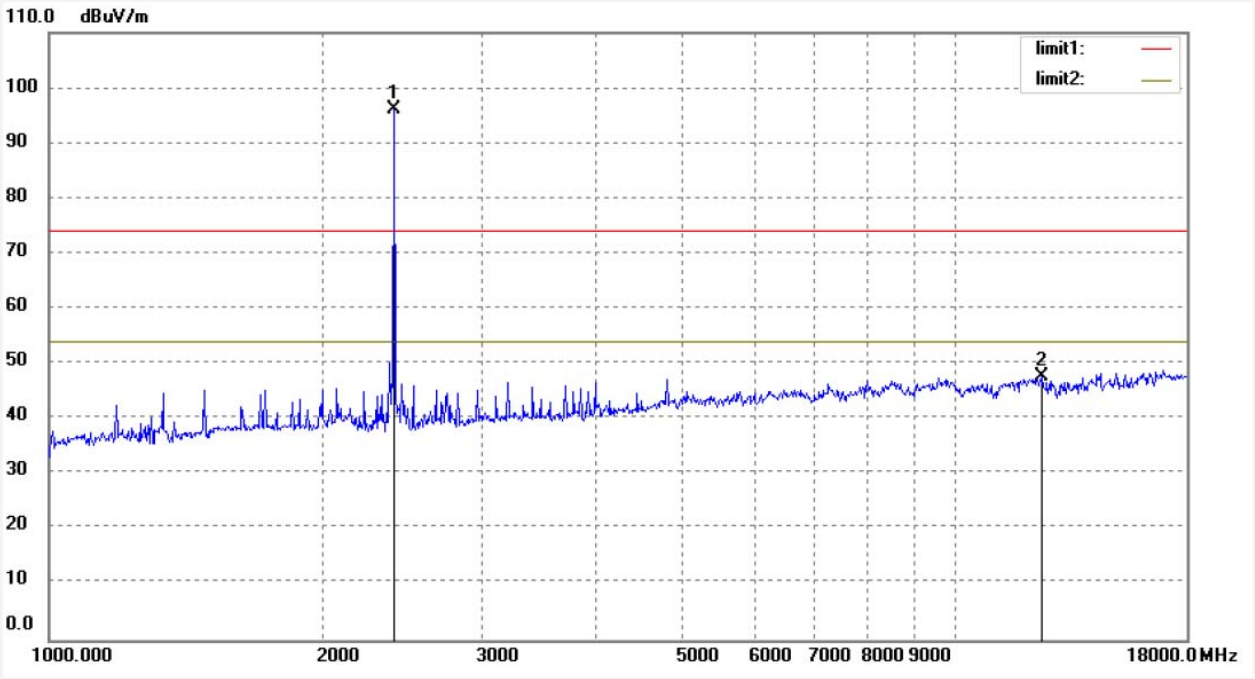
Job No.: FRANK2019 #490
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 48 %
EUT: Massage Chair
Mode: TX 2402MHz
Model: EC-7501B
Manufacturer: XIAMEN HEALTHCARE LEECTRONIC Co., Ltd

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 19/02/27/
Time: 14/06/36
Engineer Signature: .
Distance: 3m

Note: Report No.: ATE20190143



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2402.153	56.80	39.28	96.08			peak	150	139	
2	12469.611	-7.27	54.88	47.61	74.00	-26.39	peak	200	198	

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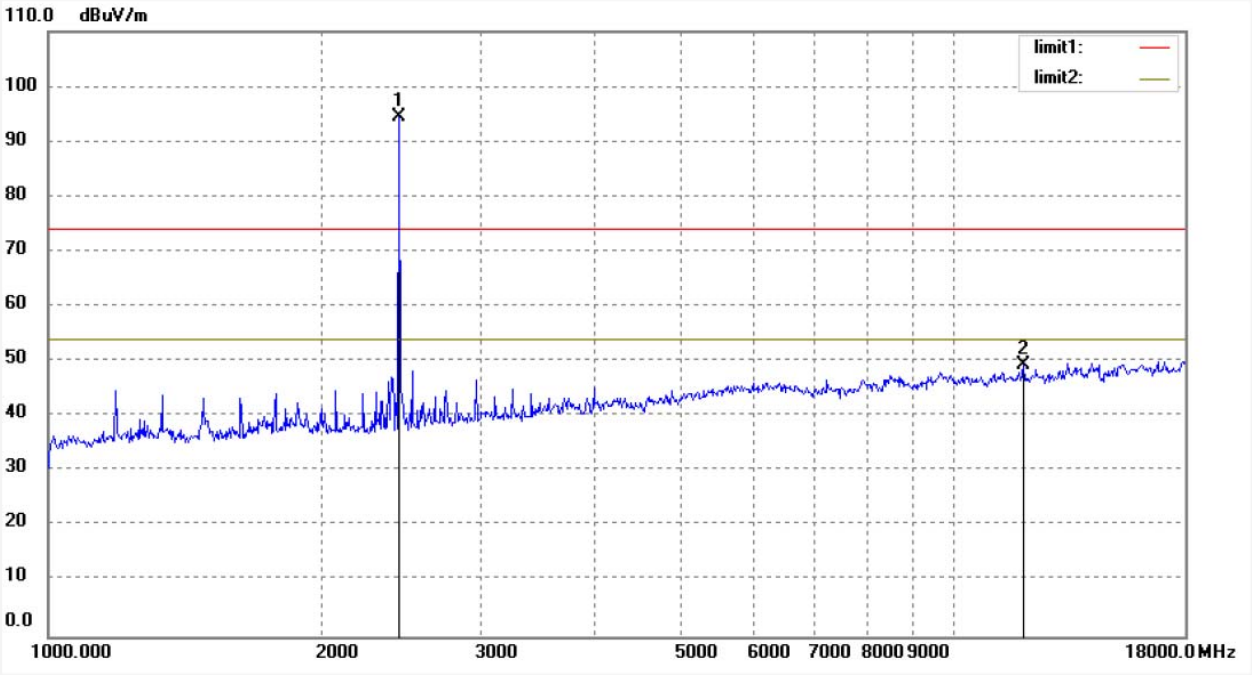
Job No.: FRANK2019 #492
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 48 %
EUT: Massage Chair
Mode: TX 2440MHz
Model: EC-7501B
Manufacturer: XIAMEN HEALTHCARE LEECTRONIC Co., Ltd

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 19/02/27/
Time: 14/09/10
Engineer Signature: .
Distance: 3m

Note: Report No.: ATE20190143



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2440.101	55.14	39.43	94.57			peak	150	201	
2	11940.535	-4.48	53.85	49.37	74.00	-24.63	peak	200	122	

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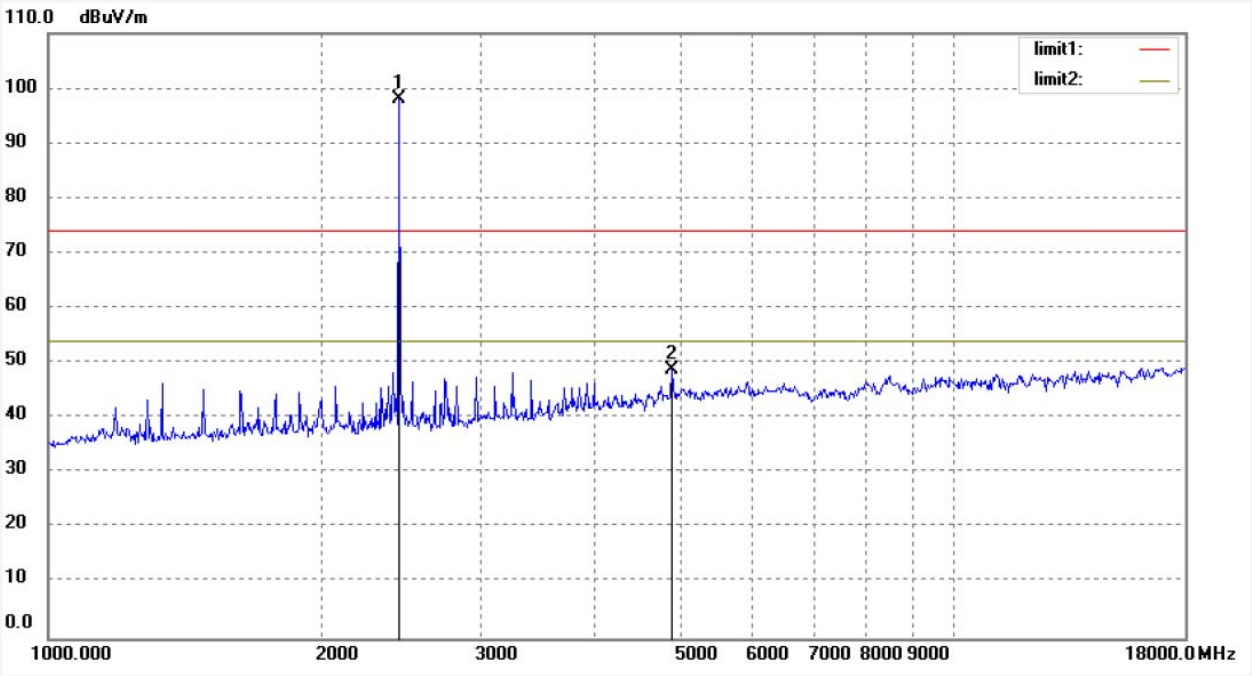
Job No.: FRANK2019 #491
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 48 %
EUT: Massage Chair
Mode: TX 2440MHz
Model: EC-7501B
Manufacturer: XIAMEN HEALTHCARE LEECTRONIC Co., Ltd

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 19/02/27/
Time: 14/08/08
Engineer Signature: .
Distance: 3m

Note: Report No.: ATE20190143



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2440.101	58.66	39.43	98.09			peak	150	19	
2	4880.151	4.21	44.73	48.94	74.00	-25.06	peak	150	312	

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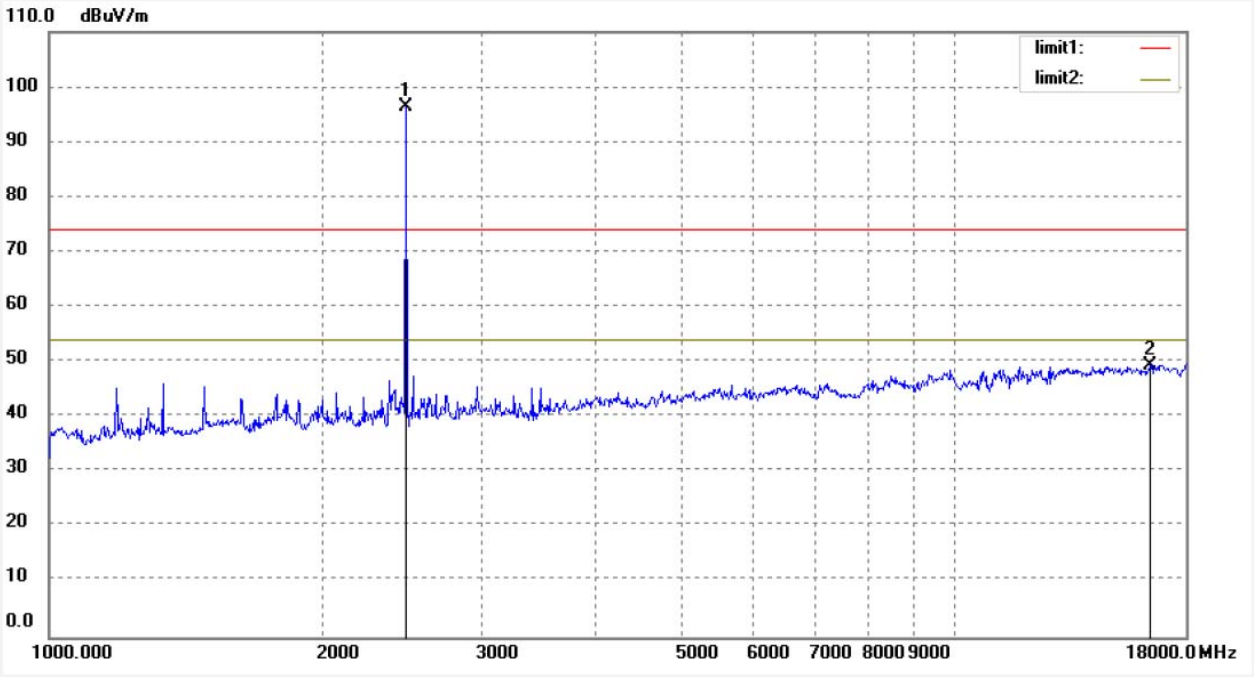
Fax:+86-0755-26503396

Job No.: FRANK2019 #493
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 48 %
EUT: Massage Chair
Mode: TX 2480MHz
Model: EC-7501B
Manufacturer: XIAMEN HEALTHCARE LEECTRONIC Co., Ltd

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 19/02/27/
Time: 14/11/09
Engineer Signature: .
Distance: 3m

Note: Report No.: ATE20190143



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2480.310	56.76	39.61	96.37			peak	150	39	
2	16409.819	-9.85	59.18	49.33	74.00	-24.67	peak	200	123	

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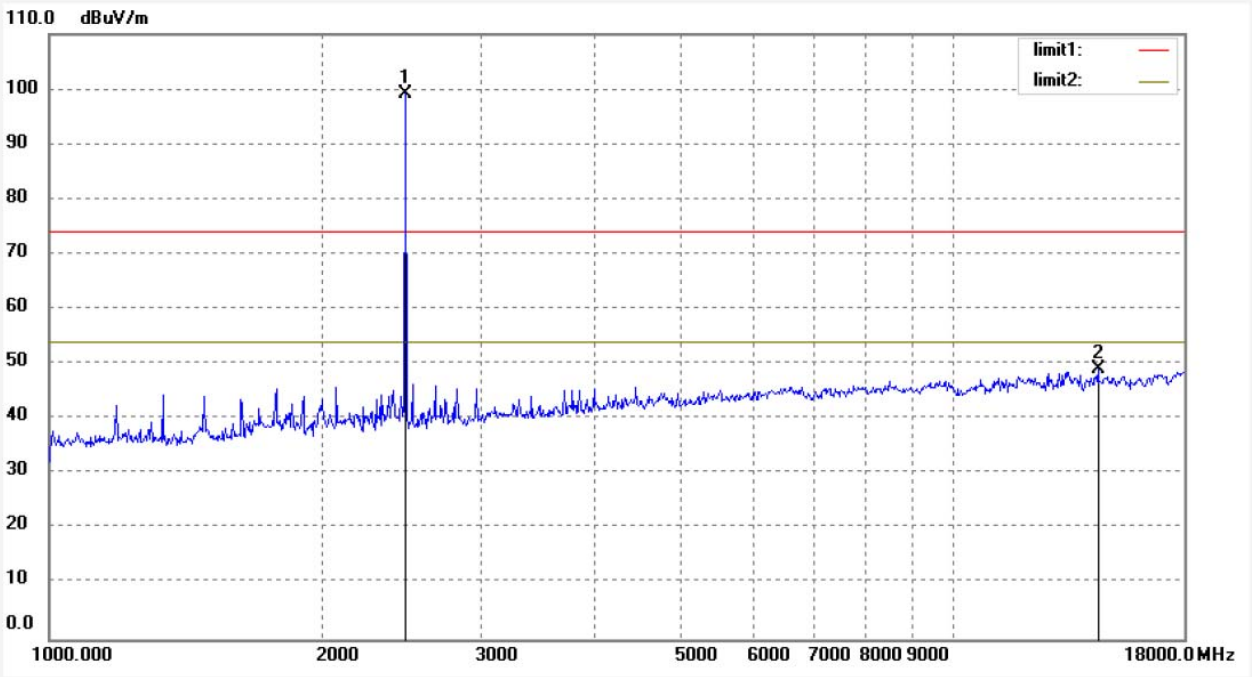
Job No.: FRANK2019 #494
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 48 %
EUT: Massage Chair
Mode: TX 2480MHz
Model: EC-7501B
Manufacturer: XIAMEN HEALTHCARE LEECTRONIC Co., Ltd

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 19/02/27/
Time: 14/12/43
Engineer Signature: .
Distance: 3m

Note: Report No.: ATE20190143



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2480.310	59.50	39.61	99.11			peak	150	191	
2	14450.131	-11.16	60.27	49.11	74.00	-24.89	peak	200	310	

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 2.5dBi. Therefore, the equipment complies with the antenna requirement of Section 15.203.