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

Massage Chair

Model No.: EC-626F, OS-Pro Soho

FCC ID: YMX-EC626F

Prepared for	:	XIAMEN COMFORT SCIENCE & TECHNOLOGY GROUP CO., LTD.
Address	:	(5/F) NO.168, QIANPU ROAD SIMING DISTRICT, XIAMEN, CHINA.
Prepared by	:	Shenzhen Accurate Technology Co., Ltd.
Address	:	1/F., Building A, Changyuan New Material Port, Science & Industry Park, Nanshan District, Shenzhen, Guangdong, P.R. China.
		Tel: (0755) 26503290 Fax: (0755) 26503396

Report No.	:	ATE20182041
Date of Test	:	Dec. 19, 2018-Jan. 24, 2019
Date of Report	:	Jan. 25, 2019

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Description Page

Test Report Certification

Applicant	:	XIAMEN COMFORT SCIENCE & TECHNOLOGY GROUP CO.,LTD.
Address	:	(5/F) NO.168, QIANPU ROAD SIMING DISTRICT, XIAMEN, CHINA
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-626F, OS-Pro Soho
Trade name	:	n.a

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 Aug. 24, 2018 KDB558074 D01 DTS Meas Guidance v05 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 : Dec. 19, 2018-Jan. 24, 2019
Date of Report: Jan. 25, 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-626F, OS-Pro Soho
Bluetooth version	:	BT V4.0
Frequency Range	:	2402MHz-2480MHz
Number of Channels	:	79
Antenna Gain	:	2dBi
Antenna type	:	PCB Antenna
Power Supply	:	AC 110-120V/60Hz
Modulation mode	:	GFSK, π/4 DQPSK, 8DPSK
Applicant	:	XIAMEN COMFORT SCIENCE & TECHNOLOGY GROUP CO.,LTD.
Address	:	(5/F) NO.168, QIANPU ROAD SIMING DISTRICT, XIAMEN, CHINA
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	:	Dec. 19, 2018
Date of Test	:	Dec. 19, 2018-Jan. 24, 2019

1.2.Model difference declaration

EC-626F, OS-Pro Soho are identical in PCB motherboard, driver IC, RF module and Enclosure except the model number is different.

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 (ISEDC)
The Registration Number is 5077A-2

Accredited by China National Accreditation Service for Conformity Assessment (CNAS)
The Registration Number is CNAS L3193

Accredited by American Association for Laboratory Accreditation (A2LA)
The Certificate Number is 4297.01

Name of Firm : Shenzhen Accurate Technology Co., Ltd.

Site Location : 1/F., Building A, Changyuan New Material Port, Science & Industry Park, Nanshan District, Shenzhen, Guangdong, P.R. China

1.5.Measurement Uncertainty

Conducted Emission Expanded Uncertainty	=	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. 06, 2018	1 Year
EMI Test Receiver	Rohde&Schwarz	ESPI3	101526/003	Jan. 06, 2018	1 Year
Spectrum Analyzer	Rohde&Schwarz	FSV-40	101495	Jan. 06, 2018	1 Year
Spectrum Analyzer	Agilent	E7405A	MY45115511	Jan. 06, 2018	1 Year
Pre-Amplifier	Rohde&Schwarz	CBLU1183540-01	3791	Jan. 06, 2018	1 Year
Loop Antenna	Schwarzbeck	FMZB1516	1516131	Jan. 06, 2018	1 Year
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	Jan. 06, 2018	1 Year
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	Jan. 06, 2018	1 Year
Horn Antenna	Schwarzbeck	BBHA9170	9170-359	Jan. 06, 2018	1 Year
Open Switch and Control Unit	Rohde&Schwarz	OSP120 + OSP-B157	101244 + 100866	Jan. 06, 2018	1 Year
LISN	Rohde&Schwarz	ESH3-Z5	100305	Jan. 06, 2018	1 Year
LISN	Schwarzbeck	NSLK8126	8126431	Jan. 06, 2018	1 Year
Highpass Filter	Wainwright Instruments	WHKX3.6/18G-10SS	N/A	Jan. 06, 2018	1 Year
Band Reject Filter	Wainwright Instruments	WRCG2400/2485-2375/2510-60/11SS	N/A	Jan. 06, 2018	1 Year
RF Coaxial Cable (Conducted Emission)	SUHNER	N-2m	No.2	Jan. 06, 2018	1 Year
RF Coaxial Cable (Radiated Emission)	SUHNER	N-5m	NO.3	Jan. 06, 2018	1 Year
RF Coaxial Cable (Radiated Emission)	SUHNER	N-5m	NO.4	Jan. 06, 2018	1 Year
RF Coaxial Cable (Radiated Emission)	SUHNER	N-1m	NO.5	Jan. 06, 2018	1 Year
RF Coaxial Cable (Radiated Emission)	SUHNER	N-1m	NO.6	Jan. 06, 2018	1 Year
Conducted Emission Measurement Software: ES-K1 V1.71					
Radiated Emission Measurement Software: EZ_EMC V1.1.4.2					

Table 2: 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: Transmitting mode
Low Channel: 2402MHz
Middle Channel: 2441MHz
High Channel: 2480MHz
Hopping

3.2.Configuration and peripherals

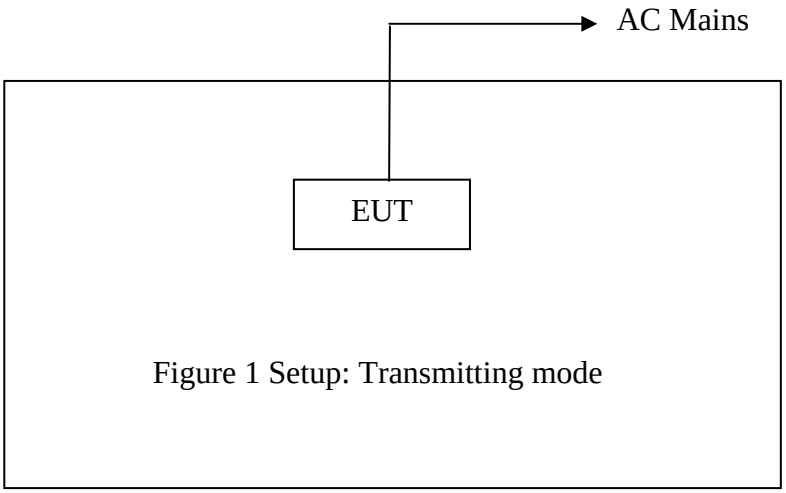


Figure 1 Setup: Transmitting mode

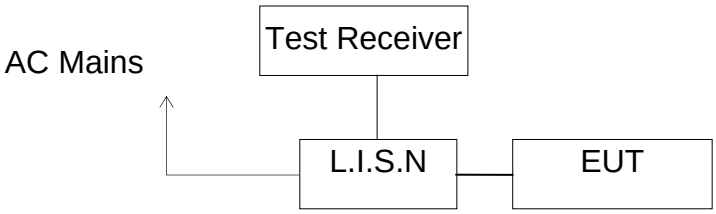
Note: The power was switched from 85% to 115%, and the worse case data was recorded.

4. TEST PROCEDURES AND RESULTS

FCC&IC Rules	Description of Test	Result
Section 15.207	AC Power Line Conducted Emission Test	Compliant
Section 15.247(a)(1)	20dB Bandwidth Test	Compliant
Section 15.247(a)(1)	Carrier Frequency Separation Test	Compliant
Section 15.247(a)(1)(iii)	Number Of Hopping Frequency Test	Compliant
Section 15.247(a)(1)(iii)	Dwell Time Test	Compliant
Section 15.247(b)(1)	Maximum Peak Output Power Test	Compliant
Section 15.247(d) Section 15.205 15.209	Radiated Emission Test	Compliant
Section 15.247(d)	Band Edge Compliance Test	Compliant
Section 15.247(d)	Conducted Spurious 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: "M-2041-4_fin"

12/23/2018 5:52PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.320000	3.90	10.6	60	55.8	QP	N	GND
0.650000	39.30	10.8	56	16.7	QP	N	GND
1.955000	27.20	11.0	56	28.8	QP	N	GND
3.910000	25.80	11.1	56	30.2	QP	N	GND
5.210000	23.90	11.2	60	36.1	QP	N	GND
20.200000	11.60	11.4	60	48.4	QP	N	GND

MEASUREMENT RESULT: "M-2041-4_fin2"

12/23/2018 5:52PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.350000	-4.70	10.6	49	53.7	AV	N	GND
0.650000	39.70	10.8	46	6.3	AV	N	GND
1.955000	27.60	11.0	46	18.4	AV	N	GND
3.910000	25.40	11.1	46	20.6	AV	N	GND
5.210000	22.90	11.2	50	27.1	AV	N	GND
13.030000	10.70	11.3	50	39.3	AV	N	GND

MEASUREMENT RESULT: "M-2041-3_fin"

12/23/2018 5:48PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.335000	0.20	10.6	59	59.1	QP	L1	GND
0.650000	39.20	10.8	56	16.8	QP	L1	GND
1.305000	27.10	10.9	56	28.9	QP	L1	GND
3.910000	24.70	11.1	56	31.3	QP	L1	GND
5.210000	22.80	11.2	60	37.2	QP	L1	GND
26.725000	24.80	11.5	60	35.2	QP	L1	GND

MEASUREMENT RESULT: "M-2041-3_fin2"

12/23/2018 5:48PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.320000	1.40	10.6	50	48.3	AV	L1	GND
0.650000	39.70	10.8	46	6.3	AV	L1	GND
1.955000	27.30	11.0	46	18.7	AV	L1	GND
3.910000	23.70	11.1	46	22.3	AV	L1	GND
5.210000	21.70	11.2	50	28.3	AV	L1	GND
23.455000	13.90	11.5	50	36.1	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

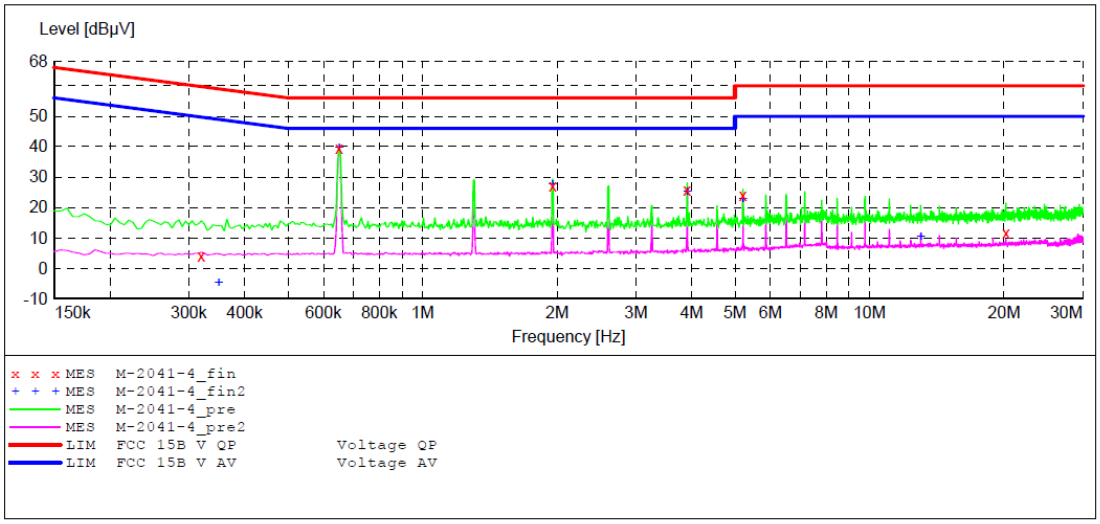
CONDUCTED EMISSION STANDARD FCC PART 15 B

```
EUT:                  Massage Chair  M/N:EC-626F
Manufacturer:         XIAMEN HEALTHCARE ELECTRONIC CO.,LTD
Operating Condition:  BT OPERATION
Test Site:            1#Shielding Room
Operator:             Frank
Test Specification:   N  120V 60Hz
Comment:              Report NO.:ATE20182041
Start of Test:        12/23/2018 / 5:48:42PM
```

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

Short Description: SUB STD VTERM2 1.70

Start Frequency	Stop Frequency	Step Width	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: "M-2041-4_fin"

12/23/2018 5:52PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.320000	3.90	10.6	60	55.8	QP	N	GND
0.650000	39.30	10.8	56	16.7	QP	N	GND
1.955000	27.20	11.0	56	28.8	QP	N	GND
3.910000	25.80	11.1	56	30.2	QP	N	GND
5.210000	23.90	11.2	60	36.1	QP	N	GND
20.200000	11.60	11.4	60	48.4	QP	N	GND

MEASUREMENT RESULT: "M-2041-4_fin2"

12/23/2018 5:52PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.350000	-4.70	10.6	49	53.7	AV	N	GND
0.650000	39.70	10.8	46	6.3	AV	N	GND
1.955000	27.60	11.0	46	18.4	AV	N	GND
3.910000	25.40	11.1	46	20.6	AV	N	GND
5.210000	22.90	11.2	50	27.1	AV	N	GND
13.030000	10.70	11.3	50	39.3	AV	N	GND

ACCURATE TECHNOLOGY CO.,LTD

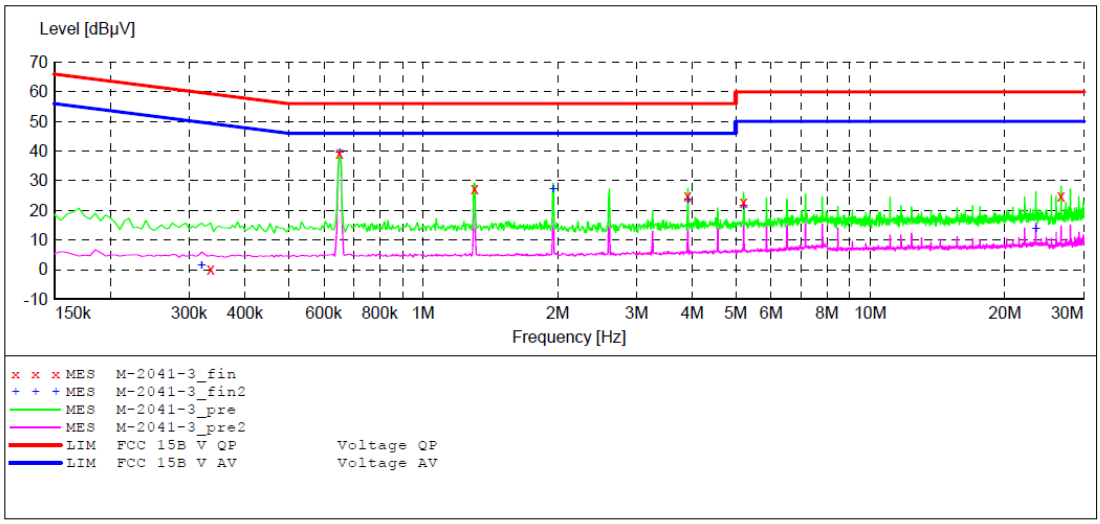
CONDUCTED EMISSION STANDARD FCC PART 15 B

```
EUT:                  Massage Chair  M/N:EC-626F
Manufacturer:         XIAMEN HEALTHCARE ELECTRONIC CO.,LTD
Operating Condition:  BT OPERATION
Test Site:            1#Shielding Room
Operator:             Frank
Test Specification:   L  120V 60Hz
Comment:              Report NO.:ATE20182041
Start of Test:        12/23/2018 / 5:44:47PM
```

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

Short Description: SUB STD VTERM2 1.70

Start Frequency	Stop Frequency	Step Width	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: "M-2041-3_fin"

12/23/2018 5:48PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.335000	0.20	10.6	59	59.1	QP	L1	GND
0.650000	39.20	10.8	56	16.8	QP	L1	GND
1.305000	27.10	10.9	56	28.9	QP	L1	GND
3.910000	24.70	11.1	56	31.3	QP	L1	GND
5.210000	22.80	11.2	60	37.2	QP	L1	GND
26.725000	24.80	11.5	60	35.2	QP	L1	GND

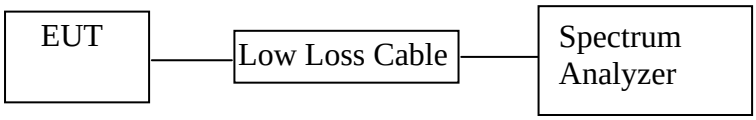
MEASUREMENT RESULT: "M-2041-3_fin2"

12/23/2018 5:48PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.320000	1.40	10.6	50	48.3	AV	L1	GND
0.650000	39.70	10.8	46	6.3	AV	L1	GND
1.955000	27.30	11.0	46	18.7	AV	L1	GND
3.910000	23.70	11.1	46	22.3	AV	L1	GND
5.210000	21.70	11.2	50	28.3	AV	L1	GND
23.455000	13.90	11.5	50	36.1	AV	L1	GND

6. 20DB BANDWIDTH TEST

6.1.Block Diagram of Test Setup



(EUT: Massage Chair)

6.2.The Requirement For Section 15.247(a)(1)

Section 15.247(a)(1): Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater.

6.3.EUT Configuration on Measurement

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

6.4.Operating Condition of EUT

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

6.4.2.Turn on the power of all equipment.

6.4.3.Let the EUT work in TX (Hopping off) modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2441MHz, 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.The RBW should be 1%~5% of OBW.

6.5.3.The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

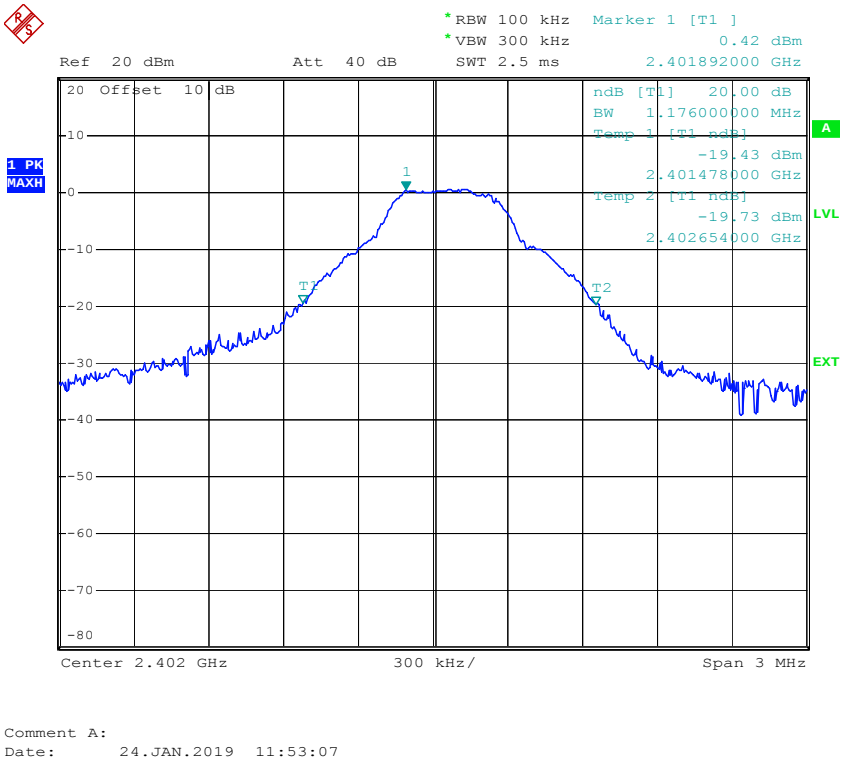
6.6.Test Result

Channel	Frequency (MHz)	GFSK mode 20dB Bandwidth (MHz)	π /4 DQPSK mode 20dB Bandwidth (MHz)	8DPSK mode 20dB Bandwidth (MHz)	Result
Low	2402	1.176	1.338	1.392	Pass
Middle	2441	1.158	1.356	1.380	Pass
High	2480	1.182	1.326	1.404	Pass

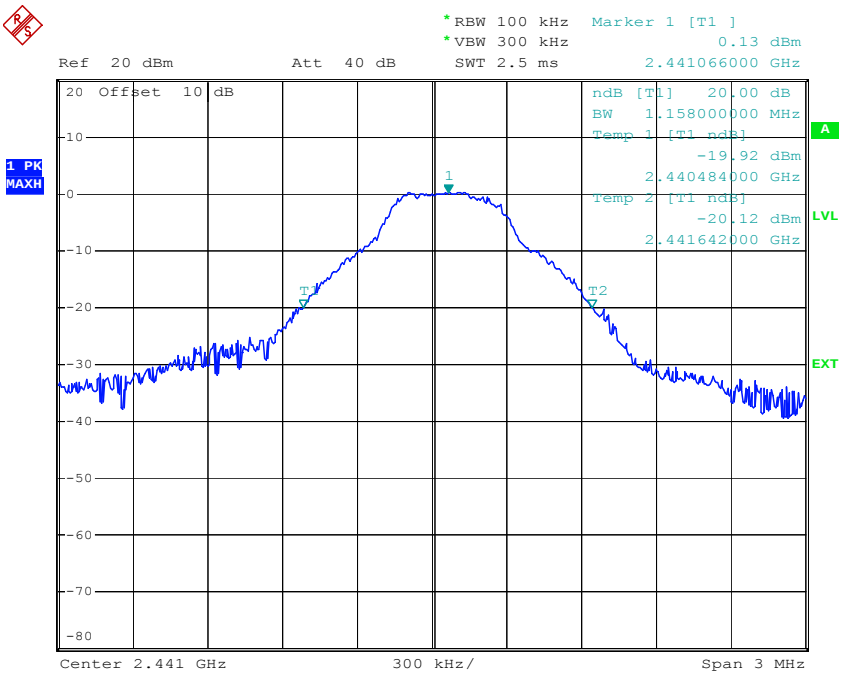
The spectrum analyzer plots are attached as below.

GFSK Mode

Low channel



Middle channel



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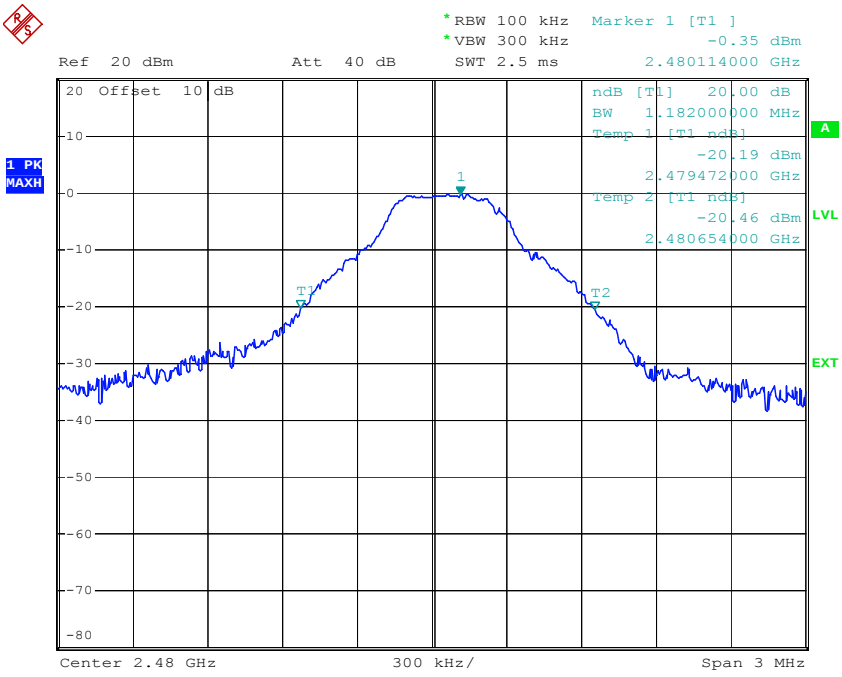
Date: 24.JAN.2019 11:52:38

High channel



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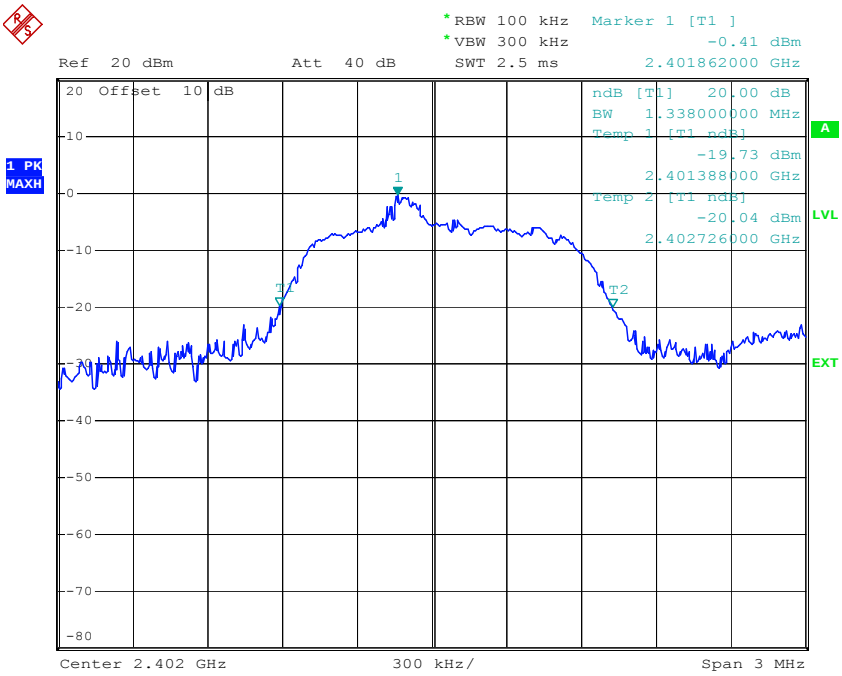
π /4 DQPSK Mode

Low channel



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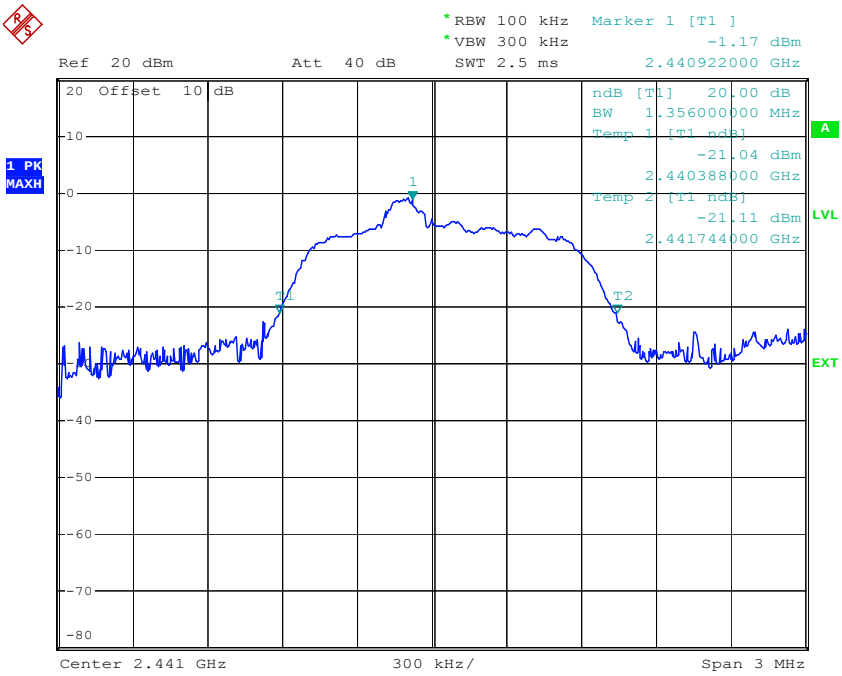
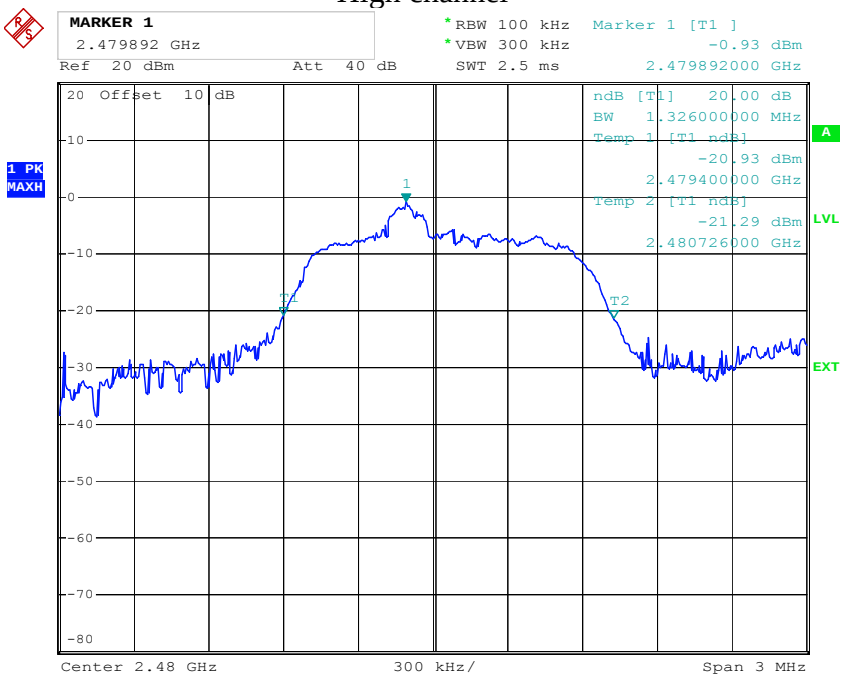
Middle channel



Comment A:
Date: 24.JAN.2019 11:51:20

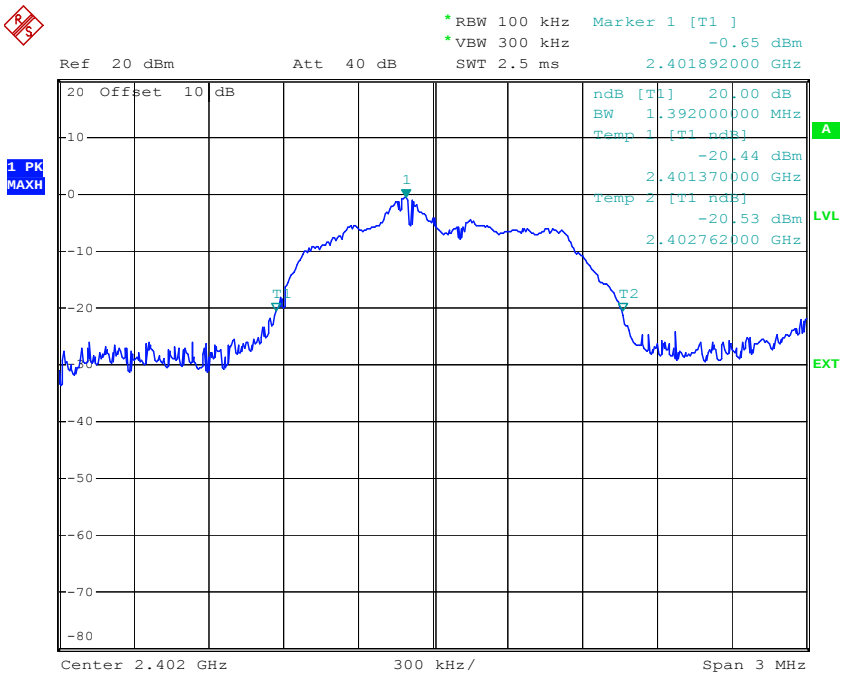
High channel



Comment A:
Date: 24.JAN.2019 11:51:45

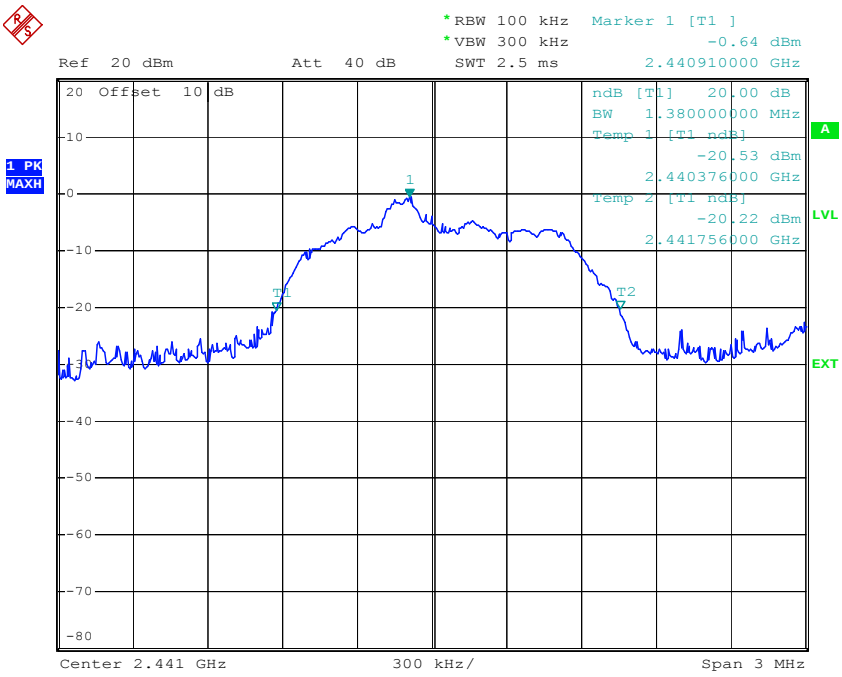
8DPSK Mode

Low channel



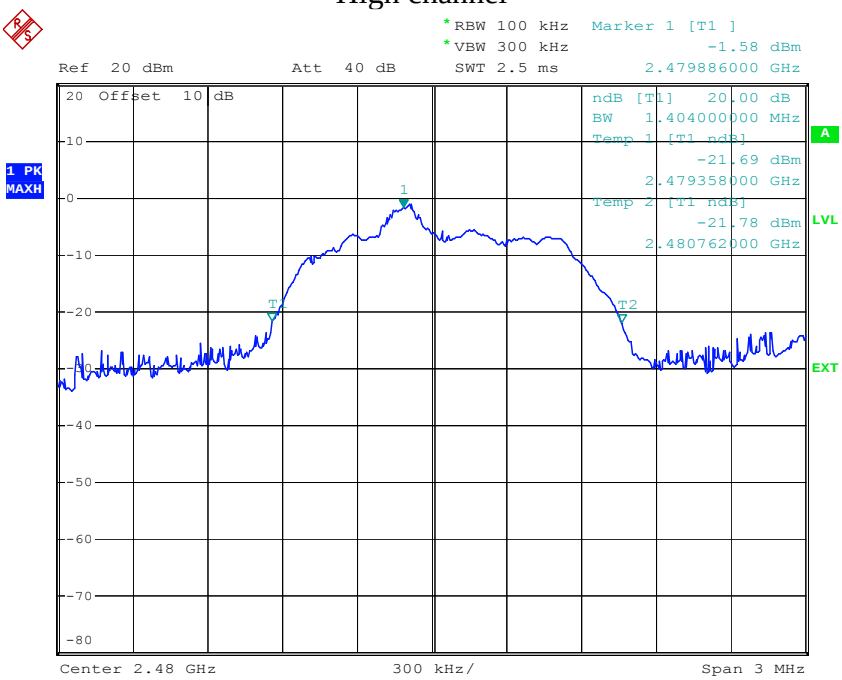
Comment A:
Date: 24.JAN.2019 11:50:22

Middle channel



Comment A:
Date: 24.JAN.2019 11:49:52

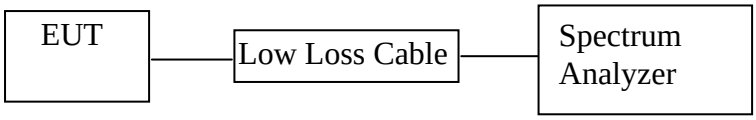
High channel



Comment A:
Date: 24.JAN.2019 11:49:21

7. CARRIER FREQUENCY SEPARATION TEST

7.1.Block Diagram of Test Setup



(EUT: Massage Chair)

7.2.The Requirement For Section 15.247(a)(1)

Section 15.247(a)(1): Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW. The system shall hop to channel frequencies that are selected at the system hopping rate from a pseudorandomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

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 (Hopping on) modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2441MHz, 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 100 kHz and VBW to 300 kHz. Adjust Span to 3MHz.

7.5.3.Set the adjacent channel of the EUT Maxhold another trace.

7.5.4.Measurement the channel separation

7.6.Test Result

GFSK mode

Channel	Frequency (MHz)	Channel Separation(MHz)	Limit	Result
Low	2402	0.924	25KHz or 0.788 MHz	PASS
	2403			
Middle	2440	0.996	25KHz or 0.788 MHz	PASS
	2441			
High	2479	0.960	25KHz or 0.788 MHz	PASS
	2480			

π /4 DQPSK mode

Channel	Frequency (MHz)	Channel Separation(MHz)	Limit	Result
Low	2402	1.002	25KHz or 0.904 MHz	PASS
	2403			
Middle	2440	1.020	25KHz or 0.904 MHz	PASS
	2441			
High	2479	0.996	25KHz or 0.904 MHz	PASS
	2480			

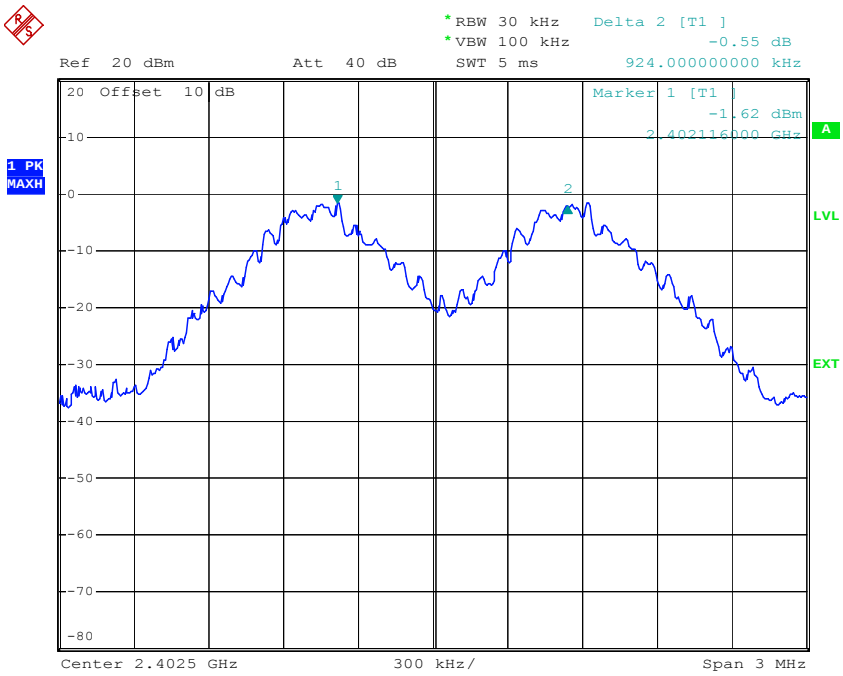
8DPSK mode

Channel	Frequency (MHz)	Channel Separation(MHz)	Limit	Result
Low	2402	1.002	25KHz or 0.936 MHz	PASS
	2403			
Middle	2440	1.032	25KHz or 0.936 MHz	PASS
	2441			
High	2479	1.002	25KHz or 0.936 MHz	PASS
	2480			

The spectrum analyzer plots are attached as below.

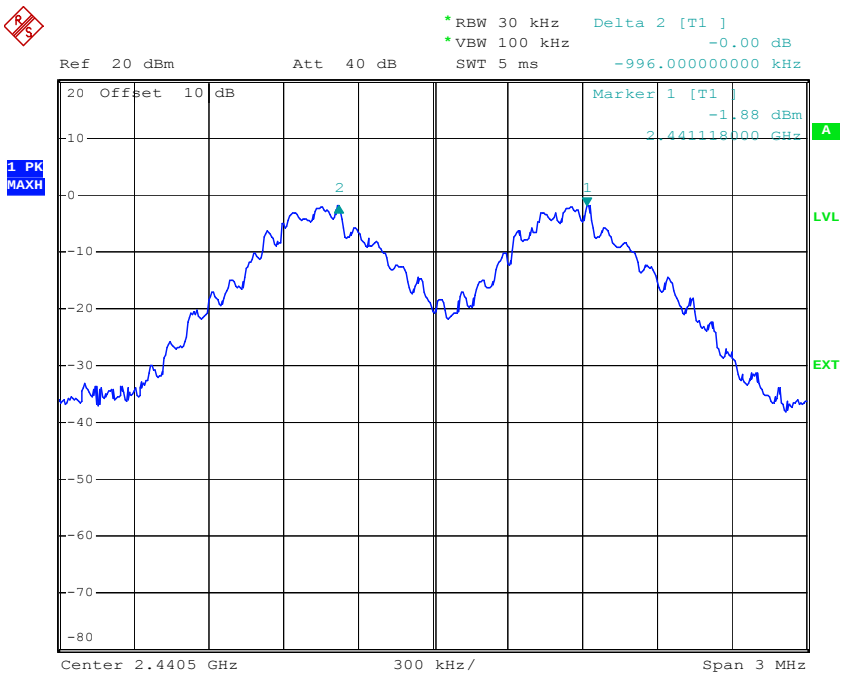
GFSK Mode

Low channel



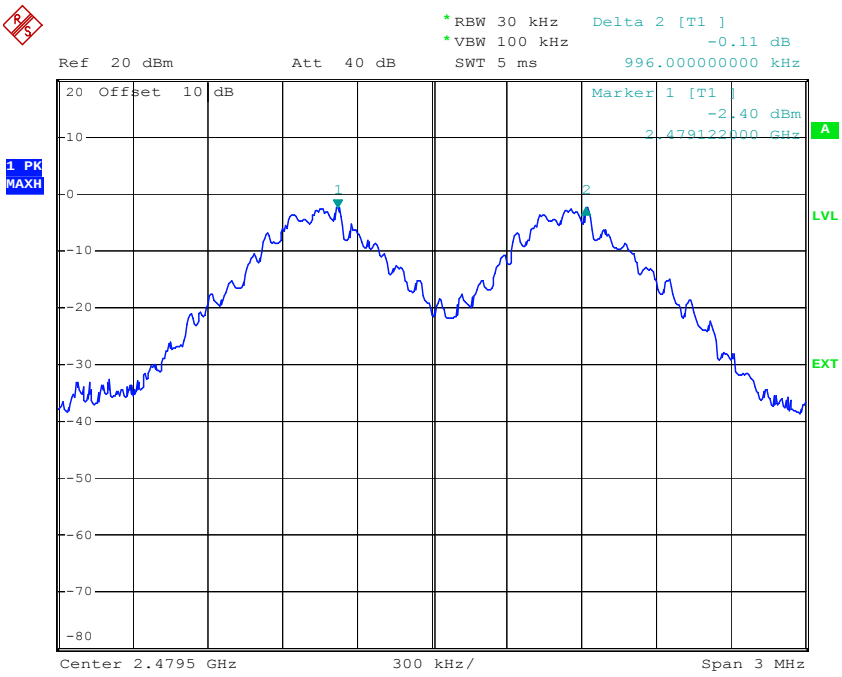
Comment A:
Date: 24.JAN.2019 12:08:50

Middle channel



Comment A:
Date: 24.JAN.2019 12:09:29

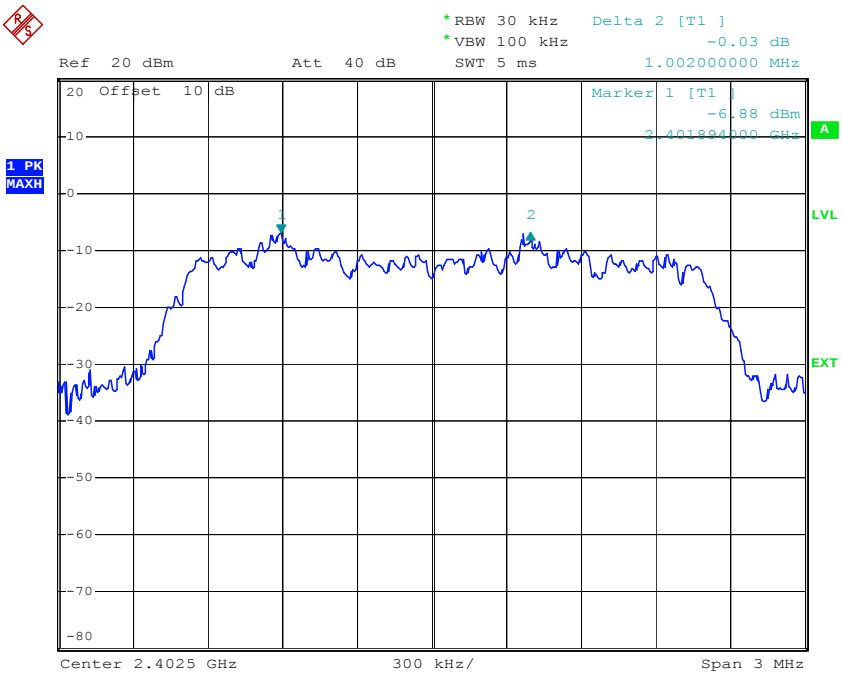
High channel



Comment A:
Date: 24.JAN.2019 12:10:02

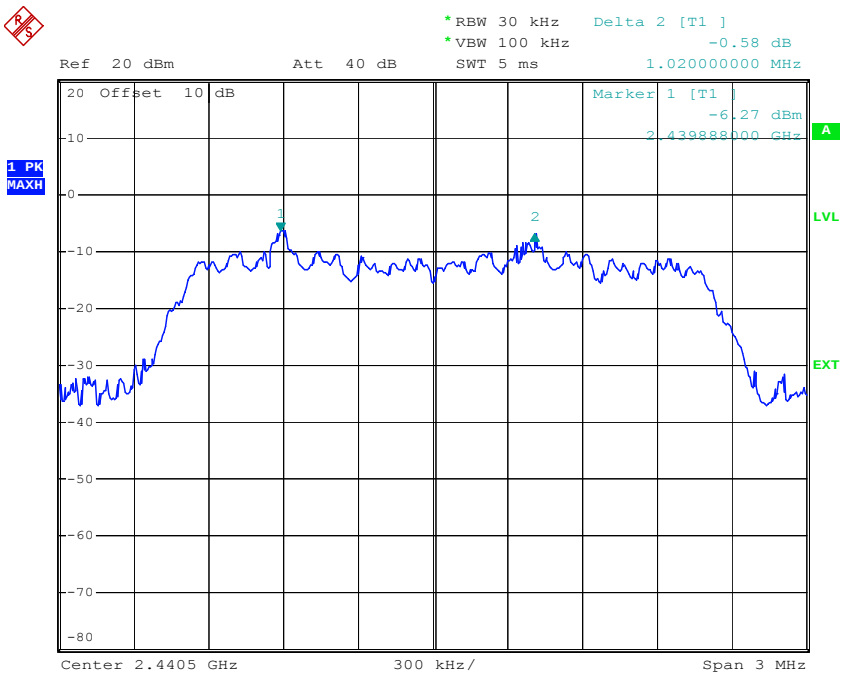
π /4 DQPSK Mode

Low channel



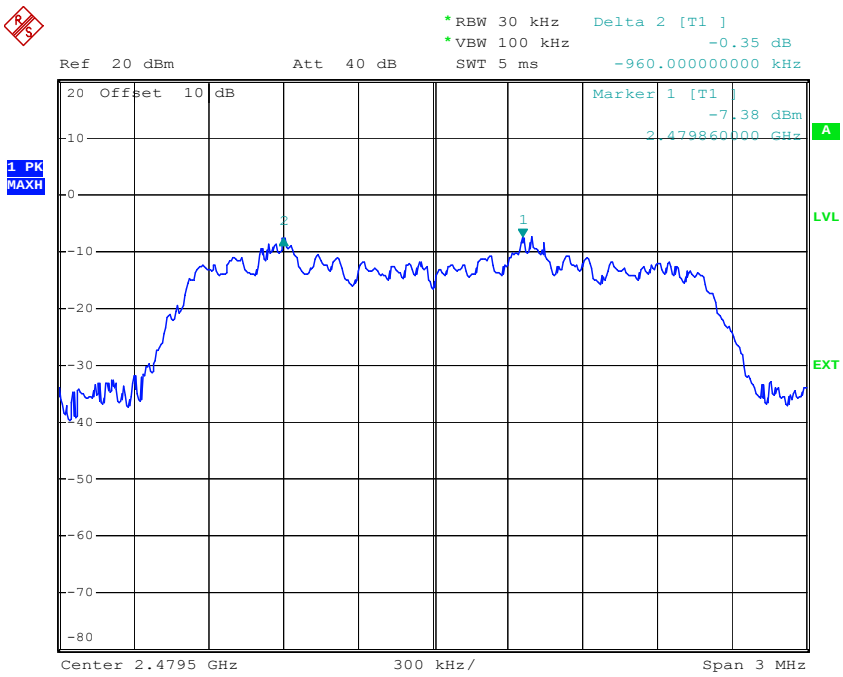
Comment A:
Date: 24.JAN.2019 12:11:48

Middle channel



Comment A:
Date: 24.JAN.2019 12:11:10

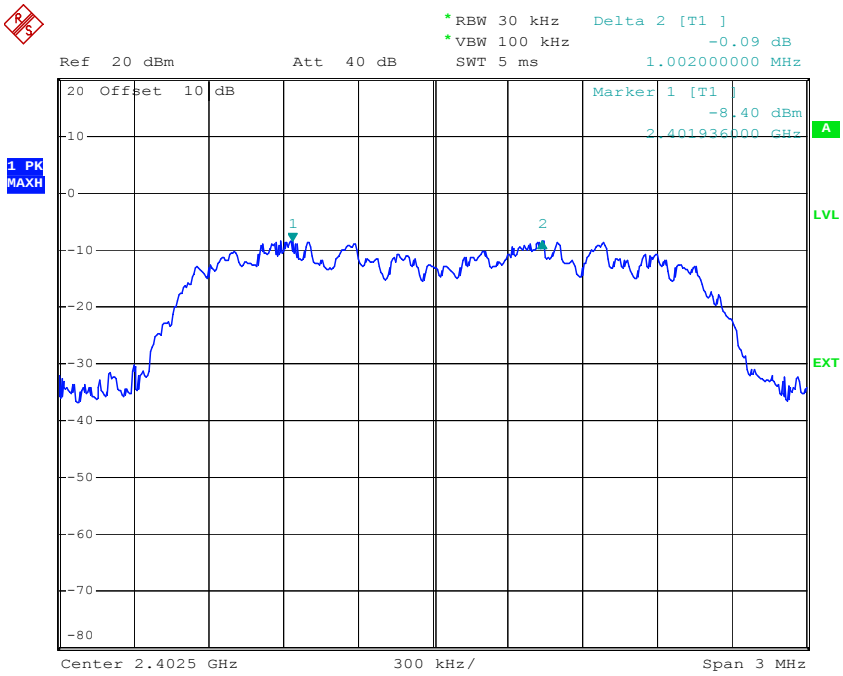
High channel



Comment A:
Date: 24.JAN.2019 12:10:35

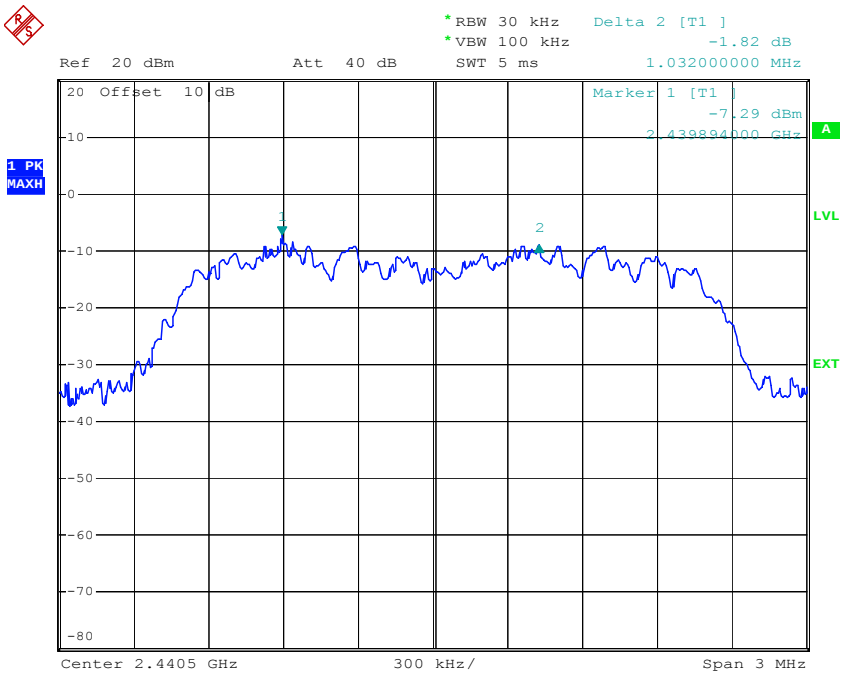
8DPSK Mode

Low channel



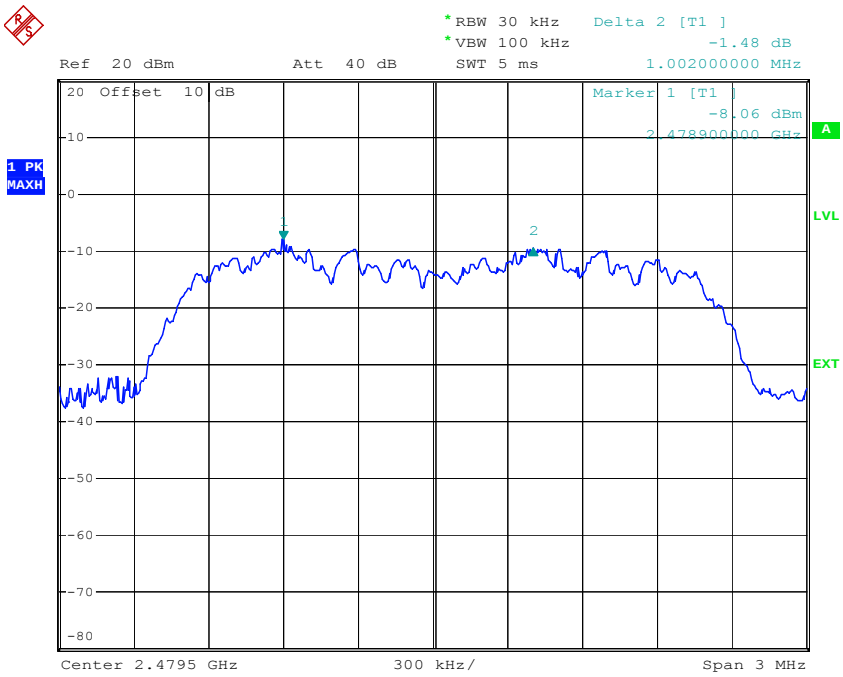
Comment A:
Date: 24.JAN.2019 12:12:17

Middle channel



Comment A:
Date: 24.JAN.2019 12:12:50

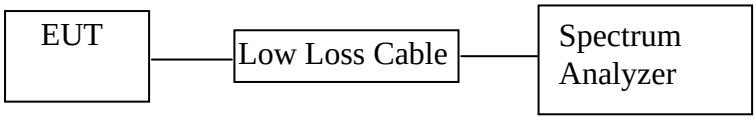
High channel



Comment A:
Date: 24.JAN.2019 12:13:24

8. NUMBER OF HOPPING FREQUENCY TEST

8.1.Block Diagram of Test Setup



(EUT: Massage Chair)

8.2.The Requirement For Section 15.247(a)(1)(iii)

Section 15.247(a)(1)(iii): Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels.

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 (Hopping on) modes measure it.

8.5.Test Procedure

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

8.5.2.Set the spectrum analyzer as Span=90MHz, RBW=100 kHz, VBW=300 kHz.

8.5.3.Max hold, view and count how many channel in the band.

8.6.Test Result

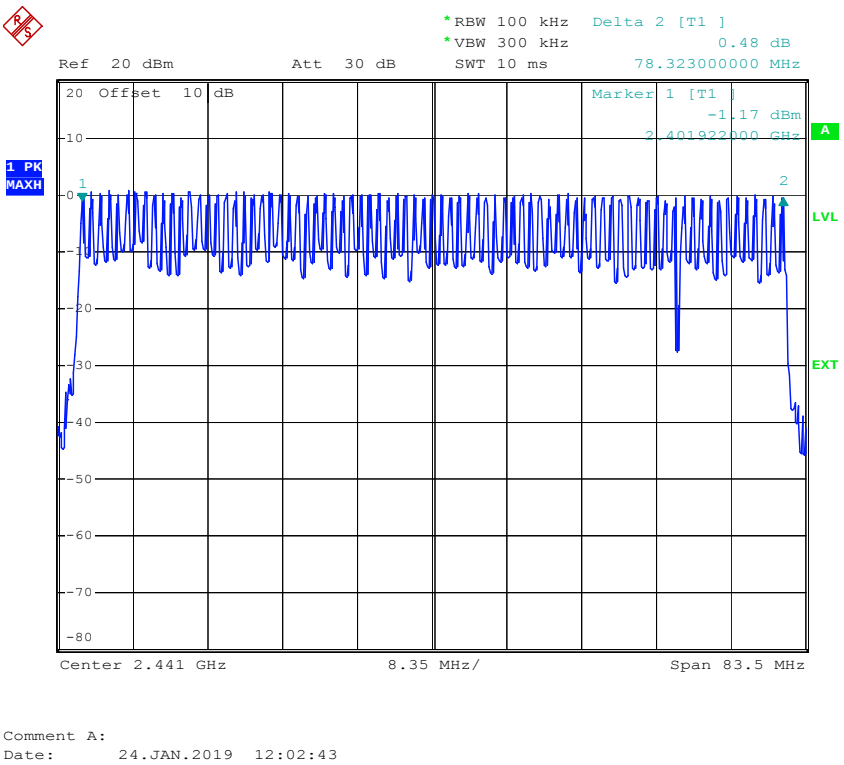
Total number of hopping channel (GFSK mode)	Measurement result(CH)	Limit(CH)
	79	≥ 15

Total number of hopping channel (π /4 DQPSK mode)	Measurement result(CH)	Limit(CH)
	79	≥ 15

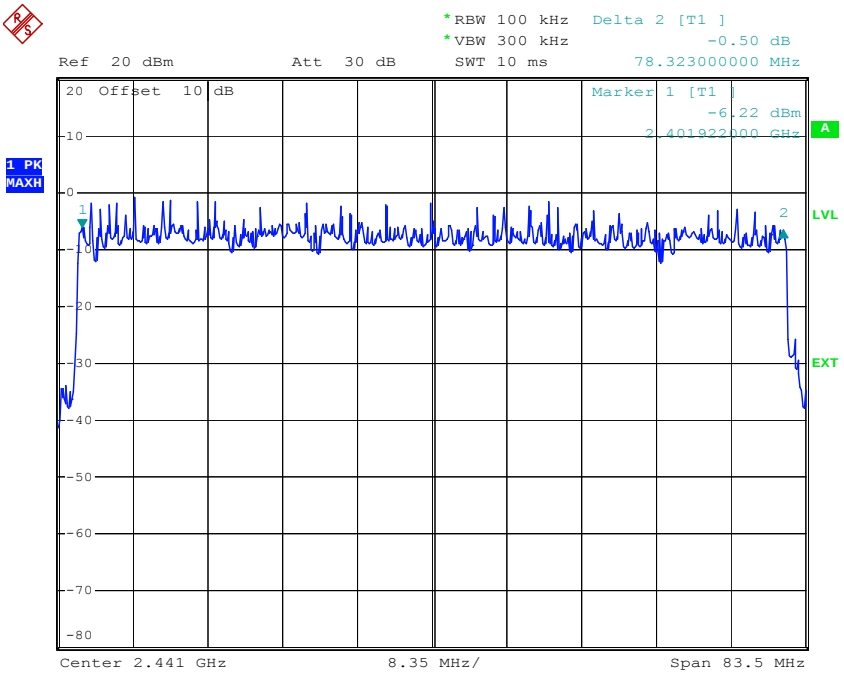
Total number of hopping channel (8DPSK mode)	Measurement result(CH)	Limit(CH)
	79	≥ 15

The spectrum analyzer plots are attached as below.

Number of hopping channels(GFSK)

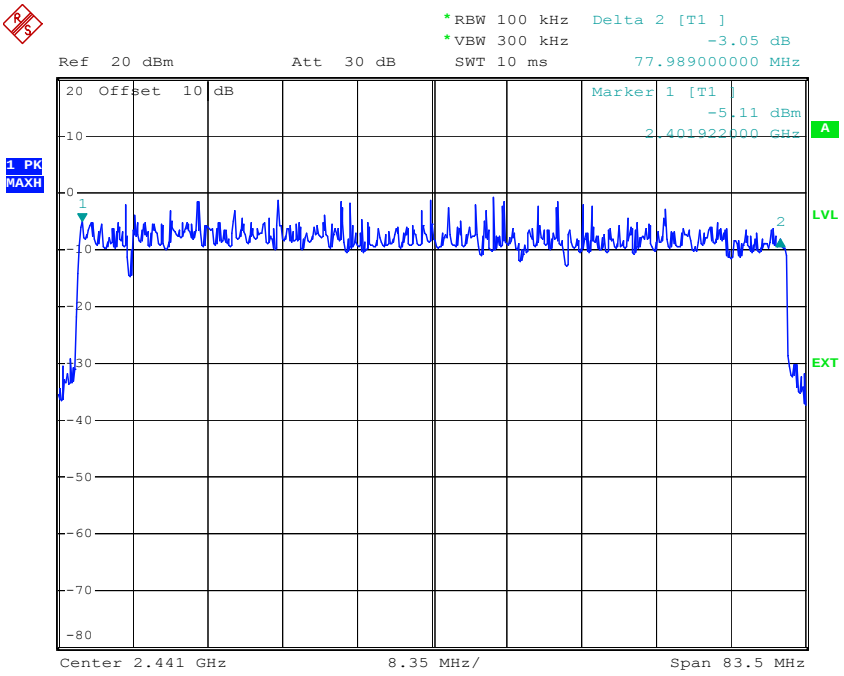


Number of hopping channels(π /4 DQPSK)



Comment A:
Date: 24.JAN.2019 12:00:57

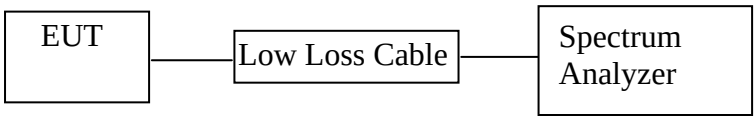
Number of hopping channels(8DPSK)



Comment A:
Date: 24.JAN.2019 11:58:59

9. DWELL TIME TEST

9.1.Block Diagram of Test Setup



(EUT: Massage Chair)

9.2.The Requirement For Section 15.247(a)(1)(iii)

Section 15.247(a)(1)(iii): Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

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 (Hopping on) modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2441MHz, and 2480MHz TX frequency to transmit.

9.5.Test Procedure

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

9.5.2.Set center frequency of spectrum analyzer = operating frequency.

9.5.3.Set the spectrum analyzer as RBW=1MHz, VBW=3MHz, Span=0Hz, Adjust Sweep=5ms, 10ms, 15ms. Get the pulse time.

9.5.4.Repeat above procedures until all frequency measured were complete.

9.6.Test Result

GFSK Mode

Mode	Channel Frequency (MHz)	Pulse Time (ms)	Dwell Time (ms)	Limit (ms)
DH1	2402	0.430	137.60	400
	2441	0.420	134.40	400
	2480	0.420	134.40	400
A period transmit time = 0.4 × 79 = 31.6 Dwell time = pulse time × (1600/(2*79))×31.6				
DH3	2402	1.570	251.20	400
	2441	1.560	249.60	400
	2480	1.580	252.80	400
A period transmit time = 0.4 × 79 = 31.6 Dwell time = pulse time × (1600/(4*79))×31.6				
DH5	2402	2.710	289.07	400
	2441	2.920	311.47	400
	2480	2.750	293.33	400
A period transmit time = 0.4 × 79 = 31.6 Dwell time = pulse time × (1600/(6*79))×31.6				

π /4 DQPSK Mode

Mode	Channel Frequency (MHz)	Pulse Time (ms)	Dwell Time (ms)	Limit (ms)
2DH1	2402	0.440	140.80	400
	2441	0.440	140.80	400
	2480	0.440	140.80	400
A period transmit time = 0.4 × 79 = 31.6 Dwell time = pulse time × (1600/(2*79))×31.6				
2DH3	2402	1.650	264.00	400
	2441	1.820	291.20	400
	2480	1.800	288.00	400
A period transmit time = 0.4 × 79 = 31.6 Dwell time = pulse time × (1600/(4*79))×31.6				
2DH5	2402	3.000	320.00	400
	2441	2.820	300.80	400
	2480	3.000	320.00	400
A period transmit time = 0.4 × 79 = 31.6 Dwell time = pulse time × (1600/(6*79))×31.6				

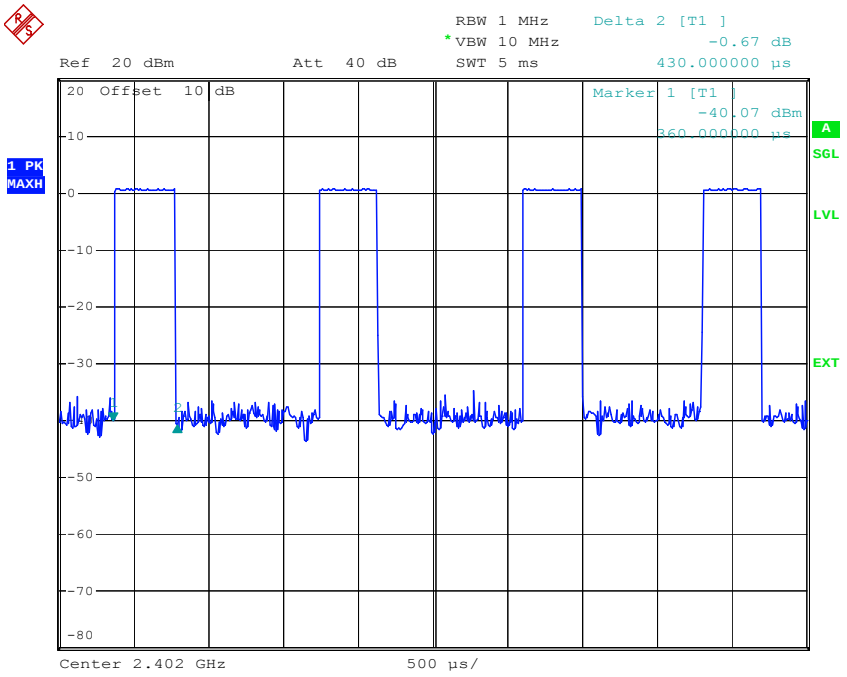
8DPSK Mode

Mode	Channel Frequency (MHz)	Pulse Time (ms)	Dwell Time (ms)	Limit (ms)
3DH1	2402	0.440	140.80	400
	2441	0.440	140.80	400
	2480	0.430	137.60	400
A period transmit time = 0.4 × 79 = 31.6 Dwell time = pulse time × (1600/(2*79))×31.6				
3DH3	2402	1.600	256.00	400
	2441	1.660	265.60	400
	2480	1.650	264.00	400
A period transmit time = 0.4 × 79 = 31.6 Dwell time = pulse time × (1600/(4*79))×31.6				
3DH5	2402	2.830	299.96	400
	2441	2.980	317.87	400
	2480	2.850	304.00	400
A period transmit time = 0.4 × 79 = 31.6 Dwell time = pulse time × (1600/(6*79))×31.6				

The spectrum analyzer plots are attached as below.

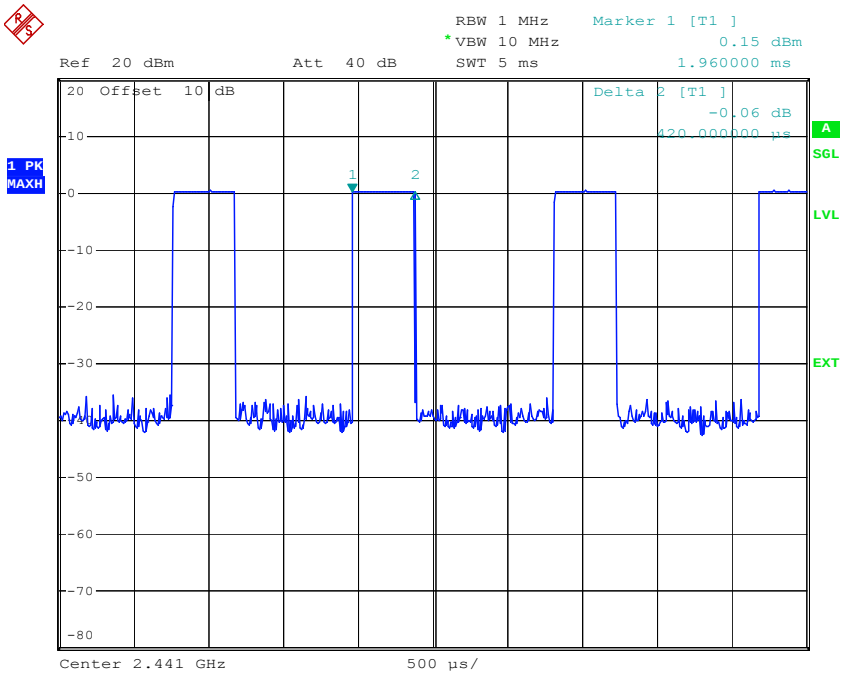
GFSK Mode

DH1 Low channel



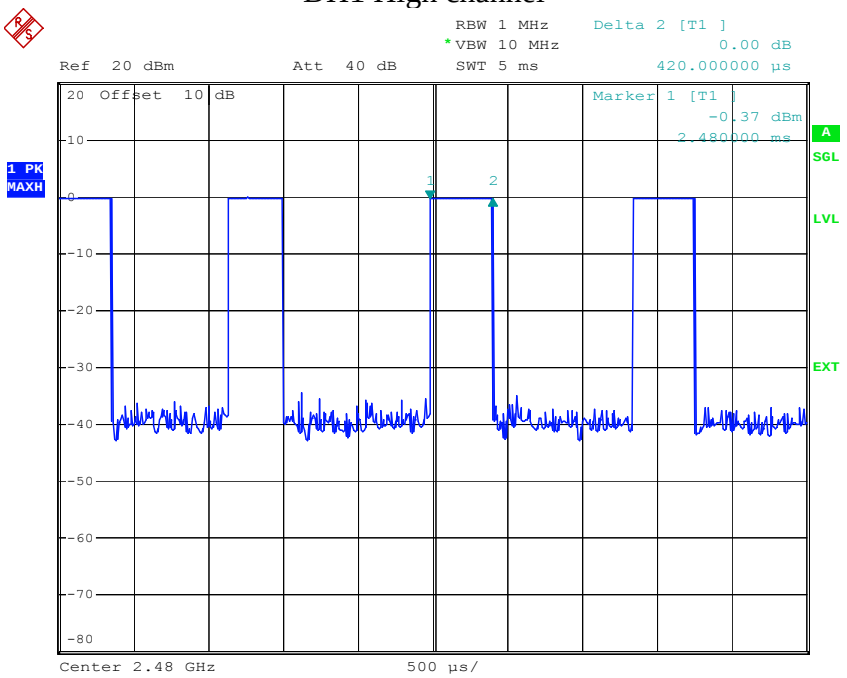
Comment A:
Date: 24.JAN.2019 12:47:57

DH1 Middle channel



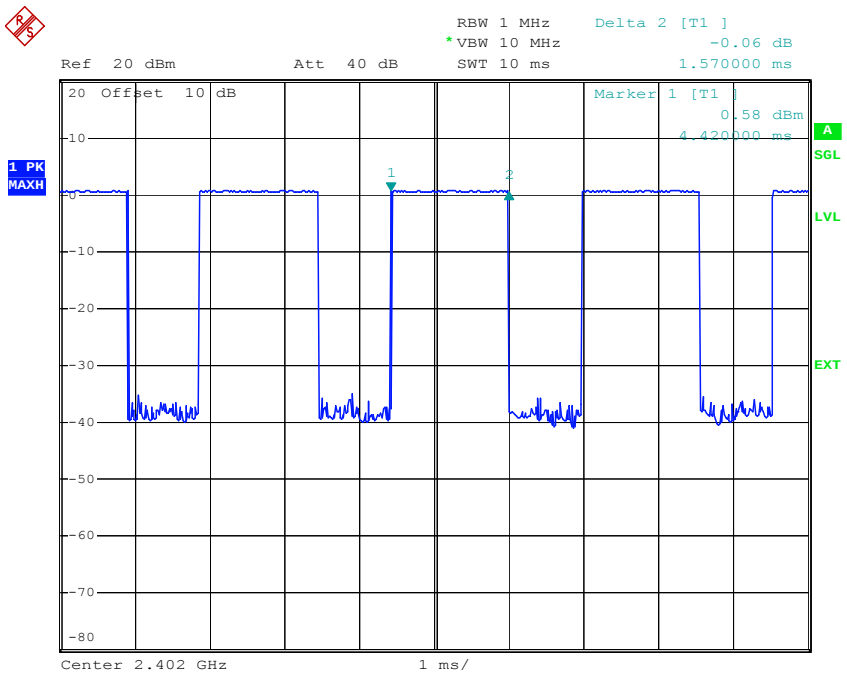
Comment A:
Date: 24.JAN.2019 12:51:07

DH1 High channel



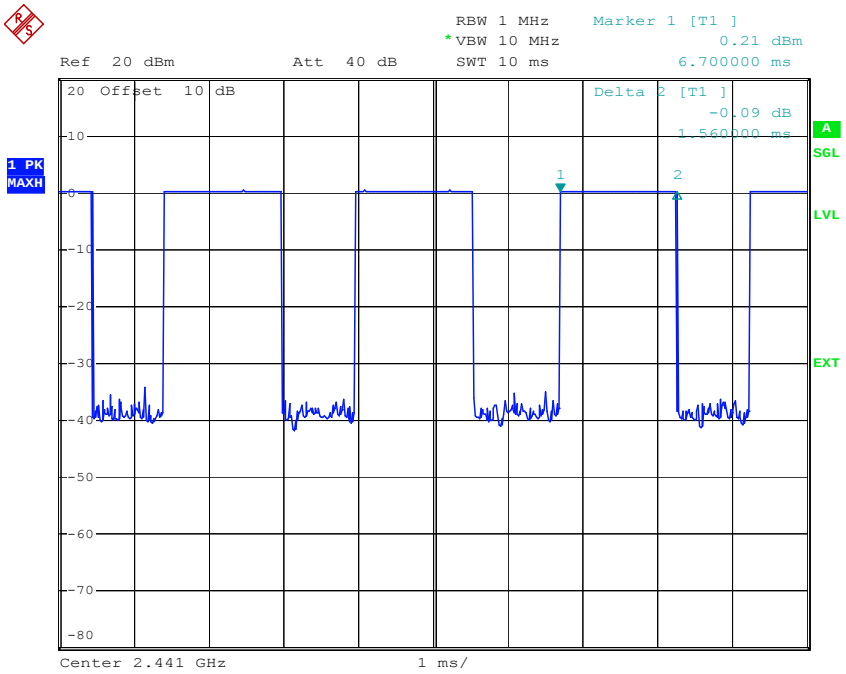
Comment A:
Date: 24.JAN.2019 12:51:53

DH3 Low channel



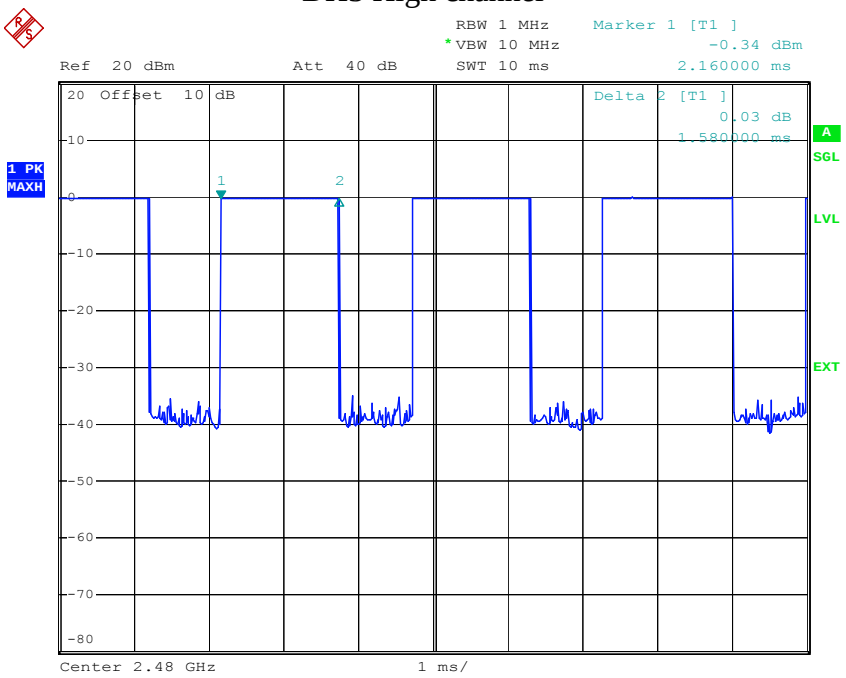
Comment A:
Date: 24.JAN.2019 12:48:46

DH3 Middle channel



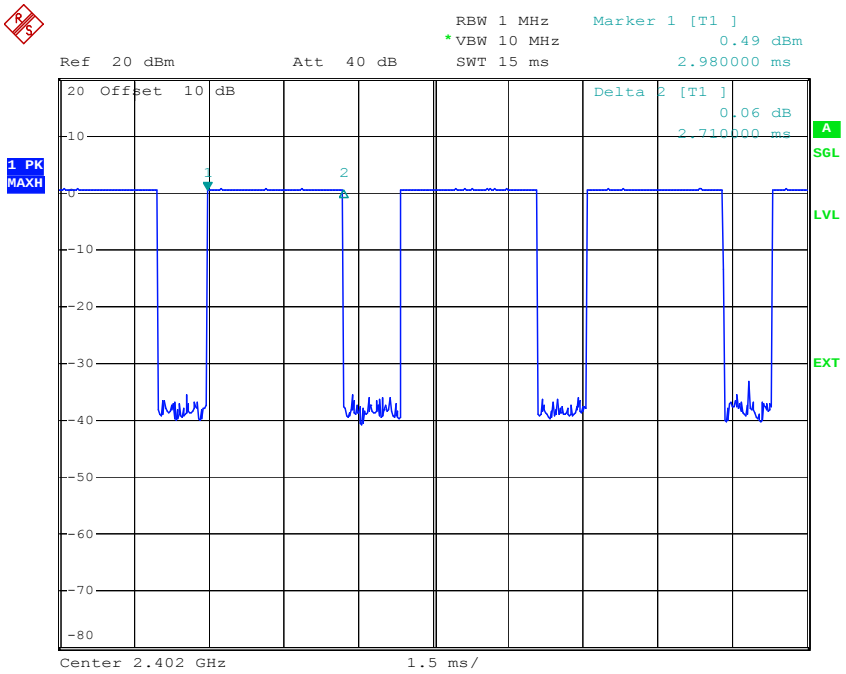
Comment A:
Date: 24.JAN.2019 12:50:36

DH3 High channel



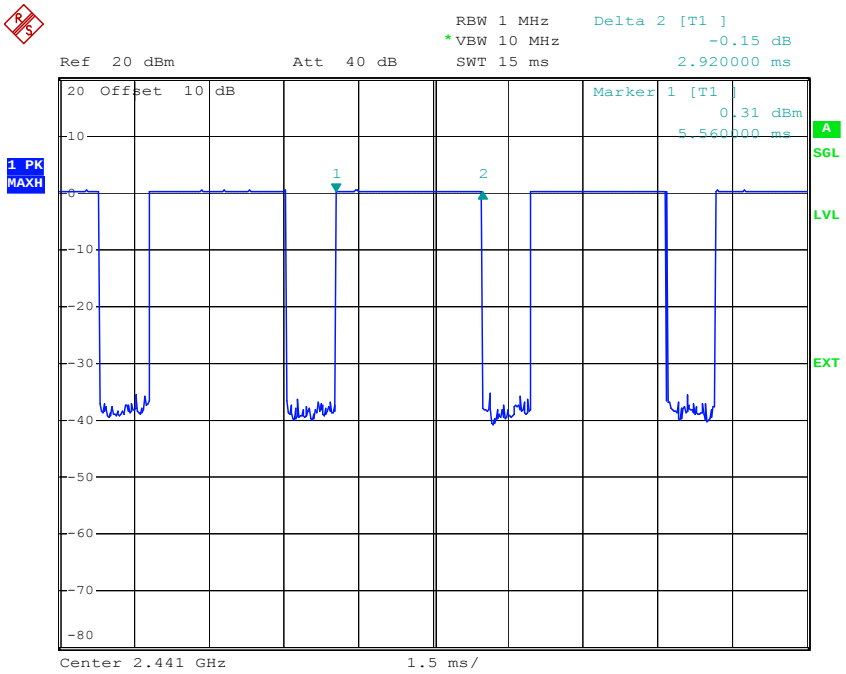
Comment A:
Date: 24.JAN.2019 12:52:18

DH5 Low channel



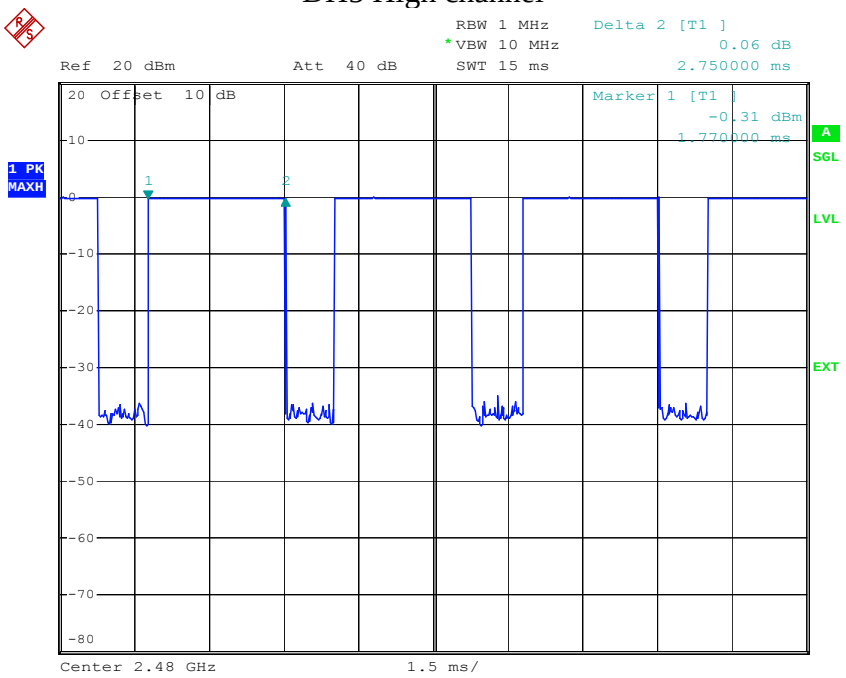
Comment A:
Date: 24.JAN.2019 12:49:15

DH5 Middle channel



Comment A:
Date: 24.JAN.2019 12:50:08

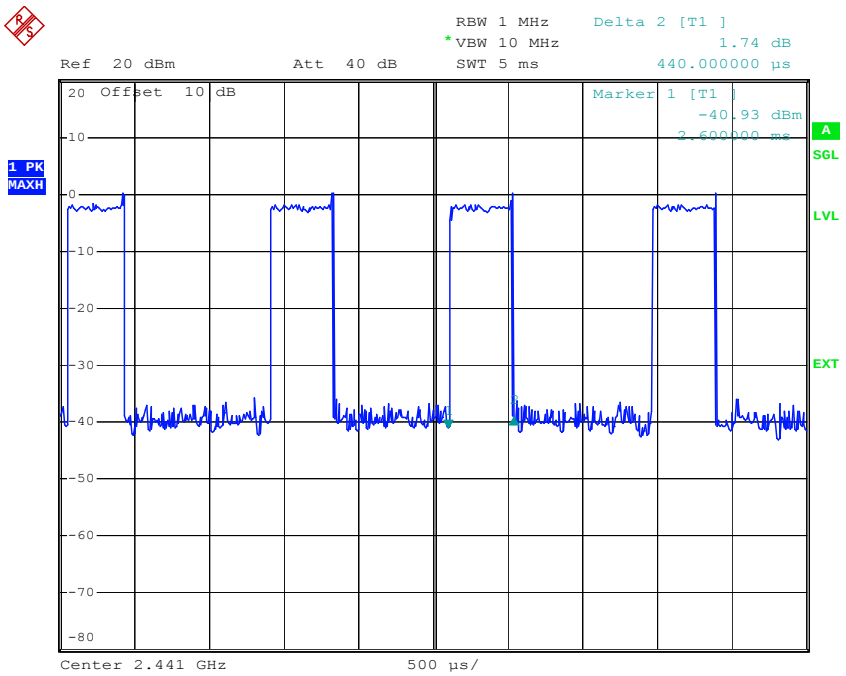
DH5 High channel



Comment A:
Date: 24.JAN.2019 12:52:40

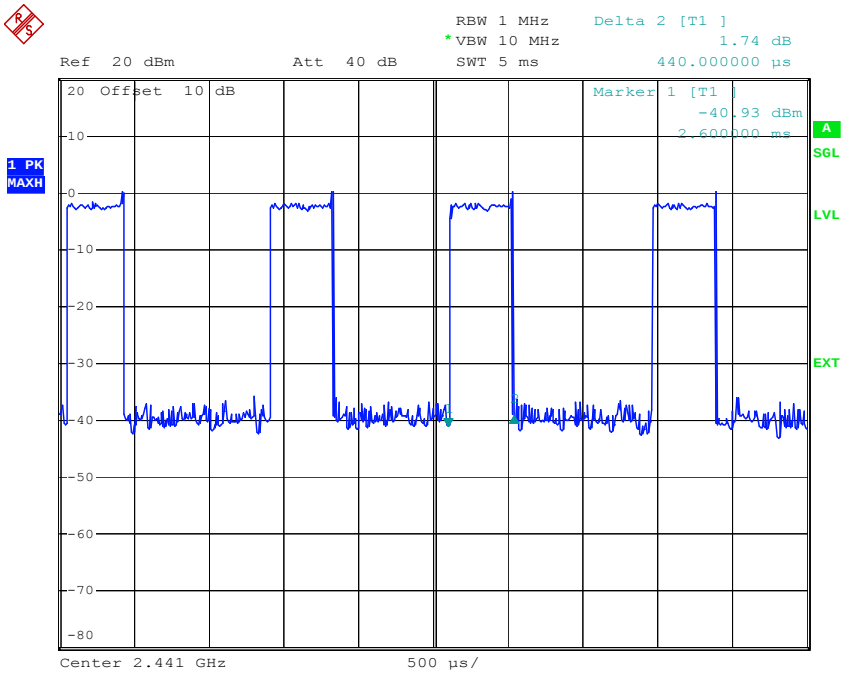
π /4 DQPSK Mode

2DH1 Low channel



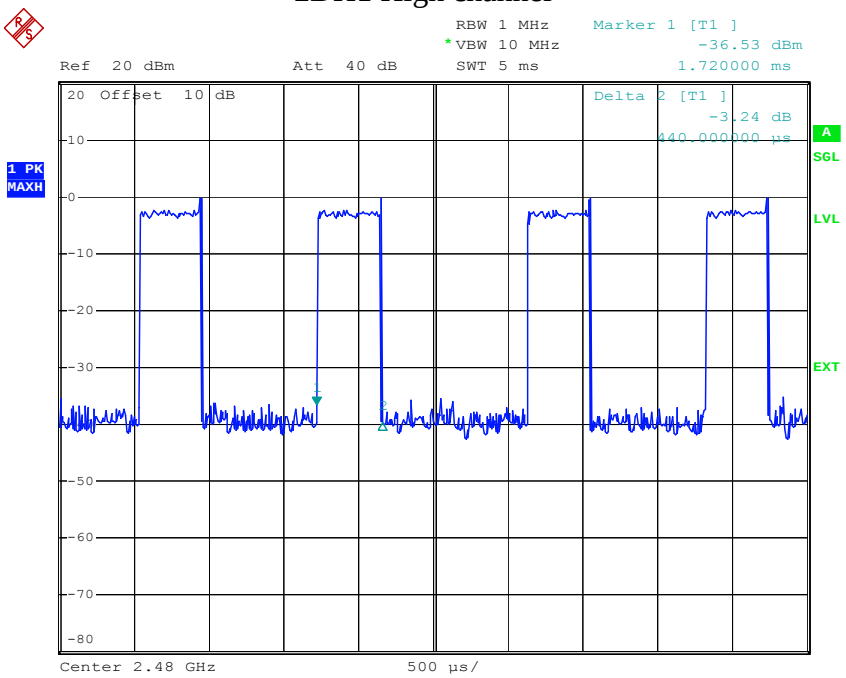
Comment A:
Date: 24.JAN.2019 12:55:47

2DH1 Middle channel



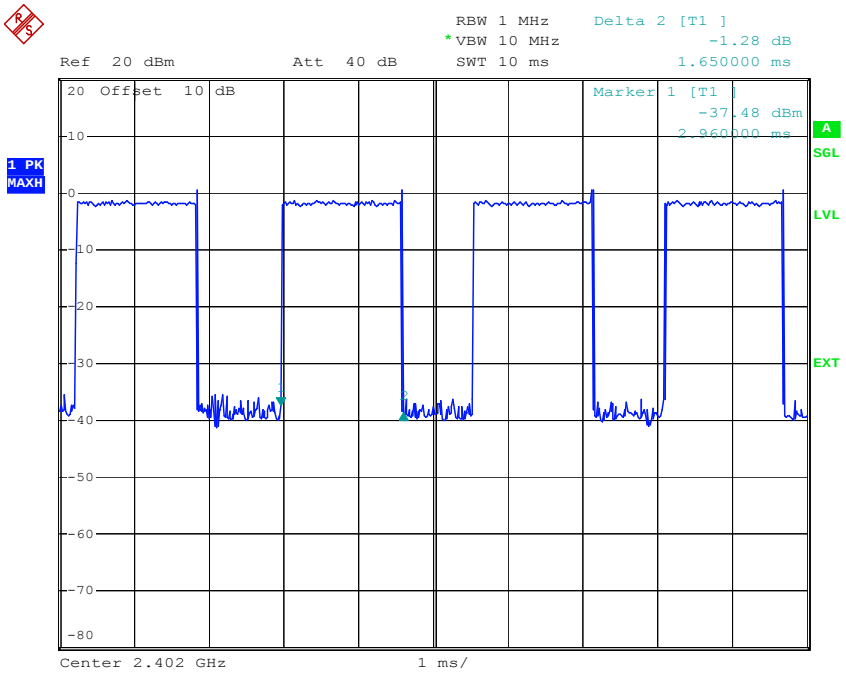
Comment A:
Date: 24.JAN.2019 12:55:47

2DH1 High channel



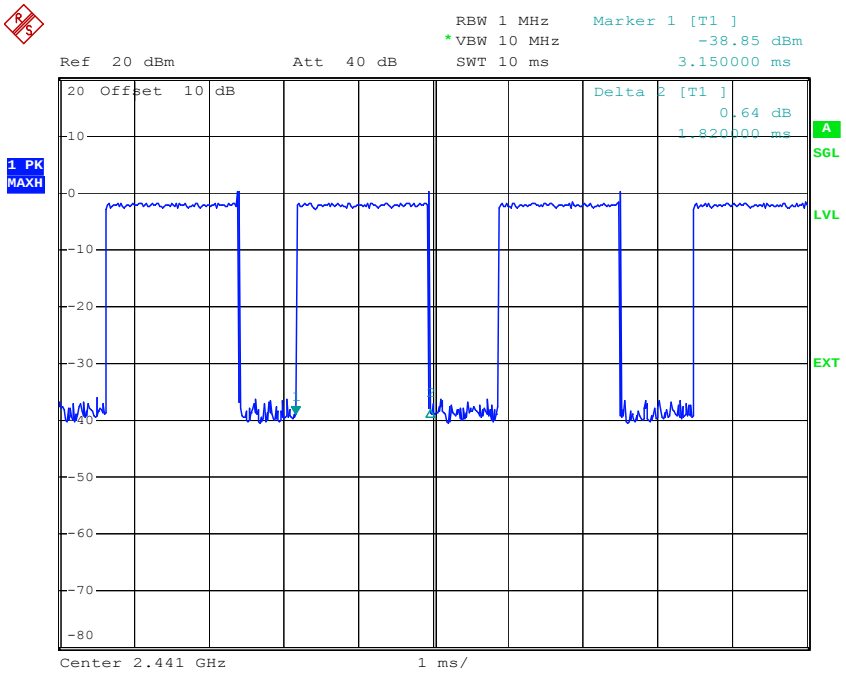
Comment A:
Date: 24.JAN.2019 12:53:26

2DH3 Low channel



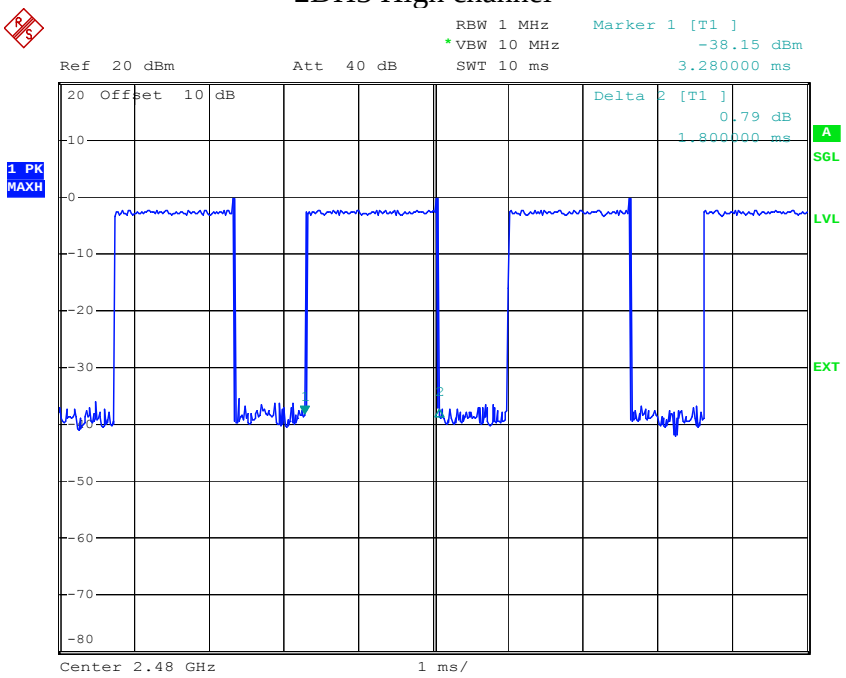
Comment A:
Date: 24.JAN.2019 12:56:51

2DH3 Middle channel



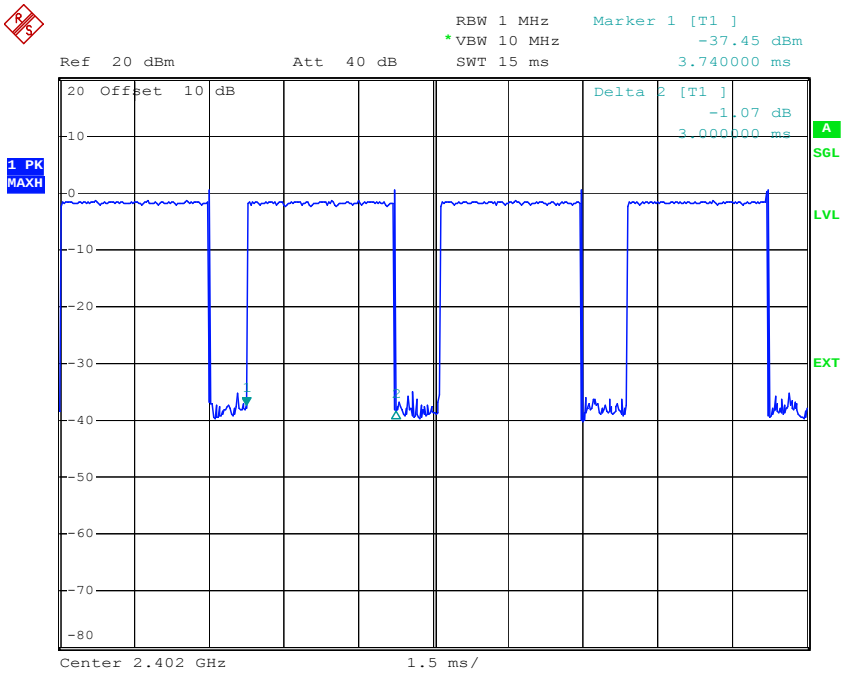
Comment A:
Date: 24.JAN.2019 12:55:14

2DH3 High channel



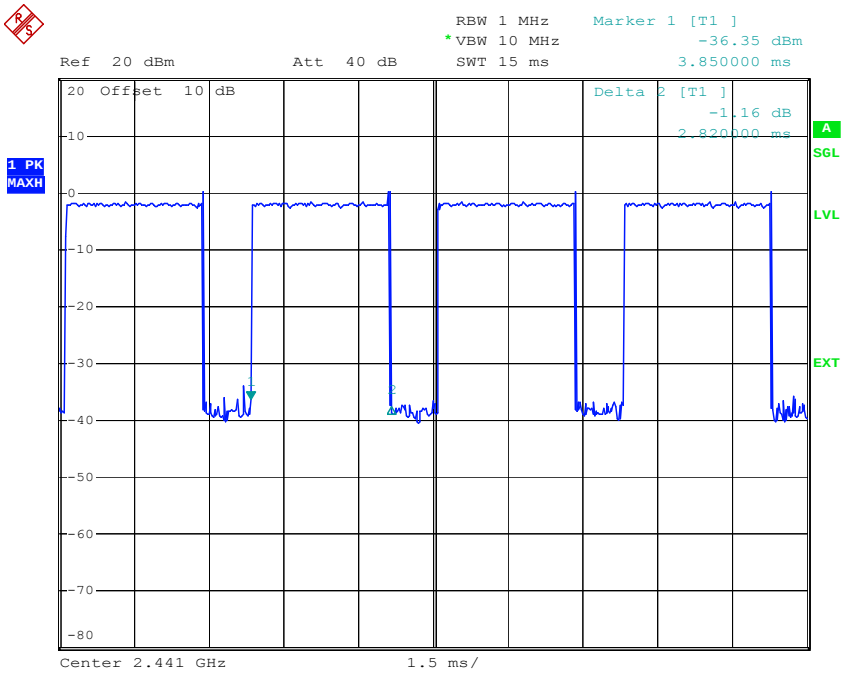
Comment A:
Date: 24.JAN.2019 12:53:56

2DH5 Low channel



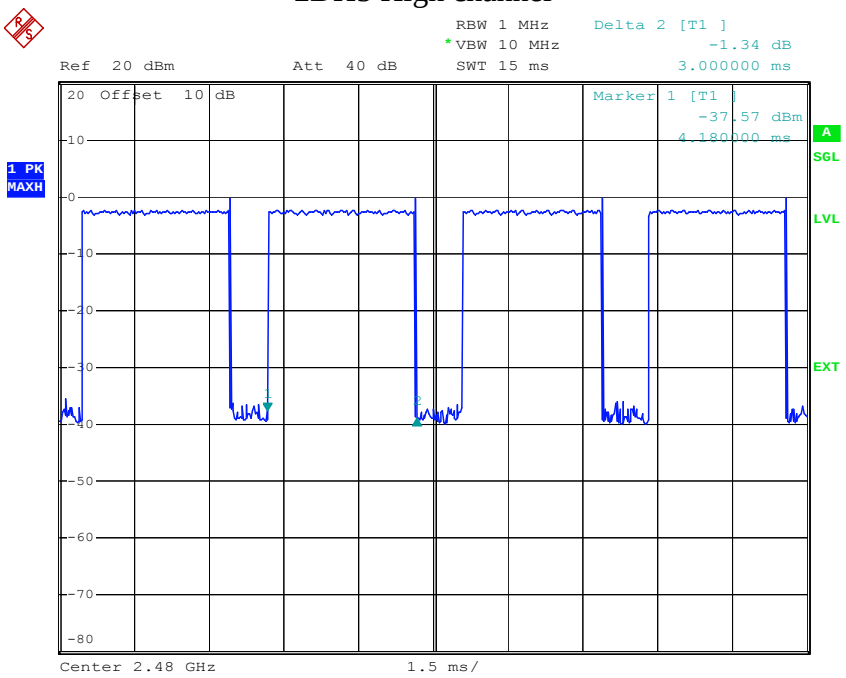
Comment A:
Date: 24.JAN.2019 12:57:22

2DH5 Middle channel



Comment A:
Date: 24.JAN.2019 12:54:46

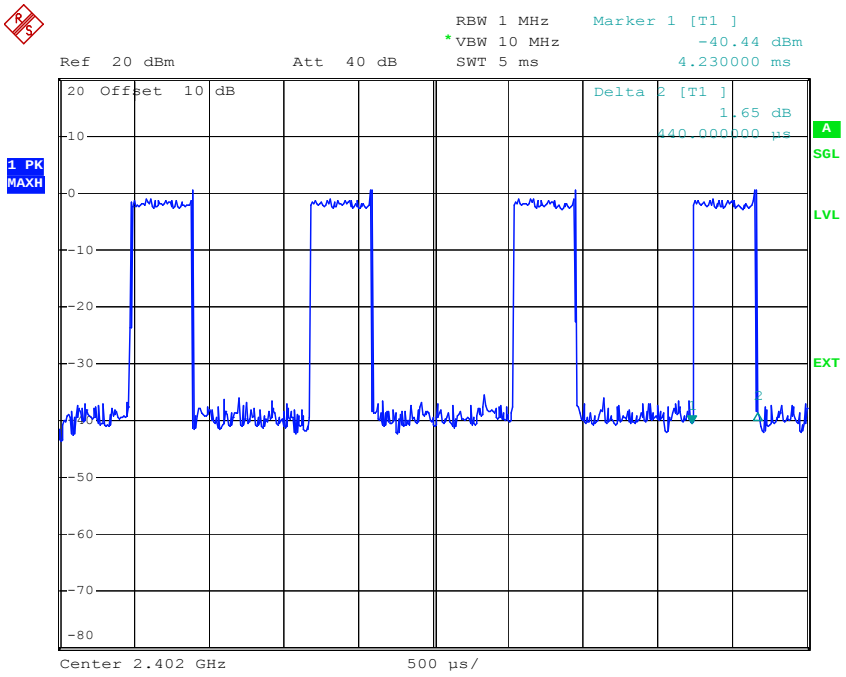
2DH5 High channel



Comment A:
Date: 24.JAN.2019 12:54:21

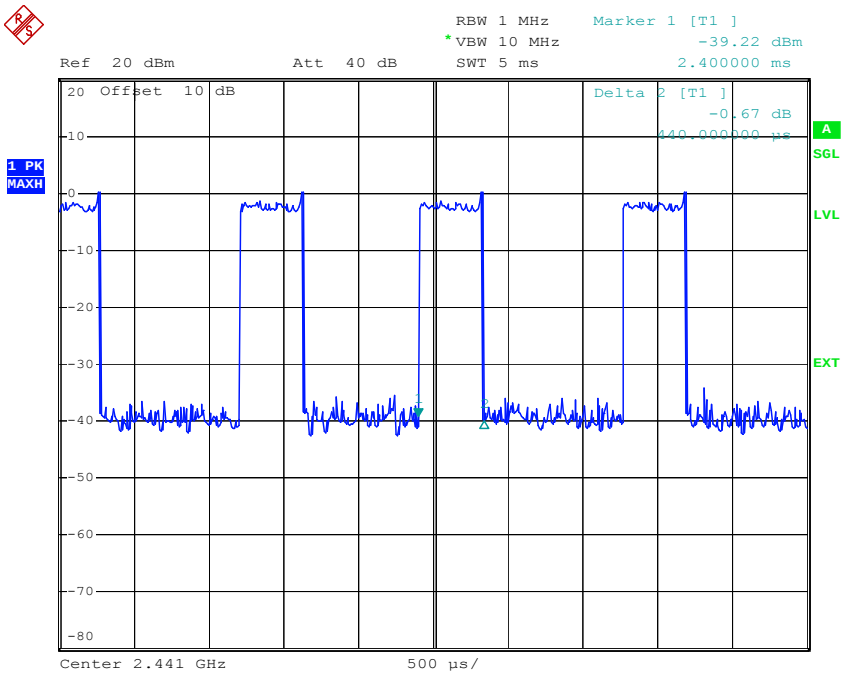
8DPSK Mode

3DH1 Low channel



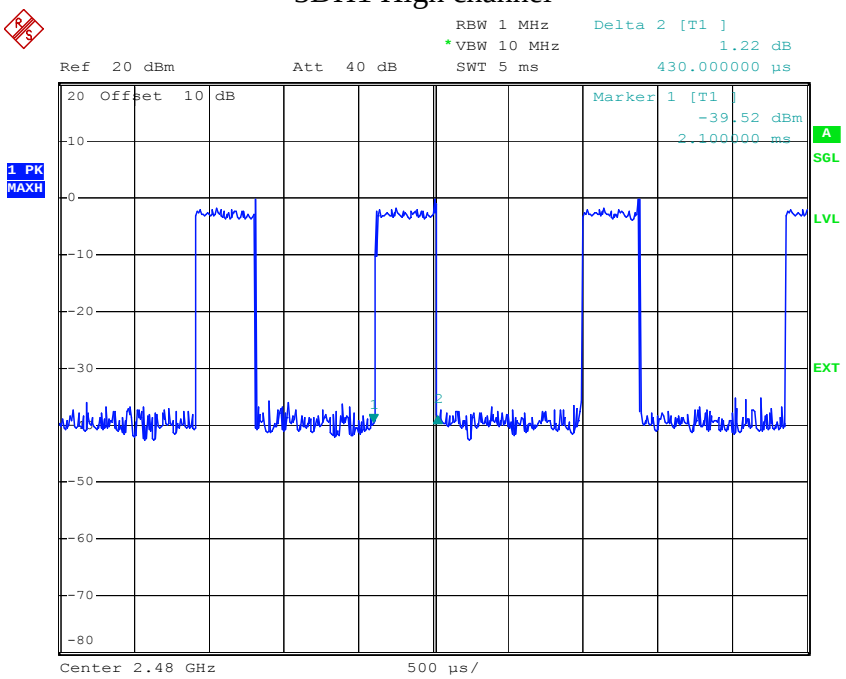
Comment A:
Date: 24.JAN.2019 12:58:00

3DH1 Middle channel



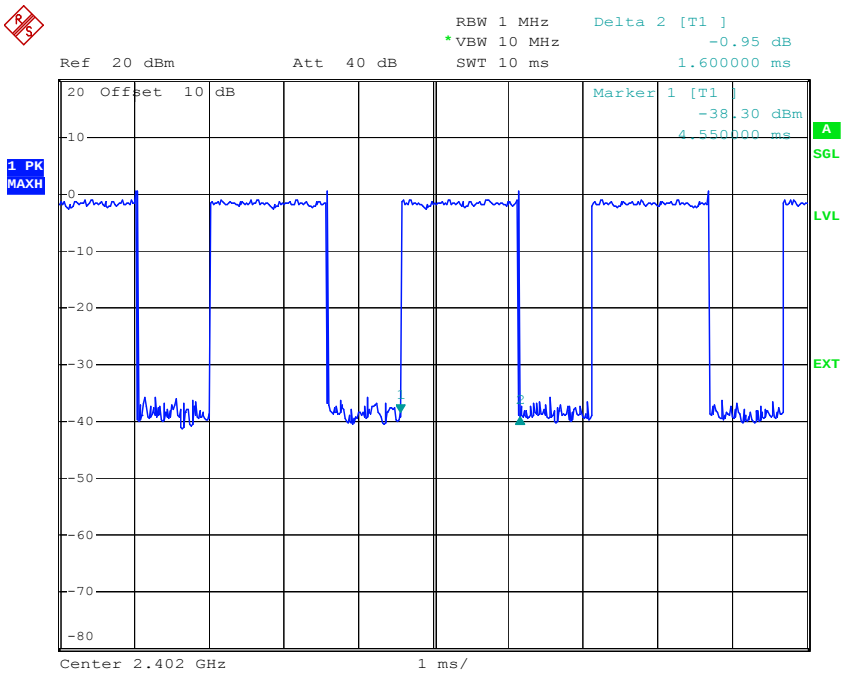
Comment A:
Date: 24.JAN.2019 13:00:54

3DH1 High channel



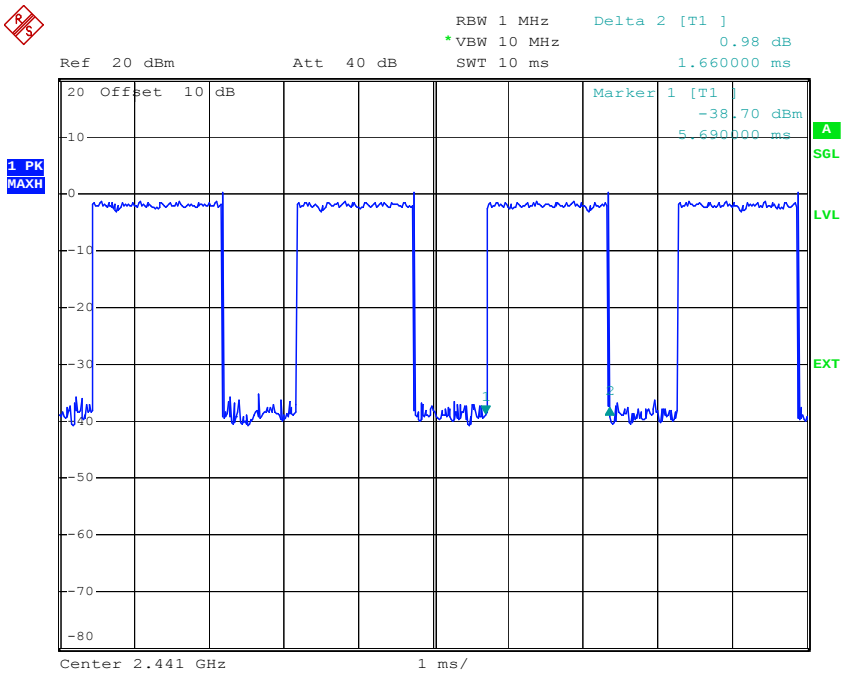
Comment A:
Date: 24.JAN.2019 13:01:25

3DH3 Low channel



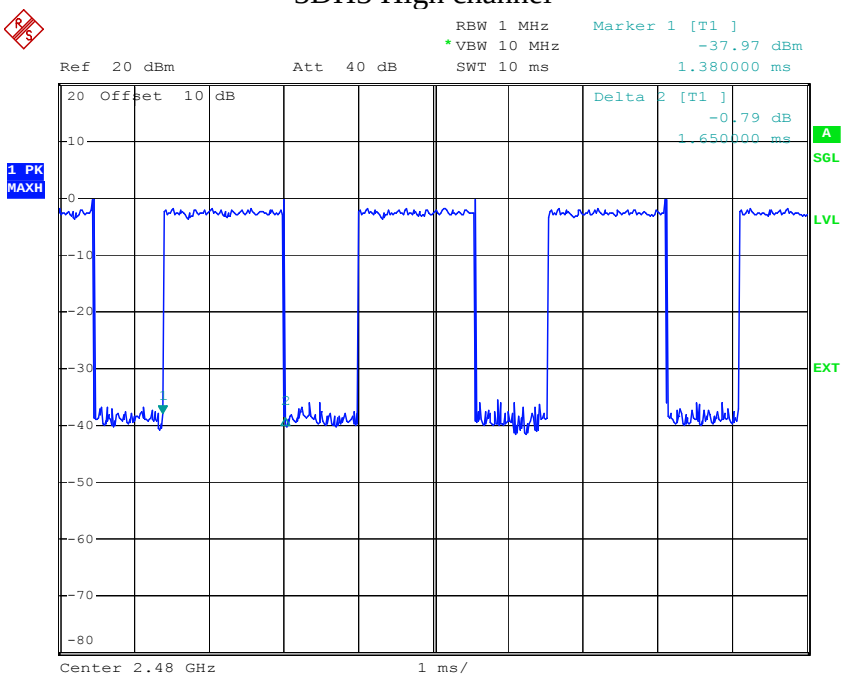
Comment A:
Date: 24.JAN.2019 12:58:30

3DH3 Middle channel



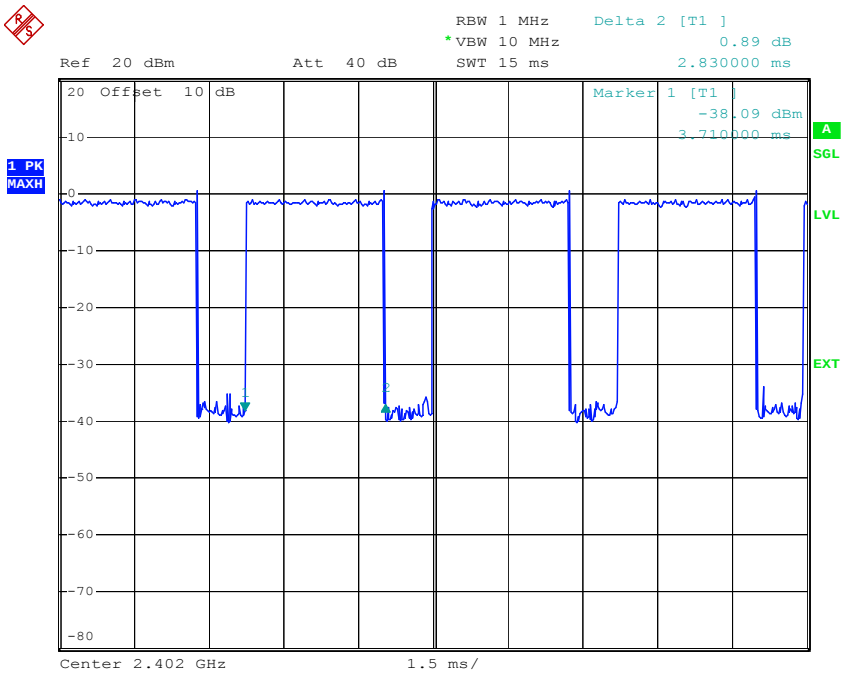
Comment A:
Date: 24.JAN.2019 13:00:22

3DH3 High channel



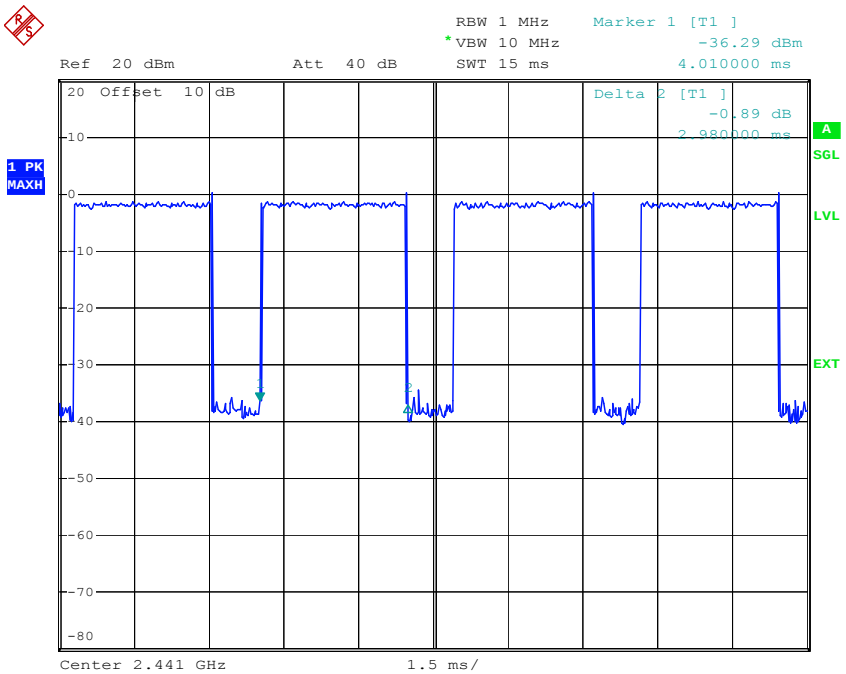
Comment A:
Date: 24.JAN.2019 13:01:51

3DH5 Low channel



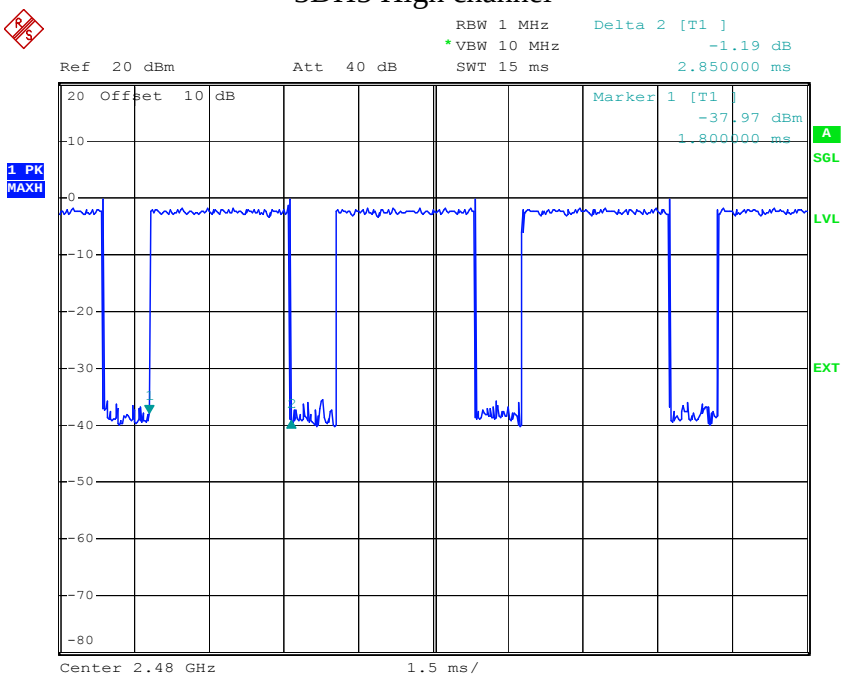
Comment A:
Date: 24.JAN.2019 12:59:17

3DH5 Middle channel



Comment A:
Date: 24.JAN.2019 12:59:54

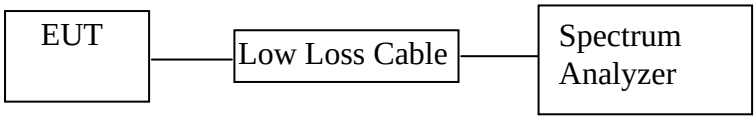
3DH5 High channel



Comment A:
Date: 24.JAN.2019 13:02:15

10.MAXIMUM PEAK OUTPUT POWER TEST

10.1.Block Diagram of Test Setup



(EUT: Massage Chair)

10.2.The Requirement For Section 15.247(b)(1)

Section 15.247(b)(1): For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts.

10.3.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.

10.4.Operating Condition of EUT

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

10.4.2.Turn on the power of all equipment.

10.4.3.Let the EUT work in TX (Hopping off) modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2441MHz, and 2480MHz TX frequency to transmit.

10.5.Test Procedure

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

10.5.2.Set RBW of spectrum analyzer to 3MHz and VBW to 10MHz for GFSK mode

10.5.3.Set RBW of spectrum analyzer to 3MHz and VBW to 10MHz for π /4 DQPSK mode.

10.5.4.Measurement the maximum peak output power.

10.6.Test Result

GFSK Mode

Frequency (MHz)	Maximum peak conducted output power (dBm)	Maximum peak conducted output power (W)	Limits dBm / W
2402	0.89	0.0012	21 / 0.125
2441	0.58	0.0011	21 / 0.125
2480	0.09	0.0010	21 / 0.125

π /4 DQPSK Mode

Frequency (MHz)	Maximum peak conducted output power (dBm)	Maximum peak conducted output power (W)	Limits dBm / W
2402	0.82	0.0012	21 / 0.125
2441	0.55	0.0011	21 / 0.125
2480	0.06	0.0010	21 / 0.125

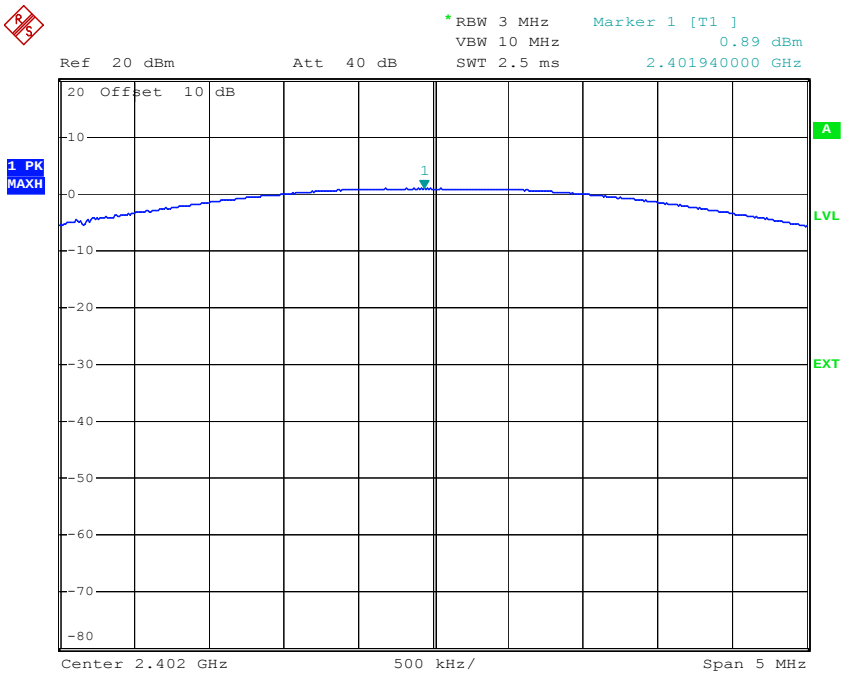
8DPSK Mode

Frequency (MHz)	Maximum peak conducted output power (dBm)	Maximum peak conducted output power (W)	Limits dBm / W
2402	0.76	0.0012	21 / 0.125
2441	0.58	0.0011	21 / 0.125
2480	0.00	0.0010	21 / 0.125

The spectrum analyzer plots are attached as below.

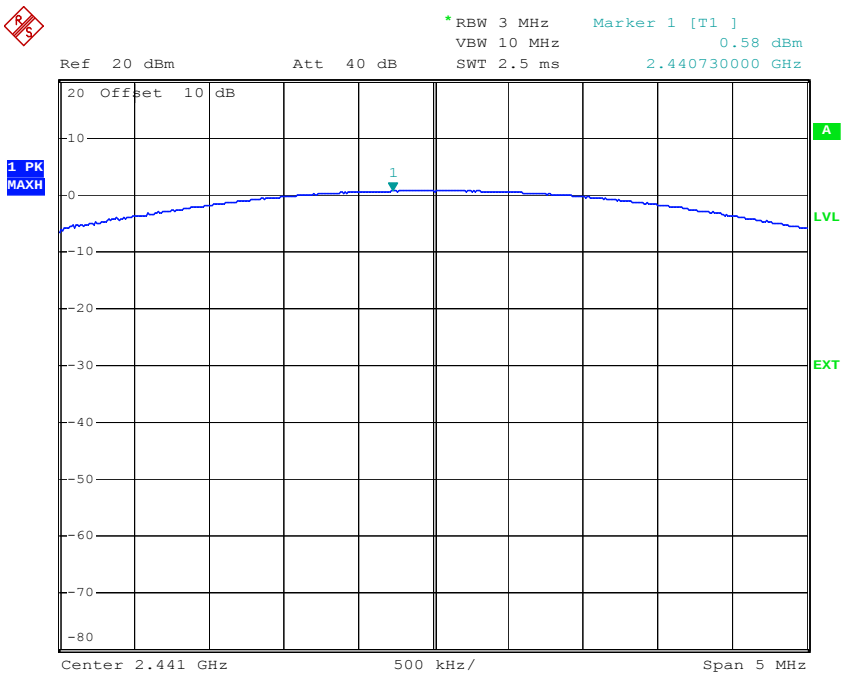
GFSK Mode

Low channel



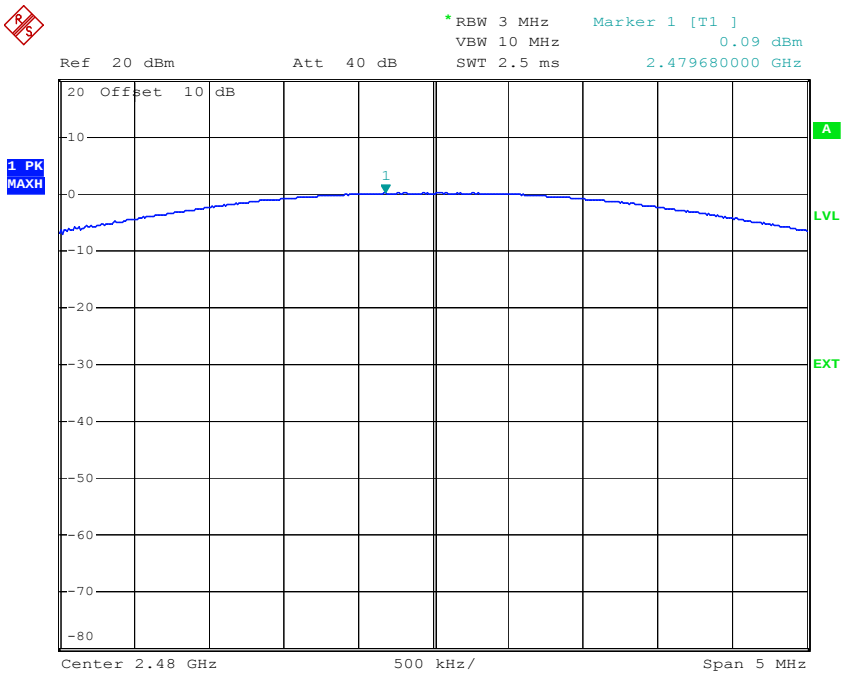
Comment A:
Date: 24.JAN.2019 11:43:03

Middle channel



Comment A:
Date: 24.JAN.2019 11:43:35

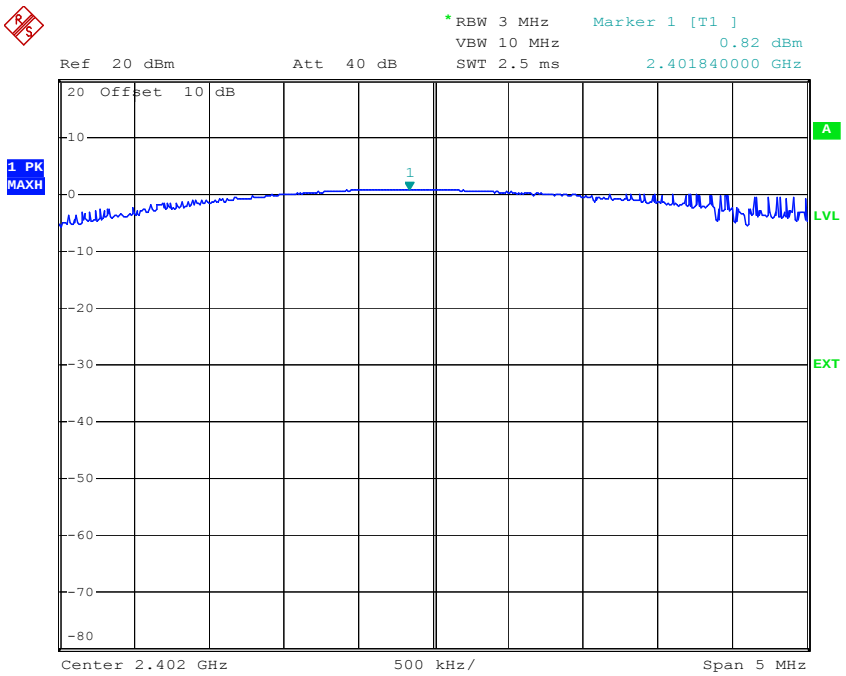
High channel



Comment A:
Date: 24.JAN.2019 11:43:57

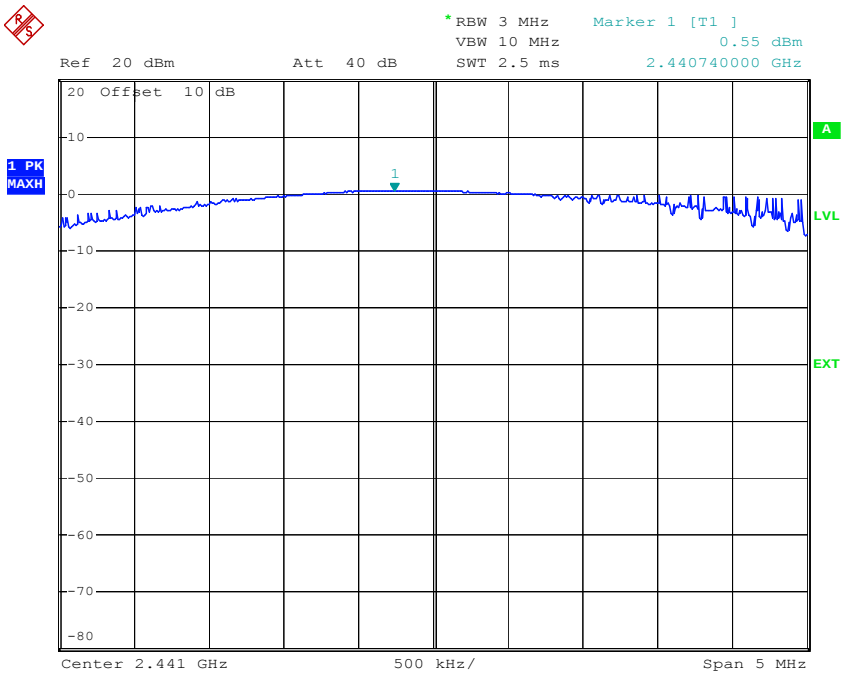
π /4 DQPSK Mode

Low channel



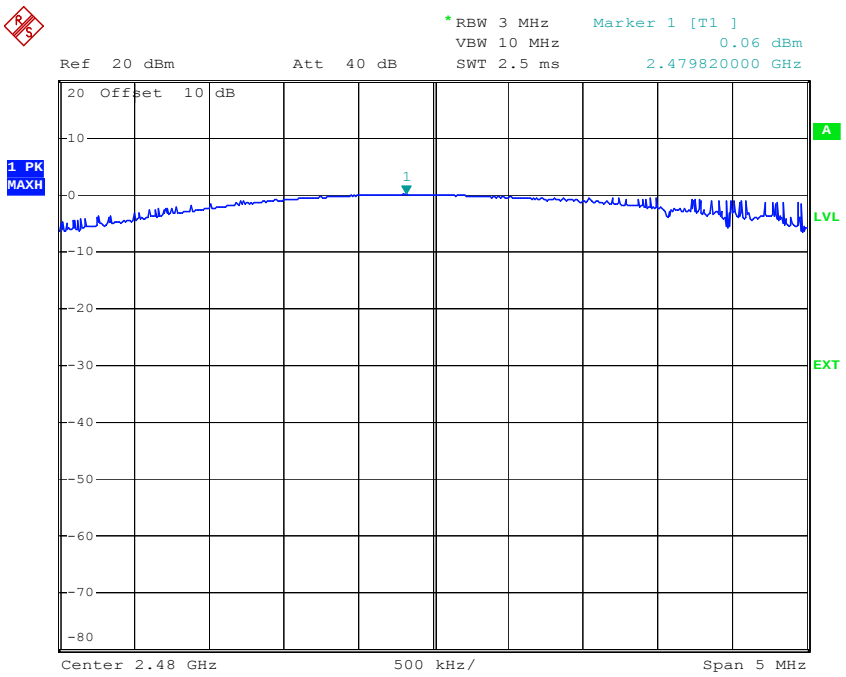
Comment A:
Date: 24.JAN.2019 11:46:07

Middle channel



Comment A:
Date: 24.JAN.2019 11:45:21

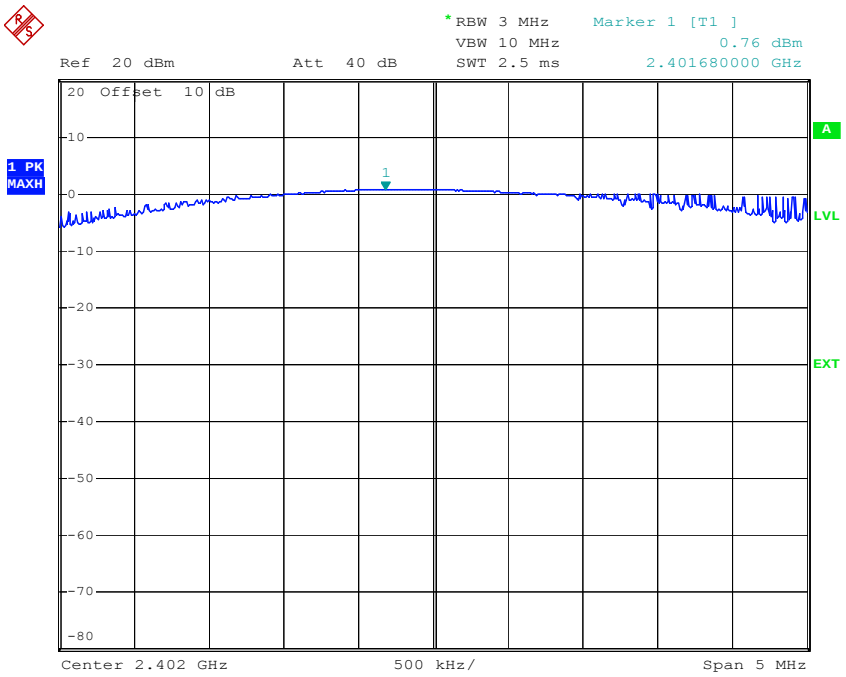
High channel



Comment A:
Date: 24.JAN.2019 11:44:45

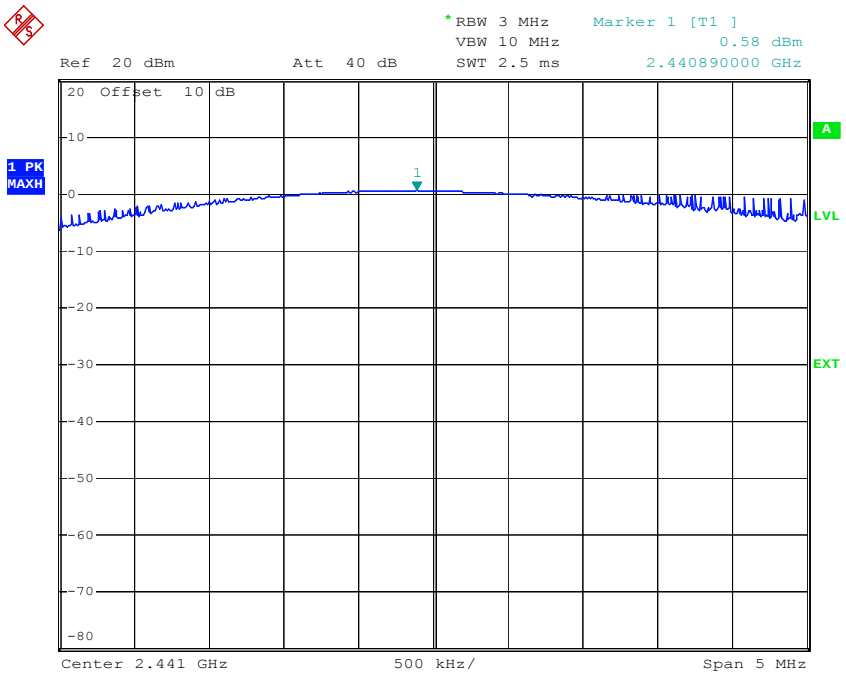
8DPSK Mode

Low channel



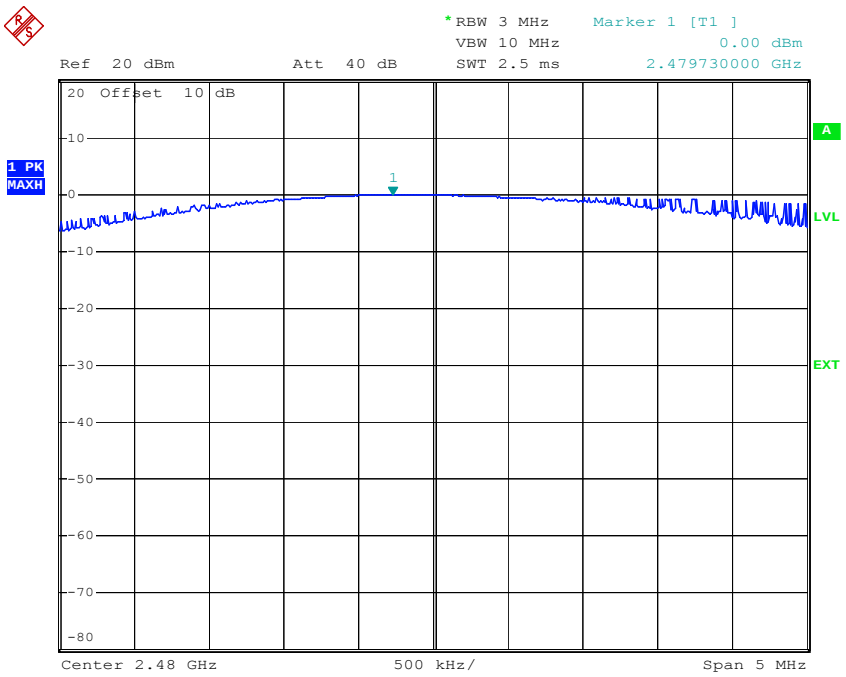
Comment A:
Date: 24.JAN.2019 11:46:50

Middle channel



Comment A:
Date: 24.JAN.2019 11:47:34

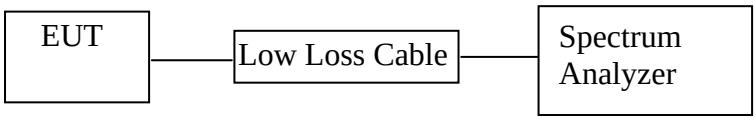
High channel



Comment A:
Date: 24.JAN.2019 11:48:31

11.BAND EDGE COMPLIANCE TEST

11.1.Block Diagram of Test Setup



(EUT: Massage Chair)

11.2.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).

11.3.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.

11.4.Operating Condition of EUT

11.4.1.Setup the EUT and simulator as shown as Section 11.1.

11.4.2.Turn on the power of all equipment.

11.4.3.Let the EUT work in TX (Hopping off, Hopping on) modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2480MHz TX frequency to transmit.

11.5.Test Procedure

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

11.5.2.Set RBW of spectrum analyzer to 100 kHz and VBW to 300 kHz with convenient frequency span including 100 kHz bandwidth from band edge.

11.5.3.The band edges was measured and recorded.

11.6.Test Result

Non-hopping mode

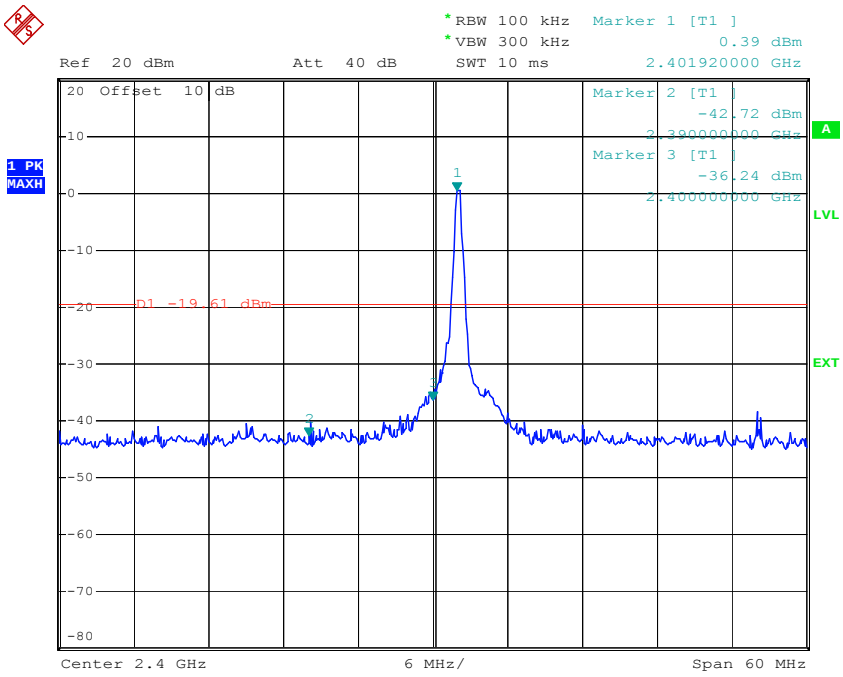
Frequency (MHz)	Result of Band Edge (dBc)	Limit of Band Edge (dBc)
GFSK mode		
2400.00	36.63	> 20dBc
2483.50	39.33	> 20dBc
π /4 DQPSK		
2400.00	32.60	> 20dBc
2483.5	35.31	> 20dBc
8DPSK mode		
2400.00	30.06	> 20dBc
2483.5	33.35	> 20dBc

The spectrum analyzer plots are attached as below.

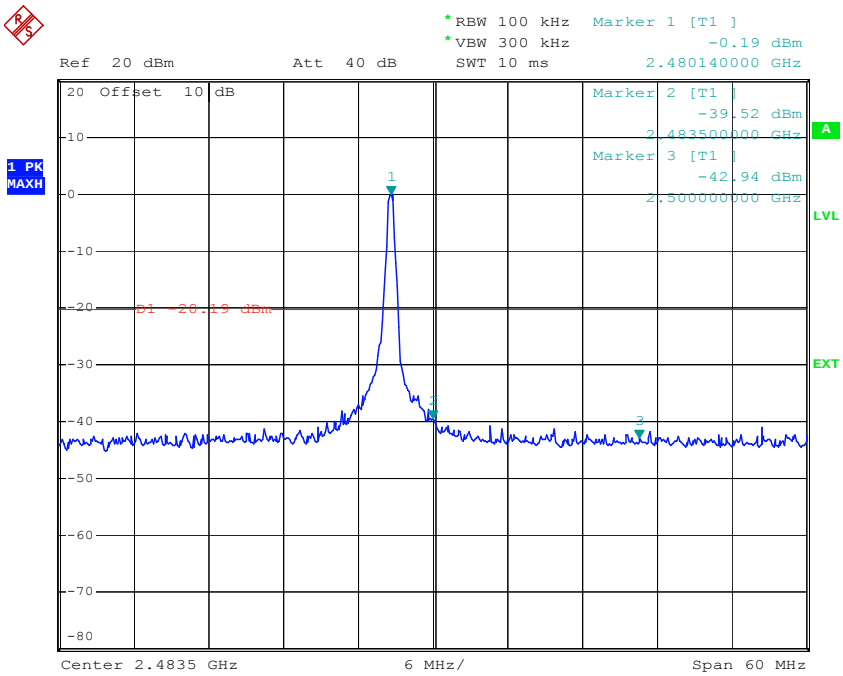
Note:Non-hopping and hopping mode all have been tested， only worse case non-hopping mode is reported

Non-hopping mode

GFSK mode

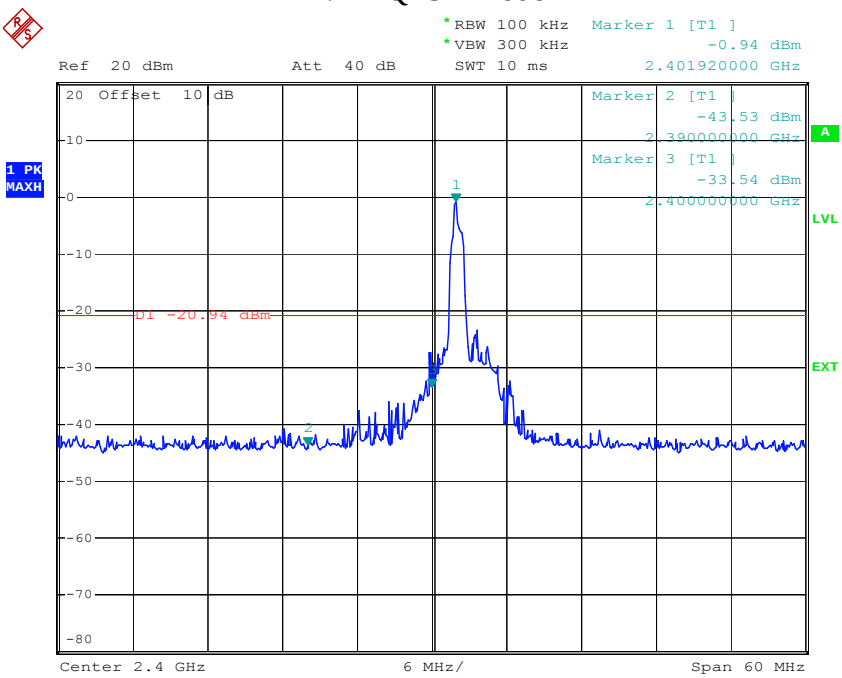


Comment A:
Date: 24.JAN.2019 12:07:39

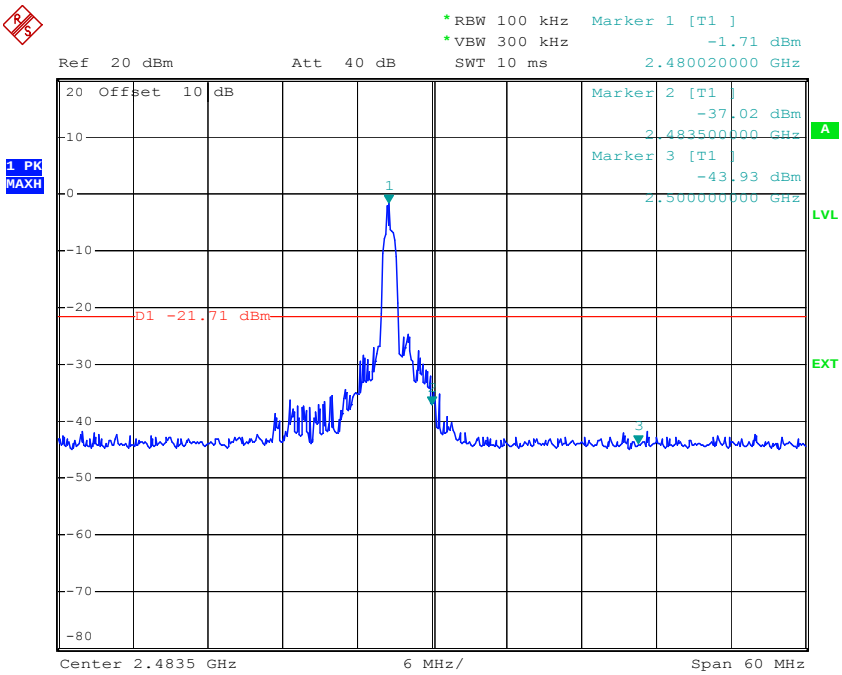


Comment A:
Date: 24.JAN.2019 12:04:25

π /4 DQPSK mode

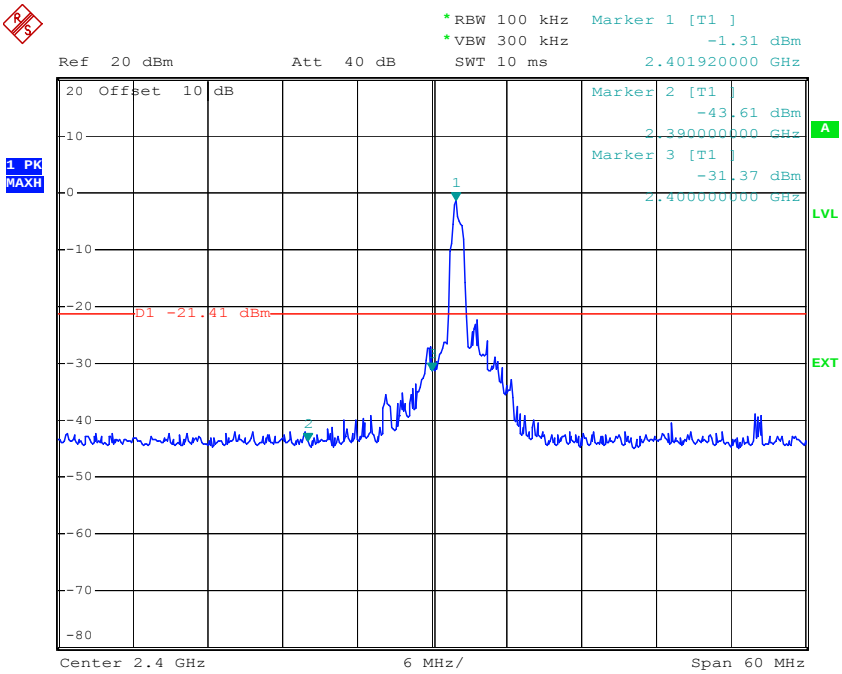


Comment A:
Date: 24.JAN.2019 12:07:02

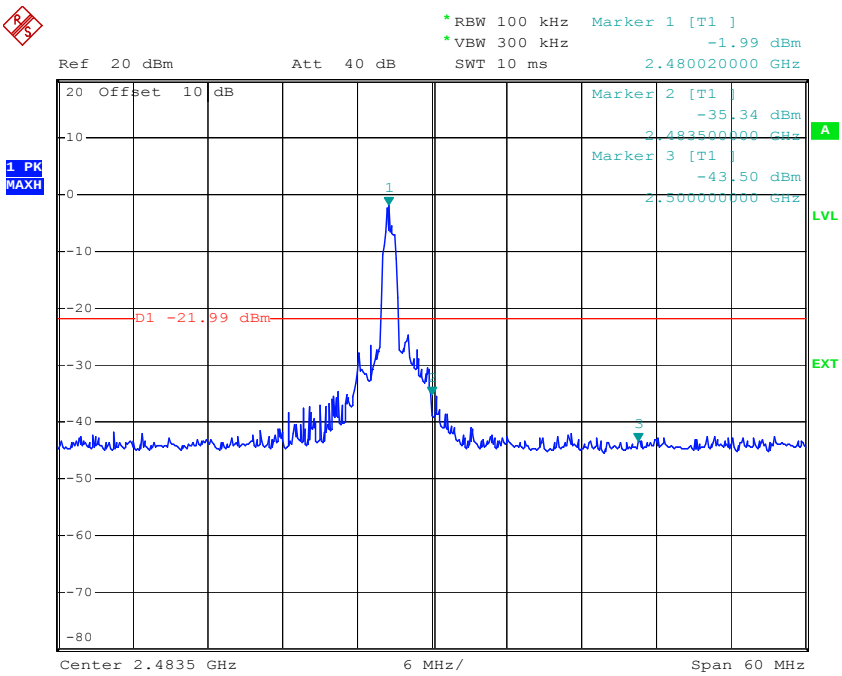


Comment A:
Date: 24.JAN.2019 12:05:12

8DPSK mode



Comment A:
Date: 24.JAN.2019 12:06:21



Comment A:
Date: 24.JAN.2019 12:05:44

Radiated Band Edge Result

Note:

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

   Result = Reading + Corrected Factor
3. Display the measurement of peak values.

Test Procedure:

The EUT and its simulators are placed on a turntable, which is 0.1 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. This EUT was tested in 3 orthogonal positions and the worst case position data was reported.

Let the EUT work in TX (Hopping off, Hopping on) modes measure it.
We select 2402MHz, 2480MHz TX frequency to transmit(Hopping off mode).
We select 2402-2480MHz TX frequency to transmit(Hopping on mode).

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

Non-hopping mode

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
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Site: 1# Chamber
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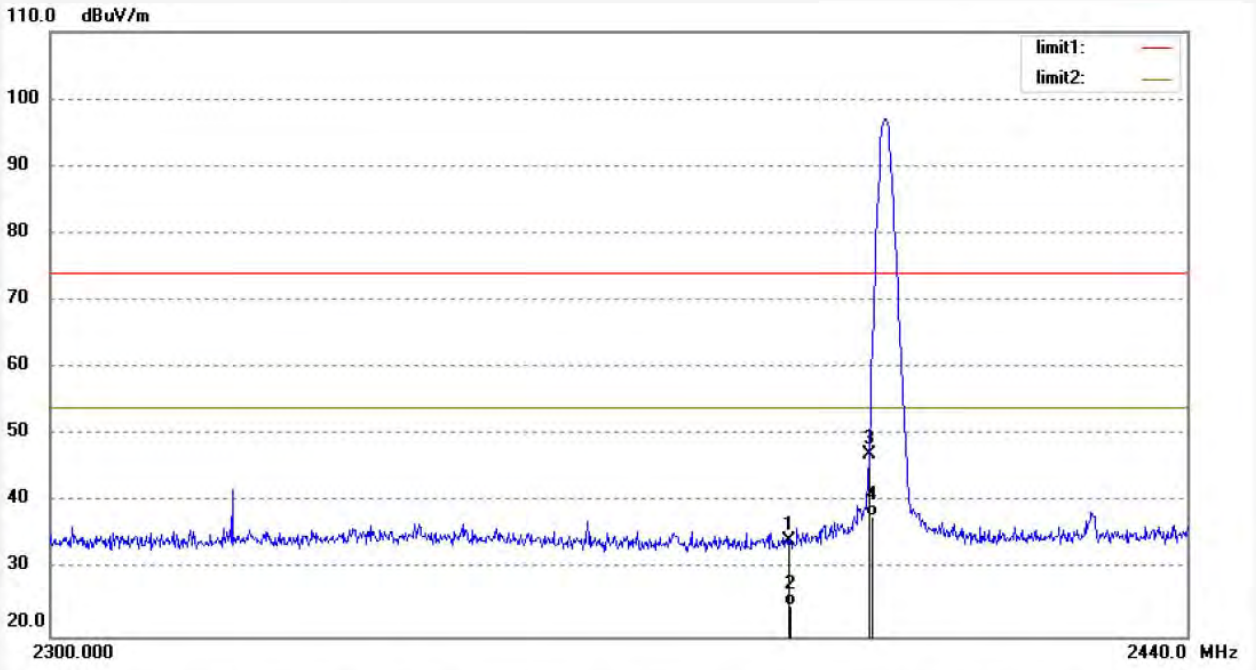
Fax:+86-0755-26503396

Job No.: FRANK2018A #683
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Massage Chair
Mode: TX 2402MHz(GFSK)
Model: EC-626F
Manufacturer: XIAMEN HEALTHCARE ELECTRONIC CO.,LTD

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 19/01/03/
Time: 11/40/24
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20182041



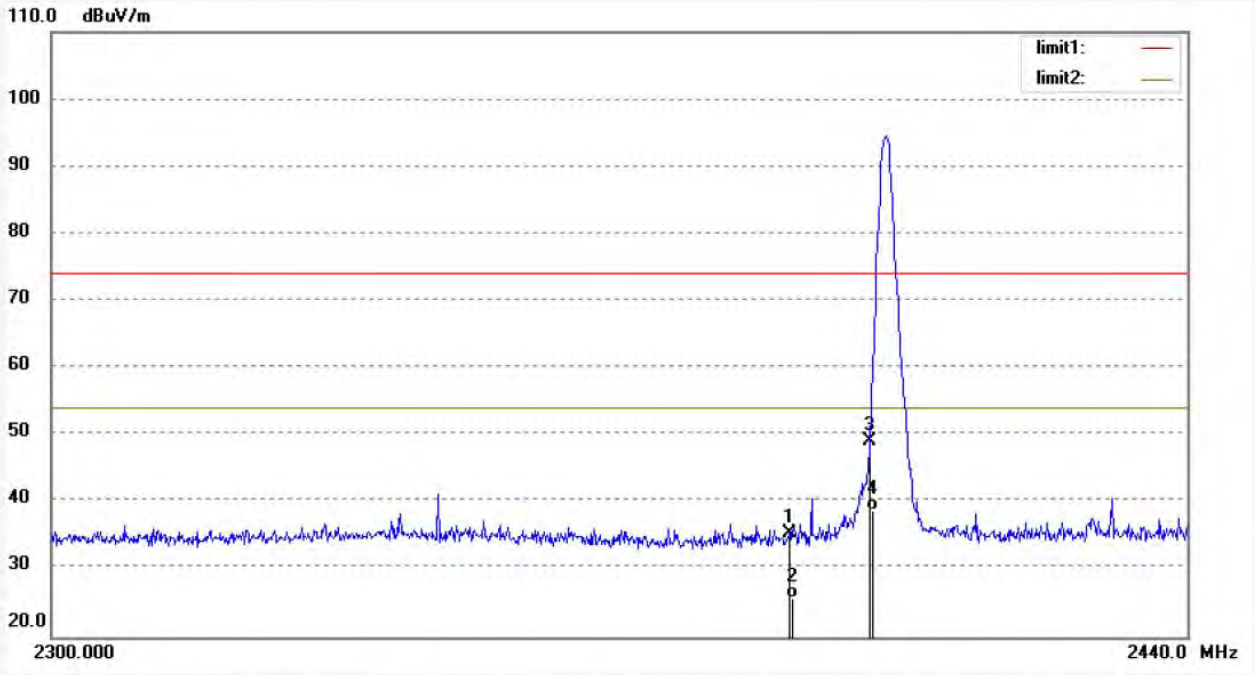
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	40.57	-6.32	34.25	74.00	-39.75	peak	200	146	
2	2390.000	31.00	-6.32	24.68	54.00	-29.32	AVG	200	69	
3	2400.000	53.35	-6.27	47.08	74.00	-26.92	peak	200	218	
4	2400.000	44.11	-6.27	37.84	54.00	-16.16	AVG	250	103	

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: FRANK2018A #684
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Massage Chair
Mode: TX 2402MHz(GFSK)
Model: EC-626F
Manufacturer: XIAMEN HEALTHCARE ELECTRONIC CO.,LTD

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 19/01/03/
Time: 11/42/15
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20182041



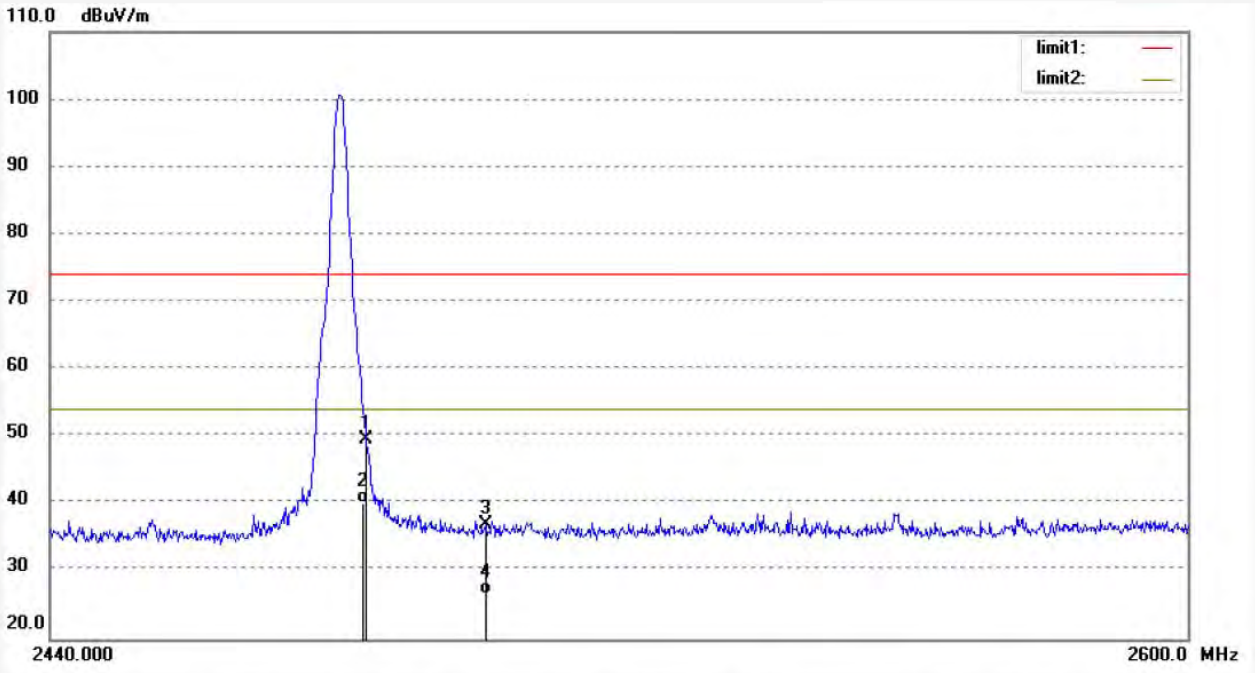
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	41.77	-6.32	35.45	74.00	-38.55	peak	150	69	
2	2390.000	32.12	-6.32	25.80	54.00	-28.20	AVG	150	116	
3	2400.000	55.42	-6.27	49.15	74.00	-24.85	peak	150	103	
4	2400.000	45.14	-6.27	38.87	54.00	-15.13	AVG	150	54	

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: FRANK2018A #694
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Massage Chair
Mode: TX 2480MHz(GFSK)
Model: EC-626F
Manufacturer: XIAMEN HEALTHCARE ELECTRONIC CO.,LTD

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 19/01/03/
Time: 13/51/02
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20182041



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	55.44	-5.89	49.55	74.00	-24.45	peak	200	102	
2	2483.500	46.12	-5.89	40.23	54.00	-13.77	AVG	200	311	
3	2500.000	42.75	-5.81	36.94	74.00	-37.06	peak	200	201	
4	2500.000	32.48	-5.81	26.67	54.00	-27.33	AVG	200	312	

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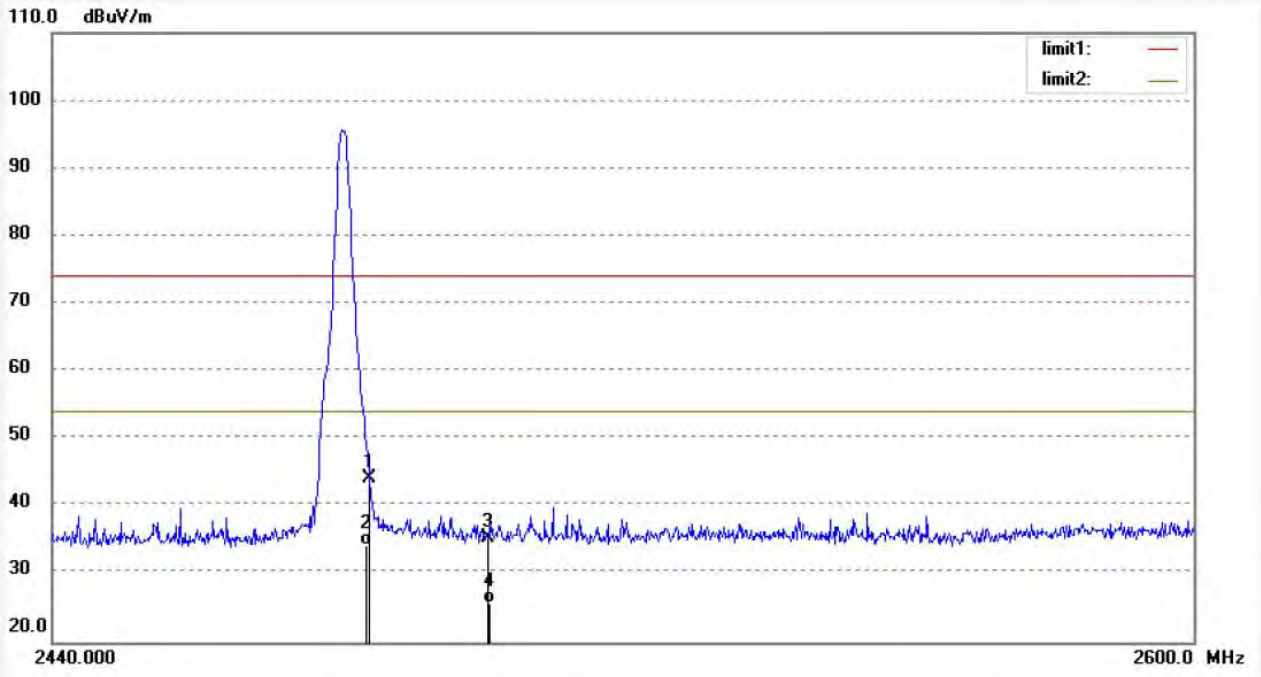
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: FRANK2018A #693	Polarization: Vertical
Standard: FCC PK	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 19/01/03/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 13/49/16
EUT: Massage Chair	Engineer Signature:
Mode: TX 2480MHz(GFSK)	Distance: 3m
Model: EC-626F	
Manufacturer: XIAMEN HEALTHCARE ELECTRONIC CO.,LTD	

Note: Report NO.:ATE20182041



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	50.02	-5.89	44.13	74.00	-29.87	peak	150	302	
2	2483.500	40.12	-5.89	34.23	54.00	-19.77	AVG	150	66	
3	2500.000	41.23	-5.81	35.42	74.00	-38.58	peak	150	211	
4	2500.000	31.45	-5.81	25.64	54.00	-28.36	AVG	150	96	

ACCURATE TECHNOLOGY CO., LTD.
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Site: 1# Chamber
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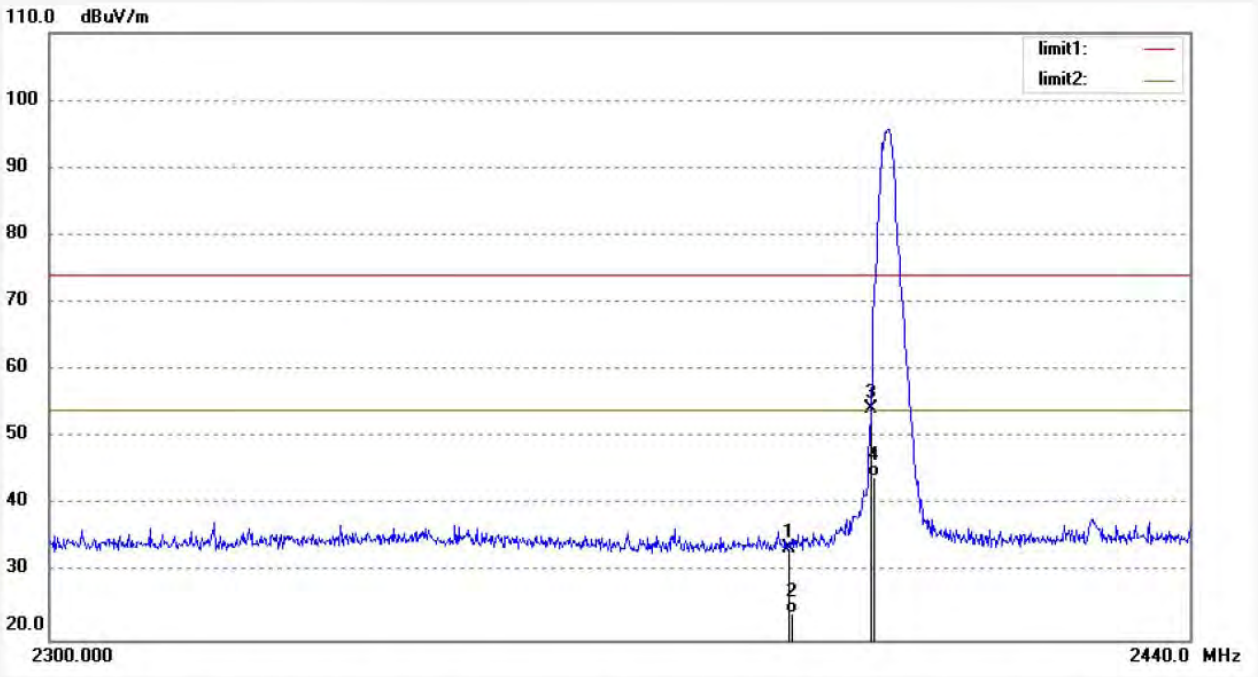
Fax:+86-0755-26503396

Job No.: FRANK2018A #686
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Massage Chair
Mode: TX 2402MHz(π/4 DQPSK)
Model: EC-626F
Manufacturer: XIAMEN HEALTHCARE ELECTRONIC CO.,LTD

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 19/01/03/
Time: 11/45/45
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20182041



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	39.98	-6.32	33.66	74.00	-40.34	peak	200	302	
2	2390.000	30.15	-6.32	23.83	54.00	-30.17	AVG	200	106	
3	2400.000	60.55	-6.27	54.28	74.00	-19.72	peak	200	221	
4	2400.000	50.48	-6.27	44.21	54.00	-9.79	AVG	200	102	

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Site: 1# Chamber
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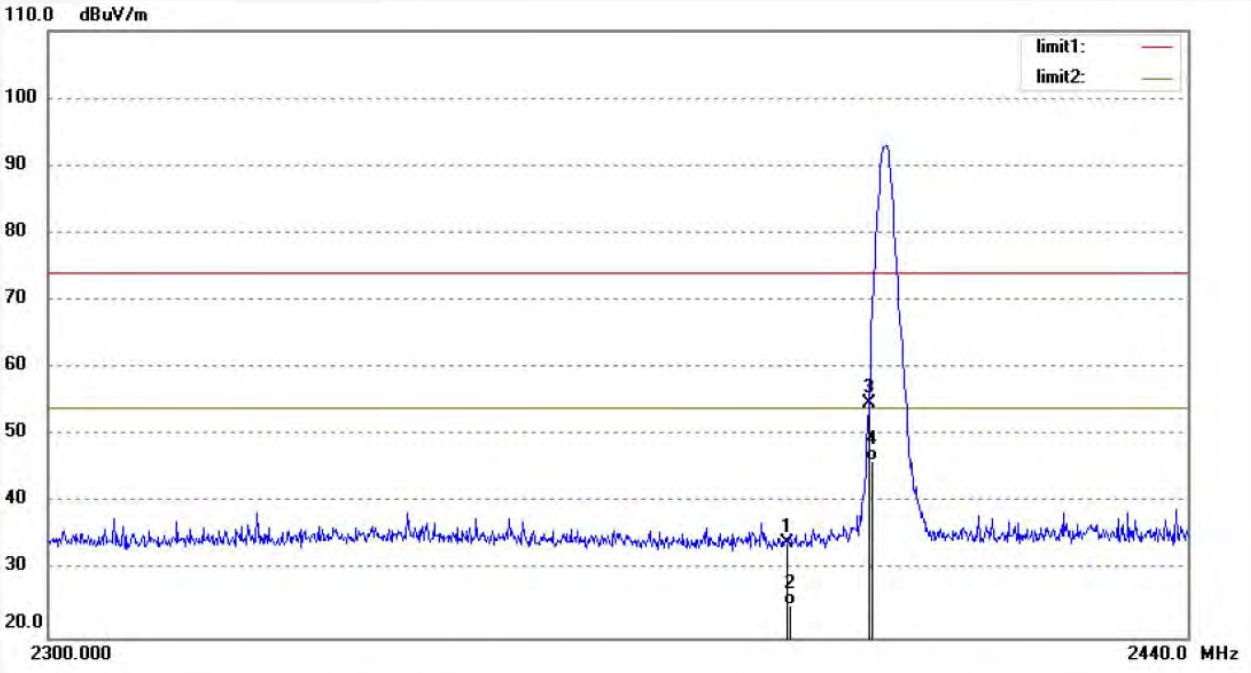
Fax:+86-0755-26503396

Job No.: FRANK2018A #685
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Massage Chair
Mode: TX 2402MHz(π/4 DQPSK)
Model: EC-626F
Manufacturer: XIAMEN HEALTHCARE ELECTRONIC CO.,LTD

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 19/01/03/
Time: 11/44/26
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20182041



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	40.48	-6.32	34.16	74.00	-39.84	peak	150	301	
2	2390.000	31.14	-6.32	24.82	54.00	-29.18	AVG	150	126	
3	2400.000	61.02	-6.27	54.75	74.00	-19.25	peak	150	254	
4	2400.000	52.48	-6.27	46.21	54.00	-7.79	AVG	150	169	

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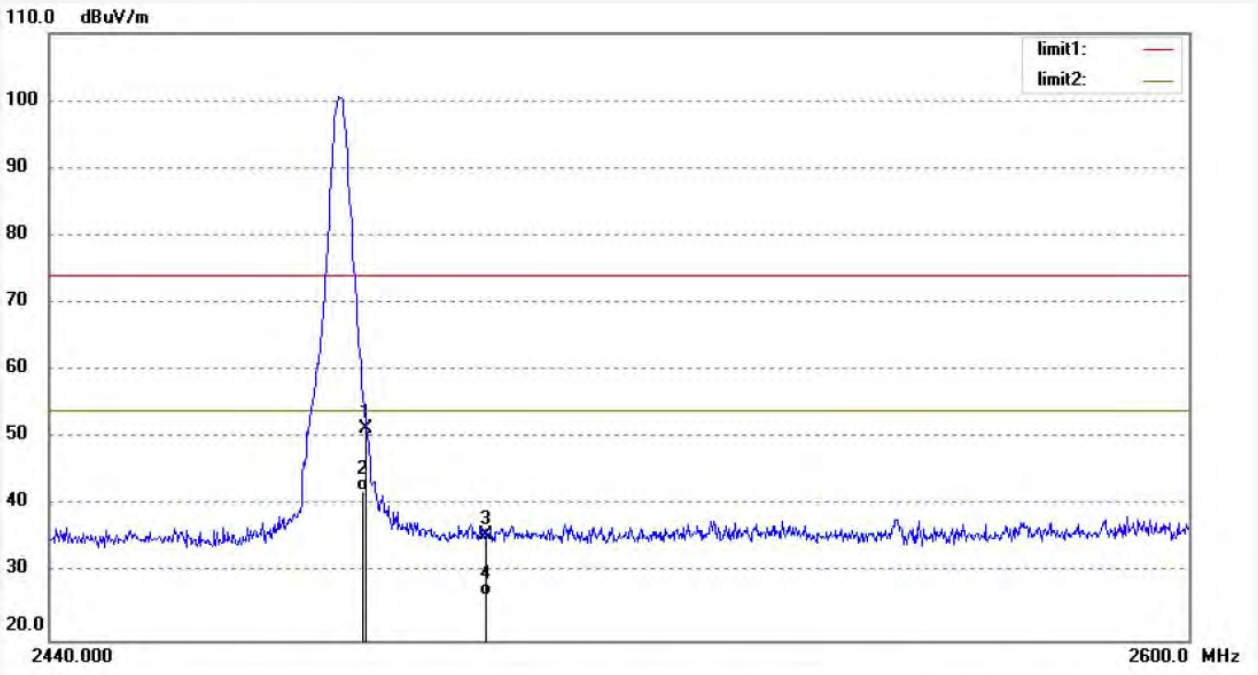
Fax:+86-0755-26503396

Job No.: FRANK2018A #691
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Massage Chair
Mode: TX 2480MHz(π/4 DQPSK)
Model: EC-626F
Manufacturer: XIAMEN HEALTHCARE ELECTRONIC CO.,LTD

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 19/01/03/
Time: 13/45/53
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20182041



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	57.19	-5.89	51.30	74.00	-22.70	peak	200	302	
2	2483.500	48.15	-5.89	42.26	54.00	-11.74	AVG	200	201	
3	2500.000	41.54	-5.81	35.73	74.00	-38.27	peak	200	115	
4	2500.000	32.45	-5.81	26.64	54.00	-27.36	AVG	200	92	

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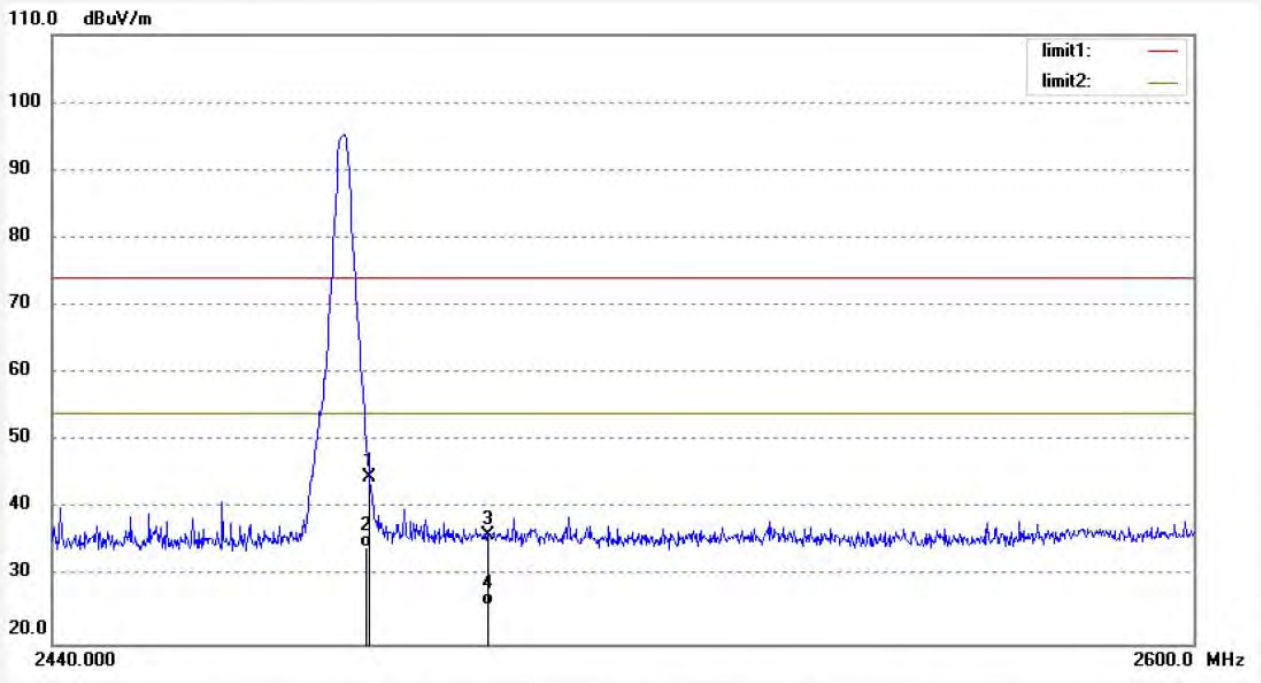
Job No.: FRANK2018A #692
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Massage Chair
Mode: TX 2480MHz(π/4 DQPSK)
Model: EC-626F
Manufacturer: XIAMEN HEALTHCARE ELECTRONIC CO.,LTD

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 19/01/03/
Time: 13/47/13
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20182041



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	50.63	-5.89	44.74	74.00	-29.26	peak	150	96	
2	2483.500	40.12	-5.89	34.23	54.00	-19.77	AVG	150	289	
3	2500.000	41.84	-5.81	36.03	74.00	-37.97	peak	150	115	
4	2500.000	31.45	-5.81	25.64	54.00	-28.36	AVG	150	302	

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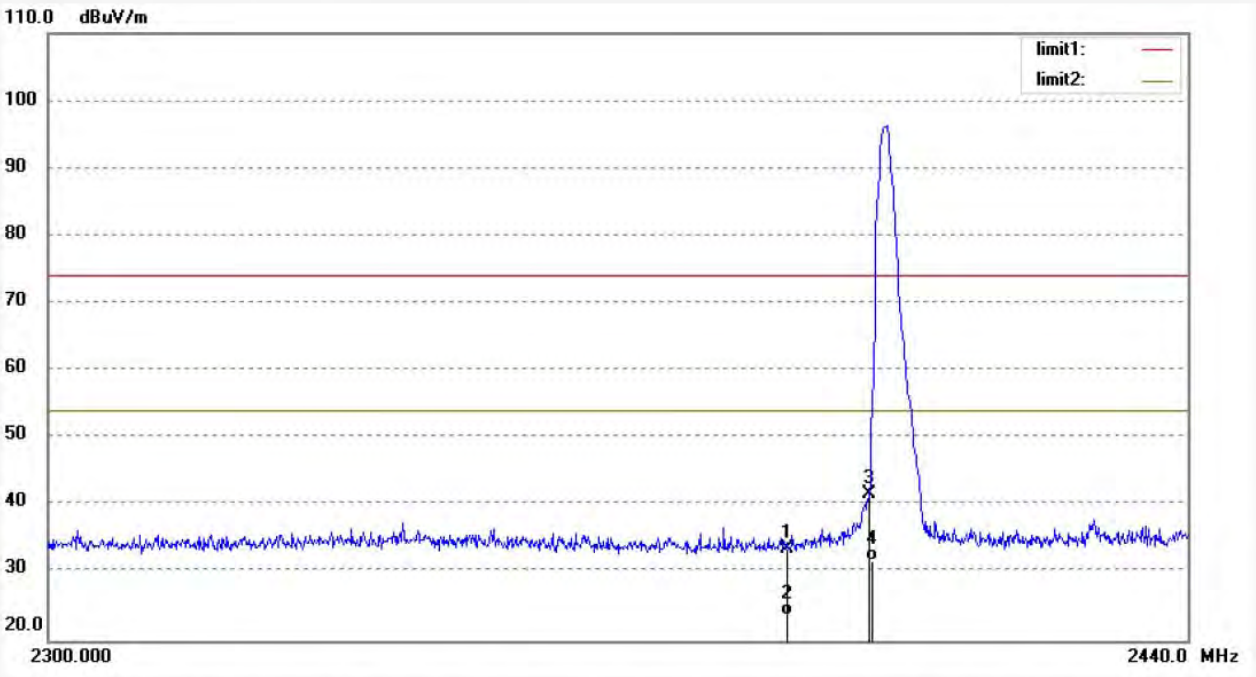
Fax:+86-0755-26503396

Job No.: FRANK2018A #687
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Massage Chair
Mode: TX 2402MHz(8DPSK)
Model: EC-626F
Manufacturer: XIAMEN HEALTHCARE ELECTRONIC CO.,LTD

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 19/01/03/
Time: 11/47/29
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20182041



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	39.86	-6.32	33.54	74.00	-40.46	peak	200	302	
2	2390.000	30.12	-6.32	23.80	54.00	-30.20	AVG	200	185	
3	2400.000	47.99	-6.27	41.72	74.00	-32.28	peak	200	62	
4	2400.000	38.12	-6.27	31.85	54.00	-22.15	AVG	200	52	

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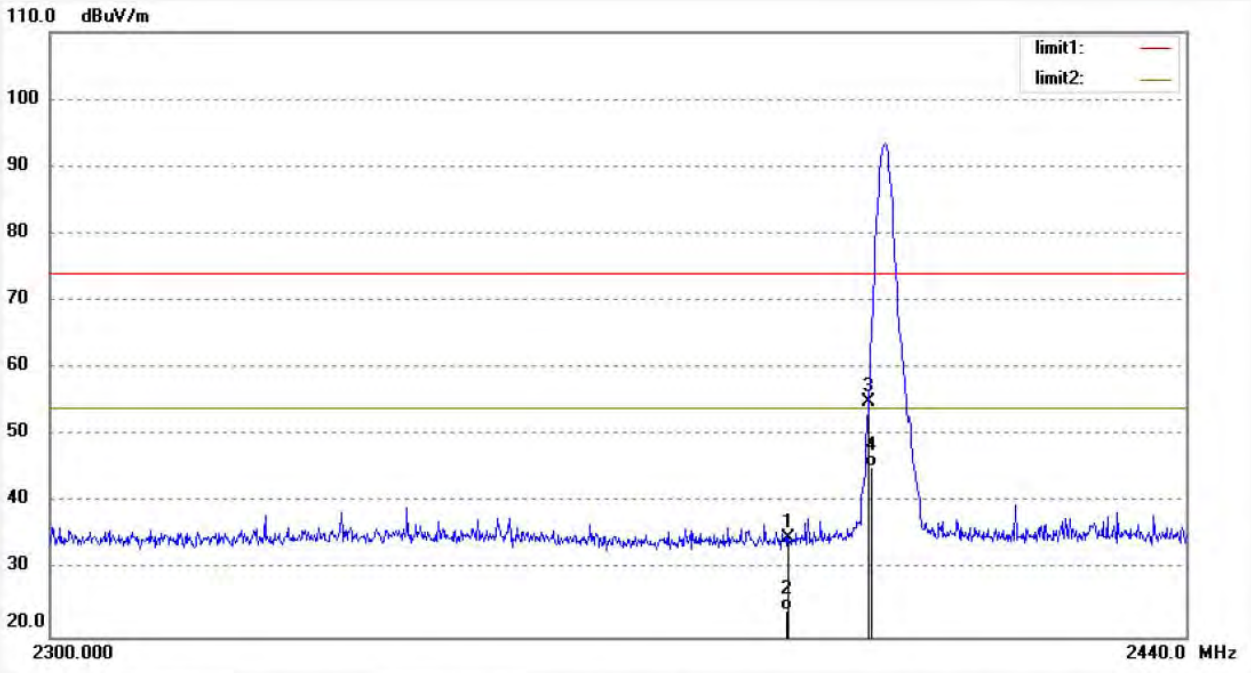
Job No.: FRANK2018A #688
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Massage Chair
Mode: TX 2402MHz(8DPSK)
Model: EC-626F
Manufacturer: XIAMEN HEALTHCARE ELECTRONIC CO.,LTD

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 19/01/03/
Time: 11/49/00
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20182041



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	40.97	-6.32	34.65	74.00	-39.35	peak	150	163	
2	2390.000	30.15	-6.32	23.83	54.00	-30.17	AVG	150	48	
3	2400.000	61.35	-6.27	55.08	74.00	-18.92	peak	150	201	
4	2400.000	51.49	-6.27	45.22	54.00	-8.78	AVG	150	93	

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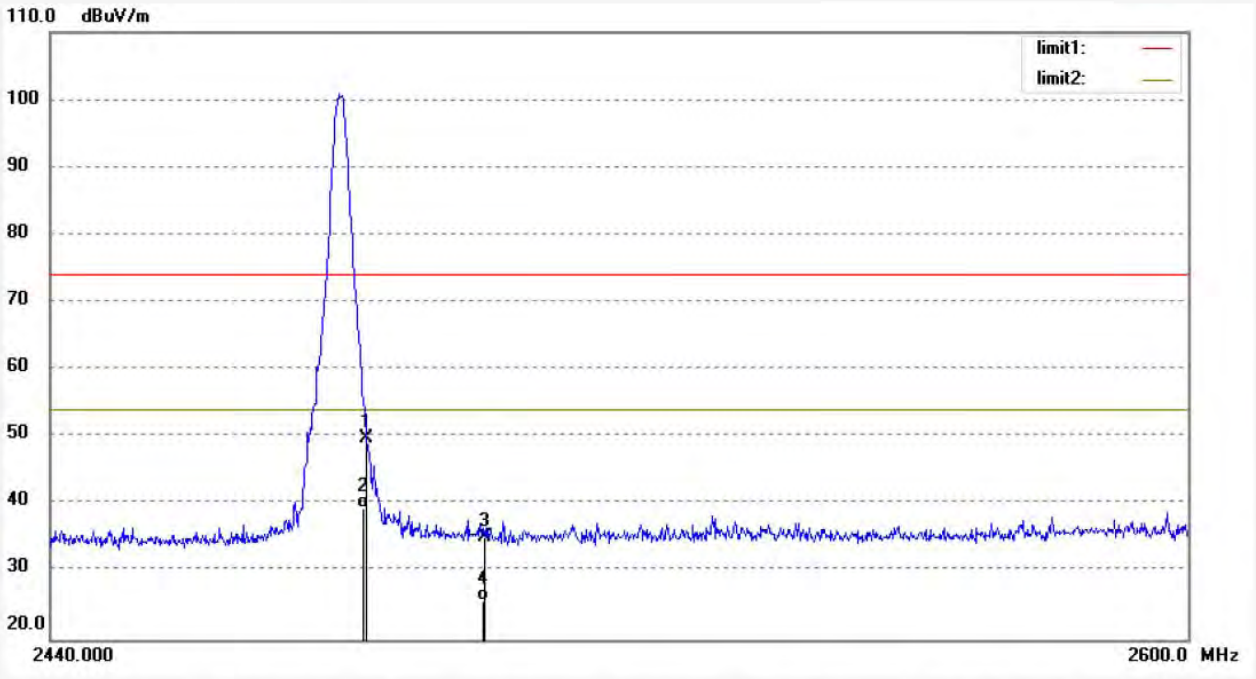
Job No.: FRANK2018A #690
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Massage Chair
Mode: TX 2480MHz(8DPSK)
Model: EC-626F
Manufacturer: XIAMEN HEALTHCARE ELECTRONIC CO.,LTD

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 19/01/03/
Time: 13/44/00
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20182041



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	55.75	-5.89	49.86	74.00	-24.14	peak	200	302	
2	2483.500	45.45	-5.89	39.56	54.00	-14.44	AVG	200	62	
3	2500.000	41.00	-5.81	35.19	74.00	-38.81	peak	200	121	
4	2500.000	31.45	-5.81	25.64	54.00	-28.36	AVG	200	101	

ACCURATE TECHNOLOGY CO., LTD.
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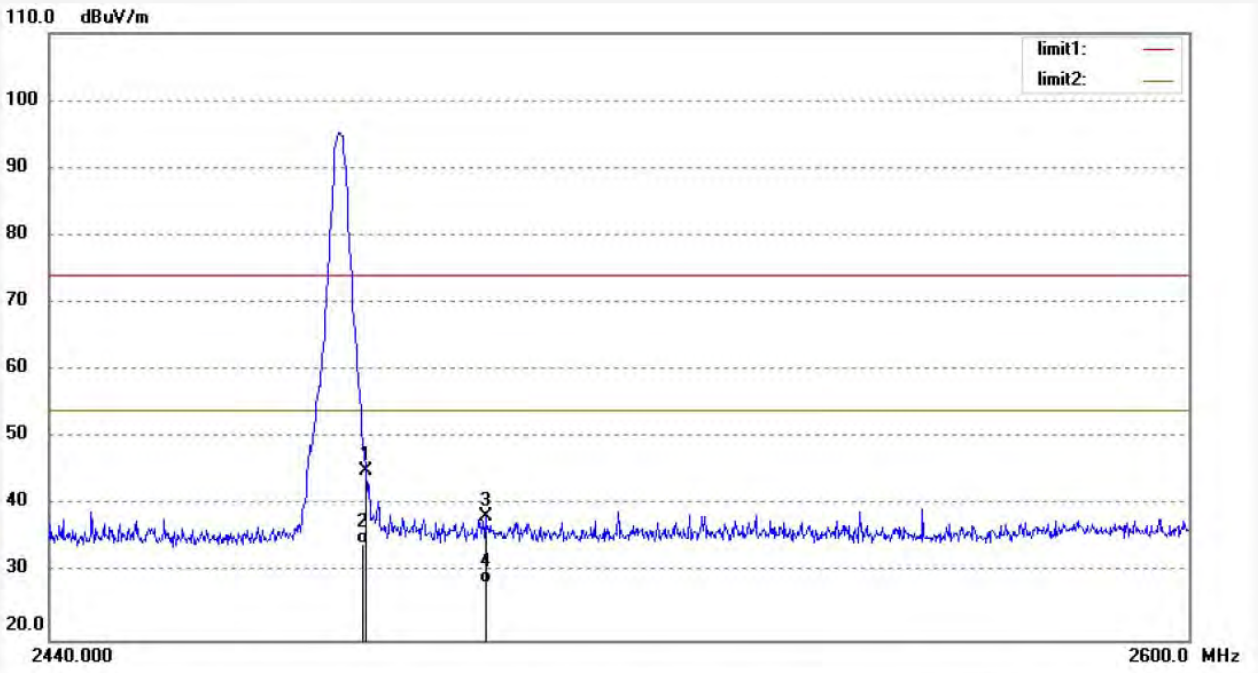
Fax:+86-0755-26503396

Job No.: FRANK2018A #689
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Massage Chair
Mode: TX 2480MHz(8DPSK)
Model: EC-626F
Manufacturer: XIAMEN HEALTHCARE ELECTRONIC CO.,LTD

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 19/01/03/
Time: 13/42/52
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20182041



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	50.87	-5.89	44.98	74.00	-29.02	peak	150	99	
2	2483.500	40.12	-5.89	34.23	54.00	-19.77	AVG	150	204	
3	2500.000	44.15	-5.81	38.34	74.00	-35.66	peak	150	115	
4	2500.000	34.15	-5.81	28.34	54.00	-25.66	AVG	150	302	

hopping mode

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
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Site: 1# Chamber
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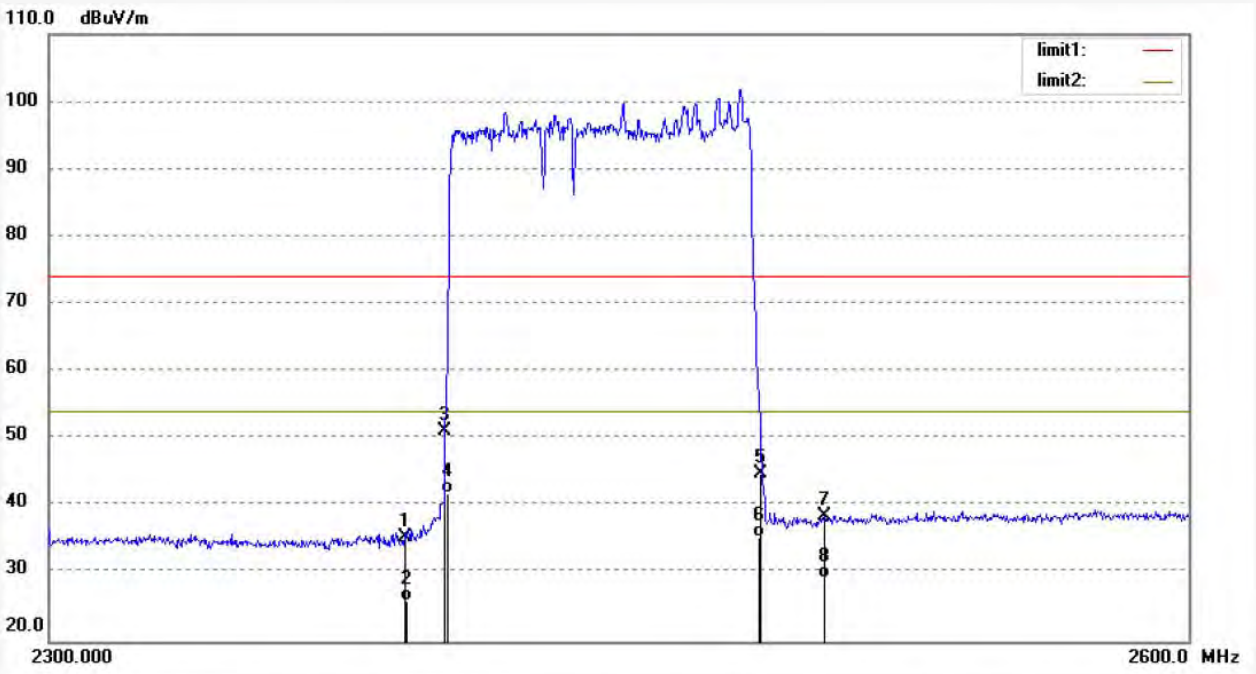
Fax:+86-0755-26503396

Job No.: FRANK2018A #695
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Massage Chair
Mode: HOPPING(GFSK)
Model: EC-626F
Manufacturer: XIAMEN HEALTHCARE ELECTRONIC CO.,LTD

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 19/01/03/
Time: 13/53/57
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20182041



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	41.64	-6.32	35.32	74.00	-38.68	peak	200	302	
2	2390.000	32.19	-6.32	25.87	54.00	-28.13	AVG	200	92	
3	2400.000	57.36	-6.27	51.09	74.00	-22.91	peak	200	221	
4	2400.000	48.31	-6.27	42.04	54.00	-11.96	AVG	200	201	
5	2483.500	50.72	-5.89	44.83	74.00	-29.17	peak	200	332	
6	2483.500	41.38	-5.89	35.49	54.00	-18.51	AVG	200	201	
7	2500.000	44.30	-5.81	38.49	74.00	-35.51	peak	200	23	
8	2500.000	35.21	-5.81	29.40	54.00	-24.60	AVG	200	96	

ACCURATE TECHNOLOGY CO., LTD.
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Site: 1# Chamber
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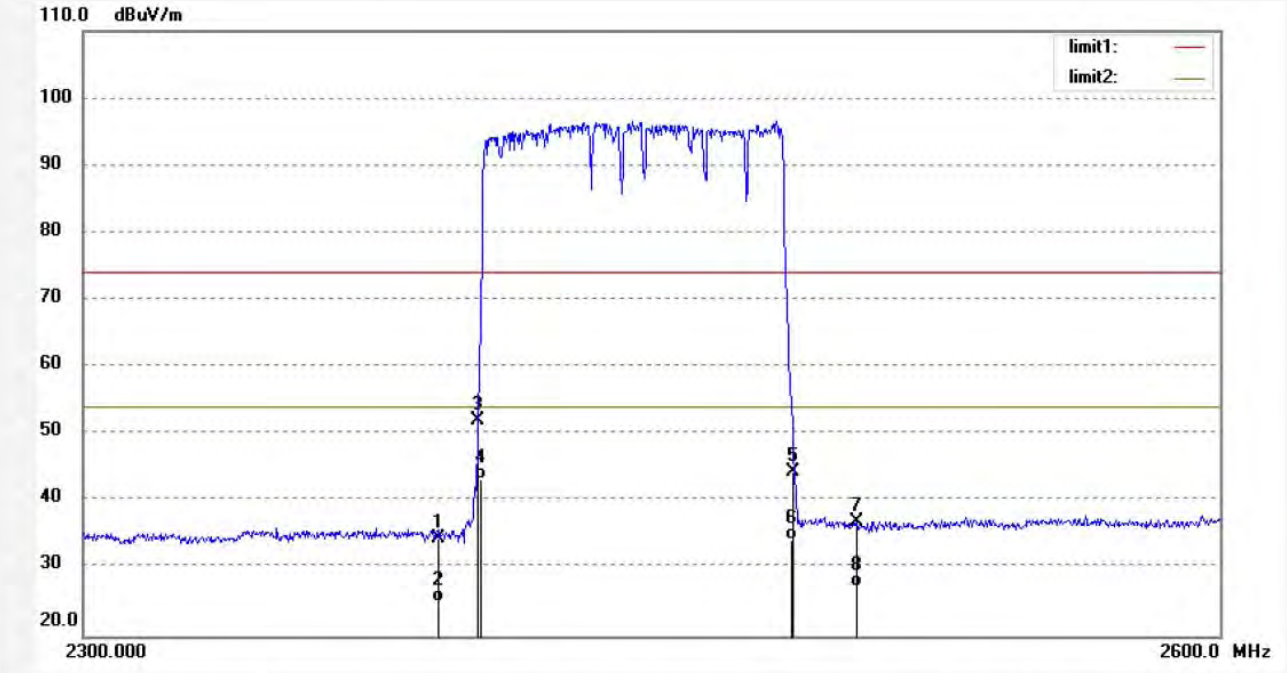
Fax:+86-0755-26503396

Job No.: FRANK2018A #696
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Massage Chair
Mode: HOPPING(GFSK)
Model: EC-626F
Manufacturer: XIAMEN HEALTHCARE ELECTRONIC CO.,LTD

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 19/01/03/
Time: 13/56/18
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20182041



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	40.88	-6.32	34.56	74.00	-39.44	peak	150	102	
2	2390.000	31.45	-6.32	25.13	54.00	-28.87	AVG	150	206	
3	2400.000	58.30	-6.27	52.03	74.00	-21.97	peak	150	112	
4	2400.000	49.46	-6.27	43.19	54.00	-10.81	AVG	150	95	
5	2483.500	50.32	-5.89	44.43	74.00	-29.57	peak	150	301	
6	2483.500	40.16	-5.89	34.27	54.00	-19.73	AVG	150	201	
7	2500.000	42.72	-5.81	36.91	74.00	-37.09	peak	150	332	
8	2500.000	33.15	-5.81	27.34	54.00	-26.66	AVG	150	209	

ACCURATE TECHNOLOGY CO., LTD.
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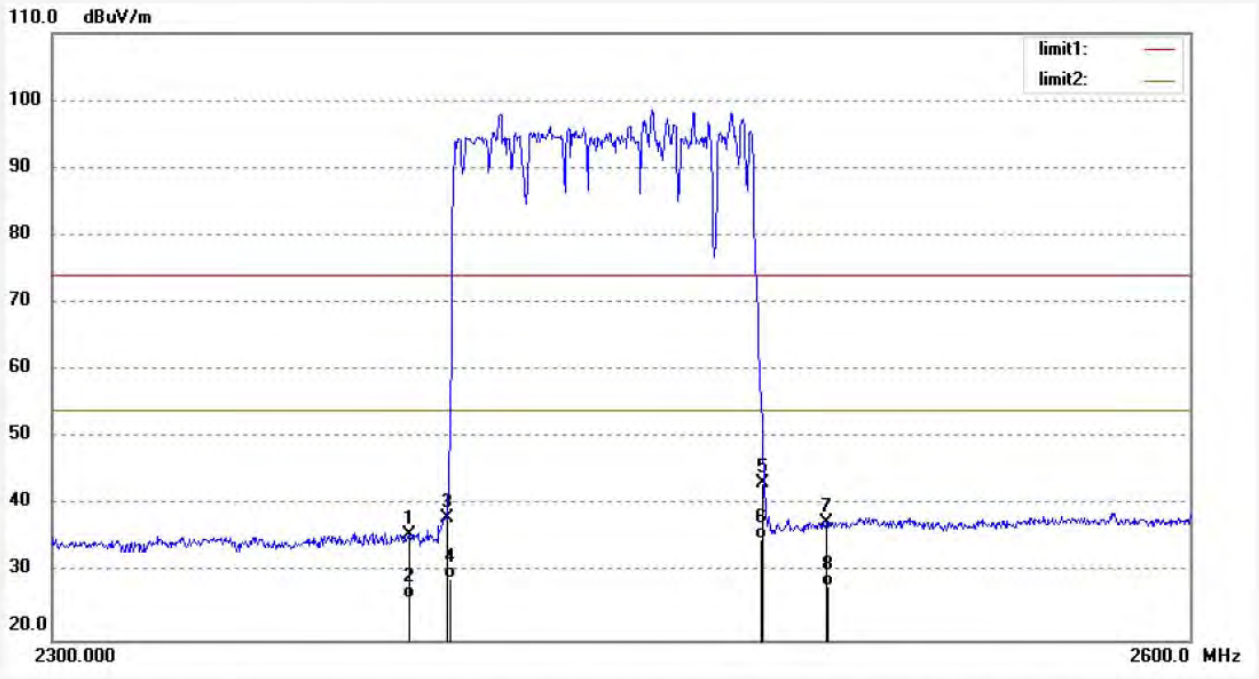
Fax:+86-0755-26503396

Job No.: FRANK2018A #698
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Massage Chair
Mode: HOPPING(π/4 DQPSK)
Model: EC-626F
Manufacturer: XIAMEN HEALTHCARE ELECTRONIC CO.,LTD

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 19/01/03/
Time: 14/02/41
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20182041



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	41.89	-6.32	35.57	74.00	-38.43	peak	200	233	
2	2390.000	32.45	-6.32	26.13	54.00	-27.87	AVG	200	201	
3	2400.000	44.38	-6.27	38.11	74.00	-35.89	peak	200	136	
4	2400.000	35.48	-6.27	29.21	54.00	-24.79	AVG	200	95	
5	2483.500	49.08	-5.89	43.19	74.00	-30.81	peak	200	141	
6	2483.500	40.87	-5.89	34.98	54.00	-19.02	AVG	200	210	
7	2500.000	43.23	-5.81	37.42	74.00	-36.58	peak	200	66	
8	2500.000	33.78	-5.81	27.97	54.00	-26.03	AVG	200	103	

ACCURATE TECHNOLOGY CO., LTD.
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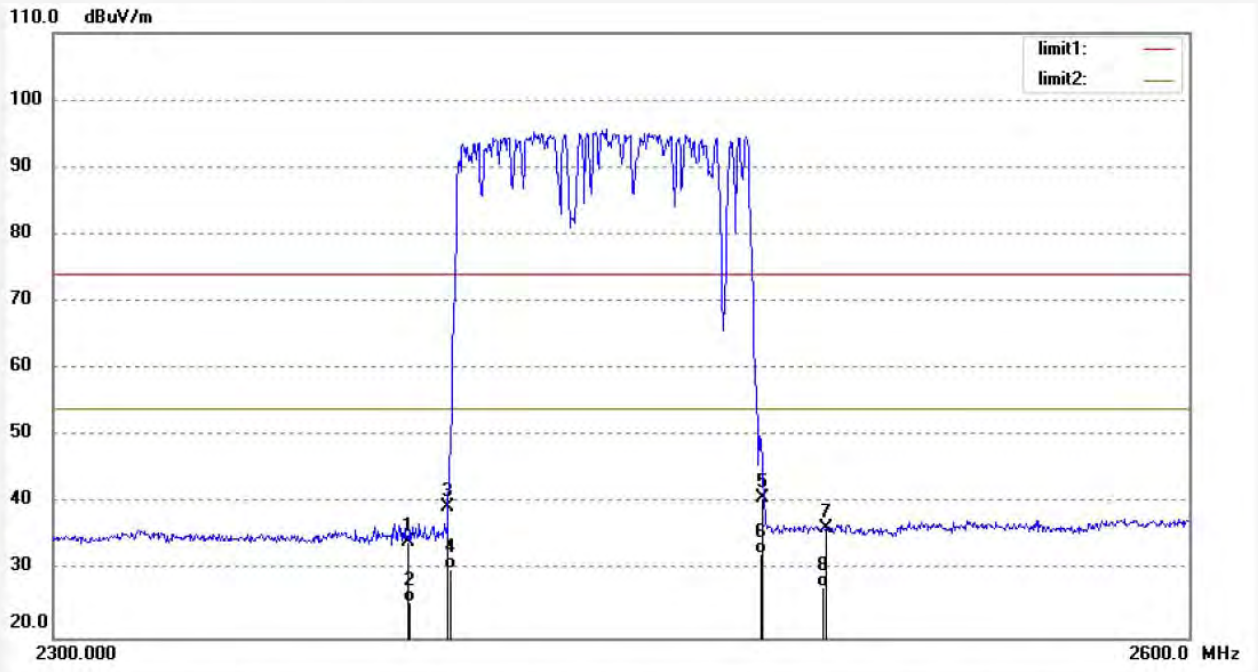
Job No.: FRANK2018A #697
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Massage Chair
Mode: HOPPING(π/4 DQPSK)
Model: EC-626F
Manufacturer: XIAMEN HEALTHCARE ELECTRONIC CO.,LTD

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 19/01/03/
Time: 13/59/45
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20182041



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	40.53	-6.32	34.21	74.00	-39.79	peak	150	103	
2	2390.000	31.54	-6.32	25.22	54.00	-28.78	AVG	150	81	
3	2400.000	45.65	-6.27	39.38	74.00	-34.62	peak	150	69	
4	2400.000	36.48	-6.27	30.21	54.00	-23.79	AVG	150	116	
5	2483.500	46.77	-5.89	40.88	74.00	-33.12	peak	150	302	
6	2483.500	38.48	-5.89	32.59	54.00	-21.41	AVG	150	96	
7	2500.000	42.21	-5.81	36.40	74.00	-37.60	peak	150	165	
8	2500.000	33.45	-5.81	27.64	54.00	-26.36	AVG	150	321	

ACCURATE TECHNOLOGY CO., LTD.
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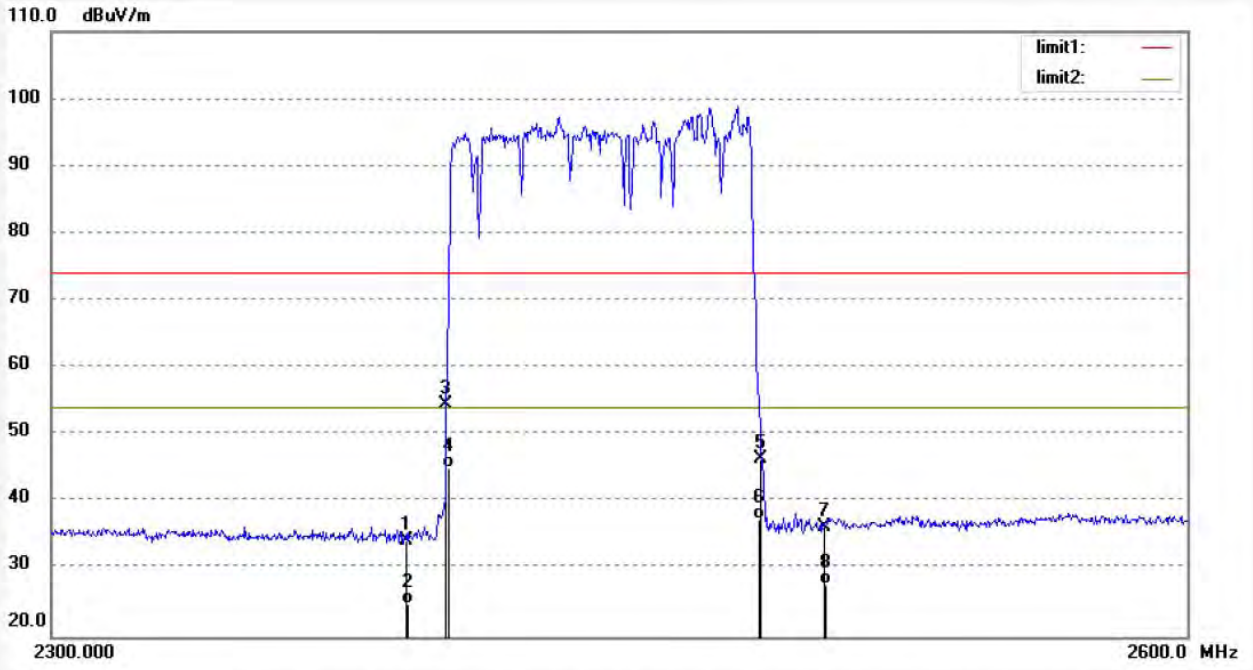
Job No.: FRANK2018A #699
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Massage Chair
Mode: HOPPING(8DPSK)
Model: EC-626F
Manufacturer: XIAMEN HEALTHCARE ELECTRONIC CO.,LTD

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 19/01/03/
Time: 14/05/25
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20182041



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	40.71	-6.32	34.39	74.00	-39.61	peak	200	194	
2	2390.000	31.12	-6.32	24.80	54.00	-29.20	AVG	200	85	
3	2400.000	60.84	-6.27	54.57	74.00	-19.43	peak	200	201	
4	2400.000	51.37	-6.27	45.10	54.00	-8.90	AVG	200	33	
5	2483.500	52.25	-5.89	46.36	74.00	-27.64	peak	200	200	
6	2483.500	43.26	-5.89	37.37	54.00	-16.63	AVG	200	102	
7	2500.000	42.16	-5.81	36.35	74.00	-37.65	peak	200	35	
8	2500.000	33.67	-5.81	27.86	54.00	-26.14	AVG	200	109	

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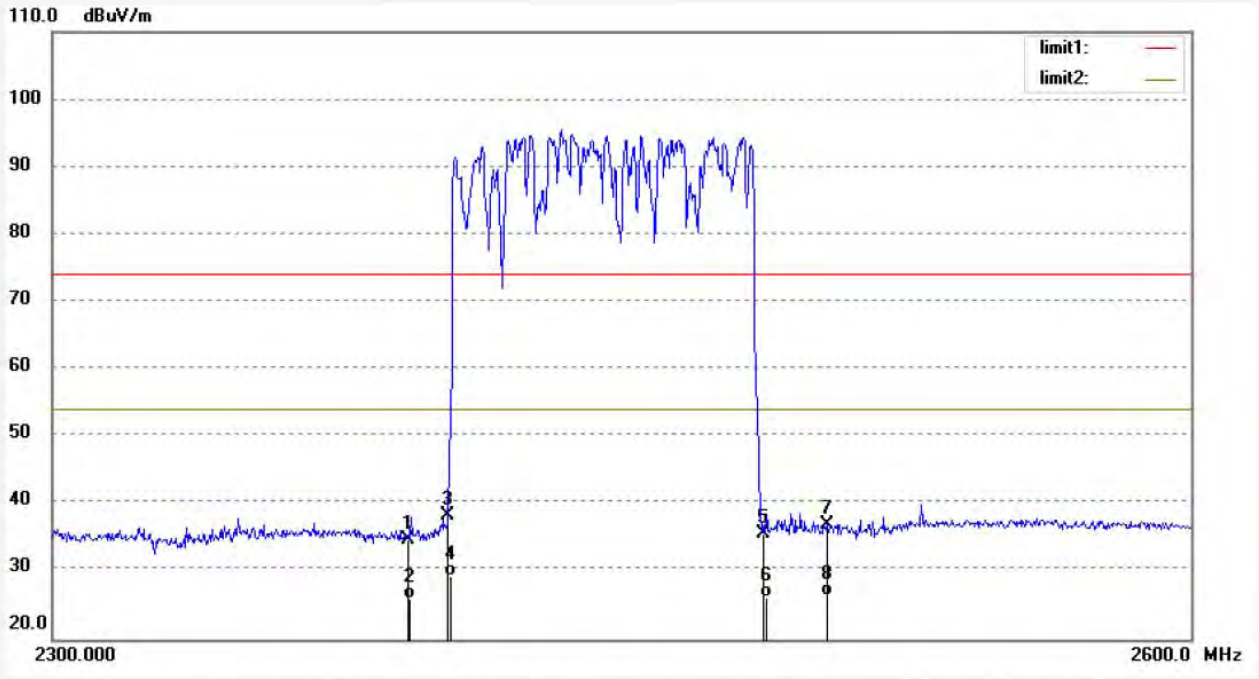
Fax:+86-0755-26503396

Job No.: FRANK2018A #700
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Massage Chair
Mode: HOPPING(8DPSK)
Model: EC-626F
Manufacturer: XIAMEN HEALTHCARE ELECTRONIC CO.,LTD

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 19/01/03/
Time: 14/08/01
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20182041



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	41.06	-6.32	34.74	74.00	-39.26	peak	150	211	
2	2390.000	32.32	-6.32	26.00	54.00	-28.00	AVG	150	33	
3	2400.000	44.70	-6.27	38.43	74.00	-35.57	peak	150	202	
4	2400.000	35.62	-6.27	29.35	54.00	-24.65	AVG	150	94	
5	2483.500	41.42	-5.89	35.53	74.00	-38.47	peak	150	169	
6	2483.500	32.15	-5.89	26.26	54.00	-27.74	AVG	150	52	
7	2500.000	42.80	-5.81	36.99	74.00	-37.01	peak	150	215	
8	2500.000	32.15	-5.81	26.34	54.00	-27.66	AVG	150	103	

12.RADIATED EMISSION TEST

12.1.Block Diagram of Test Setup

12.1.1.Block diagram of connection between the EUT and peripherals

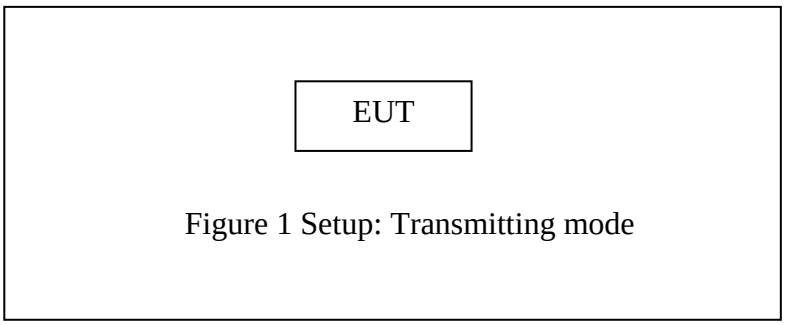
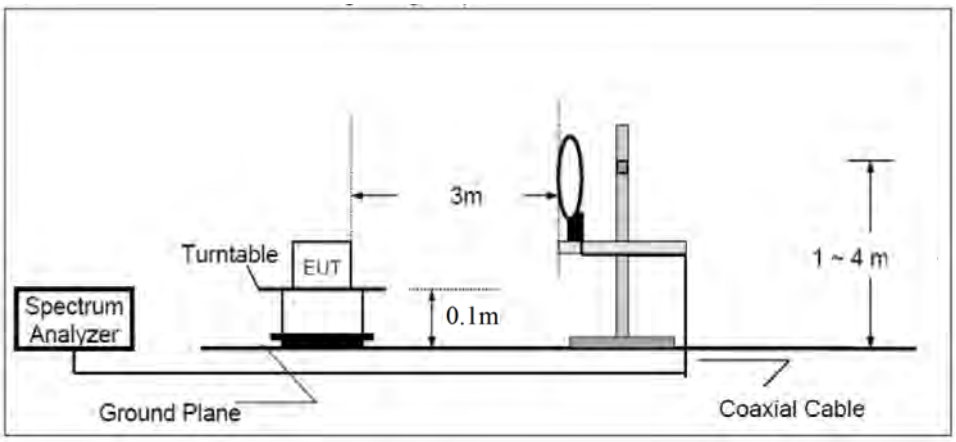


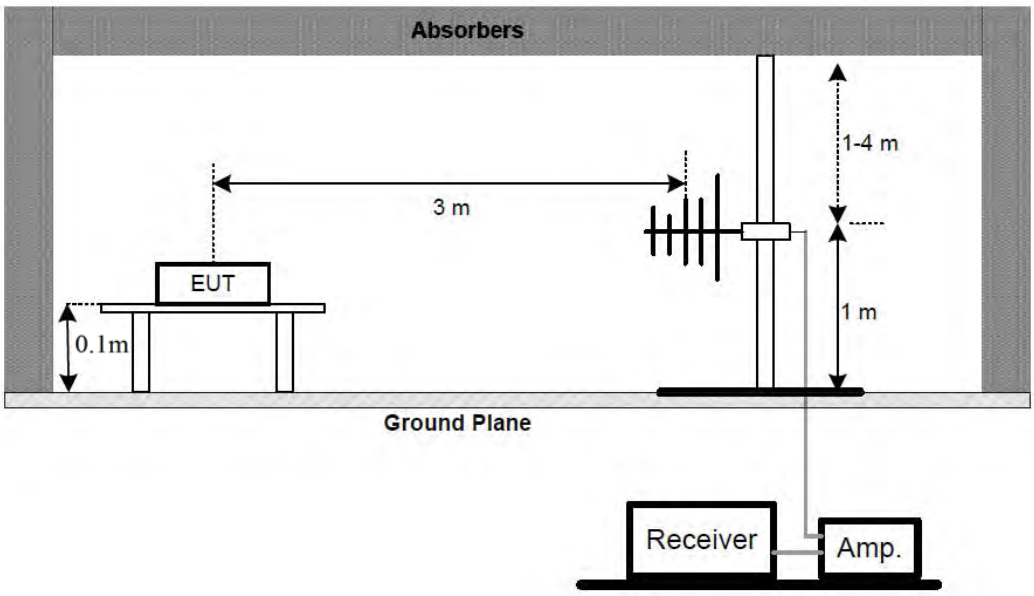
Figure 1 Setup: Transmitting mode

12.1.2.Semi-Anechoic Chamber Test Setup Diagram

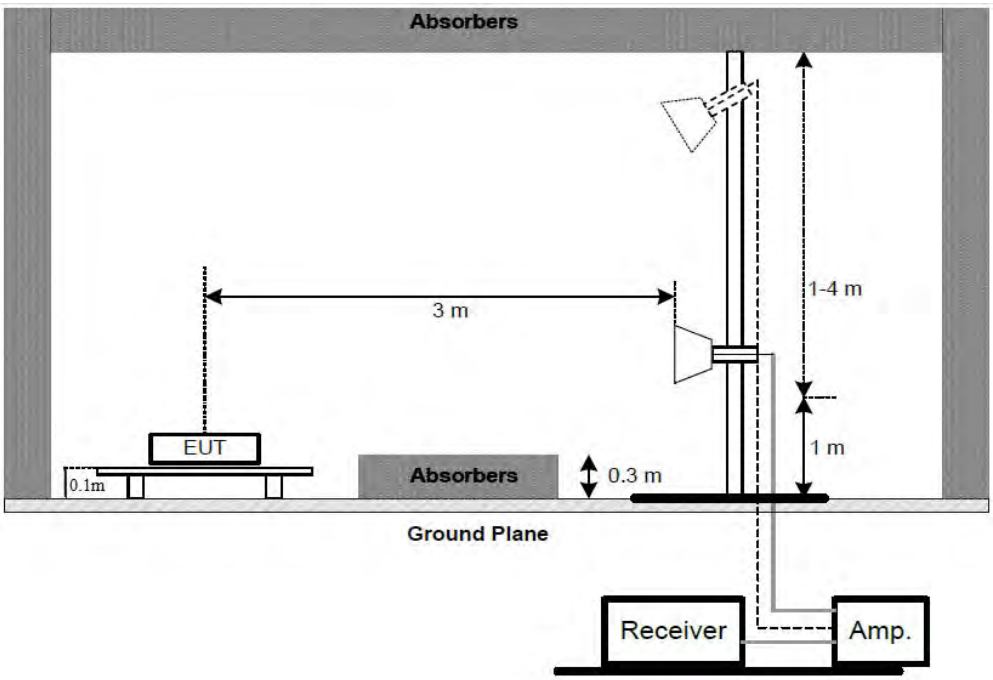
(A) Radiated Emission Test Set-Up, Frequency below 30MHz



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



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



12.2.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).

12.3.Restricted bands of operation

12.3.1.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
6.215-6.2l8	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	17l8.8-1722.2	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.

12.4.Configuration of EUT on Measurement

The equipment is 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.

12.5.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. This EUT was tested in 3 orthogonal positions and the worst case position data was reported.

During the radiated emission test, the spectrum analyzer was set with the following configurations:

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

12.6.Data Sample

Frequency (MHz)	Reading (dBμv)	Factor (dB/m)	Result (dBμv/m)	Limit (dBμv/m)	Margin (dB)	Remark
X.XX	48.69	-13.35	35.34	46	-10.66	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.

12.7.The Field Strength of Radiation Emission Measurement Results

Note: 1.We tested GFSK mode, Π/4-DQPSK Mode, 8DPSK mode and recorded the worst case data (GFSK mode) for all test mode.

2.The radiation emissions from 9kHz-30MHz and l8-25GHz are not reported, because the test values lower than the limits of 20dB.

The spectrum analyzer plots are attached as below.

30MHz-1000MHz test data(Worse case)

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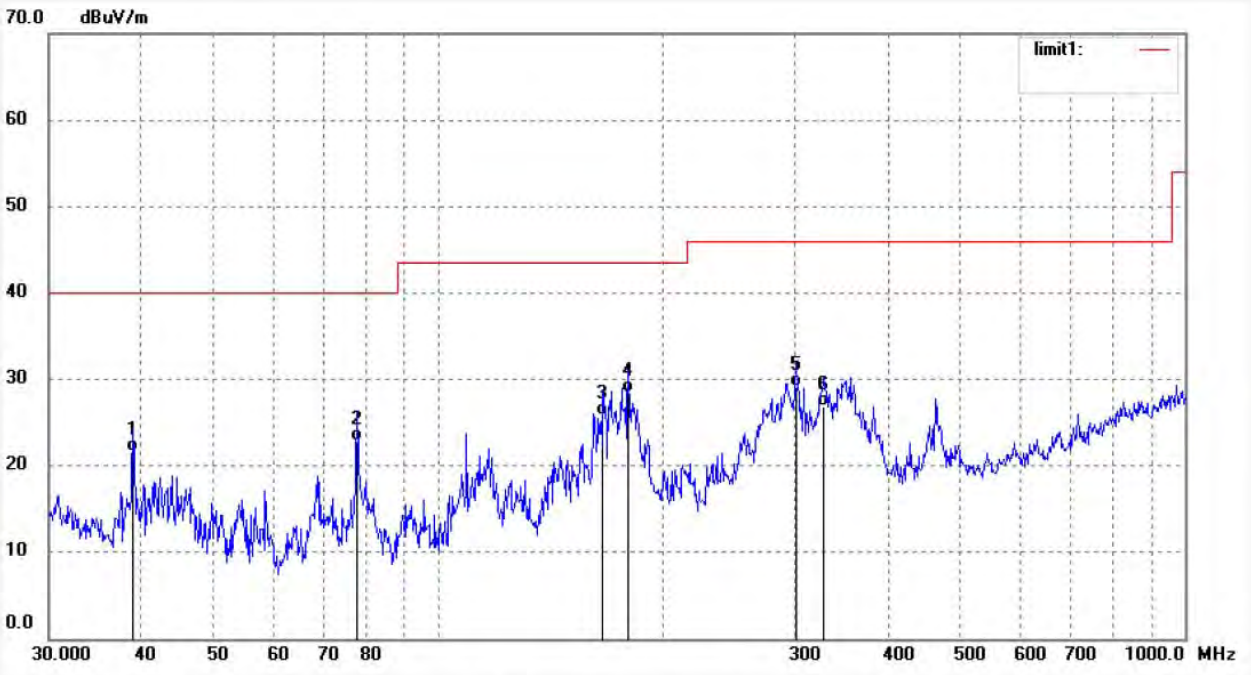
Fax:+86-0755-26503396

Job No.: frank2018 #2353	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 18/12/27/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 13/52/21
EUT: Massage Chair	Engineer Signature:
Mode: TX 2402MHz	Distance: 3m
Model: EC-626F	
Manufacturer: XIAMEN HEALTHCARE ELECTRONIC CO.,LTD	

Note: Report NO.:ATE20182041



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	38.9080	44.65	-23.12	21.53	40.00	-18.47	QP	200	334	
2	77.7407	50.38	-27.54	22.84	40.00	-17.16	QP	200	102	
3	166.0540	52.31	-26.42	25.89	43.50	-17.61	QP	200	55	
4	179.3989	54.45	-26.08	28.37	43.50	-15.13	QP	200	214	
5	301.7572	50.35	-21.17	29.18	46.00	-16.82	QP	200	41	
6	328.3068	47.12	-20.25	26.87	46.00	-19.13	QP	200	198	

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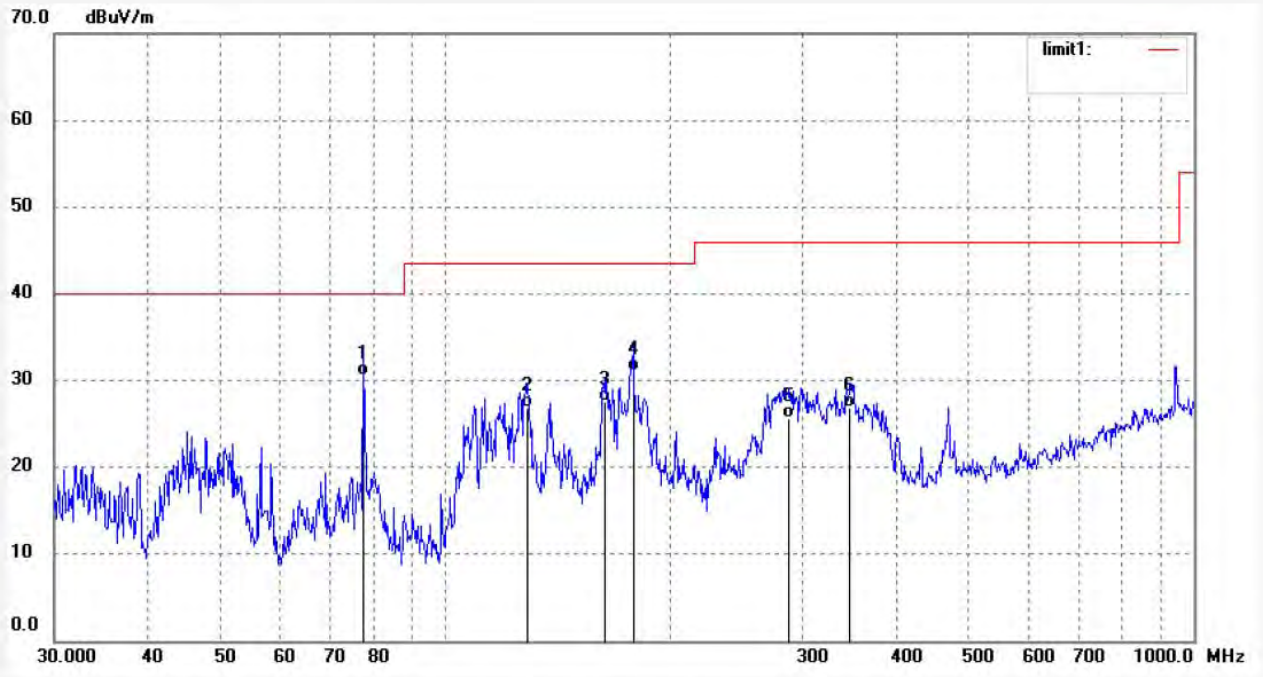
Job No.: frank2018 #2352
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Massage Chair
Mode: TX 2402MHz
Model: EC-626F
Manufacturer: XIAMEN HEALTHCARE ELECTRONIC CO.,LTD

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 18/12/27/
Time: 13/50/48
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20182041



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	77.7407	58.15	-27.54	30.61	40.00	-9.39	QP	100	132	
2	128.9385	54.48	-27.69	26.79	43.50	-16.71	QP	100	54	
3	163.7366	54.33	-26.68	27.65	43.50	-15.85	QP	100	158	
4	178.1426	57.31	-26.21	31.10	43.50	-12.40	QP	100	63	
5	288.2839	47.45	-21.74	25.71	46.00	-20.29	QP	100	159	
6	347.2921	46.32	-19.42	26.90	46.00	-19.10	QP	100	321	

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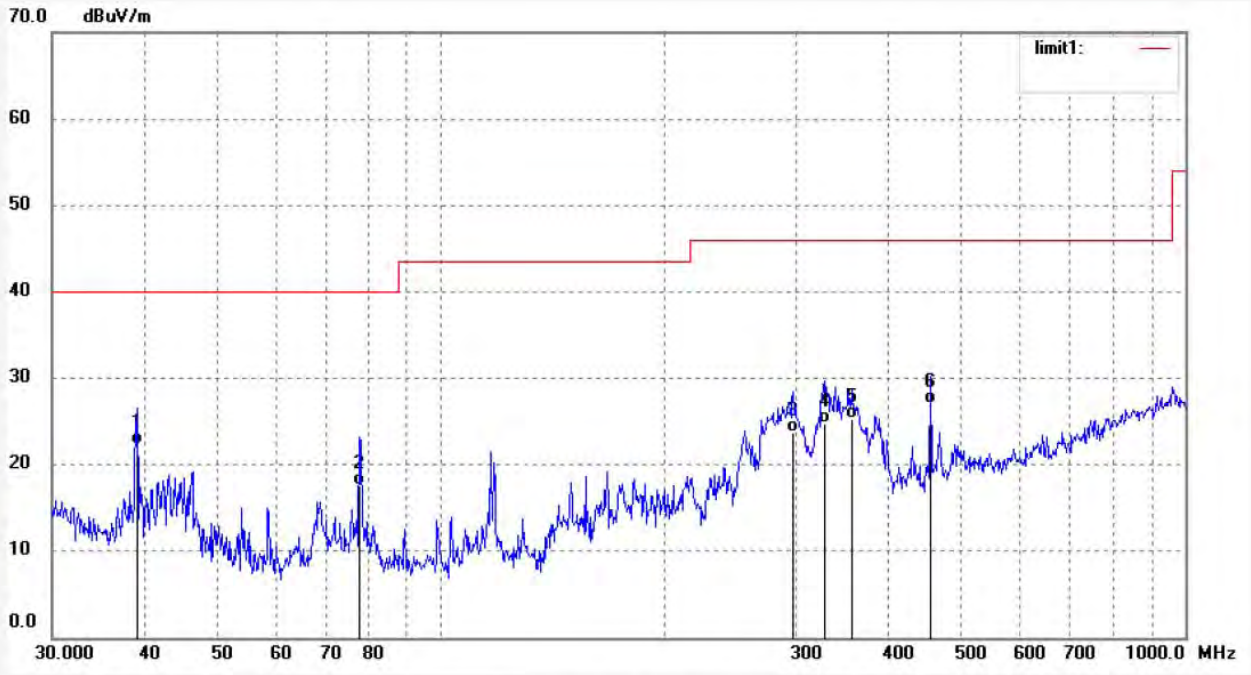
Job No.: frank2018 #2344
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Massage Chair
Mode: TX 2441MHz
Model: EC-626F
Manufacturer: XIAMEN HEALTHCARE ELECTRONIC CO.,LTD

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 18/12/27/
Time: 13/53/32
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20182041



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	39.0451	45.45	-23.19	22.26	40.00	-17.74	QP	200	62	
2	77.7407	45.12	-27.54	17.58	40.00	-22.42	QP	200	221	
3	297.5459	45.12	-21.32	23.80	46.00	-22.20	QP	200	103	
4	327.1554	45.01	-20.31	24.70	46.00	-21.30	QP	200	130	
5	355.9397	44.32	-19.09	25.23	46.00	-20.77	QP	200	219	
6	455.1888	44.12	-17.11	27.01	46.00	-18.99	QP	200	103	

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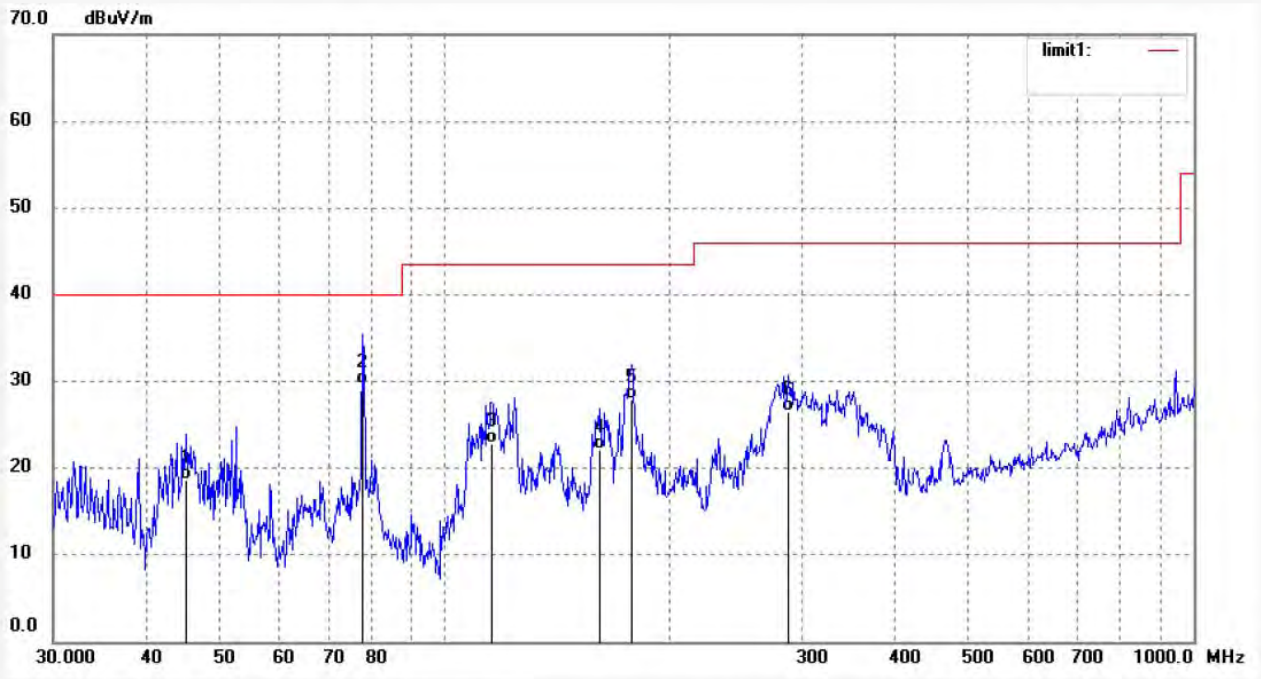
Job No.: frank2018 #2345
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Massage Chair
Mode: TX 2441MHz
Model: EC-626F
Manufacturer: XIAMEN HEALTHCARE ELECTRONIC CO.,LTD

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 18/12/27/
Time: 13/54/25
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20182041



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	45.2536	43.15	-24.51	18.64	40.00	-21.36	QP	100	120	
2	77.7407	57.15	-27.54	29.61	40.00	-10.39	QP	100	55	
3	115.6320	50.13	-27.36	22.77	43.50	-20.73	QP	100	149	
4	160.8850	49.15	-26.98	22.17	43.50	-21.33	QP	100	65	
5	177.5179	54.12	-26.26	27.86	43.50	-15.64	QP	100	110	
6	287.2727	48.31	-21.79	26.52	46.00	-19.48	QP	100	302	

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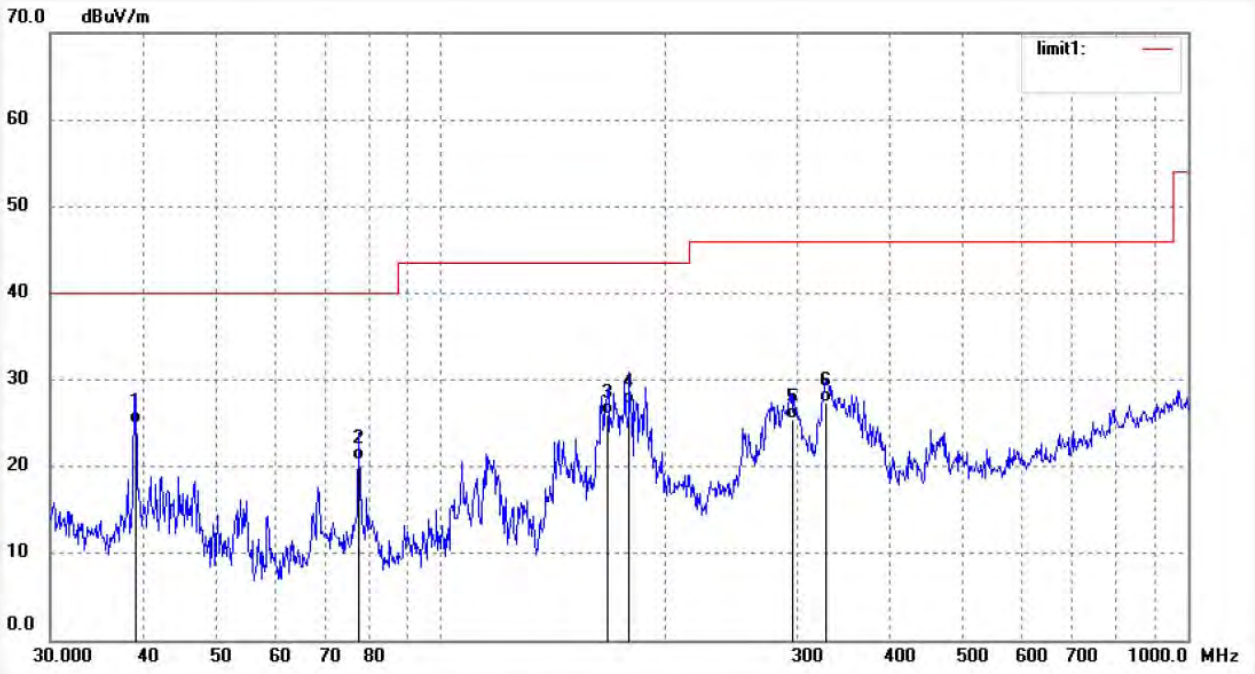
Job No.: frank2018 #2347
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Massage Chair
Mode: TX 2480MHz
Model: EC-626F
Manufacturer: XIAMEN HEALTHCARE ELECTRONIC CO.,LTD

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 18/12/27/
Time: 13/56/06
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20182041



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	39.0451	48.12	-23.19	24.93	40.00	-15.07	QP	200	201	
2	77.7407	48.32	-27.54	20.78	40.00	-19.22	QP	200	159	
3	167.2248	52.34	-26.29	26.05	43.50	-17.45	QP	200	158	
4	178.7697	53.32	-26.15	27.17	43.50	-16.33	QP	200	102	
5	296.5022	46.84	-21.36	25.48	46.00	-20.52	QP	200	211	
6	327.1554	47.65	-20.31	27.34	46.00	-18.66	QP	200	103	

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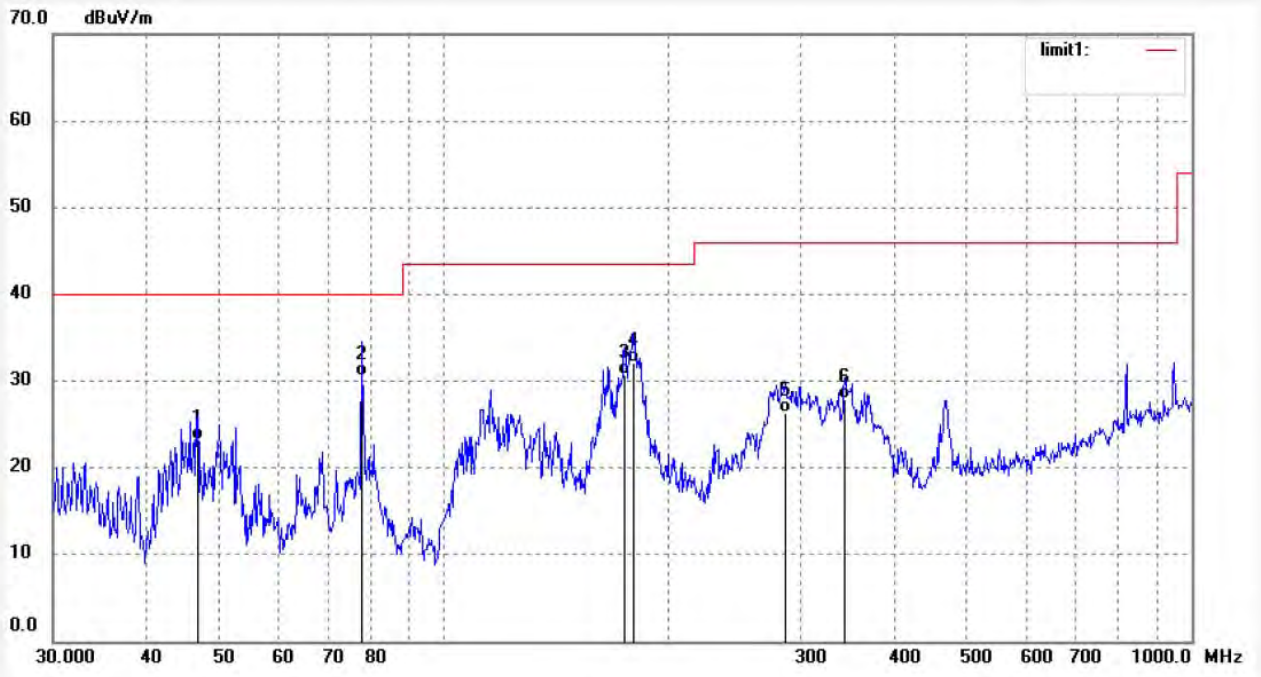
Job No.: frank2018 #2346
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Massage Chair
Mode: TX 2480MHz
Model: EC-626F
Manufacturer: XIAMEN HEALTHCARE ELECTRONIC CO.,LTD

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 18/12/27/
Time: 13/55/17
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20182041



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	46.8721	48.32	-25.08	23.24	40.00	-16.76	QP	100	146	
2	77.7407	58.15	-27.54	30.61	40.00	-9.39	QP	100	54	
3	174.4265	57.12	-26.46	30.66	43.50	-12.84	QP	100	295	
4	179.3989	58.12	-26.08	32.04	43.50	-11.46	QP	100	201	
5	286.2653	48.13	-21.83	26.30	46.00	-19.70	QP	100	211	
6	343.6506	47.45	-19.58	27.87	46.00	-18.13	QP	100	103	

1GHz-l8GHz test data(Worse case)

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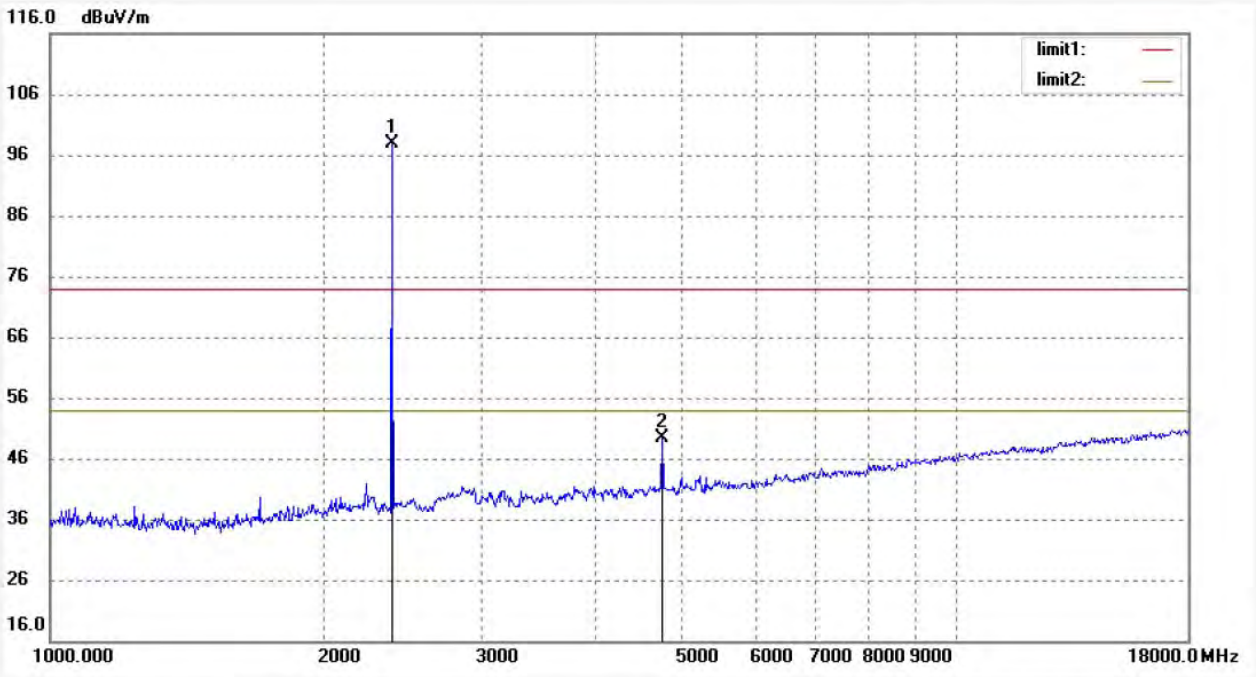
Job No.: frank2018 #2358
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Massage Chair
Mode: TX 2402MHz(GFSK)
Model: EC-626F
Manufacturer: XIAMEN HEALTHCARE ELECTRONIC CO.,LTD

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 19/01/03/
Time: 10/54/12
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20182041



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2402.419	104.16	-6.37	97.79			peak	200	302	
2	4804.957	48.57	0.70	49.27	74.00	-24.73	peak	200	156	

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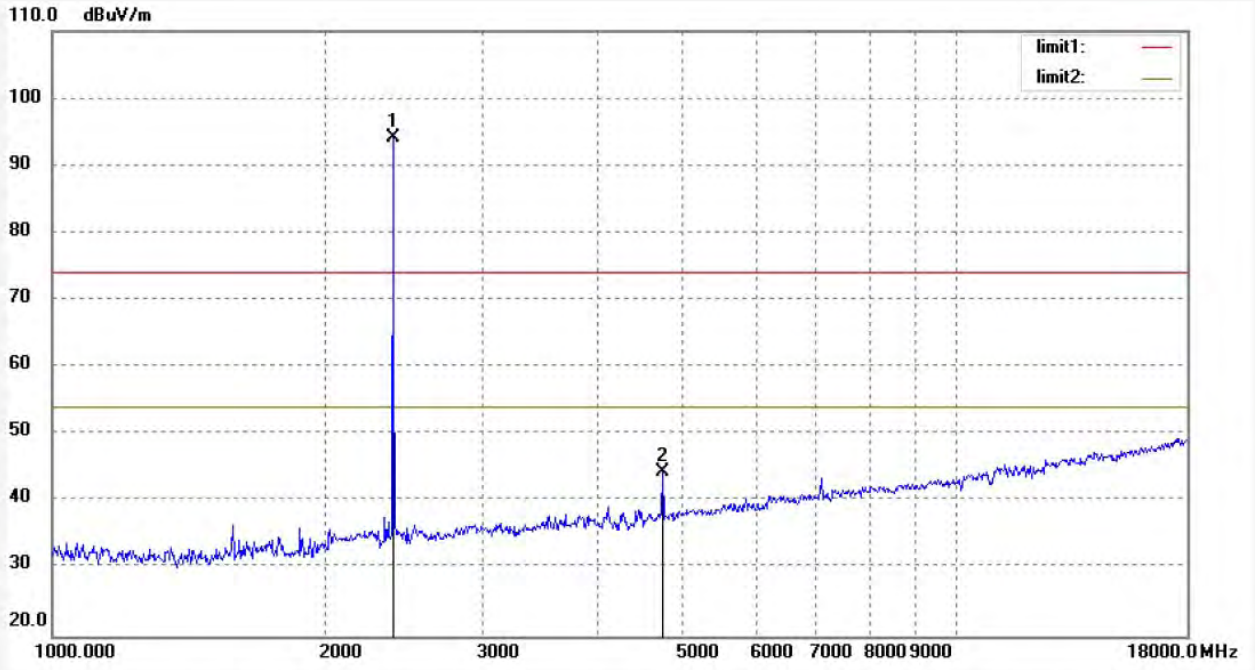
Fax:+86-0755-26503396

Job No.: frank2018 #2359
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Massage Chair
Mode: TX 2402MHz(GFSK)
Model: EC-626F
Manufacturer: XIAMEN HEALTHCARE ELECTRONIC CO.,LTD

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 19/01/03/
Time: 10/58/57
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20182041



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2402.419	100.48	-6.37	94.11			peak	150	94	
2	4804.957	43.74	0.70	44.44	74.00	-29.56	peak	150	103	

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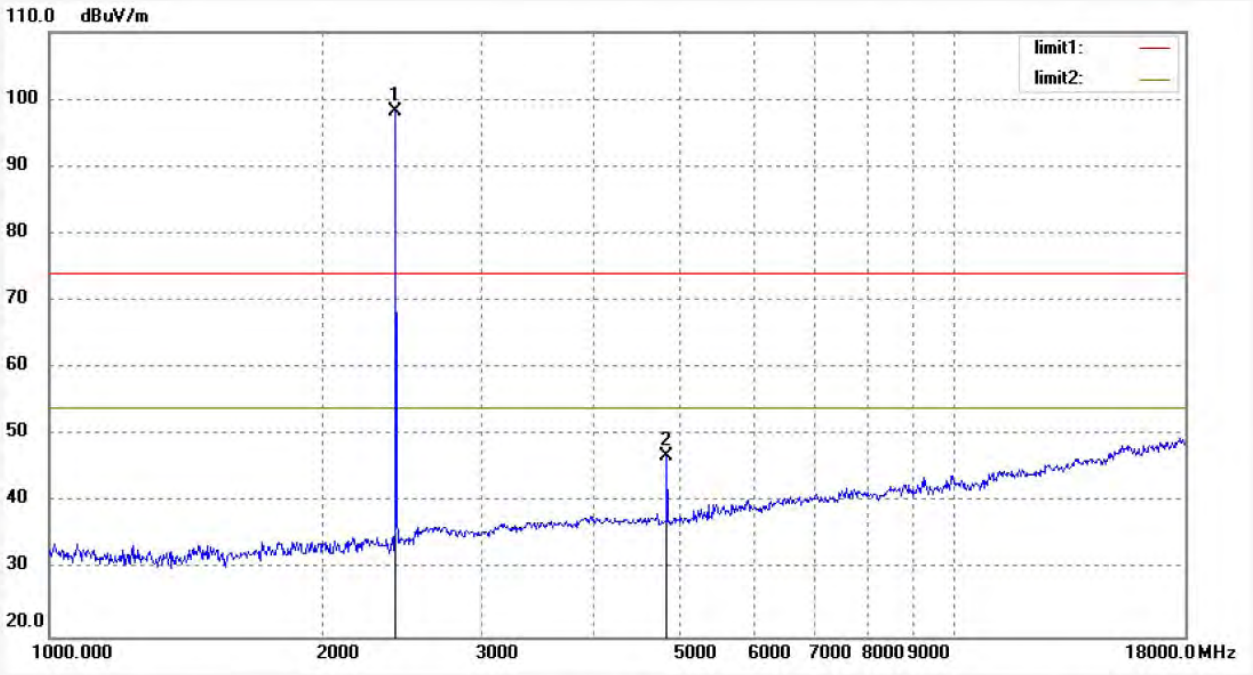
Job No.: frank2018 #2361
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Massage Chair
Mode: TX 2441MHz(GFSK)
Model: EC-626F
Manufacturer: XIAMEN HEALTHCARE ELECTRONIC CO.,LTD

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 19/01/03/
Time: 11/01/44
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20182041



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2441.321	104.48	-6.20	98.28			peak	200	163	
2	4882.624	45.80	1.07	46.87	74.00	-27.13	peak	200	201	

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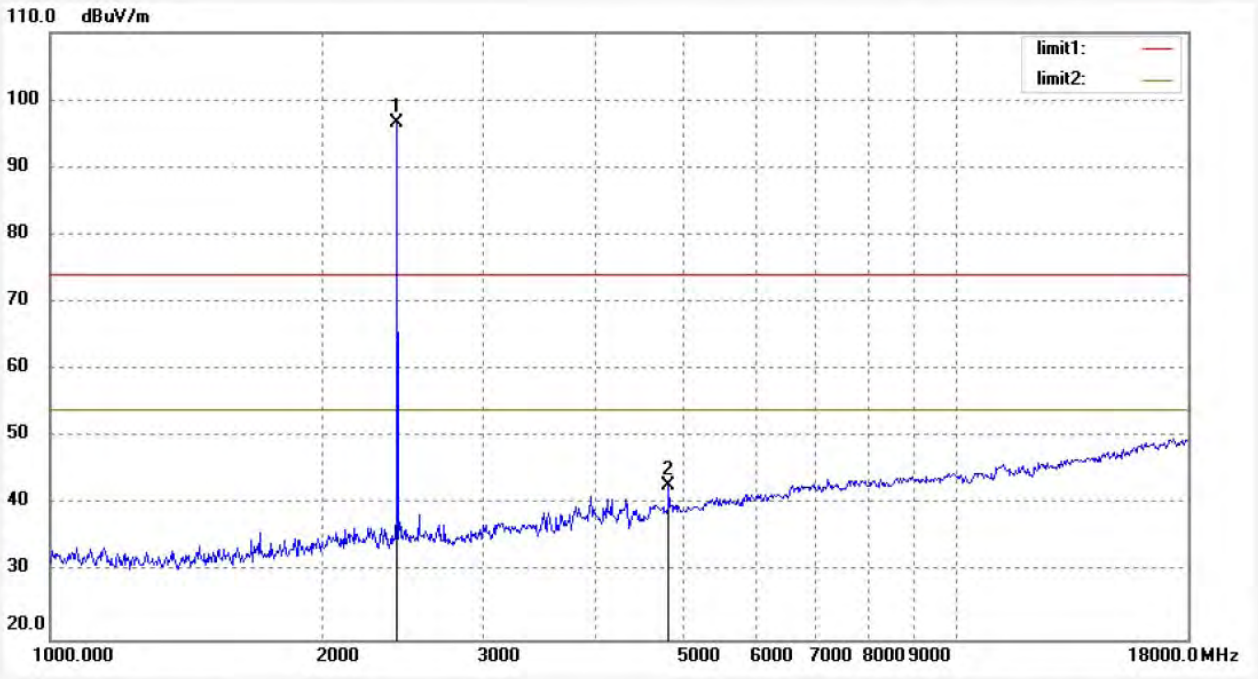
Job No.: frank2018 #2360
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Massage Chair
Mode: TX 2441MHz(GFSK)
Model: EC-626F
Manufacturer: XIAMEN HEALTHCARE ELECTRONIC CO.,LTD

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 19/01/03/
Time: 11/00/13
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20182041



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2441.321	102.84	-6.20	96.64			peak	150	145	
2	4882.624	41.84	1.07	42.91	74.00	-31.09	peak	150	302	

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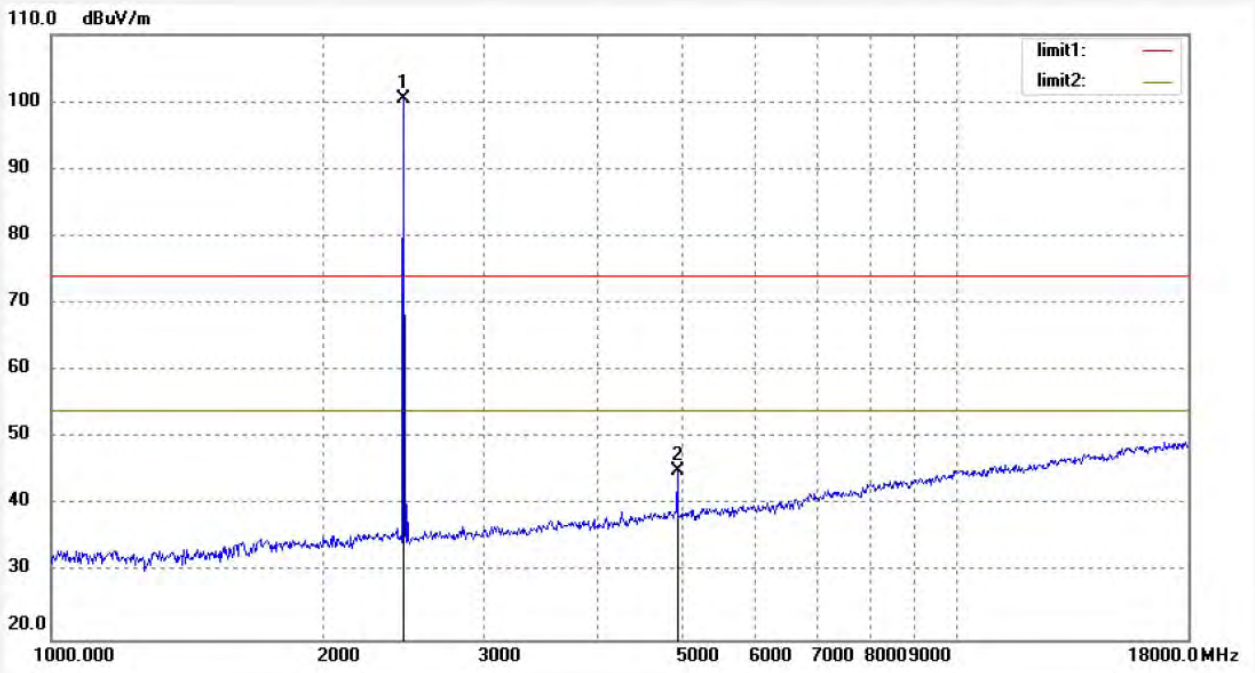
Job No.: frank2018 #2362
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Massage Chair
Mode: TX 2480MHz(GFSK)
Model: EC-626F
Manufacturer: XIAMEN HEALTHCARE ELECTRONIC CO.,LTD

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 19/01/03/
Time: 11/02/53
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20182041



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	106.38	-6.04	100.34			peak	200	215	
2	4960.444	43.53	1.50	45.03	74.00	-28.97	peak	200	196	

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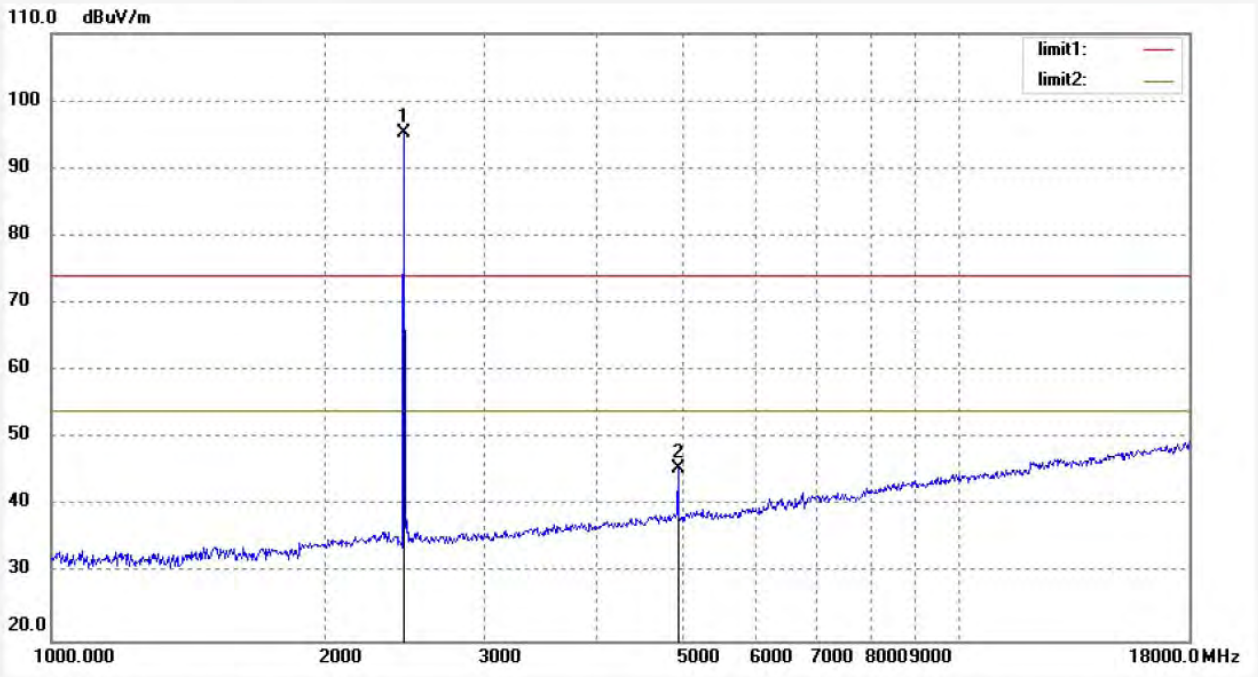
Job No.: frank2018 #2363
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Massage Chair
Mode: TX 2480MHz(GFSK)
Model: EC-626F
Manufacturer: XIAMEN HEALTHCARE ELECTRONIC CO.,LTD

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 19/01/03/
Time: 11/04/05
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20182041



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	101.23	-6.04	95.19			peak	150	245	
2	4960.444	44.06	1.50	45.56	74.00	-28.44	peak	150	103	

13. ANTENNA REQUIREMENT

13.1. 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.

13.2. 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.