

APPLICATION CERTIFICATION FCC Part 15C
On Behalf of

Modern Marketing Concepts, Inc.

Stereo Turntable System

Model No.: T100X-XX

("X" can be replaced by letter from "A" to "Z" or blank)

FCC ID: AUST100D

Prepared for : Modern Marketing Concepts, Inc.
Address : 1220 E Oak, St. Louisville, Kentucky, United States 40204

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Report No. : ATE20171879
Date of Test : Sep. 9-Sep. 13, 2017
Date of Report : Sep. 14, 2017

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Test Report Certification

Applicant : Modern Marketing Concepts, Inc.

Manufacturer : TIMSEN INTERNATIONAL LIMITED

EUT Description : Stereo Turntable System

Model No. : T100X-XX

(Note: "X" can be replaced by letter from "A" to "Z" or blank.)

Trade Name : CROSLEY

Measurement Procedure Used:

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

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 :

Sep. 9-Sep. 13, 2017

Date of Report:

Sep. 14, 2017

Prepared by :

Star Yang

(Star Yang, Engineer)

Approved & Authorized Signer :

Sean Liu
(Sean Liu, Manager)

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

EUT	:	Stereo Turntable System
Model Number	:	T100X-XX (Note: "X" can be replaced by letter from "A" to "Z" or blank. We hereby state that these models are identical in interior structure, electrical circuits and components, only the appearance color is different. So we prepare the T100D-BK for test.)
Bluetooth version	:	BT V4.2 Single mode This report is for BT classic mode
Frequency Range	:	2402MHz-2480MHz
Number of Channels	:	79
Antenna Gain	:	2 dBi
Modulation mode	:	GFSK, $\pi/4$ DQPSK, 8DPSK
Antenna type	:	PCB Antenna
Power Supply	:	DC 12V (Powered by adapter)
Adapter 1	:	Model: RHD20W120150 Input: AC 100-240V 50/60Hz 1.5A Output: DC 12V 1500mA
Adapter 2	:	Model: SW1201500-N04 Input: 100-240V~50/60Hz Max.500mA Output: 12V $\approx$ 1500mA
Applicant	:	Modern Marketing Concepts, Inc.
Address	:	1220 E Oak, St. Louisville, Kentucky, United States 40204
Manufacturer	:	TIMSEN INTERNATIONAL LIMITED
Address	:	5F, 447# Tianhebei Road, Guangzhou, China

Note: Manufacturer provides two adapters. two adapters were tested for conducted emission and radiated spurious emission, In measuring the radiated spurious emission, The adapter 2 was tested only in the 30MHz-1GHz frequency band, because the work frequency of the adapter does not affect more than 1GHz frequency. so no test data of more than 1 GHz.

1.2.Carrier Frequency of Channels

Channel	Frequeney (MHz)	Channel	Frequeney (MHz)	Channel	Frequeney (MHz)	Channel	Frequeney (MHz)
0	2402	20	2422	40	2442	60	2462
1	2403	21	2423	41	2443	61	2463
2	2404	22	2424	42	2444	62	2464
3	2405	23	2425	43	2445	63	2465
4	2406	24	2426	44	2446	64	2466
5	2407	25	2427	45	2447	65	2467
6	2408	26	2428	46	2448	66	2468
7	2409	27	2429	47	2449	67	2469
8	2410	28	2430	48	2450	68	2470
9	2411	29	2431	49	2451	69	2471
10	2412	30	2432	50	2452	70	2472
11	2413	31	2433	51	2453	71	2473
12	2414	32	2434	52	2454	72	2474
13	2415	33	2435	53	2455	73	2475
14	2416	34	2436	54	2456	74	2476
15	2417	35	2437	55	2457	75	2477
16	2418	36	2438	56	2458	76	2478
17	2419	37	2439	57	2459	77	2479
18	2420	38	2440	58	2460	78	2480
19	2421	39	2441	59	2461		

1.3.Accessory and Auxiliary Equipment

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

1.4. Description of Test Facility

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

1.5. Measurement Uncertainty

Conducted Emission Expanded Uncertainty	=	2.23dB, k=2
Radiated emission expanded uncertainty (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. 07, 2017	1 Year
EMI Test Receiver	Rohde&Schwarz	ESPI3	101526/003	Jan. 07, 2017	1 Year
Spectrum Analyzer	Agilent	E7405A	MY45115511	Jan. 07, 2017	1 Year
Pre-Amplifier	Rohde&Schwarz	CBLU118354 0-01	3791	Jan. 07, 2017	1 Year
Loop Antenna	Schwarzbeck	FMZB1516	1516131	Jan. 13, 2017	1 Year
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	Jan. 13, 2017	1 Year
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	Jan. 13, 2017	1 Year
Horn Antenna	Schwarzbeck	BBHA9170	9170-359	Jan. 13, 2017	1 Year
LISN	Rohde&Schwarz	ESH3-Z5	100305	Jan. 07, 2017	1 Year
LISN	Schwarzbeck	NSLK8126	8126431	Jan. 07, 2017	1 Year
Highpass Filter	Wainwright Instruments	WHKX3.6/18 G-10SS	N/A	Jan. 07, 2017	1 Year
Band Reject Filter	Wainwright Instruments	WRCG2400/2 485-2375/2510 -60/11SS	N/A	Jan. 07, 2017	1 Year

3. OPERATION OF EUT DURING TESTING

3.1.Operating Mode

The mode is used: Transmitting mode

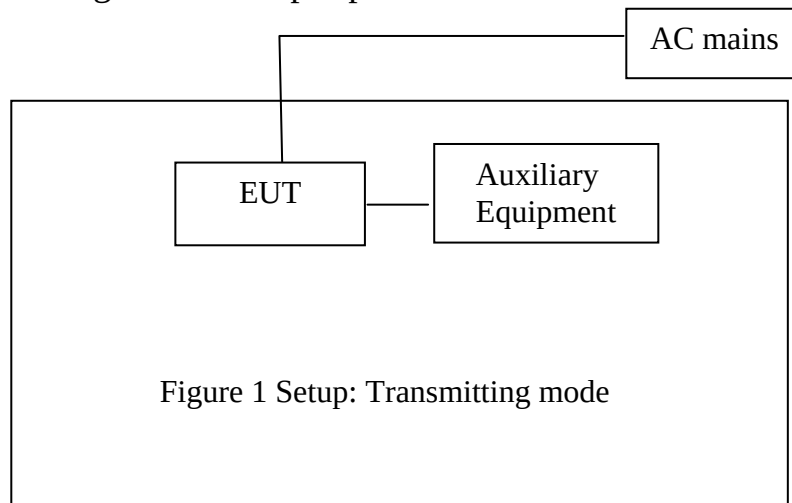
Low Channel: 2402MHz

Middle Channel: 2441MHz

High Channel: 2480MHz

Hopping

3.2.Configuration and peripherals

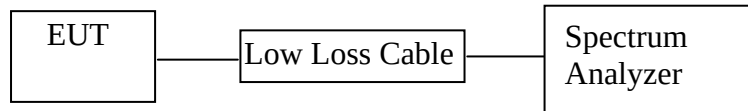


4. TEST PROCEDURES AND RESULTS

FCC Rules	Description of Test	Result
Section 15.207	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 15.209	Radiated Emission Test	Compliant
Section 15.247(d)	Band Edge Compliance Test	Compliant
Section 15.203	Antenna Requirement	Compliant

5. 20DB BANDWIDTH TEST

5.1. Block Diagram of Test Setup



(EUT: Stereo Turntable System)

5.2. 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.

5.3. 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.

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

5.5. Test Procedure

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

5.5.2. Set RBW of spectrum analyzer to 30 kHz and VBW to 100 kHz.

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

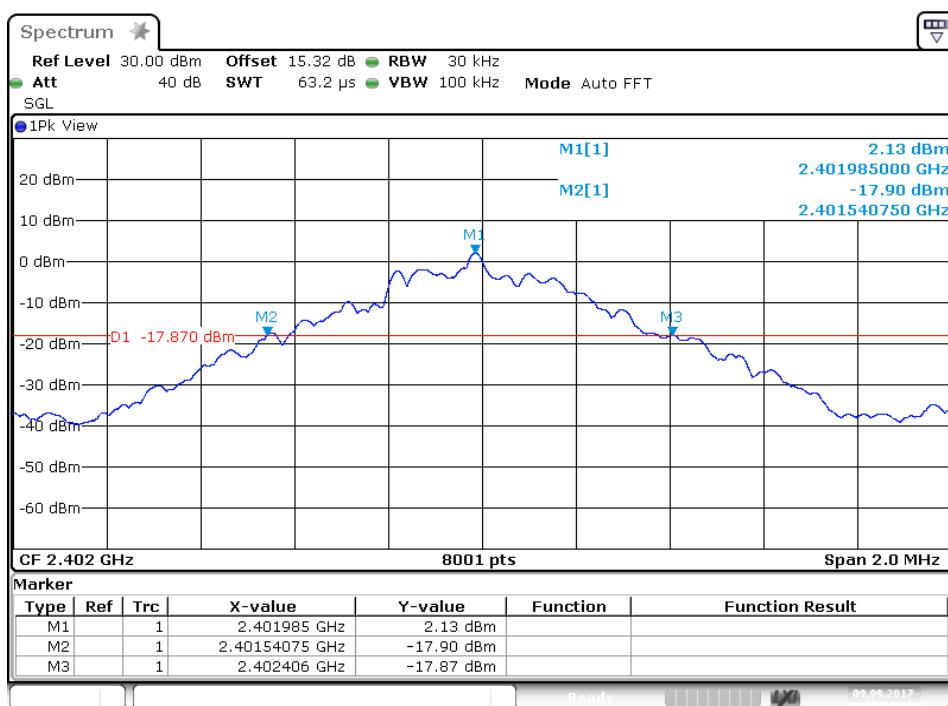
5.6.Test Result

Channel	Frequency (MHz)	GFSK 20dB Bandwidth (MHz)	$\Pi/4$ -DQPSK 20dB Bandwidth (MHz)	8DPSK 20dB Bandwidth (MHz)	Result
Low	2402	0.865	1.220	1.210	Pass
Middle	2441	0.832	1.218	1.211	Pass
High	2480	0.825	1.220	1.211	Pass

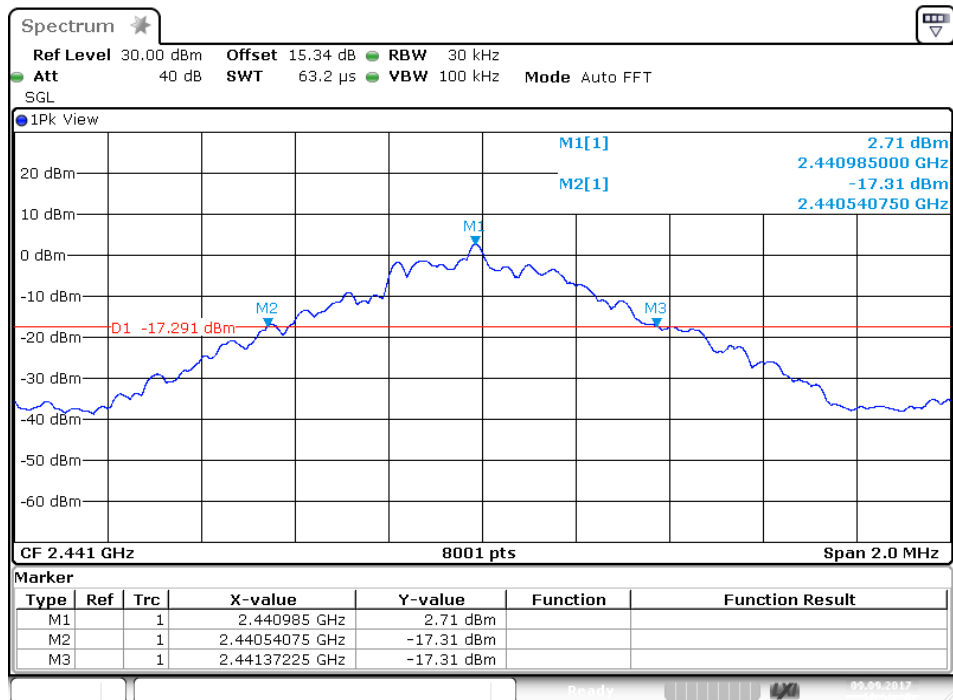
The spectrum analyzer plots are attached as below.

GFSK Mode

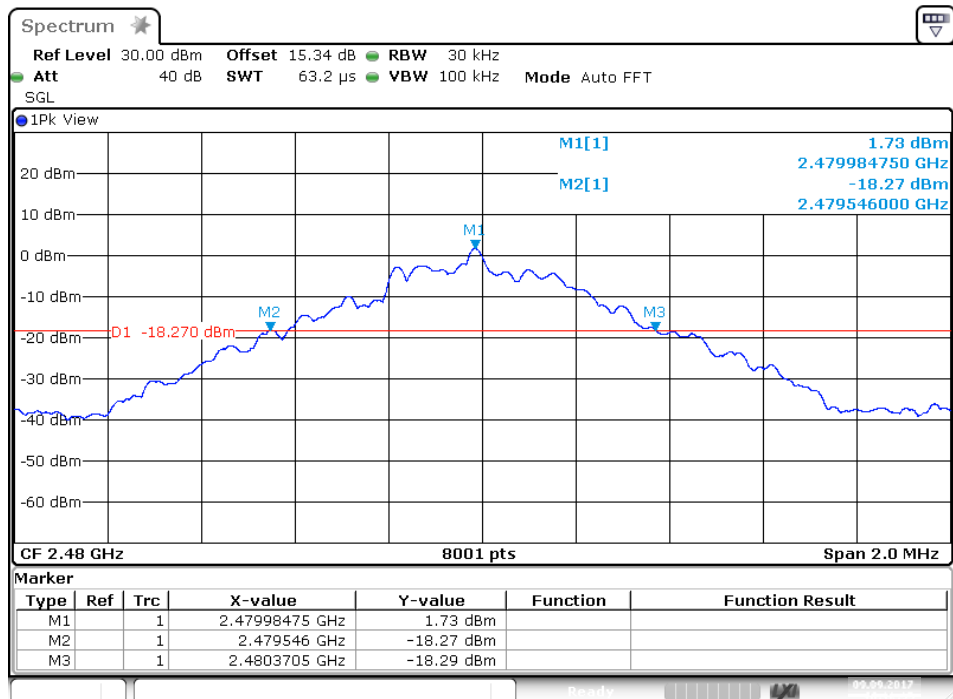
Low channel



Middle channel

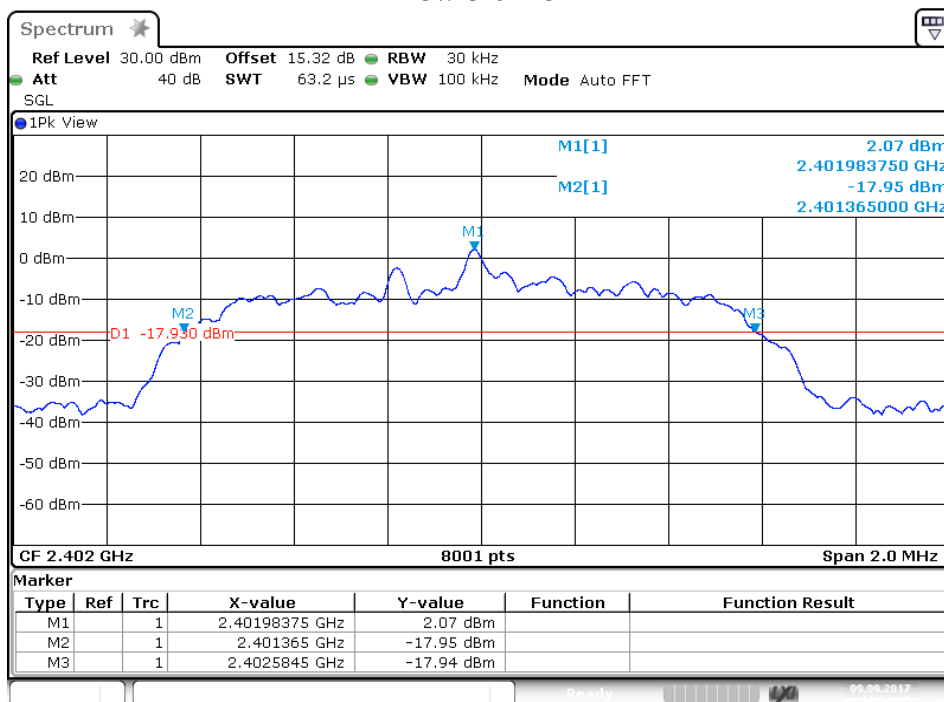


High channel

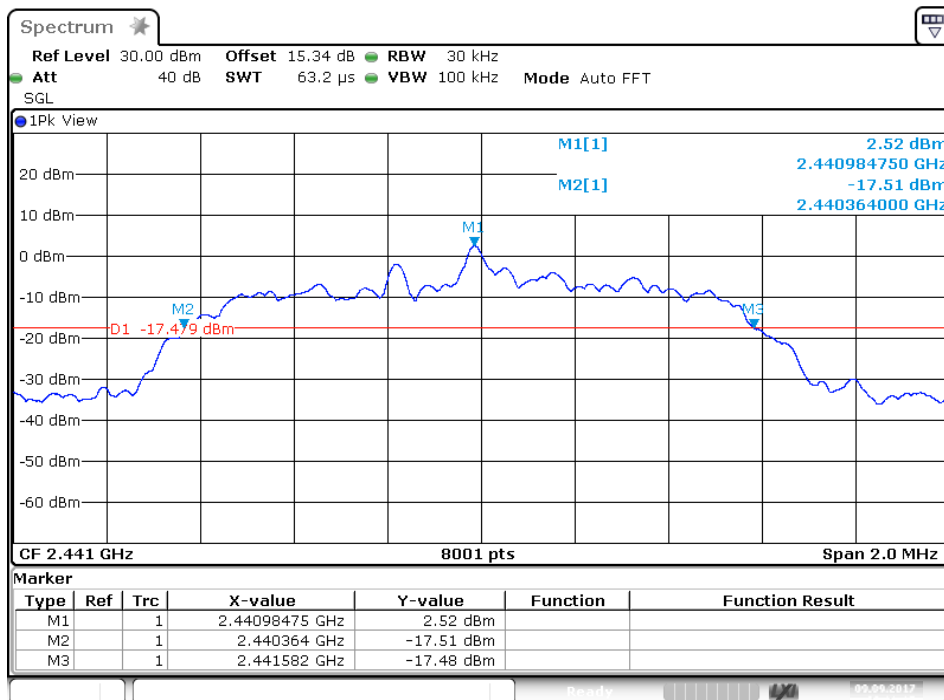


Π/4-DQPSK Mode

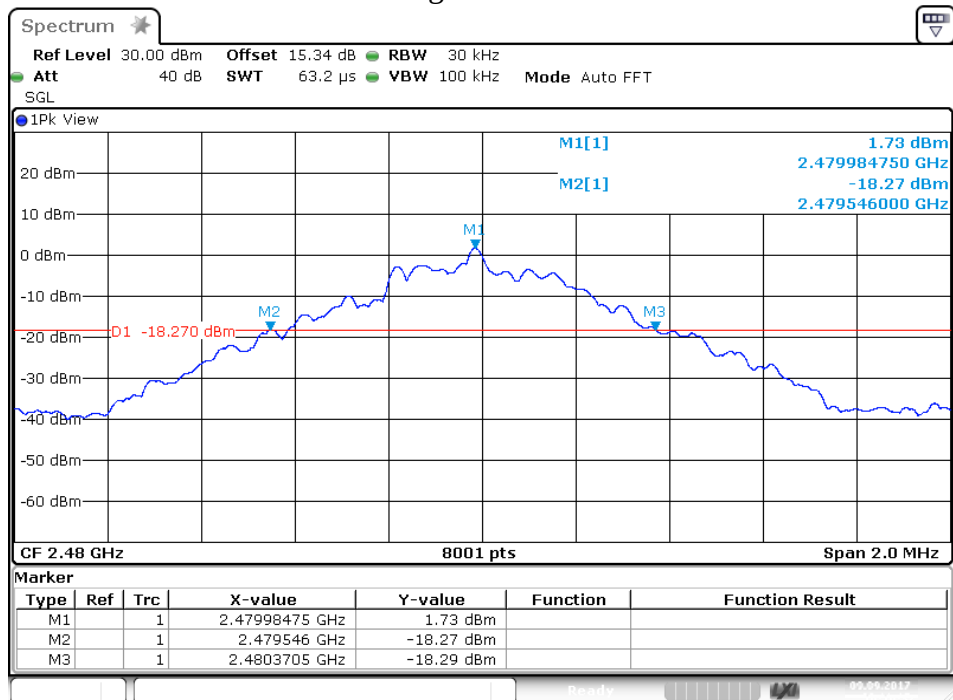
Low channel



Middle channel

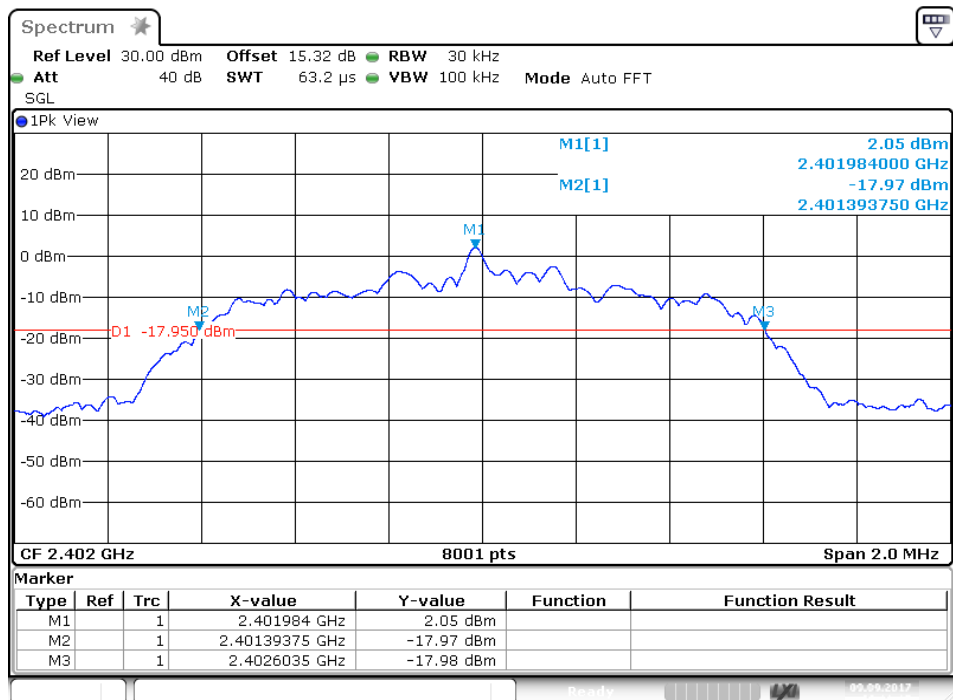


High channel

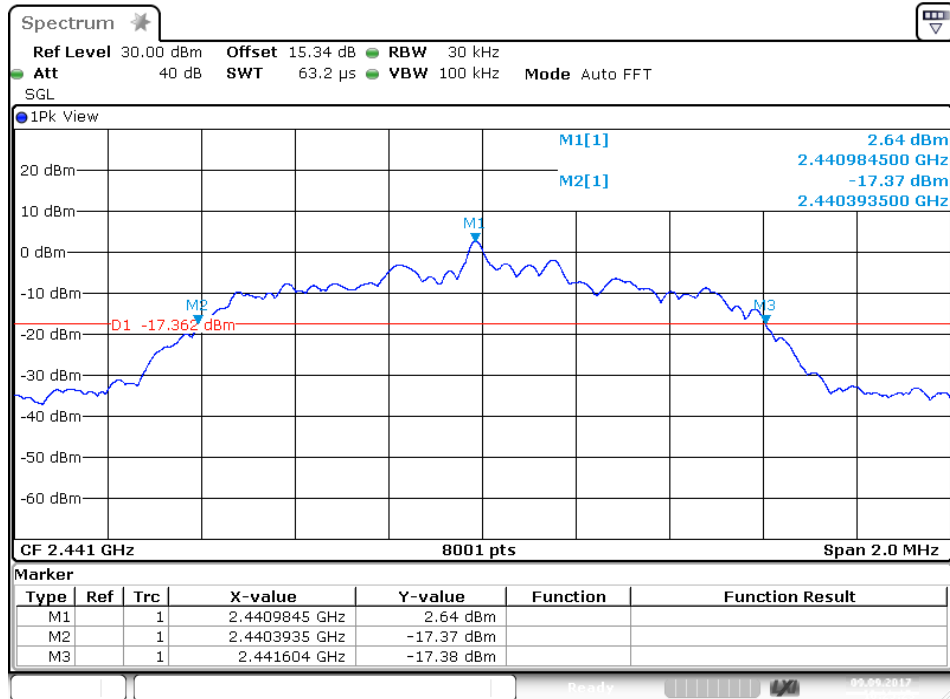


8DPSK Mode

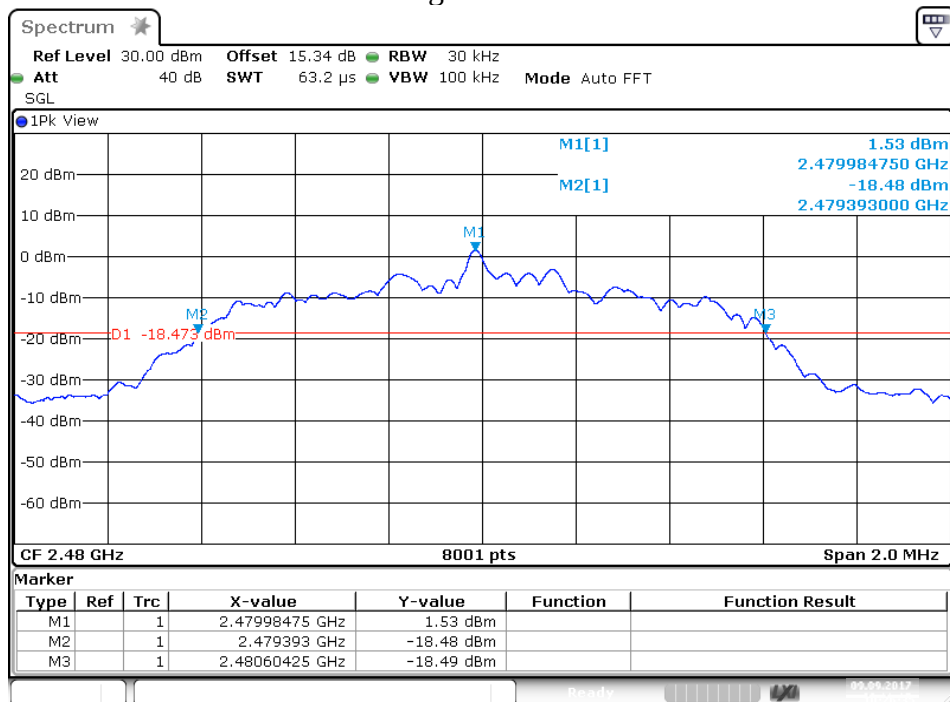
Low channel



Middle channel

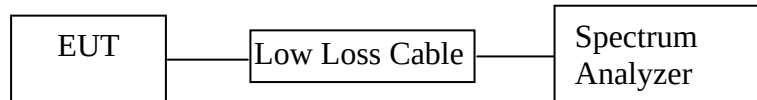


High channel



6. CARRIER FREQUENCY SEPARATION TEST

6.1. Block Diagram of Test Setup



(EUT: Stereo Turntable System)

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. 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.

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 on) 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. Set RBW of spectrum analyzer to 30 kHz and VBW to 100 kHz. Adjust Span to 2MHz.

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

6.5.4. Measurement the channel separation

6.6. Test Result

GFSK

Channel	Frequency (MHz)	Channel Separation(MHz)	Limit (MHz)	Result
Low	2402	1.000	25KHz or 20dB bandwidth	PASS
	2403			
Middle	2440	1.004	25KHz or 20dB bandwidth	PASS
	2441			
High	2479	1.004	25KHz or 20dB bandwidth	PASS
	2480			

Π/4-DQPSK

Channel	Frequency (MHz)	Channel Separation(MHz)	Limit (MHz)	Result
Low	2402	1.002	25KHz or 2/3*20dB bandwidth	PASS
	2403			
Middle	2440	1.008	25KHz or 2/3*20dB bandwidth	PASS
	2441			
High	2479	1.004	25KHz or 2/3*20dB bandwidth	PASS
	2480			

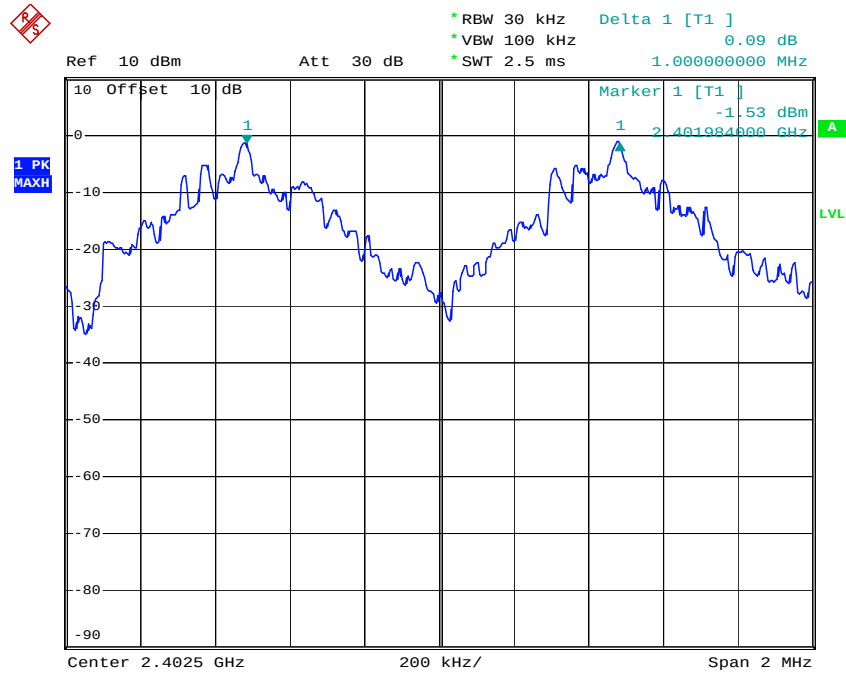
8DPSK

Channel	Frequency (MHz)	Channel Separation(MHz)	Limit (MHz)	Result
Low	2402	1.002	25KHz or 2/3*20dB bandwidth	PASS
	2403			
Middle	2440	1.002	25KHz or 2/3*20dB bandwidth	PASS
	2441			
High	2479	1.008	25KHz or 2/3*20dB bandwidth	PASS
	2480			

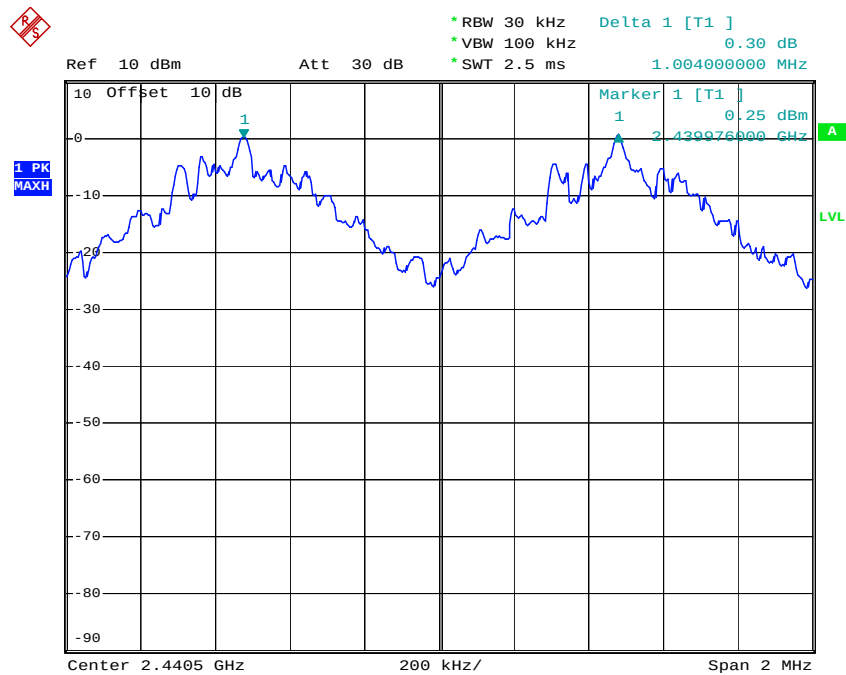
The spectrum analyzer plots are attached as below.

GFSK Mode

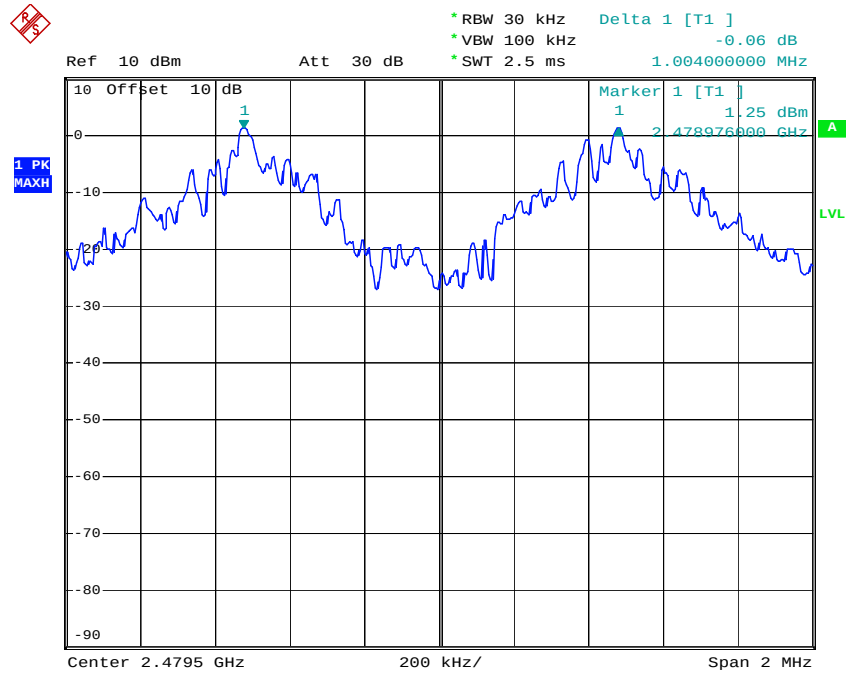
Low channel



Middle channel

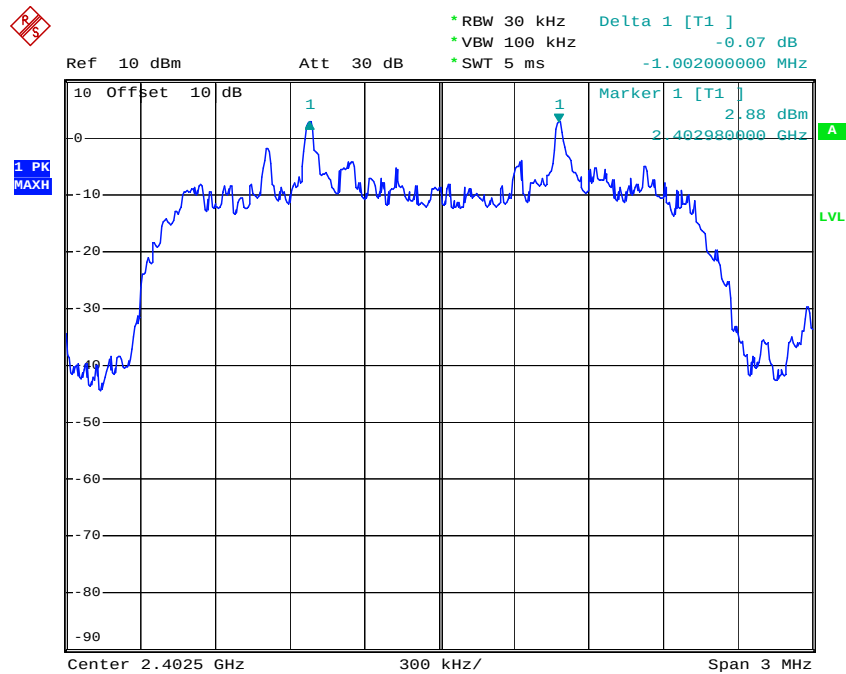


High channel

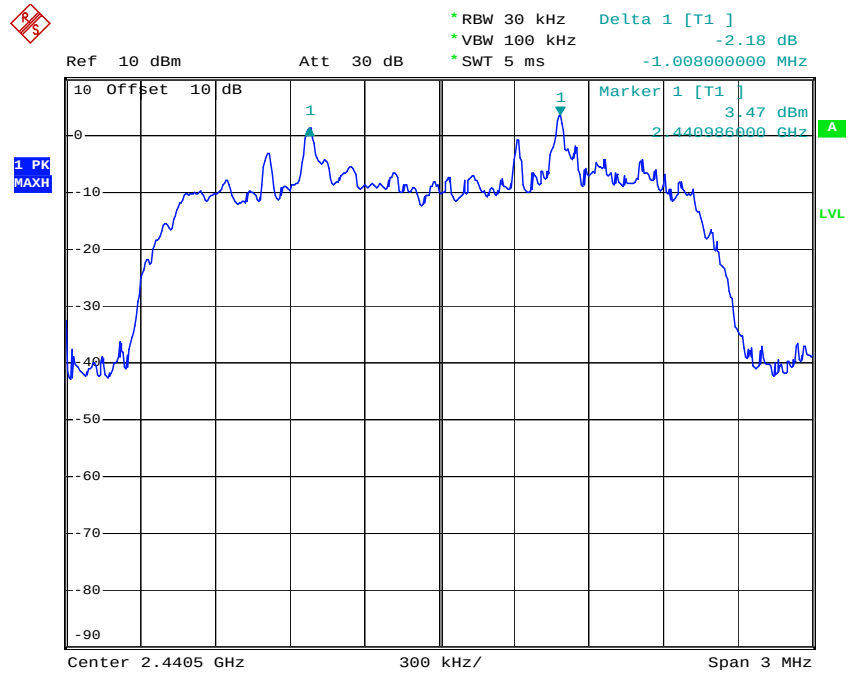


Π/4-DQPSK Mode

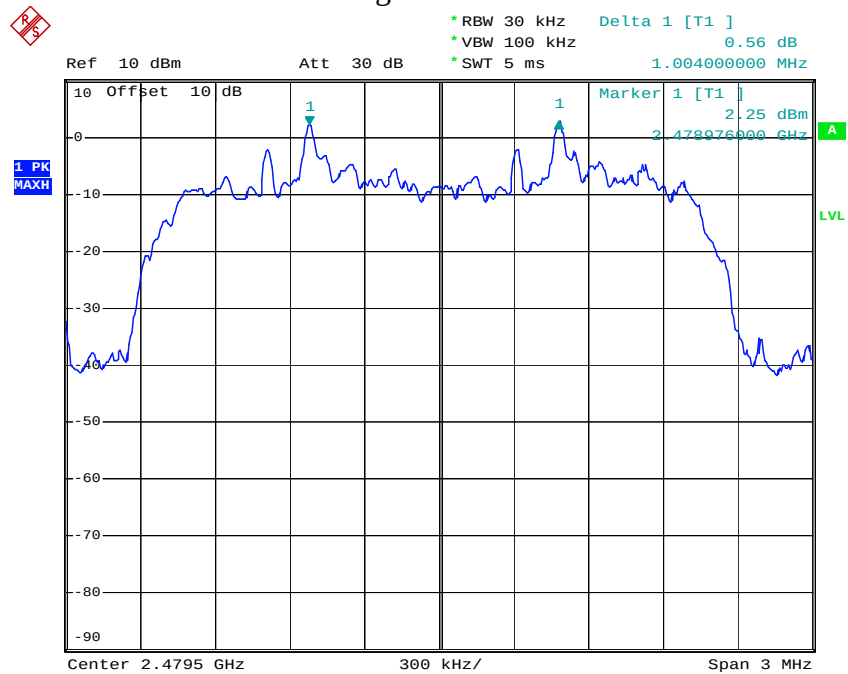
Low channel



Middle channel

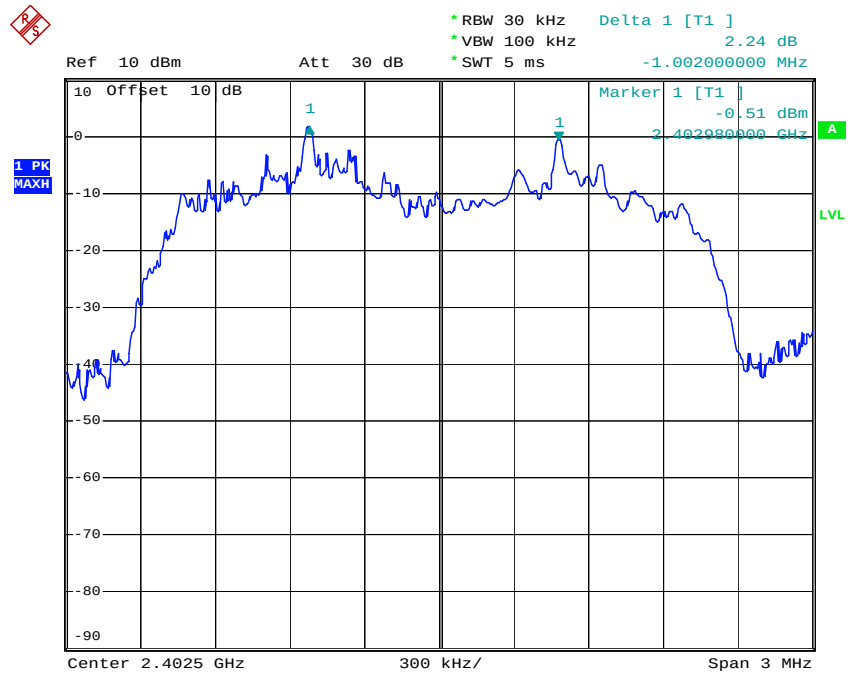


High channel

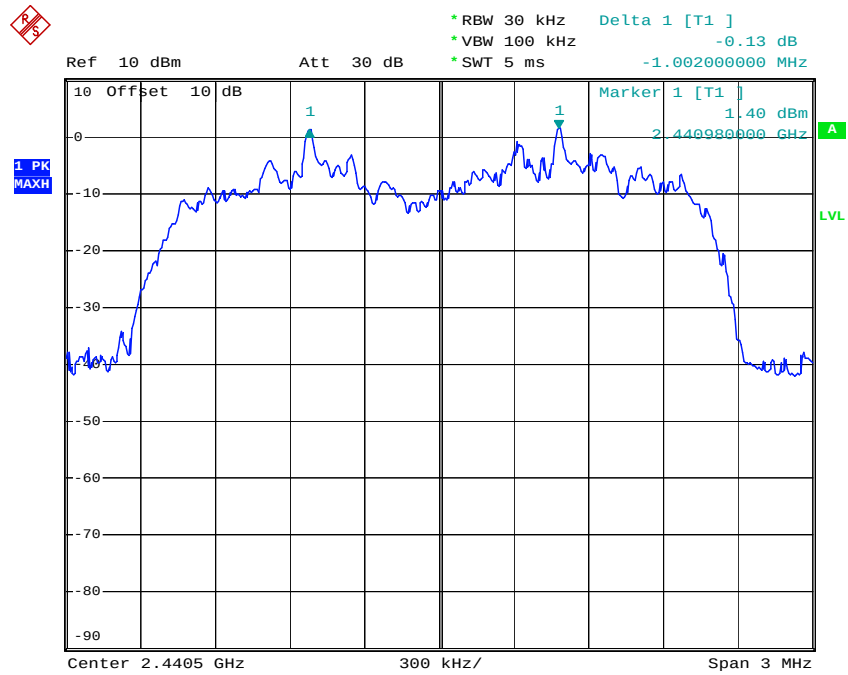


8DPSK Mode

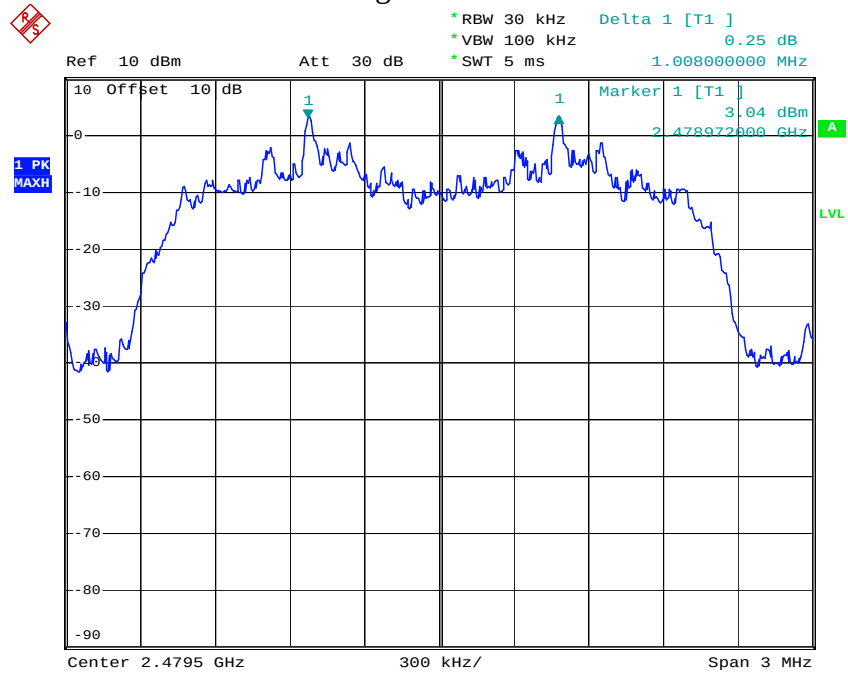
Low channel



Middle channel

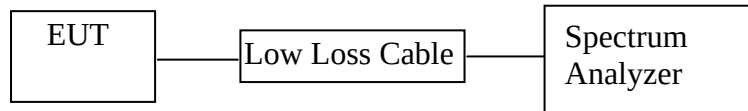


High channel



7. NUMBER OF HOPPING FREQUENCY TEST

7.1. Block Diagram of Test Setup



(EUT: Stereo Turntable System)

7.2. 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.

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.

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 the spectrum analyzer as RBW=100 kHz, VBW=300 kHz.

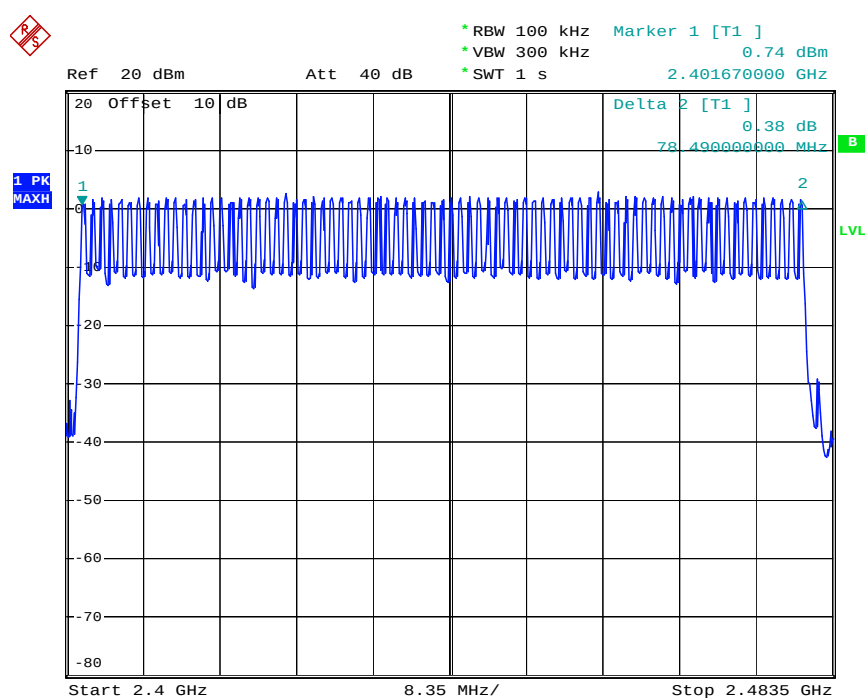
7.5.3. Max hold, view and count how many channel in the band.

7.6.Test Result

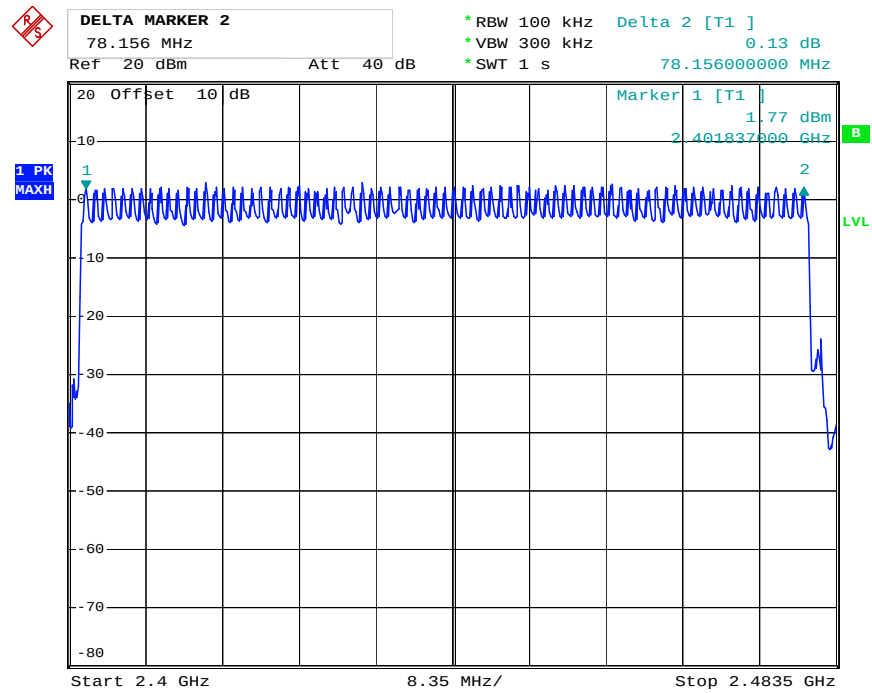
Total number of hopping channel	Measurement result(CH)	Limit(CH)
	79	≥ 15

The spectrum analyzer plots are attached as below.

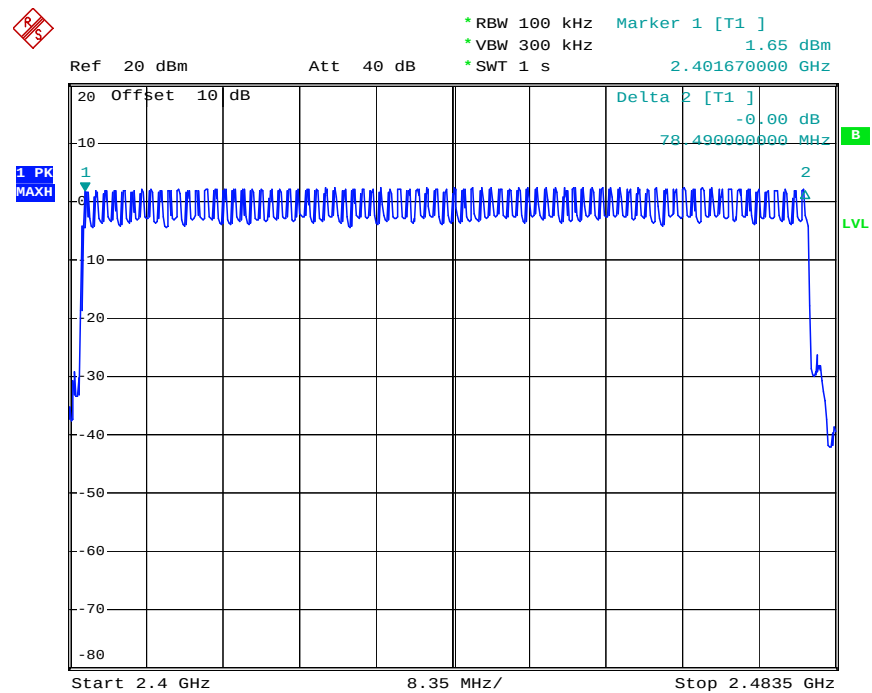
Number of hopping channels(GFSK)



Number of hopping channels($\Pi/4$ -DQPSK)

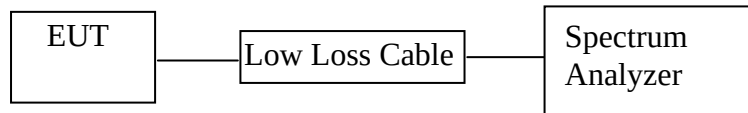


Number of hopping channels(8DPSK)



8. DWELL TIME TEST

8.1. Block Diagram of Test Setup



(EUT: Stereo Turntable System)

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. 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.

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. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2441MHz, and 2480MHz TX frequency to transmit.

8.5. Test Procedure

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

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

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

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

8.6. Test Result

GFSK Mode

Mode	Channel Frequency (MHz)	Pulse Time (ms)	Dwell Time (ms)	Limit (ms)
DH1	2402	0.440	140.80	400
	2441	0.440	140.80	400
	2480	0.440	140.80	400
A period transmit time = $0.4 \times 79 = 31.6$ Dwell time = pulse time $\times (1600/(2 \times 79)) \times 31.6$				
DH3	2402	1.720	275.20	400
	2441	1.720	275.20	400
	2480	1.700	272.00	400
A period transmit time = $0.4 \times 79 = 31.6$ Dwell time = pulse time $\times (1600/(4 \times 79)) \times 31.6$				
DH5	2402	3.000	320.00	400
	2441	3.000	320.00	400
	2480	2.960	315.73	400
A period transmit time = $0.4 \times 79 = 31.6$ Dwell time = pulse time $\times (1600/(6 \times 79)) \times 31.6$				

II/4-DQPSK

Mode	Channel Frequency (MHz)	Pulse Time (ms)	Dwell Time (ms)	Limit (ms)
DH1	2402	0.450	144.00	400
	2441	0.450	144.00	400
	2480	0.460	147.20	400
A period transmit time = $0.4 \times 79 = 31.6$ Dwell time = pulse time $\times (1600/(2 \times 79)) \times 31.6$				
DH3	2402	1.700	272.00	400
	2441	1.720	275.20	400
	2480	1.720	275.20	400
A period transmit time = $0.4 \times 79 = 31.6$ Dwell time = pulse time $\times (1600/(4 \times 79)) \times 31.6$				
DH5	2402	3.020	322.13	400
	2441	3.020	322.13	400
	2480	3.020	322.13	400
A period transmit time = $0.4 \times 79 = 31.6$ Dwell time = pulse time $\times (1600/(6 \times 79)) \times 31.6$				

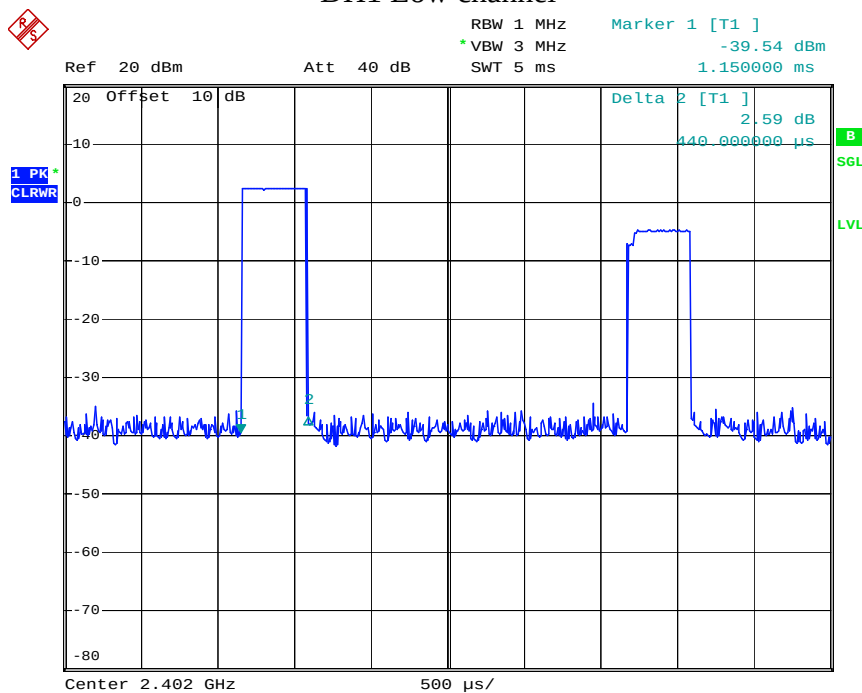
8DPSK Mode

Mode	Channel Frequency (MHz)	Pulse Time (ms)	Dwell Time (ms)	Limit (ms)
DH1	2402	0.460	147.20	400
	2441	0.450	144.00	400
	2480	0.460	147.20	400
A period transmit time = $0.4 \times 79 = 31.6$ Dwell time = pulse time $\times (1600/(2 \times 79)) \times 31.6$				
DH3	2402	1.720	275.20	400
	2441	1.720	275.20	400
	2480	1.720	275.20	400
A period transmit time = $0.4 \times 79 = 31.6$ Dwell time = pulse time $\times (1600/(4 \times 79)) \times 31.6$				
DH5	2402	3.040	318.51	400
	2441	3.040	318.51	400
	2480	3.000	320.00	400
A period transmit time = $0.4 \times 79 = 31.6$ Dwell time = pulse time $\times (1600/(6 \times 79)) \times 31.6$				

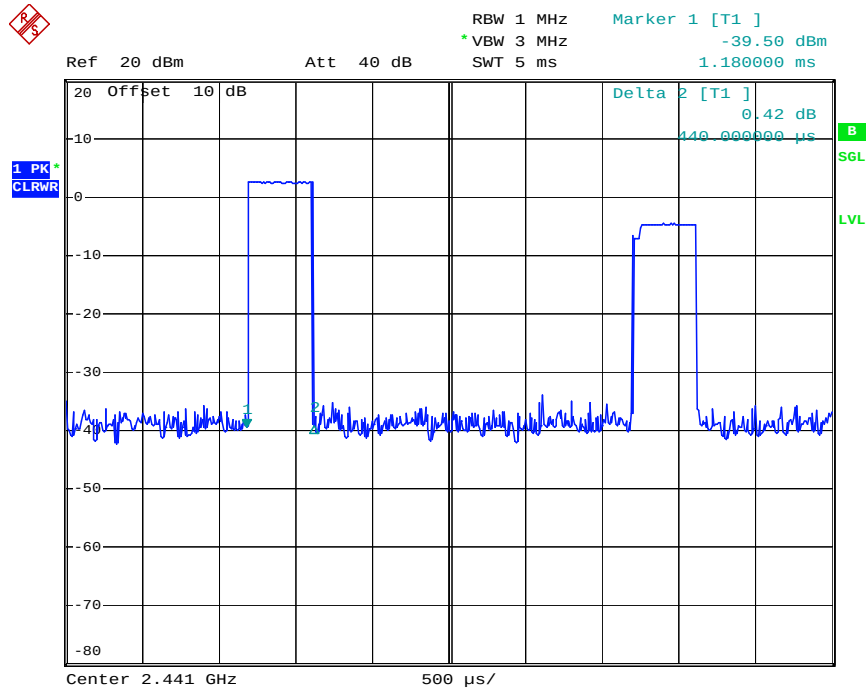
The spectrum analyzer plots are attached as below.

GFSK Mode

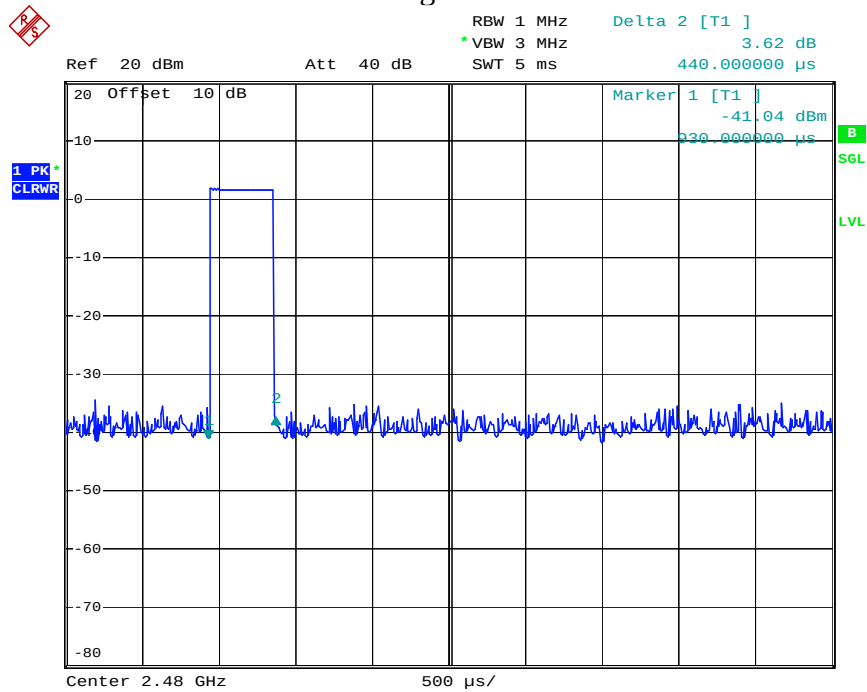
DH1 Low channel



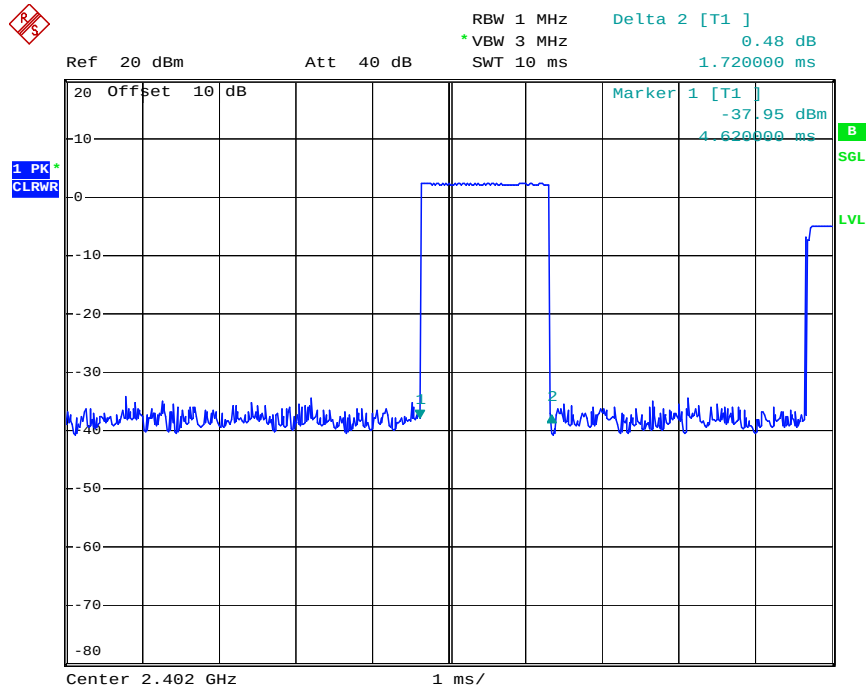
DH1 Middle channel



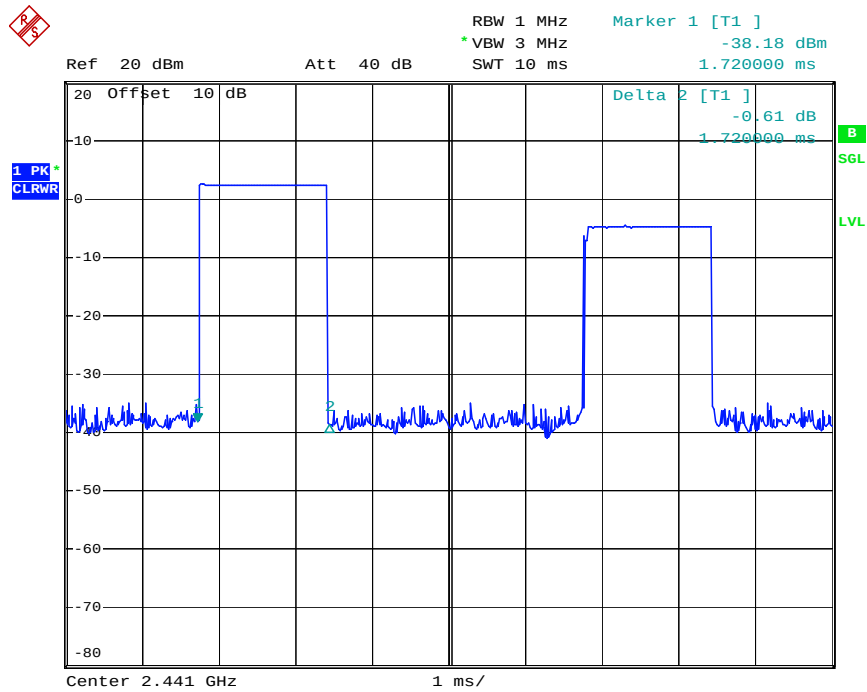
DH1 High channel



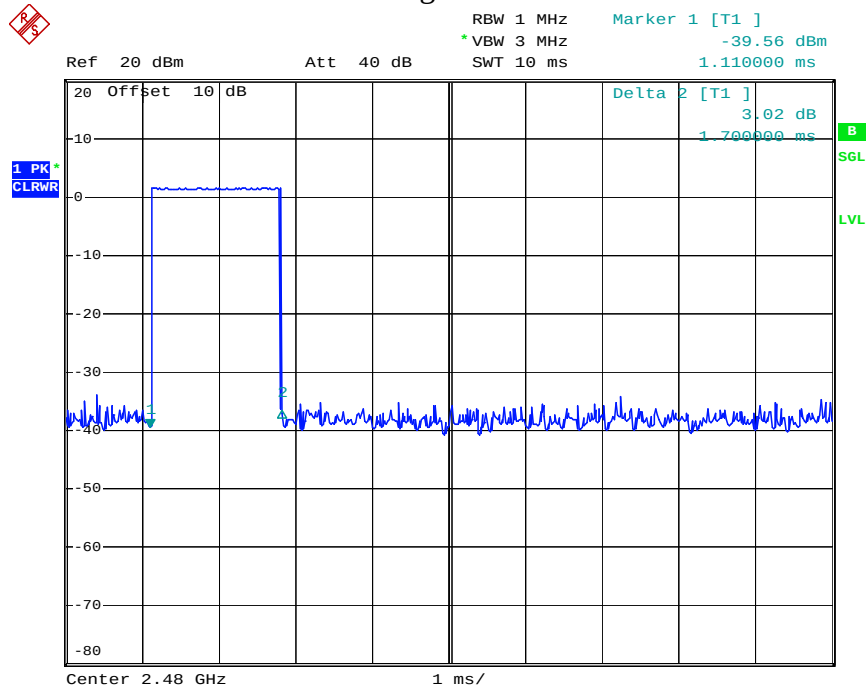
DH3 Low channel



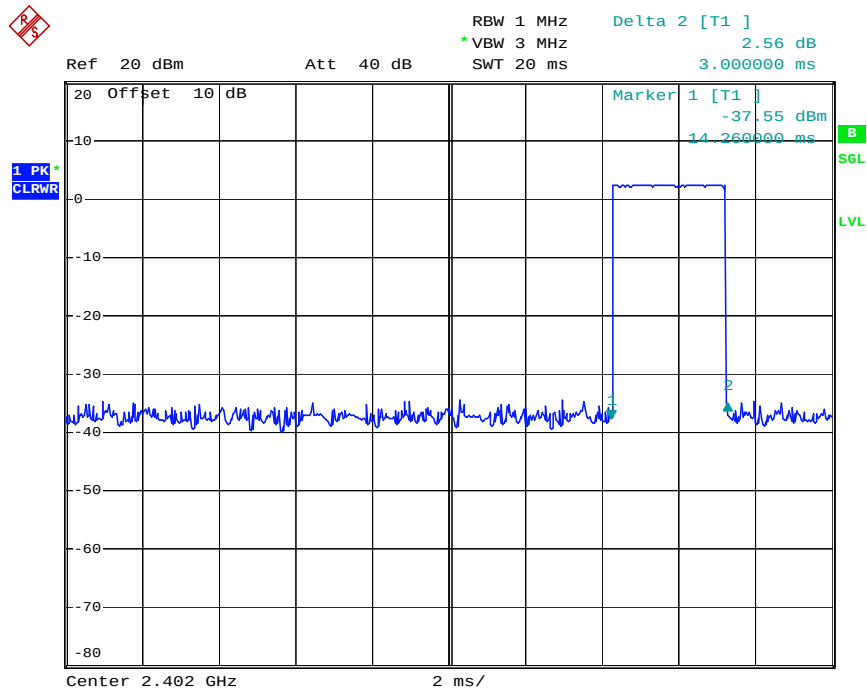
DH3 Middle channel



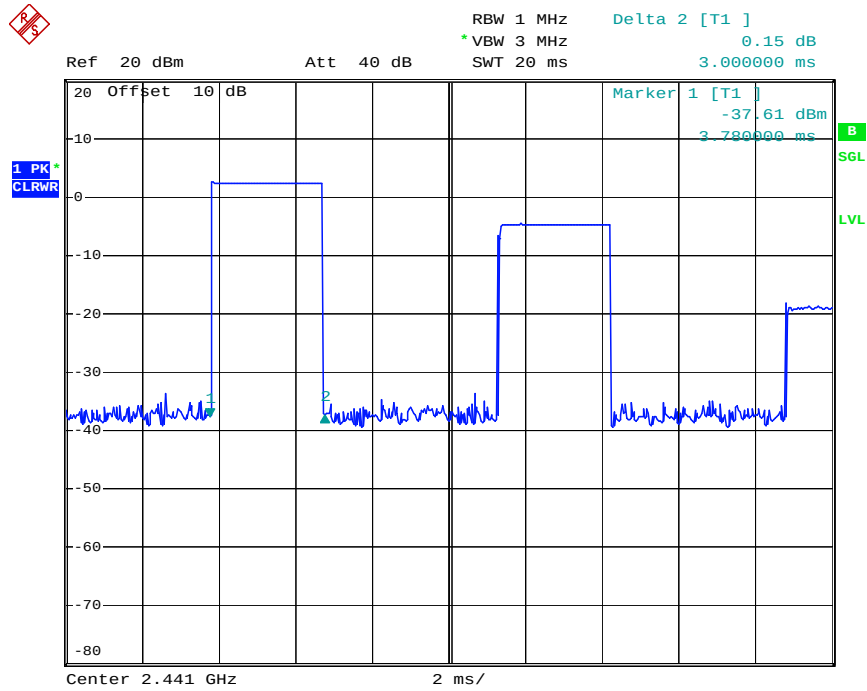
DH3 High channel



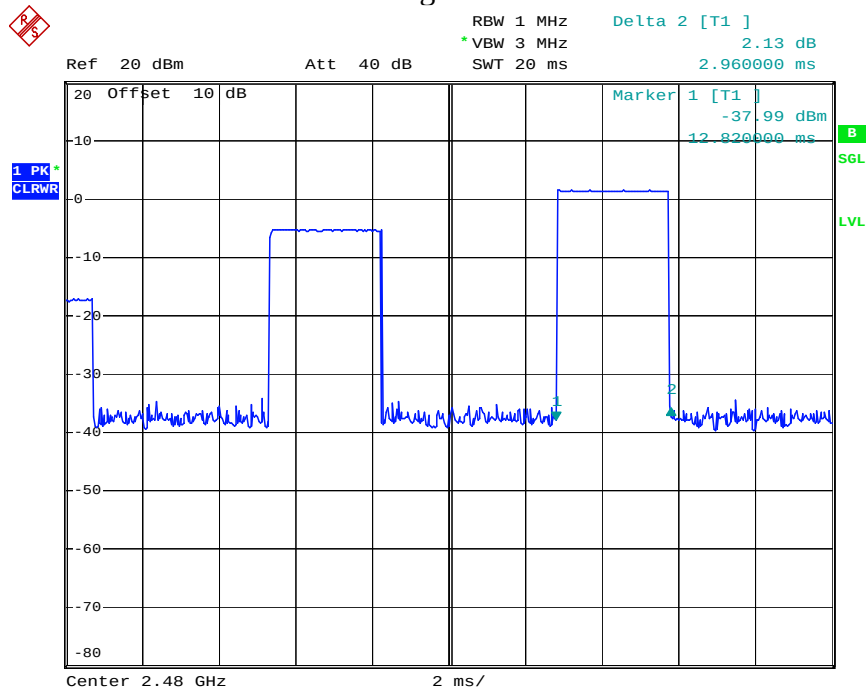
DH5 Low channel



DH5 Middle channel

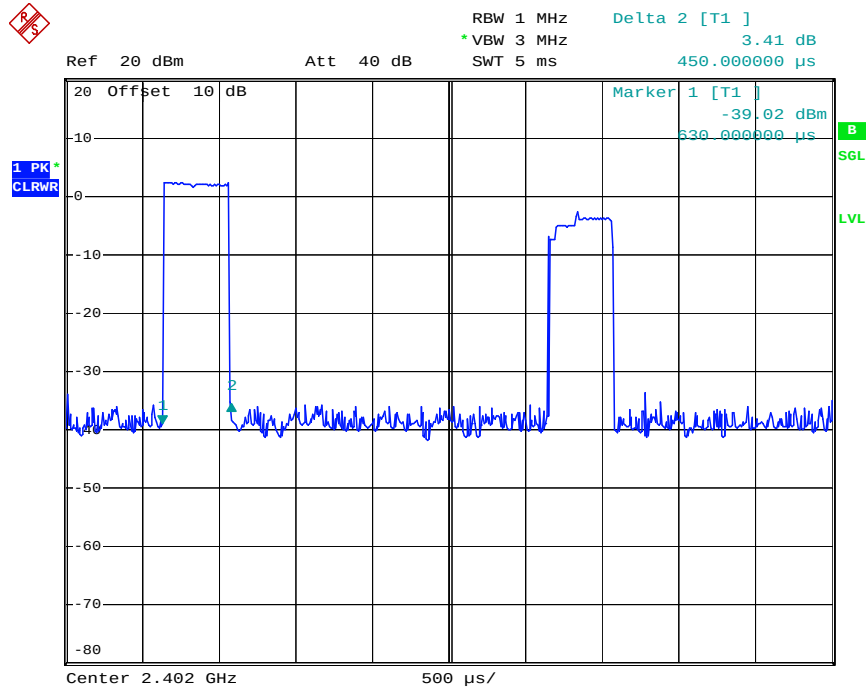


DH5 High channel

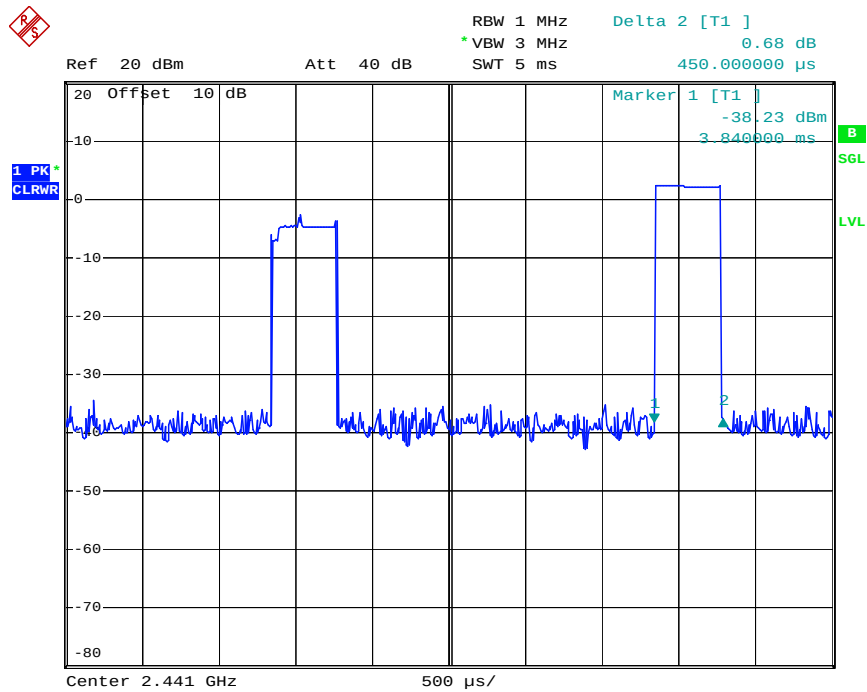


$\Pi/4$ -DQPSK

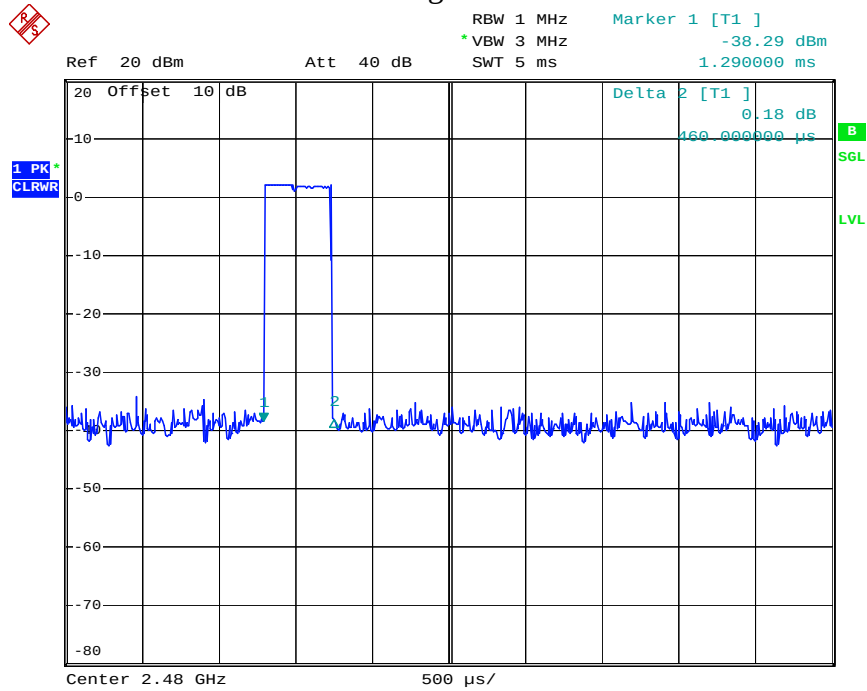
2DH1 Low channel



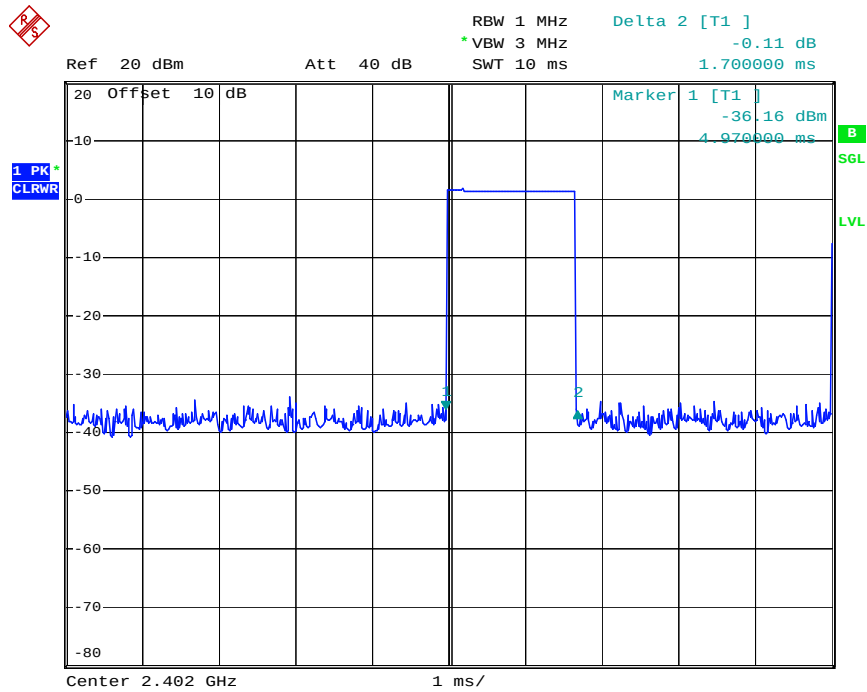
2DH1 Middle channel



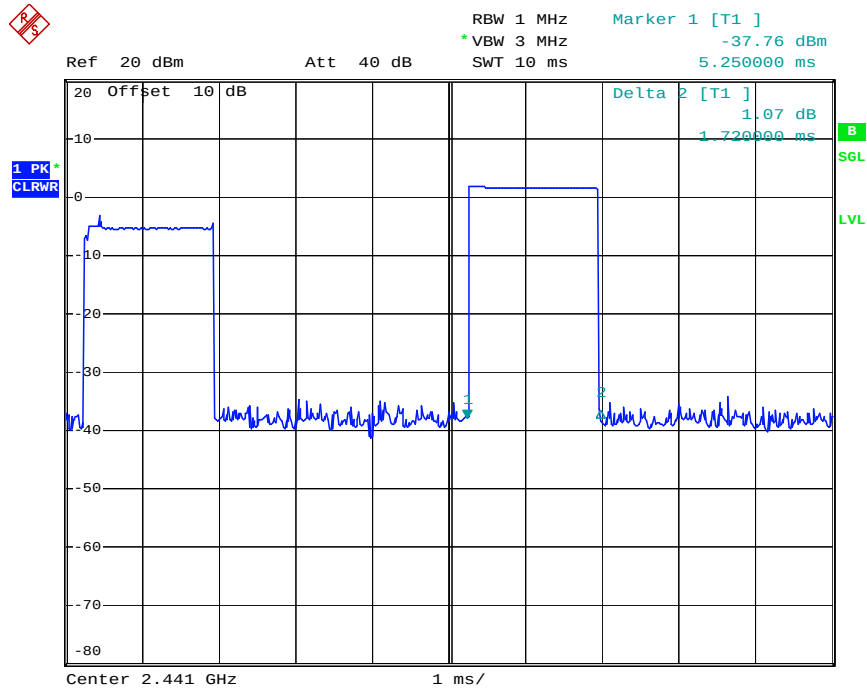
2DH1 High channel



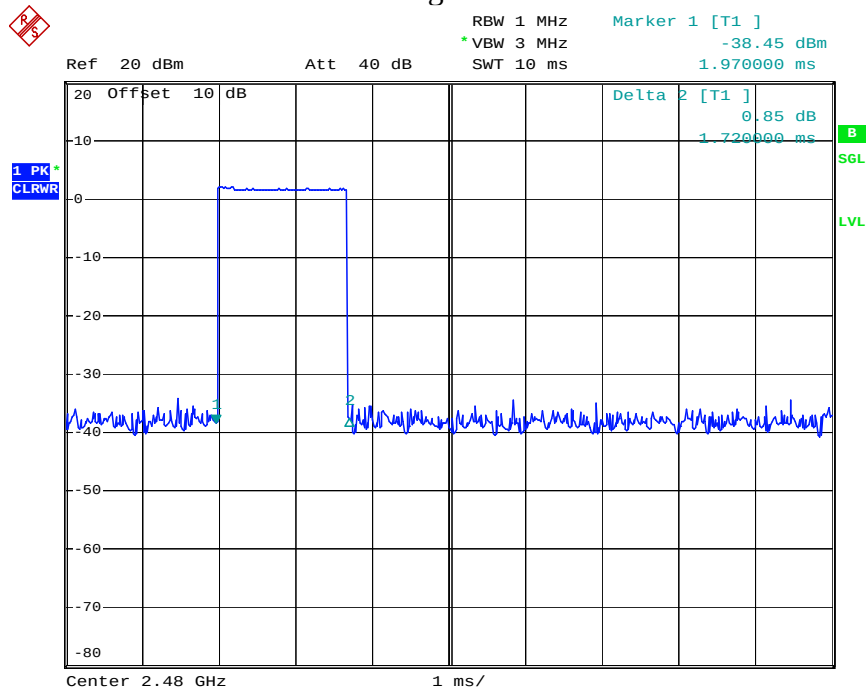
2DH3 Low channel



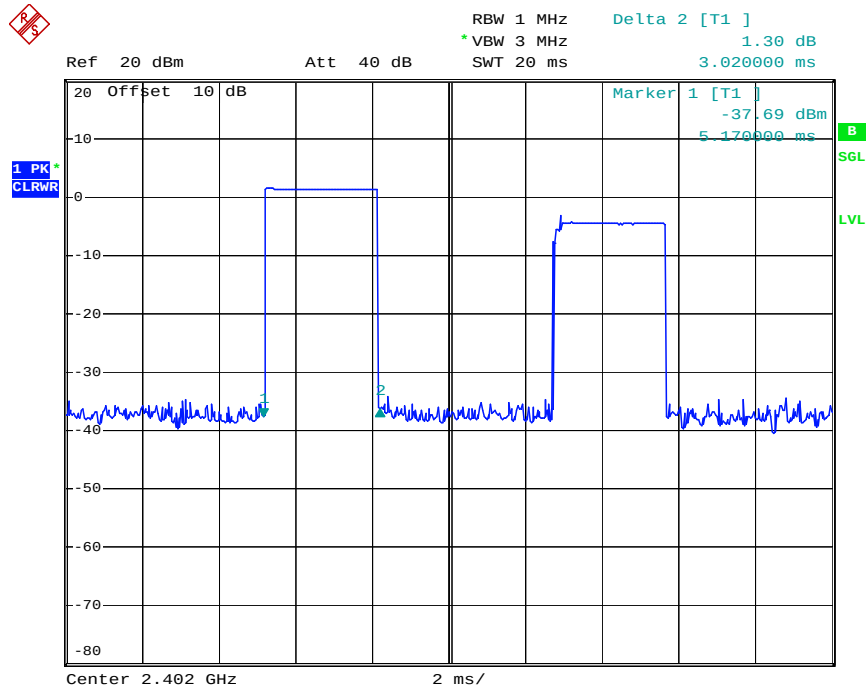
2DH3 Middle channel



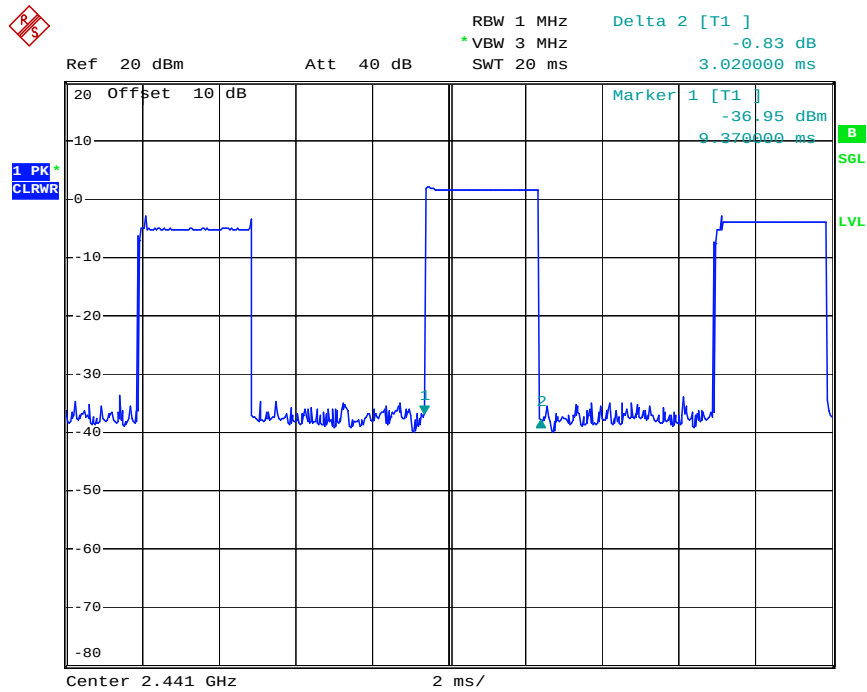
2DH3 High channel

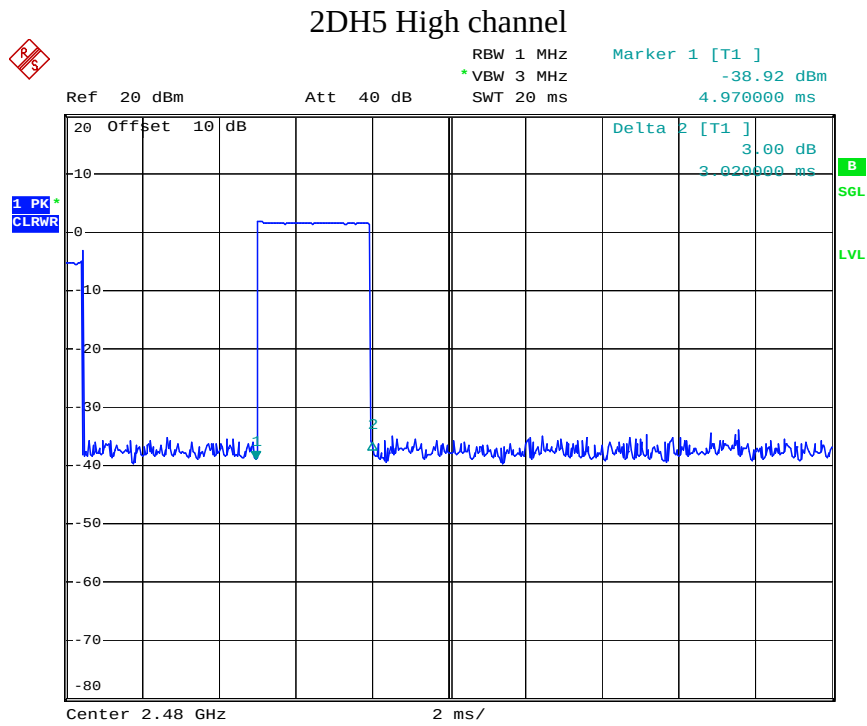


2DH5 Low channel

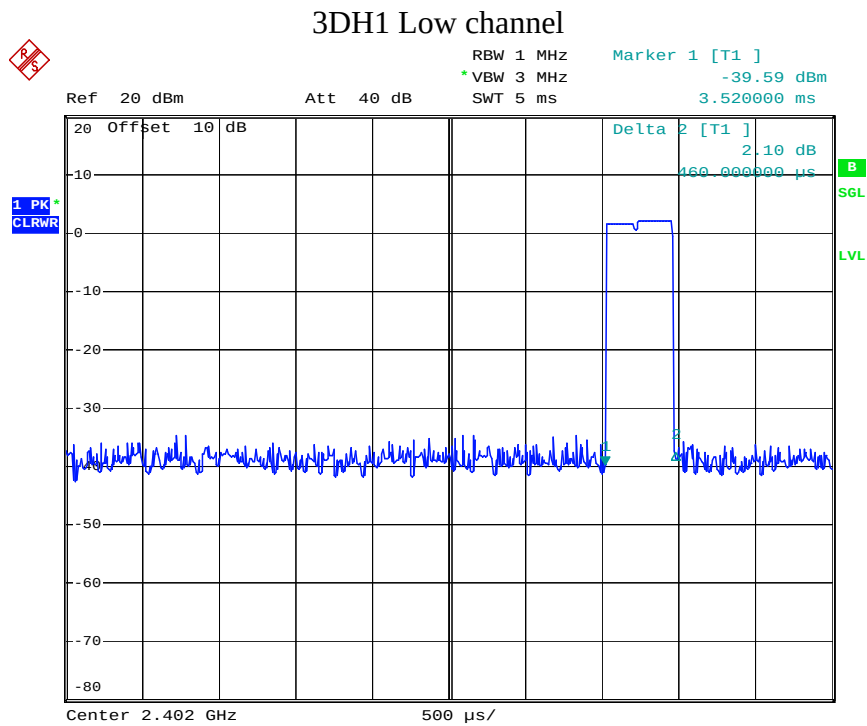


2DH5 Middle channel

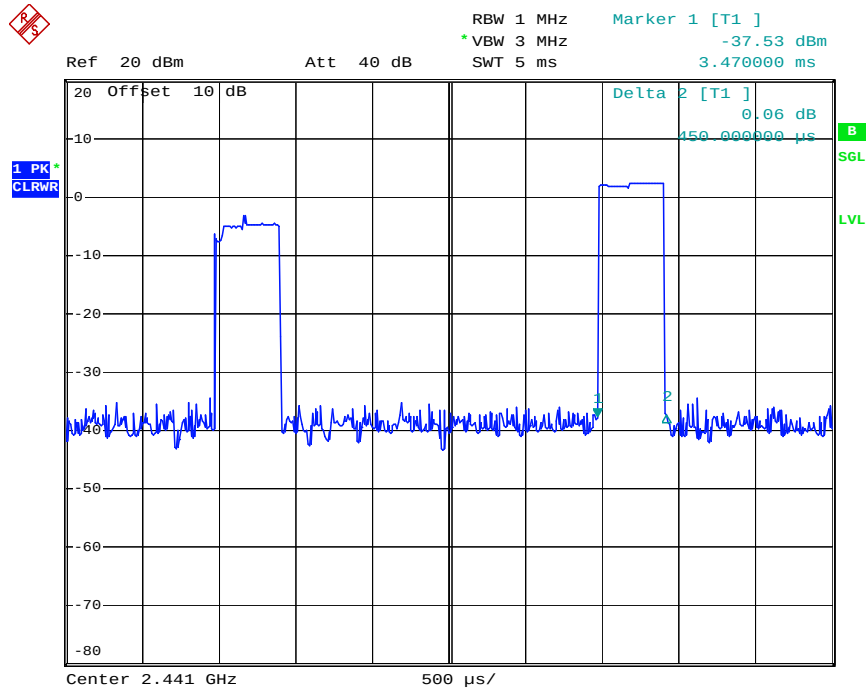




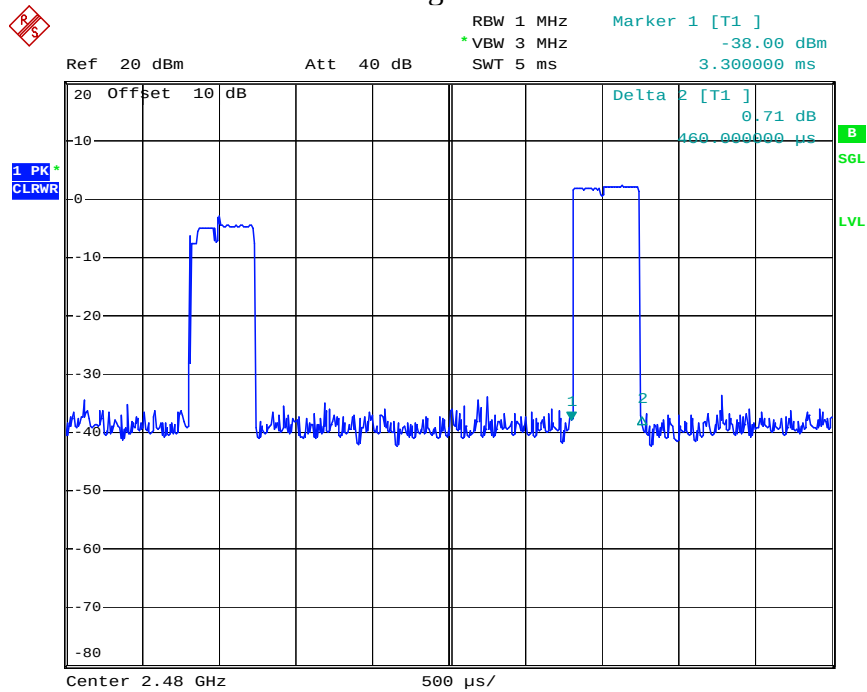
8DPSK Mode



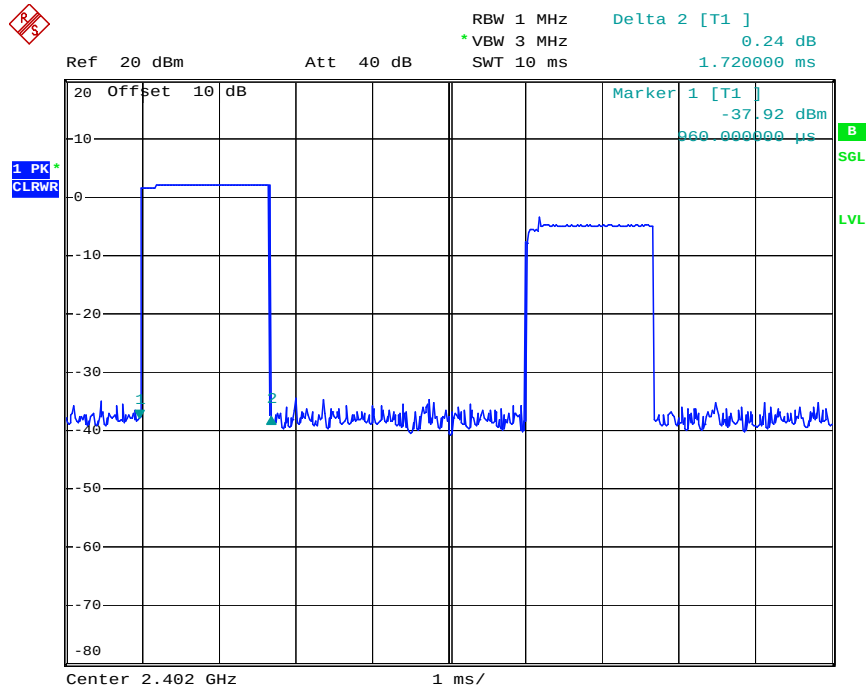
3DH1 Middle channel



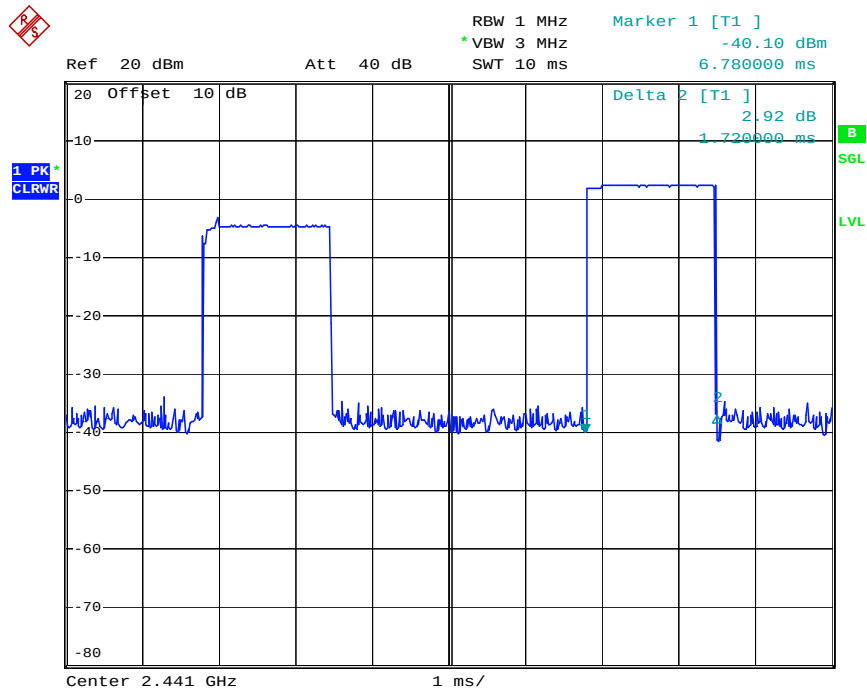
3DH1 High channel



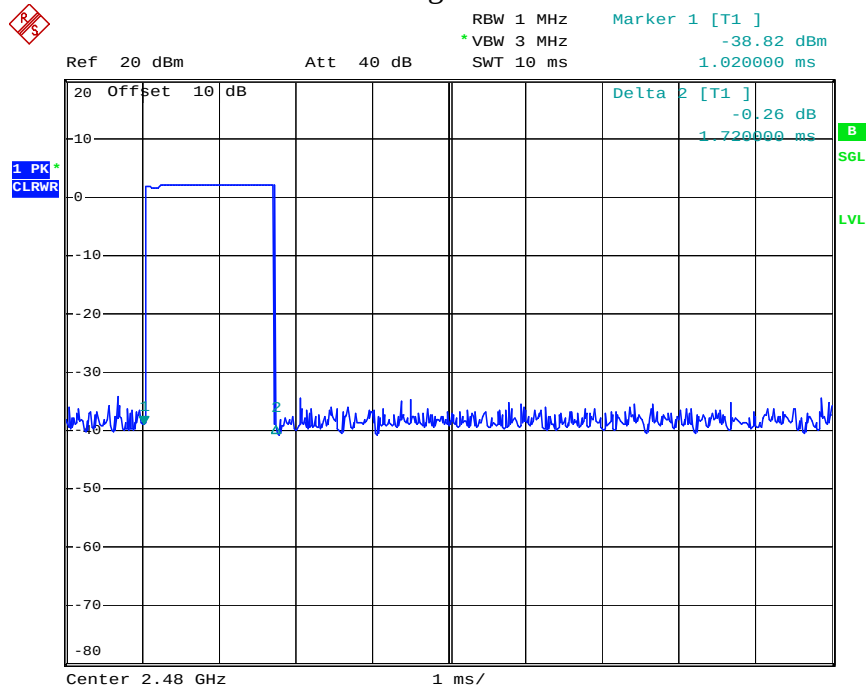
3DH3 Low channel



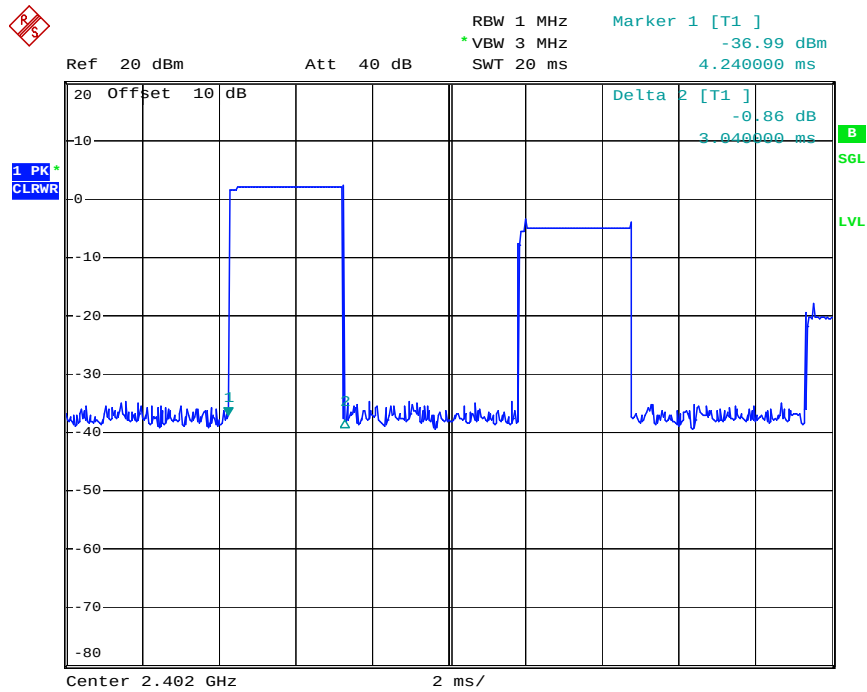
3DH3 Middle channel



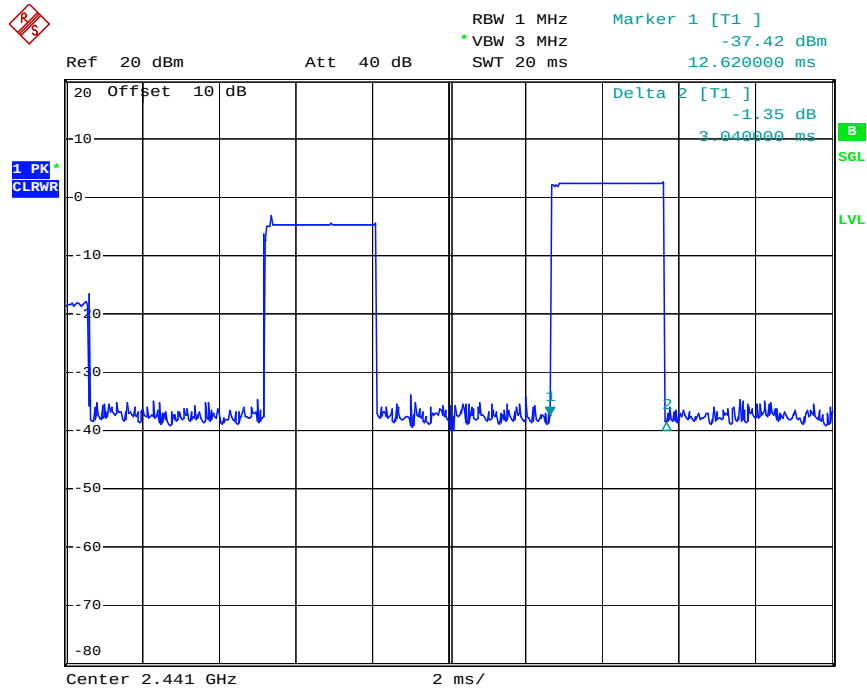
3DH3 High channel



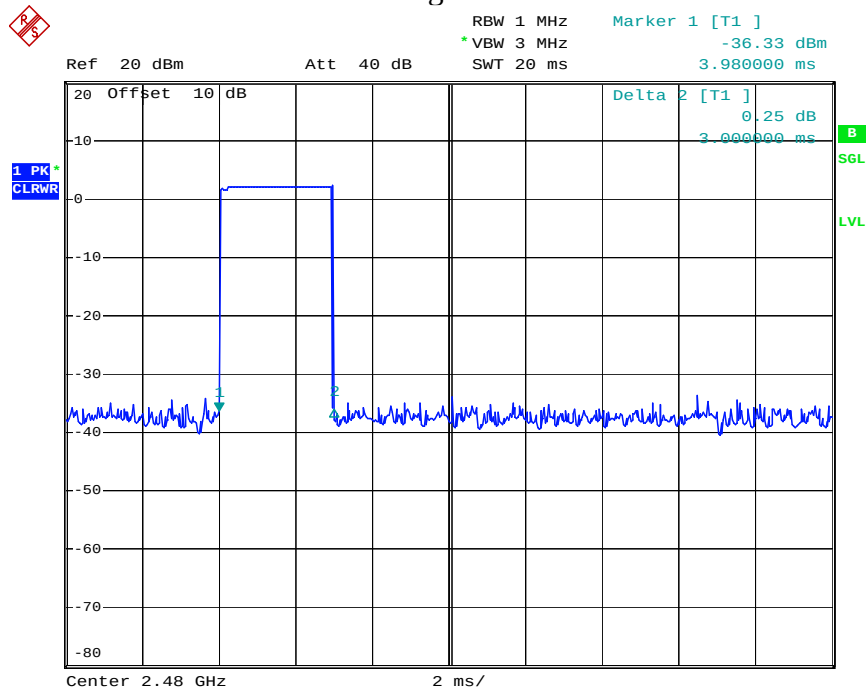
3DH5 Low channel



3DH5 Middle channel

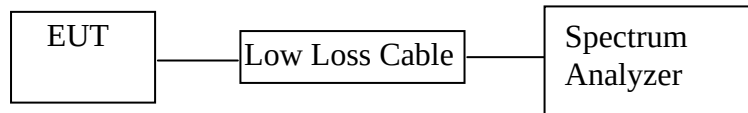


3DH5 High channel



9. MAXIMUM PEAK OUTPUT POWER TEST

9.1. Block Diagram of Test Setup



(EUT: Stereo Turntable System)

9.2. 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.

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 off) 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 RBW of spectrum analyzer to 1MHz and VBW to 3MHz for GFSK mode

9.5.3. Set RBW of spectrum analyzer to 3MHz and VBW to 3MHz for other mode

9.5.4. Measurement the maximum peak output power.

9.6.Test Result

GFSK Mode

Channel	Frequency (MHz)	Peak Output Power (dBm/W)	Limits dBm / W
Low	2402	-1.40/0.0007	30 / 1.0
Middle	2441	0.75/0.0012	30 / 1.0
High	2480	0.29/0.0011	30 / 1.0

II/4-DQPSK Mode

Channel	Frequency (MHz)	Peak Output Power (dBm/W)	Limits dBm / W
Low	2402	-0.49/0.0009	21 / 0.125
Middle	2441	1.28/0.0013	21 / 0.125
High	2480	0.75/0.0012	21 / 0.125

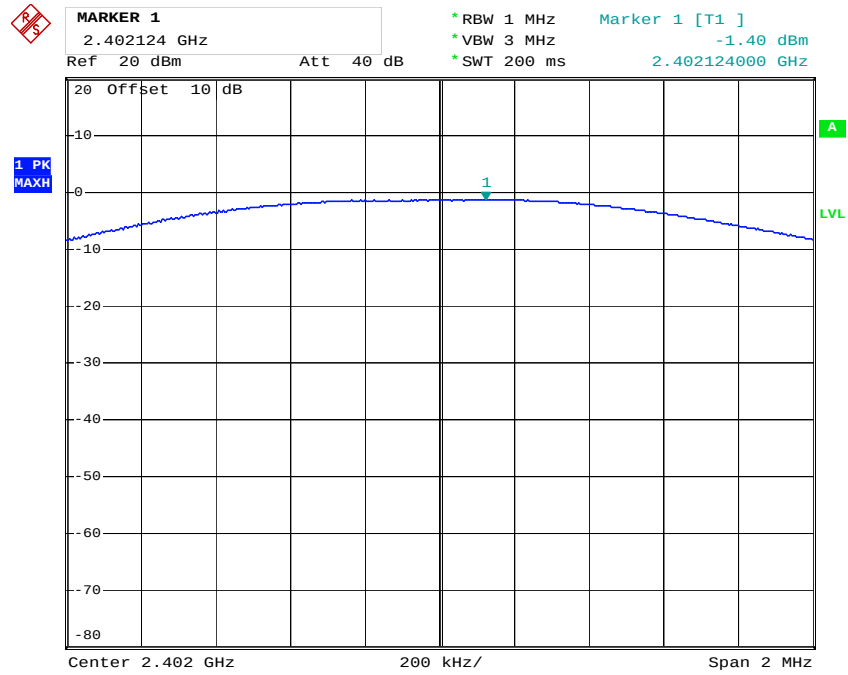
8DPSK Mode

Channel	Frequency (MHz)	Peak Output Power (dBm/W)	Limits dBm / W
Low	2402	-0.32/0.0009	21 / 0.125
Middle	2441	1.10/0.0013	21 / 0.125
High	2480	0.53/0.0011	21 / 0.125

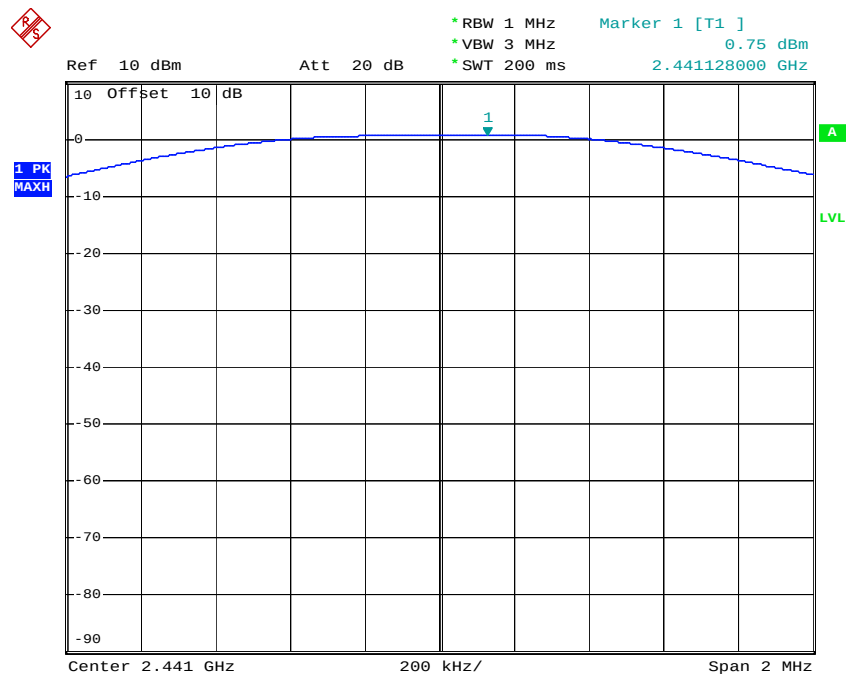
The spectrum analyzer plots are attached as below.

GFSK Mode

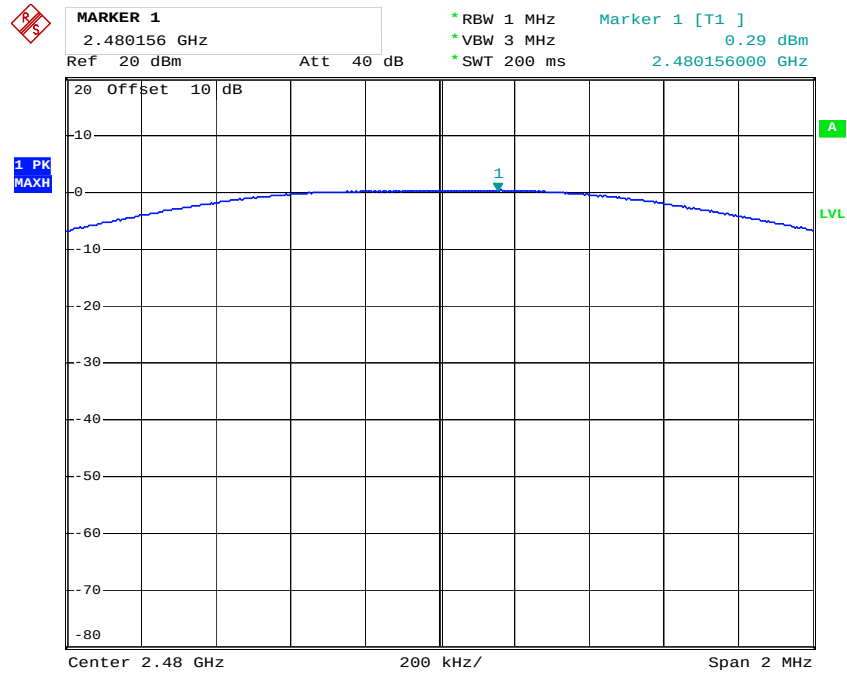
Low channel



Middle channel

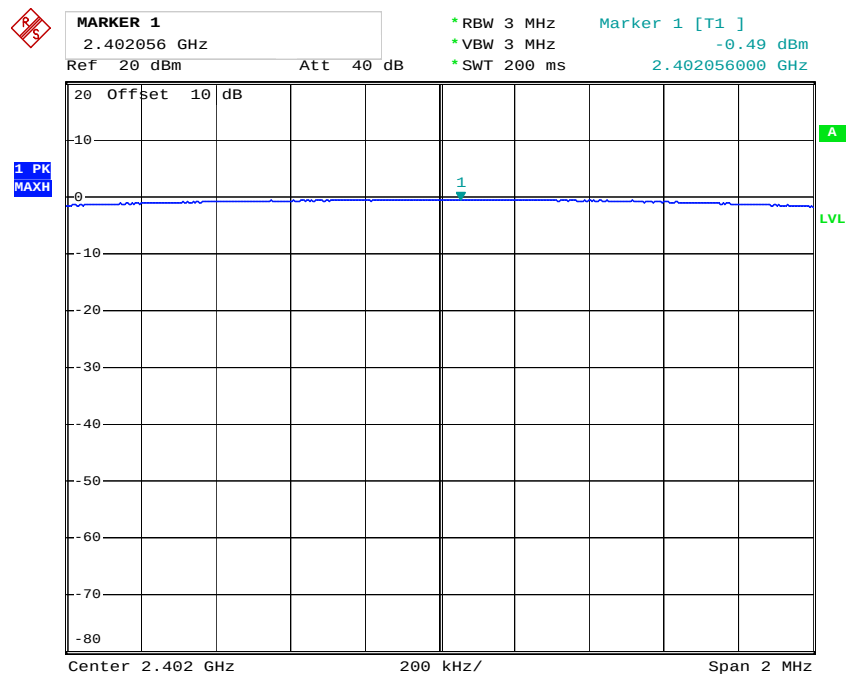


High channel

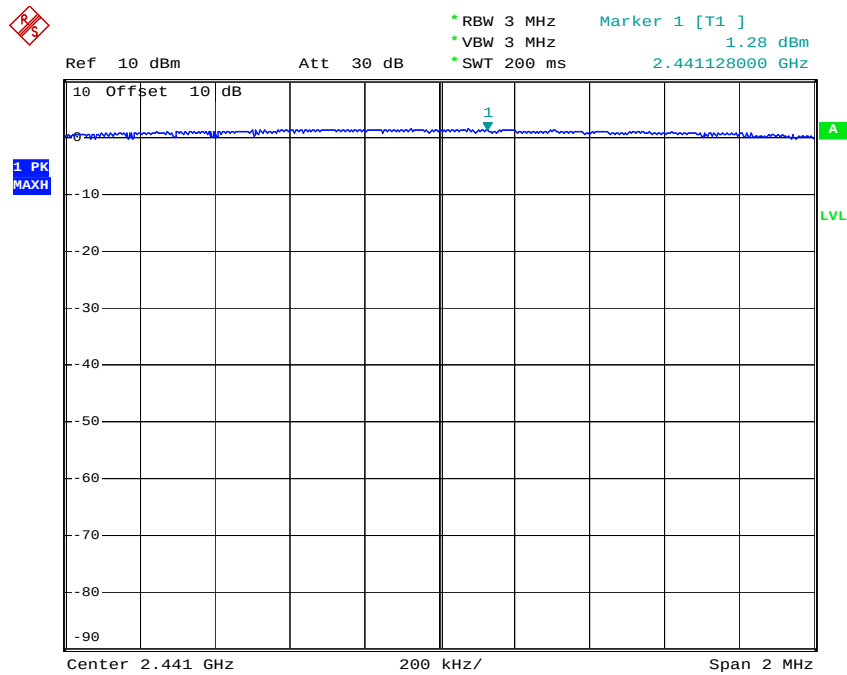


$\Pi/4$ -DQPSK Mode

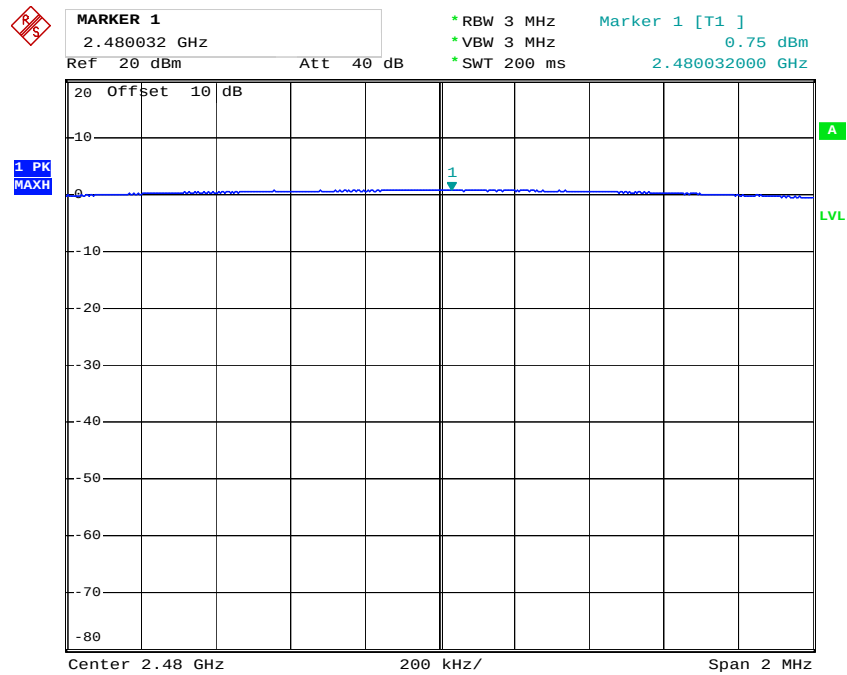
Low channel



Middle channel

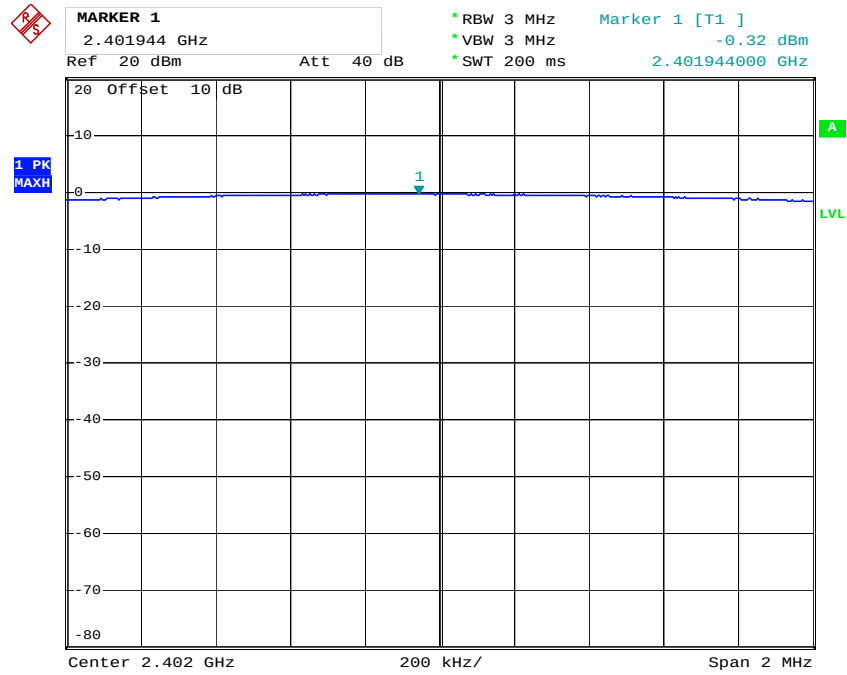


High channel

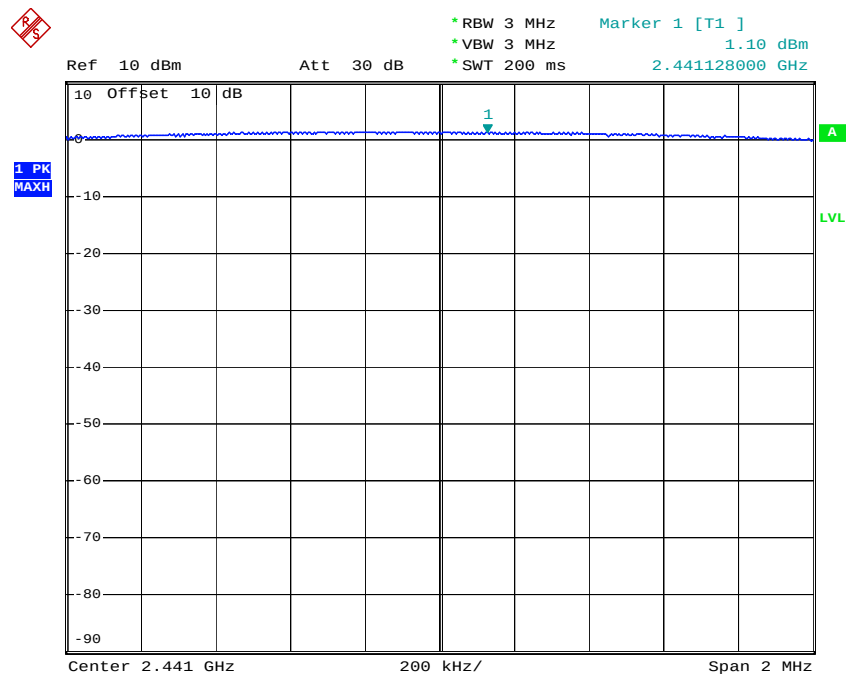


8DPSK Mode

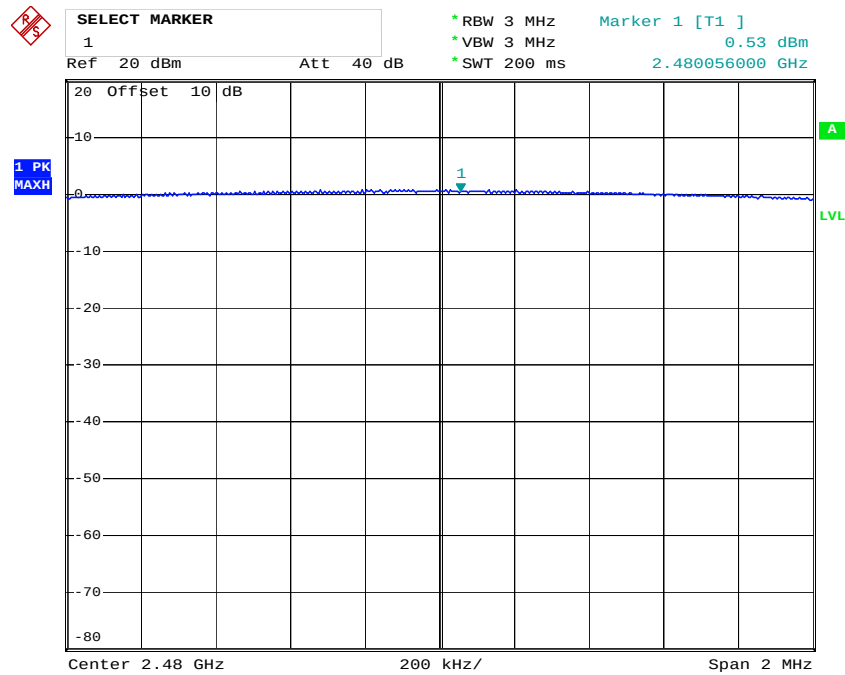
Low channel



Middle channel



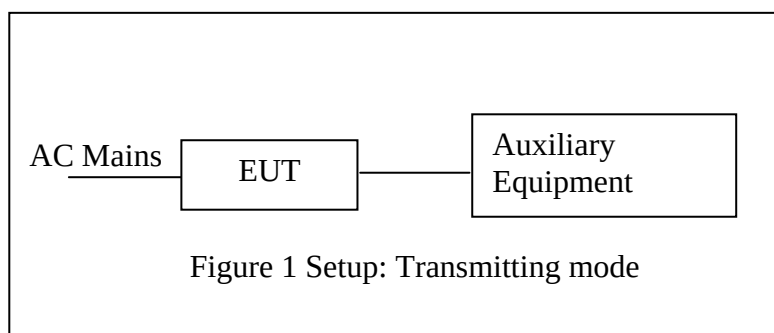
High channel



10.RADIATED EMISSION TEST

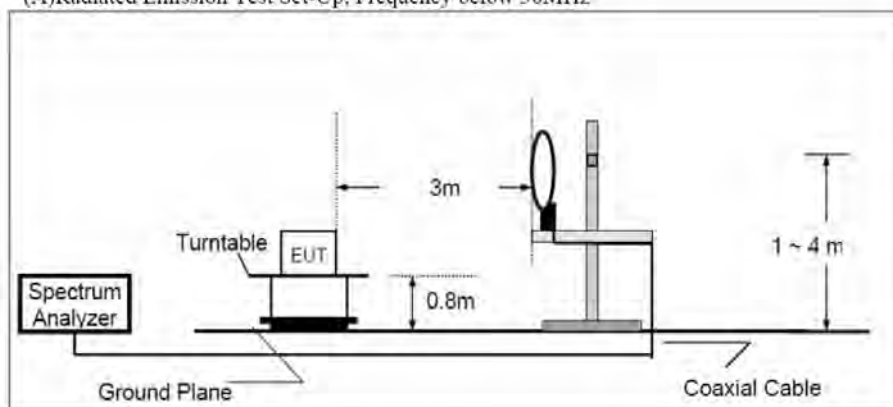
10.1.Block Diagram of Test Setup

10.1.1.Block diagram of connection between the EUT and peripherals

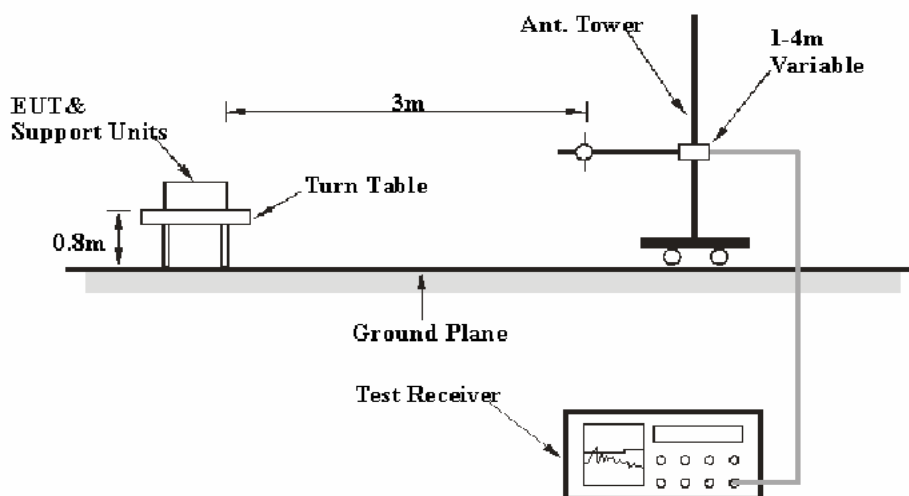


10.1.2.Semi-Anechoic Chamber Test Setup Diagram

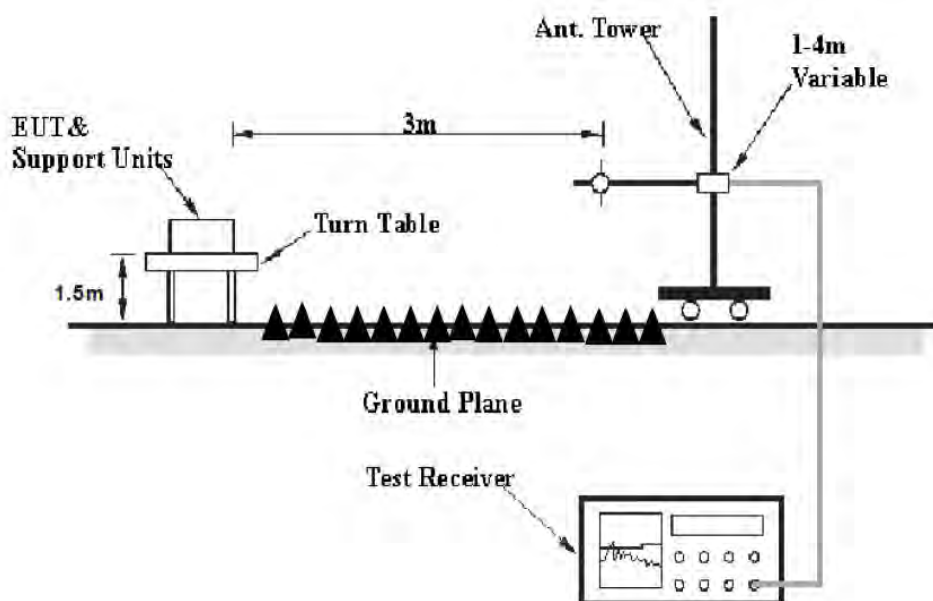
(A) Radiated Emission Test Set-Up, Frequency below 30MHz



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



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



10.2.The Limit For Section 15.247(d)

Section 15.247(d): In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).

10.3.Restricted bands of operation

10.3.1.FCC Part 15.205 Restricted bands of operation

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

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(²)
13.36-13.41			

¹Until February 1, 1999, this restricted band shall be 0.490-0.510

²Above 38.6

(b) Except as provided in paragraphs (d) and (e), the field strength of emission appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000MHz, Compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000MHz, compliance with the emission limits in Section15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

10.4.Configuration of EUT on Measurement

The equipment 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.

10.5. Test Procedure

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

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.

10.6.Data Sample

Frequency (MHz)	Reading (dB μ v)	Factor (dB/m)	Result (dB μ v/m)	Limit (dB μ v/m)	Margin (dB)	Remark
35.8875	40.09	-16.33	23.76	40.0	-16.24	QP

Frequency(MHz) = Emission frequency in MHz

Reading(dB μ v) = Uncorrected Analyzer/Receiver reading

Factor (dB/m) = Antenna factor + Cable Loss – Amplifier gain

Result(dB μ v/m) = Reading(dB μ v) + Factor(dB/m)

Limit (dB μ v/m) = Limit stated in standard

Margin (dB) = Result(dB μ v/m) - Limit (dB μ v/m)

QP = Quasi-peak Reading

Calculation Formula:

Margin(dB) = Result (dB μ V/m)–Limit(dB μ V/m)

Result(dB μ V/m)= Reading(dB μ V)+ Factor(dB/m)

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

10.7.The Field Strength of Radiation Emission Measurement Results

PASS.

Note: 1. The adapter 2 was tested only in the 30MHz-1GHz frequency band, because the work frequency of the adapter does not affect more than 1GHz frequency. so no test data of more than 1 GHz.

2. We tested GFSK mode, Π /4-DQPSK Mode & 8QPSK mode and recorded the worst case data

(GFSK mode) for all test mode.

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

4. *: Denotes restricted band of operation.

5. The radiation emissions from 9kHz-30MHz and 18-26.5GHz are not reported, because the test values lower than the limits of 20dB.

Adapter 1 test data: Below 1GHz



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

Job No.: DING1 #1471

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: Stereo Turntable System

Mode: TX 2402MHz (GFSK)

Model: T100D-BK

Manufacturer: TIMSEN

Polarization: Horizontal

Power Source: AC 120V/60Hz

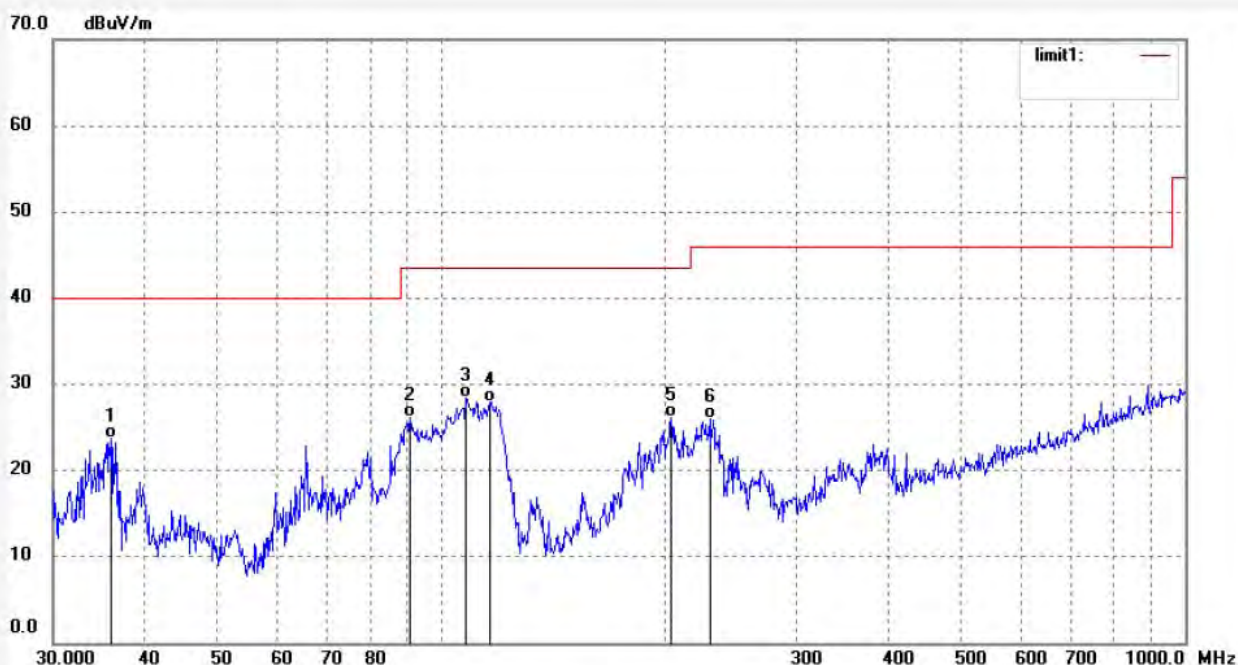
Date: 17/09/13/

Time: 8/42/49

Engineer Signature: BLACK

Distance: 3m

Note: Report NO.:ATE20171879 Adapter 1



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	35.8875	40.09	-16.33	23.76	40.00	-16.24	QP			
2	90.7380	48.02	-21.91	26.11	43.50	-17.39	QP			
3	107.7854	50.67	-22.22	28.45	43.50	-15.05	QP			
4	116.8574	49.85	-21.90	27.95	43.50	-15.55	QP			
5	203.5886	44.79	-18.54	26.25	43.50	-17.25	QP			
6	230.2295	44.30	-18.28	26.02	46.00	-19.98	QP			



ACCURATE TECHNOLOGY CO., LTD.

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Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: DING1 #1472

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: Stereo Turntable System

Mode: TX 2402MHz (GFSK)

Model: T100D-BK

Manufacturer: TIMSEN

Polarization: Vertical

Power Source: AC 120V/60Hz

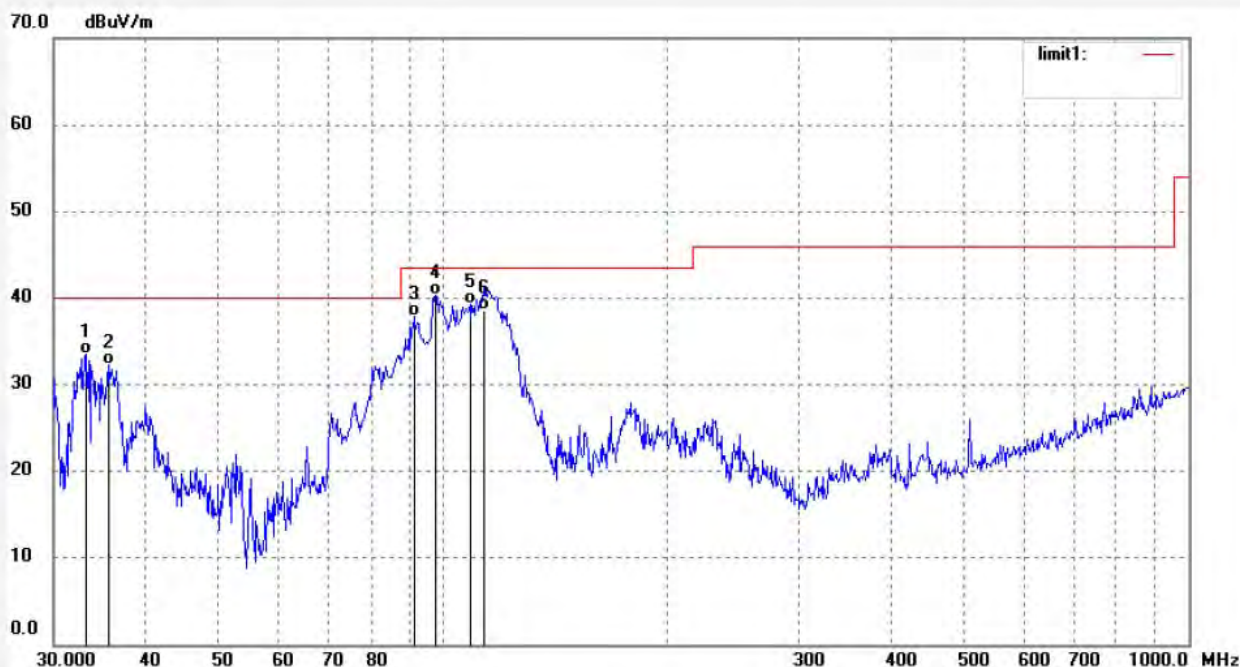
Date: 17/09/13/

Time: 8/43/59

Engineer Signature: BLACK

Distance: 3m

Note: Report NO.:ATE20171879 Adapter 1



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	33.2180	49.08	-15.50	33.58	40.00	-6.42	QP			
2	35.5112	48.42	-16.16	32.26	40.00	-7.74	QP			
3	91.3779	59.76	-21.92	37.84	43.50	-5.66	QP			
4	97.6864	62.62	-22.28	40.34	43.50	-3.16	QP			
5	108.5455	61.31	-22.07	39.24	43.50	-4.26	QP			
6	113.2200	60.49	-21.84	38.65	43.50	-4.85	QP			



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Site: 1# Chamber

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Fax:+86-0755-26503396

Job No.: DING1 #1474

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: Stereo Turntable System

Mode: TX 2441MHz (GFSK)

Model: T100D-BK

Manufacturer: TIMSEN

Polarization: Horizontal

Power Source: AC 120V/60Hz

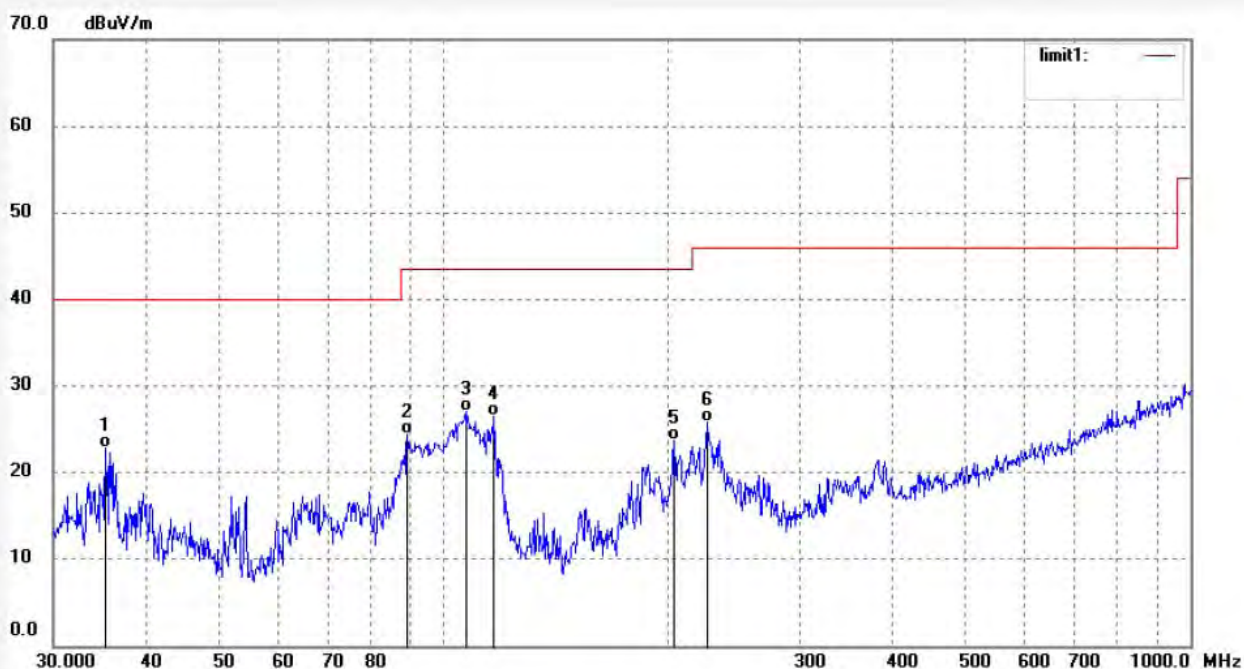
Date: 17/09/13/

Time: 8/46/28

Engineer Signature: BLACK

Distance: 3m

Note: Report NO.:ATE20171879 Adapter 1



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	35.2626	38.92	-16.05	22.87	40.00	-17.13	QP			
2	89.4717	46.29	-21.92	24.37	43.50	-19.13	QP			
3	107.0306	49.35	-22.35	27.00	43.50	-16.50	QP			
4	116.8574	48.41	-21.90	26.51	43.50	-16.99	QP			
5	203.5886	42.25	-18.54	23.71	43.50	-19.79	QP			
6	225.4267	44.08	-18.33	25.75	46.00	-20.25	QP			



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Fax:+86-0755-26503396

Job No.: DING1 #1473

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: Stereo Turntable System

Mode: TX 2441MHz (GFSK)

Model: T100D-BK

Manufacturer: TIMSEN

Polarization: Vertical

Power Source: AC 120V/60Hz

Date: 17/09/13/

Time: 8/45/08

Engineer Signature: BLACK

Distance: 3m

Note: Report NO.:ATE20171879 Adapter 1





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Job No.: DING1 #1475

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: Stereo Turntable System

Mode: TX 2480MHz (GFSK)

Model: T100D-BK

Manufacturer: TIMSEN

Polarization: Horizontal

Power Source: AC 120V/60Hz

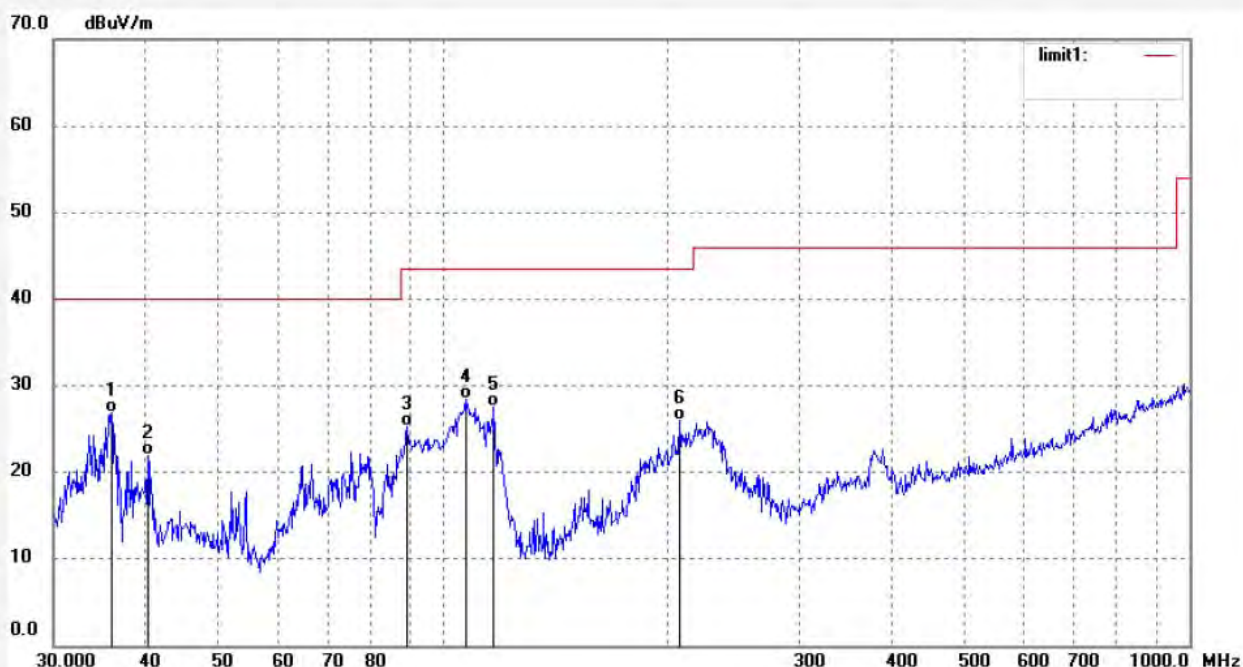
Date: 17/09/13/

Time: 8/47/51

Engineer Signature: BLACK

Distance: 3m

Note: Report NO.:ATE20171879 Adapter 1



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	35.8875	43.14	-16.33	26.81	40.00	-13.19	QP			
2	40.1581	40.02	-18.13	21.89	40.00	-18.11	QP			
3	89.4717	47.13	-21.92	25.21	43.50	-18.29	QP			
4	107.0306	50.85	-22.35	28.50	43.50	-15.00	QP			
5	116.8574	49.41	-21.90	27.51	43.50	-15.99	QP			
6	207.1968	44.48	-18.47	26.01	43.50	-17.49	QP			



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Job No.: DING1 #1476

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: Stereo Turntable System

Mode: TX 2480MHz (GFSK)

Model: T100D-BK

Manufacturer: TIMSEN

Polarization: Vertical

Power Source: AC 120V/60Hz

Date: 17/09/13/

Time: 8/48/56

Engineer Signature: BLACK

Distance: 3m

Note: Report NO.:ATE20171879 Adapter 1



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	30.0000	50.10	-14.70	35.40	40.00	-4.60	QP			
2	36.0139	49.90	-16.38	33.52	40.00	-6.48	QP			
3	84.2839	58.93	-21.97	36.96	40.00	-3.04	QP			
4	94.3137	61.17	-21.92	39.25	43.50	-4.25	QP			
5	97.3437	61.63	-22.24	39.39	43.50	-4.11	QP			
6	114.8224	60.79	-21.87	38.92	43.50	-4.58	QP			

Above 1GHz



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Job No.: DING1 #1483

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: Stereo Turntable System

Mode: TX 2402MHz (GFSK)

Model: T100D-BK

Manufacturer: TIMSEN

Polarization: Horizontal

Power Source: AC 120V/60Hz

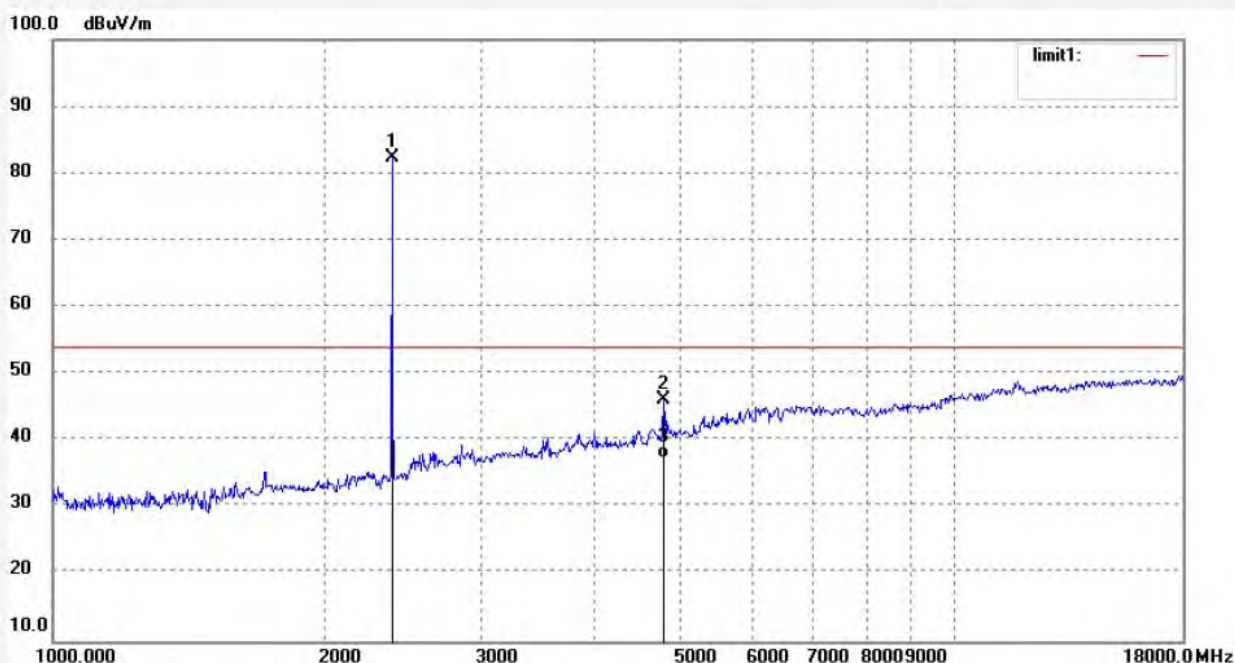
Date: 17/09/13/

Time: 9/04/23

Engineer Signature: BLACK

Distance: 3m

Note: Report NO.:ATE20171879 Adapter 1



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2402.010	88.37	-5.98	82.39			peak			
2	4804.059	42.84	3.37	46.21	74.00	-27.79	peak			
3	4804.059	33.89	3.37	37.26	54.00	-16.74	AVG			



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Job No.: DING1 #1484

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: Stereo Turntable System

Mode: TX 2402MHz (GFSK)

Model: T100D-BK

Manufacturer: TIMSEN

Polarization: Vertical

Power Source: AC 120V/60Hz

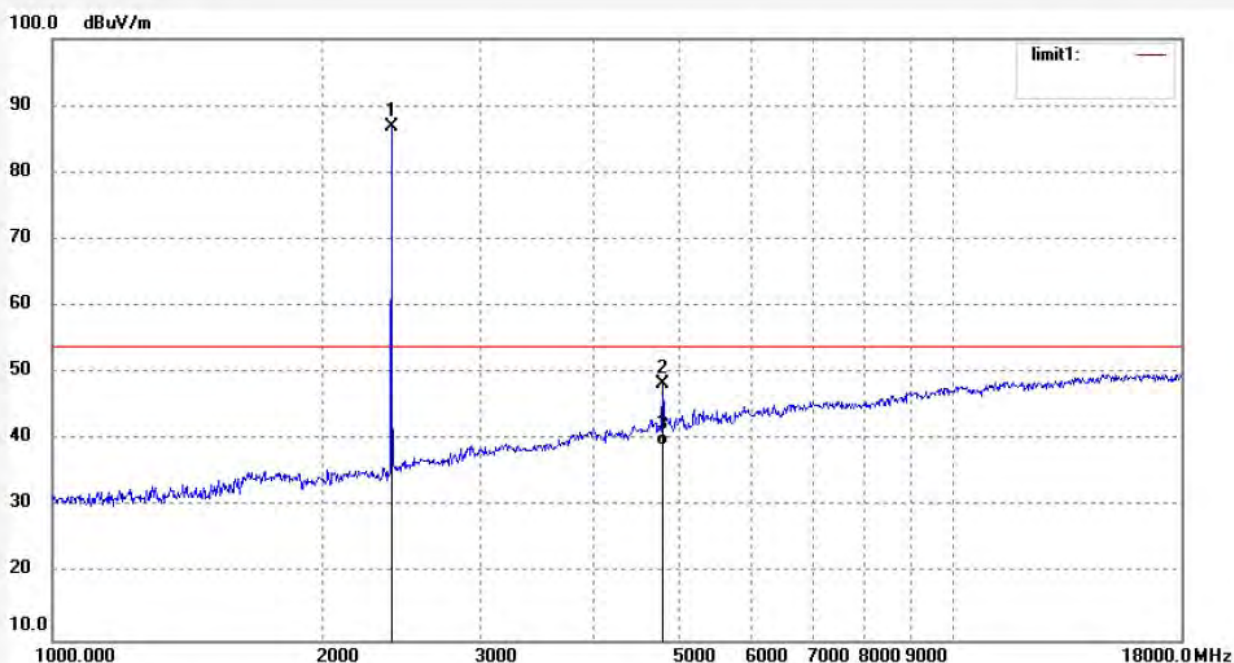
Date: 17/09/13/

Time: 9/05/34

Engineer Signature: BLACK

Distance: 3m

Note: Report NO.:ATE20171879 Adapter 1



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2402.012	92.87	-5.98	86.89			peak			
2	4804.059	45.10	3.37	48.47	74.00	-25.53	peak			
3	4804.059	35.78	3.37	39.15	54.00	-14.85	AVG			



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Job No.: DING1 #1486

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: Stereo Turntable System

Mode: TX 2441MHz (GFSK)

Model: T100D-BK

Manufacturer: TIMSEN

Polarization: Horizontal

Power Source: AC 120V/60Hz

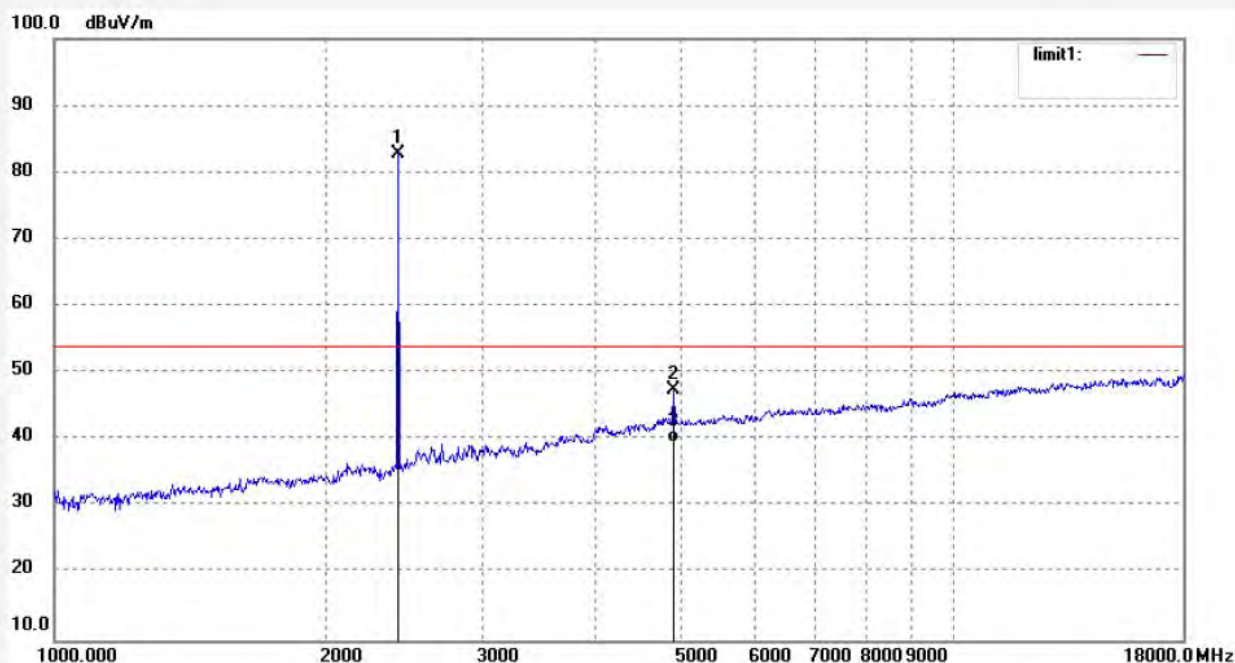
Date: 17/09/13/

Time: 9/10/09

Engineer Signature: BLACK

Distance: 3m

Note: Report NO.:ATE20171879 Adapter 1



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2441.100	88.55	-5.76	82.79			peak			
2	4880.018	43.12	4.32	47.44	74.00	-26.56	peak			
3	4880.018	35.17	4.32	39.49	54.00	-14.51	AVG			



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Job No.: DING1 #1485

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: Stereo Turntable System

Mode: TX 2441MHz (GFSK)

Model: T100D-BK

Manufacturer: TIMSEN

Polarization: Vertical

Power Source: AC 120V/60Hz

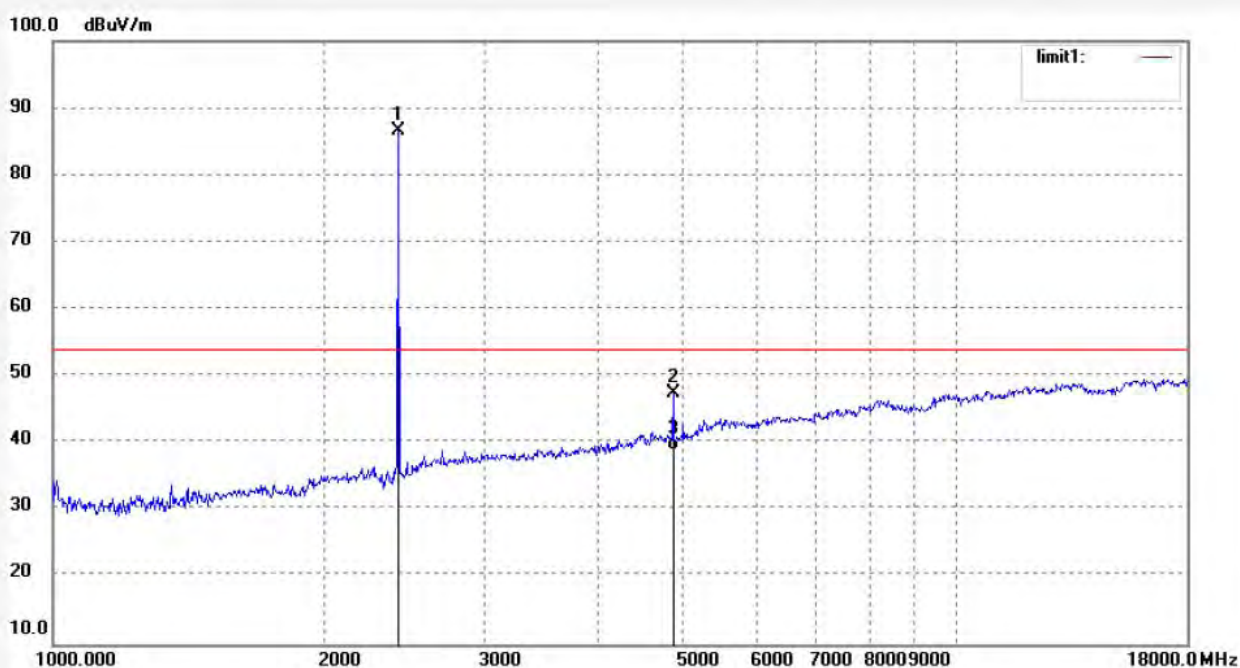
Date: 17/09/13/

Time: 9/08/24

Engineer Signature: BLACK

Distance: 3m

Note: Report NO.:ATE20171879 Adapter 1



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2441.100	92.28	-5.76	86.52			peak			
2	4880.257	43.33	4.06	47.39	74.00	-26.61	peak			
3	4880.257	34.92	4.06	38.98	54.00	-15.02	AVG			



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Job No.: DING1 #1487

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: Stereo Turntable System

Mode: TX 2480MHz (GFSK)

Model: T100D-BK

Manufacturer: TIMSEN

Polarization: Horizontal

Power Source: AC 120V/60Hz

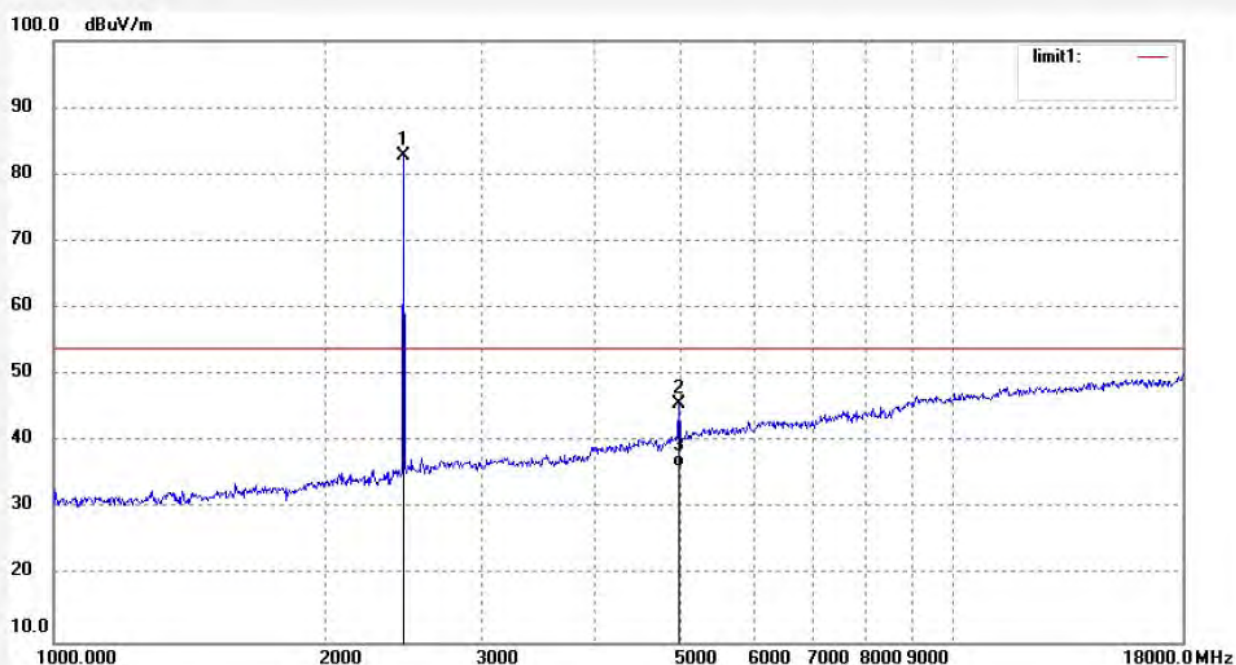
Date: 17/09/13/

Time: 9/13/02

Engineer Signature: BLACK

Distance: 3m

Note: Report NO.:ATE20171879 Adapter 1



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	88.42	-5.55	82.87			peak			
2	4960.046	40.81	4.77	45.58	74.00	-28.42	peak			
3	4960.046	31.46	4.77	36.23	54.00	-17.77	AVG			



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Job No.: DING1 #1488

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: Stereo Turntable System

Mode: TX 2480MHz (GFSK)

Model: T100D-BK

Manufacturer: TIMSEN

Polarization: Vertical

Power Source: AC 120V/60Hz

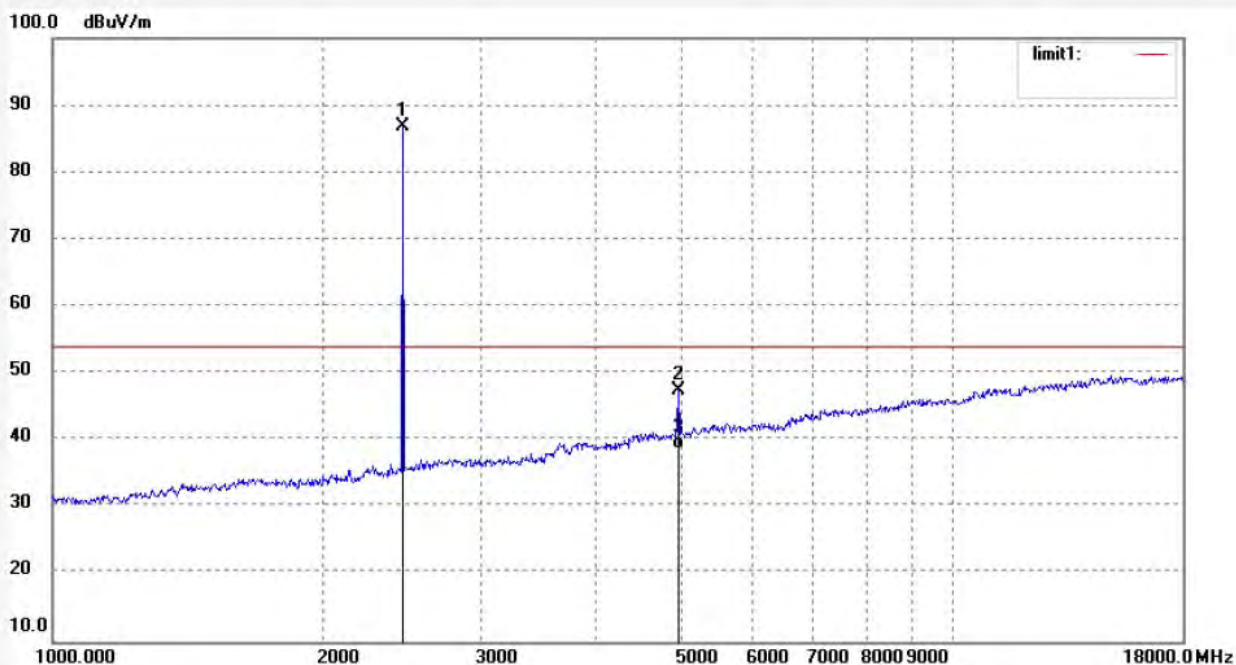
Date: 17/09/13/

Time: 9/14/29

Engineer Signature: BLACK

Distance: 3m

Note: Report NO.:ATE20171879 Adapter 1



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	92.42	-5.55	86.87			peak			
2	4960.046	42.76	4.77	47.53	74.00	-26.47	peak			
3	4960.046	33.97	4.77	38.74	54.00	-15.26	AVG			

Adapter 2 test data: Below 1GHz



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Job No.: DING1 #1478

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: Stereo Turntable System

Mode: TX 2402MHz (GFSK)

Model: T100D-BK

Manufacturer: TIMSEN

Polarization: Horizontal

Power Source: AC 120V/60Hz

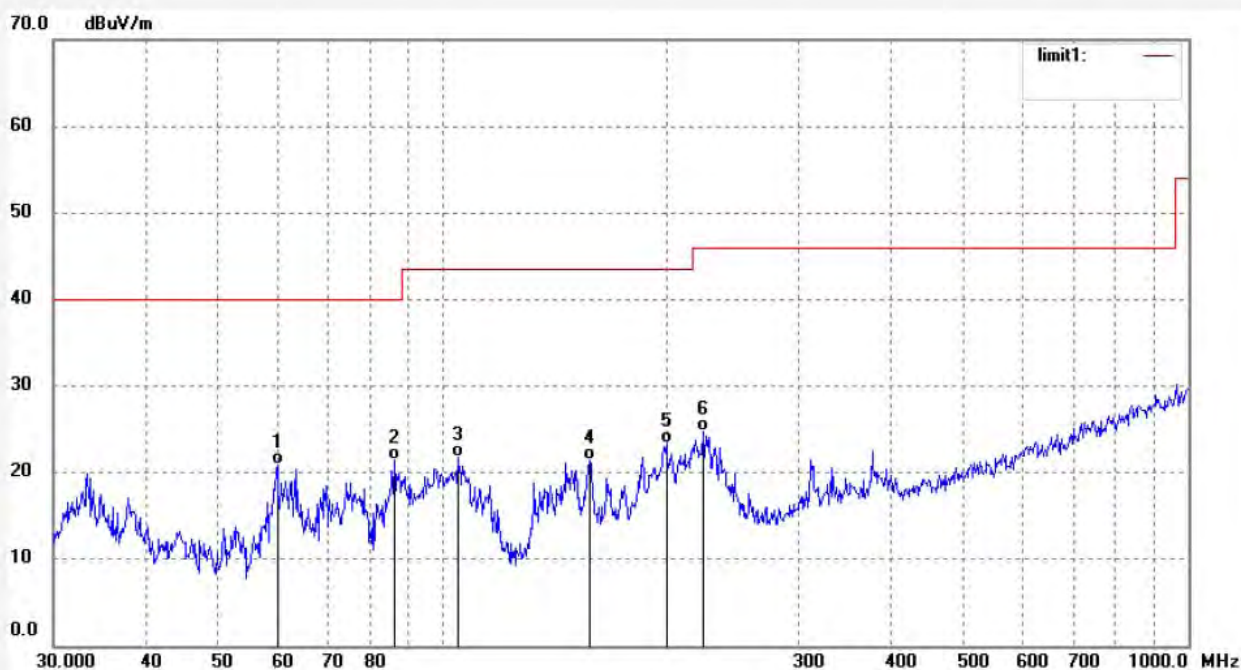
Date: 17/09/13/

Time: 8/52/44

Engineer Signature: BLACK

Distance: 3m

Note: Report NO.:ATE20171879 Adapter 2



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	59.9418	42.70	-21.80	20.90	40.00	-19.10	QP			
2	86.0795	43.45	-21.96	21.49	40.00	-18.51	QP			
3	104.7979	44.56	-22.72	21.84	43.50	-21.66	QP			
4	157.5290	43.08	-21.64	21.44	43.50	-22.06	QP			
5	199.3416	41.98	-18.69	23.29	43.50	-20.21	QP			
6	223.8482	43.19	-18.35	24.84	46.00	-21.16	QP			



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Job No.: DING1 #1477

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: Stereo Turntable System

Mode: TX 2402MHz (GFSK)

Model: T100D-BK

Manufacturer: TIMSEN

Polarization: Vertical

Power Source: AC 120V/60Hz

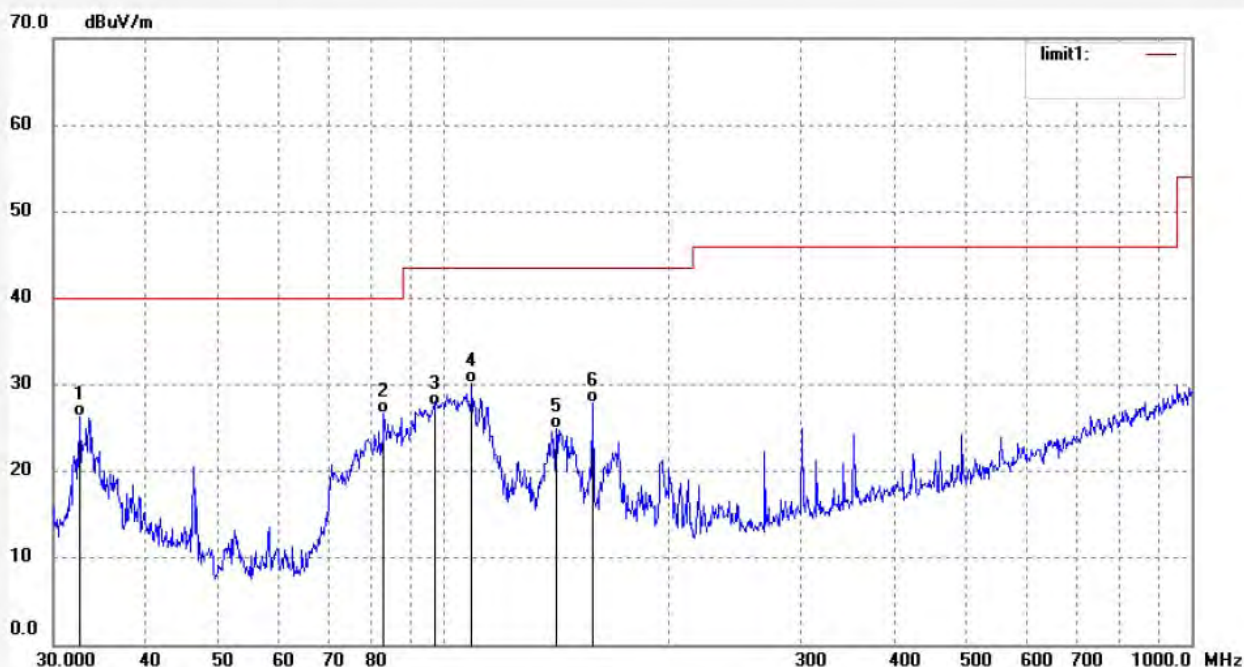
Date: 17/09/13/

Time: 8/51/24

Engineer Signature: BLACK

Distance: 3m

Note: Report NO.:ATE20171879 Adapter 2



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	32.5250	41.60	-15.32	26.28	40.00	-13.72	QP			
2	83.1076	48.59	-21.98	26.61	40.00	-13.39	QP			
3	96.6621	49.64	-22.14	27.50	43.50	-16.00	QP			
4	108.9276	52.24	-22.01	30.23	43.50	-13.27	QP			
5	141.2722	47.32	-22.32	25.00	43.50	-18.50	QP			
6	158.0835	49.48	-21.59	27.89	43.50	-15.61	QP			



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Job No.: DING1 #1479

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: Stereo Turntable System

Mode: TX 2441MHz (GFSK)

Model: T100D-BK

Manufacturer: TIMSEN

Polarization: Horizontal

Power Source: AC 120V/60Hz

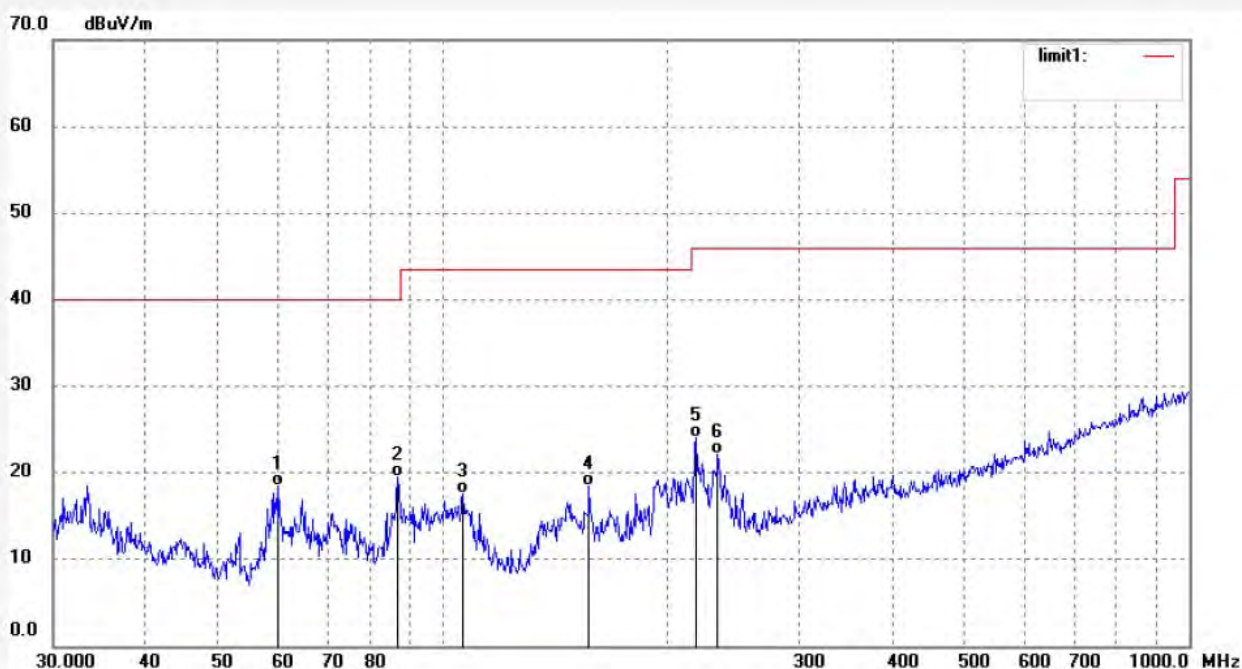
Date: 17/09/13/

Time: 8/55/02

Engineer Signature: BLACK

Distance: 3m

Note: Report NO.:ATE20171879 Adapter 2



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	60.1528	40.20	-21.80	18.40	40.00	-21.60	QP			
2	86.9918	41.40	-21.95	19.45	40.00	-20.55	QP			
3	106.2812	40.02	-22.49	17.53	43.50	-25.97	QP			
4	156.9765	40.11	-21.71	18.40	43.50	-25.10	QP			
5	218.4098	42.40	-18.40	24.00	46.00	-22.00	QP			
6	233.4881	40.34	-18.24	22.10	46.00	-23.90	QP			



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Job No.: DING1 #1480

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: Stereo Turntable System

Mode: TX 2441MHz (GFSK)

Model: T100D-BK

Manufacturer: TIMSEN

Polarization: Vertical

Power Source: AC 120V/60Hz

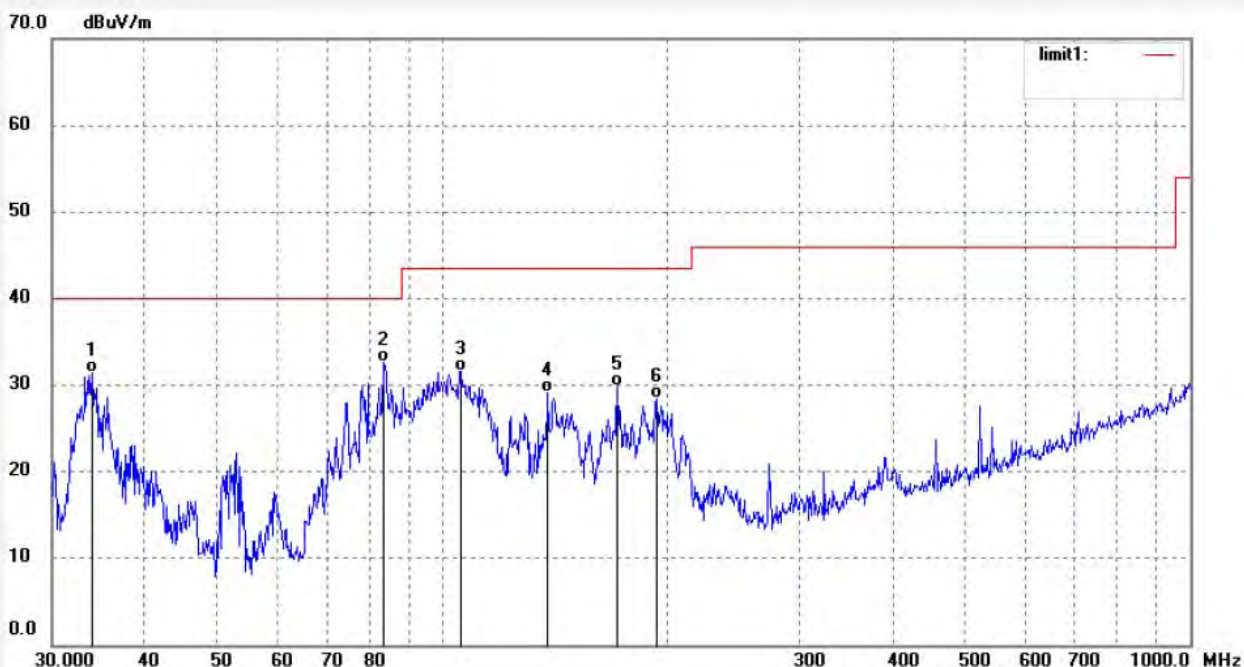
Date: 17/09/13/

Time: 8/56/05

Engineer Signature: BLACK

Distance: 3m

Note: Report NO.:ATE20171879 Adapter 2



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	33.9256	47.13	-15.68	31.45	40.00	-8.55	QP			
2	83.4002	54.66	-21.97	32.69	40.00	-7.31	QP			
3	105.9084	54.12	-22.56	31.56	43.50	-11.94	QP			
4	138.3251	51.40	-22.28	29.12	43.50	-14.38	QP			
5	171.3890	50.21	-20.43	29.78	43.50	-13.72	QP			
6	193.1366	47.58	-19.11	28.47	43.50	-15.03	QP			



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Job No.: DING1 #1482

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: Stereo Turntable System

Mode: TX 2480MHz (GFSK)

Model: T100D-BK

Manufacturer: TIMSEN

Polarization: Horizontal

Power Source: AC 120V/60Hz

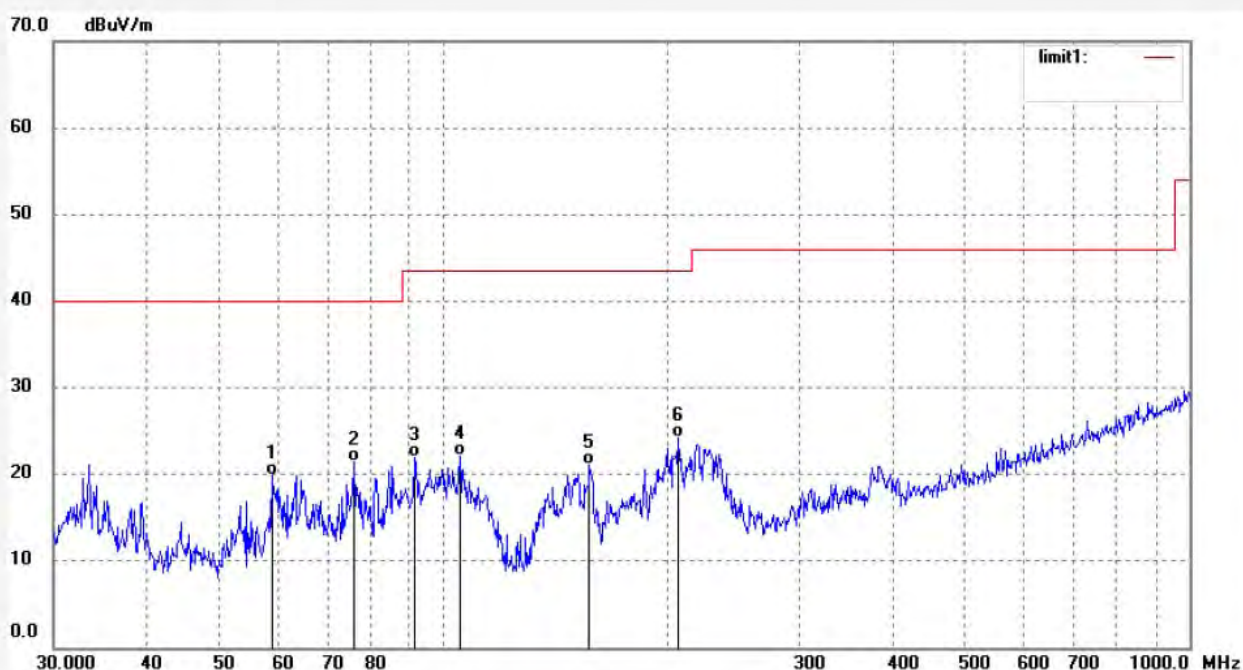
Date: 17/09/13/

Time: 8/57/49

Engineer Signature: BLACK

Distance: 3m

Note: Report NO.:ATE20171879 Adapter 2



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	58.8979	41.71	-21.76	19.95	40.00	-20.05	QP			
2	75.8520	43.71	-22.25	21.46	40.00	-18.54	QP			
3	91.3779	43.88	-21.92	21.96	43.50	-21.54	QP			
4	105.1668	44.81	-22.69	22.12	43.50	-21.38	QP			
5	156.9765	42.83	-21.71	21.12	43.50	-22.38	QP			
6	206.4701	42.72	-18.47	24.25	43.50	-19.25	QP			



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Job No.: DING1 #1481

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

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

EUT: Stereo Turntable System

Mode: TX 2480MHz (GFSK)

Model: T100D-BK

Manufacturer: TIMSEN

Polarization: Vertical

Power Source: AC 120V/60Hz

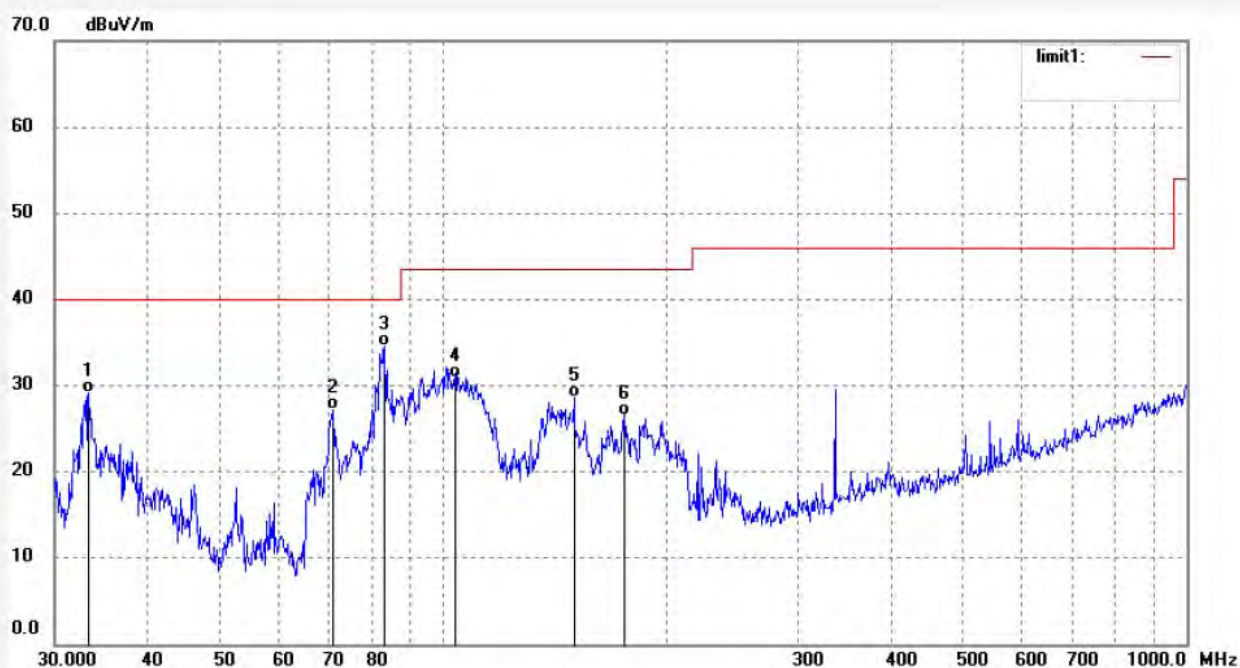
Date: 17/09/13/

Time: 8/56/51

Engineer Signature: BLACK

Distance: 3m

Note: Report NO.:ATE20171879 Adapter 2



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	33.3349	44.60	-15.53	29.07	40.00	-10.93	QP			
2	71.2033	49.30	-22.14	27.16	40.00	-12.84	QP			
3	83.4002	56.46	-21.97	34.49	40.00	-5.51	QP			
4	104.0640	53.60	-22.70	30.90	43.50	-12.60	QP			
5	149.9676	50.88	-22.35	28.53	43.50	-14.97	QP			
6	175.0404	47.41	-20.81	26.60	43.50	-16.90	QP			

11.BAND EDGE COMPLIANCE TEST

11.1.Block Diagram of Test Setup



(EUT: Stereo Turntable System)

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.

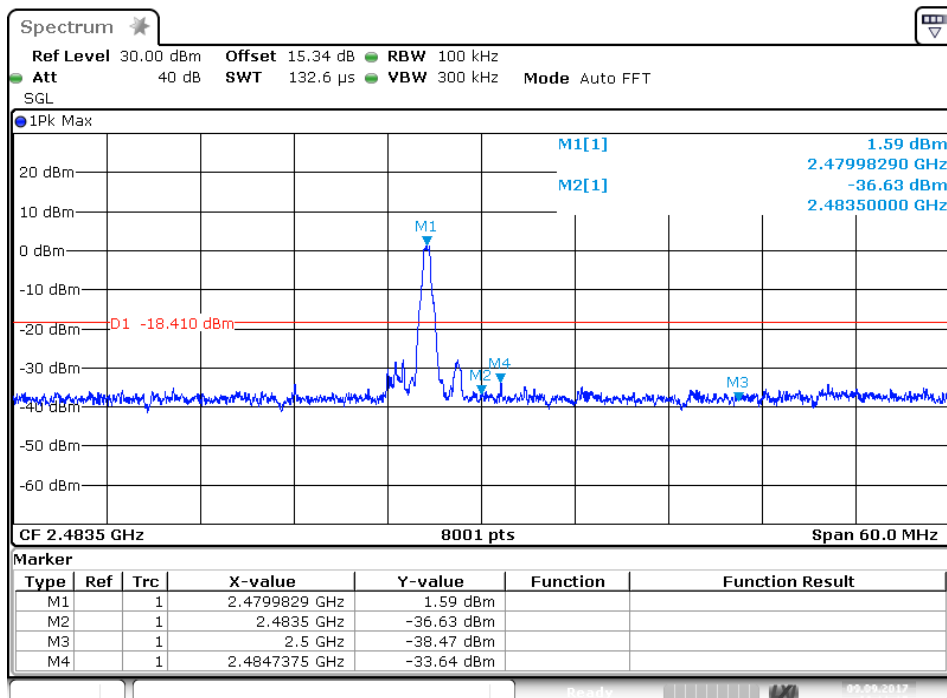
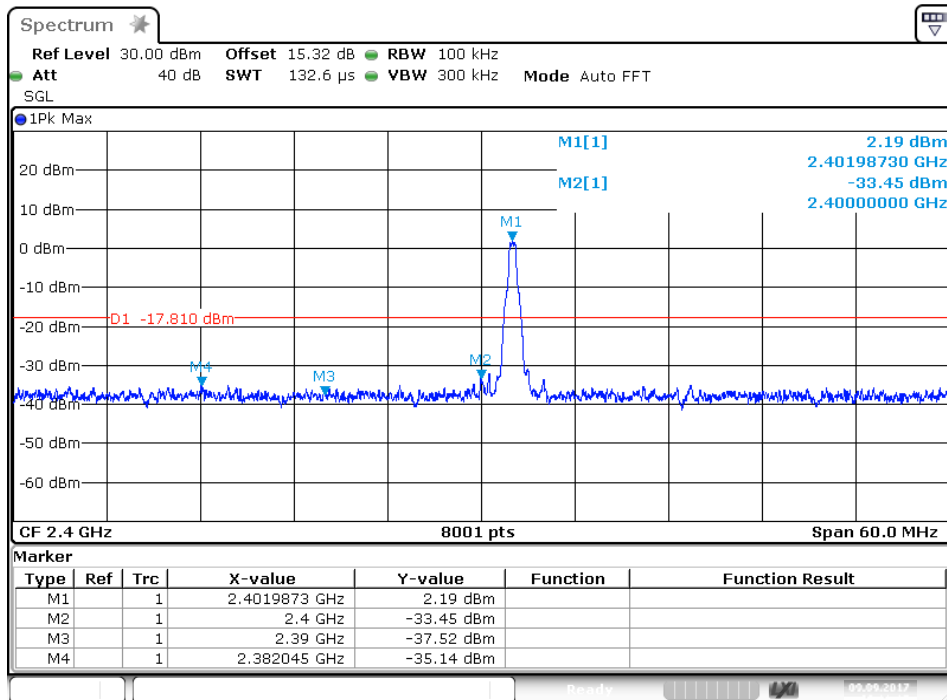
11.5.2. Set RBW of spectrum analyzer to 100 kHz and VBW to 300 kHz with convenient frequency span including 100 kHz bandwidth from band edge.

11.5.3. The band edges was measured and recorded.

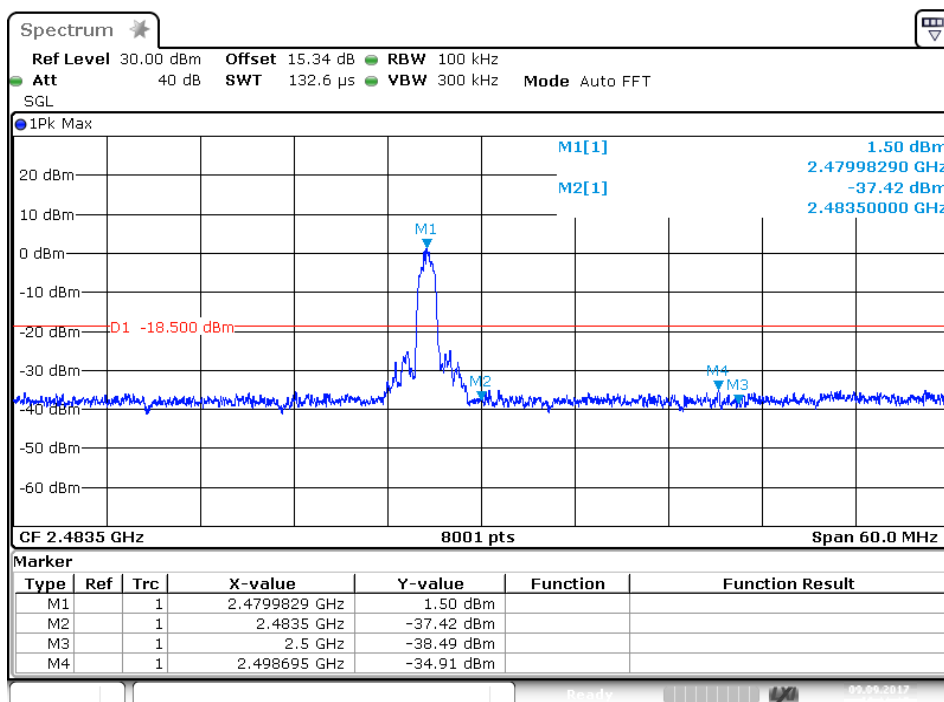
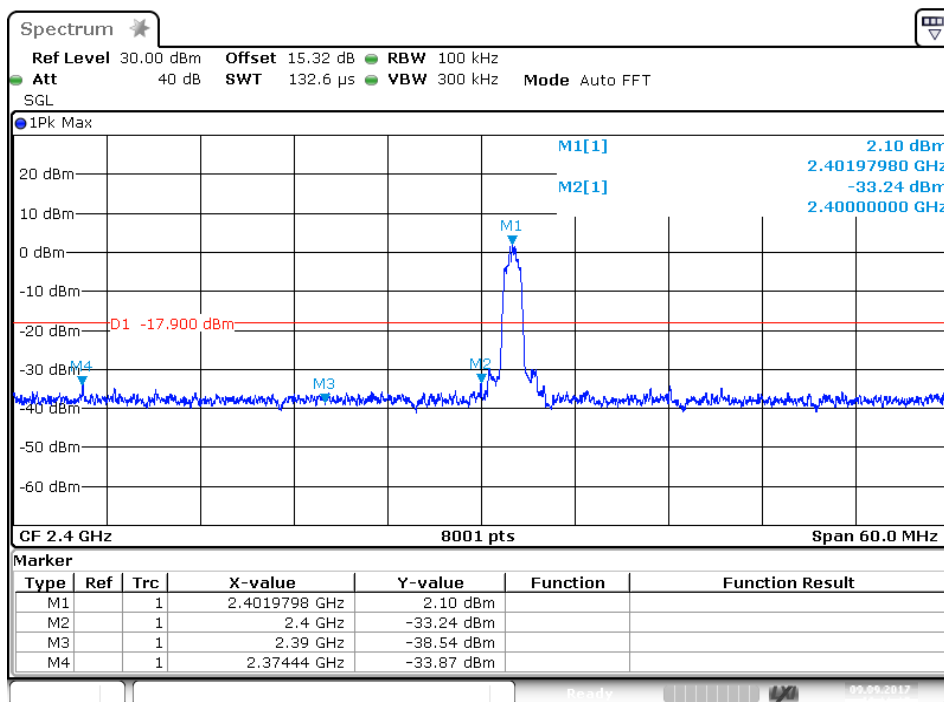
11.6. Test Result

Frequency (MHz)	Result of Band Edge (dBc)	Limit of Band Edge (dBc)
GFSK Mode		
2400.00	31.26	> 20dBc
2483.50	35.04	> 20dBc
Π/4-DQPSK Mode		
2400.00	31.14	> 20dBc
2483.50	35.92	> 20dBc
8DPSK Mode		
2400.00	30.74	> 20dBc
2483.50	36.87	> 20dBc

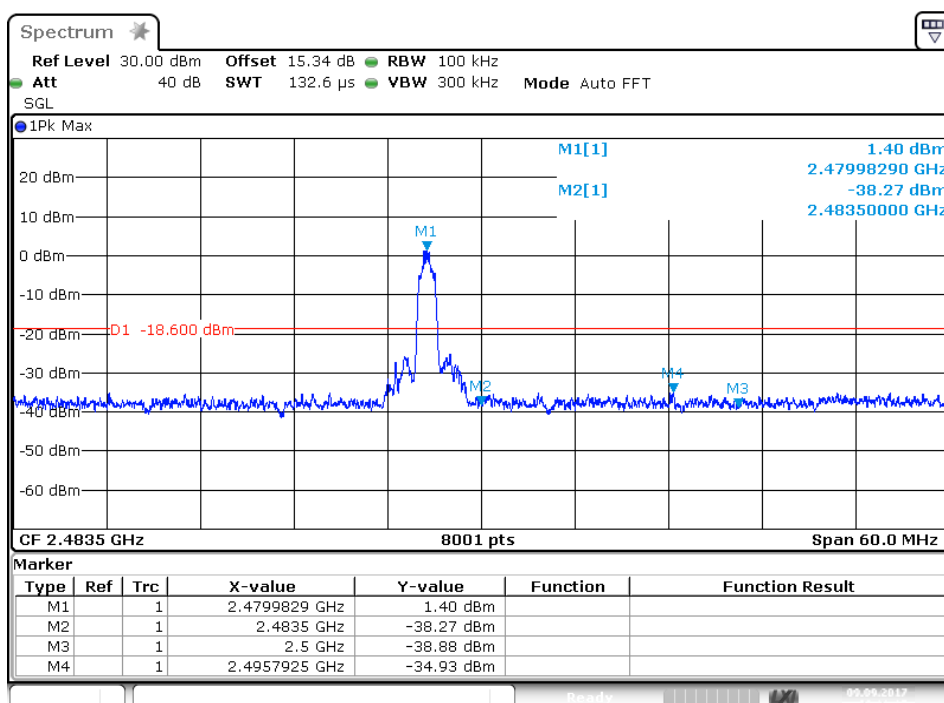
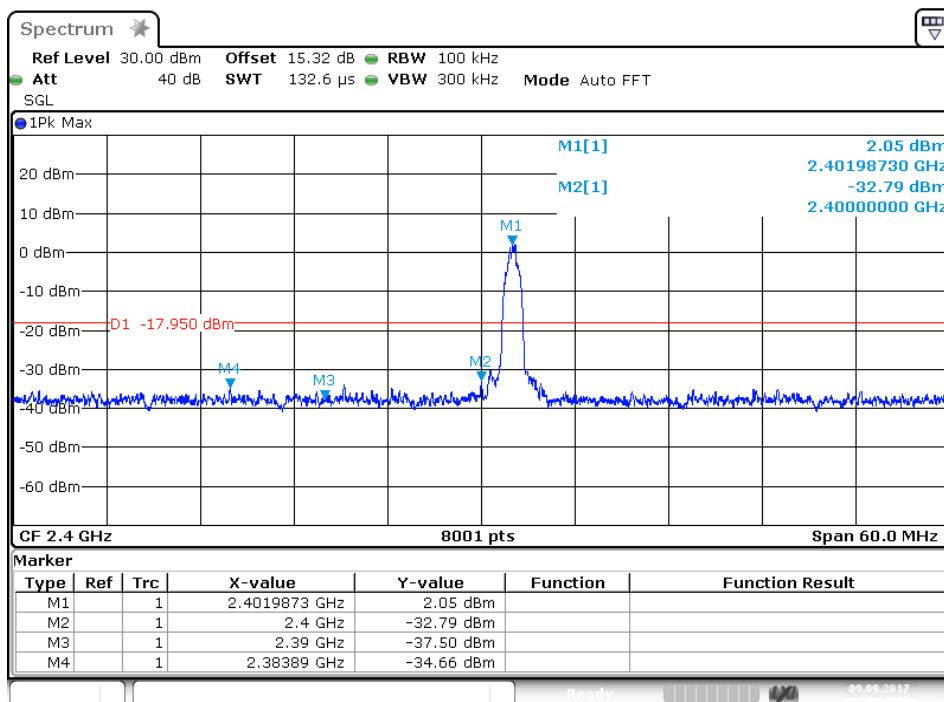
GFSK Mode



Π/4-DQPSK Mode



8DPSK Mode



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

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



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Site: 1# Chamber

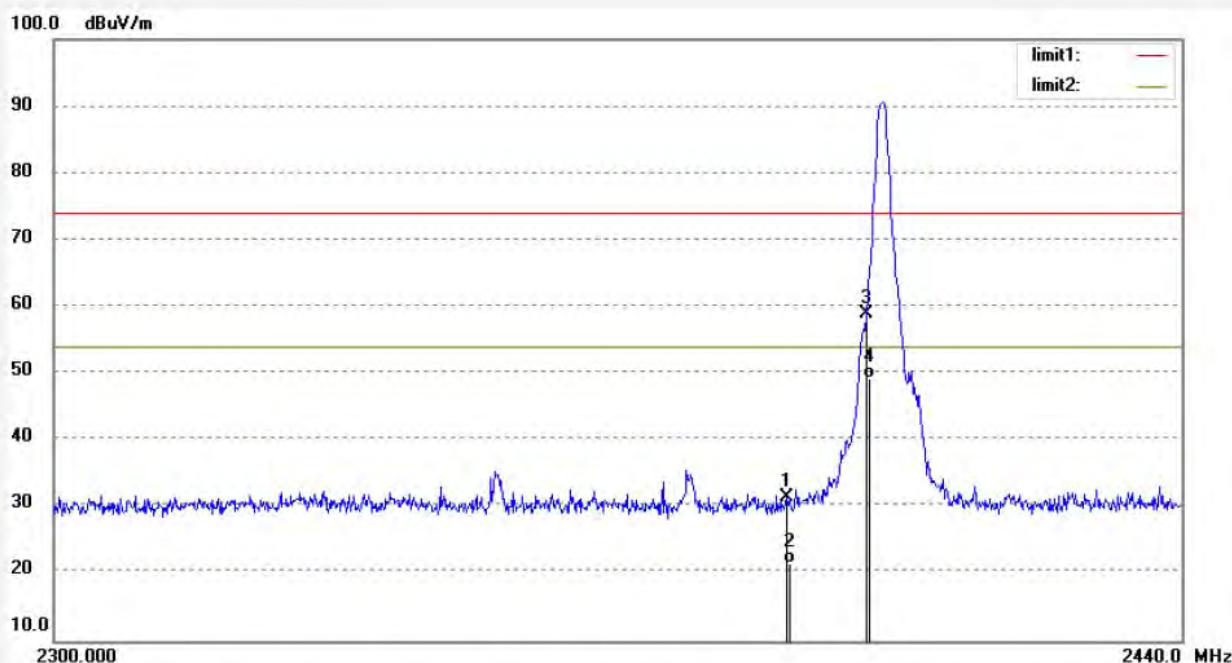
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Frank2017 #149
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Stereo Turntable System
Mode: TX2402MHz (GFSK)
Model: T100D-BK
Manufacturer: TIMSEN

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 2017/09/12
Time: 19:44:35
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20171879



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	35.34	-3.96	31.38	74.00	-42.62	peak			
2	2390.000	25.45	-3.96	21.49	54.00	-32.51	AVG			
3	2400.000	62.95	-3.91	59.04	74.00	-14.96	peak			
4	2400.000	53.12	-3.91	49.21	54.00	-4.79	AVG			

Note: Average measurement with peak detection at No.2&4



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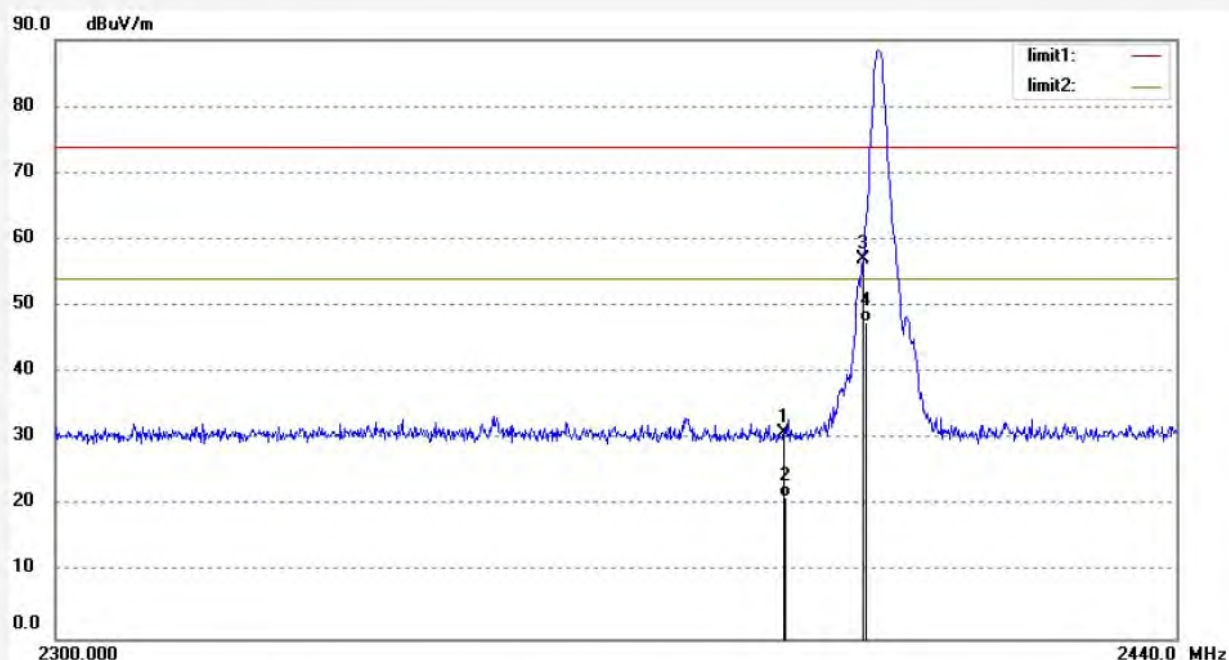
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

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

Job No.: Frank2017 #150
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Stereo Turntable System
Mode: TX2402MHz (GFSK)
Model: T100D-BK
Manufacturer: TIMSEN

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 2017/09/12
Time: 19:46:30
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20171879



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	34.90	-3.96	30.94	74.00	-43.06	peak			
2	2390.000	25.12	-3.96	21.16	54.00	-32.84	AVG			
3	2400.000	60.84	-3.91	56.93	74.00	-17.07	peak			
4	2400.000	51.54	-3.91	47.63	54.00	-6.37	AVG			

Note: Average measurement with peak detection at No.2&4



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Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Frank2017 #152

Standard: FCC PK

Test item: Radiation Test

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

EUT: Stereo Turntable System

Mode: TX2480MHz (GFSK)

Model: T100D-BK

Manufacturer: TIMSEN

Polarization: Horizontal

Power Source: AC 120V/60Hz

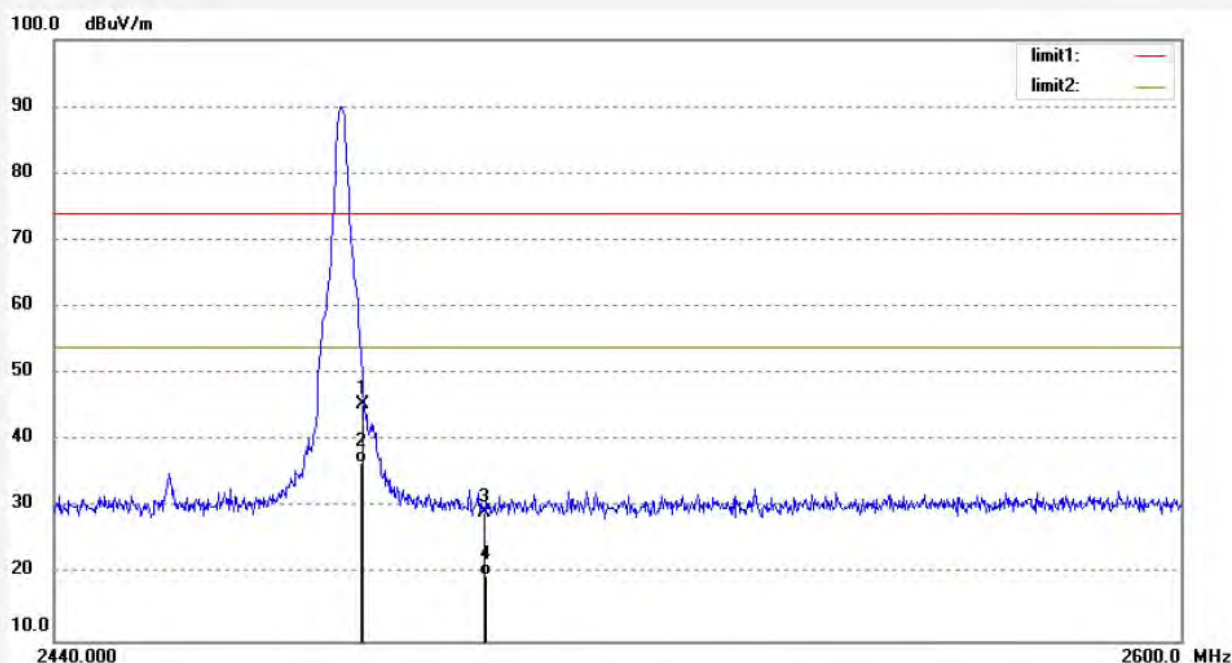
Date: 2017/09/12

Time: 19:49:26

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20171879



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	49.04	-3.50	45.54	74.00	-28.46	peak			
2	2483.500	40.12	-3.50	36.62	54.00	-17.38	AVG			
3	2500.000	32.72	-3.42	29.30	74.00	-44.70	peak			
4	2500.000	23.15	-3.42	19.73	54.00	-34.27	AVG			

Note: Average measurement with peak detection at No.2&4



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Site: 1# Chamber

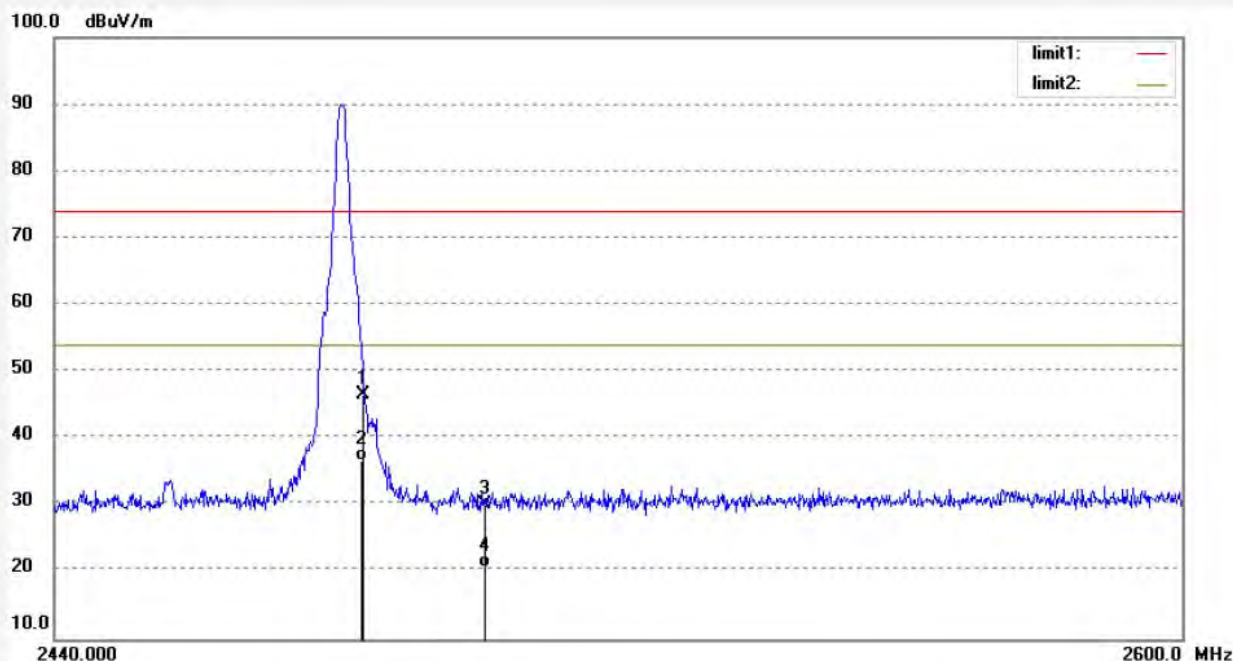
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Frank2017 #151
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Stereo Turntable System
Mode: TX2480MHz (GFSK)
Model: T100D-BK
Manufacturer: TIMSEN

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 2017/09/12
Time: 19:48:33
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20171879



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	50.00	-3.50	46.50	74.00	-27.50	peak			
2	2483.500	40.11	-3.50	36.61	54.00	-17.39	AVG			
3	2500.000	33.64	-3.42	30.22	74.00	-43.78	peak			
4	2500.000	24.12	-3.42	20.70	54.00	-33.30	AVG			

Note: Average measurement with peak detection at No.2&4



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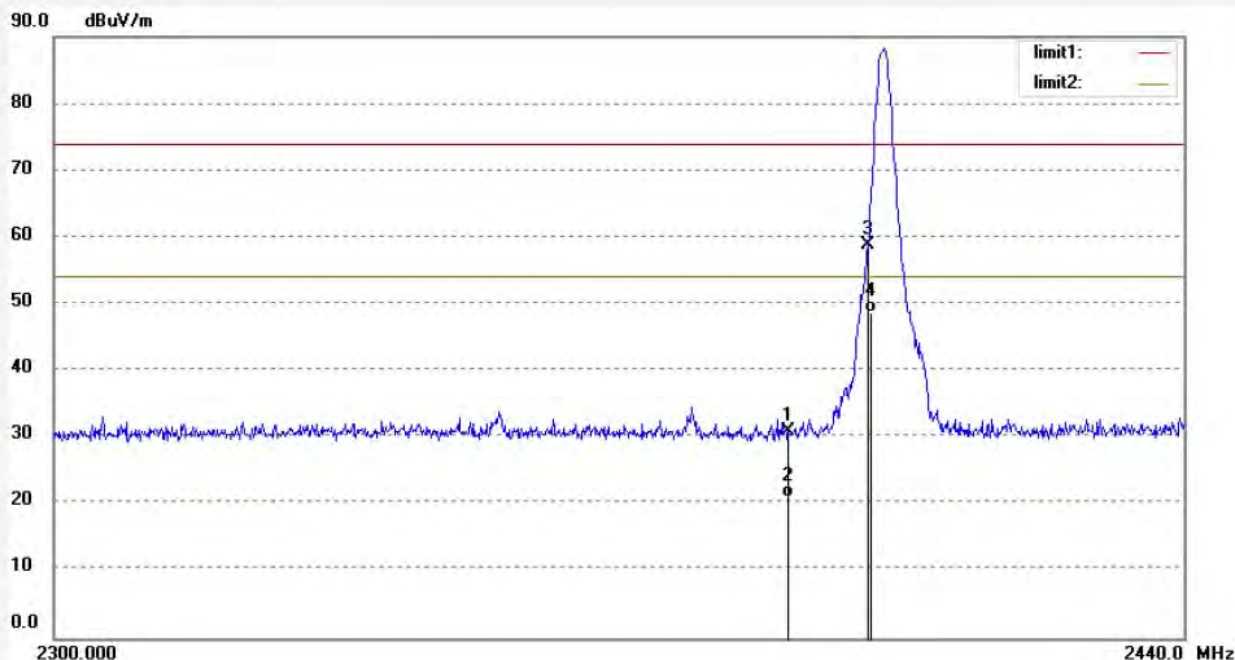
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

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

Job No.: Frank2017 #145
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Stereo Turntable System
Mode: TX2402MHz (Π/4-DQPSK)
Model: T100D-BK
Manufacturer: TIMSEN

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 2017/09/12
Time: 19:37:00
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20171879



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	34.96	-3.96	31.00	74.00	-43.00	peak			
2	2390.000	24.96	-3.96	21.00	54.00	-33.00	AVG			
3	2400.000	62.72	-3.91	58.81	74.00	-15.19	peak			
4	2400.000	52.72	-3.91	48.81	54.00	-5.19	AVG			

Note: Average measurement with peak detection at No.2&4



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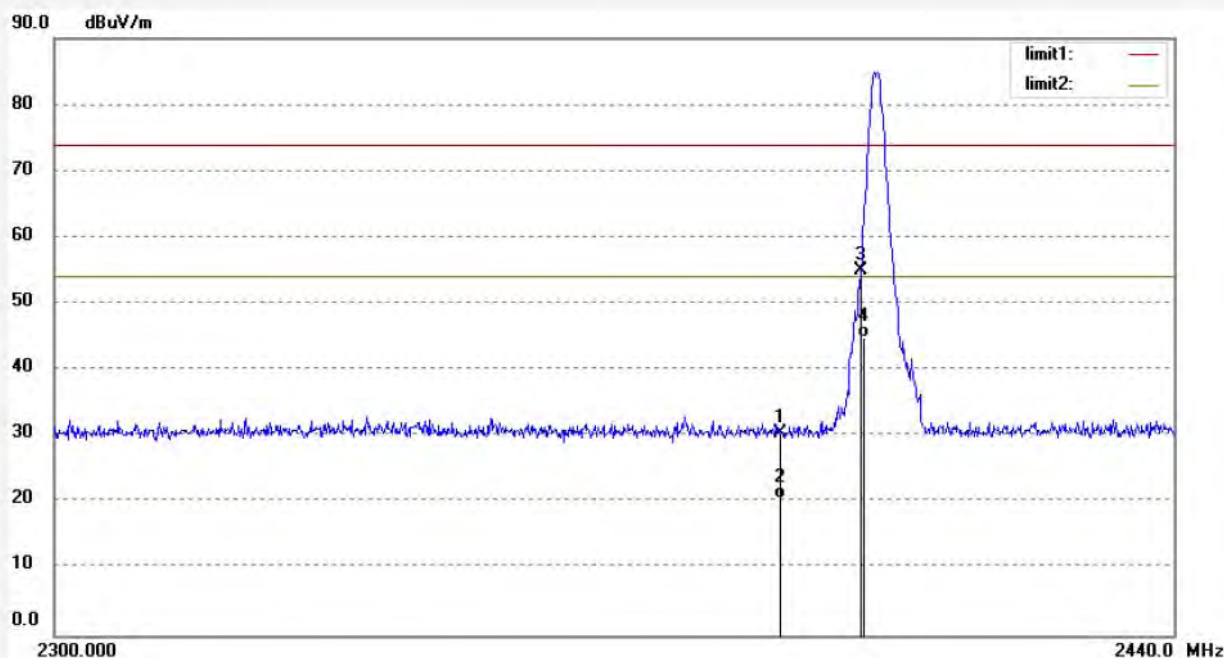
F1,Bldg.A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

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

Job No.: Frank2017 #146
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Stereo Turntable System
Mode: TX2402MHz (Π/4-DQPSK)
Model: T100D-BK
Manufacturer: TIMSEN

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 2017/09/12
Time: 19:39:36
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20171879



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	34.54	-3.96	30.58	74.00	-43.42	peak			
2	2390.000	24.54	-3.96	20.58	54.00	-33.42	AVG			
3	2400.000	58.83	-3.91	54.92	74.00	-19.08	peak			
4	2400.000	48.83	-3.91	44.92	54.00	-9.08	AVG			

Note: Average measurement with peak detection at No.2&4



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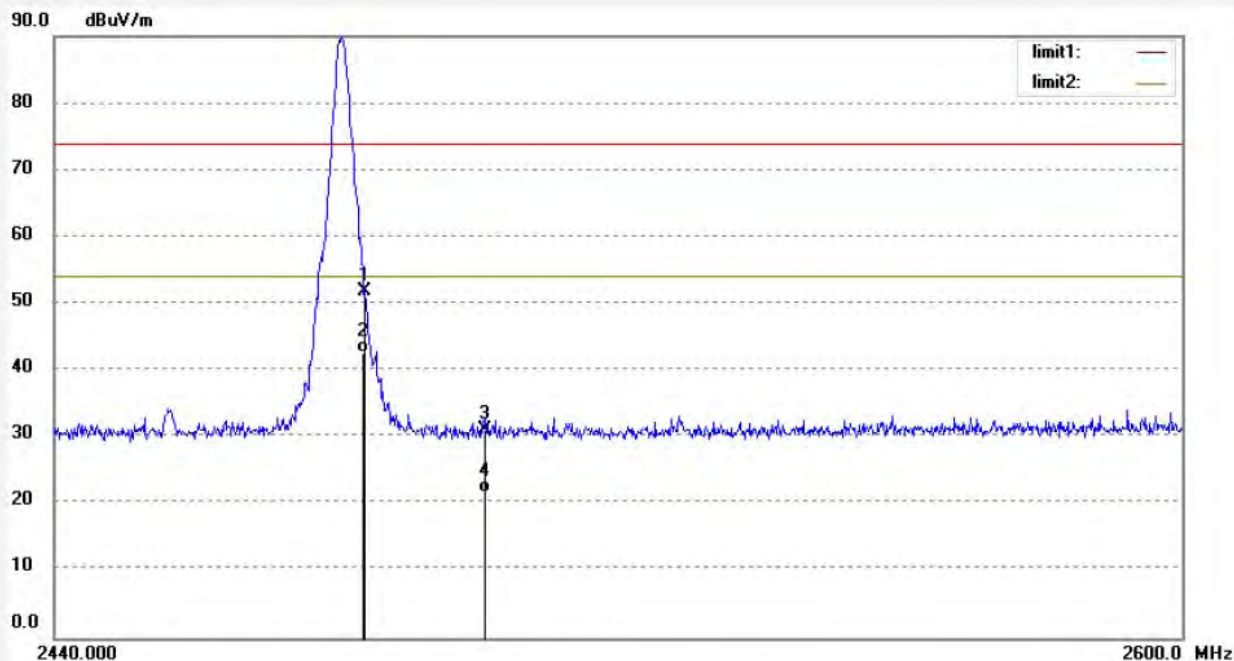
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

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

Job No.: Frank2017 #156
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Stereo Turntable System
Mode: TX2480MHz (□/4-DQPSK)
Model: T100D-BK
Manufacturer: TIMSEN

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 2017/09/12
Time: 19:54:48
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20171879



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	55.47	-3.50	51.97	74.00	-22.03	peak			
2	2483.500	46.12	-3.50	42.62	54.00	-11.38	AVG			
3	2500.000	34.52	-3.42	31.10	74.00	-42.90	peak			
4	2500.000	25.12	-3.42	21.70	54.00	-32.30	AVG			

Note: Average measurement with peak detection at No.2&4



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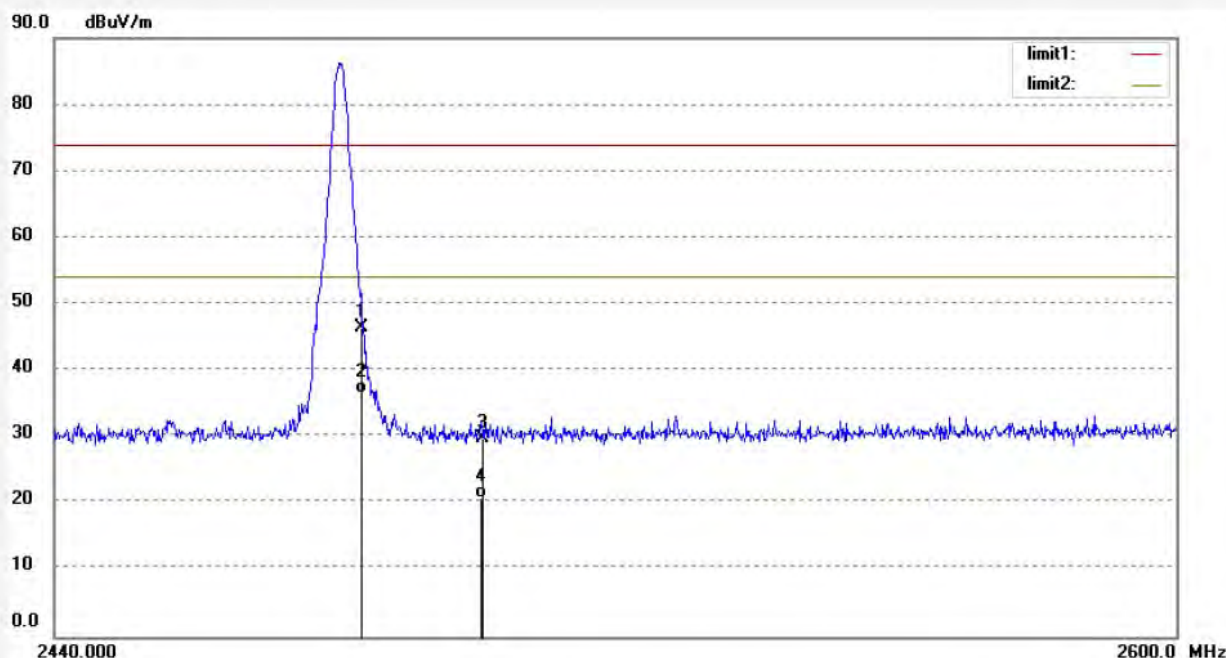
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

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

Job No.: Frank2017 #155
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Stereo Turntable System
Mode: TX2480MHz (Π/4-DQPSK)
Model: T100D-BK
Manufacturer: TIMSEN

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 2017/09/12
Time: 19:54:28
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20171879



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	49.89	-3.50	46.39	74.00	-27.61	peak			
2	2483.500	40.12	-3.50	36.62	54.00	-17.38	AVG			
3	2500.000	33.31	-3.42	29.89	74.00	-44.11	peak			
4	2500.000	24.21	-3.42	20.79	54.00	-33.21	AVG			

Note: Average measurement with peak detection at No.2&4



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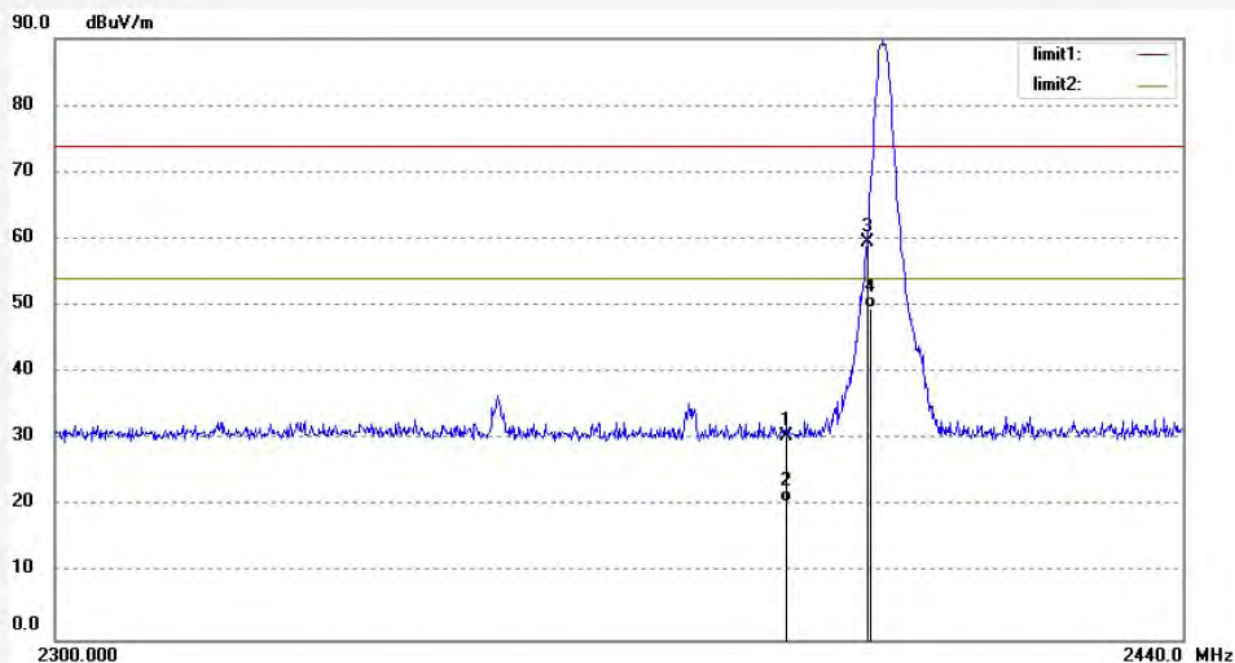
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

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

Job No.: Frank2017 #148
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Stereo Turntable System
Mode: TX2402MHz (8DPSK)
Model: T100D-BK
Manufacturer: TIMSEN

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 2017/09/12
Time: 19:43:07
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20171879



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	34.50	-3.96	30.54	74.00	-43.46	peak			
2	2390.000	24.54	-3.96	20.58	54.00	-33.42	AVG			
3	2400.000	63.36	-3.91	59.45	74.00	-14.55	peak			
4	2400.000	53.45	-3.91	49.54	54.00	-4.46	AVG			

Note: Average measurement with peak detection at No.2&4



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Site: 1# Chamber

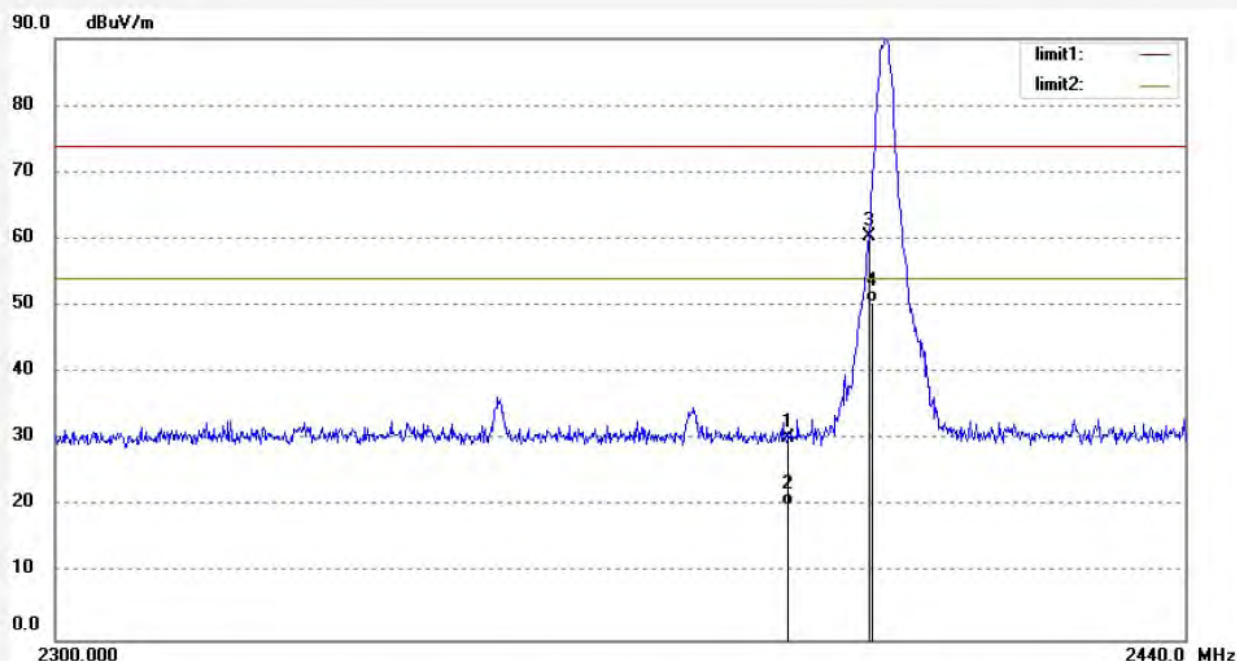
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Frank2017 #147
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Stereo Turntable System
Mode: TX2402MHz (8DPSK)
Model: T100D-BK
Manufacturer: TIMSEN

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 2017/09/12
Time: 19:41:31
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20171879



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	34.18	-3.96	30.22	74.00	-43.78	peak			
2	2390.000	24.18	-3.96	20.22	54.00	-33.78	AVG			
3	2400.000	64.36	-3.91	60.45	74.00	-13.55	peak			
4	2400.000	54.36	-3.91	50.45	54.00	-3.55	AVG			

Note: Average measurement with peak detection at No.2&4



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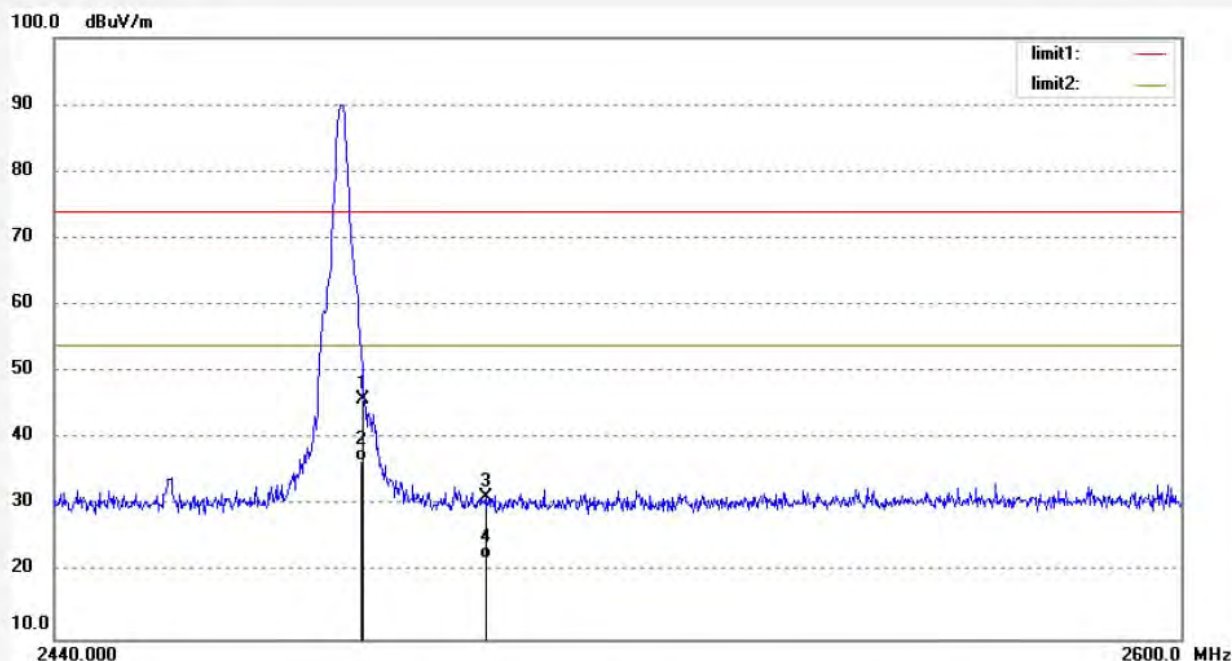
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

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

Job No.: Frank2017 #153
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Stereo Turntable System
Mode: TX2480MHz (8DPSK)
Model: T100D-BK
Manufacturer: TIMSEN

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 2017/09/12
Time: 19:50:31
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20171879



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	49.49	-3.50	45.99	74.00	-28.01	peak			
2	2483.500	40.15	-3.50	36.65	54.00	-17.35	AVG			
3	2500.000	34.76	-3.42	31.34	74.00	-42.66	peak			
4	2500.000	25.45	-3.42	22.03	54.00	-31.97	AVG			

Note: Average measurement with peak detection at No.2&4



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

Job No.: Frank2017 #154

Standard: FCC PK

Test item: Radiation Test

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

EUT: Stereo Turntable System

Mode: TX2480MHz (8DPSK)

Model: T100D-BK

Manufacturer: TIMSEN

Polarization: Vertical

Power Source: AC 120V/60Hz

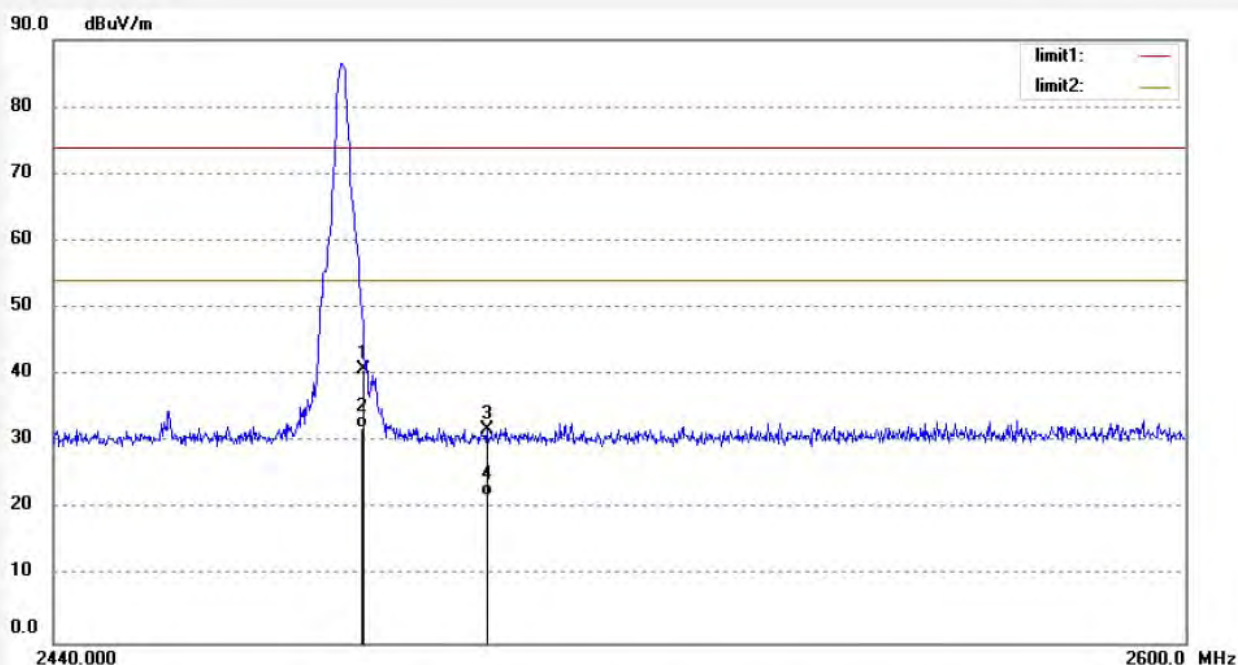
Date: 2017/09/12

Time: 19:52:59

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20171879



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	44.31	-3.50	40.81	74.00	-33.19	peak			
2	2483.500	35.64	-3.50	32.14	54.00	-21.86	AVG			
3	2500.000	35.26	-3.42	31.84	74.00	-42.16	peak			
4	2500.000	25.45	-3.42	22.03	54.00	-31.97	AVG			

Note: Average measurement with peak detection at No.2&4

Hopping mode



ACCURATE TECHNOLOGY CO., LTD.

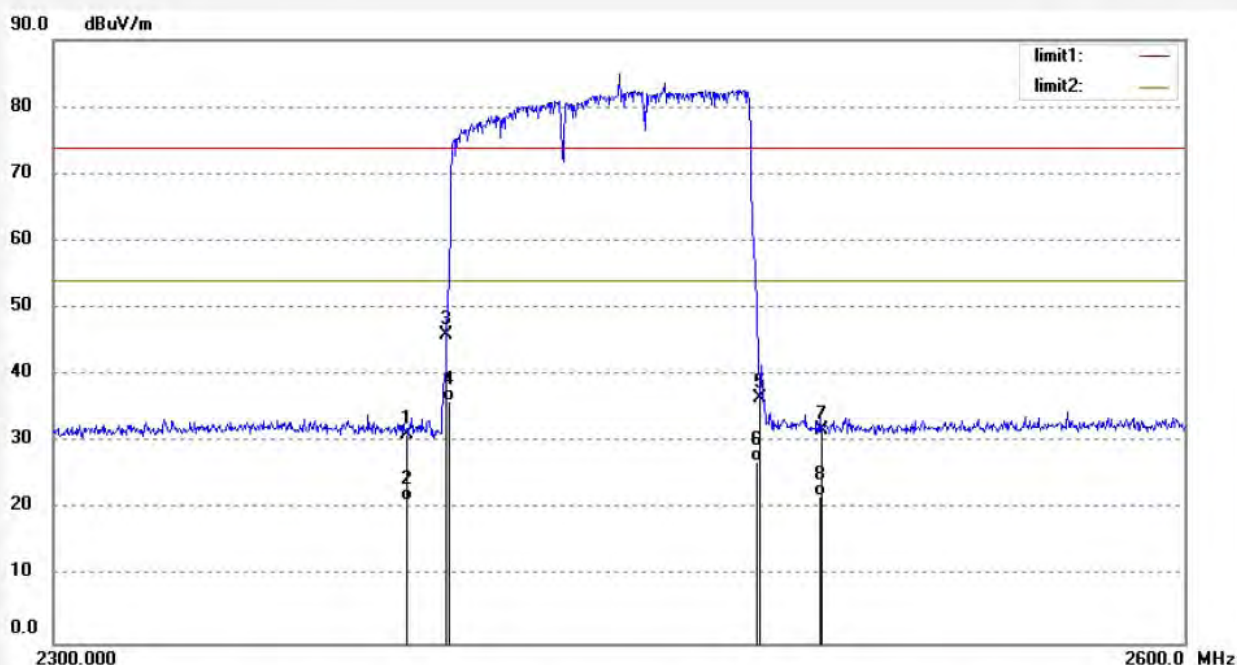
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

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

Job No.: Frank2017 #160
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Stereo Turntable System
Mode: HOPPING (GFSK)
Model: T100D-BK
Manufacturer: TIMSEN

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 2017/09/12
Time: 20:14:10
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20171879



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	35.17	-3.96	31.21	74.00	-42.79	peak			
2	2390.000	25.30	-3.96	21.34	54.00	-32.66	AVG			
3	2400.000	49.99	-3.91	46.08	74.00	-27.92	peak			
4	2400.000	40.12	-3.91	36.21	54.00	-17.79	AVG			
5	2483.000	39.97	-3.50	36.47	74.00	-37.53	peak			
6	2483.000	30.53	-3.50	27.03	54.00	-26.97	AVG			
7	2500.000	35.15	-3.42	31.73	74.00	-42.27	peak			
8	2500.000	25.32	-3.42	21.90	54.00	-32.10	AVG			

Note: Average measurement with peak detection at No.2&4&6&8



ACCURATE TECHNOLOGY CO., LTD.

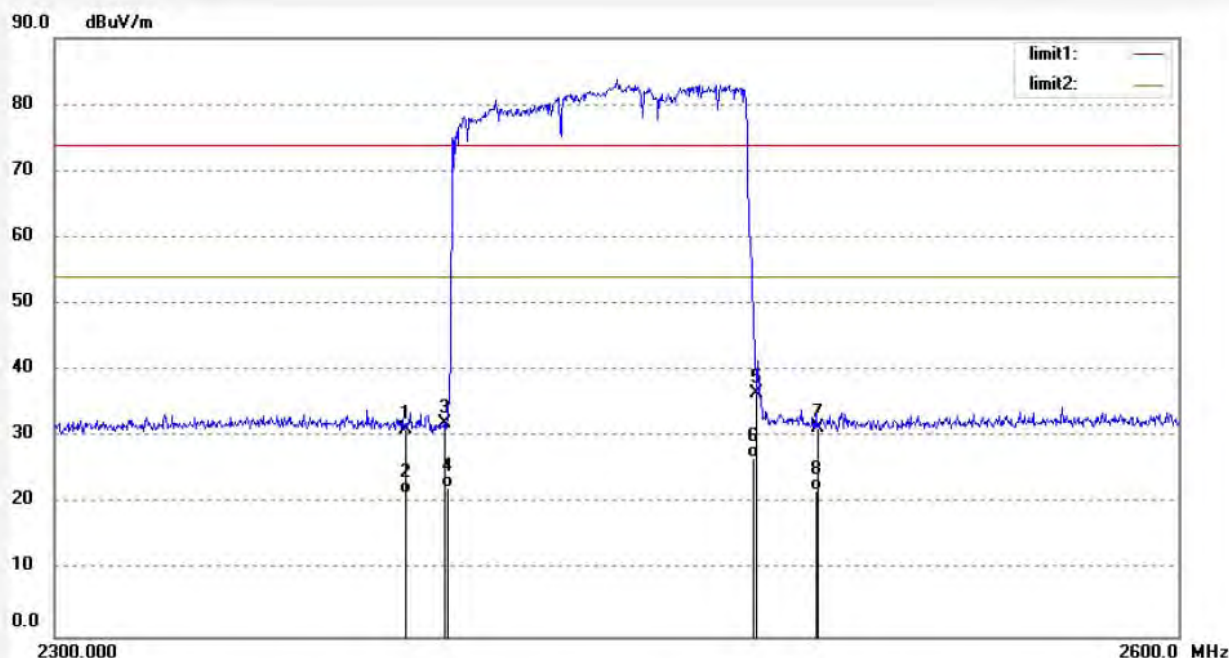
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

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

Job No.: Frank2017 #159
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Stereo Turntable System
Mode: HOPPING (GFSK)
Model: T100D-BK
Manufacturer: TIMSEN

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 2017/09/12
Time: 20:12:29
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20171879



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	35.17	-3.96	31.21	74.00	-42.79	peak			
2	2390.000	25.45	-3.96	21.49	54.00	-32.51	AVG			
3	2400.000	35.92	-3.91	32.01	74.00	-41.99	peak			
4	2400.000	26.23	-3.91	22.32	54.00	-31.68	AVG			
5	2483.000	39.97	-3.50	36.47	74.00	-37.53	peak			
6	2483.000	30.41	-3.50	26.91	54.00	-27.09	AVG			
7	2500.000	34.81	-3.42	31.39	74.00	-42.61	peak			
8	2500.000	25.42	-3.42	22.00	54.00	-32.00	AVG			

Note: Average measurement with peak detection at No.2&4&6&8



ACCURATE TECHNOLOGY CO., LTD.

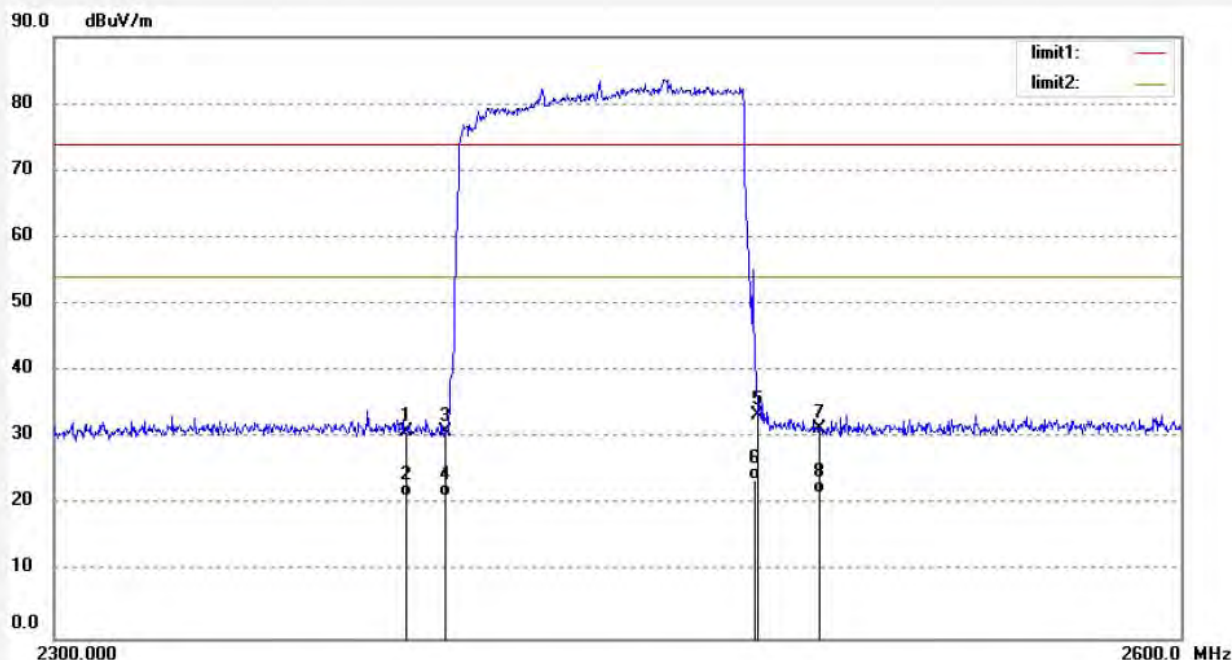
F1,Bldg.A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

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

Job No.: Frank2017 #157
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Stereo Turntable System
Mode: HOPPING (π/4-DQPSK)
Model: T100D-BK
Manufacturer: TIMSEN

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 2017/09/12
Time: 20:07:09
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20171879



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	35.01	-3.96	31.05	74.00	-42.95	peak			
2	2390.000	25.12	-3.96	21.16	54.00	-32.84	AVG			
3	2400.000	34.76	-3.91	30.85	74.00	-43.15	peak			
4	2400.000	25.10	-3.91	21.19	54.00	-32.81	AVG			
5	2483.000	36.95	-3.50	33.45	74.00	-40.55	peak			
6	2483.000	27.13	-3.50	23.63	54.00	-30.37	AVG			
7	2500.000	34.81	-3.42	31.39	74.00	-42.61	peak			
8	2500.000	25.14	-3.42	21.72	54.00	-32.28	AVG			

Note: Average measurement with peak detection at No.2&4&6&8



ACCURATE TECHNOLOGY CO., LTD.

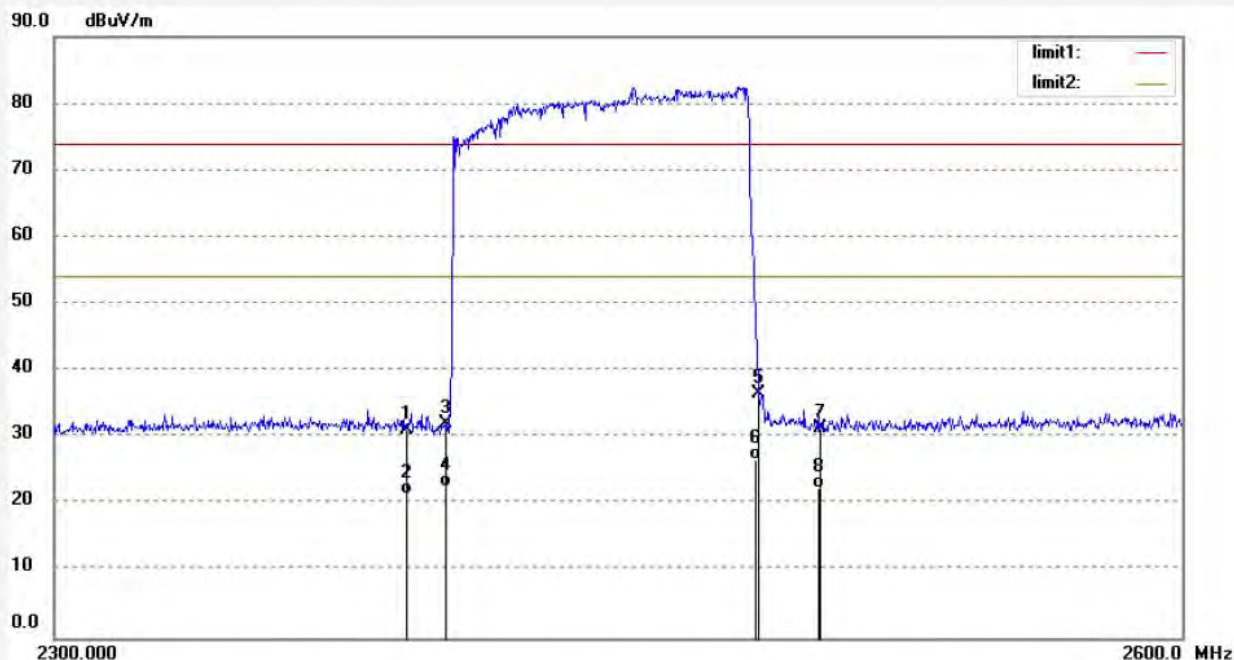
F1,Bldg.A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

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

Job No.: Frank2017 #158
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Stereo Turntable System
Mode: HOPPING (π/4-DQPSK)
Model: T100D-BK
Manufacturer: TIMSEN

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 2017/09/12
Time: 20:09:42
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20171879



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	35.17	-3.96	31.21	74.00	-42.79	peak			
2	2390.000	25.53	-3.96	21.57	54.00	-32.43	AVG			
3	2400.000	35.92	-3.91	32.01	74.00	-41.99	peak			
4	2400.000	26.42	-3.91	22.51	54.00	-31.49	AVG			
5	2483.000	39.97	-3.50	36.47	74.00	-37.53	peak			
6	2483.000	30.15	-3.50	26.65	54.00	-27.35	AVG			
7	2500.000	34.81	-3.42	31.39	74.00	-42.61	peak			
8	2500.000	25.80	-3.42	22.38	54.00	-31.62	AVG			

Note: Average measurement with peak detection at No.2&4&6&8



ACCURATE TECHNOLOGY CO., LTD.

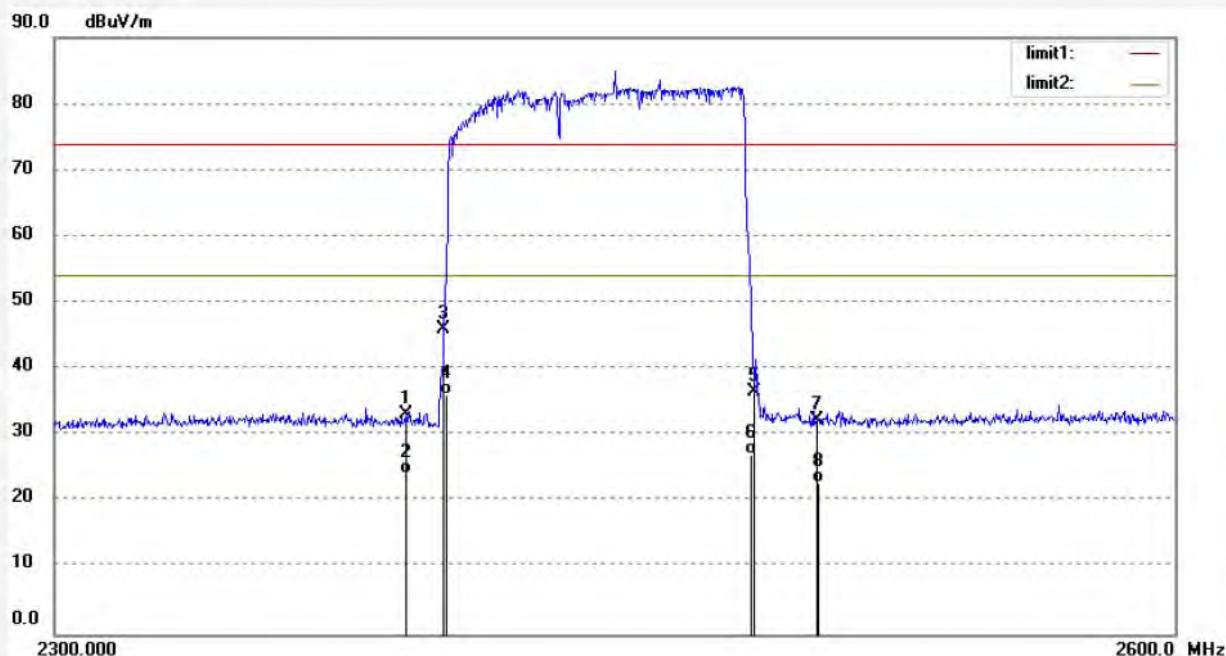
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

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

Job No.: Frank2017 #161
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Stereo Turntable System
Mode: HOPPING (8DPSK)
Model: T100D-BK
Manufacturer: TIMSEN

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 2017/09/12
Time: 20:15:21
Engineer Signature:
Distance: 3m

Note: Report NO.:ATE20171879



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	37.09	-3.96	33.13	74.00	-40.87	peak			
2	2390.000	28.21	-3.96	24.25	54.00	-29.75	AVG			
3	2400.000	49.99	-3.91	46.08	74.00	-27.92	peak			
4	2400.000	40.12	-3.91	36.21	54.00	-17.79	AVG			
5	2483.000	39.97	-3.50	36.47	74.00	-37.53	peak			
6	2483.000	30.52	-3.50	27.02	54.00	-26.98	AVG			
7	2500.000	35.69	-3.42	32.27	74.00	-41.73	peak			
8	2500.000	26.32	-3.42	22.90	54.00	-31.10	AVG			

Note: Average measurement with peak detection at No.2&4&6&8



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.: Frank2017 #162

Standard: FCC PK

Test item: Radiation Test

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

EUT: Stereo Turntable System

Mode: HOPPING (8DPSK)

Model: T100D-BK

Manufacturer: TIMSEN

Polarization: Vertical

Power Source: AC 120V/60Hz

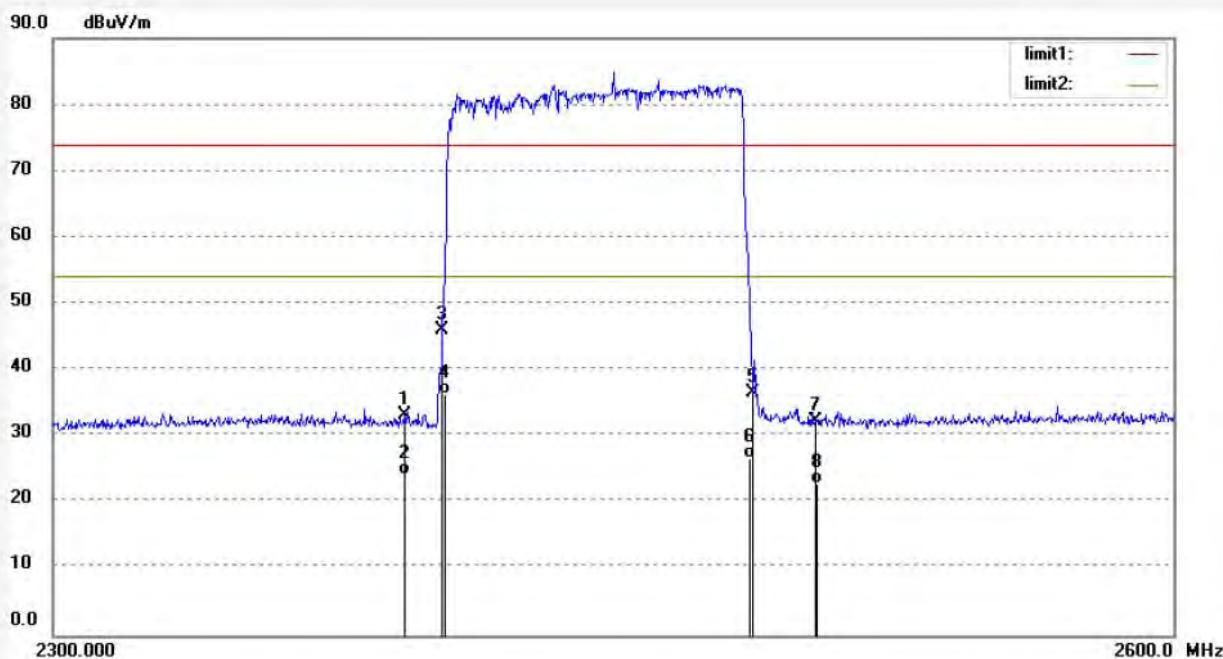
Date: 2017/09/12

Time: 20:16:25

Engineer Signature:

Distance: 3m

Note: Report NO.:ATE20171879



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	37.09	-3.96	33.13	74.00	-40.87	peak			
2	2390.000	28.12	-3.96	24.16	54.00	-29.84	AVG			
3	2400.000	49.99	-3.91	46.08	74.00	-27.92	peak			
4	2400.000	40.23	-3.91	36.32	54.00	-17.68	AVG			
5	2483.000	39.97	-3.50	36.47	74.00	-37.53	peak			
6	2483.000	30.12	-3.50	26.62	54.00	-27.38	AVG			
7	2500.000	35.69	-3.42	32.27	74.00	-41.73	peak			
8	2500.000	26.21	-3.42	22.79	54.00	-31.21	AVG			

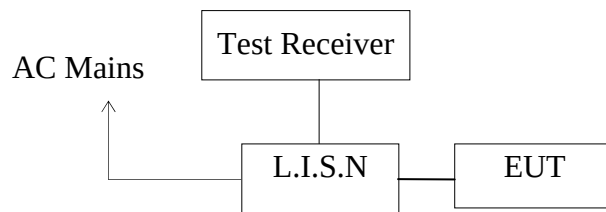
Note: Average measurement with peak detection at No.2&4&6&8

12.AC POWER LINE CONDUCTED EMISSION FOR FCC PART

15 SECTION 15.207(A)

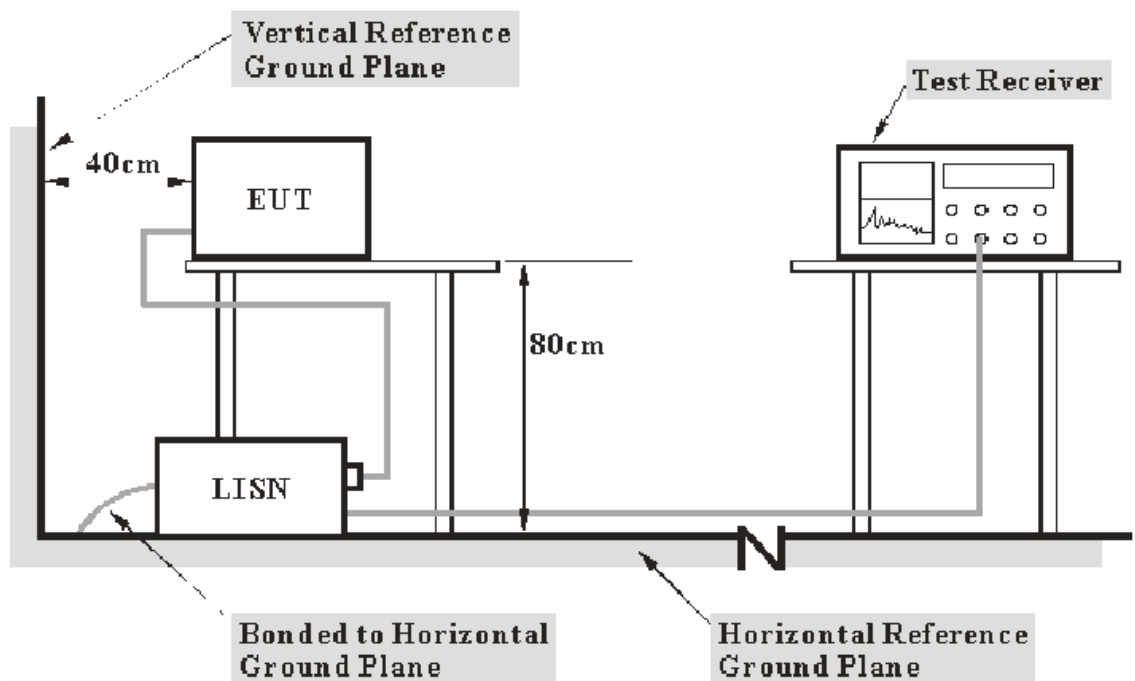
12.1.Block Diagram of Test Setup

12.1.1.Block diagram of connection between the EUT and simulators



(EUT: Stereo Turntable System)

12.1.2.Test System Setup



- Note: 1. Support units were connected to second LISN.
 2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

12.2.Power Line Conducted Emission Measurement Limits

Frequency (MHz)	Limit dB(μ V)	
	Quasi-peak Level	Average Level
0.15 - 0.50	66.0 – 56.0 *	56.0 – 46.0 *
0.50 - 5.00	56.0	46.0
5.00 - 30.00	60.0	50.0
NOTE1: The lower limit shall apply at the transition frequencies.		
NOTE2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.		

12.3.Configuration of EUT on Measurement

The 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.

12.4.Operating Condition of EUT

12.4.1.Setup the EUT and simulator as shown as Section 12.1.

12.4.2.Turn on the power of all equipment.

12.4.3.Let the EUT work in test mode and measure it.

12.5.Test Procedure

The EUT is put on the plane 0.8m 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.

12.6.Data Sample

Frequency (MHz)	Transducer value (dB)	QuasiPeak Level (dBμV)	Average Level (dBμV)	QuasiPeak Limit (dBμV)	Average Limit (dBμV)	QuasiPeak Margin (dB)	Average Margin (dB)	Remark (Pass/Fail)
0.272	10.9	47.7	47.2	61.0	51.0	13.4	3.9	Pass

Frequency(MHz) = Emission frequency in MHz

Transducer value(dB) = Insertion loss of LISN + Cable Loss

Level(dBμV) = Quasi-peak Reading/Average Reading + Transducer value

Limit (dBμV) = Limit stated in standard

Margin = Limit (dBμV) - Level (dBμV)

Calculation Formula:

Margin = Limit (dBμV) - Level (dBμV)

12.7.Power Line Conducted Emission Measurement Results

PASS.

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

Maximizing procedure was performed on the six (6) highest emissions of the EUT.
Emissions attenuated more than 20 dB below the permissible value are not reported.

All data was recorded in the Quasi-peak and average detection mode.

The spectral diagrams are attached as below.

Adapter 1 test data:

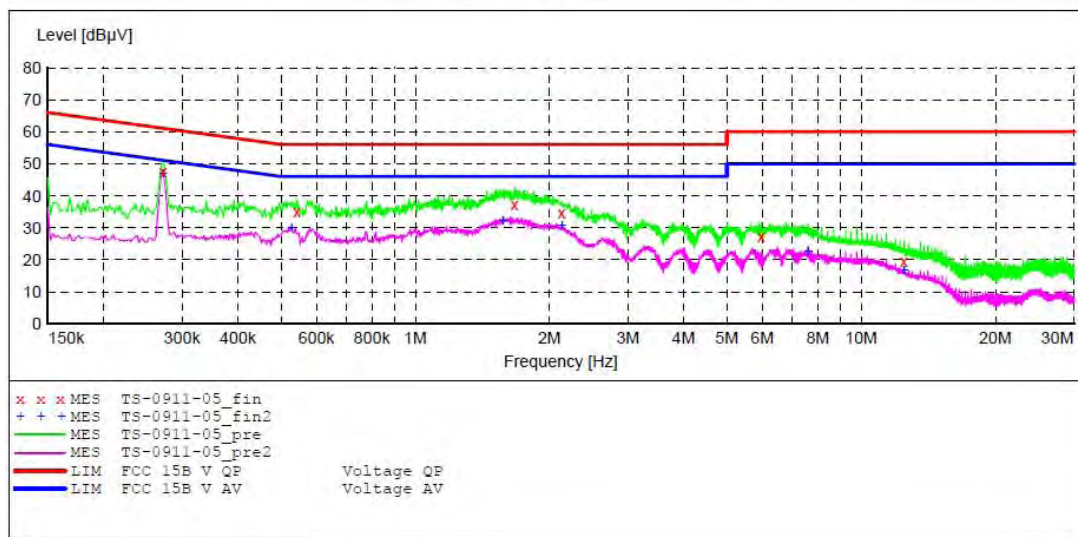
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: Stereo Turntable System M/N:T100D-BK
 Manufacturer: TIMSEN
 Operating Condition: BT communication
 Test Site: 1#Shielding Room
 Operator: BLACK
 Test Specification: L 240V/60Hz
 Comment: Report NO.:ATE20171879
 Start of Test: 2017-9-11 / 9:52:58

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

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



MEASUREMENT RESULT: "TS-0911-05_fin"

2017-9-11 10:00

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.272000	47.70	10.9	61	13.4	QP	L1	GND
0.544000	35.00	11.0	56	21.0	QP	L1	GND
1.672000	37.20	11.2	56	18.8	QP	L1	GND
2.130000	34.70	11.3	56	21.3	QP	L1	GND
5.970000	27.40	11.5	60	32.6	QP	L1	GND
12.475000	19.70	11.6	60	40.3	QP	L1	GND

MEASUREMENT RESULT: "TS-0911-05_fin2"

2017-9-11 10:00

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.272000	47.20	10.9	51	3.9	AV	L1	GND
0.528000	30.10	11.0	46	15.9	AV	L1	GND
1.574000	32.30	11.2	46	13.7	AV	L1	GND
2.135000	30.90	11.3	46	15.1	AV	L1	GND
7.595000	23.00	11.5	50	27.0	AV	L1	GND
12.480000	16.90	11.6	50	33.1	AV	L1	GND

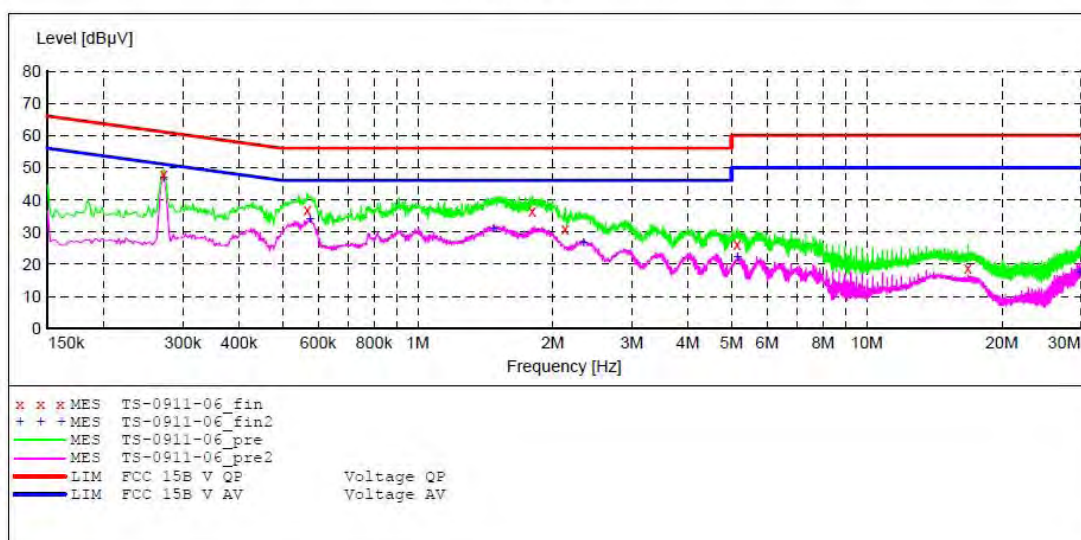
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: Stereo Turntable System M/N:T100D-BK
 Manufacturer: TIMSEN
 Operating Condition: BT communication
 Test Site: 1#Shielding Room
 Operator: BLACK
 Test Specification: N 240V/60Hz
 Comment: Report NO.:ATE20171879
 Start of Test: 2017-9-11 / 10:00:49

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

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



MEASUREMENT RESULT: "TS-0911-06_fin"

2017-9-11 10:03

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.272000	48.00	10.9	61	13.1	QP	N	GND
0.568000	36.70	11.0	56	19.3	QP	N	GND
1.800000	36.50	11.2	56	19.5	QP	N	GND
2.130000	30.90	11.3	56	25.1	QP	N	GND
5.150000	26.20	11.4	60	33.8	QP	N	GND
16.815000	18.90	11.7	60	41.1	QP	N	GND

MEASUREMENT RESULT: "TS-0911-06_fin2"

2017-9-11 10:03

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.272000	47.30	10.9	51	3.8	AV	N	GND
0.576000	34.10	11.0	46	11.9	AV	N	GND
1.476000	31.40	11.2	46	14.6	AV	N	GND
2.345000	26.90	11.3	46	19.1	AV	N	GND
5.155000	22.60	11.4	50	27.4	AV	N	GND
29.820000	17.70	11.8	50	32.3	AV	N	GND

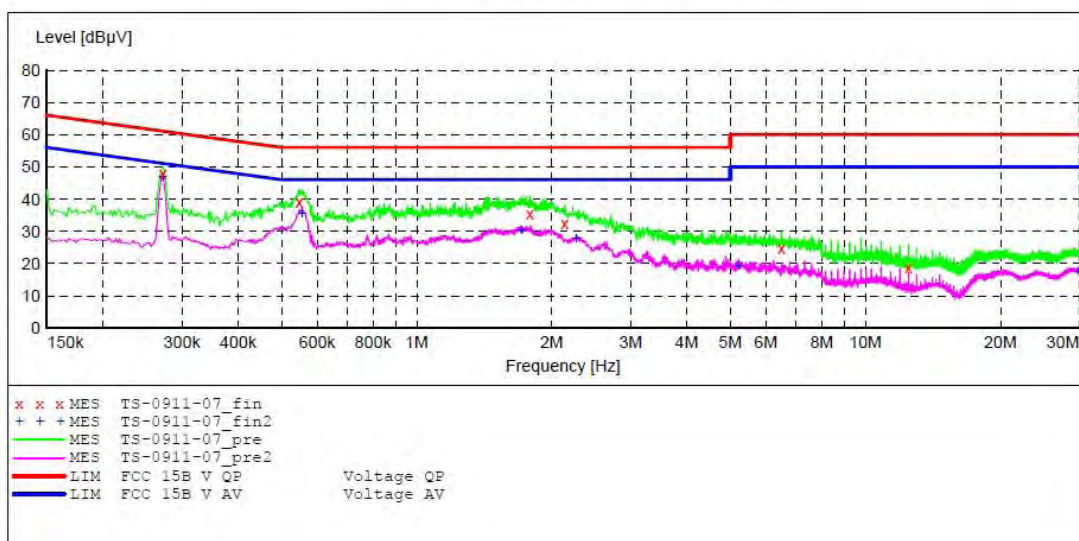
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: Stereo Turntable System M/N:T100D-BK
 Manufacturer: TIMSEN
 Operating Condition: BT communication
 Test Site: 1#Shielding Room
 Operator: BLACK
 Test Specification: N 120V/60Hz
 Comment: Report NO.:ATE20171879
 Start of Test: 2017-9-11 / 10:03:43

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

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



MEASUREMENT RESULT: "TS-0911-07_fin"

2017-9-11 10:07

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.272000	47.80	10.9	61	13.3	QP	N	GND
0.548000	39.10	11.0	56	16.9	QP	N	GND
1.788000	35.50	11.2	56	20.5	QP	N	GND
2.140000	32.40	11.3	56	23.6	QP	N	GND
6.505000	24.70	11.5	60	35.3	QP	N	GND
12.470000	18.70	11.6	60	41.3	QP	N	GND

MEASUREMENT RESULT: "TS-0911-07_fin2"

2017-9-11 10:07

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.272000	47.20	10.9	51	3.9	AV	N	GND
0.556000	35.80	11.0	46	10.2	AV	N	GND
1.710000	30.70	11.2	46	15.3	AV	N	GND
2.265000	27.90	11.3	46	18.1	AV	N	GND
5.210000	19.40	11.4	50	30.6	AV	N	GND
29.885000	17.80	11.8	50	32.2	AV	N	GND

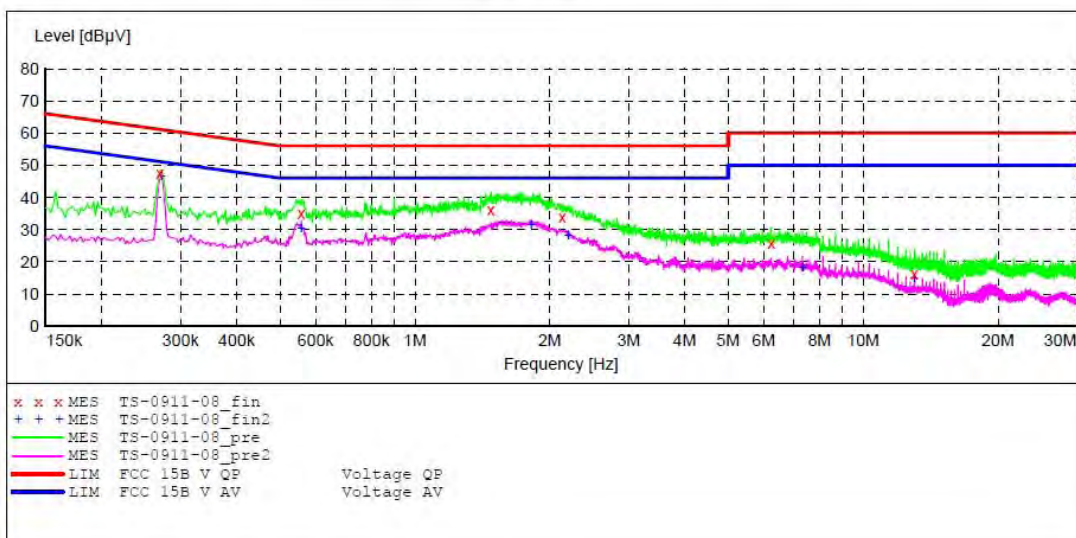
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: Stereo Turntable System M/N:T100D-BK
 Manufacturer: TIMSEN
 Operating Condition: BT communication
 Test Site: 1#Shielding Room
 Operator: BLACK
 Test Specification: L 120V/60Hz
 Comment: Report NO.:ATE20171879
 Start of Test: 2017-9-11 / 10:10:38

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

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



MEASUREMENT RESULT: "TS-0911-08_fin"

2017-9-11 10:12

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.270000	47.70	10.9	61	13.4	QP	L1	GND
0.558000	35.10	11.0	56	20.9	QP	L1	GND
1.478000	36.10	11.2	56	19.9	QP	L1	GND
2.135000	33.90	11.3	56	22.1	QP	L1	GND
6.235000	25.70	11.5	60	34.3	QP	L1	GND
13.015000	16.10	11.6	60	43.9	QP	L1	GND

MEASUREMENT RESULT: "TS-0911-08_fin2"

2017-9-11 10:12

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.272000	47.00	10.9	51	4.1	AV	L1	GND
0.558000	30.70	11.0	46	15.3	AV	L1	GND
1.818000	31.90	11.2	46	14.1	AV	L1	GND
2.200000	28.30	11.3	46	17.7	AV	L1	GND
7.325000	18.40	11.5	50	31.6	AV	L1	GND
13.010000	15.00	11.6	50	35.0	AV	L1	GND

Adapter 2 test data:

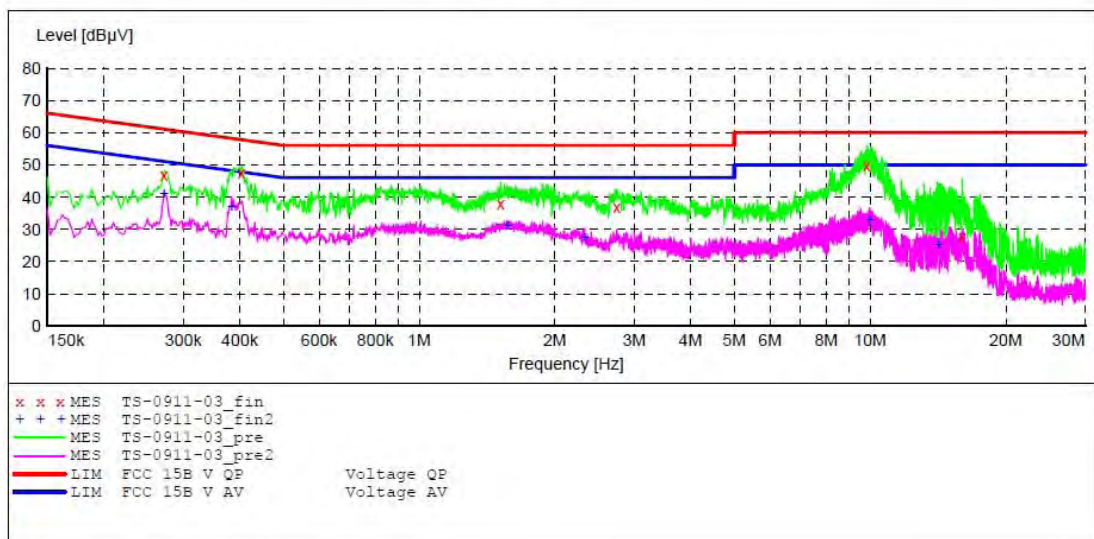
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: Stereo Turntable System M/N:T100D-BK
 Manufacturer: TIMSEN
 Operating Condition: BT communication
 Test Site: 1#Shielding Room
 Operator: BLACK
 Test Specification: N 240V/60Hz
 Comment: Report NO.:ATE20171879
 Start of Test: 2017-9-11 / 9:39:06

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

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



MEASUREMENT RESULT: "TS-0911-03_fin"

2017-9-11 9:41

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.272000	47.00	10.9	61	14.1	QP	N	GND
0.404000	47.60	11.0	58	10.2	QP	N	GND
1.518000	38.10	11.2	56	17.9	QP	N	GND
2.745000	36.90	11.3	56	19.1	QP	N	GND
9.845000	49.70	11.6	60	10.3	QP	N	GND
15.985000	27.80	11.7	60	32.2	QP	N	GND

MEASUREMENT RESULT: "TS-0911-03_fin2"

2017-9-11 9:41

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.272000	41.30	10.9	51	9.8	AV	N	GND
0.384000	37.20	10.9	48	11.0	AV	N	GND
1.568000	31.30	11.2	46	14.7	AV	N	GND
2.330000	27.70	11.3	46	18.3	AV	N	GND
9.980000	33.10	11.6	50	16.9	AV	N	GND
14.175000	25.40	11.6	50	24.6	AV	N	GND

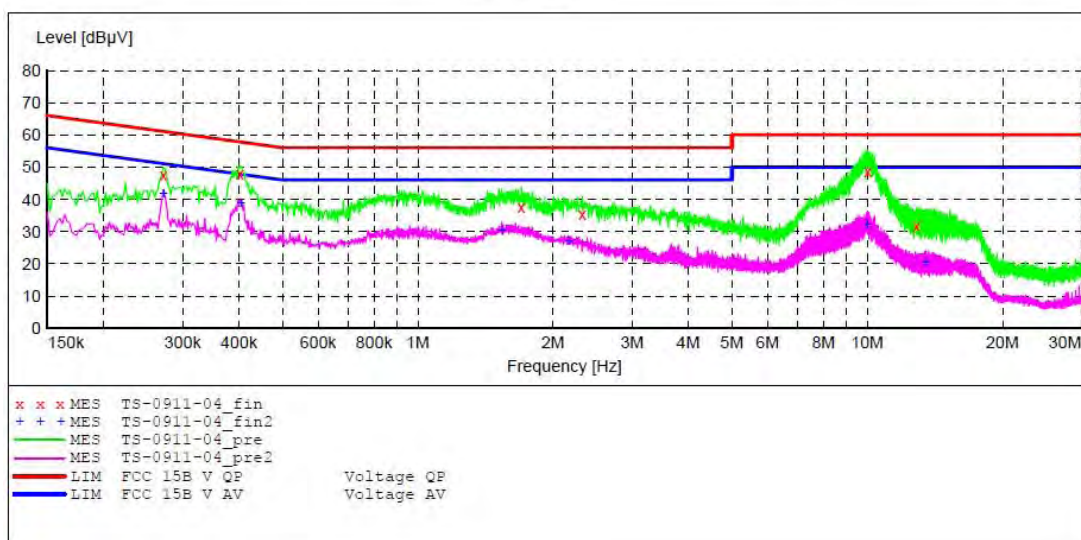
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: Stereo Turntable System M/N:T100D-BK
 Manufacturer: TIMSEN
 Operating Condition: BT communication
 Test Site: 1#Shielding Room
 Operator: BLACK
 Test Specification: L 240V/60Hz
 Comment: Report NO.:ATE20171879
 Start of Test: 2017-9-11 / 9:49:18

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

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



MEASUREMENT RESULT: "TS-0911-04_fin"

2017-9-11 9:52

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.272000	47.40	10.9	61	13.7	QP	L1	GND
0.402000	47.80	11.0	58	10.0	QP	L1	GND
1.700000	37.60	11.2	56	18.4	QP	L1	GND
2.325000	35.50	11.3	56	20.5	QP	L1	GND
10.025000	48.70	11.6	60	11.3	QP	L1	GND
12.890000	31.70	11.6	60	28.3	QP	L1	GND

MEASUREMENT RESULT: "TS-0911-04_fin2"

2017-9-11 9:52

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Detector	Line	PE
0.272000	42.20	10.9	51	8.9	AV	L1	GND
0.404000	39.20	11.0	48	8.6	AV	L1	GND
1.538000	30.80	11.2	46	15.2	AV	L1	GND
2.165000	27.40	11.3	46	18.6	AV	L1	GND
10.010000	32.40	11.6	50	17.6	AV	L1	GND
13.510000	20.60	11.6	50	29.4	AV	L1	GND

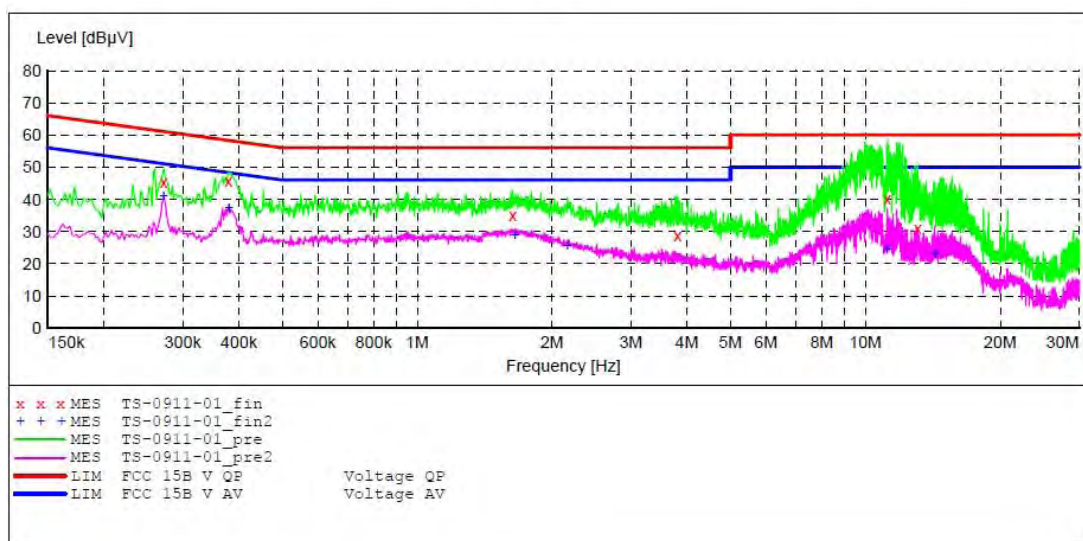
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: Stereo Turntable System M/N:T100D-BK
 Manufacturer: TIMSEN
 Operating Condition: BT communication
 Test Site: 1#Shielding Room
 Operator: BLACK
 Test Specification: L 120V/60Hz
 Comment: Report NO.:ATE20171879
 Start of Test: 2017-9-11 / 9:32:53

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

Short Description: _SUB_STD_VTERM2 1.70
 Start Stop Step Detector Meas. IF Transducer
 Frequency Frequency Width Time Bandw.
 150.0 kHz 30.0 MHz 4.5 kHz QuasiPeak 1.0 s 9 kHz NSLK8126 2008
 Average



MEASUREMENT RESULT: "TS-0911-01_fin"

2017-9-11 9:35

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.272000	45.50	10.9	61	15.6	QP	L1	GND
0.380000	45.70	10.9	58	12.6	QP	L1	GND
1.634000	34.90	11.2	56	21.1	QP	L1	GND
3.815000	28.90	11.4	56	27.1	QP	L1	GND
11.205000	40.00	11.6	60	20.0	QP	L1	GND
13.080000	30.90	11.6	60	29.1	QP	L1	GND

MEASUREMENT RESULT: "TS-0911-01_fin2"

2017-9-11 9:35

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.272000	41.30	10.9	51	9.8	AV	L1	GND
0.380000	37.80	10.9	48	10.5	AV	L1	GND
1.654000	29.30	11.2	46	16.7	AV	L1	GND
2.165000	26.00	11.3	46	20.0	AV	L1	GND
11.190000	24.80	11.6	50	25.2	AV	L1	GND
14.285000	23.30	11.6	50	26.7	AV	L1	GND

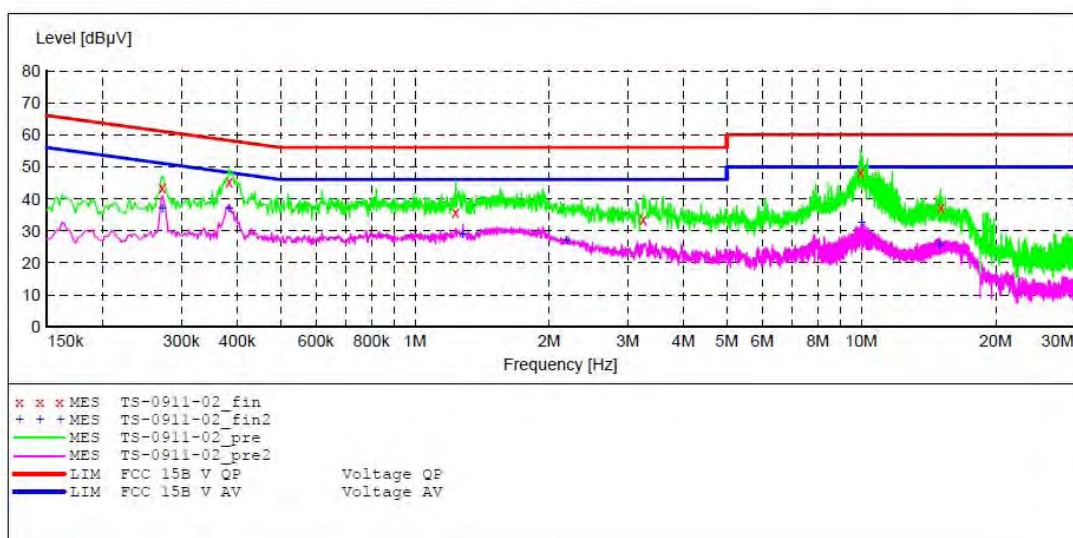
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: Stereo Turntable System M/N:T100D-BK
 Manufacturer: TIMSEN
 Operating Condition: BT communication
 Test Site: 1#Shielding Room
 Operator: BLACK
 Test Specification: N 120V/60Hz
 Comment: Report NO.:ATE20171879
 Start of Test: 2017-9-11 / 9:36:12

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

Short Description: _SUB_STD_VTERM2 1.70
 Start Stop Step Detector Meas. IF Transducer
 Frequency Frequency Width Time Bandw.
 150.0 kHz 30.0 MHz 4.5 kHz QuasiPeak 1.0 s 9 kHz NSLK8126 2008
 Average



MEASUREMENT RESULT: "TS-0911-02_fin"

2017-9-11 9:38

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.272000	43.50	10.9	61	17.6	QP	N	GND
0.384000	45.50	10.9	58	12.7	QP	N	GND
1.234000	35.80	11.2	56	20.2	QP	N	GND
3.250000	33.60	11.4	56	22.4	QP	N	GND
9.970000	48.40	11.6	60	11.6	QP	N	GND
15.075000	37.10	11.6	60	22.9	QP	N	GND

MEASUREMENT RESULT: "TS-0911-02_fin2"

2017-9-11 9:38

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.272000	37.30	10.9	51	13.8	AV	N	GND
0.384000	37.40	10.9	48	10.8	AV	N	GND
1.282000	29.10	11.2	46	16.9	AV	N	GND
2.185000	27.40	11.3	46	18.6	AV	N	GND
10.015000	32.90	11.6	50	17.1	AV	N	GND
14.990000	25.70	11.6	50	24.3	AV	N	GND

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 Max Antenna gain of EUT is 2dBi. Therefore, the equipment complies with the antenna requirement of Section 15.203.



Antenna

***** End of Test Report *****