

APPLICATION FOR CERTIFICATION
On Behalf of

Intec Inc.

X-Box 2.4G RF Wireless Controller

Model Number: 8085+8085R

Prepared for : Intec Inc.
5255 NW 159TH Street Miami, FL 33014 U.S.A.

Prepared By : Audix Technology (Shenzhen) Co., Ltd.
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Report Number : ACS-F04107
Date of Test : Apr.25~26, 2004
Date of Report : Apr.29, 2004

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APPENDIX I (25 pages)

TEST REPORT DECLARATION

Applicant : Intec Inc.
 Manufacturer : Hong Xiang Electronics Co., Ltd.
 EUT Description : X-Box 2.4G RF Wireless Controller
 (A) MODEL NO. : 8085+8085R
 (B) SERIAL NO. : F2004042901
 (C) POWER SUPPLY : DC 3V

Test Procedure Used:

FCC Rules and Regulations Part 15 Subpart C Aug 2003.

The device described above is tested by AUDIX TECHNOLOGY (SHENZHEN) 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 limits both radiated and conducted emissions.

The test results are contained in this test report and AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. is assumed full responsibility for the accuracy and completeness of these tests. 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 AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

This report must not be used by the applicant to claim product endorsement by NVLAP or any agency of the U.S. Government.

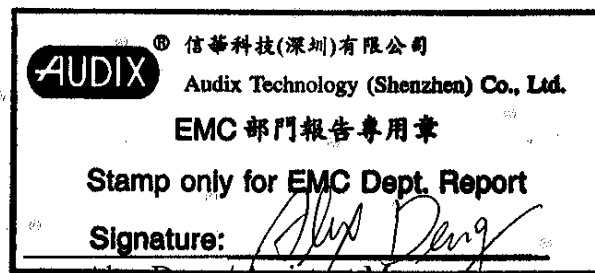
Date of Test : Apr.25~26, 2004

Prepared by :

Elsa Wu
 Elsa Wu / Assistant

Reviewer :

Lake Wang
 Lake Wang / Supervisor



Approved & Authorized Signer :

Alex Deng / Assistant Manager

Name of the Representative of the Responsible Party :

Signature :

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

Description : X-Box 2.4G RF Wireless Controller

Model Number : 8085+8085R

Applicant : Intec Inc.
5255 NW 159TH Street Miami, FL 33014 U.S.A.

Manufacturer : Hong Xiang Electronics Co., Ltd.
No.52 San Nan Road, San Jiao Chang An Town,
Dong Guan City, P.R.C

Date of Test : Apr.25~26, 2004

1.2. Tested Supporting System Details

1.2.1. X-Box

Manufacturer : Microsoft

Model Number : WA98052-6399

S/N : 6017455.30105

1.3. Test Facility

Site Description

3m Anechoic Chamber : Certificated by FCC, USA
Aug. 15, 2003

3m & 10m Anechoic Chamber : Certificated by FCC, USA
Mar. 15, 2004

EMC Lab. : Certificated by DATech, German
Feb. 02, 2004

Certificated by NVLAP, USA
NVLAP Code: 200372-0
Mar. 31, 2004

Name of Firm : Audix Technology (Shenzhen) Co., Ltd.

Site Location : No. 6, Ke Feng Rd., 52 Block,
Shenzhen Science & Industrial Park,
Nantou, Shenzhen, Guangdong, China

1.4. Test Uncertainty

Conducted Emission Uncertainty = $\pm 2.66\text{dB}$

Radiated Emission Uncertainty = $\pm 4.26\text{dB}$

2. POWER LINE CONDUCTED EMISSION TEST

According to Paragraph (f) of FCC Part 15 section 15.247, Tests to demonstrate compliance with the conducted limits are not required for devices which only employ battery power for operation and which do not operate from the AC power lines or contain provisions for operation while connected to the AC power lines.

3. RADIATED EMISSION TEST

3.1. Test Equipment

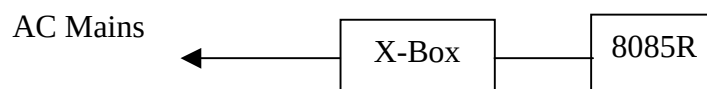
The following test equipments are used during the radiated emission test:

3.1.1. For Anechoic Chamber

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	EMI Spectrum	HP	85422E	3625A00181	May.31, 03	1 Year
2.	Test Receiver	Rohde & Schwarz	ESVS10	832699/004	May.31, 03	1 Year
3.	Amplifier	HP	8447D	2944A07804	Mar.03, 04	1/2 Year
4.	Biconical Antenna	Schaffner	UPA6109	1096	Feb.11, 04	1 Year
5.	Log-period Antenna	Schaffner	VBA6106A	1311	Feb.11, 04	1 Year
6.	PC	ASUS	P4SGX-MX	N/A	N/A	N/A
7.	Printer	HP	Laserjet1300	N/A	N/A	N/A
8.	RF Cable	MIYAZAKI	8D-FB	10m Chamber No.1	Feb.11, 04	1/2 Year
9.	RF Cable	MIYAZAKI	8D-FB	10m Chamber No.2	Feb.11, 04	1/2 Year
10.	RF Cable	MIYAZAKI	8D-FB	10m Chamber No.3	Feb.11, 04	1/2 Year
11.	RF Cable	MIYAZAKI	8D-FB	10m Chamber No.4	Feb.11, 04	1/2 Year
12.	Coaxial Switch	Anritsu	MP59B	M74389	Nov.28, 03	1/2 Year

3.2. Block Diagram of Test Setup

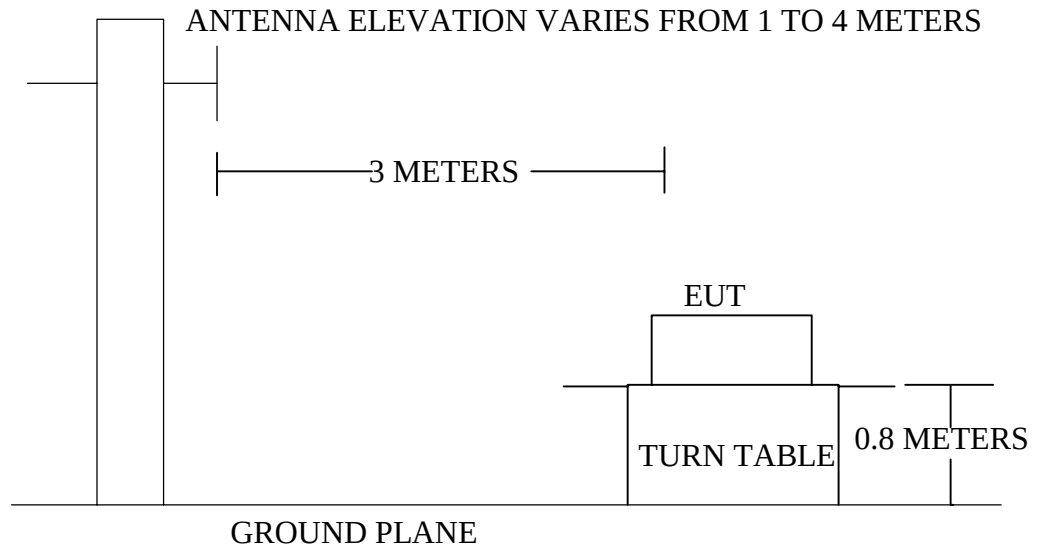
3.2.1. Block diagram of connection between the EUT and simulators



(EUT: X-Box 2.4G RF Wireless Controller)

3.2.2.In Anechoic Chamber

ANTENNA TOWER



3.3.Radiated Emission Limit

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		$\mu\text{V}/\text{m}$	$\text{dB}(\mu\text{V})/\text{m}$
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000	3	74.0 $\text{dB}(\mu\text{V})/\text{m}$ (Peak) 54.0 $\text{dB}(\mu\text{V})/\text{m}$ (Average)	

- Remark :
- (1) Emission level $(\text{dB})\mu\text{V} = 20 \log \text{Emission level } \mu\text{V}/\text{m}$
 - (2) The smaller limit shall apply at the cross point between two frequency bands.
 - (3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

3.4.EUT Configuration on Test

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

3.4.1.X-Box 2.4G RF Wireless Controller (EUT)

Model Number : 8085+8085R
 Serial Number : F2004042901
 Manufacturer : Hong Xiang Electronics Co., Ltd.

3.4.2.Support Equipment : As Tested Supporting System Detail, in Section 1.2.

3.5.Operating Condition of EUT

1. Setup the EUT as shown in Section 3.2..
Let the EUT work in test mode (8085 CH1 Tx/8085 CH38 Tx/8085 CH75 Tx) and test it.

3.6.Test Procedure

EUT and its simulators are placed on a turn table, which is 0.8 meter high above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. Power on the EUT and let it work normally, we use a keyboard test soft ware, let EUT working in test mode, then test it. EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarization of the antenna are set on test.

The bandwidth of the EMI test receiver (R&S ESVS20) is set at 120KHz.

The frequency range from 30MHz to 24.44GHz is checked.

The test mode (8085 CH1 Tx/8085 CH38 Tx/8085 CH75 Tx) is tested in Anechoic Chamber, and all the scanning waveforms are attached in Appendix I.

3.7.Radiated Emission Test Result

PASS.

The frequency range from 30MHz to 1000MHz is investigated.

Please see the following pages.

Date of Test :	Apr.25, 2004	Temperature :	24°C
EUT :	X-Box 2.4G RF Wireless Controller	Humidity :	56%
Model No. :	8085+8085R	Test Mode :	8085 CH1 Tx
Test Engineer:	Richzhy		

Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Meter Reading Horizontal dBμV	Emission Level Horizontal dBμV/m	Over Limits dB	Limits dBμV/m
41.640	12.25	1.22	19.62	33.09	-6.91	40.00
200.720	9.40	2.98	25.22	37.59	-5.91	43.50
322.940	13.99	3.95	21.22	39.16	-6.84	46.00
603.270	18.88	6.30	17.56	42.14	-3.26	46.00
659.530	19.88	6.48	10.38	36.74	-9.26	46.00
914.640	22.66	7.74	8.72	39.12	-6.88	46.00

Remark: 1. All readings are Quasi-Peak values.

2. Emission Level = Antenna Factor + Cable Loss + Meter Reading

3. The worst emission was detected at 603.270MHz with corrected signal level of 42.14dBμV/m (Limit is 46.00dBμV/m) when the antenna was at horizontal polarization and at 1.3m high and the turn table was at 180 ° .

4. 0 ° was the table front facing the antenna. Degree is calculated from 0 ° clockwise facing the antenna.

Reviewer:

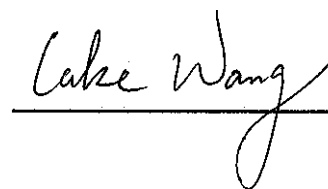
Caife Wang

Date of Test :	Apr.25, 2004	Temperature :	24°C
EUT :	X-Box 2.4G RF Wireless Controller	Humidity :	56%
Model No. :	8085+8085R	Test Mode :	8085 CH1 Tx
Test Engineer:	Richzhy		

Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Meter Reading Vertical dBμV	Emission Level Vertical dBμV/m	Over Limits dB	Limits dBμV/m
41.640	9.76	1.22	24.65	35.63	-4.37	40.00
63.950	8.40	1.57	24.82	34.80	-5.20	40.00
69.770	9.71	1.64	23.35	34.69	-5.31	40.00
92.080	8.74	1.96	26.25	36.95	-6.55	43.50
599.390	19.81	6.15	16.73	42.69	-3.31	46.00
829.280	22.60	7.42	10.60	40.61	-5.39	46.00

- Remark: 1. All readings are Quasi-Peak values.
 2. Emission Level = Antenna Factor + Cable Loss + Meter Reading
 3. The worst emission was detected at 599.390MHz with corrected signal level of 42.69dBμV/m (Limit is 46.00dBμV/m) when the antenna was at vertical polarization and at 1.0m high and the turn table was at 0 ° .
 4. 0 ° was the table front facing the antenna. Degree is calculated from 0 ° clockwise facing the antenna.

Reviewer:



Date of Test :	Apr.25, 2004	Temperature :	24°C
EUT :	X-Box 2.4G RF Wireless Controller	Humidity :	56%
Model No. :	8085+8085R	Test Mode :	8085 CH38 Tx
Test Engineer:	Richzhy		

Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Meter Reading Horizontal dBμV	Emission Level Horizontal dBμV/m	Over Limits dB	Limits dBμV/m
41.640	12.25	1.22	16.62	30.09	-9.91	40.00
201.690	9.39	2.99	25.95	38.33	-5.17	43.50
322.940	13.99	3.95	17.22	35.16	-10.84	46.00
603.270	18.88	6.30	16.56	41.74	-4.26	46.00
913.670	22.66	7.74	5.19	35.60	-10.40	46.00
939.860	23.02	7.84	4.04	34.91	-11.09	46.00

- Remark: 1. All readings are Quasi-Peak values.
 2. Emission Level = Antenna Factor + Cable Loss + Meter Reading
 3. The worst emission was detected at 603.270MHz with corrected signal level of 41.74dBμV/m (Limit is 46.00dBμV/m) when the antenna was at horizontal polarization and at 1.2m high and the turn table was at 180 ° .
 4. 0 ° was the table front facing the antenna. Degree is calculated from 0 ° clockwise facing the antenna.

Reviewer: Cake Wang

Frequency	Antenna	Cable	Meter Reading	Emission Level	Over	Limits
MHz	Factor	Loss	Vertical	Vertical	Limits	
	dB/m	dB	dBμV	dBμV/m	dB	dBμV/m
43.580	8.93	1.25	26.58	36.76	-3.24	40.00
62.010	7.20	1.55	26.11	34.86	-5.14	40.00
92.080	8.74	1.96	26.25	36.95	-6.55	43.50
322.940	13.96	3.95	18.37	36.28	-9.72	46.00
599.390	19.81	6.15	11.73	37.69	-8.31	46.00
845.770	23.05	7.29	5.96	36.30	-9.70	46.00

4. 0 ° was the table front facing the antenna. Degree is calculated from 0 ° clockwise facing the antenna.

Reviewer:

Chloe Wang

Date of Test :	Apr.25, 2004	Temperature :	24°C
EUT :	X-Box 2.4G RF Wireless Controller	Humidity :	56%
Model No. :	8085+8085R	Test Mode :	8085 CH75 Tx
Test Engineer:	Richzhy		

Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Meter Reading Horizontal dBμV	Emission Level Horizontal dBμV/m	Over Limits dB	Limits dBμV/m
41.640	12.25	1.22	18.62	32.09	-7.91	40.00
201.690	9.39	2.99	27.95	40.33	-3.17	43.50
322.940	13.99	3.95	19.22	37.16	-8.84	46.00
602.300	18.88	6.30	17.66	42.84	-3.16	46.00
659.530	19.88	6.48	11.38	37.74	-8.26	46.00
914.640	22.66	7.74	7.72	38.12	-7.88	46.00

Remark: 1. All readings are Quasi-Peak values.

2. Emission Level = Antenna Factor + Cable Loss + Meter Reading

3. The worst emission was detected at 602.300MHz with corrected signal level of 42.84dBμV/m (Limit is 46.00dBμV/m) when the antenna was at horizontal polarization and at 1.1m high and the turn table was at 180 ° .

4. 0 ° was the table front facing the antenna. Degree is calculated from 0 ° clockwise facing the antenna.

Reviewer:

Cahe Wang

Date of Test :	Apr.25, 2004	Temperature :	24°C
EUT :	X-Box 2.4G RF Wireless Controller	Humidity :	56%
Model No. :	8085+8085R	Test Mode :	8085 CH75 Tx
Test Engineer:	Richzhy		

Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Meter Reading Vertical dBμV	Emission Level Vertical dBμV/m	Over Limits dB	Limits dBμV/m
42.610	9.28	1.23	24.68	35.19	-4.81	40.00
61.040	6.39	1.52	28.60	36.50	-3.50	40.00
70.740	9.36	1.66	25.97	36.99	-3.01	40.00
92.080	8.74	1.96	28.25	38.95	-4.55	43.50
322.940	13.96	3.95	20.37	38.28	-7.72	46.00
599.390	19.81	6.15	15.73	41.69	-4.31	46.00

- Remark: 1. All readings are Quasi-Peak values.
 2. Emission Level = Antenna Factor + Cable Loss + Meter Reading
 3. The worst emission was detected at 70.740MHz with corrected signal level of 36.99dBμV/m (Limit is 40.00dBμV/m) when the antenna was at vertical polarization and at 1.0m high and the turn table was at 0 ° .
 4. 0 ° was the table front facing the antenna. Degree is calculated from 0 ° clockwise facing the antenna.

Reviewer: Cake Wang

Date of Test :	Apr.26, 2004	Temperature :	23°C
EUT :	X-Box 2.4G RF Wireless Controller	Humidity :	54%
Model No. :	8085+8085R	Test Mode :	8085 CH1 Tx
Test Engineer:	Richzhy		

Frequency MHz	Antenna Factor dB	Cable Loss dB	Meter Reading Horizontal dBμV	Emission Level Horizontal dBμV/m	Over Limits dB	Limits dBμV/m	Remark
4801.080	33.01	4.63	14.06	51.70	-22.30	74.00	Peak
4801.080	33.01	4.63	11.06	48.70	-5.30	54.00	Average

Frequency MHz	Antenna Factor dB	Cable Loss dB	Meter Reading Vertical dBμV	Emission Level Vertical dBμV/m	Over Limits dB	Limits dBμV/m	Remark
4801.080	33.01	4.63	13.96	51.60	-22.40	74.00	Peak
4801.080	33.01	4.63	11.96	49.60	-4.40	54.00	Average

Remark: 1. All readings are Peak and Average values.

2. Emission Level = Antenna Factor + Cable Loss + Meter Reading

3. The bandwidth of the RBW is set at 1MHz and VBW is set at 1MHz.

Reviewer:

Cake Wang

Date of Test :	Apr.26, 2004	Temperature :	23°C
EUT :	X-Box 2.4G RF Wireless Controller	Humidity :	54%
Model No. :	8085+8085R	Test Mode :	8085 CH38 Tx
Test Engineer:	Richzhy		

Frequency	Antenna	Cable	Meter Reading	Emission Level	Over	Limits	Remark
MHz	Factor	Loss	Horizontal	Horizontal	Limits		
	dB	dB	dBμV	dBμV/m	dB	dBμV/m	
4875.080	33.08	4.68	14.14	51.90	-22.10	74.00	Peak
4875.080	33.08	4.68	13.14	50.90	-3.10	54.00	Average

Frequency	Antenna	Cable	Meter Reading	Emission Level	Over	Limits	Remark
MHz	Factor	Loss	Vertical	Vertical	Limits		
	dB	dB	dBμV	dBμV/m	dB	dBμV/m	
4875.080	33.08	4.68	14.44	52.20	-21.80	74.00	Peak
4875.080	33.08	4.68	11.44	49.20	-4.80	54.00	Average

Remark: 1. All readings are Peak and Average values.

2. Emission Level = Antenna Factor + Cable Loss + Meter Reading

3. The bandwidth of the RBW is set at 1MHz and VBW is set at 1MHz.

Reviewer:

Choke Wang

Date of Test :	Apr.26, 2004	Temperature :	23°C
EUT :	X-Box 2.4G RF Wireless Controller	Humidity :	54%
Model No. :	8085+8085R	Test Mode :	8085 CH75 Tx
Test Engineer:	Richzhy		

Frequency MHz	Antenna Factor dB	Cable Loss dB	Meter Reading Horizontal dBμV	Emission Level Horizontal dBμV/m	Over Limits dB	Limits dBμV/m	Remark
4949.040	33.15	4.72	14.33	52.20	-21.80	74.00	Peak
4949.040	33.15	4.72	12.33	50.20	-3.80	54.00	Average

Frequency MHz	Antenna Factor dB	Cable Loss dB	Meter Reading Vertical dBμV	Emission Level Vertical dBμV/m	Over Limits dB	Limits dBμV/m	Remark
4949.040	33.15	4.72	13.83	51.70	-22.30	74.00	Peak
4949.040	33.15	4.72	10.83	48.70	-5.30	54.00	Average

Remark: 1. All readings are Peak and Average values.

2. Emission Level = Antenna Factor + Cable Loss + Meter Reading

3. The bandwidth of the RBW is set at 1MHz and VBW is set at 1MHz.

Reviewer: Choke Wang



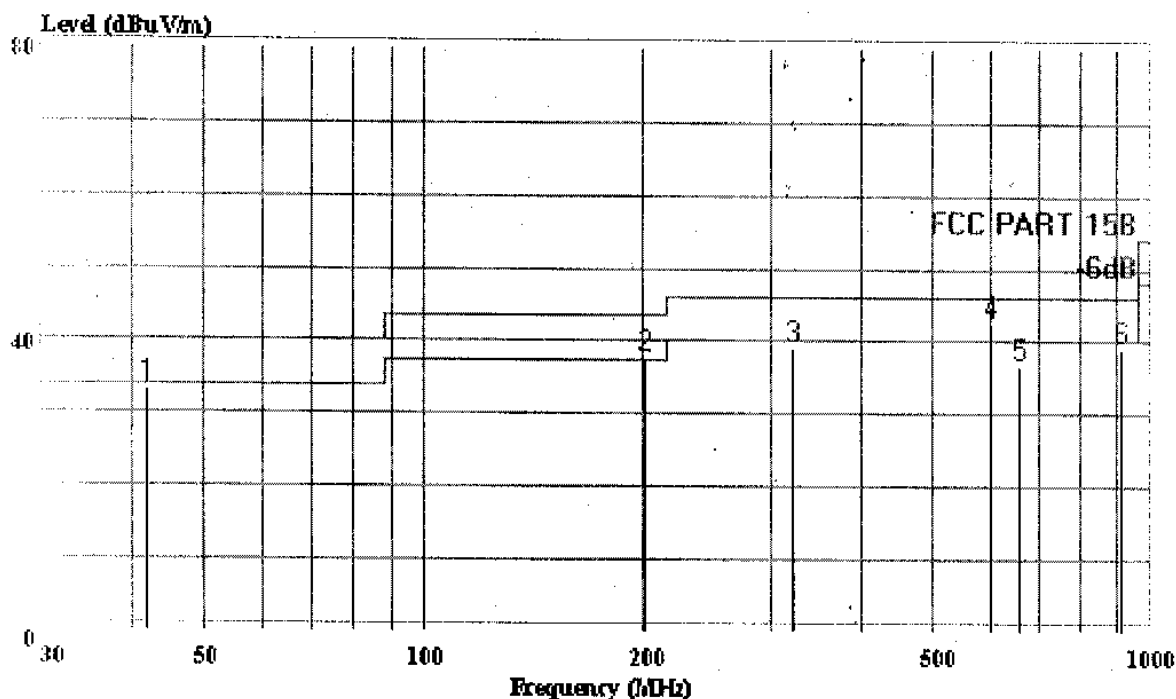
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Fax: 0755-26632877

Data#: File#: Intec INC.EMI Date: 2004-04-25 Time: 18:30:52



AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (3# Chamber)

Trace:

Ref Trace:

Condition: FCC PART 15B 3m 2598FACTOR HORIZONTAL

EUT : X-Box 2.4G RF Wireless Controller

M/N : 8085+8085R

Power : DC3V (Battery)

Engineer : Richzhv

Test Comment: Temp:24°C Humi:56%

Memo : 8085 CH1 Tx

: T-Table pos:180deg Antenna pos:1.3m

Page: 1

	Freq	Level	Limit	Over	Read	Cable	Probe
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor
			dBuV/m	dB	dBuV	dB	dB
1	41.640	33.09	40.00	-6.91	19.62	1.22	12.25
2	200.720	37.59	43.50	-5.91	25.22	2.98	9.40
3	322.940	39.16	46.00	-6.84	21.22	3.95	13.99
4	603.270	42.74	46.00	-3.26	17.56	6.30	18.88
5	659.530	36.74	46.00	-9.26	10.38	6.48	19.88
6	914.640	39.12	46.00	-6.88	8.72	7.74	22.66



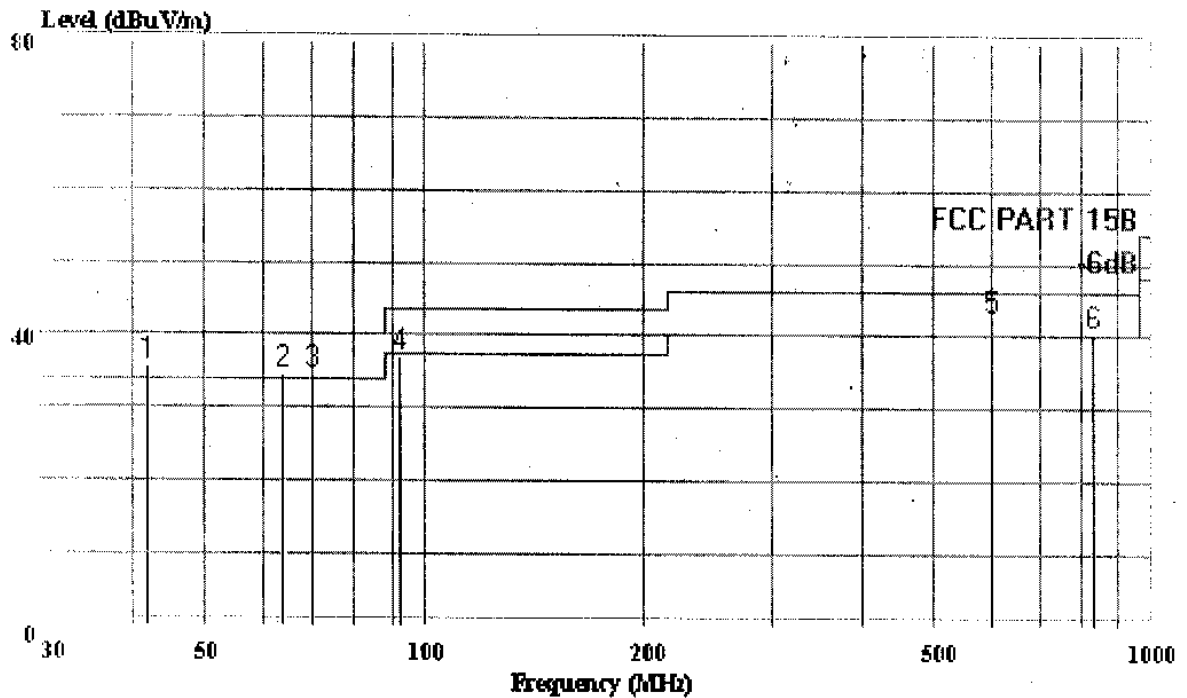
AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

Shenzhen Science & Ind. Park

Tel: 0755-26639495~7

Fax: 0755-26632877

Data#: File#: Intec INC.EMI Date: 2004-04-25 Time: 18:30:25



AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (3# Chamber)

Trace:

Ref Trace:

Condition: FCC PART 15B 3m 2598FACTOR VERTICAL

EUT : X-Box 2.4G RF Wireless Controller

M/N : 8085+8085R

Power : DC3V (Battery)

Engineer : Richzhv

Test Comment: Temp:24°C Humi:56%

Memo : 8085 CH1 Tx

: T-Table pos:0deg Antenna pos:1.0m

Page: 1

	Freq	Level	Limit	Over	Read	Cable	Probe
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB
1	41.640	35.63	40.00	-4.37	24.65	1.22	9.76
2	63.950	34.80	40.00	-5.20	24.82	1.57	8.40
3	69.770	34.69	40.00	-5.31	23.35	1.64	9.71
4	92.080	36.95	43.50	-6.55	26.25	1.96	8.74
5	599.390	42.69	46.00	-3.31	16.73	6.15	19.81
6	829.280	40.61	46.00	-5.39	10.60	7.42	22.60



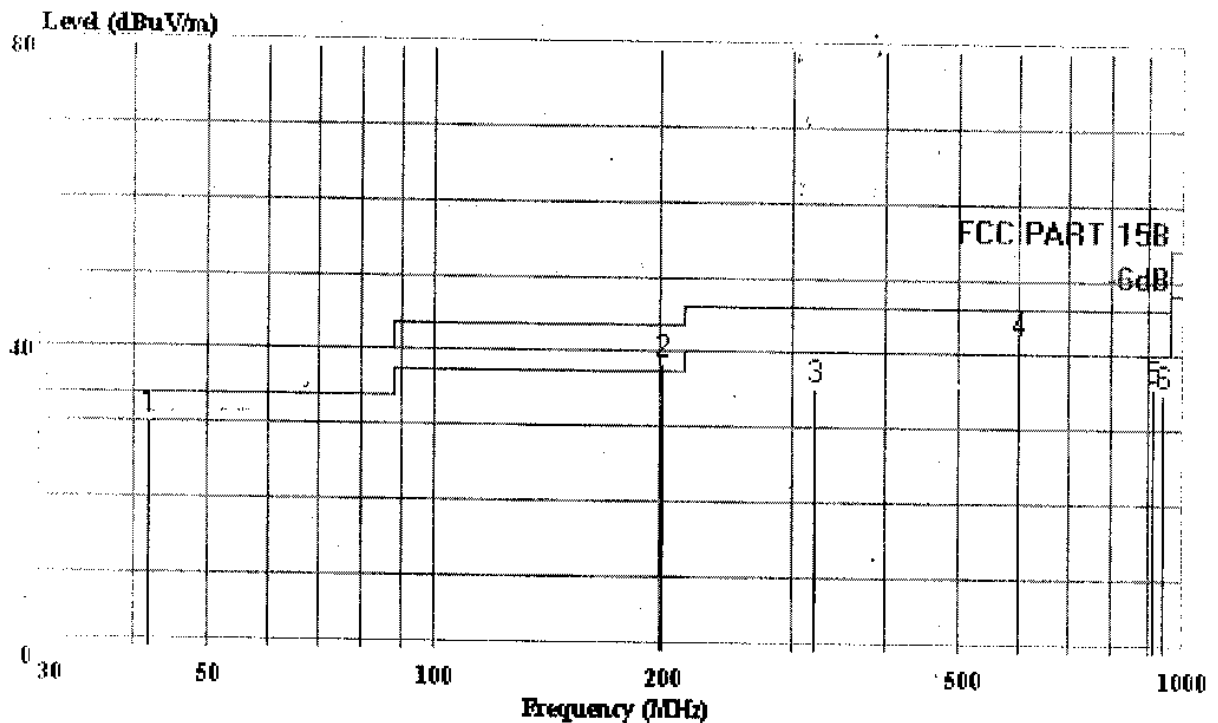
AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

Shenzhen Science & Ind. Park

Tel: 0755-26639495~7

Fax: 0755-26632877

Data#: File#: Intec INC.EMI Date: 2004-04-25 Time: 18:31:43



AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (3# Chamber)

Trace:

Ref Trace:

Condition: FCC PART 15B 3m 2598FACTOR HORIZONTAL

EUT : X-Box 2.4G RF Wireless Controller

M/N : 8085+8085R

Power : DC3V (Battery)

Engineer : Richzhv

Test Comment: Temp:24°C Humi:56%

Memo : 8085 CH38 Tx

: T-Table pos:180deg Antenna pos:1.2m

Page: 1

	Freq	Level	Limit	Over	Read	Cable	Probe
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor
			dBuV/m	dB	dBuV	dB	dB
1	41.640	30.09	40.00	-9.91	16.62	1.22	12.25
2	201.690	38.33	43.50	-5.17	25.95	2.99	9.39
3	322.940	35.16	46.00	-10.84	17.22	3.95	13.99
4	603.270	41.74	46.00	-4.26	16.56	6.30	18.88
5	913.670	35.60	46.00	-10.40	5.19	7.74	22.66
6	939.860	34.91	46.00	-11.09	4.04	7.84	23.02



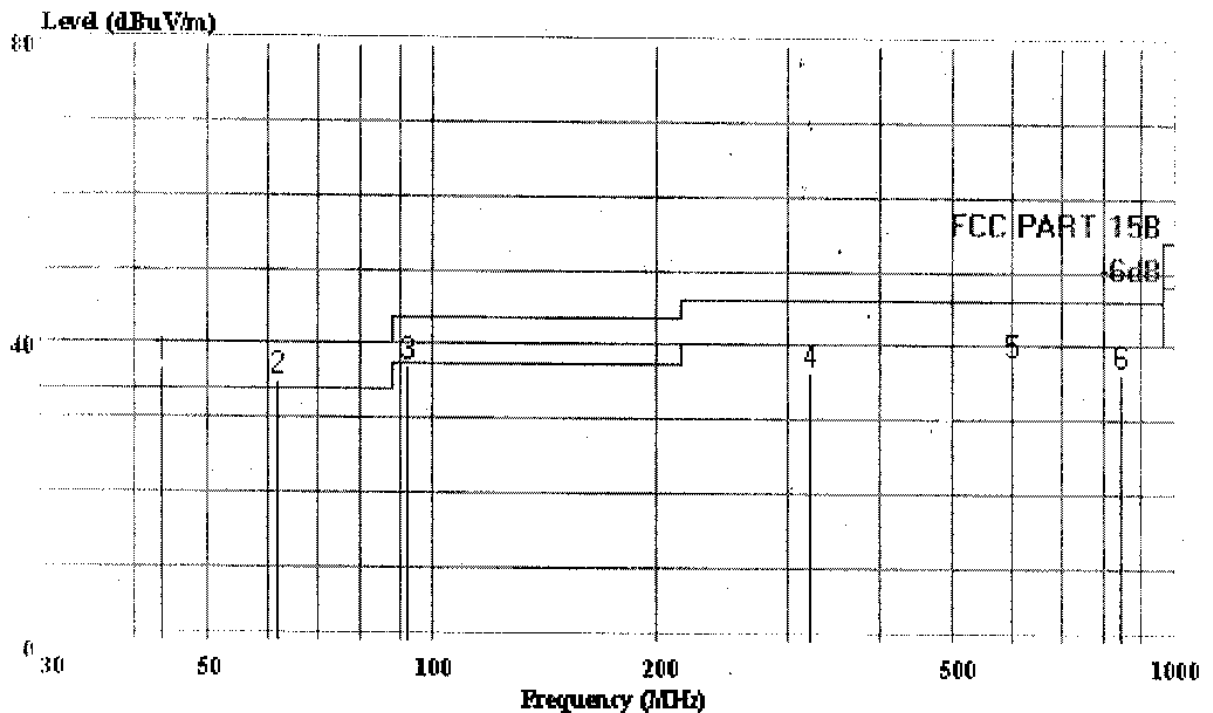
AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

Shenzhen Science & Ind. Park

Tel: 0755-26639495~7

Fax: 0755-26632877

Data#: File#: Intec INC.EMI Date: 2004-04-25 Time: 18:31:17



AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (3# Chamber)

Trace:

Ref Trace:

Condition: FCC PART 15B 3m 2598FACTOR VERTICAL

EUT : X-Box 2.4G RF Wireless Controller

M/N : 8085+8085R

Power : DC3V (Battery)

Engineer : Richzhv

Test Comment: Temp:24°C Humi:56%

Memo : 8085 CH38 Tx

: T-Table pos:0deg Antenna pos:1.25m

Page: 1

	Freq	Level	Limit	Over	Read	Cable	Probe
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor
			dBuV/m	dB	dBuV	dB	dB
1	43.580	36.76	40.00	-3.24	26.58	1.25	8.93
2	62.010	34.86	40.00	-5.14	26.11	1.55	7.20
3	92.080	36.95	43.50	-6.55	26.25	1.96	8.74
4	322.940	36.28	46.00	-9.72	18.37	3.95	13.96
5	599.390	37.69	46.00	-8.31	11.73	6.15	19.81
6	845.770	36.30	46.00	-9.70	5.96	7.29	23.05



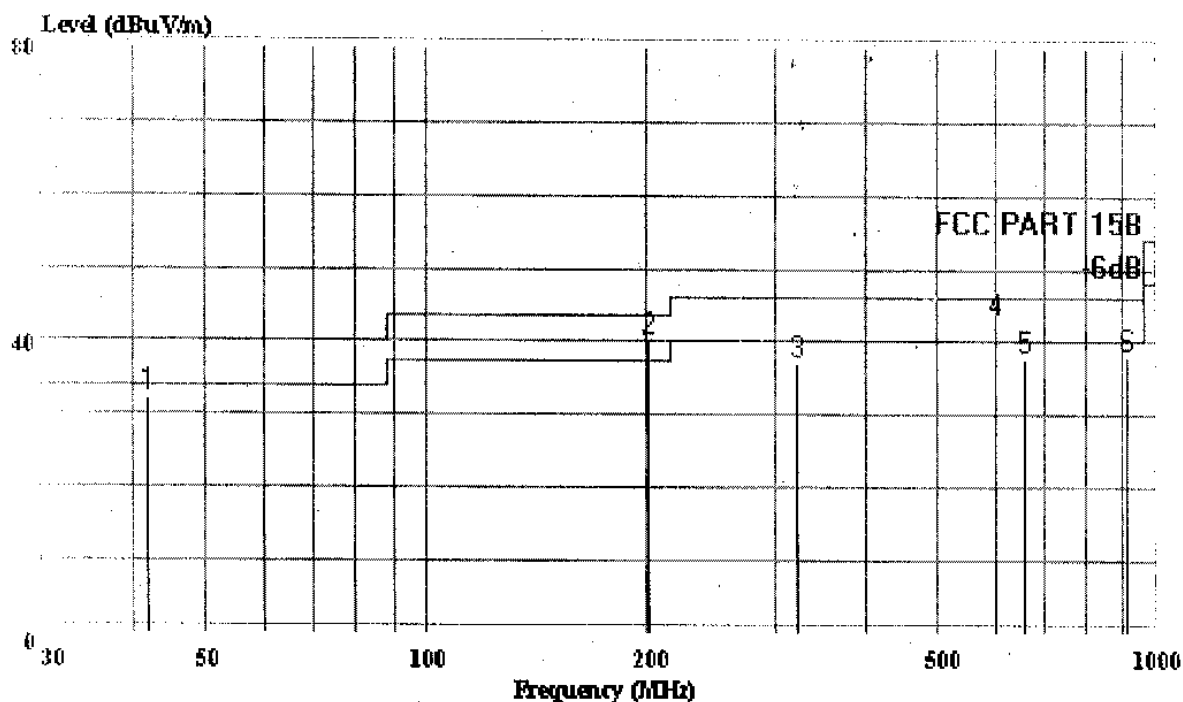
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Shenzhen Science & Ind. Park

Tel: 0755-26639495~7

Fax: 0755-26632877

Data#: File#: Intec INC.EMI Date: 2004-04-25 Time: 18:32:10



AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (3# Chamber)

Trace:

Ref Trace:

Condition: FCC PART 15B 3m 2598FACTOR HORIZONTAL

EUT : X-Box 2.4G RF Wireless Controller

M/N : 8085+8085R

Power : DC3V (Battery)

Engineer : Richzhv

Test Comment: Temp:24°C Humi:56%

Memo : 8085 CH75 Tx

: T-Table pos:180deg Antenna pos:1.1m

Page: 1

	Freq	Level	Limit	Over	Read	Cable	Probe
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor
			dBuV/m	dB	dBuV	dB	dB
1	41.640	32.09	40.00	-7.91	18.62	1.22	12.25
2	201.690	40.33	43.50	-3.17	27.95	2.99	9.39
3	322.940	37.16	46.00	-8.84	19.22	3.95	13.99
4	602.300	42.84	46.00	-3.16	17.66	6.30	18.88
5	659.530	37.74	46.00	-8.26	11.38	6.48	19.88
6	914.640	38.12	46.00	-7.88	7.72	7.74	22.66



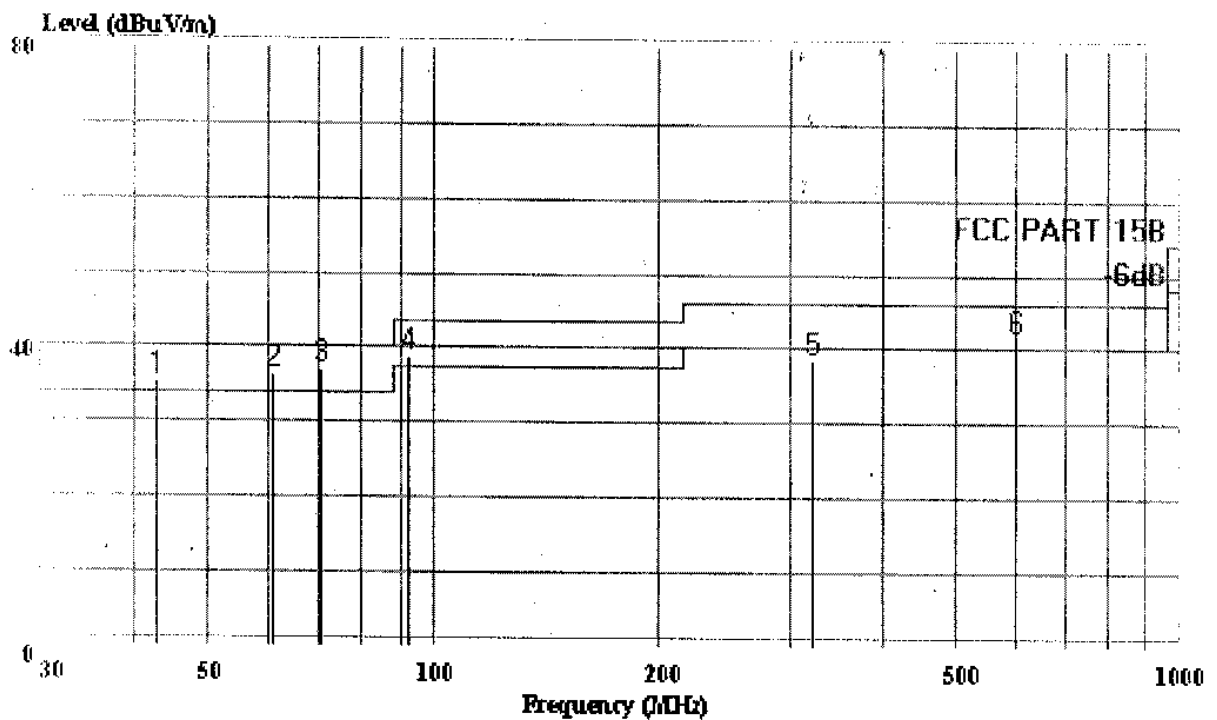
AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

Shenzhen Science & Ind. Park

Tel: 0755-26639495~7

Fax: 0755-26632877

Data#: File#: Intec INC.EMI Date: 2004-04-25 Time: 18:32:46



AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (3# Chamber)

Trace:

Ref Trace:

Condition: FCC PART 15B 3m 2598FACTOR VERTICAL

EUT: X-Box 2.4G RF Wireless Controller

M/N: 8085+8085R

Power: DC3V (Battery)

Engineer: Richzhv

Test Comment: Temp:24°C Humi:56%

Memo: 8085 CH75 Tx

: T-Table pos:0deg Antenna pos:1.0m

Page: 1

	Freq	Level	Limit	Over	Read	Cable	Probe
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor
			dBuV/m	dB	dBuV	dB	dB
1	42.610	35.19	40.00	-4.81	24.68	1.23	9.28
2	61.040	36.50	40.00	-3.50	28.60	1.52	6.39
3	70.740	36.99	40.00	-3.01	25.97	1.66	9.36
4	92.080	38.95	43.50	-4.55	28.25	1.96	8.74
5	322.940	38.28	46.00	-7.72	20.37	3.95	13.96
6	599.390	41.69	46.00	-4.31	15.73	6.15	19.81

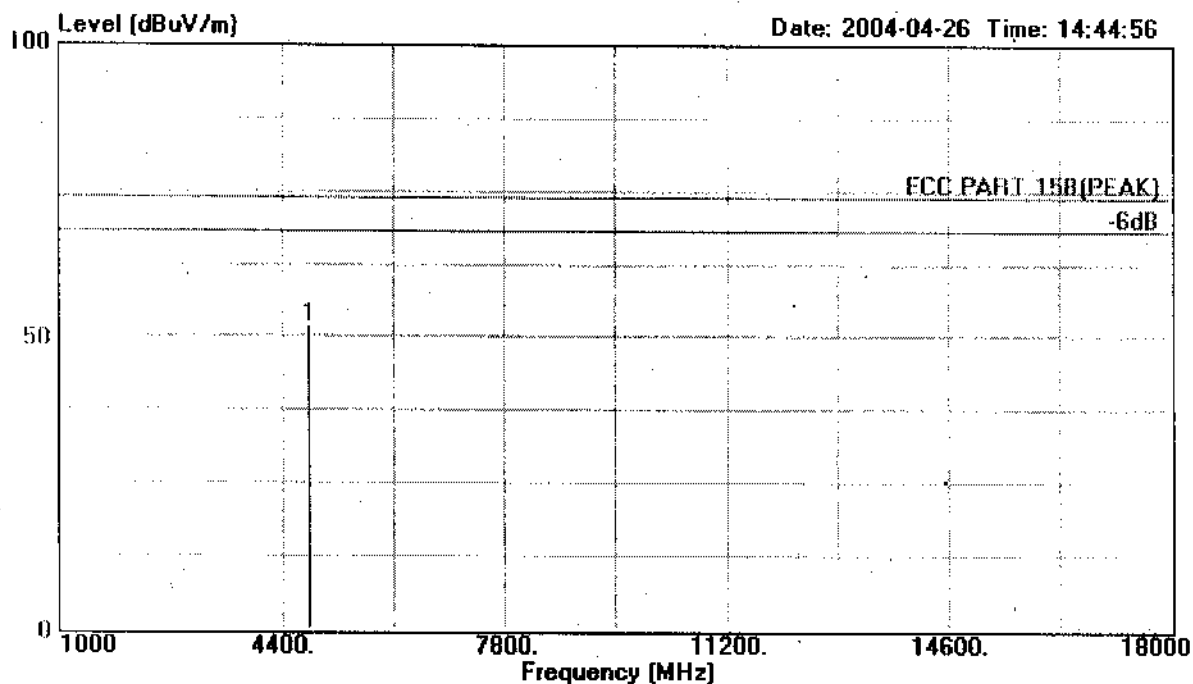


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Data#: 218 File#: C:\EMI TEST DATA\I\Intec INC.EMI



Site : 1# Chamber
Condition : FCC PART 15B(PEAK) 3m 3115FACTOR HORIZONTAL
EUT : X-Box 2.4G RF Wireless Controller
M/N : 8085+8085R
Power : DC 3V(Battery)
Test Engineer : Richzhy
Test Comment : Temp:23°C Humi:54%
Memo : 8085 CH1 Tx

	Freq	Level	Limit	Over Limit	Read	Cable	Probe	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	Remark
1	4801.080	51.70	-22.30	74.00	14.06	4.63	33.01	Peak

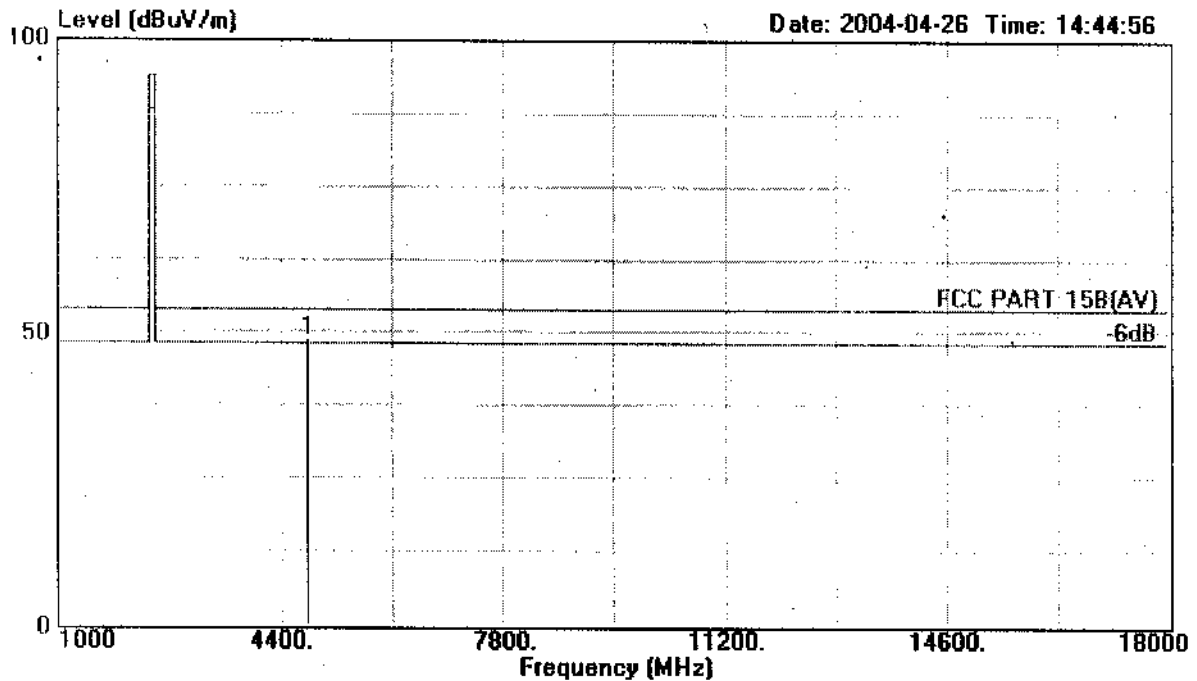


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Data#: 212 File#: C:\EMI TEST DATA\I\Intec INC.EMI



Site : 1# Chamber
Condition : FCC PART 15B(AV) 3m 3115FACTOR HORIZONTAL
EUT : X-Box 2.4G RF Wireless Controller
M/N : 8085+8085R
Power : DC 3V(Battery)
Test Engineer : Richzhy
Test Comment : Temp:23°C Humi:54%
Memo : 8085 CH1 Tx

Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Probe Factor	Remark
MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	
1 ! 4801.080	46.70	-5.30	54.00	11.06	4.63	33.01	Average

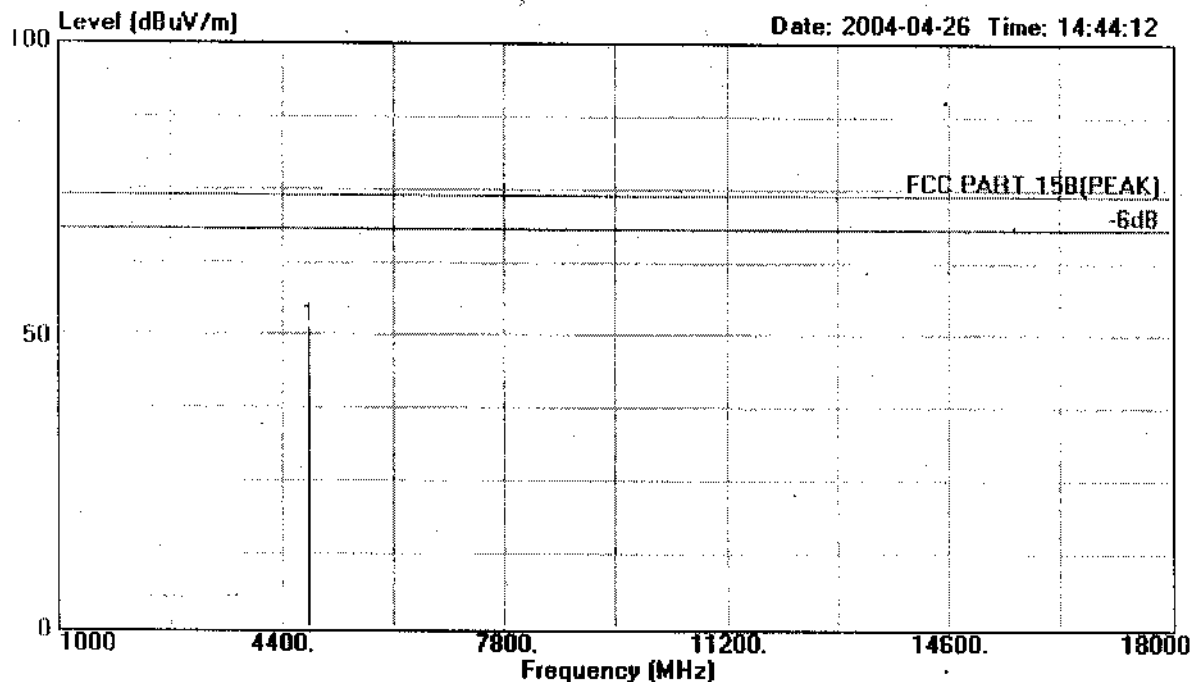


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Data#: 217 File#: C:\EMI TEST DATA\I\Intec INC.EMI



Site : 1# Chamber
Condition : FCC PART 15B(PEAK) 3m 3115FACTOR VERTICAL
EUT : X-Box 2.4G RF Wireless Controller
M/N : 8085+8085R
Power : DC 3V(Battery)
Test Engineer : Richzhy
Test Comment : Temp:23°C Humi:54%
Memo : 8085 CH1 Tx

	Freq	Level	Over Limit	Limit	Read	Cable	Probe	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	Remark
1	4801.080	51.60	-22.40	74.00	13.96	4.63	33.01	Peak

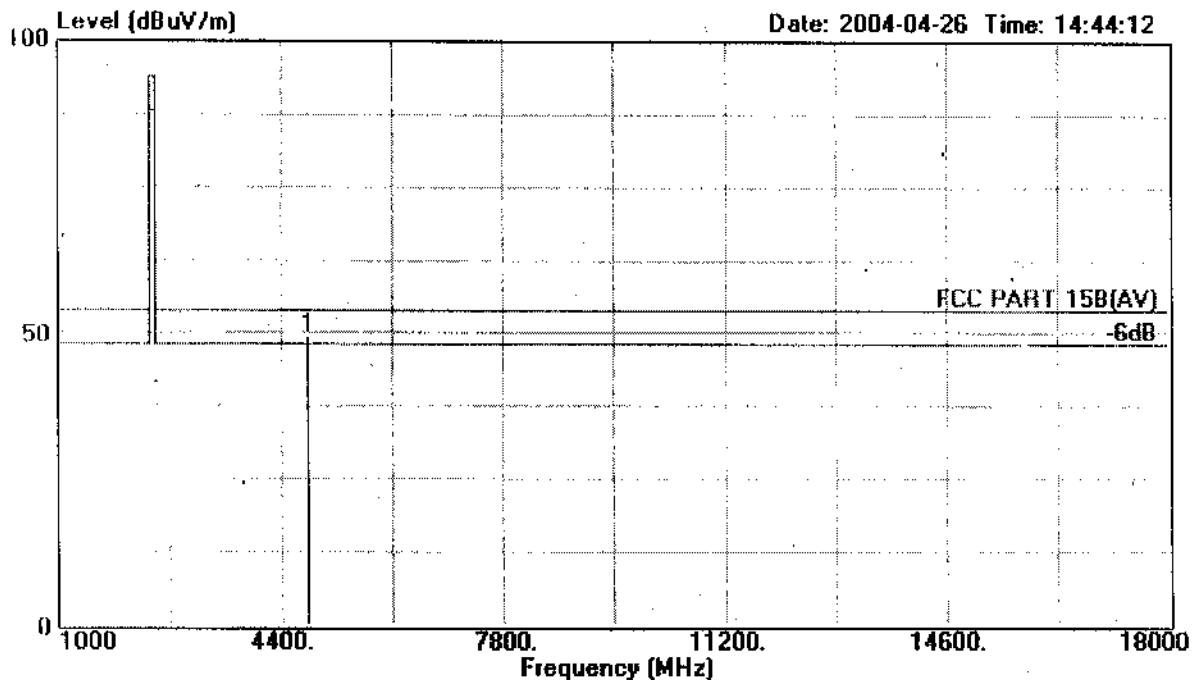


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Data#: 211 File#: C:\EMI TEST DATA\I\Intec INC.EMI



Site : 1# Chamber
Condition : FCC PART 15B(AV) 3m 3115FACTOR VERTICAL
EUT : X-Box 2.4G RF Wireless Controller
M/N : 8085+8085R
Power : DC 3V(Battery)
Test Engineer : Richzhy
Test Comment : Temp:23°C Humi:54%
Memo : 8085 CH1 Tx

		Over	Limit	Read	Cable	Probe	
Freq	Level	Limit	Line	Level	Loss	Factor	Remark
MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	
1 ! 4801.080	49.60	-4.40	54.00	11.96	4.63	33.01	Average

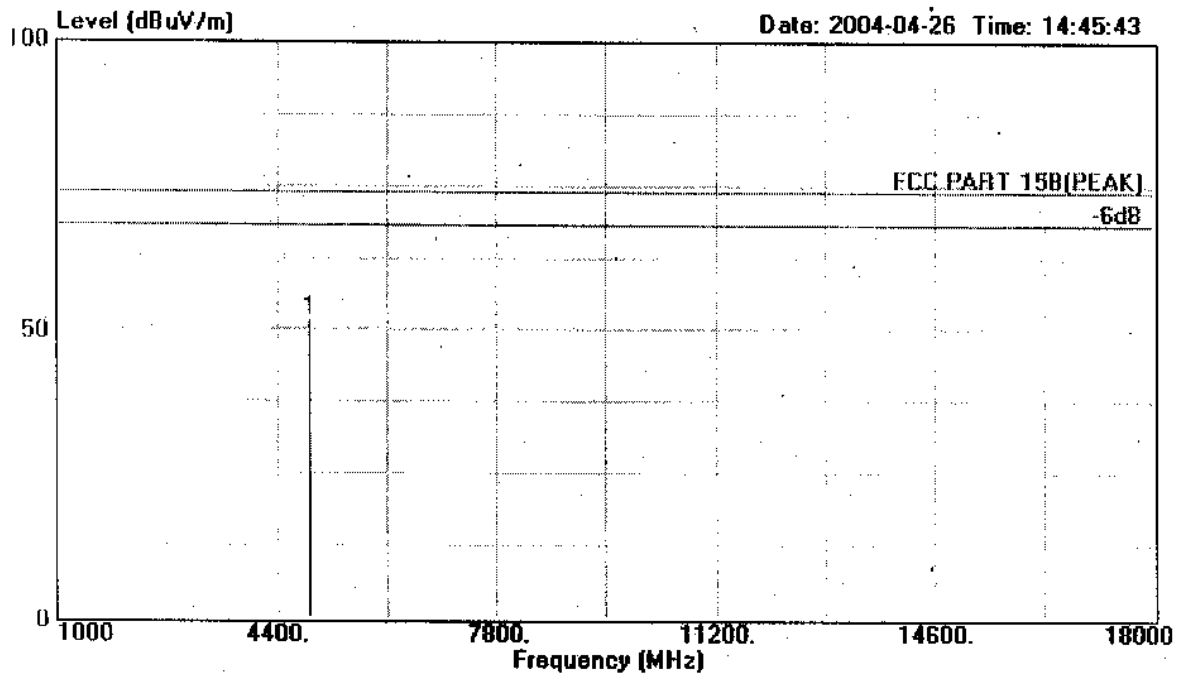


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Data#: 219 File#: C:\EMI TEST DATA\I\Intec INC.EMI



Site : 1# Chamber
Condition : FCC PART 15B(PEAK) 3m 3115FACTOR HORIZONTAL
EUT : X-Box 2.4G RF Wireless Controller
M/N : 8085+8085R
Power : DC 3V(Battery)
Test Engineer : Richzhy
Test Comment : Temp:23°C Humi:54%
Memo : 8085 CH38 Tx

	Freq	Level	Limit	Over	Limit	Read	Cable	Probe	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB	Remark
1	4875.080	51.90	-22.10	74.00	14.14	4.68	33.08		Peak

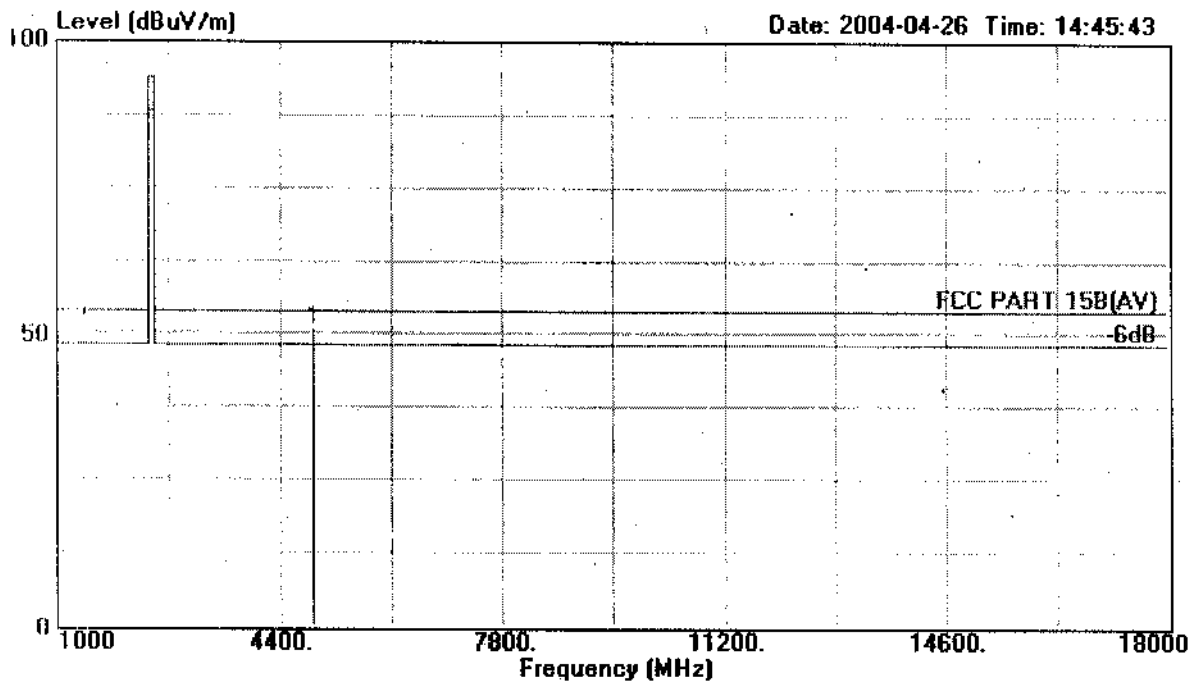


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Data#: 213 File#: C:\EMI TEST DATA\I\Intec INC.EMI



Site : 1# Chamber
Condition : FCC PART 15B(AV) 3m 3115FACTOR HORIZONTAL
EUT : X-Box 2.4G RF Wireless Controller
M/N : 8085+8085R
Power : DC 3V(Battery)
Test Engineer : Richzhy
Test Comment : Temp:23°C Humi:54%
Memo : 8085 CH38 Tx

	Freq	Level	Over Limit	Limit	Read	Cable	Probe	
	MHz	dBuV/m		dB	dBuV/m	dBuV	dB	dB
1	4875.080	50.90	-3.10	54.00	13.14	4.68	33.08	Average

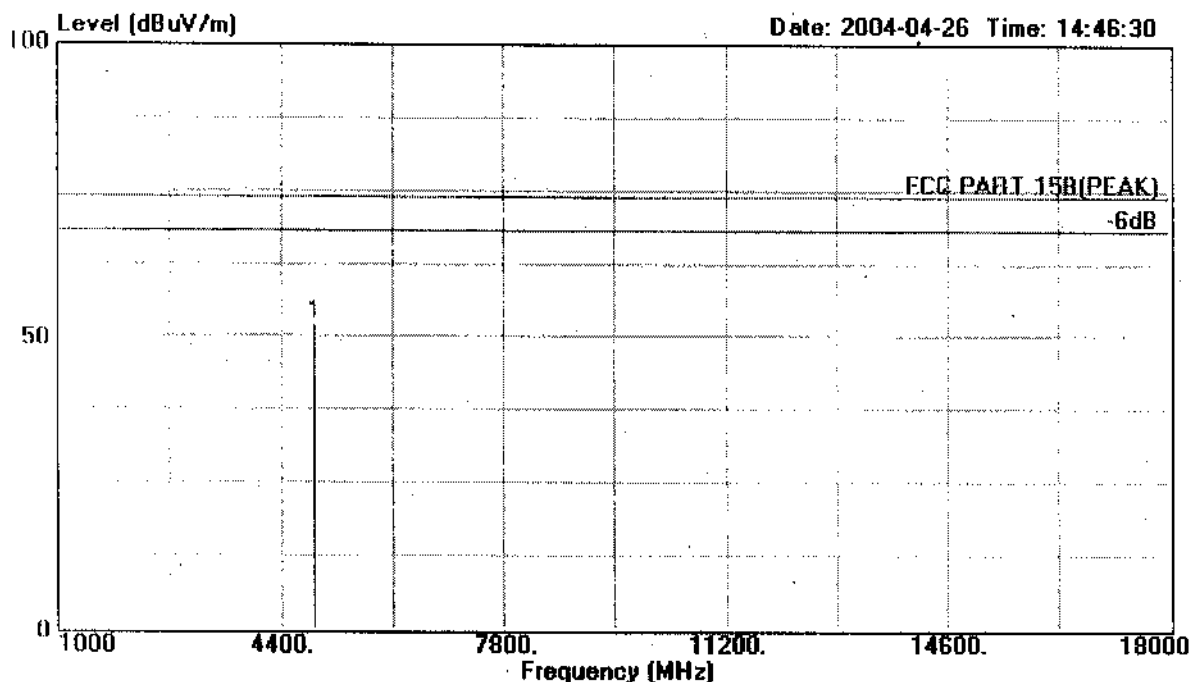


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Data#: 220 File#: C:\EMI TEST DATA\I\Intec INC.EMI



Site : 1# Chamber
Condition : FCC PART 15B(PEAK) 3m 3115FACTOR VERTICAL
EUT : X-Box 2.4G RF Wireless Controller
M/N : 8085+8085R
Power : DC 3V(Battery)
Test Engineer : Richzhy
Test Comment : Temp:23°C Humi:54%
Memo : 8085 CH38 Tx

	Freq	Level	Limit	Over Limit	Read	Cable	Probe	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	Remark
1	4875.080	52.20	-21.80	74.00	14.44	4.68	33.08	Peak

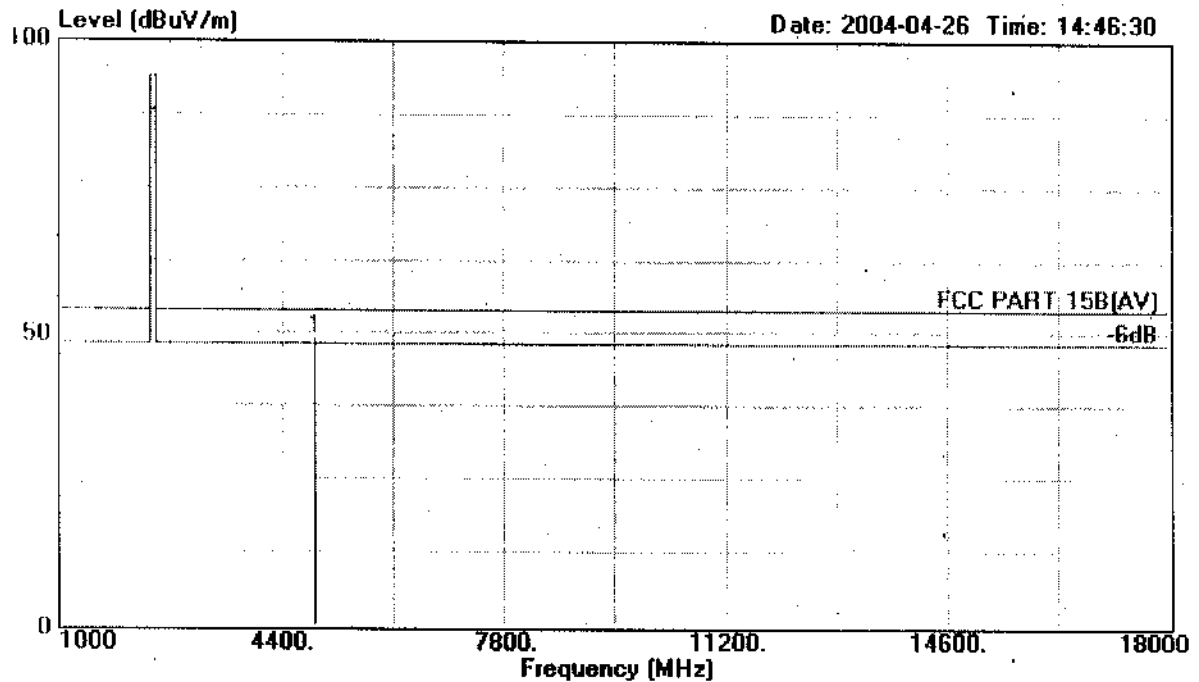


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Data#: 214 File#: C:\EMI TEST DATA\I\Intec INC.EMI



Site : 1# Chamber
Condition : FCC PART 15B(AV) 3m 3115FACTOR VERTICAL
EUT : X-Box 2.4G RF Wireless Controller
M/N : 8085+8085R
Power : DC 3V(Battery)
Test Engineer : Richzhy
Test Comment : Temp:23°C Humi:54%
Memo : 8085 CH38 Tx

Freq	Level	Over Limit	Limit	Read	Cable	Probe	
MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	Remark
1 ! 4875.080	49.20	-4.80	54.00	11.44	4.68	33.08	Average

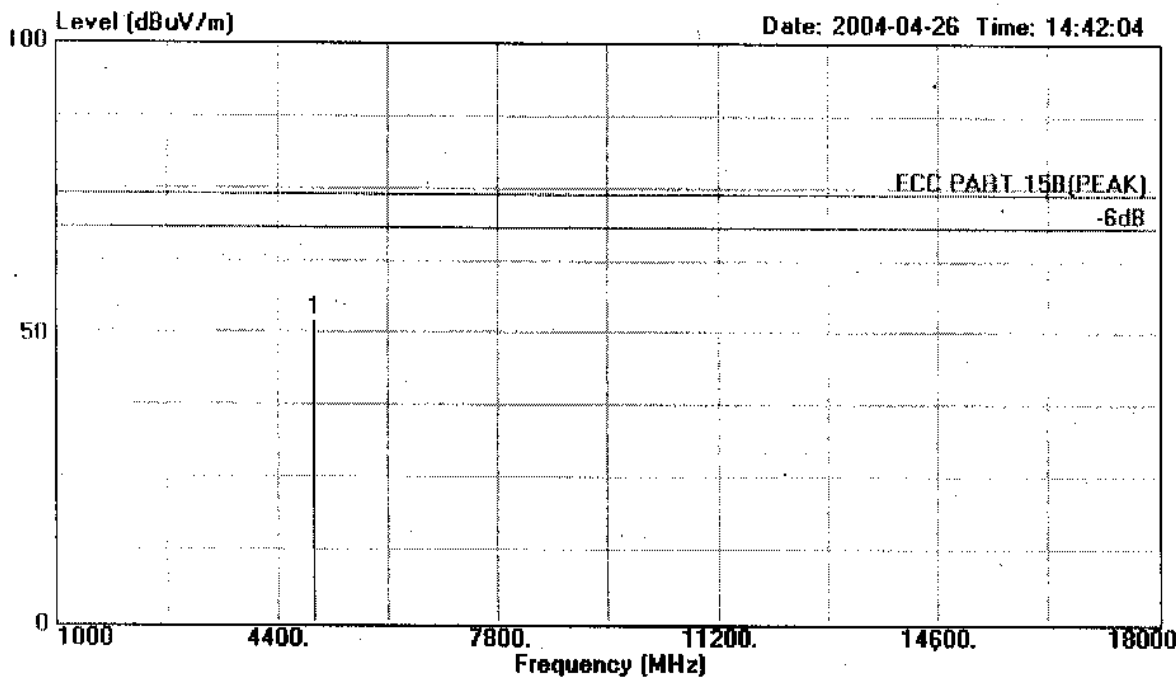


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Data#: 215 File#: C:\EMI TEST DATA\I\Intec INC.EMI



Site : 1# Chamber
Condition : FCC PART 15B(PEAK) 3m 3115FACTOR HORIZONTAL
EUT : X-Box 2.4G RF Wireless Controller
M/N : 8085+8085R
Power : DC 3V(Battery)
Test Engineer : Richzhy
Test Comment : Temp:23°C Humi:54%
Memo : 8085 CH75 Tx

		Over Limit		Read Cable		Probe	
Freq	Level	Limit	Line	Level	Loss	Factor	Remark
MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	
1	4949.040	52.20	-21.80	74.00	14.33	4.72	33.15 Peak

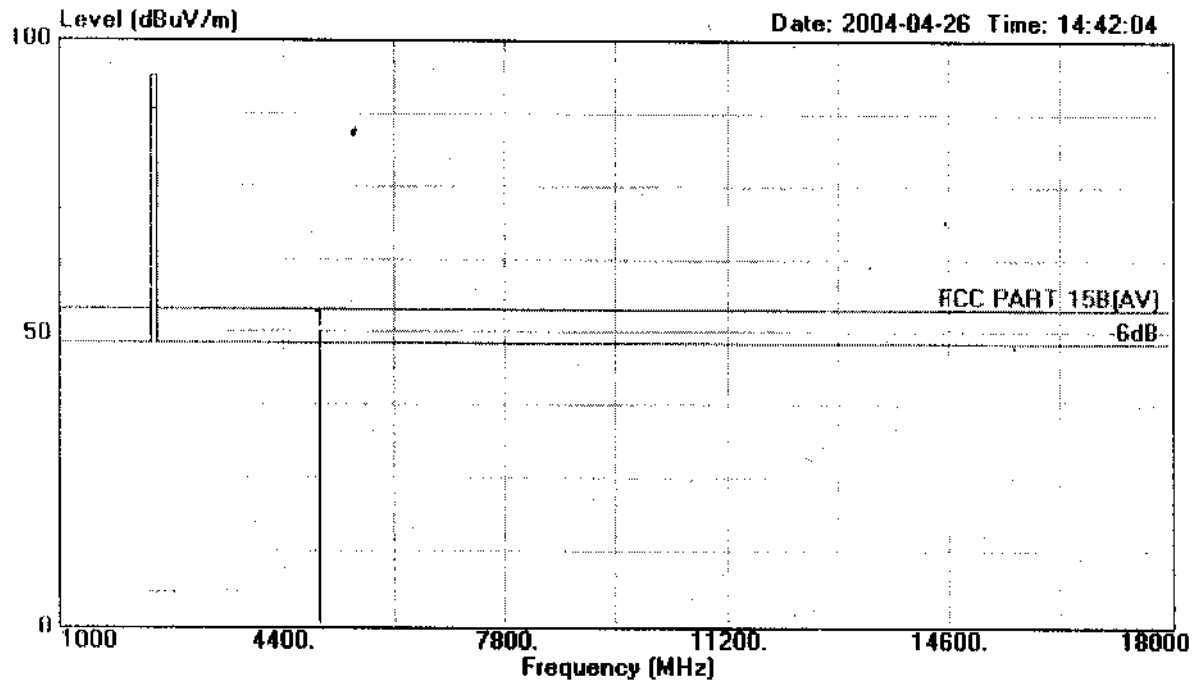


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Data#: 209 File#: C:\EMI TEST DATA\I\Intec INC.EMI



Site : 1# Chamber
Condition : FCC PART 15B(AV) 3m 3115FACTOR HORIZONTAL
EUT : X-Box 2.4G RF Wireless Controller
M/N : 8085+8085R
Power : DC 3V(Battery)
Test Engineer : Richzhy
Test Comment : Temp:23°C Humi:54%
Memo : 8085 CH75 Tx

Freq	Level	Over Limit	Limit	Read	Cable	Probe	
MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	Remark
1 : 4949.040	50.20	-3.80	54.00	12.33	4.72	33.15	Average

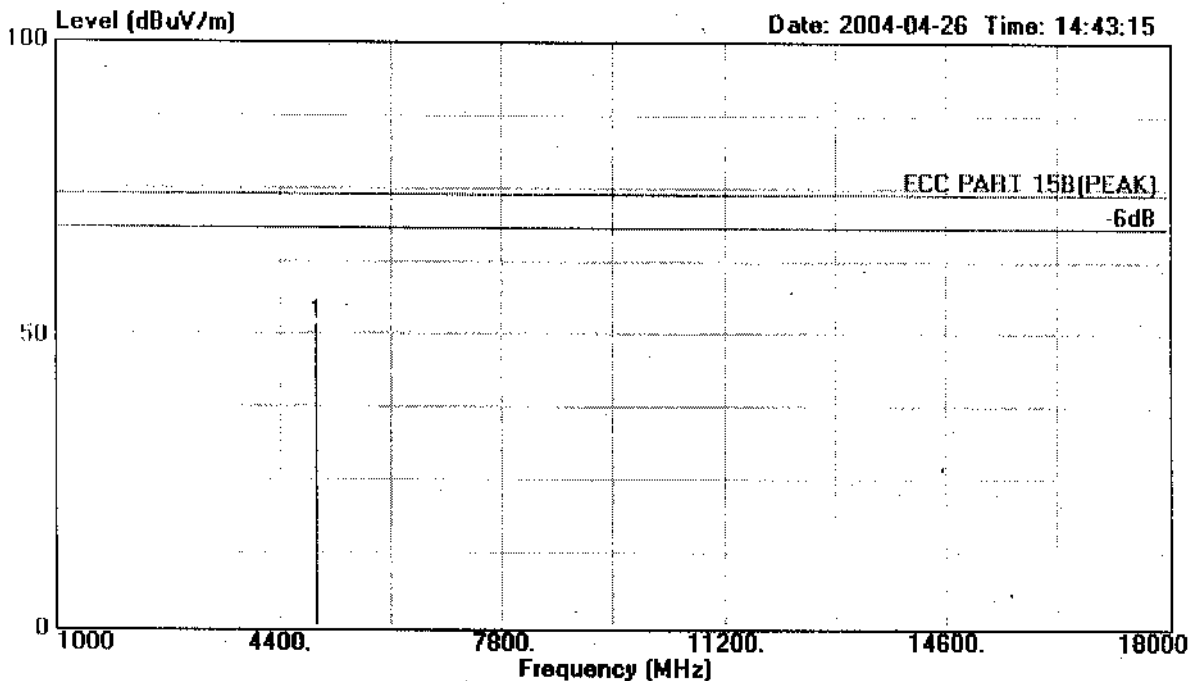


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Data#: 216 File#: C:\EMI TEST DATA\I\Intec INC.EMI



Site : 1# Chamber
Condition : FCC PART 15B(PEAK) 3m 3115FACTOR VERTICAL
EUT : X-Box 2.4G RF Wireless Controller
M/N : 8085+8085R
Power : DC 3V(Battery)
Test Engineer : Richzhy
Test Comment : Temp:23°C Humi:54%
Memo : 8085 CH75 Tx

	Freq	Level	Over Limit	Limit	Read	Cable	Probe	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	Remark
1	4949.040	51.70	-22.30	74.00	13.83	4.72	33.15	Peak

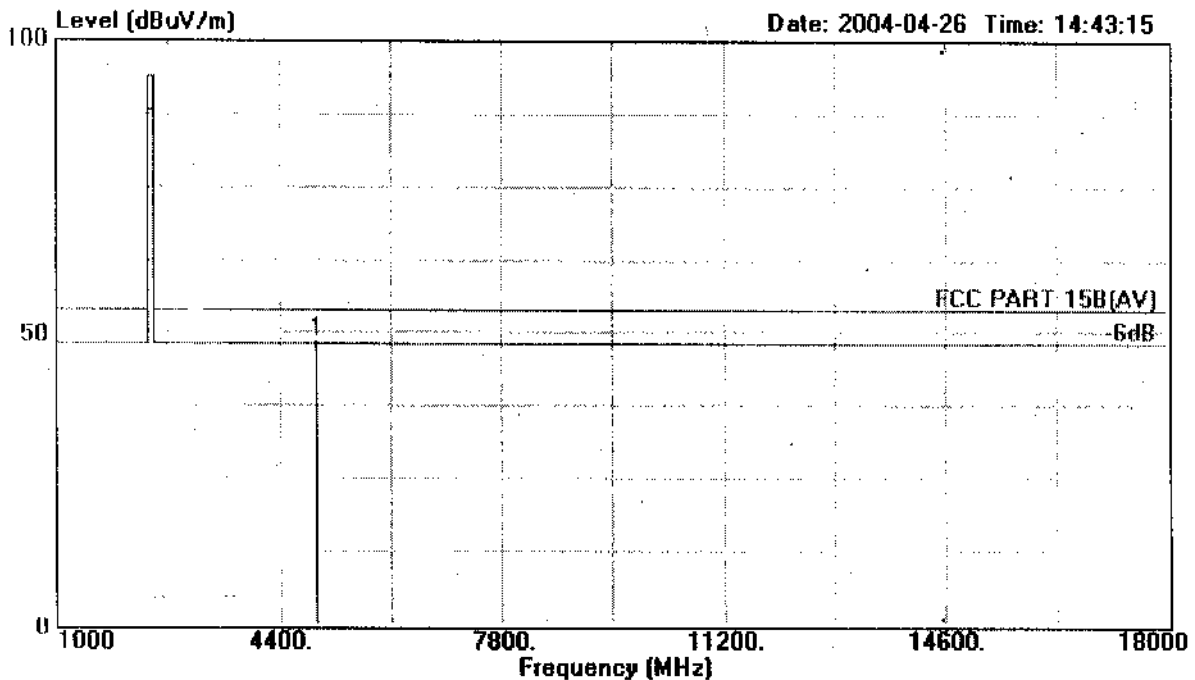


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Data#: 210 File#: C:\EMI TEST DATA\I\Intec INC.EMI



Site : 1# Chamber
Condition : FCC PART 15B(AV) 3m 3115FACTOR VERTICAL
EUT : X-Box 2.4G RF Wireless Controller
M/N : 8085+8085R
Power : DC 3V(Battery)
Test Engineer : Richzhy
Test Comment : Temp:23°C Humi:54%
Memo : 8085 CH75 Tx

		Over	Limit	Read	Cable	Probe	
Freq	Level	Limit	Line	Level	Loss	Factor	Remark
MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	
1 4949.040	48.70	-5.30	54.00	10.83	4.72	33.15	Average

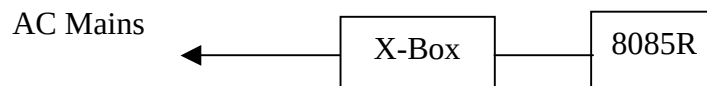
4. 20dB BANDWIDTH MEASUREMENT

4.1.Test Equipment

The following test equipment were used during the Emission Bandwidth Test :

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	E4407B	MY41440292	Jun.22, 03	1 Year
2.	Amp	HP	8449B	3008A00863	May.31,03	1 Year
3.	Antenna	EMCO	3115	9607-4877	Dec. 02, 02	1.5 Year
4.	HF Cable	Hubersuhne	Sucoflex104	-	May.31,03	1 Year

4.2.Block Diagram of Test Setup



(EUT: X-Box 2.4G RF Wireless Controller)

4.3.Operating Condition of EUT

1. Setup the EUT as shown in Section 4.2..
Let the EUT work in test mode (8085 CH1 Tx/8085 CH38 Tx/8085 CH75 Tx) and test it.

4.4. Test Procedure

EUT and its simulators are placed on a turn table, which is 0.8 meter high above ground. Power on the EUT and let it work normally, we use a keyboard test software, let EUT working in test mode, then test it. EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Horn antenna is used as receiving antenna.

The bandwidth of the fundamental frequency was measure by spectrum analyzer with 100kHz RBW and 100kHz VBW. The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

4.5. Test Results

PASSED.

The testing data was attached in the next pages.

Date of Test :	<u>Apr.25, 2004</u>	Temperature :	<u>23°C</u>
EUT :	<u>X-Box 2.4G RF Wireless Controller</u>	Humidity :	<u>54%</u>
Model No. :	<u>8085+8085R</u>	Test Mode :	<u>8085 CH1 Tx</u>
Test Engineer:	<u>Richzhy</u>		

Channel.	Frequency	20dB Bandwidth
1	2400MHz	390KHz

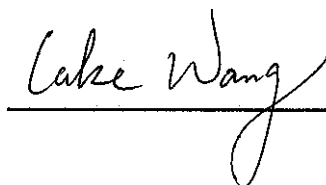
Date of Test :	<u>Apr.25, 2004</u>	Temperature :	<u>23°C</u>
EUT :	<u>X-Box 2.4G RF Wireless Controller</u>	Humidity :	<u>54%</u>
Model No. :	<u>8085+8085R</u>	Test Mode :	<u>8085 CH38 Tx</u>
Test Engineer:	<u>Richzhy</u>		

Channel.	Frequency	20dB Bandwidth
38	2437MHz	390KHz

Date of Test :	<u>Apr.25, 2004</u>	Temperature :	<u>23°C</u>
EUT :	<u>X-Box 2.4G RF Wireless Controller</u>	Humidity :	<u>54%</u>
Model No. :	<u>8085+8085R</u>	Test Mode :	<u>8085 CH75 Tx</u>
Test Engineer:	<u>Richzhy</u>		

Channel.	Frequency	20dB Bandwidth
75	2474MHz	480KHz

Reviewer:



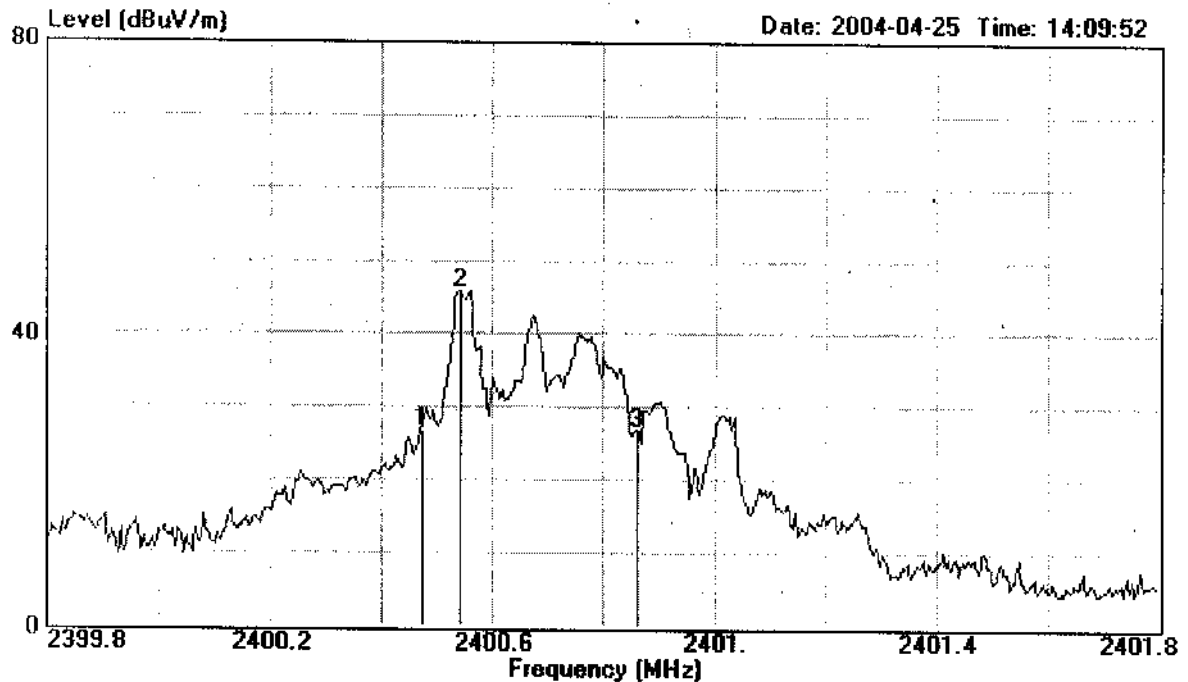


信華科技(深圳)有限公司

AUDIX Technology (Shenzhen) Co., Ltd.

No. 6, Ke Feng Road, Block 52,
Shenzhen Science & Industry Park
Nantou, Shenzhen, Guangdong, China
Tel: +86-755-26639496 Fax: +86-755-26632877

Data#: 255 File#: C:\EMI TEST DATA\I\Intec INC.EMI



Site : 1# Chamber
Condition : 3m 3115FACTOR HORIZONTAL
EUT : X-Box 2.4G RF Wireless Controller
M/N : 8085+8085R
Power : DC 3V(Battery)
Test Engineer : Richzhy
Test Comment : Temp:23°C Humi:54%
Memo : 8085 CH1 Tx

			Over	Limit	Read	Cable	Probe	
	Freq	Level	Limit	Line	Level	Loss	Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	
1	2400.470	26.96	-----	-----	-4.28	3.20	28.04	Peak
2	2400.540	45.96	-----	-----	14.72	3.20	28.04	Peak
3	2400.660	26.96	-----	-----	-4.28	3.20	28.04	Peak

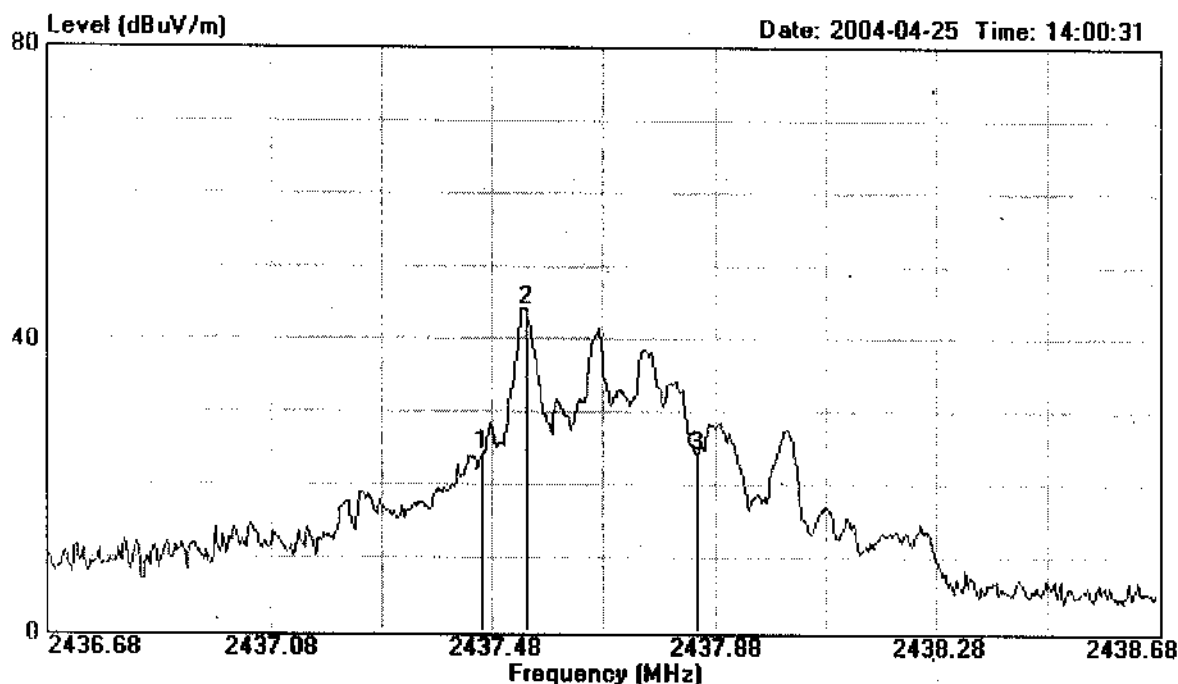


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Tel: +86-755-26639496 Fax: +86-755-26632877

Data#: 254 File#: C:\EMI TEST DATA\I\Intec INC.EMI



Site : 1# Chamber
Condition : 3m 3115FACTOR HORIZONTAL
EUT : X-Box 2.4G RF Wireless Controller
M/N : 8085+8085R
Power : DC 3V(Battery)
Test Engineer : Richzhy
Test Comment : Temp:23°C Humi:54%
Memo : 8085 CH38 Tx

			Over	Limit	Read	Cable	Probe	
	Freq	Level	Limit	Line	Level	Loss	Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	
1	2437.460	24.31	-----	-----	-7.06	3.23	28.14	Peak
2	2437.540	44.31	-----	-----	12.94	3.23	28.14	Peak
3	2437.850	24.31	-----	-----	-7.06	3.23	28.14	Peak

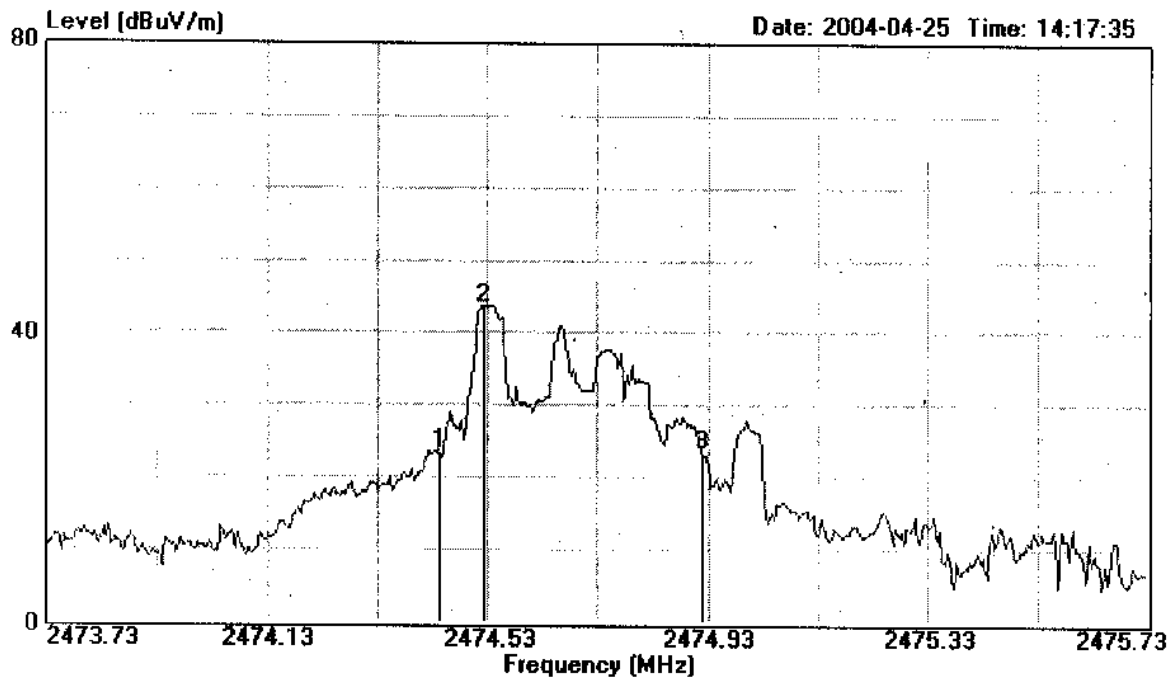


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Data#: 256 File#: C:\EMI TEST DATA\I\Intec INC.EMI



Site : 1# Chamber
Condition : 3m 3115FACTOR HORIZONTAL
EUT : X-Box 2.4G RF Wireless Controller
M/N : 8085+8085R
Power : DC 3V(Battery)
Test Engineer : Richzhy
Test Comment : Temp:23°C Humi:54%
Memo : 8085 CH75 Tx

			Over	Limit	Read	Cable	Probe	
	Freq	Level	Limit	Line	Level	Loss	Factor	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	
1	2474.440	23.69	-----	-----	-7.77	3.26	28.20	Peak
2	2474.520	43.69	-----	-----	12.23	3.26	28.20	Peak
3	2474.920	23.69	-----	-----	-7.77	3.26	28.20	Peak

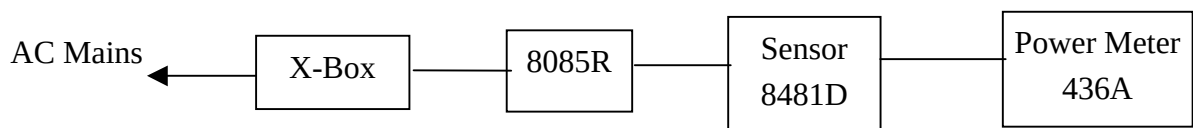
5. THE MAXIMUM PEAK OUTPUT POWER MEASUREMENT

5.1. Test Equipment

The following test equipment were used during the Emission Bandwidth Test :

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	E4407B	MY41440292	Jun.22, 03	1 Year
2.	Amp	HP	8449B	3008A00863	May.31,03	1 Year
3.	Antenna	EMCO	3115	9607-4877	Dec. 02, 02	1.5 Year
4.	HF Cable	Hubersuhne	Sucoflex104	-	May.31,03	1 Year
5.	Power meter	HP	436A	2016A07891	NCR	
6.	Power Sensor	HP	8481D	3318A13613	May.31,03	1Year

5.2. Block Diagram of Test Setup



(EUT: X-Box 2.4G RF Wireless Controller)

5.3. Specification Limits (§15.247(b)-(3))

The Limits of maximum Peak Output Power for digital modulation in 2400-2483.5MHz is : 1Watt. (30dBm)

5.4. Operating Condition of EUT

1. Setup the EUT as shown in Section 5.2..
Let the EUT work in test mode (8085 CH1 Tx/8085 CH38 Tx/8085 CH75 Tx) and test it.

5.5.Test Procedure

Setup the EUT as shown in Section 5.2. Turn on the play station 2 and let the EUT working . The EUT is via the power sensor link to power meter. The test value reading is from power meter.

5.6.Test Results

PASSED.

The testing data was attached in the next pages.

Frequency	Reading dBm	Cable Loss dB	Peak Power DBm	Limit dBm
2474MHz	-13.69	0.2	-13.49	30.00

Chase Wang

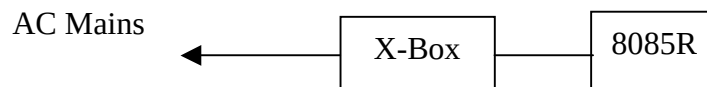
6. CHANNEL CARRIER FREQUENCIES SEPARATED MEASUREMENT

6.1.Test Equipment

The following test equipment were used during the Emission Bandwidth Test :

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	E4407B	MY41440292	Jun.22, 03	1 Year
2.	Amp	HP	8449B	3008A00863	May.31,03	1 Year
3.	Antenna	EMCO	3115	9607-4877	Dec. 02, 02	1.5 Year
4.	HF Cable	Hubersuhne	Sucoflex104	-	May.31,03	1 Year

6.2.Block Diagram of Test Setup



(EUT: X-Box 2.4G RF Wireless Controller)

6.3.Specification Limits (§15.247(d))

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 KHz or 20dB bandwidth of the hopping channel, whichever is greater.

6.4.Operating Condition of EUT

1. Setup the EUT as shown in Section 7.2..
Let the EUT work in test mode (8085 CH1 Tx/8085 CH38 Tx/8085 CH75 Tx) and test it.

6.5. Test Procedure

EUT and its simulators are placed on a turn table, the EUT and let it work normally, we use a keyboard test soft ware, let EUT working in test mode, then test it.

The bandwidth of the fundamental frequency was measured with the spectrum analyzer using 30kHz RBW and 100kHz VBW, set sweep time : 50ms.

6.6. Test Results

PASSED.

The testing data was attached in the next pages.

1. CH39 is 2438.53MHz.
CH38 is 2437.53MHz

Channel Carrier Frequency Separated = 2438.53MHz – 2437.53MHz
= 1MHz

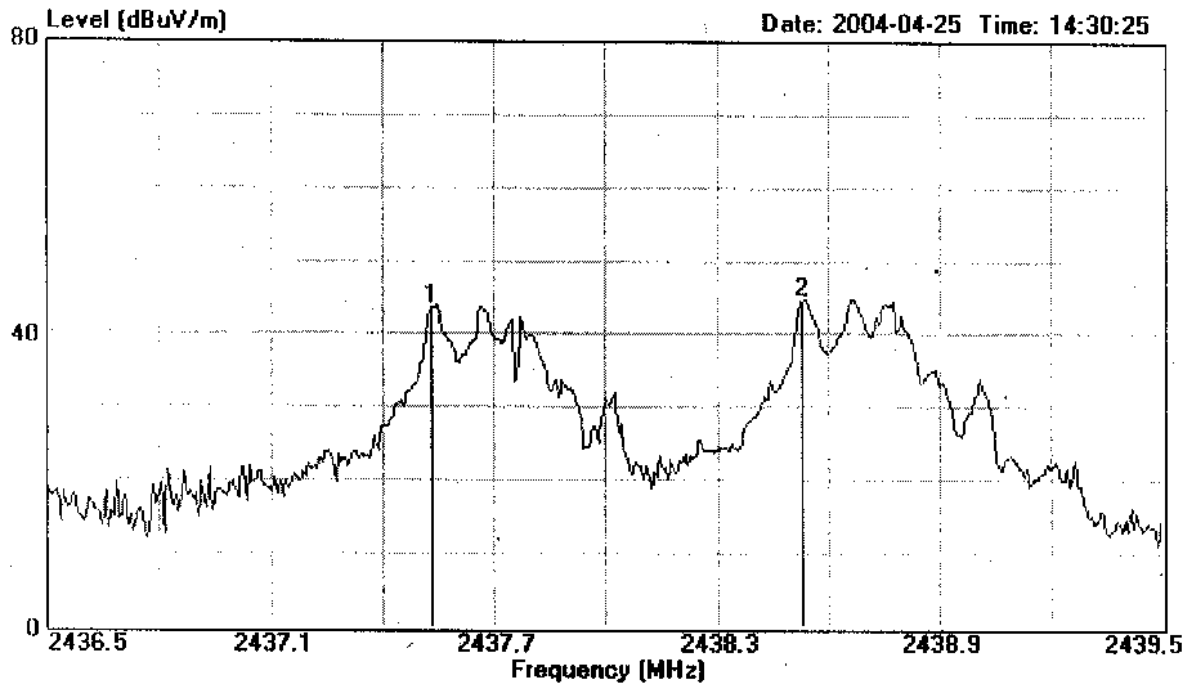


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Data#: 202 File#: C:\EMI TEST DATA\I\Intec INC.EMI



Site : 1# Chamber
Condition : 3m 3115FACTOR HORIZONTAL
EUT : X-Box 2.4G RF Wireless Controller
M/N : 8085+8085R
Power : DC 3V(Battery)
Test Engineer : Richzhy
Test Comment : Temp:23°C Humi:54%
Memo : CH38 TO CH39 (8085)

Freq	Level	Over	Limit	Read	Cable	Probe	Remark
		Limit	Line	Level	Loss	Factor	
MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	
1 2437.530	43.66	-----	-----	47.29	3.23	28.14	Peak
2 2438.530	44.73	-----	-----	48.36	3.23	28.14	Peak

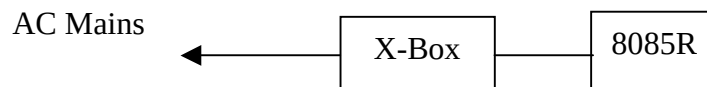
7. FREQUENCY HOPPING SYSTEM CHANNEL NUMBER MEASUREMENT

7.1.Test Equipment

The following test equipment were used during the Emission Bandwidth Test :

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	E4407B	MY41440292	Jun.22, 03	1 Year
2.	Amp	HP	8449B	3008A00863	May.31,03	1 Year
3.	Antenna	EMCO	3115	9607-4877	Dec. 02, 02	1.5 Year
4.	HF Cable	Hubersuhne	Sucoflex104	-	May.31,03	1 Year

7.2.Block Diagram of Test Setup



(EUT: X-Box 2.4G RF Wireless Controller)

7.3.Specification Limits (§15.247(d))

For frequency hopping systems operating in the 2400-2483.5MHz band employing at least 75 hopping channels.

7.4.Operating Condition of EUT

1. Setup the EUT as shown in Section 8.2..
2. Let the EUT work in test mode and test it.

7.5.Test Procedure

EUT and its simulators are placed on a turn table, the EUT and let it work normally, we use a keyboard test soft ware, let EUT working in test mode, then test it.

The bandwidth of the fundamental frequency was measured with the spectrum analyzer using 100kHz RBW and 100kHz VBW, set sweep time : 50ms.

7.6.Test Results

PASSED.

The testing data was attached in the next pages.

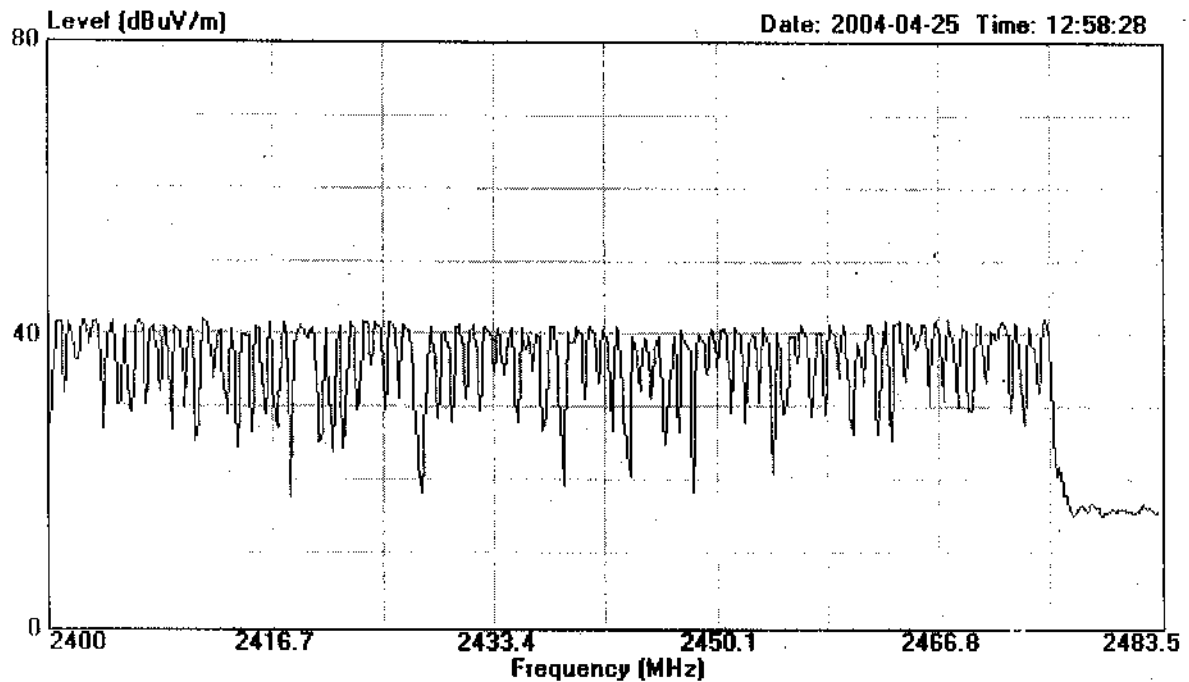


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Data#: 227 File#: C:\EMI TEST DATA\I\Intec INC.EMI



Site : 1# Chamber
Condition : 3m 3115FACTOR HORIZONTAL
EUT : X-Box 2.4G RF Wireless Controller
M/W : 8085+8085R
Power : DC 3V(Battery)
Test Engineer : Richzhy
Test Comment : Temp:23°C Humi:54%
Memo : Numbers of Channels (8085)

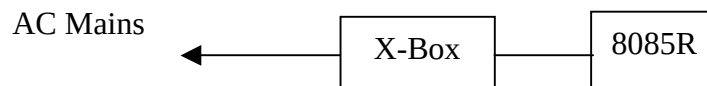
8. THE AVERAGE TIME OF OCCUPANCY MEASUREMENT

8.1.Test Equipment

The following test equipment were used during the Emission Bandwidth Test :

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	E4407B	MY41440292	Jun.22, 03	1 Year
2.	Amp	HP	8449B	3008A00863	May.31,03	1 Year
3.	Antenna	EMCO	3115	9607-4877	Dec. 02, 02	1.5 Year
4.	HF Cable	Hubersuhne	Sucoflex104	-	May.31,03	1 Year

8.2.Block Diagram of Test Setup



(EUT: X-Box 2.4G RF Wireless Controller)

8.3.Specification Limits (§15.247(d))

Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 non-overlapping channels. The average time of occupancy on any channel shall not greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.

8.4.Operating Condition of EUT

1. Setup the EUT as shown in Section 9.2..
2. Let the EUT work in test mode and test it.

8.5. Test Procedure

EUT and its simulators are placed on a turn table, the EUT and let it work normally, we use a keyboard test soft ware, let EUT working in test mode, then test it.

The bandwidth of the fundamental frequency was measured with the spectrum analyzer using 1MHz RBW and 1MHz VBW, set sweep time : 5ms. Span : 0Hz.

8.6. Test Results

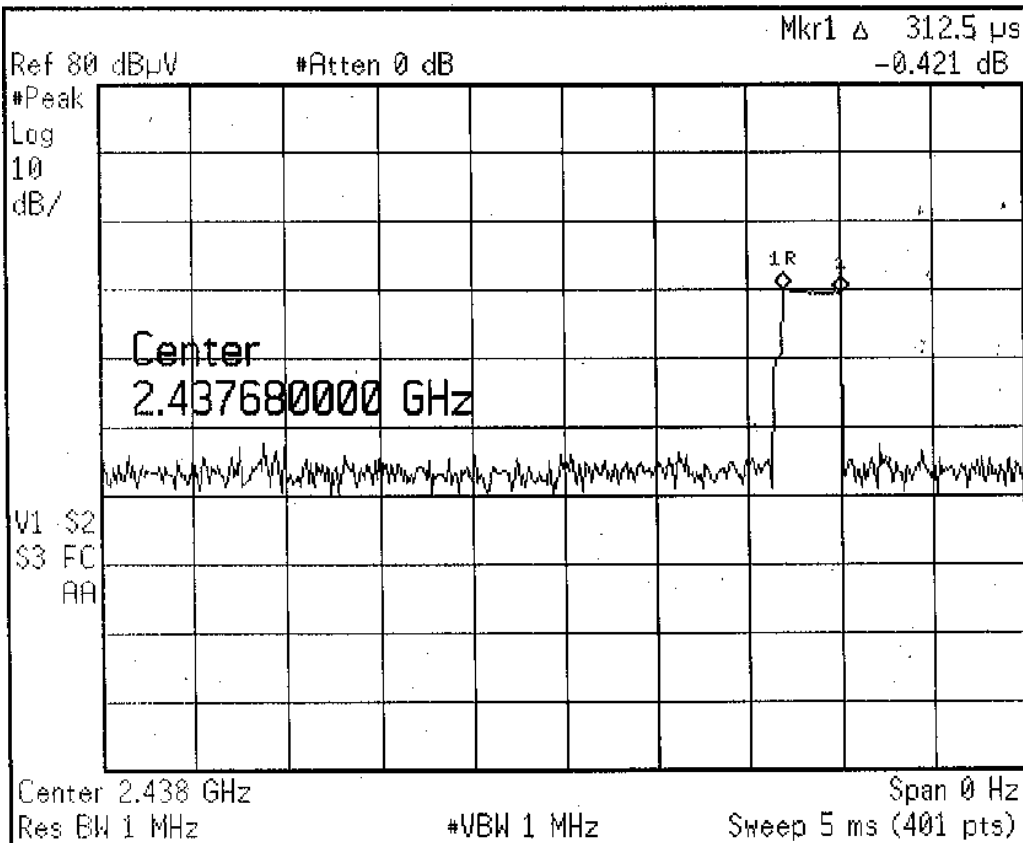
PASSED.

The testing data was attached in the next pages.

1. This system hop 83 times/second, every hopping include 1 time sending data and 1 time receiving data. So send times in every second to all 75 channels:
 $83/2=41.5$ times/second
2. Sent times for average every second and every channel.
 $41.5/75=0.55$ times/channel*s
3. Cycle time: $75*0.45=30$ second
4. The average time of occupancy on any channel within a period :
 $0.55*30*0.312=5.148\text{ms} < 400\text{ms}$

Agilent 14:06:16 Apr 25, 2004

L



Freq/Channel
Center Freq 2.43768000 GHz
Start Freq 2.43768000 GHz
Stop Freq 2.43768000 GHz
CF Step 1.00000000 MHz Auto Man
Freq Offset 0.00000000 Hz
Signal Track On Off
Scale Type Log Lin

Undefined header

9. DEVIATION TO TEST SPECIFICATIONS

(None.)

APPENDIX I



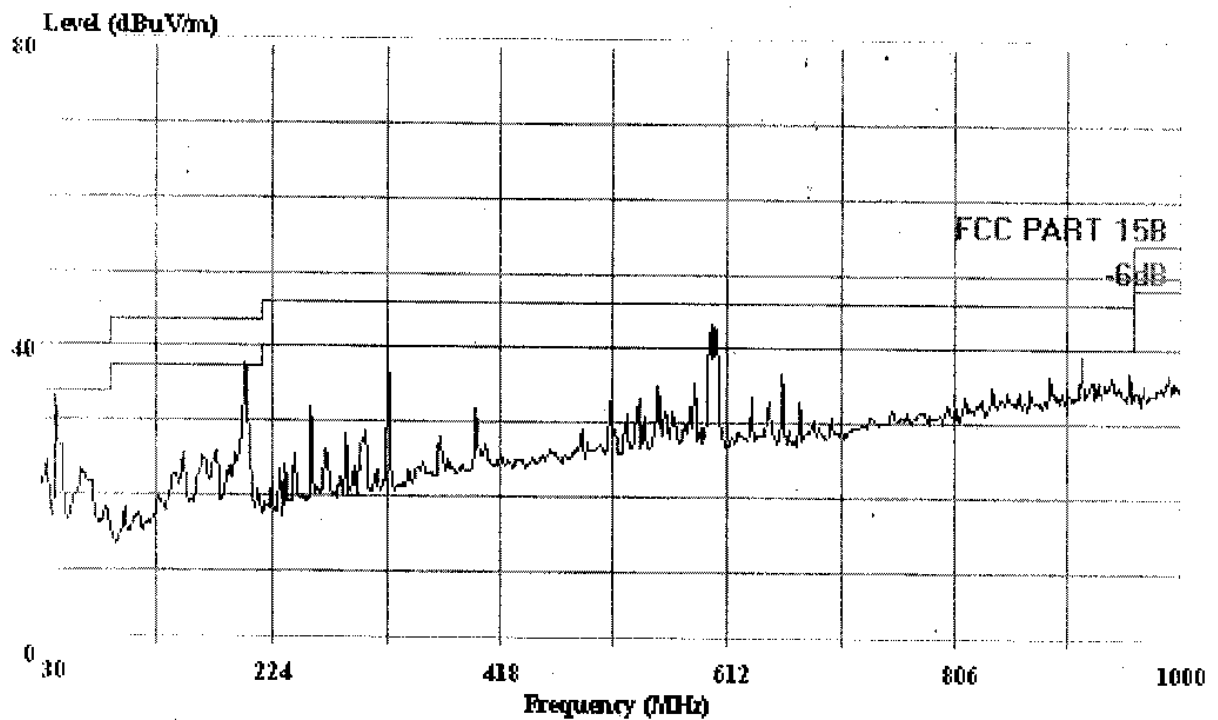
AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

Shenzhen Science & Ind. Park

Tel: 0755-26639495~7

Fax: 0755-26632877

Data#: File#: Intec INC.EMI Date: 2004-04-25 Time: 17:07:39



AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (3# Chamber)

Trace:

Ref Trace:

Condition: FCC PART 15B 3m 2598FACTOR HORIZONTAL

EUT : X-Box 2.4G RF Wireless Controller

M/N : 8085+8085R

Power : DC3V (Battery)

Engineer : Richzhv

Test Comment: Temp:24°C Humi:56%

Memo : 8085 CH1 Tx



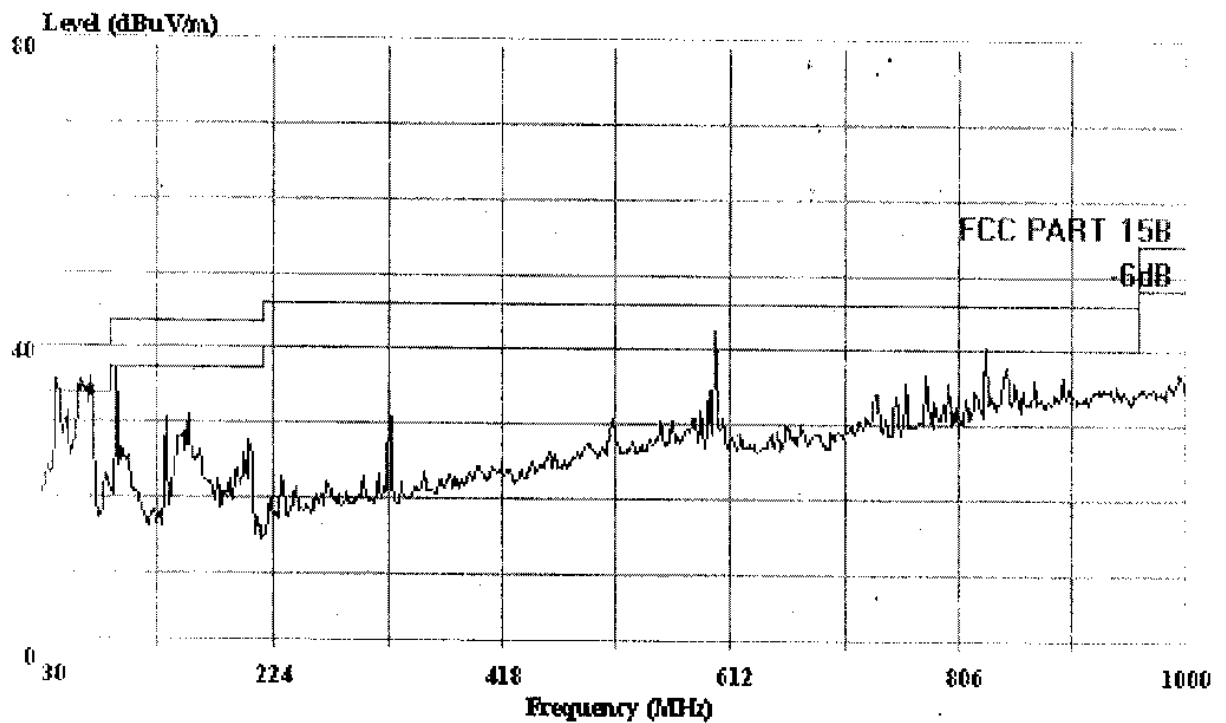
AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

Shenzhen Science & Ind. Park

Tel: 0755-26639495~7

Fax: 0755-26632877

Data#: File#: Intec INC.EMI Date: 2004-04-25 Time: 17:00:19



AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (3# Chamber)

Trace:

Ref Trace:

Condition: FCC PART 15B 3m 2598FACTOR VERTICAL

EUT : X-Box 2.4G RF Wireless Controller

M/N : 8085+8085R

Power : DC3V (Battery)

Engineer : Richzhv

Test Comment: Temp:24°C Humi:56%

Memo : 8085 CH1 Tx



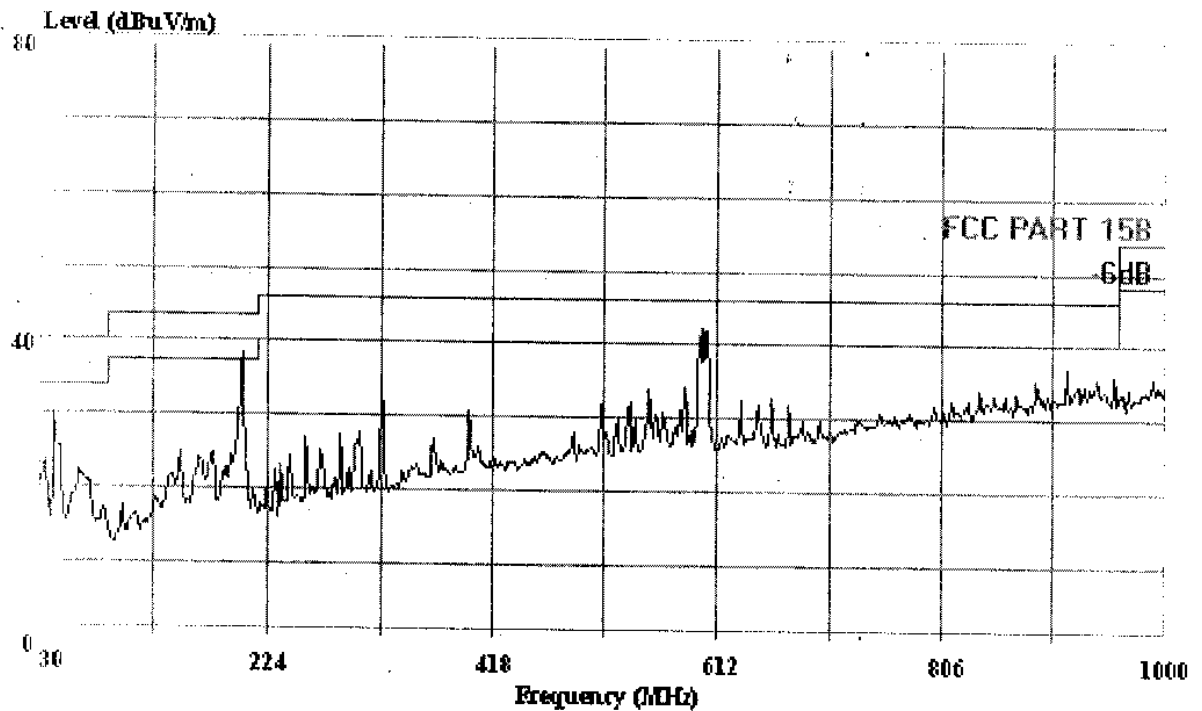
AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

Shenzhen Science & Ind. Park

Tel: 0755-26639495~7

Fax: 0755-26632877

Data#: File#: Intec INC.EMI Date: 2004-04-25 Time: 17:17:37



AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (3# Chamber)

Trace:

Ref Trace:

Condition: FCC PART 15B 3m.2598FACTOR HORIZONTAL

EUT : X-Box 2.4G RF Wireless Controller

M/N : 8085+8085R

Power : DC3V (Battery)

Engineer : Richzhv

Test Comment: Temp:24°C Humi:56%

Memo : 8085 CH38 Tx



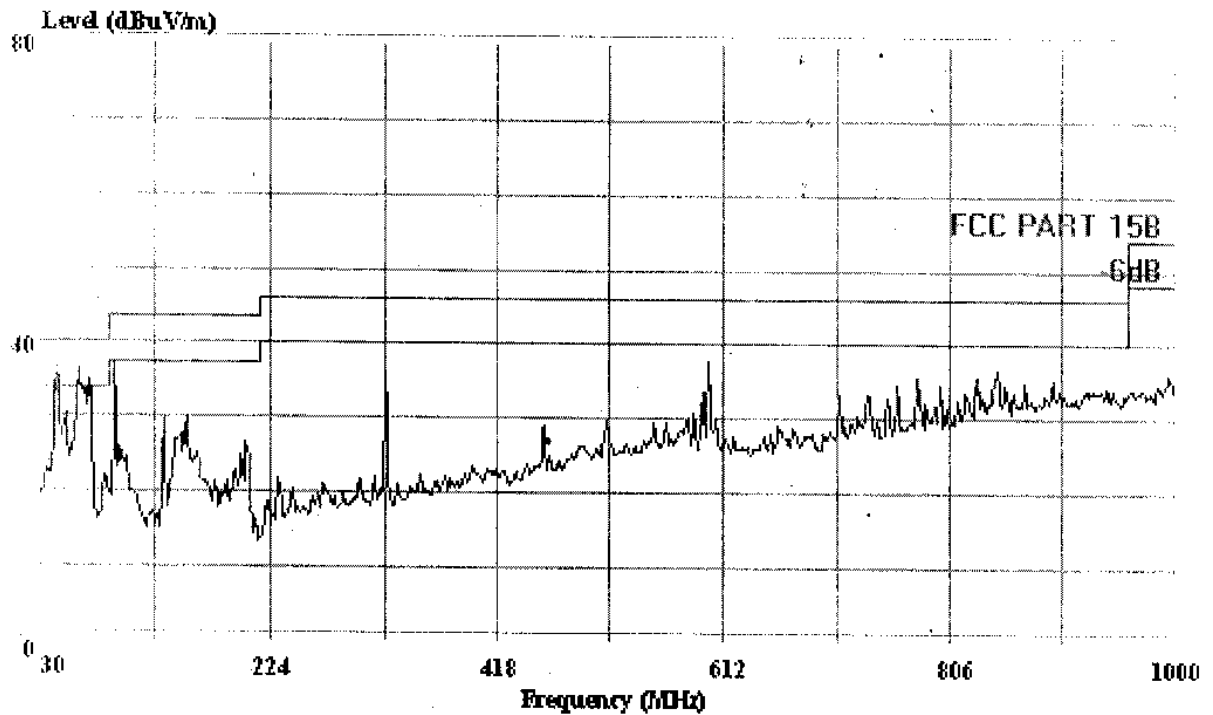
AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

Shenzhen Science & Ind. Park

Tel: 0755-26639495~7

Fax: 0755-26632877

Data#1: File#: Intec INC.EMI Date: 2004-04-25 Time: 17:10:11



AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (3# Chamber)

Trace:

Ref Trace:

Condition: FCC PART 15B 3m 2598FACTOR VERTICAL

PU# : X-Box 2.4G RF Wireless Controller

M/R : 8085+8085R

Power : DC3V (Battery)

Engineer : Richzhv

Test Comment: Temp:24°C Humi:56%

Memo : 8085 CH38 Tx



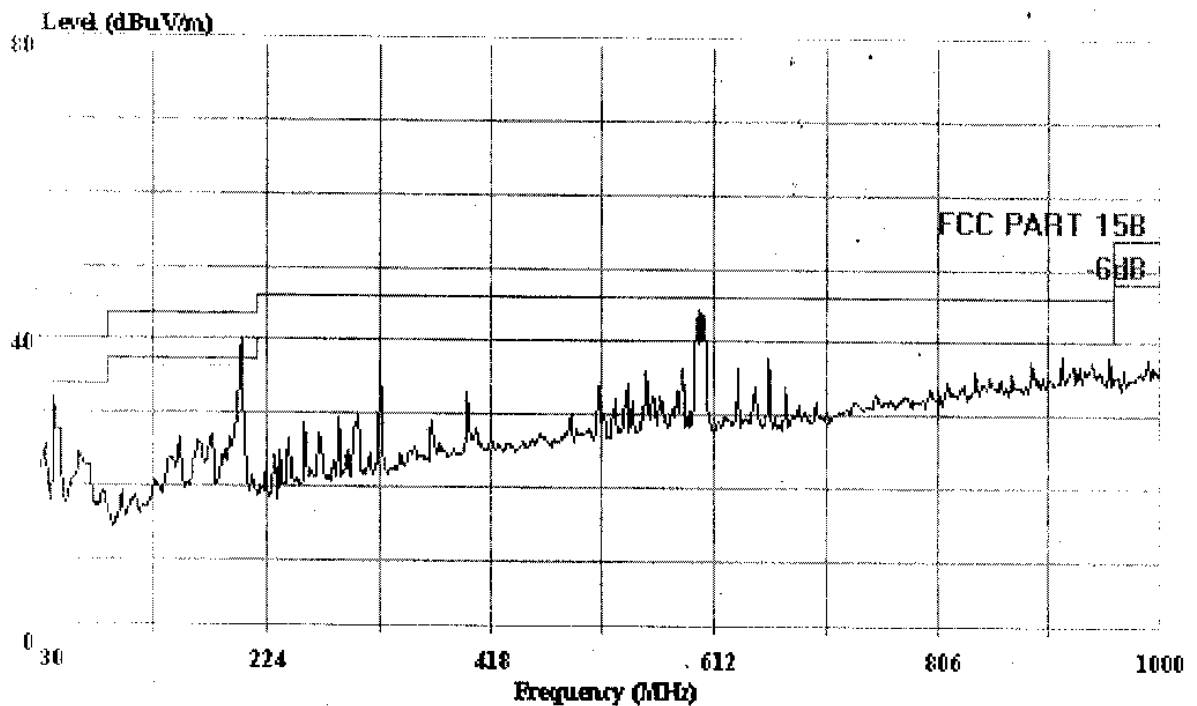
AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

Shenzhen Science & Ind. Park

Tel: 0755-26639495~7

Fax: 0755-26632877

Data#: File#: Intec INC.EMI Date: 2004-04-25 Time: 17:24:32



AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (3# Chamber)

Trace:

Ref Trace:

Condition: FCC PART 15B 3m 2598FACTOR HORIZONTAL

EUT : X-Box 2.4G RF Wireless Controller

M/N : 8085+8085R

Power : DC3V (Battery)

Engineer : Richzhv

Test Comment: Temp:24°C Humi:56%

Mem: : 8085 CH75 Tx



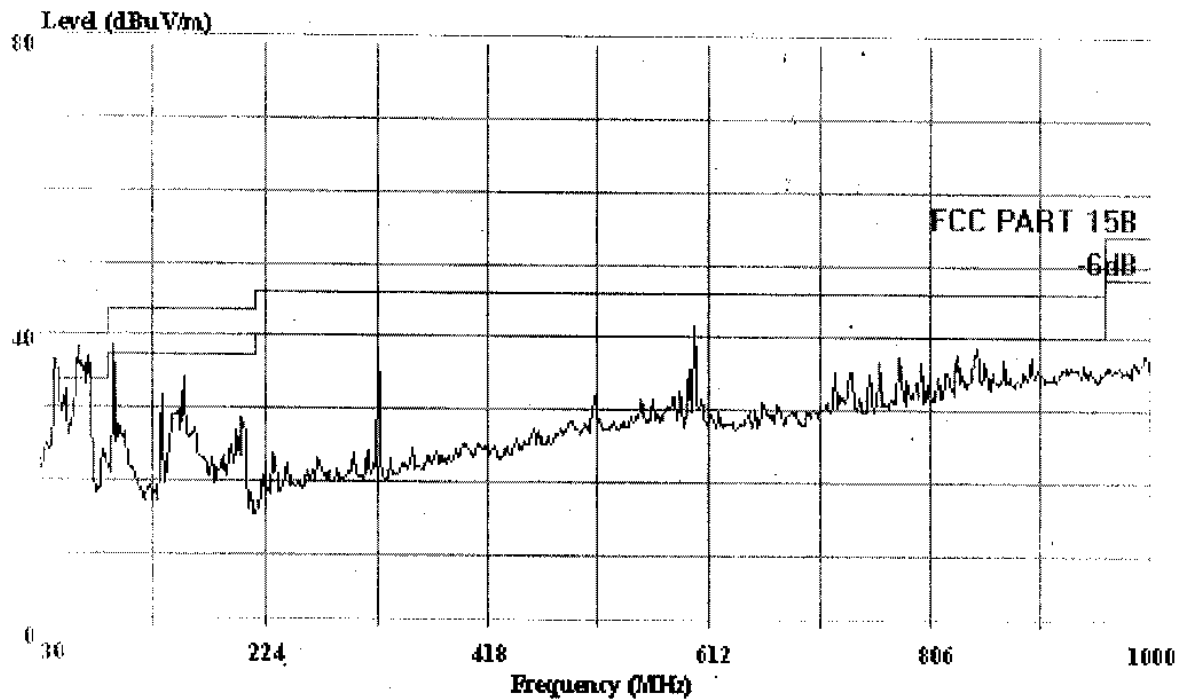
AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

Shenzhen Science & Ind. Park

Tel: 0755-26639495~7

Fax: 0755-26632877

Data#: File#: Intec INC.EMI Date: 2004-04-25 Time: 17:30:17



AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (3# Chamber)

Trace:

Ref Trace:

Condition: FCC PART 15B 3m 2598FACTOR VERTICAL

EUT : X-Box 2.4G RF Wireless Controller

M/N : 8085+8085R

Power : DC3V (Battery)

Engineer : Richzhv

Test Comment: Temp:24°C Humi:56%

Memo : 8085 CH75 Tx

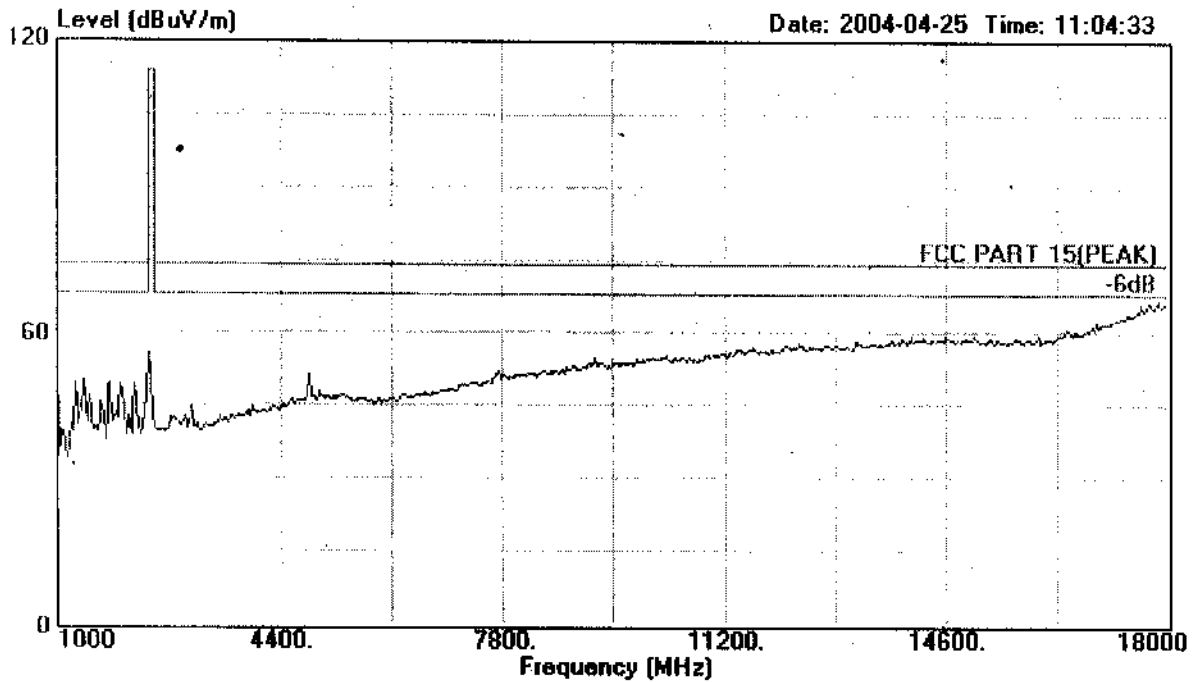


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Data#: 205 File#: C:\EMI TEST DATA\I\Intec INC.EMI



Site : 1# Chamber
Condition : FCC PART 15(PEAK) 3m 3115FACTOR HORIZONTAL
EUT : X-Box 2.4G RF Wireless Controller
M/N : 8085+8085R
Power : DC 3V(Battery)
Test Engineer : Richzhy
Test Comment : Temp:23°C Humi:54%
Memo : 8085 CH1 Tx

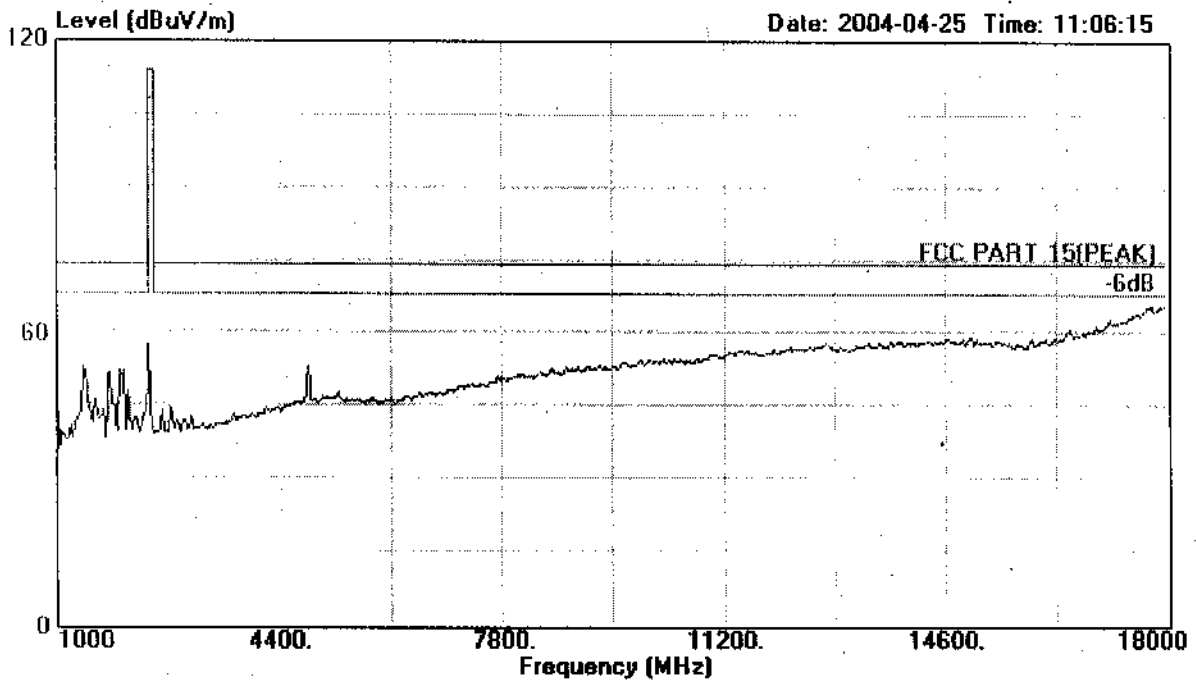


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Tel: +86-755-26639496 Fax: +86-755-26632877

Data#: 206 File#: C:\EMI TEST DATA\I\Intec INC.EMI



Site : 1# Chamber
Condition : FCC PART 15(PEAK) 3m 3115FACTOR VERTICAL
EUT : X-Box 2.4G RF Wireless Controller
M/N : 8085+8085R
Power : DC 3V(Battery)
Test Engineer : Richzhy
Test Comment : Temp:23°C Humi:54%
Memo : 8085 CH1 Tx

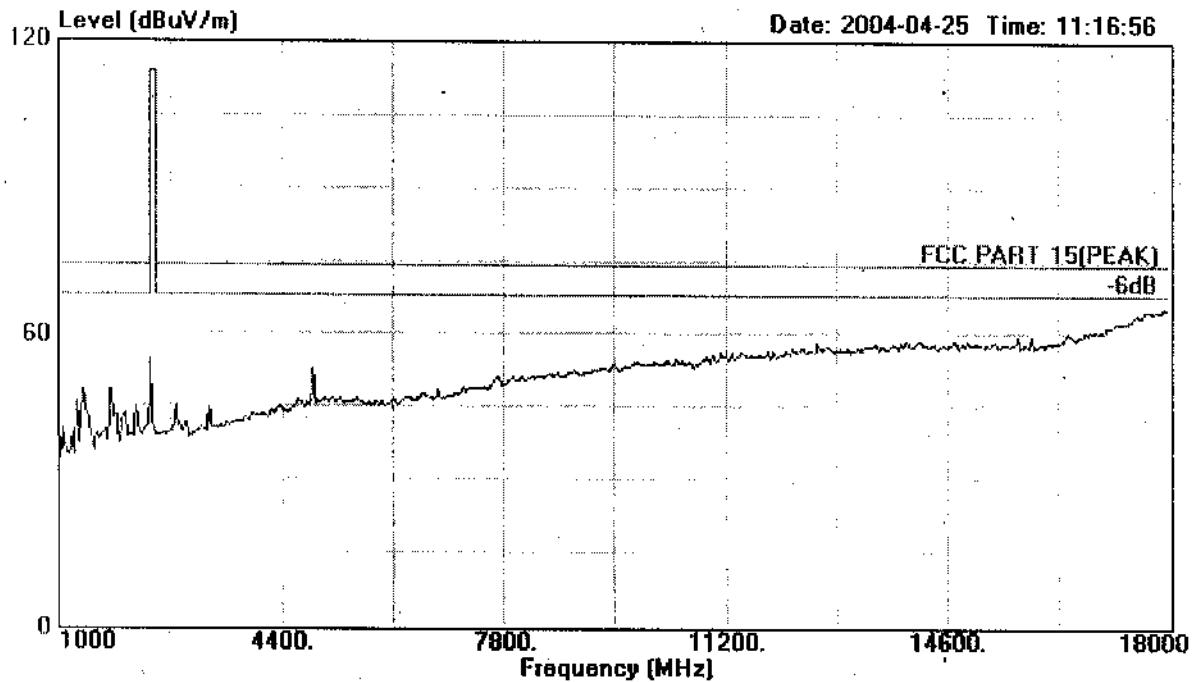


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Data#: 208 File#: C:\EMI TEST DATA\I\Intec INC.EMI



Site : 1# Chamber
Condition : FCC PART 15(PEAK) 3m 3115FACTOR HORIZONTAL
EUT : X-Box 2.4G RF Wireless Controller
M/N : 8085+8085R
Power : DC 3V(Battery)
Test Engineer : Richzhy
Test Comment : Temp:23°C Humi:54%
Memo : 8085 CH38 Tx

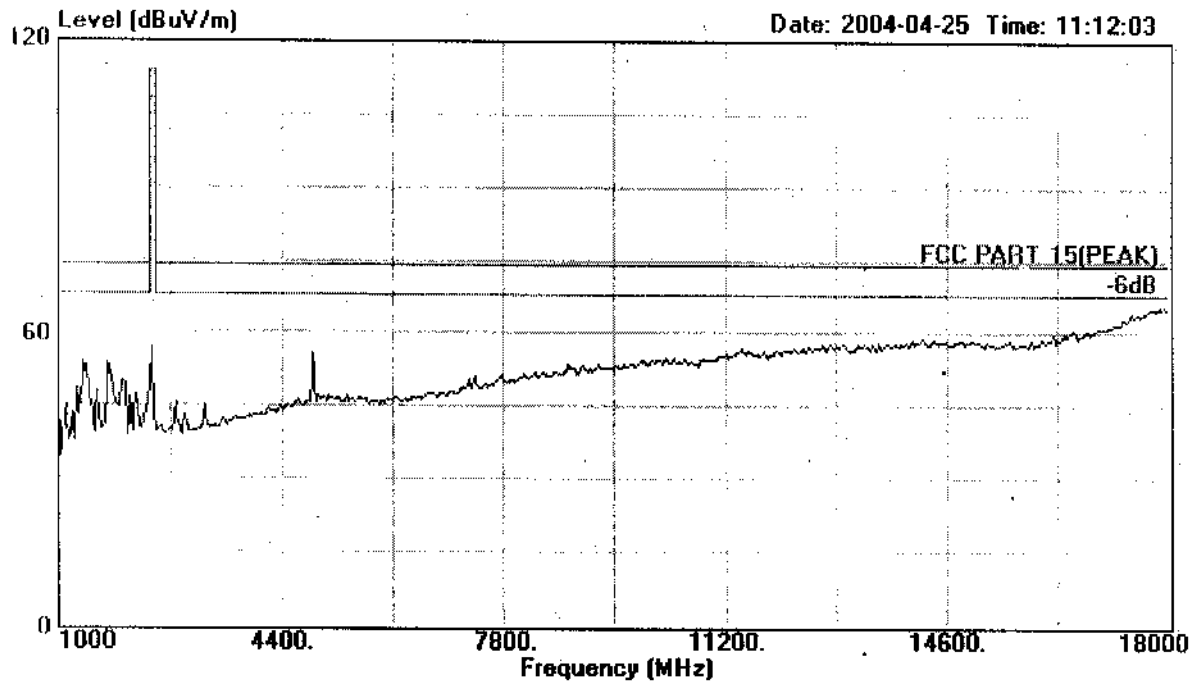


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Tel: +86-755-26639496 Fax: +86-755-26632877

Data#: 207 File#: C:\EMI TEST DATA\I\Intec INC.EMI



Site : 1# Chamber
Condition : FCC PART 15(PEAK) 3m 3115FACTOR VERTICAL
EUT : X-Box 2.4G RF Wireless Controller
M/N : 8085+8085R
Power : DC 3V(Battery)
Test Engineer : Richzhy
Test Comment : Temp:23°C Humi:54%
Memo : 8085 CH38 Tx

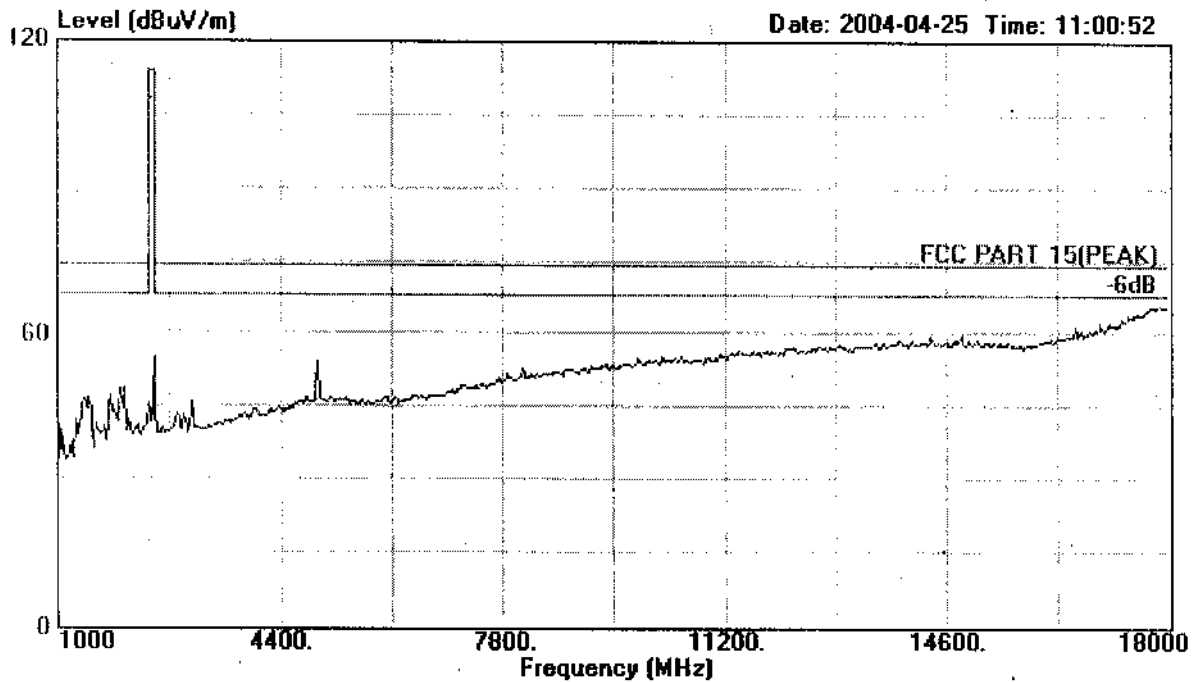


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Tel: +86-755-26639496 Fax: +86-755-26632877

Data#: 204 File#: C:\EMI TEST DATA\I\Intec INC.EMI



Site : 1# Chamber
Condition : FCC PART 15(PEAK) 3m 3115FACTOR HORIZONTAL
EUT : X-Box 2.4G RF Wireless Controller
M/N : 8085+8085R
Power : DC 3V(Battery)
Test Engineer : Richzhy
Test Comment : Temp:23°C Humi:54%
Memo : 8085 CH75 Tx

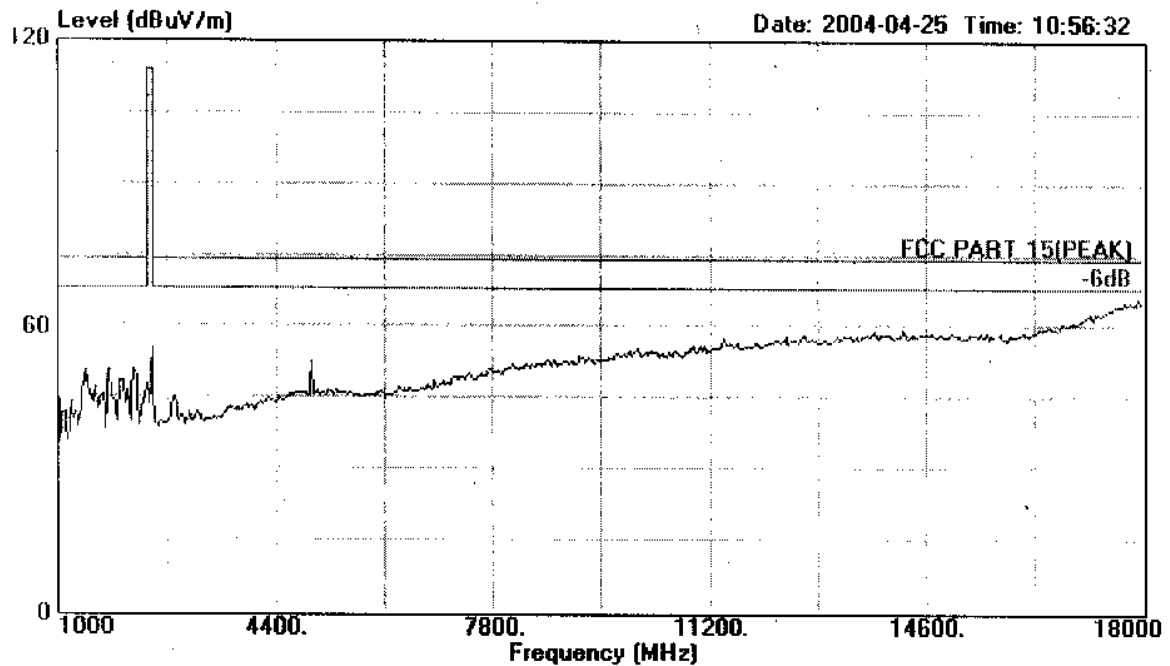


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No. 6, Ke Feng Road, Block S2,
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Nantou, Shenzhen, Guangdong, China
Tel: +86-755-26639496 Fax: +86-755-26632877

Data#: 203 File#: C:\EMI TEST DATA\I\Intec INC.EMI



Site : 1# Chamber
Condition : FCC PART 15(PEAK) 3m 3115FACTOR VERTICAL
EUT : X-Box 2.4G RF Wireless Controller
M/N : 8085+8085R
Power : DC 3V(Battery)
Test Engineer : Richzhy
Test Comment : Temp:23°C Humi:54%
Memo : 8085 CH75 Tx

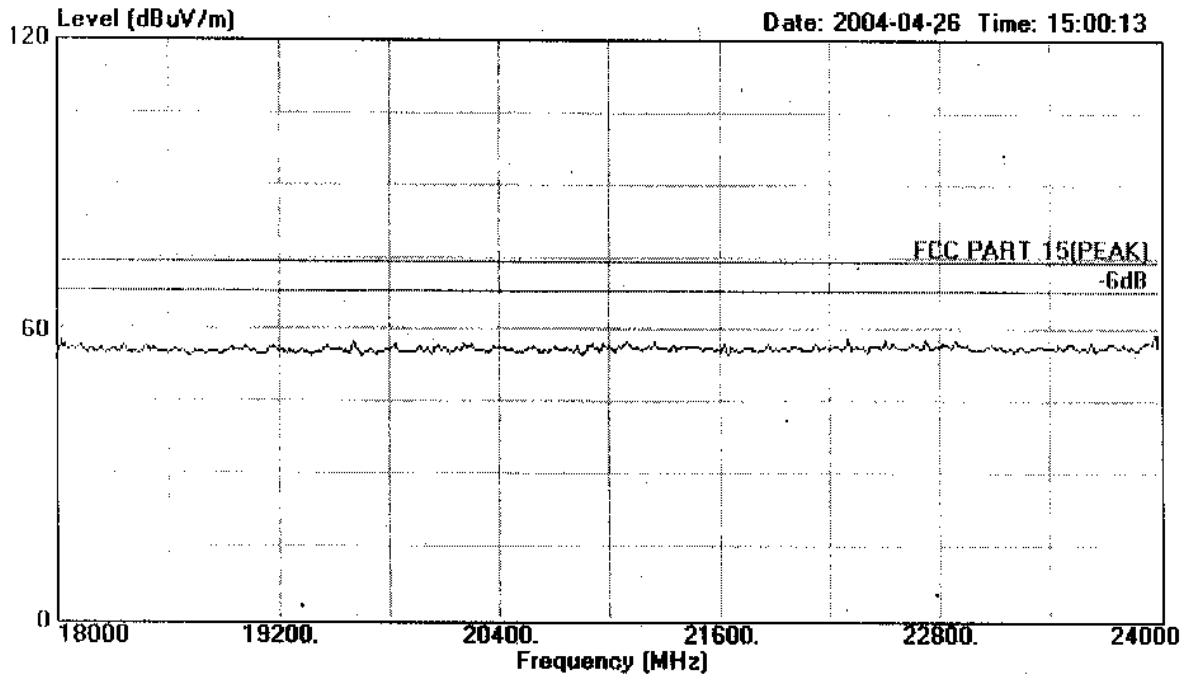


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Data#: 223 File#: C:\EMI TEST DATA\I\Intec INC.EMI



Site : 1# Chamber
Condition : FCC PART 15(PEAK) 3m 3115FACTOR HORIZONTAL
EUT : X-Box 2.4G RF Wireless Controller
M/N : 6085+8085R
Power : DC 3V(Battery)
Test Engineer : Richzhy
Test Comment : Temp:23°C Humi:54%
Memo : 6085 CH1 Tx

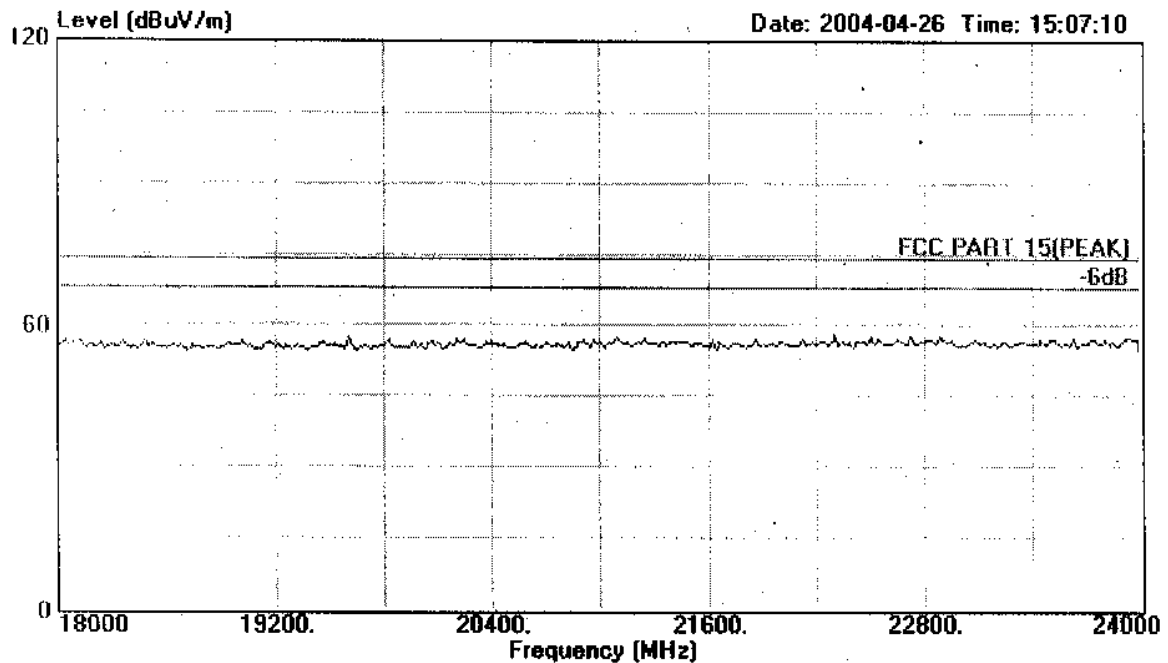


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Data#: 224 File#: C:\EMI TEST DATA\I\Intec INC.EMI



Site : 1# Chamber
Condition : FCC PART 15(PEAK) 3m 3115FACTOR VERTICAL
EUT : X-Box 2.4G RF Wireless Controller
M/N : 8085+8085R
Power : DC 3V(Battery)
Test Engineer : Richzhy
Test Comment : Temp:23°C Humi:54%
Memo : 8085 CH1 Tx

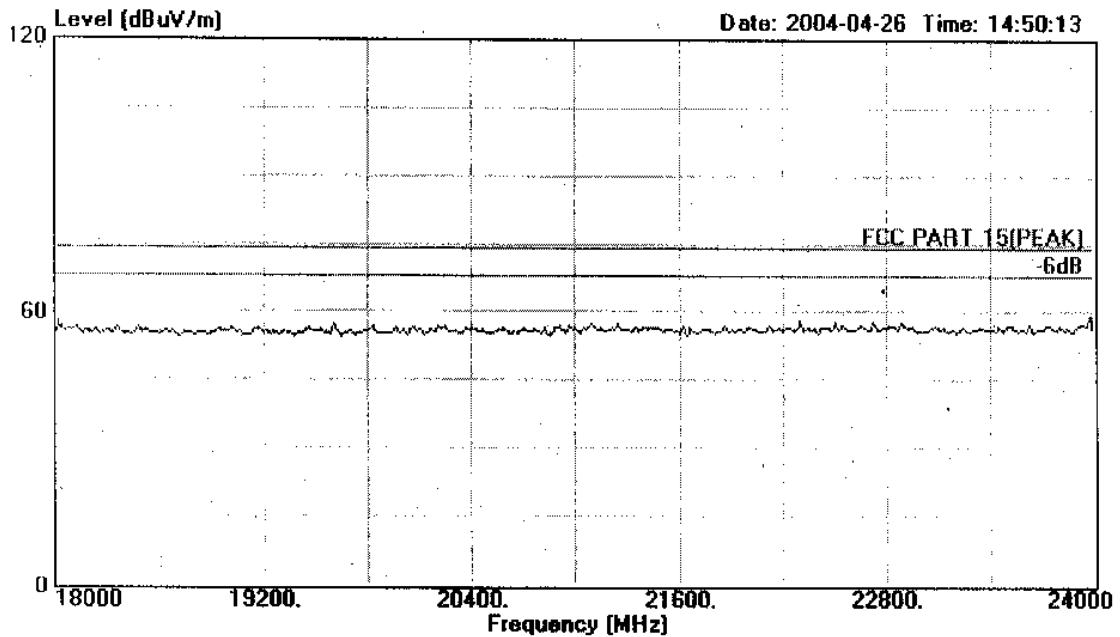


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Data#: 222 File#: C:\EMI TEST DATA\I\Intec INC.EMI



Site : 1# Chamber
Condition : FCC PART 15(PEAK) 3m 3115FACTOR HORIZONTAL
EUT : X-Box 2.4G RF Wireless Controller
M/N : 8085+8085R
Power : DC 3V(Battery)
Test Engineer : Richzhy
Test Comment : Temp:23°C Humi:54%
Memo : 8085 CH38 Tx

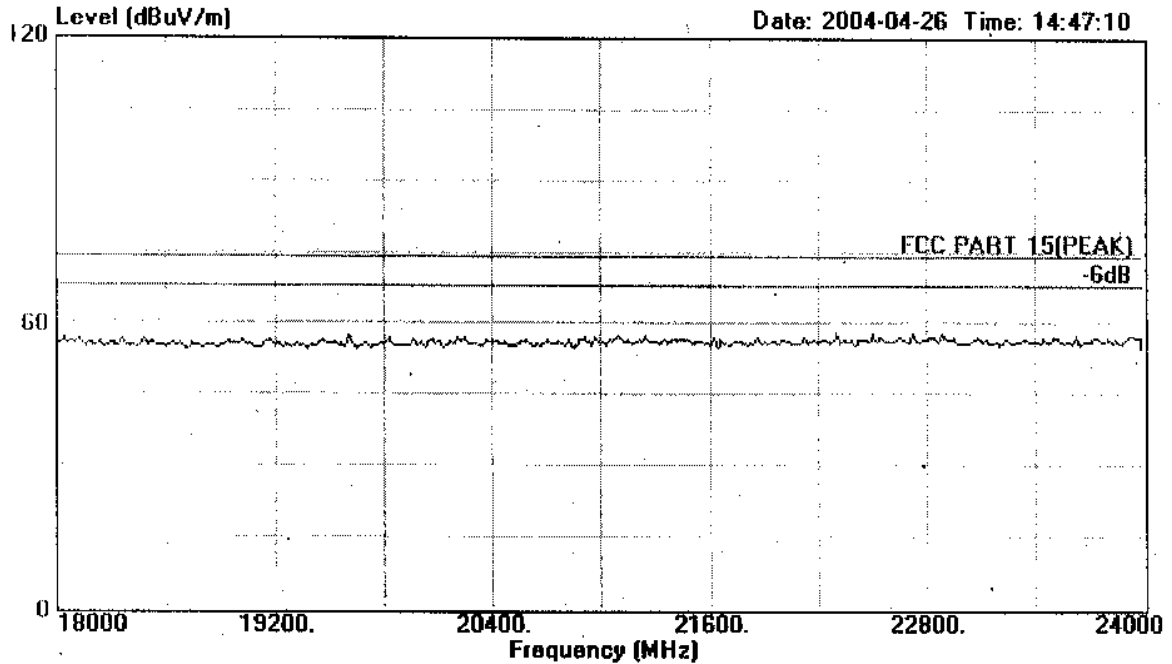


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Data#: 221 File#: C:\EMI TEST DATA\I\Intec INC.EMI



Site : 1# Chamber
Condition : FCC PART 15(PEAK) 3m 3115FACTOR VERTICAL
EUT : X-Box 2.4G RF Wireless Controller
M/N : 8085+8085R
Power : DC 3V(Battery)
Test Engineer : Richzhy
Test Comment : Temp:23°C Humi:54%
Memo : 8085 CH38 Tx



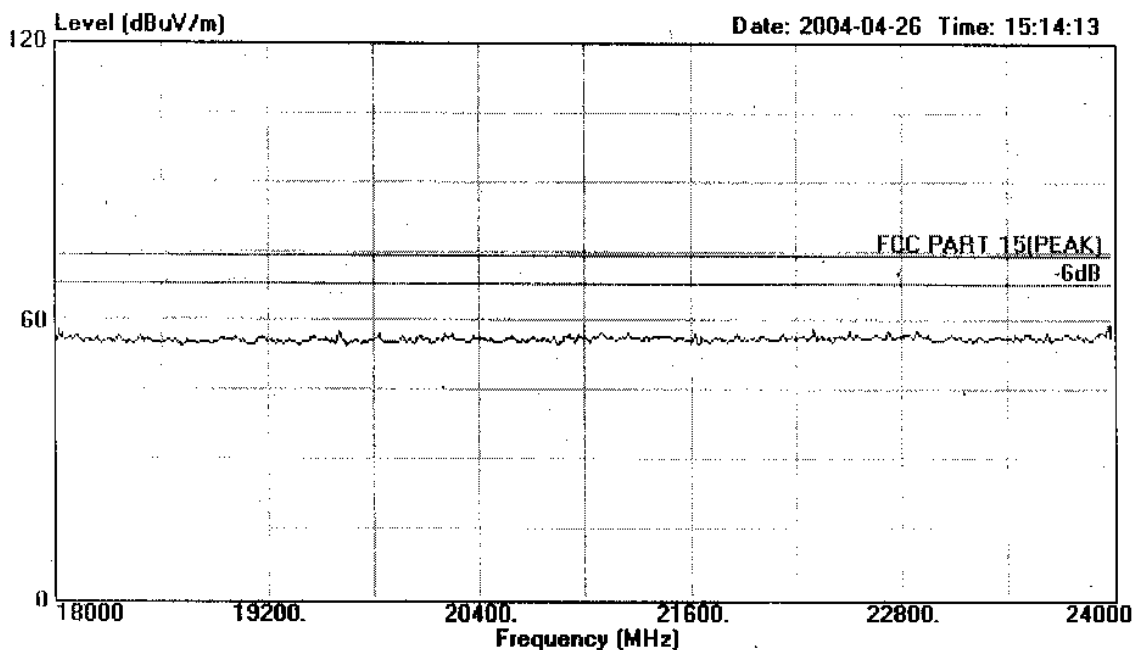
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Data#: 225

File#: C:\EMI TEST DATA\I\Intec INC.EMI



Site : 1# Chamber
Condition : FCC PART 15(PEAK) 3m 3115FACTOR HORIZONTAL
EUT : X-Box 2.4G RF Wireless Controller
M/N : 8085+8085R
Power : DC 3V(Battery)
Test Engineer : Richzhy
Test Comment : Temp:23°C Humi:54%
Memo : 8085 CH75 Tx

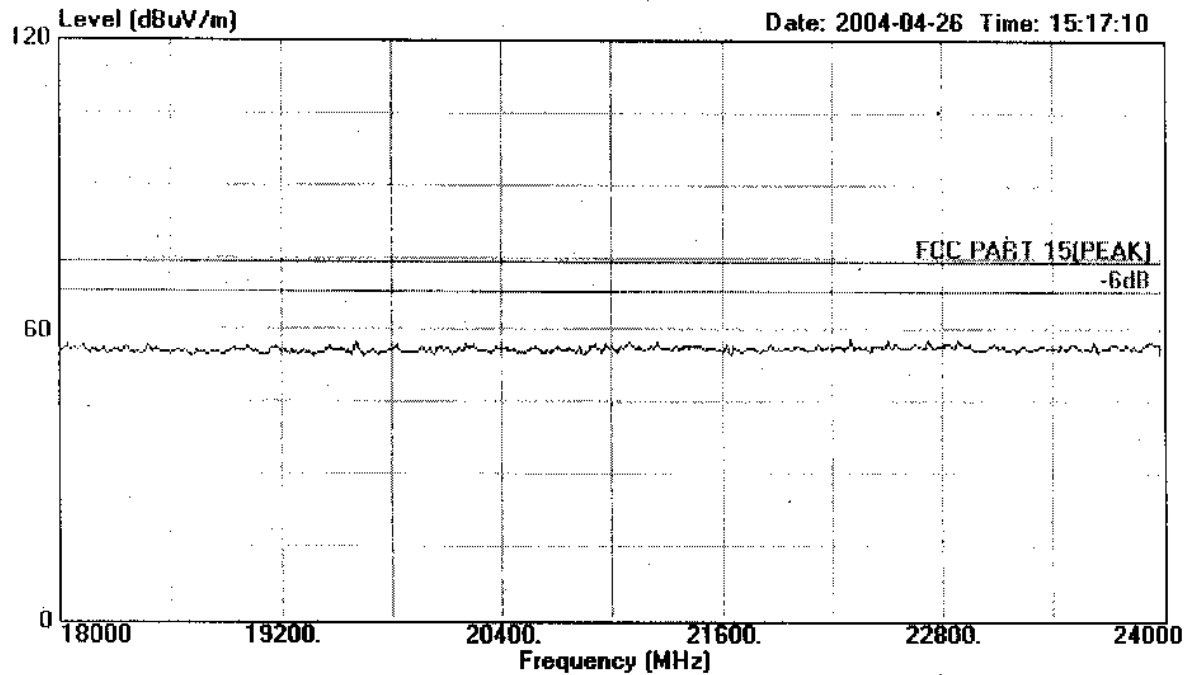


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Date#: 226 File#: C:\EMI TEST DATA\I\Intec INC.EMI



Site : 1# Chamber
Condition : FCC PART 15(PEAK) 3m 3115FACTOR VERTICAL
EUT : X-Box 2.4G RF Wireless Controller
M/N : 8085+8085R
Power : DC 3V(Battery)
Test Engineer : Richzhy
Test Comment : Temp:23°C Humi:54%
Memo : 8085 CH75 Tx