Application for FCC Certificate
On Behalf of
Jiaxing Bocheng Metal Production Co., Ltd.

Remote Controller

Model No.: BCYK001

Serial No.: E2009070101

FCC ID : XK6BCYK001

Prepared For : Jiaxing Bocheng Metal Production Co., Ltd.
Room 14-B, No. 592 Chengbei Road, Jiaxing,
Zhejiang, China

Prepared By : Audix Technology (Shanghai) Co., Ltd.
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Report No. : ACI-F09060
Date of Test : Jul 06 – 07, 2009
Date of Report : Jul 08, 2009

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TEST REPORT FOR FCC CERTIFICATION

Applicant	:	Jiaxing Bocheng Metal Production Co., Ltd.
Manufacturer	:	Jiaxing Bocheng Metal Production Co., Ltd..
EUT Description	:	Remote Controller
		(A) Model No. : BCYK001
		(B) Serial No. : E2009070101
		(C) Power Supply : DC 4.5V (AAA Battery*3)

Test Procedure Used:

FCC RULES AND REGULATIONS PART 15 SUBPART C OCTOBER 2008 AND ANSI C63.4:2003

The device described above is tested by Audix Technology (Shanghai) 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 radiated emission.

The test results are contained in this test report and Audix Technology (Shanghai) Co., Ltd. is assumed full responsibility for the accuracy and completeness of these measurements. This report shows that the EUT (M/N: BCYK001; S/N: E2009070101), which was tested in 3m anechoic chamber on Jul 06 – 07, 2009 to be technically compliant with the FCC official limits also.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Audix Technology (Shanghai) Co., Ltd.

This report contains data that are not covered by the NVLAP accreditation.

This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government by the client.

Date of Test : Jul 06 – 07, 2009 Date of Report : Jul 08, 2009

Producer : DIO YANG / Supervisor

Review : SAMMY CHEN / Assistant Manager

AUDIX® For and on behalf of
Audix Technology (Shanghai) Co., Ltd.

Signatory : BYRON KWO / Manager
Authorized Signature EMC

1 SUMMARY OF STANDARDS AND RESULTS

1.1 Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below:

Description / Test Item	Test Standard	Meets Limit	Results
Conducted Emission at the Mains Terminal	FCC RULES AND REGULATIONS PART 15 SUBPART C OCTOBER 2008 AND ANSI C63.4:2003	15.207	N/A
Radiated Emission	FCC RULES AND REGULATIONS PART 15 SUBPART C OCTOBER 2008 AND ANSI C63.4:2003	15.209	Pass
Fundamental and Harmonics Emission	FCC RULES AND REGULATIONS PART 15 SUBPART C OCTOBER 2008 AND ANSI C63.4:2003	15.249	Pass
Bandwidth Measurement	FCC RULES AND REGULATIONS PART 15 SUBPART C OCTOBER 2008 AND ANSI C63.4:2003	15.231	Pass
Band-Edge Measurement	FCC RULES AND REGULATIONS PART 15 SUBPART C OCTOBER 2008 AND ANSI C63.4:2003	15.249	Pass
N/A is an abbreviation for Not Applicable.			

2 GENERAL INFORMATION

2.1 Description of Equipment Under Test

Description	:	Remote Controller
Type of EUT	:	☑ Production ☐ Pre-product ☐ Pro-type
Model No.	:	BCYK001
Serial No.	:	E2009070101
Applicant	:	Jiaxing Bocheng Metal Production Co., Ltd. Room 14-B, No. 592 Chengbei Road, Jiaxing, Zhejiang, China
Manufacturer	:	Jiaxing Bocheng Metal Production Co., Ltd. Room 14-B, No. 592 Chengbei Road, Jiaxing, Zhejiang, China
Power Supply	:	Battery Operated DC 4.5V (AAA Battery*3) The tests were performed using new batteries
Modulation	:	MSK 500kbps
Operation Frequency	:	2463.9996 MHz, 2464.9996 MHz, 2465.9994 MHz, 2466.999 MHz, 2467.999 MHz, 2468.999 MHz, 2469.999 MHz, 2470.999 MHz The above frequencies can be set through the 8-dip SW on the back of the Remote Control (only No.1-3 SW, the No.4 SW has not function)
Frequency Channel	:	8 Channels
Tested Frequency	:	2463.9996 MHz (Channel 01) 2467.999 MHz (Channel 05) 2470.999 MHz (Channel 08)
Antenna Location	:	Top of the RF module Please see Figure 6 in APPENDIX III, Photographs of EUT for further information.
Antenna Type	:	Internal permanently attached antenna

2.2 Description of Test Facility

Site Description (Semi-Anechoic Chamber)	:	Sept. 17, 1998 file on April 29, 2009 Renewed Federal Communications Commission FCC Engineering Laboratory 7435 Oakland Mills Road Columbia, MD 21046, USA
Name of Firm	:	Audix Technology (Shanghai) Co., Ltd.
Site Location	:	3F 34Bldg 680 Guiping Rd., Caohejing Hi-Tech Park, Shanghai 200233, China
FCC registration Number	:	91789
Accredited by NVLAP, Lab Code	:	200371-0

2.3 Measurement Uncertainty

Radiated Emission Expanded Uncertainty : U = 3.02dB

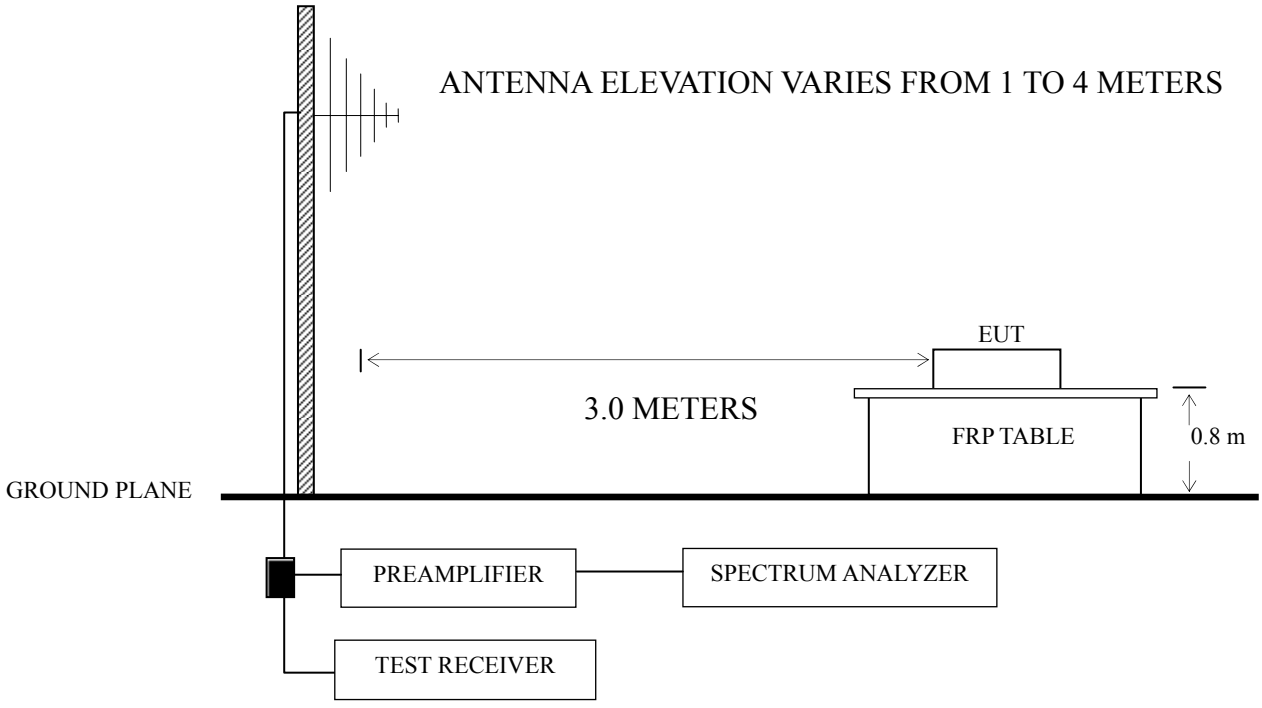
3 RADIATED EMISSION TEST

3.1 Test Equipment

The following test equipments are used during the radiated emission test in a semi-anechoic chamber:

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Preamplifier	HP	8447D	2944A06849	Mar 18, 2009	Sep 19, 2010
2.	Preamplifier	HP	8449B	3008A00864	May 19, 2009	May 19,2010
3.	Spectrum Analyzer	Agilent	E7405A	MY45106600	May 19, 2009	May 19,2010
4.	Test Receiver	R&S	ESVS10	832699/004	Apr 02, 2009	Apr 02, 2010
5.	Bilog Antenna	TESEQ	CBL6112D	23193	May 14, 2008	May 14, 2010
6.	Horn Antenna	EMCO	3115	9607-4878	Apr 24, 2009	Apr 24, 2010
7.	Horn Antenna	EMCO	3116	00062643	Apr 24, 2009	Apr 24, 2010
8.	50Ω Coaxial Switch	Anritsu	MP59B	6200426390	Mar 18, 2009	Sep 19, 2009
9.	Software	Audix	E3	SET00200 9912M295-2	-	-

3.2 Block Diagram of Test Setup



■ : 50 ohm Coaxial Switch

3.3 Radiated Emission Limit [FCC Part 15 Subpart C 15.209]

Frequency (MHz)	Distance (m)	Field strength limits (μV/m)	
		(μV/m)	dB (μV/m)
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
Above 960	3	500	54.0

NOTE 1 - Emission Level dB (μV/m) = 20 lg Emission Level (μV/m)
NOTE 2 - The tighter limit applies at the band edges.
NOTE 3 - Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.
NOTE 4 - The limits shown are based on Quasi-peak value detector below or equal to 1GHz and Average value detector above 1GHz.
NOTE 5 - Above 1 GHz, the limit on peak emission is 20 dB above the maximum permitted average emission limit applicable to the EUT

3.4 Test Configuration

The EUT was installed as show on Sec. 3.2 in radiated emission test to meet FCC requirement and operating in a manner, which tend to maximize emission level in a normal application.

3.5 Operating Condition of EUT

3.5.1 Setup the EUT as shown in Sec. 3.2.

3.5.2 Turn on the power of all equipment.

3.5.3 Set the EUT on the test mode (Transmitting).

3.5.4 Configured the EUT in three axis: Lying, Side, Stand, and test separately.

3.6 Test Procedures

The EUT was placed on a FRP turntable that is 0.8 meter above ground. The FRP turntable rotated 360 degrees to determine the position of the maximum emission level. The EUT was set 3 meters away from the receiving antenna, which was mounted on an antenna tower. Broadband antenna (Calibrated Bilog Antenna) and horn antenna was used as receiving antenna. The antenna moved up and down between 1 meter and 4 meters to find out the maximum emission level. Both horizontal and vertical polarizations of the antenna were set on measurement. In order to find the maximum emission, all of the interference cables were manipulated according to ANSI C63.4:2003 requirements during radiated emission test.

The bandwidth of Test Receiver R&S ESVS10 was set at 120 kHz for frequency range from 30MHz to 1000MHz.

The bandwidth of the VBW was set at 1MHz and RBW was set at 1MHz for peak emission measurement above 1GHz and 1MHz RBW, 10Hz VBW for average emission above 1GHz for Spectrum Agilent E7405A.

The frequency range from 30 MHz to 25 GHz (Up to 10^{th} harmonics from fundamental frequency) was checked.

The EUT was tested under the following test modes:

Mode	Operation	Channel	Fundamental Frequency
1.	Transmitting	01	2463.9996 MHz
2.		05	2467.999 MHz
3.		08	2470.999 MHz

The test mode (Transmitting) was done on radiated emission test.

Please refer to Sec.3.7.

3.7 Test Results

<PASS>

The frequency and amplitude of the highest radiated emission relative the limit is reported. All the emissions not reported below are too low against the FCC limit.

Mode	Operation	Channel	Fundamental Frequency	Position	Data Page
1.	Transmitting	01	2463.9996 MHz	Lying	P11
2.				Side	P12
3.				Stand	P13
4.		05	2467.999 MHz	Lying	P14
5.				Side	P15
6.				Stand	P16
7.		08	2470.999 MHz	Lying	P17
8.				Side	P18
9.				Stand	P19

NOTE 1 – Level = Read Level + Antenna Factor + Cable Loss (<1GHz)

NOTE 2 – Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor (>1GHz)

NOTE 3 – 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

NOTE 4 – The emission levels which not reported are too low against the official limit.

NOTE 5 – All reading are Quasi-Peak values below or equal to 1GHz and Peak values above 1GHz. For measurements above 1 GHz, the peak measured value complies with the average limit, it is unnecessary to perform an average measurement.

EUT	:	Remote Controller	Temperature :		25℃
Model No.	:	BCYK001	Humidity	:	57%RH
Serial No.	:	E2009070101	Date of Test	:	Jul 06, 2009
Test Mode	:	Transmitting Ch01 2463.9996MHz	Position	:	Lying

Polarization	Frequency (MHz)	Read Level dB (μV)	Antenna Factor (dB/m)	Preamp Factor (dB)	Cable Loss (dB)	Factor (dB/m)	Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	31.94	-0.12	16.90	--	0.92	17.82	17.70	40.00	22.30	QP
	74.62	5.68	5.95	--	1.46	7.41	13.09	40.00	26.91	
	122.15	0.07	11.38	--	1.88	13.26	13.33	43.50	30.17	
	163.86	4.71	9.14	--	2.16	11.30	16.01	43.50	27.49	
	383.08	1.40	15.05	--	3.53	18.58	19.98	46.00	26.02	
	711.91	0.36	19.72	--	4.90	24.62	24.98	46.00	21.02	
	1238.00	43.95	25.18	34.12	4.28	-4.66	39.29	74.00	34.71	PK
	1952.00	43.53	27.47	34.2	5.55	-1.18	42.35	74.00	31.65	
	3567.00	42.72	31.76	34.2	7.57	5.13	47.85	74.00	26.15	
	6168.00	38.46	34.55	34.49	10.78	10.84	49.30	74.00	24.70	
	9993.00	33.64	36.43	33.4	14.24	17.27	50.91	74.00	23.09	
	14719.00	27.80	40.41	33.44	17.78	24.75	52.55	74.00	21.45	
Vertical	30.97	-0.64	17.55	--	0.91	18.46	17.82	40.00	22.18	QP
	80.44	8.90	6.80	--	1.52	8.32	17.22	40.00	22.78	
	153.19	9.53	9.61	--	2.10	11.71	21.24	43.50	22.26	
	403.45	3.25	16.08	--	3.62	19.7	22.95	46.00	23.05	
	596.48	1.51	18.78	--	4.23	23.01	24.52	46.00	21.48	
	767.20	0.84	19.75	--	5.19	24.94	25.78	46.00	20.22	
	1187.00	43.90	24.96	34.12	4.17	-4.99	38.91	74.00	35.09	PK
	1952.00	43.3	27.47	34.20	5.55	-1.18	42.12	74.00	31.88	
	3278.00	43.41	31.15	34.20	7.24	4.19	47.60	74.00	26.40	
	6491.00	37.98	34.86	34.67	11.37	11.56	49.54	74.00	24.46	
	10452.00	33.21	37.26	33.56	14.74	18.44	51.65	74.00	22.35	
	14566.00	27.99	40.38	33.39	17.73	24.72	52.71	74.00	21.29	

TEST ENGINEER: DIO YANG

EUT	:	Remote Controller	Temperature :		25℃
Model No.	:	BCYK001	Humidity	:	57%RH
Serial No.	:	E2009070101	Date of Test	:	Jul 06, 2009
Test Mode	:	Transmitting Ch01 2463.9996MHz	Position	:	Side

Polarization	Frequency (MHz)	Read Level dB (μV)	Antenna Factor (dB/m)	Preamp Factor (dB)	Cable Loss (dB)	Factor (dB/m)	Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	31.94	-0.90	16.9	--	0.92	17.82	16.92	40.00	23.08	QP
	128.94	0.47	11.42	--	1.94	13.36	13.83	43.50	29.67	
	245.34	0.13	11.55	--	2.77	14.32	14.45	46.00	31.55	
	364.65	1.75	14.70	--	3.45	18.15	19.90	46.00	26.10	
	496.57	0.85	17.33	--	3.97	21.30	22.15	46.00	23.85	
	711.91	2.59	19.72	--	4.90	24.62	27.21	46.00	18.79	
	1136.00	44.25	24.74	34.11	4.05	-5.32	38.93	74.00	35.07	PK
	1969.00	43.39	27.51	34.20	5.57	-1.12	42.27	74.00	31.73	
	3992.00	41.42	32.58	34.20	8.58	6.96	48.38	74.00	25.62	
	7239.00	35.91	35.51	35.17	12.00	12.34	48.25	74.00	25.75	
	11574.00	30.29	37.90	34.05	15.24	19.09	49.38	74.00	24.62	
	15025.00	26.78	40.50	33.56	17.90	24.84	51.62	74.00	22.38	
Vertical	32.91	-0.81	16.30	--	0.92	17.22	16.41	40.00	-23.59	QP
	122.15	-0.13	11.38	--	1.88	13.26	13.13	43.50	30.37	
	258.92	0.47	12.80	--	2.86	15.66	16.13	46.00	29.87	
	399.57	1.43	15.90	--	3.60	19.50	20.93	46.00	25.07	
	567.38	1.00	18.45	--	4.16	22.61	23.61	46.00	22.39	
	746.83	0.83	20.00	--	5.11	25.11	25.94	46.00	20.06	
	1068.00	45.20	24.44	34.11	3.87	-5.80	39.40	74.00	34.60	PK
	1544.00	44.49	26.29	34.16	4.88	-2.99	41.50	74.00	32.50	
	2921.0	43.33	30.31	34.20	6.87	2.98	46.31	74.00	27.69	
	4196.00	41.40	32.77	34.22	9.07	7.62	49.02	74.00	24.98	
	6151.00	39.81	34.55	34.48	10.78	10.85	50.66	74.00	23.34	
	10367.00	34.26	37.09	33.53	14.65	18.21	52.47	74.00	21.53	

TEST ENGINEER: DIO YANG

EUT	:	Remote Controller	Temperature :		25℃
Model No.	:	BCYK001	Humidity	:	57%RH
Serial No.	:	E2009070101	Date of Test	:	Jul 06, 2009
Test Mode	:	Transmitting Ch01 2463.9996MHz	Position	:	Stand

Polarization	Frequency (MHz)	Read Level dB (μV)	Antenna Factor (dB/m)	Preamp Factor (dB)	Cable Loss (dB)	Factor (dB/m)	Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	31.94	-1.15	16.90	--	0.92	17.82	16.67	40.00	23.33	QP
	114.39	0.30	11.20	--	1.81	13.01	13.31	43.50	30.19	
	261.83	0.08	12.73	--	2.88	15.61	15.69	46.00	30.31	
	426.73	0.69	16.50	--	3.72	20.22	20.91	46.00	25.09	
	611.03	0.84	19.01	--	4.30	23.31	24.15	46.00	21.85	
	852.56	0.52	20.37	--	5.55	25.92	26.44	46.00	19.56	
	1425.00	44.12	25.89	34.14	4.66	-3.59	40.53	74.00	33.47	PK
	3516.00	41.90	31.65	34.20	7.45	4.90	46.80	74.00	27.20	
	5505.00	37.34	33.92	34.35	10.10	9.67	47.01	74.00	26.99	
	7477.00	35.69	35.7	35.31	12.37	12.76	48.45	74.00	25.55	
	10605.00	31.4	37.55	33.62	14.84	18.77	50.17	74.00	23.83	
	15144.00	27.08	40.17	33.61	17.99	24.55	51.63	74.00	22.37	
Vertical	33.88	0.26	15.77	--	0.93	16.70	16.96	40.00	23.04	QP
	107.60	-1.53	10.98	--	1.76	12.74	11.21	43.50	32.29	
	139.61	-1.10	10.64	--	2.01	12.65	11.55	43.50	31.95	
	259.89	-0.05	12.90	--	2.88	15.78	15.73	46.00	30.27	
	379.20	0.55	14.97	--	3.52	18.49	19.04	46.00	26.96	
	576.11	-0.31	18.56	--	4.18	22.74	22.43	46.00	23.57	
	1102.00	45.53	24.60	34.11	3.97	-5.54	39.99	74.00	34.01	PK
	1561.00	43.47	26.35	34.16	4.92	-2.89	40.58	74.00	33.42	
	3023.00	43.52	30.56	34.20	7.02	3.38	46.90	74.00	27.10	
	4859.00	38.72	33.30	34.28	9.87	8.89	47.61	74.00	26.39	
	8803.00	33.45	37.18	34.75	13.00	15.43	48.88	74.00	25.12	
	13920.00	26.89	40.28	33.23	17.12	24.17	51.06	74.00	22.94	

TEST ENGINEER: DIO YANG

EUT	:	Remote Controller	Temperature :		25℃
Model No.	:	BCYK001	Humidity	:	57%RH
Serial No.	:	E2009070101	Date of Test	:	Jul 06, 2009
Test Mode	:	Transmitting Ch05 2467.999 MHz	Position	:	Lying

Polarization	Frequency (MHz)	Read Level dB (μV)	Antenna Factor (dB/m)	Preamp Factor (dB)	Cable Loss (dB)	Factor (dB/m)	Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	30.97	-0.25	17.55	--	0.91	18.46	18.21	40.00	21.79	QP
	111.48	0.11	11.2	--	1.79	12.99	13.10	43.50	30.40	
	252.13	0.04	12.17	--	2.83	15.00	15.04	46.00	30.96	
	509.18	0.46	17.40	--	4.02	21.42	21.88	46.00	24.12	
	724.52	0.65	19.97	--	4.94	24.91	25.56	46.00	20.44	
	963.14	0.21	20.82	--	5.89	26.71	26.92	54.00	27.08	
	1153.00	44.47	24.81	34.11	4.10	-5.20	39.27	74.00	34.73	PK
	1595.00	43.32	26.46	34.16	4.99	-2.71	40.61	74.00	33.39	
	2139.00	42.51	28.08	34.20	5.71	-0.41	42.10	74.00	31.90	
	4247.00	41.14	32.81	34.22	9.20	7.79	48.93	74.00	25.07	
	8769.00	33.36	37.11	34.78	13.00	15.33	48.69	74.00	25.31	
	12254.00	31.33	38.53	34.09	15.80	20.24	51.57	74.00	22.43	
Vertical	31.94	-0.33	16.90	--	0.92	17.82	17.49	40.00	22.51	QP
	105.66	-0.99	10.82	--	1.74	12.56	11.57	43.50	31.93	
	325.85	-0.59	13.68	--	3.27	16.95	16.36	46.00	29.64	
	508.21	-0.33	17.40	--	4.02	21.42	21.09	46.00	24.91	
	690.57	0.13	19.07	--	4.78	23.85	23.98	46.00	22.02	
	913.67	-0.48	20.65	--	5.73	26.38	25.90	46.00	20.10	
	1272.00	44.6	25.31	34.13	4.34	-4.48	40.12	74.00	33.88	PK
	1799.00	43.56	27.06	34.18	5.40	-1.72	41.84	74.00	32.16	
	3431.00	43.03	31.49	34.20	7.36	4.65	47.68	74.00	26.32	
	4349.00	40.17	32.90	34.23	9.48	8.15	48.32	74.00	25.68	
	7205.00	35.89	35.47	35.14	11.93	12.26	48.15	74.00	25.85	
	10367.00	34.07	37.09	33.53	14.65	18.21	52.28	74.00	21.72	

TEST ENGINEER: DIO YANG

EUT	:	Remote Controller	Temperature :		25℃
Model No.	:	BCYK001	Humidity	:	57%RH
Serial No.	:	E2009070101	Date of Test	:	Jul 06, 2009
Test Mode	:	Transmitting Ch05 2467.999 MHz	Position	:	Side

Polarization	Frequency (MHz)	Read Level dB (μV)	Antenna Factor (dB/m)	Preamp Factor (dB)	Cable Loss (dB)	Factor (dB/m)	Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	31.94	-0.57	16.90	--	0.92	17.82	17.25	40.00	22.75	QP
	114.39	-1.25	11.20	--	1.81	13.01	11.76	43.50	31.74	
	247.28	-0.45	11.77	--	2.79	14.56	14.11	46.00	31.89	
	517.91	-0.24	17.51	--	4.03	21.54	21.3	46.00	24.70	
	738.10	-0.96	20.05	--	5.03	25.08	24.12	46.00	21.88	
	959.26	0.17	20.81	--	5.89	26.7	26.87	46.00	19.13	
	1119.00	45.56	24.67	34.11	4.01	-5.43	40.13	74.00	33.87	PK
	1765.00	44.80	26.97	34.18	5.33	-1.88	42.92	74.00	31.08	
	3805.00	42.13	32.22	34.20	8.16	6.18	48.31	74.00	25.69	
	6083.00	37.38	34.48	34.44	10.65	10.69	48.07	74.00	25.93	
	9075.00	32.11	37.32	34.40	13.03	15.95	48.06	74.00	25.94	
	15280.00	26.94	39.85	33.66	18.08	24.27	51.21	74.00	22.79	
Vertical	31.94	-0.37	16.90	--	0.92	17.82	17.45	40.00	22.55	QP
	113.42	-1.42	11.20	--	1.81	13.01	11.59	43.50	31.91	
	265.71	-0.08	12.55	--	2.91	15.46	15.38	46.00	30.62	
	470.38	0.22	17.00	--	3.89	20.89	21.11	46.00	24.89	
	708.03	-0.47	19.65	--	4.86	24.51	24.04	46.00	21.96	
	935.98	-0.88	20.78	--	5.80	26.58	25.70	46.00	20.30	
	1051.00	45.21	24.35	34.10	3.82	-5.93	39.28	74.00	34.72	PK
	1629.00	44.84	26.56	34.16	5.05	-2.55	42.29	74.00	31.71	
	2054.00	42.88	27.79	34.20	5.64	-0.77	42.11	74.00	31.89	
	5012.00	41.36	33.42	34.30	9.91	9.03	50.39	74.00	23.61	
	7868.00	37.16	36.01	35.54	12.71	13.18	50.34	74.00	23.66	
	12849.00	28.47	40.67	33.79	16.24	23.12	51.59	74.00	22.41	

TEST ENGINEER: DIO YANG

EUT	:	Remote Controller	Temperature :		25℃
Model No.	:	BCYK001	Humidity	:	57%RH
Serial No.	:	E2009070101	Date of Test	:	Jul 06, 2009
Test Mode	:	Transmitting Ch05 2467.999 MHz	Position	:	Stand

Polarization	Frequency (MHz)	Read Level dB (μV)	Antenna Factor (dB/m)	Preamp Factor (dB)	Cable Loss (dB)	Factor (dB/m)	Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	30.97	-0.09	17.55	--	0.91	18.46	18.37	40.00	21.63	QP
	114.39	-0.50	11.20	--	1.81	13.01	12.51	43.50	30.99	
	251.16	0.13	12.08	--	2.81	14.89	15.02	46.00	30.98	
	488.81	0.08	17.25	--	3.96	21.21	21.29	46.00	24.71	
	779.81	0.03	19.75	--	5.28	25.03	25.06	46.00	20.94	
	972.84	1.26	20.83	--	5.92	26.75	28.01	54.00	25.99	
	1255.00	44.28	25.25	34.12	4.31	-4.56	39.72	74.00	34.28	PK
	1714.00	44.1	26.81	34.17	5.22	-2.14	41.96	74.00	32.04	
	3380.00	42.61	31.36	34.2	7.32	4.48	47.09	74.00	26.91	
	7664.00	36.58	35.86	35.43	12.54	12.97	49.55	74.00	24.45	
	12050.00	30.93	37.73	34.18	15.54	19.09	50.02	74.00	23.98	
	15314.00	28.48	39.74	33.68	18.1	24.16	52.64	74.00	21.36	
Vertical	31.94	-0.67	16.90	--	0.92	17.82	17.15	40.00	22.85	QP
	115.36	-1.61	11.21	--	1.82	13.03	11.42	43.50	32.08	
	251.16	-1.07	12.08	--	2.81	14.89	13.82	46.00	32.18	
	397.63	0.01	15.70	--	3.60	19.30	19.31	46.00	26.69	
	742.95	-1.04	20.02	--	5.07	25.09	24.05	46.00	21.95	
	946.65	-0.93	20.84	--	5.86	26.70	25.77	46.00	20.23	
	1255.00	44.28	25.25	34.12	4.31	-4.56	39.72	74.00	34.28	PK
	1850.00	44.59	27.21	34.19	5.45	-1.53	43.06	74.00	30.94	
	3618.00	42.53	31.86	34.2	7.70	5.36	47.89	74.00	26.11	
	5726.00	40.9	34.15	34.38	10.29	10.06	50.96	74.00	23.04	
	9313.00	33.79	37.08	34.1	13.12	16.10	49.89	74.00	24.11	
	13563.00	27.11	40.62	33.39	16.7	23.93	51.04	74.00	22.96	

TEST ENGINEER: DIO YANG

EUT	:	Remote Controller	Temperature	:	25℃
Model No.	:	BCYK001	Humidity	:	57%RH
Serial No.	:	E2009070101	Date of Test	:	Jul 06, 2009
Test Mode	:	Transmitting Ch08 2470.999MHz	Position	:	Lying

Polarization	Frequency (MHz)	Read Level dB (μV)	Antenna Factor (dB/m)	Preamp Factor (dB)	Cable Loss (dB)	Factor (dB/m)	Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	32.91	-0.57	16.30	--	0.92	17.22	16.65	40.00	23.35	QP
	122.15	-0.43	11.38	--	1.88	13.26	12.83	43.50	30.67	
	237.58	0.35	10.68	--	2.68	13.36	13.71	46.00	32.29	
	531.49	1.58	17.85	--	4.07	21.92	23.50	46.00	22.50	
	796.30	0.29	19.90	--	5.36	25.26	25.55	46.00	20.45	
	956.35	0.40	20.84	--	5.89	26.73	27.13	46.00	18.87	
	1119.00	44.95	24.67	34.11	4.01	-5.43	39.52	46.00	34.48	PK
	1731.00	44.16	26.87	34.17	5.26	-2.04	42.12	74.00	31.88	
	3125.00	43.37	30.79	34.20	7.10	3.69	47.06	74.00	26.94	
	5267.00	41.37	33.69	34.33	10.01	9.37	50.74	74.00	23.26	
	9228.00	34.29	37.16	34.22	13.09	16.03	50.32	74.00	23.68	
	14940.00	27.35	40.49	33.53	17.88	24.84	52.19	74.00	21.81	
Vertical	34.85	28.03	15.15	28.30	0.93	-12.22	15.81	40.00	24.19	QP
	106.63	27.19	10.90	28.14	1.75	-15.49	11.70	43.50	31.80	
	205.57	27.91	8.55	27.76	2.39	-16.82	11.09	43.50	32.41	
	316.15	27.23	13.45	27.26	3.20	-10.61	16.62	46.00	29.38	
	521.79	28.41	17.60	28.12	4.04	-6.48	21.93	46.00	24.07	
	727.43	28.02	19.98	28.44	4.99	-3.47	24.55	46.00	21.45	
	1085.00	45.05	24.51	34.11	3.91	-5.69	39.36	74.00	34.64	PK
	1578.00	44.55	26.40	34.16	4.96	-2.80	41.75	74.00	32.25	
	2122.00	43.15	28.01	34.20	5.70	-0.49	42.66	74.00	31.34	
	5930.00	41.97	34.34	34.39	10.45	10.40	52.37	74.00	21.63	
	11353.00	31.63	38.04	33.96	15.14	19.22	50.85	74.00	23.15	
	13767.00	28.03	40.43	33.30	16.94	24.07	52.10	74.00	21.90	

TEST ENGINEER: DIO YANG

EUT	:	Remote Controller	Temperature :		25℃
Model No.	:	BCYK001	Humidity	:	57%RH
Serial No.	:	E2009070101	Date of Test	:	Jul 06, 2009
Test Mode	:	Transmitting Ch08 2470.999MHz	Position	:	Side

Polarization	Frequency (MHz)	Read Level dB (μV)	Antenna Factor (dB/m)	Preamp Factor (dB)	Cable Loss (dB)	Factor (dB/m)	Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	34.85	-1.31	15.15	--	0.93	16.08	14.77	40.00	25.23	QP
	97.90	-1.46	9.90	--	1.68	11.58	10.12	43.50	33.38	
	178.41	-0.95	8.17	--	2.23	10.40	9.45	43.50	34.05	
	344.28	0.23	14.19	--	3.35	17.54	17.77	46.00	28.23	
	529.55	-0.17	17.85	--	4.07	21.92	21.75	46.00	24.25	
	855.47	-0.43	20.38	--	5.55	25.93	25.50	46.00	20.50	
	1102.00	44.4	24.6	34.11	3.97	-5.54	38.86	74.00	35.14	PK
	1782.00	43.99	27.02	34.18	5.37	-1.79	42.20	74.00	31.80	
	2156.00	42.92	28.14	34.2	5.73	-0.33	42.59	74.00	31.41	
	4213.00	41.09	32.79	34.22	9.13	7.70	48.79	74.00	25.21	
	7664.00	36.63	35.86	35.43	12.54	12.97	49.60	74.00	24.40	
	10792.00	30.94	37.9	33.71	14.91	19.1	50.04	74.00	23.96	
Vertical	32.91	0.56	16.3	--	0.92	17.22	17.78	40.00	22.22	QP
	112.45	-1.41	11.2	--	1.80	13.00	11.59	43.50	31.91	
	214.30	-0.54	7.91	--	2.48	10.39	9.85	43.50	33.65	
	387.93	0.67	15.2	--	3.55	18.75	19.42	46.00	26.58	
	620.73	0.56	19.09	--	4.38	23.47	24.03	46.00	21.97	
	709.97	-0.43	19.65	--	4.86	24.51	24.08	46.00	21.92	
	1187.00	43.99	24.96	34.12	4.17	-4.99	39.00	74.00	35.00	PK
	1680.00	45.17	26.71	34.17	5.15	-2.31	42.86	74.00	31.14	
	2275.00	44.94	28.51	34.2	5.84	0.15	45.09	74.00	28.91	
	4026.00	41.47	32.62	34.2	8.66	7.08	48.55	74.00	25.45	
	7732.00	37.58	35.91	35.45	12.6	13.06	50.64	74.00	23.36	
	10877.00	31.77	38.07	33.74	14.95	19.28	51.05	74.00	22.95	

TEST ENGINEER: DIO YANG

EUT	:	Remote Controller	Temperature :		25℃
Model No.	:	BCYK001	Humidity	:	57%RH
Serial No.	:	E2009070101	Date of Test	:	Jul 06, 2009
Test Mode	:	Transmitting Ch08 2470.999MHz	Position	:	Stand

Polarization	Frequency (MHz)	Read Level dB (μV)	Antenna Factor (dB/m)	Preamp Factor (dB)	Cable Loss (dB)	Factor (dB/m)	Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	30.97	-1.00	17.55	--	0.91	18.46	17.46	40.00	22.54	QP
	114.39	-1.46	11.20	--	1.81	13.01	11.55	43.50	31.95	
	295.78	0.29	12.76	--	3.10	15.86	16.15	46.00	29.85	
	580.96	-0.17	18.62	--	4.19	22.81	22.64	46.00	23.36	
	846.74	-0.61	20.41	--	5.52	25.93	25.32	46.00	20.68	
	959.26	0.06	20.81	--	5.89	26.70	26.76	46.00	19.24	
	1255.00	43.66	25.25	34.12	4.31	-4.56	39.1	74.00	34.90	PK
	1561.00	43.32	26.35	34.16	4.92	-2.89	40.43	74.00	33.57	
	2326.00	47.58	28.68	34.20	5.88	0.36	47.94	74.00	26.06	
	3890.00	43.06	32.39	34.20	8.37	6.56	49.62	74.00	24.38	
	6729.00	39.12	35.08	34.81	11.50	11.77	50.89	74.00	23.11	
	12951.00	29.18	41.07	33.73	16.29	23.63	52.81	74.00	21.19	
Vertical	32.91.00	0.30	16.30	--	0.92	17.22	17.52	40.00	22.48	QP
	123.12	-1.12	11.42	--	1.89	13.31	12.19	43.50	31.31	
	255.04	0.27	12.50	--	2.84	15.34	15.61	46.00	30.39	
	366.59	0.15	14.73	--	3.45	18.18	18.33	46.00	27.67	
	612.00	-0.84	19.01	--	4.30	23.31	22.47	46.00	23.53	
	895.24	0.02	20.43	--	5.67	26.1	26.12	46.00	19.88	
	1238.00	44.39	25.18	34.12	4.28	-4.66	39.73	74.00	34.27	PK
	1935.00	42.21	27.43	34.19	5.54	-1.22	40.99	74.00	33.01	
	3839.00	36.11	32.28	34.20	8.24	6.32	42.43	74.00	31.57	
	7103.00	33.28	35.39	35.07	11.76	12.08	45.36	74.00	28.64	
	10741.00	30.21	37.78	33.69	14.89	18.98	49.19	74.00	24.81	
	13620.00	29.08	40.55	33.37	16.8	23.98	53.06	74.00	20.94	

TEST ENGINEER: DIO YANG

4 FUNDAMENTAL AND HARMONICS EMISSIONS TEST

4.1 Test Equipment

The following test equipments are used during the fundamental and spurious emission test in a semi-anechoic chamber:

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Preamplifier	HP	8449B	3008A00864	May 19, 2009	May 19,2010
2.	Spectrum Analyzer	Agilent	E7405A	MY45106600	May 19, 2009	May 19,2010
3.	Horn Antenna	EMCO	3115	9607-4878	Apr 24, 2009	Apr 24, 2010
4.	Horn Antenna	EMCO	3116	00062643	Apr 24, 2009	Apr 24, 2010

4.2 Block Diagram of Test Setup

Same as Sec 3.2

4.3 Fundamental and Harmonics Emission Limit [FCC Part 15 Subpart C 15.249(a)]

Fundamental Frequency (MHz)	Distance (m)	Field Strength of Fundamental		Field Strength of Harmonics	
		(millivolts/meter)	dB (μV/m)	(microvolts/meter)	dB (μV/m)
2400 ~ 2483.5	3	50	94	500	54

NOTE 1 - Emission Level dB (μV/m) = 20 lg Emission Level (μV/m)
NOTE 2 - Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.
NOTE 3 - The limits shown are based on Average value detector.
NOTE 4 - The limit on peak emission is 20 dB above the maximum permitted average emission limit applicable to the EUT

4.4 Test Configuration

The EUT was installed as show on Sec. 3.2 in fundamental and spurious emission test to meet ANSI C63.4:2003 requirements and operating in a manner that tend to maximize emission level in a normal application.

4.5 Operating Condition of EUT

4.5.1 Setup the EUT as shown in Sec. 3.2.

4.5.2 Turn on the power of all equipment.

4.5.3 Set the EUT on the test mode (Transmitting).

4.5.4 Configured the EUT in three axis: Lying, Side, Stand, and test separately.

4.6 Test Procedures

The EUT was placed on a FRP turntable that is 0.8 meter above ground. The turntable rotated 360 degrees to determine the position of the maximum emission level. The EUT was set 3 meters away from the receiving antenna, which was mounted on an antenna tower. Both horizontal and vertical polarization of the antenna was set on measurement. In order to find the maximum emission, all of the interference cables were manipulated according to FCC PART 15 Subpart C and ANSI C63.4:2003 requirements during fundamental and harmonics emission test.

The bandwidth of the VBW was set at 1MHz and RBW was set at 1MHz for peak emission measurement and 1MHz RBW, 10Hz VBW for average emission measurement.

The frequency range from 2.4 GHz to 25 GHz (Up to 10th harmonics from fundamental frequency) was checked.

The EUT was tested under the following test modes:

Mode	Operation	Channel	Fundamental Frequency	Position
1.	Transmitting	01	2463.9996 MHz	Lying
2.				Side
3.				Stand
4.		05	2467.999 MHz	Lying
5.				Side
6.				Stand
7.		08	2470.999 MHz	Lying
8.				Side
9.				Stand

The test mode (Transmitting) was done on Fundamental and Harmonics Emission test.

4.7 Test Results

<PASS>

The frequency and amplitude of the highest radiated emission relative the limit is reported. All the emissions not reported below are too low against the FCC limit.

Mode	Operation	Channel	Fundamental Frequency	Position	Data Page
1.	Transmitting	01	2463.9996 MHz	Lying	P23
2.				Side	P24
3.				Stand	P25
4.		05	2467.999 MHz	Lying	P26
5.				Side	P27
6.				Stand	P28
7.		08	2470.999 MHz	Lying	P29
8.				Side	P30
9.				Stand	P31

NOTE 1 - All readings are Peak values.
NOTE 2 - The harmonics emission levels which not reported are too low against the official limit.
NOTE 3 – PK Level = Read Level + Factor
AV Level = PK Level – Correction Factor.
NOTE 4 - Factor = Antenna Factor + Cable Loss - Preamp Factor
NOTE 5 - Correction factor is measured as follows:

Duty Cycle x = Tx on / (Tx on + Tx off) = 7.228 / 8.988 = 0.804
Correction Factor = |20log(Duty Cycle)| = 1.89 dB

NOTE 7 – The duty cycle was calculated according to the plot in Appendix I

EUT	:	Remote Controller	Temperature :	25℃
Model No.	:	BCYK001	Humidity :	57% RH
Serial No.	:	E2009070101	Date of Test :	Jul 07, 2009
Test Mode		Transmitting Ch01 2463.9996 MHz	Position :	Lying

Polarization	Frequency (MHz)	Read Level dB (μV)	Factor (dB/m)	Correction factor (dB)	Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	2463.999	92.84	0.87	--	93.71	114	20.29	PK
	4927.998	44.67	8.95	--	53.62	74	20.38	
	7391.997	37.74	12.61	--	50.35	74	23.65	
	9855.996	35.28	17.00	--	52.28	74	21.72	
	2463.999	92.84	0.87	1.89	91.82	94	2.18	AV
	4927.998	44.67	8.95	1.89	51.73	54	2.27	
	7391.997	37.74	12.61	1.89	48.46	54	5.54	
	9855.996	35.28	17.00	1.89	50.39	54	3.61	
Vertical	2463.999	93.44	0.87	--	94.31	114	19.69	PK
	4927.998	44.67	8.95	--	53.62	74	20.38	
	7391.997	37.11	12.61	--	49.72	74	24.28	
	9855.996	35.28	17.00	--	52.28	74	21.72	
	2463.999	93.44	0.87	1.89	92.42	94	1.58	AV
	4927.998	44.67	8.95	1.89	51.73	54	2.27	
	7391.997	37.11	12.61	1.89	47.83	54	6.17	
	9855.996	35.28	17.00	1.89	50.39	54	3.61	

TEST ENGINEER: DIO YANG

EUT	:	Remote Controller	Temperature :	25℃
Model No.	:	BCYK001	Humidity :	57% RH
Serial No.	:	E2009070101	Date of Test :	Jul 07, 2009
Test Mode		Transmitting Ch01 2463.9996 MHz	Position :	Side

Polarization	Frequency (MHz)	Read Level dB (μV)	Factor (dB/m)	Correction factor (dB)	Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	2463.999	91.51	0.87	--	92.38	114	21.62	PK
	4927.998	43.57	8.95	--	52.52	74	21.48	
	7391.997	37.55	12.61	--	50.16	74	23.84	
	9855.996	35.02	17	--	52.02	74	21.98	
	2463.999	91.51	0.87	1.89	90.49	94	3.51	AV
	4927.998	43.57	8.95	1.89	50.63	54	3.37	
	7391.997	37.55	12.61	1.89	48.27	54	5.73	
	9855.996	35.02	17	1.89	50.13	54	3.87	
Vertical	2463.999	93.7	0.87	--	94.57	114	19.43	PK
	4927.998	44.24	8.95	--	53.19	74	20.81	
	7391.997	37.67	12.61	--	50.28	74	23.72	
	9855.996	35.72	17	--	52.72	74	21.28	
	2463.999	93.7	0.87	1.89	92.68	94	1.32	AV
	4927.998	49.24	8.95	1.89	51.3	54	2.7	
	7391.997	42.67	12.61	1.89	48.39	54	5.61	
	9855.996	42.72	17	1.89	50.83	54	3.17	

TEST ENGINEER: DIO YANG

EUT	:	Remote Controller	Temperature :	25℃
Model No.	:	BCYK001	Humidity :	57% RH
Serial No.	:	E2009070101	Date of Test :	Jul 07, 2009
Test Mode		Transmitting Ch01 2463.9996 MHz	Position :	Stand

Polarization	Frequency (MHz)	Read Level dB (μV)	Factor (dB/m)	Correction factor (dB)	Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	2463.999	89.58	0.87	--	90.45	114	23.55	PK
	4927.998	45.42	8.95	--	54.37	74	19.63	
	7391.997	37.81	12.61	--	50.42	74	23.58	
	9855.996	35.73	17	--	52.73	74	21.27	
	2463.999	89.58	0.87	1.89	88.56	94	5.44	AV
	4927.998	45.42	8.95	1.89	52.48	54	1.52	
	7391.997	37.81	12.61	1.89	48.53	54	5.47	
	9855.996	35.73	17	1.89	50.84	54	3.16	
Vertical	2463.999	94.81	0.87	--	95.68	114	18.32	PK
	4927.998	45.53	8.95	--	54.48	74	19.52	
	7391.997	38.99	12.61	--	51.6	74	22.4	
	9855.996	35.51	17	--	52.51	74	21.49	
	2463.999	94.81	0.87	1.89	93.79	94	0.21	AV
	4927.998	45.53	8.95	1.89	52.59	54	1.41	
	7391.997	38.99	12.61	1.89	49.71	54	4.29	
	9855.996	35.51	17	1.89	50.62	54	3.38	

TEST ENGINEER: DIO YANG

EUT :	Remote Controller	Temperature :	25℃
Model No. :	BCYK001	Humidity :	57% RH
Serial No. :	E2009070101	Date of Test :	Jul 07, 2009
Test Mode	Transmitting Ch05 2467.999 MHz	Position :	Lying

Polarization	Frequency (MHz)	Read Level dB (μV)	Factor (dB/m)	Correction factor (dB)	Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	2467.999	92.78	0.89	--	93.67	114	20.33	PK
	4935.998	43.24	8.95	--	52.19	74	21.81	
	7403.997	37.35	12.66	--	50.01	74	23.99	
	9871.996	35.15	17.02	--	52.17	74	21.83	
	2467.999	92.78	0.89	1.89	91.78	94	2.22	AV
	4935.998	43.24	8.95	1.89	50.3	54	3.7	
	7403.997	42.35	12.66	1.89	48.12	54	5.88	
	9871.996	42.15	17.02	1.89	50.28	54	3.72	
Vertical	2467.999	93.89	0.89	--	94.78	114	19.22	PK
	4935.998	45.17	8.95	--	54.12	74	19.88	
	7403.997	37.76	12.66	--	50.42	74	23.58	
	9871.996	35.59	17.02	--	52.61	74	21.39	
	2467.999	93.89	0.89	1.89	92.89	94	1.11	AV
	4935.998	45.17	8.95	1.89	52.23	54	1.77	
	7403.997	37.76	12.66	1.89	48.53	54	5.47	
	9871.996	35.59	17.02	1.89	50.72	54	3.28	

TEST ENGINEER: DIO YANG

EUT	:	Remote Controller	Temperature :	25℃
Model No.	:	BCYK001	Humidity :	57% RH
Serial No.	:	E2009070101	Date of Test :	Jul 07, 2009
Test Mode		Transmitting Ch05 2467.999 MHz	Position :	Side

Polarization	Frequency (MHz)	Read Level dB (μV)	Factor (dB/m)	Correction factor (dB)	Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	2467.999	90.86	0.89	--	91.75	114	22.25	PK
	4935.998	44.42	8.95	--	53.37	74	20.63	
	7403.997	42.06	12.66	--	54.72	74	19.28	
	9871.996	35.18	17.02	--	52.2	74	21.8	
	2467.999	90.86	0.89	1.89	89.86	94	4.14	AV
	4935.998	44.42	8.95	1.89	51.48	54	2.52	
	7403.997	42.06	12.66	1.89	52.83	54	1.17	
	9871.996	35.18	17.02	1.89	50.31	54	3.69	
Vertical	2467.999	93.81	0.89	--	94.7	114	19.3	PK
	4935.998	43.56	8.95	--	52.51	74	21.49	
	7403.997	38.87	12.66	--	51.53	74	22.47	
	9871.996	35.36	17.02	--	52.38	74	21.62	
	2467.999	93.81	0.89	1.89	92.81	94	1.19	AV
	4935.998	43.56	8.95	1.89	50.62	54	3.38	
	7403.997	38.87	12.66	1.89	49.64	54	4.36	
	9871.996	35.36	17.02	1.89	50.49	54	3.51	

TEST ENGINEER: DIO YANG

EUT	:	Remote Controller	Temperature :	25℃
Model No.	:	BCYK001	Humidity :	57% RH
Serial No.	:	E2009070101	Date of Test :	Jul 07, 2009
Test Mode		Transmitting Ch05 2467.999 MHz	Position :	Stand

Polarization	Frequency (MHz)	Read Level dB (μV)	Factor (dB/m)	Correction factor (dB)	Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	2467.999	93.54	0.89	--	94.43	114	19.57	PK
	4935.998	43.72	8.95	--	52.67	74	21.33	
	7403.997	37.64	12.66	--	50.3	74	23.7	
	9871.996	35.87	17.02	--	52.89	74	21.11	
	2467.999	93.54	0.89	1.89	92.54	94	1.46	AV
	4935.998	43.72	8.95	1.89	50.78	54	3.22	
	7403.997	37.64	12.66	1.89	48.41	54	5.59	
	9871.996	35.87	17.02	1.89	51	54	3	
Vertical	2467.999	93.77	0.89	--	94.66	114	19.34	PK
	4935.998	44.77	8.95	--	53.72	74	20.28	
	7403.997	37.32	12.66	--	49.98	74	24.02	
	9871.996	35.08	17.02	--	52.1	74	21.9	
	2467.999	93.77	0.89	1.89	92.77	94	1.23	AV
	4935.998	44.77	8.95	1.89	51.83	54	2.17	
	7403.997	37.32	12.66	1.89	48.09	54	5.91	
	9871.996	35.08	17.02	1.89	50.21	54	3.79	

TEST ENGINEER: DIO YANG

EUT	:	Remote Controller	Temperature :	25℃
Model No.	:	BCYK001	Humidity :	57% RH
Serial No.	:	E2009070101	Date of Test :	Jul 07, 2009
Test Mode		Transmitting Ch08 2470.999 MHz	Position :	Lying

Polarization	Frequency (MHz)	Read Level dB (μV)	Factor (dB/m)	Correction factor (dB)	Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	2470.999	92.93	0.89	--	93.82	114	20.18	PK
	4941.998	44.48	8.96	--	53.44	74	20.56	
	7412.997	38.73	12.64	--	51.37	74	22.63	
	9883.996	35.68	17.08	--	52.76	74	21.24	
	2470.999	92.93	0.89	1.89	91.93	94	2.07	AV
	4941.998	44.48	8.96	1.89	51.55	54	2.45	
	7412.997	38.73	12.64	1.89	49.48	54	4.52	
	9883.996	35.68	17.08	1.89	50.87	54	3.13	
Vertical	2470.999	93.27	0.89	--	94.16	114	19.84	PK
	4941.998	43.07	8.96	--	52.03	74	21.97	
	7412.997	37.36	12.64	--	50	74	24	
	9883.996	35.63	17.08	--	52.71	74	21.29	
	2470.999	93.27	0.89	1.89	92.27	94	1.73	AV
	4941.998	43.07	8.96	1.89	50.14	54	3.86	
	7412.997	37.36	12.64	1.89	48.11	54	5.89	
	9883.996	35.63	17.08	1.89	50.82	54	3.18	

TEST ENGINEER: DIO YANG

EUT	:	Remote Controller	Temperature :	25℃
Model No.	:	BCYK001	Humidity :	57% RH
Serial No.	:	E2009070101	Date of Test :	Jul 07, 2009
Test Mode		Transmitting Ch08 2470.999 MHz	Position :	Side

Polarization	Frequency (MHz)	Read Level dB (μV)	Factor (dB/m)	Correction factor (dB)	Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	2470.999	92.3	0.89	--	93.19	114	20.81	PK
	4941.998	44.18	8.96	--	53.14	74	20.86	
	7412.997	38.56	12.64	--	51.2	74	22.8	
	9883.996	35.75	17.08	--	52.83	74	21.17	
	2470.999	92.3	0.89	1.89	91.3	94	2.7	AV
	4941.998	44.18	8.96	1.89	51.25	54	2.75	
	7412.997	38.56	12.64	1.89	49.31	54	4.69	
	9883.996	35.75	17.08	1.89	50.94	54	3.06	
Vertical	2470.999	93.7	0.89	--	94.59	114	19.41	PK
	4941.998	44.16	8.96	--	53.12	74	20.88	
	7412.997	37.28	12.64	--	49.92	74	24.08	
	9883.996	35.55	17.08	--	52.63	74	21.37	
	2470.999	93.7	0.89	1.89	92.7	94	1.3	AV
	4941.998	44.16	8.96	1.89	51.23	54	2.77	
	7412.997	37.28	12.64	1.89	48.03	54	5.97	
	9883.996	35.55	17.08	1.89	50.74	54	3.26	

TEST ENGINEER: DIO YANG

EUT	:	Remote Controller	Temperature :	25℃
Model No.	:	BCYK001	Humidity :	57% RH
Serial No.	:	E2009070101	Date of Test :	Jul 07, 2009
Test Mode		Transmitting Ch08 2470.999 MHz	Position :	Stand

Polarization	Frequency (MHz)	Read Level dB (μV)	Factor (dB/m)	Correction factor (dB)	Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	2470.999	93.84	0.89	--	94.73	114	19.27	PK
	4941.998	43.96	8.96	--	52.92	74	21.08	
	7412.997	37.53	12.64	--	50.17	74	23.83	
	9883.996	35.36	17.08	--	52.44	74	21.56	
	2470.999	93.84	0.89	1.89	92.84	94	1.16	AV
	4941.998	43.96	8.96	1.89	51.03	54	2.97	
	7412.997	37.53	12.64	1.89	48.28	54	5.72	
	9883.996	35.36	17.08	1.89	50.55	54	3.45	
Vertical	2470.999	94.7	0.89	--	95.59	114	18.41	PK
	4941.998	44.72	8.96	--	53.68	74	20.32	
	7412.997	37.19	12.64	--	49.83	74	24.17	
	9883.996	35.9	17.08	--	52.98	74	21.02	
	2470.999	94.7	0.89	1.89	93.7	94	0.3	AV
	4941.998	44.72	8.96	1.89	51.79	54	2.21	
	7412.997	37.19	12.64	1.89	47.94	54	6.06	
	9883.996	35.9	17.08	1.89	51.09	54	2.91	

TEST ENGINEER: DIO YANG

5 BANDWIDTH MEASUREMENT

5.1 Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	E7405A	MY45106600	May 19, 2009	May 19,2010
2.	Horn Antenna	EMCO	3115	9607-4878	Apr 24, 2009	Apr 24, 2010
3.	Preamplifier	HP	8449B	3008A00864	May 19, 2009	May 19,2010
4.	Software	Audix	E3	SET00200 9912M295-2	--	--

5.2 Bandwidth Limit [FCC Part 15 Subpart C 15.231(c)]

Bandwidth is determined at the point 20dB down from the modulated carrier.

The 20dB bandwidth of the emission shall be contained within the frequency band designated in the rule section under which the equipment is operated.

5.3 Test Results

<PASS>

Channel	Fundamental Frequency	20dB Bandwidth $F_{end} - F_{start}$	Bandwidth Limit (F_{center} * 0.5%)	Result
01	2463.9996 MHz	1.292 MHz	12.32 MHz	Pass
05	2467.999 MHz	1.272 MHz	12.24 MHz	Pass
08	2470.999 MHz	1.288 MHz	12.35 MHz	Pass

All the test results are attached in next pages.

Channel	Fundamental Frequency	Pages
01	2463.9996 MHz	P33
05	2467.999 MHz	P34
08	2470.999 MHz	P35

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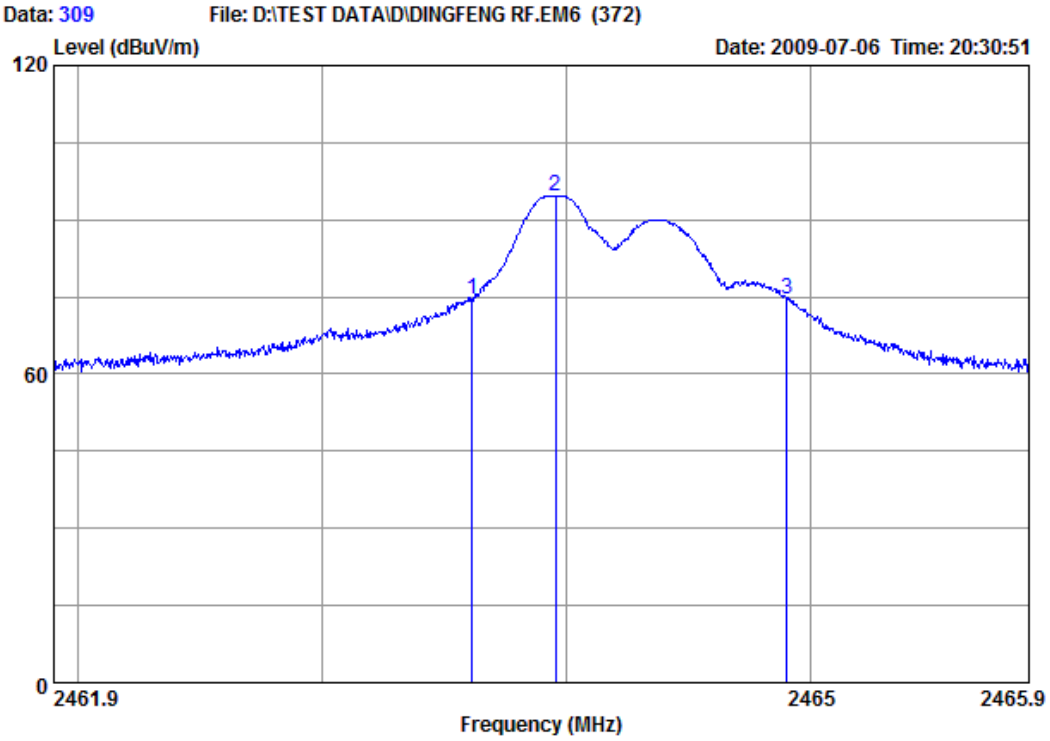
audixaci@audix.com



Site no : Audix ACI (3m Chamber)
Env. / Ins. : 24'C 55% / E7405A
EUT : Remote Controller
M/N : BCYK001
S/N : E2009070101
Power Rating: DC 4.5V
Test Mode : CH1 2463.999MHz

Data no. : 309
Engineer : Dio

	Freq. (MHz)	Reading (dBuV)	Emission Level (dBuV/m)
1	2463.616	73.70	74.57
2	2463.956	93.82	94.69
3	2464.908	73.72	74.59

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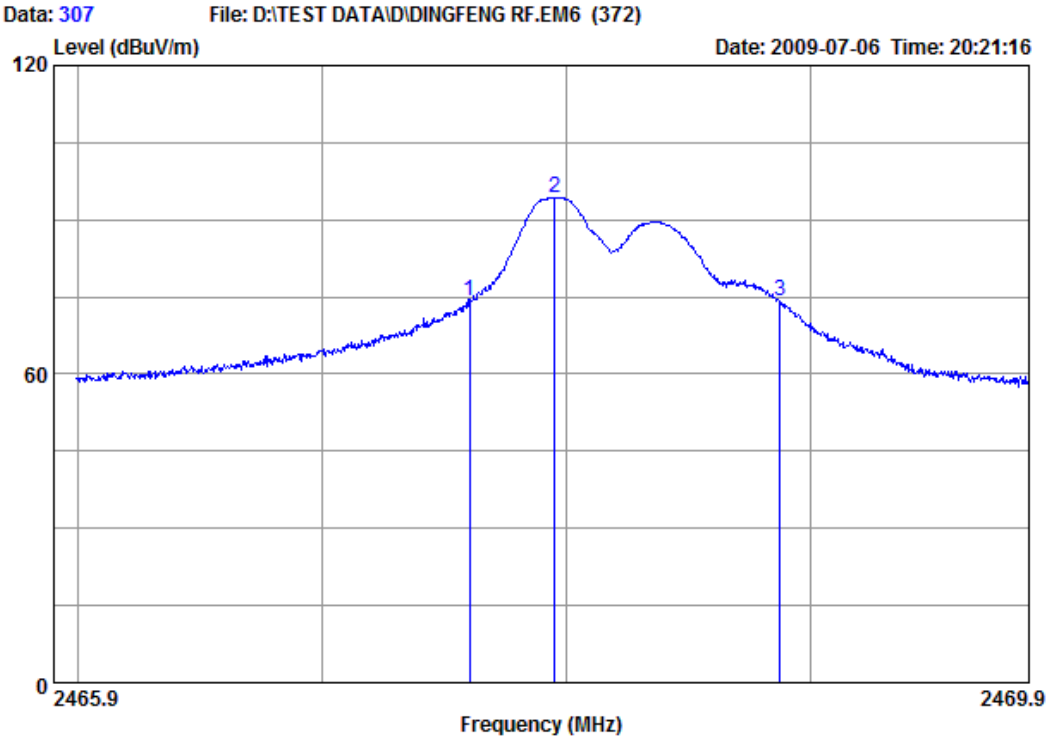

Site no : Audix ACI (3m Chamber)
Env. / Ins. : 24'C 55% / E7405A
EUT : Remote Controller
M/N : BCYK001
S/N : E2009070101
Power Rating: DC 4.5V
Test Mode : CH5 2467.999MHz

Data no. : 307
Engineer : Dio

	Freq. (MHz)	Reading (dBuV)	Emission Level (dBuV/m)
1	2467.605	73.37	74.26
2	2467.953	93.36	94.25
3	2468.877	73.29	74.18

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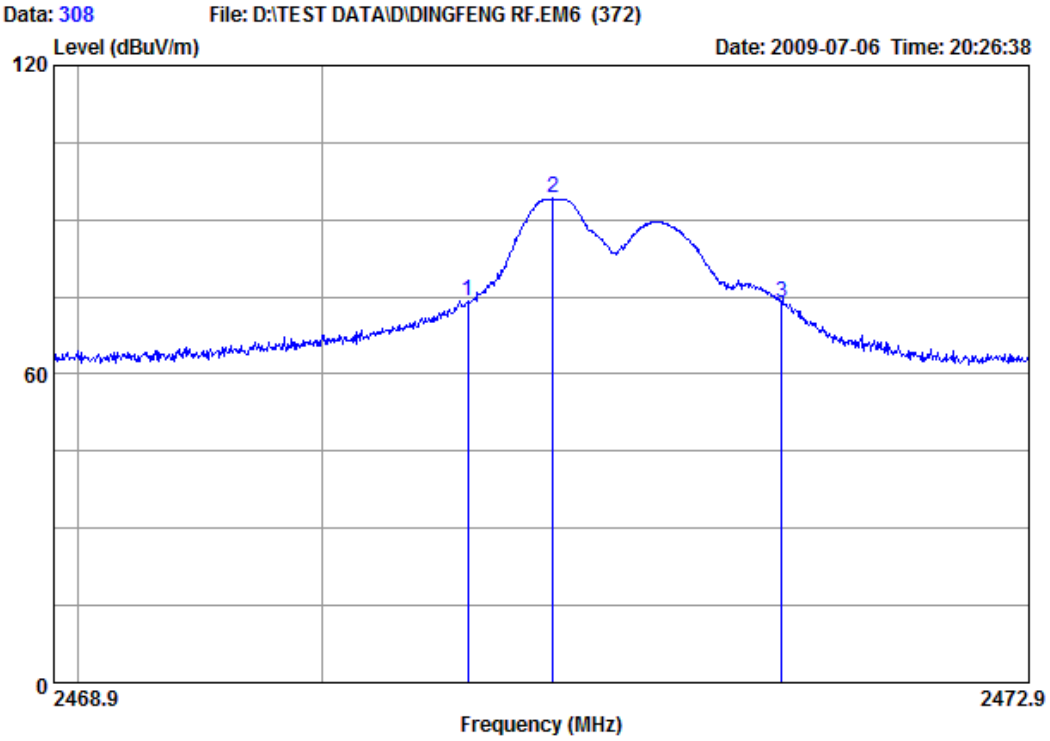

Site no : Audix ACI (3m Chamber)
Env. / Ins. : 24'C 55% / E7405A
EUT : Remote Controller
M/N : BCYK001
S/N : E2009070101
Power Rating: DC 4.5V
Test Mode : CH8 2470.999MHz

Data no. : 308
Engineer : Dio

	Freq. (MHz)	Reading (dBuV)	Emission Level (dBuV/m)
1	2470.596	73.23	74.12
2	2470.948	93.22	94.11
3	2471.884	73.07	73.96

6 BAND-EDGE MEASUREMENT

6.1 Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	E7405A	MY45106600	May 19, 2009	May 19,2010
2.	Horn Antenna	EMCO	3115	9607-4878	Apr 24, 2009	Apr 24, 2010
3.	Preamplifier	HP	8449B	3008A00864	May 19, 2009	May 19,2010

6.2 Band-Edge Limit [FCC Part 15 Subpart C 15.249(d)]

Emissions radiated outside of the specified frequency bands, except for harmonic, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209 whichever is the lesser attenuation.

For peak value, The RBW & VBW of Spectrum Analyzer Agilent E7405A was set at 1MHz. For average value, set RBW = 1MHz, VBW = 10 Hz.

6.3 Test Results

<PASS>

All the test results are attached in next pages.

Channel	Fundamental Frequency	Pages
01	2463.9996 MHz	P37-40
08	2470.999 MHz	P41-44

Audix Technology (Shanghai) Co., Ltd.
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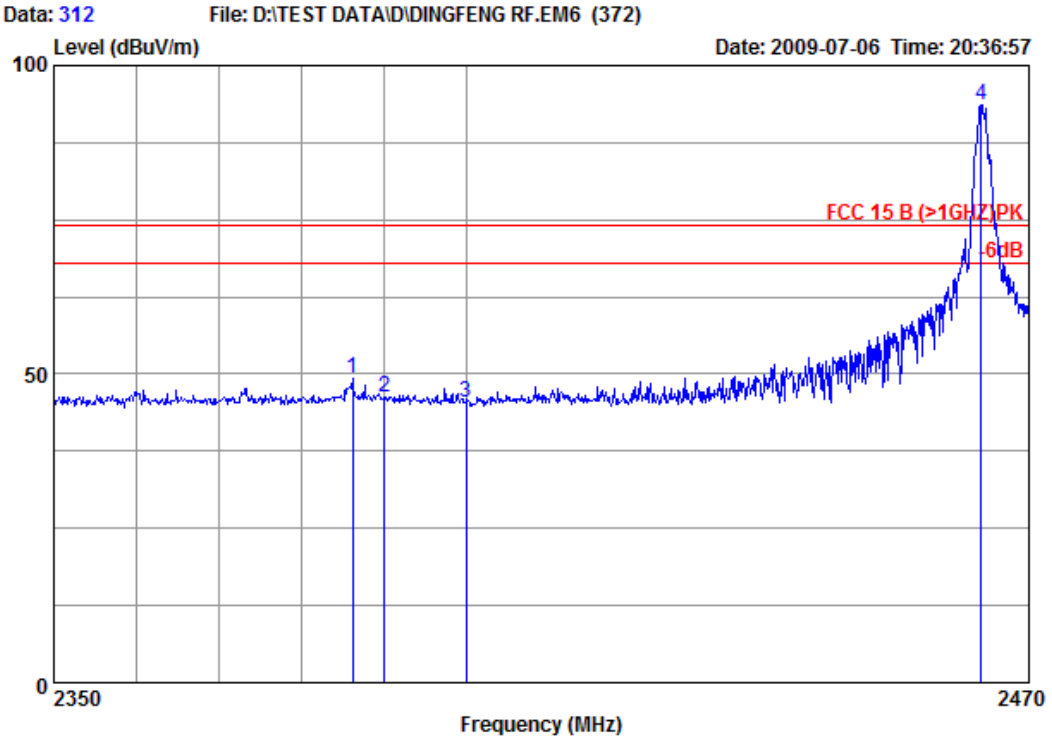

Site no : Audix ACI (3m Chamber) Data no. : 312
Dis. / Ant. : 3m /EMCO3115
Limit : FCC 15 B (>1GHZ)PK Ant. pol. : HORIZONTAL
Env. / Ins. : 24'C 55% / E7405A Engineer : Dio
EUT : Remote Controller
M/N : BCYK001
S/N : E2009070101
Power Rating: DC 4.5V
Test Mode : CH01 2463.9996MHz

	Freq. (MHz)	Antenna Factor (dB/m)	Preamp Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2386.120	28.86	34.20	5.93	48.67	49.26	74.00	24.74	Peak
2	2390.000	28.86	34.20	5.93	45.53	46.12	74.00	27.88	Peak
3	2400.000	28.91	34.20	5.94	44.67	45.32	74.00	28.68	Peak
4	2464.000	29.09	34.20	5.98	92.80	93.67	74.00	-19.67	Peak

Remarks: Emission Level= Antenna Factor + Cable Loss - Preamp Factor + Reading.

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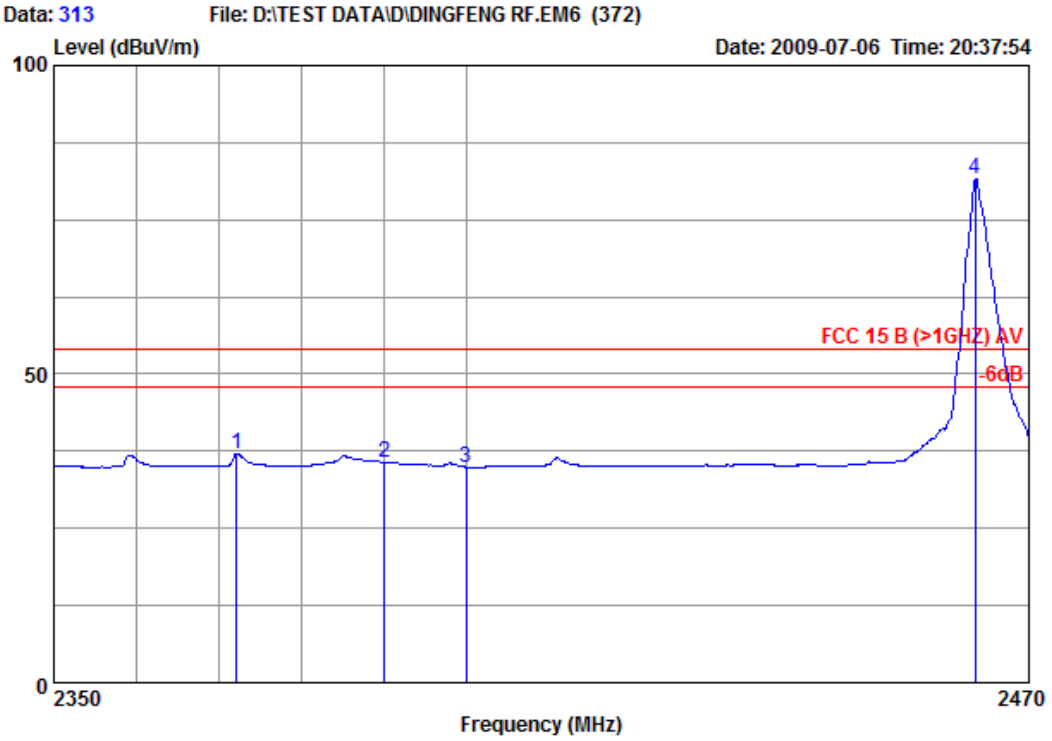

Site no : Audix ACI (3m Chamber) Data no. : 313
Dis. / Ant. : 3m /EMCO3115
Limit : FCC 15 B (>1GHZ) AV Ant. pol. : HORIZONTAL
Env. / Ins. : 24'C 55% / E7405A Engineer : Dio
EUT : Remote Controller
M/N : BCYK001
S/N : E2009070101
Power Rating: DC 4.5V
Test Mode : CH01 2463.9996MHz

	Freq. (MHz)	Antenna Factor (dB/m)	Preamp Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2372.080	28.82	34.20	5.92	36.62	37.16	54.00	16.84	Average
2	2390.000	28.86	34.20	5.93	35.16	35.75	54.00	18.25	Average
3	2400.000	28.91	34.20	5.94	34.29	34.94	54.00	19.06	Average
4	2463.280	29.09	34.20	5.98	80.73	81.60	54.00	-27.60	Average

Remarks: Emission Level= Antenna Factor + Cable Loss - Preamp Factor + Reading.

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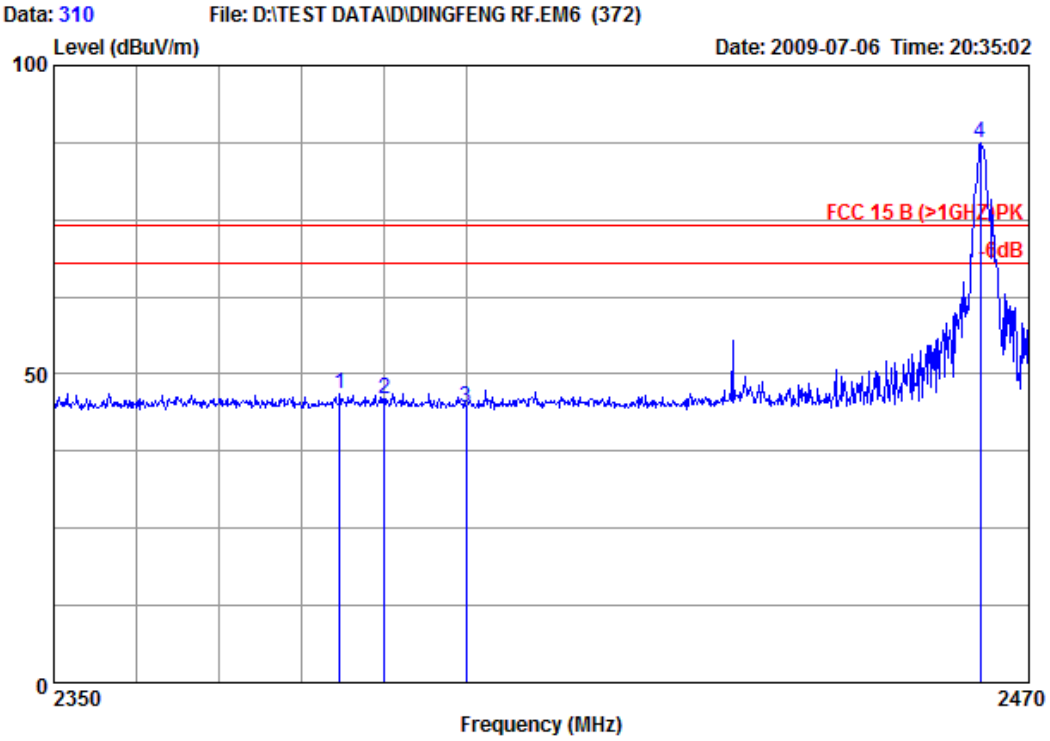

Site no : Audix ACI (3m Chamber) Data no. : 310
Dis. / Ant. : 3m /EMCO3115
Limit : FCC 15 B (>1GHZ)PK Ant. pol. : VERTICAL
Env. / Ins. : 24'C 55% / E7405A Engineer : Dio
EUT : Remote Controller
M/N : BCYK001
S/N : E2009070101
Power Rating: DC 4.5V
Test Mode : CH01 2463.9996MHz

	Freq. (MHz)	Antenna Factor (dB/m)	Preamp Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2384.560	28.86	34.20	5.93	46.29	46.88	74.00	27.12	Peak
2	2390.000	28.86	34.20	5.93	45.43	46.02	74.00	27.98	Peak
3	2400.000	28.91	34.20	5.94	43.86	44.51	74.00	29.49	Peak
4	2463.880	29.09	34.20	5.98	86.49	87.36	74.00	-13.36	Peak

Remarks: Emission Level= Antenna Factor + Cable Loss - Preamp Factor + Reading.

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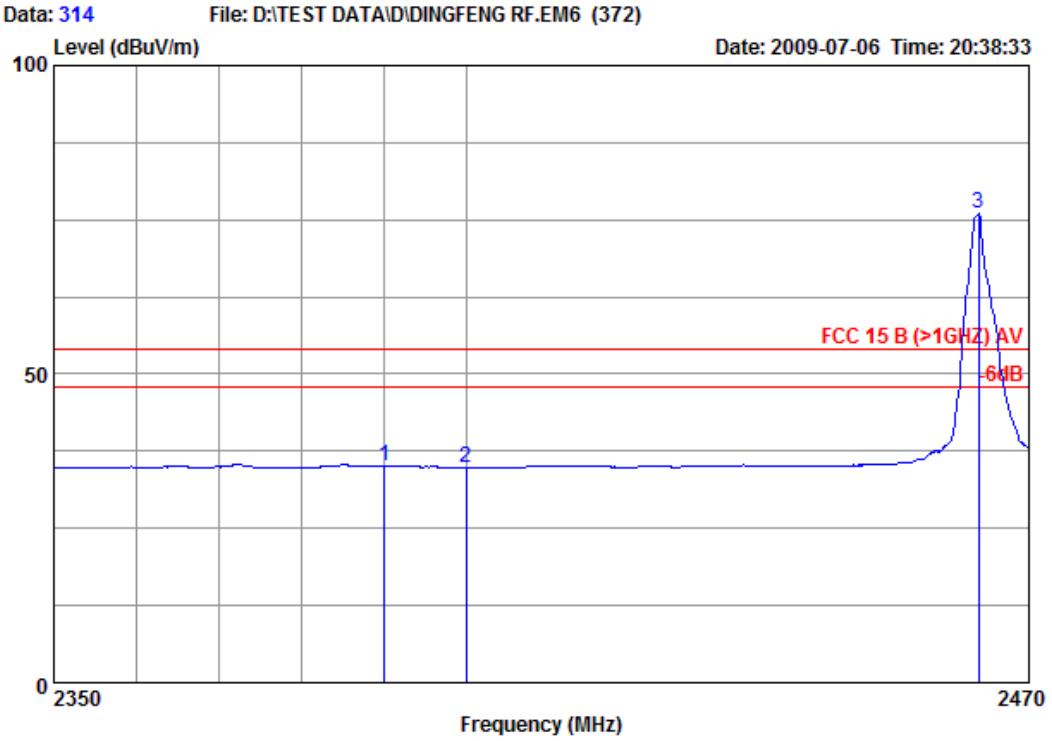

Site no : Audix ACI (3m Chamber) Data no. : 314
Dis. / Ant. : 3m /EMCO3115
Limit : FCC 15 B (>1GHZ) AV Ant. pol. : VERTICAL
Env. / Ins. : 24'C 55% / E7405A Engineer : Dio
EUT : Remote Controller
M/N : BCYK001
S/N : E2009070101
Power Rating: DC 4.5V
Test Mode : CH01 2463.9996MHz

	Freq. (MHz)	Antenna Factor (dB/m)	Preamp Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.86	34.20	5.93	34.58	35.17	54.00	18.83	Average
2	2400.000	28.91	34.20	5.94	34.09	34.74	54.00	19.26	Average
3	2463.640	29.09	34.20	5.98	75.06	75.93	54.00	-21.93	Average

Remarks: Emission Level= Antenna Factor + Cable Loss - Preamp Factor + Reading.

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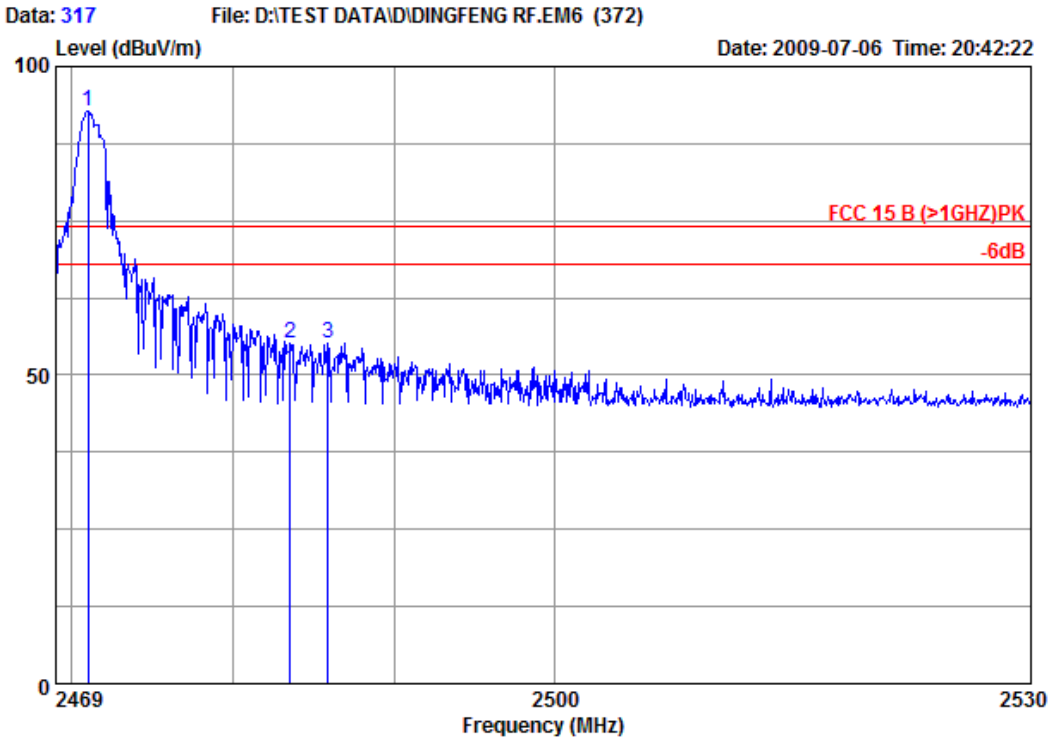

Site no : Audix ACI (3m Chamber)
Dis. / Ant. : 3m /EMCO3115
Limit : FCC 15 B (>1GHZ)PK
Env. / Ins. : 24'C 55% / E7405A
EUT : Remote Controller
M/N : BCYK001
S/N : E2009070101
Power Rating: DC 4.5V
Test Mode : CH08 2470.999MHz

Data no. : 317
Ant. pol. : HORIZONTAL
Engineer : Dio

	Freq. (MHz)	Antenna Factor (dB/m)	Preamp Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2471.000	29.11	34.20	5.98	91.81	92.70	74.00	-18.70	Peak
2	2483.500	29.15	34.20	5.99	54.23	55.17	74.00	18.83	Peak
3	2485.897	29.15	34.20	5.99	54.27	55.21	74.00	18.79	Peak

Remarks: Emission Level= Antenna Factor + Cable Loss - Preamp Factor + Reading.

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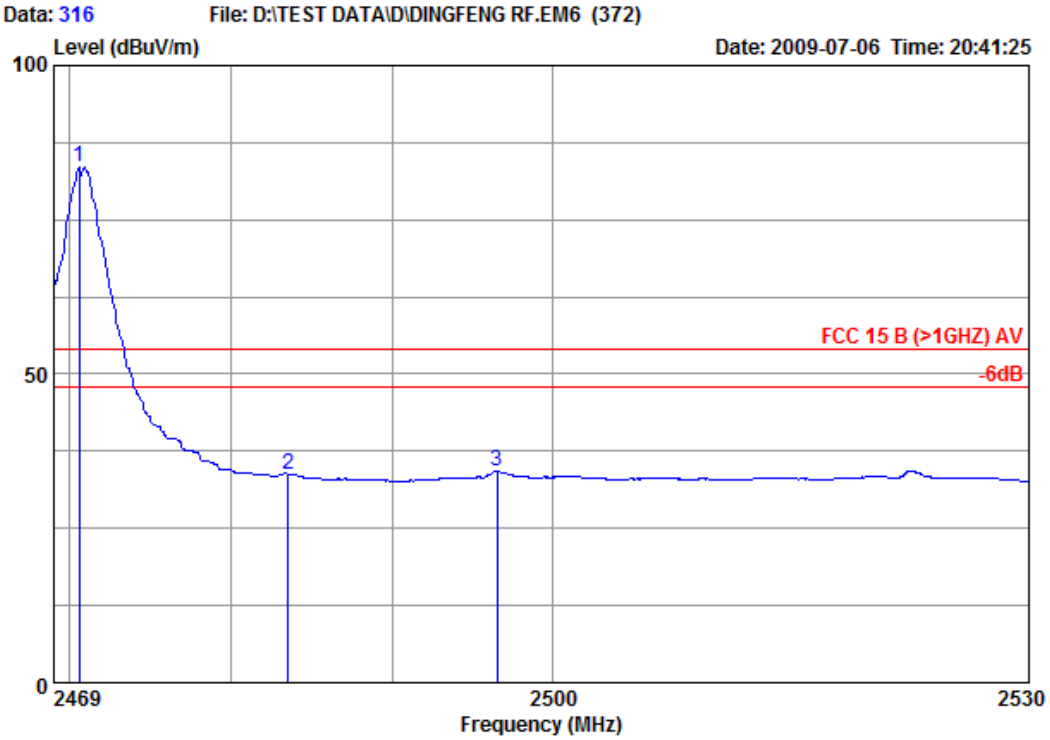

Site no : Audix ACI (3m Chamber) Data no. : 316
Dis. / Ant. : 3m /EMCO3115
Limit : FCC 15 B (>1GHZ) AV Ant. pol. : HORIZONTAL
Env. / Ins. : 24'C 55% / E7405A Engineer : Dio
EUT : Remote Controller
M/N : BCYK001
S/N : E2009070101
Power Rating: DC 4.5V
Test Mode : CH08 2470.999MHz

	Freq. (MHz)	Antenna Factor (dB/m)	Preamp Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2470.586	29.11	34.20	5.98	82.75	83.64	54.00	-29.64	Average
2	2483.500	29.15	34.20	5.99	32.80	33.74	54.00	20.26	Average
3	2496.572	29.19	34.20	6.00	33.40	34.39	54.00	19.61	Average

Remarks: Emission Level= Antenna Factor + Cable Loss - Preamp Factor + Reading.

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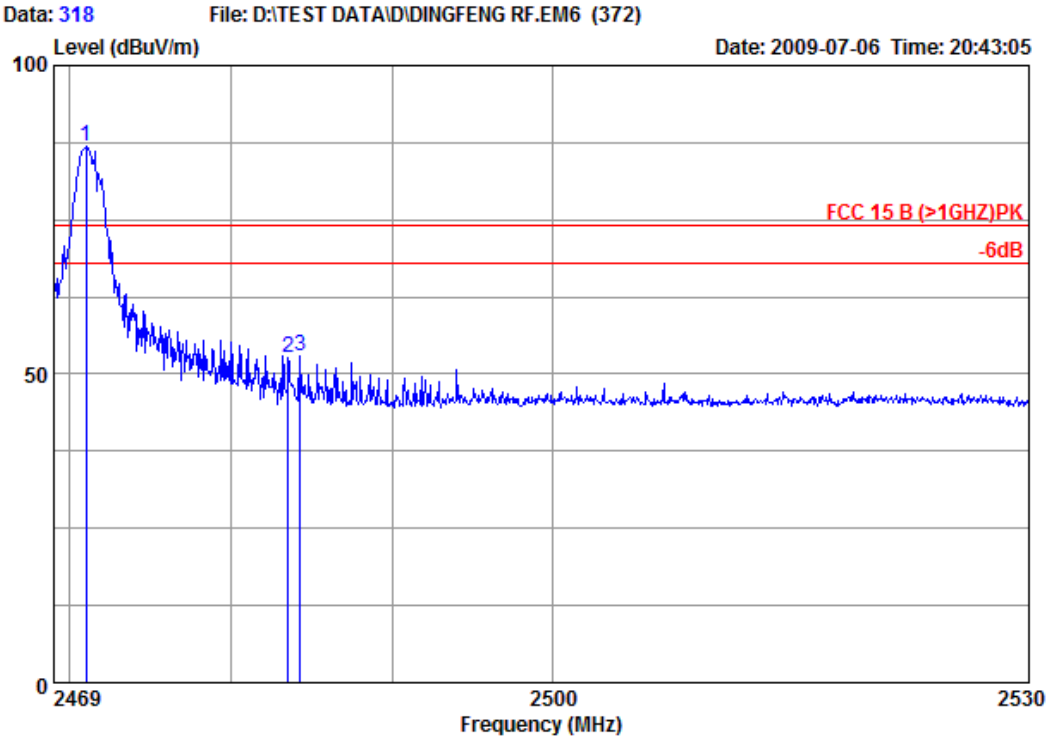

Site no : Audix ACI (3m Chamber) Data no. : 318
Dis. / Ant. : 3m /EMCO3115
Limit : FCC 15 B (>1GHZ)PK Ant. pol. : VERTICAL
Env. / Ins. : 24'C 55% / E7405A Engineer : Dio
EUT : Remote Controller
M/N : BCYK001
S/N : E2009070101
Power Rating: DC 4.5V
Test Mode : CH08 2470.999MHz

	Freq. (MHz)	Antenna Factor (dB/m)	Preamp Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2471.000	29.11	34.20	5.98	86.03	86.92	74.00	-12.92	Peak
2	2483.500	29.15	34.20	5.99	51.81	52.75	74.00	21.25	Peak
3	2484.250	29.15	34.20	5.99	51.96	52.90	74.00	21.10	Peak

Remarks: Emission Level= Antenna Factor + Cable Loss - Preamp Factor + Reading.

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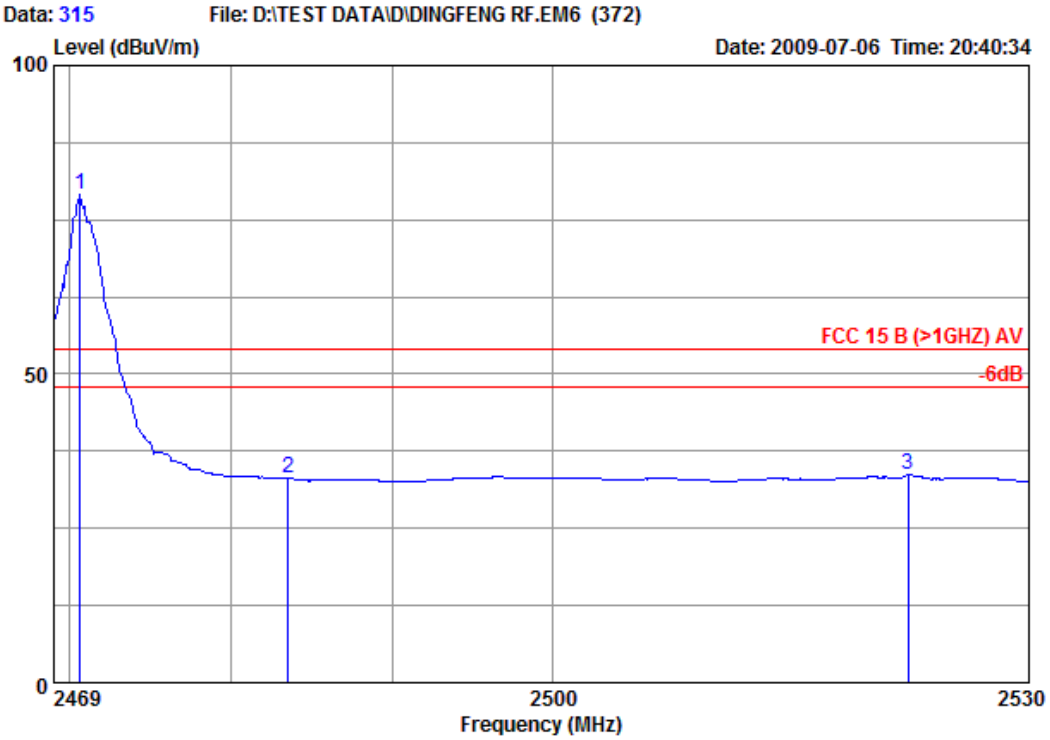


Site no : Audix ACI (3m Chamber) Data no. : 315
Dis. / Ant. : 3m /EMCO3115
Limit : FCC 15 B (>1GHZ) AV Ant. pol. : VERTICAL
Env. / Ins. : 24'C 55% / E7405A Engineer : Dio
EUT : Remote Controller
M/N : BCYK001
S/N : E2009070101
Power Rating: DC 4.5V
Test Mode : CH08 2470.999MHz

	Freq. (MHz)	Antenna Factor (dB/m)	Preamp Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2470.647	29.11	34.20	5.98	78.15	79.04	54.00	-25.04	Average
2	2483.500	29.15	34.20	5.99	32.29	33.23	54.00	20.77	Average
3	2522.375	29.26	34.20	6.04	32.68	33.78	54.00	20.22	Average

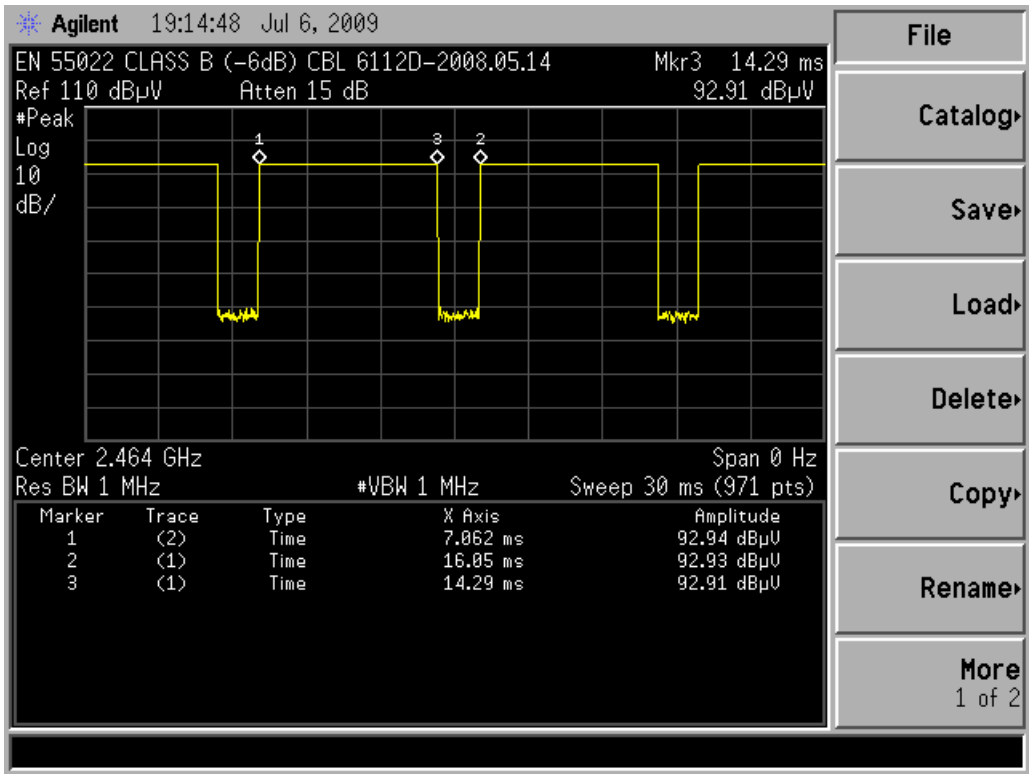
Remarks: Emission Level= Antenna Factor + Cable Loss - Preamp Factor + Reading.

7 DEVIATION TO TEST SPECIFICATIONS

None.

APPENDIX I

PLOT OF DUTY CYCLE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EN 55022 CLASS B (-6dB) CBL 6112D-2008.05.14
Mkr3 14.29 ms
Ref 110 dBµV
Atten 15 dB
92.91 dBµV
#Peak
Log
10
dB/
Center 2.464 GHz
Span 0 Hz
Res BW 1 MHz
#VBW 1 MHz
Sweep 30 ms (971 pts)
Marker Trace Type X Axis Amplitude
1 (2) Time 7.062 ms 92.94 dBµV
2 (1) Time 16.05 ms 92.93 dBµV
3 (1) Time 14.29 ms 92.91 dBµV
File
Catalog
Save
Load
Delete
Copy
Rename
More
1 of 2

DUTY CYCLE