FCC TEST REPORT

for

Shenzhen Paoluy Silicone Technology Co., Ltd.

Bluetooth Keyboard Model No.: BKB78B

Prepared for : Shenzhen Paoluy Silicone Technology Co., Ltd.

Address : No.31, Furong Road, Gushu Village, Xixiang Town, Bao'an

District, Shenzhen

Prepared By : Anbotek Compliance Laboratory Limited

Address : 1/F, 1 /Building, SEC Industrial Park, No. 4 Qianhai Road,

Nanshan District, Shenzhen, 518054, China

Tel: (86) 755-26066544 Fax: (86) 755-26014772

Report Number : 201206738F

Date of Test : Jun.14~26, 2012

Date of Report : Jun.26, 2012

TABLE OF CONTENTS

	0000	• • • •		10
	— • • • • • • • • • • • • • • • • • • •		111	м
-	escri	11/1		и.

Page

Test Report

1.	GENERAL INFORMATION	4
	1.1.Description of Device (EUT)	
	1.2.Auxiliary Equipment Used during Test	
	1.3.Description of Test Facility	
	1.4.Measurement Uncertainty	6
2.	MEASURING DEVICE AND TEST EQUIPMENT	7
3.	TEST PROCEDURE	8
4.	CONDUCTED LIMITS	9
	4.1. Block Diagram of Test Setup	9
	4.2. Power Line Conducted Emission Measurement Limits (15.207)	
	4.3. Configuration of EUT on Measurement	
	4.4. Operating Condition of EUT	
	4.5. Test Procedure	
	4.6. Power Line Conducted Emission Measurement Results	10
5.	RADIATION INTERFERENCE	. 13
	5.1. Requirements (15.249, 15.209):	13
	5.2 Test Procedure	
	5.3 Test Results	13
6.	OCCUPIED BANDWIDTH	. 17
	6.1. Requirements (15.249):	17
	6.2. Test Procedure	
	6.3. Test Configuration:	17
	6.4. Test Results	
7.	PHOTOGRAPH	. 20
	7.1. Photo of Power Line Conducted Emission Measurement	
	7.2 Photo of Radiation Emission Test	20

APPENDIX I (ExternalPhotos) (1 Page) APPENDIX II (InternalPhotos) (2 Pages)

TEST REPORT

Applicant : Shenzhen Paoluy Silicone Technology Co., Ltd.

Manufacturer : Shenzhen Paoluy Silicone Technology Co., Ltd.

EUT : Bluetooth Keyboard

Model No. : BKB78B

Serial No. : N/A

Rating : DC 3.7-4.2V, 5-7mA

Trade Mark : N/A

Measurement Procedure Used:

FCC Part15 Subpart C, Paragraph 15.207, 15.249 & 15.209

The device described above is tested by Anbotek Compliance Laboratory Limited to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The measurement results are contained in this test report and Anbotek Compliance Laboratory Limited is assumed full of responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT (Equipment Under Test) is technically compliant with the FCC Part 15 Subpart C requirements.

This report applies to above tested sample only and shall not be reproduced in part without written approval of Anbotek Compliance Laboratory Limited

Date of Test:	Jun. 14~26, 2012			
Prepared by :	Andy chen			
	(Tested Engineer / Andy Chen)			
Reviewer :	Jery Du			
	(Project Manager / Jerry Du)			
	70 m. Chen			
Approved & Authorized Signer:				
_	(Manager / Tom Chen)			

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

EUT : Bluetooth Keyboard

Model Number : BKB78B

Test Power Supply: DC 3.7V

Frequency: 2402~2480MHz

Antenna : Printed Antenna:1.87dBi

Specification

Applicant : Shenzhen Paoluy Silicone Technology Co., Ltd.

Address : No.31, Furong Road, Gushu Village, Xixiang Town, Bao'an District,

Shenzhen

Manufacturer : Shenzhen Paoluy Silicone Technology Co., Ltd.

Address : No.31, Furong Road, Gushu Village, Xixiang Town, Bao'an District,

Shenzhen

Date of receiver : Jun.14, 2012 Date of Test : Jun.14~26, 2012

1.2. Auxiliary Equipment Used during Test

PC : Manufacturer: DELL

M/N: OPTIPLEX 380

S/N: 1J63X2X CE, FCC: DOC

MONITOR : Manufacturer: DELL

M/N: E170Sc

S/N: CN-00V539-64180-055-0UPS

CE, FCC: DOC

MOUSE : Manufacturer: DELL

M/N: M-UARDEL7

S/N: N/A

CE, FCC: DOC

Cable: 1m, unshielded

Printer : Manufacturer:Brother

M/N: MFC-3360C

S/N: N/A

CE, FCC:DOC

Power Line : Non-Shielded, 1.5m

VGA Cable : Non-Shielded, 1.5m

USB Cable : Non-Shielded, 0.5m

1.3. Description of Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

CNAS - LAB Code: L3503

Anbotek Compliance Laboratory Limited., Laboratory has been assessed and in compliance with CNAS/CL01: 2006 accreditation criteria for testing laboratories (identical to ISO/IEC 17025:2005 General Requirements) for the Competence of Testing Laboratories.

FCC-Registration No.: 752021

Anbotek Compliance Laboratory Limited, EMC Laboratory has been registed and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 752021, August 20, 2010.

IC-Registration No.: 8058A-1

Anbotek Compliance Laboratory Limited., EMC Laboratory has been registered and fully described in a report filed with the (IC) Industry Canada. The acceptance letter from the IC is maintained in our files. Registration 8058A-1, August 30, 2010.

Test Location

All Emissions tests were performed at

Anbotek Compliance Laboratory Limited. at 1/F, 1 /Building, SEC Industrial Park, No. 4 Qianhai Road, Nanshan District, Shenzhen, 518054, China

1.4. Measurement Uncertainty

Radiation Uncertainty : Ur = 4.3 dB

Conduction Uncertainty : Uc = 3.4dB

2. MEASURING DEVICE AND TEST EQUIPMENT

The following test equipments were used during test:

Equipment	Manufacturer	Model #	Serial #	Data of Cal.	Due Data
EMI Test Receiver	Rohde & Schwarz	ESCI	100119	Apr. 12, 2012	Apr. 12, 2013
EMI Test Receiver	Rohde & Schwarz	ESIB26	100249	Apr. 12, 2012	Apr. 12, 2013
EMI Test Software	SHURPLE	ESK1	N/A	N/A	N/A
Spectrum Analyzer	Agilent	E4407B	3649A03840	Apr. 12, 2012	Apr. 12, 2013
Signal Generator	Rohde & Schwarz	SMR27	100124	Apr. 12, 2012	Apr. 12, 2013
Signal Generator	Rohde & Schwarz	SML03	102319	Apr. 12, 2012	Apr. 12, 2013
AC Power Source	Sepcial power system	YF650	N/A	N/A	N/A
Absorbing Clamp	Rohde & Schwarz	MDS21	100218	Apr. 12, 2012	Apr. 12, 2013
Power Meter	Rohde & Schwarz	NRVD	101287	Apr. 12, 2012	Apr. 12, 2013
Coaxial Cable	N/A	N/A	N/A	Apr. 12, 2012	Apr. 12, 2013
Coaxial Cable	N/A	N/A	N/A	Apr. 12, 2012	Apr. 12, 2013
Coaxial Cable	N/A	N/A	N/A	Apr. 12, 2012	Apr. 12, 2013
Universal radio Communication tester	Rohde & Schwarz	CMU200	101724	Apr. 12, 2012	Apr. 12, 2013
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	N/A	N/A	N/A
BiConilog Antenna	ETS-LINDGREN	3142C	00042670	Apr. 12, 2012	Apr. 12, 2013
BiConilog Antenna	ETS-LINDGREN	3142C	00042673	Apr. 12, 2012	Apr. 12, 2013
Loop Antenna	ETS-LINGREN	6502	00071730	Apr. 12, 2012	Apr. 12, 2013
Double-ridged Waveguide horn	ETS-LINDGREN	3117	00035926	Apr. 12, 2012	Apr. 12, 2013
Double-ridged Waveguide horn	ETS-LINDGREN	3117	00041545	Apr. 12, 2012	Apr. 12, 2013
Pre-amplifier	Instruments Corporation	EMC011830	1415261	Apr. 12, 2012	Apr. 12, 2013
RF Switch	CD	RSU-M3	706543	Apr. 12, 2012	Apr. 12, 2013
Thermo-/Hygrometer	N/A	TH01	N/A	Apr. 12, 2012	Apr. 12, 2013
Shielding Room	Zhong Yu Electronic	N/A	N/A	N/A	N/A
3m Anechoic Chamber	Zhong Yu Electronic	N/A	N/A	Apr. 12, 2012	Apr. 12, 2013
RF Cable	NK NETWORKS	M17/74-RG213	CH-NR.32115 (EE170)	Apr. 12, 2012	Apr. 12, 2013
Horn Anternna	Instruments Corporation	GTH-0118	9120D-707	Apr. 12, 2012	Apr. 12, 2013

3. Test Procedure

GENERAL: This report shall NOT be reproduced except in full without the written approval of Anbotek Compliance Laboratory Limited. The EUT was transmitting a test signal during the testing.

RADIATION INTERFERENCE: The test procedure used was ANSI STANDARD C63.4-2009 using a spectrum analyzer with a pre-selector. The analyzer was calibrated in dB above a microvolt at the output of the antenna. The resolution bandwidth was 100KHz and the video bandwidth was 300KHz up to 1.0GHz and 1.0MHz with a video BW of 3.0MHz above 1.0GHz. The ambient temperature of the EUT was 74.3oF with a humidity of 69%.

FORMULA OF CONVERSION FACTORS: The Field Strength at 3m was established by adding the meter reading of the spectrum analyzer (which is set to read in units of dBuV) to the antenna correction factor supplied by the antenna manufacturer. The antenna correction factors are stated in terms of dB. The gain of the Preselector was accounted for in the Spectrum Analyzer Meter Reading.

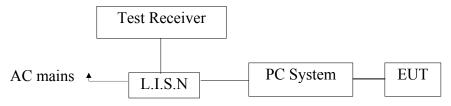
Example:

ANSI STANDARD C63.4-2009 10.1.7 MEASUREMENT PROCEDURES: The EUT was placed on a table 80 cm high and with dimensions of 1m by 1.5m. The EUT was placed in the center of the table (1.5m side). The table used for radiated measurements is capable of continuous rotation. When an emission was found, the table was rotated to produce the maximum signal strength. At this point, the antenna was raised and lowered from 1m to 4m. The antenna was placed in both the horizontal and vertical planes.

4. Conducted Limits

4.1. Block Diagram of Test Setup

4.1.1. Block diagram of connection between the EUT and simulators



(EUT: Bluetooth Keyboard)

4.2. Power Line Conducted Emission Measurement Limits (15.207)

Frequency	Limits $dB(\mu V)$			
MHz	Quasi-peak Level	Average Level		
0.15 ~ 0.50	66 ~ 56*	56 ~ 46*		
0.50 ~ 5.00	56	46		
5.00 ~ 30.00	60	50		

Notes: 1. *Decreasing linearly with logarithm of frequency.

2. The lower limit shall apply at the transition frequencies.

4.3. Configuration of EUT on Measurement

The following equipments are installed on Power Line Conducted Emission Measurement to meet the commission requirement and operating regulations in a manner which tends to maximize its emission characteristics in a normal application.

EUT : Bluetooth Keyboard

Model Number : BKB78B

Applicant : Shenzhen Paoluy Silicone Technology Co., Ltd.

4.4. Operating Condition of EUT

4.4.1. Setup the EUT and simulator as shown as Section 4.1.

4.4.2. Turn on the power of all equipment.

4.4.3. Let the EUT work in test mode (Charging) and measure it.

4.5. Test Procedure

The EUT system is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to FCC ANSI C63.4-2003 on Conducted Emission Measurement.

The bandwidth of test receiver (ESCI) set at 9KHz.

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

The test results are reported on Section 4.6.

4.6. Power Line Conducted Emission Measurement Results **PASS.**

The frequency range from 150KHz to 30 MHz is investigated.

Please refer the following pages.

CONDUCTED EMISSION TEST DATA

EUT: Bluetooth Keyboard M/N: BKB78B

Operating Condition: Charging

1# Shielded Room Test Site:

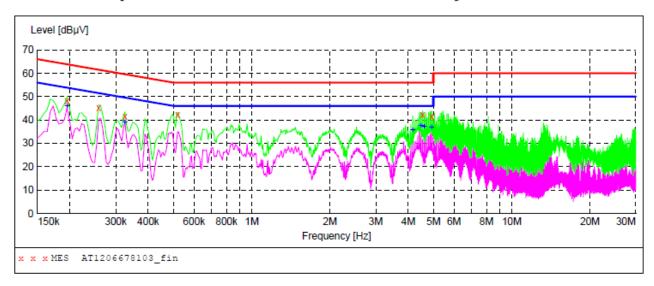
Operator: Andy Chen

Test Specification: AC 120V/60Hz for PC

Comment: Live Line

Tem:25°C Hum:50%

SCAN TABLE: "Voltage (150K~30M) FIN"
Short Description: 150K-30M Disturbance Voltages



MEASUREMENT RESULT: "AT1206678103_fin"

6/18/2012 10	:21AM						
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.195000	48.00	10.1	64	15.8	QP	L1	GND
0.258000	45.10	10.1	62	16.4	QP	L1	GND
0.325500	41.60	10.1	60	18.0	QP	L1	GND
0.519000	42.40	10.1	56	13.6	QP	L1	GND
4.541500	42.40	10.5	56	13.6	QP	L1	GND
4.928500	41.70	10.5	56	14.3	QP	L1	GND

MEASUREMENT RESULT: "AT1206678103_fin2"

6/18/2012 10 Frequency MHz	:21AM Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.195000	45.80	10.1	54	8.0	AV	L1	GND
0.325500	39.00	10.1	50	10.6	AV	L1	GND
4.159000	35.80	10.5	46	10.2	AV	L1	GND
4.478500	37.60	10.5	46	8.4	AV	L1	GND
4.604500	37.30	10.5	46	8.7	AV	L1	GND
4.924000	36.90	10.5	46	9.1	AV	L1	GND

CONDUCTED EMISSION TEST DATA

EUT: Bluetooth Keyboard M/N: BKB78B

Operating Condition: Charging

Test Site: 1# Shielded Room

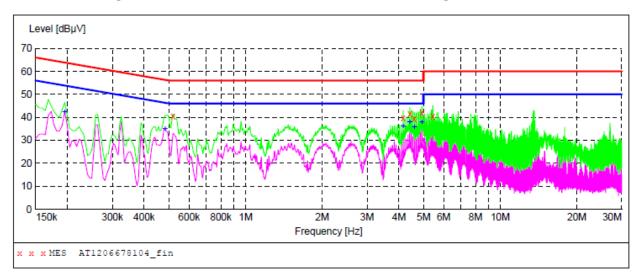
Operator: Andy Chen

Test Specification: AC 120V/60Hz for PC

Comment: **Neutral Line**

Tem:25°C Hum:50%

SCAN TABLE: "Voltage(150K~30M) FIN"
Short Description: 150K-30M Disturbance Voltages



MEASUREMENT RESULT: "AT1206678104 fin"

6/18/2012 10: Frequency MHz		Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.519000	40.40	10.1	56	15.6	QP	N	GND
4.159000	39.70	10.5	56	16.3	QP	N	GND
4.415500	41.50	10.5	56	14.5	QP	N	GND
4.609000	39.50	10.5	56	16.5	QP	N	GND
4.928500	41.90	10.5	56	14.1	QP	N	GND
5.437000	40.40	10.5	60	19.6	QP	N	GND

MEASUREMENT RESULT: "AT1206678104 fin2"

6/18/2012 10 Frequency MHz		Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.195000	42.20	10.1	54	11.6	AV	N	GND
0.483000	35.00	10.1	46	11.3	AV	N	GND
4.159000	36.20	10.5	46	9.8	AV	N	GND
4.415500	37.70	10.5	46	8.3	AV	N	GND
4.609000	35.60	10.5	46	10.4	AV	N	GND
4.928500	37.90	10.5	46	8.1	AV	N	GND

5. Radiation Interference

5.1. Requirements (15.249, 15.209):

FIELD STRENGTH	FIELD STRENGTH	S15.209	
of Fundamental:	of Harmonics	30 - 88 MHz	40 dBuV/m @3M
902-928 MHZ		88 - 216 MHz	43.5
2.4-2.4835 GHz		216 - 960 MHz	46
94 dBμV/m @3m	54 dBμV/m @3m	ABOVE 960 MHz	54dBuV/m

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

5.2 Test Procedure

The EUT is placed on a turn table which is 0.8 meter high above the ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The 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 from 1 to 4 meters to find out the maximum emission level. Both horizontal and vertical polarization of the antenna are set on test.

All readings from 30MHz to 1GHz are quasi-peak values with a resolution bandwidth of 120kHz. All reading are above 1GHz, peak & average values with a resolution bandwidth of 1MHz. The EUT is tested in 9*6*6 Chamber.

The test results are listed in Section 5.3.

5.3 Test Results

PASS.

Please refer the following pages.

Data:

Horizontal	
CH Low(2402MHz)	
0.11	

Frequency MHz	Cable Loss dB	Ant Factor dB/m	Preamp Factor dB	Read Level dBµV	Level dBμV/m	Limit dBμV/m	Over Limit dB	Remark
239.98	1.58	13.50	38.90	57.46	33.66	46.00	-12.34	QP
2402.00	2.17	31.21	35.30	86.55	84.63	114.0	-29.37	Peak
2402.00	2.17	31.21	35.30	84.71	82.79	94.0	-11.21	AV
4804.10	2.56	34.01	34.71	41.15	43.01	74.0	-30.99	Peak
4804.10	2.56	34.01	34.71	38.26	40.12	54.0	-13.88	AV
7207.97	2.98	36.16	35.15	38.33	42.32	74.0	-31.68	Peak
7207.97	2.98	36.16	35.15	35.55	39.54	54.0	-14.46	AV
9608.00								
12010.00								
14412.00								
16814.00								
19216.00								
21618.00								
24020.00								

.

CH Middle(244	4 I	M	HZ	()
---------------	-----	---	----	----

Frequency	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit	Over Limit	Remark
MHz	dB	dB/m	dB	$dB\mu V$	$dB\mu V/m$	$dB\mu V/m$	dB	
312.18	1.60	13.52	38.82	56.41	32.71	46.00	-13.29	QP
2441.00	2.19	31.22	34.60	85.36	84.17	114.0	-29.83	Peak
2441.00	2.19	31.22	34.60	83.55	82.36	94.0	-11.64	AV
4882.08	2.57	35.00	34.58	39.62	42.61	74.0	-31.39	Peak
4882.08	2.57	35.00	34.58	37.47	40.46	54.0	-13.54	AV
7323.05	3.00	36.17	35.14	38.80	42.83	74.0	-31.17	Peak
7323.05	3.00	36.17	35.14	36.08	40.11	54.0	-13.89	AV
9764.00								
12205.00								
14646.00								
17087.00								
19528.00								
21969.00								
24410.00								

CH I	High(2480	OMHz))

Frequency	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit	Over Limit	Remark
MHz	dB	dB/m	dB	dBμV	$dB\mu V/m$	$dB\mu V/m$	dB	
312.18	1.60	13.52	38.82	53.21	29.51	46.00	-16.49	QP
2480.00	2.20	31.65	36.00	92.77	90.62	114.0	-23.38	Peak
2480.00	2.20	31.65	36.00	89.51	87.36	94.0	-6.64	AV
4960.05	2.58	35.06	34.79	41.76	44.61	74.0	-29.39	Peak
4960.05	2.58	35.06	34.79	39.28	42.13	54.0	-11.87	AV
7439.97	3.02	36.19	34.90	39.53	43.84	74.0	-30.16	Peak
7439.97	3.02	36.20	35.20	37.40	41.42	54.0	-12.58	AV
9920.00								
12400.00								
14880.00								
17360.00								
19840.00								
22320.00								
24800.00								

Vertical CH Low(2402MHz)

CH LOW(Z40ZIVID2	<u>L)</u>						
Frequency	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit	Over Limit	Remark
MHz	dB	dB/m	dB	$dB\mu V$	$dB\mu V/m$	$dB\mu V/m$	dB	
				·	·	·		
30.42	1.43	12.13	38.45	53.51	28.62	40.00	-11.38	QP
2402.00	2.17	31.21	35.30	84.23	82.31	114.0	-31.69	Peak
2402.00	2.17	31.21	35.30	81.85	79.93	94.0	-14.07	AV
4804.10	2.56	34.01	34.71	41.05	42.91	74.0	-31.09	Peak
4804.10	2.56	34.01	34.71	38.61	40.47	54.0	-13.53	AV
7207.93	2.98	36.16	35.15	37.46	41.45	74.0	-32.55	Peak
7207.93	2.98	36.16	35.15	34.50	38.49	54.0	-15.51	AV
9608.00								
12010.00								
14412.00								
16814.00								
19216.00								
21618.00								
24020.00								

•

CH Midd	dle(2441M	IHz)						
Frequency	Cable	Ant	Preamp	Read	Level	Limit	Over	Remark
1 ,	Loss	Factor	Factor	Level			Limit	
MHz	dB	dB/m	dB	dΒμV	$dB\mu V/m$	$dB\mu V/m$	dB	
143.82	1.50	13.40	38.89	53.91	29.92	43.50	-13.58	QP
2441.01	2.19	31.22	34.60	82.35	81.16	114.0	-32.84	Peak
2441.01	2.19	31.22	34.60	81.01	79.82	94.0	-14.18	AV
4882.11	2.57	35.00	34.58	40.15	43.14	74.0	-30.86	Peak
4882.11	2.57	35.00	34.58	37.86	40.85	54.0	-13.15	AV
7323.05	3.00	36.17	35.14	38.70	42.73	74.0	-31.27	Peak
7323.05	3.00	36.17	35.14	36.01	40.04	54.0	-13.96	AV
9764.00								
12205.00								
14646.00								
17087.00								
19528.00								
21969.00								
24410.00								

CH High(24 Frequency MHz	480MHz) Cable Loss dB	Ant Factor dB/m	Preamp Factor dB	Read Level dBµV	Level dBµV/m	Limit dBµV/m	Over Limit dB	Remark
408.80	1.62	13.54	38.45	51.17	27.82	46.00	-18.12	QP
2480.00	2.20	31.65	36.00	83.52	81.37	114.0	-32.63	Peak
2480.00	2.20	31.65	36.00	82.03	79.88	94.0	-14.12	AV
4960.10	2.58	35.06	34.79	40.08	42.93	74.0	-31.07	Peak
4960.10	2.58	35.06	34.79	38.10	40.95	54.0	-13.05	AV
7439.97	3.02	36.19	34.90	38.58	42.89	74.0	-31.11	Peak
7439.97	3.02	36.20	35.20	36.34	40.36	54.0	-13.64	AV
9920.00								
12400.00								
14880.00								
17360.00								
19840.00								
22320.00								
24800.00								

NOTE: " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

6. Occupied Bandwidth

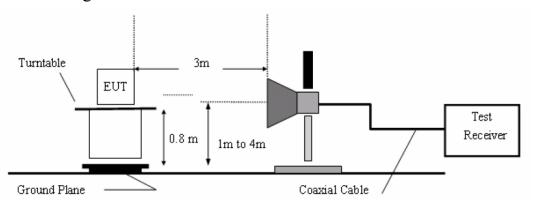
6.1. Requirements (15.249):

The field strength of any emissions appearing outside the band edges and up to 10 kHz above and below the band edges shall be attenuated at least 50 dB below the level of the carrier or to the general limits of 15.249.

6.2. Test Procedure

The EUT is placed on a turn table which is 0.8 meter high above the ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The 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 from 1 to 4 meters to find out the maximum emission level. Both horizontal and vertical polarization of the antenna are set on test.

6.3. Test Configuration:

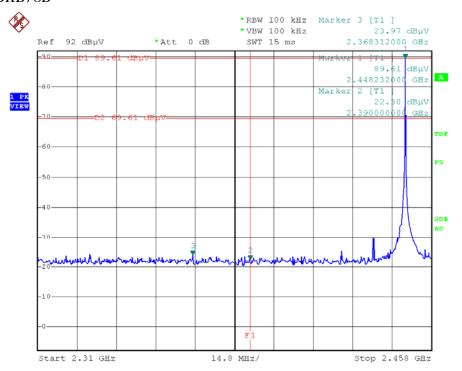


6.4. Test Results

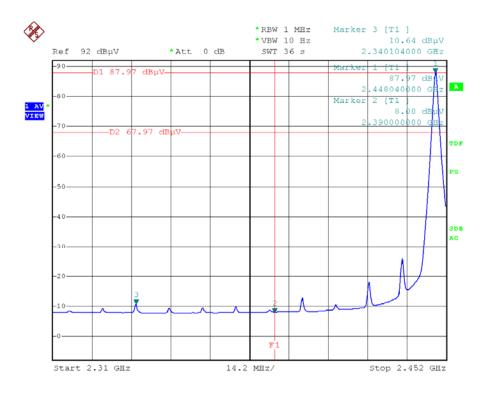
Pass.

Please refer the following plot.

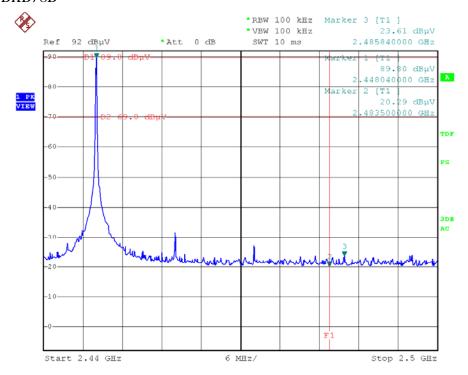
(Note: Marker 3 means the highest value in 2.39GHz~2.4GHz or 2.4835~2.5GHz)



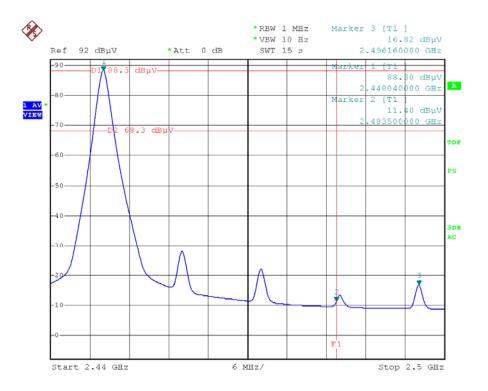
Band edges-fL



Band edges-fL-AV



Band edges-fH



Band edges-fH-AV