

FCC 47 CFR PART 15 SUBPART C TEST REPORT

For

Applicant: PADACS

Address: 19, Aldenhoven Rd, Lonsdale, SA 5160, Australia

Product Name: Rubata Bluetooth Keyboard Case

PD224, BL-BKB-276A, BL-BKB-276B, BL-BKB-276C, Model Name:

BL-BKB-221A, BL-BKB-221B, BL-BKB-221C

Brand Name: PADACS

FCC ID: YS9-PD224

Report No.: STS110315F1

Date of Issue: April 12, 2011

Issued by: Most Technology Service Co., Ltd.

No.5, 2nd Langshan Road, North District, Hi-tech Industrial Park, Address:

Nanshan, Shenzhen, Guangdong, China

Tel: 86-755-8617 0306

Fax: 86-755-8617 0310

The report consists 36 pages in total. It may be duplicated completely for legal use with the approval of the applicant. It should not be reproduced except in full, without the written approval of our laboratory. The client should not use it to claim product endorsement by MOST. The test results in the report only apply to the tested sample. The test report shall be invalid without all the signatures of testing engineers, reviewer and approver.

TABLE OF CONTENTS

1. VERIFICATION OF CONFORMITY	3
2. GENERAL INFORMATION	4
2.1 Product Information	4
2.2 Objective	5
2.3 Test Standards and Results	5
2.4 Environmental Conditions	5
3. TEST FACILITY	6
3.1TEST FACILITY	6
3.2 GENERAL TEST PROCEDURES	6
3.3 FCC PART 15.205 RESTRICTED BANDS OF OPERATIONS	7
4. SETUP OF EQUIPMENT UNDER TEST	8
4.1 SUPPORT EQUIPMENT	8
4.2 TEST EQUIPMENT LIST	9
5. 47 CFR Part 15C 15.249 Requirements	10
5.1 Spurious Emission Test	10
5.1.1 Requirement	10
5.1.2 Test Description	11
5.1.3 Test Description	12
5.1.4 Test Result	13
5.2 Band Edge	20
5.2.1 Requirement	20
5.2.2 Test Description	20
5.2.3Test Result	20
5.3 LINE CONDUCTED EMISSION TEST	23
5.3.1. LIMITS OF LINE CONDUCTED EMISSION TEST	23
5.3.2. BLOCK DIAGRAM OF TEST SETUP	23
5.3.3. PRELIMINARY PROCEDURE OF LINE CONDUCTED EMISSION TEST	24
5.3.4. FINAL PROCEDURE OF LINE CONDUCTED EMISSION TEST	24
5.3.5. TEST RESULT OF LINE CONDUCTED EMISSION TEST	25
APPENDIX 1	27
PHOTOGRAPHS OF TEST SETUP	27
APPENDIX 2	30
PHOTOGRAPHS OF EUT	30

1. VERIFICATION OF CONFORMITY

Equipment Under Test: Rubata Bluetooth Keyboard Case

Brand Name: PADACS

Model Number: PD224, BL-BKB-276A, BL-BKB-276B, BL-BKB-276C, BL-BKB-276

BL-BKB-221A, BL-BKB-221B, BL-BKB-221C

FCC ID: YS9-PD224

Applicant: PADACS

19, Aldenhoven Rd, Lonsdale, SA 5160, Australia

Manufacturer: PADACS

19, Aldenhoven Rd, Lonsdale, SA 5160, Australia

Technical Standards: 47 CFR Part 15 Subpart C

File Number: STS110315F1

Date of test: March 31, 2011~ April 12, 2011

Deviation:NoneCondition of Test Sample:NormalTest Result:PASS

The above equipment was tested by MOST for compliance with the requirements set forth in FCC rules and the Technical Standards mentioned above. This said equipment in the configuration described in this report shows the maximum emission levels emanating from equipment and the level of the immunity endurance of the equipment are within the compliance requirements.

The test results of this report relate only to the tested sample identified in this report.

Tested by (+ signature):

Petter Ping April 12, 2011

Review by (+ signature):

July Wen April 12, 2011

Approved by (+ signature):

Terry Yang April 12, 2011

2. GENERAL INFORMATION

2.1 Product Information

Z.1 1 Todact Illioi Illatio	
Product	Rubata Bluetooth Keyboard Case
Trade Name	PADACS
Model Number	PD224
Series Number:	BL-BKB-276A,BL-BKB-276B,BL-BKB-276C,BL-BKB-221A,BL-BKB-221B, BL-BKB-221C
Description of Differences:	The same PCB and only the appearance is different
Power Supply	DC 5V by USB port/ DC 3.7V by battery
Frequency Range	2402MHz -2480MHz
Modulation Type	FHSS
Channel Spacing	1MHz
Channel Number	79(CH Low: 2402MHz, CH Mid: 2441MHz, CH High: 2480MHz)
Antenna Type	Internal Fixed
Antenna Gain	0dBi
Temperature Range	-20°C ~ 50°C

NOTE:

1. Please refer to Appendix I for the photographs of the EUT. For a more detailed features description about the EUT, please refer to User's Manual.

2.2 Objective

The objective of the report is to perform tests according to 47 CFR Part 15 Subpart C for the EUT FCC ID Certification:

No.	Identity	Document Title
1	47 CFR Part 15 (10-1-05 Edition)	Radio Frequency Devices

2.3 Test Standards and Results

Test items and the results are as bellow:

No.	Section	Description	Result	Date of Test
1	15.249(a)	Spurious Emission	PASS	April 11, 2011
2	15.249(a)	Band Edge	PASS	April 11, 2011
3	15.207	Power Line Conducted Emission Test	PASS	April 11, 2011

Note: 1. The test result judgment is decided by the limit of measurement standard

2. The information of measurement uncertainty is available upon the customer's request.

2.4 Environmental Conditions

During the measurement the environmental conditions were within the listed ranges:

- Temperature: 15-35°C - Humidity: 30-60 %

- Atmospheric pressure: 86-106 kPa

3. TEST FACILITY 3.1TEST FACILITY

Test Site: Most Technology Service Co., Ltd.

Location: No.5, Langshan 2nd Rd., North Hi-Tech Industrial park, Nanshan, Shenzhen,

Guangdong, China

Description: There is one 3m semi-anechoic an area test sites and two line conducted labs for final

test. The Open Area Test Sites and the Line Conducted labs are constructed and calibrated to meet the FCC requirements in documents ANSI C63.4:2009 and CISPR

16 requirements.

The FCC Registration Number is **490827**.
The **IC** Registration Number is **46405-7103**.

The CNAS Registration Number is CNAS L3573.

Site Filing: The site description is on file with the Federal Communications

Commission, 7435 Oakland Mills Road, Columbia, MD 21046.

Instrument Tolerance: All measuring equipment is in accord with ANSI C63.4:2009 and CISPR 16

requirements that meet industry regulatory agency and accreditation agency

requirement.

Ground Plane: Two conductive reference ground planes were used during the Line Conducted

Emission, one in vertical and the other in horizontal. The dimensions of these ground planes are as below. The vertical ground plane was placed distancing 40 cm to the rear of the wooden test table on where the EUT and the support equipment were placed during test. The horizontal ground plane projected 50 cm beyond the footprint of the EUT system and distanced 80 cm to the wooden test table. For Radiated Emission Test, one horizontal conductive ground plane extended at least 1m beyond the periphery of the EUT and the largest measuring antenna, and covered the entire

area between the EUT and the antenna.

3.2 GENERAL TEST PROCEDURES

EUT Function and Test Mode

The EUT has been tested under normal operating (TX) and standby (RX) condition.

The field strength of radiation emission was measured in the following position: EUT stand-up position (Y axis), lie-down position (X, Z axis).

The following data show only with the worst case setup.

The worst case of Y axis was reported.

Based on client request, all normal using modes of the normal function were tested but only the worst test data of the worst mode is reported by this report.

Conducted Emissions

The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirements in Section 13.1.4.1 of ANSI C63.4:2009, Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-peak and average detector modes.

Radiated Emissions

The EUT is placed on a turn table, which is 0.8 m above ground plane. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna, which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the maximum emissions, exploratory radiated emission measurements were made according to the requirements in Section 13.1.4.1 of ANSI C63.4:2009.

3.3 FCC PART 15.205 RESTRICTED BANDS OF OPERATIONS

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

MHz	MHz	MHz	GHz		
0.090 - 0.110 ¹ 0.495 - 0.505 2.1735 - 2.1905 4.125 - 4.128 4.17725 - 4.17775 4.20725 - 4.20775 6.215 - 6.218	16.42 - 16.423 16.69475 - 16.69525 16.80425 - 16.80475 25.5 - 25.67 37.5 - 38.25 73 - 74.6 74.8 - 75.2	399.9 - 410 608 - 614 960 - 1240 1300 - 1427 1435 - 1626.5 1645.5 - 1646.5 1660 - 1710	4.5 - 5.15 5.35 - 5.46 7.25 - 7.75 8.025 - 8.5 9.0 - 9.2 9.3 - 9.5 10.6 - 12.7		
6.26775 - 6.26825 6.31175 - 6.31225 8.291 - 8.294 8.362 - 8.366 8.37625 - 8.38675 8.41425 - 8.41475 12.29 - 12.293 12.51975 - 12.52025 12.57675 - 12.57725 13.36 - 13.41	108 - 121.94 123 - 138 149.9 - 150.05 156.52475 - 156.52525 156.7 - 156.9 162.0125 - 167.17 167.72 - 173.2 240 - 285 322 - 335.4	1718.8 - 1722.2 2200 - 2300 2310 - 2390 2483.5 - 2500 2655 - 2900 3260 - 3267 3332 - 3339 3345.8 - 3358 3600 - 4400	13.25 - 13.4 14.47 - 14.5 15.35 - 16.2 17.7 - 21.4 22.01 - 23.12 23.6 - 24.0 31.2 - 31.8 36.43 - 36.5 (²)		

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

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

² Above 38.6

4. SETUP OF EQUIPMENT UNDER TEST

4.1 SUPPORT EQUIPMENT

Device Type	Brand	Model	Series No.	Data Cable	Power Cord
Notebook	Samsung	NP-R428- DS0YCN	ZVC093FZ80042 2X	N/A	1.8M Un-shielding

Remark:

All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

4.2 TEST EQUIPMENT LIST

Instrumentation: The following list contains equipment used at Most for testing. The equipment conforms to the CISPR 16-1 / ANSI C63.2 Specifications for Electromagnetic Interference and Field Strength Instrumentation from 10 kHz to 1.0 GHz or above.

No.	Equipment	Manufacturer	Model No.	S/N	Calibration due date
1	Test Receiver	Rohde & Schwarz	ESCI	100492	2012/03/14
2	L.I.S.N.	I.S.N. Rohde & Schwarz ENV216		100093	2012/03/14
3	Coaxial Switch	Anritsu Corp	MP59B	6200283933	2012/03/14
4	Terminator	Hubersuhner	50Ω	No.1	2012/03/14
5	RF Cable	SchwarzBeck	N/A	No.1	2012/03/14
6	Test Receiver	Rohde & Schwarz	ESPI	101202	2012/03/14
7	Bilog Antenna	SCHWARZBECK	BBHA9120D	D69250	2012/03/14
8	Cable	Resenberger	N/A	NO.1	2012/03/14
9	Cable	SchwarzBeck	N/A	NO.2	2012/03/14
10	Cable	SchwarzBeck	N/A	NO.3	2012/03/14
11	DC Power Filter	DuoJi	DL2 1 30B	N/A	2012/03/14
12	Single Phase Power Line Filter	DuoJi	FNF 202B30	N/A	2012/03/14
13	3 Phase Power Line Filter	DuoJi	FNF 402B30	N/A	2012/03/14
14	Test Receiver	Rohde & Schwarz	ESCI	100492	2012/03/14
15	Absorbing Clamp	Luthi	MDS21	3635	2012/03/14
16	Coaxial Switch	Anritsu Corp	MP59B	6200283933	2012/03/14
17	AC Power Source	Kikusui	AC40MA	LM003232	2012/03/14
18	Test Analyzer	Kikusui	KHA1000	LM003720	2012/03/14
19	Line Impendence Network	Kikusui	LIN40MA- PCR-L	LM002352	2012/03/14
20	ESD Tester	Kikusui	KES4021	LM003537	2012/03/14
21	EMCPRO System	EM Test	UCS-500-M4	V0648102026	2012/03/14
22	Signal Generator	IFR	2032	203002/100	2012/03/14
23	Amplifier	A&R	150W1000	301584	2012/03/14
24	CDN	FCC	FCC-801-M2-25	47	2012/03/14
25	CDN	FCC	FCC-801-M3-25	107	2012/03/14
26	EM Injection Clamp	FCC	F-203I-23mm	403	2012/03/14
27	RF Cable	MIYAZAKI	N/A	No.1/No.2	2012/03/14
28	Universal Radio Communication Tester	ROHDE&SCHWARZ	CMU200	0304789	2012/03/14
29	Telecommunication Antenna	European Antennas	PSA 75301R/170	0304213	2012/03/14
30	Telecommunication Test Equipment	R&S	CMU200	N/A	2012/03/14
31	Loop Antenna	SCHWARZBECK	BBHA9120D	D69250	2012/03/14

NOTE: Equipments listed above have been calibrated and are in the period of validation.

5. 47 CFR Part 15C 15.249 Requirements

5.1 Spurious Emission Test

5.1.1 Requirement

According to FCC section 15.249(a):

Except as provided in paragraph (a) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental Frequency (MHz)	Field Strength of Fundamental (mV/m)	Field Strength of Harmonics (μV/m)
902-928	50	500
2400-2483.5	50	500
5725-5875	50	500
24000-24250	250	2500

According to FCC section 15.209 (a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (μV/m)	Measurement Distance (m)
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

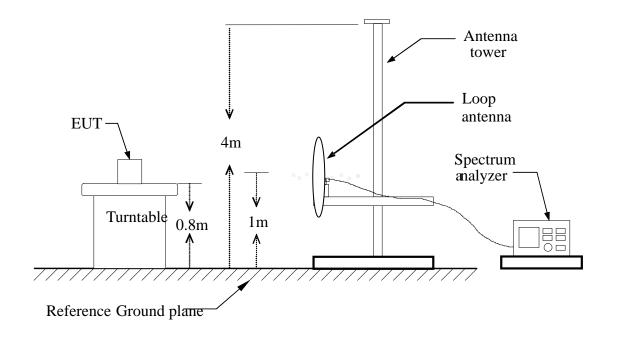
Remark: Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

In the above emission table, the tighter limit applies at the band edges.

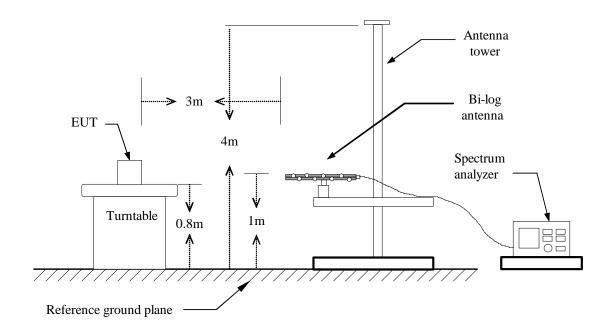
Frequency (MHz)	Field Strength (μV/m)	Measurement Distance (m)		
30 - 88	100	3		
88 - 216	150	3		
216 - 960	200	3		
Above 960	500	3		

5.1.2 Test Description

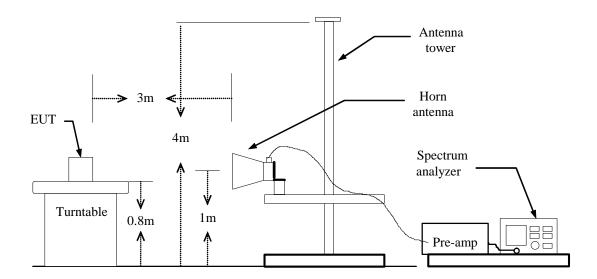
Test Setup:



Blow 1GHz:



Above 1GHz:



5.1.3 Test Description

- 1. The EUT is placed on a turntable, which is 0.8m above ground plane.
- 2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
- 3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
- 4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
- 5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
- 6. Set the spectrum analyzer in the following setting as:

Below 1GHz: RBW=100 kHz / VBW=300 kHz / Sweep=AUTO

Above 1GHz:(a) PEAK: RBW=VBW=1MHz / Sweep=AUTO

(b) AVERAGE: RBW=1MHz / VBW=10Hz / Sweep=AUTO

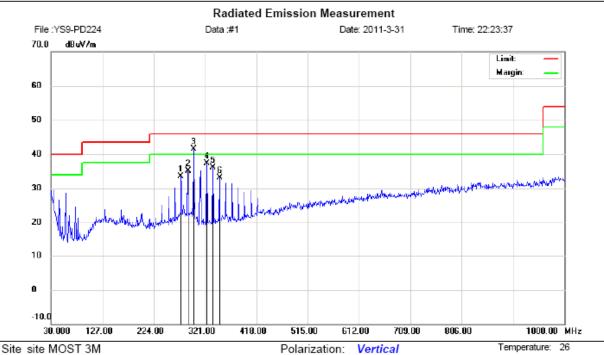
7. Repeat above procedures until the measurements for all frequencies are complete.

5.1.4 Test Result



Address:No.5,Langshan 2nd Rd., North Hi-Tech Industrial park Guangdong ,China

Tel: 0755-86170306 Fax: 0755-86170310



Limit: FCC Part15 B 3M Radiation

EUT: Rubata Bluetooth Keyboard Case

M/N: YS9-PD224 Mode: Bluetooth Mode

Note:

Power: DC 3.7V

Distance:

Humidity:

60 %

No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBu∀	dB	dBu∀/m	dBu∀/m	dB	Detector	cm	degree	Comment
1		275.4100	14.31	19.22	33.53	46.00	-12.47	peak			
2		288.0200	15.74	19.42	35.16	46.00	-10.84	peak			
3	*	299.6600	22.19	19.30	41.49	46.00	-4.51	peak			
4		323.9100	20.31	17.00	37.31	46.00	-8.69	peak			
5		335.5500	18.97	17.06	36.03	46.00	-9.97	peak			
6		348.1600	15.52	17.65	33.17	46.00	-12.83	peak			

^{*:}Maximum data x:Over limit !:over margin



Address:No.5,Langshan 2nd Rd., North Hi-Tech Industrial park Guangdong ,China

Tel: 0755-86170306 Fax: 0755-86170310

Radiated Emission Measurement File:YS9-PD224 Date: 2011-3-31 Time: 22:25:16 70.0 dBuV/m Margin 60 50 40 30 20 10 0 -10.d 127.00 224.00 515.00 612.00 709.00 806.00 1000.00 MHz 30.000 321.00 418.00

Site site MOST 3M

Limit: FCC Part15 B 3M Radiation

EUT: Rubata Bluetooth Keyboard Case

M/N: YS9-PD224 Mode: Bluetooth Mode

Note:

Power: DC 3.7V Distance:

Polarization: Horizontal

Temperature: 26

60 %

Humidity:

No	. N	۱k.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		Antenna Height	Table Degree	
			MHz	dBu∀	dB	dBu∀/m	dBu∀/m	dB	Detector	cm	degree	Comment
1		2	288.0199	18.41	19.42	37.83	46.00	-8.17	peak			
2	*	2	299.6600	23.19	19.30	42.49	46.00	-3.51	peak			
3		3	312.2699	23.19	16.69	39.88	46.00	-6.12	peak			
4	ļ	3	384.0500	24.29	18.18	42.47	46.00	-3.53	peak			
5	ļ		108.3000	22.98	19.00	41.98	46.00	-4.02	peak			
6	ļ		119.9399	21.20	19.99	41.19	46.00	-4.81	peak			

^{*:}Maximum data x:Over limit !:over margin



Address:No.5,Langshan 2nd Rd., North Hi-Tech Industrial park Guangdong ,China

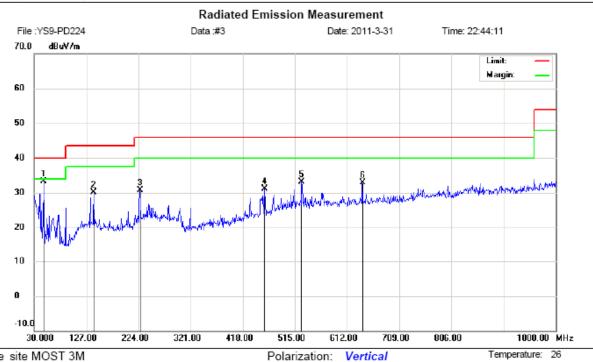
Power: DC 5V From PC Inpute AC120V/60Hz

Distance:

Humidity:

60 %

Tel: 0755-86170306 Fax: 0755-86170310



Site site MOST 3M

Limit: FCC Part15 B 3M Radiation

EUT: Rubata Bluetooth Keyboard Case

M/N: YS9-PD224 Mode: Charging Mode

Note:

No.	Mł	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBu∀	dB	dBu∀/m	dBu∀/m	dB	Detector	cm	degree	Comment
1	*	47.4600	20.80	12.47	33.27	40.00	-6.73	peak			
2		140.5800	12.87	17.17	30.04	43.50	-13.46	peak			
3		225.9400	14.20	16.42	30.62	46.00	-15.38	peak			
4		458.7400	10.77	20.34	31.11	46.00	-14.89	peak			
5		527.6100	11.01	22.08	33.09	46.00	-12.91	peak			
6		640.1300	8.87	24.00	32.87	46.00	-13.13	peak			

^{*:}Maximum data x:Over limit !:over margin



Address:No.5,Langshan 2nd Rd., North Hi-Tech Industrial park Guangdong ,China

Tel: 0755-86170306 Fax: 0755-86170310

Radiated Emission Measurement Data :#4 Date: 2011-3-31 File:YS9-PD224 Time: 22:45:27 70.0 dBuV/m Limit Margin 60 50 40 30 20 10 0

515.00

Polarization:

612.00

709.00

Distance:

Horizontal

Power: DC 5V From PC Inpute AC120V/60Hz

806.00

1000.00 MHz

60 %

Temperature: 26

Humidity:

Site site MOST 3M

Limit: FCC Part15 B 3M Radiation

127.00

224.00

321.00

418.00

EUT: Rubata Bluetooth Keyboard Case

M/N: YS9-PD224 Mode: Charging Mode

-10.d 30.000

Note:

No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBu∀	dB	dBu∀/m	dBu∀/m	dB	Detector	cm	degree	Comment
1		191.0200	9.84	16.65	26.49	43.50	-17.01	peak			
2		279.2900	10.95	19.37	30.32	46.00	-15.68	peak			
3		320.0300	15.23	17.00	32.23	46.00	-13.77	peak			
4		431.5800	8.77	20.32	29.09	46.00	-16.91	peak			
5		458.7400	9.73	20.34	30.07	46.00	-15.93	peak			
6	*	864.2000	7.19	27.04	34.23	46.00	-11.77	peak			

^{*:}Maximum data x:Over limit !:over margin

Above 1 GHz

Operation Mode:CH LowTest Date:April 11, 2011Temperature:20°CTested by:Petter PingHumidity:70 % RHPolarity:Ver. / Hor.

Freq. (MHz)	Ant. Pol H/V	Peak Reading	AV Reading	Ant. / CL CF	Actu	Actual Fs		AV Limit	AV Margin
		(dBuV)	(dBuV)	(dB)	Peak	AV	` '	(dBuV/m)	(dB)
					(dBuV/m)	(dBuV/m)			
2402.00	Н	84.26	68.67	19.08	103.34	87.75	114.00	94.00	-6.25
1595.50	Н	51.42	28.35	15.71	67.13	44.06	74.00	54.00	-9.94
4825.00	Н	42.76	24.56	23.08	65.84	47.64	74.00	54.00	-6.36
N/A									>20
2402.00	V	83.73	66.64	19.06	102.79	85.70	114.00	94.00	-8.30
4825.00	V	42.81	25.66	23.93	66.74	49.59	74.00	54.00	-4.41
7885.50	V	25.19		27.73	52.92		74.00	54.00	
N/A									>20

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Spectrum setting:
 - a. Peak Setting 1GHz 26GHz, RBW = 1MHz, VBW = 1MHz, Sweep time = 200 ms.
 - b. AV Setting 1GH z- 26GHz, RBW = 1MHz, VBW = 10Hz, Sweep time = 200 ms.

Operation Mode:CH MidTest Date:April 11, 2011Temperature:20°CTested by:Petter PingHumidity:70 % RHPolarity:Ver. / Hor.

Freq. (MHz)	Ant. Pol H/V	Peak Reading	AV Reading	Ant. / CL CF	Actu	Actual Fs		AV Limit	AV Margin
		(dBuV)	(dBuV)	(dB)	Peak	AV	(dBuV/m)	(dBuV/m)	(dB)
					(dBuV/m)	(dBuV/m)			
2441.00	Н	82.66	64.59	19.12	101.78	83.71	114.00	94.00	-10.29
4867.00	Η	46.64	17.93	24.09	70.73	42.02	74.00	54.00	-11.98
10350.00	Ι	16.56	-	33.57	50.13		74.00	54.00	
N/A									>20
					-	-		-	
2441.00	V	77.55	62.54	19.07	100.67	81.61	114.00	94.00	-12.39
4867.00	V	44.55	18.63	23.94	68.49	42.57	74.00	54.00	-11.43
N/A									>20

Notes:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
- Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Spectrum setting:
 - a. Peak Setting 1GHz 26GHz, RBW = 1MHz, VBW = 1MHz, Sweep time = 200 ms.
 - b. AV Setting 1GH z- 26GHz, RBW = 1MHz, VBW = 10Hz, Sweep time = 200 ms.

Operation Mode:CH HighTest Date:April 11, 2011Temperature:20°CTested by:Petter PingHumidity:70 % RHPolarity:Ver. / Hor.

Freq. (MHz)	Ant. Pol H/V	Peak Reading	AV Reading	Ant. / CL CF	Actu	Actual Fs		AV Limit	AV Margin
		(dBuV)	(dBuV)	(dB)	Peak AV		(dBuV/m)	(dBuV/m)	(dB)
					(dBuV/m)	(dBuV/m)			
2480.00	Н	82.40	67.15	22.15	104.55	89.30	114.00	94.00	-4.70
4952.50	Н	46.83	19.28	24.13	70.96	43.41	74.00	54.00	-10.59
9712.00	Н	41.53	14.51	29.78	71.31	44.29	74.00	54.00	-9.71
N/A									>20
2480.00	V	82.28	66.58	21.84	104.12	88.42	114.00	94.00	-5.58
4952.50	V	46.48	22.29	24.01	70.49	46.30	74.00	54.00	-7.70
9075.50	V	38.77	15.68	29.65	68.42	45.33	74.00	54.00	-8.67
N/A									>20

Notes:

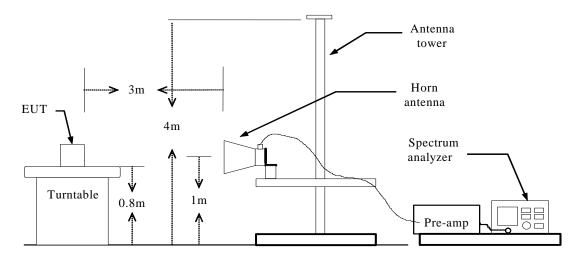
- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Spectrum setting:
 - a. Peak Setting 1GHz 26GHz, RBW = 1MHz, VBW = 1MHz, Sweep time = 200 ms.
 - b. AV Setting 1GH z- 26GHz, RBW = 1MHz, VBW = 10Hz, Sweep time = 200 ms.

5.2 Band Edge

5.2.1 Requirement

According to FCC section 15.249(a), in any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

5.2.2 Test Description



5.2.3Test Result

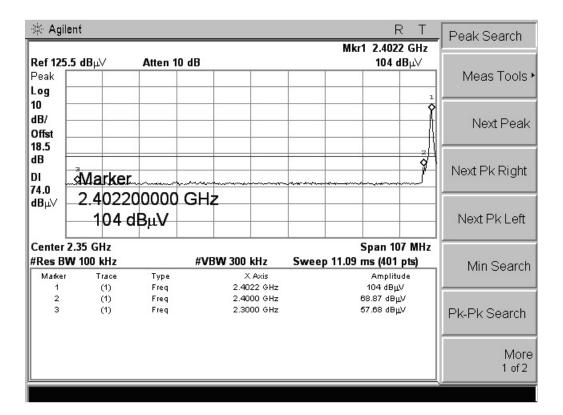
The EUT operates at continuous transmit test mode. The peak and average test data of the lowest and highest channels are tested to verify the band edge emissions.

Took Made	Channel	Test Result Highest Emission (dBuv/m)					
Test Mode	Marked Frequency	Horizo	ontal	Vertical			
		Peak	Average	Peak	Average		
Low Channel	2300MHz	57.68	40.32	55.40	40.12		
Low Channel	2400MHz	68.87	43.81	67.40	43.08		
Librah Ohamaal	2483.5MHz	59.45	44.28	59.82	43.23		
High Channel	2500MHz	60.34	42.51	59.28	43.48		

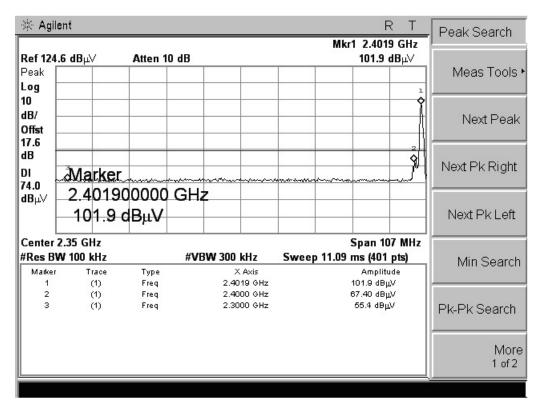
Notes:

1. " --- " in the table means the data is not measurement in the report.

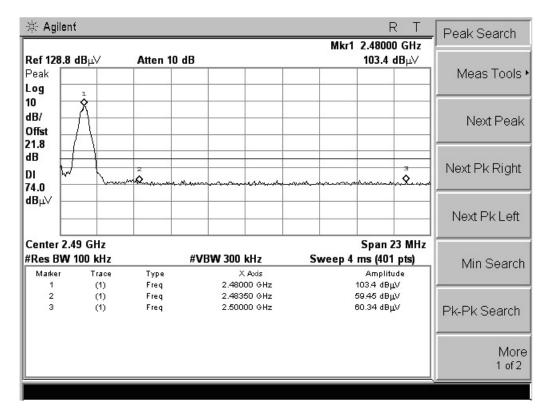
Test Plot:



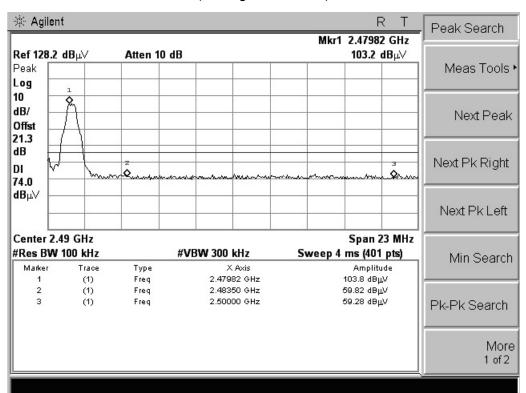
(CH Low, Horizontal)



(CH Low, Vertical)



(CH High, Horizontal)



(CH High, Vertical)

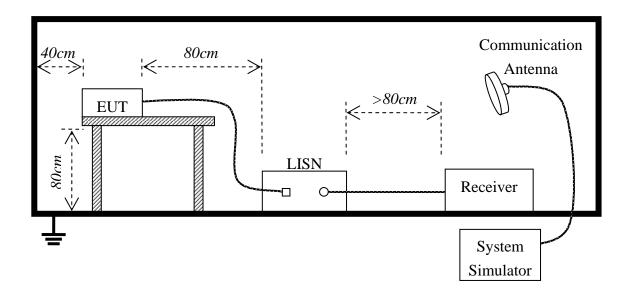
5.3 LINE CONDUCTED EMISSION TEST

5.3.1. LIMITS OF LINE CONDUCTED EMISSION TEST

Fraguency	Maximum RF	Maximum RF Line Voltage						
Frequency	Q.P.(dBuV)	Average(dBuV)						
150kHz-500kHz	66-56	56-46						
500kHz-5MHz	56	46						
5MHz-30MHz	60	50						

^{**}Note: 1. the lower limit shall apply at the transition frequency.

5.3.2. BLOCK DIAGRAM OF TEST SETUP



^{2.} The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz

5.3.3. PRELIMINARY PROCEDURE OF LINE CONDUCTED EMISSION TEST

The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per FCC Part 15 (see Test Facility for the dimensions of the ground plane used). When the EUT is floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.

- 2) Support equipment, if needed, was placed as per FCC Part 15.
- 3) All I/O cables were positioned to simulate typical actual usage as per FCC Part 15.
- 4) The EUT received DC 5V by USB port of the notebook which received AC120V/60Hz power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.
- 5) All support equipments received power from a second LISN supplying power of AC 120V/60Hz, if any.
- 6) The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
- 7) Analyzer / Receiver scanned from 150 kHz to 30 MHz for emissions in each of the test modes.
- 8) During the above scans, the emissions were maximized by cable manipulation.

9) The following test mode(s) were scanned during the preliminary test:

of the following test mod	ic(3) were scar	inca danng the premin	nary toot.								
	Preliminary Conducted Emission Test										
Frequency Range In	vestigated	150KHz TO 30 MHz									
Mode of operation	Mode of operation Date		Data#	Worst Mode							
Charging Mode	2011-04-02	MOST110315F1	PD224_(L, N)								

Then, the EUT configuration and cable configuration of the above highest emission level were recorded for reference of final testing.

5.3.4. FINAL PROCEDURE OF LINE CONDUCTED EMISSION TEST

EUT and support equipment was set up on the test bench as per step 9 of the preliminary test.

A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. If EUT emission level was less –2dB to the A.V. limit in Peak mode, then the emission signal was re-checked using Q.P and Average detector.

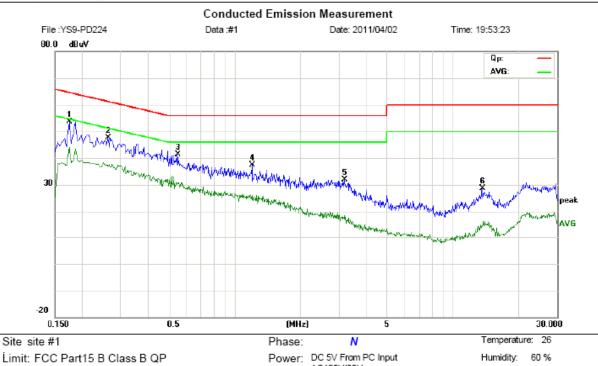
The test data of the worst case condition(s) was reported on the Summary Data page.

5.3.5. TEST RESULT OF LINE CONDUCTED EMISSION TEST



Address:No.5,Langshan 2nd Rd., North Hi-Tech Industrial park Guangdong, China

Tel: 0755-86170306 Fax: 0755-86170310



AC120V/60Hz

Limit: FCC Part15 B Class B QP

EUT: Rubata Bluetooth Keyboard Case

M/N: YS9-PD224 Mode: CHARGING

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBu∀	dB	dBu∀	dBu∀	dB	Detector	Comment
1	*	0.1740	43.10	10.44	53.54	64.77	-11.23	peak	
2		0.2620	36.00	11.59	47.59	61.37	-13.78	peak	
3		0.5460	31.28	10.00	41.28	56.00	-14.72	peak	
4		1.1980	27.54	9.80	37.34	56.00	-18.66	peak	
5		3.1780	21.66	10.18	31.84	56.00	-24.16	peak	
6		13.5740	19.54	9.00	28.54	60.00	-31.46	peak	

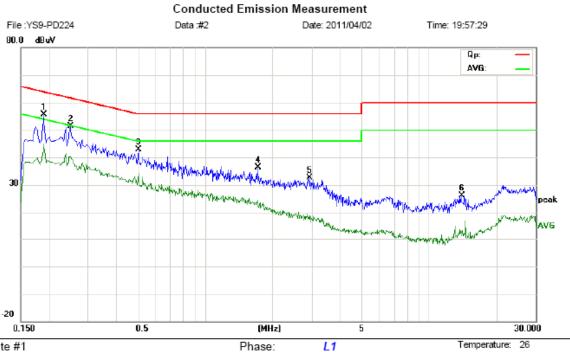
Humidity: 60 %

^{*:}Maximum data x:Over limit !:over margin



Address:No.5,Langshan 2nd Rd., North Hi-Tech Industrial park Guangdong ,China

Tel: 0755-86170306 Fax: 0755-86170310



Power: DC 5V From PC Input

AC120V/60Hz

Site site #1

Limit: FCC Part15 B Class B QP

EUT: Rubata Bluetooth Keyboard Case

M/N: YS9-PD224 Mode: CHARGING

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBu∀	dB	dBu∀	dBu∀	dB	Detector	Comment
1	*	0.1900	44.23	11.40	55.63	64.04	-8.41	peak	
2		0.2500	39.83	11.67	51.50	61.76	-10.26	peak	
3		0.5020	32.87	10.00	42.87	56.00	-13.13	peak	
4		1.7140	27.00	9.29	36.29	56.00	-19.71	peak	
5		2.9060	22.60	9.91	32.51	56.00	-23.49	peak	
6		13.9580	17.11	9.00	26.11	60.00	-33.89	peak	

Humidity: 60 %

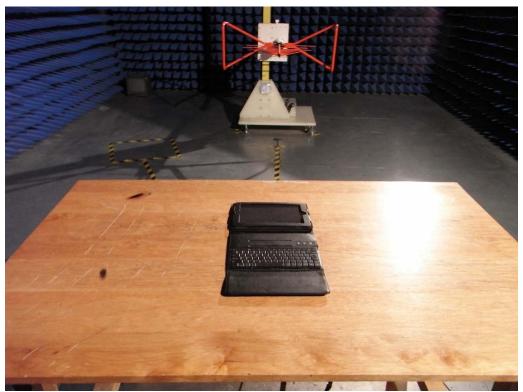
^{*:}Maximum data x:Over limit !:over margin

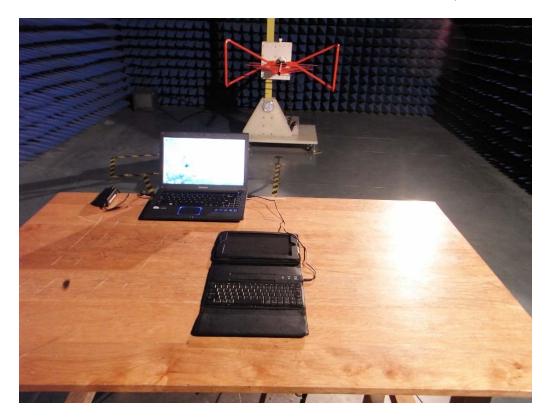
APPENDIX 1 PHOTOGRAPHS OF TEST SETUP

CE TEST SETUP



RE TEST SETUP







APPENDIX 2 PHOTOGRAPHS OF EUT

FRONT VIEW OF SAMPLE



BACK VIEW OF SAMPLE



FRONT VIEW OF EUT



BACK VIEW OF EUT

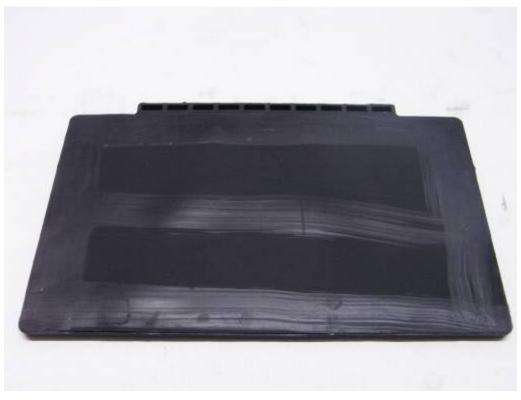


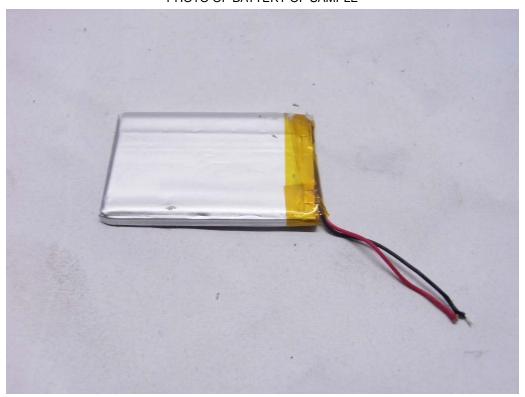
PHOTO OF USB CABLE



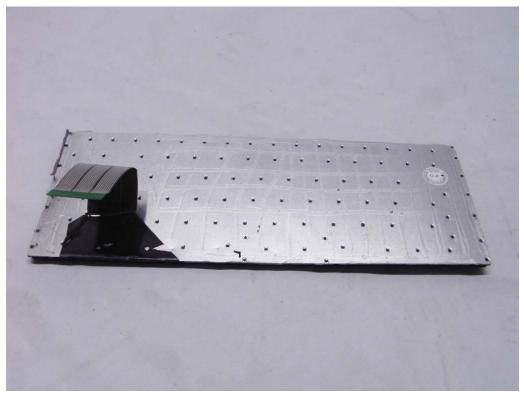
PHOTO OF THE ENTIRE SAMPLE



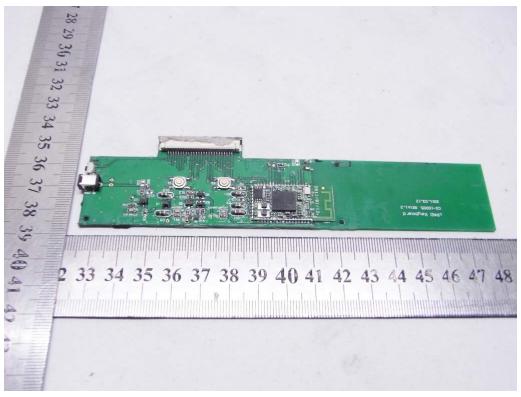
PHOTO OF BATTERY OF SAMPLE



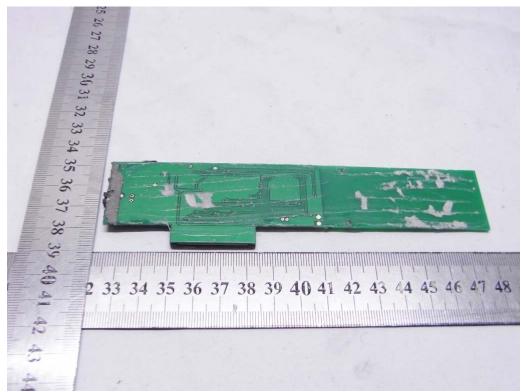
INTERNAL PHOTO OF SAMPLE - 1



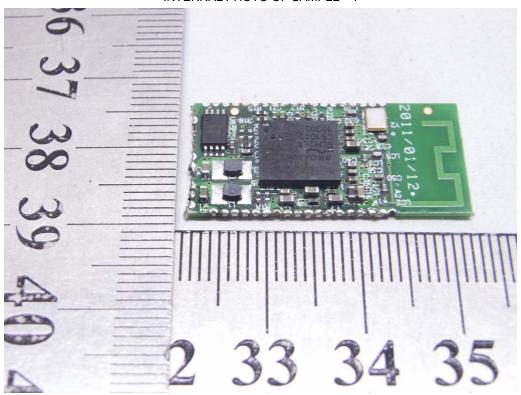
INTERNAL PHOTO OF SAMPLE - 2



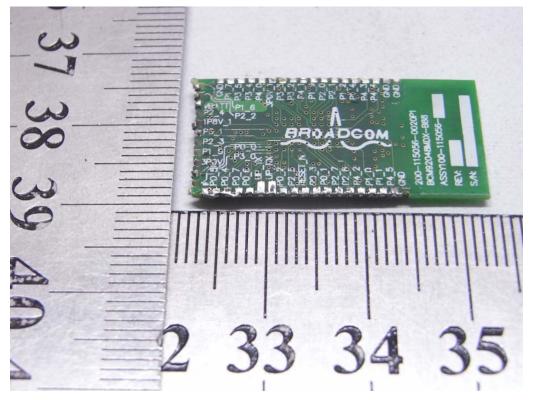
INTERNAL PHOTO OF SAMPLE - 3



INTERNAL PHOTO OF SAMPLE - 4



INTERNAL PHOTO OF SAMPLE - 5



-----END OF REPORT-----