



## Test Report

Product Name	Jabra SPORT
Model No.	BTE4
FCC ID.	DoC

Applicant	GN Netcom A/S
Address	Lautrupbjerg 7, DK-2750 Ballerup, Denmark

Date of Receipt	May 10, 2011
Issued Date	June 28, 2011
Report No.	115223R-RFUSP37V02
Report Version	V1.1-Draft

The Test Results relate only to the samples tested.

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# Test Report Certification

Issued Date: June 28, 2011

Report No.: 115223R-RFUSP37V02



Product Name	Jabra SPORT
Applicant	GN Netcom A/S
Address	Lautrupbjerg 7, DK-2750 Ballerup, Denmark
Manufacturer	DONG GUAN G-COM COMPUTER CO., LTD
Model No.	BTE4
FCC ID.	DoC
EUT Rated Voltage	AC 100-240 V, 50-60 Hz
EUT Test Voltage	AC 120V/60Hz
Trade Name	Jabra SPORT
Applicable Standard	FCC CFR Title 47 Part 15 Subpart B: 2010 ANSI C63.4: 2009
Test Result	Complied



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Documented By : Rita Huang  
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Tested By : Vincent chu  
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Approved By : [Signature]  
(Manager / Vincent Lin )

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## 1. GENERAL INFORMATION

### 1.1. EUT Description

Product Name	Jabra SPORT
Trade Name	Jabra SPORT
Model No.	BTE4
FCC ID.	DoC
Frequency Range	2402 – 2480MHz
Channel Number	79
Type of Modulation	FHSS: GFSK(1Mbps) / $\pi$ /4DQPSK(2Mbps) / 8DPSK(3Mbps)
Antenna Type	PIFA
Channel Control	Auto
Antenna Gain	Refer to the table “Antenna List”
USB Cable	Non-Shielded, 0.3m
Power Adapter (1)	MFR: Jabra, M/N: SSA-5W-05 US 050018F Input: AC 100-240V, 50/60Hz, 0.2A Output: DC 5V, 180mA Cable out: Non-Shielded, 0.3m
Power Adapter (2)	MFR: Jabra, M/N: SSA-5W-05 US 050018F Input: AC 100-240V, 50/60Hz, 0.2A Output: DC 5V, 180mA Cable out: Non-Shielded, 1.6m

#### Antenna List:

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	SoarComm	SC-251B	PIFA	0 dBi for 2.4 GHz

## Frequency of Each Channel :

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 00:	2402 MHz	Channel 20:	2422 MHz	Channel 40:	2442 MHz	Channel 60:	2462 MHz
Channel 01:	2403 MHz	Channel 21:	2423 MHz	Channel 41:	2443 MHz	Channel 61:	2463 MHz
Channel 02:	2404 MHz	Channel 22:	2424 MHz	Channel 42:	2444 MHz	Channel 62:	2464 MHz
Channel 03:	2405 MHz	Channel 23:	2425 MHz	Channel 43:	2445 MHz	Channel 63:	2465 MHz
Channel 04:	2406 MHz	Channel 24:	2426 MHz	Channel 44:	2446 MHz	Channel 64:	2466 MHz
Channel 05:	2407 MHz	Channel 25:	2427 MHz	Channel 45:	2447 MHz	Channel 65:	2467 MHz
Channel 06:	2408 MHz	Channel 26:	2428 MHz	Channel 46:	2448 MHz	Channel 66:	2468 MHz
Channel 07:	2409 MHz	Channel 27:	2429 MHz	Channel 47:	2449 MHz	Channel 67:	2469 MHz
Channel 08:	2410 MHz	Channel 28:	2430 MHz	Channel 48:	2450 MHz	Channel 68:	2470 MHz
Channel 09:	2411 MHz	Channel 29:	2431 MHz	Channel 49:	2451 MHz	Channel 69:	2471 MHz
Channel 10:	2412 MHz	Channel 30:	2432 MHz	Channel 50:	2452 MHz	Channel 70:	2472 MHz
Channel 11:	2413 MHz	Channel 31:	2433 MHz	Channel 51:	2453 MHz	Channel 71:	2473 MHz
Channel 12:	2414 MHz	Channel 32:	2434 MHz	Channel 52:	2454 MHz	Channel 72:	2474 MHz
Channel 13:	2415 MHz	Channel 33:	2435 MHz	Channel 53:	2455 MHz	Channel 73:	2475 MHz
Channel 14:	2416 MHz	Channel 34:	2436 MHz	Channel 54:	2456 MHz	Channel 74:	2476 MHz
Channel 15:	2417 MHz	Channel 35:	2437 MHz	Channel 55:	2457 MHz	Channel 75:	2477 MHz
Channel 16:	2418 MHz	Channel 36:	2438 MHz	Channel 56:	2458 MHz	Channel 76:	2478 MHz
Channel 17:	2419 MHz	Channel 37:	2439 MHz	Channel 57:	2459 MHz	Channel 77:	2479 MHz
Channel 18:	2420 MHz	Channel 38:	2440 MHz	Channel 58:	2460 MHz	Channel 78:	2480 MHz
Channel 19:	2421 MHz	Channel 39:	2441 MHz	Channel 59:	2461 MHz		

## Note:

1. The EUT is a Jabra SPORT with a built-in 2.4GHz Bluetooth V2.0+EDR transceiver.
2. Regarding to the operation frequency band, the lowest, middle, and highest frequency are selected to perform the test.
3. This device is a composite device in accordance with Part 15 regulations. The function for the 2.4GHz transmitting was measured and made a test report that the report number is 115223R-RFUSP29V01 certified under FCC ID: BCE-BTE4
4. The radiation measurements are performed in X, Y, Z axis positioning. Only the worst case is shown in the report.

Test Mode	Mode 1: Receive - Bluetooth Mode 2: Charge Mode - Long Cable Mode 3: Charge Mode - Short Cable
-----------	--

## 1.2. Test System Details

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

### Mode 1: Receive - Bluetooth

	Product	Manufacturer	Model No.	Serial No.	Power Cord
1	Notebook PC	DELL	PPT	N/A	Non-Shielded, 0.8m
2	Monitor	LG	W2261VT	907YHZK07303	Non-Shielded, 1.8m
3	Modem	ACEEX	DM-1414	0102027553	Non-Shielded, 1.8m
4	Microphone & Earphone	Ergotech	ET-E201	N/A	N/A
5	DVD-ROM	DELL	PDO1S	P0690-A01	N/A

### Mode 2: Charger Mode - Long Cable

### Mode 3: Charger Mode - Short Cable

	Product	Manufacturer	Model No.	Serial No.	Power Cord
1	N/A	N/A	N/A	N/A	N/A

### Mode 1: Receive - Bluetooth

	Signal Cable Type	Signal cable Description
A	USB Cable	Shielded, 1.0m
B	USB Cable	Non-Shielded, 0.3m
C	Modem Cable	Shielded, 1.0m
D	Microphone & Earphone Cable	Non-Shielded, 1.8m
E	USB Cable	Shielded, 0.8m
F	VGA Cable	Shielded, 2.0m, with one ferrite core bonded.

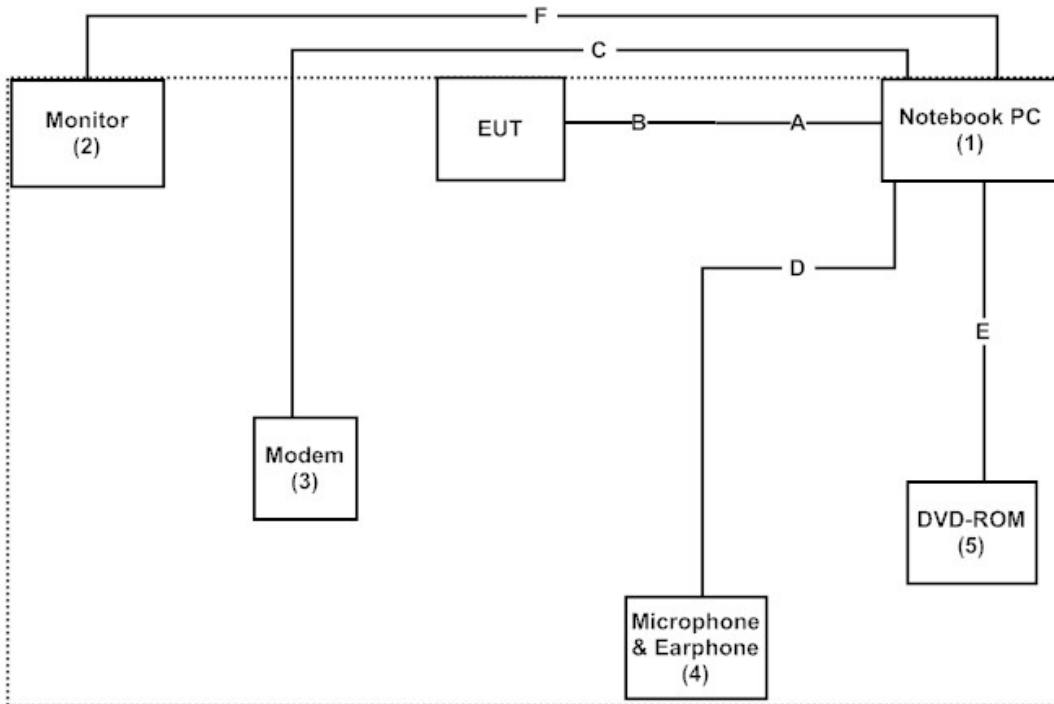
### Mode 2: Charger Mode - Long Cable

### Mode 3: Charger Mode - Short Cable

	Signal Cable Type	Signal cable Description
A	N/A	N/A

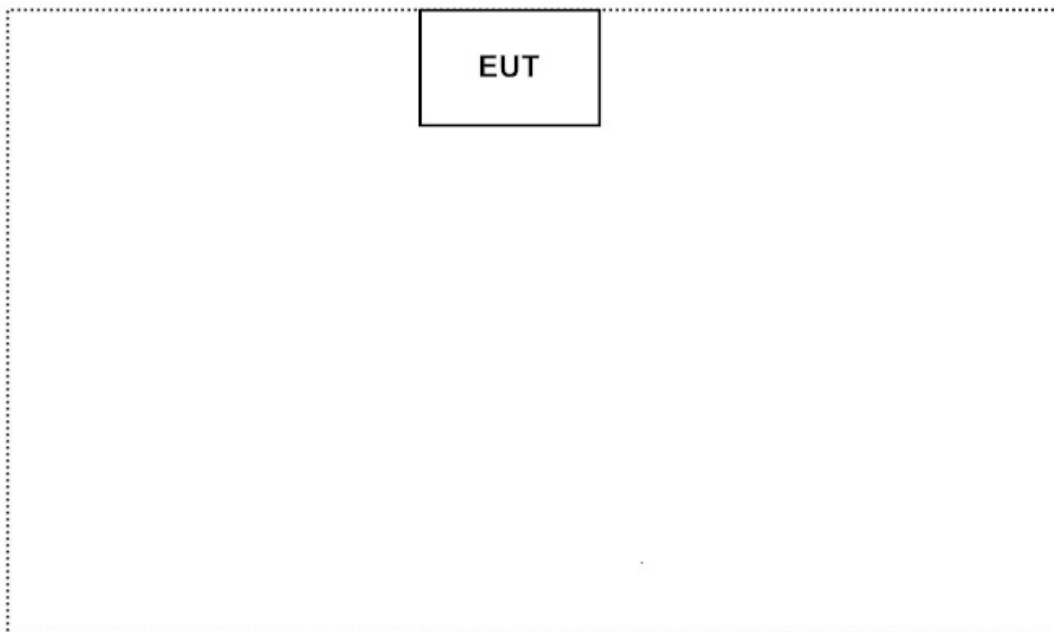
### 1.3. Configuration of Test System

Mode 1: Receive - Bluetooth



Mode 2: Charge Mode - Long Cable

Mode 3: Charge Mode - Short Cable



#### **1.4. EUT Exercise Software**

- (1) Setup the EUT as shown in Section 1.3.
- (2) Execute software on the EUT.
- (3) Configure the test mode, the test channel, and the data rate.
- (4) Press “OK” to start the continuous Transmit.
- (5) Verify that the EUT works properly.



**1.5. Test Facility**

Ambient conditions in the laboratory:

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	20-35
Humidity (%RH)	25-75	50-65
Barometric pressure (mbar)	860-1060	950-1000

The related certificate for our laboratories about the test site and management system can be downloaded from Quietek Corporation's Web Site: <http://www.quietek.com/tw/ctg/cts/accreditations.htm>

The address and introduction of Quietek Corporation's laboratories can be founded in our Web site: <http://www.quietek.com/>

Site Description: Federal Communications Commission  
 FCC Engineering Laboratory  
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 Registration Number: 92195



Accreditation on NVLAP  
 NVLAP Lab Code: 200533-0



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## 2. Conducted Emission

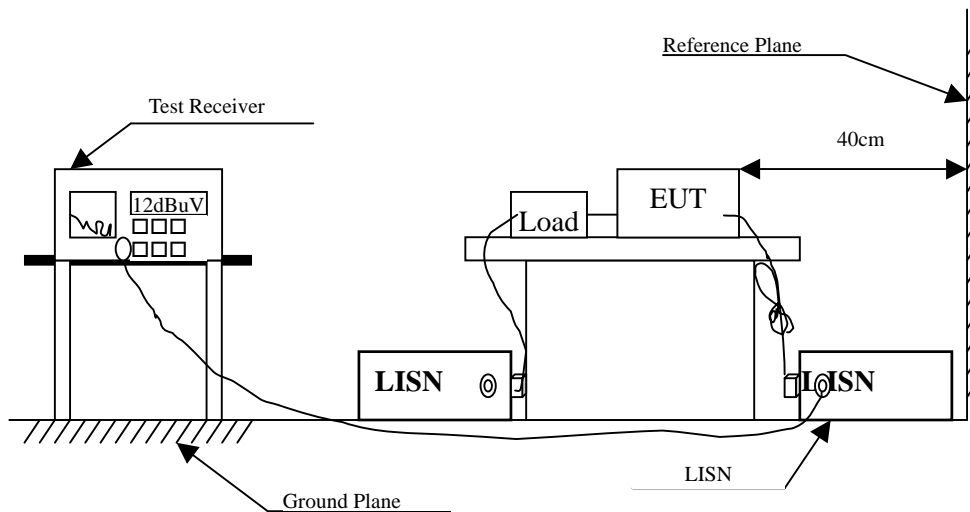
### 2.1. Test Equipment

The following test equipment are used during the conducted emission test:

Item	Instrument	Manufacturer	Type No./Serial No	Last Cal.	Remark
1	Test Receiver	R & S	ESCS 30/825442/014	Feb., 2011	
2	L.I.S.N.	R & S	ESH3-Z5/825562/002	Feb., 2011	EUT
3	L.I.S.N.	R & S	ENV4200/848411/010	Feb., 2011	Peripherals
4	Pulse Limiter	R & S	ESH3-Z2/100410	July, 2010	
5	No.1 Shielded Room			N/A	

Note: All equipments are calibrated every one year.

### 2.2. Test Setup



### 2.3. Limits

FCC Part 15 Subpart B Paragraph 15.107 (dBuV) Limit		
Frequency MHz	Limits	
	QP	AV
0.15 - 0.50	66-56	56-46
0.50-5.0	56	46
5.0 - 30	60	50

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

## 2.4. Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm /50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs.)

Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4: 2009 on conducted measurement.

Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

## 2.5. Uncertainty

± 2.26 dB

## 2.6. Test Result of Conducted Emission

Product : Jabra SPORT  
 Test Item : Conducted Emission Test  
 Power Line : Line 1  
 Test Mode : Mode 1: Receive - Bluetooth (2402MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV	Margin dB	Limit dBuV
<b>LINE 1</b>					
<b>Quasi-Peak</b>					
0.170	9.740	26.010	35.750	-29.679	65.429
0.216	9.696	27.490	37.186	-26.928	64.114
0.267	9.665	29.130	38.795	-23.862	62.657
0.439	9.640	23.310	32.950	-24.793	57.743
0.771	9.648	28.080	37.728	-18.272	56.000
23.912	10.050	23.680	33.730	-26.270	60.000
<b>Average</b>					
0.170	9.740	13.340	23.080	-32.349	55.429
0.216	9.696	26.370	36.066	-18.048	54.114
0.267	9.665	24.330	33.995	-18.662	52.657
0.439	9.640	16.980	26.620	-21.123	47.743
0.771	9.648	26.280	35.928	-10.072	46.000
23.912	10.050	18.590	28.640	-21.360	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. "■" means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : Jabra SPORT  
 Test Item : Conducted Emission Test  
 Power Line : Line 2  
 Test Mode : Mode 1: Receive - Bluetooth (2441MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV	Margin dB	Limit dBuV
<b>LINE 2</b>					
<b>Quasi-Peak</b>					
0.189	9.724	34.380	44.104	-20.782	64.886
0.212	9.708	30.410	40.118	-24.111	64.229
0.259	9.680	31.010	40.690	-22.196	62.886
0.420	9.650	23.620	33.270	-25.016	58.286
0.767	9.667	29.600	39.267	-16.733	56.000
23.752	10.040	23.050	33.090	-26.910	60.000
<b>Average</b>					
0.189	9.724	14.970	24.694	-30.192	54.886
0.212	9.708	26.390	36.098	-18.131	54.229
0.259	9.680	20.500	30.180	-22.706	52.886
0.420	9.650	14.230	23.880	-24.406	48.286
0.767	9.667	25.920	35.587	-10.413	46.000
23.752	10.040	17.010	27.050	-22.950	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. "■" means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : Jabra SPORT  
 Test Item : Conducted Emission Test  
 Power Line : Line 1  
 Test Mode : Mode 2: Charge Mode - Long Cable

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV	Margin dB	Limit dBuV
<b>LINE 1</b>					
<b>Quasi-Peak</b>					
0.158	9.756	17.000	26.756	-39.015	65.771
0.177	9.730	18.630	28.359	-36.870	65.229
0.287	9.654	19.270	28.924	-33.162	62.086
0.435	9.640	10.520	20.160	-37.697	57.857
0.697	9.630	19.930	29.560	-26.440	56.000
0.935	9.670	12.000	21.670	-34.330	56.000
<b>Average</b>					
0.158	9.756	-1.030	8.726	-47.045	55.771
0.177	9.730	1.690	11.419	-43.810	55.229
0.287	9.654	6.090	15.744	-36.342	52.086
0.435	9.640	2.560	12.200	-35.657	47.857
0.697	9.630	10.610	20.240	-25.760	46.000
0.935	9.670	4.920	14.590	-31.410	46.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. "█" means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : Jabra SPORT  
 Test Item : Conducted Emission Test  
 Power Line : Line 2  
 Test Mode : Mode 2: Charge Mode - Long Cable

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV	Margin dB	Limit dBuV
<b>LINE 2</b>					
<b>Quasi-Peak</b>					
0.252	9.685	9.910	19.595	-43.491	63.086
0.283	9.666	16.940	26.606	-35.594	62.200
0.431	9.649	10.210	19.859	-38.112	57.971
0.662	9.650	11.760	21.410	-34.590	56.000
1.005	9.670	10.820	20.490	-35.510	56.000
1.431	9.670	5.810	15.480	-40.520	56.000
<b>Average</b>					
0.252	9.685	-1.930	7.755	-45.331	53.086
0.283	9.666	6.600	16.266	-35.934	52.200
0.431	9.649	1.650	11.299	-36.672	47.971
0.662	9.650	3.340	12.990	-33.010	46.000
1.005	9.670	4.420	14.090	-31.910	46.000
1.431	9.670	-0.020	9.650	-36.350	46.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. "■" means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : Jabra SPORT  
 Test Item : Conducted Emission Test  
 Power Line : Line 1  
 Test Mode : Mode 3: Charge Mode - Short Cable

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV	Margin dB	Limit dBuV
<b>LINE 1</b>					
<b>Quasi-Peak</b>					
0.166	9.746	25.540	35.285	-30.258	65.543
0.224	9.690	17.830	27.520	-36.366	63.886
0.271	9.662	19.810	29.472	-33.071	62.543
0.388	9.650	12.870	22.520	-36.680	59.200
0.697	9.630	17.900	27.530	-28.470	56.000
0.927	9.670	11.900	21.570	-34.430	56.000
<b>Average</b>					
0.166	9.746	9.100	18.845	-36.698	55.543
0.224	9.690	2.290	11.980	-41.906	53.886
0.271	9.662	6.610	16.272	-36.271	52.543
0.388	9.650	2.130	11.780	-37.420	49.200
0.697	9.630	9.280	18.910	-27.090	46.000
0.927	9.670	4.130	13.800	-32.200	46.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. "■" means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor



Product : Jabra SPORT  
 Test Item : Conducted Emission Test  
 Power Line : Line 2  
 Test Mode : Mode 3: Charge Mode - Short Cable

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV	Margin dB	Limit dBuV
<b>LINE 2</b>					
<b>Quasi-Peak</b>					
0.185	9.727	7.500	17.228	-47.772	65.000
0.236	9.692	7.680	17.372	-46.171	63.543
0.283	9.666	9.400	19.066	-43.134	62.200
0.724	9.652	11.910	21.562	-34.438	56.000
0.966	9.670	17.630	27.300	-28.700	56.000
1.634	9.680	1.440	11.120	-44.880	56.000
<b>Average</b>					
0.185	9.727	-4.090	5.638	-49.362	55.000
0.236	9.692	-4.970	4.722	-48.821	53.543
0.283	9.666	-3.270	6.396	-45.804	52.200
0.724	9.652	4.430	14.082	-31.918	46.000
0.966	9.670	9.180	18.850	-27.150	46.000
1.634	9.680	-6.010	3.670	-42.330	46.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. "■" means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

### 3. Radiated Emission

#### 3.1. Test Equipment

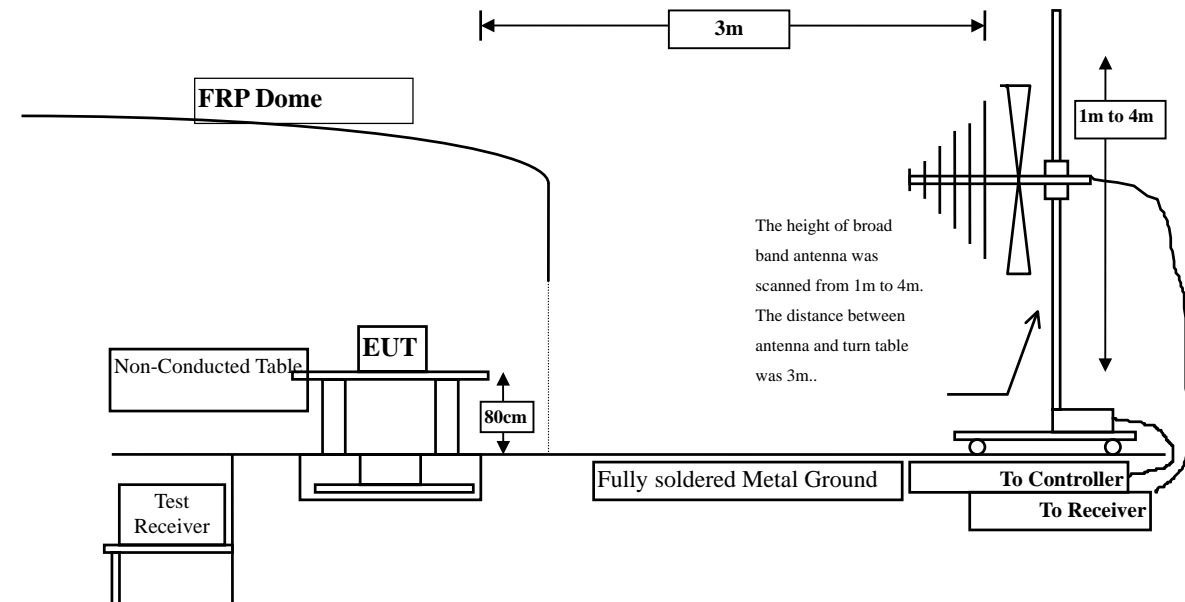
The following test equipment are used during the radiated emission test:

Test Site	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
☒ Site # 3	X Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2010
	X Horn Antenna	Schwarzbeck	BBHA9120D/D305	Sep., 2010
	X Horn Antenna	Schwarzbeck	BBHA9170/208	Jul., 2010
	X Pre-Amplifier	QTK	AP-180C / CHM_0906076	Sep., 2010
	X Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2011
	X Test Receiver	R & S	ESCS 30/ 825442/018	Sep., 2010
	X Coaxial Cable	Quietek	QTK-CABLE/ CAB5	Feb., 2011
	X Controller	Quietek	QTK-CONTROLLER/ CTRL3	N/A
	X Coaxial Switch	Anritsu	MP59B/6200265729	N/A

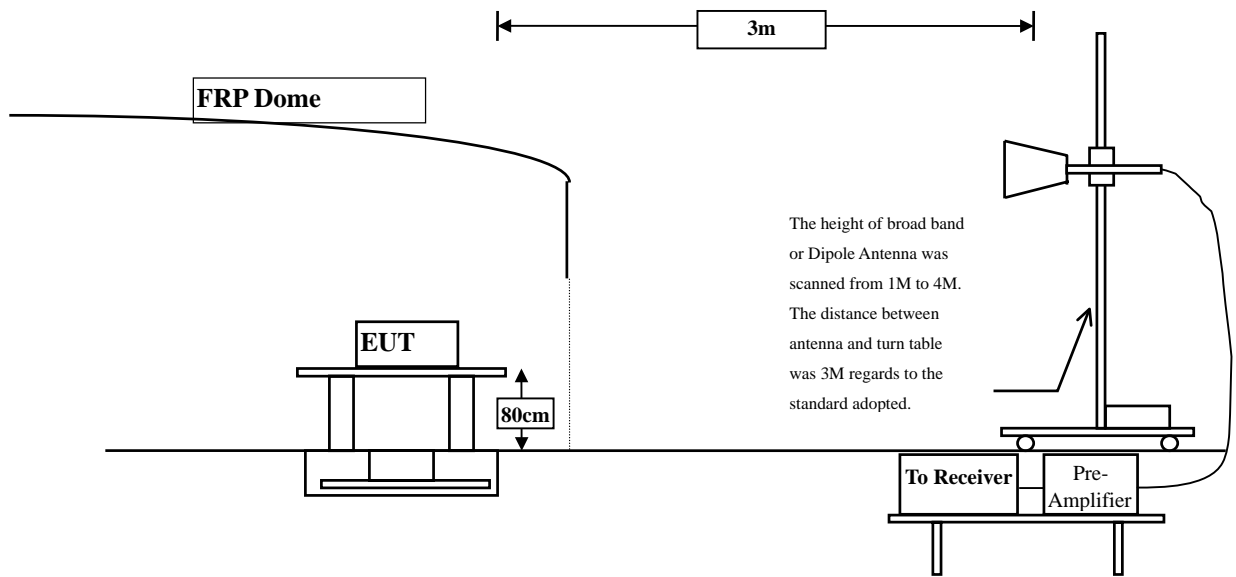
- Note:
1. All equipments are calibrated every one year.
  2. The test equipments marked by "X" are used to measure the final test results.

#### 3.2. Test Setup

Radiated Emission Below 1GHz



Radiated Emission Above 1GHz



**3.3. Limits**

FCC Part 15 Subpart B Paragraph 15.109 Limits		
Frequency MHz	uV/m @3m	DBuV /m@3m
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

- Remarks :
1. RF Voltage (dBuV) = 20 log RF Voltage (uV)
  2. In the Above Table, the tighter limit applies at the band edges.
  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.

### 3.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4: 2009 on radiated measurement.

The resolution bandwidth below 1GHz setting on the field strength meter is 120 kHz and above 1GHz is 1MHz. Radiated emission measurements below 1GHz are made using broadband Bilog antenna and above 1GHz are made using Horn Antennas.

The measurement is divided into the Preliminary Measurement and the Final Measurement.

The suspected frequencies are searched for in Preliminary Measurement with the measurement antenna kept pointed at the source of the emission both in azimuth and elevation, with the polarization of the antenna oriented for maximum response. The antenna is pointed at an angle towards the source of the emission, and the EUT is rotated in both height and polarization to maximize the measured emission. The emission is kept within the illumination area of the 3 dB bandwidth of the antenna.

The worst radiated emission is measured on the Final Measurement.

The measurement frequency range form 30MHz - 10th Harmonic of fundamental was investigated.

### 3.5. Uncertainty

± 3.9 dB above 1GHz

± 3.8 dB below 1GHz

### 3.6. Test Result of Radiated Emission

Product : Jabra SPORT  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Receive - Bluetooth (2402MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
2402.000	-1.073	41.500	40.428	-33.572	74.000
4804.000	3.139	43.120	46.259	-27.741	74.000
7206.000	10.038	43.110	53.148	-20.852	74.000
<b>Average Detector:</b>					
--					
<b>Peak Detector:</b>					
2402.000	-1.729	41.300	39.571	-34.429	74.000
4804.000	6.450	43.250	49.700	-24.300	74.000
7206.000	10.907	42.680	53.587	-20.413	74.000
<b>Average Detector:</b>					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Jabra SPORT  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Receive - Bluetooth (2441MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
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**Horizontal**
**Peak Detector:**

2441.000	-0.829	42.510	41.681	-32.319	74.000
4882.000	2.889	43.250	46.139	-27.861	74.000
7323.000	11.783	41.750	53.533	-20.467	74.000

**Average Detector:**

--

**Peak Detector:**

2441.000	-1.543	43.980	42.437	-31.563	74.000
4882.000	5.601	43.350	48.952	-25.048	74.000
7323.000	12.664	41.050	53.715	-20.285	74.000

**Average Detector:**

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**Note:**

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Jabra SPORT  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Receive - Bluetooth (2480MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
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**Horizontal**

**Peak Detector:**

2480.000	-0.581	47.120	46.539	-27.461	74.000
4960.000	2.722	43.520	46.242	-27.758	74.000
7440.000	12.451	41.120	53.571	-18.429	74.000

**Average Detector:**

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**Peak Detector:**

2480.000	-1.324	45.320	43.996	-30.004	74.000
4960.000	5.519	44.200	49.719	-24.281	74.000
7440.000	13.310	40.350	53.660	-20.340	74.000

**Average Detector:**

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Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Jabra SPORT  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Receive - Bluetooth (2441MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
82.380	-11.535	46.057	34.522	-5.478	40.000
229.820	-8.162	43.147	34.985	-11.015	46.000
458.740	0.833	39.314	40.147	-5.853	46.000
542.160	3.011	39.903	42.914	-3.086	46.000
749.740	3.320	30.357	33.677	-12.323	46.000
1000.000	9.119	35.421	44.540	-9.460	54.000
<b>Vertical</b>					
105.660	-0.253	28.786	28.533	-14.967	43.500
255.040	-7.648	35.757	28.109	-17.891	46.000
526.640	-0.423	41.288	40.865	-5.135	46.000
765.260	2.313	32.648	34.961	-11.039	46.000
904.940	2.607	33.603	36.210	-9.790	46.000
926.280	5.821	30.688	36.509	-9.491	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.



Product : Jabra SPORT  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Charge Mode - Long Cable

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
270.560	-5.007	36.101	31.094	-14.906	46.000
433.520	-1.972	43.631	41.659	-4.341	46.000
509.180	1.252	40.811	42.063	-3.937	46.000
526.640	1.817	38.460	40.277	-5.723	46.000
827.340	6.302	33.577	39.879	-6.121	46.000
930.160	7.187	32.747	39.934	-6.066	46.000
<b>Vertical</b>					
101.780	-0.021	30.279	30.257	-13.243	43.500
266.680	-8.213	38.651	30.438	-15.562	46.000
501.420	-0.795	40.504	39.709	-6.291	46.000
520.820	-0.298	40.531	40.233	-5.767	46.000
544.100	-0.688	39.069	38.381	-7.619	46.000
753.620	3.187	30.709	33.896	-12.104	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Jabra SPORT  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Charge Mode - Short Cable

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
435.460	-1.920	35.092	33.172	-12.828	46.000
468.440	1.195	33.981	35.176	-10.824	46.000
516.940	1.654	36.029	37.683	-8.317	46.000
544.100	3.512	34.135	37.647	-8.353	46.000
846.740	5.741	36.029	41.770	-4.230	46.000
988.360	7.110	36.808	43.918	-10.082	54.000
<b>Vertical</b>					
491.720	-2.833	39.097	36.263	-9.737	46.000
515.000	-1.090	39.019	37.929	-8.071	46.000
546.040	-1.300	37.173	35.872	-10.128	46.000
755.560	3.281	30.893	34.174	-11.826	46.000
920.460	5.517	29.687	35.204	-10.796	46.000
968.960	8.191	30.434	38.625	-15.375	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

#### **4. EMI Reduction Method During Compliance Testing**

No modification was made during testing.

## **Attachment 1: EUT Test Photographs**

**Attachment 1: EUT Test Setup Photographs**

Front View of Conducted Test – Mode 1



Back View of Conducted Test – Mode 1



Front View of Conducted Test – Mode 2



Back View of Conducted Test – Mode 2



Front View of Conducted Test – Mode 3



Back View of Conducted Test – Mode 3



Front View of Radiated Test – Mode 1



Back View of Radiated Test – Mode 1





Front View of Radiated Test – Mode 2



Back View of Radiated Test – Mode 2



Front View of Radiated Test – Mode 3



Back View of Radiated Test – Mode 3



Front View of Radiated Test (Horn) – Mode 1



Back View of Radiated Test (Horn) – Mode 1



## **Attachment 2: EUT Detailed Photographs**

**Attachment 2 : EUT Detailed Photographs**

(1) EUT Photo



(2) EUT Photo



(3) EUT Photo



(4) EUT Photo



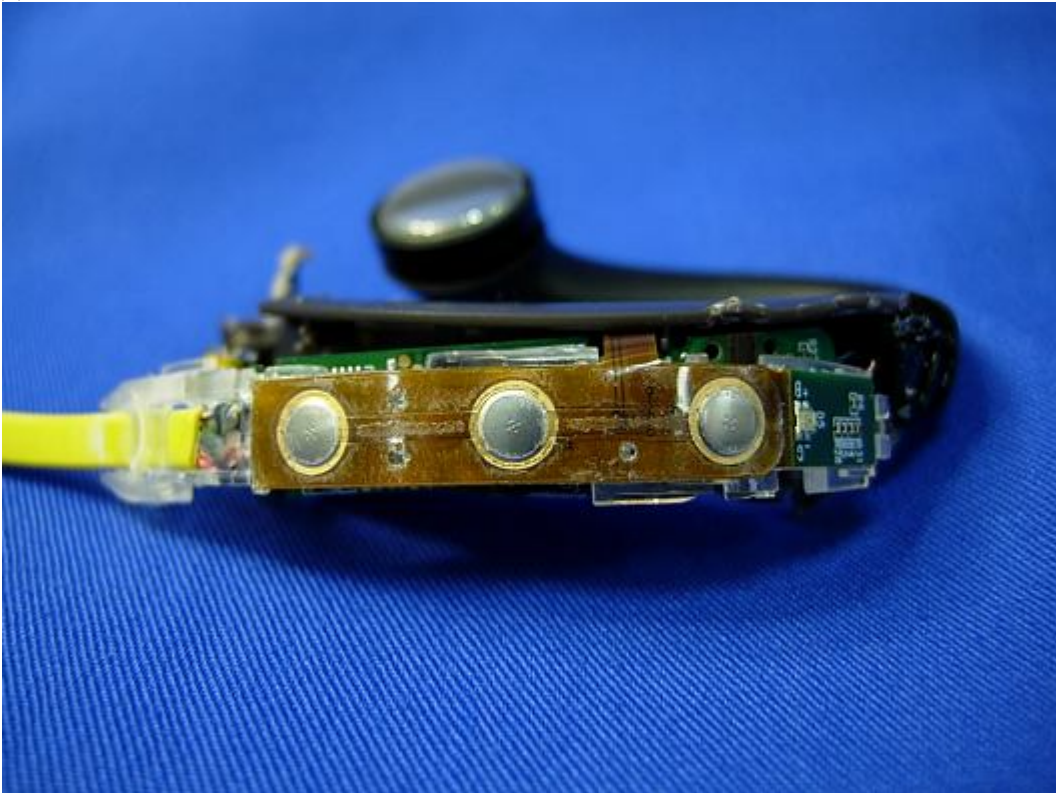
(5) EUT Photo



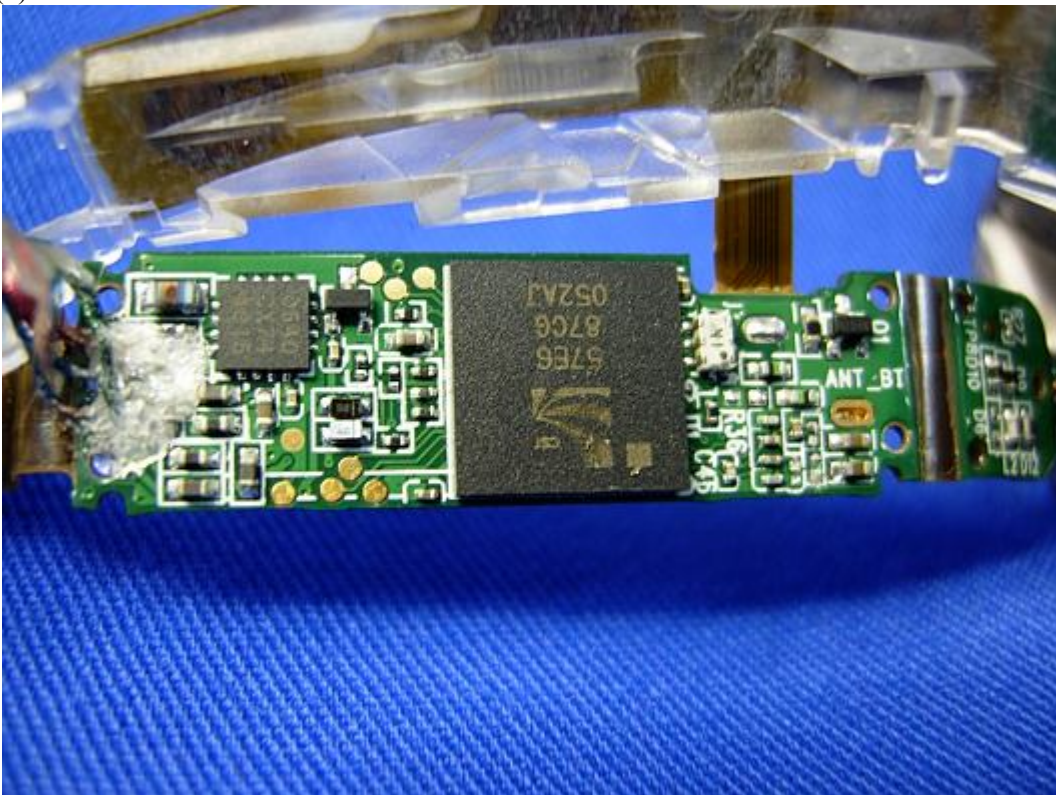
(6) EUT Photo



(7) EUT Photo

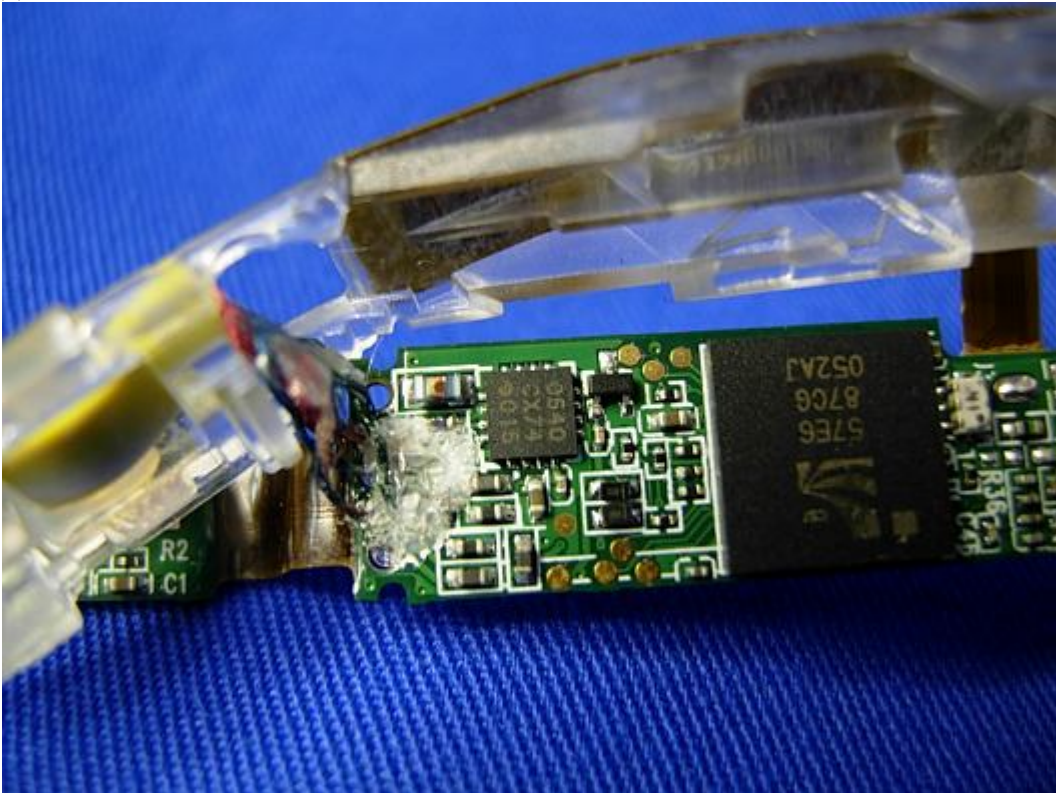


(8) EUT Photo





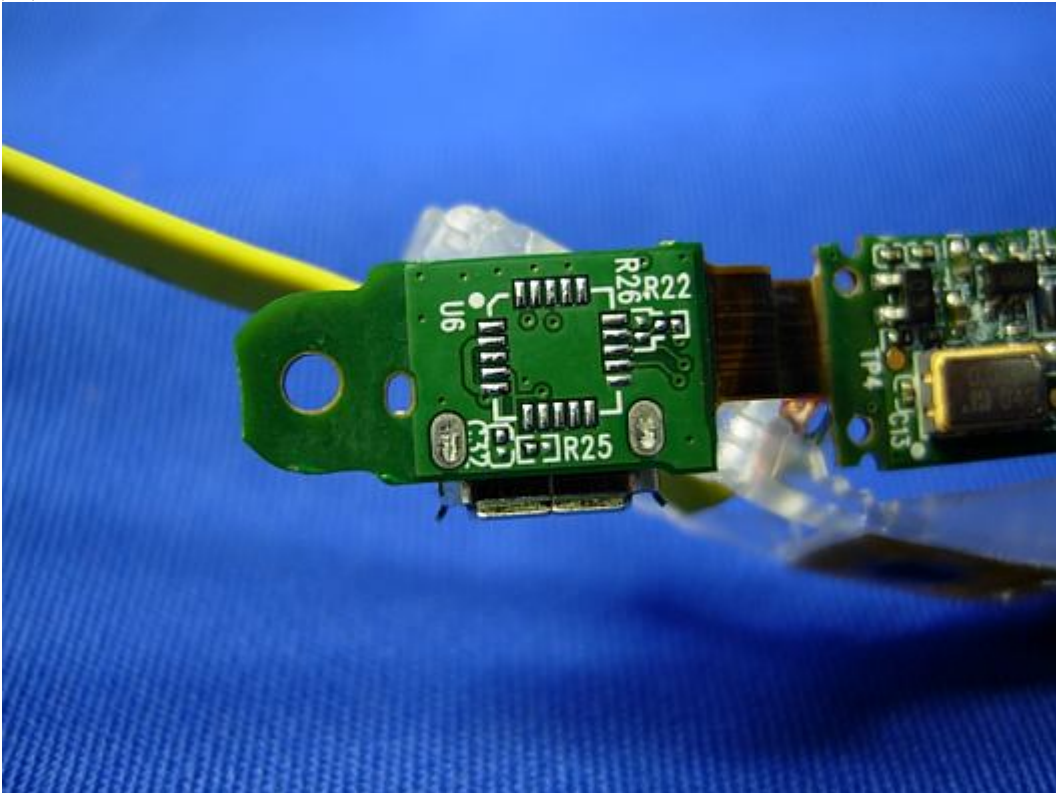
(9) EUT Photo



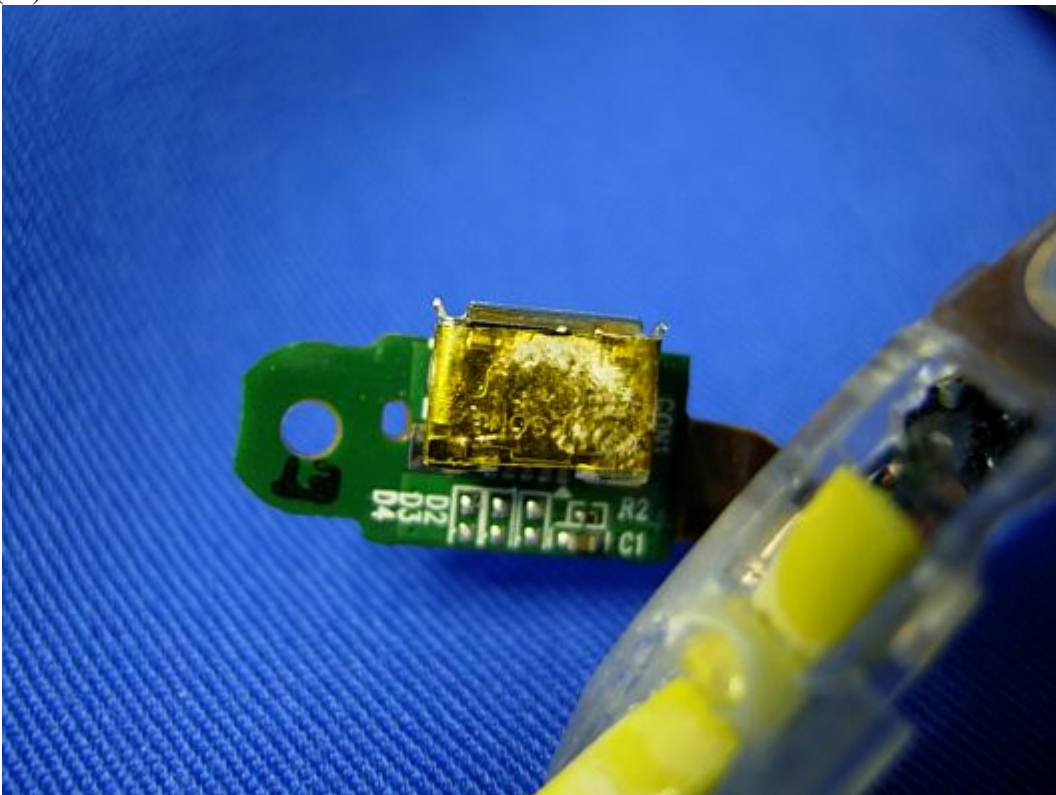
(10) EUT Photo



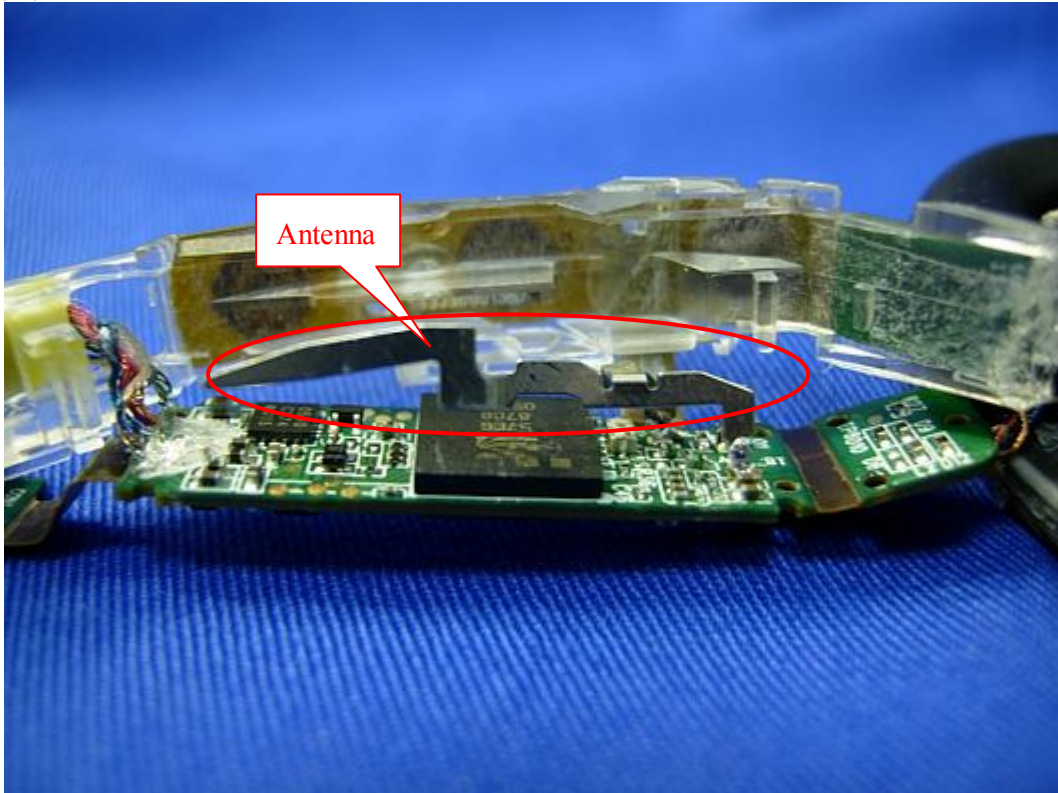
(11) EUT Photo



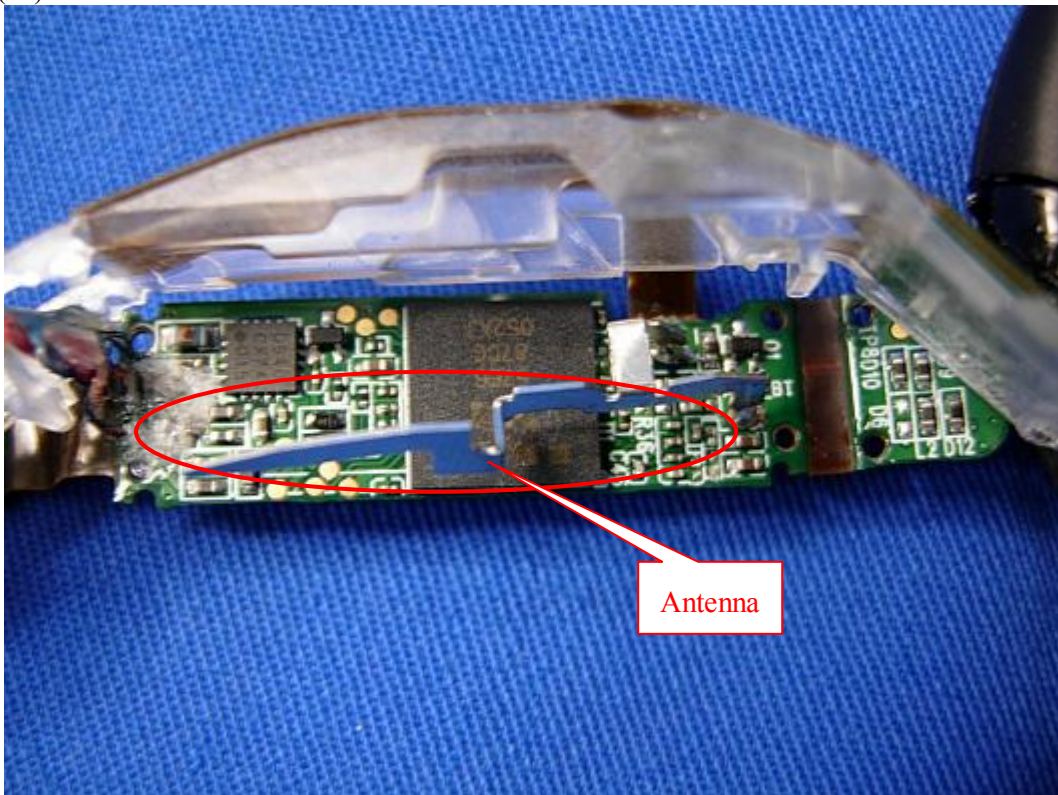
(12) EUT Photo



(13) EUT Photo



(14) EUT Photo



(15) EUT Photo



(16) EUT Photo



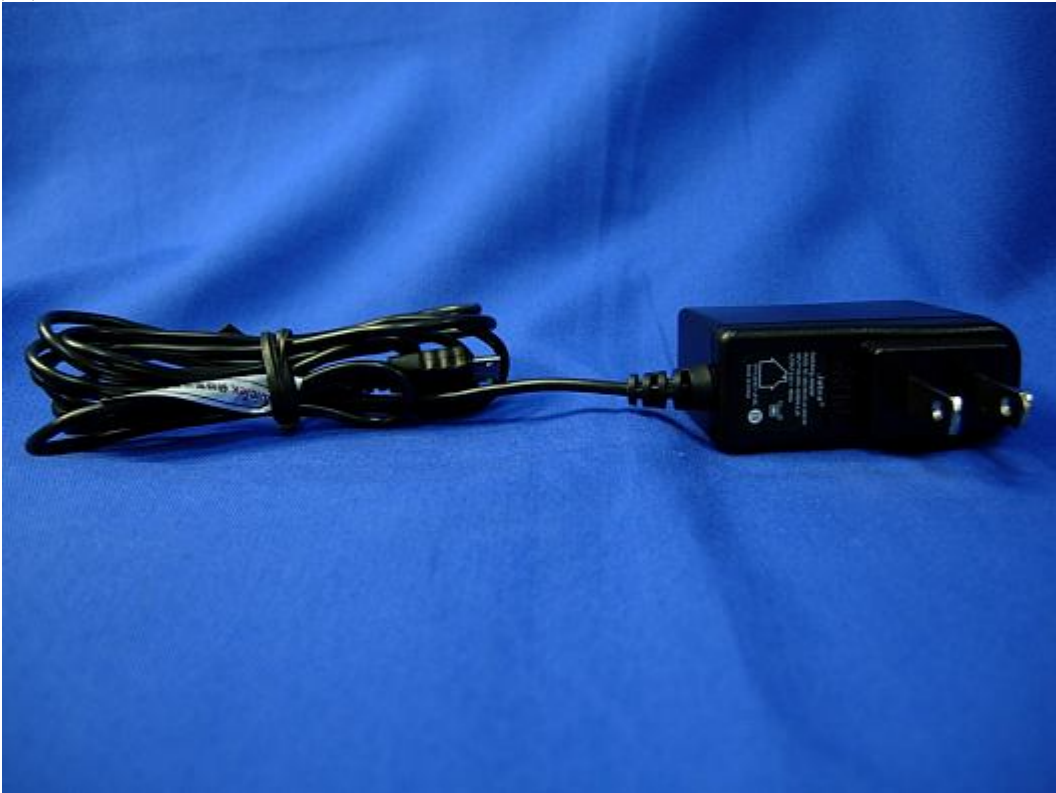
(17) EUT Photo



(18) EUT Photo



(19) EUT Photo



(20) EUT Photo



(21) EUT Photo



(22) EUT Photo



(23) EUT Photo

