



FCC 47 CFR PART 15 SUBPART B

TEST REPORT

For

Applicant : Dongguan Yuanfeng Technology Co., Ltd.

**Address : No.62, South Fumin Road, Fumin Industrial Park, Dalang Town,
Dongguan City, Guangdong, P.R. China**

Product Name : GPS Portable Navigation Device

Model Name : 84F-3

Brand Name : N/A

FCC ID : YNG-GPF080001

Report No. : MOST101003F1

Date of Issue : October. 22, 2010

Issued by : Most Technology Service Co., Ltd.

**Address : No.5, 2nd Langshan Road, North District, Hi-tech Industrial
Park, Nanshan, Shenzhen, Guangdong, China**

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1. VERIFICATION OF CONFORMITY

Equipment Under Test: GPS Portable Navigation Device

Brand Name: N/A

Model Number: 84F-3

Series Number: 84F-1, 84F-2, 84F-4, 84F-5, 84F-6, 84F-7, 84F-8, 84F-9, 84F-51, 84F-52, 84F-53, 84F-54, 84F-55, 84F-56, 84F-57, 84F-58, 84F-59, PF08-4301, PF08-4302, PF08-4303, PF08-4304, PF08-4305, PF08-4306, PF08-4307, PF08-4308, PF08-4309, PF08-5001, PF08-5002, PF08-5003, PF08-5004, PF08-5005, PF08-5006, PF08-5007, PF08-5008, PF08-5009, 84F-53HD, PF08-5004HD, 84F-54HD, 83F-56HD, 84F-59HD.

Model Difference description: The series models are different in appearance and color with the same functions.

FCC ID: YNG-GPF080001

Applicant: Dongguan Yuanfeng Technology Co., Ltd.
No.62, South Fumin Road, Fumin Industrial Park, Dalang Town, Dongguan City, Guangdong, P.R. China

Manufacturer: Dongguan Yuanfeng Technology Co., Ltd.
No.62, South Fumin Road, Fumin Industrial Park, Dalang Town, Dongguan City, Guangdong, P.R. China

Technical Standards: FCC Part 15 B

File Number: MOST101003F1

Date of test: October. 16, 2010 – October. 21, 2010

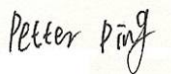
Deviation: None


Condition of Test Sample: Normal

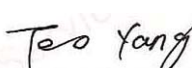
Test Result: PASS

The above equipment was tested by MOST for compliance with the requirements set forth in FCC Part 15 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 October. 22, 2010

Review by (+ signature): 
July Wen October. 22, 2010

Approved by (+ signature): 
Terry Yang October. 22, 2010

2. GENERAL INFORMATION

2.1 PRODUCT INFORMATION

| | |
|------------------------------------|--|
| Housing Type: | Plastic |
| EUT Rating Voltage: | DC 5V by car adapter DC 12/24V; DC 5V by AC/DC adapter 100~240V 50/60Hz DC 3.7V by battery; |
| Voltage During Test: | AC 120V/60Hz |
| I/O Type of EUT: | USB Port/ SD Scoket/ Earphone Port |
| I/O Q'TY: | 1/ 1/ 1 |
| Model Number: | 84F-3 |
| Series Number: | 84F-1, 84F-2, 84F-4, 84F-5, 84F-6, 84F-7, 84F-8, 84F-9, 84F-51, 84F-52, 84F-53, 84F-54, 84F-55, 84F-56, 84F-57, 84F-58, 84F-59, PF08-4301, PF08-4302, PF08-4303, PF08-4304, PF08-4305, PF08-4306, PF08-4307, PF08-4308, PF08-4309, PF08-5001, PF08-5002, PF08-5003, PF08-5004, PF08-5005, PF08-5006, PF08-5007, PF08-5008, PF08-5009, PF08-5004HD, 84F-53HD, 84F-54HD, 83F-56HD, 84F-59HD. |
| Description of Differences: | The series models are different in appearance and color with the same functions. |

NOTE:

1. Please refer to Appendix 2 for the photographs of the EUT. For a more detailed features description about the EUT, please refer to User's Manual.

2.2 OBJECTIVE

Perform FCC Part 15 Subpart B tests for FCC Marking.

2.3 TEST STANDARDS AND RESULTS

Test items and the results are as bellow:

| EMISSION | | | |
|------------------------------|-----------|--------|--------------------|
| Standard | Item | Result | Remarks |
| FCC 47 CFR Part 15 Subpart B | Conducted | PASS | Meet Class B limit |
| | Radiated | PASS | Meet Class B limit |

- 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

2.5 MEASUREMENT UNCERTAINTY

The uncertainty is calculated using the methods suggested in the “Guide to the Expression of Uncertainty in Measurement” (GUM) published by ISO.

- Uncertainty of Conducted Emission, $U_c = \pm 1.8\text{dB}$
- Uncertainty of Radiated Emission, $U_c = \pm 3.2\text{dB}$

3. TEST METHODOLOGY

3.1 TEST FACILITY

| | |
|-----------------------|--|
| Test Site: | Most Technology Service Co., Ltd. |
| Location: | No.5, Langshan 2nd Rd, North Hi-Tech Industrial park, Nanshan Shenzhen, Guangdong, China |
| Description: | <p>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 C63.4:2003 and CISPR 16 requirements. The FCC Registration Number is 490827.</p> <p>The CNAS Registration Number is CNAS L3573.</p> |
| 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 C63.4:2003 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. It has no holes or gaps having longitudinal dimensions larger than one-tenth of a wavelength at the highest frequency of measurement up to 1GHz. |

3.2 GENERAL TEST PROCEDURES

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 C63.4:2003,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 C63.4:2003.

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

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

² Above 38.6

- (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.

4 SETUP OF EQUIPMENT UNDER TEST

4.1 SETUP CONFIGURATION OF EUT

See test photographs attached in Appendix 1 for the actual connections between EUT and support equipment.

4.2 SUPPORT EQUIPMENT

| Device Type | Brand | Model | Series No. | Data Cable | Power Cable |
|-------------|-----------|--------------|-----------------|------------|---------------------|
| Notebook | Samsung | NP-R428-DS0Z | ZVC093FZ800422X | N/A | 1.8M Un-Shielded |
| SD Card | Transcend | 1.0G | N/A | N/A | |

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. 3 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 | Calibrator due date |
|-----|--------------------------------------|-------------------|----------------|-------------|---------------------|
| 1 | Test Receiver | Rohde & Schwarz | ESCI | 100492 | 2011/03/14 |
| 2 | L.I.S.N. | Rohde & Schwarz | ENV216 | 100093 | 2011/03/14 |
| 3 | Coaxial Switch | Anritsu Corp | MP59B | 6200283933 | 2011/03/14 |
| 4 | Terminator | Hubersuhner | 50Ω | No.1 | 2011/03/14 |
| 5 | RF Cable | SchwarzBeck | N/A | No.1 | 2011/03/14 |
| 6 | Test Receiver | Rohde & Schwarz | ESPI | 101202 | 2011/03/14 |
| 7 | Bilog Antenna | Sunol | JB3 | A121206 | 2011/03/14 |
| 8 | Test Antenna - Horn | Schwarzbeck | BBHA 9120C | -- | 2011/03/14 |
| 9 | Test Antenna - Bi-Log | Schwarzbeck | VULB 9163 | -- | 2011/03/14 |
| 10 | Cable | Resenberger | N/A | NO.1 | 2011/03/14 |
| 11 | Cable | SchwarzBeck | N/A | NO.2 | 2011/03/14 |
| 12 | Cable | SchwarzBeck | N/A | NO.3 | 2011/03/14 |
| 13 | DC Power Filter | DuoJi | DL2×30B | N/A | 2011/03/14 |
| 14 | Single Phase Power Line Filter | DuoJi | FNF 202B30 | N/A | 2011/03/14 |
| 15 | 3 Phase Power Line Filter | DuoJi | FNF 402B30 | N/A | 2011/03/14 |
| 16 | Test Receiver | Rohde & Schwarz | ESCI | 100492 | 2011/03/14 |
| 17 | Absorbing Clamp | Luthi | MDS21 | 3635 | 2011/03/14 |
| 18 | Coaxial Switch | Anritsu Corp | MP59B | 6200283933 | 2011/03/14 |
| 19 | AC Power Source | Kikusui | AC40MA | LM003232 | 2011/03/14 |
| 20 | Test Analyzer | Kikusui | KHA1000 | LM003720 | 2011/03/14 |
| 21 | Line Impedance Network | Kikusui | LIN40MA-PCR-L | LM002352 | 2011/03/14 |
| 22 | ESD Tester | Kikusui | KES4021 | LM003537 | 2011/03/14 |
| 23 | EMC PRO System | EM Test | UCS-500-M4 | V0648102026 | 2011/03/14 |
| 24 | Signal Generator | IFR | 2032 | 203002/100 | 2011/03/14 |
| 25 | Amplifier | A&R | 150W1000 | 301584 | 2011/03/14 |
| 26 | CDN | FCC | FCC-801-M2-25 | 47 | 2011/03/14 |
| 27 | CDN | FCC | FCC-801-M3-25 | 107 | 2011/03/14 |
| 28 | EM Injection Clamp | FCC | F-203I-23mm | 403 | 2011/03/14 |
| 29 | RF Cable | MIYAZAKI | N/A | No.1/No.2 | 2011/03/14 |
| 30 | Universal Radio Communication Tester | ROHDE&SCHWARZ | CMU200 | 0304789 | 2011/03/14 |
| 31 | Telecommunication Antenna | European Antennas | PSA 75301R/170 | 0304213 | 2011/03/14 |

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

5. 47 CFR PART 15B REQUIREMENTS

5.1 GENERAL INFORMATION

EUT Function and Test Mode

Mode 1: Idle Mode

During the test, the EUT was on the idle and charging mode.

The EUT configuration of the emission test was **EUT + Battery+ Charger.**

Mode 2: GPS Mode

During the test, the EUT was playing the GPS function continuously.

The EUT configuration of the emission test was **EUT + Battery+ Charger.**

Mode 3 MP3/MP4 Mode

During the test, the EUT was playing the MP3/MP4 function continuously.

The EUT configuration of the emission test was **EUT + Battery+ Charger+ Earphone.**

Mode 4: FM Transmitting Mode

During the test, the EUT was playing the FM transmitting function continuously.

The EUT configuration of the emission test was **EUT + Battery+ Charger.**

Mode 5: Bluetooth Mode

During the test, the EUT was playing the Bluetooth function continuously.

The EUT configuration of the emission test was **EUT + Battery+ Charger.**

Mode 6: USB Mode

During the test, the EUT was connected with the Notebook and made the data transmission function continuously.

The EUT configuration of the emission test was **EUT + Battery+ USB Cable+Notebook.**

NOTE: There are several configurations which reflect the "digital device" portion subject to verification.

6. LINE CONDUCTED EMISSION TEST

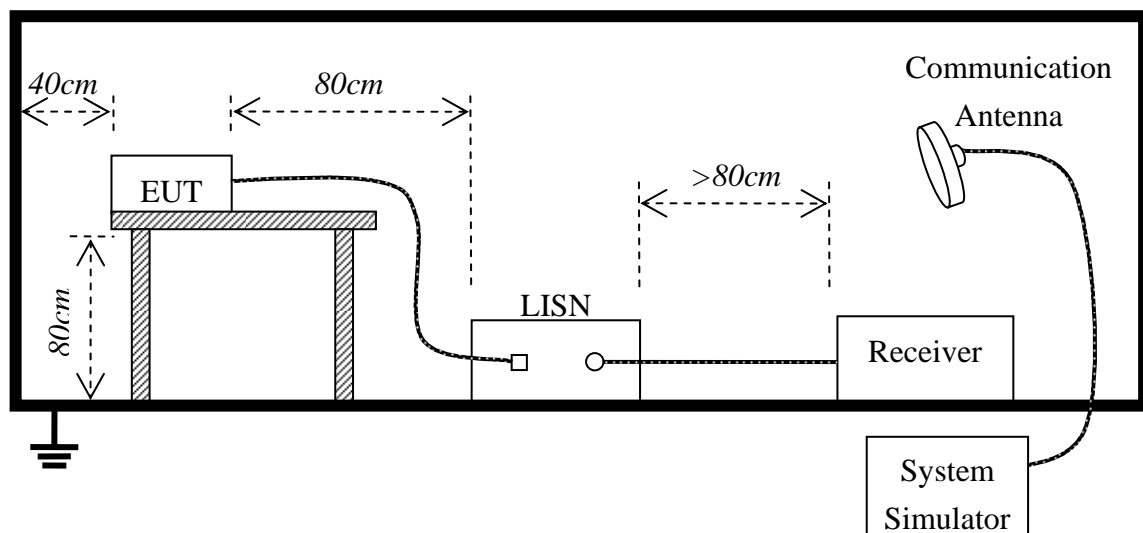
6.1. LIMITS OF LINE CONDUCTED EMISSION TEST

| Frequency | Maximum RF Line Voltage | |
|---------------|-------------------------|----------------|
| | 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.

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

6.2. BLOCK DIAGRAM OF TEST SETUP



6.3. PRELIMINARY PROCEDURE OF LINE CONDUCTED EMISSION TEST

- 1) 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 power by AC/DC adapter or Notebook which 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:

| Preliminary Conducted Emission Test | | | | |
|-------------------------------------|------------|------------------|-----------------|-------------------------------------|
| Frequency Range Investigated | | 150KHz TO 30 MHz | | |
| Mode of operation | Date | Report No. | Data# | Worst Mode |
| Idle Mode | 2010-10-19 | MOST101003F1 | 84F-3_0_(L, N) | <input type="checkbox"/> |
| GPS Mode | 2010-10-19 | MOST101003F1 | 84F-3_1_(L, N) | <input checked="" type="checkbox"/> |
| MP3/MP4 Mode | 2010-10-19 | MOST101003F1 | 84F-3_2_(L, N) | <input type="checkbox"/> |
| FM transmitting | 2010-10-19 | MOST101003F1 | 84F-3_3_(L, N) | <input type="checkbox"/> |
| Bluetooth Mode | 2010-10-19 | MOST101003F1 | 84F-3_4_(L, N) | <input type="checkbox"/> |
| USB Mode | 2010-10-19 | MOST101003F1 | 84F-3_5_(L, N) | <input type="checkbox"/> |

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

6.4. 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.

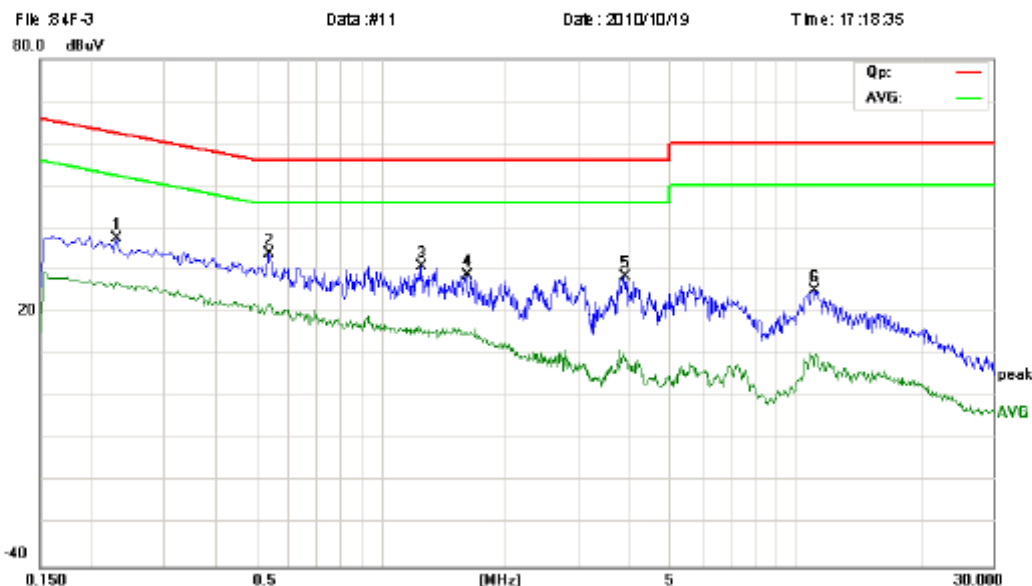
The test data of the worst case condition(s) was reported on the Summary Data page.

6.5. 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

Conducted Emission Measurement



Site site #1

Limit: FCC Part 15 B Class B QP

EUT: GPS Portable Navigation Device

M/N: 84F-3

Mode: Idle

Note:

Phase: **L1**

Power: AC 120V/60Hz

Temperature: 26

Humidity: 60 %

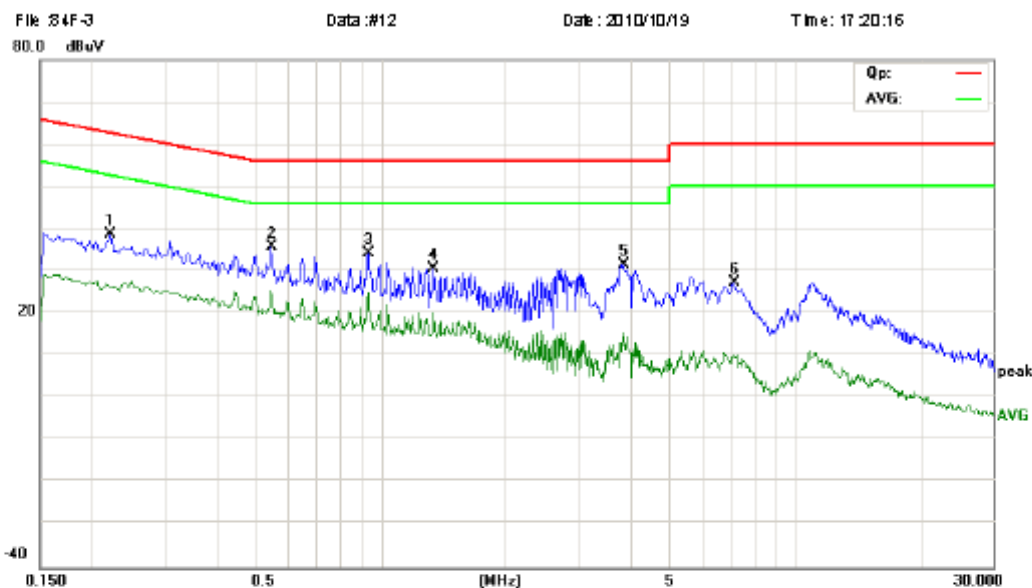
| No. | Mk. | Freq. MHz | Reading Level dBuV | Correct Factor dB | Measure- ment dBuV | Limit dBuV | Over dB | Detector | Comment |
|-----|-----|--------------|--------------------------|-------------------------|--------------------------|---------------|------------|----------|---------|
| 1 | | 0.2300 | 37.65 | 0.00 | 37.65 | 62.45 | -24.80 | peak | |
| 2 | * | 0.5340 | 33.83 | 0.00 | 33.83 | 56.00 | -22.17 | peak | |
| 3 | | 1.2460 | 31.08 | 0.00 | 31.08 | 56.00 | -24.92 | peak | |
| 4 | | 1.6060 | 28.86 | 0.00 | 28.86 | 56.00 | -27.14 | peak | |
| 5 | | 3.8780 | 28.52 | 0.00 | 28.52 | 56.00 | -27.48 | peak | |
| 6 | | 11.0740 | 25.29 | 0.00 | 25.29 | 60.00 | -34.71 | peak | |

*:Maximum data x:Over limit !:over margin



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Conducted Emission Measurement



Site site #1

Phase: **N**

Temperature: 26

Limit: FCC Part15 B Class B QP

Power: AC 120V/60Hz

Humidity: 60 %

EUT: GPS Portable Navigation Device

M/N: 84F-3

Mode: Idle

Note:

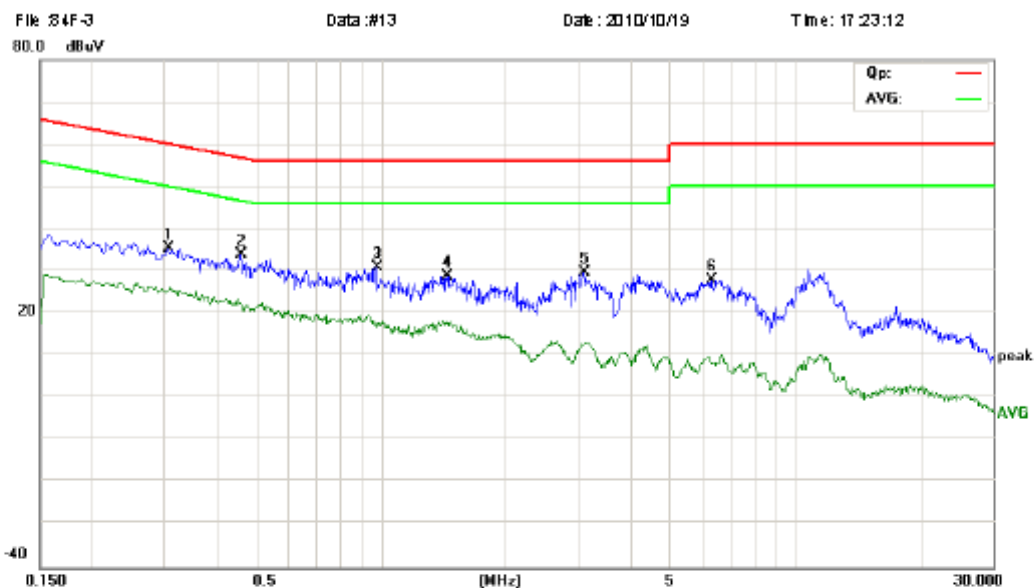
| No. | Mk. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Over | Detector | Comment |
|-----|-----|--------|---------------|----------------|-------------|-------|--------|----------|---------|
| | | MHz | dBuV | dB | dBuV | dBuV | dB | | |
| 1 | | 0.2220 | 38.66 | 0.00 | 38.66 | 62.74 | -24.08 | peak | |
| 2 | * | 0.5420 | 35.85 | 0.00 | 35.85 | 56.00 | -20.15 | peak | |
| 3 | | 0.9300 | 34.29 | 0.00 | 34.29 | 56.00 | -21.71 | peak | |
| 4 | | 1.3340 | 30.68 | 0.00 | 30.68 | 56.00 | -25.32 | peak | |
| 5 | | 3.8500 | 31.61 | 0.00 | 31.61 | 56.00 | -24.39 | peak | |
| 6 | | 7.0740 | 27.43 | 0.00 | 27.43 | 60.00 | -32.57 | peak | |

*:Maximum data x:Over limit !:over margin



Address: No.5, Langshan 2nd Rd., North Hi-Tech Industrial park
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Tel: 0755-86170306 Fax: 0755-86170310

Conducted Emission Measurement



Site site #1

Phase: **N**

Temperature: 26

Limit: FCC Part15 B Class B QP

Power: AC 120V/60Hz

Humidity: 60%

EUT: GPS Portable Navigation Device

M/N: 84F-3

Mode: Mp3

Note:

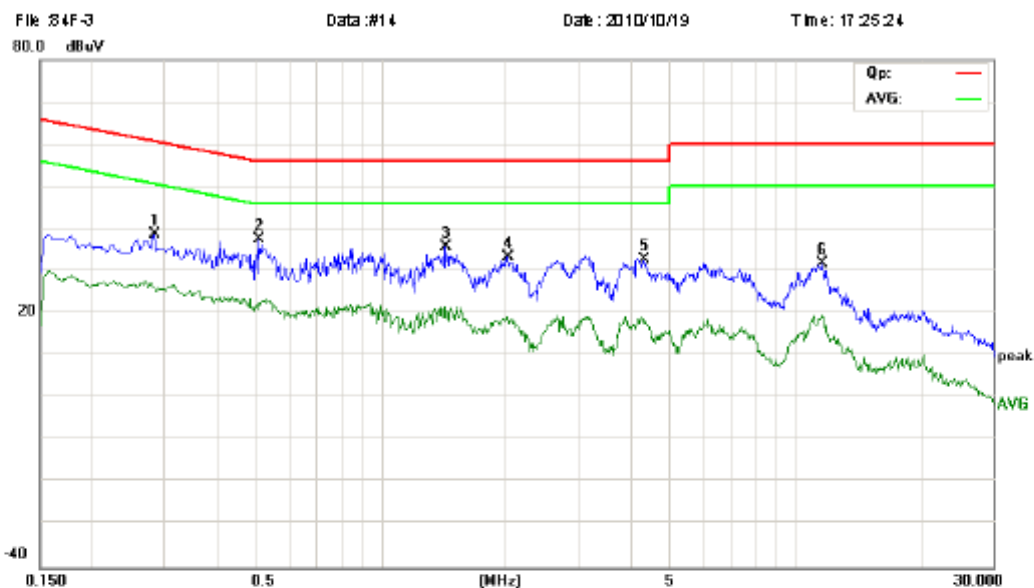
| No. | Mk. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Over | Detector | Comment |
|-----|-----|--------|---------------|----------------|-------------|-------|--------|----------|---------|
| | | MHz | dBuV | dB | dBuV | dBuV | dB | | |
| 1 | | 0.3060 | 35.58 | 0.00 | 35.58 | 60.08 | -24.50 | peak | |
| 2 | * | 0.4580 | 33.99 | 0.00 | 33.99 | 56.73 | -22.74 | peak | |
| 3 | | 0.9740 | 31.04 | 0.00 | 31.04 | 56.00 | -24.96 | peak | |
| 4 | | 1.4340 | 28.98 | 0.00 | 28.98 | 56.00 | -27.02 | peak | |
| 5 | | 3.0780 | 29.76 | 0.00 | 29.76 | 56.00 | -26.24 | peak | |
| 6 | | 6.2580 | 28.00 | 0.00 | 28.00 | 60.00 | -32.00 | 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

Conducted Emission Measurement



Site site #1

Phase: **L1**

Temperature: 26

Limit: FCC Part15 B Class B QP

Power: AC 120V/60Hz

Humidity: 60 %

EUT: GPS Portable Navigation Device

M/N: 84F-3

Mode: Mp3

Note:

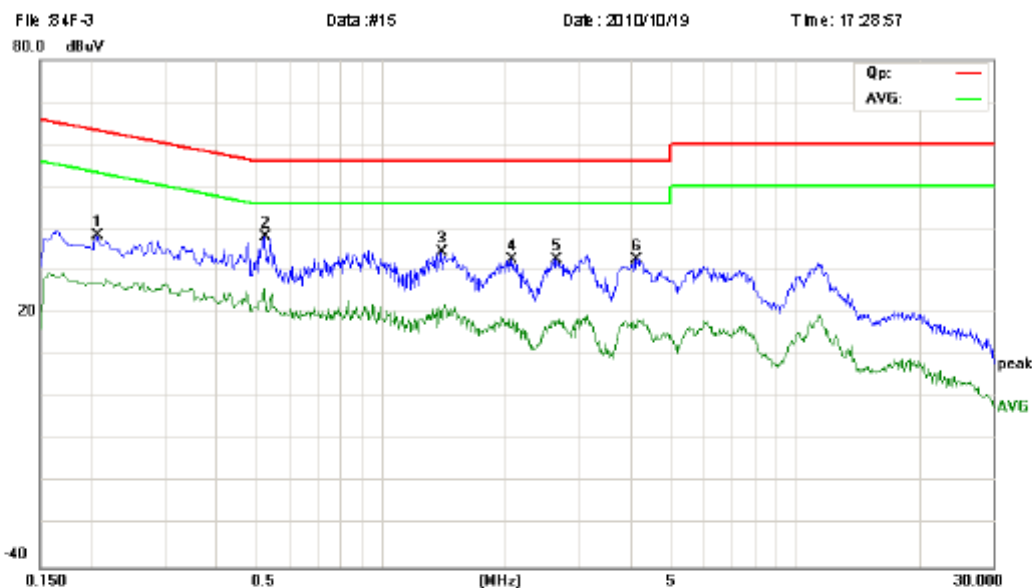
| No. | Mk. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Over | Detector | Comment |
|-----|-----|---------|---------------|----------------|-------------|-------|--------|----------|---------|
| | | MHz | dBuV | dB | dBuV | dBuV | dB | | |
| 1 | | 0.2820 | 38.85 | 0.00 | 38.85 | 60.76 | -21.91 | peak | |
| 2 | * | 0.5060 | 37.42 | 0.00 | 37.42 | 56.00 | -18.58 | peak | |
| 3 | | 1.4300 | 35.63 | 0.00 | 35.63 | 56.00 | -20.37 | peak | |
| 4 | | 2.0220 | 33.22 | 0.00 | 33.22 | 56.00 | -22.78 | peak | |
| 5 | | 4.2980 | 32.60 | 0.00 | 32.60 | 56.00 | -23.40 | peak | |
| 6 | | 11.5860 | 31.82 | 0.00 | 31.82 | 60.00 | -28.18 | 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

Conducted Emission Measurement



Site site #1

Phase: **L1**

Temperature: 26

Limit: FCC Part15 B Class B QP

Power: AC 120V/60Hz

Humidity: 60 %

EUT: GPS Portable Navigation Device

M/N: 84F-3

Mode: GPS

Note:

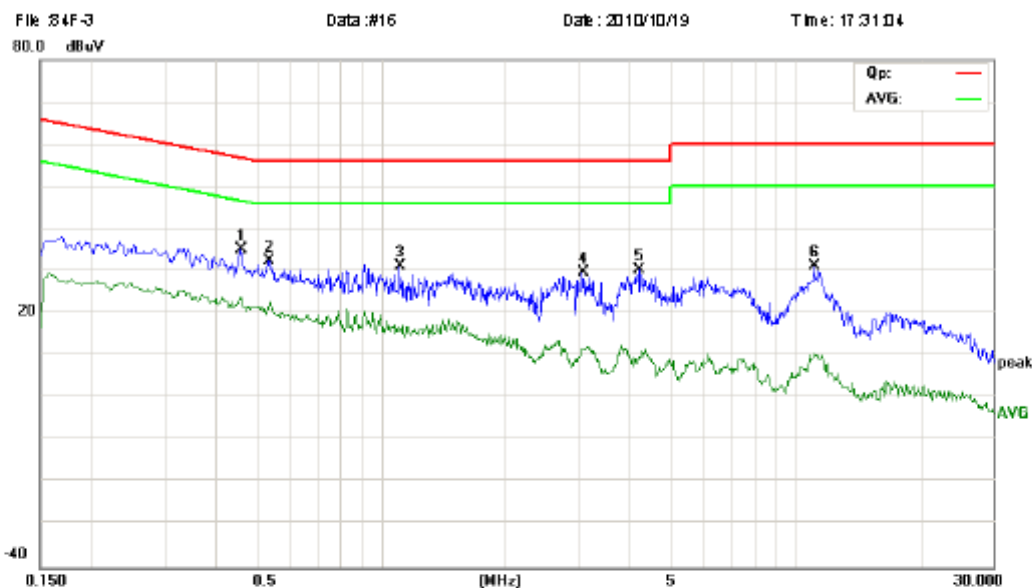
| No. | Mk. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Over | | |
|-----|-----|--------|---------------|----------------|-------------|-------|--------|----------|---------|
| | | MHz | dBuV | dB | dBuV | dBuV | dB | Detector | Comment |
| 1 | | 0.2060 | 38.56 | 0.00 | 38.56 | 63.37 | -24.81 | peak | |
| 2 | * | 0.5220 | 38.03 | 0.00 | 38.03 | 56.00 | -17.97 | peak | |
| 3 | | 1.4020 | 34.61 | 0.00 | 34.61 | 56.00 | -21.39 | peak | |
| 4 | | 2.0620 | 32.63 | 0.00 | 32.63 | 56.00 | -23.37 | peak | |
| 5 | | 2.6420 | 32.74 | 0.00 | 32.74 | 56.00 | -23.26 | peak | |
| 6 | | 4.1340 | 32.85 | 0.00 | 32.85 | 56.00 | -23.15 | 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

Conducted Emission Measurement



Site site #1

Phase: **N**

Temperature: 26

Limit: FCC Part15 B Class B QP

Power: AC 120V/60Hz

Humidity: 60 %

EUT: GPS Portable Navigation Device

M/N: 84F-3

Mode: GPS

Note:

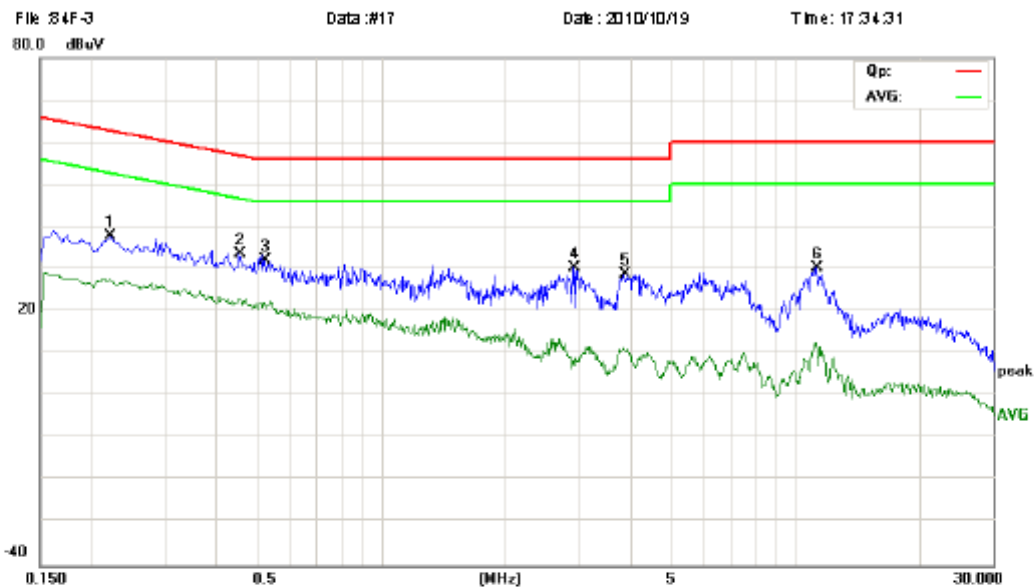
| No. | Mk. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Over | | |
|-----|-----|---------|---------------|----------------|-------------|-------|--------|----------|---------|
| | | MHz | dBuV | dB | dBuV | dBuV | dB | Detector | Comment |
| 1 | * | 0.4580 | 35.21 | 0.00 | 35.21 | 56.73 | -21.52 | peak | |
| 2 | | 0.5340 | 32.45 | 0.00 | 32.45 | 56.00 | -23.55 | peak | |
| 3 | | 1.1060 | 31.20 | 0.00 | 31.20 | 56.00 | -24.80 | peak | |
| 4 | | 3.0620 | 29.63 | 0.00 | 29.63 | 56.00 | -26.37 | peak | |
| 5 | | 4.1940 | 30.36 | 0.00 | 30.36 | 56.00 | -25.64 | peak | |
| 6 | | 11.1140 | 31.15 | 0.00 | 31.15 | 60.00 | -28.85 | 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

Conducted Emission Measurement



Site site #1

Phase: **N**

Temperature: 26

Limit: FCC Part15 B Class B QP

Power: AC 120V/60Hz

Humidity: 60 %

EUT: GPS Portable Navigation Device

M/N: 84F-3

Mode: Bluetooth

Note:

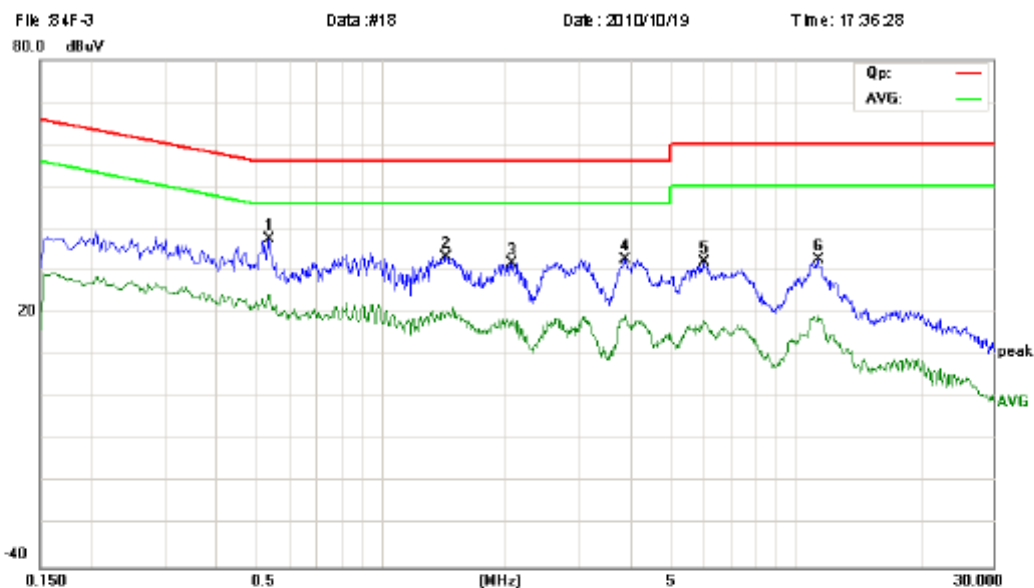
| No. Mk. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Over | Detector | Comment |
|---------|---------|---------------|----------------|-------------|-------|--------|----------|---------|
| | MHz | dBμV | dB | dBμV | dBμV | dB | | |
| 1 | 0.2220 | 37.77 | 0.00 | 37.77 | 62.74 | -24.97 | peak | |
| 2 * | 0.4540 | 33.56 | 0.00 | 33.56 | 56.80 | -23.24 | peak | |
| 3 | 0.5220 | 32.17 | 0.00 | 32.17 | 56.00 | -23.83 | peak | |
| 4 | 2.9100 | 30.23 | 0.00 | 30.23 | 56.00 | -25.77 | peak | |
| 5 | 3.8620 | 28.83 | 0.00 | 28.83 | 56.00 | -27.17 | peak | |
| 6 | 11.2020 | 30.39 | 0.00 | 30.39 | 60.00 | -29.61 | 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

Conducted Emission Measurement



Site site #1

Phase: **L1**

Temperature: 26

Limit: FCC Part 15 B Class B QP

Power: AC 120V/60Hz

Humidity: 60 %

EUT: GPS Portable Navigation Device

M/N: 84F-3

Mode: Bluetooth

Note:

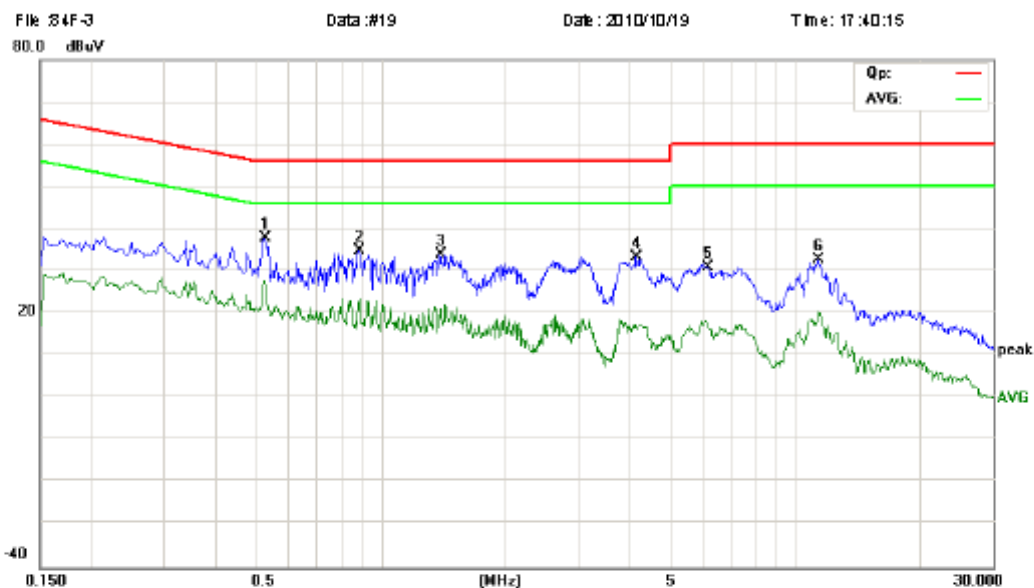
| No. | Mk. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Over | Detector | Comment |
|-----|-----|---------|---------------|----------------|-------------|-------|--------|----------|---------|
| | | MHz | dBμV | dB | dBμV | dBμV | dB | | |
| 1 | * | 0.5340 | 37.58 | 0.00 | 37.58 | 56.00 | -18.42 | peak | |
| 2 | | 1.4300 | 33.50 | 0.00 | 33.50 | 56.00 | -22.50 | peak | |
| 3 | | 2.0620 | 31.88 | 0.00 | 31.88 | 56.00 | -24.12 | peak | |
| 4 | | 3.8700 | 32.82 | 0.00 | 32.82 | 56.00 | -23.18 | peak | |
| 5 | | 5.9980 | 32.14 | 0.00 | 32.14 | 60.00 | -27.86 | peak | |
| 6 | | 11.3700 | 32.80 | 0.00 | 32.80 | 60.00 | -27.20 | 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

Conducted Emission Measurement



Site site #1

Phase: **L1**

Temperature: 26

Limit: FCC Part15 B Class B QP

Power: AC 120V/60Hz

Humidity: 60 %

EUT: GPS Portable Navigation Device

M/N: 84F-3

Mode: FM Transmitting

Note:

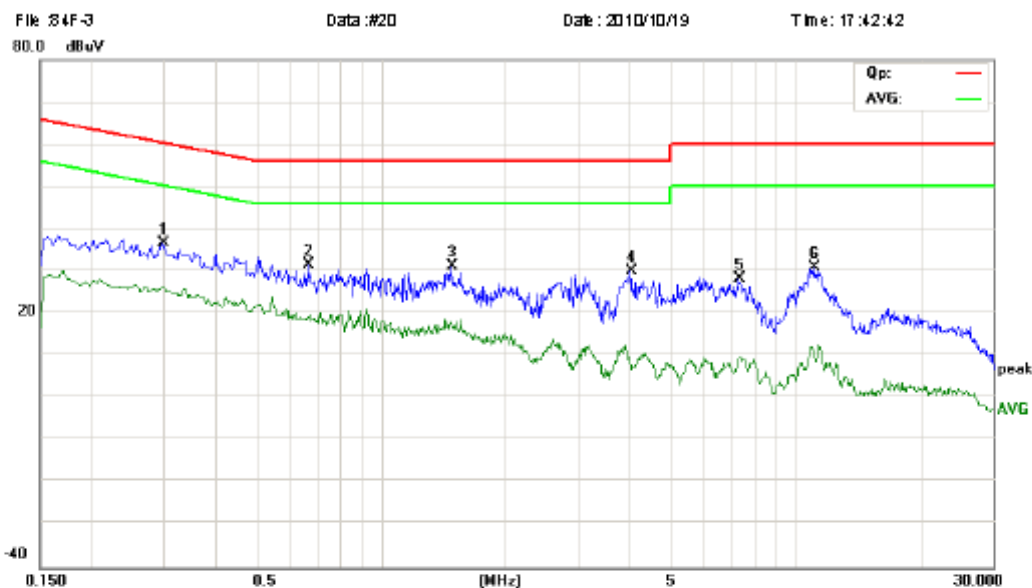
| No. | Mk. | Freq. MHz | Reading Level dBuV | Correct Factor dB | Measure- ment dBuV | Limit dBuV | Over dB | Detector | Comment |
|-----|-----|--------------|--------------------------|-------------------------|--------------------------|---------------|------------|----------|---------|
| 1 | * | 0.5220 | 37.79 | 0.00 | 37.79 | 56.00 | -18.21 | peak | |
| 2 | | 0.8820 | 34.72 | 0.00 | 34.72 | 56.00 | -21.28 | peak | |
| 3 | | 1.3860 | 33.94 | 0.00 | 33.94 | 56.00 | -22.06 | peak | |
| 4 | | 4.1300 | 33.22 | 0.00 | 33.22 | 56.00 | -22.78 | peak | |
| 5 | | 6.1260 | 31.08 | 0.00 | 31.08 | 60.00 | -28.92 | peak | |
| 6 | | 11.3740 | 32.66 | 0.00 | 32.66 | 60.00 | -27.34 | 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

Conducted Emission Measurement



Site site #1

Phase: **N**

Temperature: 26

Limit: FCC Part15 B Class B QP

Power: AC 120V/60Hz

Humidity: 60 %

EUT: GPS Portable Navigation Device

M/N: 84F-3

Mode: FM Transmitting

Note:

| No. | Mk. | Freq. MHz | Reading Level dBμV | Correct Factor dB | Measure- ment dBμV | Limit dBμV | Over dB | Detector | Comment |
|-----|-----|--------------|--------------------------|-------------------------|--------------------------|---------------|------------|----------|---------|
| 1 | * | 0.2980 | 36.52 | 0.00 | 36.52 | 60.30 | -23.78 | peak | |
| 2 | | 0.6660 | 31.61 | 0.00 | 31.61 | 56.00 | -24.39 | peak | |
| 3 | | 1.4780 | 31.27 | 0.00 | 31.27 | 56.00 | -24.73 | peak | |
| 4 | | 3.9860 | 30.06 | 0.00 | 30.06 | 56.00 | -25.94 | peak | |
| 5 | | 7.3140 | 28.25 | 0.00 | 28.25 | 60.00 | -31.75 | peak | |
| 6 | | 11.0980 | 31.06 | 0.00 | 31.06 | 60.00 | -28.94 | peak | |

*:Maximum data x:Over limit !:over margin

7. RADIATED EMISSION TEST

7.1. LIMITS OF RADIATED DISTURBANCES AT 3M DISTANCES FOR CLASS B

According to FCC section 15.247, radiated emission outside the frequency band attenuation below the general limits specified in FCC section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in FCC section 15.205(a), must also comply with the radiated emission limits specified in FCC section 15.209(a).

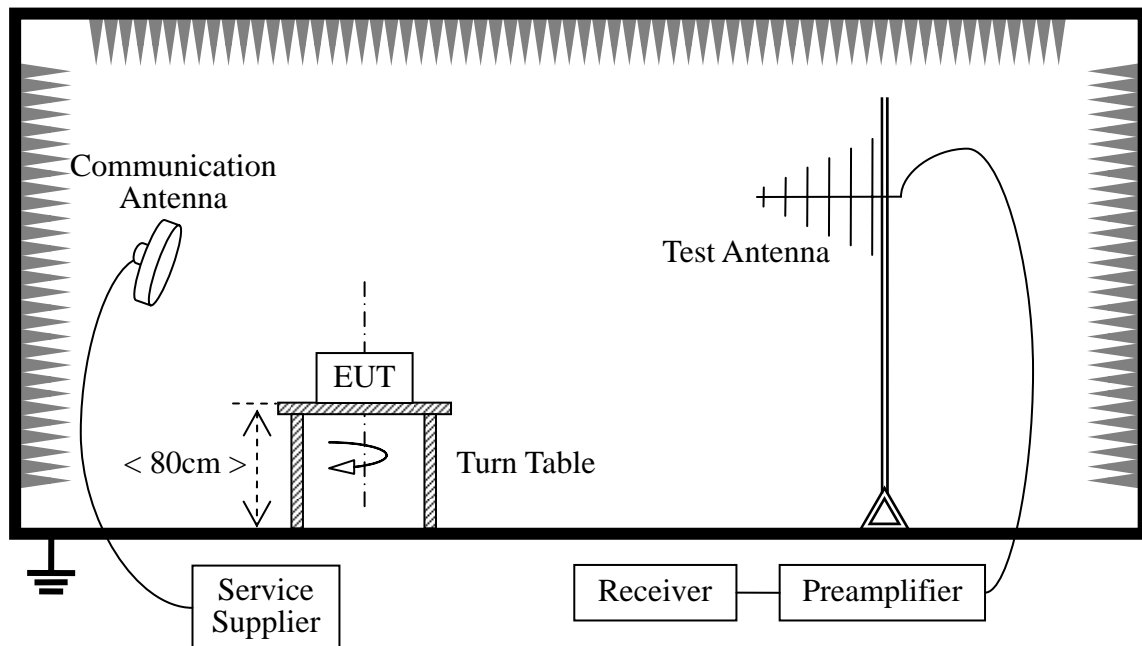
According to FCC section 15.209 (a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

| Frequency (MHz) | Field Strength ($\mu\text{V/m}$) | Measurement Distance (m) |
|-----------------|------------------------------------|--------------------------|
| 0.009 - 0.490 | $2400/F(\text{kHz})$ | 300 |
| 0.490 - 1.705 | $24000/F(\text{kHz})$ | 30 |
| 1.705 - 30.0 | 30 | 30 |
| 30 - 88 | 100 | 3 |
| 88 - 216 | 150 | 3 |
| 216 - 960 | 200 | 3 |
| Above 960 | 500 | 3 |

As shown in FCC section 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector. When average radiated emission measurements are specified in this part, including emission measurements below 1000MHz, there also is a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit for the frequency being investigated unless a different peak emission limit is otherwise specified in the rules.

7.2 TEST DESCRIPTION

Test Setup:



The EUT is powered by the Battery charged with the AC Adapter which is powered by 120V, 60Hz AC mains supply. The Module is located in a 3m Semi-Anechoic Chamber; the antenna factors, cable loss and so on of the site as factors are calculated to correct the reading. During the measurement, the EUT is activated and transmitting with the other Bluetooth device (Supply by the Applicant) during the test.

For the Test Antenna:

(a) In the frequency range of 9 kHz to 30MHz, magnetic field is measured with Loop Test Antenna. The Test Antenna is positioned with its plane vertical at 1m distance from the EUT. The center of the Loop Test Antenna is 1m above the ground. During the measurement the Loop Test Antenna rotates about its vertical axis for maximum response at each azimuth about the EUT.

(b) In the frequency range above 30MHz, Bi-Log Test Antenna (30MHz to 1GHz) and Horn Test Antenna (above 1GHz) are used. Test Antenna is 3m away from the EUT. Test Antenna height is varied from 1m to 4m above the ground to determine the maximum value of the field strength. The emission levels at both horizontal and vertical polarizations should be tested.

| Preliminary Radiated Emission Test | | | | |
|------------------------------------|------------|--------------|--------------------|-------------------------------------|
| Frequency Range Investigated | | | 30 MHz TO 1000 MHz | |
| Mode of operation | Date | Report No. | Data# | Worst Mode |
| Idle Mode | 2010-10-17 | MOST101003F1 | 84F-3_0_(H, V) | <input type="checkbox"/> |
| GPS Mode | 2010-10-17 | MOST101003F1 | 84F-3_1_(H, V) | <input type="checkbox"/> |
| MP3/MP4 Mode | 2010-10-17 | MOST101003F1 | 84F-3_2_(H, V) | <input checked="" type="checkbox"/> |
| FM transmitting | 2010-10-17 | MOST101003F1 | 84F-3_3_(H, V) | <input type="checkbox"/> |
| Bluetooth Mode | 2010-10-17 | MOST101003F1 | 84F-3_4_(H, V) | <input type="checkbox"/> |
| USB Mode | 2010-10-17 | MOST101003F1 | 84F-3_5_(H, V) | <input type="checkbox"/> |

7.3 TEST RESULT



Address: No.5, Langshan 2nd Rd., North Hi-Tech Industrial park
Guangdong, China
Tel: 0755-86170306 Fax: 0755-86170310

Radiated Emission Measurement

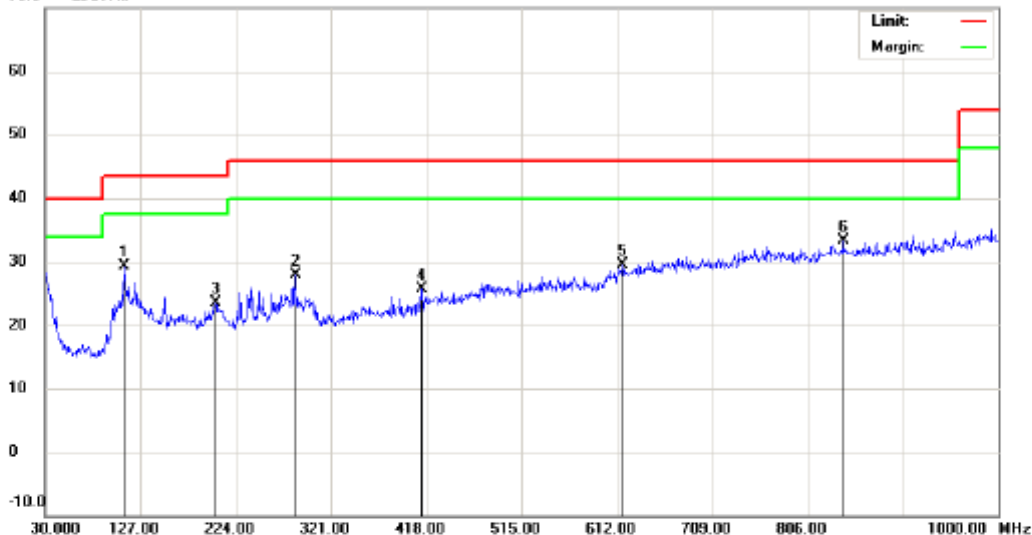
File: 84F3

Data: #17

Date: 2010-10-17

Time: 11:05:50

70.0 dBuV/m



Site: site MOST 3M

Polarization: *Horizontal*

Temperature: 25

Limit: FCC Part15 B 3M Radiation

Power: AC 120V/60Hz

Humidity: 60 %

EUT: GPS Portable Navigation Device

Distance:

M/N: 84F-3

Mode: Idle Mode

Note:

| No. | Mk. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Over | Antenna Height | Table Degree | |
|-----|-----|----------|---------------|----------------|-------------|--------|--------|----------------|--------------|--------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | cm | degree |
| 1 | | 110.5100 | 13.18 | 16.19 | 29.37 | 43.50 | -14.13 | peak | | |
| 2 | | 284.1400 | 8.41 | 19.44 | 27.85 | 46.00 | -18.15 | peak | | |
| 3 | | 203.6300 | 6.26 | 17.22 | 23.48 | 43.50 | -20.02 | peak | | |
| 4 | | 413.1500 | 6.45 | 19.32 | 25.77 | 46.00 | -20.23 | peak | | |
| 5 | | 617.8200 | 6.04 | 23.44 | 29.48 | 46.00 | -16.52 | peak | | |
| 6 | * | 841.8900 | 6.12 | 27.12 | 33.24 | 46.00 | -12.76 | 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

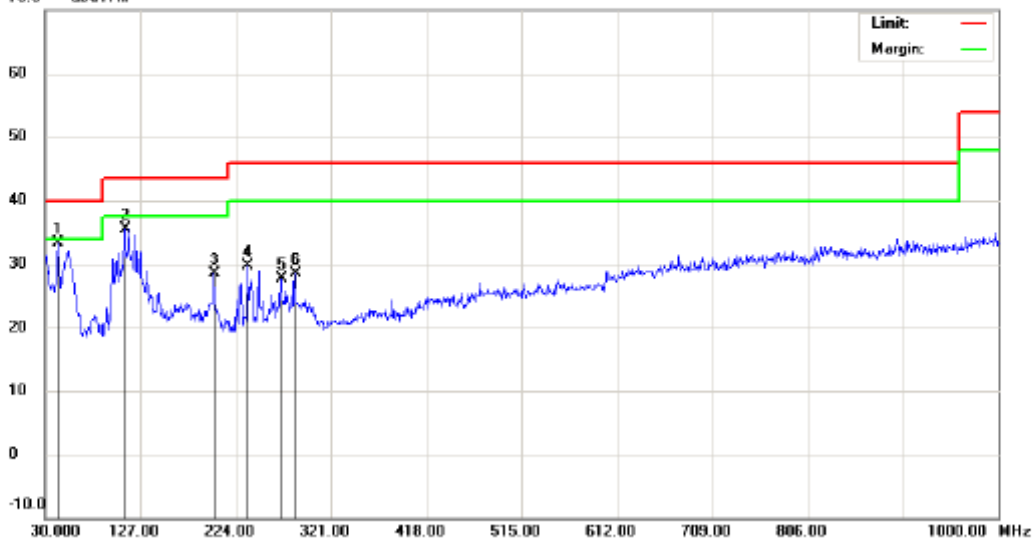
File: 84F3

Data: #18

Date: 2010-10-17

Time: 11:07:33

70.0 dBuV/m



Site: site MOST 3M

Polarization: **Vertical**

Temperature: 25

Limit: FCC Part15 B 3M Radiation

Power: AC 120V/60Hz

Humidity: 60 %

EUT: GPS Portable Navigation Device

Distance:

M/N: 84F-3

Mode: Idle Mode

Note:

| No. | Mk. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Over | Antenna Height | Table Degree | |
|-----|-----|----------|---------------|----------------|-------------|--------|--------|----------------|--------------|--------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | cm | degree |
| 1 | * | 43.5800 | 18.77 | 14.51 | 33.28 | 40.00 | -6.72 | peak | | |
| 2 | | 111.4800 | 19.21 | 16.37 | 35.58 | 43.50 | -7.92 | peak | | |
| 3 | | 201.6900 | 11.19 | 17.32 | 28.51 | 43.50 | -14.99 | peak | | |
| 4 | | 235.6400 | 12.77 | 16.90 | 29.67 | 46.00 | -16.33 | peak | | |
| 5 | | 270.5600 | 8.78 | 18.93 | 27.71 | 46.00 | -18.29 | peak | | |
| 6 | | 284.1400 | 9.12 | 19.44 | 28.56 | 46.00 | -17.44 | 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

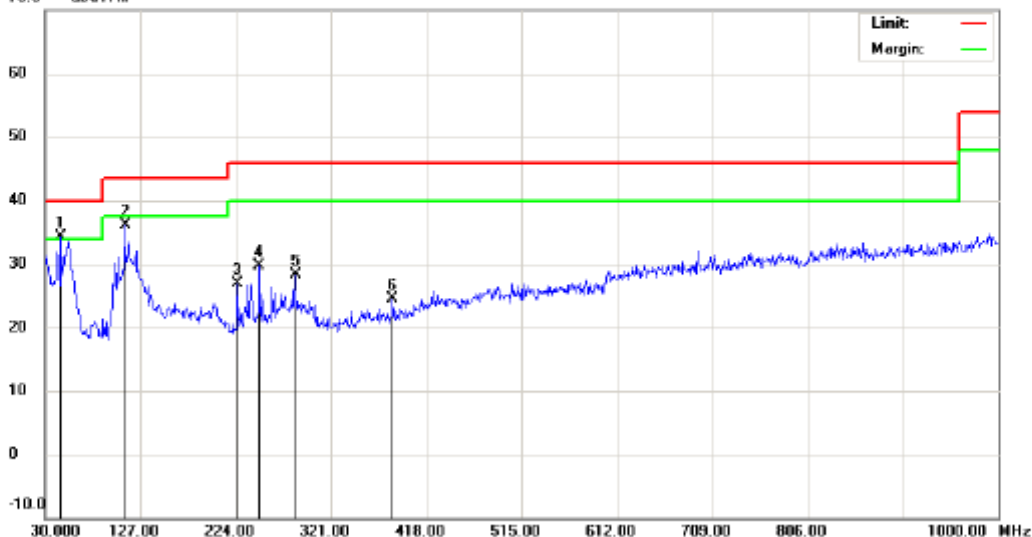
File: 84F3

Data #19

Date: 2010-10-17

Time: 11:09:20

70.0 dBuV/m



Site: site MOST 3M

Polarization: **Vertical**

Temperature: 26

Limit: FCC Part15 B 3M Radiation

Power: AC 120V/60Hz

Humidity: 60 %

EUT: GPS Portable Navigation Device

Distance:

M/N: 84F-3

Mode: Mp3 Mode

Note:

| No. | Mk. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Over | Antenna Height | Table Degree | |
|-----|-----|----------|---------------|----------------|-------------|--------|--------|----------------|--------------|---------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | cm | degree | Comment |
| 1 | * | 46.4900 | 21.47 | 12.91 | 34.38 | 40.00 | -5.62 | peak | | |
| 2 | | 111.4800 | 19.70 | 16.37 | 36.07 | 43.50 | -7.43 | peak | | |
| 3 | | 224.9700 | 10.46 | 16.40 | 26.86 | 46.00 | -19.14 | peak | | |
| 4 | | 248.2500 | 12.25 | 17.40 | 29.65 | 46.00 | -16.35 | peak | | |
| 5 | | 284.1400 | 8.94 | 19.44 | 28.38 | 46.00 | -17.62 | peak | | |
| 6 | | 384.0500 | 6.24 | 18.18 | 24.42 | 46.00 | -21.58 | 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

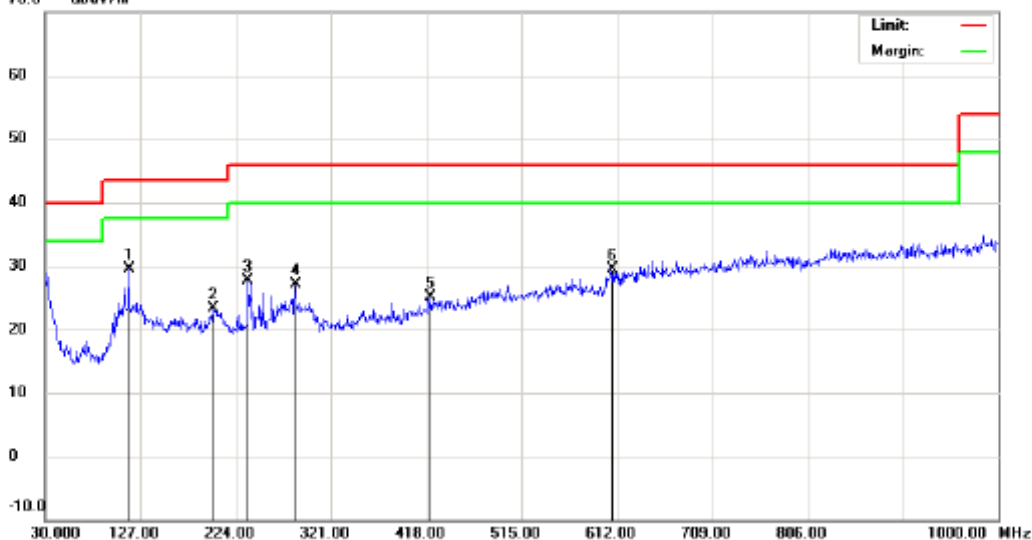
File: 84F3

Data: #20

Date: 2010-10-17

Time: 11:10:39

70.0 dBuV/m



Site: site MOST 3M

Polarization: **Horizontal**

Temperature: 25

Limit: FCC Part 15 B 3M Radiation

Power: AC 120V/60Hz

Humidity: 60 %

EUT: GPS Portable Navigation Device

Distance:

M/N: 84F-3

Mode: Mp3 Mode

Note:

| No. | Mk. | Freq. | Reading | Correct | Measure- | Limit | Over | Antenna | Table | |
|-----|-----|----------|---------|---------|----------|--------|--------|----------|--------|--------|
| | | MHz | Level | Factor | ment | | | Height | Degree | |
| | | | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | cm | degree |
| 1 | * | 115.3600 | 12.44 | 17.04 | 29.48 | 43.50 | -14.02 | peak | | |
| 2 | | 200.7200 | 5.89 | 17.37 | 23.26 | 43.50 | -20.24 | peak | | |
| 3 | | 236.6100 | 10.65 | 16.97 | 27.62 | 46.00 | -18.38 | peak | | |
| 4 | | 284.1400 | 7.66 | 19.44 | 27.10 | 46.00 | -18.90 | peak | | |
| 5 | | 422.8500 | 4.90 | 20.17 | 25.07 | 46.00 | -20.93 | peak | | |
| 6 | | 606.1799 | 6.40 | 23.20 | 29.60 | 46.00 | -16.40 | 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

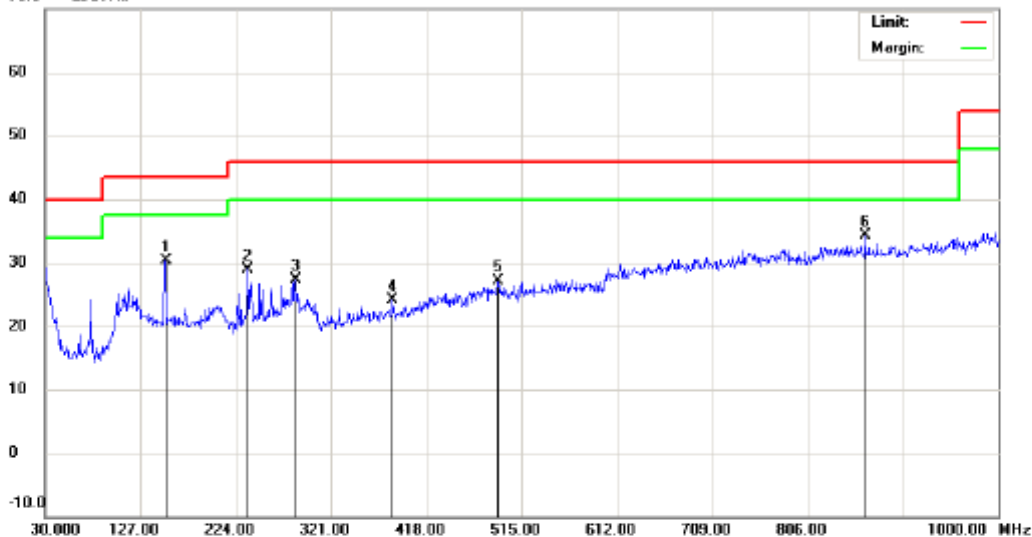
File: 84F3

Data: #21

Date: 2010-10-17

Time: 11:14:19

70.0 dBμV/m



Site: site MOST 3M

Polarization: *Horizontal*

Temperature: 25

Limit: FCC Part15 B 3M Radiation

Power: AC 120V/60Hz

Humidity: 60 %

EUT: GPS Portable Navigation Device

Distance:

M/N: 84F-3

Mode: Bluetooth Mode

Note:

| No. | Mk. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Over | Antenna Height | Table Degree | |
|-----|-----|----------|---------------|----------------|-------------|--------|--------|----------------|--------------|--------|
| | | MHz | dBμV | dB | dBμV/m | dBμV/m | dB | Detector | cm | degree |
| 1 | | 152.2200 | 13.60 | 16.64 | 30.24 | 43.50 | -13.26 | peak | | |
| 2 | | 236.6100 | 12.03 | 16.97 | 29.00 | 46.00 | -17.00 | peak | | |
| 3 | | 284.1400 | 7.86 | 19.44 | 27.30 | 46.00 | -18.70 | peak | | |
| 4 | | 384.0500 | 5.93 | 18.18 | 24.11 | 46.00 | -21.89 | peak | | |
| 5 | | 490.7500 | 5.53 | 21.67 | 27.20 | 46.00 | -18.80 | peak | | |
| 6 | * | 864.2000 | 7.18 | 27.04 | 34.22 | 46.00 | -11.78 | 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: 8443

Data #22

Date: 2010-10-17

Time: 11:15:37

70.0 dBuV/m



Site: site MOST 3M

Polarization: **Vertical**

Temperature: 25

Limit: FCC Part15 B 3M Radiation

Power: AC 120V/60Hz

Humidity: 60 %

EUT: GPS Portable Navigation Device

Distance:

M/N: 84F-3

Mode: Bluetooth Mode

Note:

| No. | Mk. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Over | Antenna Height | Table Degree | |
|-----|-----|----------|---------------|----------------|-------------|--------|--------|----------------|--------------|---------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | cm | degree | Comment |
| 1 | * | 115.3600 | 18.60 | 17.04 | 35.64 | 43.50 | -7.86 | peak | | |
| 2 | | 236.6100 | 11.00 | 16.97 | 27.97 | 46.00 | -18.03 | peak | | |
| 3 | | 284.1400 | 8.78 | 19.44 | 28.22 | 46.00 | -17.78 | peak | | |
| 4 | | 384.0500 | 6.19 | 18.18 | 24.37 | 46.00 | -21.63 | peak | | |
| 5 | | 572.2300 | 5.38 | 22.86 | 28.24 | 46.00 | -17.76 | peak | | |
| 6 | | 707.0599 | 6.95 | 24.67 | 31.62 | 46.00 | -14.38 | 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

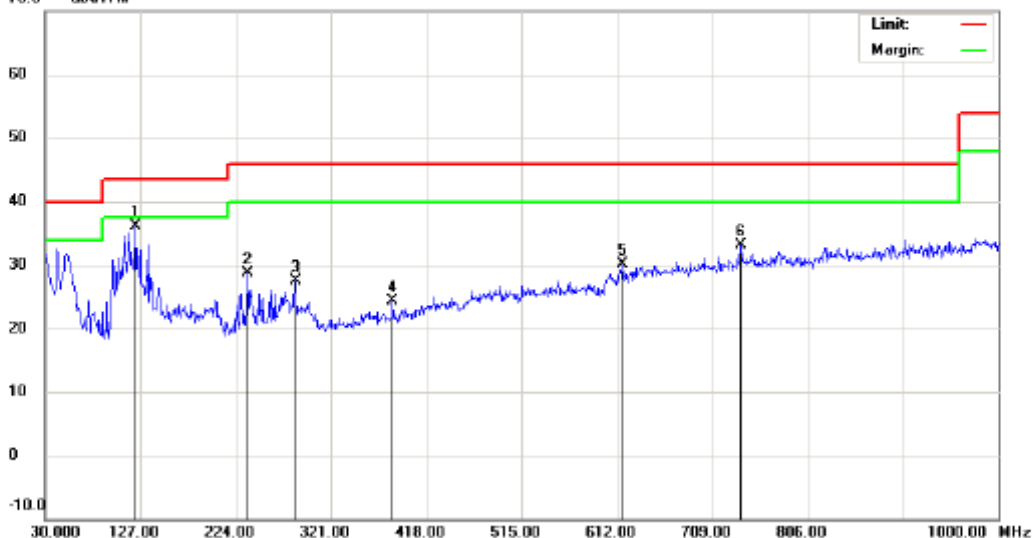
File: 84F3

Data: #23

Date: 2010-10-17

Time: 11:17:27

70.0 dBuV/m



Site: site MOST 3M

Polarization: **Vertical**

Temperature: 25

Limit: FCC Part 15 B 3M Radiation

Power: AC 120V/60Hz

Humidity: 60 %

EUT: GPS Portable Navigation Device

Distance:

M/N: 84F-3

Mode: GPS Mode

Note:

| No. | Mk. | Freq. MHz | Reading Level dBuV | Correct Factor dB | Measure- ment dBuV/m | Limit dBuV/m | Over dB | Detector | Antenna Height cm | Table Degree | Comment |
|-----|-----|--------------|--------------------------|-------------------------|----------------------------|-----------------|------------|----------|-------------------------|-----------------|---------|
| 1 | * | 122.1500 | 18.44 | 17.59 | 36.03 | 43.50 | -7.47 | peak | | | |
| 2 | | 236.6100 | 11.65 | 16.97 | 28.62 | 46.00 | -17.38 | peak | | | |
| 3 | | 284.1400 | 8.16 | 19.44 | 27.60 | 46.00 | -18.40 | peak | | | |
| 4 | | 384.0500 | 6.17 | 18.18 | 24.35 | 46.00 | -21.65 | peak | | | |
| 5 | | 617.8200 | 6.69 | 23.44 | 30.13 | 46.00 | -15.87 | peak | | | |
| 6 | | 738.1000 | 7.72 | 25.37 | 33.09 | 46.00 | -12.91 | 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

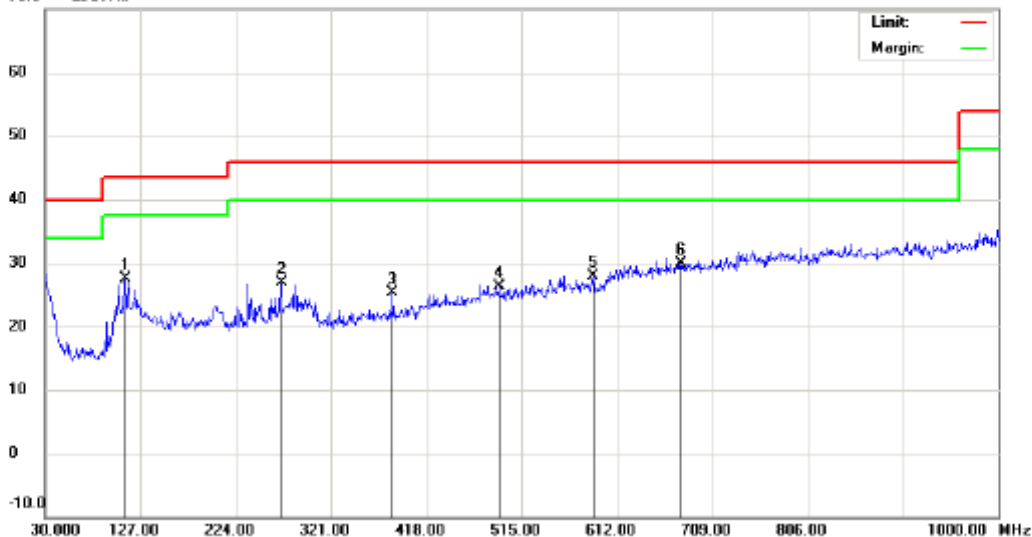
File: 84F3

Data: #24

Date: 2010-10-17

Time: 11:18:39

70.0 dBμV/m



Site: site MOST 3M

Polarization: **Horizontal**

Temperature: 25

Limit: FCC Part15 B 3M Radiation

Power: AC 120V/60Hz

Humidity: 60 %

EUT: GPS Portable Navigation Device

Distance:

M/N: 84F-3

Mode: GPS Mode

Note:

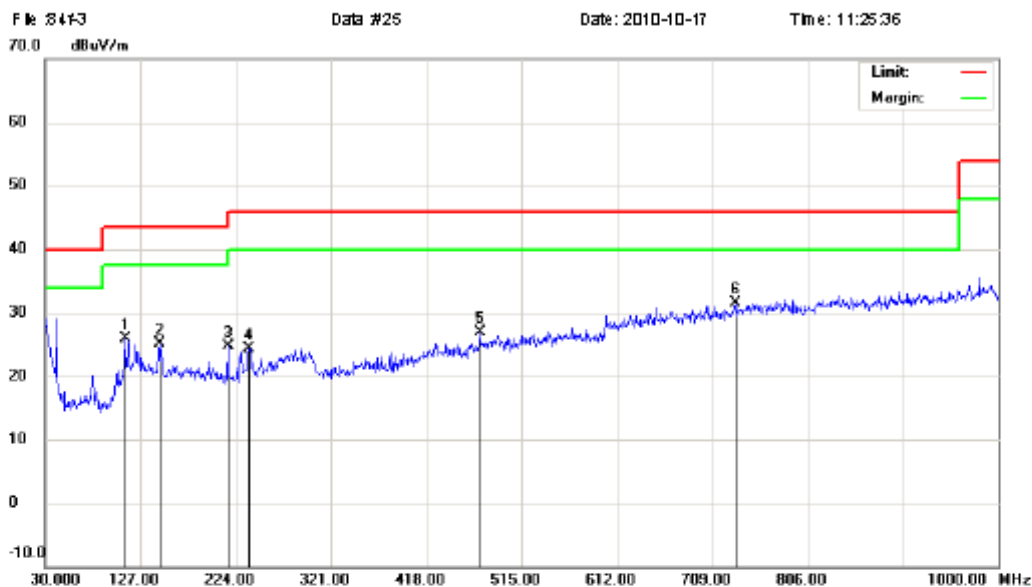
| No. | Mk. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Over | Antenna Height | Table Degree | |
|-----|-----|----------|---------------|----------------|-------------|--------|--------|----------------|--------------|--------|
| | | MHz | dBμV | dB | dBμV/m | dBμV/m | dB | Detector | cm | degree |
| 1 | * | 111.4800 | 11.09 | 16.37 | 27.46 | 43.50 | -16.04 | peak | | |
| 2 | | 269.5900 | 7.99 | 18.85 | 26.84 | 46.00 | -19.16 | peak | | |
| 3 | | 384.0500 | 7.11 | 18.18 | 25.29 | 46.00 | -20.71 | peak | | |
| 4 | | 491.7200 | 4.70 | 21.63 | 26.33 | 46.00 | -19.67 | peak | | |
| 5 | | 587.7500 | 4.99 | 22.87 | 27.86 | 46.00 | -18.14 | peak | | |
| 6 | | 676.9900 | 5.32 | 24.53 | 29.85 | 46.00 | -16.15 | 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



Site: site MOST 3M

Polarization: **Vertical**

Temperature: 25

Limit: FCC Part15 B 3M Radiation

Power: AC 120V/60Hz

Humidity: 60 %

EUT: GPS Portable Navigation Device

Distance:

M/N: 84F-3

Mode: USB Mode

Note:

| No. | Mk. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Over | Antenna Height | Table Degree | |
|-----|-----|----------|---------------|----------------|-------------|--------|--------|----------------|--------------|--------|
| | | MHz | dBμV | dB | dBμV/m | dBμV/m | dB | Detector | cm | degree |
| 1 | | 111.4800 | 9.57 | 16.37 | 25.94 | 43.50 | -17.56 | peak | | |
| 2 | | 146.4000 | 8.41 | 16.79 | 25.20 | 43.50 | -18.30 | peak | | |
| 3 | | 216.2400 | 8.62 | 16.14 | 24.76 | 46.00 | -21.24 | peak | | |
| 4 | | 237.5800 | 7.35 | 17.03 | 24.38 | 46.00 | -21.62 | peak | | |
| 5 | | 472.3200 | 5.65 | 21.29 | 26.94 | 46.00 | -19.06 | peak | | |
| 6 | * | 732.2800 | 6.58 | 25.01 | 31.59 | 46.00 | -14.41 | 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

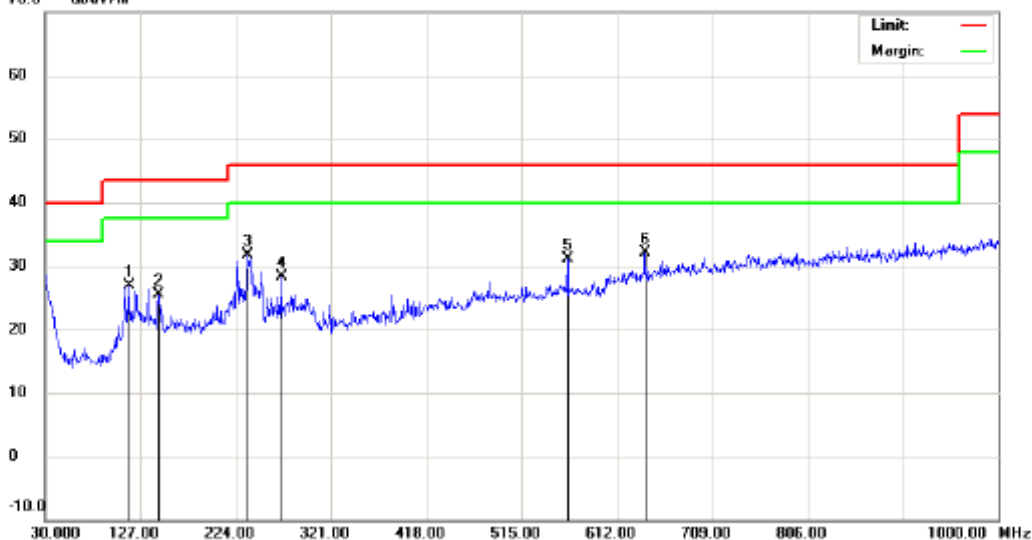
File: 84F3

Data: #26

Date: 2010-10-17

Time: 11:24:22

70.0 dBμV/m



Site: site MOST 3M

Polarization: *Horizontal*

Temperature: 25

Limit: FCC Part 15 B 3M Radiation

Power: AC 120V/60Hz

Humidity: 60 %

EUT: GPS Portable Navigation Device

Distance:

M/N: 84F-3

Mode: USB Mode

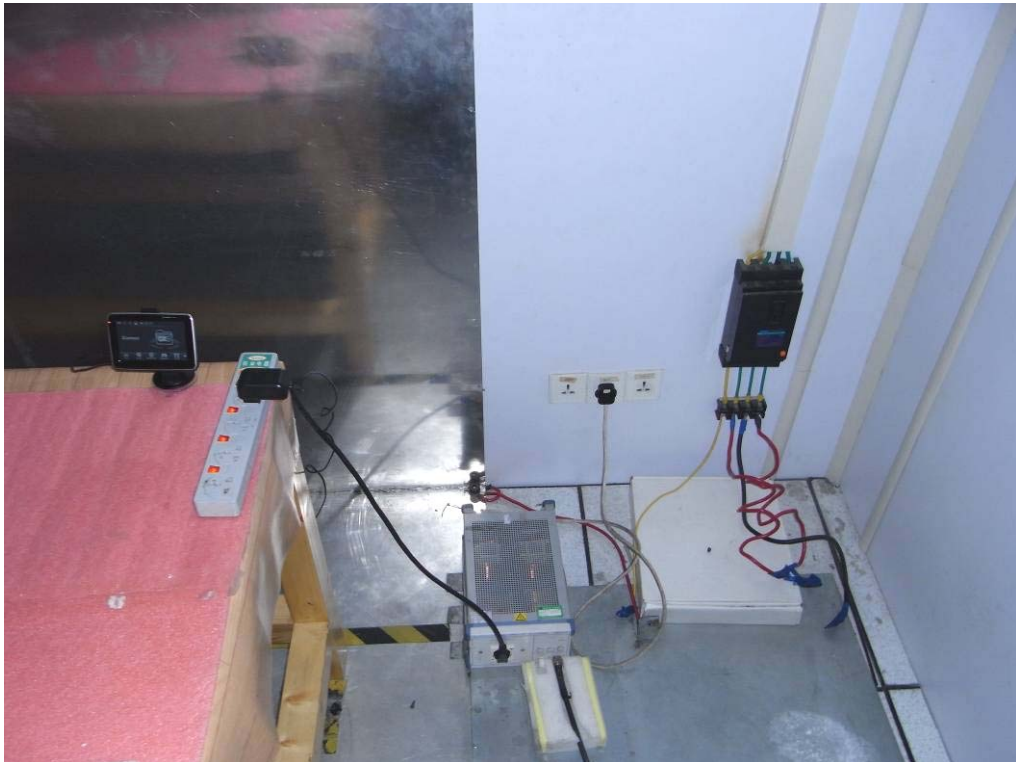
Note:

| No. | Mk. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Over | Antenna Height | Table Degree | |
|-----|-----|----------|---------------|----------------|-------------|--------|--------|----------------|--------------|--------|
| | | MHz | dBμV | dB | dBμV/m | dBμV/m | dB | Detector | cm | degree |
| 1 | | 115.3600 | 9.80 | 17.04 | 26.84 | 43.50 | -16.66 | peak | | |
| 2 | | 145.4299 | 8.54 | 16.87 | 25.41 | 43.50 | -18.09 | peak | | |
| 3 | | 235.6400 | 14.86 | 16.90 | 31.76 | 46.00 | -14.24 | peak | | |
| 4 | | 270.5600 | 9.36 | 18.93 | 28.29 | 46.00 | -17.71 | peak | | |
| 5 | | 561.5600 | 8.46 | 22.72 | 31.18 | 46.00 | -14.82 | peak | | |
| 6 | * | 640.1300 | 8.14 | 24.00 | 32.14 | 46.00 | -13.86 | peak | | |

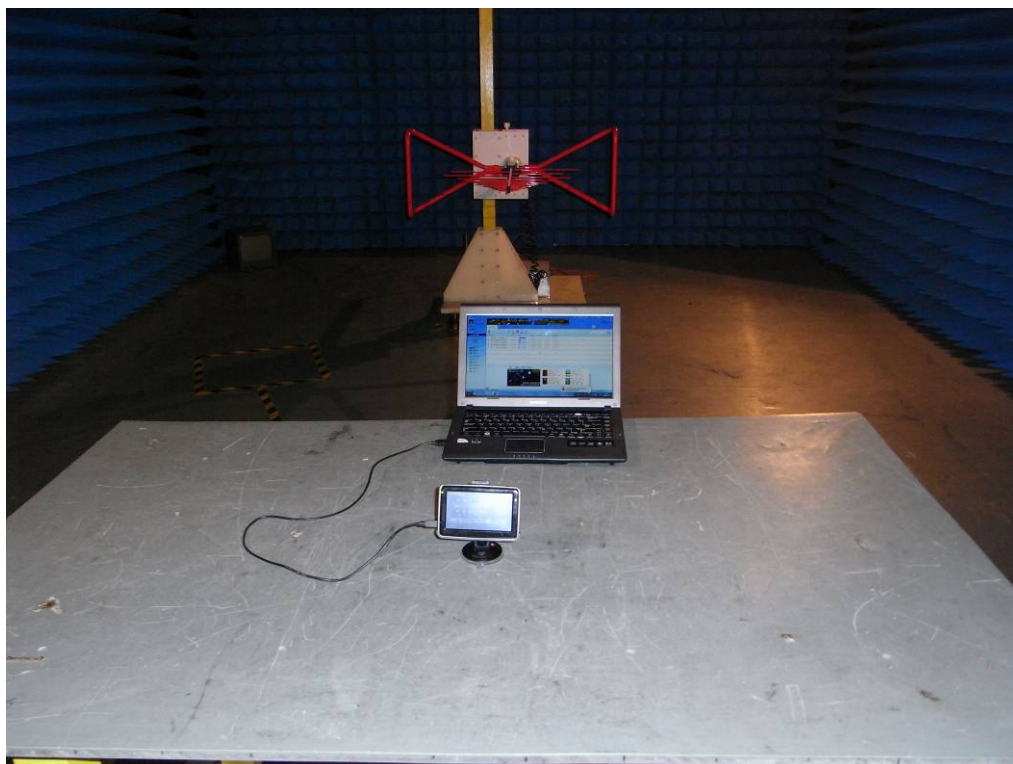
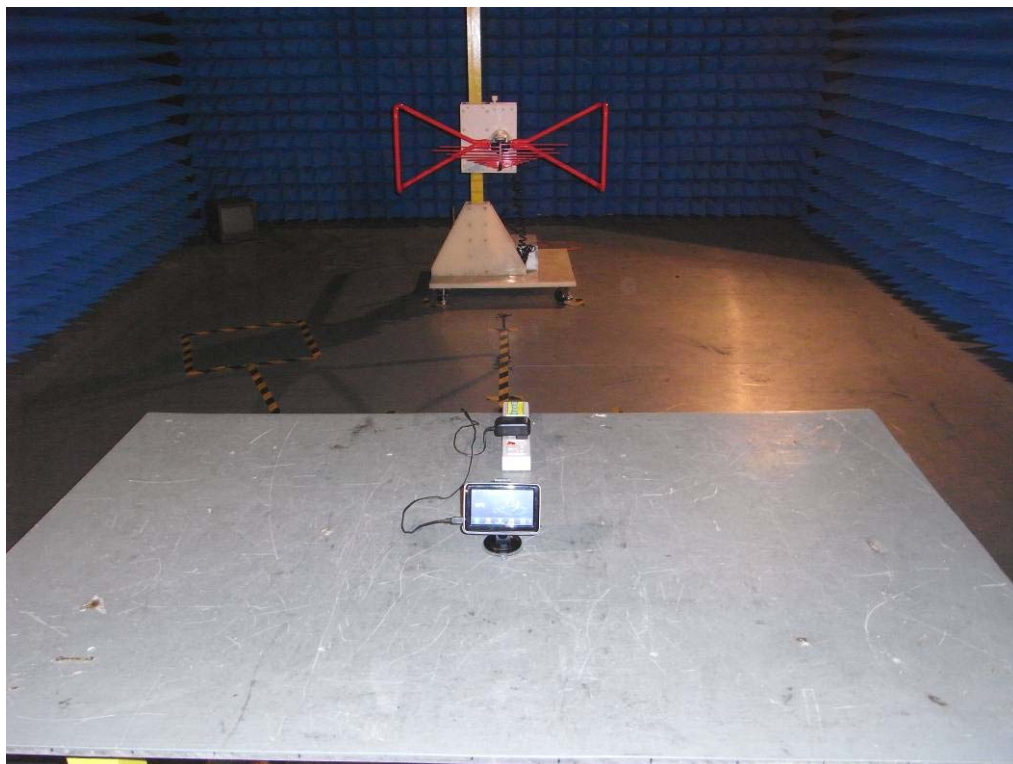
*:Maximum data x:Over limit !:over margin

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



LEFT VIEW OF SAMPLE



RIGHT VIEW OF SAMPLE



TOP VIEW OF SAMPLE



BOTTOM VIEW OF SAMPLE



PHOTO OF POWER SUPPLY



PHOTO OF USB LINE



PHOTO OF CAR ADAPTOR



PHOTO OF TRESTLE TABLE



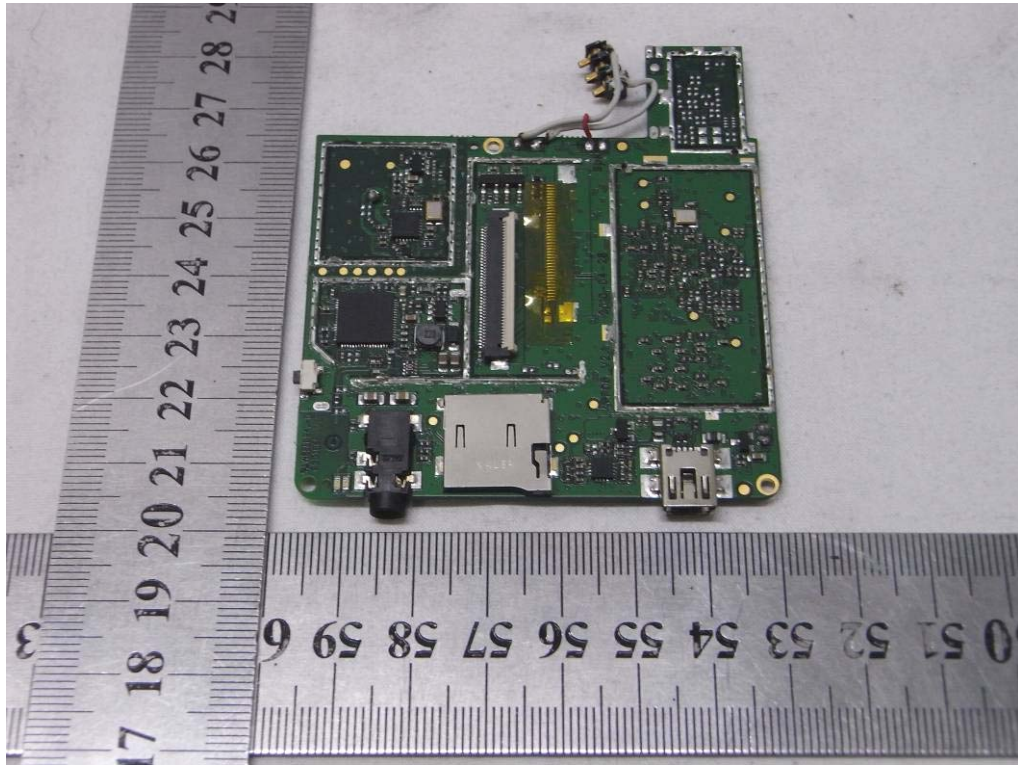
PHOTO OF THE ENTIRE SAMPLE



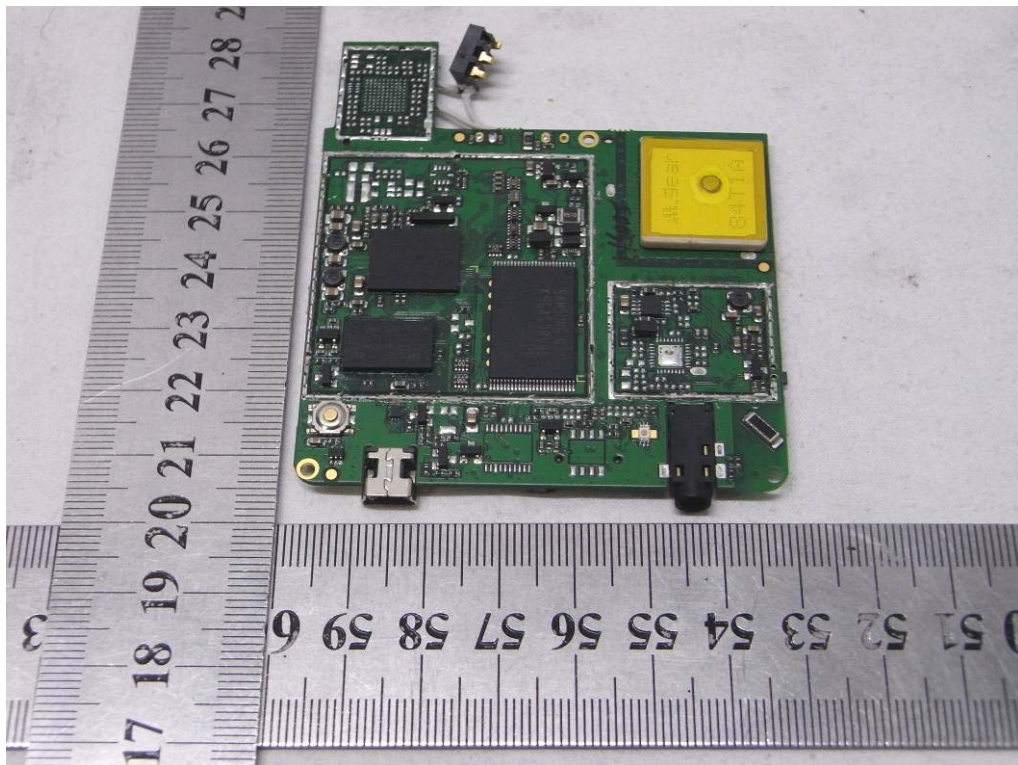
PHOTO OF THE BATTERY



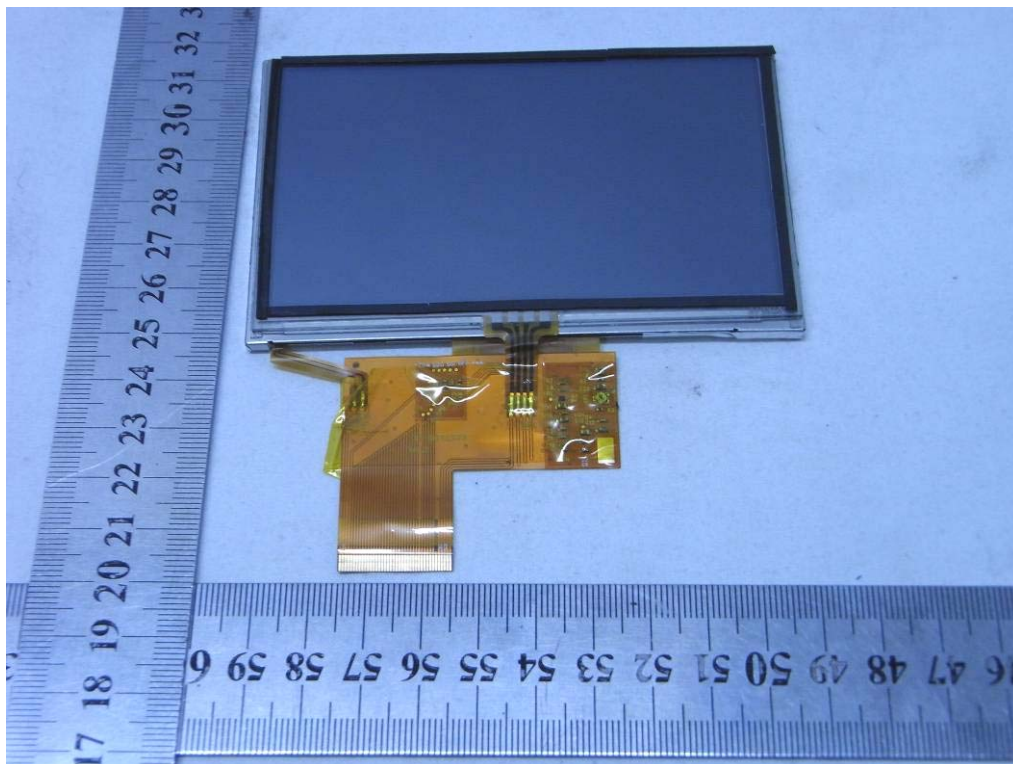
INTERNAL PHOTO OF SAMPLE - 1



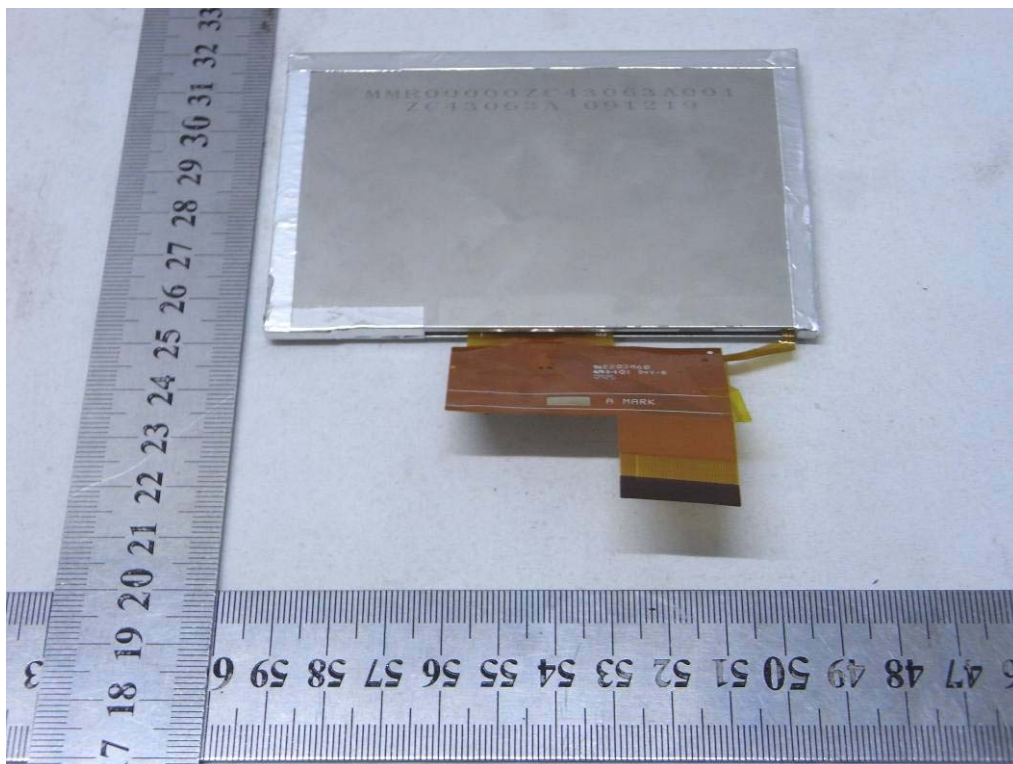
INTERNAL PHOTO OF SAMPLE -2



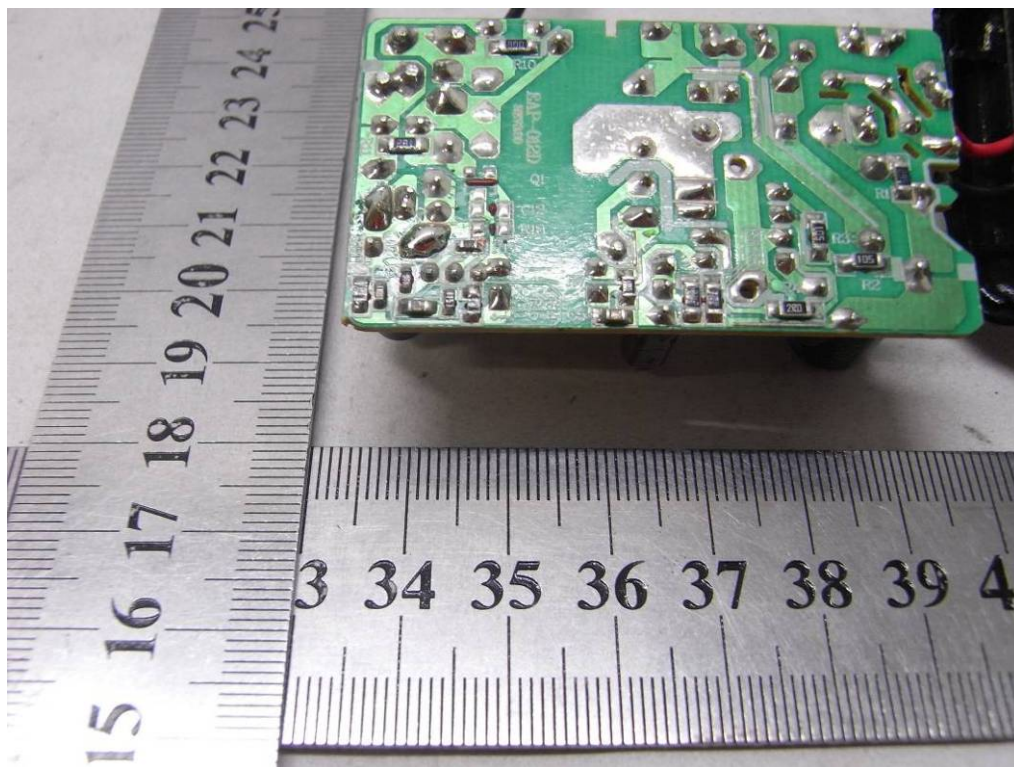
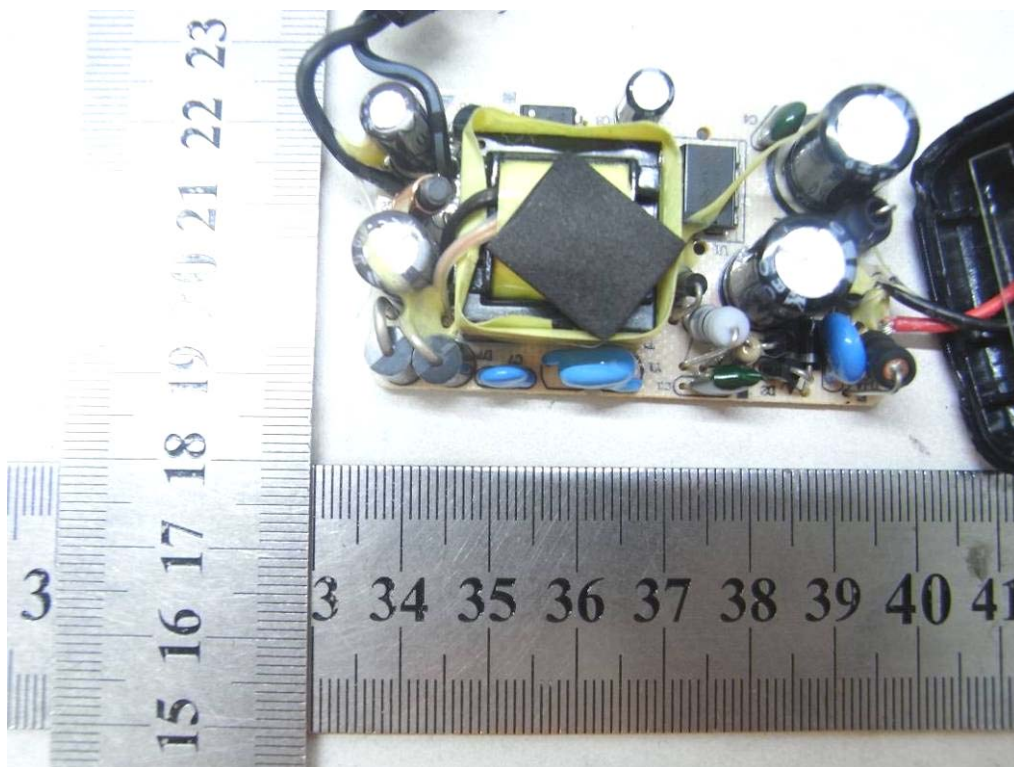
INTERNAL PHOTO OF SAMPLE - 3



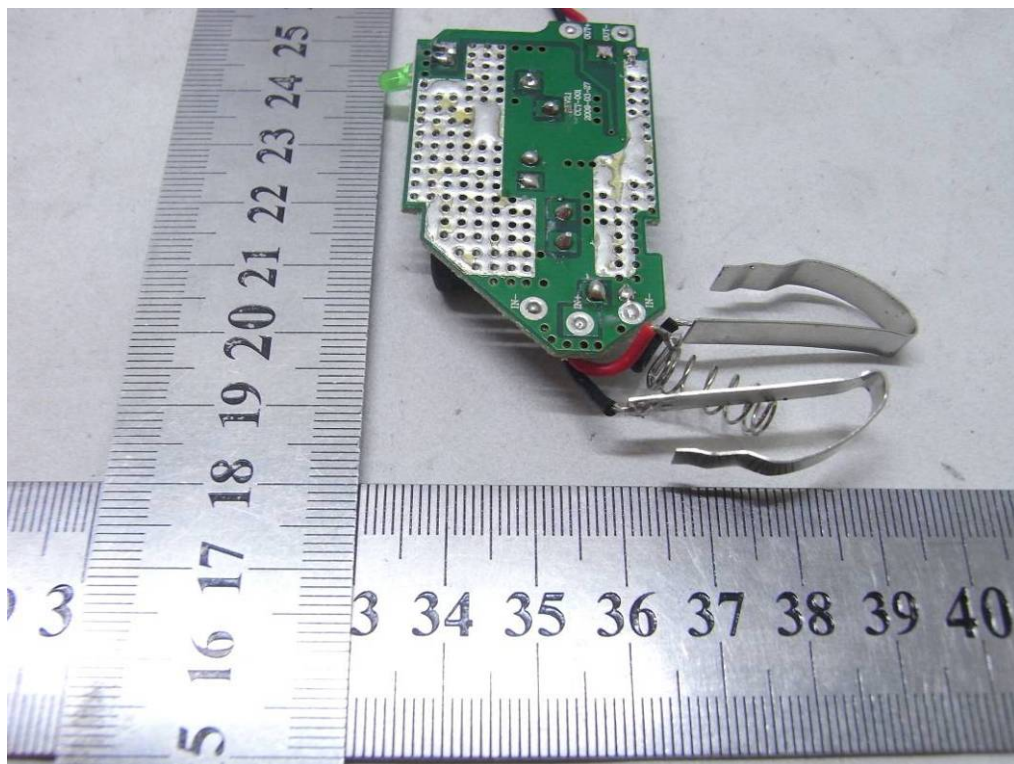
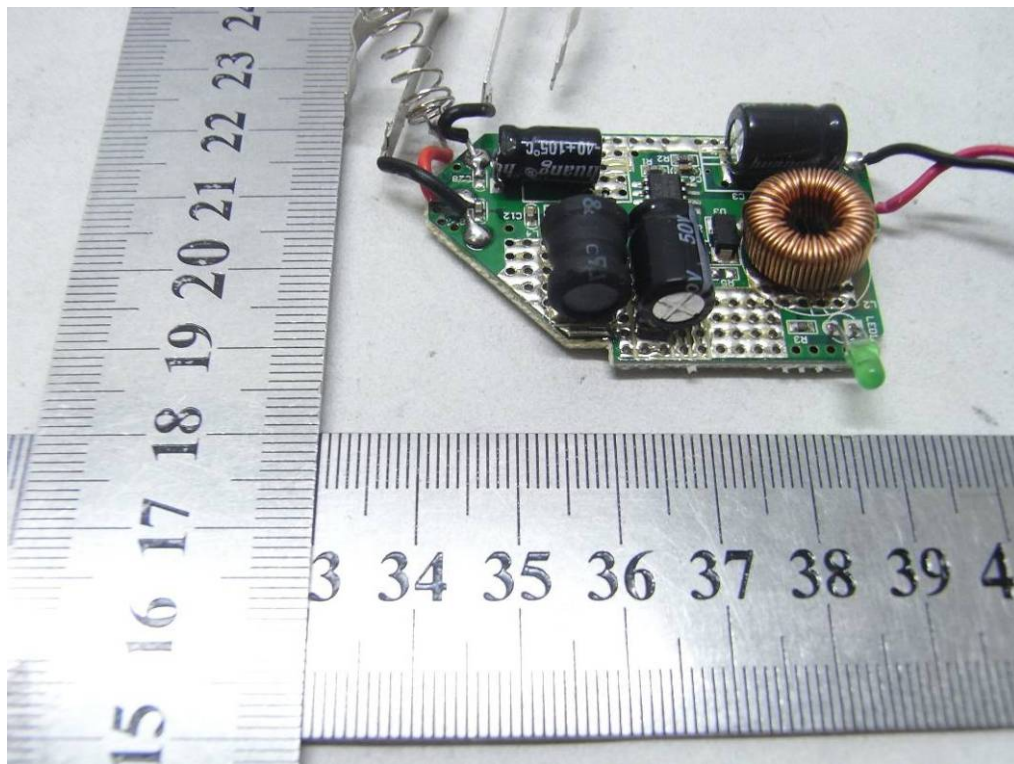
INTERNAL PHOTO OF SAMPLE - 4



INTERNAL PHOTO OF POWER SUPPLY



INTERNAL PHOTO OF CAR SUPPLY



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