

FCC 47 CFR PART 15 SUBPART C TEST REPORT

For

Applicant: Dongguan Yuanfeng Technology Co., Ltd.

No.62, South Fumin Road, Fumin Industrial Park, Dalang Town, Address:

Dongguan City, Guangdong, P.R. China

Product Name: GPS Portable Navigation Device

Model Name: PF86-5001

Brand Name: N/A

FCC ID: YNG-GPF08600D

Report No.: MOST101013F2B

Date of Issue: October. 22, 2010

Issued by: Most Technology Service Co., Ltd.

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

Park, Nanshan, Shenzhen, Guangdong, China

Tel: 86-755-8617 0306

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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 | 18 |
| 5.2.1 Requirement | 18 |
| 5.2.2 Test Description | 18 |
| 5.2.3Test Result | 18 |
| APPENDIX 1 | 20 |
| PHOTOGRAPHS OF TEST SETUP | 20 |
| APPENDIX 2 | 22 |
| DUOTOCD ADUS OF FUT | 22 |

Report No.: MOST101013F2B

1. VERIFICATION OF CONFORMITY

Equipment Under Test: GPS Portable Navigation Device

Brand Name: N/A

Model Number: PF86-5001

FCC ID: YNG-GPF8600D

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: 47 CFR Part 15 Subpart C

File Number: MOST101013F2B

Date of test: October. 16, 2010 – October. 22, 2010

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.

July Wen

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

Tested by (+ signature):

Petter Ping October. 22, 2010

Petter ping

Review by (+ signature):

October, 22, 2010

Approved by (+ signature):

Terry Yang October. 22, 2010

2. GENERAL INFORMATION

2.1 Product Information

| Product | GPS Portable Navigation Device |
|--------------------------------|---|
| Trade Name | N/A |
| Model Number | PF86-5001 |
| Series Number: | PF86-5001HD, PF86-5002, PF86-5002HD, PF86-5003, PF86-5003HD, PF86-5004, PF86-5004HD, PF86-5005, PF86-5005HD, PF86-5006, PF86-5006HD, PF86-5007, PF86-5007HD, PF86-5008, PF86-5008HD, PF86-5009, PF86-5009HD |
| Description of Differences: | The series models are different in appearance and color with the same functions. |
| Power Supply | DC 5V by car adapter DC 12/24V; DC 5V by AC/DC adapter 100~240V 50/60Hz DC 3.7V by battery; |
| Frequency Range | 2402 MHz -2480MHz |
| Modulation Type | FHSS |
| Antenna Type: | Internal Fixed |
| Channel Number | 79 |
| 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 | 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 |
|---|-----|-----------|-------------------|--------|--------------|
| ſ | 1 | 15.249(a) | Spurious Emission | PASS | 2010-10-22 |
| ſ | 2 | 15.249(a) | Band Edge | PASS | 2010-10-21 |

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 C63.4:2003 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 C63.4:2003 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.

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.

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 2.1735 - 2.1905 | 16.69475 - 16.69525 16.80425 - 16.80475 | 608 - 614 960 - 1240 | 5.35 - 5.46 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 6.31175 - 6.31225 | 108 - 121.94 123 - 138 | 1718.8 - 1722.2 2200 - 2300 | 13.25 - 13.4 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 12.51975 - 12.52025 | 167.72 - 173.2 240 - 285 | 3332 - 3339 3345.8 - 3358 | 31.2 - 31.8 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.

(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 | Device Type Brand | | Series No. | Data Cable | Power Cord |
|-------------|-------------------|------|------------|------------|------------|
| 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.

4.2 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 | Calculator 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 | SCHWARZBECK | BBHA9120D | D69250 | 2011/03/14 |
| 8 | Cable | Resenberger | N/A | NO.1 | 2011/03/14 |
| 9 | Cable | SchwarzBeck | N/A | NO.2 | 2011/03/14 |
| 10 | Cable | SchwarzBeck | N/A | NO.3 | 2011/03/14 |
| 11 | DC Power Filter | DuoJi | DL2×30B | N/A | 2011/03/14 |
| 12 | Single Phase Power Line Filter | DuoJi | FNF 202B30 | N/A | 2011/03/14 |
| 13 | 3 Phase Power Line Filter | DuoJi | FNF 402B30 | N/A | 2011/03/14 |
| 14 | Test Receiver | Rohde & Schwarz | ESCI | 100492 | 2011/03/14 |
| 15 | Absorbing Clamp | Luthi | MDS21 | 3635 | 2011/03/14 |
| 16 | Coaxial Switch | Anritsu Corp | MP59B | 6200283933 | 2011/03/14 |
| 17 | AC Power Source | Kikusui | AC40MA | LM003232 | 2011/03/14 |
| 18 | Test Analyzer | Kikusui | KHA1000 | LM003720 | 2011/03/14 |
| 19 | Line Impendence Network | Kikusui | LIN40MA- PCR-L | LM002352 | 2011/03/14 |
| 20 | ESD Tester | Kikusui | KES4021 | LM003537 | 2011/03/14 |
| 21 | EMCPRO System | EM Test | UCS-500-M4 | V0648102026 | 2011/03/14 |
| 22 | Signal Generator | IFR | 2032 | 203002/100 | 2011/03/14 |
| 23 | Amplifier | A&R | 150W1000 | 301584 | 2011/03/14 |
| 24 | CDN | FCC | FCC-801-M2-25 | 47 | 2011/03/14 |
| 25 | CDN | FCC | FCC-801-M3-25 | 107 | 2011/03/14 |
| 26 | EM Injection Clamp | FCC | F-203I-23mm | 403 | 2011/03/14 |
| 27 | RF Cable | MIYAZAKI | N/A | No.1/No.2 | 2011/03/14 |
| 28 | Universal Radio Communication Tester | ROHDE&SCHWARZ | CMU200 | 0304789 | 2011/03/14 |
| 29 | Telecommunication Antenna | European Antennas | PSA 75301R/170 | 0304213 | 2011/03/14 |
| 30 | Telecommunication Test Equipment | R&S | CMU200 | N/A | 2011/03/14 |
| 31 | Loop Antenna | SCHWARZBECK | BBHA9120D | D69250 | 2011/03/14 |

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 | | |

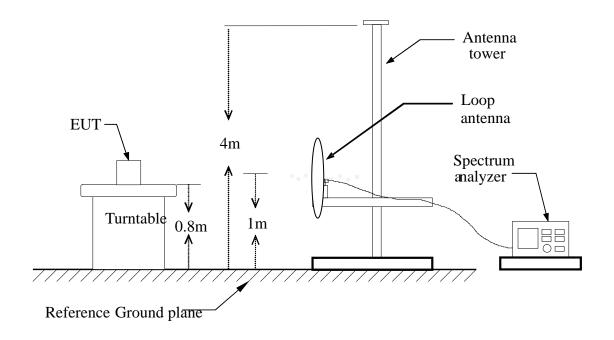
Remark: Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of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

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

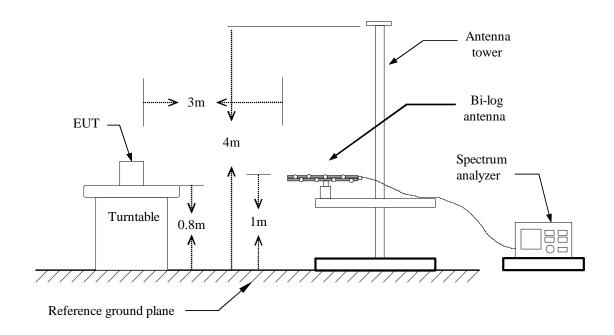
| Frequency (MHz) | Field Strength (μV/m) | Measurement Distance (m) | | |
|-----------------|-----------------------|--------------------------|--|--|
| 30 - 88 | 100 | 3 | | |
| 88 - 216 | 150 | 3 | | |
| 216 - 960 | 200 | 3 | | |
| Above 960 | 500 | 3 | | |

5.1.2 Test Description

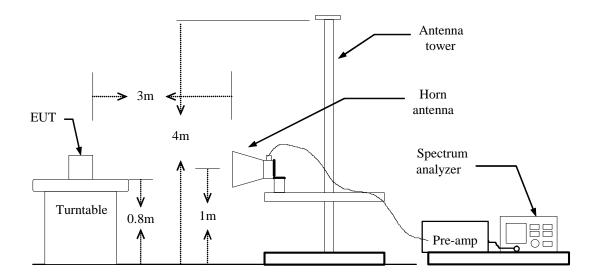
Test Setup:



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

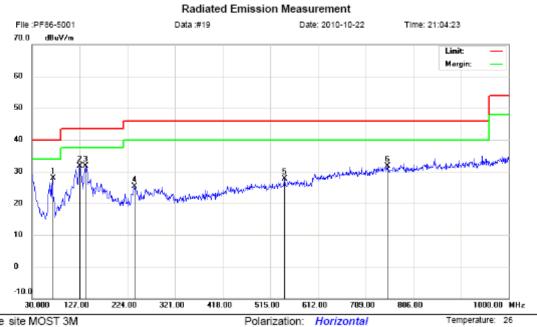
7. Repeat above procedures until the measurements for all frequencies are complete.

5.1.4 Test Result



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

Tel: 0755-86170306 Fax: 0755-86170310



Site site MOST 3M

Limit: FCC Part15 B 3M Radiation

EUT: GPS Portable Navigation Device

M/N: PF86-5001 Mode: Bluetooth

Note:

Power: AC 120V/60Hz Distance: Humidity:

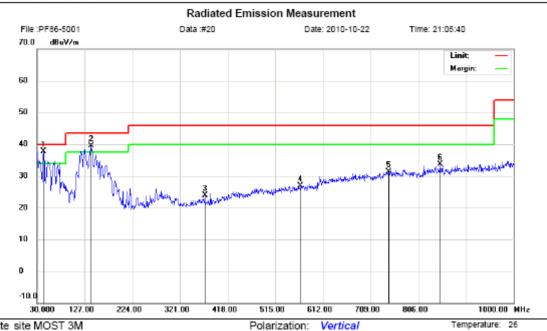
| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure- ment | Limit | Over | | Antenna Height | Table Degree | |
|-----|-----|---------|------------------|-------------------|------------------|--------|--------|----------|-------------------|-----------------|---------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | cm | degree | Comment |
| 1 | | 71.7100 | 16.18 | 11.68 | 27.86 | 40.00 | -12.14 | peak | | | |
| 2 | 1 | 27.0000 | 13.93 | 17.70 | 31.63 | 43.50 | -11.87 | peak | | | |
| 3 | * 1 | 39.6100 | 14.42 | 17.22 | 31.64 | 43.50 | -11.86 | peak | | | |
| 4 | 2 | 38.5500 | 8.22 | 17.10 | 25.32 | 46.00 | -20.68 | peak | | | |
| 5 | 5 | 44.1000 | 5.47 | 22.28 | 27.75 | 46.00 | -18.25 | peak | | | |
| 6 | 7 | 53.6200 | 6.06 | 25.73 | 31.79 | 46.00 | -14.21 | 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



Site site MOST 3M Limit: FCC Part15 B 3M Radiation

EUT: GPS Portable Navigation Device

M/N: PF86-5001 Mode: Bluetooth

Note:

Power: AC 120V/60Hz
Distance:

Humidity:

60 %

| No. | М | k. | Freq. | Reading Level | Correct Factor | Measure- ment | Limit | Over | | Antenna Height | Table Degree | |
|-----|---|----|--------|------------------|-------------------|------------------|--------|--------|----------|-------------------|-----------------|---------|
| | | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | cm | degree | Comment |
| 1 | × | 4 | 3.5800 | 23.26 | 14.51 | 37.77 | 40.00 | -2.23 | peak | | | |
| 2 | ļ | 14 | 0.5800 | 22.36 | 17.17 | 39.53 | 43.50 | -3.97 | peak | | | |
| 3 | | 37 | 1.4400 | 5.76 | 18.21 | 23.97 | 46.00 | -22.03 | peak | | | |
| 4 | | 56 | 5.4400 | 4.08 | 22.76 | 26.84 | 46.00 | -19.16 | peak | | | |
| 5 | | 74 | 5.8600 | 5.46 | 25.80 | 31.26 | 46.00 | -14.74 | peak | | | |
| 6 | | 85 | 0.6200 | 6.59 | 27.10 | 33.69 | 46.00 | -12.31 | peak | | | |

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

Above 1 GHz

Operation Mode: CH Low Test Date: October. 22, 2010

Temperature: 20°C **Tested by:** Petter Ping

Humidity: 70 % RH **Polarity:** Ver. / Hor.

| Freq. (MHz) | Ant. Pol H/V | Peak Reading | AV Reading | Ant. / CL CF | Actual Fs | | Peak Limit | AV Limit | AV Margin | |
|----------------|-----------------|-----------------|---------------|-----------------|------------------|----------------|---------------|-------------|--------------|--|
| | | (dBuV) | (dBuV) | (dB) | Peak (dBuV/m) | AV (dBuV/m) | (dBuV/m) | (dBuV/m) | (dB) | |
| 2402.05 | Н | 87.81 | 78.79 | 9.08 | 96.89 | 87.87 | 114.00 | 94.00 | -6.13 | |
| | - | | - | - | | | - | - | | |
| 1420.50 | Н | 55.67 | 29.73 | 5.58 | 61.25 | 35.31 | 74.00 | 54.00 | -18.69 | |
| 4805.00 | Н | 48.69 | 29.12 | 16.54 | 67.85 | 45.66 | 74.00 | 54.00 | -8.34 | |
| N/A | | | | | | | | | >20 | |
| | | | | | | | | | | |
| 2402.05 | V | 77.55 | 80.26 | 9.08 | 99.48 | 89.34 | 114.00 | 94.00 | -4.66 | |
| | | | | | | | | | | |
| 2450.00 | V | 50.72 | 25.15 | 9.12 | 59.84 | 34.27 | 74.00 | 54.00 | -19.73 | |
| 4805.00 | V | 51.81 | 31.34 | 16.54 | 68.35 | 47.88 | 74.00 | 54.00 | -6.12 | |
| 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. No additional spurious emissions found between lowest internal generated and 30 MHz

Operation Mode: CH Mid Test Date: October. 22, 2010

Temperature:20°CTested by:Petter PingHumidity:70 % RHPolarity:Ver. / Hor.

| Freq. | Ant. Pol | Peak | AV | Ant. / CL | Actual Fs | | Peak | AV | AV |
|---------|----------|---------|---------|-----------|-----------|----------|----------|----------|--------|
| (MHz) | H/V | Reading | Reading | CF | | | Limit | Limit | Margin |
| | | (dBuV) | (dBuV) | (dB) | Peak | AV | (dBuV/m) | (dBuV/m) | (dB) |
| | | | | | (dBuV/m) | (dBuV/m) | | | |
| 2442.00 | Н | 90.66 | 81.13 | 9.12 | 99.78 | 90.25 | 114.00 | 94.00 | -3.75 |
| | | | | | | | | | |
| 3492.50 | Н | 53.65 | 22.69 | 12.73 | 66.38 | 35.42 | 74.00 | 54.00 | -18.58 |
| 4884.50 | Н | 53.54 | 28.31 | 17.04 | 70.58 | 45.35 | 74.00 | 54.00 | -8.65 |
| N/A | | | | | | | | | >20 |
| | | | | | | | | | |
| | | | | | | | | | |
| 2442.00 | V | 94.17 | 81.62 | 9.12 | 103.29 | 90.74 | 114.00 | 94.00 | -3.26 |
| | | | | | | | | | |
| 1820.00 | V | 59.46 | 28.37 | 7.88 | 67.34 | 36.25 | 74.00 | 54.00 | -17.75 |
| 4884.50 | V | 54.12 | 30.18 | 17.04 | 71.16 | 47.22 | 74.00 | 54.00 | -6.78 |
| 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. No additional spurious emissions found between lowest internal generated and 30 MHz

Operation Mode: CH High Test Date: October. 22, 2010

Temperature:20°CTested by:Petter PingHumidity:70 % RHPolarity:Ver. / Hor.

| Freq. (MHz) | Ant. Pol H/V | Peak Reading | AV Reading | Ant. / CL CF | Actual Fs | | Peak Limit | AV Limit | AV Margin |
|----------------|-----------------|-----------------|---------------|-----------------|-----------|----------|---------------|-------------|--------------|
| | | (dBuV) | (dBuV) | (dB) | Peak | AV | ` ' | (dBuV/m) | (dB) |
| | | | | | (dBuV/m) | (dBuV/m) | | | |
| 2480.00 | Н | 86.22 | 81.95 | 9.15 | 95.37 | 91.10 | 114.00 | 94.00 | -2.90 |
| | | | | | | | | | |
| 4960.50 | Н | 54.72 | 31.24 | 17.59 | 72.31 | 48.83 | 74.00 | 54.00 | -5.17 |
| N/A | | | | | | | | | >20 |
| | | | | | | | | | |
| | | | | | | | | | |
| 2480.00 | V | 87.10 | 82.63 | 9.15 | 96.25 | 91.78 | 114.00 | 94.00 | -2.22 |
| | | | | | | | | | |
| 4960.50 | V | 55.14 | 31.96 | 17.59 | 72.73 | 49.55 | 74.00 | 54.00 | -4.45 |
| N/A | | | | | | | | | >20 |

Notes:

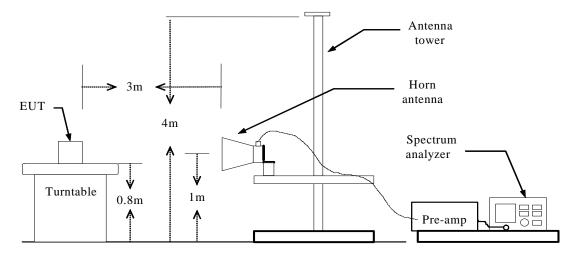
- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already 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. No additional spurious emissions found between lowest internal generated and 30 MHz

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.

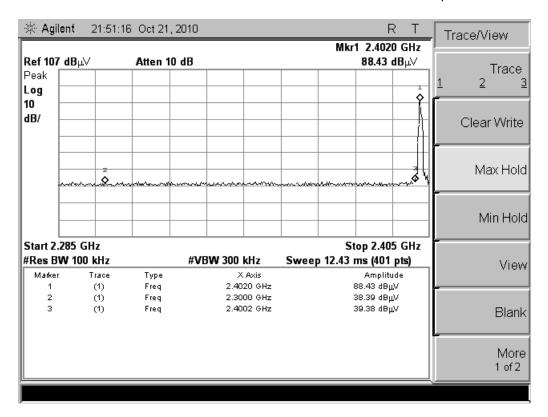
5.2.2 Test Description

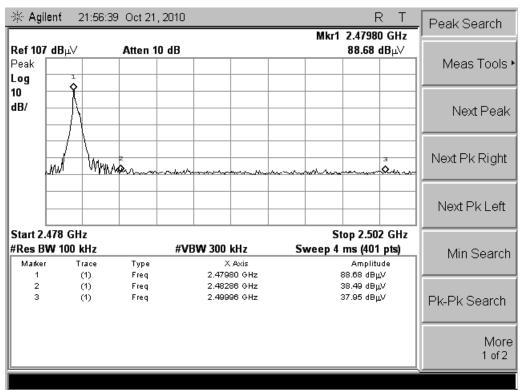


5.2.3Test Result

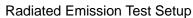
The EUT operates at hopping-off test mode. The lowest and highest channels are tested to verify the band edge emissions.

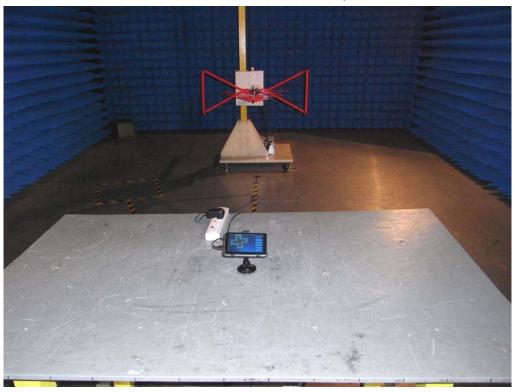
Test Plot:





APPENDIX 1 PHOTOGRAPHS OF 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 USB LINE







PHOTO OF TRESTLE TABLE



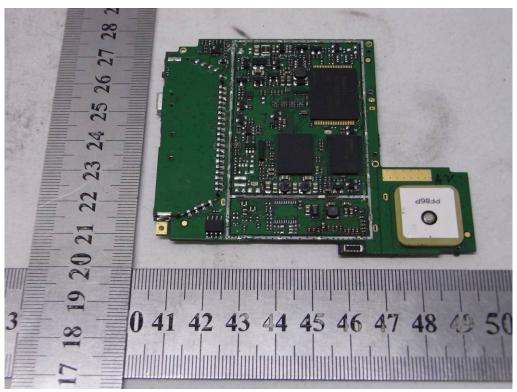
PHOTO OF THE ENTIRE SAMPLE



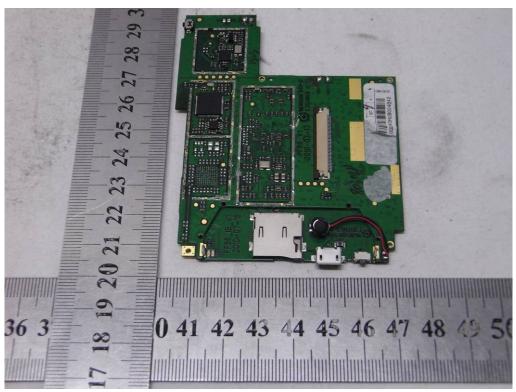
PHOTO OF THE BATTERY



INTERNAL PHOTO OF SAMPLE - 1



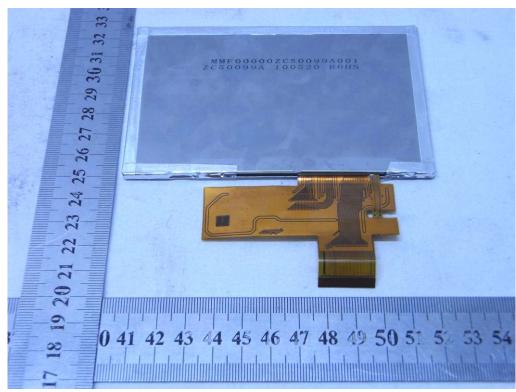
INTERNAL PHOTO OF SAMPLE - 2



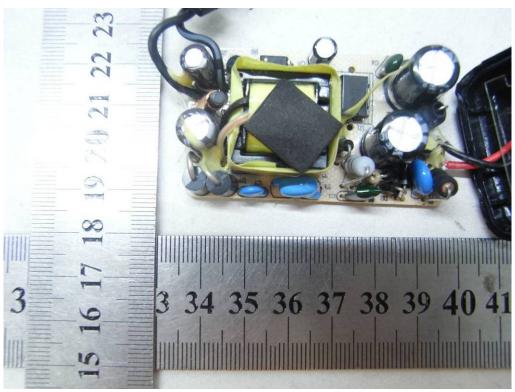
INTERNAL PHOTO OF SAMPLE - 3

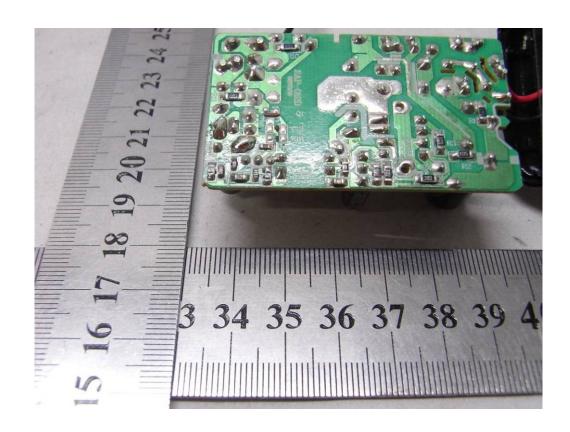


INTERNAL PHOTO OF SAMPLE - 4

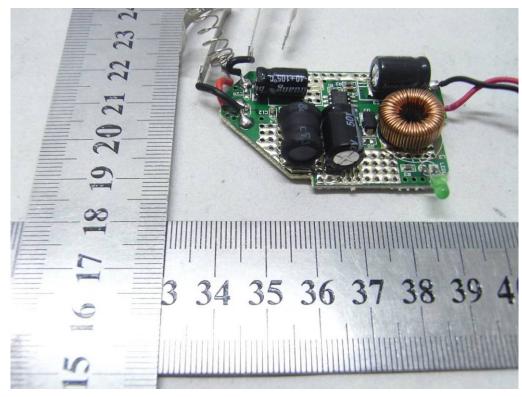


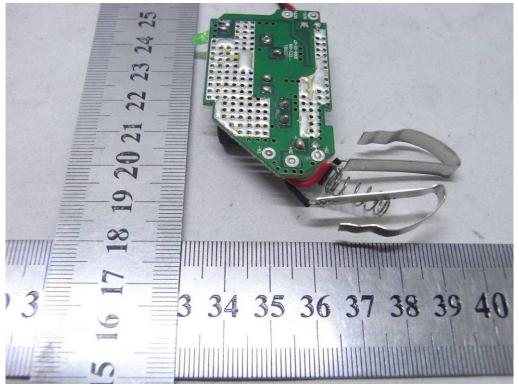
INTERNAL PHOTO OF POWER SUPPLY





INTERNAL PHOTO OF CAR SUPPLY





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