

No. 1 Workshop, M-10, Middle Section, Science & Technology Park,

District Shenzhen, China 518057

Telephone: +86 (0) 755 2601 2053 Report No.: SZEMO09040165101

TEST REPORT

Application No.: SZEMO090401651RF **Applicant:** Vocentrix(HK)Limited

Factory: Dongguan Tangxia Chengde Electron Factory

FCC ID: VUY1078P

Fundamental Carrier 2.410GHz to 2.470GHz

Frequency:

Equipment Under Test (EUT):

Name: Baby monitor Model: 08280 P

Standards: FCC PART 15, SUBPART C :(Section 15.247)

Date of Receipt: 15 April 2009

Date of Test: 15 to 27 April 2009

Date of Issue: 30 April 2009

Test Result : PASS *

* In the configuration tested, the EUT complied with the standards specified above.

Robinson Lo Manager

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. All test results in this report can be traceable to National or International Standards.



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2 Test Summary

| The customer requested FCC tests for Baby monitor. | | | | | | | | | |
|--|------------------|----------------------------------|--------|--|--|--|--|--|--|
| Test | Test Requirement | Standard Paragraph | Result | | | | | | |
| Conducted Emission (150KHz to 30MHz) | FCC PART 15 | Section 15.207 | PASS | | | | | | |
| Radiated Emission (30MHz to 25GHz) | FCC PART 15 | Section 15.209 Section 15:205 | PASS | | | | | | |
| Maximum Peak Output Power | FCC PART 15 | Section 15.247 (b) | PASS | | | | | | |
| Occupied Bandwidth | FCC PART 15 | Section 15.247 (b) | PASS | | | | | | |
| Band Edges Measurement | FCC PART 15 | Section 15.247 (c) | PASS | | | | | | |
| Power Spectral Density Measurement | FCC PART 15 | Section 15.247 (d) | PASS | | | | | | |



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4 General Information

4.1 Client Information

Applicant Name: Vocentrix(HK)Limited

Address of Applicant: Rm5-6,11/F, Harry Ind. Build.49-51 Au Pui Wan St, Fotan, HK

Factory Name: Dongguan Tangxia Chengde Electron Factory

Address of Factory: 112, Arising Sun Ind. City. lincun, Tangxia, Dongguan, China.

4.2 General Description of E.U.T

Product Name: Baby monitor Model: 08280 P

Input: AC 100-240V 0.3A 50/60Hz

Power Supply: Output: DC 5V 1.0A or

DC4.5V(3*1.5(AA) Size Batteries)

Power Cord: DC cord is 2m.

4.3 Description of Support Units

None.

4.4 Standards Applicable for Testing

The customer requested FCC tests for Baby monitor

The standard used was FCC PART 15, SUBPART C section 15.247and ANSI C63.4:2003 & KDB558074.

4.5 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory,

No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China. 518057.

Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

No tests were sub-contracted.

4.6 Other Information Requested by the Customer

None.

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4.7 Test Facility

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

CNAS (No. CNAS L2929)

CNAS has accredited SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC L to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

VCCI

The 3m Semi-anechoic chamber and Shielded Room $(7.5m \times 4.0m \times 3.0m)$ of SGS-CSTC Standard Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-2197 and C-2383 respectively.

Date of Registration: September 29, 2008. Valid until September 28, 2011.

• FCC – Registration No.: 556682

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been registere and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 556682, June 27, 2008.

Industry Canada (IC)

The 3m Semi-anechoic chamber of SGS-CSTC Standards Technical Services Co., Ltd. has I registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing Registration No.: 4620C-1.



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5 Test Results

5.1 Test Instruments

| | RE in Chamber | | | | | |
|------|-----------------------------------|-------------------------|---------------------------------|------------------|------------------------|-------------------------|
| Item | Test Equipment | Manufacturer | Model No. | Inventory No. | Cal.Date (dd-mm-yy) | Cal.Due date (dd-mm-yy) |
| 1 | 3m Semi-Anechoic Chamber | ETS-LINDGREN | N/A | SEL0017 | 16-06-2007 | 15-06-2009 |
| 2 | EMI Test Receiver | Rohde & Schwarz | ESIB26 | SEL0023 | 12-12-2008 | 11-12-2009 |
| 3 | EMI Test software | AUDIX | E3 | SEL0050 | N/A | N/A |
| 4 | Coaxial cable | SGS | N/A | SEL0028 | 18-06-2008 | 17-06-2009 |
| 5 | BiConiLog Antenna (26-3000MHz) | ETS-LINDGREN | 3142C | SEL0014 | 12-08-2008 | 11-08-2009 |
| 6 | Pre-amplifier (0.1-1300MHz) | Agilent Technologies | 8447D | SEL0053 | 18-06-2008 | 17-06-2009 |
| 7 | Double-ridged horn (1-18GHz) | ETS-LINDGREN | 3117 | SEL0005 | 12-08-2008 | 11-08-2009 |
| 8 | Horn Antenna (18-26GHz) | ETS-LINDGREN | 3160 | SEL0076 | 12-08-2008 | 11-08-2009 |
| 9 | Pre-amplifier (1-18GHz) | Rohde & Schwarz | AFS42-00101 800-25-S-42 | SEL0081 | 18-06-2008 | 17-06-2009 |
| 10 | Pre-amplifier (18-26GHz) | Rohde & Schwarz | AFS33- 18002650-30- 8P-44 | SEL0080 | 18-06-2008 | 17-06-2009 |
| 11 | Band filter | Amindeon | 82346 | SEL0094 | 18-06-2008 | 17-06-2009 |
| 12 | Active Loop Antenna | Beijing Daze | ZN30900A | SEL0097 | 15-06-2008 | 14-06-2009 |

| | Conducted Emission | | | | | | | | | | | | |
|------|----------------------|------------------|-------------|------------------|------------------------|-------------------------|--|--|--|--|--|--|--|
| Item | Test Equipment | Manufacturer | Model No. | Inventory No. | Cal.Date (dd-mm-yy) | Cal.Due date (dd-mm-yy) | | | | | | | |
| 1 | Shielding Room | ZhongYu Electron | GB-88 | SEL0042 | N/A | N/A | | | | | | | |
| 2 | LISN | ETS-LINDGREN | 3816/2 | SEL0021 | 18-06-2008 | 17-06-2009 | | | | | | | |
| 3 | ISN | Rohde & Schwarz | ENY 22 1109 | EMC0114 | 18-06-2008 | 17-06-2009 | | | | | | | |
| 4 | ISN | Rohde & Schwarz | ENY 41 1110 | EMC0115 | 18-06-2008 | 17-06-2009 | | | | | | | |
| 5 | EMI Test Receiver | Rohde & Schwarz | ESCI | SEL0022 | 18-06-2008 | 17-06-2009 | | | | | | | |
| 6 | Coaxial Cable | SGS | N/A | SEL0024 | 18-06-2008 | 17-06-2009 | | | | | | | |

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5.2 E.U.T. Operation

Power supply: Input:100-240V 0.3A 50/60Hz

Output: DC 5V 1.0A

DC4.5V(3*1.5(AA) Size Batteries)

Operating Environment:

Temperature: 24.0 °C Humidity: 52 % RH Atmospheric Pressure: 1008 mbar

EUT Operation: Test the EUT as a product which Direct Sequence Spread Spectrum.

The total channels are 13 channels (1 to 13 channels), the fundamental frequencies are from 2.410GHz to 2.470GHz.

The test procedure provided by applicant enabled the EUT to transmit and receive data at lowest (Channel 1: 2.410GHz), middle (Channel

7: 2.445GHz), and highest channel (Channel 13: 2.470GHz),

frequencies individually.



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5.3 Test Result

5.3.1 Conducted Emissions Mains Terminals, 150kHz to 30MHz

Test Requirement: FCC Part15 B
Test Method: ANSI C63.4

Frequency Range: 150KHz to 30MHz

Class / Severity: Class B

Detector: Peak for pre-scan (9kHz Resolution Bandwidth)

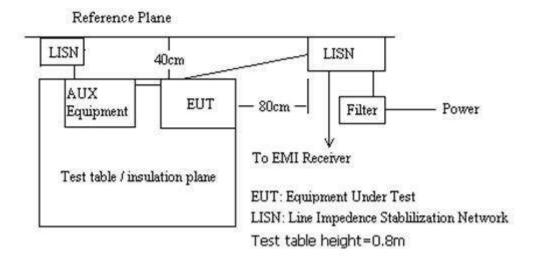
Quasi-Peak if maximised peak within 6dB of Quasi-Peak limit

Operating Environment:

Temperature: 26.0 °C Humidity: 73 % RH Atmospheric Pressure: 1005 mbar

EUT Operation: Test the EUT in On Mode.

Plan View of Test Setup



Measurement Data

An initial pre-scan was performed on the live and neutral lines with peak detector.

Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission were detected.

The following Quasi-Peak and Average measurements were performed on the EUT.

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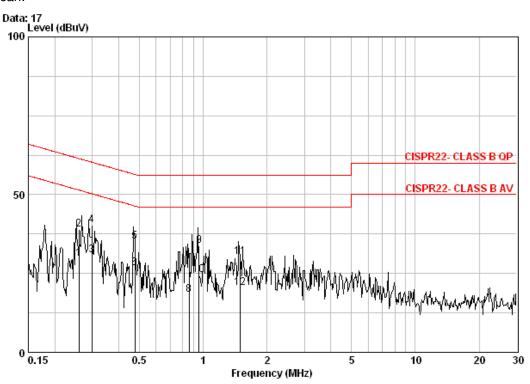


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Quasi-peak and Average measurement:

Live Line: Peak Scan:



Site : Shielding Room

Condition : CISPR22- CLASS B QP CE LINE

EUT : BABY MONITOR
Job No. : 1652RF
Mode : CHARGER

| | Freq | Cable Loss | LISN Factor | Read Level | Level | Limit Line | Over Limit | Remark |
|----|---------|---------------|----------------|---------------|-------|---------------|---------------|---------|
| | MHz | dB | dB | dBuV | dBuV | dBuV | dB | |
| 1 | 0.26020 | 0.05 | -0.04 | 29.80 | 29.80 | 51.43 | -21.62 | Average |
| 2 | 0.26020 | 0.05 | -0.04 | 38.90 | 38.90 | 61.43 | -22.52 | QP |
| 3 | 0.29900 | 0.05 | -0.04 | 30.90 | 30.91 | 50.27 | -19.36 | Average |
| 4 | 0.29900 | 0.05 | -0.04 | 40.30 | 40.31 | 60.27 | -19.96 | QP |
| 5 | 0.47680 | 0.06 | -0.04 | 35.10 | 35.12 | 56.39 | -21.28 | QP |
| 6 | 0.47680 | 0.06 | -0.04 | 26.60 | 26.62 | 46.39 | -19.78 | Average |
| 7 | 0.85830 | 0.07 | -0.05 | 28.00 | 28.02 | 56.00 | -27.98 | QP |
| 8 | 0.85830 | 0.07 | -0.05 | 18.20 | 18.22 | 46.00 | -27.78 | Average |
| 9 | 0.95430 | 0.08 | -0.05 | 33.80 | 33.83 | 56.00 | -22.17 | QP |
| 10 | 0.95430 | 0.08 | -0.05 | 24.50 | 24.53 | 46.00 | -21.47 | Average |
| 11 | 1.496 | 0.10 | -0.06 | 30.30 | 30.35 | 56.00 | -25.65 | QP |
| 12 | 1.496 | 0.10 | -0.06 | 20.40 | 20.45 | 46.00 | -25.55 | Average |

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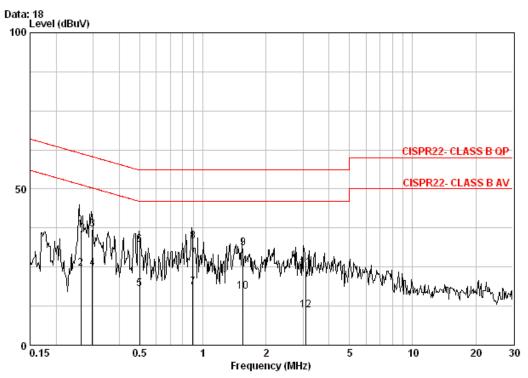
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Quasi-peak and Average measurement:

Neutral Line

Peak Scan:



Site : Shielding Room

Condition : CISPR22- CLASS B QP CE NEUTRAL

EUT : BABY MONITOR
Job No. : 1652RF
Mode : CHARGER

| | Freq | Cable Loss | LISN Factor | Read Level | Level | Limit Line | Over Limit | Remark |
|----|---------|---------------|----------------|---------------|-------|---------------|---------------|---------|
| • | MHz | dB | dB | dBuV | dBuV | dBuV | dB | |
| 1 | 0.26160 | 0.05 | -0.04 | 36.90 | 36.91 | 61.38 | -24.47 | QP |
| 2 | 0.26160 | 0.05 | -0.04 | 24.40 | 24.41 | 51.38 | -26.97 | Average |
| 3 | 0.29760 | 0.05 | -0.04 | 37.00 | 37.01 | 60.31 | -23.30 | QP |
| 4 | 0.29760 | 0.05 | -0.04 | 24.40 | 24.41 | 50.31 | -25.90 | Average |
| 5 | 0.49960 | 0.06 | -0.04 | 17.90 | 17.92 | 46.01 | -28.09 | Average |
| 6 | 0.49960 | 0.06 | -0.04 | 32.20 | 32.22 | 56.01 | -23.79 | QP |
| 7 | 0.89400 | 0.07 | -0.04 | 18.50 | 18.53 | 46.00 | -27.47 | Average |
| 8 | 0.89400 | 0.07 | -0.04 | 33.20 | 33.23 | 56.00 | -22.77 | QP |
| 9 | 1.553 | 0.10 | -0.05 | 31.10 | 31.15 | 56.00 | -24.85 | QP |
| 10 | 1.553 | 0.10 | -0.05 | 17.00 | 17.05 | 46.00 | -28.95 | Average |
| 11 | 3.102 | 0.14 | -0.08 | 24.60 | 24.66 | 56.00 | -31.34 | QP |
| 12 | 3.102 | 0.14 | -0.08 | 11.10 | 11.16 | 46.00 | -34.84 | Average |

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5.3.2 Radiated Emissions

Test Requirement: FCC 15.209 and 15.205

Test Method: ANSI C63.4:2003 & KDB558074

Measurement Distance 3m (Semi-Anechoic Chamber)

Receiver setup: 30MHz-1000MHz: Quasi-peak RBW=100KHz, VBW=300KHz

Above 1GHz: PK RBW=1MHz, VBW=3MHz

Average RBW=1MHz, VBW=10Hz

Limit: $40.0 \text{ dB}\mu\text{V/m}$ between 30MHz & 88MHz

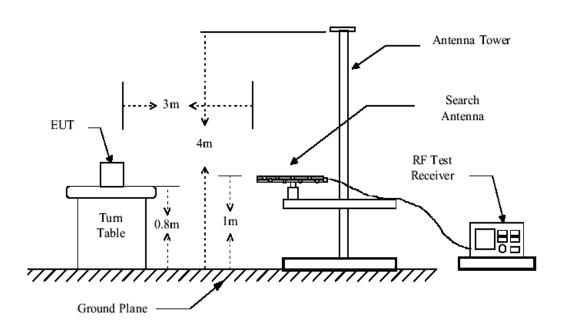
 $43.5 \text{ dB}\mu\text{V/m}$ between 88MHz & 216MHz

46.0 dBμV/m between 216MHz & 960MHz

above 960MHz: Average value Limit 54.0 dBμV/m

Peak value Limit 74.0 dBµV/m.

Test Configuration:

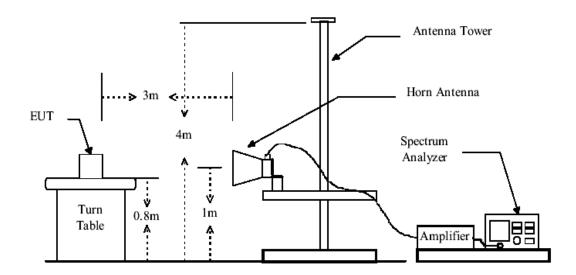


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Test Procedure: The procedure used was ANSI Standard C63.4-2003. The receiver was scanned from 30MHz to 25GHz.When an emission was found, the table was rotated to produce the maximum signal strength. An initial pre-scan was performed for in peak detection mode using the receiver. The EUT was measured for both the Horizontal and Vertical polarities and performed a pre-test three orthogonal planes. For intentional radiators, measurements of the variation of the input power or the radiated signal level of the fundamental frequency component of the emission, as appropriate, shall be performed with the supply voltage varied between 85% and 115% of the nominal rated supply voltage. The worst case emissions were reported.



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5.3.3 Radiated emission below 1GHz

Test in normal operation mode, and baby part connected with parent part.

Horizontal

| Frequency (MHz) | Cable Loss (dB) | Antenna Factor (dB/m) | Preamp Factor (dB) | Read Level (dBuV) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) |
|--------------------|--------------------|-----------------------------|--------------------------|-------------------------|-------------------|------------------------|--------------------|
| 75.59 | 0.97 | 7.37 | 28.00 | 37.55 | 17.89 | 40.00 | -22.11 |
| 159.98 | 1.34 | 9.60 | 27.38 | 35.53 | 19.09 | 43.50 | -24.41 |
| 229.82 | 1.57 | 11.64 | 27.00 | 34.39 | 20.60 | 46.00 | -25.40 |
| 567.38 | 2.67 | 19.03 | 27.65 | 28.71 | 22.76 | 46.00 | -23.24 |
| 773.99 | 3.12 | 22.00 | 27.02 | 28.62 | 26.72 | 46.00 | -19.28 |
| 967.02 | 3.67 | 23.80 | 26.44 | 27.68 | 28.71 | 54.00 | -25.29 |

Vertical

| Frequency (MHz) | Cable Loss (dB) | Antenna Factor (dB/m) | Preamp Factor (dB) | Read Level (dBuV) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) |
|--------------------|--------------------|-----------------------------|--------------------------|-------------------------|-------------------|------------------------|--------------------|
| 75.59 | 0.97 | 7.37 | 28.00 | 37.88 | 18.22 | 40.00 | -21.78 |
| 160.95 | 1.34 | 9.59 | 27.38 | 35.84 | 19.39 | 43.50 | -24.11 |
| 229.82 | 1.57 | 11.64 | 27.00 | 33.86 | 20.07 | 46.00 | -25.93 |
| 617.82 | 2.74 | 20.25 | 27.55 | 28.17 | 23.61 | 46.00 | -22.39 |
| 789.51 | 3.17 | 22.06 | 26.97 | 27.85 | 26.11 | 46.00 | -19.89 |
| 870.99 | 3.49 | 22.92 | 26.57 | 28.31 | 28.15 | 46.00 | -17.85 |

N/A: refer to remark 1).



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5.3.4 Transmitter emission above 1GHz

The lowest channel

Horizontal

| Honzontal | | | | | | | | |
|--------------------|--------------------|-----------------------------|--------------------------|-------------------------|-------------------|------------------------|--------------------|---------|
| Frequency (MHz) | Cable Loss (dB) | Antenna Factor (dB/m) | Preamp Factor (dB) | Read Level (dBuV) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | Remark |
| 1884 | 4.30 | 31.12 | 37.93 | 63.69 | 61.18 | 74 | -12.82 | Peak |
| 1884 | 4.30 | 31.12 | 37.93 | 50.67 | 48.16 | 54 | -5.84 | Average |
| 2400 | 4.97 | 32.25 | 37.97 | 44.65 | 43.90 | 54 | -10.10 | Average |
| 2400 | 4.97 | 32.25 | 37.97 | 69.25 | 68.50 | 74 | -5.50 | Peak |
| 4791 | 6.60 | 34.04 | 38.92 | 57.43 | 59.15 | 74 | -14.85 | Peak |
| 4791 | 6.60 | 34.04 | 38.92 | 43.28 | 45.00 | 54 | -9.00 | Average |
| 7358 | 7.57 | 36.06 | 37.64 | 37.85 | 43.84 | 54 | -10.16 | Average |
| 7358 | 7.57 | 36.06 | 37.64 | 46.04 | 52.03 | 74 | -21.97 | Peak |
| 9534 | 8.46 | 36.92 | 33.87 | 41.76 | 53.27 | 74 | -20.73 | Peak |
| 9534 | 8.46 | 36.92 | 33.87 | 35.19 | 46.70 | 54 | -7.30 | Average |

Vertical

| Vertical | | | | | | | | |
|--------------------|--------------------|-----------------------------|--------------------------|-------------------------|-------------------|------------------------|--------------------|---------|
| Frequency (MHz) | Cable Loss (dB) | Antenna Factor (dB/m) | Preamp Factor (dB) | Read Level (dBuV) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | Remark |
| 1867 | 4.28 | 30.99 | 37.94 | 68.23 | 65.56 | 74 | -8.44 | Peak |
| 1867 | 4.28 | 30.99 | 37.94 | 45.96 | 43.29 | 54 | -10.71 | Average |
| 2400 | 4.97 | 32.25 | 37.97 | 67.49 | 66.74 | 74 | -7.26 | Peak |
| 2400 | 4.97 | 32.25 | 37.97 | 48.68 | 47.93 | 54 | -6.07 | Average |
| 4819.21 | 6.62 | 34.04 | 38.91 | 47.68 | 49.43 | 54 | -4.57 | Average |
| 4819.21 | 6.62 | 34.04 | 38.91 | 63.28 | 65.03 | 74 | -8.97 | Peak |
| 7426 | 7.53 | 35.91 | 37.58 | 44.88 | 50.74 | 74 | -23.26 | Peak |
| 7426 | 7.53 | 35.91 | 37.58 | 34.69 | 40.55 | 54 | -13.45 | Average |
| 9585 | 8.50 | 36.97 | 33.82 | 42.15 | 53.80 | 74 | -20.20 | Peak |
| 9585 | 8.50 | 36.97 | 33.82 | 35.29 | 46.94 | 54 | -7.06 | Average |



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The middle channel

Horizontal

| Frequency (MHz) | Cable Loss (dB) | Antenna Factor (dB/m) | Preamp Factor (dB) | Read Level (dBuV) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | Remark |
|--------------------|--------------------|-----------------------------|--------------------------|-------------------------|-------------------|------------------------|--------------------|---------|
| 2400 | 4.97 | 32.25 | 44.75 | 67.83 | 60.3 | 74 | -13.7 | Peak |
| 2400 | 4.97 | 32.25 | 44.75 | 51.12 | 43.59 | 54 | -10.41 | Average |
| 2483.5 | 5.08 | 32.29 | 44.77 | 46.51 | 39.11 | 54 | -14.89 | Average |
| 2483.5 | 5.08 | 32.29 | 44.77 | 61.11 | 53.71 | 74 | -20.29 | Peak |
| 4842 | 6.62 | 34.03 | 45.41 | 58.88 | 54.12 | 74 | -19.88 | Peak |
| 4842 | 6.62 | 34.03 | 45.41 | 44.44 | 39.68 | 54 | -14.32 | Average |
| 7443 | 7.52 | 35.91 | 44.26 | 36.03 | 35.2 | 54 | -18.8 | Average |
| 7443 | 7.52 | 35.91 | 44.26 | 48.64 | 47.81 | 74 | -26.19 | Peak |
| 9806 | 8.68 | 37.14 | 42.03 | 42.97 | 46.76 | 74 | -27.24 | Peak |
| 9806 | 8.68 | 37.14 | 42.03 | 32.95 | 36.74 | 54 | -17.26 | Average |

Vertical

| VCITIOAI | | | | | | | | |
|--------------------|--------------------|-----------------------------|--------------------------|-------------------------|-------------------|------------------------|--------------------|---------|
| Frequency (MHz) | Cable Loss (dB) | Antenna Factor (dB/m) | Preamp Factor (dB) | Read Level (dBuV) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | Remark |
| 2400 | 4.97 | 32.25 | 44.75 | 67.49 | 59.96 | 74 | -14.04 | Peak |
| 2400 | 4.97 | 32.25 | 44.75 | 52.60 | 45.07 | 54 | -8.93 | Average |
| 2483.5 | 5.08 | 32.29 | 44.77 | 51.77 | 44.37 | 54 | -9.63 | Average |
| 2483.5 | 5.08 | 32.29 | 44.77 | 61.57 | 54.17 | 74 | -19.83 | Peak |
| 4842 | 6.62 | 34.03 | 45.41 | 54.30 | 49.54 | 74 | -24.46 | Peak |
| 4842 | 6.62 | 34.03 | 45.41 | 43.62 | 38.86 | 54 | -15.14 | Average |
| 7511 | 7.51 | 35.81 | 44.19 | 37.03 | 36.16 | 54 | -17.84 | Average |
| 7511 | 7.51 | 35.81 | 44.19 | 47.64 | 46.77 | 74 | -27.23 | Peak |
| 9891 | 8.75 | 37.21 | 41.95 | 44.76 | 48.77 | 74 | -25.23 | Peak |
| 9891 | 8.75 | 37.21 | 41.95 | 33.67 | 37.68 | 54 | -16.32 | Average |



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The Highest Channel

Horizontal

| Homzoman | | | | | | | | |
|--------------------|--------------------|-----------------------------|--------------------------|-------------------------|-------------------|------------------------|--------------------|---------|
| Frequency (MHz) | Cable Loss (dB) | Antenna Factor (dB/m) | Preamp Factor (dB) | Read Level (dBuV) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | Remark |
| 1884 | 4.30 | 31.12 | 37.93 | 64.73 | 62.22 | 74 | -11.78 | Peak |
| 1884 | 4.30 | 31.12 | 37.93 | 42.68 | 40.17 | 54 | -13.83 | Average |
| 2479 | 5.08 | 32.29 | 38.21 | 42.67 | 41.83 | 54 | -12.17 | Average |
| 2479 | 5.08 | 32.29 | 38.21 | 60.14 | 59.3 | 74 | -14.70 | Peak |
| 4859 | 6.63 | 34.03 | 38.89 | 45.4 | 47.17 | 74 | -26.83 | Peak |
| 4859 | 6.63 | 34.03 | 38.89 | 35.95 | 37.72 | 54 | -16.28 | Average |
| 7477 | 7.51 | 35.84 | 37.51 | 46.32 | 52.16 | 74 | -21.84 | Peak |
| 7477 | 7.51 | 35.84 | 37.51 | 35.17 | 41.01 | 54 | -12.99 | Average |
| 9687 | 8.58 | 37.06 | 33.61 | 43.63 | 55.66 | 74 | -18.34 | Peak |
| 9687 | 8.58 | 37.06 | 33.61 | 33.95 | 45.98 | 54 | -8.02 | Average |

Vertical

| VCITIOAI | | | | | | | | |
|--------------------|--------------------|-----------------------------|--------------------------|-------------------------|-------------------|------------------------|--------------------|---------|
| Frequency (MHz) | Cable Loss (dB) | Antenna Factor (dB/m) | Preamp Factor (dB) | Read Level (dBuV) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | Remark |
| 1900 | 4.32 | 31.24 | 38.02 | 63.88 | 61.42 | 74 | -12.58 | Peak |
| 1900 | 4.32 | 31.24 | 38.02 | 36.70 | 34.24 | 54 | -19.76 | Average |
| 2483.5 | 5.08 | 32.29 | 38.24 | 58.98 | 58.11 | 74 | -15.89 | Peak |
| 2483.5 | 5.08 | 32.29 | 38.24 | 43.70 | 42.83 | 54 | -11.17 | Average |
| 4910 | 6.65 | 34.02 | 38.86 | 50.90 | 52.71 | 74 | -21.29 | Peak |
| 4910 | 6.65 | 34.02 | 38.86 | 41.68 | 43.49 | 54 | -10.51 | Average |
| 7290 | 7.60 | 36.17 | 37.70 | 39.51 | 45.58 | 54 | -8.42 | Average |
| 7290 | 7.60 | 36.17 | 37.70 | 45.38 | 51.45 | 74 | -22.55 | Peak |
| 9619 | 8.53 | 36.99 | 33.71 | 43.23 | 55.04 | 74 | -18.96 | Peak |
| 9619 | 8.53 | 36.99 | 33.71 | 32.57 | 44.38 | 54 | -9.62 | Average |

N/A: refer to remark 1).



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Remark:

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor - Preamplifier Factor.

Section 15.205 Restricted bands of operation.

(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 - | 2483.5 - 2500 | 17.7 - 21.4 |
| 8.37625 - 8.38675 | 156.52525 | 2655 - 2900 | 22.01 - 23.12 |
| 8.41425 - 8.41475 | 156.7 - 156.9 | 3260 - 3267 | 23.6 - 24.0 |
| 12.29 - 12.293 | 162.0125 - 167.17 | 3332 - 3339 | 31.2 - 31.8 |
| 12.51975 - 12.52025 | 167.72 - 173.2 | 3345.8 - 3358 | 36.43 - 36.5 |
| 12.57675 - 12.57725 | 240 - 285 | 3600 - 4400 | |
| 13.36 - 13.41 | 322 - 335.4 | | |



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5.3.5 Maximum Peak Output Power

Test Requirement: FCC Part 15.247

Test Method: ANSI C63.4:2003 & KDB558074.

Regulation 15.247 (b) The Limit of Maximum Peak Output Power

Measurement is 1W (30dBm).

Test mode: Compliance test in the worse case: Channel 1, Channel 7, and

Channel 13.

Test Procedure:

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum.

2. Set the spectrum analyzer: RBW = 10 MHz. VBW = 10 MHz. Sweep = auto; Detector Function = Peak

3. Keep the EUT in transmitting at lowest, medium and highest channel individually. Record the max value.

Test Result:

| Test Channel | Fundamental Frequency (GHz) | Cable loss (dB) | Output PK Power (dBm) | Limit (dBm) | PASS/FAIL |
|-----------------|--------------------------------|--------------------|-----------------------------|----------------|-----------|
| 1 | 2.410 | 2.0 | 19.60 | 30.0 | Pass |
| 7 | 2.445 | 2.0 | 19.85 | 30.0 | Pass |
| 13 | 2.470 | 2.0 | 18.84 | 30.0 | Pass |



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The average power:

The EUT duty cycle:

Transmit cease time chart:



Transmit on time chart:



Duty cycle=Ton/Tperiod= 0.6/(0.6+3.48)=14.7%

Pout=PK Power+20log (duty cycle)=PK Power+10log (0.147)=PK Power-8.32

| Test Channel | Fundamental Frequency (GHz) | PK power(dBm) | Factor | Average power(dBm) |
|-----------------|--------------------------------|---------------|--------|--------------------|
| 1 | 2.410 | 19.60 | -8.32 | 11.28 |
| 7 | 2.445 | 19.85 | -8.32 | 11.53 |
| 13 | 2.470 | 18.84 | -8.32 | 10.52 |

FCC ID: VUY1078P

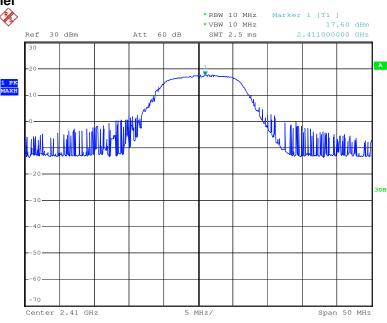


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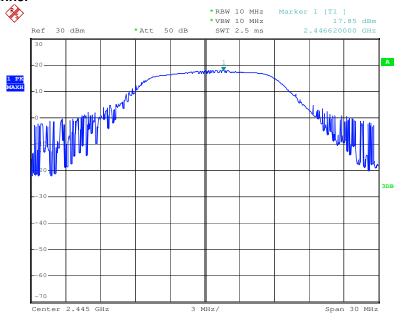
PK power test result plot as follows:

The lowest channel



Date: 16.APR.2009 14:00:36

The middle channel



Date: 16.APR.2009 14:42:01

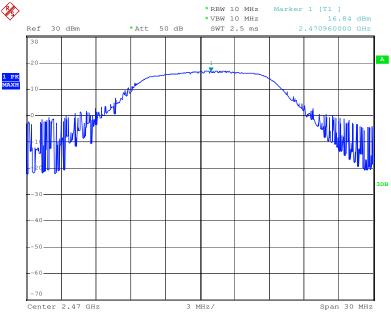
FCC ID: VUY1078P



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The highest channel



Date: 16.APR.2009 14:32:20

TEST RESULTS: The unit does meet the FCC requirements.



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5.3.6 Occupied Bandwidth

Test Requirement: FCC Part 15 C

Test Method: ANSI C63.4:2003 & KDB558074.

Requirements: Regulation 15.247 (b) (2) Systems using digital modulation techniques

may operate in the 2400 - 2483.5 MHz band. The minimum 6 dB

bandwidth shall be at least 500 kHz.

The EUT was setup to ANSI C63.4, 2003, tested to DTS test procedure

of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247

requirements.

The Transmitter output of EUT was connected to the spectrum analyzer. The minimum 6 dB bandwidth shall be at least 500 kHz. The setting of spectrum analyzer is as follows;

| Equipment Mode | Spectrum Analyzer | | |
|-------------------|-------------------|--|--|
| Detector Function | Peak Mode | | |
| RBW | 100KHz | | |
| VBW | 300KHz | | |

Test result:

| Test Channel | 6 dB bandwidth(KHz) | LIMIT(KHz) | PASS/FAIL |
|--------------|---------------------|------------|-----------|
| 1 | 1620 | 500 | Pass |
| 7 | 1640 | 500 | Pass |
| 13 | 1600 | 500 | Pass |

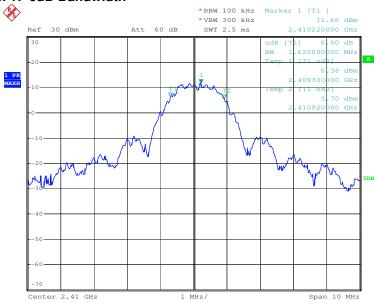
The unit does meet the FCC requirements. Please refer the graph as below:



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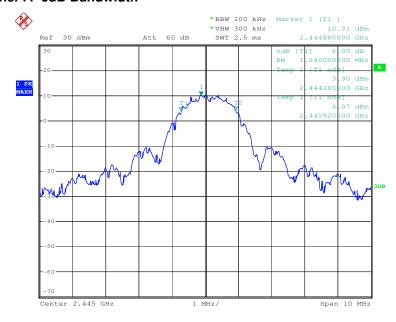
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1. Channel 1: 6dB Bandwidth



Date: 13.MAY.2009 14:30:33

2. Channel 7: 6dB Bandwidth



Date: 13.MAY.2009 14:42:53

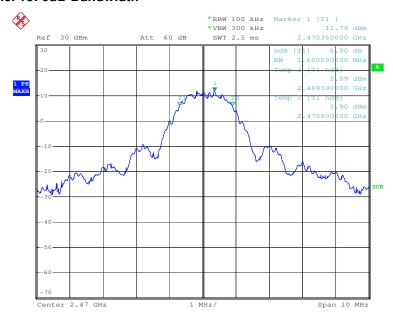
FCC ID: VUY1078P



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3. Channel 13: 6dB Bandwidth



Date: 13.MAY.2009 14:28:57

The unit does meet the FCC requirements.



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5.3.7 Band Edges Requirement

Test Requirement: FCC Part 15 C

Test Method: ANSI C63.4:2003 & KDB558074.

Operation within the band 2400 - 2483.5 MHz

Procedure: The EUT was setup to ANSI C63.4, 2003, tested to DTS test procedure of Oct

2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Spectrum: 30 MHz - 1000 MHz: RBW=100KHz, VBW=300KHz

above 1GHz Peak RBW=100KHz, VBW=300KHz

Requirements: Section 15.247 (d) In any 100 kHz bandwidth outside the frequency band in

which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of

the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

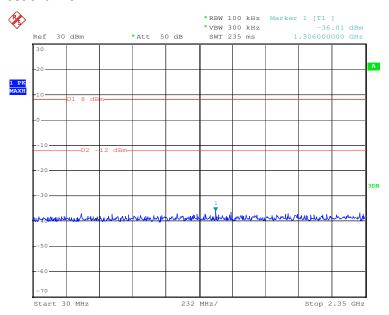
The graph as below represents the emissions take for this device.



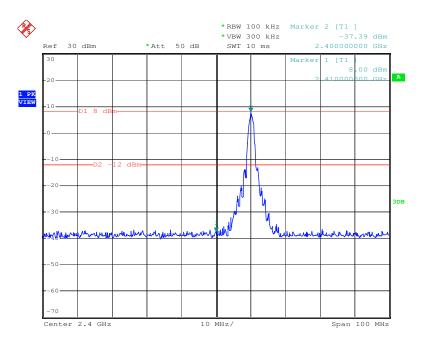
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1. The lowest channel:



Date: 21.APR.2009 10:48:53



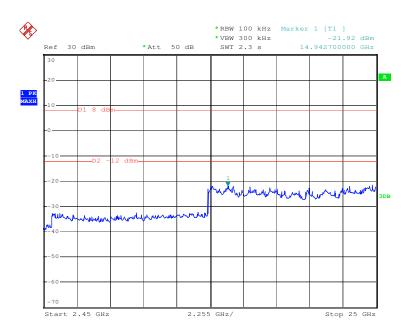
Date: 21.APR.2009 10:48:30

FCC ID: VUY1078P



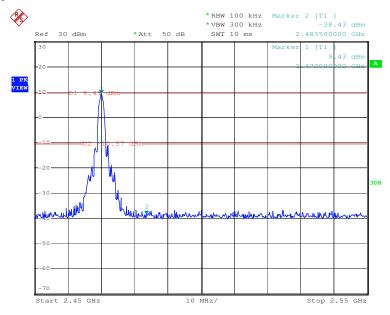
Report No.: SZEMO09040165101

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Date: 21.APR.2009 10:49:14

2. The Highest Channel



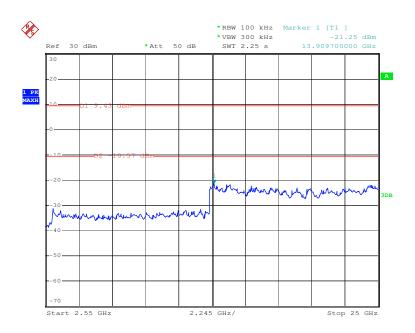
Date: 21.APR.2009 10:44:14

FCC ID: VUY1078P

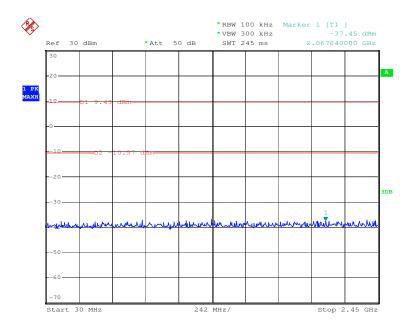


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Date: 21.APR.2009 10:44:54



Date: 21.APR.2009 10:45:15

The unit does meet the FCC requirements.

FCC ID: VUY1078P



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5.3.8 Power Spectral Density

Test Requirement: FCC Part 15 C

Test Method: ANSI C63.4:2003 & KDB558074.

Requirements: Regulation 15.247 (d) For direct sequence systems, the peak power spectral

density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous

transmission

Procedures: The EUT was set transmitting continuously and force selection of output power

level and channel number. We'd observed that the peak levels aren't greater than +8dBm limit. The EUT was setup to ANSI C63.4,2003, tested to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247

requirements.

Spectrum: RBW=3KHz, VBW=10KHz Sweep time=100S

Span=300KHz

Test Result:

| Test Channel | Fundamental Frequency (GHz) | Cable loss (dB) | RF POWER LEVEL IN 3 KHz BW (dBm) | MAXIMUM Limit (dBm) | PASS/ FAIL |
|-----------------|-----------------------------------|--------------------|--|---------------------------|---------------|
| 1 | 2.410 | 2.0 | 4.71 | 8.0 | Pass |
| 7 | 2.445 | 2.0 | 4.56 | 8.0 | Pass |
| 13 | 2.470 | 2.0 | 4.58 | 8.0 | Pass |

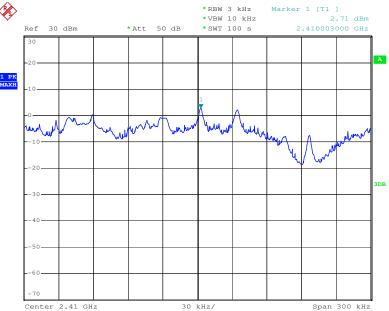
The EUT meets the requirements of this section. Please refer to graph as below:



Report No.: SZEMO09040165101

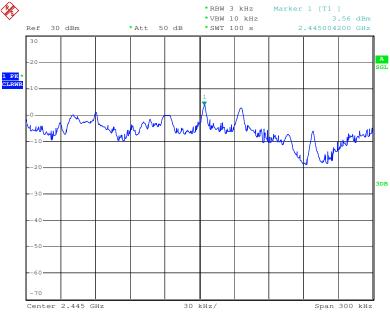
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1. The Lowest Channel:



Date: 16.APR.2009 14:29:37

2. Middle Channel:



Date: 16.APR.2009 14:46:16

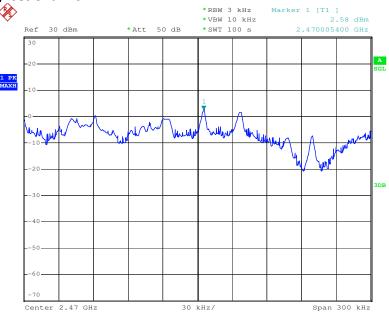
FCC ID: VUY1078P



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3. The Highest Channel:



Date: 16.APR.2009 14:36:25