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Report No.:SZEMO09050238801
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FCC Test Report

Application No.: SZEMO090502388RF

Applicant: DANE-ELEC MEMORY

Address of Applicant: 15770 Laguna Canyon Road, suite 100 Irvine, CA 92618, USA

FCC ID: XF5TWLIGHT2009

Equipment Under Test (EUT):

EUT Name: TWLIGTH USB

Item No.: WHITE TWLIGHT 360, WHITE TWLIGHT NIS.♦

Trade Mark: NORTON

♦ Please refer to section 2 of this report which indicates which item was actually tested and which were electrically identical.

Standards: FCC Part15 subpart B:2008

Date of Receipt: 15 May 2009

Date of Test: 15 to 20 May 2009

Date of Issue: 21 May 2009

| | |
|----------------------|--------------|
| Test Result : | Pass* |
|----------------------|--------------|

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

Authorized Signature:



Robinson Lo
Laboratory 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

| Test | Test Requirement | Test Method | Class / Severity | Result |
|---|---------------------------------|-----------------|------------------|--------|
| Radiated Emission (30MHz to 1GHz) | FCC PART 15, SUBPART B: 2008 | ANSI C63.4:2003 | Class B | PASS |
| Conducted Emission (150KHz to 30MHz) | FCC PART 15, SUBPART B: 2008 | ANSI C63.4:2003 | Class B | PASS |

Remark:

Item No.: WHITE TWILIGHT 360, WHITE TWILIGHT NIS

Only the Item WHITE TWILIGHT 360 was tested, since the electrical circuit design, layout, components use and internal wiring were identical for the above items.

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4 General Information

4.1 General Description of E.U.T.

EUT Name: TWLIGTH USB
Item No.: WHITE TWLIGHT

4.2 Details of E.U.T.

Power Supply: USB supply(5V)
Power Cord: N/A

4.3 Description of Support Units

The EUT has been tested with associated equipment below.

| Description | Manufacturer | Model No. |
|----------------|--------------|--------------|
| PC (RE) | DELL | OPTIPLEX 755 |
| LCD-displaying | DELL | E1909WF |
| KEYBOARD | DELL | SK-8115 |
| MOUSE | DELL | MOC5110 |
| PC (CE) | DELL | OPTIDLEX 330 |
| LCD-displaying | DELL | SP2208WFPT |
| KEYBOARD | DELL | SK-8115 |
| MOUSE | DELL | MOC5110 |

4.4 Standards Applicable for Testing

The customer requested FCC tests for a TWLIGHT USB.

The standard used was FCC PART 15, SUBPART B, CLASS B.

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 Test Facility

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

- **NVLAP – Lab Code: 200611-0**
SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory is recognized under the National Voluntary Laboratory Accreditation Program (NVLAP/NIST). NVLAP Code: 200611-0.
- **ACA**
SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory can also perform testing for the Australian C-Tick mark as a result of our NVLAP accreditation.
- **VCCI**
The 3m Semi-anechoic chamber and Shielded Room (7.5m x 4.0m x 3.0m) of SGS-CSTC Standards 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
- **SGS UK(Certificate No.: 32), SGS-TUV SAARLAND and SGS-FIMKO**
Have approved SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory as a supplier of EMC TESTING SERVICES and SAFETY TESTING SERVICES
- **CNAS (No. CNAS L2929)**
CNAS has accredited SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab 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.
- **FCC – Registration No.: 556682**
SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been registered 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, Aug. 04, 2005
- **Industry Canada (IC)**
The 3m Semi-anechoic chamber of SGS-CSTC Standards Technical Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 4620C-1.

4.7 Deviation from Standards

None.

4.8 Abnormalities from Standard Conditions

None.

5 Equipments Used during Test

| 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 |

| 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 |

6 Test Results

6.1 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

6.1.1 E.U.T. Operation

Operating Environment:
Temperature: 25.0 °C Humidity: 55 % RH Atmospheric Pressure: 1015 Mbar
EUT Operation: PC mode

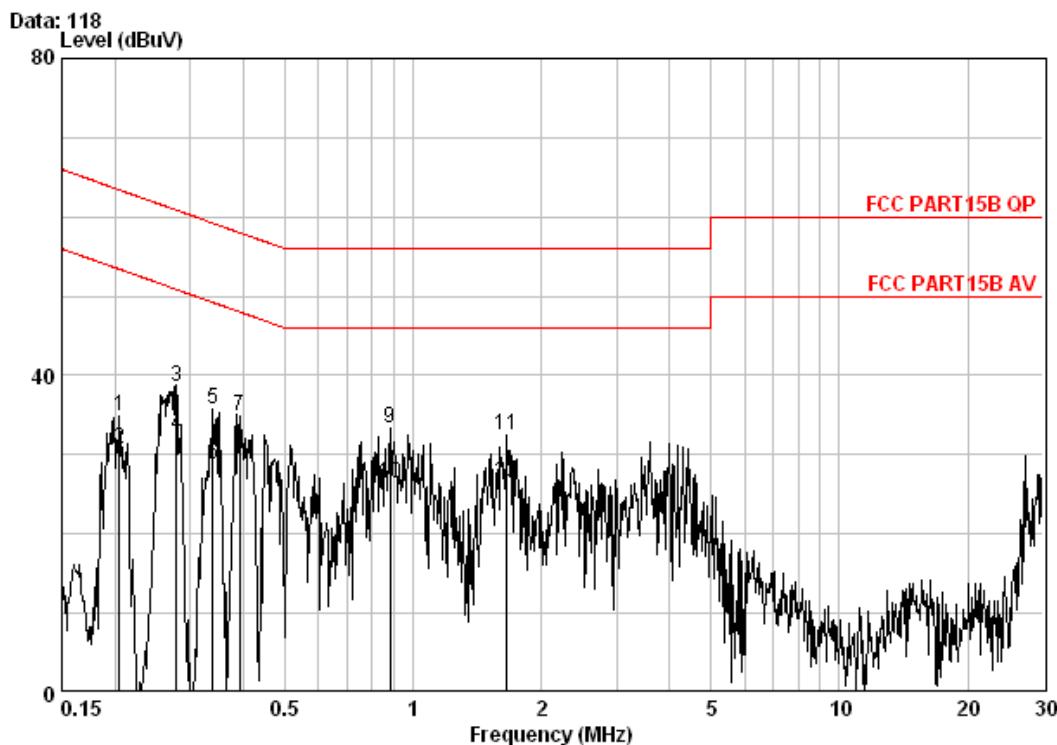
6.1.2 Measurement Data

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

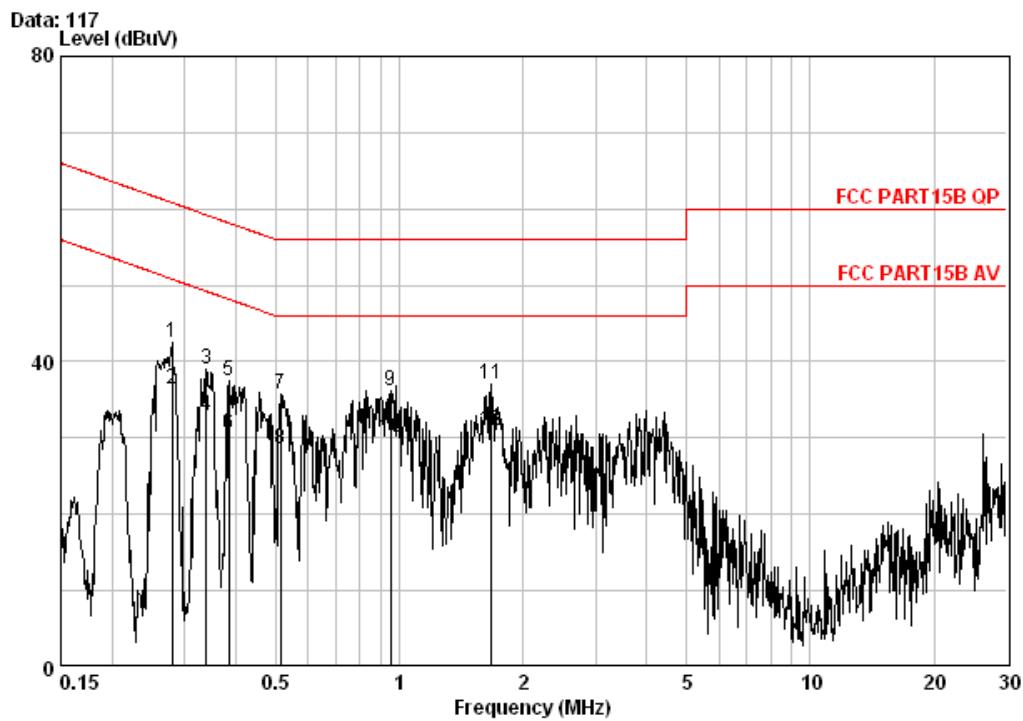
Live Line:



Site : Shielding Room
Condition : FCC PART15B QP CE LINE
EUT : TWLIGHT USB
JOB NO : 2388RF
MODE : PC

| Freq | Cable | LISN | Read | Limit | Over | Over | Remark |
|------|---------|--------|-------|-------|-------|-------|----------------|
| | Loss | Factor | Level | | | | |
| | MHz | dB | dB | dBuV | dBuV | dBuV | dB |
| 1 | 0.20505 | 0.04 | -0.04 | 34.82 | 34.82 | 63.40 | -28.58 QP |
| 2 | 0.20505 | 0.04 | -0.04 | 30.82 | 30.82 | 53.40 | -22.58 Average |
| 3 | 0.27881 | 0.05 | -0.04 | 38.57 | 38.57 | 60.85 | -22.28 QP |
| 4 | 0.27881 | 0.05 | -0.04 | 32.57 | 32.57 | 50.85 | -18.28 Average |
| 5 | 0.33920 | 0.05 | -0.04 | 35.71 | 35.72 | 59.22 | -23.50 QP |
| 6 | 0.33920 | 0.05 | -0.04 | 28.71 | 28.72 | 49.22 | -20.50 Average |
| 7 | 0.39136 | 0.06 | -0.04 | 34.80 | 34.81 | 58.03 | -23.22 QP |
| 8 | 0.39136 | 0.06 | -0.04 | 29.80 | 29.81 | 48.03 | -18.22 Average |
| 9 | 0.88499 | 0.07 | -0.05 | 33.43 | 33.45 | 56.00 | -22.55 QP |
| 10 | 0.88499 | 0.07 | -0.05 | 26.43 | 26.45 | 46.00 | -19.55 Average |
| 11 | 1.662 | 0.11 | -0.06 | 32.50 | 32.55 | 56.00 | -23.45 QP |
| 12 | 1.662 | 0.11 | -0.06 | 26.50 | 26.55 | 46.00 | -19.45 Average |

Neutral Line:



Site : Shielding Room
Condition : FCC PART15B QP CE NEUTRAL
EUT : TWLIGHT USB
JOB NO : 2388RF
MODE : PC

| Freq | Cable | LISN | Read | Limit | | Over | Remark |
|------|---------|--------|-------|-------|-------|-------|----------------|
| | Loss | Factor | Level | Level | Line | Limit | |
| | MHz | dB | dB | dBuV | dBuV | dBuV | dB |
| 1 | 0.28029 | 0.05 | -0.04 | 42.41 | 42.42 | 60.81 | -18.39 QP |
| 2 | 0.28029 | 0.05 | -0.04 | 36.41 | 36.42 | 50.81 | -14.39 Average |
| 3 | 0.33920 | 0.05 | -0.04 | 38.95 | 38.96 | 59.22 | -20.26 QP |
| 4 | 0.33920 | 0.05 | -0.04 | 32.95 | 32.96 | 49.22 | -16.26 Average |
| 5 | 0.38519 | 0.05 | -0.04 | 37.53 | 37.55 | 58.17 | -20.62 QP |
| 6 | 0.38519 | 0.05 | -0.04 | 30.53 | 30.55 | 48.17 | -17.62 Average |
| 7 | 0.51278 | 0.06 | -0.04 | 35.63 | 35.65 | 56.00 | -20.35 QP |
| 8 | 0.51278 | 0.06 | -0.04 | 28.63 | 28.65 | 46.00 | -17.35 Average |
| 9 | 0.95313 | 0.08 | -0.04 | 36.16 | 36.19 | 56.00 | -19.81 QP |
| 10 | 0.95313 | 0.08 | -0.04 | 30.16 | 30.19 | 46.00 | -15.81 Average |
| 11 | 1.671 | 0.11 | -0.06 | 36.96 | 37.01 | 56.00 | -18.99 QP |
| 12 | 1.671 | 0.11 | -0.06 | 30.96 | 31.01 | 46.00 | -14.99 Average |

6.2 Radiated Emissions, 30MHz to 1GHz

| | |
|-----------------------|--|
| Test Requirement: | FCC Part15 B |
| Test Method: | ANSI C63.4 |
| Frequency Range: | 30MHz to 1GHz |
| Measurement Distance: | 3m |
| Class: | Class B |
| Limit: | 40.0 dB μ V/m between 30MHz & 88MHz 43.5 dB μ V/m between 88MHz & 216MHz 46.0 dB μ V/m between 216MHz & 960MHz 54.0 dB μ V/m above 960MHz |
| Detector: | Peak for pre-scan (120kHz resolution bandwidth) Quasi-Peak if maximised peak within 6dB of limit |

6.2.1 E.U.T. Operation

Operating Environment:
Temperature: 22.0 °C Humidity: 54 % RH Atmospheric Pressure: 1015 mbar
EUT Operation: PC mode

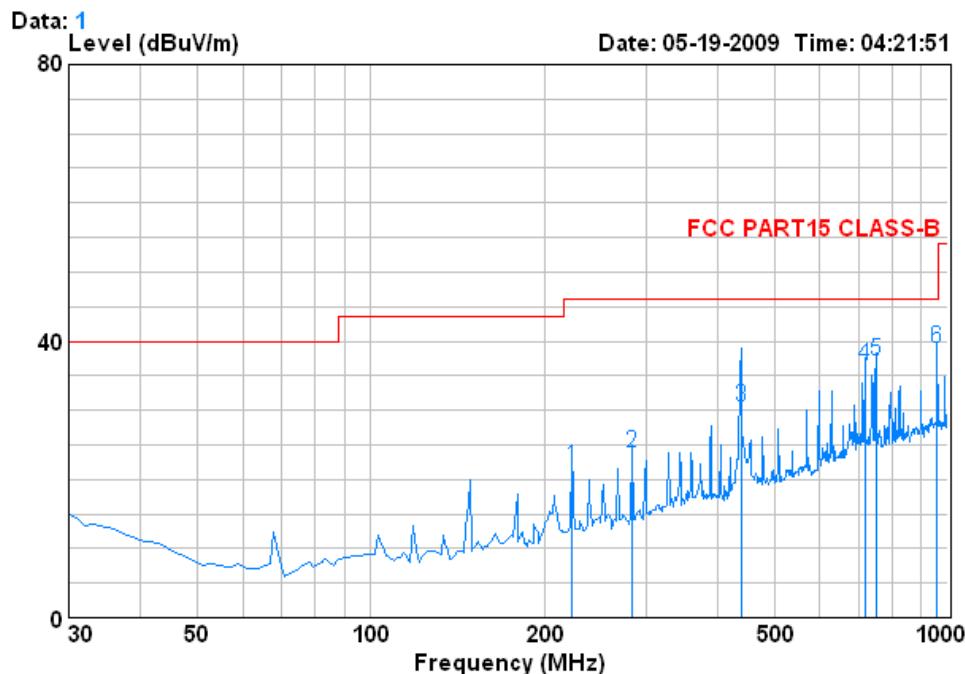
6.2.2 Measurement Data

An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by BiLog antenna with 2 orthogonal polarities.

The following quasi-peak measurements were performed on the EUT

PC mode

Horizontal



Condition : FCC PART15 CLASS-B 3m 0042673 HORIZONTAL

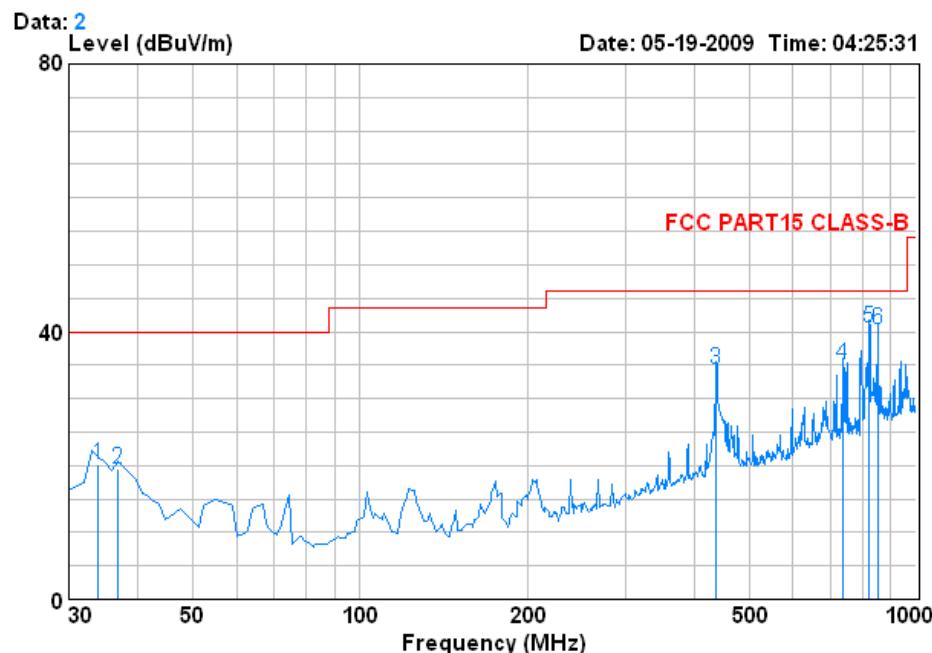
EUT : TWLIGHT USB

Job No. : 2388RF

MODE : PC

| Freq | Cable | | Antenna | Preamp | Read | Limit | Over | |
|------|---------|--------|---------|--------|-------|--------|--------|--------|
| | Loss | Factor | Factor | Level | Level | | | |
| | MHz | dB | dB/m | dB | dBuV | dBuV/m | dBuV/m | dB |
| 1 | 223.030 | 1.53 | 11.38 | 27.04 | 36.02 | 21.90 | 46.00 | -24.10 |
| 2 | 284.140 | 1.83 | 13.21 | 26.78 | 35.63 | 23.89 | 46.00 | -22.11 |
| 3 | 438.850 | 2.37 | 16.68 | 27.53 | 39.00 | 30.52 | 46.00 | -15.48 |
| 4 | 718.700 | 2.96 | 21.60 | 27.21 | 39.21 | 36.57 | 46.00 | -9.43 |
| 5 | 749.740 | 3.06 | 21.70 | 27.11 | 39.59 | 37.24 | 46.00 | -8.76 |
| 6 | 959.260 | 3.66 | 23.60 | 26.44 | 38.15 | 38.98 | 46.00 | -7.02 |

Vertical



Condition : FCC PART15 CLASS-B 3m 0042673 VERTICAL
EUT : TWLIGHT USB
Job No. : 2388RF
MODE : PC

| Freq | Cable | Antenna | Preamp | Read | Limit | Line | Over | |
|------|---------|---------|--------|-------|-------|--------|--------|--------|
| | Loss | Factor | Factor | Level | | | | |
| | MHz | dB | dB/m | dB | dBuV | dBuV/m | dBuV/m | dB |
| 1 | 33.880 | 0.60 | 13.51 | 28.15 | 34.31 | 20.27 | 40.00 | -19.73 |
| 2 | 36.790 | 0.60 | 12.30 | 28.12 | 34.82 | 19.60 | 40.00 | -20.40 |
| 3 | 436.430 | 2.36 | 16.62 | 27.53 | 43.00 | 34.45 | 46.00 | -11.55 |
| 4 | 738.100 | 3.02 | 21.66 | 27.15 | 37.50 | 35.02 | 46.00 | -10.98 |
| 5 @ | 823.460 | 3.31 | 22.36 | 26.82 | 41.78 | 40.62 | 46.00 | -5.38 |
| 6 | 851.590 | 3.41 | 22.40 | 26.67 | 41.18 | 40.33 | 46.00 | -5.67 |