

FCC Test Report

Report No.: RF940314L15J

FCC ID: U2M-SP922PRO

Test Model: DuraFon PRO

Received Date: Nov. 17, 2015

Test Date: Nov. 24 ~ Dec. 01, 2015

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Table of Contents

| | |
|---|-----------|
| Release Control Record | 3 |
| 1 Certificate of Conformity | 4 |
| 2 Summary of Test Results | 5 |
| 2.1 Measurement Uncertainty..... | 5 |
| 2.2 Modification Record..... | 5 |
| 3 General Information | 6 |
| 3.1 General Description of EUT..... | 6 |
| 3.2 Description of Test Modes..... | 8 |
| 3.2.1 Test Mode Applicability and Tested Channel Detail..... | 9 |
| 3.3 Description of Support Units..... | 10 |
| 3.3.1 Configuration of System under Test..... | 10 |
| 3.4 General Description of Applied Standards..... | 10 |
| 4 Test Types and Results | 11 |
| 4.1 Radiated Emission and Bandedge Measurement..... | 11 |
| 4.1.1 Limits of Radiated Emission and Bandedge Measurement..... | 11 |
| 4.1.2 Test Instruments..... | 12 |
| 4.1.3 Test Procedures..... | 13 |
| 4.1.4 Deviation from Test Standard..... | 13 |
| 4.1.5 Test Set Up..... | 14 |
| 4.1.6 EUT Operating Conditions..... | 14 |
| 4.1.7 Test Results..... | 15 |
| 4.2 Conducted Emission Measurement..... | 21 |
| 4.2.1 Limits of Conducted Emission Measurement..... | 21 |
| 4.2.2 Test Instruments..... | 21 |
| 4.2.3 Test Procedures..... | 22 |
| 4.2.4 Deviation From Test Standard..... | 22 |
| 4.2.5 Test Setup..... | 22 |
| 4.2.6 EUT Operating Condition..... | 22 |
| 4.2.7 Test Results..... | 23 |
| 5 Pictures of Test Arrangements | 35 |
| Appendix – Information on the Testing Laboratories | 36 |



A D T

Release Control Record

| Issue No. | Description | Date Issued |
|--------------|------------------|---------------|
| RF940314L15J | Original release | Dec. 08, 2015 |



1 Certificate of Conformity

Product: 4-Line Cordless Phone System

Brand: EnGenius

Test Model: DuraFon PRO

Sample Status: Engineering sample

Applicant: Senao Networks, Inc.

Test Date: Nov. 24 ~ Dec. 01, 2015

Standards: 47 CFR FCC Part 15, Subpart C (Section 15.247)
ANSI C63.10: 2013

This report is issued as a supplementary report of RF940314L15H. This report shall be used combined together with its original report.

Prepared by :  , **Date:** Dec. 08, 2015
Pettie Chen / Senior Specialist

Approved by :  , **Date:** Dec. 08, 2015
Ken Liu / Senior Manager

NOTE: The radiated emission below 1GHz and conducted emission tests were performed for the addendum. Refer to original report for the other test data.

2 Summary of Test Results

| 47 CFR FCC Part 15, Subpart C (SECTION 15.247) | | | |
|--|---|--------|---|
| FCC Clause | Test Item | Result | Remarks |
| 15.207 | AC Power Conducted Emission | PASS | Meet the requirement of limit. Minimum passing margin is -1.27dB at 0.45078MHz. |
| 15.247(a)(1)(i) | Number of Hopping Frequency Used | NA | Refer to Note |
| 15.247(a)(1)(i) | Dwell Time on Each Channel | NA | Refer to Note |
| 15.247(a)(1) | 1. Hopping Channel Separation 2. Spectrum Bandwidth of a Frequency Hopping Sequence Spread Spectrum System | NA | Refer to Note |
| 15.247(b)(2) | Maximum Peak Output Power | NA | Refer to Note |
| 15.205 & 209 | Radiated Emissions | PASS | Meet the requirement of limit. Minimum passing margin is -2.6dB at 959.27MHz. |
| 15.247(d) | Band Edge Measurement | NA | Refer to Note |
| 15.247(d) | Antenna Port Emission | NA | Refer to Note |
| 15.203 | Antenna Requirement | NA | Refer to Note |

NOTE: The radiated emission below 1GHz and conducted emission tests were performed for the addendum. Refer to original report for the other test data.

2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

| Measurement | Frequency | Expanded Uncertainty (k=2) (\pm) |
|------------------------------------|-----------------|--------------------------------------|
| Conducted Emissions at mains ports | 150kHz ~ 30MHz | 2.44 dB |
| Radiated Emissions up to 1 GHz | 30MHz ~ 200MHz | 3.86 dB |
| | 200MHz ~1000MHz | 3.87 dB |

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

| | |
|---------------------|--|
| Product | 4-Line Cordless Phone System |
| Brand | EnGenius |
| Test Model | DuraFon PRO |
| Status of EUT | Engineering sample |
| Power Supply Rating | Base Station: 7.5Vdc (from adapter) Portable Handset: 3.7Vdc (from battery) 5.5Vdc (from adapter or charger) |
| Modulation Type | MSK |
| Operating Frequency | 902.3840 ~ 927.4656MHz |
| Number of Channel | 50 |
| Channel Spacing | 202.272kHz |
| Output Power | 859.0mW |
| Antenna Type | Dipole antenna with 2dBi gain (Base Station) Dipole antenna with 1.5dBi gain (Portable Handset) |
| Antenna Connector | RTNC |
| Data Cable | 1.8m non-shielded RJ11 cable without core*4 1.8m non-shielded audio cable without core*1 |
| I/O Ports | Refer to user's manual |
| Accessory Device | Adapter, charger, Battery |

Note:

1. This report is prepared for FCC class II permissive change. This report is issued as a supplementary report of BVADT report no.: RF940314L15H. Differences compared with the original report are adding 2 adapters and removing a model. The test result was worse than original results. Therefore, only the test item of radiated emission below 1GHz and conducted emission tests had been an addendum test to this report. Refer to original report for the other test data.
2. The EUT consumes power from the following adapters, battery & Charger adapter. (The new adapters are Adapter 4, 5)

| Adapter 1 (for Base Station used) | |
|-----------------------------------|--------------------------------------|
| Brand | Powertron Electronics Corp. |
| Model | PA1024-2DUA |
| Input | 100-240Vac, 50-60Hz, 0.6A |
| Output | 7.5Vdc, 1.0A, 7.5W Max |
| Power Line | 1.5m non-shielded cable without core |

| Adapter 2 (for Base Station used) | |
|-----------------------------------|--------------------------------------|
| Brand | DVE |
| Model | DSA-15P-05 US 075075 |
| Input | 100-240Vac, 50/60Hz, 0.5A |
| Output | 7.5Vdc, 1A |
| Power Line | 1.5m non-shielded cable without core |

| Battery (for Portable Handset used) | |
|-------------------------------------|-----------------|
| Brand | EnGenius |
| Rating | 3.7Vdc, 1700mAh |

| Charger (for Portable Handset Charger used) | |
|---|--------------|
| Brand | EnGenius |
| Model | SP-922PRO |
| Input | 90-264Vac |
| Output | 5.5Vdc, 1.5A |

| Adapter 3 (for Portable Handset & Portable Handset Charger used) | |
|--|--------------------------------------|
| Brand | Powertron Electronics Corp. |
| Model | PA1008-1HU |
| Input | 100-240Vac, 50-60Hz, 0.3A |
| Output | 5.5Vdc, 1.45A, 8W Max |
| Power Line | 1.5m non-shielded cable without core |

| Adapter 4 (for Portable Handset & Portable Handset Charger used) (New) | |
|--|--------------------------------------|
| Brand | Powertron Electronics Corp. |
| Model | PS1012-055HUB150 |
| Input | 100-240Vac, 50-60Hz, 0.4A |
| Output | 5.5Vdc, 1.5A, 8.25W Max |
| Power Line | 1.5m non-shielded cable without core |

| Adapter 5 (for Portable Handset & Portable Handset Charger used) (New) | |
|--|--------------------------------------|
| Brand | Atech OEM |
| Model | ADS012T-W055150 |
| Input | 100-240Vac, 50-60Hz, 0.5A |
| Output | 5.5Vdc, 1.5A |
| Power Line | 1.5m non-shielded cable without core |

3. A set of the EUT include Base station & Portable handset
4. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

3.2 Description of Test Modes

50 channels are provided to this EUT:

| Channel | Freq. (MHz) | Channel | Freq. (MHz) |
|---------|-------------|---------|-------------|
| 1 | 902.3840 | 26 | 915.3293 |
| 2 | 902.7885 | 27 | 915.7339 |
| 3 | 903.1930 | 28 | 916.5430 |
| 4 | 903.5976 | 29 | 917.3521 |
| 5 | 904.4067 | 30 | 917.7566 |
| 6 | 904.8112 | 31 | 918.1611 |
| 7 | 905.2158 | 32 | 918.9702 |
| 8 | 905.6203 | 33 | 919.3748 |
| 9 | 906.0248 | 34 | 919.7793 |
| 10 | 906.8339 | 35 | 920.1839 |
| 11 | 907.6430 | 36 | 920.5884 |
| 12 | 908.0476 | 37 | 921.3975 |
| 13 | 908.4521 | 38 | 921.8020 |
| 14 | 909.2612 | 39 | 922.2066 |
| 15 | 909.6657 | 40 | 922.6111 |
| 16 | 910.0703 | 41 | 923.0157 |
| 17 | 910.4748 | 42 | 923.8247 |
| 18 | 910.8797 | 43 | 924.2293 |
| 19 | 911.6885 | 44 | 924.6338 |
| 20 | 912.0930 | 45 | 925.0384 |
| 21 | 912.4975 | 46 | 925.4429 |
| 22 | 912.9021 | 47 | 926.2520 |
| 23 | 913.3066 | 48 | 926.6566 |
| 24 | 914.1157 | 49 | 927.0611 |
| 25 | 914.9248 | 50 | 927.4656 |

3.2.1 Test Mode Applicability and Tested Channel Detail

| EUT CONFIGURE MODE | APPLICABLE TO | | DESCRIPTION |
|--------------------|---------------|-----|-----------------------------|
| | RE<1G | PLC | |
| A | √ | √ | Handset mode with adapter 4 |
| B | √ | √ | Handset mode with adapter 5 |

Where **RE<1G**: Radiated Emission below 1GHz **PLC**: Power Line Conducted Emission

NOTE:

1. The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **Z-plane**.

Radiated Emission Test (Below 1GHz):

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

| EUT CONFIGURE MODE | AVAILABLE CHANNEL | TESTED CHANNEL | MODULATION TECHNOLOGY |
|--------------------|-------------------|----------------|-----------------------|
| A, B | 1 to 50 | 1, 25, 50 | MSK |

Power Line Conducted Emission Test:

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

| EUT CONFIGURE MODE | AVAILABLE CHANNEL | TESTED CHANNEL | MODULATION TECHNOLOGY |
|--------------------|-------------------|----------------|-----------------------|
| A, B | 1 to 50 | 1, 25, 50 | MSK |

Test Condition:

| APPLICABLE TO | ENVIRONMENTAL CONDITIONS | INPUT POWER | TESTED BY |
|-----------------|--------------------------|--------------|-------------|
| RE<1G | 18deg. C, 70%RH | 120Vac, 60Hz | Jones Chang |
| PLC | 25deg. C, 60%RH | 120Vac, 60Hz | Tank Wu |

3.3 Description of Support Units

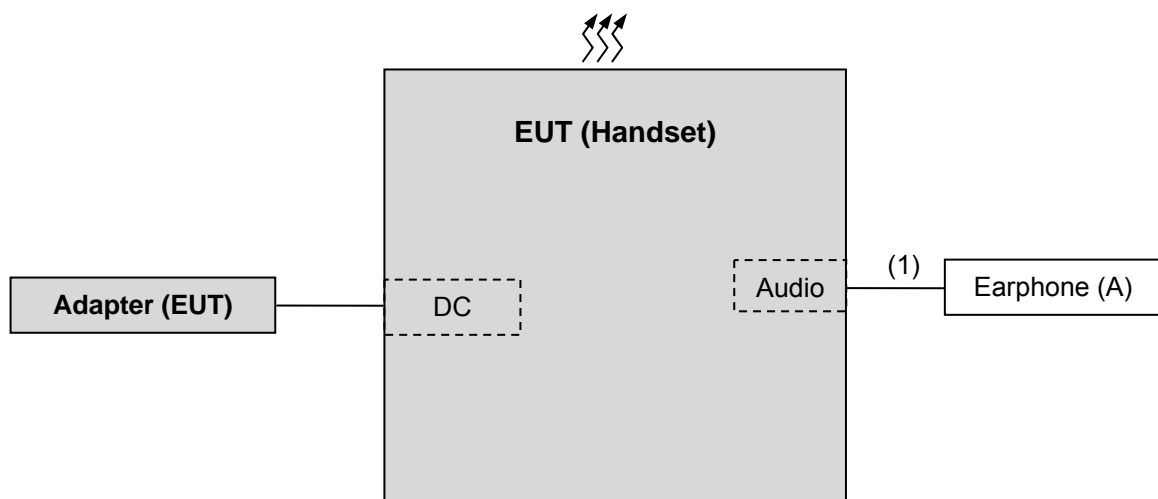
| ID | Product | Brand | Model No. | Serial No. | FCC ID | Remarks |
|----|----------|-------|-----------|------------|--------|---------|
| A. | Earphone | HTC | NA | NA | NA | - |

Note:

- All power cords of the above support units are non-shielded (1.8m).

| ID | Descriptions | Qty. | Length (m) | Shielding (Yes/No) | Cores (Qty.) | Remarks |
|----|--------------|------|------------|--------------------|--------------|---------|
| 1. | Audio cable | 1 | 1.5 | N | 0 | - |

3.3.1 Configuration of System under Test



3.4 General Description of Applied Standards

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC Part 15, Subpart C (15.247)

ANSI C63.10-2013

All test items have been performed and recorded as per the above standards.

NOTE: The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 20dB below the highest level of the desired power:

| Frequencies (MHz) | Field Strength (microvolts/meter) | Measurement Distance (meters) |
|-------------------|-----------------------------------|-------------------------------|
| 0.009 ~ 0.490 | 2400/F(kHz) | 300 |
| 0.490 ~ 1.705 | 24000/F(kHz) | 30 |
| 1.705 ~ 30.0 | 30 | 30 |
| 30 ~ 88 | 100 | 3 |
| 88 ~ 216 | 150 | 3 |
| 216 ~ 960 | 200 | 3 |
| Above 960 | 500 | 3 |

NOTE:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.



4.1.2 Test Instruments

| Description & Manufacturer | Model No. | Serial No. | Date Of Calibration | Due Date Of Calibration |
|--------------------------------------|------------------------------|--------------------------------|---------------------|-------------------------|
| Test Receiver ROHDE & SCHWARZ | ESIB7 | 100187 | Apr. 10, 2015 | Apr. 09, 2016 |
| Spectrum Analyzer ROHDE & SCHWARZ | FSP40 | 100041 | Sep. 02, 2015 | Sep. 01, 2016 |
| BILOG Antenna SCHWARZBECK | VULB9168 | 9168-160 | Feb. 05, 2015 | Feb. 04, 2016 |
| HORN Antenna SCHWARZBECK | 9120D | 209 | Feb. 09, 2015 | Feb. 08, 2016 |
| HORN Antenna SCHWARZBECK | BBHA 9170 | BBHA9170241 | Feb. 09, 2015 | Feb. 08, 2016 |
| Preamplifier Agilent | 8447D | 2944A10738 | Oct.18, 2015 | Oct. 17, 2016 |
| Preamplifier Agilent | 8449B | 3008A01964 | Aug. 22, 2015 | Aug. 21, 2016 |
| RF signal cable HUBER+SUHNER | SUCOFLEX 104 | Cable-CH3-03 (214378) | Aug. 22, 2015 | Aug. 21, 2016 |
| RF signal cable HUBER+SUHNER | SUCOFLEX 106 | Cable-CH3-03 (309224+12738) | Aug. 22, 2015 | Aug. 21, 2016 |
| Software BV ADT | ADT_Radiated_ V7.6.15.9.4 | NA | NA | NA |
| Antenna Tower inn-co GmbH | MA 4000 | 013303 | NA | NA |
| Antenna Tower Controller BV ADT | AT100 | AT93021702 | NA | NA |
| Turn Table BV ADT | TT100 | TT93021702 | NA | NA |
| Turn Table Controller BV ADT | SC100 | SC93021702 | NA | NA |

- NOTE:** 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa Chamber 3.
3. The horn antenna and preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
4. The FCC Site Registration No. is 988962.
5. The IC Site Registration No. is IC 7450F-3.

4.1.3 Test Procedures

- a. The EUT was placed on the top of a rotating table 0.8 meters (for below 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to peak detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz.

Note:

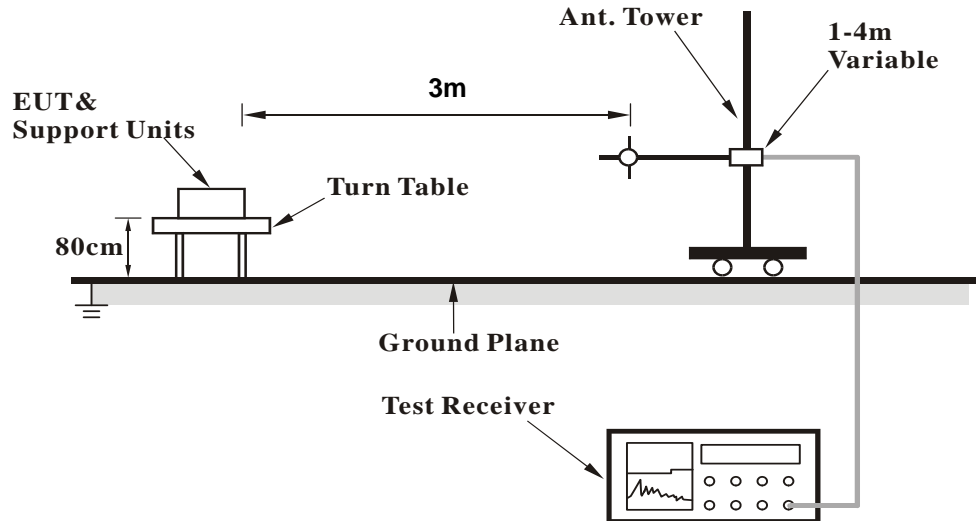
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. For Average measurement, due to the DH5 packet was the worse case duty cycle for a transmit dwell time on a channel, based upon bluetooth theory the transmitter is on $0.625 * 5$ per 296.25 ms per channel. Therefore, the duty cycle correlation factor be equal to: $20\log(3.125 / 100) = -30.1$ dB, therefore Average value = peak reading + $20\log(\text{duty cycle})$.
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

No deviation.

4.1.5 Test Set Up

<Frequency Range below 1GHz>



For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.1.6 EUT Operating Conditions

- a. Placed the EUT on a testing table.
- b. Set the EUT under transmission condition continuously at specific channel frequency.
- c. The necessary accessories enable the system in full functions.

4.1.7 Test Results

BELOW 1GHz WORST-CASE DATA:

| | | | |
|-----------------|--------------|-------------------|-----------------|
| Channel | TX Channel 1 | Detector Function | Quasi-Peak (QP) |
| Frequency Range | 30MHz ~ 1GHz | Test Mode | A |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 66.84 | 24.6 QP | 40.0 | -15.4 | 1.00 H | 172 | 40.20 | -15.60 |
| 2 | 129.06 | 33.2 QP | 43.5 | -10.3 | 1.99 H | 230 | 48.70 | -15.50 |
| 3 | 292.38 | 26.7 QP | 46.0 | -19.3 | 1.00 H | 158 | 39.10 | -12.40 |
| 4 | 525.69 | 26.7 QP | 46.0 | -19.3 | 1.99 H | 182 | 34.30 | -7.60 |
| 5 | 745.40 | 31.9 QP | 46.0 | -14.1 | 1.00 H | 61 | 34.90 | -3.00 |
| 6 | 961.16 | 41.8 QP | 54.0 | -12.2 | 1.50 H | 16 | 41.00 | 0.80 |

| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
|---|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 59.06 | 35.5 QP | 40.0 | -4.5 | 1.50 V | 10 | 50.20 | -14.70 |
| 2 | 66.84 | 34.0 QP | 40.0 | -6.0 | 1.00 V | 206 | 49.60 | -15.60 |
| 3 | 129.06 | 31.5 QP | 43.5 | -12.0 | 1.00 V | 7 | 47.00 | -15.50 |
| 4 | 389.59 | 25.6 QP | 46.0 | -20.4 | 1.50 V | 87 | 36.00 | -10.40 |
| 5 | 745.40 | 34.2 QP | 46.0 | -11.8 | 1.50 V | 6 | 37.20 | -3.00 |
| 6 | 961.21 | 43.0 QP | 54.0 | -11.0 | 1.00 V | 282 | 42.20 | 0.80 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value



| | | | |
|-----------------|---------------|-------------------|-----------------|
| Channel | TX Channel 25 | Detector Function | Quasi-Peak (QP) |
| Frequency Range | 30MHz ~ 1GHz | Test Mode | A |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | 129.06 | 33.1 QP | 43.5 | -10.4 | 2.00 H | 229 | 48.60 | -15.50 |
| 2 | 175.72 | 26.4 QP | 43.5 | -17.1 | 1.50 H | 222 | 40.90 | -14.50 |
| 3 | 294.32 | 27.1 QP | 46.0 | -18.9 | 1.00 H | 175 | 39.50 | -12.40 |
| 4 | 523.75 | 26.4 QP | 46.0 | -19.6 | 2.00 H | 203 | 34.00 | -7.60 |
| 5 | 745.40 | 30.2 QP | 46.0 | -15.8 | 1.00 H | 251 | 33.20 | -3.00 |
| 6 | 967.05 | 41.4 QP | 54.0 | -12.6 | 1.00 H | 15 | 40.60 | 0.80 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|----------|---------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | 59.06 | 36.0 QP | 40.0 | -4.0 | 1.00 V | 12 | 50.70 | -14.70 |
| 2 | 129.06 | 31.3 QP | 43.5 | -12.2 | 1.00 V | 5 | 46.80 | -15.50 |
| 3 | 296.27 | 24.8 QP | 46.0 | -21.2 | 1.49 V | 111 | 37.20 | -12.40 |
| 4 | 535.42 | 26.0 QP | 46.0 | -20.0 | 1.00 V | 264 | 33.50 | -7.50 |
| 5 | 745.40 | 34.2 QP | 46.0 | -11.8 | 1.49 V | 13 | 37.20 | -3.00 |
| 6 | 959.27 | 43.4 QP | 46.0 | -2.6 | 1.00 V | 26 | 42.70 | 0.70 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
– Pre-Amplifier Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

| | | | |
|-----------------|---------------|-------------------|-----------------|
| Channel | TX Channel 50 | Detector Function | Quasi-Peak (QP) |
| Frequency Range | 30MHz ~ 1GHz | Test Mode | A |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 129.06 | 30.6 QP | 43.5 | -12.9 | 1.50 H | 85 | 46.10 | -15.50 |
| 2 | 175.72 | 26.4 QP | 43.5 | -17.1 | 1.50 H | 100 | 40.90 | -14.50 |
| 3 | 294.32 | 24.9 QP | 46.0 | -21.1 | 1.00 H | 173 | 37.30 | -12.40 |
| 4 | 679.29 | 32.2 QP | 46.0 | -13.8 | 1.00 H | 209 | 36.60 | -4.40 |
| 5 | 745.40 | 29.7 QP | 46.0 | -16.3 | 1.00 H | 209 | 32.70 | -3.00 |
| 6 | 961.16 | 46.3 QP | 54.0 | -7.7 | 1.50 H | 188 | 45.50 | 0.80 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 59.06 | 34.1 QP | 40.0 | -5.9 | 1.00 V | 6 | 48.80 | -14.70 |
| 2 | 129.06 | 31.8 QP | 43.5 | -11.7 | 1.00 V | 285 | 47.30 | -15.50 |
| 3 | 679.29 | 31.9 QP | 46.0 | -14.1 | 1.50 V | 341 | 36.30 | -4.40 |
| 4 | 745.40 | 29.1 QP | 46.0 | -16.9 | 1.50 V | 16 | 32.10 | -3.00 |
| 5 | 821.23 | 32.8 QP | 46.0 | -13.2 | 1.00 V | 289 | 34.40 | -1.60 |
| 6 | 961.16 | 50.6 QP | 54.0 | -3.4 | 1.00 V | 244 | 49.80 | 0.80 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
– Pre-Amplifier Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

| | | | |
|-----------------|--------------|-------------------|-----------------|
| Channel | TX Channel 1 | Detector Function | Quasi-Peak (QP) |
| Frequency Range | 30MHz ~ 1GHz | Test Mode | B |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 57.12 | 21.0 QP | 40.0 | -19.0 | 2.00 H | 302 | 35.70 | -14.70 |
| 2 | 86.28 | 18.9 QP | 40.0 | -21.1 | 2.00 H | 117 | 38.50 | -19.60 |
| 3 | 142.67 | 25.5 QP | 43.5 | -18.0 | 2.00 H | 268 | 39.70 | -14.20 |
| 4 | 175.72 | 23.5 QP | 43.5 | -20.0 | 1.50 H | 265 | 38.00 | -14.50 |
| 5 | 745.40 | 35.3 QP | 46.0 | -10.7 | 1.00 H | 202 | 38.30 | -3.00 |
| 6 | 963.16 | 31.1 QP | 54.0 | -22.9 | 1.50 H | 198 | 30.30 | 0.80 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 33.79 | 24.3 QP | 40.0 | -15.7 | 1.00 V | 213 | 40.10 | -15.80 |
| 2 | 134.89 | 27.4 QP | 43.5 | -16.1 | 1.00 V | 302 | 42.30 | -14.90 |
| 3 | 175.72 | 23.6 QP | 43.5 | -19.9 | 1.00 V | 31 | 38.10 | -14.50 |
| 4 | 745.40 | 32.2 QP | 46.0 | -13.8 | 1.50 V | 5 | 35.20 | -3.00 |
| 5 | 830.95 | 31.8 QP | 46.0 | -14.2 | 1.50 V | 5 | 33.30 | -1.50 |
| 6 | 970.94 | 32.5 QP | 54.0 | -21.5 | 1.00 V | 329 | 31.50 | 1.00 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
– Pre-Amplifier Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

| | | | |
|-----------------|---------------|-------------------|-----------------|
| Channel | TX Channel 25 | Detector Function | Quasi-Peak (QP) |
| Frequency Range | 30MHz ~ 1GHz | Test Mode | B |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 57.12 | 19.0 QP | 40.0 | -21.0 | 2.00 H | 280 | 33.70 | -14.70 |
| 2 | 148.50 | 24.8 QP | 43.5 | -18.7 | 1.50 H | 267 | 38.70 | -13.90 |
| 3 | 175.72 | 22.6 QP | 43.5 | -20.9 | 1.50 H | 267 | 37.10 | -14.50 |
| 4 | 745.40 | 36.7 QP | 46.0 | -9.3 | 1.00 H | 205 | 39.70 | -3.00 |
| 5 | 836.78 | 33.3 QP | 46.0 | -12.7 | 1.00 H | 194 | 34.80 | -1.50 |
| 6 | 970.94 | 32.7 QP | 54.0 | -21.3 | 1.00 H | 189 | 31.70 | 1.00 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 39.62 | 23.0 QP | 40.0 | -17.0 | 1.50 V | 244 | 38.20 | -15.20 |
| 2 | 134.89 | 28.3 QP | 43.5 | -15.2 | 1.50 V | 280 | 43.20 | -14.90 |
| 3 | 175.72 | 23.3 QP | 43.5 | -20.2 | 1.00 V | 8 | 37.80 | -14.50 |
| 4 | 745.40 | 31.1 QP | 46.0 | -14.9 | 1.00 V | 8 | 34.10 | -3.00 |
| 5 | 856.22 | 34.2 QP | 46.0 | -11.8 | 1.00 V | 4 | 35.40 | -1.20 |
| 6 | 961.21 | 34.5 QP | 54.0 | -19.5 | 1.00 V | 313 | 33.70 | 0.80 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
– Pre-Amplifier Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

| | | | |
|-----------------|---------------|-------------------|-----------------|
| Channel | TX Channel 50 | Detector Function | Quasi-Peak (QP) |
| Frequency Range | 30MHz ~ 1GHz | Test Mode | B |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | |
|---|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 57.12 | 20.6 QP | 40.0 | -19.4 | 1.99 H | 183 | 35.30 | -14.70 |
| 2 | 142.67 | 26.1 QP | 43.5 | -17.4 | 1.99 H | 251 | 40.30 | -14.20 |
| 3 | 181.55 | 22.6 QP | 43.5 | -20.9 | 1.99 H | 297 | 37.80 | -15.20 |
| 4 | 679.29 | 32.5 QP | 46.0 | -13.5 | 1.00 H | 204 | 36.90 | -4.40 |
| 5 | 745.40 | 31.1 QP | 46.0 | -14.9 | 1.00 H | 209 | 34.10 | -3.00 |
| 6 | 961.16 | 44.6 QP | 54.0 | -9.4 | 1.50 H | 191 | 43.80 | 0.80 |
| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | |
| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
| 1 | 39.62 | 24.0 QP | 40.0 | -16.0 | 1.00 V | 127 | 39.20 | -15.20 |
| 2 | 134.89 | 27.3 QP | 43.5 | -16.2 | 1.00 V | 266 | 42.20 | -14.90 |
| 3 | 175.72 | 23.8 QP | 43.5 | -19.7 | 1.49 V | 16 | 38.30 | -14.50 |
| 4 | 679.29 | 31.6 QP | 46.0 | -14.4 | 1.49 V | 345 | 36.00 | -4.40 |
| 5 | 745.40 | 29.5 QP | 46.0 | -16.5 | 1.49 V | 16 | 32.50 | -3.00 |
| 6 | 961.67 | 46.9 QP | 54.0 | -7.1 | 1.00 V | 294 | 46.10 | 0.80 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
– Pre-Amplifier Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

| Frequency (MHz) | Conducted Limit (dBuV) | |
|-----------------|------------------------|---------|
| | Quasi-peak | Average |
| 0.15 - 0.5 | 66 - 56 | 56 - 46 |
| 0.50 - 5.0 | 56 | 46 |
| 5.0 - 30.0 | 60 | 50 |

Note: 1. The lower limit shall apply at the transition frequencies.

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

4.2.2 Test Instruments

| Description & Manufacturer | Model No. | Serial No. | Date Of Calibration | Due Date Of Calibration |
|---|--------------------------|----------------|---------------------|-------------------------|
| Test Receiver ROHDE & SCHWARZ | ESCS 30 | 100288 | Apr. 27, 2015 | Apr. 26, 2016 |
| RF signal cable (with 10dB PAD) Woken | 5D-FB | Cable-cond2-01 | Dec. 26, 2014 | Dec. 25, 2015 |
| LISN ROHDE & SCHWARZ (EUT) | ESH2-Z5 | 100100 | Dec. 30, 2014 | Dec. 29, 2015 |
| LISN ROHDE & SCHWARZ (Peripheral) | ESH3-Z5 | 100312 | Jul. 21, 2015 | Jul. 20, 2016 |
| Software ADT | BV ADT_Cond_ V7.3.7.3 | NA | NA | NA |

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. The test was performed in HwaYa Shielded Room 2.

3. The VCCI Site Registration No. is C-2047.

4.2.3 Test Procedures

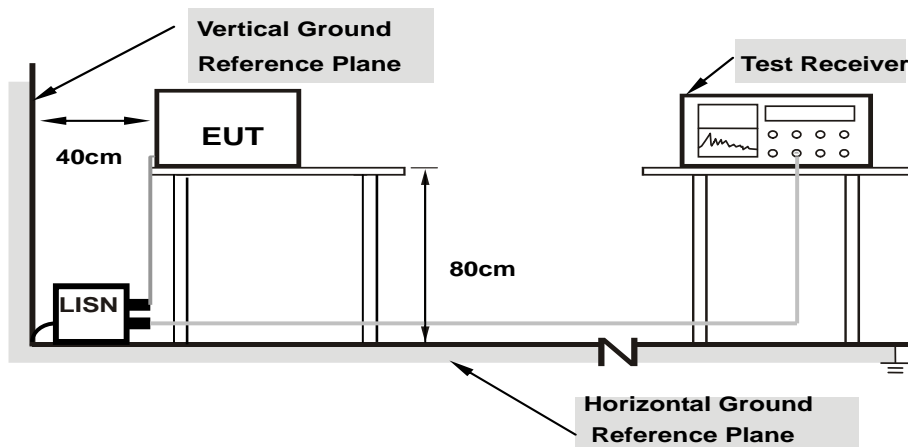
- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

NOTE: The resolution bandwidth and video bandwidth of test receiver is 9kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15MHz-30MHz.

4.2.4 Deviation From Test Standard

No deviation.

4.2.5 Test Setup



**Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes**

For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.2.6 EUT Operating Condition

Same as 4.1.6.

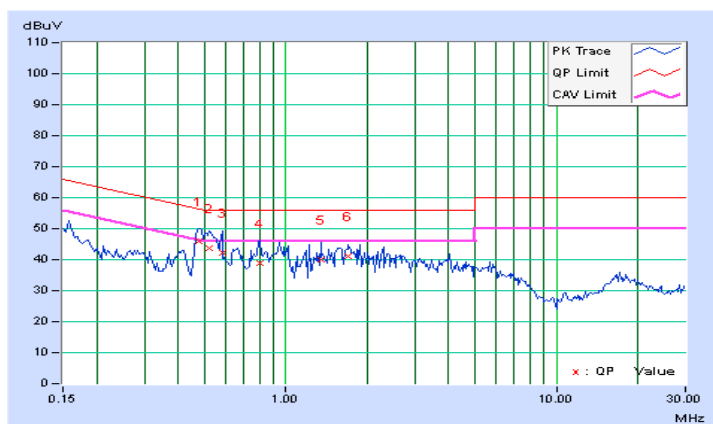
4.2.7 Test Results

| | | | |
|---------|--------------|-------------------|--------------------------------|
| Phase | Line (L) | Detector Function | Quasi-Peak (QP) / Average (AV) |
| Channel | TX Channel 1 | Test Mode | A |

| No | Freq. [MHz] | Corr. Factor (dB) | Reading Value | | Emission Level | | Limit | | Margin | |
|----|----------------|-------------------------|---------------|-------|----------------|-------|-----------|-------|--------|--------|
| | | | [dB (uV)] | | [dB (uV)] | | [dB (uV)] | | (dB) | |
| | | | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. |
| 1 | 0.47814 | 9.97 | 36.08 | 26.67 | 46.05 | 36.64 | 56.37 | 46.37 | -10.33 | -9.74 |
| 2 | 0.52109 | 9.97 | 33.77 | 22.55 | 43.74 | 32.52 | 56.00 | 46.00 | -12.26 | -13.48 |
| 3 | 0.58359 | 9.99 | 32.11 | 17.69 | 42.10 | 27.68 | 56.00 | 46.00 | -13.90 | -18.32 |
| 4 | 0.79844 | 10.03 | 28.68 | 18.00 | 38.71 | 28.03 | 56.00 | 46.00 | -17.29 | -17.97 |
| 5 | 1.35156 | 10.10 | 29.88 | 19.77 | 39.98 | 29.87 | 56.00 | 46.00 | -16.02 | -16.13 |
| 6 | 1.69531 | 10.13 | 31.01 | 20.53 | 41.14 | 30.66 | 56.00 | 46.00 | -14.86 | -15.34 |

REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

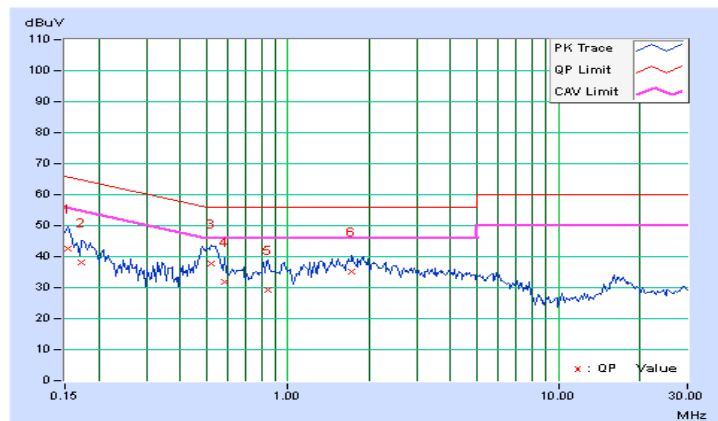


| | | | |
|---------|--------------|-------------------|--------------------------------|
| Phase | Neutral (N) | Detector Function | Quasi-Peak (QP) / Average (AV) |
| Channel | TX Channel 1 | Test Mode | A |

| No | Freq. [MHz] | Corr. Factor (dB) | Reading Value [dB (uV)] | | Emission Level [dB (uV)] | | Limit [dB (uV)] | | Margin (dB) | |
|----|----------------|----------------------|----------------------------|---------|-----------------------------|-------|--------------------|-------|----------------|--------|
| | | | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. |
| | | | 1 | 0.15391 | 9.95 | 32.47 | 19.73 | 42.42 | 29.68 | 65.79 |
| 2 | 0.17344 | 9.96 | 28.07 | 14.74 | 38.03 | 24.70 | 64.79 | 54.79 | -26.77 | -30.10 |
| 3 | 0.52109 | 10.02 | 27.92 | 18.55 | 37.94 | 28.57 | 56.00 | 46.00 | -18.06 | -17.43 |
| 4 | 0.58750 | 10.02 | 21.94 | 9.10 | 31.96 | 19.12 | 56.00 | 46.00 | -24.04 | -26.88 |
| 5 | 0.84141 | 10.06 | 19.20 | 7.79 | 29.26 | 17.85 | 56.00 | 46.00 | -26.74 | -28.15 |
| 6 | 1.71875 | 10.16 | 24.96 | 15.02 | 35.12 | 25.18 | 56.00 | 46.00 | -20.88 | -20.82 |

REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

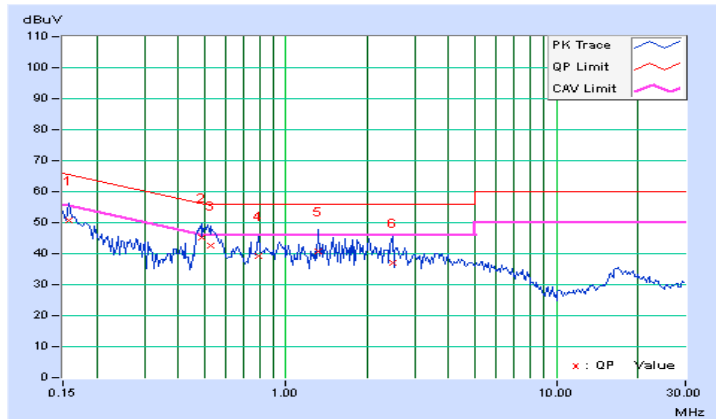


| | | | |
|---------|---------------|-------------------|--------------------------------|
| Phase | Line (L) | Detector Function | Quasi-Peak (QP) / Average (AV) |
| Channel | TX Channel 25 | Test Mode | A |

| No | Freq. [MHz] | Corr. Factor (dB) | Reading Value [dB (uV)] | | Emission Level [dB (uV)] | | Limit [dB (uV)] | | Margin (dB) | |
|----|----------------|----------------------|----------------------------|---------|-----------------------------|-------|--------------------|-------|----------------|--------|
| | | | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. |
| | | | 1 | 0.15781 | 9.94 | 40.81 | 25.42 | 50.75 | 35.36 | 65.58 |
| 2 | 0.48594 | 9.97 | 35.06 | 26.39 | 45.03 | 36.36 | 56.24 | 46.24 | -11.21 | -9.88 |
| 3 | 0.52891 | 9.98 | 32.70 | 22.18 | 42.68 | 32.16 | 56.00 | 46.00 | -13.32 | -13.84 |
| 4 | 0.79453 | 10.03 | 29.19 | 17.97 | 39.22 | 28.00 | 56.00 | 46.00 | -16.78 | -18.00 |
| 5 | 1.32054 | 10.10 | 30.53 | 19.89 | 40.63 | 29.99 | 56.00 | 46.00 | -15.37 | -16.01 |
| 6 | 2.48047 | 10.18 | 26.71 | 16.50 | 36.89 | 26.68 | 56.00 | 46.00 | -19.11 | -19.32 |

REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

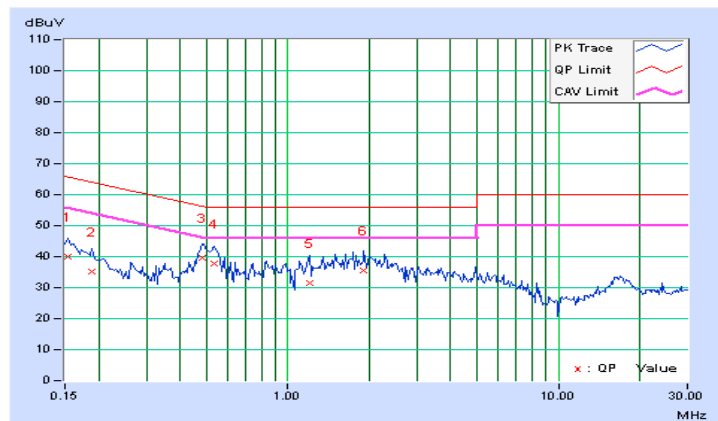


| | | | |
|---------|---------------|-------------------|--------------------------------|
| Phase | Neutral (N) | Detector Function | Quasi-Peak (QP) / Average (AV) |
| Channel | TX Channel 25 | Test Mode | A |

| No | Freq. [MHz] | Corr. Factor (dB) | Reading Value | | Emission Level | | Limit | | Margin | |
|----|----------------|-------------------------|---------------|-------|----------------|-------|-----------|-------|--------|--------|
| | | | [dB (uV)] | | [dB (uV)] | | [dB (uV)] | | (dB) | |
| | | | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. |
| 1 | 0.15391 | 9.95 | 30.08 | 17.49 | 40.03 | 27.44 | 65.79 | 55.79 | -25.76 | -28.35 |
| 2 | 0.18906 | 9.96 | 25.23 | 12.20 | 35.19 | 22.16 | 64.08 | 54.08 | -28.89 | -31.92 |
| 3 | 0.48203 | 10.01 | 29.75 | 21.67 | 39.76 | 31.68 | 56.30 | 46.30 | -16.54 | -14.62 |
| 4 | 0.53672 | 10.02 | 27.80 | 18.19 | 37.82 | 28.21 | 56.00 | 46.00 | -18.18 | -17.79 |
| 5 | 1.19922 | 10.10 | 21.33 | 11.71 | 31.43 | 21.81 | 56.00 | 46.00 | -24.57 | -24.19 |
| 6 | 1.91016 | 10.18 | 25.52 | 15.07 | 35.70 | 25.25 | 56.00 | 46.00 | -20.30 | -20.75 |

REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

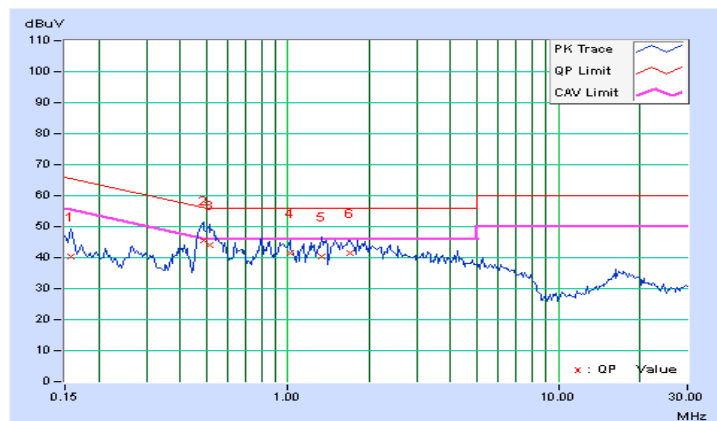


| | | | |
|---------|---------------|-------------------|--------------------------------|
| Phase | Line (L) | Detector Function | Quasi-Peak (QP) / Average (AV) |
| Channel | TX Channel 50 | Test Mode | A |

| No | Freq. [MHz] | Corr. Factor (dB) | Reading Value [dB (uV)] | | Emission Level [dB (uV)] | | Limit [dB (uV)] | | Margin (dB) | |
|----|----------------|----------------------|----------------------------|---------|-----------------------------|-------|--------------------|-------|----------------|--------|
| | | | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. |
| | | | 1 | 0.15781 | 9.94 | 30.32 | 18.34 | 40.26 | 28.28 | 65.58 |
| 2 | 0.48594 | 9.97 | 35.77 | 27.38 | 45.74 | 37.35 | 56.24 | 46.24 | -10.50 | -8.89 |
| 3 | 0.51328 | 9.97 | 33.96 | 23.77 | 43.93 | 33.74 | 56.00 | 46.00 | -12.07 | -12.26 |
| 4 | 1.02344 | 10.07 | 31.47 | 19.07 | 41.54 | 29.14 | 56.00 | 46.00 | -14.46 | -16.86 |
| 5 | 1.33984 | 10.10 | 30.20 | 20.65 | 40.30 | 30.75 | 56.00 | 46.00 | -15.70 | -15.25 |
| 6 | 1.70313 | 10.13 | 31.44 | 21.09 | 41.57 | 31.22 | 56.00 | 46.00 | -14.43 | -14.78 |

REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

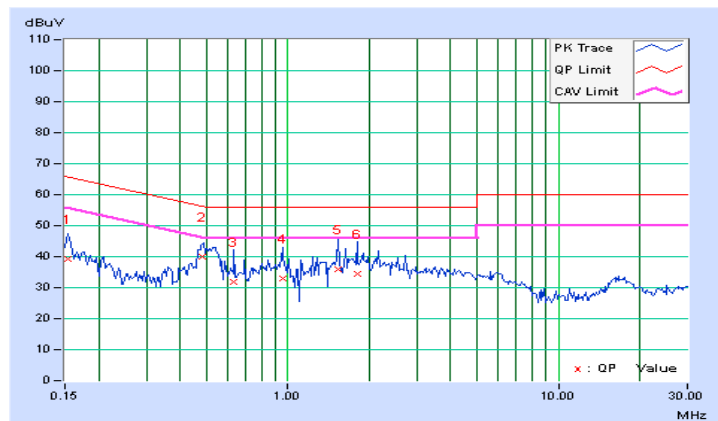


| | | | |
|---------|---------------|-------------------|--------------------------------|
| Phase | Neutral (N) | Detector Function | Quasi-Peak (QP) / Average (AV) |
| Channel | TX Channel 50 | Test Mode | A |

| No | Freq. [MHz] | Corr. Factor (dB) | Reading Value [dB (uV)] | | Emission Level [dB (uV)] | | Limit [dB (uV)] | | Margin (dB) | |
|----|----------------|----------------------|----------------------------|---------|-----------------------------|-------|--------------------|-------|----------------|--------|
| | | | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. |
| | | | 1 | 0.15391 | 9.95 | 29.27 | 16.58 | 39.22 | 26.53 | 65.79 |
| 2 | 0.48203 | 10.01 | 29.99 | 21.81 | 40.00 | 31.82 | 56.30 | 46.30 | -16.30 | -14.48 |
| 3 | 0.63438 | 10.03 | 21.83 | 9.26 | 31.86 | 19.29 | 56.00 | 46.00 | -24.14 | -26.71 |
| 4 | 0.95469 | 10.07 | 22.89 | 12.03 | 32.96 | 22.10 | 56.00 | 46.00 | -23.04 | -23.90 |
| 5 | 1.53906 | 10.14 | 25.92 | 15.70 | 36.06 | 25.84 | 56.00 | 46.00 | -19.94 | -20.16 |
| 6 | 1.80078 | 10.17 | 24.25 | 14.01 | 34.42 | 24.18 | 56.00 | 46.00 | -21.58 | -21.82 |

REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

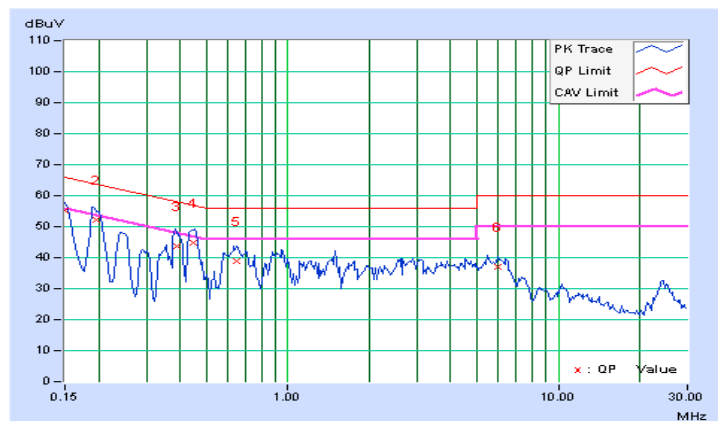


| | | | |
|---------|--------------|-------------------|--------------------------------|
| Phase | Line (L) | Detector Function | Quasi-Peak (QP) / Average (AV) |
| Channel | TX Channel 1 | Test Mode | B |

| No | Freq. [MHz] | Corr. Factor (dB) | Reading Value [dB (uV)] | | Emission Level [dB (uV)] | | Limit [dB (uV)] | | Margin (dB) | |
|----|----------------|-------------------------|----------------------------|---------|-----------------------------|-------|--------------------|-------|----------------|--------|
| | | | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. |
| | | | 1 | 0.15000 | 9.94 | 45.31 | 37.28 | 55.25 | 47.22 | 66.00 |
| 2 | 0.19542 | 9.95 | 42.11 | 34.59 | 52.06 | 44.54 | 63.80 | 53.80 | -11.75 | -9.27 |
| 3 | 0.39093 | 9.95 | 33.88 | 29.88 | 43.83 | 39.83 | 58.04 | 48.04 | -14.21 | -8.21 |
| 4 | 0.44553 | 9.96 | 34.95 | 31.61 | 44.91 | 41.57 | 56.96 | 46.96 | -12.05 | -5.39 |
| 5 | 0.65000 | 10.00 | 28.85 | 23.91 | 38.85 | 33.91 | 56.00 | 46.00 | -17.15 | -12.09 |
| 6 | 6.00391 | 10.32 | 26.57 | 21.45 | 36.89 | 31.77 | 60.00 | 50.00 | -23.11 | -18.23 |

REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

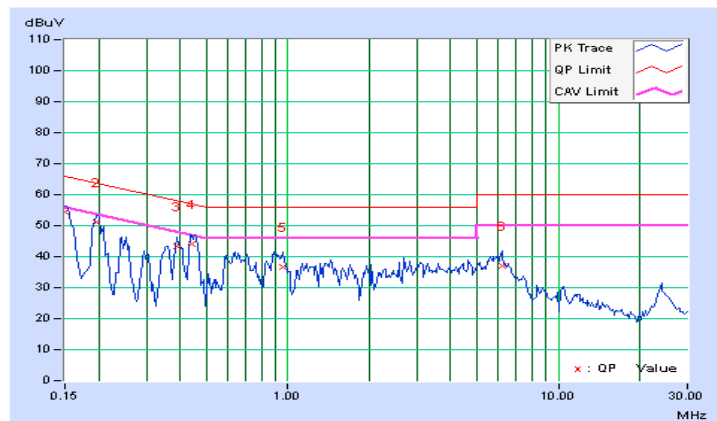


| | | | |
|---------|--------------|-------------------|--------------------------------|
| Phase | Neutral (N) | Detector Function | Quasi-Peak (QP) / Average (AV) |
| Channel | TX Channel 1 | Test Mode | B |

| No | Freq. [MHz] | Corr. Factor (dB) | Reading Value [dB (uV)] | | Emission Level [dB (uV)] | | Limit [dB (uV)] | | Margin (dB) | |
|----|----------------|----------------------|----------------------------|---------|-----------------------------|-------|--------------------|-------|----------------|--------|
| | | | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. |
| | | | 1 | 0.15000 | 9.95 | 44.63 | 36.24 | 54.58 | 46.19 | 66.00 |
| 2 | 0.19687 | 9.96 | 41.31 | 34.40 | 51.27 | 44.36 | 63.74 | 53.74 | -12.47 | -9.38 |
| 3 | 0.38828 | 10.00 | 33.23 | 28.25 | 43.23 | 38.25 | 58.10 | 48.10 | -14.87 | -9.85 |
| 4 | 0.43906 | 10.01 | 34.01 | 29.81 | 44.02 | 39.82 | 57.08 | 47.08 | -13.06 | -7.26 |
| 5 | 0.96250 | 10.07 | 26.63 | 21.57 | 36.70 | 31.64 | 56.00 | 46.00 | -19.30 | -14.36 |
| 6 | 6.19531 | 10.37 | 26.79 | 21.69 | 37.16 | 32.06 | 60.00 | 50.00 | -22.84 | -17.94 |

REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

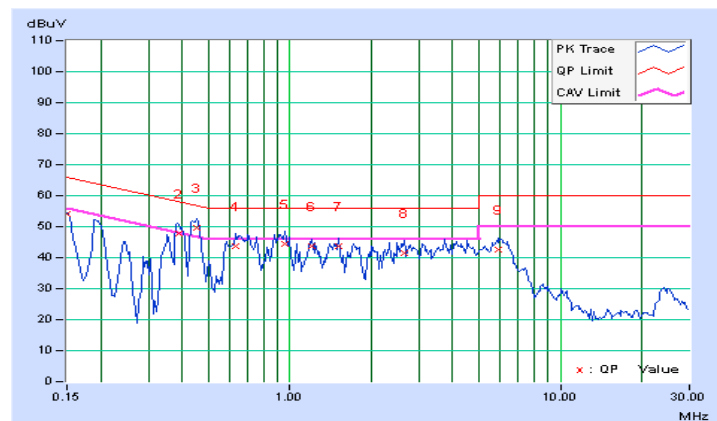


| | | | |
|---------|---------------|-------------------|--------------------------------|
| Phase | Line (L) | Detector Function | Quasi-Peak (QP) / Average (AV) |
| Channel | TX Channel 25 | Test Mode | B |

| No | Freq. [MHz] | Corr. Factor (dB) | Reading Value [dB (uV)] | | Emission Level [dB (uV)] | | Limit [dB (uV)] | | Margin (dB) | |
|----------|----------------|-------------------------|----------------------------|--------------|-----------------------------|--------------|--------------------|--------------|----------------|--------------|
| | | | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. |
| | | | 1 | 0.15000 | 9.94 | 44.16 | 37.85 | 54.10 | 47.79 | 66.00 |
| 2 | 0.39131 | 9.95 | 37.90 | 34.39 | 47.85 | 44.34 | 58.04 | 48.04 | -10.19 | -3.70 |
| 3 | 0.45078 | 9.96 | 39.61 | 35.63 | 49.57 | 45.59 | 56.86 | 46.86 | -7.29 | -1.27 |
| 4 | 0.63438 | 10.00 | 33.79 | 29.28 | 43.79 | 39.28 | 56.00 | 46.00 | -12.21 | -6.72 |
| 5 | 0.95469 | 10.06 | 34.21 | 29.41 | 44.27 | 39.47 | 56.00 | 46.00 | -11.73 | -6.53 |
| 6 | 1.20703 | 10.09 | 33.77 | 29.75 | 43.86 | 39.84 | 56.00 | 46.00 | -12.14 | -6.16 |
| 7 | 1.50781 | 10.11 | 33.70 | 28.04 | 43.81 | 38.15 | 56.00 | 46.00 | -12.19 | -7.85 |
| 8 | 2.65234 | 10.19 | 31.11 | 24.64 | 41.30 | 34.83 | 56.00 | 46.00 | -14.70 | -11.17 |
| 9 | 5.86719 | 10.32 | 32.22 | 27.13 | 42.54 | 37.45 | 60.00 | 50.00 | -17.46 | -12.55 |

REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

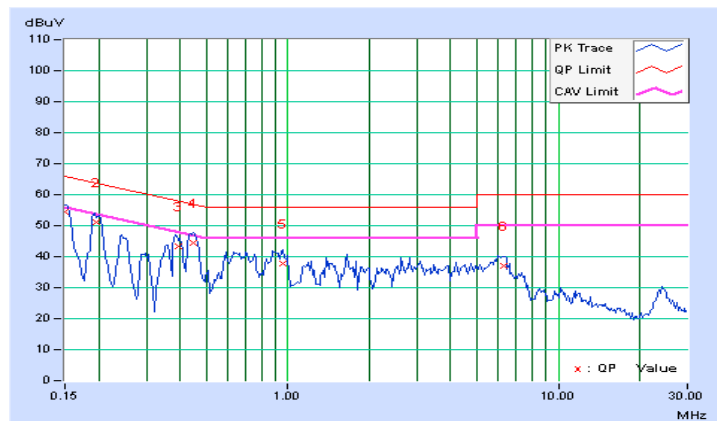


| | | | |
|---------|---------------|-------------------|--------------------------------|
| Phase | Neutral (N) | Detector Function | Quasi-Peak (QP) / Average (AV) |
| Channel | TX Channel 25 | Test Mode | B |

| No | Freq. [MHz] | Corr. Factor (dB) | Reading Value [dB (uV)] | | Emission Level [dB (uV)] | | Limit [dB (uV)] | | Margin (dB) | |
|----|----------------|-------------------------|----------------------------|---------|-----------------------------|-------|--------------------|-------|----------------|--------|
| | | | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. |
| | | | 1 | 0.15000 | 9.95 | 44.40 | 36.45 | 54.35 | 46.40 | 66.00 |
| 2 | 0.19602 | 9.96 | 41.13 | 34.14 | 51.09 | 44.10 | 63.78 | 53.78 | -12.68 | -9.67 |
| 3 | 0.39206 | 10.00 | 33.27 | 29.44 | 43.27 | 39.44 | 58.02 | 48.02 | -14.75 | -8.58 |
| 4 | 0.44688 | 10.01 | 34.47 | 31.16 | 44.48 | 41.17 | 56.93 | 46.93 | -12.46 | -5.77 |
| 5 | 0.95859 | 10.07 | 27.56 | 22.48 | 37.63 | 32.55 | 56.00 | 46.00 | -18.37 | -13.45 |
| 6 | 6.32422 | 10.38 | 26.83 | 21.73 | 37.21 | 32.11 | 60.00 | 50.00 | -22.79 | -17.89 |

REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

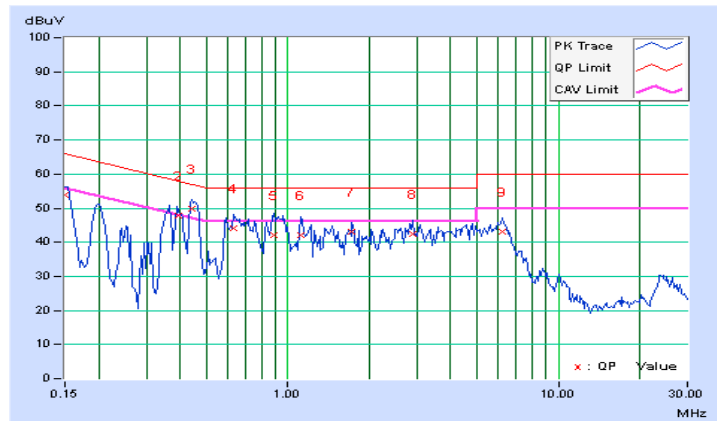


| | | | |
|---------|---------------|-------------------|--------------------------------|
| Phase | Line (L) | Detector Function | Quasi-Peak (QP) / Average (AV) |
| Channel | TX Channel 50 | Test Mode | B |

| No | Freq. [MHz] | Corr. Factor (dB) | Reading Value [dB (uV)] | | Emission Level [dB (uV)] | | Limit [dB (uV)] | | Margin (dB) | |
|----|----------------|----------------------|----------------------------|---------|-----------------------------|-------|--------------------|-------|----------------|--------|
| | | | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. |
| | | | 1 | 0.15000 | 9.94 | 43.94 | 37.91 | 53.88 | 47.85 | 66.00 |
| 2 | 0.39241 | 9.95 | 38.02 | 34.74 | 47.97 | 44.69 | 58.01 | 48.01 | -10.04 | -3.32 |
| 3 | 0.44435 | 9.96 | 39.81 | 35.53 | 49.77 | 45.49 | 56.98 | 46.98 | -7.21 | -1.49 |
| 4 | 0.63438 | 10.00 | 34.01 | 29.45 | 44.01 | 39.45 | 56.00 | 46.00 | -11.99 | -6.55 |
| 5 | 0.88438 | 10.04 | 32.16 | 28.00 | 42.20 | 38.04 | 56.00 | 46.00 | -13.80 | -7.96 |
| 6 | 1.12109 | 10.08 | 31.92 | 24.76 | 42.00 | 34.84 | 56.00 | 46.00 | -14.00 | -11.16 |
| 7 | 1.73047 | 10.13 | 32.80 | 28.19 | 42.93 | 38.32 | 56.00 | 46.00 | -13.07 | -7.68 |
| 8 | 2.87891 | 10.21 | 32.37 | 26.68 | 42.58 | 36.89 | 56.00 | 46.00 | -13.42 | -9.11 |
| 9 | 6.20703 | 10.33 | 32.63 | 27.71 | 42.96 | 38.04 | 60.00 | 50.00 | -17.04 | -11.96 |

REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

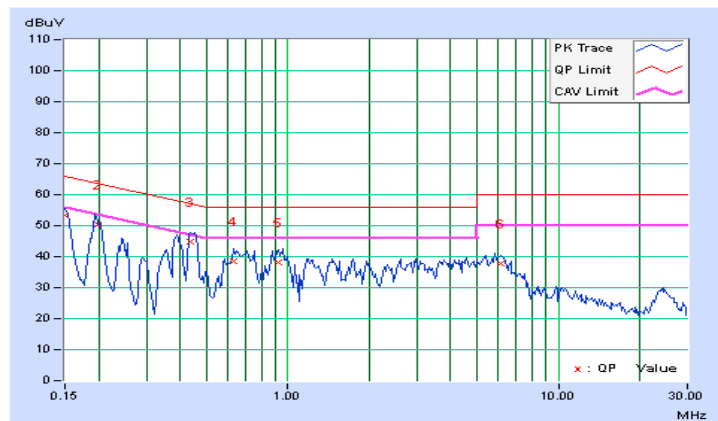


| | | | |
|---------|---------------|-------------------|--------------------------------|
| Phase | Neutral (N) | Detector Function | Quasi-Peak (QP) / Average (AV) |
| Channel | TX Channel 50 | Test Mode | B |

| No | Freq. [MHz] | Corr. Factor (dB) | Reading Value [dB (uV)] | | Emission Level [dB (uV)] | | Limit [dB (uV)] | | Margin (dB) | |
|----|----------------|----------------------|----------------------------|---------|-----------------------------|-------|--------------------|-------|----------------|--------|
| | | | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. |
| | | | 1 | 0.15000 | 9.95 | 43.35 | 36.14 | 53.30 | 46.09 | 66.00 |
| 2 | 0.19715 | 9.97 | 40.48 | 34.40 | 50.45 | 44.37 | 63.73 | 53.73 | -13.28 | -9.36 |
| 3 | 0.43664 | 10.01 | 34.84 | 29.37 | 44.85 | 39.38 | 57.13 | 47.13 | -12.28 | -7.75 |
| 4 | 0.63047 | 10.03 | 28.54 | 22.54 | 38.57 | 32.57 | 56.00 | 46.00 | -17.43 | -13.43 |
| 5 | 0.92734 | 10.07 | 27.92 | 23.43 | 37.99 | 33.50 | 56.00 | 46.00 | -18.01 | -12.50 |
| 6 | 6.10547 | 10.37 | 27.58 | 22.44 | 37.95 | 32.81 | 60.00 | 50.00 | -22.05 | -17.19 |

REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.



5 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo).

Appendix – Information on the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

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Email: service.adt@tw.bureauveritas.com

Web Site: www.bureauveritas-adt.com

The address and road map of all our labs can be found in our web site also.

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