



RADIO TEST REPORT

Report No: STS1807020W01

Issued for

ZHEJIANG UNIVIEW TECHNOLOGIES CO LTD

88 JIANGLING RD, BINJIANG DISTRICT HANGZHOU,
ZHEJIANG 310051, P.R. CHINA

| | |
|-----------------------|---|
| Product Name: | IP Camera |
| Brand Name: | N/A |
| Model Name: | IPC322SR3-VSF28W-D |
| Series Model: | IPC322SR3-VSF28W-D-NB, IPC322SR3-VSF40W-D, IPC322SR3-VSF40W-D-NB |
| FCC ID: | 2AL8S-0211C2W3 |
| Test Standard: | CFR47 FCC Part 15: Subpart C Section 15.247 CFR47 FCC Part 15: Subpart C Section 15.207 CFR47 FCC Part 15: Subpart C Section 15.209 CFR47 FCC Part 15: Subpart B Section 15.107 CFR47 FCC Part 15: Subpart B Section 15.109 |

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TEST RESULT CERTIFICATION

Applicant's name : **ZHEJIANG UNIVIEW TECHNOLOGIES CO LTD**
Address : 88 JIANGLING RD, BINJIANG DISTRICT HANGZHOU, ZHEJIANG
310051, P.R. CHINA
Manufacture's Name : **1. Zhejiang Uniview Technologies Co., Ltd.**
2. Suzhou Qiaoxin Electronic Technology Co., Ltd.
3. TDG TECHNOLOGY CO LTD
4. ZHE JIANG RAYSOAR ELECTRONICS CO LTD
Address : 1. A Zone, Building 2, Wanlun Science Park, 88 Jiangling Road,
Hangzhou, P.R. China
2. No. 77, Yitang Road, Economic Development Zone, Wujiang
District, Suzhou City, Jiangsu Province, China 215200
3. YATAI ROAD NO.1,SOUTH LAKE DISTRICT, JIAXING,
ZHEJIANG, PROVINCE, 314050, P.R. CHINA.
4. No. 367 Weizhong Road, Weitang Street, Jiashan County, Jiaxing,
Zhejiang

Product description

Product Name : IP Camera
Brand Name : N/A
Model Name : IPC322SR3-VSF28W-D
Series Model : IPC322SR3-VSF28W-D-NB, IPC322SR3-VSF40W-D,
IPC322SR3-VSF40W-D-NB

Test Standards : CFR47 FCC Part 15: Subpart C Section 15.247
CFR47 FCC Part 15: Subpart C Section 15.207
CFR47 FCC Part 15: Subpart C Section 15.209
CFR47 FCC Part 15: Subpart B Section 15.107
CFR47 FCC Part 15: Subpart B Section 15.109

Test procedure : ANSI C63.10: 2013, ANSI C63.4: 2014

This device described above has been tested by STS, the test results show that the equipment under test (EUT) is in compliance with the FCC/IC requirements. And it is applicable only to the tested sample identified in the report.

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Date of Test

Date (s) of performance of tests : 01 Jul. 2018 ~ 26 Jul. 2018

Date of Issue : 27 Jul. 2018

Test Result : **Pass**



Testing Engineer : Chris Chen
(Chris Chen)

Technical Manager : Sean She
(Sean She)

Authorized Signatory : Vita Li
(Vita Li)





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Revision History

| Rev. | Issue Date | Report NO. | Effect Page | Contents |
|------|--------------|---------------|-------------|---------------|
| 00 | 27 Jul. 2018 | STS1807020W01 | ALL | Initial Issue |
| | | | | |





1 SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

KDB 558074 D01 DTS Meas Guidance v04

| FCC Part 15, Subpart C | | | |
|--------------------------------|---|----------|--------|
| Standard Section | Test Item | Judgment | Remark |
| FCC Part 15.207(a) | Conducted Emission | PASS | |
| FCC Part 15.247(a)(2) | 6dB Bandwidth | PASS | |
| FCC Part 15.247(b)(3) | Output Power | PASS | |
| FCC Part 15.247(d) | Radiated Spurious Emission | PASS | |
| FCC Part 15.247(d) | Conducted Spurious & Band Edge Emission | PASS | |
| FCC Part 15.247(e) | Power Spectral Density | PASS | |
| FCC Part 15.205 | Restricted Band Edge Emission | PASS | |
| FCC Part 15.247(d) & 15.209(a) | Band Edge Emission | PASS | |
| FCC Part 15.247(b)(4) & 15.203 | Antenna Requirement | PASS | |

| FCC Part 15, Subpart B | | | |
|------------------------|--------------------|----------|---------------|
| Standard Section | Test Item | Judgment | Remark |
| FCC Part 15.107(a) | Conducted Emission | PASS | Class B limit |
| FCC Part 15.109(a) | Radiated Emission | PASS | Class B limit |

NOTE:

- 1) 'N/A' denotes test is not applicable in this test report
- 2) All tests were performed according to the procedures in ANSI C63.10: 2013 and ANSI C63.4: 2014.



1.1 TEST FACTORY

Shenzhen STS Test Services Co., Ltd.
Add. : 1/F., Building B, Zhuoke Science Park, No.190, Chongqing Road, Fuyong Street, Bao'an District, Shenzhen, Guangdong, China

CNAS Registration No.: L7649; FCC Registration No.: 625569
IC Registration No.: 12108A; A2LA Certificate No.: 4338.01;

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95 %.

| No. | Item | Uncertainty |
|-----|---|---------------------|
| 1 | Conducted Emission (9KHz-150KHz) | $\pm 2.88\text{dB}$ |
| 2 | Conducted Emission (150KHz-30MHz) | $\pm 2.67\text{dB}$ |
| 3 | RF power,conducted | $\pm 0.71\text{dB}$ |
| 4 | Spurious emissions,conducted | $\pm 0.63\text{dB}$ |
| 5 | All emissions,radiated (9KHz-30MHz) | $\pm 3.02\text{dB}$ |
| 6 | All emissions,radiated (30MHz-200MHz) | $\pm 3.80\text{dB}$ |
| 7 | All emissions,radiated (200MHz-1000MHz) | $\pm 3.97\text{dB}$ |
| 8 | All emissions,radiated(>1G) | $\pm 3.03\text{dB}$ |



2 GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

| | | |
|--|--|--|
| Product Name | IP Camera | |
| Trade Name | N/A | |
| Model Name | IPC322SR3-VSF28W-D | |
| Series Model | IPC322SR3-VSF28W-D-NB, IPC322SR3-VSF40W-D, IPC322SR3-VSF40W-D-NB | |
| Model Difference | All models are identical except the model number. | |
| Product Description | The EUT is IP Camera which supports Wi-Fi 802.11 b/g/n wireless technology. | |
| | Operation Frequency: | 2412 - 2462 MHz for 802.11b/g/n(HT20) |
| | Modulation Type: | DSSS(DBPSK/DQPSK/CCK) OFDM(BPSK/QPSK/16QAM/64QAM) |
| | Bit Rate of Transmitter: | 1/2/5.5/11 Mbps for 802.11b 6/9/12/18/24/36/48/54 Mbps for 802.11g MCS0 ~ MCS7 for 802.11n |
| | Number Of Channel: | 11 channels for 802.11b/g/n(HT20) |
| | Antenna Designation: | Please see Note 4 |
| | Antenna Gain (dBi): | 2.4dBi |
| | Duty Cycle: | >98% |
| Channel List | Please refer to the Note 2. | |
| Adapter | Adapter Model: ADS-12FB-12 12012EPCU (HONOR) Input: AC 100-240V~50/60Hz, 0.3A Output: DC 12.0V@1000mA | |
| Battery | N/A | |
| Hardware version | N/A | |
| Software version | N/A | |
| Radio Hardware version | N/A | |
| Radio Software version | N/A | |
| Test Software | SecureCRT | |
| RF Power Setting TEST Software (power class) | default | |
| Connecting I/O Port(s) | Please refer to the User's Manual | |



Note:

- 1 For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

2

| RF Channel and Frequency of Wi-Fi 802.11 b/g/n | | | |
|--|-------------|--|--|
| 802.11b/g/n (HT20) | | | |
| RF Channel | Freq.(MHz) | | |
| 01 | 2412 | | |
| 02 | 2417 | | |
| 03 | 2422 | | |
| 04 | 2427 | | |
| 05 | 2432 | | |
| 06 | 2437 | | |
| 07 | 2442 | | |
| 08 | 2447 | | |
| 09 | 2452 | | |
| 10 | 2457 | | |
| 11 | 2462 | | |

3 Note:

- 1) In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test;
- 2) Test frequencies are lowest channel: 2412 MHz, middle channel: 2437 MHz and highest channel: 2462 MHz for 802.11b/g/n(HT20)

4

| Ant | Brand | Model Name | Antenna Type | Connector | Gain (dBi) | NOTE |
|-----|-------|------------------------|---------------------|-----------|------------|-----------------|
| 1 | N/A | IPC322SR3-VSF 28W-D | Integral Antenna | N/A | 2.4 | WLAN Antenna |



2.2 DESCRIPTION OF TEST MODES

Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

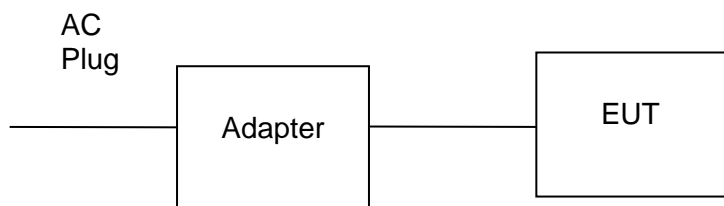
| Worst Mode | Description | Data Rate |
|------------|--------------------------------|-----------|
| Mode 1 | TX IEEE 802.11b CH1 | 1 Mbps |
| Mode 2 | TX IEEE 802.11b CH6 | 1 Mbps |
| Mode 3 | TX IEEE 802.11 b CH11 | 1 Mbps |
| Mode 4 | TX IEEE 802.11g CH1 | 6 Mbps |
| Mode 5 | TX IEEE 802.11g CH6 | 6 Mbps |
| Mode 6 | TX IEEE 802.11g CH11 | 6 Mbps |
| Mode 7 | TX IEEE 802.11n HT20 CH1 | MCS 0 |
| Mode 8 | TX IEEE 802.11n HT20 CH6 | MCS 0 |
| Mode 9 | TX IEEE 802.11n HT20 CH11 | MCS 0 |
| Mode10 | Wi-Fi transmitting mode | / |
| Mode 11 | Recording+Replay+Download mode | / |
| Mode 12 | Local Recording mode | / |

Note:

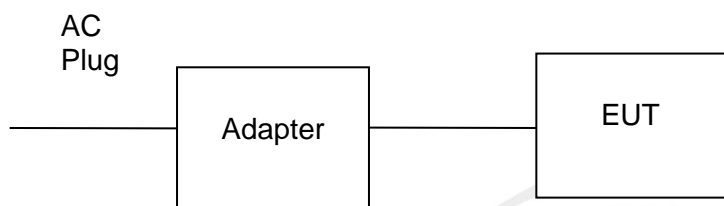
- 1) The measurements are performed at all Bit Rate of Transmitter, the worst data was reported
- 2) We have be tested for all avaiable U.S. voltage and frequencies(For 120V,50/60Hz and 240V, 50/60Hz) for which the device is capable of operation, and the worst case of 120V/60Hz is shown in the report
- 3) Controlled using a bespoke application on the laptop PC supplied by the customer. The application was used to enable a continuous transmission mode and to select the test channels, data rates and modulation schemes as required.
- 4) According to the model differences description, we choose model: IPC322SR3-VSF28W-D to perform all tests.

2.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Radiation Test Set



Conduction Test Set



2.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

| Item | Equipment | Mfr/Brand | Model/Type No. | Serial No. | Note |
|------|-------------------|-----------|--------------------------|------------|---------------------|
| 1 | Adapter | HONOR | ADS-12FB-12 12012EPCU | N/A | Accessory equipment |
| 2 | Personal computer | HP | 500-320cx | 4CV428DQYN | Provided by lab |
| 3 | TF card | Kingston | 32GB | N/A | |
| 4 | Honor 8 | HUAWEI | FRD-AL00 | N/A | |
| 5 | iPhone 7 | Apple | A1661 | N/A | |
| 6 | Mouse | MOTOSPEED | F66 | N/A | |

| Item | Shielded Type | Ferrite Core | Length | Note |
|------|---------------|--------------|--------|------|
| 1 | RJ45 cable*2 | NO | 200cm | N/A |
| | | | | |
| | | | | |

Note:

- 1) The support equipment was authorized by Declaration of Confirmation.
- 2) For detachable type I/O cable should be specified the length in cm in 『Length』 column.
- 3) “YES” is means “shielded” “with core”; “NO” is means “unshielded” “without core”.



2.5 EQUIPMENTS LIST FOR ALL TEST ITEMS

Radiation Test equipment

| Kind of Equipment | Manufacturer | Type No. | Serial No. | Last calibration | Calibrated until |
|----------------------------------|--------------|--------------|------------|------------------|------------------|
| EMI Test Receiver | R&S | ESCI | 102086 | 2017.10.15 | 2018.10.14 |
| Bilog Antenna | TESEQ | CBL6111D | 34678 | 2017.11.02 | 2018.11.01 |
| Horn Antenna | Schwarzbeck | BBHA 9120D | 9120D-1343 | 2017.10.27 | 2018.10.26 |
| SHF-EHF Horn Antenna (18G-40GHz) | A-INFO | LB-180400-KF | N/A | 2018.03.11 | 2019.03.10 |
| Temperature & Humidity | HH660 | Mieo | N/A | 2017.10.15 | 2018.10.14 |
| Temperature & Humidity | HH660 | Mieo | N/A | 2017.10.15 | 2018.10.14 |
| Pre-mpifier (0.1M-3GHz) | EM | EM330 | 60538 | 2018.03.11 | 2019.03.10 |
| PreAmplifier (1G-26.5GHz) | Agilent | 8449B | 60538 | 2017.10.15 | 2018.10.14 |
| Passive Loop (9K--30MHz) | ZHNAN | ZN3090C | 16035 | 2018.03.11 | 2019.03.10 |
| Low frequency cable | EM | R01 | N/A | 2018.03.11 | 2019.03.10 |
| Low frequency cable | EM | R06 | N/A | 2018.03.11 | 2019.03.10 |
| High frequency cable | SCHWARZBECK | R04 | N/A | 2018.03.11 | 2019.03.10 |
| High frequency cable | SCHWARZBECK | R02 | N/A | 2018.03.11 | 2019.03.10 |
| Semi-anechoic chamber | Changling | 966 | N/A | 2017.10.15 | 2018.10.14 |
| trun table | EM | SC100_1 | 60531 | N/A | N/A |
| Antnna mast | EM | SC100 | N/A | N/A | N/A |
| Max-full Antenna Corp | MF | MFA-440H | N/A | N/A | N/A |

Conduction Test equipment

| Kind of Equipment | Manufacturer | Type No. | Serial No. | Last calibration | Calibrated until |
|------------------------|--------------|----------|------------|------------------|------------------|
| Test Receiver | R&S | ESCI | 101427 | 2017.10.15 | 2018.10.14 |
| LISN | R&S | ENV216 | 101242 | 2017.10.15 | 2018.10.14 |
| conduction Cable | EM | C01 | N/A | 2018.03.11 | 2019.03.10 |
| Temperature & Humidity | Mieo | HH660 | N/A | 2017.10.15 | 2018.10.14 |



RF Connected Test

| Kind of Equipment | Manufacturer | Type No. | Serial No. | Last calibration | Calibrated until |
|---------------------|--------------|----------|---------------|------------------|------------------|
| USB RF power sensor | DARE | RPR3006W | 15I00041SNO03 | 2017.10.15 | 2018.10.14 |
| Power Meter | R&S | NRP | 100510 | 2017.10.15 | 2018.10.14 |
| Spectrum Analyzer | Agilent | N9020A | MY51110105 | 2018.03.08 | 2019.03.07 |
| Signal Analyzer | Agilent | N9020A | MY49100060 | 2017.10.15 | 2018.10.14 |

Note:

The temporary antenna connector is soldered on the PCB board in order to perform conducted tests and this temporary antenna connector is listed in the equipment list.





3 EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION LIMITS

operating frequency band. In case the emission fall within the restricted band specified on Part 15.207(a), 107(a) limit in the table below has to be followed.

This item was performed according to the procedures in ANSI C63.10: 2013 and ANSI C63.4: 2014.

| FREQUENCY (MHz) | Conducted Emission limit (dBuV) | |
|-----------------|---------------------------------|-----------|
| | Quasi-peak | Average |
| 0.15 -0.5 | 66 - 56 * | 56 - 46 * |
| 0.50 -5.0 | 56.00 | 46.00 |
| 5.0 -30.0 | 60.00 | 50.00 |

Note:

- 1) The tighter limit applies at the band edges.
- 2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

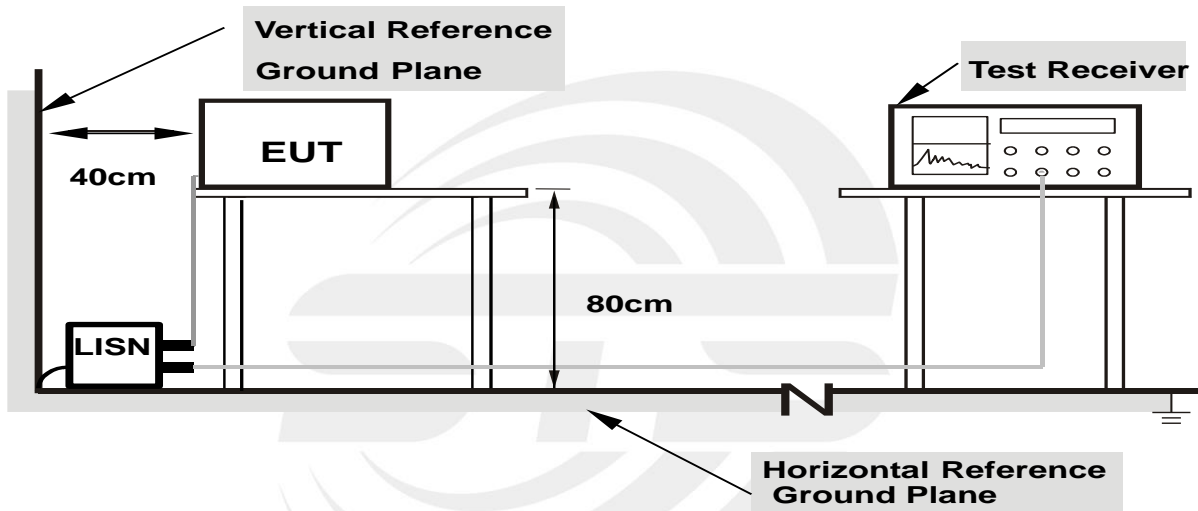
The following table is the setting of the receiver

| Receiver Parameters | Setting |
|---------------------|----------|
| Attenuation | 10 dB |
| Start Frequency | 0.15 MHz |
| Stop Frequency | 30 MHz |
| IF Bandwidth | 9 kHz |

3.1.2 TEST PROCEDURE

- a. The EUT was 0.8 meters from the horizontal ground plane and 0.4 meters from the vertical ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.1.3 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

3.1.4 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.



3.1.5 TEST RESULT

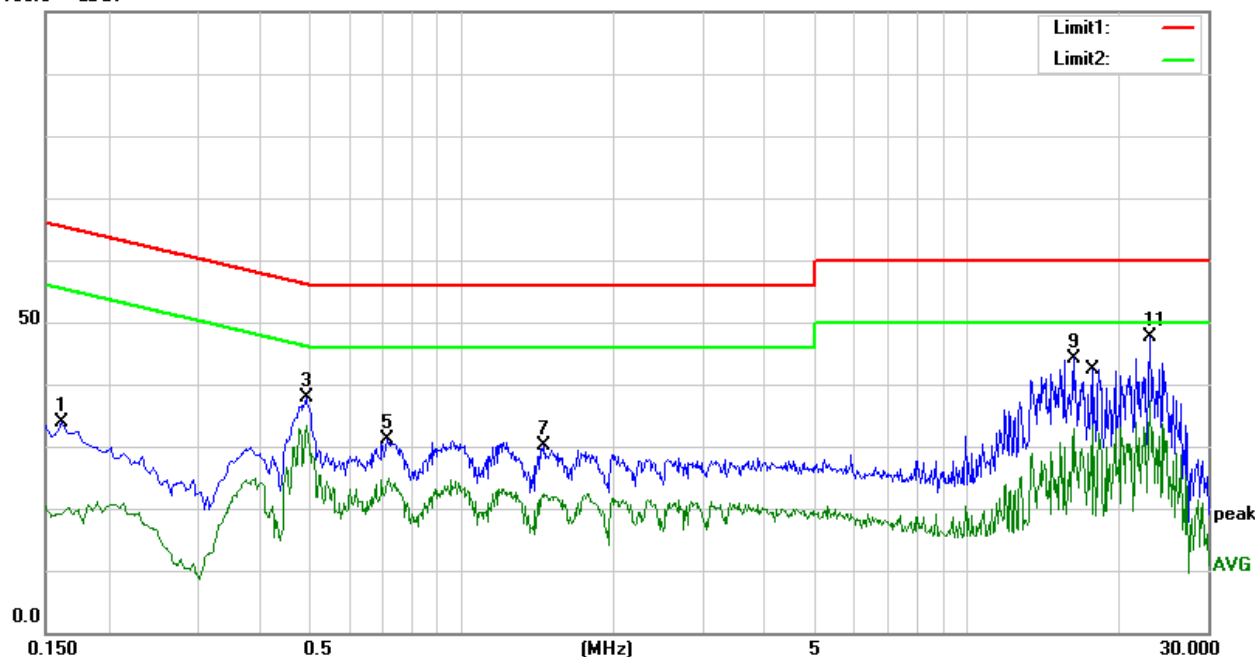
| | | | |
|---------------|--------------|--------------------|-----|
| Temperature: | 25 °C | Relative Humidity: | 61% |
| Test Voltage: | AC 120V/60Hz | Phase: | L |
| Test Mode: | Mode 10 | | |

| Frequency (MHz) | Reading (dBuV) | Correct Factor(dB) | Result (dBuV) | Limit (dBuV) | Margin (dB) | Remark |
|-----------------|----------------|--------------------|---------------|--------------|-------------|--------|
| 0.1620 | 23.98 | 9.79 | 33.77 | 65.36 | -31.59 | QP |
| 0.1620 | 9.43 | 9.79 | 19.22 | 55.36 | -36.14 | AVG |
| 0.4940 | 27.93 | 10.03 | 37.96 | 56.10 | -18.14 | QP |
| 0.4940 | 23.36 | 10.03 | 33.39 | 46.10 | -12.71 | AVG |
| 0.7140 | 21.36 | 9.84 | 31.20 | 56.00 | -24.80 | QP |
| 0.7180 | 15.11 | 9.84 | 24.95 | 46.00 | -21.05 | AVG |
| 1.4580 | 20.22 | 9.79 | 30.01 | 56.00 | -25.99 | QP |
| 1.4700 | 12.40 | 9.79 | 22.19 | 46.00 | -23.81 | AVG |
| 16.2300 | 33.96 | 10.29 | 44.25 | 60.00 | -15.75 | QP |
| 17.6940 | 23.12 | 10.35 | 33.47 | 50.00 | -16.53 | AVG |
| 23.1300 | 37.31 | 10.27 | 47.58 | 60.00 | -12.42 | QP |
| 23.1300 | 27.22 | 10.27 | 37.49 | 50.00 | -12.51 | AVG |

Remark:

1. All readings are Quasi-Peak and Average values.
2. Margin = Result (Result =Reading + Factor)–Limit

100.0 dBuV





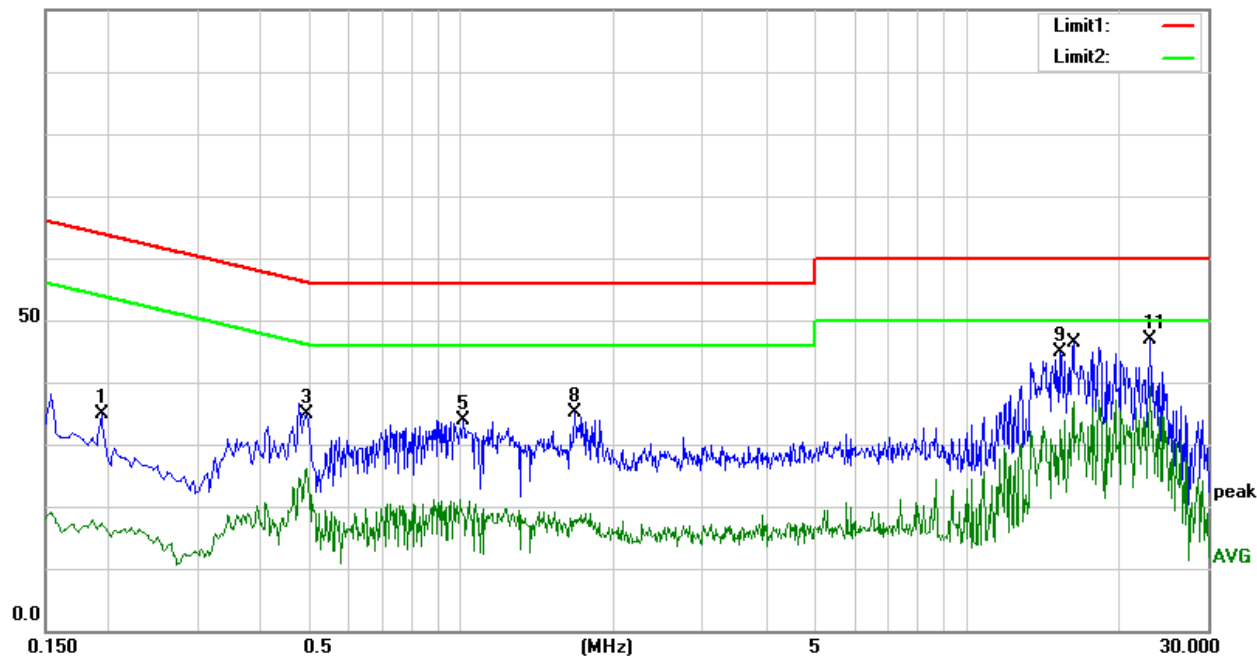
| | | | |
|---------------|--------------|--------------------|-----|
| Temperature: | 25 °C | Relative Humidity: | 61% |
| Test Voltage: | AC 120V/60Hz | Phase: | N |
| Test Mode: | Mode 10 | | |

| Frequency (MHz) | Reading (dBUV) | Correct Factor(dB) | Result (dBUV) | Limit (dBUV) | Margin (dB) | Remark |
|-----------------|----------------|--------------------|---------------|--------------|-------------|--------|
| 0.1940 | 24.96 | 9.86 | 34.82 | 63.86 | -29.04 | QP |
| 0.1955 | 7.09 | 9.86 | 16.95 | 53.80 | -36.85 | AVG |
| 0.4940 | 24.84 | 9.98 | 34.82 | 56.10 | -21.28 | QP |
| 0.4940 | 16.09 | 9.98 | 26.07 | 46.10 | -20.03 | AVG |
| 1.0100 | 24.03 | 9.80 | 33.83 | 56.00 | -22.17 | QP |
| 1.0100 | 9.06 | 9.80 | 18.86 | 46.00 | -27.14 | AVG |
| 1.6660 | 7.49 | 9.85 | 17.34 | 46.00 | -28.66 | QP |
| 1.6780 | 25.21 | 9.85 | 35.06 | 56.00 | -20.94 | AVG |
| 15.2500 | 34.86 | 10.10 | 44.96 | 60.00 | -15.04 | QP |
| 16.2300 | 26.61 | 10.17 | 36.78 | 50.00 | -13.22 | AVG |
| 23.1300 | 36.54 | 10.35 | 46.89 | 60.00 | -13.11 | QP |
| 23.1300 | 28.99 | 10.35 | 39.34 | 50.00 | -10.66 | AVG |

Remark:

1. All readings are Quasi-Peak and Average values.
2. Margin = Result (Result = Reading + Factor) - Limit

100.0 dBUV



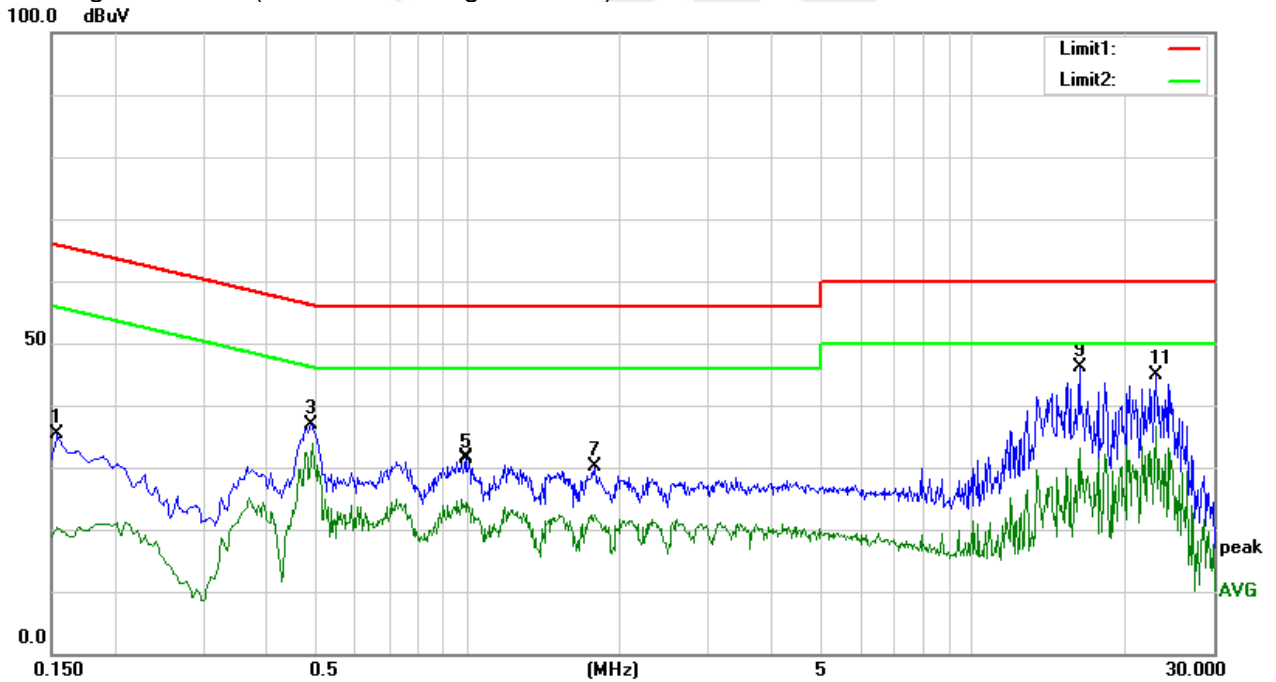


| | | | |
|---------------|--------------------|--------------------|-----|
| Temperature: | 25 °C | Relative Humidity: | 61% |
| Test Voltage: | AC 120V/60Hz | Phase: | N |
| Test Mode: | Mode 11 (Part 15B) | | |

| Frequency (MHz) | Reading (dBUV) | Correct Factor(dB) | Result (dBUV) | Limit (dBUV) | Margin (dB) | Remark |
|-----------------|----------------|--------------------|---------------|--------------|-------------|--------|
| 0.1540 | 25.51 | 9.79 | 35.30 | 65.78 | -30.48 | QP |
| 0.1547 | 10.45 | 9.79 | 20.24 | 55.74 | -35.50 | AVG |
| 0.4900 | 26.91 | 10.03 | 36.94 | 56.17 | -19.23 | QP |
| 0.4940 | 23.80 | 10.03 | 33.83 | 46.10 | -12.27 | AVG |
| 0.9900 | 21.70 | 9.80 | 31.50 | 56.00 | -24.50 | QP |
| 1.0020 | 14.36 | 9.80 | 24.16 | 46.00 | -21.84 | AVG |
| 1.7860 | 20.25 | 9.78 | 30.03 | 56.00 | -25.97 | QP |
| 1.8020 | 11.94 | 9.78 | 21.72 | 46.00 | -24.28 | AVG |
| 16.2300 | 35.75 | 10.29 | 46.04 | 60.00 | -13.96 | QP |
| 16.2300 | 22.95 | 10.29 | 33.24 | 50.00 | -16.76 | AVG |
| 23.1300 | 34.72 | 10.27 | 44.99 | 60.00 | -15.01 | QP |
| 23.1300 | 26.35 | 10.27 | 36.62 | 50.00 | -13.38 | AVG |

Remark:

1. All readings are Quasi-Peak and Average values.
2. Margin = Result (Result = Reading + Factor) - Limit





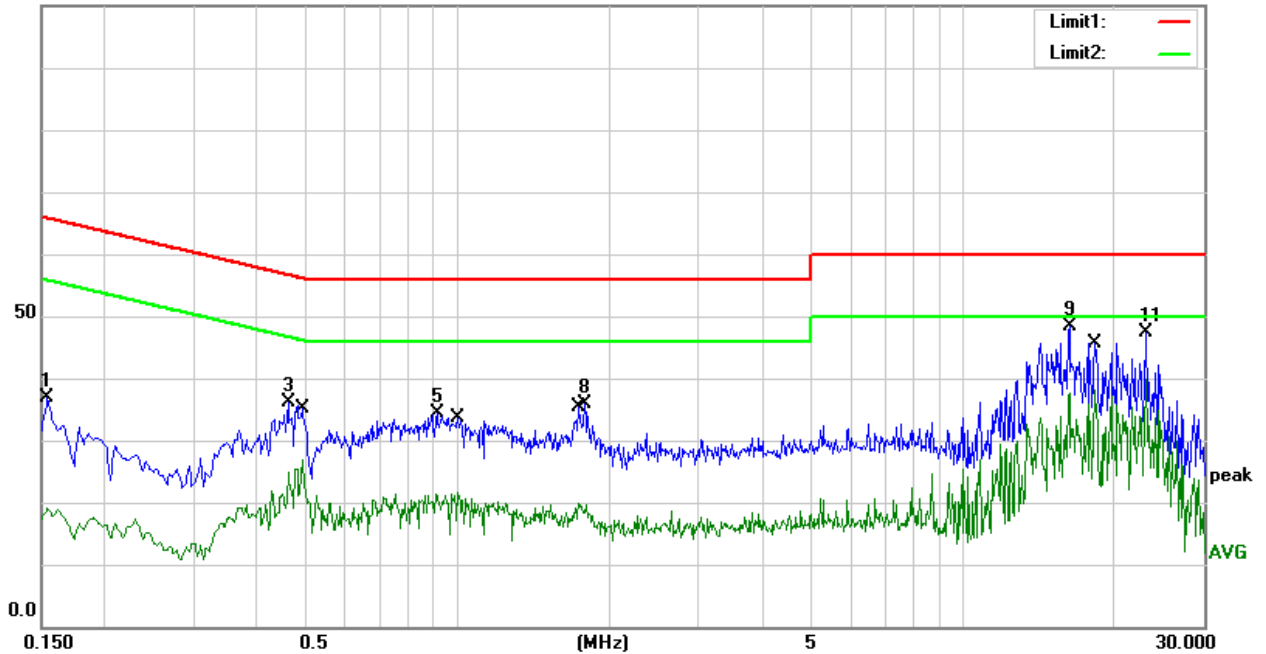
| | | | |
|---------------|--------------------|--------------------|-----|
| Temperature: | 25 °C | Relative Humidity: | 61% |
| Test Voltage: | AC 120V/60Hz | Phase: | L |
| Test Mode: | Mode 11 (Part 15B) | | |

| Frequency (MHz) | Reading (dBUV) | Correct Factor(dB) | Result (dBUV) | Limit (dBUV) | Margin (dB) | Remark |
|-----------------|----------------|--------------------|---------------|--------------|-------------|--------|
| 0.1540 | 27.11 | 9.76 | 36.87 | 65.78 | -28.91 | QP |
| 0.1540 | 9.30 | 9.76 | 19.06 | 55.78 | -36.72 | AVG |
| 0.4620 | 26.08 | 10.01 | 36.09 | 56.66 | -20.57 | QP |
| 0.4940 | 16.90 | 9.98 | 26.88 | 46.10 | -19.22 | AVG |
| 0.9100 | 24.47 | 9.82 | 34.29 | 56.00 | -21.71 | QP |
| 1.0020 | 11.78 | 9.80 | 21.58 | 46.00 | -24.42 | AVG |
| 1.7420 | 10.10 | 9.85 | 19.95 | 46.00 | -26.05 | QP |
| 1.7860 | 26.09 | 9.86 | 35.95 | 56.00 | -20.05 | AVG |
| 16.2300 | 38.27 | 10.17 | 48.44 | 60.00 | -11.56 | QP |
| 18.2460 | 27.85 | 10.33 | 38.18 | 50.00 | -11.82 | AVG |
| 23.1300 | 36.99 | 10.35 | 47.34 | 60.00 | -12.66 | QP |
| 23.1300 | 29.44 | 10.35 | 39.79 | 50.00 | -10.21 | AVG |

Remark:

1. All readings are Quasi-Peak and Average values.
2. Margin = Result (Result = Reading + Factor) – Limit

100.0 dBUV





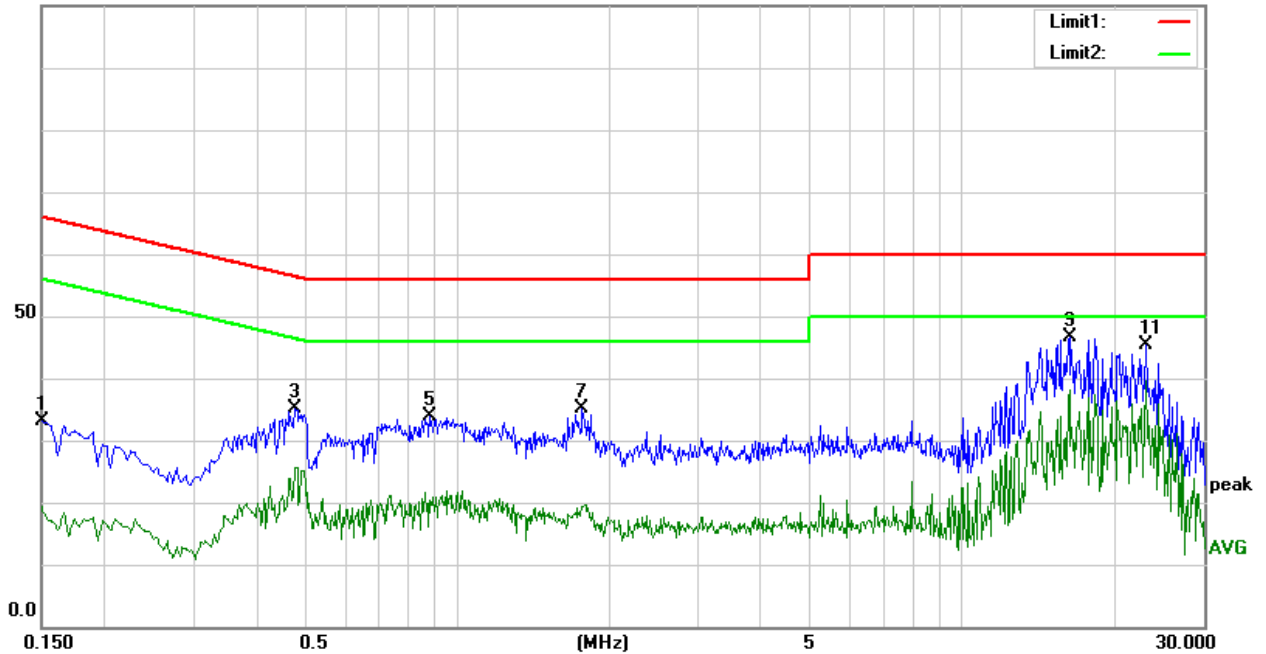
| | | | |
|---------------|--------------------|--------------------|-----|
| Temperature: | 25 °C | Relative Humidity: | 61% |
| Test Voltage: | AC 120V/60Hz | Phase: | N |
| Test Mode: | Mode 12 (Part 15B) | | |

| Frequency (MHz) | Reading (dBUV) | Correct Factor(dB) | Result (dBUV) | Limit (dBUV) | Margin (dB) | Remark |
|-----------------|----------------|--------------------|---------------|--------------|-------------|--------|
| 0.1500 | 23.38 | 9.75 | 33.13 | 66.00 | -32.87 | QP |
| 0.1500 | 9.55 | 9.75 | 19.30 | 56.00 | -36.70 | AVG |
| 0.4780 | 25.21 | 10.00 | 35.21 | 56.37 | -21.16 | QP |
| 0.4780 | 15.59 | 10.00 | 25.59 | 46.37 | -20.78 | AVG |
| 0.8820 | 24.00 | 9.83 | 33.83 | 56.00 | -22.17 | QP |
| 0.8860 | 9.84 | 9.83 | 19.67 | 46.00 | -26.33 | AVG |
| 1.7700 | 25.39 | 9.85 | 35.24 | 56.00 | -20.76 | QP |
| 1.7700 | 9.55 | 9.85 | 19.40 | 46.00 | -26.60 | AVG |
| 16.2260 | 36.34 | 10.17 | 46.51 | 60.00 | -13.49 | QP |
| 16.2260 | 27.90 | 10.17 | 38.07 | 50.00 | -11.93 | AVG |
| 23.1300 | 35.07 | 10.35 | 45.42 | 60.00 | -14.58 | QP |
| 23.1300 | 29.34 | 10.35 | 39.69 | 50.00 | -10.31 | AVG |

Remark:

1. All readings are Quasi-Peak and Average values.
2. Margin = Result (Result = Reading + Factor) – Limit

100.0 dBUV





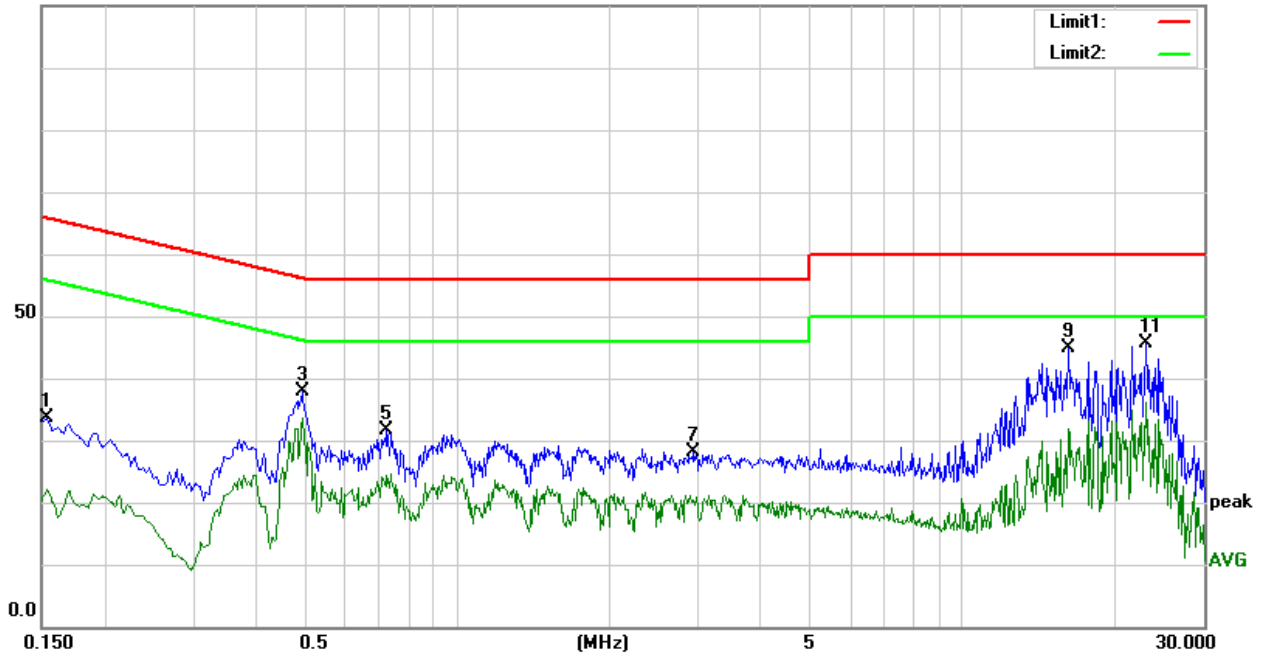
| | | | |
|---------------|--------------------|--------------------|-----|
| Temperature: | 25 °C | Relative Humidity: | 61% |
| Test Voltage: | AC 120V/60Hz | Phase: | L |
| Test Mode: | Mode 12 (Part 15B) | | |

| Frequency (MHz) | Reading (dBUV) | Correct Factor(dB) | Result (dBUV) | Limit (dBUV) | Margin (dB) | Remark |
|-----------------|----------------|--------------------|---------------|--------------|-------------|--------|
| 0.1540 | 23.78 | 9.79 | 33.57 | 65.78 | -32.21 | QP |
| 0.1540 | 12.42 | 9.79 | 22.21 | 55.78 | -33.57 | AVG |
| 0.4940 | 27.90 | 10.03 | 37.93 | 56.10 | -18.17 | QP |
| 0.4940 | 23.55 | 10.03 | 33.58 | 46.10 | -12.52 | AVG |
| 0.7260 | 21.88 | 9.84 | 31.72 | 56.00 | -24.28 | QP |
| 0.7300 | 13.79 | 9.83 | 23.62 | 46.00 | -22.38 | AVG |
| 2.9340 | 18.32 | 9.81 | 28.13 | 56.00 | -27.87 | QP |
| 2.9340 | 10.55 | 9.81 | 20.36 | 46.00 | -25.64 | AVG |
| 16.1660 | 34.53 | 10.28 | 44.81 | 60.00 | -15.19 | QP |
| 16.1660 | 21.60 | 10.28 | 31.88 | 50.00 | -18.12 | AVG |
| 23.1260 | 35.36 | 10.27 | 45.63 | 60.00 | -14.37 | QP |
| 23.1260 | 25.93 | 10.27 | 36.20 | 50.00 | -13.80 | AVG |

Remark:

1. All readings are Quasi-Peak and Average values.
2. Margin = Result (Result = Reading + Factor) – Limit

100.0 dBUV





3.2 RADIATED EMISSION MEASUREMENT

3.2.1 RADIATED EMISSION LIMITS

| Frequencies (MHz) | Class A (at 10m) dBuV/m | Class B (at 3m) dBuV/m |
|-------------------|-------------------------|------------------------|
| 30~88 | 39.0 | 40.0 |
| 88~216 | 43.5 | 43.5 |
| 216~960 | 46.5 | 46.0 |
| Above 960 | 49.5 | 54.0 |

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

| FREQUENCY (MHz) | Class A (dBuV/m) (at 3M) | | Class B (dBuV/m) (at 3M) | |
|-----------------|--------------------------|---------|--------------------------|---------|
| | PEAK | AVERAGE | PEAK | AVERAGE |
| Above 1000 | 80 | 60 | 74 | 54 |

Note:

- 1) The tighter limit applies at the band edges.
- 2) Emission level (dBuV/m)=20log Emission level (uV/m).

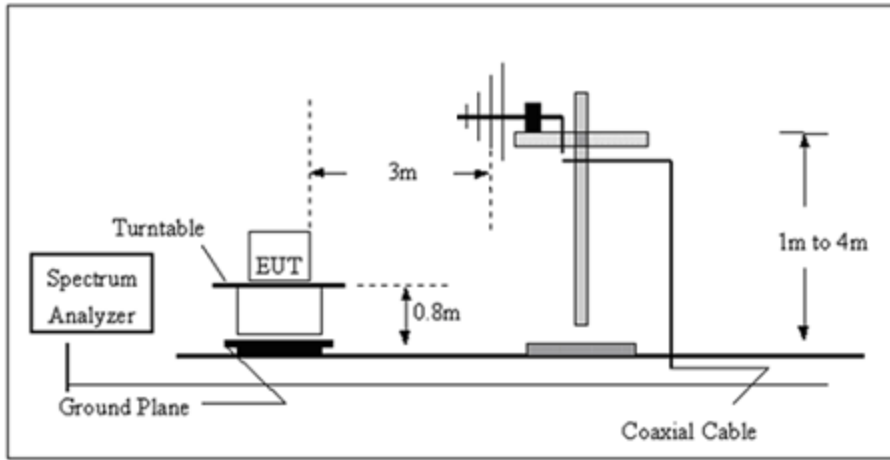
3.2.2 TEST PROCEDURE

- a) The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b) The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- c) The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 0.8 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d) The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- e) If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- f) For the actual test configuration, please refer to the related Item –EUT Test Photos.

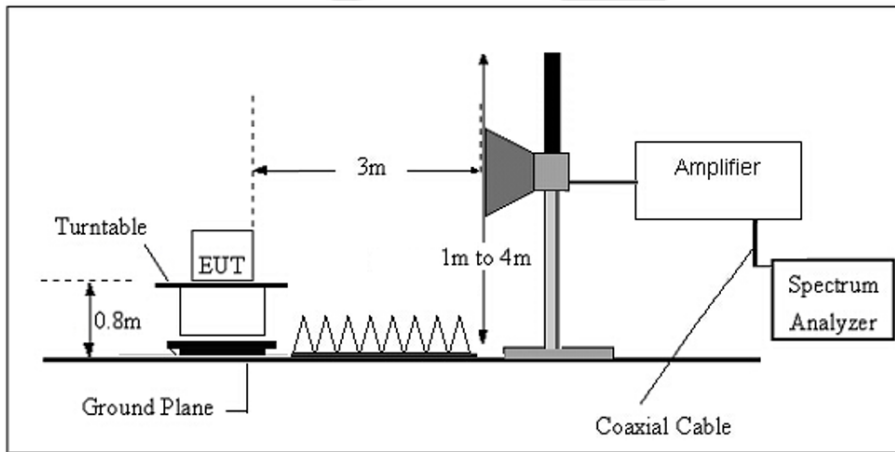
Note: Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported

3.2.3 TEST SETUP

a) Radiated Emission Test-Up Frequency 30MHz~1GHz



b) Radiated Emission Test-Up Frequency Above 1GHz



3.2.4 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.



3.2.5 TEST RESULTS

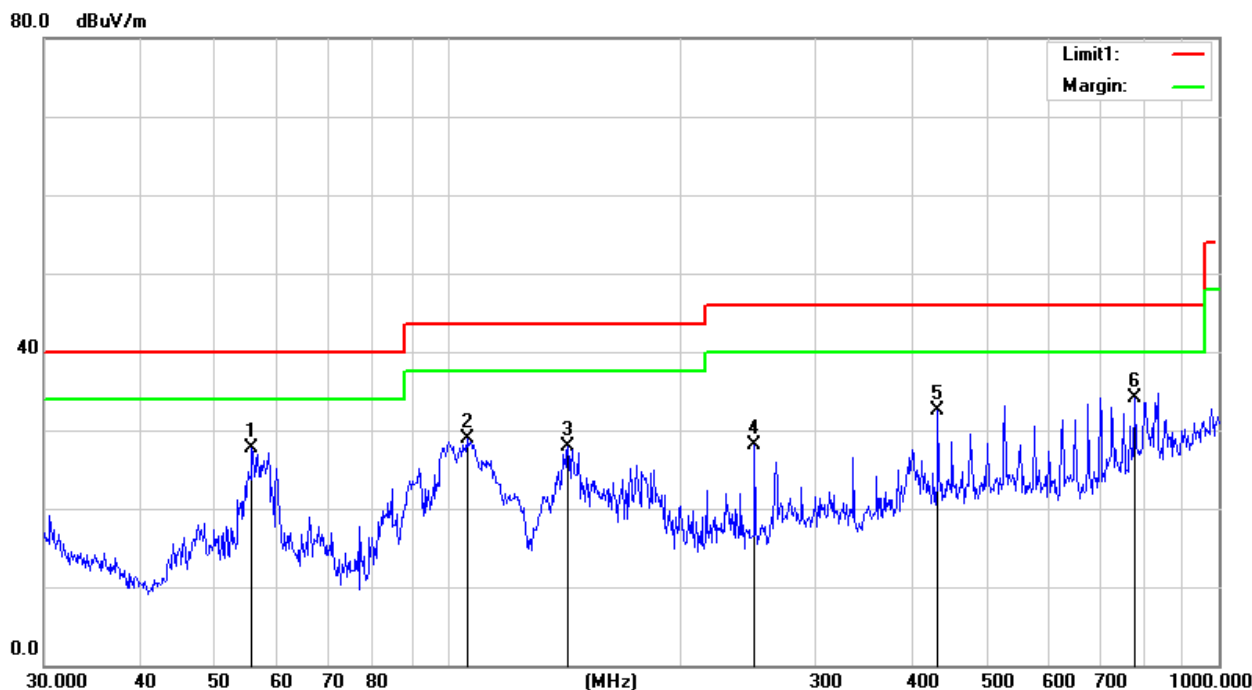
Between 30-1000MHz:

| | | | |
|---------------|--------------|--------------------|--------------------|
| Temperature: | 26 °C | Relative Humidity: | 54% |
| Pressure: | 1010hPa | Phase: | Horizontal |
| Test Voltage: | AC 120V/60Hz | Test Mode: | Mode 11 (part 15B) |

| No. | Frequency (MHz) | Reading (dBUV) | Factor (dB) | Results (dBUV/m) | Limit (dBUV/m) | Margin (dB) | Detector |
|-----|-----------------|----------------|-------------|------------------|----------------|-------------|----------|
| 1 | 55.8047 | 50.78 | -23.13 | 27.65 | 40.00 | -12.35 | QP |
| 2 | 106.0126 | 47.67 | -18.68 | 28.99 | 43.50 | -14.51 | QP |
| 3 | 143.3261 | 45.66 | -17.67 | 27.99 | 43.50 | -15.51 | QP |
| 4 | 250.3012 | 44.33 | -16.29 | 28.04 | 46.00 | -17.96 | QP |
| 5 | 432.5457 | 43.44 | -10.89 | 32.55 | 46.00 | -13.45 | QP |
| 6 | 776.8778 | 37.29 | -3.18 | 34.11 | 46.00 | -11.89 | QP |

Remark:

1. All readings are Quasi-Peak .
2. Margin = Result (Result =Reading + Factor)-Limit



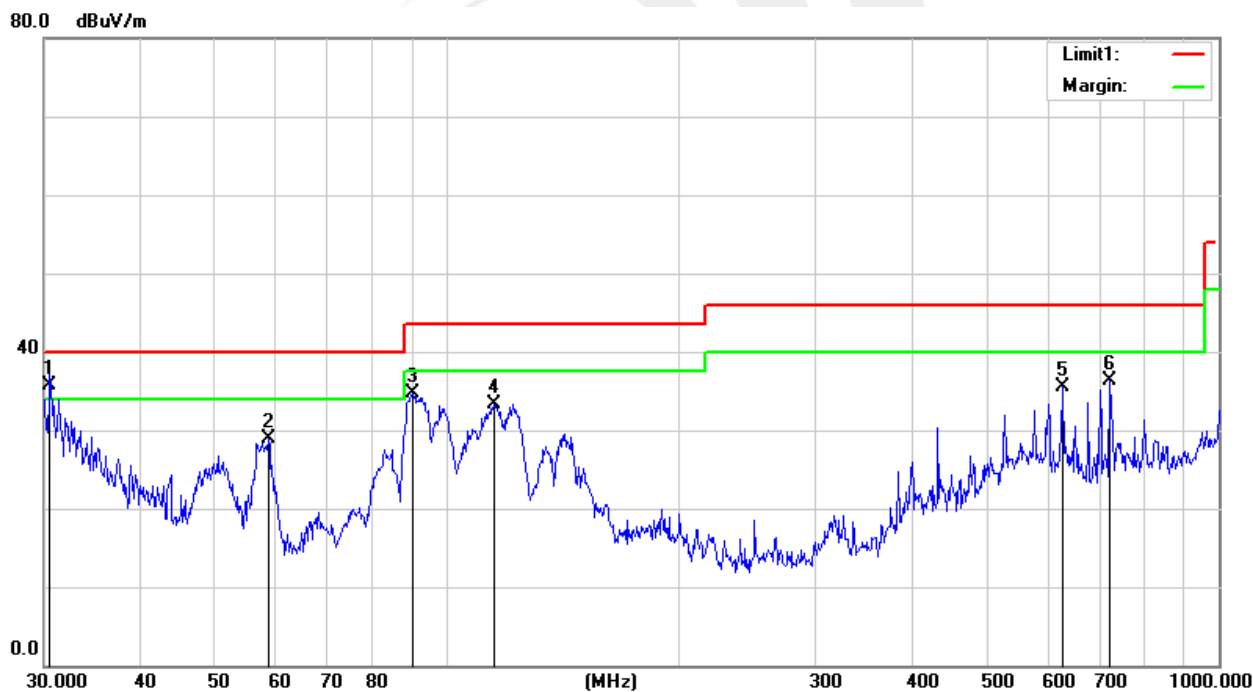


| | | | |
|---------------|--------------|--------------------|--------------------|
| Temperature: | 26 °C | Relative Humidity: | 54% |
| Pressure: | 1010hPa | Phase: | Vertical |
| Test Voltage: | AC 120V/60Hz | Test Mode: | Mode 11 (part 15B) |

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB) | Results (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector |
|-----|-----------------|----------------|-------------|------------------|----------------|-------------|----------|
| 1 | 30.5306 | 47.12 | -11.47 | 35.65 | 40.00 | -4.35 | QP |
| 2 | 58.6126 | 52.90 | -23.94 | 28.96 | 40.00 | -11.04 | QP |
| 3 | 90.2205 | 54.83 | -20.18 | 34.65 | 43.50 | -8.85 | QP |
| 4 | 114.9170 | 51.30 | -18.02 | 33.28 | 43.50 | -10.22 | QP |
| 5 | 627.2738 | 41.87 | -6.42 | 35.45 | 46.00 | -10.55 | QP |
| 6 | 721.7260 | 40.87 | -4.54 | 36.33 | 46.00 | -9.67 | QP |

Remark:

1. All readings are Quasi-Peak .
2. Margin = Result (Result =Reading + Factor)-Limit



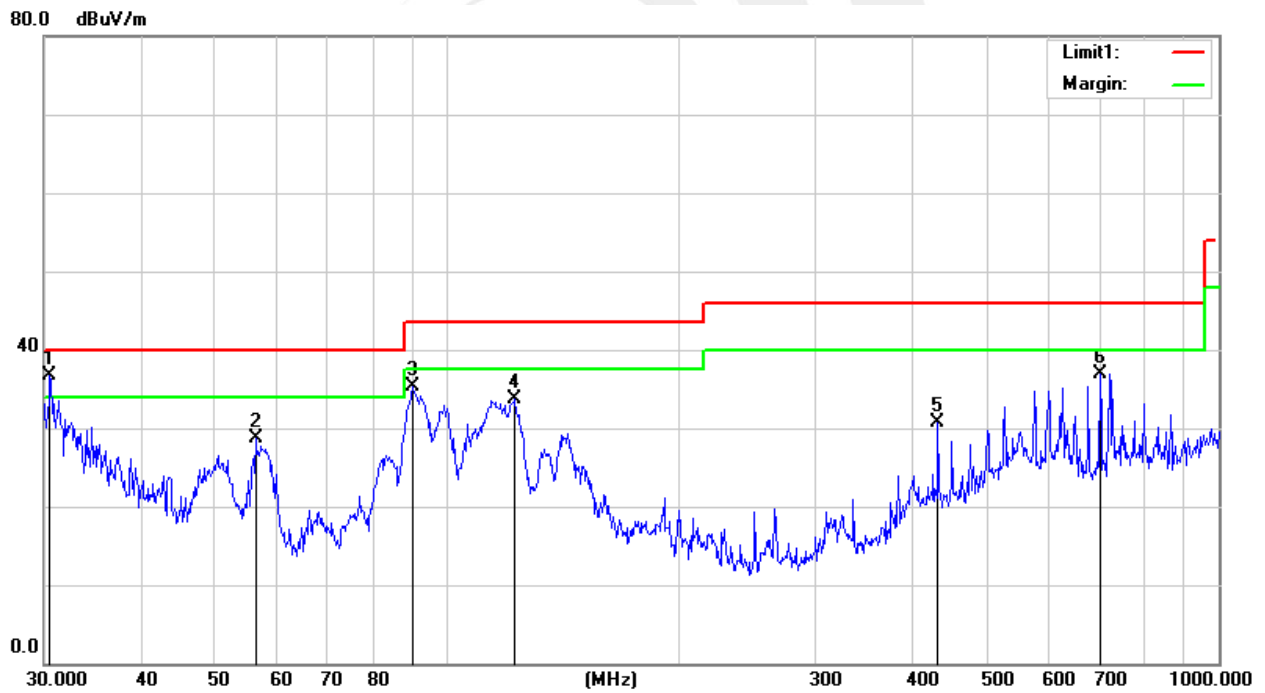


| | | | |
|---------------|--------------|--------------------|--------------------|
| Temperature: | 26 °C | Relative Humidity: | 54% |
| Pressure: | 1010hPa | Phase: | Horizontal |
| Test Voltage: | AC 120V/60Hz | Test Mode: | Mode 12 (part 15B) |

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB) | Results (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector |
|-----|-----------------|----------------|-------------|------------------|----------------|-------------|----------|
| 1 | 30.5306 | 48.15 | -11.47 | 36.68 | 40.00 | -3.32 | QP |
| 2 | 56.3948 | 52.03 | -23.30 | 28.73 | 40.00 | -11.27 | QP |
| 3 | 90.2205 | 55.42 | -20.18 | 35.24 | 43.50 | -8.26 | QP |
| 4 | 122.4040 | 51.41 | -17.66 | 33.75 | 43.50 | -9.75 | QP |
| 5 | 432.5457 | 41.68 | -10.89 | 30.79 | 46.00 | -15.21 | QP |
| 6 | 701.7610 | 42.25 | -5.29 | 36.96 | 46.00 | -9.04 | QP |

Remark:

1. All readings are Quasi-Peak .
2. Margin = Result (Result =Reading + Factor)-Limit



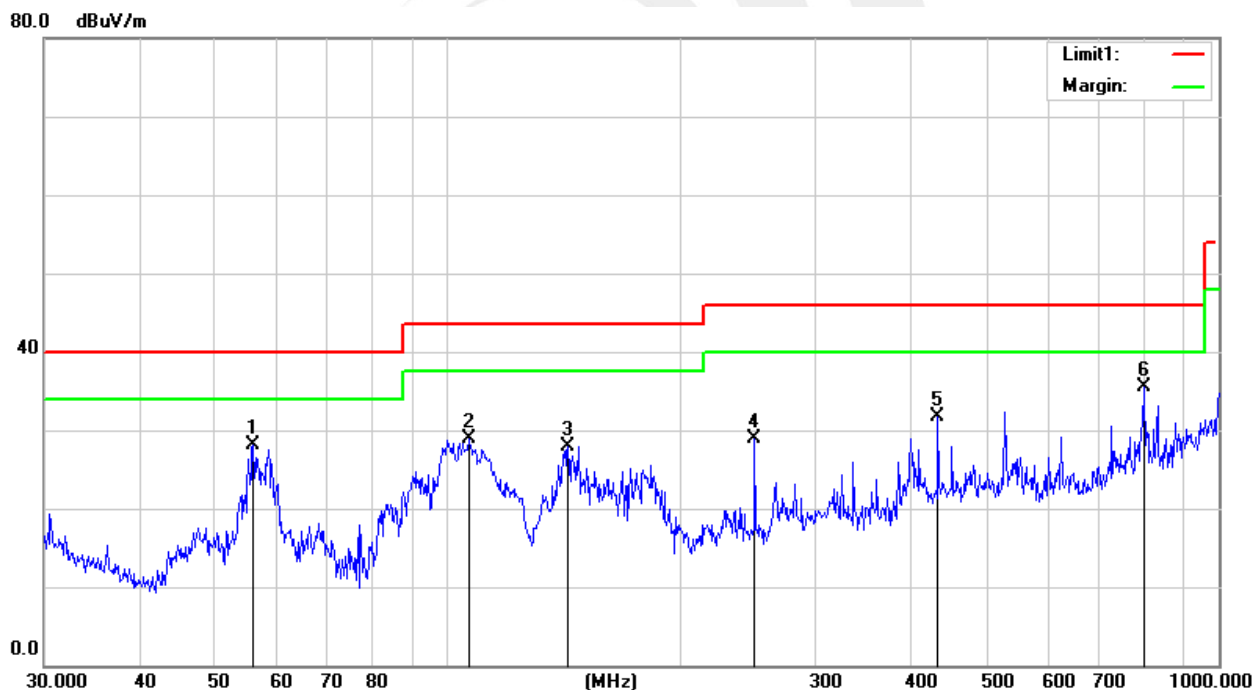


| | | | |
|---------------|--------------|--------------------|--------------------|
| Temperature: | 26 °C | Relative Humidity: | 54% |
| Pressure: | 1010hPa | Phase: | Vertical |
| Test Voltage: | AC 120V/60Hz | Test Mode: | Mode 12 (part 15B) |

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB) | Results (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector |
|-----|-----------------|----------------|-------------|------------------|----------------|-------------|----------|
| 1 | 56.0007 | 51.21 | -23.19 | 28.02 | 40.00 | -11.98 | QP |
| 2 | 106.7587 | 47.53 | -18.61 | 28.92 | 43.50 | -14.58 | QP |
| 3 | 143.3261 | 45.60 | -17.67 | 27.93 | 43.50 | -15.57 | QP |
| 4 | 250.3012 | 45.24 | -16.29 | 28.95 | 46.00 | -17.05 | QP |
| 5 | 432.5457 | 42.69 | -10.89 | 31.80 | 46.00 | -14.20 | QP |
| 6 | 798.9797 | 38.97 | -3.45 | 35.52 | 46.00 | -10.48 | QP |

Remark:

1. All readings are Quasi-Peak .
2. Margin = Result (Result =Reading + Factor)-Limit





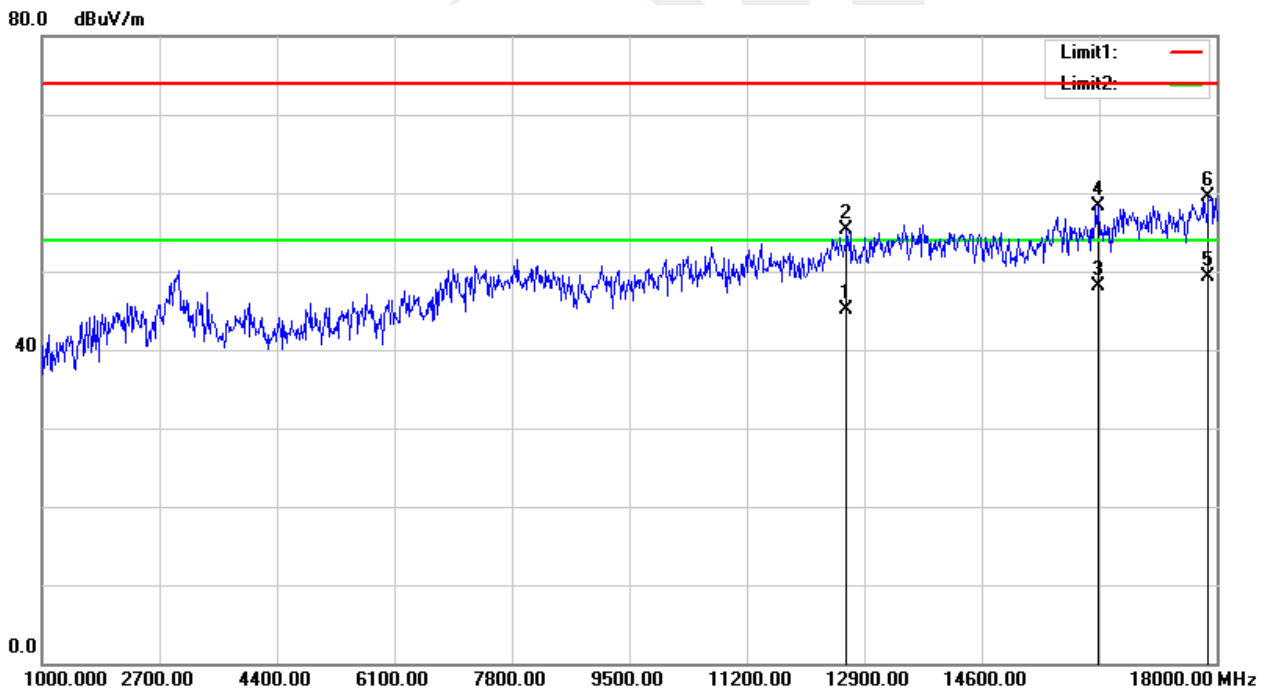
Between 1GHz-18GHz:

| | | | |
|---------------|--------------|--------------------|--------------------|
| Temperature: | 26 °C | Relative Humidity: | 54% |
| Pressure: | 1010hPa | Phase: | Horizontal |
| Test Voltage: | AC 120V/60Hz | Test Mode: | Mode 11 (part 15B) |

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB) | Results (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector |
|-----|-----------------|----------------|-------------|------------------|----------------|-------------|----------|
| 1 | 12645.000 | 41.25 | 3.77 | 45.02 | 54.00 | -8.98 | AVG |
| 2 | 12645.000 | 51.50 | 3.77 | 55.27 | 74.00 | -18.73 | peak |
| 3 | 16283.000 | 43.17 | 4.86 | 48.03 | 54.00 | -5.97 | AVG |
| 4 | 16283.000 | 53.42 | 4.86 | 58.28 | 74.00 | -15.72 | peak |
| 5 | 17881.000 | 41.54 | 7.77 | 49.31 | 54.00 | -4.69 | AVG |
| 6 | 17881.000 | 51.81 | 7.77 | 59.58 | 74.00 | -14.42 | peak |

Remark:

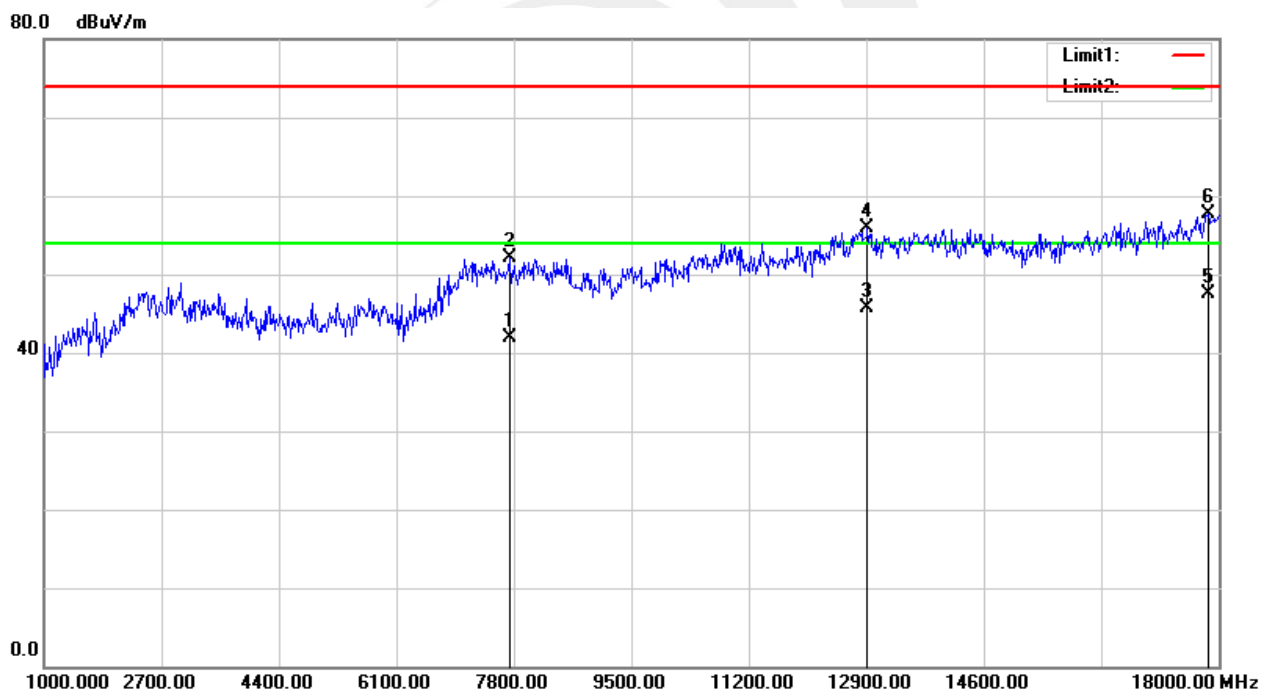
1. Margin = Result (Result = Reading + Factor) - Limit





| | | | |
|---------------|--------------|--------------------|--------------------|
| Temperature: | 26 °C | Relative Humidity: | 54% |
| Pressure: | 1010hPa | Phase: | Vertical |
| Test Voltage: | AC 120V/60Hz | Test Mode: | Mode 11 (part 15B) |

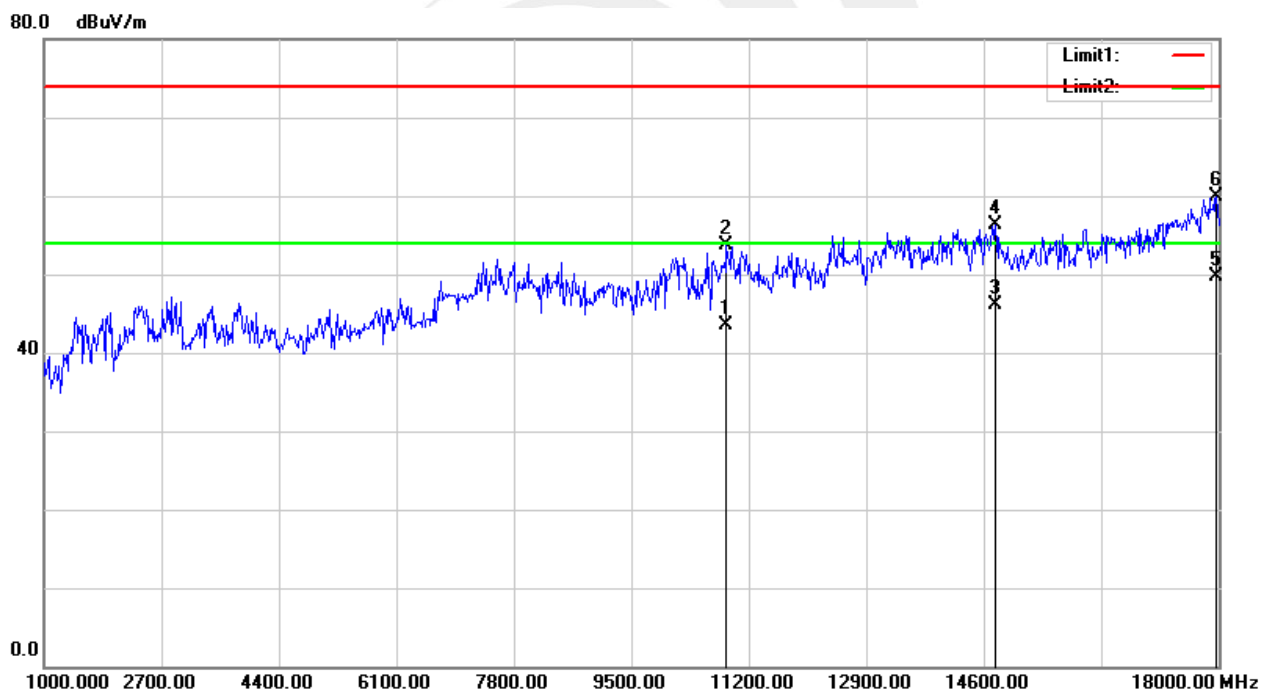
| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB) | Results (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector |
|-----|-----------------|----------------|-------------|------------------|----------------|-------------|----------|
| 1 | 7732.000 | 42.94 | -1.05 | 41.89 | 54.00 | -12.11 | AVG |
| 2 | 7732.000 | 53.13 | -1.05 | 52.08 | 74.00 | -21.92 | peak |
| 3 | 12917.000 | 42.15 | 3.58 | 45.73 | 54.00 | -8.27 | AVG |
| 4 | 12917.000 | 52.38 | 3.58 | 55.96 | 74.00 | -18.04 | peak |
| 5 | 17847.000 | 39.84 | 7.67 | 47.51 | 54.00 | -6.49 | AVG |
| 6 | 17847.000 | 50.10 | 7.67 | 57.77 | 74.00 | -16.23 | peak |

Remark:**1. Margin = Result (Result = Reading + Factor) - Limit**



| | | | |
|---------------|--------------|--------------------|--------------------|
| Temperature: | 26 °C | Relative Humidity: | 54% |
| Pressure: | 1010hPa | Phase: | Horizontal |
| Test Voltage: | AC 120V/60Hz | Test Mode: | Mode 12 (part 15B) |

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB) | Results (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector |
|-----|-----------------|----------------|-------------|------------------|----------------|-------------|----------|
| 1 | 10877.000 | 41.38 | 2.13 | 43.51 | 54.00 | -10.49 | AVG |
| 2 | 10877.000 | 51.63 | 2.13 | 53.76 | 74.00 | -20.24 | peak |
| 3 | 14770.000 | 42.20 | 3.81 | 46.01 | 54.00 | -7.99 | AVG |
| 4 | 14770.000 | 52.43 | 3.81 | 56.24 | 74.00 | -17.76 | peak |
| 5 | 17966.000 | 41.59 | 8.02 | 49.61 | 54.00 | -4.39 | AVG |
| 6 | 17966.000 | 51.83 | 8.02 | 59.85 | 74.00 | -14.15 | peak |

Remark:**1. Margin = Result (Result = Reading + Factor) - Limit**

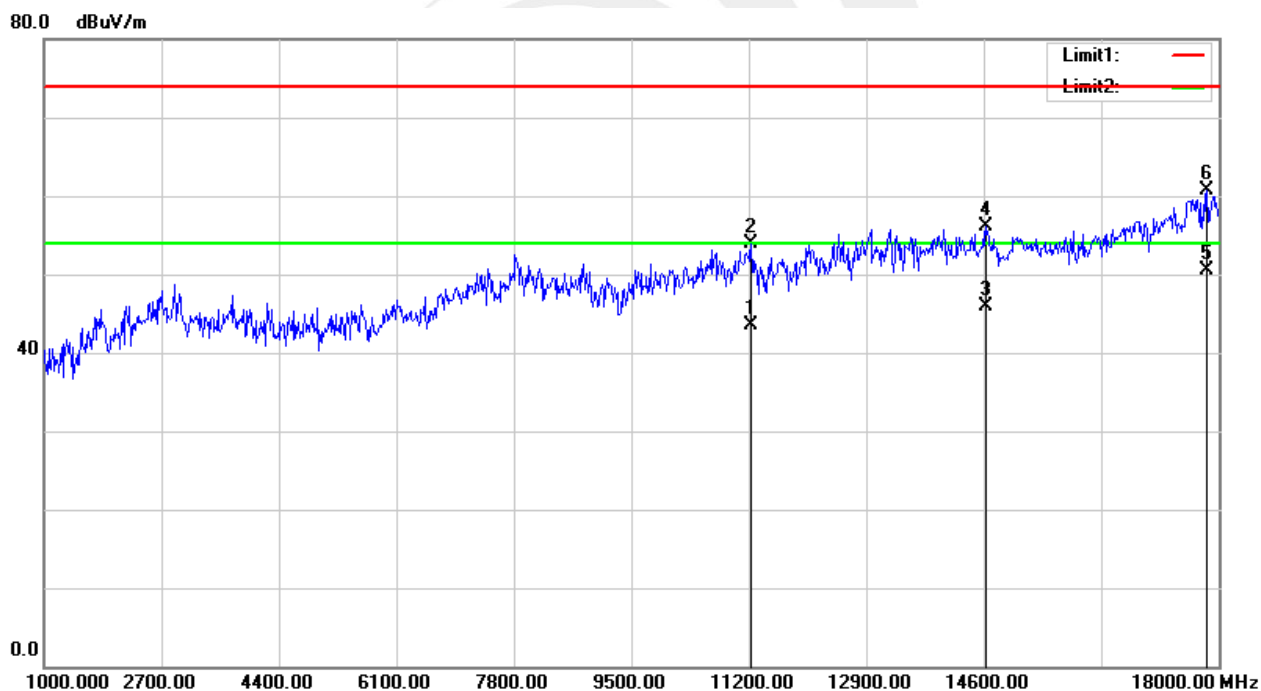


| | | | |
|---------------|--------------|--------------------|--------------------|
| Temperature: | 26 °C | Relative Humidity: | 54% |
| Pressure: | 1010hPa | Phase: | Vertical |
| Test Voltage: | AC 120V/60Hz | Test Mode: | Mode 12 (part 15B) |

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB) | Results (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector |
|-----|-----------------|----------------|-------------|------------------|----------------|-------------|----------|
| 1 | 11234.000 | 41.28 | 2.23 | 43.51 | 54.00 | -10.49 | AVG |
| 2 | 11234.000 | 51.59 | 2.23 | 53.82 | 74.00 | -20.18 | peak |
| 3 | 14634.000 | 41.44 | 4.45 | 45.89 | 54.00 | -8.11 | AVG |
| 4 | 14634.000 | 51.57 | 4.45 | 56.02 | 74.00 | -17.98 | peak |
| 5 | 17830.000 | 42.80 | 7.61 | 50.41 | 54.00 | -3.59 | AVG |
| 6 | 17830.000 | 53.07 | 7.61 | 60.68 | 74.00 | -13.32 | peak |

Remark:

1. Margin = Result (Result = Reading + Factor) – Limit





3.3 RADIATED SPURIOUS EMISSION MEASUREMENT

3.3.1 RADIATED EMISSION LIMITS

in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the Restricted band specified on Part15.205(a)&209(a) limit in the table and according to ANSI C63.10-2013 below has to be followed.

LIMITS OF RADIATED EMISSION MEASUREMENT (0.009MHz - 1000MHz)

| Frequencies (MHz) | Field Strength (micorvolts/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 |

LIMITS OF RADIATED EMISSION MEASUREMENT (1000MHz-25GHz)

| FREQUENCY (MHz) | (dBuV/m) (at 3M) | |
|-----------------|------------------|---------|
| | PEAK | AVERAGE |
| Above 1000 | 74 | 54 |

Notes:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

For Radiated Emission

| Spectrum Parameter | Setting |
|---------------------------------------|-------------------------------|
| Attenuation | Auto |
| Detector | Peak/AV |
| Start Frequency | 1000 MHz(Peak/AV) |
| Stop Frequency | 10th carrier hamonic(Peak/AV) |
| RB / VB (emission in restricted band) | 1 MHz /3MHz |

For Band edge

| Spectrum Parameter | Setting |
|---------------------------------------|--|
| Detector | Peak/AV |
| Start/Stop Frequency | Lower Band Edge: 2300 to 2422 MHz Upper Band Edge: 2452 to 2500 MHz |
| RB / VB (emission in restricted band) | 1 MHz /3MHz |



| Receiver Parameter | Setting |
|------------------------|--------------------------------------|
| Start ~ Stop Frequency | 9kHz~90kHz / RB 200Hz for PK & AV |
| Start ~ Stop Frequency | 90kHz~110kHz / RB 200Hz for QP |
| Start ~ Stop Frequency | 110kHz~490kHz / RB 200Hz for PK & AV |
| Start ~ Stop Frequency | 490kHz~30MHz / RB 9kHz for QP |
| Start ~ Stop Frequency | 30MHz~1000MHz / RB 120kHz for QP |

3.3.2 TEST PROCEDURE

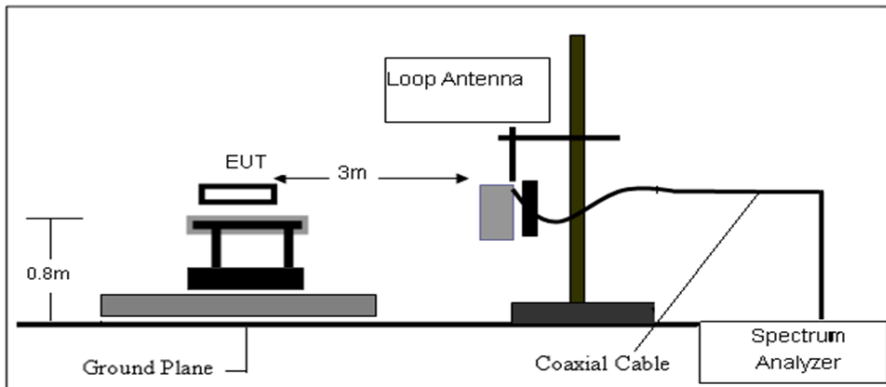
- a) The measuring distance of at 3 m shall be used for measurements at frequency 0.009MHz up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b) The EUT was placed on the top of a rotating table 0.8 meters(above 1GHz is 1.5 m) above the ground at a 3 meter anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- c) The height of the equipment shall be 0.8 m(above 1GHz is 1.5 m); the height of the test antenna shall vary between 1 m to 4 m. Horizontal and vertical polarizations of the antenna are set to make the measurement
- d) The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- e) If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- f) For the actual test configuration, please refer to the related Item –EUT Test Photos.

Note:

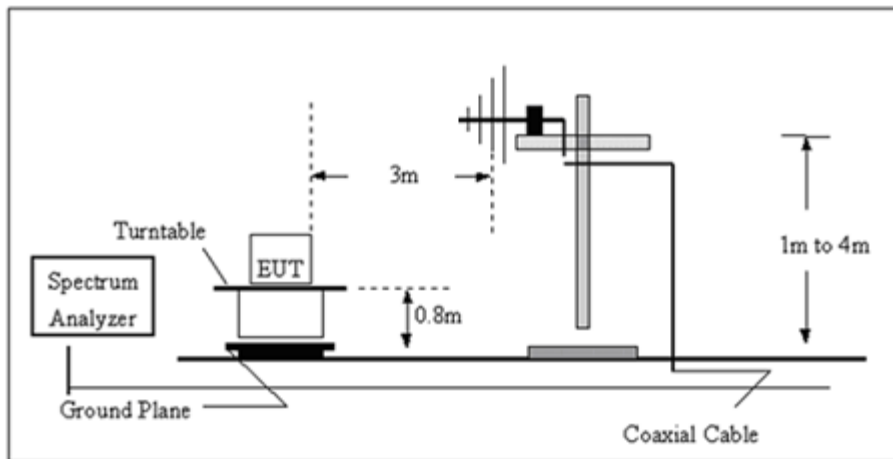
Both horizontal and vertical antenna polarities were tested and performed test to three orthogonal axis. The worst case emissions were reported

3.3.3 TEST SETUP

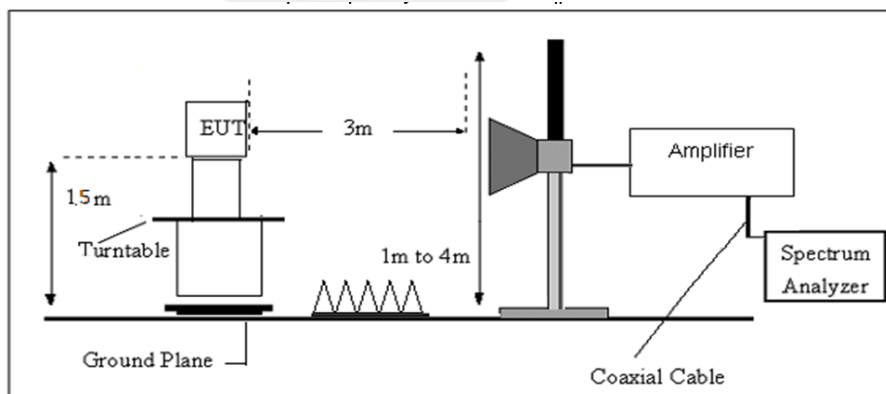
a) Radiated Emission Test-Up Frequency Below 30MHz



b) Radiated Emission Test-Up Frequency 30MHz~1GHz



c) Radiated Emission Test-Up Frequency Above 1GHz



3.3.4 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.



3.3.5 FIELD STRENGTH CALCULATION

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$FS = RA + AF + CL - AG$$

Where

FS = Field Strength

CL = Cable Attenuation Factor (Cable Loss)

RA = Reading Amplitude

AG = Amplifier Gain

AF = Antenna Factor

For example

| Frequency | FS | RA | AF | CL | AG | Factor |
|-----------|----------------|----------------|------|------|------|--------|
| (MHz) | (dB μ V/m) | (dB μ V/m) | (dB) | (dB) | (dB) | (dB) |
| 300 | 40 | 58.1 | 12.2 | 1.6 | 31.9 | -18.1 |

$$\text{Factor} = \text{AF} + \text{CL} - \text{AG}$$

3.3.6 TEST RESULT

9KHz-30MHz

| | | | |
|----------------|--------------|--------------------|-----|
| Temperature: | 25 °C | Relative Humidity: | 61% |
| Test Voltage : | AC 120V/60Hz | Polarization : | -- |
| Test Mode : | TX Mode | | |

| Freq. | Reading | Limit | Margin | State | Test Result |
|-------|----------------|----------------|--------|-------|-------------|
| (MHz) | (dB μ V/m) | (dB μ V/m) | (dB) | P/F | |
| -- | -- | -- | -- | -- | PASS |
| -- | -- | -- | -- | -- | PASS |

Note:

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Distance extrapolation factor = $40 \log(\text{specific distance/test distance})$ (dB);

Limit line = specific limits(dB μ v) + distance extrapolation factor.



(30MHz - 1000MHz)

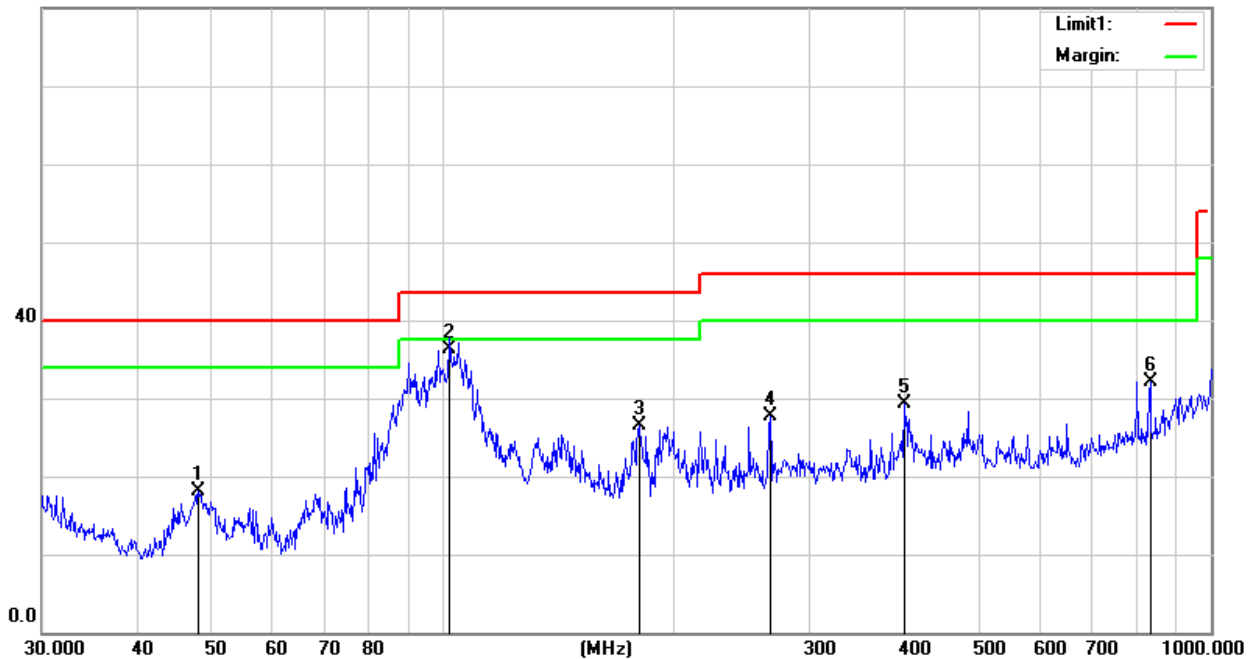
| | | | |
|----------------|---|--------------------|------------|
| Temperature: | 25.7 °C | Relative Humidity: | 63% |
| Test Voltage : | AC 120V/60Hz | Polarization : | Horizontal |
| Test Mode : | Mode 1/2/3/4/5/6/7/8/9(Mode 2-1Mbps worst mode) | | |

| Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|----------------------|-----------------|----------------|-------------|--------|
| 47.9940 | 38.55 | -20.45 | 18.10 | 40.00 | -21.90 | QP |
| 102.0014 | 55.32 | -19.02 | 36.30 | 43.50 | -7.20 | QP |
| 180.0165 | 45.87 | -19.44 | 26.43 | 43.50 | -17.07 | QP |
| 266.6090 | 42.96 | -15.33 | 27.63 | 46.00 | -18.37 | QP |
| 399.0302 | 40.58 | -11.28 | 29.30 | 46.00 | -16.70 | QP |
| 833.3171 | 35.21 | -3.01 | 32.20 | 46.00 | -13.80 | QP |

Remark:

1. Margin = Result (Result =Reading + Factor)-Limit

80.0 dBuV/m





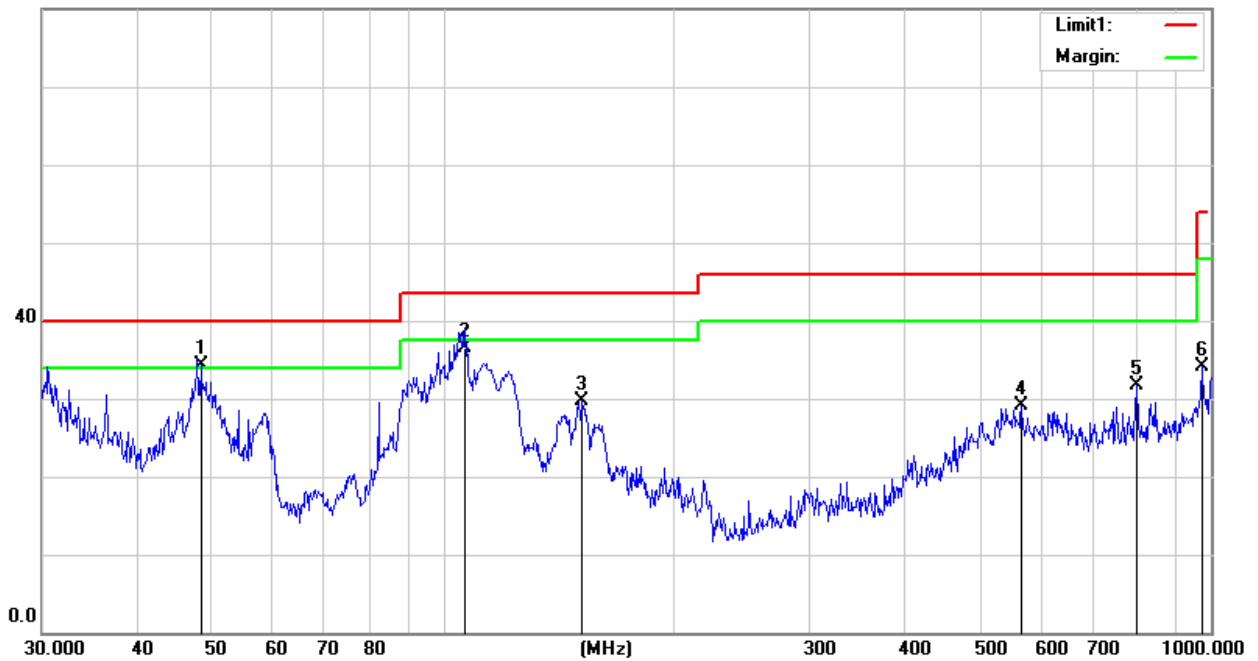
| | | | |
|----------------|---|--------------------|----------|
| Temperature: | 25.7 °C | Relative Humidity: | 63% |
| Test Voltage : | AC 120V/60Hz | Polarization : | Vertical |
| Test Mode : | Mode 1/2/3/4/5/6/7/8/9(Mode 2-1Mbps worst mode) | | |

| Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|----------------------|-----------------|----------------|-------------|--------|
| 48.3318 | 54.90 | -20.62 | 34.28 | 40.00 | -5.72 | QP |
| 106.7187 | 55.04 | -18.61 | 36.43 | 43.50 | -7.07 | QP |
| 151.5972 | 47.77 | -18.05 | 29.72 | 43.50 | -13.78 | QP |
| 566.6223 | 35.71 | -6.61 | 29.10 | 46.00 | -16.90 | QP |
| 801.7863 | 35.22 | -3.49 | 31.73 | 46.00 | -14.27 | QP |
| 972.3374 | 34.23 | -0.14 | 34.09 | 54.00 | -19.91 | QP |

Remark:.

1. Margin = Result (Result =Reading + Factor)-Limit

80.0 dBuV/m





(1000MHz-25GHz) Restricted band and Spurious emission Requirements

802.11b Low Channel

| Frequency (MHz) | Results (dBuV/m) | Factor (dB) | Limit (dBuV/m) | Margin (dB) | Detector | ANT | Verdict |
|-----------------|------------------|-------------|----------------|-------------|----------|------------|---------|
| 3264.68 | -9.80 | 39.15 | 74.00 | -34.85 | Peak | Vertical | Pass |
| 3264.68 | -9.80 | 29.78 | 54.00 | -24.22 | Average | Vertical | Pass |
| 3264.84 | -9.80 | 38.83 | 74.00 | -35.17 | Peak | Horizontal | Pass |
| 3264.84 | -9.80 | 28.68 | 54.00 | -25.32 | Average | Horizontal | Pass |
| 4824.37 | -3.56 | 55.07 | 74.00 | -18.93 | Peak | Vertical | Pass |
| 4824.37 | -3.56 | 35.81 | 54.00 | -18.19 | Average | Vertical | Pass |
| 4824.57 | -3.56 | 54.94 | 74.00 | -19.06 | Peak | Horizontal | Pass |
| 4824.57 | -3.56 | 34.95 | 54.00 | -19.05 | Average | Horizontal | Pass |
| 5359.72 | -2.34 | 43.46 | 74.00 | -30.54 | Peak | Vertical | Pass |
| 5359.72 | -2.34 | 35.53 | 54.00 | -18.47 | Average | Vertical | Pass |
| 5359.58 | -2.34 | 43.49 | 74.00 | -30.51 | Peak | Horizontal | Pass |
| 5359.58 | -2.34 | 35.88 | 54.00 | -18.12 | Average | Horizontal | Pass |
| 7235.76 | 3.40 | 54.36 | 74.00 | -19.64 | Peak | Vertical | Pass |
| 7235.76 | 3.40 | 37.01 | 54.00 | -16.99 | Average | Vertical | Pass |
| 7235.72 | 3.40 | 54.26 | 74.00 | -19.74 | Peak | Horizontal | Pass |
| 7235.85 | 3.40 | 34.95 | 54.00 | -19.05 | Average | Horizontal | Pass |

**802.11b Mid Channel**

| Frequency (MHz) | Results (dBuV/m) | Factor (dB) | Limit (dBuV/m) | Margin (dB) | Detector | ANT | Verdict |
|-----------------|------------------|-------------|----------------|-------------|----------|------------|---------|
| 3264.72 | -9.80 | 38.34 | 74.00 | -35.66 | Peak | Vertical | Pass |
| 3264.72 | -9.80 | 29.34 | 54.00 | -24.66 | Average | Vertical | Pass |
| 3264.69 | -9.80 | 38.72 | 74.00 | -35.28 | Peak | Horizontal | Pass |
| 3264.69 | -9.80 | 29.35 | 54.00 | -24.65 | Average | Horizontal | Pass |
| 4874.39 | -3.56 | 55.25 | 74.00 | -18.75 | Peak | Vertical | Pass |
| 4874.39 | -3.56 | 35.44 | 54.00 | -18.56 | Average | Vertical | Pass |
| 4874.53 | -3.56 | 54.73 | 74.00 | -19.27 | Peak | Horizontal | Pass |
| 4874.53 | -3.56 | 34.87 | 54.00 | -19.13 | Average | Horizontal | Pass |
| 5359.61 | -2.34 | 43.07 | 74.00 | -30.93 | Peak | Vertical | Pass |
| 5359.61 | -2.34 | 34.84 | 54.00 | -19.16 | Average | Vertical | Pass |
| 5359.81 | -2.34 | 44.02 | 74.00 | -29.98 | Peak | Horizontal | Pass |
| 5359.81 | -2.34 | 35.45 | 54.00 | -18.55 | Average | Horizontal | Pass |
| 7310.75 | 3.40 | 55.17 | 74.00 | -18.83 | Peak | Vertical | Pass |
| 7310.75 | 3.40 | 36.00 | 54.00 | -18.00 | Average | Vertical | Pass |
| 7310.88 | 3.40 | 54.47 | 74.00 | -19.53 | Peak | Horizontal | Pass |
| 7310.88 | 3.40 | 36.56 | 54.00 | -17.44 | Average | Horizontal | Pass |