

EMC TEST REPORT

| | |
|------------|--|
| Applicant: | ZTE Corporation |
| Address: | ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, P.R.China |

| | |
|--------------------------|--|
| Manufacturer or Supplier | ZTE Corporation |
| Address | ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, P.R.China |
| Product | LTE Digital Mobile Phone |
| Brand Name | ZTE |
| Model Name | NX529J/nubia Z11 mini |
| FCC ID | SRQ-NX529J-US |
| Date of tests | Jun. 15, 2016 ~ July 05, 2016 |

The submitted sample of the above equipment has been tested for according to the requirements of the following standards:

- FCC Part 15, Subpart B, Class B**
- ANSI C63.4:2014**

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

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Date: July 06, 2016

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BUREAU
VERITAS

Test Report No.: FV160614W011

RELEASE CONTROL RECORD

| ISSUE NO. | REASON FOR CHANGE | DATE ISSUED |
|--------------|-------------------|---------------|
| FV160614W011 | Original release | July 06, 2016 |



1 GENERAL INFORMATION

1.1 GENERAL DESCRIPTION OF EUT

| | | |
|----------------------------|---|--|
| PRODUCT | LTE Digital Mobile Phone | |
| MODEL NAME | NX529J/nubia Z11 mini | |
| NOMINAL VOLTAGE | 5.0Vdc (adapter or host equipment) 3.85Vdc (Li-ion, battery) | |
| BATTERY | Brand Name: LG Model Name: Li3827T44P6h726040 Power Rating: DC 3.85V, 2750mAh, Li-ion | |
| MODULATION TYPE | WLAN | CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM |
| | Bluetooth | GFSK, $\pi/4$ -DQPSK, 8DPSK |
| | GSM/EDGE | GMSK, 8PSK |
| | WCDMA | BPSK/QPSK |
| | LTE | QPSK/16QAM |
| OPERATING FREQUENCY | WLAN | 2412 ~ 2462MHz for 11b/g/n(HT20) 5180 ~ 5240MHz, 5260 ~ 5320MHz 5500 ~ 5700MHz, 5745 ~ 5850MHz for 11a/ n(HT20)/ n(HT40) |
| | Bluetooth | 2402MHz ~ 2480MHz |
| | GSM/EDGE | 824.2MHz ~ 848.8MHz (FOR GSM 850) 1850.2MHz ~ 1909.8MHz (FOR PCS 1900) |
| | WCDMA | 1852.4MHz ~ 1907.6MHz (FOR WCDMA Band2) 1712.44MHz ~ 1752.6MHz (FOR WCDMA Band4) 826.4MHz ~ 846.6MHz (FOR WCDMA Band5) |
| | LTE | 1850MHz ~ 1910MHz (FOR LTE Band2) 1710MHz ~ 1755MHz (FOR LTE Band4) 824MHz ~ 849MHz (FOR LTE Band5) 2500MHz ~ 2570MHz (FOR LTE Band7) 699MHz ~ 716MHz (FOR LTE Band12) 704MHz ~ 716MHz (FOR LTE Band17) |
| HW Version | MB_C | |
| SW Version | NX529J_ENCommon_V1.20 | |
| I/O PORTS | Refer to user's manual | |
| CABLE | USB cable: non-shielded, detachable, 1.0m | |
| ACCESSORY DEVICES | Refer to note as below | |

NOTE:

- For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
- The EUT was powered by the following adapters:



| ADAPTER 1 | |
|------------------|--------------------|
| BRAND: | RUIDE |
| MODEL: | STC-A515A-Z |
| INPUT: | AC 100-240V, 600mA |
| OUTPUT: | DC 5V, 1500mA |

| ADAPTER 2 | |
|------------------|--------------------|
| BRAND: | DOKOCOM |
| MODEL: | STC-A515A-Z |
| INPUT: | AC 100-240V, 600mA |
| OUTPUT: | DC 5V, 1500mA |

| ADAPTER 3 | |
|------------------|--------------------|
| BRAND: | Salcomp |
| MODEL: | STC-A515A-Z |
| INPUT: | AC 100-240V, 600mA |
| OUTPUT: | DC 5V, 1500mA |

3. The EUT matched the following USB cable:

| USB CABLE | |
|---------------------|-------------|
| BRAND: | LIXUN |
| MODEL: | ZXMT1511003 |
| SIGNAL LINE: | 1.0 METER |

4. The above models are identical except the model name for marketing purpose.
5. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.



1.2 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

| APPLIED STANDARD: FCC Part 15, Subpart B | | | |
|---|---------------------------------------|---------------|---|
| Standard Section | Test Item | Result | Remark |
| FCC Part 15, Subpart B, Class B ANSI C63.4:2014 | Conducted Test | PASS | Meets limits minimum passing margin is 6.70dB at 12.600000MHz. |
| | Radiated Emission Test (30MHz ~ 1GHz) | PASS | Meets Class B Limit Minimum passing margin is -4.90dB at 43.58MHz |
| | Radiated Emission Test (Above 1GHz) | PASS | Meets Class B Limit Minimum passing margin is -8.79dB at 6015MHz |

1.3 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:

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

| MEASUREMENT | FREQUENCY | UNCERTAINTY |
|---------------------|------------------|--------------------|
| Conducted emissions | 150kHz ~ 30MHz | +/-2.66dB |
| Radiated emissions | 30MHz ~ 1GHz | +/-4.06dB |
| | 1GHz ~ 18GHz | +/-4.58dB |



1.4 DESCRIPTION OF TEST MODES

| Test Mode | Test Condition |
|--------------------------------|--|
| Radiated emission test | |
| 1 | GSM850 Idle +Adapter 1+ Earphone + USB cable + BT Idle + Wifi Idle(2.4G) + GPS Rx + SMI2+ Battery1 |
| 2 | GSM1900 Idle +Adapter 2+ Earphone + USB cable + BT Idle + Wifi Idle(5G) + GPS Rx + SMI2+ Battery1 |
| 3 | WCDMA B5 Idle +Adapter 3+ Earphone + USB cable + BT Idle + Wifi Idle(2.4G) + GPS Rx + SMI1+ Battery1 |
| 4 | WCDMA B2 Idle +Adapter 1+ Earphone + USB cable + BT Idle + Wifi Idle(5G) + GPS Rx+ SMI1+ Battery1 |
| 5 | WCDMA B4 Idle +Adapter 1+ Earphone + USB cable + BT Idle + Wifi Idle(5G) + GPS Rx+ SMI1+ Battery1 |
| 6 | LTE B2 Idle +Adapter 2+ Earphone + USB cable + BT Idle + Wifi Idle(2.4G) + GPS Rx + SMI1+ Battery1 |
| 7 | LTE B4 Idle +Adapter 3+ Earphone + USB cable + BT Idle + Wifi Idle(5G) + GPS Rx + SMI1+ Battery1 |
| 8 | LTE B5 Idle +Adapter 1+ Earphone + USB cable + BT Idle + Wifi Idle(2.4G) + GPS Rx + SMI1 + Front camera on+ Battery1 |
| 9 | LTE B7 Idle +Adapter 2+ Earphone + USB cable + BT Idle + Wifi Idle(5G) + GPS Rx +FM Rx+ SMI1+ Battery1 |
| 10 | LTE B12 Idle +Adapter 3+ Earphone + USB cable + BT Idle + Wifi Idle(2.4G) + GPS Rx + SMI1+ Mpeg4+ Battery2 |
| 11 | LTE B17 Idle + USB Link+ Earphone + USB cable + BT Idle + Wifi Idle(5G) + GPS Rx + SMI1+ Back camera on+ Battery2 |
| Conducted emission test | |
| 1 | GSM850 Idle +Adapter 3+ Earphone + USB cable + BT Idle + Wifi Idle(2.4G) + GPS Rx + SMI2+ Battery1 |
| 2 | GSM1900 Idle +Adapter 2+ Earphone + USB cable + BT Idle + Wifi Idle(5G) + GPS Rx + SMI2+ Battery1 |
| 3 | WCDMA B5 Idle +Adapter 1+ Earphone + USB cable + BT Idle + Wifi Idle(2.4G) + GPS Rx + SMI1+ Battery1 |
| 4 | WCDMA B2 Idle +Adapter 3+ Earphone + USB cable + BT Idle + Wifi Idle(5G) + GPS Rx+ SMI1+ Battery1 |
| 5 | WCDMA B4 Idle +Adapter 3+ Earphone + USB cable + BT Idle + Wifi Idle(5G) + GPS Rx+ SMI1+ Battery1 |
| 6 | LTE B2 Idle +Adapter 2+ Earphone + USB cable + BT Idle + Wifi Idle(2.4G) + GPS Rx + SMI1+ Battery1 |
| 7 | LTE B4 Idle +Adapter 1+ Earphone + USB cable + BT Idle + Wifi Idle(5G) + GPS Rx + SMI1+ Battery1 |
| 8 | LTE B5 Idle +Adapter 3+ Earphone + USB cable + BT Idle + Wifi Idle(2.4G) + GPS Rx + SMI1 + Front camera on+ Battery1 |
| 9 | LTE B7 Idle +Adapter 2+ Earphone + USB cable + BT Idle + Wifi Idle(5G) + GPS Rx +FM Rx+ SMI1+ Battery1 |



| | |
|----|--|
| 10 | LTE B12 Idle + USB Link + Earphone + USB cable + BT Idle + Wifi Idle(2.4G) + GPS Rx + SMI1+ Mpeg4+ Battery2 |
| 11 | LTE B17 Idle + Adapter 1+ Earphone + USB cable + BT Idle + Wifi Idle(5G) + GPS Rx + SMI1+ Back camera on+ Battery2 |

NOTE:

1. For conducted emission test, test mode 11 was the worst case and only this mode was presented in this report.
2. For radiated emission test, test mode 11 was the worst case and only this mode was presented in this report.



1.5 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.

FOR EMISSION TESTS

| NO. | PRODUCT | BRAND | MODEL NO. | SERIAL NO. | FCC ID |
|-----|--------------------------------------|--------|------------------|------------|--------|
| 1 | Universal Radio Communication Tester | R&S | CMU200 | 123259 | N/A |
| 2 | Wireless AP | ABOCOM | WR224GR | 060500749P | D43064 |
| 3 | Bluetooth Earphone | FAP00 | H6080 | 12098 | N/A |
| 4 | Notebook | DELL | E6420 | 9H12FS1 | N/A |
| 5 | Mouse | DELL | M056UOA | 01688082 | N/A |
| 6 | Printer | HP | hp LaserJet 1300 | CNSJF75989 | N/A |

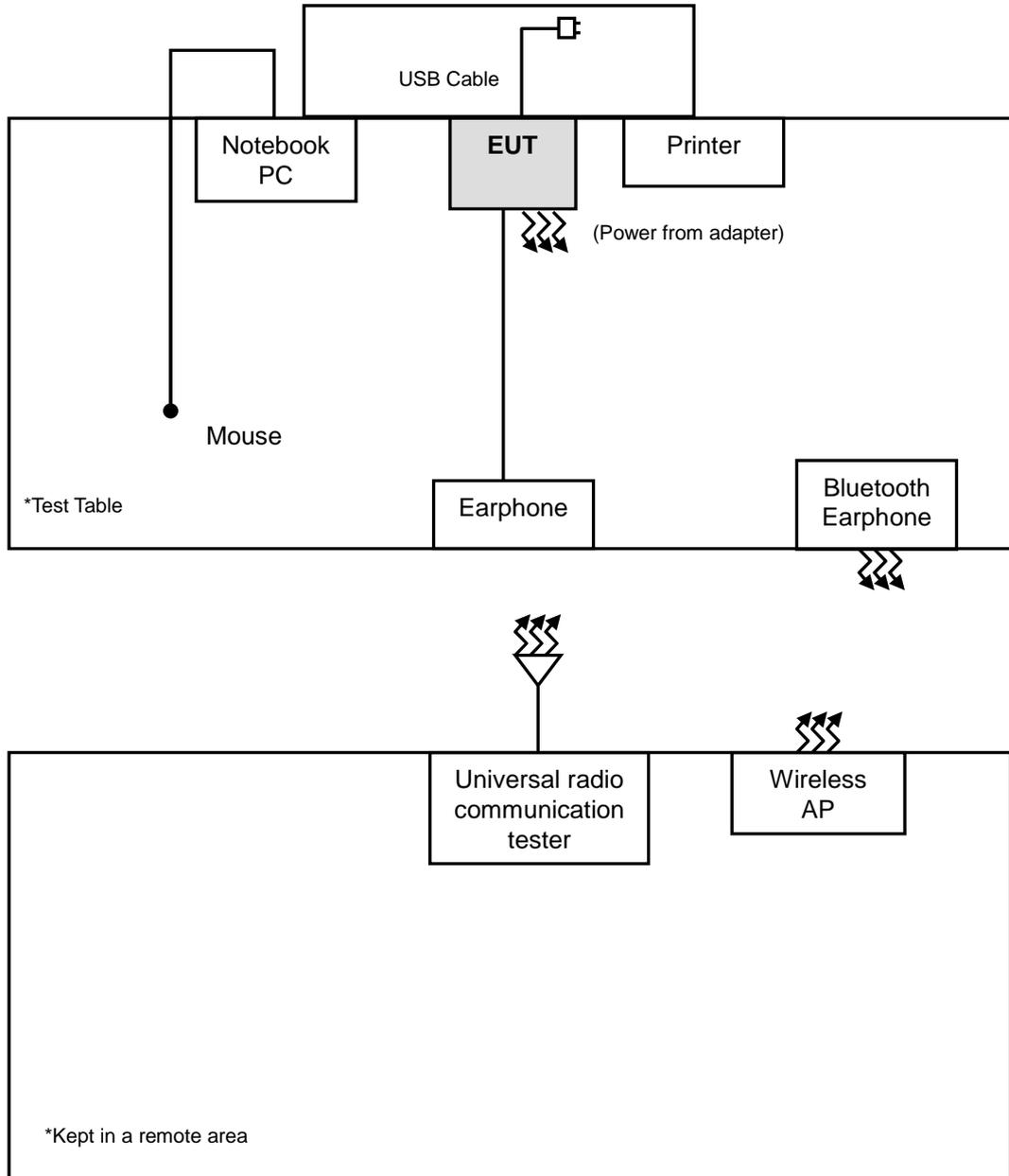
| NO. | SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS |
|-----|---|
| 1 | N/A |
| 2 | N/A |
| 3 | N/A |
| 4 | DC Line: Unshielded, Undetachable, 2.0m |
| 5 | USB Line: Unshielded, Undetachable 1.8m; |
| 6 | USB Line: Shielded, Detachable 1.5m; |

NOTE:

1. All power cords of the above support units are non shielded (1.8m).
2. Items 3-4 acted as communication partners.



1.6 CONFIGURATION OF SYSTEM UNDER TEST





2 EMISSION TEST

2.1 CONDUCTED EMISSION MEASUREMENT

2.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

TEST STANDARD: FCC Part 15, Subpart B (Section: 15.107)

| FREQUENCY OF EMISSION (MHz) | CONDUCTED LIMIT (dBµV) | |
|-----------------------------|------------------------|----------|
| | Quasi-peak | Average |
| 0.15 ~ 0.5 | 66 to 56 | 56 to 46 |
| 0.5 ~ 5 | 56 | 46 |
| 5 ~ 30 | 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.

3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

2.1.2 TEST INSTRUMENTS

| Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Next Cal. |
|--------------------------|---------------|-----------------|----------------|------------|------------|
| EMI Test Receiver | Rohde&Schwarz | ESCS30 | 100340 | May 11,15 | May 10,17 |
| Artificial Mains Network | Rohde&Schwarz | ENV216 | 101173 | Mar. 04,16 | Mar. 03,17 |
| Artificial Mains Network | Rohde&Schwarz | ESH3-Z5 | 100317 | Apr. 05,16 | Apr. 04,17 |
| Voltage probe | SCHWARZBECK | TK 9421 | TK 9421-176 | Jan. 08,16 | Jan. 07,17 |
| Test software | ADT | ADT_Cond_V7.3.7 | N/A | N/A | N/A |

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.

2. The test was performed in Dongguan Shielded Room 553.



2.1.3 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 150 kHz to 30MHz was searched. Emission levels under (Limit - 20dB) were not recorded.

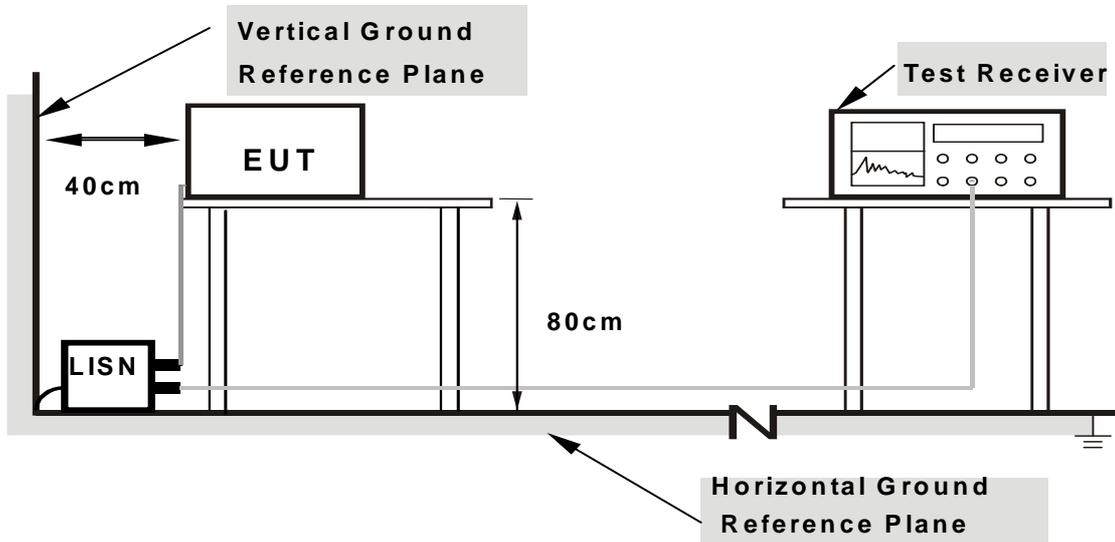
NOTE: All modes of operation were investigated and the worst-case emissions are reported.

2.1.4 DEVIATION FROM TEST STANDARD

No deviation.



2.1.5 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).

2.1.6 EUT OPERATING CONDITIONS

- a. Turned on the power and connected of all equipment.
- b. EUT was operated according to the use type described in the manufacturer's specifications or the user's manual.



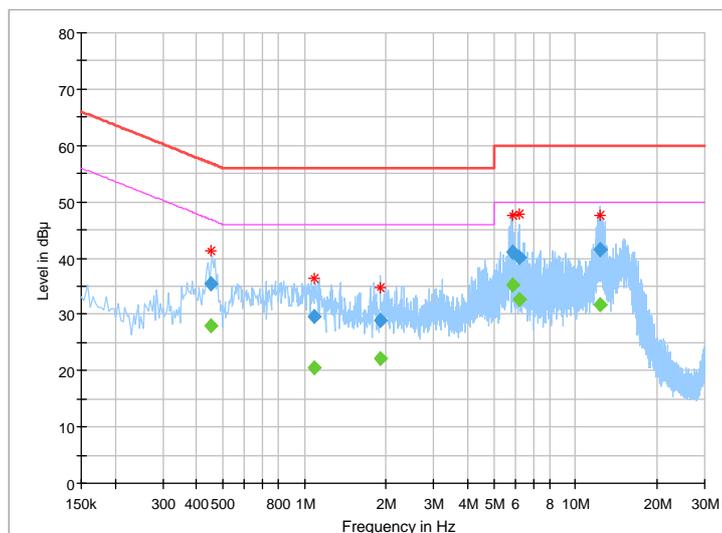
2.1.7 TEST RESULTS

| | | | |
|---------------------------------|--|----------------------|-------|
| TEST VOLTAGE | DC 5V From Adapter Input 230 Vac, 50 Hz | 6dB BANDWIDTH | 9 kHz |
| ENVIRONMENTAL CONDITIONS | 24deg. C, 55RH | TESTED BY | Eric |

| Frequency (MHz) | QuasiPeak (dB μ V) | CAverage (dB μ V) | Limit (dB μ V) | Margin (dB) | Line | Filter | Corr. (dB) |
|-----------------|------------------------|-----------------------|--------------------|-------------|------|--------|------------|
| 0.452000 | --- | 27.94 | 46.84 | 18.90 | L | ON | 9.7 |
| 0.452000 | 35.36 | --- | 56.84 | 21.48 | L | ON | 9.7 |
| 1.088000 | --- | 20.57 | 46.00 | 25.43 | L | ON | 9.7 |
| 1.088000 | 29.65 | --- | 56.00 | 26.35 | L | ON | 9.7 |
| 1.900000 | --- | 22.13 | 46.00 | 23.87 | L | ON | 9.7 |
| 1.900000 | 29.01 | --- | 56.00 | 26.99 | L | ON | 9.7 |
| 5.856000 | --- | 35.12 | 50.00 | 14.88 | L | ON | 9.8 |
| 5.856000 | 41.13 | --- | 60.00 | 18.87 | L | ON | 9.8 |
| 6.236000 | --- | 32.55 | 50.00 | 17.45 | L | ON | 9.8 |
| 6.236000 | 40.11 | --- | 60.00 | 19.89 | L | ON | 9.8 |
| 12.392000 | --- | 31.61 | 50.00 | 18.39 | L | ON | 9.9 |
| 12.392000 | 41.50 | --- | 60.00 | 18.50 | L | ON | 9.9 |

- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = Emission level - Limit value
 5. Correction factor = Insertion loss + Cable loss
 6. Emission Level = Correction Factor + Reading Value.

Full Spectrum



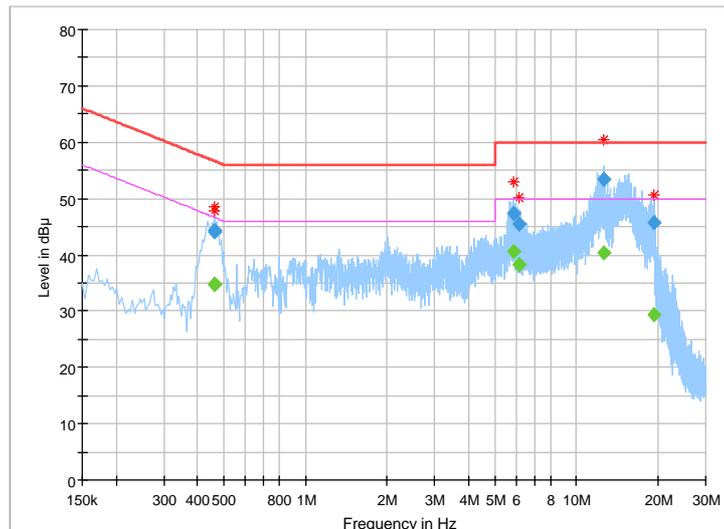


| | | | |
|---------------------------------|--|----------------------|-------|
| TEST VOLTAGE | DC 5V From Adapter Input 230 Vac, 50 Hz | 6dB BANDWIDTH | 9 kHz |
| ENVIRONMENTAL CONDITIONS | 24deg. C, 55RH | TESTED BY | Eric |

| Frequency (MHz) | QuasiPeak (dBuV) | CAverage (dBuV) | Limit (dBuV) | Margin (dB) | Line | Filter | Corr. (dB) |
|------------------|------------------|-----------------|--------------|-------------|----------|-----------|------------|
| 0.460000 | --- | 34.82 | 46.69 | 11.87 | N | ON | 10.1 |
| 0.460000 | 44.29 | --- | 56.69 | 12.40 | N | ON | 10.1 |
| 0.464000 | --- | 34.68 | 46.62 | 11.94 | N | ON | 10.1 |
| 0.464000 | 44.17 | --- | 56.62 | 12.45 | N | ON | 10.1 |
| 5.844000 | --- | 40.50 | 50.00 | 9.50 | N | ON | 9.8 |
| 5.844000 | 47.33 | --- | 60.00 | 12.67 | N | ON | 9.8 |
| 6.148000 | --- | 38.29 | 50.00 | 11.71 | N | ON | 9.8 |
| 6.148000 | 45.46 | --- | 60.00 | 14.54 | N | ON | 9.8 |
| 12.600000 | --- | 40.25 | 50.00 | 9.75 | N | ON | 9.9 |
| 12.600000 | 53.30 | --- | 60.00 | 6.70 | N | ON | 9.9 |
| 19.360000 | --- | 29.37 | 50.00 | 20.63 | N | ON | 10.0 |
| 19.360000 | 45.64 | --- | 60.00 | 14.36 | N | ON | 10.0 |

- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = Emission level - Limit value
 5. Correction factor = Insertion loss + Cable loss
 6. Emission Level = Correction Factor + Reading Value.

Full Spectrum





2.2 RADIATED EMISSION MEASUREMENT

2.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

TEST STANDARD: FCC Part 15, Subpart B (Section: 15.109)

Emissions radiated outside of the specified bands, shall be according to the general radiated limits as following:

| Radiated Emissions Limits at 10 meters (dBµV/m) | | | | |
|---|----------------------------|-----------------------------|-------------------|-------------------|
| Frequencies (MHz) | FCC 15B/ ICES-003, Class A | FCC 15B / ICES-003, Class B | CISPR 22, Class A | CISPR 22, Class B |
| 30-88 | 39 | 29.5 | 40 | 30 |
| 88-216 | 43.5 | 33.1 | | |
| 216-230 | 46.4 | 35.6 | | |
| 230-960 | | | 47 | 37 |
| 960-1000 | 49.5 | 43.5 | Not defined | Not defined |
| 1000-3000 | Avg: 49.5 | Avg: 43.5 | | |
| 3000+ | Peak: 69.5 | Peak: 63.5 | Not defined | Not defined |

| Radiated Emissions Limits at 3 meters (dBµV/m) | | | | |
|--|-----------------------------|-----------------------------|---------------------|---------------------|
| Frequencies (MHz) | FCC 15B / ICES-003, Class A | FCC 15B / ICES-003, Class B | CISPR 22, Class A | CISPR 22, Class B |
| 30-88 | 49.5 | 40 | 50.5 | 40.5 |
| 88-216 | 54 | 43.5 | | |
| 216-230 | 56.9 | 46 | | |
| 230-960 | | | 57.5 | 47.5 |
| 960-1000 | 60 | 54 | Avg: 56 Peak: 76 | Avg: 50 Peak: 70 |
| 1000-3000 | Avg: 60 | Avg: 54 | | |
| 3000+ | Peak: 80 | Peak: 74 | Avg: 60 Peak: 80 | Avg: 54 Peak: 74 |

- NOTE:**
1. The lower limit shall apply at the transition frequencies.
 2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
 3. As shown in 15.35(b), 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. QP detector shall be applied if not specified.



2.2.2 TEST INSTRUMENTS

For frequency below 1G

| Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Next Cal. |
|--------------------------|---------------|--------------------------|------------|-------------|-------------|
| EMI Test Receiver | Rohde&Schwarz | ESR7 | 101494 | Apr. 05,16 | Apr. 04,17 |
| Bilog Antenna | Teseq | CBL 6111D | 30643 | Jul. 16, 15 | Jul. 15, 16 |
| Amplifier | Burgeon | BPA-530 | 100220 | Apr. 05,16 | Apr. 04,17 |
| 3m Semi-anechoic Chamber | ETS-LINDGREN | 9m*6m*6m | NSEMC003 | Mar. 12,16 | Mar. 11,18 |
| Test software | ADT | ADT_Radiated_V7.6.15.9.2 | N/A | N/A | N/A |

For frequency above 1G

| Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Next Cal. |
|------------------------------|---------------|--------------------------|-------------|------------|------------|
| Horn Antenna | ETS-Lindgren | 3117 | 00062558 | May 30,14 | May 29,17 |
| Horn Antenna | SCHWARZBECK | BBHA 9170 | BBHA9170242 | Mar. 12,16 | Mar. 11,17 |
| Signal and Spectrum Analyzer | Rohde&Schwarz | FSV40 | 101094 | Apr. 05,16 | Apr. 04,17 |
| Pre-Amplifier | HP | 8449B | 3008A00409 | Apr. 25,15 | Apr. 24,17 |
| Pre-Amplifier (18GHz-40GHz) | EMCI | EMC 184045 | 980102 | Nov. 11,15 | Nov. 10,16 |
| Test Software | ADT | ADT_Radiated_V7.6.15.9.2 | N/A | N/A | N/A |

- NOTE:**
1. The test was performed in 966m Chamber (a 3m Semi-anechoic chamber).
 2. The calibration interval of the above test instruments is 12 months or 24 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.
 3. The FCC Site Registration No. is 494399.



2.2.3 TEST PROCEDURE

The basic test procedure was in accordance with ANSI C63.4:2014 (section 12).

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meters Semi-anechoic chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters (below 1GHz) and 3 meters (above 1GHz) 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. The bore sight should be used during the test above 1GHz.
- 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/spectrum was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz.

NOTE:

1. The resolution bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth is 1MHz and video bandwidth of test receiver/spectrum analyzer is 3MHz for Peak detection at frequency above 1GHz. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth of test receiver/spectrum analyzer is 1Hz for Average detection (AV) at frequency above 1GHz.
3. For measurement of frequency above 1000 MHz, the EUT was set 3 meters away from the receiver antenna.
4. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
5. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) (if the raw value not contains the amplifier);
6. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) – Amplifier Gain(dB) (if the raw value contains the amplifier).
7. Margin value = Emission level – Limit value.

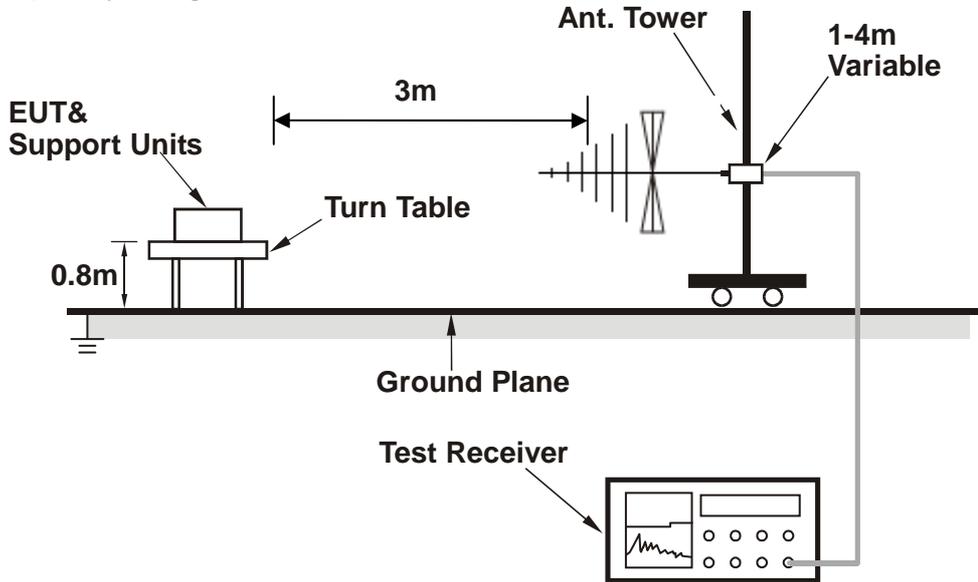
2.2.4 DEVIATION FROM TEST STANDARD

No deviation.

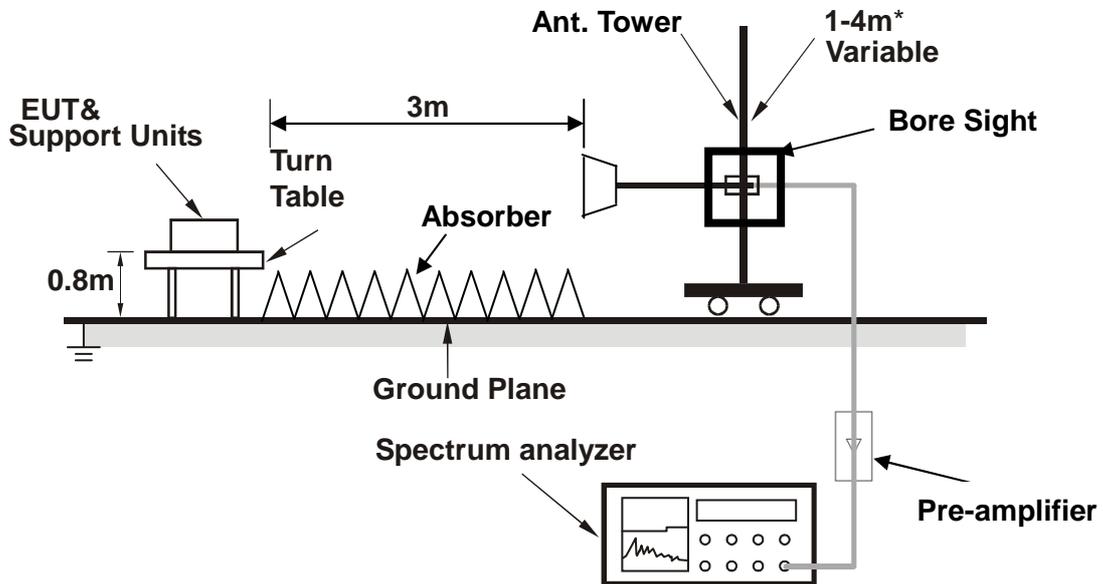


2.2.5 TEST SETUP

<Frequency Range below 1GHz>



<Frequency Range above 1GHz>



* : depends on the EUT height and the antenna 3dB beamwidth both, refer to section 7.3 of CISPR 16-2-3.

2.2.6 EUT OPERATING CONDITIONS

Same as item 2.1.6.

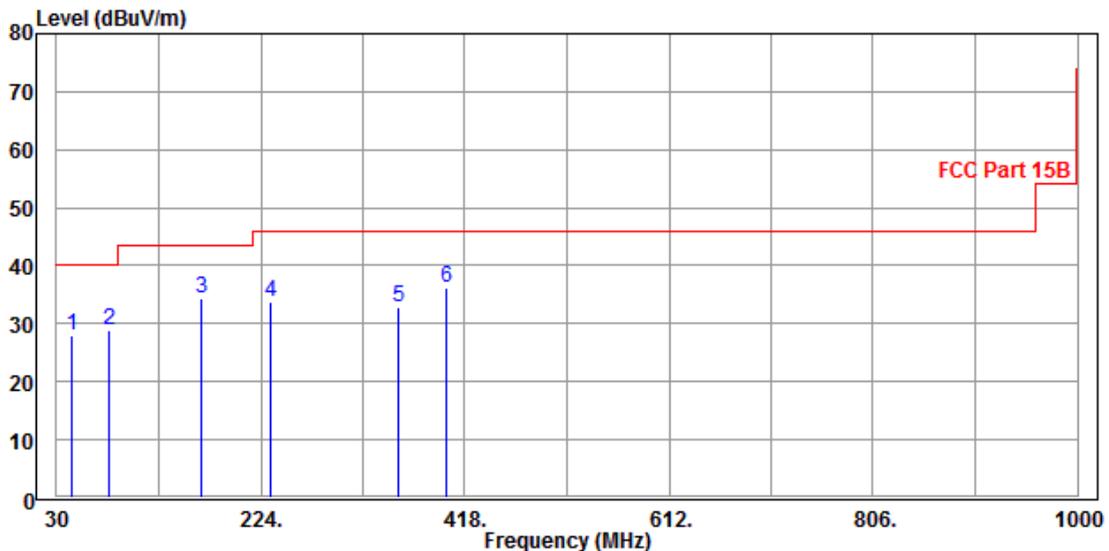


2.2.7 TEST RESULTS

| | | | |
|---------------------------------|--|--|----------------------|
| TEST VOLTAGE | DC 5V From Adapter Input 120Vac, 50 Hz | FREQUENCY RANGE | 30-1000 MHz |
| ENVIRONMENTAL CONDITIONS | 26deg. C, 61 %RH | DETECTOR FUNCTION & BANDWIDTH | Quasi-Peak , 120 kHz |
| TESTED BY | Alex Chen | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | | | | |
|---|-------------------------|-------------------|----------------|-------------|------------------------|-----------------|--------------------|---------------------|----------------------|--------|--|
| FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | READ LEVEL (dBuV) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA FACTOR (dB /m) | CABLE LOSS (dB) | PREAMP FACTOR (dB) | ANTENNA HEIGHT (cm) | TABLE ANGLE (Degree) | REMARK | |
| 43.58 | 28.10 | 55.68 | 40.00 | -11.90 | 8.88 | 0.99 | 37.45 | 200 | 156 | QP | |
| 80.44 | 28.98 | 58.14 | 40.00 | -11.02 | 6.61 | 1.38 | 37.15 | 200 | 262 | QP | |
| 166.77 | 34.31 | 58.96 | 43.50 | -9.19 | 10.10 | 1.97 | 36.72 | 200 | 180 | QP | |
| 232.73 | 33.70 | 56.27 | 46.00 | -12.30 | 11.61 | 2.35 | 36.53 | 200 | 96 | QP | |
| 354.95 | 32.72 | 51.07 | 46.00 | -13.28 | 15.31 | 2.96 | 36.62 | 200 | 300 | QP | |
| 399.57 | 36.17 | 52.56 | 46.00 | -9.83 | 17.18 | 3.15 | 36.72 | 200 | 268 | QP | |

- REMARKS:**
1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
 2. Negative sign (-) in the margin column signify levels below the limit.
 3. Frequency range scanned: 30MHz to 1000MHz.
 4. Only emissions significantly above equipment noise floor are reported.

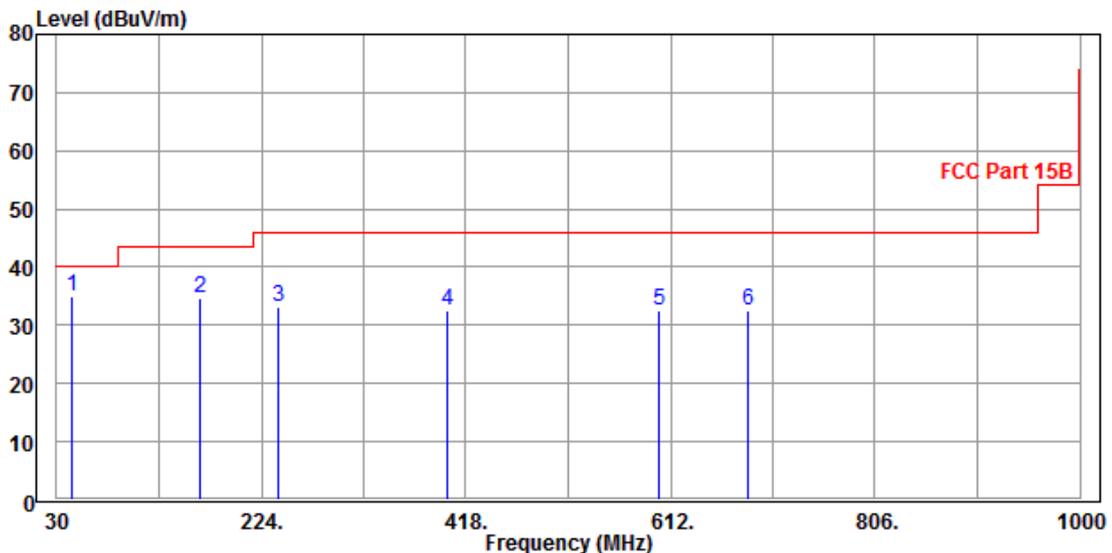




| | | | |
|---------------------------------|--|--|----------------------|
| TEST VOLTAGE | DC 5V From Adapter Input 120 Vac, 50 Hz | FREQUENCY RANGE | 30-1000 MHz |
| ENVIRONMENTAL CONDITIONS | 26deg. C, 61 %RH | DETECTOR FUNCTION & BANDWIDTH | Quasi-Peak , 120 kHz |
| TESTED BY | Alex Chen | | |

| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | | | |
|---|-------------------------|-------------------|----------------|-------------|------------------------|-----------------|--------------------|---------------------|----------------------|--------|
| FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | READ LEVEL (dBuV) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA FACTOR (dB /m) | CABLE LOSS (dB) | PREAMP FACTOR (dB) | ANTENNA HEIGHT (cm) | TABLE ANGLE (Degree) | REMARK |
| 43.58 | 35.10 | 62.68 | 40.00 | -4.90 | 8.88 | 0.99 | 37.45 | 101 | 226 | QP |
| 165.80 | 34.82 | 59.47 | 43.50 | -8.68 | 10.11 | 1.97 | 36.73 | 101 | 258 | QP |
| 239.52 | 33.11 | 55.32 | 46.00 | -12.89 | 11.92 | 2.39 | 36.52 | 200 | 175 | QP |
| 399.57 | 32.55 | 48.94 | 46.00 | -13.45 | 17.18 | 3.15 | 36.72 | 200 | 120 | QP |
| 600.36 | 32.59 | 45.52 | 46.00 | -13.41 | 20.31 | 4.01 | 37.25 | 101 | 72 | QP |
| 684.75 | 32.61 | 43.04 | 46.00 | -13.39 | 22.67 | 4.24 | 37.34 | 101 | 89 | QP |

- REMARKS:**
1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
 2. Negative sign (-) in the margin column signify levels below the limit.
 3. Frequency range scanned: 30MHz to 1000MHz.
 4. Only emissions significantly above equipment noise floor are reported.





| | | | |
|---------------------------------|--|--|---------------------|
| TEST VOLTAGE | DC 5V From Adapter Input 120 Vac, 50 Hz | FREQUENCY RANGE | 1-6 GHz |
| ENVIRONMENTAL CONDITIONS | 26deg. C, 61 %RH | DETECTOR FUNCTION & BANDWIDTH | Peak/Average, 1 MHz |
| TESTED BY | Alex Chen | | |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M | | | | | | | | | | |
|--|-------------------------|-------------------|----------------|--------------|------------------------|-----------------|--------------------|---------------------|----------------------|----------------|
| FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | READ LEVEL (dBuV) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA FACTOR (dB /m) | CABLE LOSS (dB) | PREAMP FACTOR (dB) | ANTENNA HEIGHT (cm) | TABLE ANGLE (Degree) | REMARK |
| 1765 | 32.86 | 43.89 | 54.00 | -21.14 | 30.40 | 6.92 | 48.35 | 101 | 280 | Average |
| 1765 | 49.68 | 60.71 | 74.00 | -24.32 | 30.40 | 6.92 | 48.35 | 101 | 280 | Peak |
| 3924 | 36.73 | 40.92 | 54.00 | -17.27 | 33.68 | 10.68 | 48.55 | 101 | 232 | Average |
| 3924 | 49.26 | 53.45 | 74.00 | -24.74 | 33.68 | 10.68 | 48.55 | 101 | 232 | Peak |
| 6015 | 45.21 | 40.97 | 54.00 | -8.79 | 35.50 | 17.91 | 49.17 | 101 | 100 | Average |
| 6015 | 56.92 | 52.68 | 74.00 | -17.08 | 35.50 | 17.91 | 49.17 | 101 | 100 | Peak |

| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M | | | | | | | | | | |
|--|-------------------------|-------------------|----------------|-------------|------------------------|-----------------|--------------------|---------------------|----------------------|---------|
| FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | READ LEVEL (dBuV) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA FACTOR (dB /m) | CABLE LOSS (dB) | PREAMP FACTOR (dB) | ANTENNA HEIGHT (cm) | TABLE ANGLE (Degree) | REMARK |
| 2428 | 38.33 | 46.09 | 54.00 | -15.67 | 32.33 | 8.22 | 48.31 | 101 | 56 | Average |
| 2428 | 54.43 | 62.19 | 74.00 | -19.57 | 32.33 | 8.22 | 48.31 | 101 | 56 | Peak |
| 3975 | 37.56 | 41.59 | 54.00 | -16.44 | 33.76 | 10.77 | 48.56 | 101 | 69 | Average |
| 3975 | 48.62 | 52.65 | 74.00 | -25.38 | 33.76 | 10.77 | 48.56 | 101 | 69 | Peak |
| 5760 | 40.38 | 37.91 | 54.00 | -13.62 | 35.21 | 16.41 | 49.15 | 101 | 240 | Average |
| 5760 | 62.11 | 59.64 | 74.00 | -11.89 | 35.21 | 16.41 | 49.15 | 101 | 240 | Peak |

- REMARKS:**
1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
 2. Negative sign (-) in the margin column signify levels below the limit.
 3. Frequency range scanned: 1GHz to 6GHz.
 4. Only emissions significantly above equipment noise floor are reported.



Test Report No.: FV160614W011

3 APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No any modifications were made to the EUT by the lab during the test.

---END---