

## FCC PART 15B

## TEST REPORT

For

### Nanjing Hanlong Technology Co., Ltd.

5th Floor, 1st Building, Huashen Tech Park, 10 Huashen Temple, Yuhuatai Dis., Nanjing, China.

**FCC ID: 2ACUG-UC862**

|  |   |
|--|---|
| <b>Report Type:</b><br>Original Report | <b>Product Type:</b><br>Gigabit IP PHONE  |
| <b>Test Engineer:</b>                  | Star Xie  |
| <b>Report Number:</b>                  | R2SH140626052-00  |
| <b>Report Date:</b>                    | 2014-09-24  |
| <b>Reviewed By:</b>                    | Harry Wu<br>EMC Leader  |
| <b>Test Laboratory:</b>                | Bay Area Compliance Laboratories Corp. (Dongguan)<br>No.69 Pulongcun, Puxinhu Industrial Zone,<br>Tangxia, Dongguan, Guangdong, China<br>Tel: +86-769-86858888<br>Fax: +86-769-86858891<br><a href="http://www.baclcorp.com.cn">www.baclcorp.com.cn</a> |

Note: This test report is prepared for the customer shown above and for the device described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Dongguan). This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.

## **TABLE OF CONTENTS**

|  |           |
|--|-----------|
| <b>GENERAL INFORMATION.....</b>                          | <b>3</b>  |
| PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT) ..... | 3         |
| OBJECTIVE .....  | 3         |
| RELATED SUBMITTAL(S)/GRANT(S).....                       | 3         |
| TEST FACILITY .....                                      | 3         |
| <b>SYSTEM TEST CONFIGURATION.....</b>                    | <b>4</b>  |
| JUSTIFICATION .....                                      | 4         |
| EUT EXERCISE SOFTWARE .....                              | 4         |
| EQUIPMENT MODIFICATIONS .....                            | 4         |
| SUPPORT EQUIPMENT LIST AND DETAILS .....                 | 4         |
| EXTERNAL CABLE.....                                      | 4         |
| BLOCK DIAGRAM OF TEST SETUP .....                        | 5         |
| <b>SUMMARY OF TEST RESULTS .....</b>                     | <b>6</b>  |
| <b>FCC §15.107 – AC LINE CONDUCTED EMISSIONS .....</b>   | <b>7</b>  |
| MEASUREMENT UNCERTAINTY .....                            | 7         |
| EUT SETUP .....  | 7         |
| EMI TEST RECEIVER SETUP.....                             | 8         |
| TEST PROCEDURE .....                                     | 8         |
| CORRECTED AMPLITUDE & MARGIN CALCULATION .....           | 8         |
| TEST EQUIPMENT LIST AND DETAILS.....                     | 9         |
| TEST RESULTS SUMMARY .....                               | 9         |
| TEST DATA .....  | 9         |
| <b>FCC §15.109 - RADIATED EMISSIONS .....</b>            | <b>22</b> |
| MEASUREMENT UNCERTAINTY .....                            | 22        |
| EUT SETUP .....  | 22        |
| EMI TEST RECEIVER SETUP.....                             | 23        |
| TEST PROCEDURE .....                                     | 23        |
| CORRECTED AMPLITUDE & MARGIN CALCULATION .....           | 23        |
| TEST EQUIPMENT LIST AND DETAILS.....                     | 24        |
| TEST RESULTS SUMMARY .....                               | 24        |
| TEST DATA .....  | 24        |

## GENERAL INFORMATION

---

### Product Description for Equipment under Test (EUT)

The *Nanjing Hanlong Technology Co., Ltd.*'s product, model: *UC862 (FCC ID: 2ACUG-UC862)* (or the "EUT") in this report is a *Gigabit IP PHONE*, which was measured approximately: 27 cm (L) x 20 cm (W) x 16cm (H), rated input voltage: DC5V from adapter. The highest operating frequency is 40MHz.

Adapter information: Mass Power  
Model: WCF0500120A1BA  
Input: 100-240Vac, 50/60Hz, 0.15A  
Output: DC 5.0V, 1.2A

*\* All measurement and test data in this report was gathered from production sample serial number: 140626052 (Assigned by BACL, Dongguan). The EUT was received on 2014-07-04.*

### Objective

This report is prepared on behalf of *Nanjing Hanlong Technology Co., Ltd.* in accordance with Part 2, Subpart J, Part 15, Subparts A and B of the Federal Communications Commission's rules.

The objective of the manufacturer is to determine compliance with FCC Part 15B, Class B.

### Related Submittal(s)/Grant(s)

No related grant(s).

### Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.69 Pulongcun, Puxinhu Industrial Zone, Tangxia, Dongguan, Guangdong, China

Test site at Bay Area Compliance Laboratories Corp. (Dongguan) has been fully described in reports submitted to the Federal Communications Commission (FCC). The details of these reports have been found to be in compliance with the requirements of Section 2.948 of the FCC Rules on February 02, 2012. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2003.

The Federal Communications Commission has the reports on file and is listed under FCC Registration No.: 273710. The test site has been approved by the FCC for public use and is listed in the FCC Public Access Link (PAL) database.

## SYSTEM TEST CONFIGURATION

### Justification

The system was configured for testing in a typical fashion (as normally used by a typical user).

### EUT Exercise Software

No software was used in the test.

### Equipment Modifications

No modification was made to the EUT.

### Support Equipment List and Details

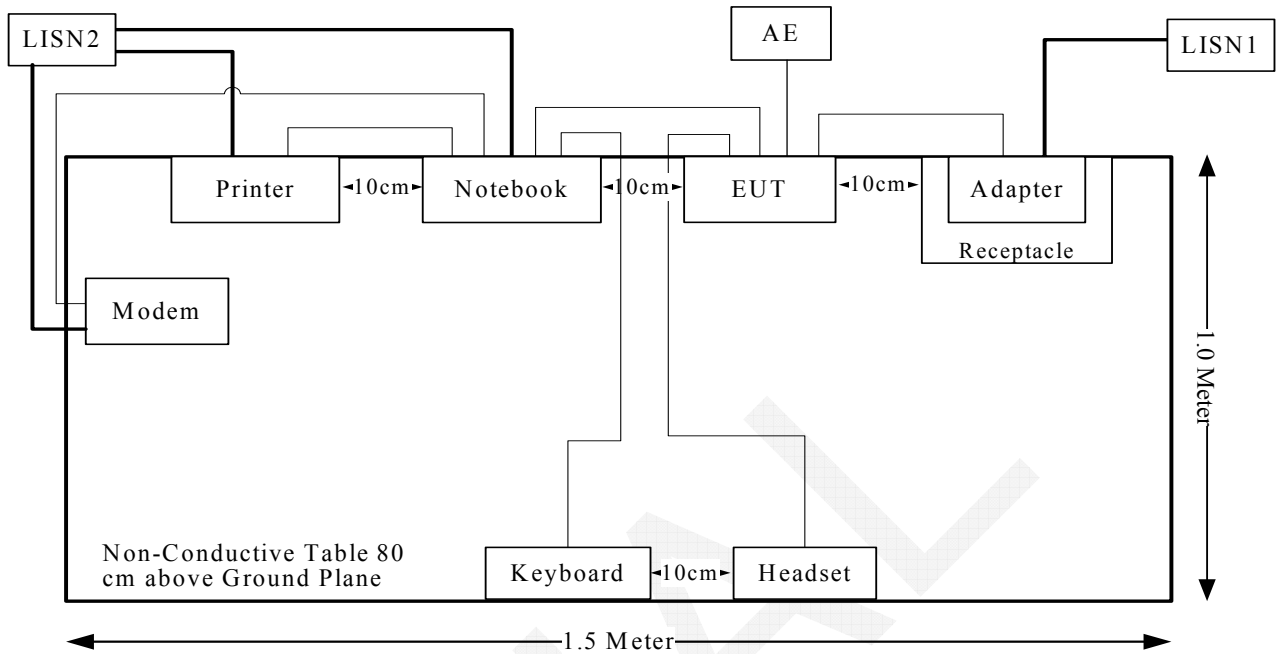
| Manufacturer | Description | Model          | Serial Number            |
|--------------|-------------|----------------|--------------------------|
| DELL         | Notebook    | PP11L          | QDS-BRCM1017             |
| HP           | Printer     | C3990A         | JPZW030603               |
| SAST         | Modem       | AEM-2100       | 090200213                |
| DELL         | Keyboard    | SK-8115        | CN-0J4628-71616-52H-0RT6 |
| N/A          | POE Switch  | G0548B-480-050 | N/A                      |
| BENERTECH    | Headphone   | N/A            | N/A                      |

### External Cable

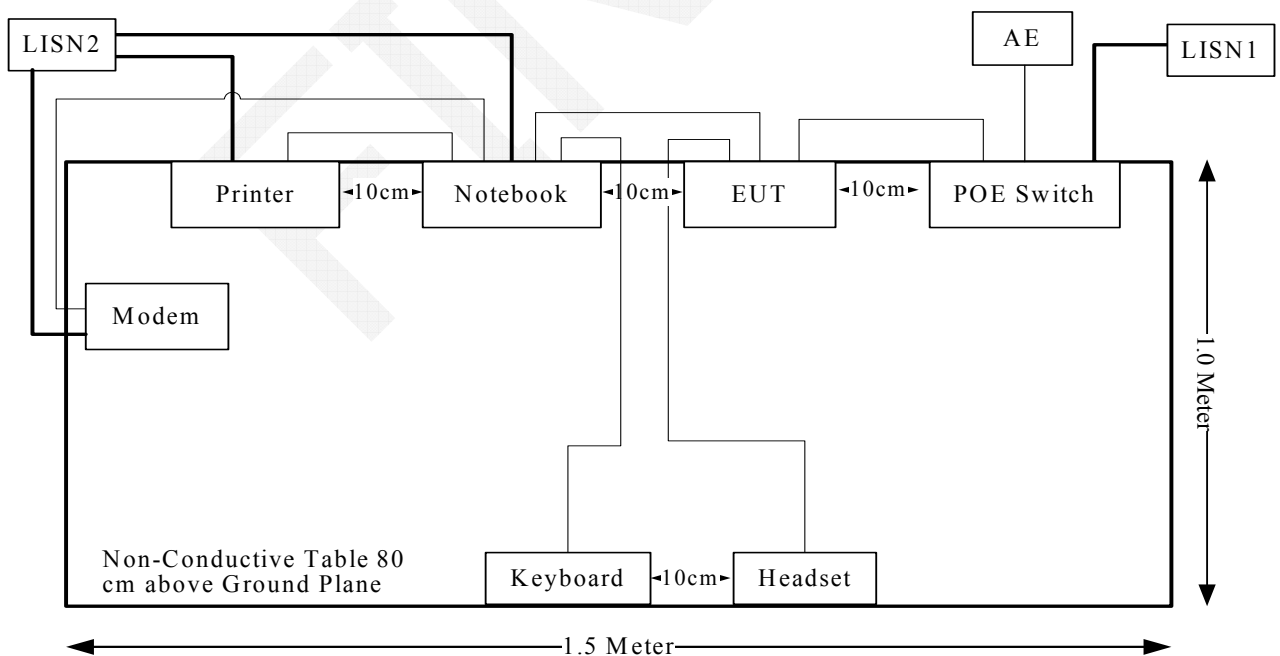
| Cable Description                   | Length (m) | From / Port               | To       |
|-------------------------------------|------------|---------------------------|----------|
| Shielded Detachable Parallel Cable  | 1.5        | Parallel Port of Notebook | Printer  |
| Shielded Detachable Serial Cable    | 1.5        | Serial Port of Notebook   | Modem    |
| Shielded Detachable USB Cable       | 2.0        | USB Port of Notebook      | Keyboard |
| Shielded Detachable headphone Cable | 1.8        | Headset Port of EUT       | Headset  |
| Shielded Detachable RJ45 Cable      | 2.0        | RJ45 Port of EUT          | Notebook |
| Shielded Detachable RJ45 Cable      | 2.0        | RJ45 Port of EUT          | AE       |
| Shielded Detachable RJ45 Cable      | 2.0        | RJ45 Port of EUT          | POE      |
| Shielded Detachable RJ45 Cable      | 2.0        | RJ45 Port of POE          | AE       |

## Block Diagram of Test Setup

Test model1: Power from Adapter:



Test model2: Power from POE:



**SUMMARY OF TEST RESULTS**

| FCC Rules | Description of Test         | Results    |
|-----------|-----------------------------|------------|
| §15.107   | AC Line Conducted Emissions | Compliance |
| §15.109   | Radiated Emissions          | Compliance |

## FCC §15.107 – AC LINE CONDUCTED EMISSIONS

### Measurement Uncertainty

Compliance or non-compliance with a disturbance limit shall be determined in the following manner:

If  $U_{lab}$  is less than or equal to  $U_{cispr}$  of Table 1, then:

- compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit;
- non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.

If  $U_{lab}$  is greater than  $U_{cispr}$  of Table 1, then:

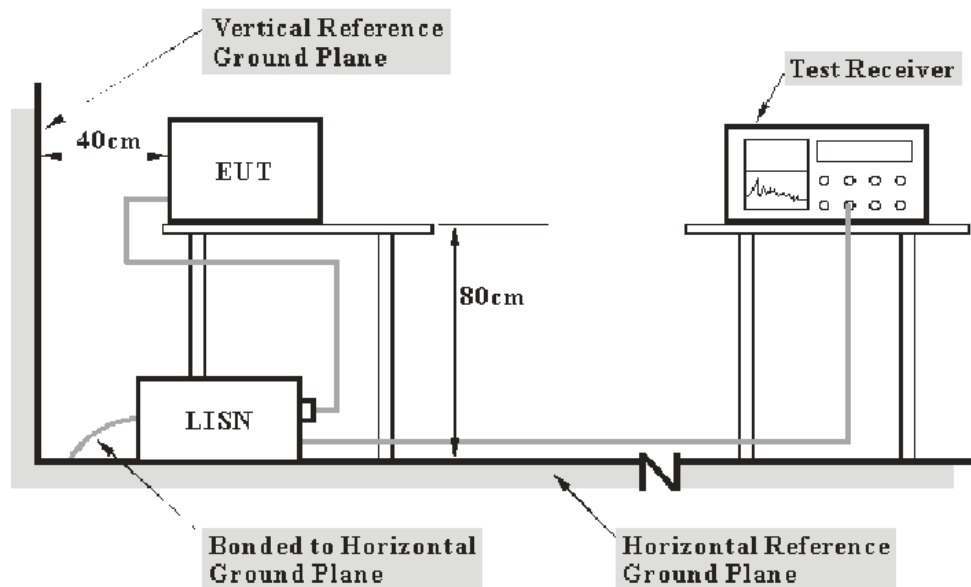
- compliance is deemed to occur if no measured disturbance level, increased by  $(U_{lab} - U_{cispr})$ , exceeds the disturbance limit;
- non-compliance is deemed to occur if any measured disturbance level, increased by  $(U_{lab} - U_{cispr})$ , exceeds the disturbance limit.

Based on CISPR 16-4-2: 2011, measurement uncertainty of conducted disturbance at mains port using AMN at Bay Area Compliance Laboratories Corp. (Dongguan) is 3.46 dB (150 kHz to 30 MHz).

Table 1 – Values of  $U_{cispr}$

| Measurement   | $U_{cispr}$ |
|---|-------------|
| Conducted disturbance at mains port using AMN (150 kHz to 30 MHz) | 3.4 dB      |

### EUT Setup



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

The setup of EUT is according with per ANSI C63.4-2003 measurement procedure. The specification used was with the FCC Part 15.107 Class B limits.

The adapter was connected to a 120 VAC/60 Hz power source.

The POE connected to a DC 48V power source.

### EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

| Frequency Range  | IF B/W |
|------------------|--------|
| 150 kHz – 30 MHz | 9 kHz  |

### Test Procedure

During the conducted emission test, the adapter or POE was connected to the outlet of the first LISN and the other support equipments were connected to the outlet of the second LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All data was recorded in the Quasi-peak and average detection mode.

### Corrected Amplitude & Margin Calculation

The basic equation is as follows:

$$V_C = V_R + A_C + VDF$$

$$C_f = A_C + VDF$$

Herein,

$V_C$  (cord. Reading): corrected voltage amplitude

$V_R$ : reading voltage amplitude

$A_C$ : attenuation caused by cable loss

VDF: voltage division factor of AMN

$C_f$ : Correction Factor

The “**Margin**” column of the following data tables indicates the degree of compliance within the applicable limit. For example, a margin of 7dB means the emission is 7dB below the maximum limit. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Limit} - \text{Corrected Amplitude}$$



**Test Equipment List and Details**

| Manufacturer | Description        | Model   | Serial Number | Calibration Date | Calibration Due Date |
|--------------|--------------------|---------|---------------|------------------|----------------------|
| R&S          | EMI Test Receiver  | ESCS 30 | 830245/006    | 2013-11-20       | 2014-11-20           |
| R&S          | L.I.S.N            | ESH3-Z5 | 843331/015    | 2013-09-25       | 2014-09-25           |
| R&S          | Two-line V-network | ENV 216 | 3560.6550.12  | 2014-01-22       | 2015-01-22           |
| R&S          | Test Software      | EMC32   | Version8.53.0 | N/A              | N/A                  |

\* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

**Test Results Summary**

According to the recorded data in following table, the EUT complied with the FCC Part 15.107, with the worst margin reading of:

**2.2 dB at 9.915884MHz** in the **Negative** conducted mode of headset power from POE

**Test Data****Environmental Conditions**

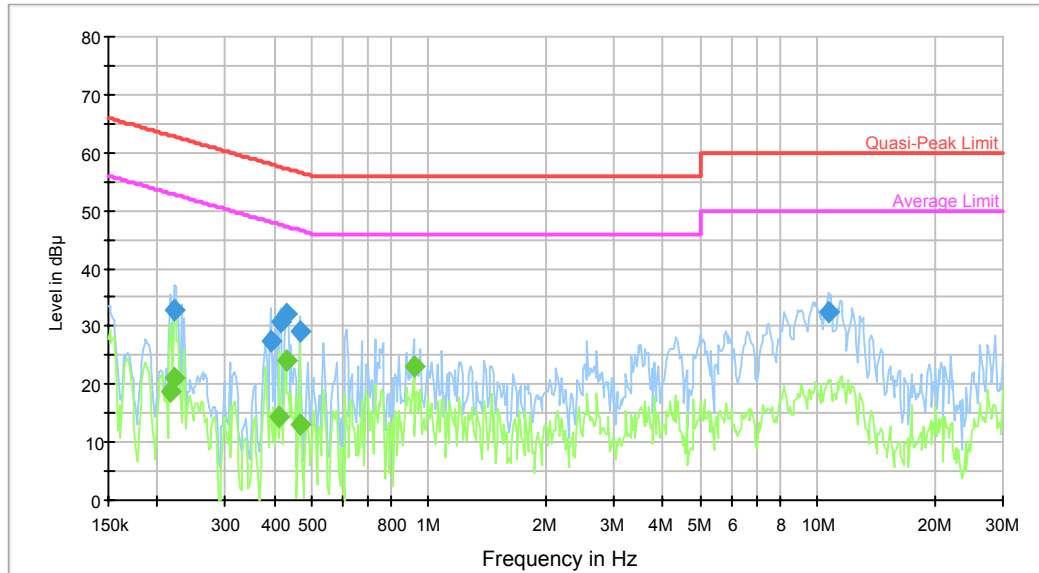
|                           |           |
|---------------------------|-----------|
| <b>Temperature:</b>       | 26.5 °C   |
| <b>Relative Humidity:</b> | 53 %      |
| <b>ATM Pressure:</b>      | 100.7 kPa |

*The testing was performed by Star Xie on 2014-09-18.*

## 1) Power from adapter

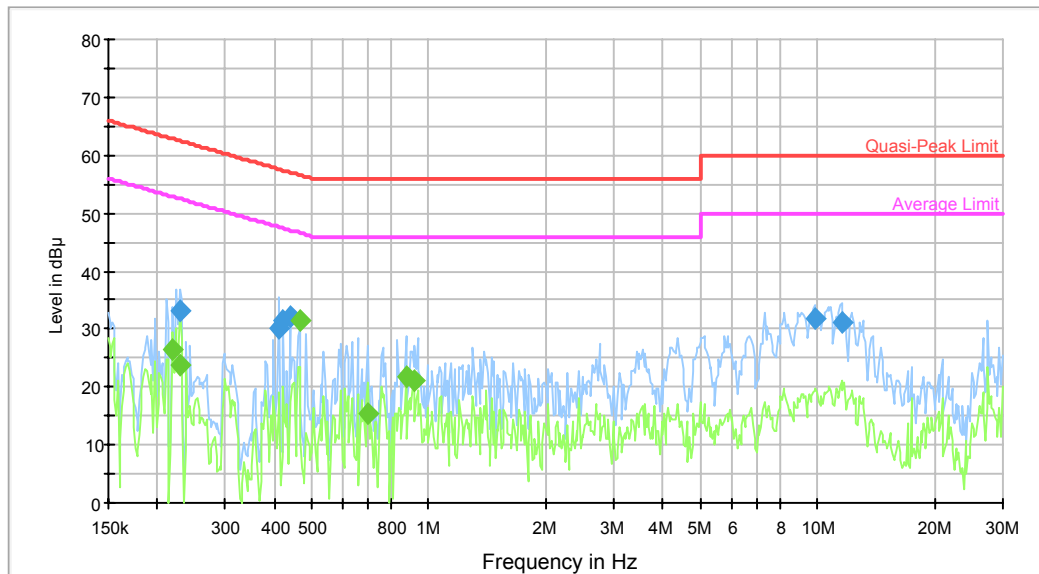
Test mode: Handfree

## Line:



| Frequency (MHz) | QuasiPeak (dBμV) | Bandwidth (kHz) | Line | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment    |
|-----------------|------------------|-----------------|------|------------|-------------|--------------|------------|
| 0.221645        | 32.9             | 9.000           | L1   | 10.7       | 29.9        | 62.8         | Compliance |
| 0.393383        | 27.4             | 9.000           | L1   | 10.6       | 30.6        | 58.0         | Compliance |
| 0.415949        | 30.8             | 9.000           | L1   | 10.6       | 26.7        | 57.5         | Compliance |
| 0.429420        | 32.0             | 9.000           | L1   | 10.5       | 25.2        | 57.3         | Compliance |
| 0.465037        | 29.0             | 9.000           | L1   | 10.5       | 27.6        | 56.6         | Compliance |
| 10.653105       | 32.4             | 9.000           | L1   | 10.7       | 27.6        | 60.0         | Compliance |

| Frequency (MHz) | Average (dBμV) | Bandwidth (kHz) | Line | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment    |
|-----------------|----------------|-----------------|------|------------|-------------|--------------|------------|
| 0.216409        | 18.9           | 9.000           | L1   | 10.7       | 34.1        | 53.0         | Compliance |
| 0.221645        | 21.1           | 9.000           | L1   | 10.7       | 31.7        | 52.8         | Compliance |
| 0.412647        | 14.4           | 9.000           | L1   | 10.6       | 33.1        | 47.6         | Compliance |
| 0.429420        | 24.0           | 9.000           | L1   | 10.5       | 23.2        | 47.3         | Compliance |
| 0.465037        | 12.9           | 9.000           | L1   | 10.5       | 33.7        | 46.6         | Compliance |
| 0.915445        | 23.1           | 9.000           | L1   | 10.5       | 22.9        | 46.0         | Compliance |

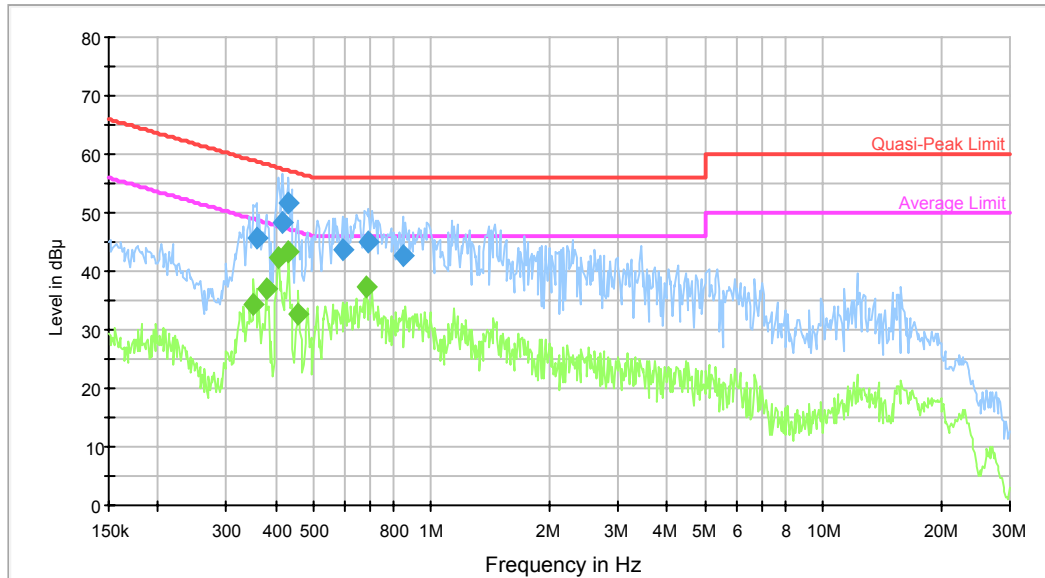
**Neutral:**

| Frequency (MHz) | QuasiPeak (dB $\mu$ V) | Bandwidth (kHz) | Line | Corr. (dB) | Margin (dB) | Limit (dB $\mu$ V) | Comment    |
|-----------------|------------------------|-----------------|------|------------|-------------|--------------------|------------|
| 0.228823        | 33.1                   | 9.000           | N    | 11.3       | 29.4        | 62.5               | Compliance |
| 0.412647        | 30.2                   | 9.000           | N    | 10.8       | 27.4        | 57.6               | Compliance |
| 0.422630        | 31.4                   | 9.000           | N    | 10.7       | 26.0        | 57.4               | Compliance |
| 0.439808        | 32.1                   | 9.000           | N    | 10.6       | 25.0        | 57.1               | Compliance |
| 9.837187        | 31.7                   | 9.000           | N    | 10.7       | 28.3        | 60.0               | Compliance |
| 11.536699       | 31.3                   | 9.000           | N    | 10.6       | 28.7        | 60.0               | Compliance |

| Frequency (MHz) | Average (dB $\mu$ V) | Bandwidth (kHz) | Line | Corr. (dB) | Margin (dB) | Limit (dB $\mu$ V) | Comment    |
|-----------------|----------------------|-----------------|------|------------|-------------|--------------------|------------|
| 0.219886        | 26.3                 | 9.000           | N    | 11.3       | 26.5        | 52.8               | Compliance |
| 0.228823        | 23.9                 | 9.000           | N    | 11.3       | 28.6        | 52.5               | Compliance |
| 0.465037        | 31.3                 | 9.000           | N    | 10.5       | 15.3        | 46.6               | Compliance |
| 0.698191        | 15.5                 | 9.000           | N    | 10.6       | 30.5        | 46.0               | Compliance |
| 0.872708        | 21.9                 | 9.000           | N    | 10.6       | 24.1        | 46.0               | Compliance |
| 0.915445        | 21.0                 | 9.000           | N    | 10.6       | 25.0        | 46.0               | Compliance |

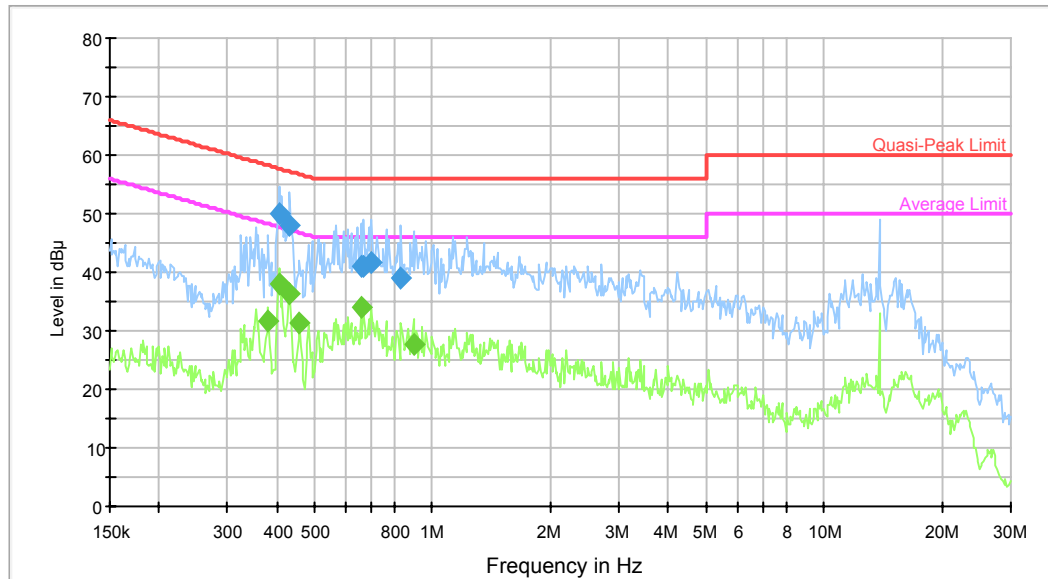
Test mode: Handset

Line:



| Frequency (MHz) | QuasiPeak (dBμV) | Bandwidth (kHz) | Line | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment    |
|-----------------|------------------|-----------------|------|------------|-------------|--------------|------------|
| 0.357511        | 45.7             | 9.000           | L1   | 10.7       | 13.1        | 58.8         | Compliance |
| 0.415949        | 48.4             | 9.000           | L1   | 10.5       | 9.2         | 57.5         | Compliance |
| 0.432855        | 51.8             | 9.000           | L1   | 10.5       | 5.4         | 57.2         | Compliance |
| 0.590613        | 43.5             | 9.000           | L1   | 10.4       | 12.5        | 56.0         | Compliance |
| 0.692650        | 45.1             | 9.000           | L1   | 10.6       | 10.9        | 56.0         | Compliance |
| 0.845331        | 42.5             | 9.000           | L1   | 10.5       | 13.5        | 56.0         | Compliance |

| Frequency (MHz) | Average (dBμV) | Bandwidth (kHz) | Line | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment    |
|-----------------|----------------|-----------------|------|------------|-------------|--------------|------------|
| 0.351859        | 34.4           | 9.000           | L1   | 10.7       | 14.5        | 48.9         | Compliance |
| 0.378019        | 36.8           | 9.000           | L1   | 10.6       | 11.5        | 48.3         | Compliance |
| 0.406123        | 42.3           | 9.000           | L1   | 10.6       | 5.4         | 47.7         | Compliance |
| 0.432855        | 43.3           | 9.000           | L1   | 10.5       | 3.9         | 47.2         | Compliance |
| 0.457684        | 32.6           | 9.000           | L1   | 10.4       | 14.1        | 46.7         | Compliance |
| 0.681699        | 37.3           | 9.000           | L1   | 10.6       | 8.7         | 46.0         | Compliance |

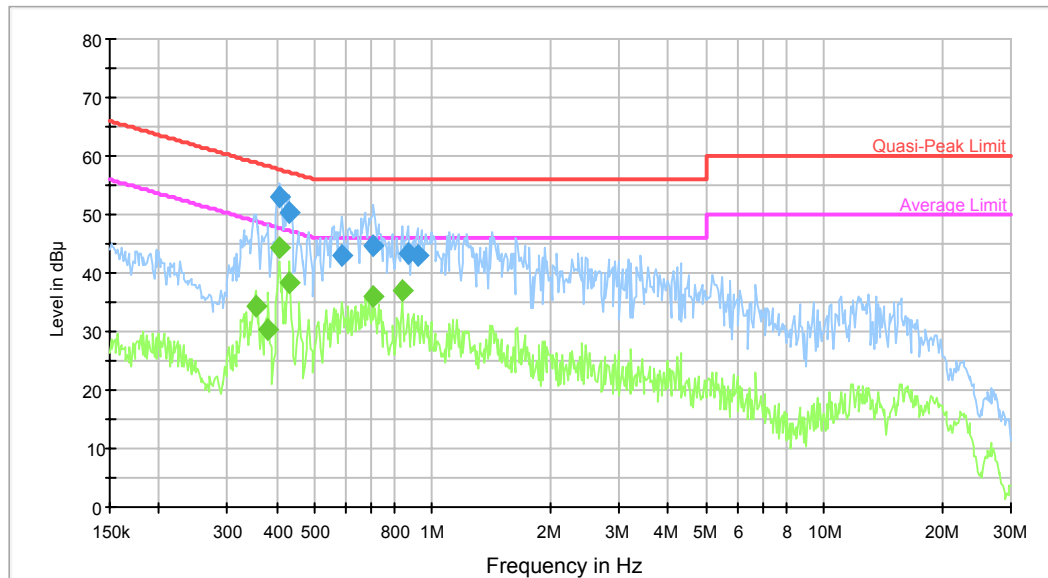
**Neutral:**

| Frequency (MHz) | QuasiPeak (dBμV) | Bandwidth (kHz) | Line | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment    |
|-----------------|------------------|-----------------|------|------------|-------------|--------------|------------|
| 0.406123        | 50.1             | 9.000           | N    | 10.7       | 7.6         | 57.7         | Compliance |
| 0.432855        | 48.1             | 9.000           | N    | 10.6       | 9.1         | 57.2         | Compliance |
| 0.655073        | 41.1             | 9.000           | N    | 10.6       | 14.9        | 56.0         | Compliance |
| 0.665597        | 41.1             | 9.000           | N    | 10.6       | 14.9        | 56.0         | Compliance |
| 0.698191        | 41.8             | 9.000           | N    | 10.6       | 14.2        | 56.0         | Compliance |
| 0.831967        | 39.1             | 9.000           | N    | 10.5       | 17.0        | 56.0         | Compliance |

| Frequency (MHz) | Average (dBμV) | Bandwidth (kHz) | Line | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment    |
|-----------------|----------------|-----------------|------|------------|-------------|--------------|------------|
| 0.381043        | 31.7           | 9.000           | N    | 10.9       | 16.5        | 48.3         | Compliance |
| 0.406123        | 37.9           | 9.000           | N    | 10.7       | 9.9         | 47.7         | Compliance |
| 0.432855        | 36.3           | 9.000           | N    | 10.6       | 10.9        | 47.2         | Compliance |
| 0.457684        | 31.2           | 9.000           | N    | 10.5       | 15.6        | 46.7         | Compliance |
| 0.655073        | 33.9           | 9.000           | N    | 10.6       | 12.1        | 46.0         | Compliance |
| 0.893821        | 27.7           | 9.000           | N    | 10.6       | 18.3        | 46.0         | Compliance |

Test mode: Headset

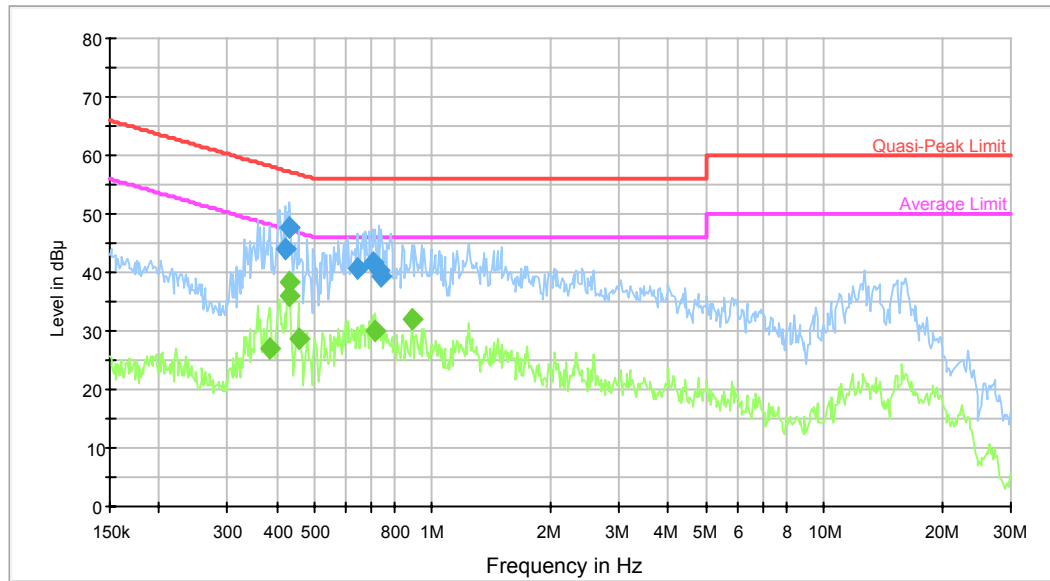
Line:



| Frequency (MHz) | QuasiPeak (dBμV) | Bandwidth (kHz) | Line | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment    |
|-----------------|------------------|-----------------|------|------------|-------------|--------------|------------|
| 0.406123        | 52.9             | 9.000           | L1   | 10.6       | 4.8         | 57.7         | Compliance |
| 0.429420        | 50.4             | 9.000           | L1   | 10.5       | 6.8         | 57.3         | Compliance |
| 0.585926        | 43.0             | 9.000           | L1   | 10.4       | 13.0        | 56.0         | Compliance |
| 0.709407        | 44.8             | 9.000           | L1   | 10.6       | 11.2        | 56.0         | Compliance |
| 0.865782        | 43.2             | 9.000           | L1   | 10.5       | 12.8        | 56.0         | Compliance |
| 0.915445        | 42.9             | 9.000           | L1   | 10.5       | 13.1        | 56.0         | Compliance |

| Frequency (MHz) | Average (dBμV) | Bandwidth (kHz) | Line | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment    |
|-----------------|----------------|-----------------|------|------------|-------------|--------------|------------|
| 0.354674        | 34.3           | 9.000           | L1   | 10.7       | 14.6        | 48.9         | Compliance |
| 0.381043        | 30.4           | 9.000           | L1   | 10.6       | 17.9        | 48.3         | Compliance |
| 0.406123        | 44.4           | 9.000           | L1   | 10.6       | 3.3*        | 47.7         | Compliance |
| 0.432855        | 38.2           | 9.000           | L1   | 10.5       | 9.0         | 47.2         | Compliance |
| 0.703777        | 35.9           | 9.000           | L1   | 10.6       | 10.1        | 46.0         | Compliance |
| 0.838622        | 37.0           | 9.000           | L1   | 10.5       | 9.0         | 46.0         | Compliance |

\*Within measurement uncertainty!

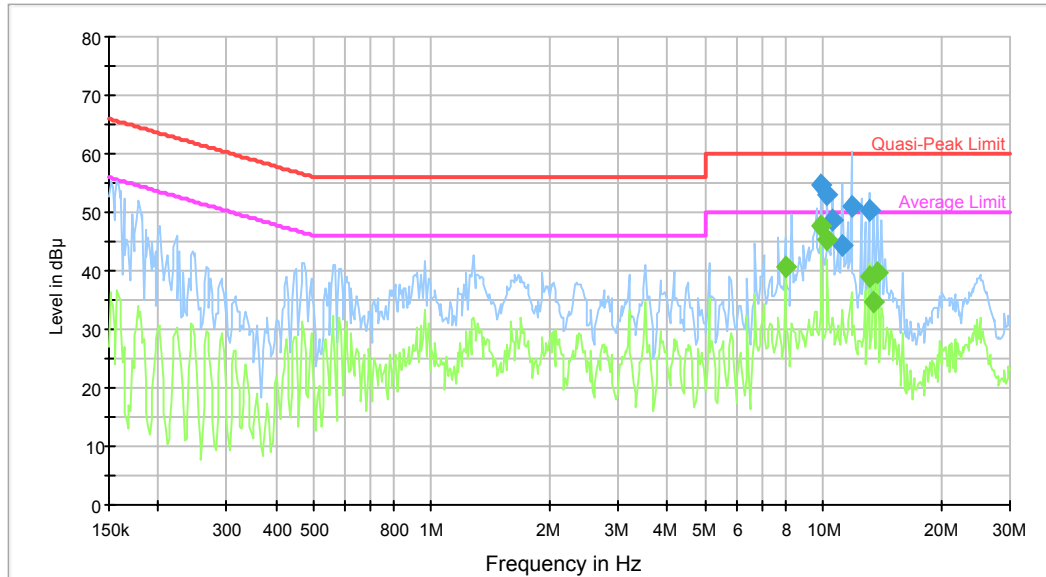
**Neutral:**

| Frequency (MHz) | QuasiPeak (dB $\mu$ V) | Bandwidth (kHz) | Line | Corr. (dB) | Margin (dB) | Limit (dB $\mu$ V) | Comment    |
|-----------------|------------------------|-----------------|------|------------|-------------|--------------------|------------|
| 0.419276        | 43.9                   | 9.000           | N    | 10.7       | 13.6        | 57.5               | Compliance |
| 0.432855        | 47.7                   | 9.000           | N    | 10.6       | 9.5         | 57.2               | Compliance |
| 0.644717        | 40.5                   | 9.000           | N    | 10.5       | 15.5        | 56.0               | Compliance |
| 0.703777        | 41.6                   | 9.000           | N    | 10.6       | 14.4        | 56.0               | Compliance |
| 0.726569        | 40.5                   | 9.000           | N    | 10.6       | 15.5        | 56.0               | Compliance |
| 0.738241        | 39.3                   | 9.000           | N    | 10.6       | 16.7        | 56.0               | Compliance |

| Frequency (MHz) | Average (dB $\mu$ V) | Bandwidth (kHz) | Line | Corr. (dB) | Margin (dB) | Limit (dB $\mu$ V) | Comment    |
|-----------------|----------------------|-----------------|------|------------|-------------|--------------------|------------|
| 0.384091        | 26.9                 | 9.000           | N    | 10.8       | 21.3        | 48.2               | Compliance |
| 0.429420        | 38.3                 | 9.000           | N    | 10.6       | 8.9         | 47.3               | Compliance |
| 0.432855        | 36.0                 | 9.000           | N    | 10.6       | 11.2        | 47.2               | Compliance |
| 0.454052        | 28.6                 | 9.000           | N    | 10.5       | 18.2        | 46.8               | Compliance |
| 0.715082        | 30.1                 | 9.000           | N    | 10.6       | 15.9        | 46.0               | Compliance |
| 0.886728        | 32.1                 | 9.000           | N    | 10.6       | 13.9        | 46.0               | Compliance |

## 2) Power from POE

Test mode: Handfree

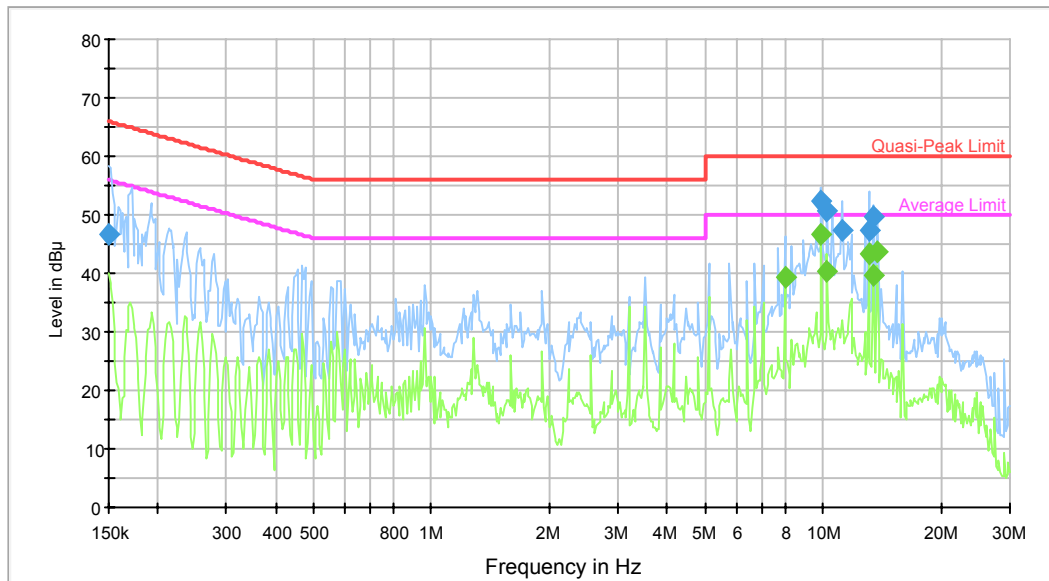
**Polarity:**

| Frequency (MHz) | QuasiPeak (dBμV) | Bandwidth (kHz) | Line     | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment    |
|-----------------|------------------|-----------------|----------|------------|-------------|--------------|------------|
| 9.915884        | 54.5             | 9.000           | Polarity | 10.6       | 5.5         | 60.0         | Compliance |
| 10.237020       | 52.9             | 9.000           | Polarity | 10.6       | 7.1         | 60.0         | Compliance |
| 10.568557       | 48.6             | 9.000           | Polarity | 10.6       | 11.4        | 60.0         | Compliance |
| 11.174791       | 44.4             | 9.000           | Polarity | 10.6       | 15.6        | 60.0         | Compliance |
| 11.815800       | 51.1             | 9.000           | Polarity | 10.6       | 8.9         | 60.0         | Compliance |
| 13.105393       | 50.3             | 9.000           | Polarity | 10.5       | 9.7         | 60.0         | Compliance |

| Frequency (MHz) | Average (dBμV) | Bandwidth (kHz) | Line     | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment    |
|-----------------|----------------|-----------------|----------|------------|-------------|--------------|------------|
| 7.996447        | 40.6           | 9.000           | Polarity | 10.6       | 9.4         | 50.0         | Compliance |
| 9.915884        | 47.7           | 9.000           | Polarity | 10.6       | 2.3*        | 50.0         | Compliance |
| 10.237020       | 45.3           | 9.000           | Polarity | 10.6       | 4.7         | 50.0         | Compliance |
| 13.105393       | 39.0           | 9.000           | Polarity | 10.5       | 11.0        | 50.0         | Compliance |
| 13.422446       | 34.7           | 9.000           | Polarity | 10.5       | 15.3        | 50.0         | Compliance |
| 13.747168       | 39.7           | 9.000           | Polarity | 10.5       | 10.3        | 50.0         | Compliance |

\*Within measurement uncertainty!



**Negative:**

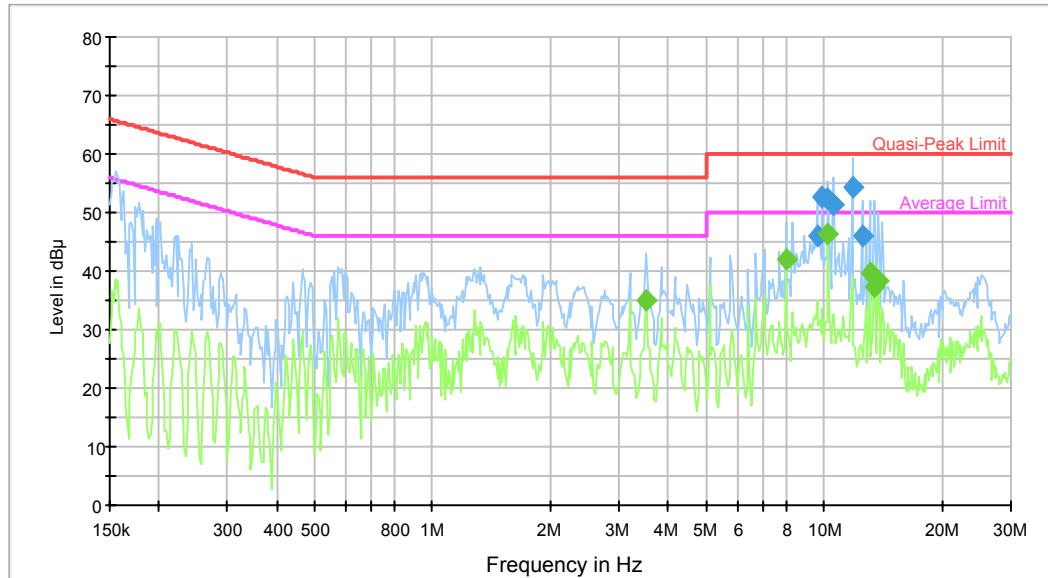
| Frequency (MHz) | QuasiPeak (dBμV) | Bandwidth (kHz) | Line     | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment    |
|-----------------|------------------|-----------------|----------|------------|-------------|--------------|------------|
| 0.150000        | 46.7             | 9.000           | Negative | 10.2       | 19.3        | 66.0         | Compliance |
| 9.915884        | 52.4             | 9.000           | Negative | 10.6       | 7.6         | 60.0         | Compliance |
| 10.237020       | 50.7             | 9.000           | Negative | 10.6       | 9.3         | 60.0         | Compliance |
| 11.174791       | 47.2             | 9.000           | Negative | 10.6       | 12.8        | 60.0         | Compliance |
| 13.105393       | 47.2             | 9.000           | Negative | 10.5       | 12.8        | 60.0         | Compliance |
| 13.422446       | 49.8             | 9.000           | Negative | 10.5       | 10.2        | 60.0         | Compliance |

| Frequency (MHz) | Average (dBμV) | Bandwidth (kHz) | Line     | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment    |
|-----------------|----------------|-----------------|----------|------------|-------------|--------------|------------|
| 7.996447        | 39.2           | 9.000           | Negative | 10.6       | 10.8        | 50.0         | Compliance |
| 9.915884        | 46.8           | 9.000           | Negative | 10.6       | 3.2*        | 50.0         | Compliance |
| 10.237020       | 40.3           | 9.000           | Negative | 10.6       | 9.7         | 50.0         | Compliance |
| 13.105393       | 43.3           | 9.000           | Negative | 10.5       | 6.7         | 50.0         | Compliance |
| 13.422446       | 39.6           | 9.000           | Negative | 10.5       | 10.4        | 50.0         | Compliance |
| 13.747168       | 43.7           | 9.000           | Negative | 10.5       | 6.3         | 50.0         | Compliance |

\*Within measurement uncertainty!

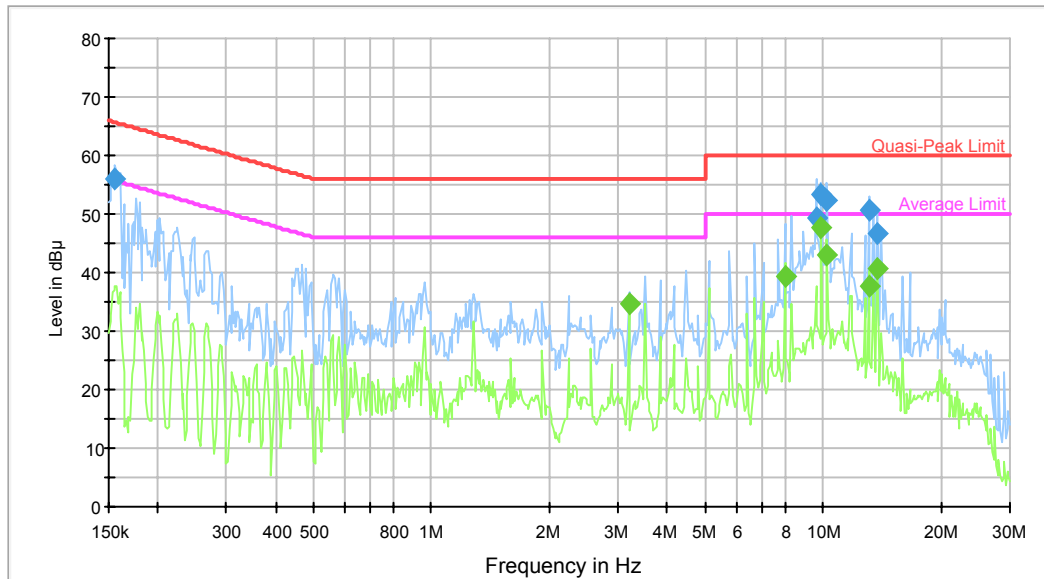
Test mode: Handset

**Polarity:**



| Frequency (MHz) | QuasiPeak (dBμV) | Bandwidth (kHz) | Line     | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment    |
|-----------------|------------------|-----------------|----------|------------|-------------|--------------|------------|
| 9.604822        | 46.1             | 9.000           | Polarity | 10.6       | 13.9        | 60.0         | Compliance |
| 9.915884        | 52.7             | 9.000           | Polarity | 10.6       | 7.3         | 60.0         | Compliance |
| 10.237020       | 52.2             | 9.000           | Polarity | 10.6       | 7.8         | 60.0         | Compliance |
| 10.568557       | 51.4             | 9.000           | Polarity | 10.6       | 8.6         | 60.0         | Compliance |
| 11.815800       | 54.2             | 9.000           | Polarity | 10.6       | 5.8         | 60.0         | Compliance |
| 12.493579       | 46.1             | 9.000           | Polarity | 10.6       | 14.0        | 60.0         | Compliance |

| Frequency (MHz) | Average (dBμV) | Bandwidth (kHz) | Line     | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment    |
|-----------------|----------------|-----------------|----------|------------|-------------|--------------|------------|
| 3.519348        | 35.1           | 9.000           | Polarity | 10.7       | 10.9        | 46.0         | Compliance |
| 7.996447        | 41.9           | 9.000           | Polarity | 10.6       | 8.1         | 50.0         | Compliance |
| 10.237020       | 46.4           | 9.000           | Polarity | 10.6       | 3.6         | 50.0         | Compliance |
| 13.105393       | 39.6           | 9.000           | Polarity | 10.5       | 10.4        | 50.0         | Compliance |
| 13.422446       | 37.3           | 9.000           | Polarity | 10.5       | 12.7        | 50.0         | Compliance |
| 13.747168       | 38.2           | 9.000           | Polarity | 10.5       | 11.8        | 50.0         | Compliance |

**Negative:**

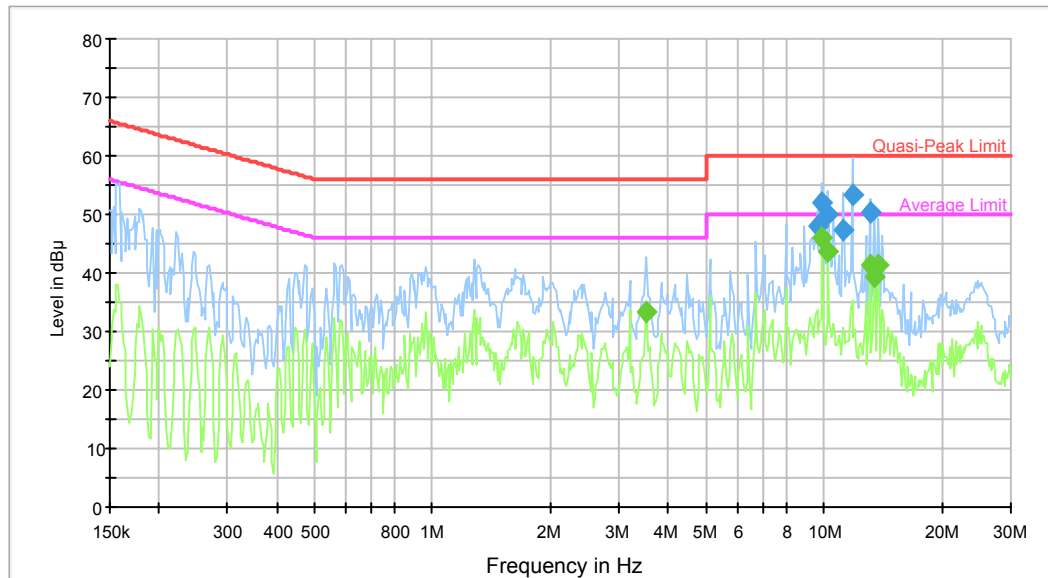
| Frequency (MHz) | QuasiPeak (dB $\mu$ V) | Bandwidth (kHz) | Line | Corr. (dB) | Margin (dB) | Limit (dB $\mu$ V) | Comment    |
|-----------------|------------------------|-----------------|------|------------|-------------|--------------------|------------|
| 0.156097        | 56.2                   | 9.000           | N    | 10.4       | 9.5         | 65.7               | Compliance |
| 9.604822        | 49.2                   | 9.000           | N    | 10.6       | 10.8        | 60.0               | Compliance |
| 9.915884        | 53.3                   | 9.000           | N    | 10.6       | 6.7         | 60.0               | Compliance |
| 10.237020       | 52.2                   | 9.000           | N    | 10.6       | 7.8         | 60.0               | Compliance |
| 13.105393       | 50.8                   | 9.000           | N    | 10.5       | 9.2         | 60.0               | Compliance |
| 13.747168       | 46.8                   | 9.000           | N    | 10.5       | 13.2        | 60.0               | Compliance |

| Frequency (MHz) | Average (dB $\mu$ V) | Bandwidth (kHz) | Line | Corr. (dB) | Margin (dB) | Limit (dB $\mu$ V) | Comment    |
|-----------------|----------------------|-----------------|------|------------|-------------|--------------------|------------|
| 3.198423        | 34.6                 | 9.000           | N    | 10.7       | 11.4        | 46.0               | Compliance |
| 7.996447        | 39.4                 | 9.000           | N    | 10.6       | 10.6        | 50.0               | Compliance |
| 9.915884        | 47.8                 | 9.000           | N    | 10.6       | 2.2*        | 50.0               | Compliance |
| 10.237020       | 42.8                 | 9.000           | N    | 10.6       | 7.2         | 50.0               | Compliance |
| 13.105393       | 37.8                 | 9.000           | N    | 10.5       | 12.2        | 50.0               | Compliance |
| 13.747168       | 40.7                 | 9.000           | N    | 10.5       | 9.3         | 50.0               | Compliance |

\*Within measurement uncertainty!

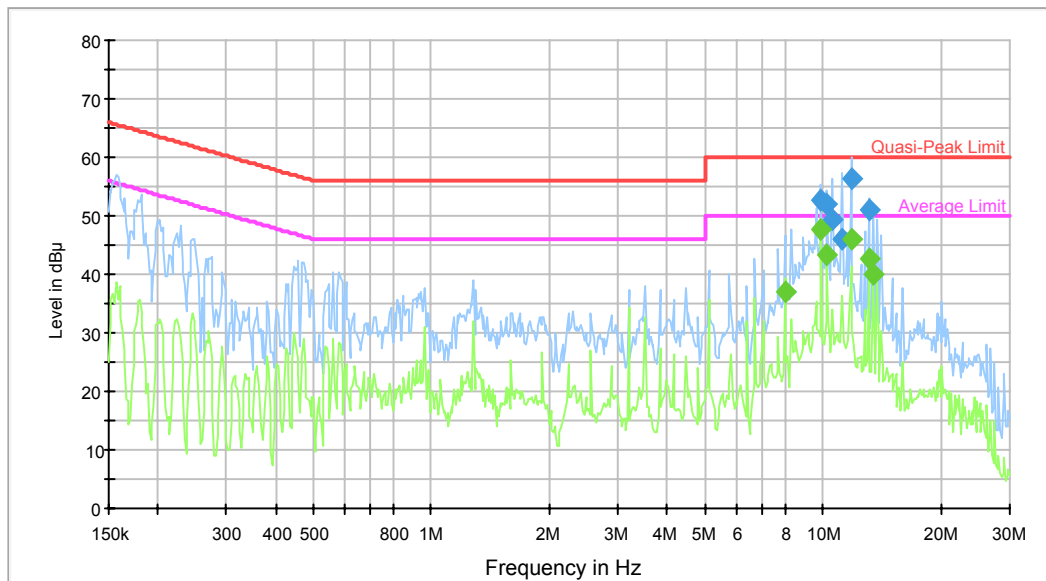
Test mode: Headset

Polarity:



| Frequency (MHz) | QuasiPeak (dBμV) | Bandwidth (kHz) | Line     | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment    |
|-----------------|------------------|-----------------|----------|------------|-------------|--------------|------------|
| 9.604822        | 48.0             | 9.000           | Polarity | 10.6       | 12.0        | 60.0         | Compliance |
| 9.915884        | 51.9             | 9.000           | Polarity | 10.6       | 8.1         | 60.0         | Compliance |
| 10.237020       | 50.0             | 9.000           | Polarity | 10.6       | 10.0        | 60.0         | Compliance |
| 11.174791       | 47.5             | 9.000           | Polarity | 10.6       | 12.5        | 60.0         | Compliance |
| 11.815800       | 53.2             | 9.000           | Polarity | 10.6       | 6.8         | 60.0         | Compliance |
| 13.105393       | 50.3             | 9.000           | Polarity | 10.5       | 9.7         | 60.0         | Compliance |

| Frequency (MHz) | Average (dBμV) | Bandwidth (kHz) | Line     | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment    |
|-----------------|----------------|-----------------|----------|------------|-------------|--------------|------------|
| 3.519348        | 33.2           | 9.000           | Polarity | 10.7       | 12.8        | 46.0         | Compliance |
| 9.915884        | 46.0           | 9.000           | Polarity | 10.6       | 4.0         | 50.0         | Compliance |
| 10.237020       | 43.6           | 9.000           | Polarity | 10.6       | 6.4         | 50.0         | Compliance |
| 13.105393       | 41.4           | 9.000           | Polarity | 10.5       | 8.6         | 50.0         | Compliance |
| 13.422446       | 39.2           | 9.000           | Polarity | 10.5       | 10.8        | 50.0         | Compliance |
| 13.747168       | 41.3           | 9.000           | Polarity | 10.5       | 8.7         | 50.0         | Compliance |

**Negative:**

| Frequency (MHz) | QuasiPeak (dBμV) | Bandwidth (kHz) | Line     | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment    |
|-----------------|------------------|-----------------|----------|------------|-------------|--------------|------------|
| 9.915884        | 52.7             | 9.000           | Negative | 10.6       | 7.3         | 60.0         | Compliance |
| 10.237020       | 52.2             | 9.000           | Negative | 10.6       | 7.8         | 60.0         | Compliance |
| 10.568557       | 49.5             | 9.000           | Negative | 10.6       | 10.5        | 60.0         | Compliance |
| 11.174791       | 45.9             | 9.000           | Negative | 10.6       | 14.1        | 60.0         | Compliance |
| 11.815800       | 56.3             | 9.000           | Negative | 10.6       | 3.7         | 60.0         | Compliance |
| 13.105393       | 51.1             | 9.000           | Negative | 10.5       | 8.9         | 60.0         | Compliance |

| Frequency (MHz) | Average (dBμV) | Bandwidth (kHz) | Line     | Corr. (dB) | Margin (dB) | Limit (dBμV) | Comment    |
|-----------------|----------------|-----------------|----------|------------|-------------|--------------|------------|
| 7.996447        | 37.0           | 9.000           | Negative | 10.6       | 13.0        | 50.0         | Compliance |
| 9.915884        | 47.8           | 9.000           | Negative | 10.6       | 2.2*        | 50.0         | Compliance |
| 10.237020       | 43.3           | 9.000           | Negative | 10.6       | 6.7         | 50.0         | Compliance |
| 11.815800       | 46.1           | 9.000           | Negative | 10.6       | 3.9         | 50.0         | Compliance |
| 13.105393       | 42.8           | 9.000           | Negative | 10.5       | 7.2         | 50.0         | Compliance |
| 13.422446       | 40.1           | 9.000           | Negative | 10.5       | 9.9         | 50.0         | Compliance |

\*Within measurement uncertainty!

## FCC §15.109 - RADIATED EMISSIONS

### Measurement Uncertainty

Compliance or non-compliance with a disturbance limit shall be determined in the following manner:

If  $U_{lab}$  is less than or equal to  $U_{cisp}$  of Table 2, then:

- compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit;
- non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.

If  $U_{lab}$  is greater than  $U_{cisp}$  of Table 1, then:

- compliance is deemed to occur if no measured disturbance level, increased by  $(U_{lab} - U_{cisp})$ , exceeds the disturbance limit;
- non-compliance is deemed to occur if any measured disturbance level, increased by  $(U_{lab} - U_{cisp})$ , exceeds the disturbance limit.

Based on CISPR 16-4-2: 2011, measurement uncertainty of radiated emission at a distance of 3m at Bay Area Compliance Laboratories Corp. (Dongguan) is:

30M~200MHz: 5.0 dB

200M~1GHz: 6.2 dB

1G~6GHz: 4.45 dB

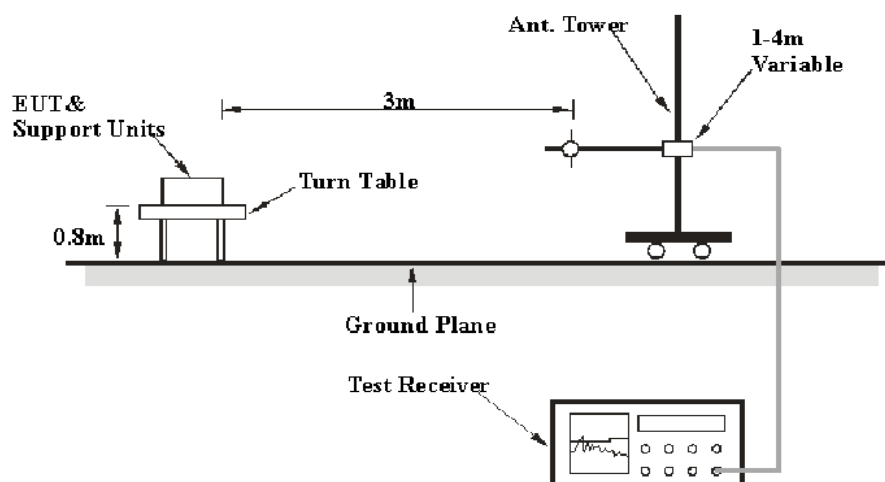
6G~18GHz: 5.23 dB

Table 2 – Values of  $U_{cisp}$

| Measurement  | $U_{cisp}$ |
|--|------------|
| Radiated disturbance (electric field strength at an OATS or in a SAC) (30 MHz to 1000 MHz) | 6.3 dB     |
| Radiated disturbance (electric field strength in a FAR) (1 GHz to 6 GHz)                   | 5.2 dB     |
| Radiated disturbance (electric field strength in a FAR) (6 GHz to 18 GHz)                  | 5.5 dB     |

### EUT Setup

Below 1 GHz:



The radiated emission tests were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.4-2003. The specification used was the FCC Part 15.109, Class B limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The adapter connected to a 120 VAC/60 Hz power source.

The POE connected to a DC 48V power source.

### EMI Test Receiver Setup

According to FCC 15.33 requirements, the system was measured from 30 MHz to 1GHz.

During the radiated emission test, the EMI test receiver was set with the following configurations:

| Frequency Range  | RBW     | Video B/W | IF B/W | Detector |
|------------------|---------|-----------|--------|----------|
| 30MHz – 1000 MHz | 120 kHz | 300 kHz   | 120kHz | QP       |

### Test Procedure

For the radiated emissions test, the adapter or POE was connected to the first AC floor outlet and the other support equipments were connected to the second AC floor outlet.

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

The data was recorded in Quasi-peak detection mode for 30 MHz to 1 GHz.

### Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Loss and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

$$\text{Corrected Amplitude} = \text{Meter Reading} + \text{Antenna Loss} + \text{Cable Loss} - \text{Amplifier Gain}$$

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Limit} - \text{Corrected Amplitude}$$

**Test Equipment List and Details**

| Manufacturer   | Description       | Model  | Serial Number | Calibration Date | Calibration Due Date |
|----------------|-------------------|--------|---------------|------------------|----------------------|
| R&S            | EMI Test Receiver | ESCI   | 100224        | 2014-05-09       | 2015-05-09           |
| Sunol Sciences | Antenna           | JB3    | A060611-3     | 2014-07-28       | 2017-07-27           |
| HP             | Amplifier         | 8447E  | 2434A02181    | 2014-09-01       | 2015-09-01           |
| Farad          | Test Software     | EZ-EMC | V1.1.4.2      | N/A              | N/A                  |

\* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

**Test Results Summary**

According to the data in the following table, the EUT complied with the FCC §15.109, Class B, with the worst margin reading of:

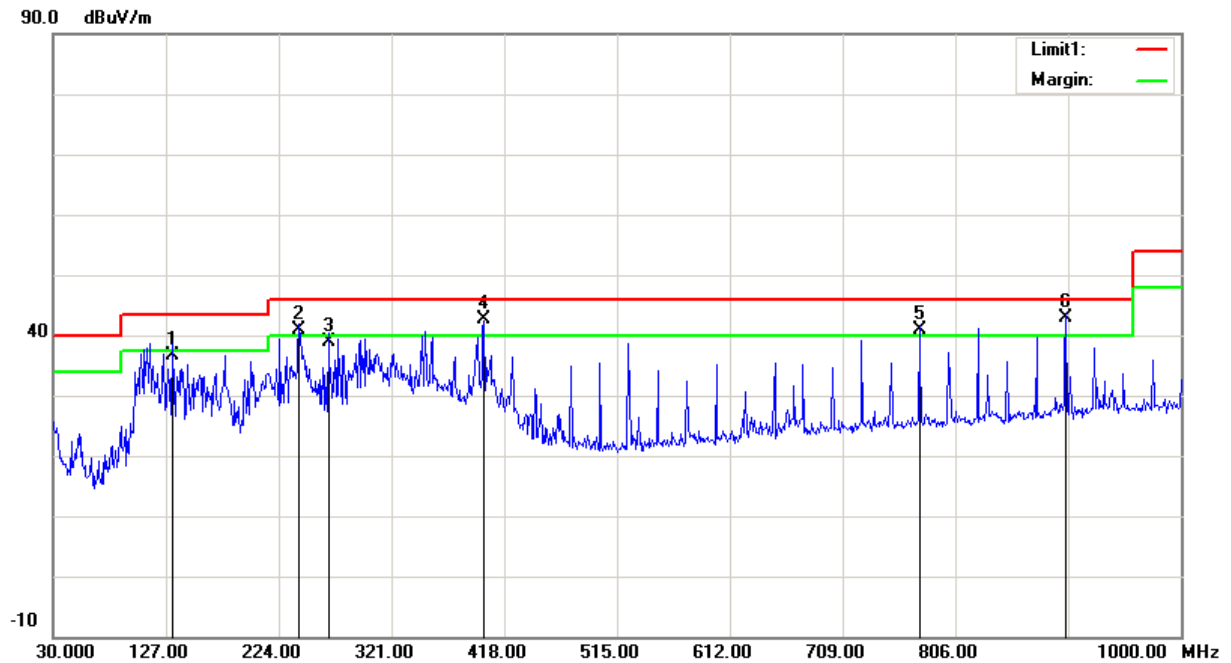
**2.00 dB at 52.3100 MHz** in the **Vertical** polarization of headset mode power from POE

**Test Data****Environmental Conditions**

|                           |           |
|---------------------------|-----------|
| <b>Temperature:</b>       | 26.8 °C   |
| <b>Relative Humidity:</b> | 53 %      |
| <b>ATM Pressure:</b>      | 100.7 kPa |

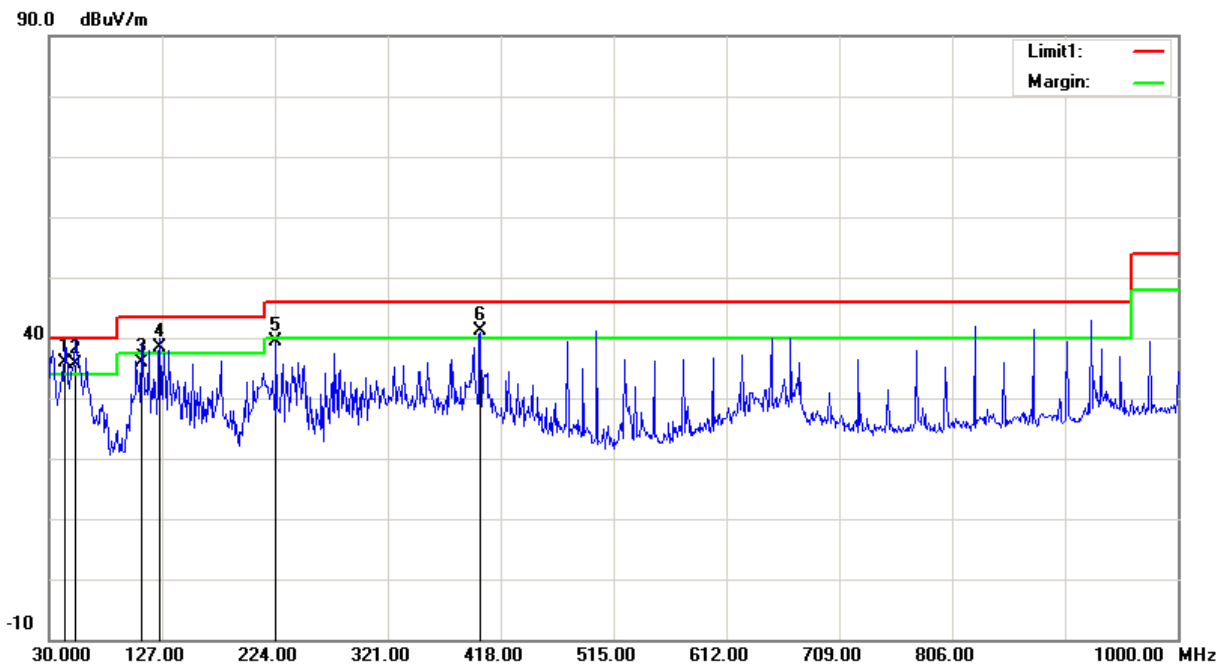
*The testing was performed by Star Xie on 2014-09-18.*



**1) Power from adapter***Test mode: Handfree***Horizontal:**

| Frequency (MHz) | Receiver Reading (dBuV) | Detector (PK/QP/Ave) | Correction Factor (dB) | Cord. Amp. (dBuV/m) | Limit (dBuV/m) | Margin (dB) |
|-----------------|-------------------------|----------------------|------------------------|---------------------|----------------|-------------|
| 132.8200        | 42.59                   | QP                   | -5.89                  | 36.70               | 43.50          | 6.80        |
| 241.4600        | 48.10                   | QP                   | -7.30                  | 40.80               | 46.00          | 5.20*       |
| 266.6800        | 44.87                   | QP                   | -5.97                  | 38.90               | 46.00          | 7.10        |
| 400.5400        | 45.68                   | QP                   | -3.08                  | 42.60               | 46.00          | 3.40*       |
| 774.9600        | 38.03                   | QP                   | 2.77                   | 40.80               | 46.00          | 5.20*       |
| 901.0600        | 38.51                   | QP                   | 4.49                   | 43.00               | 46.00          | 3.00*       |

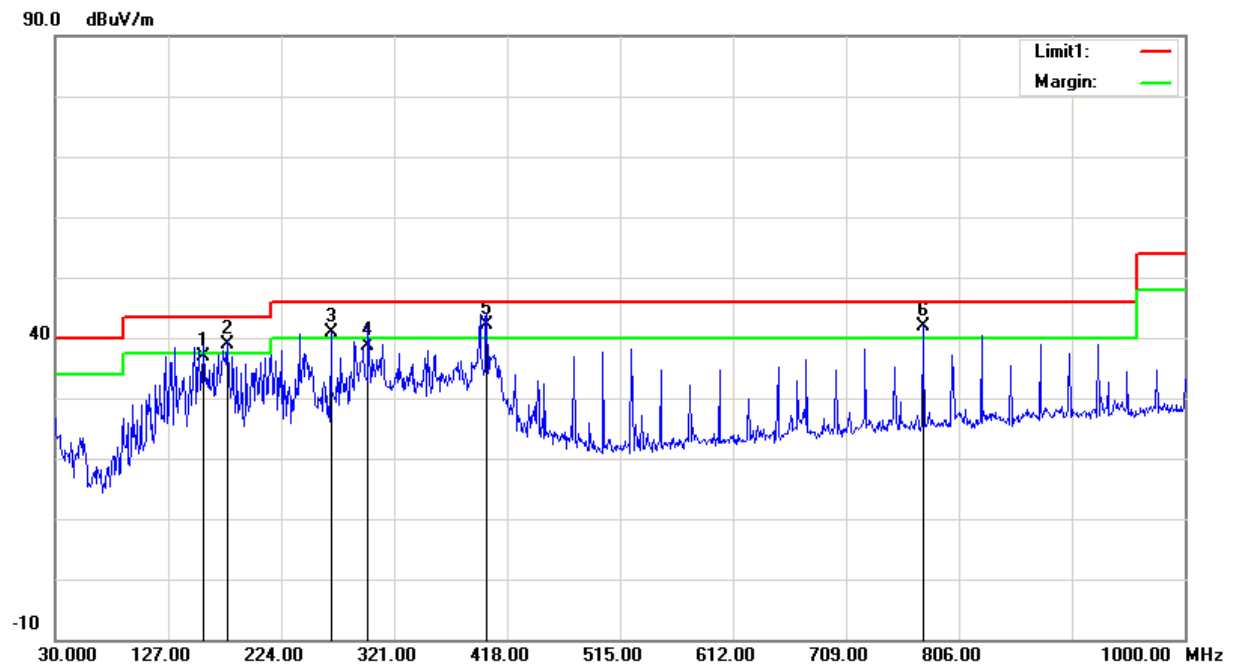
\*Within measurement uncertainty!

**Vertical:**

| Frequency (MHz) | Receiver Reading (dBuV) | Detector (PK/QP/Ave) | Correction Factor (dB) | Cord. Amp. (dBuV/m) | Limit (dBuV/m) | Margin (dB) |
|-----------------|-------------------------|----------------------|------------------------|---------------------|----------------|-------------|
| 43.5800         | 44.50                   | QP                   | -8.60                  | 35.90               | 40.00          | 4.10*       |
| 52.3100         | 47.87                   | QP                   | -12.27                 | 35.60               | 40.00          | 4.40*       |
| 109.5400        | 43.07                   | QP                   | -7.07                  | 36.00               | 43.50          | 7.50        |
| 125.0600        | 43.83                   | QP                   | -5.53                  | 38.30               | 43.50          | 5.20*       |
| 224.9700        | 47.32                   | QP                   | -7.82                  | 39.50               | 46.00          | 6.50        |
| 400.5400        | 44.28                   | QP                   | -3.08                  | 41.20               | 46.00          | 4.80*       |

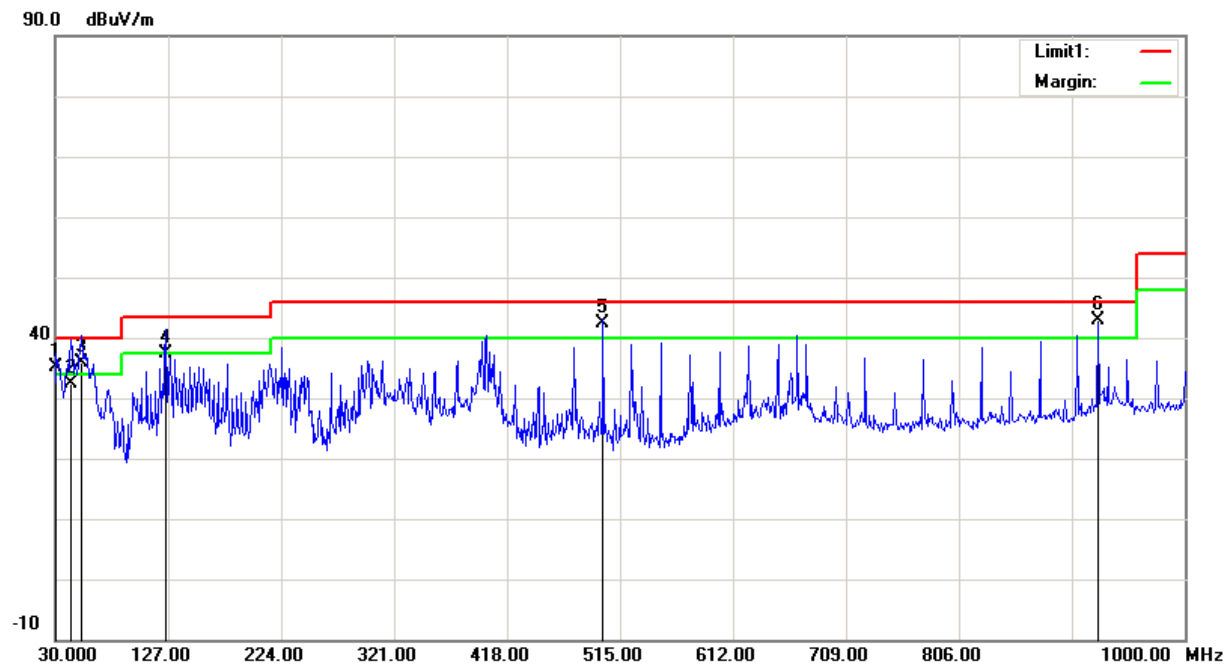
\*Within measurement uncertainty!

Test mode: Handset

**Horizontal:**

| Frequency (MHz) | Receiver Reading (dBuV) | Detector (PK/QP/Ave) | Correction Factor (dB) | Cord. Amp. (dBuV/m) | Limit (dBuV/m) | Margin (dB) |
|-----------------|-------------------------|----------------------|------------------------|---------------------|----------------|-------------|
| 157.0700        | 43.71                   | QP                   | -6.91                  | 36.80               | 43.50          | 6.70        |
| 177.4400        | 47.14                   | QP                   | -8.24                  | 38.90               | 43.50          | 4.60*       |
| 266.6800        | 46.77                   | QP                   | -5.97                  | 40.80               | 46.00          | 5.20*       |
| 298.6900        | 43.97                   | QP                   | -5.37                  | 38.60               | 46.00          | 7.40        |
| 400.5400        | 45.28                   | QP                   | -3.08                  | 42.20               | 46.00          | 3.80*       |
| 774.9600        | 39.23                   | QP                   | 2.77                   | 42.00               | 46.00          | 4.00*       |

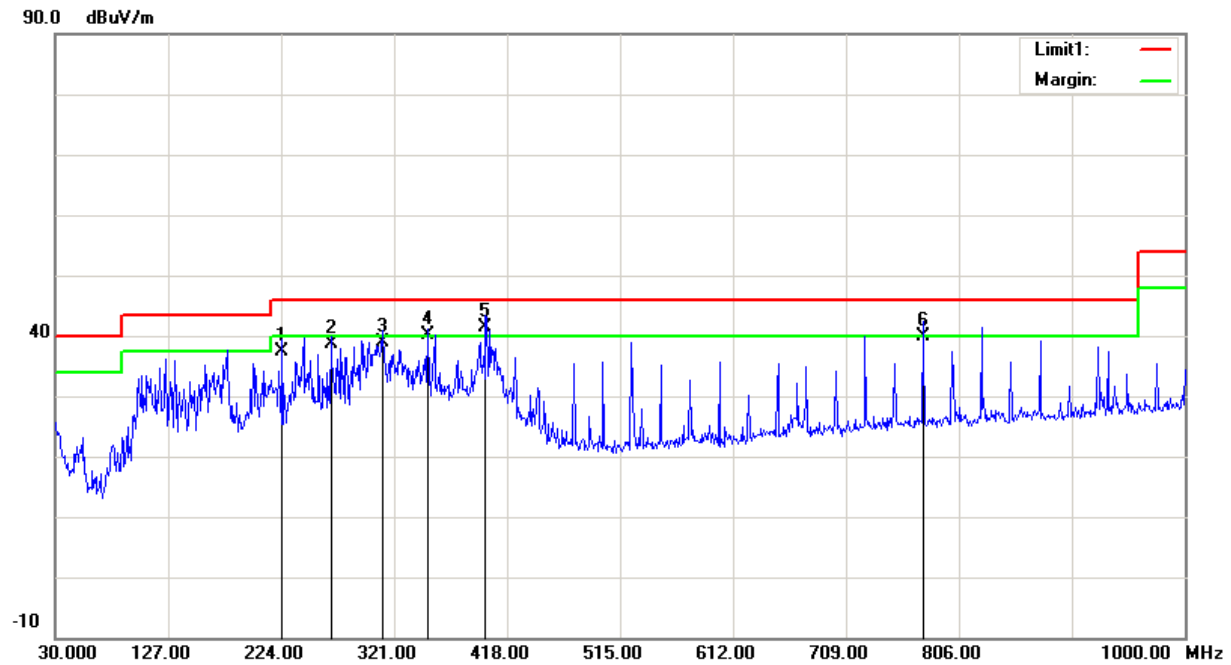
\*Within measurement uncertainty!

**Vertical:**

| Frequency (MHz) | Receiver Reading (dBuV) | Detector (PK/QP/Ave) | Correction Factor (dB) | Cord. Amp. (dBuV/m) | Limit (dBuV/m) | Margin (dB) |
|-----------------|-------------------------|----------------------|------------------------|---------------------|----------------|-------------|
| 30.9700         | 34.14                   | QP                   | 1.06                   | 35.20               | 40.00          | 4.80*       |
| 43.5800         | 41.10                   | QP                   | -8.60                  | 32.50               | 40.00          | 7.50        |
| 52.3100         | 48.27                   | QP                   | -12.27                 | 36.00               | 40.00          | 4.00*       |
| 125.0600        | 42.93                   | QP                   | -5.53                  | 37.40               | 43.50          | 6.10        |
| 500.4500        | 43.60                   | QP                   | -1.20                  | 42.40               | 46.00          | 3.60*       |
| 925.3100        | 38.41                   | QP                   | 4.49                   | 42.90               | 46.00          | 3.10*       |

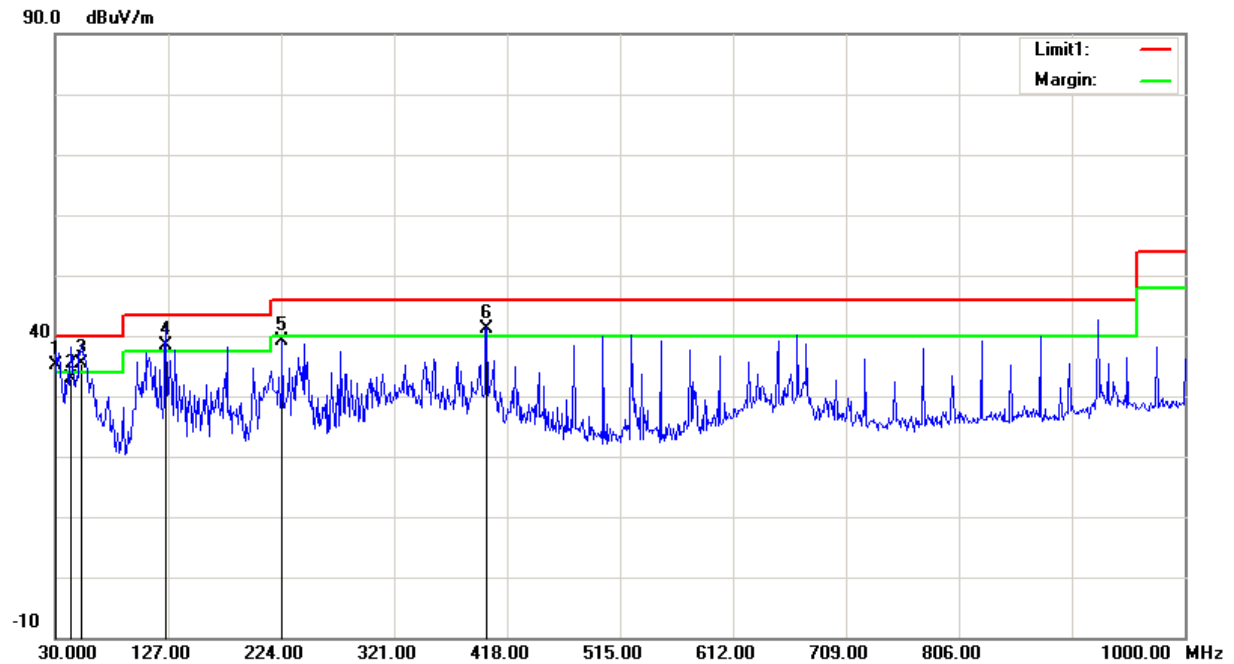
\*Within measurement uncertainty!

Test mode: Headset

**Horizontal:**

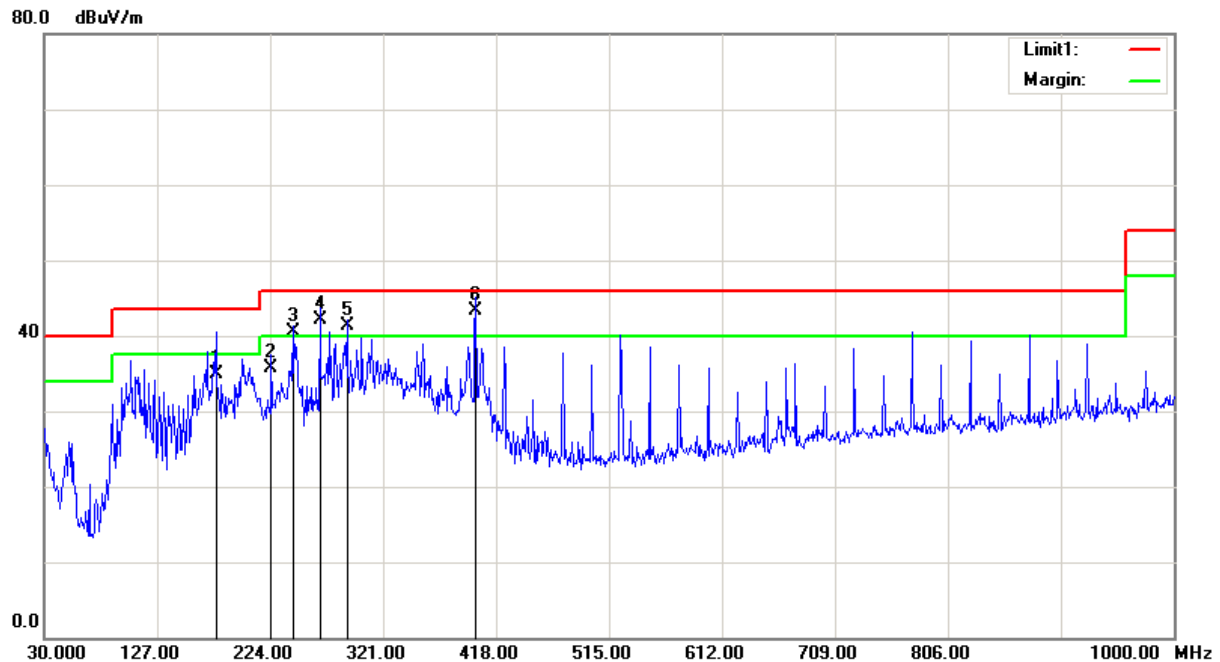
| Frequency (MHz) | Receiver Reading (dBuV) | Detector (PK/QP/Ave) | Correction Factor (dB) | Cord. Amp. (dBuV/m) | Limit (dBuV/m) | Margin (dB) |
|-----------------|-------------------------|----------------------|------------------------|---------------------|----------------|-------------|
| 224.9700        | 45.32                   | QP                   | -7.82                  | 37.50               | 46.00          | 8.50        |
| 266.6800        | 44.57                   | QP                   | -5.97                  | 38.60               | 46.00          | 7.40        |
| 311.3000        | 43.83                   | QP                   | -5.03                  | 38.80               | 46.00          | 7.20        |
| 350.1000        | 44.25                   | QP                   | -4.05                  | 40.20               | 46.00          | 5.80*       |
| 399.5700        | 44.52                   | QP                   | -3.12                  | 41.40               | 46.00          | 4.60*       |
| 774.9600        | 37.13                   | QP                   | 2.77                   | 39.90               | 46.00          | 6.10*       |

\*Within measurement uncertainty!

**Vertical:**

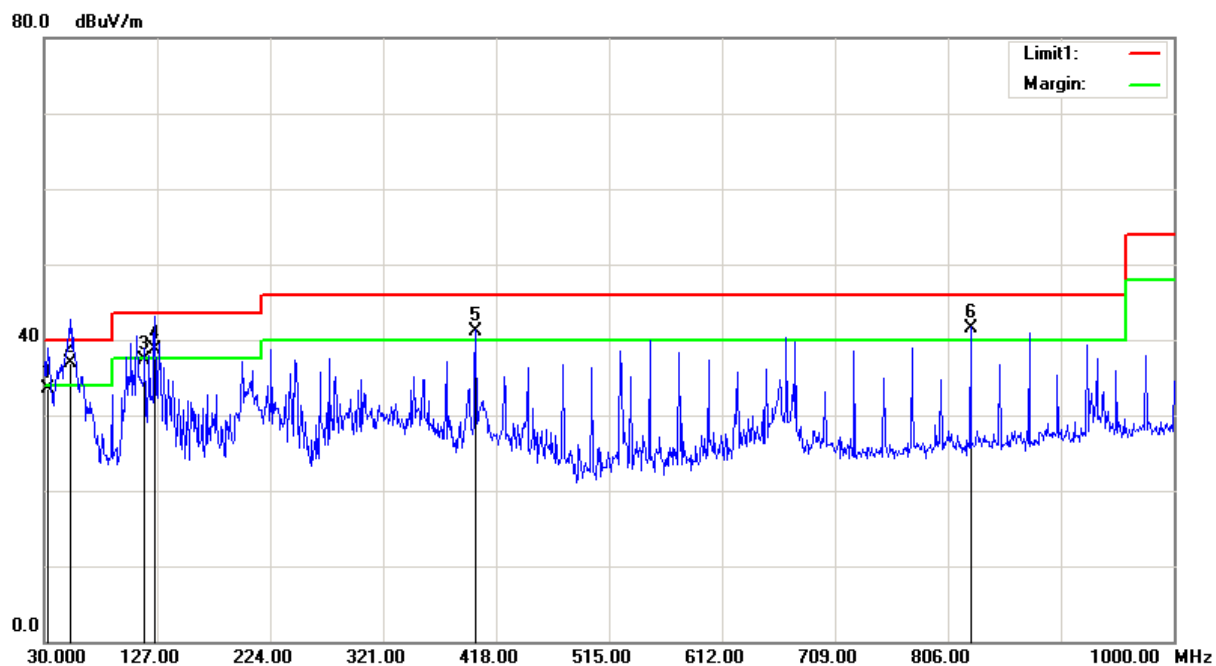
| Frequency (MHz) | Receiver Reading (dBuV) | Detector (PK/QP/Ave) | Correction Factor (dB) | Cord. Amp. (dBuV/m) | Limit (dBuV/m) | Margin (dB) |
|-----------------|-------------------------|----------------------|------------------------|---------------------|----------------|-------------|
| 30.9700         | 34.14                   | QP                   | 1.06                   | 35.20               | 40.00          | 4.80*       |
| 43.5800         | 41.40                   | QP                   | -8.60                  | 32.80               | 40.00          | 7.20        |
| 52.3100         | 47.57                   | QP                   | -12.27                 | 35.30               | 40.00          | 4.70*       |
| 125.0600        | 43.93                   | QP                   | -5.53                  | 38.40               | 43.50          | 5.10        |
| 224.9700        | 46.92                   | QP                   | -7.82                  | 39.10               | 46.00          | 6.90        |
| 400.5400        | 44.28                   | QP                   | -3.08                  | 41.20               | 46.00          | 4.80*       |

\*Within measurement uncertainty!

**2) Power from POE***Test mode: Handfree***Horizontal:**

| Frequency (MHz) | Receiver Reading (dBuV) | Detector (PK/QP/Ave) | Correction Factor (dB) | Cord. Amp. (dBuV/m) | Limit (dBuV/m) | Margin (dB) |
|-----------------|-------------------------|----------------------|------------------------|---------------------|----------------|-------------|
| 177.4400        | 43.14                   | QP                   | -8.24                  | 34.90               | 43.50          | 8.60        |
| 224.9700        | 43.52                   | QP                   | -7.82                  | 35.70               | 46.00          | 10.30       |
| 243.4000        | 47.77                   | QP                   | -7.27                  | 40.50               | 46.00          | 5.50*       |
| 266.6800        | 48.07                   | QP                   | -5.97                  | 42.10               | 46.00          | 3.90*       |
| 289.9600        | 46.74                   | QP                   | -5.44                  | 41.30               | 46.00          | 4.70*       |
| 400.5400        | 46.38                   | QP                   | -3.08                  | 43.30               | 46.00          | 2.70*       |

\*Within measurement uncertainty!

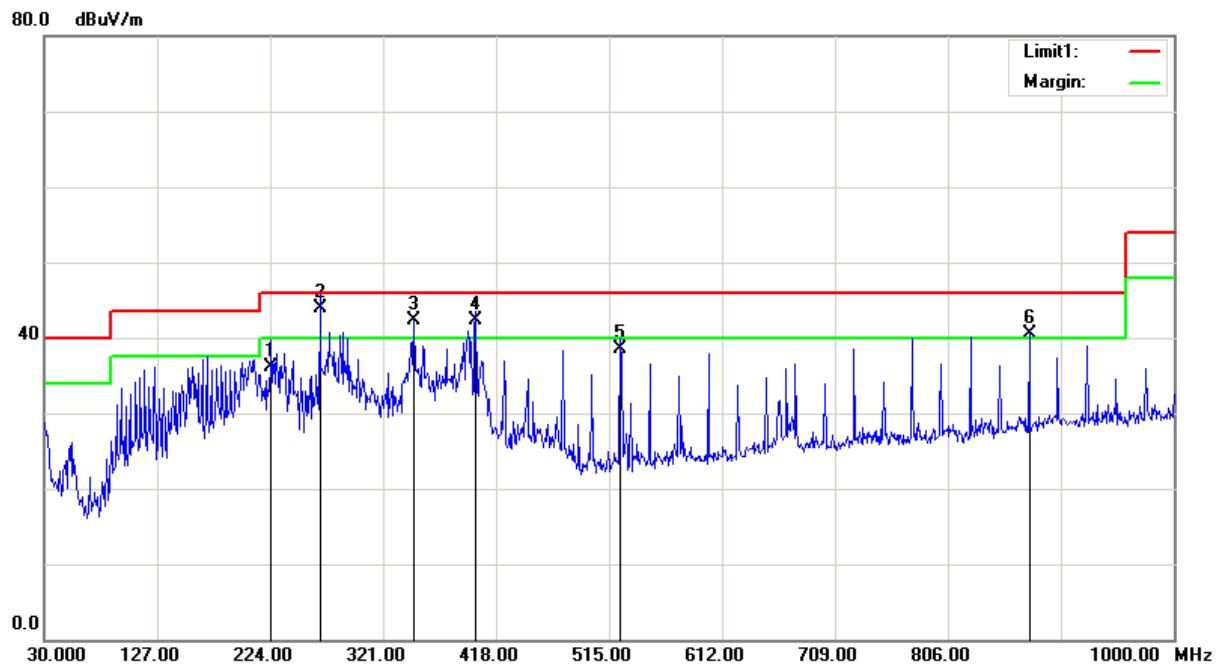
**Vertical:**

| Frequency (MHz) | Receiver Reading (dBuV) | Detector (PK/QP/Ave) | Correction Factor (dB) | Cord. Amp. (dBuV/m) | Limit (dBuV/m) | Margin (dB) |
|-----------------|-------------------------|----------------------|------------------------|---------------------|----------------|-------------|
| 32.9100         | 34.00                   | QP                   | -0.50                  | 33.50               | 40.00          | 6.50        |
| 52.3100         | 49.17                   | QP                   | -12.27                 | 36.90               | 40.00          | 3.10*       |
| 116.7600        | 43.27                   | QP                   | -5.97                  | 37.30               | 43.50          | 6.20        |
| 125.0600        | 44.33                   | QP                   | -5.53                  | 38.80               | 43.50          | 4.70*       |
| 400.5400        | 44.28                   | QP                   | -3.08                  | 41.20               | 46.00          | 4.80*       |
| 825.4000        | 38.41                   | QP                   | 3.09                   | 41.50               | 46.00          | 4.50*       |

\*Within measurement uncertainty!

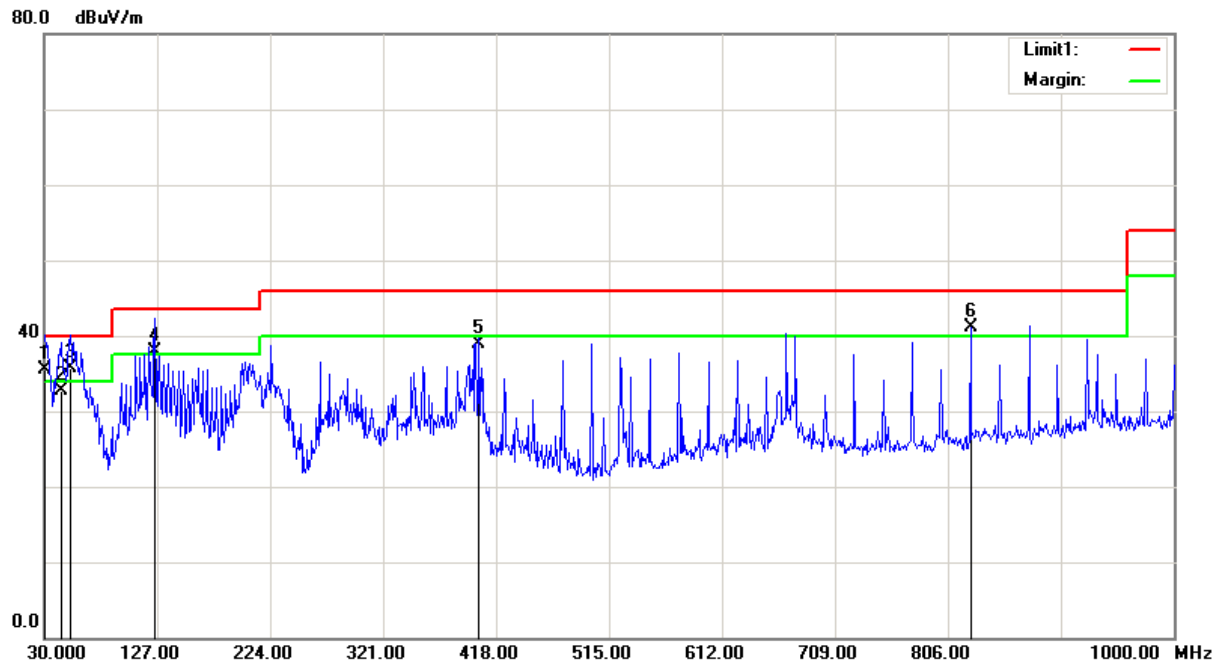


Test mode: Handset

**Horizontal:**

| Frequency (MHz) | Receiver Reading (dBuV) | Detector (PK/QP/Ave) | Correction Factor (dB) | Cord. Amp. (dBuV/m) | Limit (dBuV/m) | Margin (dB) |
|-----------------|-------------------------|----------------------|------------------------|---------------------|----------------|-------------|
| 224.9700        | 44.02                   | QP                   | -7.82                  | 36.20               | 46.00          | 9.80        |
| 266.6800        | 49.97                   | QP                   | -5.97                  | 44.00               | 46.00          | 2.00*       |
| 347.1900        | 46.58                   | QP                   | -4.18                  | 42.40               | 46.00          | 3.60*       |
| 400.5400        | 45.48                   | QP                   | -3.08                  | 42.40               | 46.00          | 3.60*       |
| 524.7000        | 39.44                   | QP                   | -0.94                  | 38.50               | 46.00          | 7.50        |
| 875.8400        | 37.04                   | QP                   | 3.56                   | 40.60               | 46.00          | 5.40*       |

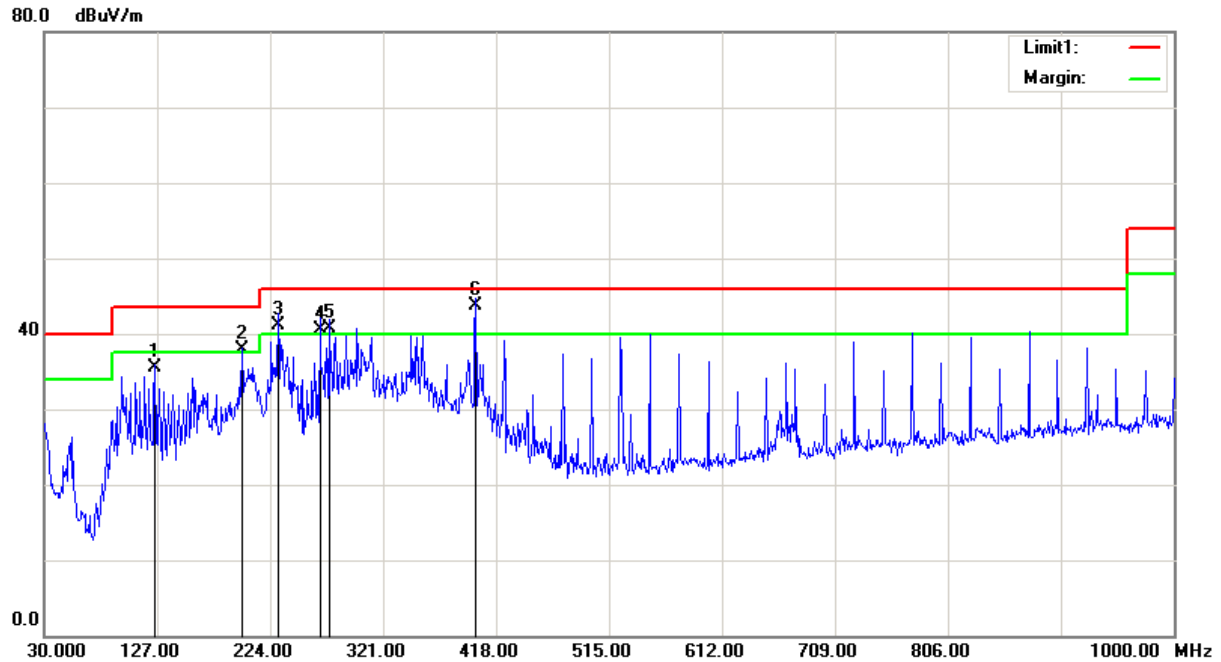
\*Within measurement uncertainty!

**Vertical:**

| Frequency (MHz) | Receiver Reading (dBuV) | Detector (PK/QP/Ave) | Correction Factor (dB) | Cord. Amp. (dBuV/m) | Limit (dBuV/m) | Margin (dB) |
|-----------------|-------------------------|----------------------|------------------------|---------------------|----------------|-------------|
| 30.9700         | 34.54                   | QP                   | 1.06                   | 35.60               | 40.00          | 4.40*       |
| 44.5500         | 41.90                   | QP                   | -9.20                  | 32.70               | 40.00          | 7.30        |
| 52.3100         | 47.97                   | QP                   | -12.27                 | 35.70               | 40.00          | 4.30*       |
| 125.0600        | 43.43                   | QP                   | -5.53                  | 37.90               | 43.50          | 5.60        |
| 403.4500        | 41.83                   | QP                   | -2.93                  | 38.90               | 46.00          | 7.10        |
| 825.4000        | 38.11                   | QP                   | 3.09                   | 41.20               | 46.00          | 4.80*       |

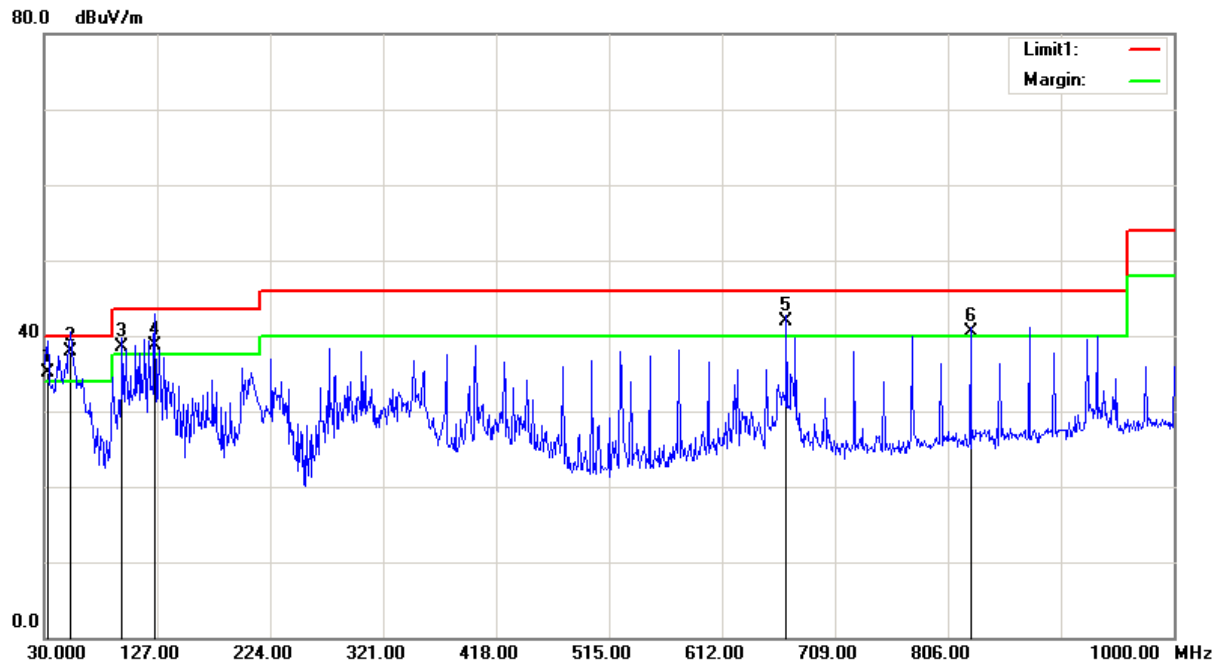
\*Within measurement uncertainty!

Test mode: Headset

**Horizontal:**

| Frequency (MHz) | Receiver Reading (dBuV) | Detector (PK/QP/Ave) | Correction Factor (dB) | Cord. Amp. (dBuV/m) | Limit (dBuV/m) | Margin (dB) |
|-----------------|-------------------------|----------------------|------------------------|---------------------|----------------|-------------|
| 125.0600        | 41.13                   | QP                   | -5.53                  | 35.60               | 43.50          | 7.90        |
| 199.7500        | 44.89                   | QP                   | -6.89                  | 38.00               | 43.50          | 5.50        |
| 230.7900        | 48.80                   | QP                   | -7.60                  | 41.20               | 46.00          | 4.80*       |
| 266.6800        | 46.57                   | QP                   | -5.97                  | 40.60               | 46.00          | 5.40*       |
| 274.4400        | 46.50                   | QP                   | -5.70                  | 40.80               | 46.00          | 5.20*       |
| 400.5400        | 46.78                   | QP                   | -3.08                  | 43.70               | 46.00          | 2.30*       |

\*Within measurement uncertainty!

**Vertical:**

| Frequency (MHz) | Receiver Reading (dBuV) | Detector (PK/QP/Ave) | Correction Factor (dB) | Cord. Amp. (dBuV/m) | Limit (dBuV/m) | Margin (dB) |
|-----------------|-------------------------|----------------------|------------------------|---------------------|----------------|-------------|
| 32.9100         | 35.70                   | QP                   | -0.50                  | 35.20               | 40.00          | 4.80*       |
| 52.3100         | 50.27                   | QP                   | -12.27                 | 38.00               | 40.00          | 2.00*       |
| 96.9300         | 48.83                   | QP                   | -10.33                 | 38.50               | 43.50          | 5.00*       |
| 125.0600        | 44.33                   | QP                   | -5.53                  | 38.80               | 43.50          | 4.70*       |
| 667.2900        | 40.72                   | QP                   | 1.18                   | 41.90               | 46.00          | 4.10*       |
| 825.4000        | 37.41                   | QP                   | 3.09                   | 40.50               | 46.00          | 5.50*       |

\*Within measurement uncertainty!

\*\*\*\*\* END OF REPORT \*\*\*\*\*