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## **ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT**

## INTENTIONAL RADIATOR CERTIFICATION TO **FCC PART 15 SUBPART C REQUIREMENT**

OF

**Product Name: Tablet** 

**Brand Name: Aures Technologies** 

Model No.: Swing

**Model Difference:** N/A

FCC ID: XHM-PB55D31L

**Report No.:** E2/2017/20031-01

**Issue Date:** Jun. 26, 2017

**FCC Rule Part:** §15.209

**Aures Technologies** 

**Prepared for** 24 bis rue Leonard de Vinci, 91090 Lisses |

France

SGS Taiwan Ltd.

**Electronics & Communication Laboratory** Prepared by

No.2, Keji 1st Rd., Guishan District, Taoyuan

City, Taiwan 333





Testing Laboratory 0513

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### VERIFICATION OF COMPLIANCE

Aures Technologies

**Applicant:** 24 bis rue Leonard de Vinci, 91090 Lisses | France

**Product Name: Tablet** 

**Brand Name:** Aures Technologies

Model No.: Swing N/A **Model Difference:** 

FCC ID: XHM-PB55D31L

File Number: E2/2017/20031-01

Date of test: Feb. 14, 2017 ~ Jun. 22, 2017

Date of EUT Received: Feb 14, 2017

## We hereby certify that:

The above equipment was tested by SGS Taiwan Ltd., Electronics & Communication Laboratory. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10 2013 and the energy emitted by the sample EUT tested as described in this report is in compliance with conducted and radiated emission limits.

The test results of this report relate only to the tested sample identified in this report.

| Test By:     | Aken Huang          | Date:         | Jun. 26, 2017 |  |
|--------------|---------------------|---------------|---------------|--|
| ·            | Aken Huang / Engine | <u></u><br>er |               |  |
| Prepared By: | karen Huang         | Date:         | Jun. 26, 2017 |  |
|              | Karen Huang / Clerk | _             |               |  |
| Approved By  | Jim Ch an           | g Date:       | Jun. 26, 2017 |  |

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Jim Chang / Asst. Manager

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# **Revision History**

| Report Number    | Revision | Description                  | Issue Date    |
|------------------|----------|------------------------------|---------------|
| E2/2017/20031-01 | Rev.00   | Initial creation of document | Jun. 26, 2017 |
|                  |          |                              |               |
|                  |          |                              |               |

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台灣檢驗科技股份有限公司 t (886-2) 2299-3279



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## 1. GENERAL INFORMATION

## 1.1. Product Description

| i i roduct Description |                    |   |  |  |
|------------------------|--------------------|---|--|--|
| Product Name:          | Tablet             |   |  |  |
| Brand Name:            | Aures Technologies |   |  |  |
| Model No.:             | Swing              |   |  |  |
| Model Difference:      | N/A                | N/A   |  |  |
| Hardware Version:      | N/A                |   |  |  |
| Software Version       | N/A                |   |  |  |
|                        | 3Vdc from          | Lithium CR2032 Battery  |  |  |
| Power Supply:          | Battery:           | Model No.: BA110000, Supplier: N/A     Model No.: BA840000, Supplier: Getac |  |  |
|                        | Adapter:           | Model No.: ADP-65JH HB;<br>Supplier: DELTA ELECTRONICS, INC.                |  |  |

### Transmitter:

| anomicon.           |                    |  |
|---------------------|--------------------|--|
| Operating Frequency | 125kHz             |  |
| Transmit Power      | < 105dBuV/m at 3m. |  |
| Number of Channels  | 1                  |  |
| Operating Mode      | Point-to-Point     |  |

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## 1.2. Test Methodology of Applied Standards

FCC Part 15, Subpart C §15.209 ANSI C63.10:2013

#### Note:

- 1. All test items have been performed and record as per the above standards.
- 2. The composite system is compliance with FCC Subpart B is authorized under the certification procedure.
- 3. The EUT was placed 1.5m height for frequency above 1GHz in accordance with ANSI C63 10·2013

### 1.3. Test Facility

SGS Taiwan Ltd. Electronics & Communication Laboratory No.2, Keji 1st Rd., Guishan District, Taoyuan City, Taiwan 333 (TAF code 0513) FCC Registration Numbers are: 735305

## 1.4. Special Accessories

There are no special accessories used while test was conducted.

### 1.5. Equipment Modifications

There was no modification incorporated into the EUT.

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## 2. System Test Configuration

## 2.1. EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

### 2.2. EUT Exercise

An engineering test mode (software/firmware) that applicant provided was utilized to manipulate the EUT into transmit, selection of the test channel, and modulation scheme.

### 2.3. Test Procedure

### 2.3.1 Conducted Emissions (Not apply in the report)

The EUT is a placed on as turn table which is 0.8 m above ground plane. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz,. The CISPR Quasi-Peak and Average detector mode is employed according to §15.107. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

#### 2.3.2 Radiated Emissions

The EUT is a placed on as turn table which is 0.8 m above ground plane. The turn table shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the max. emission, the relative positions of this hand-held transmitter (EUT) was rotated through three orthogonal axes and measurement procedures for electric field radiated emissions above 1 GHz the EUT measurement is to be made "while keeping the antenna in the 'cone of radiation' from that area and pointed at the area both in azimuth and elevation, with polarization oriented for maximum response." is still within the 3dB illumination BW of the measurement antenna.

### 2.4. Limitation

### (1) Conducted Emission

According to section 15.207(a) Conducted Emission Limits is as following.

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| Frequency range |            | Limits<br>B (uV) |
|-----------------|------------|------------------|
| MHz             | Quasi-peak | Average          |
| 0.15 to 0.50    | 66 to 56   | 56 to 46         |
| 0.50 to 5       | 56         | 46               |
| 5 to 30         | 60         | 50               |

#### Note

- 1. The lower limit shall apply at the transition frequencies
- 2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.

### (2) Radiated Emission

- (a) Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:
- (b) In the emission table above, the tighter limit applies at the band edges.
- (c) The level of any unwanted emissions from an intentional radiator operating under these general provisions shall not exceed the level of the fundamental emission. For intentional radiators which operate under the provisions of other Sections within this Part and which are required to reduce their nwanted emissions to the limits specified in this table, the limits in this table are based on the frequency of the unwanted emission and not the fundamental frequency. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.

The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

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| <br>Frequency<br>(MHz) | Field strength<br>μV/m | Distance (m) | Field strength at 3m dB <sub>μ</sub> V/m |
|------------------------|------------------------|--------------|--|
| 0.009-0.490            | 2400/F(KHz)            | 300          |  |
| 0.490-1.705            | 24000/F(KHz)           | 30           |  |
| 1.705-30               | 30                     | 30           | 69.54                                    |
| 30-88                  | 100                    | 3            | 40                                       |
| 88-216                 | 150                    | 3            | 43.5                                     |
| 216-960                | 200                    | 3            | 46                                       |
| Above 960              | 500                    | 3            | 54                                       |

### Limit Table:

| Tabic.    |          |                  |              |                    |           |
|-----------|----------|------------------|--------------|--------------------|-----------|
| Frequency | Distance | Limit at<br>300m | Limit at 30m | Distance<br>Factor | Limit     |
| kHz       | m        | dBµV/m           | dBµV/m       | dB                 | dBμV/m at |
| 125       | 300      | 25.67            |              | 80                 | 105.67    |
| 250       | 300      | 19.65            |              | 80                 | 99.65     |
| 375       | 300      | 16.12            |              | 80                 | 96.12     |
| 500       | 30       |                  | 33.62        | 40                 | 73.62     |
| 625       | 30       |                  | 31.69        | 40                 | 71.69     |
| 750       | 30       |                  | 30.10        | 40                 | 70.10     |
| 875       | 30       |                  | 28.76        | 40                 | 68.76     |
| 1000      | 30       |                  | 27.60        | 40                 | 67.60     |
| 1125      | 30       |                  | 26.58        | 40                 | 66.58     |
| 1250      | 30       |                  | 25.67        | 40                 | 65.67     |

### Limit Calculation and transfer to 1m test distance:

If the frequency between 9 – 490kHz, Limit =  $20\log(2400)f(KHz) + 40\log(300/1)$ 

If the frequency between 490kHz – 1.705MHz Limit =  $20\log(24000/f(KHz) + 40\log(30/1)$ 

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## 2.5. Configuration of Tested System

Fig. 2-1 Emission test set up configuration

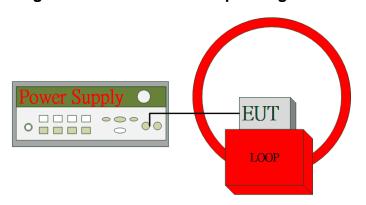
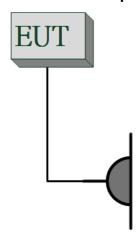


Fig. 2-2 Conduction test set up configuration



| Item | Equipment          | Mfr/Brand | Model/<br>Type No. | Series No. | Data<br>Cable | Power Cord |
|------|--------------------|-----------|--------------------|------------|---------------|------------|
| 1.   | Test Software      | N/A       | N/A                | N/A        | N/A           | N/A        |
| 2.   | DC Power<br>Supply | Agilent   | E3634A             | MY53180030 | N/A           | Unshielded |

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## 3. Summary of Test Results

| FCC Rules | Description of Test     | Result    |
|-----------|-------------------------|-----------|
| §15.207   | AC Power Line Conducted | Compliant |
|           | Emission                |           |
| §15.209   | Radiated Emission       | Compliant |

## 4. Description of test modes

The EUT has been tested under continuous operating condition. The Frequency 125kHz was chosen for testing.

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### 5. MEASUREMENT UNCERTAINTY

| Test Items                       | Uncertainty                 |
|----------------------------------|-----------------------------|
| AC Power Line Conducted Emission | +/- 2.586 dB                |
| Temperature                      | +/- 0.65 °C                 |
| Humidity                         | +/- 4.6 %                   |
| DC / AC Power Source             | DC= +/- 0.13%, AC= +/- 0.2% |

## Radiated Spurious Emission:

| Measurement uncertainty (Polarization : <b>Vertical</b> ) | 30MHz - 180MHz: +/- 3.37dB |
|---|----------------------------|
|   | 180MHz -417MHz: +/- 3.19dB |
|   | 0.417GHz-1GHz: +/- 3.19dB  |
|   | 1GHz - 18GHz: +/- 4.04dB   |
|   | 18GHz - 40GHz: +/- 4.04dB  |

|                                     | 30MHz - 167MHz: +/- 4.22dB |  |  |  |  |
|-------------------------------------|----------------------------|--|--|--|--|
| Measurement uncertainty             | 167MHz -500MHz: +/- 3.44dB |  |  |  |  |
| (Polarization : <b>Horizontal</b> ) | 0.5GHz-1GHz: +/- 3.39dB    |  |  |  |  |
|                                     | 1GHz - 18GHz: +/- 4.08dB   |  |  |  |  |
|                                     | 18GHz - 40GHz: +/- 4.08dB  |  |  |  |  |

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

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### 6. Conducted Emissions Test

## 6.1. Standard Applicable:

Frequency range within 150kHz to 30MHz shall not exceed the Limit table as below.

|                 | Limits     |          |  |  |  |  |
|-----------------|------------|----------|--|--|--|--|
| Frequency range | dB(uV)     |          |  |  |  |  |
| MHz             | Quasi-peak | Average  |  |  |  |  |
| 0.15 to 0.50    | 66 to 56   | 56 to 46 |  |  |  |  |
| 0.50 to 5       | 56         | 46       |  |  |  |  |
| 5 to 30         | 60         | 50       |  |  |  |  |

### Note

- 1. The lower limit shall apply at the transition frequencies
- 2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50

## 6.2. Measurement Equipment Used:

| Conducted Emission Test Site |                 |           |                  |             |            |  |  |  |  |  |
|------------------------------|-----------------|-----------|------------------|-------------|------------|--|--|--|--|--|
| Name of                      | Manufaaturar    | Model     | Serial           | Calibration | Calibratio |  |  |  |  |  |
| Equipment                    | Manufacturer    | Model     | Number           | Date        | n Due      |  |  |  |  |  |
| EMI Test Receiver            | R&S             | ESCI 7    | 100950           | 12/12/2016  | 12/11/2017 |  |  |  |  |  |
| Coaxial Cables               | N/A N30N30-1042 |           | N/A              | 08/30/2016  | 08/29/2017 |  |  |  |  |  |
| LISN                         | Schwarzbeck     | NSLK 8127 | 8127-648         | 06/13/2016  | 06/12/2017 |  |  |  |  |  |
| Test Software                | Farad           | EZ-EMC    | Ver.<br>SGS-03A2 | N.C.R.      | N.C.R.     |  |  |  |  |  |

## 6.3. EUT Setup:

- 1. The conducted emission tests were performed in the test site, using the setup in accordance with the ANSI C63.10:2013.
- 2. The AC/DC Power adaptor of EUT was plug-in LISN. The EUT was placed flushed with the rear of the table.
- 3. The LISN was connected with 120Vac/60Hz power source.

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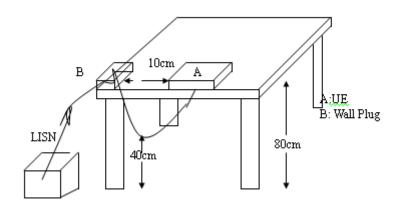
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## 6.4. Test SET-UP (Block Diagram of Configuration)



### 6.5. Measurement Procedure:

- 1. The EUT was placed on a table which is 0.8m above ground plane.
- 2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
- 3. Repeat above procedures until all phases of power being supplied by given UE are completed.

### 6.6. Measurement Result:

Note: Refer to next page for measurement data and plots.

Note2: The \* reveals the worst-case results that closet to the limit

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## AC POWER LINE CONDUCTED EMISSION TEST DATA

Operation Mode: **Operation Mode** Test by: Aken

Conduction Room Phase:

Temperature: 22 °C L1 AC 120V/60Hz Humidity: 51 % Power:

Mode: 飛捷

Limit: FCC Class B Conduction(QP)

Note:

# Conducted Emission Data :#578 Date: 2017/3/10 File: Condution Time: 下午 02:19:57 80.0 dBuV FCC Class B Conduction(QP 0.0 0.150 (MHz) 30.000

| No. | Mk. | Freq.   | Reading<br>Level | Correct<br>Factor | Measure-<br>ment | Limit | Over   |          |         |
|-----|-----|---------|------------------|-------------------|------------------|-------|--------|----------|---------|
|     |     | MHz     | dBuV             | dB                | dBuV             | dBuV  | dB     | Detector | Comment |
| 1   | *   | 0.1740  | 37.10            | 19.72             | 56.82            | 64.77 | -7.95  | QP       |         |
| 2   |     | 0.1740  | 18.70            | 19.72             | 38.42            | 54.77 | -16.35 | AVG      |         |
| 3   |     | 0.1860  | 35.70            | 19.71             | 55.41            | 64.21 | -8.80  | QP       |         |
| 4   |     | 0.1860  | 17.50            | 19.71             | 37.21            | 54.21 | -17.00 | AVG      |         |
| 5   |     | 0.2460  | 29.07            | 19.74             | 48.81            | 61.89 | -13.08 | peak     |         |
| 6   |     | 0.3020  | 20.49            | 19.77             | 40.26            | 60.19 | -19.93 | peak     |         |
| 7   |     | 0.4340  | 15.45            | 19.86             | 35.31            | 57.18 | -21.87 | peak     |         |
| 8   |     | 22.4660 | 21.63            | 20.63             | 42.26            | 60.00 | -17.74 | peak     |         |
|     |     |         |                  |                   |                  |       |        |          |         |

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22 °C

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Temperature:

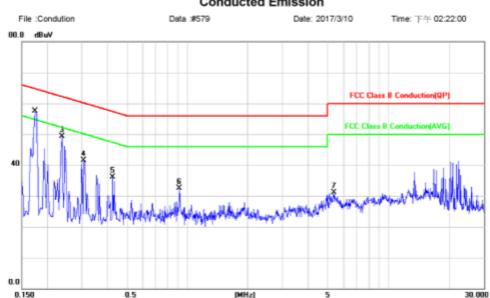
Humidity: 51 %

7.

Conduction Room Phase: Limit: FCC Class B Conduction(QP) Power: AC 120V/60Hz

Mode: 飛槽 Note:

## Conducted Emission



| No. | Mk. | Freq.  | Reading<br>Level | Correct<br>Factor | Measure-<br>ment | Limit | Over   |          |         |
|-----|-----|--------|------------------|-------------------|------------------|-------|--------|----------|---------|
|     |     | MHz    | dBuV             | dB                | dBuV             | dBuV  | dB     | Detector | Comment |
| 1   | *   | 0.1740 | 36.05            | 19.73             | 55.78            | 64.77 | -8.99  | QP       |         |
| 2   |     | 0.1740 | 17.70            | 19.73             | 37.43            | 54.77 | -17.34 | AVG      |         |
| 3   |     | 0.2380 | 29.48            | 19.75             | 49.23            | 62.17 | -12.94 | peak     |         |
| 4   |     | 0.3060 | 21.63            | 19.78             | 41.41            | 60.08 | -18.67 | peak     |         |
| 5   |     | 0.4260 | 16.20            | 19.86             | 36.06            | 57.33 | -21.27 | peak     |         |
| 6   |     | 0.9180 | 12.54            | 19.92             | 32.46            | 56.00 | -23.54 | peak     |         |
| 7   |     | 5.3780 | 11.09            | 20.00             | 31.09            | 60.00 | -28.91 | peak     |         |
|     |     |        |                  |                   |                  |       |        |          |         |

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8.

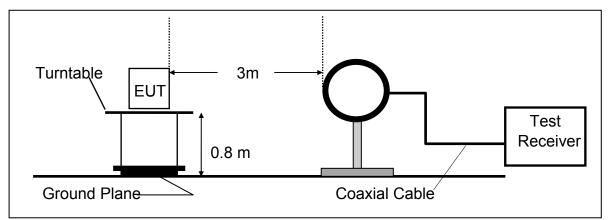
### 9. Radiated Emission Test

### 9.1. Measurement Procedure

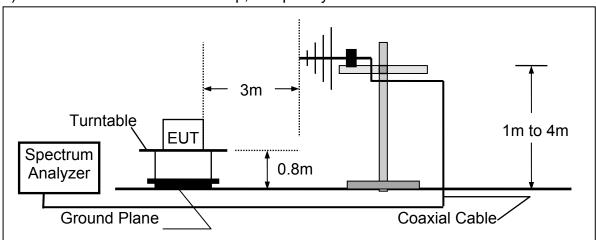
- 1. The EUT was placed on a turn table which is 0.8m above ground plane.
- Maximum procedure was performed on the six highest emissions to ensure EUT 2. compliance.
- 3 And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
- 4. Repeat above procedures until all frequency measured were complete.

## 9.2. Test SET-UP (Block Diagram of Configuration)

(A) Radiated Emission Test Set-Up, Frequency Below 30MHz



(B) Radiated Emission Test Set-Up, Frequency Below 1000MHz



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### 9.3. Measurement Equipment Used:

|                   | 966 Chamber     |                             |                 |            |            |  |  |  |  |  |
|-------------------|-----------------|-----------------------------|-----------------|------------|------------|--|--|--|--|--|
| EQUIPMENT         | MFR             | MODEL SERIAL                |                 | LAST       | CAL DUE.   |  |  |  |  |  |
| TYPE              |                 | NUMBER                      | NUMBER          | CAL.       |            |  |  |  |  |  |
| EMI Test Receiver | R&S             | ESU 40                      | 100363          | 04/18/2017 | 04/17/2018 |  |  |  |  |  |
| Loop Antenna      | ETS-Lindgren    | 6502                        | 00143303        | 12/23/2016 | 12/22/2017 |  |  |  |  |  |
| Broadband Antenna | TESEQ           | CBL 6112D                   | 35240           | 11/03/2016 | 11/02/2017 |  |  |  |  |  |
| Pre Amplifier     | EMC Instruments | EMC330                      | 980096          | 12/12/2016 | 12/11/2017 |  |  |  |  |  |
| Coaxial Cable     | Huber+Suhner    | RG 214/U                    | 966Rx<br>9K-30M | 12/12/2016 | 12/11/2017 |  |  |  |  |  |
| Coaxial Cable     | Huber+Suhner    | RG 214/U<br>SUCOFLEX<br>104 | 966Rx<br>30M-3G | 12/12/2016 | 12/11/2017 |  |  |  |  |  |
| Site NSA          | SGS             | 966 Chamber C               | SAC-C           | 03/02/2017 | 03/01/2018 |  |  |  |  |  |
| Site VSWR         | SGS             | 966 Chamber C               | SAC-C           | 03/02/2017 | 03/01/2018 |  |  |  |  |  |
| DC Power Supply   | HOLA            | DP-3003                     | D7070035        | 05/04/2017 | 05/03/2018 |  |  |  |  |  |
| Controller        | MF              | MF-7802                     | N/A             | N.C.R.     | N.C.R.     |  |  |  |  |  |
| Antenna Master    | MF              | N/A                         | N/A             | N.C.R.     | N.C.R.     |  |  |  |  |  |
| Turn Table        | MF              | N/A                         | N/A             | N.C.R.     | N.C.R.     |  |  |  |  |  |
| Test Software     | World-Pallas    | Dr. E                       | V 3.0 Lite      | N.C.R.     | N.C.R.     |  |  |  |  |  |

### 9.4. 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 | <u> </u>               | CL = Cable Attenuation Factor (Cable Loss) |
|-------|------------------------|--|
|       | RA = Reading Amplitude | AG = Amplifier Gain                        |
|       | AF = Antenna Factor    |  |

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### 9.5. Measurement Result

Operation Mode: 125K Test Date: 2017/6/30

Temp. / Humi.: Fundamental Frequency: 125 KHz 22.7deg C/57RH

Operation Band: Test Engineer: Main CH Mid Ashton EUT Pol.: Measurement Antenna Pol.: Vertical

Actual FS(dB $\mu$ A/m) = SPA. Reading level(dB $\mu$ V) + Factor(dB) Factor(dB) = Antenna Factor(dBµA/m) + Cable Loss (dB) – Pre Amplifier Gain (dB)

"F": denotes Fundamental Frequency.; "H": denotes Harmonic Frequency. Note:

"E": denotes Band Edge Frequency.; "S": denotes Spurious Frequency.

"---": denotes Noise Floor.

| Freq. | Note    | Detector | Spectum       | Factor | Actual | Limit    | Margin |
|-------|---------|----------|---------------|--------|--------|----------|--------|
|       |         | Mode     | Reading Level |        | FS     | @3m      |        |
| MHz   | F/H/E/S | PK/QP/AV | dΒμV          | dB     | dBμV/m | dBµV/m   | dB     |
| 0.13  | F       | Peak     | 69.26         | 11 61  | 80 87  | 105 6318 | -24 76 |

Operation Mode: 125K Test Date: 2017/6/30

Fundamental Frequency: 125 KHz Temp. / Humi.: 22.7deg C/57RH

Operation Band: Main CH Mid Test Engineer: Ashton EUT Pol.: Measurement Antenna Pol.: Horizontal Н

Actual FS(dB $\mu$ A/m) = SPA. Reading level(dB $\mu$ V) + Factor(dB) Factor(dB) = Antenna Factor(dBµA/m) + Cable Loss (dB) – Pre Amplifier Gain (dB)

"F": denotes Fundamental Frequency.; "H": denotes Harmonic Frequency. Note:

"E": denotes Band Edge Frequency.; "S": denotes Spurious Frequency.

"---": denotes Noise Floor.

|   | Freq. | Note    | Detector | Spectum       | Factor | Actual | Limit    | Margin |
|---|-------|---------|----------|---------------|--------|--------|----------|--------|
|   |       |         | Mode     | Reading Level |        | FS     | @3m      |        |
|   | MHz   | F/H/E/S | PK/QP/AV | dΒμV          | dB     | dBμV/m | dBµV/m   | dB     |
| • | 0.12  | F       | Peak     | 67.15         | 11.61  | 78.76  | 105.7935 | -27.04 |

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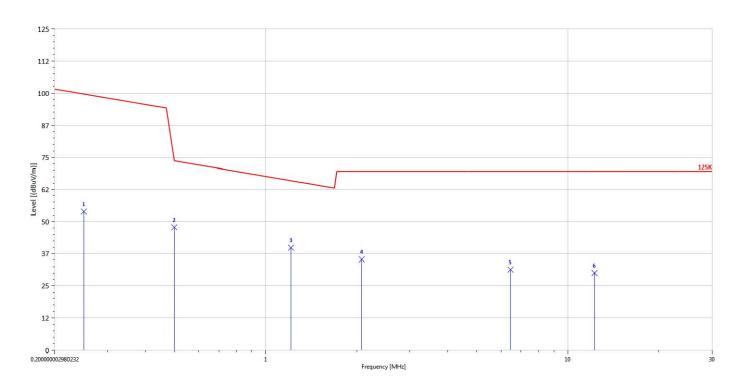
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### (10MHz~30MHz)

Operation Mode: 125K Test Date: 2017/6/30

Temp. / Humi.: Fundamental Frequency: 125 KHz 22.7 deg\_C/57 RH

Operation Band: Test Engineer: Tx CH Mid Ashton EUT Pol.: Measurement Antenna Pol.: Vertical Н



Actual FS(dBµV/m) = SPA. Reading level(dBµV) + Factor(dB)

Factor(dB) = Antenna Factor(dBµV/m) + Cable Loss(dB) – Pre\_Amplifier Gain(dB)

"F": denotes Fundamental Frequency.; "H": denotes Harmonic Frequency. Note:

"E": denotes Band Edge Frequency.; "S": denotes Spurious Frequency.

"---": denotes Noise Floor.

| Freq. | Note    | Detector | Spectum       | Factor | Actual | Limit    | Margin         |
|-------|---------|----------|---------------|--------|--------|----------|----------------|
|       |         | Mode     | Reading Level |        | FS     | @3m      |                |
| MHz   | F/H/E/S | PK/QP/AV | dΒμV          | dB     | dBµV/m | dBµV/m   | dB             |
| 0.25  | Н       | Peak     | 42.31         | 11.55  | 53.86  | 99.65    | <b>-4</b> 5.79 |
| 0.50  | S       | Peak     | 36.41         | 11.44  | 47.85  | 73.65601 | -25.80         |
| 1.21  | S       | Peak     | 28.20         | 11.61  | 39.81  | 65.92496 | -26.11         |
| 2.08  | S       | Peak     | 23.86         | 11.43  | 35.29  | 69.54    | -34.25         |
| 6.46  | S       | Peak     | 19.69         | 11.66  | 31.35  | 69.54    | -38.19         |
| 12.24 | S       | Peak     | 18.41         | 11.63  | 30.04  | 69.54    | -39.50         |

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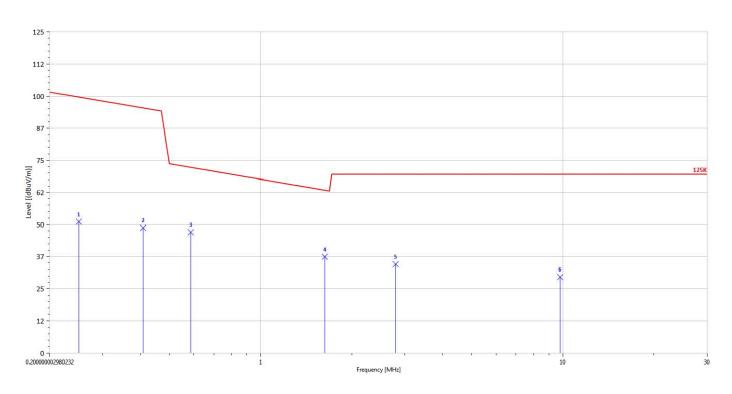


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Operation Mode: Test Date: 2017/6/30 125K

Fundamental Frequency: 125 KHz Temp. / Humi.: 22.7deg C/57RH

Operation Band: Test Engineer: Tx CH Mid Ashton EUT Pol.: Measurement Antenna Pol.: Horizontal



Actual FS(dB $\mu$ V/m) = SPA. Reading level(dB $\mu$ V) + Factor(dB)

Factor(dB) = Antenna Factor(dB $\mu$ V/m) + Cable Loss(dB) – Pre Amplifier Gain(dB)

"F": denotes Fundamental Frequency.; "H": denotes Harmonic Frequency. Note:

"E": denotes Band Edge Frequency.; "S": denotes Spurious Frequency.

"---": denotes Noise Floor.

| Freq. | Note    | Detector<br>Mode | Spectum<br>Reading Level | Factor | Actual<br>FS | Limit<br>@3m | Margin |
|-------|---------|------------------|--------------------------|--------|--------------|--------------|--------|
| MHz   | F/H/E/S | PK/QP/AV         | dΒμV                     | dB     | dBµV/m       | dBμV/m       | dB     |
| 0.25  | Н       | Peak             | 39.54                    | 11.55  | 51.10        | 99.65        | -48.55 |
| 0.41  | S       | Peak             | 37.23                    | 11.48  | 48.72        | 95.38112     | -46.66 |
| 0.59  | S       | Peak             | 35.57                    | 11.48  | 47.05        | 72.22648     | -25.18 |
| 1.63  | S       | Peak             | 25.92                    | 11.52  | 37.44        | 63.35976     | -25.92 |
| 2.79  | S       | Peak             | 23.29                    | 11.26  | 34.55        | 69.54        | -34.99 |
| 9.80  | S       | Peak             | 17.90                    | 11.70  | 29.60        | 69.54        | -39.94 |

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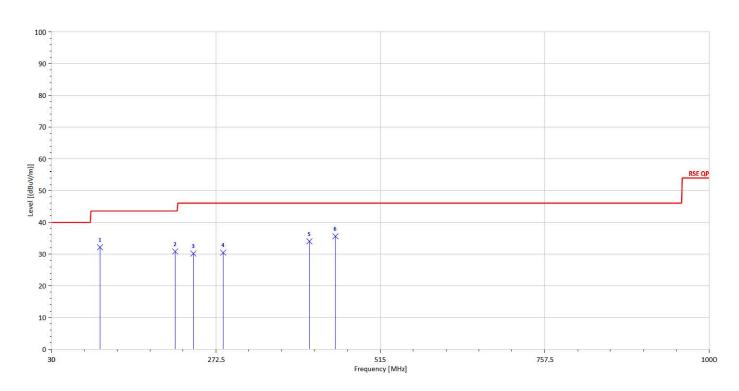
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### (30MHz~1GHz)

Operation Mode: 125K Test Date: 2017/6/30

Temp. / Humi.: Fundamental Frequency: 125 KHz 22.7 deg\_C/57 RH

Operation Band: Test Engineer: Tx CH Mid Ashton EUT Pol.: Measurement Antenna Pol.: Vertical Н



Actual FS(dBµV/m) = SPA. Reading level(dBµV) + Factor(dB)

Factor(dB) = Antenna Factor(dBµV/m) + Cable Loss(dB) – Pre\_Amplifier Gain(dB)

"F": denotes Fundamental Frequency.; "H": denotes Harmonic Frequency. Note:

"E": denotes Band Edge Frequency.; "S": denotes Spurious Frequency.

"---": denotes Noise Floor.

| Freq.  | Note    | Detector<br>Mode | Spectum<br>Reading Level | Factor | Actual<br>FS | Limit<br>@3 m | Margin |
|--------|---------|------------------|--------------------------|--------|--------------|---------------|--------|
| MHz    | F/H/E/S | PK/QP/AV         | dΒμV                     | dB     | dBµV/m       | dBμV/m        | dB     |
| 101.78 | S       | Peak             | 49.64                    | -17.52 | 32.11        | 43.5          | -11.39 |
| 212.36 | S       | Peak             | 47.89                    | -17.11 | 30.78        | 43.5          | -12.72 |
| 239.52 | S       | Peak             | 45.40                    | -15.28 | 30.11        | 46            | -15.89 |
| 283.17 | S       | Peak             | 43.90                    | -13.48 | 30.42        | 46            | -15.58 |
| 410.24 | S       | Peak             | 43.17                    | -9.16  | 34.01        | 46            | -11.99 |
| 449.04 | S       | Peak             | 44.34                    | -8.73  | 35.61        | 46            | -10.39 |

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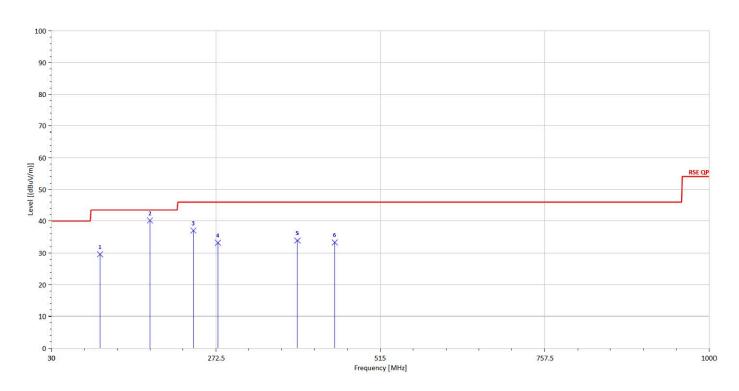


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Operation Mode: Test Date: 2017/6/30 125K

Fundamental Frequency: 125 KHz Temp. / Humi.: 22.7deg C/57RH

Operation Band: Test Engineer: Tx CH Mid Ashton EUT Pol.: Measurement Antenna Pol.: Horizontal



Actual FS(dB $\mu$ V/m) = SPA. Reading level(dB $\mu$ V) + Factor(dB)

Factor(dB) = Antenna Factor(dB $\mu$ V/m) + Cable Loss(dB) – Pre Amplifier Gain(dB)

"F": denotes Fundamental Frequency.; "H": denotes Harmonic Frequency. Note:

"E": denotes Band Edge Frequency.; "S": denotes Spurious Frequency.

"---": denotes Noise Floor.

| Freq.  | Note    | Detector<br>Mode | Spectum<br>Reading Level | Factor | Actual<br>FS | Limit<br>@3 m | Margin |
|--------|---------|------------------|--------------------------|--------|--------------|---------------|--------|
| MHz    | F/H/E/S | PK/QP/AV         | dΒμV                     | dB     | dBµV/m       | dBµV/m        | dB     |
| 101.78 | S       | Peak             | 47.08                    | -17.52 | 29.56        | 43.5          | -13.94 |
| 175.50 | S       | Peak             | 58.69                    | -18.51 | 40.18        | 43.5          | -3.32  |
| 239.52 | S       | Peak             | 52.40                    | -15.28 | 37.12        | 46            | -8.88  |
| 275.41 | S       | Peak             | 46.97                    | -13.73 | 33.24        | 46            | -12.76 |
| 392.78 | S       | Peak             | 43.84                    | -9.91  | 33.93        | 46            | -12.07 |
| 448.07 | S       | Peak             | 42.22                    | -8.89  | 33.33        | 46            | -12.67 |

### ~ End of Report ~

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