



## HCT CO., LTD.

Product Compliance Division

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### CERTIFICATE OF COMPLIANCE

#### FCC PART 15.239 Certification

**Applicant Name:**

SysOnChip, Inc.

**Address:**

4F., Singwan Bldg., KT Buk-Daejeon Branch, 138 Gajeong-dong,  
Yuseong-gu, Daejeon., 302-828 South Korea

**Date of Issue:**

April 27, 2010

**Test Site/Location:**

HCT.CO., LTD., San 136-1 Ami-ri, Bubal-eup, Icheon-si,  
Kyungki-do, Korea

**Test Report No.:** HCTR1004FR21

**HCT FRN:** 0005866421

**IC Recognition No.:** 5944A-1

**FCC ID:**

**P47SOCNP530**

**APPLICANT:**

**SysOnChip, Inc.**

**FCC Rule Part(s):**

Part 15 Subpart C (15.239)

**EUT Type:**

Portable GPS Navigation

**Model(s):**

SOCNP530

**Frequency Range**

88.1 ~ 107.9 MHz

**FCC Rule Part(s)**

FCC Part 15 Low Power Communication Device TX (DXX)

**Engineering Statement:**

The measurements shown in this report were made in accordance with the procedures indicated, and the emissions from this equipment were found to be within the limits applicable. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them.

**HCT CO., LTD.** Certifies that no party to this application has been denied FCC benefits pursuant to section 5301 of the Anti-Drug Abuse Act of 1998, 21 U.S.C. 862

Report prepared by

: Hyo Sun Kwak

Test engineer of RF Team

Approved by

: Sang Jun Lee

Manager of RF Team

|                                 |                               |                                      |                        |                                                  |
|---------------------------------|-------------------------------|--------------------------------------|------------------------|--------------------------------------------------|
| HCT PT.15.239<br>TEST REPORT    | FCC CERTIFICATION REPORT      |                                      |                        | <a href="http://www.hct.co.kr">www.hct.co.kr</a> |
| Test Report No.<br>HCTR1004FR21 | Test Dates:<br>April 21, 2010 | EUT Type:<br>Portable GPS Navigation | FCC ID:<br>P47SOCNP530 | Page 1 of 21                                     |



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## 1. GENERAL INFORMATION

**Applicant Name:** SysOnChip, Inc.

**Address:** 4F., Singwan Bldg., KT Buk-Daejeon Branch, 138 Gajeong-dong,  
Yuseong-gu, Daejeon., 302-828 South Korea

**FCC ID:** P47SOCNP530

**Application Type:** Certification

**EUT:** Portable GPS Navigation

**Model:** SOCNP530

**Date of Test:** April 21, 2009

**Contact person:** Name: In Chul Ha  
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## 2. EUT DESCRIPTION

|                              |                                                     |
|------------------------------|-----------------------------------------------------|
| <b>Product</b>               | Portable GPS Navigation                             |
| <b>Model Name</b>            | SOCNP530                                            |
| <b>Power Supply</b>          | DC 12 V                                             |
| <b>Frequency Range</b>       | 88.1 ~ 107.9 MHz                                    |
| <b>FCC CLASSIFICATION</b>    | FCC Part 15 Low Power Communication Device TX (DXX) |
| <b>Antenna Specification</b> | Antenna type: WIRE ANTENNA                          |



### 3. TEST METHODOLOGY

The measurement procedure described in the American National Standard for Methods of Measurement of Radio-Noise Emission from Low-Voltage Electrical and Electronic Equipment in the Range of 9kHz to 40GHz(ANSI C63.4-2003)

#### 3.1 EUT CONFIGURATION

In situ testing was performed for three vehicles based on the following vehicle sizes; small, medium and large. The selected vehicles were: Hyundai AVANTE, Hyundai Tucson, KIA Grand Carnival. The EUT was connected to cigar jack in the above three types of vehicle.

#### 3.2 EUT EXERCISE

The EUT was operated in the engineering mode to fix the Tx frequency that was for the purpose of the measurements. According to its specifications, the EUT must comply with the requirements of the Section 15.205, 15.207, 15.209 and 15.239 under the FCC Rules Part 15 Subpart C.

#### 3.3 TEST PROCEDURES

EUT is set 3 m away from the receiving antenna, which varied from 1 m to 4 m 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. The data was taken on 8 radials with 3 different vehicles at a distance of 3 meters from the closet point of the vehicle.

#### 3.4 DESCRIPTION OF TEST MODES

The EUT has been tested under operating condition. Three frequency in the FM band were measured: The frequencies tested are high (107.9MHz), middle (98.3MHz) and low (88.1MHz) of the allocated band.

### 4. INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipments, which is traceable to recognized national standards.

|                                 |                               |                                      |                        |                                                  |
|---------------------------------|-------------------------------|--------------------------------------|------------------------|--------------------------------------------------|
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## 5. FACILITIES AND ACCREDITATIONS

### 5.1 FACILITIES

The open area test site and conducted measurement facility used to collect the radiated data are located at the 254-1, Maekok-Ri, Hobup-Myun, Ichon-Si, Kyoungki-Do, 467-701, KOREA. The site is constructed in conformance with the requirements of ANSI C63.4. (Version :2003) and CISPR Publication 22. Detailed description of test facility was submitted to the Commission and accepted dated June 10, 2009 (Registration Number: 90661)

### 5.2 EQUIPMENT

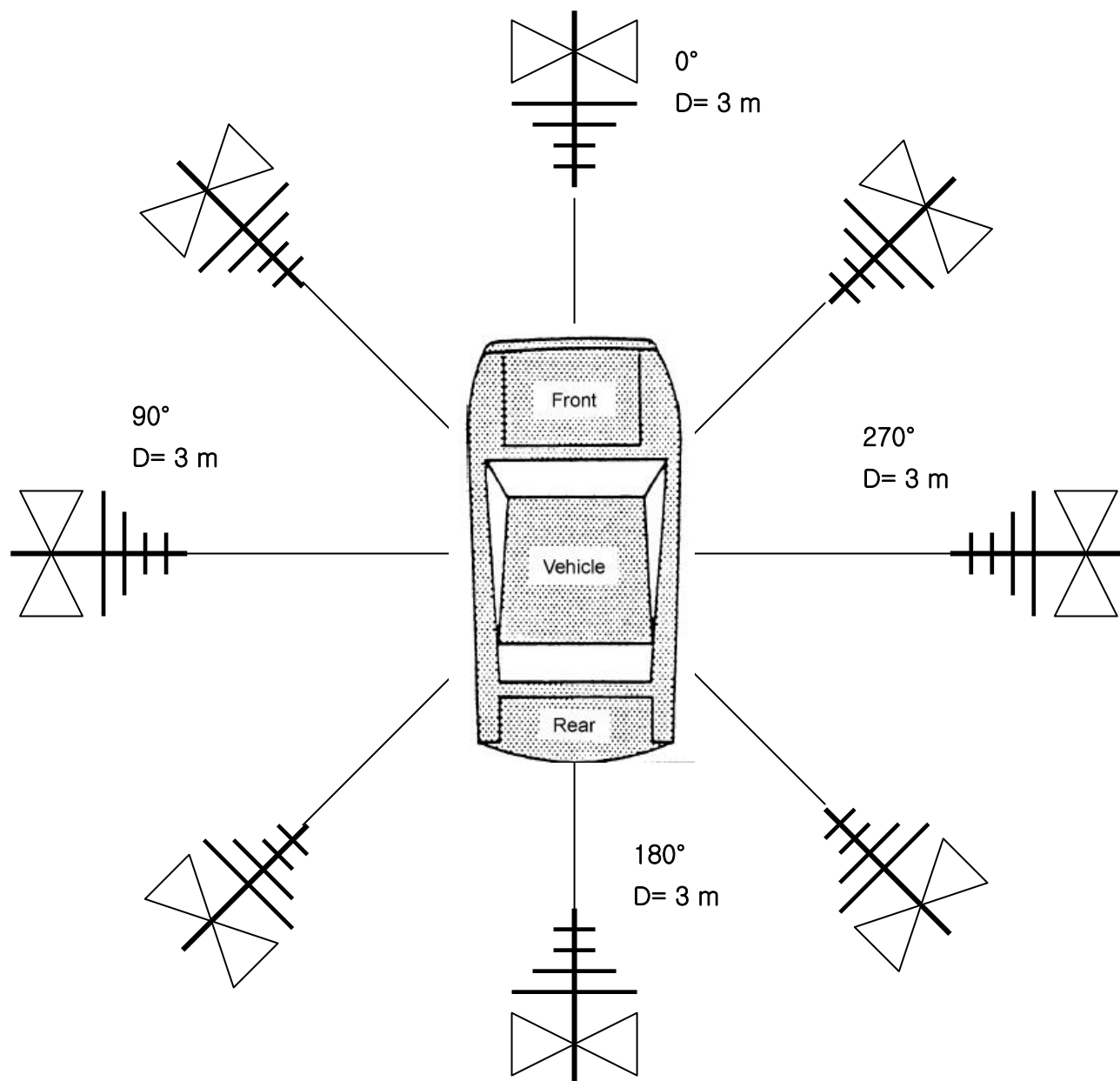
Radiated emissions are measured with one or more of the following types of Linearly polarized antennas: tuned dipole, bi-conical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with pre-selectors and quasi-peak detectors are used to perform radiated measurements.

Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers. Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.

All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

|                                 |                               |                                      |                        |                                                  |
|---------------------------------|-------------------------------|--------------------------------------|------------------------|--------------------------------------------------|
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## 6. DESCRIPTION OF TEST SETUP





## 7. LIMITS & TEST RESULT

### 7.1 LIMITS

#### **Section 15.239** Operation in the band 88 - 108 MHz.

(a) Emissions from the intentional radiator shall be confined within a band 200 kHz wide centered on the operating frequency. The 200 kHz band shall lie wholly within the frequency range of 88-108 MHz.

(b) The field strength of any emissions within the permitted 200 kHz band shall not exceed 250 microvolts/meter at 3 meters. The emission limit in this paragraph is based on measurement instrumentation employing an average detector. The provisions in Section 15.35 for limiting peak emissions apply.

(c) The field strength of any emissions radiated on any frequency outside of the specified 200 kHz band shall not exceed the general radiated emission limits in Section 15.209.

#### **Section 15.209** Radiated emission limits, general requirements.

(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:

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

\*\* Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

(b) In the emission table above, the tighter limit applies at the band edges.

|                                 |                               |                                      |                        |                                                  |
|---------------------------------|-------------------------------|--------------------------------------|------------------------|--------------------------------------------------|
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## 7.2 TEST RESULT

No non-compliance noted.

No other emission were detected beside the fundamental frequency.

### **Note :**

The unit was tested with the lowest, highest and mid channels. Three orthogonal positions were tested with the worst case levels reported.

|                                 |                               |                                      |                        |                                                  |
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## ■ TEST DATA

### VEHICLE SMALL: HYUNDAI AVANTE

EUT at 0°

| Frequency | Reading | AF  | C/L | LEVEL | LIMIT | Margin | Detector | POL | Height | Azimuth |
|-----------|---------|-----|-----|-------|-------|--------|----------|-----|--------|---------|
| 88.1      | 38.6    | 8.3 | 2.2 | 49.1  | 67.96 | 18.86  | Peak     | V   | 1.6    | 0°      |
| 88.1      | 30.3    | 8.3 | 2.2 | 40.8  | 47.96 | 7.16   | AV       | V   |        |         |
| 88.1      | 29.1    | 8.3 | 2.2 | 39.6  | 67.96 | 28.36  | Peak     | H   | 3.8    |         |
| 88.1      | 17.7    | 8.3 | 2.2 | 28.2  | 47.96 | 19.76  | AV       | H   |        |         |
| 98.3      | 31.4    | 8.9 | 2.4 | 42.7  | 67.96 | 25.26  | Peak     | V   | 1.5    |         |
| 98.3      | 27.1    | 8.9 | 2.4 | 38.4  | 47.96 | 9.56   | AV       | V   |        |         |
| 98.3      | 31.6    | 8.9 | 2.4 | 42.9  | 67.96 | 25.06  | Peak     | H   | 4.0    |         |
| 98.3      | 16.7    | 8.9 | 2.4 | 28    | 47.96 | 19.96  | AV       | H   |        |         |
| 107.9     | 37.4    | 9.7 | 2.5 | 49.6  | 67.96 | 18.36  | Peak     | V   | 1.0    |         |
| 107.9     | 21.7    | 9.7 | 2.5 | 33.9  | 47.96 | 14.06  | AV       | V   |        |         |
| 107.9     | 41.8    | 9.7 | 2.5 | 54    | 67.96 | 13.96  | Peak     | H   | 4.0    |         |
| 107.9     | 15.7    | 9.7 | 2.5 | 27.9  | 47.96 | 20.06  | AV       | H   |        |         |

EUT at 45°

| Frequency | Reading | AF  | C/L | LEVEL | LIMIT | Margin | Detector | POL | Height | Azimuth |
|-----------|---------|-----|-----|-------|-------|--------|----------|-----|--------|---------|
| 88.1      | 33.5    | 8.3 | 2.2 | 44    | 67.96 | 23.96  | Peak     | V   | 1.0    | 45°     |
| 88.1      | 24.1    | 8.3 | 2.2 | 34.6  | 47.96 | 13.36  | AV       | V   |        |         |
| 88.1      | 34.2    | 8.3 | 2.2 | 44.7  | 67.96 | 23.26  | Peak     | H   | 4.0    |         |
| 88.1      | 28.5    | 8.3 | 2.2 | 39    | 47.96 | 8.96   | AV       | H   |        |         |
| 98.3      | 30.1    | 8.9 | 2.4 | 41.4  | 67.96 | 26.56  | Peak     | V   | 1.0    |         |
| 98.3      | 22.4    | 8.9 | 2.4 | 33.7  | 47.96 | 14.26  | AV       | V   |        |         |
| 98.3      | 31.7    | 8.9 | 2.4 | 43    | 67.96 | 24.96  | Peak     | H   | 3.8    |         |
| 98.3      | 26.4    | 8.9 | 2.4 | 37.7  | 47.96 | 10.26  | AV       | H   |        |         |
| 107.9     | 27.0    | 9.7 | 2.5 | 39.2  | 67.96 | 28.76  | Peak     | V   | 1.1    |         |
| 107.9     | 17.3    | 9.7 | 2.5 | 29.5  | 47.96 | 18.46  | AV       | V   |        |         |
| 107.9     | 30.6    | 9.7 | 2.5 | 42.8  | 67.96 | 25.16  | Peak     | H   | 2.8    |         |
| 107.9     | 14.2    | 9.7 | 2.5 | 26.4  | 47.96 | 21.56  | AV       | H   |        |         |



**EUT at 90°**

| Frequency | Reading | AF  | C/L | LEVEL | LIMIT | Margin | Detector | POL | Height | Azimuth |
|-----------|---------|-----|-----|-------|-------|--------|----------|-----|--------|---------|
| 88.1      | 37.7    | 8.3 | 2.2 | 48.2  | 67.96 | 19.76  | Peak     | V   | 4.0    | 90°     |
| 88.1      | 23.8    | 8.3 | 2.2 | 34.3  | 47.96 | 13.66  | AV       | V   |        |         |
| 88.1      | 34.5    | 8.3 | 2.2 | 45    | 67.96 | 22.96  | Peak     | H   | 4.0    |         |
| 88.1      | 27.2    | 8.3 | 2.2 | 37.7  | 47.96 | 10.26  | AV       | H   |        |         |
| 98.3      | 26.8    | 8.9 | 2.4 | 38.1  | 67.96 | 29.86  | Peak     | V   | 4.0    |         |
| 98.3      | 16.2    | 8.9 | 2.4 | 27.5  | 47.96 | 20.46  | AV       | V   |        |         |
| 98.3      | 34.4    | 8.9 | 2.4 | 45.7  | 67.96 | 22.26  | Peak     | H   | 3.7    |         |
| 98.3      | 24.2    | 8.9 | 2.4 | 35.5  | 47.96 | 12.46  | AV       | H   |        |         |
| 107.9     | 32.6    | 9.7 | 2.5 | 44.8  | 67.96 | 23.16  | Peak     | V   | 1.0    |         |
| 107.9     | 14.6    | 9.7 | 2.5 | 26.8  | 47.96 | 21.16  | AV       | V   |        |         |
| 107.9     | 40.2    | 9.7 | 2.5 | 52.4  | 67.96 | 15.56  | Peak     | H   | 4.0    |         |
| 107.9     | 18.3    | 9.7 | 2.5 | 30.5  | 47.96 | 17.46  | AV       | H   |        |         |

**EUT at 135°**

| Frequency | Reading | AF  | C/L | LEVEL | LIMIT | Margin | Detector | POL | Height | Azimuth |
|-----------|---------|-----|-----|-------|-------|--------|----------|-----|--------|---------|
| 88.1      | 37.4    | 8.3 | 2.2 | 47.9  | 67.96 | 20.06  | Peak     | V   | 4.0    | 135°    |
| 88.1      | 20.4    | 8.3 | 2.2 | 30.9  | 47.96 | 17.06  | AV       | V   |        |         |
| 88.1      | 35.2    | 8.3 | 2.2 | 45.7  | 67.96 | 22.26  | Peak     | H   | 15.0   |         |
| 88.1      | 27.5    | 8.3 | 2.2 | 38    | 47.96 | 9.96   | AV       | H   |        |         |
| 98.3      | 28.6    | 8.9 | 2.4 | 39.9  | 67.96 | 28.06  | Peak     | V   | 3.8    |         |
| 98.3      | 17.5    | 8.9 | 2.4 | 28.8  | 47.96 | 19.16  | AV       | V   |        |         |
| 98.3      | 35.0    | 8.9 | 2.4 | 46.3  | 67.96 | 21.66  | Peak     | H   | 1.5    |         |
| 98.3      | 27.1    | 8.9 | 2.4 | 38.4  | 47.96 | 9.56   | AV       | H   |        |         |
| 107.9     | 32.9    | 9.7 | 2.5 | 45.1  | 67.96 | 22.86  | Peak     | V   | 1.0    |         |
| 107.9     | 10.3    | 9.7 | 2.5 | 22.5  | 47.96 | 25.46  | AV       | V   |        |         |
| 107.9     | 35.2    | 9.7 | 2.5 | 47.4  | 67.96 | 20.56  | Peak     | H   | 3.4    |         |
| 107.9     | 14.5    | 9.7 | 2.5 | 26.7  | 47.96 | 21.26  | AV       | H   |        |         |



### EUT at 180°

| Frequency | Reading | AF  | C/L | LEVEL | LIMIT | Margin | Detector | POL | Height | Azimuth |
|-----------|---------|-----|-----|-------|-------|--------|----------|-----|--------|---------|
| 88.1      | 35.0    | 8.3 | 2.2 | 45.5  | 67.96 | 22.46  | Peak     | V   | 4.0    | 180°    |
| 88.1      | 21.2    | 8.3 | 2.2 | 31.7  | 47.96 | 16.26  | AV       | V   |        |         |
| 88.1      | 26.7    | 8.3 | 2.2 | 37.2  | 67.96 | 30.76  | Peak     | H   | 3.9    |         |
| 88.1      | 9.5     | 8.3 | 2.2 | 20    | 47.96 | 27.96  | AV       | H   |        |         |
| 98.3      | 29.6    | 8.9 | 2.4 | 40.9  | 67.96 | 27.06  | Peak     | V   | 1.0    |         |
| 98.3      | 26.1    | 8.9 | 2.4 | 37.4  | 47.96 | 10.56  | AV       | V   |        |         |
| 98.3      | 29.0    | 8.9 | 2.4 | 40.3  | 67.96 | 27.66  | Peak     | H   | 3.4    |         |
| 98.3      | 14.5    | 8.9 | 2.4 | 25.8  | 47.96 | 22.16  | AV       | H   |        |         |
| 107.9     | 27.8    | 9.7 | 2.5 | 40    | 67.96 | 27.96  | Peak     | V   | 1.0    |         |
| 107.9     | 19.7    | 9.7 | 2.5 | 31.9  | 47.96 | 16.06  | AV       | V   |        |         |
| 107.9     | 32.3    | 9.7 | 2.5 | 44.5  | 67.96 | 23.46  | Peak     | H   | 4.0    |         |
| 107.9     | 5.3     | 9.7 | 2.5 | 17.5  | 47.96 | 30.46  | AV       | H   |        |         |

### EUT at 225°

| Frequency | Reading | AF  | C/L | LEVEL | LIMIT | Margin | Detector | POL | Height | Azimuth |
|-----------|---------|-----|-----|-------|-------|--------|----------|-----|--------|---------|
| 88.1      | 40.2    | 8.3 | 2.2 | 50.7  | 67.96 | 17.26  | Peak     | V   | 1.0    | 225°    |
| 88.1      | 20.2    | 8.3 | 2.2 | 30.7  | 47.96 | 17.26  | AV       | V   |        |         |
| 88.1      | 36.8    | 8.3 | 2.2 | 47.3  | 67.96 | 20.66  | Peak     | H   | 4.0    |         |
| 88.1      | 26.5    | 8.3 | 2.2 | 37    | 47.96 | 10.96  | AV       | H   |        |         |
| 98.3      | 26.1    | 8.9 | 2.4 | 37.4  | 67.96 | 30.56  | Peak     | V   | 1.2    |         |
| 98.3      | 16.5    | 8.9 | 2.4 | 27.8  | 47.96 | 20.16  | AV       | V   |        |         |
| 98.3      | 34.7    | 8.9 | 2.4 | 46    | 67.96 | 21.96  | Peak     | H   | 1.7    |         |
| 98.3      | 24.6    | 8.9 | 2.4 | 35.9  | 47.96 | 12.06  | AV       | H   |        |         |
| 107.9     | 33.1    | 9.7 | 2.5 | 45.3  | 67.96 | 22.66  | Peak     | V   | 4.0    |         |
| 107.9     | 10.9    | 9.7 | 2.5 | 23.1  | 47.96 | 24.86  | AV       | V   |        |         |
| 107.9     | 41.7    | 9.7 | 2.5 | 53.9  | 67.96 | 14.06  | Peak     | H   | 4.0    |         |
| 107.9     | 15.8    | 9.7 | 2.5 | 28    | 47.96 | 19.96  | AV       | H   |        |         |



### EUT at 270°

| Frequency | Reading | AF  | C/L | LEVEL | LIMIT | Margin | Detector | POL | Height | Azimuth |
|-----------|---------|-----|-----|-------|-------|--------|----------|-----|--------|---------|
| 88.1      | 24.8    | 8.3 | 2.2 | 35.3  | 67.96 | 32.66  | Peak     | V   | 1.0    | 270°    |
| 88.1      | 16.5    | 8.3 | 2.2 | 27    | 47.96 | 20.96  | AV       | V   |        |         |
| 88.1      | 31.9    | 8.3 | 2.2 | 42.4  | 67.96 | 25.56  | Peak     | H   | 4.0    |         |
| 88.1      | 23.2    | 8.3 | 2.2 | 33.7  | 47.96 | 14.26  | AV       | H   |        |         |
| 98.3      | 27.7    | 8.9 | 2.4 | 39    | 67.96 | 28.96  | Peak     | V   | 4.0    |         |
| 98.3      | 13.5    | 8.9 | 2.4 | 24.8  | 47.96 | 23.16  | AV       | V   |        |         |
| 98.3      | 31.6    | 8.9 | 2.4 | 42.9  | 67.96 | 25.06  | Peak     | H   | 3.6    |         |
| 98.3      | 27.8    | 8.9 | 2.4 | 39.1  | 47.96 | 8.86   | AV       | H   |        |         |
| 107.9     | 29.2    | 9.7 | 2.5 | 41.4  | 67.96 | 26.56  | Peak     | V   | 4.0    |         |
| 107.9     | 13.7    | 9.7 | 2.5 | 25.9  | 47.96 | 22.06  | AV       | V   |        |         |
| 107.9     | 34.5    | 9.7 | 2.5 | 46.7  | 67.96 | 21.26  | Peak     | H   | 4.0    |         |
| 107.9     | 19.5    | 9.7 | 2.5 | 31.7  | 47.96 | 16.26  | AV       | H   |        |         |

### EUT at 315°

| Frequency | Reading | AF  | C/L | LEVEL | LIMIT | Margin | Detector | POL | Height | Azimuth |
|-----------|---------|-----|-----|-------|-------|--------|----------|-----|--------|---------|
| 88.1      | 34.9    | 8.3 | 2.2 | 45.4  | 67.96 | 22.56  | Peak     | V   | 4.0    | 315°    |
| 88.1      | 20.4    | 8.3 | 2.2 | 30.9  | 47.96 | 17.06  | AV       | V   |        |         |
| 88.1      | 32.8    | 8.3 | 2.2 | 43.3  | 67.96 | 24.66  | Peak     | H   | 4.0    |         |
| 88.1      | 26.9    | 8.3 | 2.2 | 37.4  | 47.96 | 10.56  | AV       | H   |        |         |
| 98.3      | 26.4    | 8.9 | 2.4 | 37.7  | 67.96 | 30.26  | Peak     | V   | 4.0    |         |
| 98.3      | 24.8    | 8.9 | 2.4 | 36.1  | 47.96 | 11.86  | AV       | V   |        |         |
| 98.3      | 30.1    | 8.9 | 2.4 | 41.4  | 67.96 | 26.56  | Peak     | H   | 3.5    |         |
| 98.3      | 25.3    | 8.9 | 2.4 | 36.6  | 47.96 | 11.36  | AV       | H   |        |         |
| 107.9     | 31.4    | 9.7 | 2.5 | 43.6  | 67.96 | 24.36  | Peak     | V   | 1.0    |         |
| 107.9     | 15.4    | 9.7 | 2.5 | 27.6  | 47.96 | 20.36  | AV       | V   |        |         |
| 107.9     | 29.5    | 9.7 | 2.5 | 41.7  | 67.96 | 26.26  | Peak     | H   | 4.0    |         |
| 107.9     | 13.4    | 9.7 | 2.5 | 25.6  | 47.96 | 22.36  | AV       | H   |        |         |



# VEHECLE MEDIUM: HYUNDAI TUCSAN

EUT at 0°

| Frequency | Reading | AF  | C/L | LEVEL | LIMIT | Margin | Detector | POL | Height | Azimuth |
|-----------|---------|-----|-----|-------|-------|--------|----------|-----|--------|---------|
| 88.1      | 37.7    | 8.3 | 2.2 | 48.2  | 67.96 | 19.76  | Peak     | V   | 1.7    | 0°      |
| 88.1      | 31.1    | 8.3 | 2.2 | 41.6  | 47.96 | 6.36   | AV       | V   |        |         |
| 88.1      | 30.6    | 8.3 | 2.2 | 41.1  | 67.96 | 26.86  | Peak     | H   | 4.0    |         |
| 88.1      | 14.5    | 8.3 | 2.2 | 25    | 47.96 | 22.96  | AV       | H   |        |         |
| 98.3      | 34.1    | 8.9 | 2.4 | 45.4  | 67.96 | 22.56  | Peak     | V   | 1.1    |         |
| 98.3      | 31.3    | 8.9 | 2.4 | 42.6  | 47.96 | 5.36   | AV       | V   |        |         |
| 98.3      | 34.6    | 8.9 | 2.4 | 45.9  | 67.96 | 22.06  | Peak     | H   | 3.8    |         |
| 98.3      | 24.5    | 8.9 | 2.4 | 35.8  | 47.96 | 12.16  | AV       | H   |        |         |
| 107.9     | 30.6    | 9.7 | 2.5 | 42.8  | 67.96 | 25.16  | Peak     | V   | 4.0    |         |
| 107.9     | 16.1    | 9.7 | 2.5 | 28.3  | 47.96 | 19.66  | AV       | V   |        |         |
| 107.9     | 34.8    | 9.7 | 2.5 | 47    | 67.96 | 20.96  | Peak     | H   | 3.2    |         |
| 107.9     | 12.1    | 9.7 | 2.5 | 24.3  | 47.96 | 23.66  | AV       | H   |        |         |

EUT at 45°

| Frequency | Reading | AF  | C/L | LEVEL | LIMIT | Margin | Detector | POL | Height | Azimuth |
|-----------|---------|-----|-----|-------|-------|--------|----------|-----|--------|---------|
| 88.1      | 30.8    | 8.3 | 2.2 | 41.3  | 67.96 | 26.66  | Peak     | V   | 1.0    | 45°     |
| 88.1      | 23.3    | 8.3 | 2.2 | 33.8  | 47.96 | 14.16  | AV       | V   |        |         |
| 88.1      | 32.2    | 8.3 | 2.2 | 42.7  | 67.96 | 25.26  | Peak     | H   | 4.0    |         |
| 88.1      | 27.5    | 8.3 | 2.2 | 38    | 47.96 | 9.96   | AV       | H   |        |         |
| 98.3      | 29.7    | 8.9 | 2.4 | 41    | 67.96 | 26.96  | Peak     | V   | 1.0    |         |
| 98.3      | 25.8    | 8.9 | 2.4 | 37.1  | 47.96 | 10.86  | AV       | V   |        |         |
| 98.3      | 32.2    | 8.9 | 2.4 | 43.5  | 67.96 | 24.46  | Peak     | H   | 3.6    |         |
| 98.3      | 27.5    | 8.9 | 2.4 | 38.8  | 47.96 | 9.16   | AV       | H   |        |         |
| 107.9     | 28.3    | 9.7 | 2.5 | 40.5  | 67.96 | 27.46  | Peak     | V   | 1.0    |         |
| 107.9     | 15.7    | 9.7 | 2.5 | 27.9  | 47.96 | 20.06  | AV       | V   |        |         |
| 107.9     | 27.6    | 9.7 | 2.5 | 39.8  | 67.96 | 28.16  | Peak     | H   | 1.5    |         |
| 107.9     | 13.7    | 9.7 | 2.5 | 25.9  | 47.96 | 22.06  | AV       | H   |        |         |



**EUT at 90°**

| Frequency | Reading | AF  | C/L | LEVEL | LIMIT | Margin | Detector | POL | Height | Azimuth |
|-----------|---------|-----|-----|-------|-------|--------|----------|-----|--------|---------|
| 88.1      | 31.9    | 8.3 | 2.2 | 42.4  | 67.96 | 25.56  | Peak     | V   | 1.2    | 90°     |
| 88.1      | 19.1    | 8.3 | 2.2 | 29.6  | 47.96 | 18.36  | AV       | V   |        |         |
| 88.1      | 31.5    | 8.3 | 2.2 | 42    | 67.96 | 25.96  | Peak     | H   | 4.0    |         |
| 88.1      | 26.8    | 8.3 | 2.2 | 37.3  | 47.96 | 10.66  | AV       | H   |        |         |
| 98.3      | 24.3    | 8.9 | 2.4 | 35.6  | 67.96 | 32.36  | Peak     | V   | 4.0    |         |
| 98.3      | 13.7    | 8.9 | 2.4 | 25    | 47.96 | 22.96  | AV       | V   |        |         |
| 98.3      | 31.3    | 8.9 | 2.4 | 42.6  | 67.96 | 25.36  | Peak     | H   | 4.0    |         |
| 98.3      | 25.3    | 8.9 | 2.4 | 36.6  | 47.96 | 11.36  | AV       | H   |        |         |
| 107.9     | 31.3    | 9.7 | 2.5 | 43.5  | 67.96 | 24.46  | Peak     | V   | 1.0    |         |
| 107.9     | 14.1    | 9.7 | 2.5 | 26.3  | 47.96 | 21.66  | AV       | V   |        |         |
| 107.9     | 34.4    | 9.7 | 2.5 | 46.6  | 67.96 | 21.36  | Peak     | H   | 2.8    |         |
| 107.9     | 10.3    | 9.7 | 2.5 | 22.5  | 47.96 | 25.46  | AV       | H   |        |         |

**EUT at 135°**

| Frequency | Reading | AF  | C/L | LEVEL | LIMIT | Margin | Detector | POL | Height | Azimuth |
|-----------|---------|-----|-----|-------|-------|--------|----------|-----|--------|---------|
| 88.1      | 38.8    | 8.3 | 2.2 | 49.3  | 67.96 | 18.66  | Peak     | V   | 4.0    | 135°    |
| 88.1      | 24.3    | 8.3 | 2.2 | 34.8  | 47.96 | 13.16  | AV       | V   |        |         |
| 88.1      | 36.1    | 8.3 | 2.2 | 46.6  | 67.96 | 21.36  | Peak     | H   | 2.3    |         |
| 88.1      | 28.0    | 8.3 | 2.2 | 38.5  | 47.96 | 9.46   | AV       | H   |        |         |
| 98.3      | 29.5    | 8.9 | 2.4 | 40.8  | 67.96 | 27.16  | Peak     | V   | 3.5    |         |
| 98.3      | 18.2    | 8.9 | 2.4 | 29.5  | 47.96 | 18.46  | AV       | V   |        |         |
| 98.3      | 37.0    | 8.9 | 2.4 | 48.3  | 67.96 | 19.66  | Peak     | H   | 2.0    |         |
| 98.3      | 28.3    | 8.9 | 2.4 | 39.6  | 47.96 | 8.36   | AV       | H   |        |         |
| 107.9     | 33.8    | 9.7 | 2.5 | 46    | 67.96 | 21.96  | Peak     | V   | 1.0    |         |
| 107.9     | 12.8    | 9.7 | 2.5 | 25    | 47.96 | 22.96  | AV       | V   |        |         |
| 107.9     | 39.3    | 9.7 | 2.5 | 51.5  | 67.96 | 16.46  | Peak     | H   | 3.1    |         |
| 107.9     | 15.3    | 9.7 | 2.5 | 27.5  | 47.96 | 20.46  | AV       | H   |        |         |



**EUT at 180°**

| Frequency | Reading | AF  | C/L | LEVEL | LIMIT | Margin | Detector | POL | Height | Azimuth |
|-----------|---------|-----|-----|-------|-------|--------|----------|-----|--------|---------|
| 88.1      | 38.6    | 8.3 | 2.2 | 49.1  | 67.96 | 18.86  | Peak     | V   | 4.0    | 180°    |
| 88.1      | 22.6    | 8.3 | 2.2 | 33.1  | 47.96 | 14.86  | AV       | V   |        |         |
| 88.1      | 31.8    | 8.3 | 2.2 | 42.3  | 67.96 | 25.66  | Peak     | H   | 1.7    |         |
| 88.1      | 6.4     | 8.3 | 2.2 | 16.9  | 47.96 | 31.06  | AV       | H   |        |         |
| 98.3      | 33.8    | 8.9 | 2.4 | 45.1  | 67.96 | 22.86  | Peak     | V   | 1.0    |         |
| 98.3      | 25.2    | 8.9 | 2.4 | 36.5  | 47.96 | 11.46  | AV       | V   |        |         |
| 98.3      | 37.8    | 8.9 | 2.4 | 49.1  | 67.96 | 18.86  | Peak     | H   | 3.7    |         |
| 98.3      | 13.4    | 8.9 | 2.4 | 24.7  | 47.96 | 23.26  | AV       | H   |        |         |
| 107.9     | 21.2    | 9.7 | 2.5 | 33.4  | 67.96 | 34.56  | Peak     | V   | 1.0    |         |
| 107.9     | 12.0    | 9.7 | 2.5 | 24.2  | 47.96 | 23.76  | AV       | V   |        |         |
| 107.9     | 23.8    | 9.7 | 2.5 | 36    | 67.96 | 31.96  | Peak     | H   | 3.7    |         |
| 107.9     | 3.9     | 9.7 | 2.5 | 16.1  | 47.96 | 31.86  | AV       | H   |        |         |

**EUT at 225°**

| Frequency | Reading | AF  | C/L | LEVEL | LIMIT | Margin | Detector | POL | Height | Azimuth |
|-----------|---------|-----|-----|-------|-------|--------|----------|-----|--------|---------|
| 88.1      | 43.4    | 8.3 | 2.2 | 53.9  | 67.96 | 14.06  | Peak     | V   | 4.0    | 225°    |
| 88.1      | 22.0    | 8.3 | 2.2 | 32.5  | 47.96 | 15.46  | AV       | V   |        |         |
| 88.1      | 40.3    | 8.3 | 2.2 | 50.8  | 67.96 | 17.16  | Peak     | H   | 4.0    |         |
| 88.1      | 28.7    | 8.3 | 2.2 | 39.2  | 47.96 | 8.76   | AV       | H   |        |         |
| 98.3      | 24.4    | 8.9 | 2.4 | 35.7  | 67.96 | 32.26  | Peak     | V   | 2.1    |         |
| 98.3      | 16.0    | 8.9 | 2.4 | 27.3  | 47.96 | 20.66  | AV       | V   |        |         |
| 98.3      | 35.6    | 8.9 | 2.4 | 46.9  | 67.96 | 21.06  | Peak     | H   | 1.8    |         |
| 98.3      | 27.4    | 8.9 | 2.4 | 38.7  | 47.96 | 9.26   | AV       | H   |        |         |
| 107.9     | 34.8    | 9.7 | 2.5 | 47    | 67.96 | 20.96  | Peak     | V   | 4.0    |         |
| 107.9     | 11.7    | 9.7 | 2.5 | 23.9  | 47.96 | 24.06  | AV       | V   |        |         |
| 107.9     | 40.7    | 9.7 | 2.5 | 52.9  | 67.96 | 15.06  | Peak     | H   | 4.0    |         |
| 107.9     | 14.7    | 9.7 | 2.5 | 26.9  | 47.96 | 21.06  | AV       | H   |        |         |



**EUT at 270°**

| Frequency | Reading | AF  | C/L | LEVEL | LIMIT | Margin | Detector | POL | Height | Azimuth |
|-----------|---------|-----|-----|-------|-------|--------|----------|-----|--------|---------|
| 88.1      | 41.8    | 8.3 | 2.2 | 52.3  | 67.96 | 15.66  | Peak     | V   | 4.0    | 270°    |
| 88.1      | 20.1    | 8.3 | 2.2 | 30.6  | 47.96 | 17.36  | AV       | V   |        |         |
| 88.1      | 38.9    | 8.3 | 2.2 | 49.4  | 67.96 | 18.56  | Peak     | H   | 4.0    |         |
| 88.1      | 26.9    | 8.3 | 2.2 | 37.4  | 47.96 | 10.56  | AV       | H   |        |         |
| 98.3      | 30.4    | 8.9 | 2.4 | 41.7  | 67.96 | 26.26  | Peak     | V   | 4.0    |         |
| 98.3      | 19.8    | 8.9 | 2.4 | 31.1  | 47.96 | 16.86  | AV       | V   |        |         |
| 98.3      | 39.5    | 8.9 | 2.4 | 50.8  | 67.96 | 17.16  | Peak     | H   | 3.4    |         |
| 98.3      | 24.4    | 8.9 | 2.4 | 35.7  | 47.96 | 12.26  | AV       | H   |        |         |
| 107.9     | 38.7    | 9.7 | 2.5 | 50.9  | 67.96 | 17.06  | Peak     | V   | 1.0    |         |
| 107.9     | 14.7    | 9.7 | 2.5 | 26.9  | 47.96 | 21.06  | AV       | V   |        |         |
| 107.9     | 43.7    | 9.7 | 2.5 | 55.9  | 67.96 | 12.06  | Peak     | H   | 4.0    |         |
| 107.9     | 12.5    | 9.7 | 2.5 | 24.7  | 47.96 | 23.26  | AV       | H   |        |         |

**EUT at 315°**

| Frequency | Reading | AF  | C/L | LEVEL | LIMIT | Margin | Detector | POL | Height | Azimuth |
|-----------|---------|-----|-----|-------|-------|--------|----------|-----|--------|---------|
| 88.1      | 33.5    | 8.3 | 2.2 | 44    | 67.96 | 23.96  | Peak     | V   | 3.8    | 315°    |
| 88.1      | 21.3    | 8.3 | 2.2 | 31.8  | 47.96 | 16.16  | AV       | V   |        |         |
| 88.1      | 33.2    | 8.3 | 2.2 | 43.7  | 67.96 | 24.26  | Peak     | H   | 4.0    |         |
| 88.1      | 28.4    | 8.3 | 2.2 | 38.9  | 47.96 | 9.06   | AV       | H   |        |         |
| 98.3      | 29.2    | 8.9 | 2.4 | 40.5  | 67.96 | 27.46  | Peak     | V   | 3.7    |         |
| 98.3      | 26.3    | 8.9 | 2.4 | 37.6  | 47.96 | 10.36  | AV       | V   |        |         |
| 98.3      | 33.1    | 8.9 | 2.4 | 44.4  | 67.96 | 23.56  | Peak     | H   | 3.2    |         |
| 98.3      | 27.0    | 8.9 | 2.4 | 38.3  | 47.96 | 9.66   | AV       | H   |        |         |
| 107.9     | 28.0    | 9.7 | 2.5 | 40.2  | 67.96 | 27.76  | Peak     | V   | 4.0    |         |
| 107.9     | 13.8    | 9.7 | 2.5 | 26    | 47.96 | 21.96  | AV       | V   |        |         |
| 107.9     | 28.0    | 9.7 | 2.5 | 40.2  | 67.96 | 27.76  | Peak     | H   | 1.8    |         |
| 107.9     | 11.1    | 9.7 | 2.5 | 23.3  | 47.96 | 24.66  | AV       | H   |        |         |



## VEHECLE LARGE: KIA GRAND CANIVAL

EUT at 0°

| Frequency | Reading | AF  | C/L | LEVEL | LIMIT | Margin | Detector | POL | Height | Azimuth |
|-----------|---------|-----|-----|-------|-------|--------|----------|-----|--------|---------|
| 88.1      | 32.1    | 8.3 | 2.2 | 42.6  | 67.96 | 25.36  | Peak     | V   | 1.7    | 0°      |
| 88.1      | 27.4    | 8.3 | 2.2 | 37.9  | 47.96 | 10.06  | AV       | V   |        |         |
| 88.1      | 27.9    | 8.3 | 2.2 | 38.4  | 67.96 | 29.56  | Peak     | H   | 4.0    |         |
| 88.1      | 17.3    | 8.3 | 2.2 | 27.8  | 47.96 | 20.16  | AV       | H   |        |         |
| 98.3      | 32.2    | 8.9 | 2.4 | 43.5  | 67.96 | 24.46  | Peak     | V   | 1.0    |         |
| 98.3      | 29.5    | 8.9 | 2.4 | 40.8  | 47.96 | 7.16   | AV       | V   |        |         |
| 98.3      | 32.3    | 8.9 | 2.4 | 43.6  | 67.96 | 24.36  | Peak     | H   | 3.6    |         |
| 98.3      | 25.5    | 8.9 | 2.4 | 36.8  | 47.96 | 11.16  | AV       | H   |        |         |
| 107.9     | 31.2    | 9.7 | 2.5 | 43.4  | 67.96 | 24.56  | Peak     | V   | 1.0    |         |
| 107.9     | 25.1    | 9.7 | 2.5 | 37.3  | 47.96 | 10.66  | AV       | V   |        |         |
| 107.9     | 32.1    | 9.7 | 2.5 | 44.3  | 67.96 | 23.66  | Peak     | H   | 3.8    |         |
| 107.9     | 17.3    | 9.7 | 2.5 | 29.5  | 47.96 | 18.46  | AV       | H   |        |         |

EUT at 45°

| Frequency | Reading | AF  | C/L | LEVEL | LIMIT | Margin | Detector | POL | Height | Azimuth |
|-----------|---------|-----|-----|-------|-------|--------|----------|-----|--------|---------|
| 88.1      | 32.8    | 8.3 | 2.2 | 43.3  | 67.96 | 24.66  | Peak     | V   | 1.0    | 45°     |
| 88.1      | 20.5    | 8.3 | 2.2 | 31    | 47.96 | 16.96  | AV       | V   |        |         |
| 88.1      | 35.1    | 8.3 | 2.2 | 45.6  | 67.96 | 22.36  | Peak     | H   | 4.0    |         |
| 88.1      | 26.4    | 8.3 | 2.2 | 36.9  | 47.96 | 11.06  | AV       | H   |        |         |
| 98.3      | 32.9    | 8.9 | 2.4 | 44.2  | 67.96 | 23.76  | Peak     | V   | 1.0    |         |
| 98.3      | 24.2    | 8.9 | 2.4 | 35.5  | 47.96 | 12.46  | AV       | V   |        |         |
| 98.3      | 33.0    | 8.9 | 2.4 | 44.3  | 67.96 | 23.66  | Peak     | H   | 3.8    |         |
| 98.3      | 25.7    | 8.9 | 2.4 | 37    | 47.96 | 10.96  | AV       | H   |        |         |
| 107.9     | 35.4    | 9.7 | 2.5 | 47.6  | 67.96 | 20.36  | Peak     | V   | 1.1    |         |
| 107.9     | 13.4    | 9.7 | 2.5 | 25.6  | 47.96 | 22.36  | AV       | V   |        |         |
| 107.9     | 28.1    | 9.7 | 2.5 | 40.3  | 67.96 | 27.66  | Peak     | H   | 4.0    |         |
| 107.9     | 13.6    | 9.7 | 2.5 | 25.8  | 47.96 | 22.16  | AV       | H   |        |         |



### EUT at 90°

| Frequency | Reading | AF  | C/L | LEVEL | LIMIT | Margin | Detector | POL | Height | Azimuth |
|-----------|---------|-----|-----|-------|-------|--------|----------|-----|--------|---------|
| 88.1      | 28.6    | 8.3 | 2.2 | 39.1  | 67.96 | 28.86  | Peak     | V   | 4.0    | 90°     |
| 88.1      | 21.4    | 8.3 | 2.2 | 31.85 | 47.96 | 16.11  | AV       | V   |        |         |
| 88.1      | 33.8    | 8.3 | 2.2 | 44.3  | 67.96 | 23.66  | Peak     | H   | 4.0    |         |
| 88.1      | 26.2    | 8.3 | 2.2 | 36.7  | 47.96 | 11.26  | AV       | H   |        |         |
| 98.3      | 23.3    | 8.9 | 2.4 | 34.6  | 67.96 | 33.36  | Peak     | V   | 1.1    |         |
| 98.3      | 15.3    | 8.9 | 2.4 | 26.6  | 47.96 | 21.36  | AV       | V   |        |         |
| 98.3      | 27.0    | 8.9 | 2.4 | 38.3  | 67.96 | 29.66  | Peak     | H   | 3.8    |         |
| 98.3      | 23.1    | 8.9 | 2.4 | 34.4  | 47.96 | 13.56  | AV       | H   |        |         |
| 107.9     | 29.1    | 9.7 | 2.5 | 41.3  | 67.96 | 26.66  | Peak     | V   | 1.2    |         |
| 107.9     | 18.5    | 9.7 | 2.5 | 30.7  | 47.96 | 17.26  | AV       | V   |        |         |
| 107.9     | 30.9    | 9.7 | 2.5 | 43.1  | 67.96 | 24.86  | Peak     | H   | 4.0    |         |
| 107.9     | 14.5    | 9.7 | 2.5 | 26.7  | 47.96 | 21.26  | AV       | H   |        |         |

### EUT at 135°

| Frequency | Reading | AF  | C/L | LEVEL | LIMIT | Margin | Detector | POL | Height | Azimuth |
|-----------|---------|-----|-----|-------|-------|--------|----------|-----|--------|---------|
| 88.1      | 40.1    | 8.3 | 2.2 | 50.6  | 67.96 | 17.36  | Peak     | V   | 4.0    | 135°    |
| 88.1      | 24.9    | 8.3 | 2.2 | 35.4  | 47.96 | 12.56  | AV       | V   |        |         |
| 88.1      | 34.2    | 8.3 | 2.2 | 44.7  | 67.96 | 23.26  | Peak     | H   | 1.5    |         |
| 88.1      | 26.0    | 8.3 | 2.2 | 36.5  | 47.96 | 11.46  | AV       | H   |        |         |
| 98.3      | 27.3    | 8.9 | 2.4 | 38.6  | 67.96 | 29.36  | Peak     | V   | 4.0    |         |
| 98.3      | 17.5    | 8.9 | 2.4 | 28.8  | 47.96 | 19.16  | AV       | V   |        |         |
| 98.3      | 34.9    | 8.9 | 2.4 | 46.2  | 67.96 | 21.76  | Peak     | H   | 1.2    |         |
| 98.3      | 27.6    | 8.9 | 2.4 | 38.9  | 47.96 | 9.06   | AV       | H   |        |         |
| 107.9     | 34.8    | 9.7 | 2.5 | 47    | 67.96 | 20.96  | Peak     | V   | 1.0    |         |
| 107.9     | 13.1    | 9.7 | 2.5 | 25.3  | 47.96 | 22.66  | AV       | V   |        |         |
| 107.9     | 40.5    | 9.7 | 2.5 | 52.7  | 67.96 | 15.26  | Peak     | H   | 3.4    |         |
| 107.9     | 14.1    | 9.7 | 2.5 | 26.3  | 47.96 | 21.66  | AV       | H   |        |         |



### EUT at 180°

| Frequency | Reading | AF  | C/L | LEVEL | LIMIT | Margin | Detector | POL | Height | Azimuth |
|-----------|---------|-----|-----|-------|-------|--------|----------|-----|--------|---------|
| 88.1      | 31.4    | 8.3 | 2.2 | 41.9  | 67.96 | 26.06  | Peak     | V   | 4.0    | 180°    |
| 88.1      | 25.0    | 8.3 | 2.2 | 35.5  | 47.96 | 12.46  | AV       | V   |        |         |
| 88.1      | 29.2    | 8.3 | 2.2 | 39.7  | 67.96 | 28.26  | Peak     | H   | 1.9    |         |
| 88.1      | 13.6    | 8.3 | 2.2 | 24.1  | 47.96 | 23.86  | AV       | H   |        |         |
| 98.3      | 27.7    | 8.9 | 2.4 | 39    | 67.96 | 28.96  | Peak     | V   | 4.0    |         |
| 98.3      | 23.7    | 8.9 | 2.4 | 35    | 47.96 | 12.96  | AV       | V   |        |         |
| 98.3      | 26.8    | 8.9 | 2.4 | 38.1  | 67.96 | 29.86  | Peak     | H   | 3.6    |         |
| 98.3      | 16.2    | 8.9 | 2.4 | 27.5  | 47.96 | 20.46  | AV       | H   |        |         |
| 107.9     | 24.8    | 9.7 | 2.5 | 37    | 67.96 | 30.96  | Peak     | V   | 1.0    |         |
| 107.9     | 19.1    | 9.7 | 2.5 | 31.3  | 47.96 | 16.66  | AV       | V   |        |         |
| 107.9     | 17.8    | 9.7 | 2.5 | 30    | 67.96 | 37.96  | Peak     | H   | 4.0    |         |
| 107.9     | 8.7     | 9.7 | 2.5 | 20.9  | 47.96 | 27.06  | AV       | H   |        |         |

### EUT at 225°

| Frequency | Reading | AF  | C/L | LEVEL | LIMIT | Margin | Detector | POL | Height | Azimuth |
|-----------|---------|-----|-----|-------|-------|--------|----------|-----|--------|---------|
| 88.1      | 45.3    | 8.3 | 2.2 | 55.8  | 67.96 | 12.16  | Peak     | V   | 4.0    | 225°    |
| 88.1      | 23.8    | 8.3 | 2.2 | 34.3  | 47.96 | 13.66  | AV       | V   |        |         |
| 88.1      | 42.6    | 8.3 | 2.2 | 53.1  | 67.96 | 14.86  | Peak     | H   | 3.8    |         |
| 88.1      | 30.1    | 8.3 | 2.2 | 40.6  | 47.96 | 7.36   | AV       | H   |        |         |
| 98.3      | 26.4    | 8.9 | 2.4 | 37.7  | 67.96 | 30.26  | Peak     | V   | 1.6    |         |
| 98.3      | 17.2    | 8.9 | 2.4 | 28.5  | 47.96 | 19.46  | AV       | V   |        |         |
| 98.3      | 37.1    | 8.9 | 2.4 | 48.4  | 67.96 | 19.56  | Peak     | H   | 2.1    |         |
| 98.3      | 29.0    | 8.9 | 2.4 | 40.3  | 47.96 | 7.66   | AV       | H   |        |         |
| 107.9     | 33.5    | 9.7 | 2.5 | 45.7  | 67.96 | 22.26  | Peak     | V   | 1.0    |         |
| 107.9     | 14.3    | 9.7 | 2.5 | 26.5  | 47.96 | 21.46  | AV       | V   |        |         |
| 107.9     | 42.0    | 9.7 | 2.5 | 54.2  | 67.96 | 13.76  | Peak     | H   | 4.0    |         |
| 107.9     | 15.6    | 9.7 | 2.5 | 27.8  | 47.96 | 20.16  | AV       | H   |        |         |



**EUT at 270°**

| Frequency | Reading | AF  | C/L | LEVEL | LIMIT | Margin | Detector | POL | Height | Azimuth |
|-----------|---------|-----|-----|-------|-------|--------|----------|-----|--------|---------|
| 88.1      | 24.0    | 8.3 | 2.2 | 34.5  | 67.96 | 33.46  | Peak     | V   | 4.0    | 270°    |
| 88.1      | 20.2    | 8.3 | 2.2 | 30.7  | 47.96 | 17.26  | AV       | V   |        |         |
| 88.1      | 29.5    | 8.3 | 2.2 | 40    | 67.96 | 27.96  | Peak     | H   | 4.0    |         |
| 88.1      | 27.0    | 8.3 | 2.2 | 37.5  | 47.96 | 10.46  | AV       | H   |        |         |
| 98.3      | 26.1    | 8.9 | 2.4 | 37.4  | 67.96 | 30.56  | Peak     | V   | 4.0    |         |
| 98.3      | 22.1    | 8.9 | 2.4 | 33.4  | 47.96 | 14.56  | AV       | V   |        |         |
| 98.3      | 29.1    | 8.9 | 2.4 | 40.4  | 67.96 | 27.56  | Peak     | H   | 3.6    |         |
| 98.3      | 25.9    | 8.9 | 2.4 | 37.2  | 47.96 | 10.76  | AV       | H   |        |         |
| 107.9     | 21.4    | 9.7 | 2.5 | 33.6  | 67.96 | 34.36  | Peak     | V   | 1.0    |         |
| 107.9     | 14.2    | 9.7 | 2.5 | 26.4  | 47.96 | 21.56  | AV       | V   |        |         |
| 107.9     | 22.7    | 9.7 | 2.5 | 34.9  | 67.96 | 33.06  | Peak     | H   | 3.0    |         |
| 107.9     | 19.5    | 9.7 | 2.5 | 31.7  | 47.96 | 16.26  | AV       | H   |        |         |

**EUT at 315°**

| Frequency | Reading | AF  | C/L | LEVEL | LIMIT | Margin | Detector | POL | Height | Azimuth |
|-----------|---------|-----|-----|-------|-------|--------|----------|-----|--------|---------|
| 88.1      | 31.6    | 8.3 | 2.2 | 42.1  | 67.96 | 25.86  | Peak     | V   | 4.0    | 315°    |
| 88.1      | 19.8    | 8.3 | 2.2 | 30.3  | 47.96 | 17.66  | AV       | V   |        |         |
| 88.1      | 34.9    | 8.3 | 2.2 | 45.4  | 67.96 | 22.56  | Peak     | H   | 4.0    |         |
| 88.1      | 29.2    | 8.3 | 2.2 | 39.7  | 47.96 | 8.26   | AV       | H   |        |         |
| 98.3      | 31.5    | 8.9 | 2.4 | 42.8  | 67.96 | 25.16  | Peak     | V   | 3.9    |         |
| 98.3      | 27.6    | 8.9 | 2.4 | 38.9  | 47.96 | 9.06   | AV       | V   |        |         |
| 98.3      | 34.6    | 8.9 | 2.4 | 45.9  | 67.96 | 22.06  | Peak     | H   | 3.0    |         |
| 98.3      | 26.4    | 8.9 | 2.4 | 37.7  | 47.96 | 10.26  | AV       | H   |        |         |
| 107.9     | 30.4    | 9.7 | 2.5 | 42.6  | 67.96 | 25.36  | Peak     | V   | 4.0    |         |
| 107.9     | 14.9    | 9.7 | 2.5 | 27.1  | 47.96 | 20.86  | AV       | V   |        |         |
| 107.9     | 29.7    | 9.7 | 2.5 | 41.9  | 67.96 | 26.06  | Peak     | H   | 1.2    |         |
| 107.9     | 13.4    | 9.7 | 2.5 | 25.6  | 47.96 | 22.36  | AV       | H   |        |         |



## 8. LIST OF TEST EQUIPMENT

| Manufacturer    | Model / Equipment             | Cal Interval | Calibration Date | Serial No.         |
|-----------------|-------------------------------|--------------|------------------|--------------------|
| Schwarzbeck     | VULB 9160/ TRILOG Antenna     | Biennial     | 12/18/2008       | 9160-3150          |
| HD              | MA240/ Antenna Position Tower | N/A          | N/A              | 556                |
| EMCO            | 1050/ Turn Table              | N/A          | N/A              | 114                |
| HD GmbH         | HD 100/ Controller            | N/A          | N/A              | 13                 |
| HD GmbH         | KMS 560/ SlideBar             | N/A          | N/A              | 12                 |
| MITEQ           | AMF-60-0010 1800-35-20P/AMP   | Annual       | 05/20/2009       | 1200937            |
| Rohde & Schwarz | ESCI / EMI Receiver           | Annual       | 02/19/2010       | 100033             |
| DIGITAL         | EP-3010 /DC POWER SUPPLY      | Annual       | 01/08/2010       | 3110117            |
| ITECH           | IT6720 / DC POWER SUPPLY      | Annual       | 12/01/2009       | 010002156287001199 |
| TESCOM          | TC-3000A / BLUETOOTH TESTER   | Annual       | 01/11/2010       | 3000A490112        |
| Rohde & Schwarz | CBT / BLUETOOTH TESTER        | Annual       | 06/22/2009       | 100422             |
| EMCO            | 6502.LOOP ANTENNA             | Biennial     | 01/13/2010       | 9009-2536          |