SGS-CSTC Standards Technical Services Co., Ltd.

198 Kezhu Road, Scientech Park, Guangzhou Economic & Technological Development District, Guangzhou, China 510663
Telephone: +86 (0) 20 82155555
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Email: ee.guangzhou@sgs.com



# TEST REPORT

| | |
|---|---|
| **Application No.:** | GZEM1408004144RF |
| **Applicant:** | Salcomp (Shenzhen) Co., Ltd. |
| **Manufacturer:** | Salcomp (Shenzhen) Co., Ltd. |
| **Factory:** | Salcomp (Shenzhen) Co., Ltd.<br>Salcomp Industrial Eletrônica da Amazônia Ltda<br>Salcomp Manufacturing India Pvt Ltd. |
| **FCC ID:** | SZQ-T130 |
| **Product Name:** | Verizon Wireless Charging Pad |
| **Product Description:** | Low Power Transmitter |
| **Model No.:** | VZW1COIL-WC |
| **Trade mark:** | Verizon |
| **Standards:** | KDB 680106 D01v02. |
| **Date of Receipt:** | 2014-08-13 |
| **Date of Test:** | 2014-08-28 to 2014-08-29 |
| **Date of Issue:** | 2014-09-09 |
| **Test Result :** | **Pass*** |

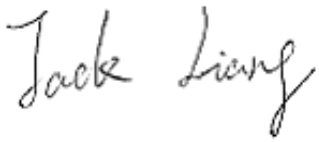
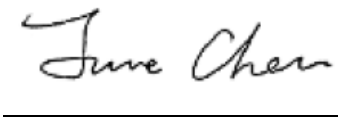
* In the configuration tested, the EUT detailed in this report complied with the standards specified above. Please refer to section 3 of this report for further detail.

Authorized Signature:

**Richard Li**
**Manager**

# 2 Version

| Revision Record | | | | |
|---|---|---|---|---|
| **Version** | **Chapter** | **Date** | **Modifier** | **Remark** |
| 00 | | 2014-09-09 | | Original |
| | | | | |
| | | | | |

| | | | | |
|---|---|---|---|---|
| **Authorized for issue by:** | | | | |
| **Tested By** | |  **(Jack Liang) /Project Engineer** | | 2014-08-28 to 2014-08-29 **Date** |
| **Prepared By** | |  **(June Chen) /Clerk** | | 2014-09-09 **Date** |
| **Checked By** | |  **(Fred Zhu) /Reviewer** | | 2014-09-09 **Date** |

# 3 Content

# 4 General Information

## 4.1 Client Information

| | |
|---|---|
| Applicant: | Salcomp (Shenzhen) Co., Ltd. |
| Address of Applicant: | Salcomp Road, Furong Industrial Area, Xinqiao, Shajing, Baoan District, Shenzhen 518125 CHINA |
| Manufacturer: | Salcomp (Shenzhen) Co., Ltd. |
| Address of Manufacturer | Salcomp Road, Furong Industrial Area, Xinqiao, Shajing, Baoan District, Shenzhen 518125 CHINA |
| Factory: | Salcomp (Shenzhen) Co., Ltd. |
| Address of Factory: | Salcomp Road, Furong Industrial Area, Xinqiao, Shajing, BaoanDistrict, Shenzhen 518125 CHINA |
| Factory: | Salcomp Industrial Eletrônica da Amazônia Ltda |
| Address of Factory: | Av. dos Oitis, no. 4,145, Distrito Industrial 69075-842 Manaus, Amazonas BRAZIL |
| Factory: | Salcomp Manufacturing India Pvt Ltd |
| Address of Factory: | Nokia Telecom SEZ SIPCOT Industrial Park Phase III Chennai – Bangalore Highway Sriperumbudur, Tamil Nadu-602 105 |

## 4.2 General information description

| | |
|---|---|
| Equipment under test | Verizon Wireless Charging Pad |
| Model name | VZW1COIL-WC |
| Serial number | N/A |
| Frequency Range | 110 KHz to 205 KHz |
| Antenna type | Internal type(Coil antenna) |
| Power source | 5V DC |

## 4.3 Test frequency

| | Frequency Range |
|---|---|
| Frequency (KHz) | 110 KHz to 205 KHz |

## 4.4 Description of Support Units

The EUT has been tested with simulate receiver, resistor and adapter provided by applicant.

| | |
|---|---|
| Adapter details | Model: S32A02 |
| | Input: AC 100-240 50/60 Hz 0.4A |
| | Output: DC 5V 1.8A |

## 4.5 Deviation from Standards

None.

## 4.6 Abnormalities from Standard Conditions

None.

## 4.7 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory,
198 Kezhu Road, Scientech Park, Guangzhou Economic & Technology Development District,
Guangzhou, China 510663
Tel: +86 20 82155555 Fax: +86 20 82075059

No tests were sub-contracted.

## 4.8 Test facility

The test facility is recognized, certified, or accredited by the following organizations:

- **NVLAP (Lab Code: 200611-0)**

  SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP/NIST). NVLAP Code: 200611-0.

  The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

- **ACMA**

  SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory can also perform testing for the Australian C-Tick mark as a result of our NVLAP accreditation.

- **SGS UK(Certificate No.: 32), SGS-TUV SAARLAND and SGS-FIMKO**

  Have approved SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory as a supplier of EMC TESTING SERVICES and SAFETY TESTING SERVICES.

- **CNAS (Lab Code: L0167)**

  SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been assessed and in compliance with CNAS-CL01:2006 accreditation criteria for testing laboratories (identical to ISO/IEC 17025:2005 General Requirements) for the Competence of Testing Laboratories.

- **FCC (Registration No.: 282399)**

  SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 282399, May 31, 2002.

- **Industry Canada (Registration No.: 4620B-1)**

  The 3m/10m Alternate Semi-anechoic chamber of SGS-CSTC Standards Technical Services Co., Ltd., has been registered by Certification and Engineering of Industry Canada for radio equipment testing with Registration No. 4620B-1.

- **VCCI (Registration No.: R-2460, C-2584, G-449 and T-1179)**

  The 10m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services Co. Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-2460, C-2584，G-449 and T-1179 respectively.

- **CBTL (Lab Code: TL129)**

  SGS-CSTC Standards Technical Services Co., Ltd., E&E Laboratory has been assessed and fully comply with the requirements of ISO/IEC 17025:2005, the Basic Rules, IECEE 01:2006-10 and Rules of procedure IECEE 02:2006-10, and the relevant IECEE CB-Scheme Operational documents.

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# 5 Equipment Used during Test

| RE in Chamber | | | | | | |
|---|---|---|---|---|---|---|
| No. | Test Equipment | Manufacturer | Model No. | Serial No. | Cal. date (YYYY-MM-DD) | Cal.Due date (YYYY-MM-DD) |
| EMC0525 | Compact Semi-Anechoic Chamber | ChangZhou ZhongYu | N/A | N/A | 2013-12-5 | 2014-12-5 |
| EMC0522 | EMI Test Receiver | Rohde & Schwarz | ESIB26 | 100283 | 2014-04-19 | 2015-04-19 |
| EMC0056 | EMI Test Receiver | Rohde & Schwarz | ESCI | 100236 | 2014-03-03 | 2015-03-03 |
| EMC0528 | RI High frequency Cable | SGS | 20 m | N/A | 2014-05-09 | 2015-05-09 |
| EMC2025 | Trilog Broadband Antenna 30-1000MHz | SCHWARZBECK MESS-ELEKTRONIK | VULB 9160 | 9160-3372 | 2014-07-14 | 2017-07-14 |
| EMC0524 | Bi-log Type Antenna | Schaffner -Chase | CBL6112B | 2966 | 2013-08-31 | 2016-08-31 |
| EMC0519 | Bilog Type Antenna | Schaffner -Chase | CBL6143 | 5070 | 2014-05-04 | 2017-05-04 |
| EMC2026 | Horn Antenna 1-18GHz | SCHWARZBECK MESS-ELEKTRONIK | BBHA 9120D | 9120D-841 | 2013-08-31 | 2016-08-31 |
| EMC0518 | Horn Antenna | Rohde & Schwarz | HF906 | 100096 | 2012-07-01 | 2015-07-01 |
| EMC0521 | 1-26.5 GHz Pre-Amplifier | Agilent | 8449B | 3008A01649 | 2014-03-03 | 2015-03-03 |
| EMC2065 | Amplifier | HP | 8447F | N/A | 2014-08-25 | 2015-08-25 |
| EMC0075 | 310N Amplifier | Sonama | 310N | 272683 | 2014-03-03 | 2015-03-03 |
| EMC0523 | Active Loop Antenna | EMCO | 6502 | 42963 | 2014-03-03 | 2016-03-03 |
| EMC2041 | Broad-Band Horn Antenna (14)15-26.5(40)GHz | SCHWARZBECK MESS-ELEKTRONI | BBHA 9170 | 9170-375 | 2014-05-26 | 2017-05-26 |
| EMC2069 | 2.4GHz filter | Micro-Tronics | BRM 50702 | 149 | 2014-04-19 | 2015-04-19 |
| EMC0530 | 10m Semi-Anechoic Chamber | ETS | N/A | N/A | 2014-05-03 | 2016-05-03 |

| General used equipment | | | | | | |
|---|---|---|---|---|---|---|
| No. | Test Equipment | Manufacturer | Model No. | Serial No. | Cal. date (YYYY-MM-DD) | Cal.Due date (YYYY-MM-DD) |
| EMC0006 | DMM | Fluke | 73 | 70681569 | 2013-09-13 | 2014-09-13 |
| EMC0007 | DMM | Fluke | 73 | 70671122 | 2013-09-13 | 2014-09-13 |
| EMC0907 | Electric Field Probe | WANDEL & GOLTERMANN | EMR-20 | M-0063 | 2014-04-19 | 2015-04-19 |

# 6 Environmental evaluation and exposure limit according to FCC CFR 47 Part 1.1307(b), 1.1310

## 6.1 Limits for Maximum Permissible Exposure (MPE)

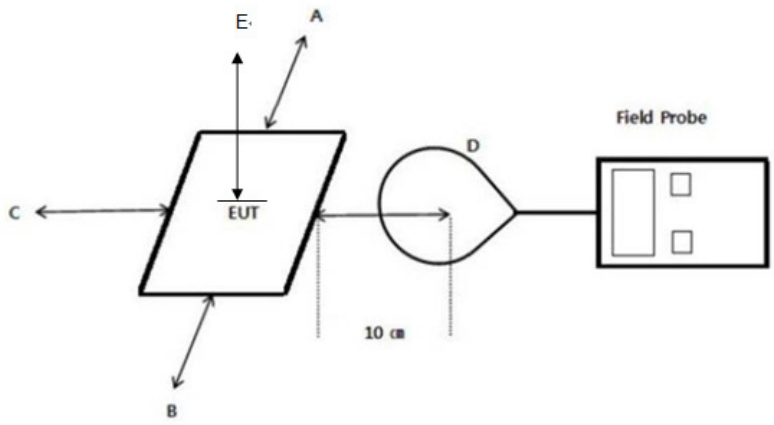
| Frequency Range (MHz) | Electric Field Strength (V/m) | Magnetic Field Strength (A/m) | Power Density ($mW/cm^2$) | Average Time (minutes) |
|---|---|---|---|---|
| (A) Limits for Occupational / Control Exposures | | | | |
| 0.3-3.0 | 614 | 1.63 | *(100) | 6 |
| (B) Limits for General Population/Uncontrolled Exposure | | | | |
| 0.3-1.34 | 614 | 1.63 | *(100) | 30 |

“*” means Plane-wave equivalent power density

## 6.2 Test mode

| Mode | Description |
|---|---|
| Charging mode With load | Using Max load |
| | Using Mid load |
| | Using Min load |
| Standby mode | No load |

## 6.3 Test Setup




1. The test was performed on 360 degree turn table in anechoic chamber.
2. The probe was placed at distance 10 cm which is between the edge of the charger and the geometric centre of the probe.
3. The highest emission level was recorded and compared with limit as soon as measurement of each point; A, B, C, D were completed.
4. The EUT was measured according to the KDB 680106 D01v02.

## 6.4 Test results

### 6.4.1 E-Field Strength at 10 cm from each edges the EUT (Pad type)

| Test Mode | Frequency Range(KHz) | Position A (V/m) | Position B (V/m) | Position C (V/m) | Position D (V/m) | Position E(V/m) | Limits (V/m) |
|---|---|---|---|---|---|---|---|
| Charging mode With load (Max) | 110 KHz to 205 KHz | 0.64 | 0.62 | 0.52 | 0.51 | 0.63 | 614 |
| Charging mode With load (Mid) | 110 KHz to 205 KHz | 0.65 | 0.63 | 0.54 | 0.55 | 0.69 | 614 |
| Charging mode With load (Min) | 110 KHz to 205 KHz | 0.60 | 0.62 | 0.51 | 0.49 | 0.65 | 614 |
| Standby mode (Not charging) | 110 KHz to 205 KHz | 0.43 | 0.41 | 0.46 | 0.46 | 0.40 | 614 |

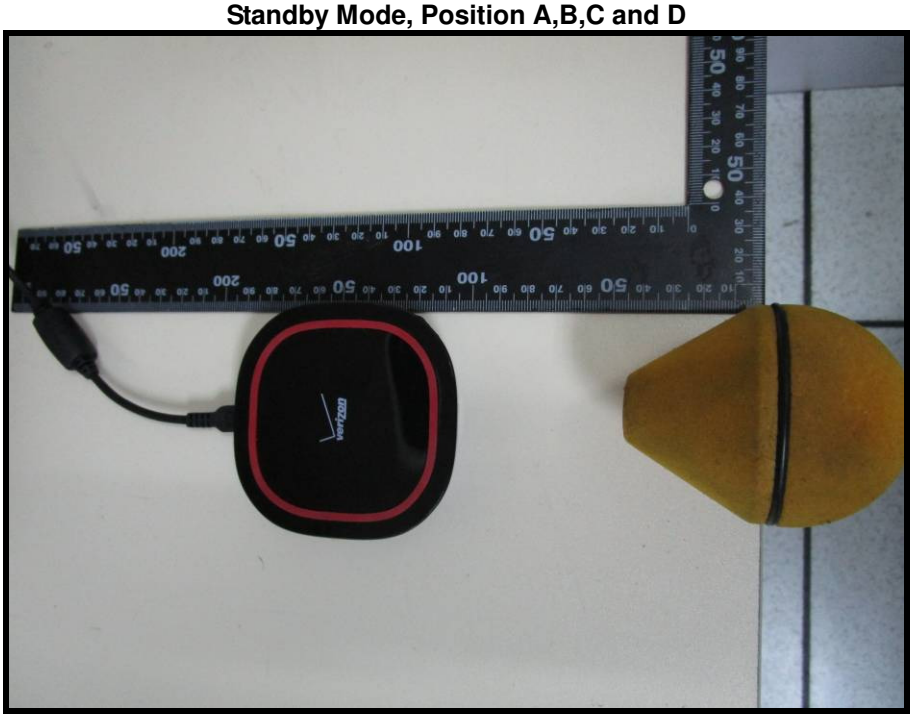
### 6.4.2 H-Field Strength at 10 cm from each edges the EUT (Pad type)

| Test Mode | Frequency Range(KHz) | Position A (A/m) | Position B (A/m) | Position C (A/m) | Position D (A/m) | Position E(A/m) | Limits (A/m) |
|---|---|---|---|---|---|---|---|
| Charging mode With load (Max) | 110 KHz to 205 KHz | 0.23 | 0.29 | 0.36 | 0.25 | 0.24 | 1.63 |
| Charging mode With load (Mid) | 110 KHz to 205 KHz | 0.27 | 0.23 | 0.21 | 0.24 | 0.23 | 1.63 |
| Charging mode With load (Min) | 110 KHz to 205 KHz | 0.24 | 0.22 | 0.28 | 0.21 | 0.25 | 1.63 |
| Standby mode (Not charging) | 110 KHz to 205 KHz | 0.27 | 0.23 | 0.26 | 0.28 | 0.29 | 1.63 |

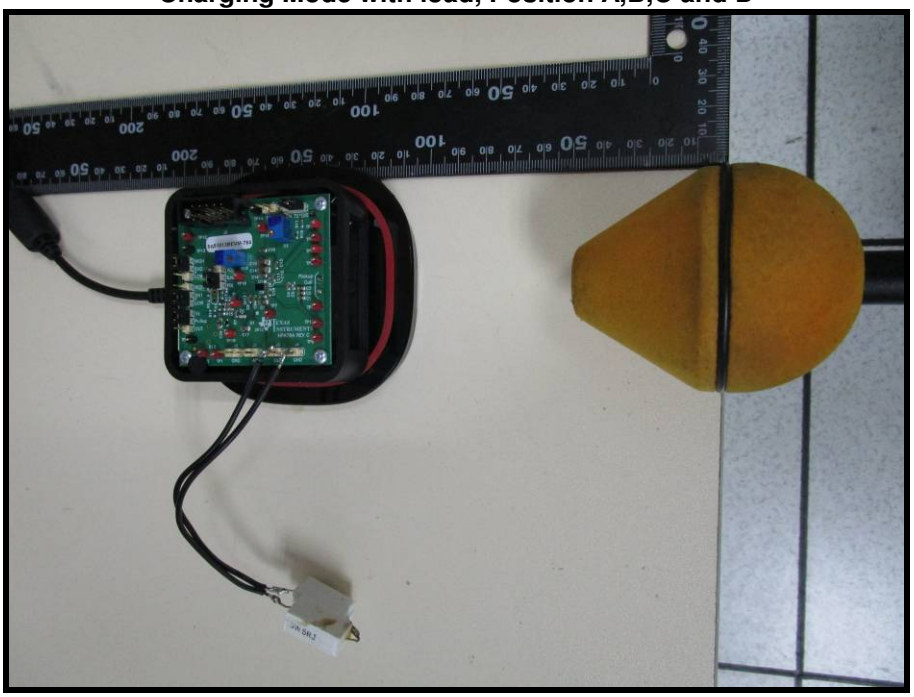
# 7 Photographs

## 7.1 . Test setup photo

**Standby Mode, Position A,B,C and D**

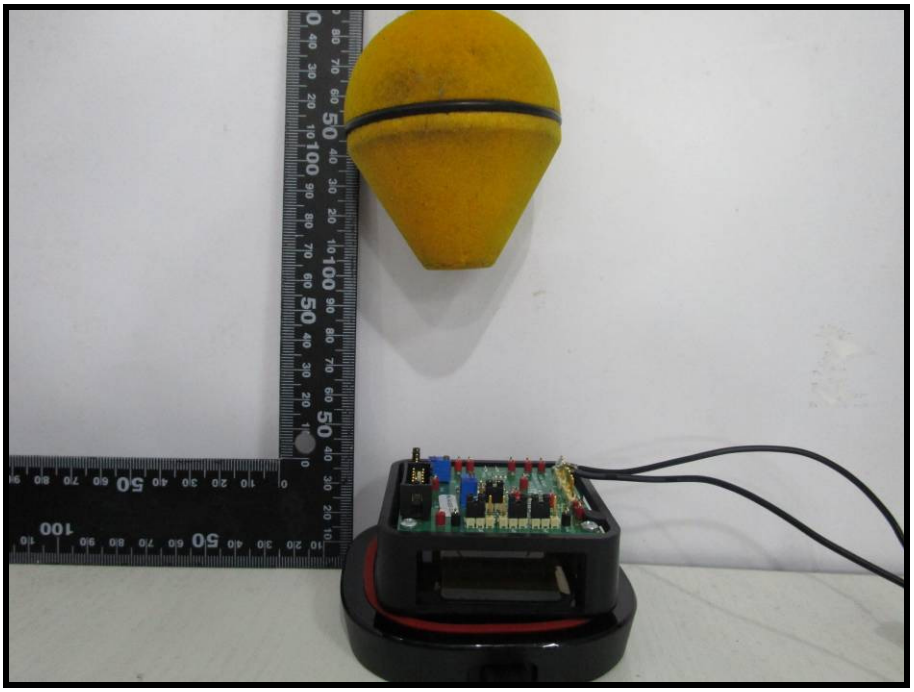


**Charging Mode with load, Position A,B,C and D**



**Standby Mode, position E**

**Charging Mode with load, position E**



**--End of Report--**