SAR Test Report

Report Number: M160308R1
(Replacing M160308)

Test Sample: Cellsafe Radi for iPhone 6 series mobile phone

Phone Model Numbers: iPhone 6, iPhone 6S, iPhone 6 Plus, iPhone 6S Plus

Tested For: Panasales Clearance Centre Pty Ltd

Date of Issue: 15th June 2016

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1.0 GENERAL INFORMATION

Test Sample: Cellsafe Radi for iPhone 6 series mobile phone

<table>
<thead>
<tr>
<th>Model Number</th>
<th>iPhone 6</th>
<th>iPhone 6S</th>
<th>iPhone 6 Plus</th>
<th>iPhone 6S Plus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serial Number</td>
<td>C39NX1YRG5MW</td>
<td>F17QRHUWGRY7</td>
<td>FK1Q3PA5G5QQ</td>
<td>C39QUM8QGRWM</td>
</tr>
<tr>
<td>Apple type</td>
<td>A1586</td>
<td>A1688</td>
<td>A1524</td>
<td>A1687</td>
</tr>
</tbody>
</table>

Manufacturer: Apple Inc

Device Category: Portable Transmitter

Test Device: Production Unit

RF exposure Category: General Public/Unaware user

Tested for: Panasales Clearance Centre Pty Ltd

Address: 14/1866 Princes Hwy, Clayton, Vic 3168

Contact: Nicole Bennett

Phone: 9544 4886

Email: sales@cellsafe.com.au

Test Standard/s: 1. Maximum Exposure Levels to Radiofrequency Fields – 3kHz to 300GHz, ARPANSA

2. EN 62209-1:2006 and EN 62209-2:2010

Results Statement: The Cellsafe Radi for iPhone 6 series mobile phone, Models: iPhone 6, iPhone 6S, iPhone 6 Plus, iPhone 6S Plus, was tested according to EN 50360, New Zealand and Australian Communications and Media Authority requirements for human exposure to radio frequencies. The Cellsafe Radi device was found to reduce SAR in the configurations described in this report by up to 87.7%.

Test Dates: 17th to 24th March 2016

Test Officer: Peter Jakubiec

Authorised Signature: Chris Zombolas

Technical Director
2.0 DESCRIPTION OF DEVICE

2.1 Description of Test Sample

The device tested was an iPhone 6 series mobile phone fitted with Cellsafe Radi RF reduction chip, and it was tested in the 850 MHz and 1900 MHz WCDMA frequency bands. It will be referred to as the Device Under Test (DUT) throughout this report. The DUT was tested in the Head Touch Left and Touch Right Positions.

Table: DUT (Device Under Test) Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Mode During Testing</td>
<td>See Clause 2.3</td>
</tr>
<tr>
<td>Operating Mode Production Sample</td>
<td>UMTS</td>
</tr>
<tr>
<td>Modulation</td>
<td>QPSK</td>
</tr>
<tr>
<td>Antenna type</td>
<td>Internal</td>
</tr>
<tr>
<td>Applicable Head Configurations</td>
<td>Touch Left and Touch Right</td>
</tr>
<tr>
<td>Applicable Body Worn-Configurations</td>
<td>None</td>
</tr>
<tr>
<td>Battery Options</td>
<td>Internal non removable Li-ion</td>
</tr>
</tbody>
</table>

2.2 Test sample Accessories

2.2.1 Battery Types
SAR measurements were performed with the standard Li-ion battery.

2.3 Test Signal, Frequency and Output Power

The DUT was provided by Panasales Clearance Centre Pty Ltd. It was put into operation using a Rhodes & Schwarz Radio Communication Tester CMU200. The channels and power classes utilised in the measurements are listed in the tables below.

The SAR level of the test sample was measured for the frequency bands as shown in the table below. Communication between the tester and the DUT was maintained by an air link.

Table: Test Frequencies and Power Classes

<table>
<thead>
<tr>
<th>Band</th>
<th>Frequency (MHz)</th>
<th>Traffic Channels</th>
<th>Band Power Class</th>
<th>Nominal Power (dBm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
<td>Mid</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>UMTS Band 2</td>
<td>N/A</td>
<td>1880.0</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>UMTS Band 5</td>
<td>N/A</td>
<td>836.6</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
2.4 Conducted Power Measurements

The conducted power of the DUT was not measured because the device does not have easily accessible RF test port.

2.5 Battery Status

The DUT battery was fully charged prior to commencement of each measurement. The battery condition was monitored by measuring the RF power at a defined position inside the phantom before the commencement of each test and again after the completion of the test.

2.6 Details of Test Laboratory

2.6.1 Location
EMC Technologies Pty Ltd
176 Harrick Road
Keilor Park, (Melbourne) Victoria
Australia 3042

Telephone:  +61 3 9365 1000
Facsimile:  +61 3 9331 7455
email: melb@emctech.com.au
website:  www.emctech.com.au

2.6.2 Accreditations
EMC Technologies Pty. Ltd. is accredited by the National Association of Testing Authorities, Australia (NATA). **NATA Accredited Laboratory Number: 5292**

Last assessed in February 2014, next scheduled assessment in February 2017

EMC Technologies Pty Ltd is NATA accredited for the following RF Human Exposure standards:

**AS/NZS 2772.2 2011:** Radiofrequency Fields.

- **Part 2:** Principles and methods of measurement and computation - 3kHz to 300 GHz.

**ACMA:** Radiocommunications (Electromagnetic Radiation — Human Exposure) Standard

**EN 50360: 2001**

Product standard to demonstrate the compliance of Mobile Phones with the basic restrictions related to human exposure to electromagnetic fields (300 MHz – 3 GHz)

**EN 62209-1:2006**

Human exposure to radio frequency fields from hand-held and body-mounted devices-Human models, instrumentation and procedures.

- **Part 1:** Procedure to determine the specific absorption rate (SAR) for hand-held devices used in close proximity to the ear (frequency range 300 MHz to 3 GHz)

**EN 62209-2:2010**

Human Exposure to radio frequency fields from hand-held and body-mounted wireless communication devices - Human models instrumentation and procedures

- **Part 2:** Procedure to determine the specific absorption rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)

**IEEE 1528: 2013**

Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head Due to Wireless Communications Devices: Measurement Techniques.

Refer to NATA website [www.nata.asn.au](http://www.nata.asn.au) for the full scope of accreditation.
2.6.3 Environmental Factors
The measurements were performed in a shielded room with no background RF signals. The temperature in the laboratory was controlled to within 21± 1 °C, the humidity was in the range 55% to 58%. See section 3.1.2 for measured temperature and humidity. The liquid parameters were measured daily prior to the commencement of each test. Tests were performed to check that reflections within the environment did not influence the SAR measurements. The noise floor of the DASY5 SAR measurement system using the ET3DV6 E-field probe is less than 5μV in both air and liquid mediums.

3.0 CALIBRATION AND VERIFICATION PROCEDURES AND DATA
Prior to the SAR assessment, the system verification kit was used to verify that the DASY5 was operating within its specifications. The system check was performed at the frequencies listed below using the SPEAG calibrated dipoles. The reference dipoles are highly symmetric and matched at the centre frequency for the specified liquid and distance to the phantom. The accurate distance between the liquid surface and the dipole centre is achieved with a distance holder that snaps onto the dipole. System verification is performed by feeding a known power level into a reference dipole, set at a known distance from the phantom. The measured SAR is compared to the theoretically derived level, and must be within ±10%.

3.1.1 Deviation from reference values
The EN62209 reference SAR values are derived numerically for a given phantom and dipole construction, at the frequencies listed below. These reference SAR values are obtained from the EN62209 standard and are normalized to 1W.

The SPEAG calibration reference SAR value is the SAR validation result obtained in a specific dielectric liquid using the verification dipole during calibration. The measured ten-gram SAR should be within ±10% of the expected target reference values shown in table below.

<table>
<thead>
<tr>
<th>Date</th>
<th>Frequency (MHz)</th>
<th>Measured SAR 10g (input power = 250mW)</th>
<th>Measured SAR 10g (Normalized to 1W)</th>
<th>SPEAG Calibration Reference SAR Value 10g (mW/g)</th>
<th>Deviation From SPEAG 10g (%)</th>
<th>EN62209 Reference SAR Value 10g (mW/g)</th>
<th>Deviation From EN62209 10g (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>17th Mar. 16</td>
<td>900</td>
<td>1.73</td>
<td>6.92</td>
<td>6.79</td>
<td>1.91</td>
<td>6.99</td>
<td>-1.00</td>
</tr>
<tr>
<td>21st Mar. 16</td>
<td>900</td>
<td>1.72</td>
<td>6.88</td>
<td>6.79</td>
<td>1.33</td>
<td>6.99</td>
<td>-1.57</td>
</tr>
<tr>
<td>23rd Mar. 16</td>
<td>1800</td>
<td>4.82</td>
<td>19.28</td>
<td>20.1</td>
<td>-4.08</td>
<td>20.1</td>
<td>-4.08</td>
</tr>
<tr>
<td>23rd Mar. 16</td>
<td>900</td>
<td>1.75</td>
<td>7.00</td>
<td>6.79</td>
<td>3.09</td>
<td>6.99</td>
<td>0.14</td>
</tr>
<tr>
<td>24th Mar. 16</td>
<td>1800</td>
<td>4.9</td>
<td>19.60</td>
<td>20.1</td>
<td>-2.49</td>
<td>20.1</td>
<td>-2.49</td>
</tr>
</tbody>
</table>

Note: All reference SAR values are normalized to 1W input power.

3.1.2 Temperature and Humidity
The humidity and dielectric/ambient temperatures are recorded during the assessment of the tissue material dielectric parameters. The difference between the ambient temperature of the liquid during the dielectric measurement and the temperature during tests was less than |2|°C.

<table>
<thead>
<tr>
<th>Date</th>
<th>Ambient Temperature (°C)</th>
<th>Liquid Temperature (°C)</th>
<th>Humidity (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>17th March 2016</td>
<td>20.3</td>
<td>20.0</td>
<td>58</td>
</tr>
<tr>
<td>21st March 2016</td>
<td>21.0</td>
<td>20.6</td>
<td>56</td>
</tr>
<tr>
<td>23rd March 2016</td>
<td>20.8</td>
<td>20.6</td>
<td>56</td>
</tr>
<tr>
<td>24th March 2016</td>
<td>20.6</td>
<td>20.2</td>
<td>56</td>
</tr>
</tbody>
</table>
4.0 SAR MEASUREMENT PROCEDURE USING DASY5

The SAR evaluation was performed with the SPEAG DASY5 System (Version 52). A summary of the procedure follows:

a) A measurement of the SAR value at a fixed location is used as a reference value for assessing the power drop of the DUT. The SAR at this point is measured at the start of the test and then again at the end of the test.

b) The SAR distribution at the exposed side of the head or the flat section of the flat phantom is measured at a distance of 4.0 mm from the inner surface of the shell. The area covers the entire dimension of the DUT and the horizontal grid spacing is 20 mm x 20 mm. The actual largest Area Scan has dimensions of 120 mm x 220 mm surrounding the test device. Based on this data, the area of the maximum absorption is determined by Spline interpolation.

c) Around this point, a volume of 32 mm x 32 mm x 30 mm is assessed by measuring 5 x 5 x 7 points. On the basis of this data set, the spatial peak SAR value is evaluated with the following procedure:

(i) The data at the surface are extrapolated, since the centre of the dipoles is 2.7 mm away from the tip of the probe and the distance between the surface and the lowest measuring point is 4 mm. The extrapolation is based on a least square algorithm. A polynomial of the fourth order is calculated through the points in z-axes. This polynomial is then used to evaluate the points between the surface and the probe tip.

d) (i) The maximum interpolated value is searched with a straightforward algorithm. Around this maximum the SAR values averaged over the spatial volumes (1 g and 10 g) are computed using the 3D-Spline interpolation algorithm. The 3D-Spline is composed of three one-dimensional splines with the “Not a knot”- condition (in x, y and z-direction). The volume is integrated with the trapezoidal – algorithm. One thousand points (10 x 10 x 10) are interpolated to calculate the averages.

(ii) All neighbouring volumes are evaluated until no neighbouring volume with a higher average value is found.

(iii) The SAR value at the same location as in Step (a) is again measured and the power drift is recorded.
5.0 MEASUREMENT UNCERTAINTY

The uncertainty analysis is based on the template listed in the EN 62209-1 and EN62209-2 for both Handset SAR tests and Validation uncertainty. The measurement uncertainty of a specific device is evaluated independently and the total uncertainty for both evaluations (95% confidence level) must be less than 30%.

Table: Uncertainty Budget for DASY5 Version 52 – DUT SAR test

| Error Description                     | Uncert. Value | Prob. Dist. | Div. | Ci (1g) | Ci (10g) | 1g ui | 10g ui | x
|---------------------------------------|---------------|-------------|------|---------|---------|-------|--------|---
| Measurement System                    |               |             |      |         |         |       |        |     |
| Probe Calibration                      | 6             | N           | 1.00 | 1       | 1       | 6.00  | 6.00   | ∞  |
| Axial Isotropy                         | 4.7           | R           | 1.73 | 0.7     | 0.7     | 1.90  | 1.90   | ∞  |
| Hemispherical Isotropy                 | 9.6           | R           | 1.73 | 0.7     | 0.7     | 3.88  | 3.88   | ∞  |
| Boundary Effects                       | 1             | R           | 1.73 | 1       | 1       | 0.58  | 0.58   | ∞  |
| Linearity                              | 4.7           | R           | 1.73 | 1       | 1       | 2.71  | 2.71   | ∞  |
| System Detection Limits                | 1             | R           | 1.73 | 1       | 1       | 0.58  | 0.58   | ∞  |
| Modulation response                    | 2.4           | R           | 1.73 | 1       | 1       | 1.39  | 1.39   | ∞  |
| Readout Electronics                    | 0.3           | N           | 1.00 | 1       | 1       | 0.30  | 0.30   | ∞  |
| Response Time                          | 0.8           | R           | 1.73 | 1       | 1       | 0.46  | 0.46   | ∞  |
| Integration Time                       | 2.6           | R           | 1.73 | 1       | 1       | 1.50  | 1.50   | ∞  |
| RF Ambient Noise                       | 3             | R           | 1.73 | 1       | 1       | 1.73  | 1.73   | ∞  |
| RF Ambient Reflections                 | 3             | R           | 1.73 | 1       | 1       | 1.73  | 1.73   | ∞  |
| Probe Positioner                       | 0.4           | R           | 1.73 | 1       | 1       | 0.23  | 0.23   | ∞  |
| Probe Positioning                      | 2.9           | R           | 1.73 | 1       | 1       | 1.67  | 1.67   | ∞  |
| Post Processing                        | 2             | R           | 1.73 | 1       | 1       | 1.15  | 1.15   | ∞  |
| Test Sample Related                    |               |             |      |         |         |       |        |     |
| Power Scaling                          | 0             | R           | 1.73 | 1       | 1       | 0.00  | 0.00   | ∞  |
| Test Sample Positioning                | 2.9           | N           | 1.00 | 1       | 1       | 2.90  | 2.90   | 145 |
| Device Holder Uncertainty              | 3.6           | N           | 1.00 | 1       | 1       | 3.60  | 3.60   | ∞  |
| Output Power Variation – SAR drift     | 4.50          | R           | 1.73 | 1       | 1       | 2.60  | 2.60   | ∞  |
| Measurement                            |               |             |      |         |         |       |        |     |
| Phantom Uncertainty                    | 7.6           | R           | 1.73 | 1       | 1       | 4.39  | 4.39   | ∞  |
| Liquid Conductivity – Deviation from target values | 5    | R           | 1.73 | 0.64 | 0.43 | 1.85  | 1.24   | ∞  |
| Liquid Permittivity – Deviation from target values | 5    | R           | 1.73 | 0.6 | 0.49 | 1.73  | 1.41   | ∞  |
| Liquid Conductivity – Measurement Uncertainty | 2.5 | N           | 1.00 | 0.64 | 0.43 | 1.60  | 1.08   | ∞  |
| Liquid Permittivity – Measurement Uncertainty | 2.5 | N           | 1.00 | 0.6 | 0.49 | 1.50  | 1.23   | ∞  |
| Temp. unc. - Conductivity              | 3.4           | R           | 1.73 | 0.78 | 0.71 | 1.53  | 1.39   | ∞  |
| Temp. unc. - Permittivity              | 0.4           | R           | 1.73 | 0.23 | 0.26 | 0.05  | 0.06   | ∞  |
| Combined standard Uncertainty (u)      |               |             |      |         |         |       |        |     |
| Estimated total measurement uncertainty for the DASY5 measurement system was ±11.53%. The expanded uncertainty (K = 2) was assessed to be ±23.05% based on 95% confidence level. The uncertainty is not added to the measurement result. |
## Table: Uncertainty Budget for DASY5 Version 52 – Validation

<table>
<thead>
<tr>
<th>Error Description</th>
<th>Uncert. Value</th>
<th>Prob. Dist.</th>
<th>Div.</th>
<th>C_i (1g)</th>
<th>C_i (10g)</th>
<th>1g u</th>
<th>10g u</th>
<th>vi</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Measurement System</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Probe Calibration</td>
<td>6 N</td>
<td>1.00</td>
<td>1</td>
<td>1</td>
<td>6.00</td>
<td>6.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Axial Isotropy</td>
<td>4.7 R</td>
<td>1.73</td>
<td>1</td>
<td>1</td>
<td>2.71</td>
<td>2.71</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hemispherical Isotropy</td>
<td>9.6 R</td>
<td>1.73</td>
<td>0</td>
<td>0</td>
<td>0.00</td>
<td>0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boundary Effects</td>
<td>1 R</td>
<td>1.73</td>
<td>1</td>
<td>1</td>
<td>0.58</td>
<td>0.58</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Linearity</td>
<td>4.7 R</td>
<td>1.73</td>
<td>1</td>
<td>1</td>
<td>2.71</td>
<td>2.71</td>
<td></td>
<td></td>
</tr>
<tr>
<td>System Detection Limits</td>
<td>1 R</td>
<td>1.73</td>
<td>1</td>
<td>1</td>
<td>0.58</td>
<td>0.58</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modulation response</td>
<td>0 R</td>
<td>1.73</td>
<td>1</td>
<td>1</td>
<td>0.00</td>
<td>0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Readout Electronics</td>
<td>0.3 N</td>
<td>1.00</td>
<td>1</td>
<td>1</td>
<td>0.30</td>
<td>0.30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Response Time</td>
<td>0 R</td>
<td>1.73</td>
<td>1</td>
<td>1</td>
<td>0.00</td>
<td>0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integration Time</td>
<td>0 R</td>
<td>1.73</td>
<td>1</td>
<td>1</td>
<td>0.00</td>
<td>0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RF Ambient Noise</td>
<td>1 R</td>
<td>1.73</td>
<td>1</td>
<td>1</td>
<td>0.58</td>
<td>0.58</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RF Ambient Reflections</td>
<td>1 R</td>
<td>1.73</td>
<td>1</td>
<td>1</td>
<td>0.58</td>
<td>0.58</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Probe Positioner</td>
<td>0.8 R</td>
<td>1.73</td>
<td>1</td>
<td>1</td>
<td>0.46</td>
<td>0.46</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Probe Positioning</td>
<td>6.7 R</td>
<td>1.73</td>
<td>1</td>
<td>1</td>
<td>3.87</td>
<td>3.87</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post Processing</td>
<td>2 R</td>
<td>1.73</td>
<td>1</td>
<td>1</td>
<td>1.15</td>
<td>1.15</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dipole Related</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deviation of exp. dipole</td>
<td>5.5 R</td>
<td>1.73</td>
<td>1</td>
<td>1</td>
<td>3.18</td>
<td>3.18</td>
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</tr>
<tr>
<td>Dipole Axis to Liquid Dist.</td>
<td>2 R</td>
<td>1.73</td>
<td>1</td>
<td>1</td>
<td>1.15</td>
<td>1.15</td>
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<tr>
<td>Input power &amp; SAR drift</td>
<td>3.40 R</td>
<td>1.73</td>
<td>1</td>
<td>1</td>
<td>1.96</td>
<td>1.96</td>
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<tr>
<td><strong>Phantom and Setup</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Phantom Uncertainty</td>
<td>4 R</td>
<td>1.73</td>
<td>1</td>
<td>1</td>
<td>2.31</td>
<td>2.31</td>
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<td></td>
</tr>
<tr>
<td>Liquid Conductivity – Deviation from target values</td>
<td>5 R</td>
<td>1.73</td>
<td>0.64</td>
<td>0.43</td>
<td>1.85</td>
<td>1.24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liquid Permittivity – Deviation from target values</td>
<td>5 R</td>
<td>1.73</td>
<td>0.6</td>
<td>0.49</td>
<td>1.73</td>
<td>1.41</td>
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<td></td>
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<tr>
<td>Liquid Conductivity – Measurement uncertainty</td>
<td>2.5 N</td>
<td>1.00</td>
<td>0.64</td>
<td>0.43</td>
<td>1.60</td>
<td>1.08</td>
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<td></td>
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<tr>
<td>Liquid Permittivity – Measurement uncertainty</td>
<td>2.5 N</td>
<td>1.00</td>
<td>0.26</td>
<td>0.26</td>
<td>0.65</td>
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<tr>
<td>Temp. unc. - Conductivity</td>
<td>3.4 R</td>
<td>1.73</td>
<td>0.78</td>
<td>0.71</td>
<td>1.53</td>
<td>1.39</td>
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<tr>
<td>Temp. unc. - Permittivity</td>
<td>0.4 R</td>
<td>1.73</td>
<td>0.23</td>
<td>0.26</td>
<td>0.05</td>
<td>0.06</td>
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<td></td>
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<tr>
<td>Combined standard Uncertainty (u_c)</td>
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<td></td>
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<td></td>
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<tr>
<td>Expanded Uncertainty (95% CONFIDENCE LEVEL)</td>
<td>k= 2</td>
<td></td>
<td></td>
<td></td>
<td>20.10</td>
<td>19.63</td>
<td></td>
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</tr>
</tbody>
</table>

Estimated total measurement uncertainty for the DASY5 measurement system was ±9.81%. The expanded uncertainty (K = 2) was assessed to be ±19.63% based on 95% confidence level. The uncertainty is not added to the Validation measurement result.
### 6.0 EQUIPMENT LIST AND CALIBRATION DETAILS

<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>Manufacturer</th>
<th>Model Number</th>
<th>Serial Number</th>
<th>Calibration Due</th>
<th>Used For this Test?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Robot - Six Axes</td>
<td>Staubli</td>
<td>RX90BL</td>
<td>N/A</td>
<td>Not applicable</td>
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</tr>
<tr>
<td>Robot Remote Control</td>
<td>SPEAG</td>
<td>CSTMB</td>
<td>RX90B</td>
<td>Not applicable</td>
<td>✓</td>
</tr>
<tr>
<td>SAM Phantom</td>
<td>SPEAG</td>
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<td>1260</td>
<td>Not applicable</td>
<td>✓</td>
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<tr>
<td>SAM Phantom</td>
<td>SPEAG</td>
<td>N/A</td>
<td>1060</td>
<td>Not applicable</td>
<td>✓</td>
</tr>
<tr>
<td>Flat Phantom</td>
<td>AndreT</td>
<td>10.1</td>
<td>P 10.1</td>
<td>Not Applicable</td>
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</tr>
<tr>
<td>Flat Phantom</td>
<td>AndreT</td>
<td>9.1</td>
<td>P 9.1</td>
<td>Not Applicable</td>
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<td>Data Acquisition Electronics</td>
<td>SPEAG</td>
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<td>359</td>
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<tr>
<td>Data Acquisition Electronics</td>
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<td>Probe E-Field - Dummy</td>
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<td>DP1</td>
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<td>Not applicable</td>
<td>✓</td>
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<td>Probe E-Field</td>
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<td>ET3DV6</td>
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<td>Probe E-Field - Dummy</td>
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<td>ET3DV6</td>
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<td>Probe E-Field</td>
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<td>EX3DV4</td>
<td>3956</td>
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<td>Probe E-Field</td>
<td>SPEAG</td>
<td>EX3DV4</td>
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<td>Validation Source 150 MHz</td>
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<td>CLA150</td>
<td>4003</td>
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<tr>
<td>Antenna Dipole 300 MHz</td>
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<td>D300V3</td>
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<td>Antenna Dipole 450 MHz</td>
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<td>1074</td>
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<td>Antenna Dipole 650 MHz</td>
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<tr>
<td>Antenna Dipole 750 MHz</td>
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<td>Antenna Dipole 900 MHz</td>
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<td>047</td>
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<tr>
<td>Antenna Dipole 1640 MHz</td>
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<td>D1640V2</td>
<td>314</td>
<td>05-Dec-2017</td>
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<td>Antenna Dipole 1800 MHz</td>
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<td>D1800V2</td>
<td>242</td>
<td>05-Dec-2017</td>
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<td>Antenna Dipole 1950 MHz</td>
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<td>D1950V3</td>
<td>1113</td>
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<td>D2300V2</td>
<td>1032</td>
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<td>Antenna Dipole 2450 MHz</td>
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<td>D2450V2</td>
<td>724</td>
<td>10-Dec-2016</td>
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<td>Antenna Dipole 2600 MHz</td>
<td>SPEAG</td>
<td>D2600V2</td>
<td>1044</td>
<td>13-Dec-2016</td>
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<td>Antenna Dipole 3500 MHz</td>
<td>SPEAG</td>
<td>D3500V2</td>
<td>1002</td>
<td>15-July-2013</td>
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<td>Antenna Dipole 5600 MHz</td>
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<td>D5GH2V2</td>
<td>1008</td>
<td>16-Dec-2016</td>
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<td>RF Amplifier</td>
<td>EIN</td>
<td>603L</td>
<td>N/A</td>
<td>*In test</td>
<td>✓</td>
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<tr>
<td>RF Amplifier</td>
<td>Mini-Circuits</td>
<td>2HL-42</td>
<td>N/A</td>
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<tr>
<td>RF Amplifier</td>
<td>Mini-Circuits</td>
<td>ZVE-BG</td>
<td>N/A</td>
<td>*In test</td>
<td>✓</td>
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<tr>
<td>Synthesized signal generator</td>
<td>Hewlett Packard</td>
<td>86630A</td>
<td>3250A00328</td>
<td>*In test</td>
<td>✓</td>
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<tr>
<td>RF Power Meter</td>
<td>Hewlett Packard</td>
<td>437B</td>
<td>3125012786</td>
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<tr>
<td>RF Power Sensor 0.01 - 18 GHz</td>
<td>Hewlett Packard</td>
<td>8481H</td>
<td>1545A01634</td>
<td>06-Oct-2016</td>
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<td>RF Power Meter</td>
<td>Rohde &amp; Schwarz</td>
<td>NRP</td>
<td>101415</td>
<td>16-Oct-2016</td>
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<td>RF Power Sensor</td>
<td>Rohde &amp; Schwarz</td>
<td>NRP - Z81</td>
<td>100174</td>
<td>19-Oct-2017</td>
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<td>RF Power Meter Dual</td>
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<td>1733A05847</td>
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<td>RF Power Sensor</td>
<td>Hewlett Packard</td>
<td>8482A</td>
<td>2349A10114</td>
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<td>Network Analyser</td>
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<td>GB3510035</td>
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<td>Network Analyser</td>
<td>Hewlett Packard</td>
<td>8753ES</td>
<td>JP39240130</td>
<td>03-Dec-2016</td>
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<tr>
<td>Network Analyser</td>
<td>Hewlett Packard</td>
<td>8753D</td>
<td>3410A04122</td>
<td>04-Feb-2017</td>
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<tr>
<td>Dual Directional Coupler</td>
<td>Hewlett Packard</td>
<td>770D</td>
<td>1144 04700</td>
<td>*In test</td>
<td>✓</td>
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<tr>
<td>Dual Directional Coupler</td>
<td>NARDA</td>
<td>3022</td>
<td>75453</td>
<td>*In test</td>
<td>✓</td>
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<tr>
<td>Thermometer</td>
<td>Digitech</td>
<td>QMT217</td>
<td>T-103</td>
<td>27-Aug-2016</td>
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<tr>
<td>Thermometer</td>
<td>Digitech</td>
<td>QMT217</td>
<td>T-104</td>
<td>15-Jan-2017</td>
<td>✓</td>
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</tbody>
</table>

*Calibrated during the test for the relevant parameters.*
7.0 SAR TEST METHOD

7.1 Description of the Test Positions (Head and Body Sections)

The SAR measurements are performed on the left and right sides of the head in the Touch position using the centre frequency of each operating band. The testing was performed with the Cellsafe Radi RF reduction Chip fitted to the phone, and repeated with no Cellsafe Radi RF reduction Chip for direct comparison. See Appendix A for photos of test positions.

7.1.1 “Touch Position”

The device was positioned with the vertical centre line of the body of the device and the horizontal line crossing the centre of the earpiece in a plane parallel to the sagittal plane of the phantom. While maintaining the device in this plane, the vertical centre line was aligned with the reference plane containing the three ear and mouth reference points. (Left Ear, Right Ear and Mouth). The centre of the earpiece was then aligned with the Right Ear and Left Ear.

The Mobile Phone was then moved towards the phantom with the earpiece aligned with the line between the Left Ear and the Right Ear, until the Mobile Phone just touched the ear. With the device maintained in the reference plane, and the Mobile Phone in contact with the ear, the bottom of the Mobile Phone was moved until the front side of the Mobile Phone was in contact with the cheek of the phantom, or until contact with the ear was lost.

7.2 List of All Test Cases (Antenna In/Out, Test Frequencies, User Modes etc)

The SAR was measured at one test channel for each band of operation with the test sample operating at maximum power, as specified in section 2.3.

7.3 ARPANSA RF Exposure Limits for ACMA (Australia) and EN 50360

Table: SAR Exposure Limits

<table>
<thead>
<tr>
<th></th>
<th>Spatial Peak SAR Limits For</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head and Partial-Body:</td>
<td>2.0 mW/g (averaged over any 10g cube of tissue)</td>
</tr>
<tr>
<td>Hands, Wrists, Feet and Ankles:</td>
<td>4.0 mW/g (averaged over 10g cube of tissue)</td>
</tr>
<tr>
<td>Spatial Average SAR Limits For</td>
<td></td>
</tr>
<tr>
<td>Whole Body:</td>
<td>0.08 mW/g</td>
</tr>
</tbody>
</table>
8.0 SAR EVALUATION RESULTS

The SAR values averaged over 10 g tissue masses were determined for the sample device for the Left and Right ear configurations of the phantom and the results are given in the tables below.

The plots with the corresponding SAR distributions are contained in Appendix B of this report.

Table: SAR Measurement Results – UMTS Band 5 (850 MHz) iPhone 6

<table>
<thead>
<tr>
<th>Test Position</th>
<th>Plot No.</th>
<th>Test Mode</th>
<th>Test Ch.</th>
<th>Test Freq. (MHz)</th>
<th>SAR (10g) mW/g</th>
<th>Drift (dB)</th>
<th>εr (target 40.0 ±5% 38.0 to 42.0)</th>
<th>σ (target 1.40 ±5% 1.33 to 1.47)</th>
<th>Reduction of SAR (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Touch Left 17-03-16 with Cellsafe Radi</td>
<td>1</td>
<td>WCDMA - UMTS 4183</td>
<td>836.6</td>
<td>0.125</td>
<td>-0.07</td>
<td>42.4</td>
<td>0.8976</td>
<td></td>
<td>44.9</td>
</tr>
<tr>
<td>Touch Left 17-03-16 without chip</td>
<td>2</td>
<td>WCDMA - UMTS 4183</td>
<td>836.6</td>
<td>0.227</td>
<td>-0.08</td>
<td>42.4</td>
<td>0.8976</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>Touch Right 17-03-16 with Cellsafe Radi</td>
<td>3</td>
<td>WCDMA - UMTS 4183</td>
<td>836.6</td>
<td>0.101</td>
<td>0.01</td>
<td>42.4</td>
<td>0.8976</td>
<td></td>
<td>51.4</td>
</tr>
<tr>
<td>Touch Right 17-03-16 without chip</td>
<td>4</td>
<td>WCDMA - UMTS 4183</td>
<td>836.6</td>
<td>0.208</td>
<td>0.01</td>
<td>42.4</td>
<td>0.8976</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>System Check 17-03-16</td>
<td>5</td>
<td>CW</td>
<td>900</td>
<td>1.73</td>
<td>-0.04</td>
<td>41.66</td>
<td>0.9597</td>
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</table>

Note: The uncertainty of the system (± 23.05%) has not been added to the result.

Table: SAR Measurement Results – UMTS Band 2 (1880 MHz) iPhone 6

<table>
<thead>
<tr>
<th>Test Position</th>
<th>Plot No.</th>
<th>Test Mode</th>
<th>Test Ch.</th>
<th>Test Freq. (MHz)</th>
<th>SAR (10g) mW/g</th>
<th>Drift (dB)</th>
<th>εr (target 41.5 ±5% 39.4 to 43.6)</th>
<th>σ (target 0.90 ±5% 0.86 to 0.95)</th>
<th>Reduction of SAR (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Touch Left 1900 MHz 23-03-16 with Cellsafe Radi</td>
<td>6</td>
<td>WCDMA - UMTS 9400</td>
<td>1880</td>
<td>0.141</td>
<td>0.05</td>
<td>38.41</td>
<td>1.455</td>
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<td>52.2</td>
</tr>
<tr>
<td>Touch Left 1900 MHz 23-03-16 without chip</td>
<td>7</td>
<td>WCDMA - UMTS 9400</td>
<td>1880</td>
<td>0.295</td>
<td>0.11</td>
<td>38.41</td>
<td>1.455</td>
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<td>-</td>
</tr>
<tr>
<td>Touch Right 1900 MHz 22-03-16 with Cellsafe Radi</td>
<td>8</td>
<td>WCDMA - UMTS 9400</td>
<td>1880</td>
<td>0.208</td>
<td>-0.09</td>
<td>38.41</td>
<td>1.455</td>
<td></td>
<td>64.0</td>
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<td>Touch Right 1900 MHz 22-03-16 without chip</td>
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<td>WCDMA - UMTS 9400</td>
<td>1880</td>
<td>0.578</td>
<td>0.02</td>
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<td>-</td>
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<td>0.07</td>
<td>38.7</td>
<td>1.407</td>
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<td>-</td>
</tr>
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</table>

Note: The uncertainty of the system (± 23.05%) has not been added to the result.

Accredited for compliance with ISO/IEC 17025. The results of the test, calibrations and/or measurement included in this document are traceable to Australian/national standards. NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, calibration and inspection reports.

This document shall not be reproduced except in full.
### Table: SAR Measurement Results – UMTS Band 5 (850 MHz) iPhone 6S

<table>
<thead>
<tr>
<th>Test Position</th>
<th>Plot No.</th>
<th>Test Mode</th>
<th>Test Ch.</th>
<th>Test Freq. (MHz)</th>
<th>SAR (10g) mW/g</th>
<th>Drift (dB)</th>
<th>$\varepsilon_r$ (target 40.0 ±5% 38.0 to 42.0)</th>
<th>$\sigma$ (target 1.40 ±5% 1.33 to 1.47)</th>
<th>Reduction of SAR (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Touch Left 21-03-16 with Cellsafe Radi</td>
<td>11</td>
<td>WCDMA - UMTS</td>
<td>4183</td>
<td>836.6</td>
<td>0.104</td>
<td>0.07</td>
<td>42.17</td>
<td>0.8812</td>
<td>48.5</td>
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<td>Touch Left 21-03-16 without chip</td>
<td>12</td>
<td>WCDMA - UMTS</td>
<td>4183</td>
<td>836.6</td>
<td>0.202</td>
<td>-0.09</td>
<td>42.17</td>
<td>0.8812</td>
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<td>Touch Right 21-03-16 with Cellsafe Radi</td>
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<td>4183</td>
<td>836.6</td>
<td>0.0825</td>
<td>-0.02</td>
<td>42.17</td>
<td>0.8812</td>
<td>51.2</td>
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<td>Touch Right 21-03-16 without chip</td>
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<td>WCDMA - UMTS</td>
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<td>836.6</td>
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<td>0.8812</td>
<td>-</td>
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<td>System Check 21-03-16</td>
<td>15</td>
<td>CW</td>
<td>1</td>
<td>900</td>
<td>1.72</td>
<td>0</td>
<td>41.46</td>
<td>0.9404</td>
<td>-</td>
</tr>
</tbody>
</table>

**Note:** The uncertainty of the system (± 23.05%) has not been added to the result.

### Table: SAR Measurement Results – UMTS Band 2 (1880 MHz) iPhone 6S

<table>
<thead>
<tr>
<th>Test Position</th>
<th>Plot No.</th>
<th>Test Mode</th>
<th>Test Ch.</th>
<th>Test Freq. (MHz)</th>
<th>SAR (10g) mW/g</th>
<th>Drift (dB)</th>
<th>$\varepsilon_r$ (target 41.5 ±5% 39.4 to 43.6)</th>
<th>$\sigma$ (target 0.90 ±5% 0.86 to 0.95)</th>
<th>Reduction of SAR (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Touch Left 1900 MHz 23-03-16 with Cellsafe Radi</td>
<td>16</td>
<td>WCDMA - UMTS</td>
<td>9400</td>
<td>1880</td>
<td>0.0476</td>
<td>0.13</td>
<td>38.41</td>
<td>1.455</td>
<td>81.2</td>
</tr>
<tr>
<td>Touch Left 1900 MHz 23-03-16 without chip</td>
<td>17</td>
<td>WCDMA - UMTS</td>
<td>9400</td>
<td>1880</td>
<td>0.253</td>
<td>-0.02</td>
<td>38.41</td>
<td>1.455</td>
<td>-</td>
</tr>
<tr>
<td>Touch Right 1900 MHz 22-03-16 with Cellsafe Radi</td>
<td>18</td>
<td>WCDMA - UMTS</td>
<td>9400</td>
<td>1880</td>
<td>0.162</td>
<td>-0.19</td>
<td>38.41</td>
<td>1.455</td>
<td>65.8</td>
</tr>
<tr>
<td>Touch Right 1900 MHz 22-03-16 without chip</td>
<td>19</td>
<td>WCDMA - UMTS</td>
<td>9400</td>
<td>1880</td>
<td>0.474</td>
<td>-0.13</td>
<td>38.41</td>
<td>1.455</td>
<td>-</td>
</tr>
</tbody>
</table>

**Note:** The uncertainty of the system (± 23.05%) has not been added to the result.

### Table: SAR Measurement Results – UMTS Band 5 (850 MHz) iPhone 6 Plus

<table>
<thead>
<tr>
<th>Test Position</th>
<th>Plot No.</th>
<th>Test Mode</th>
<th>Test Ch.</th>
<th>Test Freq. (MHz)</th>
<th>SAR (10g) mW/g</th>
<th>Drift (dB)</th>
<th>$\varepsilon_r$ (target 40.0 ±5% 38.0 to 42.0)</th>
<th>$\sigma$ (target 1.40 ±5% 1.33 to 1.47)</th>
<th>Reduction of SAR (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Touch Left 23-03-16 with Cellsafe Radi</td>
<td>20</td>
<td>WCDMA - UMTS</td>
<td>4183</td>
<td>836.6</td>
<td>0.177</td>
<td>0.16</td>
<td>43.17</td>
<td>0.8986</td>
<td>24.7</td>
</tr>
<tr>
<td>Touch Left 17-03-06 without Chip</td>
<td>21</td>
<td>WCDMA - UMTS</td>
<td>4183</td>
<td>836.6</td>
<td>0.235</td>
<td>-0.03</td>
<td>42.4</td>
<td>0.8976</td>
<td>-</td>
</tr>
<tr>
<td>Touch Right 23-03-16 with Cellsafe Radi</td>
<td>22</td>
<td>WCDMA - UMTS</td>
<td>4183</td>
<td>836.6</td>
<td>0.161</td>
<td>0.02</td>
<td>43.17</td>
<td>0.8986</td>
<td>21.1</td>
</tr>
<tr>
<td>Touch Right 17-03-06 without Chip</td>
<td>23</td>
<td>WCDMA - UMTS</td>
<td>4183</td>
<td>836.6</td>
<td>0.204</td>
<td>-0.03</td>
<td>42.4</td>
<td>0.8976</td>
<td>-</td>
</tr>
<tr>
<td>System Check 23-03-16</td>
<td>24</td>
<td>CW</td>
<td>1</td>
<td>900</td>
<td>1.75</td>
<td>-0.05</td>
<td>42.46</td>
<td>0.9619</td>
<td>-</td>
</tr>
</tbody>
</table>

**Note:** The uncertainty of the system (± 23.05%) has not been added to the result.

---

Accredited for compliance with ISO/IEC 17025. The results of the test, calibrations and/or measurement included in this document are traceable to Australian/national standards. NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, calibration and inspection reports.

This document shall not be reproduced except in full.
### Table: SAR Measurement Results – UMTS Band 2 (1880 MHz) iPhone 6 Plus

<table>
<thead>
<tr>
<th>Test Position</th>
<th>Plot No.</th>
<th>Test Mode</th>
<th>Test Ch.</th>
<th>Test Freq. (MHz)</th>
<th>SAR (10g) mW/g</th>
<th>Drift (dB)</th>
<th>$\epsilon_{\sigma}$ (target 41.5 ±5% 39.4 to 43.6)</th>
<th>$\sigma$ (target 0.90 ±5% 0.86 to 0.95)</th>
<th>Reduction of SAR (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Touch Left 1900 MHz 24-03-16 with Cellsafe Radi</td>
<td>25</td>
<td>WCDMA - UMTS</td>
<td>9400</td>
<td>1880</td>
<td>0.0458</td>
<td>0.01</td>
<td>38.65</td>
<td>1.462</td>
<td>84.9</td>
</tr>
<tr>
<td>Touch Left 1900 MHz 24-03-16 2 without Chip</td>
<td>26</td>
<td>WCDMA - UMTS</td>
<td>9400</td>
<td>1880</td>
<td>0.303</td>
<td>-0.05</td>
<td>38.65</td>
<td>1.462</td>
<td>-</td>
</tr>
<tr>
<td>Touch Right 1900 MHz 24-03-16 with Cellsafe Radi</td>
<td>27</td>
<td>WCDMA - UMTS</td>
<td>9400</td>
<td>1880</td>
<td>0.0816</td>
<td>0.05</td>
<td>38.65</td>
<td>1.462</td>
<td>86.3</td>
</tr>
<tr>
<td>Touch Right 1900 MHz 24-03-16 without Chip</td>
<td>28</td>
<td>WCDMA - UMTS</td>
<td>9400</td>
<td>1880</td>
<td>0.596</td>
<td>0.01</td>
<td>38.65</td>
<td>1.462</td>
<td>-</td>
</tr>
<tr>
<td>System Check 1800 MHz 24-03-16</td>
<td>29</td>
<td>System Check</td>
<td>1</td>
<td>1800</td>
<td>4.9</td>
<td>0.11</td>
<td>38.98</td>
<td>1.417</td>
<td>-</td>
</tr>
</tbody>
</table>

**Note:** The uncertainty of the system (± 23.05%) has not been added to the result.

### Table: SAR Measurement Results – UMTS Band 5 (850 MHz) iPhone 6S Plus

<table>
<thead>
<tr>
<th>Test Position</th>
<th>Plot No.</th>
<th>Test Mode</th>
<th>Test Ch.</th>
<th>Test Freq. (MHz)</th>
<th>SAR (10g) mW/g</th>
<th>Drift (dB)</th>
<th>$\epsilon_{\sigma}$ (target 40.0 ±5% 38.0 to 42.0)</th>
<th>$\sigma$ (target 1.40 ±5% 1.33 to 1.47)</th>
<th>Reduction of SAR (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Touch Left 23-03-16 with Cellsafe Radi</td>
<td>30</td>
<td>WCDMA - UMTS</td>
<td>4183</td>
<td>836.6</td>
<td>0.153</td>
<td>-0.08</td>
<td>43.17</td>
<td>0.8986</td>
<td>25.4</td>
</tr>
<tr>
<td>Touch Left 17-03-06 without chip</td>
<td>31</td>
<td>WCDMA - UMTS</td>
<td>4183</td>
<td>836.6</td>
<td>0.205</td>
<td>-0.02</td>
<td>42.4</td>
<td>0.8976</td>
<td>-</td>
</tr>
<tr>
<td>Touch Right 23-03-16 with Cellsafe Radi</td>
<td>32</td>
<td>WCDMA - UMTS</td>
<td>4183</td>
<td>836.6</td>
<td>0.129</td>
<td>0.04</td>
<td>43.17</td>
<td>0.8986</td>
<td>25.4</td>
</tr>
<tr>
<td>Touch Right 17-03-06 without chip</td>
<td>33</td>
<td>WCDMA - UMTS</td>
<td>4183</td>
<td>836.6</td>
<td>0.173</td>
<td>-0.06</td>
<td>42.4</td>
<td>0.8976</td>
<td>-</td>
</tr>
</tbody>
</table>

**Note:** The uncertainty of the system (± 23.05%) has not been added to the result.

### Table: SAR Measurement Results – UMTS Band 2 (1880 MHz) iPhone 6S Plus

<table>
<thead>
<tr>
<th>Test Position</th>
<th>Plot No.</th>
<th>Test Mode</th>
<th>Test Ch.</th>
<th>Test Freq. (MHz)</th>
<th>SAR (10g) mW/g</th>
<th>Drift (dB)</th>
<th>$\epsilon_{\sigma}$ (target 41.5 ±5% 39.4 to 43.6)</th>
<th>$\sigma$ (target 0.90 ±5% 0.86 to 0.95)</th>
<th>Reduction of SAR (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Touch Left 1900 MHz 24-03-16 with Cellsafe Radi</td>
<td>34</td>
<td>WCDMA - UMTS</td>
<td>9400</td>
<td>1880</td>
<td>0.0365</td>
<td>-0.1</td>
<td>38.65</td>
<td>1.462</td>
<td>85.2</td>
</tr>
<tr>
<td>Touch Left 1900 MHz 24-03-16 without chip</td>
<td>35</td>
<td>WCDMA - UMTS</td>
<td>9400</td>
<td>1880</td>
<td>0.247</td>
<td>-0.01</td>
<td>38.65</td>
<td>1.462</td>
<td>-</td>
</tr>
<tr>
<td>Touch Right 1900 MHz 24-03-16 with Cellsafe Radi</td>
<td>36</td>
<td>WCDMA - UMTS</td>
<td>9400</td>
<td>1880</td>
<td>0.06</td>
<td>0.18</td>
<td>38.65</td>
<td>1.462</td>
<td>87.7</td>
</tr>
<tr>
<td>Touch Right 1900 MHz 24-03-16 without chip</td>
<td>37</td>
<td>WCDMA - UMTS</td>
<td>9400</td>
<td>1880</td>
<td>0.489</td>
<td>-0.1</td>
<td>38.65</td>
<td>1.462</td>
<td>-</td>
</tr>
</tbody>
</table>

**Note:** The uncertainty of the system (± 23.05%) has not been added to the result.
9.0 RESULTS STATEMENT

The Cellsafe Radi for iPhone 6 series mobile phone, model iPhone 6, iPhone 6S, iPhone 6 Plus, iPhone 6S Plus was tested on behalf of Panasales Clearance Centre Pty Ltd. Cellsafe Radi device was found to reduce SAR in the configurations described in this report by 21.1% to 87.7%.
APPENDIX A1 Test Sample Photographs

Photograph Number 01. DUT iPhone 6

Photograph Number 02. DUT iPhone 6
APPENDIX A2 Test Sample Photographs

Photograph Number 03. DUT iPhone 6S

[Image of iPhone 6S]

Photograph Number 04. DUT iPhone 6S

[Image of iPhone 6S back]
APPENDIX A3 Test Sample Photographs

Photograph Number 05. DUT iPhone 6 Plus

Photograph Number 06. DUT iPhone 6 Plus
APPENDIX A4 Test Sample Photographs

Photograph Number 07. DUT iPhone 6

Photograph Number 08. DUT iPhone 6
APPENDIX A5 TEST SETUP PHOTOGRAPHS

Photograph Number 09.   Touch Left Position iPhone 6

Photograph Number 10.   Touch Left Position iPhone 6
APPENDIX A6 Test Setup Photographs

Photograph Number 11. Touch Right Position iPhone 6

Photograph Number 12. Touch Right Position iPhone 6
APPENDIX A7 TEST SETUP PHOTOGRAPHS

Photograph Number 01. Touch Left Position iPhone 6S

Photograph Number 02. Touch Left Position iPhone 6S
APPENDIX A8 Test Setup Photographs

Photograph Number 03. Touch Right Position iPhone 6S

Photograph Number 04. Touch Right Position iPhone 6S
APPENDIX A9 TEST SETUP PHOTOGRAPHS

Photograph Number 01. Touch Left Position iPhone 6 Plus

Photograph Number 02. Touch Left Position iPhone 6 Plus
APPENDIX A10 Test Setup Photographs

Photograph Number 03.  Touch Right Position iPhone 6 Plus

Photograph Number 04.  Touch Right Position iPhone 6 Plus
APPENDIX A11 TEST SETUP PHOTOGRAPHS

Photograph Number 01. Touch Left Position iPhone 6S Plus

Photograph Number 02. Touch Left Position iPhone 6S Plus
APPENDIX A12 Test Setup Photographs

Photograph Number 03. Touch Right Position iPhone 6S Plus

Photograph Number 04. Touch Right Position iPhone 6S Plus
APPENDIX B Plots Of The SAR Measurements
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Test Lab: EMCTech  Test File: M160308R1 iPhone6 850 MHz 3G EN.da52:0

DUT Name: Apple Mobile Phone, Type: iPhone 6, Serial: C39NX1YRG5MW

Configuration: Touch Left 17-03-16
Communication System: 0 - WCDMA - UMTS; Communication System Band: Band 5 850 MHz;
Frequency: 836.6 MHz, Communication System PAR: 0.00 dB; PMF: 1.00; Duty Cycle: 1:1.00
Medium Parameters used: f=836.5 MHz; $\sigma$ = 0.90 S/m; $\varepsilon_r$ = 42.4; $\rho$ = 1000.0g/cm$^3$
Phantom section: Left Section

DASY Configuration:
Probe: ET3DV6 - SN1380; ConvF: (6.08,6.08,6.08); Calibrated: 10/12/2015;
Sensor-Surface: 4 mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE3 Sn442; Calibrated: 7/12/2015
Phantom: SAM 12; Type: SAM 12; Serial: 1060
DASY52 52.8.8(1222); SEMCAD X Version 14.6.10 (7331)

Touch Left 17-03-16/Channel 4183 Test without chip/Area Scan (201x101x1): Interpolated grid: dx=1.0 mm, dy=1.0 mm; Maximum value of SAR (interpolated) = 0.317 W/kg
Touch Left 17-03-16/Channel 4183 Test without chip/Zoom Scan (21x21x36)/Cube 0: Interpolated grid: dx=1.6 mm, dy=1.6 mm, dz=1.0 mm; Reference Value = 19.175 V/m; Power Drift = -0.09 dB
Averaged SAR: SAR(1g) = 0.294 W/kg; SAR(10g) = 0.227 W/kg
Maximum value of SAR (interpolated) = 0.361 W/kg

0 dB = 0.317 W/kg = -4.99 dBW/kg

SAR Measurement Plot 2
**DUT Name:** Apple Mobile Phone, **Type:** iPhone 6, **Serial:** C39NX1YRG5MW

**Configuration:** Touch Right 17-03-16
Communication System: 0 - WCDMA - UMTS; Communication System Band: Band 5 850 MHz; Frequency: 836.6 MHz, Communication System PAR: 0.00 dB; PMF: 1.00; Duty Cycle: 1:1.00
Medium Parameters used: \(f=836.5\ \text{MHz}; \ \sigma = 0.90\ \text{S/m}; \ \varepsilon_r = 42.4; \ \rho = 1000.0\ \text{g/cm}^3\)
Phantom section: Right Section

**DASY Configuration:**
Probe: ET3DV6 - SN1380; ConvF: (6.08,6.08,6.08); Calibrated: 10/12/2015;
Sensor-Surface: 4 mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE3 Sn442; Calibrated: 7/12/2015
Phantom: SAM 12; Type: SAM 12; Serial: 1060
DASY52 52.8.8(1222); SEMCAD X Version 14.6.10 (7331)

**Touch Right 17-03-16/Channel 4183 Test with Cellsafe Radi/Area Scan (201x101x1):** Interpolated grid: \(dx=1.0\ \text{mm}, \ dy=1.0\ \text{mm}; \ \)Maximum value of SAR (interpolated) = 0.170 W/kg

**Touch Right 17-03-16/Channel 4183 Test with Cellsafe Radi/Zoom Scan (26x26x36)/Cube 0:**
Interpolated grid: \(dx=1.6\ \text{mm}, \ dy=1.6\ \text{mm}, \ dz=1.0\ \text{mm}; \ \)Reference Value = 11.883 V/m; **Power Drift = 0.01 dB**
**Averaged SAR:** SAR(1g) = 0.144 W/kg; SAR(10g) = 0.101 W/kg
Maximum value of SAR (interpolated) = 0.195 W/kg
DUT Name: Apple Mobile Phone, Type: iPhone 6, Serial: C39NX1YRG5MW

Configuration: Touch Right 17-03-16
Communication System: 0 - WCDMA - UMTS; Communication System Band: Band 5 850 MHz;
Frequency: 836.6 MHz, Communication System PAR: 0.00 dB; PMF: 1.00; Duty Cycle: 1:1.00
Medium Parameters used: f=836.5 MHz; σ = 0.90 S/m; ε r = 42.4; ρ = 1000.0g/cm^3
Phantom section: Right Section

DASY Configuration:
Probe: ET3DV6 - SN1380; ConvF: (6.08,6.08,6.08); Calibrated: 10/12/2015;
Sensor-Surface: 4 mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE3 Sn442; Calibrated: 7/12/2015
Phantom: SAM 12; Type: SAM 12; Serial: 1060
DASY52 52.8.8(1222); SEMCAD X Version 14.6.10 (7331)

Touch Right 17-03-16/Channel 4183 Test without chip/Area Scan (201x101x1): Interpolated grid: dx=1.0 mm, dy=1.0 mm; Maximum value of SAR (interpolated) = 0.280 W/kg
Touch Right 17-03-16/Channel 4183 Test without chip/Zoom Scan (21x21x36)/Cube 0: Interpolated grid: dx=1.6 mm, dy=1.6 mm, dz=1.0 mm; Reference Value = 18.209 V/m; Power Drift = 0.01 dB
Averaged SAR: SAR(1g) = 0.268 W/kg; SAR(10g) = 0.208 W/kg
Maximum value of SAR (interpolated) = 0.327 W/kg

0 dB = 0.280 W/kg = -5.53 dBW/kg

SAR Measurement Plot 4
**Test Lab:** EMCTech  
**Test File:** M160308R1 iPhone6 850 MHz 3G EN.da52:2

**DUT Name:** Dipole 900 MHz, Type: DV900V2, Serial: 047

**Configuration:** System Check 17-03-16  
Communication System: 0 - CW; Communication System Band: 900 MHz; Frequency: 900.0 MHz,  
Communication System PAR: 0.00 dB; PMF: 0.00; Duty Cycle: 1:1.00  
Medium Parameters used: f=900 MHz; σ = 0.96 S/m; ε = 41.7; ρ = 1000.0g/cm³  
Phantom section: Flat Section

**DASY Configuration:**  
Probe: ET3DV6 - SN1380; ConvF: (6.08,6.08,6.08); Calibrated: 10/12/2015;  
Sensor-Surface: 4 mm (Mechanical Surface Detection)  
Electronics: DAE3 Sn442; Calibrated: 7/12/2015  
Phantom: SAM 12; Type: SAM 12; Serial: 1060  
DASY52 52.8.8(1222); SEMCAD X Version 14.6.10 (7331)

**System Check 17-03-16/Channel 1 Test/Area Scan (51x51x1):** Interpolated grid: dx=1.5 mm, dy=1.5 mm;  
Maximum value of SAR (interpolated) = 2.890 W/kg  
**System Check 17-03-16/Channel 1 Test/Zoom Scan (31x31x36)/Cube 0:** Interpolated grid: dx=1.0 mm, dy=1.0 mm, dz=1.0 mm; Reference Value = 56.406 V/m; Power Drift = -0.04 dB  
**Averaged SAR:** SAR(1g) = 2.680 W/kg; SAR(10g) = 1.730 W/kg  
Maximum value of SAR (interpolated) = 3.950 W/kg

---

0 dB = 2.89 W/kg = 4.61 dBW/kg

SAR Measurement Plot
DUT Name: Apple Mobile Phone, Type: iPhone 6, Serial: C39NX1YRG5MW

Configuration: Touch Left 1900 MHz 23-03-16
Communication System: 0 - WCDMA - UMTS; Communication System Band: Band 2 1850 MHz;
Frequency: 1880 MHz, Communication System PAR: 0.00 dB; PMF: 1.00; Duty Cycle: 1:1.00
Medium Parameters used: $f=1880$ MHz; $\sigma = 1.46$ S/m; $\varepsilon_r = 38.4$; $\rho = 1000.0$g/cm$^3$
Phantom section: Left Section

DASY Configuration:
Probe: ET3DV6 - SN1380; ConvF: (5.12,5.12,5.12); Calibrated: 10/12/2015;
Sensor-Surface: 4 mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE3 Sn442; Calibrated: 7/12/2015
Phantom: SAM 22; Type: SAM 22; Serial: 1260
DASY52 52.8.8(1222); SEMCAD X Version 14.6.10 (7331)

Touch Left 1900 MHz 23-03-16/Channel 9400 Test with Cellsafe Radi/Area Scan (221x121x1):
Interpolated grid: $dx=1.0$ mm, $dy=1.0$ mm; Maximum value of SAR (interpolated) = 0.250 W/kg

Touch Left 1900 MHz 23-03-16/Channel 9400 Test with Cellsafe Radi/Zoom Scan (26x21x36)/Cube 0:
Interpolated grid: $dx=1.6$ mm, $dy=1.6$ mm, $dz=1.0$ mm; Reference Value = 12.206 V/m; Power Drift = 0.05 dB
Averaged SAR: SAR(1g) = 0.225 W/kg; SAR(10g) = 0.141 W/kg
Maximum value of SAR (interpolated) = 0.325 W/kg

0 dB = 0.250 W/kg = -6.02 dBW/kg
DUT Name: Apple Mobile Phone, Type: iPhone 6, Serial: C39NX1YRG5MW

Configuration: Touch Left 1900 MHz 23-03-16
Communication System: 0 - WCDMA - UMTS; Communication System Band: Band 2 1850 MHz;
Frequency: 1880 MHz, Communication System PAR: 0.00 dB; PMF: 1.00; Duty Cycle: 1:1.00
Medium Parameters used: f=1880 MHz; \( \sigma = 1.46 \text{ S/m}; \) \( \varepsilon_r = 38.4; \) \( \rho = 1000.0 \text{g/cm}^3 \)
Phantom section: Left Section

DASY Configuration:
Probe: ET3DV6 - SN1380; ConvF: (5.12,5.12,5.12); Calibrated: 10/12/2015;
Sensor-Surface: 4 mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE3 Sn442; Calibrated: 7/12/2015
Phantom: SAM 22; Type: SAM 22; Serial: 1260
DASY52 52.8.8(1222); SEMCAD X Version 14.6.10 (7331)

Touch Left 1900 MHz 23-03-16/Channel 9400 Test without chip/Area Scan (221x121x1):
Interpolated grid: dx=1.0 mm, dy=1.0 mm; Maximum value of SAR (interpolated) = 0.488 W/kg

Touch Left 1900 MHz 23-03-16/Channel 9400 Test without chip/Zoom Scan (26x21x36)/Cube 0:
Interpolated grid: dx=1.6 mm, dy=1.6 mm, dz=1.0 mm; Reference Value = 15.658 V/m; Power Drift = 0.11 dB
Averaged SAR: SAR(1g) = 0.459 W/kg; SAR(10g) = 0.295 W/kg
Maximum value of SAR (interpolated) = 0.641 W/kg
Test Lab: EMCTech  
Test File: M160308R1 iPhone6 1900 MHz 3G.da52:1

**DUT Name:** Apple Mobile Phone, **Type:** iPhone 6, **Serial:** C39NX1YRG5MW

**Configuration:** Touch Right 1900 MHz 22-03-16
Communication System: 0 - WCDMA - UMTS; Communication System Band: Band 2 1850 MHz;  
Frequency: 1880 MHz, Communication System PAR: 0.00 dB; PMF: 1.00; Duty Cycle: 1:1.00  
Medium Parameters used: f=1880 MHz; $\sigma = 1.46 \text{ S/m}; \varepsilon_r = 38.4; \rho = 1000.0 \text{g/cm}^3$  
Phantom section: Right Section

**DASY Configuration:**  
Probe: ET3DV6 - SN1380; ConvF: (5.12,5.12,5.12); Calibrated: 10/12/2015;  
Sensor-Surface: 4 mm (Mechanical Surface Detection (Locations From Previous Scan Used))  
Electronics: DAE3 Sn442; Calibrated: 7/12/2015  
Phantom: SAM 22; Type: SAM 22; Serial: 1260  
DASY52 52.8.8(1222); SEMCAD X Version 14.6.10 (7331)

**Touch Right 1900 MHz 22-03-16/Channel 9400 Test with Cellsafe Radi/Area Scan (221x121x1):**  
Interpolated grid: dx=1.0 mm, dy=1.0 mm; Maximum value of SAR (interpolated) = 0.376 W/kg

**Touch Right 1900 MHz 22-03-16/Channel 9400 Test with Cellsafe Radi/Zoom Scan (26x21x36)/Cube 0:**  
Interpolated grid: dx=1.6 mm, dy=1.6 mm, dz=1.0 mm; Reference Value = 11.254 V/m; Power Drift = -0.09 dB  
Averaged SAR: SAR(1g) = 0.342 W/kg; SAR(10g) = 0.208 W/kg  
Maximum value of SAR (interpolated) = 0.507 W/kg

![SAR Measurement Plot 8](image-url)
DUT Name: Apple Mobile Phone, Type: iPhone 6, Serial: C39NX1YRG5MW

Configuration: Touch Right 1900 MHz 22-03-16
Communication System: 0 - WCDMA - UMTS; Communication System Band: Band 2 1850 MHz;
Frequency: 1880 MHz, Communication System PAR: 0.00 dB; PMF: 1.00; Duty Cycle: 1:1.00
Medium Parameters used: f=1880 MHz; $\sigma = 1.46 \text{ S/m}; \varepsilon_r = 38.4; \rho = 1000.0\text{g/cm}^3$
Phantom section: Right Section

DASY Configuration:
Probe: ET3DV6 - SN1380; ConvF: (5.12,5.12,5.12); Calibrated: 10/12/2015;
Sensor-Surface: 4 mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE3 Sn442; Calibrated: 7/12/2015
Phantom: SAM 22; Type: SAM 22; Serial: 1260
DASY52 52.8.8(1222); SEMCAD X Version 14.6.10 (7331)

Touch Right 1900 MHz 22-03-16/Channel 9400 Test without chip/Area Scan (221x121x1): Interpolated grid: dx=1.0 mm, dy=1.0 mm; Maximum value of SAR (interpolated) = 1.070 W/kg
Touch Right 1900 MHz 22-03-16/Channel 9400 Test without chip/Zoom Scan (26x21x36)/Cube 0:
Interpolated grid: dx=1.6 mm, dy=1.6 mm, dz=1.0 mm; Reference Value = 20.067 V/m; Power Drift = 0.02 dB
Averaged SAR: SAR(1g) = 0.935 W/kg; SAR(10g) = 0.578 W/kg
Maximum value of SAR (interpolated) = 1.370 W/kg
**DUT Name:** Dipole 1950 MHz, **Type:** DV1950V3, **Serial:** 1113

**Configuration:** System Check 1800 MHz 22-03-16

Communication System: 0 - System Check; Communication System Band: 1800 MHz; Frequency: 1800 MHz, Communication System PAR: 0.00 dB; PMF: 0.00; Duty Cycle: 1:1.00

Medium Parameters used: \( f = 1799.9 \text{ MHz; } \sigma = 1.41 \text{ S/m; } \varepsilon_r = 38.7; \rho = 1000.0 \text{ g/cm}^3 \)

Phantom section: Flat Section

**DASY Configuration:**

Probe: ET3DV6 - SN1380; ConvF: (5.12,5.12,5.12); Calibrated: 10/12/2015;
Sensor-Surface: 4 mm (Mechanical Surface Detection)
Electronics: DAE3 Sn442; Calibrated: 7/12/2015
Phantom: SAM 22; Type: SAM 22; Serial: 1260
DASY52 52.8.8(1222); SEMCAD X Version 14.6.10 (7331)

**System Check 1800 MHz 22-03-16/Channel 1 Test/Area Scan (51x51x1):** Interpolated grid: \( dx=1.5 \text{ mm, } dy=1.5 \text{ mm; Maximum value of SAR (interpolated)} = 10.800 \text{ W/kg} \)

**System Check 1800 MHz 22-03-16/Channel 1 Test/Zoom Scan (31x31x36)/Cube 0:** Interpolated grid:
\( dx=1.0 \text{ mm, } dy=1.0 \text{ mm, } dz=1.0 \text{ mm; Reference Value} = 83.496 \text{ V/m; Power Drift} = 0.07 \text{ dB} \)

Averaged SAR: SAR(1g) = 9.080 W/kg; SAR(10g) = 4.820 W/kg
Maximum value of SAR (interpolated) = 15.600 W/kg
Test Lab: EMCTech  Test File: M160308R1 iPhone6S 850 MHz 3G EN.da52:3

**DUT Name:** Apple Mobile Phone, **Type:** iPhone 6S, **Serial:** F17QRHUWGRY7

**Configuration:** Touch Left 21-03-16
Communication System: 0 - WCDMA - UMTS; Communication System Band: Band 5 850 MHz; Frequency: 836.6 MHz, Communication System PAR: 0.00 dB; PMF: 1.00; Duty Cycle: 1:1.00
Medium Parameters used: f=836.5 MHz; $\sigma = 0.88$ S/m; $\varepsilon_r = 42.2; \rho = 1000.0g/cm^3$
Phantom section: Left Section

**DASY Configuration:**
Probe: ET3DV6 - SN1380; ConvF: (6.08,6.08,6.08); Calibrated: 10/12/2015;
Sensor-Surface: 4 mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE3 Sn442; Calibrated: 7/12/2015
Phantom: SAM 12; Type: SAM 12; Serial: 1060
DASY52 52.8.8(1222); SEMCAD X Version 14.6.10 (7331)

**Touch Left 21-03-16/Channel 4183 Test 3 with Cellsafe Radi/Area Scan (201x101x1):** Interpolated grid: $dx=1.0$ mm, $dy=1.0$ mm; Maximum value of SAR (interpolated) = 0.148 W/kg

**Touch Left 21-03-16/Channel 4183 Test 3 with Cellsafe Radi/Zoom Scan (21x21x36)/Cube 0:**
Interpolated grid: $dx=1.6$ mm, $dy=1.6$ mm, $dz=1.0$ mm; Reference Value = 12.133 V/m; Power Drift = 0.07 dB
Averaged SAR: SAR(1g) = 0.137 W/kg; SAR(10g) = 0.104 W/kg
Maximum value of SAR (interpolated) = 0.170 W/kg
Test Lab: EMCTech Test File: M160308R1 iPhone6S 850 MHz 3G EN.da52:3

DUT Name: Apple Mobile Phone, Type: iPhone 6S, Serial: F17QRHUWGRY7

Configuration: Touch Left 21-03-16
Communication System: 0 - WCDMA - UMTS; Communication System Band: Band 5 850 MHz;
Frequency: 836.6 MHz, Communication System PAR: 0.00 dB; PMF: 1.00; Duty Cycle: 1:1.00
Medium Parameters used: f=836.5 MHz; $\sigma = 0.88$ S/m; $\varepsilon_r = 42.2$; $\rho = 1000.0$g/cm$^3$
Phantom section: Left Section

DASY Configuration:
Probe: ET3DV6 - SN1380; ConvF: (6.08,6.08,6.08); Calibrated: 10/12/2015;
Sensor-Surface: 4 mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE3 Sn442; Calibrated: 7/12/2015
Phantom: SAM 12; Type: SAM 12; Serial: 1060
DASY52 52.8.8(1222); SEMCAD X Version 14.6.10 (7331)

Touch Left 21-03-16/Channel 4183 Test 2 without chip/Area Scan (201x101x1): Interpolated grid: dx=1.0 mm, dy=1.0 mm; Maximum value of SAR (interpolated) = 0.283 W/kg

Touch Left 21-03-16/Channel 4183 Test 2 without chip/Zoom Scan (21x21x36)/Cube 0: Interpolated grid: dx=1.6 mm, dy=1.6 mm, dz=1.0 mm; Reference Value = 18.049 V/m; Power Drift = -0.09 dB

Averaged SAR: SAR(1g) = 0.266 W/kg; SAR(10g) = 0.202 W/kg
Maximum value of SAR (interpolated) = 0.337 W/kg

0 dB = 0.283 W/kg = -5.48 dBW/kg

SAR Measurement Plot 12

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DUT Name: Apple Mobile Phone, Type: iPhone 6S, Serial: F17QRHUWGRY7

Configuration: Touch Right 21-03-16
Communication System: 0 - WCDMA - UMTS; Communication System Band: Band 5 850 MHz;
Frequency: 836.6 MHz, Communication System PAR: 0.00 dB; PMF: 1.00; Duty Cycle: 1:1.00
Medium Parameters used: f=836.5 MHz; $\sigma = 0.88$ S/m; $\varepsilon_r = 42.2$; $\rho = 1000.0$g/cm$^3$
Phantom section: Right Section

DASY Configuration:
Probe: ET3DV6 - SN1380; ConvF: (6.08,6.08,6.08); Calibrated: 10/12/2015;
Sensor-Surface: 4 mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE3 Sn442; Calibrated: 7/12/2015
Phantom: SAM 12; Type: SAM 12; Serial: 1060
DASY52 52.8.8(1222); SEMCAD X Version 14.6.10 (7331)

Touch Right 21-03-16/Channel 4183 Test 3 with Cellsafe Radi/Area Scan (201x101x1): Interpolated grid: dx=1.0 mm, dy=1.0 mm; Maximum value of SAR (interpolated) = 0.111 W/kg

Touch Right 21-03-16/Channel 4183 Test 3 with Cellsafe Radi/Zoom Scan (26x31x36)/Cube 0:
Interpolated grid: dx=1.6 mm, dy=1.6 mm, dz=1.0 mm; Reference Value = 11.079 V/m; Power Drift = -0.02 dB

Averaged SAR: SAR(1g) = 0.107 W/kg; SAR(10g) = 0.083 W/kg
Maximum value of SAR (interpolated) = 0.129 W/kg

0 dB = 0.111 W/kg = -9.55 dBW/kg

SAR Measurement Plot 13
 **Test Lab:** EMCTech  
 **Test File:** M160308R1 iPhone6S 850 MHz 3G EN.da52:4

**DUT Name:** Apple Mobile Phone, **Type:** iPhone 6S, **Serial:** F17QRHUWGRY7  
**Configuration:** Touch Right 21-03-16  
Communication System: 0 - WCDMA - UMTS; Communication System Band: Band 5 850 MHz;  
Frequency: 836.6 MHz, Communication System PAR: 0.00 dB; PMF: 1.00; Duty Cycle: 1:1.00  
Medium Parameters used: f=836.5 MHz; \(\sigma = 0.88 \text{ S/m}; \varepsilon_r = 42.2; \rho = 1000.0 \text{g/cm}^3\)  
Phantom section: Right Section

**DASY Configuration:**  
Probe: ET3DV6 - SN1380; ConvF: (6.08,6.08,6.08); Calibrated: 10/12/2015;  
Sensor-Surface: 4 mm (Mechanical Surface Detection (Locations From Previous Scan Used))  
Electronics: DAE3 Sn442; Calibrated: 7/12/2015  
Phantom: SAM 12; Type: SAM 12; Serial: 1060  
DASY52 52.8.8(1222); SEMCAD X Version 14.6.10 (7331)

**Touch Right 21-03-16/Channel 4183 Test 2 without chip/Area Scan (201x101x1):** Interpolated grid:  
dx=1.0 mm, dy=1.0 mm; Maximum value of SAR (interpolated) = 0.225 W/kg  
**Touch Right 21-03-16/Channel 4183 Test 2 without chip/Zoom Scan (26x31x36)/Cube 0:**  
Interpolated grid: dx=1.6 mm, dy=1.6 mm, dz=1.0 mm; Reference Value = 16.019 V/m; **Power Drift** = 0.09 dB  
**Averaged SAR:** SAR(1g) = 0.218 W/kg; SAR(10g) = 0.169 W/kg  
Maximum value of SAR (interpolated) = 0.265 W/kg

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Test Lab: EMCTech  
Test File: M160308R1 iPhone6S 850 MHz 3G EN.da52:5

DUT Name: Dipole 900 MHz, Type: DV900V2, Serial: 047

Configuration: System Check 21-03-16
Communication System: 0 - CW; Communication System Band: 900 MHz; Frequency: 900.0 MHz, Communication System PAR: 0.00 dB; PMF: 0.00; Duty Cycle: 1:1.00
Medium Parameters used: f=900 MHz; $\sigma = 0.94$ S/m; $\varepsilon_r = 41.5$; $\rho = 1000.0$g/cm$^3$
Phantom section: Flat Section

DASY Configuration:
Probe: ET3DV6 - SN1380; ConvF: (6.08,6.08,6.08); Calibrated: 10/12/2015;
Sensor-Surface: 4 mm (Mechanical Surface Detection)
Electronics: DAE3 Sn442; Calibrated: 7/12/2015
Phantom: SAM 12; Type: SAM 12; Serial: 1060
DASY52 52.8.8(1222); SEMCAD X Version 14.6.10 (7331)

System Check 21-03-16/Channel 1 Test/Area Scan (51x51x1): Interpolated grid: dx=1.5 mm, dy=1.5 mm;
Maximum value of SAR (interpolated) = 2.890 W/kg
System Check 21-03-16/Channel 1 Test/Zoom Scan (31x31x36)/Cube 0: Interpolated grid: dx=1.0 mm, dy=1.0 mm, dz=1.0 mm; Reference Value = 57.534 V/m; Power Drift = 0.00 dB
Averaged SAR: SAR(1g) = 2.660 W/kg; SAR(10g) = 1.720 W/kg
Maximum value of SAR (interpolated) = 3.930 W/kg

![SAR Measurement Plot 15](image-url)
Test Lab: EMCTech  Test File: M160308R1 iPhone6S 1900 MHz 3G.da52:0

**DUT Name:** Apple Mobile Phone, **Type:** iPhone 6S, **Serial:** F17QRHUWGRY7

**Configuration:** Touch Left 1900 MHz 23-03-16
- Communication System: 0 - WCDMA - UMTS; Communication System Band: Band 2 1850 MHz;
- Frequency: 1880 MHz, Communication System PAR: 0.00 dB; PMF: 1.00; Duty Cycle: 1:1.00
- Medium Parameters used: f=1880 MHz; \( \sigma = 1.46 \) S/m; \( \varepsilon_r = 38.4; \rho = 1000.0 \text{g/cm}^3 \)
- Phantom section: Left Section

**DASY Configuration:**
- Probe: ET3DV6 - SN1380; ConvF: (5.12,5.12,5.12); Calibrated: 10/12/2015;
- Sensor-Surface: 4 mm (Mechanical Surface Detection (Locations From Previous Scan Used))
- Electronics: DAE3 Sn442; Calibrated: 7/12/2015
- Phantom: SAM 22; Type: SAM 22; Serial: 1260
- DASY52 52.8.8(1222); SEMCAD X Version 14.6.10 (7331)

**Touch Left 1900 MHz 23-03-16/Channel 9400 Test with Cellsafe Radi/Area Scan (221x121x1):**
- Interpolated grid: dx=1.0 mm, dy=1.0 mm; Maximum value of SAR (interpolated) = 0.083 W/kg

**Touch Left 1900 MHz 23-03-16/Channel 9400 Test with Cellsafe Radi/Zoom Scan (26x26x36)/Cube 0:**
- Interpolated grid: dx=1.6 mm, dy=1.6 mm, dz=1.0 mm; Reference Value = 5.927 V/m; **Power Drift = 0.13 dB**

Averaged SAR: SAR(1g) = 0.076 W/kg; SAR(10g) = 0.048 W/kg
- Maximum value of SAR (interpolated) = 0.108 W/kg

![SAR Measurement Plot 16](image_url)
Test Lab: EMCTech Test File: M160308R1 iPhone6S 1900 MHz 3G.da52:0

**DUT Name:** Apple Mobile Phone, **Type:** iPhone 6S, **Serial:** F17QRHUWGRY7

**Configuration:** Touch Left 1900 MHz 23-03-16
Communication System: 0 - WCDMA - UMTS; Communication System Band: Band 2 1850 MHz;
Frequency: 1880 MHz, Communication System PAR: 0.00 dB; PMF: 1.00; Duty Cycle: 1:1.00
Medium Parameters used: f=1880 MHz; $\sigma = 1.46 \text{ S/m}$; $\varepsilon_r = 38.4$; $\rho = 1000.0 \text{ g/cm}^3$
Phantom section: Left Section

**DASY Configuration:**
Probe: ET3DV6 - SN1380; ConvF: (5.12,5.12,5.12); Calibrated: 10/12/2015;
Sensor-Surface: 4 mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE3 Sn442; Calibrated: 7/12/2015
Phantom: SAM 22; Type: SAM 22; Serial: 1260
DASY52 52.8.8(1222); SEMCAD X Version 14.6.10 (7331)

**Touch Left 1900 MHz 23-03-16/Channel 9400 Test without chip/Area Scan (221x121x1):** Interpolated grid: $dx=1.0 \text{ mm}$, $dy=1.0 \text{ mm}$; Maximum value of SAR (interpolated) = 0.419 W/kg
**Touch Left 1900 MHz 23-03-16/Channel 9400 Test without chip/Zoom Scan (26x21x36)/Cube 0:** Interpolated grid: $dx=1.6 \text{ mm}$, $dy=1.6 \text{ mm}$, $dz=1.0 \text{ mm}$; Reference Value = 15.512 V/m; **Power Drift = -0.02 dB**
**Averaged SAR:** SAR(1g) = 0.390 W/kg; SAR(10g) = 0.253 W/kg
Maximum value of SAR (interpolated) = 0.536 W/kg

0 dB = 0.419 W/kg = -3.78 dBW/kg

SAR Measurement Plot 17
Test Lab: EMCTech
Test File: M160308R1 iPhone6S 1900 MHz 3G.da52:1

DUT Name: Apple Mobile Phone, Type: iPhone 6S, Serial: F17QRHUGRY7

Configuration: Touch Right 1900 MHz 22-03-16
Communication System: 0 - WCDMA - UMTS; Communication System Band: Band 2 1850 MHz;
Frequency: 1880 MHz, Communication System PAR: 0.00 dB; PMF: 1.00; Duty Cycle: 1:1.00
Medium Parameters used: f=1880 MHz; σ = 1.46 S/m; ε_r = 38.4; ρ = 1000.0 g/cm^3
Phantom section: Right Section

DASY Configuration:
Probe: ET3DV6 - SN1380; ConvF: (5.12,5.12,5.12); Calibrated: 10/12/2015;
Sensor-Surface: 4 mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE3 Sn442; Calibrated: 7/12/2015
Phantom: SAM 22; Type: SAM 22; Serial: 1260
DASY52 52.8.8(1222); SEMCAD X Version 14.6.10 (7331)

Touch Right 1900 MHz 22-03-16/Channel 9400 Test with Cellsafe Radi/Area Scan (221x121x1):
Interpolated grid: dx=1.0 mm, dy=1.0 mm; Maximum value of SAR (interpolated) = 0.256 W/kg

Touch Right 1900 MHz 22-03-16/Channel 9400 Test with Cellsafe Radi/Zoom Scan (26x21x36)/Cube 0:
Interpolated grid: dx=1.6 mm, dy=1.6 mm, dz=1.0 mm; Reference Value = 12.218 V/m; Power Drift = -0.19 dB
Averaged SAR: SAR(1g) = 0.259 W/kg; SAR(10g) = 0.162 W/kg
Maximum value of SAR (interpolated) = 0.387 W/kg

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Test Lab: EMCTech       Test File: M160308R1 iPhone6S 1900 MHz 3G.da52:1

**DUT Name:** Apple Mobile Phone, **Type:** iPhone 6S, **Serial:** F17QRHUWGRY7

**Configuration:** Touch Right 1900 MHz 22-03-16
Communication System: 0 - WCDMA - UMTS; Communication System Band: Band 2 1850 MHz; Frequency: 1880 MHz, Communication System PAR: 0.00 dB; PMF: 1.00; Duty Cycle: 1:1.00
Medium Parameters used: $f=1880$ MHz; $\sigma = 1.46 \text{ S/m}$; $\epsilon_r = 38.4$; $\rho = 1000.0 \text{ g/cm}^3$
Phantom section: Right Section

**DASY Configuration:**
Probe: ET3DV6 - SN1380; ConvF: (5.12,5.12,5.12); Calibrated: 10/12/2015;
Sensor-Surface: 4 mm (Mechanical Surface Detection (Locations From Previous Scan Used));
Electronics: DAE3 Sn442; Calibrated: 7/12/2015;
Phantom: SAM 22; Type: SAM 22; Serial: 1260
DASY52 52.8.8(1222); SEMCAD X Version 14.6.10 (7331)

**Touch Right 1900 MHz 22-03-16/Channel 9400 Test without chip/Area Scan (221x121x1):** Interpolated grid: $dx=1.0$ mm, $dy=1.0$ mm; Maximum value of SAR (interpolated) = 0.856 W/kg

**Touch Right 1900 MHz 22-03-16/Channel 9400 Test without chip/Zoom Scan (26x21x36)/Cube 0:**
Interpolated grid: $dx=1.6$ mm, $dy=1.6$ mm, $dz=1.0$ mm; Reference Value = 18.859 V/m; Power Drift = -0.13 dB
Averaged SAR: SAR(1g) = 0.761 W/kg; SAR(10g) = 0.474 W/kg
Maximum value of SAR (interpolated) = 1.110 W/kg

![SAR Measurement Plot](image)

0 dB = 0.856 W/kg = -0.68 dBW/kg
DUT Name: Apple Mobile Phone, Type: iPhone 6 Plus, Serial: FK1Q3PA5G5QQ

Configuration: Touch Left 23-03-16
Communication System: 0 - WCDMA - UMTS; Communication System Band: Band 5 850 MHz; Frequency: 836.6 MHz, Communication System PAR: 0.00 dB; PMF: 1.00; Duty Cycle: 1:1.00
Medium Parameters used: f=836.5 MHz; $\sigma$ = 0.90 S/m; $\varepsilon_r$ = 43.2; $\rho$ = 1000.0g/cm$^3$
Phantom section: Left Section

DASY Configuration:
Probe: ET3DV6 - SN1380; ConvF: (6.08,6.08,6.08); Calibrated: 10/12/2015;
Sensor-Surface: 4 mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE3 Sn442; Calibrated: 7/12/2015
Phantom: SAM 12; Type: SAM 12; Serial: 1060
DASY52 52.8.8(1222); SEMCAD X Version 14.6.10 (7331)

Touch Left 23-03-16/Channel 4183 Test Cellsafe Radi/Area Scan (141x81x1): Interpolated grid: dx=1.5 mm, dy=1.5 mm; Maximum value of SAR (interpolated) = 0.241 W/kg
Touch Left 23-03-16/Channel 4183 Test Cellsafe Radi/Zoom Scan (21x26x36)/Cube 0: Interpolated grid: dx=1.6 mm, dy=1.6 mm, dz=1.0 mm; Reference Value = 16.353 V/m; Power Drift = 0.16 dB
Averaged SAR: SAR(1g) = 0.229 W/kg; SAR(10g) = 0.177 W/kg
Maximum value of SAR (interpolated) = 0.288 W/kg

0 dB = 0.241 W/kg = -6.18 dBW/kg

SAR Measurement Plot 20
Test Lab: EMCTech
Test File: M160308R1 iPhone6 Plus 850 MHz 3G EN Chip on the Left Side.da52:1

DUT Name: Apple Mobile Phone, Type: iPhone 6 Plus, Serial: FK1Q3PA5G5QQ

Configuration: Touch Left 17-03-06
Communication System: 0 - WCDMA - UMTS; Communication System Band: Band 5 850 MHz;
Frequency: 836.6 MHz, Communication System PAR: 0.00 dB; PMF: 1.00; Duty Cycle: 1:1.00
Medium Parameters used: f=836.5 MHz; \( \sigma = 0.90 \text{ S/m}; \varepsilon_r = 42.4; \rho = 1000.0 \text{g/cm}^3 \)
Phantom section: Left Section

DASY Configuration:
Probe: ET3DV6 - SN1380; ConvF: (6.08,6.08,6.08); Calibrated: 10/12/2015;
Sensor-Surface: 4 mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE3 Sn442; Calibrated: 7/12/2015
Phantom: SAM 12; Type: SAM 12; Serial: 1060
DASY52 52.8.8(1222); SEMCAD X Version 14.6.10 (7331)

Touch Left 17-03-06/Channel 4183 Test without chip/Area Scan (141x81x1): Interpolated grid: dx=1.5 mm, dy=1.5 mm; Maximum value of SAR (interpolated) = 0.326 W/kg
Touch Left 17-03-06/Channel 4183 Test without chip/Zoom Scan (26x26x36)/Cube 0: Interpolated grid: dx=1.6 mm, dy=1.6 mm, dz=1.0 mm; Reference Value = 18.820 V/m; Power Drift = -0.03 dB
Averaged SAR: SAR(1g) = 0.306 W/kg; SAR(10g) = 0.235 W/kg
Maximum value of SAR (interpolated) = 0.383 W/kg

0 dB = 0.326 W/kg = -4.87 dBW/kg

SAR Measurement Plot 21
DUT Name: Apple Mobile Phone, Type: iPhone 6 Plus, Serial: FK1Q3PA5G5QQ

Configuration: Touch Right 23-03-16
Communication System: 0 - WCDMA - UMTS; Communication System Band: Band 5 850 MHz; Frequency: 836.6 MHz, Communication System PAR: 0.00 dB; PMF: 1.00; Duty Cycle: 1:1.00
Medium Parameters used: $f=836.5 \text{ MHz}; \sigma = 0.90 \text{ S/m}; \varepsilon_r = 43.2; \rho = 1000.0 \text{ g/cm}^3$
Phantom section: Right Section

DASY Configuration:
Probe: ET3DV6 - SN1380; ConvF: (6.08,6.08,6.08); Calibrated: 10/12/2015;
Sensor-Surface: 4 mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE3 Sn442; Calibrated: 7/12/2015
Phantom: SAM 12; Type: SAM 12; Serial: 1060
DASY52 52.8.8(1222); SEMCAD X Version 14.6.10 (7331)

Touch Right 23-03-16/Channel 4183 Test Cellsafe Radi/Area Scan (141x81x1): Interpolated grid: $dx=1.5 \text{ mm}, dy=1.5 \text{ mm}$; Maximum value of SAR (interpolated) = 0.212 W/kg

Touch Right 23-03-16/Channel 4183 Test Cellsafe Radi/Zoom Scan (21x21x36)/Cube 0: Interpolated grid: $dx=1.6 \text{ mm}, dy=1.6 \text{ mm}, dz=1.0 \text{ mm}$; Reference Value = 15.329 V/m; Power Drift = 0.02 dB

Averaged SAR: SAR(1g) = 0.201 W/kg; SAR(10g) = 0.161 W/kg

Maximum value of SAR (interpolated) = 0.229 W/kg

0 dB = 0.212 W/kg = -6.74 dBW/kg
**DUT Name:** Apple Mobile Phone, **Type:** iPhone 6 Plus, **Serial:** FK1Q3PA5G5QQ

**Configuration:** Touch Right 17-03-06

Communication System: 0 - WCDMA - UMTS; Communication System Band: Band 5 850 MHz; Frequency: 836.6 MHz, Communication System PAR: 0.00 dB; PMF: 1.00; Duty Cycle: 1:1.00

Medium Parameters used: $f=836.5$ MHz; $\sigma = 0.90$ $\text{S/m}$; $\varepsilon_r = 42.4$; $\rho = 1000.0 \text{g/cm}^3$

**Phantom section:** Right Section

**DASY Configuration:**

Probe: ET3DV6 - SN1380; ConvF: (6.08,6.08,6.08); Calibrated: 10/12/2015;
Sensor-Surface: 4 mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE3 Sn442; Calibrated: 7/12/2015
Phantom: SAM 12; Type: SAM 12; Serial: 1060
DASY52 52.8.8(1222); SEMCAD X Version 14.6.10 (7331)

**Touch Right 17-03-06/Channel 4183 Test without chip/Area Scan (141x81x1):** Interpolated grid: $dx=1.5$ mm, $dy=1.5$ mm; Maximum value of SAR (interpolated) = 0.270 W/kg

**Touch Right 17-03-06/Channel 4183 Test without chip/Zoom Scan (21x21x36)/Cube 0:** Interpolated grid: $dx=1.6$ mm, $dy=1.6$ mm, $dz=1.0$ mm; Reference Value = 17.720 V/m; **Power Drift = -0.03 dB**

**Averaged SAR:** SAR(1g) = 0.259 W/kg; SAR(10g) = 0.204 W/kg

Maximum value of SAR (interpolated) = 0.308 W/kg

0 dB = 0.270 W/kg = -5.69 dBW/kg

[SAR Measurement Plot 23]
Test Lab: EMCTech

Test File: M160308R1 iPhone6 Plus 850 MHz 3G EN Chip on the Left Side.da52:4

DUT Name: Dipole 900 MHz, Type: DV900V2, Serial: 047

Configuration: System Check 23-03-16
Communication System: 0 - CW; Communication System Band: 900 MHz; Frequency: 900.0 MHz, Communication System PAR: 0.00 dB; PMF: 0.00; Duty Cycle: 1:1.00
Medium Parameters used: $f=900 \text{ MHz}$; $\sigma = 0.96 \text{ S/m}$; $\varepsilon_r = 42.5$; $\rho = 1000.0 \text{g/cm}^3$
Phantom section: Flat Section

DASY Configuration:
Probe: ET3DV6 - SN1380; ConvF: (6.08,6.08,6.08); Calibrated: 10/12/2015;
Sensor-Surface: 4 mm (Mechanical Surface Detection)
Electronics: DAE3 Sn442; Calibrated: 7/12/2015
Phantom: SAM 12; Type: SAM 12; Serial: 1060
DASY52 52.8.8(1222); SEMCAD X Version 14.6.10 (7331)

System Check 23-03-16/Channel 1 Test/Area Scan (51x51x1): Interpolated grid: $dx=1.5$ mm, $dy=1.5$ mm; Maximum value of SAR (interpolated) = 2.920 W/kg

System Check 23-03-16/Channel 1 Test/Zoom Scan (31x31x36)/Cube 0: Interpolated grid: $dx=1.0$ mm, $dy=1.0$ mm, $dz=1.0$ mm; Reference Value = 56.651 V/m; Power Drift = -0.05 dB

Averaged SAR: SAR(1g) = 2.710 W/kg; SAR(10g) = 1.750 W/kg
Maximum value of SAR (interpolated) = 3.960 W/kg

SAR Measurement Plot 24

Accredited for compliance with ISO/IEC 17025. The results of the test, calibrations and/or measurement included in this document are traceable to Australian/national standards. NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, calibration and inspection reports.

This document shall not be reproduced except in full.
DUT Name: Apple Mobile Phone, Type: iPhone 6 Plus, Serial: FK1Q3PA5G5QQ
Configuration: Touch Left 1900 MHz 24-03-16
Communication System: 0 - WCDMA - UMTS; Communication System Band: Band 2 1850 MHz;
Frequency: 1880 MHz, Communication System PAR: 0.00 dB; PMF: 1.00; Duty Cycle: 1:1.00
Medium Parameters used: f=1880 MHz; $\sigma = 1.46 \text{ S/m}; \varepsilon_r = 38.7; \rho = 1000.0\text{g/cm}^3$
Phantom section: Left Section

DASY Configuration:
Probe: ET3DV6 - SN1380; ConvF: (5.12,5.12,5.12); Calibrated: 10/12/2015;
Sensor-Surface: 4 mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE3 Sn442; Calibrated: 7/12/2015
Phantom: SAM 22; Type: SAM 22; Serial: 1260
DASY52 52.8.8(1222); SEMCAD X Version 14.6.10 (7331)

Touch Left 1900 MHz 24-03-16/Channel 9400 Test with Cellsafe Radi/Area Scan (141x81x1):
Interpolated grid: dx=1.5 mm, dy=1.5 mm; Maximum value of SAR (interpolated) = 0.072 W/kg

Touch Left 1900 MHz 24-03-16/Channel 9400 Test with Cellsafe Radi/Zoom Scan (26x21x36)/Cube 0:
Interpolated grid: dx=1.6 mm, dy=1.6 mm, dz=1.0 mm; Reference Value = 5.401 V/m; Power Drift = 0.01 dB
Averaged SAR: SAR(1g) = 0.074 W/kg; SAR(10g) = 0.046 W/kg
Maximum value of SAR (interpolated) = 0.114 W/kg

0 dB = 0.0718 W/kg = -11.44 dBW/kg
DUT Name: Apple Mobile Phone, Type: iPhone 6 Plus, Serial: FK1Q3PA5G5QQ

Configuration: Touch Left 1900 MHz 24-03-16 2
Communication System: 0 - WCDMA - UMTS; Communication System Band: Band 2 1850 MHz;
Frequency: 1880 MHz, Communication System PAR: 0.00 dB; PMF: 1.00; Duty Cycle: 1:1.00
Medium Parameters used: f=1880 MHz; $\sigma = 1.46$ S/m; $\varepsilon_r = 38.7$; $\rho = 1000.0$g/cm$^3$
Phantom section: Left Section

DASY Configuration:
Probe: ET3DV6 - SN1380; ConvF: (5.12,5.12,5.12); Calibrated: 10/12/2015;
Sensor-Surface: 4 mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE3 Sn442; Calibrated: 7/12/2015
Phantom: SAM 22; Type: SAM 22; Serial: 1260
DASY52 52.8.8(1222); SEMCAD X Version 14.6.10 (7331)

Touch Left 1900 MHz 24-03-16 2/Channel 9400 Test without chip/Area Scan (141x81x1):
Interpolated grid: dx=1.5 mm, dy=1.5 mm; Maximum value of SAR (interpolated) = 0.481 W/kg

Touch Left 1900 MHz 24-03-16 2/Channel 9400 Test without chip/Zoom Scan (26x21x36)/Cube 0:
Interpolated grid: dx=1.6 mm, dy=1.6 mm, dz=1.0 mm; Reference Value = 17.033 V/m; Power Drift = -0.05 dB
Averaged SAR: SAR(1g) = 0.450 W/kg; SAR(10g) = 0.303 W/kg
Maximum value of SAR (interpolated) = 0.595 W/kg

0 dB = 0.481 W/kg = -3.18 dBW/kg

SAR Measurement Plot 26
Test Lab: EMCTech Test File: M160308R1 iPhone6 Plus 1900 MHz 3G Chip on the Left Side.da52:2

**DUT Name:** Apple Mobile Phone, **Type:** iPhone 6 Plus, **Serial:** FK1Q3PA5G5QQ

**Configuration:** Touch Right 1900 MHz 24-03-16
Communication System: 0 - WCDMA - UMTS; Communication System Band: Band 2 1850 MHz;
Frequency: 1880 MHz, Communication System PAR: 0.00 dB; PMF: 1.00; Duty Cycle: 1:1.00
Medium Parameters used: f=1880 MHz; $\sigma = 1.46 \text{ S/m}; \varepsilon_r = 38.7; \rho = 1000.0 \text{ g/cm}^3$
Phantom section: Right Section

**DASY Configuration:**
Probe: ET3DV6 - SN1380; ConvF: (5.12,5.12,5.12); Calibrated: 10/12/2015;
Sensor-Surface: 4 mm (Mechanical Surface Detection (Locations From Previous Scan Used));
Electronics: DAE3 Sn442; Calibrated: 7/12/2015
Phantom: SAM 22; Type: SAM 22; Serial: 1260
DASY52 52.8.8(1222); SEMCAD X Version 14.6.10 (7331)

**Touch Right 1900 MHz 24-03-16/Channel 9400 Test with Cellsafe Radi/Area Scan (141x81x1):**
Interpolated grid: dx=1.5 mm, dy=1.5 mm; Maximum value of SAR (interpolated) = 0.202 W/kg

**Touch Right 1900 MHz 24-03-16/Channel 9400 Test with Cellsafe Radi/Zoom Scan (26x21x36)/Cube 0:** Interpolated grid: dx=1.6 mm, dy=1.6 mm, dz=1.0 mm; Reference Value = 3.607 V/m; **Power Drift = 0.05 dB**

**Averaged SAR:** SAR(1g) = 0.175 W/kg; SAR(10g) = 0.082 W/kg  
Maximum value of SAR (interpolated) = 0.374 W/kg

0 dB = 0.202 W/kg = -6.95 dBW/kg

SAR Measurement Plot 27
DUT Name: Apple Mobile Phone, Type: iPhone 6 Plus, Serial: FK1Q3PA5G5QQ

Configuration: Touch Right 1900 MHz 24-03-16
Communication System: 0 - WCDMA - UMTS; Communication System Band: Band 2 1850 MHz;
Frequency: 1880 MHz, Communication System PAR: 0.00 dB; PMF: 1.00; Duty Cycle: 1:1.00
Medium Parameters used: f=1880 MHz; $\sigma = 1.46$ S/m; $\varepsilon_r = 38.7$; $\rho = 1000.0$ g/cm$^3$
Phantom section: Right Section

DASY Configuration:
Probe: ET3DV6 - SN1380; ConvF: (5.12,5.12,5.12); Calibrated: 10/12/2015;
Sensor-Surface: 4 mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE3 Sn442; Calibrated: 7/12/2015
Phantom: SAM 22; Type: SAM 22; Serial: 1260
DASY52 S2.8.8(1222); SEMCAD X Version 14.6.10 (7331)

Touch Right 1900 MHz 24-03-16/Channel 9400 Test without chip/Area Scan (141x81x1): Interpolated grid: dx=1.5 mm, dy=1.5 mm; Maximum value of SAR (interpolated) = 1.120 W/kg

Touch Right 1900 MHz 24-03-16/Channel 9400 Test without chip/Zoom Scan (26x21x36)/Cube 0:
Interpolated grid: dx=1.6 mm, dy=1.6 mm, dz=1.0 mm; Reference Value = 21.215 V/m; Power Drift = 0.01 dB
Averaged SAR: SAR(1g) = 0.952 W/kg; SAR(10g) = 0.596 W/kg
Maximum value of SAR (interpolated) = 1.380 W/kg
DUT Name: Dipole 1950 MHz, Type: DV1950V3, Serial: 1113

Configuration: System Check 1800 MHz 24-03-16
Communication System: 0 - System Check; Communication System Band: 1800 MHz; Frequency: 1800 MHz, Communication System PAR: 0.00 dB; PMF: 0.00; Duty Cycle: 1:1.00
Medium Parameters used: f=1799.9 MHz; σ = 1.42 S/m; ε_r = 39.0; ρ = 1000.0 g/cm^3
Phantom section: Flat Section

DASY Configuration:
Probe: ET3DV6 - SN1380; ConvF: (5.12,5.12,5.12); Calibrated: 10/12/2015;
Sensor-Surface: 4 mm (Mechanical Surface Detection)
Electronics: DAE3 Sn442; Calibrated: 7/12/2015
Phantom: SAM 22; Type: SAM 22; Serial: 1260
DASY52 52.8.8(1222); SEMCAD X Version 14.6.10 (7331)

System Check 1800 MHz 24-03-16/Channel 1 Test/Area Scan (51x51x1): Interpolated grid: dx=1.5 mm, dy=1.5 mm; Maximum value of SAR (interpolated) = 11.100 W/kg
System Check 1800 MHz 24-03-16/Channel 1 Test/Zoom Scan (31x31x36)/Cube 0: Interpolated grid: dx=1.0 mm, dy=1.0 mm, dz=1.0 mm; Reference Value = 83.904 V/m; Power Drift = 0.11 dB
Averaged SAR: SAR(1g) = 9.190 W/kg; SAR(10g) = 4.900 W/kg
Maximum value of SAR (interpolated) = 15.600 W/kg
DUT Name: Apple Mobile Phone, Type: iPhone 6S Plus, Serial: C39QVM8QGRWM

Configuration: Touch Left 23-03-16
Communication System: 0 - WCDMA - UMTS; Communication System Band: Band 5 850 MHz; Frequency: 836.6 MHz, Communication System PAR: 0.00 dB; PMF: 1.00; Duty Cycle: 1:1.00
Medium Parameters used: f=836.5 MHz; σ = 0.90 S/m; εᵣ = 43.2; ρ = 1000.0g/cm³
Phantom section: Left Section

DASY Configuration:
Probe: ET3DV6 - SN1380; ConvF: (6.08,6.08,6.08); Calibrated: 10/12/2015;
Sensor-Surface: 4 mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE3 Sn442; Calibrated: 7/12/2015
Phantom: SAM 12; Type: SAM 12; Serial: 1060
DASY52 52.8.8(1222); SEMCAD X Version 14.6.10 (7331)

Touch Left 23-03-16/Channel 4183 Test Cellsafe Radi/Area Scan (141x81x1): Interpolated grid: dx=1.5 mm, dy=1.5 mm; Maximum value of SAR (interpolated) = 0.206 W/kg

Touch Left 23-03-16/Channel 4183 Test Cellsafe Radi/Zoom Scan (21x21x36)/Cube 0: Interpolated grid: dx=1.6 mm, dy=1.6 mm, dz=1.0 mm; Reference Value = 15.169 V/m; Power Drift = -0.08 dB

Averaged SAR: SAR(1g) = 0.194 W/kg; SAR(10g) = 0.153 W/kg
Maximum value of SAR (interpolated) = 0.234 W/kg
Test Lab: EMCTech  

Test File: M160308R1 iPhone6S Plus 850 MHz 3G EN Chip on the Left Side.da52:1

DUT Name: Apple Mobile Phone, Type: iPhone 6S Plus, Serial: C39QVM8QGRWM

Configuration: Touch Left 17-03-06
Communication System: 0 - WCDMA - UMTS; Communication System Band: Band 5 850 MHz;
Frequency: 836.6 MHz, Communication System PAR: 0.00 dB; PMF: 1.00; Duty Cycle: 1:1.00
Medium Parameters used: f=836.5 MHz; σ = 0.90 S/m; ε_r = 42.4; ρ = 1000.0 g/cm^3
Phantom section: Left Section

DASY Configuration:
Probe: ET3DV6 - SN1380; ConvF: (6.08,6.08,6.08); Calibrated: 10/12/2015;
Sensor-Surface: 4 mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE3 Sn442; Calibrated: 7/12/2015
Phantom: SAM 12; Type: SAM 12; Serial: 1060
DASY52 52.8.8(1222); SEMCAD X Version 14.6.10 (7331)

Touch Left 17-03-06/Channel 4183 Test without chip/Area Scan (141x81x1): Interpolated grid: dx=1.5 mm, dy=1.5 mm; Maximum value of SAR (interpolated) = 0.278 W/kg

Touch Left 17-03-06/Channel 4183 Test without chip/Zoom Scan (21x26x36)/Cube 0: Interpolated grid: dx=1.6 mm, dy=1.6 mm, dz=1.0 mm; Reference Value = 17.583 V/m; Power Drift = -0.02 dB

Averaged SAR: SAR(1g) = 0.265 W/kg; SAR(10g) = 0.205 W/kg

Maximum value of SAR (interpolated) = 0.325 W/kg

0 dB = 0.278 W/kg = -5.56 dBW/kg

SAR Measurement Plot 31
Test Lab: EMCTech  Test File: M160308R1 iPhone6S Plus 850 MHz 3G EN Chip on the Left Side.da52:2

DUT Name: Apple Mobile Phone, Type: iPhone 6S Plus, Serial: C39QVM8QGRWM

Configuration: Touch Right 23-03-16
Communication System: 0 - WCDMA - UMTS; Communication System Band: Band 5 850 MHz; Frequency: 836.6 MHz, Communication System PAR: 0.00 dB; PMF: 1.00; Duty Cycle: 1:1.00
Medium Parameters used: f=836.5 MHz; σ = 0.90 S/m; ε_r = 43.2; ρ = 1000.0g/cm^3
Phantom section: Right Section

DASY Configuration:
Probe: ET3DV6 - SN1380; ConvF: (6.08,6.08,6.08); Calibrated: 10/12/2015;
Sensor-Surface: 4 mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE3 Sn442; Calibrated: 7/12/2015
Phantom: SAM 12; Type: SAM 12; Serial: 1060
DASY52 52.8.8(1222); SEMCAD X Version 14.6.10 (7331)

Touch Right 23-03-16/Channel 4183 Test Cellsafe Radi/Area Scan (141x81x1): Interpolated grid: dx=1.5 mm, dy=1.5 mm; Maximum value of SAR (interpolated) = 0.170 W/kg
Touch Right 23-03-16/Channel 4183 Test Cellsafe Radi/Zoom Scan (21x21x36)/Cube 0: Interpolated grid: dx=1.6 mm, dy=1.6 mm, dz=1.0 mm; Reference Value = 13.635 V/m; Power Drift = 0.04 dB
Averaged SAR: SAR(1g) = 0.161 W/kg; SAR(10g) = 0.129 W/kg
Maximum value of SAR (interpolated) = 0.188 W/kg

0 dB = 0.170 W/kg = -7.70 dBW/kg

SAR Measurement Plot 32
DUT Name: Apple Mobile Phone, Type: iPhone 6S Plus, Serial: C39QVM8QGRWM

Configuration: Touch Right 17-03-06
Communication System: 0 - WCDMA - UMTS; Communication System Band: Band 5 850 MHz; Frequency: 836.6 MHz, Communication System PAR: 0.00 dB; PMF: 1.00; Duty Cycle: 1:1.00
Medium Parameters used: f=836.5 MHz; \(\sigma = 0.90\) S/m; \(\varepsilon_r = 42.4\); \(\rho = 1000.0\) g/cm\(^3\)
Phantom section: Right Section

DASY Configuration:
Probe: ET3DV6 - SN1380; ConvF: (6.08,6.08,6.08); Calibrated: 10/12/2015;
Sensor-Surface: 4 mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE3 Sn442; Calibrated: 7/12/2015
Phantom: SAM 12; Type: SAM 12; Serial: 1060
DASY52 52.8.8(1222); SEMCAD X Version 14.6.10 (7331)

Touch Right 17-03-06/Channel 4183 Test without chip/Area Scan (141x81x1): Interpolated grid: dx=1.5 mm, dy=1.5 mm; Maximum value of SAR (interpolated) = 0.229 W/kg
Touch Right 17-03-06/Channel 4183 Test without chip/Zoom Scan (21x21x36)/Cube 0: Interpolated grid: dx=1.6 mm, dy=1.6 mm, dz=1.0 mm; Reference Value = 16.559 V/m; Power Drift = -0.06 dB
Averaged SAR: SAR(1g) = 0.218 W/kg; SAR(10g) = 0.173 W/kg
Maximum value of SAR (interpolated) = 0.254 W/kg

0 dB = 0.229 W/kg = -6.40 dBW/kg
Test Lab: EMCTech  Test File: M160308R1 iPhone6S Plus 1900 MHz 3G Chip on the Left Side.da52:0

DUT Name: Apple Mobile Phone, Type: iPhone 6S Plus, Serial: C39QVM8QGRWM

Configuration: Touch Left 1900 MHz 24-03-16
Communication System: 0 - WCDMA - UMTS; Communication System Band: Band 2 1850 MHz; Frequency: 1880 MHz, Communication System PAR: 0.00 dB; PMF: 1.00; Duty Cycle: 1:1.00
Medium Parameters used: f=1880 MHz; $\sigma = 1.46 \, \text{S/m}$; $\varepsilon_r = 38.7$; $\rho = 1000.0 \, \text{g/cm}^3$
Phantom section: Left Section

DASY Configuration:
Probe: ET3DV6 - SN1380; ConvF: (5.12,5.12,5.12); Calibrated: 10/12/2015;
Sensor-Surface: 4 mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE3 Sn442; Calibrated: 7/12/2015
Phantom: SAM 22; Type: SAM 22; Serial: 1260
DASY52 52.8.8(1222); SEMCAD X Version 14.6.10 (7331)

Touch Left 1900 MHz 24-03-16/Channel 9400 Test with Cellsafe Radi/Area Scan (141x81x1):
Interpolated grid: dx=1.5 mm, dy=1.5 mm; Maximum value of SAR (interpolated) = 0.052 W/kg

Touch Left 1900 MHz 24-03-16/Channel 9400 Test with Cellsafe Radi/Zoom Scan (26x21x36)/Cube 0:
Interpolated grid: dx=1.6 mm, dy=1.6 mm, dz=1.0 mm; Reference Value = 5.800 V/m; Power Drift = -0.10 dB
Averaged SAR: SAR(1g) = 0.059 W/kg; SAR(10g) = 0.037 W/kg
Maximum value of SAR (interpolated) = 0.087 W/kg

0 dB = 0.0520 W/kg = -12.84 dBW/kg

SAR Measurement Plot 34
Test Lab: EMCTech  
Test File: M160308R1 iPhone6S Plus 1900 MHz 3G Chip on the Left Side.da52:0

**DUT Name:** Apple Mobile Phone, **Type:** iPhone 6S Plus, **Serial:** C39QVM8QGRWM

**Configuration:** Touch Left 1900 MHz 24-03-16  
Communication System: 0 - WCDMA - UMTS; Communication System Band: Band 2 1850 MHz;  
Frequency: 1880 MHz, Communication System PAR: 0.00 dB; PMF: 1.00; Duty Cycle: 1:1.00  
Medium Parameters used: f=1880 MHz; σ = 1.46 S/m; ε_r = 38.7; ρ = 1000.0g/cm^3  
Phantom section: Left Section

**DASY Configuration:**  
Probe: ET3DV6 - SN1380; ConvF: (5.12,5.12,5.12); Calibrated: 10/12/2015;  
Sensor-Surface: 4 mm (Mechanical Surface Detection (Locations From Previous Scan Used))  
Electronics: DAE3 Sn442; Calibrated: 7/12/2015  
Phantom: SAM 22; Type: SAM 22; Serial: 1260  
DASY52 52.8.8(1222); SEMCAD X Version 14.6.10 (7331)

**Touch Left 1900 MHz 24-03-16/Channel 9400 Test without chip/Area Scan (141x81x1):** Interpolated  
grid: dx=1.5 mm, dy=1.5 mm; Maximum value of SAR (interpolated) = 0.359 W/kg  

**Touch Left 1900 MHz 24-03-16/Channel 9400 Test without chip/Zoom Scan (26x21x36)/Cube 0:**  
Interpolated grid: dx=1.6 mm, dy=1.6 mm, dz=1.0 mm; Reference Value = 14.588 V/m; **Power Drift = -0.01 dB**  
Averaged SAR: SAR(1g) = 0.373 W/kg; SAR(10g) = 0.247 W/kg  
Maximum value of SAR (interpolated) = 0.496 W/kg

![SAR Measurement Plot 35](image)
DUT Name: Apple Mobile Phone, Type: iPhone 6S Plus, Serial: C39QVM8QGRWM

Configuration: Touch Right 1900 MHz 24-03-16
Communication System: 0 - WCDMA - UMTS; Communication System Band: Band 2 1850 MHz;
Frequency: 1880 MHz, Communication System PAR: 0.00 dB; PMF: 1.00; Duty Cycle: 1:1.00
Medium Parameters used: f=1880 MHz; σ = 1.46 S/m; ε_r = 38.7; ρ = 1000.0g/cm^3
Phantom section: Right Section

DASY Configuration:
Probe: ET3DV6 - SN1380; ConvF: (5.12,5.12,5.12); Calibrated: 10/12/2015;
Sensor-Surface: 4 mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE3 Sn442; Calibrated: 7/12/2015
Phantom: SAM 22; Type: SAM 22; Serial: 1260
DASY52 52.8.8(1222); SEMCAD X Version 14.6.10 (7331)

Touch Right 1900 MHz 24-03-16/Channel 9400 Test with Cellsafe Radi/Area Scan (141x81x1):
Interpolated grid: dx=1.5 mm, dy=1.5 mm; Maximum value of SAR (interpolated) = 0.098 W/kg
**Touch Right 1900 MHz 24-03-16/Channel 9400 Test with Cellsafe Radi/Zoom Scan (31x26x36)/Cube 0:** Interpolated grid: dx=1.6 mm, dy=1.6 mm, dz=1.0 mm; Reference Value = 6.995 V/m; **Power Drift = 0.19 dB**
**Averaged SAR: SAR(1g) = 0.096 W/kg; SAR(10g) = 0.060 W/kg**
Maximum value of SAR (interpolated) = 0.140 W/kg

0 dB = 0.0978 W/kg = -10.10 dBW/kg

SAR Measurement Plot 36
DUT Name: Apple Mobile Phone, Type: iPhone 6S Plus, Serial: C39QVM8QGRWM

Configuration: Touch Right 1900 MHz 24-03-16
Communication System: 0 - WCDMA - UMTS; Communication System Band: Band 2 1850 MHz; Frequency: 1880 MHz, Communication System PAR: 0.00 dB; PMF: 1.00; Duty Cycle: 1:1.00
Medium Parameters used: f=1880 MHz; σ = 1.46 S/m; ε_r = 38.7; ρ = 1000.0g/cm^3
Phantom section: Right Section

DASY Configuration:
Probe: ET3DV6 - SN1380; ConvF: (5.12,5.12,5.12); Calibrated: 10/12/2015;
Sensor-Surface: 4 mm (Mechanical Surface Detection (Locations From Previous Scan Used))
Electronics: DAE3 Sn442; Calibrated: 7/12/2015
Phantom: SAM 22; Type: SAM 22; Serial: 1260
DASY52 52.8.8(1222); SECMAC X Version 14.6.10 (7331)

Touch Right 1900 MHz 24-03-16/Channel 9400 Test without chip/Area Scan (141x81x1): Interpolated grid: dx=1.5 mm, dy=1.5 mm; Maximum value of SAR (interpolated) = 0.904 W/kg
Touch Right 1900 MHz 24-03-16/Channel 9400 Test without chip/Zoom Scan (26x21x36)/Cube 0: Interpolated grid: dx=1.6 mm, dy=1.6 mm, dz=1.0 mm; Reference Value = 20.047 V/m; Power Drift = -0.10 dB
Averaged SAR: SAR(1g) = 0.784 W/kg; SAR(10g) = 0.489 W/kg
Maximum value of SAR (interpolated) = 1.140 W/kg

0 dB = 0.904 W/kg = -0.44 dBW/kg
APPENDIX C DESCRIPTION OF SAR MEASUREMENT SYSTEM

Probe Positioning System

The measurements were performed with the state of the art automated near-field scanning system DASY5 Version 52 from Schmid & Partner Engineering AG (SPEAG). The system is based on a high precision 6-axis robot (working range greater than 1.1m), which positions the SAR measurement probes with a positional repeatability of better than ±0.02 mm. The DASY5 fully complies with the IEEE 1528 and EN62209 SAR measurement requirements.

E-Field Probe Type and Performance

The SAR measurements were conducted with the dosimetric probe ET3DV6 was used (manufactured by SPEAG). The SAR probes are designed in the classical triangular configuration and optimised for dosimetric evaluation. The probe has been calibrated and found to be accurate to better than ±0.25 dB. The probe is suitable for measurements close to material discontinuity at the surface of the phantom.

Data Acquisition Electronics

The data acquisition electronics (DAE3) consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain switching multiplexer, a fast 16 bit AD-converter and a command decoder and control logic unit. The input impedance of the DAE3 box is 200 MΩ; the inputs are symmetrical and floating. Common mode rejection is above 80dB. Transmission to the PC-card is accomplished through an optical downlink for data and status information as well as an optical uplink for commands and the clock.

The mechanical probe-mounting device includes two different sensor systems for frontal and sideways probe contacts. They are used for mechanical surface detection and probe collision detection.

Device Holder for DASY5

The DASY5 device holder supplied by SPEAG is designed to cope with different positions given in the standard. It has two scales for the device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear openings). The rotation centres for both scales is the ear opening. Thus the device needs no repositioning when changing the angles.

The DASY5 device holder is made of low-loss material having the following dielectric parameters: relative permittivity ε=3 and loss tangent δ=0.02. The amount of dielectric material has been reduced in the closest vicinity of the device, to reduce the influence on the clamp on the test results.

Refer to Appendix A for photograph of device positioning.

Liquid Depth 15cm

During the SAR measurement process the liquid level was maintained to a level of at least 15cm with a tolerance of ±0.5cm.

Phantom Properties (Size, Shape, Shell Thickness, Tissue Material Properties)

The phantom used during the SAR testing and validation was the “SAM” phantom from SPEAG. The phantom thickness is 2.0mm±/-0.2 mm and was filled with the required tissue simulating liquid.
The dielectric parameters of the simulating liquid were measured prior to SAR assessment using the HP85070A dielectric probe kit and HP8753ES Network Analyser. The target dielectric parameters are shown in the following table.

<table>
<thead>
<tr>
<th>Frequency (MHz)</th>
<th>UMTS Band 2</th>
<th>UMTS Band 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1852.4</td>
<td>40.0 ±5% (38.0 to 42.0)</td>
<td>1852.4</td>
</tr>
<tr>
<td>1880</td>
<td>40.0 ±5% (38.0 to 42.0)</td>
<td>1880</td>
</tr>
<tr>
<td>1907.6</td>
<td>40.0 ±5% (38.0 to 42.0)</td>
<td>1907.6</td>
</tr>
</tbody>
</table>

Band | UMTS Band 5 |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>826.4</td>
<td>41.5 ±5% (39.4 to 43.6)</td>
</tr>
<tr>
<td>836.6</td>
<td>41.5 ±5% (39.4 to 43.6)</td>
</tr>
<tr>
<td>846.6</td>
<td>41.5 ±5% (39.4 to 43.6)</td>
</tr>
</tbody>
</table>

Note: The liquid parameters were within the required tolerances of ±5%.

Simulated Tissue Composition Used for SAR Test

The tissue simulating liquids are created prior to the SAR evaluation and often require slight modification each day to obtain the correct dielectric parameters.

Table: Tissue Type: @ 850/900MHz
Volume of Liquid: 30 Litres

<table>
<thead>
<tr>
<th>Approximate Composition</th>
<th>% By Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distilled Water</td>
<td>41.05</td>
</tr>
<tr>
<td>Salt</td>
<td>1.35</td>
</tr>
<tr>
<td>Sugar</td>
<td>56.5</td>
</tr>
<tr>
<td>HEC</td>
<td>1.0</td>
</tr>
<tr>
<td>Bactericide</td>
<td>0.1</td>
</tr>
</tbody>
</table>

Table: Tissue Type: @ 1800/1950MHz
Volume of Liquid: 30 Litres

<table>
<thead>
<tr>
<th>Approximate Composition</th>
<th>% By Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distilled Water</td>
<td>61.17</td>
</tr>
<tr>
<td>Salt</td>
<td>0.31</td>
</tr>
<tr>
<td>Bactericide</td>
<td>0.29</td>
</tr>
<tr>
<td>Triton X-100</td>
<td>38.23</td>
</tr>
</tbody>
</table>
APPENDIX D CALIBRATION DOCUMENTS

1. ET3DV6 SN: 1380 Probe Calibration Certificate
2. SN: 047 D900V2 Dipole Calibration Certificate
3. SN: 242 D1800V2 Dipole Calibration Certificate
4. SN: 442 DAE3 Data Acquisition Electronics Calibration Certificate
Accredited for compliance with ISO/IEC 17025. The results of the test, calibrations and/or measurement included in this document are traceable to Australian/national standards. NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, calibration and inspection reports.

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Calibration Laboratory of
Schmid & Partner
Engineering AG
Ziegelhaustrasse 43, 8004 Zurich, Switzerland

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Accreditation No.: SCS 0108

Glossary:
TSL: tissue simulating liquid
NORMx,y,z: sensitivity in free space
ConvF: sensitivity in TSL / NORMx,y,z
DCP: diode compression point
CF: crest factor (1/duty cycle) of the RF signal
A, B, C, D: modulation dependent linearization parameters
Polarization θ: θ rotation around probe axis
Polarization φ: S rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., φ = 0 is normal to probe axis
Connector Angle: information used in DASY system to align probe sensor X to the robot coordinate system

Calibration is Performed According to the Following Standards:
a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
b) IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)"; February 2005
c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)"; March 2010
d) KDB 865064, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:
- NORMx,y,z: Assessed for E-field polarization θ = 0 (f ≤ 800 MHz in TEM-cell; f > 1800 MHz: R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not affect the E-field uncertainty inside TSL (see below ConvF).
- NORM(f,x,y,z) = NORMx,y,z * frequency_response (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCPx,y,z: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- PAR: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- Ax,y,z, Bx,y,z, Cx,y,z, Dx,y,z, VRx,y,z, A, B, C, D are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters: Assessed in flat phantom using E-field (or Temperature Transfer Standard for f ≤ 800 MHz) and inside waveguide using analytical field distributions based on power measurements for f > 800 MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORMx,y,z * ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from ±50 MHz to ±100 MHz.
- Spherical isotropy (3D deviation from isotropy): in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle: The angle is assessed using the information gained by determining the NORMs (no uncertainty required).
Probe ET3DV6

SN: 1380

Manufactured: August 16, 1999
Calibrated: December 10, 2015

Calibrated for DASY/EASY Systems
(Note: non-compatible with DASY2 system)

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DASY/EASY - Parameters of Probe: ET3DV6 - SN:1380

Basic Calibration Parameters

<table>
<thead>
<tr>
<th>Sensor</th>
<th>Norm (μW/(V/m))</th>
<th>DCP (mV)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensor X</td>
<td>1.65</td>
<td>96.4</td>
</tr>
<tr>
<td>Sensor Y</td>
<td>1.59</td>
<td>95.6</td>
</tr>
<tr>
<td>Sensor Z</td>
<td>1.69</td>
<td>96.5</td>
</tr>
</tbody>
</table>

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

<table>
<thead>
<tr>
<th>ＵＩＤ</th>
<th>Communication System Name</th>
<th>Ａ</th>
<th>Ｂ</th>
<th>Ｃ</th>
<th>Ｄ</th>
<th>ＶＲ</th>
<th>Unc (k=2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>ＧＷ</td>
<td>X</td>
<td>0.0</td>
<td>0.0</td>
<td>1.0</td>
<td>0.00</td>
<td>250.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Y</td>
<td>0.0</td>
<td>0.0</td>
<td>1.0</td>
<td>0.00</td>
<td>227.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Z</td>
<td>0.0</td>
<td>0.0</td>
<td>1.0</td>
<td>0.00</td>
<td>253.2</td>
</tr>
</tbody>
</table>

The uncertainties of Norm X, Y, Z do not affect the E-field uncertainty inside TSL (see Pages 5 and 6).

Numerical linearization parameter: uncertainty not required.

Uncertainty is determined using the max deviation from linear response applying rectangular distribution and is expressed for the square of the field value.
## DASY/EASY - Parameters of Probe: ET3DV6 - SN:1380

Calibration Parameter Determined in Head Tissue Simulating Media

<table>
<thead>
<tr>
<th>f (MHz)</th>
<th>Relative Permittivity</th>
<th>Conductivity (S/m)</th>
<th>ConvF X</th>
<th>ConvF Y</th>
<th>ConvF Z</th>
<th>Alpha°</th>
<th>Depth (mm)</th>
<th>Unc (k=2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>300</td>
<td>45.3</td>
<td>0.87</td>
<td>7.96</td>
<td>7.96</td>
<td>7.96</td>
<td>0.24</td>
<td>2.85</td>
<td>± 13.3%</td>
</tr>
<tr>
<td>450</td>
<td>43.5</td>
<td>0.87</td>
<td>7.17</td>
<td>7.17</td>
<td>7.17</td>
<td>0.27</td>
<td>2.85</td>
<td>± 13.3%</td>
</tr>
<tr>
<td>750</td>
<td>41.0</td>
<td>0.89</td>
<td>6.49</td>
<td>6.49</td>
<td>6.49</td>
<td>0.31</td>
<td>3.00</td>
<td>± 12.0%</td>
</tr>
<tr>
<td>900</td>
<td>41.5</td>
<td>0.97</td>
<td>6.08</td>
<td>6.08</td>
<td>6.08</td>
<td>0.32</td>
<td>3.00</td>
<td>± 12.0%</td>
</tr>
<tr>
<td>1640</td>
<td>40.3</td>
<td>1.29</td>
<td>5.35</td>
<td>5.35</td>
<td>5.35</td>
<td>0.69</td>
<td>2.25</td>
<td>± 12.0%</td>
</tr>
<tr>
<td>1810</td>
<td>40.0</td>
<td>1.40</td>
<td>5.12</td>
<td>5.12</td>
<td>5.12</td>
<td>0.80</td>
<td>2.11</td>
<td>± 12.0%</td>
</tr>
<tr>
<td>1950</td>
<td>40.0</td>
<td>1.40</td>
<td>4.94</td>
<td>4.94</td>
<td>4.94</td>
<td>0.80</td>
<td>2.07</td>
<td>± 12.0%</td>
</tr>
<tr>
<td>2450</td>
<td>39.2</td>
<td>1.80</td>
<td>4.56</td>
<td>4.56</td>
<td>4.56</td>
<td>0.80</td>
<td>1.79</td>
<td>± 12.0%</td>
</tr>
</tbody>
</table>

* Frequency validity above 300 MHz or ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 50 and 70 MHz for ConvF assessments of 3, 6, 12, 18, 50 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± 110 MHz.

* At frequencies below 3 GHz, the validity of tissue parameters (\(\varepsilon_r\) and \(\sigma\)) can be reduced to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (\(\varepsilon_r\) and \(\sigma\)) is restricted to ± 10%.

* The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

* Alpha/Depth are determined during calibration. SPEAC warrants that the remaining deviation due to the boundary effect after compensation is always less than ±1% for frequencies below 3 GHz and below ±2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.
## DASY/EASY - Parameters of Probe: ET3DV6 - SN:1380

### Calibration Parameter Determined in Body Tissue Simulating Media

<table>
<thead>
<tr>
<th>f (MHz)</th>
<th>Relative Permittivity</th>
<th>Conductivity (S/m)</th>
<th>ConvF X</th>
<th>ConvF Y</th>
<th>ConvF Z</th>
<th>Alpha</th>
<th>Depth (mm)</th>
<th>Unc (k=2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>300</td>
<td>58.2</td>
<td>0.92</td>
<td>7.55</td>
<td>7.55</td>
<td>7.55</td>
<td>0.22</td>
<td>2.30</td>
<td>± 13.3%</td>
</tr>
<tr>
<td>450</td>
<td>56.7</td>
<td>0.94</td>
<td>7.57</td>
<td>7.57</td>
<td>7.57</td>
<td>0.21</td>
<td>2.30</td>
<td>± 13.3%</td>
</tr>
<tr>
<td>750</td>
<td>55.5</td>
<td>0.96</td>
<td>6.31</td>
<td>6.31</td>
<td>6.31</td>
<td>0.32</td>
<td>3.00</td>
<td>± 12.0%</td>
</tr>
<tr>
<td>900</td>
<td>55.0</td>
<td>1.05</td>
<td>6.08</td>
<td>6.08</td>
<td>6.08</td>
<td>0.36</td>
<td>3.00</td>
<td>± 12.0%</td>
</tr>
<tr>
<td>1810</td>
<td>53.3</td>
<td>1.52</td>
<td>4.73</td>
<td>4.73</td>
<td>4.73</td>
<td>0.80</td>
<td>2.21</td>
<td>± 12.0%</td>
</tr>
<tr>
<td>1050</td>
<td>53.3</td>
<td>1.52</td>
<td>4.78</td>
<td>4.78</td>
<td>4.78</td>
<td>0.80</td>
<td>2.10</td>
<td>± 12.0%</td>
</tr>
<tr>
<td>2450</td>
<td>52.7</td>
<td>1.95</td>
<td>4.18</td>
<td>4.18</td>
<td>4.18</td>
<td>0.90</td>
<td>0.90</td>
<td>± 12.0%</td>
</tr>
</tbody>
</table>

---

*Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 55 and 70 MHz for ConvF assessments at 30, 64, 128, 159 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± 110 MHz.*

*At frequencies below 3 GHz, the validity of tissue parameters (μ and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (μ and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.*

*Alpha/Depth are determined during calibration. SP/AS warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3.6 GHz at any distance larger than half the probe tip diameter from the boundary.*
Frequency Response of E-Field
(TEM-Cell:fi110 EXX, Waveguide: R22)

Uncertainty of Frequency Response of E-field: ± 0.3% (k=2)
Receiving Pattern (\(\phi\)), \(\theta = 0^\circ\)

\[ f=600 \text{ MHz, TEM} \quad f=1800 \text{ MHz, R22} \]

Uncertainty of Axial Isotropy Assessment: \(\pm 0.5\% \quad (k=2)\)

Certificate No: ET3-1380_Doc15

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Dynamic Range $f(SAR_{\text{head}})$

(TEM cell, $f_{\text{eval}} = 1900$ MHz)

Input Signal (V)

\begin{align*}
\text{SAR [mW/cm}^3\text{]} & \quad 10^{-2} & 10^{-1} & 10^0 & 10^1 & 10^2 & 10^3 \\
\text{not compensated} & & & & & & \\
\text{compensated} & & & & & & \\
\end{align*}

Error [dB]

\begin{align*}
\text{SAR [mW/cm}^3\text{]} & \quad 10^{-2} & 10^{-1} & 10^0 & 10^1 & 10^2 & 10^3 \\
\text{not compensated} & & & & & & \\
\text{compensated} & & & & & & \\
\end{align*}

Uncertainty of Linearity Assessment: ± 0.6% (k=2)

Certificate No: ET3-1380, Dec15

Page 9 of 11

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Conversion Factor Assessment

\[ f = 900 \text{ MHz}, \text{WGLS R9 (H_convF)} \]

\[ f = 1810 \text{ MHz}, \text{WGLS R22 (H_convF)} \]

Deviation from Isotropy in Liquid

Error \((\theta, \phi)\), \(f = 900 \text{ MHz}\)

Uncertainty of Spherical Isotropy Assessment: ± 2.6% (k=2)
DASY/EASY - Parameters of Probe: ET3DV6 - SN:1380

<table>
<thead>
<tr>
<th>Other Probe Parameters</th>
<th>Triangular</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensor Arrangement</td>
<td>-19.2</td>
</tr>
<tr>
<td>Connector Angle (°)</td>
<td>enabled</td>
</tr>
<tr>
<td>Mechanical Surface Detection Mode</td>
<td>disabled</td>
</tr>
<tr>
<td>Optical Surface Detection Mode</td>
<td></td>
</tr>
<tr>
<td>Probe Overall Length</td>
<td>337 mm</td>
</tr>
<tr>
<td>Probe Body Diameter</td>
<td>10 mm</td>
</tr>
<tr>
<td>Tip Length</td>
<td>10 mm</td>
</tr>
<tr>
<td>Tip Diameter</td>
<td>6.8 mm</td>
</tr>
<tr>
<td>Probe Tip to Sensor X Calibration Point</td>
<td>2.7 mm</td>
</tr>
<tr>
<td>Probe Tip to Sensor Y Calibration Point</td>
<td>2.7 mm</td>
</tr>
<tr>
<td>Probe Tip to Sensor Z Calibration Point</td>
<td>2.7 mm</td>
</tr>
<tr>
<td>Recommended Measurement Distance from Surface</td>
<td>4 mm</td>
</tr>
</tbody>
</table>
Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Client: EMC Technologies
Certificate No: D900V2-047_Dec14

CALIBRATION CERTIFICATE

Object: D900V2 - SN: 047

Calibration procedure(s): QA CAL-05.v9
Calibration procedure for dipole validation kits above 700 MHz

Calibration date: December 09, 2014

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (MSE critical for calibration)

<table>
<thead>
<tr>
<th>Primary Standards</th>
<th>ID #</th>
<th>Cal Date (Certificate No.)</th>
<th>Scheduled Calibration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference 20 dB Attenuator</td>
<td>SN: 5098 (20X)</td>
<td>03-Apr-14 (No. 217-01918)</td>
<td>Apr-15</td>
</tr>
<tr>
<td>Type-N mismatch combination</td>
<td>SN: 5047.2 / 06327</td>
<td>03-Oct-14 (No. 217-01921)</td>
<td>Apr-15</td>
</tr>
<tr>
<td>Reference Probe ESSDV3</td>
<td>SN: 3965</td>
<td>30-Dec-13 (No. ES3-3203, Dec.13)</td>
<td>Dec-14</td>
</tr>
<tr>
<td>DAE4</td>
<td>SN: 601</td>
<td>18-Aug-14 (No. DAE4-601_Aug14)</td>
<td>Aug 15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Secondary Standards</th>
<th>ID #</th>
<th>Check Date (in-house)</th>
<th>Scheduled Check</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF generator H&amp;S SMT-06</td>
<td>1000005</td>
<td>04-Aug-09 (in-house Oct-15)</td>
<td>In house check: Oct-16</td>
</tr>
</tbody>
</table>

Calibrated by: Michael Weber

Approved by: Katja Pokovic

Signature: [Signature]

Issued: December 11, 2014

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.
Glossary:
- TSL: tissue simulating liquid
- ConvF: sensitivity in TSL / NORM x,y,z
- N/A: not applicable or not measured

Calibration is Performed According to the Following Standards:
- a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- b) IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005
- c) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:
- d) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:
- Measurement Conditions: Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL: The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss: These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay: One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured: SAR measured at the stated antenna input power.
- SAR normalized: SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters: The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.
### Measurement Conditions

<table>
<thead>
<tr>
<th>DASY Version</th>
<th>DASY5</th>
<th>V52.8.B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extrapolation</td>
<td>Advanced Extrapolation</td>
<td></td>
</tr>
<tr>
<td>Phantom</td>
<td>Modular Flat Phantom</td>
<td></td>
</tr>
<tr>
<td>Distance Dipole Center - TSL</td>
<td>15 mm</td>
<td>with Spacer</td>
</tr>
<tr>
<td>Zoom Scan Resolution</td>
<td>dx, dy, dz = 5 mm</td>
<td></td>
</tr>
<tr>
<td>Frequency</td>
<td>900 MHz ± 1 MHz</td>
<td></td>
</tr>
</tbody>
</table>

### Head TSL parameters

The following parameters and calculations were applied.

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Permittivity</th>
<th>Conductivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Head TSL parameters</td>
<td>22.0°C</td>
<td>41.5</td>
</tr>
<tr>
<td>Measured Head TSL parameters</td>
<td>(22.0 ± 0.2) °C</td>
<td>41.0 ± 6 %</td>
</tr>
<tr>
<td>Head TSL temperature change during test</td>
<td>&lt; 0.5 °C</td>
<td>----</td>
</tr>
</tbody>
</table>

### SAR result with Head TSL

<table>
<thead>
<tr>
<th>SAR averaged over 1 cm³ (1 g) of Head TSL</th>
<th>Condition</th>
<th>SAR measured</th>
<th>250 mW input power</th>
<th>2.59 W/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAR for nominal Head TSL parameters</td>
<td>normalized to 1W</td>
<td>10.6 W/kg ± 17.0 % (k=2)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SAR averaged over 10 cm³ (10 g) of Head TSL</th>
<th>Condition</th>
<th>SAR measured</th>
<th>250 mW input power</th>
<th>1.67 W/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAR for nominal Head TSL parameters</td>
<td>normalized to 1W</td>
<td>6.79 W/kg ± 16.5 % (k=2)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Body TSL parameters

The following parameters and calculations were applied.

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Permittivity</th>
<th>Conductivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Body TSL parameters</td>
<td>22.0°C</td>
<td>55.0</td>
</tr>
<tr>
<td>Measured Body TSL parameters</td>
<td>(22.0 ± 0.2) °C</td>
<td>54.1 ± 5 %</td>
</tr>
<tr>
<td>Body TSL temperature change during test</td>
<td>&lt; 0.5 °C</td>
<td>----</td>
</tr>
</tbody>
</table>

### SAR result with Body TSL

<table>
<thead>
<tr>
<th>SAR averaged over 1 cm³ (1 g) of Body TSL</th>
<th>Condition</th>
<th>SAR measured</th>
<th>250 mW input power</th>
<th>2.62 W/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAR for nominal Body TSL parameters</td>
<td>normalized to 1W</td>
<td>10.7 W/kg ± 17.0 % (k=2)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SAR averaged over 10 cm³ (10 g) of Body TSL</th>
<th>Condition</th>
<th>SAR measured</th>
<th>250 mW input power</th>
<th>1.71 W/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAR for nominal Body TSL parameters</td>
<td>normalized to 1W</td>
<td>6.94 W/kg ± 16.5 % (k=2)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix (Additional assessments outside the scope of SCS108)

### Antenna Parameters with Head TSL

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impedance, transformed to feed point</td>
<td>51.7 Ω - 4.6 Ω</td>
</tr>
<tr>
<td>Return Loss</td>
<td>-26.4 dB</td>
</tr>
</tbody>
</table>

### Antenna Parameters with Body TSL

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impedance, transformed to feed point</td>
<td>46.9 Ω - 7.0 Ω</td>
</tr>
<tr>
<td>Return Loss</td>
<td>-22.1 dB</td>
</tr>
</tbody>
</table>

### General Antenna Parameters and Design

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical Delay (one direction)</td>
<td>1.410 ns</td>
</tr>
</tbody>
</table>

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the “Measurement Conditions” paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard. No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

### Additional EUT Data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufactured by</td>
<td>SPEAG</td>
</tr>
<tr>
<td>Manufactured on</td>
<td>October 07, 1998</td>
</tr>
</tbody>
</table>
DASY5 Validation Report for Head TSL

Date: 09.12.2014

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 900 MHz; Type: D900V2; Serial: D900V2 - SN: 047

Communication System: UID 0 - CW; Frequency: 900 MHz
Medium parameters used: f = 900 MHz; σ = 0.94 S/m; ρ = 1000 kg/m³
Phantom section: Flat Section

DASY52 Configuration:
- Probe: ES3DV3 - SN3205; ConvF(6.09, 6.09, 6.09); Calibrated: 30.12.2013;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 18.08.2014
- Phantom: Flat Phantom 4.9L; Type: QD000F49AA; Serial: 1001
  - DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Dipole Calibration for Head Tissue/Pin=250 mW, d=15mm/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 58.65 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 3.83 W/kg
SAR(1g) = 2.59 W/kg; SAR(10g) = 1.67 W/kg
Maximum value of SAR (measured) = 3.04 W/kg

0 dB = 3.04 W/kg = 4.83 dBW/kg
DASY5 Validation Report for Body TSL

Date: 09.12.2014

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 900 MHz; Type: D900V2; Serial: D900V2 - SN: 647

Communication System: UID 0 - CW; Frequency: 900 MHz

Medium parameters used: $f = 900$ MHz; $\sigma = 1.02$ S/m; $\mu_r = 54.1$; $\rho = 1000$ kg/m$^3$

Phantom section: Flat Section


DASY52 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(5.98, 5.98, 5.98); Calibrated: 30.12.2011;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 18.08.2014
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; Serial: 1001
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Dipole Calibration for Body Tissue/ Pin=250 mW, d=15mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 56.98 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 3.86 W/kg

SAR(1 g) = 2.62 W/kg; SAR(10 g) = 1.71 W/kg

Maximum value of SAR (measured) = 3.06 W/kg

Certificate No: D900V2-047_Dec14
Accredited for compliance with ISO/IEC 17025. The results of the test, calibrations and/or measurement included in this document are traceable to Australian/national standards. NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, calibration and inspection reports.

This document shall not be reproduced except in full.
CALIBRATION CERTIFICATE

Object: D1800V2 - SN: 242

Calibration procedure(s): QA CAL-05.v9
Calibration procedure for dipole validation kits above 700 MHz

Calibration date: December 05, 2014

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI). The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

<table>
<thead>
<tr>
<th>Primary Standards</th>
<th>ID #</th>
<th>Cal Date (Certificate No.)</th>
<th>Scheduled Calibration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference 20 dB Attenuator</td>
<td>SN: 5058 (20k)</td>
<td>03-Apr-14 (No. 217-01918)</td>
<td>Apr-15</td>
</tr>
<tr>
<td>Type-N mismatch combination</td>
<td>SN: 5047.2 / 05327</td>
<td>03-Apr-14 (No. 217-01921)</td>
<td>Apr-15</td>
</tr>
<tr>
<td>Reference Probe ES30V3</td>
<td>SN: 3209</td>
<td>30-Dec-13 (No. ES3-2009_Dec13)</td>
<td>Dec-14</td>
</tr>
<tr>
<td>DAE4</td>
<td>SN: 091</td>
<td>18-Aug-14 (No. DAE4-091_Aug14)</td>
<td>Aug-15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Secondary Standards</th>
<th>ID #</th>
<th>Check Date (in house)</th>
<th>Scheduled Check</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF generator R&amp;S SMT-06</td>
<td>1600206</td>
<td>04-Aug-09 (in house check Oct-13)</td>
<td>In house check: Oct-16</td>
</tr>
</tbody>
</table>

Calibrated by: Michael Weber

Approved by: Katja Polkovic

Certificate No: D1800V2-242_Dec14
Page 1 of 6

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.
Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeuhausstrasse 43, 8004 Zürich, Switzerland

Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 108

Glossary:
TSL tissue simulating liquid
ConvF sensitivity in TSL / NORM x,y,z
N/A not applicable or not measured

Calibration is Performed According to the Following Standards:
a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
b) IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005
c) KDB 885864, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:
d) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:
- Measurement Conditions: Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL: The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss: These parameters are measured with the dipole position under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay: One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured: SAR measured at the stated antenna input power.
- SAR normalized: SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters: The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.
### Measurement Conditions

<table>
<thead>
<tr>
<th>Parameter</th>
<th>DASY Version</th>
<th>Y52.8.8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extrapolation</td>
<td>Advanced</td>
<td></td>
</tr>
<tr>
<td>Phantom</td>
<td>Modular</td>
<td></td>
</tr>
<tr>
<td>Dipole Center - TSL</td>
<td>10 mm</td>
<td></td>
</tr>
<tr>
<td>Zoom Scan Resolution</td>
<td>dx, dy, dz</td>
<td>5 mm</td>
</tr>
<tr>
<td>Frequency</td>
<td>1800 MHz ± 1 MHz</td>
<td></td>
</tr>
</tbody>
</table>

### Head TSL parameters

The following parameters and calculations were applied.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Temperature</th>
<th>Permittivity</th>
<th>Conductivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Head TSL parameters</td>
<td>22.0 °C</td>
<td>40.0</td>
<td>1.40 mho/m</td>
</tr>
<tr>
<td>Measured Head TSL parameters</td>
<td>(22.0 ± 0.2)°C</td>
<td>39.0 ± 6 %</td>
<td>1.41 mho/m ± 6 %</td>
</tr>
<tr>
<td>Head TSL temperature change during test</td>
<td>&lt; 0.5 °C</td>
<td>----</td>
<td>----</td>
</tr>
</tbody>
</table>

### SAR result with Head TSL

<table>
<thead>
<tr>
<th>SAR averaged over 1 cm² (1 g) of Head TSL</th>
<th>Condition</th>
<th>SAR measured</th>
<th>9.73 W/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAR for nominal Head TSL parameters</td>
<td>normalized to 1W</td>
<td>38.5 W/kg ± 17.0 % (k=2)</td>
<td></td>
</tr>
</tbody>
</table>

### Body TSL parameters

The following parameters and calculations were applied.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Temperature</th>
<th>Permittivity</th>
<th>Conductivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Body TSL parameters</td>
<td>22.0 °C</td>
<td>83.3</td>
<td>1.52 mho/m</td>
</tr>
<tr>
<td>Measured Body TSL parameters</td>
<td>(22.0 ± 0.2) °C</td>
<td>51.9 ± 6 %</td>
<td>1.53 mho/m ± 6 %</td>
</tr>
<tr>
<td>Body TSL temperature change during test</td>
<td>&lt; 0.5 °C</td>
<td>----</td>
<td>----</td>
</tr>
</tbody>
</table>

### SAR result with Body TSL

<table>
<thead>
<tr>
<th>SAR averaged over 1 cm² (1 g) of Body TSL</th>
<th>Condition</th>
<th>SAR measured</th>
<th>9.64 W/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAR for nominal Body TSL parameters</td>
<td>normalized to 1W</td>
<td>38.2 W/kg ± 17.0 % (k=2)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SAR averaged over 10 cm³ (10 g) of Body TSL</th>
<th>Condition</th>
<th>SAR measured</th>
<th>5.08 W/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAR for nominal Body TSL parameters</td>
<td>normalized to 1W</td>
<td>20.2 W/kg ± 16.5 % (k=2)</td>
<td></td>
</tr>
</tbody>
</table>
Appendix (Additional assessments outside the scope of SCS108)

Antenna Parameters with Head TSL

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impedance, transformed to feed point</td>
<td>47.6 Ω - 5.7 jΩ</td>
</tr>
<tr>
<td>Return Loss</td>
<td>- 24.0 dB</td>
</tr>
</tbody>
</table>

Antenna Parameters with Body TSL

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impedance, transformed to feed point</td>
<td>44.3 Ω - 5.9 jΩ</td>
</tr>
<tr>
<td>Return Loss</td>
<td>- 21.2 dB</td>
</tr>
</tbody>
</table>

General Antenna Parameters and Design

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical Delay (one direction)</td>
<td>1.196 ns</td>
</tr>
</tbody>
</table>

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semi-rigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the “Measurement Conditions” paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufactured by</td>
<td>SPEAG</td>
</tr>
<tr>
<td>Manufactured on</td>
<td>December 10, 1998</td>
</tr>
</tbody>
</table>
DASY5 Validation Report for Head TSL

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1800 MHz; Type: D1800V2; Serial: D1800V2 - SN: 242

Communication System: UID 0 - CW; Frequency: 1800 MHz
Medium parameters used: f = 1800 MHz; σ = 1.41 S/m; εr = 39; ρ = 1000 kg/m³
Phantom section: Flat Section

DASY52 Configuration:
- Probe: ES3DV3 - SN3205; ConvF(5.09, 5.09, 5.09); Calibrated: 30.12.2013;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 18.08.2014
- Phantom: Flat Phantom 5.0 (front); Type: QD000P50AA; Serial: 1001
- DASY52 52.88(1222); SEMCAD X 14.6.10(7331)

Dipole Calibration for Head Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0;
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 96.91 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 18.1 W/kg
SAR(1 g) = 9.73 W/kg; SAR(10 g) = 5.06 W/kg
Maximum value of SAR (measured) = 12.4 W/kg

0 dB = 12.4 W/kg = 10.93 dBW/kg
DASY5 Validation Report for Body TSL

Date: 05.12.2014

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1800 MHz; Type: D1800V2; Serial: D1800V2 - SN: 242

Communication System: UID 0 - CW; Frequency: 1800 MHz
Medium parameters used: f = 1800 MHz; σ = 1.53 S/m; ε = 51.9; μ = 1000 kg/m³
Phantom section: Flat Section

DASY52 Configuration:
- Probe: ES3DV3 - SN3205; ConvF(18.86, 18.86, 18.86); Calibrated: 30.12.2013;
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DA4/6Sn601; Calibrated: 18.08.2014
- Phantom: Flat Phantom 5.0 (back); Type: QD000P50AA; Serial: 1002
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Dipole Calibration for Body Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0;
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 93.17 W/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 17.0 W/kg
SAR(1 g) = 9.64 W/kg; SAR(10 g) = 5.08 W/kg
Maximum value of SAR (measured) = 12.2 W/kg

0 dB = 12.2 W/kg = 10.86 dBW/kg
Impedance Measurement Plot for Body TSL

Certificate No: D1800V2-242_Dec14

Accredited for compliance with ISO/IEC 17025. The results of the test, calibrations and/or measurement included in this document are traceable to Australian/national standards. NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, calibration and inspection reports.

This document shall not be reproduced except in full.
CALIBRATION CERTIFICATE

Object: DAE3 - SD 000 D03 AE - SN: 442

Calibration procedure(s):
QA CAL-06.v29
Calibration procedure for the data acquisition electronics (DAE)

Calibration date:
December 07, 2015

This calibration certificate documents the traceability to national standards, which realize the physical units of measurement (SI). The measurements and the uncertainties with confidence probability are given on the following pages and are part of this certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (20 ± 3)°C and humidity < 70%.

Calibration Equipment used (MITE: critical for calibration)

<table>
<thead>
<tr>
<th>Primary Standards</th>
<th>ID #</th>
<th>Cal Date (Certificate No.)</th>
<th>Scheduled Calibration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keithley Multimeter Type 2001</td>
<td>SN: 0810278</td>
<td>09-Sep-15 (Nic12759)</td>
<td>Sep-16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Secondary Standards</th>
<th>ID #</th>
<th>Check Date (in house)</th>
<th>Scheduled Check</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto DAE Calibration Unit</td>
<td>SE UMS 053 AA 1001</td>
<td>06-Jan-15 (in house check)</td>
<td>In house check: Jan-16</td>
</tr>
<tr>
<td>Calibrator Box V2.1</td>
<td>SE UMS 006 AA 1002</td>
<td>06-Jan-15 (in house check)</td>
<td>In house check: Jan-16</td>
</tr>
</tbody>
</table>

Calibrated by:

Name: Dominique Steffen
Function: Technician
Signature:

Approved by:

Name: Pin Bornslet
Function: Deputy Technical Manager
Signature: [Signature]

Issued: December 7, 2015

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.
Accredited for compliance with ISO/IEC 17025. The results of the test, calibrations and/or measurement included in this document are traceable to Australian/national standards. NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, calibration and inspection reports.

This document shall not be reproduced except in full.
DC Voltage Measurement

A/D - Converter Resolution nominal

High Range: 1LSB = 6.1μV, full range = -100...+300 mV
Low Range: 1LSB = 61nV, full range = -1...+3 mV

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

<table>
<thead>
<tr>
<th>Calibration Factors</th>
<th>X</th>
<th>Y</th>
<th>Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Range</td>
<td>404.405 ± 0.02% (k=2)</td>
<td>405.045 ± 0.02% (k=2)</td>
<td>405.266 ± 0.02% (k=2)</td>
</tr>
<tr>
<td>Low Range</td>
<td>3.98819 ± 1.50% (k=2)</td>
<td>3.98159 ± 1.50% (k=2)</td>
<td>3.99102 ± 1.50% (k=2)</td>
</tr>
</tbody>
</table>

Connector Angle

| Connector Angle to be used in DASY system | 108.0° ± 1° |

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Appendix (Additional assessments outside the scope of SCS0108)

1. DC Voltage Linearity

<table>
<thead>
<tr>
<th>High Range</th>
<th>Channel X + Input</th>
<th>Channel X - Input</th>
<th>Channel Y + Input</th>
<th>Channel Y - Input</th>
<th>Channel Z + Input</th>
<th>Channel Z - Input</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading (µV)</td>
<td>200036.67</td>
<td>20004.23</td>
<td>200037.29</td>
<td>200037.94</td>
<td>20004.64</td>
<td>200037.37</td>
</tr>
<tr>
<td>Difference (µV)</td>
<td>1.67</td>
<td>-0.23</td>
<td>2.89</td>
<td>1.95</td>
<td>-0.80</td>
<td>0.28</td>
</tr>
<tr>
<td>Error (%)</td>
<td>0.00</td>
<td>-0.00</td>
<td>0.01</td>
<td>-0.01</td>
<td>-0.00</td>
<td>-0.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Low Range</th>
<th>Channel X + Input</th>
<th>Channel X - Input</th>
<th>Channel Y + Input</th>
<th>Channel Y - Input</th>
<th>Channel Z + Input</th>
<th>Channel Z - Input</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading (µV)</td>
<td>20001.81</td>
<td>201.21</td>
<td>-198.79</td>
<td>199.07</td>
<td>2001.64</td>
<td>-201.18</td>
</tr>
<tr>
<td>Difference (µV)</td>
<td>0.64</td>
<td>0.18</td>
<td>0.14</td>
<td>-0.02</td>
<td>0.86</td>
<td>-2.14</td>
</tr>
<tr>
<td>Error (%)</td>
<td>0.03</td>
<td>0.09</td>
<td>-0.07</td>
<td>0.01</td>
<td>0.03</td>
<td>1.08</td>
</tr>
</tbody>
</table>

2. Common mode sensitivity

<table>
<thead>
<tr>
<th>Common mode</th>
<th>High Range</th>
<th>Low Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Voltage (mV)</td>
<td>Average Reading (µV)</td>
<td>Average Reading (µV)</td>
</tr>
<tr>
<td>Channel X</td>
<td>200</td>
<td>-8.67</td>
</tr>
<tr>
<td></td>
<td>-200</td>
<td>12.75</td>
</tr>
<tr>
<td>Channel Y</td>
<td>200</td>
<td>0.20</td>
</tr>
<tr>
<td></td>
<td>-200</td>
<td>-1.34</td>
</tr>
<tr>
<td>Channel Z</td>
<td>200</td>
<td>-6.09</td>
</tr>
<tr>
<td></td>
<td>-200</td>
<td>3.49</td>
</tr>
</tbody>
</table>

3. Channel separation

<table>
<thead>
<tr>
<th>Input Voltage (mV)</th>
<th>Channel X (µV)</th>
<th>Channel Y (µV)</th>
<th>Channel Z (µV)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Channel X</td>
<td>200</td>
<td>9.19</td>
<td>6.35</td>
</tr>
<tr>
<td>Channel Y</td>
<td>200</td>
<td>-0.29</td>
<td>-4.08</td>
</tr>
<tr>
<td>Channel Z</td>
<td>200</td>
<td>-</td>
<td>0.16</td>
</tr>
</tbody>
</table>
4. AD-Converter Values with inputs shorted
DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

<table>
<thead>
<tr>
<th>Channel</th>
<th>High Range (LSB)</th>
<th>Low Range (LSB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Channel X</td>
<td>15808</td>
<td>17128</td>
</tr>
<tr>
<td>Channel Y</td>
<td>15771</td>
<td>16023</td>
</tr>
<tr>
<td>Channel Z</td>
<td>15577</td>
<td>15276</td>
</tr>
</tbody>
</table>

5. Input Offset Measurement
DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

<table>
<thead>
<tr>
<th>Channel</th>
<th>Average (µV)</th>
<th>min. Offset (µV)</th>
<th>max. Offset (µV)</th>
<th>Std. Deviation (µV)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Channel X</td>
<td>0.15</td>
<td>-1.33</td>
<td>2.68</td>
<td>0.67</td>
</tr>
<tr>
<td>Channel Y</td>
<td>-0.50</td>
<td>-2.34</td>
<td>1.49</td>
<td>0.59</td>
</tr>
<tr>
<td>Channel Z</td>
<td>-0.56</td>
<td>-3.35</td>
<td>1.51</td>
<td>0.80</td>
</tr>
</tbody>
</table>

6. Input Offset Current
Nominal input circuitry offset current on all channels: <250µA

7. Input Resistance (Typical values for information)

<table>
<thead>
<tr>
<th>Channel</th>
<th>Zeroing (kOhm)</th>
<th>Measuring (MOhm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Channel X</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Channel Y</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Channel Z</td>
<td>200</td>
<td>200</td>
</tr>
</tbody>
</table>

8. Low Battery Alarm Voltage (Typical values for information)

<table>
<thead>
<tr>
<th>Typical values</th>
<th>Alarm Level (VDC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply (+ Vcc)</td>
<td>+7.9</td>
</tr>
<tr>
<td>Supply (- Vcc)</td>
<td>-7.6</td>
</tr>
</tbody>
</table>

9. Power Consumption (Typical values for information)

<table>
<thead>
<tr>
<th>Typical values</th>
<th>Switched off (mA)</th>
<th>Stand by (mA)</th>
<th>Transmitting (mA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply (+ Vcc)</td>
<td>+0.01</td>
<td>+6</td>
<td>+14</td>
</tr>
<tr>
<td>Supply (- Vcc)</td>
<td>-0.01</td>
<td>-8</td>
<td>-9</td>
</tr>
</tbody>
</table>

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