



MOTOROLA



Certificate Number: 1449-01

**FCC ID: AZ489FT5845
DECLARATION OF COMPLIANCE SAR ASSESSMENT Part 2 of 3**

**Government & Enterprise Mobility Solutions
EME Test Laboratory
8000 West Sunrise Blvd
Fort Lauderdale, FL. 33322**

Date of Report: May 25, 2005
Report Revision: Rev. O
Report ID: FCC rpt_i415_Rev O_050525
SR2383

Responsible Engineer: Kim Uong (EME lead Eng.)
Date/s Tested: 5/11/05 – 5/19/05 & 5/24/2005
Manufacturer/Location: Motorola - Plantation
Sector/Group/Div.: iDEN Subscriber
Date submitted for test: 5/6/05
DUT Description: i415; TDMA: 1:6, 2:6, 81:120, 1:12; 64QAM, 16 QAM & QPSK Modulation; 0.6W Pulse Avg.; GPS capable
Test TX mode(s): 1:3, 1:6, 81:120
Max. Power output: iDEN - 0.640W
Nominal Power: iDEN - 0.60W
Tx Frequency Bands: iDEN - 806-825, 896-902MHz
Signaling type: TDMA: iDEN
Model(s) Tested: H80XAH6RR1AN
Model(s) Certified: H80XAH6RR1AN
Serial Number(s): 364VFEPSR4
Classification: General Population/Uncontrolled
Rule Part(s): 90



Approved Accessories:

Antenna(s): 8515985H01 (806-825MHz Stubby ¼ wave antenna, -1.5dBd; 896-902MHz, 0dBd)
Battery(ies): SNN5705C (Hi performance Li Ion); NNTN6368A (Battery cover)
Body worn accessory(ies): NNTN4747A (Belt clip)
Audio/Data cable accessory(ies): NSN6066A (Light duty RSM), NNTN5004A (PTT headset over ear), NNTN5005A (PTT headset over head), SYN8390B (Privacy earpiece), SYN8146C (Lightweight headset w/ boom mic), NTN8496A (Lightweight headset w/ mic), NNTN4033A (Privacy Earpiece/mic w/ PTT), NNTN5006A (Silver Earbud), SYN7875C (Hearing Aide Neckloop), NTN8513B (Lightweight headband), NNTN5330A (Ear bud accessory), NNTN4620A (Silver ear bud), NNTN5211A (Falcon Surveillance kit); NKN6559A (USB Cable), NKN6560A (RS232), NNTN5405A (USB cable w/ charging), NNTN5406A (RS-232 data cable w/ charging);

**Max. Calc. 1-g Avg. SAR: 1.23 mW/g (Body)
Max. Calc. 1-g Avg. SAR: 0.11 mW/g (Face)
Max. Calc. 1-g Avg. SAR: 1.45 mW/g (Head)**

Based on the information and the testing results provided herein, the undersigned certifies that when used as stated in the operating instructions supplied, said product complies with the national and international reference standards and guidelines listed in section 2.0 of this report.
This report shall not be reproduced without written approval from an officially designated representative of the Motorola EME Laboratory.

This reporting format is consistent with the test report guidelines of the TIA TSB-150 December 2004
The results and statements contained in this report pertain only to the device(s) evaluated.

**Signature on file
Ken Enger GEMS EME Lab Senior Resource Manager,
Laboratory Director,**

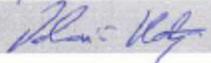
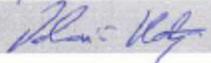
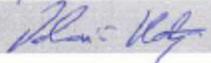
Approval Date: 5/26/2005

**Certification Date: 5/26/2005
Certification No.: L1050510P**

Appendix C
Dipole Calibration Certificates

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

Client **Motorola CGISS**

| CALIBRATION CERTIFICATE | | | | | | | | | | | | | | | |
|---|--|---|---|--|------|----------|-----------|----------------|----------------|------------|---|--------------|---------------|---------------------|---|
| Object(s) | D900V2 - SN:085 | | | | | | | | | | | | | | |
| Calibration procedure(s) | QA CAL-05.v2 Calibration procedure for dipole validation kits | | | | | | | | | | | | | | |
| Calibration date: | August 19, 2004 | | | | | | | | | | | | | | |
| Condition of the calibrated item | In Tolerance (according to the specific calibration document) | | | | | | | | | | | | | | |
| <p>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.</p> <p>All calibrations have been conducted in the closed laboratory facility: environment temperature 22 +/- 2 degrees Celsius and humidity < 75%.</p> <p>Calibration Equipment used (M&TE critical for calibration)</p> | | | | | | | | | | | | | | | |
| Model Type | ID # | Cal Date (Calibrated by, Certificate No.) | Scheduled Calibration | | | | | | | | | | | | |
| Power meter EPM E442 | GB37480704 | 6-Nov-03 (METAS, No. 252-0254) | Nov-04 | | | | | | | | | | | | |
| Power sensor HP 8481A | US37292783 | 6-Nov-03 (METAS, No. 252-0254) | Nov-04 | | | | | | | | | | | | |
| Power sensor HP 8481A | MY41092317 | 18-Oct-02 (Agilent, No. 20021018) | Oct-04 | | | | | | | | | | | | |
| RF generator R&S SML-03 | 100698 | 27-Mar-2002 (R&S, No. 20-92389) | In house check: Mar-05 | | | | | | | | | | | | |
| Network Analyzer HP 8753E | US37390585 | 18-Oct-01 (SPEAG, in house check Nov-03) | In house check: Oct 05 | | | | | | | | | | | | |
| <table style="width: 100%; border: none;"> <thead> <tr> <th style="width: 25%;"></th> <th style="width: 25%;">Name</th> <th style="width: 25%;">Function</th> <th style="width: 25%;">Signature</th> </tr> </thead> <tbody> <tr> <td>Calibrated by:</td> <td>Judith Mueller</td> <td>Technician</td> <td></td> </tr> <tr> <td>Approved by:</td> <td>Katja Pokovic</td> <td>Laboratory Director</td> <td></td> </tr> </tbody> </table> | | | | | Name | Function | Signature | Calibrated by: | Judith Mueller | Technician |  | Approved by: | Katja Pokovic | Laboratory Director |  |
| | Name | Function | Signature | | | | | | | | | | | | |
| Calibrated by: | Judith Mueller | Technician |  | | | | | | | | | | | | |
| Approved by: | Katja Pokovic | Laboratory Director |  | | | | | | | | | | | | |
| Date issued: August 25, 2004 | | | | | | | | | | | | | | | |
| <p>This calibration certificate is issued as an intermediate solution until the accreditation process (based on ISO/IEC 17025 International Standard) for Calibration Laboratory of Schmid & Partner Engineering AG is completed.</p> | | | | | | | | | | | | | | | |

1. Measurement Conditions

The measurements were performed in the half size flat phantom filled with **head simulating solution** of the following electrical parameters at 900 MHz:

| | |
|------------------------|------------------------|
| Relative Dielectricity | 41.0 ± 5% |
| Conductivity | 0.97 mho/m ± 5% |

The DASY4 System with a dosimetric E-field probe ET3DV6 (SN:1507, Conversion factor 6.18 at 900 MHz) was used for the measurements.

The dipole was mounted on the small tripod so that the dipole feedpoint was positioned below the center marking of the flat phantom section and the dipole was oriented parallel to the body axis (the long side of the phantom). The standard measuring distance was 15mm from dipole center to the solution surface. The included distance spacer was used during measurements for accurate distance positioning.

The coarse grid with a grid spacing of 15mm was aligned with the dipole. The 7x7x7 fine cube was chosen for cube integration.

The dipole input power (forward power) was 250mW ± 3 %. The results are normalized to 1W input power.

2. SAR Measurement with DASY4 System

Standard SAR-measurements were performed according to the measurement conditions described in section 1. The results (see figure supplied) have been normalized to a dipole input power of 1W (forward power). The resulting averaged SAR-values measured with the dosimetric probe ET3DV6 SN:1507 and applying the advanced extrapolation are:

| | |
|--|---|
| averaged over 1 cm ³ (1 g) of tissue: | 11.0 mW/g ± 16.8 % (k=2)¹ |
| averaged over 10 cm ³ (10 g) of tissue: | 7.04 mW/g ± 16.2 % (k=2)¹ |

Date/Time: 08/19/04 15:25:59

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 900 MHz; Type: D900V2; Serial: D900V2 - SN085

Communication System: CW-900; Frequency: 900 MHz; Duty Cycle: 1:1

Medium: HSL 900 MHz;

Medium parameters used: $f = 900 \text{ MHz}$; $\sigma = 0.97 \text{ mho/m}$; $\epsilon_r = 41$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

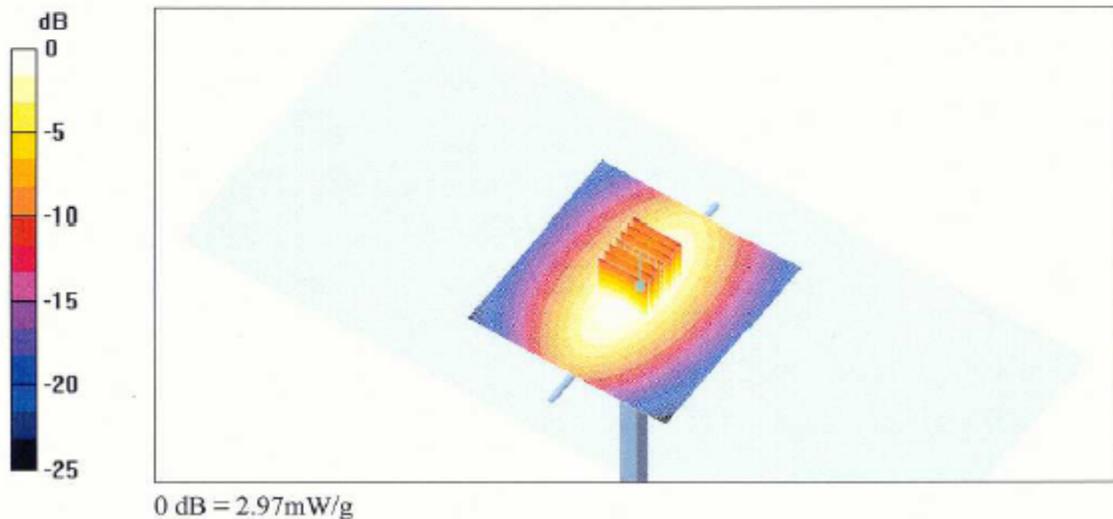
Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1507; ConvF(6.18, 6.18, 6.18); Calibrated: 1/23/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 7/22/2004
- Phantom: Flat Phantom half size; Type: QD000P49AA; Serial: SN:1001;
- Measurement SW: DASYS4, V4.3 Build 16; Postprocessing SW: SEMCAD, V1.8 Build 123

Pin = 250 mW; d = 15 mm/Area Scan (81x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 2.93 mW/g

Pin = 250 mW; d = 15 mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 57.2 V/m; Power Drift = -0.0 dB
Peak SAR (extrapolated) = 4.11 W/kg
SAR(1 g) = 2.74 mW/g; SAR(10 g) = 1.76 mW/g
Maximum value of SAR (measured) = 2.97 mW/g



Appendix D

Test System Verification Scans

Note: Dipole validation scans at the head from SPEAG are provided in Appendix D. The GEMS EME lab validated the dipole to the applicable IEEE system performance targets. Within the same day system validation was performed using FCC body tissue parameters to generate the system performance target values for body at the applicable frequency. The results of the GEMS EME system performance validation are provided herein. To assess the isotropic characteristics of the measurement probe, two system performance zoom scans (0 and 90 degrees) were measured. The results were averaged together and adjusted to account for the power drift in order to obtain the final calculated 1 gram results.

Motorola GEMS EME Lab

SPEAG 900 MHz Dipole; Model D900V2, SN 085; Test Date: 5/11/05

Run #: 050511-01 Test operator: C. Miller

Sim.Tissue Temp: 22.0 (C)

TX Freq: 900(MHz) Start power: 250 (mW)

Target: 11.26 mW/g for 1g SAR

11.82 mW/g calculated 1g-SAR; 4.97 % from target (including drift)

Probe: ET3DV6 - SN1383, Calibrated: 2/24/2005, ConvF(6.35, 6.35, 6.35)

Duty Cycle: 1:1, Medium: 900 MHz IEEE Head, Medium parameters used: $\sigma = 1$ mho/m, $\epsilon_r = 41.3$; $\rho = 1000$ kg/m³

Electronics: DAE3 Sn406, Calibrated: 11/17/2004

System Performance Check/0-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm;

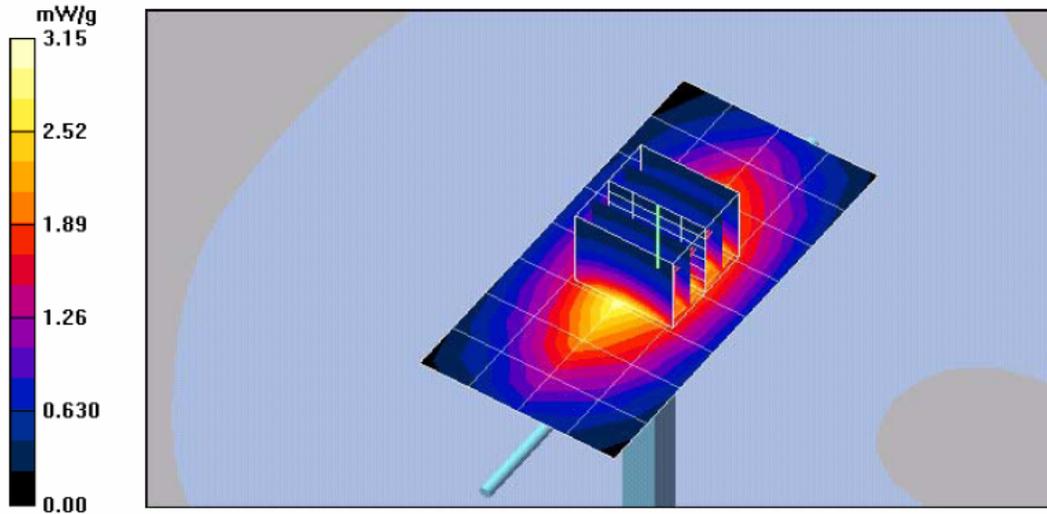
Reference Value = 58.9 V/m; Power Drift = -0.0889 dB

SAR(1 g) = 2.91 mW/g

System Performance Check/90-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm;

Reference Value = 58.9 V/m; Power Drift = -0.0889 dB

SAR(1 g) = 2.88 mW/g



Motorola GEMS EME Lab

SPEAG 900 MHz Dipole; Model D900V2, SN 085; Test Date: 5/12/05

Run #: 050512-01 Test operator: C. Miller

Sim. Tissue Temp: 22.0 (C)

TX Freq: 900(MHz) Start power: 250 (mW)

Target: 11.26 mW/g for 1g SAR

11.65 mW/g calculated 1g-SAR; 3.46 % from target (including drift)

Probe: ET3DV6 - SN1383, Calibrated: 2/24/2005, ConvF(6.35, 6.35, 6.35)

Duty Cycle: 1:1, Medium: 900 MHz IEEE Head, Medium parameters used: $\sigma = 0.99$ mho/m, $\epsilon_r = 40.8$; $\rho = 1000$ kg/m³

Electronics: DAE3 Sn406, Calibrated: 11/17/2004

System Performance Check/0-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm;

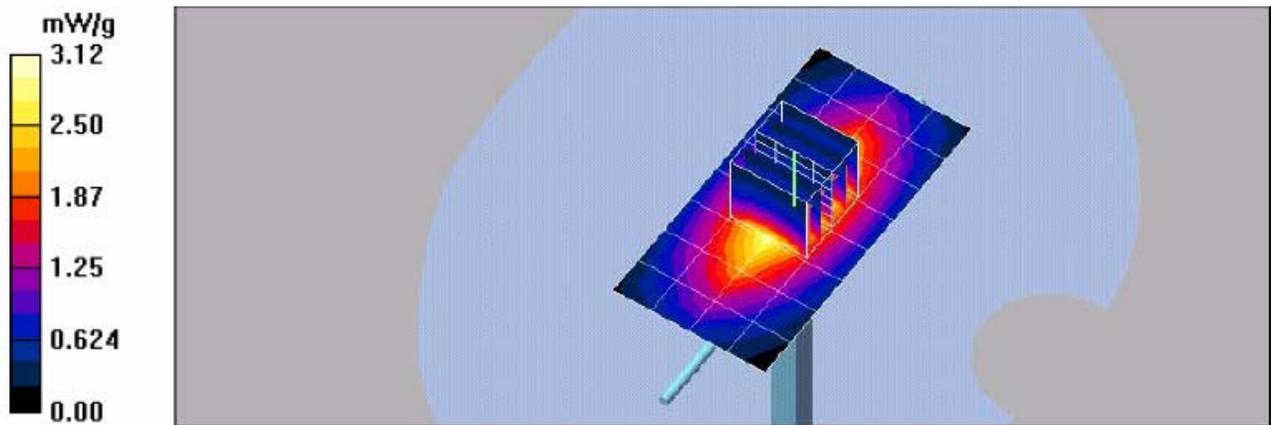
Reference Value = 58.6 V/m; Power Drift = -0.0262 dB

SAR(1 g) = 2.9 mW/g

System Performance Check/90-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm;

Reference Value = 58.6 V/m; Power Drift = -0.0262 dB

SAR(1 g) = 2.89 mW/g



Motorola GEMS EME Lab

SPEAG 900 MHz Dipole; Model D900V2, SN 085; Test Date: 5/13/05

Run #: 050513-01 Test operator: C. Miller

Sim. Tissue Temp: 21.3 (C)

TX Freq: 900(MHz) Start power: 250 (mW)

Target: 11.26 mW/g for 1g SAR

11.22 mW/g calculated 1g-SAR; -0.32 % from target (including drift)

Probe: ET3DV6 - SN1383, Calibrated: 2/24/2005, ConvF(6.35, 6.35, 6.35)

Duty Cycle: 1:1, Medium: 900 MHz IEEE Head, Medium parameters used: $\sigma = 0.99$ mho/m, $\epsilon_r = 40.5$; $\rho = 1000$ kg/m³

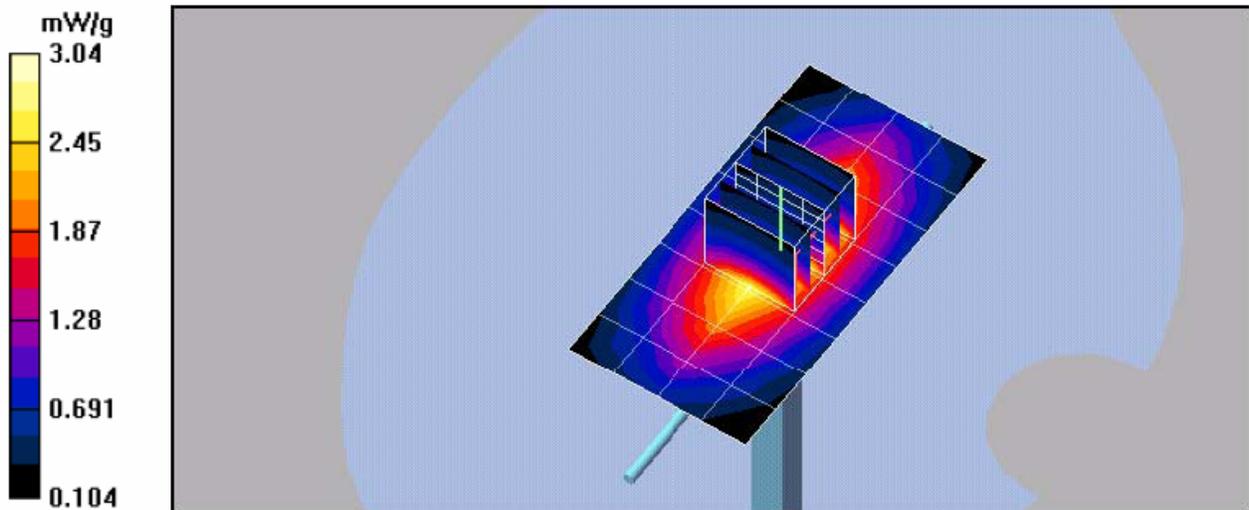
Electronics: DAE3 Sn406, Calibrated: 11/17/2004

System Performance Check/0-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm, Reference Value = 57.8 V/m; Power Drift = -0.0325 dB

SAR(1 g) = 2.8 mW/g

System Performance Check/90-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm; Reference Value = 57.8 V/m; Power Drift = -0.0325 dB

SAR(1 g) = 2.77 mW/g



Motorola GEMS EME Lab

SPEAG 900 MHz Dipole; Model D900V2, SN 085; Test Date: 5/16/05

Run #: 050516-01 Test operator: C. Miller

Sim.Tissue Temp: 22.2 (C)

TX Freq: 900(MHz) Start power: 250 (mW)

Target: 11.41 mW/g for 1g SAR

11.67 mW/g calculated 1g-SAR; 2.24 % from target (including drift)

Probe: ET3DV6 - SN1383, Calibrated: 2/24/2005, ConvF(6.03, 6.03, 6.03)

Duty Cycle: 1:1, Medium: 900 MHz FCC Body, Medium parameters used: $\sigma = 1.04$ mho/m, $\epsilon_r = 53.2$; $\rho = 1000$ kg/m³

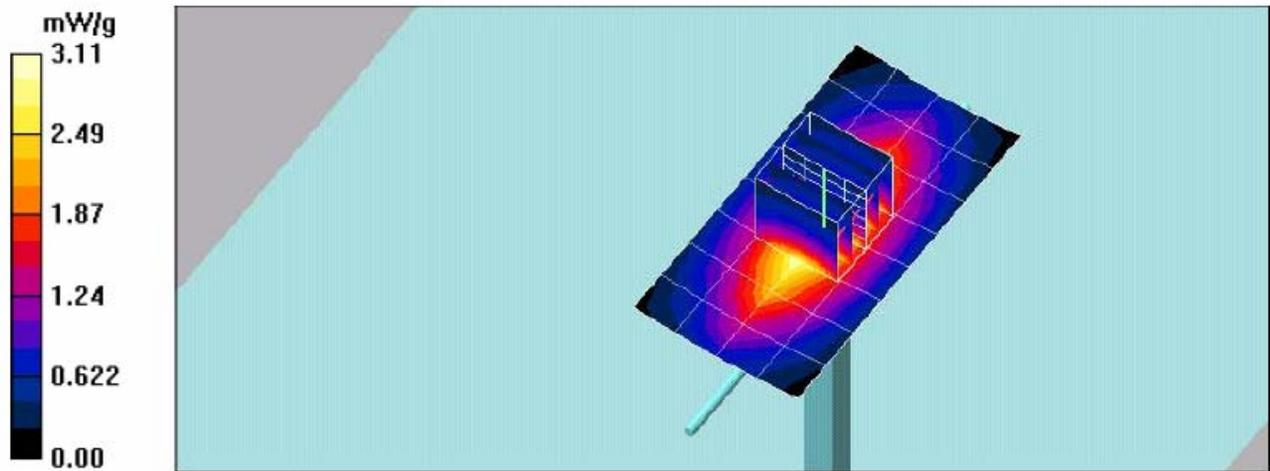
Electronics: DAE3 Sn406, Calibrated: 11/17/2004

System Performance Check/0-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm, Reference Value = 57.6 V/m; Power Drift = -0.0546 dB

SAR(1 g) = 2.88 mW/g

System Performance Check/90-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm, Reference Value = 57.6 V/m; Power Drift = -0.0546 dB

SAR(1 g) = 2.88 mW/g



Motorola GEMS EME Lab

SPEAG 900 MHz Dipole; Model D900V2, SN 085; Test Date: 5/17/05

Run #: 050517-01 Test operator: D. Hopper

Sim.Tissue Temp: 22.1 (C)

TX Freq: 900(MHz) Start power: 250 (mW)

Target:11.41 mW/g for 1g SAR

11.49 mW/g calculated 1g-SAR; 0.71 % from target (including drift)

Probe: ET3DV6 - SN1383, Calibrated: 2/24/2005, ConvF(6.03, 6.03, 6.03)

Duty Cycle: 1:1, Medium: 900 MHz FCC Body, Medium parameters used: $\sigma = 1.04$ mho/m, $\epsilon_r = 53.1$; $\rho = 1000$ kg/m³

Electronics: DAE3 Sn406, Calibrated: 11/17/2004

System Performance Check/0-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm,

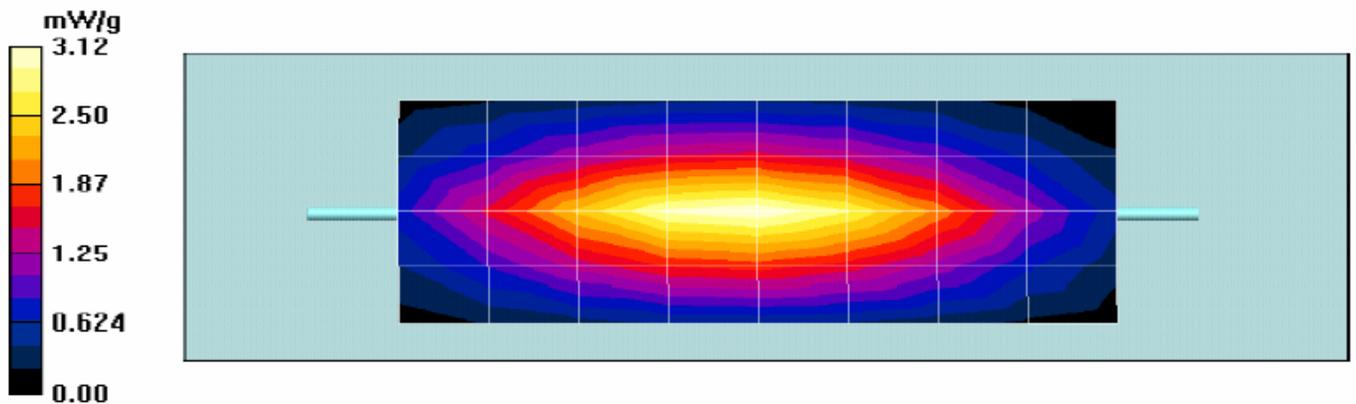
Reference Value = 57.3 V/m; Power Drift = -0.00411 dB

SAR(1 g) = 2.88 mW/g

System Performance Check/90-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm,

Reference Value = 57.3 V/m; Power Drift = -0.00411 dB

SAR(1 g) = 2.86 mW/g



Motorola GEMS EME Lab

SPEAG 900 MHz Dipole; Model D900V2, SN 085; Test Date: 5/18/05

Run #: 050518-01 Test operator: D. Hopper

Sim.Tissue Temp: 22.1 (C)

TX Freq: 900(MHz) Start power: 250 (mW)

Target: 11.41 mW/g for 1g SAR

11.21 mW/g calculated 1g-SAR; -1.79 % from target (including drift)

Probe: ET3DV6 - SN1383, Calibrated: 2/24/2005, ConvF(6.03, 6.03, 6.03)

Duty Cycle: 1:1, Medium: 900 MHz FCC Body, Medium parameters used: $\sigma = 1.03$ mho/m, $\epsilon_r = 53$; $\rho = 1000$ kg/m³

Electronics: DAE3 Sn406, Calibrated: 11/17/2004

System Performance Check/0-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm,

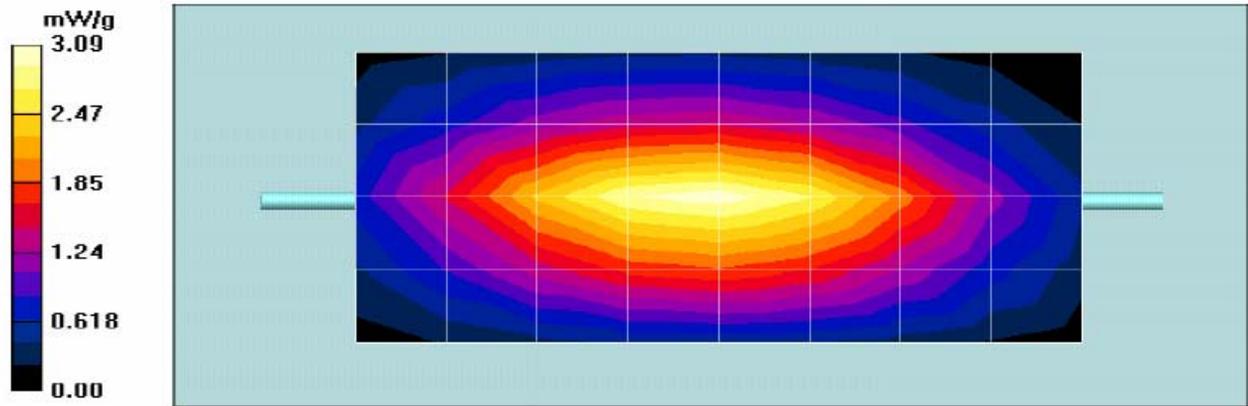
Reference Value = 56.7 V/m; Power Drift = 0.0362 dB

SAR(1 g) = 2.83 mW/g

System Performance Check/90-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm,

Reference Value = 56.7 V/m; Power Drift = 0.0362 dB

SAR(1 g) = 2.82 mW/g



Motorola GEMS EME Lab

SPEAG 900 MHz Dipole; Model D900V2, SN 085; Test Date: 5/19/05

Run #: 050519-01 Test operator: C. Miller

Sim. Tissue Temp: 21.6 (C)

TX Freq: 900(MHz) Start power: 250 (mW)

Target: 11.26 mW/g for 1g SAR

11.55 mW/g calculated 1g-SAR; 2.57 % from target (including drift)

Probe: ET3DV6 - SN1383, Calibrated: 2/24/2005, ConvF(6.35, 6.35, 6.35)

Duty Cycle: 1:1, Medium: 900 MHz IEEE Head, Medium parameters used: $\sigma = 1.01$ mho/m, $\epsilon_r = 42.1$; $\rho = 1000$ kg/m³

Electronics: DAE3 Sn406, Calibrated: 11/17/2004

System Performance Check/0-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm,

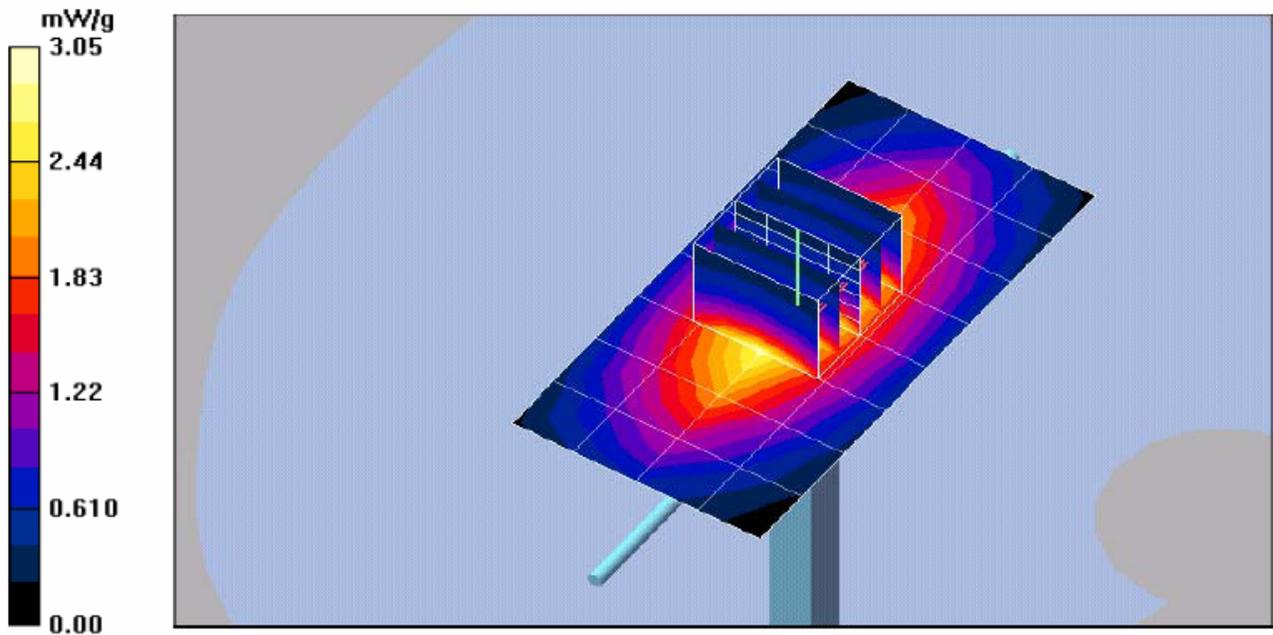
Reference Value = 57.3 V/m; Power Drift = -0.0262 dB

SAR(1 g) = 2.81 mW/g

System Performance Check/90-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm,

Reference Value = 57.3 V/m; Power Drift = -0.0262 dB

SAR(1 g) = 2.93 mW/g



Motorola GEMS EME Lab

SPEAG 900 MHz Dipole; Model D900V2, SN 085; Test Date: 5/24/05

Run #: 050524-02 Test operator: C. Miller

Sim. Tissue Temp: 21.3 (C)

TX Freq: 900(MHz) Start power: 250 (mW)

Target: 11.41 mW/g for 1g SAR

11.16 mW/g calculated 1g-SAR; -2.20 % from target (including drift)

Probe: ET3DV6 - SN1383, Calibrated: 2/24/2005, ConvF(6.03, 6.03, 6.03)

Duty Cycle: 1:1, Medium: 900 MHz FCC Body, Medium parameters used: $\sigma = 1.03$ mho/m, $\epsilon_r = 55.2$; $\rho = 1000$ kg/m³

Electronics: DAE3 Sn406, Calibrated: 11/17/2004

System Performance Check/0-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm,

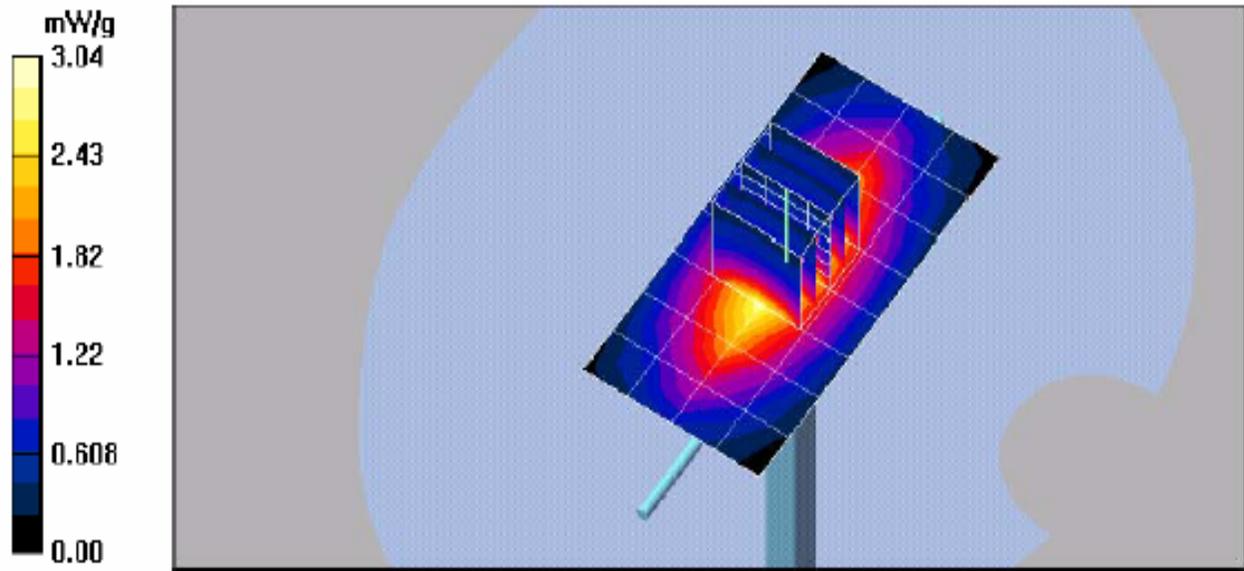
Reference Value = 57.0 V/m; Power Drift = -0.0389 dB

SAR(1 g) = 2.79 mW/g

System Performance Check/90-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm,

Reference Value = 57.0 V/m; Power Drift = -0.0389 dB

SAR(1 g) = 2.74 mW/g



SYSTEM VALIDATION

| | | | |
|-----------------|---------------------|--------------------|----------------------|
| Date: | <u>03/25/05</u> | Frequency (MHz): | <u>900</u> |
| Lab Location: | <u>GEMS-EME</u> | Mixture Type: | <u>900-IEEE Head</u> |
| Robot System: | <u>GEMS-EME -2</u> | Ambient Temp.(°C): | <u>22.0</u> |
| Probe Serial #: | <u>1393</u> | Tissue Temp.(°C): | <u>20.3</u> |
| DAE Serial #: | <u>DAE3V1 SN406</u> | | |

| | | | |
|------------------------|-------------|------------------|------------------|
| Tissue Characteristics | | Phantom Type/SN: | <u>SAMTP1209</u> |
| Permittivity: | <u>41.6</u> | Distance (mm): | <u>15</u> |
| Conductivity: | <u>1.00</u> | | |

Reference Source: Dipole (Dipole/Handset)
Reference SN: 085

Power to Dipole: 250 mW
Power Output (radio): N/A mW

Target SAR Value: 10.8 mW/g, 6.9 mW/g (10g avg.)
(normalized to 1.0 W)

Measured SAR Value: 2.78 mW/g, 1.78 mW/g (10g avg.)
Power Drift: -0.0529 dB

Measured SAR Value: 11.26 mW/g, 7.26 mW/g (10g avg.)
(normalized to 1.0 W,
with drift compensation)

Percent Difference From Target (must be within System Uncertainty): 4.22 % (1g avg)
4.45 % (10g avg)

Test performed by: Dave Hopper Initial: [Signature]

DUT: Dipole 900 MHz; Date/Time: 03/25/05 15:22:41
 Run #: 050325-04 Test operator: Dave Hopper
 Robot = GEMS-2 Phantom #: SAMTP1209 Sim.Tissue Temp: 20.9 (C)
 Model #: D900V2 S/N: 085
 TX Freq: 900(MHz) Start power: 250 (mW)

Target:
 11.2 mW/g for 1g SAR 7.16 mW/g for 10g SAR
 11.26 mW/g calculated 1g-SAR; 0.50 % from target (including drift)
 7.21 mW/g calculated 10g-SAR; 1.23 % from target (including drift)

Probe: ET3DV6 - SN1393, Calibrated: 4/28/2004, ConvF(6.73, 6.73, 6.73)
 Duty Cycle: 1:1, Medium: 900 MHz IEEE Head, Medium parameters used: $\sigma = 1$; mho/m, $\epsilon_r = 41.6$; $\rho = 1000$ kg/m³
 Electronics: DAE3 Sn406, Calibrated: 11/17/2004

System Performance Check/0-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 56.7 V/m; Power Drift = -0.0529 dB
 Peak SAR (extrapolated) = 4.11 W/kg
 SAR(1 g) = 2.75 mW/g; SAR(10 g) = 1.76 mW/g
 Maximum value of SAR (measured) = 2.98 mW/g

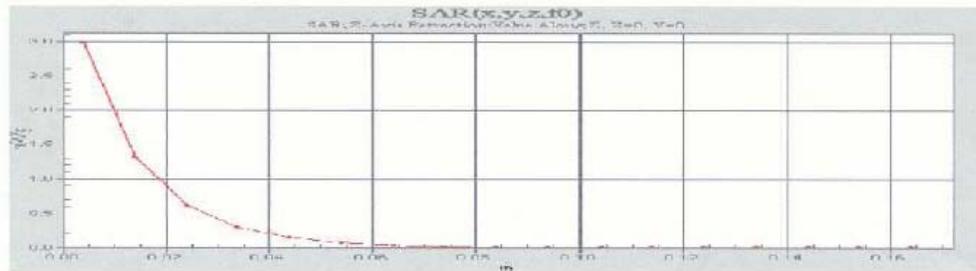
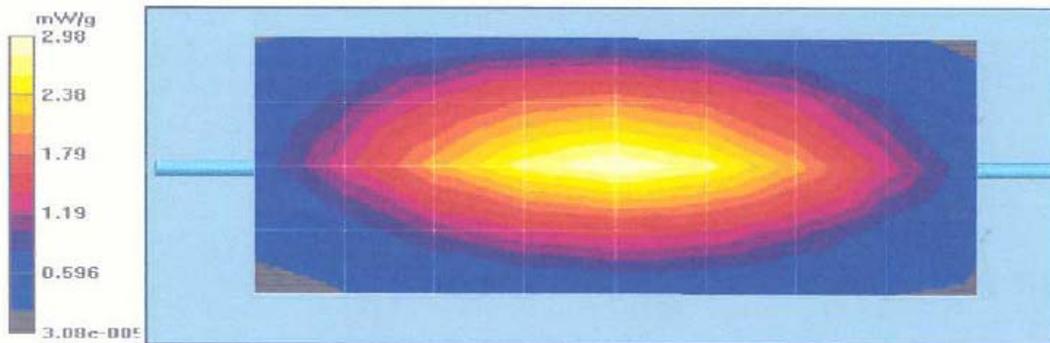
System Performance Check/90-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 56.7 V/m; Power Drift = -0.0529 dB
 Peak SAR (extrapolated) = 4.18 W/kg
 SAR(1 g) = 2.81 mW/g; SAR(10 g) = 1.8 mW/g
 Maximum value of SAR (measured) = 3.05 mW/g

System Performance Check/Dipole Area Scan (5x9x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 2.96 mW/g

System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm



SYSTEM PERFORMANCE TARGET CHECK

| | | | |
|-----------------|----------------------|--------------------|-----------------|
| Date: | <u>25 March 2005</u> | Frequency (MHz): | <u>900</u> |
| Lab Location: | <u>GEMS-EME</u> | Mixture Type: | <u>900-Body</u> |
| Robot System: | <u>GEMS-EME -2</u> | Ambient Temp.(°C): | <u>22.0</u> |
| Probe Serial #: | <u>1393</u> | Tissue Temp.(°C): | <u>21.6</u> |
| DAE Serial #: | <u>DAE3V1 SN406</u> | | |

| | | | |
|------------------------|-------------|------------------|----------------------|
| Tissue Characteristics | | Phantom Type/SN: | <u>80302002D-S14</u> |
| Permittivity: | <u>52.9</u> | Distance (mm): | <u>15</u> |
| Conductivity: | <u>1.04</u> | | |

Reference Source: Dipole (Dipole/Handset)
 Reference SN: 085

Power to Dipole: 250 mW
 Power Output (radio): N/A mW

Measured SAR Value: 2.855 mW/g, 1.86 mW/g (10g avg.)
 Power Drift: -0.003 dB

Measured SAR Value: 11.41 mW/g, 7.43 mW/g (10g avg.)
 (normalized to 1.0 W,
 with drift compensation)

Test performed by: Dave Hopper Initial: 

DUT: Dipole 900 MHz; Date/Time: 03/25/05 17:01:42
 Run #: 050325-05 Test operator: Dave Hopper
 Robot = GEMS-2 Phantom #: 80302002D-S14 Sim.Tissue Temp: 21.6 (C)
 Model #: D900V2 S/N: 085
 TX Freq: 900(MHz) Start power: 250 (mW)
 Target:

Establishing New Body Targets
 11.41 mW/g calculated 1g-SAR; 0 % from target (including drift)
 7.43 mW/g calculated 10g-SAR; 0 % from target (including drift)

Probe: ET3DV6 - SN1393, Calibrated: 4/28/2004, ConvF(6.35, 6.35, 6.35)
 Duty Cycle: 1:1, Medium: 900 MHz FCC Body, Medium parameters used: $\sigma = 1.04$; mho/m, $\epsilon_r = 52.9$; $\rho = 1000$ kg/m³
 Electronics: DAE3 Sn406, Calibrated: 11/17/2004

System Performance Check/0-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 56.3 V/m; Power Drift = 0.003 dB
 Peak SAR (extrapolated) = 4.06 W/kg
 SAR(1 g) = 2.83 mW/g; SAR(10 g) = 1.84 mW/g
 Maximum value of SAR (measured) = 3.07 mW/g

System Performance Check/90-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 56.3 V/m; Power Drift = 0.003 dB
 Peak SAR (extrapolated) = 4.1 W/kg
 SAR(1 g) = 2.88 mW/g; SAR(10 g) = 1.88 mW/g
 Maximum value of SAR (measured) = 3.14 mW/g

System Performance Check/Dipole Area Scan (5x9x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 3.04 mW/g

System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
 Maximum value of SAR (measured) = 3.06 mW/g

