

**MOTOROLA SOLUTIONS**

**MS ISO/IEC 17025**  
**TESTING**  
**SAMM No.0826**

**DECLARATION OF COMPLIANCE SAR ASSESSMENT Part 2 of 2****Motorola Solutions Inc.****EME Test Laboratory**

Motorola Solutions Malaysia Sdn Bhd (Innoplex)  
Plot 2A, Medan Bayan Lepas,  
Mukim 12 SWD 11900 Bayan Lepas Penang, Malaysia.

**Date of Report:** 09/14/2017**Report Revision:** C

**Responsible Engineer:** Veeramani Veerapan  
**Report Author:** Veeramani Veerapan  
**Date/s Tested:** 06/20/2017 – 07/08/2017  
**Manufacturer:** Motorola Solutions Inc.  
**DUT Description:** Handheld Portable - APX 900 896-941 MHz, 1-3W, 12.5 kHz, LKP, display, GPS, WIFI  
 APX 900 896-941 MHz, 1-3W, 12.5 kHz, FKP, display, WIFI  
**Test TX mode(s):** CW (PTT), Bluetooth, and WLAN 802.11b/g/n  
**Max. Power output:** 3.0 W (LMR 900 MHz band), 10 mW (Bluetooth), 10 mW (Bluetooth LE), 22.4 mW (802.11b), 8.3 mW (802.11g), 12.6 mW (802.11n)  
**Nominal Power:** 2.5 W (LMR 900 MHz band), 8.9 mW (Bluetooth), 8.9 mW (Bluetooth LE), 16.6 mW (802.11b), 6.6 mW (802.11g), 10 mW (802.11n)  
**Tx Frequency Bands:** LMR 896-902 MHz, 935-941 MHz, Bluetooth 2.402-2480 MHz; WLAN 2412-2462 MHz  
**Signaling type:** FM, TDMA, FHSS (Bluetooth), 802.11b/g/n (WLAN)  
**Model(s) Tested:** H92WCF9PW6AN (PMUF1912A), H92WCH9PW7AN (PMUF1913A)  
**Model(s) Certified:** H92WCF9PW6AN (PMUF1912A), H92WCH9PW7AN (PMUF1913A)  
**Serial Number(s):** 837TTK1854, 837TTK1882, 837TTK1983  
**Classification:** Occupational/Controlled  
**FCC ID:** AZ489FT7100; LMR 896-901 MHz, 935-940 MHz, Bluetooth 2.402-2.480 GHz, WLAN 802.11 b/g/n 2.412-2.462 GHz  
 This report contains results that are immaterial for FCC equipment approval, which are clearly identified.  
**IC:** 109U-89FT7100; This report contains results that are immaterial for IC equipment approval, which are clearly identified.  
**ISED Test Site registration:** 109AK  
**FCC Test Firm**  
**Registration Number:** 823256

The test results clearly demonstrate compliance with FCC Occupational/Controlled RF Exposure limits of 8 W/kg averaged over 1 gram per the requirements of OET Bulletin 65. The 10 grams result is not applicable to FCC filing. The test results clearly demonstrate compliance with ICNIRP (1998) Guidelines for limiting exposure in time-varying electric, magnetic, and electromagnetic fields (up to 300 GHz), Health Physics 74, 494-522 RF Exposure limits of 10 W/kg averaged over 10grams of contiguous tissue.

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 4.0 of this report. This report shall not be reproduced without written approval from an officially designated representative of the Motorola Solutions Inc EME Laboratory. I attest to the accuracy of the data and assume full responsibility for the completeness of these measurements. This reporting format is consistent with the suggested guidelines of the TIA TSB-150 December 2004. The results and statements contained in this report pertain only to the device(s) evaluated.

**Tiong Nguk Ing**  
**Deputy Technical Man/ager**  
**Approval Date:** 9/14/2017

## **Appendix C**

### **Dipole Calibration Certificates**

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



**S** Schweizerischer Kalibrierdienst  
**C** Service suisse d'étalonnage  
**S** Servizio svizzero di taratura  
**S** Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)

Accreditation No.: **SCS 0108**

The Swiss Accreditation Service is one of the signatories to the EA  
Multilateral Agreement for the recognition of calibration certificates

Client **Motorola Solutions MY**

Certificate No: **D900V2-1d026\_Jan17**

## CALIBRATION CERTIFICATE

Object **D900V2 - SN:1d026**

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

Calibration date: **January 18, 2017**

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  $(22 \pm 3)^{\circ}\text{C}$  and humidity  $< 70\%$ .

Calibration Equipment used (M&TE critical for calibration)

| Primary Standards           | ID #               | Cal Date (Certificate No.)        | Scheduled Calibration  |
|-----------------------------|--------------------|-----------------------------------|------------------------|
| Power meter NRP             | SN: 104778         | 06-Apr-16 (No. 217-02288/02289)   | Apr-17                 |
| Power sensor NRP-Z91        | SN: 103244         | 06-Apr-16 (No. 217-02288)         | Apr-17                 |
| Power sensor NRP-Z91        | SN: 103245         | 06-Apr-16 (No. 217-02289)         | Apr-17                 |
| Reference 20 dB Attenuator  | SN: 5058 (20k)     | 05-Apr-16 (No. 217-02292)         | Apr-17                 |
| Type-N mismatch combination | SN: 5047.2 / 06327 | 05-Apr-16 (No. 217-02295)         | Apr-17                 |
| Reference Probe EX3DV4      | SN: 7349           | 31-Dec-16 (No. EX3-7349_Dec16)    | Dec-17                 |
| DAE4                        | SN: 601            | 04-Jan-17 (No. DAE4-601_Jan17)    | Jan-18                 |
| Secondary Standards         | ID #               | Check Date (in house)             | Scheduled Check        |
| Power meter EPM-442A        | SN: GB37480704     | 07-Oct-15 (in house check Oct-16) | In house check: Oct-18 |
| Power sensor HP 8481A       | SN: US37292783     | 07-Oct-15 (in house check Oct-16) | In house check: Oct-18 |
| Power sensor HP 8481A       | SN: MY41092317     | 07-Oct-15 (in house check Oct-16) | In house check: Oct-18 |
| RF generator R&S SMT-06     | SN: 100972         | 15-Jun-15 (in house check Oct-16) | In house check: Oct-18 |
| Network Analyzer HP 8753E   | SN: US37390585     | 18-Oct-01 (in house check Oct-16) | In house check: Oct-17 |

|                |                  |                       |           |
|----------------|------------------|-----------------------|-----------|
|                | Name             | Function              | Signature |
| Calibrated by: | Johannes Kurikka | Laboratory Technician |           |
| Approved by:   | Katja Pokovic    | Technical Manager     |           |

Issued: January 20, 2017

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Certificate No: D900V2-1d026\_Jan17

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



**S** Schweizerischer Kalibrierdienst  
**C** Service suisse d'étalonnage  
**S** Servizio svizzero di taratura  
**S** Swiss Calibration Service

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 0108**

#### 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:

- 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
- 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
- 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
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

#### Additional Documentation:

- 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**

DASY system configuration, as far as not given on page 1.

|                              |                        |             |
|------------------------------|------------------------|-------------|
| DASY Version                 | DASY5                  | V52.8.8     |
| Extrapolation                | Advanced Extrapolation |             |
| Phantom                      | Modular Flat Phantom   |             |
| Distance Dipole Center - TSL | 15 mm                  | with Spacer |
| Zoom Scan Resolution         | dx, dy, dz = 5 mm      |             |
| Frequency                    | 900 MHz $\pm$ 1 MHz    |             |

**Head TSL parameters**

The following parameters and calculations were applied.

|                                         | Temperature         | Permittivity   | Conductivity         |
|-----------------------------------------|---------------------|----------------|----------------------|
| Nominal Head TSL parameters             | 22.0 °C             | 41.5           | 0.97 mho/m           |
| Measured Head TSL parameters            | (22.0 $\pm$ 0.2) °C | 41.2 $\pm$ 6 % | 0.94 mho/m $\pm$ 6 % |
| Head TSL temperature change during test | < 0.5 °C            | ----           | ----                 |

**SAR result with Head TSL**

|                                                       |                    |                              |
|-------------------------------------------------------|--------------------|------------------------------|
| SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL | Condition          |                              |
| SAR measured                                          | 250 mW input power | 2.66 W/kg                    |
| SAR for nominal Head TSL parameters                   | normalized to 1W   | 10.9 W/kg $\pm$ 17.0 % (k=2) |

|                                                         |                    |                              |
|---------------------------------------------------------|--------------------|------------------------------|
| SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL | condition          |                              |
| SAR measured                                            | 250 mW input power | 1.70 W/kg                    |
| SAR for nominal Head TSL parameters                     | normalized to 1W   | 6.92 W/kg $\pm$ 16.5 % (k=2) |

**Body TSL parameters**

The following parameters and calculations were applied.

|                                         | Temperature         | Permittivity   | Conductivity         |
|-----------------------------------------|---------------------|----------------|----------------------|
| Nominal Body TSL parameters             | 22.0 °C             | 55.0           | 1.05 mho/m           |
| Measured Body TSL parameters            | (22.0 $\pm$ 0.2) °C | 53.8 $\pm$ 6 % | 1.02 mho/m $\pm$ 6 % |
| Body TSL temperature change during test | < 0.5 °C            | ----           | ----                 |

**SAR result with Body TSL**

|                                                       |                    |                              |
|-------------------------------------------------------|--------------------|------------------------------|
| SAR averaged over 1 cm <sup>3</sup> (1 g) of Body TSL | Condition          |                              |
| SAR measured                                          | 250 mW input power | 2.71 W/kg                    |
| SAR for nominal Body TSL parameters                   | normalized to 1W   | 11.0 W/kg $\pm$ 17.0 % (k=2) |

|                                                         |                    |                              |
|---------------------------------------------------------|--------------------|------------------------------|
| SAR averaged over 10 cm <sup>3</sup> (10 g) of Body TSL | condition          |                              |
| SAR measured                                            | 250 mW input power | 1.75 W/kg                    |
| SAR for nominal Body TSL parameters                     | normalized to 1W   | 7.10 W/kg $\pm$ 16.5 % (k=2) |



**Appendix (Additional assessments outside the scope of SCS 0108)****Antenna Parameters with Head TSL**

|                                      |                                |
|--------------------------------------|--------------------------------|
| Impedance, transformed to feed point | 50.6 $\Omega$ - 0.2 j $\Omega$ |
| Return Loss                          | - 43.5 dB                      |

**Antenna Parameters with Body TSL**

|                                      |                                |
|--------------------------------------|--------------------------------|
| Impedance, transformed to feed point | 46.7 $\Omega$ - 2.3 j $\Omega$ |
| Return Loss                          | - 27.5 dB                      |

**General Antenna Parameters and Design**

|                                  |          |
|----------------------------------|----------|
| Electrical Delay (one direction) | 1.395 ns |
|----------------------------------|----------|

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**

|                 |                   |
|-----------------|-------------------|
| Manufactured by | SPEAG             |
| Manufactured on | February 08, 2005 |

**DASY5 Validation Report for Head TSL**

Date: 16.01.2017

Test Laboratory: SPEAG, Zurich, Switzerland

**DUT: Dipole 900 MHz; Type: D900V2; Serial: D900V2 - SN:1d026**

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

Medium parameters used:  $f = 900 \text{ MHz}$ ;  $\sigma = 0.94 \text{ S/m}$ ;  $\epsilon_r = 41.2$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN7349; ConvF(9.7, 9.7, 9.7); Calibrated: 31.12.2016;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 04.01.2017
- Phantom: Flat Phantom 4.9 (front); Type: QD 00L P49 AA; Serial: 1001
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7372)

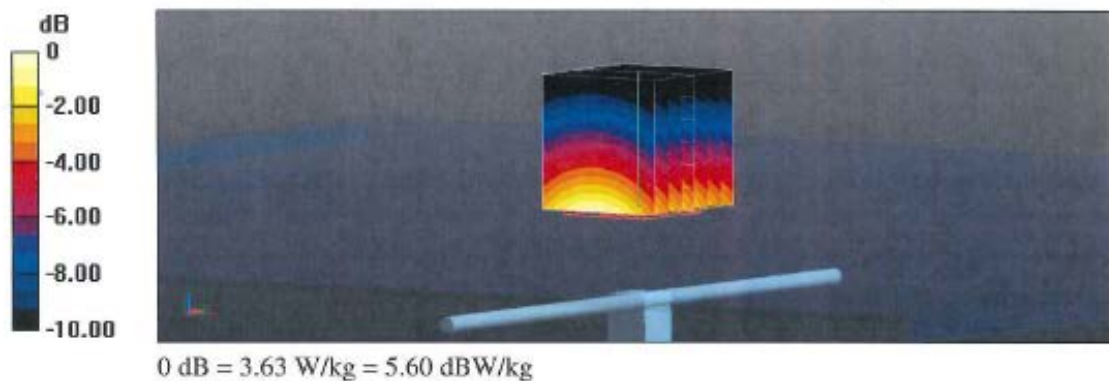
**Dipole Calibration for Head Tissue/Pin=250 mW, d=15mm/Zoom Scan (7x7x7)/Cube 0:**Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$ 

Reference Value = 64.94 V/m; Power Drift = 0.01 dB

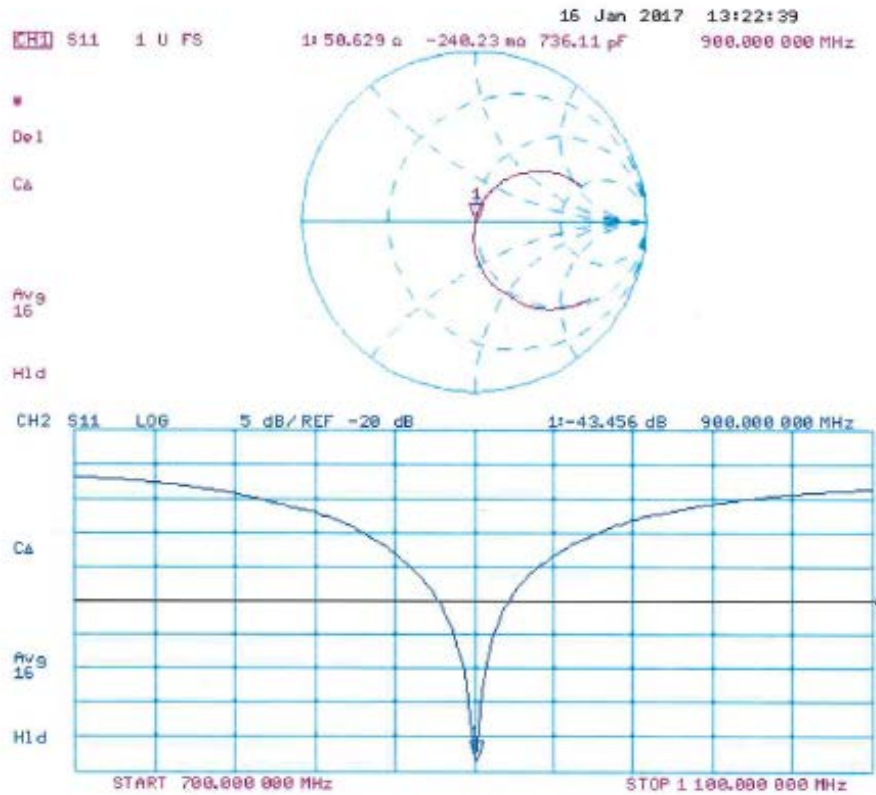
Peak SAR (extrapolated) = 4.18 W/kg

**SAR(1 g) = 2.66 W/kg; SAR(10 g) = 1.7 W/kg**

Maximum value of SAR (measured) = 3.63 W/kg



## Impedance Measurement Plot for Head TSL





**DASY5 Validation Report for Body TSL**

Date: 18.01.2017

Test Laboratory: SPEAG, Zurich, Switzerland

**DUT: Dipole 900 MHz; Type: D900V2; Serial: D900V2 - SN:1d026**

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

Medium parameters used:  $f = 900$  MHz;  $\sigma = 1.02$  S/m;  $\epsilon_r = 53.8$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN7349; ConvF(9.64, 9.64, 9.64); Calibrated: 31.12.2016;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 04.01.2017
- Phantom: Flat Phantom 4.9 (Back); Type: QD 00R P49 AA; Serial: 1005
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7372)

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

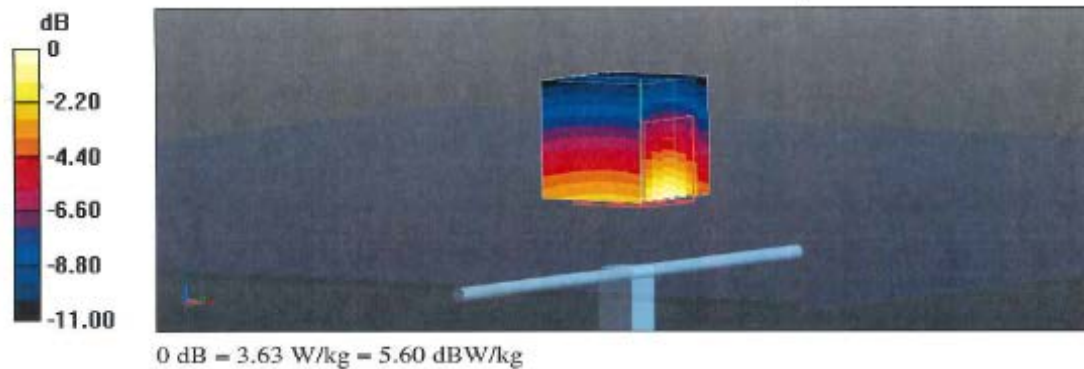
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 62.82 V/m; Power Drift = -0.01 dB

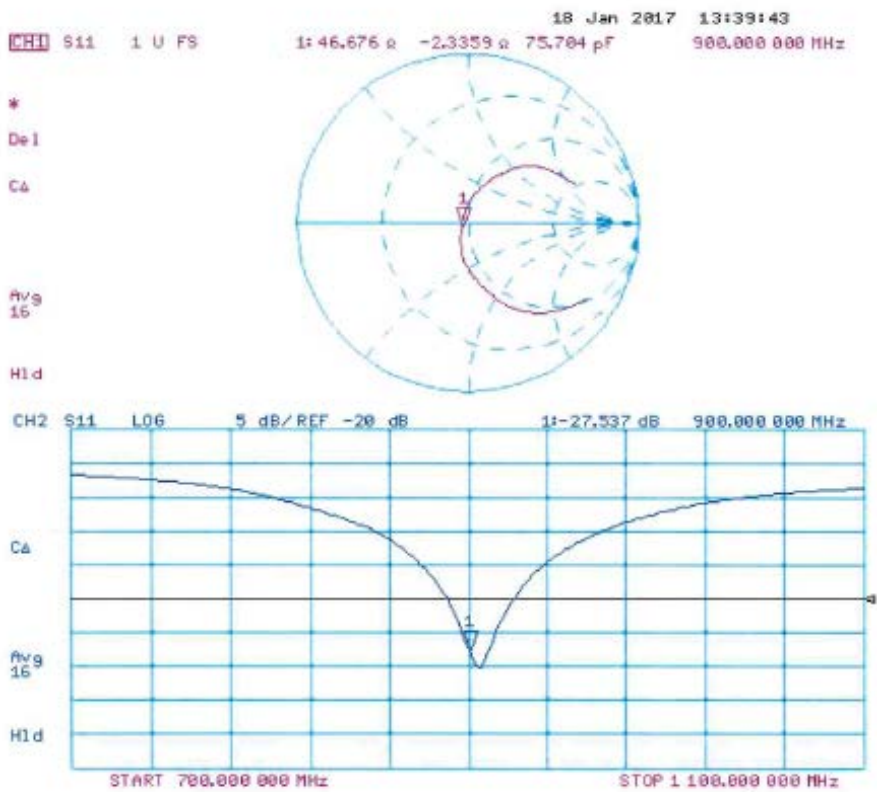
Peak SAR (extrapolated) = 4.11 W/kg

**SAR(1 g) = 2.71 W/kg; SAR(10 g) = 1.75 W/kg**

Maximum value of SAR (measured) = 3.63 W/kg



Impedance Measurement Plot for Body TSL



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Accreditation No.: **SCS 0108**

Client **Motorola Solutions MY**

Certificate No: **D2450V2-782\_Feb17**

## CALIBRATION CERTIFICATE

Object **D2450V2 - SN:782**

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

Calibration date: **February 15, 2017**

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  $(22 \pm 3)^{\circ}\text{C}$  and humidity  $< 70\%$ .

Calibration Equipment used (M&TE critical for calibration)

| Primary Standards           | ID #               | Cal Date (Certificate No.)        | Scheduled Calibration  |
|-----------------------------|--------------------|-----------------------------------|------------------------|
| Power meter NRP             | SN: 104778         | 06-Apr-16 (No. 217-02288/02289)   | Apr-17                 |
| Power sensor NRP-Z91        | SN: 103244         | 06-Apr-16 (No. 217-02288)         | Apr-17                 |
| Power sensor NRP-Z91        | SN: 103245         | 06-Apr-16 (No. 217-02289)         | Apr-17                 |
| Reference 20 dB Attenuator  | SN: 5058 (20k)     | 05-Apr-16 (No. 217-02292)         | Apr-17                 |
| Type-N mismatch combination | SN: 5047.2 / 06327 | 05-Apr-16 (No. 217-02295)         | Apr-17                 |
| Reference Probe EX3DV4      | SN: 7349           | 31-Dec-16 (No. EX3-7349_Dec16)    | Dec-17                 |
| DAE4                        | SN: 601            | 04-Jan-17 (No. DAE4-601_Jan17)    | Jan-18                 |
| Secondary Standards         | ID #               | Check Date (in house)             | Scheduled Check        |
| Power meter EPM-442A        | SN: GB37480704     | 07-Oct-15 (in house check Oct-16) | In house check: Oct-18 |
| Power sensor HP 8481A       | SN: US37292783     | 07-Oct-15 (in house check Oct-16) | In house check: Oct-18 |
| Power sensor HP 8481A       | SN: MY41092317     | 07-Oct-15 (in house check Oct-16) | In house check: Oct-18 |
| RF generator R&S SMT-06     | SN: 100972         | 15-Jun-15 (in house check Oct-16) | In house check: Oct-18 |
| Network Analyzer HP 8753E   | SN: US37390585     | 18-Oct-01 (in house check Oct-16) | In house check: Oct-17 |

|                |                  |                       |           |
|----------------|------------------|-----------------------|-----------|
|                | Name             | Function              | Signature |
| Calibrated by: | Johannes Kurikka | Laboratory Technician |           |
| Approved by:   | Katja Pokovic    | Technical Manager     |           |

Issued: February 15, 2017

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Certificate No: D2450V2-782\_Feb17

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Accreditation No.: **SCS 0108**

#### 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:

- 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
- 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
- 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
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

#### Additional Documentation:

- 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**

DASY system configuration, as far as not given on page 1.

|                              |                        |             |
|------------------------------|------------------------|-------------|
| DASY Version                 | DASY5                  | V52.8.8     |
| Extrapolation                | Advanced Extrapolation |             |
| Phantom                      | Modular Flat Phantom   |             |
| Distance Dipole Center - TSL | 10 mm                  | with Spacer |
| Zoom Scan Resolution         | dx, dy, dz = 5 mm      |             |
| Frequency                    | 2450 MHz $\pm$ 1 MHz   |             |

**Head TSL parameters**

The following parameters and calculations were applied.

|                                         | Temperature         | Permittivity   | Conductivity         |
|-----------------------------------------|---------------------|----------------|----------------------|
| Nominal Head TSL parameters             | 22.0 °C             | 39.2           | 1.80 mho/m           |
| Measured Head TSL parameters            | (22.0 $\pm$ 0.2) °C | 37.5 $\pm$ 6 % | 1.87 mho/m $\pm$ 6 % |
| Head TSL temperature change during test | < 0.5 °C            | ----           | ----                 |

**SAR result with Head TSL**

| SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL | Condition          |                              |
|-------------------------------------------------------|--------------------|------------------------------|
| SAR measured                                          | 250 mW input power | 13.7 W/kg                    |
| SAR for nominal Head TSL parameters                   | normalized to 1W   | 53.3 W/kg $\pm$ 17.0 % (k=2) |

| SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL | condition          |                              |
|---------------------------------------------------------|--------------------|------------------------------|
| SAR measured                                            | 250 mW input power | 6.30 W/kg                    |
| SAR for nominal Head TSL parameters                     | normalized to 1W   | 24.8 W/kg $\pm$ 16.5 % (k=2) |

**Body TSL parameters**

The following parameters and calculations were applied.

|                                         | Temperature         | Permittivity   | Conductivity         |
|-----------------------------------------|---------------------|----------------|----------------------|
| Nominal Body TSL parameters             | 22.0 °C             | 52.7           | 1.95 mho/m           |
| Measured Body TSL parameters            | (22.0 $\pm$ 0.2) °C | 51.6 $\pm$ 6 % | 2.02 mho/m $\pm$ 6 % |
| Body TSL temperature change during test | < 0.5 °C            | ----           | ----                 |

**SAR result with Body TSL**

| SAR averaged over 1 cm <sup>3</sup> (1 g) of Body TSL | Condition          |                              |
|-------------------------------------------------------|--------------------|------------------------------|
| SAR measured                                          | 250 mW input power | 12.9 W/kg                    |
| SAR for nominal Body TSL parameters                   | normalized to 1W   | 50.5 W/kg $\pm$ 17.0 % (k=2) |

| SAR averaged over 10 cm <sup>3</sup> (10 g) of Body TSL | condition          |                              |
|---------------------------------------------------------|--------------------|------------------------------|
| SAR measured                                            | 250 mW input power | 5.94 W/kg                    |
| SAR for nominal Body TSL parameters                     | normalized to 1W   | 23.5 W/kg $\pm$ 16.5 % (k=2) |



**Appendix (Additional assessments outside the scope of SCS 0108)****Antenna Parameters with Head TSL**

|                                      |                                |
|--------------------------------------|--------------------------------|
| Impedance, transformed to feed point | 51.9 $\Omega$ + 4.0 j $\Omega$ |
| Return Loss                          | - 27.2 dB                      |

**Antenna Parameters with Body TSL**

|                                      |                                |
|--------------------------------------|--------------------------------|
| Impedance, transformed to feed point | 48.3 $\Omega$ + 5.7 j $\Omega$ |
| Return Loss                          | - 24.4 dB                      |

**General Antenna Parameters and Design**

|                                  |          |
|----------------------------------|----------|
| Electrical Delay (one direction) | 1.151 ns |
|----------------------------------|----------|

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**

|                 |              |
|-----------------|--------------|
| Manufactured by | SPEAG        |
| Manufactured on | May 06, 2005 |

**DASY5 Validation Report for Head TSL**

Date: 15.02.2017

Test Laboratory: SPEAG, Zurich, Switzerland

**DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:782**

Communication System: UID 0 - CW; Frequency: 2450 MHz

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.87$  S/m;  $\epsilon_r = 37.5$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN7349; ConvF(7.72, 7.72, 7.72); Calibrated: 31.12.2016;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 04.01.2017
- Phantom: Flat Phantom 5.0 (front); Type: QD 000 P50 AA; Serial: 1001
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Dipole Calibration for Head Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:**

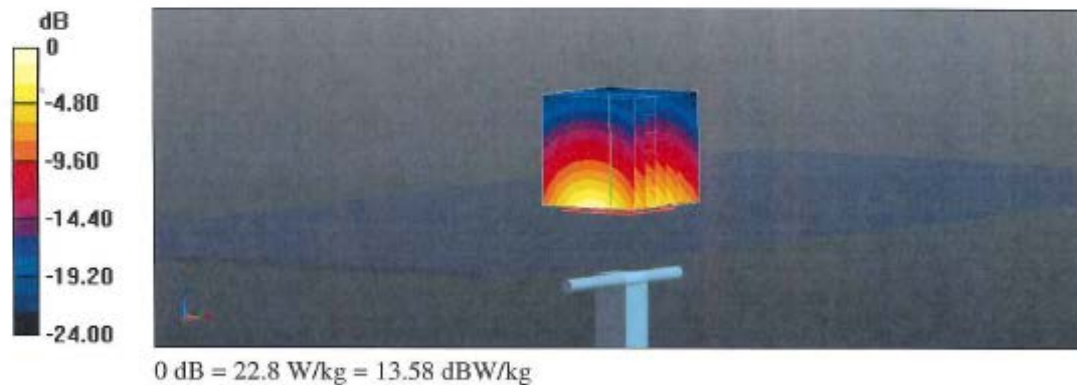
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 115.0 V/m; Power Drift = -0.07 dB

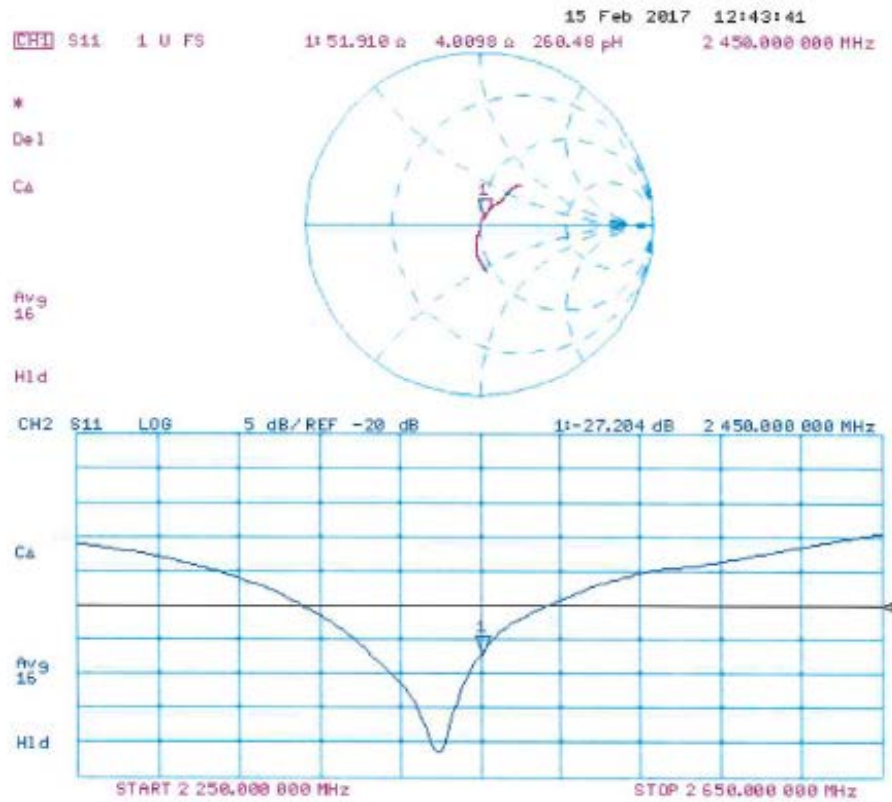
Peak SAR (extrapolated) = 28.4 W/kg

**SAR(1 g) = 13.7 W/kg; SAR(10 g) = 6.3 W/kg**

Maximum value of SAR (measured) = 22.8 W/kg



## Impedance Measurement Plot for Head TSL



**DASY5 Validation Report for Body TSL**

Date: 15.02.2017

Test Laboratory: SPEAG, Zurich, Switzerland

**DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:782**

Communication System: UID 0 - CW; Frequency: 2450 MHz

Medium parameters used:  $f = 2450$  MHz;  $\sigma = 2.02$  S/m;  $\epsilon_r = 51.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

**DASY52 Configuration:**

- Probe: EX3DV4 - SN7349; ConvF(7.79, 7.79, 7.79); Calibrated: 31.12.2016;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 04.01.2017
- Phantom: Flat Phantom 5.0 (back); Type: QD 000 P50 AA; Serial: 1002
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7331)

**Dipole Calibration for Body Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:**

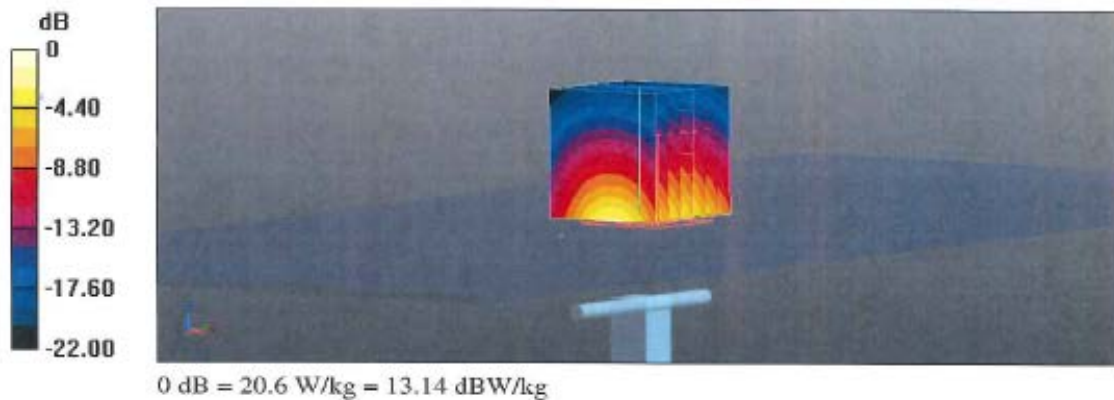
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 105.4 V/m; Power Drift = -0.09 dB

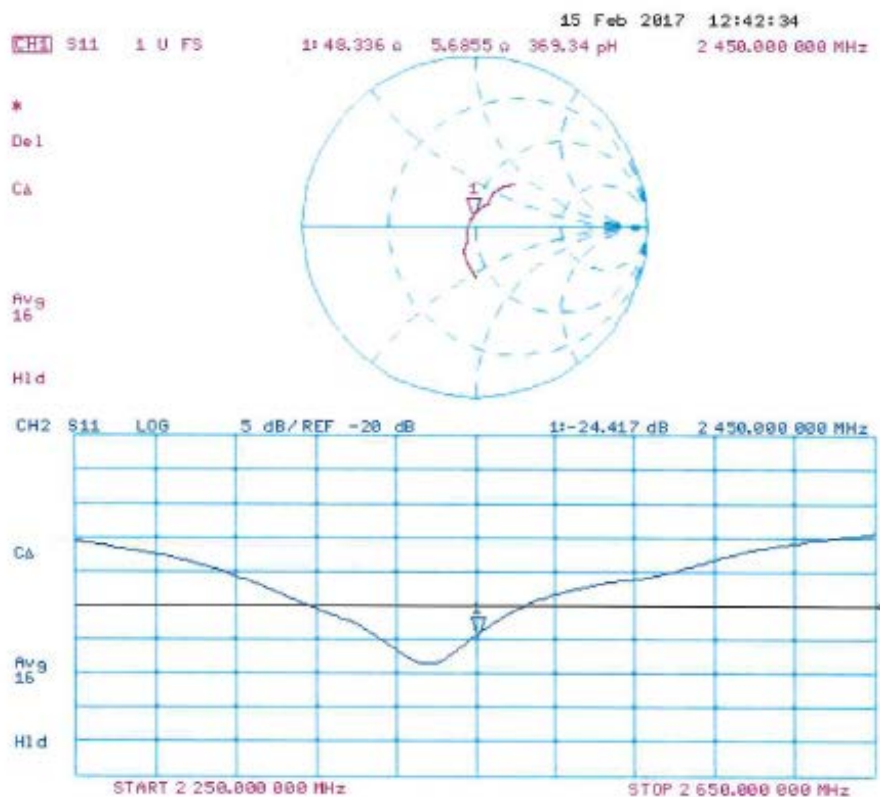
Peak SAR (extrapolated) = 26.6 W/kg

**SAR(1 g) = 12.9 W/kg; SAR(10 g) = 5.94 W/kg**

Maximum value of SAR (measured) = 20.6 W/kg



## Impedance Measurement Plot for Body TSL





## Dipole Data

As stated in KDB 865664, only dipoles used for longer calibration intervals required to provide supporting information and measurement to qualify for extended calibration interval.

**Appendix D**  
**SAR Summary Results Table for FCC PAG review**

**The overall highest SAR is < 6 watts, FCC PAG not required.**

## **Appendix E**

### **System Verifications Check scans**

**Motorola Solutions, Inc. EME Laboratory**

Date/Time: 6/20/2017 7:04:44 AM

Robot#: DASY5-PG-4 | Run#: FD(AM)SYSP-900B-170620-02  
 Dipole Model#: D900V2  
 Phantom#: ELI4 1090  
 Tissue Temp: 20.9 (C)  
 Serial#: 1d026  
 Test Freq: 900 (MHz)  
 Start Power: 250 (mW)  
 Rotation (1D): 0.043 dB  
 Adjusted SAR (1W): 10.28 mW/g (1g)

## Comments:

Duty Cycle: 1:1, Medium parameters used:  $f = 900$  MHz;  $\sigma = 1.08$  S/m;  $\epsilon_r = 52.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Probe: ES3DV3 - SN3196, Frequency: 900 MHz, ConvF(6.27, 6.27, 6.27); Calibrated: 5/17/2017  
 Electronics: DAE4 Sn684, Calibrated: 5/12/2017

**Below 2 GHz-Rev.2/System Performance Check/Dipole Area Scan 2 (41x111x1):**

Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 55.58 V/m; Power Drift = -0.00 dB

Fast SAR: SAR(1 g) = 2.59 W/kg; SAR(10 g) = 1.69 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 3.11 W/kg

**Below 2 GHz-Rev.2/System Performance Check/0-Degree Cube (5x5x7)/Cube 0:**

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 55.58 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 3.98 W/kg

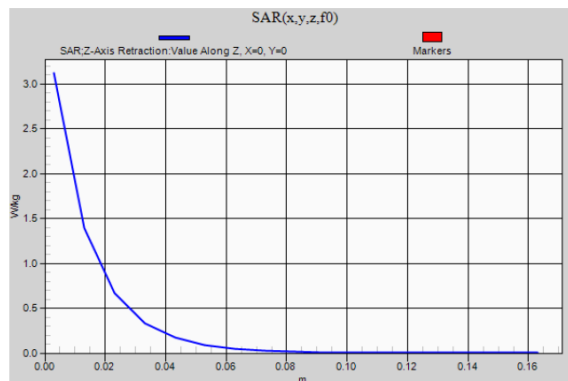
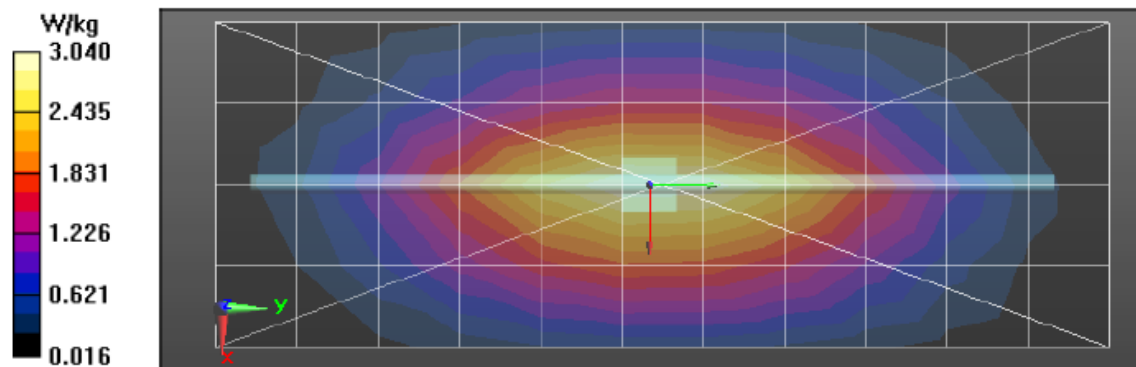
SAR(1 g) = 2.57 W/kg; SAR(10 g) = 1.66 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 3.13 W/kg

**Below 2 GHz-Rev.2/System Performance Check/Z-Axis Retraction (1x1x17): Measurement**

grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 3.12 W/kg



**Motorola Solutions, Inc. EME Laboratory**

Date/Time: 6/21/2017 7:27:24 AM

Robot#: DASY5-PG-4 | Run#: FD(AM)SYSP-900B-170621-07  
 Dipole Model# D900V2  
 Phantom#: ELI4 1090  
 Tissue Temp: 20.9 (C)  
 Serial#: 1d026  
 Test Freq: 900 (MHz)  
 Start Power: 250 (mW)  
 Rotation (1D): 0.028 dB  
 Adjusted SAR (1W): 10.08 mW/g (1g)

**Comments:**

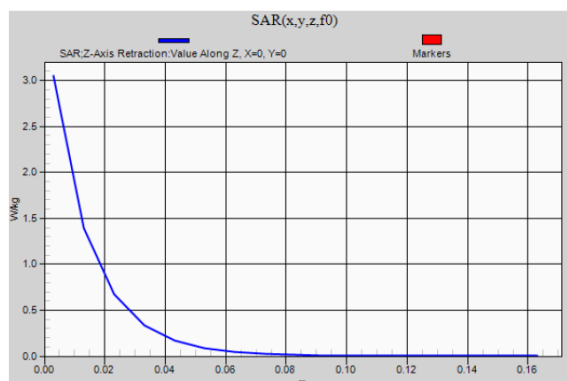
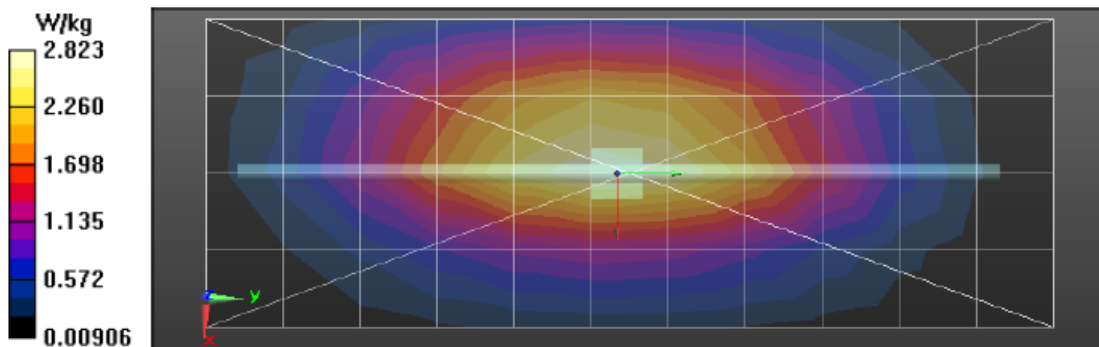
Duty Cycle: 1:1, Medium parameters used:  $f = 900$  MHz;  $\sigma = 1.08$  S/m;  $\epsilon_r = 52.8$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Probe: ES3DV3 - SN3196, , Frequency: 900 MHz, ConvF(6.27, 6.27, 6.27); Calibrated: 5/17/2017  
 Electronics: DAE4 Sn684, Calibrated: 5/12/2017

**Below 2 GHz-Rev.2/System Performance Check/Dipole Area Scan 2 (41x111x1):**

Interpolated grid: dx=1.500 mm, dy=1.500 mm  
 Reference Value = 54.99 V/m; Power Drift = 0.01 dB  
 Fast SAR: SAR(1 g) = 2.53 W/kg; SAR(10 g) = 1.66 W/kg (SAR corrected for target medium)  
 Maximum value of SAR (interpolated) = 3.02 W/kg

**Below 2 GHz-Rev.2/System Performance Check/0-Degree Cube (5x5x7)/Cube 0:**

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm  
 Reference Value = 54.99 V/m; Power Drift = 0.01 dB  
 Peak SAR (extrapolated) = 3.83 W/kg  
 SAR(1 g) = 2.52 W/kg; SAR(10 g) = 1.65 W/kg (SAR corrected for target medium)  
 Maximum value of SAR (measured) = 3.05 W/kg

**Below 2 GHz-Rev.2/System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm**



**Motorola Solutions, Inc. EME Laboratory**

Date/Time: 6/22/2017 7:11:53 AM

Robot#: DASY5-PG-4 | Run#: FD(AM)-SYSP-900H-170622-05  
 Dipole Model# D900V2  
 Phantom#: ELI4 1037  
 Tissue Temp: 21.1 (C)  
 Serial#: 1d026  
 Test Freq: 900 (MHz)  
 Start Power: 250 (mW)  
 Rotation (1D): 0.084 dB  
 Adjusted SAR (1W): 10.08 mW/g (1g)

## Comments:

Duty Cycle: 1:1, Medium parameters used:  $f = 900$  MHz;  $\sigma = 0.97$  S/m;  $\epsilon_r = 40.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Probe: ES3DV3 - SN3196, Frequency: 900 MHz, ConvF(6.45, 6.45, 6.45); Calibrated: 5/17/2017  
 Electronics: DAE4 Sn684, Calibrated: 5/12/2017

**Below 2 GHz-Rev.2/System Performance Check/Dipole Area Scan 2 (41x111x1):**

Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 57.06 V/m; Power Drift = 0.01 dB

Fast SAR: SAR(1 g) = 2.54 W/kg; SAR(10 g) = 1.66 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 2.97 W/kg

**Below 2 GHz-Rev.2/System Performance Check/0-Degree Cube (5x5x7)/Cube 0:**

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 57.06 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 3.87 W/kg

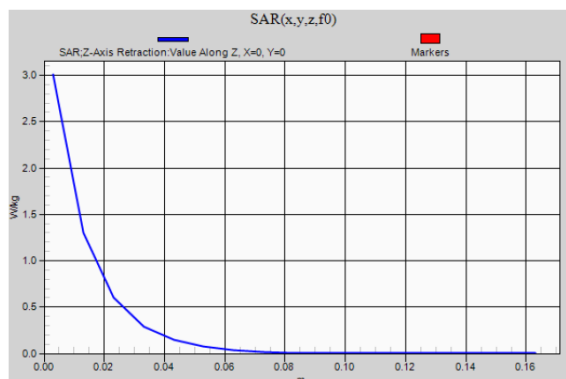
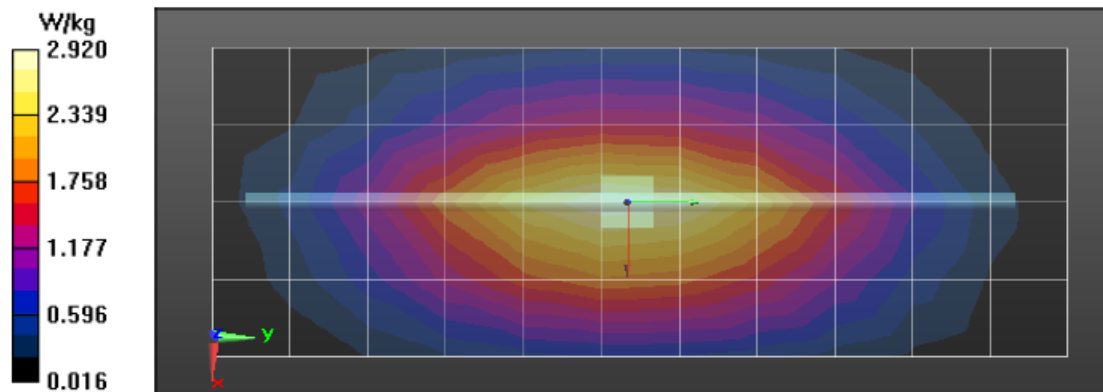
SAR(1 g) = 2.52 W/kg; SAR(10 g) = 1.61 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 2.99 W/kg

**Below 2 GHz-Rev.2/System Performance Check/Z-Axis Retraction (1x1x17): Measurement**

grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 3.01 W/kg



**Motorola Solutions, Inc. EME Laboratory**

Date/Time: 6/23/2017 1:41:03 AM

Robot#: DASY5-PG-04 | Run#: TLC(FAZ)-SYSP-900B-170623-01  
 Dipole Model#: D900V2  
 Phantom#: ELI4 1090  
 Tissue Temp: 21.0 (C)  
 Serial#: 1d026  
 Test Freq: 900.000 (MHz)  
 Start Power: 250 (mW)  
 Rotation (1D): 0.025 dB  
 Adjusted SAR (1W): 10.52 mW/g (1g)

**Comments:**

Duty Cycle: 1:1, Medium parameters used:  $f = 900$  MHz;  $\sigma = 1.07$  S/m;  $\epsilon_r = 52.7$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Probe: ES3DV3 - SN3196, Frequency: 900 MHz, ConvF(6.27, 6.27, 6.27); Calibrated: 5/17/2017  
 Electronics: DAE4 Sn684, Calibrated: 5/12/2017

**Below 2 GHz-Rev.2/System Performance Check/Dipole Area Scan 2 (41x121x1):**

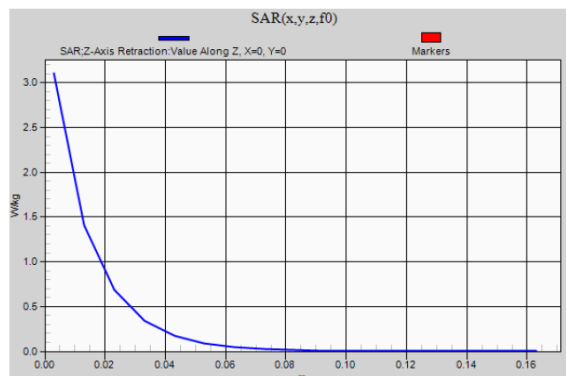
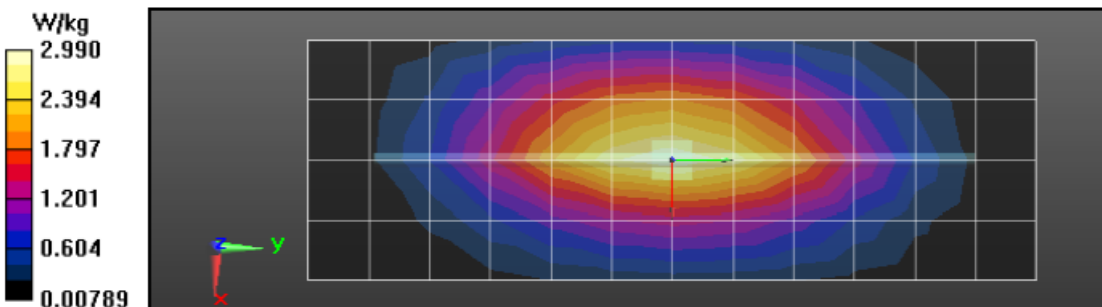
Interpolated grid:  $dx=1.500$  mm,  $dy=1.500$  mm  
 Reference Value = 55.59 V/m; Power Drift = -0.01 dB  
 Fast SAR: SAR(1 g) = 2.64 W/kg; SAR(10 g) = 1.71 W/kg (SAR corrected for target medium)  
 Maximum value of SAR (interpolated) = 3.07 W/kg

**Below 2 GHz-Rev.2/System Performance Check/0-Degree Cube (5x5x7)/Cube 0:**

Measurement grid:  $dx=7.5$ mm,  $dy=7.5$ mm,  $dz=5$ mm  
 Reference Value = 55.59 V/m; Power Drift = -0.01 dB  
 Peak SAR (extrapolated) = 3.92 W/kg  
 SAR(1 g) = 2.63 W/kg; SAR(10 g) = 1.7 W/kg (SAR corrected for target medium)  
 Maximum value of SAR (measured) = 3.09 W/kg

**Below 2 GHz-Rev.2/System Performance Check/Z-Axis Retraction (1x1x17): Measurement**

grid:  $dx=20$ mm,  $dy=20$ mm,  $dz=10$ mm  
 Maximum value of SAR (measured) = 3.10 W/kg



**Motorola Solutions, Inc. EME Laboratory**

Date/Time: 6/29/2017 7:48:08 AM

Robot#: DASY5-PG-04 | Run#: KKL(FAZ)-SYSP-900B-170629-01  
 Dipole Model#: D900V2  
 Phantom#: ELI4 1090  
 Tissue Temp: 20.9 (C)  
 Serial#: 1d026  
 Test Freq: 900 (MHz)  
 Start Power: 250(mW)  
 Rotation (1D): 0.026 dB  
 Adjusted SAR (1W): 10.72 mW/g (1g)

Comments:

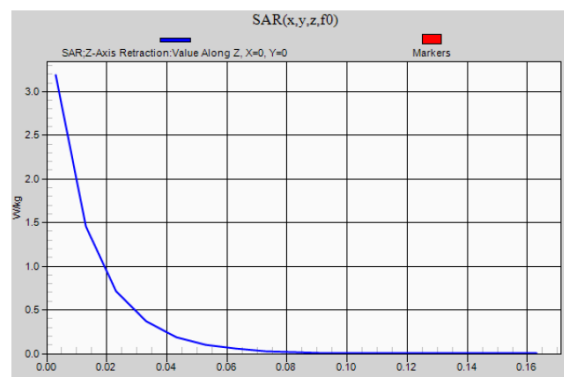
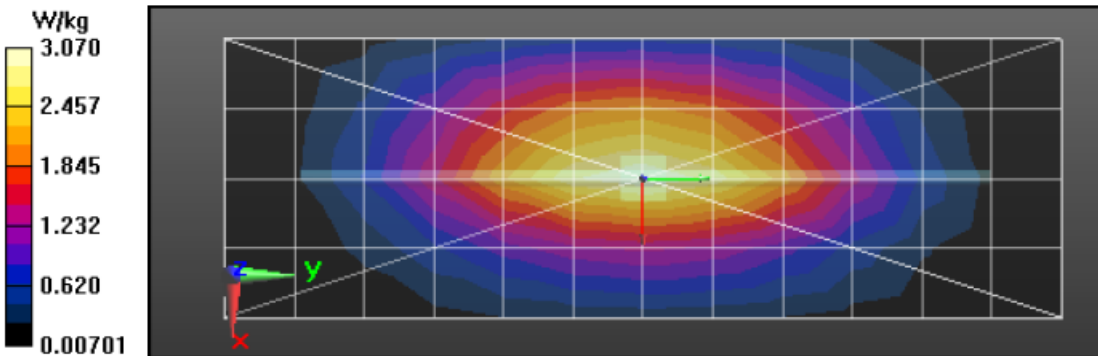
Duty Cycle: 1:1, Medium parameters used:  $f = 900$  MHz;  $\sigma = 1.08$  S/m;  $\epsilon_r = 56.8$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Probe: ES3DV3 - SN3196, Frequency: 900 MHz, ConvF(6.27, 6.27, 6.27); Calibrated: 5/17/2017  
 Electronics: DAE4 Sn684, Calibrated: 5/12/2017

**Below 2 GHz-Rev.2/System Performance Check/Dipole Area Scan 2 (41x121x1):**

Interpolated grid:  $dx=1.500$  mm,  $dy=1.500$  mm  
 Reference Value = 56.48 V/m; Power Drift = -0.04 dB  
 Fast SAR: SAR(1 g) = 2.68 W/kg; SAR(10 g) = 1.75 W/kg (SAR corrected for target medium)  
 Maximum value of SAR (interpolated) = 3.17 W/kg

**Below 2 GHz-Rev.2/System Performance Check/0-Degree Cube (5x5x7)/Cube 0:**

Measurement grid:  $dx=7.5$ mm,  $dy=7.5$ mm,  $dz=5$ mm  
 Reference Value = 56.48 V/m; Power Drift = -0.04 dB  
 Peak SAR (extrapolated) = 4.04 W/kg  
 SAR(1 g) = 2.68 W/kg; SAR(10 g) = 1.74 W/kg (SAR corrected for target medium)  
 Maximum value of SAR (measured) = 3.19 W/kg

**Below 2 GHz-Rev.2/System Performance Check/Z-Axis Retraction (1x1x17): Measurement**grid:  $dx=20$ mm,  $dy=20$ mm,  $dz=10$ mm

**Motorola Solutions, Inc. EME Laboratory**

Date/Time: 6/30/2017 7:19:33 AM

Robot#: DASY5-PG-04 | Run#: KKL(FAZ)-SYSP-900B-170630-01  
 Dipole Model# D900V2  
 Phantom#: ELI4 1090  
 Tissue Temp: 21.1(C)  
 Serial#: 1d026  
 Test Freq: 900.000(MHz)  
 Start Power: 250 (mW)  
 Rotation (1D): 0.03 dB  
 Adjusted SAR (1W): 11.08 mW/g (1g)

Comments:

Duty Cycle: 1:1, Medium parameters used:  $f = 900 \text{ MHz}$ ;  $\sigma = 1.08 \text{ S/m}$ ;  $\epsilon_r = 56.8$ ;  $\rho = 1000 \text{ kg/m}^3$   
 Probe: ES3DV3 - SN3196, Frequency: 900 MHz, ConvF(6.27, 6.27, 6.27); Calibrated: 5/17/2017  
 Electronics: DAE4 Sn684, Calibrated: 5/12/2017

**Below 2 GHz-Rev.2/System Performance Check/Dipole Area Scan 2 (41x121x1):**Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$ 

Reference Value = 57.29 V/m; Power Drift = -0.00 dB

Fast SAR: SAR(1 g) = 2.76 W/kg; SAR(10 g) = 1.8 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 3.25 W/kg

**Below 2 GHz-Rev.2/System Performance Check/0-Degree Cube (5x5x7)/Cube 0:**Measurement grid:  $dx=7.5\text{mm}$ ,  $dy=7.5\text{mm}$ ,  $dz=5\text{mm}$ 

Reference Value = 57.29 V/m; Power Drift = -0.00 dB

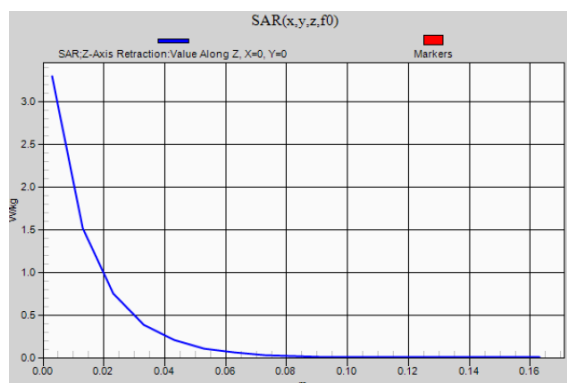
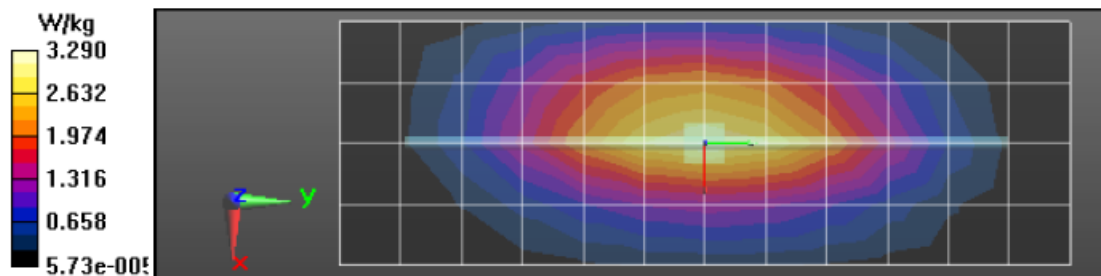
Peak SAR (extrapolated) = 4.16 W/kg

SAR(1 g) = 2.77 W/kg; SAR(10 g) = 1.8 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 3.30 W/kg

**Below 2 GHz-Rev.2/System Performance Check/Z-Axis Retraction (1x1x17): Measurement**grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$ ,  $dz=10\text{mm}$ 

Maximum value of SAR (measured) = 3.29 W/kg



**Motorola Solutions, Inc. EME Laboratory**

Date/Time: 7/3/2017 7:33:03 AM

Robot#: DASY5-PG-04 | Run#: FD(FAZ)-SYSP-900B-170703-01  
 Dipole Model#: D900V2  
 Phantom#: ELI4 1090  
 Tissue Temp: 21.1 (C)  
 Serial#: 1d026  
 Test Freq: 900(MHz)  
 Start Power: 250 (mW)  
 Rotation (1D): 0.051 dB  
 Adjusted SAR (1W): 11.20 mW/g (1g)

Comments:

Duty Cycle: 1:1, Medium parameters used:  $f = 900 \text{ MHz}$ ;  $\sigma = 1.09 \text{ S/m}$ ;  $\epsilon_r = 56.5$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Probe: ES3DV3 - SN3196, Frequency: 900 MHz, ConvF(6.27, 6.27, 6.27); Calibrated: 5/17/2017

Electronics: DAE4 Sn684, Calibrated: 5/12/2017

**Below 2 GHz-Rev.2/System Performance Check/Dipole Area Scan 2 (41x121x1):**Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$ 

Reference Value = 57.24 V/m; Power Drift = -0.01 dB

Fast SAR: SAR(1 g) = 2.8 W/kg; SAR(10 g) = 1.8 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 3.29 W/kg

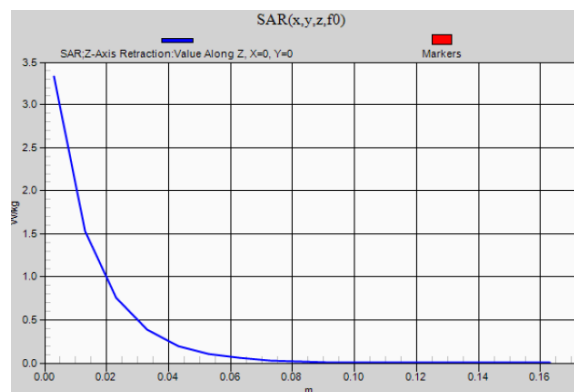
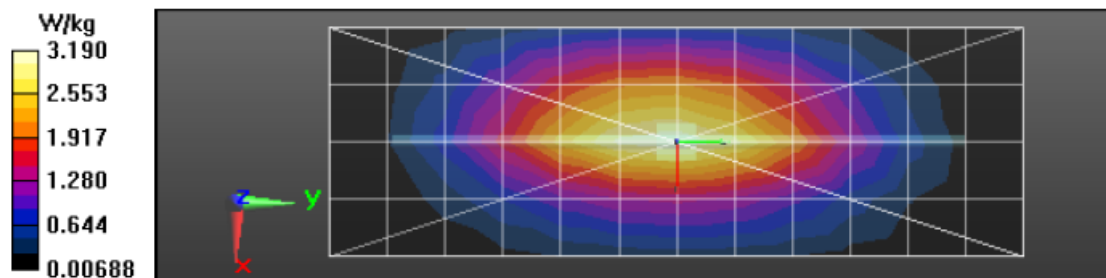
**Below 2 GHz-Rev.2/System Performance Check/0-Degree Cube (5x5x7)/Cube 0:**Measurement grid:  $dx=7.5\text{mm}$ ,  $dy=7.5\text{mm}$ ,  $dz=5\text{mm}$ 

Reference Value = 57.24 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 4.21 W/kg

SAR(1 g) = 2.8 W/kg; SAR(10 g) = 1.8 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 3.33 W/kg

**Below 2 GHz-Rev.2/System Performance Check/Z-Axis Retraction (1x1x17): Measurement**grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$ ,  $dz=10\text{mm}$ 

**Motorola Solutions, Inc. EME Laboratory**

Date/Time: 7/4/2017 6:56:25 PM

Robot#: DASY5-PG-04 | Run#: KKL(FAZ)-SYSP-900B-170704-06  
 Dipole Model#: D900V2  
 Phantom#: ELI4 1090  
 Tissue Temp: 22.7(C)  
 Serial#: 1d026  
 Test Freq: 900(MHz)  
 Start Power: 250 (mW)  
 Rotation (1D): 0.025 dB  
 Adjusted SAR (1W): 11.00 mW/g (1g)

Comments:

Duty Cycle: 1:1, Medium parameters used:  $f = 900$  MHz;  $\sigma = 1.06$  S/m;  $\epsilon_r = 55.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Probe: ES3DV3 - SN3196, Frequency: 900 MHz, ConvF(6.27, 6.27, 6.27); Calibrated: 5/17/2017  
 Electronics: DAE4 Sn684, Calibrated: 5/12/2017

**Below 2 GHz-Rev.2/System Performance Check/Dipole Area Scan 2 (41x121x1):**

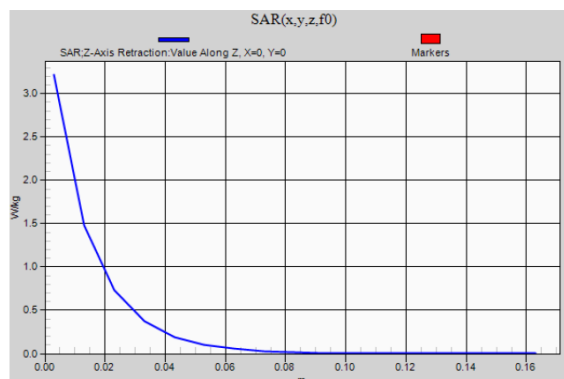
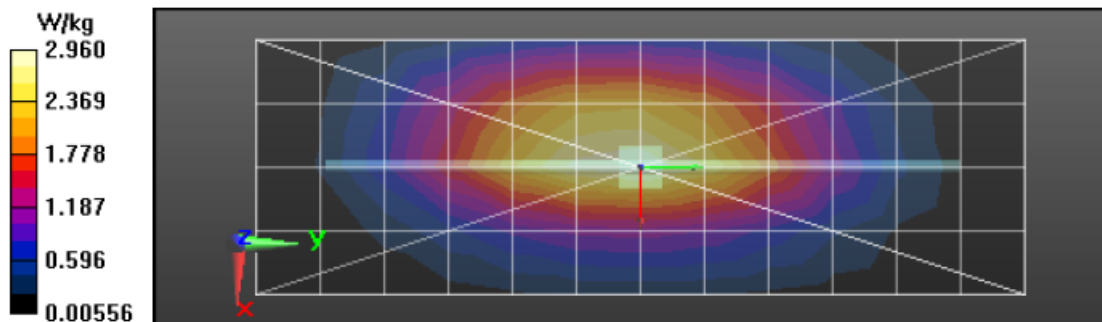
Interpolated grid: dx=1.500 mm, dy=1.500 mm  
 Reference Value = 57.05 V/m; Power Drift = -0.00 dB  
 Fast SAR: SAR(1 g) = 2.75 W/kg; SAR(10 g) = 1.77 W/kg (SAR corrected for target medium)  
 Maximum value of SAR (interpolated) = 3.18 W/kg

**Below 2 GHz-Rev.2/System Performance Check/0-Degree Cube (5x5x7)/Cube 0:**

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm  
 Reference Value = 57.05 V/m; Power Drift = -0.00 dB  
 Peak SAR (extrapolated) = 4.07 W/kg  
 SAR(1 g) = 2.75 W/kg; SAR(10 g) = 1.76 W/kg (SAR corrected for target medium)  
 Maximum value of SAR (measured) = 3.21 W/kg

**Below 2 GHz-Rev.2/System Performance Check/Z-Axis Retraction (1x1x17): Measurement**

grid: dx=20mm, dy=20mm, dz=10mm  
 Maximum value of SAR (measured) = 3.22 W/kg





**Motorola Solutions, Inc. EME Laboratory**

Date/Time: 7/4/2017 7:38:12 AM

Robot#: DASY5-PG-04 | Run#: TLC(AM)-SYSP-900H-170704-01  
 Dipole Model# D900V2  
 Phantom#: ELI4 1090  
 Tissue Temp: 22.5 (C)  
 Serial#: 1d026  
 Test Freq: 900.0000 (MHz)  
 Start Power: 250 (mW)  
 Rotation (1D): 0.028 dB  
 Adjusted SAR (1W): 10.72 mW/g (1g)

## Comments:

Duty Cycle: 1:1, Medium parameters used:  $f = 900$  MHz;  $\sigma = 0.99$  S/m;  $\epsilon_r = 40.5$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Probe: ES3DV3 - SN3196, Frequency: 900 MHz, ConvF(6.45, 6.45, 6.45); Calibrated: 5/17/2017  
 Electronics: DAE4 Sn684, Calibrated: 5/12/2017

**Below 2 GHz-Rev.2/System Performance Check/Dipole Area Scan 2 (41x121x1):**

Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 58.79 V/m; Power Drift = -0.03 dB

Fast SAR: SAR(1 g) = 2.72 W/kg; SAR(10 g) = 1.78 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 3.22 W/kg

**Below 2 GHz-Rev.2/System Performance Check/0-Degree Cube (5x5x7)/Cube 0:**

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 58.79 V/m; Power Drift = -0.03 dB

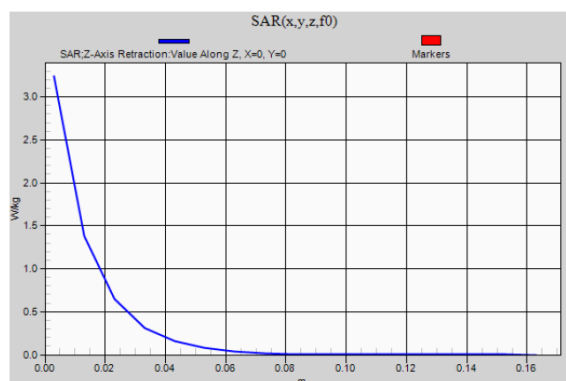
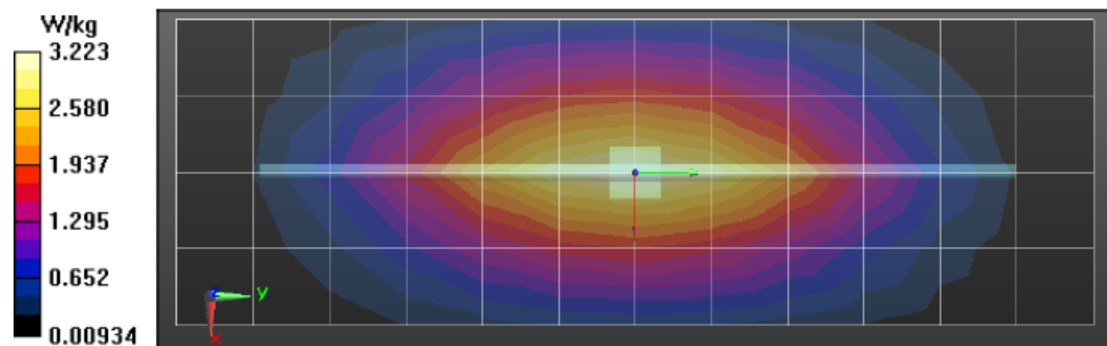
Peak SAR (extrapolated) = 4.21 W/kg

SAR(1 g) = 2.68 W/kg; SAR(10 g) = 1.72 W/kg (SAR corrected for target medium)

**Below 2 GHz-Rev.2/System Performance Check/Z-Axis Retraction (1x1x17): Measurement**

grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 3.24 W/kg



**Motorola Solutions, Inc. EME Laboratory**

Date/Time: 7/5/2017 4:57:04 PM

Robot#: DASY5-PG-04 | Run#: KKL(FAZ)-SYSP-2450B-170705-03  
 Dipole Model#: D2450V2  
 Phantom#: ELI4 1028  
 Tissue Temp: 21.5(C)  
 Serial#: 782  
 Test Freq: 2450.000 (MHz)  
 Start Power: 250 (mW)  
 Rotation (1D): 0.024 dB  
 Adjusted SAR (1W): 54.40 mW/g (1g)

Comments:

Duty Cycle: 1:1, Medium parameters used:  $f = 2450$  MHz;  $\sigma = 2.01$  S/m;  $\epsilon_r = 48$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Probe: ES3DV3 - SN3196, , Frequency: 2450 MHz, ConvF(4.58, 4.58, 4.58); Calibrated: 5/17/2017  
 Electronics: DAE4 Sn684, Calibrated: 5/12/2017

**2-3 GHz-Rev.2/System Performance Check/Dipole Area Scan 2 (41x81x1):** Interpolated grid:

dx=1.200 mm, dy=1.200 mm

Reference Value = 98.75 V/m; Power Drift = -0.02 dB

Fast SAR: SAR(1 g) = 13.8 W/kg; SAR(10 g) = 6.28 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 19.2 W/kg

**2-3 GHz-Rev.2/System Performance Check/0-Degree Cube (7x7x7)/Cube 0:** Measurement

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

Reference Value = 98.75 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 30.0 W/kg

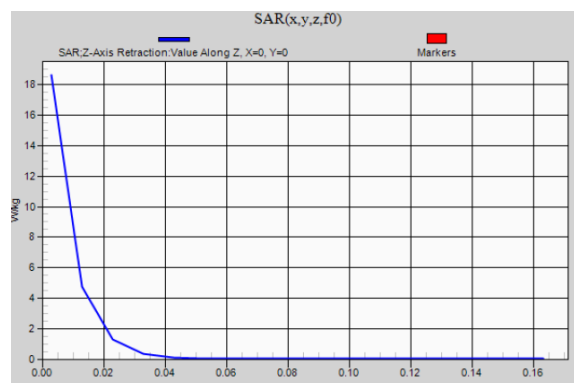
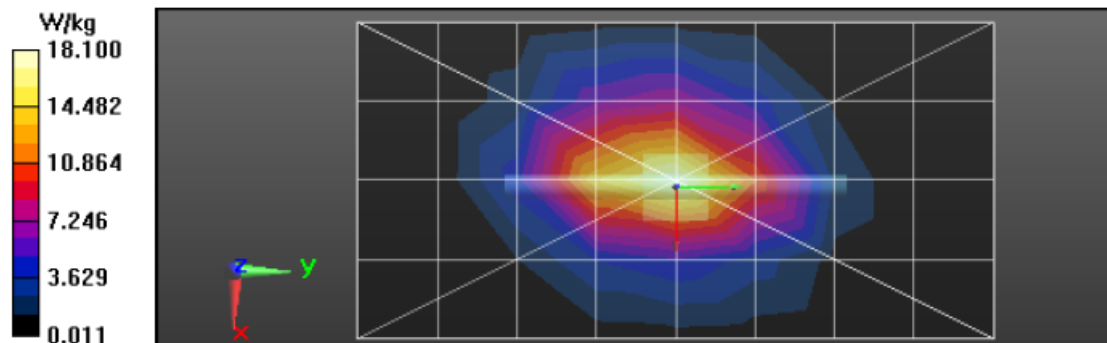
SAR(1 g) = 13.6 W/kg; SAR(10 g) = 6.3 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 18.4 W/kg

**2-3 GHz-Rev.2/System Performance Check/Z-Axis Retraction (1x1x17):** Measurement grid:

dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 18.6 W/kg



Motorola Solutions, Inc. EME Laboratory  
Date/Time: 7/6/2017 6:43:39 PM

Robot#: DASY5-PG-04 | Run#: KKL(FAZ)-SYSP-2450B-170706-04  
Dipole Model# D2450V2  
Phantom# ELI4 1028  
Tissue Temp: 21.1(C)  
Serial#: 782  
Test Freq: 2450.000 (MHz)  
Start Power: 250 (mW)  
Rotation (1D): 0.091 dB  
Adjusted SAR (1W): 54 mW/g (1g)

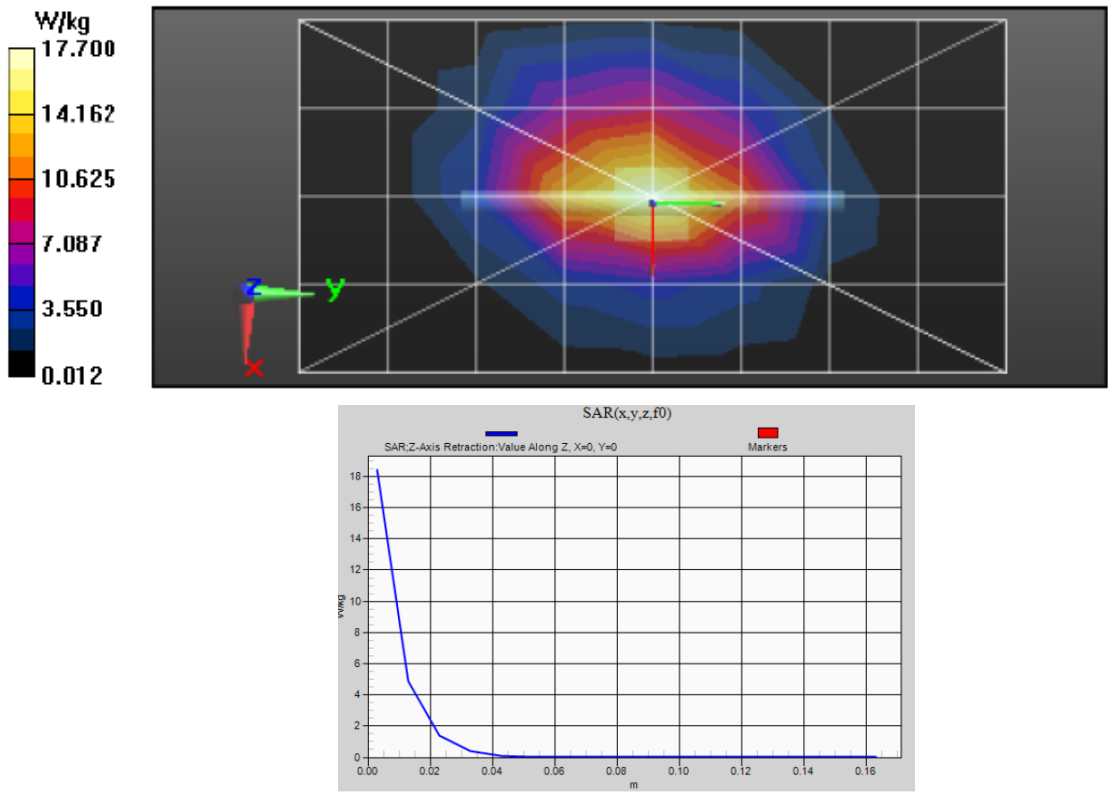
Comments:

Duty Cycle: 1:1, Medium parameters used:  $f = 2450 \text{ MHz}$ ;  $\sigma = 1.99 \text{ S/m}$ ;  $\epsilon_r = 47.6$ ;  $\rho = 1000 \text{ kg/m}^3$   
Probe: ES3DV3 - SN3196, , Frequency: 2450 MHz, ConvF(4.58, 4.58, 4.58); Calibrated: 5/17/2017  
Electronics: DAE4 Sn684, Calibrated: 5/12/2017

**2-3 GHz-Rev.2/System Performance Check/Dipole Area Scan 2 (41x81x1):** Interpolated grid:  
 $dx=1.200 \text{ mm}$ ,  $dy=1.200 \text{ mm}$   
Reference Value = 99.15 V/m; Power Drift = 0.01 dB  
Fast SAR: SAR(1 g) = 13.7 W/kg; SAR(10 g) = 6.27 W/kg (SAR corrected for target medium)  
Maximum value of SAR (interpolated) = 18.9 W/kg

**2-3 GHz-Rev.2/System Performance Check/0-Degree Cube (7x7x7)/Cube 0:** Measurement  
grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$   
Reference Value = 99.15 V/m; Power Drift = 0.01 dB  
Peak SAR (extrapolated) = 29.3 W/kg  
SAR(1 g) = 13.5 W/kg; SAR(10 g) = 6.32 W/kg (SAR corrected for target medium)  
Maximum value of SAR (measured) = 18.2 W/kg

**2-3 GHz-Rev.2/System Performance Check/Z-Axis Retraction (1x1x17):** Measurement grid:  
 $dx=20\text{mm}$ ,  $dy=20\text{mm}$ ,  $dz=10\text{mm}$   
Maximum value of SAR (measured) = 18.4 W/kg



**Motorola Solutions, Inc. EME Laboratory**

Date/Time: 7/7/2017 6:43:08 PM

Robot#: DASY5-PG-04 | Run#: FIE(FAZ)-SYSP-2450B-170707-08  
 Dipole Model#: D2450V2  
 Phantom#: ELI4 1028  
 Tissue Temp: 20.1(C)  
 Serial#: 782  
 Test Freq: 2450.000 (MHz)  
 Start Power: 250 (mW)  
 Rotation (1D): 0.026 dB  
 Adjusted SAR (1W): 51.60 mW/g (1g)

## Comments:

Duty Cycle: 1:1, Medium parameters used:  $f = 2450$  MHz;  $\sigma = 2$  S/m;  $\epsilon_r = 47.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Probe: ES3DV3 - SN3196, Frequency: 2450 MHz, ConvF(4.58, 4.58, 4.58); Calibrated: 5/17/2017  
 Electronics: DAE4 Sn684, Calibrated: 5/12/2017

**2-3 GHz-Rev.2/System Performance Check/Dipole Area Scan 2 (41x81x1): Interpolated grid:**

dx=1.200 mm, dy=1.200 mm

Reference Value = 97.66 V/m; Power Drift = -0.04 dB

Fast SAR: SAR(1 g) = 13.2 W/kg; SAR(10 g) = 6.07 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 18.0 W/kg

**2-3 GHz-Rev.2/System Performance Check/0-Degree Cube (7x7x7)/Cube 0: Measurement**

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

Reference Value = 97.66 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 28.8 W/kg

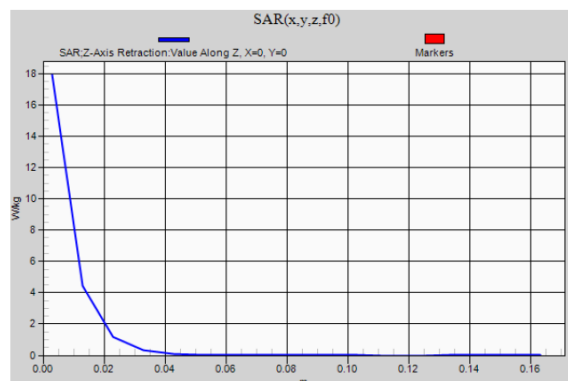
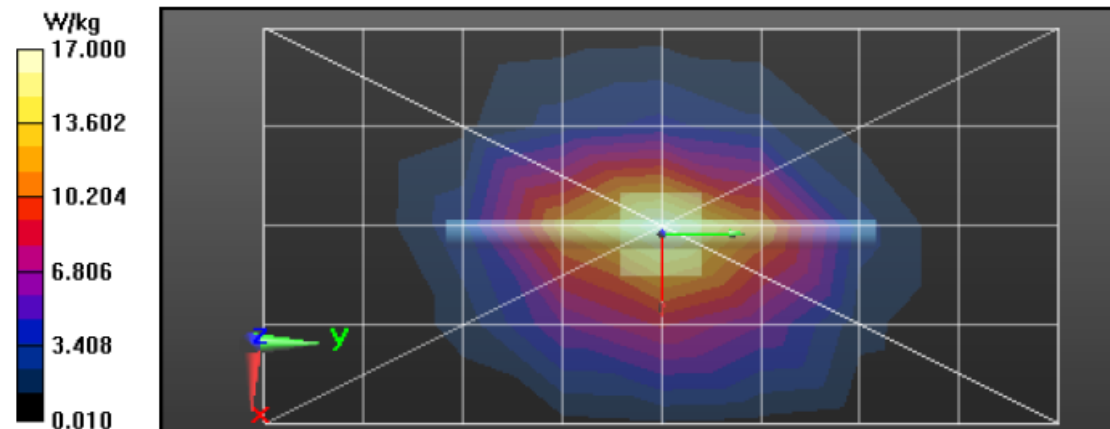
SAR(1 g) = 12.9 W/kg; SAR(10 g) = 5.98 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 17.7 W/kg

**2-3 GHz-Rev.2/System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid:**

dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 17.9 W/kg



Motorola Solutions, Inc. EME Laboratory  
Date/Time: 7/8/2017 12:28:26 PM

Robot#: DASY5-PG-04 | Run#: FD(FAZ)-SYSP-2450H-170708-04  
Dipole Model# D2450V2  
Phantom#: ELI5 1147  
Tissue Temp: 20.4 (C)  
Serial#: 782  
Test Freq: 2450.000 (MHz)  
Start Power: 250 (mW)  
Rotation (1D): 0.061 dB  
Adjusted SAR (1W): 53.20 mW/g (1g)

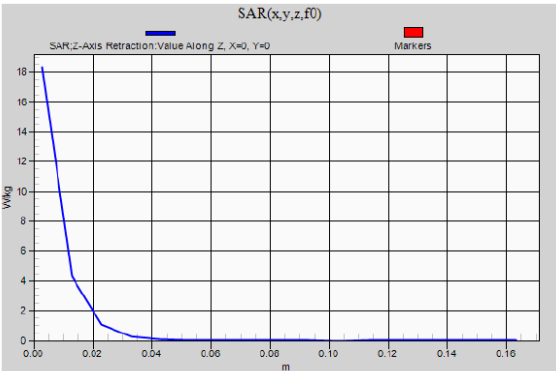
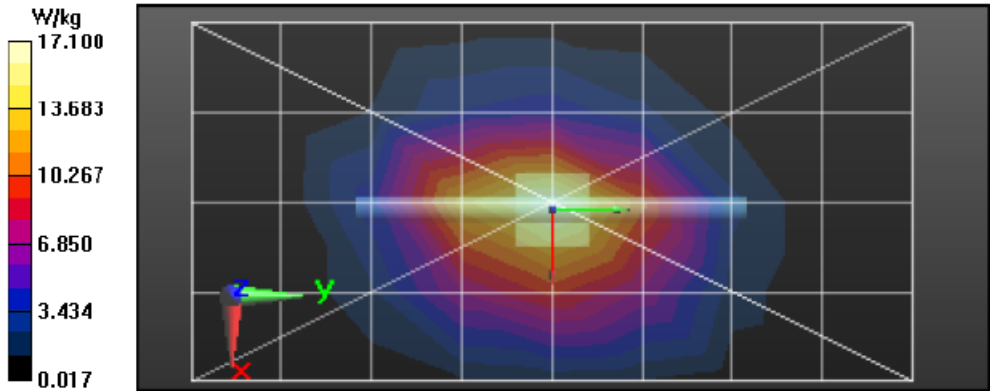
Comments:

Duty Cycle: 1:1, Medium parameters used:  $f = 2450 \text{ MHz}$ ;  $\sigma = 1.86 \text{ S/m}$ ;  $\epsilon_r = 35.6$ ;  $\rho = 1000 \text{ kg/m}^3$   
Probe: ES3DV3 - SN3196, , Frequency: 2450 MHz, ConvF(4.74, 4.74, 4.74); Calibrated: 5/17/2017  
Electronics: DAE4 Sn684, Calibrated: 5/12/2017

**2-3 GHz-Rev.2/System Performance Check/Dipole Area Scan 2 (41x81x1):** Interpolated grid:  
dx=1.200 mm, dy=1.200 mm  
Reference Value = 103.1 V/m; Power Drift = -0.02 dB  
Fast SAR: SAR(1 g) = 13.6 W/kg; SAR(10 g) = 6.43 W/kg (SAR corrected for target medium)  
Maximum value of SAR (interpolated) = 18.6 W/kg

**2-3 GHz-Rev.2/System Performance Check/0-Degree Cube (7x7x7)/Cube 0:** Measurement  
grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 103.1 V/m; Power Drift = -0.02 dB  
Peak SAR (extrapolated) = 29.1 W/kg  
SAR(1 g) = 13.3 W/kg; SAR(10 g) = 6.19 W/kg (SAR corrected for target medium)  
Maximum value of SAR (measured) = 18.0 W/kg

**2-3 GHz-Rev.2/System Performance Check/Z-Axis Retraction (1x1x17):** Measurement grid:  
dx=20mm, dy=20mm, dz=10mm  
Maximum value of SAR (measured) = 18.3 W/kg



## **Appendix F**

### **DUT Scans**



**Table 18 - Assessments at the Body with Body Worn PMLN4561A; 896-901 MHz****Motorola Solutions, Inc. EME Laboratory**

Date/Time: 6/20/2017 8:05:33 AM

Robot#: DASY5-PG-4 | Run#: FD(AM)-AB-170620-03  
 Model#: H92WCF9PW6AN (PMUF1912A)  
 Phantom#: ELI4 1090  
 Tissue Temp: 21.0 (C)  
 Serial#: 837TTK1854  
 Antenna: NAF5088B  
 Test Freq: 896.0000 (MHz)  
 Battery: PMNN4491B  
 Carry Acc: PMLN4651A  
 Audio Acc: PMMN4062A  
 Start Power: 2.87 (W)

## Comments:

Duty Cycle: 1:1, Medium parameters used:  $f = 896$  MHz;  $\sigma = 1.08$  S/m;  $\epsilon_r = 52.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Probe: ES3DV3 - SN3196, Frequency: 896 MHz, ConvF(6.27, 6.27, 6.27); Calibrated: 5/17/2017  
 Electronics: DAE4 Sn684, Calibrated: 5/12/2017

**Below 2 GHz-Rev.2/Ab Scan/1-Area Scan (61x231x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 55.96 V/m; Power Drift = -0.60 dB

Fast SAR: SAR(1 g) = 2.52 W/kg; SAR(10 g) = 1.75 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 2.87 W/kg

**Below 2 GHz-Rev.2/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm,

dy=7.5mm, dz=5mm

Reference Value = 55.96 V/m; Power Drift = -0.73 dB

Peak SAR (extrapolated) = 3.23 W/kg

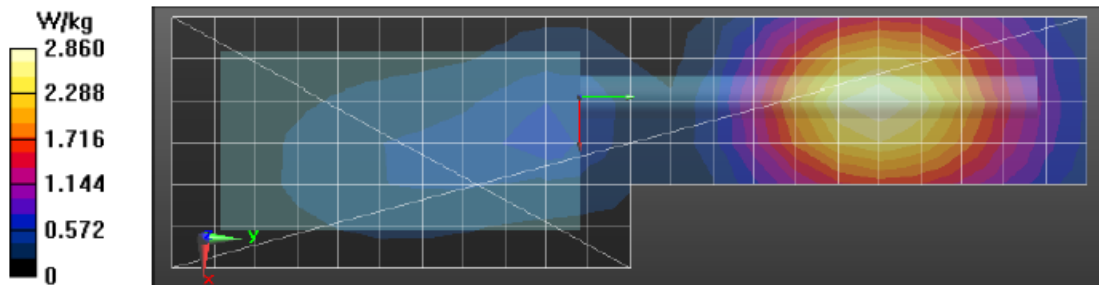
SAR(1 g) = 2.42 W/kg; SAR(10 g) = 1.75 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 2.71 W/kg

**Below 2 GHz-Rev.2/Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm,

dz=10mm

Maximum value of SAR (measured) = 2.67 W/kg



**Table 19 - Assessments at the Body with Body Worn PMLN5838A; 896-901 MHz****Motorola Solutions, Inc. EME Laboratory**

Date/Time: 6/20/2017 5:37:50 PM

Robot#: DASY5-PG-4 | Run#: KKL-AB-170620-11  
 Model#: H92WCF9PW6AN (PMUF1912A)  
 Phantom#: ELI4 1090  
 Tissue Temp: 20.8 (C)  
 Serial#: 837TTK1854  
 Antenna: NAF5088B  
 Test Freq: 896.0000 (MHz)  
 Battery: PMNN4491B  
 Carry Acc: PMLN5838A  
 Audio Acc: PMMN4062A  
 Start Power: 2.88 (W)

## Comments:

Duty Cycle: 1:1, Medium parameters used:  $f = 896$  MHz;  $\sigma = 1.08$  S/m;  $\epsilon_r = 52.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Probe: ES3DV3 - SN3196, , Frequency: 896 MHz, ConvF(6.27, 6.27, 6.27); Calibrated: 5/17/2017  
 Electronics: DAE4 Sn684, Calibrated: 5/12/2017

**Below 2 GHz-Rev.2/Ab Scan/1-Area Scan (61x221x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 23.77 V/m; Power Drift = -0.53 dB

Fast SAR: SAR(1 g) = 0.473 W/kg; SAR(10 g) = 0.336 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 0.535 W/kg

**Below 2 GHz-Rev.2/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm,

dy=7.5mm, dz=5mm

Reference Value = 23.77 V/m; Power Drift = -0.69 dB

Peak SAR (extrapolated) = 0.600 W/kg

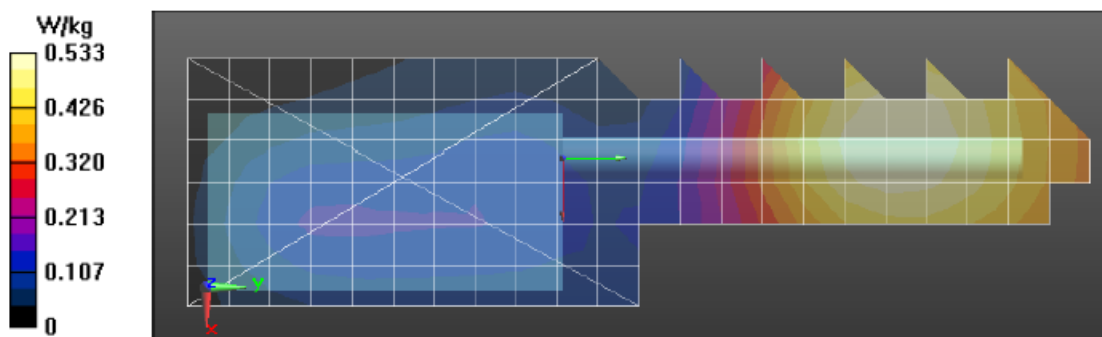
SAR(1 g) = 0.458 W/kg; SAR(10 g) = 0.342 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.510 W/kg

**Below 2 GHz-Rev.2/Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm,

dz=10mm

Maximum value of SAR (measured) = 0.501 W/kg



**Table 20 - Assessments at the Body with Body Worn PMLN5840A; 896-901 MHz****Motorola Solutions, Inc. EME Laboratory**

Date/Time: 6/21/2017 2:44:37 AM

Robot#: DASY5-PG-4 | Run#: ZR(FAZ)-AB-170621-03#  
 Model#: H92WCF9PW6AN (PMUF1912A)  
 Phantom#: ELI4 1090  
 Tissue Temp: 20.6 (C)  
 Serial#: 837TTK1854  
 Antenna: NAF5088B  
 Test Freq: 896.0000 (MHz)  
 Battery: PMNN4491B  
 Carry Acc: PMLN5840A  
 Audio Acc: PMMN4062A  
 Start Power: 2.85 (W)

**Comments:**

Duty Cycle: 1:1, Medium parameters used:  $f = 896$  MHz;  $\sigma = 1.08$  S/m;  $\epsilon_r = 52.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Probe: ES3DV3 - SN3196, Frequency: 896 MHz, ConvF(6.27, 6.27, 6.27); Calibrated: 5/17/2017

Electronics: DAE4 Sn684, Calibrated: 5/12/2017

**Below 2 GHz-Rev.2/Ab Scan/1-Area Scan (61x231x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 20.15 V/m; Power Drift = -0.57 dB

Fast SAR: SAR(1 g) = 0.355 W/kg; SAR(10 g) = 0.253 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 0.401 W/kg

**Below 2 GHz-Rev.2/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 20.15 V/m; Power Drift = -0.69 dB

Peak SAR (extrapolated) = 0.448 W/kg

SAR(1 g) = 0.341 W/kg; SAR(10 g) = 0.256 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.378 W/kg

**Below 2 GHz-Rev.2/Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 0.373 W/kg

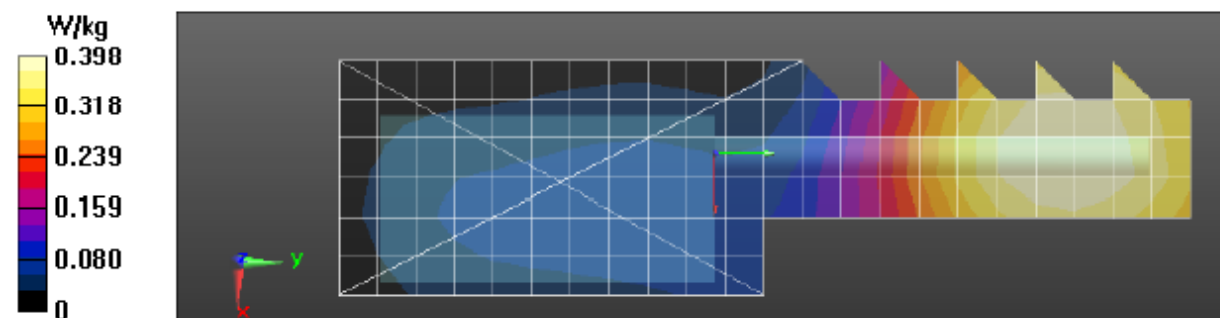


Table 21 - Assessments at the Body with Body Worn PMLN5842A; 896-901 MHz

Motorola Solutions, Inc. EME Laboratory  
Date/Time: 6/21/2017 10:06:05 AM

Robot#: DASY5-PG-4 | Run#: FD(AM)-AB-170621-10  
Model#: H92WCF9PW6AN (PMUF1912A)  
Phantom#: ELI4 1090  
Tissue Temp: 20.8 (C)  
Serial#: 837TTK1854  
Antenna: NAF5088B  
Test Freq: 896.0000 (MHz)  
Battery: PMNN4491B  
Carry Acc: PMLN5842A  
Audio Acc: PMMN4062A  
Start Power: 2.90 (W)

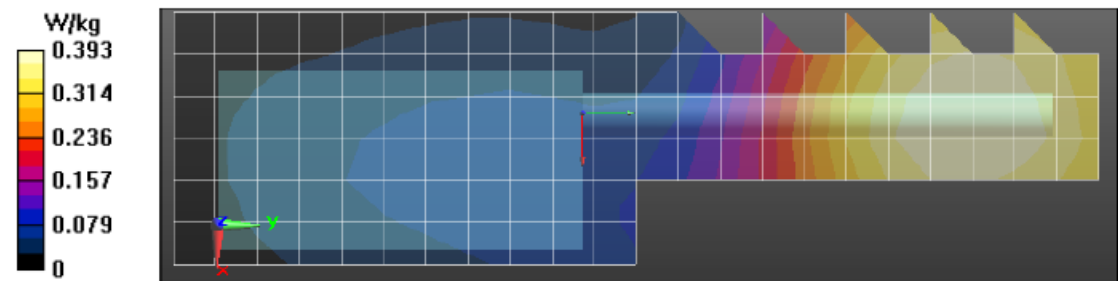
Comments:

Duty Cycle: 1:1, Medium parameters used: f = 896 MHz;  $\sigma = 1.08 \text{ S/m}$ ;  $\epsilon_r = 52.8$ ;  $\rho = 1000 \text{ kg/m}^3$   
Probe: ES3DV3 - SN3196, Frequency: 896 MHz, ConvF(6.27, 6.27, 6.27); Calibrated: 5/17/2017  
Electronics: DAE4 Sn684, Calibrated: 5/12/2017

**Below 2 GHz-Rev.2/Ab Scan/1-Area Scan (61x231x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Reference Value = 19.96 V/m; Power Drift = -0.61 dB  
Fast SAR: SAR(1 g) = 0.349 W/kg; SAR(10 g) = 0.248 W/kg (SAR corrected for target medium)  
Maximum value of SAR (interpolated) = 0.394 W/kg

**Below 2 GHz-Rev.2/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm  
Reference Value = 19.96 V/m; Power Drift = -0.75 dB  
Peak SAR (extrapolated) = 0.433 W/kg  
SAR(1 g) = 0.335 W/kg; SAR(10 g) = 0.252 W/kg (SAR corrected for target medium)  
Maximum value of SAR (measured) = 0.370 W/kg

**Below 2 GHz-Rev.2/Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm  
Maximum value of SAR (measured) = 0.366 W/kg



**Table 22 - Assessments at the Body with Body Worn PMLN5844A; 896-901 MHz****Motorola Solutions, Inc. EME Laboratory**

Date/Time: 6/21/2017 4:22:54 PM

Robot#: DASY5-PG-4 | Run#: FD(AM)-AB-170621-17  
 Model#: H92WCF9PW6AN (PMUF1912A)  
 Phantom#: ELI4 1090  
 Tissue Temp: 21.1 (C)  
 Serial#: 837TTK1854  
 Antenna: NAF5088B  
 Test Freq: 896.0000 (MHz)  
 Battery: NNTN8128B  
 Carry Acc: PMLN5844A  
 Audio Acc: PMMN4062A  
 Start Power: 2.98 (W)

## Comments:

Duty Cycle: 1:1, Medium parameters used:  $f = 896 \text{ MHz}$ ;  $\sigma = 1.08 \text{ S/m}$ ;  $\epsilon_r = 52.8$ ;  $\rho = 1000 \text{ kg/m}^3$

Probe: ES3DV3 - SN3196, Frequency: 896 MHz, ConvF(6.27, 6.27, 6.27); Calibrated: 5/17/2017

Electronics: DAE4 Sn684, Calibrated: 5/12/2017

**Below 2 GHz-Rev.2/Ab Scan/1-Area Scan (61x231x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Reference Value = 45.55 V/m; Power Drift = -0.41 dB

Fast SAR: SAR(1 g) = 1.68 W/kg; SAR(10 g) = 1.18 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 1.90 W/kg

**Below 2 GHz-Rev.2/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=7.5 \text{ mm}$ ,

$dy=7.5 \text{ mm}$ ,  $dz=5 \text{ mm}$

Reference Value = 45.55 V/m; Power Drift = -0.53 dB

Peak SAR (extrapolated) = 2.27 W/kg

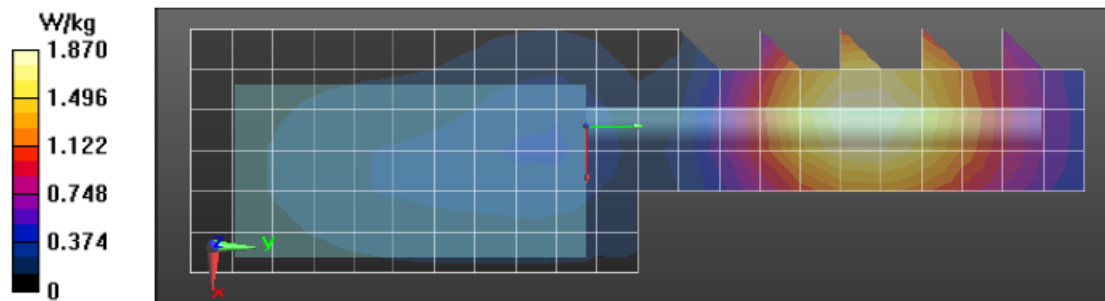
SAR(1 g) = 1.72 W/kg; SAR(10 g) = 1.26 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 1.93 W/kg

**Below 2 GHz-Rev.2/Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid:  $dx=20 \text{ mm}$ ,  $dy=20 \text{ mm}$ ,

$dz=10 \text{ mm}$

Maximum value of SAR (measured) = 1.90 W/kg



**Table 23 - Assessments at the Body with Body Worn PMLN7008A; 896-901 MHz****Motorola Solutions, Inc. EME Laboratory**

Date/Time: 6/21/2017 9:50:09 PM

Robot#: DASY5-PG-4 | Run#: TLC(FAZ)-AB-170621-22  
 Model#: H92WCF9PW6AN (PMUF1912A)  
 Phantom#: ELI4 1090  
 Tissue Temp: 21.0 (C)  
 Serial#: 837TTK1854  
 Antenna: NAF5088B  
 Test Freq: 896.0000 (MHz)  
 Battery: PMNN4491B  
 Carry Acc: PMLN7008A  
 Audio Acc: PMMN4062A  
 Start Power: 2.98 (W)

## Comments:

Duty Cycle: 1:1, Medium parameters used:  $f = 896$  MHz;  $\sigma = 1.08$  S/m;  $\epsilon_r = 52.8$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Probe: ES3DV3 - SN3196, , Frequency: 896 MHz, ConvF(6.27, 6.27, 6.27); Calibrated: 5/17/2017

Electronics: DAE4 Sn684, Calibrated: 5/12/2017

**Below 2 GHz-Rev.2/Ab Scan/1-Area Scan (61x231x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 53.57 V/m; Power Drift = -0.60 dB

Fast SAR: SAR(1 g) = 2.36 W/kg; SAR(10 g) = 1.64 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 2.68 W/kg

**Below 2 GHz-Rev.2/Ab Scan/1-Area Scan (7x24x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 2.62 W/kg

**Below 2 GHz-Rev.2/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 53.57 V/m; Power Drift = -0.73 dB

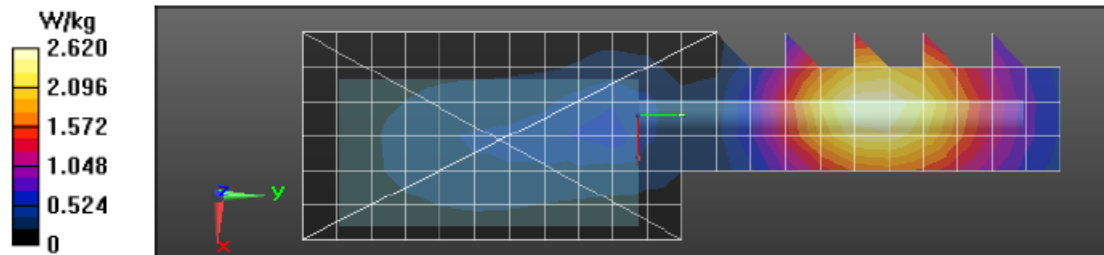
Peak SAR (extrapolated) = 2.99 W/kg

SAR(1 g) = 2.26 W/kg; SAR(10 g) = 1.65 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 2.54 W/kg

**Below 2 GHz-Rev.2/Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 2.51 W/kg





**Table 24 - Assessments at the Body with wireless BT configuration; 896-901 MHz****Motorola Solutions, Inc. EME Laboratory**

Date/Time: 6/22/2017 4:00:58 AM

Robot#: DASY5-PG-4 | Run#: TLC(FAZ)-AB-170622-03#  
 Model#: H92WCF9PW6AN (PMUF1912A)  
 Phantom#: ELI4 1090  
 Tissue Temp: 21.0 (C)  
 Serial#: 837TTK1854  
 Antenna: NAF5088B  
 Test Freq: 896.0000 (MHz)  
 Battery: PMNN4491B  
 Carry Acc: PMLN4651A  
 Audio Acc: None(BT)  
 Start Power: 2.90 (W)

## Comments:

Duty Cycle: 1:1, Medium parameters used:  $f = 896$  MHz;  $\sigma = 1.08$  S/m;  $\epsilon_r = 52.8$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Probe: ES3DV3 - SN3196, Frequency: 896 MHz, ConvF(6.27, 6.27, 6.27); Calibrated: 5/17/2017

Electronics: DAE4 Sn684, Calibrated: 5/12/2017

**Below 2 GHz-Rev.2/Ab Scan/1-Area Scan (61x231x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 59.36 V/m; Power Drift = -0.64 dB

Fast SAR: SAR(1 g) = 2.89 W/kg; SAR(10 g) = 2.01 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 3.29 W/kg

**Below 2 GHz-Rev.2/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm,

dy=7.5mm, dz=5mm

Reference Value = 59.36 V/m; Power Drift = -0.78 dB

Peak SAR (extrapolated) = 3.70 W/kg

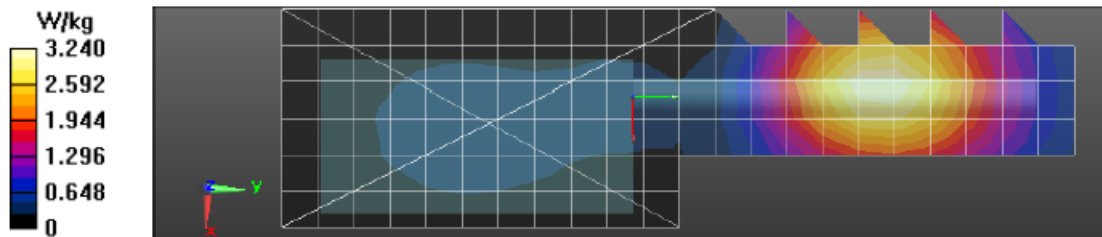
SAR(1 g) = 2.78 W/kg; SAR(10 g) = 2.01 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 3.12 W/kg

**Below 2 GHz-Rev.2/Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm,

dz=10mm

Maximum value of SAR (measured) = 3.07 W/kg



**Table 26 - Assessments at the Body with Body Worn PMLN4651A; 935-940 MHz****Motorola Solutions, Inc. EME Laboratory**

Date/Time: 6/23/2017 2:53:57 AM

Robot#: DASY5-PG-4 | Run#: TLC(FAZ)-AB-170623-02  
 Model#: H92WCF9PW6AN (PMUF1912A)  
 Phantom#: ELI4 1090  
 Tissue Temp: 21.1 (C)  
 Serial#: 837TTK1854  
 Antenna: NAF5088B  
 Test Freq: 935.0000 (MHz)  
 Battery: PMNN4491B  
 Carry Acc: PMLN4651A  
 Audio Acc: PMMN4062A  
 Start Power: 2.93 (W)

## Comments:

Duty Cycle: 1:1, Medium parameters used:  $f = 935$  MHz;  $\sigma = 1.11$  S/m;  $\epsilon_r = 52.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Probe: ES3DV3 - SN3196, Frequency: 935 MHz, ConvF(6.27, 6.27, 6.27); Calibrated: 5/17/2017  
 Electronics: DAE4 Sn684, Calibrated: 5/12/2017

**Below 2 GHz-Rev.2/Ab Scan/1-Area Scan (61x231x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 54.67 V/m; Power Drift = -0.72 dB

Fast SAR: SAR(1 g) = 2.42 W/kg; SAR(10 g) = 1.67 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 2.75 W/kg

**Below 2 GHz-Rev.2/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm,

dy=7.5mm, dz=5mm

Reference Value = 54.67 V/m; Power Drift = -0.85 dB

Peak SAR (extrapolated) = 3.13 W/kg

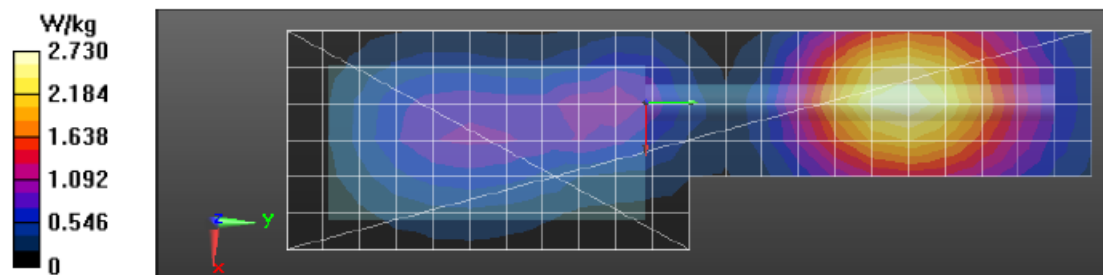
SAR(1 g) = 2.33 W/kg; SAR(10 g) = 1.68 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 2.62 W/kg

**Below 2 GHz-Rev.2/Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm,

dz=10mm

Maximum value of SAR (measured) = 2.58 W/kg



**Table 27 - Assessments at the Body with Body Worn PMLN5838A; 935-940 MHz****Motorola Solutions, Inc. EME Laboratory**

Date/Time: 6/23/2017 11:13:29 AM

Robot#: DASY5-PG-4 | Run#: FD(AM)-AB-170623-12  
 Model#: H92WCF9PW6AN (PMUF1912A)  
 Phantom#: ELI4 1090  
 Tissue Temp: 21.2 (C)  
 Serial#: 837TTK1854  
 Antenna: NAF5088B  
 Test Freq: 935.0000 (MHz)  
 Battery: PMNN4489A  
 Carry Acc: PMLN5838A  
 Audio Acc: PMMN4062A  
 Start Power: 2.91 (W)

## Comments:

Duty Cycle: 1:1, Medium parameters used:  $f = 935$  MHz;  $\sigma = 1.11$  S/m;  $\epsilon_r = 52.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Probe: ES3DV3 - SN3196, Frequency: 935 MHz, ConvF(6.27, 6.27, 6.27); Calibrated: 5/17/2017  
 Electronics: DAE4 Sn684, Calibrated: 5/12/2017

**Below 2 GHz-Rev.2/Ab Scan/1-Area Scan (61x231x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 21.99 V/m; Power Drift = -0.51 dB

Fast SAR: SAR(1 g) = 0.415 W/kg; SAR(10 g) = 0.293 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 0.470 W/kg

**Below 2 GHz-Rev.2/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm,

dy=7.5mm, dz=5mm

Reference Value = 21.99 V/m; Power Drift = -0.61 dB

Peak SAR (extrapolated) = 0.538 W/kg

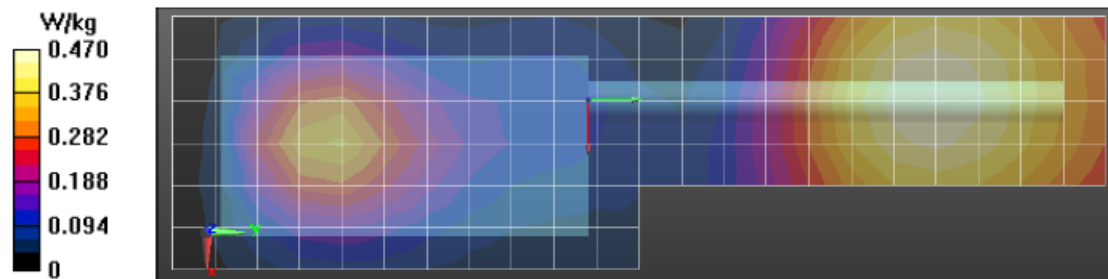
SAR(1 g) = 0.406 W/kg; SAR(10 g) = 0.301 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.453 W/kg

**Below 2 GHz-Rev.2/Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm,

dz=10mm

Maximum value of SAR (measured) = 0.446 W/kg



**Table 28- Assessments at the Body with Body Worn PMLN5840A; 935-940 MHz****Motorola Solutions, Inc. EME Laboratory**

Date/Time: 6/29/2017 12:39:04 PM

Robot#: DASY5-PG-4 | Run# : KKL(FAZ)-AB-170629-07  
 Model#: H92WCF9PW6AN (PMUF1912A)  
 Phantom#: ELI4 1090  
 Tissue Temp: 21.0 (C)  
 Serial#: 837TTK1854  
 Antenna: NAF5088B  
 Test Freq: 935.0000 (MHz)  
 Battery: PMNN4489A  
 Carry Acc: PMLN5840A  
 Audio Acc: PMMN4062A  
 Start Power: 2.86 (W)

## Comments:

Duty Cycle: 1:1, Medium parameters used:  $f = 935$  MHz;  $\sigma = 1.12$  S/m;  $\epsilon_r = 56.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Probe: ES3DV3 - SN3196, , Frequency: 935 MHz, ConvF(6.27, 6.27, 6.27); Calibrated: 5/17/2017  
 Electronics: DAE4 Sn684, Calibrated: 5/12/2017

**Below 2 GHz-Rev.2/Ab Scan/1-Area Scan (61x231x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 17.33 V/m; Power Drift = -0.45 dB

Fast SAR: SAR(1 g) = 0.266 W/kg; SAR(10 g) = 0.188 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 0.301 W/kg

**Below 2 GHz-Rev.2/Ab Scan/3-Zoom Scan (6x6x7)/Cube 0:** Measurement grid: dx=7.5mm,

dy=7.5mm, dz=5mm

Reference Value = 17.33 V/m; Power Drift = -0.60 dB

Peak SAR (extrapolated) = 0.342 W/kg

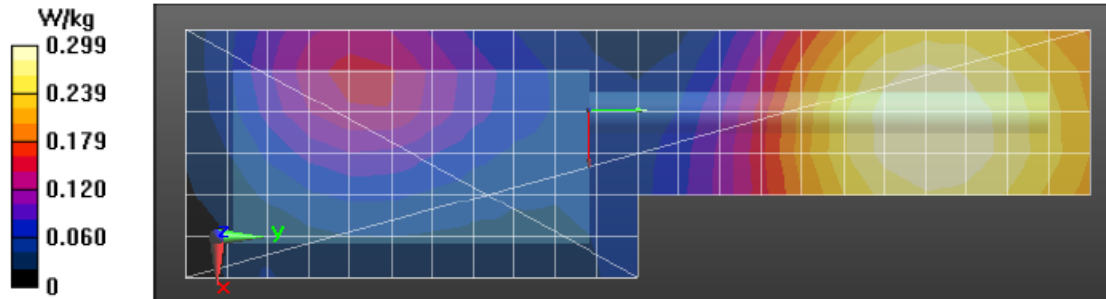
SAR(1 g) = 0.260 W/kg; SAR(10 g) = 0.194 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.289 W/kg

**Below 2 GHz-Rev.2/Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm,

dz=10mm

Maximum value of SAR (measured) = 0.282 W/kg



**Table 29 - Assessments at the Body with Body Worn PMLN5842A; 935-940 MHz****Motorola Solutions, Inc. EME Laboratory**

Date/Time: 6/29/2017 6:06:02 PM

Robot#: DASY5-PG-4 | Run#: KKL(AM)-AB-170629-14  
 Model#: H92WCF9PW6AN (PMUF1912A)  
 Phantom#: ELI4 1090  
 Tissue Temp: 21.0 (C)  
 Serial#: 837TTK1854  
 Antenna: NAF5088B  
 Test Freq: 935.0000 (MHz)  
 Battery: PMNN4493A  
 Carry Acc: PMLN5842A  
 Audio Acc: PMMN4062A  
 Start Power: 2.87 (W)

## Comments:

Duty Cycle: 1:1, Medium parameters used:  $f = 935 \text{ MHz}$ ;  $\sigma = 1.12 \text{ S/m}$ ;  $\epsilon_r = 56.4$ ;  $\rho = 1000 \text{ kg/m}^3$

Probe: ES3DV3 - SN3196, Frequency: 935 MHz, ConvF(6.27, 6.27, 6.27); Calibrated: 5/17/2017

Electronics: DAE4 Sn684, Calibrated: 5/12/2017

**Below 2 GHz-Rev.2/Ab Scan/1-Area Scan (61x231x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Reference Value = 17.10 V/m; Power Drift = -0.58 dB

Fast SAR: SAR(1 g) = 0.262 W/kg; SAR(10 g) = 0.186 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 0.296 W/kg

**Below 2 GHz-Rev.2/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=7.5\text{mm}$ ,  $dy=7.5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 17.10 V/m; Power Drift = -0.71 dB

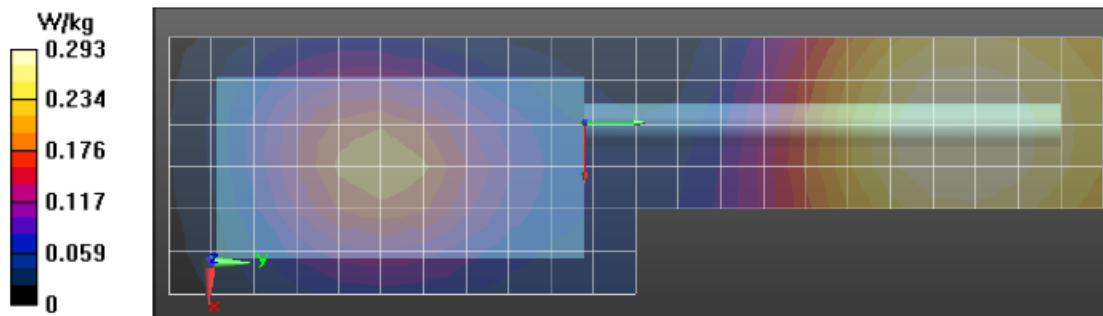
Peak SAR (extrapolated) = 0.331 W/kg

SAR(1 g) = 0.252 W/kg; SAR(10 g) = 0.190 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.280 W/kg

**Below 2 GHz-Rev.2/Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$ ,  $dz=10\text{mm}$

Maximum value of SAR (measured) = 0.277 W/kg



**Table 30 - Assessments at the Body with Body Worn PMLN5844A; 935-940 MHz****Motorola Solutions, Inc. EME Laboratory**

Date/Time: 6/29/2017 7:17:24 PM

Robot#: DASY5-PG-4 | Run#: KKL(AM)-AB-170629-16  
 Model#: H92WCF9PW6AN (PMUF1912A)  
 Phantom#: ELI4 1090  
 Tissue Temp: 21.0 (C)  
 Serial#: 837TTK1854  
 Antenna: NAF5088B  
 Test Freq: 935.0000 (MHz)  
 Battery: NNTN8128B  
 Carry Acc: PMLN5844A  
 Audio Acc: PMMN4062A  
 Start Power: 2.92 (W)

## Comments:

Duty Cycle: 1:1, Medium parameters used:  $f = 935$  MHz;  $\sigma = 1.12$  S/m;  $\epsilon_r = 56.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Probe: ES3DV3 - SN3196, Frequency: 935 MHz, ConvF(6.27, 6.27, 6.27); Calibrated: 5/17/2017

Electronics: DAE4 Sn684, Calibrated: 5/12/2017

**Below 2 GHz-Rev.2/Ab Scan/1-Area Scan (61x231x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 41.24 V/m; Power Drift = -0.33 dB

Fast SAR: SAR(1 g) = 1.44 W/kg; SAR(10 g) = 1 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 1.64 W/kg

**Below 2 GHz-Rev.2/Ab Scan/3-Zoom Scan (6x6x7)/Cube 0:** Measurement grid: dx=7.5mm,

dy=7.5mm, dz=5mm

Reference Value = 41.24 V/m; Power Drift = -0.51 dB

Peak SAR (extrapolated) = 1.97 W/kg

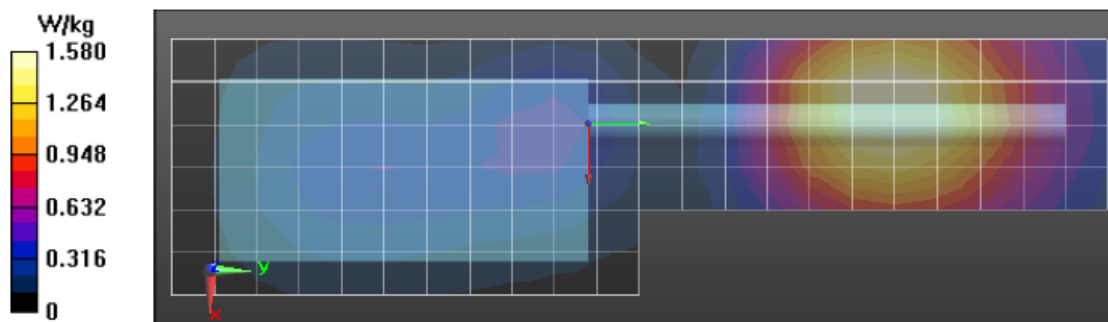
SAR(1 g) = 1.48 W/kg; SAR(10 g) = 1.08 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 1.65 W/kg

**Below 2 GHz-Rev.2/Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm,

dz=10mm

Maximum value of SAR (measured) = 1.60 W/kg





**Table 31 - Assessments at the Body with Body Worn PMLN7008A; 935-940 MHz****Motorola Solutions, Inc. EME Laboratory**

Date/Time: 6/30/2017 10:34:42 AM

Robot#: DASY5-PG-4 | Run#: KKL(FAZ)-AB-170630-05  
 Model#: H92WCF9PW6AN (PMUF1912A)  
 Phantom#: ELI4 1090  
 Tissue Temp: 21.0 (C)  
 Serial#: 837TTK1854  
 Antenna: NAF5088B  
 Test Freq: 935.0000 (MHz)  
 Battery: PMNN4491B  
 Carry Acc: PMLN7008A  
 Audio Acc: PMMN4062A  
 Start Power: 2.87 (W)

Comments:

Duty Cycle: 1:1, Medium parameters used:  $f = 935$  MHz;  $\sigma = 1.12$  S/m;  $\epsilon_r = 56.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Probe: ES3DV3 - SN3196, , Frequency: 935 MHz, ConvF(6.27, 6.27, 6.27); Calibrated: 5/17/2017  
 Electronics: DAE4 Sn684, Calibrated: 5/12/2017

**Below 2 GHz-Rev.2/Ab Scan/1-Area Scan (61x231x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 51.50 V/m; Power Drift = -0.75 dB

Fast SAR: SAR(1 g) = 2.13 W/kg; SAR(10 g) = 1.47 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 2.42 W/kg

**Below 2 GHz-Rev.2/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 51.50 V/m; Power Drift = -0.87 dB

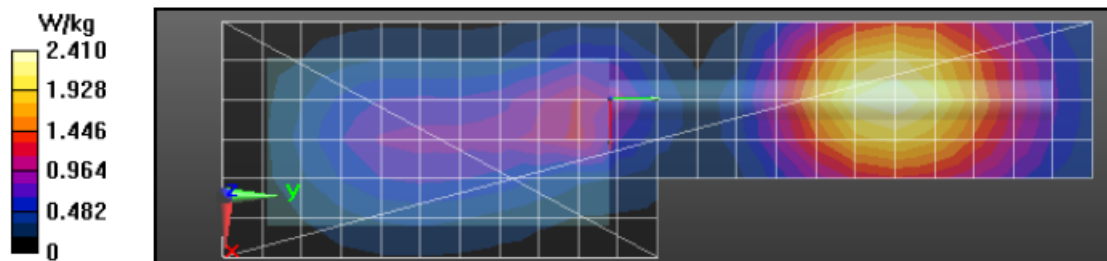
Peak SAR (extrapolated) = 2.75 W/kg

SAR(1 g) = 2.06 W/kg; SAR(10 g) = 1.5 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 2.31 W/kg

**Below 2 GHz-Rev.2/Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 2.29 W/kg



**Table 32 - Assessments at the Body with wireless BT configuration; 935-940 MHz****Motorola Solutions, Inc. EME Laboratory**

Date/Time: 7/3/2017 11:01:31 AM

Robot#: DASY5-PG-4 | Run#: FD(FAZ)-AB-170703-03  
 Model#: H92WCH9PW7AN(PMUF1913A)  
 Phantom#: ELI4 1090  
 Tissue Temp: 21.7 (C)  
 Serial#: 837TTK1983  
 Antenna: NAF5088B  
 Test Freq: 935.0000 (MHz)  
 Battery: PMNN4491B  
 Carry Acc: PMLN4651A  
 Audio Acc: None(BT)  
 Start Power: 2.92(W)

Comments:

Duty Cycle: 1:1, Medium parameters used:  $f = 935$  MHz;  $\sigma = 1.12$  S/m;  $\epsilon_r = 56.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Probe: ES3DV3 - SN3196, Frequency: 935 MHz, ConvF(6.27, 6.27, 6.27); Calibrated: 5/17/2017  
 Electronics: DAE4 Sn684, Calibrated: 5/12/2017

**Below 2 GHz-Rev.2/Ab Scan/1-Area Scan (61x231x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 56.42 V/m; Power Drift = -0.78 dB

Fast SAR: SAR(1 g) = 2.63 W/kg; SAR(10 g) = 1.82 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 2.99 W/kg

**Below 2 GHz-Rev.2/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 56.42 V/m; Power Drift = -0.92 dB

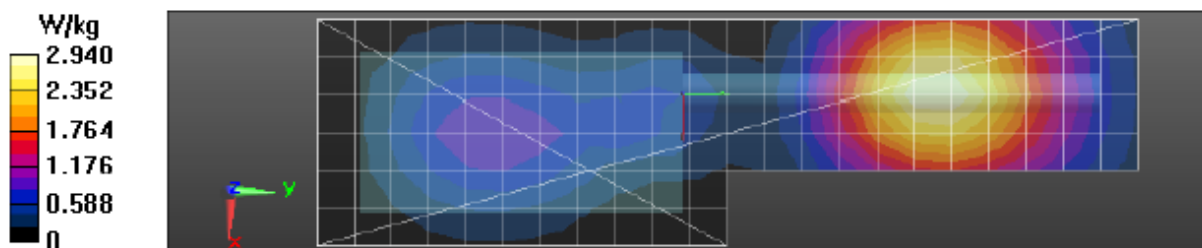
Peak SAR (extrapolated) = 3.37 W/kg

SAR(1 g) = 2.52 W/kg; SAR(10 g) = 1.82 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 2.83 W/kg

**Below 2 GHz-Rev.2/Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 2.77 W/kg



**Table 34 - Assessments at the Body for WLAN 802.11 b/g/n****Motorola Solutions, Inc. EME Laboratory**

Date/Time: 7/6/2017 9:26:44 AM

Robot#: DASY5-PG-04 | Run#: AZ(AM)-AB-170706-02#  
 Model#: H92WCF9PW6AN (PMUF1912A)  
 Phantom#: ELI4 1028  
 Tissue Temp: 21.7 (C)  
 Serial#: 837TTK1882  
 Antenna: AN000151A01 WiFi Ant  
 Test Freq: 2437.000 (MHz)  
 Battery: PMNN4491B  
 Carry Acc: PMLN4651A  
 Audio Acc: None  
 Start Power: 0.0208 (W)

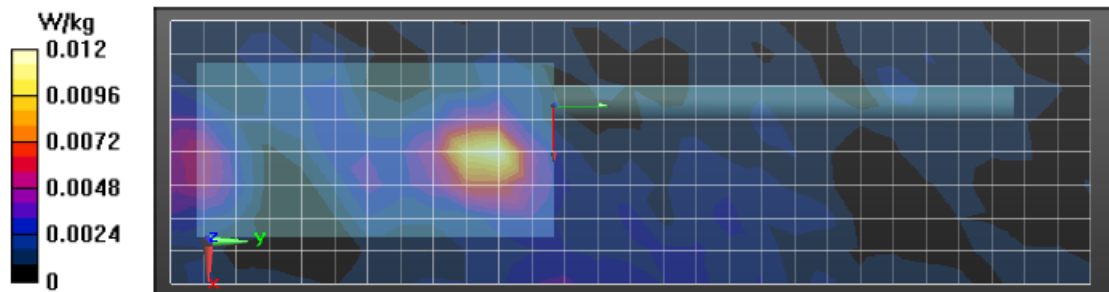
## Comments:

Duty Cycle: 1:1.42561, Medium parameters used:  $f = 2437$  MHz;  $\sigma = 1.99$  S/m;  $\epsilon_r = 48$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Probe: ES3DV3 - SN3196, Frequency: 2437 MHz, ConvF(4.58, 4.58, 4.58); Calibrated: 5/17/2017  
 Electronics: DAE4 Sn684, Calibrated: 5/12/2017

**2-3 GHz-Rev.2/Ab Scan/1-Area Scan (81x281x1):** Interpolated grid:  $dx=1.200$  mm,  $dy=1.200$  mm  
 Reference Value = 1.471 V/m; Power Drift = 0.38 dB  
 Fast SAR: SAR(1 g) = 0.012 W/kg; SAR(10 g) = 0.00485 W/kg (SAR corrected for target medium)  
 Maximum value of SAR (interpolated) = 0.0226 W/kg

**2-3 GHz-Rev.2/Ab Scan/3-Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm  
 Reference Value = 1.471 V/m; Power Drift = -2.55 dB  
 Peak SAR (extrapolated) = 0.0180 W/kg  
 SAR(1 g) = 0.00952 W/kg; SAR(10 g) = 0.00437 W/kg (SAR corrected for target medium)  
 Maximum value of SAR (measured) = 0.0121 W/kg

**2-3 GHz-Rev.2/Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid:  $dx=20$ mm,  $dy=20$ mm,  $dz=10$ mm  
 Maximum value of SAR (measured) = 0.0128 W/kg



**Table 36- Assessment at the Face; 896-901 MHz****Motorola Solutions, Inc. EME Laboratory**

Date/Time: 6/22/2017 10:51:13 AM

Robot#: DASY5-PG-4 | Run#: FD(AM)-FACE-170622-10  
 Model#: H92WCF9PW6AN (PMUF1912A)  
 Phantom#: ELI4 1037  
 Tissue Temp: 21.3 (C)  
 Serial#: 837TTK1854  
 Antenna: NAF5088B  
 Test Freq: 896.0000 (MHz)  
 Battery: PMNN4489A  
 Carry Acc: @front  
 Audio Acc: None  
 Start Power: 2.85 (W)

## Comments:

Duty Cycle: 1:1, Medium parameters used:  $f = 896$  MHz;  $\sigma = 0.97$  S/m;  $\epsilon_r = 40.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Probe: ES3DV3 - SN3196, Frequency: 896 MHz, ConvF(6.45, 6.45, 6.45); Calibrated: 5/17/2017  
 Electronics: DAE4 Sn684, Calibrated: 5/12/2017

**Below 2 GHz-Rev.2/Face Scan/1-Area Scan (81x231x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 54.54 V/m; Power Drift = -0.51 dB

Fast SAR: SAR(1 g) = 2.24 W/kg; SAR(10 g) = 1.56 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 2.54 W/kg

**Below 2 GHz-Rev.2/Face Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 54.54 V/m; Power Drift = -0.63 dB

Peak SAR (extrapolated) = 2.88 W/kg

SAR(1 g) = 2.13 W/kg; SAR(10 g) = 1.53 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 2.40 W/kg

**Below 2 GHz-Rev.2/Face Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 2.36 W/kg

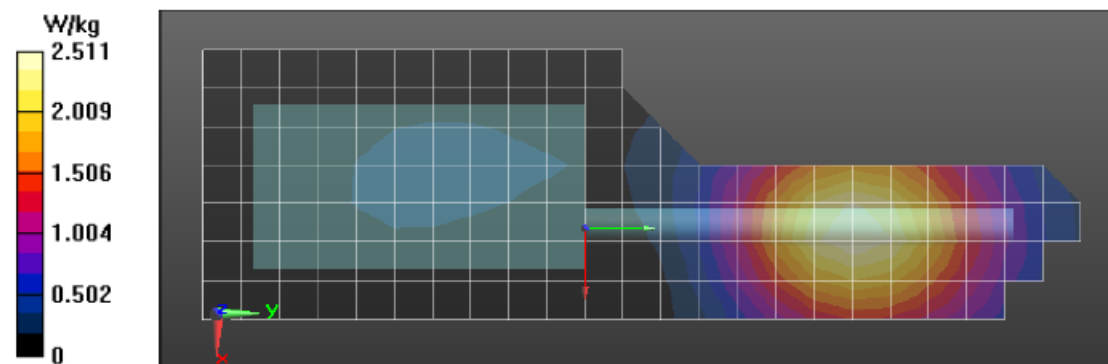


Table 38 - Assessment at the Face; 935-940 MHz

Robot#: DASY5-PG-4 | Run#: TLC(FAZ)-FACE-170622-17  
Model#: H92WCF9PW6AN (PMUF1912A)  
Phantom#: ELI4 1037  
Tissue Temp: 21.4 (C)  
Serial#: 837TTK1854  
Antenna: NAF5088B  
Test Freq: 935.0000 (MHz)  
Battery: PMNN4491B  
Carry Acc: @front  
Audio Acc: None  
Start Power: 2.90 (W)

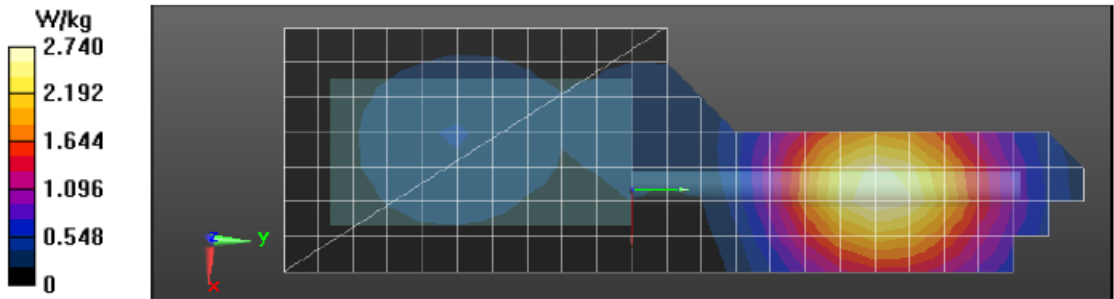
Comments:

Duty Cycle: 1:1, Medium parameters used:  $f = 935 \text{ MHz}$ ;  $\sigma = 1.01 \text{ S/m}$ ;  $\epsilon_r = 39.7$ ;  $\rho = 1000 \text{ kg/m}^3$   
Probe: ES3DV3 - SN3196, Frequency: 935 MHz, ConvF(6.45, 6.45, 6.45); Calibrated: 5/17/2017  
Electronics: DAE4 Sn684, Calibrated: 5/12/2017

**Below 2 GHz-Rev.2/Face Scan/1-Area Scan (81x231x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$   
Reference Value = 56.68 V/m; Power Drift = -0.65 dB  
Fast SAR: SAR(1 g) = 2.46 W/kg; SAR(10 g) = 1.7 W/kg (SAR corrected for target medium)  
Maximum value of SAR (interpolated) = 2.80 W/kg

**Below 2 GHz-Rev.2/Face Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=7.5\text{mm}$ ,  $dy=7.5\text{mm}$ ,  $dz=5\text{mm}$   
Reference Value = 56.68 V/m; Power Drift = -0.75 dB  
Peak SAR (extrapolated) = 3.17 W/kg  
SAR(1 g) = 2.31 W/kg; SAR(10 g) = 1.64 W/kg (SAR corrected for target medium)  
Maximum value of SAR (measured) = 2.61 W/kg

**Below 2 GHz-Rev.2/Face Scan/4-Z-Axis Scan (1x1x17):** Measurement grid:  $dx=20\text{mm}$ ,  $dy=20\text{mm}$ ,  $dz=10\text{mm}$   
Maximum value of SAR (measured) = 2.59 W/kg



**Table 40 - Assessment at the Face for WLAN 802.11 b/g/n****Motorola Solutions, Inc. EME Laboratory**

Date/Time: 7/8/2017 7:22:24 PM

Robot#: DASY5-PG-4 | Run#: ZR(AM)-FACE-170708-09  
 Model#: H92WCF9PW6AN (PMUF1912A)  
 Phantom#: ELI5 1147  
 Tissue Temp: 20.5 (C)  
 Serial#: 837TTK1882  
 Antenna: AN000151A01 WiFi Ant  
 Test Freq: 2437.000 (MHz)  
 Battery: PMNN4489A  
 Carry Acc: 2.5cm @ Front  
 Audio Acc: None  
 Start Power: 0.0209 (W)

## Comments:

Duty Cycle: 1:1.42561, Medium parameters used:  $f = 2437$  MHz;  $\sigma = 1.85$  S/m;  $\epsilon_r = 35.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Probe: ES3DV3 - SN3196, , Frequency: 2437 MHz, ConvF(4.74, 4.74, 4.74); Calibrated: 5/17/2017  
 Electronics: DAE4 Sn684, Calibrated: 5/12/2017

**2-3 GHz-Rev.2/Face Scan/1-Area Scan (81x281x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Reference Value = 3.765 V/m; Power Drift = 0.25 dB

Fast SAR: SAR(1 g) = 0.026 W/kg; SAR(10 g) = 0.015 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 0.0323 W/kg

**2-3 GHz-Rev.2/Face Scan/3-Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.765 V/m; Power Drift = -0.07 dB

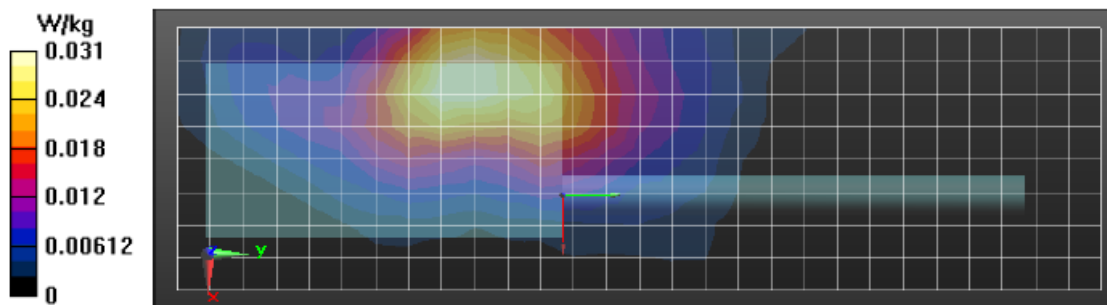
Peak SAR (extrapolated) = 0.0480 W/kg

SAR(1 g) = 0.026 W/kg; SAR(10 g) = 0.015 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 0.0320 W/kg

**2-3 GHz-Rev.2/Face Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 0.0316 W/kg





## **Appendix G**

### **Shortened Scan of Highest SAR configuration**

**Motorola Solutions, Inc. EME Laboratory**

Date/Time: 6/30/2017 9:25:54 PM

Robot#: DASY5-PG-4 | Run#: KKL(AM)-AB-170630-13  
 Model#: H92WCF9PW6AN (PMUF1912A)  
 Phantom#: ELI4 1090  
 Tissue Temp: 21.4 (C)  
 Serial#: 837TTK1854  
 Antenna: NAF5088B  
 Test Freq: 896.0000 (MHz)  
 Battery: PMNN4491B  
 Carry Acc: PMLN4651A  
 Audio Acc: None(BT)  
 Start Power: 2.87 (W)

## Comments:

Duty Cycle: 1:1, Medium parameters used:  $f = 896$  MHz;  $\sigma = 1.08$  S/m;  $\epsilon_r = 56.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Probe: ES3DV3 - SN3196, Frequency: 896 MHz, ConvF(6.27, 6.27, 6.27); Calibrated: 5/17/2017

Electronics: DAE4 Sn684, Calibrated: 5/12/2017

**Below 2 GHz-Rev.2/Ab Scan/1-Area Scan (61x231x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 55.61 V/m; Power Drift = -0.60 dB

Fast SAR: SAR(1 g) = 2.58 W/kg; SAR(10 g) = 1.79 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 2.94 W/kg

**Below 2 GHz-Rev.2/Ab Scan/2-Volume 2D Scan (41x41x1):** Interpolated grid: dx=0.7500 mm, dy=0.7500 mm, dz=1.000 mm

Reference Value = 55.61 V/m; Power Drift = -0.66 dB

Fast SAR: SAR(1 g) = 2.51 W/kg; SAR(10 g) = 1.77 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 2.82 W/kg

**Below 2 GHz-Rev.2/Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 2.78 W/kg

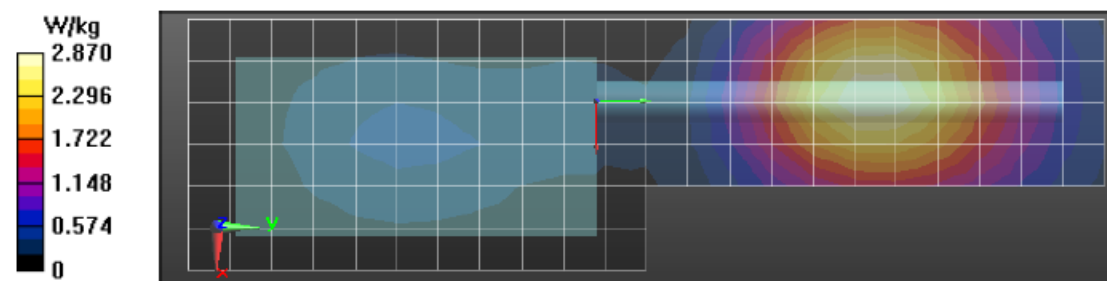
**Below 2 GHz-Rev.2/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 56.47 V/m; Power Drift = -0.32 dB

Peak SAR (extrapolated) = 3.68 W/kg

SAR(1 g) = 2.77 W/kg; SAR(10 g) = 2 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 3.11 W/kg



Shortened scan reflects highest SAR producing configuration and is compared to the full scan.

| Scan Description        | Referenced Table | Test Time (min.) | SAR 1g (W/kg) | SAR 10g (W/kg) |
|-------------------------|------------------|------------------|---------------|----------------|
| Shorten scan (zoom)     | 42               | 7                | 1.56          | 1.13           |
| Full scan (area & zoom) | 24               | 30               | 1.72          | 1.24           |

## **Appendix H**

### **DUT Test Position Photos**

**Photos available in Exhibit 7B**

## **Appendix I**

### **DUT, Body worn and audio accessories Photos**

**Photos available in Exhibit 7B**