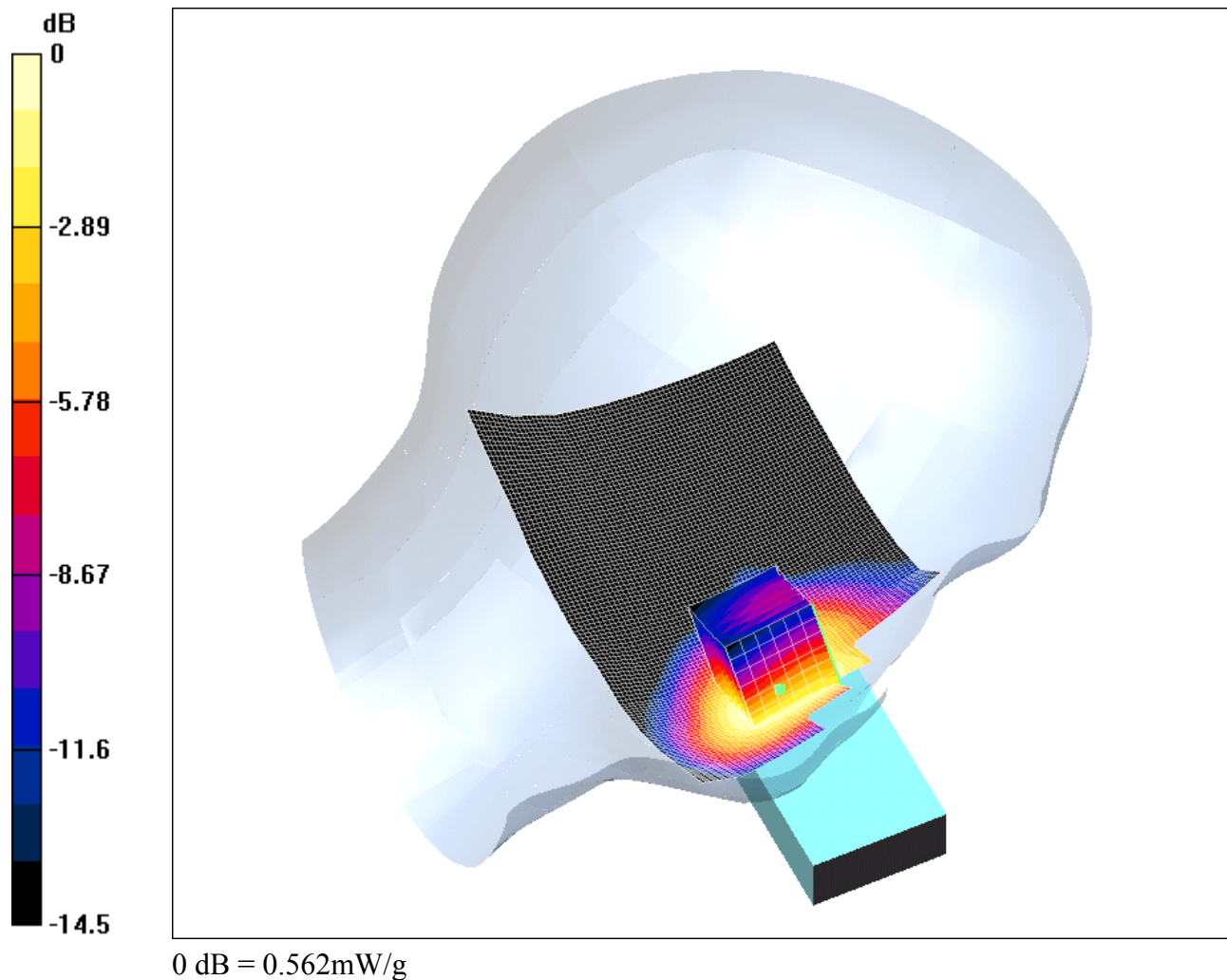


Date: 15/12/03

45446/JD06/023

Test Laboratory: RADIO FREQUENCY INVESTIGATION LTD.

**DUT: S551; Type: S551; Serial: 004400252898455**

Communication System: DCS 1900; Frequency: 1850.2 MHz; Duty Cycle: 1:8.3

Medium: 1900MHz HSL ( $\sigma = 1.39448$  mho/m,  $\epsilon_r = 39.9494$ ,  $\rho = 1000$  kg/m<sup>3</sup>)

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1528; ConvF(5, 5, 5); Calibrated: 29/07/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn450; Calibrated: 19/05/2003
- Phantom: SAM 12b; Type: SAM 4.0; Serial: TP:1197
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

**Touch position - Low/Area Scan 2 (71x131x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

Reference Value =  $1.68\text{ V/m}$

Power Drift =  $-0.003\text{ dB}$

Maximum value of SAR =  $0.588\text{ mW/g}$

**Touch position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) =  $0.732\text{ W/kg}$

SAR(1 g) =  $0.523\text{ mW/g}$ ; SAR(10 g) =  $0.341\text{ mW/g}$

Reference Value =  $1.68\text{ V/m}$

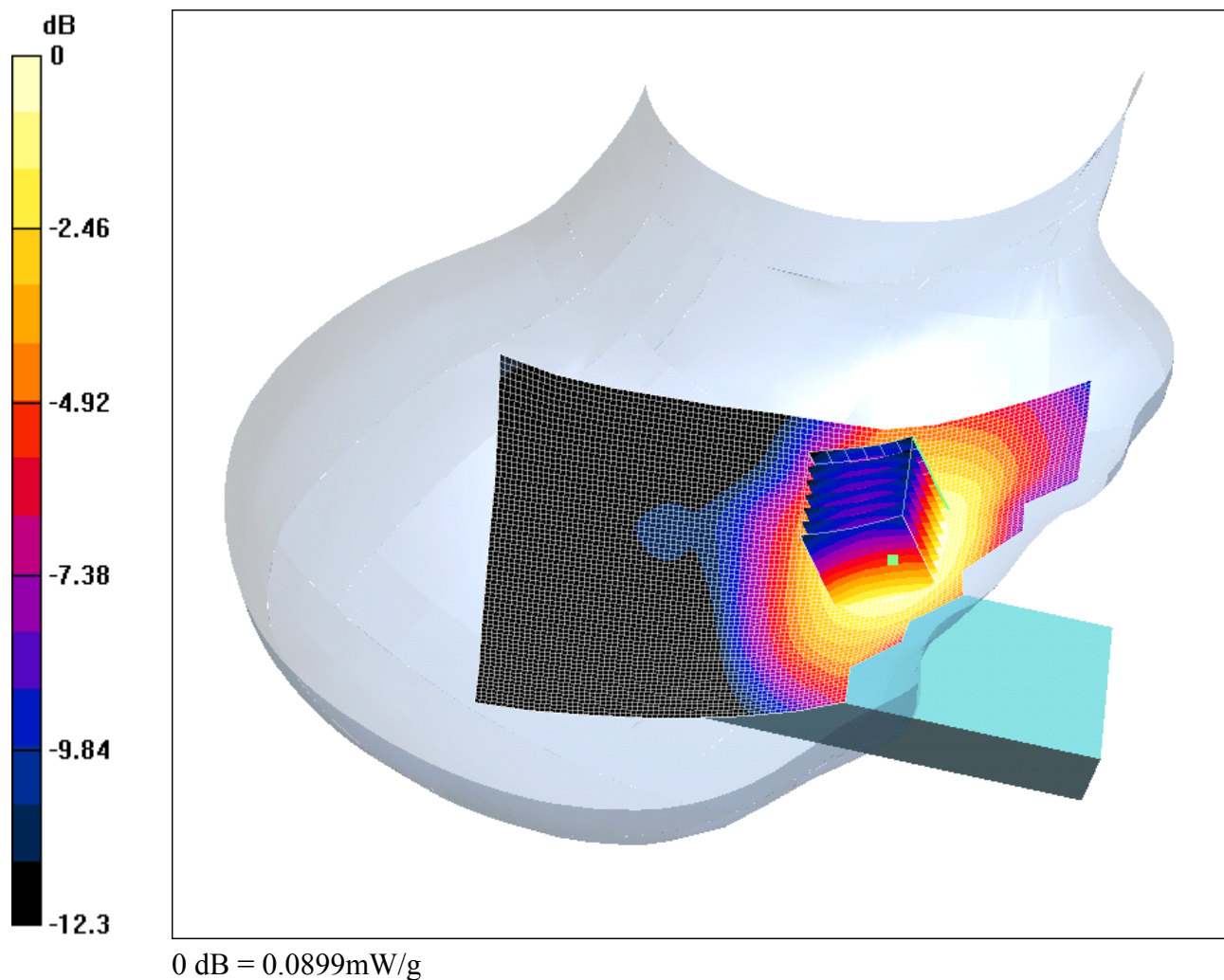
Power Drift =  $-0.003\text{ dB}$

Maximum value of SAR =  $0.562\text{ mW/g}$

Date: 15/12/03

45446/JD06/022

Test Laboratory: RADIO FREQUENCY INVESTIGATION LTD.

**DUT: S551; Type: S551; Serial: 004400252898455**

Communication System: DCS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:8.3

Medium: 1900MHz HSL ( $\sigma = 1.41613$  mho/m,  $\epsilon_r = 39.8763$ ,  $\rho = 1000$  kg/m<sup>3</sup>)

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1528; ConvF(5, 5, 5); Calibrated: 29/07/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn450; Calibrated: 19/05/2003
- Phantom: SAM 12b; Type: SAM 4.0; Serial: TP:1197
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

**Tilt position - Middle/Area Scan 2 (71x131x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 1.95 V/m

Power Drift = 0.04 dB

Maximum value of SAR = 0.0897 mW/g

**Tilt position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 0.118 W/kg

SAR(1 g) = 0.084 mW/g; SAR(10 g) = 0.0555 mW/g

Reference Value = 1.95 V/m

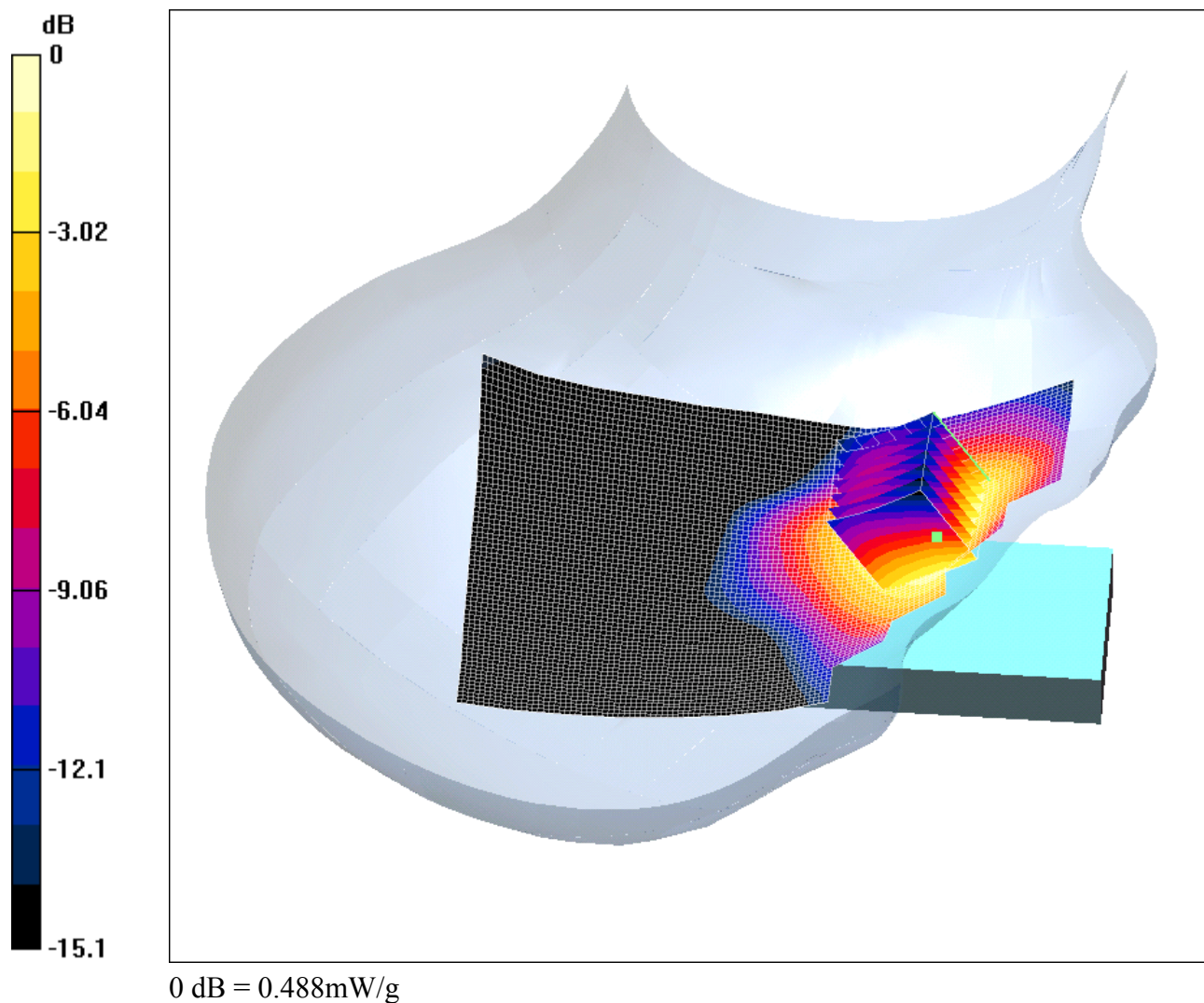
Power Drift = 0.04 dB

Maximum value of SAR = 0.0899 mW/g

Date: 15/12/03

45446/JD06/21

Test Laboratory: RADIO FREQUENCY INVESTIGATION LTD.

**DUT: S551; Type: S551; Serial: 004400252898455**

Communication System: DCS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:8.3

Medium: 1900MHz HSL ( $\sigma = 1.41613$  mho/m,  $\epsilon_r = 39.8763$ ,  $\rho = 1000$  kg/m<sup>3</sup>)

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1528; ConvF(5, 5, 5); Calibrated: 29/07/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn450; Calibrated: 19/05/2003
- Phantom: SAM 12b; Type: SAM 4.0; Serial: TP:1197

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

**Touch position - Middle/Area Scan 2 (71x131x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 2.08 V/m

Power Drift = -0.03 dB

Maximum value of SAR = 0.501 mW/g

**Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 0.616 W/kg

SAR(1 g) = 0.455 mW/g; SAR(10 g) = 0.283 mW/g

Reference Value = 2.08 V/m

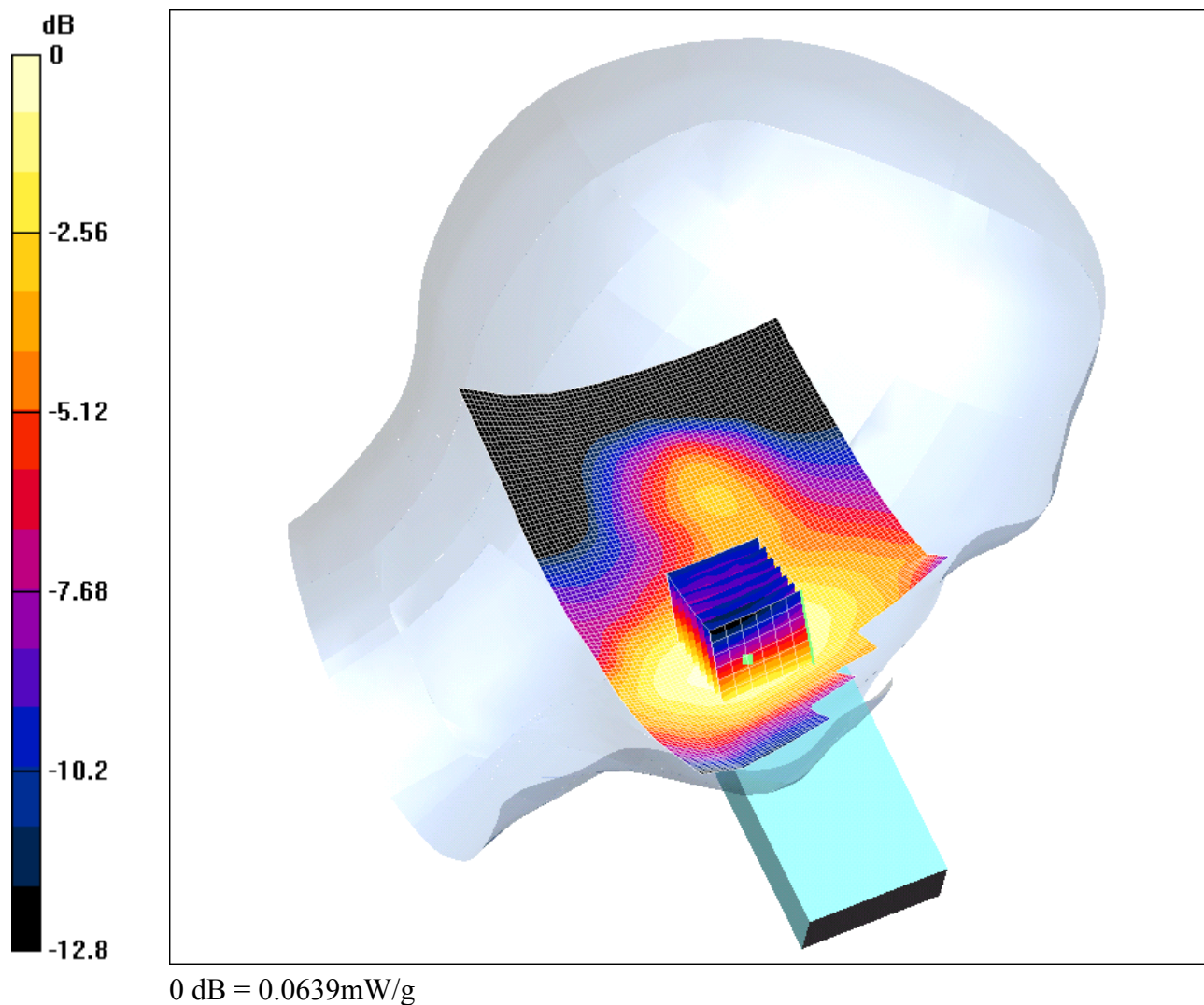
Power Drift = -0.03 dB

Maximum value of SAR = 0.488 mW/g

Date: 15/12/03

45446/JD06/020

Test Laboratory: RADIO FREQUENCY INVESTIGATION LTD.

**DUT: S551; Type: S551; Serial: 004400252898455**

Communication System: DCS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:8.3

Medium: 1900MHz HSL ( $\sigma = 1.41613$  mho/m,  $\epsilon_r = 39.8763$ ,  $\rho = 1000$  kg/m<sup>3</sup>)

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1528; ConvF(5, 5, 5); Calibrated: 29/07/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn450; Calibrated: 19/05/2003
- Phantom: SAM 12b; Type: SAM 4.0; Serial: TP:1197

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

**Tilt position - Middle/Area Scan 2 (71x131x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 4.21 V/m

Power Drift = -0.1 dB

Maximum value of SAR = 0.0611 mW/g

**Tilt position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 0.0837 W/kg

SAR(1 g) = 0.0589 mW/g; SAR(10 g) = 0.0388 mW/g

Reference Value = 4.21 V/m

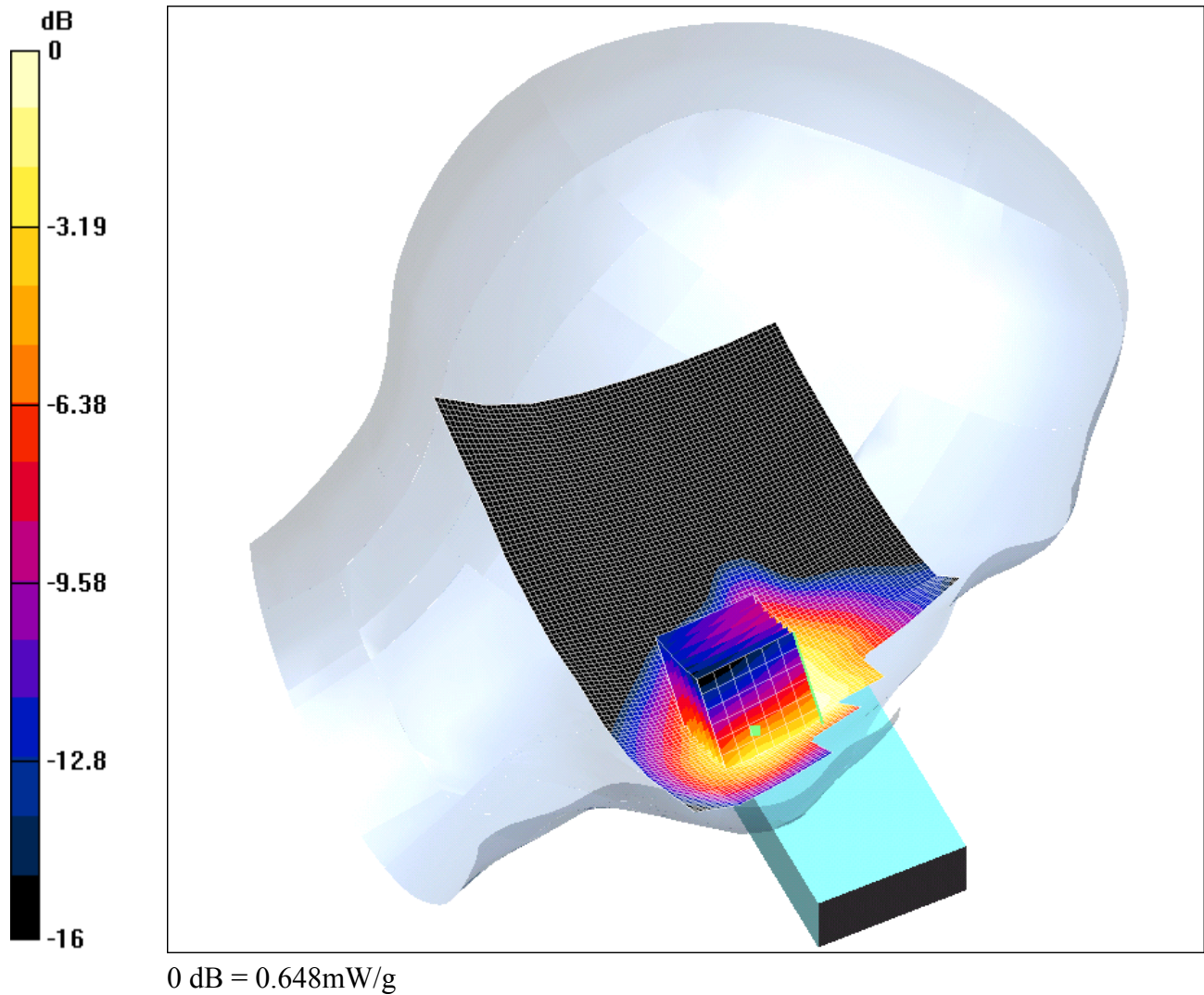
Power Drift = -0.1 dB

Maximum value of SAR = 0.0639 mW/g

Date: 15/12/03

45446/JD06/019

Test Laboratory: RADIO FREQUENCY INVESTIGATION LTD.

**DUT: S551; Type: S551; Serial: 004400252898455**

Communication System: DCS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:8.3

Medium: 1900MHz HSL ( $\sigma = 1.41613$  mho/m,  $\epsilon_r = 39.8763$ ,  $\rho = 1000$  kg/m<sup>3</sup>)

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1528; ConvF(5, 5, 5); Calibrated: 29/07/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn450; Calibrated: 19/05/2003
- Phantom: SAM 12b; Type: SAM 4.0; Serial: TP:1197

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

**Touch position - Middle/Area Scan 2 (71x131x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 2.04 V/m

Power Drift = -0.03 dB

Maximum value of SAR = 0.667 mW/g

**Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 0.892 W/kg

SAR(1 g) = 0.602 mW/g; SAR(10 g) = 0.379 mW/g

Reference Value = 2.04 V/m

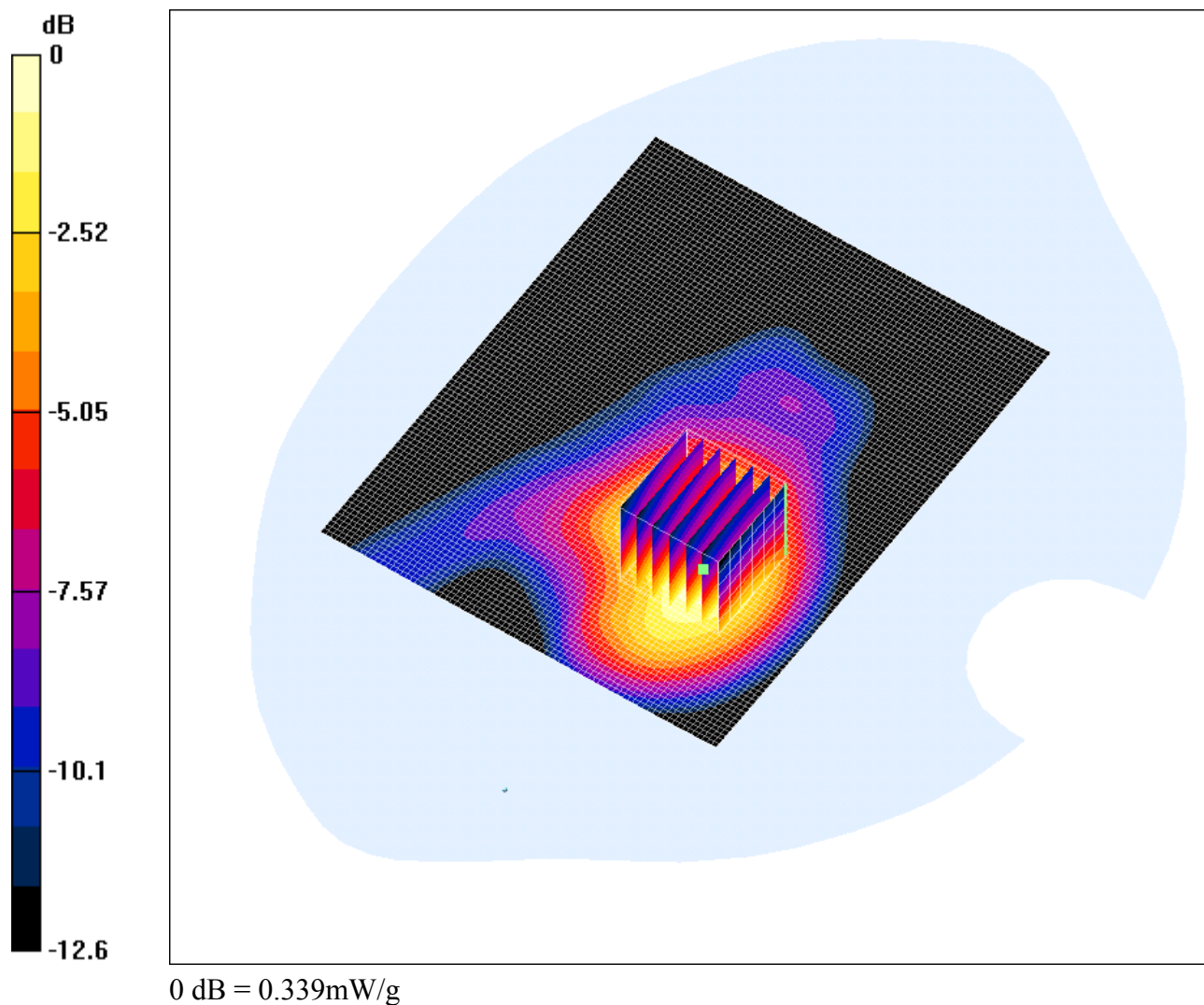
Power Drift = -0.03 dB

Maximum value of SAR = 0.648 mW/g

Date: 14/12/03

45446/JD06/018

Test Laboratory: RADIO FREQUENCY INVESTIGATION LTD.

**DUT: S551; Type: S551; Serial: 004400252898455**

Communication System: 850 MHz; Frequency: 848.8 MHz; Duty Cycle: 1:8.3

Medium: 850MHz MSL ( $\sigma = 0.934511$  mho/m,  $\epsilon_r = 53.2597$ ,  $\rho = 1000$  kg/m<sup>3</sup>)

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1528; ConvF(6.3, 6.3, 6.3); Calibrated: 29/07/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn450; Calibrated: 19/05/2003
- Phantom: SAM 12b; Type: SAM 4.0; Serial: TP:1197

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

**Rear of Handset in Case with Clip on Hook and PHF (18mm Distance) High/Area Scan (101x81x1):**

Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

Reference Value =  $11.7\text{ V/m}$

Power Drift =  $-0.1\text{ dB}$

Maximum value of SAR =  $0.347\text{ mW/g}$

**Rear of Handset in Case with Clip on Hook and PHF (18mm Distance) High/Zoom Scan (7x7x7)**

**(7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) =  $0.477\text{ W/kg}$

SAR(1 g) =  $0.31\text{ mW/g}$ ; SAR(10 g) =  $0.195\text{ mW/g}$

Reference Value =  $11.7\text{ V/m}$

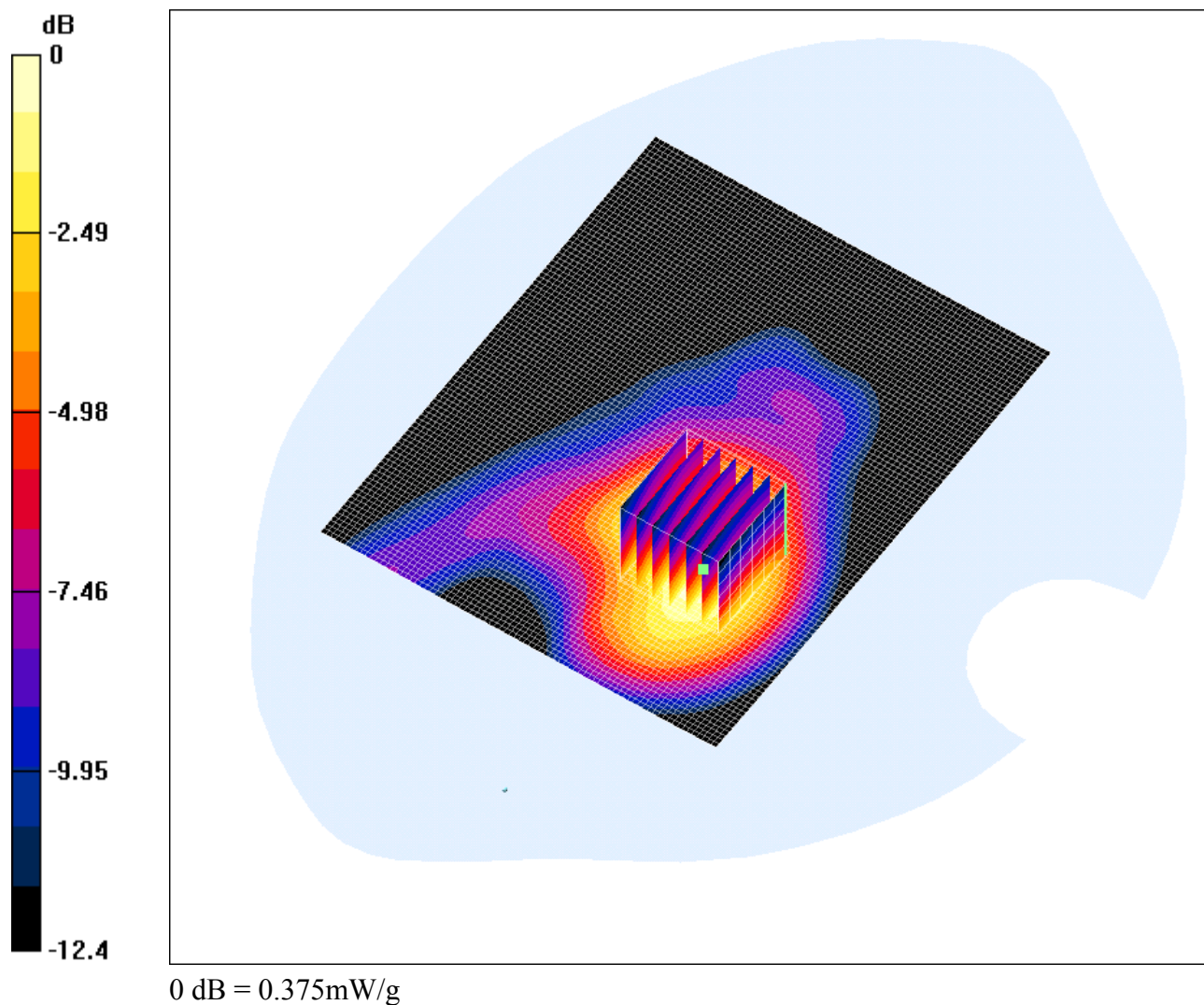
Power Drift =  $-0.1\text{ dB}$

Maximum value of SAR =  $0.339\text{ mW/g}$

Date: 14/12/03

45446/JD06/017

Test Laboratory: RADIO FREQUENCY INVESTIGATION LTD.

**DUT: S551; Type: S551; Serial: 004400252898455**

Communication System: 850 MHz; Frequency: 824.2 MHz; Duty Cycle: 1:8.3

Medium: 850MHz MSL ( $\sigma = 0.905096$  mho/m,  $\epsilon_r = 53.5423$ ,  $\rho = 1000$  kg/m<sup>3</sup>)

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1528; ConvF(6.3, 6.3, 6.3); Calibrated: 29/07/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn450; Calibrated: 19/05/2003
- Phantom: SAM 12b; Type: SAM 4.0; Serial: TP:1197

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

**Rear of Handset in Case with Clip on Hook and PHF (18mm Distance) Low/Area Scan (101x81x1):**

Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

Reference Value =  $12.9\text{ V/m}$

Power Drift =  $-0.1\text{ dB}$

Maximum value of SAR =  $0.373\text{ mW/g}$

**Rear of Handset in Case with Clip on Hook and PHF (18mm Distance) Low/Zoom Scan (7x7x7)**

**(7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) =  $0.527\text{ W/kg}$

SAR(1 g) =  $0.347\text{ mW/g}$ ; SAR(10 g) =  $0.219\text{ mW/g}$

Reference Value =  $12.9\text{ V/m}$

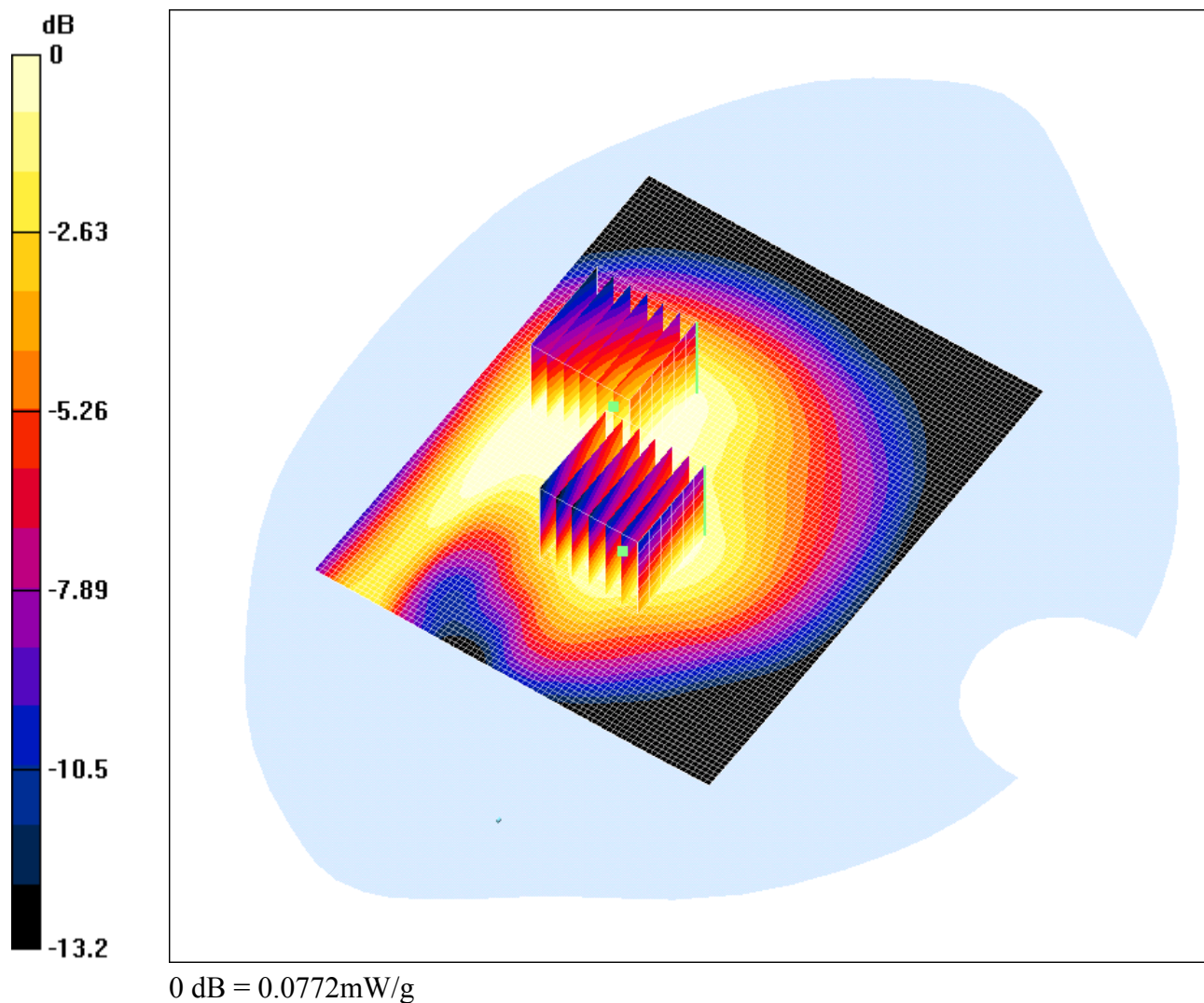
Power Drift =  $-0.1\text{ dB}$

Maximum value of SAR =  $0.375\text{ mW/g}$

Date: 14/12/03

45446/JD06/016

Test Laboratory: RADIO FREQUENCY INVESTIGATION LTD.

**DUT: S551; Type: S551; Serial: 004400252898455**

Communication System: 850 MHz; Frequency: 836.4 MHz; Duty Cycle: 1:8.3

Medium: 850MHz MSL ( $\sigma = 0.925849$  mho/m,  $\epsilon_r = 53.3367$ ,  $\rho = 1000$  kg/m<sup>3</sup>)

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1528; ConvF(6.3, 6.3, 6.3); Calibrated: 29/07/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn450; Calibrated: 19/05/2003
- Phantom: SAM 12b; Type: SAM 4.0; Serial: TP:1197

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

**Display of Closed Handset with PHF (15mm Distance)/Area Scan (101x81x1):** Measurement grid:

dx=15mm, dy=15mm

Reference Value = 7.52 V/m

Power Drift = -0.04 dB

Maximum value of SAR = 0.096 mW/g

**Display of Closed Handset with PHF (15mm Distance)/Zoom Scan (7x7x7) (7x7x7)/Cube 0:**

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

Peak SAR (extrapolated) = 0.302 W/kg

SAR(1 g) = 0.109 mW/g; SAR(10 g) = 0.0633 mW/g

Reference Value = 7.52 V/m

Power Drift = -0.04 dB

Maximum value of SAR = 0.118 mW/g

**Display of Closed Handset with PHF (15mm Distance)/Zoom Scan (7x7x7) (7x7x7)/Cube 1:**

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

Peak SAR (extrapolated) = 0.103 W/kg

SAR(1 g) = 0.0724 mW/g; SAR(10 g) = 0.0484 mW/g

Reference Value = 7.52 V/m

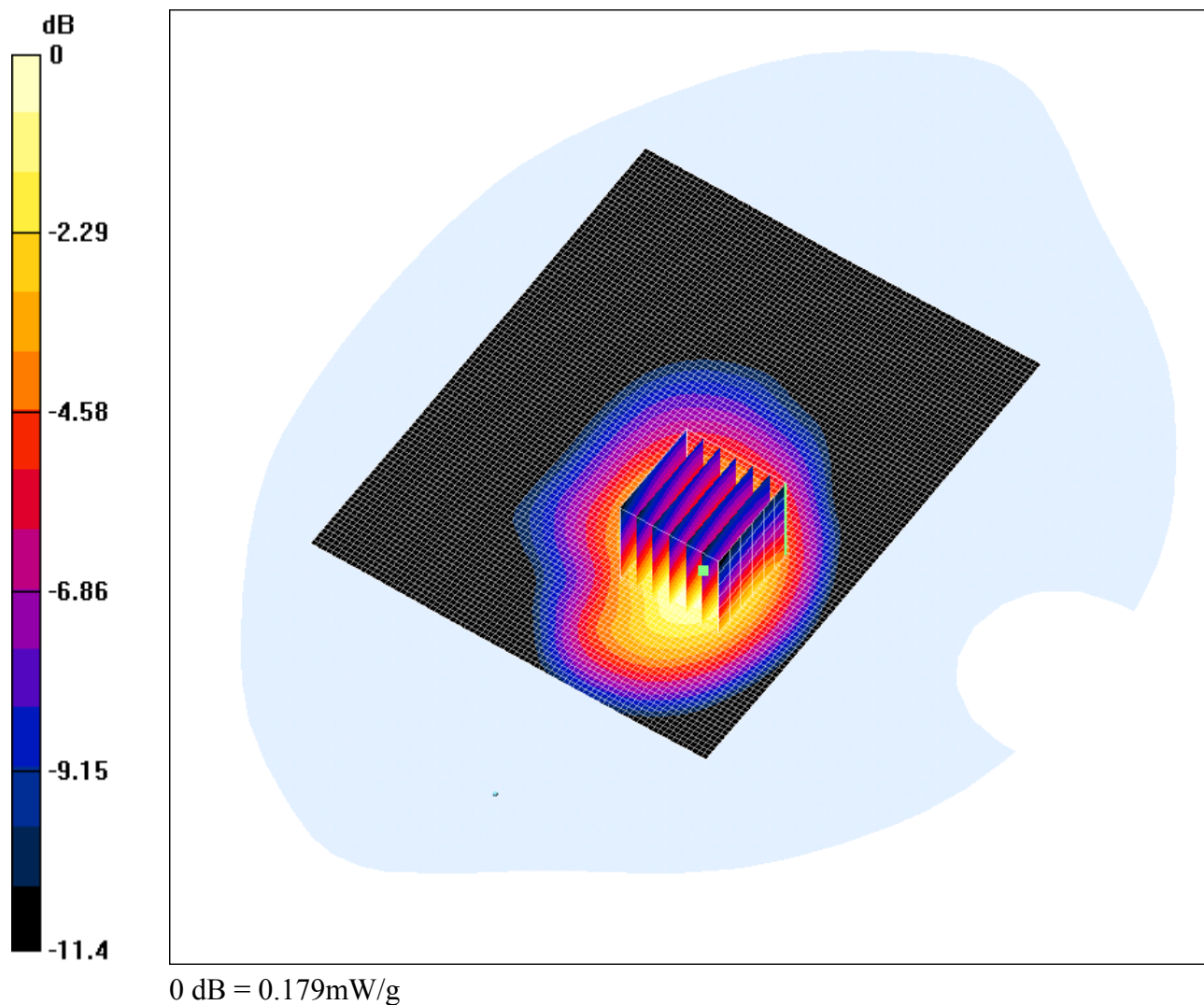
Power Drift = -0.04 dB

Maximum value of SAR = 0.0772 mW/g

Date: 14/12/03

45446/JD06/015

Test Laboratory: RADIO FREQUENCY INVESTIGATION LTD.

**DUT: S551; Type: S551; Serial: 004400252898455**

Communication System: 850 MHz; Frequency: 836.4 MHz; Duty Cycle: 1:8.3

Medium: 850MHz MSL ( $\sigma = 0.925849$  mho/m,  $\epsilon_r = 53.3367$ ,  $\rho = 1000$  kg/m<sup>3</sup>)

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1528; ConvF(6.3, 6.3, 6.3); Calibrated: 29/07/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn450; Calibrated: 19/05/2003
- Phantom: SAM 12b; Type: SAM 4.0; Serial: TP:1197

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

**Rear of Closed Handset with PHF (15mm Distance)/Area Scan (101x81x1):** Measurement grid:

dx=15mm, dy=15mm

Reference Value = 10.5 V/m

Power Drift = -0.08 dB

Maximum value of SAR = 0.181 mW/g

**Rear of Closed Handset with PHF (15mm Distance)/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 0.24 W/kg

SAR(1 g) = 0.168 mW/g; SAR(10 g) = 0.109 mW/g

Reference Value = 10.5 V/m

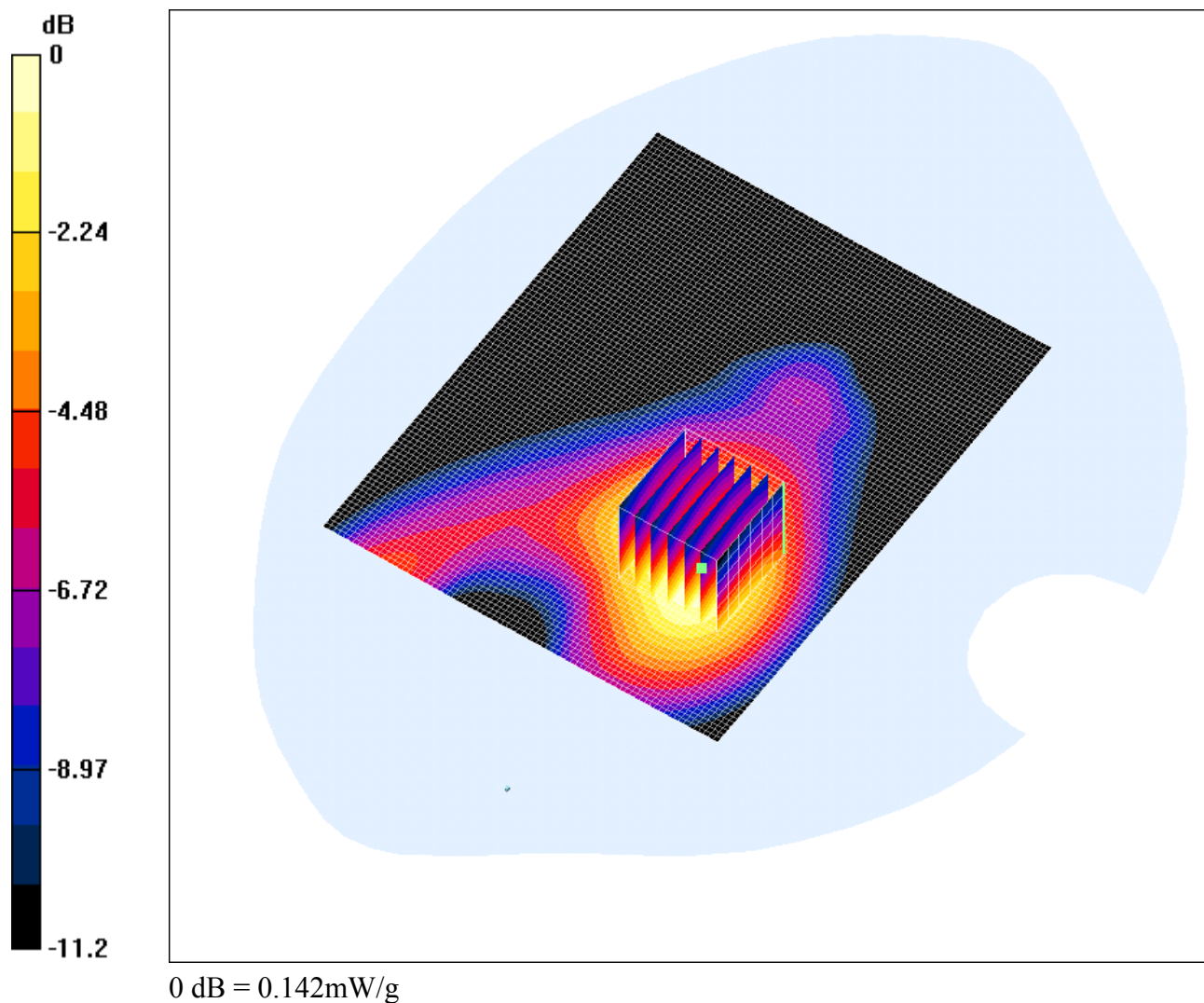
Power Drift = -0.08 dB

Maximum value of SAR = 0.179 mW/g

Date: 14/12/03

45446/JD014

Test Laboratory: RADIO FREQUENCY INVESTIGATION LTD.

**DUT: S551; Type: S551; Serial: 004400252898455**

Communication System: 850 MHz; Frequency: 836.4 MHz; Duty Cycle: 1:8.3

Medium: 850MHz MSL ( $\sigma = 0.925849$  mho/m,  $\epsilon_r = 53.3367$ ,  $\rho = 1000$  kg/m<sup>3</sup>)

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1528; ConvF(6.3, 6.3, 6.3); Calibrated: 29/07/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn450; Calibrated: 19/05/2003
- Phantom: SAM 12b; Type: SAM 4.0; Serial: TP:1197

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

**Rear of Handset in Case with Clip on Hook, Accessory Strap and PHF (20mm Distance)/Area Scan (101x81x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 7.83 V/m

Power Drift = -0.09 dB

Maximum value of SAR = 0.143 mW/g

**Rear of Handset in Case with Clip on Hook, Accessory Strap and PHF (20mm Distance)/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 0.192 W/kg

SAR(1 g) = 0.134 mW/g; SAR(10 g) = 0.0881 mW/g

Reference Value = 7.83 V/m

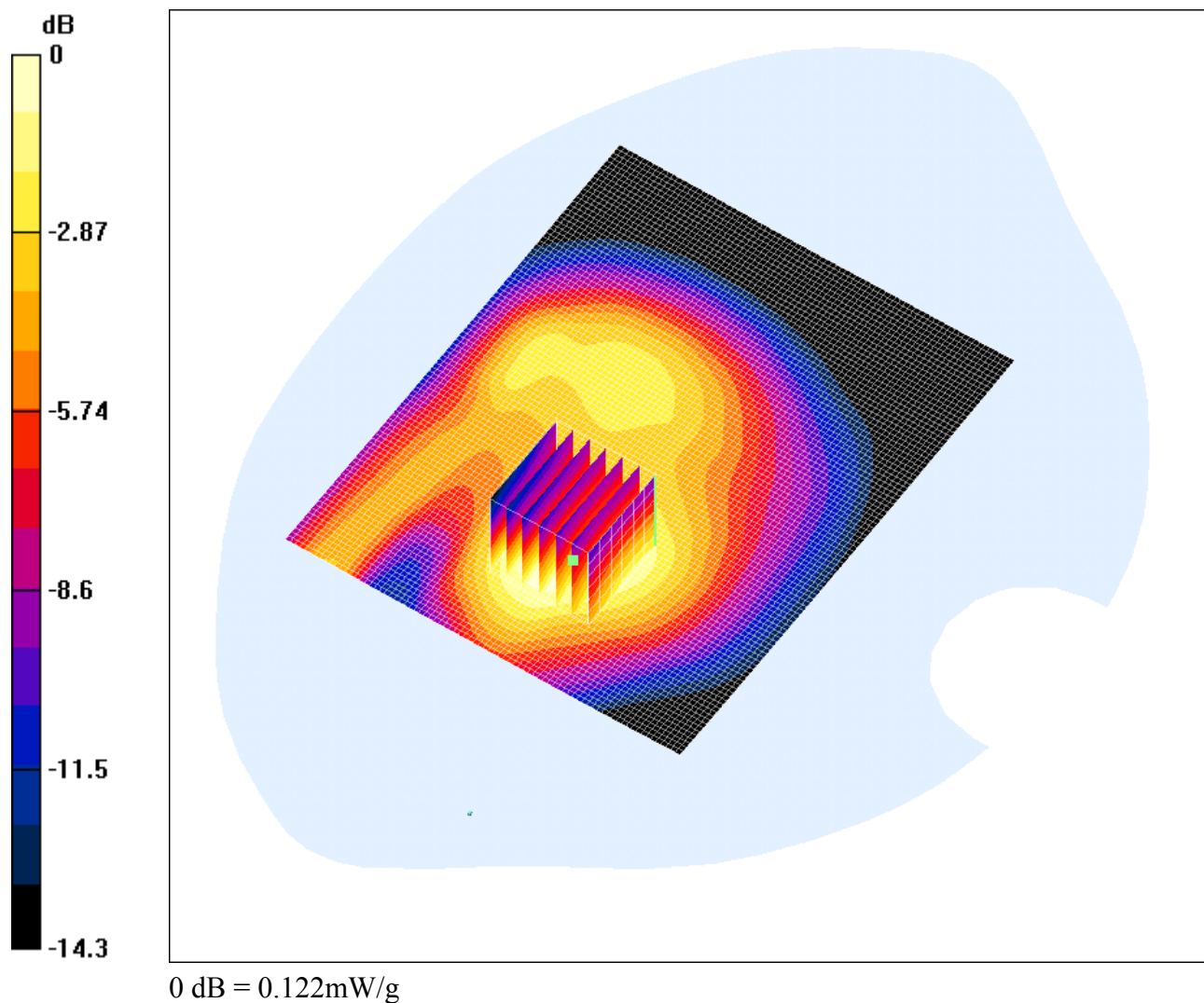
Power Drift = -0.09 dB

Maximum value of SAR = 0.142 mW/g

Date: 14/12/03

45446/06/013

Test Laboratory: RADIO FREQUENCY INVESTIGATION LTD.

**DUT: S551; Type: S551; Serial: 004400252898455**

Communication System: 850 MHz; Frequency: 836.4 MHz; Duty Cycle: 1:8.3

Medium: 850MHz MSL ( $\sigma = 0.925849$  mho/m,  $\epsilon_r = 53.3367$ ,  $\rho = 1000$  kg/m<sup>3</sup>)

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1528; ConvF(6.3, 6.3, 6.3); Calibrated: 29/07/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn450; Calibrated: 19/05/2003
- Phantom: SAM 12b; Type: SAM 4.0; Serial: TP:1197

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 116

**Display of Handset in Case with Clip on Hook and PHF (25mm Distance)/Area Scan (101x81x1):**

Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

Reference Value =  $7.07\text{ V/m}$

Power Drift =  $-0.07\text{ dB}$

Maximum value of SAR =  $0.122\text{ mW/g}$

**Display of Handset in Case with Clip on Hook and PHF (25mm Distance)/Zoom Scan (7x7x7) (7x7x7)/Cube 0:**

Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) =  $0.158\text{ W/kg}$

SAR(1 g) =  $0.114\text{ mW/g}$ ; SAR(10 g) =  $0.0743\text{ mW/g}$

Reference Value =  $7.07\text{ V/m}$

Power Drift =  $-0.07\text{ dB}$

Maximum value of SAR =  $0.122\text{ mW/g}$