

Test Of: Datalogic S.p.A.  
DLBJET Module  
To: OET Bulletin 65 Supplement C: (2001-01)

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## **Appendix 2. SAR Distribution Scans**

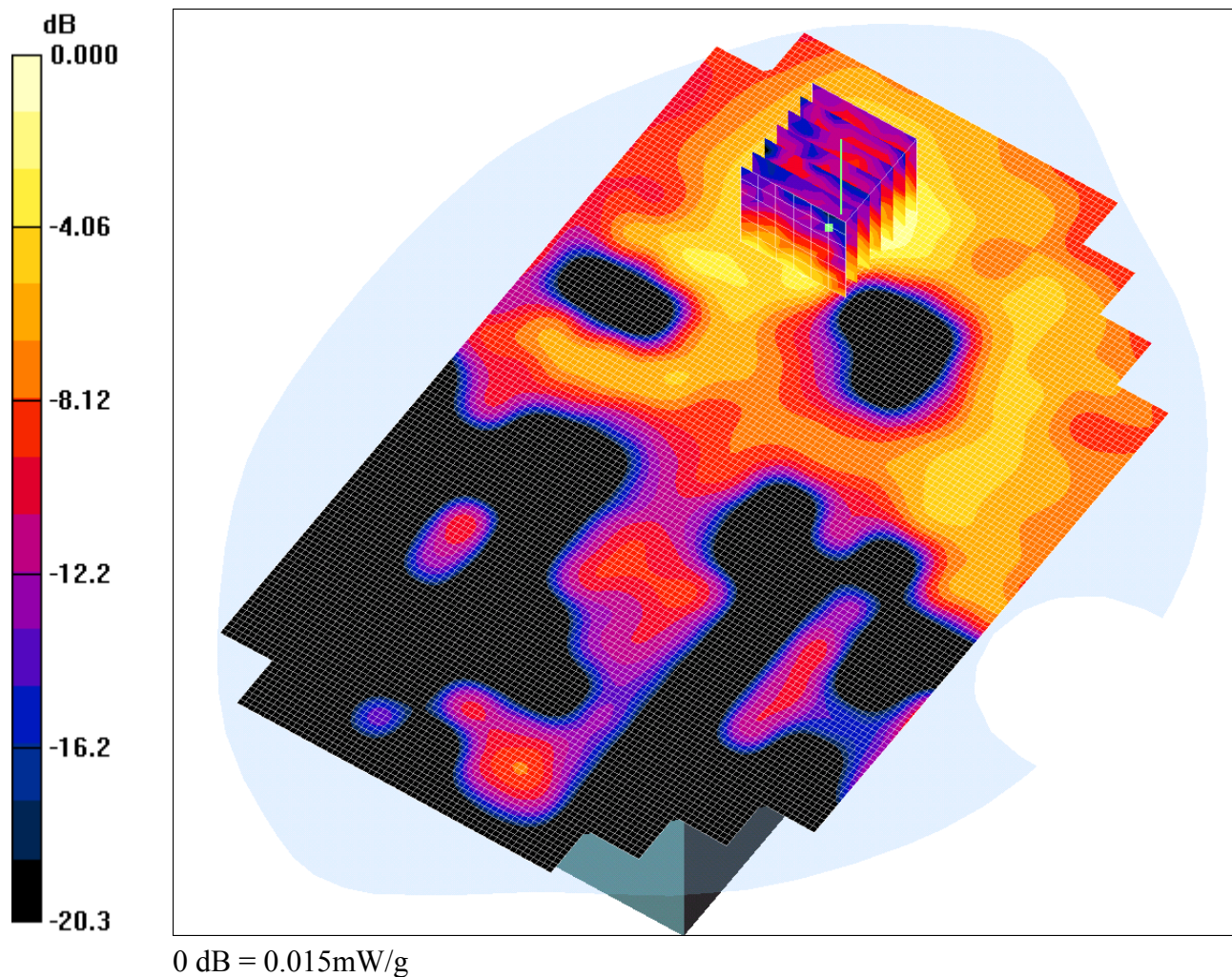
This appendix contains SAR distribution scans which are not included in the total number of pages for this report.

| Scan Reference Number        | Title                                                |
|------------------------------|------------------------------------------------------|
| SCN/48517JD01/013            | Display Of EUT Facing Phantom GPRS CH660             |
| SCN/48517JD01/014            | Rear Of EUT Facing Phantom GPRS CH660                |
| SCN/48517JD01/015            | Rear Of EUT Facing Phantom With Belt Clip GPRS CH660 |
| SCN/48517JD01/016            | Rear Of EUT Facing Phantom With PHF GPRS CH660       |
| SCN/48517JD01/017            | Rear Of EUT Facing Phantom With PHF GPRS CH512       |
| SCN/48517JD01/018            | Rear Of EUT Facing Phantom With PHF GPRS CH810       |
| SCN/48517JD01/023            | Touch Left CH660                                     |
| SCN/48517JD01/024            | Tilt Left CH660                                      |
| SCN/48517JD01/025            | Touch Right CH660                                    |
| SCN/48517JD01/026            | Tilt Right CH660                                     |
| SCN/48517JD01/Validation 003 | System Performance Check-D1900 30 08 06              |

Date: 30/08/2006

48517\_JD01\_013

Test Laboratory: RFI GLOBAL SERVICES LTD.

**48517\_JD01\_013\_Display\_Of\_EUT\_Facing\_Phantom\_GPRS\_CH660****DUT: DATALOGIC; Type: DLBJET Module; IMEI: 352021004337630**

Communication System: GPRS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:4

Medium: 1900 MHz MSL Medium parameters used (interpolated):  $f = 1879.8$  MHz;  $\sigma = 1.57$  mho/m;  $\epsilon_r =$ 51.8;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1528; ConvF(4.55, 4.55, 4.55); Calibrated: 12/07/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn394; Calibrated: 19/05/2006

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Display Of EUT Facing Phantom - Middle/Area Scan (101x161x1):** Measurement grid:  
dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.015 mW/g

**Display Of EUT Facing Phantom - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.10 V/m; Power Drift = 0.148 dB

Peak SAR (extrapolated) = 0.020 W/kg

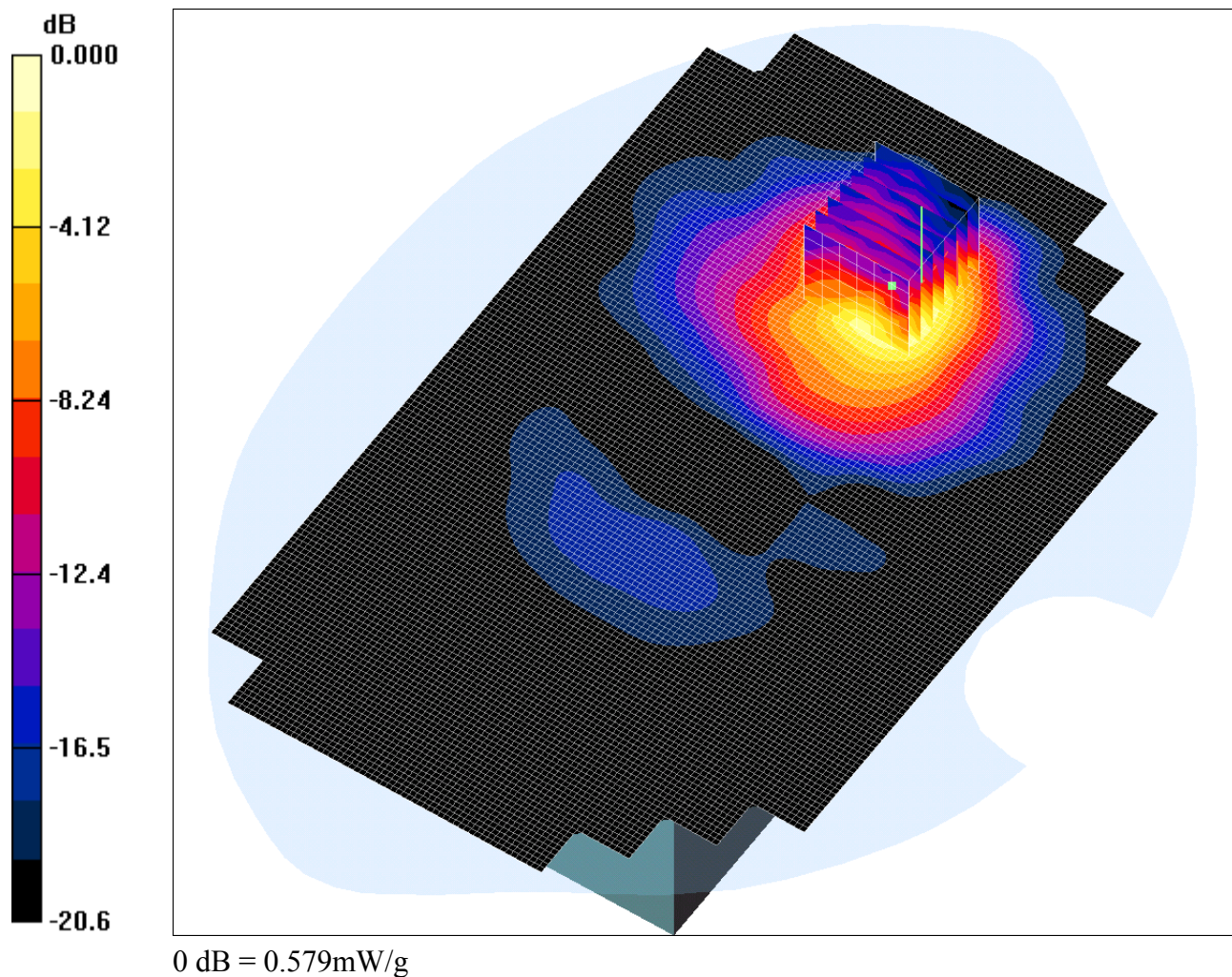
**SAR(1 g) = 0.012 mW/g; SAR(10 g) = 0.00672 mW/g**

Maximum value of SAR (measured) = 0.015 mW/g

Date: 30/08/2006

48517\_JD01\_014

Test Laboratory: RFI GLOBAL SERVICES LTD.

**48517\_JD01\_014\_Rear\_Of\_EUT\_Facing\_Phantom\_GPRS\_CH660****DUT: DATALOGIC; Type: DLBJET Module; IMEI: 352021004337630**

Communication System: GPRS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:4

Medium: 1900 MHz MSL Medium parameters used (interpolated):  $f = 1879.8$  MHz;  $\sigma = 1.57$  mho/m;  $\epsilon_r =$ 51.8;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1528; ConvF(4.55, 4.55, 4.55); Calibrated: 12/07/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn394; Calibrated: 19/05/2006

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Rear Of EUT Facing Phantom - Middle/Area Scan (101x161x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.637 mW/g

**Rear Of EUT Facing Phantom - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 1.25 V/m; Power Drift = 0.109 dB

Peak SAR (extrapolated) = 1.34 W/kg

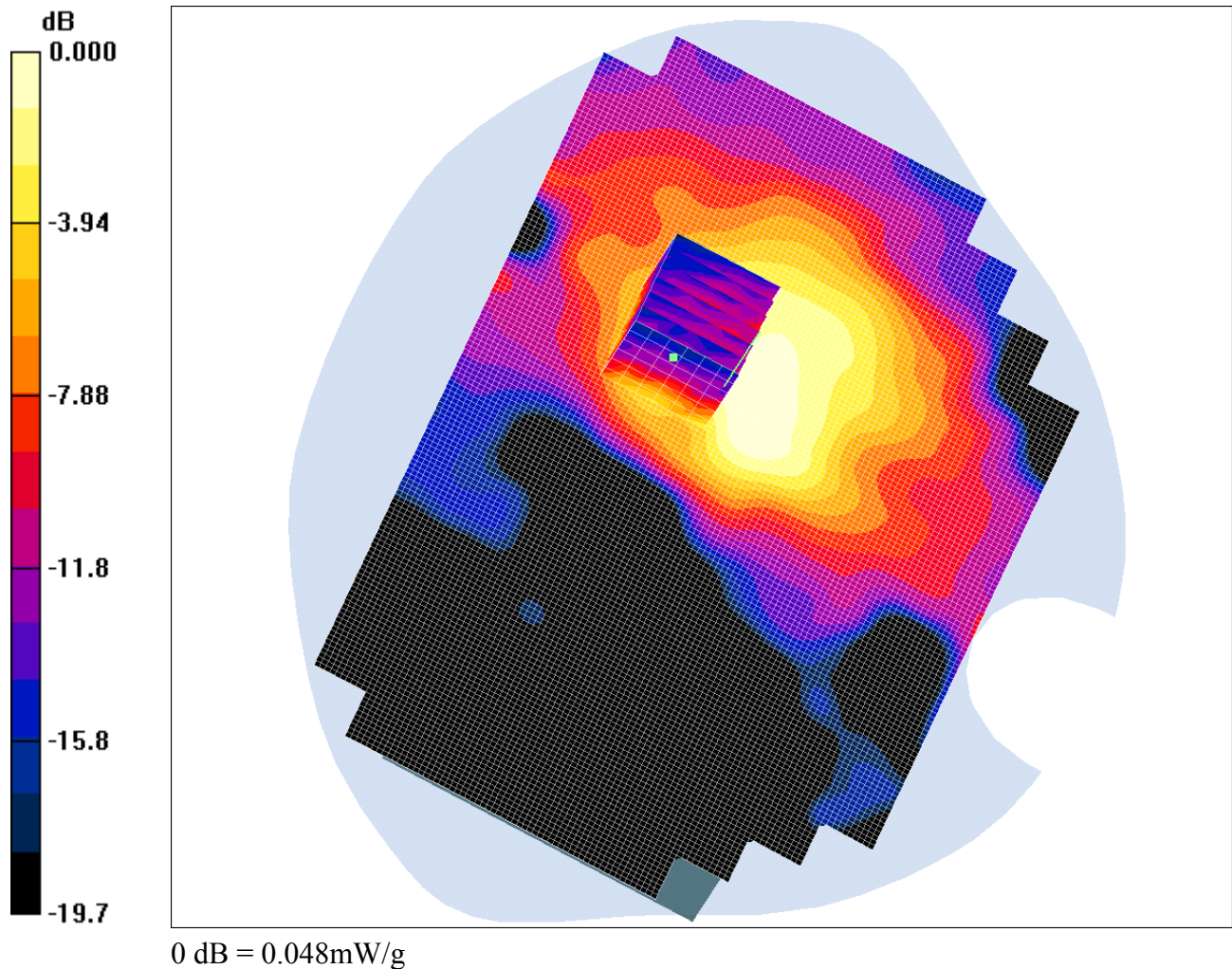
**SAR(1 g) = 0.504 mW/g; SAR(10 g) = 0.252 mW/g**

Maximum value of SAR (measured) = 0.579 mW/g

Date: 30/08/2006

48517\_JD01\_015

Test Laboratory: RFI GLOBAL SERVICES LTD.

**48517\_JD01\_015\_Rear\_Of\_EUT\_Facing\_Phantom\_With\_Belt\_Clip\_GPRS\_CH660****DUT: DATALOGIC; Type: DLBJET Module; IMEI: 352021004337630**

Communication System: GPRS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:4

Medium: 1900 MHz MSL Medium parameters used (interpolated):  $f = 1879.8$  MHz;  $\sigma = 1.57$  mho/m;  $\epsilon_r =$ 51.8;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1528; ConvF(4.55, 4.55, 4.55); Calibrated: 12/07/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn394; Calibrated: 19/05/2006

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Rear Of EUT Facing Phantom With Belt Clip - Middle/Area Scan (101x161x1):**

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

Maximum value of SAR (interpolated) =  $0.047\text{ mW/g}$

**Rear Of EUT Facing Phantom With Belt Clip - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube**

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

Reference Value =  $2.88\text{ V/m}$ ; Power Drift =  $-0.178\text{ dB}$

Peak SAR (extrapolated) =  $0.099\text{ W/kg}$

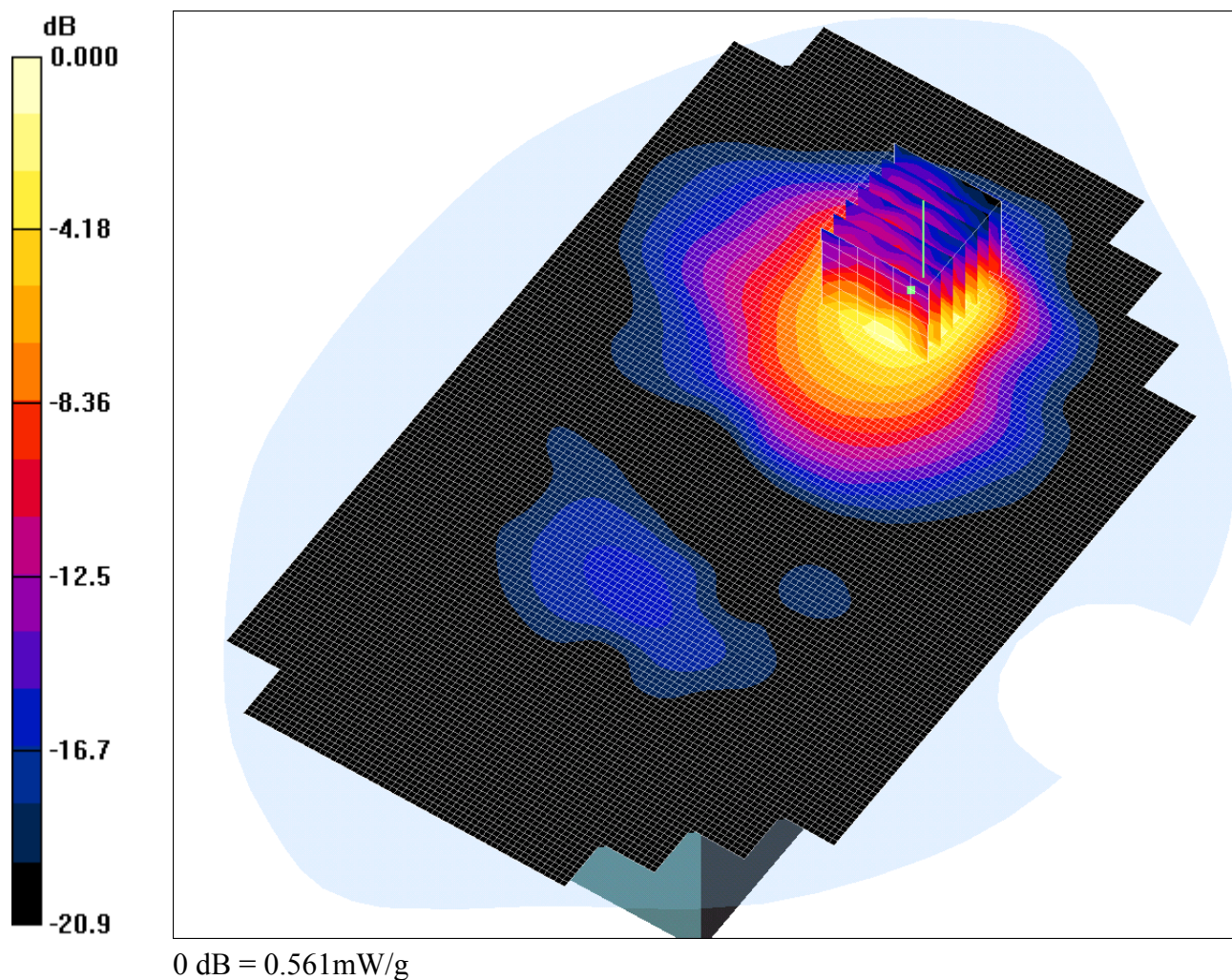
**SAR(1 g) =  $0.041\text{ mW/g}$ ; SAR(10 g) =  $0.023\text{ mW/g}$**

Maximum value of SAR (measured) =  $0.048\text{ mW/g}$

Date: 30/08/2006

48517\_JD01\_016

Test Laboratory: RFI GLOBAL SERVICES LTD.

**48517\_JD01\_016\_Rear\_Of\_EUT\_Facing\_Phantom\_With\_PHF\_GPRS\_CH660****DUT: DATALOGIC; Type: DLBJET Module; IMEI: 352021004337630**

Communication System: GPRS 1900; Frequency: 1879.8 MHz; Duty Cycle: 1:4

Medium: 1900 MHz MSL Medium parameters used (interpolated):  $f = 1879.8$  MHz;  $\sigma = 1.57$  mho/m;  $\epsilon_r =$ 51.8;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1528; ConvF(4.55, 4.55, 4.55); Calibrated: 12/07/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn394; Calibrated: 19/05/2006

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Rear Of EUT Facing Phantom With PHF - Middle/Area Scan (101x161x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.514 mW/g

**Rear Of EUT Facing Phantom With PHF - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0:**

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

Reference Value = 1.75 V/m; Power Drift = -0.146 dB

Peak SAR (extrapolated) = 1.92 W/kg

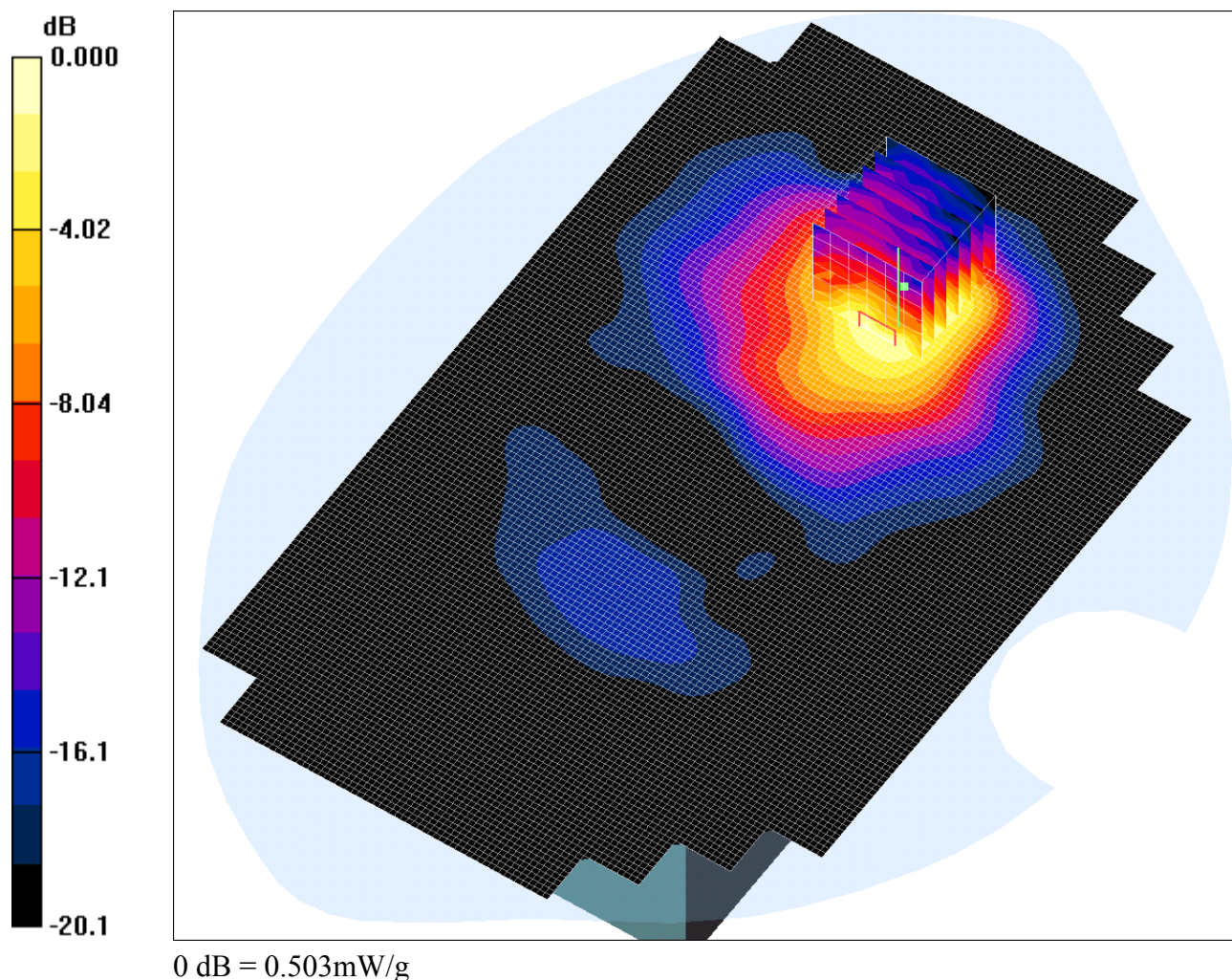
**SAR(1 g) = 0.529 mW/g; SAR(10 g) = 0.259 mW/g**

Maximum value of SAR (measured) = 0.561 mW/g

Date: 30/08/2006

48517\_JD01\_017

Test Laboratory: RFI GLOBAL SERVICES LTD.

**48517\_JD01\_017\_Rear\_Of\_EUT\_Facing\_Phantom\_With\_PHF\_GPRS\_CH512****DUT: DATALOGIC; Type: DLBJET Module; IMEI: 352021004337630**

Communication System: GPRS 1900; Frequency: 1850.2 MHz; Duty Cycle: 1:4

Medium: 1900 MHz MSL Medium parameters used (interpolated):  $f = 1850.2$  MHz;  $\sigma = 1.54$  mho/m;  $\epsilon_r =$ 51.9;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1528; ConvF(4.55, 4.55, 4.55); Calibrated: 12/07/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn394; Calibrated: 19/05/2006

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Rear Of EUT Facing Phantom With PHF - Low/Area Scan (101x161x1):** Measurement grid:  
dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.601 mW/g

**Rear Of EUT Facing Phantom With PHF - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0:**

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

Reference Value = 1.79 V/m; Power Drift = -0.076 dB

Peak SAR (extrapolated) = 0.848 W/kg

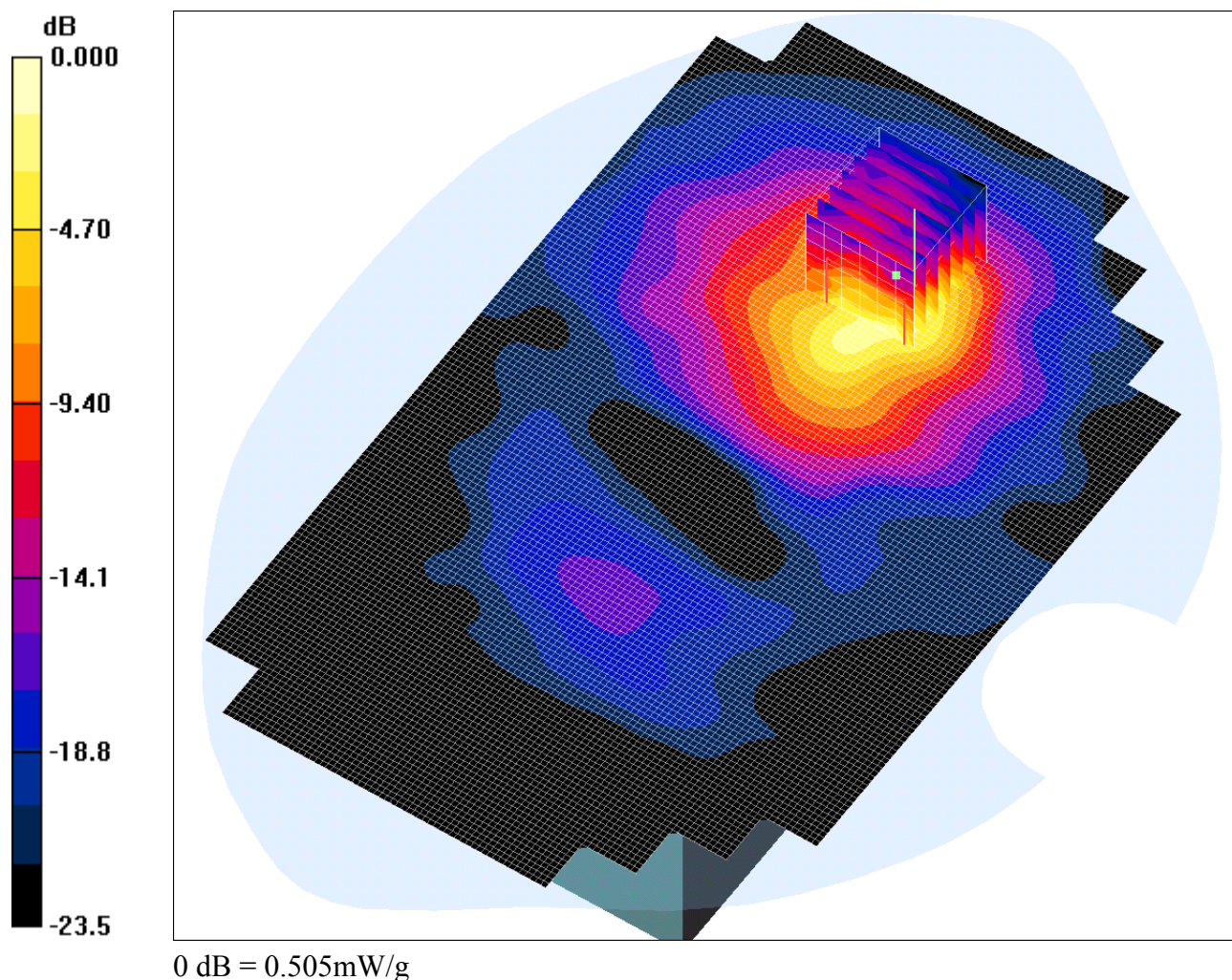
**SAR(1 g) = 0.422 mW/g; SAR(10 g) = 0.231 mW/g**

Maximum value of SAR (measured) = 0.503 mW/g

Date: 30/08/2006

48517\_JD01\_018

Test Laboratory: RFI GLOBAL SERVICES LTD.

**48517\_JD01\_018\_Rear\_Of\_EUT\_Facing\_Phantom\_With\_PHF\_GPRS\_CH810****DUT: DATALOGIC; Type: DLBJET Module; IMEI: 352021004337630**

Communication System: GPRS 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:4

Medium: 1900 MHz MSL Medium parameters used (interpolated):  $f = 1909.8$  MHz;  $\sigma = 1.6$  mho/m;  $\epsilon_r =$ 51.7;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1528; ConvF(4.55, 4.55, 4.55); Calibrated: 12/07/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn394; Calibrated: 19/05/2006

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Rear Of EUT Facing Phantom With PHF - High/Area Scan (101x161x1):** Measurement grid:  
dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.498 mW/g

**Rear Of EUT Facing Phantom With PHF - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0:**

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

Reference Value = 1.47 V/m; Power Drift = 0.219 dB

Peak SAR (extrapolated) = 1.14 W/kg

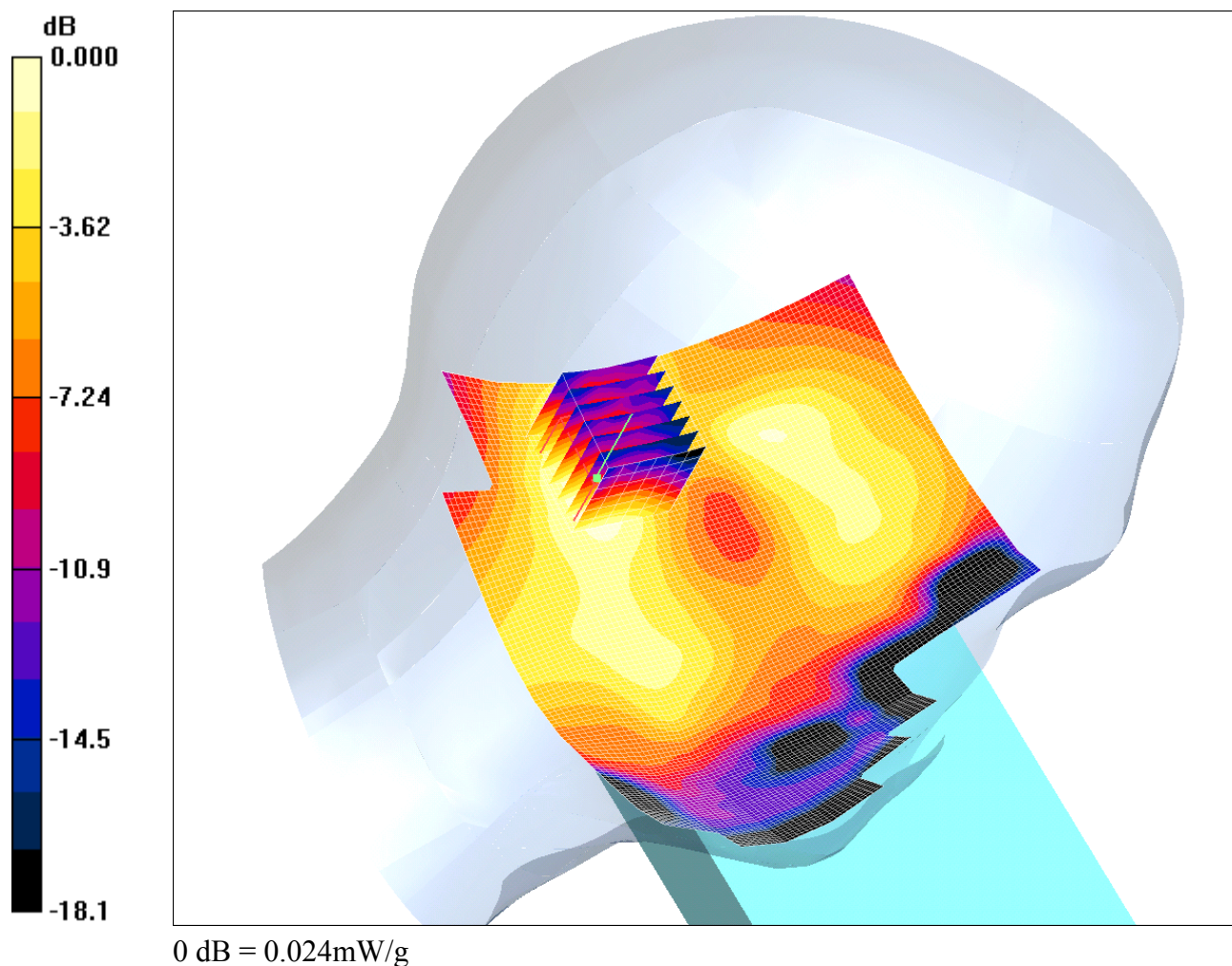
**SAR(1 g) = 0.416 mW/g; SAR(10 g) = 0.212 mW/g**

Maximum value of SAR (measured) = 0.505 mW/g

Date: 30/08/2006

48517\_JD01\_023

Test Laboratory: RFI GLOBAL SERVICES LTD.

**48517\_JD01\_023\_Touch\_Left\_CH660****DUT: DATALOGIC; Type: DLBJET Module; IMEI: 352021004337630**

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

Medium: 1900 MHz HSL Medium parameters used (interpolated):  $f = 1879.8$  MHz;  $\sigma = 1.42$  mho/m;  $\epsilon_r = 38.5$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1528; ConvF(5.03, 5.03, 5.03); Calibrated: 13/07/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn394; Calibrated: 19/05/2006

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Touch Left - Middle/Area Scan (91x181x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.024 mW/g

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

Reference Value = 1.67 V/m; Power Drift = 0.131 dB

Peak SAR (extrapolated) = 0.032 W/kg

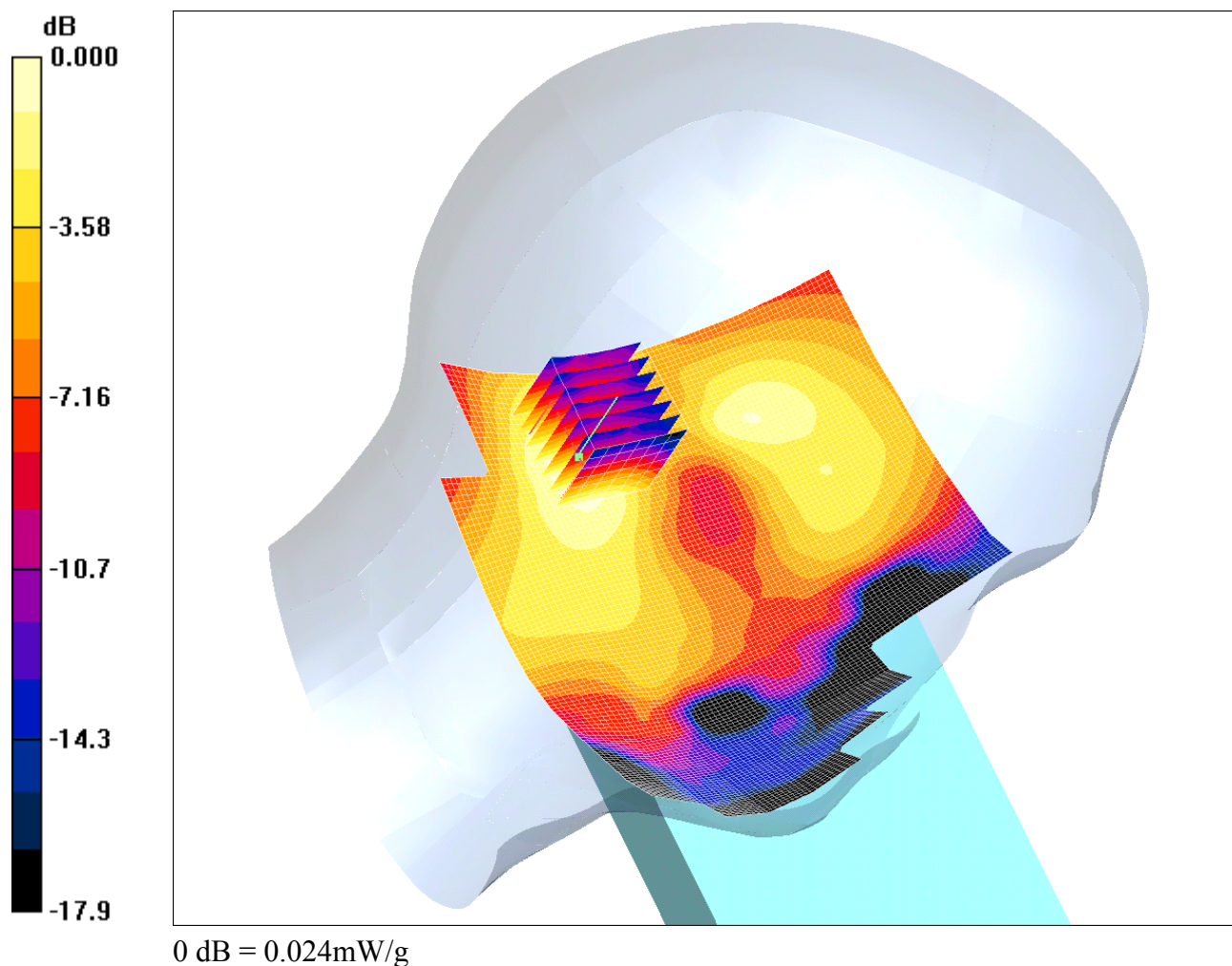
**SAR(1 g) = 0.022 mW/g; SAR(10 g) = 0.013 mW/g**

Maximum value of SAR (measured) = 0.024 mW/g

Date: 30/08/2006

48517\_JD01\_024

Test Laboratory: RFI GLOBAL SERVICES LTD.

**48517\_JD01\_024\_Tilt\_Left\_CH660****DUT: DATALOGIC; Type: DLBJET Module; IMEI: 352021004337630**

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

Medium: 1900 MHz HSL Medium parameters used (interpolated):  $f = 1879.8$  MHz;  $\sigma = 1.42$  mho/m;  $\epsilon_r = 38.5$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1528; ConvF(5.03, 5.03, 5.03); Calibrated: 13/07/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn394; Calibrated: 19/05/2006

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Tilt Left - Middle/Area Scan (91x181x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.025 mW/g

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

Reference Value = 1.46 V/m; Power Drift = -0.161 dB

Peak SAR (extrapolated) = 0.033 W/kg

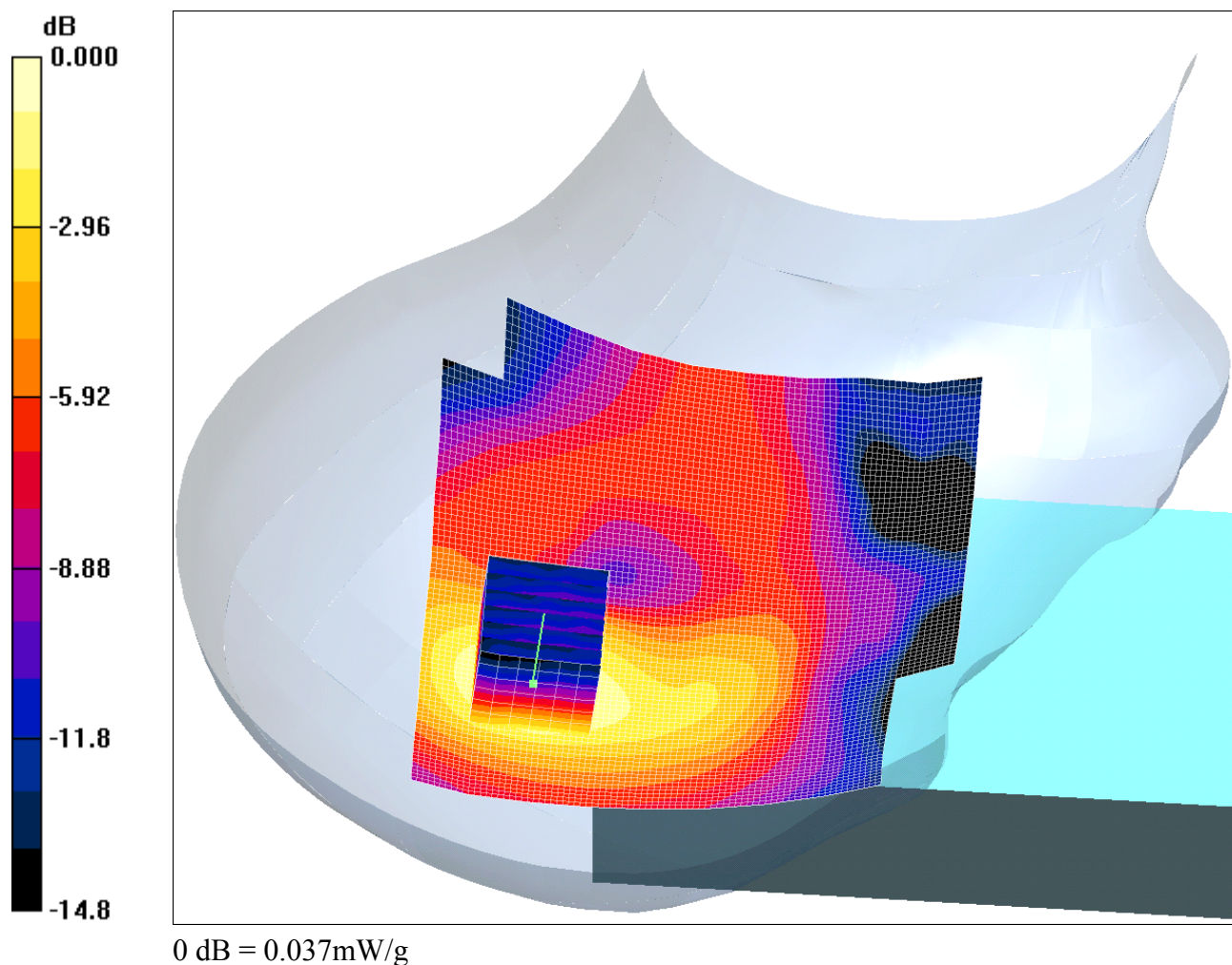
**SAR(1 g) = 0.022 mW/g; SAR(10 g) = 0.013 mW/g**

Maximum value of SAR (measured) = 0.024 mW/g

Date: 30/08/2006

48517\_JD01\_025

Test Laboratory: RFI GLOBAL SERVICES LTD.

**48517\_JD01\_025\_Touch\_Right\_CH660****DUT: DATALOGIC; Type: DLBJET Module; IMEI: 352021004337630**

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

Medium: 1900 MHz HSL Medium parameters used (interpolated):  $f = 1879.8$  MHz;  $\sigma = 1.42$  mho/m;  $\epsilon_r =$ 38.5;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1528; ConvF(5.03, 5.03, 5.03); Calibrated: 13/07/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn394; Calibrated: 19/05/2006

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Touch Right - Middle/Area Scan (91x91x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.037 mW/g

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

Reference Value = 2.23 V/m; Power Drift = 0.048 dB

Peak SAR (extrapolated) = 0.053 W/kg

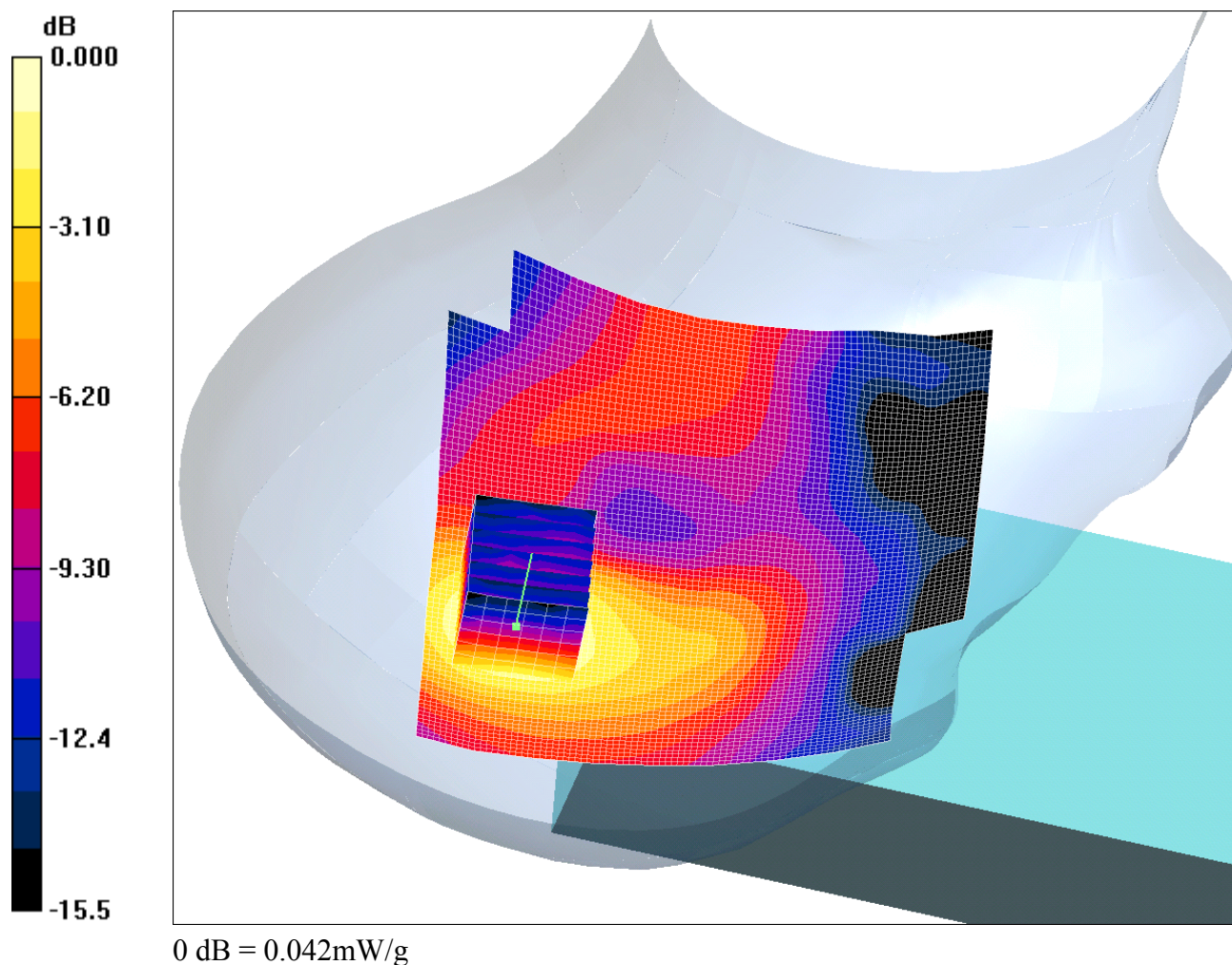
**SAR(1 g) = 0.034 mW/g; SAR(10 g) = 0.020 mW/g**

Maximum value of SAR (measured) = 0.037 mW/g

Date: 30/08/2006

48517\_JD01\_026

Test Laboratory: RFI GLOBAL SERVICES LTD.

**48517\_JD01\_026\_Tilt\_Right\_CH660****DUT: DATALOGIC; Type: DLBJET Module; IMEI: 352021004337630**

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

Medium: 1900 MHz HSL Medium parameters used (interpolated):  $f = 1879.8$  MHz;  $\sigma = 1.42$  mho/m;  $\epsilon_r = 38.5$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1528; ConvF(5.03, 5.03, 5.03); Calibrated: 13/07/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn394; Calibrated: 19/05/2006

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**Tilt Right - Middle/Area Scan (91x91x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 0.042 mW/g

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

Reference Value = 2.32 V/m; Power Drift = 0.012 dB

Peak SAR (extrapolated) = 0.058 W/kg

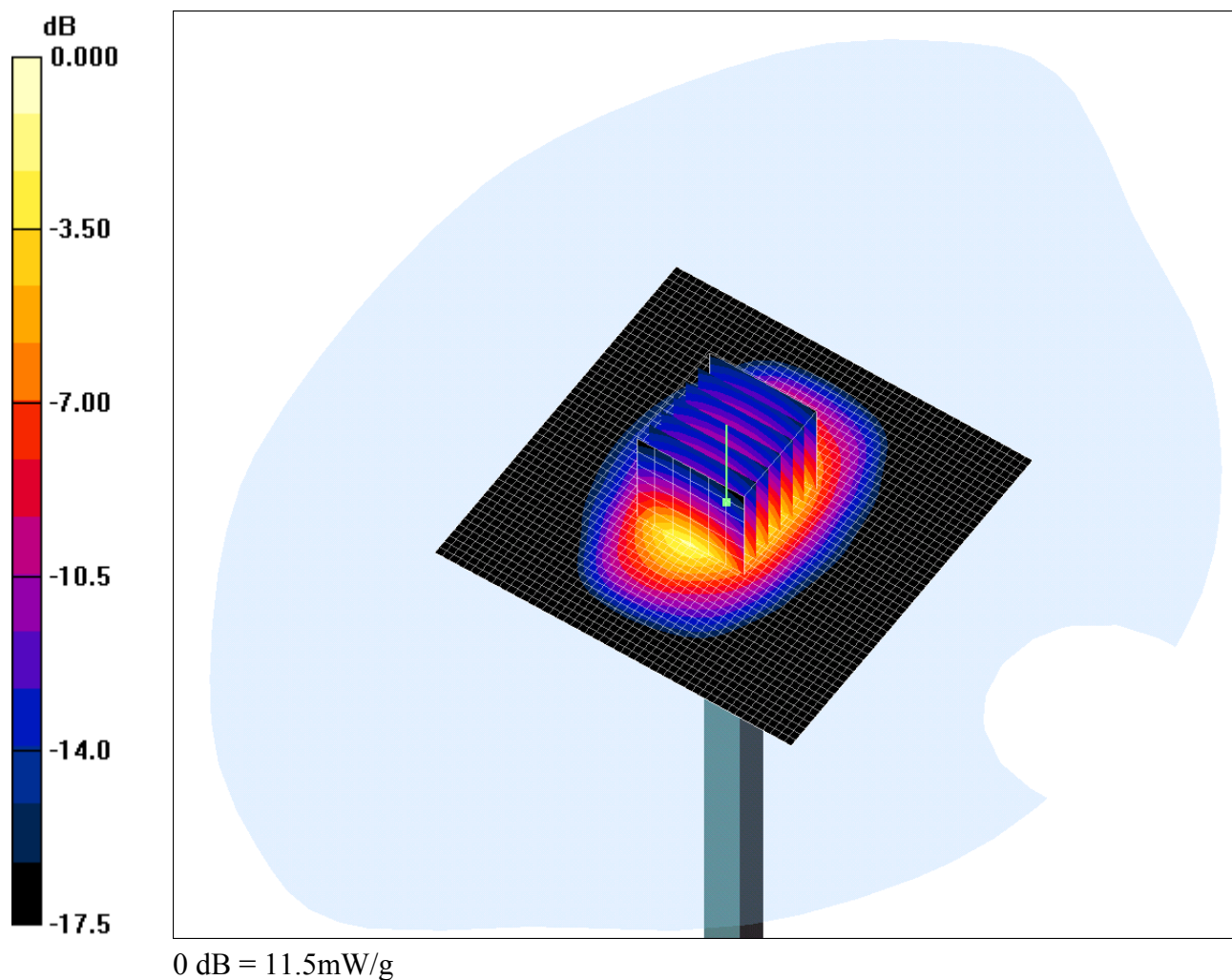
**SAR(1 g) = 0.039 mW/g; SAR(10 g) = 0.023 mW/g**

Maximum value of SAR (measured) = 0.042 mW/g

Date: 30/08/2006

48517\_JD01\_Validation\_003

Test Laboratory: RFI GLOBAL SERVICES LTD.

**System Performance Check-D1900 30 08 06****DUT: Dipole 1900 MHz; Type: D1900V2; Serial: SN540**

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: 1900 MHz MSL Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.59$  mho/m;  $\epsilon_r = 51.7$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1528; ConvF(4.55, 4.55, 4.55); Calibrated: 12/07/2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn394; Calibrated: 19/05/2006

- Phantom: SAM 12a; Type: SAM 4.0; Serial: TP:1193
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

**d=15mm, Pin=250mW 2/Area Scan (51x51x1):** Measurement grid: dx=20mm, dy=20mm  
Maximum value of SAR (interpolated) = 15.5 mW/g

**d=15mm, Pin=250mW 2/Zoom Scan 7x7x7 (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 90.6 V/m; Power Drift = -0.079 dB  
Peak SAR (extrapolated) = 17.4 W/kg  
**SAR(1 g) = 10.1 mW/g; SAR(10 g) = 5.31 mW/g**  
Maximum value of SAR (measured) = 11.5 mW/g

Test Of: Datalogic S.p.A.  
DLBJET Module

To: OET Bulletin 65 Supplement C: (2001-01)

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### **Appendix 3. Test Configuration Photographs**

This appendix contains the following photograph(s):

| Photograph Reference Number | Title                                                                    |
|-----------------------------|--------------------------------------------------------------------------|
| PHT/SAR Configuration       | Test configuration for the measurement of Specific Absorption Rate (SAR) |

Test Of: Datalogic S.p.A.  
DLBJET Module  
To: OET Bulletin 65 Supplement C: (2001-01)

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### PHT/SAR Configuration

