

## SAR TEST PLOTS

- MODEL NAME : **SGP-1036**
- APPLICANT : **SUNGIL TELECOM CO., LTD.**
- EUT TYPE : **GSM850/PCS1900 Dual-Band WLL Phone**

## 1. GSM850 PLOTS

- 1) CH : 128 .....Body
- 2) CH : 190 .....Body
- 3) CH : 251.....Body

## DIGITAL EMC CO., LTD

DUT: SGP-1036; Type: WLL

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

Medium parameters used:  $f = 824.2$  MHz;  $\sigma = 0.971$  mho/m;  $\epsilon_r = 53.7$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

### DASY4 Configuration:

Probe: ET3DV6 - SN1702; ConvF(6.21, 6.21, 6.21); Calibrated: 2006-03-23; Electronics: DAE3 Sn519

Phantom: SAM with 835MHz; Type: SAM; Serial: TP-1223

Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

Test Date: 2006-08-30; Ambient Temp: 22.0; Tissue Temp: 22.5

**2.5cm from Body, GSM Ch.128, Ant Fixed, Charger Mode**

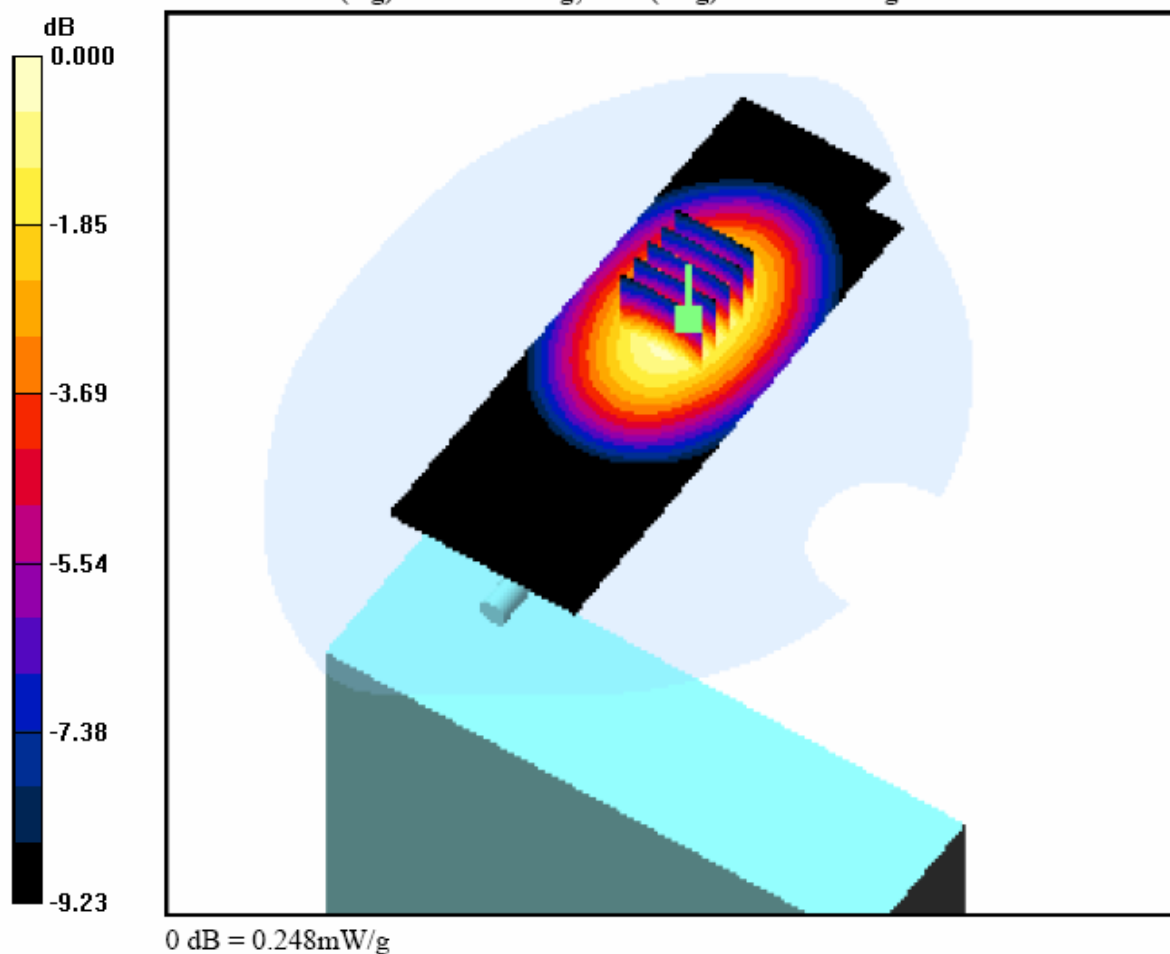
**Area Scan (51x141x1):** Measurement grid: dx=15mm, dy=15mm

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Power Drift = 0.010 dB

Peak SAR (extrapolated) = 0.311 W/kg

SAR(1 g) = 0.233 mW/g; SAR(10 g) = 0.164 mW/g



## DIGITAL EMC CO., LTD

**DUT: SGP-1036; Type: WLL**

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium parameters used:  $f = 836.6 \text{ MHz}$ ;  $\sigma = 0.983 \text{ mho/m}$ ;  $\epsilon_r = 53.5$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

### **DASY4 Configuration:**

Probe: ET3DV6 - SN1702; ConvF(6.21, 6.21, 6.21); Calibrated: 2006-03-23; Electronics: DAE3 Sn519

Phantom: SAM with 835MHz; Type: SAM; Serial: TP-1223

Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

Test Date: 2006-08-30; Ambient Temp: 22.0; Tissue Temp: 22.5

**2.5cm from Body, GSM Ch.190, Ant Fixed, Charger Mode**

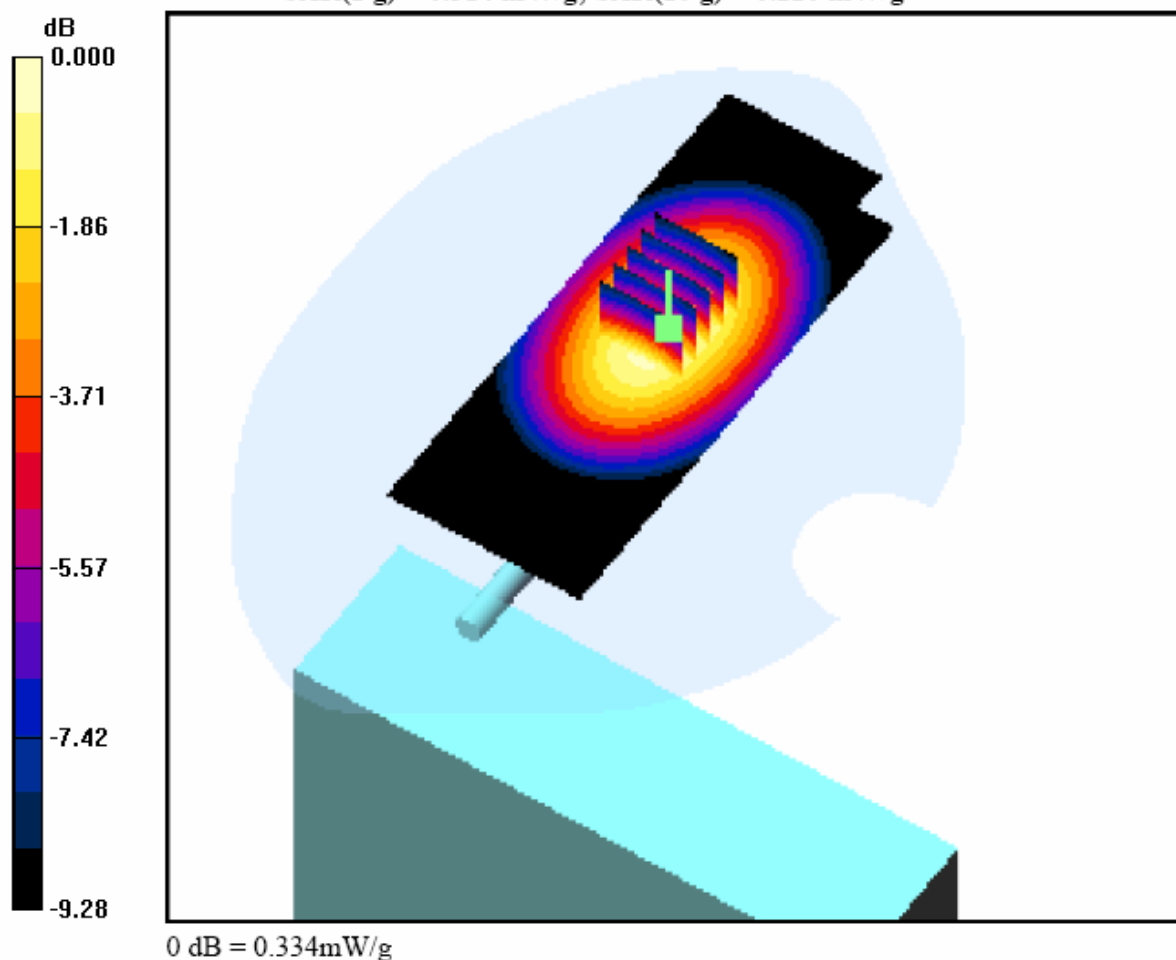
**Area Scan (51x131x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Power Drift = -0.003 dB

Peak SAR (extrapolated) = 0.423 W/kg

SAR(1 g) = 0.314 mW/g; SAR(10 g) = 0.220 mW/g



## DIGITAL EMC CO., LTD

DUT: SGP-1036; Type: WLL

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

Medium parameters used:  $f = 848.8 \text{ MHz}$ ;  $\sigma = 0.996 \text{ mho/m}$ ;  $\epsilon_r = 53.4$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

### DASY4 Configuration:

Probe: ET3DV6 - SN1702; ConvF(6.21, 6.21, 6.21); Calibrated: 2006-03-23; Electronics: DAE3 Sn519

Phantom: SAM with 835MHz; Type: SAM; Serial: TP-1223

Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

Test Date: 2006-08-30; Ambient Temp: 22.0; Tissue Temp: 22.5

**2.5cm from Body, GSM Ch.251, Ant Fixed, Charger Mode**

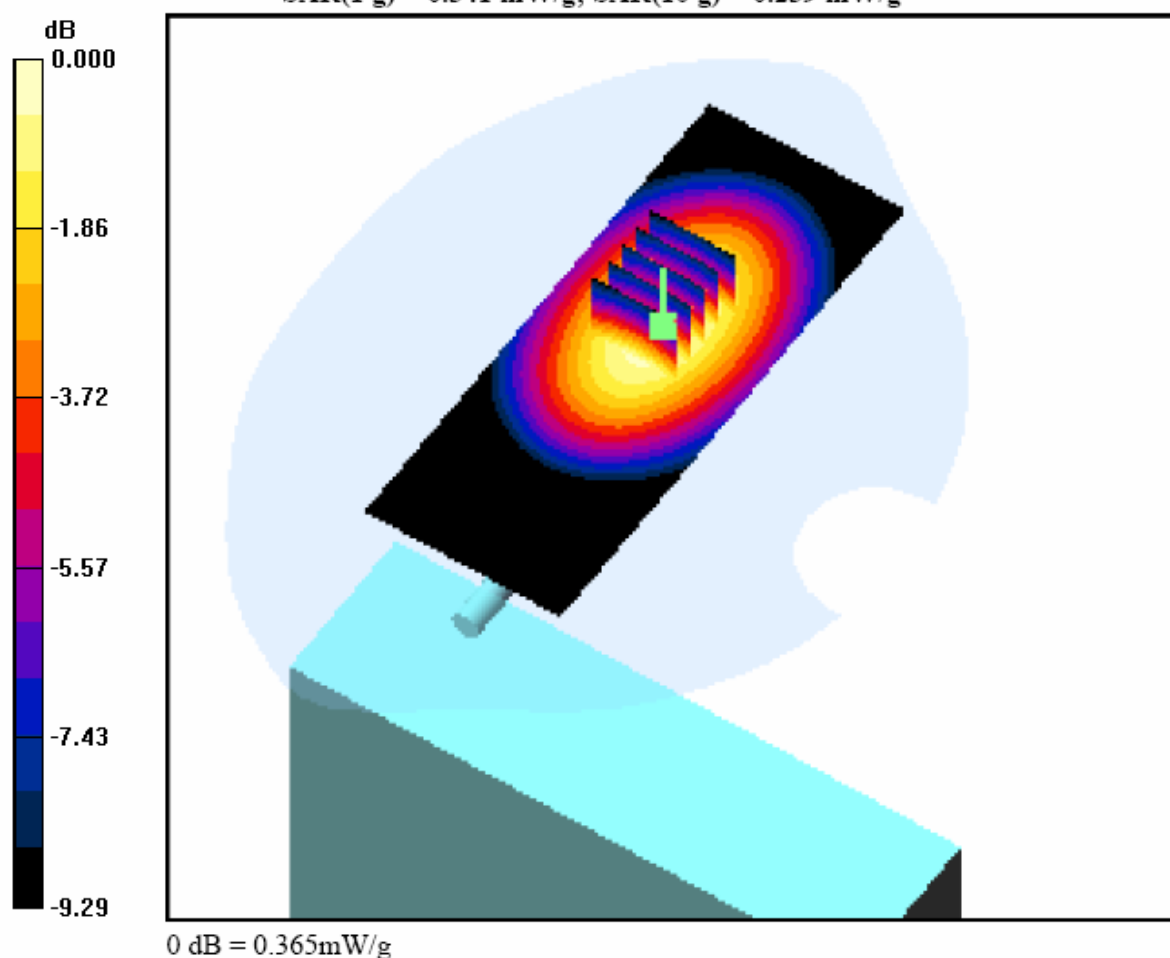
**Area Scan (51x131x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Power Drift = 0.039 dB

Peak SAR (extrapolated) = 0.464 W/kg

SAR(1 g) = 0.341 mW/g; SAR(10 g) = 0.239 mW/g



## DIGITAL EMC CO., LTD

DUT: SGP-1036; Type: WLL

Communication System: GSM 850; Frequency: 848.8 MHz; Duty Cycle: 1:4.15  
 Medium parameters used:  $f = 848.8 \text{ MHz}$ ;  $\sigma = 0.996 \text{ mho/m}$ ;  $\epsilon_r = 53.4$ ;  $\rho = 1000 \text{ kg/m}^3$   
 Phantom section: Flat Section

### DASY4 Configuration:

Probe: ET3DV6 - SN1702; ConvF(6.21, 6.21, 6.21); Calibrated: 2006-03-23; Electronics: DAE3 Sn519  
 Phantom: SAM with 835MHz; Type: SAM; Serial: TP-1223  
 Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

Test Date: 2006-08-30; Ambient Temp: 22.0; Tissue Temp: 22.5

**2.5cm from Body, GSM Ch.251, Ant Fixed, Charger Mode With GPRS**

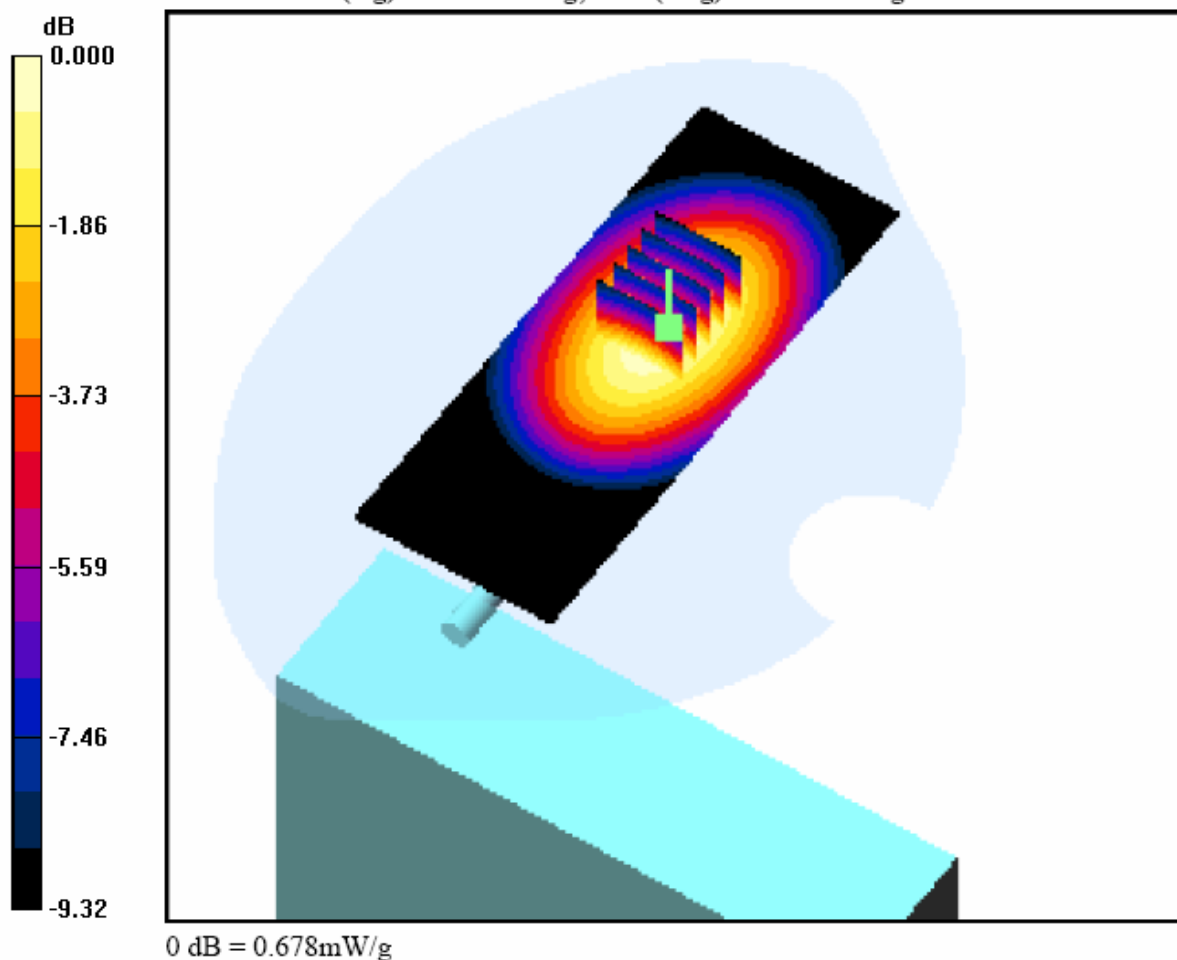
**Area Scan (51x131x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Power Drift = -0.145 dB

Peak SAR (extrapolated) = 0.855 W/kg

SAR(1 g) = 0.640 mW/g; SAR(10 g) = 0.451 mW/g



## 2. PCS1900 PLOTS

- 1) CH : 512.....Body
- 2) CH : 661.....Body
- 3) CH : 810.....Body

## DIGITAL EMC CO., LTD

**DUT: SGP-1036; Type: WLL**

Communication System: PCS 1900; Frequency: 1850.2 MHz; Duty Cycle: 1:8.3  
Medium parameters used:  $f = 1850.2 \text{ MHz}$ ;  $\sigma = 1.53 \text{ mho/m}$ ;  $\epsilon_r = 52.7$ ;  $\rho = 1000 \text{ kg/m}^3$   
Phantom section: Flat Section

### **DASY4 Configuration:**

Probe: ET3DV6 - SN1702; ConvF(4.76, 4.76, 4.76); Calibrated: 2006-03-23; Electronics: DAE3 Sn519  
Phantom: SAM 1800/1900 MHz; Type: SAM; Serial: TP-1224  
Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

Test Date: 2006-09-01; Ambient Temp: 21.5; Tissue Temp: 22.0

### **2.5cm from Body, PCS Ch.512, Ant Fixed, Charger Mode**

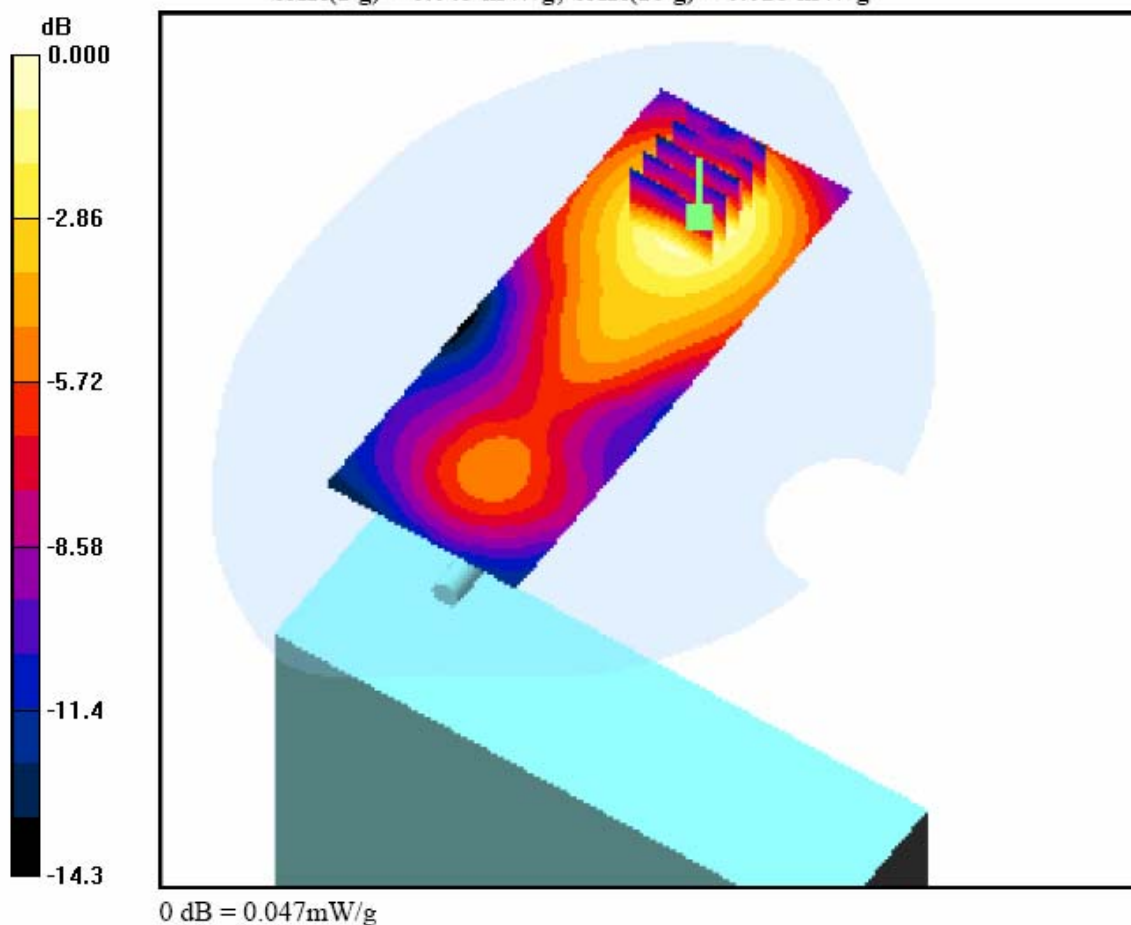
**Area Scan (51x131x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Power Drift = -0.159 dB

Peak SAR (extrapolated) = 0.071 W/kg

SAR(1 g) = 0.045 mW/g; SAR(10 g) = 0.028 mW/g



## DIGITAL EMC CO., LTD

DUT: SGP-1036; Type: WLL

Communication System: PCS 1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3  
 Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $\sigma = 1.55 \text{ mho/m}$ ;  $\epsilon_r = 52.6$ ;  $\rho = 1000 \text{ kg/m}^3$   
 Phantom section: Flat Section

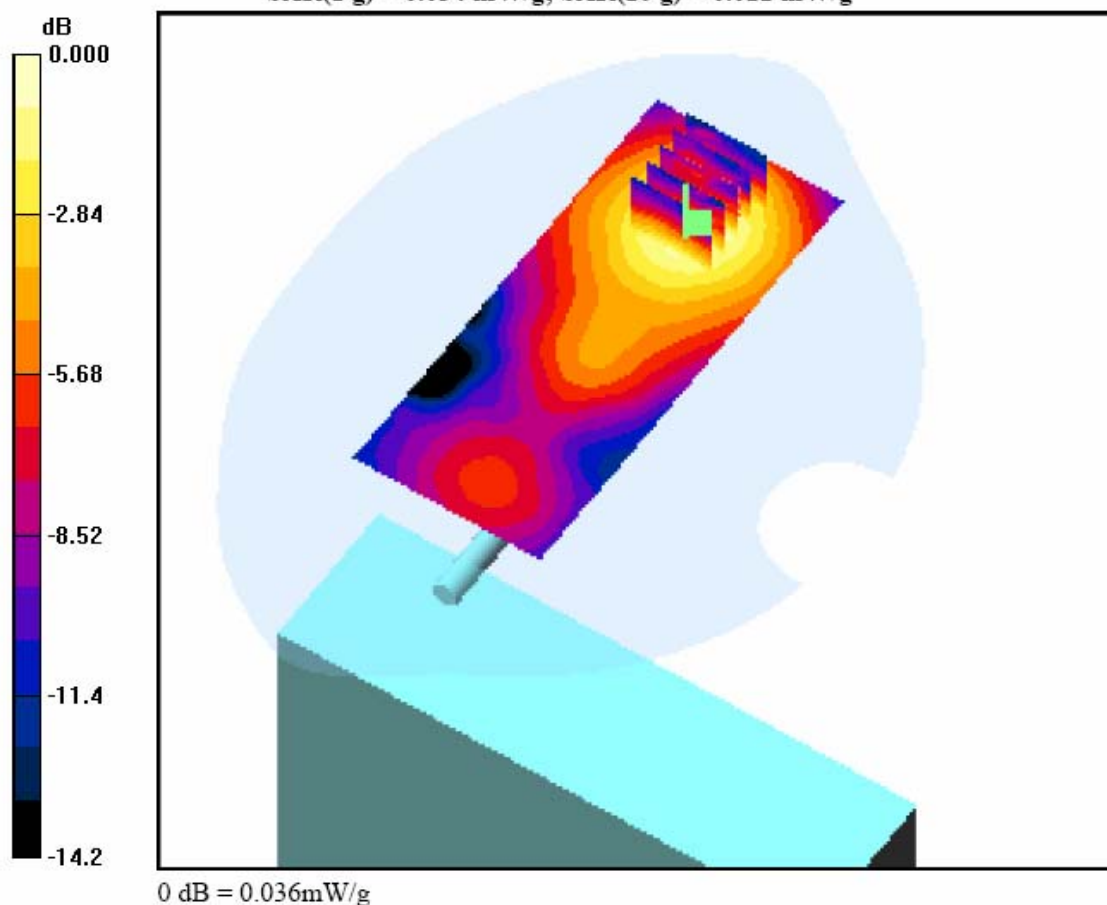
### DASY4 Configuration:

Probe: ET3DV6 - SN1702; ConvF(4.76, 4.76, 4.76); Calibrated: 2006-03-23; Electronics: DAE3 Sn519  
 Phantom: SAM 1800/1900 MHz; Type: SAM; Serial: TP-1224  
 Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

Test Date: 2006-09-01; Ambient Temp: 21.5; Tissue Temp: 22.0

**2.5cm from Body, PCS Ch.661, Ant Fixed, Charger Mode**

**Area Scan (51x121x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$   
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
 Power Drift = -0.190 dB  
 Peak SAR (extrapolated) = 0.056 W/kg  
 SAR(1 g) = 0.034 mW/g; SAR(10 g) = 0.022 mW/g



## DIGITAL EMC CO., LTD

DUT: SGP-1036; Type: WLL

Communication System: PCS 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8.3

Medium parameters used:  $f = 1909.8 \text{ MHz}$ ;  $\sigma = 1.57 \text{ mho/m}$ ;  $\epsilon_r = 52.3$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

### DASY4 Configuration:

Probe: ET3DV6 - SN1702; ConvF(4.76, 4.76, 4.76); Calibrated: 2006-03-23; Electronics: DAE3 Sn519

Phantom: SAM 1800/1900 MHz; Type: SAM; Serial: TP-1224

Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

Test Date: 2006-09-01; Ambient Temp: 21.5; Tissue Temp: 22.0

**2.5cm from Body, PCS Ch.810, Ant Fixed, Charger Mode**

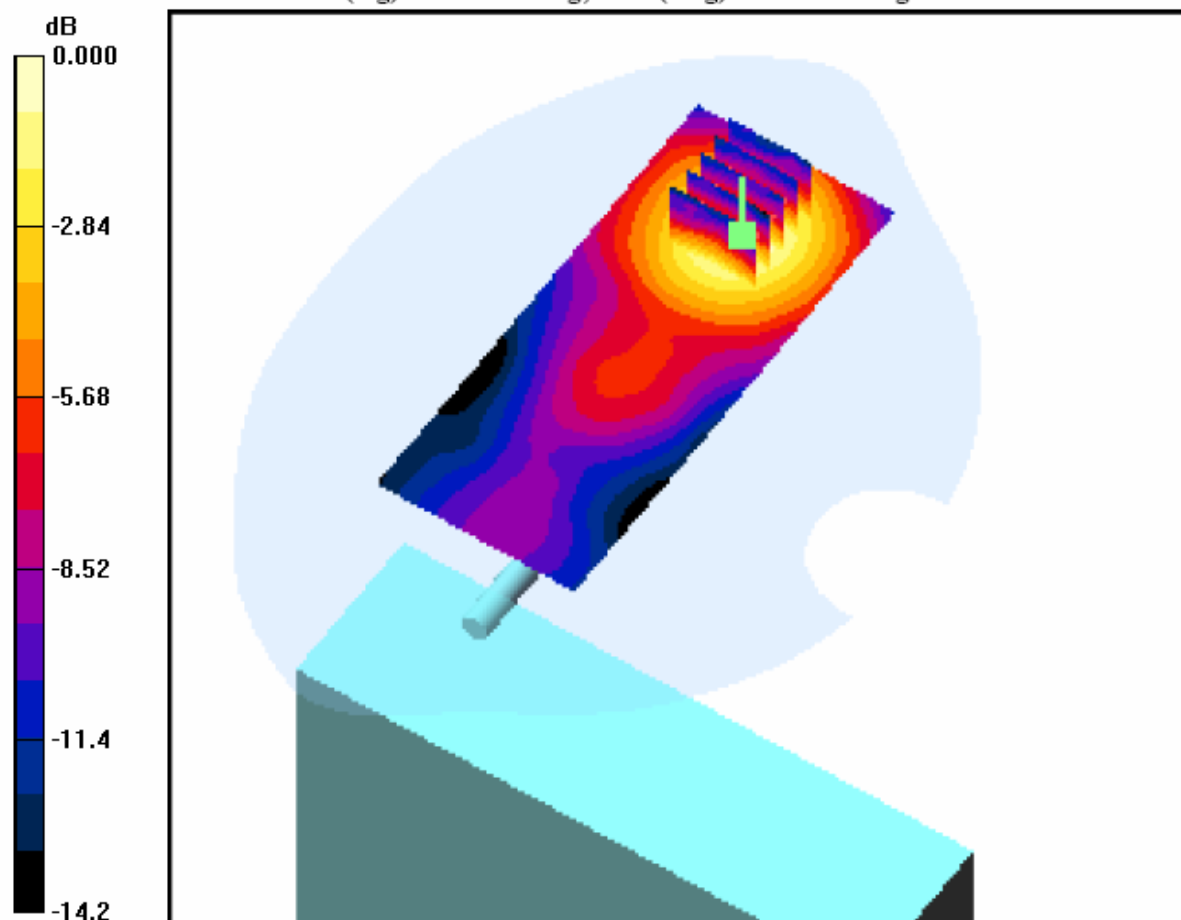
**Area Scan (51x121x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Power Drift = -0.240 dB

Peak SAR (extrapolated) = 0.063 W/kg

SAR(1 g) = 0.041 mW/g; SAR(10 g) = 0.026 mW/g



0 dB = 0.044mW/g

## DIGITAL EMC CO., LTD

**DUT: SGP-1036; Type: WLL**

Communication System: PCS 1900; Frequency: 1850.2 MHz; Duty Cycle: 1:4.15  
 Medium parameters used:  $f = 1850.2 \text{ MHz}$ ;  $\sigma = 1.53 \text{ mho/m}$ ;  $\epsilon_r = 52.7$ ;  $\rho = 1000 \text{ kg/m}^3$   
 Phantom section: Flat Section

### DASY4 Configuration:

Probe: ET3DV6 - SN1702; ConvF(4.76, 4.76, 4.76); Calibrated: 2006-03-23; Electronics: DAE3 Sn519  
 Phantom: SAM 1800/1900 MHz; Type: SAM; Serial: TP-1224  
 Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

Test Date: 2006-09-01; Ambient Temp: 21.5; Tissue Temp: 22.0

**2.5cm from Body, PCS Ch.512, Ant Fixed, Charger Mode With GPRS**

**Area Scan (51x131x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Power Drift = -0.015 dB

Peak SAR (extrapolated) = 0.098 W/kg

SAR(1 g) = 0.062 mW/g; SAR(10 g) = 0.040 mW/g

