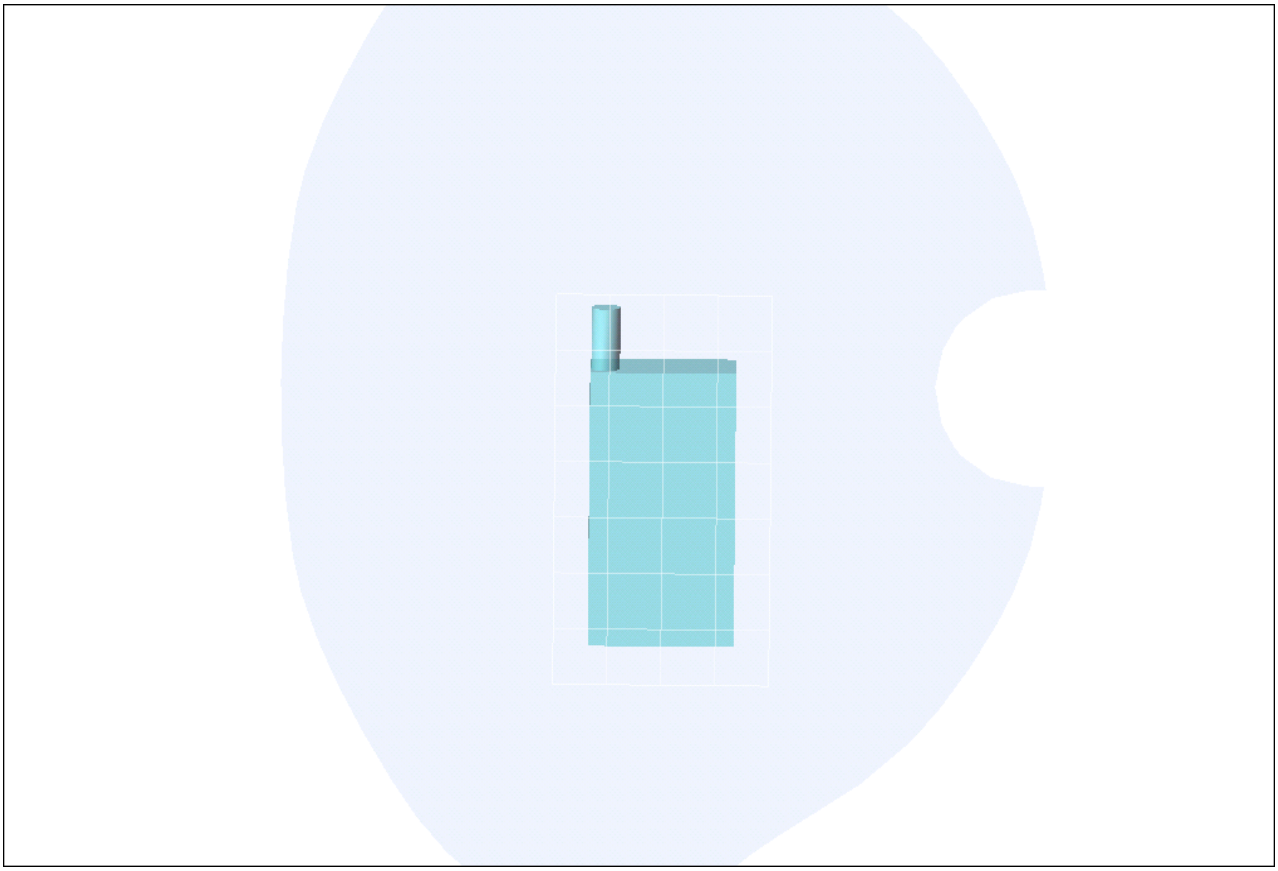
Date/Time: 07/24/03 17:20:23

Test Laboratory: C&C Labratory CO., Ltd

BODY-WORM



Date/Time: 07/24/03 17:20:23

Test Laboratory: C&C Labratory CO., Ltd
File Name: gsm1900.da4

gsm1900-Low Chennal

DUT: JOHANN; Type: JOHANN; Serial: IDQDJ-0306JHN01
Program: flat

Communication System: GSM1900; Frequency: 1850.2 MHz;Duty Cycle: 1:8
Medium: HSL1900 (σ = 1.5374 mho/m, ε_r = 51.1374, ρ = 1000 kg/m^3)
Air Temperature 25.8 deg C ; Liquid Temperature 25.2 deg C
Phantom section: Flat Section

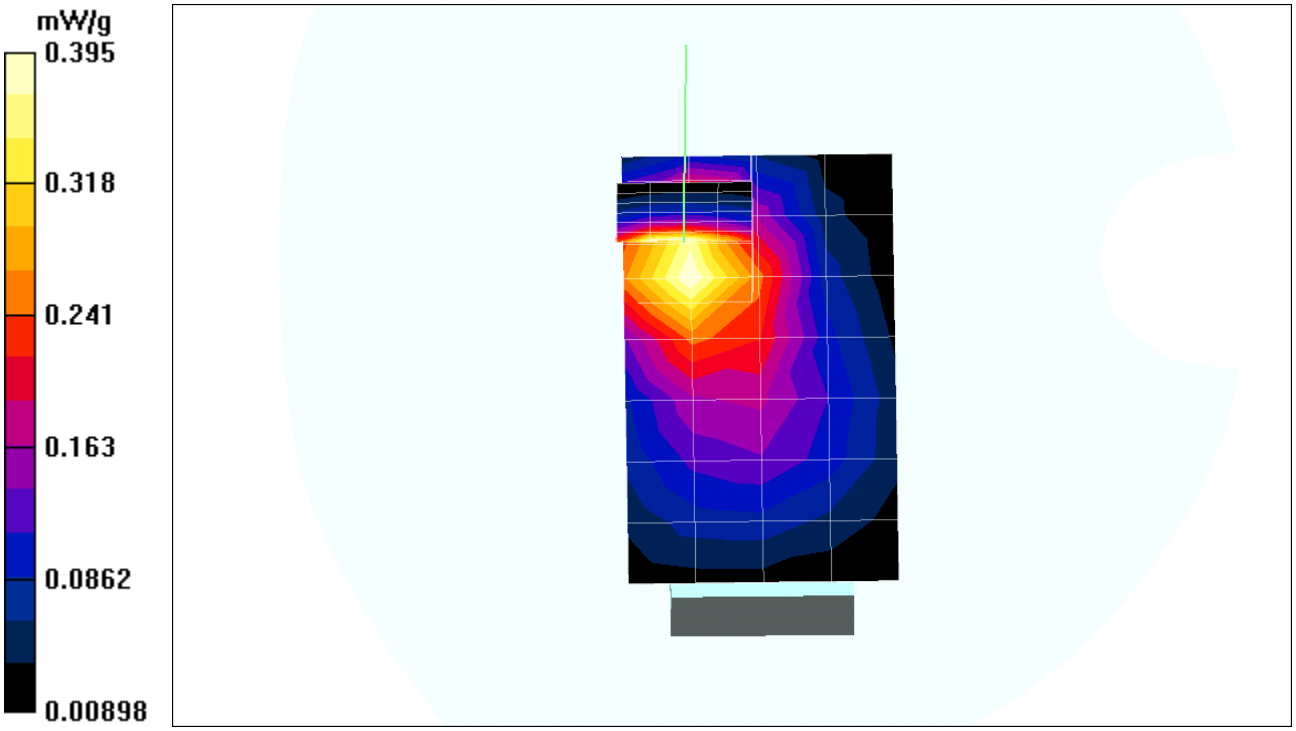
DASY4 Configuration:

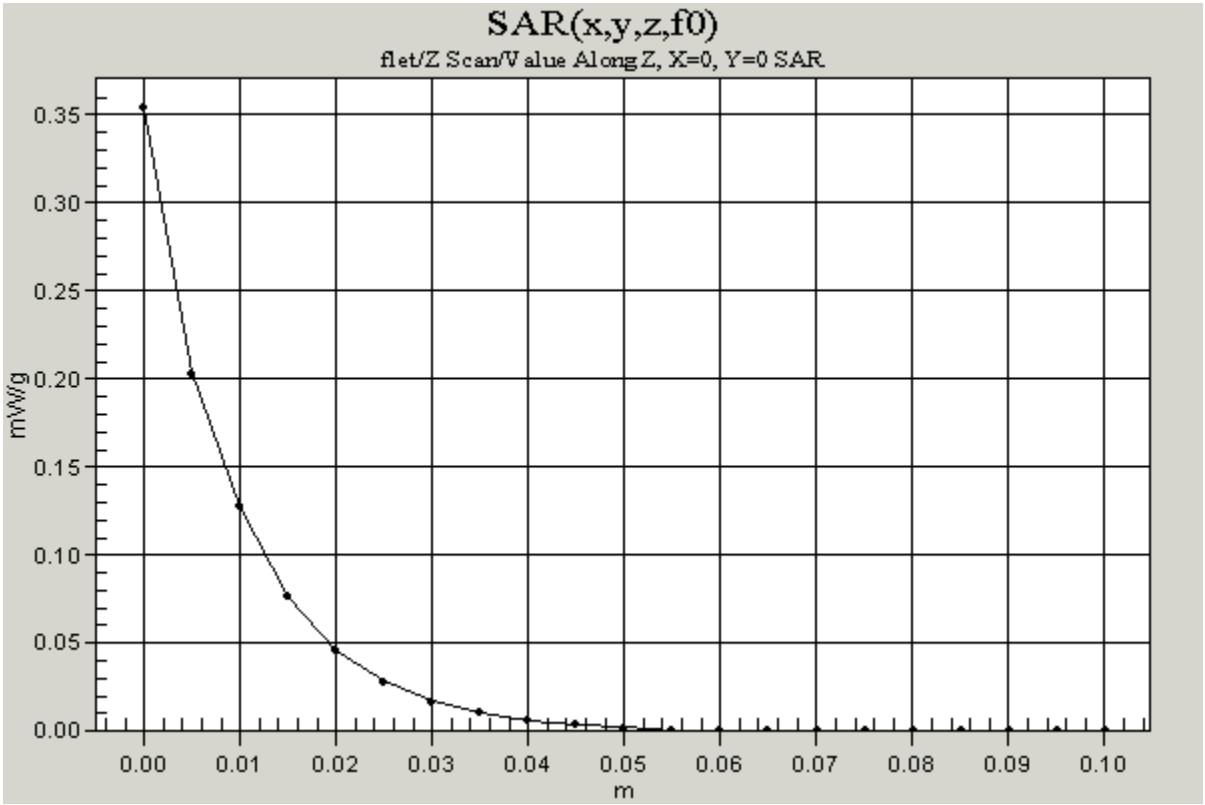
- Probe: ET3DV6 - SN1762; ConvF(5, 5, 5); Calibrated: 3/31/2003
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
  Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn558; Calibrated: 3/7/2003
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1271
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

gsm low/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm
Reference Value = 13.2 V/m
Power Drift = 0.04 dB
Maximum value of SAR = 0.395 mW/g

gsm low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Peak SAR (extrapolated) = 0.692 W/kg
SAR(1 g) = 0.406 mW/g; SAR(10 g) = 0.229 mW/g
Reference Value = 13.2 V/m
Power Drift = 0.04 dB
Maximum value of SAR = 0.426 mW/g

gsm low/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Reference Value = 13.2 V/m
Power Drift = 0.03 dB
Maximum value of SAR = 0.354 mW/g


mW/g
0.395
0.318
0.241
0.163
0.0862
0.00898


SAR(x,y,z,f0)
flet/Z Scan/Value Along Z, X=0, Y=0 SAR
mW/g
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0.00
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
0.09
0.10
m

Date/Time: 07/24/03 17:40:38

Test Laboratory: C&C Labratory CO., Ltd
File Name: gsm1900.da4

gsm1900

DUT: JOHANN; Type: JOHANN; Serial: IDQDJ-0306JHN01
Program: flat

Communication System: GSM1900; Frequency: 1880 MHz;Duty Cycle: 1:8
Medium: HSL1900 (σ = 1.5374 mho/m, ε_r = 51.1374, ρ = 1000 kg/m^3)
Air Temperature 25.8 deg C ; Liquid Temperature 25.2 deg C
Phantom section: Flat Section

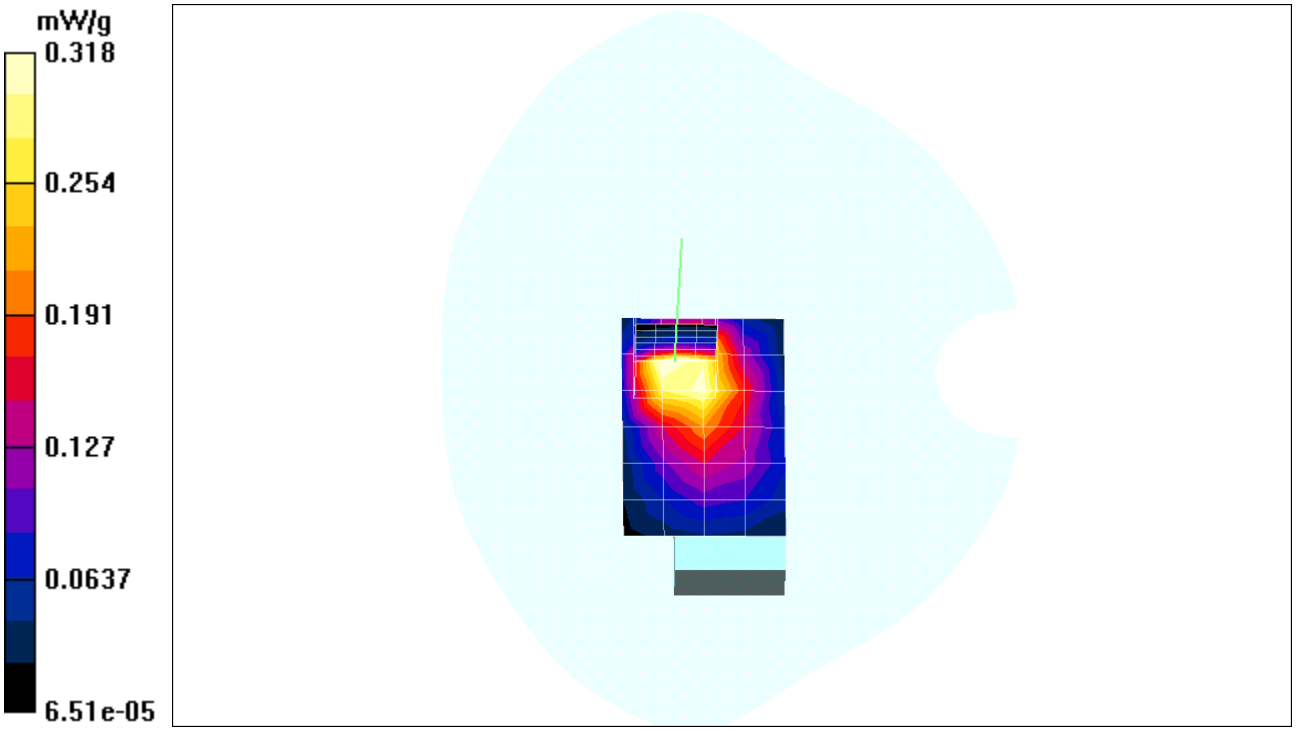
DASY4 Configuration:

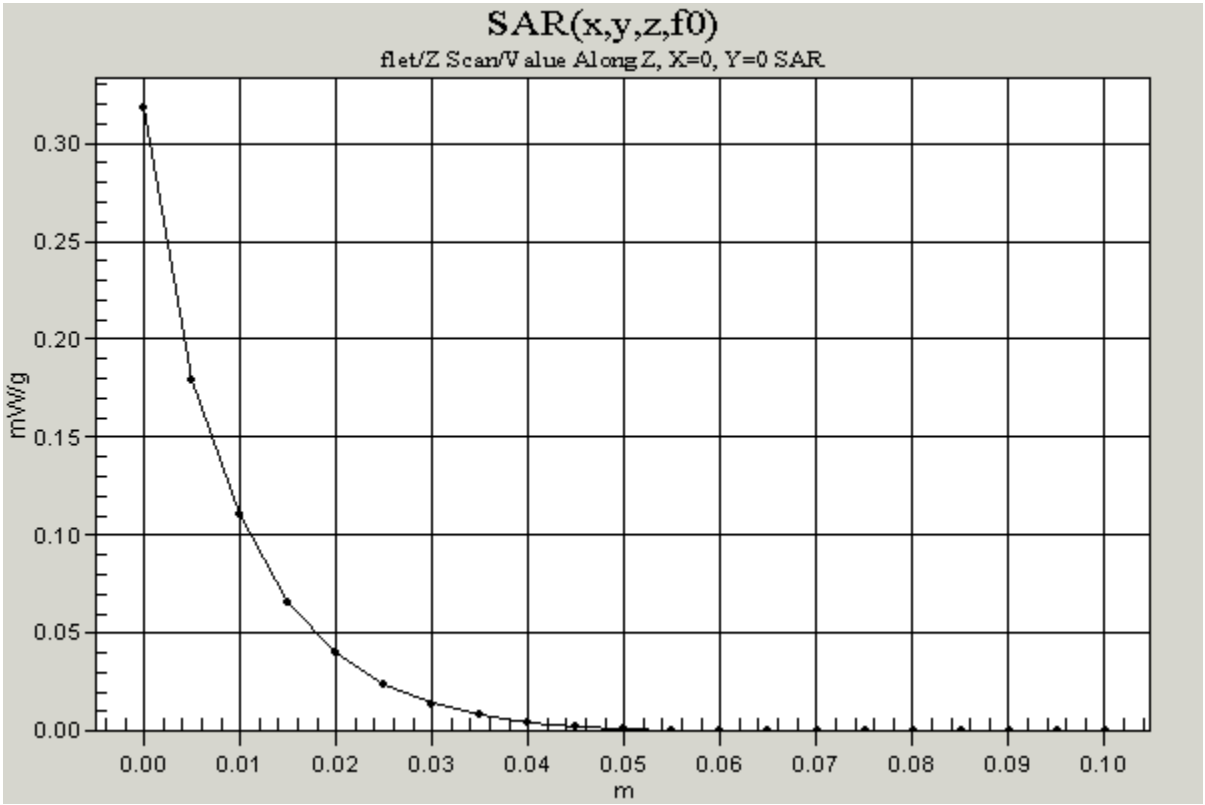
- Probe: ET3DV6 - SN1762; ConvF(5, 5, 5); Calibrated: 3/31/2003
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
  Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn558; Calibrated: 3/7/2003
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1271
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

gsm mid/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm
Reference Value = 12.4 V/m
Power Drift = 0.09 dB
Maximum value of SAR = 0.337 mW/g

gsm mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Peak SAR (extrapolated) = 0.606 W/kg
SAR(1 g) = 0.355 mW/g; SAR(10 g) = 0.203 mW/g
Reference Value = 12.4 V/m
Power Drift = 0.09 dB
Maximum value of SAR = 0.389 mW/g

gsm mid/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Reference Value = 12.4 V/m
Power Drift = 0.09 dB
Maximum value of SAR = 0.318 mW/g


mW/g
0.318
0.254
0.191
0.127
0.0637
6.51e-05


SAR(x,y,z,f0)
flet/Z Scan/Value Along Z, X=0, Y=0 SAR
mW/g
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0.00
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
0.09
0.10
m

Date/Time: 07/24/03 18:09:14

Test Laboratory: C&C Labratory CO., Ltd
File Name: gsm1900.da4

gsm1900

DUT: JOHANN; Type: JOHANN; Serial: IDQDJ-0306JHN01
Program: flat

Communication System: GSM1900; Frequency: 1909.8 MHz;Duty Cycle: 1:8
Medium: HSL1900 (σ = 1.5374 mho/m, ε_r = 51.1374, ρ = 1000 kg/m^3)
Air Temperature 25.8 deg C ; Liquid Temperature 25.2 deg C

Phantom section: Flat Section

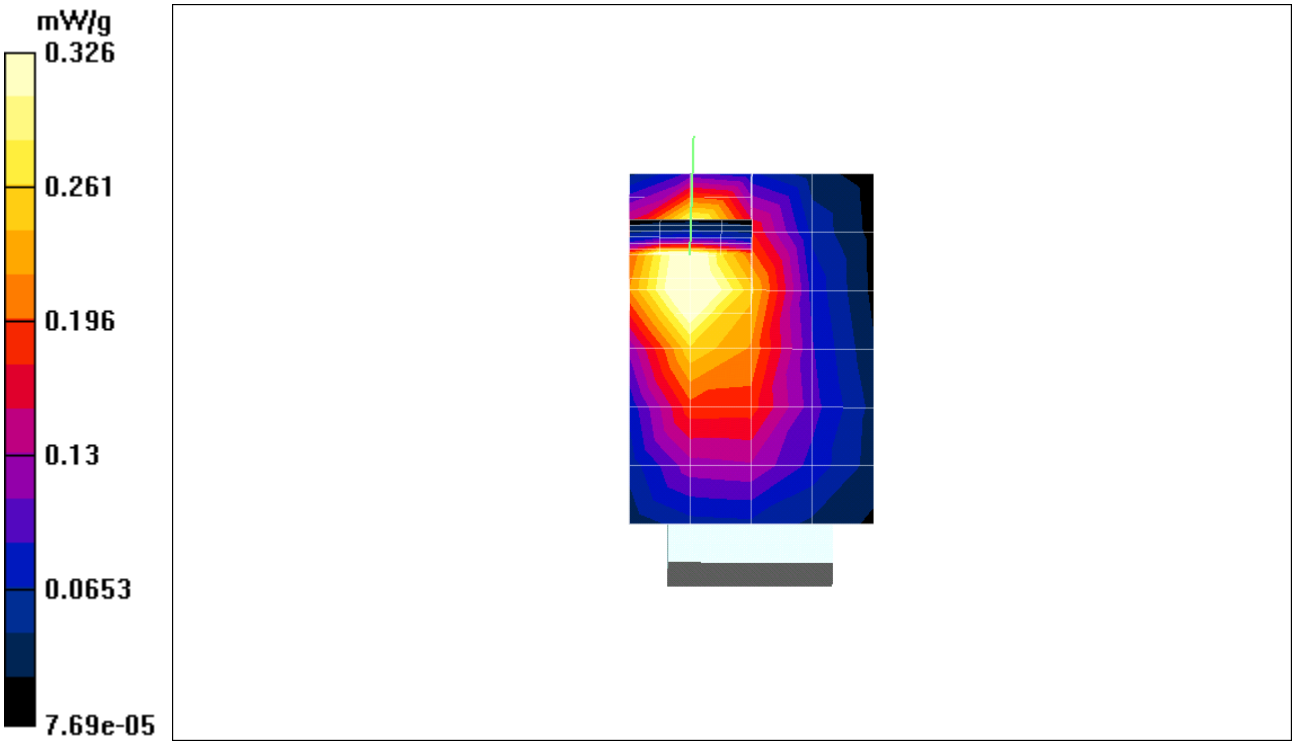
DASY4 Configuration:

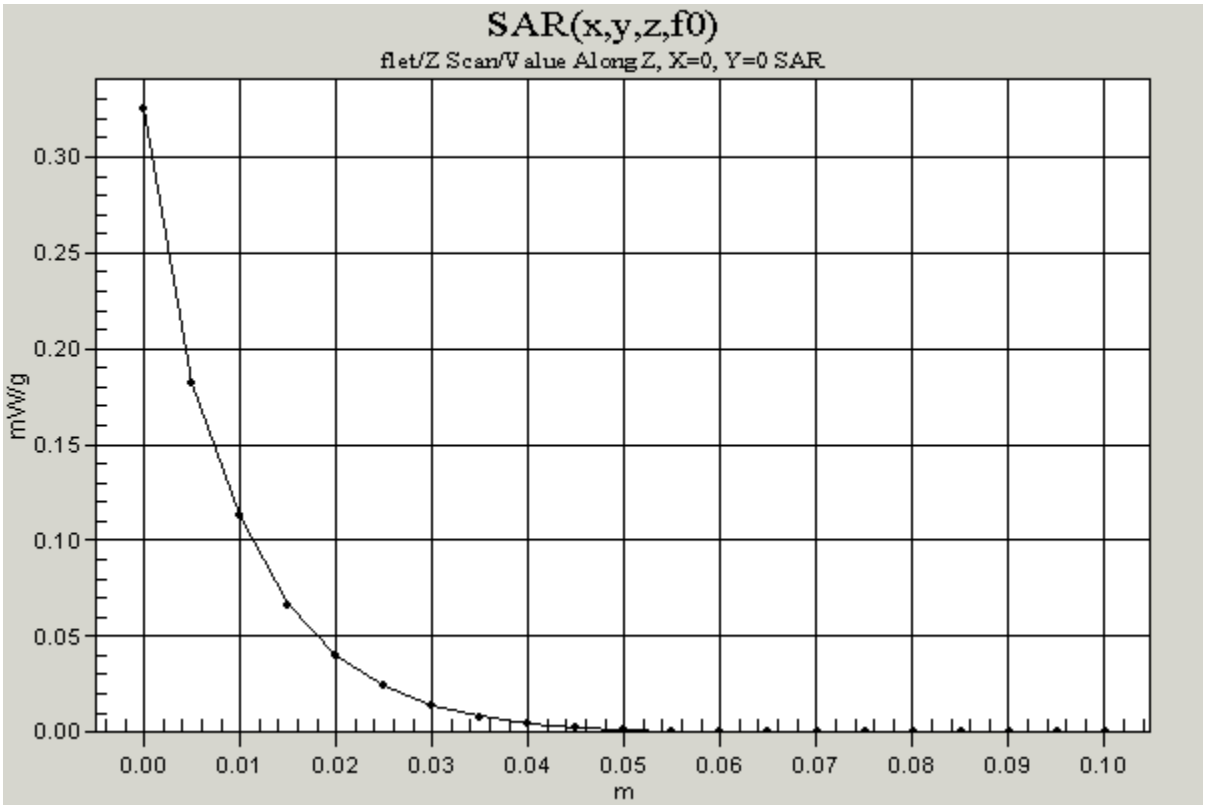
- Probe: ET3DV6 - SN1762; ConvF(5, 5, 5); Calibrated: 3/31/2003
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
  Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn558; Calibrated: 3/7/2003
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1271
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

gsm high/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm
Reference Value = 12.4 V/m
Power Drift = 0.08 dB
Maximum value of SAR = 0.368 mW/g

gsm high/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Peak SAR (extrapolated) = 0.643 W/kg
SAR(1 g) = 0.375 mW/g; SAR(10 g) = 0.212 mW/g
Reference Value = 12.4 V/m
Power Drift = 0.08 dB
Maximum value of SAR = 0.389 mW/g

gsm high/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Reference Value = 12.4 V/m
Power Drift = 0.1 dB
Maximum value of SAR = 0.326 mW/g


mW/g
0.326
0.261
0.196
0.13
0.0653
7.69e-05


SAR(x,y,z,f0)
flet/Z Scan/Value Along Z, X=0, Y=0 SAR
mW/g
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0.00
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
0.09
0.10
m

Date/Time: 07/24/03 18:53:20

Test Laboratory: C&C Labratory CO., Ltd
File Name: gprs1900.da4

gprs1900-Body

DUT: JOHANN; Type: JOHANN; Serial: ID:QDJ-0306JHN01
Program: flat

Communication System: GPRS1900; Frequency: 1850.2 MHz;Duty Cycle: 1:4
Medium: HSL1900 (σ = 1.5374 mho/m, ε_r = 51.1374, ρ = 1000 kg/m^3)
Air Temperature 25.8 deg C ; Liquid Temperature 25.2 deg C

Phantom section: Flat Section

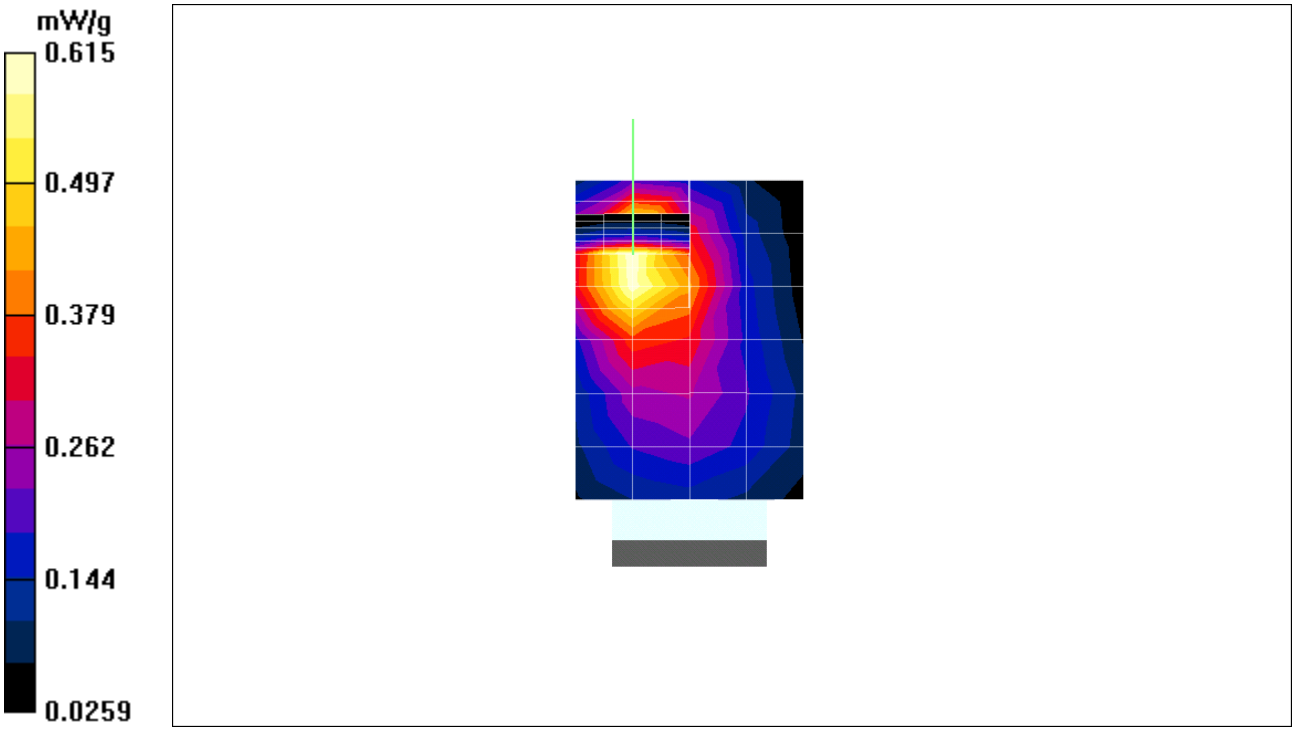
DASY4 Configuration:

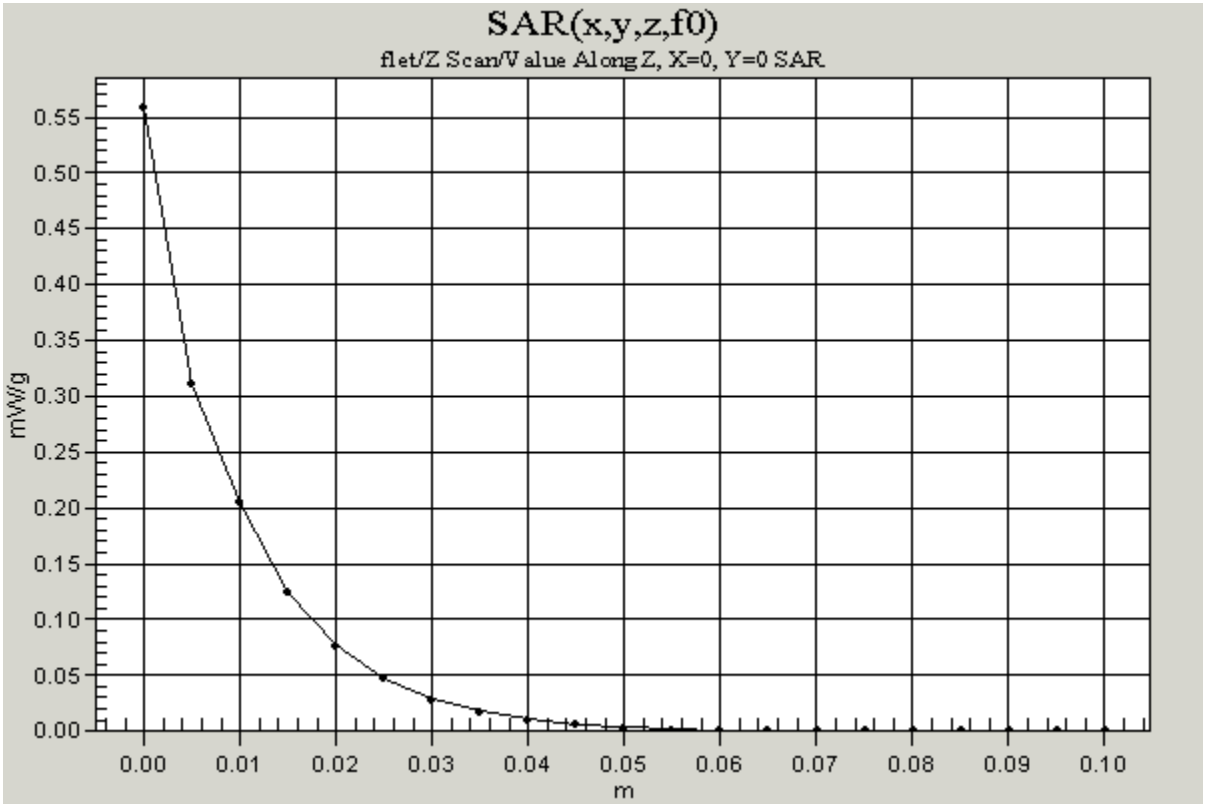
- Probe: ET3DV6 - SN1762; ConvF(5, 5, 5); Calibrated: 3/31/2003
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
  Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn558; Calibrated: 3/7/2003
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1271
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

gprs low/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm
Reference Value = 17.2 V/m
Power Drift = -0.04 dB
Maximum value of SAR = 0.615 mW/g

gprs low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Peak SAR (extrapolated) = 1.06 W/kg
SAR(1 g) = 0.625 mW/g; SAR(10 g) = 0.358 mW/g
Reference Value = 17.2 V/m
Power Drift = -0.04 dB
Maximum value of SAR = 0.674 mW/g

gprs low/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Reference Value = 17.2 V/m
Power Drift = -0.03 dB
Maximum value of SAR = 0.559 mW/g


mW/g
0.615
0.497
0.379
0.262
0.144
0.0259


SAR(x,y,z,f0)
flet/Z Scan/Value Along Z, X=0, Y=0 SAR
mW/g
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0.00
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
0.09
0.10
m

Date/Time: 07/24/03 18:53:20

Test Laboratory: C&C Labratory CO., Ltd
File Name: gprs1900.da4

gprs1900

DUT: JOHANN; Type: JOHANN; Serial: IDQDJ-0306JHN01
Program: flat

Communication System: GPRS1900; Frequency: 1880 MHz;Duty Cycle: 1:4
Medium: HSL1900 (σ = 1.5374 mho/m, ε_r = 51.1374, ρ = 1000 kg/m^3)
Air Temperature 25.8 deg C ; Liquid Temperature 25.2 deg C

Phantom section: Flat Section

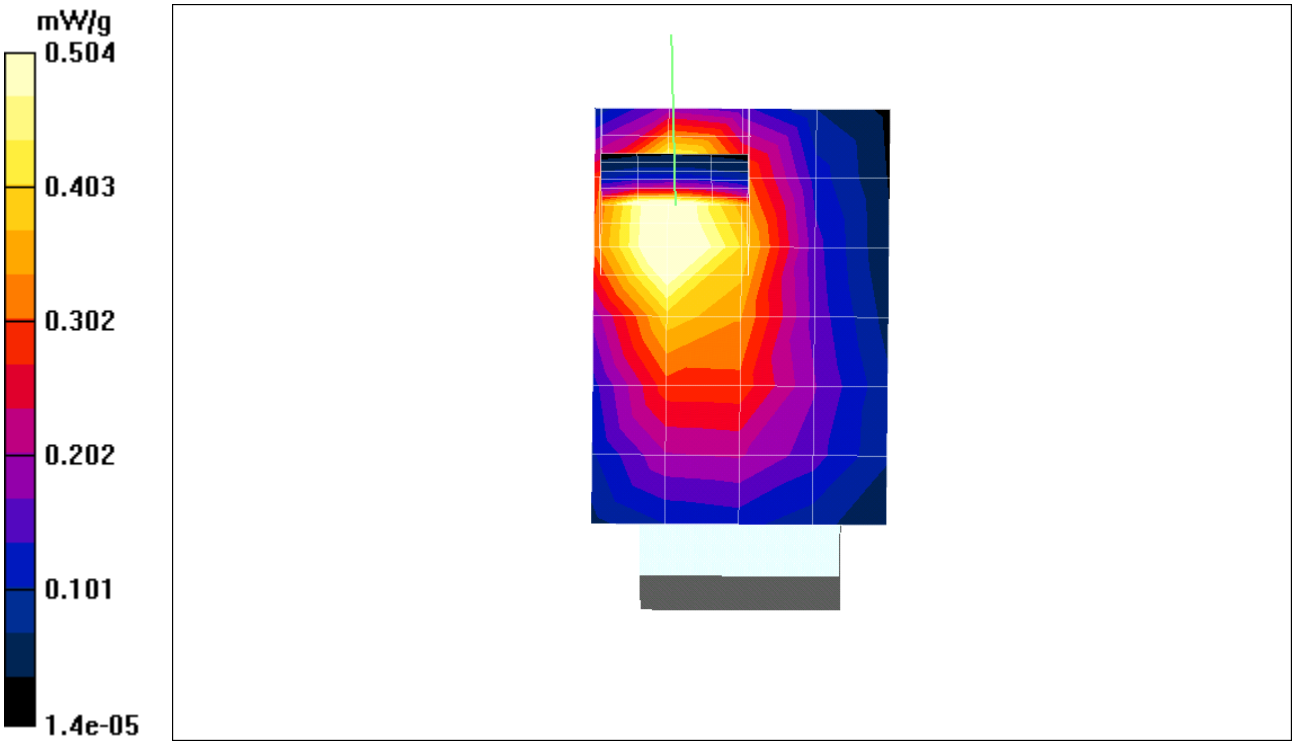
DASY4 Configuration:

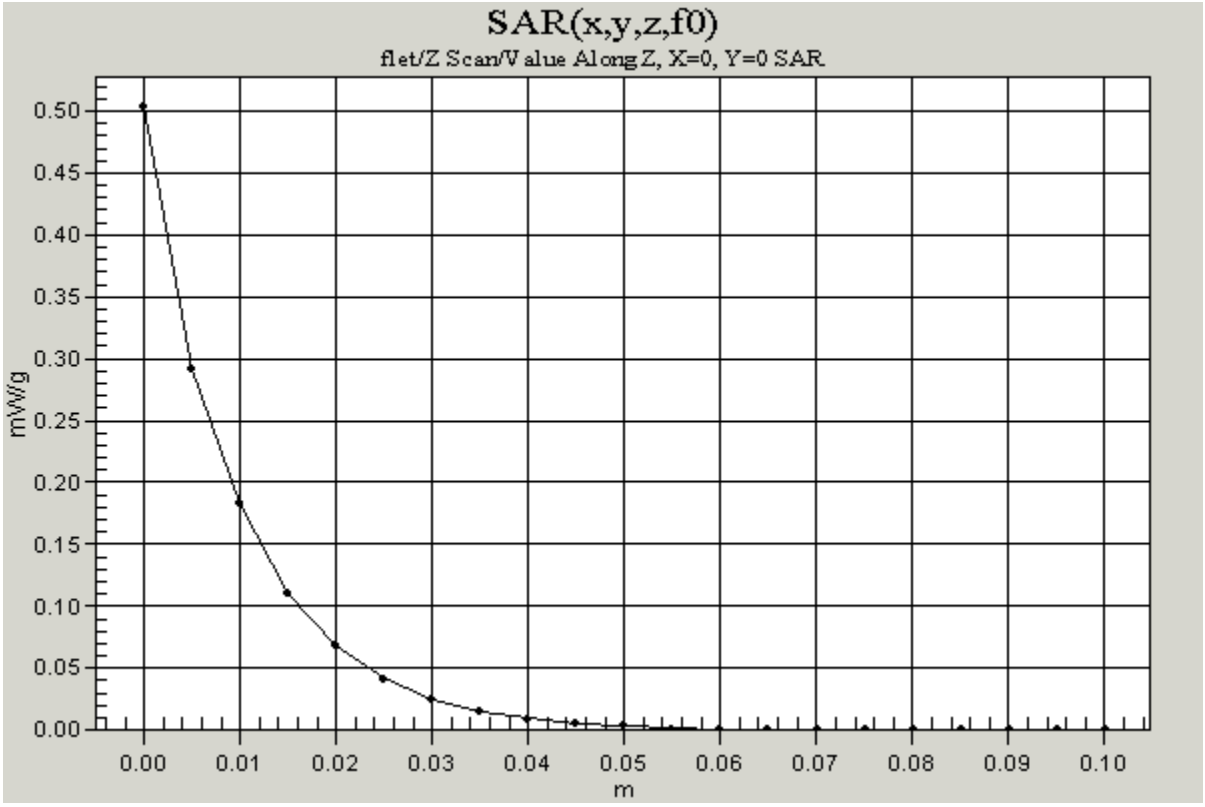
- Probe: ET3DV6 - SN1762; ConvF(5, 5, 5); Calibrated: 3/31/2003
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
  Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn558; Calibrated: 3/7/2003
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1271
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

gprs mid/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm
Reference Value = 16.6 V/m
Power Drift = -0.03 dB
Maximum value of SAR = 0.571 mW/g

gprs mid/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Peak SAR (extrapolated) = 0.965 W/kg
SAR(1 g) = 0.575 mW/g; SAR(10 g) = 0.333 mW/g
Reference Value = 16.6 V/m
Power Drift = -0.03 dB
Maximum value of SAR = 0.601 mW/g

gprs mid/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Reference Value = 16.6 V/m
Power Drift = -0.01 dB
Maximum value of SAR = 0.504 mW/g


mW/g
0.504
0.403
0.302
0.202
0.101
1.4e-05


SAR(x,y,z,f0)
flet/Z Scan/Value Along Z, X=0, Y=0 SAR
mW/g
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0.00
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
0.09
0.10
m

Date/Time: 07/24/03 19:17:56

Test Laboratory: C&C Labratory CO., Ltd
File Name: gprs1900.da4

gprs1900

DUT: JOHANN; Type: JOHANN; Serial: IDQDJ-0306JHN01
Program: flat

Communication System: GPRS1900; Frequency: 1909.8 MHz;Duty Cycle: 1:4
Medium: HSL1900 (σ = 1.5374 mho/m, ε_r = 51.1374, ρ = 1000 kg/m^3)
Air Temperature 25.8 deg C ; Liquid Temperature 25.2 deg C

Phantom section: Flat Section

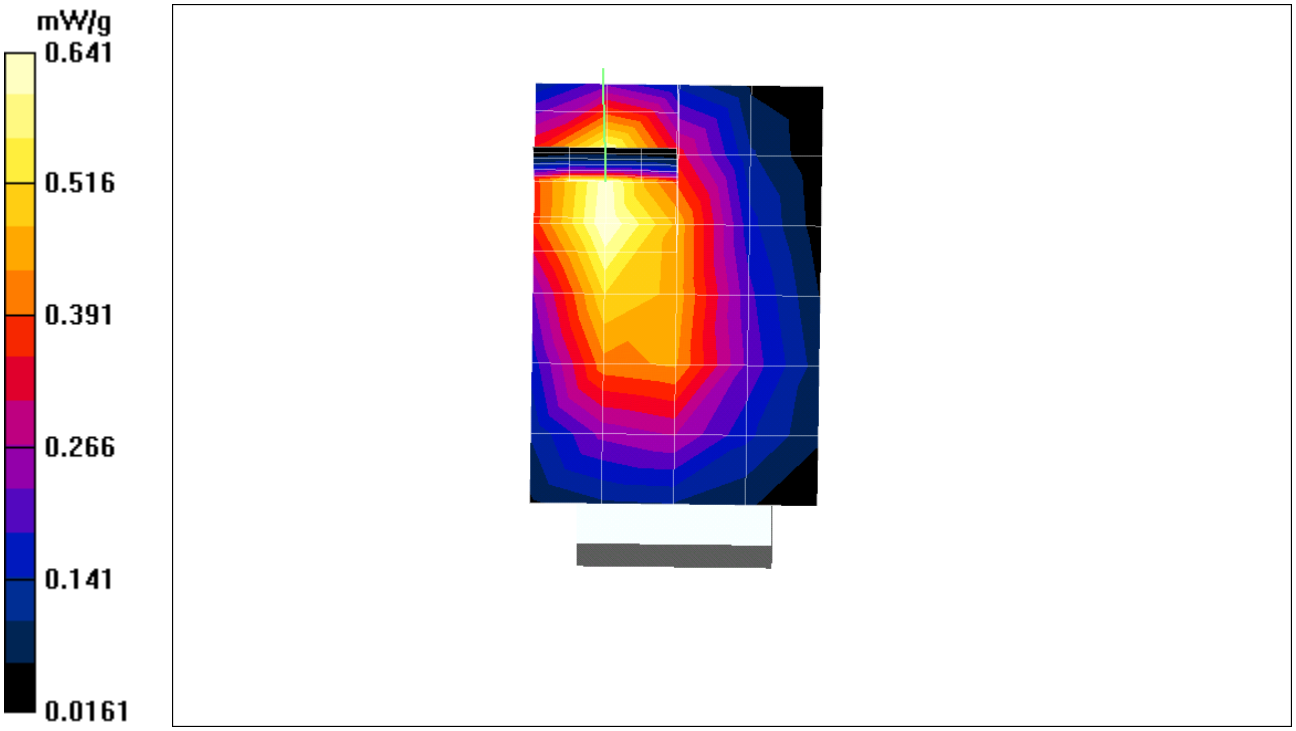
DASY4 Configuration:

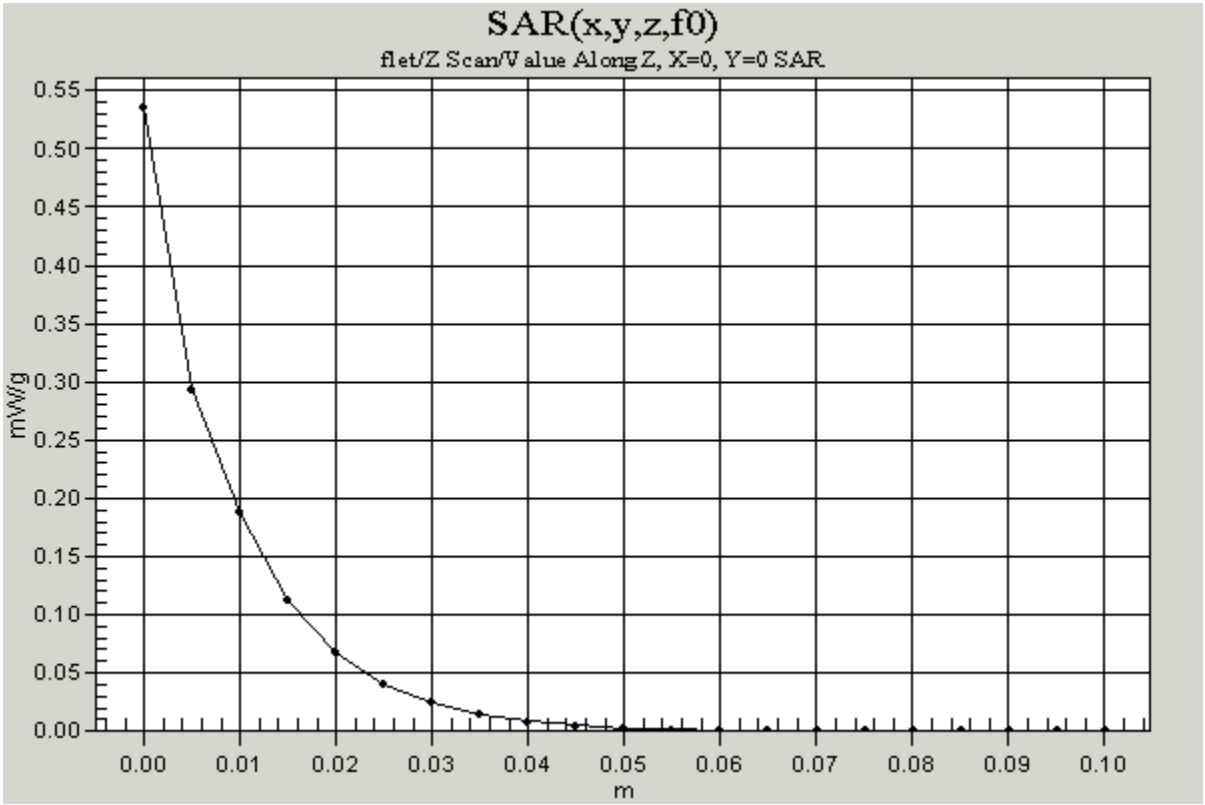
- Probe: ET3DV6 - SN1762; ConvF(5, 5, 5); Calibrated: 3/31/2003
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
  Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn558; Calibrated: 3/7/2003
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1271
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

gprs high/Area Scan (5x7x1): Measurement grid: dx=15mm, dy=15mm
Reference Value = 17.1 V/m
Power Drift = -0.02 dB
Maximum value of SAR = 0.641 mW/g

gprs high/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Peak SAR (extrapolated) = 1.11 W/kg
SAR(1 g) = 0.641 mW/g; SAR(10 g) = 0.37 mW/g
Reference Value = 17.1 V/m
Power Drift = -0.02 dB
Maximum value of SAR = 0.667 mW/g

gprs high/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm
Reference Value = 17.1 V/m
Power Drift = 0.03 dB
Maximum value of SAR = 0.536 mW/g


mW/g
0.641
0.516
0.391
0.266
0.141
0.0161


SAR(x,y,z,f0)
flet/Z Scan/Value Along Z, X=0, Y=0 SAR
mW/g
0.55
0.50
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0.00
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
0.09
0.10
m