# **APPENDIX B Plots Of The SAR Measurements**

Plots of the measured SAR distributions inside the phantom are given in this Appendix for all tested configurations. The spatial peak SAR values were assessed with the procedure described in this report.

### Table: 850 MHz SAR Plots

| Test Position    | Plot<br>Number        | Test<br>Channel |
|------------------|-----------------------|-----------------|
| Body Worn        | 1                     | 128             |
| Back Position    | 2                     | 190             |
|                  | 3                     | 251             |
| Z-Axis Graphs    | Z-Axis for Plots 1- 2 |                 |
| Z-Axis Graphs    | Z-Axis for Plots 3- 4 |                 |
| Edge-On Position | 4                     | 190             |

#### Table: 1900 MHz SAR Plots

| Test Position    | Plot<br>Number        | Test<br>Channel |
|------------------|-----------------------|-----------------|
| Body Worn        | 5                     | 512             |
| Back Position    | 6                     | 661             |
|                  | 7                     | 810             |
| Z-Axis Graphs    | Z-Axis for Plots 5- 6 |                 |
| Z-Axis Graphs    | Z-Axis for Plots 7-8  |                 |
| Edge-On Position | 8                     | 661             |

### Table: SAR Validation Plots

| Date                       | Plot Number | Frequency |
|----------------------------|-------------|-----------|
| 15 <sup>th</sup> June 2006 | 9           | 1800 MHz  |
| 16 <sup>th</sup> June 2006 | 10          | 900 MHz   |



File Name: Body Worn Back 850 MHz GPRS Class 10 (DAE442 Probe1380) 16-06-06.da4 DUT: Duncan Technologies GPRS Handheld Transmitter; Type: AutoCite X3CIW; Serial: 75503

\* Communication System: 850 MHz GPRS Class 10; Frequency: 824 MHz; Duty Cycle: 1:4.15

\* Medium parameters used:  $\sigma$  = 0.986078 mho/m,  $\epsilon_r$  = 52.824;  $\rho$  = 1000 kg/m<sup>3</sup>

- Electronics: DAE3 Sn442; Probe: ET3DV6 - SN1380; ConvF(5.99, 5.99, 5.99)

- Phantom: Flat Phantom 10.1; Serial: P 10.1; Phantom section: Flat 2.2 Section

**Channel 128 Test/Area Scan (81x111x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 1.12 mW/g

# Channel 128 Test/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm,

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dy=5mm, dz=5mm
Reference Value = 32.7 V/m; Power Drift = 0.013 dB
Peak SAR (extrapolated) = 1.58 W/kg
SAR(1 g) = 1.04 mW/g; SAR(10 g) = 0.660 mW/g
Maximum value of SAR (measured) = 1.14 mW/g
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File Name: <u>Body Worn Back 850 MHz GPRS Class 10 (DAE442 Probe1380) 16-06-06.da4</u> DUT: Duncan Technologies GPRS Handheld Transmitter; Type: AutoCite X3CIW; Serial: 75503

\* Communication System: 850 MHz GPRS Class 10; Frequency: 836 MHz; Duty Cycle: 1:4.15

\* Medium parameters used:  $\sigma$  = 0.998318 mho/m,  $\epsilon_r$  = 52.74;  $\rho$  = 1000 kg/m<sup>3</sup>

- Electronics: DAE3 Sn442; Probe: ET3DV6 - SN1380; ConvF(5.99, 5.99, 5.99)

- Phantom: Flat Phantom 10.1; Serial: P 10.1; Phantom section: Flat 2.2 Section

#### **Channel 190 Test/Area Scan (81x111x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 1.18 mW/g

# Channel 190 Test/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm,

dy=5mm, dz=5mm Reference Value = 35.0 V/m; Power Drift = 0.025 dB Peak SAR (extrapolated) = 1.77 W/kg SAR(1 g) = 1.09 mW/g; SAR(10 g) = 0.684 mW/g Maximum value of SAR (measured) = 1.19 mW/g





File Name: <u>Body Worn Back 850 MHz GPRS Class 10 (DAE442 Probe1380) 16-06-06.da4</u> DUT: Duncan Technologies GPRS Handheld Transmitter; Type: AutoCite X3CIW; Serial: 75503

\* Communication System: 850 MHz GPRS Class 10; Frequency: 849 MHz; Duty Cycle: 1:4.15

\* Medium parameters used:  $\sigma$  = 1.00985 mho/m,  $\epsilon_r$  = 52.5909;  $\rho$  = 1000 kg/m<sup>3</sup>

- Electronics: DAE3 Sn442; Probe: ET3DV6 - SN1380; ConvF(5.99, 5.99, 5.99)

- Phantom: Flat Phantom 10.1; Serial: P 10.1; Phantom section: Flat 2.2 Section

#### **Channel 251 Test/Area Scan (81x111x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 1.09 mW/g

### Channel 251 Test/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm,

dy=5mm, dz=5mm Reference Value = 32.6 V/m; Power Drift = -0.042 dB Peak SAR (extrapolated) = 1.66 W/kg SAR(1 g) = 1.06 mW/g; SAR(10 g) = 0.662 mW/g Maximum value of SAR (measured) = 1.17 mW/g





File Name: Body Worn Edge On 850 MHz GPRS Class 10 (DAE442 Probe1380) 16-06-06.da4 DUT: Duncan Technologies GPRS Handheld Transmitter; Type: AutoCite X3CIW; Serial: 75503

\* Communication System: 850 MHz GPRS Class 10; Frequency: 836 MHz; Duty Cycle: 1:4.15

\* Medium parameters used:  $\sigma$  = 0.998318 mho/m,  $\epsilon_r$  = 52.74;  $\rho$  = 1000 kg/m<sup>3</sup>

- Electronics: DAE3 Sn442; Probe: ET3DV6 - SN1380; ConvF(5.99, 5.99, 5.99)

- Phantom: Flat Phantom 10.1; Serial: P 10.1; Phantom section: Flat 2.2 Section

**Channel 190 Test/Area Scan (101x71x1):** Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (interpolated) = 0.180 mW/g

# Channel 190 Test/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm,

dy=5mm, dz=5mm Reference Value = 13.3 V/m; Power Drift = -0.064 dB Peak SAR (extrapolated) = 0.238 W/kg SAR(1 g) = 0.167 mW/g; SAR(10 g) = 0.117 mW/g Maximum value of SAR (measured) = 0.177 mW/g





#### Z-Axis Graph for Plot 1



#### Z-Axis Graph for Plot 2



![](_page_5_Picture_6.jpeg)

#### Z-Axis Graph for Plot 3

![](_page_6_Figure_3.jpeg)

#### Z-Axis Graph for Plot 4

![](_page_6_Figure_5.jpeg)

![](_page_6_Picture_6.jpeg)