

APPLICANT: Sony Ericsson Mobile Communications Inc.

FCC ID: **PY7AF061011**



**Sony Ericsson**

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## Appendix 2

### SAR distribution plots for Phantom Head Adjacent Use

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# **1900 GSM Band: Distribution and Extrapolation of Maximum SAR**

**Model: Z502A SN: BD3017AYMN**

**with Standard Battery: BST-35**

## **Right Side, Cheek/Touch Position.**

Date/Time: 06/21/04 12:47:55

File Name: 21June04\_Z502A\_GSM1900\_AYMN\_RC01.da4

Program Notes: Battery BST-35 Humidity: 41.9 Ambient Temp: 22.5 Simulant Temp: 21.7

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

Medium: Head 1800/1900 MHz Medium parameters used (interpolated):  $f = 1850.2 \text{ MHz}$ ;  $s = 1.37 \text{ mho/m}$ ;  $\epsilon_r = 39.9$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(5.14, 5.14, 5.14); Calibrated: 5/27/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn432; Calibrated: 5/24/2004
- Phantom: SAM with CRP (High Band Head); Type: SAM; Serial: TP: 1054
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

**Area Scan (51x81x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

Reference Value = 26.2 V/m; Power Drift = -0.1 dB

Maximum value of SAR (interpolated) = 1.3 mW/g

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

Reference Value = 26.2 V/m; Power Drift = -0.1 dB

Maximum value of SAR (measured) = 1.47 mW/g

Peak SAR (extrapolated) = 2.2 W/kg

**SAR(1 g) = 1.29 mW/g; SAR(10 g) = 0.673 mW/g**

**Zoom Scan (31x31x36)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 26.2 V/m; Power Drift = -0.1 dB

Maximum value of SAR (interpolated) = 2.2 mW/g

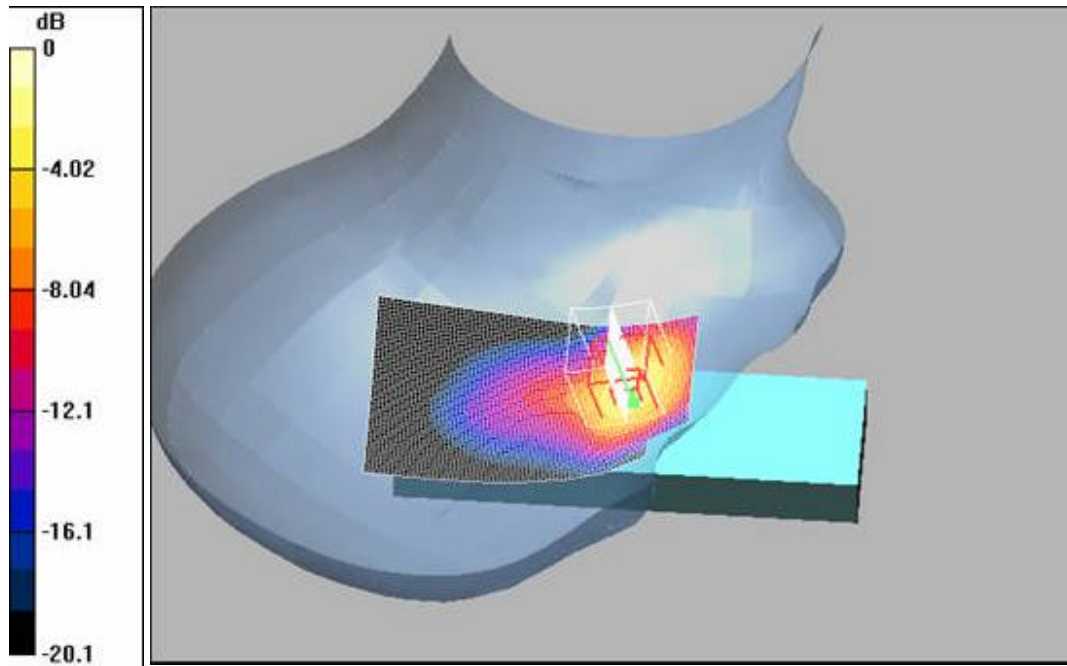


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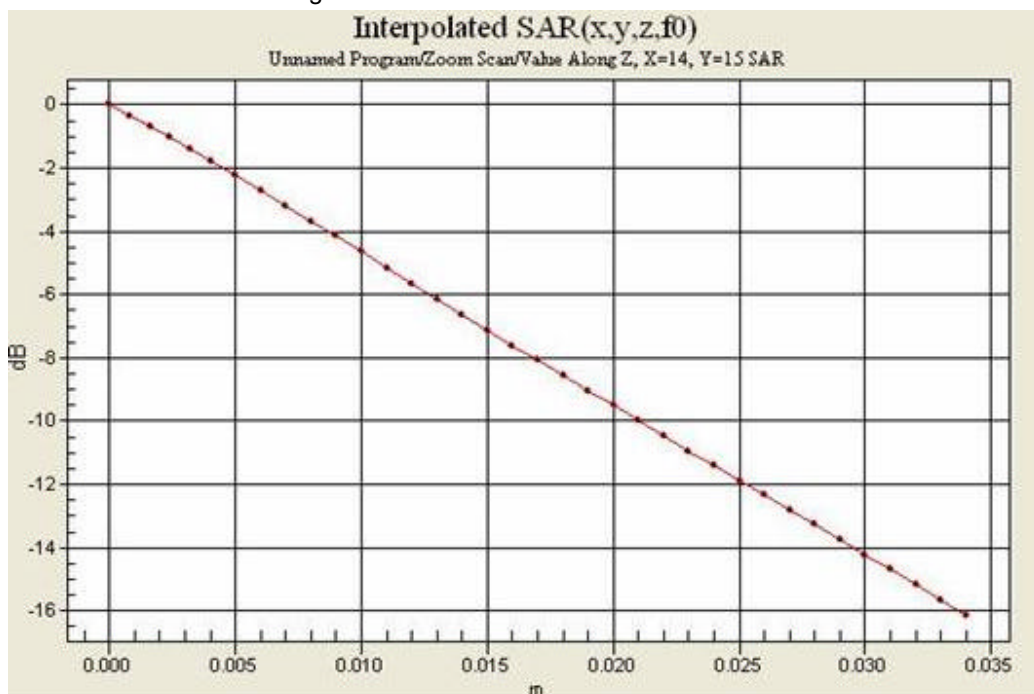
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0 dB = 2.2mW/g





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**1900 GSM Band: Distribution and Extrapolation of Maximum SAR****Model: Z502A SN: BD3017AYMN****with Standard Battery: BST-35****Right Side, Tilt Position.**

Date/Time: 06/21/04 11:32:29

File Name: 21June04\_Z502A\_GSM1900\_AYMN\_RT01.da4

Program Notes: Battery BST-35 Humidity: 40.9 Ambient Temp: 23.6 Simulant Temp: 21.8

Communication System: DCS 1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium: Head 1800/1900 MHz Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $s = 1.4 \text{ mho/m}$ ;  $\epsilon_r = 39.7$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(5.14, 5.14, 5.14); Calibrated: 5/27/2004

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn432; Calibrated: 5/24/2004

- Phantom: SAM with CRP (High Band Head); Type: SAM; Serial: TP: 1054

- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

**Area Scan (51x81x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$ 

Reference Value = 9.63 V/m; Power Drift = -0.0 dB

Maximum value of SAR (interpolated) = 0.221 mW/g

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

Reference Value = 9.63 V/m; Power Drift = -0.0 dB

Maximum value of SAR (measured) = 0.224 mW/g

Peak SAR (extrapolated) = 0.302 W/kg

**SAR(1 g) = 0.205 mW/g; SAR(10 g) = 0.129 mW/g****Zoom Scan (31x31x36)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$ 

Reference Value = 9.63 V/m; Power Drift = -0.0 dB

Maximum value of SAR (interpolated) = 0.302 mW/g

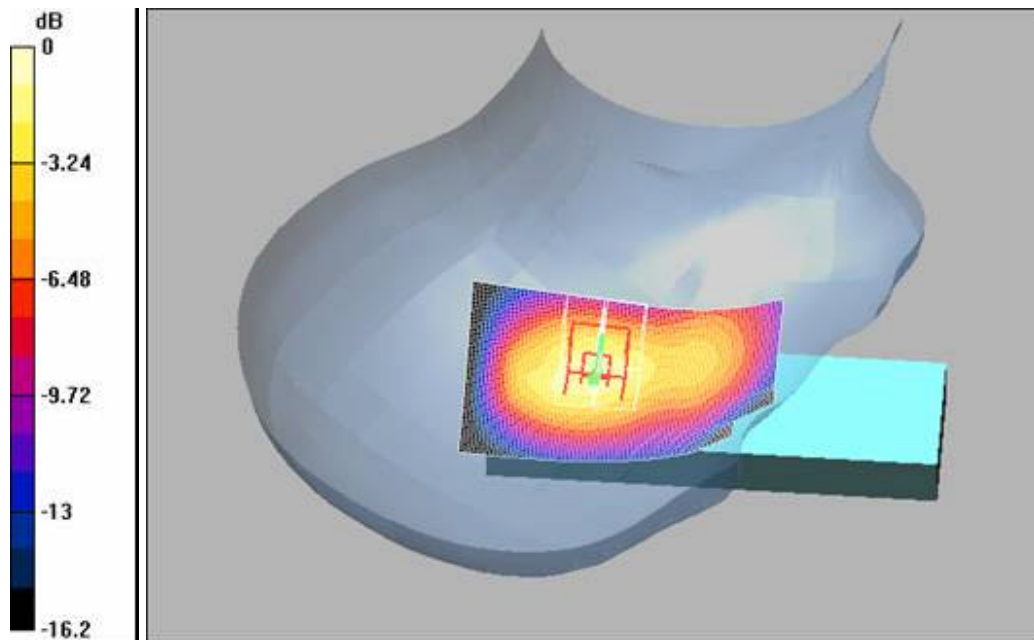


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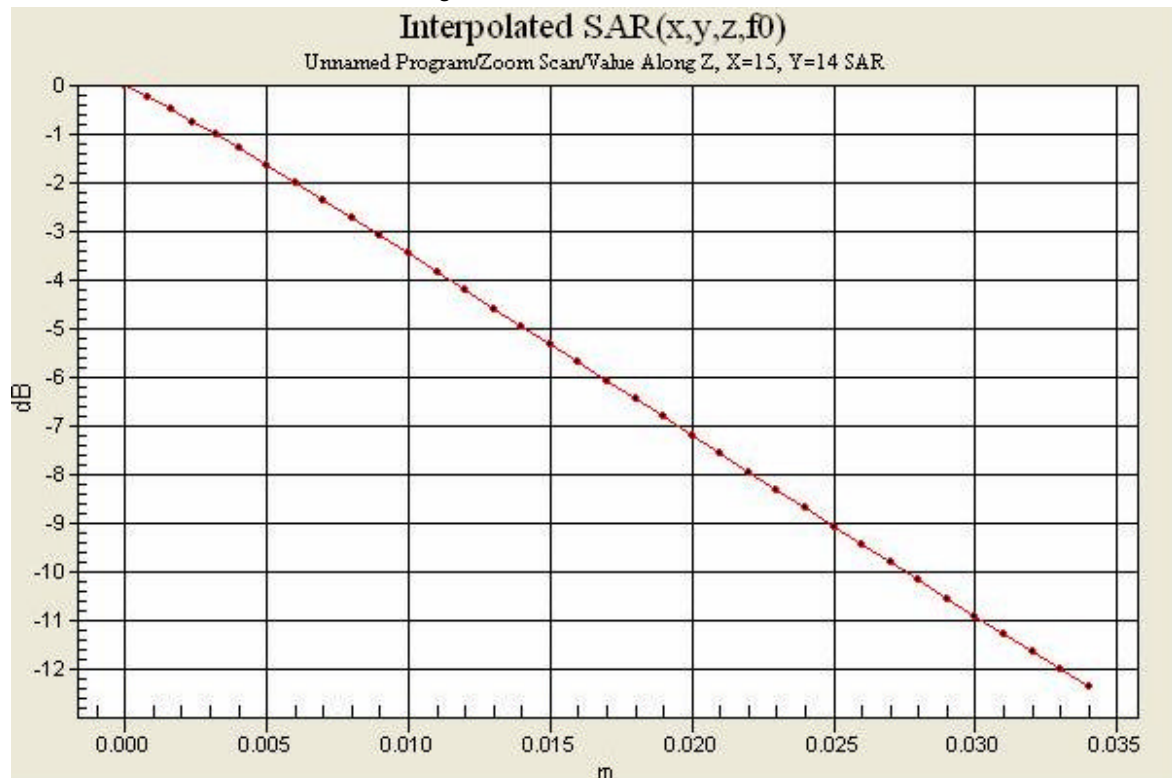
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0 dB = 0.302mW/g





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**1900 GSM Band: Distribution and Extrapolation of Maximum SAR****Model: Z502A SN: BD3017AYMN****with Standard Battery: BST-35****Left Side, Cheek/Touch Position.**

Date/Time: 06/21/04 08:41:22

File Name: 21June04\_Z502A\_GSM1900\_AYMN\_LC01.da4

Program Notes: Battery BST-35 Humidity: 43.9 Ambient Temp: 23.5 Simulant Temp: 21.7

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

Medium: Head 1800/1900 MHz Medium parameters used (interpolated):  $f = 1850.2 \text{ MHz}$ ;  $s = 1.37 \text{ mho/m}$ ;  $\epsilon_r = 39.9$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(5.14, 5.14, 5.14); Calibrated: 5/27/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn432; Calibrated: 5/24/2004
- Phantom: SAM with CRP (High Band Head); Type: SAM; Serial: TP: 1054
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

**Area Scan (51x81x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$ 

Reference Value = 27.4 V/m; Power Drift = -0.1 dB

Maximum value of SAR (interpolated) = 1.42 mW/g

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

Reference Value = 27.4 V/m; Power Drift = -0.1 dB

Maximum value of SAR (measured) = 1.62 mW/g

Peak SAR (extrapolated) = 2.5 W/kg

**SAR(1 g) = 1.42 mW/g; SAR(10 g) = 0.713 mW/g****Zoom Scan (31x31x36)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$ 

Reference Value = 27.4 V/m; Power Drift = -0.1 dB

Maximum value of SAR (interpolated) = 2.5 mW/g

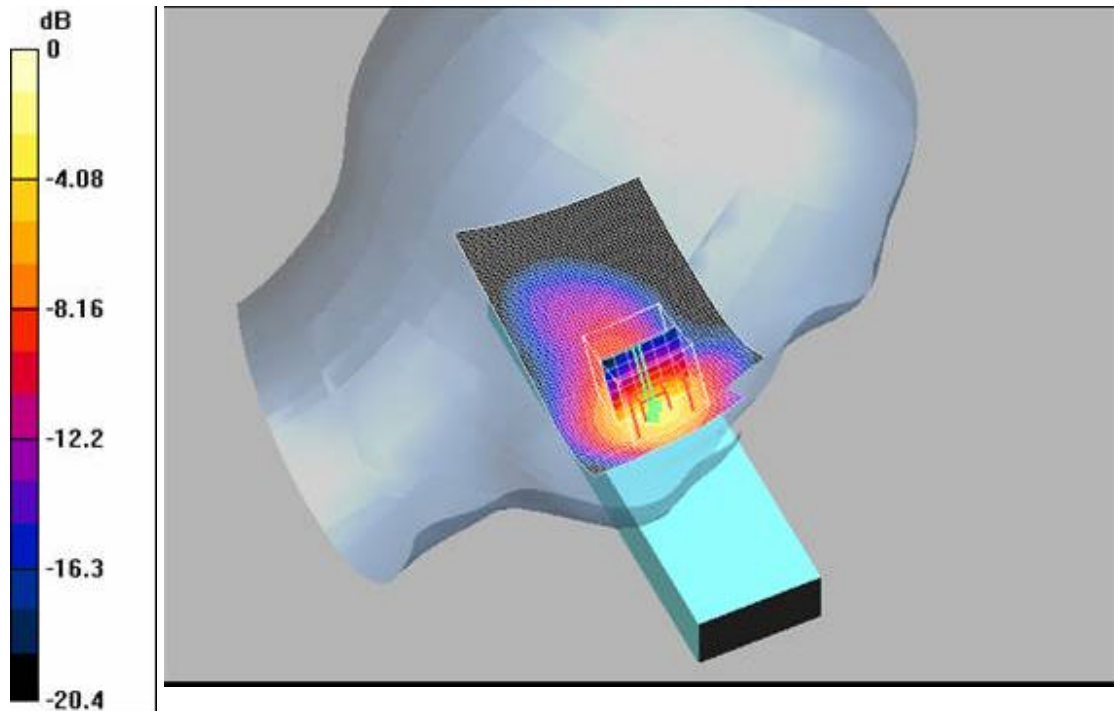


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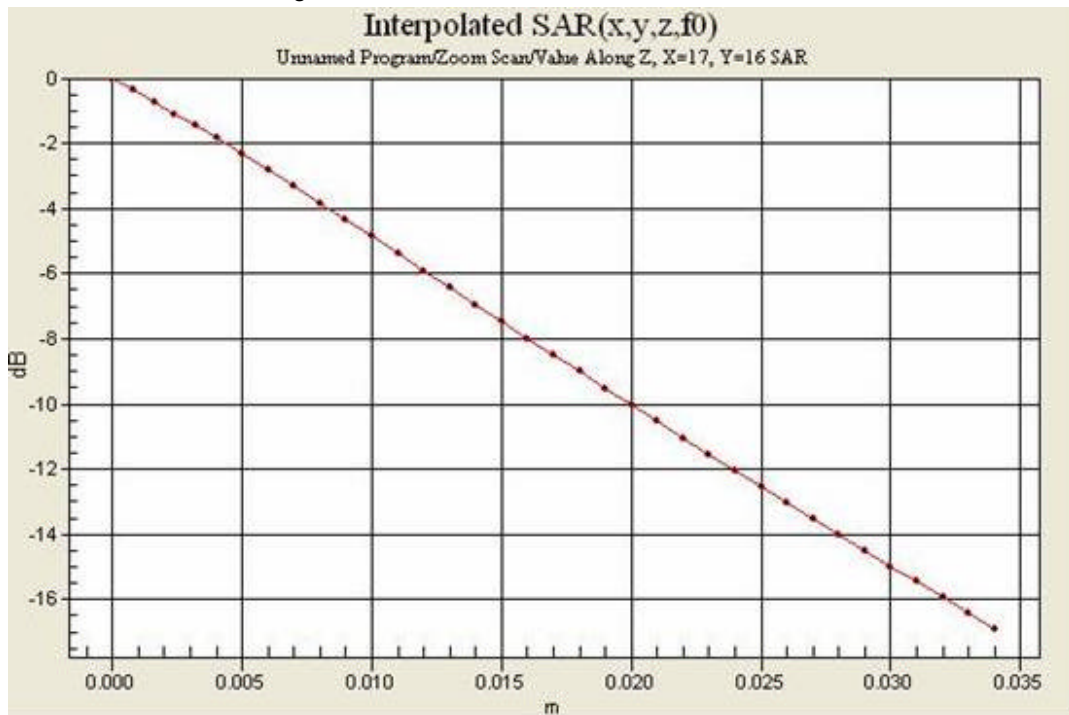
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0 dB = 2.5mW/g





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**1900 GSM Band: Distribution and Extrapolation of Maximum SAR****Model: Z502A SN: BD3017AYMN****with Standard Battery: BST-35****Left Side, Tilt Position.**

Date/Time: 06/21/04 09:58:13

File Name: 21June04\_Z502A\_GSM1900\_AYMN\_LT01.da4

Program Notes: Battery BST-35 Humidity: 43.6 Ambient Temp: 23.1 Simulant Temp: 21.9

Communication System: DCS 1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium: Head 1800/1900 MHz Medium parameters used:  $f = 1880 \text{ MHz}$ ;  $s = 1.4 \text{ mho/m}$ ;  $\epsilon_r = 39.7$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1586; ConvF(5.14, 5.14, 5.14); Calibrated: 5/27/2004

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn432; Calibrated: 5/24/2004

- Phantom: SAM with CRP (High Band Head); Type: SAM; Serial: TP: 1054

- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

**Area Scan (51x81x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$ 

Reference Value = 9.27 V/m; Power Drift = -0.0 dB

Maximum value of SAR (interpolated) = 0.235 mW/g

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

Reference Value = 9.27 V/m; Power Drift = -0.0 dB

Maximum value of SAR (measured) = 0.232 mW/g

Peak SAR (extrapolated) = 0.312 W/kg

**SAR(1 g) = 0.216 mW/g; SAR(10 g) = 0.135 mW/g****Zoom Scan (31x31x36)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$ 

Reference Value = 9.27 V/m; Power Drift = -0.0 dB

Maximum value of SAR (interpolated) = 0.312 mW/g

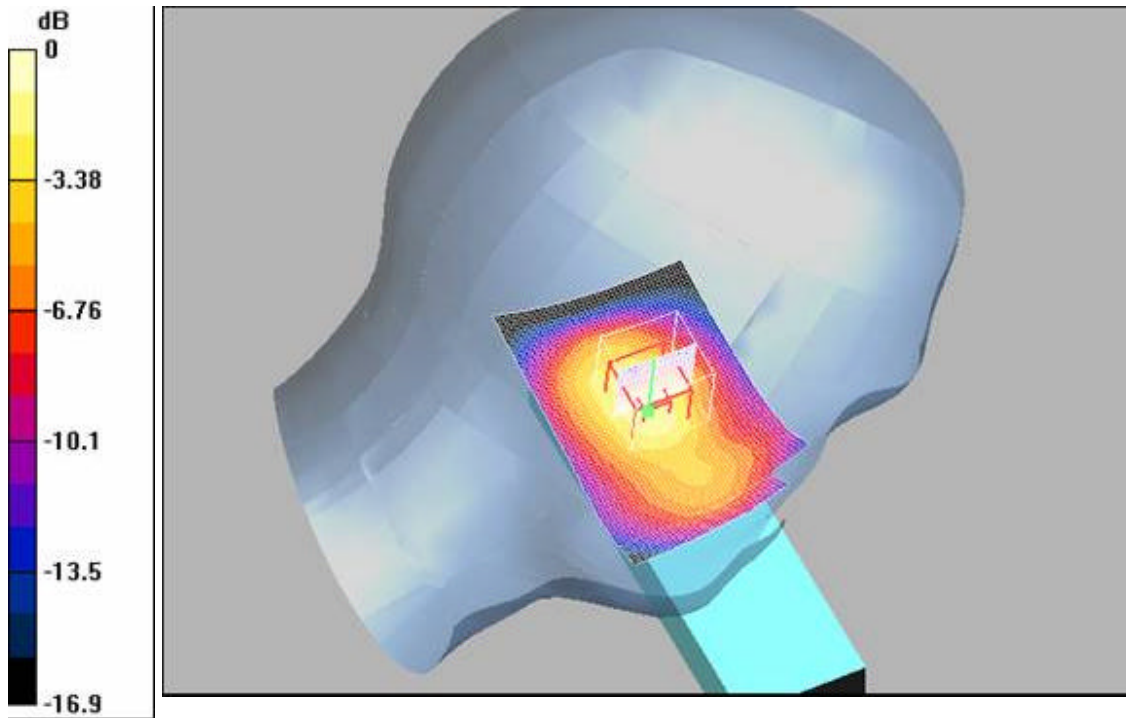


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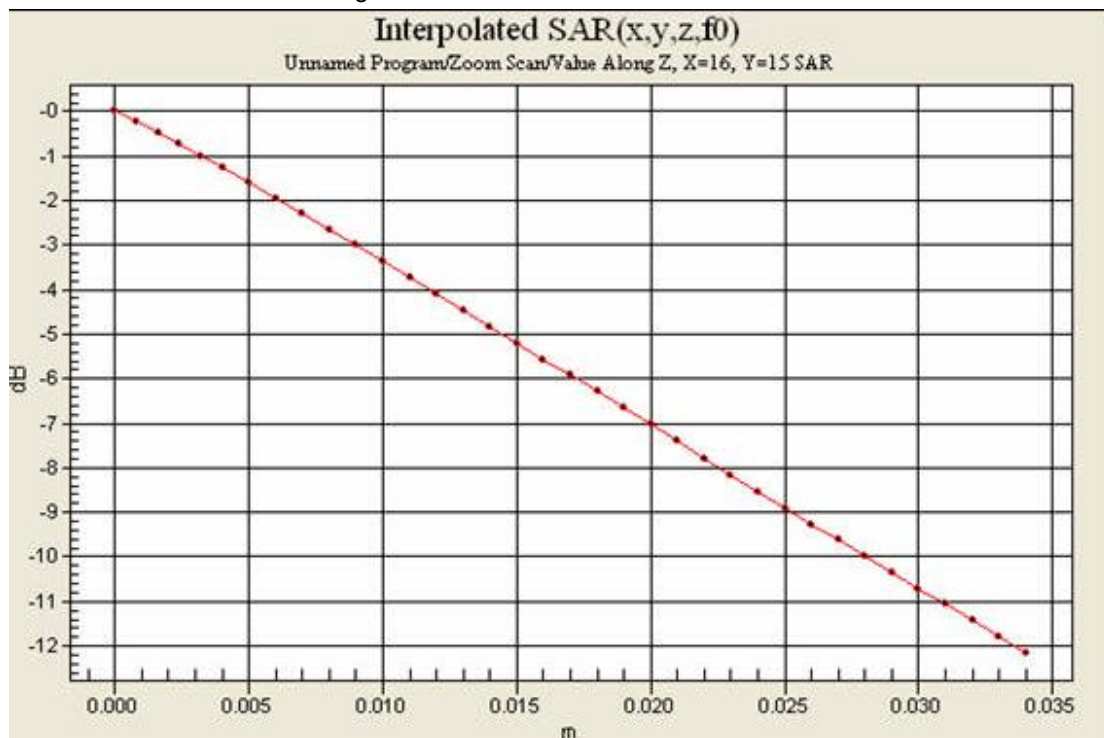
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0 dB = 0.312mW/g





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**1900 GSM Band: Distribution and Extrapolation of Maximum SAR****Model: Z502A SN: BD3017AYMN****with Optional Battery: BST-30****Right Side, Cheek/Touch Position.**

Date/Time: 07/22/04 10:01:29

File Name: 22July04\_Z502A\_GSM1900\_AYMN\_RC01.da4

Program Notes: Battery BST-30 Humidity: 42.8 Ambient Temp: 23 Simulant Temp: 22.3

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

Medium: Head 1800/1900 MHz Medium parameters used (interpolated):  $f = 1850.2 \text{ MHz}$ ;  $s = 1.39 \text{ mho/m}$ ;  $\epsilon_r = 38.3$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1538; ConvF(4.95, 4.95, 4.95); Calibrated: 5/27/2004

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn431; Calibrated: 5/26/2004

- Phantom: SAM with CRP (High Band Head); Type: SAM; Serial: TP: 1054

- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

**Area Scan (51x81x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$ 

Reference Value = 26.5 V/m; Power Drift = -0.2 dB

Maximum value of SAR (interpolated) = 1.3 mW/g

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

Reference Value = 26.5 V/m; Power Drift = -0.2 dB

Maximum value of SAR (measured) = 1.5 mW/g

Peak SAR (extrapolated) = 2.28 W/kg

**SAR(1 g) = 1.3 mW/g; SAR(10 g) = 0.676 mW/g****Zoom Scan (31x31x36)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$ 

Reference Value = 26.5 V/m; Power Drift = -0.2 dB

Maximum value of SAR (interpolated) = 2.28 mW/g

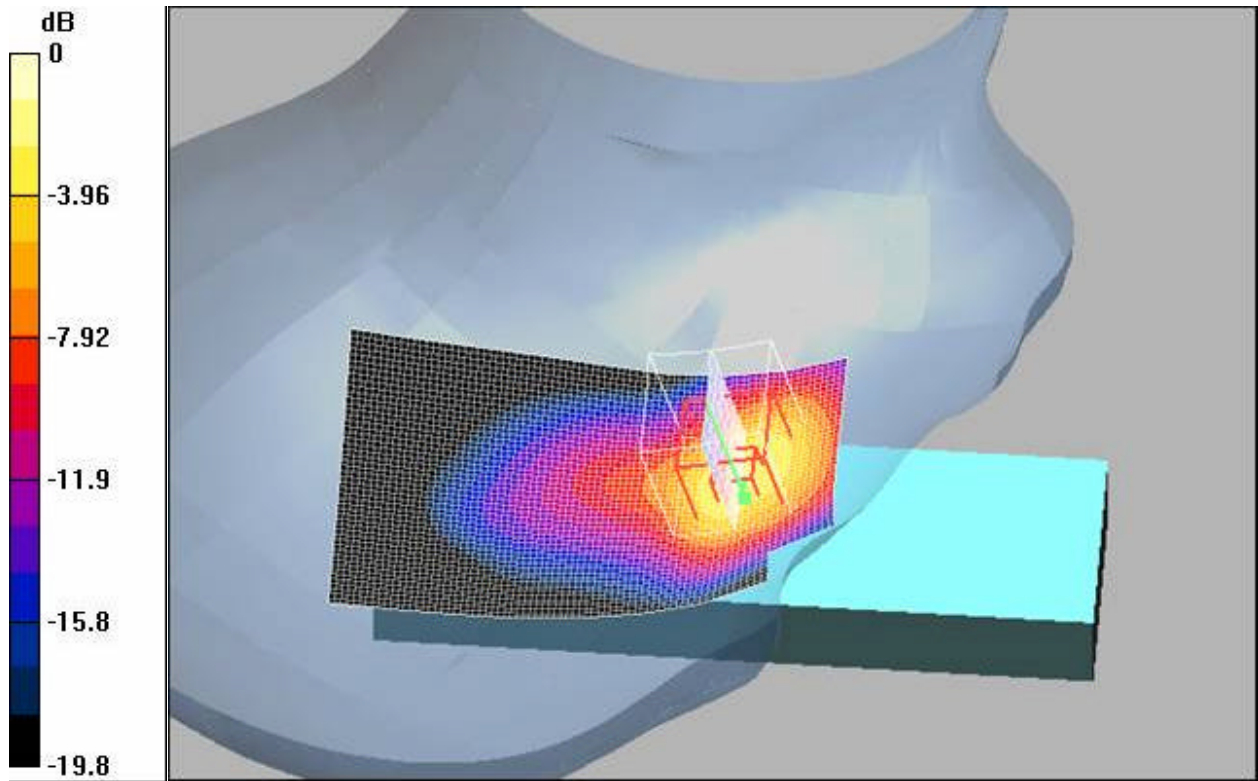


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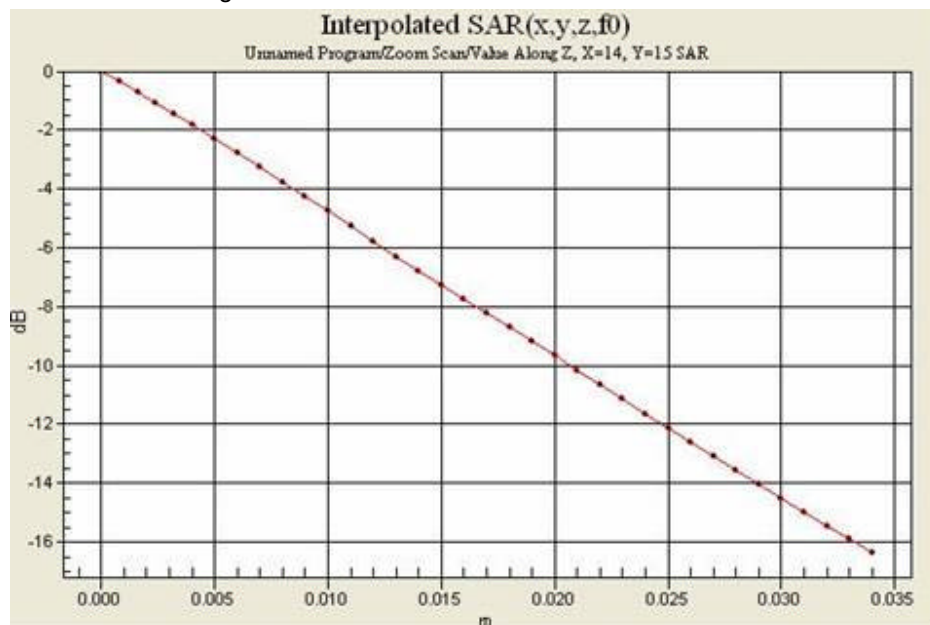
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0 dB = 2.28mW/g





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**1900 GSM Band: Distribution and Extrapolation of Maximum SAR****Model: Z502A SN: BD3017AYMN****with Optional Battery: BST-30****Right Side, Tilt Position.**

Date/Time: 07/22/04 12:07:06

File Name: 22July04\_Z502A\_GSM1900\_AYMN\_RT01.da4

**DUT: Z502A; Type: Sample**

Program Notes: Battery BST-30 Humidity: 49.7 Ambient Temp: 22.7 Simulant Temp: 21.2

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

Medium: Head 1800/1900 MHz Medium parameters used (interpolated):  $f = 1850.2 \text{ MHz}$ ;  $s = 1.39 \text{ mho/m}$ ;  $\epsilon_r = 38.3$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1538; ConvF(4.95, 4.95, 4.95); Calibrated: 5/27/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn431; Calibrated: 5/26/2004
- Phantom: SAM with CRP (High Band Head); Type: SAM; Serial: TP: 1054
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

**Area Scan (51x81x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$ 

Reference Value = 9.87 V/m; Power Drift = -0.0 dB

Maximum value of SAR (interpolated) = 0.208 mW/g

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

Reference Value = 9.87 V/m; Power Drift = -0.0 dB

Maximum value of SAR (measured) = 0.209 mW/g

Peak SAR (extrapolated) = 0.277 W/kg

**SAR(1 g) = 0.191 mW/g; SAR(10 g) = 0.121 mW/g****Zoom Scan (31x31x36)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$ 

Reference Value = 9.87 V/m; Power Drift = -0.0 dB

Maximum value of SAR (interpolated) = 0.277 mW/g

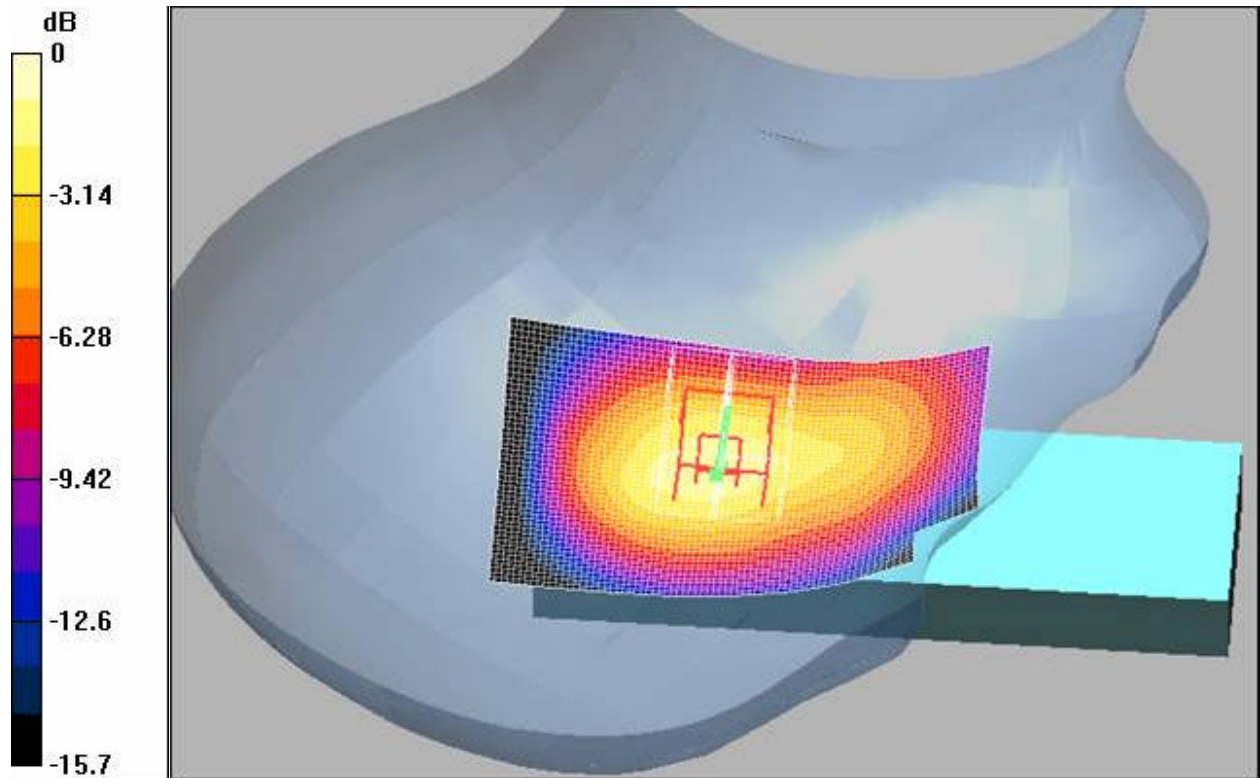


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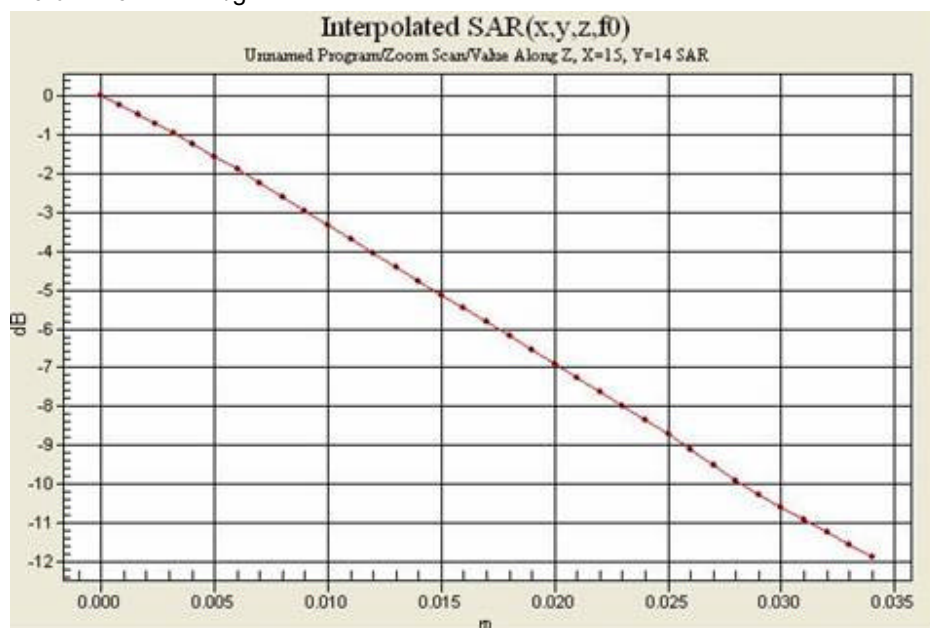
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0 dB = 0.277mW/g





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**1900 GSM Band: Distribution and Extrapolation of Maximum SAR****Model: Z502A SN: BD3017AYMN****with Optional Battery: BST-30****Left Side, Cheek/Touch Position.**

Date/Time: 07/22/04 14:16:19

File Name: 22July04\_Z502A\_GSM1900\_AYMN\_LC01.da4

Program Notes: Battery BST-30 Humidity: 47.2 Ambient Temp: 22.8 Simulant Temp: 21.4

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

Medium: Head 1800/1900 MHz Medium parameters used (interpolated):  $f = 1850.2 \text{ MHz}$ ;  $s = 1.39 \text{ mho/m}$ ;  $\epsilon_r = 38.3$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1538; ConvF(4.95, 4.95, 4.95); Calibrated: 5/27/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn431; Calibrated: 5/26/2004
- Phantom: SAM with CRP (High Band Head); Type: SAM; Serial: TP: 1054
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

**Area Scan (51x81x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$ 

Reference Value = 24.4 V/m; Power Drift = -0.1 dB

Maximum value of SAR (interpolated) = 1.3 mW/g

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

Reference Value = 24.4 V/m; Power Drift = -0.1 dB

Maximum value of SAR (measured) = 1.58 mW/g

Peak SAR (extrapolated) = 2.5 W/kg

**SAR(1 g) = 1.4 mW/g; SAR(10 g) = 0.699 mW/g****Zoom Scan (31x31x36)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$ 

Reference Value = 24.4 V/m; Power Drift = -0.1 dB

Maximum value of SAR (interpolated) = 2.5 mW/g

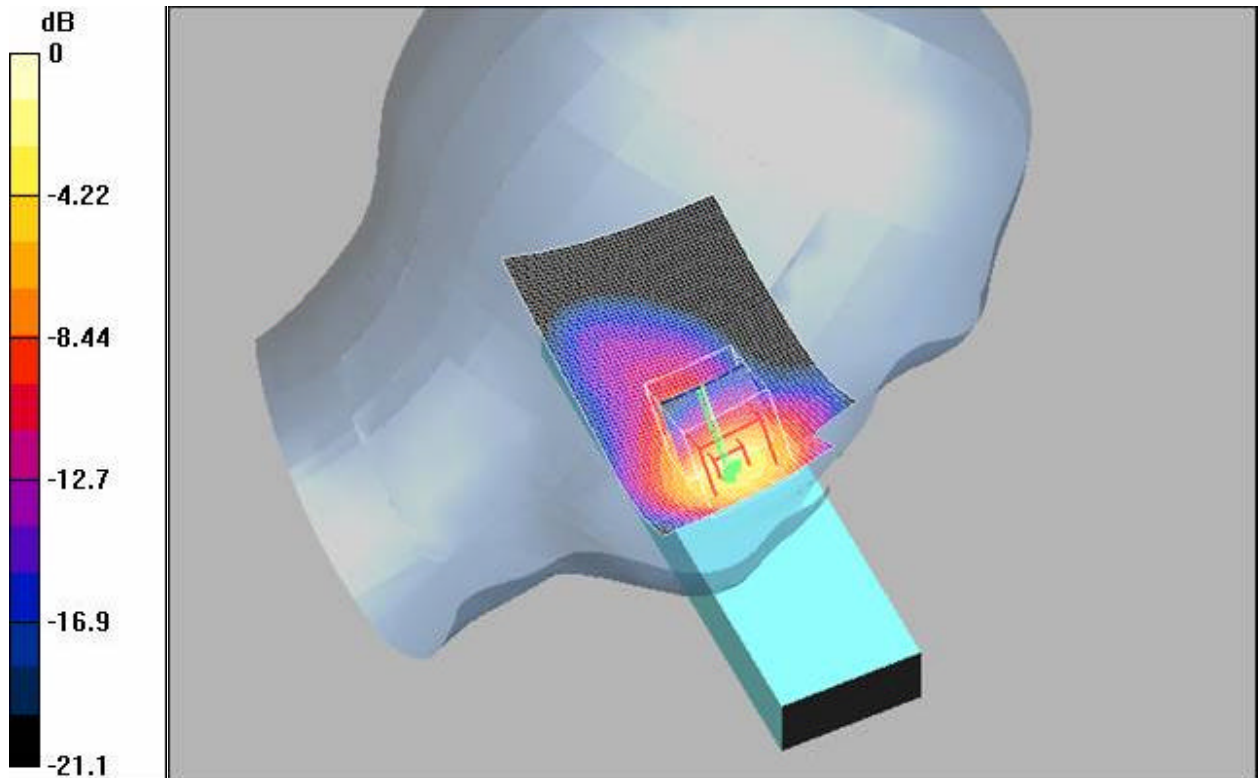


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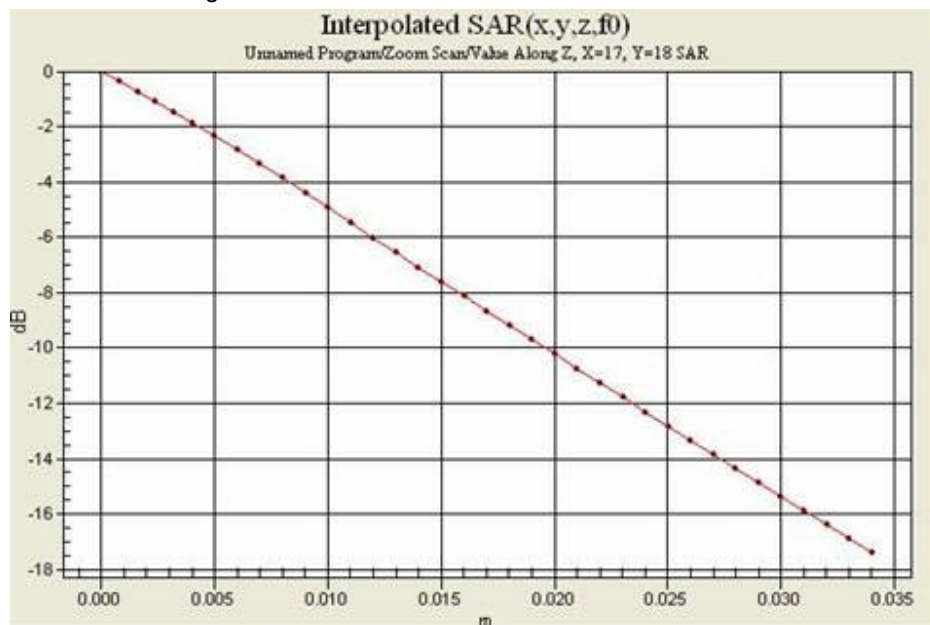
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0 dB = 2.5mW/g





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**1900 GSM Band: Distribution and Extrapolation of Maximum SAR****Model: Z502A SN: BD3017AYMN****with Optional Battery: BST-30****Left Side, Tilt Position.**

Date/Time: 07/22/04 13:11:15

File Name: 22July04\_Z502A\_GSM1900\_AYMN\_LT01.da4

Program Notes: Battery BST-30 Humidity: 46.8 Ambient Temp: 22.8 Simulant Temp: 21

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

Medium: Head 1800/1900 MHz Medium parameters used (interpolated):  $f = 1850.2 \text{ MHz}$ ;  $s = 1.39 \text{ mho/m}$ ;  $\epsilon_r = 38.3$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1538; ConvF(4.95, 4.95, 4.95); Calibrated: 5/27/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn431; Calibrated: 5/26/2004
- Phantom: SAM with CRP (High Band Head); Type: SAM; Serial: TP: 1054
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

**Area Scan (51x81x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$ 

Reference Value = 9.67 V/m; Power Drift = 0.0 dB

Maximum value of SAR (interpolated) = 0.228 mW/g

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

Reference Value = 9.67 V/m; Power Drift = 0.0 dB

Maximum value of SAR (measured) = 0.228 mW/g

Peak SAR (extrapolated) = 0.304 W/kg

**SAR(1 g) = 0.211 mW/g; SAR(10 g) = 0.132 mW/g****Zoom Scan (31x31x36)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$ 

Reference Value = 9.67 V/m; Power Drift = 0.0 dB

Maximum value of SAR (interpolated) = 0.304 mW/g

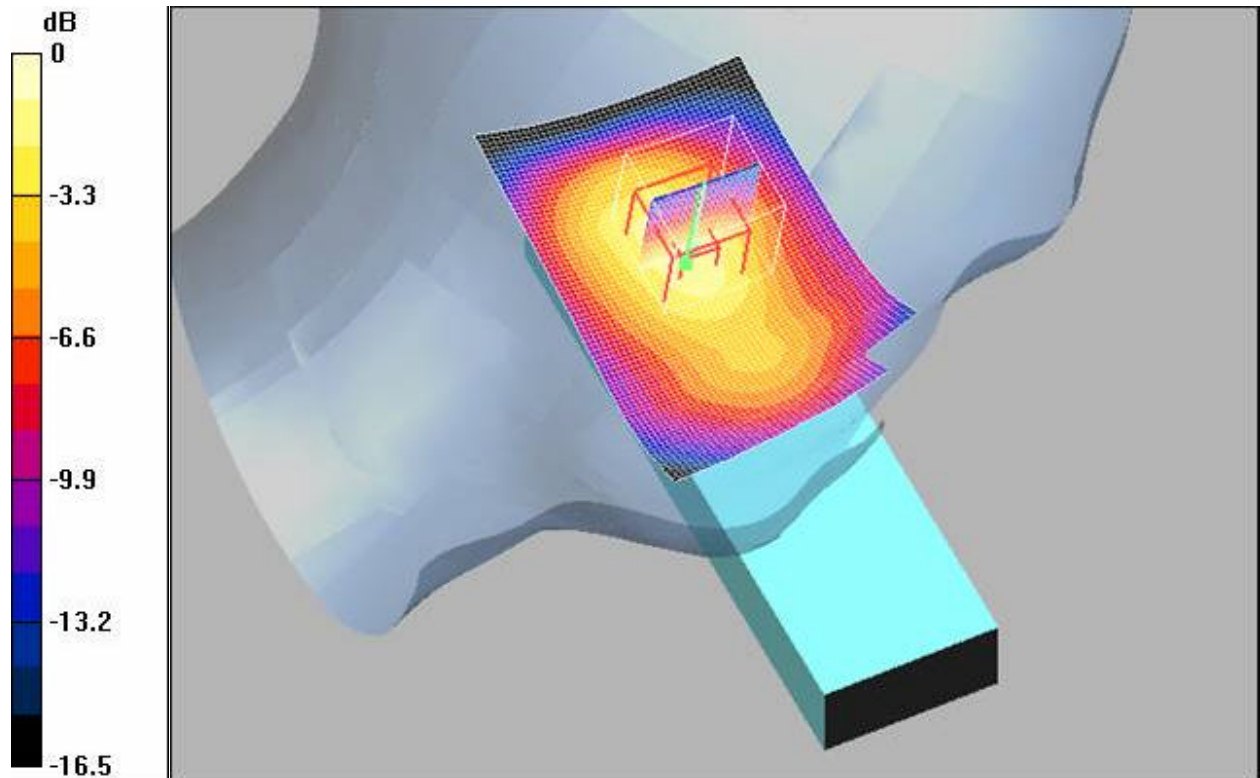


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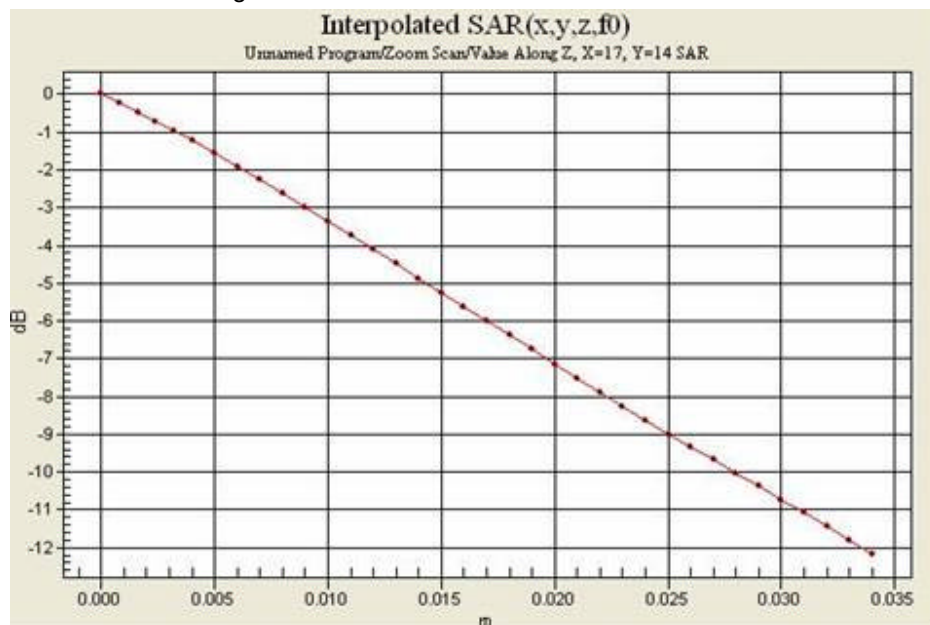
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0 dB = 0.304mW/g



APPLICANT: Sony Ericsson Mobile Communications Inc.

FCC ID: **PY7AF061011**



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### Appendix 3

### SAR distribution plots for Body Worn Configuration

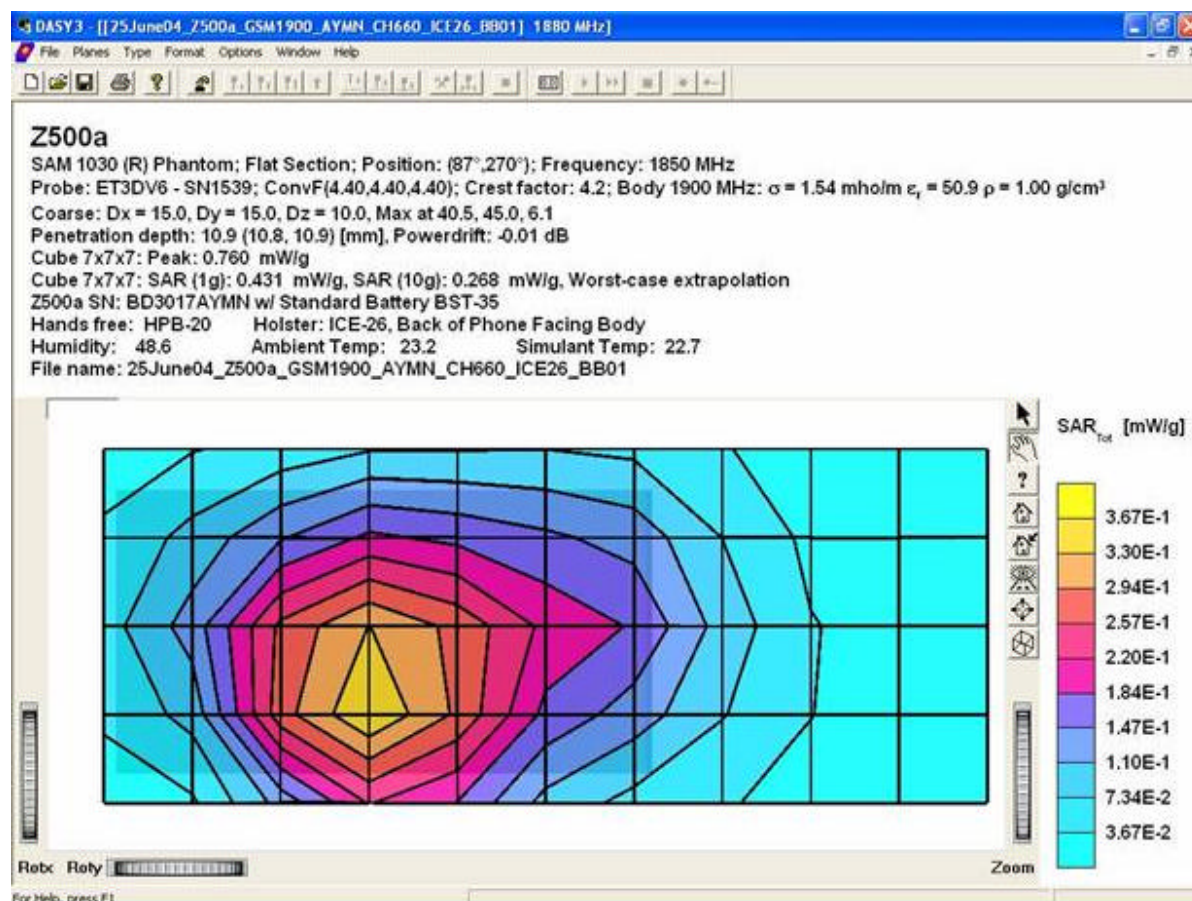


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**Distribution of maximum SAR in 1900 GSM band. Measured with back of device facing the body using carry accessory ICE-26 and hands free accessory HPB-20. (Standard Battery, BST-35)**

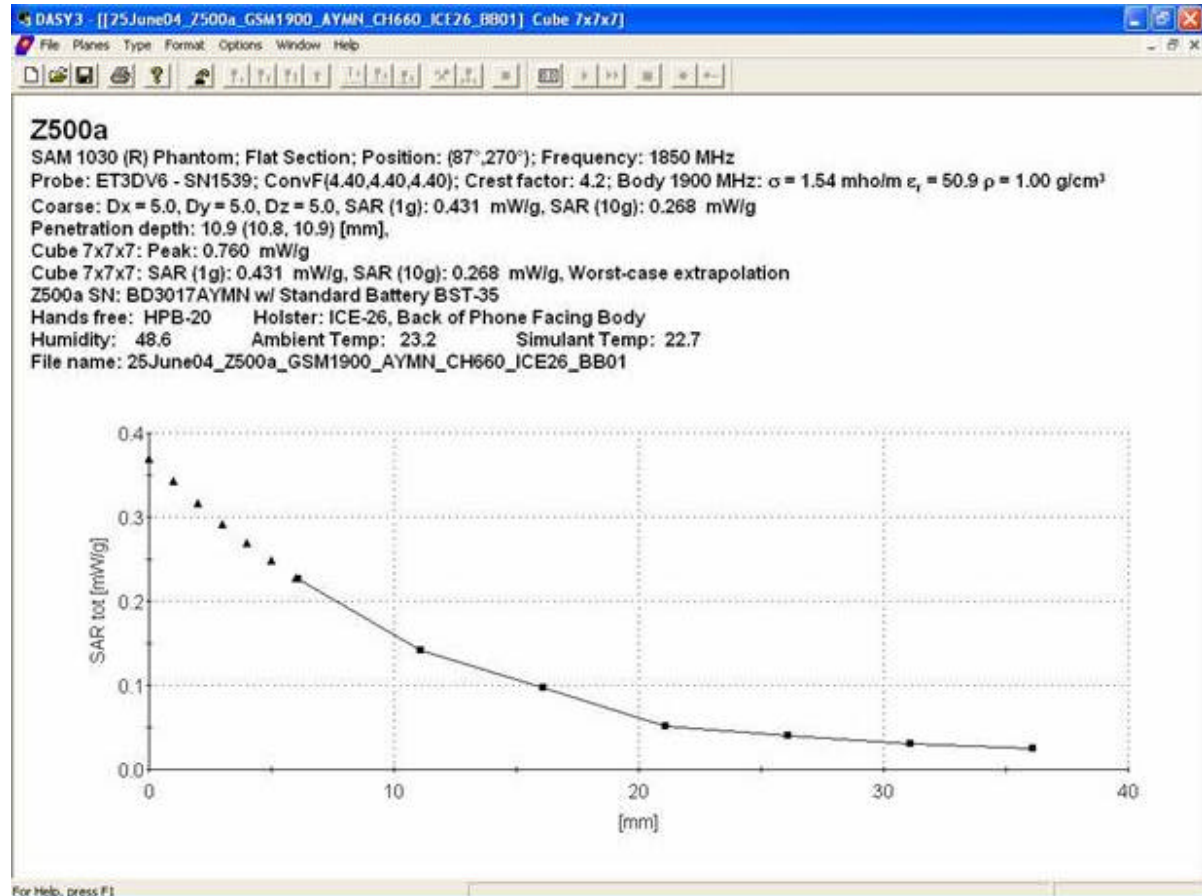


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**SAR Extrapolation to the phantom inner surface. Measured for maximum SAR in 1900 GSM band, while back of the phone is against the body using carry accessory ICE-26 and hands free accessory HPB-20. (Standard Battery, BST-35)**

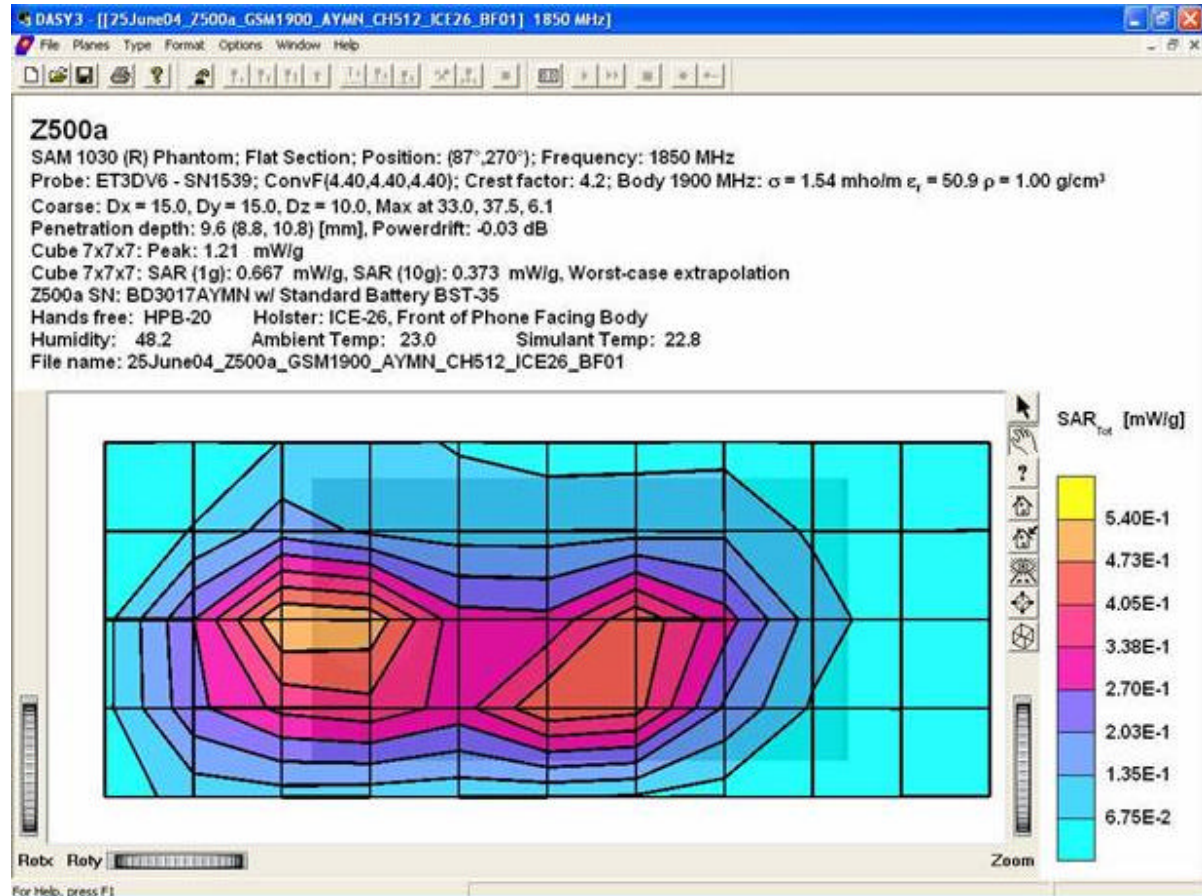


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**Distribution of maximum SAR in 1900 GSM band. Measured with front of device facing the body using carry accessory ICE-26 and hands free accessory HPB-20. (Standard Battery, BST-35)**

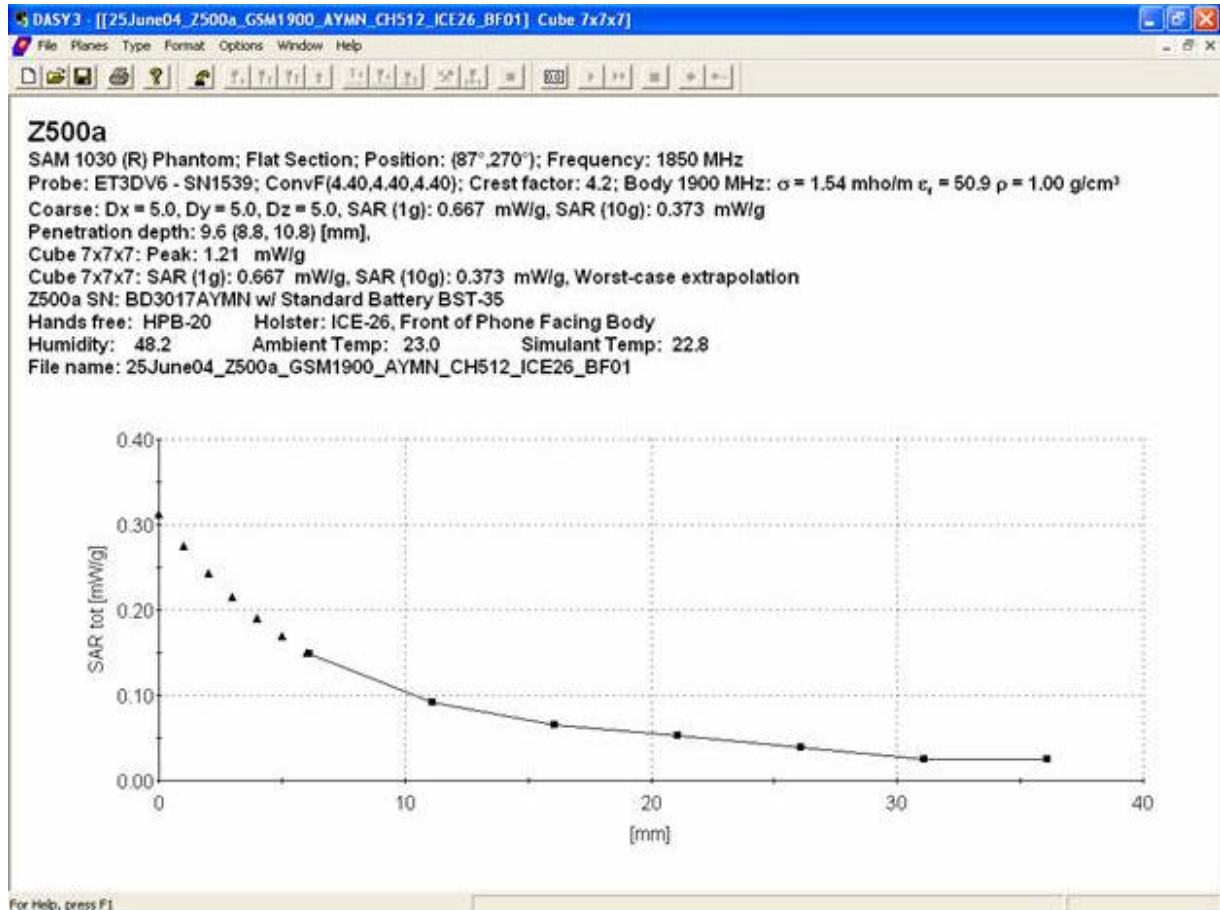


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**SAR Extrapolation to the phantom inner surface. Measured for maximum SAR in 1900 GSM band, while front of the phone is against the body using carry accessory ICE-26 and hands free accessory HPB-20. (Standard Battery, BST-35)**

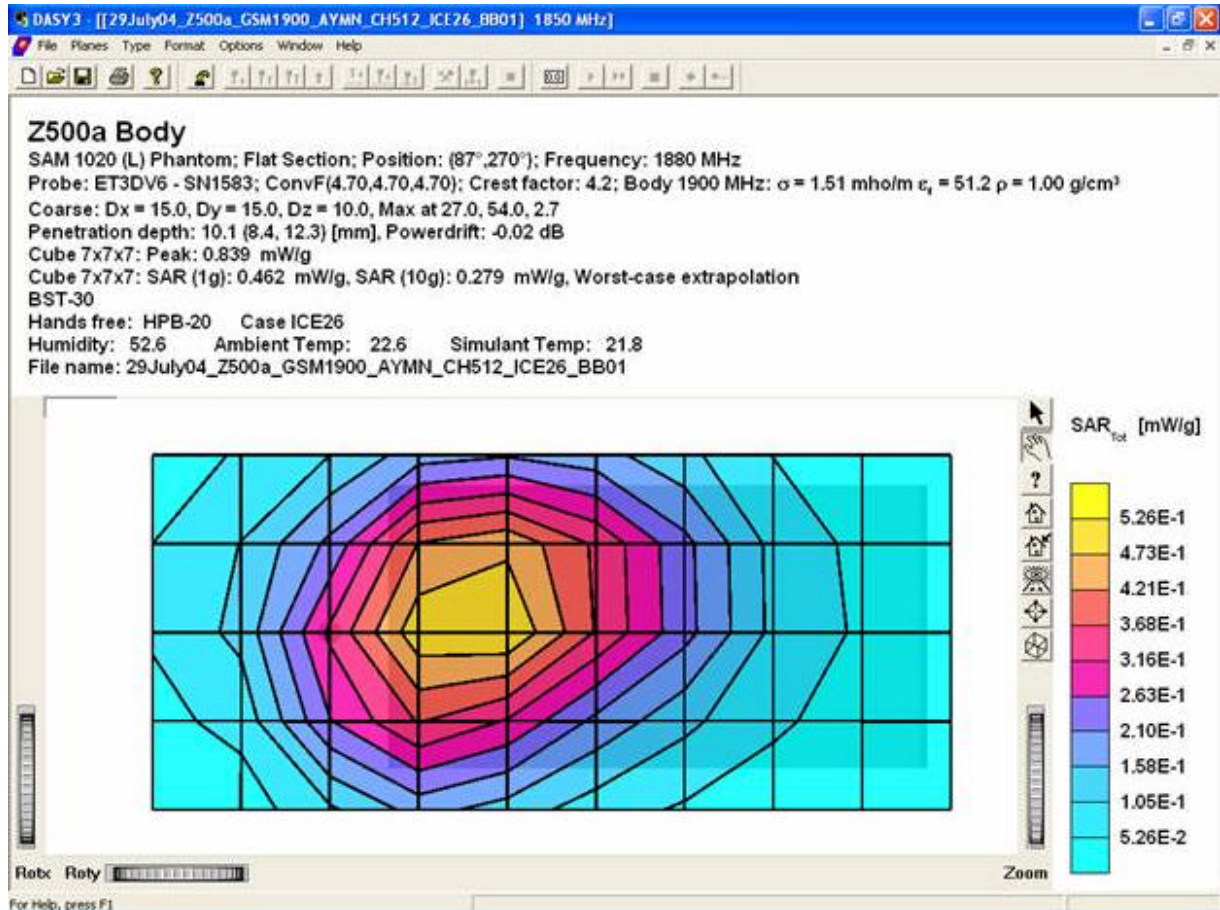


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**Distribution of maximum SAR in 1900 GSM band. Measured for maximum SAR in 1900 GSM band, while back of the phone is against the body using carry accessory ICE-26 and hands free accessory HPB-20. (Optional Battery, BST-30)**

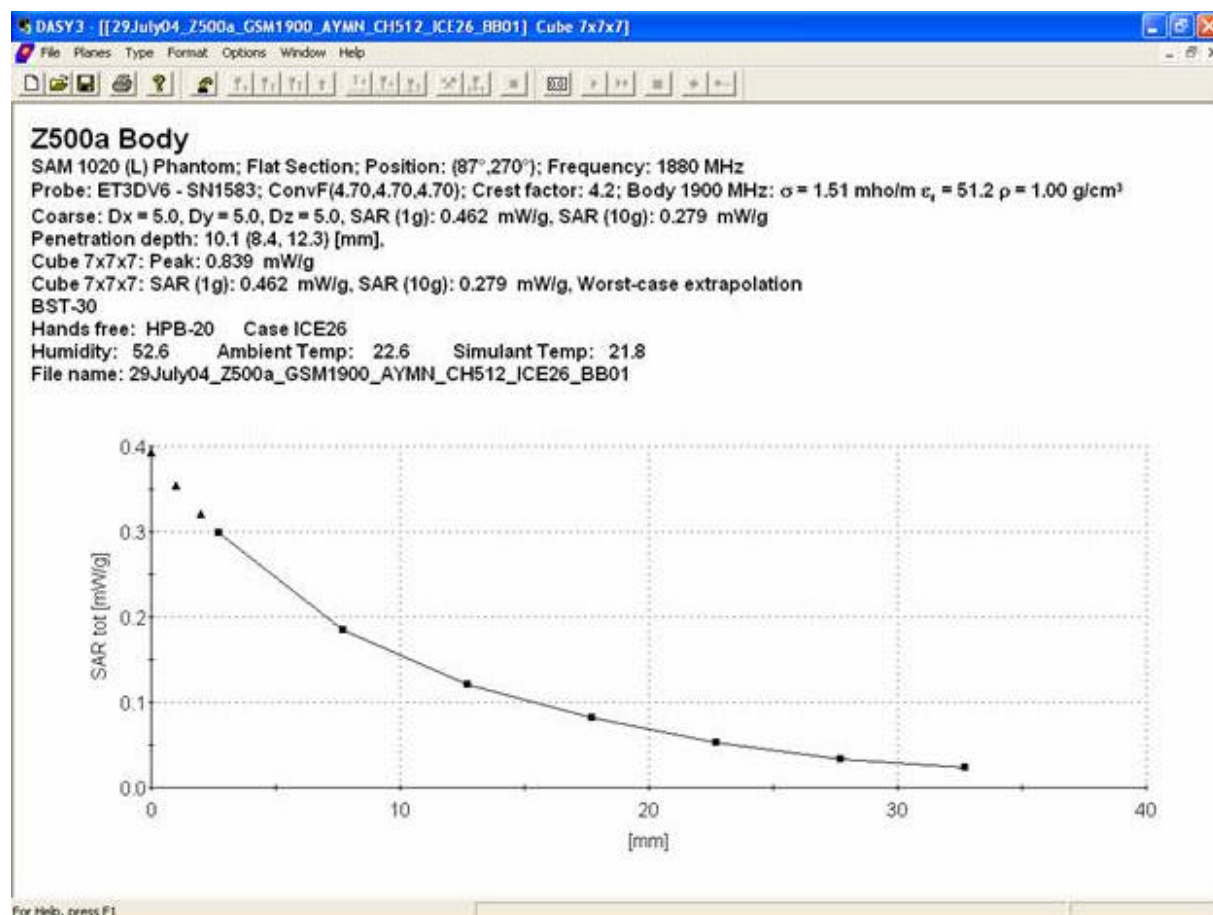


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**SAR Extrapolation to the phantom inner surface. Measured for maximum SAR in 1900 GSM band, while back of the phone is against the body using carry accessory ICE-26 and hands free accessory HPB-20. (Optional Battery, BST-30)**

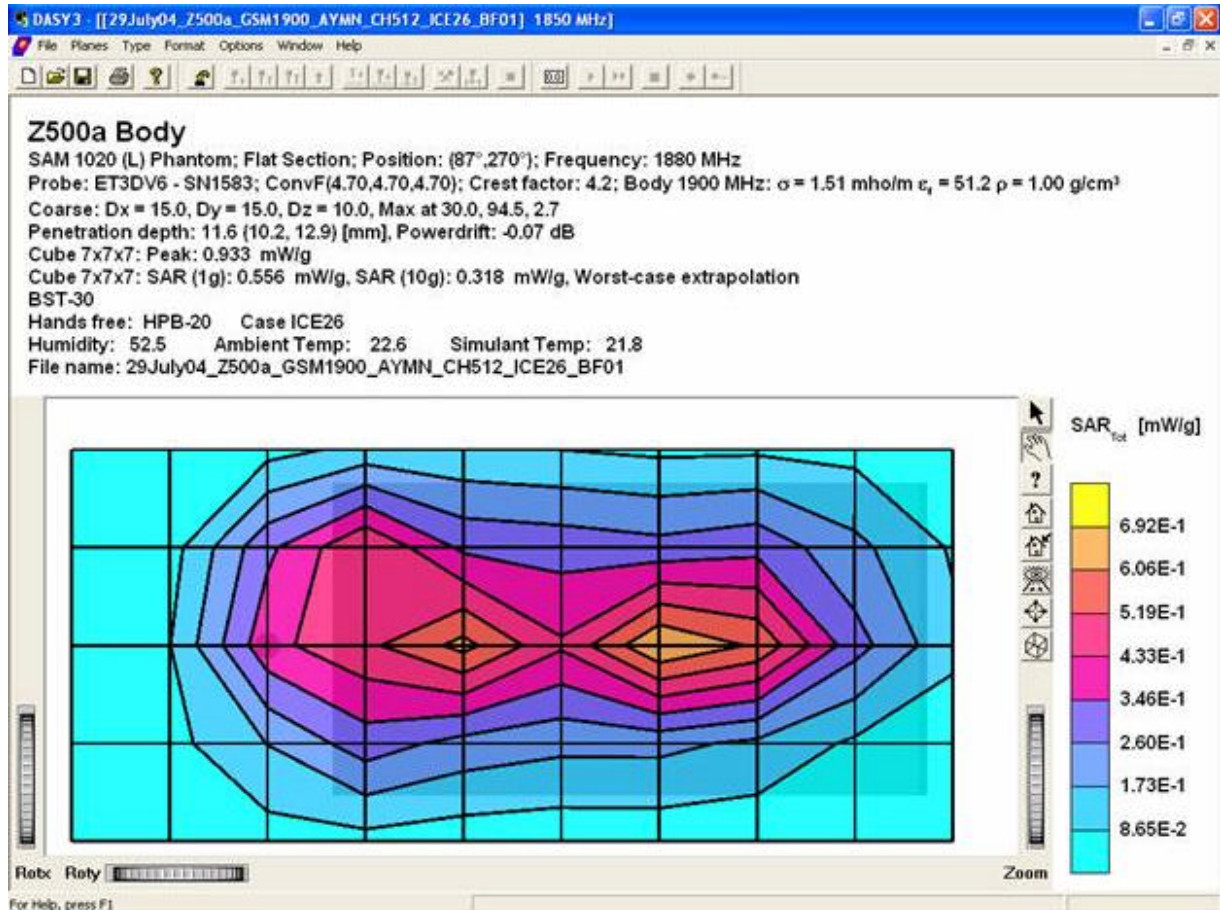


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**Distribution of maximum SAR in 1900 GSM band. Measured for maximum SAR in 1900 GSM band, while front of the phone is against the body using carry accessory ICE-26 and hands free accessory HPB-20. (Optional Battery, BST-30)**

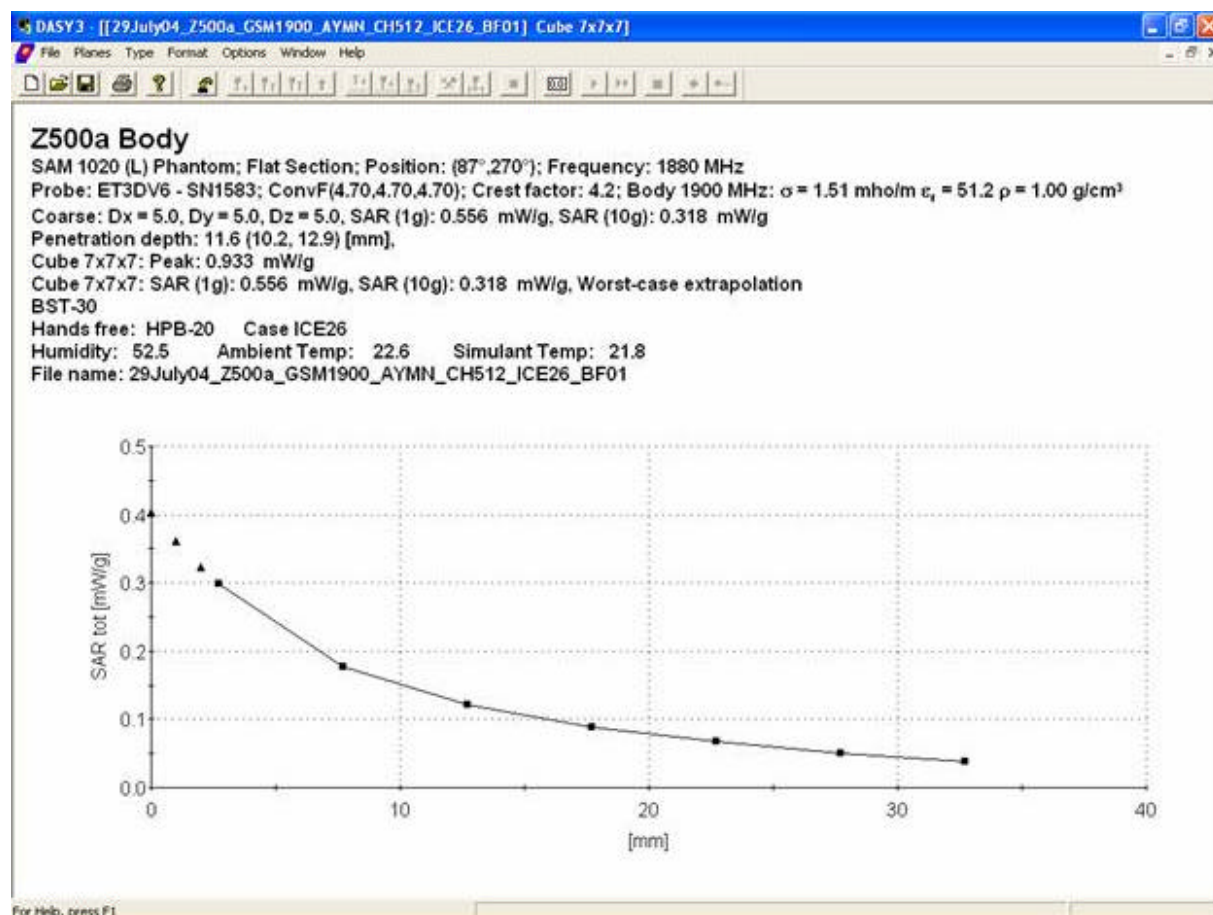


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**SAR Extrapolation to the phantom inner surface. Measured for maximum SAR in 1900 GSM band, while front of the phone is against the body using carry accessory ICE-26 and hands free accessory HPB-20. (Optional Battery, BST-30)**

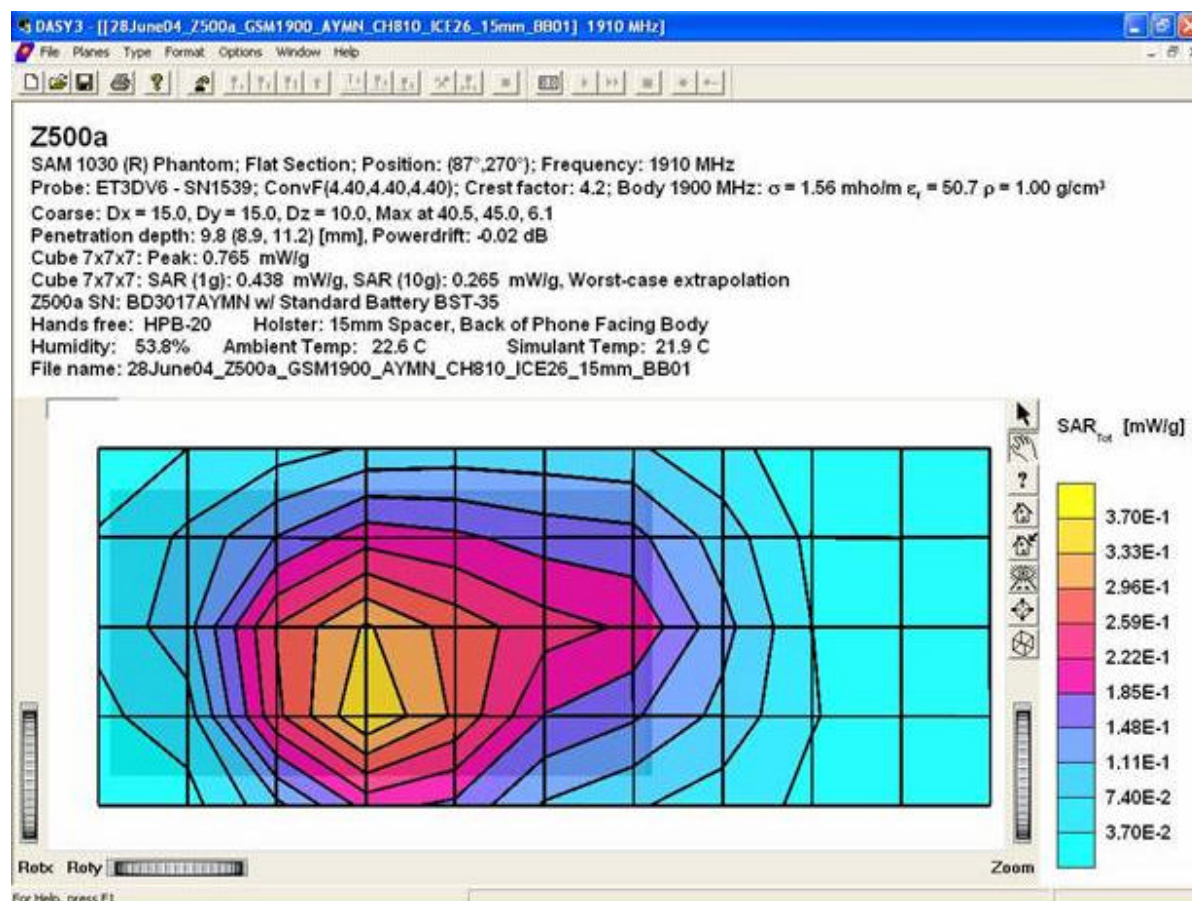


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**Distribution of maximum SAR in 1900 GSM band. Measured with back of device facing the body using a 15 mm spacer and hands free accessory HPB-20. (Standard Battery, BST-35)**

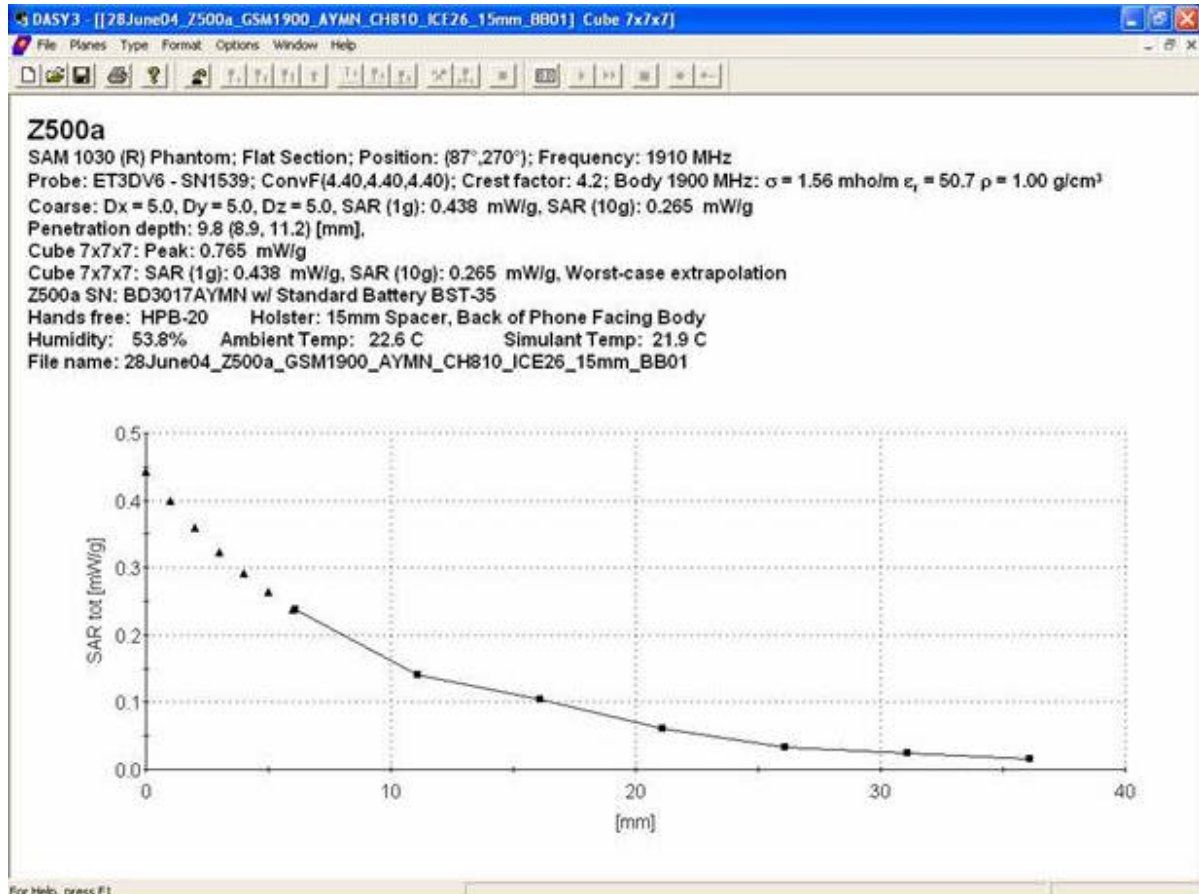


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**SAR Extrapolation to the phantom inner surface. Measured for maximum SAR in 1900 GSM band, while back of the phone is against the body using a 15 mm spacer and hands free accessory HPB-20. (Standard Battery, BST-35)**

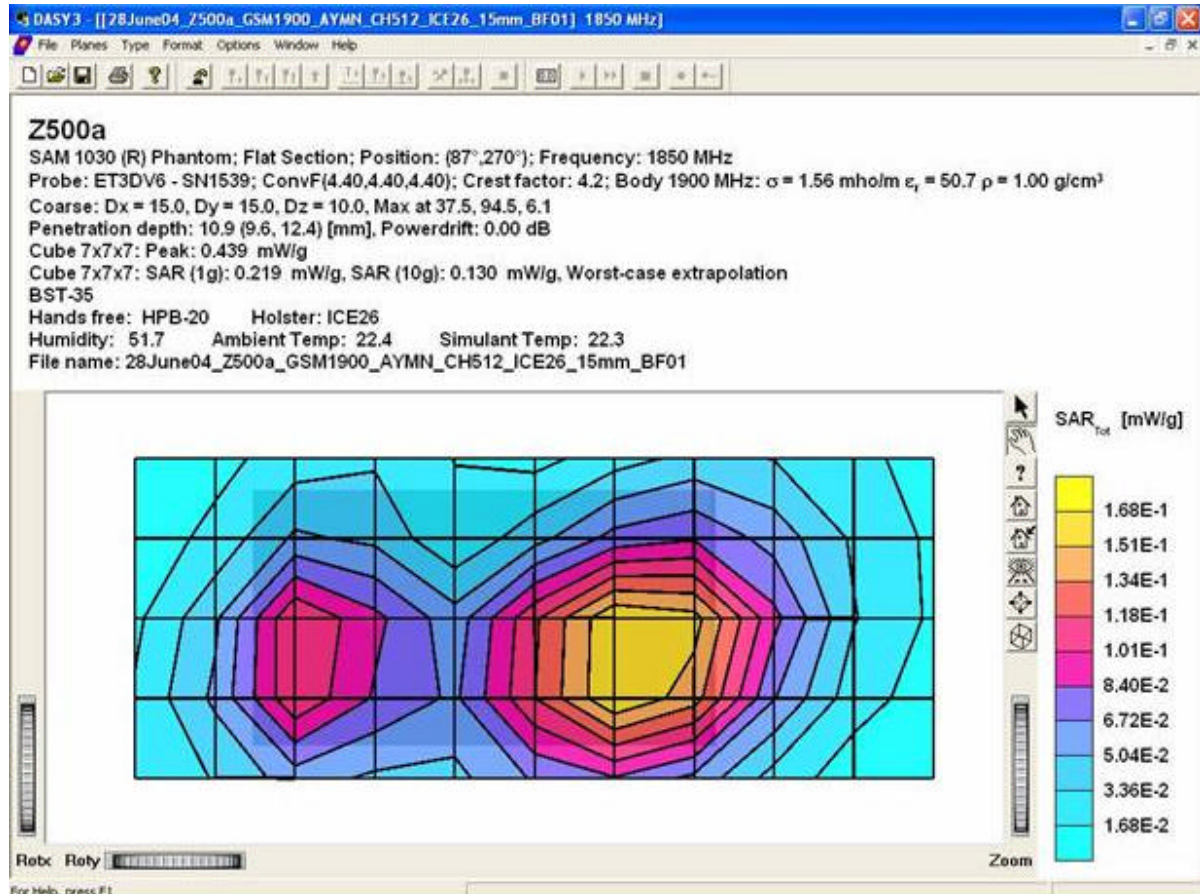


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**Distribution of maximum SAR in 1900 GSM band. Measured with front of device facing the body using a 15 mm spacer and hands free accessory HPB-20. (Standard Battery, BST-35)**

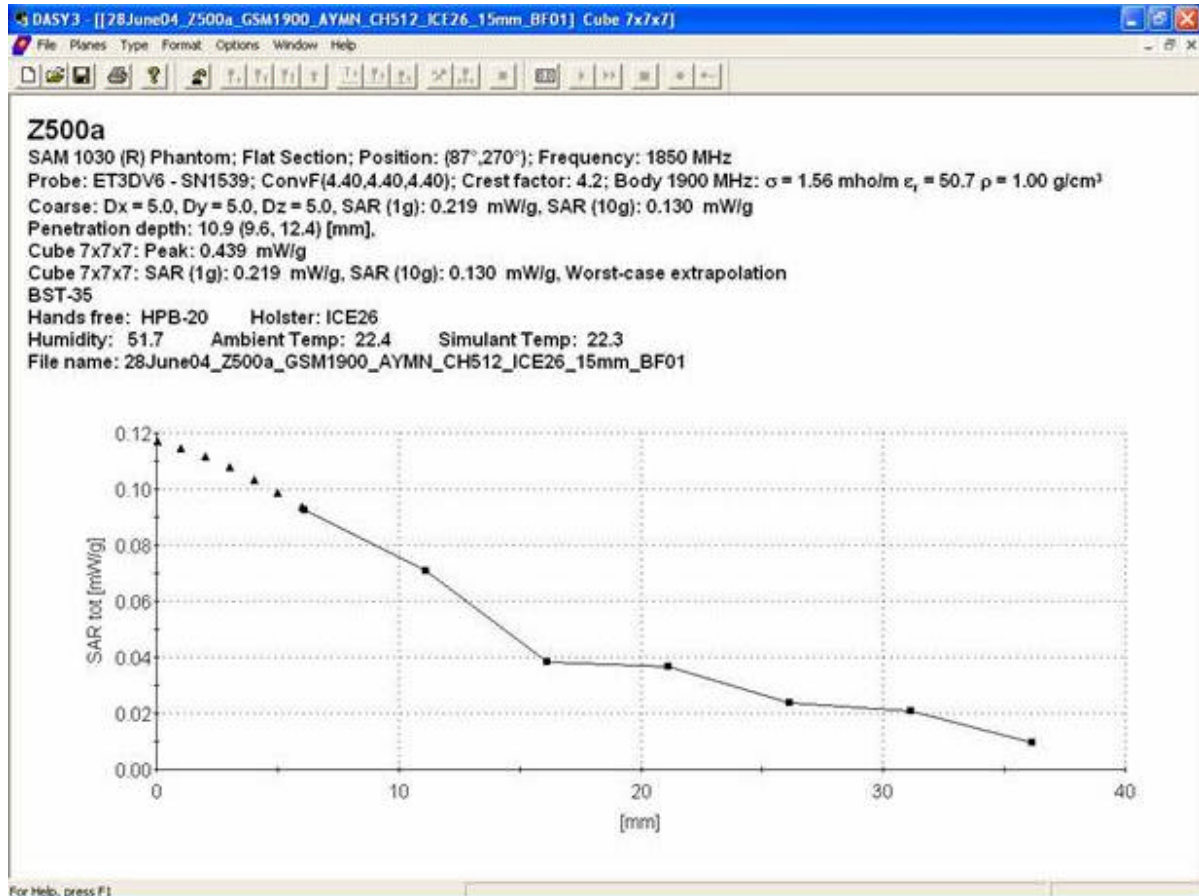


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**SAR Extrapolation to the phantom inner surface. Measured for maximum SAR in 1900 GSM band, while front of the phone is against the body using a 15 mm spacer and hands free accessory HPB-20. (Standard Battery, BST-35)**

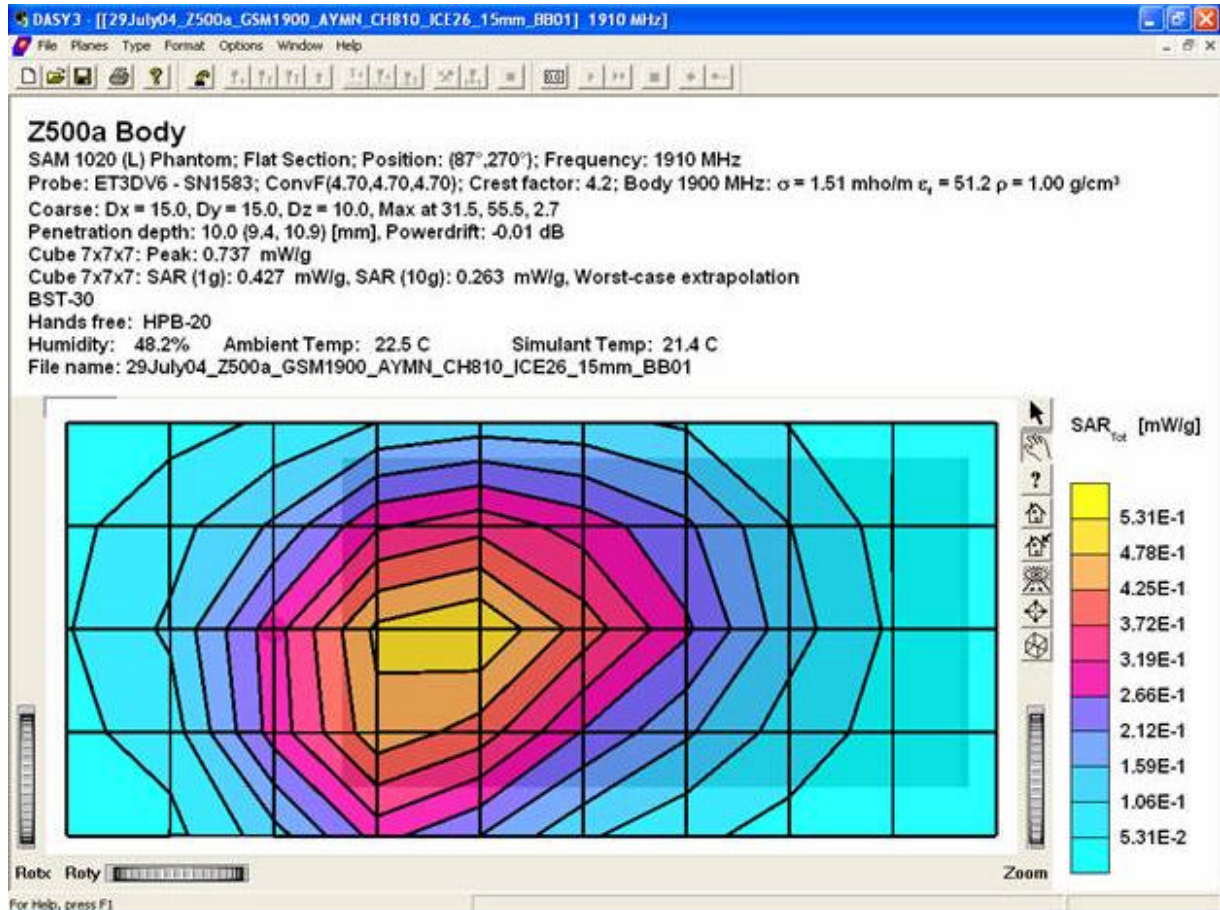


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Distribution of maximum SAR in 1900 GSM band. Measured with back of device facing the body using a 15 mm spacer and hands free accessory HPB-20. (Optional Battery, BST-30)

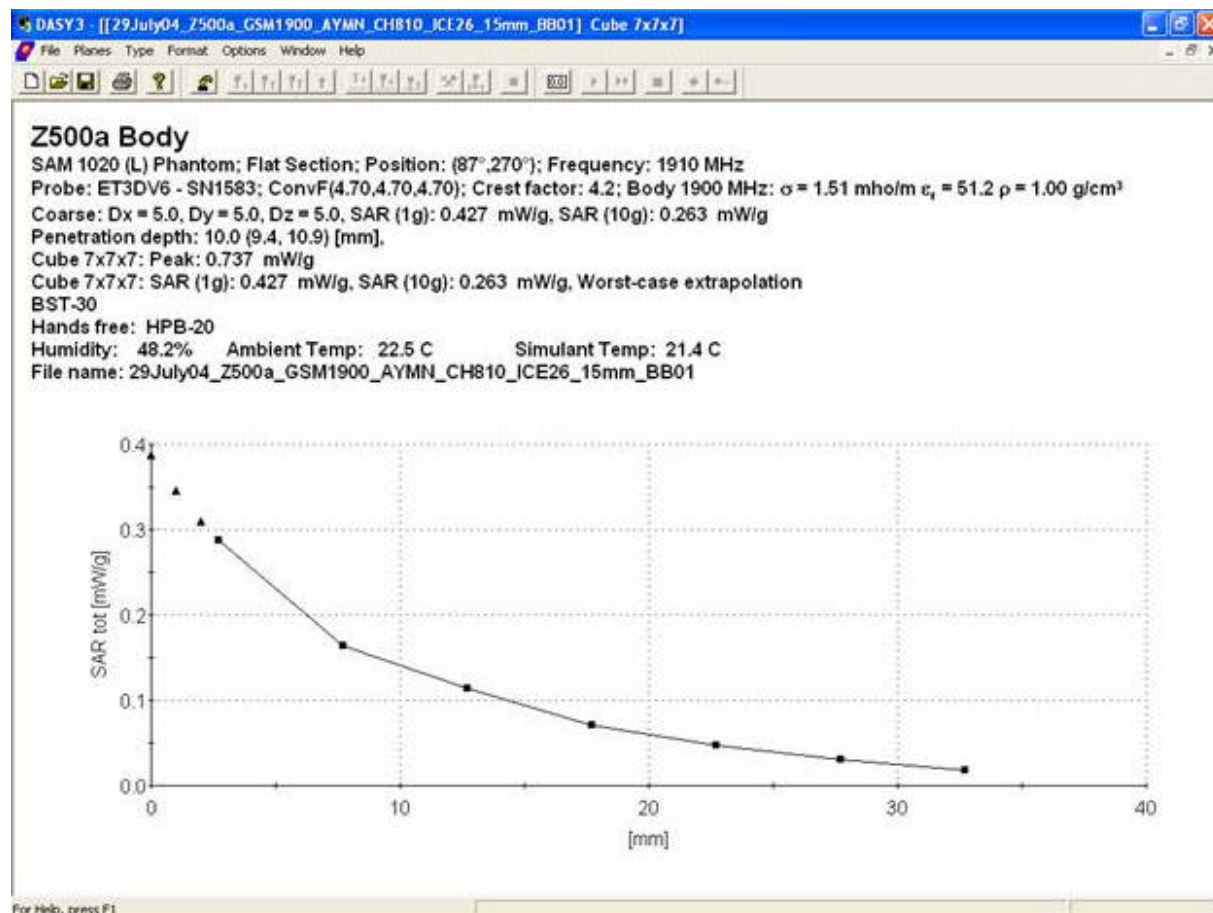


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**SAR Extrapolation to the phantom inner surface. Measured for maximum SAR in 1900 GSM band, while back of the phone is against the body using a 15 mm spacer and hands free accessory HPB-20. (Optional Battery, BST-30)**

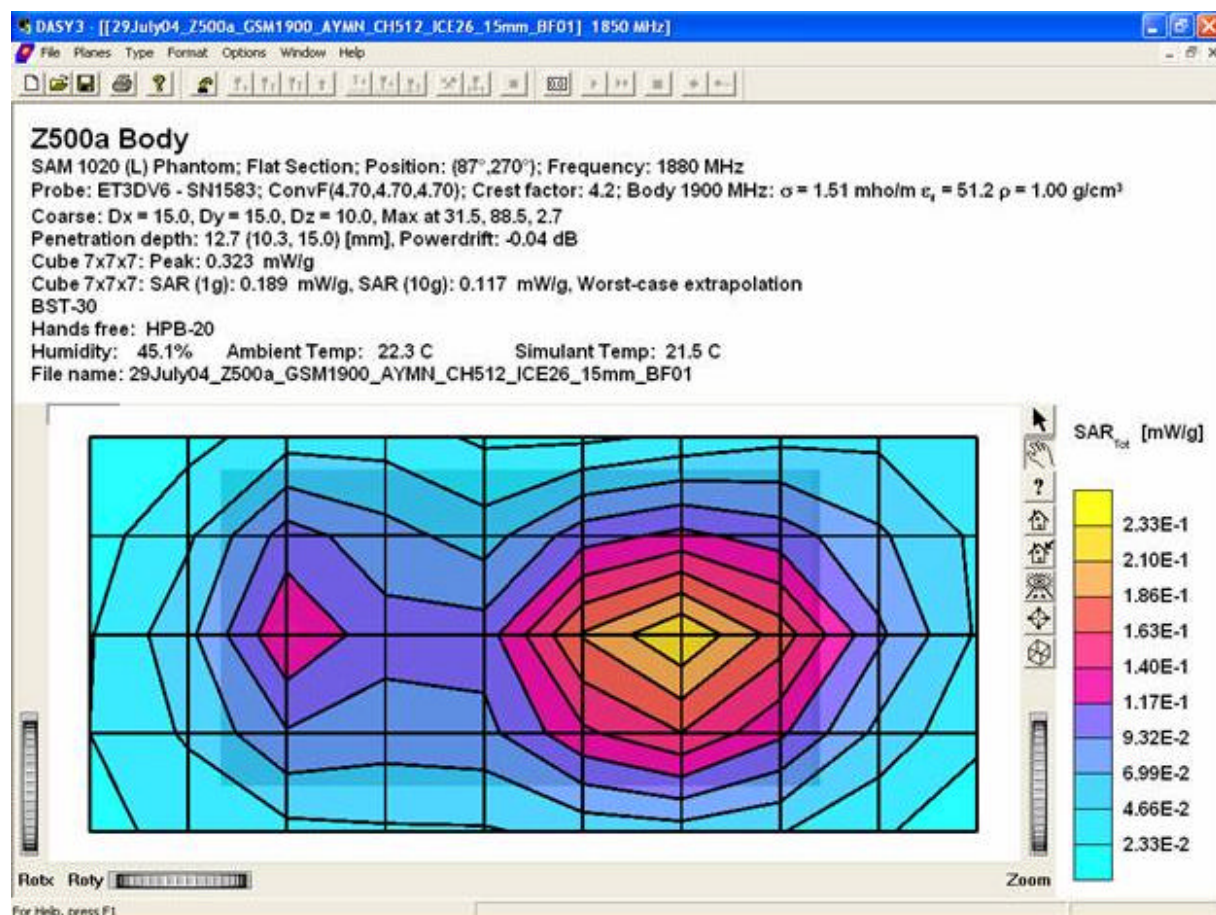


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**Distribution of maximum SAR in 1900 GSM band. Measured with front of device facing the body using a 15 mm spacer and hands free accessory HPB-20. (Optional Battery, BST-30)**

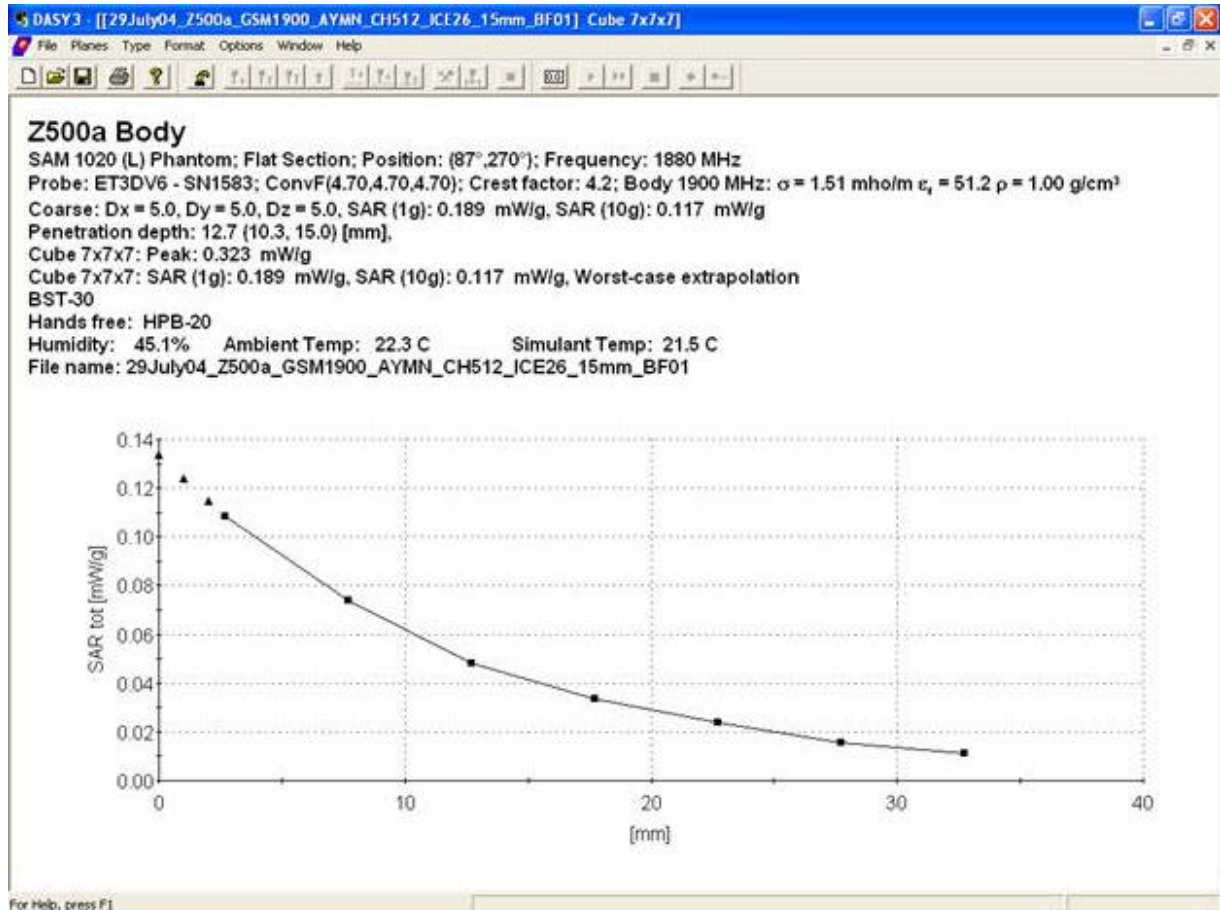


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**SAR Extrapolation to the phantom inner surface. Measured for maximum SAR in 1900 GSM band, while front of the phone is against the body using a 15 mm spacer and hands free accessory HPB-20. (Optional Battery, BST-30)**