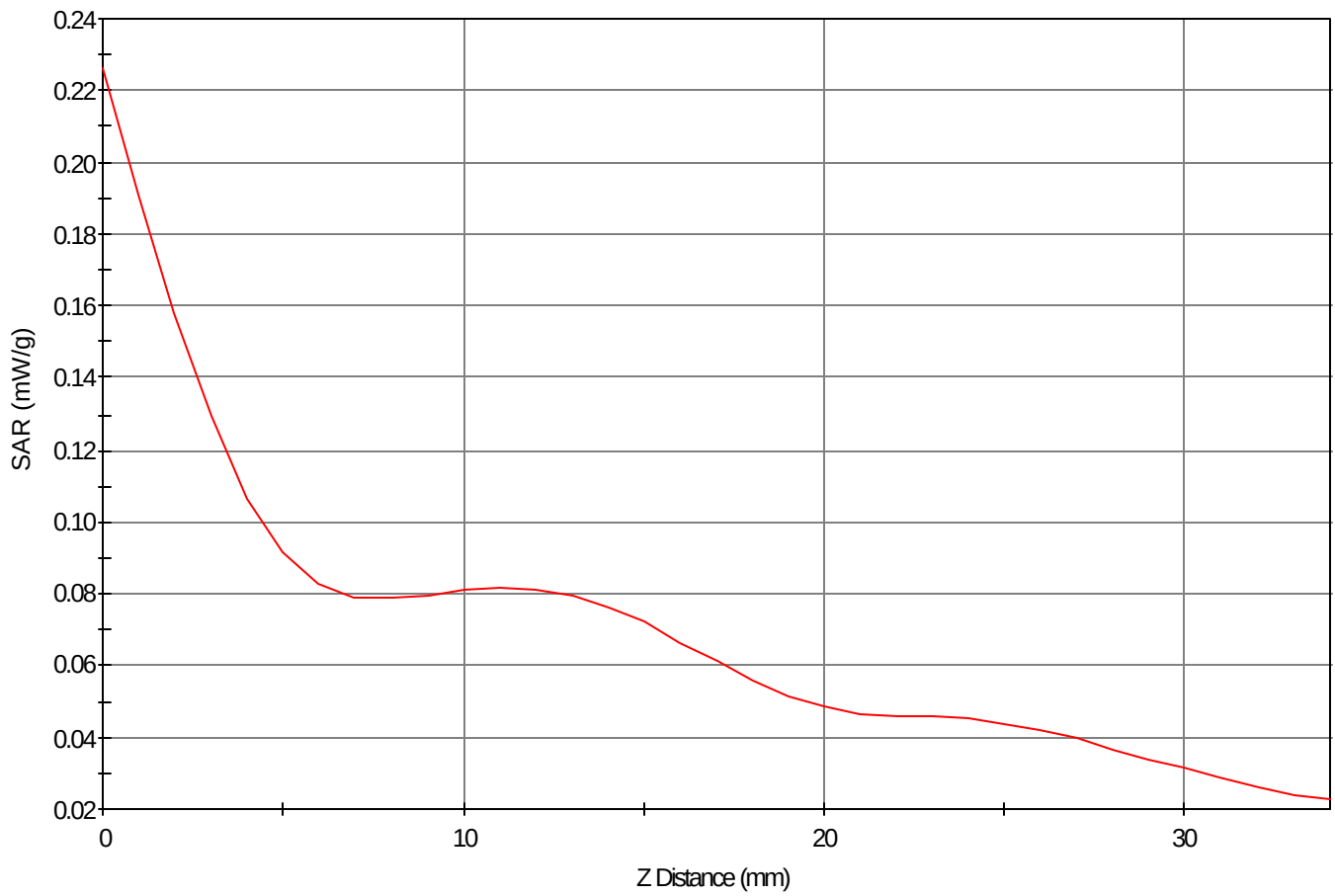
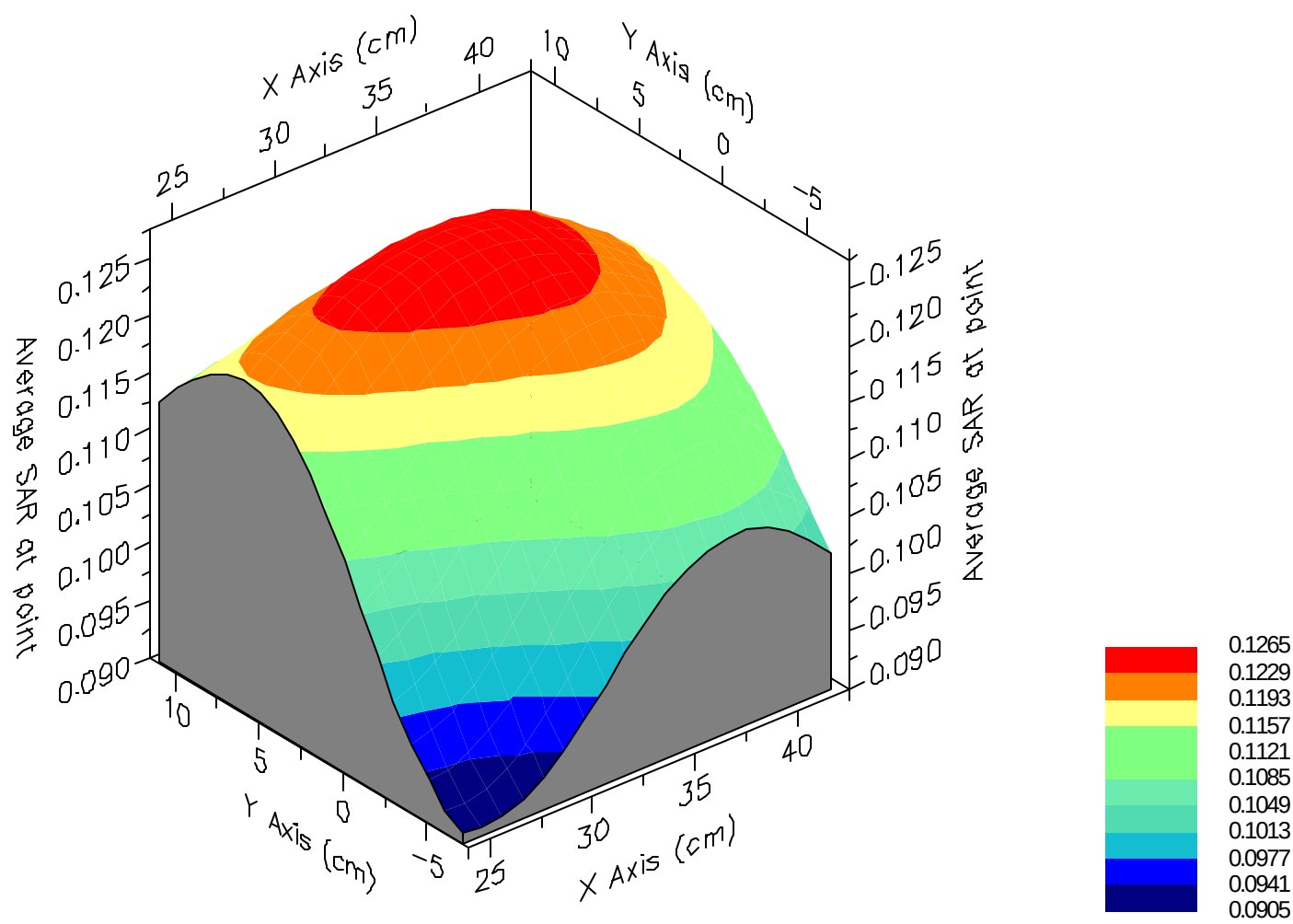
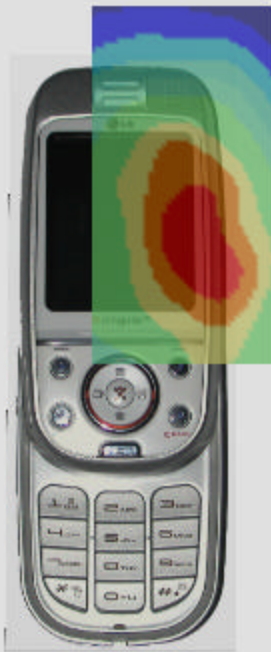


SAR - Z Axis
at Hotspot x:36.0 y:-4.0



1g SAR Values





SAR Data Report 05072213

Start : 22-Jul-05 10:57:35 am
End : 22-Jul-05 11:02:23 am
Code Version : 4.08
Robot Version: 4.08

Product Data:

Type : LGE WCDMA Phone
Model Number : CU320
Serial Number : 24
Frequency : 826.4 MHz
Transmit Pwr : 0.199 W
Antenna Type : Helical
Antenna Posn. : Internal

Measurement Data:

Phantom Name : SAM-LEFT
Phantom Type : Left Ear
Tissue Type : Brain
Tissue Dielectric : 42.150
Tissue Conductivity : 0.900
Tissue Density : 1.000
Robot Name : CRS

Probe Data:

Probe Name : PCT005
Probe Type : E Fld Triangle
Frequency : 835 MHz
Tissue Type : Brain
Calibrated Dielectric : 40.810
Calibrated Conductivity : 0.870
Calibrated Density : 1.000
Probe Offset : 1.600 mm
Conversion Factor : 5.500
Probe Sensitivity : 3.807 3.736 3.821 mV/(mW/cm^2)
Amplifier Gains : 20.00 20.00 20.00

Sample:

Rate: 6000 Samples/Sec
Count: 1000 Samples
NIDAQ Gain: 5

Comments:

Cellular WCDMA Mode Ch. 4132
Left Cheek (Slide In)
CF=8; Amb. Temp= 22.2 'C; Liq. Temp=21.1 'C

Power Drop Test:

Reading @ start = 1.429
Reading @ End = 1.486
Power at End = 104.0%

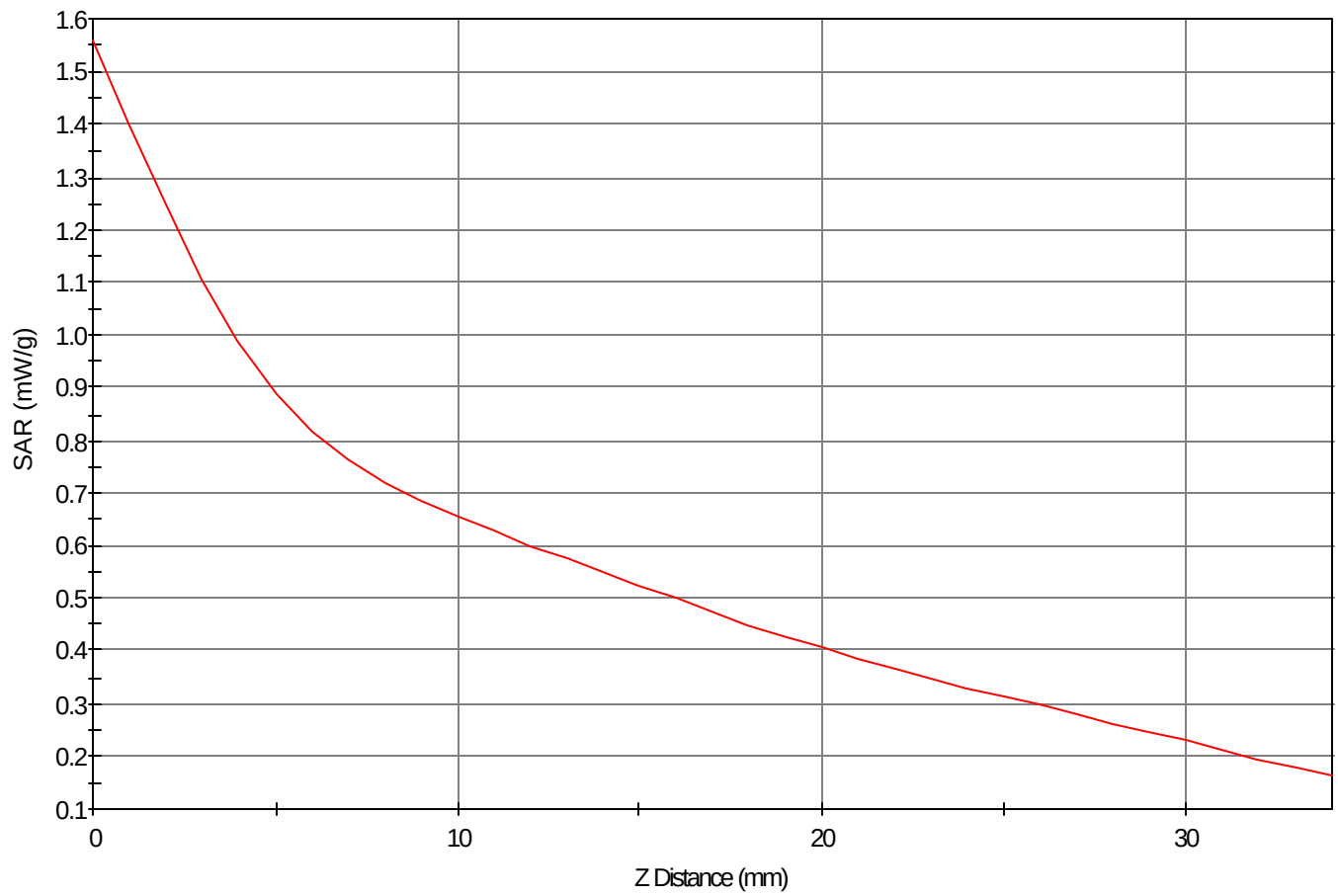
Area Scan - Max Peak SAR Value at x=29.0 y=-1.0 = 1.05 W/kg

Zoom Scan - Max Peak SAR Value at x=30.0 y=7.0 z=0.0 = 1.56 W/kg

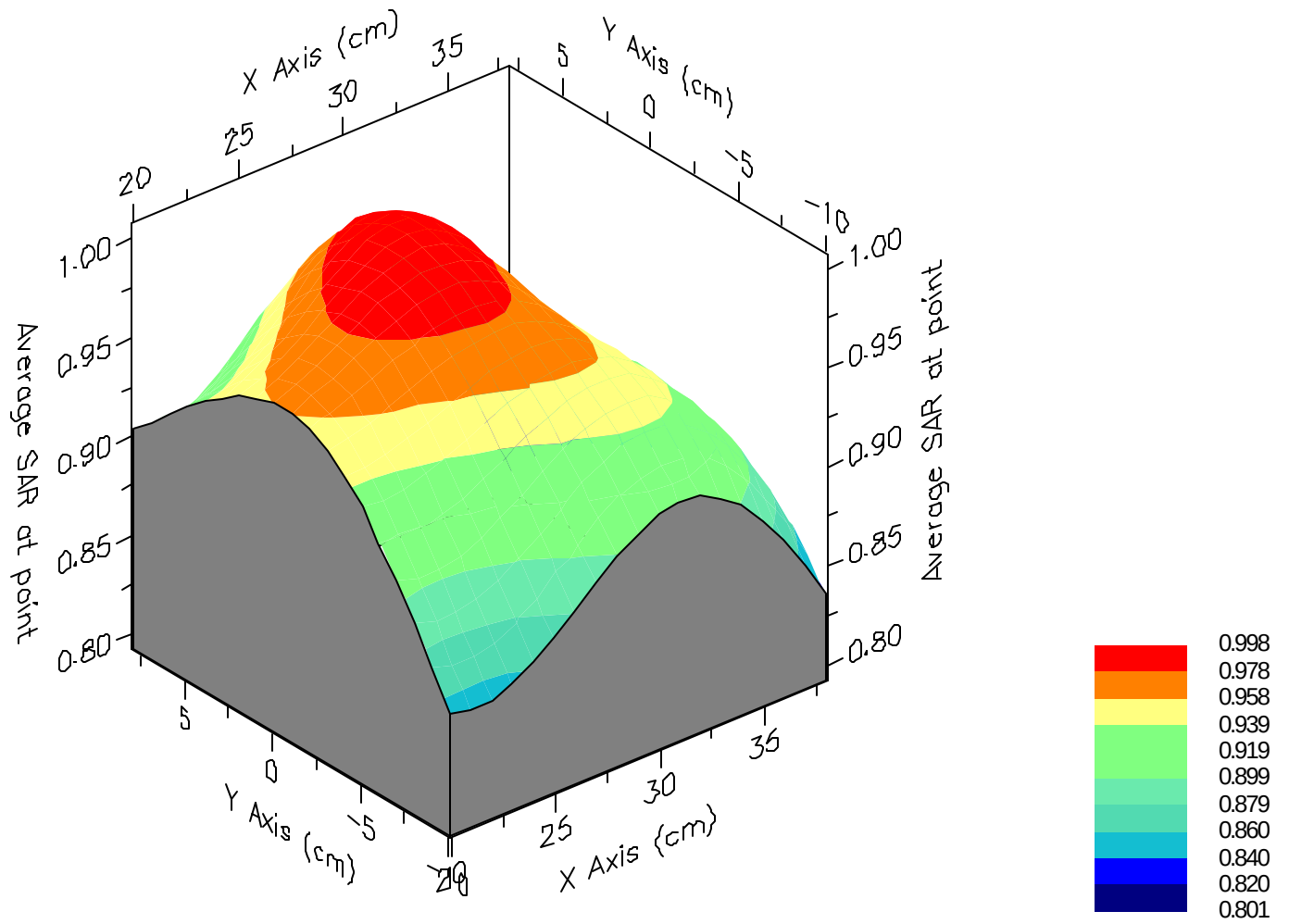
Max 1g SAR at x=28.0 y=2.0 z=0.0 = 1.00 W/kg

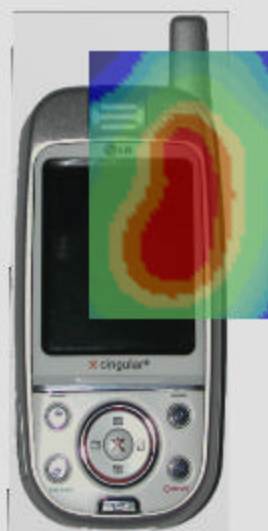
Max 10g SAR at x=26.0 y=-1.0 z=0.0 = 0.72 W/kg

SAR - Z Axis
at Hotspot x:30.0 y:7.0



1g SAR Values





SAR Data Report 05072218

Start : 22-Jul-05 11:35:17 am
End : 22-Jul-05 11:40:23 am
Code Version : 4.08
Robot Version: 4.08

Product Data:

Type : LGE WCDMA Phone
Model Number : CU320
Serial Number : 24
Frequency : 826.4 MHz
Transmit Pwr : 0.199 W
Antenna Type : Helical
Antenna Posn. : Internal

Measurement Data:

Phantom Name : SAM-LEFT
Phantom Type : Left Ear
Tissue Type : Brain
Tissue Dielectric : 42.150
Tissue Conductivity : 0.900
Tissue Density : 1.000
Robot Name : CRS

Probe Data:

Probe Name : PCT005
Probe Type : E Fld Triangle
Frequency : 835 MHz
Tissue Type : Brain
Calibrated Dielectric : 40.810
Calibrated Conductivity : 0.870
Calibrated Density : 1.000
Probe Offset : 1.600 mm
Conversion Factor : 5.500
Probe Sensitivity : 3.807 3.736 3.821 mV/(mW/cm^2)
Amplifier Gains : 20.00 20.00 20.00

Sample:

Rate: 6000 Samples/Sec
Count: 1000 Samples
NIDAQ Gain: 5

Comments:

Cellular WCDMA Mode Ch. 4132
Left Cheek (Slide Out)
CF=8; Amb. Temp= 22.2 'C; Liq. Temp=21.1 'C

Power Drop Test:

Reading @ start = 0.124
Reading @ End = 0.123
Power at End = 99.0%

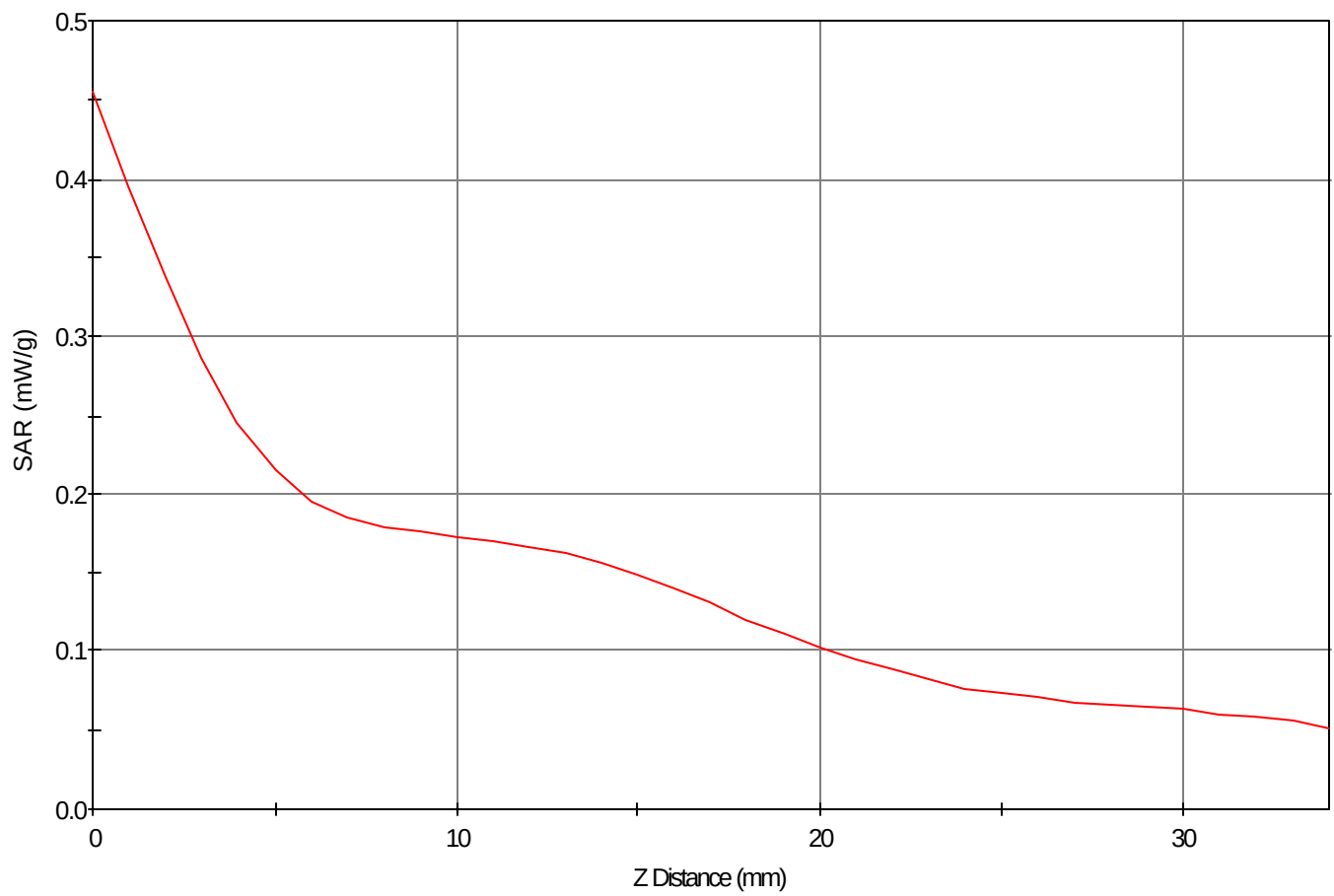
Area Scan - Max Peak SAR Value at x=41.0 y=8.0 = 0.27 W/kg

Zoom Scan - Max Peak SAR Value at x=50.0 y=2.0 z=0.0 = 0.45 W/kg

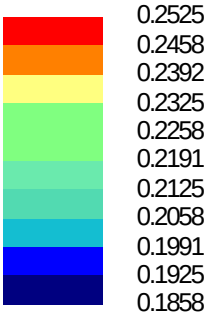
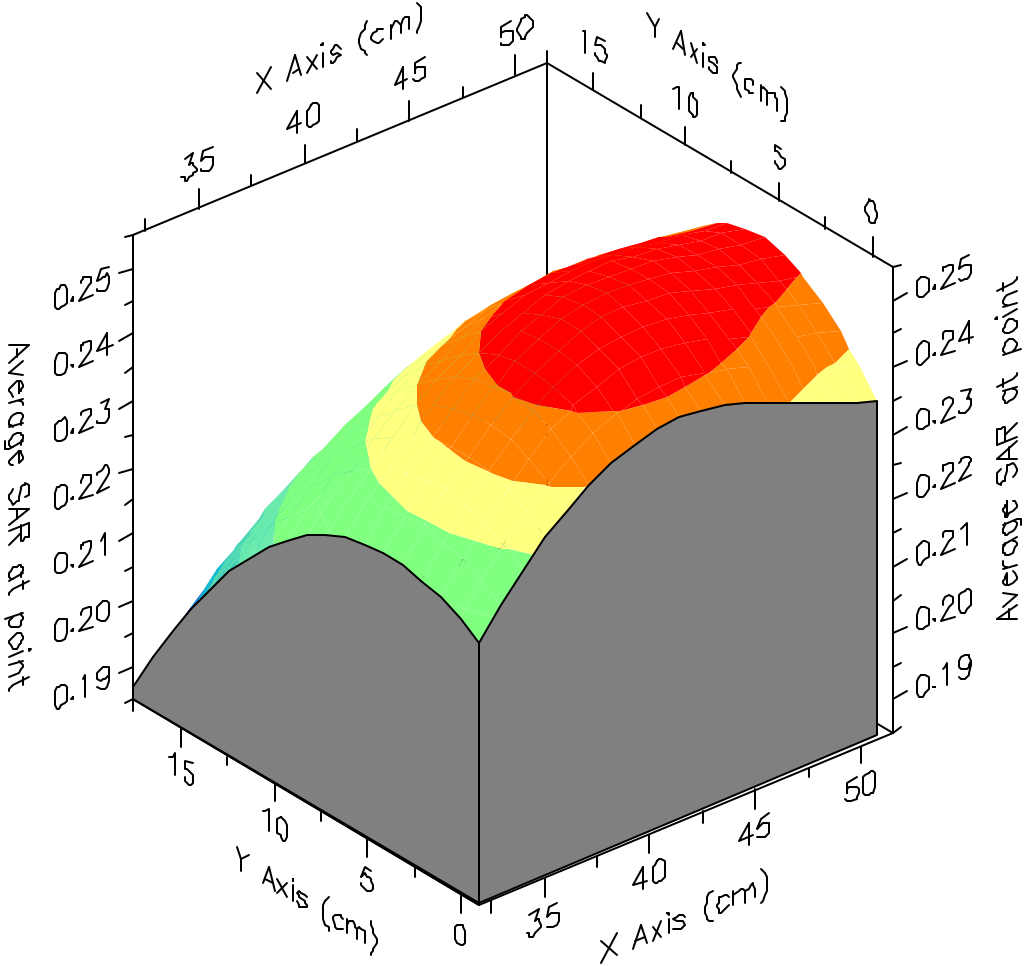
Max 1g SAR at x=50.0 y=4.0 z=0.0 = 0.25 W/kg

Max 10g SAR at x=44.0 y=5.0 z=0.0 = 0.18 W/kg

SAR - Z Axis
at Hotspot x:50.0 y:2.0



1g SAR Values





SAR Data Report 05072222

Start : 22-Jul-05 12:05:08 pm
End : 22-Jul-05 12:10:06 pm
Code Version : 4.08
Robot Version: 4.08

Product Data:

Type : LGE WCDMA Phone
Model Number : CU320
Serial Number : 24
Frequency : 826.4 MHz
Transmit Pwr : 0.199 W
Antenna Type : Helical
Antenna Posn. : Internal

Measurement Data:

Phantom Name : SAM-LEFT
Phantom Type : Left Ear
Tissue Type : Brain
Tissue Dielectric : 42.150
Tissue Conductivity : 0.900
Tissue Density : 1.000
Robot Name : CRS

Probe Data:

Probe Name : PCT005
Probe Type : E Fld Triangle
Frequency : 835 MHz
Tissue Type : Brain
Calibrated Dielectric : 40.810
Calibrated Conductivity : 0.870
Calibrated Density : 1.000
Probe Offset : 1.600 mm
Conversion Factor : 5.500
Probe Sensitivity : 3.807 3.736 3.821 mV/(mW/cm^2)
Amplifier Gains : 20.00 20.00 20.00

Sample:

Rate: 6000 Samples/Sec
Count: 1000 Samples
NIDAQ Gain: 5

Comments:

Cellular WCDMA Mode Ch. 4132
Left Tilt (Slide In)
CF=8; Amb. Temp= 22.2 'C; Liq. Temp=21.1 'C

Power Drop Test:

Reading @ start = 1.494
Reading @ End = 1.486
Power at End = 0.53%

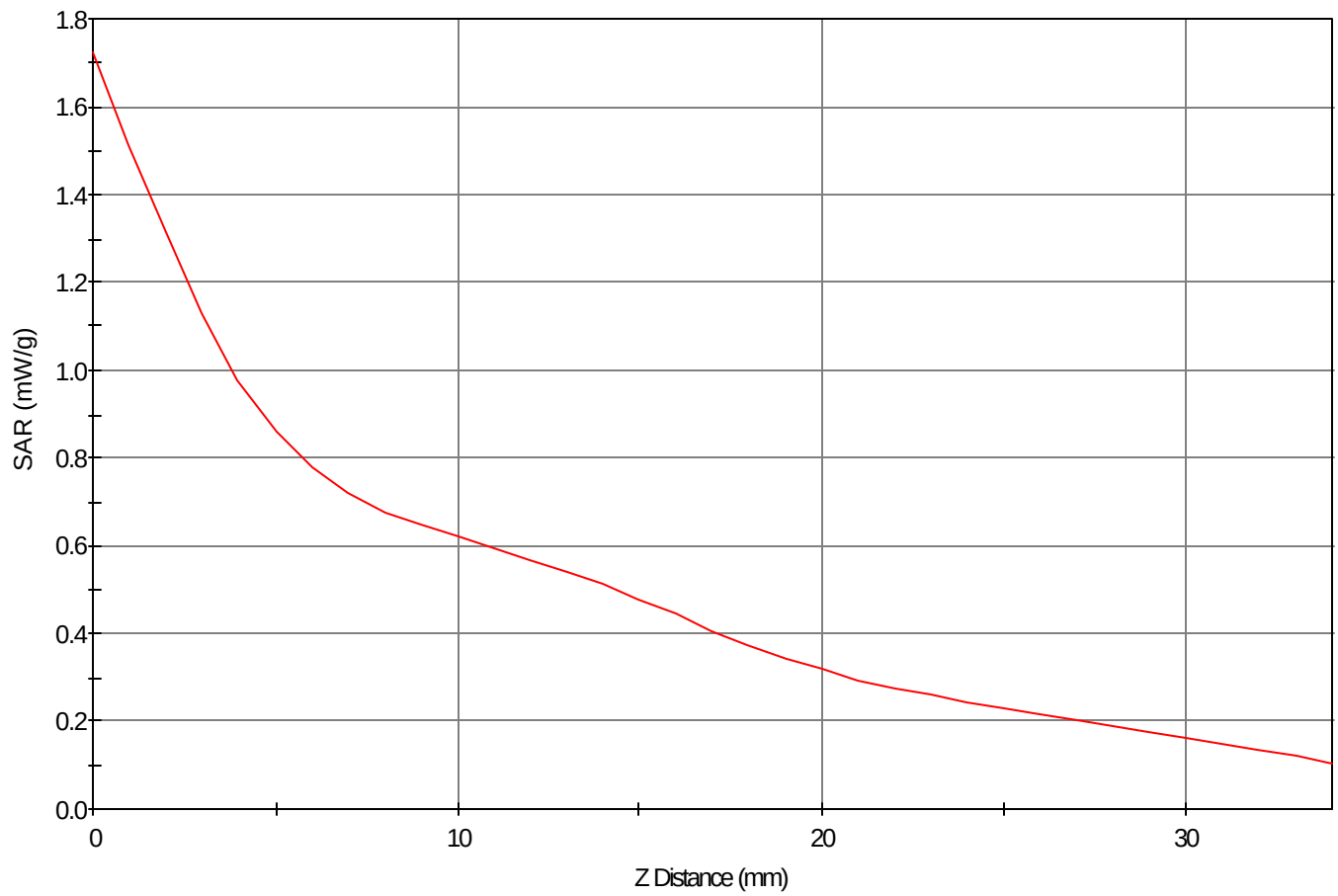
Area Scan - Max Peak SAR Value at x=-2.0 y=6.0 = 0.99 W/kg

Zoom Scan - Max Peak SAR Value at x=-2.0 y=5.0 z=0.0 = 1.73 W/kg

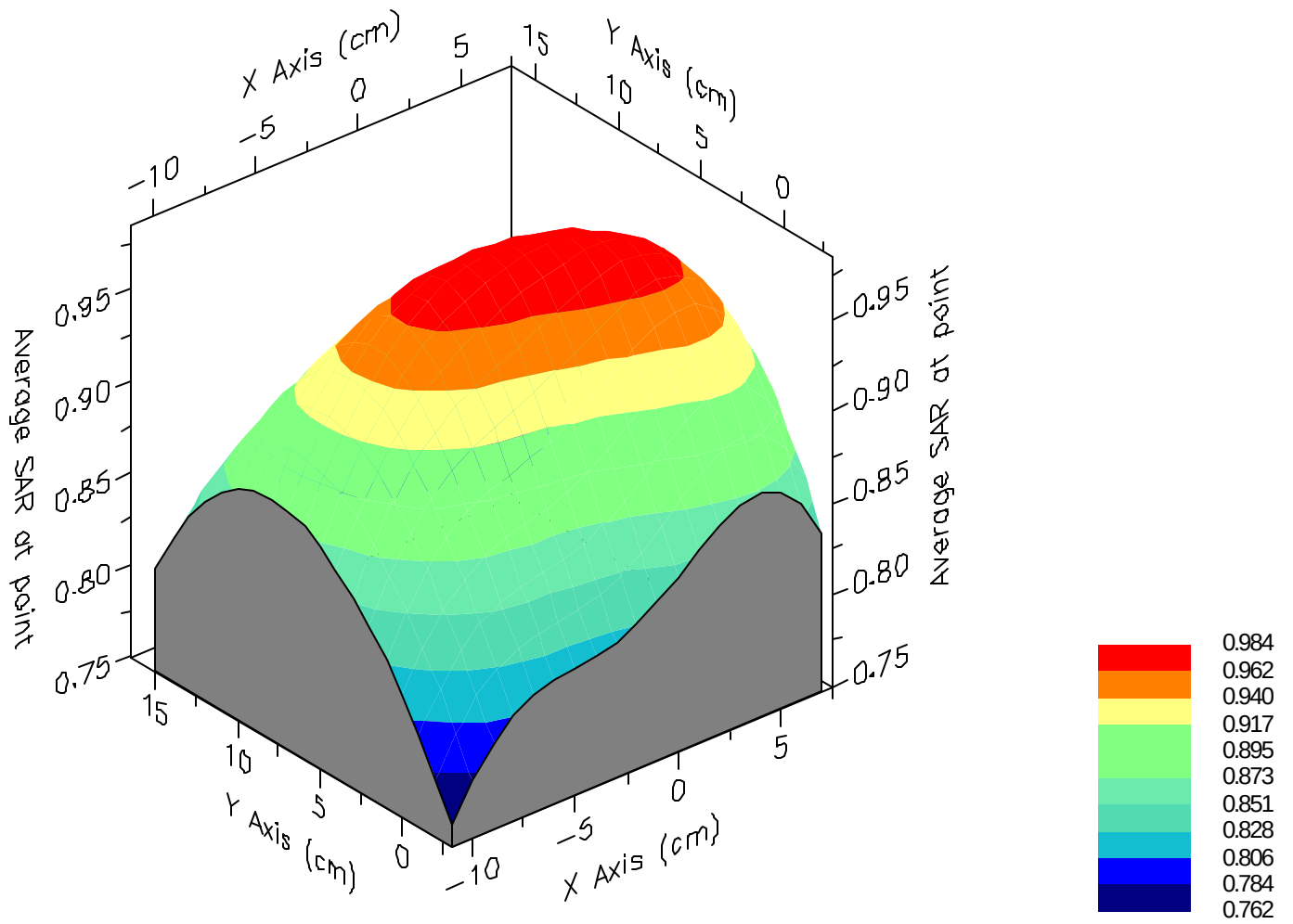
Max 1g SAR at x=0.0 y=5.0 z=0.0 = 0.98 W/kg

Max 10g SAR at x=0.0 y=5.0 z=0.0 = 0.64 W/kg

SAR - Z Axis
at Hotspot x:-2.0 y:5.0



1g SAR Values





SAR Data Report 05072225

Start : 22-Jul-05 12:26:13 pm
End : 22-Jul-05 12:31:18 pm
Code Version : 4.08
Robot Version: 4.08

Product Data:

Type : LGE WCDMA Phone
Model Number : CU320
Serial Number : 24
Frequency : 826.4 MHz
Transmit Pwr : 0.199 W
Antenna Type : Helical
Antenna Posn. : Internal

Measurement Data:

Phantom Name : SAM-LEFT
Phantom Type : Left Ear
Tissue Type : Brain
Tissue Dielectric : 42.150
Tissue Conductivity : 0.900
Tissue Density : 1.000
Robot Name : CRS

Probe Data:

Probe Name : PCT005
Probe Type : E Fld Triangle
Frequency : 835 MHz
Tissue Type : Brain
Calibrated Dielectric : 40.810
Calibrated Conductivity : 0.870
Calibrated Density : 1.000
Probe Offset : 1.600 mm
Conversion Factor : 5.500
Probe Sensitivity : 3.807 3.736 3.821 mV/(mW/cm^2)
Amplifier Gains : 20.00 20.00 20.00

Sample:

Rate: 6000 Samples/Sec
Count: 1000 Samples
NIDAQ Gain: 5

Comments:

Cellular WCDMA Mode Ch. 4132
Left Tilt (Slide Out)
CF=8; Amb. Temp= 22.2 'C; Liq. Temp=21.1 'C

Power Drop Test:

Reading @ start = 0.111
Reading @ End = 0.116
Power at End = 95.5%

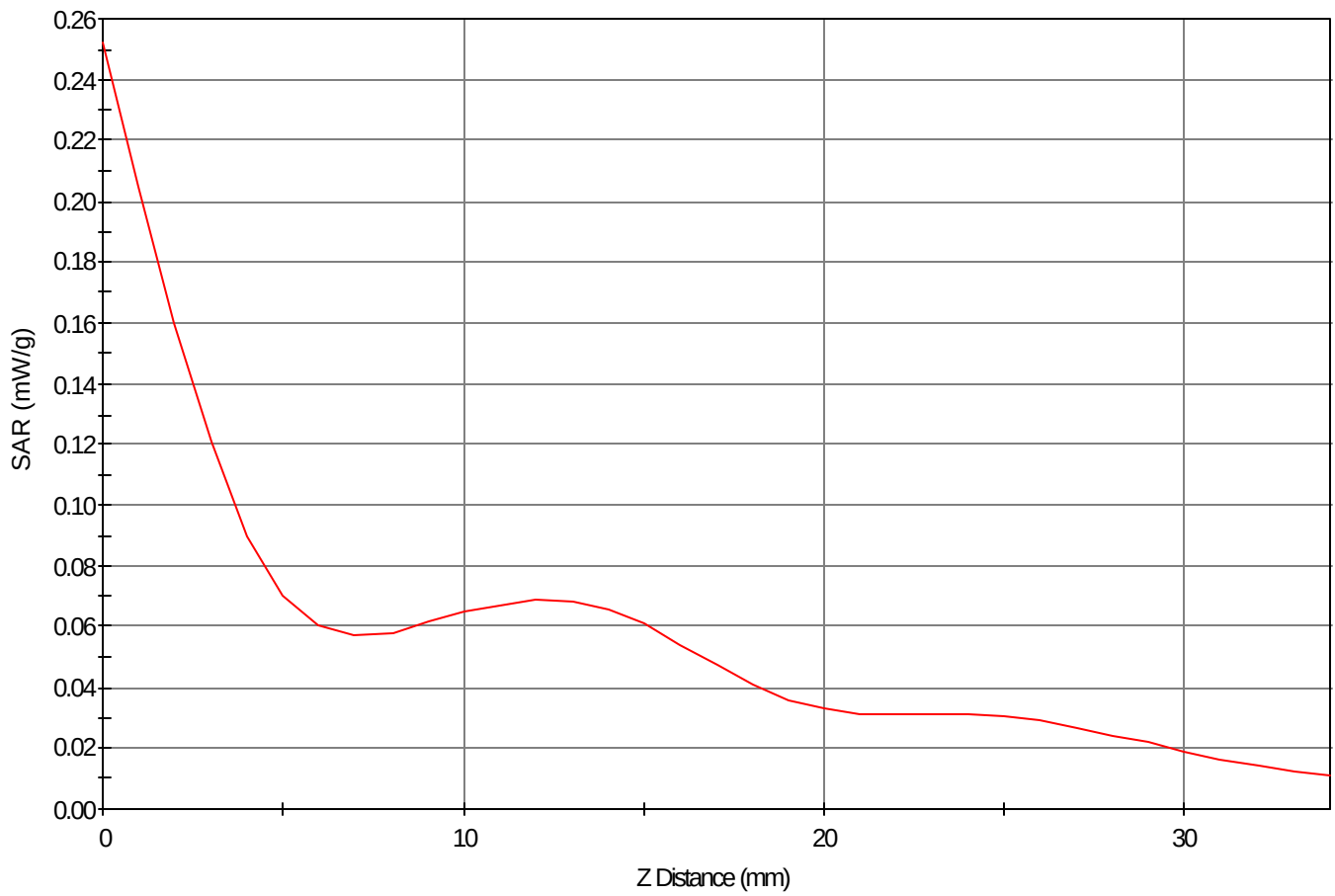
Area Scan - Max Peak SAR Value at x=29.0 y=6.0 = 0.13 W/kg

Zoom Scan - Max Peak SAR Value at x=36.0 y=-8.0 z=0.0 = 0.25 W/kg

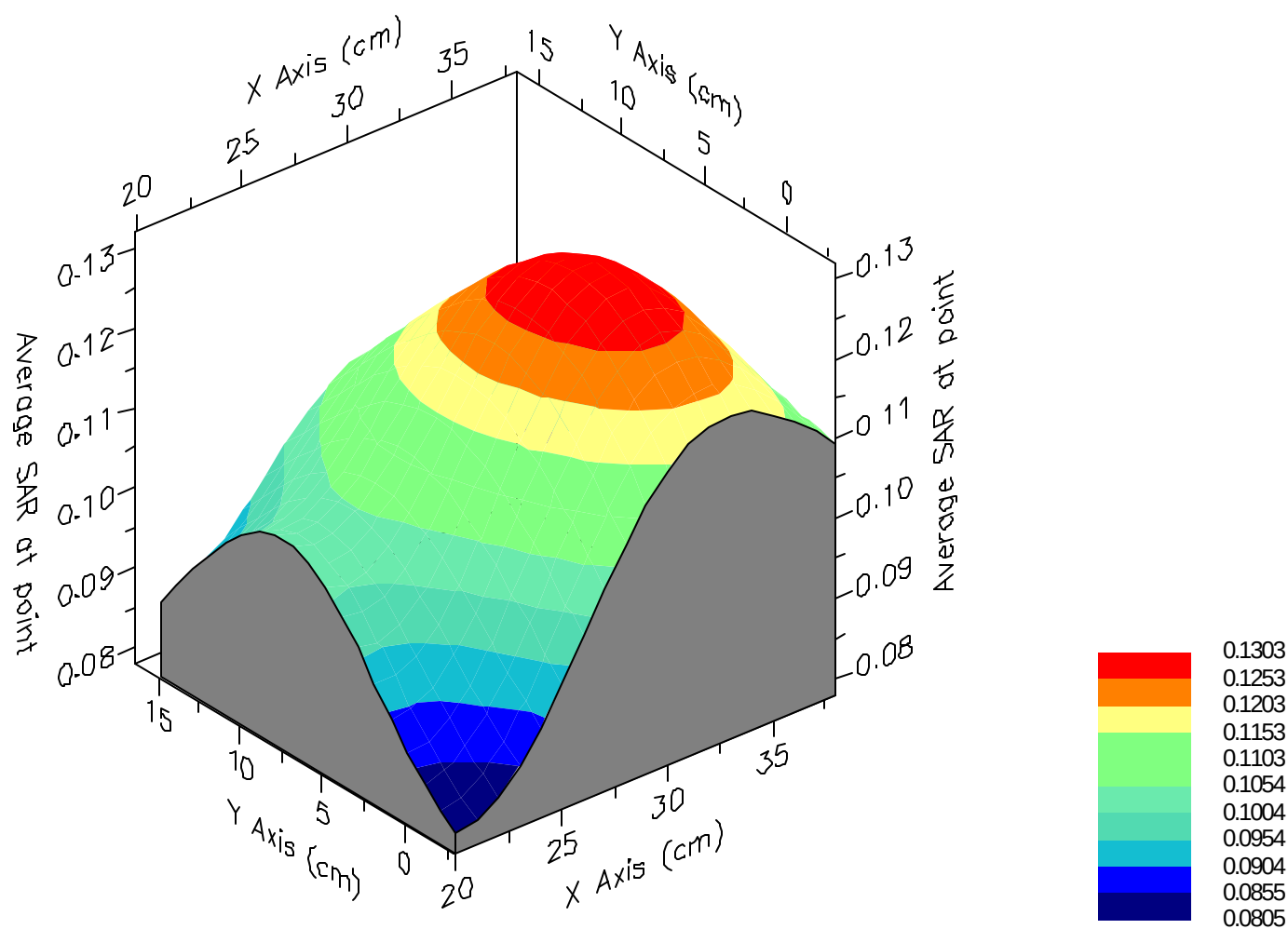
Max 1g SAR at x=32.0 y=4.0 z=0.0 = 0.13 W/kg

Max 10g SAR at x=26.0 y=4.0 z=0.0 = 0.08 W/kg

SAR - Z Axis
at Hotspot x:36.0 y:-8.0



1g SAR Values





SAR Data Report 05072558

Start : 25-Jul-05 03:08:35 pm
End : 25-Jul-05 03:13:54 pm
Code Version : 4.08
Robot Version: 4.08

Product Data:

Type : LGE WCDMA Phone
Model Number : CU320
Serial Number : 24
Frequency : 826.4 MHz
Transmit Pwr : 0.199 W
Antenna Type : Helical
Antenna Posn. : Fixed

Measurement Data:

Phantom Name : SAM FLAT
Phantom Type : Uniphantom
Tissue Type : Muscle
Tissue Dielectric : 54.150
Tissue Conductivity : 0.980
Tissue Density : 1.000
Robot Name : CRS

Probe Data:

Probe Name : PCT005
Probe Type : E Fld Triangle
Frequency : 835 MHz
Tissue Type : Muscle
Calibrated Dielectric : 53.660
Calibrated Conductivity : 0.980
Calibrated Density : 1.000
Probe Offset : 1.600 mm
Conversion Factor : 5.850
Probe Sensitivity : 3.807 3.736 3.821 mV/(mW/cm^2)
Amplifier Gains : 20.00 20.00 20.00

Sample:

Rate: 6000 Samples/Sec
Count: 1000 Samples
NIDAQ Gain: 5

Comments:

Cellular WCDMA Mode Ch. 4132
Body (Slide In w/ 1.5cm spacing)
CF=1; Amb. Temp= 22.2 'C; Liq. Temp=21.1 'C

Power Drop Test:

Reading @ start = 1.835
Reading @ End = 1.801
Power at End = 98.1%

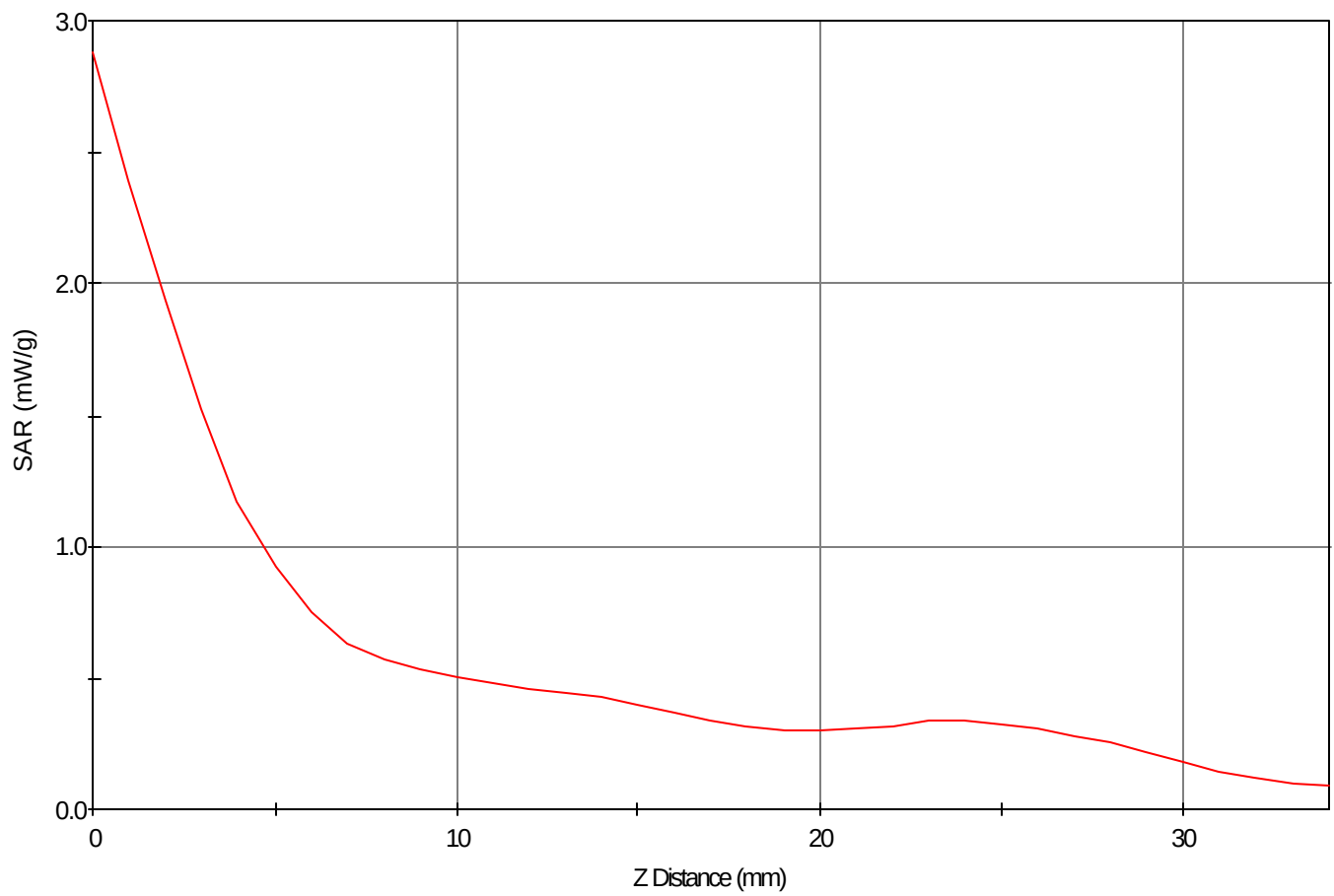
Area Scan - Max Peak SAR Value at x=11.0 y=-18.0 = 1.15 W/kg

Zoom Scan - Max Peak SAR Value at x=10.0 y=-11.0 z=0.0 = 2.88 W/kg

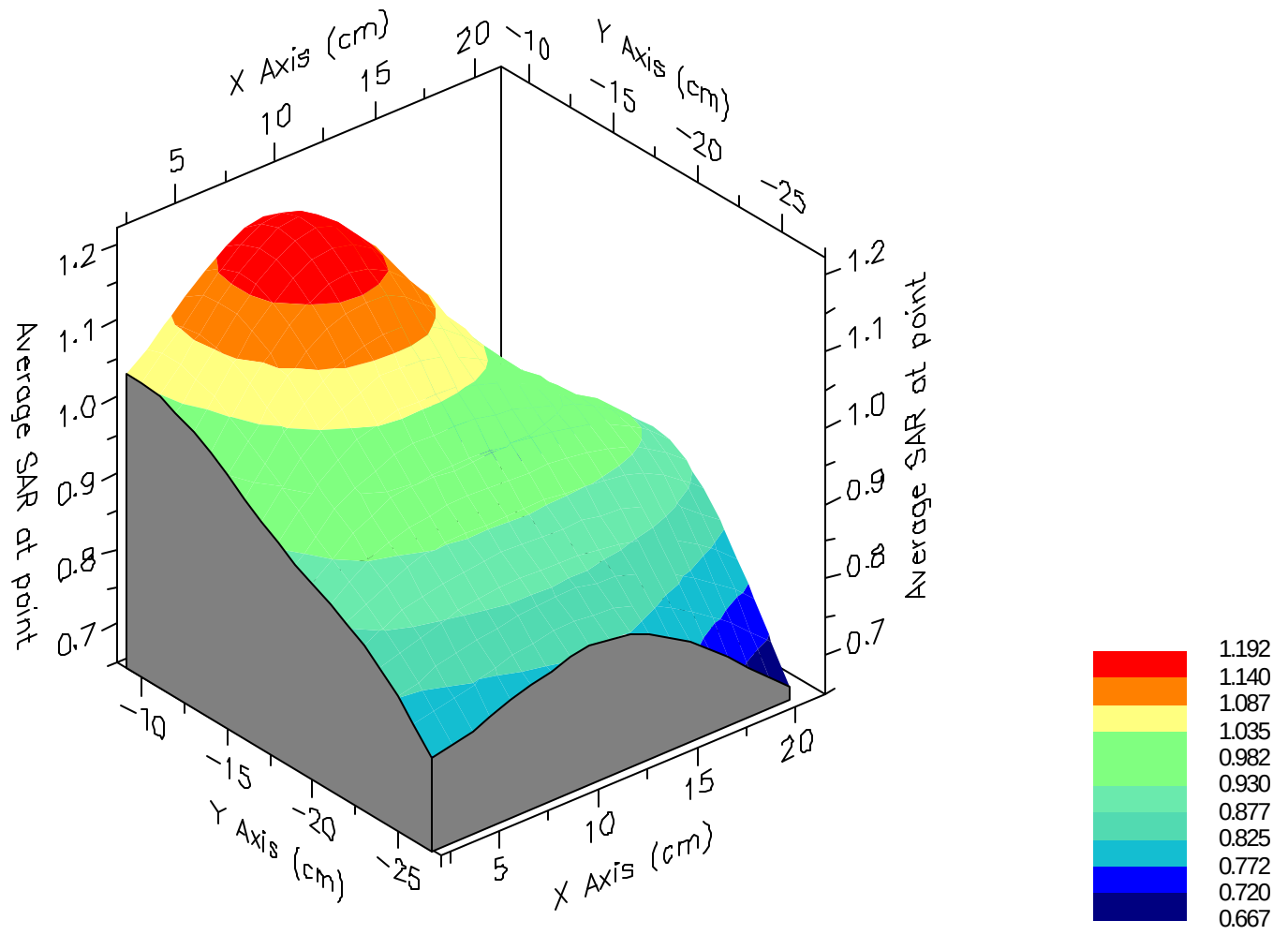
Max 1g SAR at x=9.0 y=-11.0 z=0.0 = 1.19 W/kg

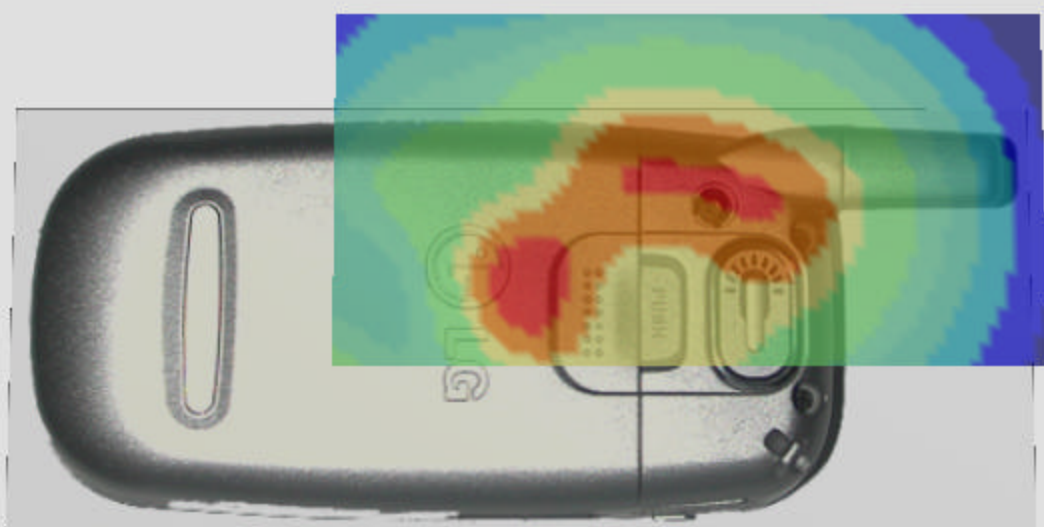
Max 10g SAR at x=8.0 y=-15.0 z=0.0 = 0.67 W/kg

SAR - Z Axis
at Hotspot x:10.0 y:-11.0



1g SAR Values





SAR Data Report 05072551

Start : 25-Jul-05 02:42:52 pm
End : 25-Jul-05 02:48:09 pm
Code Version : 4.08
Robot Version: 4.08

Product Data:

Type : LGE WCDMA Phone
Model Number : CU320
Serial Number : 24
Frequency : 826.4 MHz
Transmit Pwr : 0.199 W
Antenna Type : Helical
Antenna Posn. : Fixed

Measurement Data:

Phantom Name : SAM FLAT
Phantom Type : Uniphantom
Tissue Type : Muscle
Tissue Dielectric : 54.150
Tissue Conductivity : 0.980
Tissue Density : 1.000
Robot Name : CRS

Probe Data:

Probe Name : PCT005
Probe Type : E Fld Triangle
Frequency : 835 MHz
Tissue Type : Muscle
Calibrated Dielectric : 53.660
Calibrated Conductivity : 0.980
Calibrated Density : 1.000
Probe Offset : 1.600 mm
Conversion Factor : 5.850
Probe Sensitivity : 3.807 3.736 3.821 mV/(mW/cm^2)
Amplifier Gains : 20.00 20.00 20.00

Sample:

Rate: 6000 Samples/Sec
Count: 1000 Samples
NIDAQ Gain: 5

Comments:

Cellular WCDMA Mode Ch. 4132
Body (Slide Out w/ 1.5cm spacing)
CF=1; Amb. Temp= 22.2 'C; Liq. Temp=21.1 'C

Power Drop Test:

Reading @ start = 1.038
Reading @ End = 1.037
Power at End = 99.9%

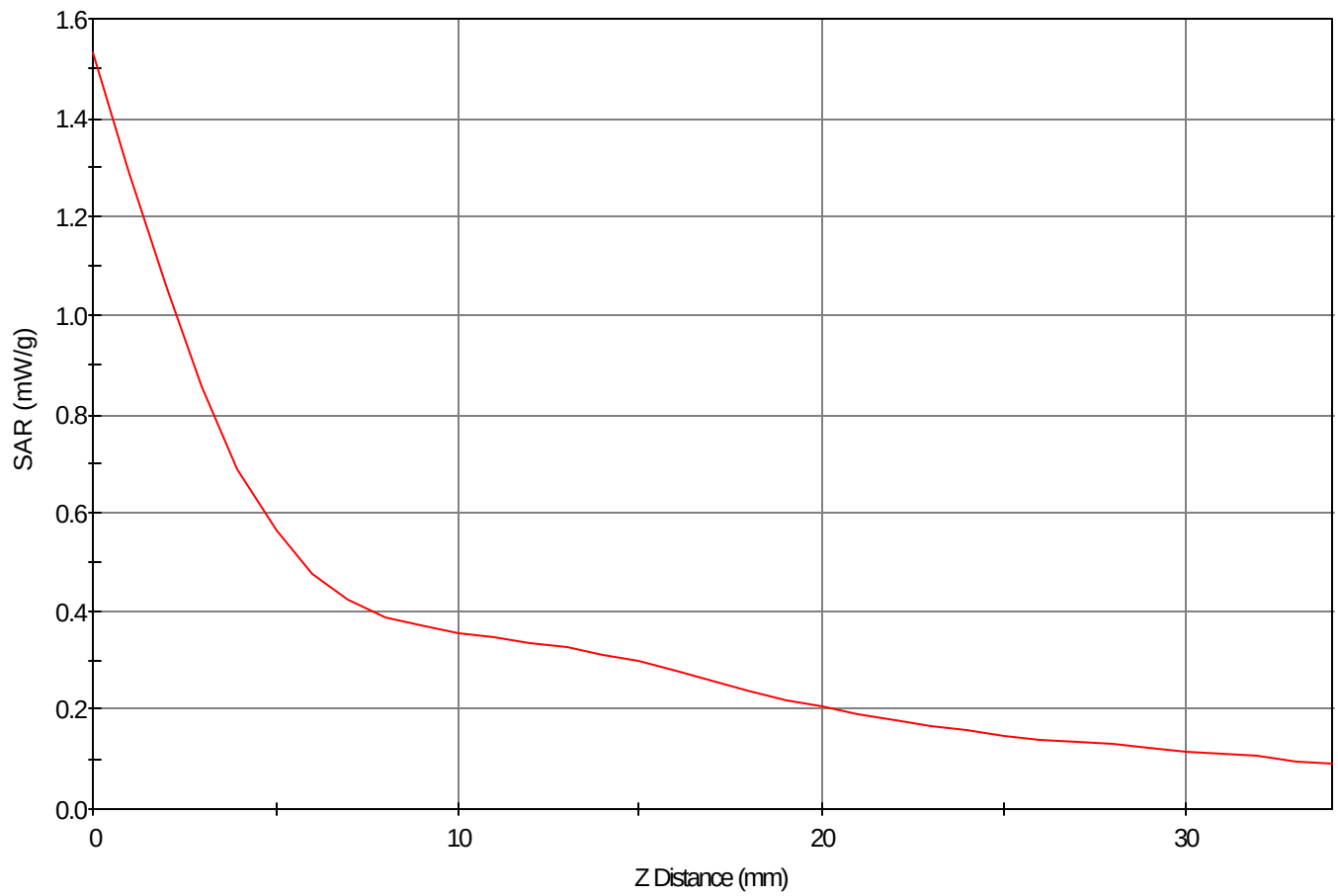
Area Scan - Max Peak SAR Value at x=-2.0 y=-1.0 = 0.70 W/kg

Zoom Scan - Max Peak SAR Value at x=-3.0 y=0.0 z=0.0 = 1.53 W/kg

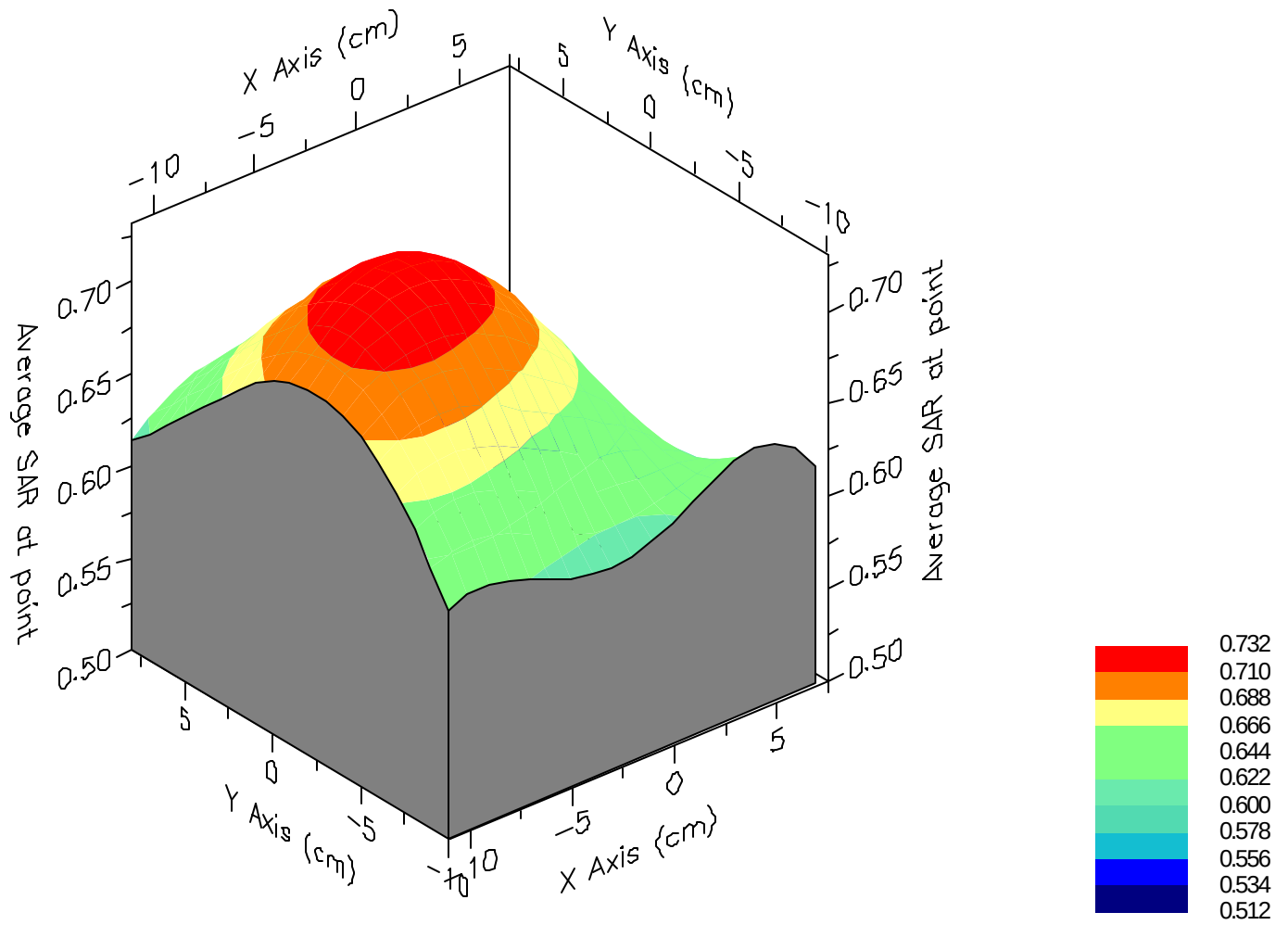
Max 1g SAR at x=-5.0 y=-1.0 z=0.0 = 0.73 W/kg

Max 10g SAR at x=-4.0 y=-4.0 z=0.0 = 0.44 W/kg

SAR - Z Axis
at Hotspot x:-3.0 y:0.0



1g SAR Values





SAR Data Report 05072231

Start : 22-Jul-05 01:31:48 pm
End : 22-Jul-05 01:37:01 pm
Code Version : 4.08
Robot Version: 4.08

Product Data:

Type : LGE WCDMA Phone
Model Number : CU320
Serial Number : 24
Frequency : 1880 MHz
Transmit Pwr : 0.182 W
Antenna Type : Helical
Antenna Posn. : Internal

Measurement Data:

Phantom Name : SAM-RIGHT
Phantom Type : Right Ear
Tissue Type : Brain
Tissue Dielectric : 40.210
Tissue Conductivity : 1.420
Tissue Density : 1.000
Robot Name : CRS

Probe Data:

Probe Name : PCT005
Probe Type : E Fld Triangle
Frequency : 1900 MHz
Tissue Type : Brain
Calibrated Dielectric : 39.020
Calibrated Conductivity : 1.370
Calibrated Density : 1.000
Probe Offset : 1.600 mm
Conversion Factor : 5.400
Probe Sensitivity : 5.115 4.969 4.453 mV/(mW/cm^2)
Amplifier Gains : 20.00 20.00 20.00

Sample:

Rate: 6000 Samples/Sec
Count: 1000 Samples
NIDAQ Gain: 5

Comments:

PCS WCDMA Mode Ch. 9400
Right Cheek (Slide In)
CF=8; Amb. Temp= 22.2 'C; Liq. Temp=21.1 'C

Power Drop Test:

Reading @ start = 0.640
Reading @ End = 0.637
Power at End = 99.4%

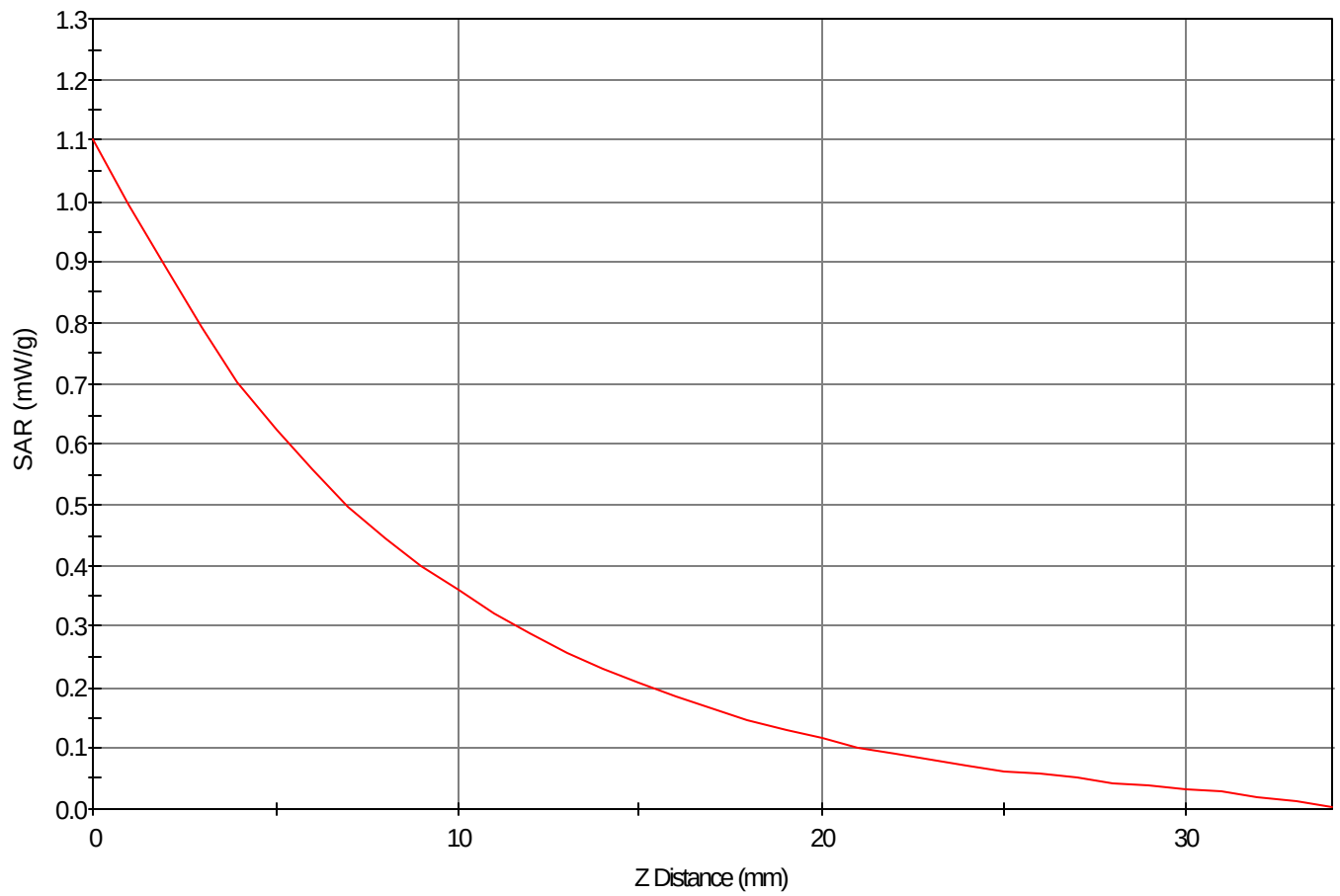
Area Scan - Max Peak SAR Value at x=6.0 y=-6.0 = 0.70 W/kg

Zoom Scan - Max Peak SAR Value at x=2.0 y=-4.0 z=0.0 = 1.10 W/kg

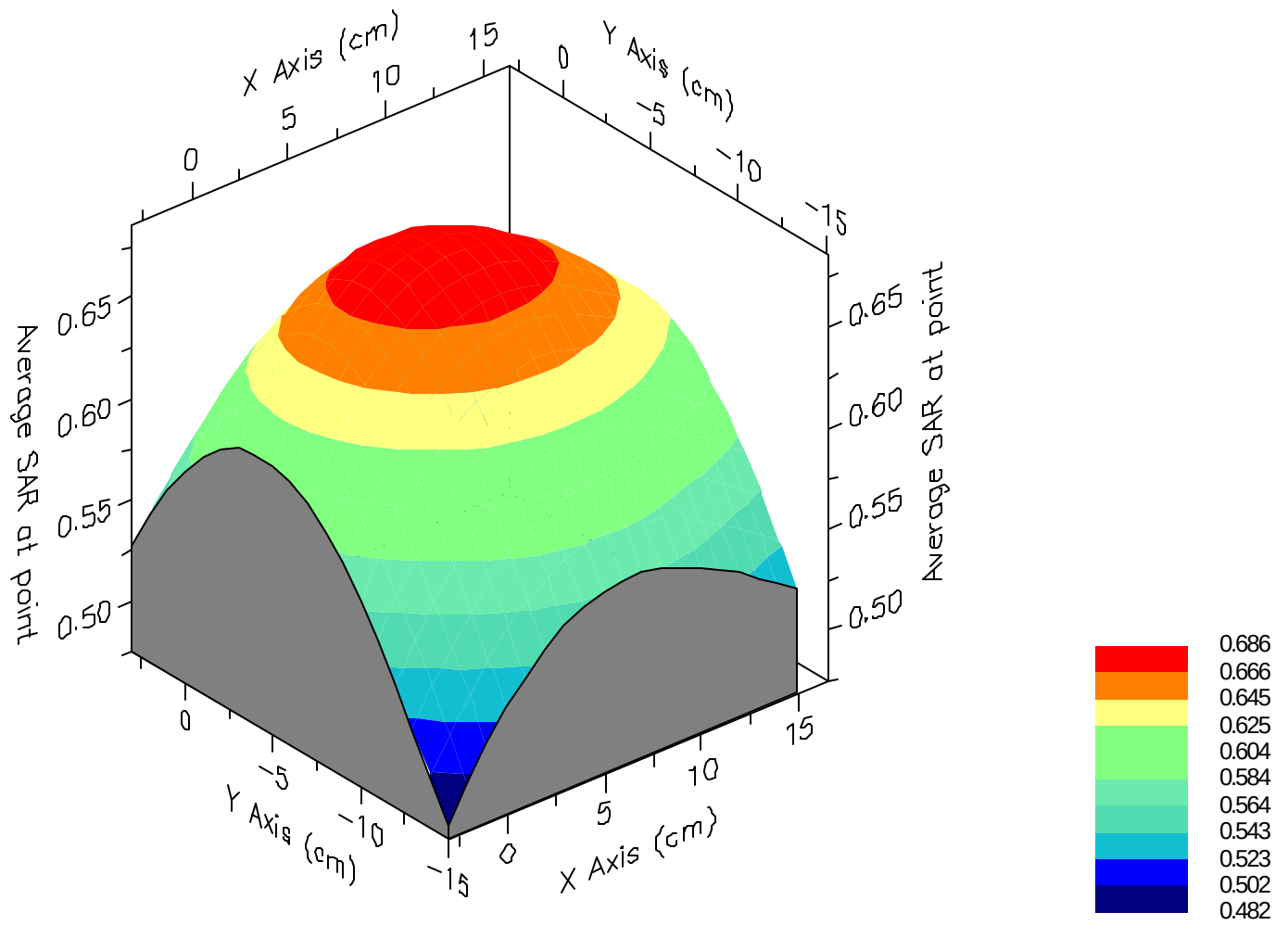
Max 1g SAR at x=5.0 y=-5.0 z=0.0 = 0.69 W/kg

Max 10g SAR at x=8.0 y=-7.0 z=0.0 = 0.39 W/kg

SAR - Z Axis
at Hotspot x:2.0 y:-4.0



1g SAR Values





SAR Data Report 05072235

Start : 22-Jul-05 01:54:09 pm
End : 22-Jul-05 01:59:25 pm
Code Version : 4.08
Robot Version: 4.08

Product Data:

Type : LGE WCDMA Phone
Model Number : CU320
Serial Number : 24
Frequency : 1880 MHz
Transmit Pwr : 0.182 W
Antenna Type : Helical
Antenna Posn. : Fixed

Measurement Data:

Phantom Name : SAM-RIGHT
Phantom Type : Right Ear
Tissue Type : Brain
Tissue Dielectric : 40.210
Tissue Conductivity : 1.420
Tissue Density : 1.000
Robot Name : CRS

Probe Data:

Probe Name : PCT005
Probe Type : E Fld Triangle
Frequency : 1900 MHz
Tissue Type : Brain
Calibrated Dielectric : 39.020
Calibrated Conductivity : 1.370
Calibrated Density : 1.000
Probe Offset : 1.600 mm
Conversion Factor : 5.400
Probe Sensitivity : 5.115 4.969 4.453 mV/(mW/cm^2)
Amplifier Gains : 20.00 20.00 20.00

Sample:

Rate: 6000 Samples/Sec
Count: 1000 Samples
NIDAQ Gain: 5

Comments:

PCS WCDMA Mode Ch. 9400
Right Cheek (Slide Out)
CF=8; Amb. Temp= 22.2 'C; Liq. Temp=21.1 'C

Power Drop Test:

Reading @ start = 0.159
Reading @ End = 0.160
Power at End = 100.5%

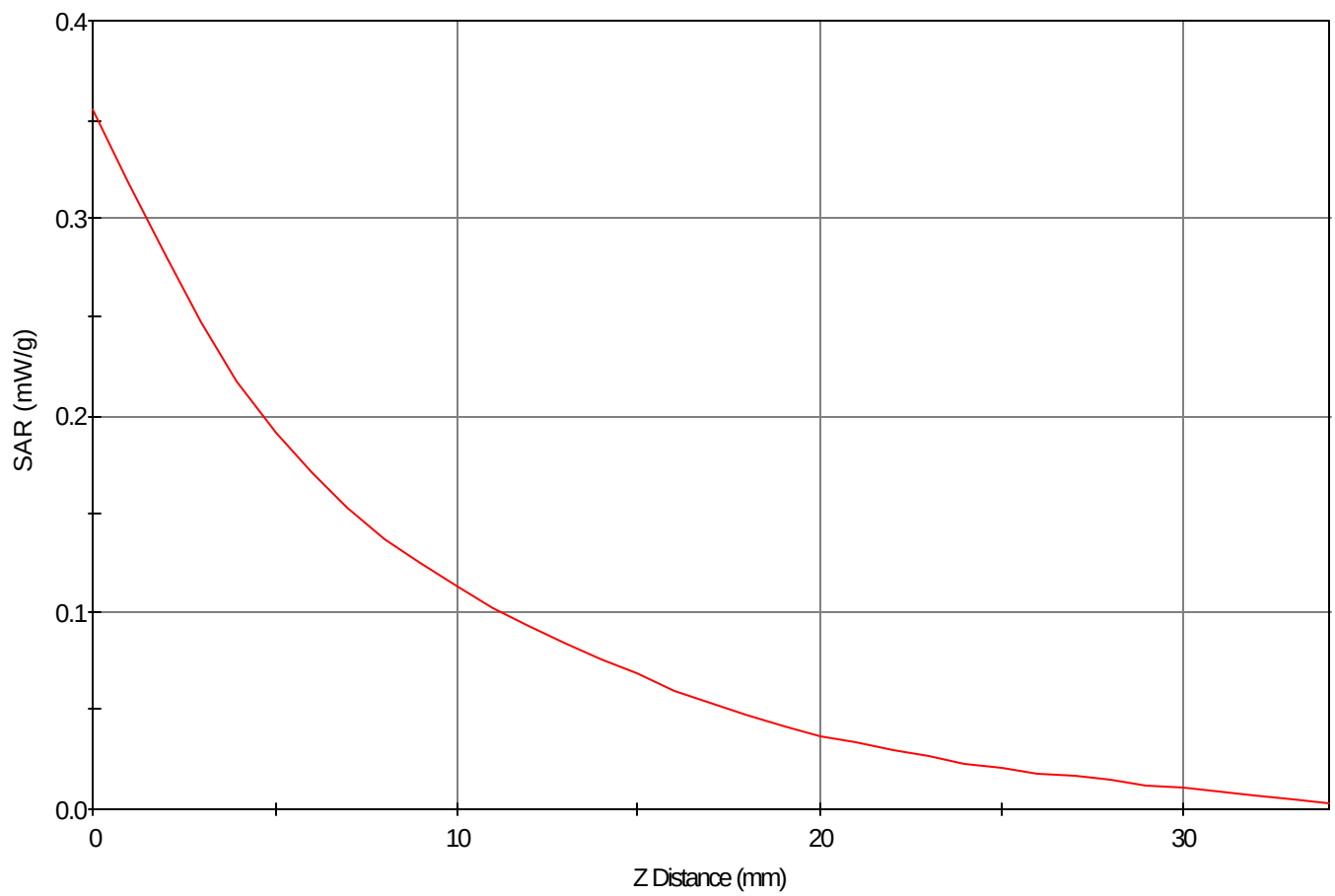
Area Scan - Max Peak SAR Value at x=10.0 y=-5.0 = 0.22 W/kg

Zoom Scan - Max Peak SAR Value at x=10.0 y=-6.0 z=0.0 = 0.36 W/kg

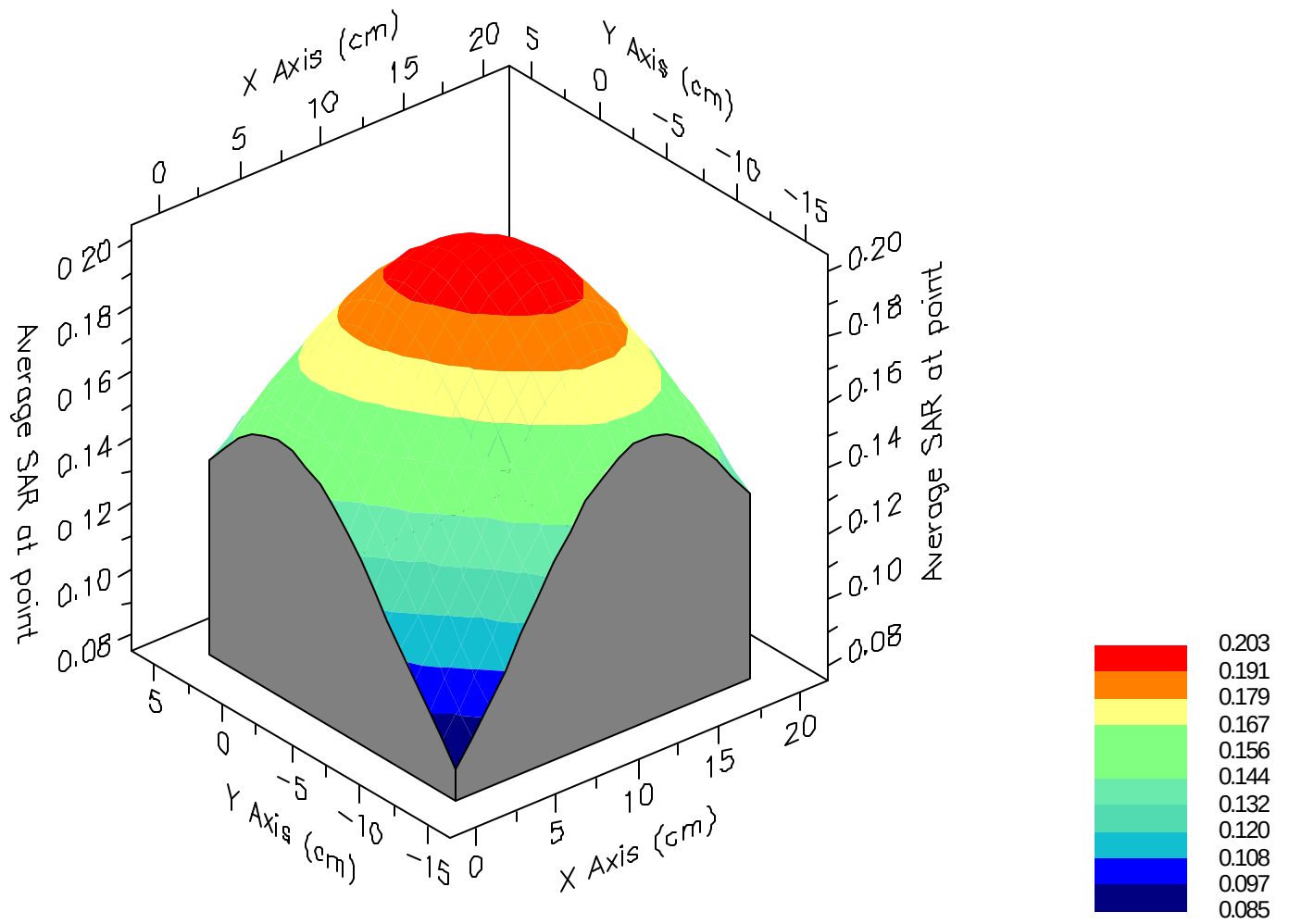
Max 1g SAR at x=11.0 y=-5.0 z=0.0 = 0.20 W/kg

Max 10g SAR at x=11.0 y=-6.0 z=0.0 = 0.10 W/kg

SAR - Z Axis
at Hotspot x:10.0 y:-6.0



1g SAR Values





SAR Data Report 05072505

Start : 25-Jul-05 09:55:58 am
End : 25-Jul-05 10:00:57 am
Code Version : 4.08
Robot Version: 4.08

Product Data:

Type : LGE WCDMA Phone
Model Number : CU320
Serial Number : 24
Frequency : 1880 MHz
Transmit Pwr : 0.182 W
Antenna Type : Helical
Antenna Posn. : Fixed

Measurement Data:

Phantom Name : SAM-RIGHT
Phantom Type : Right Ear
Tissue Type : Brain
Tissue Dielectric : 40.210
Tissue Conductivity : 1.420
Tissue Density : 1.000
Robot Name : CRS

Probe Data:

Probe Name : PCT005
Probe Type : E Fld Triangle
Frequency : 1900 MHz
Tissue Type : Brain
Calibrated Dielectric : 39.020
Calibrated Conductivity : 1.370
Calibrated Density : 1.000
Probe Offset : 1.600 mm
Conversion Factor : 5.400
Probe Sensitivity : 5.115 4.969 4.453 mV/(mW/cm^2)
Amplifier Gains : 20.00 20.00 20.00

Sample:

Rate: 6000 Samples/Sec
Count: 1000 Samples
NIDAQ Gain: 5

Comments:

PCS WCDMA Mode Ch. 9400
Right Tilt (Slide In)
CF=8; Amb. Temp= 22.2 'C; Liq. Temp=21.1 'C

Power Drop Test:

Reading @ start = 0.663
Reading @ End = 0.639
Power at End = 96.4%

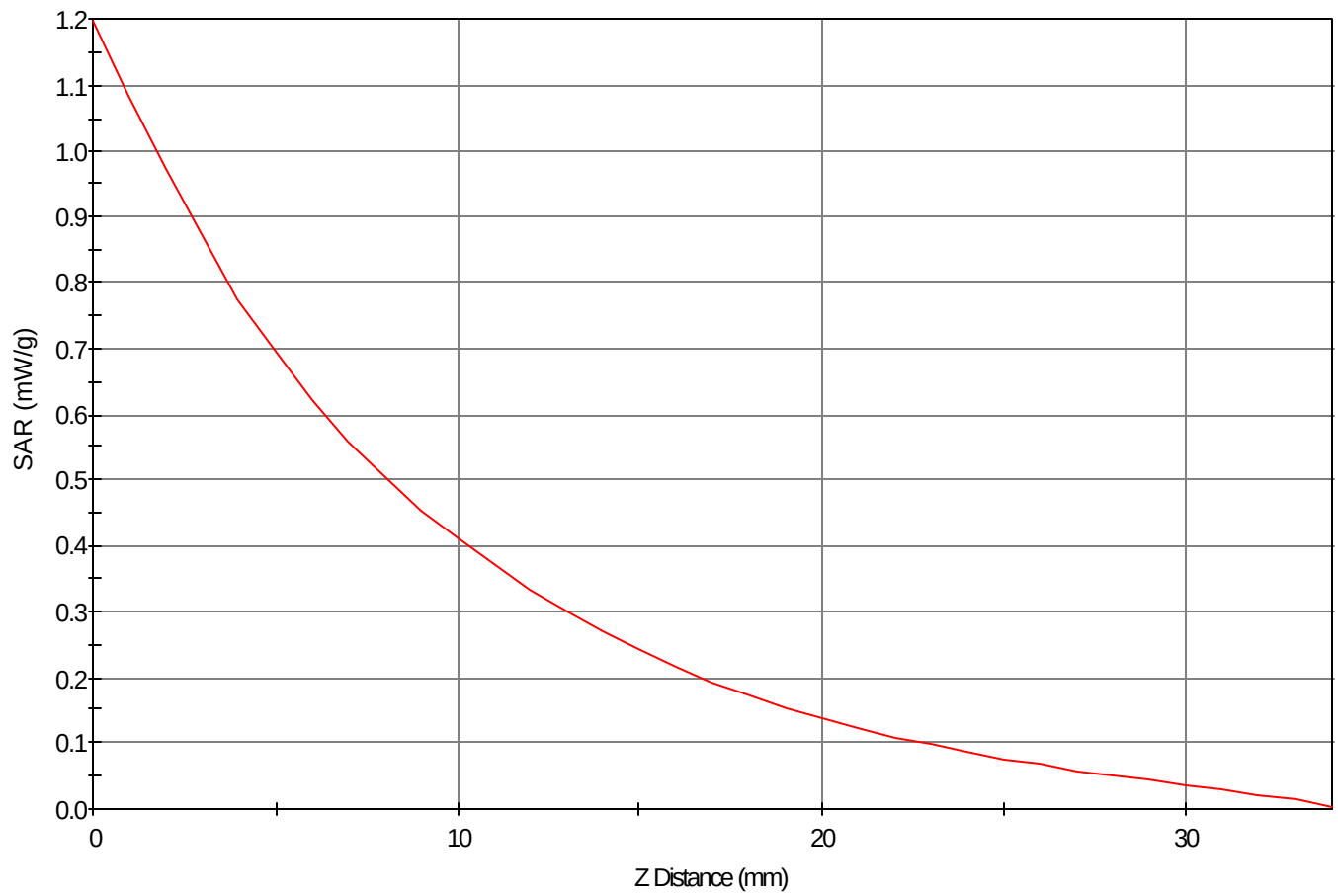
Area Scan - Max Peak SAR Value at x=4.0 y=-9.0 = 0.78 W/kg

Zoom Scan - Max Peak SAR Value at x=5.0 y=-9.0 z=0.0 = 1.20 W/kg

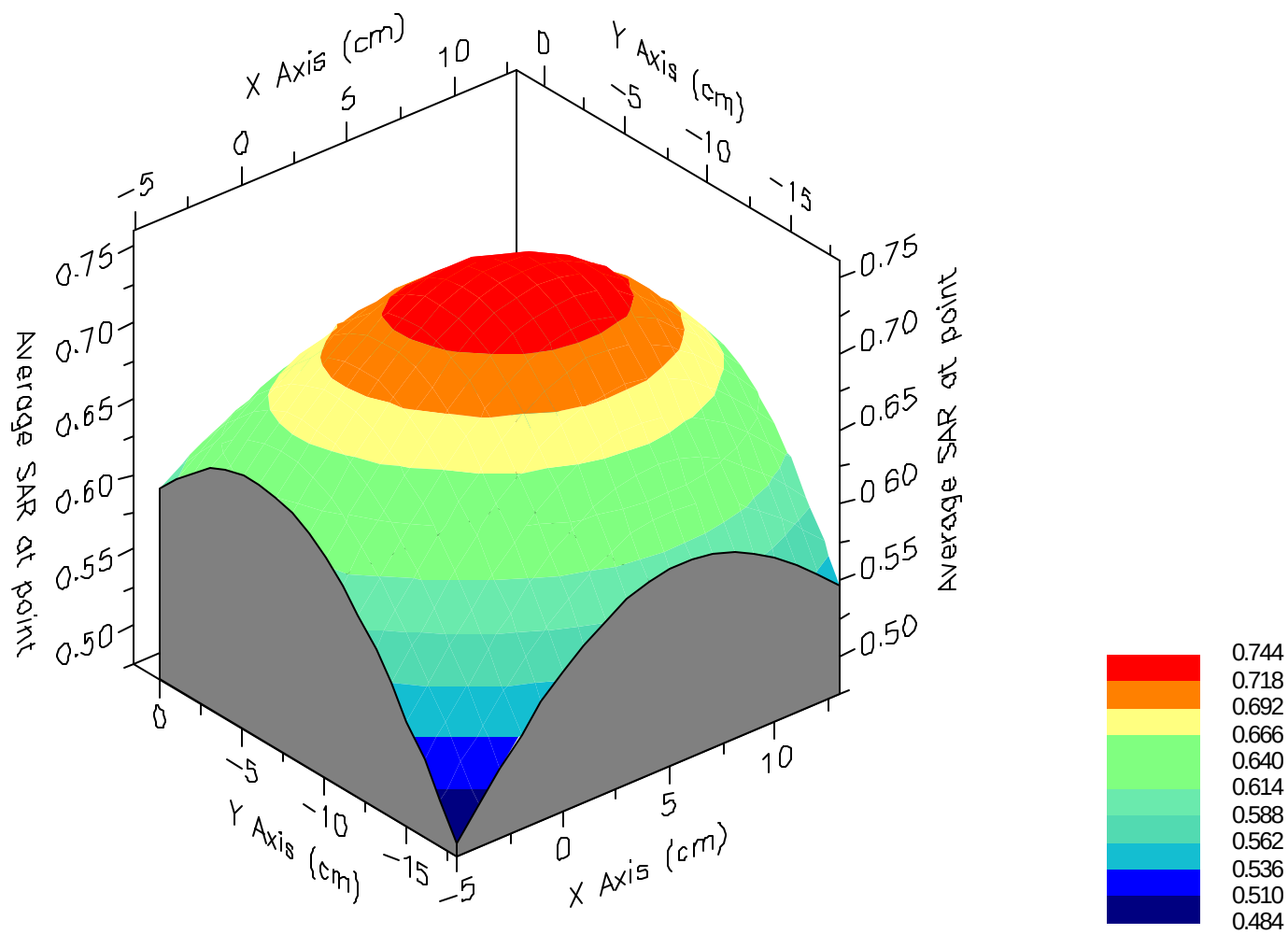
Max 1g SAR at x=5.0 y=-9.0 z=0.0 = 0.74 W/kg

Max 10g SAR at x=5.0 y=-9.0 z=0.0 = 0.41 W/kg

SAR - Z Axis
at Hotspot x:5.0 y:-9.0



1g SAR Values





SAR Data Report 05072510

Start : 25-Jul-05 10:22:49 am
End : 25-Jul-05 10:28:04 am
Code Version : 4.08
Robot Version: 4.08

Product Data:

Type : LGE WCDMA Phone
Model Number : CU320
Serial Number : 24
Frequency : 1880 MHz
Transmit Pwr : 0.182 W
Antenna Type : Helical
Antenna Posn. : Fixed

Measurement Data:

Phantom Name : SAM-RIGHT
Phantom Type : Right Ear
Tissue Type : Brain
Tissue Dielectric : 40.210
Tissue Conductivity : 1.420
Tissue Density : 1.000
Robot Name : CRS

Probe Data:

Probe Name : PCT005
Probe Type : E Fld Triangle
Frequency : 1900 MHz
Tissue Type : Brain
Calibrated Dielectric : 39.020
Calibrated Conductivity : 1.370
Calibrated Density : 1.000
Probe Offset : 1.600 mm
Conversion Factor : 5.400
Probe Sensitivity : 5.115 4.969 4.453 mV/(mW/cm^2)
Amplifier Gains : 20.00 20.00 20.00

Sample:

Rate: 6000 Samples/Sec
Count: 1000 Samples
NIDAQ Gain: 5

Comments:

PCS WCDMA Mode Ch. 9400
Right Tilt (Slide Out)
CF=8; Amb. Temp= 22.2 'C; Liq. Temp=21.1 'C

Power Drop Test:

Reading @ start = 0.144
Reading @ End = 0.145
Power at End = 101.0%

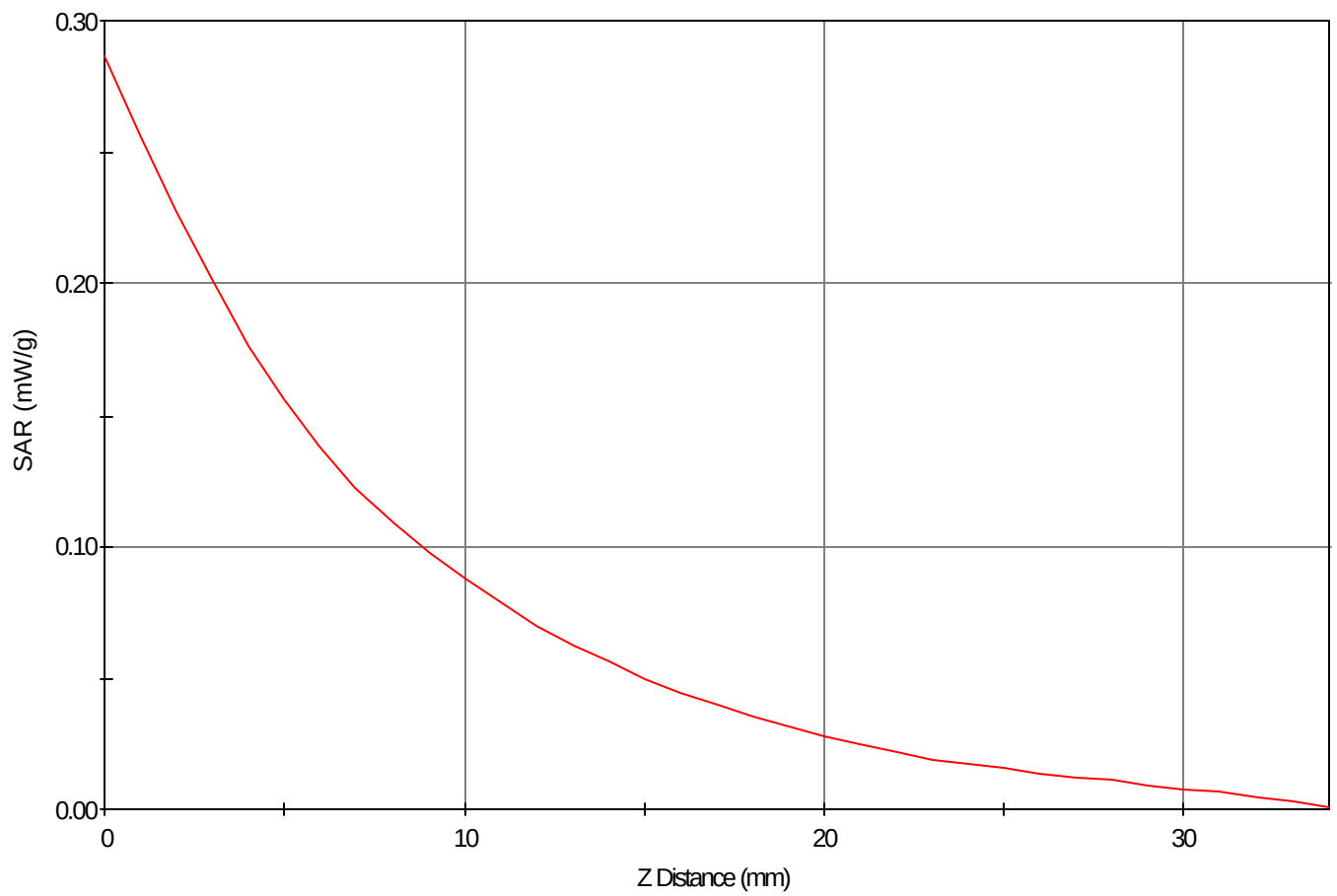
Area Scan - Max Peak SAR Value at x=9.0 y=-3.0 = 0.18 W/kg

Zoom Scan - Max Peak SAR Value at x=9.0 y=-3.0 z=0.0 = 0.29 W/kg

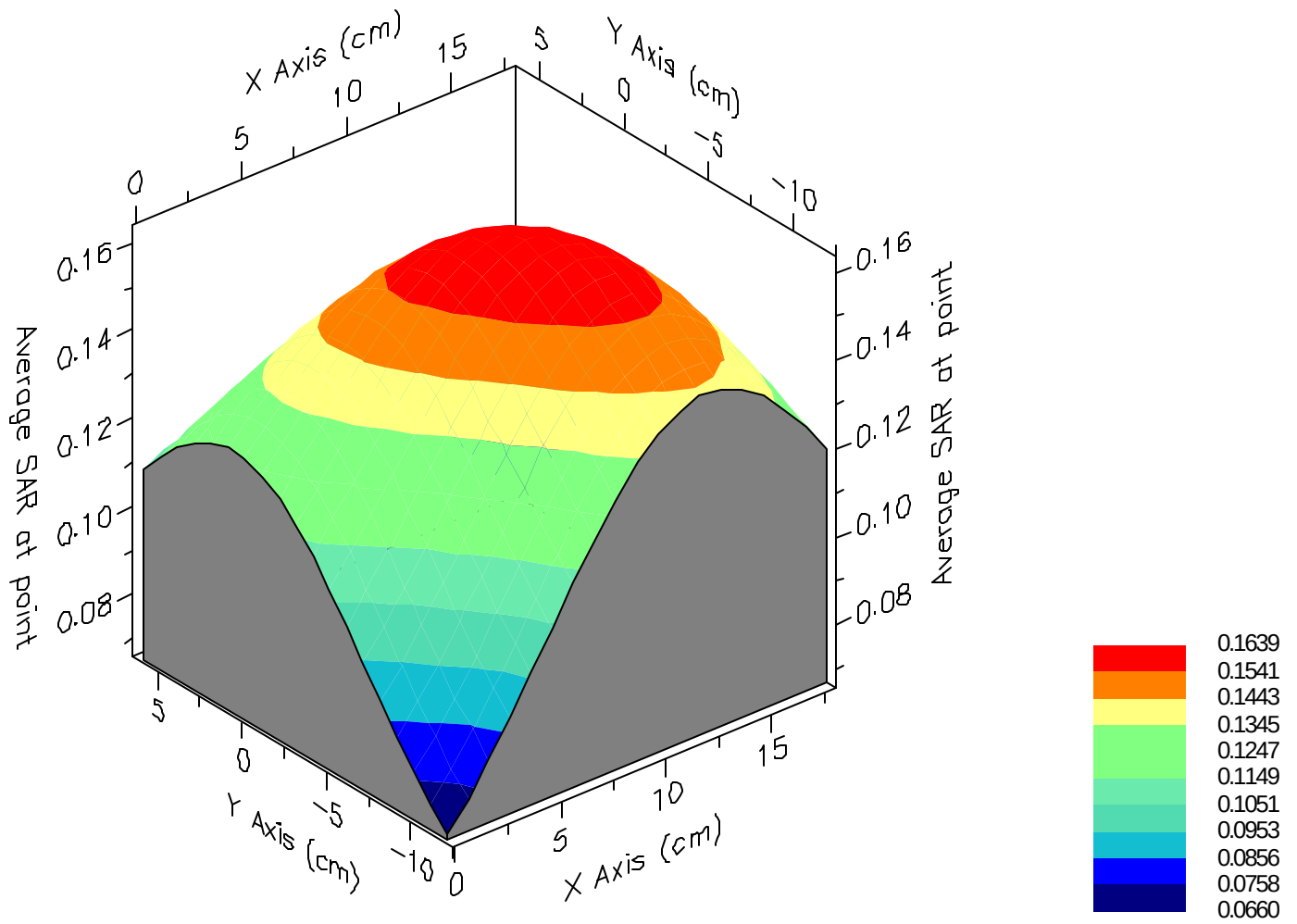
Max 1g SAR at x=10.0 y=-4.0 z=0.0 = 0.16 W/kg

Max 10g SAR at x=10.0 y=-5.0 z=0.0 = 0.08 W/kg

SAR - Z Axis
at Hotspot x:9.0 y:-3.0



1g SAR Values





SAR Data Report 05072513

Start : 25-Jul-05 10:45:36 am
End : 25-Jul-05 10:50:30 am
Code Version : 4.08
Robot Version: 4.08

Product Data:

Type : LGE WCDMA Phone
Model Number : CU320
Serial Number : 24
Frequency : 1880 MHz
Transmit Pwr : 0.182 W
Antenna Type : Helical
Antenna Posn. : Fixed

Measurement Data:

Phantom Name : SAM-LEFT
Phantom Type : Left Ear
Tissue Type : Brain
Tissue Dielectric : 40.210
Tissue Conductivity : 1.420
Tissue Density : 1.000
Robot Name : CRS

Probe Data:

Probe Name : PCT005
Probe Type : E Fld Triangle
Frequency : 1900 MHz
Tissue Type : Brain
Calibrated Dielectric : 39.020
Calibrated Conductivity : 1.370
Calibrated Density : 1.000
Probe Offset : 1.600 mm
Conversion Factor : 5.400
Probe Sensitivity : 5.115 4.969 4.453 mV/(mW/cm^2)
Amplifier Gains : 20.00 20.00 20.00

Sample:

Rate: 6000 Samples/Sec
Count: 1000 Samples
NIDAQ Gain: 5

Comments:

PCS WCDMA Mode Ch. 9400
Left Cheek (Slide In)
CF=8; Amb. Temp= 22.2 'C; Liq. Temp=21.1 'C

Power Drop Test:

Reading @ start = 0.538
Reading @ End = 0.551
Power at End = 102.5%

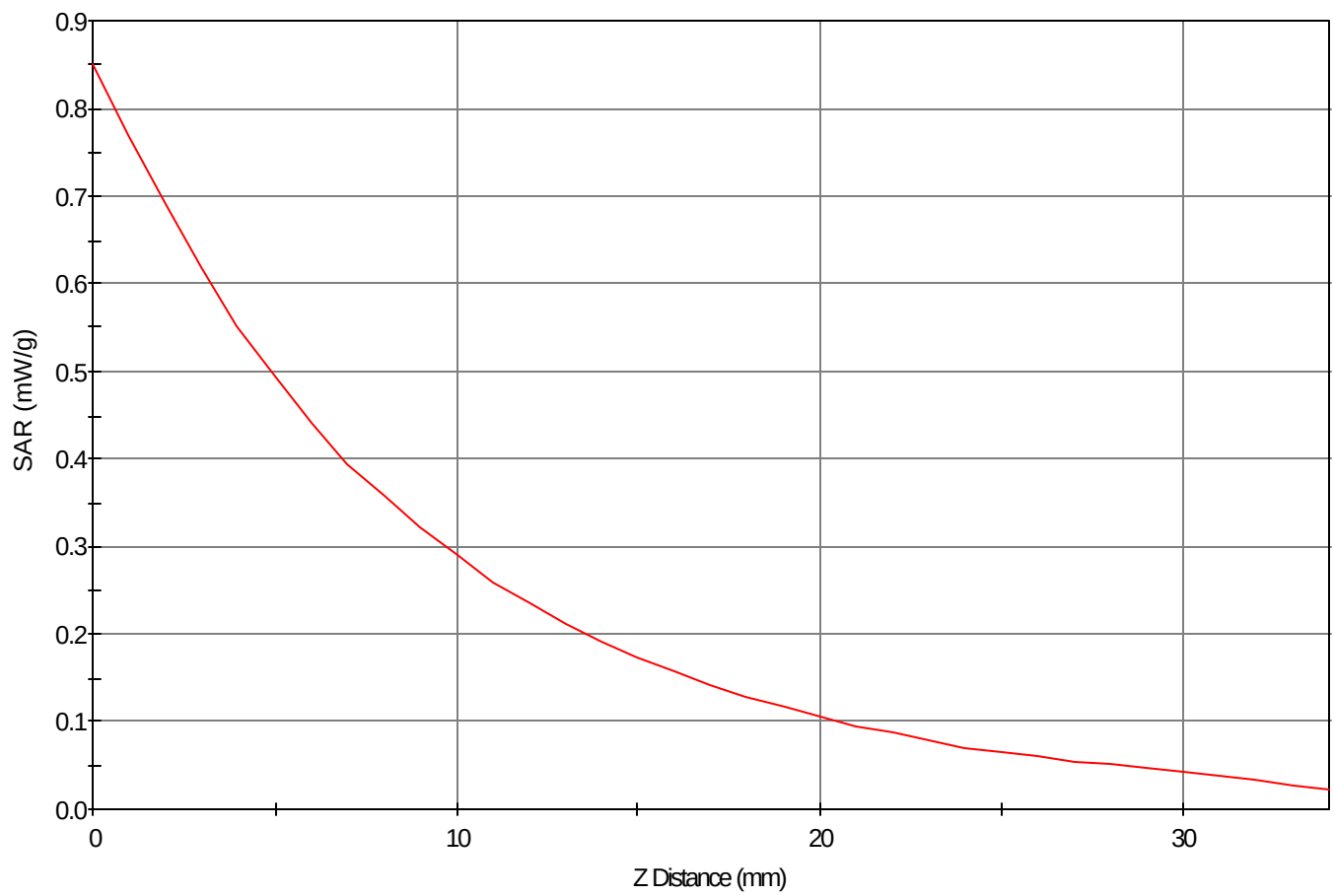
Area Scan - Max Peak SAR Value at x=2.0 y=2.0 = 0.55 W/kg

Zoom Scan - Max Peak SAR Value at x=4.0 y=5.0 z=0.0 = 0.85 W/kg

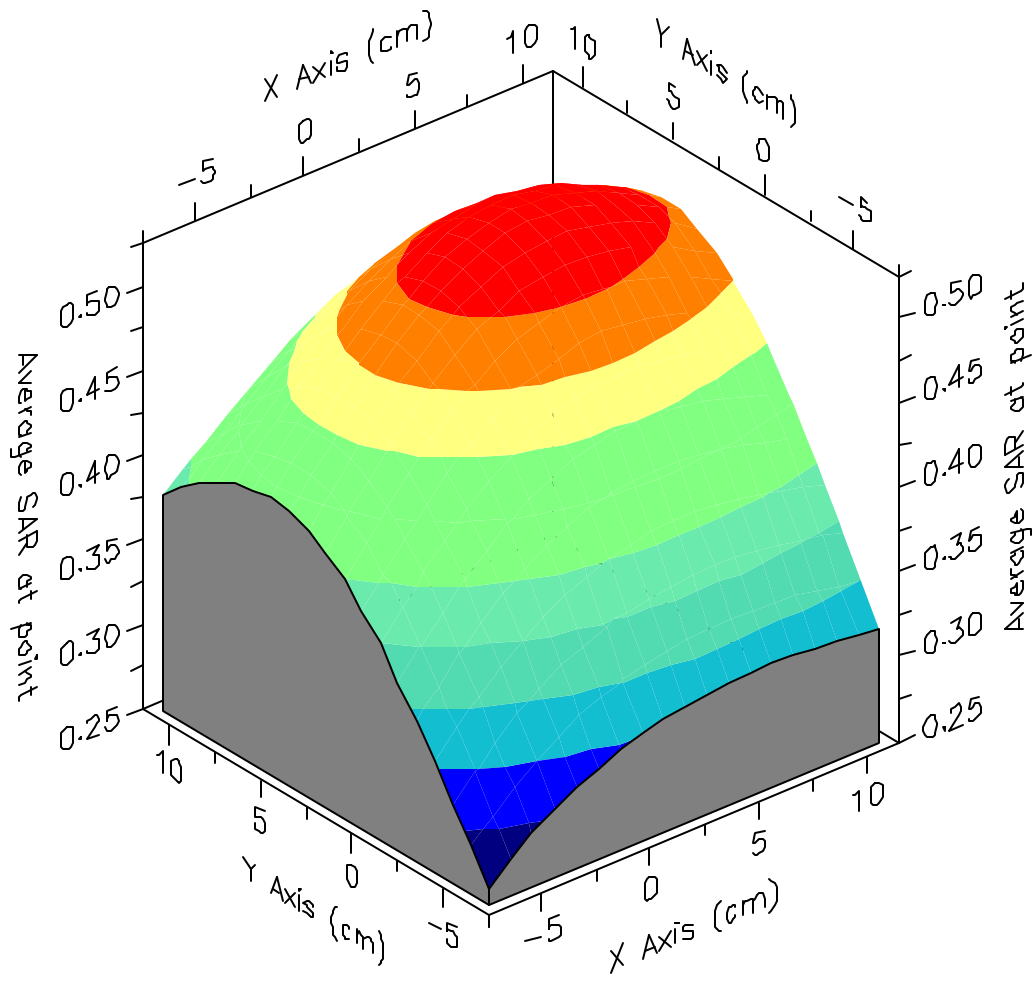
Max 1g SAR at x=4.0 y=5.0 z=0.0 = 0.52 W/kg

Max 10g SAR at x=5.0 y=5.0 z=0.0 = 0.29 W/kg

SAR - Z Axis
at Hotspot x:4.0 y:5.0



1g SAR Values





SAR Data Report 05072520

Start : 25-Jul-05 11:24:15 am
End : 25-Jul-05 11:29:29 am
Code Version : 4.08
Robot Version: 4.08

Product Data:

Type : LGE WCDMA Phone
Model Number : CU320
Serial Number : 24
Frequency : 1880 MHz
Transmit Pwr : 0.182 W
Antenna Type : Helical
Antenna Posn. : Fixed

Measurement Data:

Phantom Name : SAM-LEFT
Phantom Type : Left Ear
Tissue Type : Brain
Tissue Dielectric : 40.210
Tissue Conductivity : 1.420
Tissue Density : 1.000
Robot Name : CRS

Probe Data:

Probe Name : PCT005
Probe Type : E Fld Triangle
Frequency : 1900 MHz
Tissue Type : Brain
Calibrated Dielectric : 39.020
Calibrated Conductivity : 1.370
Calibrated Density : 1.000
Probe Offset : 1.600 mm
Conversion Factor : 5.400
Probe Sensitivity : 5.115 4.969 4.453 mV/(mW/cm^2)
Amplifier Gains : 20.00 20.00 20.00

Sample:

Rate: 6000 Samples/Sec
Count: 1000 Samples
NIDAQ Gain: 5

Comments:

PCS WCDMA Mode Ch. 9400
Left Cheek (Slide Out)
CF=8; Amb. Temp= 22.2 'C; Liq. Temp=21.1 'C

Power Drop Test:

Reading @ start = 0.090
Reading @ End = 0.087
Power at End = 96.8%

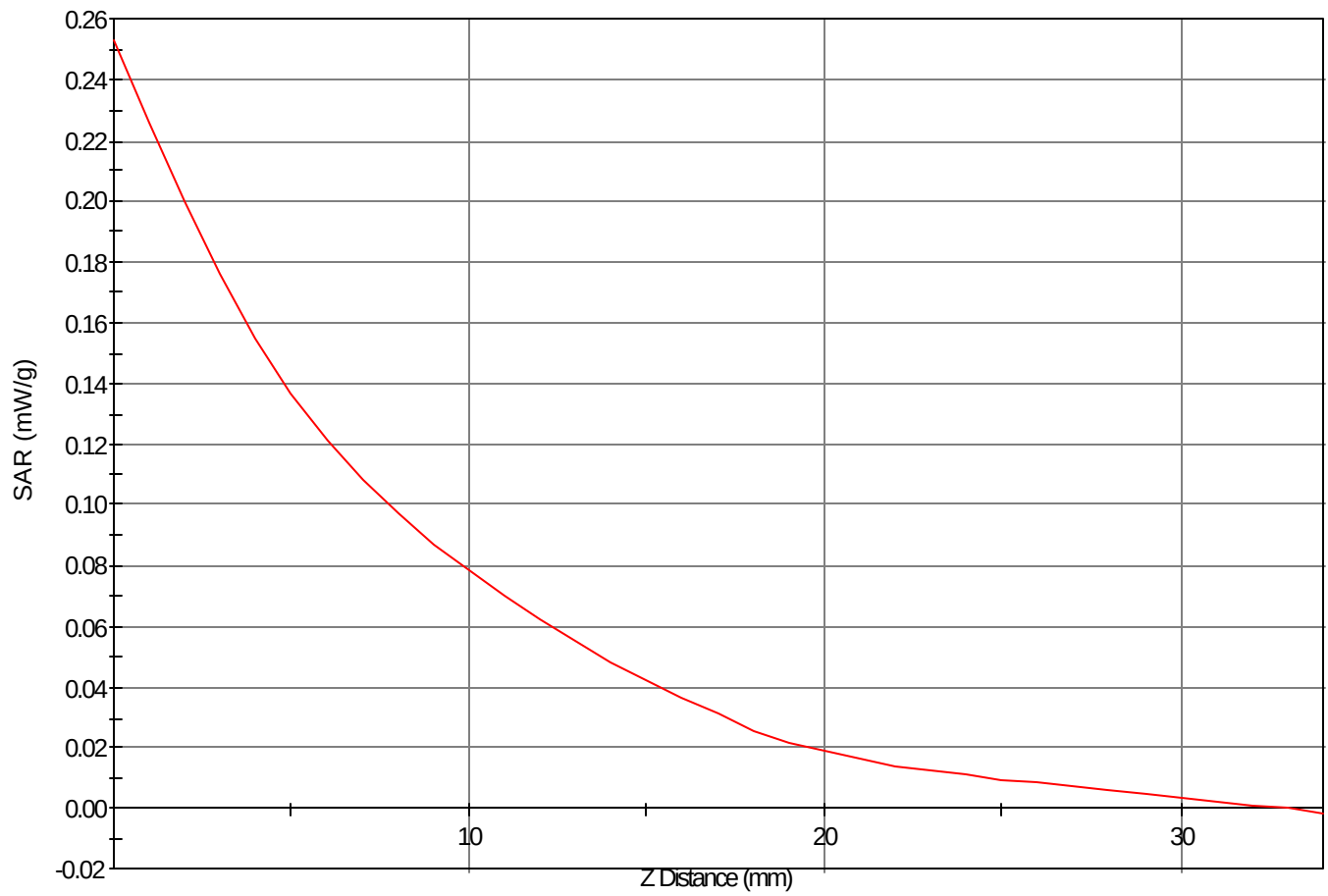
Area Scan - Max Peak SAR Value at x=11.0 y=2.0 = 0.14 W/kg

Zoom Scan - Max Peak SAR Value at x=10.0 y=3.0 z=0.0 = 0.25 W/kg

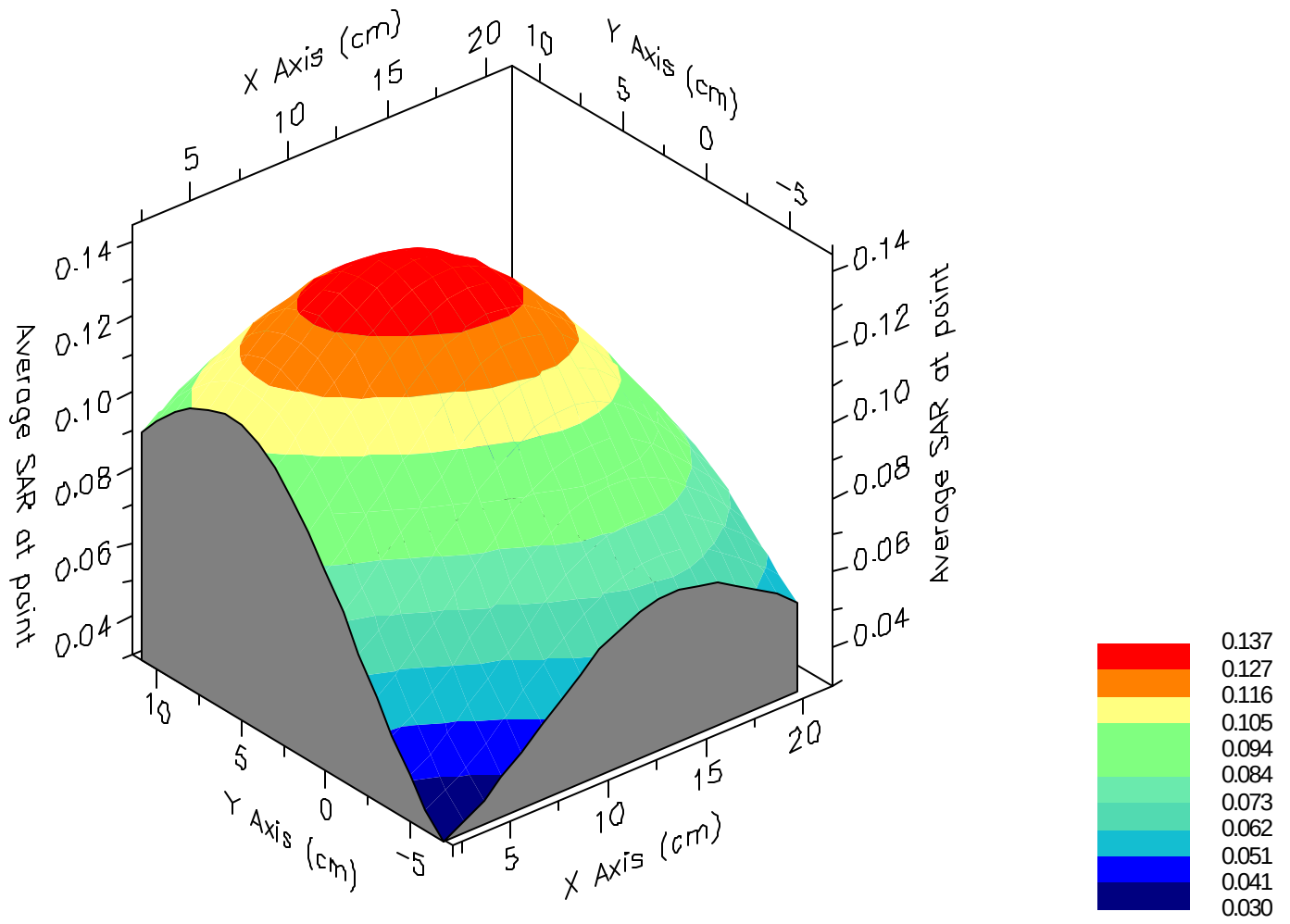
Max 1g SAR at x=10.0 y=4.0 z=0.0 = 0.14 W/kg

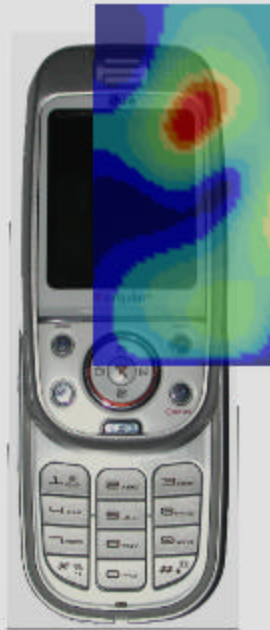
Max 10g SAR at x=9.0 y=5.0 z=0.0 = 0.06 W/kg

SAR - Z Axis
at Hotspot x:10.0 y:3.0



1g SAR Values





SAR Data Report 05072527

Start : 25-Jul-05 11:57:40 am
End : 25-Jul-05 12:02:44 pm
Code Version : 4.08
Robot Version: 4.08

Product Data:

Type : LGE WCDMA Phone
Model Number : CU320
Serial Number : 24
Frequency : 1880 MHz
Transmit Pwr : 0.182 W
Antenna Type : Helical
Antenna Posn. : Fixed

Measurement Data:

Phantom Name : SAM-LEFT
Phantom Type : Left Ear
Tissue Type : Brain
Tissue Dielectric : 40.210
Tissue Conductivity : 1.420
Tissue Density : 1.000
Robot Name : CRS

Probe Data:

Probe Name : PCT005
Probe Type : E Fld Triangle
Frequency : 1900 MHz
Tissue Type : Brain
Calibrated Dielectric : 39.020
Calibrated Conductivity : 1.370
Calibrated Density : 1.000
Probe Offset : 1.600 mm
Conversion Factor : 5.400
Probe Sensitivity : 5.115 4.969 4.453 mV/(mW/cm^2)
Amplifier Gains : 20.00 20.00 20.00

Sample:

Rate: 6000 Samples/Sec
Count: 1000 Samples
NIDAQ Gain: 5

Comments:

PCS WCDMA Mode Ch. 9400
Left Tilt (Slide In)
CF=8; Amb. Temp= 22.2 'C; Liq. Temp=21.1 'C

Power Drop Test:

Reading @ start = 0.509
Reading @ End = 0.509
Power at End = 100.0%

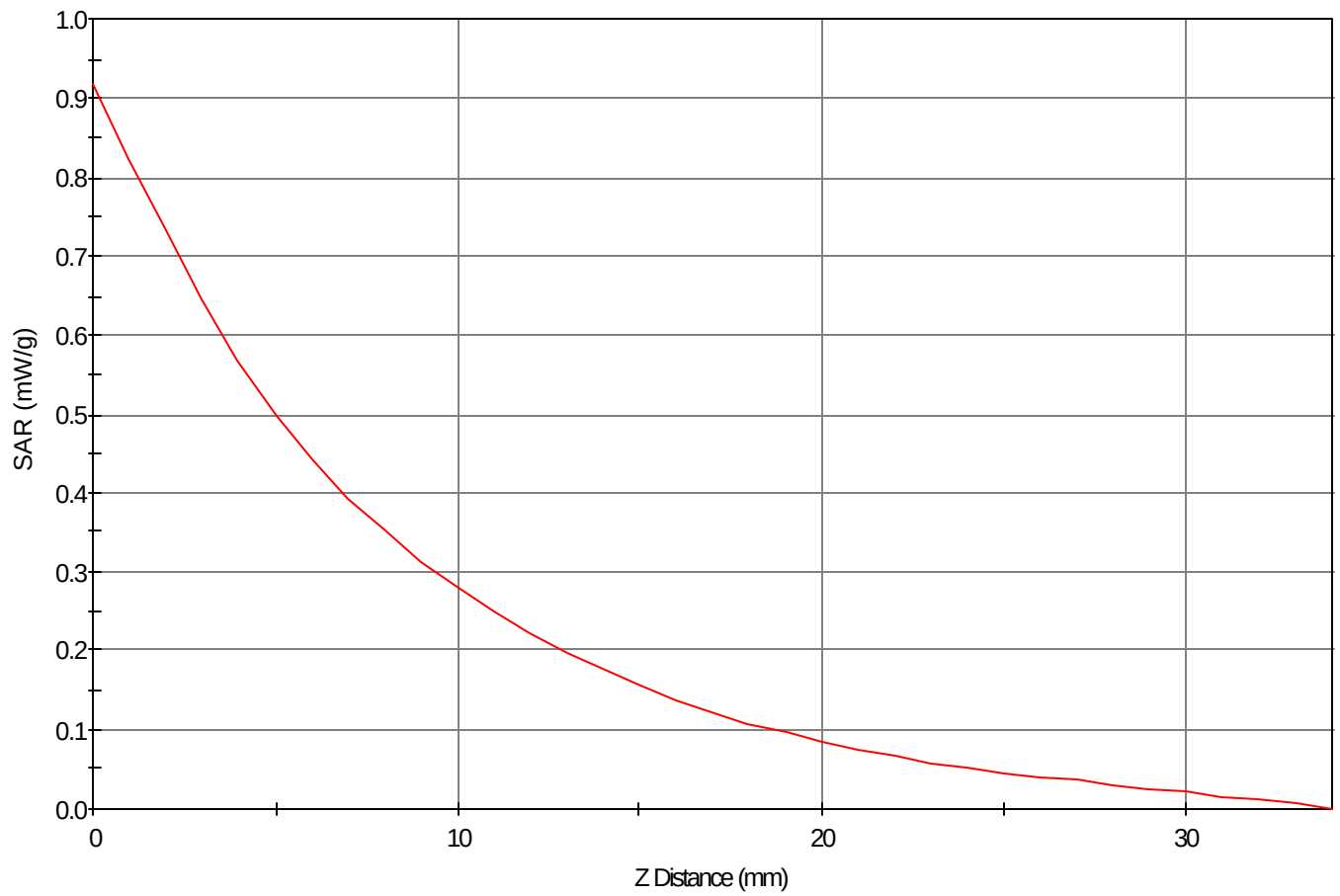
Area Scan - Max Peak SAR Value at x=-9.0 y=6.0 = 0.56 W/kg

Zoom Scan - Max Peak SAR Value at x=-9.0 y=7.0 z=0.0 = 0.92 W/kg

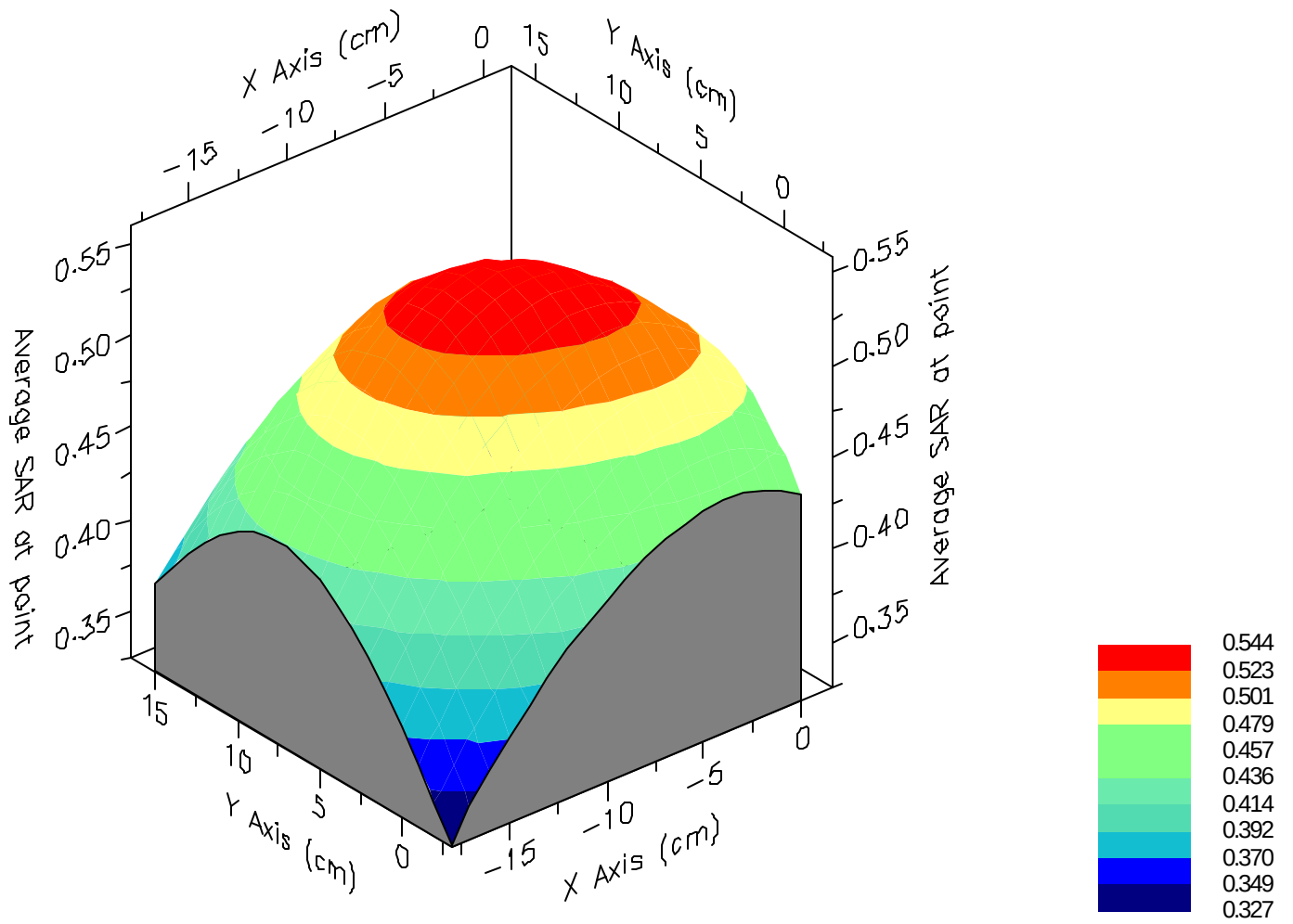
Max 1g SAR at x=-8.0 y=6.0 z=0.0 = 0.54 W/kg

Max 10g SAR at x=-7.0 y=5.0 z=0.0 = 0.29 W/kg

SAR - Z Axis
at Hotspot x:-9.0 y:7.0



1g SAR Values





SAR Data Report 05072532

Start : 25-Jul-05 12:29:04 pm
End : 25-Jul-05 12:34:13 pm
Code Version : 4.08
Robot Version: 4.08

Product Data:

Type : LGE WCDMA Phone
Model Number : CU320
Serial Number : 24
Frequency : 1880 MHz
Transmit Pwr : 0.182 W
Antenna Type : Helical
Antenna Posn. : Fixed

Measurement Data:

Phantom Name : SAM-LEFT
Phantom Type : Left Ear
Tissue Type : Brain
Tissue Dielectric : 40.210
Tissue Conductivity : 1.420
Tissue Density : 1.000
Robot Name : CRS

Probe Data:

Probe Name : PCT005
Probe Type : E Fld Triangle
Frequency : 1900 MHz
Tissue Type : Brain
Calibrated Dielectric : 39.020
Calibrated Conductivity : 1.370
Calibrated Density : 1.000
Probe Offset : 1.600 mm
Conversion Factor : 5.400
Probe Sensitivity : 5.115 4.969 4.453 mV/(mW/cm^2)
Amplifier Gains : 20.00 20.00 20.00

Sample:

Rate: 6000 Samples/Sec
Count: 1000 Samples
NIDAQ Gain: 5

Comments:

PCS WCDMA Mode Ch. 9400
Left Tilt (Slide Out)
CF=8; Amb. Temp= 22.2 'C; Liq. Temp=21.1 'C

Power Drop Test:

Reading @ start = 0.070
Reading @ End = 0.069
Power at End = 99.2%

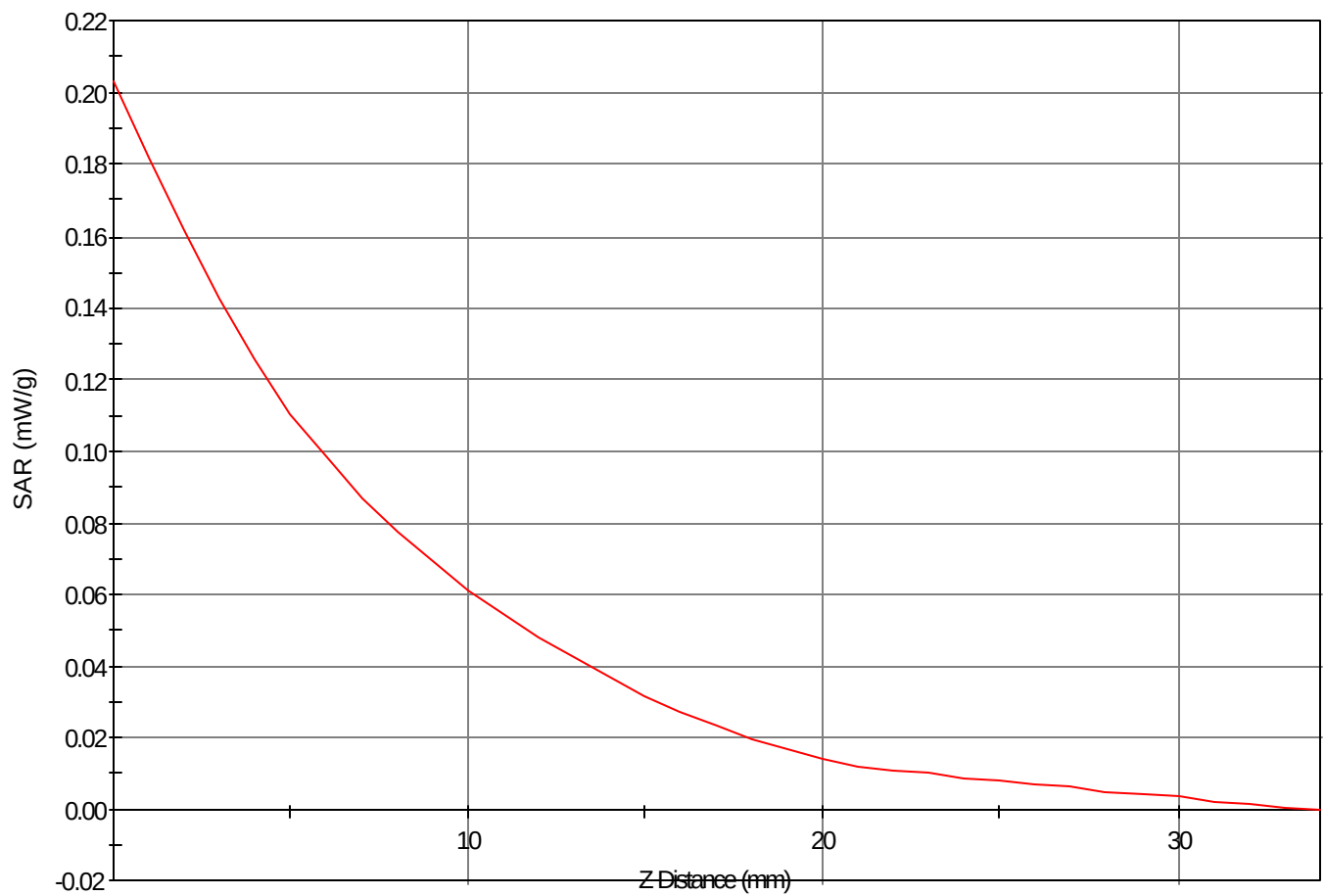
Area Scan - Max Peak SAR Value at x=10.0 y=3.0 = 0.11 W/kg

Zoom Scan - Max Peak SAR Value at x=9.0 y=4.0 z=0.0 = 0.20 W/kg

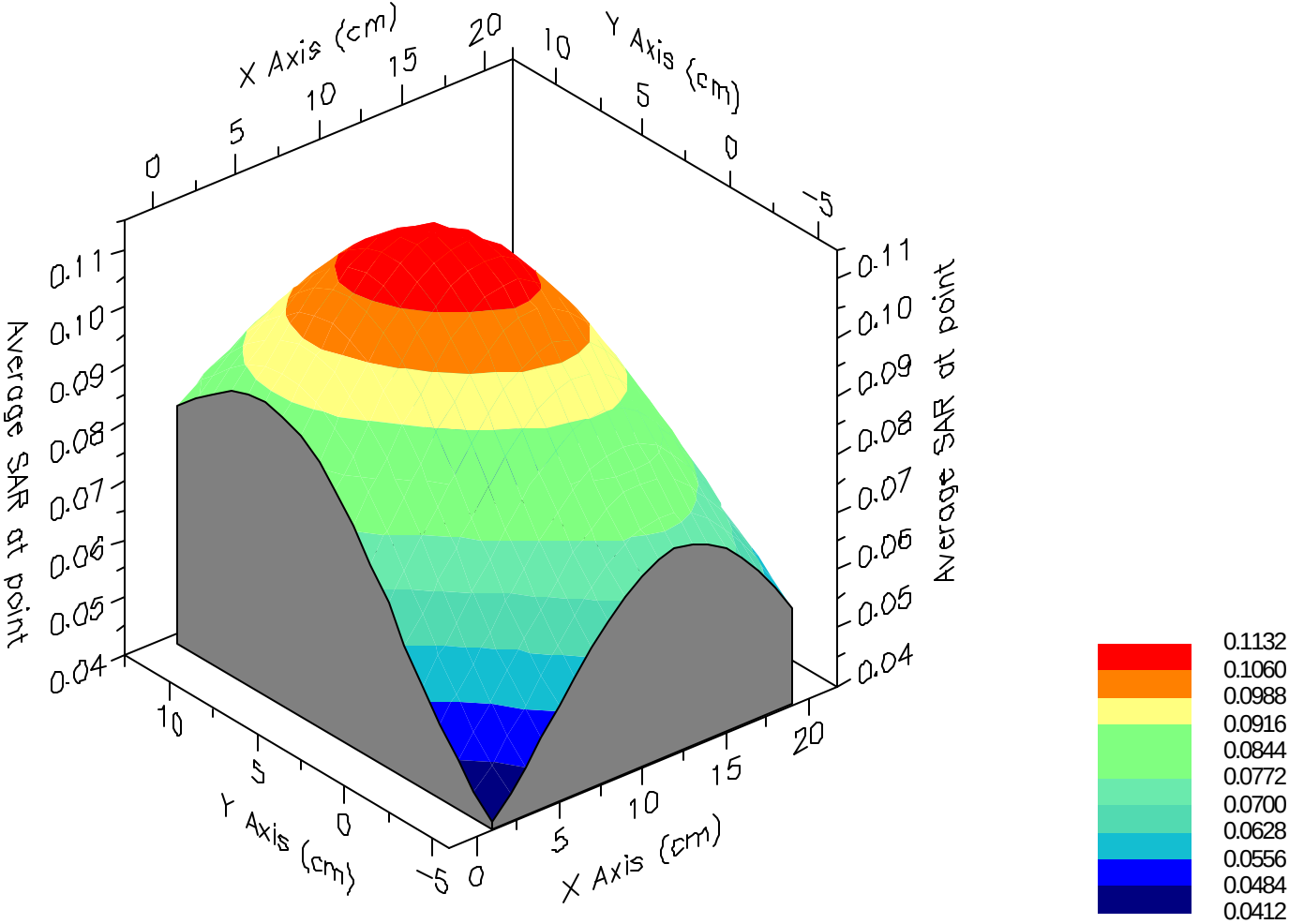
Max 1g SAR at x=9.0 y=5.0 z=0.0 = 0.11 W/kg

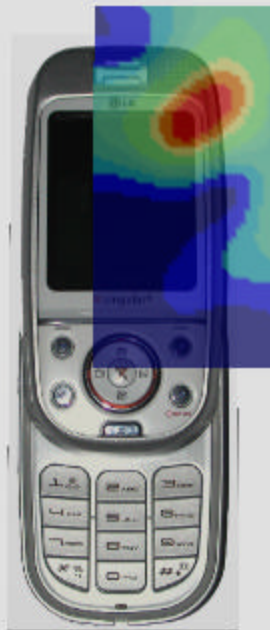
Max 10g SAR at x=8.0 y=5.0 z=0.0 = 0.05 W/kg

SAR - Z Axis
at Hotspot x:9.0 y:4.0



1g SAR Values





SAR Data Report 05072545

Start : 25-Jul-05 01:55:42 pm
End : 25-Jul-05 02:01:02 pm
Code Version : 4.08
Robot Version: 4.08

Product Data:

Type : LGE WCDMA Phone
Model Number : CU320
Serial Number : 24
Frequency : 1880 MHz
Transmit Pwr : 0.182 W
Antenna Type : Helical
Antenna Posn. : Fixed

Measurement Data:

Phantom Name : SAM FLAT
Phantom Type : Uniphantom
Tissue Type : Muscle
Tissue Dielectric : 52.910
Tissue Conductivity : 1.580
Tissue Density : 1.000
Robot Name : CRS

Probe Data:

Probe Name : PCT005
Probe Type : E Fld Triangle
Frequency : 1900 MHz
Tissue Type : Muscle
Calibrated Dielectric : 51.810
Calibrated Conductivity : 1.580
Calibrated Density : 1.000
Probe Offset : 1.600 mm
Conversion Factor : 5.500
Probe Sensitivity : 5.115 4.969 4.453 mV/(mW/cm^2)
Amplifier Gains : 20.00 20.00 20.00

Sample:

Rate: 6000 Samples/Sec
Count: 1000 Samples
NIDAQ Gain: 5

Comments:

PCS WCDMA Mode Ch. 9400
Body (Slide In w/ 1.5cm spacing)
CF=1; Amb. Temp= 22.2 'C; Liq. Temp=21.1 'C

Power Drop Test:

Reading @ start = 0.382
Reading @ End = 0.375
Power at End = 98.0%

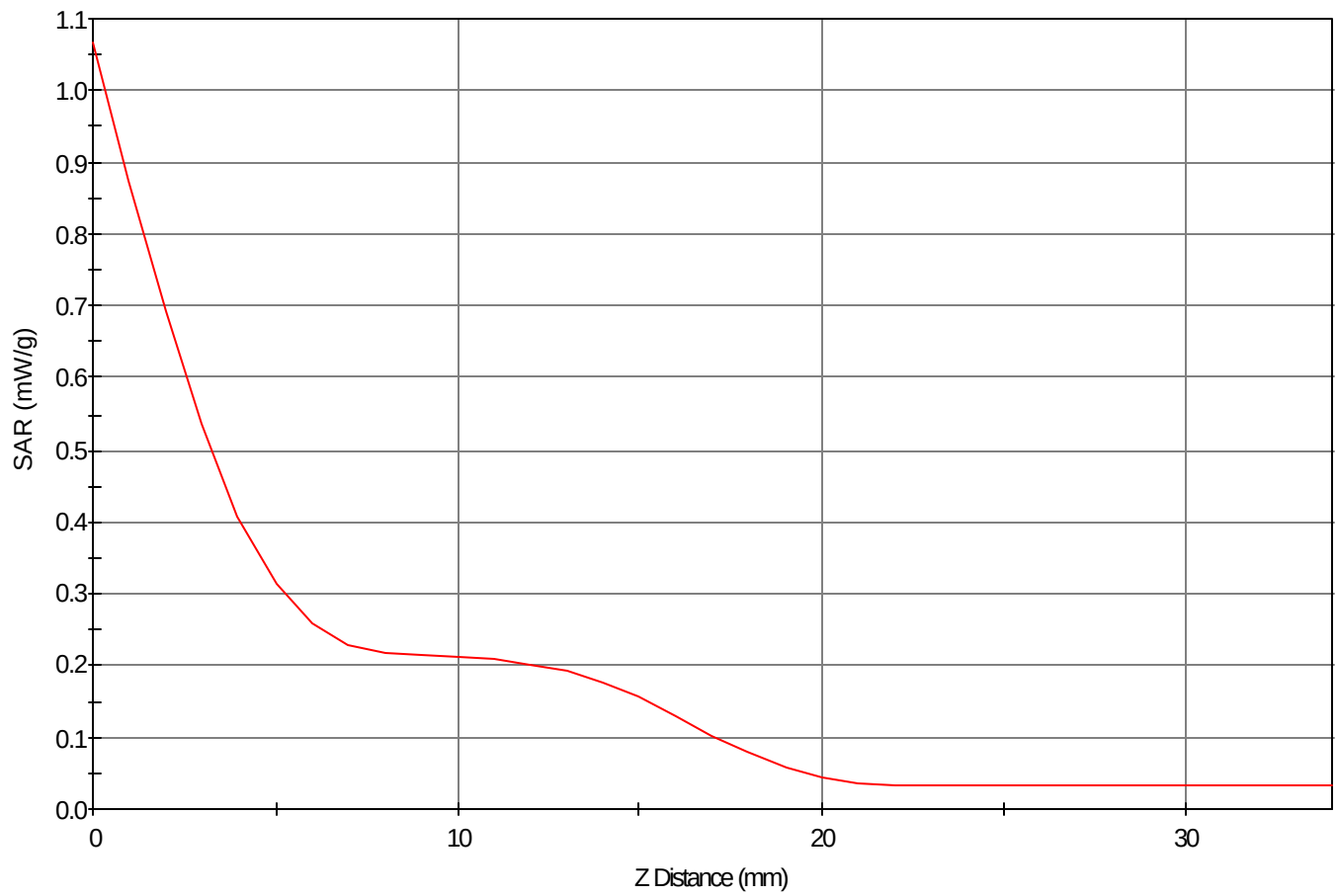
Area Scan - Max Peak SAR Value at x=0.0 y=12.0 = 0.50 W/kg

Zoom Scan - Max Peak SAR Value at x=7.0 y=19.0 z=0.0 = 1.07 W/kg

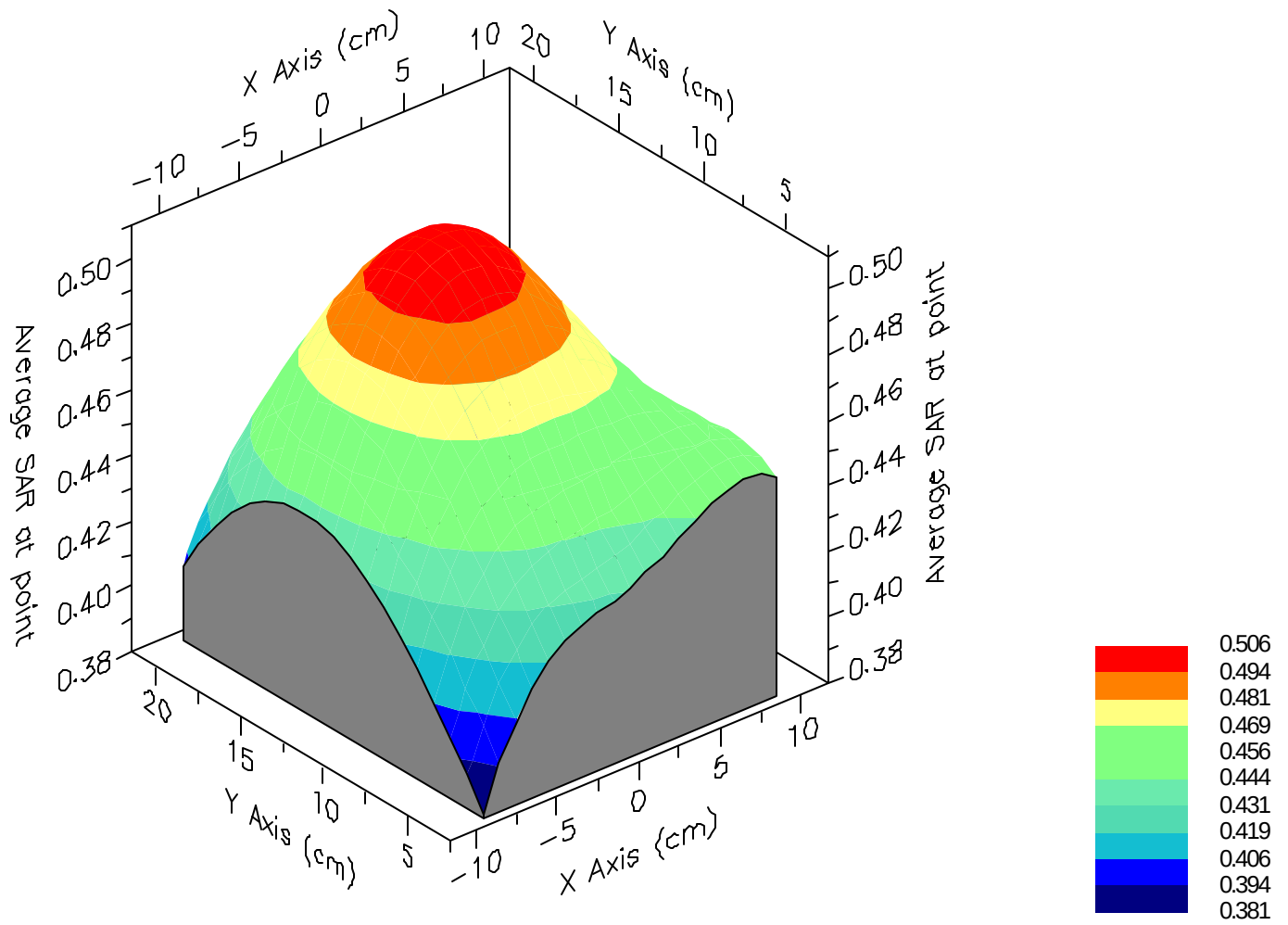
Max 1g SAR at x=0.0 y=14.0 z=0.0 = 0.51 W/kg

Max 10g SAR at x=1.0 y=11.0 z=0.0 = 0.28 W/kg

SAR - Z Axis
at Hotspot x:7.0 y:19.0



1g SAR Values





SAR Data Report 05072549

Start : 25-Jul-05 02:22:45 pm
End : 25-Jul-05 02:28:07 pm
Code Version : 4.08
Robot Version: 4.08

Product Data:

Type : LGE WCDMA Phone
Model Number : CU320
Serial Number : 24
Frequency : 1880 MHz
Transmit Pwr : 0.182 W
Antenna Type : Helical
Antenna Posn. : Fixed

Measurement Data:

Phantom Name : SAM FLAT
Phantom Type : Uniphantom
Tissue Type : Muscle
Tissue Dielectric : 52.910
Tissue Conductivity : 1.580
Tissue Density : 1.000
Robot Name : CRS

Probe Data:

Probe Name : PCT005
Probe Type : E Fld Triangle
Frequency : 1900 MHz
Tissue Type : Muscle
Calibrated Dielectric : 51.810
Calibrated Conductivity : 1.580
Calibrated Density : 1.000
Probe Offset : 1.600 mm
Conversion Factor : 5.500
Probe Sensitivity : 5.115 4.969 4.453 mV/(mW/cm^2)
Amplifier Gains : 20.00 20.00 20.00

Sample:

Rate: 6000 Samples/Sec
Count: 1000 Samples
NIDAQ Gain: 5

Comments:

PCS WCDMA Mode Ch. 9400
Body (Slide Out w/ 1.5cm spacing)
CF=1; Amb. Temp= 22.2 'C; Liq. Temp=21.1 'C

Power Drop Test:

Reading @ start = 0.357
Reading @ End = 0.360
Power at End = 100.9%

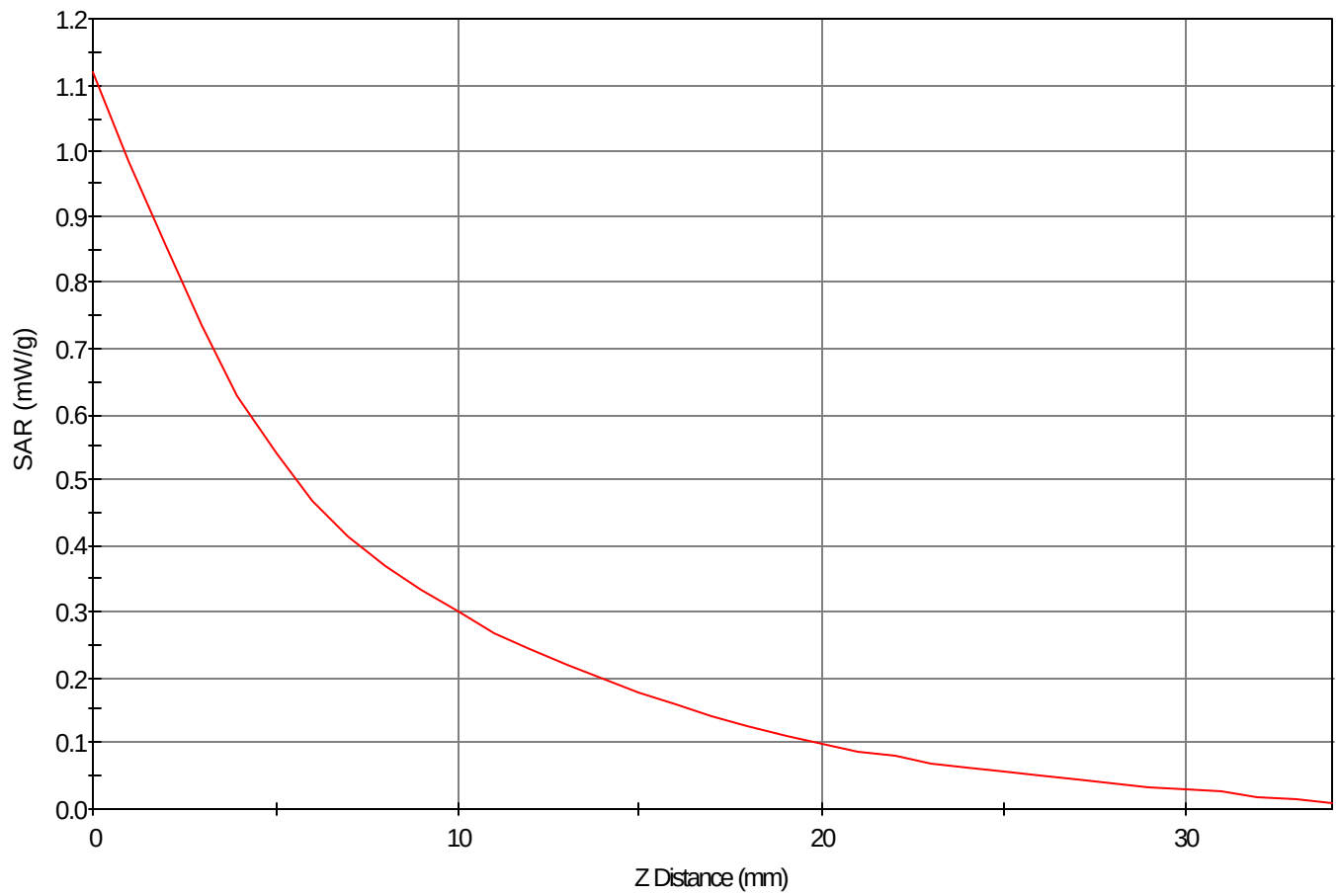
Area Scan - Max Peak SAR Value at x=-3.0 y=16.0 = 0.61 W/kg

Zoom Scan - Max Peak SAR Value at x=-3.0 y=16.0 z=0.0 = 1.12 W/kg

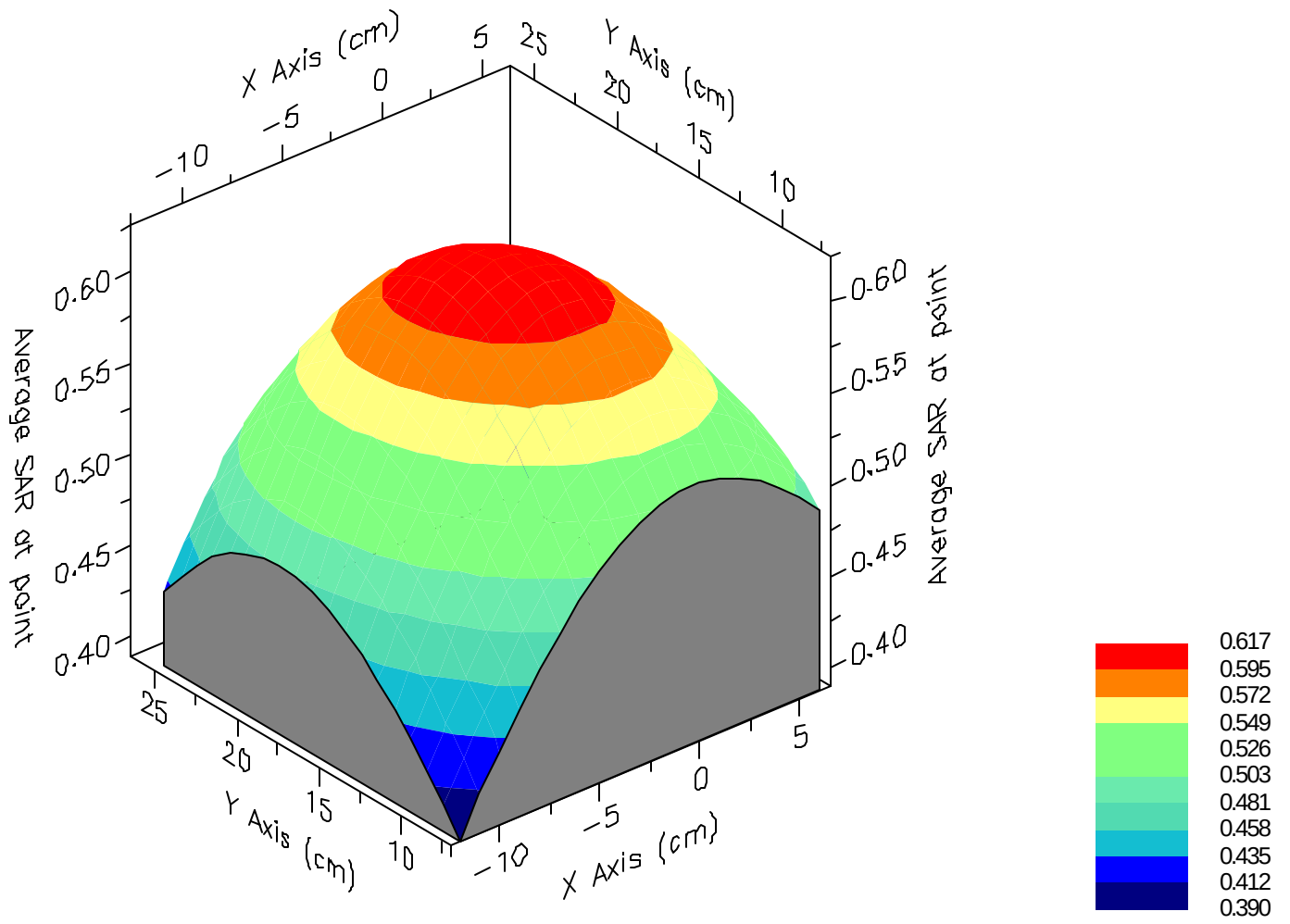
Max 1g SAR at x=-3.0 y=16.0 z=0.0 = 0.62 W/kg

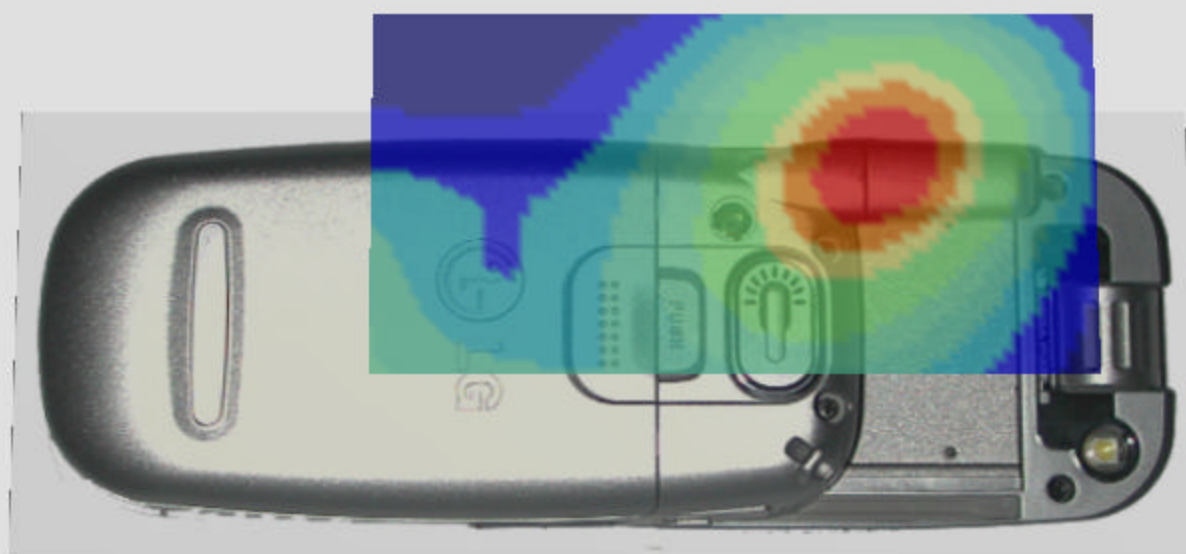
Max 10g SAR at x=-2.0 y=15.0 z=0.0 = 0.32 W/kg

SAR - Z Axis
at Hotspot x:-3.0 y:16.0



1g SAR Values





APPENDIX B: DIPOLE VALIDATION

SAR Data Report 05071301

Start : 13-Jul-05 09:36:53 am
End : 13-Jul-05 09:41:59 am
Code Version : 4.08
Robot Version: 4.08

Product Data:

Type : Verification
Model Number : E-020
Serial Number : PCT005
Frequency : 835 MHz
Transmit Pwr : 0.160 W
Antenna Type : Dipole
Antenna Posn. : Verification

Measurement Data:

Phantom Name : FLATPHANTOM
Phantom Type : Uniphantom
Tissue Type : Brain
Tissue Dielectric : 42.340
Tissue Conductivity : 0.880
Tissue Density : 1.000
Robot Name : CRS

Probe Data:

Probe Name : PCT005
Probe Type : E Fld Triangle
Frequency : 835 MHz
Tissue Type : Brain
Calibrated Dielectric : 40.810
Calibrated Conductivity : 0.870
Calibrated Density : 1.000
Probe Offset : 1.600 mm
Conversion Factor : 5.500
Probe Sensitivity : 3.807 3.736 3.821 mV/(mW/cm^2)
Amplifier Gains : 20.00 20.00 20.00

Sample:

Rate: 6000 Samples/Sec
Count: 1000 Samples
NIDAQ Gain: 5

Comments:

835MHz Validation

CF=1; Amb. Temp= 23.4 'C; Liq. Temp=21.9 'C

Power Drop Test:

Reading @ start = 2.600
Reading @ End = 2.569
Power at End = 98.8%

Area Scan - Max Peak SAR Value at x=-7.0 y=0.0 = 1.61 W/kg

Zoom Scan - Max Peak SAR Value at x=-9.0 y=1.0 z=0.0 = 2.91 W/kg

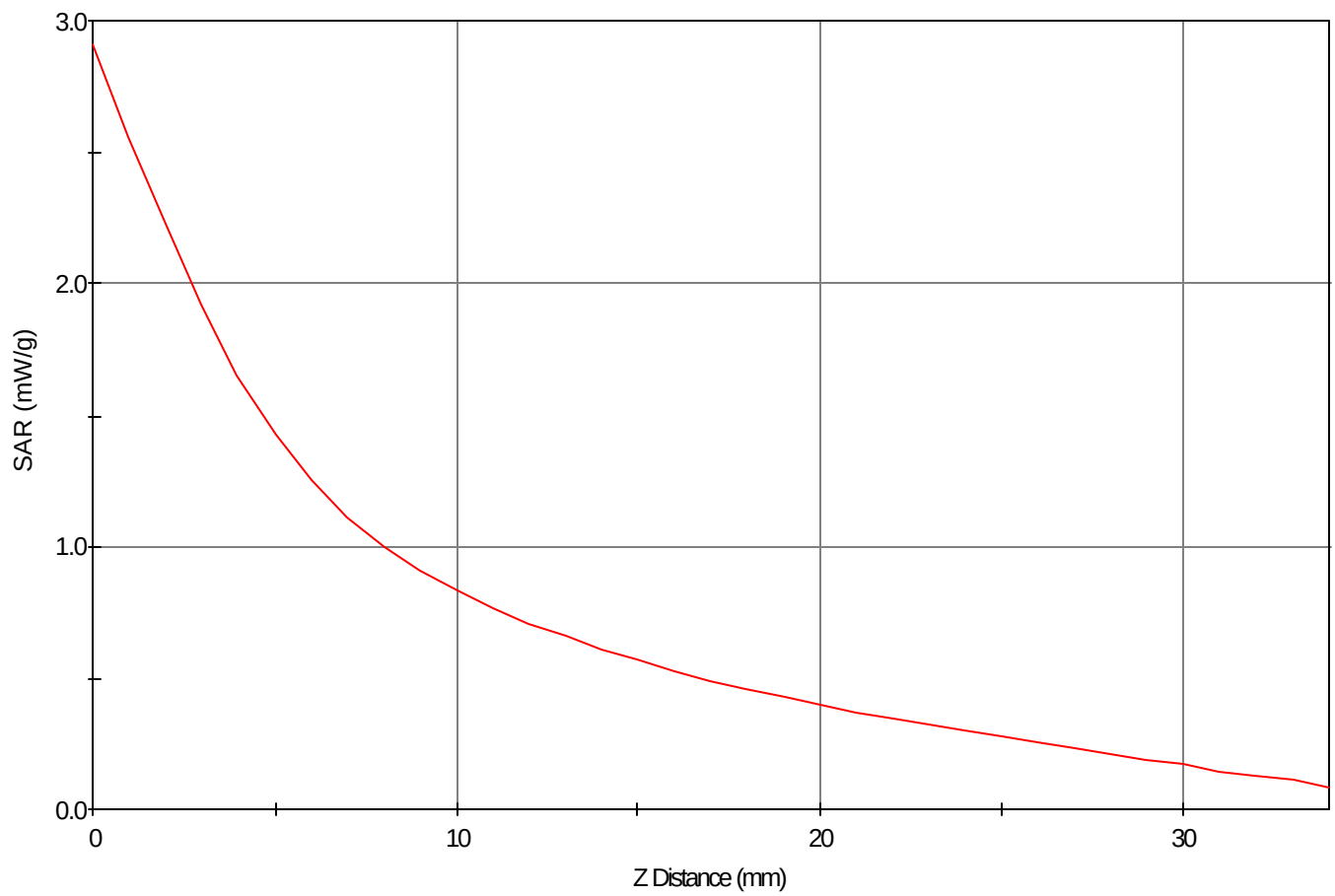
Max 1g SAR at x=-9.0 y=2.0 z=0.0 = 1.59 W/kg

Max 10g SAR at x=-5.0 y=1.0 z=0.0 = 0.91 W/kg

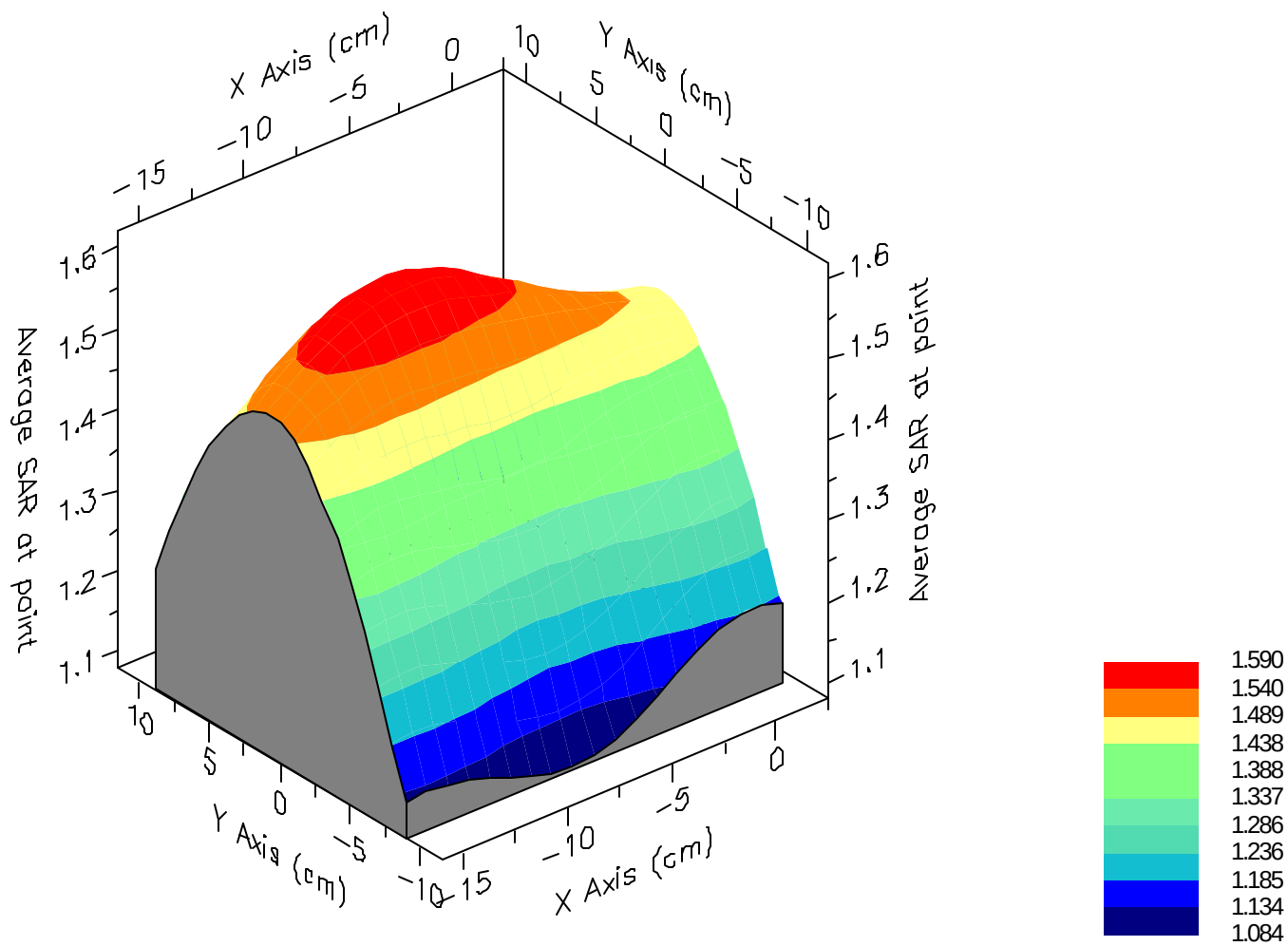
Validation Results at 0.16 W:

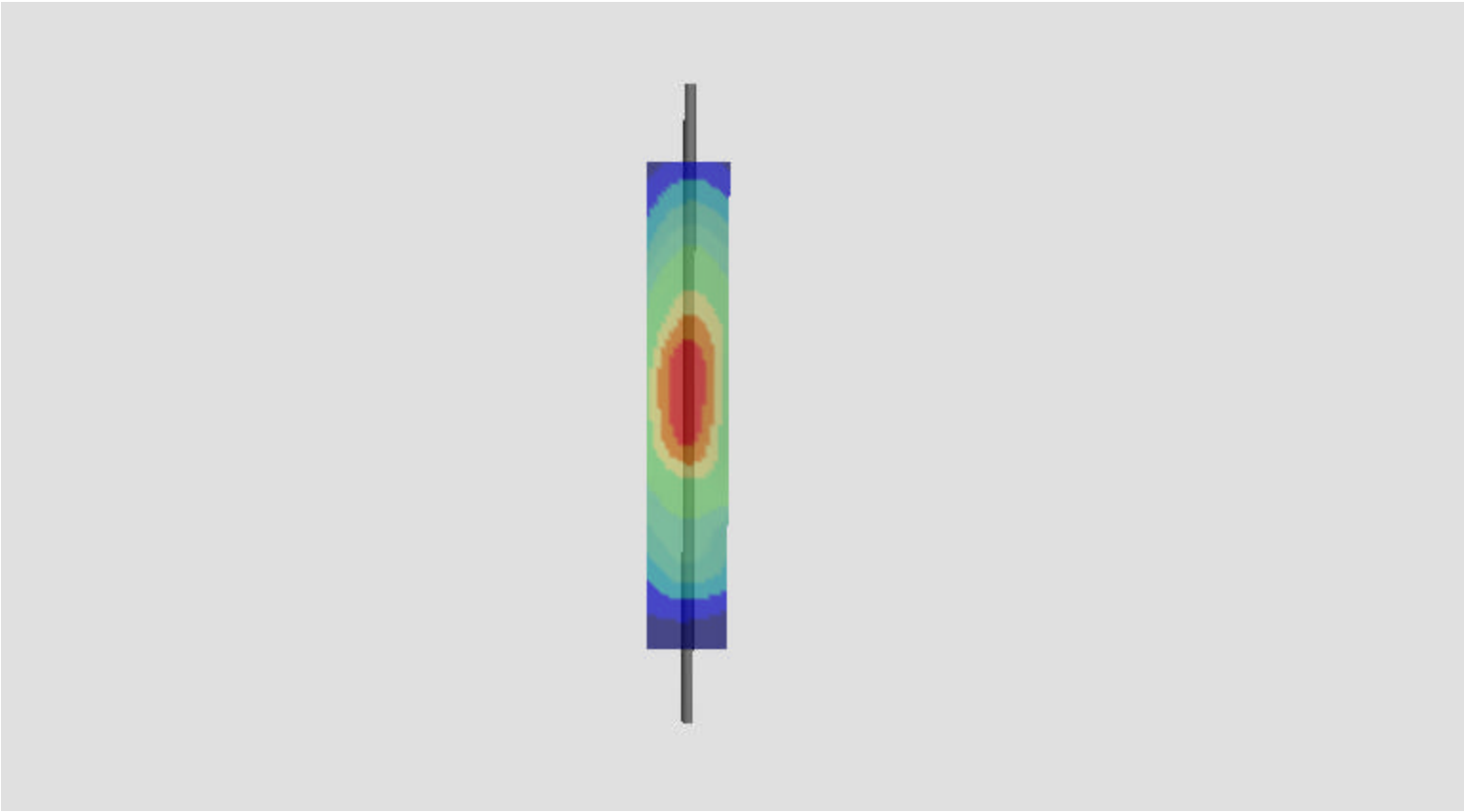
Peak Nominal = 2.3, Error: 28.86 %
1g Nominal = 1.5, Error: 4.62 %
10g Nominal = 1.0, Error: -8.71 %

SAR - Z Axis
at Hotspot x:-9.0 y:1.0



1g SAR Values





SAR Data Report 05071302

Start : 13-Jul-05 09:46:11 am
End : 13-Jul-05 09:51:04 am
Code Version : 4.08
Robot Version: 4.08

Product Data:

Type : Verification
Model Number : E-020
Serial Number : PCT005
Frequency : 1900 MHz
Transmit Pwr : 0.040 W
Antenna Type : Dipole
Antenna Posn. : Verification

Measurement Data:

Phantom Name : FLATPHANTOM
Phantom Type : Uniphantom
Tissue Type : Brain
Tissue Dielectric : 41.620
Tissue Conductivity : 1.360
Tissue Density : 1.000
Robot Name : CRS

Probe Data:

Probe Name : PCT005
Probe Type : E Fld Triangle
Frequency : 1900 MHz
Tissue Type : Brain
Calibrated Dielectric : 39.020
Calibrated Conductivity : 1.370
Calibrated Density : 1.000
Probe Offset : 1.600 mm
Conversion Factor : 5.400
Probe Sensitivity : 5.115 4.969 4.453 mV/(mW/cm^2)
Amplifier Gains : 20.00 20.00 20.00

Sample:

Rate: 6000 Samples/Sec
Count: 1000 Samples
NIDAQ Gain: 5

Comments:

1900MHz Validation

CF=1; Amb. Temp= 23.4 'C; Liq. Temp=21.9 'C

Power Drop Test:

Reading @ start = 1.868
Reading @ End = 1.860
Power at End = 99.6%

Area Scan - Max Peak SAR Value at x=-2.0 y=-1.0 = 1.71 W/kg

Zoom Scan - Max Peak SAR Value at x=-2.0 y=6.0 z=0.0 = 3.37 W/kg

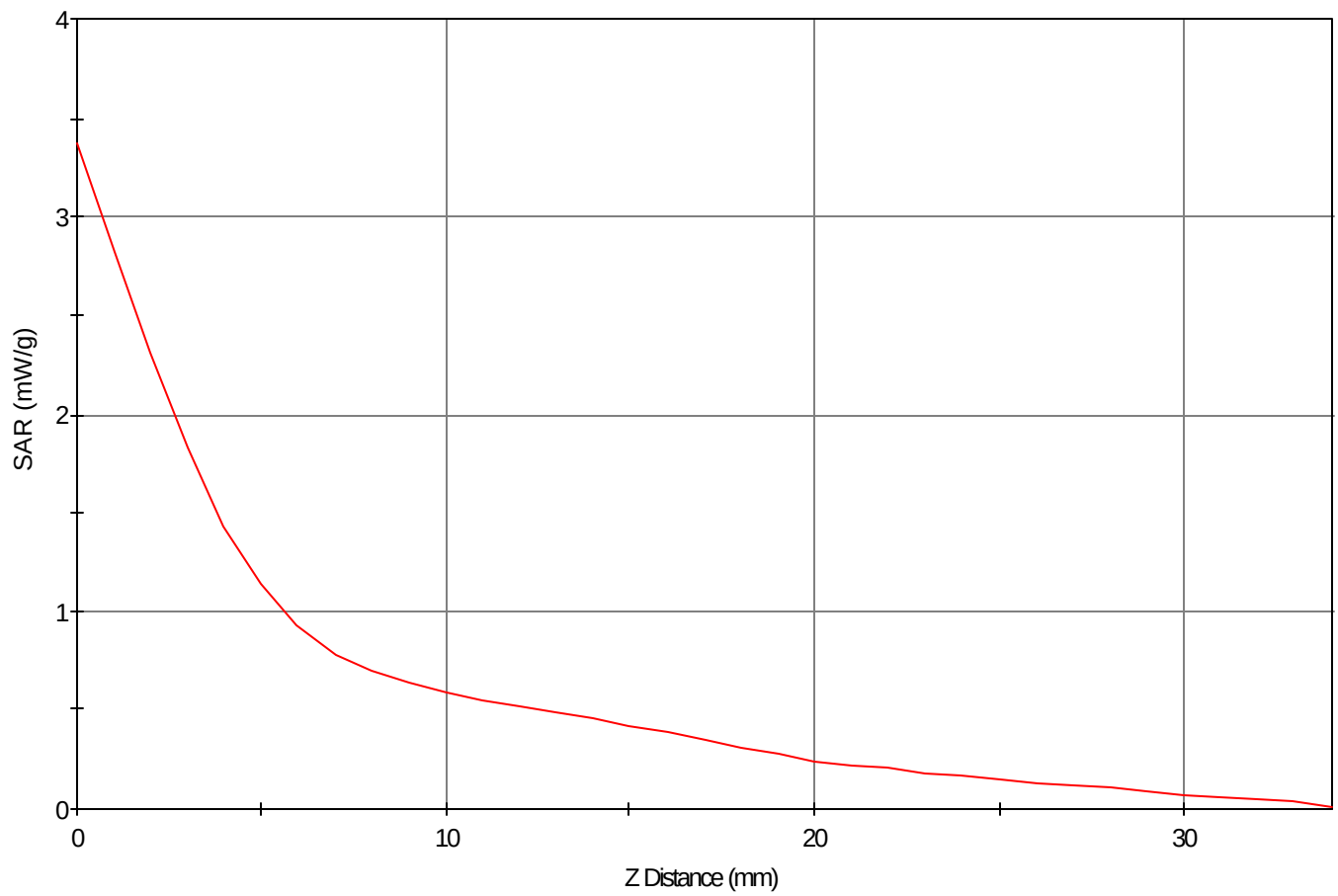
Max 1g SAR at x=5.0 y=-2.0 z=0.0 = 1.69 W/kg

Max 10g SAR at x=1.0 y=-1.0 z=0.0 = 0.88 W/kg

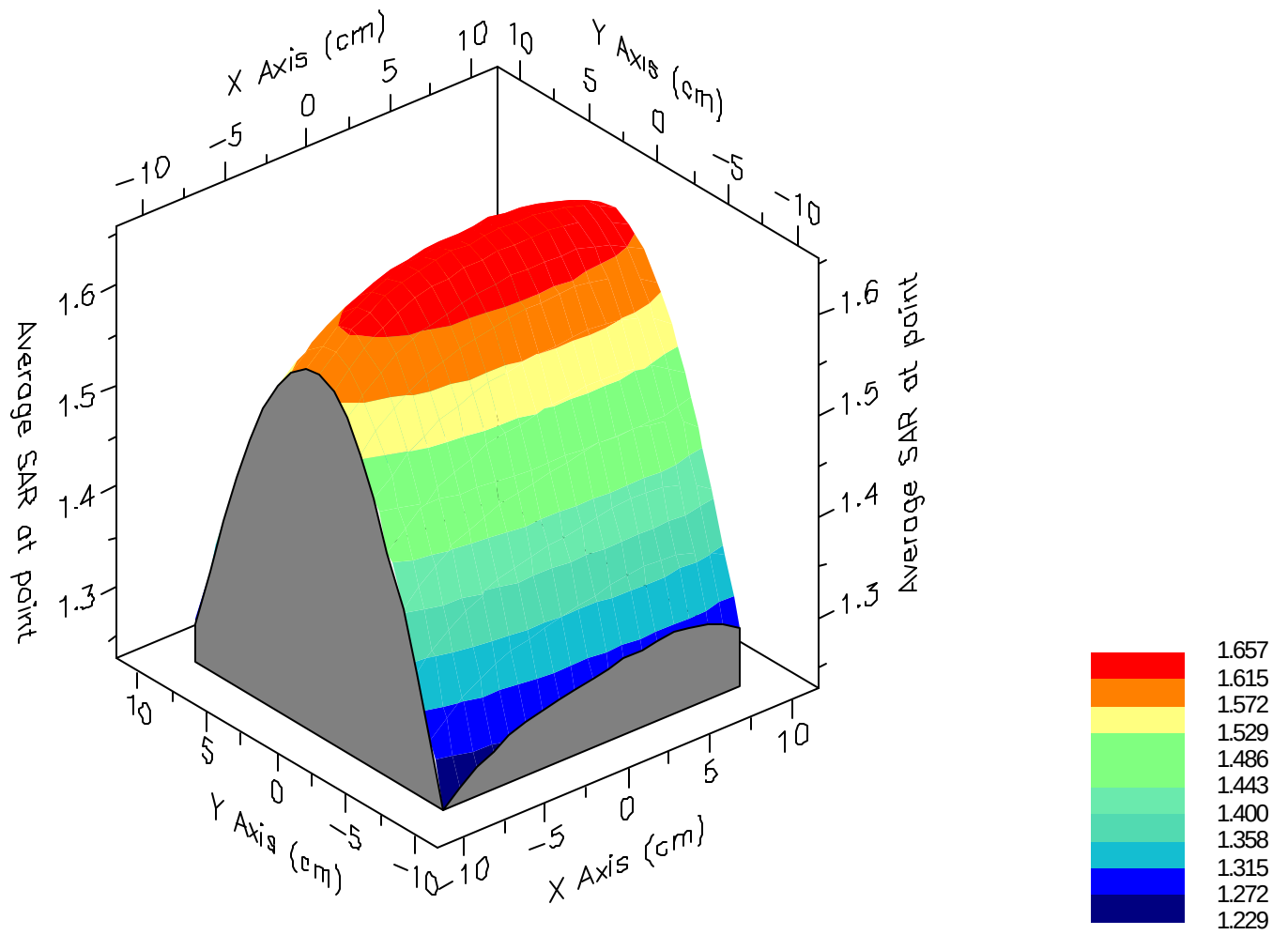
Validation Results at 0.04 W:

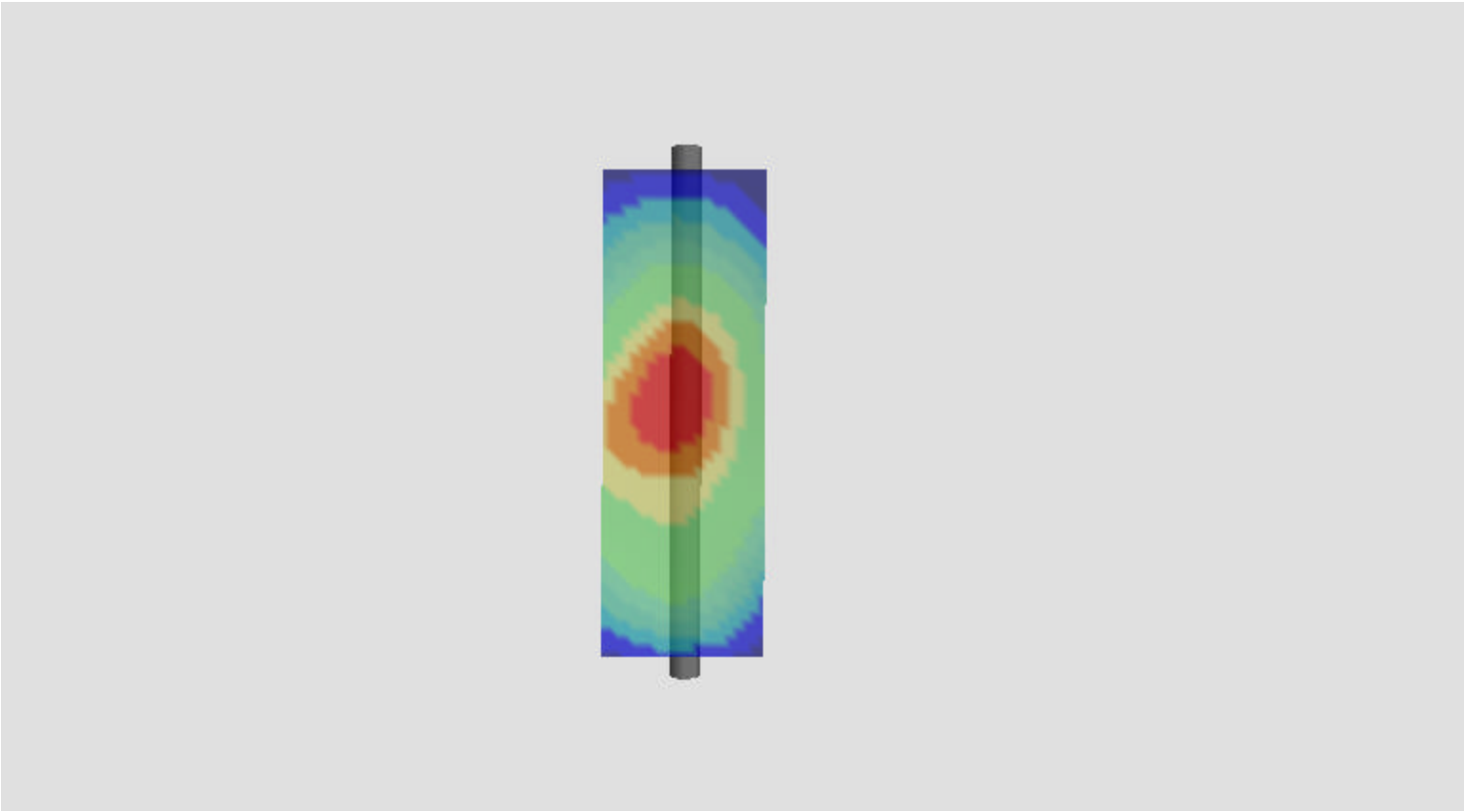
Peak Nominal = 2.9, Error: 16.91 %
1g Nominal = 1.6, Error: 6.53 %
10g Nominal = 0.8, Error: 7.58 %

SAR - Z Axis
at Hotspot x:-2.0 y:6.0



1g SAR Values





SAR Data Report 05071922

Start : 19-Jul-05 05:50:32 pm
End : 19-Jul-05 05:55:26 pm
Code Version : 4.08
Robot Version: 4.08

Product Data:

Type : Verification
Model Number : E-020
Serial Number : PCT005
Frequency : 835 MHz
Transmit Pwr : 0.160 W
Antenna Type : Dipole
Antenna Posn. : Verification

Measurement Data:

Phantom Name : FLATPHANTOM
Phantom Type : Uniphantom
Tissue Type : Brain
Tissue Dielectric : 42.150
Tissue Conductivity : 0.900
Tissue Density : 1.000
Robot Name : CRS

Probe Data:

Probe Name : PCT005
Probe Type : E Fld Triangle
Frequency : 835 MHz
Tissue Type : Brain
Calibrated Dielectric : 40.810
Calibrated Conductivity : 0.870
Calibrated Density : 1.000
Probe Offset : 1.600 mm
Conversion Factor : 5.500
Probe Sensitivity : 3.807 3.736 3.821 mV/(mW/cm^2)
Amplifier Gains : 20.00 20.00 20.00

Sample:

Rate: 6000 Samples/Sec
Count: 1000 Samples
NIDAQ Gain: 5

Comments:

835MHz Verification

CF=1; Amb. Temp= 22.2 'C; Liq. Temp=21.1 'C

Power Drop Test:

Reading @ start = 2.642
Reading @ End = 2.723
Power at End = 103.1%

Area Scan - Max Peak SAR Value at x=0.0 y=0.0 = 1.66 W/kg

Zoom Scan - Max Peak SAR Value at x=-5.0 y=0.0 z=0.0 = 2.91 W/kg

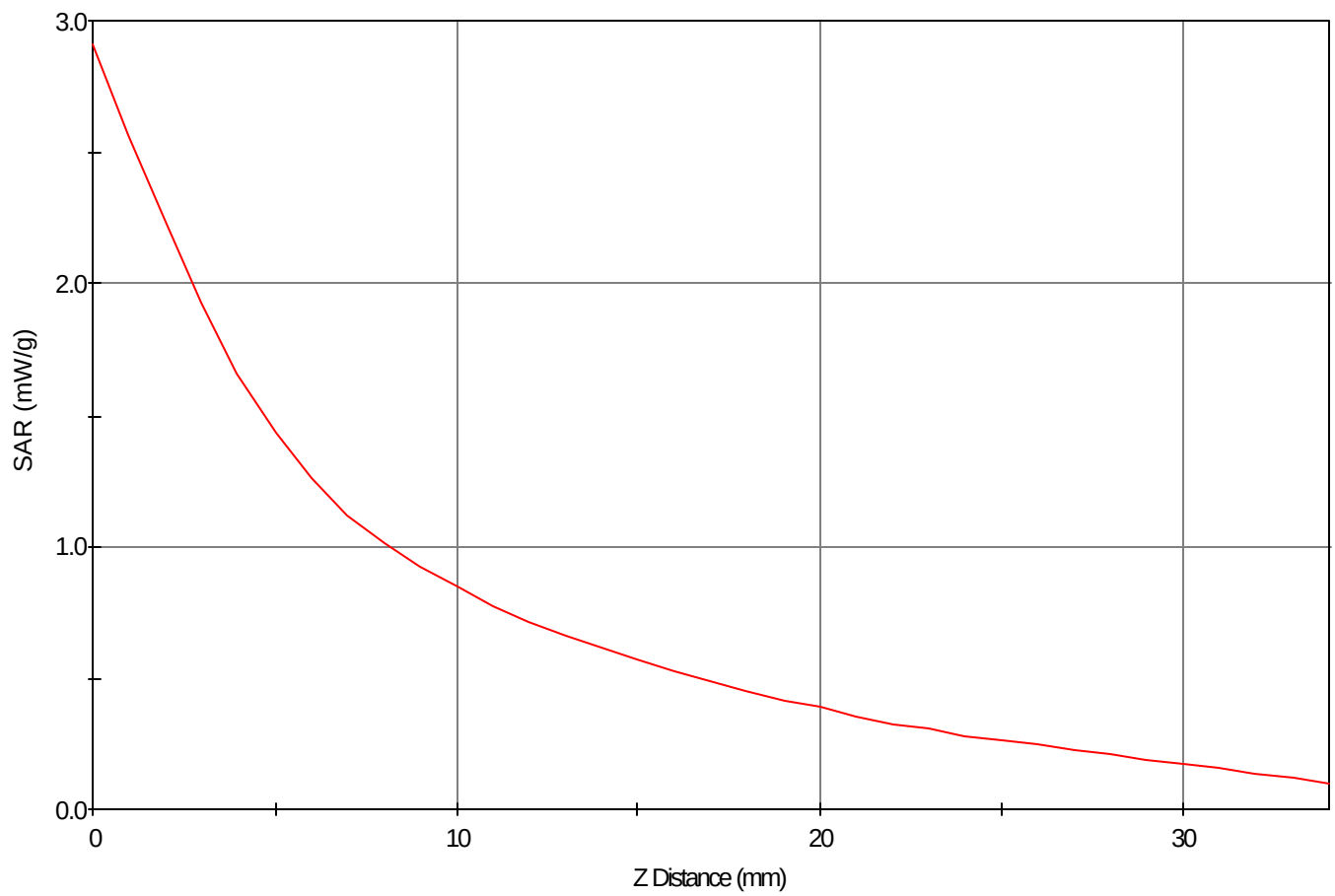
Max 1g SAR at x=2.0 y=0.0 z=0.0 = 1.66 W/kg

Max 10g SAR at x=2.0 y=0.0 z=0.0 = 0.97 W/kg

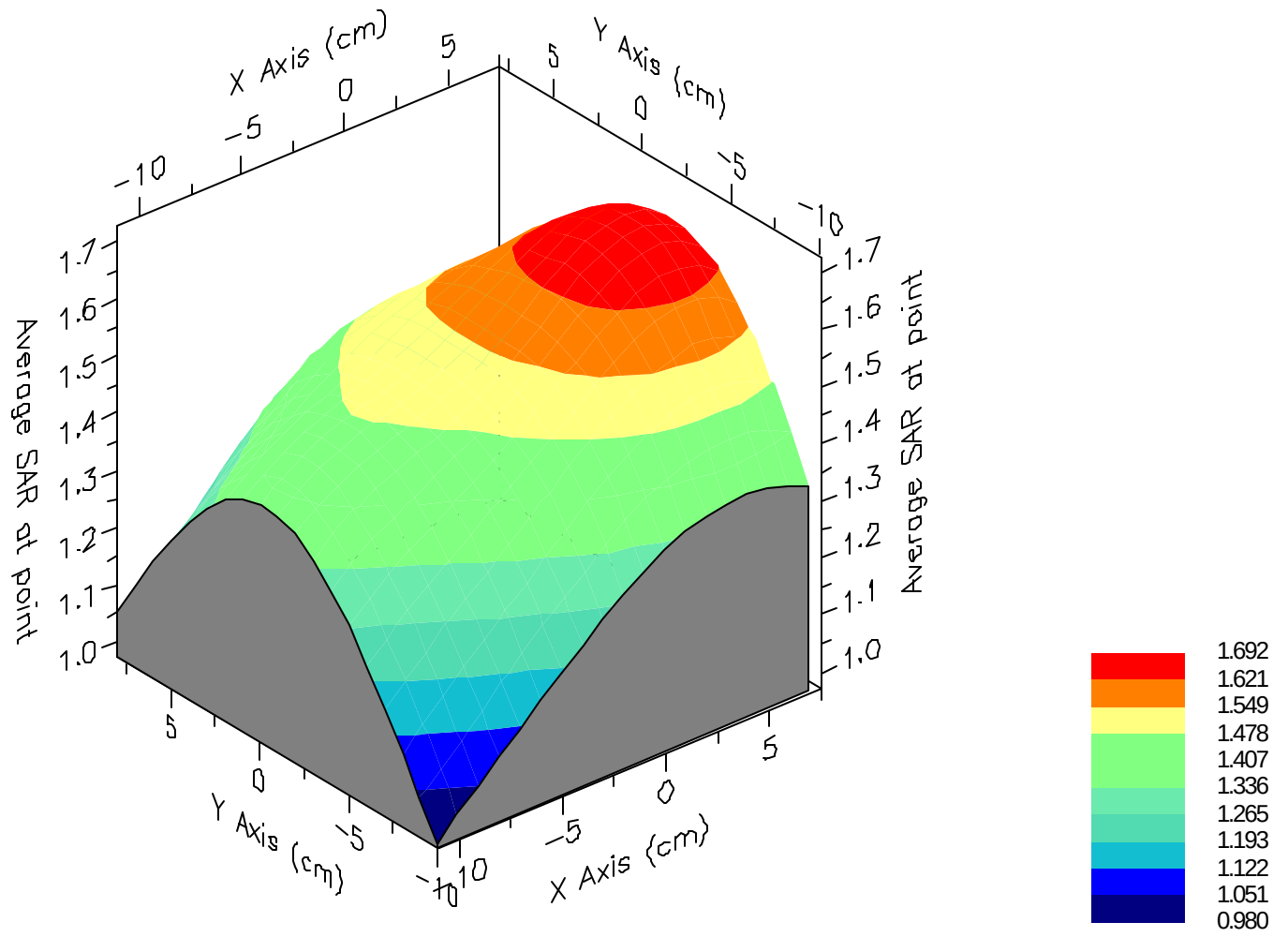
Validation Results at 0.16 W:

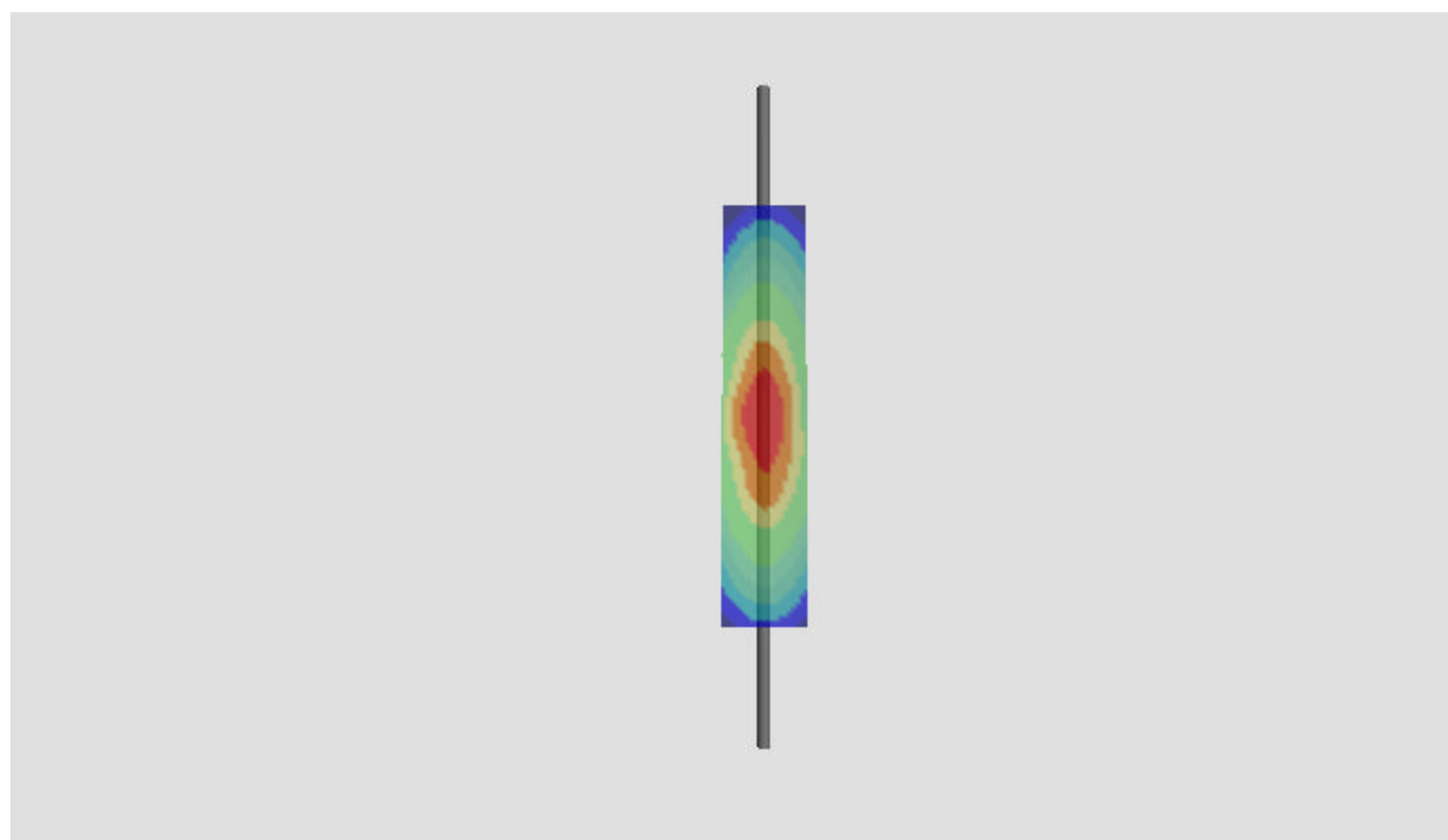
Peak Nominal = 2.3, Error: 29.07 %
1g Nominal = 1.5, Error: 9.04 %
10g Nominal = 1.0, Error: -1.97 %

SAR - Z Axis
at Hotspot x:-5.0 y:0.0



1g SAR Values





SAR Data Report 05072564

Start : 25-Jul-05 05:53:32 pm
End : 25-Jul-05 05:58:08 pm
Code Version : 4.08
Robot Version: 4.08

Product Data:

Type : Verification
Model Number : E-020
Serial Number : PCT005
Frequency : 1900 MHz
Transmit Pwr : 0.040 W
Antenna Type : Dipole
Antenna Posn. : Verification

Measurement Data:

Phantom Name : FLATPHANTOM
Phantom Type : Uniphantom
Tissue Type : Brain
Tissue Dielectric : 40.210
Tissue Conductivity : 1.420
Tissue Density : 1.000
Robot Name : CRS

Probe Data:

Probe Name : PCT005
Probe Type : E Fld Triangle
Frequency : 1900 MHz
Tissue Type : Brain
Calibrated Dielectric : 39.020
Calibrated Conductivity : 1.370
Calibrated Density : 1.000
Probe Offset : 1.600 mm
Conversion Factor : 5.400
Probe Sensitivity : 5.115 4.969 4.453 mV/(mW/cm^2)
Amplifier Gains : 20.00 20.00 20.00

Sample:

Rate: 6000 Samples/Sec
Count: 1000 Samples
NIDAQ Gain: 5

Comments:

1900MHz Verification

CF=1; Amb. Temp= 22.2 'C; Liq. Temp=21.1 'C

Power Drop Test:

Reading @ start = 1.797
Reading @ End = 1.779
Power at End = 99.0%

Area Scan - Max Peak SAR Value at x=1.0 y=0.0 = 1.77 W/kg

Zoom Scan - Max Peak SAR Value at x=1.0 y=0.0 z=0.0 = 3.38 W/kg

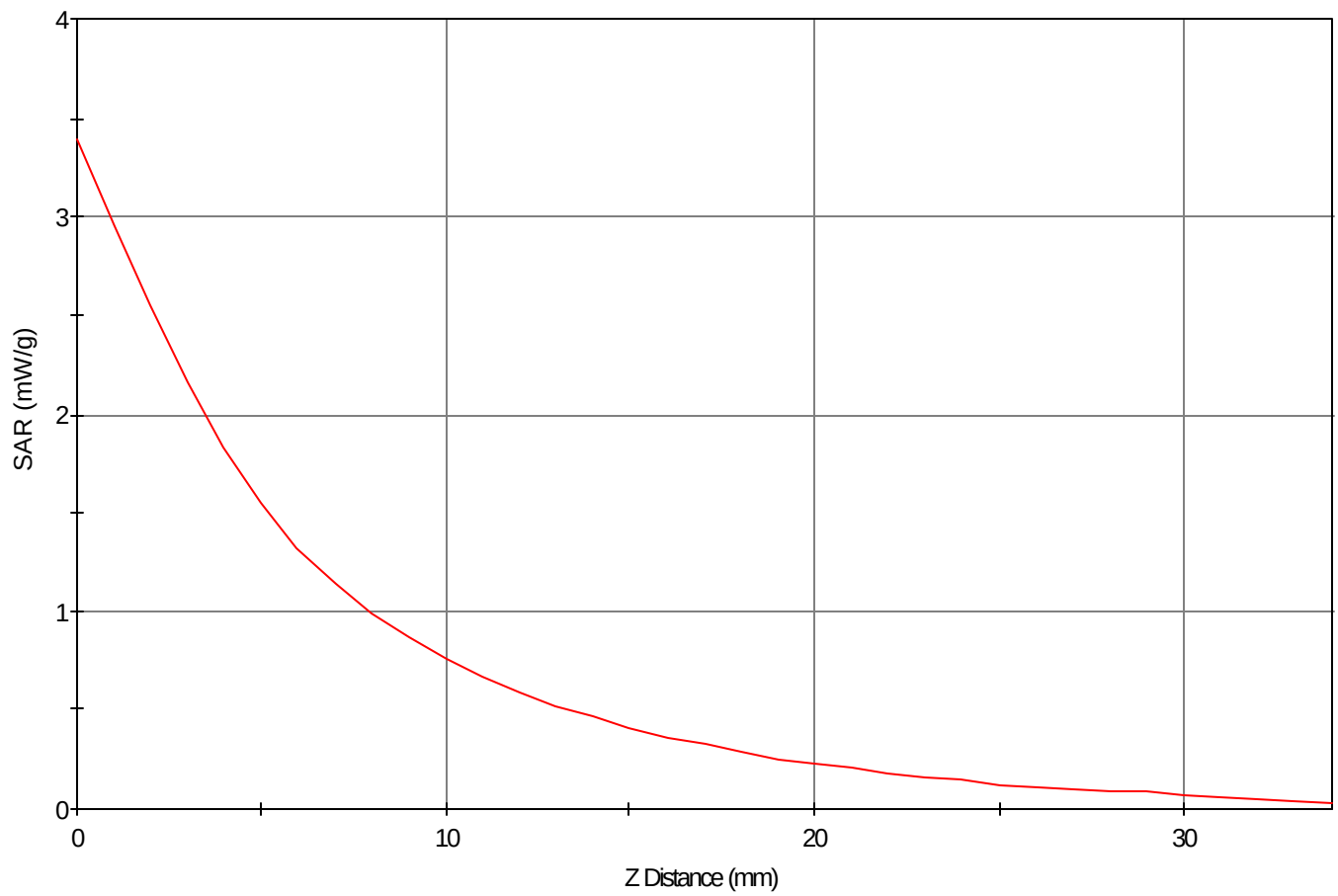
Max 1g SAR at x=1.0 y=0.0 z=0.0 = 1.72 W/kg

Max 10g SAR at x=1.0 y=0.0 z=0.0 = 0.81 W/kg

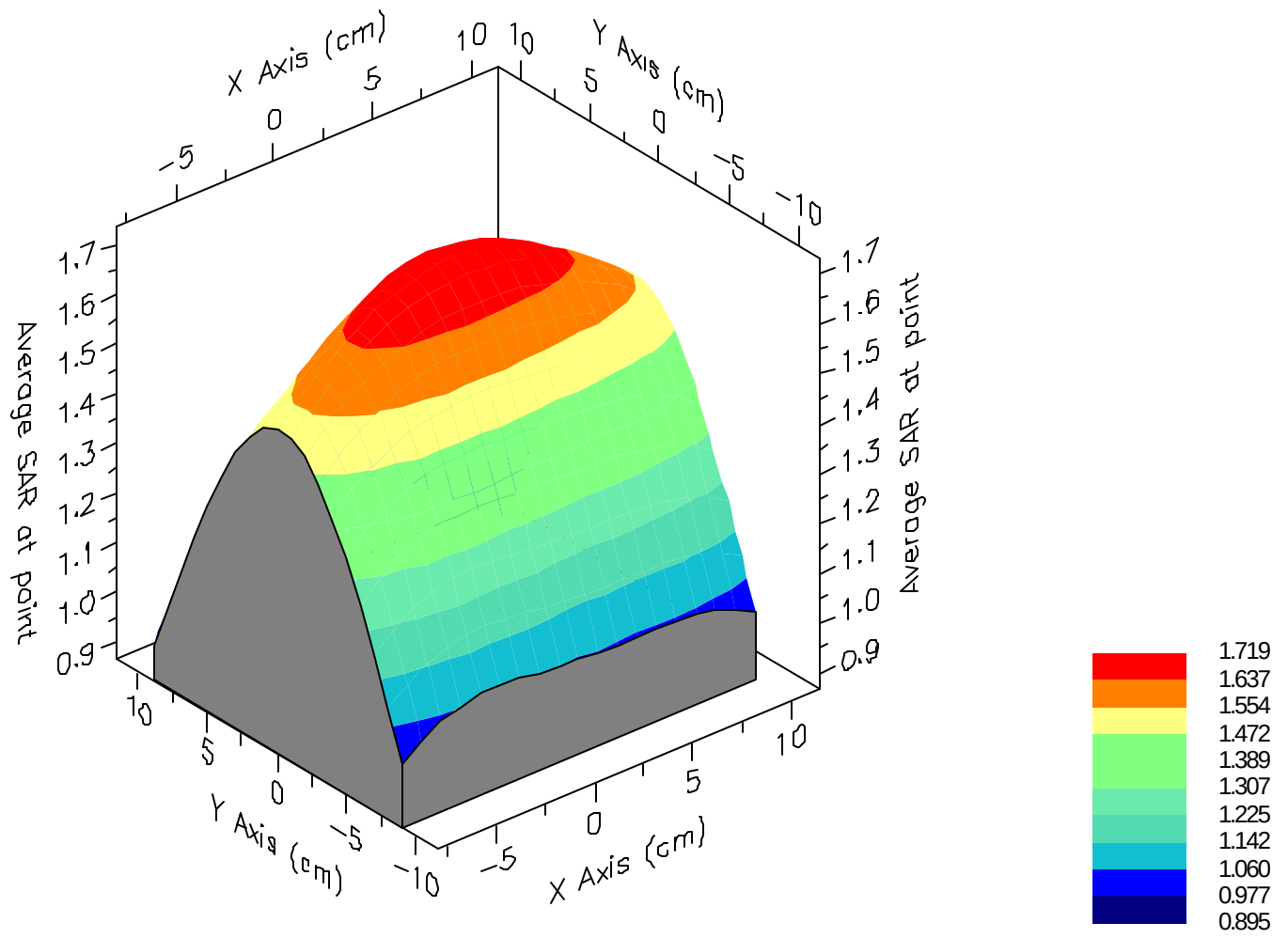
Validation Results at 0.04 W:

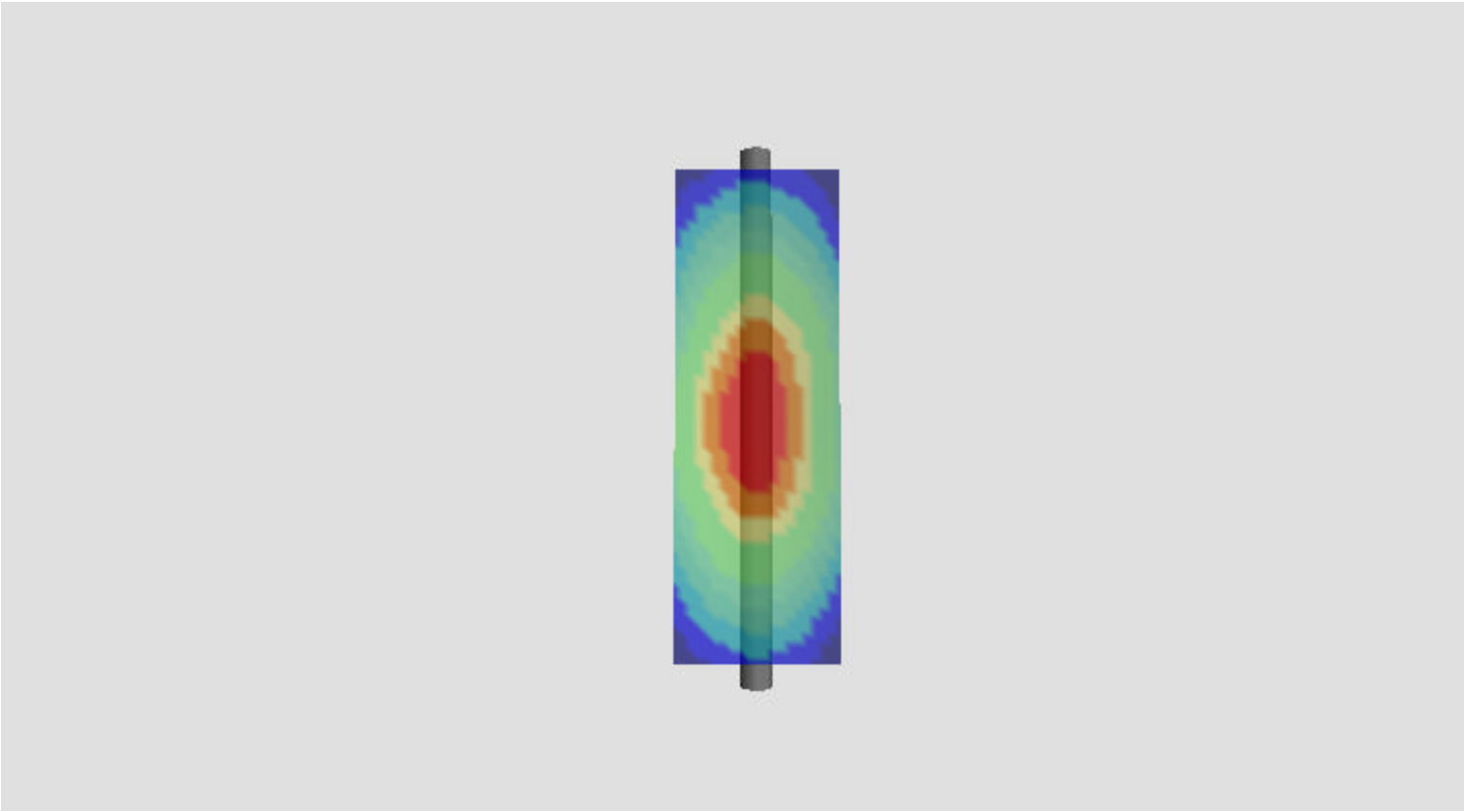
Peak Nominal = 2.9, Error: 17.32 %
1g Nominal = 1.6, Error: 8.25 %
10g Nominal = 0.8, Error: -1.57 %

SAR - Z Axis
at Hotspot x:1.0 y:0.0

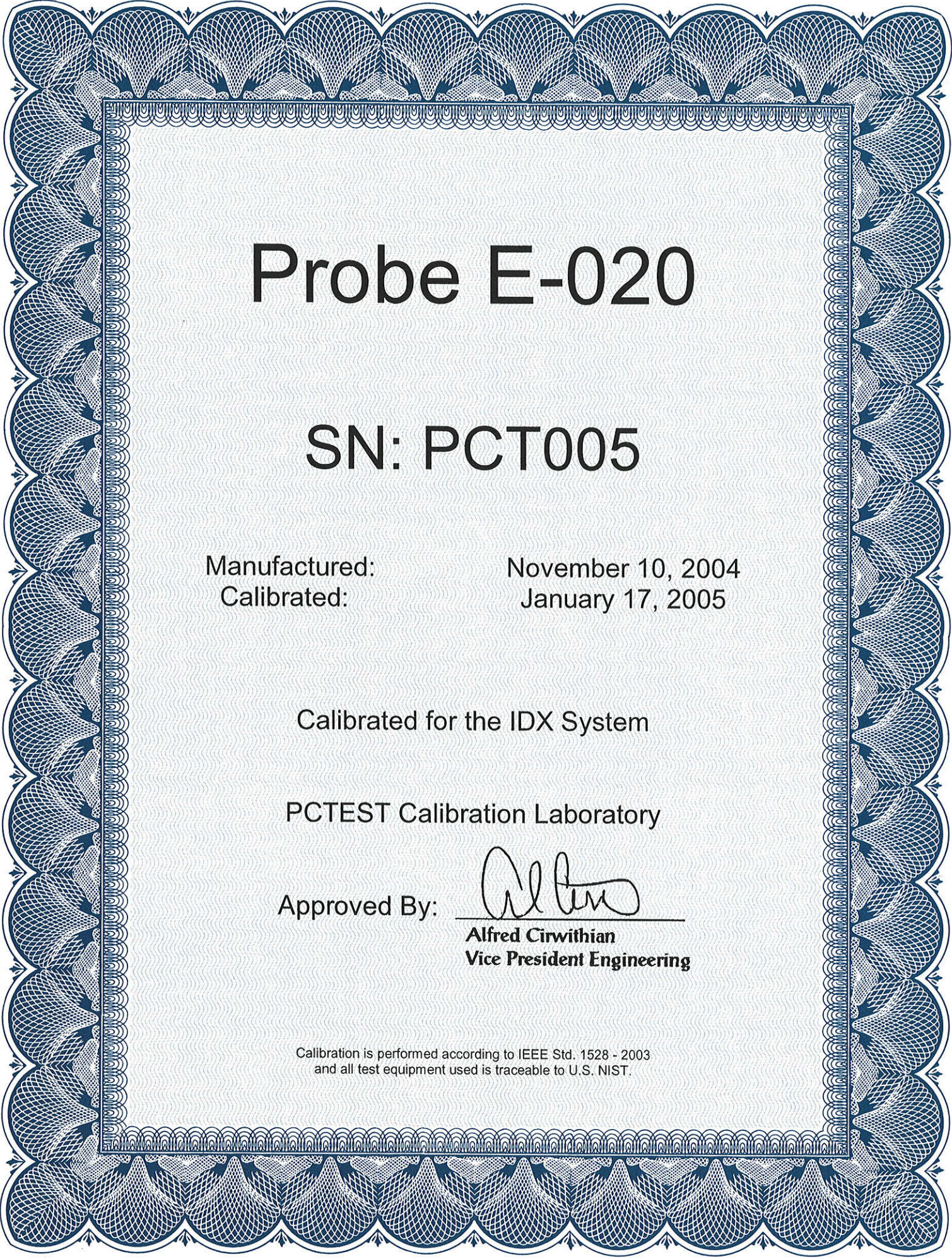


1g SAR Values





APPENDIX C: PROBE CALIBRATION



Probe E-020

SN: PCT005

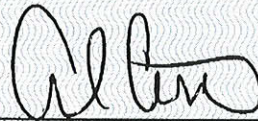
Manufactured:
Calibrated:

November 10, 2004
January 17, 2005

Calibrated for the IDX System

PCTEST Calibration Laboratory

Approved By:



Alfred Cirwithian
Vice President Engineering

Calibration is performed according to IEEE Std. 1528 - 2003
and all test equipment used is traceable to U.S. NIST.

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Calibration Summary

Model: E-020

S/N: PCT005

Tissue Type	Frequency (MHz)	Dielectric Constant ϵ_r	Conductivity (S/m) σ	Conversion Factor $\gamma_x, \gamma_y, \gamma_z$
Brain	450	44.41	0.88	8.8
Brain	835	40.81	0.87	5.5
Brain	1900	39.02	1.37	5.4
Brain	2450	40.11	1.81	5.25
Muscle	450	57.70	0.96	9.24
Muscle	835	53.66	0.98	5.85
Muscle	1900	51.81	1.58	5.5
Muscle	2450	52.23	1.93	5.3

Frequency (MHz)	Isotropy	
	%	dB
450	1.23	0.05
835	2.12	0.09
1900	6.61	0.28
2450	7.61	0.32

Boundary Effect < 2%, 2.5 mm from probe tip to phantom

Diode Compression Point: 120 mV

Environmental Conditions:

Temperature: 22.6 °C

Relative Humidity: 41%

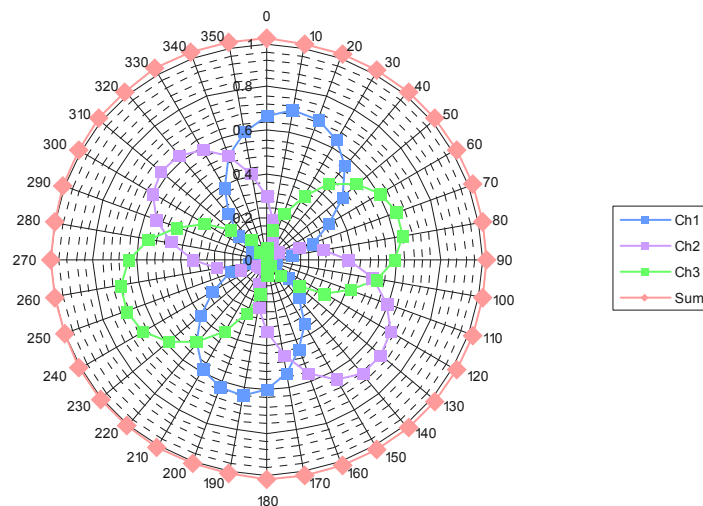
Barometer: 101.2 kPa

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This probe was calibrated under the IEEE Std 1309-1966, *IEEE Standard for Calibration of Electromagnetic Field Sensors and Probes, Excluding Antennas*, from 9 kHz to 40 GHz.

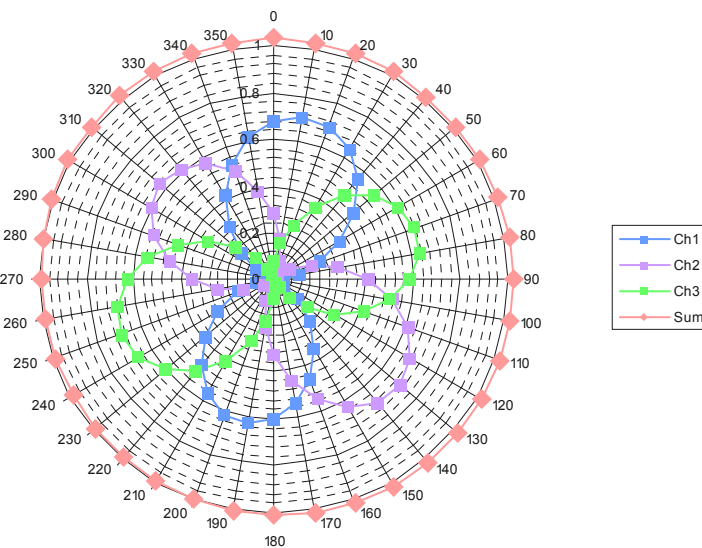
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450 MHz Calibration (PCT005)



835 MHz Calibration (PCT005)

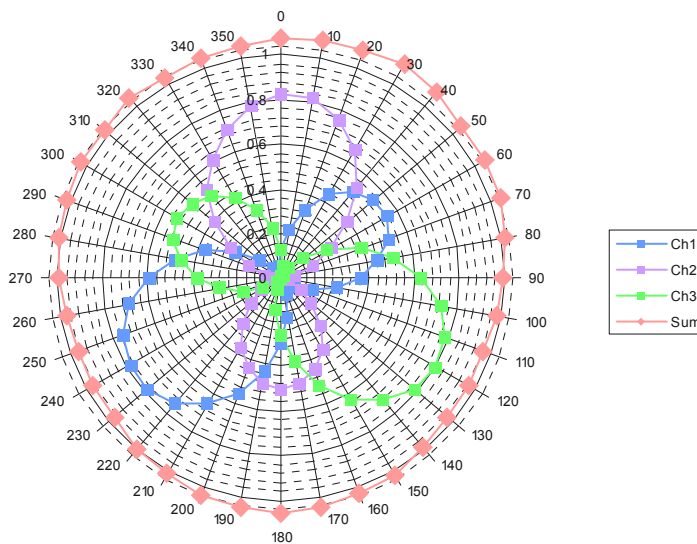


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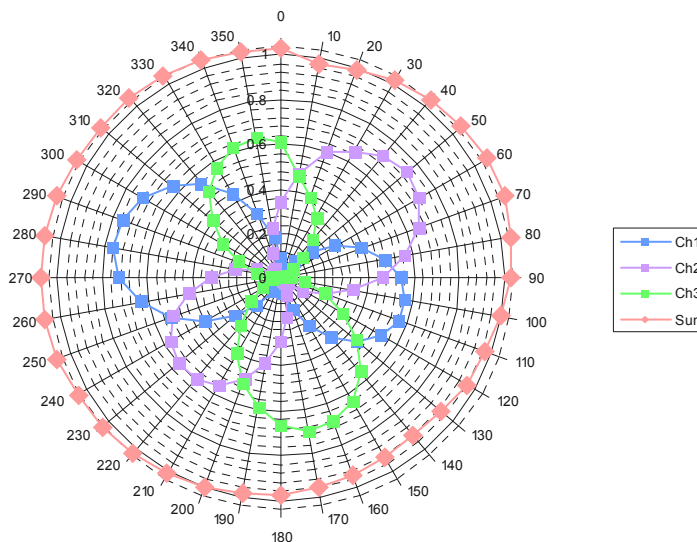
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1900 MHz Calibration (PCT005)

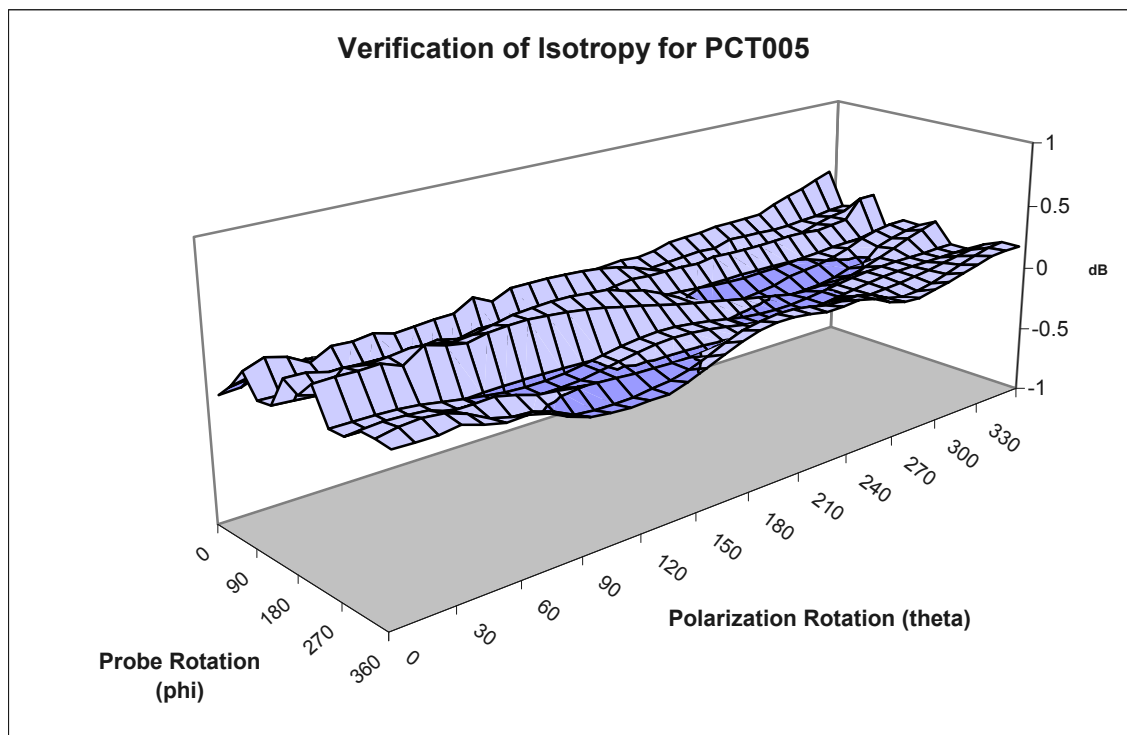


2450 MHz Calibration (PCT005)



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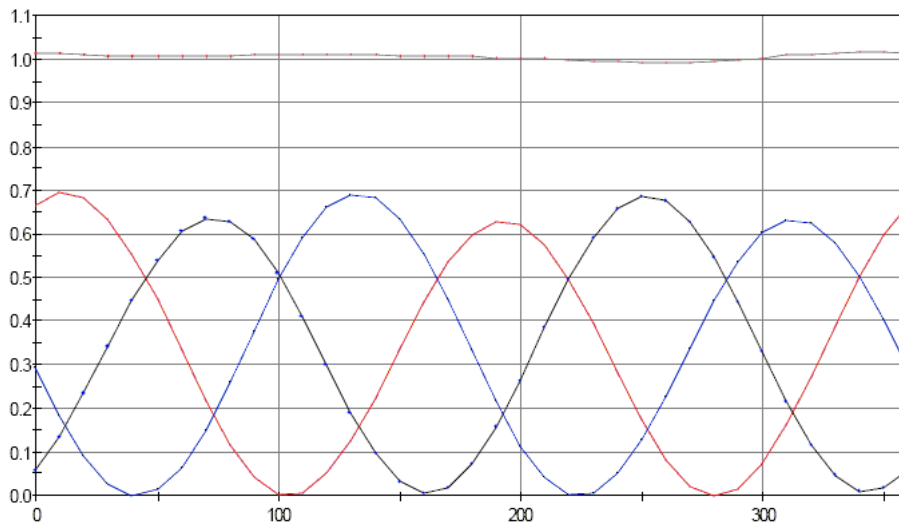


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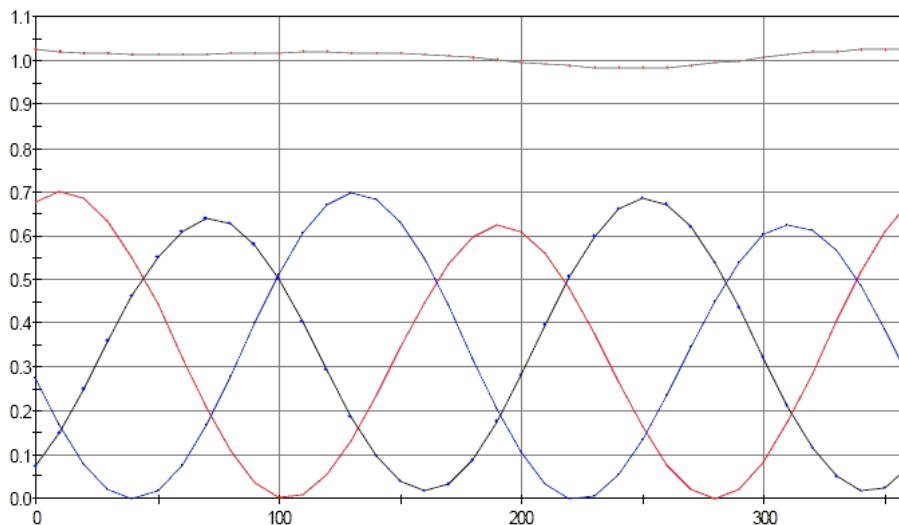
TEM Calibration Plot
Date: 13-Jan-05 04:03:28 pm
Probe Name: PCT005
Frequency: 450

Sensitivity: Ch1: 3.320 Ch2: 3.289 Ch3: 3.267 mV/(mW/cm²)
Isotropy: 1.23% 0.05 db Min=0.993 Max=1.019



TEM Calibration Plot
Date: 13-Jan-05 03:41:45 pm
Probe Name: PCT005
Frequency: 835

Sensitivity: Ch1: 3.807 Ch2: 3.736 Ch3: 3.821 mV/(mW/cm²)
Isotropy: 2.12% 0.09 db Min=0.985 Max=1.028



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TEM Calibration Plot

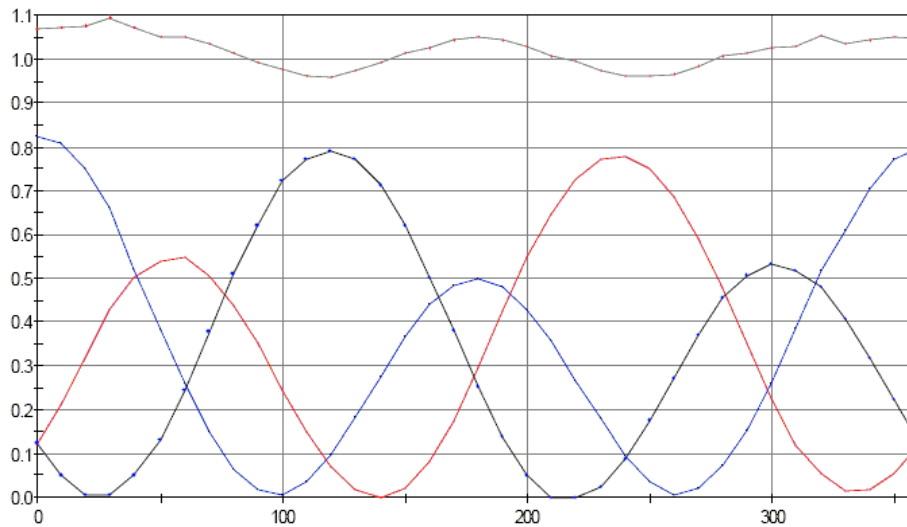
Date: 14-Jan-05 11:08:15 am

Probe Name: PCT005

Frequency: 1900

Sensitivity: Ch1: 5.115 Ch2: 4.969 Ch3: 4.453 mV/(mW/cm²)

Isotropy: 6.79% 0.29 db Min=0.961 Max=1.097



TEM Calibration Plot

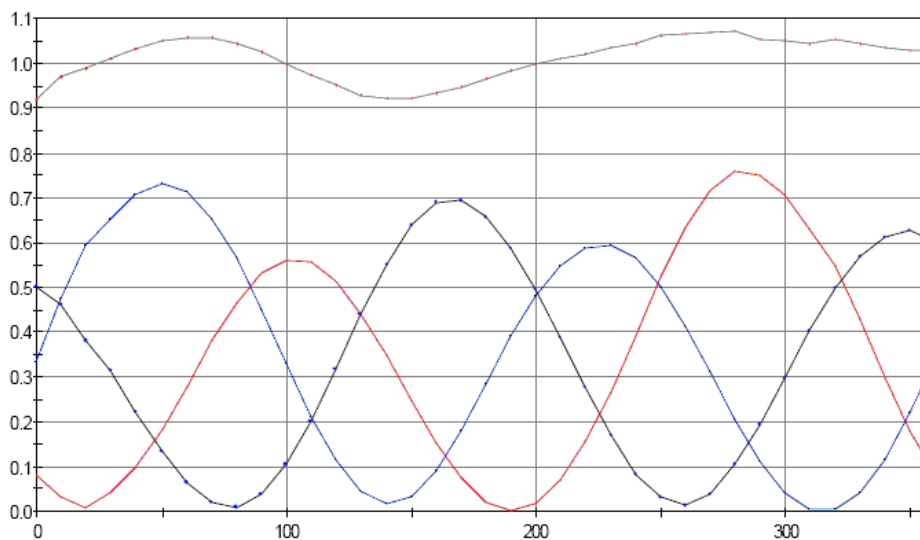
Date: 14-Jan-05 11:38:38 am

Probe Name: PCT005

Frequency: 2450

Sensitivity: Ch1: 5.496 Ch2: 4.887 Ch3: 5.267 mV/(mW/cm²)

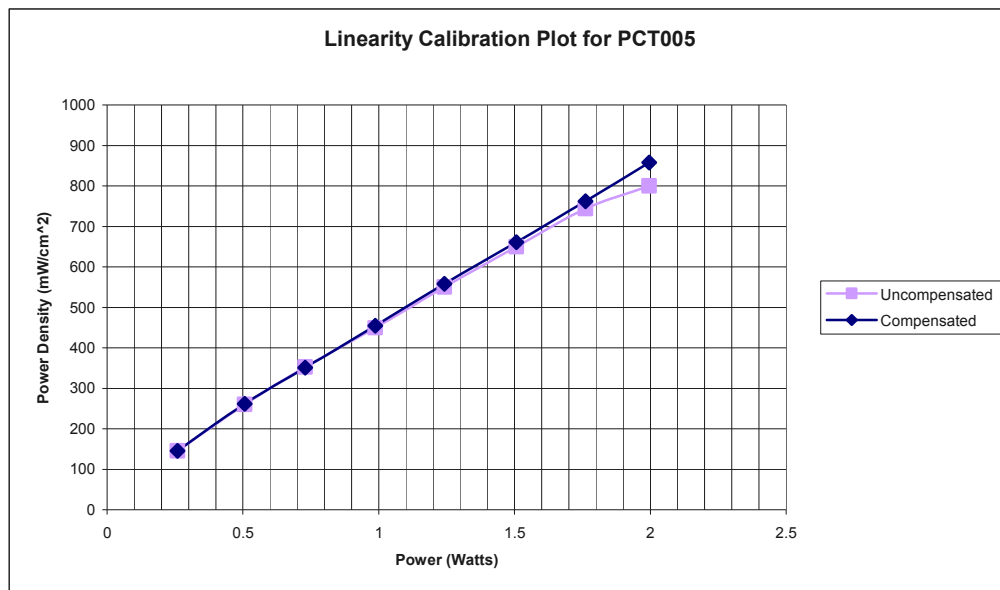
Isotropy: 7.61% 0.32 db Min=0.921 Max=1.074



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Probe Physical Characteristics

Serial Number:

PCT005

Model:

E-020

Sensor Offset:

1.56 mm

Sensor Length:

2.5 mm

Tip Enclosure:

Ertalyte

Tip Diameter:

5 mm

Tip Length:

60 mm

Total Length:

290 mm

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Test Equipment

The test equipment used during the probe calibration are listed as follows:

EQUIPMENT SPECIFICATIONS		
Type	Calibration Due	Asset Number/ Serial Number
CRS Robot F3	February 2005	RAF0134133
CRS C500C Motion Controller	February 2005	RCB0003303
CRS Teach Pendant (Joystick)	February 2005	STP0132231
DELL Computer, Pentium 4 1.6 GHz, Windows 2000™	February 2005	4PJZ111
Flat SAM Phantom (P-SAM-FLAT)	February 2005	94X-097
IDX Robot End Effector (EE-103-C)	February 2005	07111223
IDX Probe Amplifier	February 2005	07111113
Validation Dipole D835V2	October 2005	PCT441
Validation Dipole D1900V2	February 2005	PCT512
Validation Dipole D2450V2	October 2005	PCT641
HP-778D Dual-Directional Coupler (0.1 ~ 2.0 GHz)	November 2005	PCT664
MicroCircuits Directional Coupler (4.0 ~ 8.0 GHz)	November 2005	PE2204-6
Amplifier Research 5S1G4 Power Amp	January 2005	PCT540
IFI T184-10 Power Amplifier (4.0 ~ 18.0 GHz)	December 2005	5957
HP-8241A (250kHz ~ 20 GHz) Signal Generator	December 2005	88934
HP-8753E (30kHz ~ 6GHz) Network Analyzer	January 2006	PCT552
Rohde & Schwarz Power Meter NRVS 1020.1809.02	January 2006	835360/079
Rohde & Schwarz Power Sensor NRV-Z53 858.0500.02	April 2005	846076/007
HP85070B Dielectric Probe Kit	January 2005	PCT501
IFI CC110EXX TEM Cell (DC to 2000 MHz)	January 2006	PCT498
EMCO 3115 Horn Antenna (2.0 ~ 18.0 GHz)	August 2005	PCT496
Guildline 5150 Precision Dual-Thermometer	November 2005	66145