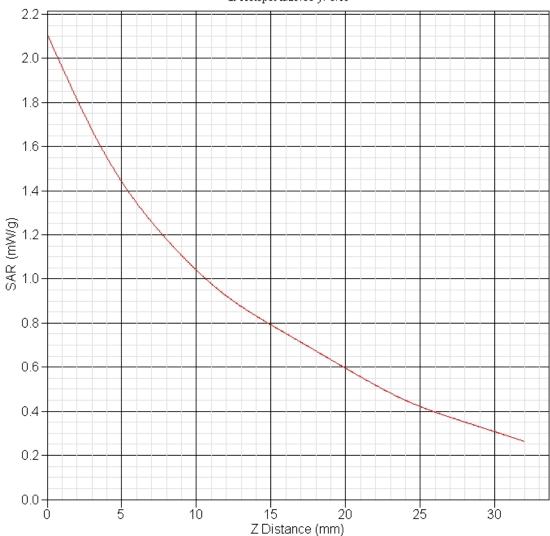




GSM 850 EUT Left-Cheek Z-Axis plot

Channel: 251







SAR measurement Data

ALSAS-10U VER 2.3.6 APREL Laboratories

SAR Test Report-PCS 1900

Report Date : 17-Apr-2009 Measurement Date : 17-Apr-2009

Product Data

Device Name : PHONEX

Type : Std Form Cell Phone

Type : Std Form Cel Model : PG220 Frequency : 1900.00 MHz

Max. Transmit Pwr : 1 W Drift Time : 0 min(s) Length : 99 mm Length : 99 mm
Width : 56 mm
Depth : 14 mm
Antenna Type : Internal

Phantom Data

Type : SAM-Left
Size (mm) : 280 x 280 x 280
Location : Left

Tissue Data

Type : HEAD
Serial No. : 324-H
Frequency : 1900.00 MHz

Last Calib. Date: 17-Apr-2009 Temperature : 21.10 °C

Ambient Temp. : 22.20 °C

Humidity : 53.00 RH%

Epsilon : 40.33 F/m

Sigma : 1.41 S/m

Density : 1000.00 kg/cu. m

Probe Data

Name : Probe 265
Model : E020
Type : E-Field Triangle
Serial No. : 265 Type

Last Calib. Date: 09-May-2008 Frequency : 1900.00 MHz

Duty Cycle Factor: 8 Conversion Factor: 4.51

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$

Compression Point: 95.00 mV Offset : 1.56 mm

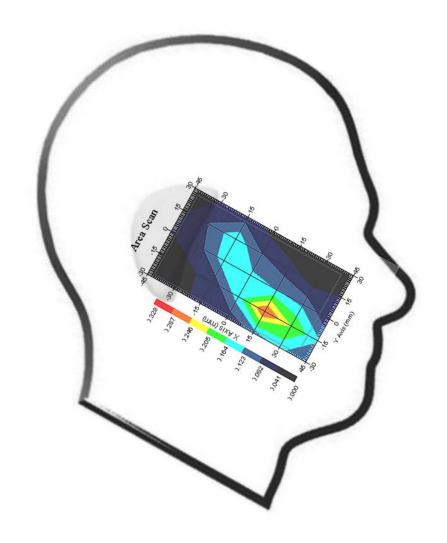


Crest Factor : 8
Tissue Temp. : 21.10 °C
Ambient Temp. : 22.20 °C
Area Scan : 7x5x1 : Measurement x=15mm, y=15mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Power Drift-Start : 0.044 W/kg Power Drift-Finish: 0.042 W/kg

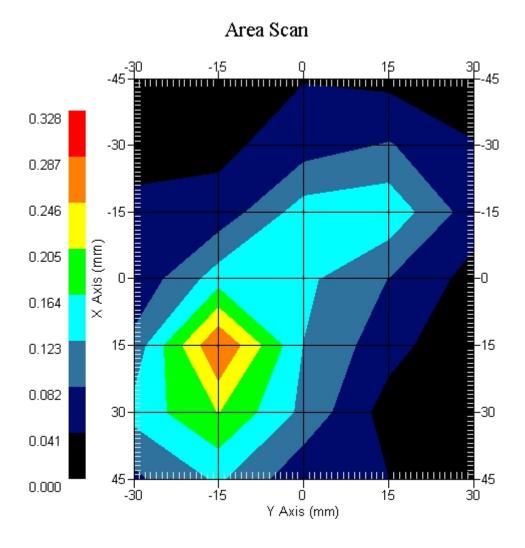
Power Drift (%) : -4.545

DUT Position : Touch Channel : 512



1 gram SAR value : 0.213 W/kg 10 gram SAR value : 0.117 W/kg Area Scan Peak SAR: 0.289 W/kg Zoom Scan Peak SAR: 0.430 W/kg





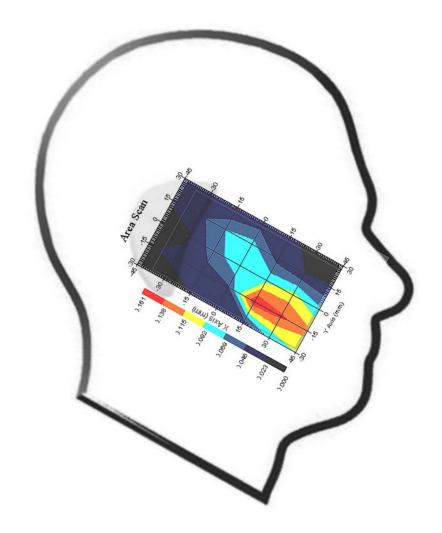


Crest Factor : 8
Tissue Temp. : 21.10 °C
Ambient Temp. : 22.20 °C
Area Scan : 7x5x1 : Measurement x=15mm, y=15mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Power Drift-Start : 0.022 W/kg Power Drift-Finish: 0.021 W/kg

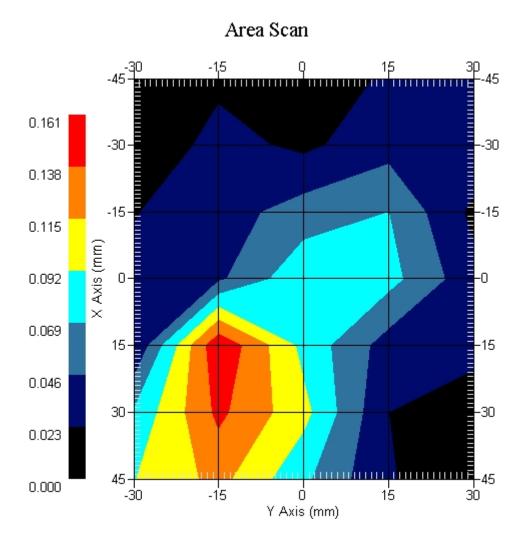
Power Drift (%) : -4.545

DUT Position : Touch Channel : 661



1 gram SAR value : 0.151 W/kg 10 gram SAR value : 0.110 W/kg Area Scan Peak SAR: 0.158 W/kg Zoom Scan Peak SAR: 0.250 W/kg





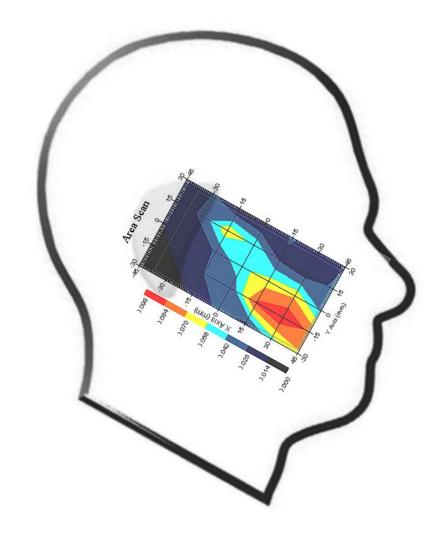


Crest Factor : 8
Tissue Temp. : 21.10 °C
Ambient Temp. : 22.20 °C
Area Scan : 7x5x1 : Measurement x=15mm, y=15mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Power Drift-Start : 0.017 W/kg Power Drift-Finish: 0.017 W/kg

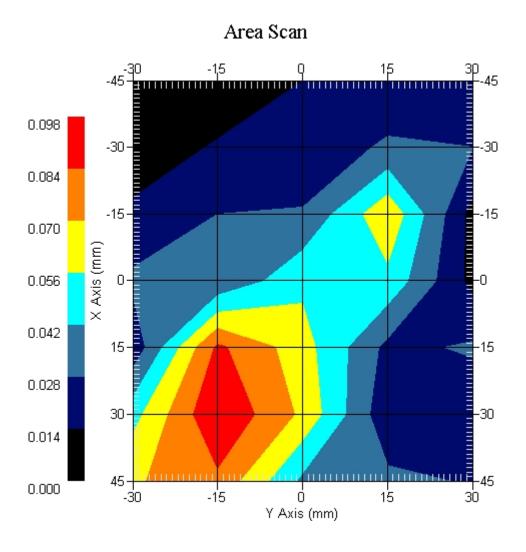
Power Drift (%) : -0.325

DUT Position : Touch Channel : 810



1 gram SAR value : 0.107 W/kg 10 gram SAR value : 0.059 W/kg Area Scan Peak SAR: 0.097 W/kg Zoom Scan Peak SAR: 0.200 W/kg





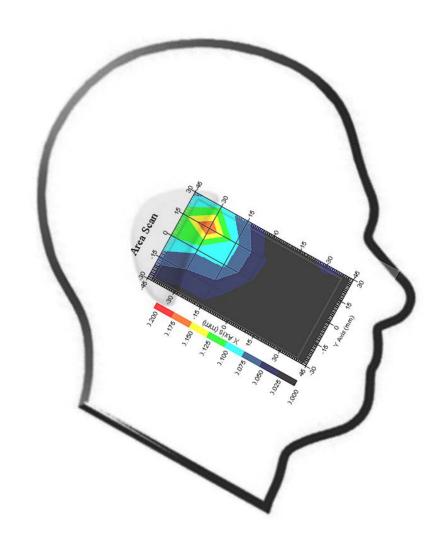


Crest Factor : 8
Tissue Temp. : 21.10 °C
Ambient Temp. : 22.20 °C
Area Scan : 7x5x1 : Measurement x=15mm, y=15mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Power Drift-Start : 0.097 W/kg Power Drift-Finish: 0.099 W/kg

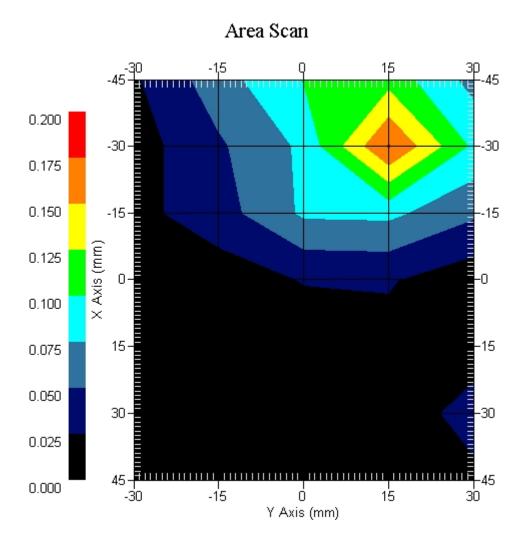
Power Drift (%) : 2.494

DUT Position : 15° Tilt Channel : 512



1 gram SAR value : 0.130 W/kg 10 gram SAR value : 0.074 W/kg Area Scan Peak SAR: 0.177 W/kg Zoom Scan Peak SAR: 0.210 W/kg





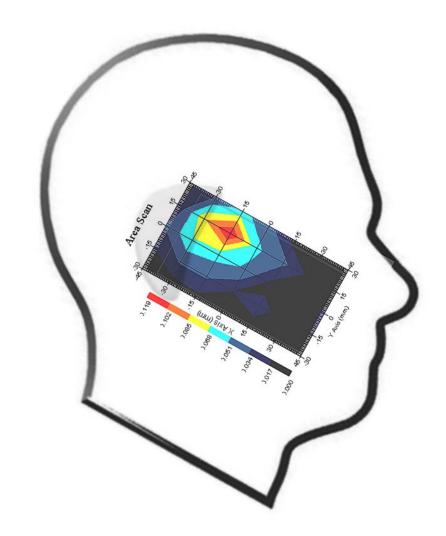


Crest Factor : 8
Tissue Temp. : 21.10 °C
Ambient Temp. : 22.20 °C
Area Scan : 7x5x1 : Measurement x=15mm, y=15mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Power Drift-Start : 0.053 W/kg Power Drift-Finish: 0.051 W/kg

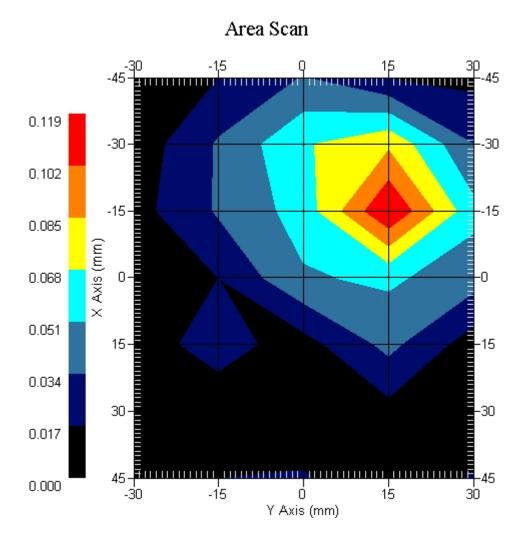
Power Drift (%) : -3.773

DUT Position : 15° Tilt Channel : 661



1 gram SAR value : 0.081 W/kg 10 gram SAR value : 0.044 W/kg Area Scan Peak SAR: 0.119 W/kg Zoom Scan Peak SAR: 0.150 W/kg





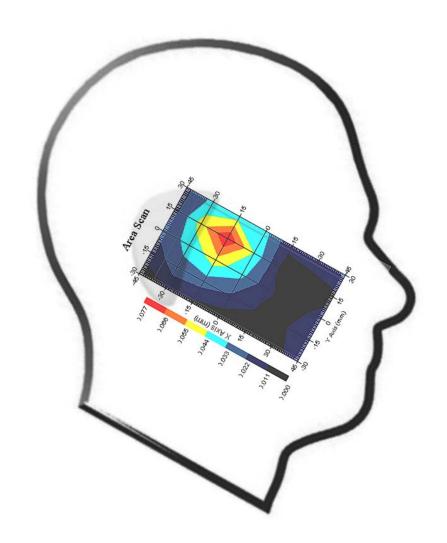


Crest Factor : 8
Tissue Temp. : 21.10 °C
Ambient Temp. : 22.20 °C
Area Scan : 7x5x1 : Measurement x=15mm, y=15mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Power Drift-Start : 0.036 W/kg Power Drift-Finish: 0.036 W/kg

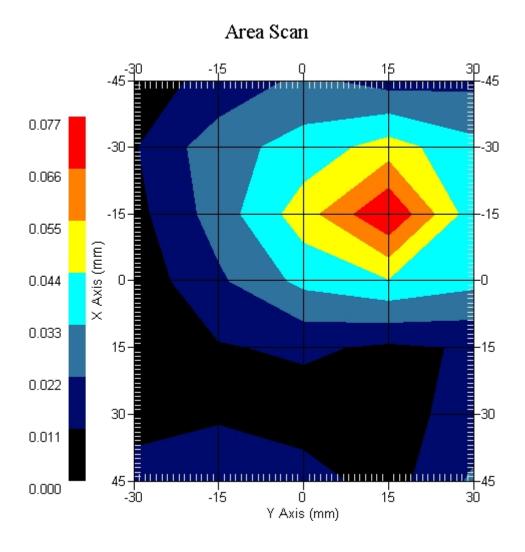
Power Drift (%) : -0.940

DUT Position : 15° Tilt Channel : 810



1 gram SAR value : 0.044 W/kg 10 gram SAR value : 0.021 W/kg Area Scan Peak SAR: 0.077 W/kg Zoom Scan Peak SAR: 0.090 W/kg







ALSAS-10U VER 2.3.6 APREL Laboratories SAR Test Report-PCS 1900

Report Date : 17-Apr-2009 Measurement Date : 17-Apr-2009

Product Data

Device Name : PHONEX
Type : Std Form Cell Phone Type : Std Form Cel Model : PG220 Frequency : 1900.00 MHz

Max. Transmit Pwr : 1 W Drift Time : 0 min(s)
Length : 99 mm
Width : 56 mm
Depth : 14 mm
Antenna Type : Internal

Phantom Data

Type : SAM-Right Size (mm) : 280 x 280 x 280 Location : Right

Tissue Data

Type : HEAD Serial No. : 324-H Frequency : 1900.00 MHz

Last Calib. Date: 17-Apr-2009 Temperature : 21.10 °C

Ambient Temp. : 22.20 °C

Humidity : 53.00 RH%

Epsilon : 40.33 F/m

Sigma : 1.41 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 265
Model : E020
Type : E-Field T Type : E-Field Triangle Serial No. : 265

Last Calib. Date: 09-May-2008 Frequency : 1900.00 MHz

Duty Cycle Factor: 8 Conversion Factor: 4.51

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$

Compression Point: 95.00 mV Offset : 1.56 mm

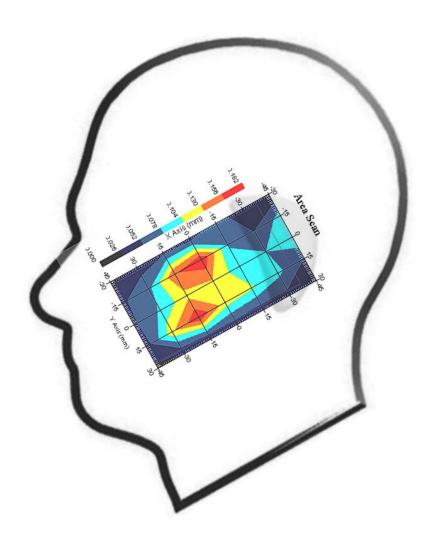


Crest Factor : 8
Tissue Temp. : 21.10 °C
Ambient Temp. : 22.20 °C
Area Scan : 7x5x1 : Measurement x=15mm, y=15mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Power Drift-Start : 0.079 W/kg Power Drift-Finish: 0.082 W/kg

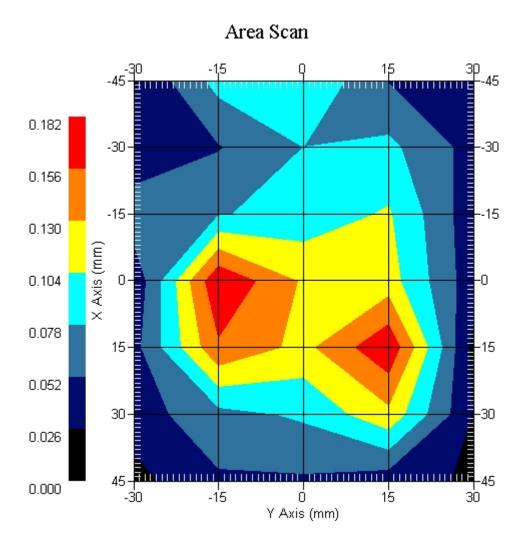
Power Drift (%) : 3.797

DUT Position : Touch Channel : 512



1 gram SAR value : 0.151 W/kg 10 gram SAR value : 0.086 W/kg Area Scan Peak SAR: 0.179 W/kg Zoom Scan Peak SAR: 0.260 W/kg





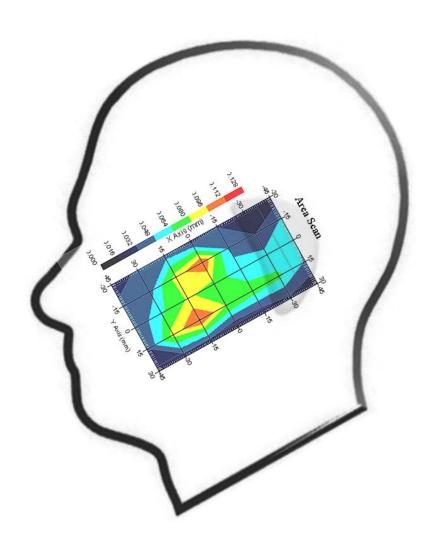


Crest Factor : 8
Tissue Temp. : 21.10 °C
Ambient Temp. : 22.20 °C
Area Scan : 7x5x1 : Measurement x=15mm, y=15mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Power Drift-Start : 0.061 W/kg Power Drift-Finish: 0.063 W/kg

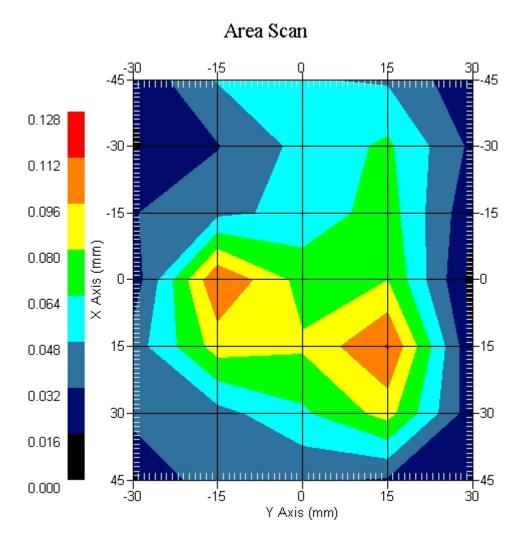
Power Drift (%) : 3.278

DUT Position : Touch Channel : 661



1 gram SAR value : 0.102 W/kg 10 gram SAR value : 0.057 W/kg Area Scan Peak SAR: 0.113 W/kg Zoom Scan Peak SAR: 0.180 W/kg





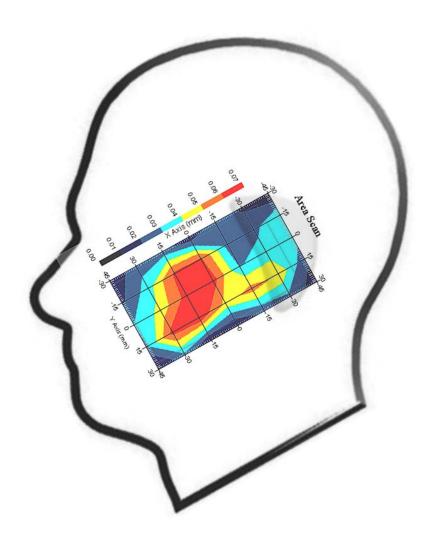


Crest Factor : 8
Tissue Temp. : 21.10 °C
Ambient Temp. : 22.20 °C
Area Scan : 7x5x1 : Measurement x=15mm, y=15mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Power Drift-Start : 0.042 W/kg Power Drift-Finish: 0.040 W/kg

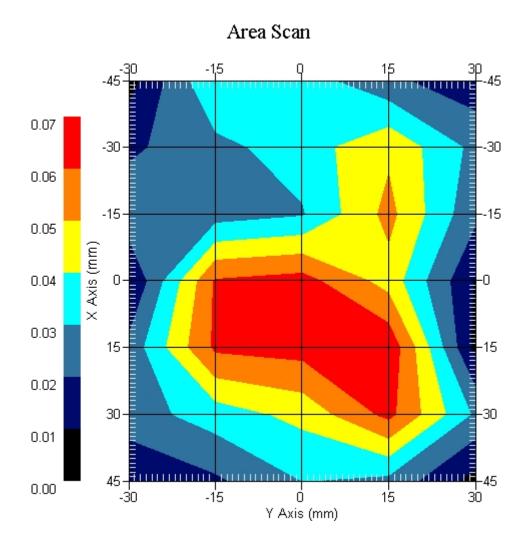
Power Drift (%) : -4.761

DUT Position : Touch Channel : 810



1 gram SAR value : 0.081 W/kg 10 gram SAR value : 0.046 W/kg Area Scan Peak SAR: 0.068 W/kg Zoom Scan Peak SAR: 0.190 W/kg





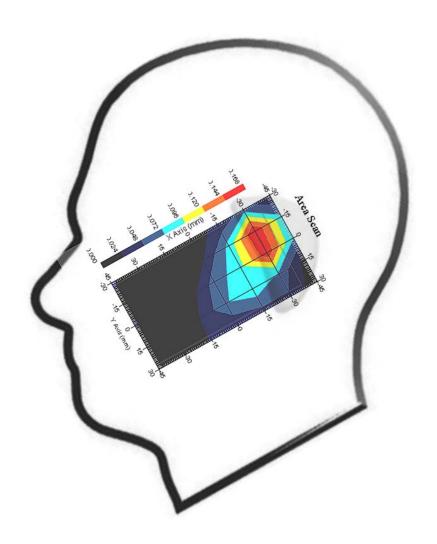


Crest Factor : 8
Tissue Temp. : 21.10 °C
Ambient Temp. : 22.20 °C
Area Scan : 7x5x1 : Measurement x=15mm, y=15mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Power Drift-Start : 0.136 W/kg Power Drift-Finish: 0.133 W/kg

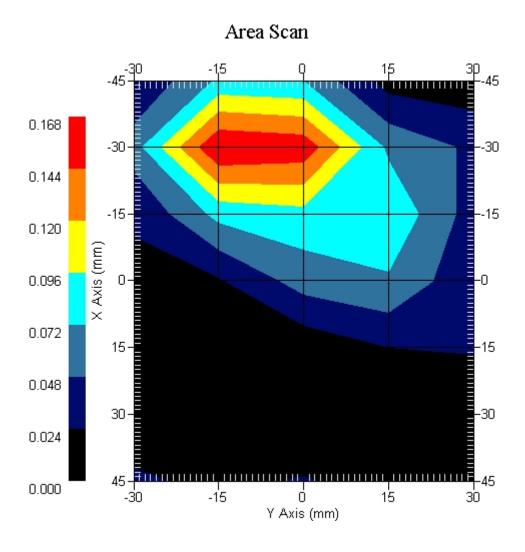
Power Drift (%) : -2.205

DUT Position : 15° Tilt Channel : 512



1 gram SAR value : 0.144 W/kg 10 gram SAR value : 0.075 W/kg Area Scan Peak SAR: 0.168 W/kg Zoom Scan Peak SAR: 0.250 W/kg





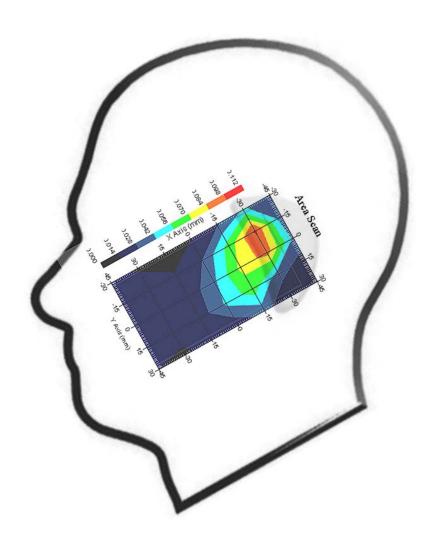


Crest Factor : 8
Tissue Temp. : 21.10 °C
Ambient Temp. : 22.20 °C
Area Scan : 7x5x1 : Measurement x=15mm, y=15mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Power Drift-Start : 0.086 W/kg Power Drift-Finish: 0.090 W/kg

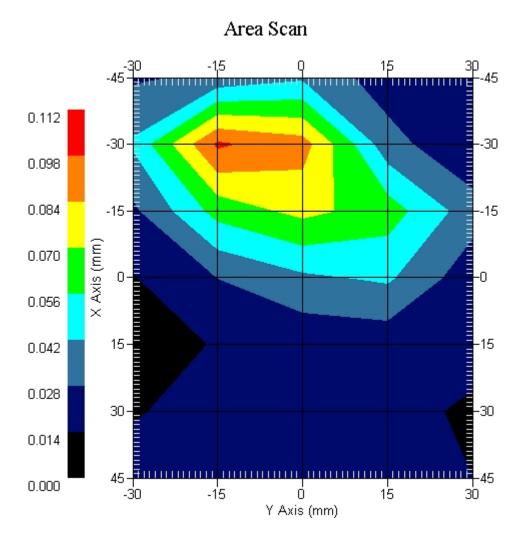
Power Drift (%) : 4.651

DUT Position : 15° Tilt Channel : 661



1 gram SAR value : 0.078 W/kg 10 gram SAR value : 0.043 W/kg Area Scan Peak SAR: 0.100 W/kg Zoom Scan Peak SAR: 0.160 W/kg





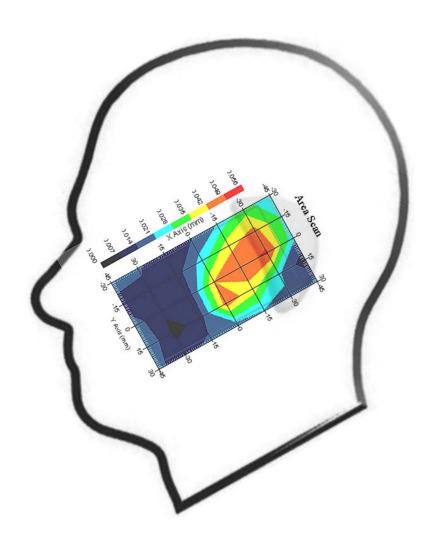


Crest Factor : 8
Tissue Temp. : 21.10 °C
Ambient Temp. : 22.20 °C
Area Scan : 7x5x1 : Measurement x=15mm, y=15mm, z=4mm
Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Power Drift-Start : 0.061 W/kg Power Drift-Finish: 0.059 W/kg

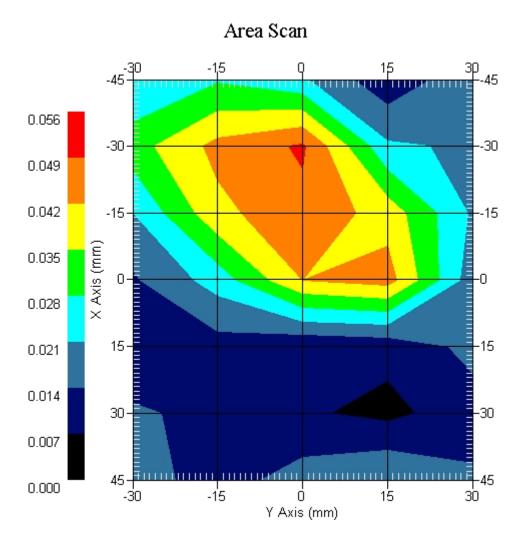
Power Drift (%) : -3.167

DUT Position : 15° Tilt Channel : 810



1 gram SAR value : 0.053 W/kg 10 gram SAR value : 0.048 W/kg Area Scan Peak SAR: 0.050 W/kg Zoom Scan Peak SAR: 0.090 W/kg







ALSAS-10U VER 2.3.6 APREL Laboratories SAR Test Report-PCS 1900

Report Date : 17-Apr-2009 Measurement Date : 17-Apr-2009

Product Data

Device Name : PHONEX
Type : Std Form Cell Phone

Type : Std Form Cel Model : PG220 Frequency : 1900.00 MHz

Max. Transmit Pwr : 1 W Drift Time : 0 min(s)
Length : 99 mm
Width : 56 mm
Depth : 14 mm
Antenna Type : Internal

Phantom Data

Type : Uni-Phantom Size (mm) : 280 x 280 x 200 Location : Center

Tissue Data

Type : BODY
Serial No. : 324-B
Frequency : 1900.00 MHz

Last Calib. Date: 17-Apr-2009 Temperature : 21.10 °C

Ambient Temp. : 22.20 °C

Humidity : 53.00 RH%

Epsilon : 54.26 F/m

Sigma : 1.54 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 265
Model : E020
: E-Field T Type : E-Field Triangle Serial No. : 265

Last Calib. Date : 09-May-2008 Frequency : 1900.00 MHz

Duty Cycle Factor: 8 Conversion Factor: 5.1

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$

Compression Point: 95.00 mV Offset : 1.56 mm



Measurement Data Crest Factor : 8

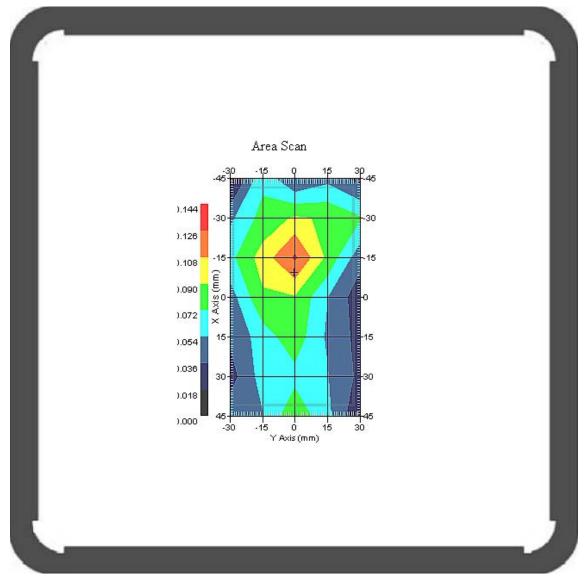
Tissue Temp. : 21.10 °C Ambient Temp. : 22.20 °C

Area Scan : 7x5x1 : Measurement x=15mm, y=15mm, z=4mm Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Power Drift-Start : 0.161 W/kg Power Drift-Finish: 0.158 W/kg

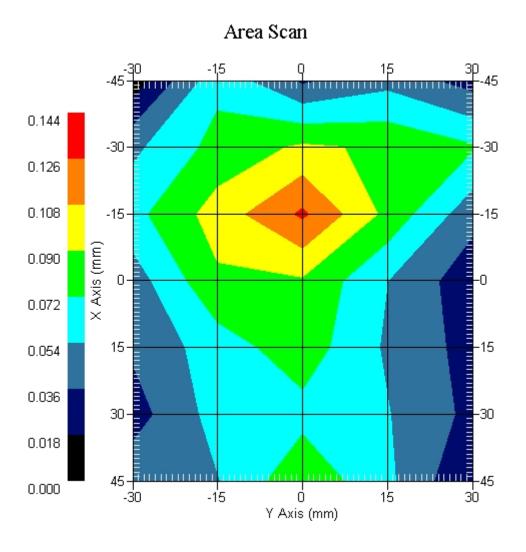
Power Drift (%) : -1.863

DUT Position : Touch Channel : 512



1 gram SAR value : 0.166 W/kg 10 gram SAR value : 0.085 W/kg Area Scan Peak SAR : 0.129 W/kg Zoom Scan Peak SAR : 0.350 W/kg







Crest Factor : 8

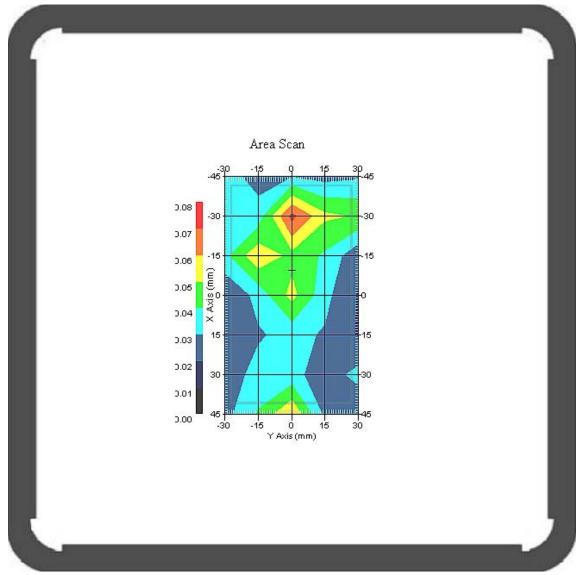
: 21.10 °C : 22.20 °C Tissue Temp. Ambient Temp.

Area Scan : 7x5x1 : Measurement x=15mm, y=15mm, z=4mm Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Power Drift-Start : 0.067 W/kg Power Drift-Finish: 0.066 W/kg

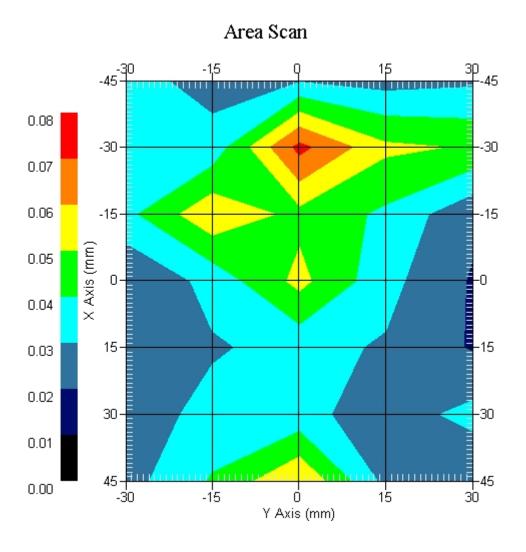
Power Drift (%) : -2.017

DUT Position : Touch Channel : 661



1 gram SAR value : 0.068 W/kg 10 gram SAR value : 0.053 W/kg Area Scan Peak SAR: 0.073 W/kg Zoom Scan Peak SAR: 0.170 W/kg







Measurement Data Crest Factor : 8

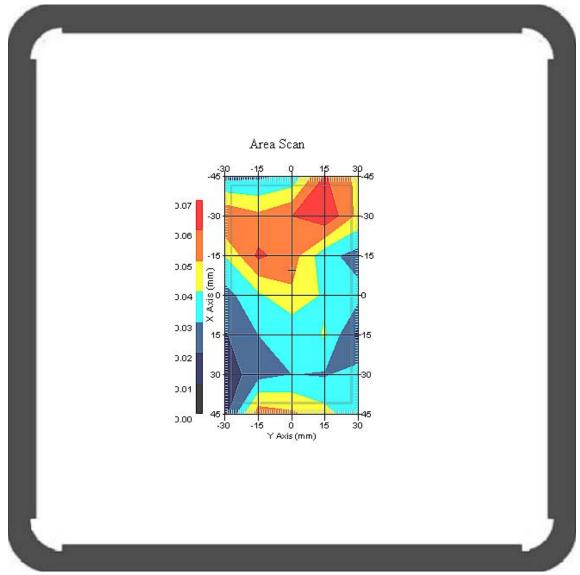
Tissue Temp. : 21.10 °C Ambient Temp. : 22.20 °C

Area Scan : 7x5x1 : Measurement x=15mm, y=15mm, z=4mm Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Power Drift-Start: 0.067 W/kg
Power Drift-Finish: 0.065 W/kg

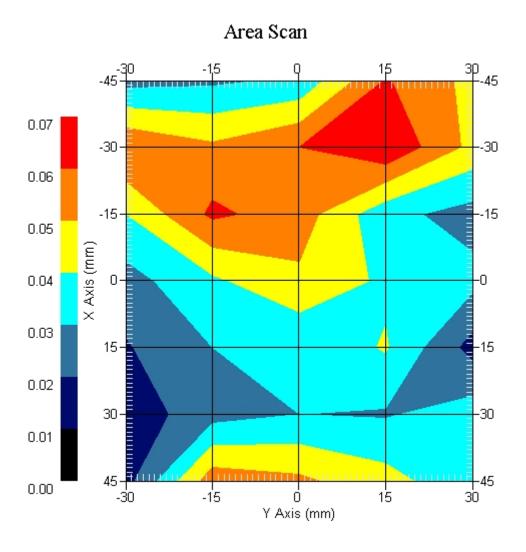
Power Drift (%) : -2.985

DUT Position : Touch Channel : 810



1 gram SAR value : 0.067 W/kg 10 gram SAR value : 0.041 W/kg Area Scan Peak SAR : 0.069 W/kg Zoom Scan Peak SAR : 0.975 W/kg







ALSAS-10U VER 2.3.6 APREL Laboratories SAR Test Report-PCS 1900 GPRS 2 Slot

Report Date : 17-Apr-2009 Measurement Date : 17-Apr-2009

Product Data

Device Name : PHONEX
Type : Std Form Cell Phone Type : Std Form Cel Model : PG220 Frequency : 1900.00 MHz

Max. Transmit Pwr : 1 W Drift Time : 0 min(s) Length : 99 mm Width : 56 mm Width Depth : 14 mm
Antenna Type : Internal

Phantom Data

Type : Uni-Phantom Size (mm) : 280 x 280 x 200 Location : Center

Tissue Data

Type : BODY
Serial No. : 324-B
Frequency : 1900.00 MHz

Last Calib. Date: 17-Apr-2009 Temperature : 21.10 °C

Ambient Temp. : 22.20 °C

Humidity : 53.00 RH%

Epsilon : 54.26 F/m

Sigma : 1.54 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 265
Model : E020
: E-Field T Type : E-Field Triangle Serial No. : 265

Last Calib. Date: 09-May-2008 Frequency : 1900.00 MHz

Duty Cycle Factor: 4 Conversion Factor: 5.1

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$

Compression Point: 95.00 mV Offset : 1.56 mm



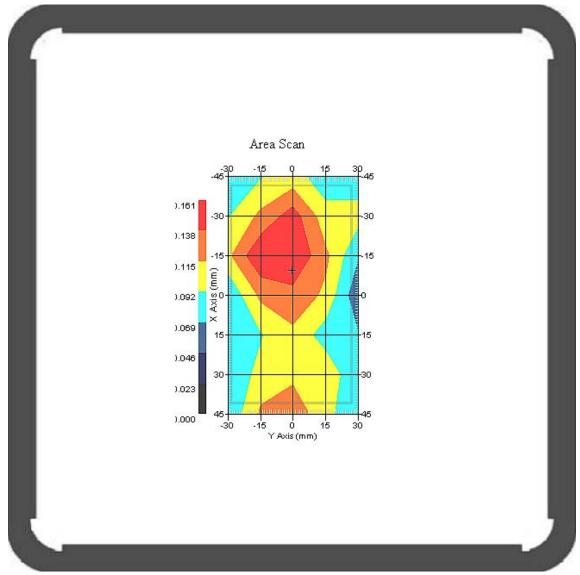
Tissue Temp. : 21.10 °C Ambient Temp. : 22.20 °C

Area Scan : 7x5x1 : Measurement x=15mm, y=15mm, z=4mm Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Power Drift-Start: 0.148 W/kg Power Drift-Finish: 0.144 W/kg

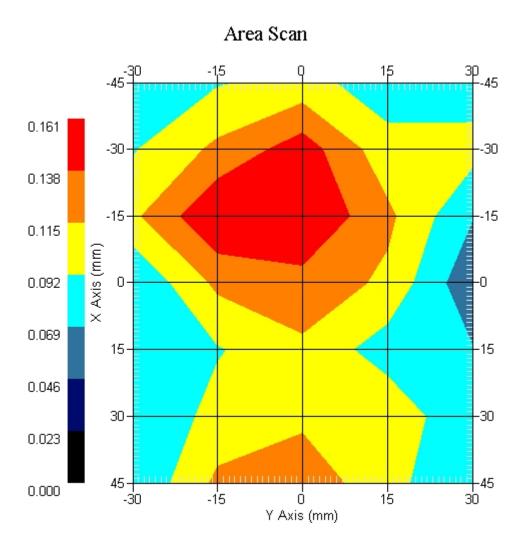
Power Drift (%) : -2.702

DUT Position : Touch Channel : 661



1 gram SAR value : 0.157 W/kg 10 gram SAR value : 0.113 W/kg Area Scan Peak SAR : 0.160 W/kg Zoom Scan Peak SAR : 0.294 W/kg







ALSAS-10U VER 2.3.6 APREL Laboratories SAR Test Report- PCS 1900 GPRS 3 Slot

Report Date : 17-Apr-2009 Measurement Date : 17-Apr-2009

Product Data

Device Name : PHONEX
Type : Std Form Cell Phone Type : Std Form Cel Model : PG220 Frequency : 1900.00 MHz

Max. Transmit Pwr : 1 W Drift Time : 0 min(s) Length : 99 mm Width : 56 mm Width Depth : 14 mm
Antenna Type : Internal

Phantom Data

: Uni-Phantom mm) : 280 x 280 x 200 on : Center Type

Size (mm)

Location

Tissue Data

Type : BODY
Serial No. : 324-B
Frequency : 1900.00 MHz

Last Calib. Date: 17-Apr-2009 Temperature : 21.10 °C

Ambient Temp. : 22.20 °C

Humidity : 53.00 RH%

Epsilon : 54.26 F/m

Sigma : 1.54 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 265
Model : E020
: E-Field T Type : E-Field Triangle Serial No. : 265

Last Calib. Date: 09-May-2008 Frequency : 1900.00 MHz

Duty Cycle Factor: 2.66 Conversion Factor: 5.1

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$

Compression Point: 95.00 mV Offset : 1.56 mm



Measurement Data

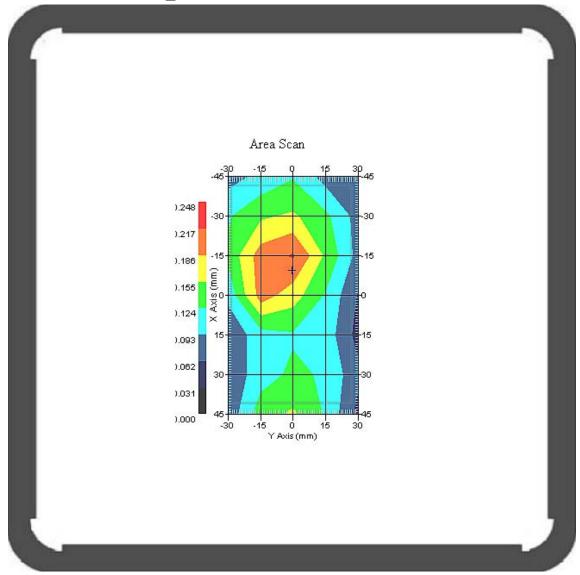
Crest Factor : 2.66 Tissue Temp. : 21.10 °C Ambient Temp. : 22.20 °C

Area Scan : 7x5x1 : Measurement x=15mm, y=15mm, z=4mm Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Power Drift-Start : 0.205 W/kg Power Drift-Finish: 0.213 W/kg

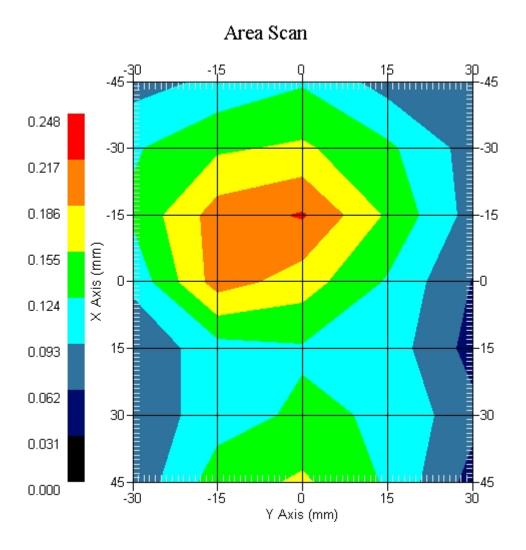
Power Drift (%) : 3.902

DUT Position : Touch Channel : 661_



1 gram SAR value : 0.208 W/kg 10 gram SAR value : 0.164 W/kg Area Scan Peak SAR : 0.220 W/kg Zoom Scan Peak SAR : 0.382 W/kg







ALSAS-10U VER 2.3.6 APREL Laboratories SAR Test Report- PCS 1900 GPRS 4 Slot

Report Date : 17-Apr-2009 Measurement Date : 17-Apr-2009

Product Data

Device Name : PHONEX
Type : Std Form Cell Phone

Type : Std Form Cel Model : PG220 Frequency : 1900.00 MHz

Max. Transmit Pwr : 1 W Drift Time : 0 min(s) Length : 99 mm Width : 56 mm Width Depth : 14 mm Antenna Type : Internal

Phantom Data

: Uni-Phantom mm) : 280 x 280 x 200 on : Center Type

Size (mm)

Location

Tissue Data

Type : BODY
Serial No. : 324-B
Frequency : 1900.00 MHz

Last Calib. Date: 17-Apr-2009 Temperature : 21.10 °C

Ambient Temp. : 22.20 °C

Humidity : 53.00 RH%

Epsilon : 54.26 F/m

Sigma : 1.54 S/m

Density : 1000.00 kg/cu. m

Probe Data
Name : Probe 265
Model : E020
: E-Field T Type : E-Field Triangle Serial No. : 265

Last Calib. Date: 09-May-2008 Frequency : 1900.00 MHz

Duty Cycle Factor: 2 Conversion Factor: 5.1

Probe Sensitivity: 1.20 1.20 1.20 $\mu V/(V/m)^2$

Compression Point: 95.00 mV Offset : 1.56 mm



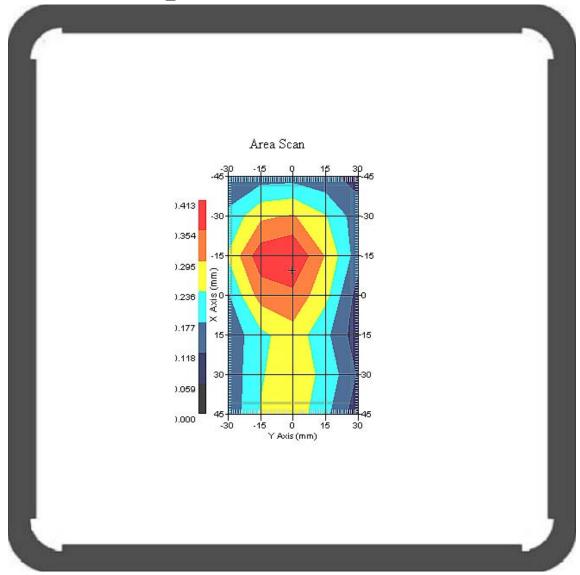
Tissue Temp. : 21.10 °C Ambient Temp. : 22.20 °C

Area Scan : 7x5x1 : Measurement x=15mm, y=15mm, z=4mm Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Power Drift-Start : 0.411 W/kg Power Drift-Finish: 0.428 W/kg

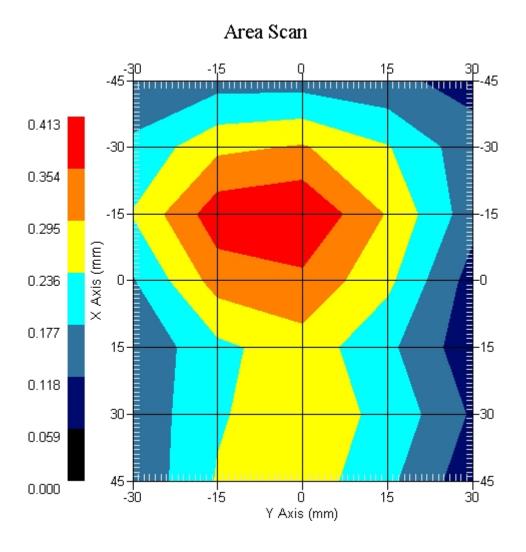
Power Drift (%) : 4.054

DUT Position : Touch Channel : 512_



1 gram SAR value : 0.403 W/kg 10 gram SAR value : 0.346 W/kg Area Scan Peak SAR : 0.410 W/kg Zoom Scan Peak SAR : 0.778 W/kg







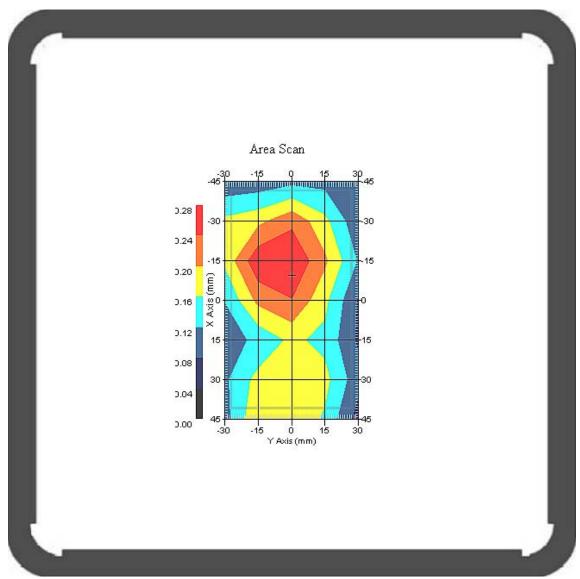
Tissue Temp. : 21.10 °C Ambient Temp. : 22.20 °C

Area Scan : 7x5x1 : Measurement x=15mm, y=15mm, z=4mm Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Power Drift-Start : 0.269 W/kg Power Drift-Finish: 0.274 W/kg

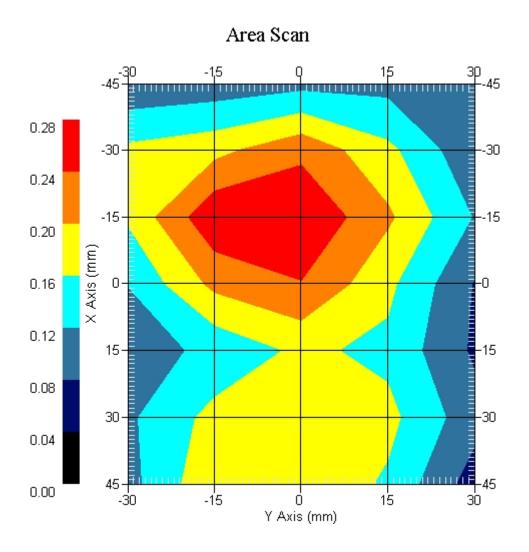
Power Drift (%) : 1.967

DUT Position : Touch Channel : 661



1 gram SAR value : 0.272 W/kg 10 gram SAR value : 0.171 W/kg Area Scan Peak SAR : 0.277 W/kg Zoom Scan Peak SAR : 0.420 W/kg







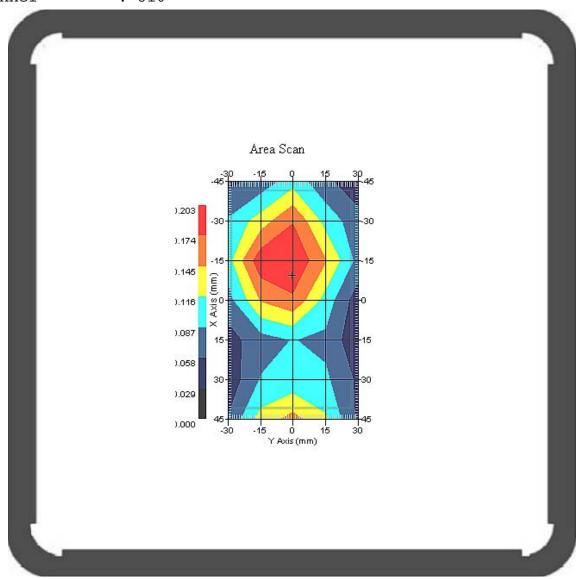
Tissue Temp. : $21.10 \, ^{\circ}\text{C}$ Ambient Temp. : $22.20 \, ^{\circ}\text{C}$

Area Scan : 7x5x1 : Measurement x=15mm, y=15mm, z=4mm Zoom Scan : 5x5x8 : Measurement x=8mm, y=8mm, z=4mm

Power Drift-Start : 0.210 W/kg Power Drift-Finish: 0.217 W/kg

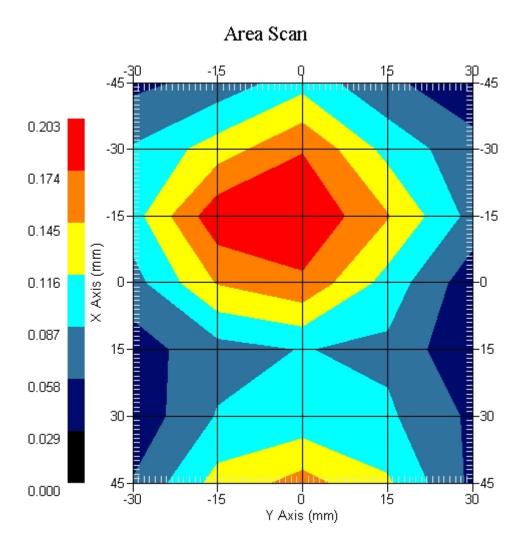
Power Drift (%) : 3.333

DUT Position : Touch Channel : 810



1 gram SAR value : 0.221 W/kg 10 gram SAR value : 0.150 W/kg Area Scan Peak SAR : 0.201 W/kg Zoom Scan Peak SAR : 0.370 W/kg

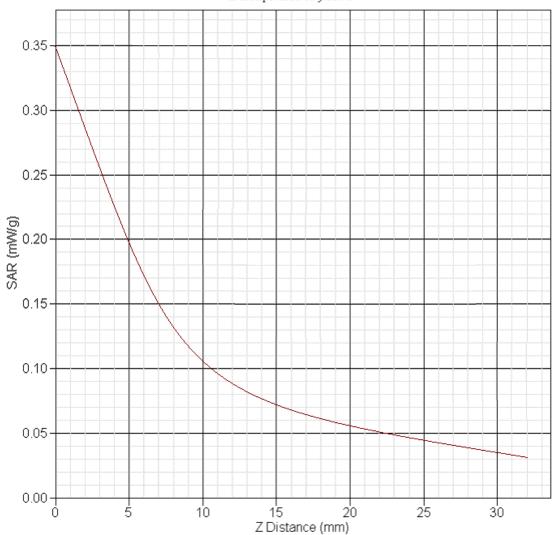






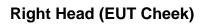
PCS 1900 GPRS 4 slot EUT Body-worn Z-Axis plot Channel: 512

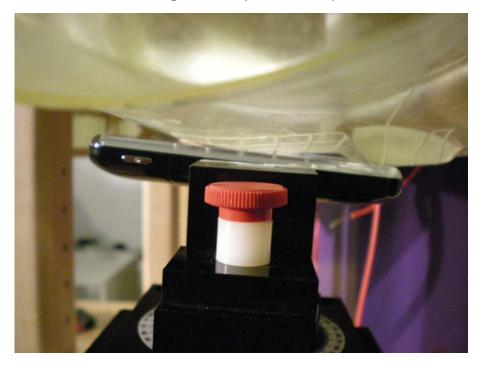
SAR-Z Axis at Hotspot x:20.01 y:13.98



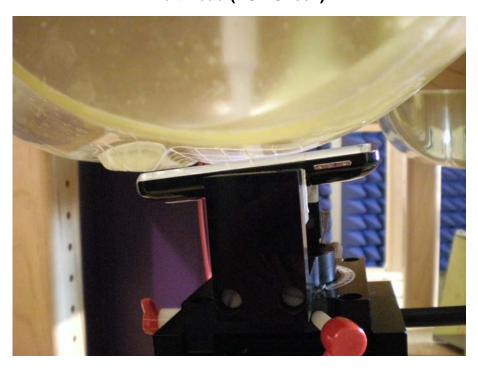


Appendix C. Test Setup Photographs & EUT Photographs Test Setup Photographs



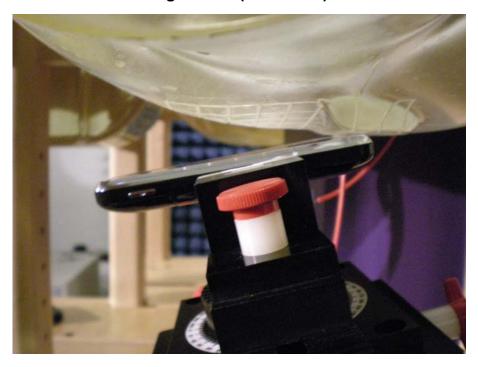


Left Head (EUT Cheek)

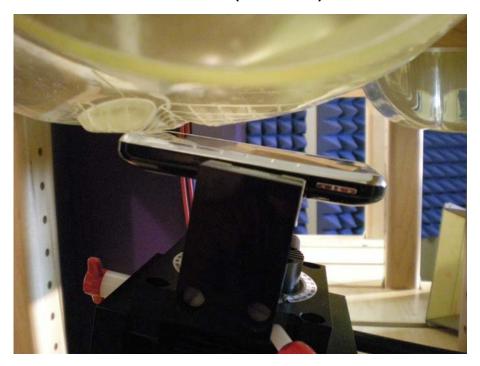




Right Head (EUT Tilted)

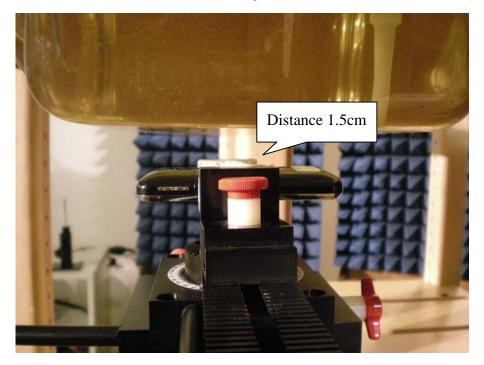


Left Head (EUT Tilted)





Body



Note: The positions used in the measurements were according to IEEE 1528-2003.