

Appendix B-4
K450 Family – Tri-mode Gray Phantom

For

FCC ID: OVFKWC-K4X4

Section 1

AMPS

Date/Time: 06/01/04 14:37:33

Test Laboratory: Kyocera

K454LC #B77P, AMPS Left Cheek Ch383

Communication System: AMPS, Frequency: 836.49 MHz, Duty Cycle: 1:1

Medium: HSL900, Medium parameters used (interpolated): $f = 836.49$ MHz, $\sigma = 0.901$ mho/m, $\epsilon_r = 40.6$, $\rho = 1000$ kg/m³

Phantom: SAM 12, Phantom section: Left Section

DASY4 Configuration:

Probe: ET3DV6 - SN1663, ConvF(6.7, 6.7, 6.7), Calibrated: 10/10/2003

Sensor: Surface 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE3 Sn493, Calibrated: 11/25/2003

Measurement SW: DASY4, V4.2 Build 44

Postprocessing SW: SEMCAD, V1.8 Build 112

Temperature

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

AMPS Ch383 LC/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

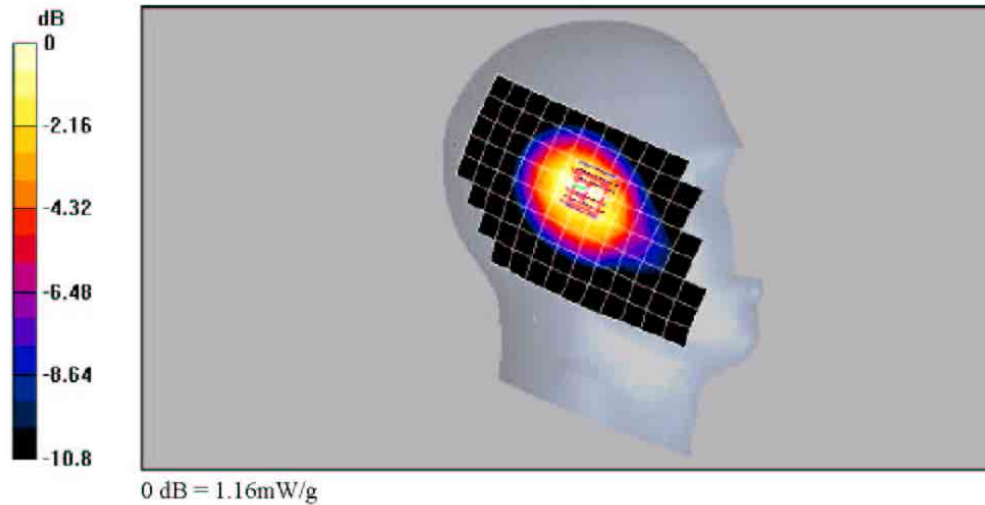
Reference Value = 33.4 V/m; Power DnB = -0.0 dB

Maximum value of SAR (measured) = 1.16 mW/g

Peak SAR (extrapolated) = 1.5 W/kg

SAR(1 g) = 1.08 mW/g; SAR(10 g) = 0.755 mW/g

Info: Interpolated medium parameters used for SAR evaluation!



file://C:\Dasy4\20Reports\K7\K454L%20#B77Q\AMPS\FCC-K454LC #B77Q, AMPS L... 6/21/2004

Date/Time: 06/01/04 14:37:33

Test Laboratory: Kyocera

K454LC #B77P, AMPS Left Cheek Ch383

Communication System: AMPS, Frequency: 824.04 MHz, Duty Cycle: 1:1

Medium: HSL900, Medium parameters used (interpolated): $f = 824.04 \text{ MHz}$, $\sigma = 0.901 \text{ mho/m}$, $\epsilon_r = 40.6$, $\rho = 1000 \text{ kg/m}^3$

Phantom: SAM 12, Phantom section: Left Section

DASY4 Configuration:

Probe: ET3DV6 - SN1663, ConvF(6.7, 6.7, 6.7), Calibrated: 10/10/2003

Sensor: Surface 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE3 Sn493, Calibrated: 11/25/2003

Measurement SW: DASY4, V4.2 Build 44

Postprocessing SW: SEMCAD, V1.8 Build 112

Temperature

Room T = $21.8 \pm 1 \text{ deg C}$, Liquid T = $22.0 \pm 1 \text{ deg C}$

AMPS Ch991 LC/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

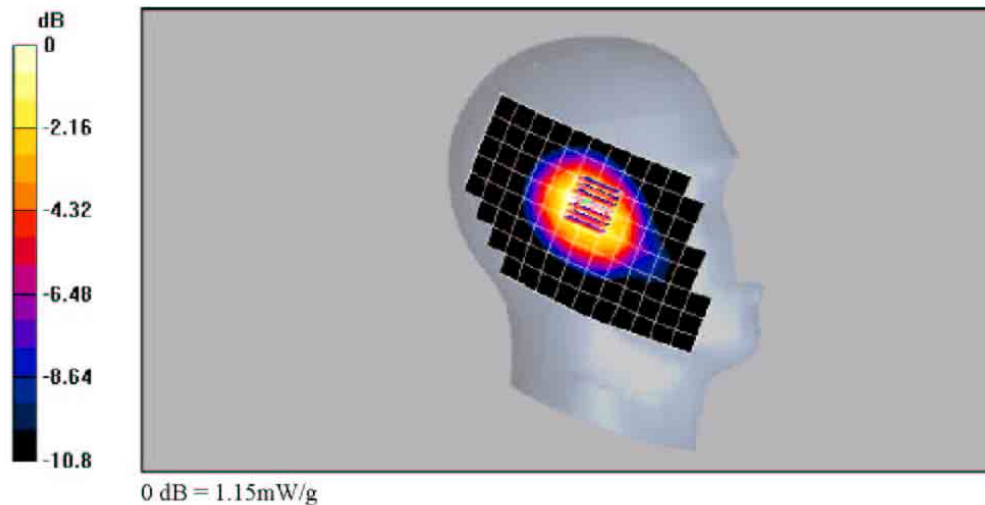
Reference Value = 33.4 V/m; Power DnB = -0.002 dB

Maximum value of SAR (measured) = 1.15 mW/g

Peak SAR (extrapolated) = 1.52 W/kg

SAR(1 g) = 1.08 mW/g; SAR(10 g) = 0.742 mW/g

Info: Interpolated medium parameters used for SAR evaluation!



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Date/Time: 06/01/04 14:37:33

Test Laboratory: Kyocera

K454LC #B77P, AMPS Left Cheek Z-Scan Ch991

Communication System: AMPS, Frequency: 824.04 MHz, Duty Cycle: 1:1

Medium: HSL900, Medium parameters used (interpolated): $f = 824.04 \text{ MHz}$, $\sigma = 0.901 \text{ mho/m}$, $\epsilon_r = 40.6$, $\rho = 1000 \text{ kg/m}^3$

Phantom: SAM 12, Phantom section: Left Section

DASY4 Configuration:

Probe: ET3DV6 - SN1663, ConvF(6.7, 6.7, 6.7), Calibrated: 10/10/2003

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

Sensor-Surface: 0mm (Fix Surface)

Electronics: DAE3 Sp493, Calibrated: 11/25/2003

Measurement SW: DASY4, V4.2 Build 44

Postprocessing SW: SEMCAD, V1.8 Build 112

Temperature

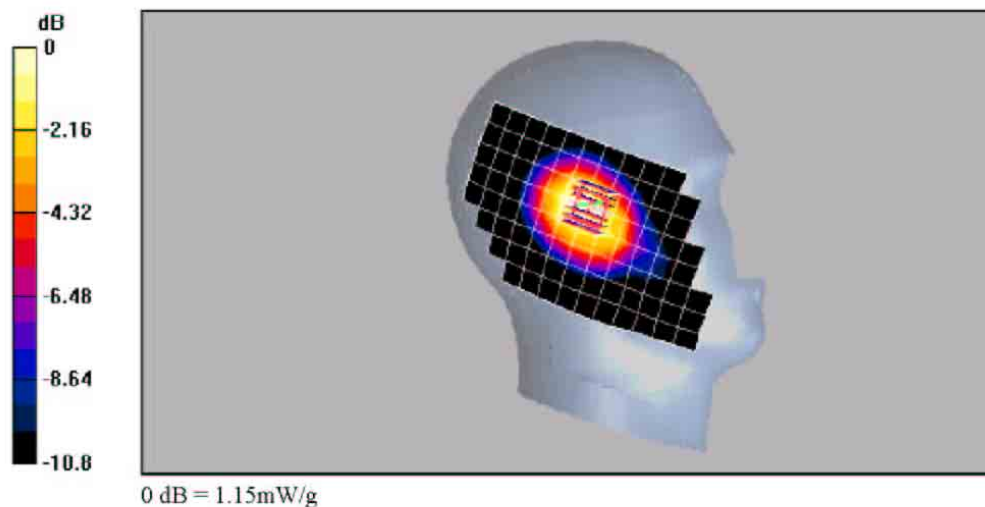
Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

AMPS Ch991 LC/Z Scan (1x1x11): Measurement grid: dx=20mm, dy=20mm, dz=5mm

Reference Value = 33.4 V/m, Power Drift = -0.002 dB

Maximum value of SAR (measured) = 1.06 mW/g

Info: Interpolated medium parameters used for SAR evaluation!



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Date/Time: 06/01/04 14:37:17

Test Laboratory: Kyocera

K454LC #B77P, AMPS Right Cheek Ch383

Communication System: AMPS, Frequency: 836.49 MHz, Duty Cycle: 1:1

Medium: HSL900, Medium parameters used (interpolated): $f = 836.49$ MHz, $\sigma = 0.391$ mho/m, $\epsilon_r = 41$, $\rho = 1000$ kg/m³

Phantom: SAM 12, Phantom section: Right Section

DASY4 Configuration:

Probe: ET3DV6 - SN1663, ConvF(6.7, 6.7, 6.7), Calibrated: 10/10/2003

Sensor: Surface 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE3 Sn493, Calibrated: 11/25/2003

Measurement SW: DASY4, V4.2 Build 44

Postprocessing SW: SEMCAD, V1.8 Build 112

Temperature

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

AMPS Ch383 RC/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 33.1 V/m, Power Drift = 0.1 dB

Maximum value of SAR (measured) = 0.983 mW/g

Peak SAR (extrapolated) = 1.14 W/kg

SAR(1 g) = 0.926 mW/g; SAR(10 g) = 0.672 mW/g

Info: Interpolated medium parameters used for SAR evaluation!

AMPS Ch383 RC/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

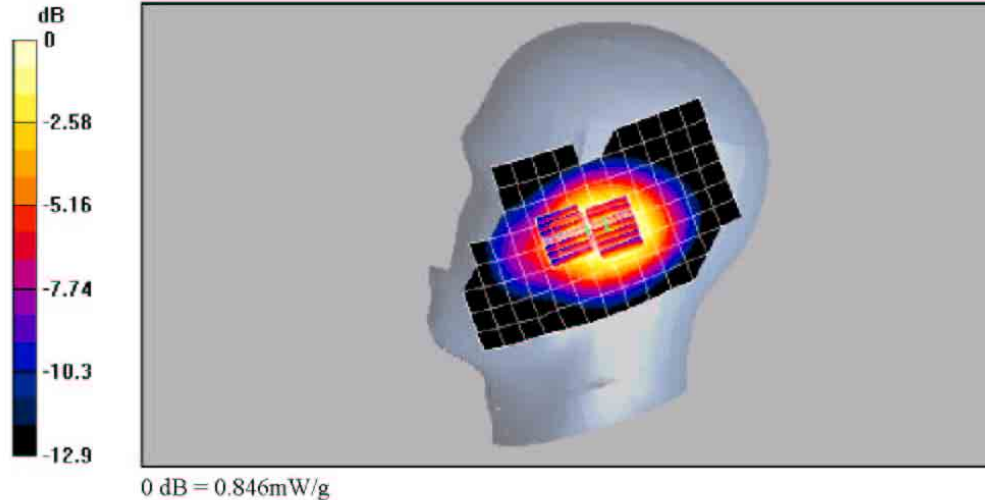
Reference Value = 33.1 V/m, Power Drift = 0.1 dB

Maximum value of SAR (measured) = 0.846 mW/g

Peak SAR (extrapolated) = 1.05 W/kg

SAR(1 g) = 0.737 mW/g; SAR(10 g) = 0.498 mW/g

Info: Interpolated medium parameters used for SAR evaluation!



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Date/Time: 06/01/04 14:37:17

Test Laboratory: Kyocera

K454LC #B77P, AMPS Right Tilt Ch383

Communication System: AMPS, Frequency: 836.49 MHz, Duty Cycle: 1:1

Medium: HSL900, Medium parameters used (interpolated): $f = 836.49 \text{ MHz}$, $\sigma = 0.391 \text{ mho/m}$, $\epsilon_r = 4.1$, $\rho = 1000 \text{ kg/m}^3$

Phantom: SAM 12, Phantom section: Right Section

DASY4 Configuration:

Probe: ET3DV6 - SN1663, ConvF(6.7, 6.7, 6.7), Calibrated: 10/10/2003

Sensor Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE3 Sn493, Calibrated: 11/25/2003

Measurement SW: DASY4, V4.2 Build 44

Postprocessing SW: SEMCAD, V1.8 Build 112

Temperature

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

AMPS Ch383 RT/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

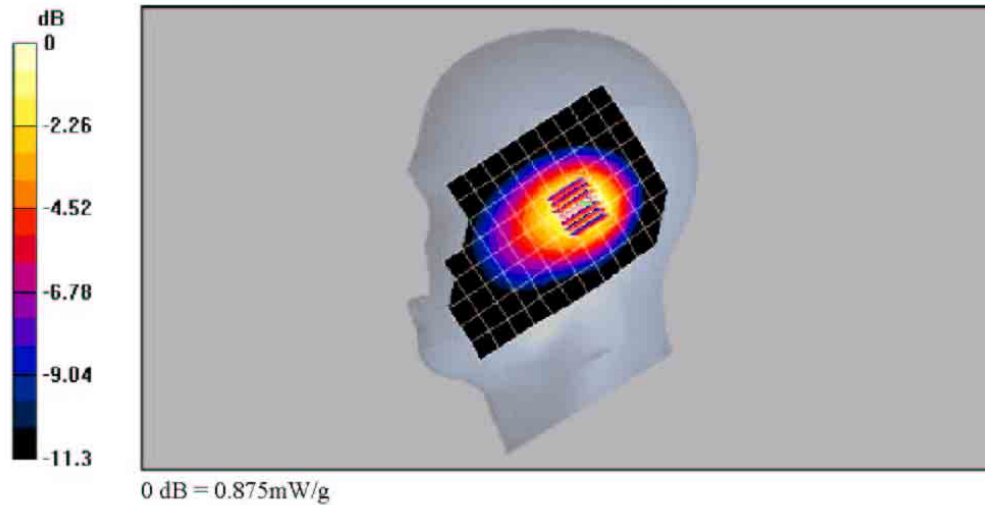
Reference Value = 31.2 V/m; Power Drift = 0.2 dB

Maximum value of SAR (measured) = 0.875 mW/g

Peak SAR (extrapolated) = 1.09 W/kg

SAR(1g) = 0.810 mW/g; SAR(10g) = 0.559 mW/g

Info: Interpolated medium parameters used for SAR evaluation!



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Date/Time: 06/22/04 21:51:37

Test Laboratory: Kyocera

K454LC #B77P, AMPS ch383 Left Cheek with Backpack Clip

Communication System: AMPS, Frequency: 836.49 MHz, Duty Cycle: 1:1

Medium: HSL900, Medium parameters used (interpolated): $f = 836.49 \text{ MHz}$; $\sigma = 0.924 \text{ nho/m}$; $\epsilon_r = 41.6$; $\rho = 1000 \text{ kg/m}^3$

Phantom: SAM 12, Phantom section: Le# Section

DASY4 Configuration:

Probe: ET3D/V6 - SN1663, ConvF(6.7, 6.7, 6.7), Calibrated: 10/10/2003

Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE3 Sn493, Calibrated: 11/25/2003

Measurement SW: DASY4, V4.2 Build 44

Postprocessing SW: SEMCAD, V1.8 Build 112

Temperature:

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

AMPS Ch383 LC/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

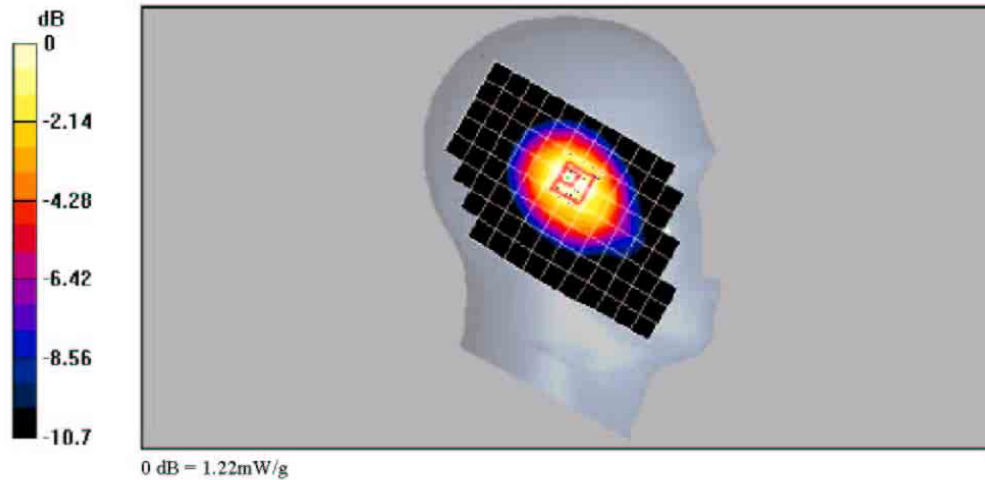
Reference Value = 33.9 V/m, Power Drift = -0.2 dB

Maximum value of SAR (measured) = 1.22 mW/g

Peak SAR (extrapolated) = 1.6 W/kg

SAR(1 g) = 1.14 mW/g; SAR(10 g) = 0.782 mW/g

Info: Interpolated medium parameters used for SAR evaluation!



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Date/Time: 06/14/04 10:22:30

Test Laboratory: Kyocera

K454L #B77P, AMPS-800 FLAT with Belt Clip Ch383

Communication System: AMPS, Frequency: 836.49 MHz, Duty Cycle: 1:1

Medium: M900, Medium parameters used (interpolated): $f = 836.49 \text{ MHz}$; $\sigma = 0.981 \text{ mho/m}$; $\epsilon_r = 55.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom: SAM 12, Phantom section: Flat Section

DASY4 Configuration:

Probe: ET3D/V6 - SN1663, ConvF(6.4, 6.4, 6.4), Calibrated: 10/10/2003

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

Sensor-Surface: 0mm (Fix Surface)

Electronics: DAE3 Sr493, Calibrated: 11/25/2003

Measurement SW: DASY4, V4.2 Build 44

Postprocessing SW: SEMCAD, V1.8 Build 112

Temperature:

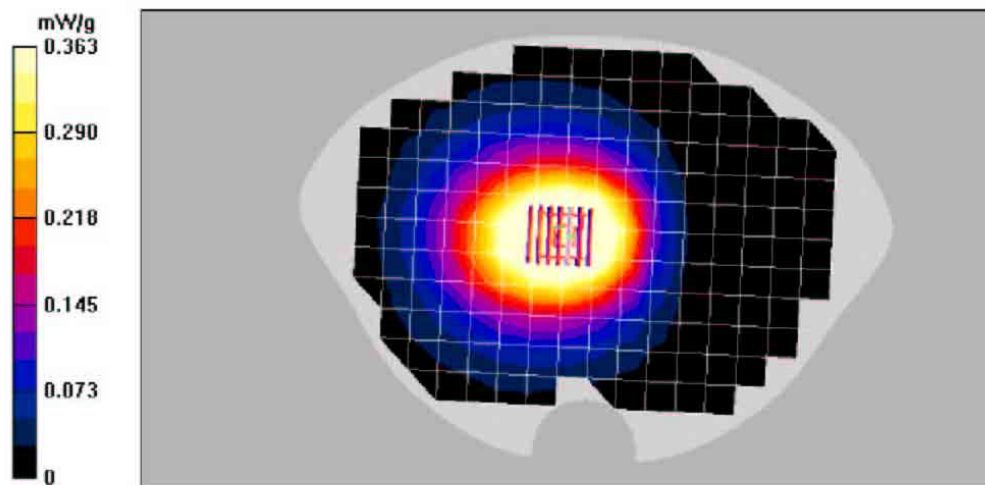
Room T = $21.8 \pm 1 \text{ deg C}$, Liquid T = $22.0 \pm 1 \text{ deg C}$

AMPS Ch383/Z Scan (1x1x11): Measurement grid: $dx=20\text{mm}$, $dy=20\text{mm}$, $dz=5\text{mm}$

Reference Value = 22.9 V/m , Power Drift = -0.0 dB

Maximum value of SAR (measured) = 0.363 mW/g

Info: Interpolated medium parameters used for SAR evaluation!



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Date/Time: 06/14/04 16:25:02

Test Laboratory: Kyocera

K454L #B77P, AMPS-800 FLAT with 22.5mm Air Space and Backpack Clip Ch383

Communication System: AMPS, Frequency: 836.49 MHz, Duty Cycle: 1:1

Medium: M900, Medium parameters used (interpolated): $f = 836.49 \text{ MHz}$; $\sigma = 0.981 \text{ mho/m}$; $\epsilon_r = 55.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom: SAM 12, Phantom section: Flat Section

DASY4 Configuration:

Probe: ET3D/V6 - SN1663, ConvF(6.4, 6.4, 6.4), Calibrated: 10/10/2003

Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE3 Sn493, Calibrated: 11/25/2003

Measurement SW: DASY4, V4.2 Build 44

Postprocessing SW: SEMCAD, V1.8 Build 112

Temperature:

Room T = $21.8 \pm 1 \text{ deg C}$, Liquid T = $22.0 \pm 1 \text{ deg C}$

AMPS Ch383/Zoom Scan (7x7x7)/Cube 0; Measurement grid: $\Delta x=5\text{mm}$, $\Delta y=5\text{mm}$, $\Delta z=5\text{mm}$

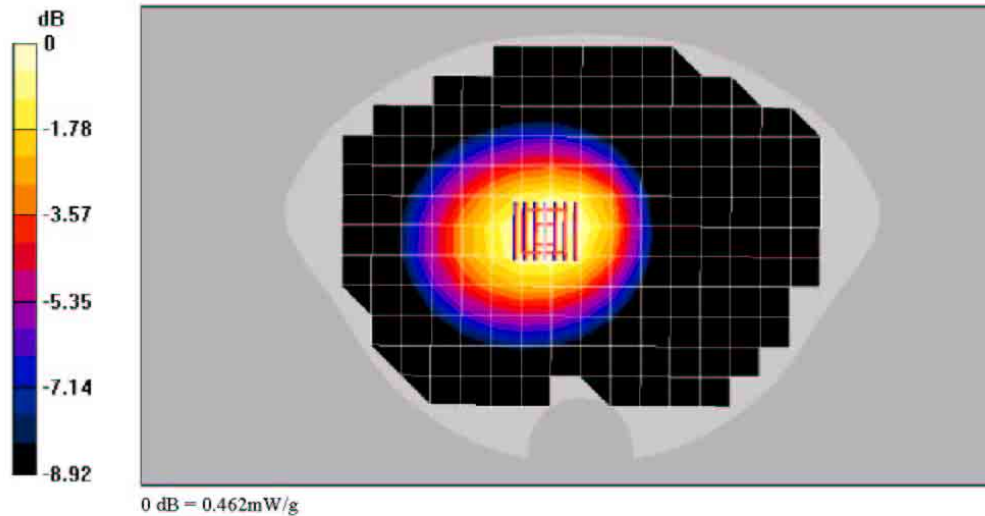
Reference Value = 30.4 V/m , Power Drift = 0.1 dB

Maximum value of SAR (measured) = 0.462 mW/g

Peak SAR (extrapolated) = 0.559 W/kg

SAR(1 g) = 0.433 mW/g ; SAR(10 g) = 0.316 mW/g

Info: Interpolated medium parameters used for SAR evaluation!



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Date/Time: 06/14/04 08:57:18

Test Laboratory: Kyocera

K454L #B77P, AMPS-800 FLAT with 22.5mm Air Space Ch383

Communication System: AMPS, Frequency: 824.04 MHz, Duty Cycle: 1:1

Medium: M900, Medium parameters used (interpolated): $f = 824.04$ MHz; $\sigma = 0.981$ mho/m; $\epsilon_r = 55.4$; $\rho = 1000$ kg/m³

Phantom: SAM 12, Phantom section: Flat Section

DASY4 Configuration:

Probe: ET3D/V6 - SN1663, ConvF(6.4, 6.4, 6.4), Calibrated: 10/10/2003

Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE3 Sn493, Calibrated: 11/25/2003

Measurement SW: DASY4, V4.2 Build 44

Postprocessing SW: SEMCAD, V1.8 Build 112

Temperature:

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

AMPS Ch383/Zoom Scan (7x7x7)/Cube 0; Measurement grid: dx=5mm, dy=5mm, dz=5mm.

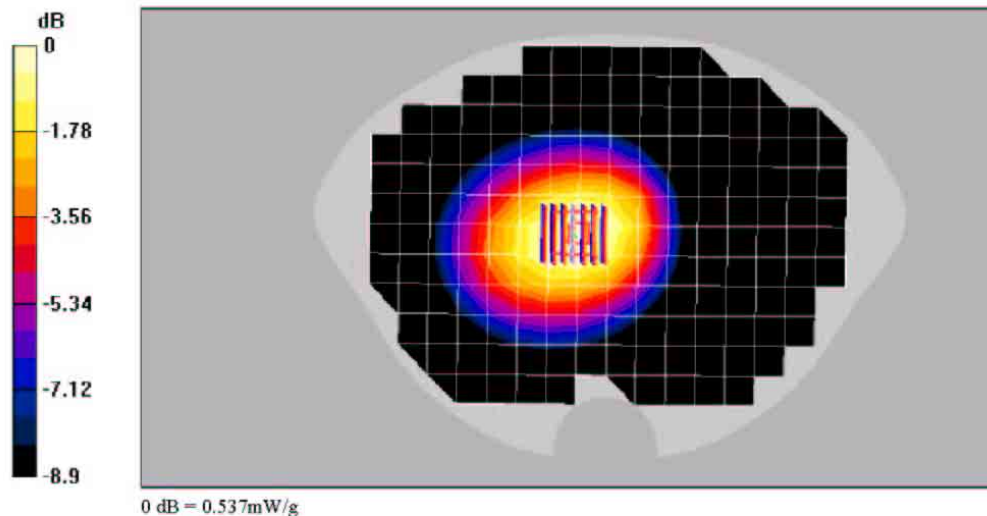
Reference Value = 22.8 V/m, Power Drift = -0.0 dB

Maximum value of SAR (measured) = 0.537 mW/g

Peak SAR (extrapolated) = 0.638 W/kg

SAR(1 g) = 0.505 mW/g; SAR(10 g) = 0.370 mW/g

Info: Interpolated medium parameters used for SAR evaluation!



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Date/Time: 06/14/04 17:12:46

Test Laboratory: Kyocera

K454L #B77P, AMPS ch383 Flat with Belt Clip and Backpack Clip

Communication System: AMPS, Frequency: 836.49 MHz, Duty Cycle: 1:1

Medium: M900, Medium parameters used (interpolated): $f = 836.49 \text{ MHz}$; $\sigma = 0.981 \text{ mho/m}$; $\epsilon_r = 55.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom: SAM 12, Phantom section: Flat Section

DASY4 Configuration:

Probe: ET3DV6 - SN1663, ConvF(6.4, 6.4, 6.4), Calibrated: 10/10/2003

Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE3 Sn493, Calibrated: 11/25/2003

Measurement SW: DASY4, V4.2 Build 44

Postprocessing SW: SEMCAD, V1.8 Build 112

Temperature:

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

AMPS Ch383/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $\Delta x = 5 \text{ mm}$, $\Delta y = 5 \text{ mm}$, $\Delta z = 5 \text{ mm}$

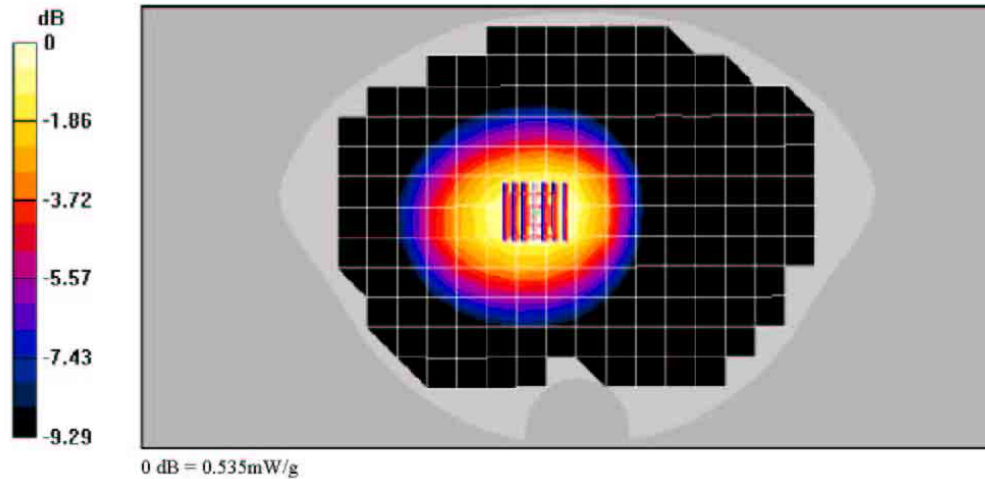
Reference Value = 22 V/m, Power DnB = -0.2 dB

Maximum value of SAR (measured) = 0.535 mW/g

Peak SAR (extrapolated) = 0.644 W/kg

SAR(1 g) = 0.497 mW/g; SAR(10 g) = 0.362 mW/g

Info: Interpolated medium parameters used for SAR evaluation!



Date/Time: 06/14/04 10:22:30

Test Laboratory: Kyocera

K454L #B77P, AMPS-800 FLAT with Belt Clip Ch383

Communication System: AMPS, Frequency: 836.49 MHz, Duty Cycle: 1:1

Medium: M900, Medium parameters used (interpolated): $f = 836.49 \text{ MHz}$; $\sigma = 0.981 \text{ mho/m}$; $\epsilon_r = 55.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom: SAM 12, Phantom section: Flat Section

DASY4 Configuration:

Probe: ET3D/V6 - SN1663, ConvF(6.4, 6.4, 6.4), Calibrated: 10/10/2003

Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE3 Sn493, Calibrated: 11/25/2003

Measurement SW: DASY4, V4.2 Build 44

Postprocessing SW: SEMCAD, V1.8 Build 112

Temperature:

Room T = $21.8 \pm 1 \text{ deg C}$, Liquid T = $22.0 \pm 1 \text{ deg C}$

AMPS Ch383/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $\Delta x=5\text{mm}$, $\Delta y=5\text{mm}$, $\Delta z=5\text{mm}$

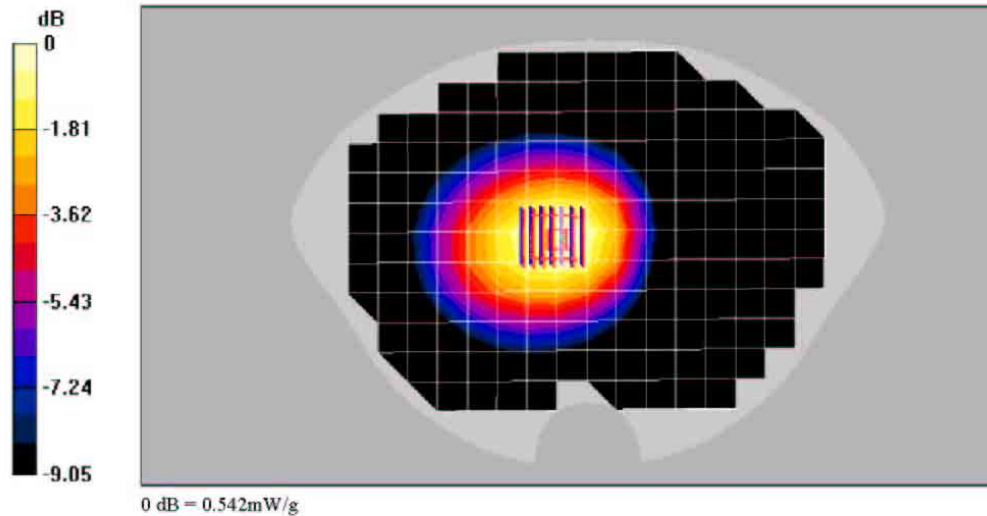
Reference Value = 22.9 V/m , Power Drift = -0.0 dB

Maximum value of SAR (measured) = 0.542 mW/g

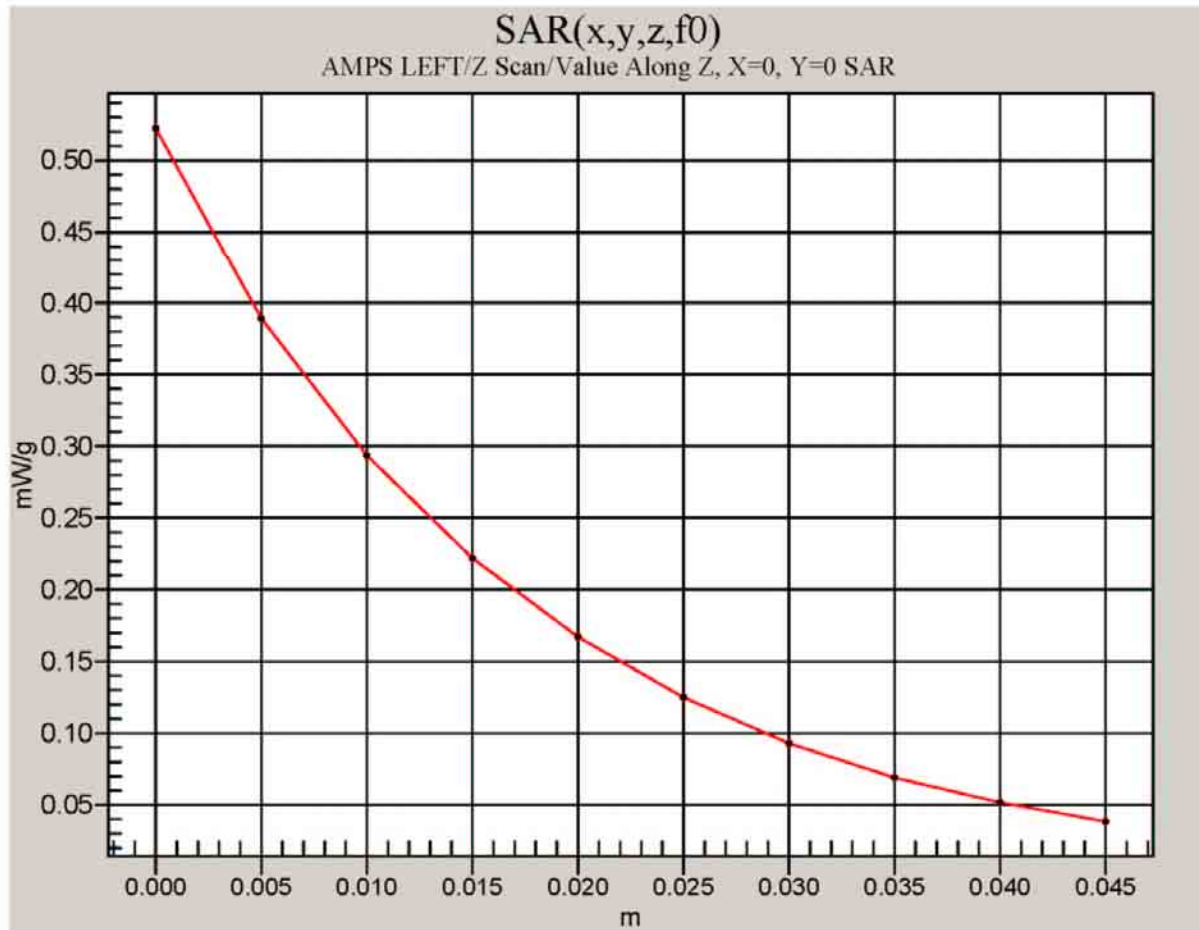
Peak SAR (extrapolated) = 0.662 W/kg

SAR(1 g) = 0.512 mW/g ; SAR(10 g) = 0.371 mW/g

Info: Interpolated medium parameters used for SAR evaluation!



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Date/Time: 06/14/04 14:19:53

Test Laboratory: Kyocera

K454L #B77P, AMPS ch383 Flat with Leather Case and Backpack Clip

Communication System: AMPS, Frequency: 836.49 MHz, Duty Cycle: 1:1

Medium: M900, Medium parameters used (interpolated): $f = 836.49 \text{ MHz}$; $\sigma = 0.981 \text{ mho/m}$; $\epsilon_r = 55.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom: SAM 12, Phantom section: Flat Section

DASY4 Configuration:

Probe: ET3DV6 - SN1663, ConvF(6.4, 6.4, 6.4), Calibrated: 10/10/2003

Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE3 Sn493, Calibrated: 11/25/2003

Measurement SW: DASY4, V4.2 Build 44

Postprocessing SW: SEMCAD, V1.8 Build 112

Temperature:

Room T = $21.8 \pm 1 \text{ deg C}$, Liquid T = $22.0 \pm 1 \text{ deg C}$

AMPS Ch383/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $\Delta x = 5 \text{ mm}$, $\Delta y = 5 \text{ mm}$, $\Delta z = 5 \text{ mm}$

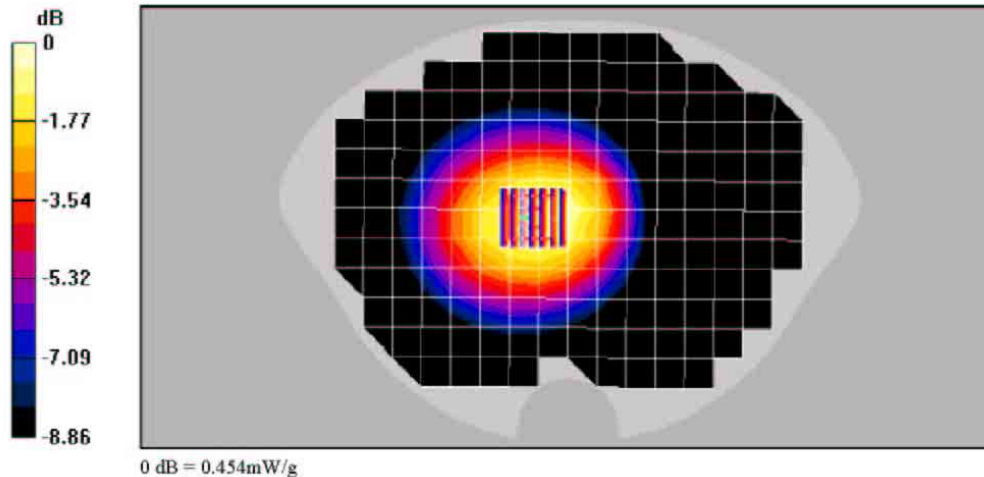
Reference Value = 20.9 V/m , Power Drift = 0.0 dB

Maximum value of SAR (measured) = 0.454 mW/g

Peak SAR (extrapolated) = 0.545 W/kg

SAR(1 g) = 0.424 mW/g ; SAR(10 g) = 0.310 mW/g

Info: Interpolated medium parameters used for SAR evaluation!



file://C:\Dasy4\20Reports\K7\K454L%20#B77Q\AMPS\FCC-K454L #B77Q, AMPS-80... 6/23/2004

Date/Time: 06/14/04 13:43:29

Test Laboratory: Kyocera

K454L #B77Q, AMPS-800 FLAT with Leather Case Ch383

Communication System: AMPS, Frequency: 836.49 MHz, Duty Cycle: 1:1

Medium: M900, Medium parameters used (interpolated): $f = 836.49 \text{ MHz}$; $\sigma = 0.981 \text{ mho/m}$; $\epsilon_r = 55.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom: SAM 12, Phantom section: Flat Section

DASY4 Configuration:

Probe: ET3D/V6 - SN1663, ConvF(6.4, 6.4, 6.4), Calibrated: 10/10/2003

Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE3 Sn493, Calibrated: 11/25/2003

Measurement SW: DASY4, V4.2 Build 44

Postprocessing SW: SEMCAD, V1.8 Build 112

Temperature:

Room T = $21.8 \pm 1 \text{ deg C}$, Liquid T = $22.0 \pm 1 \text{ deg C}$

AMPS Ch383/Zoom Scan (7x7x7)/Cube 0; Measurement grid: $\Delta x=5\text{mm}$, $\Delta y=5\text{mm}$, $\Delta z=5\text{mm}$

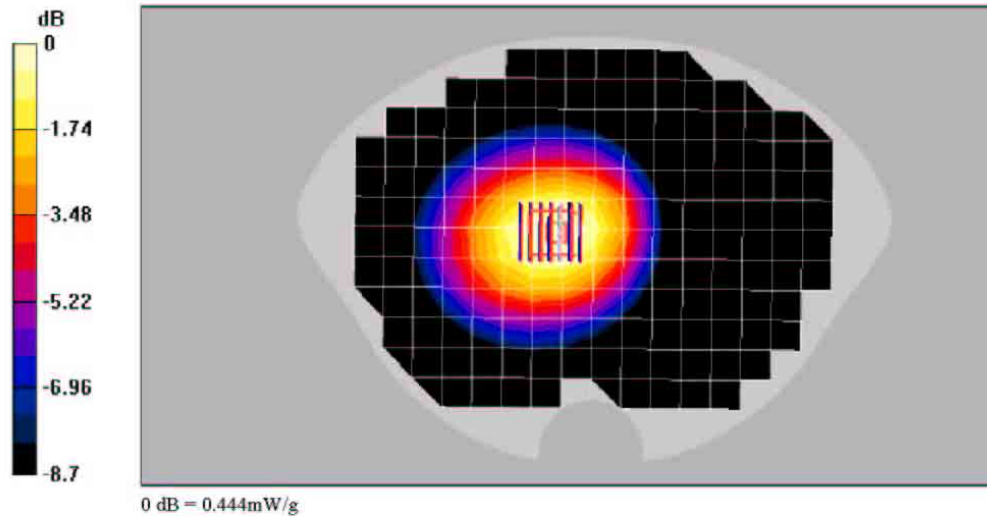
Reference Value = 19.7 V/m , Power Drift = -0.0 dB

Maximum value of SAR (measured) = 0.444 mW/g

Peak SAR (extrapolated) = 0.547 W/kg

SAR(1 g) = 0.421 mW/g ; SAR(10 g) = 0.309 mW/g

Info: Interpolated medium parameters used for SAR evaluation!



file://C:\Dasy4\Reports\K7\K454L%20#B77Q\AMPS\FCC-K454L #B77Q, AMPS-80... 6/22/2004

Date/Time: 06/01/04 14:37:33

Test Laboratory: Kyocera

K454L #B77Q, AMPS ch383 Left Tilt

Communication System: AMPS, Frequency: 836.49 MHz, Duty Cycle: 1:1

Medium: HSL900, Medium parameters used (interpolated): $f = 836.49$ MHz; $\sigma = 0.901$ mho/m; $\epsilon_r = 40.6$; $\rho = 1000$ kg/m³

Phantom: SAM 12, Phantom section: Left Section

DASY4 Configuration:

Probe: ET3DV6 - SN1663, ConvF(6.7, 6.7, 6.7), Calibrated: 10/10/2003

Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE3 Sn493, Calibrated: 11/25/2003

Measurement SW: DASY4, V4.2 Build 44

Postprocessing SW: SEMCAD, V1.8 Build 112

Temperature:

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

AMPS Ch383 LT/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

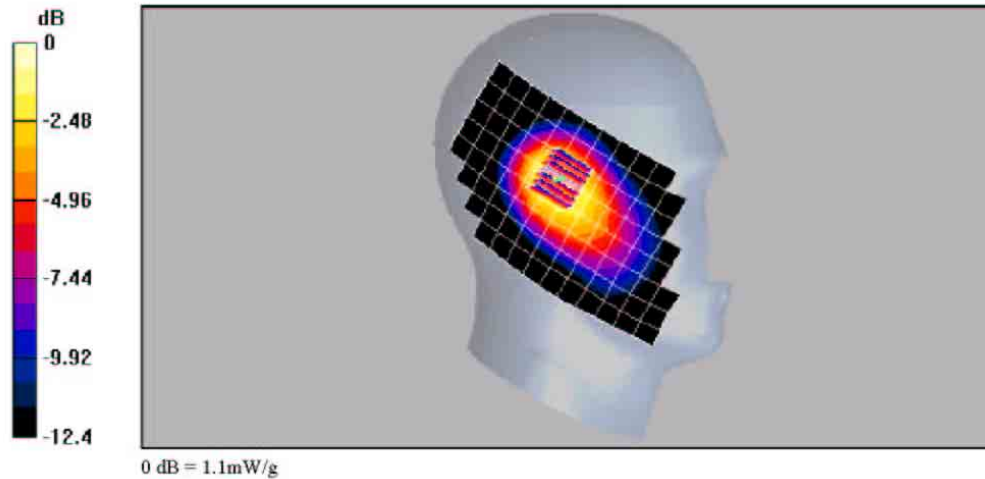
Reference Value = 33.1 V/m, Power Drift = 0.3 dB

Maximum value of SAR (measured) = 1.1 mW/g

Peak SAR (extrapolated) = 1.46 W/kg

SAR(1 g) = 1.02 mW/g; SAR(10 g) = 0.675 mW/g

Info: Interpolated medium parameters used for SAR evaluation!



file://C:\Dasy4\%20Reports\K7\K454L%20#B77Q\CDMA\FCC-K454LC #B77Q, AMPS ... 6/23/2004

Section 2

CDMA 1900

Date/Time: 06/03/04 09:05:36

Test Laboratory: Kyocera

K454L #B77P, CDMA-1900 Flat with 22.5mm Air Space and Backpack Clip Ch600

Communication System: CDMA 1900, Frequency: 1880 MHz, Duty Cycle: 1:1

Medium: M1800, Medium parameters used: $f = 1880$ MHz, $\sigma = 1.5$ mho/m, $\epsilon_r = 54.2$, $\rho = 1000$ kg/m³

Phantom: SAM 12, Phantom section: Flat Section

DASY4 Configuration:

Probe: ET3DV6 - SN1712, ConvF(5, 5, 5), Calibrated: Probe not calibrated

Sensor: Surface 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE3 Sn530, Calibrated: 12/22/2003

Measurement SW: DASY4, V4.2 Build 44

Postprocessing SW: SEMCAD, V1.8 Build 112

Temperature

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

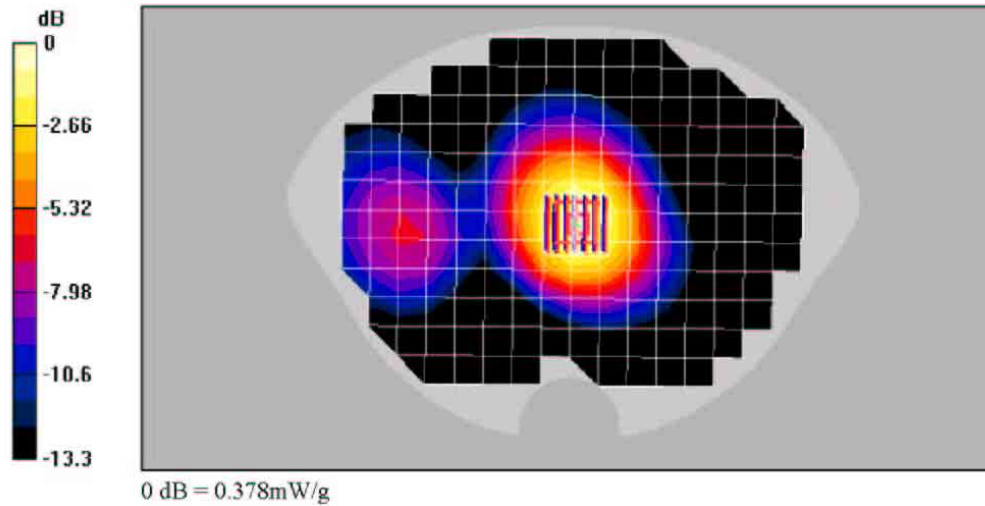
CDMA-1900 Ch600/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 16.5 V/m; Power Drift = -0.0 dB

Maximum value of SAR (measured) = 0.378 mW/g

Peak SAR (extrapolated) = 0.559 W/kg

SAR(1 g) = 0.354 mW/g; SAR(10 g) = 0.226 mW/g



file://C:\Dasy4\Reports\K7\K454L%20#B77Q\PCS\FCC-K454L #B77Q, CDMA-190... 6/21/2004

Date/Time: 06/03/04 13:43:06

Test Laboratory: Kyocera

K454L #B77P, CDMA-1900 Flat with 22.5mm Air Space Ch600

Communication System: CDMA 1900, Frequency: 1880 MHz, Duty Cycle: 1:1

Medium: M1800, Medium parameters used: $f = 1880$ MHz, $\sigma = 1.5$ mho/m, $\epsilon_r = 54.2$, $\rho = 1000$ kg/m³

Phantom: SAM 12, Phantom section: Flat Section

DASY4 Configuration:

Probe: ET3DV6 - SN1712, ConvF(5, 5, 5), Calibrated: Probe not calibrated

Sensor Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE3 Sn530, Calibrated: 12/22/2003

Measurement SW: DASY4, V4.2 Build 44

Postprocessing SW: SEMCAD, V1.8 Build 112

Temperature

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

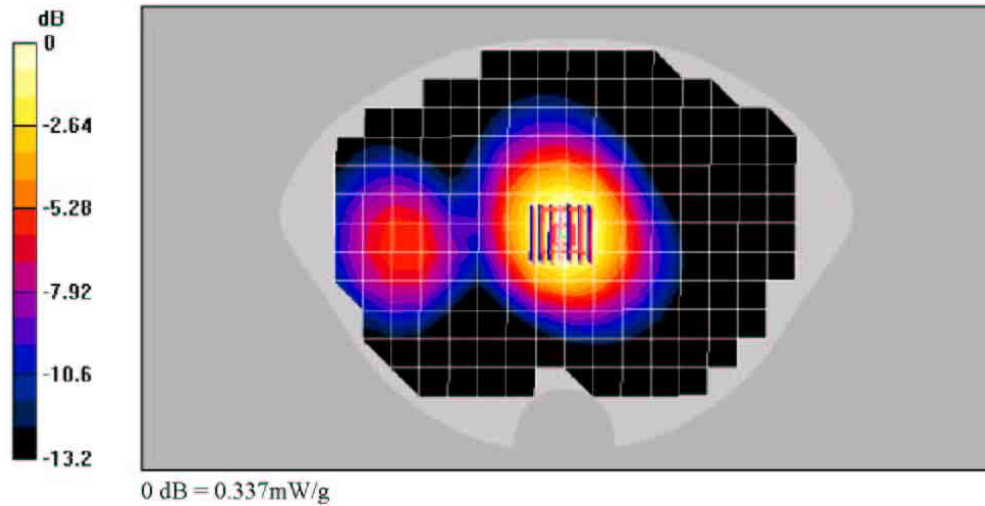
CDMA-1900 Ch600/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.9 V/m; Power Drift = -0.1 dB

Maximum value of SAR (measured) = 0.337 mW/g

Peak SAR (extrapolated) = 0.505 W/kg

SAR(1 g) = 0.316 mW/g; SAR(10 g) = 0.202 mW/g



file://C:\Dasy4\Reports\K7\K454L%20#B77Q\PCS\FCC-K454L #B77Q, CDMA-190... 6/21/2004

Date/Time: 06/03/04 12:23:28

Test Laboratory: Kyocera

K454L #B77P, CDMA-1900 Flat with Belt Clip and Backpack ClipCh600

Communication System: CDMA 1900, Frequency: 1880 MHz, Duty Cycle: 1:1

Medium: M1800, Medium parameters used: $f = 1880$ MHz, $\sigma = 1.5$ mho/m, $\epsilon_r = 54.2$, $\rho = 1000$ kg/m³

Phantom: SAM 12, Phantom section: Flat Section

DASY4 Configuration:

Probe: ET3DV6 - SN1712, ConvF(5, 5, 5), Calibrated: Probe not calibrated

Sensor Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE3 Sn530, Calibrated: 12/22/2003

Measurement SW: DASY4, V4.2 Build 44

Postprocessing SW: SEMCAD, V1.8 Build 112

Temperature

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

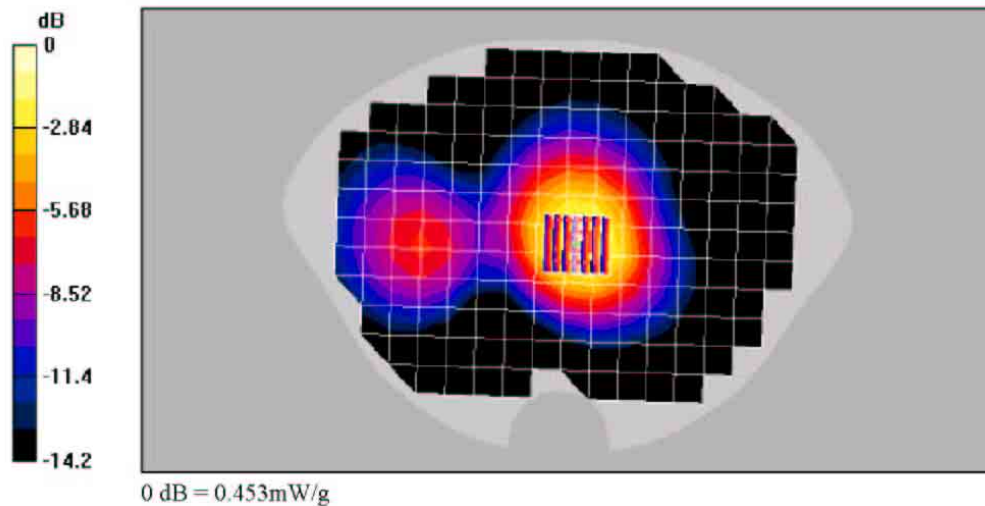
CDMA-1900 Ch600/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.6 V/m; Power Drift = -0.2 dB

Maximum value of SAR (measured) = 0.453 mW/g

Peak SAR (extrapolated) = 0.633 W/kg

SAR(1 g) = 0.417 mW/g; SAR(10 g) = 0.257 mW/g



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Date/Time: 06/03/04 17:59:16

Test Laboratory: Kyocera

K434L #B77P, CDMA-1900 Flat, with Belt Clip Ch600

Communication System: CDMA 1900, Frequency: 1880 MHz, Duty Cycle: 1:1

Medium: M1800, Medium parameters used: $f = 1880$ MHz, $\sigma = 1.5$ mho/m, $\epsilon_r = 54.2$, $\rho = 1000$ kg/m³

Phantom: SAM 12, Phantom section: Flat Section

DASY4 Configuration:

Probe: ET3DV6 - SN1712, ConvF(5, 5, 5), Calibrated: Probe not calibrated

Sensor Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE3 Sn530, Calibrated: 12/22/2003

Measurement SW: DASY4, V4.2 Build 44

Postprocessing SW: SEMCAD, V1.8 Build 112

Temperature

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

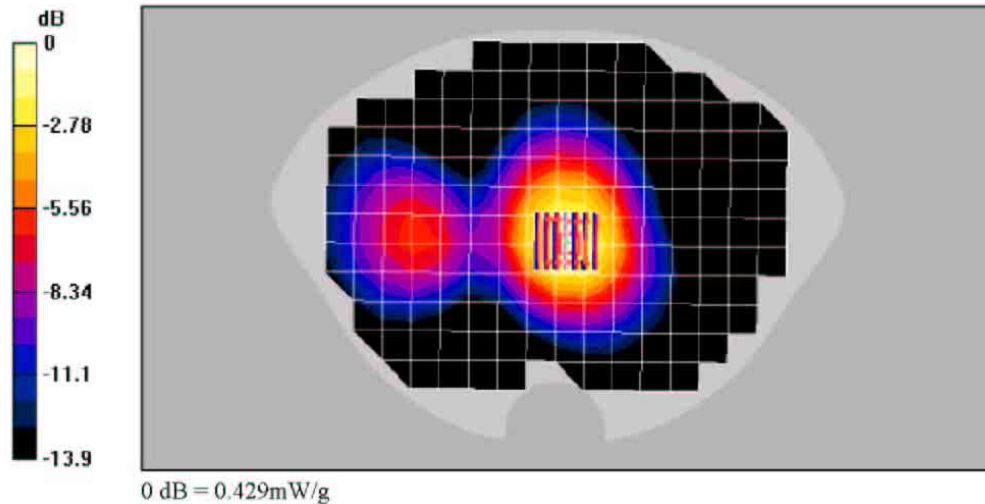
CDMA-1900 Ch600/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 17.2 V/m; Power Drift = -0.0 dB

Maximum value of SAR (measured) = 0.429 mW/g

Peak SAR (extrapolated) = 0.653 W/kg

SAR(1 g) = 0.399 mW/g; SAR(10 g) = 0.247 mW/g



file://C:\Dasy4\Reports\K7\K454L%20#B77Q\PCS\FCC-K434L #B77Q, CDMA-190... 6/21/2004

Date/Time: 06/03/04 13:08:50

Test Laboratory: Kyocera

K454L #B77P, CDMA-1900 Flat with Leather Case and Backpack Clip Ch600

Communication System: CDMA 1900, Frequency: 1880 MHz, Duty Cycle: 1:1

Medium: M1800, Medium parameters used: $f = 1880$ MHz, $\sigma = 1.5$ mho/m, $\epsilon_r = 54.2$, $\rho = 1000$ kg/m³

Phantom: SAM 12, Phantom section: Flat Section

DASY4 Configuration:

Probe: ET3DV6 - SN1712, ConvF(5, 5, 5), Calibrated: Probe not calibrated

Sensor Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE3 S0530, Calibrated: 12/22/2003

Measurement SW: DASY4, V4.2 Build 44

Postprocessing SW: SEMCAD, V1.8 Build 112

Temperature

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

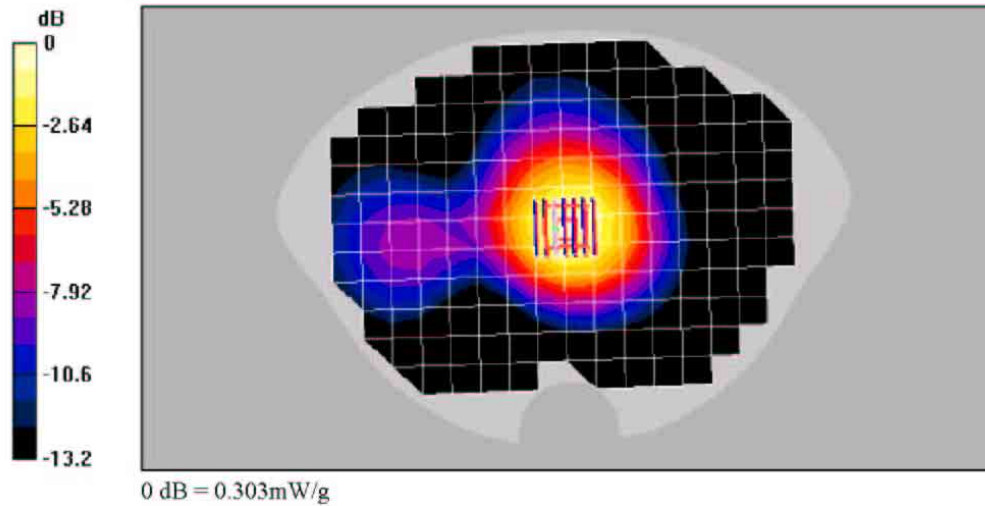
CDMA-1900 Ch600/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.1 V/m; Power Drift = -0.1 dB

Maximum value of SAR (measured) = 0.303 mW/g

Peak SAR (extrapolated) = 0.462 W/kg

SAR(1 g) = 0.254 mW/g; SAR(10 g) = 0.177 mW/g



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Date/Time: 06/03/04 16:30:19

Test Laboratory: Kyocera

K434L #B77P, CDMA-1900 Flat, with Leather Case Ch600

Communication System: CDMA 1900, Frequency: 1880 MHz, Duty Cycle: 1:1

Medium: M1800, Medium parameters used: $f = 1880$ MHz, $\sigma = 1.5$ mho/m, $\epsilon_r = 54.2$, $\rho = 1000$ kg/m³

Phantom: SAM 12, Phantom section: Flat Section

DASY4 Configuration:

Probe: ET3DV6 - SN1712, ConvF(5, 5, 5), Calibrated: Probe not calibrated

Sensor Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE3 S0530, Calibrated: 12/22/2003

Measurement SW: DASY4, V4.2 Build 44

Postprocessing SW: SEMCAD, V1.8 Build 112

Temperature

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

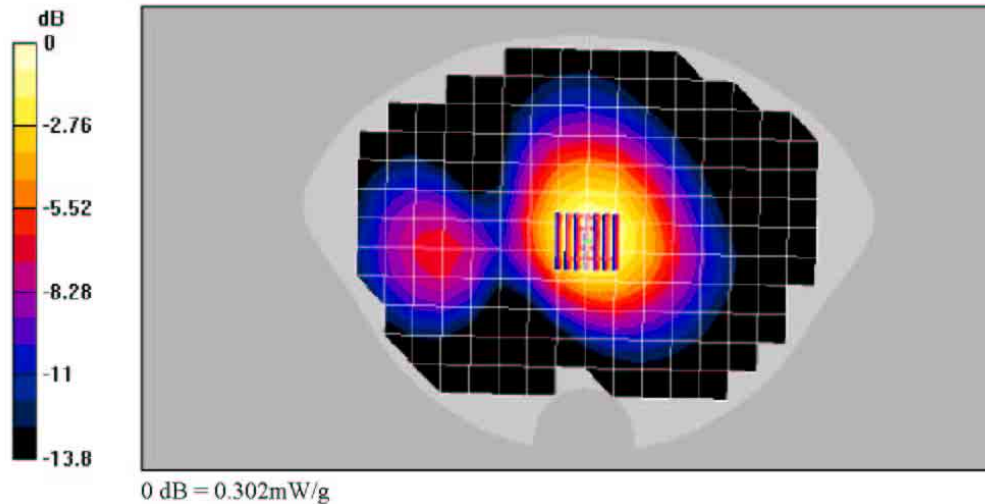
CDMA-1900 Ch600/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.1 V/m; Power Drift = -0.1 dB

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

Peak SAR (extrapolated) = 0.462 W/kg

SAR(1 g) = 0.252 mW/g; SAR(10 g) = 0.176 mW/g



file://C:\Dasy4\Reports\K7\K454L%20#B77Q\PCS\FCC-K434L #B77Q, CDMA-190... 6/21/2004

Date/Time: 06/03/04 12:23:28

Test Laboratory: Kyocera

K454L #B77P, CDMA-1900 Flat Z-Scan with Belt Clip and Backpack Clip Ch600

Communication System: CDMA 1900, Frequency: 1880 MHz, Duty Cycle: 1:1

Medium: M1800, Medium parameters used: $f = 1880$ MHz, $\sigma = 1.5$ mho/m, $\epsilon_r = 54.2$, $\rho = 1000$ kg/m³

Phantom: SAM 12, Phantom section: Flat Section

DASY4 Configuration:

Probe: ET3DV6 - SN1712, ConvF(5, 5, 5), Calibrated: Probe not calibrated

Sensor Surface: 4mm (Mechanical And Optical Surface Detection)

Sensor Surface: 0mm (Fix Surface)

Electronics: DAE3 Sn530, Calibrated: 12/22/2003

Measurement SW: DASY4, V4.2 Build 44

Postprocessing SW: SEMCAD, V1.8 Build 112

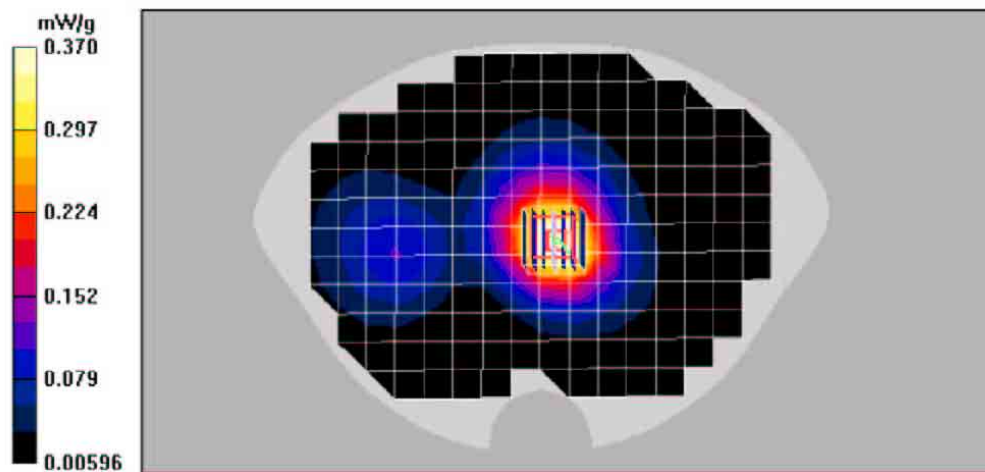
Temperature

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

CDMA-1900 Ch600/Z Scan (1x1x11): Measurement grid: dx=20mm, dy=20mm, dz=5mm

Reference Value = 17.6 V/m, Power Dn ft = -0.2 dB

Maximum value of SAR (measured) = 0.370 mW/g



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Date/Time: 06/07/04 14:25:03

Test Laboratory: Kyocera

K494L #B77P, CDMA-1900 Left Cheek Ch600

Communication System: CDMA 1900, Frequency: 1880 MHz, Duty Cycle: 1:1

Medium: Head 1900 MHz, Medium parameters used: $f = 1880 \text{ MHz}$, $\sigma = 1.38 \text{ mho/m}$, $\epsilon_r = 39.5$, $\rho = 1000 \text{ kg/m}^3$

Phantom: SAM 12, Phantom section: Left Section

DASY4 Configuration:

Probe: ET3DV6 - SN1712, ConvF(5.3, 5.3, 5.3), Calibrated: 9/19/2003

Sensor: Surface 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE3 Sn530, Calibrated: 12/22/2003

Measurement SW: DASY4, V4.2 Build 44

Postprocessing SW: SEMCAD, V1.8 Build 112

Temperature

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

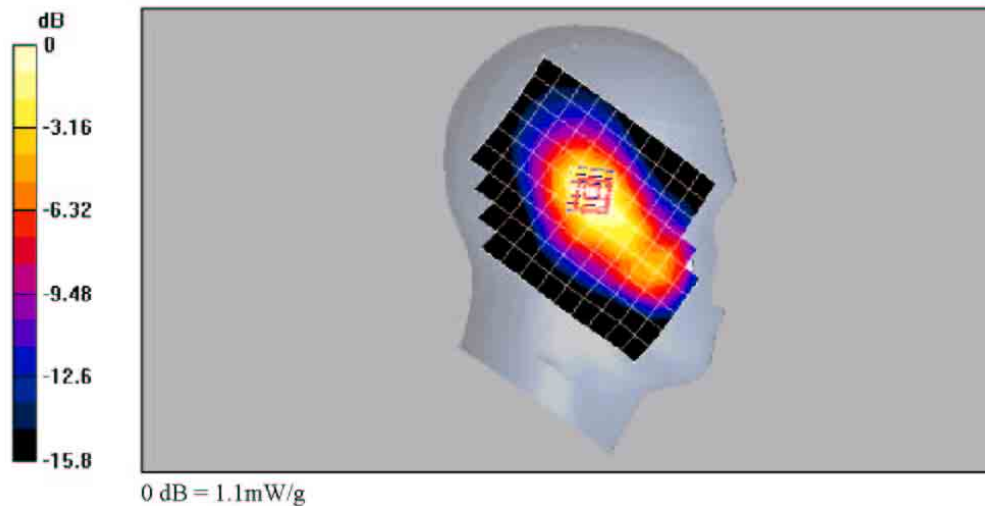
600 LC/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 24.6 V/m, Power Drift = -0.2 dB

Maximum value of SAR (measured) = 1.1 mW/g

Peak SAR (extrapolated) = 1.61 W/kg

SAR(1 g) = 1.01 mW/g; SAR(10 g) = 0.615 mW/g



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Date/Time: 06/07/04 14:25:03

Test Laboratory: Kyocera

K494L #B77P, CDMA-1900 Left Tilt Z-Scan Ch600

Communication System: CDMA 1900, Frequency: 1880 MHz, Duty Cycle: 1:1

Medium: Head 1900 MHz, Medium parameters used: $f = 1880 \text{ MHz}$, $\sigma = 1.38 \text{ mho/m}$, $\epsilon_r = 39.5$, $\rho = 1000 \text{ kg/m}^3$

Phantom: SAM 12, Phantom section: Left Section

DASY4 Configuration:

Probe: ET3DV6 - SN1712, ConvF(5.3, 5.3, 5.3), Calibrated: 9/19/2003

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

Sensor-Surface: 0mm (Fix Surface)

Electronics: DAE3 Sn530, Calibrated: 12/22/2003

Measurement SW: DASY4, V4.2 Build 44

Postprocessing SW: SEMCAD, V1.8 Build 112

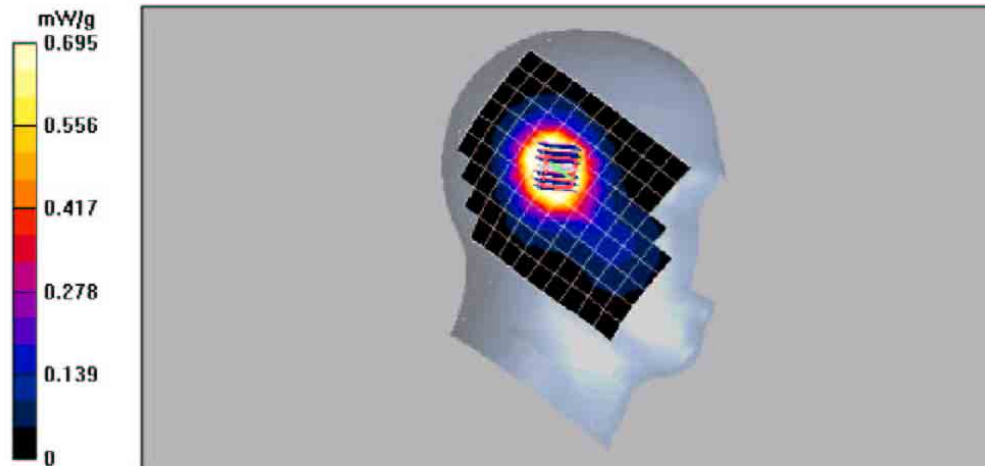
Temperature

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

600 LT/Z Scan (1x1x11): Measurement grid: dx=20mm, dy=20mm, dz=5mm

Reference Value = 29.1 V/m, Power DnB = -0.2 dB

Maximum value of SAR (measured) = 0.695 mW/g



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Date/Time: 06/07/04 14:25:03

Test Laboratory: Kyocera

K494L #B77P, CDMA-1900 Left Tilt Ch600

Communication System: CDMA 1900, Frequency: 1880 MHz, Duty Cycle: 1:1

Medium: Head 1900 MHz, Medium parameters used: $f = 1880$ MHz, $\sigma = 1.38$ mho/m, $\epsilon_r = 39.5$, $\rho = 1000$ kg/m³

Phantom: SAM 12, Phantom section: Left Section

DASY4 Configuration:

Probe: ET3DV6 - SN1712, ConvF(5.3, 5.3, 5.3), Calibrated: 9/19/2003

Sensor: Surface 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE3 Ss530, Calibrated: 12/22/2003

Measurement SW: DASY4, V4.2 Build 44

Postprocessing SW: SEMCAD, V1.8 Build 112

Temperature

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

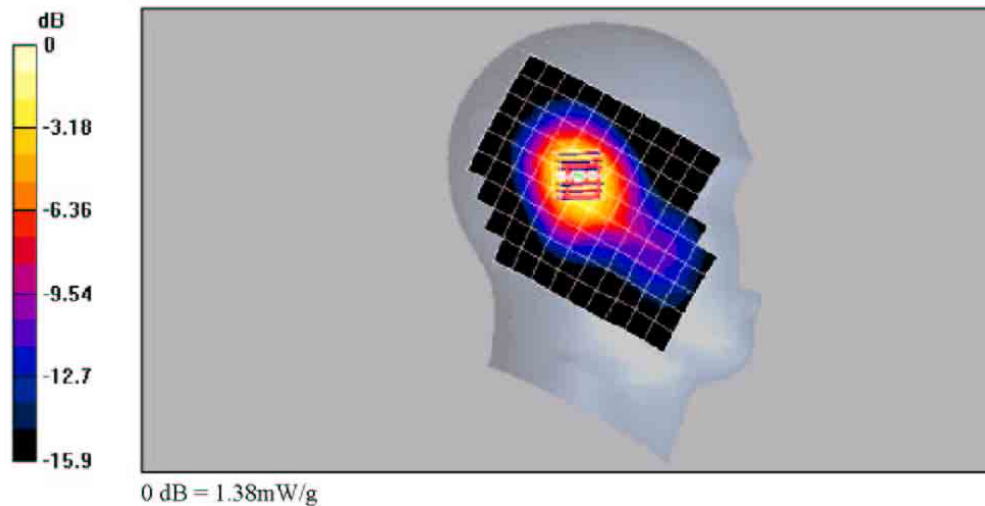
600 LT/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 29.1 V/m; Power Drift = -0.2 dB

Maximum value of SAR (measured) = 1.38 mW/g

Peak SAR (extrapolated) = 2.04 W/kg

SAR(1 g) = 1.26 mW/g; SAR(10 g) = 0.732 mW/g



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Date/Time: 06/07/04 14:25:08

Test Laboratory: Kyocera

K494L #B77P, CDMA-1900 Left Tilt with Backpack Clip Ch600

Communication System: CDMA 1900, Frequency: 1880 MHz, Duty Cycle: 1:1

Medium: Head 1900 MHz, Medium parameters used: $f = 1880$ MHz, $\sigma = 1.38$ mho/m, $\epsilon_r = 39.5$, $\rho = 1000$ kg/m³

Phantom: SAM 12, Phantom section: Left Section

DASY4 Configuration:

Probe: ET3DV6 - SN1712, ConvF(5.3, 5.3, 5.3), Calibrated: 9/19/2003

Sensor: Surface 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE3 Sn530, Calibrated: 12/22/2003

Measurement SW: DASY4, V4.2 Build 44

Postprocessing SW: SEMCAD, V1.8 Build 112

Temperature

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

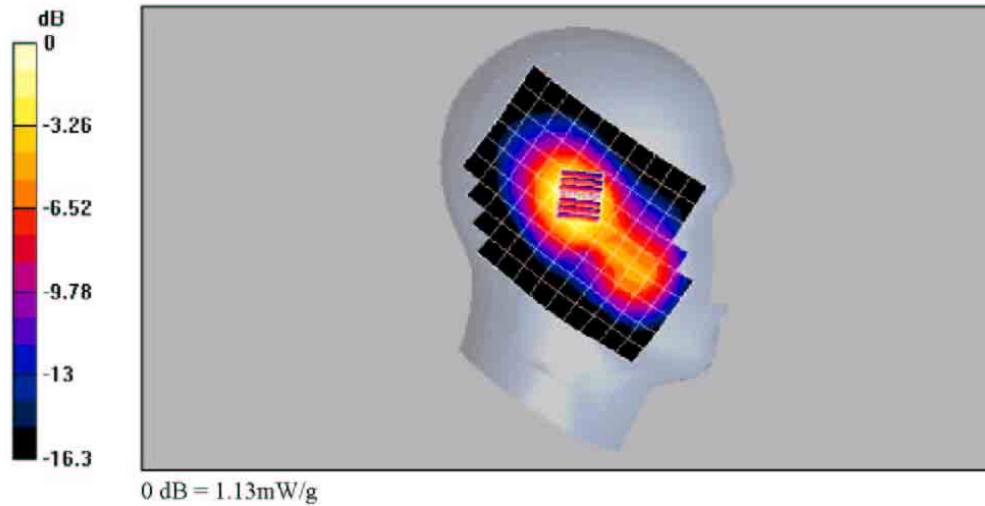
600 LT/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 25.4 V/m; Power Drift = -0.1 dB

Maximum value of SAR (measured) = 1.13 mW/g

Peak SAR (extrapolated) = 1.62 W/kg

SAR(1 g) = 1.03 mW/g; SAR(10 g) = 0.617 mW/g



file://C:\Dasy4\20Reports\K7\K454L%20#B77Q\PCS\FCC-K494L #B77Q, CDMA-190... 6/21/2004

Date/Time: 06/07/04 14:24:57

Test Laboratory: Kyocera

K454L #B77P, CDMA-1900 Right Cheek Ch1175

Communication System: CDMA 1900, Frequency: 1909 MHz, Duty Cycle: 1:1

Medium: Head 1900 MHz, Medium parameters used (interpolated): $f = 1909 \text{ MHz}$, $\sigma = 1.42 \text{ mho/m}$, $\epsilon_r = 39.6$, $\rho = 1000 \text{ kg/m}^3$

Phantom: SAM 12, Phantom section: Right Section

DASY4 Configuration:

Probe: ET3DV6 - SN1712, ConvF(5.3, 5.3, 5.3), Calibrated: 9/19/2003

Sensor Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE3 S0530, Calibrated: 12/22/2003

Measurement SW: DASY4, V4.2 Build 44

Postprocessing SW: SEMCAD, V1.8 Build 112

Temperature

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

1175 RC/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

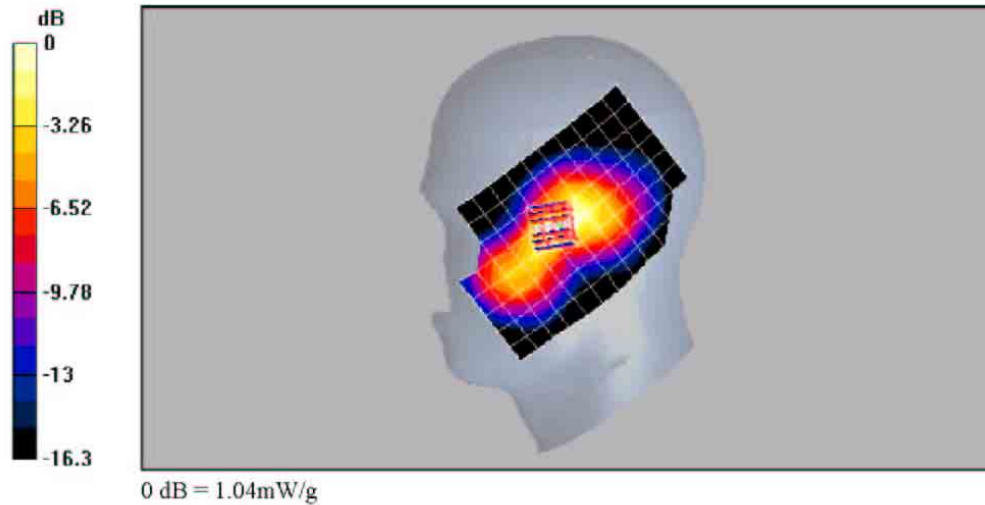
Reference Value = 25.2 V/m, Power DnB = 0.002 dB

Maximum value of SAR (measured) = 1.04 mW/g

Peak SAR (extrapolated) = 1.51 W/kg

SAR(1 g) = 0.956 mW/g; SAR(10 g) = 0.546 mW/g

Info: Interpolated medium parameters used for SAR evaluation!



file://C:\Dasy4\Reports\K7\K454L%20#B77Q\PCS\FCC-K454L #B77Q, CDMA-190... 6/21/2004

Date/Time: 06/07/04 14:24:57

Test Laboratory: Kyocera

K454L #B77P, CDMA-1900 Right Tilt Ch600

Communication System: CDMA 1900, Frequency: 1880 MHz, Duty Cycle: 1:1

Medium: Head 1900 MHz, Medium parameters used: $f = 1880 \text{ MHz}$, $\sigma = 1.42 \text{ mho/m}$, $\epsilon_r = 39.6$, $\rho = 1000 \text{ kg/m}^3$

Phantom: SAM 12, Phantom section: Right Section

DASY4 Configuration:

Probe: ET3DV6 - SN1712, ConvF(5.3, 5.3, 5.3), Calibrated: 9/19/2003

Sensor: Surface 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE3 Sn530, Calibrated: 12/22/2003

Measurement SW: DASY4, V4.2 Build 44

Postprocessing SW: SEMCAD, V1.8 Build 112

Temperature

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

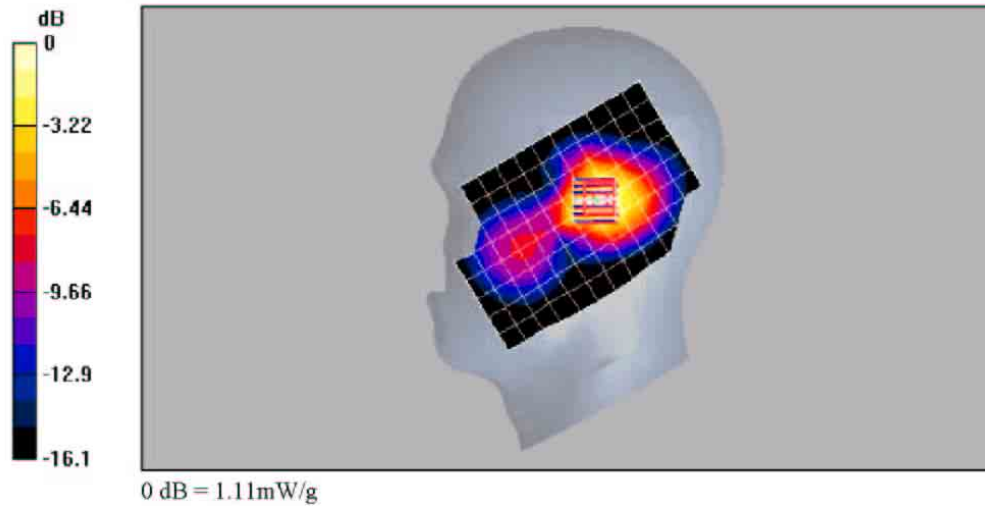
600 RT/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 28.8 V/m, Power Drift = -0.0 dB

Maximum value of SAR (measured) = 1.11 mW/g

Peak SAR (extrapolated) = 1.51 W/kg

SAR(1 g) = 1.02 mW/g; SAR(10 g) = 0.619 mW/g



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Section 3

CDMA 800

Date/Time: 06/01/04 13:36:11

Test Laboratory: Kyocera

K454LC #B77P, CDMA ch383 Left Cheek with Backpack Clip

Communication System: CDMA-800, Frequency: 836.49 MHz, Duty Cycle: 1:1
 Medium: HSL900, Medium parameters used (interpolated): $f = 836.49 \text{ MHz}$, $\sigma = 0.901 \text{ nA/m}$, $\epsilon_r = 40.6$, $\rho = 1000 \text{ kg/m}^3$
 Phantom: SAM 12, Phantom section: Left Section

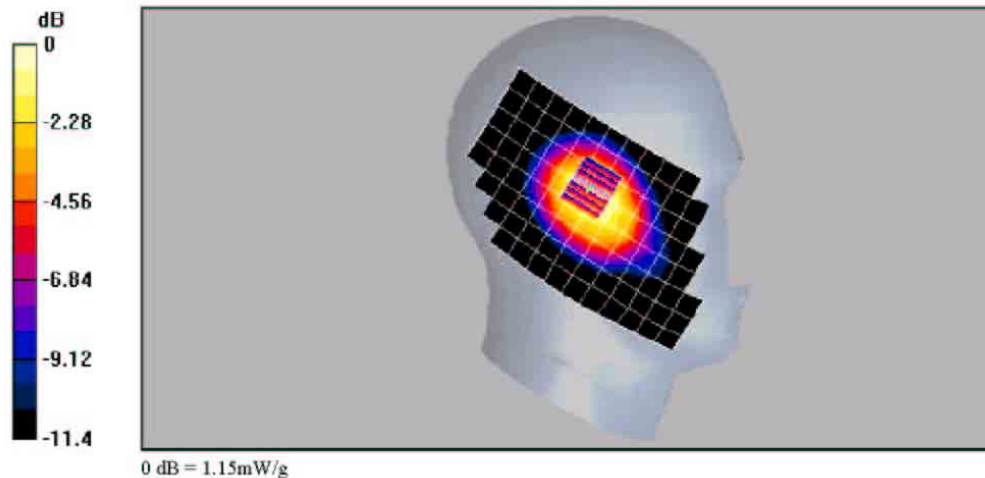
DASY4 Configuration:
 Probe: ETSDV6 - SN1663, ConvF(6.7, 6.7, 6.7), Calibrated: 10/10/2003
 Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),
 Electronics: DAE3 Sn493, Calibrated: 11/25/2003
 Measurement SW: DASY4, V4.2 Build 44
 Postprocessing SW: SEMCAD, V1.8 Build 112

Temperature:
 Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

CDMA-800 Ch383 LC/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 33.3 V/m, Power Drift = 0.2 dB
 Maximum value of SAR (measured) = 1.15 mW/g
 Peak SAR (extrapolated) = 1.53 W/kg
 SAR(1 g) = 1.05 mW/g; SAR(10 g) = 0.739 mW/g

Info: Interpolated medium parameters used for SAR evaluation!



file://C:\Dasy4\%20Reports\K7\K454L%20#B77Q\CDMA\FCC-K454LC #B77Q, CDMA-... 6/23/2004

Date/Time: 06/01/04 14:38:10

Test Laboratory: Kyocera

K454LC #B77P, CDMA ch383 Left Cheek

Communication System: CDMA-800, Frequency: 836.49 MHz, Duty Cycle: 1:1

Medium: HSL900, Medium parameters used (interpolated): $f = 836.49$ MHz; $\sigma = 0.901$ mho/m; $\epsilon_r = 40.6$; $\rho = 1000$ kg/m³

Phantom: SAM 12, Phantom section: Left Section

DASY4 Configuration:

Probe: ET3DV6 - SN1663, ConvF(6.7, 6.7, 6.7), Calibrated: 10/10/2003

Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE3 Sn493, Calibrated: 11/25/2003

Measurement SW: DASY4, V4.2 Build 44

Postprocessing SW: SEMCAD, V1.8 Build 112

Temperature:

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

CDMA-800 Ch383 LC/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

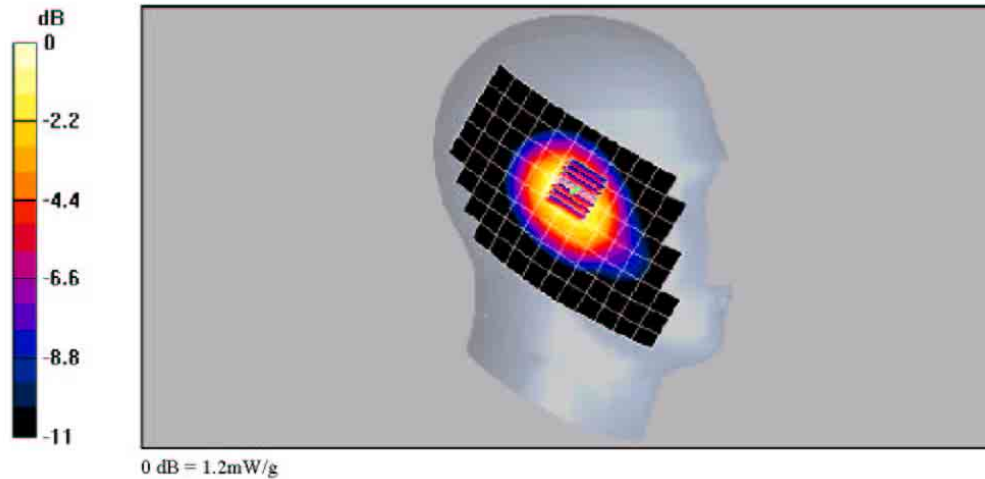
Reference Value = 33.3 V/m, Power Drift = 0.1 dB

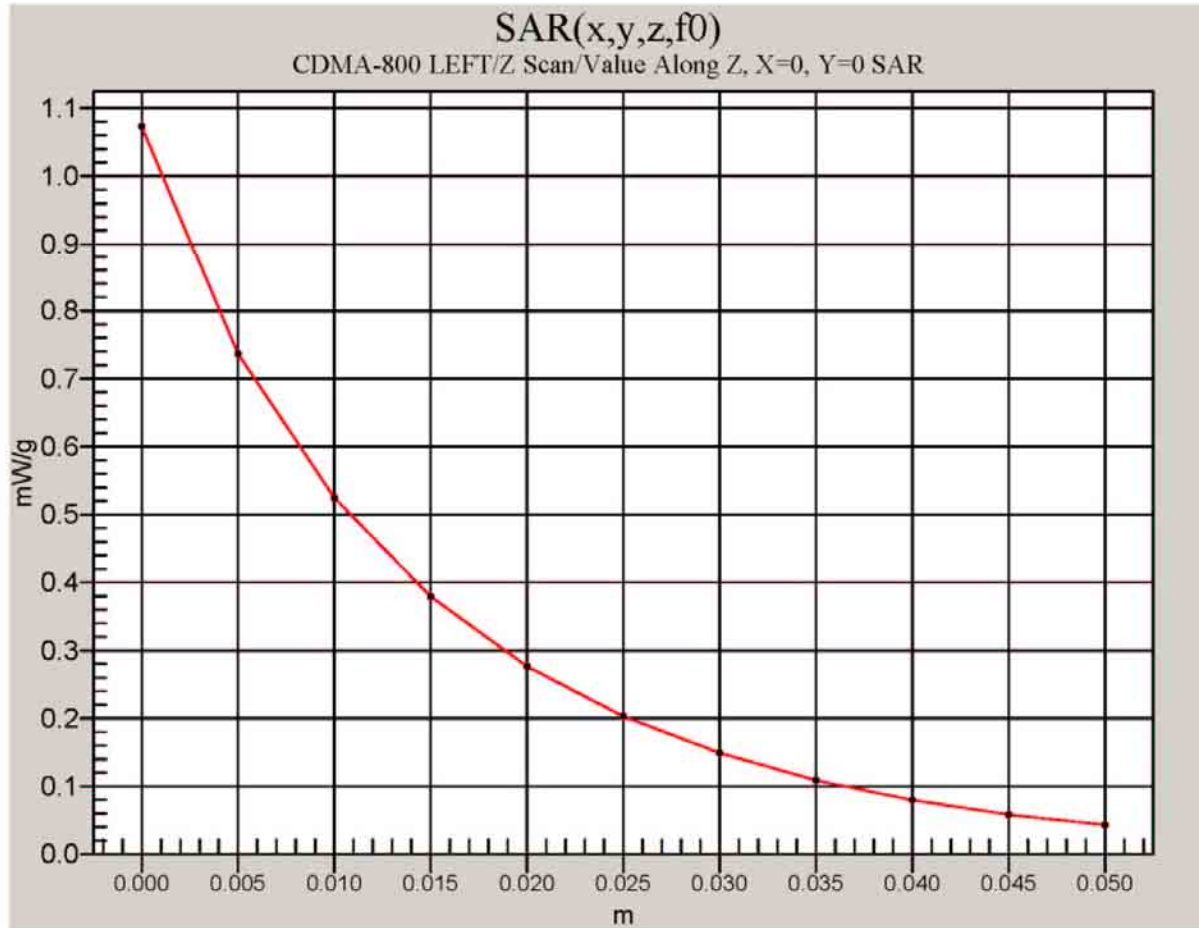
Maximum value of SAR (measured) = 1.2 mW/g

Peak SAR (extrapolated) = 1.56 W/kg

SAR(1 g) = 1.12 mW/g; SAR(10 g) = 0.767 mW/g

Info: Interpolated medium parameters used for SAR evaluation!





Date/Time: 06/01/04 14:38:10

Test Laboratory: Kyocera

K454LC #B77P, CDMA ch383 Left Tilt

Communication System: CDMA-800, Frequency: 836.49 MHz, Duty Cycle: 1:1

Medium: HSL900, Medium parameters used (interpolated): $f = 836.49$ MHz; $\sigma = 0.901$ mho/m; $\epsilon_r = 40.6$; $\rho = 1000$ kg/m³

Phantom: SAM 12, Phantom section: Left Section

DASY4 Configuration:

Probe: ET3DV6 - SN1663, ConvF(6.7, 6.7, 6.7), Calibrated: 10/10/2003

Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE3 Sn493, Calibrated: 11/25/2003

Measurement SW: DASY4, V4.2 Build 44

Postprocessing SW: SEMCAD, V1.8 Build 112

Temperature:

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

CDMA-800 Ch383 LT/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

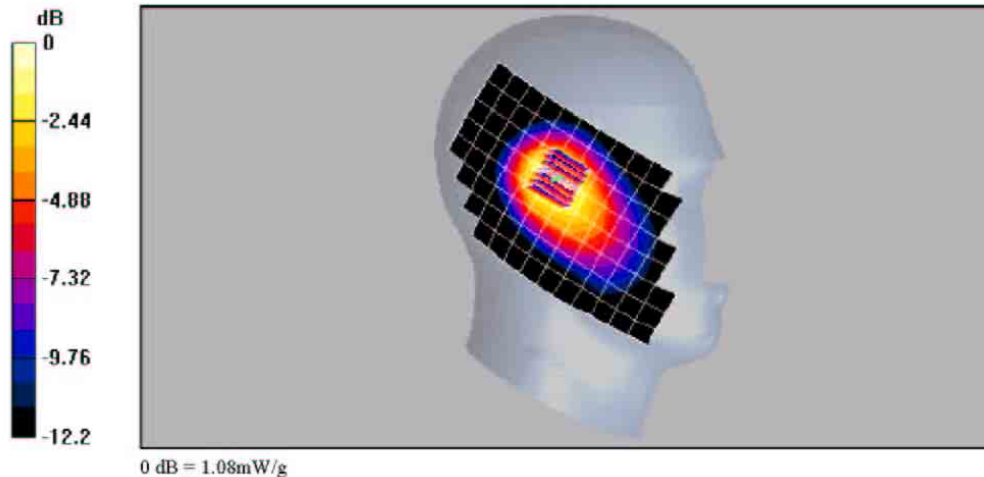
Reference Value = 33.5 V/m, Power Drift = 0.2 dB

Maximum value of SAR (measured) = 1.08 mW/g

Peak SAR (extrapolated) = 1.41 W/kg

SAR(1 g) = 0.994 mW/g; SAR(10 g) = 0.666 mW/g

Info: Interpolated medium parameters used for SAR evaluation!



file://C:\Dasy4%20Reports\K7\K454L%20#B77Q\CDMA\FCC-K454LC #B77Q, CDMA-... 6/23/2004

Date/Time: 06/01/04 18:43:27

Test Laboratory: Kyocera

K454LC #B77P, CDMA ch383 Right Cheek

Communication System: CDMA-800, Frequency: 836.49 MHz, Duty Cycle: 1:1

Medium: HSL900, Medium parameters used (interpolated): $f = 836.49$ MHz; $\sigma = 0.901$ mho/m; $\epsilon_r = 40.6$; $\rho = 1000$ kg/m³

Phantom: SAM 12, Phantom section: Right Section

DASY4 Configuration:

Probe: ET3DV6 - SN1663, ConvF(6.7, 6.7, 6.7), Calibrated: 10/10/2003

Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE3 Sn493, Calibrated: 11/25/2003

Measurement SW: DASY4, V4.2 Build 44

Postprocessing SW: SEMCAD, V1.8 Build 112

Temperature:

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

CDMA-800 Ch383 RC/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

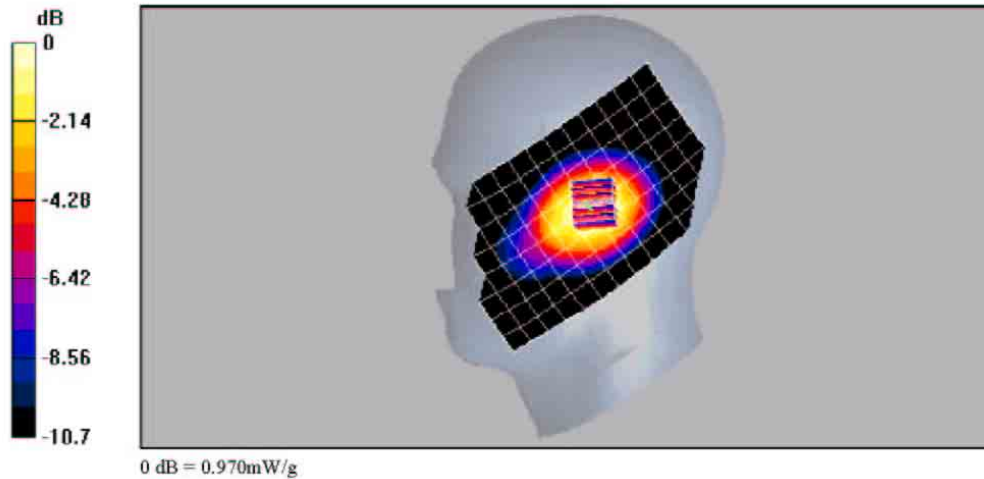
Reference Value = 33.9 V/m, Power Drift = -0.1 dB

Maximum value of SAR (measured) = 0.970 mW/g

Peak SAR (extrapolated) = 1.17 W/kg

SAR(1 g) = 0.917 mW/g; SAR(10 g) = 0.658 mW/g

Info: Interpolated medium parameters used for SAR evaluation!



file://C:\Dasy4%20Reports\K7\K454L%20#B77Q\CDMA\FCC-K454LC #B77Q, CDMA-... 6/23/2004

Date/Time: 06/14/04 15:42:01

Test Laboratory: Kyocera

K454L #B77P, CDMA ch383 Flat with 22.5mm Air Space and Backpack Clip

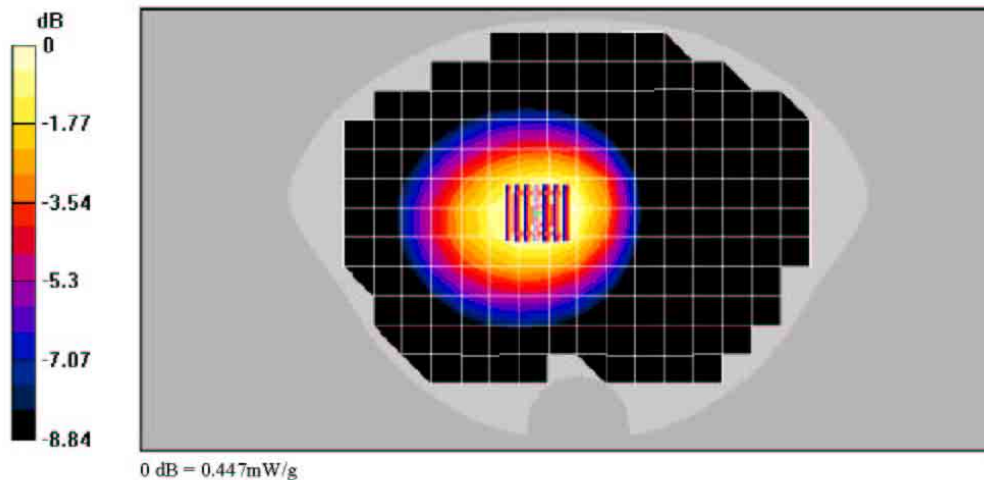
Communication System: CDMA-800, Frequency: 836.49 MHz, Duty Cycle: 1:1
Medium: M900, Medium parameters used (interpolated): $f = 836.49 \text{ MHz}$; $\sigma = 0.981 \text{ mho/m}$; $\epsilon_r = 55.4$; $\rho = 1000 \text{ kg/m}^3$
Phantom: SAM 12, Phantom section: Flat Section

DASY4 Configuration:
Probe: ET3D/V6 - SN1663, ConvF(6.4, 6.4, 6.4), Calibrated: 10/10/2003
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),
Electronics: DAE3 Sn493, Calibrated: 11/25/2003
Measurement SW: DASY4, V4.2 Build 44
Postprocessing SW: SEMCAD, V1.8 Build 112

Temperature:
Room T = $21.8 \pm 1 \text{ deg C}$, Liquid T = $22.0 \pm 1 \text{ deg C}$

CDMA-800 Ch383/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
Reference Value = 20.4 V/m , Power Drift = -0.0 dB
Maximum value of SAR (measured) = 0.447 mW/g
Peak SAR (extrapolated) = 0.539 W/kg
SAR(1g) = 0.423 mW/g ; SAR(10g) = 0.311 mW/g

Info: Interpolated medium parameters used for SAR evaluation!



Date/Time: 06/14/04 08:55:28

Test Laboratory: Kyocera

K454L #B77P, CDMA ch383 Flat with 22.5mm Air Space

Communication System: CDMA-800, Frequency: 836.49 MHz, Duty Cycle: 1:1

Medium: M900, Medium parameters used (interpolated): $f = 836.49$ MHz; $\sigma = 0.981$ mho/m; $\epsilon_r = 55.4$; $\rho = 1000$ kg/m³

Phantom: SAM 12, Phantom section: Flat Section

DASY4 Configuration:

Probe: ET3D/V6 - SN1663, ConvF(6.4, 6.4, 6.4), Calibrated: 10/10/2003

Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE3 Sn493, Calibrated: 11/25/2003

Measurement SW: DASY4, V4.2 Build 44

Postprocessing SW: SEMCAD, V1.8 Build 112

Temperature:

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

CDMA-800 Ch383/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

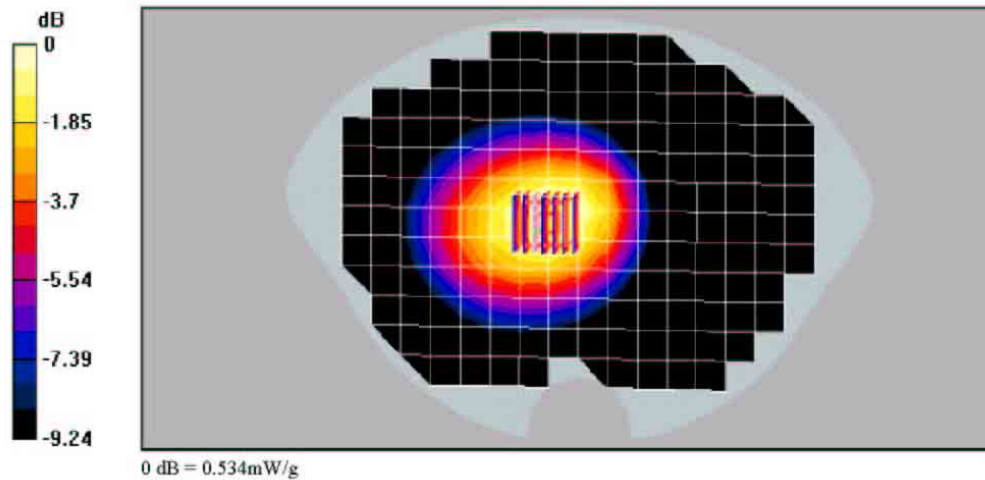
Reference Value = 22.8 V/m, Power Drift = -0.1 dB

Maximum value of SAR (measured) = 0.534 mW/g

Peak SAR (extrapolated) = 0.648 W/kg

SAR(1 g) = 0.507 mW/g; SAR(10 g) = 0.367 mW/g

Info: Interpolated medium parameters used for SAR evaluation!



Date/Time: 06/14/04 19:22:46

Test Laboratory: Kyocera

K454L #B77P, CDMA ch383 Flat with Belt Clip and Backpack Clip

Communication System: CDMA-800, Frequency: 836.49 MHz, Duty Cycle: 1:1

Medium: M900, Medium parameters used (interpolated): $f = 836.49 \text{ MHz}$; $\sigma = 0.981 \text{ mho/m}$; $\epsilon_r = 55.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom: SAM 12, Phantom section: Flat Section

DASY4 Configuration:

Probe: ET3DV6 - SN1663, ConvF(6.4, 6.4, 6.4), Calibrated: 10/10/2003

Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE3 Sn493, Calibrated: 11/25/2003

Measurement SW: DASY4, V4.2 Build 44

Postprocessing SW: SEMCAD, V1.8 Build 112

Temperature:

Room T = $21.8 \pm 1 \text{ deg C}$, Liquid T = $22.0 \pm 1 \text{ deg C}$

CDMA-800 Ch383/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

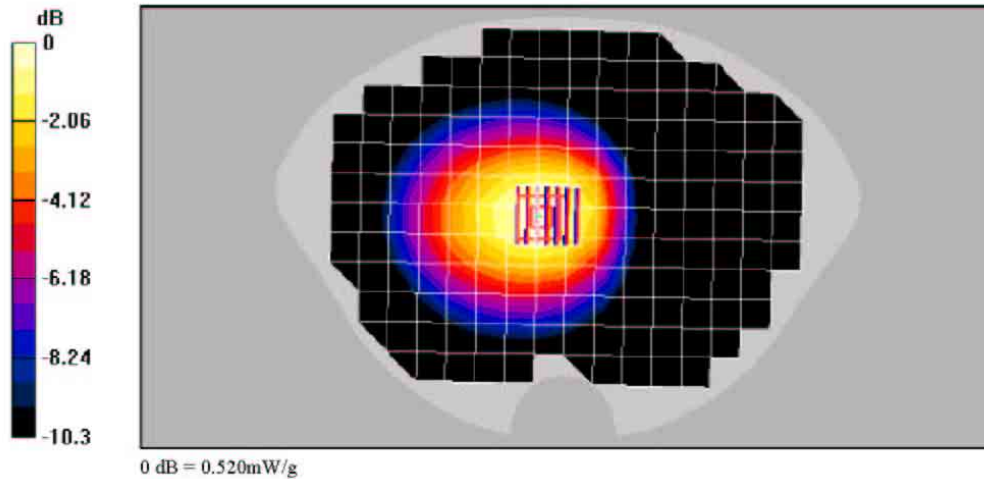
Reference Value = 22.9 V/m , Power Drift = -0.0 dB

Maximum value of SAR (measured) = 0.520 mW/g

Peak SAR (extrapolated) = 0.639 W/kg

SAR(1 g) = 0.489 mW/g ; SAR(10 g) = 0.353 mW/g

Info: Interpolated medium parameters used for SAR evaluation!



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Date/Time: 06/14/04 11:01:58

Test Laboratory: Kyocera

K454L #B77P, CDMA ch383 Flat with Belt Clip

Communication System: CDMA-800, Frequency: 836.49 MHz, Duty Cycle: 1:1

Medium: M900, Medium parameters used (interpolated): $f = 836.49$ MHz; $\sigma = 0.981$ mho/m; $\epsilon_r = 55.4$; $\rho = 1000$ kg/m³

Phantom: SAM 12, Phantom section: Flat Section

DASY4 Configuration:

Probe: ET3DV6 - SN1663, ConvF(6.4, 6.4, 6.4), Calibrated: 10/10/2003

Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE3 Sn493, Calibrated: 11/25/2003

Measurement SW: DASY4, V4.2 Build 44

Postprocessing SW: SEMCAD, V1.8 Build 112

Temperature:

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

CDMA-800 Ch383/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

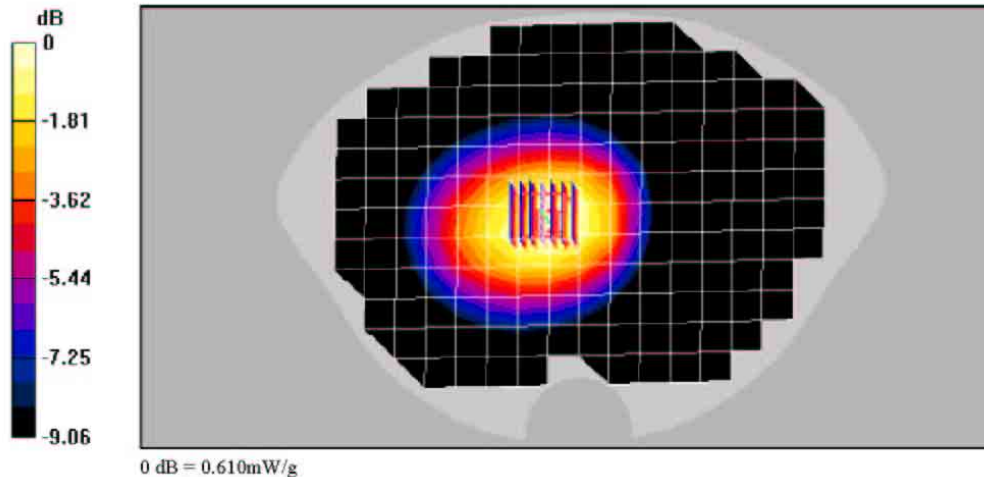
Reference Value = 24.7 V/m, Power Drift = 0.0 dB

Maximum value of SAR (measured) = 0.610 mW/g

Peak SAR (extrapolated) = 0.727 W/kg

SAR(1 g) = 0.570 mW/g; SAR(10 g) = 0.413 mW/g

Info: Interpolated medium parameters used for SAR evaluation!



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Date/Time: 06/14/04 15:05:02

Test Laboratory: Kyocera

K454L #B77P, CDMA ch383 Flat with Leather Case and Backpack Clip

Communication System: CDMA-800, Frequency: 836.49 MHz, Duty Cycle: 1:1

Medium: M900, Medium parameters used (interpolated): $f = 836.49$ MHz; $\sigma = 0.981$ mho/m; $\epsilon_r = 55.4$; $\rho = 1000$ kg/m³

Phantom: SAM 12, Phantom section: Flat Section

DASY4 Configuration:

Probe: ET3DV6 - SN1663, ConvF(6.4, 6.4, 6.4), Calibrated: 10/10/2003

Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE3 Sn493, Calibrated: 11/25/2003

Measurement SW: DASY4, V4.2 Build 44

Postprocessing SW: SEMCAD, V1.8 Build 112

Temperature:

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

CDMA-800 Ch383/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

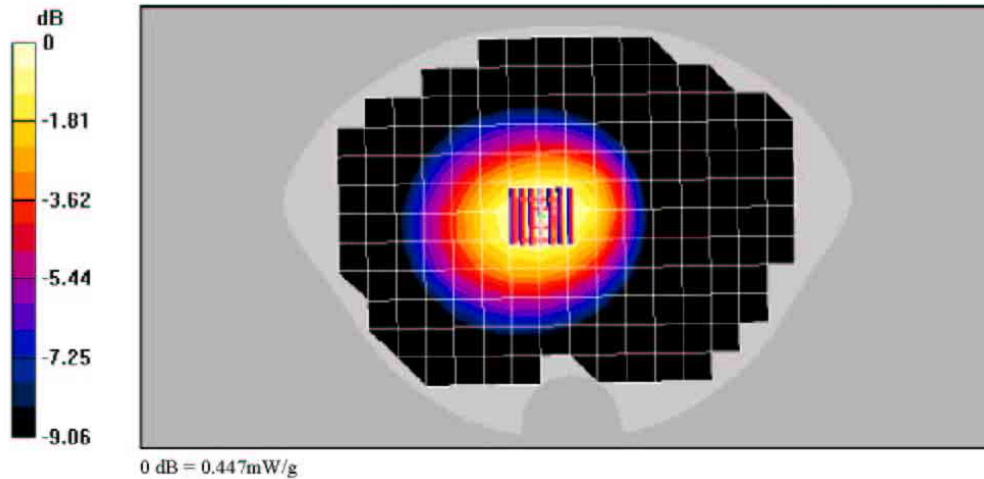
Reference Value = 21.2 V/m, Power Drift = -0.1 dB

Maximum value of SAR (measured) = 0.447 mW/g

Peak SAR (extrapolated) = 0.539 W/kg

SAR(1 g) = 0.422 mW/g; SAR(10 g) = 0.309 mW/g

Info: Interpolated medium parameters used for SAR evaluation!



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Date/Time: 06/14/04 11:41:43

Test Laboratory: Kyocera

K454L #B77P, CDMA ch383 Flat with Leather Case

Communication System: CDMA-800, Frequency: 836.49 MHz, Duty Cycle: 1:1

Medium: M900, Medium parameters used (interpolated): $f = 836.49$ MHz; $\sigma = 0.981$ mho/m; $\epsilon_r = 55.4$; $\rho = 1000$ kg/m³

Phantom: SAM 12, Phantom section: Flat Section

DASY4 Configuration:

Probe: ET3DV6 - SN1663, ConvF(6.4, 6.4, 6.4), Calibrated: 10/10/2003

Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE3 Sn493, Calibrated: 11/25/2003

Measurement SW: DASY4, V4.2 Build 44

Postprocessing SW: SEMCAD, V1.8 Build 112

Temperature:

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

CDMA-800 Ch383/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

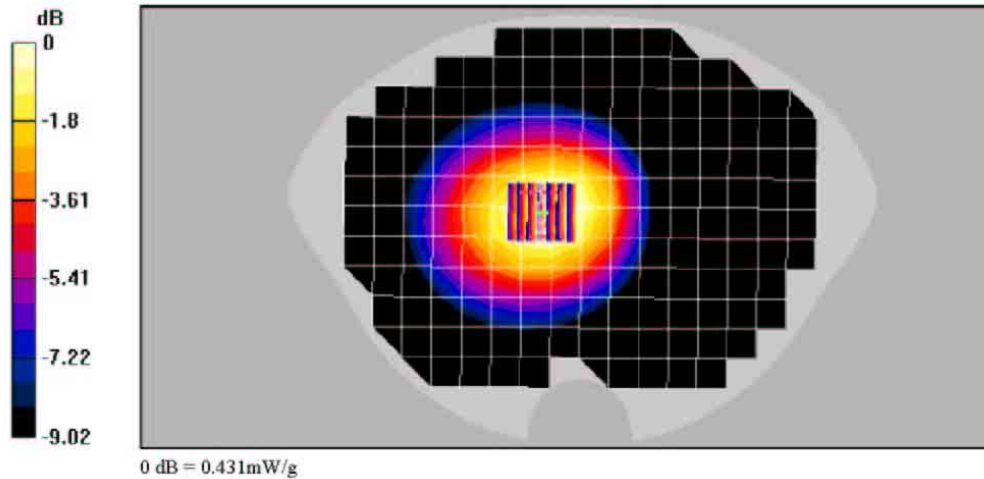
Reference Value = 20.2 V/m, Power Drift = -0.2 dB

Maximum value of SAR (measured) = 0.431 mW/g

Peak SAR (extrapolated) = 0.520 W/kg

SAR(1 g) = 0.406 mW/g; SAR(10 g) = 0.296 mW/g

Info: Interpolated medium parameters used for SAR evaluation!



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Date/Time: 06/23/04 10:10:48

Test Laboratory: Kyocera

K454LC #B77P, CDMA ch383 Right Tilt

Communication System: CDMA-800, Frequency: 836.49 MHz, Duty Cycle: 1:1

Medium: HSL900, Medium parameters used (interpolated): $f = 836.49$ MHz, $\sigma = 0.901$ mho/m, $\epsilon_r = 40.6$, $\rho = 1000$ kg/m³

Phantom: SAM 12, Phantom section: Right Section

DASY4 Configuration:

Probe: ET3DV6 - SN1663, ConvF(6.7, 6.7, 6.7), Calibrated: 10/10/2003

Sensor Surface: 4mm (Mechanical And Optical Surface Detection),

Electronics: DAE3 Sn493, Calibrated: 11/25/2003

Measurement SW: DASY4, V4.2 Build 44

Postprocessing SW: SEMCAD, V1.8 Build 112

Temperature

Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

CDMA-800 Ch383 RT/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

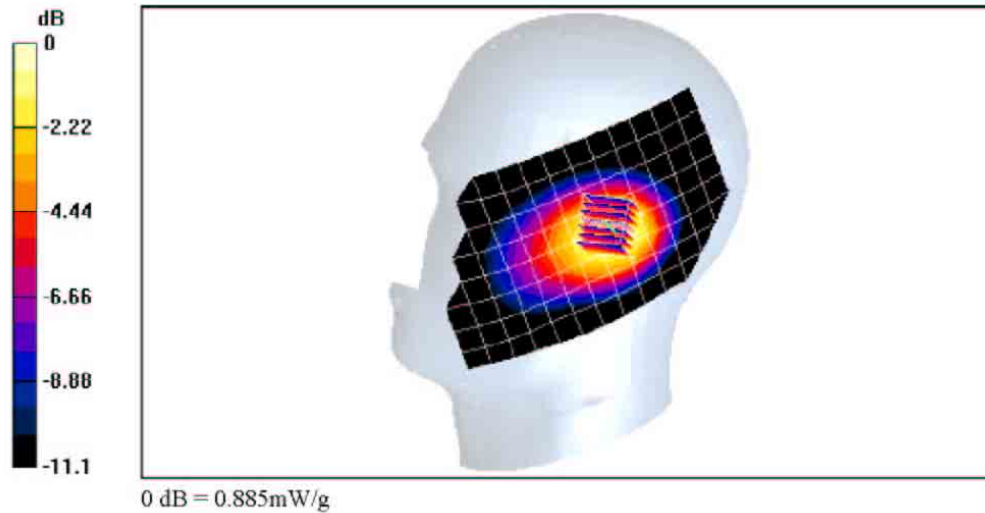
Reference Value = 31.7 V/m; Power Drift = 0.2 dB

Maximum value of SAR (measured) = 0.885 mW/g

Peak SAR (extrapolated) = 1.1 W/kg

SAR(1 g) = 0.820 mW/g; SAR(10 g) = 0.568 mW/g

Info: Interpolated medium parameters used for SAR evaluation



file://\Kwc045925-v111\Dasy4%20Reports\K7\K434LC%20#9LWQ\AMPS Head & Mus... 6/24/2004