

Appendix B-2
K490 Family - PCS Color Energi

For

FCC ID: OVFKWC-K493

Section 1

CDMA 1900

Date/Time: 06/13/04 10:28:30

Test Laboratory: Kyocera

K493LC #B79L, 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, $\sigma = 1.57$ nA/m, $\epsilon_r = 53.5$, $\rho = 1000$ kg/m³
Phantom: SAM 12, Phantom section: Flat Section

DASY4 Configuration:

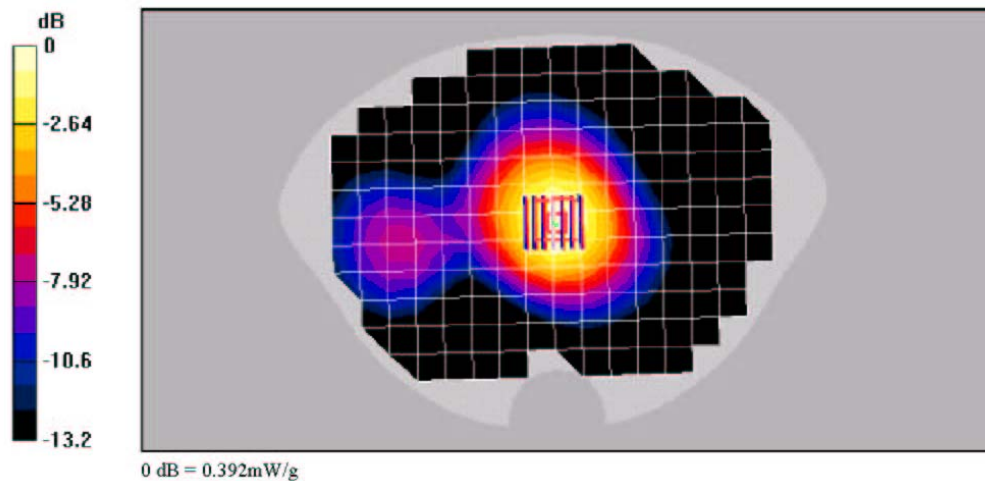
Probe: ET3DV6 - SN1712, ConvF(5, 5, 5), Calibrated: Probe not calibrated
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),
Electronics: DAE3 Sn530, Calibrated: 12/22/2003
Measurement SW: DASY4, V4.2 Build 44
Postprocessing SW: SEMCAD, V1.8 Build 112

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) = 0.392 mW/g
Peak SAR (extrapolated) = 0.578 W/kg
SAR(1 g) = 0.366 mW/g; SAR(10 g) = 0.234 mW/g



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Date/Time: 06/12/04 14:22:53

Test Laboratory: Kyocera

K493LC #B79L, 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, $\sigma = 1.56$ nS/m, $\epsilon_r = 53.9$, $\rho = 1000$ 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

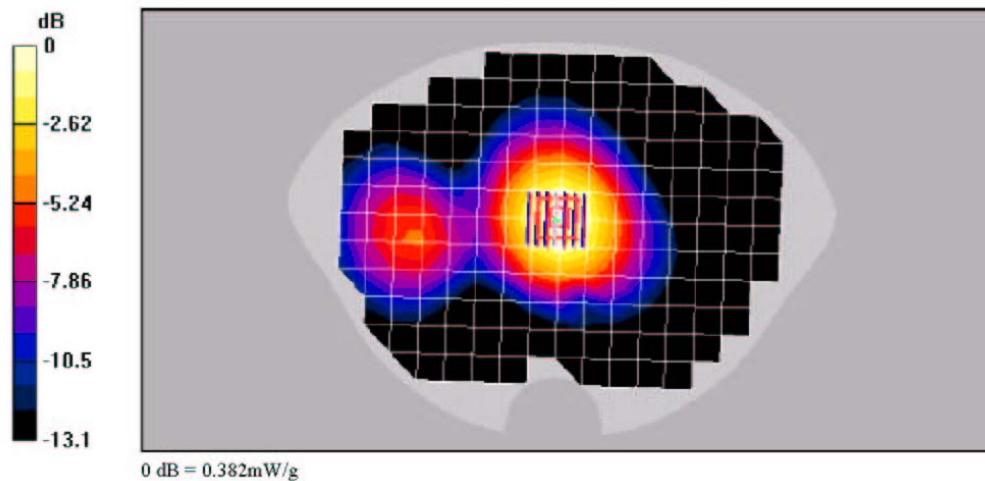
CDMA-1900 Ch600/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.8 V/m, Power Drift = 0.1 dB

Maximum value of SAR (measured) = 0.382 mW/g

Peak SAR (extrapolated) = 0.568 W/kg

SAR(1 g) = 0.355 mW/g; SAR(10 g) = 0.226 mW/g



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Date/Time: 06/13/04 11:27:36

Test Laboratory: Kyocera

K493LC #B79L, CDMA-1900 FLAT 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, $\sigma = 1.57$ mho/m, $\epsilon_r = 53.5$, $\rho = 1000$ kg/m³
Phantom: SAM 12, Phantom section: Flat Section

DASY4 Configuration:

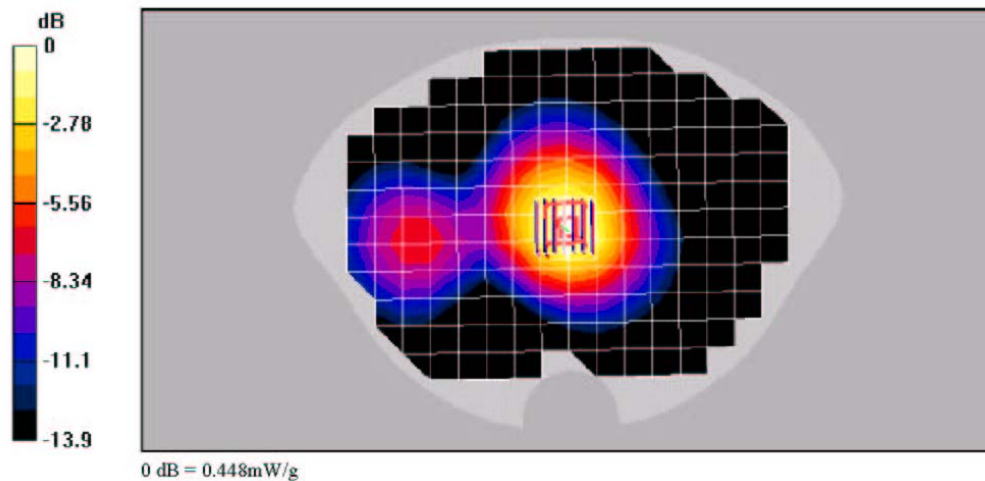
Probe: ET3DV6 - SN1712, ConvF(5, 5, 5), Calibrated: Probe not calibrated
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),
Electronics: DAE3 Sn530, Calibrated: 12/22/2003
Measurement SW: DASY4, V4.2 Build 44
Postprocessing SW: SEMCAD, V1.8 Build 112

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 = 18 V/m, Power Drift = 0.0 dB
Maximum value of SAR (measured) = 0.448 mW/g
Peak SAR (extrapolated) = 0.671 W/kg
SAR(1 g) = 0.416 mW/g; SAR(10 g) = 0.259 mW/g



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Date/Time: 06/12/04 15:38:58

Test Laboratory: Kyocera

K493LC #B79L, 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, $\sigma = 1.56$ mho/m, $\epsilon_r = 53.9$, $\rho = 1000$ kg/m³
Phantom: SAM 12, Phantom section: Flat Section

DASY4 Configuration:

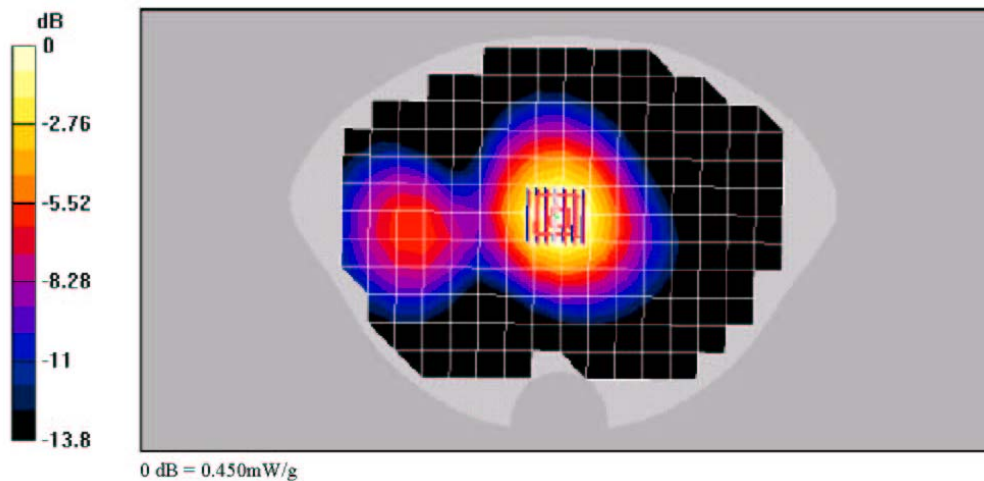
Probe: ET3DV6 - SN1712, ConvF(5, 5, 5), Calibrated: Probe not calibrated
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),
Electronics: DAE3 Sn530, Calibrated: 12/22/2003
Measurement SW: DASY4, V4.2 Build 44
Postprocessing SW: SEMCAD, V1.8 Build 112

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 = 17.9 V/m, Power Drift = -0.0 dB
Maximum value of SAR (measured) = 0.450 mW/g
Peak SAR (extrapolated) = 0.678 W/kg
SAR(1 g) = 0.422 mW/g; SAR(10 g) = 0.264 mW/g



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Date/Time: 06/13/04 12:04:33

Test Laboratory: Kyocera

K493LC #B79L, 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, $\sigma = 1.57$ mho/m, $\epsilon_r = 53.5$, $\rho = 1000$ 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

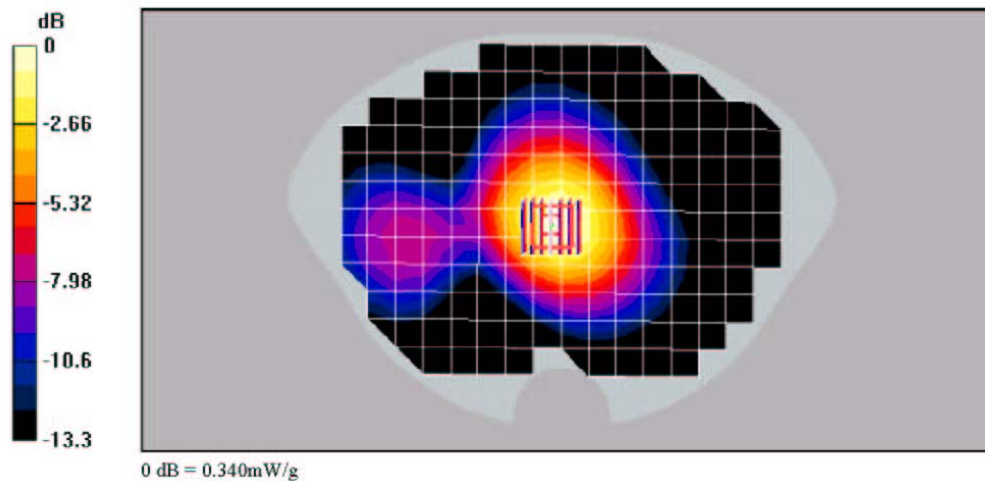
CDMA-1900 Ch600/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.7 V/m, Power Drift = -0.2 dB

Maximum value of SAR (measured) = 0.340 mW/g

Peak SAR (extrapolated) = 0.510 W/kg

SAR(1 g) = 0.318 mW/g; SAR(10 g) = 0.201 mW/g



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Date/Time: 06/12/04 15:00:56

Test Laboratory: Kyocera

K493LC #B79L, 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, $\sigma = 1.56$ mho/m, $\epsilon_r = 53.9$, $\rho = 1000$ kg/m³
Phantom: SAM 12, Phantom section: Flat Section

DASY4 Configuration:

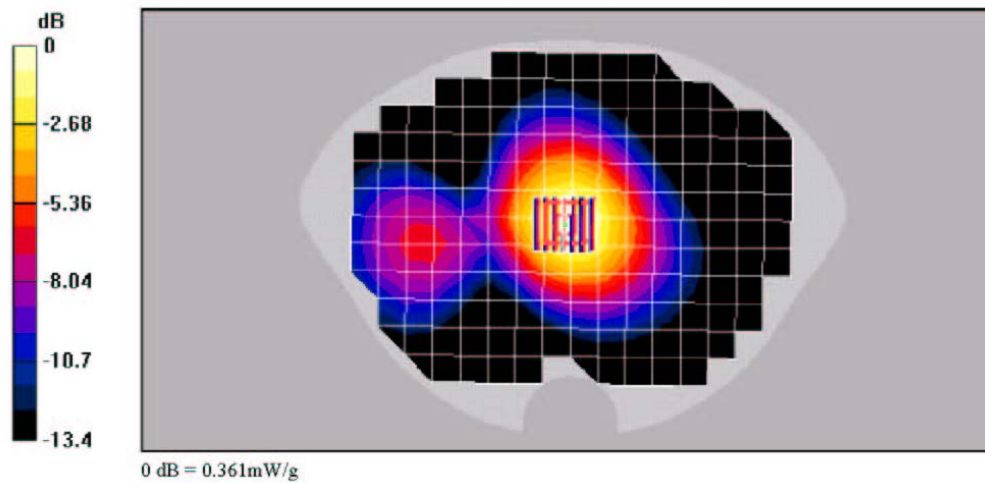
Probe: ET3DV6 - SN1712, ConvF(5, 5, 5), Calibrated: Probe not calibrated
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),
Electronics: DAE3 Sn530, Calibrated: 12/22/2003
Measurement SW: DASY4, V4.2 Build 44
Postprocessing SW: SEMCAD, V1.8 Build 112

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 = 15.8 V/m, Power Drift = -0.2 dB
Maximum value of SAR (measured) = 0.361 mW/g
Peak SAR (extrapolated) = 0.545 W/kg
SAR(1 g) = 0.334 mW/g; SAR(10 g) = 0.207 mW/g



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Date/Time: 06/12/04 15:38:58

Test Laboratory: Kyocera

K493LC #B79L, CDMA-1900 FLAT Z-Scan with Belt Clip Ch600

Communication System: CDMA 1900, Frequency: 1880 MHz, Duty Cycle: 1:1
Medium: M1800, Medium parameters used: $f = 1880$ MHz, $\sigma = 1.56$ mho/m, $\epsilon_r = 53.9$, $\rho = 1000$ kg/m³
Phantom: SAM 12, Phantom section: Flat Section

DASY4 Configuration:

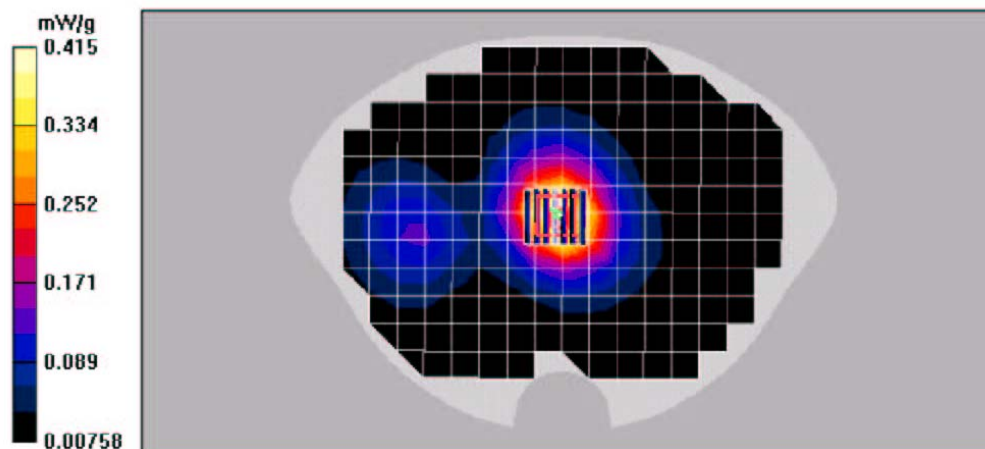
Probe: ET3DV6 - SN1712, ConvF(5, 5, 5), Calibrated: Probe not calibrated
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
Sensor-Surface: 0mm (Fix Surface)
Electronics: DAE3 Sn530, Calibrated: 12/22/2003
Measurement SW: DASY4, V4.2 Build 44
Postprocessing SW: SEMCAD, V1.8 Build 112

Temperature:

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

CDMA-1900 Ch25 600/Z Scan (1x1x11): Measurement grid: dx=20mm, dy=20mm, dz=5mm

Reference Value = 17.9 V/m, Power Drift = -0.0 dB
Maximum value of SAR (measured) = 0.422 mW/g



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Date/Time: 06/02/04 09:17:01

Test Laboratory: Kyocera

K493LC ENERGI #B79L CDMA-1900 Left Cheek Ch1175

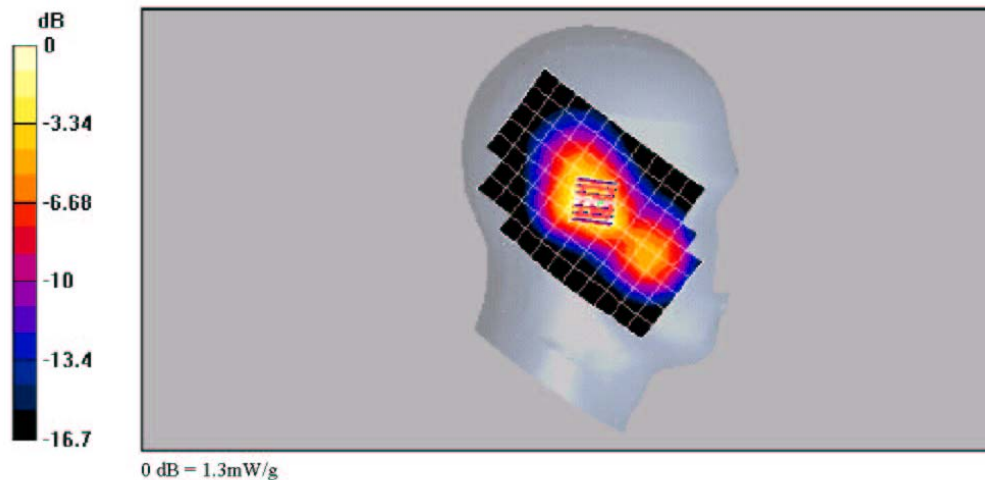
Communication System: CDMA 1900, Frequency: 1909 MHz, Duty Cycle: 1:1
 Medium: Head 1900 MHz, Medium parameters used (interpolated): $f = 1909 \text{ MHz}$, $\sigma = 1.41 \text{ mho/m}$, $\epsilon_r = 39.5$, $\rho = 1000 \text{ kg/m}^3$
 Phantom: SAM 12, Phantom section: Left Section

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

1175 LC/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
 Reference Value = 38.7 V/m, Power Drift = -0.2 dB
 Maximum value of SAR (measured) = 1.3 mW/g
 Peak SAR (extrapolated) = 1.8 W/kg
SAR(1 g) = 1.17 mW/g; SAR(10 g) = 0.671 mW/g

Info: Interpolated medium parameters used for SAR evaluation!



Date/Time: 06/02/04 09:16:54

Test Laboratory: Kyocera

K493LC ENERGI #B79L, CDMA-1900 Left Cheek with Backpack Clip Ch1175

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

Medium: Head 1900 MHz, Medium parameters used (interpolated): $f = 1909$ MHz, $\sigma = 1.41$ 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)

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

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

Reference Value = 26.1 V/m, Power Drift = -0.1 dB

Maximum value of SAR (measured) = 0.934 mW/g

Peak SAR (extrapolated) = 1.3 W/kg

SAR(1 g) = 0.850 mW/g; SAR(10 g) = 0.520 mW/g

Info: Interpolated medium parameters used for SAR evaluation!

1175 LC/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

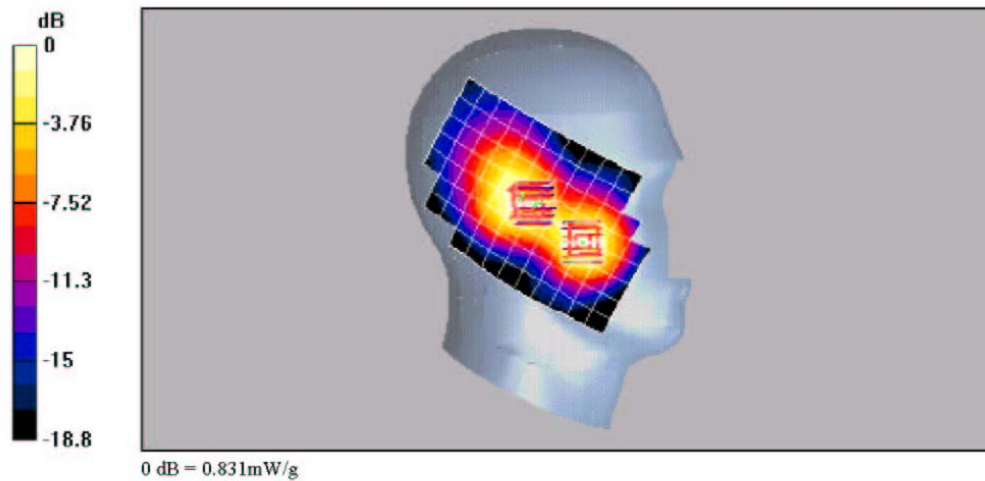
Reference Value = 26.1 V/m, Power Drift = -0.1 dB

Maximum value of SAR (measured) = 0.831 mW/g

Peak SAR (extrapolated) = 1.04 W/kg

SAR(1 g) = 0.779 mW/g; SAR(10 g) = 0.500 mW/g

Info: Interpolated medium parameters used for SAR evaluation!



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Date/Time: 06/02/04 09:17:01

Test Laboratory: Kyocera

K493LC ENERGI #B79L CDMA-1900 Left Tilt Ch1175

Communication System: CDMA 1900, Frequency: 1909 MHz, Duty Cycle: 1:1
Medium: Head 1900 MHz, Medium parameters used (interpolated): $f = 1909$ MHz, $\sigma = 1.41$ 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

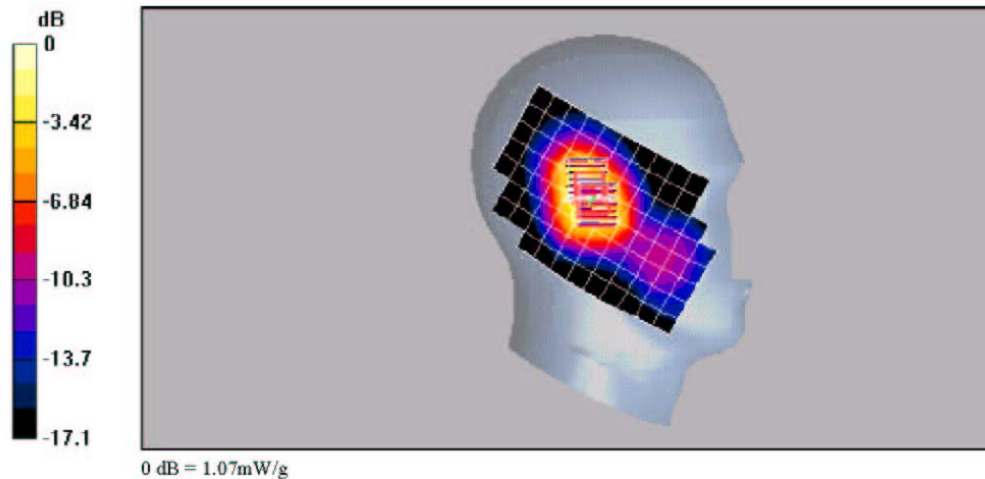
Temperature:
Room T = 21.8 +/- 1 deg C, Liquid T = 22.0 +/- 1 deg C

1175 LT/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 29 V/m, Power Drift = 0.0 dB
Maximum value of SAR (measured) = 1.09 mW/g
Peak SAR (extrapolated) = 1.52 W/kg
SAR(1 g) = 1 mW/g; SAR(10 g) = 0.632 mW/g

Info: Interpolated medium parameters used for SAR evaluation!

1175 LT/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 29 V/m, Power Drift = 0.0 dB
Maximum value of SAR (measured) = 1.07 mW/g
Peak SAR (extrapolated) = 1.51 W/kg
SAR(1 g) = 0.972 mW/g; SAR(10 g) = 0.566 mW/g

Info: Interpolated medium parameters used for SAR evaluation!



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Date/Time: 06/01/04 09:17:07

Test Laboratory: Kyocera

K493LC ENERGI #B79L, CDMA-1900 Right Cheek Ch1175

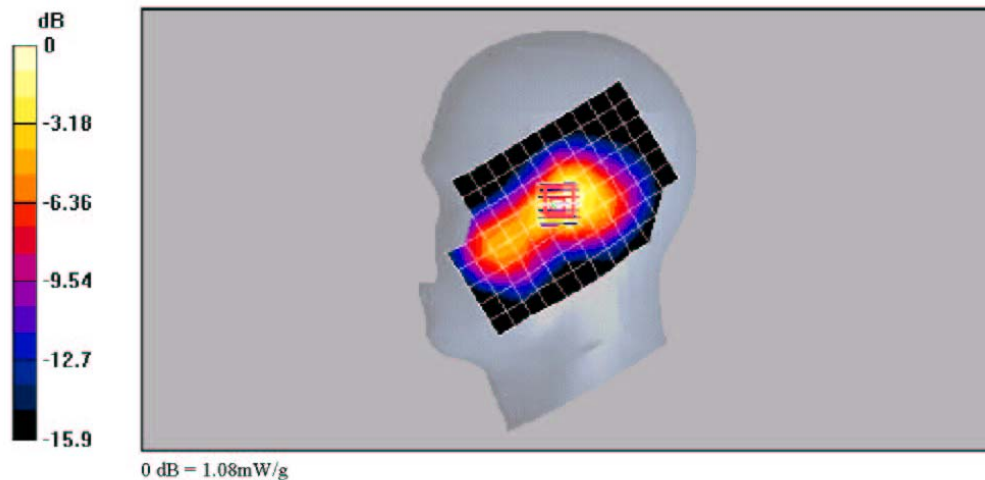
Communication System: CDMA 1900, Frequency: 1909 MHz, Duty Cycle: 1:1
Medium: Head 1900 MHz, Medium parameters used (interpolated): $f = 1909 \text{ MHz}$, $\sigma = 1.41 \text{ mho/m}$, $\epsilon_r = 39.9$, $\rho = 1000 \text{ kg/m}^3$
Phantom: SAM 12, Phantom section: Right Section

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

1175 RC/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$
Reference Value = 25.8 V/m, Power Drift = 0.0 dB
Maximum value of SAR (measured) = 1.08 mW/g
Peak SAR (extrapolated) = 1.51 W/kg
SAR(1g) = 0.979 mW/g; SAR(10g) = 0.576 mW/g

Info: Interpolated medium parameters used for SAR evaluation!



Date/Time: 06/01/04 09:17:07

Test Laboratory: Kyocera

K493LC ENERGI #B79L, CDMA-1900 Right Tilt Ch600

Communication System: CDMA 1900, Frequency: 1880 MHz, Duty Cycle: 1:1
Medium: Head 1900 MHz, Medium parameters used: $f = 1880 \text{ MHz}$, $\sigma = 1.41 \text{ mho/m}$, $\epsilon_r = 39.9$, $\rho = 1000 \text{ kg/m}^3$
Phantom: SAM 12, Phantom section: Right Section

DASY4 Configuration:

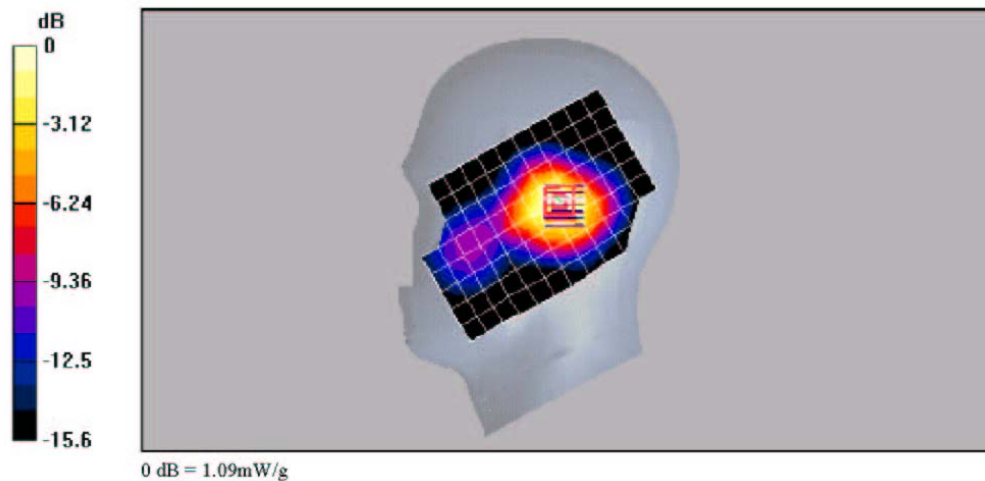
Probe: ET3DV6 - SN1712, ConvF(5.3, 5.3, 5.3), Calibrated: 9/19/2003
Sensor-Surface: 4mm (Mechanical And Optical Surface Detection),
Electronics: DAE3 Sn530, Calibrated: 12/22/2003
Measurement SW: DASY4, V4.2 Build 44
Postprocessing SW: SEMCAD, V1.8 Build 112

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 = 27.7 V/m, Power Drift = -0.0 dB
Maximum value of SAR (measured) = 1.09 mW/g
Peak SAR (extrapolated) = 1.53 W/kg
SAR(1 g) = 0.999 mW/g; SAR(10 g) = 0.591 mW/g



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