

Date/Time: 09/09/03 12:07:41

Test Laboratory: QUALCOMM Incorporated
 File Name: [sn 361 -LH -09-09 cdma835.da4](#)

sn 361 -LH -09-09 cdma835

DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: CDMA835; Frequency: 848.31 MHz; Duty Cycle: 1:1

Medium: HSL835 ($\sigma = 0.901565$ mho/m, $\epsilon_r = 39.6708$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 51%

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(6.5, 6.5, 6.5); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Touch position - High/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 33.1 V/m

Power Drift = -0.08 dB

Maximum value of SAR = 1.22 mW/g

Touch position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

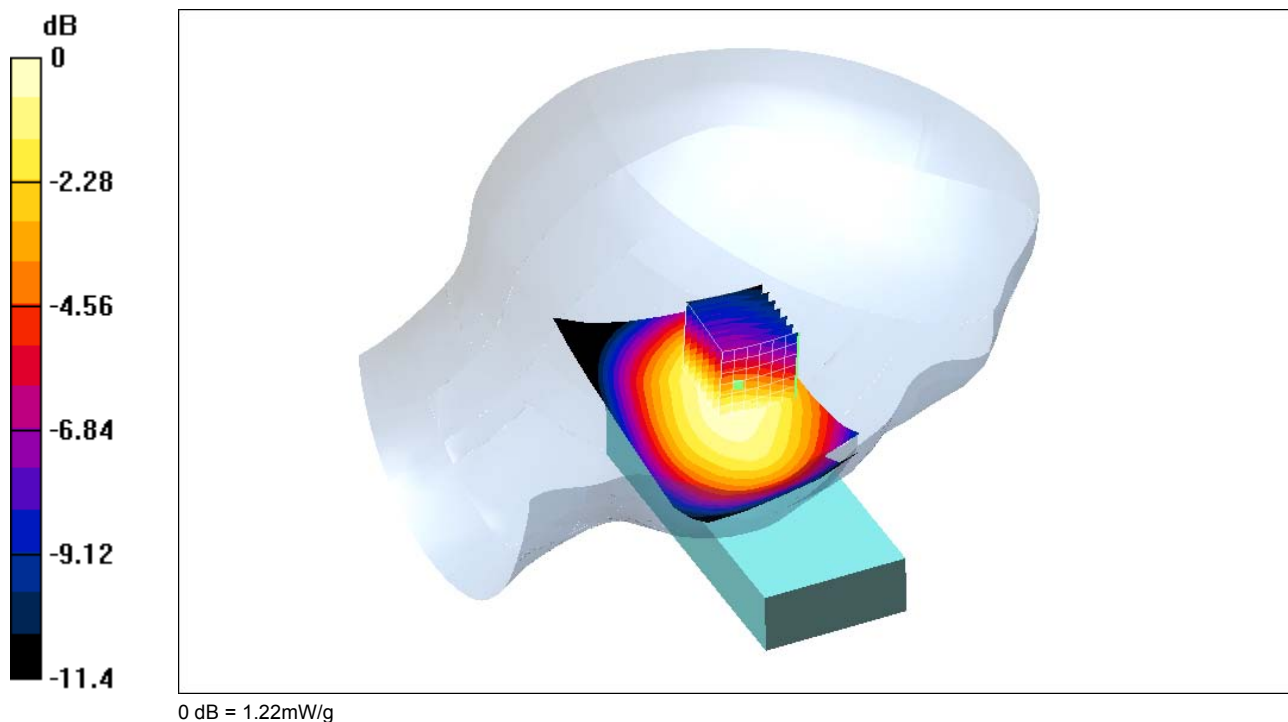
Peak SAR (extrapolated) = 1.81 W/kg

SAR(1 g) = 1.15 mW/g; SAR(10 g) = 0.786 mW/g

Reference Value = 33.1 V/m

Power Drift = -0.08 dB

Maximum value of SAR = 1.22 mW/g



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sn 361 -LH -09-09 cdma835

DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: CDMA835; Frequency: 824.7 MHz; Duty Cycle: 1:1

Medium: HSL835 ($\sigma = 0.870846$ mho/m, $\epsilon_r = 40.0195$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 51%

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(6.5, 6.5, 6.5); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Tilt position - Low/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 30 V/m

Power Drift = -0.2 dB

Maximum value of SAR = 0.841 mW/g

Tilt position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

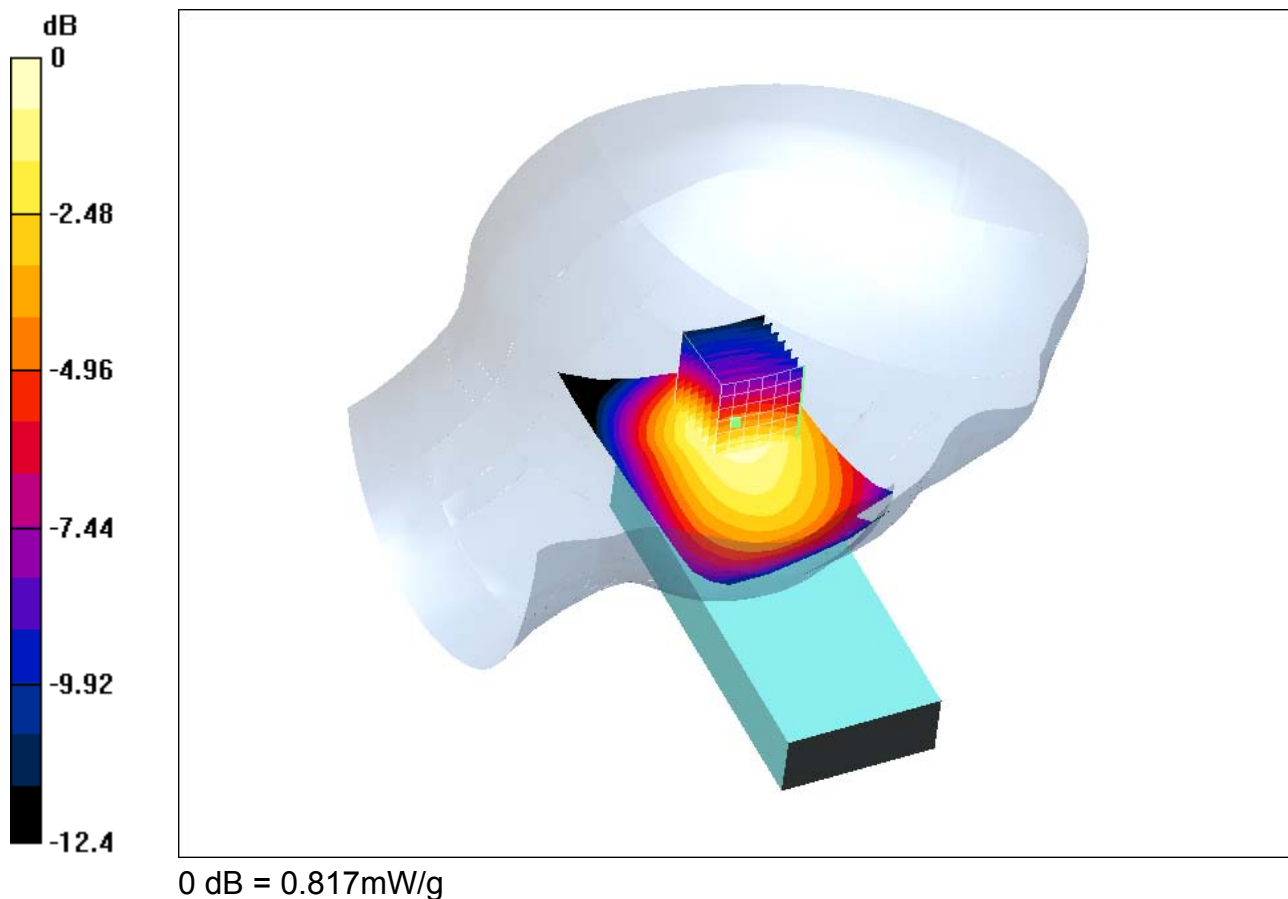
Peak SAR (extrapolated) = 1.13 W/kg

SAR(1 g) = 0.768 mW/g; SAR(10 g) = 0.505 mW/g

Reference Value = 30 V/m

Power Drift = -0.2 dB

Maximum value of SAR = 0.817 mW/g



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sn 361 -LH -09-09 cdma835

DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: CDMA835; Frequency: 836.49 MHz; Duty Cycle: 1:1

Medium: HSL835 ($\sigma = 0.889468$ mho/m, $\epsilon_r = 39.7531$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 51%

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(6.5, 6.5, 6.5); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Tilt position - Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 30.2 V/m

Power Drift = -0.2 dB

Maximum value of SAR = 0.832 mW/g

Tilt position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

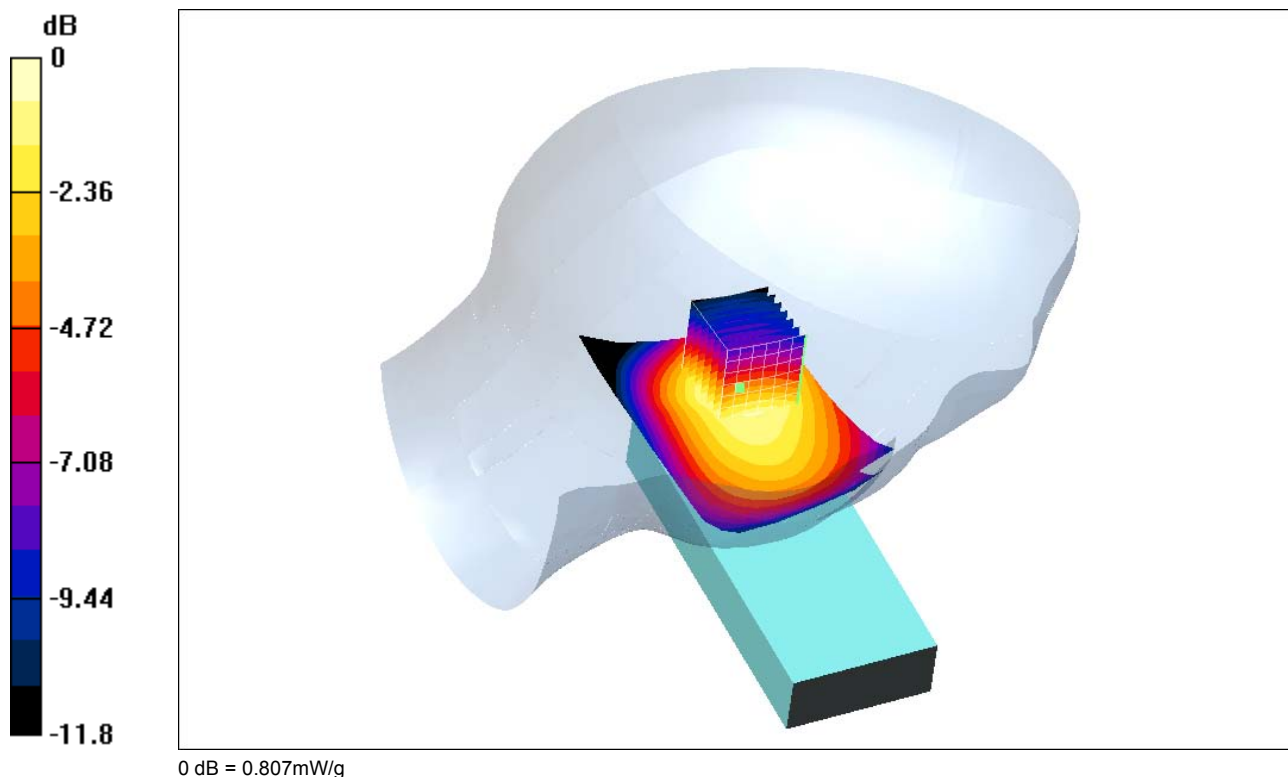
Peak SAR (extrapolated) = 1.1 W/kg

SAR(1 g) = 0.761 mW/g; SAR(10 g) = 0.497 mW/g

Reference Value = 30.2 V/m

Power Drift = -0.2 dB

Maximum value of SAR = 0.807 mW/g



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DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: CDMA835; Frequency: 848.31 MHz; Duty Cycle: 1:1

Medium: HSL835 ($\sigma = 0.901565$ mho/m, $\epsilon_r = 39.6708$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 51%

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(6.5, 6.5, 6.5); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Tilt position - High/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 31.2 V/m

Power Drift = -0.04 dB

Maximum value of SAR = 1.04 mW/g

Tilt position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

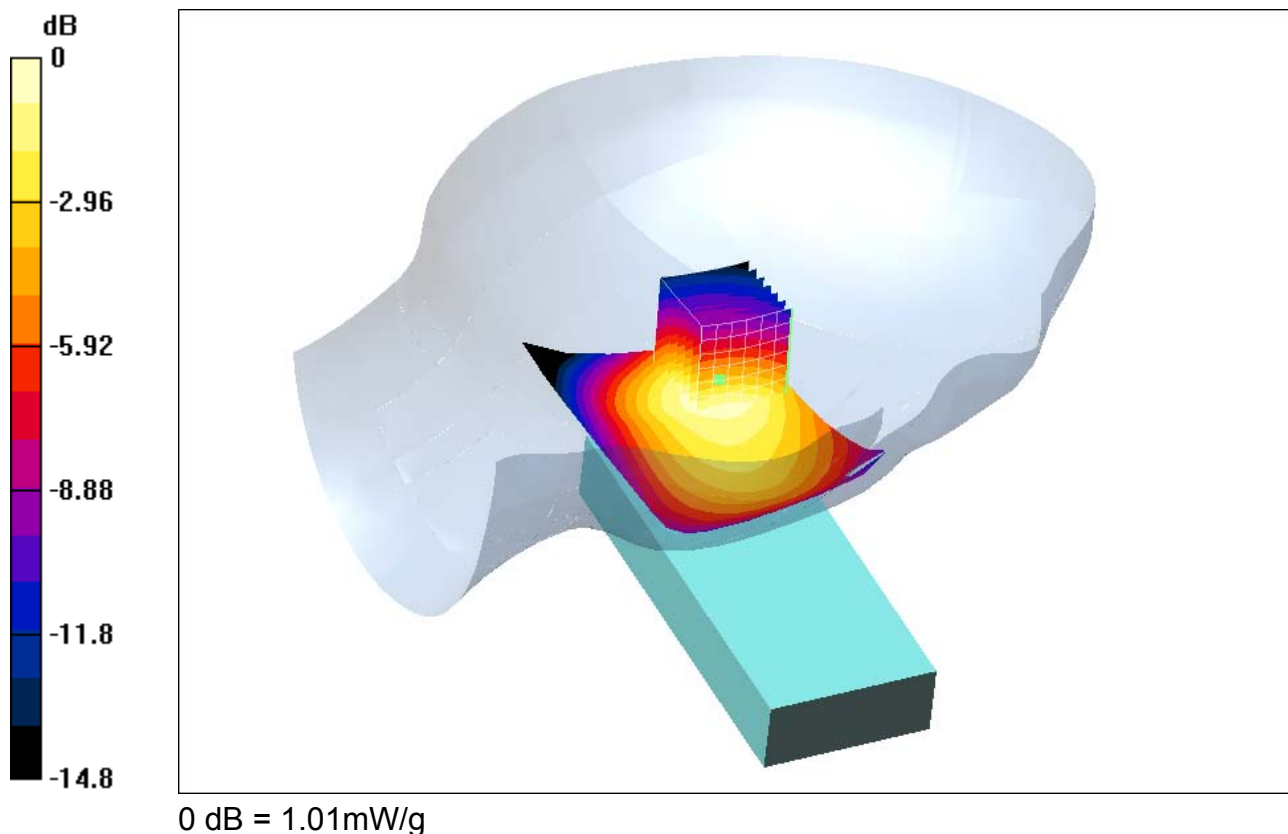
Peak SAR (extrapolated) = 1.59 W/kg

SAR(1 g) = 0.939 mW/g; SAR(10 g) = 0.589 mW/g

Reference Value = 31.2 V/m

Power Drift = -0.04 dB

Maximum value of SAR = 1.01 mW/g



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 File Name: [sn 361 -RH -09-09 cdma835.da4](#)

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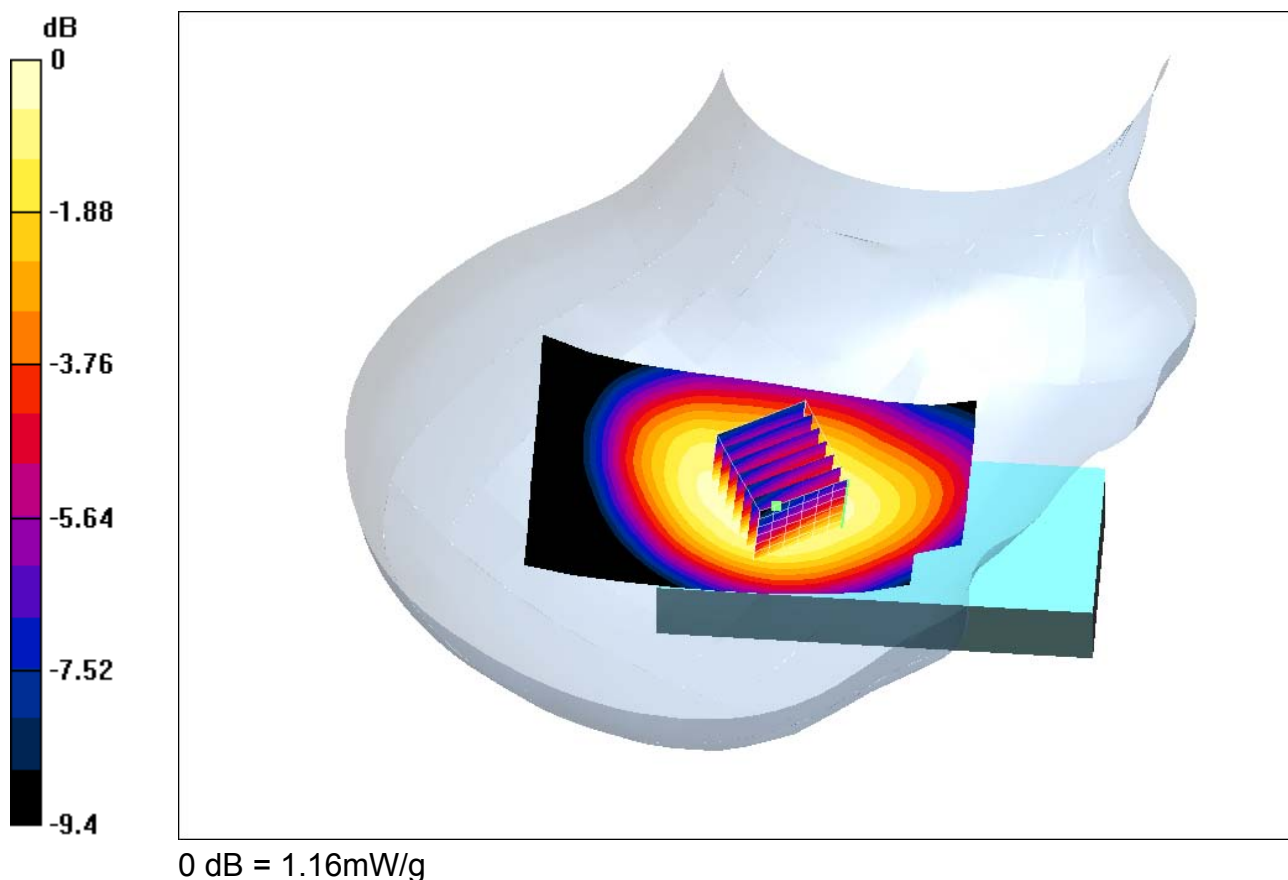
DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Right-Hand Side)

Communication System: CDMA835; Frequency: 824.7 MHz; Duty Cycle: 1:1
 Medium: HSL835 ($\sigma = 0.870846$ mho/m, $\epsilon_r = 40.0195$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 51%
 Phantom section: Right Section

DASY4 Configuration:
 - Probe: ET3DV6 - SN1733; ConvF(6.5, 6.5, 6.5); Calibrated: 12/3/2002
 - Sensor-Surface: 4mm (Mechanical Surface Detection)
 - Electronics: DAE3 Sn566; Calibrated: 5/23/2003
 - Phantom: SAM with CRP; Type: SAM; Serial: 001
 - Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Touch position - Low/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm
 Reference Value = 34.7 V/m
 Power Drift = -0.2 dB
 Maximum value of SAR = 1.19 mW/g

Touch position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Peak SAR (extrapolated) = 1.45 W/kg
 SAR(1 g) = 1.12 mW/g; SAR(10 g) = 0.826 mW/g
 Reference Value = 34.7 V/m
 Power Drift = -0.2 dB
 Maximum value of SAR = 1.16 mW/g



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DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Right-Hand Side)

Communication System: CDMA835; Frequency: 824.7 MHz; Duty Cycle: 1:1

Medium: HSL835 ($\sigma = 0.870846$ mho/m, $\epsilon_r = 40.0195$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 51%

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(6.5, 6.5, 6.5); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Tilt position - Low/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 29.7 V/m

Power Drift = -0.3 dB

Maximum value of SAR = 0.747 mW/g

Tilt position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

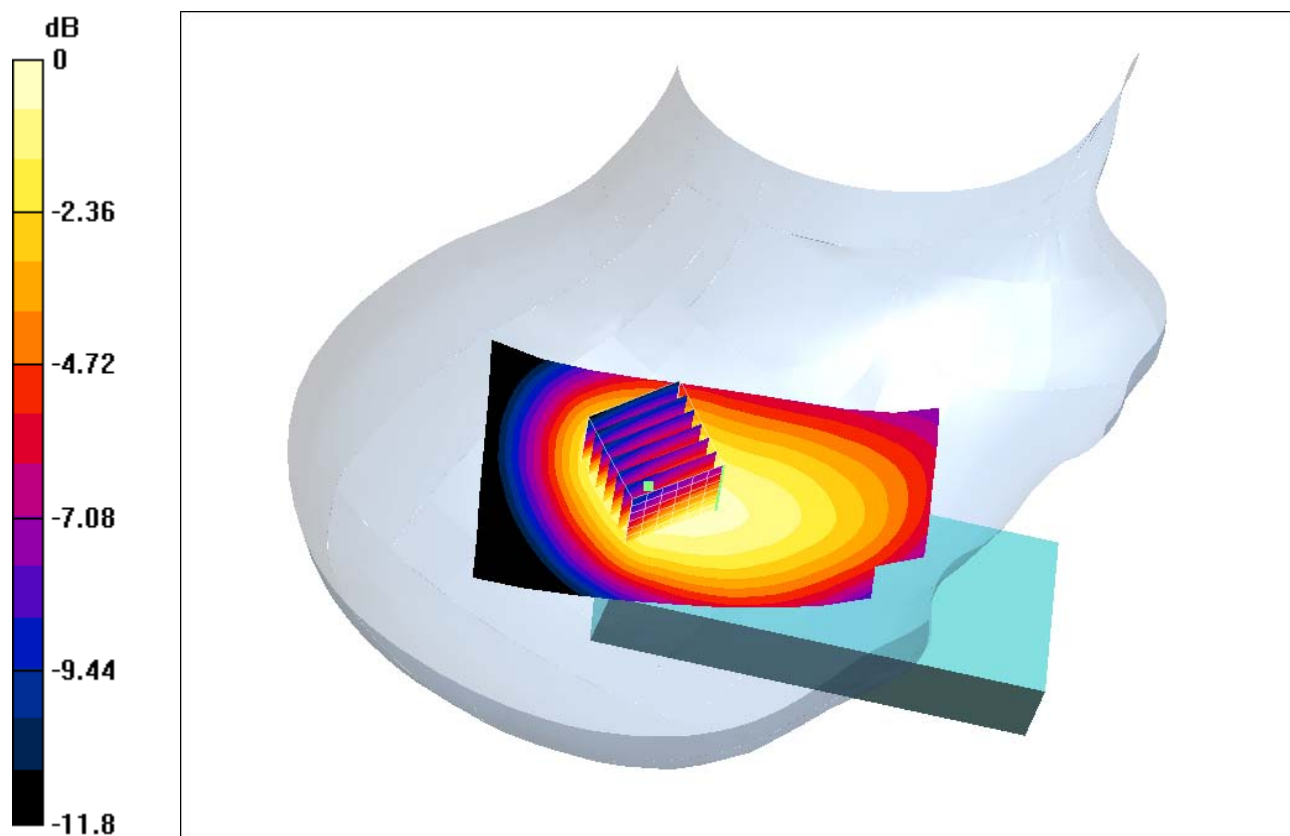
Peak SAR (extrapolated) = 0.928 W/kg

SAR(1 g) = 0.661 mW/g; SAR(10 g) = 0.46 mW/g

Reference Value = 29.7 V/m

Power Drift = -0.3 dB

Maximum value of SAR = 0.709 mW/g



0 dB = 0.709mW/g

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sn 361 -RH -09-09 cdma835

DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Right-Hand Side)

Communication System: CDMA835; Frequency: 836.49 MHz; Duty Cycle: 1:1

Medium: HSL835 ($\sigma = 0.889468$ mho/m, $\epsilon_r = 39.7531$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 51%

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(6.5, 6.5, 6.5); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Touch position - Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 33.2 V/m

Power Drift = 0.01 dB

Maximum value of SAR = 1.13 mW/g

Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

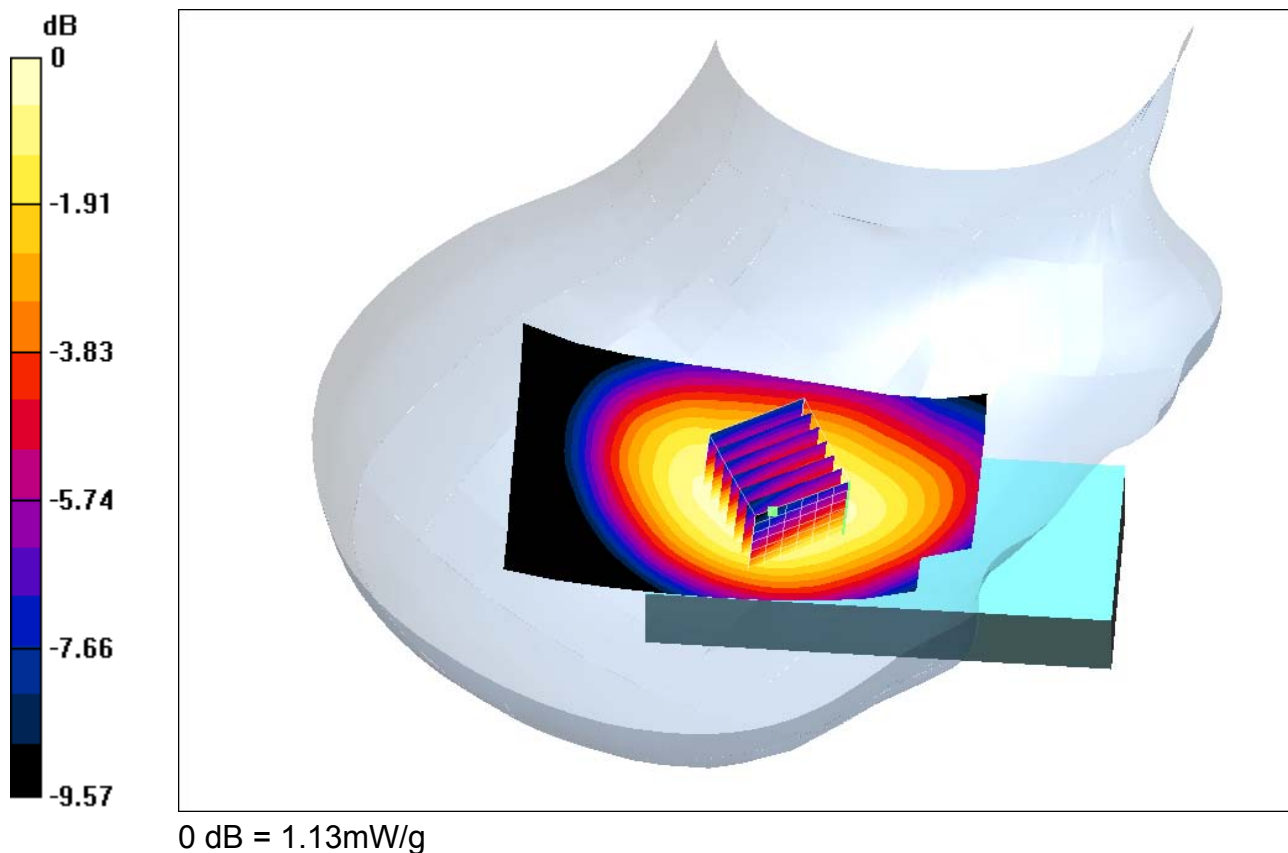
Peak SAR (extrapolated) = 1.42 W/kg

SAR(1 g) = 1.09 mW/g; SAR(10 g) = 0.809 mW/g

Reference Value = 33.2 V/m

Power Drift = 0.01 dB

Maximum value of SAR = 1.13 mW/g



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DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Right-Hand Side)

Communication System: CDMA835; Frequency: 836.49 MHz; Duty Cycle: 1:1

Medium: HSL835 ($\sigma = 0.889468$ mho/m, $\epsilon_r = 39.7531$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 51%

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(6.5, 6.5, 6.5); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Tilt position - Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 30.7 V/m

Power Drift = -0.08 dB

Maximum value of SAR = 0.816 mW/g

Tilt position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

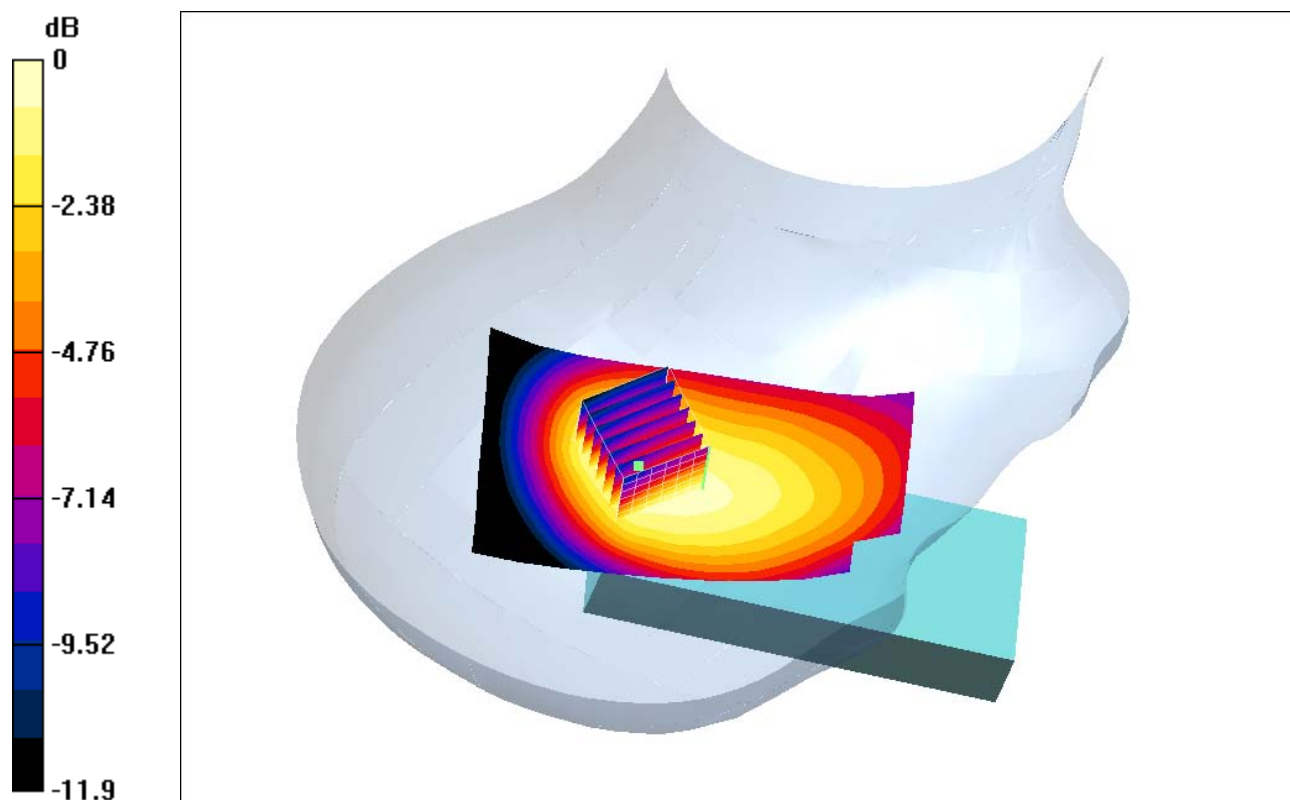
Peak SAR (extrapolated) = 1.07 W/kg

SAR(1 g) = 0.745 mW/g; SAR(10 g) = 0.51 mW/g

Reference Value = 30.7 V/m

Power Drift = -0.08 dB

Maximum value of SAR = 0.789 mW/g



0 dB = 0.789mW/g

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Test Laboratory: QUALCOMM Incorporated
 File Name: [sn 361 -RH -09-09 cdma835.da4](#)

sn 361 -RH -09-09 cdma835

DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Right-Hand Side)

Communication System: CDMA835; Frequency: 848.31 MHz; Duty Cycle: 1:1

Medium: HSL835 ($\sigma = 0.901565$ mho/m, $\epsilon_r = 39.6708$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 51%

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(6.5, 6.5, 6.5); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Touch position - High/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 34.3 V/m

Power Drift = -0.1 dB

Maximum value of SAR = 1.22 mW/g

Touch position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

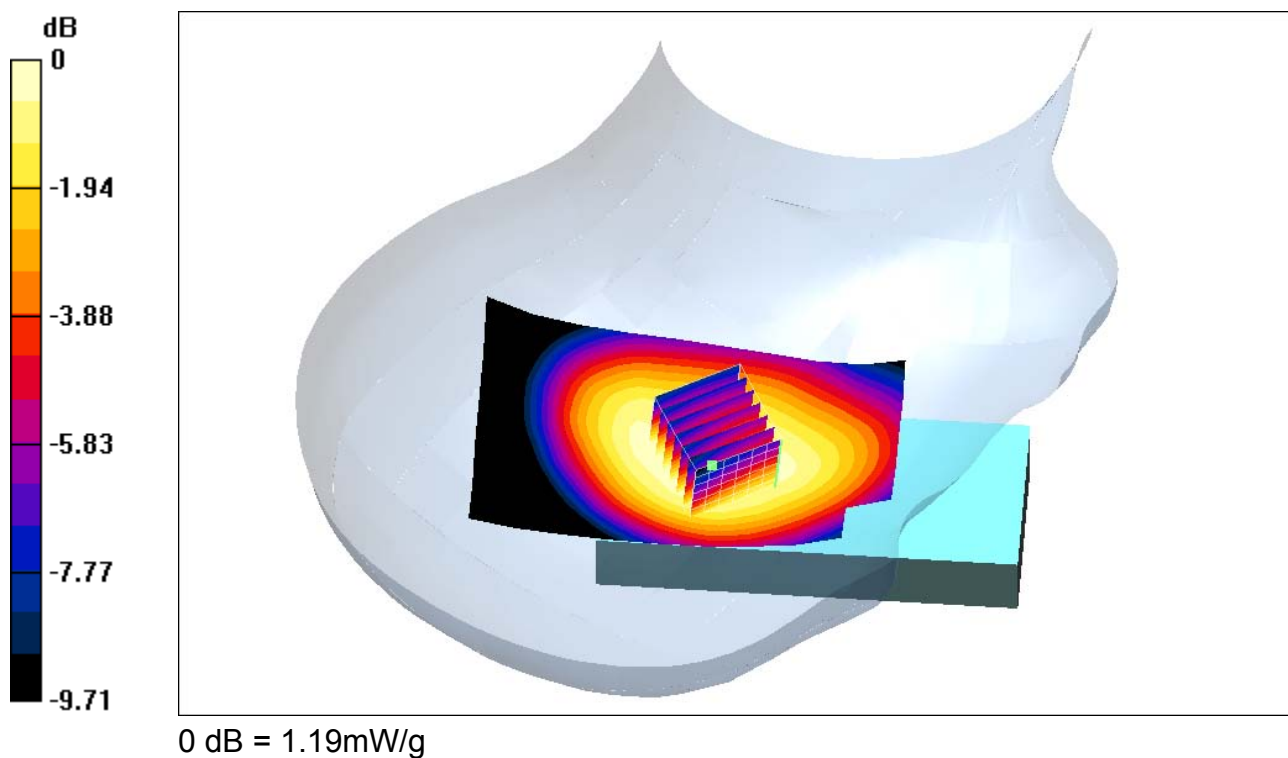
Peak SAR (extrapolated) = 1.5 W/kg

SAR(1 g) = 1.15 mW/g; SAR(10 g) = 0.851 mW/g

Reference Value = 34.3 V/m

Power Drift = -0.1 dB

Maximum value of SAR = 1.19 mW/g



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Test Laboratory: QUALCOMM Incorporated
 File Name: [sn 361 -RH -09-09 cdma835.da4](#)

sn 361 -RH -09-09 cdma835

DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Right-Hand Side)

Communication System: CDMA835; Frequency: 848.31 MHz; Duty Cycle: 1:1

Medium: HSL835 ($\sigma = 0.901565$ mho/m, $\epsilon_r = 39.6708$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 51%

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(6.5, 6.5, 6.5); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Tilt position - High/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 30.6 V/m

Power Drift = -0.07 dB

Maximum value of SAR = 0.821 mW/g

Tilt position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

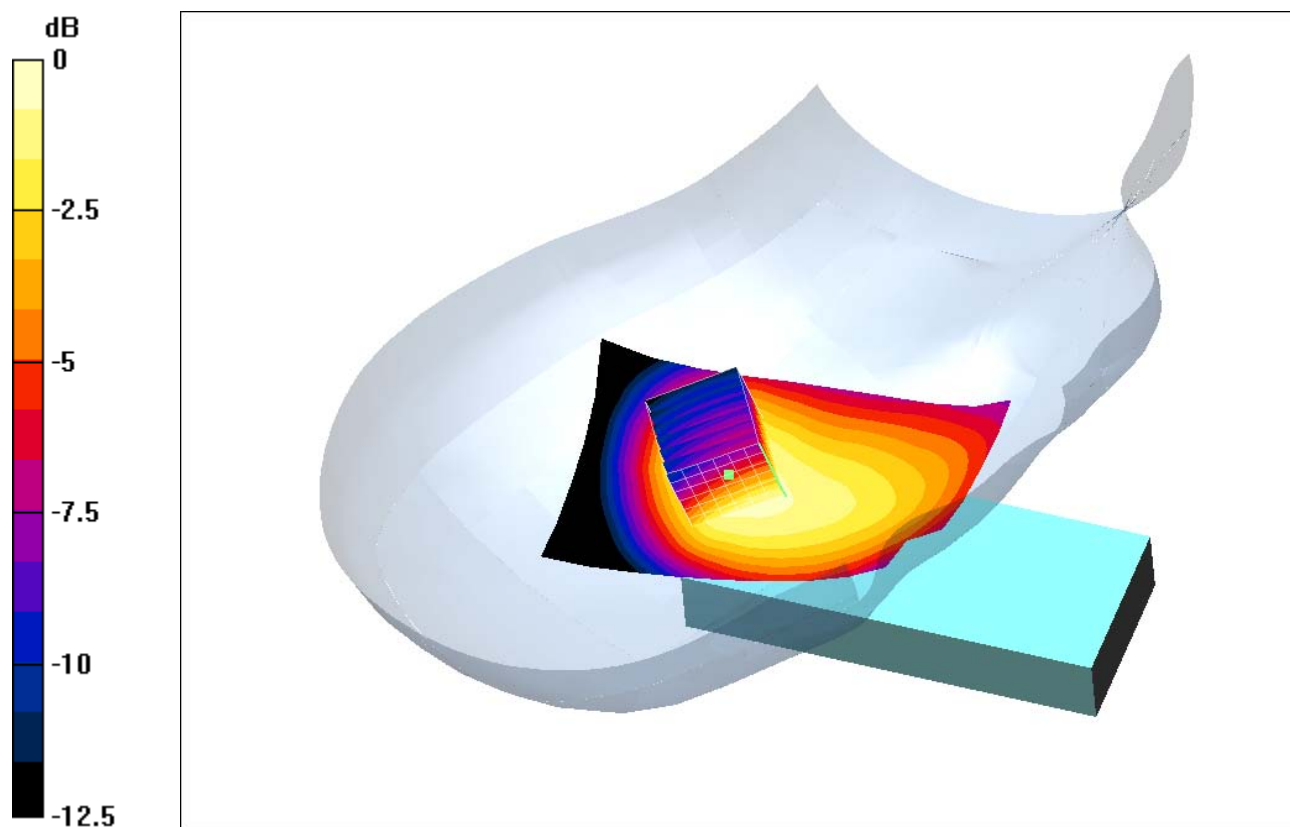
Peak SAR (extrapolated) = 1.07 W/kg

SAR(1 g) = 0.748 mW/g; SAR(10 g) = 0.502 mW/g

Reference Value = 30.6 V/m

Power Drift = -0.07 dB

Maximum value of SAR = 0.803 mW/g



0 dB = 0.803mW/g

Date/Time: 09/09/03 15:59:56

Test Laboratory: QUALCOMM Incorporated
 File Name: [P1528-Flat-PTT 9-09 CDMA 835 sn361.da4](#)

P1528-Flat-PTT 9-09 CDMA 835 sn361

DUT: Casper; Type: Phone; Serial: P2b-361

Program: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: CDMA835; Frequency: 824.7 MHz; Duty Cycle: 1:1

Medium: HSL835 ($\sigma = 0.870846$ mho/m, $\epsilon_r = 40.0195$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 59%

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(6.5, 6.5, 6.5); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

PTT - Low/Area Scan (61x91x1): Measurement grid: dx=12mm, dy=12mm

Reference Value = 13.6 V/m

Power Drift = -0.02 dB

Maximum value of SAR = 0.376 mW/g

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

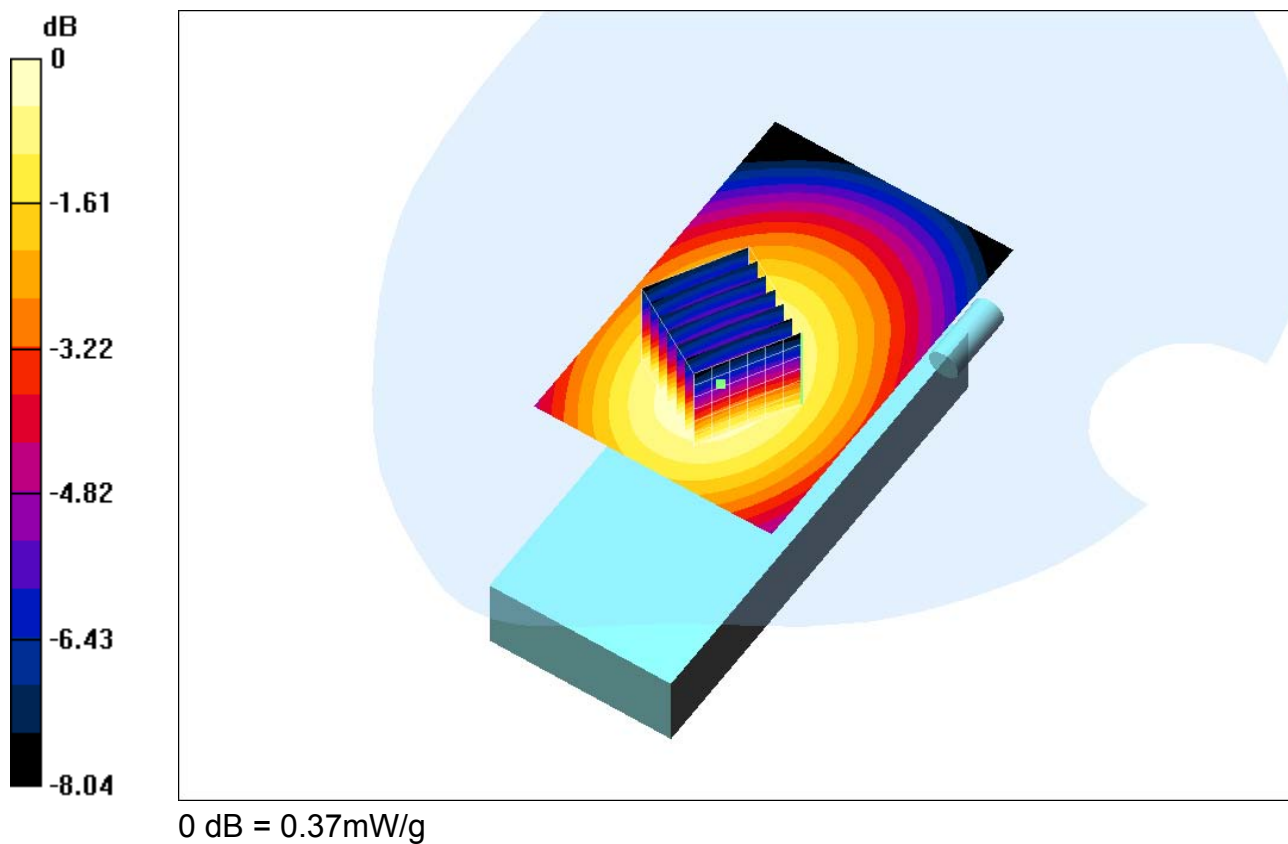
Peak SAR (extrapolated) = 0.488 W/kg

SAR(1 g) = 0.359 mW/g; SAR(10 g) = 0.262 mW/g

Reference Value = 13.6 V/m

Power Drift = -0.02 dB

Maximum value of SAR = 0.37 mW/g



Date/Time: 09/09/03 15:59:56

Test Laboratory: QUALCOMM Incorporated
 File Name: [P1528-Flat-PTT 9-09 CDMA 835 sn361.da4](#)

P1528-Flat-PTT 9-09 CDMA 835 sn361

DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: CDMA835; Frequency: 836.49 MHz; Duty Cycle: 1:1

Medium: HSL835 ($\sigma = 0.889468$ mho/m, $\epsilon_r = 39.7531$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 59%

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(6.5, 6.5, 6.5); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

PTT - Middle/Area Scan (61x91x1): Measurement grid: dx=12mm, dy=12mm

Reference Value = 14.3 V/m

Power Drift = 0.03 dB

Maximum value of SAR = 0.444 mW/g

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

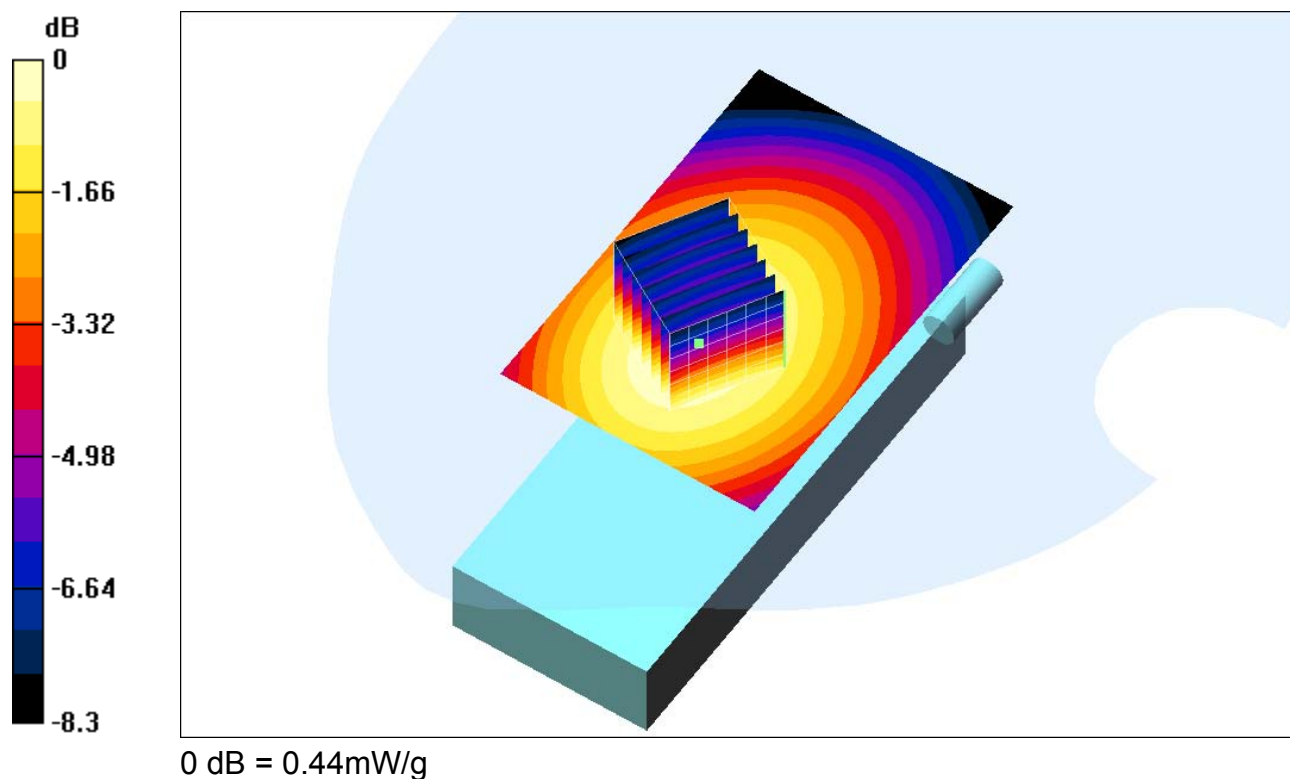
Peak SAR (extrapolated) = 0.583 W/kg

SAR(1 g) = 0.426 mW/g; SAR(10 g) = 0.31 mW/g

Reference Value = 14.3 V/m

Power Drift = 0.03 dB

Maximum value of SAR = 0.44 mW/g



Date/Time: 09/09/03 15:59:56

Test Laboratory: QUALCOMM Incorporated
 File Name: [P1528-Flat-PTT 9-09 CDMA 835 sn361.da4](#)

P1528-Flat-PTT 9-09 CDMA 835 sn361

DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: CDMA835; Frequency: 848.31 MHz; Duty Cycle: 1:1

Medium: HSL835 ($\sigma = 0.901565$ mho/m, $\epsilon_r = 39.6708$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 59%

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(6.5, 6.5, 6.5); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

PTT - High/Area Scan (61x91x1): Measurement grid: dx=12mm, dy=12mm

Reference Value = 13.1 V/m

Power Drift = -0.04 dB

Maximum value of SAR = 0.41 mW/g

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

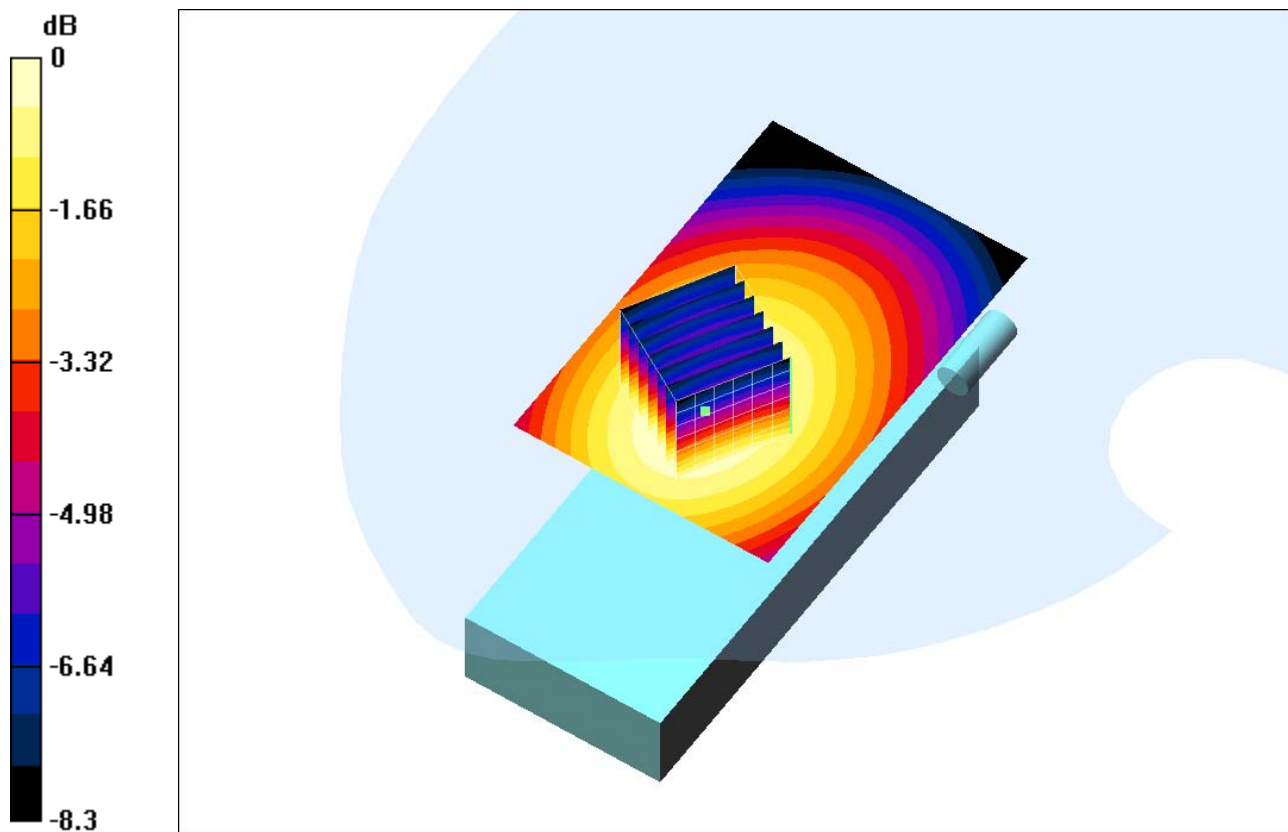
Peak SAR (extrapolated) = 0.525 W/kg

SAR(1 g) = 0.385 mW/g; SAR(10 g) = 0.279 mW/g

Reference Value = 13.1 V/m

Power Drift = -0.04 dB

Maximum value of SAR = 0.399 mW/g



0 dB = 0.399mW/g

Date/Time: 09/10/03 12:14:48

Test Laboratory: QUALCOMM Incorporated
 File Name: [P1528-Flat-BeltClip 9-10 CDMA 835 sn361.da4](#)

P1528-Flat-BeltClip 9-10 CDMA 835 sn361

DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Flat)

Communication System: CDMA835; Frequency: 824.7 MHz; Duty Cycle: 1:1
 Medium: HSL835 Body ($\sigma = 0.962751$ mho/m, $\epsilon_r = 55.8604$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 59%
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(6.4, 6.4, 6.4); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Belt Clip - Low/Area Scan (61x131x1): Measurement grid: dx=12mm, dy=12mm

Reference Value = 13.8 V/m

Power Drift = -0.2 dB

Maximum value of SAR = 0.392 mW/g

Belt Clip - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

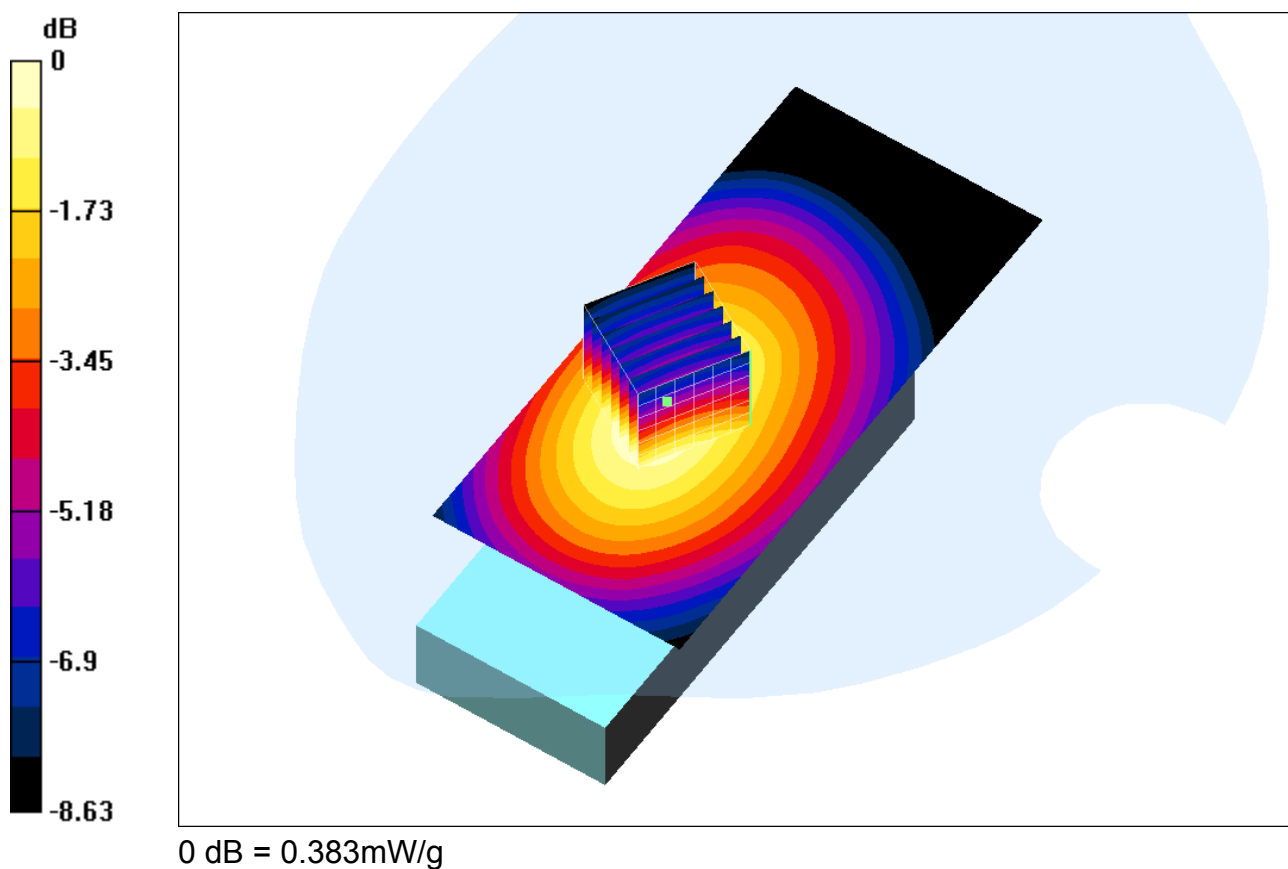
Peak SAR (extrapolated) = 0.51 W/kg

SAR(1 g) = 0.37 mW/g; SAR(10 g) = 0.265 mW/g

Reference Value = 13.8 V/m

Power Drift = -0.2 dB

Maximum value of SAR = 0.383 mW/g



Date/Time: 09/10/03 12:14:48

Test Laboratory: QUALCOMM Incorporated
 File Name: [P1528-Flat-BeltClip 9-10 CDMA 835 sn361.da4](#)

P1528-Flat-BeltClip 9-10 CDMA 835 sn361

DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Flat)

Communication System: CDMA835; Frequency: 836.49 MHz; Duty Cycle: 1:1
 Medium: HSL835 Body ($\sigma = 0.973894$ mho/m, $\epsilon_r = 55.6646$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 59%
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(6.4, 6.4, 6.4); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Belt Clip - Middle/Area Scan (61x131x1): Measurement grid: dx=12mm, dy=12mm

Reference Value = 12.8 V/m

Power Drift = -1 dB

Maximum value of SAR = 0.384 mW/g

Belt Clip - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

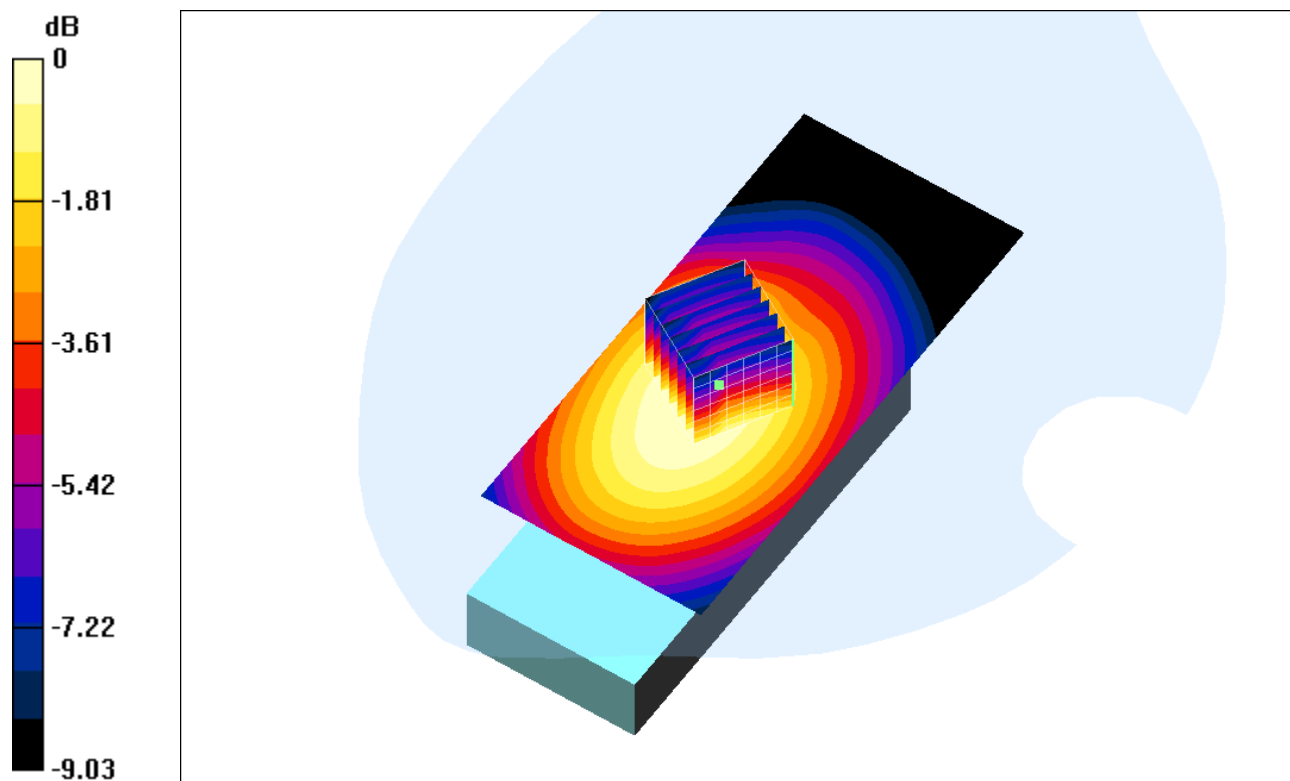
Peak SAR (extrapolated) = 0.5 W/kg

SAR(1 g) = 0.357 mW/g; SAR(10 g) = 0.252 mW/g

Reference Value = 12.8 V/m

Power Drift = -1 dB

Maximum value of SAR = 0.368 mW/g



0 dB = 0.368mW/g

Date/Time: 09/10/03 12:14:48

Test Laboratory: QUALCOMM Incorporated
 File Name: [P1528-Flat-BeltClip 9-10 CDMA 835 sn361.da4](#)

P1528-Flat-BeltClip 9-10 CDMA 835 sn361

DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Flat)

Communication System: CDMA835; Frequency: 848.31 MHz; Duty Cycle: 1:1
 Medium: HSL835 Body ($\sigma = 0.98701$ mho/m, $\epsilon_r = 55.5965$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 59%
 Phantom section: Flat Section

DASY4 Configuration:
 - Probe: ET3DV6 - SN1733; ConvF(6.4, 6.4, 6.4); Calibrated: 12/3/2002
 - Sensor-Surface: 4mm (Mechanical Surface Detection)
 - Electronics: DAE3 Sn566; Calibrated: 5/23/2003
 - Phantom: SAM with CRP; Type: SAM; Serial: 001
 - Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Belt Clip - High/Area Scan (61x131x1): Measurement grid: dx=12mm, dy=12mm

Reference Value = 11.5 V/m

Power Drift = 0.7 dB

Maximum value of SAR = 0.482 mW/g

Belt Clip - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

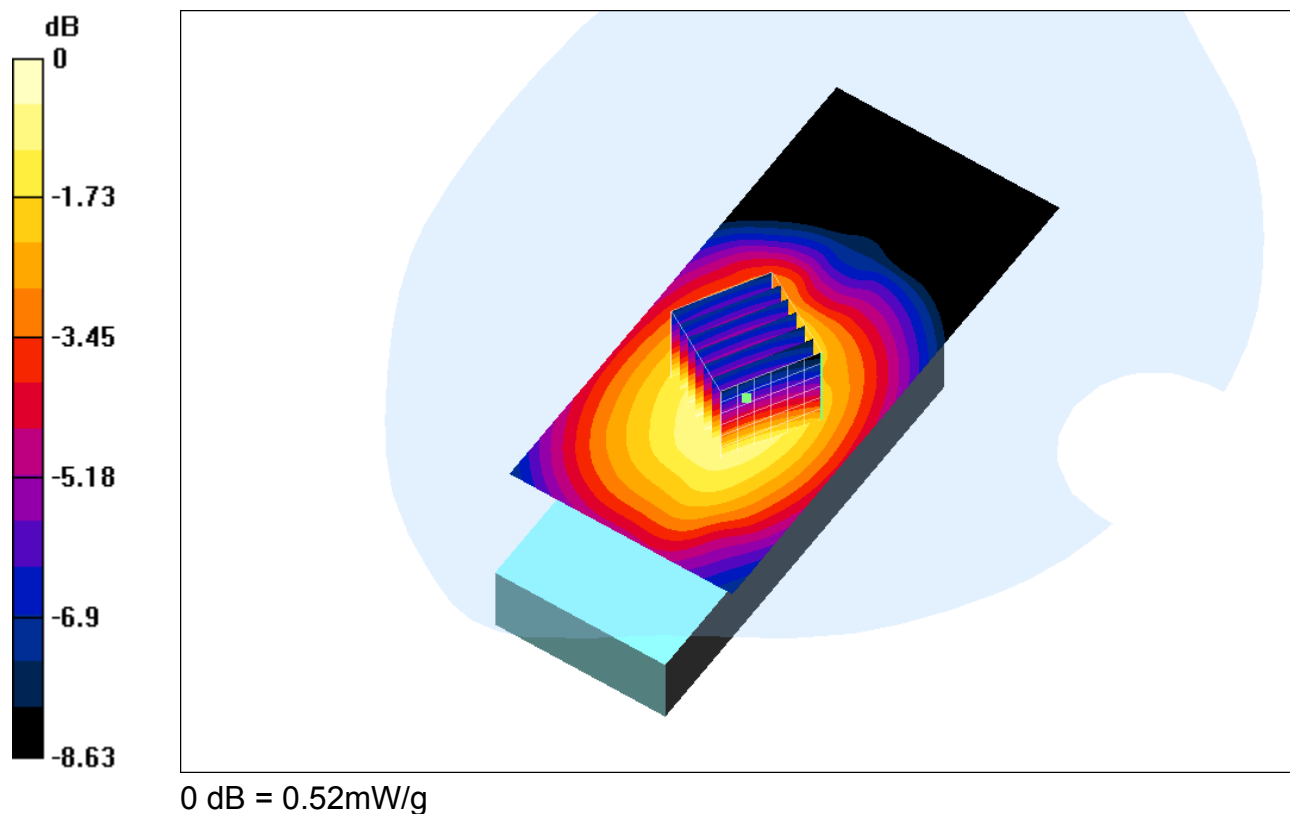
Peak SAR (extrapolated) = 0.683 W/kg

SAR(1 g) = 0.501 mW/g; SAR(10 g) = 0.364 mW/g

Reference Value = 11.5 V/m

Power Drift = 0.7 dB

Maximum value of SAR = 0.52 mW/g



Date/Time: 10/30/03 16:10:40

Test Laboratory: QUALCOMM Incorporated
 File Name: [P1528-Flat-Clipless 10-30 CDMA sn361.da4](#)

P1528-Flat-Clipless 10-30 CDMA sn361

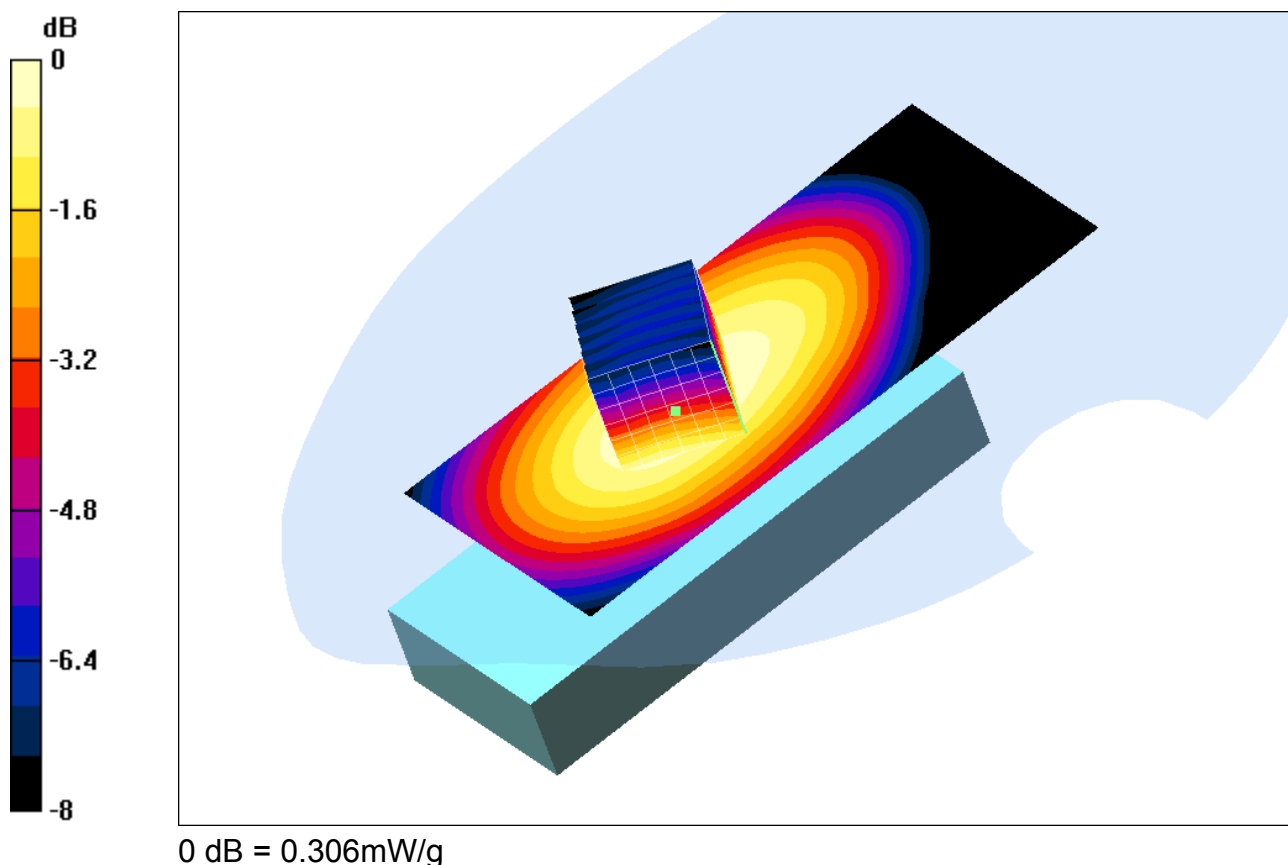
DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Flat)

Communication System: CDMA835; Frequency: 824.7 MHz; Duty Cycle: 1:1
 Medium: HSL835 Body ($\sigma = 0.969956$ mho/m, $\epsilon_r = 56.0825$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 53%
 Phantom section: Flat Section

DASY4 Configuration:
 - Probe: ET3DV6 - SN1733; ConvF(6.4, 6.4, 6.4); Calibrated: 12/3/2002
 - Sensor-Surface: 4mm (Mechanical Surface Detection)
 - Electronics: DAE3 Sn566; Calibrated: 5/23/2003
 - Phantom: SAM with CRP; Type: SAM; Serial: 001
 - Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Clipless - Low/Area Scan (61x131x1): Measurement grid: dx=12mm, dy=12mm
 Reference Value = 14.7 V/m
 Power Drift = -0.2 dB
 Maximum value of SAR = 0.312 mW/g

Clipless - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Peak SAR (extrapolated) = 0.404 W/kg
 SAR(1 g) = 0.295 mW/g; SAR(10 g) = 0.216 mW/g
 Reference Value = 14.7 V/m
 Power Drift = -0.2 dB
 Maximum value of SAR = 0.306 mW/g



Date/Time: 10/30/03 16:10:40

Test Laboratory: QUALCOMM Incorporated
 File Name: [P1528-Flat-Clipless 10-30 CDMA sn361.da4](#)

P1528-Flat-Clipless 10-30 CDMA sn361

DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Flat)

Communication System: CDMA835; Frequency: 836.49 MHz; Duty Cycle: 1:1

Medium: HSL835 Body ($\sigma = 0.975952$ mho/m, $\epsilon_r = 55.9763$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 53%

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(6.4, 6.4, 6.4); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Clipless - Middle/Area Scan (61x131x1): Measurement grid: dx=12mm, dy=12mm

Reference Value = 15.5 V/m

Power Drift = 0.009 dB

Maximum value of SAR = 0.359 mW/g

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

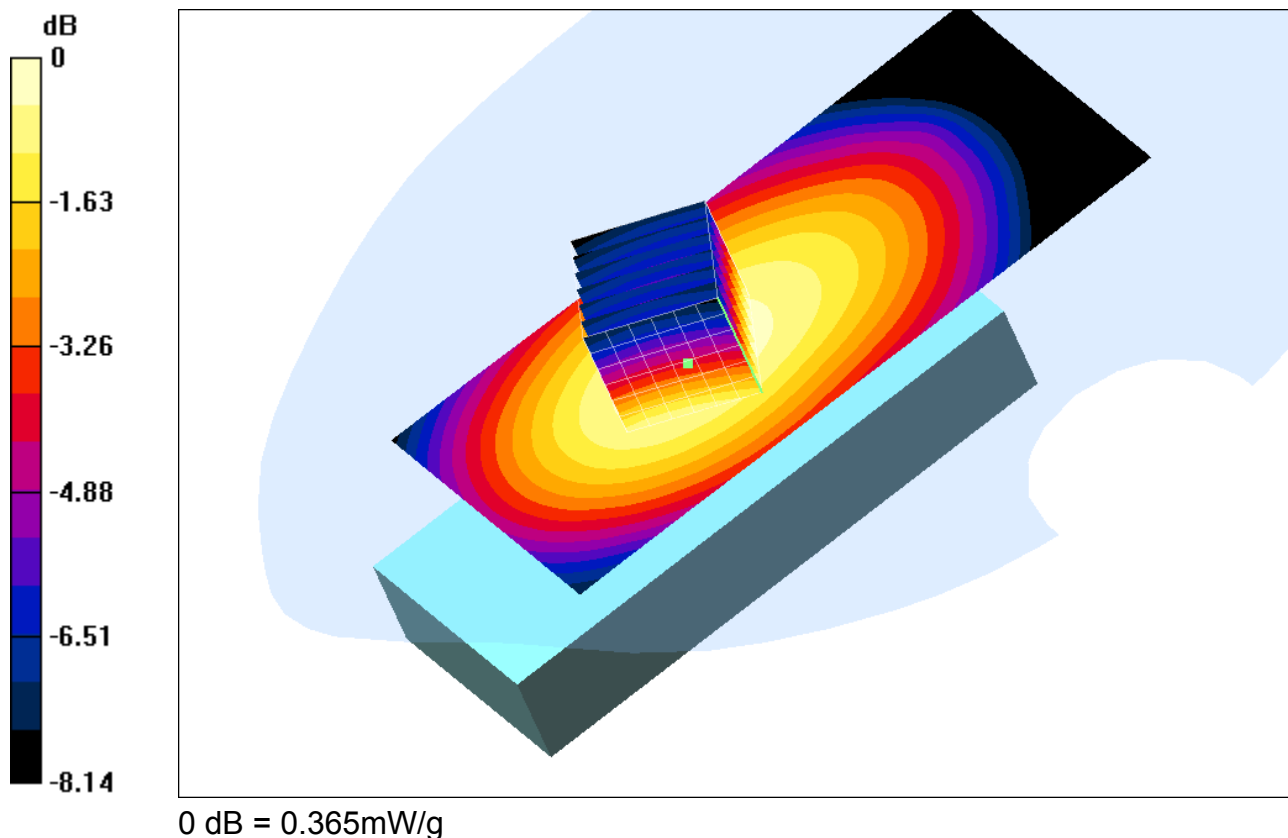
Peak SAR (extrapolated) = 0.479 W/kg

SAR(1 g) = 0.352 mW/g; SAR(10 g) = 0.258 mW/g

Reference Value = 15.5 V/m

Power Drift = 0.009 dB

Maximum value of SAR = 0.365 mW/g



Date/Time: 10/30/03 16:10:40

Test Laboratory: QUALCOMM Incorporated
 File Name: [P1528-Flat-Clipless 10-30 CDMA sn361.da4](#)

P1528-Flat-Clipless 10-30 CDMA sn361

DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Flat)

Communication System: CDMA835; Frequency: 848.31 MHz; Duty Cycle: 1:1

Medium: HSL835 Body ($\sigma = 0.989646$ mho/m, $\epsilon_r = 55.9101$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 53%

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(6.4, 6.4, 6.4); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Clipless - High/Area Scan (61x131x1): Measurement grid: dx=12mm, dy=12mm

Reference Value = 15.1 V/m

Power Drift = -0.2 dB

Maximum value of SAR = 0.409 mW/g

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

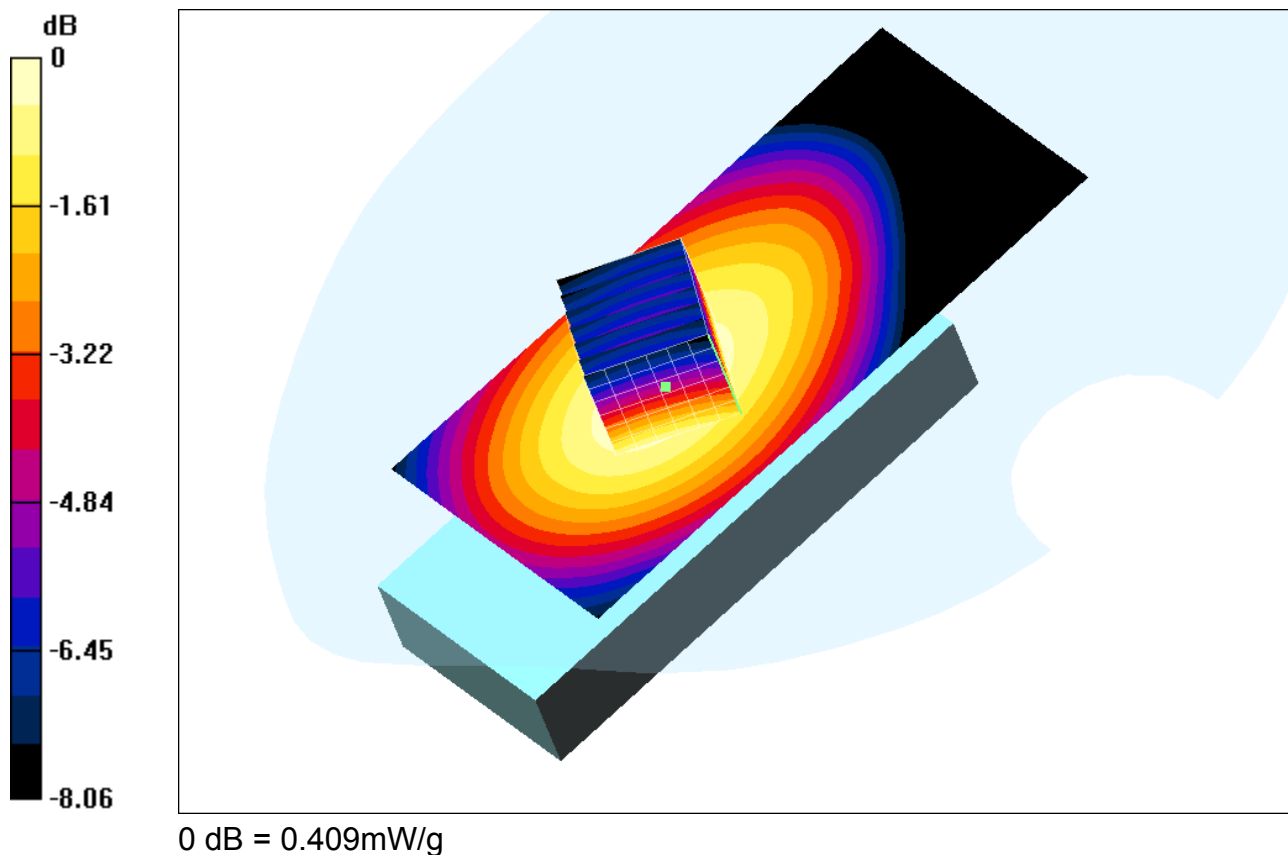
Peak SAR (extrapolated) = 0.535 W/kg

SAR(1 g) = 0.394 mW/g; SAR(10 g) = 0.288 mW/g

Reference Value = 15.1 V/m

Power Drift = -0.2 dB

Maximum value of SAR = 0.409 mW/g



7.2.2 Band Class 1 (PCS) Plots

Date/Time: 08/21/03 08:48:28

Test Laboratory: QUALCOMM Incorporated
 File Name: [sn 361 -LH -08-20.da4](#)

sn 361 -LH -08-20

DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: CDMA PCS; Frequency: 1851.25 MHz; Duty Cycle: 1:1

Medium: HSL1800 ($\sigma = 1.43771$ mho/m, $\epsilon_r = 40.75$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 59%

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(5.4, 5.4, 5.4); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Touch position - Low/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 27.9 V/m

Power Drift = -0.005 dB

Maximum value of SAR = 1.57 mW/g

Touch position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

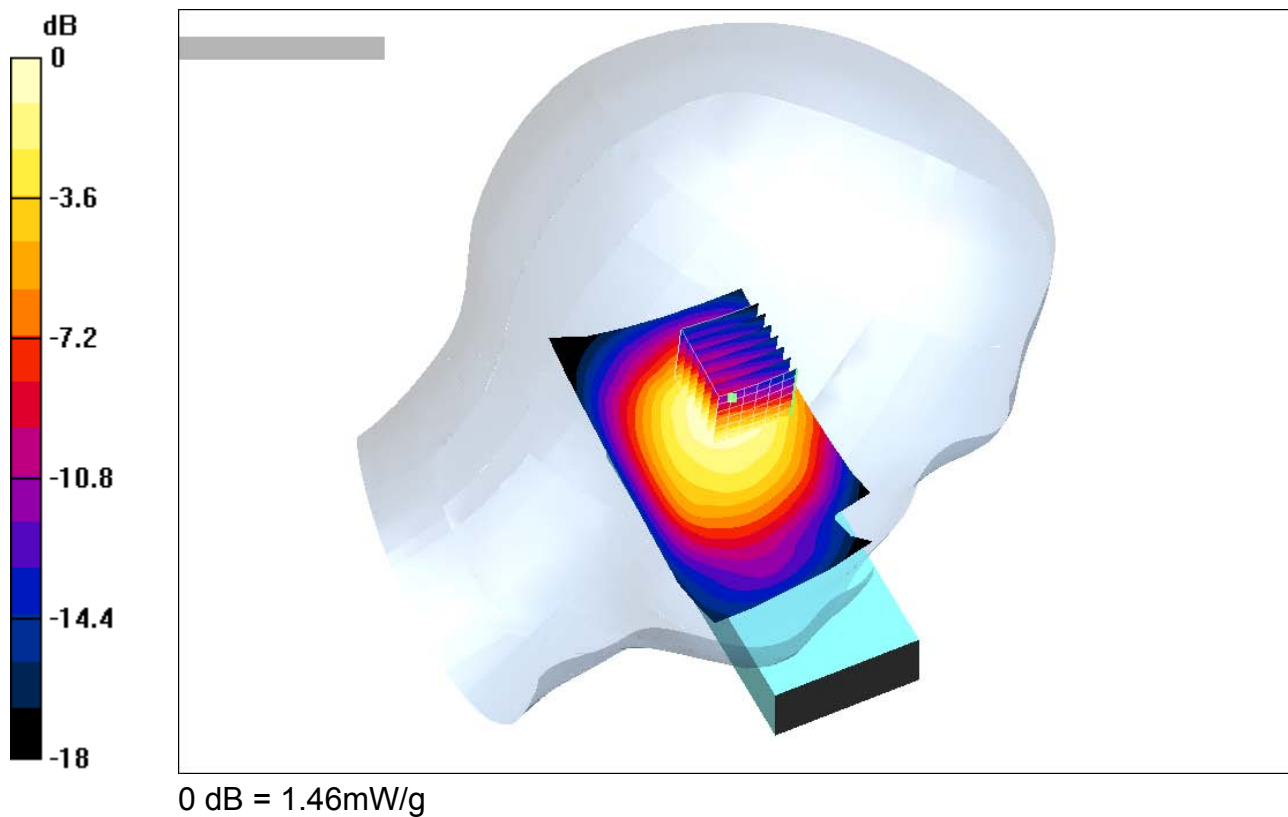
Peak SAR (extrapolated) = 2.46 W/kg

SAR(1 g) = 1.37 mW/g; SAR(10 g) = 0.801 mW/g

Reference Value = 27.9 V/m

Power Drift = -0.005 dB

Maximum value of SAR = 1.46 mW/g



Date/Time: 08/21/03 08:48:28

Test Laboratory: QUALCOMM Incorporated
 File Name: [sn 361 -LH -08-20.da4](#)

sn 361 -LH -08-20

DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: CDMA PCS; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: HSL1800 ($\sigma = 1.47677$ mho/m, $\epsilon_r = 40.6$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 59%

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(5.1, 5.1, 5.1); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Touch position - Middle/Area Scan (81x111x1): Measurement grid: dx=10mm, dy=10mm

Reference Value = 27.9 V/m

Power Drift = -0.2 dB

Maximum value of SAR = 1.58 mW/g

Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

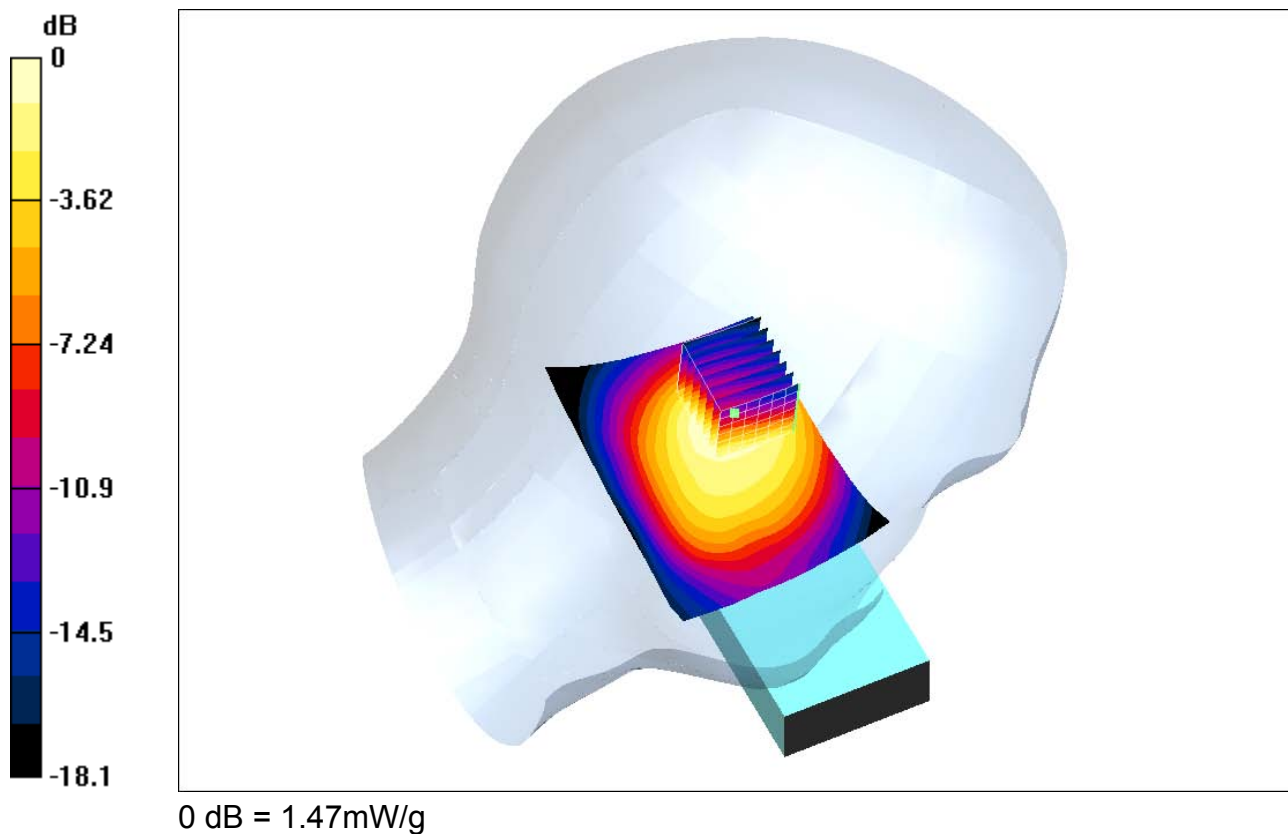
Peak SAR (extrapolated) = 2.48 W/kg

SAR(1 g) = 1.36 mW/g; SAR(10 g) = 0.779 mW/g

Reference Value = 27.9 V/m

Power Drift = -0.2 dB

Maximum value of SAR = 1.47 mW/g



Date/Time: 08/21/03 10:25:08

Test Laboratory: QUALCOMM Incorporated
 File Name: [sn 361-LH-08-21.da4](#)

sn 361-LH-08-21

DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: CDMA PCS; Frequency: 1908.75 MHz; Duty Cycle: 1:1

Medium: HSL1800 ($\sigma = 1.48682$ mho/m, $\epsilon_r = 39.3191$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 59%

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(5.1, 5.1, 5.1); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Touch position - High/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 29 V/m

Power Drift = 0.1 dB

Maximum value of SAR = 1.74 mW/g

Touch position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

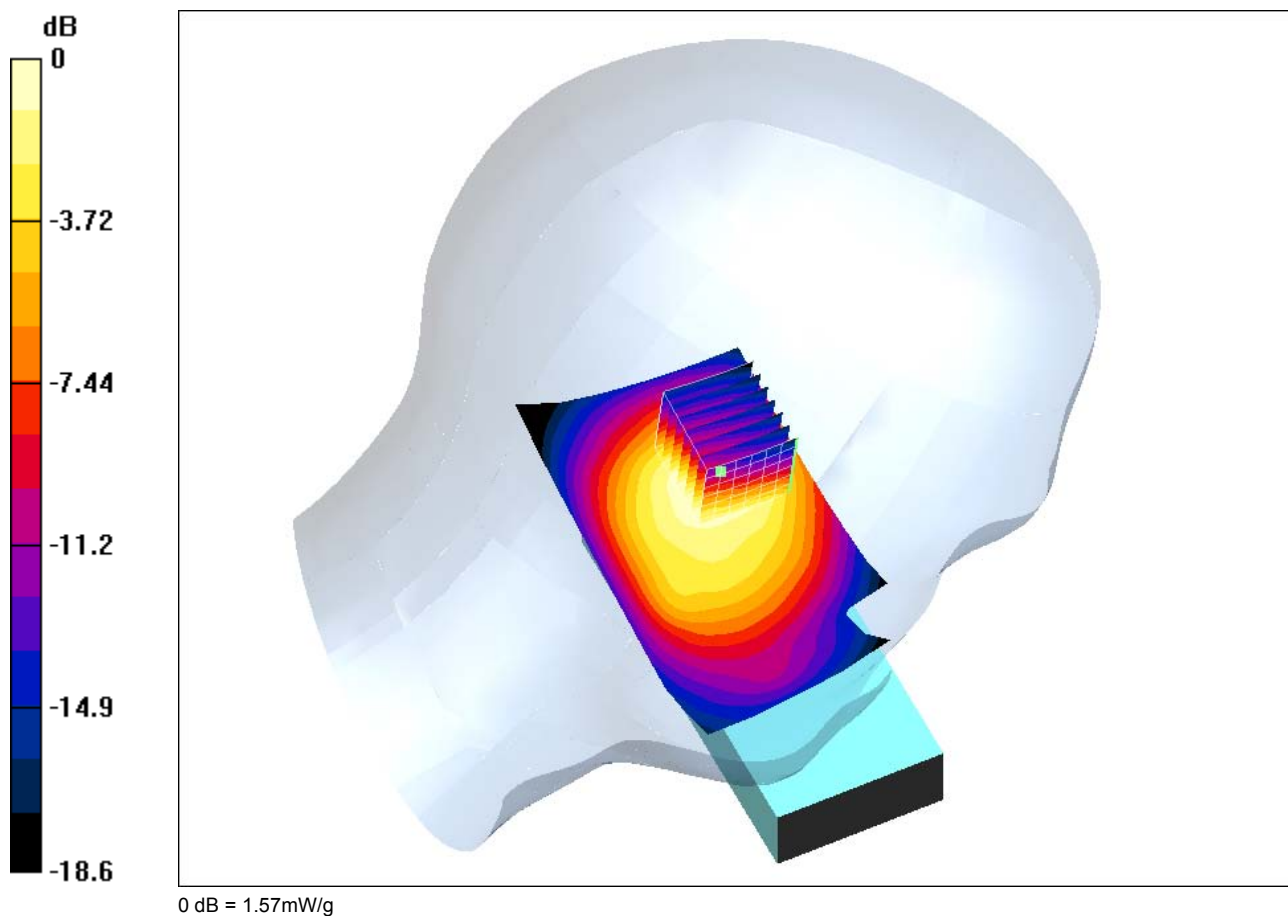
Peak SAR (extrapolated) = 2.66 W/kg

SAR(1 g) = 1.43 mW/g; SAR(10 g) = 0.828 mW/g

Reference Value = 29 V/m

Power Drift = 0.1 dB

Maximum value of SAR = 1.57 mW/g



Date/Time: 08/21/03 08:48:28

Test Laboratory: QUALCOMM Incorporated
 File Name: [sn 361 -LH -08-20.da4](#)

sn 361 -LH -08-20

DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: CDMA PCS; Frequency: 1851.25 MHz; Duty Cycle: 1:1

Medium: HSL1800 ($\sigma = 1.43771$ mho/m, $\epsilon_r = 40.75$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 59%

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(5.4, 5.4, 5.4); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Tilt position - Low/Area Scan (81x111x1): Measurement grid: dx=10mm, dy=10mm

Reference Value = 29.9 V/m

Power Drift = 0.1 dB

Maximum value of SAR = 1.48 mW/g

Tilt position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

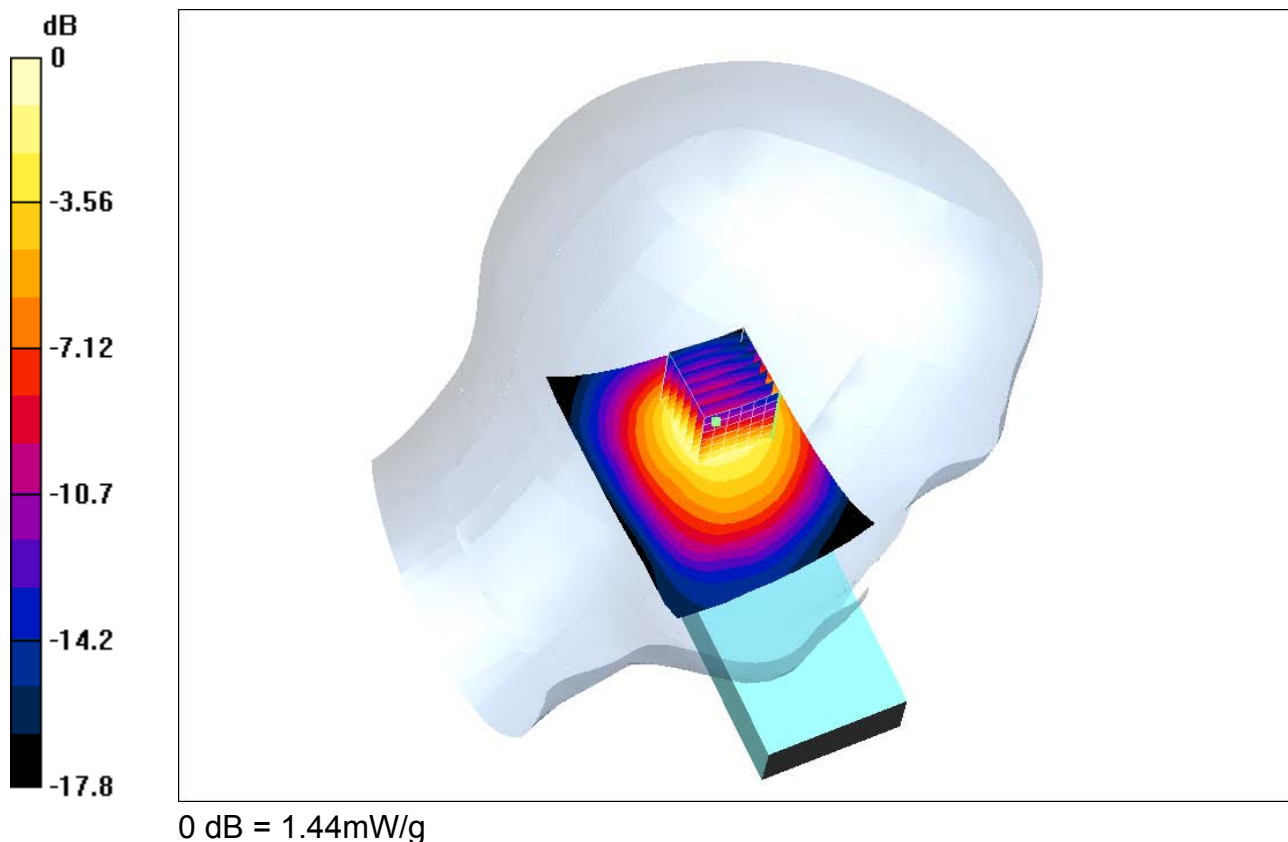
Peak SAR (extrapolated) = 2.29 W/kg

SAR(1 g) = 1.35 mW/g; SAR(10 g) = 0.785 mW/g

Reference Value = 29.9 V/m

Power Drift = 0.1 dB

Maximum value of SAR = 1.44 mW/g



Date/Time: 08/21/03 08:48:28

Test Laboratory: QUALCOMM Incorporated
 File Name: [sn 361 -LH -08-20.da4](#)

sn 361 -LH -08-20

DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: CDMA PCS; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: HSL1800 ($\sigma = 1.47677$ mho/m, $\epsilon_r = 40.6$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 59%

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(5.1, 5.1, 5.1); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Tilt position - Middle/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 30 V/m

Power Drift = -0.1 dB

Maximum value of SAR = 1.46 mW/g

Tilt position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

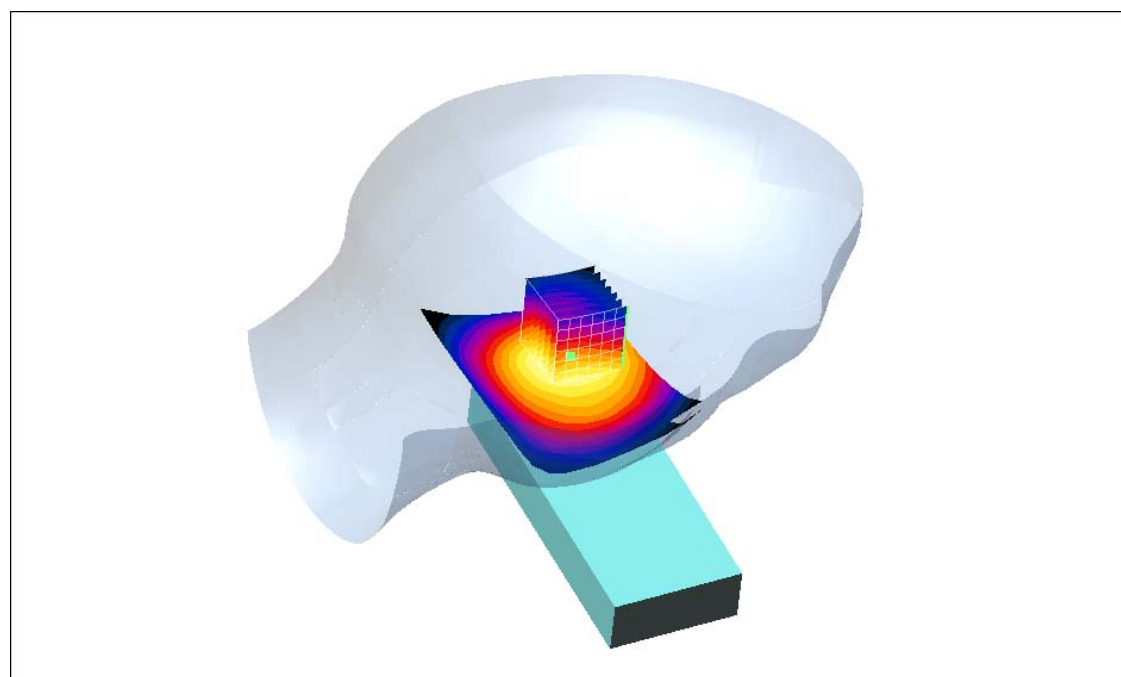
Peak SAR (extrapolated) = 2.25 W/kg

SAR(1 g) = 1.31 mW/g; SAR(10 g) = 0.751 mW/g

Reference Value = 30 V/m

Power Drift = -0.1 dB

Maximum value of SAR = 1.4 mW/g



0 dB = 1.4mW/g

Date/Time: 08/21/03 10:25:08

Test Laboratory: QUALCOMM Incorporated
 File Name: [sn 361 -LH -08-21.da4](#)

sn 361 -LH -08-21

DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: CDMA PCS; Frequency: 1908.75 MHz; Duty Cycle: 1:1

Medium: HSL1800 ($\sigma = 1.48682$ mho/m, $\epsilon_r = 39.3191$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 59%

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(5.1, 5.1, 5.1); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Tilt position - High/Area Scan (51x91x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 30.5 V/m

Power Drift = -0.05 dB

Maximum value of SAR = 1.55 mW/g

Tilt position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

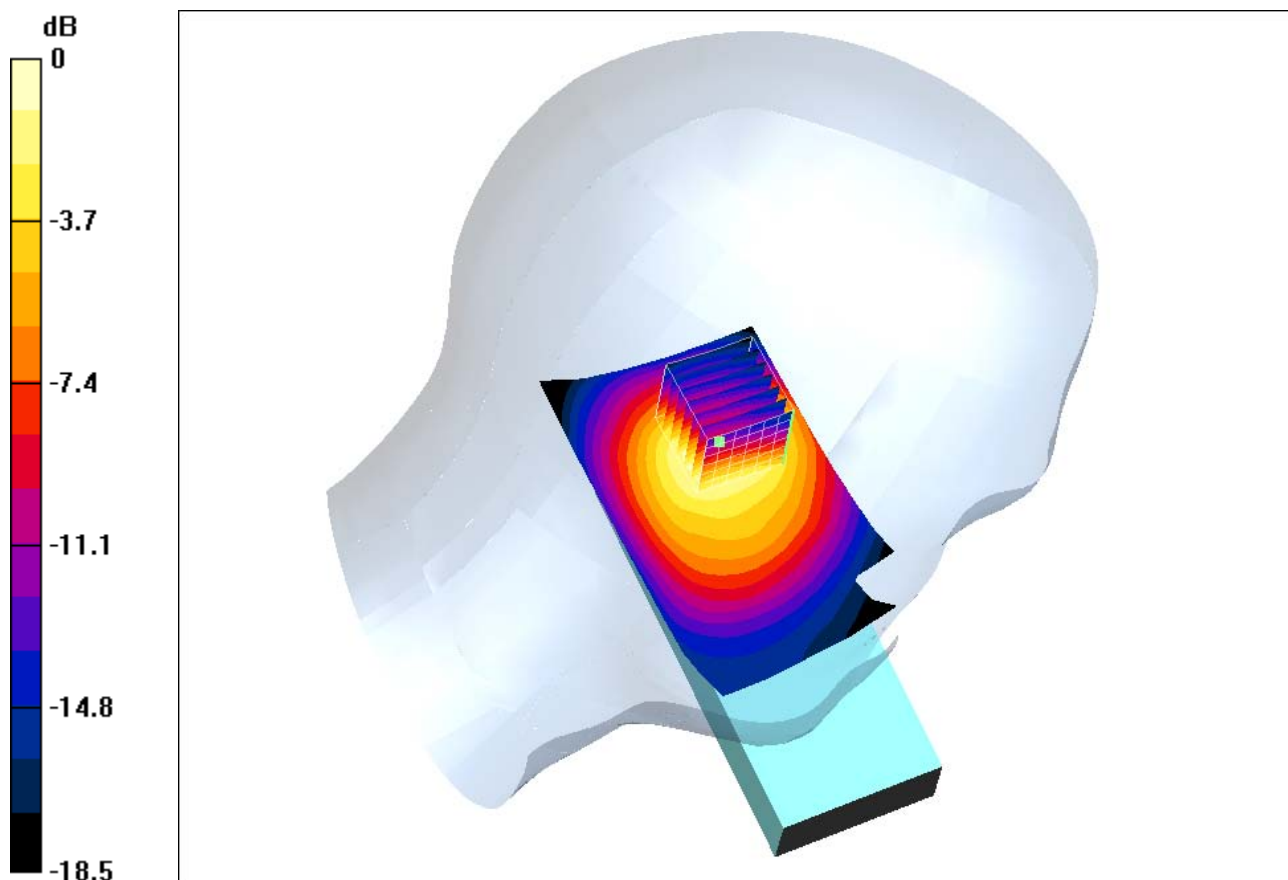
Peak SAR (extrapolated) = 2.68 W/kg

SAR(1 g) = 1.41 mW/g; SAR(10 g) = 0.794 mW/g

Reference Value = 30.5 V/m

Power Drift = -0.05 dB

Maximum value of SAR = 1.52 mW/g



0 dB = 1.52mW/g

Date/Time: 08/21/03 15:02:24

Test Laboratory: QUALCOMM Incorporated
 File Name: [sn 361 -RH -08-21.da4](#)

sn 361 -RH -08-21

DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Right-Hand Side)

Communication System: CDMA PCS; Frequency: 1851.25 MHz; Duty Cycle: 1:1

Medium: HSL1800 ($\sigma = 1.42354$ mho/m, $\epsilon_r = 39.525$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 59%

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(5.4, 5.4, 5.4); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Touch position - Low/Area Scan (61x91x1): Measurement grid: dx=12mm, dy=12mm

Reference Value = 29.1 V/m

Power Drift = -0.1 dB

Maximum value of SAR = 1.45 mW/g

Touch position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

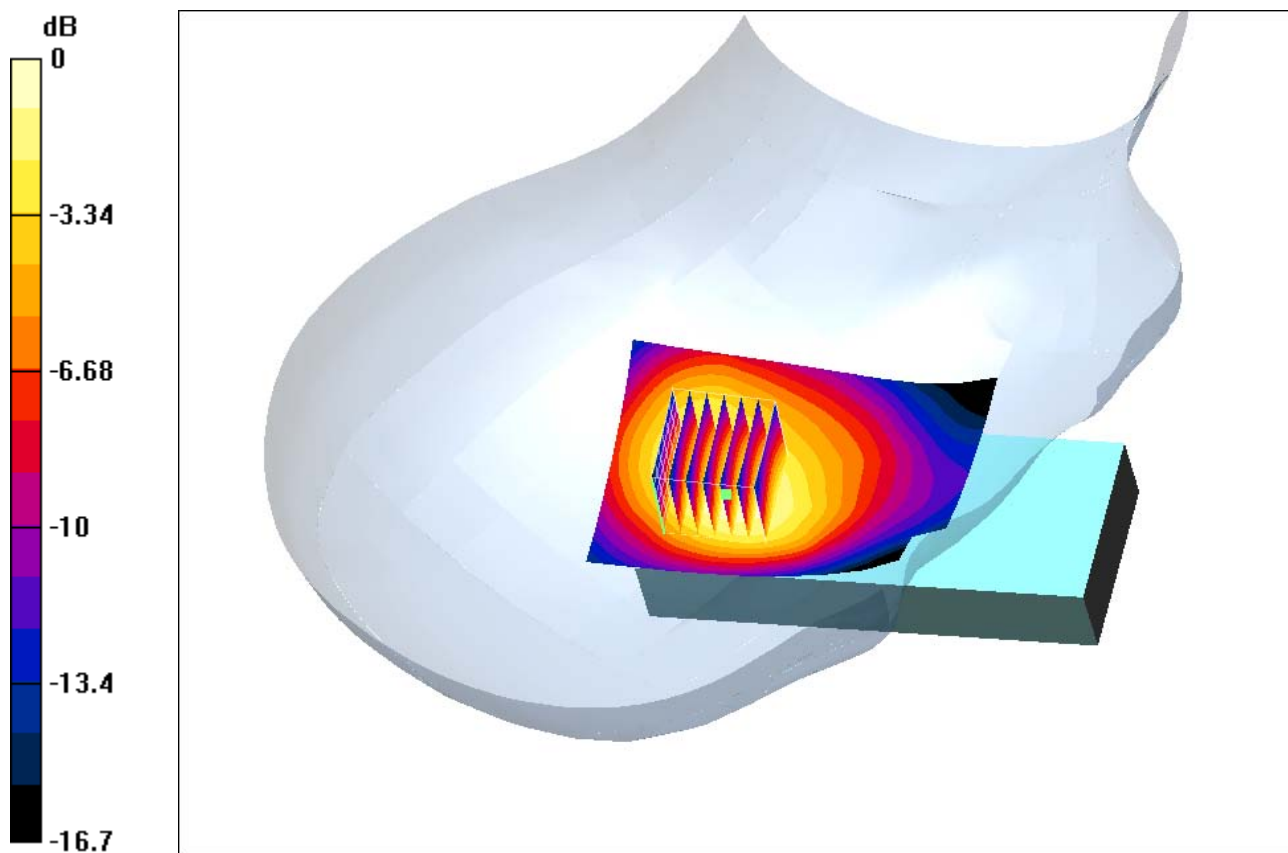
Peak SAR (extrapolated) = 1.96 W/kg

SAR(1 g) = 1.33 mW/g; SAR(10 g) = 0.801 mW/g

Reference Value = 29.1 V/m

Power Drift = -0.1 dB

Maximum value of SAR = 1.44 mW/g



0 dB = 1.44mW/g

Date/Time: 08/21/03 15:02:24

Test Laboratory: QUALCOMM Incorporated
 File Name: [sn 361 -RH -08-21.da4](#)

sn 361 -RH -08-21

DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Right-Hand Side)

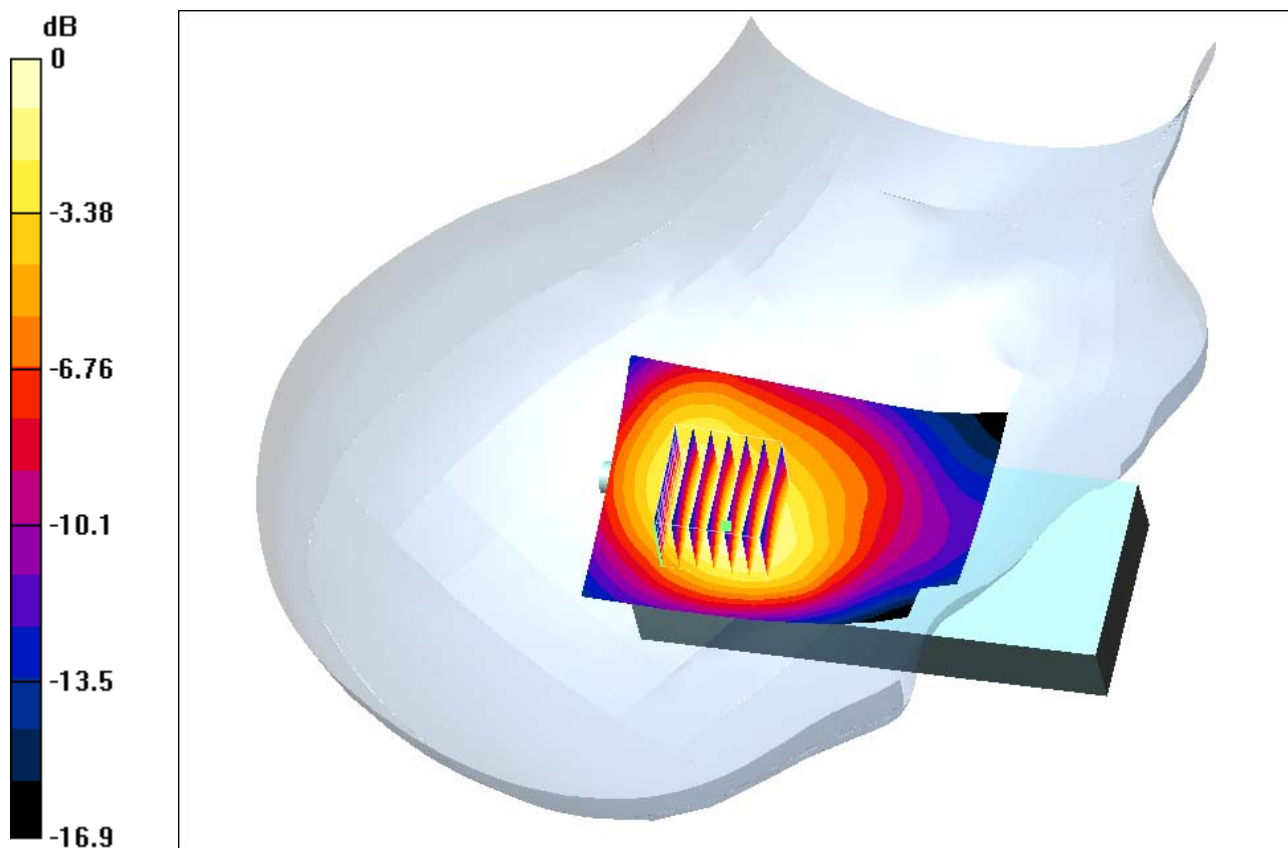
Communication System: CDMA PCS; Frequency: 1880 MHz; Duty Cycle: 1:1
 Medium: HSL1800 ($\sigma = 1.45789$ mho/m, $\epsilon_r = 39.4396$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 56%
 Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(5.4, 5.4, 5.4); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Touch position - Middle/Area Scan (61x91x1): Measurement grid: dx=12mm, dy=12mm
 Reference Value = 29.9 V/m
 Power Drift = -0.1 dB
 Maximum value of SAR = 1.57 mW/g

Touch position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Peak SAR (extrapolated) = 2.14 W/kg
 SAR(1 g) = 1.44 mW/g; SAR(10 g) = 0.859 mW/g
 Reference Value = 29.9 V/m
 Power Drift = -0.1 dB
 Maximum value of SAR = 1.56 mW/g



0 dB = 1.56mW/g

Date/Time: 08/21/03 15:02:24

Test Laboratory: QUALCOMM Incorporated
 File Name: [sn 361 -RH -08-21.da4](#)

sn 361 -RH -08-21

DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Right-Hand Side)

Communication System: CDMA PCS; Frequency: 1908.75 MHz; Duty Cycle: 1:1

Medium: HSL1800 ($\sigma = 1.48682$ mho/m, $\epsilon_r = 39.3191$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 57%

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(5.1, 5.1, 5.1); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Touch position - High/Area Scan (61x91x1): Measurement grid: dx=12mm, dy=12mm

Reference Value = 28.8 V/m

Power Drift = -0.07 dB

Maximum value of SAR = 1.56 mW/g

Touch position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

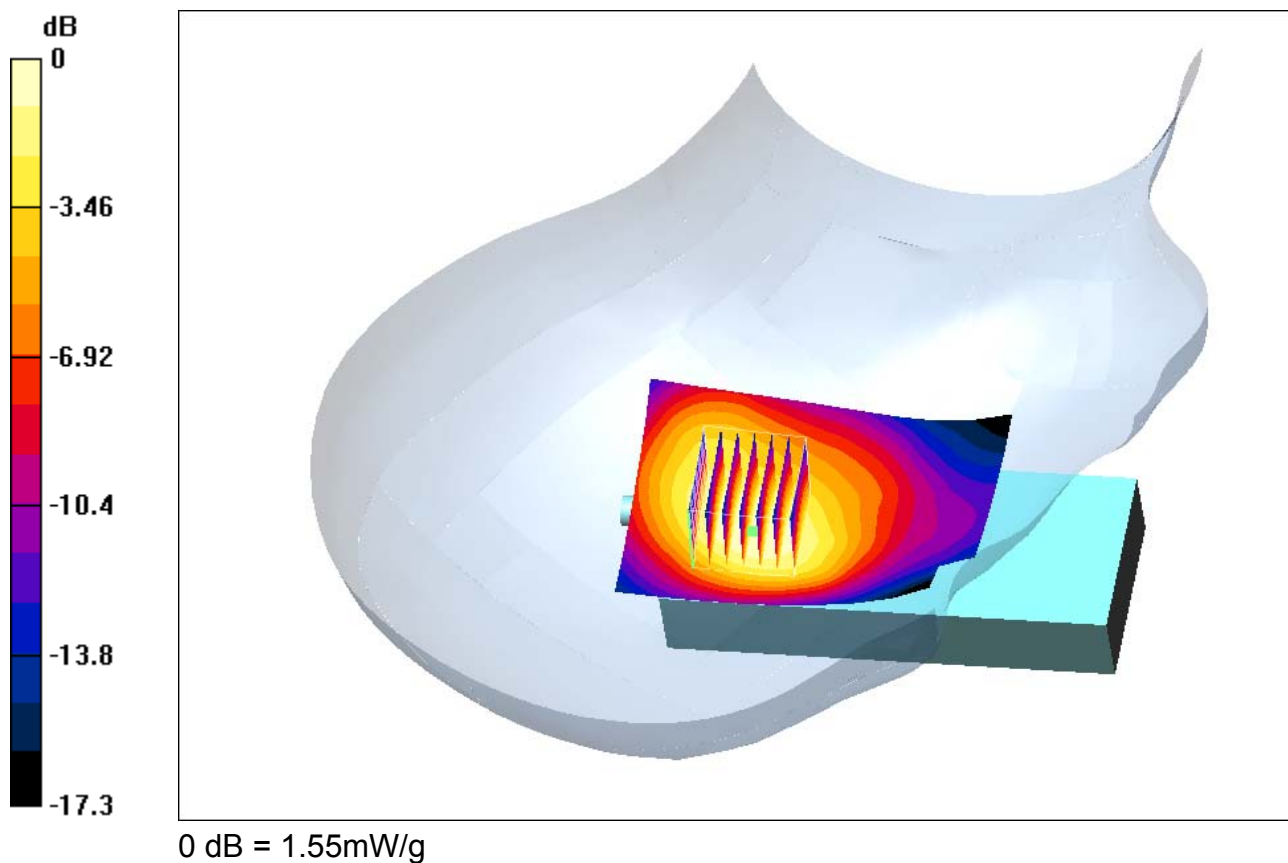
Peak SAR (extrapolated) = 2.19 W/kg

SAR(1 g) = 1.43 mW/g; SAR(10 g) = 0.846 mW/g

Reference Value = 28.8 V/m

Power Drift = -0.07 dB

Maximum value of SAR = 1.55 mW/g



Date/Time: 08/21/03 15:02:24

Test Laboratory: QUALCOMM Incorporated
 File Name: [sn 361 -RH -08-21.da4](#)

sn 361 -RH -08-21

DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Right-Hand Side)

Communication System: CDMA PCS; Frequency: 1851.25 MHz; Duty Cycle: 1:1

Medium: HSL1800 ($\sigma = 1.42354$ mho/m, $\epsilon_r = 39.525$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 58%

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(5.4, 5.4, 5.4); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Tilt position - Low/Area Scan (61x91x1): Measurement grid: dx=12mm, dy=12mm

Reference Value = 31.5 V/m

Power Drift = -0.1 dB

Maximum value of SAR = 1.36 mW/g

Tilt position - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

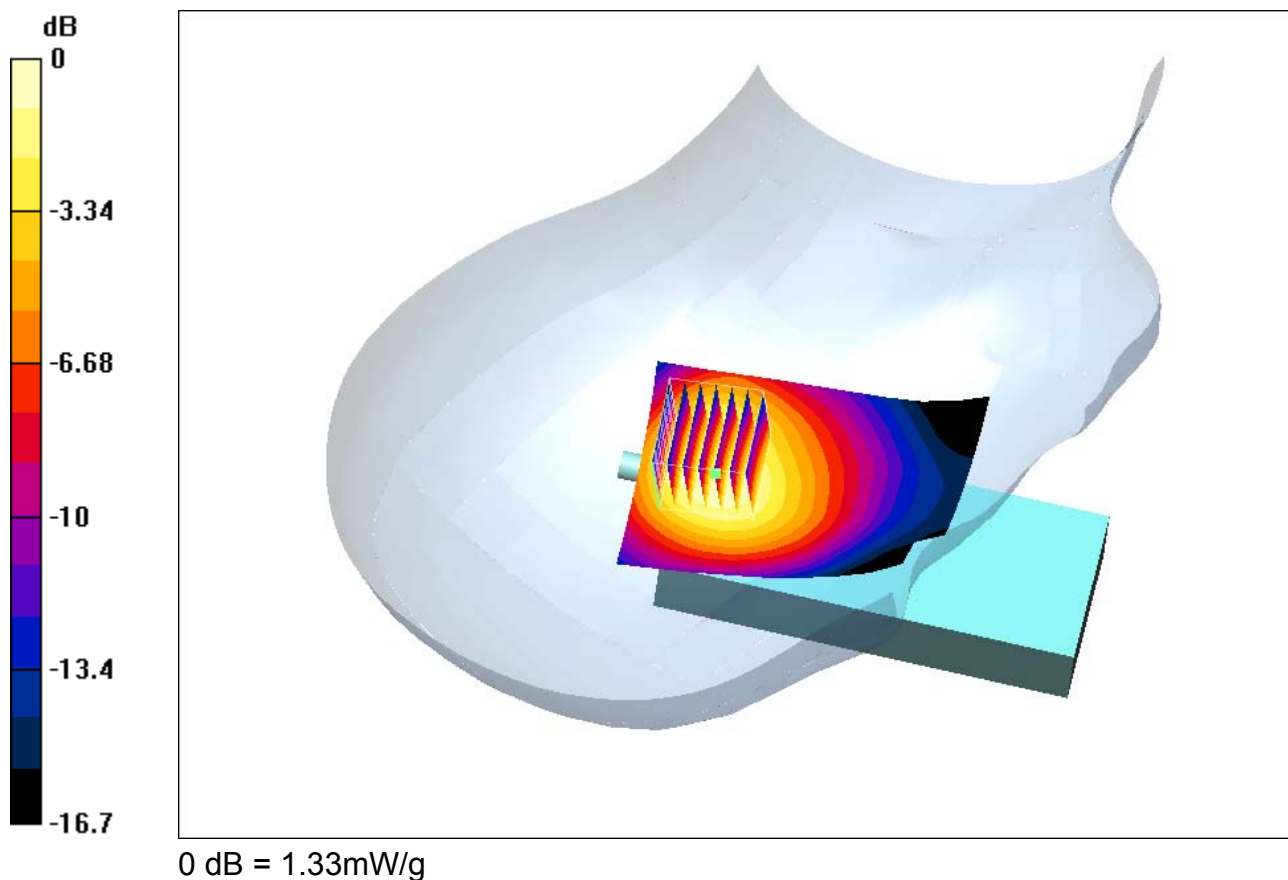
Peak SAR (extrapolated) = 1.9 W/kg

SAR(1 g) = 1.24 mW/g; SAR(10 g) = 0.73 mW/g

Reference Value = 31.5 V/m

Power Drift = -0.1 dB

Maximum value of SAR = 1.33 mW/g



Date/Time: 08/21/03 15:02:24

Test Laboratory: QUALCOMM Incorporated
 File Name: [sn 361 -RH -08-21.da4](#)

sn 361 -RH -08-21

DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Right-Hand Side)

Communication System: CDMA PCS; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: HSL1800 ($\sigma = 1.45789$ mho/m, $\epsilon_r = 39.4396$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 56%

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(5.4, 5.4, 5.4); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Tilt position - Middle/Area Scan (61x91x1): Measurement grid: dx=12mm, dy=12mm

Reference Value = 31.9 V/m

Power Drift = -0.2 dB

Maximum value of SAR = 1.42 mW/g

Tilt position - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

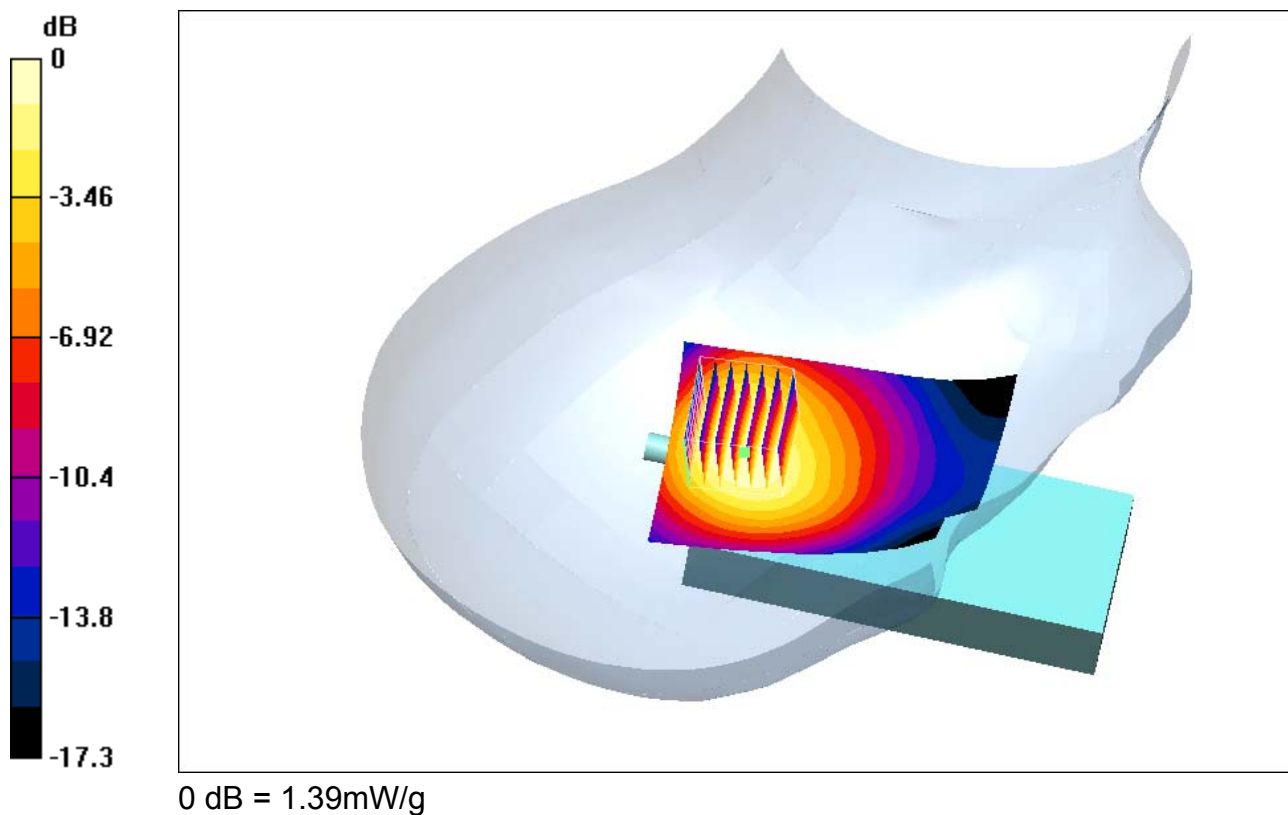
Peak SAR (extrapolated) = 1.99 W/kg

SAR(1 g) = 1.29 mW/g; SAR(10 g) = 0.759 mW/g

Reference Value = 31.9 V/m

Power Drift = -0.2 dB

Maximum value of SAR = 1.39 mW/g



Date/Time: 08/21/03 15:02:24

Test Laboratory: QUALCOMM Incorporated
 File Name: [sn 361 -RH -08-21.da4](#)

sn 361 -RH -08-21

DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Right-Hand Side)

Communication System: CDMA PCS; Frequency: 1908.75 MHz; Duty Cycle: 1:1

Medium: HSL1800 ($\sigma = 1.48682$ mho/m, $\epsilon_r = 39.3191$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 58%

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(5.1, 5.1, 5.1); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Tilt position - High/Area Scan (61x91x1): Measurement grid: dx=12mm, dy=12mm

Reference Value = 30.7 V/m

Power Drift = -0.2 dB

Maximum value of SAR = 1.35 mW/g

Tilt position - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

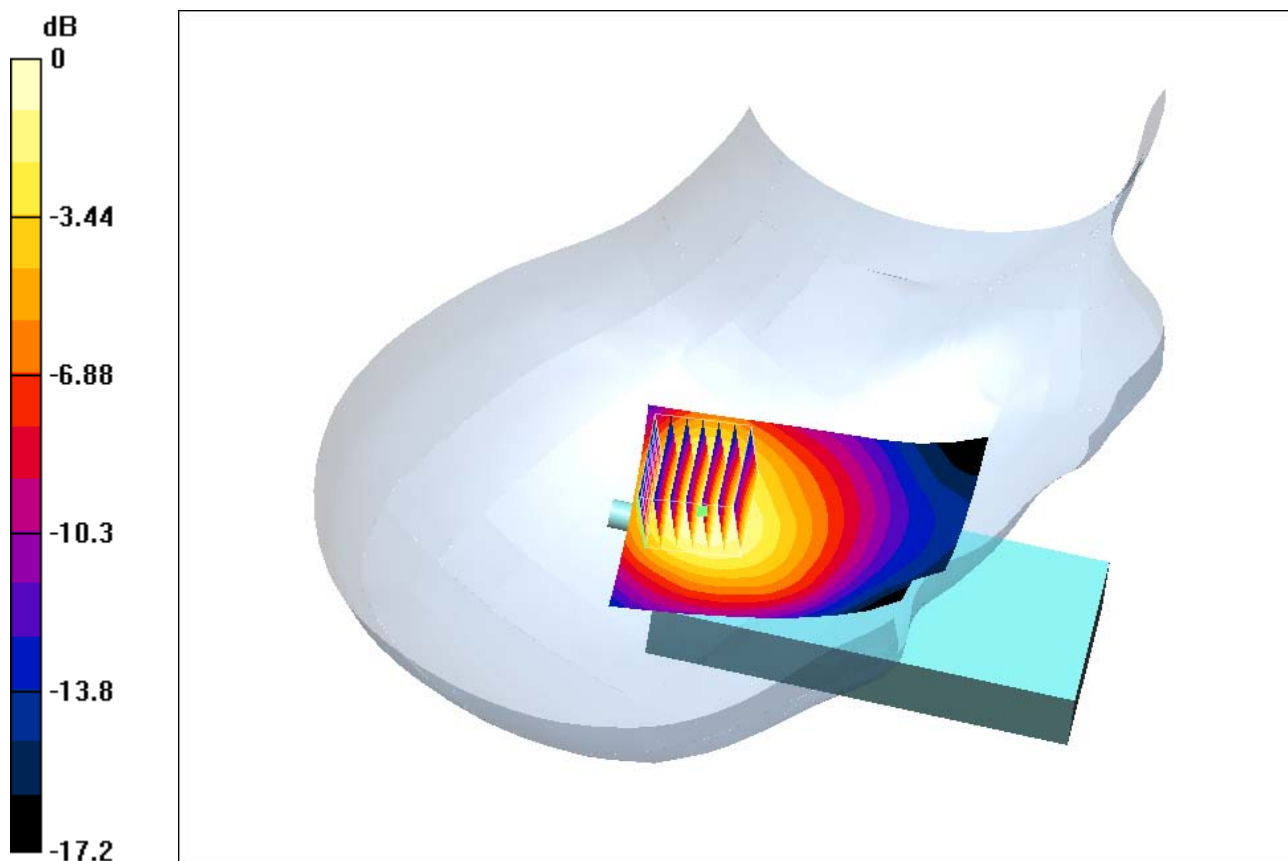
Peak SAR (extrapolated) = 1.93 W/kg

SAR(1 g) = 1.22 mW/g; SAR(10 g) = 0.722 mW/g

Reference Value = 30.7 V/m

Power Drift = -0.2 dB

Maximum value of SAR = 1.32 mW/g



Date/Time: 08/21/03 18:40:39

Test Laboratory: QUALCOMM Incorporated
 File Name: [P1528-Flat-PTT 8-21 CDMA PCS sn361.da4](#)

P1528-Flat-PTT 8-21 CDMA PCS sn361

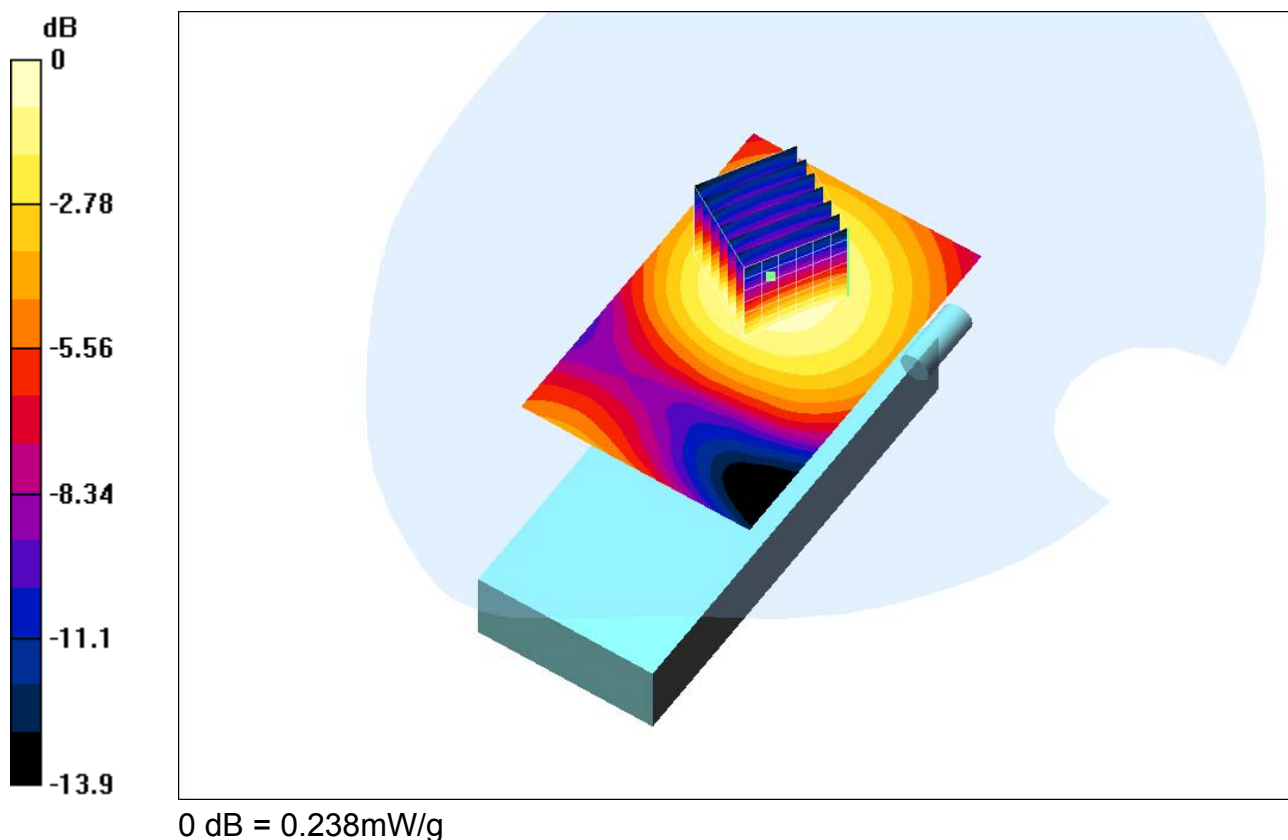
DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: CDMA PCS; Frequency: 1851.25 MHz; Duty Cycle: 1:1
 Medium: HSL1800 ($\sigma = 1.42354$ mho/m, $\epsilon_r = 39.525$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 58%
 Phantom section: Flat Section

DASY4 Configuration:
 - Probe: ET3DV6 - SN1733; ConvF(5.4, 5.4, 5.4); Calibrated: 12/3/2002
 - Sensor-Surface: 4mm (Mechanical Surface Detection)
 - Electronics: DAE3 Sn566; Calibrated: 5/23/2003
 - Phantom: SAM with CRP; Type: SAM; Serial: 001
 - Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

PTT - Low/Area Scan (61x91x1): Measurement grid: dx=12mm, dy=12mm
 Reference Value = 11.9 V/m
 Power Drift = -0.1 dB
 Maximum value of SAR = 0.241 mW/g

PTT - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Peak SAR (extrapolated) = 0.372 W/kg
 SAR(1 g) = 0.229 mW/g; SAR(10 g) = 0.143 mW/g
 Reference Value = 11.9 V/m
 Power Drift = -0.1 dB
 Maximum value of SAR = 0.238 mW/g



Date/Time: 08/21/03 18:40:39

Test Laboratory: QUALCOMM Incorporated
 File Name: [P1528-Flat-PTT 8-21 CDMA PCS sn361.da4](#)

P1528-Flat-PTT 8-21 CDMA PCS sn361

DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Flat)

Communication System: CDMA PCS; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: HSL1800 ($\sigma = 1.45789$ mho/m, $\epsilon_r = 39.4396$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 58%

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(5.4, 5.4, 5.4); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

PTT - Middle/Area Scan (61x91x1): Measurement grid: dx=12mm, dy=12mm

Reference Value = 10.7 V/m

Power Drift = 0.06 dB

Maximum value of SAR = 0.234 mW/g

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

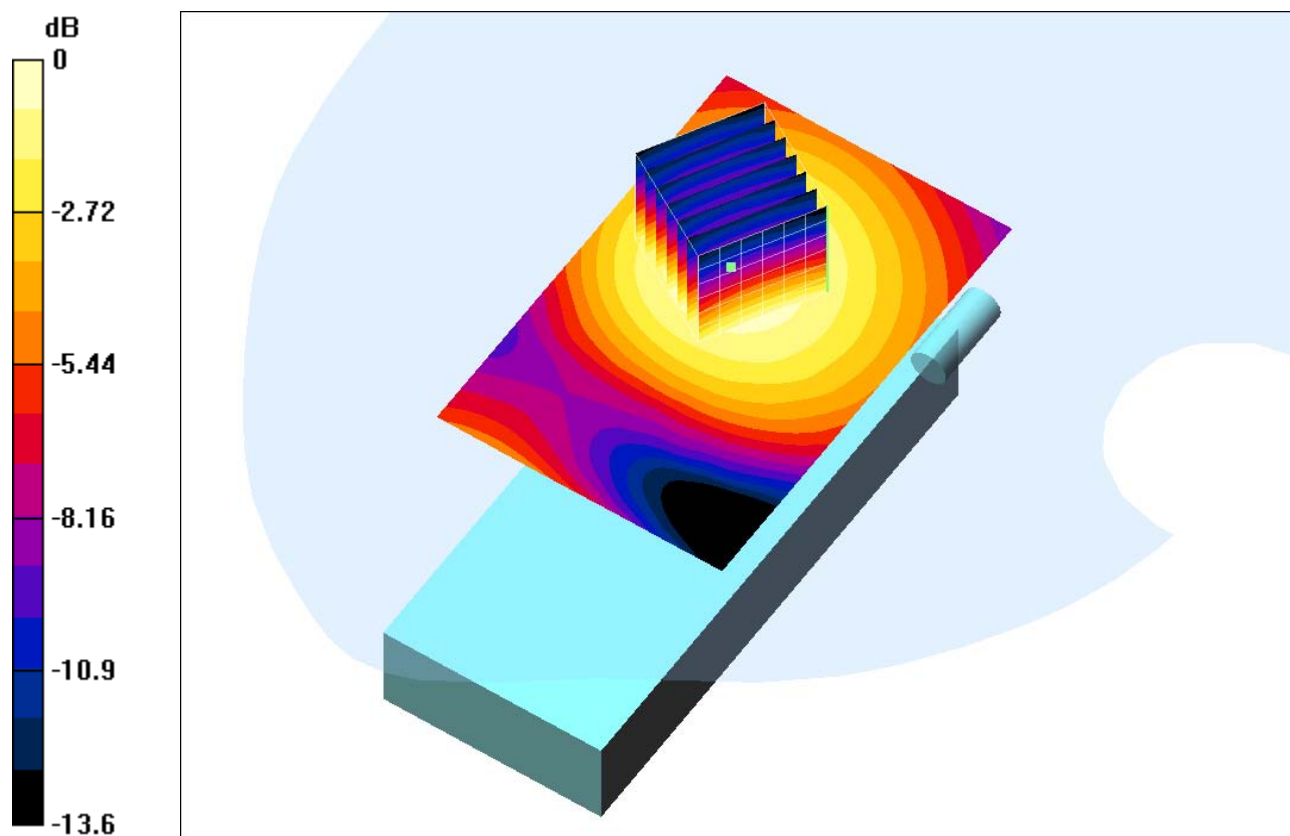
Peak SAR (extrapolated) = 0.373 W/kg

SAR(1 g) = 0.227 mW/g; SAR(10 g) = 0.141 mW/g

Reference Value = 10.7 V/m

Power Drift = 0.06 dB

Maximum value of SAR = 0.235 mW/g



0 dB = 0.235mW/g

Date/Time: 08/21/03 18:40:39

Test Laboratory: QUALCOMM Incorporated
 File Name: [P1528-Flat-PTT 8-21 CDMA PCS sn361.da4](#)

P1528-Flat-PTT 8-21 CDMA PCS sn361

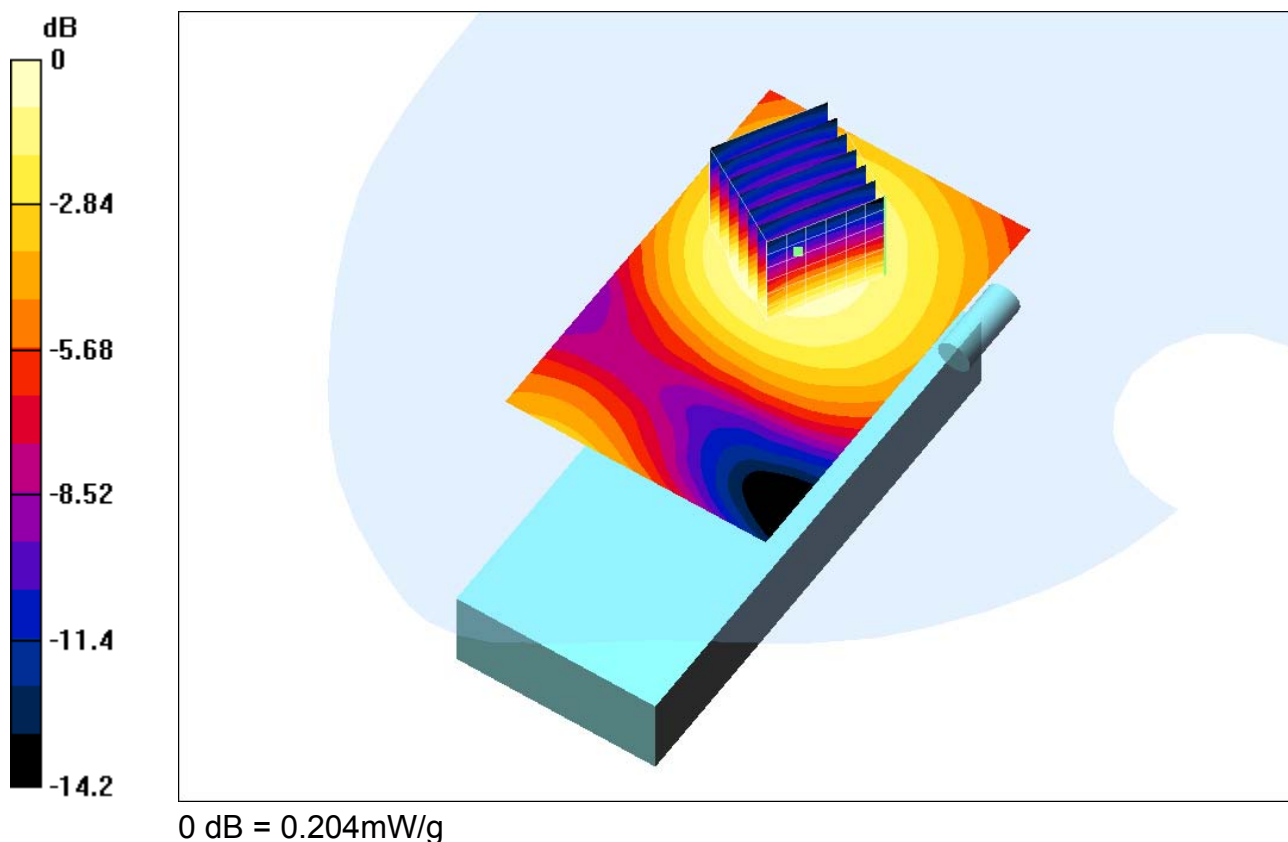
DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Flat)

Communication System: CDMA PCS; Frequency: 1908.75 MHz; Duty Cycle: 1:1
 Medium: HSL1800 ($\sigma = 1.48682$ mho/m, $\epsilon_r = 39.3191$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 58%
 Phantom section: Flat Section

DASY4 Configuration:
 - Probe: ET3DV6 - SN1733; ConvF(5.1, 5.1, 5.1); Calibrated: 12/3/2002
 - Sensor-Surface: 4mm (Mechanical Surface Detection)
 - Electronics: DAE3 Sn566; Calibrated: 5/23/2003
 - Phantom: SAM with CRP; Type: SAM; Serial: 001
 - Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

PTT - High/Area Scan (61x91x1): Measurement grid: dx=12mm, dy=12mm
 Reference Value = 11 V/m
 Power Drift = -0.1 dB
 Maximum value of SAR = 0.208 mW/g

PTT - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Peak SAR (extrapolated) = 0.325 W/kg
 SAR(1 g) = 0.196 mW/g; SAR(10 g) = 0.122 mW/g
 Reference Value = 11 V/m
 Power Drift = -0.1 dB
 Maximum value of SAR = 0.204 mW/g



Date/Time: 09/11/03 11:32:33

Test Laboratory: QUALCOMM Incorporated
 File Name: [P1528-Flat-BeltClip 9-11 PCS sn361.da4](#)

P1528-Flat-BeltClip 9-11 PCS sn361

DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Flat)

Communication System: CDMA PCS; Frequency: 1851.25 MHz; Duty Cycle: 1:1

Medium: M1800 body ($\sigma = 1.52585$ mho/m, $\epsilon_r = 55.7362$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 54%

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(5, 5, 5); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Belt Clip - Low/Area Scan (61x131x1): Measurement grid: dx=12mm, dy=12mm

Reference Value = 2.27 V/m

Power Drift = -0.2 dB

Maximum value of SAR = 0.0548 mW/g

Belt Clip - Low/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

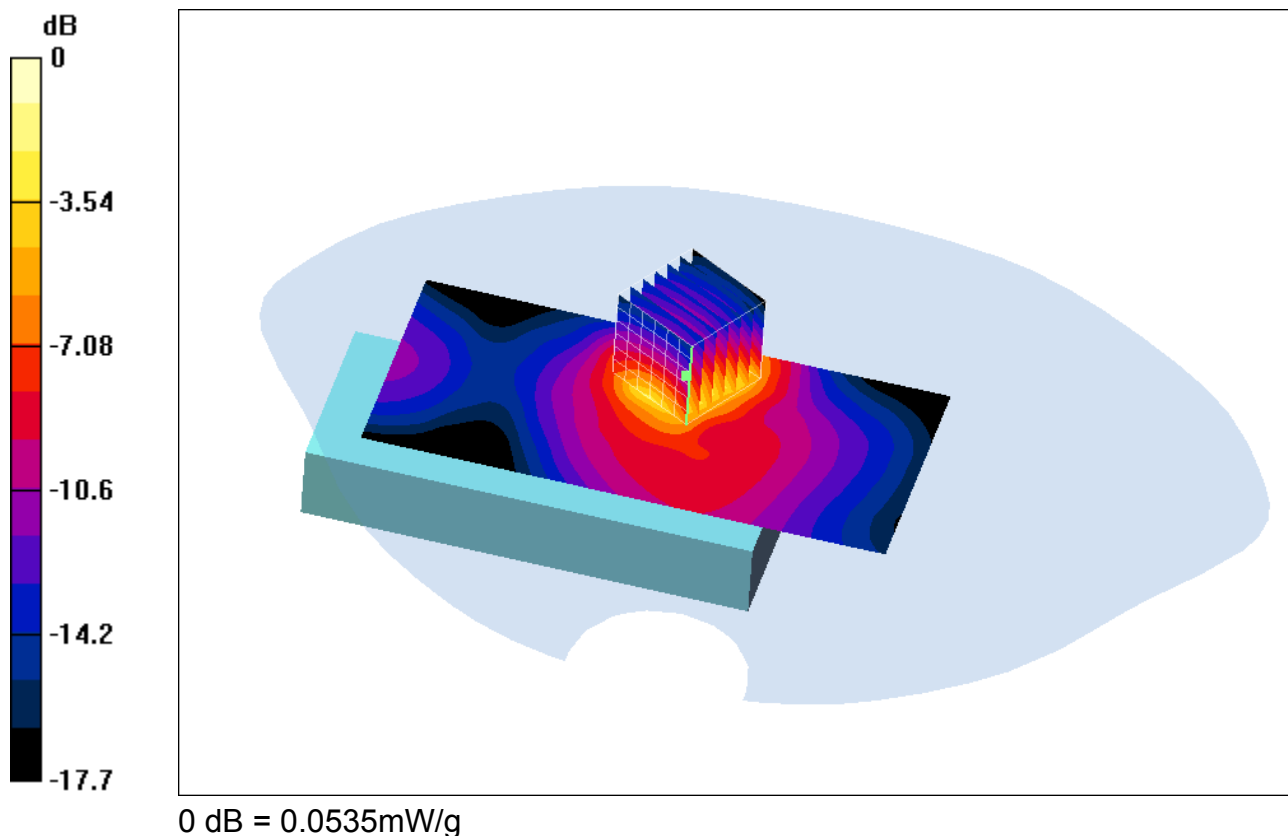
Peak SAR (extrapolated) = 0.104 W/kg

SAR(1 g) = 0.0498 mW/g; SAR(10 g) = 0.0243 mW/g

Reference Value = 2.27 V/m

Power Drift = -0.2 dB

Maximum value of SAR = 0.0535 mW/g



Date/Time: 09/11/03 11:32:33

Test Laboratory: QUALCOMM Incorporated
 File Name: [P1528-Flat-BeltClip 9-11 PCS sn361.da4](#)

P1528-Flat-BeltClip 9-11 PCS sn361

DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Flat)

Communication System: CDMA PCS; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: M1800 body ($\sigma = 1.55437$ mho/m, $\epsilon_r = 55.577$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 54%

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(5, 5, 5); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Belt Clip - Middle/Area Scan (61x131x1): Measurement grid: dx=12mm, dy=12mm

Reference Value = 9.88 V/m

Power Drift = 0.001 dB

Maximum value of SAR = 0.535 mW/g

Belt Clip - Middle/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

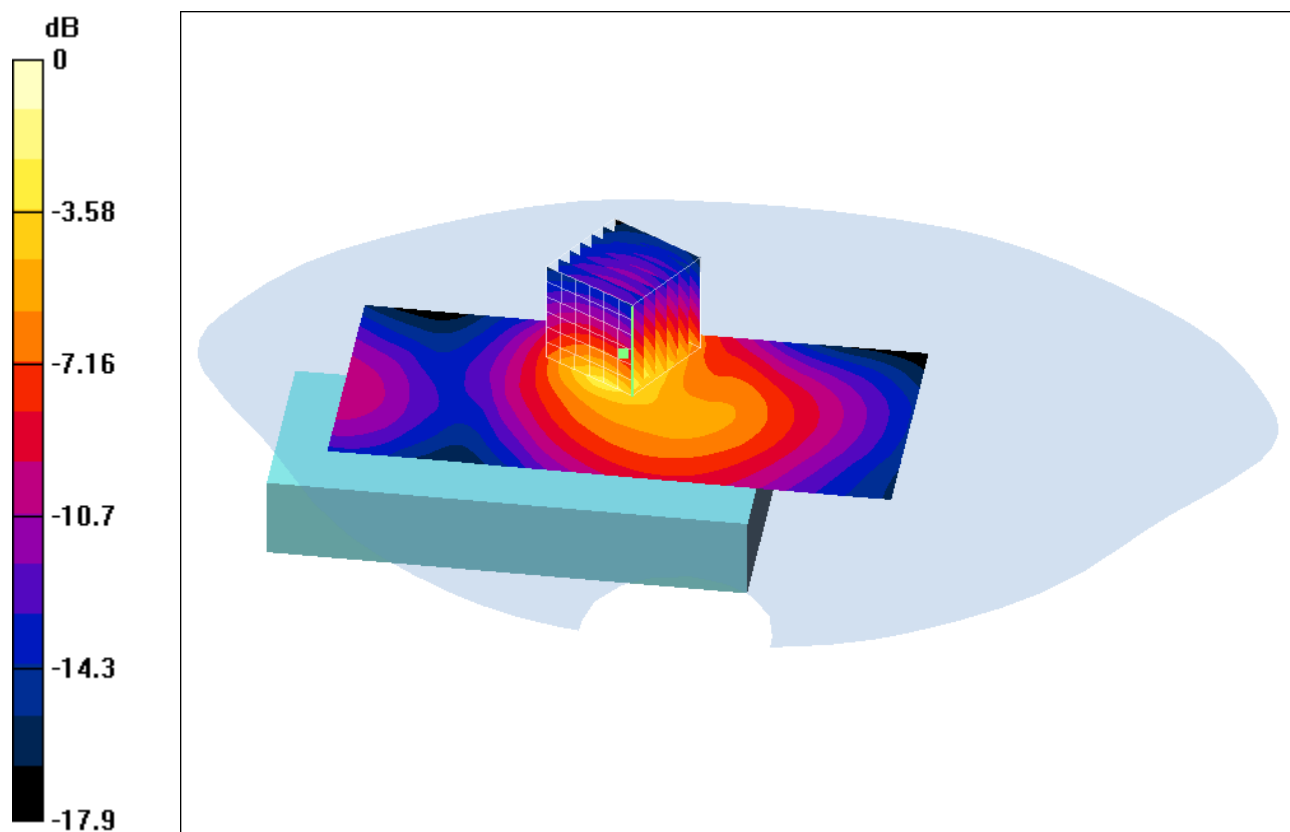
Peak SAR (extrapolated) = 0.984 W/kg

SAR(1 g) = 0.49 mW/g; SAR(10 g) = 0.246 mW/g

Reference Value = 9.88 V/m

Power Drift = 0.001 dB

Maximum value of SAR = 0.525 mW/g



0 dB = 0.525mW/g

Date/Time: 09/11/03 11:32:33

Test Laboratory: QUALCOMM Incorporated
 File Name: [P1528-Flat-BeltClip 9-11 PCS sn361.da4](#)

P1528-Flat-BeltClip 9-11 PCS sn361

DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Flat)

Communication System: CDMA PCS; Frequency: 1908.75 MHz; Duty Cycle: 1:1

Medium: M1800 body ($\sigma = 1.58394$ mho/m, $\epsilon_r = 55.3674$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 54%

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(5, 5, 5); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Belt Clip - High/Area Scan (61x131x1): Measurement grid: dx=12mm, dy=12mm

Reference Value = 10 V/m

Power Drift = -0.1 dB

Maximum value of SAR = 0.363 mW/g

Belt Clip - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

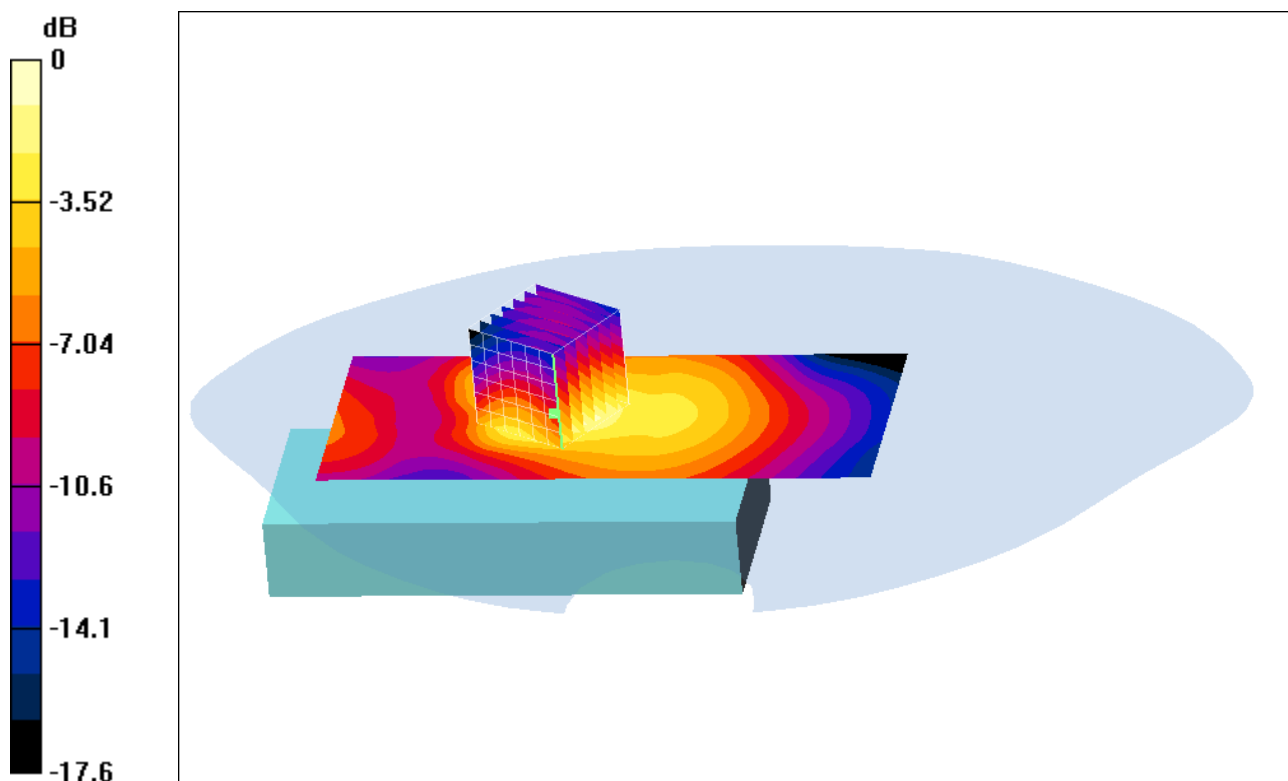
Peak SAR (extrapolated) = 0.59 W/kg

SAR(1 g) = 0.336 mW/g; SAR(10 g) = 0.194 mW/g

Reference Value = 10 V/m

Power Drift = -0.1 dB

Maximum value of SAR = 0.353 mW/g



0 dB = 0.353mW/g

Date/Time: 10/30/03 11:56:43

Test Laboratory: QUALCOMM Incorporated
 File Name: [P1528-Flat-Clipless 10-29 PCS sn361.da4](#)

P1528-Flat-Clipless 10-29 PCS sn361

DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Flat)

Communication System: CDMA PCS; Frequency: 1851.25 MHz; Duty Cycle: 1:1

Medium: M1800 body ($\sigma = 1.50234$ mho/m, $\epsilon_r = 54.6013$, $\rho = 1000$ kg/m³), Temp=22 deg. C, Humidity 53%

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(5, 5, 5); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Clipless - Low/Area Scan (61x131x1): Measurement grid: dx=12mm, dy=12mm

Reference Value = 2.78 V/m

Power Drift = 0.2 dB

Maximum value of SAR = 0.0155 mW/g

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

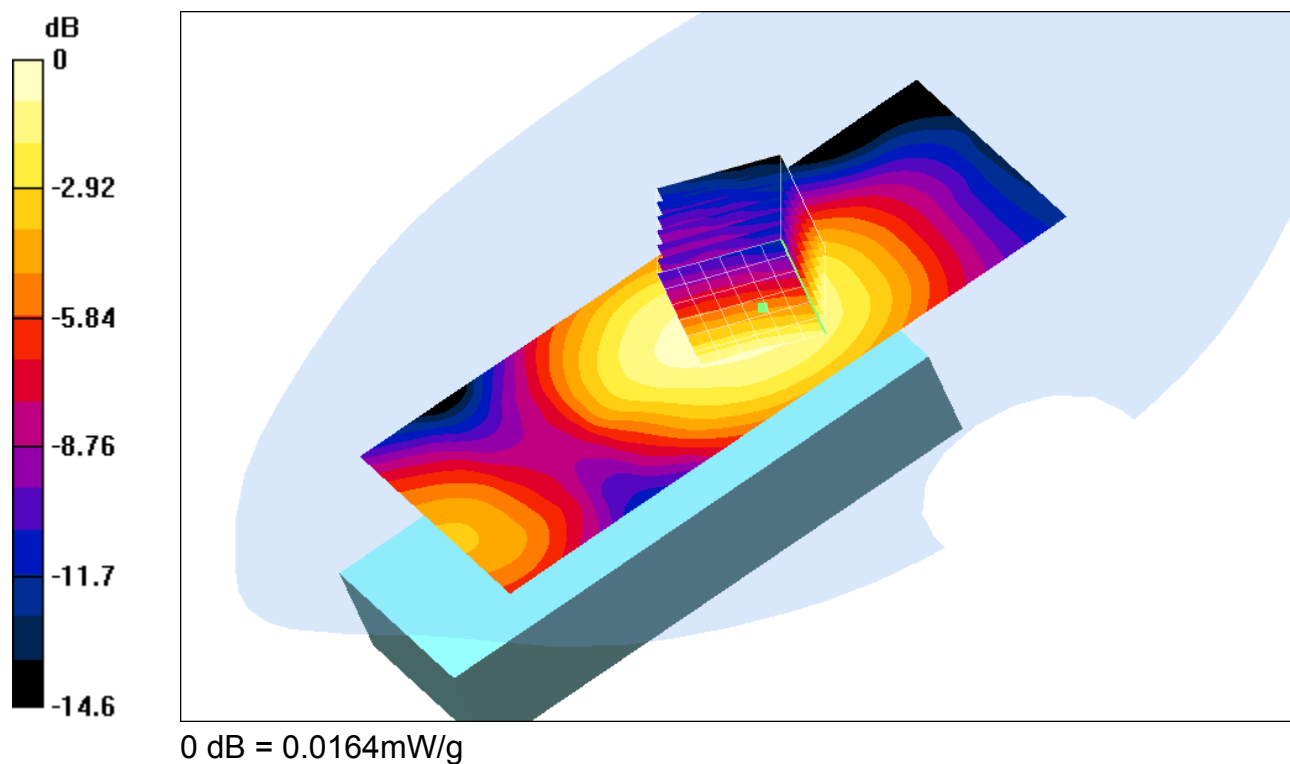
Peak SAR (extrapolated) = 0.0256 W/kg

SAR(1 g) = 0.0157 mW/g; SAR(10 g) = 0.0101 mW/g

Reference Value = 2.78 V/m

Power Drift = 0.2 dB

Maximum value of SAR = 0.0164 mW/g



Date/Time: 10/30/03 11:56:43

Test Laboratory: QUALCOMM Incorporated
 File Name: [P1528-Flat-Clipless 10-29 PCS sn361.da4](#)

P1528-Flat-Clipless 10-29 PCS sn361

DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Flat)

Communication System: CDMA PCS; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium: M1800 body ($\sigma = 1.54516 \text{ mho/m}$, $\epsilon_r = 54.5125$, $\rho = 1000 \text{ kg/m}^3$), Temp=22 deg. C, Humidity 53%

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(5, 5, 5); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Clipless - Middle/Area Scan (61x131x1): Measurement grid: dx=12mm, dy=12mm

Reference Value = 8.87 V/m

Power Drift = 0.3 dB

Maximum value of SAR = 0.195 mW/g

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

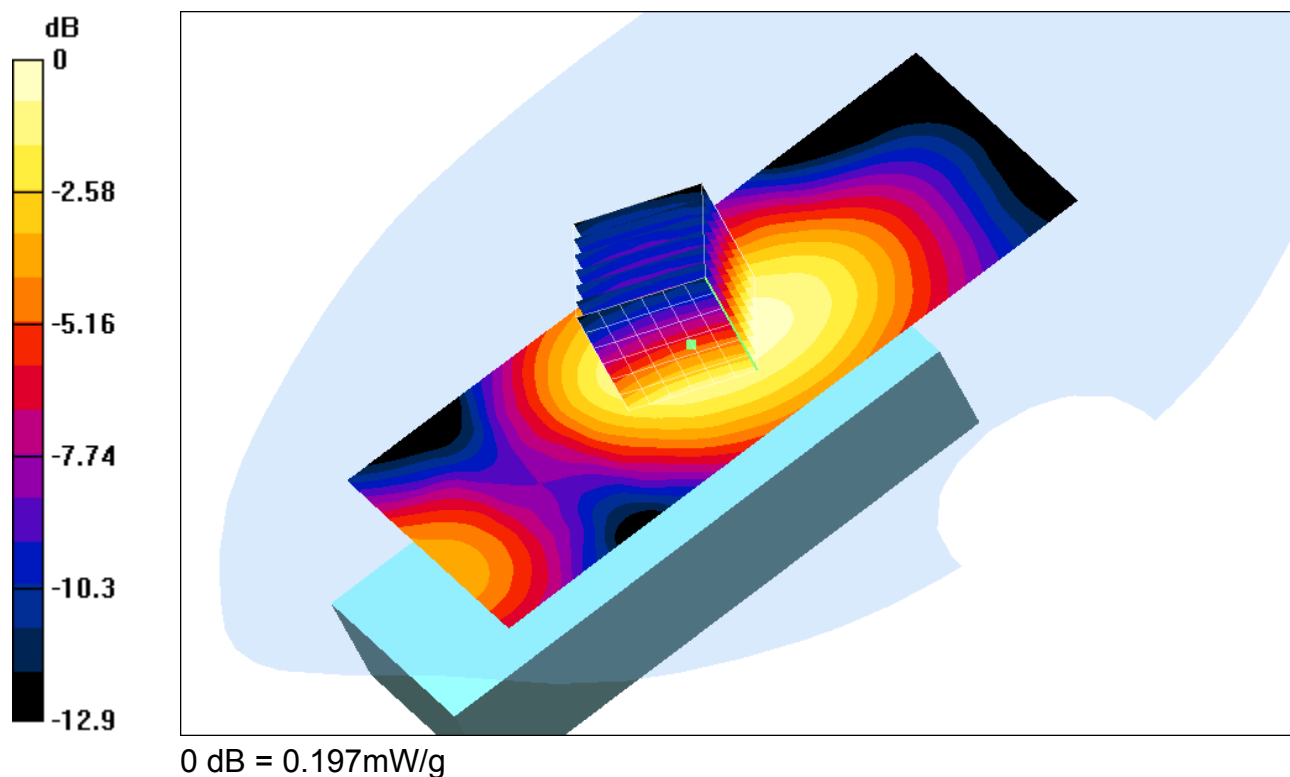
Peak SAR (extrapolated) = 0.309 W/kg

SAR(1 g) = 0.189 mW/g; SAR(10 g) = 0.122 mW/g

Reference Value = 8.87 V/m

Power Drift = 0.3 dB

Maximum value of SAR = 0.197 mW/g



Date/Time: 10/30/03 11:56:43

Test Laboratory: QUALCOMM Incorporated
 File Name: [P1528-Flat-Clipless 10-29 PCS sn361.da4](#)

P1528-Flat-Clipless 10-29 PCS sn361

DUT: Casper; Type: Phone; Serial: P2b-361
Program: Compliance Testing: P1528 Protocol (Flat)

Communication System: CDMA PCS; Frequency: 1908.75 MHz; Duty Cycle: 1:1

Medium: M1800 body ($\sigma = 1.58233 \text{ mho/m}$, $\epsilon_r = 54.4105$, $\rho = 1000 \text{ kg/m}^3$), Temp=22 deg. C, Humidity 53%

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(5, 5, 5); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Clipless - High/Area Scan (61x131x1): Measurement grid: dx=12mm, dy=12mm

Reference Value = 9.28 V/m

Power Drift = -0.04 dB

Maximum value of SAR = 0.213 mW/g

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

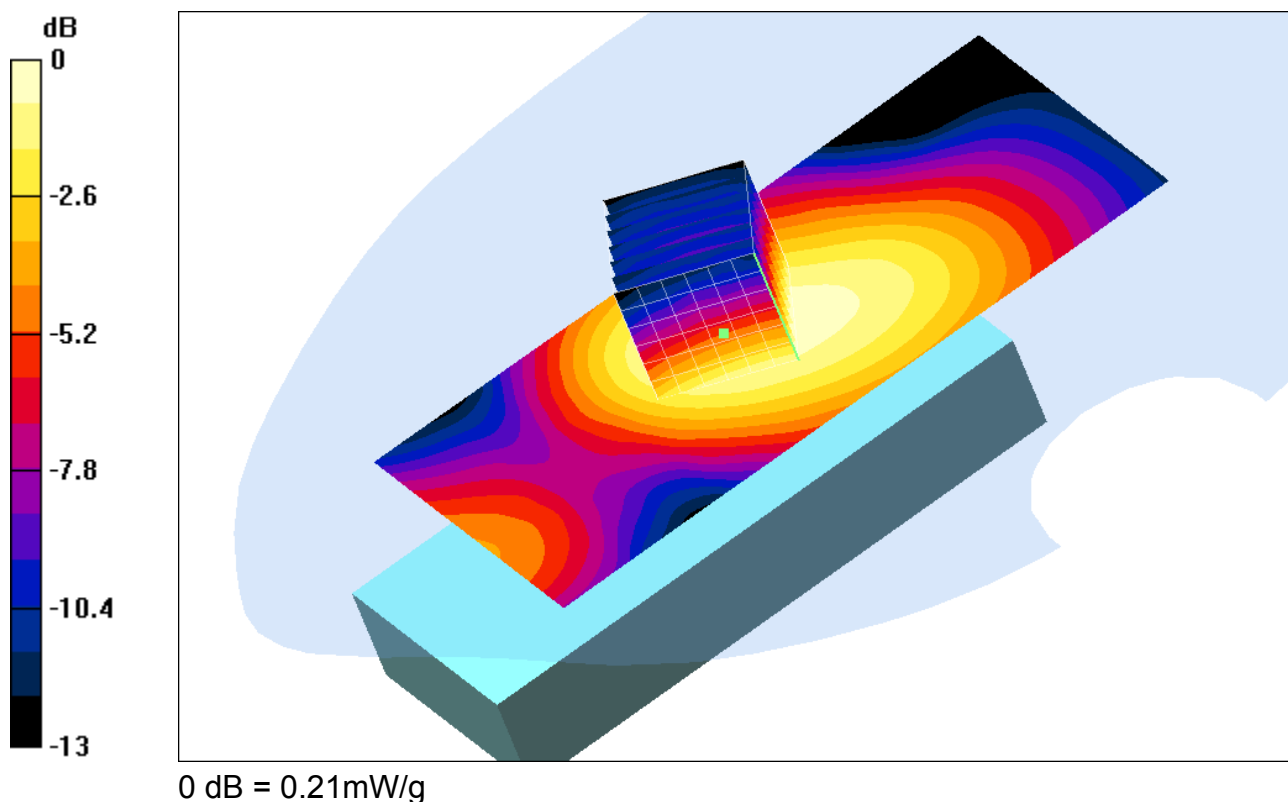
Peak SAR (extrapolated) = 0.332 W/kg

SAR(1 g) = 0.202 mW/g; SAR(10 g) = 0.13 mW/g

Reference Value = 9.28 V/m

Power Drift = -0.04 dB

Maximum value of SAR = 0.21 mW/g

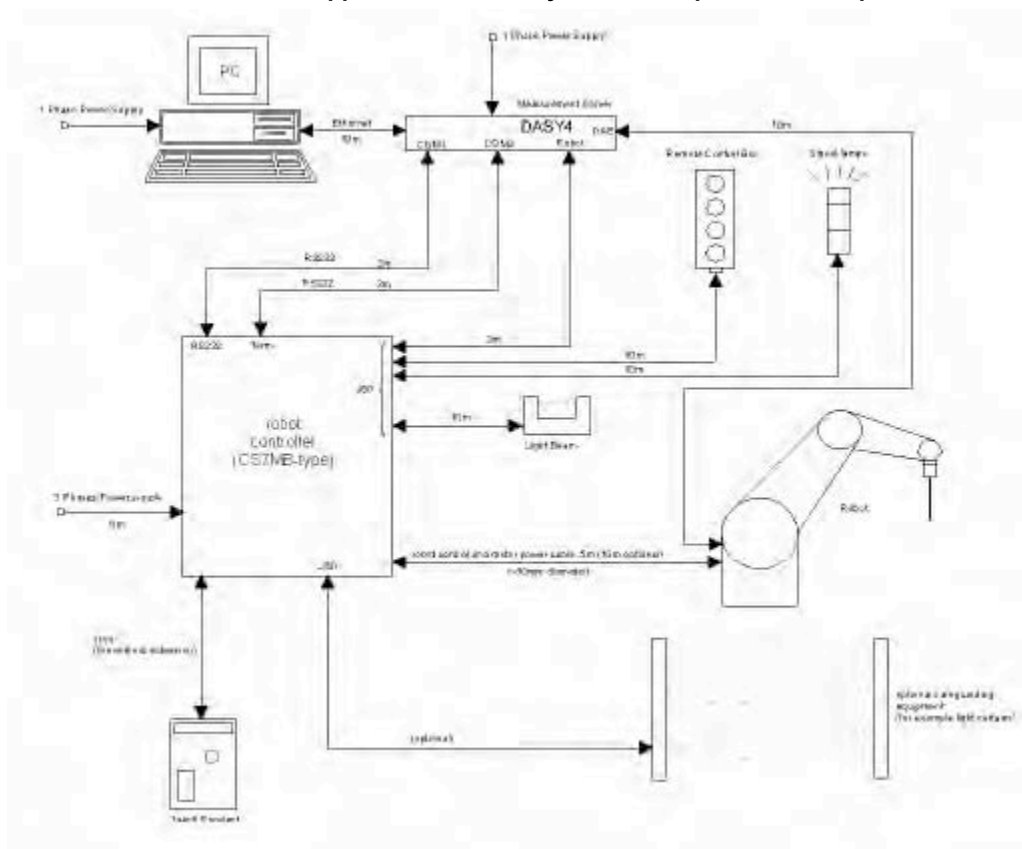


8. System Specifications and Calibration

8.1 System Specifications

Figure 8-1 shows a diagram of the Schmid & Partner DASY4 system.

**Figure 8-1 Diagram of DASY4 System,
from S&P Applications Notes System Description and Setup**



Data Acquisition

Processor	Intel Pentium 4, 2.40 GHz
Operating System	MS Windows XP
Software	DASY4 V4.1 Build 47.1, Schmid & Partners Eng. AG, Switzerland SEMCAD V1.6 Build 115
Surface Detection	Optical and Mechanical

E-Field Probe

Offset tip to sensor center	2.7 mm
Offset surface to probe tip	1.8 ± 0.2
Frequency	30 MHz to 3.0 GHz
Dynamic Range	5 μ W/g to 100 mW/g
Isotropy	± 0.15 dB (in brain liquid)

Phantom

Dielectric	EGSM band: Homogeneous sugar/salt/cellulose liquid DCS/IMT bands: Homogeneous water/glycol/salt liquid
Shell	2 mm $\pm$ 0.2 mm polyester fiber glass
Ear:	Integral model per SAM phantom specification

8.2 Calibration

Equipment Mfr & Type	Serial number	Last Calibrated	Next Calibration
Schmid & Partner Engineering AG Dosimetric E-field Probe, ET3DV5	1733	3 December 2002	3 December 2003
Schmid & Partner Engineering AG dipole validation kit, D1800V2	269	16 July 2003	16 July 2004
Schmid & Partner Engineering AG dipole validation kit, D900V2	083	17 July 2003	17 July 2004
Schmid & Partner Engineering AG Data Acquisition Electronics, DAE3 V1	566	23 May 2003	23 May 2004
Gigatronics 8541C RF Power Meter	1834580	17 October 2002	17 October 2003
Hewlett-Packard 8714C Vector Network Analyzer	US38171129	28 January 2003	28 January 2004
Hewlett-Packard 85070M Dielectric Probe System	N/A	N/A	N/A
835 Mhz Head Tissue Simulating Liquid	N/A	March 2003	N/A
835 Mhz Body Tissue Simulating Liquid	N/A	October 2002	N/A
1800/1900 Mhz Head tissue Simulating Liquid	N/A	July 2002	N/A
1800/1900 Mhz Body Tissue Simulating Liquid	N/A	January 2003	N/A

9. Validations

9.1 General Validation Procedure

Validation scans were performed prior to testing of each different medium used. Prior to installing a body medium, a validation scan is performed using a corresponding head medium. A validation dipole antenna was selected that roughly matched the center frequency of the band being tested. A CW sine wave with a matching frequency is then applied to the antenna from a signal generator through an amplifier for a power level of 1 W (30 dBm). Validation SAR has a tolerance of $\pm 5\%$.

If testing of a particular frequency band took more than one day, a new validation scan was done prior to commencing with testing for the subsequent day.

9.2 Validation Data

Table 9-1 shows validation data for the respective days of the test program.

Table 9-1 SAR Validation Data for QSEC-2700 Test Program

Date	Frequency (MHz)	Permittivity (ϵ_r)	Conductivity (σ)	1 g SAR (mW/g)		
				Measured	Target	Difference (%)
8/20/2003	1800	39.9	1.4	36.3	38.1	-4.7%
8/21/2003	1800	40.7	1.4	37.0	38.1	-2.9%
9/8/2003	900	39.8	0.94	11.3	10.8	4.6%
9/9/2003	900	40.0	0.94	10.8	10.8	0.0%
9/10/2003	900	39.6	0.94	11.0	10.8	1.9%
9/10/2003	1800	40.0	1.4	37.2	38.1	-2.4%
10/29/2003	1800	40.2	1.38	36.7	38.1	-3.6%
10/30/2003	900	40.3	0.94	10.3	10.8	-4.6%

9.3 Validation Plots

The following pages show validation plots for the respective days of the test program

Date/Time: 09/10/03 09:10:31

Test Laboratory: QUALCOMM Incorporated
 File Name: [20030910-Val900MHz-30dBm.da4](#)

20030910-Val900MHz-30dBm

DUT: Dipole 900 MHz; Type: D900V2; Serial: D900V2 - SN:083
Program: System Performance Check at 900 MHz

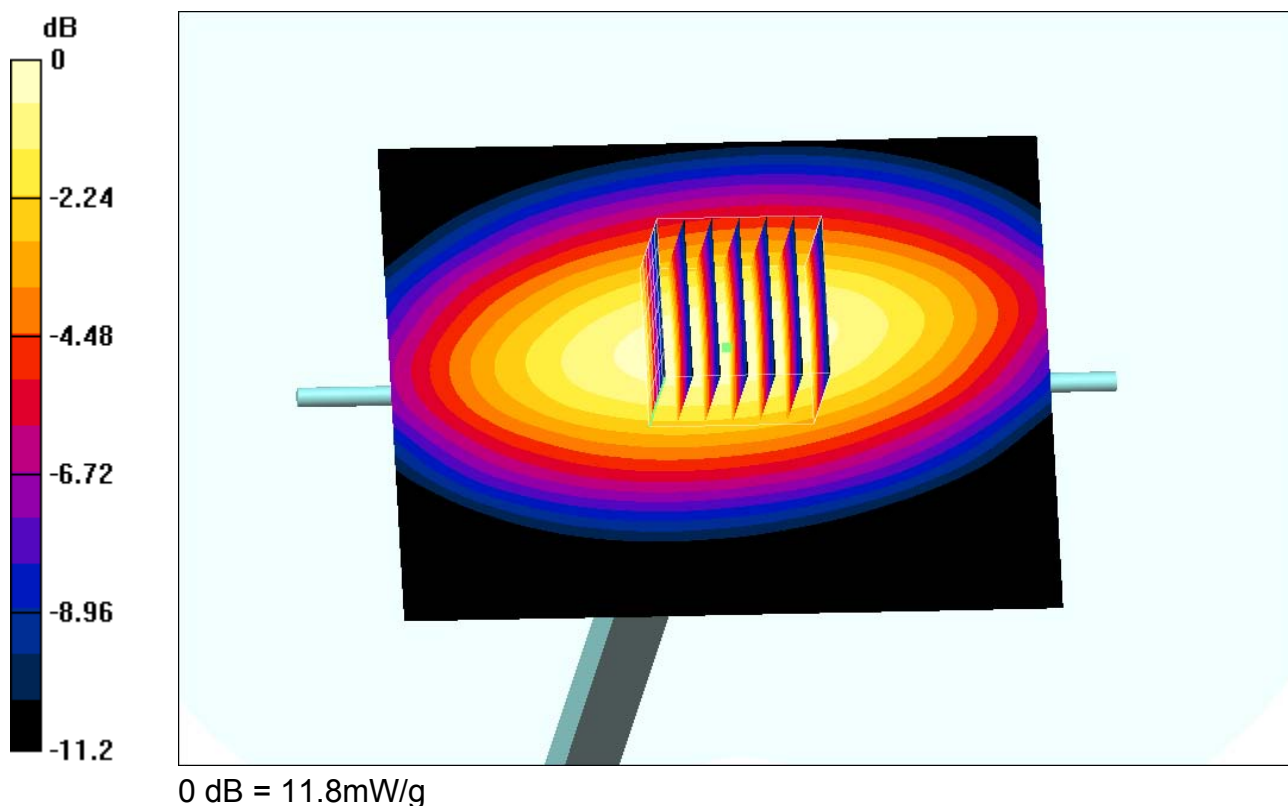
Communication System: CW; Frequency: 900 MHz; Duty Cycle: 1:1
 Medium: HSL835 ($\sigma = 0.938368$ mho/m, $\epsilon_r = 39.6007$, $\rho = 1000$ kg/m³)
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(6.5, 6.5, 6.5); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

d=15mm, Pin=1 W/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
 Reference Value = 116.2 V/m
 Power Drift = -0.06 dB
 Maximum value of SAR = 11.5 mW/g

d=15mm, Pin=1 W/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Peak SAR (extrapolated) = 16.6 W/kg
 SAR(1 g) = 11 mW/g; SAR(10 g) = 6.95 mW/g
 Reference Value = 116.2 V/m
 Power Drift = -0.06 dB
 Maximum value of SAR = 11.8 mW/g



Date/Time: 09/10/03 15:39:39

Test Laboratory: QUALCOMM Incorporated
 File Name: [20030910-Val1800MHz-30dBm.da4](#)

20030910-Val1800MHz-30dBm

DUT: Dipole 1800 MHz; Type: D1800V2; Serial: D1800V2 - SN:269
Program: System Performance Check at 1800 MHz

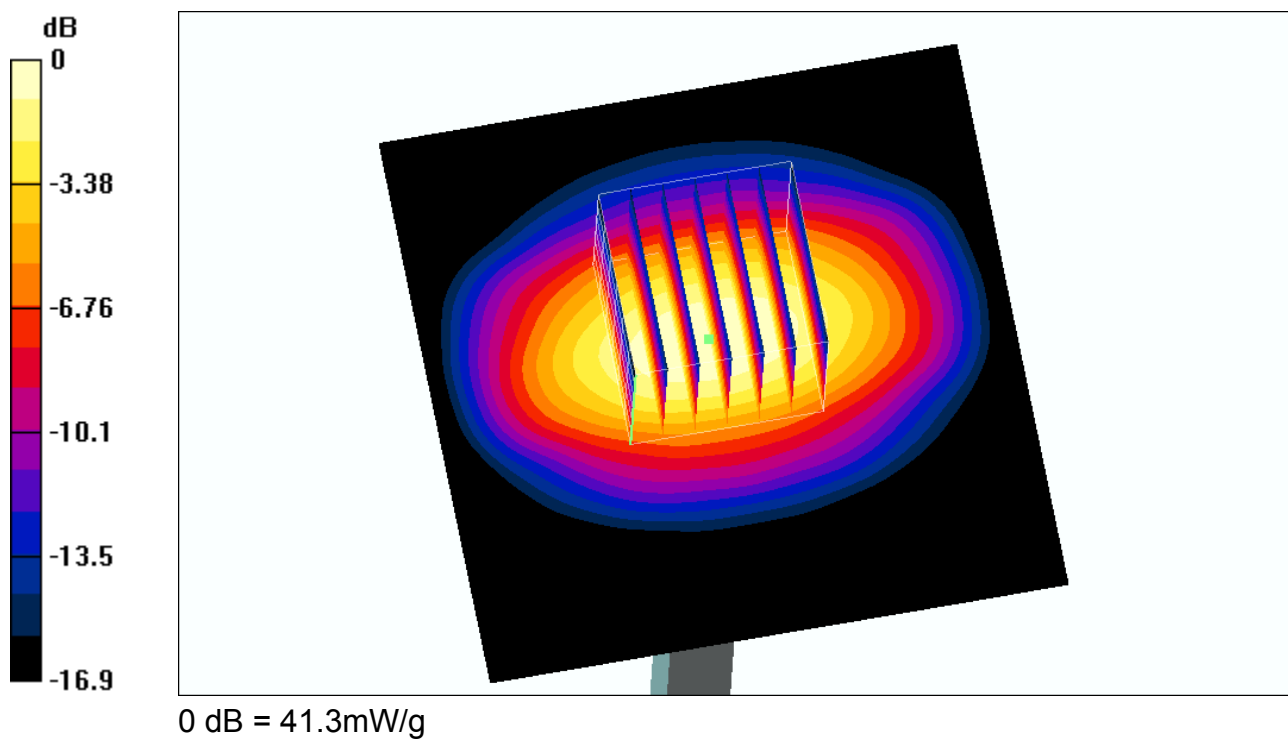
Communication System: CW; Frequency: 1800 MHz; Duty Cycle: 1:1
 Medium: HSL1800 ($\sigma = 1.41064$ mho/m, $\epsilon_r = 40.0268$, $\rho = 1000$ kg/m³)
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(5.4, 5.4, 5.4); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

d=10mm, Pin=1 W/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
 Reference Value = 180.3 V/m
 Power Drift = -0.02 dB
 Maximum value of SAR = 40.8 mW/g

d=10mm, Pin=1 W/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Peak SAR (extrapolated) = 66.3 W/kg
 SAR(1 g) = 37.2 mW/g; SAR(10 g) = 19.3 mW/g
 Reference Value = 180.3 V/m
 Power Drift = -0.02 dB
 Maximum value of SAR = 41.3 mW/g



Date/Time: 10/29/03 12:21:05

Test Laboratory: QUALCOMM Incorporated
 File Name: [20031029-Val1800MHz-30dBm.da4](#)

20031029-Val1800MHz-30dBm

DUT: Dipole 1800 MHz; Type: D1800V2; Serial: D1800V2 - SN:269
Program: System Performance Check at 1800 MHz

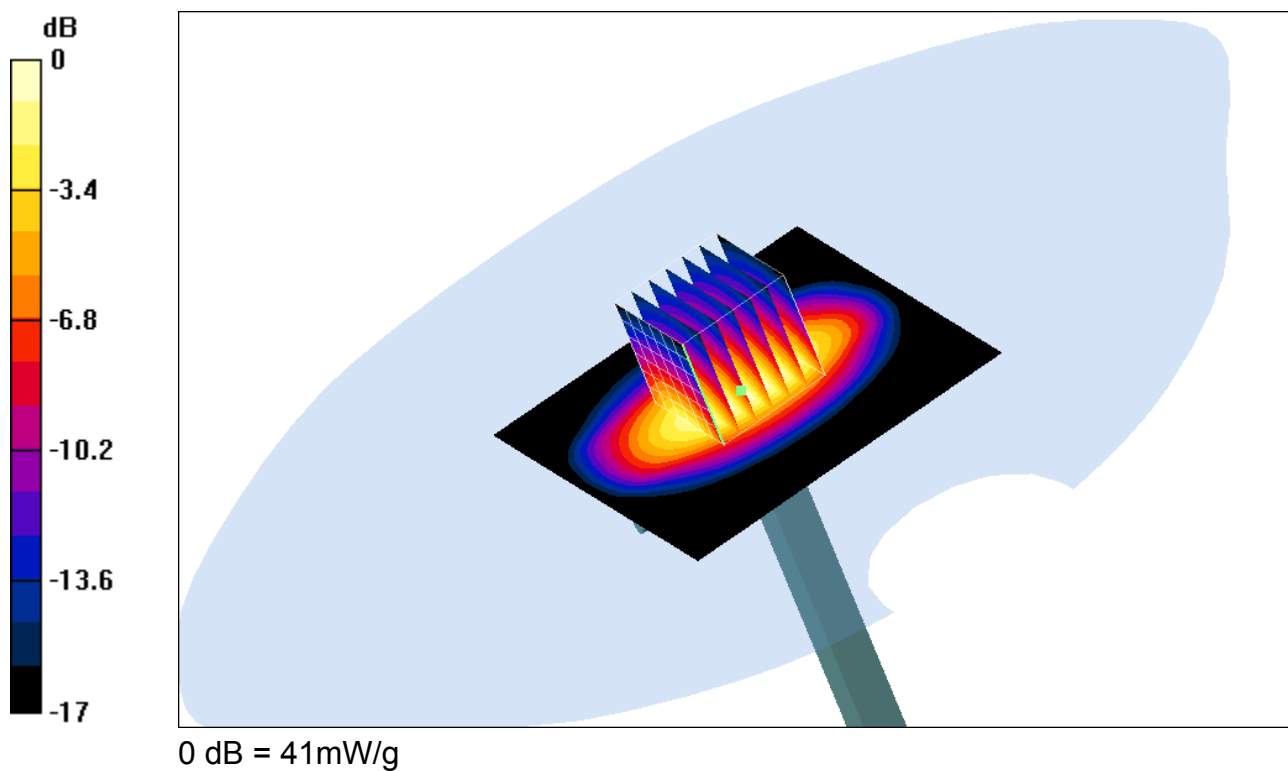
Communication System: CW; Frequency: 1800 MHz; Duty Cycle: 1:1
 Medium: HSL1800 ($\sigma = 1.37664$ mho/m, $\epsilon_r = 40.1686$, $\rho = 1000$ kg/m³)
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(5.4, 5.4, 5.4); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

d=10mm, Pin=1 W/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
 Reference Value = 179.1 V/m
 Power Drift = -0.02 dB
 Maximum value of SAR = 40.3 mW/g

d=10mm, Pin=1 W/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Peak SAR (extrapolated) = 66.4 W/kg
 SAR(1 g) = 36.7 mW/g; SAR(10 g) = 19 mW/g
 Reference Value = 179.1 V/m
 Power Drift = -0.02 dB
 Maximum value of SAR = 41 mW/g



Date/Time: 10/30/03 11:13:52

Test Laboratory: QUALCOMM Incorporated
 File Name: [20031030-Val900MHz-30dBm.da4](#)

20031030-Val900MHz-30dBm

DUT: Dipole 900 MHz; Type: D900V2; Serial: D900V2 - SN:083
Program: System Performance Check at 900 MHz

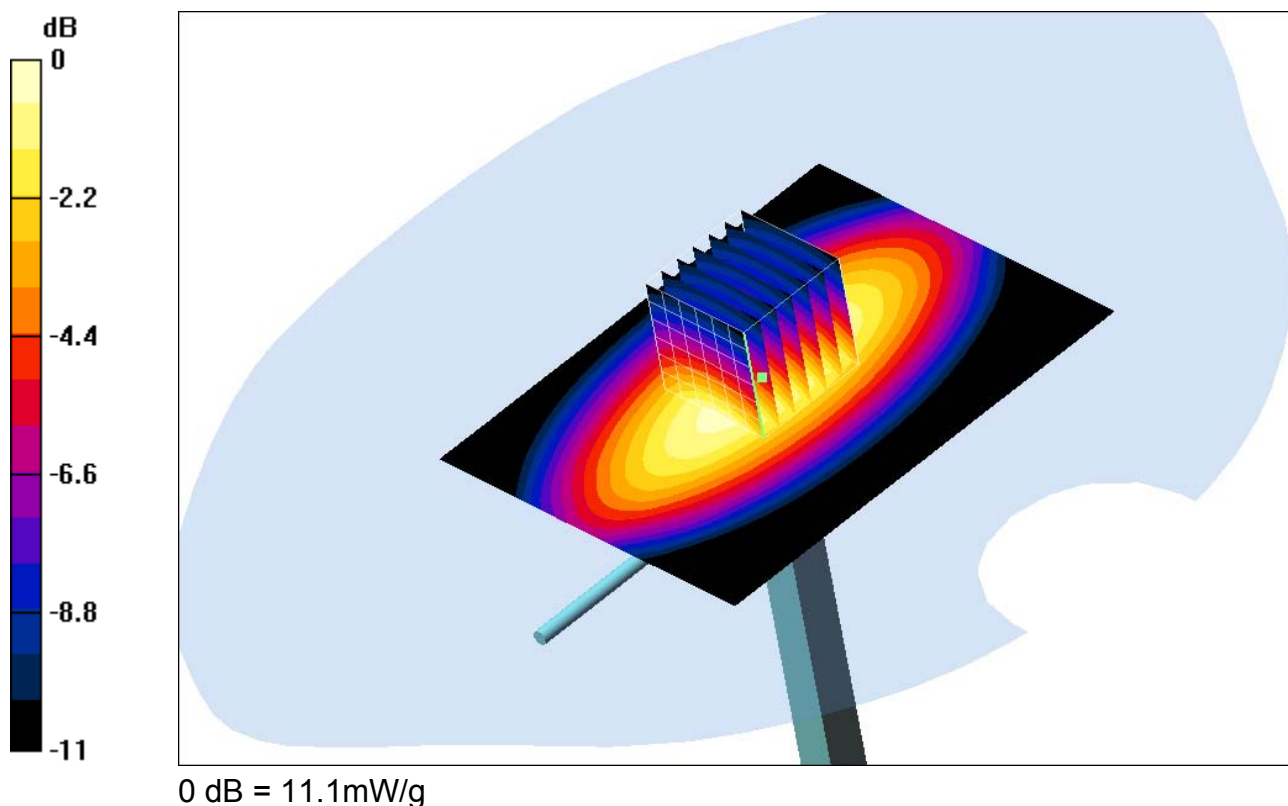
Communication System: CW; Frequency: 900 MHz; Duty Cycle: 1:1
 Medium: HSL835 ($\sigma = 0.936315$ mho/m, $\epsilon_r = 40.2993$, $\rho = 1000$ kg/m³)
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1733; ConvF(6.5, 6.5, 6.5); Calibrated: 12/3/2002
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn566; Calibrated: 5/23/2003
- Phantom: SAM with CRP; Type: SAM; Serial: 001
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

d=15mm, Pin=1 W/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
 Reference Value = 113.2 V/m
 Power Drift = -0.02 dB
 Maximum value of SAR = 11 mW/g

d=15mm, Pin=1 W/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Peak SAR (extrapolated) = 15.4 W/kg
 SAR(1 g) = 10.3 mW/g; SAR(10 g) = 6.58 mW/g
 Reference Value = 113.2 V/m
 Power Drift = -0.02 dB
 Maximum value of SAR = 11.1 mW/g



10. Calibration Data

The following pages show calibration certification data for the Schmid & Partner AG DASY4 SAR system.

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K112061.

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Client

Qualcomm USA

CALIBRATION CERTIFICATE

Object(s) DAE3 - SN:566

Calibration procedure(s) QA CAL-06.v2
Calibration procedure for the data acquisition unit (DAE)

Calibration date: May 23, 2003

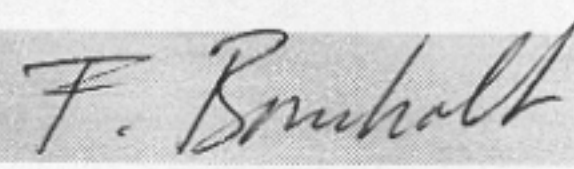
Condition of the calibrated item In Tolerance (according to the specific calibration document)

This calibration statement documents traceability of M&TE used in the calibration procedures and conformity of the procedures with the ISO/IEC 17025 international standard.

All calibrations have been conducted in the closed laboratory facility: environment temperature 22 +/- 2 degrees Celsius and humidity < 75%.

Calibration Equipment used (M&TE critical for calibration)

Model Type	ID #	Cal Date	Scheduled Calibration
Fluke Process Calibrator Type 702	SN: 6295803	3-Sep-01	Sep-03

	Name	Function	Signature
Calibrated by:	Eric Hainfeld	Technician	
Approved by:	Fin Bomholt	R&D Director	

Date issued: May 23, 2003

This calibration certificate is issued as an intermediate solution until the accreditation process (based on ISO/IEC 17025 International Standard) for Calibration Laboratory of Schmid & Partner Engineering AG is completed.