



Attachment 1 – System Validation Plots

Test Laboratory: JAPAN QUALITY ASSURANCE ORGANIZATION

System Validation (Head 835 MHz)

DUT: Dipole 835 MHz; Type: D835V2; Serial: 4d104

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL900 Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.9 \text{ mho/m}$; $\epsilon_r = 41.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1741; ConvF(6.36, 6.36, 6.36); Calibrated: 2009/09/15
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn508; Calibrated: 2009/11/09
- Phantom: SAM 1200; Type: QD 000 P40 CA; Serial: 1200
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Antenna Input Power 250 mW/Area Scan (5x5x1): Measurement grid: $dx=20\text{mm}$, $dy=20\text{mm}$

Maximum value of SAR (measured) = 2.65 mW/g

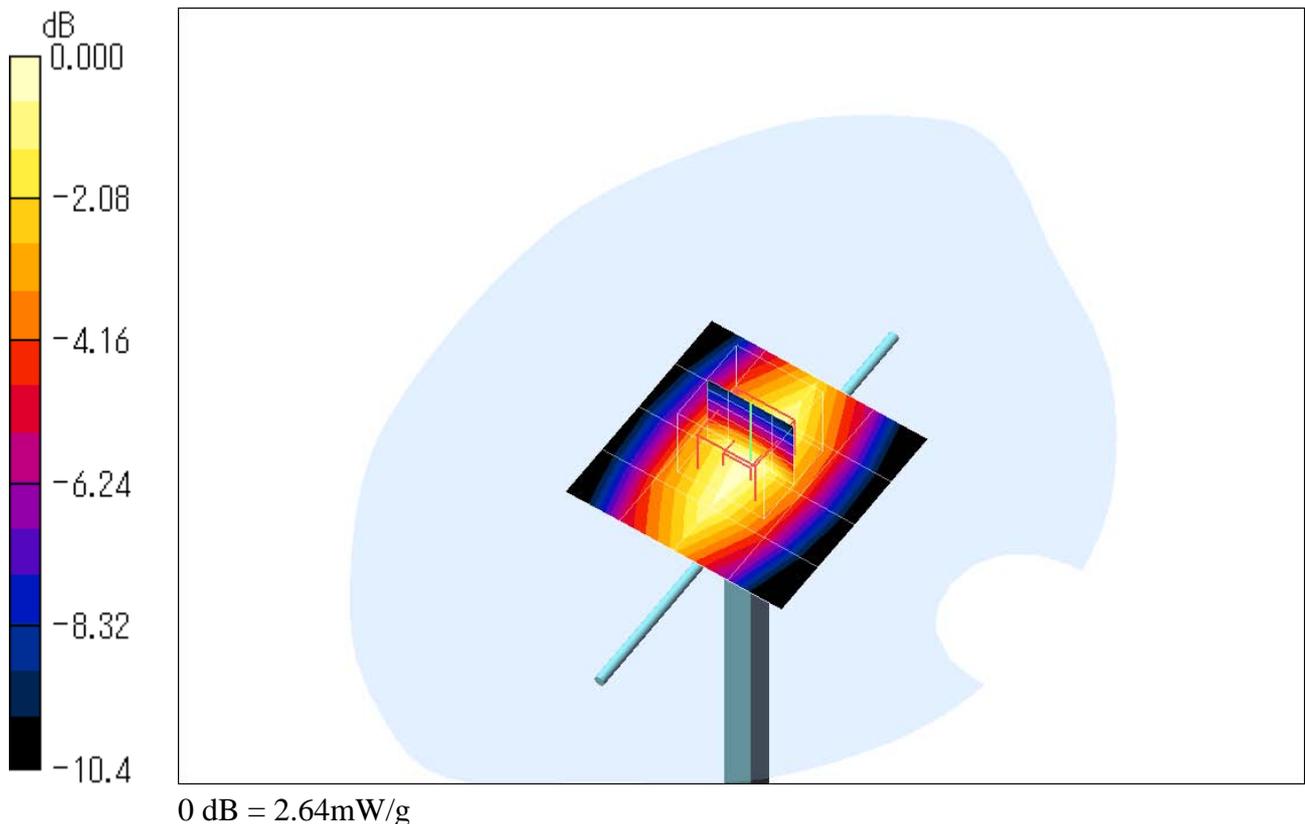
Antenna Input Power 250 mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 56.1 V/m; Power Drift = -0.004 dB

Peak SAR (extrapolated) = 3.59 W/kg

SAR(1 g) = 2.45 mW/g; SAR(10 g) = 1.6 mW/g

Maximum value of SAR (measured) = 2.64 mW/g



Test Laboratory: JAPAN QUALITY ASSURANCE ORGANIZATION

System Validation (Body 835 MHz)

DUT: Dipole 835 MHz; Type: D835V2; Serial: 4d104

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: M900 Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.956 \text{ mho/m}$; $\epsilon_r = 54.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1741; ConvF(6.1, 6.1, 6.1); Calibrated: 2009/09/15
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn508; Calibrated: 2009/11/09
- Phantom: SAM 1200; Type: QD 000 P40 CA; Serial: 1200
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Antenna Input Power 250 mW/Area Scan (5x5x1): Measurement grid: $dx=20\text{mm}$, $dy=20\text{mm}$

Maximum value of SAR (measured) = 2.69 mW/g

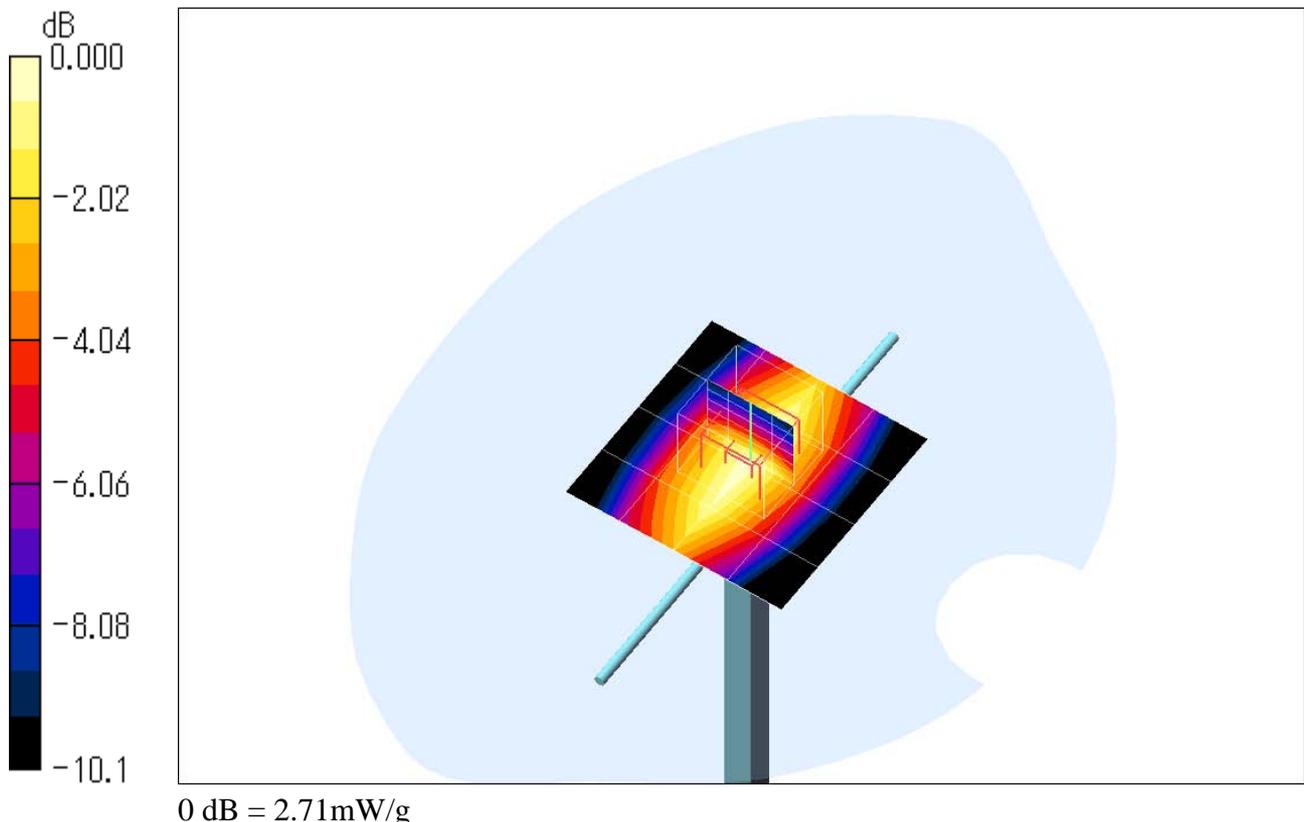
Antenna Input Power 250 mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 55.4 V/m; Power Drift = -0.017 dB

Peak SAR (extrapolated) = 3.56 W/kg

SAR(1 g) = 2.5 mW/g; SAR(10 g) = 1.65 mW/g

Maximum value of SAR (measured) = 2.71 mW/g





Attachment 2 – SAR Test Plots

Test Laboratory: JAPAN QUALITY ASSURANCE ORGANIZATION

Left Head, Cheek/Touch 1013ch (824.70MHz)**DUT: Cellular Phone; Type: SH010; Serial: SSHEF000927**

Communication System: CDMA2000 Cellular; Frequency: 824.7 MHz; Duty Cycle: 1:1

Medium: HSL900 Medium parameters used: $f = 824.7$ MHz; $\sigma = 0.891$ mho/m; $\epsilon_r = 41.3$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Measurement Standard: DAS4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1741; ConvF(6.36, 6.36, 6.36); Calibrated: 2009/09/15
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn508; Calibrated: 2009/11/09
- Phantom: SAM 1200; Type: QD 000 P40 CA; Serial: 1200
- Measurement SW: DAS4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek/Touch Position/Area Scan (11x6x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.430 mW/g

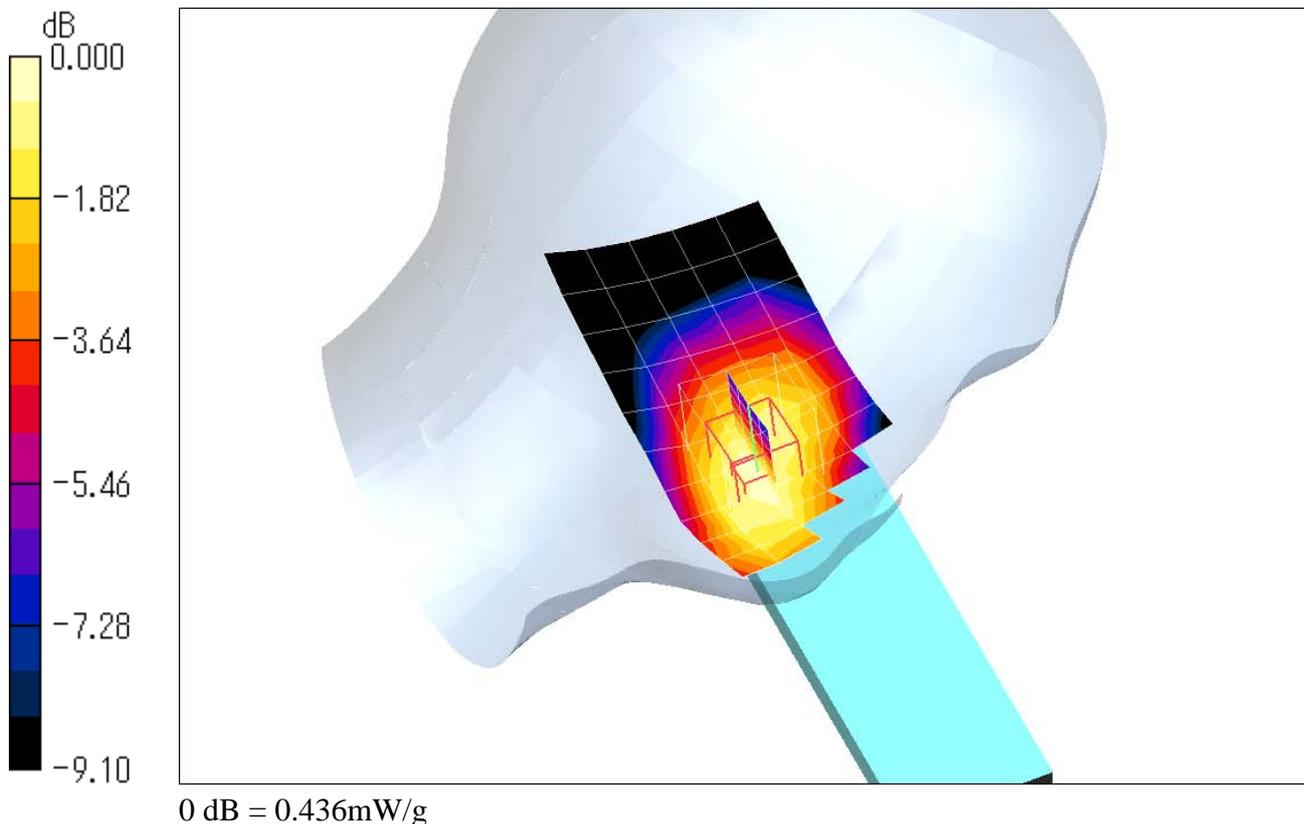
Cheek/Touch Position/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 21.4 V/m; Power Drift = -0.004 dB

Peak SAR (extrapolated) = 0.523 W/kg

SAR(1 g) = 0.409 mW/g; SAR(10 g) = 0.301 mW/g

Maximum value of SAR (measured) = 0.436 mW/g



Test Laboratory: JAPAN QUALITY ASSURANCE ORGANIZATION

Left Head, Cheek/Touch 1013ch (824.70MHz)

DUT: Cellular Phone; Type: SH010; Serial: SSHEF000927

Communication System: CDMA2000 Cellular; Frequency: 824.7 MHz; Duty Cycle: 1:1

Medium: HSL900 Medium parameters used: $f = 824.7 \text{ MHz}$; $\sigma = 0.891 \text{ mho/m}$; $\epsilon_r = 41.3$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

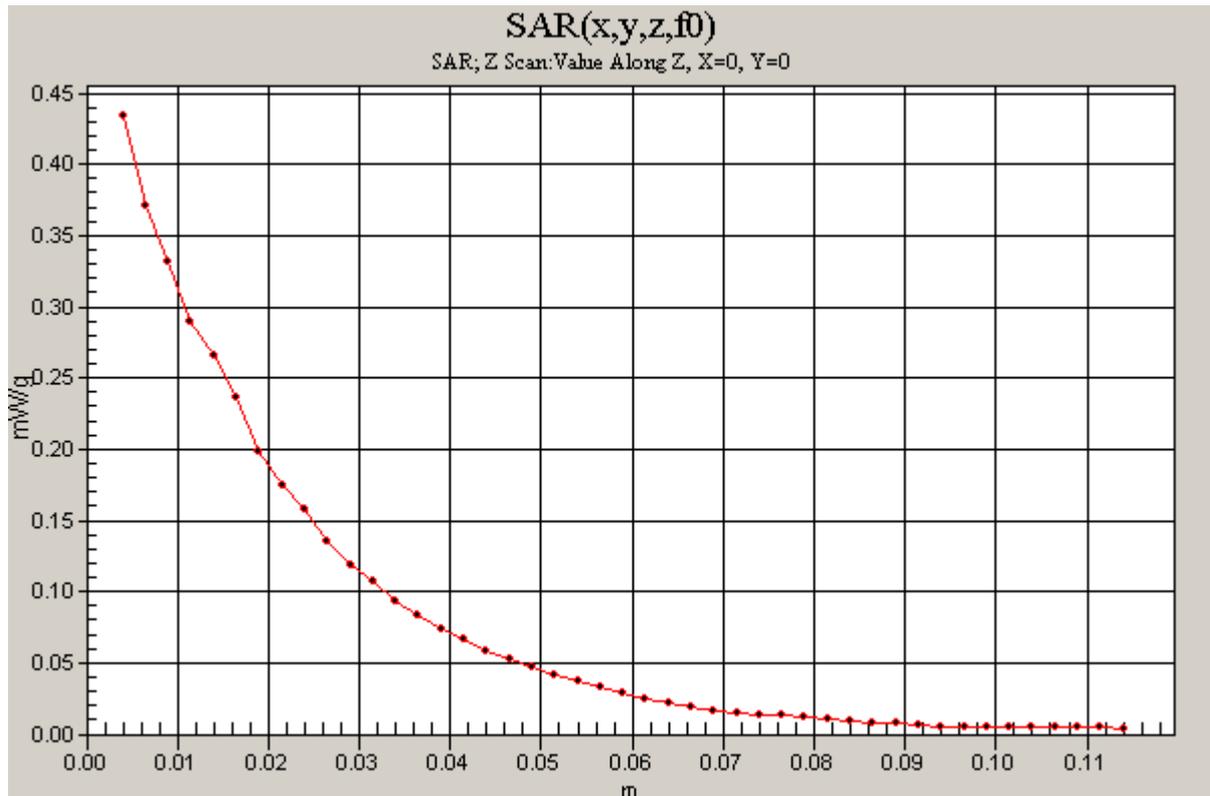
Measurement Standard: DASy4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1741; ConvF(6.36, 6.36, 6.36); Calibrated: 2009/09/15
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn508; Calibrated: 2009/11/09
- Phantom: SAM 1200; Type: QD 000 P40 CA; Serial: 1200
- Measurement SW: DASy4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek/Touch Position/Z Scan (1x1x45): Measurement grid: $dx=20\text{mm}$, $dy=20\text{mm}$, $dz=2.5\text{mm}$

Maximum value of SAR (measured) = 0.434 mW/g



Test Laboratory: JAPAN QUALITY ASSURANCE ORGANIZATION

Left Head, Cheek/Touch 384ch (836.52MHz)**DUT: Cellular Phone; Type: SH010; Serial: SSHEF000927**

Communication System: CDMA2000 Cellular; Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium: HSL900 Medium parameters used: $f = 836.52 \text{ MHz}$; $\sigma = 0.9 \text{ mho/m}$; $\epsilon_r = 41.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

Measurement Standard: DAS4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1741; ConvF(6.36, 6.36, 6.36); Calibrated: 2009/09/15
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn508; Calibrated: 2009/11/09
- Phantom: SAM 1200; Type: QD 000 P40 CA; Serial: 1200
- Measurement SW: DAS4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek/Touch Position/Area Scan (11x6x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.423 mW/g

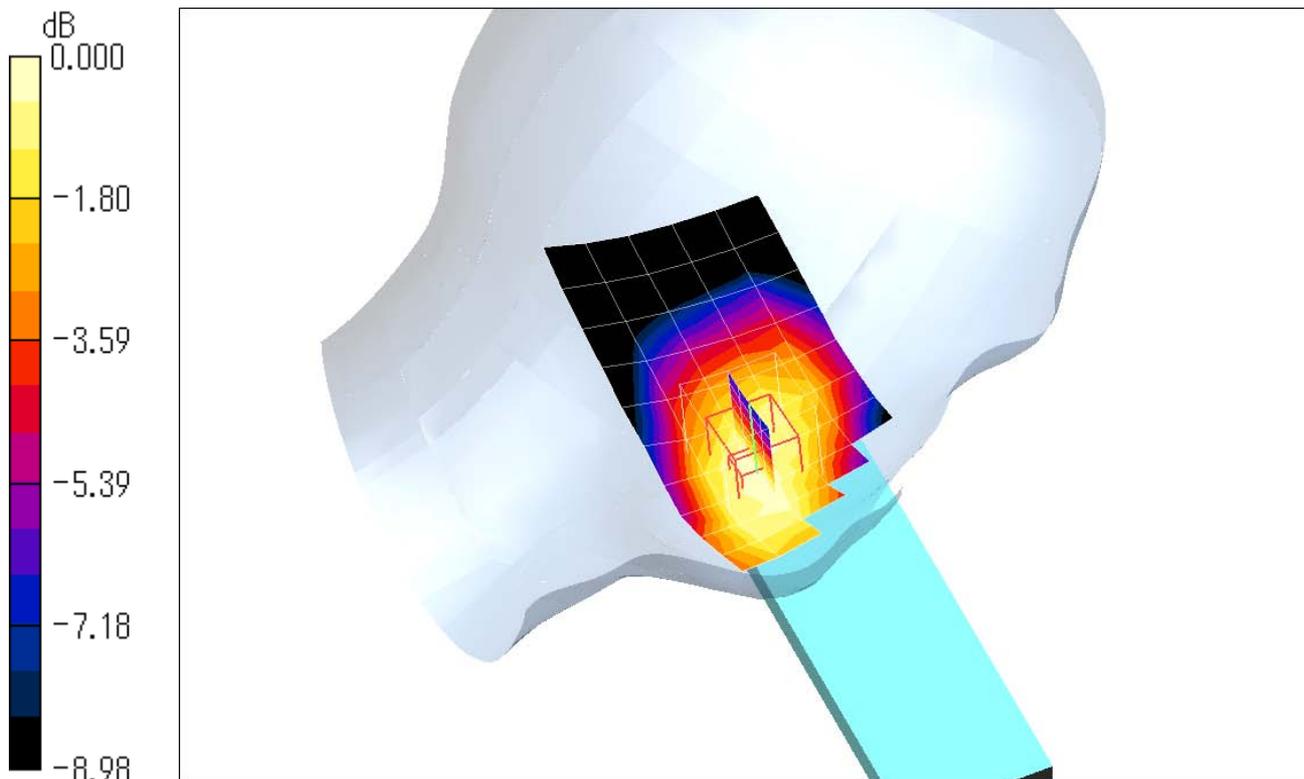
Cheek/Touch Position/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 21.3 V/m; Power Drift = -0.056 dB

Peak SAR (extrapolated) = 0.525 W/kg

SAR(1 g) = 0.396 mW/g; SAR(10 g) = 0.290 mW/g

Maximum value of SAR (measured) = 0.414 mW/g



0 dB = 0.414mW/g

Test Laboratory: JAPAN QUALITY ASSURANCE ORGANIZATION

Left Head, Cheek/Touch 779ch (848.37MHz)**DUT: Cellular Phone; Type: SH010; Serial: SSHEF000927**

Communication System: CDMA2000 Cellular; Frequency: 848.37 MHz; Duty Cycle: 1:1

Medium: HSL900 Medium parameters used: $f = 848.37$ MHz; $\sigma = 0.91$ mho/m; $\epsilon_r = 41.2$; $\rho = 1000$ kg/m³

Phantom section: Left Section

Measurement Standard: DASy4 (High Precision Assessment)

DASy4 Configuration:

- Probe: ET3DV6 - SN1741; ConvF(6.36, 6.36, 6.36); Calibrated: 2009/09/15
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn508; Calibrated: 2009/11/09
- Phantom: SAM 1200; Type: QD 000 P40 CA; Serial: 1200
- Measurement SW: DASy4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek/Touch Position/Area Scan (11x6x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.428 mW/g

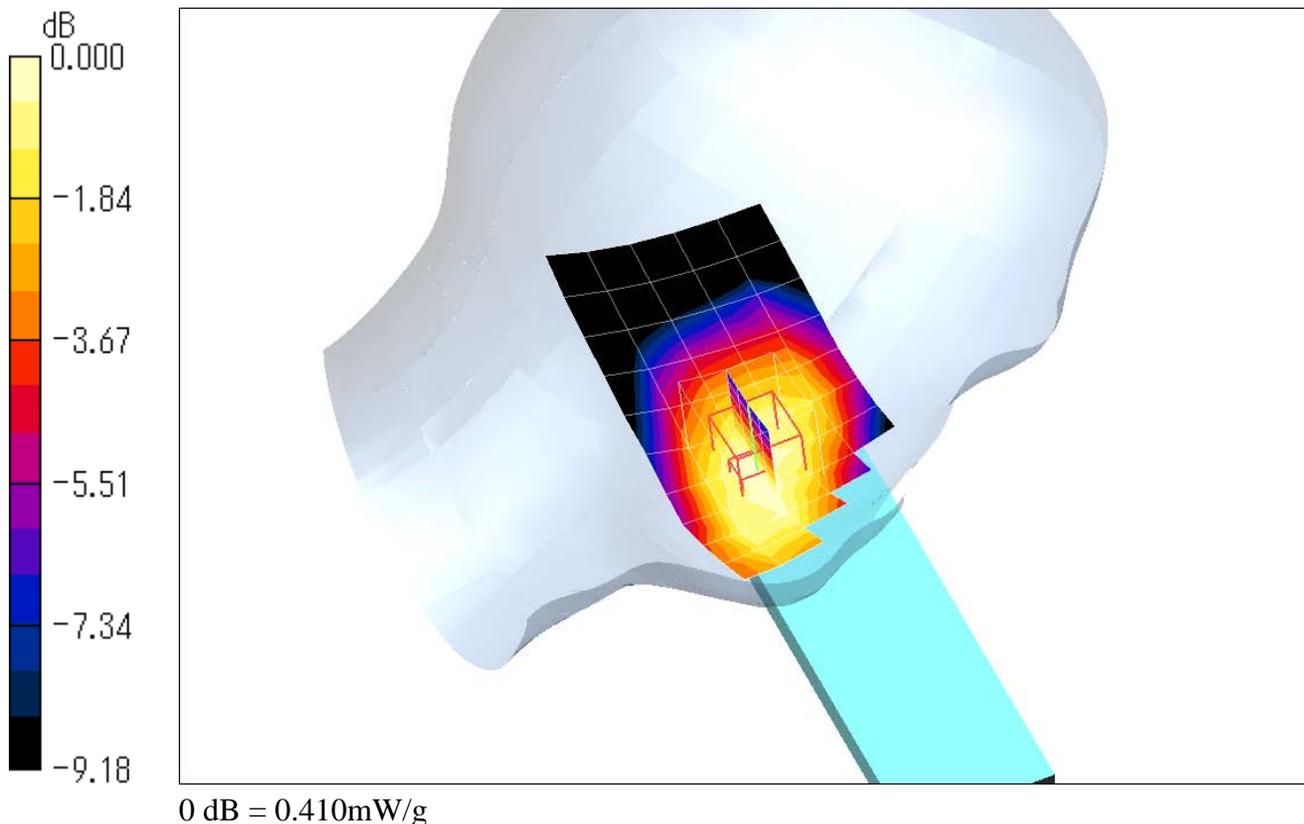
Cheek/Touch Position/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 21.3 V/m; Power Drift = -0.041 dB

Peak SAR (extrapolated) = 0.532 W/kg

SAR(1 g) = 0.392 mW/g; SAR(10 g) = 0.287 mW/g

Maximum value of SAR (measured) = 0.410 mW/g



Test Laboratory: JAPAN QUALITY ASSURANCE ORGANIZATION

Left Head, Ear/Tilt 384ch (836.52MHz)

DUT: Cellular Phone; Type: SH010; Serial: SSHEF000927

Communication System: CDMA2000 Cellular; Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium: HSL900 Medium parameters used: $f = 836.52 \text{ MHz}$; $\sigma = 0.9 \text{ mho/m}$; $\epsilon_r = 41.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

Measurement Standard: DAS4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1741; ConvF(6.36, 6.36, 6.36); Calibrated: 2009/09/15
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn508; Calibrated: 2009/11/09
- Phantom: SAM 1200; Type: QD 000 P40 CA; Serial: 1200
- Measurement SW: DAS4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Ear/Tilt Position/Area Scan (11x6x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.264 mW/g

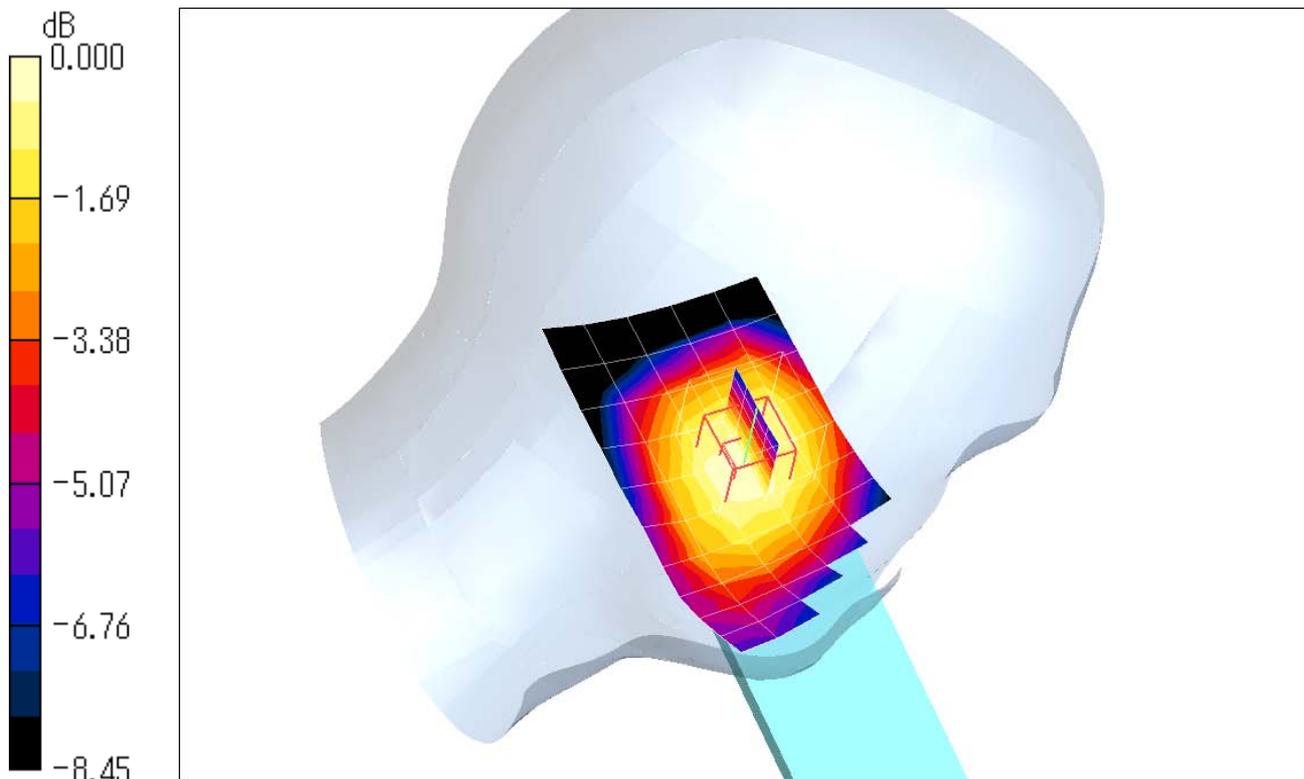
Ear/Tilt Position/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 16.6 V/m; Power Drift = -0.067 dB

Peak SAR (extrapolated) = 0.300 W/kg

SAR(1 g) = 0.249 mW/g; SAR(10 g) = 0.190 mW/g

Maximum value of SAR (measured) = 0.262 mW/g



0 dB = 0.262mW/g

Test Laboratory: JAPAN QUALITY ASSURANCE ORGANIZATION

Right Head, Cheek/Touch 384ch (836.52MHz)

DUT: Cellular Phone; Type: SH010; Serial: SSHEF000927

Communication System: CDMA2000 Cellular; Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium: HSL900 Medium parameters used: $f = 836.52 \text{ MHz}$; $\sigma = 0.9 \text{ mho/m}$; $\epsilon_r = 41.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

Measurement Standard: DAS4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1741; ConvF(6.36, 6.36, 6.36); Calibrated: 2009/09/15
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn508; Calibrated: 2009/11/09
- Phantom: SAM 1200; Type: QD 000 P40 CA; Serial: 1200
- Measurement SW: DAS4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Cheek/Touch Position/Area Scan (11x6x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.377 mW/g

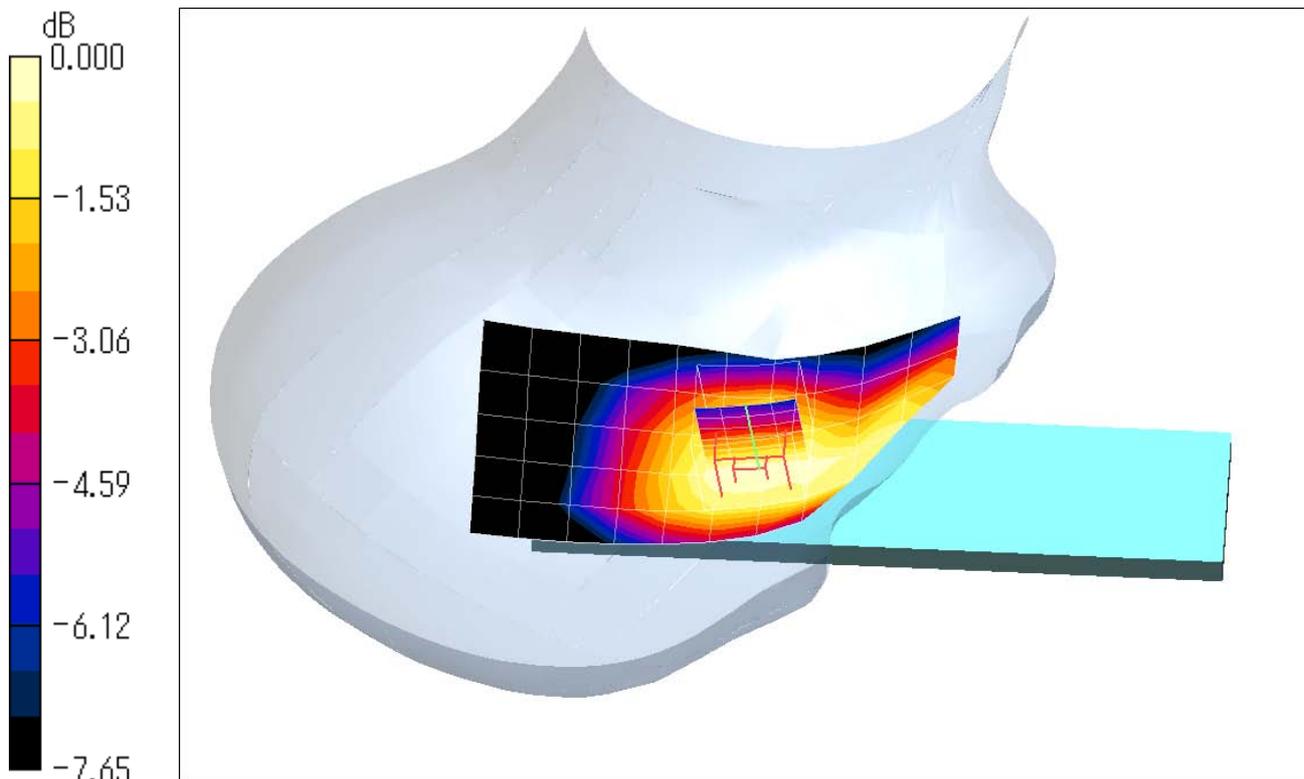
Cheek/Touch Position/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 21.1 V/m; Power Drift = -0.089 dB

Peak SAR (extrapolated) = 0.423 W/kg

SAR(1 g) = 0.352 mW/g; SAR(10 g) = 0.275 mW/g

Maximum value of SAR (measured) = 0.366 mW/g



0 dB = 0.366mW/g

Test Laboratory: JAPAN QUALITY ASSURANCE ORGANIZATION

Right Head, Ear/Tilt 384ch (836.52MHz)

DUT: Cellular Phone; Type: SH010; Serial: SSHEF000927

Communication System: CDMA2000 Cellular; Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium: HSL900 Medium parameters used: $f = 836.52 \text{ MHz}$; $\sigma = 0.9 \text{ mho/m}$; $\epsilon_r = 41.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

Measurement Standard: DAS4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1741; ConvF(6.36, 6.36, 6.36); Calibrated: 2009/09/15
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn508; Calibrated: 2009/11/09
- Phantom: SAM 1200; Type: QD 000 P40 CA; Serial: 1200
- Measurement SW: DAS4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Ear/Tilt Position/Area Scan (11x6x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.261 mW/g

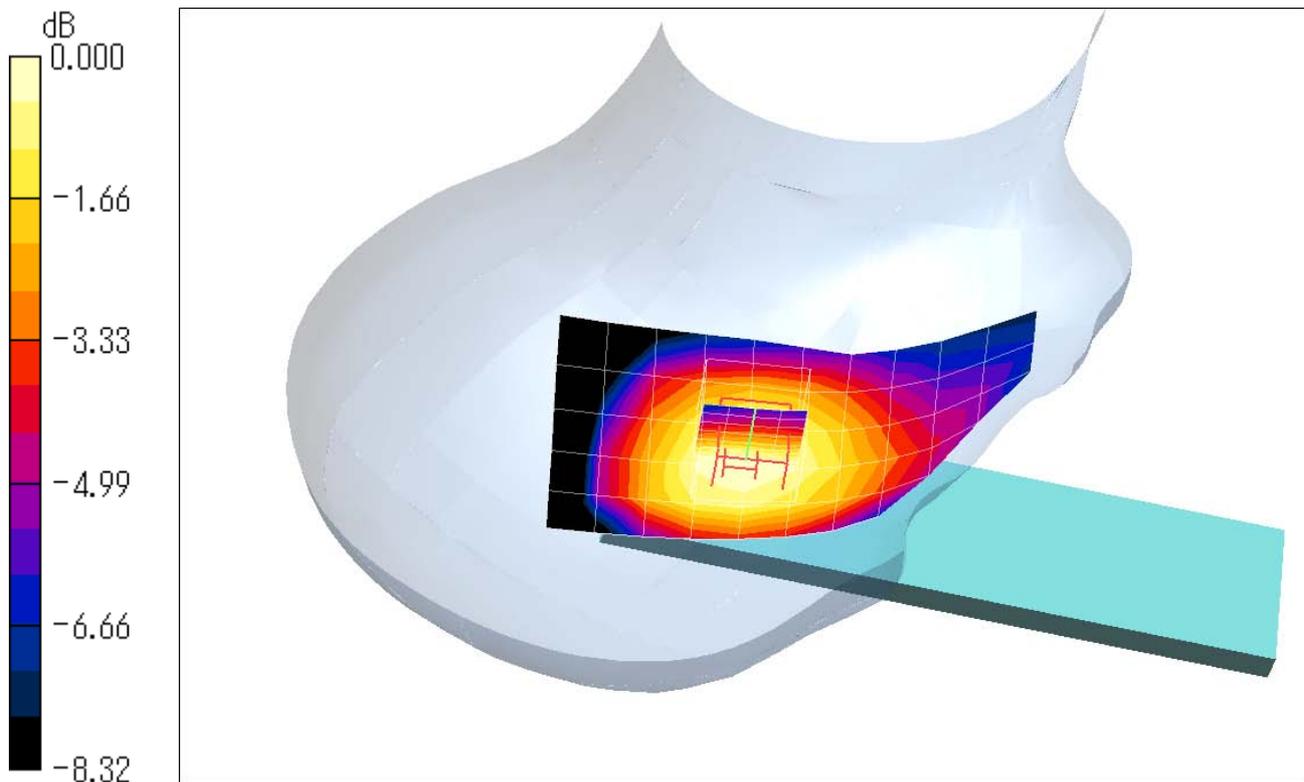
Ear/Tilt Position/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 16.0 V/m; Power Drift = -0.009 dB

Peak SAR (extrapolated) = 0.304 W/kg

SAR(1 g) = 0.248 mW/g; SAR(10 g) = 0.189 mW/g

Maximum value of SAR (measured) = 0.259 mW/g



0 dB = 0.259mW/g

Test Laboratory: JAPAN QUALITY ASSURANCE ORGANIZATION

Body-worn, Rear 384ch (836.52MHz) - close style

DUT: Cellular Phone; Type: SH010; Serial: SSHEF000927

Communication System: CDMA2000 Cellular; Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium: M900 Medium parameters used: $f = 836.52 \text{ MHz}$; $\sigma = 0.956 \text{ mho/m}$; $\epsilon_r = 54.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASy4 (High Precision Assessment)

DASy4 Configuration:

- Probe: ET3DV6 - SN1741; ConvF(6.1, 6.1, 6.1); Calibrated: 2009/09/15
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn508; Calibrated: 2009/11/09
- Phantom: SAM 1200; Type: QD 000 P40 CA; Serial: 1200
- Measurement SW: DASy4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body-worn/Area Scan (6x10x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.516 mW/g

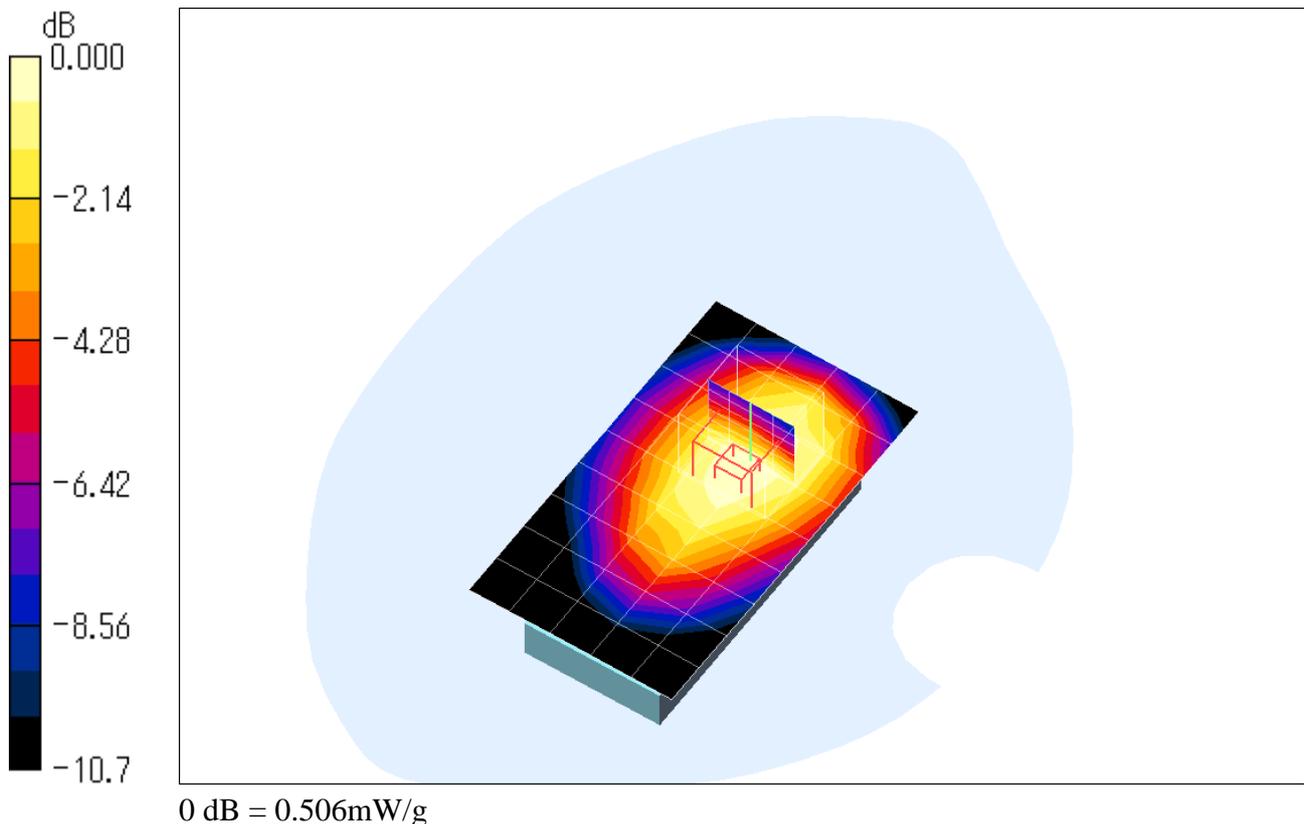
Body-worn/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 22.5 V/m; Power Drift = -0.026 dB

Peak SAR (extrapolated) = 0.622 W/kg

SAR(1 g) = 0.476 mW/g; SAR(10 g) = 0.347 mW/g

Maximum value of SAR (measured) = 0.506 mW/g



Test Laboratory: JAPAN QUALITY ASSURANCE ORGANIZATION

Body-worn, Front 384ch (836.52MHz) - close style

DUT: Cellular Phone; Type: SH010; Serial: SSHEF000927

Communication System: CDMA2000 Cellular; Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium: M900 Medium parameters used: $f = 836.52 \text{ MHz}$; $\sigma = 0.956 \text{ mho/m}$; $\epsilon_r = 54.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1741; ConvF(6.1, 6.1, 6.1); Calibrated: 2009/09/15
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn508; Calibrated: 2009/11/09
- Phantom: SAM 1200; Type: QD 000 P40 CA; Serial: 1200
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body-worn/Area Scan (6x10x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.115 mW/g

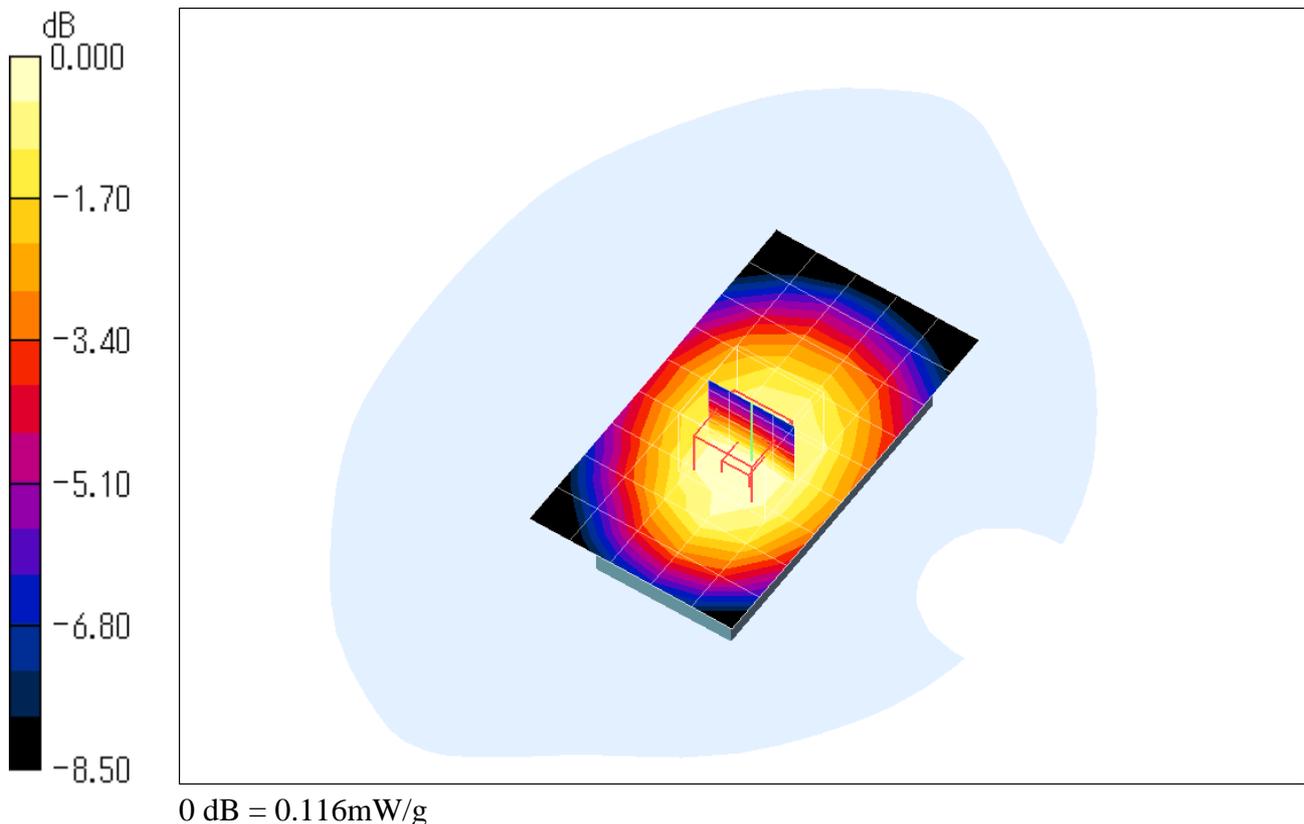
Body-worn/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 11.4 V/m; Power Drift = -0.037 dB

Peak SAR (extrapolated) = 0.137 W/kg

SAR(1 g) = 0.110 mW/g; SAR(10 g) = 0.083 mW/g

Maximum value of SAR (measured) = 0.116 mW/g



Test Laboratory: JAPAN QUALITY ASSURANCE ORGANIZATION

Body-worn, Rear 1013ch (824.70MHz) - viewer style

DUT: Cellular Phone; Type: SH010; Serial: SSHEF000927

Communication System: CDMA2000 Cellular; Frequency: 824.7 MHz; Duty Cycle: 1:1

Medium: M900 Medium parameters used: $f = 824.7$ MHz; $\sigma = 0.945$ mho/m; $\epsilon_r = 54.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASy4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1741; ConvF(6.1, 6.1, 6.1); Calibrated: 2009/09/15
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn508; Calibrated: 2009/11/09
- Phantom: SAM 1200; Type: QD 000 P40 CA; Serial: 1200
- Measurement SW: DASy4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body-worn/Area Scan (6x10x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.486 mW/g

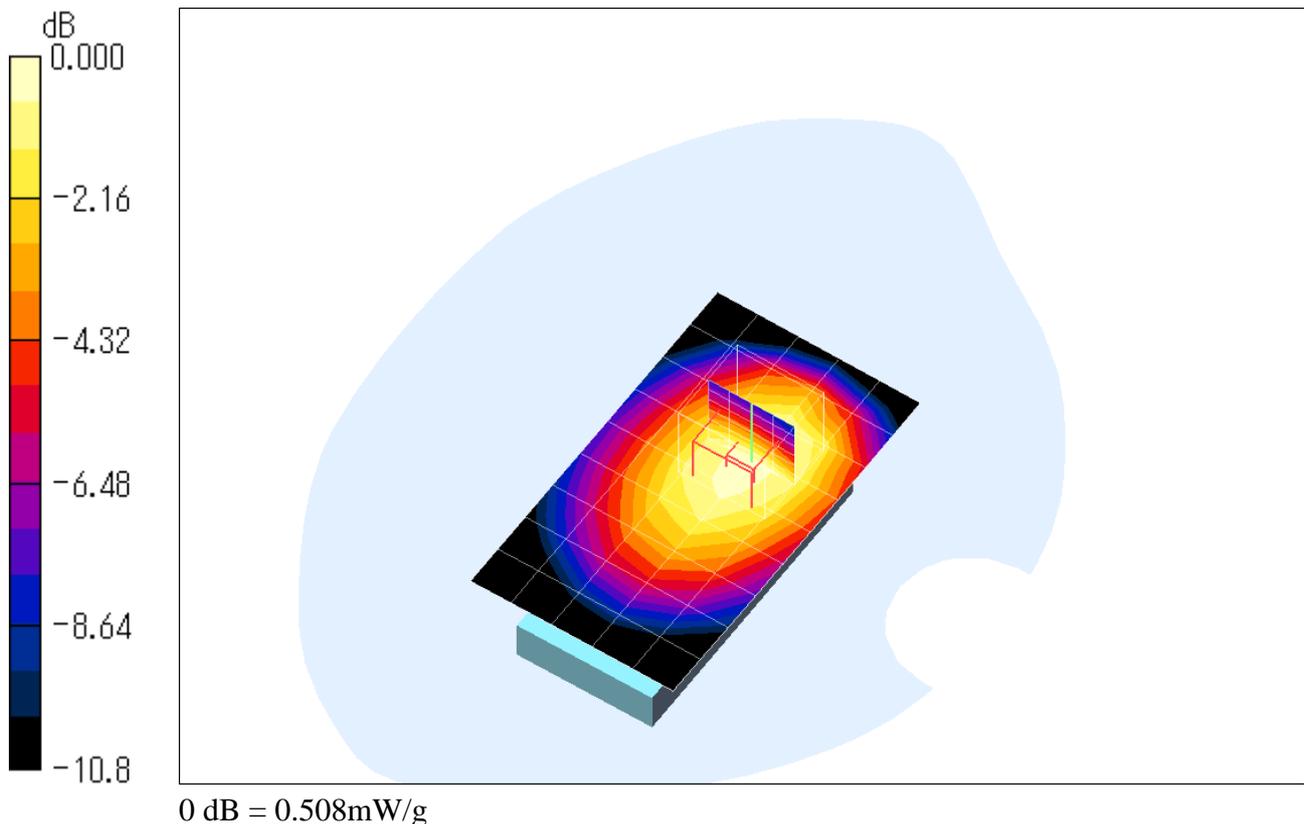
Body-worn/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 21.6 V/m; Power Drift = -0.039 dB

Peak SAR (extrapolated) = 0.632 W/kg

SAR(1 g) = 0.477 mW/g; SAR(10 g) = 0.341 mW/g

Maximum value of SAR (measured) = 0.508 mW/g



Test Laboratory: JAPAN QUALITY ASSURANCE ORGANIZATION

Body-worn, Rear 384ch (836.52MHz) - viewer style

DUT: Cellular Phone; Type: SH010; Serial: SSHEF000927

Communication System: CDMA2000 Cellular; Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium: M900 Medium parameters used: $f = 836.52 \text{ MHz}$; $\sigma = 0.956 \text{ mho/m}$; $\epsilon_r = 54.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASy4 (High Precision Assessment)

DASy4 Configuration:

- Probe: ET3DV6 - SN1741; ConvF(6.1, 6.1, 6.1); Calibrated: 2009/09/15
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn508; Calibrated: 2009/11/09
- Phantom: SAM 1200; Type: QD 000 P40 CA; Serial: 1200
- Measurement SW: DASy4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body-worn/Area Scan (6x10x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.533 mW/g

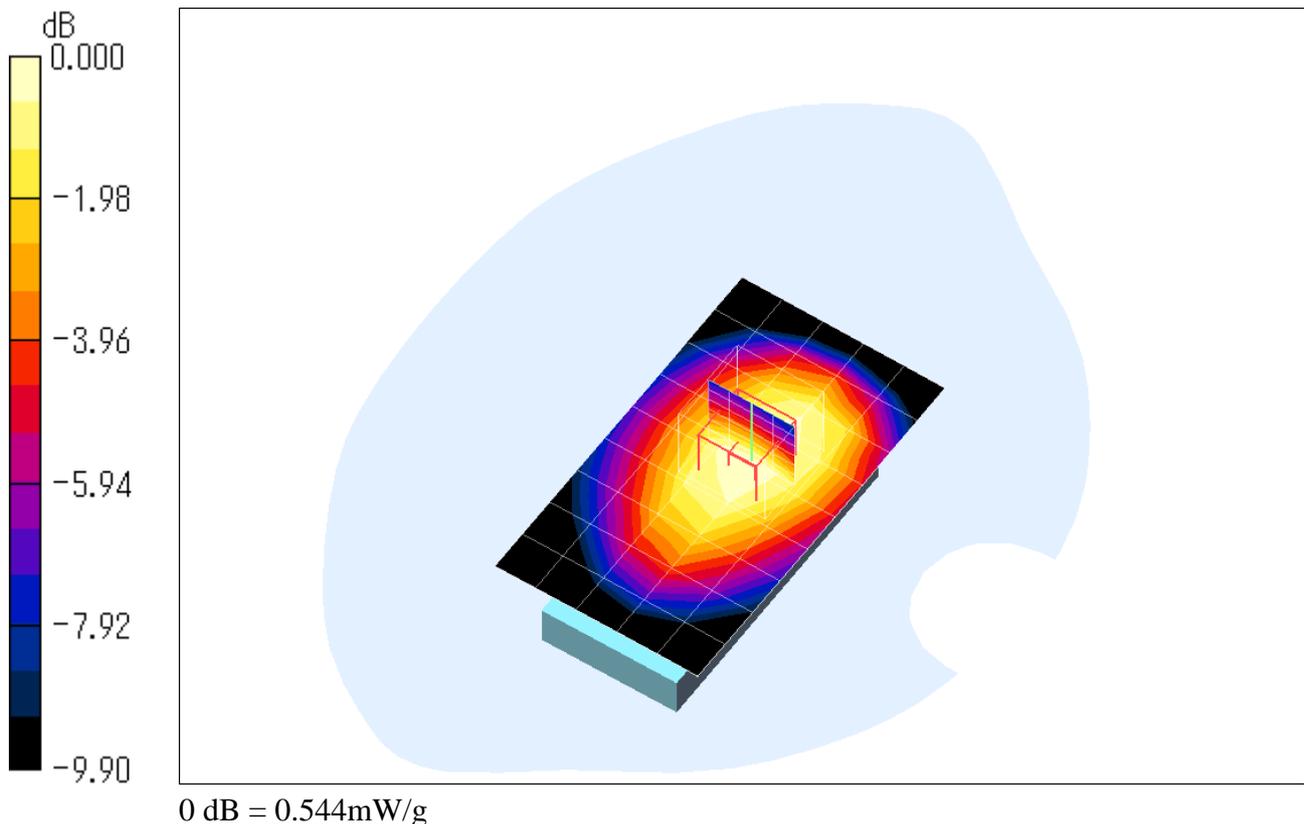
Body-worn/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 23.6 V/m; Power Drift = -0.035 dB

Peak SAR (extrapolated) = 0.654 W/kg

SAR(1 g) = 0.512 mW/g; SAR(10 g) = 0.375 mW/g

Maximum value of SAR (measured) = 0.544 mW/g



Test Laboratory: JAPAN QUALITY ASSURANCE ORGANIZATION

Body-worn, Rear 779ch (848.37MHz) - viewer style

DUT: Cellular Phone; Type: SH010; Serial: SSHEF000927

Communication System: CDMA2000 Cellular; Frequency: 848.37 MHz; Duty Cycle: 1:1

Medium: M900 Medium parameters used: $f = 848.37 \text{ MHz}$; $\sigma = 0.966 \text{ mho/m}$; $\epsilon_r = 54.3$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DAS4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1741; ConvF(6.1, 6.1, 6.1); Calibrated: 2009/09/15
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn508; Calibrated: 2009/11/09
- Phantom: SAM 1200; Type: QD 000 P40 CA; Serial: 1200
- Measurement SW: DAS4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body-worn/Area Scan (6x10x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.582 mW/g

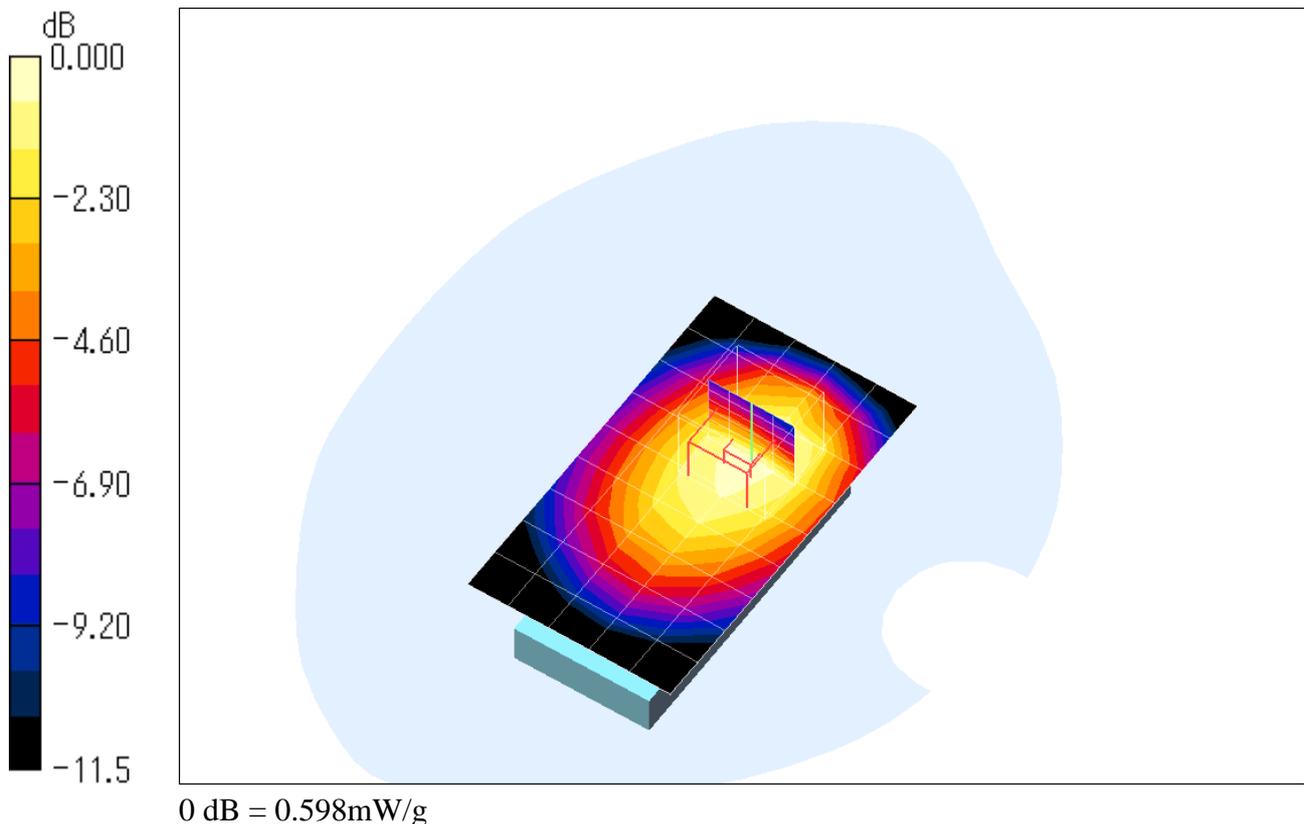
Body-worn/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 23.3 V/m; Power Drift = -0.048 dB

Peak SAR (extrapolated) = 0.794 W/kg

SAR(1 g) = 0.565 mW/g; SAR(10 g) = 0.397 mW/g

Maximum value of SAR (measured) = 0.598 mW/g



Test Laboratory: JAPAN QUALITY ASSURANCE ORGANIZATION

Body-worn, Rear 779ch (848.37MHz) - viewer style**DUT: Cellular Phone; Type: SH010; Serial: SSHEF000927**

Communication System: CDMA2000 Cellular; Frequency: 848.37 MHz; Duty Cycle: 1:1

Medium: M900 Medium parameters used: $f = 848.37$ MHz; $\sigma = 0.966$ mho/m; $\epsilon_r = 54.3$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

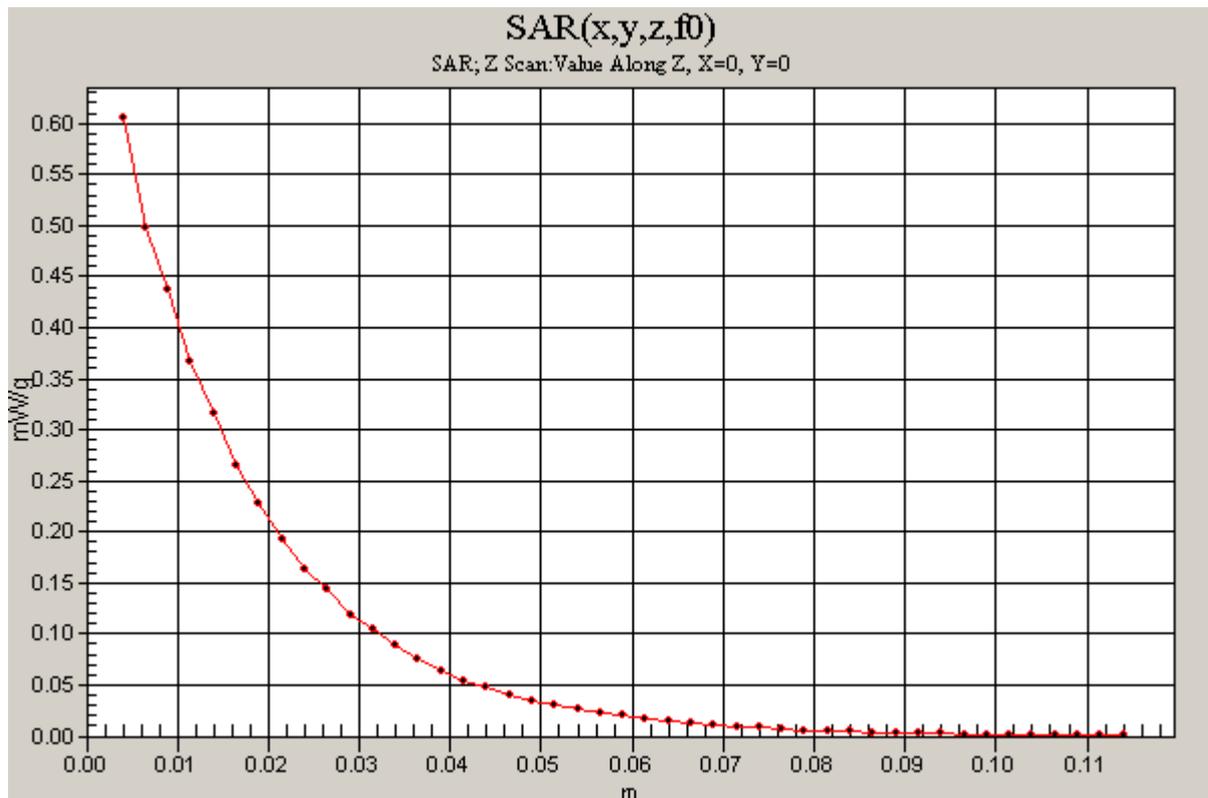
Measurement Standard: DAS4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1741; ConvF(6.1, 6.1, 6.1); Calibrated: 2009/09/15
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn508; Calibrated: 2009/11/09
- Phantom: SAM 1200; Type: QD 000 P40 CA; Serial: 1200
- Measurement SW: DAS4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body-worn/Z Scan (1x1x45): Measurement grid: dx=20mm, dy=20mm, dz=2.5mm

Maximum value of SAR (measured) = 0.605 mW/g



Test Laboratory: JAPAN QUALITY ASSURANCE ORGANIZATION

Body-worn, Front 384ch (836.52MHz) - viewer style

DUT: Cellular Phone; Type: SH010; Serial: SSHEF000927

Communication System: CDMA2000 Cellular; Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium: M900 Medium parameters used: $f = 836.52 \text{ MHz}$; $\sigma = 0.956 \text{ mho/m}$; $\epsilon_r = 54.4$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DAS4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1741; ConvF(6.1, 6.1, 6.1); Calibrated: 2009/09/15
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn508; Calibrated: 2009/11/09
- Phantom: SAM 1200; Type: QD 000 P40 CA; Serial: 1200
- Measurement SW: DAS4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 184

Body-worn/Area Scan (6x10x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (measured) = 0.181 mW/g

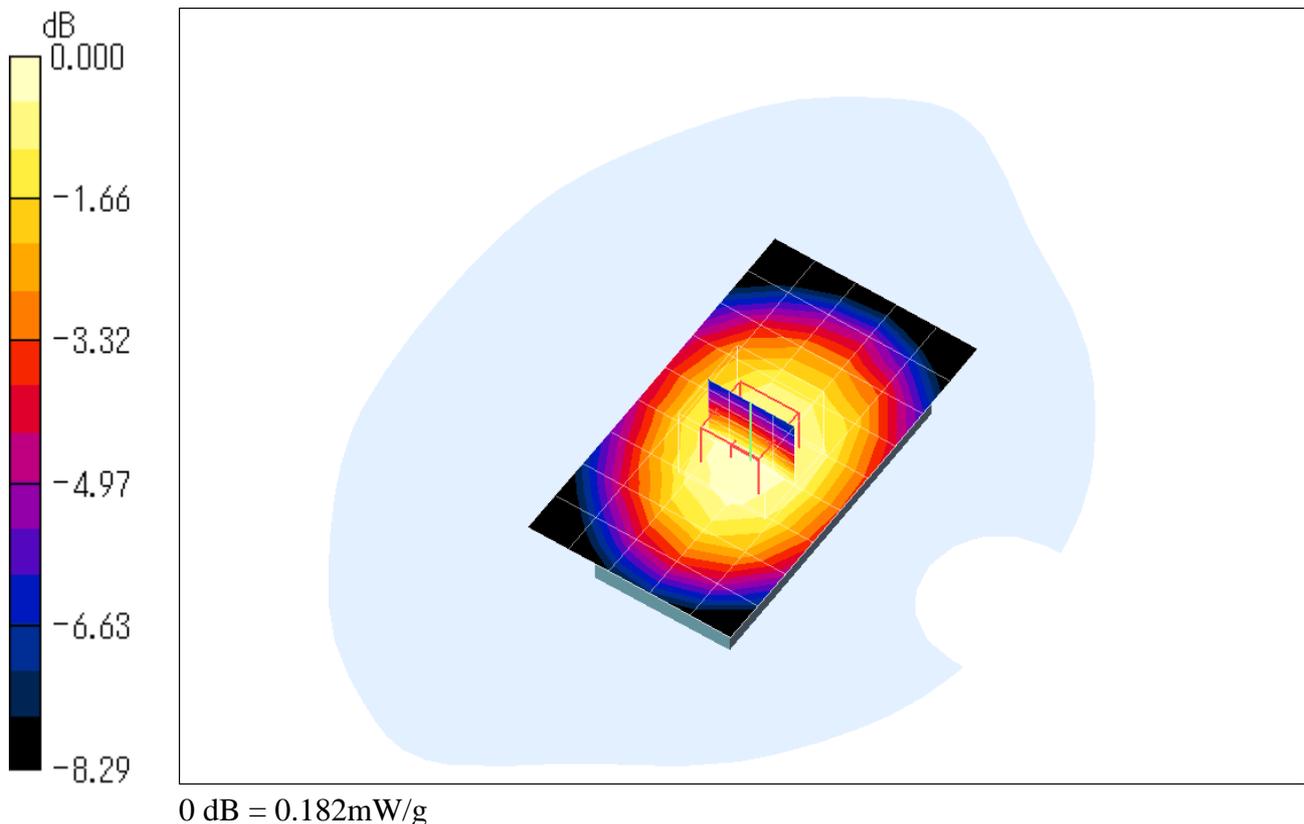
Body-worn/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 14.1 V/m; Power Drift = -0.031 dB

Peak SAR (extrapolated) = 0.211 W/kg

SAR(1 g) = 0.174 mW/g; SAR(10 g) = 0.133 mW/g

Maximum value of SAR (measured) = 0.182 mW/g





Attachment 3 – Dosimetric E-Field Probe – ET3DV6, S/N: 1741 Calibration Data



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Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 108**

Client **PTT**

Certificate No: **ET3-1741_Sep09**

CALIBRATION CERTIFICATE

Object **ET3DV6 - SN:1741**

Calibration procedure(s) **QA CAL-01.v6, QA CAL-12.v5, QA CAL-23.v3 and QA CAL-25.v2
Calibration procedure for dosimetric E-field probes**

Calibration date: **September 15, 2009**

Condition of the calibrated item **In Tolerance**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

| Primary Standards | ID # | Cal Date (Certificate No.) | Scheduled Calibration |
|----------------------------|-----------------|-------------------------------|-----------------------|
| Power meter E4419B | GB41293874 | 1-Apr-09 (No. 217-01030) | Apr-10 |
| Power sensor E4412A | MY41495277 | 1-Apr-09 (No. 217-01030) | Apr-10 |
| Power sensor E4412A | MY41498087 | 1-Apr-09 (No. 217-01030) | Apr-10 |
| Reference 3 dB Attenuator | SN: S5054 (3c) | 31-Mar-09 (No. 217-01026) | Mar-10 |
| Reference 20 dB Attenuator | SN: S5086 (20b) | 31-Mar-09 (No. 217-01028) | Mar-10 |
| Reference 30 dB Attenuator | SN: S5129 (30b) | 31-Mar-09 (No. 217-01027) | Mar-10 |
| Reference Probe ES3DV2 | SN: 3013 | 2-Jan-09 (No. ES3-3013_Jan09) | Jan-10 |
| DAE4 | SN: 660 | 9-Sep-08 (No. DAE4-660_Sep08) | Sep-09 |

| Secondary Standards | ID # | Check Date (in house) | Scheduled Check |
|---------------------------|--------------|-----------------------------------|------------------------|
| RF generator HP 8648C | US3642U01700 | 4-Aug-99 (in house check Oct-07) | In house check: Oct-09 |
| Network Analyzer HP 8753E | US37390585 | 18-Oct-01 (in house check Oct-08) | In house check: Oct-09 |

Calibrated by: **Jeton Kastrati** Laboratory Technician

Signature

Approved by: **Katja Pokovic** Technical Manager

Signature

Issued: September 16, 2009

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.



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Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 108**

Glossary:

| | |
|--------------------------|--|
| TSL | tissue simulating liquid |
| NORM _{x,y,z} | sensitivity in free space |
| ConvF | sensitivity in TSL / NORM _{x,y,z} |
| DCP | diode compression point |
| Polarization φ | φ rotation around probe axis |
| Polarization ϑ | ϑ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., $\vartheta = 0$ is normal to probe axis |

Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
- IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005

Methods Applied and Interpretation of Parameters:

- NORM_{x,y,z}**: Assessed for E-field polarization $\vartheta = 0$ ($f \leq 900$ MHz in TEM-cell; $f > 1800$ MHz: R22 waveguide). NORM_{x,y,z} are only intermediate values, i.e., the uncertainties of NORM_{x,y,z} does not effect the E²-field uncertainty inside TSL (see below *ConvF*).
- NORM(f)_{x,y,z} = NORM_{x,y,z} * frequency_response** (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of *ConvF*.
- DCP_{x,y,z}**: DCP are numerical linearization parameters assessed based on the data of power sweep (no uncertainty required). DCP does not depend on frequency nor media.
- ConvF and Boundary Effect Parameters**: Assessed in flat phantom using E-field (or Temperature Transfer Standard for $f \leq 800$ MHz) and inside waveguide using analytical field distributions based on power measurements for $f > 800$ MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORM_{x,y,z} * ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100 MHz.
- Spherical isotropy (3D deviation from isotropy)**: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset**: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.

Probe ET3DV6

SN:1741

| | |
|------------------|--------------------|
| Manufactured: | September 27, 2002 |
| Last calibrated: | September 17, 2008 |
| Recalibrated: | September 15, 2009 |

Calibrated for DASY Systems

(Note: non-compatible with DASY2 system!)

DASY - Parameters of Probe: ET3DV6 SN:1741

Sensitivity in Free Space^A

| | | | | |
|-------|--------------|-------------------------------------|-------|-------|
| NormX | 1.29 ± 10.1% | $\mu\text{V}/(\text{V}/\text{m})^2$ | DCP X | 96 mV |
| NormY | 1.59 ± 10.1% | $\mu\text{V}/(\text{V}/\text{m})^2$ | DCP Y | 94 mV |
| NormZ | 1.38 ± 10.1% | $\mu\text{V}/(\text{V}/\text{m})^2$ | DCP Z | 96 mV |

Diode Compression^B

Sensitivity in Tissue Simulating Liquid (Conversion Factors)

Please see Page 8.

Boundary Effect

TSL 900 MHz Typical SAR gradient: 5 % per mm

| | | | |
|---|------------------------------|--------|--------|
| Sensor Center to Phantom Surface Distance | | 3.7 mm | 4.7 mm |
| SAR _{be} [%] | Without Correction Algorithm | 9.9 | 6.0 |
| SAR _{be} [%] | With Correction Algorithm | 0.9 | 0.5 |

TSL 1750 MHz Typical SAR gradient: 10 % per mm

| | | | |
|---|------------------------------|--------|--------|
| Sensor Center to Phantom Surface Distance | | 3.7 mm | 4.7 mm |
| SAR _{be} [%] | Without Correction Algorithm | 10.3 | 6.6 |
| SAR _{be} [%] | With Correction Algorithm | 0.9 | 0.6 |

Sensor Offset

Probe Tip to Sensor Center 2.7 mm

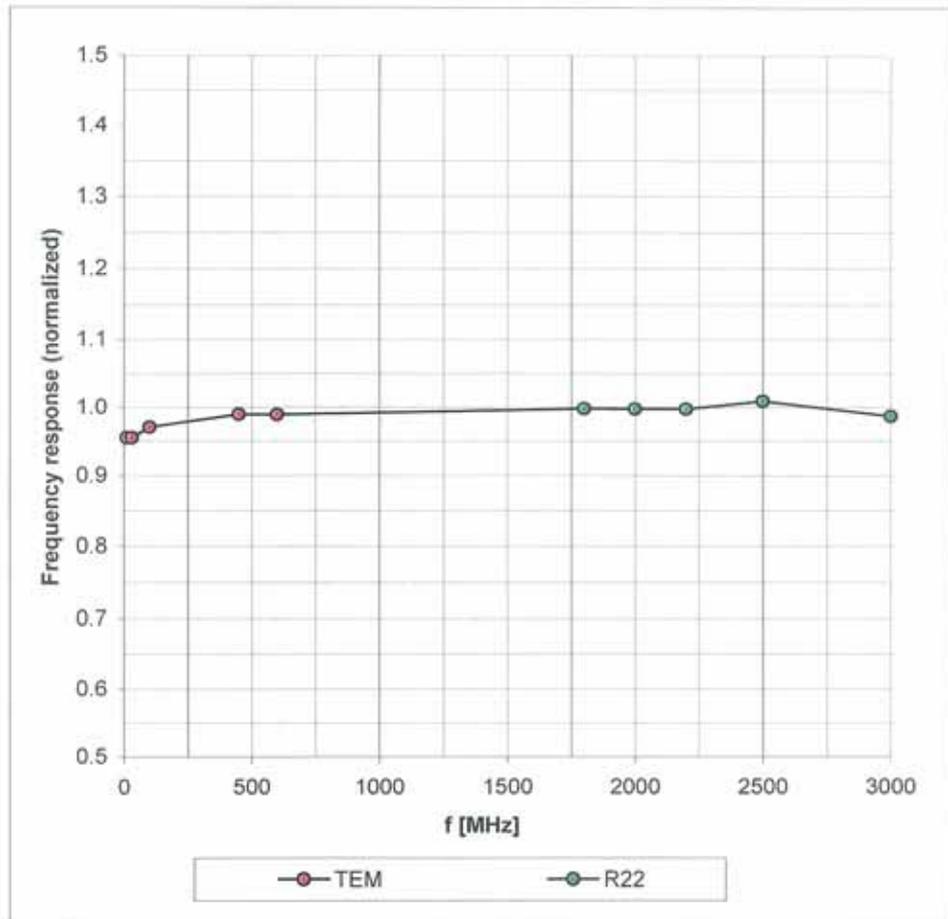
The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor $k=2$, which for a normal distribution corresponds to a coverage probability of approximately 95%.

^A The uncertainties of NormX,Y,Z do not affect the E²-field uncertainty inside TSL (see Page 8).

^B Numerical linearization parameter: uncertainty not required.

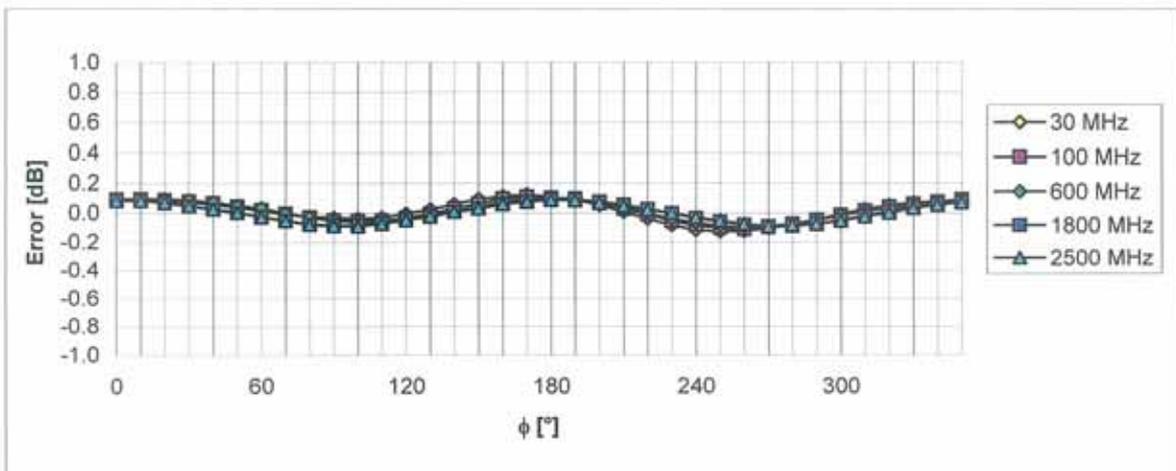
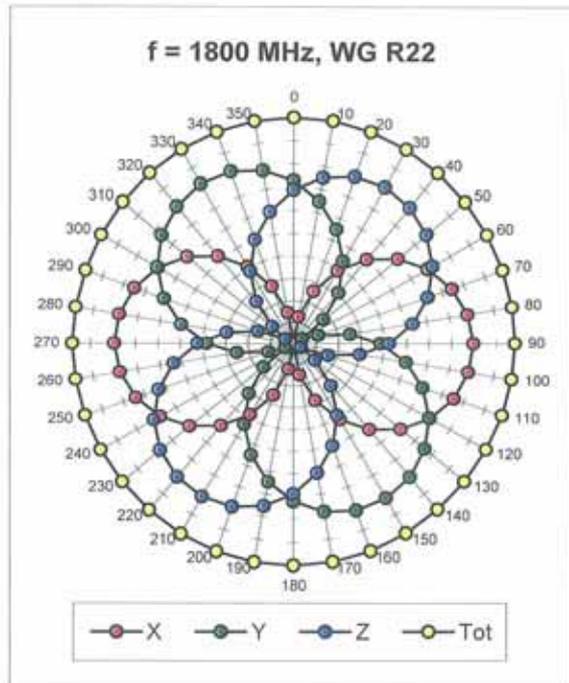
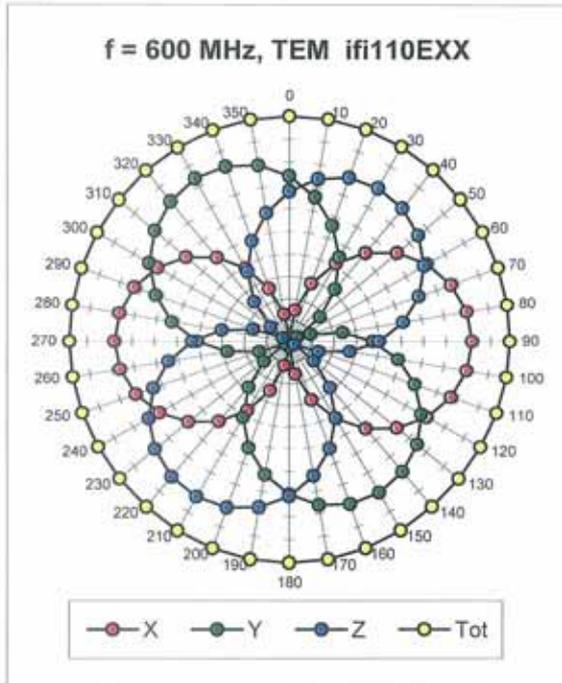
Frequency Response of E-Field

(TEM-Cell:ifi110 EXX, Waveguide: R22)



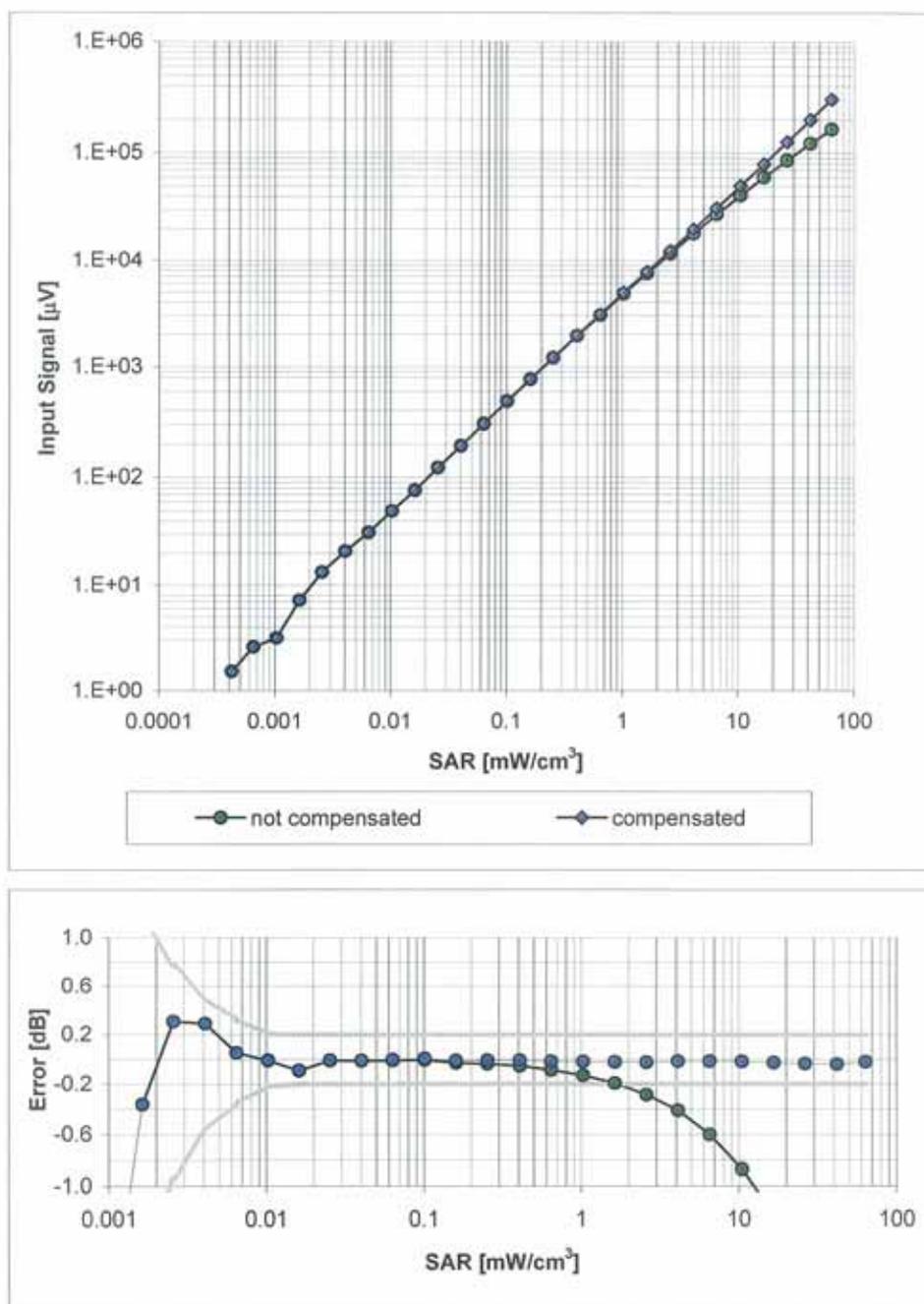
Uncertainty of Frequency Response of E-field: $\pm 6.3\%$ ($k=2$)

Receiving Pattern (ϕ), $\vartheta = 0^\circ$



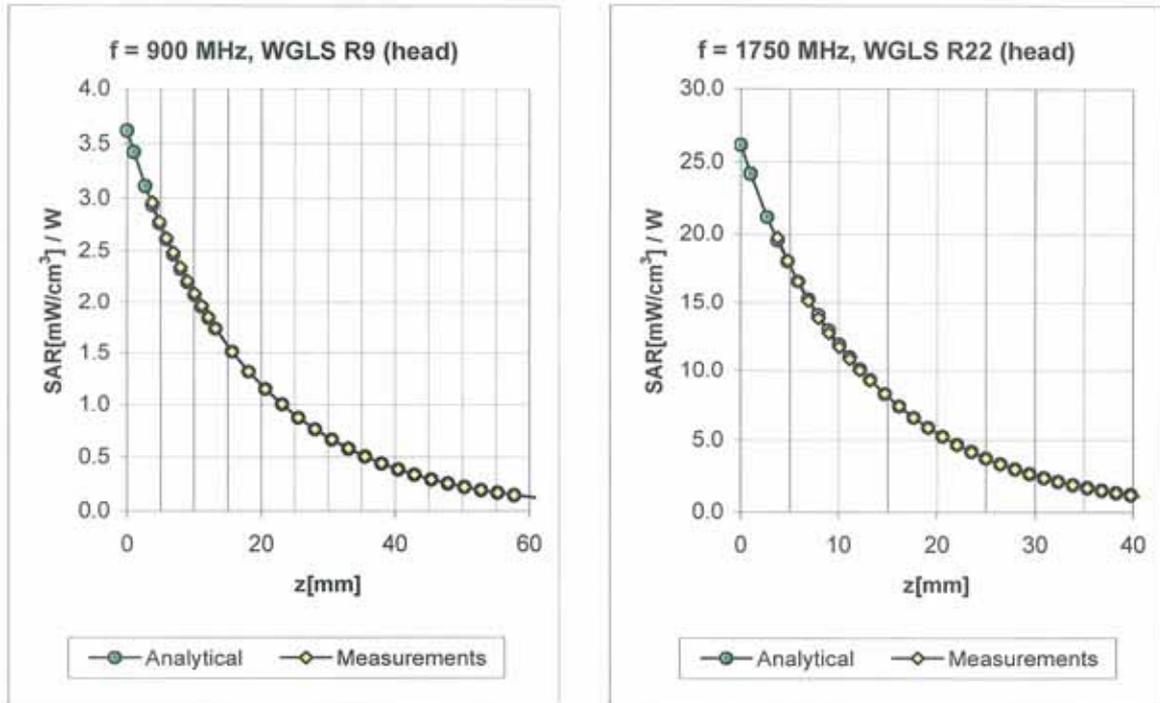
Uncertainty of Axial Isotropy Assessment: $\pm 0.5\%$ ($k=2$)

Dynamic Range f(SAR_{head}) (Waveguide R22, f = 1800 MHz)



Uncertainty of Linearity Assessment: ± 0.6% (k=2)

Conversion Factor Assessment

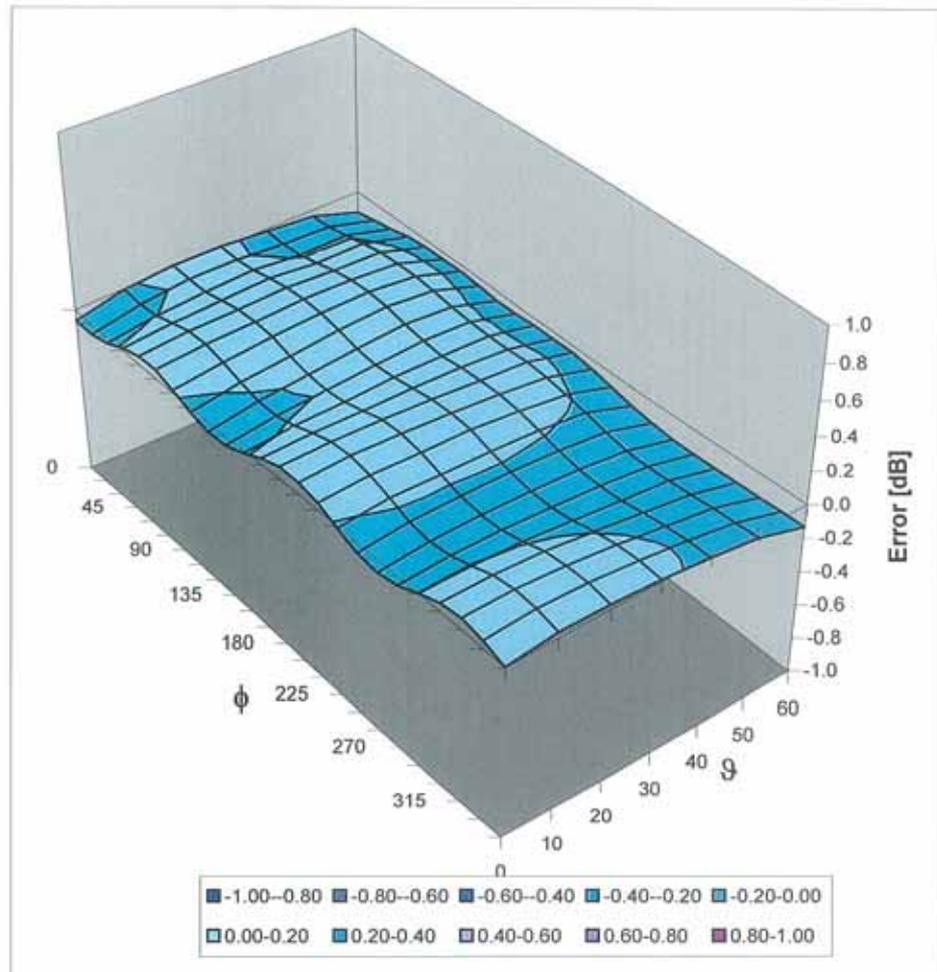


| f [MHz] | Validity [MHz] ^c | TSL | Permittivity | Conductivity | Alpha | Depth | ConvF Uncertainty |
|---------|-----------------------------|------|--------------|--------------|-------|-------|--------------------|
| 450 | ± 50 / ± 100 | Head | 43.5 ± 5% | 0.87 ± 5% | 0.29 | 1.89 | 7.17 ± 13.3% (k=2) |
| 835 | ± 50 / ± 100 | Head | 41.5 ± 5% | 0.90 ± 5% | 0.44 | 2.18 | 6.36 ± 11.0% (k=2) |
| 900 | ± 50 / ± 100 | Head | 41.5 ± 5% | 0.97 ± 5% | 0.40 | 2.37 | 6.20 ± 11.0% (k=2) |
| 1450 | ± 50 / ± 100 | Head | 40.5 ± 5% | 1.20 ± 5% | 0.38 | 3.12 | 5.23 ± 11.0% (k=2) |
| 1750 | ± 50 / ± 100 | Head | 40.1 ± 5% | 1.37 ± 5% | 0.45 | 2.85 | 5.33 ± 11.0% (k=2) |
| 1900 | ± 50 / ± 100 | Head | 40.0 ± 5% | 1.40 ± 5% | 0.64 | 2.35 | 5.09 ± 11.0% (k=2) |
| 1950 | ± 50 / ± 100 | Head | 40.0 ± 5% | 1.40 ± 5% | 0.71 | 2.21 | 4.89 ± 11.0% (k=2) |
| 450 | ± 50 / ± 100 | Body | 56.7 ± 5% | 0.94 ± 5% | 0.21 | 1.99 | 7.75 ± 13.3% (k=2) |
| 835 | ± 50 / ± 100 | Body | 55.2 ± 5% | 0.97 ± 5% | 0.44 | 2.28 | 6.10 ± 11.0% (k=2) |
| 900 | ± 50 / ± 100 | Body | 55.0 ± 5% | 1.05 ± 5% | 0.37 | 2.62 | 5.96 ± 11.0% (k=2) |
| 1450 | ± 50 / ± 100 | Body | 54.0 ± 5% | 1.30 ± 5% | 0.42 | 2.84 | 5.08 ± 11.0% (k=2) |
| 1750 | ± 50 / ± 100 | Body | 53.4 ± 5% | 1.49 ± 5% | 0.57 | 3.43 | 4.75 ± 11.0% (k=2) |
| 1900 | ± 50 / ± 100 | Body | 53.3 ± 5% | 1.52 ± 5% | 0.77 | 2.74 | 4.51 ± 11.0% (k=2) |
| 1950 | ± 50 / ± 100 | Body | 53.3 ± 5% | 1.52 ± 5% | 0.85 | 2.61 | 4.61 ± 11.0% (k=2) |

^c The validity of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2). The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

Deviation from Isotropy in HSL

Error (ϕ, ϑ), $f = 900$ MHz



Uncertainty of Spherical Isotropy Assessment: $\pm 2.6\%$ ($k=2$)



Attachment 4 – System Validation Dipole – D835V2, S/N: 4d104 Calibration Data



Accreditation No.: **SCS 108**

Accredited by the Swiss Accreditation Service (SAS)
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Multilateral Agreement for the recognition of calibration certificates

Client **PTT**

Certificate No: **D835V2-4d104_Jul10**

CALIBRATION CERTIFICATE

Object **D835V2 - SN: 4d104**

Calibration procedure(s) **QA CAL-05.v7
Calibration procedure for dipole validation kits**

Calibration date: **July 05, 2010**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

| Primary Standards | ID # | Cal Date (Certificate No.) | Scheduled Calibration |
|-----------------------------|--------------------|--------------------------------|-----------------------|
| Power meter EPM-442A | GB37480704 | 06-Oct-09 (No. 217-01086) | Oct-10 |
| Power sensor HP 8481A | US37292783 | 06-Oct-09 (No. 217-01086) | Oct-10 |
| Reference 20 dB Attenuator | SN: 5086 (20g) | 30-Mar-10 (No. 217-01158) | Mar-11 |
| Type-N mismatch combination | SN: 5047.2 / 06327 | 30-Mar-10 (No. 217-01162) | Mar-11 |
| Reference Probe ES3DV3 | SN: 3205 | 30-Apr-10 (No. ES3-3205_Apr10) | Apr-11 |
| DAE4 | SN: 601 | 10-Jun-10 (No. DAE4-601_Jun10) | Jun-11 |

| Secondary Standards | ID # | Check Date (in house) | Scheduled Check |
|---------------------------|------------------|-----------------------------------|------------------------|
| Power sensor HP 8481A | MY41092317 | 18-Oct-02 (in house check Oct-09) | In house check: Oct-11 |
| RF generator R&S SMT-06 | 100005 | 4-Aug-99 (in house check Oct-09) | In house check: Oct-11 |
| Network Analyzer HP 8753E | US37390585 S4206 | 18-Oct-01 (in house check Oct-09) | In house check: Oct-10 |

Calibrated by: **Jeton Kastrati** (Name) **Laboratory Technician** (Function) *[Signature]* (Signature)

Approved by: **Katja Pokovic** (Name) **Technical Manager** (Function) *[Signature]* (Signature)

Issued: July 6, 2010

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Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 108**

Glossary:

| | |
|-------|---------------------------------|
| TSL | tissue simulating liquid |
| ConvF | sensitivity in TSL / NORM x,y,z |
| N/A | not applicable or not measured |

Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
- IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005
- Federal Communications Commission Office of Engineering & Technology (FCC OET), "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields; Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits for Human Exposure to Radiofrequency Emissions", Supplement C (Edition 01-01) to Bulletin 65

Additional Documentation:

- DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL:* The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss:* These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay:* One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured:* SAR measured at the stated antenna input power.
- SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

| | | |
|------------------------------|---------------------------|-------------|
| DASY Version | DASY5 | V52.2 |
| Extrapolation | Advanced Extrapolation | |
| Phantom | Modular Flat Phantom V4.9 | |
| Distance Dipole Center - TSL | 15 mm | with Spacer |
| Zoom Scan Resolution | dx, dy, dz = 5 mm | |
| Frequency | 835 MHz ± 1 MHz | |

Head TSL parameters

The following parameters and calculations were applied.

| | Temperature | Permittivity | Conductivity |
|----------------------------------|-----------------|--------------|------------------|
| Nominal Head TSL parameters | 22.0 °C | 41.5 | 0.90 mho/m |
| Measured Head TSL parameters | (22.0 ± 0.2) °C | 42.0 ± 6 % | 0.90 mho/m ± 6 % |
| Head TSL temperature during test | (22.5 ± 0.2) °C | ---- | ---- |

SAR result with Head TSL

| SAR averaged over 1 cm ³ (1 g) of Head TSL | Condition | |
|---|--------------------|-----------------------------------|
| SAR measured | 250 mW input power | 2.39 mW / g |
| SAR normalized | normalized to 1W | 9.56 mW / g |
| SAR for nominal Head TSL parameters | normalized to 1W | 9.59 mW / g ± 17.0 % (k=2) |

| SAR averaged over 10 cm ³ (10 g) of Head TSL | condition | |
|---|--------------------|-----------------------------------|
| SAR measured | 250 mW input power | 1.55 mW / g |
| SAR normalized | normalized to 1W | 6.20 mW / g |
| SAR for nominal Head TSL parameters | normalized to 1W | 6.21 mW / g ± 16.5 % (k=2) |

Body TSL parameters

The following parameters and calculations were applied.

| | Temperature | Permittivity | Conductivity |
|----------------------------------|-----------------|--------------|------------------|
| Nominal Body TSL parameters | 22.0 °C | 55.2 | 0.97 mho/m |
| Measured Body TSL parameters | (22.0 ± 0.2) °C | 55.0 ± 6 % | 1.01 mho/m ± 6 % |
| Body TSL temperature during test | (22.5 ± 0.2) °C | ---- | ---- |

SAR result with Body TSL

| SAR averaged over 1 cm ³ (1 g) of Body TSL | Condition | |
|---|--------------------|-----------------------------------|
| SAR measured | 250 mW input power | 2.55 mW / g |
| SAR normalized | normalized to 1W | 10.2 mW / g |
| SAR for nominal Body TSL parameters | normalized to 1W | 9.89 mW / g ± 17.0 % (k=2) |

| SAR averaged over 10 cm ³ (10 g) of Body TSL | condition | |
|---|--------------------|-----------------------------------|
| SAR measured | 250 mW input power | 1.67 mW / g |
| SAR normalized | normalized to 1W | 6.68 mW / g |
| SAR for nominal Body TSL parameters | normalized to 1W | 6.53 mW / g ± 16.5 % (k=2) |

Appendix

Antenna Parameters with Head TSL

| | |
|--------------------------------------|--------------------------------|
| Impedance, transformed to feed point | 51.5 Ω - 3.7 j Ω |
| Return Loss | - 28.1 dB |

Antenna Parameters with Body TSL

| | |
|--------------------------------------|--------------------------------|
| Impedance, transformed to feed point | 47.4 Ω - 5.9 j Ω |
| Return Loss | - 23.6 dB |

General Antenna Parameters and Design

| | |
|----------------------------------|----------|
| Electrical Delay (one direction) | 1.400 ns |
|----------------------------------|----------|

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

| | |
|-----------------|--------------|
| Manufactured by | SPEAG |
| Manufactured on | May 26, 2010 |

DASY5 Validation Report for Head TSL

Date/Time: 05.07.2010 11:20:29

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:4d104

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL900

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.9 \text{ mho/m}$; $\epsilon_r = 42.2$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(6.03, 6.03, 6.03); Calibrated: 30.04.2010
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 10.06.2010
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; Serial: 1001
- Measurement SW: DASY52, V52.2 Build 0, Version 52.2.0 (163)
- Postprocessing SW: SEMCAD X, V14.2 Build 2, Version 14.2.2 (1685)

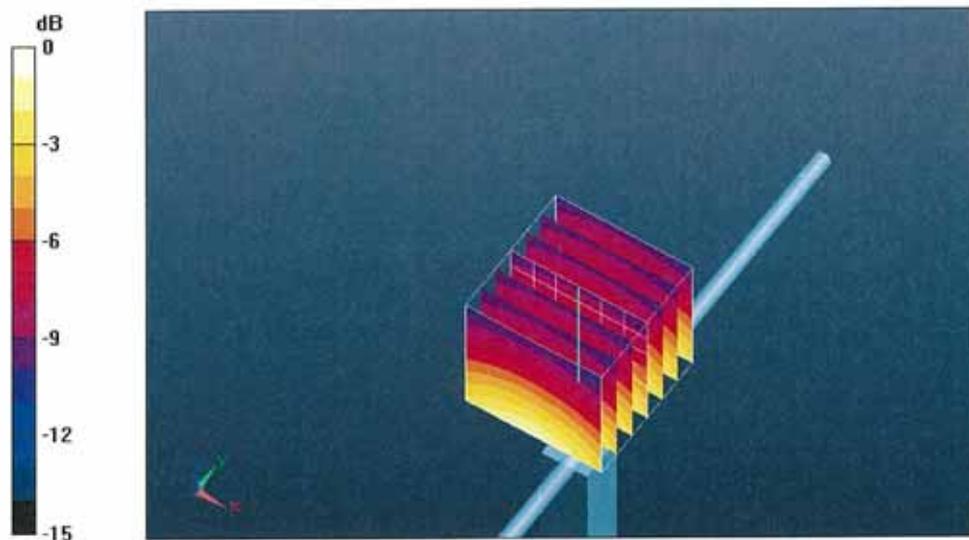
Pin=250 mW /d=15mm, dist=3.0mm (ES-Probe)/Zoom Scan (7x7x7)/Cube 0: Measurement
grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 57 V/m; Power Drift = 0.029 dB

Peak SAR (extrapolated) = 3.58 W/kg

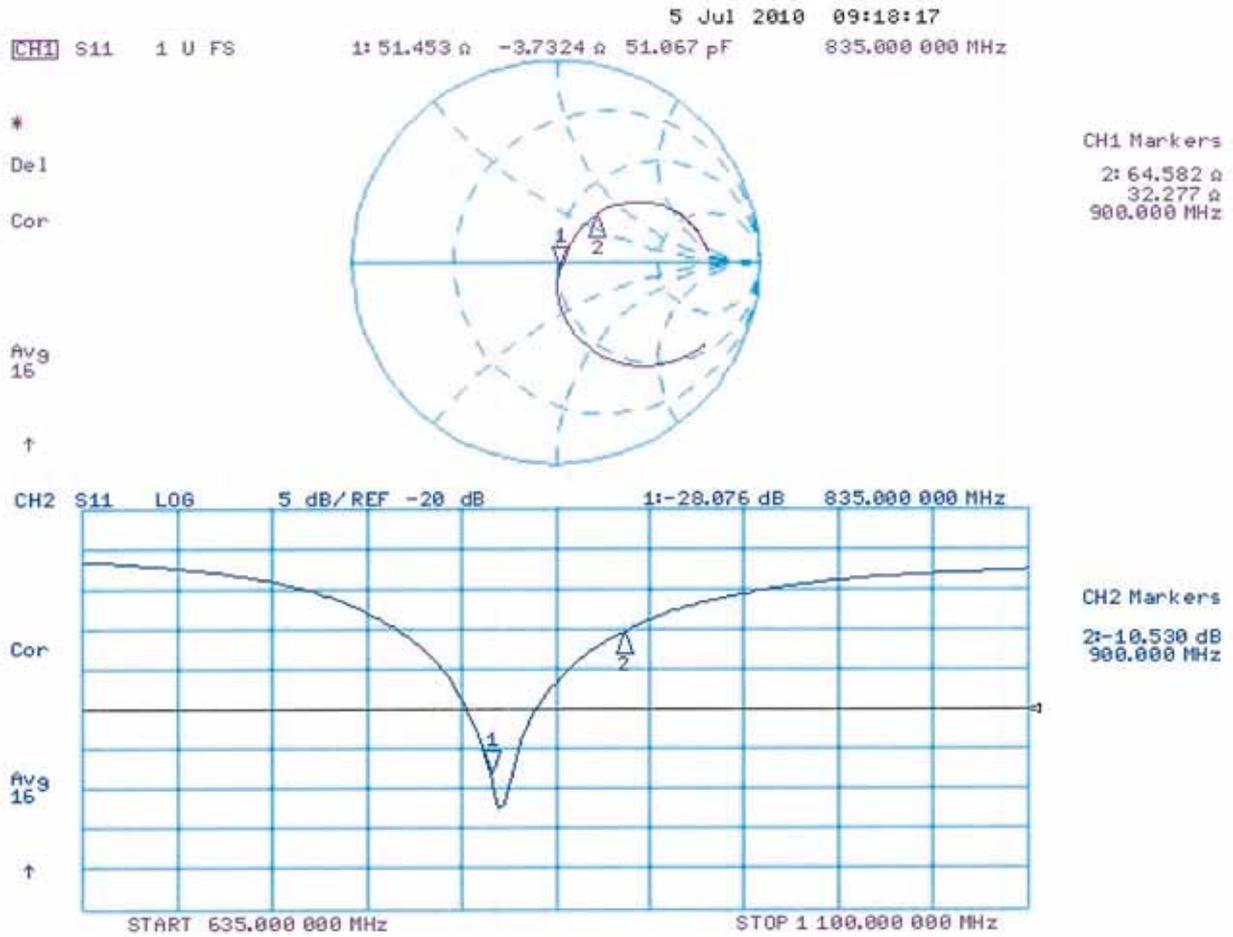
SAR(1 g) = 2.39 mW/g; SAR(10 g) = 1.55 mW/g

Maximum value of SAR (measured) = 2.79 mW/g



0 dB = 2.79mW/g

Impedance Measurement Plot for Head TSL



DASY5 Validation Report for Body

Date/Time: 05.07.2010 14:44:12

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:4d104

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: MSL900

Medium parameters used: $f = 835$ MHz; $\sigma = 1.01$ mho/m; $\epsilon_r = 55$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(5.86, 5.86, 5.86); Calibrated: 30.04.2010
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 10.06.2010
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; Serial: 1001
- Measurement SW: DASY52, V52.2 Build 0, Version 52.2.0 (163)
- Postprocessing SW: SEMCAD X, V14.2 Build 2, Version 14.2.2 (1685)

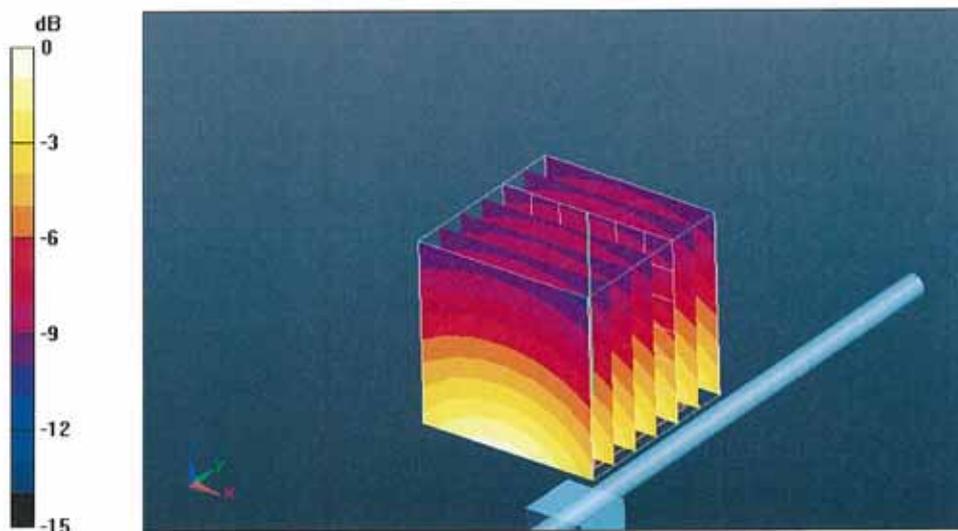
Pin250 mW /d=15mm, dist=3.0mm (ES-Probe)/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 55.9 V/m; Power Drift = 0.036 dB

Peak SAR (extrapolated) = 3.77 W/kg

SAR(1 g) = 2.55 mW/g; SAR(10 g) = 1.67 mW/g

Maximum value of SAR (measured) = 2.96 mW/g



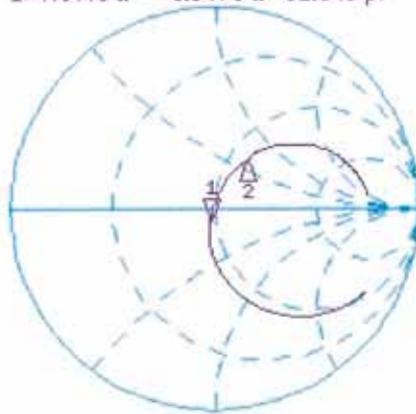
0 dB = 2.96mW/g

Impedance Measurement Plot for Body TSL

5 Jul 2010 13:52:15

[CH1] S11 1 U FS 1: 47.449 Ω -5.9473 Ω 32.049 pF 835.000 000 MHz

*
De1
Cor

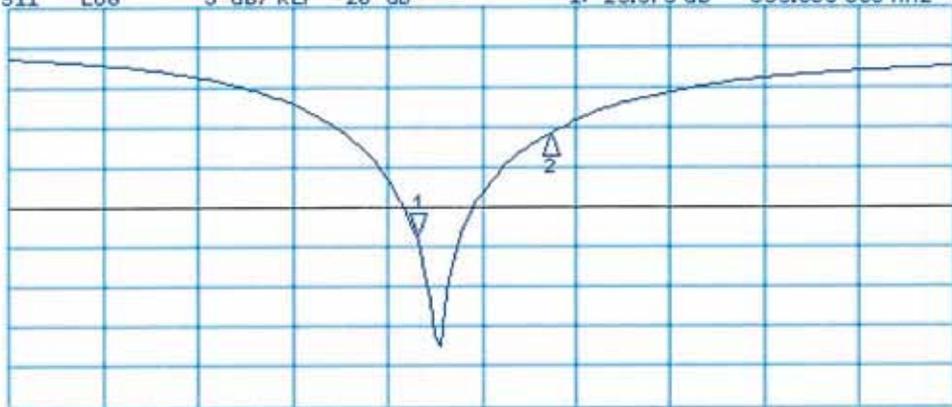


CH1 Markers
2: 59.553 Ω
30.604 Ω
900.000 MHz

Avg
16
†

CH2 S11 L06 5 dB/REF -20 dB 1: -23.573 dB 835.000 000 MHz

Cor



CH2 Markers
2: -11.000 dB
900.000 MHz

Avg
16
†

START 635.000 000 MHz

STOP 1 100.000 000 MHz