Appendix

Antenna Parameters with Head TSL

Impedance, transformed to feed point	50.4 Ω - 7.0 jΩ
Return Loss	- 23.1 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.411 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	July 04, 2001

DASY4 Validation Report for Head TSL

Date/Time: 07.11.2007 15:30:39

Test Laboratory: SPEAG, Zurich, Switzerland

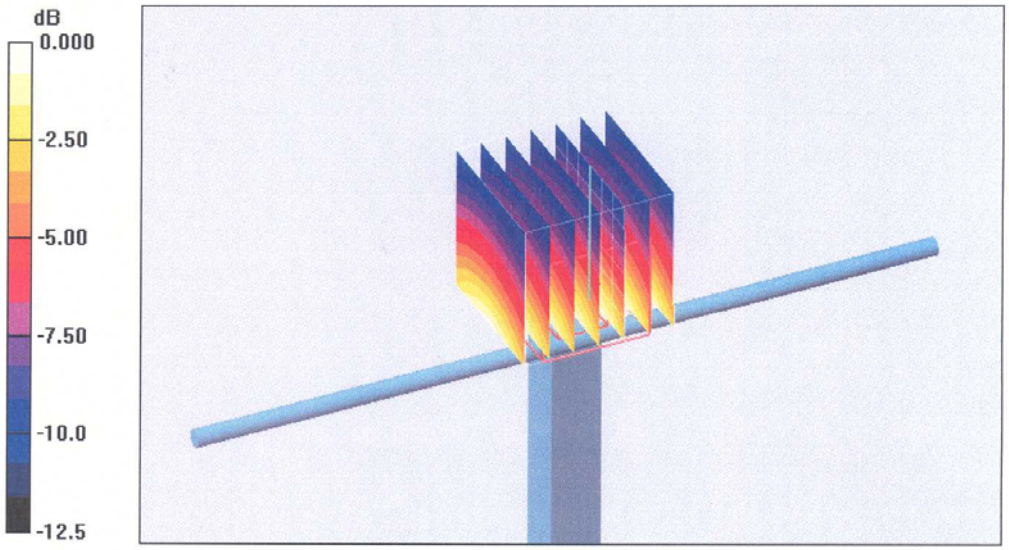
DUT: Dipole 900 MHz; Type: D900V2; Serial: D900V2 - SN:122

Communication System: CW; Frequency: 900 MHz;Duty Cycle: 1:1
Medium: HSL 900 MHz;
Medium parameters used: f = 900 MHz; σ = 0.939 mho/m; ε_r = 39.4; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1507 (HF); ConvF(5.93, 5.93, 5.93); Calibrated: 26.10.2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 30.01.2007
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; ;
- Measurement SW: DASY4, V4.7 Build 55; Postprocessing SW: SEMCAD, V1.8 Build 172

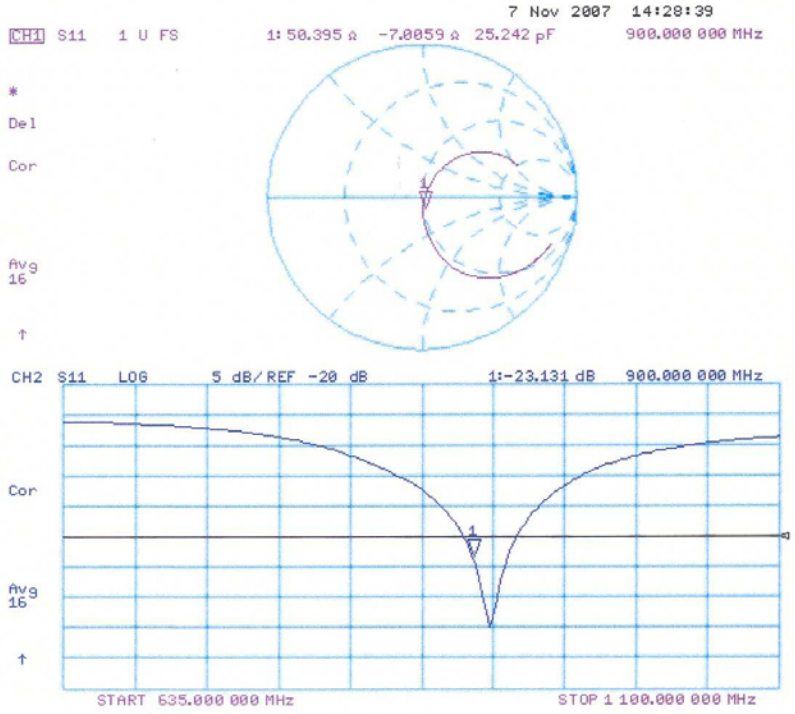
Pin = 250 mW; d = 15 mm/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 58.1 V/m; Power Drift = 0.035 dB
Peak SAR (extrapolated) = 4.08 W/kg
SAR(1 g) = 2.74 mW/g; SAR(10 g) = 1.76 mW/g
Maximum value of SAR (measured) = 2.95 mW/g



0 dB = 2.95mW/g

Certificate No: D900V2-122_Nov07 Page 5 of 6

Impedance Measurement Plot for Head TSL



APPENDIX D - TEST SYSTEM VERIFICATIONS SCANS

Liquid Measurement Result

Testing was performed by Jimmy Nguyen 2008-05-16.

Simulant	Freq [MHz]	Parameters	Liquid Temp [ºC]	Target Value	Measured Value	Deviation [%]	Limits [%]
Head	835	εr	22	41.5	42.1	1.45	±5
		σ	22	0.90	0.89	– 1.11	±5
		1g SAR	22	9.5	10.04	5.68	±10

Test Laboratory: Bay Area Compliance Lab Corp. (BACL)

System Performance Check D835 Head

Dipole 900 MHz; Type: D900V2; Serial: D900V2 - SN: 122

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; σ = 0.89 mho/m; ε_r = 42.1; ρ = 1000 kg/m^3
Phantom section: Flat Section

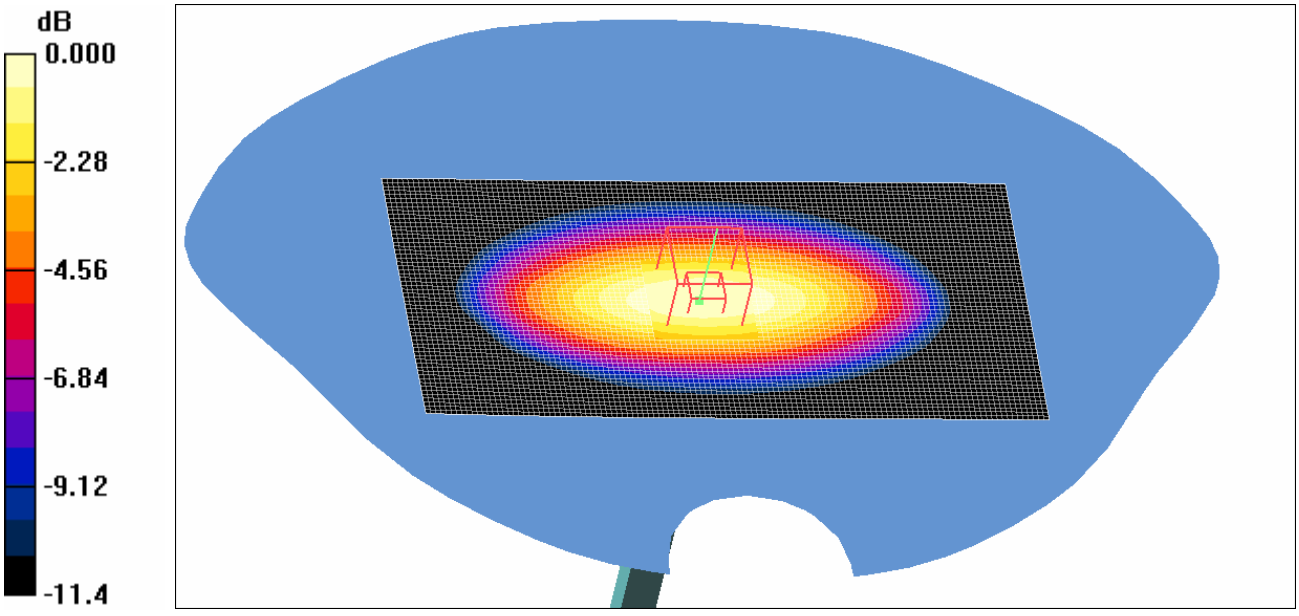
DASY4 Configuration:

- Probe: ET3DV6 - SN1604; ConvF(6.82, 6.82, 6.82); Calibrated: 8/28/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn456; Calibrated: 11/8/2007
- Phantom: SAM with CRP; Type: Twin SAM; Serial: TP-1032
- Measurement SW: DASY4, V4.6 Build 23; Post processing SW: SEMCAD, V1.8 Build 184

d=15mm, Pin=0.5W/Area Scan (61x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 6.14 mW/g

d=15mm, Pin=0.5W/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 82.8 V/m; Power Drift = 0.047 dB
Peak SAR (extrapolated) = 8.73 W/kg

SAR (1 g) = 5.02 mW/g; SAR (10 g) = 3.27 mW/g
Maximum value of SAR (measured) = 6.12 mW/g



0 dB = 6.12 mW/g

System Validation

APPENDIX E - EUT SCANS

Test Laboratory: Bay Area Compliance Lab Corp. (BACL)

1.5 cm Separation to the Flat Phantom without Headset (Middle Channel)

Hangzhou Newsky Technology Co., Ltd; Type: CDMA Mobile Phone; Serial: B1806

Communication System: CDMA 835; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 836.52 MHz; σ = 0.96 mho/m; ε_r = 55.09; ρ = 1000 kg/m^3
Phantom section: Flat Section

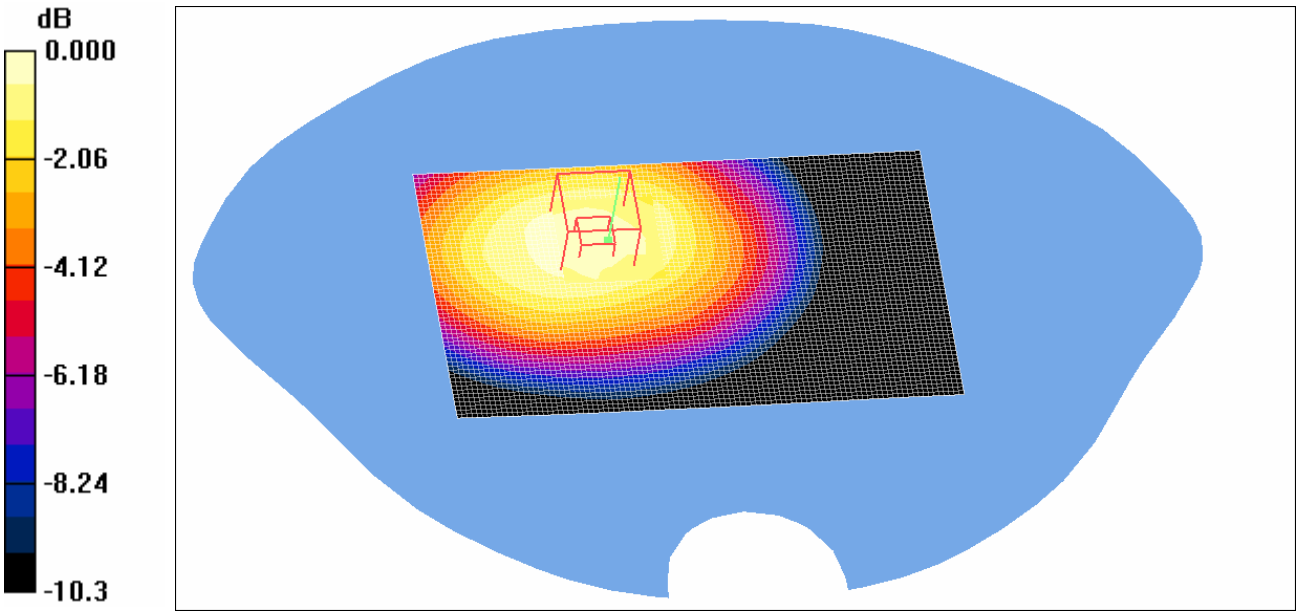
DASY4 Configuration:

- Probe: ET3DV6 - SN1604; ConvF(6.47, 6.47, 6.47); Calibrated: 8/28/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn456; Calibrated: 11/8/2007
- Phantom: SAM with CRP; Type: Twin SAM; Serial: TP-1032
- Measurement SW: DASY4, V4.6 Build 23; Post processing SW: SEMCAD, V1.8 Build 184

1.5 cm Separation to the Flat Phantom /Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.703 mW/g

1.5 cm Separation to the Flat Phantom/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 20.6 V/m; Power Drift = -0.043 dB
Peak SAR (extrapolated) = 0.978 W/kg

SAR (1 g) = 0.674 mW/g; SAR (10 g) = 0.482 mW/g
Maximum value of SAR (measured) = 0.727 mW/g



0 dB = 0.727 mW/g

Plot #1

Test Laboratory: Bay Area Compliance Lab Corp. (BACL)

Left Head Touch (Middle Channel)

Hangzhou Newsky Technology Co., Ltd; Type: CDMA Mobile Phone; Serial: B1806

Communication System: CDMA 835; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 836.52 MHz; σ = 0.90 mho/m; ε_r = 42.1; ρ = 1000 kg/m^3
Phantom section: Left Section

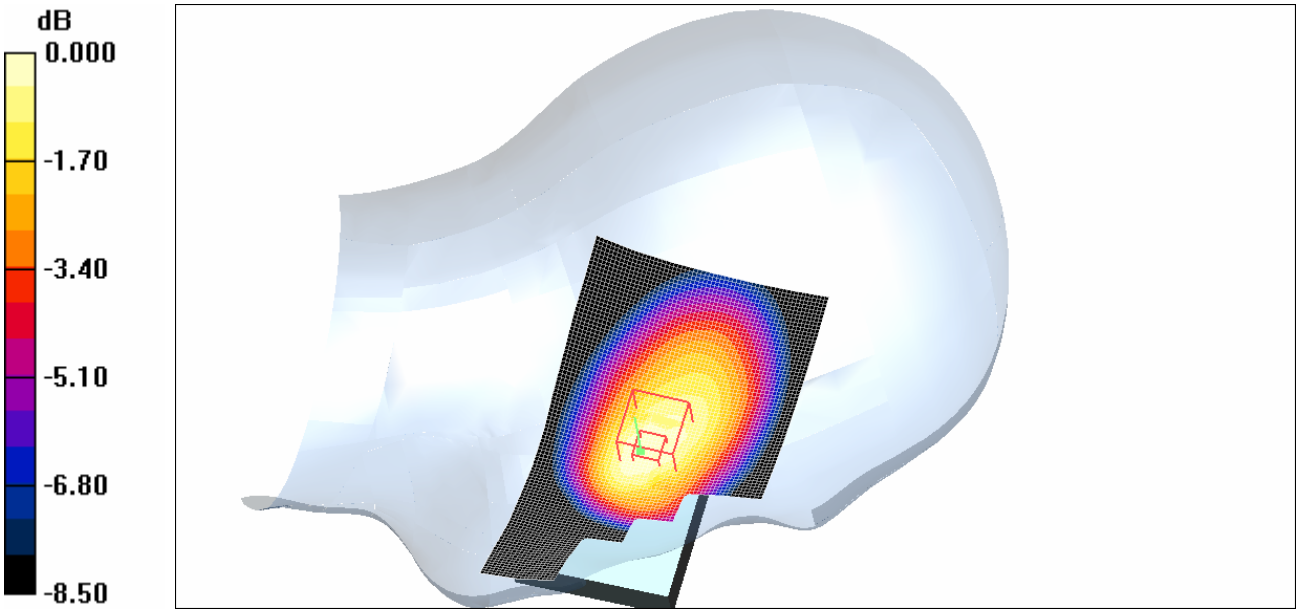
DASY4 Configuration:

- Probe: ET3DV6 - SN1604; ConvF(6.82, 6.82, 6.82); Calibrated: 8/28/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn456; Calibrated: 11/8/2007
- Phantom: SAM with CRP; Type: Twin SAM; Serial: TP-1032
- Measurement SW: DASY4, V4.6 Build 23; Post processing SW: SEMCAD, V1.8 Build 184

Left Head Touch/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.843 mW/g

Left Head Touch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 19.5 V/m; Power Drift = -0.033 dB
Peak SAR (extrapolated) = 1.30 W/kg

SAR (1 g) = 0.792 mW/g; SAR (10 g) = 0.519 mW/g
Maximum value of SAR (measured) = 0.852 mW/g



0 dB = 0.852 mW/g

Plot #2

Test Laboratory: Bay Area Compliance Lab Corp. (BACL)

Left Head Tilt (Middle Channel)

Hangzhou Newsky Technology Co., Ltd; Type: CDMA Mobile Phone; Serial: B1806

Communication System: CDMA 835; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 836.52 MHz; σ = 0.89 mho/m; ε_r = 42.1; ρ = 1000 kg/m^3
Phantom section: Left Section

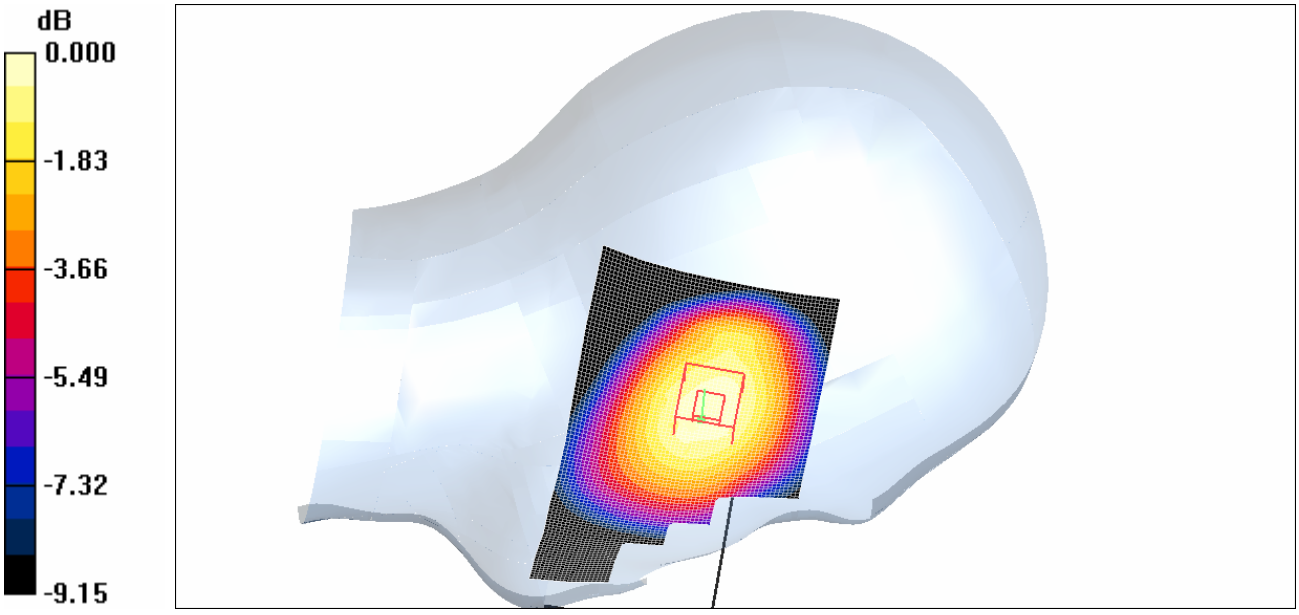
DASY4 Configuration:

- Probe: ET3DV6 - SN1604; ConvF(6.82, 6.82, 6.82); Calibrated: 8/28/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn456; Calibrated: 11/8/2007
- Phantom: SAM with CRP; Type: Twin SAM; Serial: TP-1032
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 184

Left Head Touch/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.425 mW/g

Left Head Touch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 14.3 V/m; Power Drift = 0.017 dB
Peak SAR (extrapolated) = 0.532 W/kg

SAR (1 g) = 0.402 mW/g; SAR (10 g) = 0.300 mW/g
Maximum value of SAR (measured) = 0.430 mW/g



0 dB = 0.430 mW/g

Plot #3

Test Laboratory: Bay Area Compliance Lab Corp. (BACL)

Right Head Touch (Middle Channel)

Hangzhou Newsky Technology Co., Ltd; Type: CDMA Mobile Phone; Serial: B1806

Communication System: CDMA 835; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 836.52 MHz; σ = 0.90 mho/m; ε_r = 42.1; ρ = 1000 kg/m^3
Phantom section: Right Section

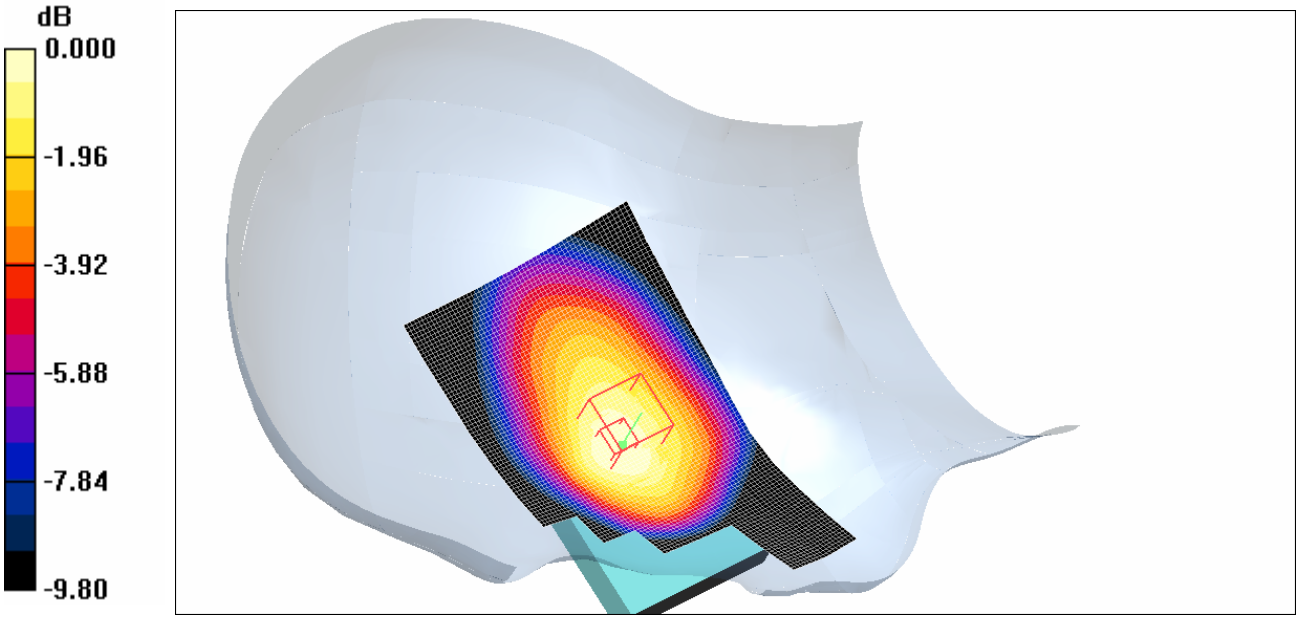
DASY4 Configuration:

- Probe: ET3DV6 - SN1604; ConvF(6.82, 6.82, 6.82); Calibrated: 8/28/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn456; Calibrated: 11/8/2007
- Phantom: SAM with CRP; Type: Twin SAM; Serial: TP-1032
- Measurement SW: DASY4, V4.6 Build 23; Post processing SW: SEMCAD, V1.8 Build 184

Right Head Touch/Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.803 mW/g

Right Head Touch/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 17.5 V/m; Power Drift = 0.019 dB
Peak SAR (extrapolated) = 1.16 W/kg

SAR (1 g) = 0.734 mW/g; SAR (10 g) = 0.479 mW/g
Maximum value of SAR (measured) = 0.799 mW/g



0 dB = 0.799 mW/g

Plot #4

Test Laboratory: Bay Area Compliance Lab Corp. (BACL)

Right Head Tilt (Middle Channel)

Hangzhou Newsky Technology Co., Ltd; Type: CDMA Mobile Phone; Serial: B1806

Communication System: CDMA 835; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): f = 836.52 MHz; σ = 0.89 mho/m; ε_r = 42.1; ρ = 1000 kg/m^3
Phantom section: Right Section

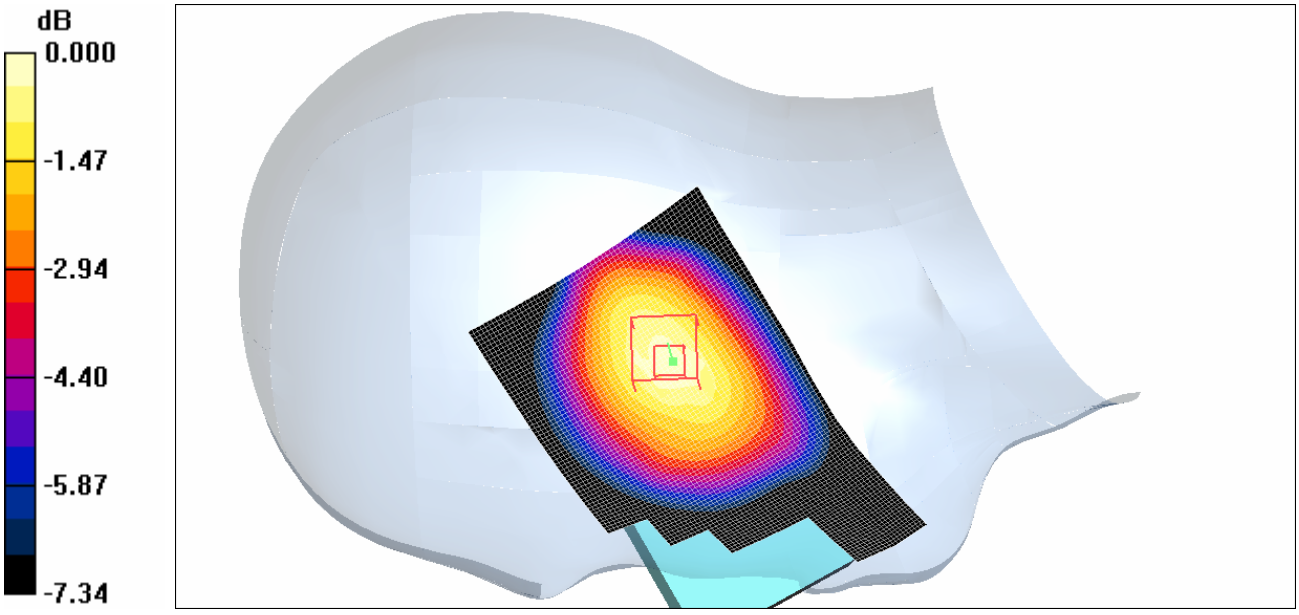
DASY4 Configuration:

- Probe: ET3DV6 - SN1604; ConvF(6.82, 6.82, 6.82); Calibrated: 8/28/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn456; Calibrated: 11/8/2007
- Phantom: SAM with CRP; Type: Twin SAM; Serial: TP-1032
- Measurement SW: DASY4, V4.6 Build 23; Post processing SW: SEMCAD, V1.8 Build 184

Right Head Tilt /Area Scan (61x101x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.366 mW/g

Right Head Tilt /Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 17.0 V/m; Power Drift = 0.030 dB
Peak SAR (extrapolated) = 0.517 W/kg

SAR (1 g) = 0.376 mW/g; SAR (10 g) = 0.272 mW/g
Maximum value of SAR (measured) = 0.399 mW/g



0 dB = 0.399 mW/g

Plot #5

APPENDIX F – CONDUCTED OUTPUT POWER MEASUREMENT

Provision Applicable

The measured peak output power should be greater and within 5% than EMI measurement.

Test Procedure

The RF output of the transmitter was connected to the input of the spectrum analyzer through sufficient attenuation.

Test equipment

Manufacturer	Description	Model No.	Serial No.	Calibration Date
Agilent	Analyzer, Spectrum	E4440A	MY44303352	2008-04-28
Agilent	Communication Test Set	E5515C	GB44051221	2007-08-08

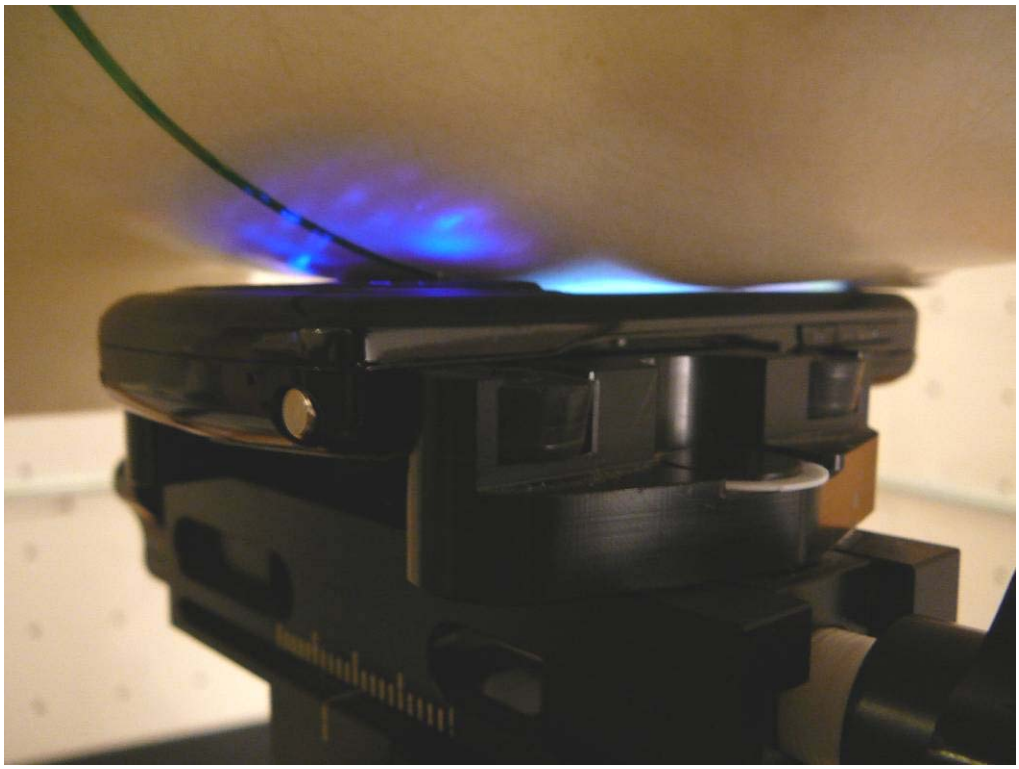
Test Results

RADIO CONFIG	OUTPUT POWER (dBm)		
	Low CH (824.7 MHz)	Middle CH (836.52 MHz)	High CH (848.31 MHz)
RC1, S02	25.20	25.30	25.40
RC2, S09	25.30	25.15	25.30
RC3, S055	25.35	25.34	25.45
RC4, S055	25.35	25.20	25.30
RC5, S055	25.40	25.30	25.10

APPENDIX G –TEST POSITION PHOTOS

EUT 1.5 cm separation to the flat phantom

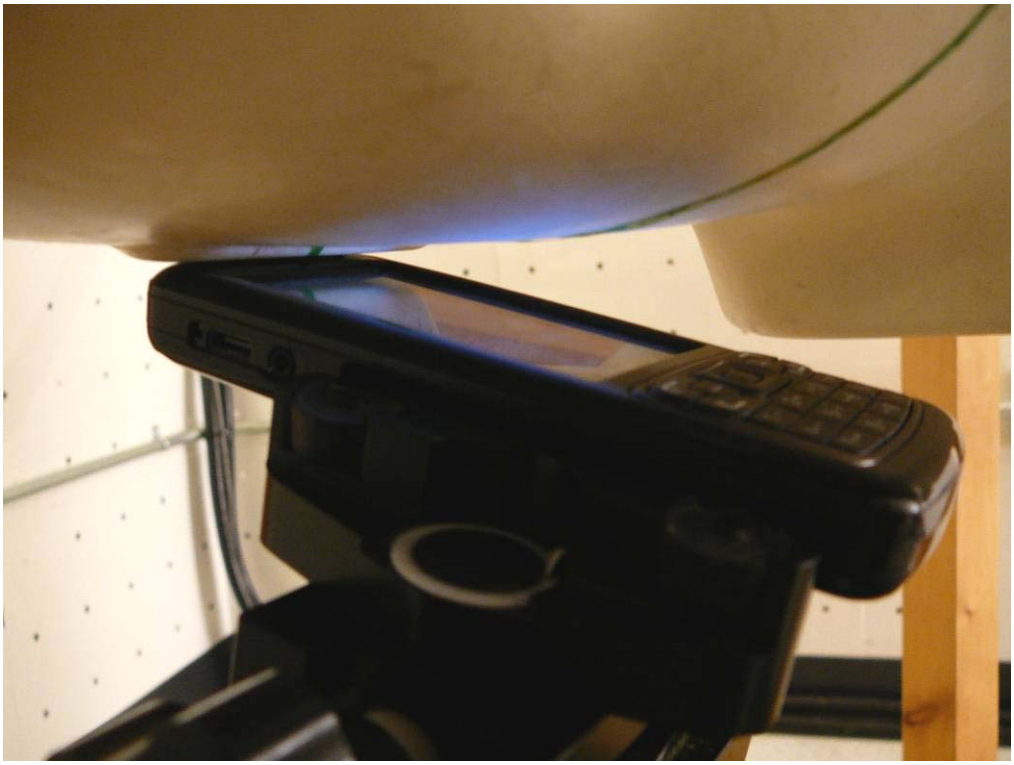
EUT Left Head Cheek



EUT Left Head Tilt

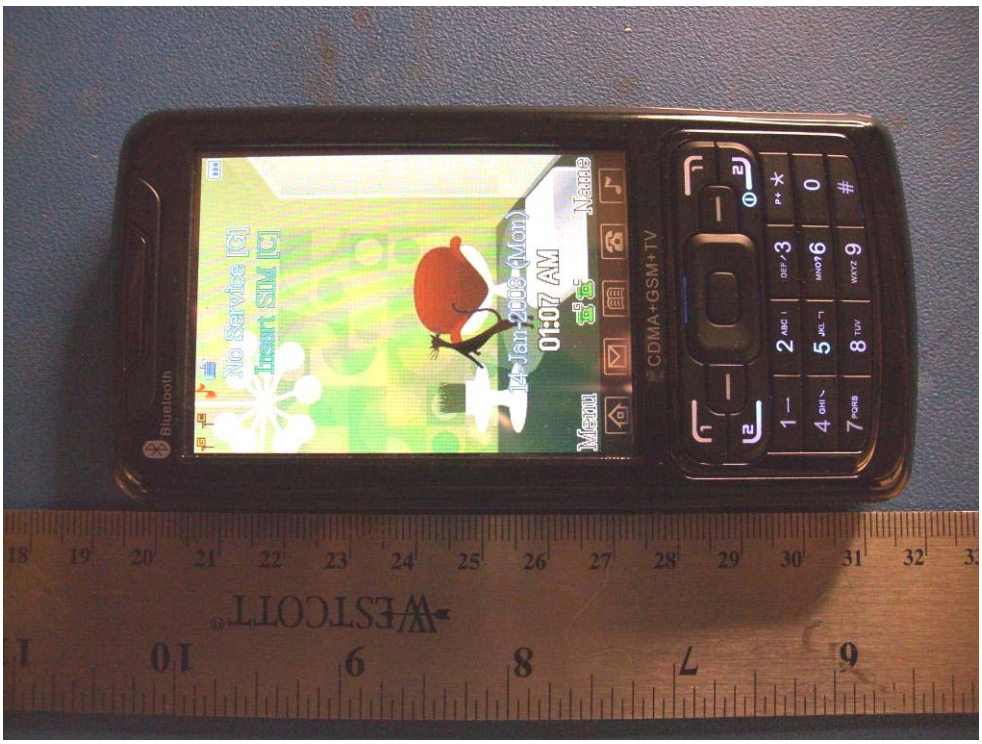
EUT Right Head Cheek

EUT Right Head Tilt



APPENDIX H– EUT PHOTO

EUT – Front View



EUT – Back View

APPENDIX I - INFORMATIVE REFERENCES

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******* END OF REPORT *******