

Test Laboratory: HCT CO., LTD
EUT Type: Dual-Band CDMA/EVDO USB Modem
Antenna Position: Out
Liquid Temperature: 21.3 °C
Ambient Temperature: 21.5 °C
Test Date: Oct.26, 2007
Option: EVDO

DUT: PX-600; Type: USB Modem (bottom); Serial: #1

Communication System: CDMA 835MHz FCC; Frequency: 848.31 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 848.31$ MHz; $\sigma = 0.994$ mho/m; $\epsilon_r = 54.7$; $\rho = 1000$ kg/m³
Phantom section: Flat Section ; Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ET3DV6 - SN1609; ConvF(6.49, 6.49, 6.49); Calibrated: 2007-08-30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn466; Calibrated: 2007-01-25
- Phantom: SAM 835/900 MHz; Type: SAM

CDMA BODY 777/Area Scan (101x121x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.177 mW/g

CDMA BODY 777/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

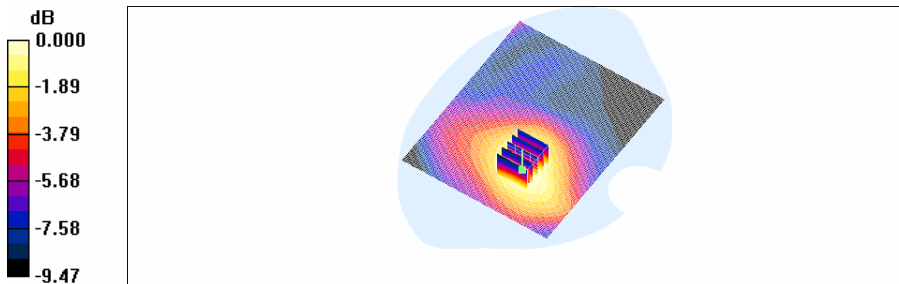
Reference Value = 10.4 V/m; Power Drift = -0.062 dB

Peak SAR (extrapolated) = 0.233 W/kg

SAR(1 g) = 0.166 mW/g; SAR(10 g) = 0.118 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.176 mW/g



0 dB = 0.176mW/g

Test Laboratory: HCT CO., LTD
EUT Type: Dual-Band CDMA/EVDO USB Modem
Antenna Position: Out
Liquid Temperature: 21.3 °C
Ambient Temperature: 21.5 °C
Test Date: Oct.26, 2007
Option: CDMA

DUT: PX-600; Type: USB Modem (front-out); Serial: #1

Communication System: CDMA 835MHz FCC; Frequency: 848.31 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 848.31$ MHz; $\sigma = 0.994$ mho/m; $\epsilon_r = 54.7$; $\rho = 1000$ kg/m³
Phantom section: Flat Section ; Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ET3DV6 - SN1609; ConvF(6.49, 6.49, 6.49); Calibrated: 2007-08-30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn466; Calibrated: 2007-01-25
- Phantom: SAM 835/900 MHz; Type: SAM

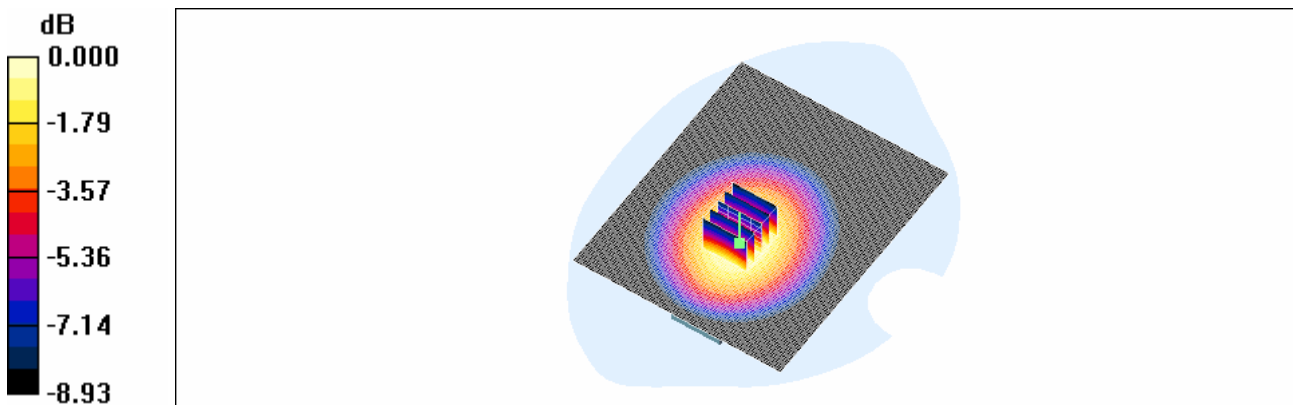
CDMA BODY 777/Area Scan (101x121x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.774 mW/g

CDMA BODY 777/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 25.2 V/m; Power Drift = -0.010 dB
Peak SAR (extrapolated) = 0.951 W/kg
SAR(1 g) = 0.724 mW/g; SAR(10 g) = 0.519 mW/g

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.771 mW/g



0 dB = 0.771mW/g

Test Laboratory: HCT CO., LTD
EUT Type: Dual-Band CDMA/EVDO USB Modem
Antenna Position: In
Liquid Temperature: 21.3 °C
Ambient Temperature: 21.5 °C
Test Date: Oct.26, 2007
Option: EVDO

DUT: PX-600; Type: USB Modem (front-in); Serial: #1

Communication System: PCS 1900MHz FCC; Frequency: 1851.25 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 1851.25$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 52.2$; $\rho = 1000$ kg/m³
Phantom section: Flat Section ; Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ET3DV6 - SN1609; ConvF(4.74, 4.74, 4.74); Calibrated: 2007-08-30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn466; Calibrated: 2007-01-25
- Phantom: SAM 1800/1900 MHz; Type: SAM

PCS BODY 25/Area Scan (101x121x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.645 mW/g

PCS BODY 25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

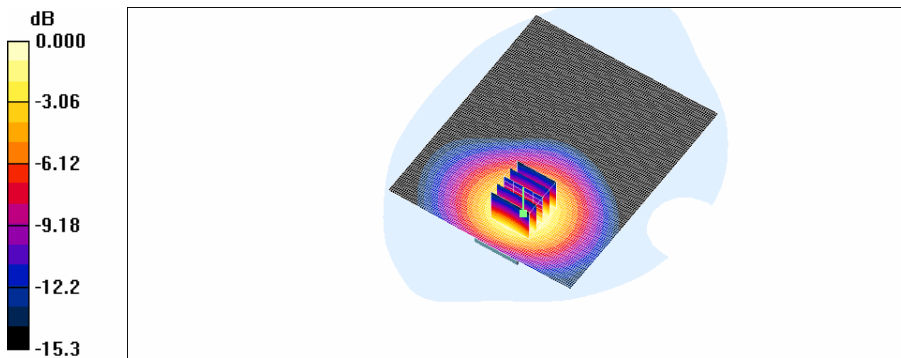
Reference Value = 6.39 V/m; Power Drift = 0.060 dB

Peak SAR (extrapolated) = 0.837 W/kg

SAR(1 g) = 0.570 mW/g; SAR(10 g) = 0.352 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.621 mW/g



0 dB = 0.621mW/g

Test Laboratory: HCT CO., LTD
EUT Type: Dual-Band CDMA/EVDO USB Modem
Antenna Position: In
Liquid Temperature: 21.3 °C
Ambient Temperature: 21.5 °C
Test Date: Oct.26, 2007
Option: EVDO

DUT: PX-600; Type: USB Modem (front-in); Serial: #1

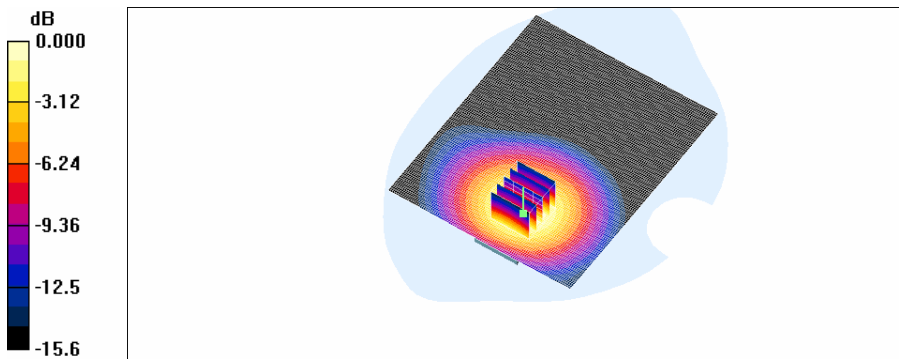
Communication System: PCS 1900MHz FCC; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 1880$ MHz; $\sigma = 1.54$ mho/m; $\epsilon_r = 52.1$; $\rho = 1000$ kg/m³
Phantom section: Flat Section ; Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ET3DV6 - SN1609; ConvF(4.74, 4.74, 4.74); Calibrated: 2007-08-30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn466; Calibrated: 2007-01-25
- Phantom: SAM 1800/1900 MHz; Type: SAM

PCS BODY 600/Area Scan (101x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.719 mW/g

PCS BODY 600/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.31 V/m; Power Drift = -0.046 dB
Peak SAR (extrapolated) = 0.976 W/kg
SAR(1 g) = 0.651 mW/g; SAR(10 g) = 0.403 mW/g
Maximum value of SAR (measured) = 0.703 mW/g



0 dB = 0.703mW/g

Test Laboratory: HCT CO., LTD
EUT Type: Dual-Band CDMA/EVDO USB Modem
Antenna Position: In
Liquid Temperature: 21.3 °C
Ambient Temperature: 21.5 °C
Test Date: Oct.26, 2007
Option: EVDO

DUT: PX-600; Type: USB Modem (front-in); Serial: #1

Communication System: PCS 1900MHz FCC; Frequency: 1908.75 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 1908.75$ MHz; $\sigma = 1.57$ mho/m; $\epsilon_r = 52$; $\rho = 1000$ kg/m³
Phantom section: Flat Section ; Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ET3DV6 - SN1609; ConvF(4.74, 4.74, 4.74); Calibrated: 2007-08-30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn466; Calibrated: 2007-01-25
- Phantom: SAM 1800/1900 MHz; Type: SAM

PCS BODY 1175/Area Scan (101x121x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.627 mW/g

PCS BODY 1175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

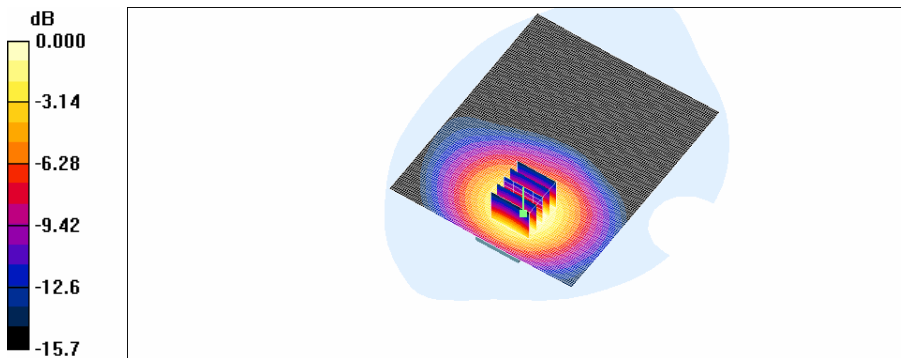
Reference Value = 5.81 V/m; Power Drift = 0.016 dB

Peak SAR (extrapolated) = 0.866 W/kg

SAR(1 g) = 0.568 mW/g; SAR(10 g) = 0.349 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

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



0 dB = 0.610mW/g

Test Laboratory: HCT CO., LTD
EUT Type: Dual-Band CDMA/EVDO USB Modem
Antenna Position: Out
Liquid Temperature: 21.3 °C
Ambient Temperature: 21.5 °C
Test Date: Oct.26, 2007
Option: EVDO

DUT: PX-600; Type: USB Modem (front-out); Serial: #1

Communication System: PCS 1900MHz FCC; Frequency: 1851.25 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 1851.25$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 52.2$; $\rho = 1000$ kg/m³
Phantom section: Flat Section ; Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ET3DV6 - SN1609; ConvF(4.74, 4.74, 4.74); Calibrated: 2007-08-30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn466; Calibrated: 2007-01-25
- Phantom: SAM 1800/1900 MHz; Type: SAM

PCS BODY 25/Area Scan (101x121x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.330 mW/g

PCS BODY 25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

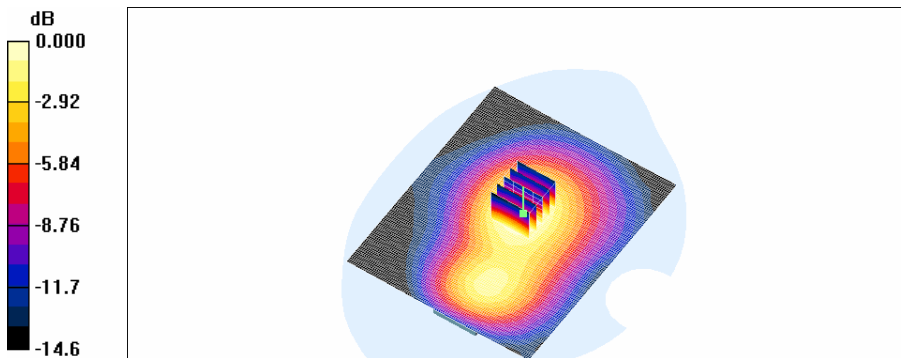
Reference Value = 15.0 V/m; Power Drift = -0.123 dB

Peak SAR (extrapolated) = 0.437 W/kg

SAR(1 g) = 0.299 mW/g; SAR(10 g) = 0.188 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.321 mW/g



0 dB = 0.321mW/g

Test Laboratory: HCT CO., LTD
EUT Type: Dual-Band CDMA/EVDO USB Modem
Antenna Position: Out
Liquid Temperature: 21.3 °C
Ambient Temperature: 21.5 °C
Test Date: Oct.26, 2007
Option: EVDO

DUT: PX-600; Type: USB Modem (front-out); Serial: #1

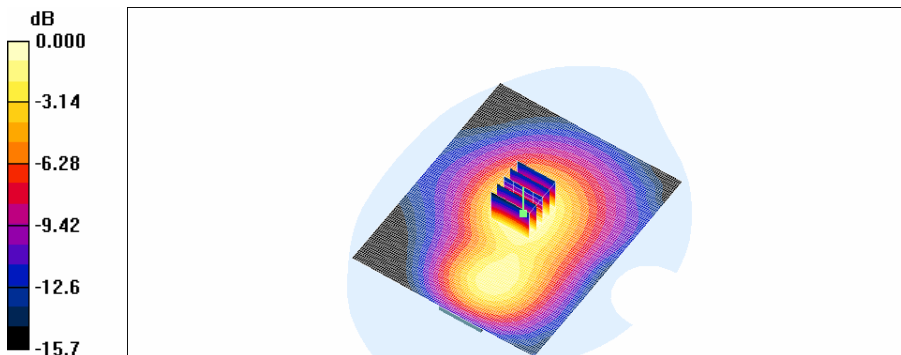
Communication System: PCS 1900MHz FCC; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 1880$ MHz; $\sigma = 1.54$ mho/m; $\epsilon_r = 52.1$; $\rho = 1000$ kg/m³
Phantom section: Flat Section ; Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ET3DV6 - SN1609; ConvF(4.74, 4.74, 4.74); Calibrated: 2007-08-30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn466; Calibrated: 2007-01-25
- Phantom: SAM 1800/1900 MHz; Type: SAM

PCS BODY 600/Area Scan (101x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.344 mW/g

PCS BODY 600/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.3 V/m; Power Drift = -0.027 dB
Peak SAR (extrapolated) = 0.471 W/kg
SAR(1 g) = 0.311 mW/g; SAR(10 g) = 0.191 mW/g
Maximum value of SAR (measured) = 0.341 mW/g



0 dB = 0.341mW/g

Test Laboratory: HCT CO., LTD
EUT Type: Dual-Band CDMA/EVDO USB Modem
Antenna Position: Out
Liquid Temperature: 21.3 °C
Ambient Temperature: 21.5 °C
Test Date: Oct.26, 2007
Option: EVDO

DUT: PX-600; Type: USB Modem (front-out); Serial:#1

Communication System: PCS 1900MHz FCC; Frequency: 1908.75 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 1908.75$ MHz; $\sigma = 1.57$ mho/m; $\epsilon_r = 52$; $\rho = 1000$ kg/m³
Phantom section: Flat Section ; Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ET3DV6 - SN1609; ConvF(4.74, 4.74, 4.74); Calibrated: 2007-08-30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn466; Calibrated: 2007-01-25
- Phantom: SAM 1800/1900 MHz; Type: SAM

PCS BODY 1175/Area Scan (101x121x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.326 mW/g

PCS BODY 1175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

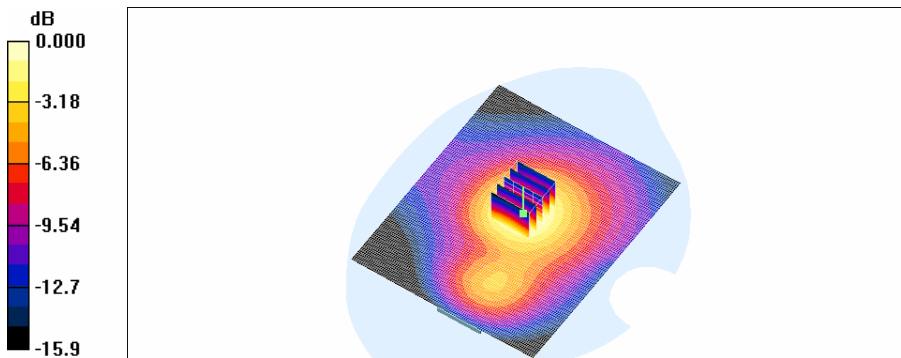
Reference Value = 14.2 V/m; Power Drift = -0.018 dB

Peak SAR (extrapolated) = 0.457 W/kg

SAR(1 g) = 0.301 mW/g; SAR(10 g) = 0.182 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.328 mW/g



0 dB = 0.328mW/g

Test Laboratory: HCT CO., LTD
EUT Type: Dual-Band CDMA/EVDO USB Modem
Antenna Position: In
Liquid Temperature: 21.3 °C
Ambient Temperature: 21.5 °C
Test Date: Oct.26, 2007
Option: EVDO

DUT: PX-600; Type: USB Modem (bottom); Serial:#1

Communication System: PCS 1900MHz FCC; Frequency: 1851.25 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 1851.25$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 52.2$; $\rho = 1000$ kg/m³
Phantom section: Flat Section ; Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ET3DV6 - SN1609; ConvF(4.74, 4.74, 4.74); Calibrated: 2007-08-30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn466; Calibrated: 2007-01-25
- Phantom: SAM 1800/1900 MHz; Type: SAM

PCS Bottom 25/Area Scan (101x121x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.120 mW/g

PCS Bottom 25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

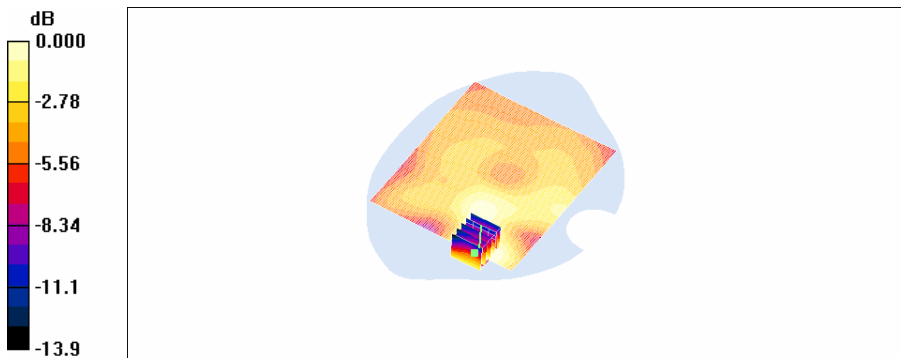
Reference Value = 5.39 V/m; Power Drift = -0.068 dB

Peak SAR (extrapolated) = 0.141 W/kg

SAR(1 g) = 0.107 mW/g; SAR(10 g) = 0.071 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.114 mW/g



0 dB = 0.114mW/g

Test Laboratory: HCT CO., LTD
EUT Type: Dual-Band CDMA/EVDO USB Modem
Antenna Position In
Liquid Temperature: 21.3 °C
Ambient Temperature: 21.5 °C
Test Date: Oct.26, 2007
Option EVDO

DUT: PX-600; Type: USB Modem (bottom); Serial:#1

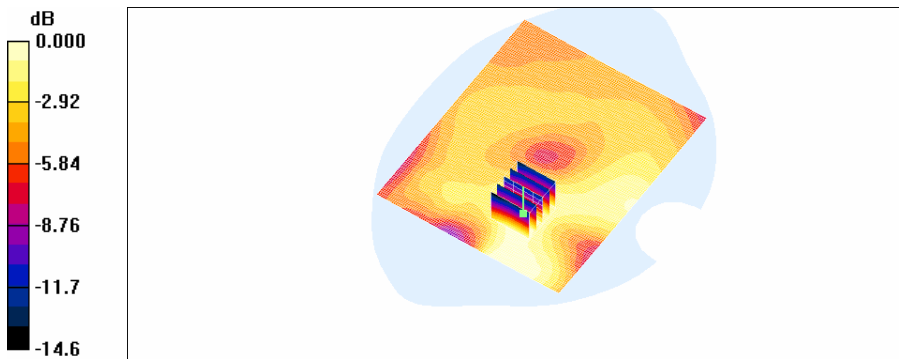
Communication System: PCS 1900MHz FCC; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: $f = 1880$ MHz; $\sigma = 1.54$ mho/m; $\epsilon_r = 52.1$; $\rho = 1000$ kg/m³
Phantom section: Flat Section ; Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ET3DV6 - SN1609; ConvF(4.74, 4.74, 4.74); Calibrated: 2007-08-30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn466; Calibrated: 2007-01-25
- Phantom: SAM 1800/1900 MHz; Type: SAM

PCS Bottom 600/Area Scan (101x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.132 mW/g

PCS Bottom 600/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.39 V/m; Power Drift = 0.066 dB
Peak SAR (extrapolated) = 0.180 W/kg
SAR(1 g) = 0.122 mW/g; SAR(10 g) = 0.077 mW/g
Maximum value of SAR (measured) = 0.132 mW/g



Test Laboratory: HCT CO., LTD
EUT Type: Dual-Band CDMA/EVDO USB Modem
Antenna Position In
Liquid Temperature: 21.3 °C
Ambient Temperature: 21.5 °C
Test Date: Oct.26, 2007
Option EVDO

DUT: PX-600; Type: USB Modem (bottom); Serial: #1

Communication System: PCS 1900MHz FCC; Frequency: 1908.75 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 1908.75$ MHz; $\sigma = 1.57$ mho/m; $\epsilon_r = 52$; $\rho = 1000$ kg/m³
Phantom section: Flat Section ; Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ET3DV6 - SN1609; ConvF(4.74, 4.74, 4.74); Calibrated: 2007-08-30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn466; Calibrated: 2007-01-25
- Phantom: SAM 1800/1900 MHz; Type: SAM

PCS Bottom 1175/Area Scan (101x121x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.107 mW/g

PCS Bottom 1175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

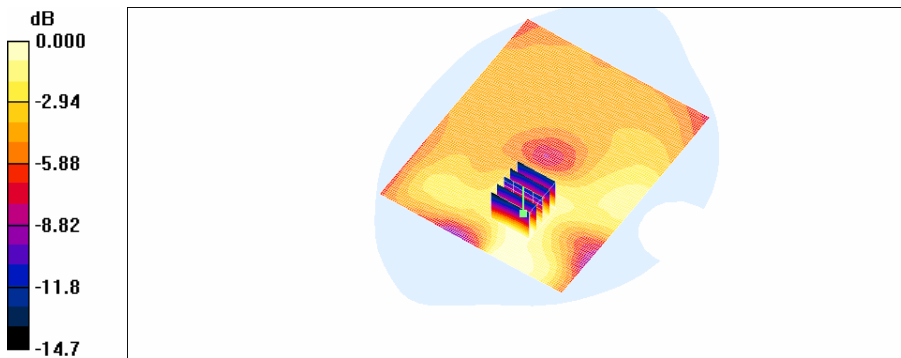
Reference Value = 3.81 V/m; Power Drift = 0.110 dB

Peak SAR (extrapolated) = 0.150 W/kg

SAR(1 g) = 0.100 mW/g; SAR(10 g) = 0.063 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.108 mW/g



Test Laboratory: HCT CO., LTD
EUT Type: Dual-Band CDMA/EVDO USB Modem
Antenna Position: Out
Liquid Temperature: 21.3 °C
Ambient Temperature: 21.5 °C
Test Date: Oct.26, 2007
Option: EVDO

DUT: PX-600; Type: USB Modem (bottom); Serial: #1

Communication System: PCS 1900MHz FCC; Frequency: 1851.25 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 1851.25$ MHz; $\sigma = 1.51$ mho/m; $\epsilon_r = 52.2$; $\rho = 1000$ kg/m³
Phantom section: Flat Section ; Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ET3DV6 - SN1609; ConvF(4.74, 4.74, 4.74); Calibrated: 2007-08-30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn466; Calibrated: 2007-01-25
- Phantom: SAM 1800/1900 MHz; Type: SAM

PCS BODY 25/Area Scan (91x121x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.039 mW/g

PCS BODY 25/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

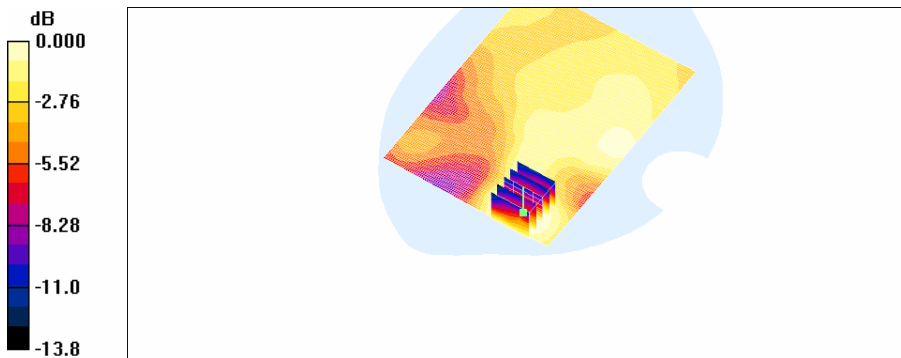
Reference Value = 4.38 V/m; Power Drift = -0.113 dB

Peak SAR (extrapolated) = 0.046 W/kg

SAR(1 g) = 0.035 mW/g; SAR(10 g) = 0.023 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.037 mW/g



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EUT Type: Dual-Band CDMA/EVDO USB Modem
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Liquid Temperature: 21.3 °C
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Option: EVDO

DUT: PX-600; Type: USB Modem (bottom); Serial: #1

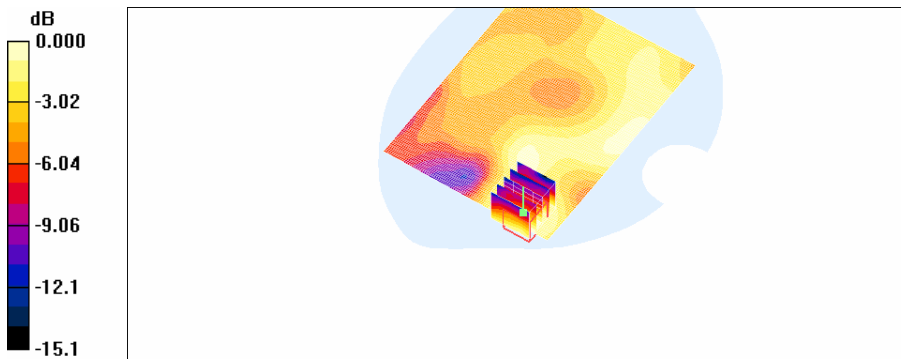
Communication System: PCS 1900MHz FCC; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 1880$ MHz; $\sigma = 1.54$ mho/m; $\epsilon_r = 52.1$; $\rho = 1000$ kg/m³
Phantom section: Flat Section ; Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ET3DV6 - SN1609; ConvF(4.74, 4.74, 4.74); Calibrated: 2007-08-30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn466; Calibrated: 2007-01-25
- Phantom: SAM 1800/1900 MHz; Type: SAM

PCS BODY 600/Area Scan (91x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.013 mW/g

PCS BODY 600/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 1.78 V/m; Power Drift = -0.045 dB
Peak SAR (extrapolated) = 0.018 W/kg
SAR(1 g) = 0.012 mW/g; SAR(10 g) = 0.0083 mW/g
Maximum value of SAR (measured) = 0.014 mW/g



0 dB = 0.014mW/g

Test Laboratory: HCT CO., LTD
EUT Type: Dual-Band CDMA/EVDO USB Modem
Antenna Position: Out
Liquid Temperature: 21.3 °C
Ambient Temperature: 21.5 °C
Test Date: Oct.26, 2007
Option: EVDO

DUT: PX-600; Type: USB Modem (bottom); Serial: #1

Communication System: PCS 1900MHz FCC; Frequency: 1908.75 MHz; Duty Cycle: 1:1
Medium parameters used (interpolated): $f = 1908.75$ MHz; $\sigma = 1.57$ mho/m; $\epsilon_r = 52$; $\rho = 1000$ kg/m³
Phantom section: Flat Section ; Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ET3DV6 - SN1609; ConvF(4.74, 4.74, 4.74); Calibrated: 2007-08-30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn466; Calibrated: 2007-01-25
- Phantom: SAM 1800/1900 MHz; Type: SAM

PCS BODY 1175/Area Scan (91x121x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.015 mW/g

PCS BODY 1175/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

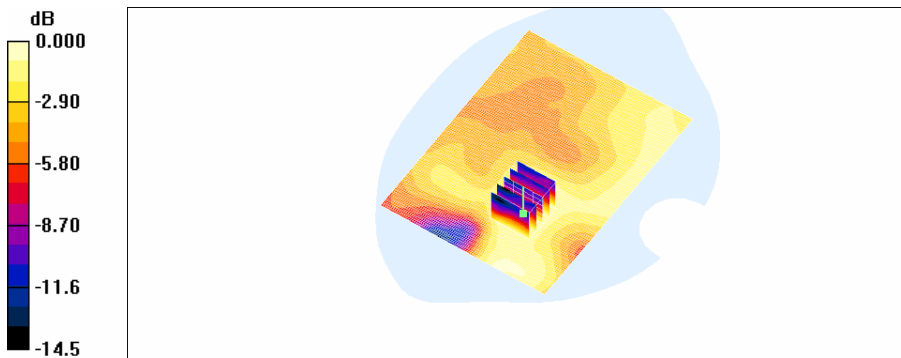
Reference Value = 1.99 V/m; Power Drift = 0.064 dB

Peak SAR (extrapolated) = 0.023 W/kg

SAR(1 g) = 0.015 mW/g; SAR(10 g) = 0.00939 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.016 mW/g



Test Laboratory: HCT CO., LTD
EUT Type: Dual-Band CDMA/EVDO USB Modem
Antenna Position In
Liquid Temperature: 21.3 °C
Ambient Temperature: 21.5 °C
Test Date: Oct.26, 2007
Option PCS

DUT: PX-600; Type: USB Modem (front-in); Serial: #1

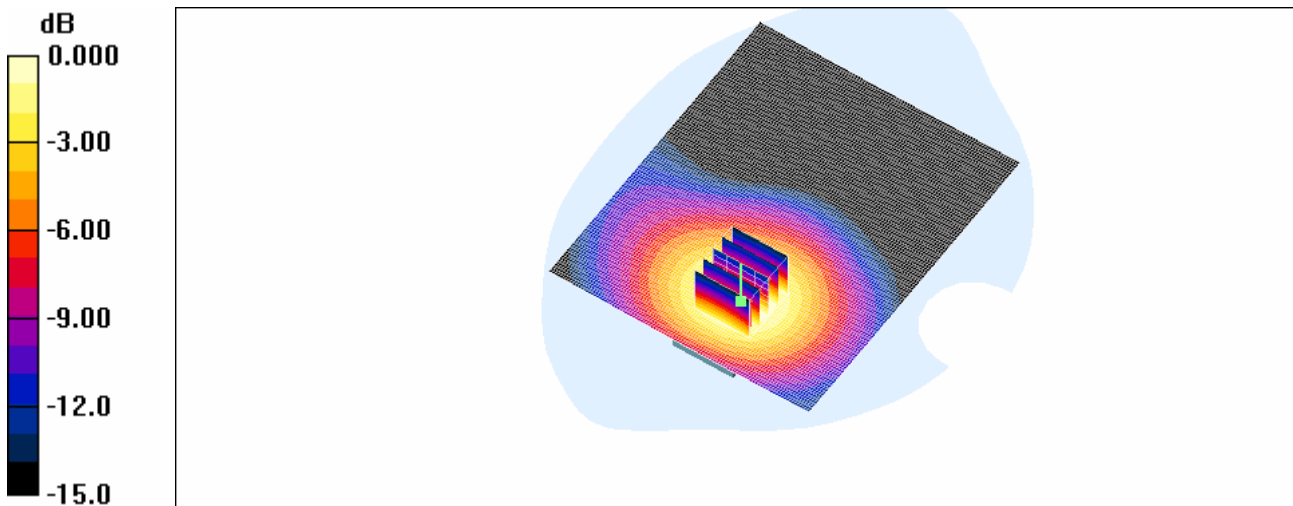
Communication System: PCS 1900MHz FCC; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium parameters used: $f = 1880$ MHz; $\sigma = 1.54$ mho/m; $\epsilon_r = 52.1$; $\rho = 1000$ kg/m³
Phantom section: Flat Section ; Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ET3DV6 - SN1609; ConvF(4.74, 4.74, 4.74); Calibrated: 2007-08-30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn466; Calibrated: 2007-01-25
- Phantom: SAM 1800/1900 MHz; Type: SAM

PCS BODY 600/Area Scan (101x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.524 mW/g

PCS BODY 600/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.32 V/m; Power Drift = 0.052 dB
Peak SAR (extrapolated) = 0.711 W/kg
SAR(1 g) = 0.477 mW/g; SAR(10 g) = 0.297 mW/g
Maximum value of SAR (measured) = 0.520 mW/g



0 dB = 0.520mW/g

Test Laboratory: HCT CO., LTD
 EUT Type: Dual-Band CDMA/EVDO USB Modem
 Antenna Position: Out
 Liquid Temperature: 21.3 °C
 Ambient Temperature: 21.5 °C
 Test Date: Oct.26, 2007
 Option: EVDO

DUT: PX-600; Type: USB Modem (front-out); Serial: #1

Communication System: CDMA 835MHz FCC; Frequency: 848.31 MHz; Duty Cycle: 1:1
 Medium parameters used (interpolated): $f = 848.31$ MHz; $\sigma = 0.994$ mho/m; $\epsilon_r = 54.7$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section ; Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ET3DV6 - SN1609; ConvF(6.49, 6.49, 6.49); Calibrated: 2007-08-30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn466; Calibrated: 2007-01-25
- Phantom: SAM 835/900 MHz; Type: SAM

CDMA BODY 777/Area Scan (101x121x1): Measurement grid: dx=15mm, dy=15mm

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (interpolated) = 0.838 mW/g

CDMA BODY 777/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

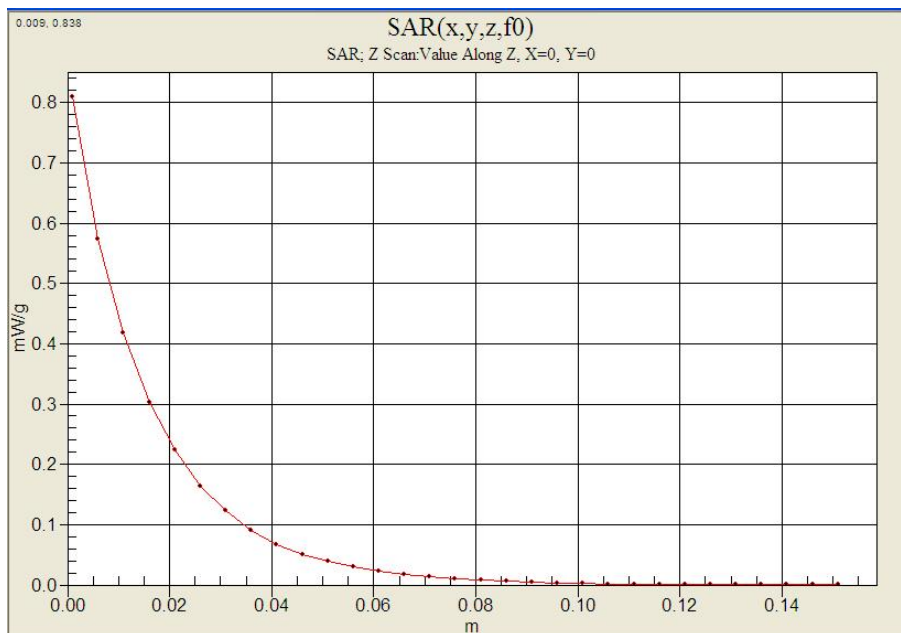
Reference Value = 25.9 V/m; Power Drift = -0.142 dB

Peak SAR (extrapolated) = 1.05 W/kg

SAR(1 g) = 0.789 mW/g; SAR(10 g) = 0.561 mW/g

[Info: Interpolated medium parameters used for SAR evaluation.](#)

Maximum value of SAR (measured) = 0.836 mW/g



0 dB = 0.836mW/g

Test Laboratory: HCT CO., LTD
EUT Type: Dual-Band CDMA/EVDO USB Modem
Antenna Position: In
Liquid Temperature: 21.3 °C
Ambient Temperature: 21.5 °C
Test Date: Oct.26, 2007
Option: EVDO

DUT: PX-600; Type: USB Modem (front-in); Serial: #1

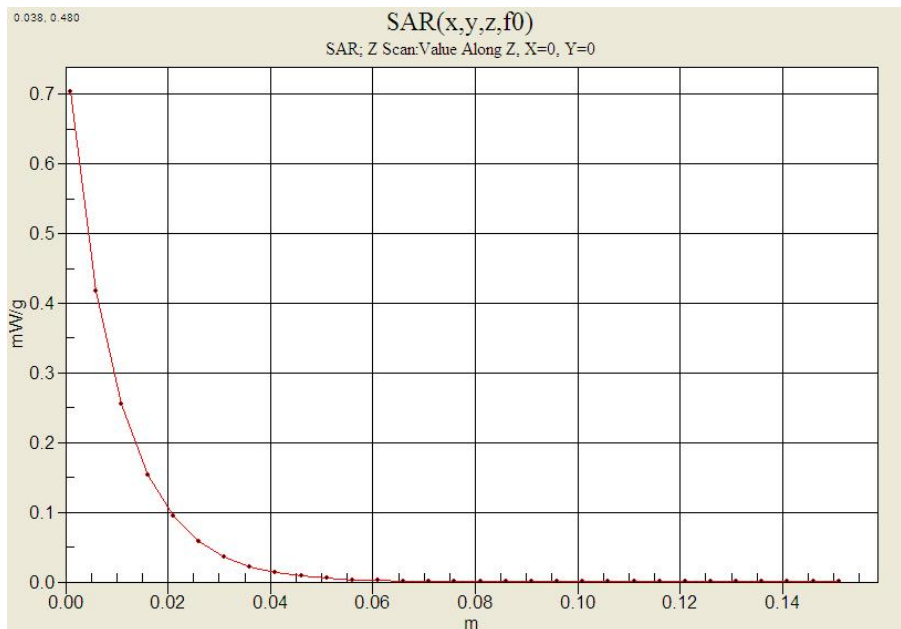
Communication System: PCS 1900MHz FCC; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 1880$ MHz; $\sigma = 1.54$ mho/m; $\epsilon_r = 52.1$; $\rho = 1000$ kg/m³
Phantom section: Flat Section ; Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ET3DV6 - SN1609; ConvF(4.74, 4.74, 4.74); Calibrated: 2007-08-30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn466; Calibrated: 2007-01-25
- Phantom: SAM 1800/1900 MHz; Type: SAM

PCS BODY 600/Area Scan (101x121x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 0.719 mW/g

PCS BODY 600/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.31 V/m; Power Drift = -0.046 dB
Peak SAR (extrapolated) = 0.976 W/kg
SAR(1 g) = 0.651 mW/g; SAR(10 g) = 0.403 mW/g
Maximum value of SAR (measured) = 0.703 mW/g



0 dB = 0.703mW/g

Attachment 2. – Dipole Validation Plots

■ Validation Data (835 MHz Head)

Test Laboratory: HCT CO., LTD

Input Power 1W (30dBm)

Liquid Temp: 21.5

Test Date: Oct.24, 2007

DUT: Dipole 835 MHz; Serial: D835V2 - SN:481

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

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.891 \text{ mho/m}$; $\epsilon_r = 40.8$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ET3DV6 - SN1609; ConvF(6.81, 6.81, 6.81); Calibrated: 2007-08-30

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

- Electronics: DAE3 Sn466; Calibrated: 2007-01-25

- Phantom: SAM 835/900 MHz; Type: SAM

Validatoin 835 MHz/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 10.5 mW/g

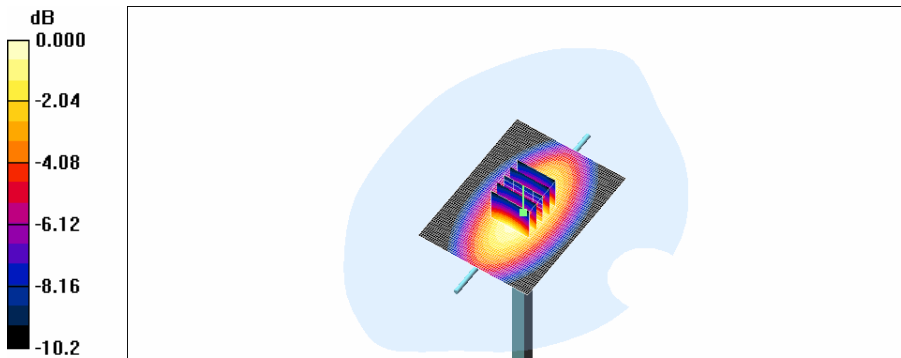
Validatoin 835 MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 111.5 V/m; Power Drift = -0.034 dB

Peak SAR (extrapolated) = 14.2 W/kg

SAR(1 g) = 9.8 mW/g; SAR(10 g) = 6.49 mW/g

Maximum value of SAR (measured) = 10.6 mW/g



■ Validation Data (1900 MHz Head)

Test Laboratory: HCT CO., LTD
Input Power 1W (30dBm)
Liquid Temp: 21.5
Test Date: Oct.24, 2007

DUT: Dipole 1900 MHz; Serial: D1900V2 – SN: 5d032

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.42 \text{ mho/m}$; $\epsilon_r = 39.5$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ET3DV6 – SN1609; ConvF(5.36, 5.36, 5.36); Calibrated: 07-08-30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn466; Calibrated: 07-01-25
- Phantom: SAM 1800/1900 MHz; Type: SAM

Validation 1900MHz/Area Scan (61x61x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (interpolated) = 46.6 mW/g

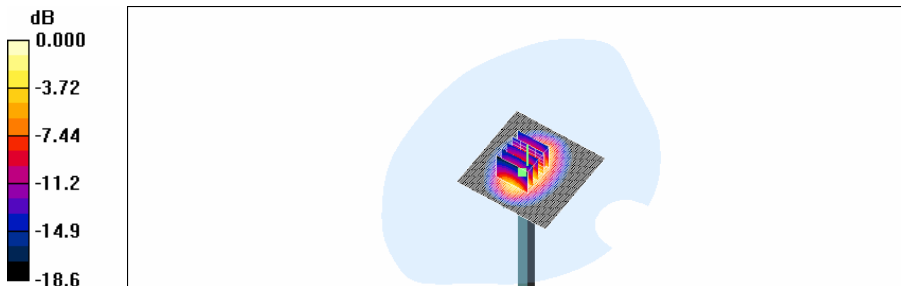
Validation 1900MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 185.4 V/m; Power Drift = -0.016 dB

Peak SAR (extrapolated) = 65.4 W/kg

SAR(1 g) = 38.3 mW/g; SAR(10 g) = 20.3 mW/g

Maximum value of SAR (measured) = 42.6 mW/g



0 dB = 42.6mW/g

■ Dielectric Parameter (835 MHz Head)

Title PX-600
SubTitle CDMA835(Head)
Test Date Oct.24, 2007

Frequency	e'	e''
800000000	40.7704	19.1876
805000000	40.7494	19.2546
810000000	40.8447	19.2900
815000000	40.8302	19.2361
820000000	40.8001	19.2613
825000000	40.8121	19.2431
830000000	40.8048	19.2301
835000000	40.7898	19.1877
840000000	40.7083	19.2058
845000000	40.6954	19.1478
850000000	40.5746	19.1099
855000000	40.4870	19.1305
860000000	40.3673	19.0681
865000000	40.2664	19.0319
870000000	40.1447	19.0074
875000000	39.9659	18.9543
880000000	39.8469	18.9106
885000000	39.7154	18.9063
890000000	39.5868	18.8718
895000000	39.5329	18.8514
900000000	39.4089	18.8416

■ Dielectric Parameter (835 MHz Body)

Title PX-600
SubTitle CDMA835(Body)
Test Date Oct.24, 2007

Frequency	e'	e''
800000000	55.2968	21.2062
805000000	55.2252	21.1685
810000000	55.1622	21.1508
815000000	55.0764	21.1136
820000000	55.0584	21.0745
825000000	54.9827	21.0737
830000000	54.8909	21.0402
835000000	54.8725	21.0519
840000000	54.7722	21.0775
845000000	54.7858	21.0659
850000000	54.7451	21.0965
855000000	54.6871	21.0354
860000000	54.6450	21.0989
865000000	54.5963	21.0566
870000000	54.5898	21.0521
875000000	54.5310	21.0624
880000000	54.4906	21.0071
885000000	54.4691	20.9713
890000000	54.4547	20.9117
895000000	54.4070	20.9130
900000000	54.3532	20.8435

■ Dielectric Parameter (1900 MHz Head)

Title PX-600
SubTitle PCS1900(Head)
Test Date Oct.24, 2007

Frequency	e'	e''
1800000000	40.0674	13.0686
1810000000	39.9382	13.0883
1820000000	39.8075	13.1126
1830000000	39.6982	13.1637
1840000000	39.5745	13.2032
1850000000	39.5347	13.2541
1860000000	39.4992	13.2665
1870000000	39.4949	13.2983
1880000000	39.5111	13.3229
1890000000	39.5332	13.3553
1900000000	39.5086	13.3873
1910000000	39.4729	13.3818
1920000000	39.3981	13.3783
1930000000	39.2701	13.4185
1940000000	39.1536	13.4194
1950000000	39.0389	13.4524
1960000000	38.9194	13.4892
1970000000	38.8601	13.5398
1980000000	38.8498	13.5963
1990000000	38.8707	13.6585
2000000000	38.9192	13.6640

■ Dielectric Parameter (1900 MHz Body)

Title PX-600
SubTitle PCS1900(Body)
Test Date Oct.24, 2007

Frequency	e'	e''
1850000000	52.1918	14.6525
1855000000	52.1995	14.6679
1860000000	52.1610	14.6877
1865000000	52.1815	14.6919
1870000000	52.1158	14.7287
1875000000	52.1138	14.7309
1880000000	52.1180	14.7315
1885000000	52.1173	14.7869
1890000000	52.0734	14.7689
1895000000	52.0612	14.7697
1900000000	52.0400	14.7643
1905000000	52.0736	14.8032
1910000000	52.0305	14.8285
1915000000	52.0211	14.8305
1920000000	52.0271	14.8295
1925000000	52.0034	14.8663
1930000000	51.9623	14.8758
1935000000	51.9628	14.8907
1940000000	51.9467	14.9028
1945000000	51.9753	14.9279
1950000000	51.9013	14.9504

■ Validation Data (835 MHz Head)

Test Laboratory: HCT CO., LTD
Input Power 1W (30dBm)
Liquid Temp: 21.7
Test Date: Oct.25, 2007

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 – SN:481

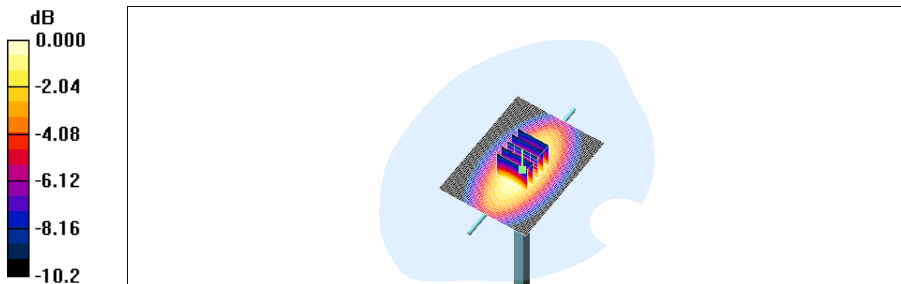
Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.89 \text{ mho/m}$; $\epsilon_r = 40.7$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ET3DV6 – SN1609; ConvF(6.81, 6.81, 6.81); Calibrated: 2007-08-30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn466; Calibrated: 2007-01-25
- Phantom: SAM 835/900 MHz; Type: SAM

Validatoin 835 MHz/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 10.5 mW/g

Validatoin 835 MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 111.7 V/m; Power Drift = -0.038 dB
Peak SAR (extrapolated) = 14.2 W/kg
SAR(1 g) = 9.81 mW/g; SAR(10 g) = 6.5 mW/g
Maximum value of SAR (measured) = 10.6 mW/g



0 dB = 10.6mW/g

■ Validation Data (1900 MHz Head)

Test Laboratory: HCT CO., LTD
Input Power 1W (30dBm)
Liquid Temp: 21.7
Test Date: Oct.25, 2007

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 – SN:5d032

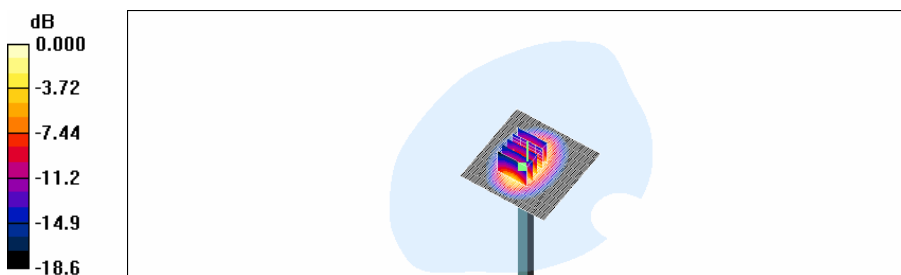
Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 1900$ MHz; $\sigma = 1.41$ mho/m; $\epsilon_r = 39.5$; $\rho = 1000$ kg/m³
Phantom section: Flat Section ; Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ET3DV6 – SN1609; ConvF(5.36, 5.36, 5.36); Calibrated: 07-08-30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn466; Calibrated: 07-01-25
- Phantom: SAM 1800/1900 MHz; Type: SAM

Validation 1900MHz/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 45.6 mW/g

Validation 1900MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 184.1 V/m; Power Drift = -0.015 dB
Peak SAR (extrapolated) = 64.0 W/kg
SAR(1 g) = 37.5 mW/g; SAR(10 g) = 20 mW/g
Maximum value of SAR (measured) = 41.8 mW/g



0 dB = 41.8mW/g

■ Dielectric Parameter (835 MHz Head)

Title PX-600
SubTitle CDMA835(Head)
Test Date Oct.25, 2007

Frequency	e'	e''
800000000	40.7298	19.1983
805000000	40.7010	19.2350
810000000	40.7296	19.2615
815000000	40.7211	19.2279
820000000	40.7967	19.2090
825000000	40.7575	19.2367
830000000	40.7686	19.2136
835000000	40.7108	19.1674
840000000	40.7003	19.1766
845000000	40.6597	19.1317
850000000	40.5677	19.1222
855000000	40.4600	19.1072
860000000	40.3536	19.0924
865000000	40.1898	19.0127
870000000	40.0925	19.0018
875000000	39.9114	18.9395
880000000	39.7952	18.9052
885000000	39.6447	18.9212
890000000	39.5356	18.8664
895000000	39.4630	18.8317
900000000	39.4369	18.8877

■ Dielectric Parameter (835 MHz Body)

Title PX-600
SubTitle CDMA835(Body)
Test Date Oct.25, 2007

Frequency	e'	e''
800000000	55.2620	21.1730
805000000	55.1998	21.0981
810000000	55.1354	21.1549
815000000	55.0650	21.0671
820000000	55.0350	21.0719
825000000	54.9908	21.0652
830000000	54.8793	21.0390
835000000	54.8227	21.0815
840000000	54.7583	21.0992
845000000	54.7798	21.0791
850000000	54.7104	21.1205
855000000	54.6730	21.0843
860000000	54.6009	21.0400
865000000	54.5645	21.0580
870000000	54.5883	21.0205
875000000	54.5517	21.0330
880000000	54.4731	21.0032
885000000	54.4865	20.9750
890000000	54.4591	20.9364
895000000	54.3807	20.9129
900000000	54.3486	20.8715

■ Dielectric Parameter (1900 MHz Head)

Title PX-600
SubTitle PCS1900(Head)
Test Date Oct.25, 2007

Frequency	e'	e''
1800000000	40.0639	13.0829
1810000000	39.9402	13.1113
1820000000	39.8114	13.1435
1830000000	39.7096	13.1627
1840000000	39.6019	13.2133
1850000000	39.5191	13.2579
1860000000	39.4669	13.2628
1870000000	39.4649	13.2933
1880000000	39.4848	13.3097
1890000000	39.4983	13.3566
1900000000	39.5032	13.3788
1910000000	39.4618	13.3830
1920000000	39.3592	13.3915
1930000000	39.2428	13.4036
1940000000	39.1199	13.4354
1950000000	39.0048	13.4540
1960000000	38.8971	13.4773
1970000000	38.8358	13.5381
1980000000	38.8133	13.6028
1990000000	38.8404	13.6435
2000000000	38.8869	13.6854

■ Dielectric Parameter (1900 MHz Body)

Title PX-600
SubTitle PCS1900(Body)
Test Date Oct.25, 2007

Frequency	e'	e''
1850000000	52.1956	14.6528
1855000000	52.2049	14.6452
1860000000	52.1646	14.6918
1865000000	52.1743	14.6837
1870000000	52.1392	14.7225
1875000000	52.1116	14.7366
1880000000	52.1039	14.7440
1885000000	52.1128	14.7656
1890000000	52.0587	14.7928
1895000000	52.0676	14.7891
1900000000	52.0330	14.7886
1905000000	52.0587	14.7987
1910000000	52.0470	14.8388
1915000000	52.0143	14.8151
1920000000	52.0221	14.8556
1925000000	51.9811	14.8577
1930000000	51.9581	14.8868
1935000000	51.9657	14.9096
1940000000	51.9454	14.9328
1945000000	51.9491	14.9268
1950000000	51.9145	14.9490

■ Validation Data (835 MHz Head)

Test Laboratory: HCT CO., LTD
Input Power 1W (30dBm)
Liquid Temp: 21.3
Test Date: Oct.26, 2007

DUT: Dipole 835 MHz; Serial: D835V2 - SN: 481

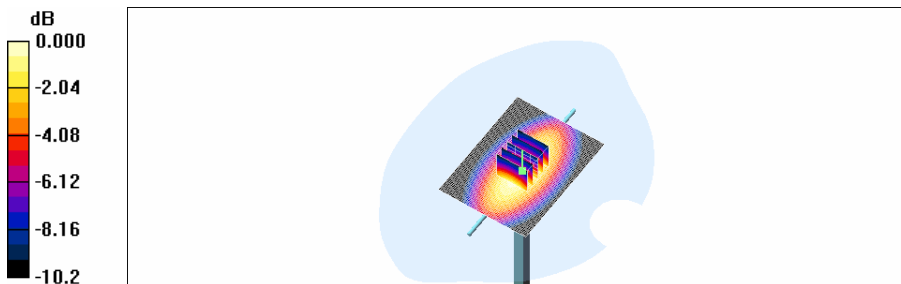
Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.889 \text{ mho/m}$; $\epsilon_r = 40.7$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ET3DV6 - SN1609; ConvF(6.81, 6.81, 6.81); Calibrated: 2007-08-30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn466; Calibrated: 2007-01-25
- Phantom: SAM 835/900 MHz; Type: SAM

Validatoin 835 MHz/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 10.6 mW/g

Validatoin 835 MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 111.8 V/m; Power Drift = -0.043 dB
Peak SAR (extrapolated) = 14.2 W/kg
SAR(1 g) = 9.85 mW/g; SAR(10 g) = 6.51 mW/g
Maximum value of SAR (measured) = 10.6 mW/g



0 dB = 10.6mW/g

■ Validation Data (1900 MHz Head)

Test Laboratory: HCT CO., LTD
Input Power 1W (30dBm)
Liquid Temp: 21.3
Test Date: Oct.26, 2007

DUT: Dipole 1900 MHz; Serial: D1900V2 – SN:5d032

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 1900$ MHz; $\sigma = 1.41$ mho/m; $\epsilon_r = 39.5$; $\rho = 1000$ kg/m³

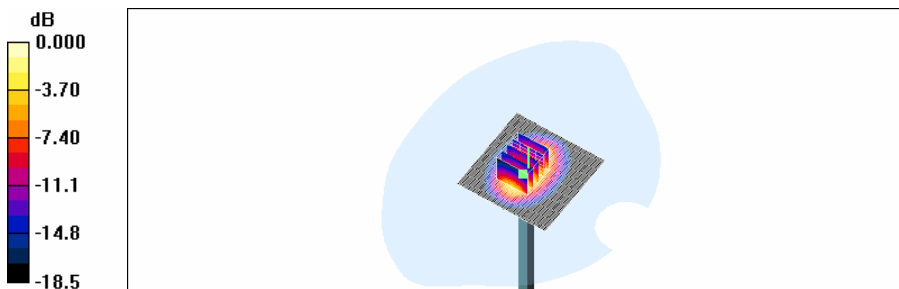
Phantom section: Flat Section ; Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ET3DV6 – SN1609; ConvF(5.36, 5.36, 5.36); Calibrated: 07-08-30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn466; Calibrated: 07-01-25
- Phantom: SAM 1800/1900 MHz; Type: SAM

Validation 1900MHz/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 45.9 mW/g

Validation 1900MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 185.5 V/m; Power Drift = -0.091 dB
Peak SAR (extrapolated) = 63.8 W/kg
SAR(1 g) = 37.3 mW/g; SAR(10 g) = 19.9 mW/g
Maximum value of SAR (measured) = 41.4 mW/g



0 dB = 41.4mW/g

■ Dielectric Parameter (835 MHz Head)

Title PX-600
SubTitle CDMA835(Head)
Test Date Oct.26, 2007

Frequency	e'	e''
800000000	40.9284	19.2111
805000000	40.8812	19.2629
810000000	40.8326	19.2449
815000000	40.8448	19.2108
820000000	40.8039	19.1964
825000000	40.7575	19.2367
830000000	40.7232	19.1628
835000000	40.7014	19.1333
840000000	40.6115	19.1385
845000000	40.5859	19.0898
850000000	40.4638	19.1200
855000000	40.3974	19.1041
860000000	40.2777	19.1136
865000000	40.2487	19.0776
870000000	40.1532	19.0557
875000000	40.0636	19.0326
880000000	40.0004	19.0277
885000000	39.8755	18.9956
890000000	39.7876	18.9488
895000000	39.7249	18.9350
900000000	39.6847	18.9447

■ Dielectric Parameter (835 MHz Body)

Title PX-600
SubTitle CDMA835(Body)
Test Date Oct.26, 2007

Frequency	e'	e''
800000000	55.2932	21.1961
805000000	55.2015	21.1657
810000000	55.1554	21.1476
815000000	55.1088	21.0792
820000000	55.0288	21.0854
825000000	54.9964	21.0352
830000000	54.8987	21.0762
835000000	54.8329	21.0943
840000000	54.7528	21.0847
845000000	54.7492	21.0851
850000000	54.7115	21.0655
855000000	54.6563	21.0689
860000000	54.6486	21.1084
865000000	54.5666	21.0357
870000000	54.5779	21.0352
875000000	54.5298	21.0041
880000000	54.4983	20.9721
885000000	54.4481	20.9583
890000000	54.4399	20.9545
895000000	54.3870	20.9157
900000000	54.3586	20.8570

■ Dielectric Parameter (1900 MHz Head)

Title PX-600
SubTitle PCS1900(Head)
Test Date Oct.26, 2007

Frequency	e'	e''
1800000000	40.0418	13.0964
1810000000	39.9676	13.1066
1820000000	39.8676	13.1512
1830000000	39.7504	13.1798
1840000000	39.6105	13.2321
1850000000	39.5461	13.2531
1860000000	39.5164	13.2558
1870000000	39.4856	13.3072
1880000000	39.4708	13.3394
1890000000	39.4805	13.3708
1900000000	39.4857	13.3840
1910000000	39.4807	13.4124
1920000000	39.4125	13.4282
1930000000	39.3041	13.4348
1940000000	39.1904	13.4309
1950000000	39.0667	13.4637
1960000000	38.9676	13.4958
1970000000	38.9157	13.5444
1980000000	38.8740	13.6155
1990000000	38.8559	13.6537
2000000000	38.9064	13.6754

■ Dielectric Parameter (1900 MHz Body)

Title PX-600
SubTitle PCS1900(Body)
Test Date Oct.26, 2007

Frequency	e'	e''
1850000000	52.1908	14.6389
1855000000	52.1916	14.6424
1860000000	52.1585	14.6683
1865000000	52.1779	14.6878
1870000000	52.1189	14.7403
1875000000	52.1179	14.7274
1880000000	52.1093	14.7501
1885000000	52.0909	14.7815
1890000000	52.0500	14.7789
1895000000	52.0654	14.7947
1900000000	52.0180	14.7839
1905000000	52.0296	14.8104
1910000000	52.0299	14.8038
1915000000	52.0152	14.8359
1920000000	52.0146	14.8552
1925000000	51.9937	14.8320
1930000000	51.9549	14.8754
1935000000	51.9510	14.9014
1940000000	51.9610	14.9185
1945000000	51.9496	14.9156
1950000000	51.9178	14.9603

Attachment 3. – Probe Calibration Data

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Accreditation No.: **SCS 108**

Client **H-CT (Dymstec)**

Certificate No: **ET3-1609_Aug07**

CALIBRATION CERTIFICATE

Object **ET3DV6 - SN:1609**

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

Calibration date: **August 30, 2007**

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 (Calibrated by, Certificate No.)	Scheduled Calibration
Power meter E4419B	GB41283874	29-Mar-07 (METAS, No. 217-00670)	Mar-08
Power sensor E4412A	MY41495277	29-Mar-07 (METAS, No. 217-00670)	Mar-08
Power sensor E4412A	MY41498087	29-Mar-07 (METAS, No. 217-00670)	Mar-08
Reference 3 dB Attenuator	SN: S5054 (3c)	8-Aug-07 (METAS, No. 217-00719)	Aug-08
Reference 20 dB Attenuator	SN: S5086 (20b)	29-Mar-07 (METAS, No. 217-00671)	Mar-08
Reference 30 dB Attenuator	SN: S5129 (30b)	8-Aug-07 (METAS, No. 217-00720)	Aug-08
Reference Probe ES3DV2	SN: 3013	4-Jan-07 (SPEAG, No. ES3-3013_Jan07)	Jan-08
DAE4	SN: 654	20-Apr-07 (SPEAG, No. DAE4-654_Apr07)	Apr-08
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
RF generator HP 8648C	US3642U01700	4-Aug-99 (SPEAG, in house check Nov-05)	in house check: Nov-07
Network Analyzer HP 8753E	US37390685	18-Oct-01 (SPEAG, in house check Oct-06)	in house check: Oct-07

	Name	Function	Signature
Calibrated by:	Katja Pokovic	Technical Manager	
Approved by:	Niels Kuster	Quality Manager	

Issued: August 30, 2007

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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
 ConF 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:

- a) 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
- b) 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.

ET3DV6 SN:1609

August 30, 2007

Probe ET3DV6

SN:1609

Manufactured:	July 21, 2001
Last calibrated:	March 23, 2006
Recalibrated:	August 30, 2007

Calibrated for DASY Systems

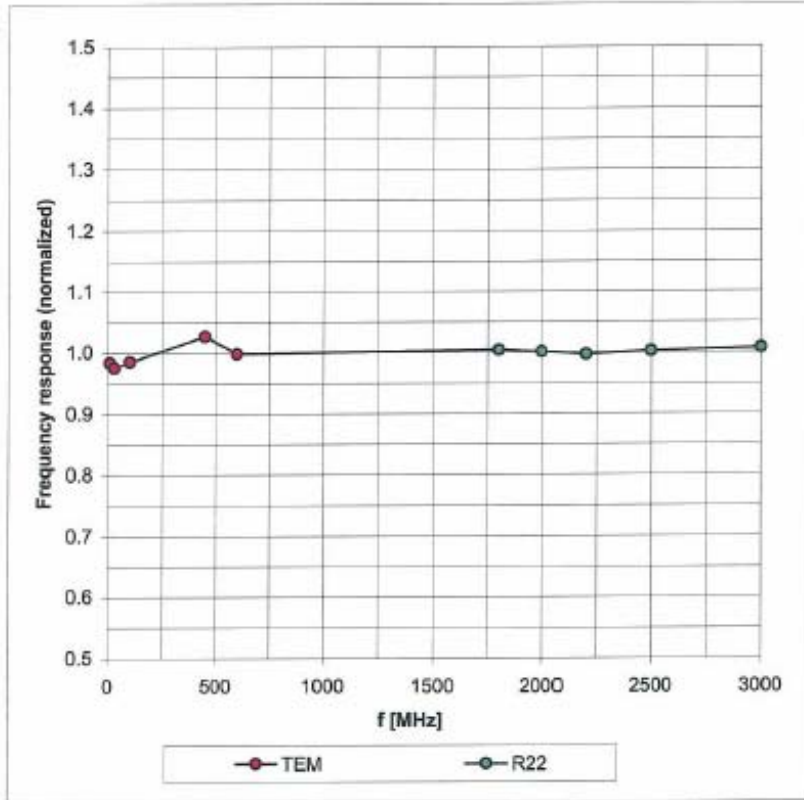
(Note: non-compatible with DASY2 system!)

ET3DV6 SN:1609

August 30, 2007

Frequency Response of E-Field

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

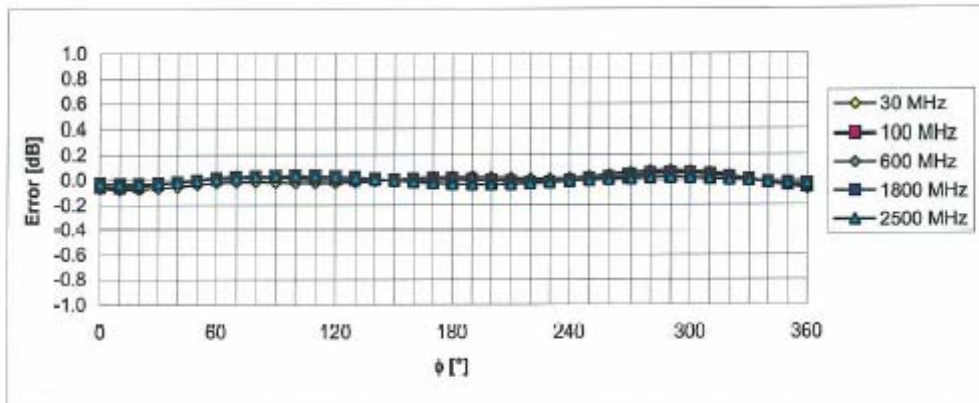
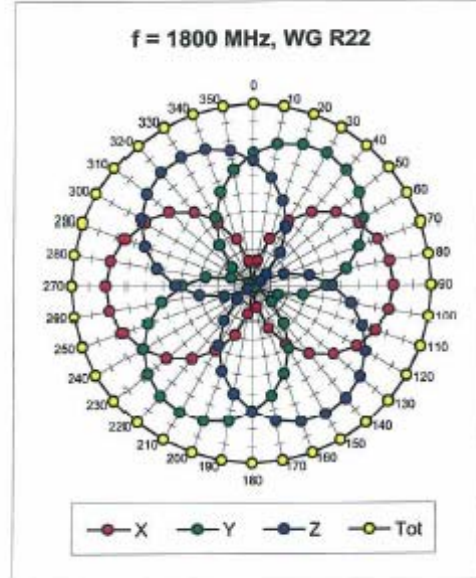
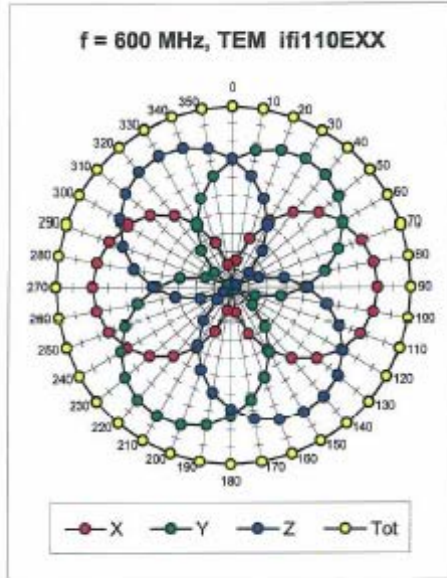


Uncertainty of Frequency Response of E-field: $\pm 6.3\%$ (k=2)

ET3DV6 SN:1609

August 30, 2007

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

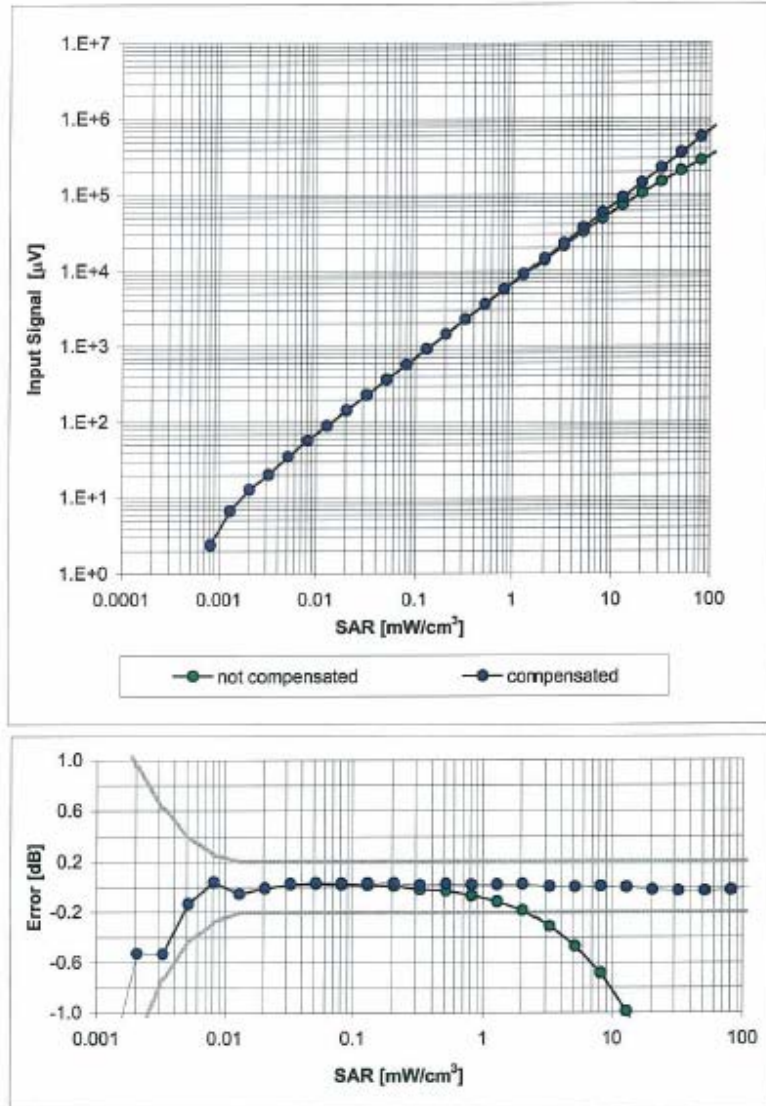


Uncertainty of Axial Isotropy Assessment: $\pm 0.5\%$ (k=2)

ET3DV6 SN:1609

August 30, 2007

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

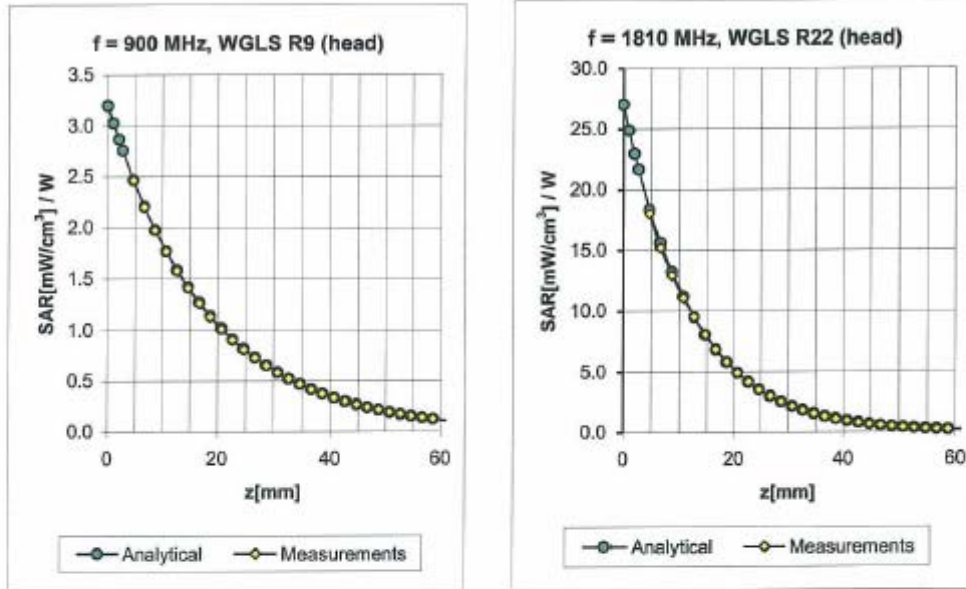


Uncertainty of Linearity Assessment: ± 0.6% (k=2)

ET3DV6 SN:1609

August 30, 2007

Conversion Factor Assessment



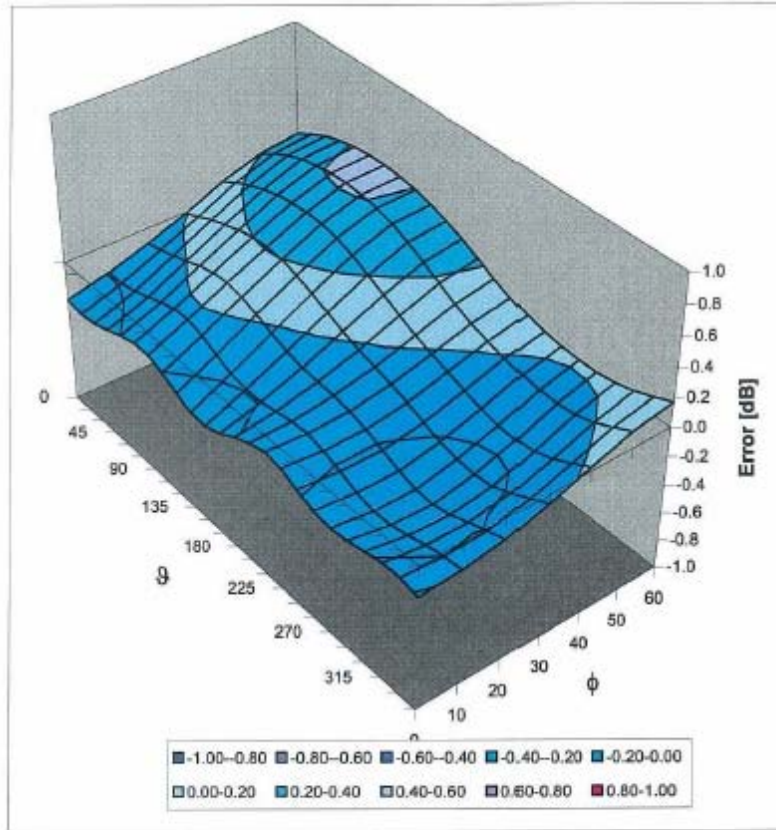
f [MHz]	Validity [MHz] ^c	TSL	Permittivity	Conductivity	Alpha	Depth	ConvF Uncertainty
450	± 50 / ± 100	Head	43.5 ± 5%	0.87 ± 5%	0.37	1.85	7.25 ± 13.3% (k=2)
900	± 50 / ± 100	Head	41.5 ± 5%	0.97 ± 5%	0.36	2.42	6.81 ± 11.0% (k=2)
1810	± 50 / ± 100	Head	40.0 ± 5%	1.40 ± 5%	0.52	2.66	5.36 ± 11.0% (k=2)
1950	± 50 / ± 100	Head	40.0 ± 5%	1.40 ± 5%	0.60	2.50	5.12 ± 11.0% (k=2)
2450	± 50 / ± 100	Head	39.2 ± 5%	1.80 ± 5%	0.69	1.89	4.78 ± 11.8% (k=2)
450	± 50 / ± 100	Body	56.7 ± 5%	0.94 ± 5%	0.31	1.90	7.76 ± 13.3% (k=2)
835	± 50 / ± 100	Body	55.2 ± 5%	0.97 ± 5%	0.35	2.55	6.49 ± 11.0% (k=2)
1900	± 50 / ± 100	Body	53.3 ± 5%	1.52 ± 5%	0.71	2.44	4.74 ± 11.0% (k=2)
2450	± 50 / ± 100	Body	52.7 ± 5%	1.95 ± 5%	0.58	2.37	4.17 ± 11.8% (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.

ET3DV6 SN:1609

August 30, 2007

Deviation from Isotropy in HSL
Error (ϕ, θ), $f = 900$ MHz



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

Attachment 4. – Dipole Calibration Data

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Accreditation No.: **SCS 108**

Client **KTL (Dymstec)**

Certificate No: **D835V2-481_May07**

CALIBRATION CERTIFICATE

Object **D835V2 - SN: 481**

Calibration procedure(s) **QA CAL-05.v6
Calibration procedure for dipole validation kits**

Calibration date: **May 24, 2007**

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 (Calibrated by, Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37480704	03-Oct-06 (METAS, No. 217-00608)	Oct-07
Power sensor HP 8481A	US37292783	03-Oct-06 (METAS, No. 217-00608)	Oct-07
Reference 20 dB Attenuator	SN: 5086 (20g)	10-Aug-06 (METAS, No 217-00591)	Aug-07
Reference 10 dB Attenuator	SN: 5047.2 (10r)	10-Aug-06 (METAS, No 217-00591)	Aug-07
Reference Probe ET3DV6 (HF)	SN 1507	19-Oct-06 (SPEAG, No. ET3-1507_Oct06)	Oct-07
DAE4	SN 601	30-Jan-07 (SPEAG, No. DAE4-601_Jan07)	Jan-08

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power sensor HP 8481A	MY41092317	18-Oct-02 (SPEAG, in house check Oct-06)	In house check: Oct-07
RF generator Agilent E4421B	MY41000675	11-May-05 (SPEAG, in house check Nov-05)	In house check: Nov-07
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (SPEAG, in house check Oct-06)	In house check: Oct-07

	Name	Function	Signature
Calibrated by:	Claudio Leubler	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: May 30, 2007

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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:

- a) 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
- b) 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
- c) 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:

- d) DASy4 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	DASY4	V4.7
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	41.6 ± 6 %	0.90 mho/m ± 6 %
Head TSL temperature during test	(22.0 ± 0.2) °C	---	---

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	2.30 mW / g
SAR normalized	normalized to 1W	9.20 mW / g
SAR for nominal Head TSL parameters ¹	normalized to 1W	9.21 mW / g ± 17.0 % (k=2)

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	1.51 mW / g
SAR normalized	normalized to 1W	6.04 mW / g
SAR for nominal Head TSL parameters ¹	normalized to 1W	6.05 mW / g ± 16.5 % (k=2)

¹ Correction to nominal TSL parameters according to d), chapter "SAR Sensitivities"

Appendix**Antenna Parameters with Head TSL**

Impedance, transformed to feed point	52.8 Ω - 3.3 j Ω
Return Loss	- 27.5 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.394 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	April 23, 2003

DASY4 Validation Report for Head TSL

Date/Time: 24.05.2007 11:49:09

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:481

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

Medium: HSL 900 MHz;

Medium parameters used: $f = 835$ MHz; $\sigma = 0.9$ mho/m; $\epsilon_r = 41.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1507 (HF); ConvF(6.09, 6.09, 6.09); Calibrated: 19.10.2006
- 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 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Pin = 250 mW; d = 15 mm/Zoom Scan (7x7x7)/Cube 0:

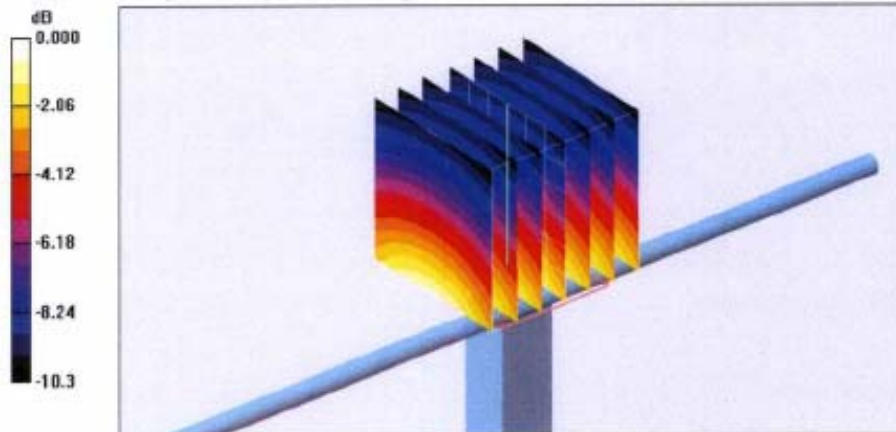
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 55.0 V/m; Power Drift = -0.015 dB

Peak SAR (extrapolated) = 3.30 W/kg

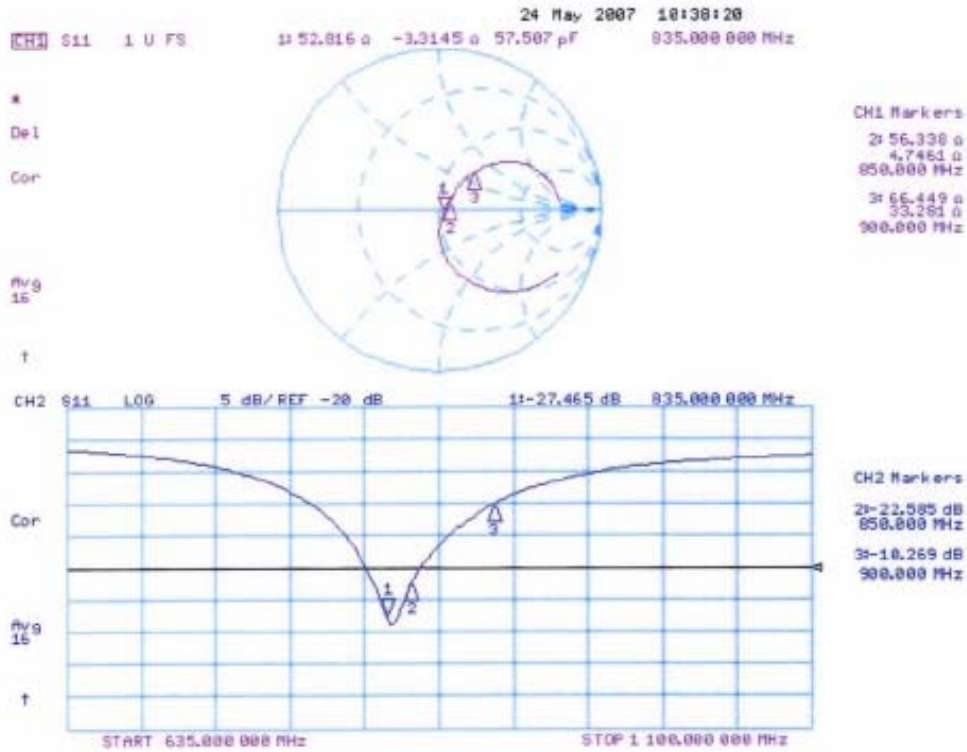
SAR(1 g) = 2.3 mW/g; SAR(10 g) = 1.51 mW/g

Maximum value of SAR (measured) = 2.49 mW/g



0 dB = 2.49mW/g

Impedance Measurement Plot for Head TSL



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Accreditation No.: **SCS 108**

Client **H-CT (Dymstec)**

Certificate No: **D1900V2-5d032_Feb07**

CALIBRATION CERTIFICATE

Object **D1900V2 - SN: 5d032**

Calibration procedure(s) **QA CAL-05.v6**
Calibration procedure for dipole validation kits

Calibration date: **February 20, 2007**

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 (Calibrated by, Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37480704	03-Oct-06 (METAS, No. 217-00608)	Oct-07
Power sensor HP 8481A	US37292783	03-Oct-06 (METAS, No. 217-00608)	Oct-07
Reference 20 dB Attenuator	SN: 5086 (20g)	10-Aug-06 (METAS, No 217-00591)	Aug-07
Reference 10 dB Attenuator	SN: 5047.2 (10r)	10-Aug-06 (METAS, No 217-00591)	Aug-07
Reference Probe ET3DV6	SN: 1507	19-Oct-06 (SPEAG, No. ET3-1507_Oct06)	Oct-07
DAE4	SN 601	30-Jan-07 (SPEAG, No. DAE4-601_Jan07)	Jan-08
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power sensor HP 8481A	MY41092317	18-Oct-02 (SPEAG, in house check Oct-05)	In house check: Oct-07
RF generator Agilent E4421B	MY41000675	11-May-05 (SPEAG, in house check Nov-05)	In house check: Nov-07
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (SPEAG, in house check Oct-06)	In house check: Oct-07

Calibrated by: **Name** Mike Meili **Function** Laboratory Technician **Signature** *M. Meili*

Approved by: **Name** Katja Pokovic **Function** Technical Manager **Signature** *Katja Pokovic*

Issued: February 21, 2007

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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
- CENELEC EN 50361, "Basic standard for the measurement of Specific Absorption Rate related to human exposure to electromagnetic fields from mobile phones (300 MHz - 3 GHz), July 2001
- 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 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

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

DASY Version	DASY4	V4.7
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom V5.0	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	1900 MHz \pm 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	40.0	1.40 mho/m
Measured Head TSL parameters	(22.0 \pm 0.2) °C	38.8 \pm 6 %	1.43 mho/m \pm 6 %
Head TSL temperature during test	(21.0 \pm 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	9.55 mW / g
SAR normalized	normalized to 1W	38.2 mW / g
SAR for nominal Head TSL parameters ¹	normalized to 1W	37.2 mW / g \pm 17.0 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Head TSL	Condition	
SAR measured	250 mW input power	5.03 mW / g
SAR normalized	normalized to 1W	20.1mW / g
SAR for nominal Head TSL parameters ¹	normalized to 1W	19.8 mW / g \pm 16.5 % (k=2)

¹ Correction to nominal TSL parameters according to d), chapter "SAR Sensitivities"

Appendix**Antenna Parameters with Head TSL**

Impedance, transformed to feed point	53.5 Ω + 3.3 j Ω
Return Loss	- 26.6 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.192 ns
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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	March 17, 2003

DASY4 Validation Report for Head TSL

Date/Time: 20.02.2007 14:35:32

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d032

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: HSL U10 BB;

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.43$ mho/m; $\epsilon_r = 38.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1507 (HF); ConvF(4.97, 4.97, 4.97); Calibrated: 19.10.2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 30.01.2007
- Phantom: Flat Phantom 5.0 (front); Type: QD000P50AA
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Pin = 250 mW; d = 10 mm/Zoom Scan (7x7x7)/Cube 0:

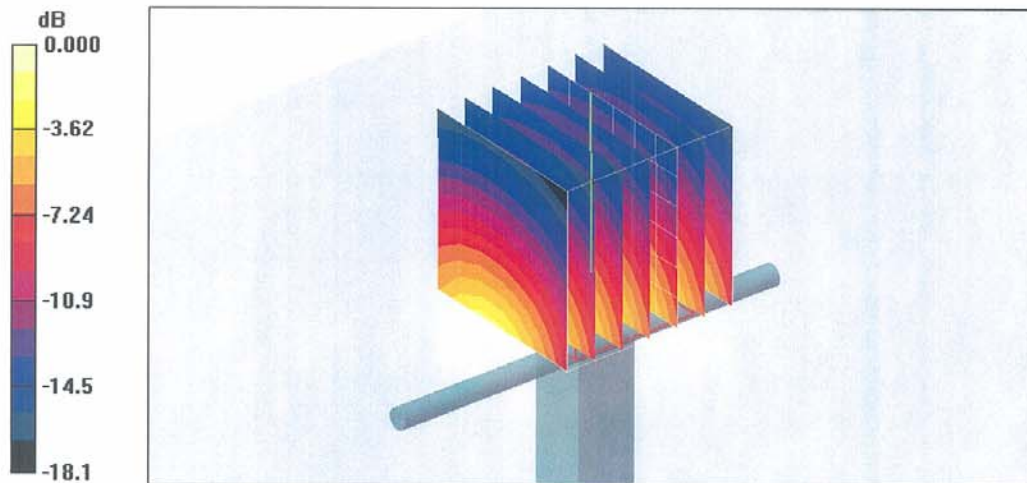
Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 90.3 V/m; Power Drift = 0.006 dB

Peak SAR (extrapolated) = 16.4 W/kg

SAR(1 g) = 9.55 mW/g; SAR(10 g) = 5.03 mW/g

Maximum value of SAR (measured) = 10.5 mW/g



Impedance Measurement Plot for Head TSL

