# 11. Photos of test setup

## 11.1 Photos of DUT

**Figure 11-1 External View of Notebook (closed)**

**Figure 11-2 External View of Notebook (open)**

**Figure 11-3 Bottom view of notebook showing WWAN module location**

**Figure 11-4 Photos of DUT positioned under Phantom**

# 12. System Check

## 12.1 General System Check Procedure

System check scans were performed prior to testing of each different medium used. Prior to installing a body medium, a system check scan is performed using a corresponding body medium. A validation dipole antenna was selected that roughly matched the center frequency of the band being tested. A CW sine wave with a matching frequency is then applied to the antenna from a signal generator through an amplifier for a power level of 250 mW (20 dBm). Measured data is scaled to 30 dBm to correspond with values provided by manufacturer's calibration data. System check SAR has a tolerance of ±10%.

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

## 12.2 System Check Data

Table 12-1 shows system check data for the respective days of the test program.

**Table 12-1 SAR System Check Data Gobi2000 Test Program (Body TSL)**

| | | 1 g SAR (mW/g) | | | |
|---|---|---|---|---|---|
| Date | Frequency (MHz) | Measured | Scaled to 30 dBm | Target | Difference (%) |
| 7/14/2009 | 1900 | 3.94 | 39.4 | 37.3 | +5.6% |
| 7/15/2009 | 835 | 1.07 | 10.7 | 9.8 | +9.2% |

The following pages show system check plots for the respective days of the test program.

## 12.3 835 MHz System Check

Date/Time: 7/15/2009 12:28:35 PMDate/Time: 7/15/2009 12:34:59 PM

Test Laboratory: QUALCOMM Incorporated
File Name: 20090714_Val835_20dBm.da5

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:466
Program Name: System Performance Check at 900 MHz

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 835 MHz; σ = 0.954 mho/m; εr = 55.7; ρ = 1000 kg/m3
Phantom section: Flat Section

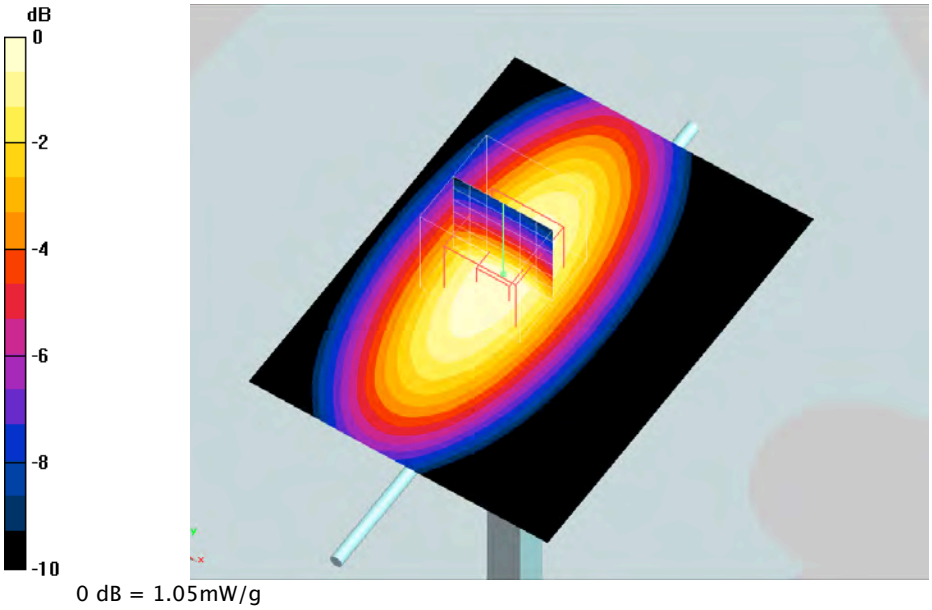
DASY4 Configuration:
- Probe: ET3DV6 - SN1543; ConvF(5.85, 5.85, 5.85); Calibrated: 4/23/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn400; Calibrated: 2/9/2009
- Phantom: SAM with CRP; Type: SAM; Serial: Not Specified
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.4 Build 125

d=15mm, Pin=20 dBm, dist=4.0mm (ET-Probe)/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 1.06 mW/g

d=15mm, Pin=20 dBm, dist=4.0mm (ET-Probe)/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 34.1 V/m; Power Drift = -0.227 dB
Peak SAR (extrapolated) = 1.39 W/kg
SAR(1 g) = 1.07 mW/g; SAR(10 g) = 0.684 mW/g

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 1.05 mW/g




0 dB = 1.05mW/g

## 12.4 1900 MHz System Check

Date/Time: 7/14/2009 10:33:25 AMDate/Time: 7/14/2009 10:39:50 AM

Test Laboratory: QUALCOMM Incorporated
File Name: 20090709_Val1900_20dBm.da5

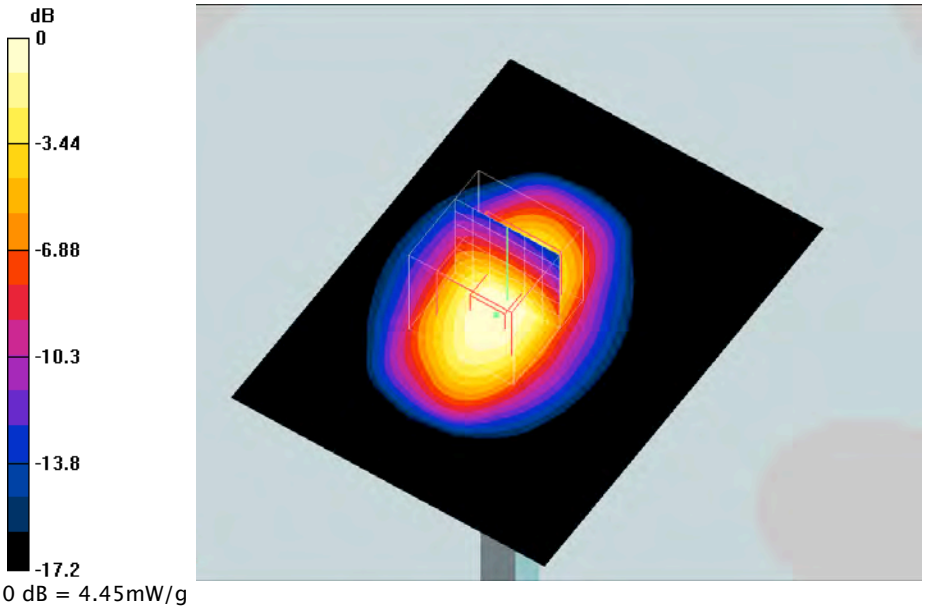
DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d019
Program Name: System Performance Check at 1900 MHz

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; $\sigma$ = 1.57 mho/m; $\varepsilon r$ = 52.9; $\rho$ = 1000 kg/m3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1543; ConvF(4.33, 4.33, 4.33); Calibrated: 4/23/2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn400; Calibrated: 2/9/2009
- Phantom: SAM with CRP; Type: SAM; Serial: Not Specified
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.4 Build 125

d=15mm, Pin=20 dBm, dist=4.0mm (ET-Probe)/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 4.91 mW/g

d=15mm, Pin=20 dBm, dist=4.0mm (ET-Probe)/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 58.3 V/m; Power Drift = -0.066 dB
Peak SAR (extrapolated) = 6.45 W/kg
SAR(1 g) = 3.94 mW/g; SAR(10 g) = 2.11 mW/g
Maximum value of SAR (measured) = 4.45 mW/g




0 dB = 4.45mW/g

# 13. SAR Plot Reports

The following pages show DASY5-generated data and plots.

## 13.1 EV-DO r0 (PCS band)

Date/Time: 7/15/2009 11:03:35 AMDate/Time: 7/15/2009 11:20:40 AM

Test Laboratory: QUALCOMM Incorporated
File Name: 20090714_GOBI2000-Bear_EVDOr0-PCS.da5

DUT: Dell model Inspiron mini 10; Type: Laptop; Serial: 8564058109
Program Name: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: CDMA PCS; Frequency: 1908.75 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1908.75 MHz; $\sigma$ = 1.58 mho/m; $\varepsilon r$ = 52.9; $\rho$ = 1000 kg/m3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6 - SN1543; ConvF(4.58, 4.58, 4.58); Calibrated: 4/18/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn400; Calibrated: 2/9/2009
- Phantom: SAM with CRP; Type: SAM; Serial: Not Specified
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.4 Build 125

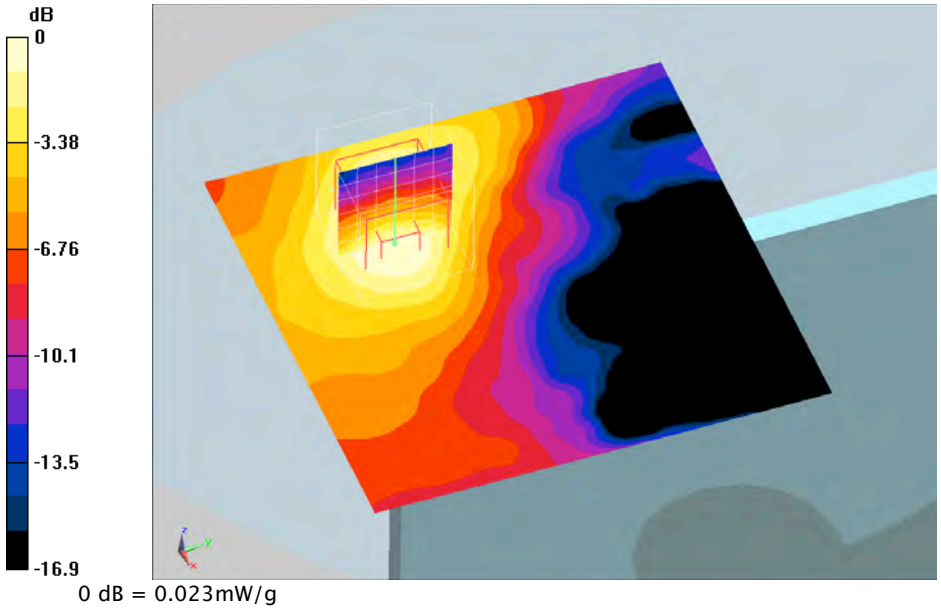
Lapheld - High/Area Scan (121x121x1): Measurement grid: dx=10mm, dy=10mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.025 mW/g

Lapheld - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 0.432 V/m; Power Drift = 3.6 dB
Peak SAR (extrapolated) = 0.036 W/kg
SAR(1 g) = 0.021 mW/g; SAR(10 g) = 0.012 mW/g

Info: Interpolated medium parameters used for SAR evaluation.

Warning: Maximum averaged SAR over 10 g is located on the boundary of the measurement cube. This cube might not incorporate the absolute averaged SAR. Please consider a refinement of the Area Scan measurement.
Maximum value of SAR (measured) = 0.023 mW/g




0 dB = 0.023mW/g

## 13.2 GPRS-2UL (Cell band)

Date/Time: 7/15/2009 5:02:45 PMDate/Time: 7/15/2009 5:19:55 PM

Test Laboratory: QUALCOMM Incorporated
File Name: 20090715_GOBI2000-Bear_GPRS2UL-CELL.da5

DUT: Dell model Inspiron mini 10; Type: Laptop; Serial: 8564058109
Program Name: Compliance Testing: P1528 Protocol (Left-Hand Side)

Communication System: US GSM-GPRS850-2UL; Frequency: 848.8 MHz;Duty Cycle: 1:4.1
Medium parameters used (interpolated): f = 848.8 MHz; $\sigma$ = 0.968 mho/m; $\varepsilon r$ = 55.5; $\rho$ = 1000 kg/m3
Phantom section: Flat Section

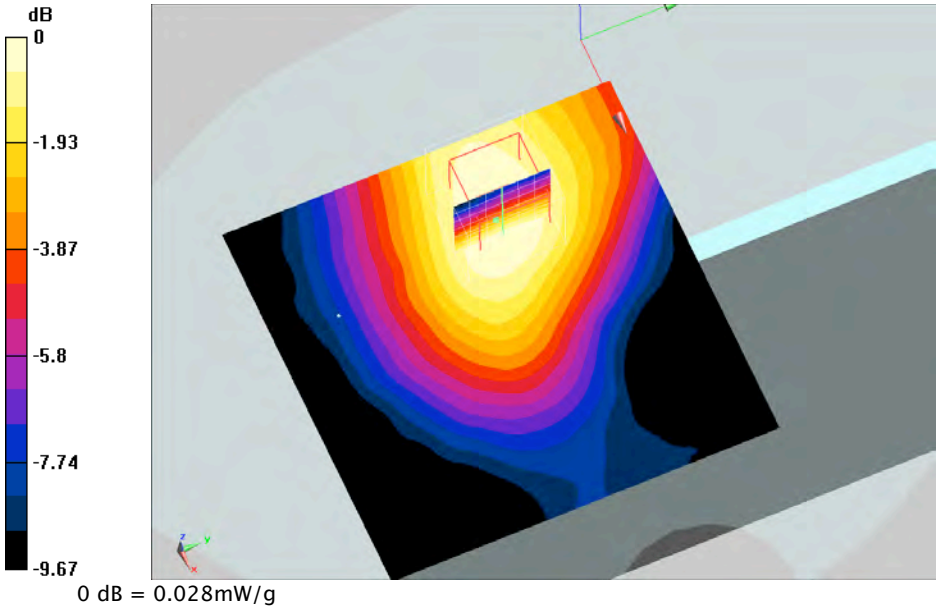
DASY4 Configuration:
- Probe: ET3DV6 - SN1543; ConvF(6.18, 6.18, 6.18); Calibrated: 4/18/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn400; Calibrated: 2/9/2009
- Phantom: SAM with CRP; Type: SAM; Serial: Not Specified
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.4 Build 125

Lapheld - High/Area Scan (121x121x1): Measurement grid: dx=10mm, dy=10mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (interpolated) = 0.028 mW/g

Lapheld - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.74 V/m; Power Drift = -0.183 dB
Peak SAR (extrapolated) = 0.036 W/kg
SAR(1 g) = 0.027 mW/g; SAR(10 g) = 0.020 mW/g

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 0.028 mW/g




0 dB = 0.028mW/g