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8. Validation Data

8.1 General Validation Procedure

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

8.2 Validation Data

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

Table 8-1 SAR Validation Data UNDP-1 Test Program

				1 g SAR (mW/g)		
Date	**Frequency (MHz)**	**Permittivity (ε_r)**	**Conductivity (σ)**	**Measured**	**Target**	**Difference (%)**
03/03/2008	835	54.2	0.966	9.46	9.52	+0.7
03/03/2008	1900	51.6	1.54	40.53	37.8	+7.2

Validation plots are in Section 13.

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9. Test Result Summary

9.1 Numerical Data

Table 9-1 shows the 1 g SAR test data for the 2 frequency bands tested.

Table 9-1 ML3/T400 Measured SAR Results

Mode	Band	Channel	Freq	Drift (dB)	Measured 1g SAR (mW/g)
GPRS 2UL	Cell	251	848.8	0.151	0.081
CDMA DO Ro 153k	PCS	1175	1908.75	0.153	0.094

Table 9-2 C5/T500 Measured SAR Results

Mode	Band	Channel	Freq	Drift (dB)	Measured 1g SAR (mW/g)
GPRS 2UL	Cell	251	848.8	0.213	0.056
CDMA DO Ro 153k	PCS	1175	1908.75	0.055	0.049

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10. Measurement Uncertainty

The possible errors included in this measurement arise from device positioning uncertainty, device manufacturing uncertainty, liquid dielectric permittivity uncertainty, liquid dielectric conductivity uncertainty, and uncertainty due to disturbance of the fields by the probe.

Table 10-1 Measurement Uncertainty

	Uncertainty value (± %)	Prob. DIST	Div.	(ci) 1g	(ci) 10g	Std. Unc. (1g) (± %)	Std. Unc. (10g)	(vi) veff
Measurement System								
Probe Calibration	4.8	N	1	1	1	4.8	4.8	∞
Axial Isotropy	4.7	R	√3	0.7	0.7	1.9	1.9	∞
Hemispherical Isotropy	9.6	R	√3	0.7	0.7	3.9	3.9	∞
Boundary Effects	1	R	√3	1	1	0.6	0.6	∞
Linearity	4.7	R	√3	1	1	2.7	2.7	∞
System Detection Limits	1	R	√3	1	1	0.6	0.6	∞
Readout Electronics	1	N	1	1	1	1.0	1.0	∞
Response Time	0.8	R	√3	1	1	0.5	0.5	∞
Integration Time	2.6	R	√3	1	1	1.5	1.5	∞
RF Ambient Conditions	3	R	√3	1	1	1.7	1.7	∞
Probe Positioner	0.4	R	√3	1	1	0.2	0.2	∞
Probe Positioning	2.9	R	√3	1	1	1.7	1.7	∞
Max. SAR Eval.	1	R	√3	1	1	0.6	0.6	∞
Test Sample Related								
Device Positioning	2.9	N	1	1	1	2.9	2.9	145
Device Holder	3.6	N	1	1	1	3.6	3.6	5
Power Drift	5	R	√3	1	1	2.9	2.9	∞
Phantom and Setup								
Phantom Uncertainty	4	R	√3	1	1	2.3	2.3	∞
Liquid Conductivity (target)	5	R	√3	0.64	0.43	1.8	1.2	∞
Liquid Conductivity (meas.)	2.5	N	1	0.64	0.43	1.6	1.1	∞
Liquid Permittivity (target)	5	R	√3	0.6	0.49	1.7	1.4	∞
Liquid Permittivity (meas.)	2.5	N	1	0.6	0.49	1.5	1.2	∞
Combined Std. Uncertainty						10.3 %	10.0 %	330
Expanded STD Uncertainty						**20.6 %**	**20.1 %**	

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11. EUT Configuration Procedure

11.1 EUT Test Frequencies

Table 11-1 Test Frequencies

	850 MHz						1900 MHz					
	Low		Mid		High		Low		Mid		High	
	Ch	Freq	Ch	Freq	Ch	Freq	Ch	Freq	Ch	Freq	Ch	Freq
GSM	128	824.2	190	836.6	251	848.8	512	1850.2	661	1880	810	1909.8
CDMA	1013	824.7	384	836.52	777	848.31	25	1851.25	600	1880	1175	1908.75
WCDMA	UL: 4132 DL: 4357	826.4	UL: 4182 DL: 4407	836.4	UL: 4233 DL: 4458	846.6	UL: 9262 DL: 9847	1852.4	UL: 9400 DL: 9800	1880	UL: 9538 DL: 9763	1907.6

11.2 Call Box Simulator Information

Table 11-2 Communications Test Box Information

Make	Agilent	
Model	8960	
Cal Date	6/17/2007	
Serial Number	GB44052409	
SW Revision	GSM TA GPRS TA EGPRS TA WCDMA HSDPA TEST MODES HSuPA TEST MODES cdma 2000 TA 1xEV-DO TA 1xEV-DO FTM TA 1xEV-DO Release A 1xEV-DO RelA FTM	E1968A-101 E1968A-102 E1968A-103 E1963A E1963A-403 E1963A-413 E1962B E1966A E1976A E1966A-102 E1976A-102

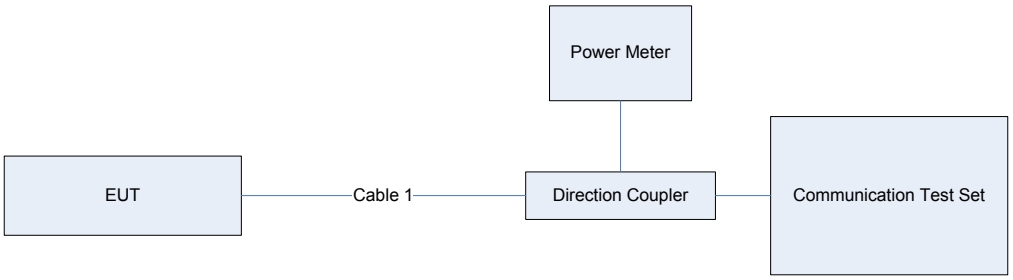
11.3 RF Power Measurement Procedure

11.3.1 Test Setup

Connect the transmitter output to communications test set as shown in Figure 11-1 and configure the EUT to operate at maximum power in a call per procedures defined in sections 11.4 . Measure the conducted transmit power at the frequencies defined in 11.1 .

Power measurements are completed using a power meter configured to measure average power. The cable loss must be measured for the specific frequencies under test and added as a correction factor for all the tests.

Figure 11-1 RF Output Power Test Setup



11.4 Base Station Emulator Settings and Test Procedures

11.4.1 For CDMA2000 1x/EVDO

Use CDMA2000 Rev 6 protocol in the call box.

1) Test for Reverse/Forward TCH RC1, Reverse/Forward TCH RC2, and RC3 Reverse FCH and demodulation of RC 3, 4 or 5.
    a. Set up a call using Fundamental Channel Test Mode 1 (RC1, SO 2) with 9600 bps data rate only.
    b. As per C.S0011 or TIA/EIA-98-F Table 4.4.5.2-1, set the test parameters as shown in Table 11-3.
    c. Send continuously ‘0’ power control bits to the UNDP-1.
    d. Measure the output power at UNDP-1 antenna connector as recorded on the power meter with values corrected for cables losses.
    e. Repeat step b through d for Fundamental Channel Test Mode:
        i. RC1, SO55
        ii. RC2, SO9
        iii. RC2, SO55

iv. RC3, SO55

2) Test for RC 3 Reverse FCH, RC3 Reverse SCH0 and demodulation of RC 3, 4 or 5.
   a. Set up a call using Supplemental Channel Test Mode 3 (RC 3, SO 32) with 9600 bps Fundamental Channel and 9600 bps SCH0 data rate.
   b. As per C.S0011 or TIA/EIA-98-F Table 4.4.5.2-2, set the test parameters as shown in Table 11-4.
   c. Send alternating '0' and '1' power control bit to the UNDP-1
   d. Determine the active channel configuration. If the desired channel configuration is not the active channel configuration, increase $\hat{I}_{or}$ by 1 dB and repeat the verification. Repeat this step until the desired channel configuration becomes active.
   e. Measure the output power at the UNDP-1 antenna connector.
   f. Decrease $\hat{I}_{or}$ by 0.5 dB.
   g. Determine the active channel configuration. If the active channel configuration is the desired channel configuration, measure the output power at the UNDP-1 antenna connector.
   h. Repeat step f and g until the output power no longer increases or the desired channel configuration is no longer active. Record the highest output power achieved with the desired channel configuration active.
   i. Repeat step a through h ten times and average the result.

3) Test for RC3 Reverse FCH, RC 3 DCCH and demodulation of RC3, 4 or 5.
   a. Use the same procedure as described in 2).

Table 11-3 Parameters for Max. Power with a single traffic code channel, SR1

Parameter	Units	Value
$\hat{I}_{or}$	dBm/1.23 MHz	-104
$\frac{\text{Pilot } E_c}{I_{or}}$	dB	-7
$\frac{\text{Traffic } E_c}{I_{or}}$	dB	-7.4

Table 11-4 Parameters for Max. Power with multiple traffic code channel, SR1

Parameter	Units	Value
$\frac{\text{Pilot } E_c}{I_{or}}$	dB	-7
$\frac{\text{Traffic } E_c}{I_{or}}$	dB	-7.4

1xEV-DO

1) Use 1xEV-DO Rel 0 protocol in the call box.

    a. RTAP

        - Select Test Application Protocol to RTAP
        - Set RTAP Rate to 9.6 kbps
        - Generator Info -> Termination Parameters -> Max Forward Packet Duration -> 16 Slots
        - Set Îor to -60 dBm/1.23 MHz
        - Send continuously '0' power control bits
        - Measure the power at UNDP-1 antenna connector
        - Repeat above steps for RTAP Rate = 19.2 kbps, 38.4 kbps, 76.8 kbps and 153.6 kbps respectively

2) Use 1xEV-DO Rev A protocol in the call box.

    a. RETAP

        - Select Test Application Protocol to RETAP
        - F-Traffic Format -> 4 (1024, 2, 128) Canonical (307.2k, QPSK)
        - Set R-Data Pkt Size to 128
        - Protocol Subtype Config -> Release A Physical Layer Subtype -> Subtype 2
          ->PL Subtype 2 Access Channel MAC Subtype -> Default (Subtype 0)
        - Generator Info -> Termination Parameters -> Max Forward Packet Duration -> 16 Slots
          ->ACK R-Data After -> Subpacket 0 (All ACK)
        - Set Îor to -60 dBm/1.23 MHz
        - Send continuously '0' power control bits
        - Measure the power at UNDP-1 antenna connector
        - Repeat above steps for R-Data Pkt Size = 256, 512, 768, 1024, 1536, 2048, 3072, 4096, 6144, 8192, 12288 respectively.
        - Repeat above steps for R-Data Pkt Size = 256, 512, 768, 1024, 1536, 2048, 3072, 4096, 6144, 8192, 12288 respectively.

11.4.2 For WCDMA/HSDPA/HSUPA

Configure the call box to support all WCDMA tests in respect to the 3GPP 34.121 (listed in Table 11-5).

Rel99

1) Set a Test Mode 1 loop back with a 12.2kbps Reference Measurement Channel (RMC)
2) Set and send continuously Up power control commands to the UNDP-1

HSDPA Rel 6

1) Establish a Test Mode 1 look back with both 1 12.2kbps RMC channel and a H-Set1 Fixed Reference Channel (FRC). With the 8820 this is accomplished by setting the signal Channel Coding to "Fixed Reference Channel" and configuring for HSET-1 QKSP.
2) Set beta values and HSDPA settings for HSDPA Sebtest1 according to Table 11-5
3) Send continuously Up power control commands to the UNDP-1
4) Measure the power at the UNDP-1 antenna connector using the power meter with modulated average detector

5) Repeat the measurement for the HSDPA Subtest2, 3 and 4 as given in Table 11-5

HSUPA Rel 6

1) Use UL RMC 12.2kbps and FRC H-Set1 QPSK, Test Mode 1 loop back. With the 8820 this is accomplished by setting the signal Channel Coding to "E-DCH Test Channel" and configuring the equipment category to Cat6_10ms.
2) Set the Absolute Grant for HSUPA Subtest1 according to Table 11-5
3) Set the UNDP power to be at least 5dB lower than the Maximum output power
4) Send power control bits to give one TPC_cmd = +1 command to the UNDP. If UNDP doesn't send any E-DPCH data with decreased E-TFCI within 500ms, then repeat this process until the decreased E-TFCI is reported.
5) Confirm that the E-TFCI transmitted by the UNDP is equal to the target E-TFCI in Table 11-5. If the E-TFCI transmitted by the UNDP is not equal to the target E-TFCI, then send power control bits to give one TPC_cmd = -1 command to the UE. If UE sends any E-DPCH data with decreased E-TFCI within 500 ms, send new power control bits to give one TPC_cmd = -1 command to the UE. Then confirm that the E-TFCI transmitted by the UE is equal to the target E-TFCI in Table 11-5. If the E-TFCI transmitted by the UE is not equal to the target E-TFCI, then fail the UE
6) Repeat the measurement for the HSUPA Subtest2, 3, 4 and 5 as given in Table 11-5

Table 11-5 3GPP Rel99/HSPA Subtest Settings

	Mode	Rel99	Rel6 HSDPA	Rel6 HSDPA	Rel6 HSDPA	Rel6 HSDPA	Rel6 HSUPA	Rel6 HSUPA	Rel6 HSUPA	Rel6 HSUPA	Rel6 HSUPA
	Subtest	-	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**5**
WCDMA General Settings	Loopback Mode	Test Mode 1	Test Mode 1				Test Mode 1				
	Rel99 RMC	12.2kbps RMC	12.2kbps RMC				12.2kbps RMC				
	HSDPA FRC	Not Applicable	H-Set1				H-Set1				
	HSUPA Test	Not Applicable	Not Applicable				HSUPA Loopback				
	Power Control Algorithm	Algorithm2	Algorithm2				Algorithm2				
	βc	Not Applicable	2/15	12/15	15/15	15/15	11/15	6/15	15/15	2/15	15/15
	βd	Not Applicable	15/15	15/15	8/15	4/15	15/15	15/15	9/15	15/15	15/15
	βec	Not Applicable	-	-	-	-	209/225	12/15	30/15	2/15	24/15
	βc/βd	8/15	2/15	12/15	15/8	15/4	11/15	6/15	15/9	2/15	15/15
	βhs	Not Applicable	4/15	24/15	30/15	30/15	22/15	12/15	30/15	4/15	30/15
	βed	Not Applicable	Not Applicable				1309/225	94/75	47/15 47/15	56/75	134/15
HSDPA Specific Settings	DACK	Not Applicable	8				8				
	DNAK	Not Applicable	8				8				
	DCQI	Not Applicable	8				8				
	Ack-Nack repetition factor	Not Applicable	3				3				
	CQI Feedback (Table 5.2B.4)	Not Applicable	4ms				4ms				
	CQI Repetition Factor (Table 5.2B.4)	Not Applicable	2				2				
	Ahs = βhs/βc	Not Applicable	30/15				30/15				
HSUPA Specific Settings	D E-DPCCH	Not Applicable	Not Applicable				6	8	8	5	7
	DHARQ	Not Applicable	Not Applicable				0	0	0	0	0
	AG Index	Not Applicable	Not Applicable				20	12	15	17	21
	ETFCI (from 34.121 Table C.11.1.3)	Not Applicable	Not Applicable				75	67	92	71	81
	Associated Max UL Data Rate kbps	Not Applicable	Not Applicable				242.1	174.9	482.8	205.8	308.9
	Reference E_TFCIs	Not Applicable	Not Applicable				E-TFCI 11 E-TFCI PO 4 E-TFCI 67 E-TFCI PO 18 E-TFCI 71 E-TFCI PO 23 E-TFCI 75 E-TFCI PO 26 E-TFCI 81 E-TFCI PO 27		E-TFCI 11 E-TFCI PO 4 E-TFCI 67 E-TFCI PO 18 E-TFCI 71 E-TFCI PO 23 E-TFCI 75 E-TFCI PO 26 E-TFCI 81 E-TFCI PO 27		

11.4.3 For GSM/GPRS/EGDE

- Configure the call box to support GPRS test.
- Configure for desired number of uplink transmit lots.
- Set MS_TX level to 0 (850 MHz) or 2 (1900MHz) to configure EUT to transmit at maximum output power.

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12. Photos of test setup

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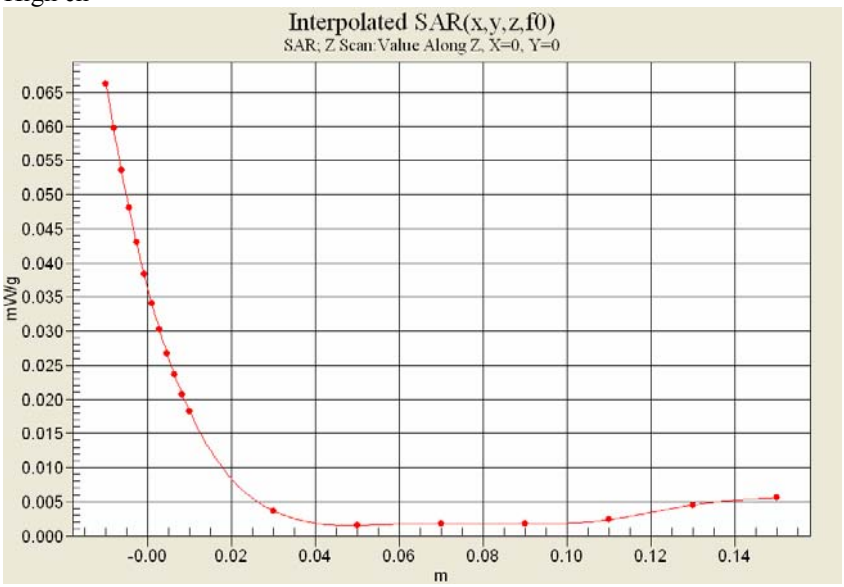
13. Validation Plots

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

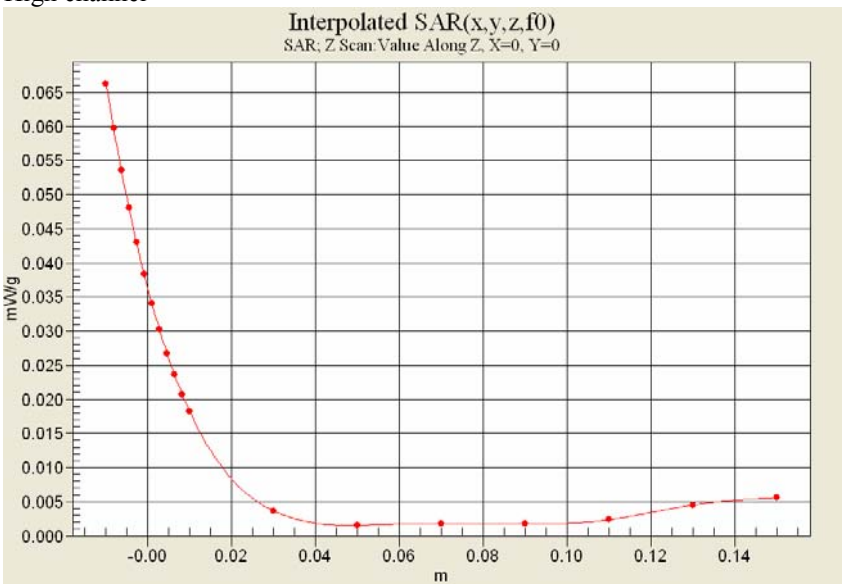
13.1 PCS band Z-Scan Plots

High ch



13.2 Cell band Z-Scan Plots

High channel



13.3 Validation Plots

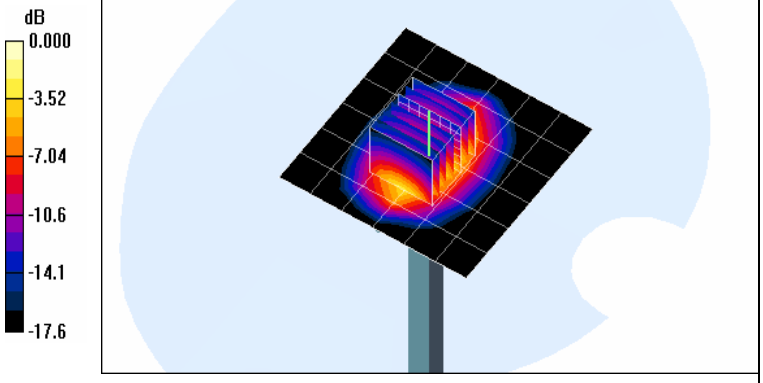
System Performance Check				
Frequency	T_{LIQ}	T_{AMB}	Humidity	1900 MHz, Input=20 dBm
835 MHz	23.5	23.7	30%	

Date/Time: 3/3/2008 9:43:48 AM
Test Laboratory: QUALCOMM Incorporated

20080303_Val1900_20dBm_muscle

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d019
Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: MSL1800 Medium parameters used (interpolated): f = 1900 MHz; σ = 1.54 mho/m; ε_r = 51.6; ρ = 1000 kg/m^3
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 Sn566; Calibrated: 4/11/2007
- Phantom: SAM with CRP; Type: SAM;
- Measurement SW: DASY4, V4.7 Build 55;



0 dB = 4.67 mW/g

d=10mm, Pin=20 dBm/Area Scan (15x15x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 4.67 mW/g

SAR(1 g) = 4.13 mW/g
SAR(10 g) = 2.19 mW/g

d=10mm, Pin=20 dBm/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 56.6 V/m;
Power Drift = -0.110 dB
Peak SAR (extrapolated) = 7.10 W/kg
Maximum value of SAR (measured) = 4.67 mW/g

Target 1 g SAR scaled to 30 dBm, normalized to nominal tissue values: **37.8 mW/g**

Measured 1 g SAR scaled to 30 dBm, normalized to nominal tissue values: **40.53 mW/g (+7.2%)**

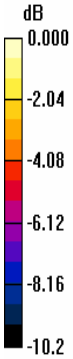
System Performance Check

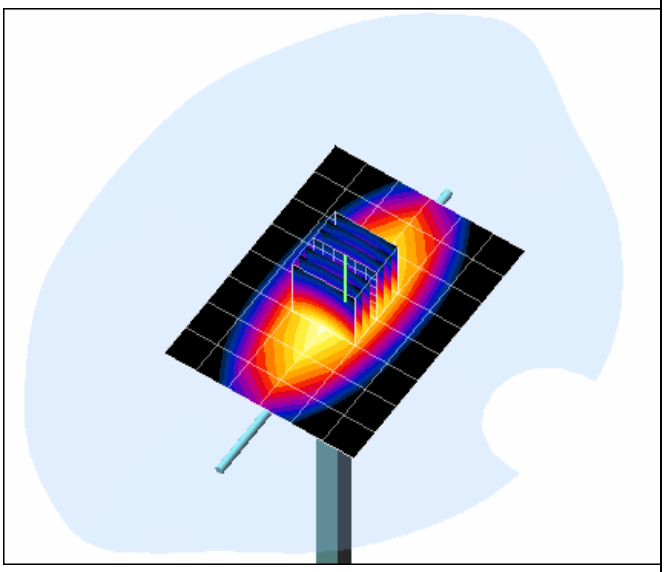
Frequency	T_{LIQ}	T_{AMB}	Humidity	835 MHz, Input=20 dBm
835 MHz	23.3	23.7	30%	

Date/Time: 3/3/2008 3:20:14 PM
Test Laboratory:
QUALCOMM Incorporated

200800303_Val835_20dBm_muscle
DUT: Dipole 835 MHz; Type: D835V2;
Serial: D835V2 - SN:465
Communication System: CW;
Frequency: 835 MHz;Duty Cycle: 1:1
Medium: MSL835 Medium parameters used (interpolated): f = 835 MHz; σ = 0.966 mho/m; ε_r = 54.2; ρ = 1000 kg/m^3
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 Sn566; Calibrated: 4/11/2007
- Phantom: SAM with CRP; Type: SAM;
- Measurement SW: DASY4, V4.7 Build 55;





0 dB = 1.04 mW/g

d=15mm, Pin=20 dBm/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.03 mW/g

d=15mm, Pin=20 dBm/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 32.8 V/m; Power Drift = -0.034 dB
Peak SAR (extrapolated) = 1.39 W/kg
Maximum value of SAR (measured) = 1.04 mW/g

SAR(1 g) = 0.955 mW/g
SAR(10 g) = 0.624 mW/g

Target 1 g SAR scaled to 30 dBm, normalized to nominal tissue values: **9.52 mW/g**

Measured 1 g SAR scaled to 30 dBm, normalized to nominal tissue values: **9.46 mW/g (-0.6%)**

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14. SAR Results Plots

14.1 T400 835 MHz Band

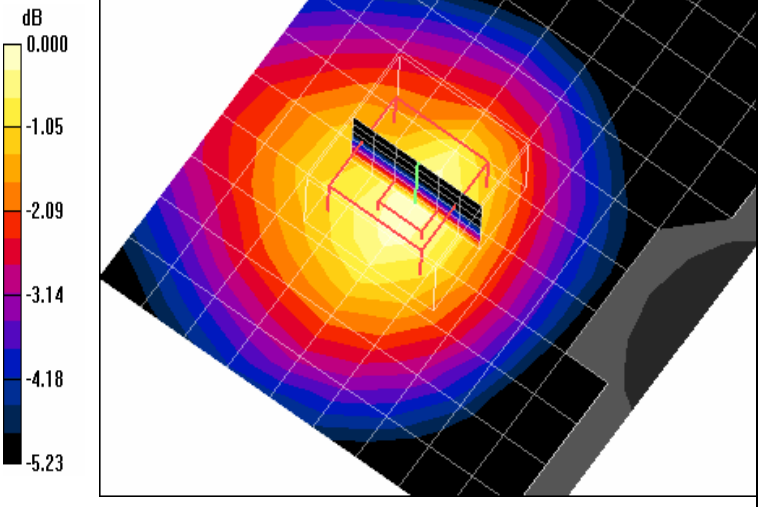
GPRS-US 850				
Channel	T_{LIQ}	T_{AMB}	Humidity	High Channel
251	23.3°C	23.7°C	30%	

Date/Time: 3/4/2008 9:36:45 PM
Test Laboratory: QUALCOMM Incorporated

20080304_UNDP-1_GPRS_2UL
DUT: Lenovo P/N T400; Type: Laptop; Serial: ZZC3240
Communication System: US GSM-GPRS850-2UL; Frequency: 848.8 MHz;Duty Cycle: 1:4.3
Medium: MSL835 Medium parameters used (extrapolated): f = 848.8 MHz; σ = 0.98 mho/m; ε_r = 54.1; ρ = 1000 kg/m^3
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 Sn566; Calibrated: 4/11/2007
- Phantom: SAM with CRP; Type: SAM;
- Measurement SW: DASY4, V4.7 Build 55;

Lapheld, antenna on left - High/Area Scan (10x13x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.088 mW/g
Lapheld, antenna on left - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0:
Reference Value = 7.20 V/m; Power Drift = 0.151 dB
Peak SAR (extrapolated) = 0.122 W/kg



0 dB = 0.088 mW/g

Limit (1 g) = 1.6 mW/g

SAR(1 g) = 0.081 mW/g
SAR(10 g) = 0.056 mW/g

14.2 T400 1900 MHz

CDMA 1x – Band Class 1

Channel	T_{LIQ}	T_{AMB}	Humidity	High Channel
1175	23.5°C	23.7°C	30%	

Date/Time: 3/3/2008 11:44:41 AM

Test Laboratory: QUALCOMM Incorporated

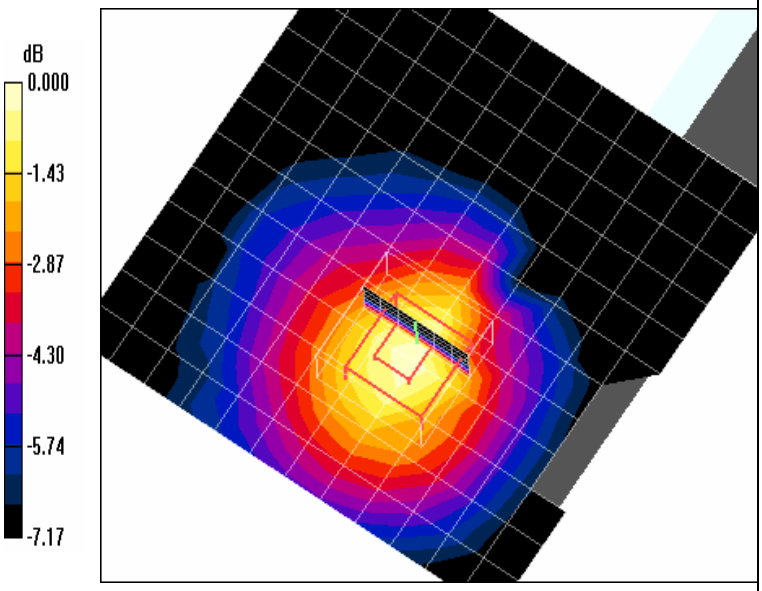
20080303_UNDP-1_1x-PCS
DUT: Lenovo P/N T400; Type: Laptop; Serial: ZZC3240

Communication System: CDMA DO PCS; Frequency: 1908.75 MHz;Duty Cycle: 1:1
Medium: MSL1800 Medium parameters used: f = 1908.75 MHz; σ = 1.55 mho/m; ε_r = 51.6; ρ = 1000 kg/m^3
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 Sn566; Calibrated: 4/11/2007
- Phantom: SAM with CRP; Type: SAM;
- Measurement SW: DASY4, V4.7 Build 55;

Lapheld, antenna on left - High/Area Scan (13x13x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.105 mW/g
Lapheld, antenna on left - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.85 V/m; Power Drift = -0.153 dB
Peak SAR (extrapolated) = 0.143 W/kg



0 dB = 0.105 mW/g

Limit (1 g) = 1.6 mW/g

SAR(1 g) = 0.094 mW/g
SAR(10 g) = 0.059 mW/g

14.3 T500 835 MHz Band

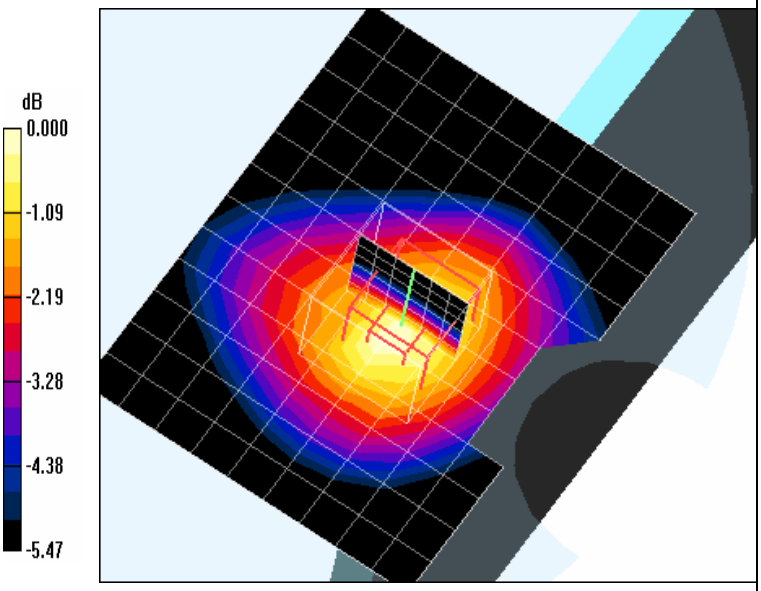
GPRS-US 850				
Channel	T_{LIQ}	T_{AMB}	Humidity	High Channel
251	23.3°C	23.7°C	30%	

Date/Time: 3/3/2008 4:43:31 PM
Test Laboratory: QUALCOMM Incorporated

20080303_UNDP-1_GPRS_2UL
DUT: Lenovo P/N T500; Type: Laptop; Serial: ZZH3083
Communication System: US GSM-GPRS850-2UL; Frequency: 848.8 MHz;Duty Cycle: 1:4.3
Medium: MSL835 Medium parameters used (extrapolated): f = 848.8 MHz; σ = 0.98 mho/m; ε_r = 54.1; ρ = 1000 kg/m^3
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 Sn566; Calibrated: 4/11/2007
- Phantom: SAM with CRP; Type: SAM;
- Measurement SW: DASY4, V4.7 Build 55;

Lapheld, antenna on left - High/Area Scan (10x13x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.062 mW/g
Lapheld, antenna on left - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0:
Reference Value = 4.88 V/m; Power Drift = 0.213 dB
Peak SAR (extrapolated) = 0.085 W/kg



0 dB = 0.061 mW/g

Limit (1 g) = 1.6 mW/g

SAR(1 g) = 0.056 mW/g
SAR(10 g) = 0.037 mW/g

14.4 T500 1900 MHz

CDMA 1x – Band Class 1

Channel	T_{LIQ}	T_{AMB}	Humidity	High Channel
1175	23.5°C	23.7°C	30%	

Date/Time: 3/3/2008 12:47:39PM
Test Laboratory: QUALCOMM Incorporated

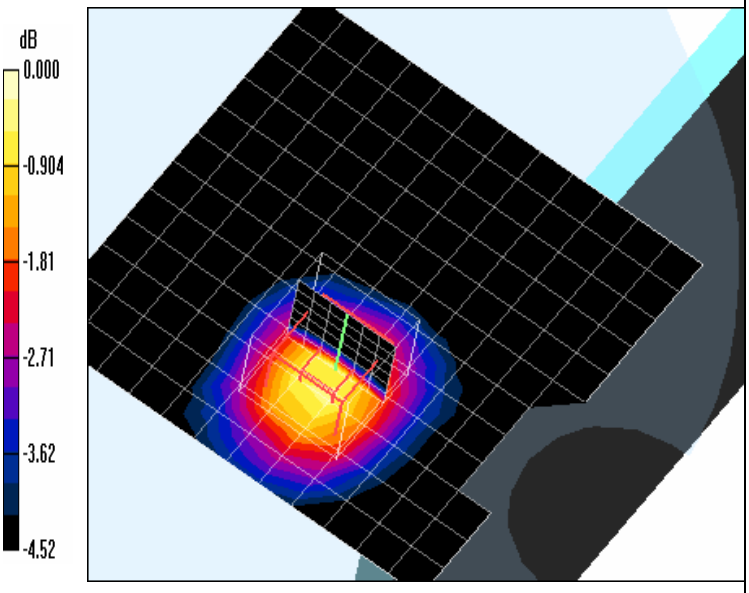
20080303_UNDP-1_1x-PCS
DUT: Lenovo P/N T500; Type: Laptop; Serial: ZZH3083

Communication System: CDMA DO PCS; Frequency: 1908.75 MHz;Duty Cycle: 1:1
Medium: MSL1800 Medium parameters used: f = 1908.75 MHz; σ = 1.55 mho/m; ε_r = 51.6; ρ = 1000 kg/m^3
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 Sn566; Calibrated: 4/11/2007
- Phantom: SAM with CRP; Type: SAM;
- Measurement SW: DASY4, V4.7 Build 55;

Lapheld, antenna on left - High/Area Scan (13x13x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.050 mW/g
Lapheld, antenna on left - High/Zoom Scan (7x7x7) (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.00 V/m; Power Drift = 0.054 dB
Peak SAR (extrapolated) = 0.078 W/kg



0 dB = 0.056 mW/g

Limit (1 g) = 1.6 mW/g

SAR(1 g) = 0.049 mW/g
SAR(10 g) = 0.030 mW/g

15. SAR System Calibration Data

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