

ATTACHMENT Q – DIPOLE VALIDATION

■ Validation Data (1900MHz Head)

1900 Dipole Validation test: Input power(1W)

Liquid Temperature : 21.5 °C

Ambient Temperature :21.8 °C

Date Tested : July 04, 2006

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:xxx

Program Name: Validation 1900 MHz

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

Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.46 \text{ mho/m}$; $\epsilon_r = 38.3$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section ; Measurement SW: DASY4, V4.6 Build 23

DASY4 Configuration:

- Probe: ET3DV6 - SN1609; ConvF(5.16, 5.16, 5.16); Calibrated: 2006-03-23

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

- Electronics: DAE4 Sn447; Calibrated: 2005-11-30

- 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) = 51.2 mW/g

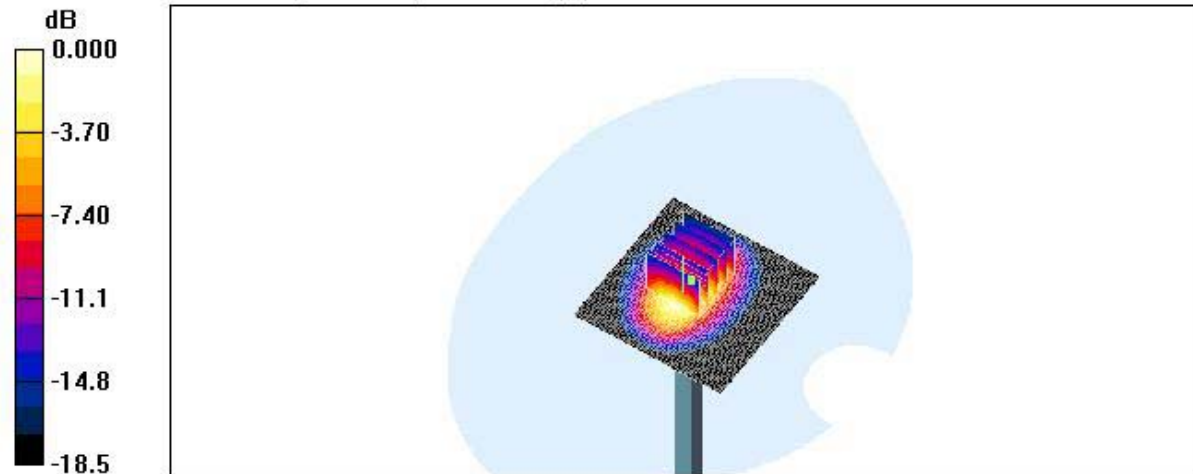
Validation 1900MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 185.7 V/m; Power Drift = -0.023 dB

Peak SAR (extrapolated) = 71.1 W/kg

SAR(1 g) = 40.6 mW/g; SAR(10 g) = 21.5 mW/g

Maximum value of SAR (measured) = 44.7 mW/g



0 dB = 44.7mW/g

■ Dielectric Parameter (1900MHz Head)

Title : E1300

SubTitle : GSM1900 (Head)

July 04, 2006 09:00 AM

Frequency	ϵ'	ϵ''
1.800000000 GHz	38.6385	13.5967
1.810000000 GHz	38.6213	13.6317
1.820000000 GHz	38.5647	13.6538
1.830000000 GHz	38.5329	13.7003
1.840000000 GHz	38.5004	13.7084
1.850000000 GHz	38.4730	13.7284
1.860000000 GHz	38.4295	13.7492
1.870000000 GHz	38.3812	13.7701
1.880000000 GHz	38.3097	13.7994
1.890000000 GHz	38.2897	13.8241
1.900000000 GHz	38.2711	13.8155
1.910000000 GHz	38.2218	13.8320
1.920000000 GHz	38.1820	13.8573
1.930000000 GHz	38.1591	13.8987
1.940000000 GHz	38.1288	13.8890
1.950000000 GHz	38.0531	13.8936
1.960000000 GHz	38.0110	13.9037
1.970000000 GHz	37.9844	13.9505
1.980000000 GHz	37.9377	13.9638
1.990000000 GHz	37.9103	14.0055
2.000000000 GHz	37.8946	13.9964

■ Dielectric Parameter (1900MHz Body)

Title : E1300

SubTitle : GSM1900 (Body)

July 04, 2006 01:10 PM

Frequency	e'	e''
1.800000000 GHz	53.0285	14.2032
1.810000000 GHz	53.0179	14.2672
1.820000000 GHz	53.0042	14.3083
1.830000000 GHz	52.9598	14.3909
1.840000000 GHz	52.9649	14.4193
1.850000000 GHz	52.9309	14.5041
1.860000000 GHz	52.8826	14.5291
1.870000000 GHz	52.8344	14.5399
1.880000000 GHz	52.7897	14.5807
1.890000000 GHz	52.7415	14.6033
1.900000000 GHz	52.6722	14.5769
1.910000000 GHz	52.6476	14.5898
1.920000000 GHz	52.5777	14.5870
1.930000000 GHz	52.5509	14.6173
1.940000000 GHz	52.5411	14.6755
1.950000000 GHz	52.4653	14.7305
1.960000000 GHz	52.4450	14.7846
1.970000000 GHz	52.4646	14.8592
1.980000000 GHz	52.4305	14.8943
1.990000000 GHz	52.4160	14.9363
2.000000000 GHz	52.4032	14.9480