

ATTACHMENT Q – DIPOLE VALIDATION

■ Validation Data (1900MHz Head)

Test Laboratory: HCT

1900 Dipole Validation test: Input power(1W)
Liquid Temperature : 21.7°C
Date Tested : August 23, 2006

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

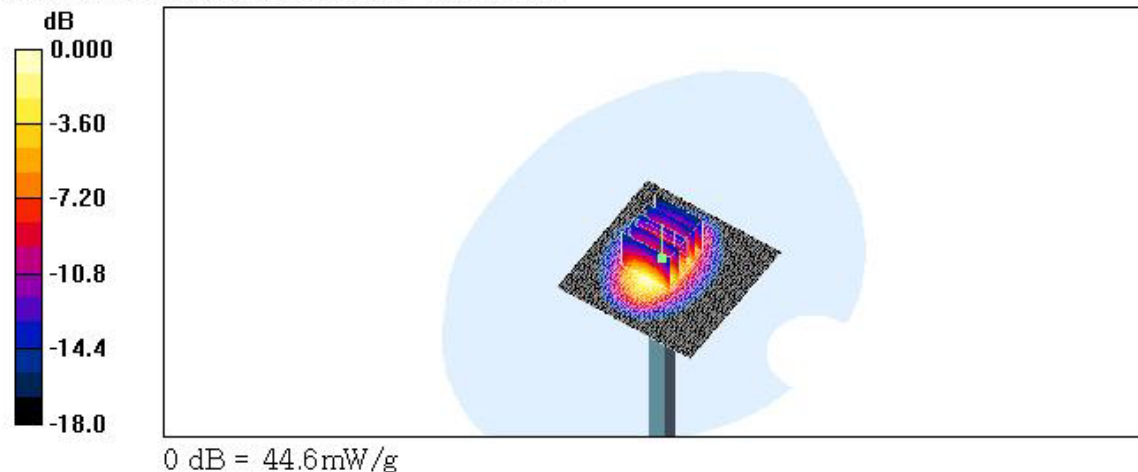
Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 1900$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 40$; $\rho = 1000$ kg/m³
Phantom section: Flat Section ; Measurement SW: DASY4, V4.6 Build 23

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: $\Delta x = 15$ mm, $\Delta y = 15$ mm
Maximum value of SAR (interpolated) = 50.5 mW/g

Validation 1900MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $\Delta x = 8$ mm, $\Delta y = 8$ mm, $\Delta z = 5$ mm
Reference Value = 185.0 V/m; Power Drift = 0.007 dB
Peak SAR (extrapolated) = 70.0 W/kg
SAR(1 g) = 40.1 mW/g; SAR(10 g) = 21.2 mW/g
Maximum value of SAR (measured) = 44.6 mW/g



■ Dielectric Parameter (1900MHz Head)

Title : PX230
SubTitle : CDMA1900(Head)
August 23, 2006 03:05 AM

Frequency	e'	e''
1.800000000 GHz	40.3719	13.2660
1.810000000 GHz	40.2924	13.3173
1.820000000 GHz	40.2652	13.3910
1.830000000 GHz	40.2353	13.5454
1.840000000 GHz	40.2408	13.6559
1.850000000 GHz	40.2717	13.7650
1.860000000 GHz	40.2388	13.8380
1.870000000 GHz	40.2132	13.8153
1.880000000 GHz	40.1642	13.7927
1.890000000 GHz	40.1045	13.7474
1.900000000 GHz	40.0240	13.6412
1.910000000 GHz	39.9372	13.6121
1.920000000 GHz	39.8070	13.5883
1.930000000 GHz	39.7518	13.5998
1.940000000 GHz	39.6853	13.6962
1.950000000 GHz	39.6447	13.8023
1.960000000 GHz	39.6497	13.9433
1.970000000 GHz	39.6483	14.0497
1.980000000 GHz	39.6808	14.1420
1.990000000 GHz	39.6769	14.1340
2.000000000 GHz	39.6498	14.1298

■ Dielectric Parameter (1900MHz Body)

Title : PX230

SubTitle : CDMA1900(Body)

August 23, 2006 12:45 PM

Frequency	e'	e''
1.800000000 GHz	53.1317	14.2383
1.810000000 GHz	53.1520	14.3041
1.820000000 GHz	53.1243	14.3458
1.830000000 GHz	53.0904	14.4442
1.840000000 GHz	53.0988	14.4761
1.850000000 GHz	53.0491	14.5305
1.860000000 GHz	52.9770	14.5615
1.870000000 GHz	52.9177	14.5598
1.880000000 GHz	52.8782	14.5700
1.890000000 GHz	52.8161	14.5975
1.900000000 GHz	52.7747	14.6176
1.910000000 GHz	52.7403	14.6355
1.920000000 GHz	52.3452	14.5624
1.930000000 GHz	52.6587	14.6980
1.940000000 GHz	52.6314	14.7181
1.950000000 GHz	52.6021	14.7799
1.960000000 GHz	52.5543	14.8122
1.970000000 GHz	52.5567	14.8953
1.980000000 GHz	52.5208	14.9207
1.990000000 GHz	52.5180	14.9256
2.000000000 GHz	51.8143	14.7625