

ATTACHMENT Q – DIPOLE VALIDATION

■ Validation Data (1900MHz Head)

HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD.

SAN 136-1, AMI-RI , BUBAL-EUP, ICHEON-SI, KYOUNKI-DO, 467-701, KOREA

TEL : +82 31 639 8518 FAX : +82 31 639 8525 www.hct.co.kr

Test Laboratory: HCT

1900 Dipole Validation test: Input power(1W)

Liquid Temperature : 22.1 °C

Date Tested : July 23, 2006

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

Program Name: Validation

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

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 38.3$; $\rho = 1000$ kg/m³

Phantom section: Flat Section ; Measurement SW: DASY4, V4.7 Build 44

DASY4 Configuration:

- Probe: ET3DV6 - SN1607; ConvF(5.14, 5.14, 5.14); Calibrated: 2005-08-30

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

- Electronics: DAE3 Sn446; Calibrated: 2006-03-17

- Phantom: SAM 1800/1900 MHz; Type: SAM

Dipole 1900MHz Validation/Area Scan (61x61x1): Measurement grid: $\Delta x = 15$ mm, $\Delta y = 15$ mm

Maximum value of SAR (interpolated) = 46.0 mW/g

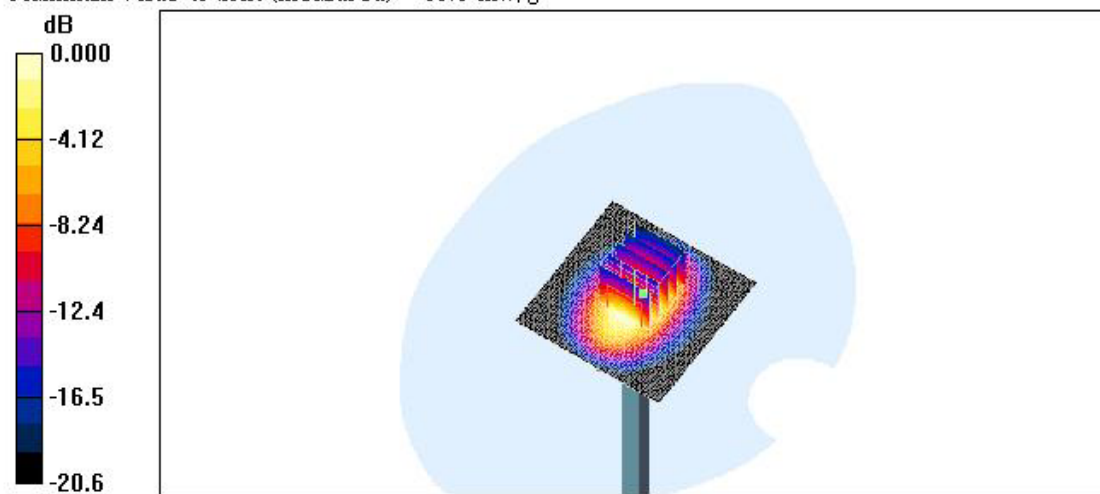
Dipole 1900MHz Validation/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $\Delta x = 8$ mm, $\Delta y = 8$ mm, $\Delta z = 5$ mm

Reference Value = 178.3 V/m; Power Drift = -0.207 dB

Peak SAR (extrapolated) = 91.2 W/kg

SAR(1 g) = 40.8 mW/g; SAR(10 g) = 20.2 mW/g

Maximum value of SAR (measured) = 43.9 mW/g



0 dB = 43.9mW/g

■ Dielectric Parameter (1900MHz Head)**Title : PCS1400VM****SubTitle :PCS 1900**

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Frequency	e'	e''
1.800000000 GHz	38.6224	13.6001
1.810000000 GHz	38.6224	13.6130
1.820000000 GHz	38.5688	13.6454
1.830000000 GHz	38.5136	13.6729
1.840000000 GHz	38.4982	13.6947
1.850000000 GHz	38.4529	13.7345
1.860000000 GHz	38.4164	13.7571
1.870000000 GHz	38.3833	13.7540
1.880000000 GHz	38.3048	13.7817
1.890000000 GHz	38.2875	13.8107
1.900000000 GHz	38.2508	13.8015
1.910000000 GHz	38.2106	13.8329
1.920000000 GHz	38.1672	13.8430
1.930000000 GHz	38.1378	13.8504
1.940000000 GHz	38.1265	13.8759
1.950000000 GHz	38.0664	13.8824
1.960000000 GHz	38.0102	13.9071
1.970000000 GHz	37.9735	13.9516
1.980000000 GHz	37.9396	13.9395
1.990000000 GHz	37.9172	13.9982
2.000000000 GHz	37.9065	14.0060

■ Dielectric Parameter (1900MHz Body)

Title : PCS1400VM

SubTitle : PCS 1900(Body)

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Frequency	e'	e''
1.800000000 GHz	53.1828	14.2892
1.810000000 GHz	53.1861	14.3183
1.820000000 GHz	53.1680	14.3624
1.830000000 GHz	53.1244	14.4289
1.840000000 GHz	53.0938	14.4623
1.850000000 GHz	53.0681	14.5354
1.860000000 GHz	52.9891	14.5506
1.870000000 GHz	52.9376	14.5819
1.880000000 GHz	52.9304	14.5955
1.890000000 GHz	52.8618	14.6397
1.900000000 GHz	52.8001	14.6018
1.910000000 GHz	52.7823	14.6259
1.920000000 GHz	52.6918	14.6558
1.930000000 GHz	52.6697	14.6557
1.940000000 GHz	52.6613	14.7228
1.950000000 GHz	52.6004	14.7743
1.960000000 GHz	52.5917	14.8095
1.970000000 GHz	52.5682	14.8845
1.980000000 GHz	52.5547	14.9029
1.990000000 GHz	52.5213	14.9516
2.000000000 GHz	52.4825	14.9551