

ATTACHMENT Q – DIPOLE VALIDATION

■ Validation Data (835MHz Head)

Test Laboratory: HCT

835 Dipole Validation test: Input power(1W)

Liquid Temperature : 21.3 °C

Date Tested : February 02, 2006

DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:441

Program Name: Validation

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.875 \text{ mho/m}$; $\epsilon_r = 41.5$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1607; ConvF(6.18, 6.18, 6.18); Calibrated: 2005-08-30

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

- Electronics: DAE4 Sn614; Calibrated: 2005-04-21

- Phantom: SAM 835/900 MHz; Type: SAM

Validation 835 MHz/Area Scan (61x81x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 10.4 mW/g

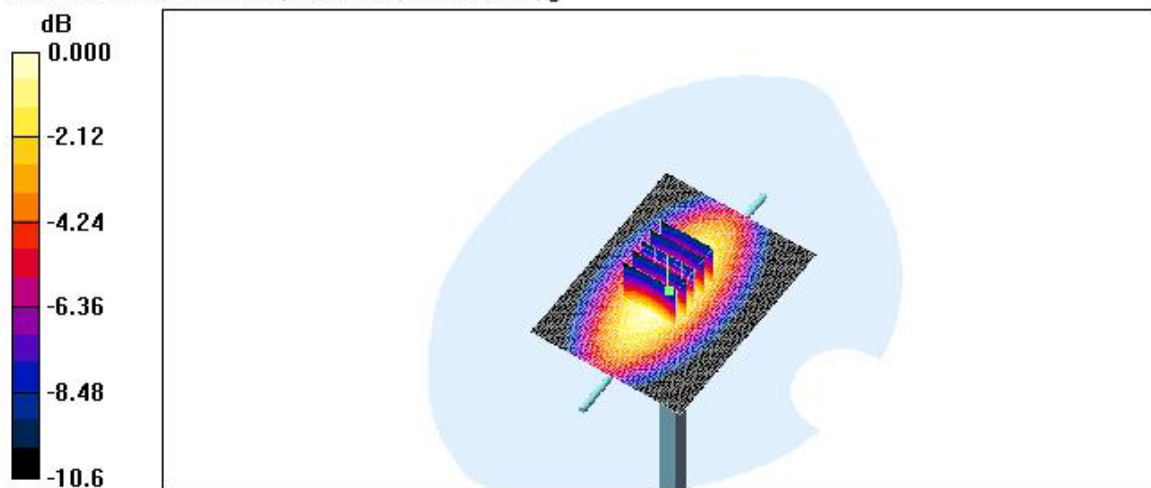
Validation 835 MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 111.2 V/m; Power Drift = -0.005 dB

Peak SAR (extrapolated) = 14.3 W/kg

SAR(1 g) = 9.57 mW/g; SAR(10 g) = 6.25 mW/g

Maximum value of SAR (measured) = 10.3 mW/g



0 dB = 10.3mW/g

■ Validation Data (1900MHz Head)

Test Laboratory: HCT

1900 Dipole Validation test: Input power(1W)

Liquid Temperature : 21.5 °C

Date Tested : February 03, 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: $f = 1900 \text{ MHz}$; $\sigma = 1.45 \text{ mho/m}$; $\epsilon_r = 40$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

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

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

- Electronics: DAE4 Sn614; Calibrated: 2005-04-21

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

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

Maximum value of SAR (interpolated) = 47.7 mW/g

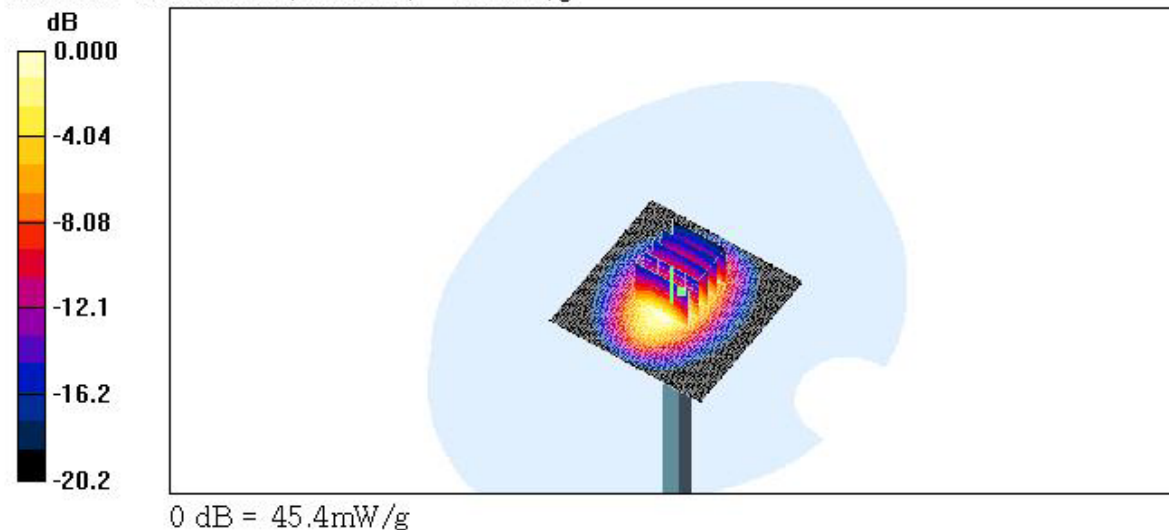
Dipole 1900MHz Validation/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $\Delta x = 8\text{mm}$, $\Delta y = 8\text{mm}$, $\Delta z = 5\text{mm}$

Reference Value = 187.5 V/m; Power Drift = -0.011 dB

Peak SAR (extrapolated) = 73.9 W/kg

SAR(1 g) = 40.8 mW/g; SAR(10 g) = 21 mW/g

Maximum value of SAR (measured) = 45.4 mW/g



■ Dielectric Parameter (835MHz Head)

Title : CDM7075

SubTitle : CDMA835 Head

February 02, 2006 09:06 AM

Frequency	e'	e''
800.000000 MHz	42.1072	18.9495
805.000000 MHz	42.0637	18.8796
810.000000 MHz	41.9602	18.9023
815.000000 MHz	41.8770	18.8767
820.000000 MHz	41.7649	18.8383
825.000000 MHz	41.7452	18.8227
830.000000 MHz	41.6234	18.8356
835.000000 MHz	41.4798	18.8393
840.000000 MHz	41.4169	18.7895
845.000000 MHz	41.2738	18.7838
850.000000 MHz	41.2432	18.7675
855.000000 MHz	41.1453	18.7294
860.000000 MHz	41.1000	18.7281
865.000000 MHz	41.0004	18.7120
870.000000 MHz	40.9061	18.6745
875.000000 MHz	40.8000	18.7319
880.000000 MHz	40.8101	18.6652
885.000000 MHz	40.6751	18.6661
890.000000 MHz	40.6203	18.6640
895.000000 MHz	40.5879	18.6505
900.000000 MHz	40.5364	18.6034

■ Dielectric Parameter (1900MHz Head)**Title : CDM7075****SubTitle : CDMA835 Body**

February 02, 2006 02:36 PM

Frequency	e'	e''
800.000000 MHz	55.1668	21.3214
805.000000 MHz	55.1637	21.2816
810.000000 MHz	55.1221	21.2899
815.000000 MHz	55.1023	21.3238
820.000000 MHz	55.0843	21.3287
825.000000 MHz	54.9918	21.3105
830.000000 MHz	54.9268	21.3326
835.000000 MHz	54.8772	21.3324
840.000000 MHz	54.8819	21.3561
845.000000 MHz	54.7752	21.3443
850.000000 MHz	54.7348	21.3299
855.000000 MHz	54.6990	21.3247
860.000000 MHz	54.6415	21.3171
865.000000 MHz	54.5852	21.3092
870.000000 MHz	54.5486	21.2938
875.000000 MHz	54.4674	21.2852
880.000000 MHz	54.4531	21.2669
885.000000 MHz	54.3688	21.2441
890.000000 MHz	54.3032	21.1986
895.000000 MHz	54.2005	21.1367
900.000000 MHz	54.1642	21.1334

■ Dielectric Parameter (835MHz Body)

Title : CDM7075

SubTitle : PCS1900 Head

February 03, 2006 09:20 AM

Frequency	e'	e''
1.800000000 GHz	40.4409	13.2786
1.810000000 GHz	40.3445	13.3125
1.820000000 GHz	40.3195	13.3754
1.830000000 GHz	40.2630	13.5312
1.840000000 GHz	40.2613	13.6400
1.850000000 GHz	40.2611	13.7291
1.860000000 GHz	40.2298	13.7952
1.870000000 GHz	40.2120	13.8040
1.880000000 GHz	40.1650	13.7892
1.890000000 GHz	40.1117	13.7307
1.900000000 GHz	40.0229	13.6719
1.910000000 GHz	39.9771	13.6460
1.920000000 GHz	39.8692	13.6014
1.930000000 GHz	39.8366	13.6067
1.940000000 GHz	39.7535	13.6871
1.950000000 GHz	39.7059	13.7827
1.960000000 GHz	39.6772	13.8955
1.970000000 GHz	39.6812	14.0278
1.980000000 GHz	39.6992	14.1031
1.990000000 GHz	39.7191	14.1263
2.000000000 GHz	39.6417	14.1265

■ Dielectric Parameter (1900MHz Body)

Title : CDM7075**SubTitle : PCS1900 Head**

February 03, 2006 09:20 AM

Frequency	e'	e''
1.800000000 GHz	52.7767	13.8170
1.810000000 GHz	52.7774	13.8798
1.820000000 GHz	52.7645	13.9326
1.830000000 GHz	52.6814	13.9852
1.840000000 GHz	52.6657	14.0009
1.850000000 GHz	52.5936	14.0487
1.860000000 GHz	52.5187	14.0706
1.870000000 GHz	52.4340	14.1236
1.880000000 GHz	52.3631	14.1937
1.890000000 GHz	52.2884	14.2248
1.900000000 GHz	52.2564	14.2970
1.910000000 GHz	52.2156	14.3847
1.920000000 GHz	52.1871	14.4831
1.930000000 GHz	52.1862	14.5384
1.940000000 GHz	52.1356	14.5571
1.950000000 GHz	52.1250	14.5857
1.960000000 GHz	52.0557	14.6228
1.970000000 GHz	51.9804	14.6589
1.980000000 GHz	51.9420	14.6788
1.990000000 GHz	51.8565	14.7116
2.000000000 GHz	51.8017	14.7483