ATTACHMENT Q – DIPOLE VALIDATION

■ Validation Data (835MHz Brain)

Test Laboratory: HCT

835 Dipole Validation test: Input power(1W)
Liquid Temperature : 22.2℃
Date Tested : June 16, 2006

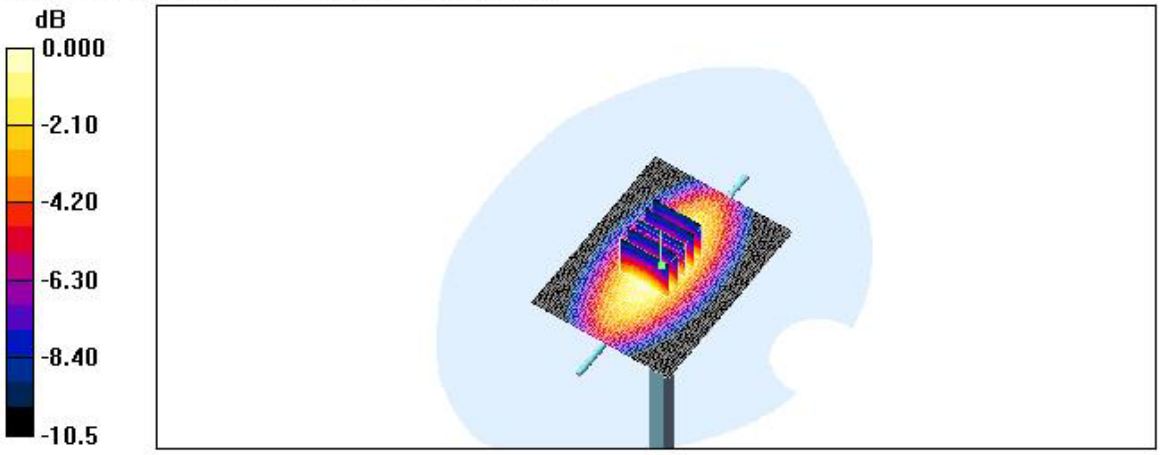
DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:441
Program Name: Validation

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; $\sigma = 0.875$ mho/m; $\varepsilon_r = 40.9$; $\rho = 1000$ kg/m^3
Phantom section: Flat Section ;Measurement SW: DASY4, V4.7 Build 44

DASY4 Configuration:
- Probe: ET3DV6 - SN1607; ConvF(6.18, 6.18, 6.18); Calibrated: 2005-08-30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-03-17
- Phantom: SAM 835/900 MHz; Type: SAM

Validation 835 MHz/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 10.3 mW/g

Validation 835 MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 111.9 V/m; Power Drift = 0.116 dB
Peak SAR (extrapolated) = 14.4 W/kg
SAR(1 g) = 9.72 mW/g; SAR(10 g) = 6.34 mW/g
Maximum value of SAR (measured) = 10.5 mW/g



0 dB = 10.5mW/g

■ Validation Data (835MHz Brain)

Test Laboratory: HCT

835 Dipole Validation test: Input power(1W)
Liquid Temperature : 22.4℃
Date Tested : June 17, 2006

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

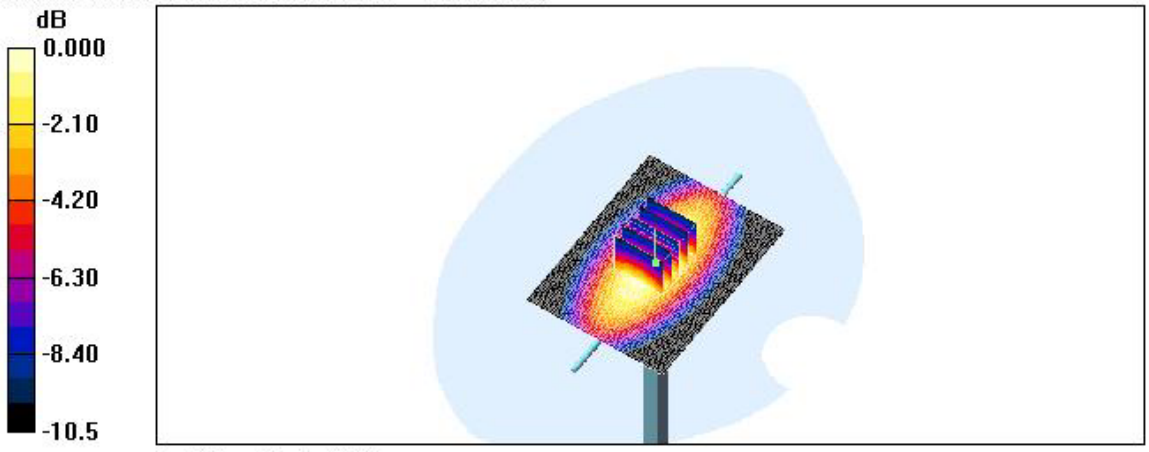
Program Name: Validation

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; $\sigma = 0.888$ mho/m; $\varepsilon_r = 40.4$; $\rho = 1000$ kg/m^3
Phantom section: Flat Section ;Measurement SW: DASY4, V4.7 Build 44

DASY4 Configuration:
- Probe: ET3DV6 - SN1607; ConvF(6.18, 6.18, 6.18); Calibrated: 2005-08-30
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-03-17
- Phantom: SAM 835/900 MHz; Type: SAM

Validation 835 MHz/Area Scan (61x81x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 10.5 mW/g

Validation 835 MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 111.5 V/m; Power Drift = 0.001 dB
Peak SAR (extrapolated) = 14.4 W/kg
SAR(1 g) = 9.69 mW/g; SAR(10 g) = 6.33 mW/g
Maximum value of SAR (measured) = 10.5 mW/g



0 dB = 10.5mW/g

■ Validation Data (1900MHz Brain)

Test Laboratory: HCT

1900 Dipole Validation test: Input power(1W)
Liquid Temperature : 22.1℃
Date Tested : June 18, 2006

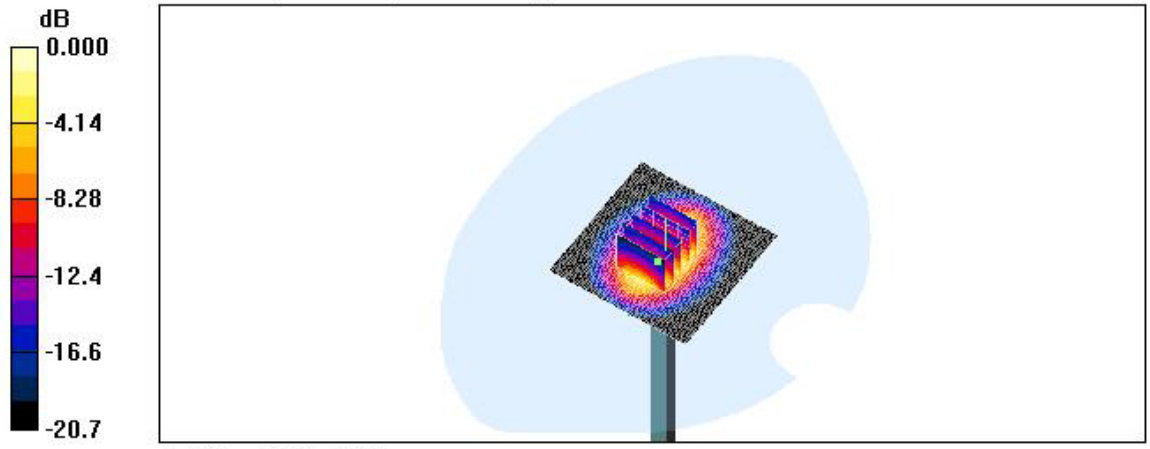
DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d032
Program Name: Validation

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.46 mho/m; ε_r = 38.2; ρ = 1000 kg/m^3
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: dx=15mm, dy=15mm
Maximum value of SAR (interpolated) = 45.6 mW/g

Dipole 1900MHz Validation/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 174.7 V/m; Power Drift = -0.026 dB
Peak SAR (extrapolated) = 90.8 W/kg
SAR(1 g) = 40.3 mW/g; SAR(10 g) = 19.8 mW/g
Maximum value of SAR (measured) = 43.9 mW/g



0 dB = 43.9mW/g

■ Dielectric Parameter (835MHz Brain)

Title :TX-215A
SubTitle :AMPS835(Head)
June 16, 2006 01:30 PM

Frequency	e'	e''
800.000000 MHz	41.2646	18.8833
805.000000 MHz	41.1534	18.8667
810.000000 MHz	41.0865	18.8495
815.000000 MHz	41.0613	18.8640
820.000000 MHz	41.0081	18.8117
825.000000 MHz	40.9437	18.8317
830.000000 MHz	40.8865	18.7972
835.000000 MHz	40.8627	18.8428
840.000000 MHz	40.8192	18.8518
845.000000 MHz	40.8044	18.8114
850.000000 MHz	40.7475	18.8036
855.000000 MHz	40.6724	18.8012
860.000000 MHz	40.6932	18.7719
865.000000 MHz	40.6387	18.7641
870.000000 MHz	40.5464	18.7267
875.000000 MHz	40.5324	18.7482
880.000000 MHz	40.4719	18.7627
885.000000 MHz	40.3674	18.6901
890.000000 MHz	40.3123	18.7335
895.000000 MHz	40.2173	18.6695
900.000000 MHz	40.1730	18.6408

■ Dielectric Parameter (835MHz Body)

Frequency	e'	e''
800.000000 MHz	55.1192	20.7112
805.000000 MHz	55.0233	20.6399
810.000000 MHz	54.8935	20.6271
815.000000 MHz	54.9618	20.5988
820.000000 MHz	55.0240	20.6450
825.000000 MHz	55.0938	20.6648
830.000000 MHz	55.0984	20.7467
835.000000 MHz	55.1184	20.7335
840.000000 MHz	55.1328	20.7330
845.000000 MHz	55.1417	20.7452
850.000000 MHz	55.1752	20.7911
855.000000 MHz	55.1625	20.7995
860.000000 MHz	55.1753	20.7870
865.000000 MHz	55.1285	20.7866
870.000000 MHz	55.1335	20.7230
875.000000 MHz	55.0542	20.7301
880.000000 MHz	55.0260	20.7013
885.000000 MHz	54.9088	20.6868
890.000000 MHz	54.8936	20.6059
895.000000 MHz	54.8651	20.5045
900.000000 MHz	54.7507	20.4490

■ Dielectric Parameter (835MHz Brain)

Title :TX-215A
SubTitle :CDMA835(Head)
June 17, 2006 07:50 AM

Frequency	e'	e''
800.000000 MHz	40.8719	19.3671
805.000000 MHz	40.7294	19.4652
810.000000 MHz	40.7071	19.3589
815.000000 MHz	40.6259	19.3121
820.000000 MHz	40.5436	19.2770
825.000000 MHz	40.4748	19.3077
830.000000 MHz	40.4667	19.2271
835.000000 MHz	40.4252	19.1196
840.000000 MHz	40.3058	19.1075
845.000000 MHz	40.2345	19.1138
850.000000 MHz	40.2592	19.0526
855.000000 MHz	40.2388	19.1995
860.000000 MHz	40.1527	19.1791
865.000000 MHz	40.1648	19.1418
870.000000 MHz	40.0362	19.1443
875.000000 MHz	40.0106	19.1485
880.000000 MHz	39.9751	19.0801
885.000000 MHz	39.8675	19.0729
890.000000 MHz	39.8065	19.0677
895.000000 MHz	39.6876	18.9606
900.000000 MHz	39.6698	19.0130

■ Dielectric Parameter (835MHz Body)

Title :TX-215A
SubTitle :CDMA835(Body)
June 17, 2006 01:20 PM

Frequency	e'	e''
800.000000 MHz	55.7666	20.8311
805.000000 MHz	55.7594	20.7927
810.000000 MHz	55.6085	20.7619
815.000000 MHz	55.6193	20.7063
820.000000 MHz	55.5723	20.7506
825.000000 MHz	55.5290	20.7262
830.000000 MHz	55.4429	20.7181
835.000000 MHz	55.4067	20.7358
840.000000 MHz	55.3848	20.7590
845.000000 MHz	55.3816	20.7418
850.000000 MHz	55.3994	20.7491
855.000000 MHz	55.4119	20.7689
860.000000 MHz	55.4082	20.7728
865.000000 MHz	55.3530	20.7533
870.000000 MHz	55.3584	20.7210
875.000000 MHz	55.3180	20.6799
880.000000 MHz	55.2819	20.7015
885.000000 MHz	55.2661	20.6776
890.000000 MHz	55.2126	20.6372
895.000000 MHz	55.1789	20.5260
900.000000 MHz	55.1045	20.4950

■ Dielectric Parameter (1900MHz Head)

Title :TX-215A
SubTitle :PCS1900(Head)
June 13, 2006 09:10 AM

Frequency	e'	e''
1.800000000 GHz	38.6542	13.5513
1.810000000 GHz	38.6209	13.5748
1.820000000 GHz	38.5615	13.6077
1.830000000 GHz	38.5359	13.6297
1.840000000 GHz	38.4878	13.6622
1.850000000 GHz	38.4617	13.6697
1.860000000 GHz	38.4014	13.6829
1.870000000 GHz	38.3658	13.7053
1.880000000 GHz	38.3136	13.7231
1.890000000 GHz	38.2817	13.7818
1.900000000 GHz	38.2174	13.7662
1.910000000 GHz	38.1929	13.7851
1.920000000 GHz	38.1600	13.8123
1.930000000 GHz	38.1187	13.8244
1.940000000 GHz	38.0898	13.8405
1.950000000 GHz	38.0473	13.8333
1.960000000 GHz	38.0159	13.8745
1.970000000 GHz	37.9733	13.9054
1.980000000 GHz	37.9243	13.8972
1.990000000 GHz	37.9067	13.9501
2.000000000 GHz	37.8713	13.9825

■ Dielectric Parameter (1900MHz Body)

Frequency	e'	e''
1.800000000 GHz	53.0188	14.1242
1.810000000 GHz	52.9981	14.1897
1.820000000 GHz	52.9917	14.2355
1.830000000 GHz	52.9382	14.3371
1.840000000 GHz	52.9643	14.3980
1.850000000 GHz	52.9663	14.4946
1.860000000 GHz	52.8786	14.5327
1.870000000 GHz	52.8282	14.5491
1.880000000 GHz	52.8083	14.5530
1.890000000 GHz	52.7418	14.5596
1.900000000 GHz	52.6843	14.5186
1.910000000 GHz	52.6362	14.5061
1.920000000 GHz	52.5585	14.5033
1.930000000 GHz	52.5067	14.5461
1.940000000 GHz	52.4656	14.5866
1.950000000 GHz	52.4504	14.6720
1.960000000 GHz	52.3908	14.7307
1.970000000 GHz	52.4286	14.8135
1.980000000 GHz	52.4162	14.8716
1.990000000 GHz	52.4020	14.8990
2.000000000 GHz	52.4058	14.9056