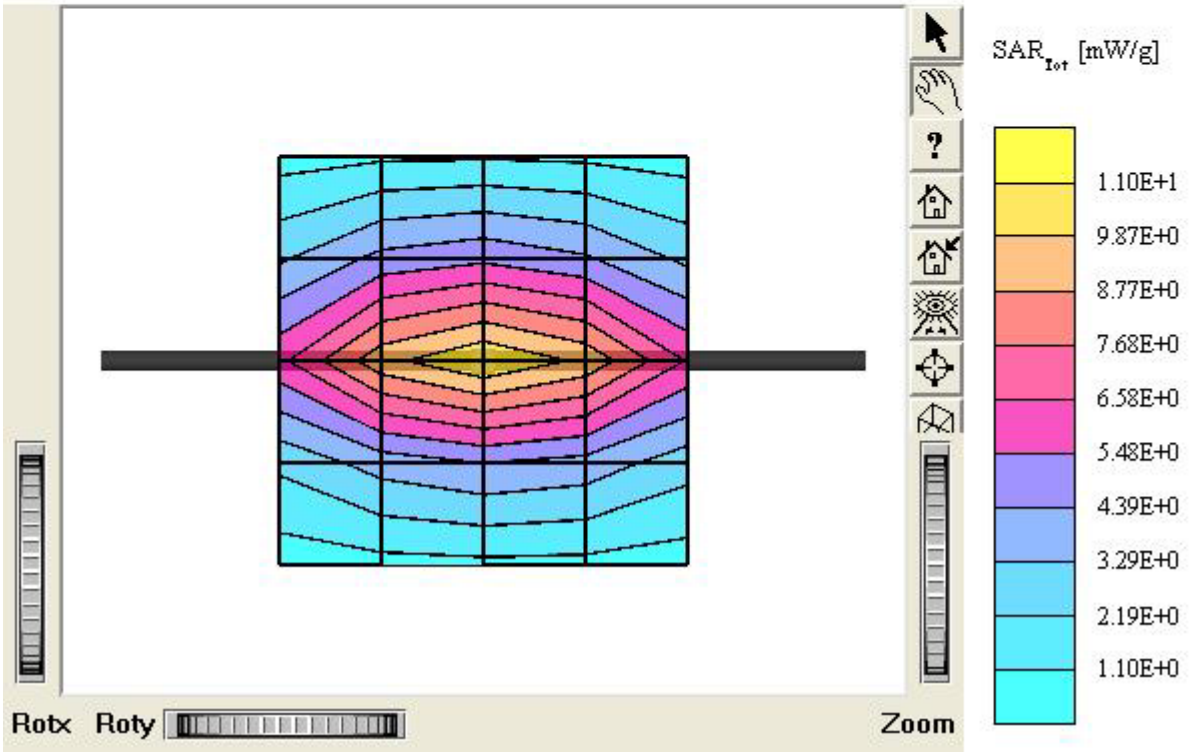
ATTACHMENT Q – DIPOLE VALIDATION

■ Validation Data (835MHz Head)

Dipole 835 MHz

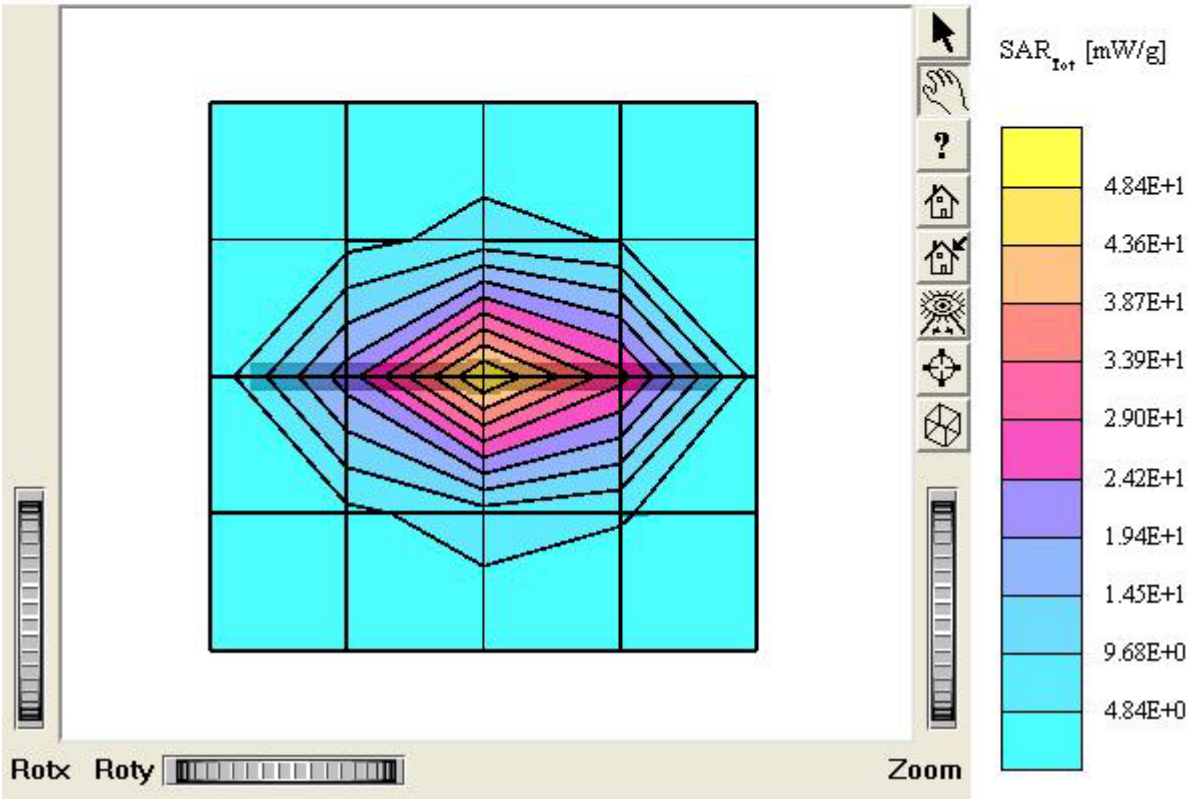
SAM I Phantom; Flat Section; Position: (90°,90°); Frequency: 835 MHz
Probe: ET3DV6 - SN1609; ConvF(6.63,6.63,6.63); Crest factor: 1.0; Head 835 MHz: σ = 0.88 mho/m ε_r = 41.6 ρ = 1.00 g/cm^3
Cube 5x5x7: SAR (1g): 9.93 mW/g, SAR (10g): 6.44 mW/g
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Powerdrift: 0.01 dB
Comment :
835MHz Brain Dipole Validation (D835V2/ S.N: 441)
Antenna Input Power: 30 dBm (1 W)
HCT Co., Ltd. Brain Tissue Simulating Liquid
Liquid Temperature : 21.4℃
Date Tested : May 09, 2005



■ Validation Data (1900MHz Head)

Dipole 1900 MHz

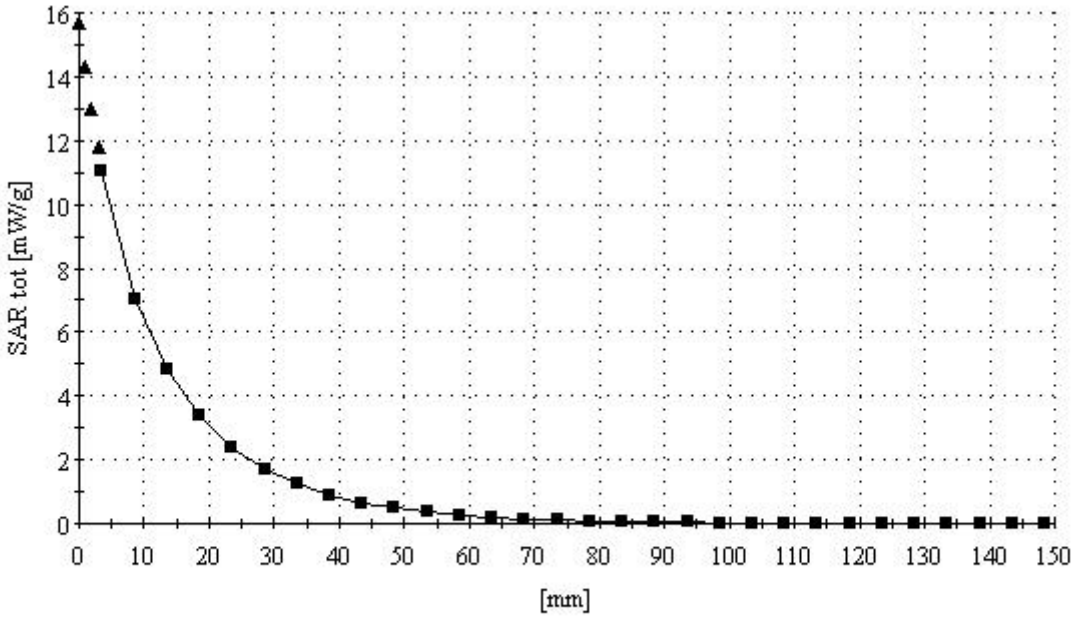
SAM II Phantom; Flat Section; Position: (90°,90°); Frequency: 1900 MHz
Probe: ET3DV6 - SN1609; ConvF(5.34,5.34,5.34); Crest factor: 1.0; Head 1900 MHz: σ = 1.45 mho/m ε_r = 38.6 ρ = 1.00 g/cm^3
Cube 5x5x7: SAR (1g): 41.4 mW/g, SAR (10g): 20.8 mW/g
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Powerdrift: 0.00 dB
Comment :
1900 MHz Brain Dipole Validation (D1900V2/ S.N: 5d032)
Antenna Input Power: 30 dBm (1 W)
HCT Co., Ltd. Brain Tissue Simulating Liquid
Liquid Temperature : 21.6℃
Date Tested : May 10, 2005



Dipole 835 MHz

SAM I Phantom; Section; Position: ; Frequency: 835 MHz
Probe: ET3DV6 - SN1609; ConvF(6.63,6.63,6.63); Crest factor: 1.0; Head 835 MHz: σ = 0.88 mho/m ε_r = 41.6 ρ = 1.00 g/cm^3
:
Z-Axis: Dx = 0.0, Dy = 0.0, Dz = 5.0

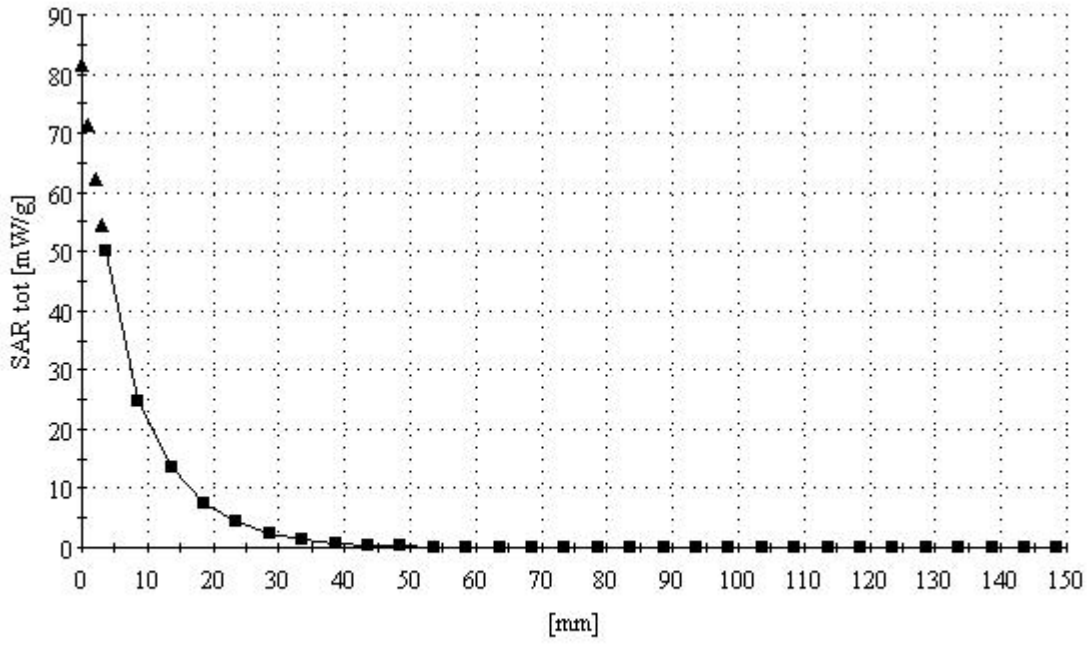
Comment :
835MHz Brain Dipole Validation (D835V2/ S.N: 441)
Antenna Input Power: 30 dBm (1 W)
HCT Co., Ltd. Brain Tissue Simulating Liquid
Liquid Temperature : 21.4℃
Date Tested : May 09, 2005



Dipole 1900 MHz

SAM II Phantom; Section; Position: ; Frequency: 1900 MHz
Probe: ET3DV6 - SN1609; ConvF(5.34,5.34,5.34); Crest factor: 1.0; Head 1900 MHz: σ = 1.45 mho/m ε_r = 38.6 ρ = 1.00 g/cm^3
:
Z-Axis: Dx = 0.0, Dy = 0.0, Dz = 5.0

Comment :
1900 MHz Brain Dipole Validation (D1900V2/ S.N: 5d032)
Antenna Input Power: 30 dBm (1 W)
HCT Co., Ltd. Brain Tissue Simulating Liquid
Liquid Temperature : 21.6℃
Date Tested : May 10, 2005



■ Dielectric Parameter (835MHz Brain)

Title : C1200
SubTitle : CDMA Brain
May 09, 2005 09:50 AM

Frequency	e'	e''
800.000000 MHz	42.4430	18.9448
805.000000 MHz	42.3902	18.8873
810.000000 MHz	42.2622	18.9052
815.000000 MHz	42.1575	18.8847
820.000000 MHz	42.0537	18.8433
825.000000 MHz	41.9250	18.8785
830.000000 MHz	41.7681	18.9007
835.000000 MHz	41.6405	18.8887
840.000000 MHz	41.5780	18.8799
845.000000 MHz	41.4699	18.8531
850.000000 MHz	41.4068	18.9072
855.000000 MHz	41.3204	18.8750
860.000000 MHz	41.3137	18.9025
865.000000 MHz	41.2805	18.9067
870.000000 MHz	41.2345	18.8638
875.000000 MHz	41.1306	18.8282
880.000000 MHz	41.1595	18.8299
885.000000 MHz	41.0798	18.8531
890.000000 MHz	41.0192	18.8359
895.000000 MHz	40.9990	18.7674
900.000000 MHz	40.9536	18.7464

■ Dielectric Parameter (1900MHz Brain)

Title : C1200
SubTitle : PCS Brain
May 10, 2005 09:41 AM

Frequency	e'	e''
1.800000000 GHz	38.8830	13.3867
1.810000000 GHz	38.8568	13.4596
1.820000000 GHz	38.8122	13.5041
1.830000000 GHz	38.8025	13.6296
1.840000000 GHz	38.7838	13.6972
1.850000000 GHz	38.7853	13.7612
1.860000000 GHz	38.7295	13.8120
1.870000000 GHz	38.7137	13.8235
1.880000000 GHz	38.6839	13.7962
1.890000000 GHz	38.6482	13.7342
1.900000000 GHz	38.5568	13.7340
1.910000000 GHz	38.4899	13.6955
1.920000000 GHz	38.3920	13.6860
1.930000000 GHz	38.3421	13.7232
1.940000000 GHz	38.3045	13.7966
1.950000000 GHz	38.2830	13.8977
1.960000000 GHz	38.2785	14.0140
1.970000000 GHz	38.2631	14.0875
1.980000000 GHz	38.2608	14.1203
1.990000000 GHz	38.2467	14.0880
2.000000000 GHz	38.1912	14.1117

■ Dielectric Parameter (835MHz Muscle)

Title : C1200

SubTitle : CDMA Muscle

May 09, 2005 01:34 PM

Frequency	e'	e''
800.000000 MHz	54.3979	20.9224
805.000000 MHz	54.3207	20.8912
810.000000 MHz	54.2990	20.8857
815.000000 MHz	54.2845	20.8663
820.000000 MHz	54.2385	20.8193
825.000000 MHz	54.1696	20.8754
830.000000 MHz	54.1448	20.8654
835.000000 MHz	54.1187	20.8944
840.000000 MHz	54.0670	20.9105
845.000000 MHz	54.0742	20.9047
850.000000 MHz	54.0245	20.9199
855.000000 MHz	53.9831	20.8669
860.000000 MHz	53.9781	20.9085
865.000000 MHz	53.9333	20.8142
870.000000 MHz	53.8866	20.8820
875.000000 MHz	53.8401	20.8906
880.000000 MHz	53.7736	20.8167
885.000000 MHz	53.7088	20.7588
890.000000 MHz	53.6243	20.7565
895.000000 MHz	53.5790	20.6764
900.000000 MHz	53.4979	20.6633

■ Dielectric Parameter (1900MHz Muscle)

Title : C1200
SubTitle : PCS Muscle
May 10, 2005 02:14 PM

Frequency	e'	e''
1.800000000 GHz	52.2563	13.5697
1.810000000 GHz	52.2228	13.6862
1.820000000 GHz	52.1802	13.7890
1.830000000 GHz	52.1494	13.8567
1.840000000 GHz	52.1336	13.9223
1.850000000 GHz	52.0737	13.9799
1.860000000 GHz	52.0297	14.0204
1.870000000 GHz	51.9874	14.0564
1.880000000 GHz	51.9283	14.0753
1.890000000 GHz	51.8229	14.1040
1.900000000 GHz	51.7981	14.1291
1.910000000 GHz	51.7226	14.1789
1.920000000 GHz	51.7082	14.2310
1.930000000 GHz	51.6785	14.3150
1.940000000 GHz	51.6556	14.4037
1.950000000 GHz	51.6707	14.4576
1.960000000 GHz	51.6195	14.5300
1.970000000 GHz	51.5945	14.5821
1.980000000 GHz	51.5627	14.5981
1.990000000 GHz	51.4703	14.6500
2.000000000 GHz	51.4539	14.6559