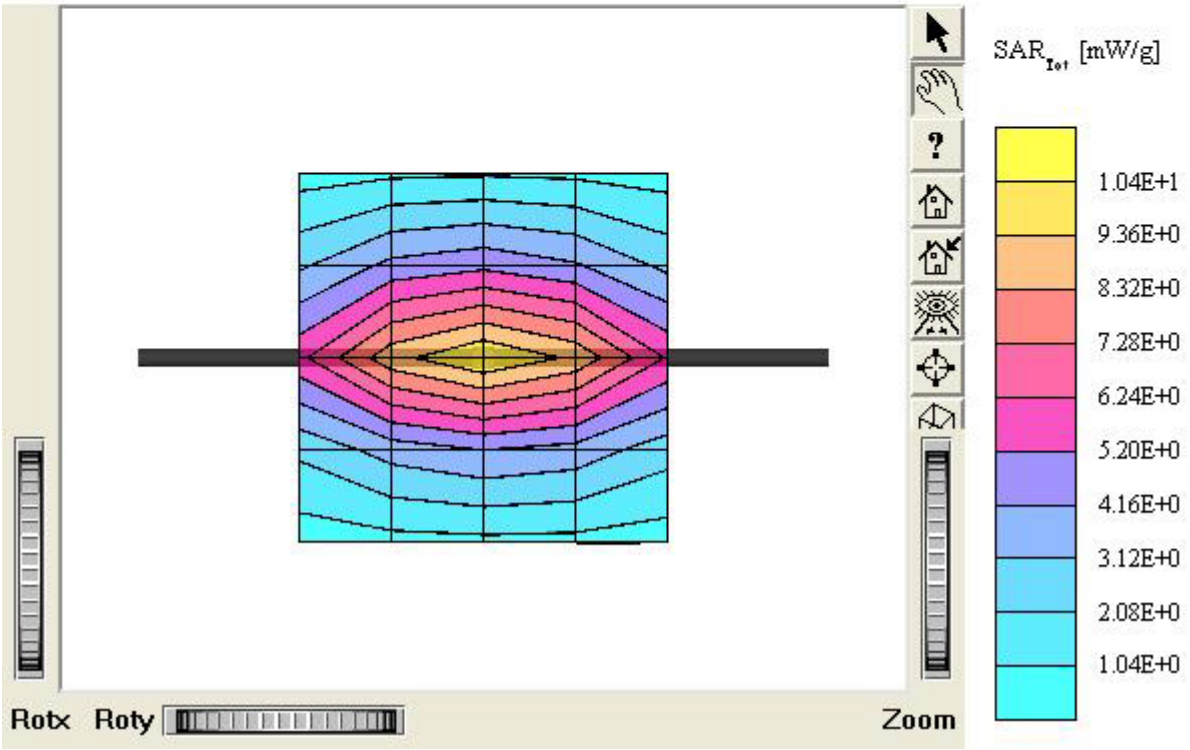
ATTACHMENT Q – DIPOLE VALIDATION

■ Validation Data (835MHz Brain)

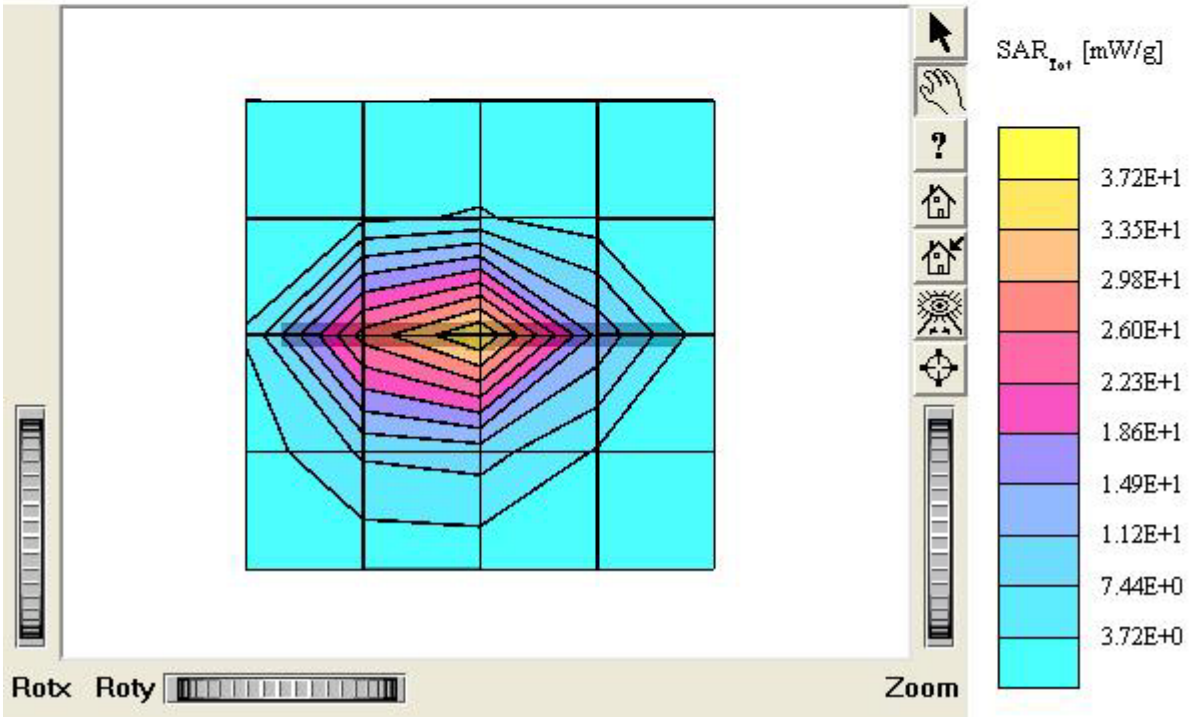
Dipole 835 MHz
SAM I Phantom; Flat Section; Position: (90°,90°); Frequency: 835 MHz
Probe: ET3DV6 - SN1798; ConvF(6.91,6.91,6.91); Crest factor: 1.0; Head 835 MHz: σ = 0.89 mho/m ε_r = 42.0 ρ = 1.00 g/cm^3
Cube 5x5x7: SAR (1g): 10.0 mW/g, SAR (10g): 6.51 mW/g
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Powerdrift: 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 : 22.4℃
Date Tested : December 5, 2005



■ Validation Data (1900MHz Brain)

Dipole 1900 MHz

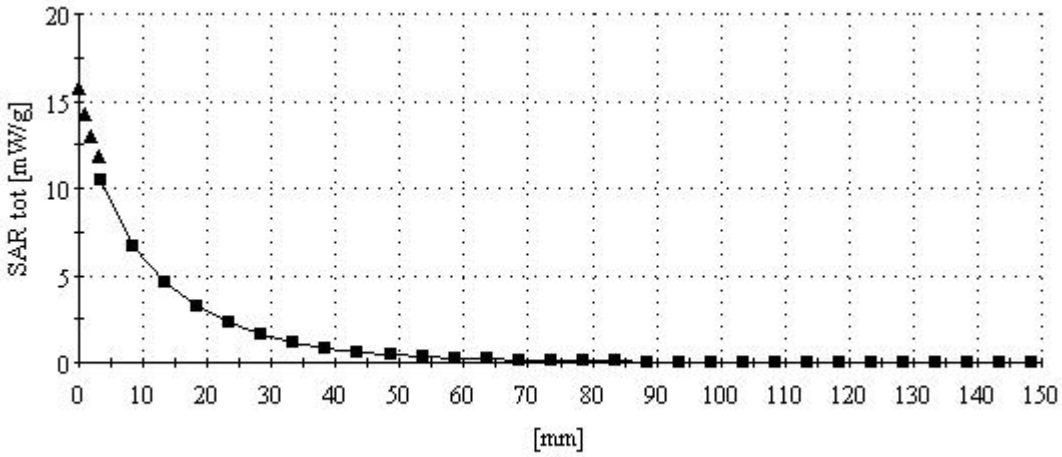
SAM II Phantom; Flat Section; Position: (90°,90°); Frequency: 1900 MHz
Probe: ET3DV6 - SN1798; ConvF(5.27,5.27,5.27); Crest factor: 1.0; Head 1900 MHz: σ = 1.44 mho/m ε_r = 38.6 ρ = 1.00 g/cm^3
Cube 5x5x7: SAR (1g): 39.6 mW/g, SAR (10g): 20.5 mW/g
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Powerdrift: 0.06 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 : 22.7℃
Date Tested : December 6, 2005



Dipole 835 MHz

SAM I Phantom; Section; Position: ; Frequency: 835 MHz
Probe: ET3DV6 - SN1798; ConvF(6.91,6.91,6.91); Crest factor: 1.0; Head 835 MHz: σ = 0.89 mho/m ε_r = 42.0 ρ = 1.00 g/cm^3
:
Z-Axis: Dx = 0.0, Dy = 0.0, Dz = 5.0

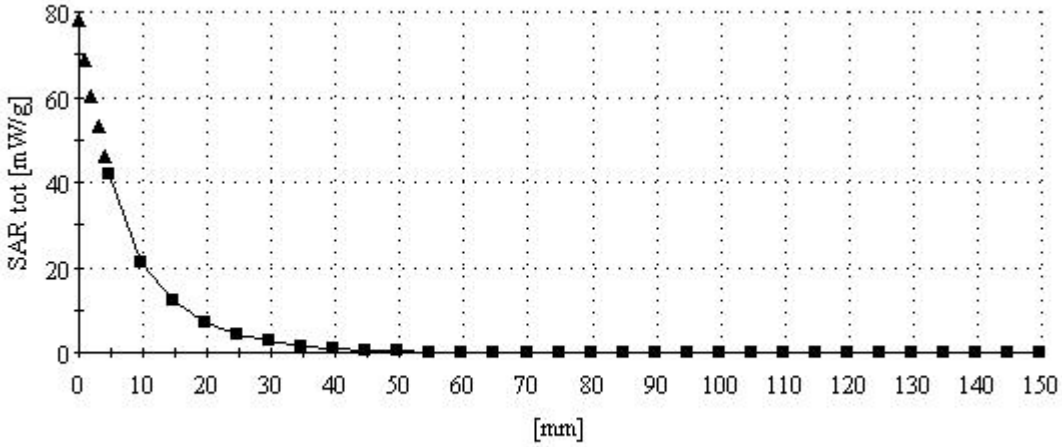
Comment :
835MHz Brain Dipole Validation (D835V2/ S.N: 441)
Antenna Input Power: 30 dBm (1 W)
HCT Co., Ltd. Brain Tissue Simulating Liquid
Liquid Temperature : 22.4℃
Date Tested : December 5, 2005



Dipole 1900 MHz

SAM II Phantom; Section; Position: ; Frequency: 1900 MHz
Probe: ET3DV6 - SN1798; ConvF(5.27,5.27,5.27); Crest factor: 1.0; Head 1900 MHz: σ = 1.44 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 : 22.7℃
Date Tested : December 6, 2005



■ Dielectric Parameter (835MHz Head)

Title : C100
SubTitle : CDMA HEAD
December 05, 2005 09:10 AM

Frequency	e'	e''
800.000000 MHz	42.6559	19.1257
805.000000 MHz	42.6173	19.1603
810.000000 MHz	42.5155	19.1582
815.000000 MHz	42.4124	19.1461
820.000000 MHz	42.3415	19.0721
825.000000 MHz	42.2326	19.1053
830.000000 MHz	42.1344	19.1145
835.000000 MHz	41.9910	19.1261
840.000000 MHz	41.9574	19.0756
845.000000 MHz	41.8503	19.0571
850.000000 MHz	41.7842	19.0688
855.000000 MHz	41.6865	19.0381
860.000000 MHz	41.6740	19.0142
865.000000 MHz	41.5949	19.0405
870.000000 MHz	41.5435	19.0180
875.000000 MHz	41.4490	19.0186
880.000000 MHz	41.4213	18.9847
885.000000 MHz	41.3166	18.9940
890.000000 MHz	41.2440	18.9891
895.000000 MHz	41.1954	18.9276
900.000000 MHz	41.1457	18.9265

■ Dielectric Parameter (835MHz Body)

Title : C100
SubTitle : CDMA BODY
December 05, 2005 02:05 PM

Frequency	e'	e''
800.000000 MHz	55.2392	21.3640
805.000000 MHz	55.2129	21.3549
810.000000 MHz	55.1411	21.3736
815.000000 MHz	55.0661	21.3483
820.000000 MHz	55.0726	21.3273
825.000000 MHz	54.9995	21.3467
830.000000 MHz	54.9304	21.3424
835.000000 MHz	54.8869	21.3288
840.000000 MHz	54.8783	21.3465
845.000000 MHz	54.7909	21.3275
850.000000 MHz	54.7948	21.3728
855.000000 MHz	54.7561	21.3031
860.000000 MHz	54.6713	21.3383
865.000000 MHz	54.6264	21.3041
870.000000 MHz	54.5782	21.3147
875.000000 MHz	54.5398	21.2785
880.000000 MHz	54.4531	21.2669
885.000000 MHz	54.4156	21.2417
890.000000 MHz	54.3562	21.1989
895.000000 MHz	54.3022	21.1809
900.000000 MHz	54.2059	21.1064

■ Dielectric Parameter (1900MHz Head)

Title : C100
SubTitle : PCS HEAD
December 06, 2005 09:08 AM

Frequency	e'	e''
1.800000000 GHz	38.8564	13.3722
1.810000000 GHz	38.8391	13.4399
1.820000000 GHz	38.8185	13.4643
1.830000000 GHz	38.8061	13.5105
1.840000000 GHz	38.8214	13.5757
1.850000000 GHz	38.7943	13.5885
1.860000000 GHz	38.7599	13.6266
1.870000000 GHz	38.7117	13.6256
1.880000000 GHz	38.6723	13.6372
1.890000000 GHz	38.6076	13.6203
1.900000000 GHz	38.5541	13.6295
1.910000000 GHz	38.4785	13.6203
1.920000000 GHz	38.4284	13.6691
1.930000000 GHz	38.3988	13.6876
1.940000000 GHz	38.3937	13.7433
1.950000000 GHz	38.3669	13.7951
1.960000000 GHz	38.3853	13.8791
1.970000000 GHz	38.3721	13.9480
1.980000000 GHz	38.3455	13.9759
1.990000000 GHz	38.3385	13.9650
2.000000000 GHz	38.2828	13.9627

■ Dielectric Parameter (1900MHz Body)

Title : C100
SubTitle : PCS BODY
December 06, 2005 01:45 PM

Frequency	e'	e''
1.800000000 GHz	52.8005	13.8617
1.810000000 GHz	52.7880	13.9214
1.820000000 GHz	52.7935	13.9327
1.830000000 GHz	52.7439	13.9451
1.840000000 GHz	52.7756	13.9656
1.850000000 GHz	52.7209	13.9723
1.860000000 GHz	52.6504	14.0402
1.870000000 GHz	52.5931	14.1041
1.880000000 GHz	52.5201	14.1720
1.890000000 GHz	52.4514	14.2580
1.900000000 GHz	52.4110	14.3407
1.910000000 GHz	52.4126	14.4430
1.920000000 GHz	52.4416	14.5095
1.930000000 GHz	52.4790	14.5317
1.940000000 GHz	52.5226	14.5623
1.950000000 GHz	52.5710	14.5806
1.960000000 GHz	52.5384	14.5880
1.970000000 GHz	52.5423	14.5900
1.980000000 GHz	52.4913	14.6011
1.990000000 GHz	52.4202	14.6574
2.000000000 GHz	52.3505	14.7166