

ATTACHMENT Q – DIPOLE VALIDATION

Validation Data (835MHz Head)

Test Laboratory: HCT

835 Dipole Validation test: Input power(1W)
Liquid Temperature : 21.9 °C
Date Tested : May 15, 2006

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

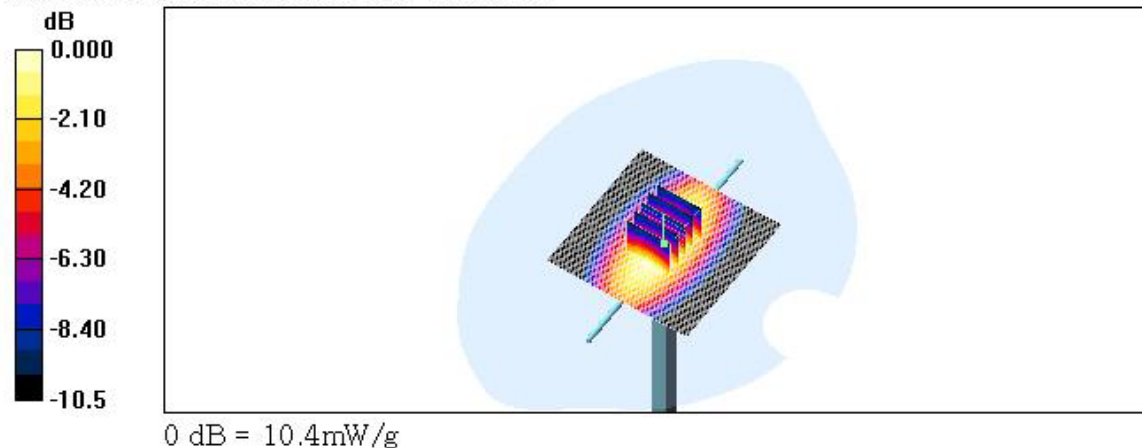
Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1
Medium parameters used: $f = 835 \text{ MHz}$; $\sigma = 0.884 \text{ mho/m}$; $\epsilon_r = 42.4$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: Flat Section ; Measurement SW: DASY4, V4.6 Build 23

DASY4 Configuration:

- Probe: ET3DV6 - SN1609; ConvF(6.85, 6.85, 6.85); Calibrated: 2006-03-23
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn447; Calibrated: 2005-11-30
- Phantom: SAM 835/900 MHz; Type: SAM

Validatoin 835 MHz/Area Scan (101x101x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$
Maximum value of SAR (interpolated) = 10.3 mW/g

Validatoin 835 MHz/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$
Reference Value = 111.7 V/m; Power Drift = -0.015 dB
Peak SAR (extrapolated) = 14.1 W/kg
SAR(1 g) = 9.58 mW/g; SAR(10 g) = 6.28 mW/g
Maximum value of SAR (measured) = 10.4 mW/g



Dielectric Parameter (835MHz Head)**Title : PC-7300SU**

SubTitle : CDMA835 Head

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Frequency	e'	e''
800.000000 MHz	42.8190	19.1242
805.000000 MHz	42.7325	19.1067
810.000000 MHz	42.6829	19.1008
815.000000 MHz	42.6867	19.0907
820.000000 MHz	42.5652	19.0893
825.000000 MHz	42.5157	19.0733
830.000000 MHz	42.4237	19.0537
835.000000 MHz	42.4081	19.0391
840.000000 MHz	42.3336	19.0729
845.000000 MHz	42.3303	19.0235
850.000000 MHz	42.2631	19.0034
855.000000 MHz	42.2008	18.9615
860.000000 MHz	42.1578	19.0174
865.000000 MHz	42.1162	18.9700
870.000000 MHz	42.0527	18.9500
875.000000 MHz	41.9836	18.9422
880.000000 MHz	41.9498	18.9645
885.000000 MHz	41.8605	18.9329
890.000000 MHz	41.8064	18.9314
895.000000 MHz	41.7576	18.8786
900.000000 MHz	41.6779	18.8854

Dielectric Parameter (835MHz Body)**Title : PC-7300SU****SubTitle : CDMA835 Body**

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Frequency	e'	e''
800.000000 MHz	56.4367	21.6635
805.000000 MHz	55.8415	21.4233
810.000000 MHz	55.3249	21.3183
815.000000 MHz	54.7179	21.2271
820.000000 MHz	54.2315	21.1404
825.000000 MHz	53.7113	21.1300
830.000000 MHz	53.3373	21.2019
835.000000 MHz	53.1420	21.2381
840.000000 MHz	52.9967	21.3446
845.000000 MHz	53.0897	21.5284
850.000000 MHz	53.2723	21.6554
855.000000 MHz	53.6120	21.8523
860.000000 MHz	53.9555	21.9999
865.000000 MHz	54.3784	22.1566
870.000000 MHz	54.8671	22.3152
875.000000 MHz	55.4104	22.3925
880.000000 MHz	55.8098	22.5317
885.000000 MHz	56.1423	22.5851
890.000000 MHz	56.3919	22.5288
895.000000 MHz	56.4940	22.4559
900.000000 MHz	56.4468	22.3586