



## APPENDIX D – DIPOLE VALIDATION PLOTS

Test Laboratory: HCT

450 Dipole Validation test: Input power(1W)  
Liquid Temperature : 22.6 °C  
Date Tested : May 15, 2007

**DUT: Dipole 450 MHz; Type: D450V2; Serial: D450V2 - SN:1007**  
**Program Name: System Performance Check at 450 MHz**

Communication System: CW; Frequency: 450 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 450$  MHz;  $\sigma = 0.854$  mho/m;  $\epsilon_r = 45.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section ; Measurement SW: DASY4, V4.6 Build 23

DASY4 Configuration:

- Probe: ET3DV6 - SN1798; ConvF(7.59, 7.59, 7.59); Calibrated: 2006-08-25
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn446; Calibrated: 2006-11-15
- Phantom: SAM 450/835/900 MHz; Type: SAM

**Validatoin 450 MHz/Area Scan (101x121x1):** Measurement grid:  $dx=15$ mm,  $dy=15$ mm  
Maximum value of SAR (interpolated) = 5.26 mW/g

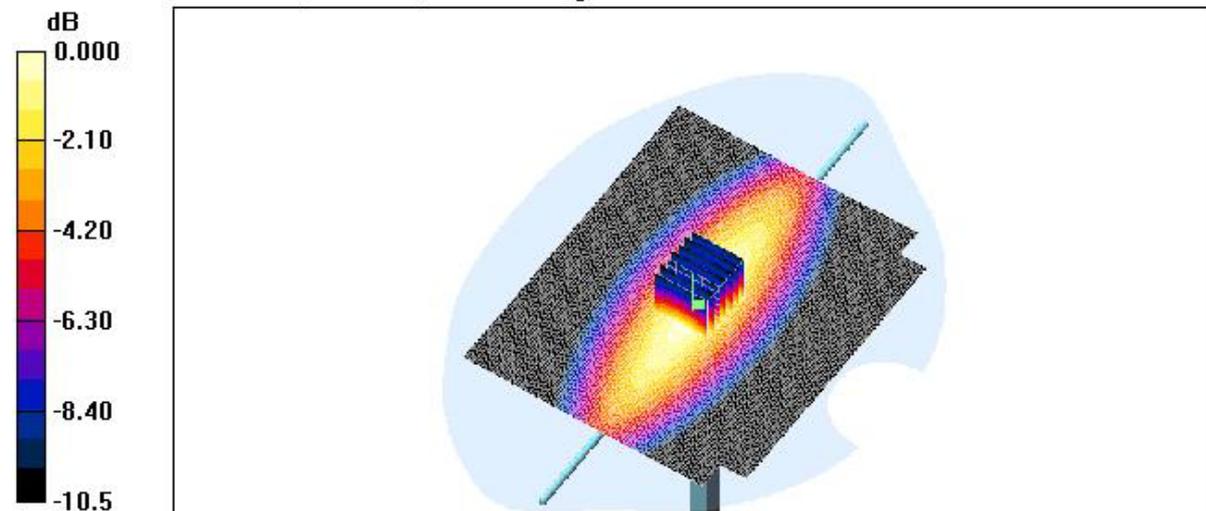
**Validatoin 450 MHz/Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  
 $dy=5$ mm,  $dz=5$ mm

Reference Value = 79.7 V/m; Power Drift = 0.000 dB

Peak SAR (extrapolated) = 8.40 W/kg

**SAR(1 g) = 4.91 mW/g; SAR(10 g) = 3.07 mW/g**

Maximum value of SAR (measured) = 5.30 mW/g



**Title : XT511****SubTitle : 450MHz(Head)**

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Frequency	e'	e''
400.000000 MHz	47.1994	36.8213
405.000000 MHz	46.9585	36.4387
410.000000 MHz	46.8060	36.1343
415.000000 MHz	46.7441	35.7425
420.000000 MHz	46.4038	35.4228
425.000000 MHz	46.2201	35.0478
430.000000 MHz	46.1441	34.8407
435.000000 MHz	45.9393	34.5427
440.000000 MHz	45.8849	34.3234
445.000000 MHz	45.7455	34.2742
450.000000 MHz	45.5922	34.1162
455.000000 MHz	45.4850	33.9918
460.000000 MHz	45.5061	33.8489
465.000000 MHz	45.4804	33.7527
470.000000 MHz	45.4317	33.7797
475.000000 MHz	45.3932	33.6435
480.000000 MHz	45.3783	33.5857
485.000000 MHz	45.2556	33.4071
490.000000 MHz	45.1895	33.2398
495.000000 MHz	45.2226	33.0409
500.000000 MHz	45.1439	32.9849

Title : XT511

SubTitle : 450MHz(Body)

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Frequency	e'	e''
400.000000 MHz	56.9275	40.4870
405.000000 MHz	56.8657	40.3234
410.000000 MHz	57.2235	40.3259
415.000000 MHz	57.2355	40.1109
420.000000 MHz	57.1278	39.7489
425.000000 MHz	57.0611	39.5388
430.000000 MHz	57.2992	39.4441
435.000000 MHz	57.1774	39.2017
440.000000 MHz	57.3029	39.0530
445.000000 MHz	57.1186	38.8711
450.000000 MHz	57.2506	38.8027
455.000000 MHz	57.1705	38.3582
460.000000 MHz	56.9075	37.9417
465.000000 MHz	56.7792	37.5254
470.000000 MHz	56.6701	37.3263
475.000000 MHz	56.5853	37.1446
480.000000 MHz	56.4664	36.8375
485.000000 MHz	56.3634	36.5962
490.000000 MHz	56.3090	36.4470
495.000000 MHz	56.3033	36.3515
500.000000 MHz	56.1069	35.9059